



REGULAR CITY COUNCIL MEETING

6:30 PM – COUNCIL CHAMBERS – CITY HALL

AUGUST 2, 2022

AGENDA

ALL CITIZENS DESIRING TO ADDRESS THE PORT ORANGE CITY COUNCIL DURING PUBLIC PARTICIPATION SHOULD COMPLETE THE FORM WHICH IS LOCATED ON THE STANDS OUTSIDE THE COUNCIL CHAMBERS. AFTER COMPLETING THE FORM, PRESENT IT TO THE CITY CLERK.

A. OPENING

1. Invocation by Chaplain Loreal Moise of AdventHealth
2. Pledge of Allegiance
3. Roll Call

B. SPECIAL REPORTS

4. Report from KemperSports on the Cypress Head Golf
5. Golf Advisory Board Report

C. CONSENT AGENDA

6. Public Comments on Consent Agenda Items Only
7. Agenda Approval
8. Approval of Minutes
 - a. July 19, 2022 - Regular City Council Meeting
 - b. July 25, 2022 - City Council Budget Workshop
9. Bid Awards and Contract Items
 - a. Approval to Increase the Contingency Authorization for The REC Project (QPC082) with Saboungi Construction, Inc.
 - b. Approval of Task Authorization No. 14 under the Kimley Horn and Associates, Inc. Contract for the Preparation of the State Required Update to the City's Water Supply Work Plan and Corresponding Comprehensive Plan Amendments

10. Resolution No. 22-18 - Approval of Third Quarter Budget Amendments for Fiscal Year 2021-2022
11. Resolution No. 22-19 - Declaring Council Members for District 1, 2, and 4
12. Resolution No. 22-20 - Partial Easement Vacation - Lot 18, River Oaks Subdivision (6204 Oak River Terrace)
13. Resolution No. 22-21 - Approval of HUD CDBG Plan Year 2022 Annual Action Plan

D. PUBLIC PARTICIPATION (Non-Agenda – 20 minutes)

E. COUNCIL COMMENTS

14. Comments/Concerns from Council Members

F. PUBLIC HEARING

15. Second Reading - Ordinance No. 2022-17 - Seventh Amendment to the Master Development Agreement for the Crystal Lake Planned Unit Development (Case No. 22-40000001)
16. Second Reading - Ordinance No. 2022-18 - Rezoning/950 Madeline Avenue (Case No. 22-60000004)
17. Approval of Special Exception for Extra Space Storage – 950 Madeline Avenue (Case No. 22-70000001)
18. Second Reading - Ordinance No. 2022-19 - Amendment/Chapters 13 and 17 of the Land Development Code (Case No. 22-25000004)
19. Second Reading - Ordinance No. 2022-20 - Amending Chapter 2, Article VI, Division 3, Relating to Submission of Budget

G. REGULAR AGENDA

20. Debt Issuance Process presented by Southeastern Investment Securities, LLC
21. ITB #22-07 Garnsey Water Treatment Plant Generator Project
 - a. Intent to award construction contract to Chinchor Electric, Inc for ITB #22-07 Garnsey Water Treatment Plant Generator Installation
 - b. Resolution No. 22-22 - Reimbursement Resolution for ITB #22-07 Garnsey Water Treatment Plant Generator Installation
22. Setting Maximum Operating Millage Rate for Fiscal Year 2022-23

H. ADDITIONAL ITEMS

23. City Attorney
24. City Manager

I. ADJOURNMENT

NOTICES — PURSUANT TO SECTION 286.0105 OF THE FLORIDA STATUTES, IF ANY PERSON DECIDES TO APPEAL ANY DECISION MADE BY THE CITY COUNCIL WITH RESPECT TO ANY MATTER CONSIDERED AT THIS PUBLIC MEETING OR HEARING, SUCH PERSON WILL NEED A RECORD OF THE PROCEEDINGS, AND THAT, FOR SUCH PURPOSE, SUCH PERSON MAY NEED TO ENSURE THAT A VERBATIM RECORD OF THE PROCEEDINGS IS MADE, WHICH RECORD INCLUDES THE TESTIMONY AND EVIDENCE UPON WHICH THE APPEAL IS TO BE BASED. THE CITY DOES NOT PREPARE OR PROVIDE SUCH A RECORD.



FOR SPECIAL ACCOMMODATIONS, PLEASE NOTIFY THE CITY CLERK'S OFFICE (PHONE: 386-506-5563) AS FAR IN ADVANCE AS POSSIBLE, BUT PREFERABLY WITHIN 2 WORKING DAYS OF YOUR RECEIPT OF THIS NOTICE OR 5 DAYS PRIOR TO THE MEETING OR HEARING DATE.



HELP FOR THE HEARING IMPAIRED IS AVAILABLE THROUGH THE ASSISTIVE LISTENING SYSTEM RECEIVERS CAN BE OBTAINED FROM THE CITY CLERKS' OFFICE.

IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA), IF YOU ARE A PERSON WITH A DISABILITY WHO NEEDS AN ACCOMMODATION IN ORDER TO PARTICIPATE IN THIS PROCEEDING, YOU ARE ENTITLED, AT NO COST TO YOU, THE PROVISION OF CERTAIN ASSISTANCE. PLEASE CONTACT THE CITY CLERK FOR THE CITY OF PORT ORANGE, 1000 CITY CENTER CIRCLE, PORT ORANGE, FLORIDA 32129, TELEPHONE NUMBER 386-506-5563, CITYCLERK@PORT-ORANGE.ORG, AS FAR IN ADVANCE AS POSSIBLE, BUT PREFERABLY WITHIN 2 WORKING DAYS OF YOUR RECEIPT OF THIS NOTICE OR 5 DAYS PRIOR TO THE MEETING OR HEARING DATE. IF YOU ARE HEARING OR VOICE IMPAIRED, CONTACT THE RELAY OPERATOR AT 7-1-1 or 1-800-955-8771.

UPON REQUEST BY A QUALIFIED INDIVIDUAL WITH A DISABILITY, THIS DOCUMENT WILL BE MADE AVAILABLE IN AN ALTERNATE FORMAT. IF YOU NEED TO REQUEST THIS DOCUMENT IN AN ALTERNATE FORMAT, PLEASE CONTACT THE CITY CLERK WHOSE CONTACT INFORMATION IS PROVIDED ABOVE.

ANY INVOCATION THAT IS OFFERED BEFORE THE OFFICIAL START OF THE CITY COUNCIL MEETING SHALL BE THE VOLUNTARY OFFERING OF A PRIVATE PERSON, TO AND FOR THE BENEFIT OF THE CITY COUNCIL. THE VIEWS OR BELIEFS EXPRESSED BY THE INVOCATION SPEAKER HAVE NOT BEEN PREVIOUSLY REVIEWED OR APPROVED BY THE CITY COUNCIL OR THE CITY STAFF, AND THE CITY IS NOT ALLOWED BY LAW TO ENDORSE THE RELIGIOUS BELIEFS OR VIEWS OF THIS, OR ANY OTHER SPEAKER. PERSONS IN ATTENDANCE AT THE CITY COUNCIL MEETING ARE INVITED TO STAND DURING THE OPENING INVOCATION AND PLEDGE OF ALLEGIANCE. HOWEVER, SUCH INVITATION SHALL NOT BE CONSTRUED AS A DEMAND, ORDER, OR ANY OTHER TYPE OF COMMAND. NO PERSON IN ATTENDANCE AT THE MEETING SHALL BE REQUIRED TO PARTICIPATE IN ANY OPENING INVOCATION THAT IS OFFERED. A PERSON MAY EXIT THE CITY COUNCIL CHAMBERS AND RETURN UPON COMPLETION OF THE OPENING INVOCATION IF A PERSON DOES NOT WISH TO PARTICIPATE IN OR WITNESS THE OPENING INVOCATION.



June 22nd, 2022

Robin Fenwick
City of Port Orange
1000 City Center Circle
Port Orange, FL 32129

Dear Ms. Fenwick,

The following is the financial and operational summary report for May 2022 at Cypress Head Golf Club. These numbers reflect only the Golf portion for the month and year to date.

FINANCIAL SUMMARY FOR GOLF MONTH ENDING May 2022								
	Current				Year to Date			
	Actual	Budget	Variance vs. Budget		Actual	Budget	Prior Year	Variance vs. Budget
Revenue								
Green Fees	\$ 90,109	\$ 49,561	\$ 40,548		\$ 741,270	\$ 545,660	\$ 616,405	\$ 195,610
Cart Fees	\$ 51,444	\$ 41,713	\$ 9,731		\$ 437,895	\$ 355,583	\$ 370,999	\$ 82,312
Range	\$ 4,512	\$ 4,100	\$ 412		\$ 38,364	\$ 33,200	\$ 33,376	\$ 5,164
Pro- Shop Revenues	\$ 17,110	\$ 7,655	\$ 9,455		\$ 104,900	\$ 78,897	\$ 85,681	\$ 26,003
City Surcharge R/R	\$ 3,530	\$ 3,454	\$ 76		\$ 29,469	\$ 26,258	\$ 26,765	\$ 3,211
Total Revenue	\$ 166,705	\$ 106,483	\$ 60,222		\$ 1,351,898	\$ 1,039,598	\$ 1,133,226	\$ 312,300
Cost of Sales	\$ 12,425	\$ 4,270	\$ 8,155	82%	\$ 59,152	\$ 40,413	\$ 47,010	\$ 18,739
Merchandise	\$ 12,425	\$ 4,270	\$ 8,155		\$ 59,152	\$ 40,413	\$ 47,010	\$ 18,739
Gross Margin	\$ 154,280	\$ 102,213	\$ 52,067		\$ 1,292,746	\$ 999,185	\$ 1,086,216	\$ 293,561
Total Payroll	\$ 70,735	\$ 68,681	\$ 2,054		\$ 561,563	\$ 537,866	\$ 495,942	\$ 23,697
Total Operating Expenses	\$ 59,642	\$ 48,242	\$ 11,400		\$ 431,802	\$ 390,660	\$ 394,271	\$ 41,142
EBITDA	\$ 23,903	\$ (14,711)	\$ 38,614		\$ 299,381	\$ 70,659	\$ 196,001	\$ 228,722
Other Expenses	\$ 6,403	\$ 6,465	\$ (62)		\$ 51,224	\$ 51,718	\$ 50,234	\$ (494)
Management Fee	\$ 6,307	\$ 6,369	\$ (62)		\$ 50,460	\$ 50,954	\$ 49,470	\$ (494)
Interest Expense	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -	\$ -
Depreciation	\$ 96	\$ 96	\$ -		\$ 764	\$ 764	\$ 764	\$ -
Net Cash From Ops	\$ 17,500	\$ (21,176)	\$ 38,676		\$ 248,157	\$ 18,941	\$ 145,767	\$ 229,216
Rounds								
Total Rounds	4,428	3,440	988		36,748	32,058	33,626	4,690
Paid Rounds	3,727	2,775	952		31,168	27,331	28,992	3,837
Avg. GF/CF Total rounds	\$31.97	\$26.53	\$ 5.43		\$32.09	\$28.11	\$29.36	\$ 3.97
Avg. GF/CF Paid rounds	\$37.98	\$32.89	\$ 5.09		\$37.83	\$32.98	\$34.06	\$ 4.86
Avg. Merchandise/round	\$3.86	\$2.23	\$ 1.64		\$2.85	\$2.46	\$2.55	\$ 0.39

Overview:

- Overall golf revenues for May finished 57% higher than the projected budget for the month. The revenue has increased due to incredible golf course conditions, higher price per round and incredible customer service by the Kemper team at Cypress Head. The range revenues were slightly higher to the budget & Pro Shop revenues were much higher to the budget as a result of continued club sales. The revenues were higher Year over Year for May by 7%.
- Total payroll for the month was higher to the projected budget due to increases in labor costs to maintain proper staffing levels for customer satisfaction.
- Our operating expenses finished higher than the budgeted amount due to the timing of invoices and increased inflationary costs of products required to maintain course conditions.
- The month of May is the eight month in our fiscal year 2021-2022. Overall revenues are increased by 30% for the current year. Our payroll is slightly higher than budgeted due to increase in labor hours and wages. The operating expenses are higher than budgeted due to supply chain issues and the overall costs of materials.

R&R Projects:

- There were no projects for the month of May 2022.

Tee Sheet Activity:

- There were 4,428 total rounds for the month which included 3,727 paid rounds, 400 Annual with Cypress Pass member rounds and 301 other rounds. The round type for the month included 3,192 eighteen-hole rounds and 1,127 nine-hole rounds.
- The Golf staff continues to monitor daily tee sheet activity and they are trained to recognize underutilization of the tee sheet and offer promotional prices through the website to increase the number of potential players.

May 2022 and YTD rounds mix:

Type	Actual	Budget	Month- P.Y.	Y.T.D	P.Y-Y.T.D
Paid	3727	2775	4035	31462	28992
Annual	400	477	361	3168	2796
Other rounds	301	188	256	2118	1838
Total Rounds	4428	3440	4652	36748	33626

Departmental Summaries:

Course & Grounds/Range

- Our superintendent, Darren Bache continues to follow the agronomic program that he developed for Cypress Head and along with his guidance, Cypress Head is ranked as the Best Golf Course for both Flagler and Volusia Counties.
- Expenses for the month were higher than projected due to timing of invoices and the increased costs of required products necessary to maintain course conditioning. The maintenance team performed an aerification on all of the tee boxes as well as the fairways & roughs. This helps to reduce compaction and allow the proper nutrients to pass through the surfaces and improves the health of the turf. The team also continues to work on projects designed to improve course playability and assist with improving guest satisfaction and pace of play.

- The maintenance team also applied a wall to wall mole cricket insecticide along with a pre-emergent weed control to prevent the growth of weeds and reduce the population of mole crickets.

Golf Shop/Carts

- The golf shop at Cypress Head continues to receive merchandise from Callaway, Titleist and Footjoy and most manufacturers have now begun to ship products delayed by the supply chain issues.
- Our gift card promotion resulted in \$1,378.00 in gift card sales along with our Pro Shop sales which generated over \$17,110.00 in revenue.
- We continue to follow all regular maintenance procedures regarding the cart fleet which includes registering monthly totals for battery amperage and mileage. A new fleet of golf carts were delivered in May with the new lithium ION batteries with advanced technology in brakes and ignitions. The carts are much safer and lighter which will help reduce wear and tear on the golf course.
- The staff at Cypress Head Golf Course continues to offer individual lessons as well as group lessons. Our Golf Get Ready clinics for beginners and intermediate players have continued in May.
- The MGA and the WGA have continued their league play for the month and we have seen a decrease in players due to many of our seasonal residents returning back to their northern addresses.

Marketing and Sales:

- The Tournament season continued in May with multiple charitable events being hosted at Cypress Head including the Halifax Health Traumatic Loss Tournament.

- We are working closely with the Parks & Recreation department to host the world-famous Annual Mayor's Tournament in June.
- We are continuing our involvement with Golf Pac, and Tee-Times USA along with other National wholesaler and Golf Now to maximize utilization of our tee sheet.
- Cypress Head continues to be active members of the Port Orange South Daytona Chamber of Commerce, Daytona Chamber of Commerce, SEV Chamber and Rotary International.
- POSD Chamber of Commerce is keeping us informed regarding the challenges of the business and local community.
- We continue to maintain our database of emails with approximately 11,500 unique e-mail addresses. The golf staff continues to update player profiles including residency, phone numbers and proper classifications of all players.

Summary Report

Report run: 6/21/2022 2:04 PM MDT

Data current as of: 6/21/2022 2:03 PM MDT

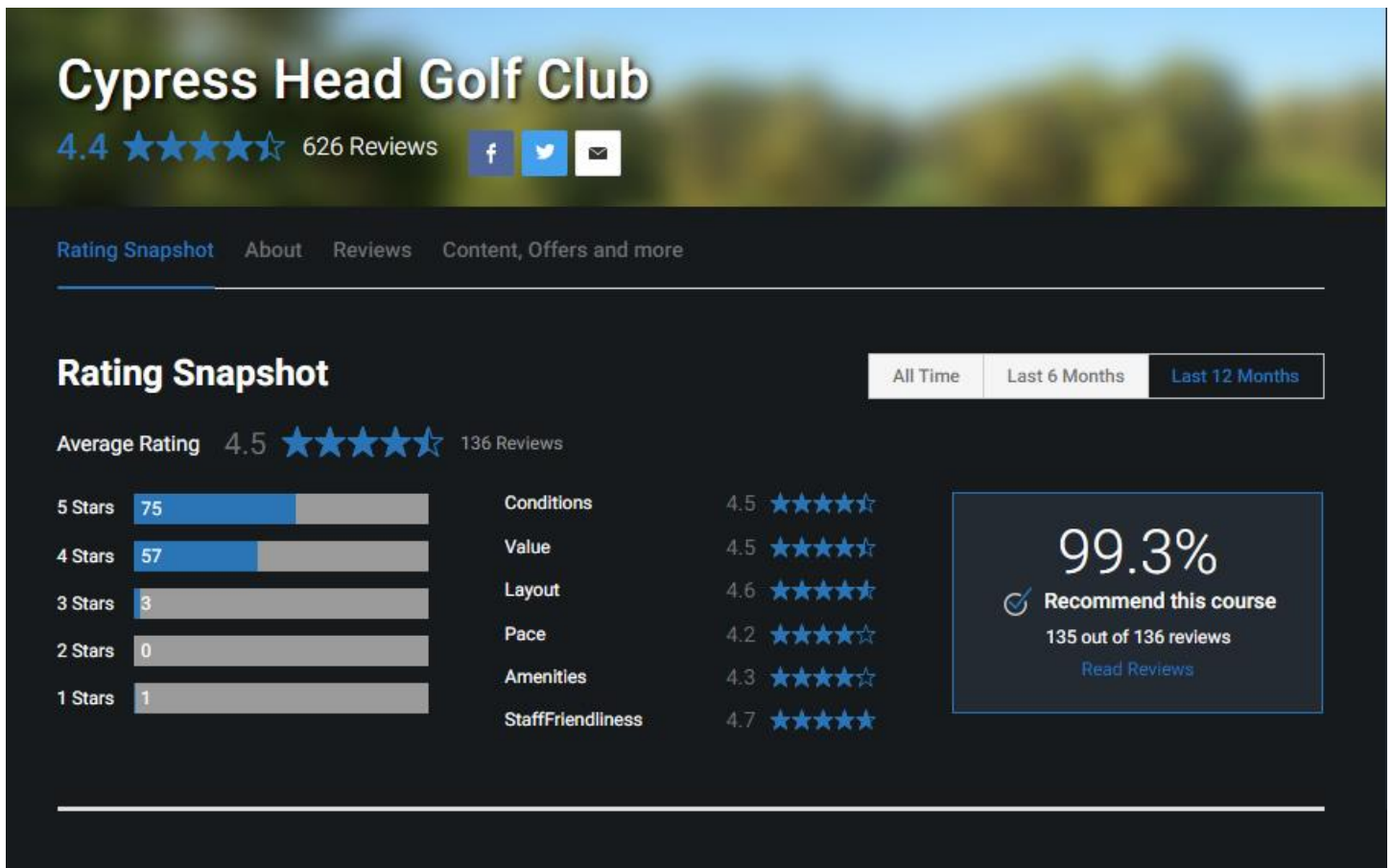
Key:	Poor	Acceptable	Excellent
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REPORT CRITERIA

Date of Survey	5/1/22 - 5/31/22
Select level:	Cypress Head Golf Club
Location Attributes	Golf

	NPS	Overall Rating	Service Rating	Course Rating	Recommend Rating	# of Surveys
Goal Index	70.0 70.0					
Totals	91.1	9.6	9.9	9.4	9.6	45
Cypress Head Golf Club	91.1	9.6	9.9	9.4	9.6	45

- Course summary report for May 2022 showed an overall rating for the golf course of 9.6 with a course rating of 9.4 and our service rating is at 9.9. Our entire team works extremely hard to maintain pace of play as well as making the golfing experience very enjoyable.
- In addition to the report above, we have also started using a Google Analytic tool that provides us with an alternative ratings source from Golf Now Advisors.



- We continue to assist all players by helping them to enjoy their experience here at Cypress Head. There were some reviews that had constructive ideas to help us improve in some areas which we will evaluate as a team. The comments returned by the players in this avenue are useful tools in helping our maintenance and golf staff team improve. We also review all negative comments and they are discussed by our team and if required we will contact the individual to help us better understand their concerns. Players also have access to a suggestion box which is located at the clubhouse near the Men's and Ladies bulletin boards.

Corporate Support:

- Kemper Sports Center for Excellence – Ongoing resource. We have been participating in monthly webinars designed to share best practices used at Kemper properties throughout the country.

Insights:

- The team at Cypress Head continues to work with the entire staff at the Parks & Recreation department to continue providing the “Best in Class” experience for all players.

Respectfully Submitted,

Bob Duquette, PGA

General Manager
The Golf Club at Cypress Head

Matt Lindley

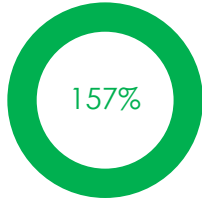
Regional Operating Executive
KemperSports Management

Sales & Marketing Snapshot

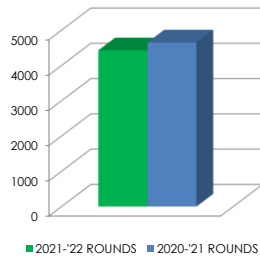
MAY 2022

Report Date: 6/20/22

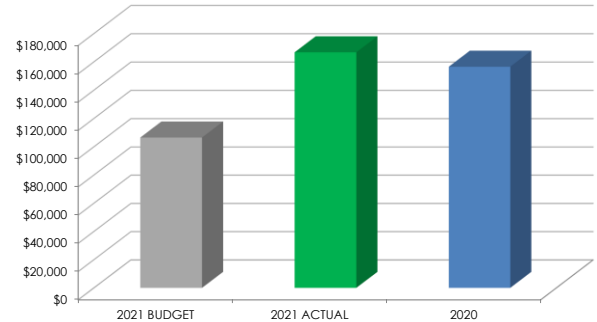
Percentage of Budget



Monthly Summary Totals



MONTHLY BUDGET	\$106,482
ACTUAL MONTHLY REVENUE	\$166,705
VARIANCE TO BUDGET	\$60,223
PY MONTHLY REVENUE	\$156,513



MAY

2021-'22 Monthly Budget

REVENUE CLASS	AMOUNT
Total Golf	\$91,274
Outings	\$11,000
Merchandise	\$7,655
Payroll Expense	\$68,681
OpEx	\$48,242

2021-'22 Actuals

REVENUE CLASS	AMOUNT
Total Golf	\$141,553
Outings	\$16,681
Merchandise	\$17,110
Payroll Expense	\$70,735
OpEx	\$59,642

Month PY

REVENUE CLASS	AMOUNT
Total Golf	\$138,027
Outings	\$22,486
Merchandise	\$9,989
Payroll Expense	\$63,695
OpEx	\$58,688

2021-'22 ROUNDS: 4428
2020-'21 ROUNDS: 4652

MAY ACTION ITEMS / STRATEGIES / COMMENTS

- * Monthly revenues increased by 57% over budgeted amount
- * May revenues increased by 7% over previous year
- * Active player Development program with group clinics and individual lessons during the month
- * Hosted a Folds of Honor promotion over Memorial Day and raised over \$700.00 for families of veterans.
- *
- *
- *

CYPRESS PASS SALES

Category	2022 PASSES	2021 PASSES
Legacy Single	16	17
Legacy Double	5	9
Cypress Single	11	8
Cypress Double	2	2
Trail Fees	47	50
Founders	1	1
TOTAL PASSES	82	87
TOTAL REVENUE	\$138,845	\$140,299

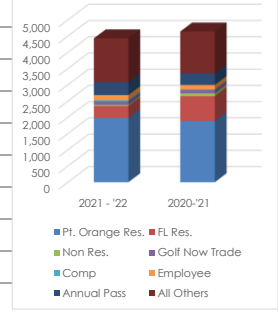
WEATHER INFORMATION

PLAYABLE DAYS	
2021	2022
27	29
PRECIPITATION IN INCHES	
2021	2022
2.3	2.9

ROUNDS SEGMENTATION

SEGMENT	2021-'22	2020-'21
Pt. Orange Res.	1,980	1,887
FL Res.	367	759
Non Res.	35	90
Golf Now Trade	109	111
Comp	32	13
Employee	160	134
Annual Pass	400	359
All Others	1,347	1,287
TOTAL	4,430	4,640

Rounds by Segment



TRUE REVIEW SUMMARY



2022 Month End					
OVERALL	SERVICE	COURSE	RECOMMEND	NPS	# of SURVEYS
9.6	9.9	9.4	9.6	91.1	45
2021 Month End					
OVERALL	SERVICE	COURSE	RECOMMEND	NPS	# of SURVEYS
9.8	9.8	9.6	9.9	100.0	18

The Golf Club at Cypress Head

For the Month Ending May 31, 2022

	05/31/21	06/30/21	07/31/21	08/31/21	09/30/21	10/31/21	11/30/21	12/31/21	01/31/22	02/28/22	03/31/22	04/30/22	05/31/22	YTD2019
REVENUES														
Green Fees & Cart Fees	138,027.00	87,872.28	96,409.14	77,229.74	91,818.24	111,022.18	118,203.96	130,620.88	146,646.41	174,387.59	182,972.82	173,758.14	141,552.86	315,311.00
Merchandise	8,858.95	8,371.71	7,351.96	6,600.09	7,376.28	7,783.55	7,592.30	7,808.70	13,122.82	6,291.91	18,267.01	13,066.12	15,134.23	28,200.35
Other Pro Shop	1,130.50	2,077.00	3,599.00	908.00	1,464.91	1,818.00	1,700.00	650.00	2,257.00	4,508.00	1,796.00	1,125.00	1,976.00	3,101.00
Range	4,778.02	3,546.62	3,565.42	3,126.44	3,541.92	4,310.84	4,561.82	5,204.78	4,490.38	8,083.52	5,383.38	4,817.50	4,512.00	9,329.50
Other Operating Revenues	3,719.11	2,730.23	2,923.87	2,286.85	2,579.83	3,130.20	3,308.69	3,422.54	3,615.24	4,048.58	4,269.48	4,244.57	3,530.17	7,774.74
TOTAL REVENUE	156,513.08	104,997.84	113,849.39	90,161.16	106,781.18	128,054.77	135,266.77	147,708.90	178,131.85	194,319.60	212,691.69	197,811.33	166,705.26	363,716.59
COST OF SALES														
Merchandise	5,291.88	5,288.31	4,178.75	4,107.60	4,606.02	4,727.19	4,444.50	4,694.96	9,569.52	4,398.65	13,796.15	5,096.01	12,425.01	17,521.02
TOTAL COGS	5,291.88	5,288.31	4,178.75	4,107.60	4,606.02	4,727.19	4,444.50	4,694.96	9,569.52	4,398.65	13,796.15	5,096.01	12,425.01	17,521.02
COGS - Merchandise %	59.7%	63.2%	56.8%	62.2%	62.4%	60.7%	58.5%	60.1%	72.9%	69.9%	75.5%	39.0%	82.1%	121.1%
PAYROLL														
Course and Grounds	30,760.37	29,524.13	30,532.23	32,518.04	32,426.99	33,590.91	33,501.70	35,373.15	38,953.74	35,263.11	41,953.35	35,481.09	34,468.36	69,949.45
Carts, Range, Starters, Etc.	8,319.07	7,602.25	8,751.38	6,508.97	7,127.41	9,162.02	8,524.92	8,858.35	8,533.03	8,367.48	9,867.85	10,252.13	9,623.80	19,875.93
Pro Shop	6,545.47	7,065.11	9,167.24	6,333.96	6,321.24	7,711.88	6,846.52	6,739.89	7,310.81	6,802.65	8,052.21	6,387.14	6,971.60	13,598.74
General and Administrative	13,165.87	11,925.20	13,897.70	13,285.23	11,628.22	13,490.46	13,177.55	13,102.54	13,948.10	10,642.11	13,486.78	12,843.91	12,937.67	25,581.75
Marketing	4,904.27	4,433.95	4,680.69	4,583.00	1,410.15	4,217.61	4,525.94	4,504.63	4,233.20	5,532.05	5,541.28	4,090.93	6,733.56	10,634.49
TOTAL PAYROLL	63,695.05	60,950.68	67,069.24	63,339.20	58,915.01	68,142.88	66,675.43	68,655.76	72,979.86	66,607.38	78,911.48	68,855.20	70,735.19	139,590.39
OPERATING EXPENSES														
Course and Grounds	30,386.95	22,153.25	17,818.33	25,243.86	33,365.94	28,650.14	19,071.07	19,683.85	15,865.35	20,881.87	22,943.53	27,514.83	29,643.87	57,158.70
Carts, Range, Starters, Etc.	5,852.53	6,168.74	5,955.61	6,670.57	5,701.45	5,371.44	5,095.18	5,186.50	5,057.69	6,279.93	5,791.82	7,305.48	4,918.14	12,234.62
Pro Shop	70.15	94.48	742.87	2,752.98	2,197.58	165.56	0.00	225.00	39.23	4,304.00	14.26	0.00	19.66	19.66
General and Administrative	20,330.43	18,456.65	19,314.86	17,572.55	22,868.41	20,413.44	22,535.76	25,091.66	21,977.41	23,361.67	22,153.72	24,762.88	22,349.23	47,142.10
Marketing	2,009.95	3,356.35	2,617.59	238.94	1,062.26	1,278.61	3,030.39	1,491.40	1,168.29	877.61	1,338.02	1,802.05	2,710.57	4,512.62
TOTAL OPERATING EXPENSES	58,686.01	50,229.47	45,489.36	52,478.90	65,295.63	55,889.19	50,332.40	51,678.41	44,702.97	55,900.08	52,241.35	61,415.24	59,642.46	121,057.70
TOTAL EXPENSES	127,674.94	116,068.46	116,737.35	119,925.70	128,816.66	128,759.26	121,452.33	125,029.13	127,252.37	126,906.11	144,948.98	135,366.45	142,802.66	278,169.11
EBITDA	28,838.14	(11,070.62)	(2,887.96)	(29,764.54)	(22,035.48)	(894.49)	13,814.44	22,677.77	42,879.48	67,413.49	67,742.71	61,644.88	23,902.60	85,547.48

The Golf Club at Cypress Head

For the Month Ending May 31, 2022

	05/31/21	06/30/21	07/31/21	08/31/21	09/30/21	10/31/21	11/30/21	12/31/21	01/31/22	02/28/22	03/31/22	04/30/22	05/31/22	YTD2019
EBITDA	28,838.14	(11,070.62)	(2,887.96)	(29,784.54)	(22,035.48)	(694.49)	13,814.44	22,677.77	42,879.48	67,413.49	67,742.71	61,644.88	23,902.60	85,547.48
MANAGEMENT FEES	(6,183.78)	(6,183.78)	(6,183.78)	(6,183.78)	(6,183.78)	(6,307.46)	(6,307.46)	(6,307.46)	(6,307.46)	(6,307.46)	(6,307.46)	(6,307.46)	(6,307.46)	(12,614.92)
Interest Expense - Debt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest Expense - Leases	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest Income	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL FINANCING ACTIVITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OTHER INCOME (EXPENSE)														
Non-Operating Revenue	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transfers from County	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Depreciation & Amortization	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(191.06)
Incentive Compensation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Partnership Income(Loss)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gain(Loss) On Disposal Of Assets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Expenses / Capital Reserve	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OTHER INCOME (EXPEN	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(191.06)
NET INCOME	22,558.83	(17,349.93)	(9,167.27)	(36,043.85)	(28,314.79)	(7,097.48)	7,411.45	16,274.78	36,476.49	61,010.50	61,339.72	55,241.89	17,499.61	72,741.50
Paid Rounds	4,035.00	2,874.00	3,105.00	2,453.00	2,785.00	3,295.00	3,398.00	3,575.00	3,860.00	4,373.00	4,660.00	4,574.00	3,727.00	8,301.00
Annual Pass Rounds	361.00	317.00	311.00	274.00	320.00	375.00	334.00	391.00	381.00	443.00	414.00	430.00	400.00	830.00
Other Rounds	256.00	228.00	241.00	206.00	230.00	280.00	261.00	268.00	236.00	243.00	246.00	281.00	301.00	562.00
Total Rounds	4,652.00	3,419.00	3,657.00	2,933.00	3,335.00	3,950.00	3,993.00	4,234.00	4,479.00	5,090.00	5,320.00	5,285.00	4,428.00	9,713.00
Revenue/Paid Rounds	38.79	36.53	36.67	36.76	38.34	38.87	39.81	41.32	44.08	44.44	45.64	43.07	44.73	87.80
Revenue/Total Rounds	33.64	30.71	31.13	30.74	32.02	32.42	33.88	34.86	37.58	38.41	38.98	37.26	37.66	74.93
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

The Golf Club at Cypress Head
Course Cash Flow Report
For the Year Ended May 31, 2022

	OCT Actual	NOV Actual	DEC Actual	JAN Actual	FEB Actual	MAR Actual	APR Actual	MAY Actual	JUN Actual	JUL Actual	AUG Actual	SEP Actual
EBITDA	(694)	13,814	22,678	42,879	67,413	67,743	61,645	23,903	0	0	0	0
Management Fee Expense	(6,307)	(6,307)	(6,307)	(6,307)	(6,307)	(6,307)	(6,307)	(6,307)	0	0	0	0
Depreciation & Amortization	(96)	(96)	(96)	(96)	(96)	(96)	(96)	(96)	0	0	0	0
Net Income	(7,097)	7,411	16,275	36,476	61,011	61,340	55,242	17,500	0	0	0	0
Working Capital Changes												
Inventory	(7,684)	(3,250)	(1,286)	1,455	(3,876)	(3,324)	4,735	1,233	0	0	0	0
Receivables	168,611	633	3,862	(3,666)	3,576	(1,109)	202	(424)	0	0	0	0
Prepaid Expenses	3,667	(7,027)	(5,610)	(698)	26,242	(5,610)	5,340	13,364	0	0	0	0
Payables	(5,285)	15,310	(4,893)	16,939	8,625	(17,931)	18,702	6,145	0	0	0	0
Due to from the City	0	(509)	0	(190)	0	417	(172)	(246)	0	0	0	0
Accrued Expenses	(849)	(1,293)	(1,182)	10,414	6,642	4,693	(25,627)	2,876	0	0	0	0
Deferred Revenues	(49,701)	9,431	6,128	(29,035)	(5,178)	(2,193)	(26,041)	(18,402)	0	0	0	0
Depreciation & Amortization	96	96	96	96	96	96	96	96	0	0	0	0
Operating Cash Flow	101,756	20,802	13,390	31,790	97,137	36,378	32,476	22,142	0	0	0	0
Investing Activities												
Financing Activities												
Net Cash Flows	101,756	20,802	13,390	31,790	97,137	36,378	32,476	22,142	0	0	0	0
Beginning Cash	71,692	173,448	194,251	207,640	239,430	327,393	363,771	396,247	418,389	378,747	378,747	378,747
Net Cash Flows	101,756	20,802	13,390	31,790	97,137	36,378	32,476	22,142	0	0	0	0
Ending Cash	173,448	194,251	207,640	239,430	336,566	363,771	396,247	418,389	418,389	378,747	378,747	378,747

The Golf Club at Cypress Head
For the Eight Months Ending May 31, 2022

	<u>05/31/22</u>	<u>09/30/21</u>	<u>05/31/21</u>
ASSETS			
CURRENT ASSETS:			
Cash			
Cash - Depository	379,719	65,792	257,052
Cash - Payroll	37,319	4,550	27,626
Cash - Manual Checks	850	850	850
Cash - Housebank & Other	500	500	500
Total Cash	<u>418,389</u>	<u>71,692</u>	<u>286,028</u>
Accounts Receivable			
A/R Member	2,981	174,666	0
Total Accounts Receivable	<u>2,981</u>	<u>174,666</u>	<u>0</u>
Other Current Assets			
Inventory - Merchandise	29,030	17,032	23,570
Prepaid Insurance	5,450	30,451	4,479
Prepaid Exp - Other	13,558	18,224	18,304
Total Other Current Assets	<u>48,037</u>	<u>65,707</u>	<u>46,352</u>
TOTAL CURRENT ASSETS	<u>469,407</u>	<u>312,065</u>	<u>332,381</u>
PROPERTY, PLANT AND EQUIPMENT:			
Buildings & Improvements	30,598	30,598	30,598
Machinery & Equipment	5,550	5,550	5,550
Property Plant and Equipment	36,148	36,148	36,148
Accumulated Depreciation	(30,733)	(29,968)	(29,586)
TOTAL PROPERTY, PLANT AND EQUIPMENT	<u>5,415</u>	<u>6,180</u>	<u>6,562</u>
TOTAL ASSETS	<u><u>474,822</u></u>	<u><u>318,245</u></u>	<u><u>338,942</u></u>

The Golf Club at Cypress Head
For the Eight Months Ending May 31, 2022

	<u>05/31/22</u>	<u>09/30/21</u>	<u>05/31/21</u>
LIABILITIES AND STOCKHOLDERS' EQUITY			
CURRENT LIABILITIES:			
Accts Pay - Trade	85,975	48,363	98,146
Accts Pay - Other	(4,733)	(4,033)	(44,003)
Accrued Expenses	0	7,395	4,450
Accrued Payroll	27,823	17,841	29,535
Accrued Taxes	9,692	6,072	9,157
Accrued Interest	0	10,535	0
Deferred Revenue	107,908	222,898	95,890
TOTAL CURRENT LIABILITIES	<u>226,665</u>	<u>309,071</u>	<u>193,175</u>
 TOTAL LIABILITIES	 <u>226,665</u>	 <u>309,071</u>	 <u>193,175</u>
 STOCKHOLDER'S EQUITY			
Retained Earnings	<u>248,157</u>	<u>9,174</u>	<u>145,767</u>
Net Retained Earnings	<u>248,157</u>	<u>9,174</u>	<u>145,767</u>
Stockholders Equity	<u>248,157</u>	<u>9,174</u>	<u>145,767</u>
TOTAL STOCKHOLDER'S EQUITY	<u>248,157</u>	<u>9,174</u>	<u>145,767</u>
 TOTAL LIABILITIES AND STOCKHOLDER'S EQUITY	 <u>474,822</u>	 <u>318,245</u>	 <u>338,942</u>

**The Golf Club at Cypress Head
Course Cash Flow Report
May 31, 2022**

	<u>May</u>	<u>YTD</u>
EBITDA	\$23,902.60	\$299,380.88
Management Fee Expense	(6,307.46)	(50,459.68)
Depreciation & Amortization	(95.53)	(764.24)
Net Income	17,499.61	248,156.96
Working Capital Changes		
Inventory	1,232.94	(11,997.66)
Receivables	(424.01)	171,684.43
Payables	6,145.16	37,612.26
Due to from the City	(246.25)	(700.17)
Prepays	13,364.24	29,667.89
Accrued Liabilities	2,876.27	(4,327.93)
Other Liabilities	(18,401.61)	(114,989.98)
Depreciation & Amortization	95.53	764.24
Operating Cash Flow	22,141.88	355,870.04
Investing Cash Flows		
Financing Cash Flow		
Net Cash Flows	<u>22,141.88</u>	<u>355,870.04</u>
Beginning Cash	396,246.66	71,692.14
Net Cash Flows	<u>22,141.88</u>	<u>355,870.04</u>
Ending Cash	<u>418,388.54</u>	<u>427,562.18</u>

The Golf Club at Cypress Head
Comparative Income Statement
For the Eight Months Ending May 31, 2022

	MTD Prior Year	YTD Prior Year	Audited Prior Year	Percent of Total	MTD Actual	YTD Actual	Annual Budget	Percent of Total
REVENUES								
Green Fees & Cart Fees	138,027	987,403	1,340,533	74%	141,553	1,179,165	1,259,492	94%
Merchandise	8,859	72,129	101,829	71%	15,134	89,067	90,550	98%
Other Pro Shop	1,130	13,552	22,201	61%	1,976	15,833	19,063	83%
Range	4,778	33,376	47,156	71%	4,512	38,364	44,300	87%
Other Operating Revenues	3,719	26,765	37,295	72%	3,530	29,469	36,122	82%
TOTAL REVENUE	156,513	1,133,224	1,549,014	73%	166,705	1,351,898	1,449,526	93%
COST OF SALES								
Merchandise	5,292	47,010	65,191	72%	12,425	59,152	55,236	107%
TOTAL COGS	5,292	47,010	65,191	72%	12,425	59,152	55,236	107%
COGS - Merchandise %	59.7%	65.2%	64.0%	101.8%	82.1%	66.4%	61.0%	108.9%
PAYROLL								
Course and Grounds	30,760	250,641	375,742	67%	34,468	288,595	416,997	69%
Carts, Range, Starters, Etc.	8,319	57,141	87,171	66%	9,624	73,365	98,064	75%
Pro Shop	6,545	48,170	77,058	63%	6,972	56,823	85,253	67%
General and Administrative	13,166	103,325	154,072	67%	12,938	103,400	160,946	64%
Marketing	4,904	36,665	51,773	71%	6,734	39,379	48,841	81%
TOTAL PAYROLL	63,695	495,942	745,816	66%	70,735	561,563	810,100	69%
OPERATING EXPENSES								
Course and Grounds	30,387	170,823	269,404	63%	29,644	184,265	264,162	70%
Carts, Range, Starters, Etc.	5,893	54,908	79,444	69%	4,919	46,207	88,006	53%
Pro Shop	70	6,252	12,040	52%	20	4,768	7,085	67%
General and Administrative	20,308	151,502	228,815	66%	22,349	182,871	227,125	81%
Marketing	2,030	10,786	18,061	60%	2,711	13,692	23,190	59%
TOTAL OPERATING EXPENSES	58,688	394,271	607,765	65%	59,642	431,802	609,568	71%
TOTAL EXPENSES	127,675	937,223	1,418,771	66%	142,803	1,052,517	1,474,903	71%
OTHER INCOME (EXPENSE)								
MANAGEMENT FEES	(6,184)	(49,470)	(74,205)	67%	(6,307)	(50,460)	(76,432)	66%
Depreciation & Amortization	(96)	(764)	(1,146)	67%	(96)	(764)	(1,146)	67%
TOTAL OTHER INCOME (EXPENSE)	(6,279)	(50,234)	(75,352)	67%	(6,403)	(51,224)	(77,578)	66%
NET INCOME	22,559	145,767	54,891	266%	17,500	248,157	(102,955)	-241%
=====								
Paid Rounds	4,035	28,992	40,207		3,727	31,462	38,424	
Annual Pass Rounds	361	2,796	4,018		400	3,168	4,748	
Other Rounds	256	1,838	2,743		301	2,118	2,636	
Total Rounds	4,652	33,626	46,968		4,428	36,748	45,808	
Revenue/Paid Rounds	39	39	39		45	43	38	
Revenue/Total Rounds	34	34	33		38	37	32	

The Golf Club at Cypress Head
Summary of All Units
For the Eight Months Ending May 31, 2022

MTD Actual	MTD Budget	% of Budget	MTD Prior Year	% of PY		YTD Actual	YTD Budget	% of Budget	YTD Prior Year	% of PY	Annual Budget	
REVENUES												
90,109	49,561	182%	87,500	103%	Green Fees	741,270	545,660	136%	616,405	120%	762,266	951,938
51,444	41,713	123%	50,527	102%	Cart Fee	437,895	355,583	123%	370,999	118%	497,226	580,356
856	60	1427%	40	2140%	Handicap Fee	4,771	4,703	101%	4,423	108%	4,849	4,931
900	505	178%	730	123%	Lessons	8,892	6,474	137%	7,269	122%	11,764	16,291
220	90	244%	360	61%	Rental Clubs	2,170	1,470	148%	1,860	117%	2,450	3,260
15,134	7,000	216%	8,859	171%	Retail	89,067	66,250	134%	72,129	123%	90,550	115,767
4,512	4,100	110%	4,778	94%	Range	38,364	33,200	116%	33,376	115%	44,300	52,145
3,530	3,454	102%	3,719	95%	City Surcharge R & R	29,469	26,258	112%	26,765	110%	36,122	40,000
166,705	106,482	157%	156,513	107%	Total Revenues	1,351,898	1,039,598	130%	1,133,224	119%	1,449,526	1,767,688
COST OF GOODS SOLD												
12,425	4,270	291%	5,292	235%	COGS - Merchandise	59,152	40,413	146%	47,010	126%	55,236	77,333
12,425	4,270	291%	5,292	235%	Total COGS	59,152	40,413	146%	47,010	126%	55,236	77,333
154,280	102,212	151%	151,221	102%	GROSS MARGIN	1,292,746	999,185	129%	1,086,214	119%	1,394,291	1,690,355
82.10%	61.00%	134.59%	59.73%	137.44%	COGS - Merchandise %	66.41%	61.00%	108.87%	65.18%	101.90%	61.00%	763.54%
PAYROLL												
26,656	24,510	109%	24,288	110%	Gross Payroll - Salaried	194,588	192,920	101%	186,528	104%	290,959	283,622
33,661	33,717	100%	29,630	114%	Gross Payroll - Hourly	278,020	263,242	106%	230,194	121%	395,936	401,274
60,318	58,227	104%	53,918	112%	S/T Wages	472,609	456,162	104%	416,722	113%	686,895	684,896
4,505	4,454	101%	4,005	112%	Payroll Tax - FICA	35,096	34,896	101%	30,965	113%	52,547	51,161
136	160	85%	479	28%	Payroll Tax - UC	1,992	1,786	112%	5,875	34%	2,324	(1,146)
1,088	1,186	92%	960	113%	Payroll Tax - WC	9,114	9,018	101%	7,883	116%	13,718	13,508
4,689	4,653	101%	4,333	108%	Benefits	42,753	36,004	119%	34,497	124%	54,616	63,019
10,417	10,454	100%	9,777	107%	S/T Adders	88,954	81,705	109%	79,220	112%	123,205	126,541
70,735	68,681	103%	63,695	111%	TOTAL PAYROLL	561,563	537,866	104%	495,942	113%	810,100	811,437
OPERATING EXPENSES												
74	300	25%	48	154%	Cart Supplies	2,047	1,450	141%	1,180	174%	1,750	2,381
1,034	370	279%	0	0%	Chemicals	4,665	3,580	130%	2,910	160%	4,990	6,919
0	200	0%	172	0%	Course Accessories	2,320	410	566%	415	559%	1,320	4,676
1,749	5,300	33%	4,535	35%	Fertilizer	41,813	34,250	122%	38,680	108%	53,050	54,993
0	0	0%	0	0%	Flowers/Decor	515	900	57%	873	59%	900	515
3,015	1,000	302%	887	340%	Fuel	12,239	5,620	222%	5,708	214%	10,120	18,127
0	0	0%	0	0%	Fungicides	2,161	1,400	154%	1,371	158%	4,300	2,376
733	2,800	26%	1,952	38%	Herbicides	7,686	13,900	55%	11,242	68%	23,600	15,884
7,531	500	1506%	6,500	116%	Insecticides	9,025	2,400	376%	7,896	114%	6,000	12,421
307	400	77%	262	117%	Janitorial Supplies	5,363	4,500	119%	4,165	129%	6,550	8,309
0	0	0%	758	0%	Laundry/Uniforms	924	1,350	68%	962	96%	1,550	982
259	110	236%	174	149%	Office Supplies	3,262	2,235	146%	2,138	153%	3,515	4,539
0	0	0%	0	0%	Range Balls	3,520	2,700	130%	2,654	133%	2,700	3,520
0	0	0%	0	0%	Range Equipment	1,034	1,360	76%	3,093	33%	1,360	1,136
0	0	0%	0	0%	Range Expenses	1,117	0	0%	392	285%	300	1,579
2,105	700	301%	2,640	80%	Sand/Topdress	6,605	6,200	107%	6,779	97%	10,700	10,452
0	1,000	0%	948	0%	Seeds/Trees	5,665	5,400	105%	5,413	105%	9,400	7,728
0	1,200	0%	0	0%	Small Tools	668	1,440	46%	212	316%	2,810	3,958
0	0	0%	0	0%	Supplies	0	400	0%	1,332	0%	600	2,884
20	0	0%	0	0%	Tournament Expense	116	80	147%	74	160%	180	150
119	229	52%	231	51%	Alarm System	1,591	1,832	87%	1,832	87%	2,748	1,149
157	75	209%	30	514%	Cart Repairs	656	600	109%	249	263%	900	1,748
160	100	160%	42	384%	Computer Service	1,279	630	203%	544	235%	1,490	2,905
650	812	80%	812	80%	Contract Cleaning	4,898	6,496	75%	6,496	75%	9,744	7,334
0	0	0%	0	0%	Guest Relations	0	0	0%	20	0%	0	61
0	0	0%	0	0%	Handicap Expense	4,529	4,180	108%	4,165	109%	4,630	5,024
1,185	300	395%	542	219%	Irrigation	7,316	10,955	67%	7,624	96%	13,330	12,466
0	0	0%	0	0%	Lesson Expense	0	0	0%	0	0%	750	1,768
0	500	0%	0	0%	Repair & Maint - Paths	0	2,000	0%	0	0%	3,000	0
2,246	1,400	160%	1,601	140%	Repair & Maint - Equipment	12,685	9,950	127%	10,217	124%	17,550	21,865
1,367	280	488%	509	268%	Repair & Maint - Building	8,398	4,640	181%	5,029	167%	10,230	13,277
3,535	6,200	57%	4,974	71%	Cart Lease	29,237	44,696	65%	39,792	73%	69,496	47,816
7,671	5,721	134%	5,721	134%	Equipment Lease	53,877	45,768	118%	45,768	118%	68,652	83,771
176	176	100%	176	100%	Off-Site Storage	1,408	1,408	100%	1,408	100%	2,112	2,112
1,414	1,100	129%	1,052	134%	Utilities - Electric	10,497	9,200	114%	9,039	116%	13,600	15,437
3,651	3,200	114%	4,350	84%	Utilities - Other	27,698	25,250	110%	25,668	108%	38,350	42,753
190	150	126%	190	100%	Utilities - Telephone/Fax	1,481	1,200	123%	1,454	102%	1,800	2,395
236	200	118%	220	107%	Utilities - Water	1,856	1,650	112%	1,745	106%	2,450	2,712
2,711	400	678%	2,030	134%	Advertising & Promotion	13,692	9,790	140%	10,786	127%	23,190	20,967
344	330	104%	388	89%	Bank Charges	2,774	3,065	91%	3,262	85%	4,375	4,137
(330)	0	0%	(30)	111%	Cash Short/(Over)	(580)	0	0%	(178)	326%	0	(679)
200	200	100%	200	100%	Cell Phone	1,600	1,600	100%	1,600	100%	2,400	2,400
3,530	3,454	102%	3,719	95%	City Surcharge R & R	29,469	26,255	112%	26,765	110%	36,136	40,000

The Golf Club at Cypress Head
Summary of All Units
For the Eight Months Ending May 31, 2022

MTD Actual	MTD Budget	% of Budget	MTD Prior Year	% of PY		YTD Actual	YTD Budget	% of Budget	YTD Prior Year	% of PY	Annual Budget	
4,283	2,300	186%	3,541	121%	Credit Card Discounts	31,716	21,560	147%	23,847	133%	29,160	40,884
598	300	199%	636	94%	Donations	593	450	132%	726	82%	700	578
492	0	0%	0	0%	Dues & Subscriptions	1,027	570	180%	505	203%	1,600	2,089
0	0	0%	0	0%	Education & Training	400	400	100%	400	100%	400	550
171	175	97%	(24)	-699%	Employee Relations	191	2,100	9%	1,989	10%	2,750	375
0	0	0%	0	0%	Employee Testing	29	0	0%	0	0%	0	58
6,130	6,150	100%	5,312	115%	Insurance Expense	49,037	49,200	100%	42,370	116%	73,800	72,585
(553)	10	-5530%	212	-261%	Member Relations	1,443	80	1804%	213	679%	120	1,766
0	0	0%	0	0%	Miscellaneous	2,081	0	0%	0	0%	0	2,081
1,730	0	0%	0	0%	O/S - Accounting	11,730	9,250	127%	9,250	127%	13,250	15,630
0	0	0%	2,000	0%	O/S - Other	0	0	0%	7,680	0%	6,000	2,200
433	320	135%	355	122%	Payroll Processing Fee	3,384	2,770	122%	2,888	117%	4,050	4,980
323	50	646%	271	119%	Postage/Shipping	1,828	1,250	146%	1,691	108%	1,650	2,384
(30)	0	0%	(30)	100%	Tax/Licenses/Fees	(240)	550	-44%	10	-2400%	700	(285)
27	30	90%	22	120%	Travel - Meals	1,115	240	465%	542	206%	360	1,209
0	200	0%	760	0%	Travel - Other	2,342	1,600	146%	1,370	171%	2,400	3,244
0	0	0%	0	0%	Employee Meals	20	0	0%	17	117%	0	20
59,642	48,242	124%	58,688	102%	TOTAL OPERATING EXPENSES	431,802	390,660	111%	394,271	110%	609,568	645,295
23,903	(14,711)	-162%	28,838	83%	EBITDA	299,381	70,659	424%	196,001	153%	(25,377)	233,622
6,307	6,369	99%	6,184	102%	Management Fee	50,460	50,954	99%	49,470	102%	76,432	75,195
6,307	6,369	99%	6,184	102%	Management Fees	50,460	50,954	99%	49,470	102%	76,432	75,195
23	23	100%	23	100%	Deprec - Mach & Equip	185	185	100%	185	100%	277	277
72	72	100%	72	100%	Deprec - Buildings	579	579	100%	579	100%	869	869
96	96	100%	96	100%	S/T DEPR. & AMORT	764	764	100%	764	100%	1,146	1,146
17,500	(21,175)	-83%	22,559	78%	NET INCOME	248,157	18,940	1310%	145,767	170%	(102,955)	157,281

The Golf Club at Cypress Head
Course & Grounds
For the Eight Months Ending May 31, 2022

MTD Actual	MTD Budget	% of Budget	MTD Prior Year	% of PY		YTD Actual	YTD Budget	% of Budget	YTD Prior Year	% of PY	Annual Budget	
REVENUES												
90,109	49,561	182%	87,500	103%	Green Fees	741,270	545,660	136%	616,405	120%	762,266	951,938
3,530	3,454	102%	3,719	95%	City Surcharge R & R	29,469	26,258	112%	26,765	110%	36,122	40,000
93,639	53,014	177%	91,219	103%	Total Revenues	770,739	571,918	135%	643,169	120%	798,387	991,939
93,639	53,014	177%	91,219	103%	GROSS MARGIN	770,739	571,918	135%	643,169	120%	798,387	991,939
PAYROLL												
10,470	10,245	102%	9,719	108%	Gross Payroll - Salaried	79,884	80,395	99%	76,253	105%	121,374	116,654
19,152	20,122	95%	17,033	112%	Gross Payroll - Hourly	164,671	156,669	105%	140,229	117%	235,858	236,217
29,622	30,366	98%	26,752	111%	S/T Wages	244,555	237,065	103%	216,482	113%	357,232	352,871
2,194	2,323	94%	1,983	111%	Payroll Tax - FICA	18,012	18,135	99%	16,100	112%	27,328	26,022
37	50	73%	139	26%	Payroll Tax - UC	1,046	805	130%	2,901	36%	910	(232)
536	619	87%	479	112%	Payroll Tax - WC	4,697	4,687	100%	4,069	115%	7,135	6,876
2,080	2,078	100%	1,407	148%	Benefits	20,285	16,080	126%	11,089	183%	24,392	28,159
4,847	5,070	96%	4,009	121%	S/T Adders	44,040	39,708	111%	34,159	129%	59,765	60,826
34,468	35,436	97%	30,760	112%	TOTAL PAYROLL	288,595	276,772	104%	250,641	115%	416,997	413,697
OPERATING EXPENSES												
1,034	370	279%	0	0%	Chemicals	4,665	3,580	130%	2,910	160%	4,990	6,919
0	200	0%	172	0%	Course Accessories	2,320	410	566%	415	559%	1,320	4,676
1,749	5,300	33%	4,535	39%	Fertilizer	41,813	34,250	122%	38,680	108%	53,050	54,993
0	0	0%	0	0%	Flowers/Decor	515	900	57%	873	59%	900	515
3,015	1,000	302%	887	340%	Fuel	12,239	5,520	222%	5,708	214%	10,120	18,127
0	0	0%	0	0%	Fungicides	2,161	1,400	154%	1,371	158%	4,300	2,376
733	2,800	26%	1,952	38%	Herbicides	7,686	13,900	55%	11,242	68%	23,600	15,884
7,531	500	1506%	6,500	116%	Insecticides	9,025	2,400	376%	7,896	114%	6,000	12,421
2,105	700	301%	2,640	80%	Sand/Topdress	6,605	6,200	107%	6,779	97%	10,700	10,452
0	1,000	0%	948	0%	Seeds/Trees	5,665	5,400	105%	5,413	105%	9,400	7,728
0	1,200	0%	0	0%	Small Tools	668	1,440	46%	212	316%	2,810	3,958
1,185	300	395%	542	219%	Irrigation	7,316	10,955	67%	7,624	96%	13,330	12,466
0	500	0%	0	0%	Repair & Maint - Paths	0	2,000	0%	0	0%	3,000	0
2,246	1,300	173%	1,601	140%	Repair & Maint - Equipment	12,180	9,650	126%	10,148	120%	17,250	20,307
0	30	0%	0	0%	Repair & Maint - Building	171	1,190	14%	1,250	14%	4,940	171
7,671	5,721	134%	5,721	134%	Equipment Lease	53,877	45,768	118%	45,768	118%	68,652	83,771
261	200	131%	212	123%	Utilities - Electric	1,900	1,800	119%	1,560	122%	2,400	2,874
1,876	2,000	94%	2,425	77%	Utilities - Other	13,127	12,000	109%	12,616	104%	17,100	19,995
236	200	118%	220	107%	Utilities - Water	1,856	1,650	112%	1,745	106%	2,450	2,712
0	0	0%	0	0%	Education & Training	400	400	100%	400	100%	400	550
0	75	0%	33	0%	Employee Relations	47	500	9%	283	17%	750	(306)
0	0	0%	0	0%	Employee Testing	29	0	0%	0	0%	0	58
0	0	0%	2,000	0%	O/S - Other	0	0	0%	7,680	0%	6,000	2,200
0	0	0%	0	0%	Tax/Licenses/Fees	0	550	0%	250	0%	700	0
29,644	23,396	127%	30,387	98%	TOTAL OPERATING EXPENSES	184,265	161,663	114%	170,823	108%	264,162	282,846
29,527	(5,818)	-507%	30,072	98%	EBITDA	297,879	133,483	223%	221,706	134%	117,229	295,396
29,527	(5,818)	-507%	30,072	98%	NET INCOME	297,879	133,483	223%	221,706	134%	117,229	295,396

The Golf Club at Cypress Head
Carts
For the Eight Months Ending May 31, 2022

MTD Actual	MTD Budget	% of Budget	MTD Prior Year	% of PY		YTD Actual	YTD Budget	% of Budget	YTD Prior Year	% of PY	Annual Budget	
51,444	41,713	123%	50,527	102%	REVENUES	437,895	355,583	123%	370,999	118%	497,226	580,356
51,444	41,713	123%	50,527	102%	Cart Fee	437,895	355,583	123%	370,999	118%	497,226	580,356
51,444	41,713	123%	50,527	102%	Total Revenues	437,895	355,583	123%	370,999	118%	497,226	580,356
					GROSS MARGIN	437,895	355,583	123%	370,999	118%	497,226	580,356
					PAYROLL							
8,684	7,529	115%	7,335	118%	Gross Payroll - Hourly	66,055	59,014	112%	50,795	130%	88,643	93,256
8,684	7,529	115%	7,335	118%	S/T Wages	66,055	59,014	112%	50,795	130%	88,643	93,256
700	576	122%	591	118%	Payroll Tax - FICA	5,345	4,515	118%	4,032	133%	6,781	7,582
78	75	104%	263	30%	Payroll Tax - UC	699	508	138%	1,365	51%	804	734
161	153	105%	130	124%	Payroll Tax - WC	1,267	1,167	109%	949	134%	1,770	1,824
0	6	0%	0	0%	Benefits	0	43	0%	0	0%	65	0
940	810	116%	985	95%	S/T Adders	7,311	6,233	117%	6,345	115%	9,421	10,140
9,624	8,339	115%	8,319	116%	TOTAL PAYROLL	73,365	65,247	112%	57,141	128%	98,064	103,396
					OPERATING EXPENSES							
74	300	25%	48	154%	Cart Supplies	2,047	1,450	141%	1,180	174%	1,750	2,381
157	75	209%	30	514%	Cart Repairs	656	600	109%	249	263%	900	1,748
3,535	6,200	57%	4,974	71%	Cart Lease	29,237	44,696	65%	39,792	73%	69,496	47,816
1,153	900	128%	840	137%	Utilities - Electric	8,596	7,600	113%	7,479	115%	11,200	12,564
4,919	7,475	66%	5,893	83%	TOTAL OPERATING EXPENSES	40,537	54,346	75%	48,700	83%	83,346	64,508
36,901	25,899	142%	36,315	102%	EBITDA	323,993	235,990	137%	265,158	122%	315,816	412,452
36,901	25,899	142%	36,315	102%	NET INCOME	323,993	235,990	137%	265,158	122%	315,816	412,452

The Golf Club at Cypress Head
Range
For the Eight Months Ending May 31, 2022

MTD Actual	MTD Budget	% of Budget	MTD Prior Year	% of PY		YTD Actual	YTD Budget	% of Budget	YTD Prior Year	% of PY	Annual Budget	
4,512	4,100	110%	4,778	94%	REVENUES							
4,512	4,100	110%	4,778	94%	Range	38,364	33,200	116%	33,376	115%	44,300	52,145
4,512	4,100	110%	4,778	94%	Total Revenues	38,364	33,200	116%	33,376	115%	44,300	52,145
4,512	4,100	110%	4,778	94%	GROSS MARGIN	38,364	33,200	116%	33,376	115%	44,300	52,145
0	0	0%	0	0%	OPERATING EXPENSES							
0	0	0%	0	0%	Range Balls	3,520	2,700	130%	2,654	133%	2,700	3,520
0	0	0%	0	0%	Range Equipment	1,034	1,360	76%	3,093	33%	1,360	1,136
0	0	0%	0	0%	Range Expenses	1,117	0	0%	392	285%	300	1,579
0	100	0%	0	0%	Repair & Maint - Equipment	0	300	0%	69	0%	300	0
0	100	0%	0	0%	TOTAL OPERATING EXPENSES	5,671	4,360	130%	6,208	91%	4,660	6,235
4,512	4,000	113%	4,778	94%	EBITDA	32,694	28,840	113%	27,168	120%	39,640	45,909
4,512	4,000	113%	4,778	94%	NET INCOME	32,694	28,840	113%	27,168	120%	39,640	45,909

The Golf Club at Cypress Head
Golf Shop
For the Eight Months Ending May 31, 2022

MTD Actual	MTD Budget	% of Budget	MTD Prior Year	% of PY		YTD Actual	YTD Budget	% of Budget	YTD Prior Year	% of PY	Annual Budget	
REVENUES												
856	60	1427%	40	2140%	Handicap Fee	4,771	4,703	101%	4,423	108%	4,849	4,931
900	505	178%	730	123%	Lessons	8,892	6,474	137%	7,269	122%	11,764	16,291
220	90	244%	360	61%	Rental Clubs	2,170	1,470	148%	1,860	117%	2,450	3,260
15,134	7,000	216%	8,859	171%	Retail	89,067	66,250	134%	72,129	123%	90,550	118,767
17,110	7,655	224%	9,989	171%	Total Revenues	104,900	78,897	133%	85,681	122%	109,613	143,249
COST OF GOODS SOLD												
12,425	4,270	291%	5,292	235%	COGS - Merchandise	59,152	40,413	146%	47,010	126%	55,236	77,333
12,425	4,270	291%	5,292	235%	Total COGS	59,152	40,413	146%	47,010	126%	55,236	77,333
4,685	3,385	138%	4,697	100%	GROSS MARGIN	45,748	38,485	119%	38,671	118%	54,378	65,916
82.10%	61.00%	134.59%	59.73%	137.44%	COGS - Merchandise %	66.41%	61.00%	108.87%	65.18%	101.90%	61.00%	763.54%
PAYROLL												
5,826	6,067	96%	5,423	107%	Gross Payroll - Hourly	47,295	47,559	99%	39,269	120%	71,436	71,801
5,826	6,067	96%	5,423	107%	S/T Wages	47,295	47,559	99%	39,269	120%	71,436	71,801
448	464	96%	407	110%	Payroll Tax - FICA	3,647	3,638	100%	2,982	122%	5,465	5,536
21	31	68%	76	27%	Payroll Tax - UC	289	230	126%	841	34%	350	66
99	124	80%	96	104%	Payroll Tax - WC	936	940	100%	764	123%	1,426	1,438
578	561	103%	543	106%	Benefits	4,657	4,334	107%	4,315	108%	6,576	6,868
1,146	1,179	97%	1,123	102%	S/T Adders	9,528	9,142	104%	8,901	107%	13,817	13,909
6,972	7,246	96%	6,545	107%	TOTAL PAYROLL	56,823	56,701	100%	48,170	118%	85,253	85,710
OPERATING EXPENSES												
0	50	0%	0	0%	Office Supplies	24	550	4%	415	6%	750	633
0	0	0%	0	0%	Supplies	0	400	0%	1,332	0%	600	2,884
20	0	0%	0	0%	Tournament Expense	118	80	147%	74	160%	180	150
0	0	0%	0	0%	Handicap Expense	4,529	4,180	108%	4,165	109%	4,630	5,024
0	0	0%	0	0%	Lesson Expense	0	0	0%	0	0%	750	1,768
0	0	0%	70	0%	Repair & Maint - Building	97	175	55%	266	36%	175	97
20	50	39%	70	28%	TOTAL OPERATING EXPENSES	4,768	5,385	89%	6,252	76%	7,085	10,556
(2,306)	(3,911)	59%	(1,919)	120%	EBITDA	(15,843)	(23,601)	67%	(15,752)	101%	(37,960)	(30,350)
(2,306)	(3,911)	59%	(1,919)	120%	NET INCOME	(15,843)	(23,601)	67%	(15,752)	101%	(37,960)	(30,350)

The Golf Club at Cypress Head
G & A
For the Eight Months Ending May 31, 2022

MTD Actual	MTD Budget	% of Budget	MTD Prior Year	% of PY		YTD Actual	YTD Budget	% of Budget	YTD Prior Year	% of PY	Annual Budget	
PAYROLL												
10,575	10,514	101%	10,573	100%	Gross Payroll - Salaried	83,325	83,095	100%	80,918	103%	125,150	123,708
0	0	0%	(160)	0%	Gross Payroll - Hourly	0	0	0%	(100)	0%	0	0
10,575	10,514	101%	10,413	102%	S/T Wages	83,325	83,095	100%	80,818	103%	125,150	123,708
754	804	94%	737	102%	Payroll Tax - FICA	5,864	6,357	92%	5,730	102%	9,574	8,765
0	0	0%	0	0%	Payroll Tax - UC	(130)	140	-93%	551	-24%	140	(1,456)
188	214	88%	185	102%	Payroll Tax - WC	1,605	1,642	98%	1,542	104%	2,499	2,464
1,422	2,009	71%	1,831	78%	Benefits	12,736	15,547	82%	14,684	87%	23,583	20,667
2,363	3,027	78%	2,753	86%	S/T Adders	20,076	23,686	85%	22,506	89%	35,796	30,440
12,938	13,541	96%	13,166	98%	TOTAL PAYROLL	103,400	106,782	97%	103,325	100%	160,946	154,148
OPERATING EXPENSES												
307	400	77%	262	117%	Janitorial Supplies	5,363	4,500	119%	4,165	129%	6,550	8,309
0	0	0%	758	0%	Laundry/Uniforms	924	1,350	68%	962	96%	1,550	982
259	60	432%	174	149%	Office Supplies	3,238	1,685	192%	1,723	188%	2,765	3,906
119	229	52%	231	51%	Alarm System	1,832	1,832	87%	1,832	87%	2,748	1,149
160	100	160%	42	384%	Computer Service	1,279	630	203%	544	235%	1,490	2,905
650	812	80%	812	80%	Contract Cleaning	4,898	6,496	75%	6,496	75%	9,744	7,334
0	0	0%	0	0%	Guest Relations	0	0	0%	20	0%	0	61
0	0	0%	0	0%	Repair & Maint - Equipment	506	0	0%	0	0%	0	1,559
1,367	250	547%	439	311%	Repair & Maint - Building	8,130	3,275	248%	3,513	231%	5,115	13,009
176	176	100%	176	100%	Off-Site Storage	1,408	1,408	100%	1,408	100%	2,112	2,112
1,775	1,200	148%	1,925	92%	Utilities - Other	14,571	13,250	110%	13,052	112%	21,250	22,758
190	150	126%	190	100%	Utilities - Telephone/Fax	1,481	1,200	123%	1,454	102%	1,800	2,395
344	330	104%	388	89%	Bank Charges	2,774	3,065	91%	3,262	85%	4,375	4,137
(330)	0	0%	(30)	1119%	Cash Short/(Over)	(580)	0	0%	(178)	328%	0	(679)
200	200	100%	200	100%	Cell Phone	1,600	1,600	100%	1,600	100%	2,400	2,400
3,530	3,454	102%	3,719	95%	City Surcharge R & R	29,469	26,255	112%	26,765	110%	36,136	40,000
4,283	2,300	186%	3,541	121%	Credit Card Discounts	31,716	21,560	147%	23,847	133%	29,160	40,884
598	300	199%	636	94%	Donations	593	450	132%	726	82%	700	578
492	0	0%	0	0%	Dues & Subscriptions	1,027	570	180%	505	203%	1,600	2,089
171	100	171%	(58)	-296%	Employee Relations	144	1,600	9%	1,706	8%	2,000	681
6,130	6,150	100%	5,312	115%	Insurance Expense	49,037	49,200	100%	42,370	116%	73,800	72,585
(553)	10	-5530%	212	-261%	Member Relations	1,443	80	1804%	213	679%	120	1,766
0	0	0%	0	0%	Miscellaneous	2,081	0	0%	0	0%	0	2,081
1,730	0	0%	0	0%	O/S - Accounting	11,730	9,250	127%	9,250	127%	13,250	15,630
433	320	135%	355	122%	Payroll Processing Fee	3,384	2,770	122%	2,888	117%	4,050	4,980
323	50	646%	271	119%	Postage/Shipping	1,828	1,250	146%	1,691	108%	1,650	2,384
(30)	0	0%	(30)	100%	Tax/Licenses/Fees	(240)	0	0%	(240)	100%	0	(285)
27	30	90%	22	120%	Travel - Meals	1,115	240	465%	542	206%	360	1,209
0	200	0%	760	0%	Travel - Other	2,342	1,600	146%	1,370	171%	2,400	3,244
0	0	0%	0	0%	Employee Meals	20	0	0%	17	117%	0	20
22,349	16,821	133%	20,308	110%	TOTAL OPERATING EXPENSES	182,871	155,116	118%	151,502	121%	227,125	260,183
(35,287)	(30,362)	116%	(33,474)	105%	EBITDA	(286,271)	(261,898)	109%	(254,827)	112%	(388,071)	(414,331)
6,307	6,369	99%	6,184	102%	Management Fee	50,460	50,954	99%	49,470	102%	76,432	75,195
6,307	6,369	99%	6,184	102%	Management Fees	50,460	50,954	99%	49,470	102%	76,432	75,195
23	23	100%	23	100%	Deprec - Mach & Equip	185	185	100%	185	100%	277	277
72	72	100%	72	100%	Deprec - Buildings	579	579	100%	579	100%	869	869
96	96	100%	96	100%	S/T DEPR. & AMORT	764	764	100%	764	100%	1,146	1,146
(41,690)	(36,827)	113%	(39,754)	105%	NET INCOME	(337,495)	(313,616)	108%	(305,061)	111%	(465,649)	(490,672)

The Golf Club at Cypress Head
Marketing
For the Eight Months Ending May 31, 2022

MTD Actual	MTD Budget	% of Budget	MTD Prior Year	% of PY		YTD Actual	YTD Budget	% of Budget	YTD Prior Year	% of PY	Annual Budget	
					PAYROLL							
5,612	3,751	150%	3,996	140%	Gross Payroll - Salaried	31,379	29,429	107%	29,357	107%	44,435	43,259
5,612	3,751	150%	3,996	140%	S/T Wages	31,379	29,429	107%	29,357	107%	44,435	43,259
409	287	142%	286	143%	Payroll Tax - FICA	2,228	2,251	99%	2,122	105%	3,399	3,256
0	4	0%	0	0%	Payroll Tax - UC	88	103	85%	217	40%	119	(258)
104	76	136%	71	147%	Payroll Tax - WC	609	582	105%	560	109%	887	906
609	0	0%	551	110%	Benefits	5,075	0	0%	4,409	115%	0	7,325
1,122	368	305%	908	123%	S/T Adders	8,000	2,936	272%	7,308	109%	4,406	11,228
6,734	4,119	163%	4,904	137%	TOTAL PAYROLL	39,379	32,365	122%	36,665	107%	48,841	54,487
					OPERATING EXPENSES							
2,711	400	678%	2,030	134%	Advertising & Promotion	13,692	9,790	140%	10,786	127%	23,190	20,967
2,711	400	678%	2,030	134%	TOTAL OPERATING EXPENSES	13,692	9,790	140%	10,786	127%	23,190	20,967
(9,444)	(4,519)	209%	(6,934)	136%	EBITDA	(53,071)	(42,155)	126%	(47,451)	112%	(72,031)	(75,454)
(9,444)	(4,519)	209%	(6,934)	136%	NET INCOME	(53,071)	(42,155)	126%	(47,451)	112%	(72,031)	(75,454)

The Golf Club at Cypress Head
For the Eight Months Ending May 31, 2022

MTD Actual	MTD Budget	% of Budget	MTD Prior Year	% of PY		YTD Actual	YTD Budget	% of Budget	YTD Prior Year	% of PY	Annual Budget	
REVENUES												
141,553	91,274	155%	138,027	103%	Green Fees & Cart Fees	1,179,165	901,243	131%	987,403	119%	1,259,492	1,532,294
15,134	7,000	216%	8,859	171%	Merchandise	89,067	66,250	134%	72,129	123%	90,550	118,767
1,976	655	302%	1,130	175%	Other Pro Shop	15,833	12,647	125%	13,552	117%	19,063	24,482
4,512	4,100	110%	4,778	94%	Range	38,364	33,200	116%	33,376	115%	44,300	52,145
3,530	3,454	102%	3,719	95%	Other Operating Revenues	29,469	26,258	112%	26,765	110%	36,122	40,000
166,705	106,482	157%	156,513	107%	TOTAL REVENUE	1,351,898	1,039,598	130%	1,133,224	119%	1,449,526	1,767,688
COST OF SALES												
12,425	4,270	291%	5,292	235%	Merchandise	59,152	40,413	146%	47,010	126%	55,236	77,333
12,425	4,270	291%	5,292	235%	TOTAL COGS	59,152	40,413	146%	47,010	126%	55,236	77,333
82.1%	61.0%	134.6%	59.7%	137.4%	COGS - Merchandise %	66.4%	61.0%	108.9%	65.2%	101.9%	61.0%	763.5%
PAYROLL												
34,468	35,436	97%	30,760	112%	Course and Grounds	288,595	276,772	104%	250,641	115%	416,997	413,697
9,624	8,339	115%	8,319	116%	Carts, Range, Starters, Etc.	73,365	65,247	112%	57,141	128%	98,064	103,396
6,972	7,246	96%	6,545	107%	Pro Shop	56,823	56,701	100%	48,170	118%	85,253	85,710
12,938	13,541	96%	13,166	98%	General and Administrative	103,400	106,782	97%	103,325	100%	160,946	154,148
6,734	4,119	163%	4,904	137%	Marketing	39,379	32,365	122%	36,665	107%	48,841	54,487
70,735	68,681	103%	63,695	111%	TOTAL PAYROLL	561,563	537,866	104%	495,942	113%	810,100	811,437
OPERATING EXPENSES												
29,644	23,396	127%	30,387	98%	Course and Grounds	184,265	161,663	114%	170,823	108%	264,162	282,846
4,919	7,575	65%	5,893	83%	Carts, Range, Starters, Etc.	46,207	58,706	79%	54,908	84%	88,006	70,744
20	50	39%	70	28%	Pro Shop	4,768	5,385	89%	6,252	76%	7,085	10,556
22,349	16,821	133%	20,308	110%	General and Administrative	182,871	155,116	118%	151,502	121%	227,125	260,183
2,711	400	678%	2,030	134%	Marketing	13,692	9,790	140%	10,786	127%	23,190	20,967
59,642	48,242	124%	58,688	102%	TOTAL OPERATING EXPENSES	431,802	390,660	111%	394,271	110%	609,568	645,295
142,803	121,193	118%	127,675	112%	TOTAL EXPENSES	1,052,517	968,939	109%	937,223	112%	1,474,903	1,534,065
23,903	(14,711)	-162%	28,838	83%	EBITDA	299,381	70,659	424%	196,001	153%	(25,377)	233,622

The Golf Club at Cypress Head
For the Eight Months Ending May 31, 2022

MTD Actual	MTD Budget	% of Budget	MTD Prior Year	% of PY		YTD Actual	YTD Budget	% of Budget	YTD Prior Year	% of PY	Annual Budget	
23,903	(14,711)	-162%	28,838	83%	EBITDA	299,381	70,659	424%	196,001	153%	(25,377)	233,622
(6,307)	(6,369)	99%	(6,184)	102%	MANAGEMENT FEES	(50,460)	(50,954)	99%	(49,470)	102%	(76,432)	(75,195)
(96)	(96)	100%	(96)	100%	OTHER INCOME (EXPENSE)	(764)	(764)	100%	(764)	100%	(1,146)	(1,146)
(96)	(96)	100%	(96)	100%	Depreciation & Amortization	(764)	(764)	100%	(764)	100%	(1,146)	(1,146)
17,500	(21,175)	-83%	22,559	78%	TOTAL OTHER INCOME (EXPENSE)	(764)	(764)	100%	(764)	100%	(1,146)	(1,146)
					NET INCOME	248,157	18,940	1310%	145,767	170%	(102,955)	157,281
3,727	2,775	134%	4,035	92%	Paid Rounds	31,462	27,331	115%	28,992	109%	38,424	42,679
400	477	84%	361	111%	Annual Pass Rounds	3,168	2,948	107%	2,796	113%	4,748	4,390
301	188	160%	256	118%	Other Rounds	2,118	1,779	119%	1,838	115%	2,636	3,023
4,428	3,440	129%	4,652	95%	Total Rounds	36,748	32,058	115%	33,626	109%	45,808	50,092
45	38	117%	39	115%	Revenue/Paid Rounds	43	38	113%	39	110%	38	490
38	31	122%	34	112%	Revenue/Total Rounds	37	32	113%	34	109%	32	417

TRIAL BALANCE SUMMARY FOR 2021

The Golf Club at Cypress Head

General Ledger

Ranges: From:
Date: 5/1/2022
Account: First

To:
5/31/2022
Last

Sorted By: Account
Include: Posting, Unit
Print Currency In: Functional (Z-US\$)

Inactive	Account	Description	Beginning Balance	Debit	Credit	Net Change	Ending Balance
	10020-5950-900	Cash - Course Depository NEW	\$357,686.32	\$209,670.92	\$187,637.84	\$22,033.08	\$379,719.40
	10050-5950-900	Cash - Course Payroll BMO	\$37,210.34	\$55,939.70	\$55,830.90	\$108.80	\$37,319.14
	10100-5950-900	Cash - Course Other	\$850.00	\$0.00	\$0.00	\$0.00	\$850.00
	10180-5950-900	Cash - Pro Shop Bank	\$500.00	\$0.00	\$0.00	\$0.00	\$500.00
	11160-5950-900	A/R Member	\$2,557.07	\$10,261.20	\$9,837.19	\$424.01	\$2,981.08
	12000-5950-900	Inventory - Merchandise	\$30,262.71	\$11,621.69	\$12,854.63	(\$1,232.94)	\$29,029.77
	13020-5950-900	Prepaid Insurance	\$11,579.40	\$0.00	\$6,129.65	(\$6,129.65)	\$5,449.75
	13040-5950-900	Prepaid Exp - Other	\$20,792.19	\$0.00	\$7,234.59	(\$7,234.59)	\$13,557.60
	20100-5950-900	Machinery & Equipment	\$5,550.40	\$0.00	\$0.00	\$0.00	\$5,550.40
	20160-5950-900	Buildings and Improvements	\$30,597.54	\$0.00	\$0.00	\$0.00	\$30,597.54
	22040-5950-900	Accum. Deprec - Mach & Equip	(\$4,601.34)	\$0.00	\$23.12	(\$23.12)	(\$4,624.46)
	22080-5950-900	Accum. Deprec - Buildings	(\$26,035.66)	\$0.00	\$72.41	(\$72.41)	(\$26,108.07)
	30000-5950-900	Accts Pay - Trade	(\$79,829.66)	\$160,029.12	\$166,174.28	(\$6,145.16)	(\$85,974.82)
	30040-5950-900	Accts Pay - Other	\$4,487.13	\$11,887.85	\$11,641.60	\$246.25	\$4,733.38
	31020-5950-900	Accrued Payroll	(\$22,133.32)	\$15,820.79	\$21,102.74	(\$5,281.95)	(\$27,415.27)
	31080-5950-900	Accrued Tips Payable	(\$422.00)	\$566.00	\$552.00	\$14.00	(\$408.00)
	31220-5950-900	Accrued Sales Tax	(\$12,083.77)	\$12,083.77	\$9,692.09	\$2,391.68	(\$9,692.09)
	31400-5950-900	Accrued City Surcharge	\$0.00	\$3,530.17	\$3,530.17	\$0.00	\$0.00
	32000-5950-900	Deferred Rev - Rainchecks	(\$2,922.85)	\$798.64	\$527.55	\$271.09	(\$2,651.76)
	32020-5950-900	Deferred Rev - Outing Deposits	(\$10,623.89)	\$8,419.67	\$4,485.10	\$3,934.57	(\$6,689.32)
	32040-5950-900	Deferred Rev - Legacy GF Passes	(\$13,953.59)	\$2,790.88	\$0.00	\$2,790.88	(\$11,162.71)
	32050-5950-900	Deferred Revenue - Cypress GF Passes	(\$16,821.82)	\$3,364.40	\$0.00	\$3,364.40	(\$13,457.42)
	32070-5950-900	Deferred Rev - Gift Cards	(\$32,285.41)	\$1,253.63	\$460.25	\$793.38	(\$31,492.03)
	32100-5950-900	Deferred Rev - Credit Books	(\$15,026.59)	\$1,356.76	\$1,139.14	\$217.62	(\$14,808.97)
	32120-5950-900	Deferred Rev - Trail Fee Pass	(\$34,067.76)	\$6,908.04	\$0.00	\$6,908.04	(\$27,159.72)
	32220-5950-900	Deferred Rev - Founders Pass	(\$608.09)	\$121.63	\$0.00	\$121.63	(\$486.46)
	50000-5950-100	Green Fees - Annual Pass	(\$39,900.18)	\$0.00	\$6,276.91	(\$6,276.91)	(\$46,177.09)
	5003A-5950-100	Green Fee - Group	(\$82,896.65)	\$0.00	\$6,170.22	(\$6,170.22)	(\$89,066.87)
	50040-5950-100	Green Fees - Member	(\$1,887.12)	\$0.00	\$155.89	(\$155.89)	(\$2,043.01)
	5005A-5950-100	Green Fee - Hotel	(\$131.60)	\$0.00	\$723.80	(\$723.80)	(\$855.40)
	5006A-5950-100	Green Fee - Junior	(\$1,191.92)	\$0.00	\$252.04	(\$252.04)	(\$1,443.96)
	50070-5950-100	Green Fees - (surcharge)	(\$25,757.88)	\$3,530.17	\$7,060.34	(\$3,530.17)	(\$29,288.05)
	5007A-5950-100	Green Fee - League	(\$79,672.87)	\$0.00	\$11,691.28	(\$11,691.28)	(\$91,364.15)
	5010A-5950-100	Green Fee - Non-Resident (Standard)	(\$50,797.12)	\$0.00	\$1,179.83	(\$1,179.83)	(\$51,976.95)
	5012A-5950-100	Green Fee - Outing	(\$48,222.52)	\$262.28	\$6,462.67	(\$6,200.39)	(\$54,422.91)
	5014A-5950-100	Green Fee - Resident	(\$193,641.91)	\$0.00	\$42,726.50	(\$42,726.50)	(\$236,368.41)
	5015A-5950-100	Green Fee - Senior	(\$125,738.58)	\$0.00	\$11,098.11	(\$11,098.11)	(\$136,836.69)
	5019A-5950-100	Green Fee - Wholesale	(\$1,322.28)	\$0.00	\$103.90	(\$103.90)	(\$1,426.18)
	50500-5950-200	Cart Fee 18	(\$338,239.36)	\$0.00	\$44,535.78	(\$44,535.78)	(\$382,775.14)
	50520-5950-200	Cart Fee - Annual Trail	(\$48,211.99)	\$0.00	\$6,908.04	(\$6,908.04)	(\$55,120.03)
	52090-5950-600	Handicap Fee	(\$3,915.00)	\$20.00	\$876.00	(\$856.00)	(\$4,771.00)
	52150-5950-600	Lessons	(\$7,992.00)	\$0.00	\$900.00	(\$900.00)	(\$8,892.00)
	52280-5950-600	Rental Clubs	(\$1,950.00)	\$0.00	\$220.00	(\$220.00)	(\$2,170.00)
	52310-5950-600	Retail	(\$73,932.41)	\$0.00	\$15,134.23	(\$15,134.23)	(\$89,066.64)
	53050-5950-220	Range Pass Revenue	(\$33,852.22)	\$0.00	\$4,512.00	(\$4,512.00)	(\$38,364.22)
	56120-5950-100	City Surcharge R & R	(\$25,939.30)	\$0.00	\$3,530.17	(\$3,530.17)	(\$29,469.47)
	60000-5950-600	COGS - Merchandise - Accessories	\$46,726.98	\$12,425.01	\$0.00	\$12,425.01	\$59,151.99
	70000-5950-100	Gross Payroll - Salaried	\$69,414.11	\$13,171.89	\$2,701.93	\$10,469.96	\$79,884.07
	70000-5950-900	Gross Payroll - Salaried	\$72,750.35	\$13,303.50	\$2,728.93	\$10,574.57	\$83,324.92
	70000-5950-950	Gross Payroll - Salaried	\$25,767.55	\$6,467.57	\$855.74	\$5,611.83	\$31,379.38
	70010-5950-100	Gross Payroll - Hourly	\$145,519.17	\$24,035.97	\$4,884.25	\$19,151.72	\$164,670.89
	70010-5950-200	Gross Payroll - Hourly	\$57,370.88	\$11,145.73	\$2,461.83	\$8,683.90	\$66,054.78
	70010-5950-600	Gross Payroll - Hourly	\$41,469.00	\$7,056.42	\$1,230.67	\$5,825.75	\$47,294.75

TRIAL BALANCE SUMMARY FOR 2021

The Golf Club at Cypress Head

Inactive	Account	Description	Beginning Balance	Debit	Credit	Net Change	Ending Balance
	71000-5950-100	Payroll Tax - FICA	\$15,817.83	\$2,770.88	\$576.54	\$2,194.34	\$18,012.17
	71000-5950-200	Payroll Tax - FICA	\$4,644.28	\$887.56	\$187.09	\$700.47	\$5,344.75
	71000-5950-600	Payroll Tax - FICA	\$3,198.90	\$529.08	\$81.38	\$447.70	\$3,646.60
	71000-5950-900	Payroll Tax - FICA	\$5,110.58	\$961.19	\$207.40	\$753.79	\$5,864.37
	71000-5950-950	Payroll Tax - FICA	\$1,819.72	\$473.58	\$65.03	\$408.55	\$2,228.27
	71010-5950-100	Payroll Tax - UC	\$1,009.46	\$36.79	\$0.00	\$36.79	\$1,046.25
	71010-5950-200	Payroll Tax - UC	\$620.61	\$77.99	\$0.00	\$77.99	\$698.60
	71010-5950-600	Payroll Tax - UC	\$268.05	\$20.84	\$0.00	\$20.84	\$288.89
	71010-5950-900	Payroll Tax - UC	(\$129.53)	\$0.00	\$0.00	\$0.00	(\$129.53)
	71010-5950-950	Payroll Tax - UC	\$87.84	\$0.00	\$0.00	\$0.00	\$87.84
	71020-5950-100	Payroll Tax - WC	\$4,161.18	\$535.79	\$0.00	\$535.79	\$4,696.97
	71020-5950-200	Payroll Tax - WC	\$1,105.90	\$161.44	\$0.00	\$161.44	\$1,267.34
	71020-5950-600	Payroll Tax - WC	\$836.39	\$99.24	\$0.00	\$99.24	\$935.63
	71020-5950-900	Payroll Tax - WC	\$1,417.08	\$187.87	\$0.00	\$187.87	\$1,604.95
	71020-5950-950	Payroll Tax - WC	\$504.70	\$104.08	\$0.00	\$104.08	\$608.78
	71030-5950-100	Benefits	\$18,205.30	\$5,252.27	\$3,172.51	\$2,079.76	\$20,285.06
	71030-5950-600	Benefits	\$4,078.76	\$1,023.37	\$445.30	\$578.07	\$4,656.83
	71030-5950-900	Benefits	\$11,314.07	\$2,435.42	\$1,013.78	\$1,421.64	\$12,735.71
	71030-5950-950	Benefits	\$4,465.83	\$1,150.55	\$541.45	\$609.10	\$5,074.93
	80110-5950-200	Cart Supplies	\$1,972.98	\$74.48	\$0.00	\$74.48	\$2,047.46
	80120-5950-100	Chemicals	\$3,631.26	\$1,034.00	\$0.00	\$1,034.00	\$4,665.26
	80170-5950-100	Course Accessories	\$2,319.55	\$0.00	\$0.00	\$0.00	\$2,319.55
	80230-5950-100	Fertilizer	\$40,064.56	\$2,048.92	\$300.00	\$1,748.92	\$41,813.48
	80250-5950-100	Flowers/Decor	\$515.00	\$0.00	\$0.00	\$0.00	\$515.00
	80270-5950-100	Fuel	\$9,223.70	\$3,015.47	\$0.00	\$3,015.47	\$12,239.17
	80280-5950-100	Fungicides	\$2,160.75	\$0.00	\$0.00	\$0.00	\$2,160.75
	80320-5950-100	Herbicides	\$6,952.91	\$733.00	\$0.00	\$733.00	\$7,685.91
	80370-5950-100	Insecticides	\$1,493.42	\$7,531.25	\$0.00	\$7,531.25	\$9,024.67
	80380-5950-900	Janitorial Supplies	\$5,056.17	\$306.73	\$0.00	\$306.73	\$5,362.90
	80420-5950-900	Laundry/Uniforms	\$924.18	\$0.00	\$0.00	\$0.00	\$924.18
	80520-5950-600	Office Supplies	\$23.98	\$0.00	\$0.00	\$0.00	\$23.98
	80520-5950-900	Office Supplies	\$2,978.96	\$259.29	\$0.00	\$259.29	\$3,238.25
	80610-5950-220	Range Balls	\$3,520.00	\$0.00	\$0.00	\$0.00	\$3,520.00
	80620-5950-220	Range Equipment	\$1,033.51	\$0.00	\$0.00	\$0.00	\$1,033.51
	80630-5950-220	Range Expenses	\$1,117.08	\$0.00	\$0.00	\$0.00	\$1,117.08
	80690-5950-100	Sand/Topdress	\$4,499.74	\$2,105.47	\$0.00	\$2,105.47	\$6,605.21
	80710-5950-100	Seeds/Trees	\$5,665.00	\$0.00	\$0.00	\$0.00	\$5,665.00
	80730-5950-100	Small Tools	\$668.27	\$0.00	\$0.00	\$0.00	\$668.27
	80810-5950-600	Tournament Expense	\$98.23	\$19.66	\$0.00	\$19.66	\$117.89
	81010-5950-900	Alarm System	\$1,472.01	\$118.50	\$0.00	\$118.50	\$1,590.51
	81090-5950-200	Cart Repairs	\$499.14	\$348.12	\$191.49	\$156.63	\$655.77
	81130-5950-900	Computer Service	\$1,118.88	\$159.84	\$0.00	\$159.84	\$1,278.72
	81140-5950-900	Contract Cleaning	\$4,248.00	\$650.00	\$0.00	\$650.00	\$4,898.00
	81220-5950-600	Handicap Expense	\$4,529.00	\$0.00	\$0.00	\$0.00	\$4,529.00
	81250-5950-100	Irrigation	\$6,130.41	\$1,185.33	\$0.00	\$1,185.33	\$7,315.74
	81350-5950-100	Repair & Maint - Equipment	\$9,933.27	\$2,246.32	\$0.00	\$2,246.32	\$12,179.59
	81350-5950-900	Repair & Maint - Equipment	\$505.60	\$0.00	\$0.00	\$0.00	\$505.60
	81360-5950-100	Repair & Maint - Building	\$171.23	\$0.00	\$0.00	\$0.00	\$171.23
	81360-5950-600	Repair & Maint - Building	\$96.84	\$0.00	\$0.00	\$0.00	\$96.84
	81360-5950-900	Repair & Maint - Building	\$6,763.05	\$1,366.86	\$0.00	\$1,366.86	\$8,129.91
	82000-5950-200	Cart Lease	\$25,702.00	\$3,535.00	\$0.00	\$3,535.00	\$29,237.00
	82020-5950-100	Equipment Lease	\$46,205.50	\$7,671.00	\$0.00	\$7,671.00	\$53,876.50
	82060-5950-900	Off-Site Storage	\$1,232.00	\$176.00	\$0.00	\$176.00	\$1,408.00
	83000-5950-100	Utilities - Electric	\$1,638.75	\$261.41	\$0.00	\$261.41	\$1,900.16
	83000-5950-200	Utilities - Electric	\$7,443.33	\$1,153.03	\$0.00	\$1,153.03	\$8,596.36
	83020-5950-100	Utilities - Other	\$11,251.67	\$1,875.82	\$0.00	\$1,875.82	\$13,127.49
	83020-5950-900	Utilities - Other	\$12,795.44	\$2,210.76	\$435.60	\$1,775.16	\$14,570.60
	83030-5950-900	Utilities - Telephone/Fax	\$1,291.06	\$189.67	\$0.00	\$189.67	\$1,480.73
	83050-5950-100	Utllities - Water	\$1,619.66	\$235.88	\$0.00	\$235.88	\$1,855.54
	84040-5950-950	Adv/Promo - Mktg/Bus Dev	\$10,981.37	\$2,710.57	\$0.00	\$2,710.57	\$13,691.94

Inactive	Account	Description	Beginning Balance	Debit	Credit	Net Change	Ending Balance
	85020-5950-900	Bank Charges	\$2,430.24	\$343.95	\$0.00	\$343.95	\$2,774.19
	85050-5950-900	Cash Short/(Over)	(\$249.68)	\$296.85	\$627.19	(\$330.34)	(\$580.02)
	85060-5950-900	Cell Phone	\$1,400.00	\$200.00	\$0.00	\$200.00	\$1,600.00
	85070-5950-900	City Surcharge R & R	\$25,939.30	\$3,530.17	\$0.00	\$3,530.17	\$29,469.47
	85120-5950-900	Credit Card Discounts	\$27,432.61	\$4,283.00	\$0.00	\$4,283.00	\$31,715.61
	85140-5950-900	Donations	(\$5.00)	\$700.00	\$102.00	\$598.00	\$593.00
	85150-5950-900	Dues & Subscriptions	\$535.00	\$492.00	\$0.00	\$492.00	\$1,027.00
	85160-5950-100	Education & Training	\$400.00	\$0.00	\$0.00	\$0.00	\$400.00
	85190-5950-100	Employee Relations	\$46.99	\$0.00	\$0.00	\$0.00	\$46.99
	85190-5950-900	Employee Relations	(\$26.76)	\$453.42	\$282.87	\$170.55	\$143.79
	85200-5950-100	Employee Testing	\$29.00	\$0.00	\$0.00	\$0.00	\$29.00
	85280-5950-900	Insurance Expense	\$42,907.83	\$6,129.65	\$0.00	\$6,129.65	\$49,037.48
	85320-5950-900	Member Relations	\$1,995.89	\$76.00	\$628.99	(\$552.99)	\$1,442.90
	85340-5950-900	Miscellaneous	\$2,080.93	\$0.00	\$0.00	\$0.00	\$2,080.93
	85390-5950-900	O/S - Accounting	\$10,000.00	\$1,730.00	\$0.00	\$1,730.00	\$11,730.00
	85480-5950-900	Payroll Processing Fee	\$2,950.94	\$433.44	\$0.00	\$433.44	\$3,384.38
	85490-5950-900	Postage/Shipping	\$1,504.92	\$322.86	\$0.00	\$322.86	\$1,827.78
	85610-5950-900	Tax/Licenses/Fees	(\$210.00)	\$0.00	\$30.00	(\$30.00)	(\$240.00)
	85710-5950-900	Travel - Meals	\$1,088.21	\$26.88	\$0.00	\$26.88	\$1,115.09
	85720-5950-900	Travel - Other	\$2,341.76	\$0.00	\$0.00	\$0.00	\$2,341.76
	89020-5950-900	Employee Meals	\$20.00	\$0.00	\$0.00	\$0.00	\$20.00
	90000-5950-900	Management Fee	\$44,152.22	\$6,307.46	\$0.00	\$6,307.46	\$50,459.68
	98020-5950-900	Deprec - Mach & Equip	\$161.84	\$23.12	\$0.00	\$23.12	\$184.96
	98040-5950-900	Deprec - Buildings	\$506.87	\$72.41	\$0.00	\$72.41	\$579.28
	R002A-5950-100	Rounds - Annual	6,786.00	400.00	0.00	400.00	7,186.00
	R003A-5950-100	Rounds - Group	8,623.00	357.00	0.00	357.00	8,980.00
	R005A-5950-100	Rounds - Green Fee - Hotel	7.00	35.00	0.00	35.00	42.00
	R006A-5950-100	Rounds - Green Fee - Junior	1,040.00	69.00	0.00	69.00	1,109.00
	R007A-5950-100	Rounds - Green Fee - League	9,717.00	587.00	0.00	587.00	10,304.00
	R010A-5950-100	Rounds - Green Fee - Non-Resident (Standard)	3,223.00	35.00	0.00	35.00	3,258.00
	R011A-5950-100	Rounds - Green Fee - Non-Resident	264.00	34.00	0.00	34.00	298.00
	R012A-5950-100	Rounds - Green Fee - Outing	4,883.00	295.00	2.00	293.00	5,176.00
	R014A-5950-100	Rounds - Resident	28,912.00	1,980.00	0.00	1,980.00	30,892.00
	R015A-5950-100	Rounds - Green Fee - Senior	11,354.00	365.00	0.00	365.00	11,719.00
	R016A-5950-100	Rounds - Green Fee - Staff	2,422.00	156.00	0.00	156.00	2,578.00
	R017A-5950-100	Rounds - Green Fee - Trade	1,874.00	111.00	0.00	111.00	1,985.00
	R019A-5950-100	Rounds - Green Fee - Wholesale	185.00	6.00	0.00	6.00	191.00
	RCMWD-5950-100	Rounds - Complimentary - Weekday	15,846.00	0.00	0.00	0.00	15,846.00
	REMWD-5950-100	Rounds - Employee - Weekday	21,589.00	0.00	0.00	0.00	21,589.00
	RMBWD-5950-100	Rounds - Member - Weekday	80,170.00	0.00	0.00	0.00	80,170.00
	RPKWD-5950-100	Rounds - Peak - Weekday	450,023.00	0.00	0.00	0.00	450,023.00
	RPKWE-5950-100	Rounds - Peak - Weekend	5,071.00	0.00	0.00	0.00	5,071.00
		<u>Accounts</u>	<u>Beginning Balance</u>	<u>Debit</u>	<u>Credit</u>	<u>Net Change</u>	<u>Ending Balance</u>
	Grand Totals:	155	\$0.00	\$693,194.93	\$693,194.93	\$0.00	\$0.00

The Golf Club at Cypress Head

For the Month Ending June 30, 2022

	06/30/21	07/31/21	08/31/21	09/30/21	10/31/21	11/30/21	12/31/21	01/31/22	02/28/22	03/31/22	04/30/22	05/31/22	06/30/22	YTD2019
REVENUES														
Green Fees & Cart Fees	87,672.28	96,409.14	77,229.74	91,818.24	111,022.18	118,203.96	130,620.88	146,646.41	174,387.59	182,972.82	173,758.14	141,552.86	95,476.77	237,029.63
Merchandise	8,371.71	7,351.96	6,600.09	7,376.28	7,763.55	7,592.30	7,808.70	13,122.82	6,291.91	18,267.01	13,096.12	15,134.23	11,876.71	27,010.94
Other Pro Shop	2,877.00	3,599.00	908.00	1,464.91	1,818.00	1,700.00	950.00	2,257.00	4,568.00	1,799.00	1,125.00	1,976.00	3,865.00	5,781.00
Range	3,546.62	3,065.42	3,126.44	3,541.92	4,310.84	4,561.82	5,204.78	4,490.38	5,083.52	5,383.38	4,817.50	4,512.00	3,733.68	8,246.68
Other Operating Revenues	2,730.23	2,923.87	2,296.89	2,579.83	3,130.20	3,208.69	3,422.94	3,615.24	4,048.58	4,269.48	4,244.87	3,530.17	2,739.74	6,289.91
TOTAL REVENUE	104,997.84	113,849.39	90,161.16	106,786.18	128,064.77	135,266.77	147,706.90	178,131.85	194,319.60	212,691.69	197,011.33	166,705.26	117,631.90	284,337.16
COST OF SALES														
Merchandise	5,288.31	4,178.75	4,107.60	4,606.02	4,727.19	4,444.50	4,694.06	9,589.52	4,398.65	13,796.15	5,096.01	12,425.01	5,846.96	18,271.97
TOTAL COGS	5,288.31	4,178.75	4,107.60	4,606.02	4,727.19	4,444.50	4,694.06	9,589.52	4,398.65	13,796.15	5,096.01	12,425.01	5,846.96	18,271.97
COGS - Merchandise %	63.2%	56.8%	62.2%	62.4%	60.7%	58.5%	60.1%	72.9%	69.9%	75.5%	39.0%	82.1%	49.2%	131.3%
PAYROLL														
Course and Grounds	29,524.13	30,532.23	32,618.04	32,426.99	33,590.91	33,501.70	35,373.15	38,953.74	35,263.11	41,963.35	35,481.09	34,468.36	36,169.69	70,656.05
Carts, Range, Starters, Etc.	7,602.25	8,791.36	6,658.97	7,127.41	9,162.02	8,623.62	8,535.55	8,533.03	8,367.46	9,867.85	10,252.13	9,523.80	9,553.91	19,177.71
Pro Shop	7,065.11	9,167.24	6,333.96	6,321.24	7,711.88	6,846.52	6,739.89	7,310.81	6,802.65	8,052.21	6,387.14	6,971.60	8,661.40	15,633.00
General and Administrative	11,925.30	13,897.70	13,295.23	11,629.22	13,460.46	13,177.65	13,102.54	13,949.10	10,942.11	13,486.78	12,943.91	12,937.87	12,653.40	25,791.27
Marketing	4,433.85	4,680.69	4,583.00	4,410.15	4,217.61	4,525.94	4,504.63	4,233.20	5,532.05	5,641.28	4,090.93	6,733.56	4,678.56	11,412.12
TOTAL PAYROLL	60,550.68	67,069.24	63,339.20	58,915.01	68,142.86	66,675.43	68,655.76	72,979.88	66,607.38	78,911.48	68,855.20	70,735.19	71,936.96	142,672.15
OPERATING EXPENSES														
Course and Grounds	22,153.25	17,818.33	25,243.88	33,365.94	28,660.14	19,071.07	19,683.85	15,865.35	20,881.87	22,943.53	27,514.83	29,643.87	26,914.50	56,558.37
Carts, Range, Starters, Etc.	6,168.74	5,956.61	6,870.57	5,701.45	5,371.44	5,695.18	5,186.50	5,057.69	6,279.93	6,791.82	7,305.48	4,919.14	5,246.82	10,164.86
Pro Shop	94.48	742.87	2,752.98	2,197.58	165.56	0.00	225.00	39.23	4,304.00	14.26	0.00	19.66	5,504.04	5,523.70
General and Administrative	18,456.65	18,914.96	17,572.55	22,966.41	20,413.44	22,535.76	25,991.99	21,972.41	23,561.67	22,153.72	24,792.86	22,349.22	22,286.53	44,657.74
Marketing	3,366.35	2,817.59	238.84	1,062.25	2,278.61	3,030.39	1,491.40	1,168.29	872.61	1,338.02	1,802.05	2,710.57	6,158.67	8,869.24
TOTAL OPERATING EXPENSES	50,229.47	45,489.36	52,478.90	65,295.63	55,889.19	50,332.40	51,678.41	44,702.97	55,900.08	52,241.35	61,415.24	59,642.46	66,111.55	125,754.01
TOTAL EXPENSES	116,068.46	116,737.35	119,925.70	128,816.66	128,759.26	121,452.33	125,029.13	127,252.37	126,906.11	144,948.98	135,366.45	142,802.66	143,895.47	286,698.13
EBITDA	(11,070.62)	(2,887.96)	(29,764.54)	(22,035.48)	(694.49)	13,814.44	22,677.77	42,879.48	67,413.48	67,742.71	61,644.88	23,902.60	(26,263.57)	(2,360.97)

The Golf Club at Cypress Head

For the Month Ending June 30, 2022

	06/30/21	07/31/21	08/31/21	09/30/21	10/31/21	11/30/21	12/31/21	01/31/22	02/28/22	03/31/22	04/30/22	05/31/22	06/30/22	YTD2019
EBITDA	(11,070.62)	(2,887.96)	(29,764.54)	(22,036.48)	(694.49)	13,814.44	22,677.77	42,879.48	67,413.49	67,742.71	61,644.88	23,902.80	(26,263.57)	(2,360.97)
MANAGEMENT FEES	(6,183.78)	(6,183.78)	(6,183.78)	(6,183.78)	(6,307.46)	(6,307.46)	(6,307.46)	(6,307.46)	(6,307.46)	(6,307.46)	(6,307.46)	(6,307.46)	(6,307.46)	(12,614.92)
Interest Expense - Debt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest Expense - Leases	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest Income	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL FINANCING ACTIVITY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OTHER INCOME (EXPENSE)														
Non-Operating Revenue	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transfers from County	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Depreciation & Amortization	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(191.06)
Incentive Compensation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Partnership Income(Loss)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gain(Loss) On Disposal Of Assets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Expenses / Capital Reserve	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OTHER INCOME (EXPEN	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(95.53)	(191.06)
NET INCOME	(17,349.93)	(9,167.27)	(36,043.86)	(28,314.79)	(7,097.48)	7,411.45	16,274.78	36,476.49	61,010.50	61,339.72	55,241.89	17,499.81	(32,666.56)	(15,166.95)
Paid Rounds	2,874.00	3,105.00	2,453.00	2,785.00	3,296.00	3,398.00	3,575.00	3,960.00	4,373.00	4,660.00	4,574.00	3,727.00	3,034.00	6,761.00
Annual Pass Rounds	317.00	311.00	274.00	320.00	375.00	334.00	391.00	381.00	443.00	414.00	430.00	400.00	313.00	713.00
Other Rounds	228.00	241.00	206.00	230.00	280.00	281.00	268.00	238.00	243.00	246.00	281.00	301.00	241.00	542.00
Total Rounds	3,419.00	3,657.00	2,933.00	3,335.00	3,951.00	3,993.00	4,234.00	4,479.00	5,059.00	5,320.00	5,285.00	4,428.00	3,588.00	8,016.00
Revenue/Paid Rounds	36.53	36.67	36.76	38.34	38.87	39.81	41.32	44.08	44.44	45.64	44.73	43.07	38.77	83.50
Revenue/Total Rounds	30.71	31.13	30.74	32.02	32.42	33.88	34.89	37.98	38.41	39.88	37.28	37.65	32.78	70.43
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

The Golf Club at Cypress Head
For the Nine Months Ending June 30, 2022

	<u>06/30/22</u>	<u>09/30/21</u>	<u>06/30/21</u>
ASSETS			
CURRENT ASSETS:			
Cash			
Cash - Depository	298,588	65,792	163,503
Cash - Payroll	37,311	4,550	28,633
Cash - Manual Checks	850	850	850
Cash - Housebank & Other	500	500	500
Total Cash	<u>337,249</u>	<u>71,692</u>	<u>193,486</u>
Accounts Receivable			
A/R Member	10,640	174,666	14,893
Total Accounts Receivable	<u>10,640</u>	<u>174,666</u>	<u>14,893</u>
Other Current Assets			
Inventory - Merchandise	26,388	17,032	21,984
Prepaid Insurance	38,637	30,451	29,344
Prepaid Exp - Other	13,279	18,224	17,063
Total Other Current Assets	<u>78,304</u>	<u>65,707</u>	<u>68,391</u>
TOTAL CURRENT ASSETS	<u>426,193</u>	<u>312,065</u>	<u>276,770</u>
PROPERTY, PLANT AND EQUIPMENT:			
Buildings & Improvements	30,598	30,598	30,598
Machinery & Equipment	5,550	5,550	5,550
Property Plant and Equipment	36,148	36,148	36,148
Accumulated Depreciation	(30,828)	(29,968)	(29,682)
TOTAL PROPERTY, PLANT AND EQUIPMENT	<u>5,320</u>	<u>6,180</u>	<u>6,466</u>
TOTAL ASSETS	<u><u>431,513</u></u>	<u><u>318,245</u></u>	<u><u>283,236</u></u>

The Golf Club at Cypress Head
For the Nine Months Ending June 30, 2022

	<u>06/30/22</u>	<u>09/30/21</u>	<u>06/30/21</u>
LIABILITIES AND STOCKHOLDERS' EQUITY			
CURRENT LIABILITIES:			
Accts Pay - Trade	79,147	48,363	68,914
Accts Pay - Other	(3,995)	(4,033)	(44,421)
Accrued Expenses	750	7,395	2,000
Accrued Payroll	34,782	17,841	35,048
Accrued Taxes	6,514	6,072	5,582
Accrued Interest	0	10,535	0
Deferred Revenue	98,825	222,898	87,696
TOTAL CURRENT LIABILITIES	<u>216,022</u>	<u>309,071</u>	<u>154,819</u>
 TOTAL LIABILITIES	 <u>216,022</u>	 <u>309,071</u>	 <u>154,819</u>
 STOCKHOLDER'S EQUITY			
Retained Earnings	<u>215,490</u>	<u>9,174</u>	<u>128,418</u>
Net Retained Earnings	<u>215,490</u>	<u>9,174</u>	<u>128,418</u>
Stockholders Equity	<u>215,490</u>	<u>9,174</u>	<u>128,418</u>
TOTAL STOCKHOLDER'S EQUITY	<u>215,490</u>	<u>9,174</u>	<u>128,418</u>
 TOTAL LIABILITIES AND STOCKHOLDER'S EQUITY	 <u><u>431,513</u></u>	 <u><u>318,245</u></u>	 <u><u>283,236</u></u>

The Golf Club at Cypress Head
Comparative Income Statement
For the Nine Months Ending June 30, 2022

	MTD Prior Year	YTD Prior Year	Audited Prior Year	Percent of Total	MTD Actual	YTD Actual	Annual Budget	Percent of Total
REVENUES								
Green Fees & Cart Fees	87,672	1,075,076	1,340,533	80%	95,477	1,274,642	1,259,492	101%
Merchandise	8,372	80,500	101,829	79%	11,877	100,943	90,550	111%
Other Pro Shop	2,677	16,229	22,201	73%	3,805	19,638	19,063	103%
Range	3,547	36,922	47,156	78%	3,734	42,098	44,300	95%
Other Operating Revenues	2,730	29,495	37,295	79%	2,740	32,209	36,122	89%
TOTAL REVENUE	104,998	1,238,222	1,549,014	80%	117,632	1,469,530	1,449,526	101%
COST OF SALES								
Merchandise	5,288	52,298	65,191	80%	5,847	64,999	55,236	118%
TOTAL COGS	5,288	52,298	65,191	80%	5,847	64,999	55,236	118%
COGS - Merchandise %	63.2%	65.0%	64.0%	101.5%	49.2%	64.4%	61.0%	105.6%
PAYROLL								
Course and Grounds	29,524	280,165	375,742	75%	36,190	324,785	416,997	78%
Carts, Range, Starters, Etc.	7,602	64,743	87,171	74%	9,554	82,919	98,064	85%
Pro Shop	7,065	55,235	77,058	72%	8,661	65,484	85,253	77%
General and Administrative	11,925	115,250	154,072	75%	12,853	116,254	160,946	72%
Marketing	4,434	41,099	51,773	79%	4,679	44,058	48,841	90%
TOTAL PAYROLL	60,551	556,492	745,816	75%	71,937	633,500	810,100	78%
OPERATING EXPENSES								
Course and Grounds	22,153	192,976	269,404	72%	26,915	211,179	264,162	80%
Carts, Range, Starters, Etc.	6,169	61,077	79,444	77%	5,246	51,453	88,006	58%
Pro Shop	94	6,346	12,040	53%	5,504	10,272	7,085	145%
General and Administrative	18,457	169,959	228,815	74%	22,289	205,159	227,125	90%
Marketing	3,356	14,142	18,061	78%	6,159	19,851	23,190	86%
TOTAL OPERATING EXPENSES	50,229	444,501	607,765	73%	66,112	497,914	609,568	82%
TOTAL EXPENSES	116,068	1,053,291	1,418,771	74%	143,895	1,196,413	1,474,903	81%
OTHER INCOME (EXPENSE)								
MANAGEMENT FEES	(6,184)	(55,654)	(74,205)	75%	(6,307)	(56,767)	(76,432)	74%
Depreciation & Amortization	(96)	(860)	(1,146)	75%	(96)	(860)	(1,146)	75%
TOTAL OTHER INCOME (EXPENSE)	(6,279)	(56,514)	(75,352)	75%	(6,403)	(57,627)	(77,578)	74%
NET INCOME	(17,350)	128,417	54,891	234%	(32,667)	215,490	(102,955)	-209%
=====								
Paid Rounds	2,874	31,866	40,207		3,034	34,396	38,424	
Annual Pass Rounds	317	3,113	4,018		313	3,481	4,748	
Other Rounds	228	2,066	2,743		341	2,359	2,636	
Total Rounds	3,419	37,045	46,968		3,588	40,336	45,808	
Revenue/Paid Rounds	37	39	39		39	43	38	
Revenue/Total Rounds	31	33	33		33	36	32	

**The Golf Club at Cypress Head
Course Cash Flow Report
June 30, 2022**

	<u>June</u>	<u>YTD</u>
EBITDA	(\$26,263.57)	\$273,117.31
Management Fee Expense	(6,307.46)	(56,767.14)
Depreciation & Amortization	<u>(95.53)</u>	<u>(859.77)</u>
Net Income	(32,666.56)	215,490.40
Working Capital Changes		
Inventory	2,641.86	(9,355.80)
Receivables	(7,658.84)	164,025.59
Payables	(6,828.30)	30,783.96
Due to from the City	737.95	37.78
Prepays	(32,908.91)	(3,241.02)
Accrued Liabilities	4,531.11	203.18
Other Liabilities	(9,083.62)	(124,073.60)
Depreciation & Amortization	<u>95.53</u>	<u>859.77</u>
Operating Cash Flow	(81,139.78)	274,730.26
Investing Cash Flows	<u> </u>	<u> </u>
Financing Cash Flow	<u> </u>	<u> </u>
Net Cash Flows	<u>(81,139.78)</u>	<u>274,730.26</u>
Beginning Cash	418,388.54	71,692.14
Net Cash Flows	<u>(81,139.78)</u>	<u>274,730.26</u>
Ending Cash	<u>337,248.76</u>	<u>346,422.40</u>

The Golf Club at Cypress Head
Summary of All Units
For the Nine Months Ending June 30, 2022

MTD Actual	MTD Budget	% of Budget	MTD Prior Year	% of PY		YTD Actual	YTD Budget	% of Budget	YTD Prior Year	% of PY	Annual Budget	
REVENUES												
60,151	56,956	106%	52,630	114%	Green Fees	801,420	602,616	133%	669,035	120%	762,266	959,459
35,326	32,562	108%	35,042	101%	Cart Fee	473,221	388,145	122%	406,041	117%	497,226	580,640
0	20	0%	0	0%	Handicap Fee	4,771	4,723	101%	4,423	108%	4,849	4,931
3,525	1,675	210%	2,347	150%	Lessons	12,417	8,149	152%	9,616	129%	11,764	17,468
280	170	165%	330	85%	Rental Clubs	1,540	1,540	100%	2,190	112%	2,450	3,210
11,877	7,100	167%	8,372	142%	Retail	100,943	73,350	138%	80,500	125%	90,550	122,272
3,734	2,600	144%	3,547	105%	Range	42,098	35,800	118%	36,922	114%	44,300	52,332
2,740	2,691	102%	2,730	100%	City Surcharge R & R	32,209	28,949	111%	29,495	109%	36,122	40,010
117,632	103,774	113%	104,998	112%	Total Revenues	1,469,530	1,143,372	129%	1,238,222	119%	1,449,526	1,780,322
COST OF GOODS SOLD												
5,847	4,331	135%	5,288	111%	COGS - Merchandise	64,999	44,744	145%	52,298	124%	55,236	77,891
5,847	4,331	135%	5,288	111%	Total COGS	64,999	44,744	145%	52,298	124%	55,236	77,891
111,785	99,443	112%	99,710	112%	GROSS MARGIN	1,404,531	1,098,629	128%	1,185,924	118%	1,394,291	1,702,430
49.23%	61.00%	80.71%	63.17%	77.93%	COGS - Merchandise %	64.39%	61.00%	105.56%	64.97%	99.11%	61.00%	749.60%
PAYROLL												
24,375	24,510	99%	23,779	103%	Gross Payroll - Salaried	218,963	217,429	101%	210,307	104%	290,959	284,217
37,058	32,630	114%	30,987	120%	Gross Payroll - Hourly	315,078	295,872	106%	261,180	121%	395,936	407,345
61,433	57,139	108%	54,766	112%	S/T Wages	534,042	513,301	104%	471,488	113%	686,895	691,563
4,616	4,371	106%	4,061	114%	Payroll Tax - FICA	39,712	39,268	101%	35,026	113%	52,547	51,716
118	155	76%	(3,594)	-3%	Payroll Tax - UC	2,110	1,942	109%	2,281	93%	2,324	2,566
1,090	1,164	94%	987	110%	Payroll Tax - WC	10,203	10,182	100%	8,870	115%	13,718	13,611
4,680	4,653	101%	4,331	108%	Benefits	47,432	40,657	117%	38,828	122%	54,616	63,368
10,504	10,343	102%	5,785	182%	S/T Adders	99,459	92,048	108%	85,005	117%	123,205	131,261
71,937	67,483	107%	60,551	119%	TOTAL PAYROLL	633,500	605,349	105%	556,492	114%	810,100	822,824
OPERATING EXPENSES												
0	75	0%	80	0%	Cart Supplies	2,047	1,525	134%	1,260	162%	1,750	2,301
530	390	136%	498	106%	Chemicals	5,195	3,970	131%	3,408	152%	4,990	6,951
0	250	0%	0	0%	Course Accessories	2,320	660	351%	415	559%	1,320	4,676
8,231	2,600	317%	1,978	416%	Fertilizer	50,045	36,850	136%	40,658	123%	53,050	61,246
0	0	0%	0	0%	Flowers/Decor	615	900	57%	873	69%	900	615
2,242	1,000	224%	1,088	206%	Fuel	14,481	6,520	222%	6,796	213%	10,120	19,281
0	0	0%	0	0%	Fungicides	2,161	1,400	154%	1,371	158%	4,300	2,376
240	3,000	8%	2,976	8%	Herbicides	7,926	16,900	47%	14,118	56%	23,600	13,248
0	400	0%	0	0%	Insecticides	9,025	2,800	322%	7,896	114%	6,000	12,421
730	600	122%	1,065	68%	Janitorial Supplies	6,093	5,100	119%	5,230	116%	6,550	7,973
0	0	0%	58	0%	Laundry/Uniforms	924	1,350	68%	1,020	91%	1,550	924
192	200	96%	203	94%	Office Supplies	3,454	2,435	142%	2,341	148%	3,515	4,528
0	0	0%	0	0%	Range Balls	3,520	2,700	130%	2,654	133%	2,700	3,520
0	0	0%	0	0%	Range Equipment	1,034	1,360	76%	3,093	33%	1,360	1,136
512	100	512%	0	0%	Range Expenses	1,629	100	1629%	392	416%	300	2,091
0	1,300	0%	547	0%	Sand/Topdress	6,605	7,500	88%	7,326	90%	10,700	9,905
0	1,000	0%	2,063	0%	Seeds/Trees	5,665	6,400	89%	7,475	76%	9,400	5,665
0	300	0%	0	0%	Small Tools	668	1,740	38%	212	316%	2,810	3,958
3,863	200	1931%	0	0%	Supplies	3,863	600	644%	1,332	290%	600	6,747
1,041	0	0%	32	3235%	Tournament Expense	1,159	80	1449%	106	1093%	180	1,159
119	229	52%	231	51%	Alarm System	1,709	2,061	83%	2,063	83%	2,748	4,137
244	75	326%	110	222%	Cart Repairs	900	675	133%	359	251%	900	1,882
160	200	80%	42	384%	Computer Service	1,439	830	173%	586	245%	1,490	3,023
650	812	80%	812	80%	Contract Cleaning	5,548	7,308	76%	7,308	76%	9,744	7,172
0	0	0%	61	0%	Guest Relations	0	0	0%	81	0%	0	0
0	0	0%	0	0%	Handicap Expense	4,529	4,180	108%	4,165	109%	4,630	5,024
1,005	525	191%	1,607	63%	Irrigation	8,321	11,480	72%	9,232	90%	13,330	11,863
350	250	140%	(32)	-1088%	Lesson Expense	350	250	140%	(32)	-1088%	750	2,150
0	0	0%	0	0%	Repair & Maint - Paths	0	2,000	0%	0	0%	3,000	0
1,360	2,300	59%	1,985	68%	Repair & Maint - Equipment	14,045	12,250	115%	12,203	115%	17,550	21,239
1,964	3,040	65%	27	7166%	Repair & Maint - Building	10,362	7,680	135%	5,056	205%	10,230	15,214
3,535	6,200	57%	4,974	71%	Cart Lease	32,772	50,896	64%	44,766	73%	69,496	46,377
7,671	5,721	134%	5,721	134%	Equipment Lease	61,548	51,489	120%	51,489	120%	68,652	85,721
206	176	117%	176	117%	Off-Site Storage	1,614	1,584	102%	1,584	102%	2,112	2,142
1,263	1,100	115%	1,223	103%	Utilities - Electric	11,760	10,300	114%	10,263	115%	13,600	15,477
6,215	4,000	155%	5,191	120%	Utilities - Other	33,913	29,250	116%	30,860	110%	38,550	43,776
190	150	127%	300	63%	Utilities - Telephone/Fax	1,671	1,350	124%	1,754	95%	1,800	2,285
236	200	118%	212	111%	Utilities - Water	2,091	1,850	113%	1,957	107%	2,450	2,736
6,159	2,900	212%	3,356	183%	Advertising & Promotion	19,851	12,690	156%	14,142	140%	23,190	23,769
331	280	118%	358	118%	Bank Charges	3,105	3,345	93%	3,620	86%	4,375	4,110
(24)	0	0%	(21)	111%	Cash Short/(Over)	(604)	0	0%	(199)	303%	0	(682)
200	200	100%	200	100%	Cell Phone	1,800	1,800	100%	1,800	100%	2,400	2,400
2,740	2,691	102%	2,730	100%	City Surcharge R & R	32,209	28,946	111%	29,495	109%	36,136	40,010

The Golf Club at Cypress Head
Summary of All Units
For the Nine Months Ending June 30, 2022

MTD	MTD	% of	MTD	% of		YTD	YTD	% of	YTD	% of	Annual	
Actual	Budget	Budget	Prior Year	PY		Actual	Budget	Budget	Prior Year	PY	Budget	
3,391	2,300	147%	3,223	105%	Credit Card Discounts	35,106	23,860	147%	27,069	130%	29,160	41,051
0	0	0%	0	0%	Donations	593	450	132%	726	82%	700	578
572	550	104%	491	116%	Dues & Subscriptions	1,599	1,120	143%	996	161%	1,600	2,170
0	0	0%	150	0%	Education & Training	400	400	100%	550	73%	400	400
32	150	21%	66	49%	Employee Relations	223	2,250	10%	2,054	11%	2,750	341
0	0	0%	0	0%	Employee Testing	29	0	0%	0	0%	0	58
6,200	6,150	101%	5,179	120%	Insurance Expense	55,237	55,350	100%	47,549	116%	73,800	73,606
39	10	390%	0	0%	Member Relations	1,482	90	1647%	213	697%	120	1,805
0	0	0%	0	0%	Miscellaneous	2,081	0	0%	0	0%	0	2,081
0	0	0%	0	0%	O/S - Accounting	11,730	9,250	127%	9,250	127%	13,250	15,630
2,900	3,000	97%	0	0%	O/S - Other	2,900	3,000	97%	7,680	38%	6,000	5,100
410	320	128%	362	113%	Payroll Processing Fee	3,795	3,090	123%	3,250	117%	4,050	5,028
251	100	251%	108	234%	Postage/Shipping	2,079	1,350	154%	1,799	116%	1,650	2,528
135	150	90%	(30)	-450%	Tax/Licenses/Fees	(105)	700	-15%	(20)	525%	700	(120)
0	30	0%	27	0%	Travel - Meals	1,115	270	413%	569	196%	360	1,183
30	200	15%	903	3%	Travel - Other	2,372	1,800	132%	2,272	104%	2,400	2,372
0	0	0%	0	0%	Employee Meals	20	0	0%	17	117%	0	20
66,112	55,424	119%	50,229	132%	TOTAL OPERATING EXPENSES	497,914	446,084	112%	444,501	112%	609,568	661,178
(26,264)	(23,464)	112%	(11,071)	237%	EBITDA	273,117	47,195	579%	184,931	148%	(25,377)	218,429
6,307	6,369	99%	6,184	102%	Management Fee	56,767	57,324	99%	55,654	102%	76,432	75,318
6,307	6,369	99%	6,184	102%	Management Fees	56,767	57,324	99%	55,654	102%	76,432	75,318
23	23	100%	23	100%	Deprec - Mach & Equip	208	208	100%	208	100%	277	277
72	72	100%	72	100%	Deprec - Buildings	652	652	100%	652	100%	869	869
96	96	100%	96	100%	S/T DEPR. & AMORT	860	860	100%	860	100%	1,146	1,146
(32,667)	(29,929)	109%	(17,350)	188%	NET INCOME	215,490	(10,988)	-1961%	128,417	168%	(102,955)	141,964

The Golf Club at Cypress Head
Course & Grounds
For the Nine Months Ending June 30, 2022

MTD Actual	MTD Budget	% of Budget	MTD Prior Year	% of PY		YTD Actual	YTD Budget	% of Budget	YTD Prior Year	% of PY	Annual Budget	
REVENUES												
60,151	56,956	106%	52,630	114%	Green Fees	801,420	602,616	133%	669,035	120%	762,266	959,459
2,740	2,691	102%	2,730	100%	City Surcharge R & R	32,209	28,949	111%	29,495	109%	36,122	40,010
62,890	59,647	105%	55,360	114%	Total Revenues	833,629	631,565	132%	698,530	119%	798,387	999,469
62,890	59,647	105%	55,360	114%	GROSS MARGIN	833,629	631,565	132%	698,530	119%	798,387	999,469
PAYROLL												
10,132	10,245	99%	9,405	108%	Gross Payroll - Salaried	90,016	90,640	99%	85,658	105%	121,374	117,382
21,106	19,473	108%	17,575	120%	Gross Payroll - Hourly	185,777	176,142	105%	157,804	118%	235,858	239,748
31,239	29,717	105%	26,980	116%	S/T Wages	275,794	266,782	103%	243,462	113%	357,232	357,130
2,314	2,273	102%	2,001	116%	Payroll Tax - FICA	20,326	20,409	100%	18,101	112%	27,328	26,336
11	49	23%	(1,350)	-1%	Payroll Tax - UC	1,058	854	124%	1,551	68%	910	1,130
546	605	90%	487	112%	Payroll Tax - WC	5,243	5,292	99%	4,555	115%	7,135	6,936
2,080	2,078	100%	1,407	148%	Benefits	22,365	18,158	123%	12,496	179%	24,392	28,832
4,951	5,006	99%	2,544	195%	S/T Adders	48,992	44,713	110%	36,703	133%	59,765	63,233
36,190	34,723	104%	29,524	123%	TOTAL PAYROLL	324,785	311,495	104%	280,165	116%	416,997	420,362
OPERATING EXPENSES												
530	390	136%	498	106%	Chemicals	5,195	3,970	131%	3,408	152%	4,990	6,951
0	250	0%	0	0%	Course Accessories	2,320	660	351%	415	559%	1,320	4,676
8,231	2,600	317%	1,978	416%	Fertilizer	50,045	36,850	136%	40,658	123%	53,050	61,246
0	0	0%	0	0%	Flowers/Decor	515	900	57%	873	59%	900	515
2,242	1,000	224%	1,088	206%	Fuel	14,481	6,520	222%	6,796	213%	10,120	19,281
0	0	0%	0	0%	Fungicides	2,161	1,400	154%	1,371	158%	4,300	2,376
240	3,000	8%	2,876	8%	Herbicides	7,926	16,900	47%	14,118	56%	23,600	13,248
0	400	0%	0	0%	Insecticides	9,025	2,800	322%	7,896	114%	6,000	12,421
0	1,300	0%	547	0%	Sand/Topdress	6,605	7,500	88%	7,326	90%	10,700	9,905
0	1,000	0%	2,063	0%	Seeds/Trees	5,665	6,400	89%	7,475	76%	9,400	5,665
0	300	0%	0	0%	Small Tools	668	1,740	38%	212	316%	2,810	3,958
1,005	525	191%	1,607	63%	Irrigation	8,321	11,480	72%	9,232	90%	13,330	11,863
0	0	0%	0	0%	Repair & Maint - Paths	0	2,000	0%	0	0%	3,000	0
(1,444)	2,300	-63%	1,985	-73%	Repair & Maint - Equipment	10,735	11,950	90%	12,133	88%	17,250	16,877
1,496	3,000	50%	0	0%	Repair & Maint - Building	1,667	4,190	40%	1,250	133%	4,940	1,667
7,671	5,721	134%	5,721	134%	Equipment Lease	61,548	51,489	120%	51,489	120%	68,652	85,721
308	200	154%	219	141%	Utilities - Electric	2,209	1,800	123%	1,779	124%	2,400	2,963
3,335	2,300	145%	3,210	104%	Utilities - Other	16,462	14,300	115%	15,826	104%	17,100	20,120
236	200	118%	212	111%	Utilities - Water	2,091	1,850	113%	1,957	107%	2,450	2,736
0	0	0%	150	0%	Education & Training	400	400	100%	550	73%	400	400
0	50	0%	0	0%	Employee Relations	47	550	9%	283	17%	750	(306)
0	0	0%	0	0%	Employee Testing	29	0	0%	0	0%	0	58
2,900	3,000	97%	0	0%	O/S - Other	2,900	3,000	97%	7,680	38%	6,000	5,100
165	150	110%	0	0%	Tax/Licenses/Fees	165	700	24%	250	66%	700	165
26,915	27,686	97%	22,153	121%	TOTAL OPERATING EXPENSES	211,179	189,349	112%	192,976	109%	264,162	287,607
(214)	(2,761)	8%	3,683	-6%	EBITDA	297,665	130,721	228%	225,389	132%	117,229	291,499
(214)	(2,761)	8%	3,683	-6%	NET INCOME	297,665	130,721	228%	225,389	132%	117,229	291,499

The Golf Club at Cypress Head
Carts
For the Nine Months Ending June 30, 2022

MTD Actual	MTD Budget	% of Budget	MTD Prior Year	% of PY		YTD Actual	YTD Budget	% of Budget	YTD Prior Year	% of PY	Annual Budget	
35,326	32,562	108%	35,042	101%	REVENUES	473,221	388,145	122%	406,041	117%	497,226	580,640
35,326	32,562	108%	35,042	101%	Cart Fee	473,221	388,145	122%	406,041	117%	497,226	580,640
35,326	32,562	108%	35,042	101%	Total Revenues	473,221	388,145	122%	406,041	117%	497,226	580,640
					GROSS MARGIN	473,221	388,145	122%	406,041	117%	497,226	580,640
8,610	7,286	118%	7,152	120%	PAYROLL	74,665	66,300	113%	57,947	129%	88,643	94,713
8,610	7,286	118%	7,152	120%	Gross Payroll - Hourly	74,665	66,300	113%	57,947	129%	88,643	94,713
					S/T Wages	74,665	66,300	113%	57,947	129%	88,643	94,713
719	557	129%	577	125%	Payroll Tax - FICA	6,064	5,072	120%	4,609	132%	6,781	7,724
75	73	103%	(258)	-29%	Payroll Tax - UC	773	581	133%	1,107	70%	804	1,067
148	148	100%	131	113%	Payroll Tax - WC	1,416	1,315	108%	1,080	131%	1,770	1,841
2	5	42%	0	0%	Benefits	2	49	5%	0	0%	65	2
944	784	120%	450	210%	S/T Adders	8,255	7,017	118%	6,796	121%	9,421	10,634
9,554	8,070	118%	7,602	126%	TOTAL PAYROLL	82,919	73,317	113%	64,743	128%	98,064	105,347
0	75	0%	80	0%	OPERATING EXPENSES	2,047	1,525	134%	1,260	162%	1,750	2,301
244	75	326%	110	222%	Cart Supplies	900	675	133%	359	251%	900	1,882
3,535	6,200	57%	4,974	71%	Cart Repairs	32,772	50,896	64%	44,766	73%	69,496	46,377
955	900	106%	1,004	95%	Cart Lease	9,551	8,500	112%	8,484	113%	11,200	12,514
4,734	7,250	65%	6,169	77%	Utilities - Electric	45,271	61,596	73%	54,869	83%	83,346	63,074
21,038	17,242	122%	21,271	99%	TOTAL OPERATING EXPENSES	345,031	253,232	136%	286,429	120%	315,816	412,219
21,038	17,242	122%	21,271	99%	EBITDA	345,031	253,232	136%	286,429	120%	315,816	412,219
21,038	17,242	122%	21,271	99%	NET INCOME	345,031	253,232	136%	286,429	120%	315,816	412,219

The Golf Club at Cypress Head
Range
For the Nine Months Ending June 30, 2022

MTD Actual	MTD Budget	% of Budget	MTD Prior Year	% of PY		YTD Actual	YTD Budget	% of Budget	YTD Prior Year	% of PY	Annual Budget	
					REVENUES							
3,734	2,600	144%	3,547	105%	Range	42,098	35,800	118%	36,922	114%	44,300	52,332
3,734	2,600	144%	3,547	105%	Total Revenues	42,098	35,800	118%	36,922	114%	44,300	52,332
3,734	2,600	144%	3,547	105%	GROSS MARGIN	42,098	35,800	118%	36,922	114%	44,300	52,332
					OPERATING EXPENSES							
0	0	0%	0	0%	Range Balls	3,520	2,700	130%	2,654	133%	2,700	3,520
0	0	0%	0	0%	Range Equipment	1,034	1,360	76%	3,093	33%	1,360	1,136
512	100	512%	0	0%	Range Expenses	1,629	100	1629%	392	416%	300	2,091
0	0	0%	0	0%	Repair & Maint - Equipment	0	300	0%	69	0%	300	0
512	100	512%	0	0%	TOTAL OPERATING EXPENSES	6,182	4,460	139%	6,208	100%	4,660	6,747
3,222	2,500	129%	3,547	91%	EBITDA	35,916	31,340	115%	30,714	117%	39,640	45,585
3,222	2,500	129%	3,547	91%	NET INCOME	35,916	31,340	115%	30,714	117%	39,640	45,585

The Golf Club at Cypress Head
Golf Shop
For the Nine Months Ending June 30, 2022

MTD Actual	MTD Budget	% of Budget	MTD Prior Year	% of PY		YTD Actual	YTD Budget	% of Budget	YTD Prior Year	% of PY	Annual Budget	
REVENUES												
0	20	0%	0	0%	Handicap Fee	4,771	4,723	101%	4,423	108%	4,849	4,931
3,525	1,675	210%	2,347	150%	Lessons	12,417	8,149	152%	9,616	129%	11,764	17,469
280	170	165%	330	85%	Rental Clubs	2,450	1,640	149%	2,190	112%	2,450	3,210
11,877	7,100	167%	8,372	142%	Retail	100,943	73,350	138%	80,500	125%	90,550	122,272
15,682	8,965	175%	11,049	142%	Total Revenues	120,581	87,862	137%	96,729	125%	109,613	147,882
COST OF GOODS SOLD												
5,847	4,331	135%	5,288	111%	COGS - Merchandise	64,999	44,744	145%	52,298	124%	55,236	77,891
5,847	4,331	135%	5,288	111%	Total COGS	64,999	44,744	145%	52,298	124%	55,236	77,891
9,835	4,634	212%	5,760	171%	GROSS MARGIN	55,582	43,119	129%	44,431	125%	54,378	69,990
49.23%	61.00%	80.71%	63.17%	77.93%	COGS - Merchandise %	64.39%	61.00%	105.56%	64.97%	99.11%	61.00%	749.60%
PAYROLL												
7,342	5,871	125%	6,259	117%	Gross Payroll - Hourly	54,636	53,430	102%	45,529	120%	71,436	72,884
7,342	5,871	125%	6,259	117%	S/T Wages	54,636	53,430	102%	45,529	120%	71,436	72,884
566	449	126%	475	119%	Payroll Tax - FICA	4,213	4,087	103%	3,457	122%	5,465	5,627
32	30	109%	(313)	-10%	Payroll Tax - UC	321	260	124%	528	61%	350	411
136	120	113%	104	130%	Payroll Tax - WC	1,071	1,060	101%	868	123%	1,426	1,470
586	561	105%	539	109%	Benefits	5,243	4,894	107%	4,854	108%	6,576	6,915
1,320	1,159	114%	806	164%	S/T Adders	10,848	10,301	105%	9,707	112%	13,817	14,423
8,661	7,030	123%	7,065	123%	TOTAL PAYROLL	65,484	63,731	103%	55,235	119%	85,253	87,307
OPERATING EXPENSES												
62	50	123%	94	65%	Office Supplies	86	600	14%	510	17%	750	600
3,863	200	1931%	0	0%	Supplies	3,863	600	644%	1,332	290%	600	6,747
1,041	0	0%	32	3235%	Tournament Expense	1,159	80	1449%	106	1093%	180	1,159
0	0	0%	0	0%	Handicap Expense	4,529	4,180	108%	4,165	109%	4,630	5,024
350	250	140%	(32)	-1088%	Lesson Expense	350	250	140%	(32)	-1088%	750	2,150
189	0	0%	0	0%	Repair & Maint - Building	286	175	163%	266	107%	175	286
5,504	500	1101%	94	5826%	TOTAL OPERATING EXPENSES	10,272	5,885	175%	6,346	162%	7,085	15,965
(4,331)	(2,896)	150%	(1,399)	310%	EBITDA	(20,173)	(26,497)	76%	(17,151)	118%	(37,960)	(33,281)
(4,331)	(2,896)	150%	(1,399)	310%	NET INCOME	(20,173)	(26,497)	76%	(17,151)	118%	(37,960)	(33,281)

The Golf Club at Cypress Head
G & A
For the Nine Months Ending June 30, 2022

MTD Actual	MTD Budget	% of Budget	MTD Prior Year	% of PY		YTD Actual	YTD Budget	% of Budget	YTD Prior Year	% of PY	Annual Budget	
PAYROLL												
10,486	10,514	100%	10,495	100%	Gross Payroll - Salaried	93,811	93,609	100%	91,413	103%	125,150	123,699
0	0	0%	0	0%	Gross Payroll - Hourly	0	0	0%	(100)	0%	0	0
10,486	10,514	100%	10,495	100%	S/T Wages	93,811	93,609	100%	91,313	103%	125,150	123,699
751	804	93%	731	103%	Payroll Tax - FICA	6,615	7,161	92%	6,461	102%	9,574	8,785
0	0	0%	(1,327)	0%	Payroll Tax - UC	(130)	140	-93%	(776)	17%	140	(130)
191	214	89%	193	99%	Payroll Tax - WC	1,796	1,857	97%	1,735	104%	2,499	2,462
1,425	2,009	71%	1,833	78%	Benefits	14,161	17,556	81%	16,517	86%	23,583	20,259
2,368	3,027	78%	1,430	166%	S/T Adders	22,443	26,714	84%	23,936	94%	35,796	31,377
12,853	13,541	95%	11,925	108%	TOTAL PAYROLL	116,254	120,323	97%	115,250	101%	160,946	155,076
OPERATING EXPENSES												
730	600	122%	1,065	68%	Janitorial Supplies	6,093	5,100	119%	5,230	116%	6,550	7,973
0	0	0%	58	0%	Laundry/Uniforms	924	1,350	68%	1,020	91%	1,550	924
130	150	87%	109	120%	Office Supplies	3,368	1,835	184%	1,832	184%	2,765	3,927
119	229	52%	231	51%	Alarm System	1,709	2,061	83%	2,063	83%	2,748	1,037
160	200	80%	42	384%	Computer Service	1,439	830	173%	586	245%	1,490	3,023
650	812	80%	812	80%	Contract Cleaning	5,548	7,308	76%	7,308	76%	9,744	7,172
0	0	0%	61	0%	Guest Relations	0	0	0%	81	0%	0	0
2,804	0	0%	0	0%	Repair & Maint - Equipment	3,309	0	0%	0	0%	0	4,362
279	40	698%	27	1019%	Repair & Maint - Building	8,409	3,315	254%	3,540	238%	5,115	13,261
206	176	117%	176	117%	Off-Site Storage	1,614	1,584	102%	1,584	102%	2,112	2,142
2,880	1,700	169%	1,982	145%	Utilities - Other	17,451	14,950	117%	15,034	116%	21,250	23,656
190	150	127%	300	63%	Utilities - Telephone/Fax	1,671	1,350	124%	1,754	95%	1,800	2,285
331	280	118%	358	92%	Bank Charges	3,105	3,345	93%	3,620	86%	4,375	4,110
(24)	0	0%	(21)	111%	Cash Short/(Over)	(604)	0	0%	(199)	303%	0	(682)
200	200	100%	200	100%	Cell Phone	1,800	1,800	100%	1,800	100%	2,400	2,400
2,740	2,691	102%	2,730	100%	City Surcharge R & R	32,209	28,946	111%	29,495	109%	36,136	40,010
3,391	2,300	147%	3,223	105%	Credit Card Discounts	35,106	23,860	147%	27,069	130%	29,160	41,051
0	0	0%	0	0%	Donations	593	450	132%	726	82%	700	578
572	550	104%	491	116%	Dues & Subscriptions	1,599	1,120	143%	996	161%	1,600	2,170
32	100	32%	66	49%	Employee Relations	176	1,700	10%	1,772	10%	2,000	647
6,200	6,150	101%	5,179	120%	Insurance Expense	55,237	55,350	100%	47,549	116%	73,800	73,606
39	10	390%	0	0%	Member Relations	1,482	90	1647%	213	697%	120	1,805
0	0	0%	0	0%	Miscellaneous	2,081	0	0%	0	0%	0	2,081
0	0	0%	0	0%	O/S - Accounting	11,730	9,250	127%	9,250	127%	13,250	15,630
410	320	128%	362	113%	Payroll Processing Fee	3,795	3,090	123%	3,250	117%	4,050	5,028
251	100	251%	108	234%	Postage/Shipping	2,079	1,350	154%	1,799	116%	1,650	2,528
(30)	0	0%	(30)	100%	Tax/Licenses/Fees	(270)	0	0%	(270)	100%	0	(285)
0	30	0%	27	0%	Travel - Meals	1,115	270	413%	569	196%	360	1,183
30	200	15%	903	3%	Travel - Other	2,372	1,800	132%	2,272	104%	2,400	2,372
0	0	0%	0	0%	Employee Meals	20	0	0%	17	117%	0	20
22,289	16,988	131%	18,457	121%	TOTAL OPERATING EXPENSES	205,159	172,104	119%	169,959	121%	227,125	264,015
(35,142)	(30,529)	115%	(30,382)	116%	EBITDA	(321,413)	(292,427)	110%	(285,208)	113%	(388,071)	(419,091)
6,307	6,369	99%	6,184	102%	Management Fee	56,767	57,324	99%	55,654	102%	76,432	75,318
6,307	6,369	99%	6,184	102%	Management Fees	56,767	57,324	99%	55,654	102%	76,432	75,318
23	23	100%	23	100%	Deprec - Mach & Equip	208	208	100%	208	100%	277	277
72	72	100%	72	100%	Deprec - Buildings	652	652	100%	652	100%	869	869
96	96	100%	96	100%	S/T DEPR. & AMORT	860	860	100%	860	100%	1,146	1,146
(41,545)	(36,994)	112%	(36,661)	113%	NET INCOME	(379,040)	(350,611)	108%	(341,722)	111%	(465,649)	(495,556)

The Golf Club at Cypress Head
Marketing
For the Nine Months Ending June 30, 2022

MTD Actual	MTD Budget	% of Budget	MTD Prior Year	% of PY		YTD Actual	YTD Budget	% of Budget	YTD Prior Year	% of PY	Annual Budget	
					PAYROLL							
3,757	3,751	100%	3,879	97%	Gross Payroll - Salaried	35,136	33,181	106%	33,236	106%	44,435	43,137
3,757	3,751	100%	3,879	97%	S/T Wages	35,136	33,181	106%	33,236	106%	44,435	43,137
266	287	93%	277	96%	Payroll Tax - FICA	2,495	2,538	98%	2,399	104%	3,399	3,245
0	4	0%	(346)	0%	Payroll Tax - UC	88	107	82%	(129)	-68%	119	88
69	76	90%	72	96%	Payroll Tax - WC	678	658	103%	632	107%	887	902
587	0	0%	552	106%	Benefits	5,662	0	0%	4,960	114%	0	7,360
922	368	251%	555	166%	S/T Adders	8,922	3,303	270%	7,863	113%	4,406	11,595
4,679	4,119	114%	4,434	106%	TOTAL PAYROLL	44,058	36,484	121%	41,099	107%	48,841	54,732
					OPERATING EXPENSES							
6,159	2,900	212%	3,356	183%	Advertising & Promotion	19,851	12,690	156%	14,142	140%	23,190	23,769
6,159	2,900	212%	3,356	183%	TOTAL OPERATING EXPENSES	19,851	12,690	156%	14,142	140%	23,190	23,769
(10,837)	(7,019)	154%	(7,790)	139%	EBITDA	(63,908)	(49,174)	130%	(55,242)	116%	(72,031)	(78,501)
(10,837)	(7,019)	154%	(7,790)	139%	NET INCOME	(63,908)	(49,174)	130%	(55,242)	116%	(72,031)	(78,501)

The Golf Club at Cypress Head
For the Nine Months Ending June 30, 2022

MTD Actual	MTD Budget	% of Budget	MTD Prior Year	% of PY		YTD Actual	YTD Budget	% of Budget	YTD Prior Year	% of PY	Annual Budget	
REVENUES												
95,477	89,518	107%	87,672	109%	Green Fees & Cart Fees	1,274,642	990,761	129%	1,075,076	119%	1,259,492	1,540,099
11,877	7,100	167%	8,372	142%	Merchandise	100,943	73,350	138%	80,500	125%	90,550	122,272
3,805	1,865	204%	2,677	142%	Other Pro Shop	19,638	14,512	135%	16,229	121%	19,063	25,610
3,734	2,600	144%	3,547	105%	Range	42,098	35,800	118%	36,922	114%	44,300	52,332
2,740	2,691	102%	2,730	100%	Other Operating Revenues	32,209	28,949	111%	29,495	109%	36,122	40,010
117,632	103,774	113%	104,998	112%	TOTAL REVENUE	1,469,530	1,143,372	129%	1,238,222	119%	1,449,526	1,780,322
COST OF SALES												
5,847	4,331	135%	5,288	111%	Merchandise	64,999	44,744	145%	52,298	124%	55,236	77,891
5,847	4,331	135%	5,288	111%	TOTAL COGS	64,999	44,744	145%	52,298	124%	55,236	77,891
49.2%	61.0%	80.7%	63.2%	77.9%	COGS - Merchandise %	64.4%	61.0%	105.6%	65.0%	99.1%	61.0%	749.6%
PAYROLL												
36,190	34,723	104%	29,524	123%	Course and Grounds	324,785	311,495	104%	280,165	116%	416,997	420,362
9,554	8,070	118%	7,602	126%	Carts, Range, Starters, Etc.	82,919	73,317	113%	64,743	128%	98,064	105,347
8,661	7,030	123%	7,065	123%	Pro Shop	65,484	63,731	103%	55,235	119%	85,253	87,307
12,853	13,541	95%	11,925	108%	General and Administrative	116,254	120,323	97%	115,250	101%	160,946	155,076
4,679	4,119	114%	4,434	106%	Marketing	44,058	36,484	121%	41,099	107%	48,841	54,732
71,937	67,483	107%	60,551	119%	TOTAL PAYROLL	633,500	605,349	105%	556,492	114%	810,100	822,824
OPERATING EXPENSES												
26,915	27,686	97%	22,153	121%	Course and Grounds	211,179	189,349	112%	192,976	109%	264,162	287,607
5,246	7,350	71%	6,169	85%	Carts, Range, Starters, Etc.	51,453	66,056	78%	61,077	84%	88,006	69,821
5,504	500	1101%	94	5826%	Pro Shop	10,272	5,885	175%	6,346	162%	7,085	15,965
22,289	16,988	131%	18,457	121%	General and Administrative	205,159	172,104	119%	169,959	121%	227,125	264,015
6,159	2,900	212%	3,356	183%	Marketing	19,851	12,690	156%	14,142	140%	23,190	23,769
66,112	55,424	119%	50,229	132%	TOTAL OPERATING EXPENSES	497,914	446,084	112%	444,501	112%	609,568	661,178
143,895	127,238	113%	116,068	124%	TOTAL EXPENSES	1,196,413	1,096,177	109%	1,053,291	114%	1,474,903	1,561,892
(26,264)	(23,464)	112%	(11,071)	237%	EBITDA	273,117	47,195	579%	184,931	148%	(25,377)	218,429

The Golf Club at Cypress Head
For the Nine Months Ending June 30, 2022

MTD Actual	MTD Budget	% of Budget	MTD Prior Year	% of PY		YTD Actual	YTD Budget	% of Budget	YTD Prior Year	% of PY	Annual Budget	
(26,264)	(23,464)	112%	(11,071)	237%	EBITDA	273,117	47,195	579%	184,931	148%	(25,377)	218,429
(6,307)	(6,369)	99%	(6,184)	102%	MANAGEMENT FEES	(56,767)	(57,324)	99%	(55,654)	102%	(76,432)	(75,318)
(96)	(96)	100%	(96)	100%	OTHER INCOME (EXPENSE)	(860)	(860)	100%	(860)	100%	(1,146)	(1,146)
(96)	(96)	100%	(96)	100%	Depreciation & Amortization	(860)	(860)	100%	(860)	100%	(1,146)	(1,146)
(32,667)	(29,929)	109%	(17,350)	188%	TOTAL OTHER INCOME (EXPENSE)	215,490	(10,988)	-1961%	128,417	168%	(102,955)	141,964
3,034	2,777	109%	2,874	106%	NET INCOME	34,496	30,108	115%	31,866	108%	38,424	42,839
313	461	68%	317	99%	Paid Rounds	3,481	3,409	102%	3,113	112%	4,748	4,386
241	233	103%	228	106%	Annual Pass Rounds	2,359	2,012	117%	2,066	114%	2,636	3,036
3,588	3,471	103%	3,419	105%	Other Rounds	40,336	35,529	114%	37,045	109%	45,808	50,261
39	37	104%	37	106%	Total Rounds	43	38	112%	39	110%	38	492
33	30	110%	31	107%	Revenue/Paid Rounds	36	32	113%	33	109%	32	419
					Revenue/Total Rounds							

TRIAL BALANCE SUMMARY FOR 2021

The Golf Club at Cypress Head

General Ledger

Ranges: From:
Date: 6/1/2022
Account: First

To:
6/30/2022
Last

Sorted By: Account
Include: Posting, Unit
Print Currency In: Functional (Z-US\$)

Inactive	Account	Description	Beginning Balance	Debit	Credit	Net Change	Ending Balance
	10020-5950-900	Cash - Course Depository NEW	\$379,719.40	\$114,933.25	\$196,064.62	(\$81,131.37)	\$298,588.03
	10050-5950-900	Cash - Course Payroll BMO	\$37,319.14	\$56,226.84	\$56,235.25	(\$8.41)	\$37,310.73
	10100-5950-900	Cash - Course Other	\$850.00	\$0.00	\$0.00	\$0.00	\$850.00
	10180-5950-900	Cash - Pro Shop Bank	\$500.00	\$0.00	\$0.00	\$0.00	\$500.00
	11160-5950-900	A/R Member	\$2,981.08	\$16,014.99	\$8,356.15	\$7,658.84	\$10,639.92
	12000-5950-900	Inventory - Merchandise	\$29,029.77	\$7,312.64	\$9,954.50	(\$2,641.86)	\$26,387.91
	13020-5950-900	Prepaid Insurance	\$5,449.75	\$121,350.75	\$88,163.50	\$33,187.25	\$38,637.00
	13040-5950-900	Prepaid Exp - Other	\$13,557.60	\$0.00	\$278.34	(\$278.34)	\$13,279.26
	20100-5950-900	Machinery & Equipment	\$5,550.40	\$0.00	\$0.00	\$0.00	\$5,550.40
	20160-5950-900	Buildings and Improvements	\$30,597.54	\$0.00	\$0.00	\$0.00	\$30,597.54
	22040-5950-900	Accum. Deprec - Mach & Equip	(\$4,624.46)	\$0.00	\$23.12	(\$23.12)	(\$4,647.58)
	22080-5950-900	Accum. Deprec - Buildings	(\$26,108.07)	\$0.00	\$72.41	(\$72.41)	(\$26,180.48)
	30000-5950-900	Accts Pay - Trade	(\$85,974.82)	\$262,083.17	\$255,254.87	\$6,828.30	(\$79,146.52)
	30040-5950-900	Accts Pay - Other	\$4,733.38	\$11,641.70	\$12,379.65	(\$737.95)	\$3,995.43
	31000-5950-900	Accrued Expenses	\$0.00	\$0.00	\$750.00	(\$750.00)	(\$750.00)
	31020-5950-900	Accrued Payroll	(\$27,415.27)	\$21,102.74	\$27,508.71	(\$6,405.97)	(\$33,821.24)
	31080-5950-900	Accrued Tips Payable	(\$408.00)	\$1,004.00	\$1,557.00	(\$553.00)	(\$961.00)
	31220-5950-900	Accrued Sales Tax	(\$9,692.09)	\$9,692.09	\$6,514.23	\$3,177.86	(\$6,514.23)
	31400-5950-900	Accrued City Surcharge	\$0.00	\$2,739.74	\$2,739.74	\$0.00	\$0.00
	32000-5950-900	Deferred Rev - Rainchecks	(\$2,651.76)	\$1,349.21	\$2,466.35	(\$1,117.14)	(\$3,768.90)
	32020-5950-900	Deferred Rev - Outing Deposits	(\$6,689.32)	\$0.00	\$1,988.40	(\$1,988.40)	(\$8,677.72)
	32040-5950-900	Deferred Rev - Legacy GF Passes	(\$11,162.71)	\$2,790.88	\$0.00	\$2,790.88	(\$8,371.83)
	32050-5950-900	Deferred Revenue - Cypress GF Passes	(\$13,457.42)	\$4,007.65	\$0.00	\$4,007.65	(\$9,449.77)
	32070-5950-900	Deferred Rev - Gift Cards	(\$31,492.03)	\$577.90	\$2,320.44	(\$1,742.54)	(\$33,234.57)
	32100-5950-900	Deferred Rev - Credit Books	(\$14,808.97)	\$934.50	\$815.25	\$119.25	(\$14,689.72)
	32120-5950-900	Deferred Rev - Trail Fee Pass	(\$27,159.72)	\$7,364.79	\$472.50	\$6,892.29	(\$20,267.43)
	32220-5950-900	Deferred Rev - Founders Pass	(\$486.46)	\$121.63	\$0.00	\$121.63	(\$364.83)
	50000-5950-100	Green Fees - Annual Pass	(\$46,177.09)	\$0.00	\$6,276.91	(\$6,276.91)	(\$52,454.00)
	5003A-5950-100	Green Fee - Group	(\$89,066.87)	\$0.00	\$2,610.83	(\$2,610.83)	(\$91,677.70)
	50040-5950-100	Green Fees - Member	(\$2,043.01)	\$0.00	\$235.50	(\$235.50)	(\$2,278.51)
	5005A-5950-100	Green Fee - Hotel	(\$855.40)	\$0.00	\$0.00	\$0.00	(\$855.40)
	5006A-5950-100	Green Fee - Junior	(\$1,443.96)	\$0.00	\$218.08	(\$218.08)	(\$1,662.04)
	50070-5950-100	Green Fees - (surcharge)	(\$29,288.05)	\$2,739.74	\$5,679.48	(\$2,939.74)	(\$32,227.79)
	5007A-5950-100	Green Fee - League	(\$91,364.15)	\$0.00	\$5,538.44	(\$5,538.44)	(\$96,902.59)
	5010A-5950-100	Green Fee - Non-Resident (Standard)	(\$51,976.95)	\$0.00	\$2,608.69	(\$2,608.69)	(\$54,585.64)
	5012A-5950-100	Green Fee - Outing	(\$54,422.91)	\$0.00	\$3,951.80	(\$3,951.80)	(\$58,374.71)
	5014A-5950-100	Green Fee - Resident	(\$236,368.41)	\$0.00	\$27,604.56	(\$27,604.56)	(\$263,972.97)
	5015A-5950-100	Green Fee - Senior	(\$136,836.69)	\$0.00	\$8,132.16	(\$8,132.16)	(\$144,968.85)
	5019A-5950-100	Green Fee - Wholesale	(\$1,426.18)	\$0.00	\$33.84	(\$33.84)	(\$1,460.02)
	50500-5950-200	Cart Fee 18	(\$382,775.14)	\$0.00	\$28,418.18	(\$28,418.18)	(\$411,193.32)
	50520-5950-200	Cart Fee - Annual Trail	(\$55,120.03)	\$0.00	\$6,908.04	(\$6,908.04)	(\$62,028.07)
	52090-5950-600	Handicap Fee	(\$4,771.00)	\$0.00	\$0.00	\$0.00	(\$4,771.00)
	52150-5950-600	Lessons	(\$8,892.00)	\$0.00	\$3,525.00	(\$3,525.00)	(\$12,417.00)
	52280-5950-600	Rental Clubs	(\$2,170.00)	\$0.00	\$280.00	(\$280.00)	(\$2,450.00)
	52310-5950-600	Retail	(\$89,066.64)	\$0.00	\$11,876.71	(\$11,876.71)	(\$100,943.35)
	53050-5950-220	Range Pass Revenue	(\$38,364.22)	\$0.00	\$3,733.68	(\$3,733.68)	(\$42,097.90)
	56120-5950-100	City Surcharge R & R	(\$29,469.47)	\$0.00	\$2,739.74	(\$2,739.74)	(\$32,209.21)
	60000-5950-600	COGS - Merchandise - Accessories	\$59,151.99	\$5,846.96	\$0.00	\$5,846.96	\$64,998.95
	70000-5950-100	Gross Payroll - Salaried	\$79,884.07	\$13,847.37	\$3,715.15	\$10,132.22	\$90,016.29
	70000-5950-900	Gross Payroll - Salaried	\$83,324.92	\$14,238.15	\$3,752.27	\$10,485.88	\$93,810.80
	70000-5950-950	Gross Payroll - Salaried	\$31,379.38	\$4,933.37	\$1,176.65	\$3,756.72	\$35,136.10
	70010-5950-100	Gross Payroll - Hourly	\$164,670.89	\$27,116.32	\$6,009.93	\$21,106.39	\$185,777.28
	70010-5950-200	Gross Payroll - Hourly	\$66,054.78	\$11,562.76	\$2,952.83	\$8,609.93	\$74,664.71

TRIAL BALANCE SUMMARY FOR 2021

The Golf Club at Cypress Head

Inactive	Account	Description	Beginning Balance	Debit	Credit	Net Change	Ending Balance
	70010-5950-600	Gross Payroll - Hourly	\$47,294.75	\$9,511.97	\$2,170.29	\$7,341.68	\$54,636.43
	71000-5950-100	Payroll Tax - FICA	\$18,012.17	\$3,058.16	\$743.97	\$2,314.19	\$20,326.36
	71000-5950-200	Payroll Tax - FICA	\$5,344.75	\$943.64	\$224.84	\$718.80	\$6,063.55
	71000-5950-600	Payroll Tax - FICA	\$3,646.60	\$719.78	\$153.79	\$565.99	\$4,212.59
	71000-5950-900	Payroll Tax - FICA	\$5,864.37	\$1,038.07	\$287.01	\$751.06	\$6,615.43
	71000-5950-950	Payroll Tax - FICA	\$2,228.27	\$356.27	\$90.01	\$266.26	\$2,494.53
	71010-5950-100	Payroll Tax - UC	\$1,046.25	\$11.36	\$0.00	\$11.36	\$1,057.61
	71010-5950-200	Payroll Tax - UC	\$698.60	\$74.73	\$0.00	\$74.73	\$773.33
	71010-5950-600	Payroll Tax - UC	\$288.89	\$32.27	\$0.00	\$32.27	\$321.16
	71010-5950-900	Payroll Tax - UC	(\$129.53)	\$0.00	\$0.00	\$0.00	(\$129.53)
	71010-5950-950	Payroll Tax - UC	\$87.84	\$0.00	\$0.00	\$0.00	\$87.84
	71020-5950-100	Payroll Tax - WC	\$4,696.97	\$545.64	\$0.00	\$545.64	\$5,242.61
	71020-5950-200	Payroll Tax - WC	\$1,267.34	\$148.21	\$0.00	\$148.21	\$1,415.55
	71020-5950-600	Payroll Tax - WC	\$935.63	\$135.65	\$0.00	\$135.65	\$1,071.28
	71020-5950-900	Payroll Tax - WC	\$1,604.95	\$191.41	\$0.00	\$191.41	\$1,796.36
	71020-5950-950	Payroll Tax - WC	\$608.78	\$68.86	\$0.00	\$68.86	\$677.64
	71030-5950-100	Benefits	\$20,285.06	\$5,252.90	\$3,173.01	\$2,079.89	\$22,364.95
	71030-5950-200	Benefits	\$0.00	\$166.38	\$164.14	\$2.24	\$2.24
	71030-5950-600	Benefits	\$4,656.83	\$1,080.63	\$494.82	\$585.81	\$5,242.64
	71030-5950-900	Benefits	\$12,735.71	\$2,441.47	\$1,016.42	\$1,425.05	\$14,160.76
	71030-5950-950	Benefits	\$5,074.93	\$1,038.69	\$451.97	\$586.72	\$5,661.65
	80110-5950-200	Cart Supplies	\$2,047.46	\$0.00	\$0.00	\$0.00	\$2,047.46
	80120-5950-100	Chemicals	\$4,665.26	\$530.00	\$0.00	\$530.00	\$5,195.26
	80170-5950-100	Course Accessories	\$2,319.55	\$0.00	\$0.00	\$0.00	\$2,319.55
	80230-5950-100	Fertilizer	\$41,813.48	\$8,231.25	\$0.00	\$8,231.25	\$50,044.73
	80250-5950-100	Flowers/Decor	\$515.00	\$0.00	\$0.00	\$0.00	\$515.00
	80270-5950-100	Fuel	\$12,239.17	\$2,241.71	\$0.00	\$2,241.71	\$14,480.88
	80280-5950-100	Fungicides	\$2,160.75	\$0.00	\$0.00	\$0.00	\$2,160.75
	80320-5950-100	Herbicides	\$7,685.91	\$240.00	\$0.00	\$240.00	\$7,925.91
	80370-5950-100	Insecticides	\$9,024.67	\$0.00	\$0.00	\$0.00	\$9,024.67
	80380-5950-900	Janitorial Supplies	\$5,362.90	\$729.77	\$0.00	\$729.77	\$6,092.67
	80420-5950-900	Laundry/Uniforms	\$924.18	\$0.00	\$0.00	\$0.00	\$924.18
	80520-5950-600	Office Supplies	\$23.98	\$61.72	\$0.00	\$61.72	\$85.70
	80520-5950-900	Office Supplies	\$3,238.25	\$129.94	\$0.00	\$129.94	\$3,368.19
	80610-5950-220	Range Balls	\$3,520.00	\$0.00	\$0.00	\$0.00	\$3,520.00
	80620-5950-220	Range Equipment	\$1,033.51	\$0.00	\$0.00	\$0.00	\$1,033.51
	80630-5950-220	Range Expenses	\$1,117.08	\$511.63	\$0.00	\$511.63	\$1,628.71
	80690-5950-100	Sand/Topdress	\$6,605.21	\$0.00	\$0.00	\$0.00	\$6,605.21
	80710-5950-100	Seeds/Trees	\$5,665.00	\$0.00	\$0.00	\$0.00	\$5,665.00
	80730-5950-100	Small Tools	\$668.27	\$0.00	\$0.00	\$0.00	\$668.27
	80780-5950-600	Supplies	\$0.00	\$3,862.60	\$0.00	\$3,862.60	\$3,862.60
	80810-5950-600	Tournament Expense	\$117.89	\$6,519.78	\$5,478.83	\$1,040.95	\$1,158.84
	81010-5950-900	Alarm System	\$1,590.51	\$118.50	\$0.00	\$118.50	\$1,709.01
	81090-5950-200	Cart Repairs	\$655.77	\$244.37	\$0.00	\$244.37	\$900.14
	81130-5950-900	Computer Service	\$1,278.72	\$159.84	\$0.00	\$159.84	\$1,438.56
	81140-5950-900	Contract Cleaning	\$4,898.00	\$650.00	\$0.00	\$650.00	\$5,548.00
	81220-5950-600	Handicap Expense	\$4,529.00	\$0.00	\$0.00	\$0.00	\$4,529.00
	81250-5950-100	Irrigation	\$7,315.74	\$5,081.63	\$4,076.68	\$1,004.95	\$8,320.69
	81270-5950-600	Lesson Expense	\$0.00	\$350.10	\$0.00	\$350.10	\$350.10
	81350-5950-100	Repair & Maint - Equipment	\$12,179.59	\$2,632.56	\$4,076.68	(\$1,444.12)	\$10,735.47
	81350-5950-900	Repair & Maint - Equipment	\$505.60	\$2,803.62	\$0.00	\$2,803.62	\$3,309.22
	81360-5950-100	Repair & Maint - Building	\$171.23	\$1,495.80	\$0.00	\$1,495.80	\$1,667.03
	81360-5950-600	Repair & Maint - Building	\$96.84	\$188.67	\$0.00	\$188.67	\$285.51
	81360-5950-900	Repair & Maint - Building	\$8,129.91	\$279.15	\$0.00	\$279.15	\$8,409.06
	82000-5950-200	Cart Lease	\$29,237.00	\$3,535.00	\$0.00	\$3,535.00	\$32,772.00
	82020-5950-100	Equipment Lease	\$53,876.50	\$7,671.00	\$0.00	\$7,671.00	\$61,547.50
	82060-5950-900	Off-Site Storage	\$1,408.00	\$206.00	\$0.00	\$206.00	\$1,614.00
	83000-5950-100	Utilities - Electric	\$1,900.16	\$308.37	\$0.00	\$308.37	\$2,208.53
	83000-5950-200	Utilities - Electric	\$8,596.36	\$954.82	\$0.00	\$954.82	\$9,551.18
	83020-5950-100	Utilities - Other	\$13,127.49	\$3,334.65	\$0.00	\$3,334.65	\$16,462.14

TRIAL BALANCE SUMMARY FOR 2021
The Golf Club at Cypress Head

Inactive	Account	Description	Beginning Balance	Debit	Credit	Net Change	Ending Balance
	83020-5950-900	Utilities - Other	\$14,570.60	\$3,125.88	\$245.93	\$2,879.95	\$17,450.55
	83030-5950-900	Utilities - Telephone/Fax	\$1,480.73	\$189.93	\$0.10	\$189.83	\$1,670.56
	83050-5950-100	Utilities - Water	\$1,855.54	\$235.89	\$0.00	\$235.89	\$2,091.43
	84040-5950-950	Adv/Promo - Mktg/Bus Dev	\$13,691.94	\$6,158.67	\$0.00	\$6,158.67	\$19,850.61
	85020-5950-900	Bank Charges	\$2,774.19	\$331.01	\$0.00	\$331.01	\$3,105.20
	85050-5950-900	Cash Short/(Over)	(\$580.02)	\$44.25	\$68.09	(\$23.84)	(\$603.86)
	85060-5950-900	Cell Phone	\$1,600.00	\$200.00	\$0.00	\$200.00	\$1,800.00
	85070-5950-900	City Surcharge R & R	\$29,469.47	\$2,739.74	\$0.00	\$2,739.74	\$32,209.21
	85120-5950-900	Credit Card Discounts	\$31,715.61	\$3,396.36	\$5.69	\$3,390.67	\$35,106.28
	85140-5950-900	Donations	\$593.00	\$0.00	\$0.00	\$0.00	\$593.00
	85150-5950-900	Dues & Subscriptions	\$1,027.00	\$572.00	\$0.00	\$572.00	\$1,599.00
	85160-5950-100	Education & Training	\$400.00	\$0.00	\$0.00	\$0.00	\$400.00
	85190-5950-100	Employee Relations	\$46.99	\$0.00	\$0.00	\$0.00	\$46.99
	85190-5950-900	Employee Relations	\$143.79	\$239.32	\$207.47	\$31.85	\$175.64
	85200-5950-100	Employee Testing	\$29.00	\$0.00	\$0.00	\$0.00	\$29.00
	85280-5950-900	Insurance Expense	\$49,037.48	\$6,199.75	\$0.00	\$6,199.75	\$55,237.23
	85320-5950-900	Member Relations	\$1,442.90	\$39.00	\$0.00	\$39.00	\$1,481.90
	85340-5950-900	Miscellaneous	\$2,080.93	\$0.00	\$0.00	\$0.00	\$2,080.93
	85390-5950-900	O/S - Accounting	\$11,730.00	\$0.00	\$0.00	\$0.00	\$11,730.00
	85430-5950-100	O/S - Other	\$0.00	\$2,900.00	\$0.00	\$2,900.00	\$2,900.00
	85480-5950-900	Payroll Processing Fee	\$3,384.38	\$410.25	\$0.00	\$410.25	\$3,794.63
	85490-5950-900	Postage/Shipping	\$1,827.78	\$251.49	\$0.00	\$251.49	\$2,079.27
	85610-5950-100	Tax/Licenses/Fees	\$0.00	\$165.00	\$0.00	\$165.00	\$165.00
	85610-5950-900	Tax/Licenses/Fees	(\$240.00)	\$0.00	\$30.00	(\$30.00)	(\$270.00)
	85710-5950-900	Travel - Meals	\$1,115.09	\$0.00	\$0.00	\$0.00	\$1,115.09
	85720-5950-900	Travel - Other	\$2,341.76	\$30.00	\$0.00	\$30.00	\$2,371.76
	89020-5950-900	Employee Meals	\$20.00	\$0.00	\$0.00	\$0.00	\$20.00
	90000-5950-900	Management Fee	\$50,459.68	\$6,307.46	\$0.00	\$6,307.46	\$56,767.14
	98020-5950-900	Deprec - Mach & Equip	\$184.96	\$23.12	\$0.00	\$23.12	\$208.08
	98040-5950-900	Deprec - Buildings	\$579.28	\$72.41	\$0.00	\$72.41	\$651.69
	R002A-5950-100	Rounds - Annual	7,186.00	313.00	0.00	313.00	7,499.00
	R003A-5950-100	Rounds - Group	8,980.00	187.00	0.00	187.00	9,167.00
	R005A-5950-100	Rounds - Green Fee - Hotel	42.00	0.00	0.00	0.00	42.00
	R006A-5950-100	Rounds - Green Fee - Junior	1,109.00	76.00	0.00	76.00	1,185.00
	R007A-5950-100	Rounds - Green Fee - League	10,304.00	323.00	0.00	323.00	10,627.00
	R010A-5950-100	Rounds - Green Fee - Non-Resident (Standard)	3,258.00	107.00	0.00	107.00	3,365.00
	R011A-5950-100	Rounds - Green Fee - Non-Resident	298.00	15.00	0.00	15.00	313.00
	R012A-5950-100	Rounds - Green Fee - Outing	5,176.00	190.00	0.00	190.00	5,366.00
	R014A-5950-100	Rounds - Resident	30,892.00	1,789.00	0.00	1,789.00	32,681.00
	R015A-5950-100	Rounds - Green Fee - Senior	11,719.00	360.00	0.00	360.00	12,079.00
	R016A-5950-100	Rounds - Green Fee - Staff	2,578.00	152.00	0.00	152.00	2,730.00
	R017A-5950-100	Rounds - Green Fee - Trade	1,985.00	74.00	0.00	74.00	2,059.00
	R019A-5950-100	Rounds - Green Fee - Wholesale	191.00	2.00	0.00	2.00	193.00
	RCMWD-5950-100	Rounds - Complimentary - Weekday	15,846.00	0.00	0.00	0.00	15,846.00
	REMWD-5950-100	Rounds - Employee - Weekday	21,589.00	0.00	0.00	0.00	21,589.00
	RMBWD-5950-100	Rounds - Member - Weekday	80,170.00	0.00	0.00	0.00	80,170.00
	RPKWD-5950-100	Rounds - Peak - Weekday	450,023.00	0.00	0.00	0.00	450,023.00
	RPKWE-5950-100	Rounds - Peak - Weekend	5,071.00	0.00	0.00	0.00	5,071.00
Grand Totals:			161	\$0.00	\$835,053.24	\$835,053.24	\$0.00

The Golf Club at Cypress Head
Course Cash Flow Report
For the Year Ended June 30, 2022

	OCT Actual	NOV Actual	DEC Actual	JAN Actual	FEB Actual	MAR Actual	APR Actual	MAY Actual	JUN Actual	JUL Actual	AUG Actual	SEP Actual
EBITDA	(694)	13,814	22,678	42,879	67,413	67,743	61,645	23,903	(26,264)	0	0	0
Management Fee Expense	(6,307)	(6,307)	(6,307)	(6,307)	(6,307)	(6,307)	(6,307)	(6,307)	(6,307)	0	0	0
Depreciation & Amortization	(96)	(96)	(96)	(96)	(96)	(96)	(96)	(96)	(96)	0	0	0
Net Income	(7,097)	7,411	16,275	36,476	61,011	61,340	55,242	17,500	(32,667)	0	0	0
Working Capital Changes												
Inventory	(7,684)	(3,250)	(1,286)	1,455	(3,876)	(3,324)	4,735	1,233	2,642	0	0	0
Receivables	168,611	633	3,862	(3,666)	3,576	(1,109)	202	(424)	(7,659)	0	0	0
Prepaid Expenses	3,667	(7,027)	(5,610)	(698)	26,242	(5,610)	5,340	13,364	(32,909)	0	0	0
Payables	(5,285)	15,310	(4,893)	16,939	8,625	(17,931)	18,702	6,145	(6,828)	0	0	0
Due to from the City	0	(509)	0	(190)	0	417	(172)	(246)	738	0	0	0
Accrued Expenses	(849)	(1,293)	(1,182)	10,414	6,642	4,693	(25,627)	2,876	4,531	0	0	0
Deferred Revenues	(49,701)	9,431	6,128	(29,035)	(5,178)	(2,193)	(26,041)	(18,402)	(9,084)	0	0	0
Depreciation & Amortization	96	96	96	96	96	96	96	96	96	0	0	0
Operating Cash Flow	101,756	20,802	13,390	31,790	97,137	36,378	32,476	22,142	(81,140)	0	0	0
Investing Activities												
Financing Activities												
Net Cash Flows	101,756	20,802	13,390	31,790	97,137	36,378	32,476	22,142	(81,140)	0	0	0
Beginning Cash	71,692	173,448	194,251	207,640	239,430	327,393	363,771	396,247	418,389	337,249	304,738	304,738
Net Cash Flows	101,756	20,802	13,390	31,790	97,137	36,378	32,476	22,142	(81,140)	0	0	0
Ending Cash	173,448	194,251	207,640	239,430	336,566	363,771	396,247	418,389	337,249	337,249	304,738	304,738

REGULAR CITY COUNCIL MEETING MINUTES
COUNCIL CHAMBERS – CITY HALL
1000 CITY CENTER CIRCLE
PORT ORANGE, FLORIDA
JULY 19, 2022

THE REGULAR CITY COUNCIL MEETING of the City of Port Orange was called to order by Mayor Donald O. Burnette at 6:30 p.m.

Invocation by Pastor Ken Sharp of High Point Pentecostal Church

Pledge of Allegiance

Roll Call	Present:	Council Member Reed Foley Council Member Chase Tramont Council Member Drew Bastian Vice Mayor Scott Stiltner Mayor Donald Burnette
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	Also Present:	City Manager Wayne Clark City Attorney Matthew Jones City Clerk Robin Fenwick
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SPECIAL AWARDS, REPORTS, RECOGNITION AND PROCLAMATIONS

4. Parks & Recreation Month Proclamation

Mayor Don Burnette read the proclamation for Parks & Recreation Month and presented it to REC MAN. Mayor Don Burnette thanked Staff for their work on the July 4th Spectacular event.

CONSENT AGENDA

5. Public Comments on Consent Agenda Items Only

There were none.

6. Agenda Approval

No changes were requested by Council.

Motion to approve the agenda as presented was made by Vice Mayor Scott Stiltner and Seconded by Council Member Chase Tramont. Motion carried unanimously by voice vote.

7. Approval of Minutes

- a. June 21, 2022 - Regular City Council Meeting
- b. June 28, 2022 - City Council Workshop

8. Bid Awards and Contract Items

a. Intent to Award ITB #22-08 Fire Station #74 Ceiling / HVAC

Replacement to Paul Culver Construction, Inc.

b. Approval of renewing the agreements for the purchase of bulk fuel from Mansfield Oil, Petroleum Traders Corporation, and Gentry Oil based on the terms and conditions provided in the Volusia County consortium bid, ITB 19-B-70EM along with a price redetermination previously approved by Volusia County.

c. Waiver of Formal Bidding Procedures and Approval to Renew Environmental Legal Liability and Tank Storage Insurance with Aspen Specialty Insurance Company

d. Approval of Change Order No. 2 to APM Construction Corp, Inc. for the Ponce Inlet Master Lift Station Remodel for additional funding and extension of time

9. Authorizing the recognition of Allen Green on the Wall of Honor

10. Approval of Maintenance and Drainage Easement to Volusia County on City-owned property (Parcel I.D. 6317-03-00-0081) for the maintenance of the B-19 Canal

Motion to approve the Consent Agenda as presented was made by Vice Mayor Scott Stiltner and Seconded by Council Member Chase Tramont. Motion carried unanimously by roll call vote.

PUBLIC PARTICIPATION (Non-Agenda – 20 minutes)

Kinley Irish, citizen, provided suggestions regarding the City's fields so the City can bring back the fall season for softball and baseball.

COUNCIL COMMENTS

11. Comments/Concerns from Council Members

Council Member Chase Tramont also thanked Parks & Recreation Staff for their work on all events.

Council Member Reed Foley spoke regarding his request to the City Manager for a monthly newsletter. Wayne Clark, City Manager, spoke regarding the plan for a monthly newsletter that will be a public-facing publication done in-house. Mayor Don Burnette would like to write the first Council message but then have Council Members rotate.

Vice Mayor Scott Stiltner requested a video showing the Community Development website that shows current development projects. He'd like the video to be posted on social media and the website.

Mayor Don Burnette spoke regarding the recognition for former Mayor Allen Green on the Wall of Honor. He thanked Mr. Green for his years of service and has invited him to attend a future Council meeting for the recognition. Mayor Don Burnette asked Council to speak regarding fall ball being canceled and would like to know the plan from the City

Manager moving forward. Vice Mayor Scott Stiltner wants to see discussion regarding a bond initiative on the 2024 ballot for funding facilities to address the growing population.

BOARD APPOINTMENTS, INTERVIEWS, REPORTS

12. Parks & Recreation Advisory Board Update

Bobby Ball, Vice Chairman, provided an update from their recent meeting.

PUBLIC HEARING

13. First Reading - Ordinance No. 2022-18 - Rezoning/950 Madeline Avenue
(Case No. 22-60000004)

Mayor Don Burnette read Ordinance No. 2022-18.

ORDINANCE NO. 2022-18

AN ORDINANCE OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA, REZONING PROPERTY CONSISTING OF APPROXIMATELY +8.3 ACRES FROM MULTI-FAMILY RESIDENTIAL (R-3M) TO COMMUNITY COMMERCIAL (CC); AUTHORIZING REVISION OF THE OFFICIAL ZONING ATLAS; AND PROVIDING AN EFFECTIVE DATE.

Motion to adopt Ordinance No. 2022-18
was made by Council Member Chase
Tramont and Seconded by Council
Member Reed Foley.

Penelope Cruz, Planning Manager, provided details of the rezoning being requested. The current zoning would allow for an apartment complex to be built with staff review only. The developer held a neighborhood meeting as required by code and neighbors left feeling positive about the project.

Joey Posey, Attorney for the Developer, highlighted a few items from the application and project.

Kristine Cunningham, citizen, spoke regarding the neighborhood meeting. It was a great meeting, but she is concerned with turning into the outparcel once it's built out. She believes there is a safety issue turning off of Nova Road.

Mrs. Cruz spoke regarding the turning concern. The development will require approval through the City's process.

Motion carried 3-2 by roll call vote with
Council Member Reed Foley and Vice
Mayor Scott Stiltner voting no.

14. First Reading - Ordinance No. 2022-17 - Seventh Amendment to the
Master Development Agreement for the Crystal Lake Planned Unit
Development (Case No. 22-40000001)

Mayor Don Burnette read Ordinance No. 2022-17.

ORDINANCE NO. 2022-17

AN ORDINANCE OF THE CITY OF PORT ORANGE, VOLUSIA
COUNTY, FLORIDA, APPROVING THE SEVENTH AMENDMENT
TO THE MASTER DEVELOPMENT AGREEMENT FOR CRYSTAL
LAKE PLANNED UNIT DEVELOPMENT (PUD); PROVIDING FOR
THE REPEAL OF CONFLICTING ORDINANCES; PROVIDING
FOR SEVERABILITY OF; AND PROVIDING AN EFFECTIVE
DATE.

Motion to adopt Ordinance No. 2022-17
was made by Vice Mayor Scott Stiltner
and Seconded by Council Member
Chase Tramont.

Gideon Smith, Planner, spoke regarding the amendment being requested to remove the
required connectivity of the commercial properties through a residential road as it's no
longer desired.

Motion carried unanimously by roll call
vote.

15. First Reading - Ordinance No. 2022-19 - Amendment/Chapters 13 and 17
of the Land Development Code (Case No. 22-25000004)

Mayor Don Burnette read Ordinance No. 2022-19.

ORDINANCE NO. 2022-19

AN ORDINANCE OF THE CITY OF PORT ORANGE, VOLUSIA
COUNTY, FLORIDA AMENDING THE LAND DEVELOPMENT
CODE CHAPTERS 13 AND 17 TO ALLOW FLEXIBILITY IN THE
DESIGN LAYOUT OF A PARKING LOT FOR USES IN LIGHT
INDUSTRIAL (LI) AND COMMERCIAL INDUSTRIAL (CI) ZONING
DISTRICTS; ADDING WHOLESALERS AND DISTRIBUTORS AS
PERMITTED USES IN THE LIGHT INDUSTRIAL (LI) ZONING
DISTRICT; PROVIDING FOR REPEAL OF CONFLICTING
ORDINANCES; PROVIDING FOR SEVERABILITY; AND

PROVIDING AN EFFECTIVE DATE.

Motion to adopt Ordinance No. 2022-19
was made by Vice Mayor Scott Stiltner
and Seconded by Council Member
Chase Tramont.

Mr. Smith spoke regarding the amendments being proposed.

Robert Reinhausen, citizen, spoke regarding his concern on the reduction of landscaping requirements.

Motion carried unanimously by roll call
vote.

16. Approval of Subdivision Plat for the Town West Subdivision (Case No. 21-50000003)

Motion to approve the Subdivision Plat
for the Town West Subdivision was
made by Vice Mayor Scott Stiltner and
Seconded by Council Member Chase
Tramont.

Mrs. Cruz spoke regarding the details of the plat being proposed and answered questions of Council.

Discussion was held regarding the traffic impact regarding outparcels.

Jessica Gow, Attorney for ALF Applicant, spoke as to the plat being proposed and answered questions of Council.

Motion carried unanimously by roll call
vote.

REGULAR AGENDA

17. First Reading - Ordinance No. 2022-20 - Amending Chapter 2, Article VI,
Division 3, Relating to Submission of Budget

Mayor Don Burnette read Ordinance No. 2022-20.

ORDINANCE NO. 2022-20

AN ORDINANCE OF THE CITY OF PORT ORANGE, VOLUSIA
COUNTY, FLORIDA AMENDING CHAPTER 2, ARTICLE VI,
DIVISION 3, RELATING TO SUBMISSION OF BUDGET AND
CONTENTS THEREOF, AMENDING SECTION 2-291 RELATING

TO THE TIMING REQUIREMENTS OF THE BUDGET SUBMISSION TO CITY COUNCIL; AMENDING SECTIONS 2-293 AND 2-295 RELATING TO THE CONTENT REQUIREMENTS OF THE BUDGET SUBMISSION TO CITY COUNCIL; REMOVING SECTIONS 2-296 AND 2-297 RELATED TO THE BUDGET SUBMISSION TO CITY COUNCIL BY REMOVING REDUNDANT AND OBSOLETE SECTIONS; AMENDING SECTION 2-298 BY REMOVING REDUNDANT AND OBSOLETE LANGUAGE; AMENDING SECTION 2-299 BY UPDATING THE LANGUAGE RELATED TO BUDGET AMENDMENT AUTHORITY CONSISTENT WITH STATE LAW; AND PROVIDING FOR REPEAL OF CONFLICTING ORDINANCES; PROVIDING FOR SEVERABILITY; PROVIDING FOR CODIFICATION; AND PROVIDING AN EFFECTIVE DATE.

Motion to adopt Ordinance No. 2022-20 was made by Vice Mayor Scott Stiltner and Seconded by Council Member Drew Bastian.

John McKinney, Finance Director, explained the cleanup changes to move toward a more traditional budget.

Motion carried unanimously by roll call vote.

ADDITIONAL ITEMS

18. City Attorney

There was nothing further.

19. City Manager

Mr. Clark asked Council to designate a voting delegate for the annual FLC conference being held on August 11-13, 2022. Mayor Burnette will be attending the conference and volunteered to represent the Council. Council agreed.

Motion to nominate Mayor Don Burnette was made by Vice Mayor Scott Stiltner and Seconded by Council Member Reed Foley. Motion carried unanimously by voice vote.

COUNCIL COMMITTEE REPORTS

20. City Council Committee Reports

- a. First Step Shelter - Councilman Chase Tramont had no update.

Regular City Council Meeting

July 19, 2022

Page 7 of 7

b. ArtHaus - Councilman Chase Tramont had nothing to report.

c. Port Orange/South Daytona Chamber of Commerce - Mayor Don Burnette provided details of upcoming events. Mayor Don Burnette congratulated Debbie Connors, Executive Director of the Port Orange/South Daytona Chamber of Commerce, on her upcoming retirement.

ADJOURNMENT - 7:45 p.m.

Mayor Donald O. Burnette

Attest:

Robin Fenwick, MMC
City Clerk

CITY COUNCIL WORKSHOP MINUTES
COUNCIL CHAMBERS – CITY HALL
1000 CITY CENTER CIRCLE
PORT ORANGE, FLORIDA
JULY 25, 2022

THE CITY COUNCIL WORKSHOP of the City of Port Orange was called to order by Mayor Donald O. Burnette at 5:30 p.m.

Silent Invocation

Pledge of Allegiance

Roll Call	Present:	Council Member Reed Foley Council Member Chase Tramont Vice Mayor Scott Stiltner Mayor Donald Burnette
	Absent:	Council Member Drew Bastian
	Also Present:	City Manager Wayne Clark City Attorney Matthew Jones City Clerk Robin Fenwick

DISCUSSION ITEMS

4. Discussion on FY 2022 - 2023 Operating Fund Budgets, Capital Outlay, and Capital Improvement Programs

Wayne Clark, City Manager, opened the item and introduced Jonathan McKinney, Finance Director, to discuss an overview of the budget, key drivers, and city comparisons, as well as a review of funds and next steps for Council to take in the budget adoption process. Mayor Don Burnette requested a list of salaries by position.

Next steps include a workshop in August; two budget hearings. The first hearing to approve the tentative millage rate and budget is scheduled for Wednesday, September 7, 2022 and the second and final hearing is scheduled for Wednesday, September 21, 2022 both at 5:30 p.m. The maximum millage rate will be set on August 2, 2022.

Vice Mayor Scott Stiltner doesn't support a 4.92 millage rate. He asked for specific items that could be cut if Council approves a lower millage rate. Council agreed; they would like to discuss what services would change by lowering the millage rate.

ADJOURNMENT - 6:38 p.m.

Mayor Donald O. Burnette

Attest:

Robin Fenwick, MMC, City Clerk



CITY COUNCIL AGENDA ITEM

COUNCIL MEETING DATE 8/2/2022

SUBJECT: (C9a) Approval to Increase the Contingency Authorization for The REC Project (QPC082) with Saboungi Construction, Inc.

DEPARTMENT: Parks & Recreation

GOAL: 3 - Quality of Life

RECOMMENDED MOTION: Move to approve the increase in contingency authorization for the REC project, subject to the approval of Resolution No. 22-18, and authorize the Mayor and City Clerk to execute the associated documents.

SUMMARY: When the REC was budgeted in FY21, the contingency was budgeted at 8% of the project cost due to budget constraints at that time. Generally, staff budgets 10% for contingencies during construction. This project used most of this allowance on unforeseen items related to some design changes needed due to items uncovered during construction (such as a sewer line not connected, structural steel in different locations, etc.) and the contractor's request for additional days that were discussed at the June 21 Council meeting. The additional time the contractor is using for this project has related increases in costs for the city's architectural design firm and the inspection firm. Staff is requesting that the contingency be increased by \$120,000, bringing the total to \$437,053 or 11% of the project.

If the Council approves the increase in contingencies, the money will be allocated to this project from the balance remaining from two projects completed and closed by the Parks and Recreation Department. The fund transfer is included in Budget Resolution No. 22-18 on this agenda.

PRESENTER: Susan Lovallo

ATTACHMENTS:

Susan Lovallo	Created/Initiated - 6/17/2022
Susan Lovallo	Approved - 6/17/2022
Sandy Woodman	Approved - 6/20/2022
John McKinney	Approved - 6/21/2022
Matthew Jones	Approved - 7/18/2022
Wayne Clark	Approved - 7/22/2022



CITY COUNCIL AGENDA ITEM

COUNCIL MEETING DATE 8/2/2022

SUBJECT: (C9b) Approval of Task Authorization No. 14 under the Kimley Horn and Associates, Inc. Contract for the Preparation of the State Required Update to the City's Water Supply Work Plan and Corresponding Comprehensive Plan Amendments

DEPARTMENT: Community Development

GOAL: 2 - Infrastructure

RECOMMENDED MOTION: Move to approve Task Authorization No. 14 to Kimley Horn and Associates, Inc. contract for the preparation of the required update to the City's Water Supply Work Plan and corresponding Comprehensive Plan amendments, as required by Florida Statutes, and to authorize the Mayor and City Clerk to sign and execute all required contract documents, subject to the approval of Budget Resolution No. 22-18.

SUMMARY: In 2009, the city adopted a Water Supply Work Plan along with corresponding amendments to the City's Comprehensive Plan pursuant to state statutes (Section 163.3177(6)(c)3, F.S.) that required coordination between a local government Comprehensive Plan and a water management district's regional water supply plans to establish a closer link between development decisions and to ensure adequate water supplies are available at the time a certificate of occupancy is issued for residential or commercial use. The City of Port Orange is located within St. John's River Water Management District.

In February 2022, the St. John's River Water Management District governing board approved an update to the Central Springs/East Coast Regional Water Supply Plan (CSEC RWSP). In April 2022, all local governments located in St. John's River Water Management District region were notified of this update, and according to state statutes, all local governments must now update their Water Supply Facilities Work Plan and related Comprehensive Plan by August 2023 to correspond with the recently updated CSEC RWSP.

Kimley Horn and Associates, Inc. recently completed the City's Consumptive Use Permit renewal and the City's Facility Plan for the Water Treatment Plant and Wellfield and is currently updating the City's Comprehensive Plan. Kimley Horn and Associates, Inc has a majority of the data needed to update the City's Water Supply Plan within the timeframe provided by the statutory requirement and ensure consistency between all other recently completed city water supply-related plans or permits and that the updated Comprehensive Plan will correspond with the updated Water Supply Work Plan.

Kimley Horn and Associates, Inc. has provided a Scope of Services and fee proposal to update the City's Water Supply Work Plan and necessary Comprehensive Plan amendments. The total cost of the update is not to exceed \$32,360 and will be funded from Fund 401 Water & Sewer System.

PRESENTER: Penelope Cruz, Tim Burman

ATTACHMENTS:

1.	Kimley Horn Task Authorization No. 14 Water Supply Work Plan Updates	Kimley Horn Task Authorization No. 14 Water Supply Work Plan Updates.pdf
2.	Scope of Services - Water Supply Plan Update	Scope of Services - Water Supply Plan Update.pdf

Penelope Cruz	Created/Initiated - 7/15/2022
Tim Burman	Approved - 7/15/2022
John McKinney	Approved - 7/18/2022
Shannon Balmer	Approved - 7/18/2022
Wayne Clark	Approved - 7/22/2022
Robin Fenwick	Final Approval - 7/22/2022

TASK AUTHORIZATION NO. 14
Master Contract for Engineering Services dated March 19, 2017
Between the City of Port Orange, Florida and Kimley-Horn and Associates, Inc.

THIS Task Authorization is entered into by and between the **CITY OF PORT ORANGE, FLORIDA**, a chartered municipal corporation with its principal place of business at 1000 City Center Circle, Port Orange, Florida 32129 (the "City") and **KIMLEY-HORN & ASSOCIATES, INC.**, a Florida corporation with its principal place of business at 421 Fayetteville Street, Suite 600, Raleigh, North Carolina 27601 ("Contractor"), and hereinafter collectively referred to as the "Parties," and is to that certain Master Contract for Engineering Services dated March 19, 2017, and any amendments thereto, hereinafter collectively referred to as the "Contract." The Parties, in exchange for the mutual covenants contained herein and in the Contract, agree as follows:

1. This Task Authorization expressly modifies the Contract and in the event of a conflict, the terms and conditions of this Task Authorization shall prevail.
2. The Community Development Director, Tim Burman, shall perform contract administration of this Task Authorization. The City may change the contract administration, from time to time and at any time, upon written notice to Contractor. The contact administrator may be contract as follows:

Telephone: (386) 506-5699

E-Mail: tburman@port-orange.org

3. In addition to all other terms and conditions contained in the Contract, Contractor shall provide City Water Supply Work Plan Updates and Corresponding Comprehensive Plan Amendments, and as more particularly described in the Scope of Services attached hereto and incorporated herein as Task Authorization Exhibit "1."
4. Contractor shall complete the services to be provided herein by December 31, 2023.
5. In return for the services identified above, the City agrees to compensate Contractor in an amount not to exceed \$32,360.00. All payments shall be governed by the Local Government Prompt Payment Act as set forth in Sections 218.70 through 218.79, Florida Statutes, as amended.
6. This Task Authorization may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together shall constitute one and the same instrument. The delivery by facsimile or e-mail of an executed copy of this Task Authorization shall be deemed valid as if an original signature was delivered. No contract shall be formed between the Contractor and the City until the City signs this Task Authorization.

IN WITNESS WHEREOF, the Parties have made and executed this Task Authorization for the purposes herein expressed on the dates set forth below.

Witnesses:

KIMLEY-HORN AND ASSOCIATES, INC.

Printed Name: _____

By: _____

B. Kelley Klepper, AICP, Vice President

If this Contract is signed by an individual not identified as the President of the corporation in the records of the Florida Department of State, Division of Corporations, please provide written authorization for that individual to enter into contracts on behalf of the corporation.

Printed Name: _____

Date: _____

Witnesses:

CITY OF PORT ORANGE

Printed Name: _____ By: _____
Donald O. Burnette, Mayor

Printed Name: _____ Date: _____

Witnesses: ATTEST:

Printed Name: _____ By: _____
Robin L. Fenwick, MMC, City Clerk

Printed Name: _____ Date: _____

[CA 5674]

EXHIBIT “1”

Contractor's Quote

Consisting of 11 Pages

SCOPE OF SERVICES

10-YEAR WATER SUPPLY FACILITIES WORK PLAN

Describing a specific agreement between Kimley-Horn and Associates, Inc. (Kimley-Horn), and The City of Port Orange (the Client or the City) in accordance with the terms of the Master Agreement for Continuing Professional Services dated March 9, 2017, which is incorporated herein by reference.

Project Understanding

The City of Port Orange (City) has requested Kimley-Horn provide the professional engineering services associated with the 10-year water supply facilities work plan. The City last had a water supply plan adopted in 2009. Updates to the City's Comprehensive Plan will be completed under the current Comprehensive Plan Task Order.

Specific Scope of Basic Services:

Task 1 – Water Supply Work Plan Update

Kimley-Horn will perform the following services as part of the development of the new 10-year water supply work plan for the City:

- Assemble information on existing service area, water treatment plant monthly operating reports (MORs), records of reclaimed water usage and commitments, population data for the last ten years, interlocal agreements, records of water sales, information on raw water facilities, treatment plant capacities, storage capacities, and compliance issues, Florida Department of Environmental Protection (FDEP) operating permits, future land use maps, available system water loss audits, capital improvement plans, and other active master planning efforts. Kimley-Horn will coordinate with the City staff in acquiring this information.
- Meet with the City to discuss the existing and future service area limits, future developments, upcoming capital improvement projects, current and future water supply capacity, plant operations, current and future level of service, permit limitations, water conservation programs, and known events that could impact the City's ability to provide the system demands for the next 10 years.
- Review available historical population data, potable water production data and reclaimed water production data to establish and/or confirm the existing level of service (LOS), and Annual Average Daily Flow (AADF).
- Develop future use demands for the next 20 years based on the population projections developed in the Consumptive Use Permit Task Order and the level of service developed under this task.
- Prepare a draft copy with exhibits of the 10-year water supply work plan using the City's current water supply plan as a template. It is anticipated that the water supply work plan will include the following sections: system description, population projects, future water

supply demands, future water supply sources, regional water supply issues, conservation programs, and capital improvement projects.

- Meet with the City to review the draft water supply plan and address the comments received during the Comprehensive Plan amendment process.
- Update water supply work plan as reasonably necessary based on comments received during the City's review.

Schedule:

The CONSULTANT will begin work upon Work Authorization approval. We propose the following schedule:

- Prepare draft 10-year Water Supply Plan for the City's review in 12 weeks.
- The City will review the draft 10-year Water Supply Plan and provide comments to Kimley-Horn within 2 weeks after submittal.
- Incorporate comments received from the City's review and submit final 10-year Water Supply Plan within 2 weeks.

It should be noted that there are elements in the schedule in which Kimley-Horn has no direct control such review time by the City and outside agencies. The project schedule will be adjusted to reflect any delay in these items.

Fee and Expenses:

Kimley-Horn will perform the Services for the total lump sum fee of \$32,360 inclusive of expenses. Invoices will be billed on a percent complete basis per task.

Other Special Terms:

Services provided under this agreement will be invoiced on a monthly basis. All invoices will include a description of services provided.

ACCEPTED:

CITY OF PORT ORANGE, FLORIDA

BY: See Page 3 of Task Authorization No. 14

TITLE: _____

DATE: _____

KIMLEY-HORN AND ASSOCIATES, INC.

BY: B. Kelley Klepper
B. Kelley Klepper, AICP

TITLE: Vice President

DATE: 7/13/2022

SCOPE OF SERVICES

10-YEAR WATER SUPPLY FACILITIES WORK PLAN

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- Meet with the City to discuss the existing and future service area limits, future developments, upcoming capital improvement projects, current and future water supply capacity, plant operations, current and future level of service, permit limitations, water conservation programs, and known events that could impact the City's ability to provide the system demands for the next 10 years.
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ACCEPTED:

CITY OF PORT ORANGE, FLORIDA

BY: _____

TITLE: _____

DATE: _____

KIMLEY-HORN AND ASSOCIATES, INC.

BY: B. Kelley Klepper

B. Kelley Klepper, AICP

TITLE: Vice President

DATE: 7/13/2022



CITY COUNCIL AGENDA ITEM

COUNCIL MEETING DATE 8/2/2022

SUBJECT: (C10) Resolution No. 22-18 - Approval of Third Quarter Budget Amendments for Fiscal Year 2021-2022

DEPARTMENT: Finance

GOAL: 2 - Infrastructure, 5 - Fiscal Sustainability

RECOMMENDED MOTION: Move to approve Resolution No. 22-18.

SUMMARY: This is the third quarter of the fiscal year budget review through June 30, 2022. Staff performed a review of the revenue and expenditure figures through the third quarter to compare the current amounts with the amount budgeted. In addition, a review of departmental operating needs was performed to see if adjustments were needed. Additionally, City Council provided guidance on the use of the American Rescue Plan Act on how to expend funds and this is included within this amendment.

Staff requests the Council amend the Fiscal Year 2021-2022 budget by revising the budget in total pursuant to itemization contained in Exhibit "A" of the Resolution.

Highlights of the budget amendments are:

1. American Rescue Funding for Network Security & Infrastructure.
2. Prior Year Project Balance Roll
3. Current Year project funding as approved by the Council
4. Account for future debt issuance for generator replacement at the water plant.
5. Close out projects that have been placed on hold for future year funding.

PRESENTER: John McKinney

ATTACHMENTS:

1.	Resolution No. 22-18 with exhibit	Resolution No. 22-18 with exhibit.pdf
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Robin Fenwick
John McKinney
Matthew Jones

Created/Initiated - 6/28/2022
Approved - 7/20/2022
Approved - 7/21/2022

Wayne Clark
Robin Fenwick

Approved - 7/22/2022
Final Approval - 7/22/2022

RESOLUTION NO. 22-18

A RESOLUTION OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA, PERTAINING TO BUDGET ADJUSTMENTS FOR FISCAL YEAR 2021-22; PROVIDING FOR APPROVAL OF 2021-2022 BUDGET ADJUSTMENTS; PROVIDING FOR SCRIVENER'S ERRORS; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, on September 22, 2021, the City of Port Orange, adopted Resolution 21-46, 21-47, 21-49 and 21-51, approving the City's total operating and capital budgets for Fiscal Year 2021-22; and

WHEREAS, the City of Port Orange adopted Resolution 21-58 and 21-60, on October 19, 2021; Resolution 21-61, on November 2, 2021; Resolution 21-65, on November 16, 2021; and Resolution 21-68 and 21-69, on December 7, 2021; Resolution 22-1 on January 18, 2022; Resolution 22-6 and 22-7 on February 15, 2022; Resolution 22-14 on May 17, 2022, each amending the total operating budget for Fiscal Year 2021-22; and

WHEREAS, in order to recognize unanticipated revenues and expenditures, it is necessary to make adjustments to the City's 2021-22 operating budget.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA:

Section 1. Approval of 2021-2022 Budget Adjustments. The City's 2021-22 Operating Budget is hereby adjusted as set forth in **Exhibit "A"** attached hereto. As applicable, the transfer of funds may be made from any legally acceptable source.

Section 2. The budget items adopted in the preceding section shall govern the expenditures relating to such items for the City during the ensuing fiscal year effective October 1, 2021 through September 30, 2022.

Section 3. Supplemental appropriations, reductions of appropriations, emergency

appropriations, and interdepartmental transfers of appropriations may be affected by the City Council and the City Manager as deemed necessary in strict compliance with the procedures specified in Chapter 2, Article VI, Division 3, Code of Ordinances, City of Port Orange, Florida.

Section 4. Scrivener's Errors. Typographical errors and other matters of a similar nature that do not affect the intent of this Resolution, as determined by the City Clerk and City Attorney, may be corrected.

Section 5. This resolution shall become effective immediately upon adoption.

MAYOR DONALD O. BURNETTE

ATTEST:

Robin Fenwick, MMC, City Clerk

Adopted on the _____ day of _____

Reviewed and Approved: _____
Matthew J. Jones, City Attorney



Exhibit "A"

AMENDED BUDGET FISCAL YEAR 2021 - 2022

Fund	Description	Resolution 21-46; 21-47; 21-49; 21-51	Resolution 21-58	Resolution 21-60	Resolution 21-61	Resolution 21-65	Resolution 21-68	Resolution 21-69	Resolution 22-1	Resolution 22-6	Resolution 22-7	Resolution 22-14	Resolution 22-18	Amended Budget
001	General	45,196,872				(190,427)			922,699		(90,712)	3,951,346	1,958,579	51,748,357
019	Federal Disaster Funds	-										9,981,987		9,981,987
102	Tax Increment - Eastport	250,171												250,171
103	Tax Increment - Town Center	493,633												493,633
106	Recreational Facilities	59,500								37,824	1,212			98,536
109	Building Special Revenue	2,563,529				70,000			1,319,858		110,000		50,000	4,113,387
110	CDBG Special Revenue	398,763							470,170		100			869,033
199	Grant Special Revenue	5,087,136					20,041	13,486	1,196,055			(5,000,000)		1,316,718
214	Debt Svc GO	903,269												903,269
217	Debt Svc Eastport Tax Note	235,101												235,101
218	Debt Svc Town Center Bonds	402,069												402,069
220	Debt Svc Bonds	1,153,675												1,153,675
301	Capital Projects	1,747,083							2,235,535			100,650		4,083,268
306	Transp Cap Projects	150,250												150,250
311	Fire Impact Fee	222,782		80,000					369,833					672,615
312	Transp Impact Fee	740,150							440,630		30,001		4,000	1,214,781
317	General Cap Rplcmnt	1,500,500							5,026,536			1,303,540	1,740,574	9,571,150
401	Water / Sewer	33,872,093	55,000		40,000	(5,000)			4,536,693			2,151,327	32,360	40,682,473
403	W / S R&R	7,178,576							10,642,463		160,678		4,425,330	22,407,047
405	W / S Impact Fee	412,000							5,036,988		845,807	100,000		6,394,795
410	Solid Waste	8,549,436				500								8,549,936
412	Drainage	5,244,458				102,691			4,714,865		46,800			10,108,814
414	Drainage Bond Sinking	702,504												702,504
416	Wetland Mitigation	94,942				500								95,442
417	Water/Sewer Bond Debt Svc	4,173,388												4,173,388
418	SRF Debt Service	1,698,982												1,698,982
420	Forestry	423,382				4,500			69,356					497,238
450	Golf Course Operating	1,552,873				(1,618)			20,781				1,878,279	3,450,315
501	Information Technology	2,691,004				(3,000)			35,883					2,723,887
503	Vehicle Maintenance	1,210,833				3,000								1,213,833
504	Risk Management	1,958,597				2,000			702,336		(665,464)			1,997,469
505	Lease & Replacement	2,092,760							1,333,207			561,345	2,053,872	6,041,184
506	Building Maint	3,299,551				(5,000)			216,774				20,318	3,531,643
508	Loan Pool	294,885				(1,618)							3,700,000	3,993,267
606	Police Benefit Trust	4,900												4,900
607	Police Forfeiture	67,000									234,642			301,642
611	Recreation Impact Fee	17,700							1,917,823			22,540		1,958,063
615	Police Education Trust	7,000												7,000
621	Recreation Scholarship	27,300												27,300
625	Federal Police Forfeiture	50,000												50,000
	Grand Total:	136,728,647	55,000	80,000	40,000	(23,472)	20,041	13,486	41,208,485	37,824	673,064	13,172,735	15,863,312	207,869,122

**Exhibit "A" DETAIL FOR RES. 2022-18
STAFF RECOMMENDED ADJUSTMENTS**

FUND	ACCOUNT DESCRIPTION	PROPOSED ADJUSTMENT	Description
GENERAL FUND - 001	TRANSFER IN - LOAN PROCEEDS	1,658,210	PRIOR YEAR - INTEREST EARNINGS
	PRIOR YEAR FUND BALANCE	220,069	TRANSFER TO FUND 450 GOLF COURSE PRIOR YEAR PROJECT BALANCE ROLL
	PRIOR YEAR FUND BALANCE	80,300	OBM200 FS 74 HVAC REPLACEMENT - 080222 CC ITEM C8A
	REVENUES	1,958,579	
	CAPITAL OUTLAY - FIRE	80,300	OBM200 FS 74 HVAC REPLACEMENT - 080222 CC ITEM C8A
	TRANSFER OUT - TRANSFER TO GOLF COURSE	1,878,279	TRANSFER TO FUND 450 GOLF COURSE PRIOR YEAR PROJECT BALANCE ROLL
	CURRENT YEAR FUND BALANCE		CURRENT YEAR FUND BALANCE
	EXPENDITURES	1,958,579	
		-	
	REVENUES	-	
FEDERAL DISASTER - 019	NON-DEPARTMENTAL - OTHER FINANCING USES	(250,000)	NETWORK SECURITY & INFRASTRUCTURE UPGRADES (ARPA FUNDING)
	INFORMATION TECHNOLOGY -OTHER SUPPLIES AND EXPENSES	250,000	NETWORK SECURITY & INFRASTRUCTURE UPGRADES (ARPA FUNDING)
	EXPENDITURES	-	
		-	
BUILDING INSPECTIONS - 109	PRIOR YEAR FUND BALANCE	50,000	RAFTELIS RATE STUDY - BUILDING PERMIT FEES
	REVENUES	50,000	
	OTHER PROFESSIONAL SERVICES	50,000	RAFTELIS RATE STUDY - BUILDING PERMIT FEES
	EXPENDITURES	50,000	
TRANSPORTATION IMPACT - 312	PRIOR YEAR FUND BALANCE	4,000	OMI033 PROJECT BALANCE ROLL FROM FY21
	REVENUES	4,000	
	OTHER PROFESSIONAL SERVICES	4,000	OMI033 PROJECT BALANCE ROLL FROM FY21
	EXPENDITURES	4,000	

GENERAL CAPITAL REPLACEMENT - 317

TRANSFER FROM GENERAL FUND	3,783,553	PROJECT BALANCE ROLL
PRIOR YEAR FUND BALANCE	(2,042,979)	PROJECT CLOSE OUT
REVENUES	1,740,574	
CAPITAL - PUBLIC WORKS	34,655	CNE200 - WORKSHOP/MAINTENANCE BUILDING
CAPITAL - POLICE	50,000	OIO201 - POLICE DEPT. IMPOUND YARD
CAPITAL - PUBLIC WORKS	20,000	ORE200 - CITY CENTER TUNNEL REPLACEMENT
CAPITAL - CITY MANAGER	70,002	ZMI003 - CITY TELEVISION STATION
CAPITAL - COMMUNITY DEVELOPMENT	125,898	ZMI076 - ADA TRANSITION PLAN
CAPITAL - COMMUNITY DEVELOPMENT	3,729	AIO032 - LANDSCAPE IMPRV I-95
CAPITAL - COMMUNITY DEVELOPMENT	4,000	AIO032 - LANDSCAPE IMPRV I-95
CAPITAL - INFORMATION TECHNOLOGY	31,204	TIP200 - SURVEILLANCE SYSTEM
CAPITAL - INFORMATION TECHNOLOGY	30,792	TIP200 - SURVEILLANCE SYSTEM
CAPITAL - COMMUNITY DEVELOPMENT	200,000	ZMI076 - ADA TRANSITION PLAN
CAPITAL - PUBLIC WORKS	56,250	QIP202 - CHGC ROOF REPAIR & REPLACEMENT
CAPITAL - PARKS AND RECREATIONS	45,467	QPC067 - FENCE, DUGOUT, BKSTP RPLC
CAPITAL - PARKS AND RECREATIONS	87,606	QPC073 - LAKESIDE HVAC REPLACEMENT
CAPITAL - PARKS AND RECREATIONS	29,878	QPC074 - PLAYGROUND REPLACEMENTS
CAPITAL - PARKS AND RECREATIONS	1,407,264	QPC072 - REC CTR (REMODEL) GYM
CAPITAL - PARKS AND RECREATIONS	332,000	QPX201 - BALLFIELD LAMP REPLACEMENT
CAPITAL - PARKS AND RECREATIONS	69,808	QPI202 - PARKS MAINTENANCE BUILDING
CAPITAL - PARKS AND RECREATIONS	200,000	XLG201 - AIRPORT ROAD PARK PLAYGROUND REPLACEMENT
CAPITAL - POLICE	453,000	ZMI205 - P25-P2 POLICE RADIO COMPATIBILITY PURCHASE & UPGRADES
CAPITAL - PUBLIC WORKS	60,000	PNC202 - ROAD TO POLICE DEPT SHOOTING RANGE
CAPITAL - PUBLIC WORKS	202,000	POL200 - RESURFACING CAUSEWAY PARK
CAPITAL - PUBLIC WORKS	200,000	OBM012 - REPAIRS PW FACILITY
CAPITAL - PUBLIC WORKS	70,000	POL202 - RESURFACE PUBLIC WORKS FACILITY
CAPITAL - PUBLIC WORKS	(1,290,390)	OBM008 - CITY HALL BUILDING HVAC - TO BE DELAYED DUE TO AVAILABLE FUNDING
CAPITAL - COMMUNITY DEVELOPMENT	(158,429)	ZMI065 - CITY HALL REPURPOSING - TO BE DELAYED DUE TO AVAILABILE FUNDING
CAPITAL - COMMUNITY DEVELOPMENT	(594,160)	AIO034 - CLOSE PROJECT RIVERWALK SOUTH PHASE I - DUE TO PROPERTY SALE
CAPITAL - PARKS AND RECREATIONS	(85,876)	QPC073 - CLOSE PROJECT, TRANSFER FUNDS
CAPITAL - PARKS AND RECREATIONS	(34,124)	QPC081 - PROJECT BALANCE NOT ROLLED
CAPITAL - PARKS AND RECREATIONS	120,000	QPC082 - REC CENTER PROJECT 082222 CC ITEM C8B
EXPENDITURES	1,740,574	
WATER AND SEWER - 401		
PRIOR YEAR FUND BALANCE	32,360	KIMBERLY HORN TA WATER SUPPLY PLAN UPDATE 080222 CC ITEM C8d
REVENUES	32,360	
CONTRACTED SERVICES - WATER	32,360	KIMBERLY HORN TA WATER SUPPLY PLAN UPDATE 080222 CC ITEM C8d
EXPENDITURES	32,360	

W/S R&R - 403

WATER PLANT	4,425,330	DEBT PROCEEDS FOR GENERATOR REPLACEMENT 080222 CC G22A
REVENUES	4,425,330	
CAPITAL OUTLAY - WATER PLANT	4,425,330	DEBT PROCEEDS FOR GENERATOR REPLACEMENT 080222 CC G22A
EXPENDITURES	4,425,330	

GOLF COURSE - 450

TRANSFER IN - GENERAL FUND	1,878,279	PRIOR YEAR OPERATING AND PROJECT BALANCE ROLL TRANSFER
REVENUES	1,878,279	
CURRENT YEAR APPROPRIATIONS - 2018	1,269,487	CLOSE OUT OF PRIOR YEAR OPERATING AND PROJECT EXPENDITURES
CURRENT YEAR APPROPRIATIONS - 2019	261,698	CLOSE OUT OF PRIOR YEAR OPERATING AND PROJECT EXPENDITURES
CURRENT YEAR APPROPRIATIONS - 2020	13,743	CLOSE OUT OF PRIOR YEAR OPERATING AND PROJECT EXPENDITURES
CURRENT YEAR APPROPRIATIONS - 2021	333,351	CLOSE OUT OF PRIOR YEAR OPERATING AND PROJECT EXPENDITURES
EXPENDITURES	1,878,279	

LEASE & REPLACEMENT - 505

TRANSFER IN - LOAN POOL	2,053,872	PRIOR YEAR INTEREST EARNINGS
REVENUES	2,053,872	
CURRENT YEAR APPROPRIATIONS	2,053,872	PRIOR YEAR INTEREST EARNINGS
EXPENDITURES	2,053,872	

BUILDING MAINTENANCE - 506

TRANSFER IN - LOAN POOL	20,318	PRIOR YEAR INTEREST EARNINGS
REVENUES	20,318	
CURRENT YEAR APPROPRIATIONS	20,318	PRIOR YEAR INTEREST EARNINGS
EXPENDITURES	20,318	

LOAN POOL - 508

PRIOR YEAR FUND BALANCE	3,700,000	PRIOR YEAR INTEREST EARNINGS
REVENUES	3,700,000	
TRANSFER OUT - GENERAL FUND	1,625,810	
TRANSFER OUT - LEASE & REPLACEMENT	2,053,872	
TRANSFER OUT - BUILDING MAINTENANCE	20,318	PRIOR YEAR INTEREST EARNINGS
EXPENDITURES	3,700,000	

REVENUES
15,863,312

EXPENDITURES
15,863,312

VARIANCE

-



CITY COUNCIL AGENDA ITEM

COUNCIL MEETING DATE 8/2/2022

SUBJECT: (C11) Resolution No. 22-19 - Declaring Council Members for District 1, 2, and 4

DEPARTMENT: City Clerk

GOAL: 6 - Organizational Excellence

RECOMMENDED MOTION: Move to approve Resolution No. 22-19.

SUMMARY: On April 19, 2022, Council adopted Resolution No. 22-13 calling a primary and regular election for the purpose of electing a City Council member for Districts 1, 2, and 4 and providing a qualifying period beginning on Monday, June 13, 2022 at 12:00 p.m. (noon) and ending on Friday, June 17, 2022 at 12:00 p.m. (noon).

In the event not more than one person qualifies as a candidate for a designated seat on the City Council to be filled at an election, that seat shall not be listed on the primary or regular city election ballot. Each unopposed candidate shall be deemed to have voted for himself/herself.

One person qualified for each of the three (3) open positions and shall be deemed to have voted for himself/herself and will not appear on the ballot. They are as follows:

District 1 - Jonathan "Reed" Foley

District 2 - Catherine "Kat" Atwood

District 4 - Scott Stiltner

PRESENTER: Robin Fenwick

ATTACHMENTS:

1.	Resolution No 22-19 Declaring Council members	Resolution No 22-19 Declaring Council members.pdf
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Robin Fenwick
Matthew Jones
Wayne Clark

Created/Initiated - 6/30/2022
Approved - 7/21/2022
Approved - 7/22/2022

RESOLUTION NO. 22-19

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF
PORT ORANGE, VOLUSIA COUNTY, FLORIDA,
DECLARING THE COUNCIL MEMBERS ELECTED IN
DISTRICTS 1, 2, AND 4; AND PROVIDING AN EFFECTIVE
DATE.

WHEREAS, a primary and general election for the City Council Districts 1, 2, and 4 was called by the Port Orange City Council to be held in the City of Port Orange, Volusia County, Florida, with the primary election to be held on August 23, 2022, and a regular election to be held on November 8, 2022, pursuant to the provisions of the City Charter, as amended;

WHEREAS, the qualifying period for the election was established and began Monday, June 13, 2022 at 12:00 p.m. (noon) and ended Friday, June 17, 2022 at 12:00 p.m. (noon);

WHEREAS, said qualifying period was duly and properly held in accordance with City Resolution No. 22-13, the Charter of the City of Port Orange, and applicable state law; and

WHEREAS, in the event not more than one person qualifies as a candidate for a designated seat on the City Council to be filled at an election, that seat shall not be listed on the ballot, and each unopposed candidate shall be deemed to have voted for himself/herself.

NOW, THEREFORE, BE IT RESOLVED, DETERMINED, FOUND, DECLARED, AND HEREBY RATIFIED BY THE CITY COUNCIL OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA, at a public meeting of said City Council, duly held, at which the official qualifying requirements have been duly accepted and ratified according to the Charter of the City of Port Orange, Florida and applicable state law:

Section 1. The duly qualified candidates for each district are as follows:

DISTRICT 1 - Jonathan "Reed" Foley

DISTRICT 2 - Cathleen "Kat" Atwood

DISTRICT 4 - Scott Stiltner

Section 2. The City Council hereby declares the council members as follows:

DISTRICT 1

Jonathan "Reed" Foley (unopposed)

DISTRICT 2

Cathleen "Kat" Atwood (unopposed)

DISTRICT 4

Scott Stiltner (unopposed)

Section 3. The election process is found to have been in all respects conducted in accordance with law.

Section 4. This resolution shall be deemed effective immediately upon adoption.

MAYOR DONALD O. BURNETTE

ATTEST:

Robin L. Fenwick, MMC, City Clerk

Adopted on the _____ day of August, 2022.

Reviewed and Approved: _____
Matthew J. Jones, City Attorney



CITY COUNCIL AGENDA ITEM

COUNCIL MEETING DATE 8/2/2022

SUBJECT: (C12) Resolution No. 22-20 - Partial Easement Vacation - Lot 18, River Oaks Subdivision (6204 Oak River Terrace)

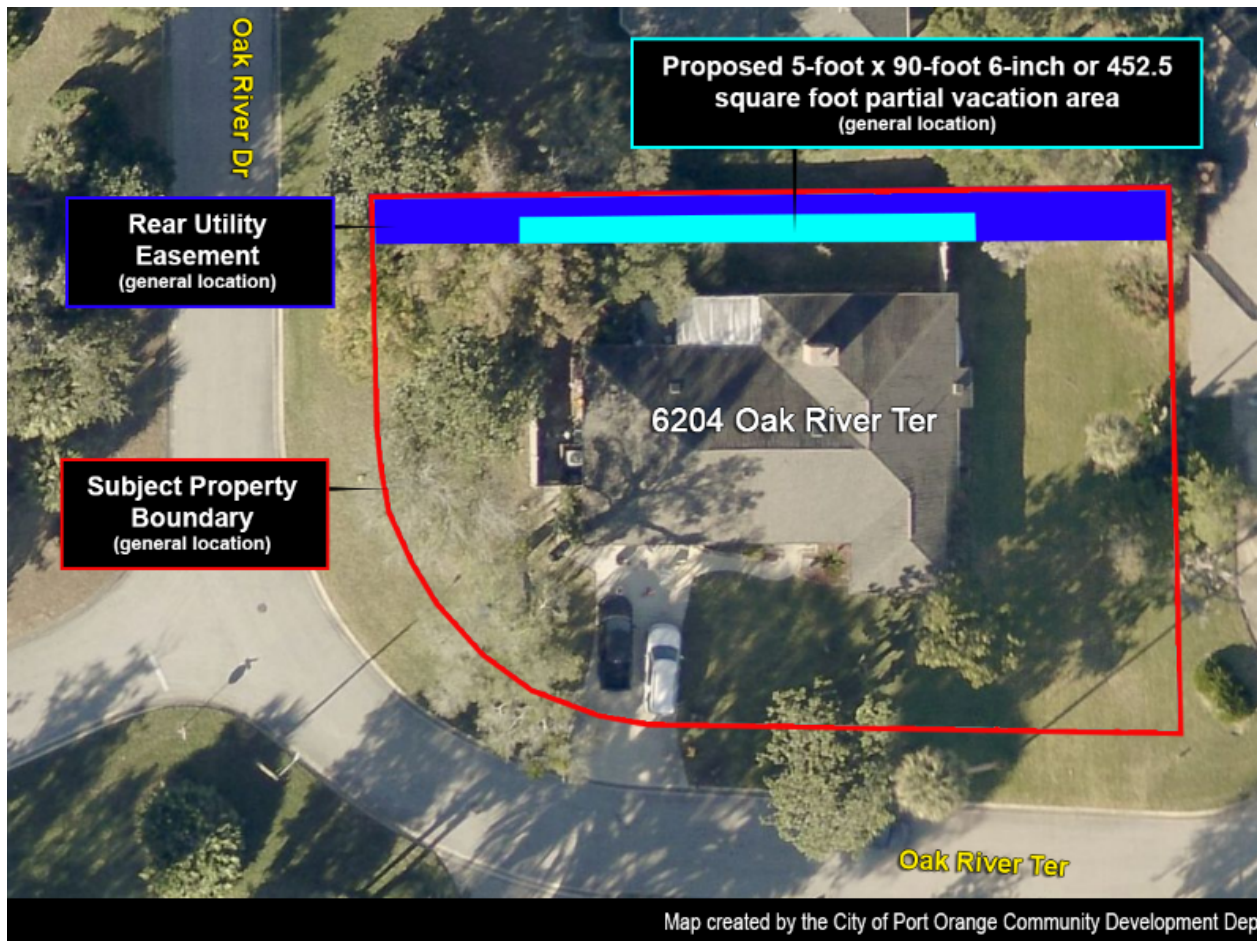
DEPARTMENT: Community Development

GOAL: 3 - Quality of Life

RECOMMENDED MOTION: Move to approve Resolution No. 22-20 to vacate 5-foot wide portion of the existing 10-foot wide Utility Easement located on Lot 18 of River Oaks Subdivision.

SUMMARY: Community Development has received an easement vacation application for a partial vacation of an existing Utility Easement to accommodate the construction of a swimming pool and pool deck. The subject property, Lot 18 in the River Oaks Subdivision, is located at 6204 Oak River Terrace. There is a platted 10-foot-wide Utility Easement along the rear property line. The property owners, Clay and Anna Owensby met with City staff regarding the proposed partial easement vacation and there is no staff objection to the vacation of a 5-foot x 90-foot 6-inch portion or 452.5 square feet of the existing 10-foot-wide Utility Easement (1,600 square feet) along the rear property line.

The easement vacation application and legal description have been reviewed for completeness and accuracy. City departments have reviewed the application and have no outstanding concerns. There are no planned utility improvements proposed for the subject area. All franchise utility companies have provided a release letter for the subject area. The easement area requested to be vacated is shown below and as described in the attached Resolution.



PRESENTER: Tim Burman

ATTACHMENTS:

1.	Resolution No. 22-20 with exhibit	8-2 Reso. No. 22-20 Partial Easement Vacation.pdf
2.	6204 Oak River Terrace - Proposed Pool Layout	SKM_C75922063012590.pdf

Lisa Epstein
Tim Burman
Shannon Balmer
Wayne Clark
Robin Fenwick

Created/Initiated - 6/30/2022
Approved - 7/14/2022
Approved - 7/21/2022
Approved - 7/22/2022
Final Approval - 7/22/2022

RESOLUTION NO.22-20

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF
PORT ORANGE, VOLUSIA COUNTY, FLORIDA,
VACATING A PORTION OF THE REAR YARD DRAINAGE
EASEMENT LOCATED AT 6204 OAK RIVER TERRACE,
LOT 18 OF RIVER OAKS, A PLANNED UNIT
DEVELOPMENT; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, Richard C. Owensby and Anna E. Owensby, are the record owners of Lot 18, River Oaks, a Planned Unit Development, according to the Warranty Deed recorded in Official Records Book 7697, Page 2783, Public Records of Volusia County, Florida, and have applied for the vacation of a 5-foot by 90-foot 6-inch portion of the existing 10-foot-wide Utility Easement located at 6204 Oak River Terrace, in connection with the construction of a pool and concrete decking; and

WHEREAS, the applicant has complied with the requirements of Section 177.101(4), Florida Statutes; and

WHEREAS, the City Council of the City of Port Orange has the power and authority to vacate publicly dedicated easements within the City limits under constitutional home rule powers and Chapters 166 and 177, Florida Statutes; and

WHEREAS, the City Council of the City of Port Orange has determined that the public's interest in that portion of the easement to be vacated is not required in its present location, and that it is in the best interest and welfare of the City of Port Orange and the citizens thereof to vacate and abandon that portion of the utility easement as more particularly described on the attached **Exhibit "A."**

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA:

Section 1. The interest of the public in the portion of the utility easement depicted and described on the attached Exhibit "A," is hereby declared to be vacated and abandoned, and any right, title, and interest of the public in and to the attached easement hereby vacated are renounced and disclaimed. All other easements located within Lot 18, River Oaks, A Planned Unit Development, according to Map Book 41, Page 152, Public Records, Volusia County, Florida, not previously vacated shall remain in full force and effect.

Section 2. By accepting this vacation of the utility easement, the Property Owner accepts full and sole responsibility for any damage to any private improvements placed or constructed within the vacated area.

Section 3. This resolution shall become effective immediately upon recording of a certified copy of this resolution in the Public Records of Volusia County, Florida.

MAYOR DONALD O. BURNETTE

ATTEST

Robin L. Fenwick, MMC, City Clerk

Adopted on the _____ day of _____, 2022

Reviewed and Approved: _____
Shannon K. Balmer, Assistant City Attorney

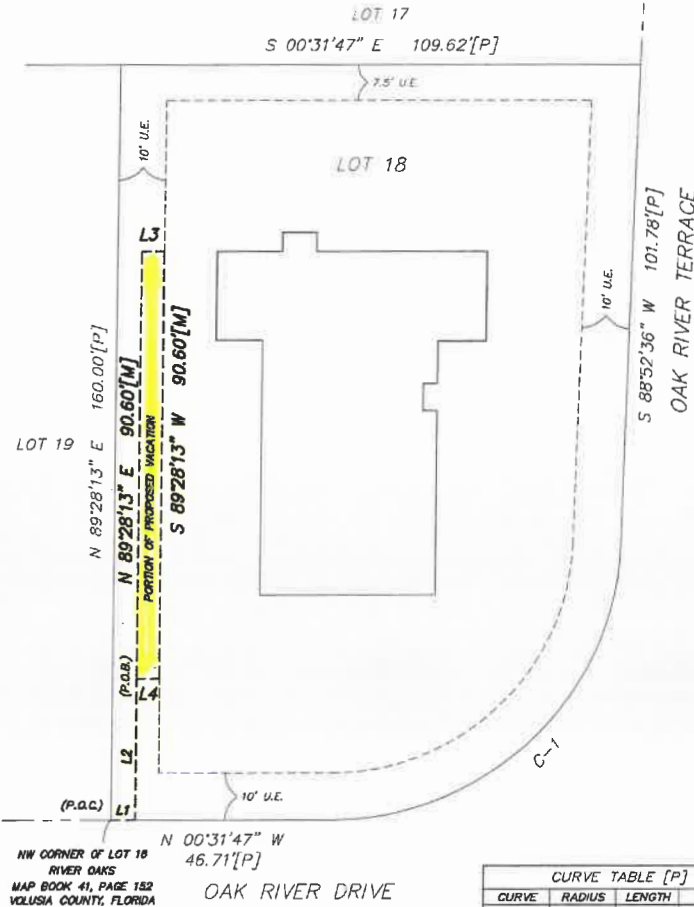
EXHIBIT "A"

LEGAL DESCRIPTION:

SKETCH OF DESCRIPTION: FROM THE NORTH EAST CORNER OF LOT 18, RIVER OAKS, ACCORDING TO THE MAP OR PLAT THEREOF AS RECORDED IN MAP BOOK 41, PAGE 152, OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, ALONG THE WESTERLY LINE OF LOT 18 AND THE EAST RIGHT OF WAY LINE OF OAK RIVER DRIVE, S 00°31'47" E, A DISTANCE OF 10 FEET TO A POINT; THENCE DEPARTING SAID RIGHT OF WAY, RUN N 89°28'13" E, A DISTANCE OF 30 FEET TO THE POINT OF BEGINNING OF THIS PARCEL TO BE VACATED; THENCE RUN N 89°28'13" E, A DISTANCE OF 90.6 FEET; THENCE RUN S 00°31'47" E, A DISTANCE OF 5.00 FEET; THENCE RUN S 89°28'13" W, A DISTANCE OF 90.6 FEET; THENCE RUN N 00°31'47" W, A DISTANCE OF 5.00 FEET TO THE POINT OF BEGINNING.

SHEET 1 OF 1

SKETCH OF DESCRIPTION: 5.00' WIDE PART VACATION OF EASEMENT



SCALE: 1"=30'

ABBREVIATIONS / LEGEND

- LB = LICENSED BUSINESS
- P.B. = PLAT BOOK
- P.G. = PAGE
- P.I.D. = PARCEL IDENTIFICATION NUMBER
- (P.O.B.) = POINT OF BEGINNING
- (P.O.C.) = POINT OF COMMENCEMENT
- (P.O.L.) = POINT ON LINE
- (P.O.T.) = POINT OF TERMINUS
- D.E. = DRAINAGE EASEMENT
- U.E. = UTILITY EASEMENT
- o = CHANGE IN DIRECTION
- CL = CENTER LINE
- R/W = RIGHT OF WAY
- M = MEASURED
- P = PLAT
- L1 = LINE NUMBER
- C-1 = CURVE NUMBER

LINE TABLE [M]		
LINE	LENGTH	BEARING
L1	5.00'	S 00°31'47" E
L2	30.00'	N 89°28'13" E
L3	5.00'	S 00°31'47" E
L4	5.00'	N 00°31'47" W

CURVE TABLE [P]			
CURVE	RADIUS	LENGTH	DELTA
C-1	60.00'	92.52'	88°20'49"

SURVEYORS CERTIFICATE

Certification: I certify that this Survey was made under my direction and that it meets the minimum technical standards set forth by the Board of Professional Land Surveyors and Mappers in Chapter 5J-17.052, Florida Administrative Code, pursuant to Section 472.027, Florida Statutes.



06/20/2022

CERTIFIED BY: LOUIS RAMIREZ PSM NO. 6304 DATE
Long Surveying, Inc.
 "Specializing in Residential Surveying"
 1061 S. Sun Dr. Ste. #1113 Lake Mary, FL 32746
 Office 407-330-9717 or 407-330-9716 Fax 407-330-9775
 www.longsurveying.com
 LB No. 7371

CERTIFIED TO: PETER A. VOSBURY & LINDA J. VOSBURY

I HEREBY CERTIFY THAT THE SKETCH OF DESCRIPTION OF THE HEREON DESCRIBED PROPERTY WAS PREPARED UNDER MY DIRECT SUPERVISION AND MEETS THE MINIMUM TECHNICAL STANDARDS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17-0.050 THROUGH 5J-17-0.052, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO CHAPTER 472.027, FLORIDA STATUTES.

IN ACCORDANCE WITH CH-5J-17 OF THE FLORIDA ADMINISTRATIVE CODE, THIS DESCRIPTION AND SKETCH OF DESCRIPTION BEARS THE NOTATION:
THIS IS NOT A SURVEY

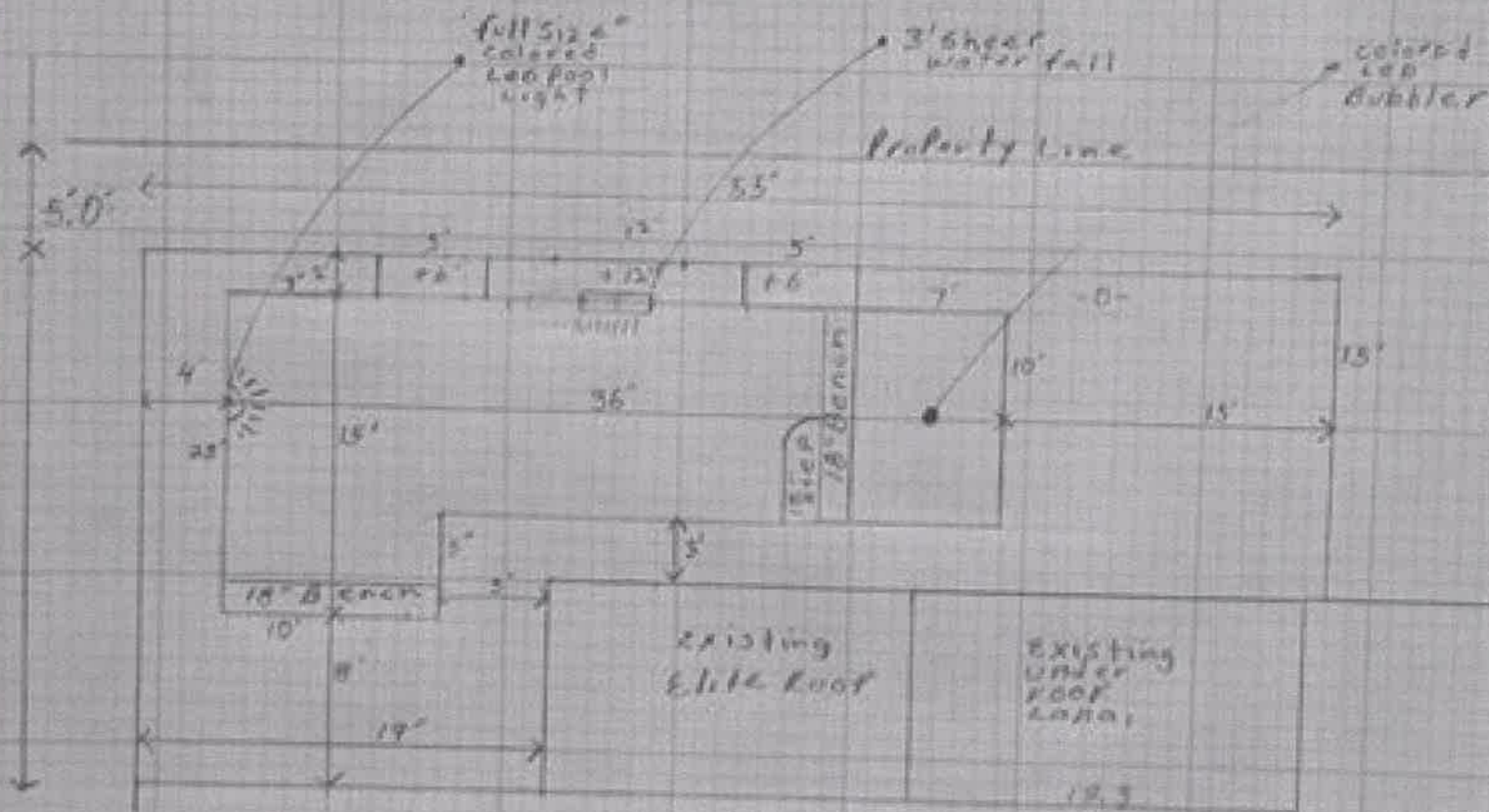
SURVEYOR'S NOTES

1. BEARINGS SHOWN HEREON ARE BASED UPON THE NORTHERLY LINE OF LOT 18 BEING N 89°28'13" E PER PLAT
2. THIS DRAWING IS A DESCRIPTION SKETCH ONLY AND DOES NOT REPRESENT A FIELD SURVEY OF THE PARCEL DESCRIBED.

PROPERTY ADDRESS: 6204 OAK RIVER TERRACE, PORT ORANGE, FL.

P.I.D NO. 632703000180	DRAWN	LR	DATE	06/20/2022	SCALE	1"=30'
	CHECKED	LR	DATE	06/20/2022	JOB NO.	125131A

Clay
6204 Oak River Terr. Port Orange
904 626 0212





CITY COUNCIL AGENDA ITEM

COUNCIL MEETING DATE 8/2/2022

SUBJECT: (C13) Resolution No. 22-21 - Approval of HUD CDBG Plan Year 2022 Annual Action Plan

DEPARTMENT: Finance

GOAL: 3 - Quality of Life and 5 - Fiscal Sustainability

RECOMMENDED MOTION: Move to approve Resolution No. 22-21, the CDBG PY2022 Annual Action Plan; to authorize staff to submit to the U.S. Department of Housing and Urban Development (HUD); and authorize Mayor and City Clerk to execute all necessary documents

SUMMARY: As a recipient of the U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant (CDBG), the City of Port Orange is eligible for annual allocations in support of an approved 5-Year Consolidated Plan. The Annual Action Plan serves as the City's application for the eligible annual funding, and describes needs, goals, and objectives in support of the 5-Year Consolidated Plan.

The City of Port Orange was notified by letter on May 13, 2022 of the anticipated PY2022 (October 1, 2022 – September 30, 2023) CDBG allocation of \$394,012.00. To receive these funds, the City must submit an application in the form of an Annual Action Plan that is consistent with the City's Five (5) Year CDBG Consolidated Plan, as approved by HUD.

The staff is proposing that the City's PY2022 CDBG allocation be expended on the (A) Jackson Street and Oak Street Drainage Improvements Project (\$315,210), and (B) Planning and Administration (\$78,802). The proposed PY2022 Annual Action Plan has been made available for review through the City's CDBG web page. In addition, the opportunity for public comment was advertised in the Daytona Beach News-Journal on June 24, 2022, in compliance with the City's Citizen Participation Plan. The required citizen comment period, including a public hearing that was held on July 5, 2022, ended on July 25, 2022. Upon approval by the City Council, this plan will be submitted to HUD for review and approval.

PRESENTER: John McKinney

ATTACHMENTS:

1.	Resolution No. 22-21	8-2 Reso 20-22 Approval of CDBG PY22 & Acceptance.pdf
2.	PY2022 Annual Action Plan DRAFT	PY2022 Annual Action Plan DRAFT.docx
3.	News Journal Published Notice	News Journal Published Notice.pdf
4.	Public Notice PY22 CDBG	Public Notice PY22 CDBG.pdf
5.	Non-State Certifications 2022	Non-State Certifications 2022.pdf
6.	SF424 2022	SF424 2022.pdf
7.	SF424D 2022	SF424D 2022.pdf
8.	CDBG Hearing Sign in Sheet	CDBG Hearing Sign in Sheet.pdf

John McKinney

Created/Initiated - 7/15/2022

John McKinney

Approved - 7/18/2022

Matthew Jones

Approved - 7/21/2022

Wayne Clark

Approved - 7/22/2022

Robin Fenwick

Final Approval - 7/22/2022

RESOLUTION NO. 22-21

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA; FOR ACCEPTANCE OF \$394,012.00 IN GRANT FUNDS FROM THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT COMMUNITY DEVELOPMENT BLOCK GRANT ("CDBG"); APPROVING THE CDBG PY22 ANNUAL ACTION PLAN; AUTHORIZING THE MAYOR AND CITY CLERK TO EXECUTE ALL NECESSARY DOCUMENTS FOR THE GRANT AWARD; AUTHORIZING STAFF TO SUBMIT TO THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT COMMUNITY DEVELOPMENT BLOCK GRANT; PROVIDE FOR AN EFFECTIVE DATE.

WHEREAS, the City has been approved to receive a \$394,012.00 grant from the U.S. Department of Housing and Urban Development for the Jackson Street and Oak Street Drainage Improvements Project (\$315,210.00) and Administrative and Planning Costs (\$78,802.00); and

WHEREAS, the City Council of the City of Port Orange desires to accept the grant funding from the U.S. Department of Housing and Urban Development.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA as follows:

Section 1. The City Council of the City of Port Orange hereby accepts the PY22 grant funding in the amount of \$394,012.00.

Section 2. The City Council of the City of Port Orange hereby authorizes staff to submit the PY22 Annual Action Plan to the U.S. Department of Housing and Urban Development.

Section 3. The Mayor and City Clerk are hereby authorized to execute any and all documents, agreements, or certifications necessary to implement this Resolution.

Section 4. This Resolution shall become effective immediately upon adoption.

MAYOR DONALD O. BURNETTE

ATTEST:

Robin L. Fenwick, MMC, City Clerk

Adopted on the _____ day of _____, 2022

Reviewed and Approved: _____
Shannon K. Palmer, Assistant City Attorney

Executive Summary

AP-05 Executive Summary - 24 CFR 91.200(c), 91.220(b)

1. Introduction

As a recipient of federal grant funds, the U.S. Department of Housing and Urban Development (HUD) required the City of Port Orange to prepare and adopt a Five-Year Consolidated Plan for PY2021 to PY2025. This PY2022 Annual Action Plan is in the second year of implementation of the Consolidated Plan.

The Action Plan serves as the City's application for Community Development Block Grant (CDBG) funding, and describes needs, goals and objectives. This plan covers a period beginning October 1, 2022 and ending on September 30, 2023. This plan was developed pursuant to Federal guidelines found at 24 CFR 91.

The City of Port Orange is located within Volusia County Florida. As of 2021, the population estimate is 63,486 persons. As of 2021, there are five Census Tracts within the City that have a population whose income is at or below 80% of the area median income. The City has not defined specific target areas within the City.

Port Orange has been advised that it is eligible to receive a CDBG entitlement allocation of \$394,012 in PY2022. The proposed use of this funding is, primarily, on public infrastructure improvements. An estimated 80% of the PY2022 CDBG allocation will be focused on the public infrastructure improvements in this area.

Aligned with the adopted Five (5) Year CDBG Consolidated Plan previously approved by HUD, staff is proposing to utilize the city's PY2022 CDBG allocation on the Jackson Street and Oak Street Drainage Improvements (\$315,210) and Planning and Administration (\$78,802).

The 2021-2025 Five-year Consolidated Plan addresses improvement projects by the City to improve infrastructure.

2. Summarize the objectives and outcomes identified in the Plan

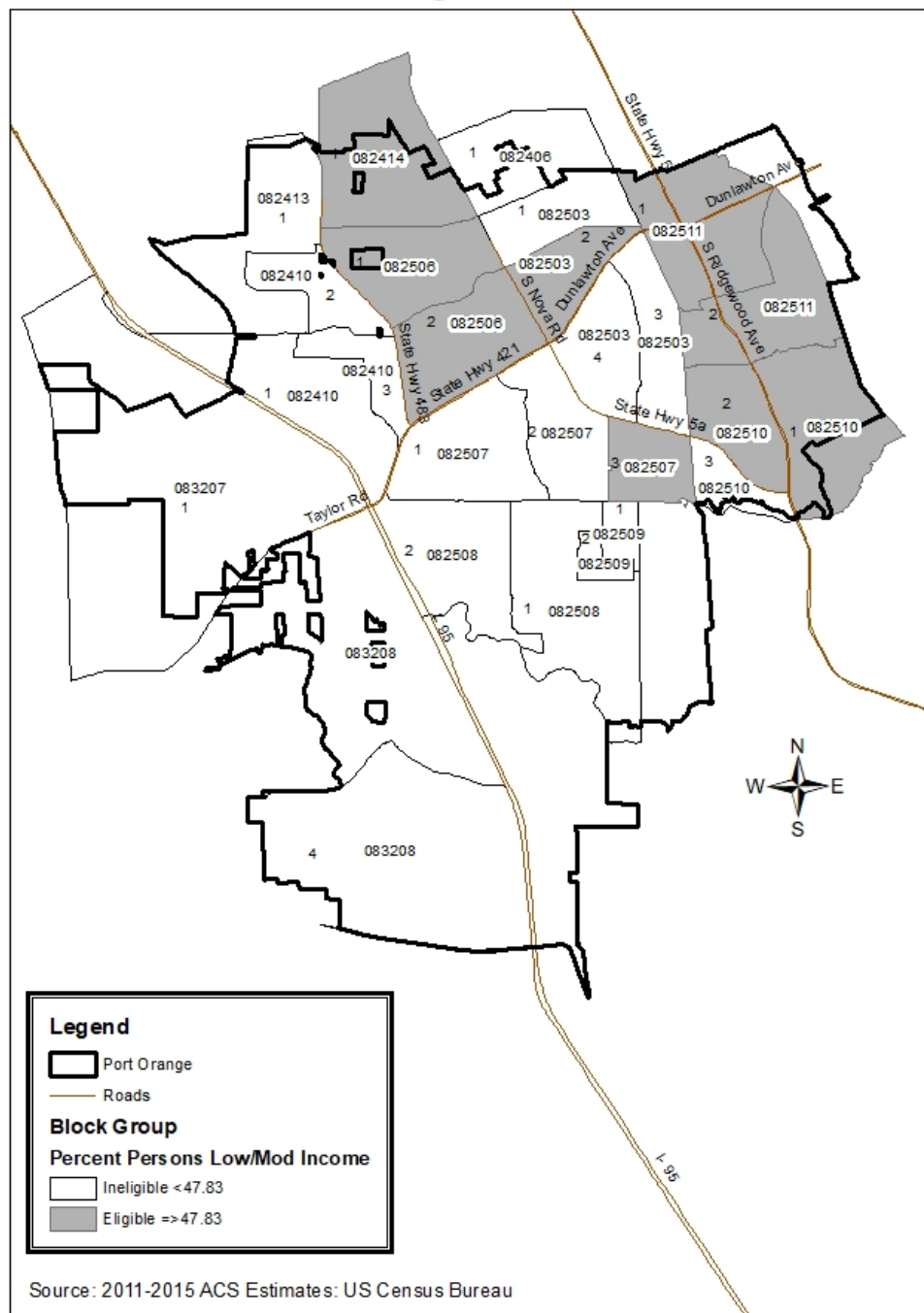
The City of Port Orange developed its 2021-2025 Five-Year Consolidated Plan and Annual Action Plans based on an analysis of the data presented along with community participation and stakeholder consultation process. The Consolidated Plan identified the community's affordable housing, community development, homelessness, and economic development needs, and outlines a comprehensive and coordinated strategy for addressing them.

Through these efforts established during the development of the Consolidated Plan the city identified three high priority needs in which to invest CDBG funding throughout the five-year period. The priority needs included: 1) Public Improvements and Infrastructure, 2) Public Facilities, and 3) Economic Development.

To provide for the top priority needs, the goals for the period continue to be as follows:

1. Improve public infrastructure – Including improvements to streets, sidewalks, stormwater drainage, sewer, and other public infrastructure in low/moderate income areas. Residents have also expressed a desire for improving roads and striping on streets, fixing drainage, and stormwater runoff improvement.
2. Provide housing and services for homeless persons – Including emergency shelter, transitional housing, and permanent housing, as well as outreach and supportive services. The City will focus on providing funds to subrecipients that are community partners.
3. For PY2022, the City will carry out drainage improvements in Census tract 825.03/ block group 2. This activity will benefit all the residents in this low moderate-income area.

Port Orange CDBG Eligible Areas



2022 CDBG Eligible Areas

Annual Action Plan
2022

3

3. Evaluation of past performance

This is an evaluation of past performance that helped lead the grantee to choose its goals or projects.

The City of Port Orange became eligible to receive HUD CPD funds in 2006. Since that time, the City has received \$4,004,620 in CDBG funds. The Consolidated Plan for the prior Five-Year period of 2016-2020 provided the oversight and guidance to accomplish established goals through annual action plans directed toward the identified priority of public infrastructure improvement. Two multi-year priority projects for the City, the Virginia Avenue and Monroe Street Drainage Improvement Project and the Howe's Street Drainage Improvement Project, receive multiple annual allocations of CDBG funding. These projects have provided direct positive impact to more than 10,000 residents of the City of Port Orange, exceeding the project outcomes and alleviating flooding in an LMI neighborhood. Roadway Repairs and Resurfacing Improvements provided direct positive impact in four LMI census groups, also exceeding the projected outcomes of assistance to 3000 residents by more than double. During the first year of the 2021-2025 Five-Year Consolidated Plan the Causeway Park - Parking and Seawall Improvement project started its environmental review process. In conclusion, this is the second year of the plan and the CDBG funds will be used as planned in the Proposed PY22 Annual Action Plan.

4. Summary of Citizen Participation Process and consultation process

During the preparation of the 2021-2025 Five-Year Consolidated Plan the City of Port Orange consulted with community service providers, other jurisdictions, and other entities, public and private, with a potential interest in or knowledge of that jurisdiction's housing and non-housing community development issues. The City solicited public feedback through newspapers, local media outlets, official government website, direct e-mail, stakeholders' consultations, public hearings, and online surveys. During the preparation of the PY 22 Annual Action Plan a Notice of Public Hearing appeared in the local newspaper, the Daytona Beach News Journal, on Friday, June 24, 2022 to invite the community to participate in a Public Hearing on Tuesday, July 5, 2022 regarding the Proposed PY2022 Annual Action Plan. The newspaper advertisement encouraged the public to submit written comments on the Action Plan during the 30 day public comment period from Friday, June 24, 2022-Monday, July 25, 2022.

5. Summary of public comments (Need to add after meeting)

6. Summary of comments or views not accepted and the reasons for not accepting them

(Need to add after meeting)

7. Summary

The City intends to leverage other funding sources whenever possible to address the other priority needs of housing, public services, and economic development.

PR-05 Lead & Responsible Agencies – 91.200(b)

1. Agency/entity responsible for preparing/administering the Consolidated Plan

Describe the agency/entity responsible for preparing the Consolidated Plan and those responsible for administration of each grant program and funding source.

Agency Role	Name	Department/Agency
CDBG Administrator	PORT ORANGE	Finance Department

Table 1 – Responsible Agencies

Narrative (optional)

Consolidated Plan Public Contact Information

Theresa Brooks

Grants Manager

(386) 717-9050

tbrooks@port-orange.org

AP-10 Consultation – 91.100, 91.200(b), 91.215(I)

1. Introduction

HUD Consolidated Plan regulations mandate that the City consult with other public and private agencies, State or local health and child welfare agencies, adjacent governments, the local Continuum of Care (CoC), and Public Housing Authorities during the preparation of the Consolidated Plan. In its administration of the CDBG program, the City works with local, regional, and statewide agencies and organizations to ensure that services are provided or available to its residents. During the preparation of the 2021-2025 Five-Year Consolidated Plan a consultation process was conducted with stakeholders in the housing and community development industry. The City engaged with stakeholders by reaching out through its website, conducting online surveys, placing notices in City Hall and the Port Orange Regional Library, conducting stakeholder interviews (phone calls and emails), and placing newspaper advertisements in the Daytona Beach News-Journal.

Provide a concise summary of the jurisdiction’s activities to enhance coordination between public and assisted housing providers and private and governmental health, mental health and service agencies (91.215(I))

The City of Port Orange works very closely with the Volusia County Community Assistance Division. The County receives State Housing Initiatives Program (SHIP) funding from the Florida Housing Finance Corporation to provide affordable housing for very low, low, and moderate-income households. The SHIP program encourages the development of local housing partnerships between municipalities in the County, lenders, real estate professionals, and advocates.

The City does not have a public housing authority, but the Volusia County Community Assistance Division manages the Section 8 Housing Choice Voucher Program. The County PHA provides portable housing choice vouchers that may be used in the City of Port Orange.

The City also works with local and regional non-profit housing providers and social service agencies to coordinate homelessness efforts.

Describe coordination with the Continuum of Care and efforts to address the needs of homeless persons (particularly chronically homeless individuals and families, families with children, veterans, and unaccompanied youth) and persons at risk of homelessness.

The Volusia/Flagler County Coalition for the Homeless (VFCCH) is the lead agency for the Continuum of Care (CoC) which serves Volusia County. The CoC is responsible for conducting the annual count of people experiencing homelessness, identifying the gaps in available housing and services to homeless subpopulations, and strategically planning and organizing the expansion of housing and supportive services to meet the needs. These “gaps” are missing services that are needed to ensure that clients can

successfully exit homelessness. The Continuum's priorities are in accordance with the Federal Strategy to Prevent and End Homelessness, the Volusia-Flagler County Ten Year Plan to End Homelessness as revised in the VFCoC Strategic Plan, and as set forth in HUD's National Performance Objectives for Continuums of Care, as follows:

- The highest priority is permanent housing for chronically homeless persons, with a special emphasis on chronically homeless veterans. Since Volusia County has achieved functional zero for veterans as vetted by USICH and HUD, Prevention has taken on a new role with maintaining veterans in their housing.
- The second highest priority is placed on the Homeless Management Information System (HMIS) for the CoC to measure system performance and meet HUD's reporting requirements under the HEARTH Act.
- The third priority is to develop a coordinated entry process which is a key step in assessing the needs of homeless/at risk of homeless individuals and families and prioritizing them for assistance.
- The fourth priority is to prevent and end homelessness for families and unaccompanied youth.
- The fifth priority is domestic violence victims.

Describe consultation with the Continuum(s) of Care that serves the jurisdiction's area in determining how to allocate ESG funds, develop performance standards for and evaluate outcomes of projects and activities assisted by ESG funds, and develop funding, policies and procedures for the operation and administration of HMIS

The City of Port Orange does not receive ESG funds and does not participate extensively in CoC deliberations.

As required by HUD, there is at least one homeless individual and several formerly homeless individuals who participate on committees for the Commission on Homelessness for Volusia Flagler Board of Directors for the FL 504 CoC. All meetings are open to the public and homeless individuals and homeless advocates are encouraged to attend. The public was an active part in the identification of goals and objectives and the formulation of the most recently updated Volusia Flagler CoC Strategic Plan. The whole CoC membership was invited to participate in a Continuum-wide poll to prioritize and rank the identified gaps in order of priority. In addition, the development of action steps within the objectives was voted on in planning meetings and brought to the Board meetings for discussion and final approval. Currently the Commission on Homelessness for the Volusia-Flagler CoC is developing a Five-Year Action Plan to coincide with Opening Doors, the Federal Strategic Plan to End Homelessness. The public, including homeless individuals and families, are encouraged to attend the Strategic Planning Meetings and make public comments.

Within the planning process for the FL-504 CoC, the development of shelter housing for the area has been a long-standing issue. Several workgroups including homeless representatives have been

convened to assist with surveying the homeless population in order to get views on housing options, services and service delivery. The surveys request input on their preferences regarding shelters, shelter location(s), Housing First options, Rapid Re-Housing (RRH), outreach and other wrap-around services such as mental health, substance abuse and SSI/SSDI Outreach, Access and Recovery (SOAR) services. These surveys will assist in identifying where and how the CoC will proceed in addressing the need, size and location for additional shelter beds (if determined necessary) as well as steering dollars to RRH and PSH beds and units.

The County of Volusia, which is an entitlement district for ESG, consults with the CoC in formulating its agenda for ESG funding. The County holds community development meetings which are open to the public and requests stakeholders to attend in order to provide the needed input necessary to determine the means by which the funding will be used. The County of Volusia has previously used ESG funding for prevention but is shifting its focus to Rapid Rehousing in the coming year in alignment with HUD's goal of ending family homelessness.

The State of Florida released local solicitations for funding to non-entitlement areas (Flagler County, Daytona Beach, Port Orange and Deltona) for ESG through CoC Lead Agencies. The local funding supports Emergency Shelter, Rapid Rehousing, Prevention and Street Outreach for these non-entitlement areas. The sub-recipients awarded local funding include Halifax Urban Ministries, Salvation Army, New Hope Ministries and Family Life Center of Flagler County.

2. Describe Agencies, groups, organizations and others who participated in the process and describe the jurisdiction's consultations with housing, social service agencies and other entities

Table 2 – Agencies, groups, organizations who participated

1	Agency/Group/Organization	CITY OF PORT ORANGE
	Agency/Group/Organization Type	Other government - County Other government - Local
	What section of the Plan was addressed by Consultation?	Housing Need Assessment Homelessness Strategy Economic Development Anti-poverty Strategy Lead-based Paint Strategy
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	Grantee Community Development Department.
2	Agency/Group/Organization	VOLUSIA COUNTY
	Agency/Group/Organization Type	Services - Housing Other government - County
	What section of the Plan was addressed by Consultation?	Public Housing Needs Lead-based Paint Strategy
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	Volusia County works closely with Port Orange for its public housing needs and other planning needs in the region. Input was gathered through document review. Need for more coordination to address the housing needs of low-and moderate-income persons through owner-occupied rehabilitation and down payment assistance programs.
3	Agency/Group/Organization	Volusia County Community Assistance Division
	Agency/Group/Organization Type	PHA

	What section of the Plan was addressed by Consultation?	Public Housing Needs
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	Volusia County Community Assistance Division is the local PHA serving Port Orange and administers Housing Choice Vouchers (Section 8). Input was gathered through document review. Need for more coordination to meet the needs of Section 8 voucher recipients.
4	Agency/Group/Organization	VOLUSIA/FLAGLER COALITION FOR THE HOMELESS SUB-RECIPIENT
	Agency/Group/Organization Type	Services-homeless
	What section of the Plan was addressed by Consultation?	Homelessness Strategy
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	The Volusia/Flagler County Coalition for the Homeless CoHH is a 501(c)3 nonprofit designed to lead a collaboration of agencies that provide emergency, transitional, and permanent housing opportunities and supportive services needed by people experiencing homelessness.
5	Agency/Group/Organization	East Central Florida Regional Planning Council
	Agency/Group/Organization Type	Regional organization
	What section of the Plan was addressed by Consultation?	Economic Development
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	East Central Florida Regional Planning makes available to the City, the Economic Development CEDS report. The most recent updated report is 2017-2022.
6	Agency/Group/Organization	Florida Department of Health Volusia County
	Agency/Group/Organization Type	Health Agency

	What section of the Plan was addressed by Consultation?	Lead-based Paint Strategy
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	The Florida Department of Health, Volusia County Environmental Health, operates the Lead Paint Poisoning Prevention Program for Volusia County. The agency was consulted through phone call and by e-mail to obtain information on lead poisoning trends in Port Orange/Volusia County.
7	Agency/Group/Organization	MID-FLORIDA HOUSING PARTNERSHIP
	Agency/Group/Organization Type	Housing Services-homeless
	What section of the Plan was addressed by Consultation?	Homeless Needs - Chronically homeless
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	Mid-Florida Housing Partnership operates Palmetto House, a transitional housing facility. Input was gathered through a key person interview. Identification of homeless needs.
8	Agency/Group/Organization	CareerSource
	Agency/Group/Organization Type	Services-Employment
	What section of the Plan was addressed by Consultation?	Economic Development Anti-poverty Strategy
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	Input collected through stakeholder interview. CareerSource provides workforce development services to a wide range of individuals, including those transitioning out of homelessness and seeking stable employment. CareerSource provided insight into the needs of its client base, including a need for stronger public transportation options between residential areas and employment centers.

9	Agency/Group/Organization	Pregnancy Crisis Center
	Agency/Group/Organization Type	Services-Health
	What section of the Plan was addressed by Consultation?	Housing Need Assessment
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	Input collected through a stakeholder interview with Pregnancy Crisis Center. The Center provides free pregnancy tests and other referrals and resources to women in need. The Center emphasized the importance of access to affordable housing in the area, particularly for single mothers expecting a child.
10	Agency/Group/Organization	Beach House Youth Prevention Center
	Agency/Group/Organization Type	Services-Children Services-Homeless
	What section of the Plan was addressed by Consultation?	Homelessness Needs - Unaccompanied youth
	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	Input collected through a stakeholder interview with Beach House Youth Prevention Center. BHYPH works with children at risk for delinquency and children with serious emotional disturbances. BHYPH said that safe, affordable housing for families in unstable situations would be ideal since many of their clients are from unstable home situations.
11	Agency/Group/Organization	Council on Aging of Volusia County
	Agency/Group/Organization Type	Services-Elderly Persons
	What section of the Plan was addressed by Consultation?	Housing Need Assessment Non-Homeless Special Needs

	Briefly describe how the Agency/Group/Organization was consulted. What are the anticipated outcomes of the consultation or areas for improved coordination?	Solicited input through a stakeholder interview. The Council on Aging of Volusia County provides assistance for the elderly, including Meals on Wheels and other services, with an overall mission of keeping elderly residents in their home of choice. The Council indicated that many of their clients would benefit from rehabilitation funding because their homes are in poor condition, and they have limited income to renovate or replace appliances.
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Identify any Agency Types not consulted and provide rationale for not consulting

There were no agency types not consulted during this process.

Other local/regional/state/federal planning efforts considered when preparing the Plan

Name of Plan	Lead Organization	How do the goals of your Strategic Plan overlap with the goals of each plan?
Continuum of Care	Volusia/Flagler County Coalition for the Homeless	The goal to provide shelter and other housing facilities along with supportive services for the homeless population aligned with the CoC Homeless Plan
2021 City of Port Orange Citizen Survey Report	City of Port Orange	The report helped to determine priority needs based on residents' responses to survey questions and comments.
FY 2020-2025 Capital Improvement Plan	City of Port Orange	The goals of the Strategic Plan were supported by the capital needs identified in the CIP.
Volusia County Consolidated Plan	Volusia County Community Assistance Division	The County's affordable housing goals and Housing Choice Voucher program overlaps with the City's housing goals to expand the supply of affordable housing and preserve the existing affordable housing stock.

Name of Plan	Lead Organization	How do the goals of your Strategic Plan overlap with the goals of each plan?
Local Housing Assistance Plan	Florida Housing Finance Corporation	The Strategic Plan is consistent with the Local Housing Assistance Plan which is based on the criteria established by FHFC to serve low- and moderate-income households by providing housing assistance and homeownership opportunities.
Analysis of Impediments to Fair Housing Choice	City of Port Orange	This plan was used to address sections of the Consolidated Plan related to barriers to affordable housing with the City of Port Orange.

Table 3 – Other local / regional / federal planning efforts

Narrative (optional)

DRAFT

AP-12 Participation – 91.105, 91.200(c)

1. Summary of citizen participation process/Efforts made to broaden citizen participation Summarize citizen participation process and how it impacted goal-setting

CDBG regulations require that the City of Port Orange provide ample opportunity for residents to participate in the development of the Annual Action Plan. The City's Citizen Participation Plan adheres to the HUD requirements at 24 CFR Part 91. The plan includes soliciting participation from all City residents including low-and moderate-income persons, minorities, persons with disabilities, non-English speaking persons, and residents of slum and blighted areas. During the preparation of the PY 22 Annual Action Plan a Notice of Public Hearing appeared in the local newspaper, the Daytona Beach News Journal, on Friday, June 24, 2022 to invite the community to participate in a Public Hearing on Tuesday, July 5, 2022 regarding the Proposed PY2022 Annual Action Plan. The newspaper advertisement encouraged the public to submit written comments on the PY22 Action Plan during the 30-day public comment period from Friday, June 24, 2022-Monday, July 25, 2022. The plan was posted on the City's website and hard copies were also available for review at City Hall and by request. All citizen and stakeholder comments were carefully considered when setting the priority needs and goals for the Annual Action Plan. The plan was submitted for final approval to the City Council on August 2, 2022.

Citizen Participation Outreach

Sort Order	Mode of Outreach	Target of Outreach	Summary of response/attendance	Summary of comments received	Summary of comments not accepted and reasons	URL (If applicable)
1	Newspaper Ad	Non-targeted/broad community	No response.	n/a	n/a	
2	Internet Outreach	Non-targeted/broad community	n/a	n/a	n/a	
3	Public Hearing	Non-targeted/broad community	(Need to include after meeting)	(Need to include after meeting)	(Need to include after meeting)	

Table 4 – Citizen Participation Outreach

Expected Resources

AP-15 Expected Resources – 91.220(c)(1,2)

Introduction

The City of Port Orange is receiving \$394,012 in CDBG funds from HUD for PY2022, the second year of the Five-Year Consolidated Plan. The City does not expect to receive any program income and prior year funds will not be reallocated at this time.

Anticipated Resources

Program	Source of Funds	Uses of Funds	Expected Amount Available Year 1				Expected Amount Available Remainder of ConPlan \$	Narrative Description
			Annual Allocation: \$	Program Income: \$	Prior Year Resources: \$	Total: \$		
CDBG	public - federal	Acquisition Admin and Planning Economic Development Housing Public Improvements Public Services	394,012	0	0	394,012	0	Resources based on the PY 2022 allocation.

Table 1 - Expected Resources – Priority Table

Explain how federal funds will leverage those additional resources (private, state and local funds), including a description of how matching requirements will be satisfied

The CDBG program does not require a match from non-federal sources. However, the CDBG funds will leverage additional sources of funding including general and local funds and possible State funding.

As evidenced by the historical allocations, the needs of the City far outweigh the CDBG allocation and projects where CDBG funding is invested will often be partially funded from other sources in order to make the project feasible. Traditionally, the source of these additional funds depends on both the nature of the activity and the location.

If appropriate, describe publicly owned land or property located within the jurisdiction that may be used to address the needs identified in the plan

Not currently applicable.

Discussion

While the City has not committed any local resources to address the priority needs as of the writing of the Plan, as projects are identified during the planning period, if there are funding deficits, the City may utilize available local funding and State funding to fill the gap, as needed.

Annual Goals and Objectives

AP-20 Annual Goals and Objectives

Goals Summary Information

Sort Order	Goal Name	Start Year	End Year	Category	Geographic Area	Needs Addressed	Funding	Goal Outcome Indicator
1	Improve Public Infrastructure	2021	2025	Non-Housing Community Development	LMI Area	Public Improvements and Infrastructure	CDBG: \$315,210	Public Facility or Infrastructure Activities other than Low/Moderate Income Housing Benefit: 1175 Persons Assisted

Table 2 – Goals Summary

Goal Descriptions

1	Goal Name	Improve Public Infrastructure
	Goal Description	Infrastructure improvements including flood and drainage, road improvements, sidewalk improvements, ADA improvements, and sewer connections.

Projects

AP-35 Projects – 91.220(d)

Introduction

The following table contains the projects that the City will fund in PY2022 using CDBG funds. Up to 20% of the CDBG allocation can be expended on Planning and Administration.

Projects

#	Project Name
1	Jackson Street and Oak Street Drainage Improvements
2	PY2022 Planning & Administration

Table 3 - Project Information

Describe the reasons for allocation priorities and any obstacles to addressing underserved needs

Priorities were determined based on stakeholders and community input, the needs assessment and market analysis, as well as other reports and studies conducted by the City including the CIP.

The primary obstacle to meeting the underserved needs in Port Orange is the limited financial resources. The activities that are proposed for funding in PY2022 will have a significant impact on low- and moderate-income persons in the City.

AP-38 Project Summary
Project Summary Information

DRAFT

1	Project Name	Jackson Street and Oak Street Drainage Improvements
	Target Area	LMI Area
	Goals Supported	Improve Public Infrastructure
	Needs Addressed	Public Improvements and Infrastructure
	Funding	CDBG: \$315,210
	Description	The City of Port Orange will pipe the existing open drainage ditches on the west side of Jackson Street (between Dunlawton Ave. and Canal View Blvd) and the south side of Oak Street (between Jackson St. and Dunlawton Ave). In addition, they will also mill and resurface the roads on Jackson and Oaks Streets along the limits of the ditch piping and construct a five-foot-wide sidewalk on the west side of Jackson Street where none existed previously for pedestrian safety.
	Target Date	09/30/2024
	Estimate the number and type of families that will benefit from the proposed activities	It is estimated that all 1,490 residents in LMI Census Tract 825.03 Block group 2 will benefit from this sidewalk improvement project.
	Location Description	The location will be on the west side of Jackson Street (between Dunlawton Ave. and Canal View Blvd) and the south side of Oak Street (between Jackson St. and Dunlawton Ave).
	Planned Activities	Pipe the existing open drainage ditches, mill and resurface roads along the limits of the ditch piping and construct a five-foot-wide sidewalk.
2	Project Name	PY2022 Planning & Administration
	Target Area	LMI Area
	Goals Supported	Improve Public Infrastructure
	Needs Addressed	Public Improvements and Infrastructure
	Funding	CDBG: \$78,802
	Description	Planning and administration of the CDBG project.
	Target Date	9/30/2024
	Estimate the number and type of families that will benefit from the proposed activities	N/A
	Location Description	N/A

	Planned Activities	Administration of PY2022 CDBG program and oversight of grant activities.
--	---------------------------	--

DRAFT

AP-50 Geographic Distribution – 91.220(f)

Description of the geographic areas of the entitlement (including areas of low-income and minority concentration) where assistance will be directed

The City of Port Orange has identified 8 areas that have at, minimum, 50.55% (FY2015 exception percentage) of their residents within low- and moderate-income category (0-80% AMI), as defined by HUD.

The City funds projects citywide and generally does not direct its assistance based primarily on geographic location. The CDBG program allows resources to be allocated based on income characteristics of the direct beneficiaries or income characteristics of the area that will benefit from an activity. CDBG funded public improvement and infrastructure projects will be in the City's low-and moderate-income Census tracts. The Jackson Street and Oak Street Drainage Improvements will occur in a HUD identified LMI Census Tract 825.03/Block group 2.

Geographic Distribution

Target Area	Percentage of Funds
Citywide	
LMI Area	100

Table 4 - Geographic Distribution

Rationale for the priorities for allocating investments geographically

Since the primary objective of the CDBG program is to benefit low- and moderate-income persons, the City of Port Orange will utilize CDBG funds for projects and activities that will provide assistance to this target population and benefit the City as a whole by improving the living environment for the residents.

Discussion

For PY 2022, the City will carry out the Jackson Street and Oak Street Drainage Improvement project in Census tract 825.03/ block group 2. These activities will benefit all the residents in this block group.

Affordable Housing

AP-55 Affordable Housing – 91.220(g)

Introduction

Throughout this Five-Year Consolidated Plan period the City of Port Orange did not plan on funding any affordable housing activities using CDBG funds. Due to the limited CDBG resources, the funds have been used for public infrastructure projects that will have a greater impact on the residents of the City. Affordable housing goals will continue to be addressed by the Volusia County Community Assistance Division through their allocation of SHIP funds and any other funding sources that become available that can be used countywide including municipalities within the County.

One Year Goals for the Number of Households to be Supported	
Homeless	0
Non-Homeless	0
Special-Needs	0
Total	0

Table 6 - One Year Goals for Affordable Housing by Support Requirement

One Year Goals for the Number of Households Supported Through	
Rental Assistance	0
The Production of New Units	0
Rehab of Existing Units	0
Acquisition of Existing Units	0
Total	0

Table 7 - One Year Goals for Affordable Housing by Support Type

Discussion

The City may utilize general funds to continue to address the housing and supportive services needs of the homeless population in Port Orange. During PY2021-2022, the City provided approximately \$35,000 in general revenue funds to the First Step Shelter to assist with emergency shelter operations.

AP-60 Public Housing – 91.220(h)

Introduction

Public housing was established to provide decent and safe rental housing for eligible low-and moderate-income families, the elderly, and persons with disabilities. Public housing includes federally subsidized affordable housing that is owned and operated by the public housing authorities. The Volusia County Community Assistance Division is the county's Public Housing Agency and covers Port Orange. This organization works closely with state and federal agencies in administering various housing public assistance programs.

Actions planned during the next year to address the needs to public housing

There are currently no public housing units managed in the City of Port Orange. The public housing needs in Port Orange are served by the County of Volusia Department of Community Services (VDCS). As the county's Public Housing Agency (PHA), the Community Assistance Division administers approximately 322 housing choice vouchers. As Volusia County Public Housing Agency (PHA), the Community Assistance Division manages the Housing Choice Voucher Program (Section 8) the federal government major program which assists very low-income families including the elderly, and the disabled to afford decent, safe, and sanitary housing in the private market. Since housing assistance is provided on behalf of the family or individual, participants can find their own suitable housing, including single-family homes, townhouses, and apartments.

Actions to encourage public housing residents to become more involved in management and participate in homeownership

The County of Volusia Department of Community Services will continue to provide opportunities using public meetings to inform citizens of engagement opportunities and review issues presented by the County's Human Services Advisory Board. VDCS administers the Family Self Sufficiency (FSS) Program which helps residents of Public Housing attain success in their financial future. Participants sign a contract to be a part of the (FSS) Program for five (5) years and they are compensated monetarily at the end of the program. Monies received at the end of the program can be used in a variety of ways, such as a down payment of a home. The (FSS) Program also provides information and resources to the residents on how to repair their credit and is also a link to agencies that can provide financial guidance by putting them in touch with realtors and banks that can assist the resident in attaining homeownership if that is their goal.

If the PHA is designated as troubled, describe the manner in which financial assistance will be provided or other assistance

The PHA is not listed as "troubled" by HUD. VDCS will continue to provide services that improve the lives

of its public housing residents.

Discussion

See above.

DRAFT

AP-65 Homeless and Other Special Needs Activities – 91.220(i)

Introduction

No actions are planned for PY2022.

Describe the jurisdictions one-year goals and actions for reducing and ending homelessness including

Reaching out to homeless persons (especially unsheltered persons) and assessing their individual needs

No actions are planned for PY2022.

Addressing the emergency shelter and transitional housing needs of homeless persons

The City of Port Orange, annually budgets funds in the amount of \$35,000 for the First Step Shelter to assist with emergency shelter operations.

Helping homeless persons (especially chronically homeless individuals and families, families with children, veterans and their families, and unaccompanied youth) make the transition to permanent housing and independent living, including shortening the period of time that individuals and families experience homelessness, facilitating access for homeless individuals and families to affordable housing units, and preventing individuals and families who were recently homeless from becoming homeless again

No actions are planned for PY2022.

Helping low-income individuals and families avoid becoming homeless, especially extremely low-income individuals and families and those who are: being discharged from publicly funded institutions and systems of care (such as health care facilities, mental health facilities, foster care and other youth facilities, and corrections programs and institutions); or, receiving assistance from public or private agencies that address housing, health, social services, employment, education, or youth needs.

No actions are planned for PY2022.

Discussion

see above.

AP-75 Barriers to affordable housing – 91.220(j)

Introduction:

N/A

Actions it planned to remove or ameliorate the negative effects of public policies that serve as barriers to affordable housing such as land use controls, tax policies affecting land, zoning ordinances, building codes, fees and charges, growth limitations, and policies affecting the return on residential investment

For the 2019 ACS (period from 2015-2019) Port Orange's median income was \$51,883, an increase of 15.3% and rent increased 7%, despite the national housing downturn and prolonged recession. This is based on comparisons between the 2014 ACS (covers 2009 - 2014) and the 2019 ACS (covers 2015-2019). High home values and rents have resulted in much of the housing stock being out of the affordable range for large portions of the population and high percentages of cost burdened households when housing is able to be obtained. To combat market trends that prevent access to affordable housing, the City of Port Orange continues to strive to create an environment where existing affordable housing stock is supported and has provided guidance through several City policies to foster the development of additional affordable housing stock in the community.

Discussion:

Overall, Port Orange's Comprehensive Plan Housing Element contains several good-faith measures to promote affordable and multifamily housing. However, with a growing population and the lack of existing affordable housing options, Port Orange may wish to expand zoning tools for promoting affordable housing. If homeowners in residential districts could rent secondary living quarters or ADUs to unrelated tenants, the supply of affordable housing in desirable neighborhoods could be significantly expanded, depending on the level of interest among homeowners in becoming landlords. The strongest regulatory tool to promote affordable housing development—at least in new multifamily developments not yet developed—would be to require inclusionary housing measures and density bonus measures for the development of affordable housing units.

AP-85 Other Actions – 91.220(k)

Introduction:

This section of the Action Plan outlines the planned actions of the City and its partner agencies to meeting underserved needs, fostering, and maintaining affordable housing, reducing lead based paint hazards, reducing the number of poverty-level families, and developing institutional structure.

Actions planned to address obstacles to meeting underserved needs

The primary obstacle to meeting all the identified needs is the lack of financial resources available to public and private agencies who serve the needs of the City's low-and moderate-income residents. For PY2022, the City has allocated \$315,210 in CDBG funding to assist residents in low income neighborhoods by addressing the public infrastructure needs of these communities. The City will continue to foster existing partnerships and collaborate with new partners to bring needed resources to meet the needs of Port Orange residents.

Actions planned to foster and maintain affordable housing

The affordable housing needs of Port Orange residents will continue to be addressed by the Volusia County Community Assistance Division.

Actions planned to reduce lead-based paint hazards

Lead-based paint hazards continue to be managed by Volusia County where regulatorily required. The Florida Department of Health will also reduce lead-based paint hazards through its Lead Poisoning Prevention program.

Actions planned to reduce the number of poverty-level families

According to the 2019 ACS, the poverty-rate in Port Orange is 14.9% as compared to 13.1% poverty-rate in Volusia County. For citizens living in Port Orange, educational attainment is the leading disparity influencing wage earnings and access to employment opportunities. Understanding the value in having a trained workforce, the City of Port Orange participates with the East Central Florida Regional Planning Council and with Volusia County on economic development and workforce training initiatives. The jurisdiction has a general goal of encouraging education/workforce training and providing services to mitigate some of the effects of living in poverty.

Actions planned to develop institutional structure

The Grants Administration staff currently coordinates with City departments and Volusia County to meet the goals and objectives of the Consolidated Plan. During FY2022-2023, the City will continue to foster existing relationships and collaborate with new partners to meet the needs of residents. The partnership

with the CoHH and its member organizations will be further developed to address the needs of the homeless population.

Actions planned to enhance coordination between public and private housing and social service agencies

The City will continue to consult with the City of Daytona Beach, the City of Ormond Beach, and Volusia County to ensure that the needs of homeless persons in the City are met.

Discussion:

N/A

Program Specific Requirements

AP-90 Program Specific Requirements – 91.220(l)(1,2,4)

Introduction:

Community Development Block Grant Program (CDBG)

Reference 24 CFR 91.220(l)(1)

Projects planned with all CDBG funds expected to be available during the year are identified in the Projects Table. The following identifies program income that is available for use that is included in projects to be carried out.

1. The total amount of program income that will have been received before the start of the next program year and that has not yet been reprogrammed	0
2. The amount of proceeds from section 108 loan guarantees that will be used during the year to address the priority needs and specific objectives identified in the grantee's strategic plan.	0
3. The amount of surplus funds from urban renewal settlements	0
4. The amount of any grant funds returned to the line of credit for which the planned use has not been included in a prior statement or plan	0
5. The amount of income from float-funded activities	0
Total Program Income:	0

Other CDBG Requirements

1. The amount of urgent need activities	0
2. The estimated percentage of CDBG funds that will be used for activities that benefit persons of low and moderate income. Overall Benefit - A consecutive period of one, two or three years may be used to determine that a minimum overall benefit of 70% of CDBG funds is used to benefit persons of low and moderate income. Specify the years covered that include this Annual Action Plan.	80.00%

See above.

Attachments
Citizen Participation Sign-In Sheet

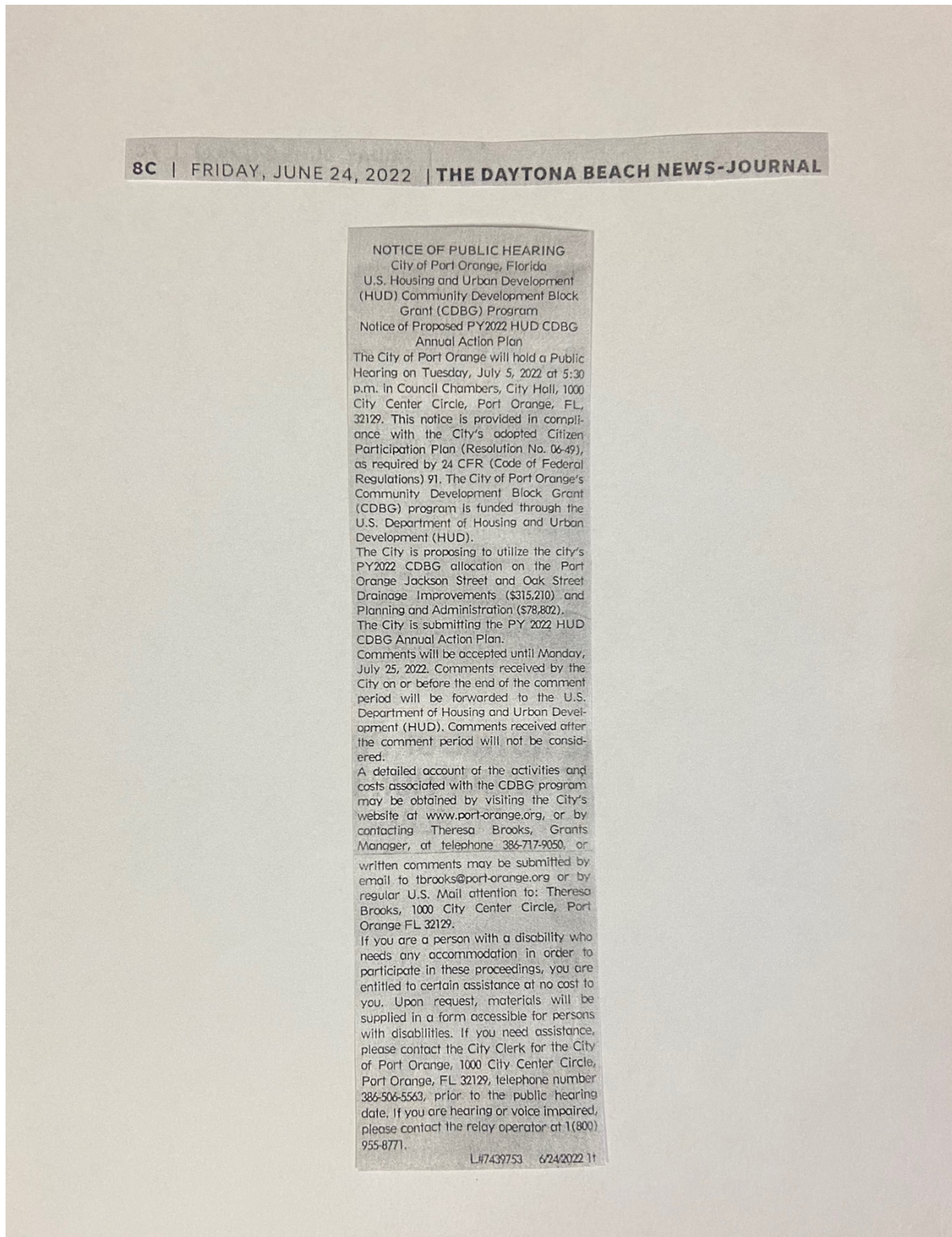
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Attachments
Citizen Participation Comments

DRAFT

Grantee Unique Appendices

Appendix A



Appendix B



The City of
PORT ORANGE
MAYOR DONALD O. BURNETTE

Government ▾Residents ▾Doing Business ▾

CDBG Documents

Home » Government » Departments » Community Development » CRA / Economic Development » Community Development Block Grant (CDBG)

Community Development Block Grant (CDBG)

NOTICE OF PUBLIC HEARING

City of Port Orange, Florida

U.S. Housing and Urban Development (HUD) Community Development Block Grant (CDBG) Program

Notice of Proposed PY2022 HUD CDBG Annual Action Plan

The City of Port Orange will hold a Public Hearing on Tuesday, July 5, 2022 at 5:30 p.m. in Council Chambers, City Hall, 1000 City Center Circle, Port Orange, FL 32129. This notice is provided in compliance with the City's adopted Citizen Participation Plan (Resolution No. 06-49), as required by 24 CFR (Code of Federal Regulations) 91. The City of Port Orange's Community Development Block Grant (CDBG) program is funded through the U.S. Department of Housing and Urban Development (HUD).

The City is proposing to utilize the city's PY2022 CDBG allocation on the Port Orange Jackson Street and Oak Street Drainage Improvements (\$315,210) and Planning and Administration (\$78,802).

The City is submitting the PY 2022 HUD CDBG Annual Action Plan.

Comments will be accepted until Monday, July 25, 2022. Comments received by the City on or before the end of the comment period will be forwarded to the U.S. Department of Housing and Urban Development (HUD). Comments received after the comment period will not be considered.

A detailed account of the activities and costs associated with the CDBG program may be obtained by visiting the City's website at www.port-orange.org, or by contacting Theresa Brooks, Grants Manager, at telephone 386-717-9050, or written comments may be submitted by email to tbrooks@port-orange.org or by regular U.S. Mail attention to: Theresa Brooks, 1000 City Center Circle, Port Orange FL 32129.

If you are a person with a disability who needs any accommodation in order to participate in these proceedings, you are entitled to certain assistance at no cost to you. Upon request, materials will be supplied in a form accessible for persons with disabilities. If you need assistance, please contact the City Clerk for the City of Port Orange, 1000 City Center Circle, Port Orange, FL 32129, telephone number 386-506-5563, prior to the public hearing date. If you are hearing or voice impaired, please contact the relay operator at 1(800) 955-8771.



Appendix C



The City of
PORT ORANGE
MAYOR DONALD O. BURNETTE

Government ▾Residents ▾Doing Business ▾

Search

CDBG Documents

Home » Government » Departments » Community Development » CRA / Economic Development » Community Development Block Grant (CDBG) » CDBG Documents

CDBG Documents

5 Year Plans

- [CDBG 2021-2025 Consolidated Plan](#)

Program Year 2022

- [PY 2022 Annual Action Plan DRAFT](#)
- [Public Notice PY 22 CDBG](#)

Contact The City →



Your City Council →

Grantee SF-424's and Certification(s)

DRAFT

Govt Public Notices

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06/24/2022

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L#7439753 6/24/2022 1t

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CERTIFICATIONS

In accordance with the applicable statutes and the regulations governing the consolidated plan regulations, the jurisdiction certifies that:

Affirmatively Further Fair Housing --The jurisdiction will affirmatively further fair housing.

Uniform Relocation Act and Anti-displacement and Relocation Plan -- It will comply with the acquisition and relocation requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, (42 U.S.C. 4601-4655) and implementing regulations at 49 CFR Part 24. It has in effect and is following a residential anti-displacement and relocation assistance plan required under 24 CFR Part 42 in connection with any activity assisted with funding under the Community Development Block Grant or HOME programs.

Anti-Lobbying --To the best of the jurisdiction's knowledge and belief:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of it, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement;
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, it will complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions; and
3. It will require that the language of paragraph 1 and 2 of this anti-lobbying certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

Authority of Jurisdiction --The consolidated plan is authorized under State and local law (as applicable) and the jurisdiction possesses the legal authority to carry out the programs for which it is seeking funding, in accordance with applicable HUD regulations.

Consistency with plan --The housing activities to be undertaken with Community Development Block Grant, HOME, Emergency Solutions Grant, and Housing Opportunities for Persons With AIDS funds are consistent with the strategic plan in the jurisdiction's consolidated plan.

Section 3 -- It will comply with section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u) and implementing regulations at 24 CFR Part 135.

Signature of Authorized Official

Date

Mayor

Title

Specific Community Development Block Grant Certifications

The Entitlement Community certifies that:

Citizen Participation -- It is in full compliance and following a detailed citizen participation plan that satisfies the requirements of 24 CFR 91.105.

Community Development Plan -- Its consolidated plan identifies community development and housing needs and specifies both short-term and long-term community development objectives that have been developed in accordance with the primary objective of the CDBG program (i.e., the development of viable urban communities, by providing decent housing and expanding economic opportunities, primarily for persons of low and moderate income) and requirements of 24 CFR Parts 91 and 570.

Following a Plan -- It is following a current consolidated plan that has been approved by HUD.

Use of Funds -- It has complied with the following criteria:

1. Maximum Feasible Priority. With respect to activities expected to be assisted with CDBG funds, it has developed its Action Plan so as to give maximum feasible priority to activities which benefit low- and moderate-income families or aid in the prevention or elimination of slums or blight. The Action Plan may also include CDBG-assisted activities which the grantee certifies are designed to meet other community development needs having particular urgency because existing conditions pose a serious and immediate threat to the health or welfare of the community, and other financial resources are not available (see Optional CDBG Certification).

2. Overall Benefit. The aggregate use of CDBG funds, including Section 108 guaranteed loans, during program year(s) 2022 [a period specified by the grantee of one, two, or three specific consecutive program years], shall principally benefit persons of low and moderate income in a manner that ensures that at least 70 percent of the amount is expended for activities that benefit such persons during the designated period.

3. Special Assessments. It will not attempt to recover any capital costs of public improvements assisted with CDBG funds, including Section 108 loan guaranteed funds, by assessing any amount against properties owned and occupied by persons of low and moderate income, including any fee charged or assessment made as a condition of obtaining access to such public improvements.

However, if CDBG funds are used to pay the proportion of a fee or assessment that relates to the capital costs of public improvements (assisted in part with CDBG funds) financed from other revenue sources, an assessment or charge may be made against the property with respect to the public improvements financed by a source other than CDBG funds.

In addition, in the case of properties owned and occupied by moderate-income (not low-income) families, an assessment or charge may be made against the property for public improvements financed by a source other than CDBG funds if the jurisdiction certifies that it lacks CDBG funds to cover the assessment.

Excessive Force -- It has adopted and is enforcing:

1. A policy prohibiting the use of excessive force by law enforcement agencies within its jurisdiction against any individuals engaged in non-violent civil rights demonstrations; and
2. A policy of enforcing applicable State and local laws against physically barring entrance to or exit from a facility or location which is the subject of such non-violent civil rights demonstrations within its jurisdiction.

Compliance with Anti-discrimination laws -- The grant will be conducted and administered in conformity with title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d) and the Fair Housing Act (42 U.S.C. 3601-3619) and implementing regulations.

Lead-Based Paint -- Its activities concerning lead-based paint will comply with the requirements of 24 CFR Part 35, Subparts A, B, J, K and R.

Compliance with Laws -- It will comply with applicable laws.

Signature of Authorized Official

Date

Mayor

Title

OPTIONAL Community Development Block Grant Certification

Submit the following certification only when one or more of the activities in the action plan are designed to meet other community development needs having particular urgency as specified in 24 CFR 570.208(c):

The grantee hereby certifies that the Annual Plan includes one or more specifically identified CDBG-assisted activities which are designed to meet other community development needs having particular urgency because existing conditions pose a serious and immediate threat to the health or welfare of the community and other financial resources are not available to meet such needs.

Signature of Authorized Official

Date

Not Applicable

Title

Specific HOME Certifications

The HOME participating jurisdiction certifies that:

Tenant Based Rental Assistance -- If it plans to provide tenant-based rental assistance, the tenant-based rental assistance is an essential element of its consolidated plan.

Eligible Activities and Costs -- It is using and will use HOME funds for eligible activities and costs, as described in 24 CFR §§92.205 through 92.209 and that it is not using and will not use HOME funds for prohibited activities, as described in §92.214.

Subsidy layering -- Before committing any funds to a project, it will evaluate the project in accordance with the guidelines that it adopts for this purpose and will not invest any more HOME funds in combination with other Federal assistance than is necessary to provide affordable housing;

Signature of Authorized Official

Date

Not Applicable

Title

Emergency Solutions Grants Certifications

The Emergency Solutions Grants Program recipient certifies that:

Major rehabilitation/conversion/renovation – If an emergency shelter’s rehabilitation costs exceed 75 percent of the value of the building before rehabilitation, the recipient will maintain the building as a shelter for homeless individuals and families for a minimum of 10 years after the date the building is first occupied by a homeless individual or family after the completed rehabilitation.

If the cost to convert a building into an emergency shelter exceeds 75 percent of the value of the building after conversion, the recipient will maintain the building as a shelter for homeless individuals and families for a minimum of 10 years after the date the building is first occupied by a homeless individual or family after the completed conversion.

In all other cases where ESG funds are used for renovation, the recipient will maintain the building as a shelter for homeless individuals and families for a minimum of 3 years after the date the building is first occupied by a homeless individual or family after the completed renovation.

Essential Services and Operating Costs – In the case of assistance involving shelter operations or essential services related to street outreach or emergency shelter, the recipient will provide services or shelter to homeless individuals and families for the period during which the ESG assistance is provided, without regard to a particular site or structure, so long the recipient serves the same type of persons (e.g., families with children, unaccompanied youth, disabled individuals, or victims of domestic violence) or persons in the same geographic area.

Renovation – Any renovation carried out with ESG assistance shall be sufficient to ensure that the building involved is safe and sanitary.

Supportive Services – The recipient will assist homeless individuals in obtaining permanent housing, appropriate supportive services (including medical and mental health treatment, victim services, counseling, supervision, and other services essential for achieving independent living), and other Federal, State, local, and private assistance available for these individuals.

Matching Funds – The recipient will obtain matching amounts required under 24 CFR 576.201.

Confidentiality – The recipient has established and is implementing procedures to ensure the confidentiality of records pertaining to any individual provided family violence prevention or treatment services under any project assisted under the ESG program, including protection against the release of the address or location of any family violence shelter project, except with the written authorization of the person responsible for the operation of that shelter.

Homeless Persons Involvement – To the maximum extent practicable, the recipient will involve, through employment, volunteer services, or otherwise, homeless individuals and families in constructing, renovating, maintaining, and operating facilities assisted under the ESG program, in providing services assisted under the ESG program, and in providing services for occupants of facilities assisted under the program.

Consolidated Plan – All activities the recipient undertakes with assistance under ESG are consistent with its consolidated plan.

Discharge Policy – The recipient will establish and implement, to the maximum extent practicable and where appropriate, policies and protocols for the discharge of persons from publicly funded institutions or systems of care (such as health care facilities, mental health facilities, foster care or other youth facilities, or correction programs and institutions) in order to prevent this discharge from immediately resulting in homelessness for these persons.

Signature of Authorized Official

Date

Not Applicable

Title

Housing Opportunities for Persons With AIDS Certifications

The HOPWA grantee certifies that:

Activities -- Activities funded under the program will meet urgent needs that are not being met by available public and private sources.

Building -- Any building or structure assisted under that program shall be operated for the purpose specified in the consolidated plan:

1. For a period of not less than 10 years in the case of assistance involving new construction, substantial rehabilitation, or acquisition of a facility,
2. For a period of not less than 3 years in the case of assistance involving non-substantial rehabilitation or repair of a building or structure.

Signature of Authorized Official

Date

Not Applicable

Title

APPENDIX TO CERTIFICATIONS

INSTRUCTIONS CONCERNING LOBBYING CERTIFICATION:

Lobbying Certification

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

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ASSURANCES - CONSTRUCTION PROGRAMS

OMB Number: 4040-0009
Expiration Date: 02/28/2022

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PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the Awarding Agency. Further, certain Federal assistance awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, the right to examine all records, books, papers, or documents related to the assistance; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will not dispose of, modify the use of, or change the terms of the real property title or other interest in the site and facilities without permission and instructions from the awarding agency. Will record the Federal awarding agency directives and will include a covenant in the title of real property acquired in whole or in part with Federal assistance funds to assure non-discrimination during the useful life of the project.
4. Will comply with the requirements of the assistance awarding agency with regard to the drafting, review and approval of construction plans and specifications.
5. Will provide and maintain competent and adequate engineering supervision at the construction site to ensure that the complete work conforms with the approved plans and specifications and will furnish progressive reports and such other information as may be required by the assistance awarding agency or State.
6. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
7. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
8. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards of merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
9. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
10. Will comply with all Federal statutes relating to non-discrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681 1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

11. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal and federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
12. Will comply with the provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
13. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333) regarding labor standards for federally-assisted construction subagreements.
14. Will comply with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
15. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
16. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
17. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq).
18. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
19. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.
20. Will comply with the requirements of Section 106(g) of the Trafficking Victims Protection Act (TVPA) of 2000, as amended (22 U.S.C. 7104) which prohibits grant award recipients or a sub-recipient from (1) Engaging in severe forms of trafficking in persons during the period of time that the award is in effect (2) Procuring a commercial sex act during the period of time that the award is in effect or (3) Using forced labor in the performance of the award or subawards under the award.

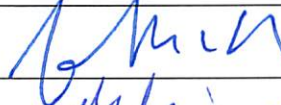
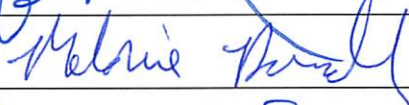
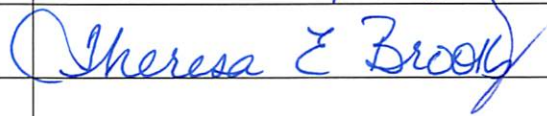
SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	TITLE
	Mayor
APPLICANT ORGANIZATION	DATE SUBMITTED
City of Port Orange	

SF-424D (Rev. 7-97) Back

CDBG PY2022 PUBLIC HEARING SIGN-IN SHEET

DATE 7/5/2022

530-533

PRINT NAME	SIGNATURE
1. Jonathan McEnney	
2. Melonie Dinnally	
3. Theresa Brooks	
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CITY COUNCIL AGENDA ITEM

COUNCIL MEETING DATE 8/2/2022

SUBJECT: (F15) Second Reading - Ordinance No. 2022-17 - Seventh Amendment to the Master Development Agreement for the Crystal Lake Planned Unit Development (Case No. 22-40000001)

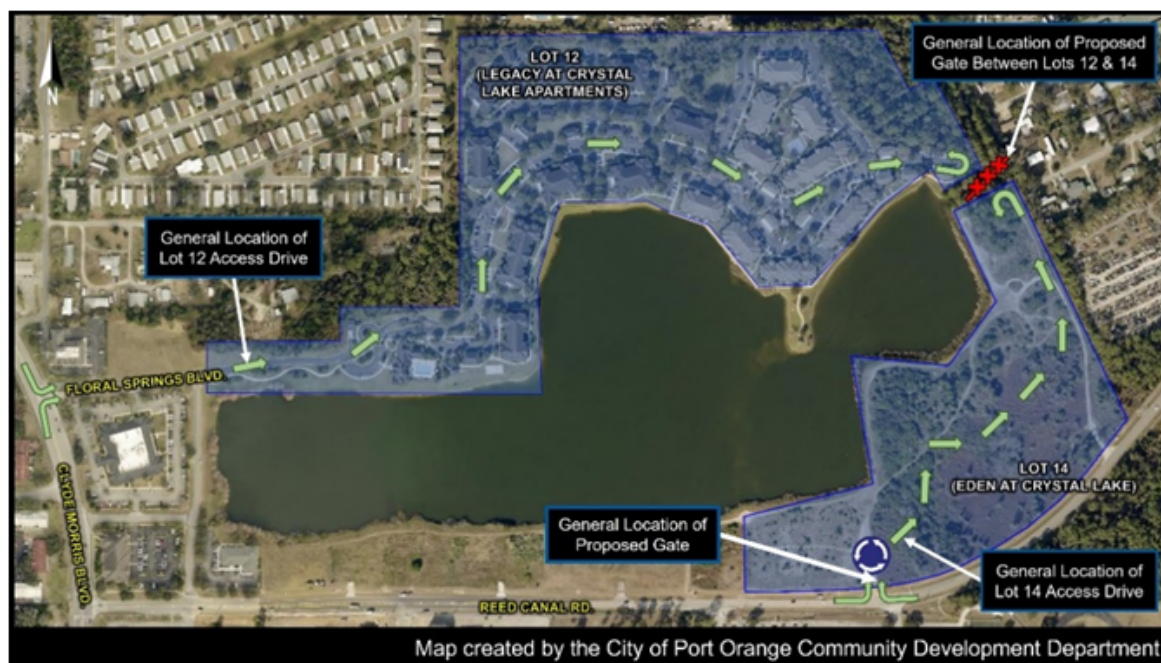
DEPARTMENT: Community Development

GOAL: 3 - Quality of Life

RECOMMENDED MOTION: Move to approve Ordinance 2022-17, approving the Seventh amendment to the Master Development Agreement for the Crystal Lake Planned Unit Development; authorize Mayor and City Clerk to sign all necessary documents.

SUMMARY: Planning Commission Action (6/23/2022): Recommended Approval (4-0)

The proposed 7th Amendment to the Crystal Lake Master Development Agreement (MDA) is to remove the requirement that access must be provided through Lot 12 (Legacy at Crystal Lake Apartments) and Lot 14 (Eden at Crystal Lake Apartments) of the Crystal Lake Planned Unit Development (PUD) via a common drive that connects Clyde Morris Boulevard to Reed Canal Road as part of any residential development on these lots.



The subject properties are currently regulated by the Crystal Lake MDA, as amended, and the Land Development Code (LDC). According to the applicant, the requested 7th Amendment is to allow the residential development on Lot 14 (Eden at Crystal Lake Apartments) to have a gated entrance at Reed Canal Road that is equipped for emergency access and an emergency access gate between the residential developments on Lots 12 and 14 (See graphic on Page 2 of the Staff Report). Both proposed gates would be designed to allow emergency personnel to access both lots from either Clyde Morris Boulevard or Reed Canal Road in the event of an emergency. The proposed amendment does not change the current access to the Legacy at Crystal Lake Apartments (Lot 12) from Clyde Morris Boulevard nor does it change any of the permitted uses or other development requirements in the Crystal Lake MDA.

The Crystal Lake MDA was approved by the City Council in 2000 and established a mixed-use development with various tracts, each with a common purpose and design theme, along with a provision that required a common access drive through Lots 12 and 14 to connect Clyde Morris Boulevard to Reed Canal Road once developed. According to the applicant, the request to have a gate between Lots 12 and 14 and at Reed Canal Road is so the Eden at Crystal Lake Apartments can be a private, gated community, and in addition to increased privacy, Lots 12 and 14 are not under the same ownership, nor have the same design and product type, so interconnection between the two parcels is no longer desired when compared to the original vision of the Crystal Lake PUD as the multi-family lots being under unified ownership. The applicant also indicated that since both Lots 12 and 14 were not developed together and do not have similar design layouts, the design of the parking lot and access drives and the overall concept is no longer conducive to serving the connection between two arterial roads (Clyde Morris Boulevard and Reed Canal Road).

The developer of Lot 14 requested that the Eden at Crystal Lake Apartments be gated between Lots 12 and 14, and the access point required by the MDA between Lots 12 and 14 is only for emergency access. The LDC does not prohibit the installation of gates for multi-family residential developments. However, since the Crystal Lake PUD MDA states that common access through Lots 12 and 14 must be provided, the proposed amendment to the MDA is needed to remove the requirement. Access to Lot 12 is provided via Floral Springs Boulevard, which was constructed to serve the Legacy at Crystal Lake Apartments when the lot was developed in 2004. The entrance to Legacy at Crystal Lake Apartments is currently ungated.

Multi-family developments with gated access are not uncommon throughout Port Orange and recent examples of similar developments include The Atlantic Apartments (1401 Reed Canal Road), White Palm Apartments (5400 S. Williamson Boulevard), Springs at Port Orange Apartment Homes (5410 S. Williamson Boulevard), Sanctuary at Westport (5400 Coraci Boulevard), Hawthorne Village Apartment Homes (3900 Yorktowne Boulevard), and Hawks Mill Apartments (3835 Clyde Morris Boulevard).

If approved, the existing access to the Legacy at Crystal Lake Apartments (Lot 12) from Clyde Morris Boulevard and the access to Eden at Crystal Lake Apartments (Lot 14) from Reed Canal Road will remain unchanged other than the addition of the gated access to Eden at Crystal Lake Apartments. The only proposed change to the MDA for

the Crystal Lake PUD is the Eden at Crystal Lake Apartments will have a gated main entrance from Reed Canal Road that is equipped for emergency access, and an emergency access only gate will be installed between the two multi-family residential developments on Lots 12 and 14. The Legacy at Crystal Lake Apartments property owners do not object to the request to install a gate between Lots 12 and 14 and at this time they have not proposed to install a gate along Floral Springs Boulevard. However, if the proposed amendment is approved, the Legacy at Crystal Lake Apartments will have the option to install a gate in the future.

The staff report is attached for more information.

PRESENTER: Gideon Smith, Penelope Cruz

ATTACHMENTS:

1.	Ordinance 2022-17 with exhibit	Ord. No. 2022-17 - Seventh Amendment to Crystal Lake.pdf
2.	Final CC Staff Report_Crystal Lake 7th MDA Amendment	Final CC Staff Report_Crystal Lake 7th MDA Amendment.pdf

Gwen Perney

Created/Initiated - 7/14/2022

ORDINANCE NO. 2022-17

AN ORDINANCE OF THE CITY OF PORT ORANGE,
VOLUSIA COUNTY, FLORIDA, APPROVING THE SEVENTH
AMENDMENT TO THE MASTER DEVELOPMENT
AGREEMENT FOR CRYSTAL LAKE PLANNED UNIT
DEVELOPMENT (PUD); PROVIDING FOR THE REPEAL OF
CONFLICTING ORDINANCES; PROVIDING FOR
SEVERABILITY OF; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City and Developer desire to enter into the Seventh Amendment to the Master Development Agreement for Crystal Lake Planned Unit Development (PUD) (“MDA”); (hereinafter referred to as the “Seventh Amendment”); and

WHEREAS, the Developer submitted a request to the Planning Commission to approve the Seventh Amendment; and

WHEREAS, a public hearing was held following public notice as prescribed by ordinance; and

WHEREAS, the Planning Commission has by majority vote recommended approval of the proposed Seventh Amendment; and

WHEREAS, the City Council has approved by a majority vote of the members present the approval of the Seventh Amendment.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA:

Section 1. The City Council of the City of Port Orange does hereby approve the Seventh Amendment (attached hereto as **Exhibit “1”**).

Section 2. The Mayor and City Clerk are hereby authorized to execute said Seventh Amendment.

Section 3. All ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed to the extent of such conflict.

Section 4. If any provision of this ordinance or the application thereof to any person or circumstance is held invalid, the invalidity shall not affect other provisions or applications of this ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are declared severable.

Section 5. This ordinance shall become effective immediately upon adoption.

MAYOR DONALD O. BURNETTE

ATTEST:

Robin L. Fenwick, MMC, City Clerk

Passed on first reading on the day of _____, 2022

Passed and adopted on second and final reading on the day of _____,
2022

Reviewed and Approved: _____
Shannon K. Balmer, Assistant City Attorney

EXHIBIT "1"

Document Prepared By
Storch Law Firm
420 South Nova Road
Daytona Beach, FL 32114

Return recorded document to:
City of Port Orange
1000 City Center Circle
Port Orange, FL 32129

SEVENTH AMENDMENT TO THE MASTER DEVELOPMENT AGREEMENT FOR THE CRYSTAL LAKE PLANNED UNIT DEVELOPMENT (PUD)

THIS SEVENTH AMENDMENT TO THE MASTER DEVELOPMENT AGREEMENT FOR THE CRYSTAL LAKE PLANNED UNIT DEVELOPMENT (PUD) (the “**Seventh Amendment**”) is made this ____ day of _____, 20____, by and among the City of Port Orange, a political subdivision of the State of Florida (“**City**”) whose address is 1000 City Center Circle, Port Orange, Florida 32119; Port Orange Apartment Associates II, L.L.C., a Florida limited liability company (“**Port II**”), whose address is 753 E. Glenn Avenue, Auburn, AL 36830; and Eden GPC Port Orange Owner, LLC, a Florida limited liability company (“**Eden**”), whose address is 2801 SW 31st Avenue, Suite 2-B, Coconut Grove, FL 33133.

WHEREAS, the City, John T. Self (together with John T. Self’s wife, Barbara W. Self, who is now deceased), Robert Beatty, III, Rebecca Joyce Beatty Perkins, Elizabeth Ann Beatty Hayes and RSIII, Inc., a Florida corporation (as the contract purchaser of the subject property), previously entered into an agreement and covenant to bind their successors and assigns to the terms and provisions of a development agreement entitled “Master Development Agreement for the Crystal Lake Planned Unit Development (PUD)”, recorded in Official Records Book 4517, Page 1749, of the Public Records of Volusia County, Florida (the “**Master Development Agreement**”), relating to property described therein; and

WHEREAS, John T. Self (a/k/a John Thomas Self) by that certain Warranty Deed recorded in Official Records Book 5125, Page 1449, Public Records of Volusia County, Florida, conveyed the real property described therein to John T. Self, as Trustee of the John T. Self Trust dated March 31, 2003 (“**Self Trust**”); and

WHEREAS, the Self Trust by that certain Special Warranty Deed recorded in Official Records Book 5372, Page 2397, Public Records of Volusia County, Florida, conveyed the real property described therein to Port Orange Apartment Associates I, LLC, a Florida limited liability company ("**Port I**"); and

WHEREAS, the Self Trust by that certain Warranty Deed recorded in Official Records Book 5428, Page 1055, Public Records of Volusia County, Florida, conveyed the real property described therein to Crystal Lake 2004, Ltd., a Florida limited partnership ("**Crystal Lake**"); and

WHEREAS, Crystal Lake by that certain Special Warranty Deed recorded in Official Records Book 5641, Page 2680, Public Records of Volusia County, Florida, conveyed the real property described therein to Port Orange Apartment Associates III, LLC, a Florida limited liability company ("**Port III**"); and

WHEREAS, Port I by that certain Special Warranty Deed recorded in Official Records Book 5724, Page 2287, Public Records of Volusia County, Florida, conveyed the real property described therein to Port II; and

WHEREAS, Port III by that certain Special Warranty Deed recorded in Official Records Book 7709, Page 894, Public Records of Volusia County, Florida, conveyed the real property described therein to Eden; and

WHEREAS, the property affected by this Seventh Amendment is now owned by Port II and Eden; and

WHEREAS, the Master Development Agreement was amended by that certain First Amendment to the Crystal Lake PUD Development Agreement recorded in Official Records Book 4612, at Page 4011 (the "**First Amendment**"); and that certain Second Amendment to the Crystal Lake PUD Development Agreement recorded in Official Records Book 4704, at Page 417 (the "**Second Amendment**"); and that certain Third Amendment to the Master Development Agreement for the Crystal Lake Planned Unit Development (PUD) recorded in Official Records Book 4876 at Page 1749 (the "**Third Amendment**"); and that certain Fourth Amendment to the Master Development Agreement for the Crystal Lake Planned Unit Development (PUD) recorded in Official Records Book 5078 at Page 2021 (the "**Fourth Amendment**"); and that certain Fifth Amendment to the Master Development Agreement for the Crystal Lake Planned Unit Development (PUD) recorded in Official Records Book 5204 at Page 3392 (the "**Fifth Amendment**"); and that certain Sixth Amendment to the Master Development Agreement for the Crystal Lake Planned Unit Development (PUD) recorded in Official Records

Book ____ at Page ____ (the “**Sixth Amendment**”). The Master Development Agreement, as amended by the First Amendment, the Second Amendment, the Third Amendment, the Fourth Amendment, the Fifth Amendment, and the Sixth Amendment is now hereinafter collectively referred to as the "Master Development Agreement"; and

WHEREAS, the City, Port II and Eden wish to further amend the Master Development Agreement for the purposes of amending: (i) Paragraph 2 (Development Plan); (ii) Paragraph 5 (Development Concept); and (iii) Paragraph 11 (Architectural Design Standards), to remove the requirement for a common drive through Lots 12 and 14 that provides full access between Clyde Morris Blvd. and Reed Canal Rd., to permit Lot 14 to have a private, gated access driveway, and to require emergency access and related improvements between said Lots 12 and 14.

WHEREAS, for purposes of this Seventh Amendment, words with underlined (underlined) type shall constitute additions to the original text and words with strikethrough (~~strikethrough~~) type shall constitute deletions from the original text.

NOW, THEREFORE, the parties, in consideration of the mutual and covenants contained herein, and with the intent to be legally bound and to bind their successors and assigns, due hereby agree as follows:

1. The recitals and premises set forth above are true and correct, form a material part of this Seventh Amendment and are incorporated herein by reference.

2. This Seventh Amendment pertains only to Lots 12 and 14 of the Crystal Lake, Tract 2 Subdivision. Lots 12 and 14 are described in the legal description attached hereto and incorporated herein as Exhibit “A”.

3. Paragraph 2. **Development Plan**, Section 2(d) (2) of the Master Development Agreement is hereby amended, as follows:

- (2) In regard to Tract 2, Lots 12 and 14 may be developed with single family dwellings, apartments (rental) and townhomes (ownership), or a mixture thereof. Single family lots will have an area of at least 5,500 square feet per lot. Residential development on Lot 14 shall be permitted to have a

private access driveway with a gated entrance from Reed Canal Road that is equipped for emergency access. Additional emergency access shall be provided via an emergency access easement with emergency access gate between the residential developments on Lots 12 and 14~~This residential development will be accessed from a common drive which will pass through Lots 12 and 14 and connect through Tract I to Clyde Morris Boulevard and Reed Canal Road as generally depicted by the Conceptual Development Plan. The drive may be public or private.~~ Either single family or multi-family development may occur on Lots 12 and 14. If Lot 12 is developed for single family purposes, the total number of single family lots located on the Lot (which will be subdivided) will not exceed one hundred fifty (150). If Lots 12 and 14 are developed for multi-family purposes, the total number of multi-family units located on Lots 12 and 14 will not exceed eight hundred (800).

4. Paragraph 5. **Development Concept**, of the Master Development Agreement as it relates to Tract 2 at pages 7 and 8 is hereby amended, respectively, as follows:

Tract 2 (Lots 11, 12 and 14): Lot 11 is the existing lake which will serve as common stormwater detention/retention facility for Tracts 1, 2, and 3 as well as open space for development occurring on Lots 12 and 14. Lots 12 and 14 may be developed with single family dwellings, apartments (rental) and townhomes (ownership), or a mixture thereof. Single family lots will have an area of at least 5,500 square feet per lot. Residential development on Lot 14 shall be permitted to have a private access driveway with a gated entrance from Reed Canal Road that is equipped for emergency access. Additional emergency access shall be provided via an emergency access easement with emergency access gate between the residential developments on Lots 12 and 14~~Residential development will be accessed from a common drive which will pass through Lots 12 and 14 and connect through Tract 1 to Clyde Morris Boulevard and Reed Canal Road as generally depicted by the Conceptual Development Plan. The drive may be public or private.~~ Either single family or multi-family development may occur on Lots 12 and 14. If Lot 12 is

developed for single family purposes, the total number of single family lots located on the Lot (which will be subdivided) will not exceed one hundred fifty (150). If Lots 12 and 14 are developed for multi-family purposes, the total number of multi-family units located on Lots 12 and 14 will not exceed eight hundred (800).

5. Paragraph 11. **Architectural Design Standards**, Section 11(d) of the Master Development Agreement is hereby amended, as follows:

Lot function and layout shall be coordinated. For purposes herein, lot function and layout includes but is not limited to, building placement, landscaping layout/design, parking lot layout, and access drive layout/design. Cross access easements and shared points of ingress and egress shall be a particular component of developing Lots 1-10, Lots 12 and 14, and Lot 13. Lots 1-10 are located within Tract 1 shall utilize common ingress and egress points as illustrated on Exhibit "B". Internal access to Lots 1-10 shall be from the indicated points of ingress and egress via cross access easements which shall be shown as a part of the plat subdividing Lots 1-10. ~~Lots 12 and 14 shall share a private central common accessway which will originate on Clyde Morris Boulevard and Reed Canal Road. The central common accessway shall provide both pedestrian and vehicular access to Clyde Morris Boulevard, Reed Canal Road, and the neighborhood service area planned for Lots 1-10.~~ Lot 13 shall have two (2) points of access onto Reed Canal Road. Individual building sites located on Lot 13 shall have access to Reed Canal Road via a cross easement to be located on sublots 13.1 through 13.83. A shared point of access or cross access point between Tract 1 and Tract 3 will be allowed.

6. This Seventh Amendment shall be effective as of the date it is executed by all parties.

7. This Seventh Amendment shall be recorded in the Public Records of Volusia County, Florida, at Eden's expense.

8. The Master Development Agreement, as previously enacted and amended by the First, Second, Third, Fourth, Fifth and Sixth Amendments thereto, shall remain in full force and effect except with respect to

those matters specifically amended by this Seventh Amendment.

IN WITNESS WHEREOF, the parties have executed this Seventh Amendment, by and through their duly authorized representatives, on the respective dates below:

“CITY”

CITY OF PORT ORANGE, a Florida municipal corporation

WITNESSES:

Print Name: _____

By: _____
Donald O. Burnette, Mayor

Print Name: _____

Print Name: _____

Attest: _____
Robin L. Fenwick, MMC, City Clerk

Print Name: _____

STATE OF FLORIDA
COUNTY OF VOLUSIA

The foregoing instrument was acknowledged before me by means of **[XX]** physical presence or [] online notarization this ____ day of _____, 20____, by Donald O. Burnette, Mayor, and Robin L. Fenwick, City Clerk, both on behalf of the City of Port Orange, a Florida municipal corporation. They are personally known to me and did not take an oath.

Notary: Type, Print or Stamp Name

My Commission Expires:

“PORT II”

WITNESSES:

**PORT ORANGE APARTMENT ASSOCIATES II,
L.L.C.**, a Florida limited liability company

By: Port Orange SPE, Inc., a Florida corporation,
its Managing Member

Print Name: _____

By: _____
C. Hadley Weaver, Jr., President

Print Name: _____

STATE OF ALABAMA
COUNTY OF LEE

The foregoing instrument was acknowledged before me by means of ☐ physical presence or ☐ online notarization on this ____ day of _____, 20__, by C. Hadley Weaver, Jr., as President of Port Orange SPE, Inc., a Florida corporation, the Managing Member of Port Orange Apartment Associates II, L.L.C., a Florida limited liability company. He/she is personally known to me or produced _____ as identification and did not take an oath.

(Seal)

Notary Public

“EDEN”

WITNESSES:

EDEN GPC PORT ORANGE OWNER, LLC, a
Florida limited liability company

Print Name: _____

By: _____
_____, Manager

Print Name: _____

STATE OF FLORIDA
COUNTY OF _____

The foregoing instrument was acknowledged before me by means of [] physical presence or [] online notarization on this ____ day of _____, 20__, by _____, as Manager of Eden GPC Port Orange Owner, LLC, a Florida limited liability company. He/she is personally known to me or produced _____ as identification and did not take an oath.

(Seal)

Notary Public

EXHIBIT "A"
LEGAL DESCRIPTION

Lot 12A, CRYSTAL LAKE TRACT 2, according to the Plat thereof, as recorded in Plat Book 50, Page 58, Public Records of Volusia County, Florida.

AND

Lot 12B, CRYSTAL LAKE TRACT 2, according to the Plat thereof, as recorded in Plat Book 50, Page 58, Public Records of Volusia County, Florida.

AND

Lot 14, CRYSTAL LAKE TRACT 2, according to the Plat thereof, as recorded in Plat Book 50, Page 58, Public Records of Volusia County, Florida.



STAFF REPORT

Seventh Amendment to the Master Development Agreement for the Crystal Lake Planned Unit Development Case No. 22-40000001

REQUEST:	To approve the Seventh Amendment to the Master Development Agreement (MDA) for the Crystal Lake Planned Unit Development (PUD) to allow the access drive between Lot 12 (Legacy at Crystal Lake Apartments) and Lot 14 (Eden at Crystal Lake Apartments) to be gated and for emergency access only.
APPLICANTS:	Glenn D. Storch and Corey D. Brown, Storch Law Firm
PROPERTY OWNERS:	Port Orange Apartment Associates II, LLC; Eden GPC Port Orange Owner, LLC
STAFF RECOMMENDATION:	Approval
LOCATION:	1200 Floral Springs Boulevard; 1270 Reed Canal Road
STAFF CONTACT:	Gideon Smith, Senior Planner (386) 506-5676
STAFF RECOMMENDATION:	Approval
PLANNING COMMISSION DATE:	Recommended Approval 4-0 (June 23, 2022)
CITY COUNCIL DATE:	July 19, 2022

DEVELOPMENT PROPOSAL

The proposed Seventh Amendment to the Crystal Lake Master Development Agreement (MDA) is to remove the requirement that access must be provided through Lot 12 (Legacy at Crystal Lake Apartments) and Lot 14 (Eden at Crystal Lake Apartments) of the Crystal Lake Planned Unit Development (PUD) via a common drive that connects Clyde Morris Boulevard to Reed Canal Road as part of any residential development on these lots.

Figure 1. Location Map



The subject properties are currently regulated by the Crystal Lake MDA, as amended, and the Land Development Code (LDC). According to the applicant, the requested Seventh Amendment is to allow the residential development on Lot 14 (Eden at Crystal Lake Apartments) to have a gated entrance at Reed Canal Road that is equipped for emergency access and an emergency access gate between the residential developments on Lots 12 and 14 (See Figure 1 on Page 1). Both proposed gates would be designed to allow emergency personnel to access both lots from either Clyde Morris Boulevard or Reed Canal Road in the event of an emergency. The proposed amendment does not change the current access to the Legacy at Crystal Lake Apartments (Lot 12) from Clyde Morris Boulevard nor does it change any of the permitted uses or other development requirements in the Crystal Lake MDA.

The Crystal Lake MDA was approved by the City Council in 2000 and established a mixed-use development with various tracts, each with a common purpose and design theme, along with a provision that required a common access drive through Lots 12 and 14 to connect Clyde Morris Boulevard to Reed Canal Road once developed. Access to Lot 12 is provided via Floral Springs Boulevard, which was constructed to serve the Legacy at Crystal Lake Apartments when the lot was developed in 2004. The entrance to Legacy at Crystal Lake Apartments is currently ungated.

The developer of Lot 14 requested that the Eden at Crystal Lake Apartments be gated between Lots 12 and 14, and the access point required by the MDA between Lots 12 and 14 only be only used for emergency access. The LDC does not prohibit the installation of gates for multi-family residential developments, however, since the Crystal Lake PUD MDA states that a common access through Lots 12 and 14 must be provided, the proposed amendment to the MDA is needed to remove the requirement. Figure 2 shows the access points to the two multi-family developments from adjacent roadways and general location of the proposed emergency access gate between Lots 12 and 14.

Figure 2. Common Drive Network within Lots 12 and 14



According to the applicant, the request to have a gate between Lots 12 and 14 and at Reed Canal Road is so the Eden at Crystal Lake Apartments can be a private, gated community. According to the applicant, in addition to increased privacy, Lots 12 and 14 are not under the same ownership, nor have the same design and product type, so interconnection between the two parcels is no longer desired when compared to the original vision of the Crystal Lake PUD as the multi-family lots being under unified ownership. The applicant also indicated since both Lots 12 and 14 were not developed together and do not have similar design layouts, the design of the parking lot and access drives and overall concept is no longer conducive to serve as connector between two arterial roads (Clyde Morris Boulevard and Reed Canal Road). Figure 3 below shows the existing parking lot and access drive through Legacy at Crystal Lake Apartments. Figure 4 shows the existing location of the connection between Lots 12 and 14.

Figure 3. Existing Parking Lot and Access Drive through Legacy at Crystal Lake Apartments



Figure 4. Approximate Location of Proposed Gate between Lots 12 & 14



There are no specific criteria to be used as a base for Staff recommendation for the request to remove the requirement of connecting the common access drives associated with the residential developments on Lots 12 and 14 as required in the original MDA. The Staff recommendation on this matter is generally based on impacts to emergency services and consistency with adopted plans (such as Comprehensive Plan, Land Development Code, City Vision, budget, etc.). Multi-family developments with gated access are not uncommon throughout Port Orange and recent examples of similar developments include The Atlantic Apartments (1401 Reed Canal Road), White Palm Apartments (5400 S. Williamson Boulevard), Springs at Port Orange Apartment Homes (5410 S. Williamson Boulevard), Sanctuary at Westport (5400 Coraci Boulevard), Hawthorne Village Apartment Homes (3900 Yorktowne Boulevard), and Hawks Mill Apartments (3835 Clyde Morris Boulevard).

The proposed amendment has been reviewed and approved by the Staff Development Review Committee (Police, Fire, Community Development, Public Utilities, Public Works, and City Attorney's Office).

If approved, the existing access to the Legacy at Crystal Lake Apartments (Lot 12) from Clyde Morris Boulevard and the access to Eden at Crystal Lake Apartments (Lot 14) from Reed Canal Road will remain unchanged other than the addition of the gated access for Eden at Crystal Lake Apartments. The only proposed change to the MDA for the Crystal Lake PUD is the Eden at Crystal Lake Apartments will have a gated main entrance from Reed Canal Road that is equipped for emergency access, and an emergency access only gate will be installed between the two multi-family residential developments on Lots 12 and 14. The Legacy at Crystal Lake Apartments property owners do not object to the request to install a gate between Lots 12 and 14 and at this time they have not proposed to install a gate along Floral Springs Boulevard. However, if the proposed amendment is approved, the Legacy at Crystal Lake Apartments will have the option to install a gate in the future.

Figure 5. Entrance to Eden at Crystal Lake Apartments (Under Construction)



CONSISTENCY WITH COMPREHENSIVE PLAN

Lots 12 and 14 are designated *Urban Medium Density Residential* (4-8 units/acre) on the City's Future Land Use (FLU) Map. The original MDA was found to be consistent with the Comprehensive Plan when it was approved in 2000. The proposed Seventh Amendment does not change the FLU designation for the subject property and is consistent with the general intent of the City's Comprehensive Plan.

PUBLIC NOTICE

A Public Notice sign was posted on the site on May 20, 2022. At the time this agenda item was prepared, there have been no phone calls or other inquiries on the proposed amendment.

RECOMMENDATION

Staff recommends approval of the Seventh Amendment to the Master Development Agreement for the Crystal Lake Planned Unit Development, subject to review and approval by the City Attorney's Office for legal form and content.

ATTACHMENT

Exhibit 1: Seventh Amendment to the Master Development Agreement for the Crystal Lake Planned Unit Development (see Ordinance Exhibit)



CITY COUNCIL AGENDA ITEM

COUNCIL MEETING DATE 8/2/2022

SUBJECT: (F16) Second Reading - Ordinance No. 2022-18 - Rezoning/950 Madeline Avenue (Case No. 22-60000004)

DEPARTMENT: Community Development

GOAL: 4 - Economic Development

RECOMMENDED MOTION: Move to approve Ordinance No. 2022-18, rezoning approximately +/- 8.3 acres from Medium Density Multifamily Residential (R-3M) to Community Commercial (CC)

SUMMARY: Planning Commission Action (06/23/22): Recommended Approval (4-0)

The applicant, Philip C. Hollis of Flagship Companies Group, LLC, is requesting to rezone the subject property from Multi-Family Residential (R-3M) to Community Commercial (CC). The property is located at the southeast corner of Madeline Avenue and Nova Road, west of Jackson Street. (Location Map below)



The property is currently occupied by a horse boarding facility (Port Orange Stables) that has been at this location since the mid-1960s. The property currently has a Future Land Use (FLU) designation of Commercial and is zoned R-3M (Multi-Family Residential – up to 12 units per acre). The property has been designated Commercial on the Future Land Use (FLU) map since 2010. The FLU designation was changed from the High-Density Residential (8-16 units per acre) category to the Commercial category to encourage redevelopment of the property as it is located in a designated commercial node in the City's Comprehensive Plan. In addition, the current R-3M

zoning for the property is not compatible with the existing Commercial FLU designation. The proposed CC zoning district is consistent with the property's current Commercial FLU designation and will allow it to be redeveloped.

The CC zoning district permits typical community-scale commercial uses commonly found at shopping centers and outparcels of this type, such as retail stores, restaurants, personal services (hair salon, barber shop, nail salon, retail dry cleaning, etc.), offices, breweries, health/exercise clubs, childcare centers, convenience store/gas station, banks, mini-warehouse, vehicle and boat storage, and similar uses. If the property is rezoned to CC, the applicant also intends to request approval of a special exception to allow for the development of a 3-story climate-controlled self-storage facility, with 1-story mini-warehouse storage buildings around the perimeter of the storage facility, and motor vehicle, recreational vehicle, and boat storage interior to the site. The applicant's special exception request is currently scheduled to be considered on the August 16 City Council agenda.

If the rezoning and special exception are approved, the applicant intends to submit a site plan application for a self-storage and boat and RV storage facility and an application to subdivide the ±8.3-acre subject property into two (2) commercial lots.

As part of any future redevelopment, a site plan and/or building permits will be required to be submitted for staff review to verify all LDC and Florida Building Code requirements are met to ensure compatibility with adjoining properties, and that adequate public facilities and services are available.

The staff report is attached for more information.

PRESENTER: Penelope Cruz, Tim Burman

ATTACHMENTS:

1.	Ordinance 2022-18 with exhibits	7-19 Ord. No. 2022-18 Rezoning 950 Mad.pdf
2.	Staff Report 950 Madeline Rezoning	Staff Report 950 Madeline Rezoning.pdf

Gwen Perney

Created/Initiated - 7/14/2022

ORDINANCE NO. 2022-18

AN ORDINANCE OF THE CITY OF PORT ORANGE,
VOLUSIA COUNTY, FLORIDA, REZONING PROPERTY
CONSISTING OF APPROXIMATELY ±8.3 ACRES FROM
MULTI-FAMILY RESIDENTIAL (R-3M) TO COMMUNITY
COMMERCIAL (CC); AUTHORIZING REVISION OF THE
OFFICIAL ZONING ATLAS; AND PROVIDING AN
EFFECTIVE DATE.

WHEREAS, ±8.3 acres of the property located at 950 Madeline Avenue to be rezoned from Multi-Family Residential (R-3M) to Community Commercial (CC); and

WHEREAS, a public hearing was held following public notice as prescribed by ordinance; and

WHEREAS, the Planning Commission has by a majority vote recommended approval of the proposed rezoning; and

WHEREAS, the City Council has approved by a majority vote of the members present the rezoning of the described property; and

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA:

Section 1. The City Council of the City of Port Orange does hereby rezone ±8.3 acres of the property located at 950 Madeline Avenue from Multi-Family Residential (R-3M) to Community Commercial (CC), more particularly described in **Exhibit “1”**, attached hereto.

Section 2. The City Council of the City of Port Orange does hereby approve, authorize and direct the revision of the City's Official Zoning Atlas to show the classification for the areas as hereby rezoned as shown on **Exhibit “2”**, attached hereto.

Section 4. This ordinance shall become effective immediately upon adoption.

MAYOR DONALD O. BURNETTE

ATTEST:

Robin L. Fenwick, MMC, City Clerk

Passed on first reading on the day of

Passed and adopted on second and final reading on the day of

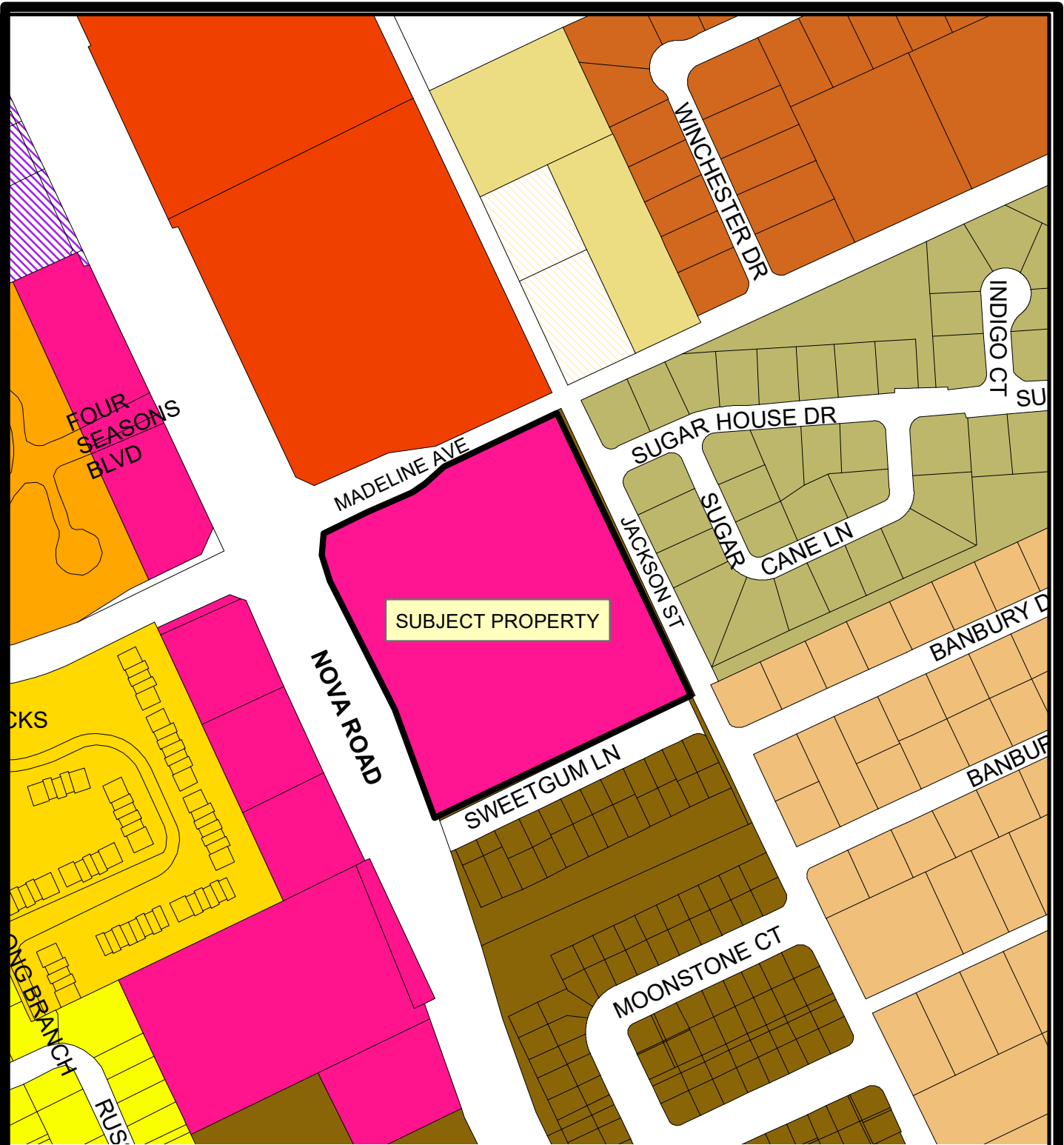
Reviewed and Approved: _____
Shannon K. Balmer, Assistant City Attorney

EXHIBIT 1

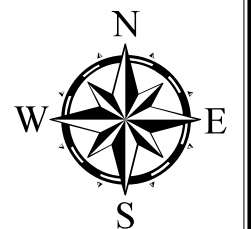
LEGAL DESCRIPTION

LOT 2, BLOCK 16, DUNLAWTON, LESS AND EXCEPT ANY PART RECORDED IN O.R. BOOK 3917, PAGE 1427, A SUBDIVISION ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK M, PAGE 187, OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.

EXHIBIT 2



LOCATION MAP
CASE NO. 22-60000004
REZONING
950 MADELINE AVE



CITY OF PORT ORANGE
DEPARTMENT OF COMMUNITY DEVELOPMENT



STAFF REPORT

CONVENTIONAL REZONING / 950 MADELINE AVE

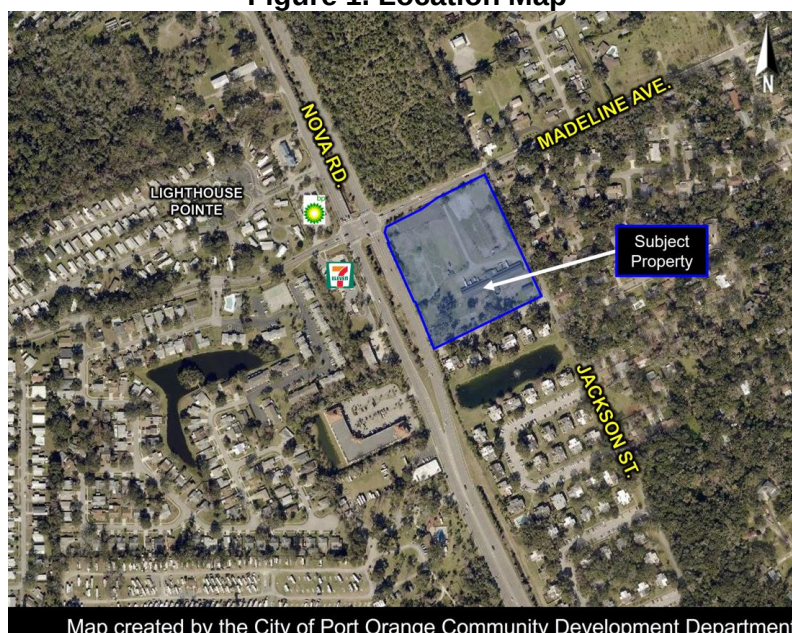
CASE NO. 22-60000004

REQUEST:	Rezone ± 8.3 acres from Multi-Family Residential (R-3M) to Community Commercial (CC)
LOCATION:	950 Madeline Ave. (Figure 1 – Location Map)
PROPERTY OWNER:	T & T 950 Madeline, LLC
APPLICANT:	Philip C. Hollis, Flagship Companies Group, LLC
STAFF CONTACT:	Gwen Perney, Principal Planner (386) 506-5673
STAFF RECOMMENDATION:	Approval
PLANNING COMMISSION:	Recommended Approval (June 23, 2022)
CITY COUNCIL:	July 19, 2022

Property Overview

The applicant, Philip C. Hollis of Flagship Companies Group, LLC, on behalf of the property owner, T & T 950 Madeline, LLC, is requesting to rezone the subject property from Multi-Family Residential (R-3M) to Community Commercial (CC). The subject property is located at the southeast corner of Madeline Avenue and Nova Road, west of Jackson Street and is currently used for boarding horses (Figure 1 – Location Map). The applicant has also concurrently applied for a Special Exception (Case No. 22-70000001) to allow a self-storage and boat and RV storage facility to be built on the subject property. If the rezoning and special exception are approved, the applicant intends to submit a site plan application for self-storage and boat and RV storage facility and an application to subdivide the ± 8.3 -acre subject property to create a ± 1.5 -acre commercial outparcel.

Figure 1. Location Map



Map created by the City of Port Orange Community Development Department

Discussion

The subject property is currently occupied by horse boarding facility (Port Orange Stables) since the mid-1960's. The property currently has a Future Land Use (FLU) designation of *Commercial* and is zoned R-3M (Multi-Family Residential – up to 12 units per acre). The subject property has been zoned for multi-family uses since 1971. The property has been designated *Commercial* on the Future Land Use (FLU) map since 2010. The FLU category was changed from the *High-Density Residential (8-16 units per acre)* category to the *Commercial* FLU category to encourage redevelopment of the property as it is in a designated commercial node in the City's Comprehensive Plan. The current R-3M zoning is not compatible with the *Commercial* FLU designation. To develop the property, either the FLU designation or zoning for the property is required to be changed in order to be consistent.

According to the applicant, the request to rezone the subject property to the CC zoning category is so the zoning for the property is consistent with the property's current *Commercial* FLU designation and allow it to be redeveloped. If the property is rezoned to CC, the proposed self-storage and boat and RV storage facility will require approval of a Special Exception. In conjunction with the rezoning request, the applicant has also applied for a special exception to allow for the development of a 3-story climate controlled self-storage facility, with 1-story mini-warehouse storage buildings around the perimeter of the storage facility, and motor vehicle, recreational vehicle, and boat storage interior to the site.

According to the applicant, deviating from the requirements in the LDC to develop the site is not anticipated, therefore, the applicant selected to use a standard zoning district and meet the requirements in the LDC including landscape buffers, parking, building setbacks, tree preservation, lot size and width, architecture design and traffic concurrency. The applicant believes that the lot dimensional requirements and the list of permitted uses in the CC zoning district and the development requirements in the LDC is a more efficient and transparent process to develop the site than creating a Planned Commercial Development (PCD).

Access to the property is available along Nova Road, Madeline Avenue, and Jackson Street. Any proposed access drives off Nova Road must be approved by FDOT and access off Madeline Avenue and Jackson Street must be approved by City of Port Orange, during the site plan review process. Sweetgum Lane is a private road, and the applicant is not requesting to provide access to Sweetgum Lane. Water and sewer are available to service the property. As part of any future subdivision of the property and/or site development, the applicant will be required to submit development plans for staff review, to meet all architecture, landscaping, traffic generation, lot dimensional requirements, and site development and infrastructure requirements of the City's LDC.

As part of any redevelopment on the subject property, a site plan will require detailed technical review by the Staff Development Review Committee (SDRC) to determine all requirements in the Land Development Code (LDC) and City's Comprehensive Plan are met. Specific site development requirements listed in the LDC, such as the width of the landscape buffers, location and size of the stormwater pipes, water lines, and sewer lines, parking lot design, architectural design, tree and wetland preservation/mitigation, screening (fence or wall) and other development requirements are finalized with the site

plan. Site plans are typically a 20 to 50-page set of technical documents that are signed and sealed by a licensed engineer and contain extensive engineering, landscaping, and construction details.

As with all development within the City, specific site development proposals for the subject property are subject to transportation concurrency regulations at the time of development. Transportation Concurrency review determines if the developer is required to construct facilities, or for the developer to enter into a mitigation agreement to pay for their impacts to the roadway network. Similar to other developments within the city, the developer may be required to enter into a Transportation Fair-Share and Concurrency Agreement with the City to pay for part of the scheduled improvements for any impacted areas.

According to the latest traffic counts for Madeline Avenue, Nova Road, and Jackson Street, there is sufficient capacity for traffic anticipated from the development of the subject property to be generated by future development of this property (Table 1).

Table 1. Roadway Capacities for Roadways Adjacent to 950 Madeline Avenue

Roadway Segment	Roadway Classification Per City Comp Plan	Maximum Capacity Vehicles Per Day	Current Vehicles Per Day	Remaining Capacity Vehicles Per Day	V/C Ratio*
Madeline Ave. (Sauls Rd. to Nova Rd.)	Minor Arterial	14,040	5,059	8,981	0.36
Madeline Ave. (Nova Rd. to Clyde Morris Blvd.)	Minor Arterial	14,040	9,225	4,815	0.65
Nova Rd. (N. City Limits to Dunlawton Ave.)	Principal Arterial	39,800	27,000	12,800	0.68
Jackson St. (North of Dunlawton Ave.)	Local Collector	12,744	1,619	11,125	0.13

Sources: City of Port Orange (2022), Traffic counts conducted by Traffic Engineering Data Solutions, Inc. (TEDS) and Volusia County Traffic Engineering (2019)

*Volume/Capacity (V/C) Ratio - Volume-Demand-to-Capacity Ratio compares roadway demand (vehicle volumes) with roadway supply (carrying capacity). A V/C ratio of 1.00 indicates the roadway is operating at its capacity.

For any future development on the subject property, the design of the stormwater drainage system will be required to comply with the stormwater requirements in the City's Land Development Code and the St. Johns River Water Management District (SJRWMD) Environmental Resource Permit (ERP) for a site that discharges stormwater into the Nova Canal. Per the City's Land Development Code, the applicant will be required to construct on-site stormwater facilities, designed to accommodate, and treat the 25 year, 24-hour storm event, without causing flooding to adjacent properties or polluting the receiving water bodies. The drainage system design for the redevelopment of the subject property is anticipated to consist of onsite stormwater retention ponds and the stormwater held in these ponds would eventually discharge into the Nova Canal which is maintained by FDOT and Volusia County.

Any development on the subject property will also be required to comply with all federal, state, regional and local regulations pertaining to the protection, relocation, mitigation, and preservation of trees, gopher tortoises, protected wildlife species, wetlands, and other environmental resources. A formal review of these items will occur with the review of the site plan to verify compliance with all federal, state, regional and local regulations.

Any proposed development will be required to comply with the City's landscaping requirements, such as perimeter landscape buffers, parking lot landscaping, building foundation landscaping, and tree preservation. A formal review of the landscaping and tree preservation will occur with the review of the site plan to verify compliance with the LDC. Regardless of the commercial use developed on the site, the following are the minimum landscape and tree preservation requirements for the subject property

- A minimum twenty (20) foot wide landscape right-of-way buffer along Nova Road and Madeline Avenue.
- A minimum ten (10) foot wide landscape right-of-way buffer along Jackson Street and Sweetgum Lane.
- A minimum of 15% of the ±8.3-acre subject property must be set aside for the preservation of existing trees.

The CC zoning district permits typical commercial uses commonly found along an arterial roadway such as banks, business services, convenience stores with or without fuel operations, financial services, fleet-based services, funeral homes, furniture and appliance stores, health/exercise clubs, medical offices/clinics, motor vehicle service stations, offices, personal services, restaurants, retail home building materials, retail nurseries and garden supplies, retail sales and services, and veterinary clinics. If the property is rezoned to CC and the current property owner does not redevelop the site with a self-storage facility, any future proposed use of the subject property will need to be a permitted use in the CC zoning district.

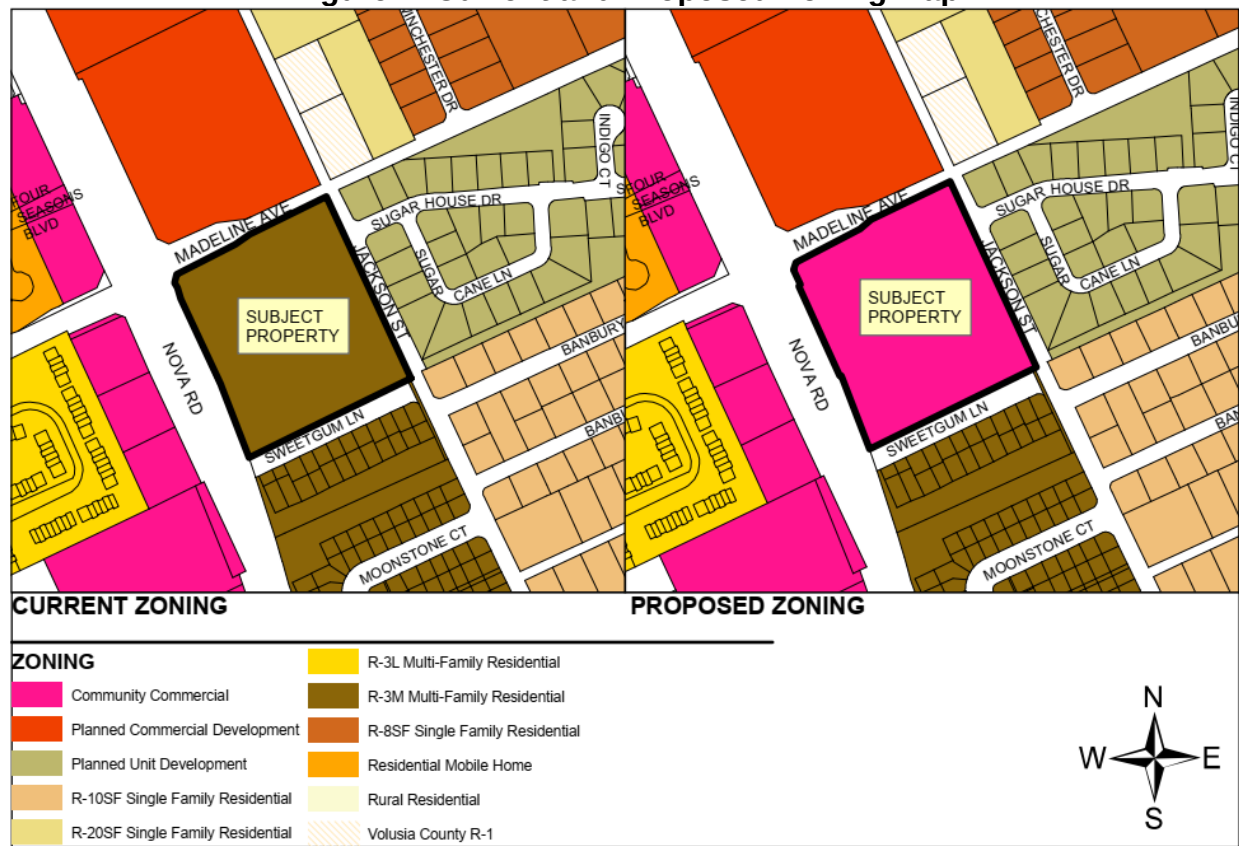
Compatibility with Surrounding Uses and Zoning

The rezoning request was reviewed according to the criteria established in Chapter 3, Section 7 of the Land Development Code (LDC) in terms of consistency with the Comprehensive Plan and the surrounding land uses and zoning.

The proposed CC zoning district is appropriate for this location and is compatible with the surrounding properties. Table 1 summarizes the land use and zoning of the adjacent properties. The subject property is located along a major arterial roadway. Based on compatibility with adjacent uses and availability of infrastructure, the requested CC zoning is appropriate for this location, and it is consistent with the existing FLU designation. (Figure 2 – Current and Proposed Zoning Map).

Table 1. Surrounding Land Uses and Zoning

Direction	Existing Land Use	FLU Designation	Zoning District
North	Vacant Commercial	<i>Commercial</i>	Planned Commercial Development (PCD)
South	Multi-Family Residential (Willow Lake Townhomes)	<i>Urban High Density Residential (8-16 units/acre)</i>	Medium Density Multi-Family Residential (R-3M)
East	Single Family Residential (Sugar Forest subdivision)	<i>Suburban Residential (2-4 units/acre)</i>	Sugar Forest Planned Unit Development (PUD)
West	Commercial, across Nova Road	<i>Commercial</i>	Community Commercial (CC)

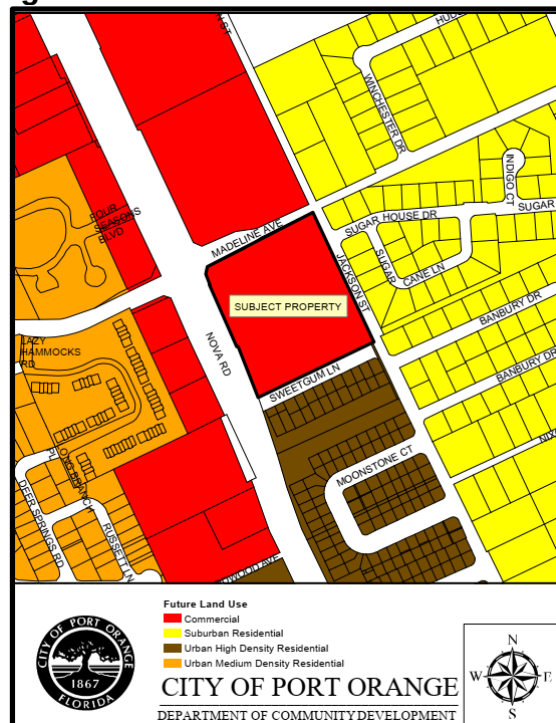
Figure 2. Current and Proposed Zoning Map**Consistency with Comprehensive Plan**

The proposed rezoning is generally consistent with the pertinent Goals, Objectives, and Policies of the City's Comprehensive Plan and is compatible with adjacent properties. The subject property is currently designated *Commercial* on the Future Land Use (FLU) map, along with the adjacent properties along Nova Road to the north and west of the subject property. The subject property is also located in a Community Commercial node as

designated in the City's Comprehensive Plan. A Community Commercial node is generally designed to serve the general shopping needs of areas within a ± 2 -mile radius.

The proposed CC zoning district is consistent with the subject property's current *Commercial* FLU designation (Figure 3 – Future Land Use Map). The *Commercial* FLU designation is generally characterized by uses that provide for the retail sale of items and provision of services to the general public. Based on compatibility with the property's current FLU designation, adjacent uses, and availability of infrastructure, the requested zoning is determined to be appropriate for this location and consistent with the Comprehensive Plan.

Figure 3. Current Future Land Use Map



Public Notice

A neighborhood meeting was held by the applicant on May 31, 2022, as required by the LDC to discuss the proposed rezoning and future development with area residents. Approximately 30 people were in attendance to discuss concerns regarding area drainage, traffic, and environmental issues. The property was posted by Staff on May 20, 2022, as required by the LDC notifying the public of the proposed rezoning. As of the time this agenda item was prepared, there have been three (3) phone calls with general inquiries on the proposed rezoning.

Staff Recommendation

Staff recommends **approval** of the request to rezone ± 8.3 acres from Multi-Family Residential (R-3M) to Community Commercial (CC).

Attachment

Exhibit 1 – Dimensional Requirements and List of Permitted Uses for the CC zoning district

Exhibit 1
Dimensional Requirements and Permitted Uses
Community Commercial Zoning

						Minimum Building Setback (Ft.)			
District	Minimum Living Area/D.U. (Sq. Ft.)	Minimum Lot Area (Sq. Ft.)	Minimum Lot Width (Ft.)	Maximum Building Coverage	Minimum Open Space	Front	Side	Rear	Maximum Height (Ft.)
CC		22,500	150	35%	30%	D	15*	25*	45

* Non-residential building setbacks adjoining residential zoning shall be equal to or greater than building height.

Community Commercial (LDC, Chapter 17, Section 21)

Permitted uses.

- (1) Adult/vocational education.
- (2) Appliance/electronic repair shops.
- (3) Banks.
- (4) Business services.
- (5) Clubs, lodges, and fraternal organizations.
- (6) Convenience stores with or without fuel operations.
- (7) Financial services.
- (8) Fleet-based services.
- (9) Funeral homes.
- (10) Furniture and appliance stores.
- (11) Health/exercise clubs.
- (12) Medical offices/clinics.
- (13) Motor vehicle service stations.
- (14) Offices.
- (15) Office supplies.
- (16) Personal services.
- (17) Restaurants.
- (18) Retail home building materials.
- (19) Retail nurseries and garden supplies.
- (20) Retail sales and services.
- (21) Veterinary clinics.

Permitted uses with special development requirements.

- (1) Athletic/sports facilities (subsection 2).
- (2) Brewery (subsection 3.7).
- (3) Child care centers (subsection 4).
- (4) Craft food and beverage producer (subsection 5.15).
- (5) Community gardens (subsection 5.1).
- (6) Microbrewery (subsection 9.57).
- (7) Theaters (subsection 17).

Special exception uses.

- (1) Bars, lounges, and night clubs (subsection 3).
- (2) Fortune tellers, astrologers, and palm readers (subsection 6).
- (3) Game/recreation facilities (subsection 7).
- (4) Marina, recreational (subsection 9.6).
- (5) Mini-warehouses (subsection 10).
- (6) Motor vehicle and boat storage facilities (subsection 12).



CITY COUNCIL AGENDA ITEM

COUNCIL MEETING DATE 8/2/2022

SUBJECT: (F17) Approval of Special Exception for Extra Space Storage – 950 Madeline Avenue (Case No. 22-70000001)

DEPARTMENT: Community Development

GOAL: 4 - Economic Development

RECOMMENDED MOTION: Move to approve the Special Exception to allow a mini-warehouse facility to be developed at 950 Madeline Avenue, as recommended by the Planning Commission subject to approval of rezoning Case No. 22-60000004.

SUMMARY: Planning Commission Action: (6/23/22): Recommended Approval (Vote 4-0)

Philip C. Hollis of Flagship Companies Group, LLC, applicant for the property owner, T & T 950 Madeline, LLC, has applied for a Special Exception to operate a mini-warehouse and motor vehicle/boat storage facility within the Community Commercial (CC) zoning district. The proposed facility would be located on an ±8.3-acre property at the southeast corner of Madeline Avenue and Nova Road.



Map created by the City of Port Orange Community Development Department

The Special Exception criteria for the proposed mini-warehouse and motor vehicle/boat storage facility (architecture, parking, landscaping, screening, access, traffic generation, etc.) have been met. According to the applicant, the subject property is proposed to be developed with a 3-story climate-controlled self-storage building, three (3) one-story mini-warehouse buildings, and a paved covered outdoor storage area for vehicles, recreational vehicles, and boats. Below is a rendering of the proposed buildings from Nova Road.



According to the Land Development Code (LDC), “a special exception is a use that would not be appropriate without restriction, but which, if controlled as to number, area, location or relation to the surrounding area, would promote the public health, safety and general welfare.” The LDC defines a mini-warehouse as “self-service storage facility in a building consisting of individual self-contained units of varying size that are leased or owned for the storage of business and household goods, or for contractor’s supplies” and defines a motor vehicle and boat storage facility as “land where the long-term parking of motor vehicles and boats is accommodated.”

If the Special Exception is approved, the applicant intends to submit a site plan for the proposed self-storage facility for staff review, and the proposed development will be required to meet all architecture, landscape buffer and screening, site development and infrastructure, stormwater, and traffic concurrency requirements in the City’s Land Development Code.

The Staff Report is attached for more information.

PRESENTER: Tim Burman, Penelope Cruz

ATTACHMENTS:

1.	Staff Report - 950 Madeline Special Exception	Staff Report - 950 Madeline Special Exception.pdf
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Gwen Perney
Tim Burman
Shannon Balmer
Wayne Clark

Created/Initiated - 7/13/2022
Approved - 7/13/2022
Approved - 7/21/2022
Approved - 7/22/2022



STAFF REPORT

Special Exception / Mini-Warehouse and Motor Vehicle Boat and Storage Facility

CASE NO. 22-70000001

REQUEST:	To allow the operation of a mini-warehouse and motor vehicle/boat storage facility within the Community Commercial (CC) zoning district.
LOCATION:	950 Madeline Avenue
PROPERTY OWNER:	T & T 950 Madeline, LLC
APPLICANT:	Philip C. Hollis, Flagship Companies Group, LLC
STAFF CONTACT:	Gwen Perney, Principal Planner (386) 506-5673
STAFF RECOMMENDATION:	Approval
PLANNING COMMISSION:	Recommended Approval (June 23, 2022)
CITY COUNCIL:	August 2, 2022

Introduction

Philip C. Hollis of Flagship Companies Group, LLC, applicant for the property owner, T & T 950 Madeline, LLC, has applied for a Special Exception to operate a mini-warehouse and motor vehicle/boat storage facility within the Community Commercial (CC) zoning district. The proposed use would be located on an ±8.3-acre property located at the southeast corner of Madeline Avenue and Nova Road (Figure 1 on Page 2). If approved, the applicant intends to submit a site plan to establish a mini-warehouse storage facility with storage area for motor vehicles, recreational vehicles, and boats on the subject property.

The applicant has concurrently applied for rezoning of the subject property from Medium Density Multi-Family Residential (R-3M) to Community Commercial (CC). (Case No. 22-60000004). The CC zoning district lists mini-warehouses and motor vehicle/boat storage facilities as special exception uses within the zoning district. In addition to the proposed mini-warehouse and motor vehicle and boat storage uses, the CC zoning of the property also allows uses such as office, medical office, restaurants with a drive-thru, retail, convenience store with fuel operations, bank, and health/exercise clubs.

According to the Land Development Code (LDC), “a special exception is a use that would not be appropriate without restriction, but which, if controlled as to number, area, location or relation to the surrounding area, would promote the public health, safety and general welfare.” The LDC defines a mini-warehouse as “self-service storage facility in a building consisting of individual self-contained units of varying size that are leased or owned for the storage of business and household goods, or for contractor's supplies” and defines a

motor vehicle and boat storage facility as “land where the long-term parking of motor vehicles and boats is accommodated.”

Figure 1. Location map



According to the applicant’s market analysis, it determined that within a 5-mile radius of the subject property the demand for a mini-warehouse facility exists at this location based on the area demographics and future growth. The proposed development includes a three-story climate controlled self-storage building, three (3) one-story mini warehouse buildings, and a paved covered outdoor storage area for vehicles, recreational vehicles, and boats. The site will also have landscape buffers, screening fence or wall, a stormwater pond, a parking lot and water and sewer infrastructure as required by the City’s Land Development Code. Figure 2 below is a conceptual site plan provided by the applicant depicting the proposed site improvements that will be submitted for staff review if the rezoning and special exception are approved.

Figure 2. Conceptual Site Plan



Special Exception Development Standards

All Special Exception uses are required to meet a uniform list of development standards, encompassing traffic generation, landscaping and buffering, and others [Ch. 18, Sec. 2(d)(2) of the LDC]. The following are the development standards and how they apply to the request.

Standard Special Exception Development Standards:

1. *Traffic generation and access for the proposed use shall not adversely impact adjoining properties and the general public safety.*

According to the applicant, a mini-warehouse facility use produces very low traffic volumes compared to other retail, restaurant, and office uses permitted on the subject property. The proposed 700-unit mini-warehouse facility is estimated to generate 152 daily trips and 16 PM peak hour trips. Table 1 below demonstrates the trip generation rates of permitted uses in the Community Commercial (CC) zoning district. Compared to a restaurant or convenience store, the mini-storage and RV/boat storage uses have a low impact on daily vehicle traffic to and from the site. According to the applicant, the facility is anticipated to only be accessible by customers between the hours of 6:00am and 10:00pm.

Table 1. ITE Daily Trip Rate for uses in the Community Commercial (CC) Zoning District

Use	Daily Trip Rate	Multiplier
Mini-warehouse	1.45	Per 1,000 SF
Warehouse (Motor vehicle and boat storage)	3.56	Per 1,000 SF
General Office	11.03	Per 1,000 SF
Health/ Exercise Club	32.93	Per 1,000 SF
Medical/Dental Office	36.13	Per 1,000 SF
Retail	44.32	Per 1,000 SF
Restaurant without a Drive-Thru	127.15	Per 1,000 SF
Bank	148.15	Per 1,000 SF
Restaurant with Drive-Thru	496.12	Per 1,000 SF
Convenience Store with Gas	845.6	Per 1,000 SF

According to the latest traffic counts for the roadways adjacent to the subject property, there is capacity for the traffic (152 daily trips) anticipated to be generated by the proposed development (Table 1). The site plan submittal for this property will be required to comply with the City's Concurrency Management requirements in the LDC. Detailed traffic analysis occurs at the site plan review stage to identify any improvements that might be required. Similar to other developments within the city, the developer may be required to enter into a Proportionate Fair Share Agreement with the City and Volusia County to pay for part of the scheduled transportation improvements for any impacted areas.

Table 2. Roadway Capacities for Roadways Adjacent to 950 Madeline Avenue

Roadway Segment	Maximum Capacity Vehicles Per Day	Current Vehicles Per Day	Remaining Capacity Vehicles Per Day	V/C Ratio*
Madeline Ave. (Sauls Rd. to Nova Rd.)	14,040	5,059	8,981	0.36
Madeline Ave. (Nova Rd. to Clyde Morris Blvd.)	14,040	9,225	4,815	0.65
Nova Rd. (N. City Limits to Dunlawton Ave.)	39,800	27,000	12,800	0.68
Jackson St. (North of Dunlawton Ave.)	12,744	1,619	11,125	0.13

According to the applicant, access into the project is proposed from Nova Road and Madeline Avenue. Access from Nova Road in this area is under FDOT's jurisdiction and access from Madeline Avenue in this area is under City of Port Orange jurisdiction. According to the applicant, access to the site is proposed as follows:

- Nova Road - A proposed right-in/right-out driveway at the south end of the site.
- Madeline Avenue – A proposed right-in/right-out driveway at the east end of the property and a proposed full driveway at the west end of the site.

Any proposed access drives off Nova Road must be approved by FDOT and access off Madeline Avenue must be approved by City of Port Orange during the site plan review process. The applicant is not proposing an access drive off Jackson Street, which is a public right-of-way or Sweetgum Lane, which is a private roadway.

The site plan submittal for this property will be required to comply with the City's Concurrency Management requirements in the LDC. Detailed traffic analysis occurs at the site plan review stage to identify any improvements that might be required. Similar to other developments within the city, the developer may be required to enter into a Fair Share Concurrency Agreement with the City to pay for part of the scheduled improvements for any impacted areas.

2. *Off-street parking, loading and service areas shall be provided and located such that there is no adverse impact on adjoining properties, beyond that generally experienced in the district.*

Parking will be provided as required by the LDC. The total number of parking spaces and design of the parking lot and spaces will be reviewed with the submittal of the site plan. The LDC currently requires one space per 50 cubicles for a mini-warehouse, plus 1 loading space at all public entry doors for a facility with interior corridor access.

3. *Required yards, screening or buffering, and landscaping shall be consistent with the district in general and the specific needs of the abutting land uses.*

The site will be developed with landscape buffers in accordance with the LDC for screening the surrounding properties and rights-of-way from a mini-warehouse facility. The LDC requires a minimum 20-foot landscape buffer along Madeline Avenue and Nova Road, and minimum 10-foot landscape buffer along Jackson Street and Sweetgum Lane. Foundation plantings are required around all buildings. The applicant is proposing to use the rear elevations of the one-story mini-storage buildings as a decorative wall to enclose and screen the storage facility from adjacent rights-of-way. A review of the landscape buffers will occur with the site plan.

The applicant's concept plan also incorporates the existing historic trees on the property into tree preservation areas. A review of the landscape buffers, specimen and historic trees, and tree preservation areas will occur with the site plan.

4. *Architectural and signage treatments shall comply with the general provisions applicable to permitted uses in the district, to the greatest extent possible, and be sensitive to surrounding development.*

The architectural style of the building, accessory structures, and wall/fence will be developed with a common architectural theme and comply with the LDC. A formal review of the architecture will occur with the site plan to verify compliance with the LDC. Any proposed signage will have to meet the regulations set forth by the LDC. Figure 3 illustrates the proposed design for the mini-warehouse facility that complies with the LDC.

Figure 3. Artistic renderings of the proposed building elevations



View of the elevations of the buildings facing Nova Road from the southwest corner of the site.



View of the elevation of the storage facility building facing the corner of Madeline Avenue and Jackson Street from the northeast corner of the site.

5. *Size, location, or number of special exception uses in an area shall be limited to maintain the overall character of the district as intended by this code.*

There are no other Special Exceptions that have been approved or under review for mini warehouse uses in the general area of the subject property (Figure 4). The proposed development is located approximately 0.5 miles from an existing mini-warehouse facility (Jackson Street Storage) and approximately 1 mile from a mini-warehouse facility currently under construction (Stor-It Self Storage); both facilities were approved through a Planned Commercial Development (PCD).

The subject site will be required to be developed to meet the building setbacks, building coverage and open space requirements for the Community Commercial (CC) Zoning District, and the proposed use generates less vehicular trips than other uses permitted on the subject property.

Figure 4. Nearby Mini-Warehouse Facilities in Port Orange



In addition to the standard development requirements for all special exceptions, the mini-warehouse use and the motor vehicle/boat storage in the CC zoning district must also comply with additional development requirements [Ch. 18, Sec. 3(b)(10) of the LDC]. The following are the additional development requirements and how they apply to the request.

Specific Mini-Warehouse Development Requirements:

1. *Warehouse buildings shall be screened from any public rights-of-way by a six-foot high opaque fence or wall with a type 2 buffer yard planted along the street side of the fence or wall. Buffer yard requirements may be increased in accordance with chapter 13 of this Code.*

The proposed development will comply with the right-of-way landscape buffers and wall/fence requirement in the LDC. A review of the landscape buffers and the wall/fence will occur with the site plan.

According to the applicant, and the development has been laid out to allow greater preservation of natural vegetation and specimen/historic trees than would otherwise be required. Therefore, off-street parking, loading and service areas will be provided and located such that there is no adverse impact on adjoining properties, beyond that generally experienced in the district.

2. *The proposed site shall be a minimum of two acres.*

The subject property is ±8.3 acres.

3. *The proposed site shall front on an arterial roadway.*

The site fronts on Nova Road. Nova Road is defined by the City's Comprehensive Plan as a principal arterial roadway.

Specific Motor Vehicle/Recreational/Boat Storage Development Requirements:

1. *The proposed site shall front on an arterial roadway.*

The site fronts on Nova Road. Nova Road is defined by the City's Comprehensive Plan as a principal arterial roadway.

2. *The proposed site shall be a minimum of two acres.*

The subject property is ±8.3 acres.

3. *Buffering shall be provided based on a land use intensity factor of six for completely enclosed facilities and seven for fenced facilities*

The proposed landscaping bufferyards will meet the land use intensity factor requirement. Proposed concept site layout provides right-of-way buffers along all four property lines. The property will be required to provide all required shade trees, understory trees, and shrubs as per the LDC within the buffer areas.

According to the applicant, the exterior walls of the self-storage buildings provide additional screening and are separated from the two residential areas. Placing the parking internal to the buildings screens the residential areas from both noise and light. The southerly and easterly storage buildings are approximately 235 feet and 80 feet respectively from the nearest residential homes.

4. *Outside storage shall be completely enclosed within a six- to eight-foot-high opaque fence or wall.*

All outside storage will be enclosed with an eight-foot wall or the rear exterior of a storage building to screen the area, as well as comply with all the landscape buffer requirements in the LDC. This includes the minimum 20-foot landscape buffer along Nova Road and Madeline Avenue 10-foot landscape buffer along Jackson Street and Sweetgum Lane.

5. *Vehicles, for purposes of this special exception, shall include automobiles, trucks, vans, boats, boat trailers, recreational vehicles, and other similar vehicles which are customarily owned, rented, or leased by the average family. Such vehicles shall be licensed and fully operational at all times. Towing to and impoundment at the facility of any inoperable vehicle or appurtenance thereof shall not be permitted.*

According to the applicant, the proposed development will only allow licensed, insured, and operational automobiles, trucks, vans, boats, boat trailers, recreational vehicles, and other similar vehicles to be the stored. The proposed development will rent assigned spaces to customers for a specific time period.

6. *Vehicle washing shall be confined to a commercial facility or pervious surface in compliance with the water conservation regulations of the City.*

The site plan submittal for this property will be required to comply with the City's water conservation regulations in the LDC. According to the applicant, vehicle or boat washing is not anticipated at the proposed development.

7. *Vehicle servicing shall be limited to regular maintenance items such as changing oil, tires, batteries, and other similar activities. Mechanical or body repair, painting, engine rebuilding, or other similar work which would customarily be performed at a motor vehicle service center shall not be permitted.*

According to the applicant, vehicle servicing within the proposed development will be limited to regular maintenance items as allowed by the LDC, such as changing oil, tires, batteries, and other similar activities.

8. *Living quarters for a resident manager may be permitted, provided such quarters are occupied by the manager and the manager's immediate family.*

According to the applicant, no living quarters for a resident manager are proposed for this development.

9. *Required parking shall be provided at a ratio of one space for each ten storage stalls or fraction thereof, plus one space for each employee at the largest shift and two spaces if resident manager living quarters are provided.*

Parking will be provided and designed as required by the LDC. The total number of parking spaces and design of the parking lot spaces will be reviewed with the submittal of the site plan. The LDC currently requires one space per ten stalls for a motor vehicle and boat storage facility.

RECOMMENDATION

Staff recommends approval of the Special Exception to allow a mini-warehouse and motor vehicle/boat storage facility to be developed at 950 Madeline Avenue, subject to approval of Rezoning Case No. 22-60000004.

ATTACHMENTS

Exhibit A – Applicant's Letter

Extra Space Storage – 950 Madeline Avenue Justifications for Special Exception

The purpose of the requested Special Exception is to allow for a personal storage use under the proposed rezoning to the Community Commercial zoning district to meet the needs for the area to provide personal storage.

In accordance with Chapter 18, Section 2(d)(2) of the Land Development Code for the requested Special Exception, the *italics* font is the required justification and the **bold** font is the response as follows:

- (a) *Traffic generation and access for the proposed use shall not adversely impact adjoining properties and the general public safety*

The proposed personal storage facility will comprise approximately 105,000 square feet which equates to an approximate 0.29 FAR. The FAR is significantly less than the maximum permitted 0.5 FAR per Figure 1-9 of the Comprehensive Plan. Per the 11th edition of the ITE Manual, the projected trips due to the proposed use are as follows:

Mini Warehouse (ITE 151)

- Avg Daily Trips per 1 ksf (1.45) @ 105 ksf = 152 trips**
- PM Peak Trips per 1 ksf (0.15) @ 105 ksf = 16 trips**

The projected trips are substantially less than what could be developed on the property under the current R-3M or proposed CC zoning districts without requiring a Special Exception. A self-storage facility patron visits the facility very rarely and a typical visit consists of just dropping off or picking a up stored items. Area residents will see minimal trips on Madeline Avenue and Jackson Street. Therefore, traffic generation and access for the proposed use will not adversely impact adjoining properties and the general public safety.

- (b) *Off-street parking, loading and service areas shall be provided and located such that there is no adverse impact on adjoining properties, beyond that generally experienced in the district*

The preliminary site plan for the proposed personal storage facility illustrates the off-street and parking areas are not located in close proximity to the adjacent easterly and southerly residential areas. Off-street parking and loading areas are located internally and screened by the surrounding buildings and fences. There is minimal parking along Nova Road and Madeline Avenue for direct access to the leasing office and 3-story storage building.

The exterior building walls have additional screening and are separated from the two residential areas. Placing the parking internal to the buildings screens the residential areas from both noise and light. The southerly and easterly storage buildings are approximately 235 feet and 80 feet respectively from the nearest residential homes. The parking and layout of the development also allows for greater preservation of natural vegetation and mature trees than would otherwise be required. Therefore, off-street parking, loading and service areas will be provided and located such that there is no adverse impact on adjoining properties, beyond that generally experienced in the district.

- (c) *Required yards, screening or buffering, and landscaping shall be consistent with the district in general and the specific needs of the abutting land uses*

The preliminary site plan for the proposed personal storage facility illustrates the screening from the interior parking and drive aisles through incorporation of the perimeter storage buildings and fences from the general public. Landscape buffers are provided in accordance with the CC zoning district. The southerly buffer is further increased due to the location of the proposed stormwater pond. The existing trees within the proposed buffers and within the right-of-way of Jackson Street are proposed to remain. Proposed and existing trees to remain will comply with the current Tree Ordinance. The development also includes a substantial natural vegetation area with several historic trees that will be preserved. Therefore, yards, screening or buffering, and landscaping will be consistent with the district in general and the specific needs of the abutting land uses.

- (d) *Architectural and signage treatments shall comply with the general provisions applicable to permitted uses in the district, to the greatest extent possible, and be sensitive to surrounding development*

The proposed building elevations and renderings provide for a natural color tone of the buildings with articulation in the facades to break the mass through decorative block, glazing, vertical relief, pilasters. No exterior roll-up doors to the individual units are visible to the public from the adjacent roadways or residential areas. The development will complement the adjoining single-family areas and provide for a relatively quiet commercial use along a major throughfare roadway. Therefore, architectural and signage treatments will comply with the general provisions applicable to permitted uses in the district, to the greatest extent possible, and will be sensitive to surrounding development.

- (e) *Size, location or number of special exception uses in an area shall be limited so as to maintain the overall character of the district as intended by this code*

The proposed personal storage facility is the only Special Exception requested. The proposed 0.29 FAR does not exceed the maximum permitted 0.5 FAR permitted per Figure 1-9 of the Comprehensive Plan. The incorporation of a 3-story building minimizes the use of the property allowing for a smaller single floor footprint. The location of the proposed use is within the commercial corridor node as identified in the Comprehensive Plan. A climate controlled mini-storage facility is a low impact commercial use that complements the development pattern of the area.

The proposed development provides for 36 parking and loading spaces based on the Developer's similar personal storage facilities. There are ten proposed covered motor vehicle / boat storage spaces located internally that are fully screened by the perimeter buildings and fences. The proposed use requires a total of 16 parking spaces per Chapter 12, Section 4 of the Land Development Code. The proposed parking meets the minimum Code required quantity of spaces. Therefore, size, location and only one special exception use is limited to maintain the overall character of the district as intended by this code.

Per Chapter 18, Section 3, Subsection 10 of the Land Development Code of the CC zoning district for mini-warehouse use, the *italics* font is the required condition and the **bold** font is the response as follows:

- (a) *Warehouse buildings shall be screened from any public rights-of-way by a six-foot high opaque fence or wall with a type 2 buffer yard planted along the street side of the fence or wall. Buffer yard requirements may be increased in accordance with chapter 13 of this Code*

The proposed perimeter buildings will consist of masonry block and serve to screen the interior of the storage facility from public view. Separation between the buildings will have a minimum 8 ft high fence. Perimeter buffer plantings in addition to the existing trees to remain will meet the Code requirements.

- (b) *The proposed site shall be a minimum of two acres*

The proposed site area is greater than two acres.

- (c) *The proposed site shall front on an arterial roadway*

The proposed site fronts Nova Road and Madeline Avenue.

Per Chapter 18, Section 3, Subsection 12 of the Land Development Code of the CC zoning district for motor vehicle and boat storage use, the *italics* font is the required condition and the **bold** font is the response as follows:

- (a) *The proposed site shall front on an arterial roadway*

The proposed site fronts Nova Road and Madeline Avenue.

- (b) *The proposed site shall be a minimum of two acres*

The proposed site area is greater than two acres.

- (c) *Buffering shall be provided based on a land use intensity factor of six for completely enclosed facilities and seven for fenced facilities*

The required buffering will be provided based on the Intensity Factor of 6 for a wall enclosed parking facility.

- (d) *Outside storage shall be completely enclosed within a six- to eight-foot-high opaque fence or wall*

The preliminary site plan illustrates the outside storage area is fully enclosed by the perimeter buildings and fences.

- (e) *Vehicles, for purposes of this special exception, shall include automobiles, trucks, vans, boats, boat trailers, recreational vehicles, and other similar vehicles which are customarily owned, rented or leased by the average family. Such vehicles shall be licensed and fully operational at all times. Towing to and impoundment at the facility of any inoperable vehicle or appurtenance thereof shall not be permitted*

The proposed motor vehicle and boat storage area is not intended for impoundment use and will not be permitted.

- (f) *Vehicle washing shall be confined to a commercial facility or pervious surface in compliance with the water conservation regulations of the City*

Vehicle washing will not be permitted.

- (g) *Vehicle servicing shall be limited to regular maintenance items such as changing oil, tires, batteries, and other similar activities. Mechanical or body repair, painting, engine rebuilding, or other similar work which would customarily be performed at a motor vehicle service center shall not be permitted*

Major vehicle repair, painting engine building or similar work will not be permitted. The intended use is strictly storage of vehicles and boats/trailers.

- (h) *Living quarters for a resident manager may be permitted, provided such quarters are occupied by the manager and the manager's immediate family*

A resident manager will reside in the leasing office.

- (i) *Required parking shall be provided at a ratio of one space for each ten storage stalls or fraction thereof, plus one space for each employee at the largest shift and two spaces if resident manager living quarters are provided*

There are only 10 storage spaces plus the resident manager which requires a total of 3 spaces. The proposed parking meets the requirement.



CITY COUNCIL AGENDA ITEM

COUNCIL MEETING DATE 8/2/2022

SUBJECT: (F18) Second Reading - Ordinance No. 2022-19 - Amendment/Chapters 13 and 17 of the Land Development Code (Case No. 22-25000004)

DEPARTMENT: Community Development

GOAL: 4 - Economic Development

RECOMMENDED MOTION: Move to approve Ordinance No. 2022-19, amending Chapters 13 and 17 of the Land Development Code.

SUMMARY: SUMMARY: Planning Commission Action (6/23/2022): Recommended Approval (Vote 4-0)

The proposed amendments to Chapters 13 and 17 of the Land Development Code (LDC) are intended to assist in attracting and retaining businesses in the Eastport Business Park and other industrial areas throughout the city.

Vehicular Use/Parking Landscaping Amendment: The proposed amendment would allow additional flexibility in the design layout of the vehicular use area (parking lot and loading area) for a property being developed in the Light Industrial (LI) or Commercial Industrial (CI) zoning districts. Currently, all new developments within the city must provide at least ten percent (10%) of the vehicular use area as internal landscaping, such as terminal islands at the ends of parking rows, interior landscape islands between parking spaces, or divider islands to separate parking spaces from travel lanes (See graphic below).

At times, the interior landscape areas can act as obstacles that impede the maneuverability of larger vehicles and equipment for industrial uses and reduce the overall function of the site. The proposed amendment is to allow for more efficient parking lot loading areas for industrial uses that require maneuverability for larger vehicles, forklifts/specialized equipment, and truck delivery. The proposed amendment is to allow developments in the Light Industrial (LI) and Commercial Industrial (CI) zoning districts to utilize the same development requirement currently in place for the RD zoning district and only require 5% of the vehicular use area to be internal landscaping instead of ten percent (10%). It also exempts vehicular use areas not visible from any public rights-of-way.



Light Industrial (LI) Zoning District – Permitted Uses Amendment: The proposed amendment would add “wholesalers and distributors” as a permitted use in the Light Industrial (LI) zoning district. According to the LDC, “wholesalers and distributors” is defined as, “an establishment engaged in the storage, wholesale, and distribution of manufactured products, supplies, and equipment, and incidental retail sales, exclusive of bulk storage of materials that are inflammable or explosive or that create hazardous or commonly recognized offensive conditions.” The properties in the City that are currently zoned LI are in or adjacent to the Eastport Business Park and a small area near the intersection of City Center Drive and Herbert Street. In addition to Light Industrial (LI) zoned land, the proposed amendment would also apply to any other zoning district that allows for uses that are permitted in the Light Industrial District, such as the Workplace District within the Planned Community – Agricultural (PC-A) zoning district and Lots 15 and 17 in the Crystal Lake Planned Unit Development. The wholesalers and distributors' use is also consistent with the Eastport Business Center Community Redevelopment Area (CRA) Plan for job creation, and to provide an opportunity for businesses to expand or relocate in Port Orange.

The staff report is attached for more information.

PRESENTER: Gideon Smith, Penelope Cruz

ATTACHMENTS:

1.	Ordinance No. 2022-19	7-19 Ord. No. 2022-19 LDC Amendment.pdf
2.	Final CC Staff Report_LI-CI Zoning District LDC Amendments	Final CC Staff Report_LI-CI Zoning District LDC Amendments - Revised.pdf

Gwen Perney

Created/Initiated - 7/14/2022

ORDINANCE NO. 2022-19

AN ORDINANCE OF THE CITY OF PORT ORANGE,
VOLUSIA COUNTY, FLORIDA AMENDING THE LAND
DEVELOPMENT CODE CHAPTERS 13 AND 17 TO ALLOW
FLEXIBILITY IN THE DESIGN LAYOUT OF A PARKING
LOT FOR USES IN LIGHT INDUSTRIAL (LI) AND
COMMERCIAL INDUSTRIAL (CI) ZONING DISTRICTS;
ADDING WHOLESALERS AND DISTRIBUTORS AS
PERMITTED USES IN THE LIGHT INDUSTRIAL (LI)
ZONING DISTRICT; PROVIDING FOR REPEAL OF
CONFLICTING ORDINANCES; PROVIDING FOR
SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Planning Commission has recommended amendments to the
Land Development Code; and

WHEREAS, the proposed amendments are necessary to improve the content of
the existing Land Development Code ("Code") as part of an ongoing maintenance effort
to make the Code and the development review process more efficient and consistent in
its application.

WHEREAS, for purposes of this ordinance words with underlined (underlined)
type shall constitute additions to the original text and words with strikethrough
(~~strikethrough~~) type shall constitute deletions from the original text.

NOW, THEREFORE, BE IT ENACTED BY THE CITY COUNCIL OF THE CITY
OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA:

SECTION 1: The City Council of the City of Port Orange hereby amends
Chapter 13, Section 4 of the Land Development Code, to read as follows:

Chapter 13 - LANDSCAPING AND BUFFERS

[No changes to Sections 1 thru 3]

Section 4: - Vehicular use/parking landscaping.

(a) Minimum landscaped area. Ten percent of the area designed for vehicular use shall be devoted to the creation of interior landscaping, except for uses within the ~~Ridgewood Development~~ Zoning Districts as described in subsection (b) below, and except for lots with ten or fewer parking spaces and less than 4,000 square feet of paved area. The base area of the vehicular use area shall be measured along the outer edge and include all parking and loading spaces, access drives, cruise lanes, service areas, landscaped islands at the corners of and within parking areas, and other areas for vehicular use. Access drives located within required buffer yards shall not be included in the base area. Developers shall be required to provide a diagram indicating base area and internal landscaping, and the necessary calculations to verify that this requirement has been satisfied. The following diagram illustrates an example of areas which may be credited as internal landscaping.

(b) Minimum landscaped area for uses within the Ridgewood Development, Commercial Industrial, and Light Industrial Zoning Districts. Five percent of the area designed for vehicular use and visible from any public rights-of-way shall be devoted to the creation of interior landscaping. No interior landscaping shall be required for those vehicular use areas which are fully screened and/or not visible from any public rights-of-way. All other applicable provisions of this section shall be required.

[No changes to the remaining Section 4, Subsections (c) thru (g)]

[No changes to the remaining Sections 5 thru 10]

SECTION 2: The City Council of the City of Port Orange hereby amends Chapter 17, Section 24 of the Land Development Code, to read as follows:

Chapter 17 - ZONING DISTRICT REGULATIONS

[No changes to Sections 1 thru 23]

Section 24: - Light industrial (LI) district.

(a) *Purpose and intent.* [unchanged]

(b) *Permitted uses.*

- (1) Airport and related activities.
- (2) Antennas.
- (3) Boat repair, body.
- (4) Boat repair, engine.

- (5) Commercial/industrial warehouse.
- (6) Construction and home improvement contractor.
- (7) Crematoriums.
- (8) Greenhouses and nurseries (wholesale only).
- (9) Infrastructure construction contractor's yard.
- (10) Laboratory, research and development.
- (11) Laundry and dry cleaning plants.
- (12) Manufacturing, craftsman shops.
- (13) Manufacturing, limited.
- (14) Manufacturing, fabrication.
- (15) Manufacturing, processing.
- (16) Motor vehicle repair facilities.
- (17) Motor vehicle towing and impoundment.
- (18) Offices.
- (19) Trucking terminals.
- (20) Wholesalers and distributors.

[No changes to the remaining Section 24, Subsections (c) and (d)]

[No changes to the remaining Sections 25 thru 33]

SECTION 3: All ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed to the extent of such conflict.

SECTION 4: The provisions of this Ordinance shall become and be made a part of the Land Development Code of the City of Port Orange and the Sections of this Ordinance may be renumbered or re-lettered to accomplish such intention. The Code codifier is granted liberal authority to codify the provisions of this Ordinance.

SECTION 5: If any provision of this ordinance or the application thereof to any person or circumstance is held invalid, the invalidity shall not affect other provisions or applications of the ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are declared severable.

SECTION 6: This Ordinance shall take effect immediately upon adoption.

MAYOR DONALD O. BURNETTE

ATTEST:

Robin L. Fenwick, MMC, City Clerk

Passed on first reading on the day of

Passed and adopted on second and final reading on the day of

Reviewed and Approved: _____
Shannon K. Balmer, Assistant City Attorney



STAFF REPORT

CASE NO. 22-25000004

LDC Amendment/Chapter 13, Section 4 & Chapter 17, Section 24

REQUEST:	To amend the Land Development Code (LDC) to allow flexibility in the design layout of a parking lot for uses in the Light Industrial (LI) and Commercial Industrial (CI) Zoning Districts and add wholesalers and distributors as a permitted use in the Light Industrial (LI) Zoning District
APPLICANT:	City of Port Orange
STAFF CONTACT:	Gideon Smith, Senior Planner (386) 506-5676
STAFF RECOMMENDATION:	Approval
PLANNING COMMISSION:	Recommended Approval 4-0 (June 23, 2022)
CITY COUNCIL DATE:	July 19, 2022

INTRODUCTION

Staff has been updating the Land Development Code (LDC) in phases over the past several years. Prior amendments included updates to sign regulations, the “green” building initiative, erosion control, floodplain management, updates to Building Code references, county-wide Traffic Impact Analysis standards, school concurrency, Construction Standards modifications, fire impact fees, site plan and subdivision regulations, removal of select uses from the Ridgewood Corridor zoning district, zero lot line homes in the R-2D zoning district, microbreweries, architecture requirements, economic development – Ridgewood targeted businesses, tree preservation, redevelopment related amendments to the Riverwalk Overlay District and the Planned Commercial-Riverwalk (PC-R) zoning district, and others.

PROPOSED AMENDMENTS

The following proposed amendments to Chapters 13 and 17 of the Land Development Code (LDC) are intended to assist in attracting businesses to the Eastport Business Park and other industrial areas throughout the city.

Vehicular use/parking landscaping Amendment

The proposed amendment would allow additional flexibility in the design layout of the vehicular use area (parking lot and loading area) for a property being developed in the Light Industrial (LI) or Commercial Industrial (CI) zoning districts. Currently, all new developments within the city must provide at least ten percent (10%) of the vehicular use area as internal landscaping, such terminal islands at the ends of parking rows, interior landscape islands between parking spaces, or divider islands to separate parking spaces from travel lanes (See Figures 1 and 2).

At times, the interior landscape areas can act as obstacles that impede the maneuverability of larger vehicles and equipment for industrial uses and reduce the overall function of the site. The proposed amendment is to allow for more efficient parking lot loading areas for industrial uses that require maneuverability for larger vehicles,

forklifts/specialized equipment, and truck delivery. The reduced interior landscape areas may also assist in attracting businesses by reducing upfront costs of site development and repair costs when large vehicles unintentionally damage interior landscape islands. The proposed amendment does not reduce the required perimeter buffer widths, vehicular use screening, tree preservation requirements, or number of landscape materials required to be planted within a buffer.

Figures 1 and 2. Example of typical interior and terminal landscape islands

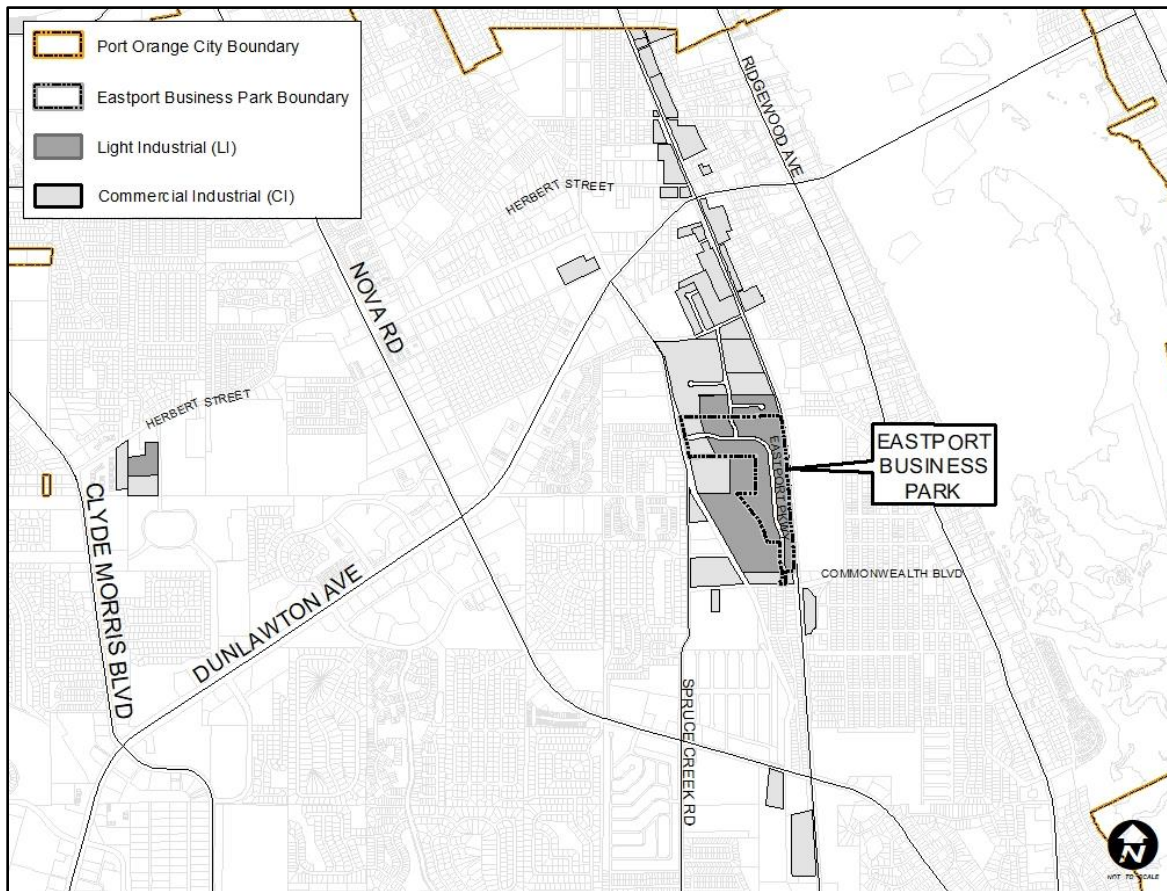


Figure 3. Interior Landscaping Example (415 Dunlawton Avenue)



The LDC currently requires five percent (5%) of the vehicular use area to be internal landscaping in lieu of ten percent (10%) and exempts vehicular use areas not visible from any public rights-of-way for properties in the Ridgewood Development (RD) zoning district to assist with redevelopment. The proposed amendment is to allow developments in the Light Industrial (LI) and Commercial Industrial (CI) zoning districts (See Figure 4) to utilize the same development requirement currently in place for the RD zoning district and only require 5% of the vehicular use area to be internal landscaping in lieu of ten percent (10%). It also exempts vehicular use areas not visible from any public rights-of-way.

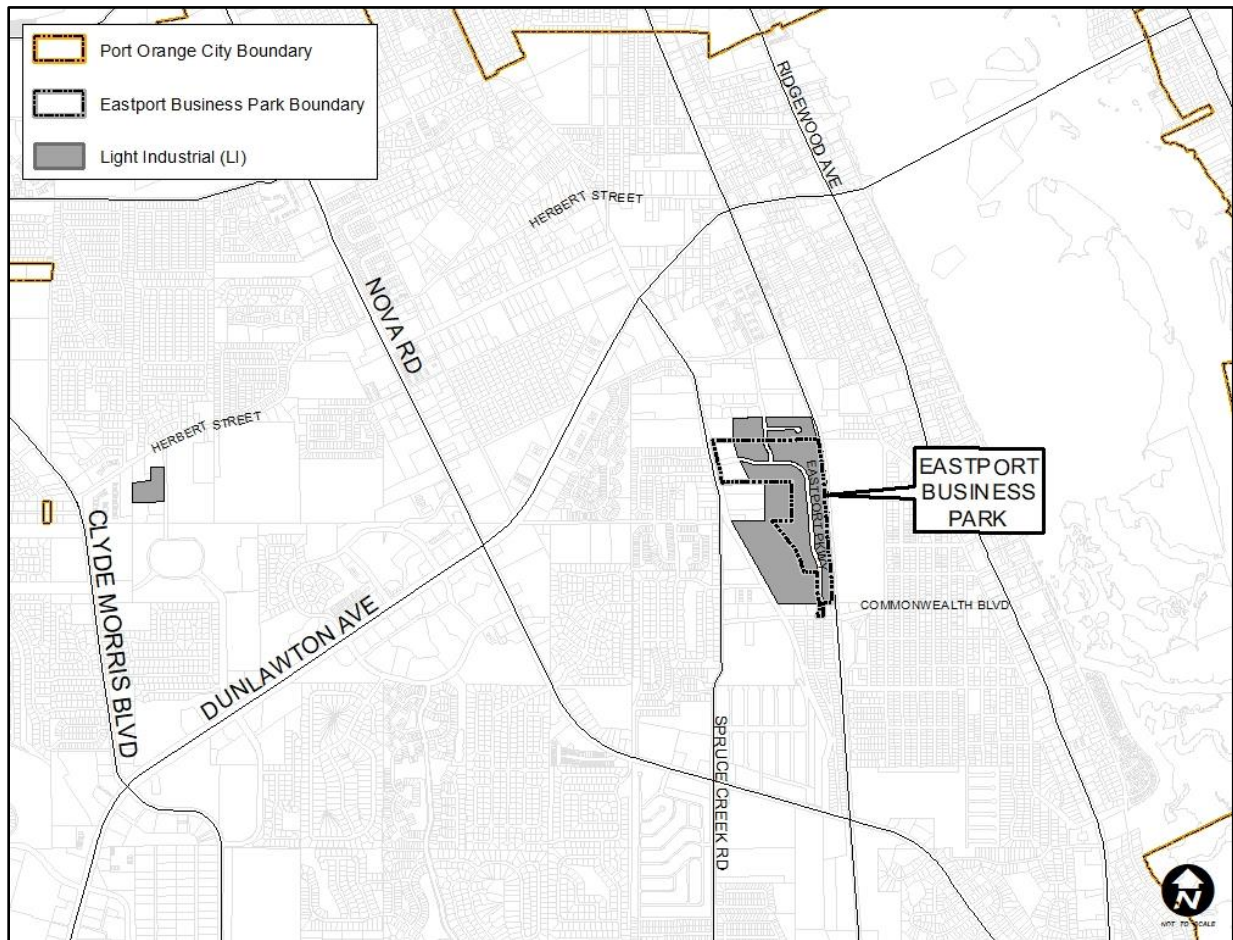
Figure 4. Light Industrial (LI) & Commercial Industrial (CI) Zoning Districts



Light Industrial (LI) Zoning District – Permitted Uses Amendment

The proposed amendment would add “wholesalers and distributors” as a permitted use in the Light Industrial (LI) zoning district. According to the LDC, “wholesalers and distributors” is defined as, “an establishment engaged in the storage, wholesale, and distribution of manufactured products, supplies, and equipment, and incidental retail sales, exclusive of bulk storage of materials that are inflammable or explosive or that create hazardous or commonly recognized offensive conditions.” The properties in the City that are currently zoned LI are in or adjacent to the Eastport Business Park and a small area near the intersection of City Center Drive and Herbert Street (see Figure 5). In addition to Light Industrial (LI) zoned land, the proposed amendment would also apply to any other zoning district that allows for uses that are permitted in the Light Industrial District, such as the Workplace District within the Planned Community – Agricultural (PC-A) zoning district and Lots 15 and 17 in the Crystal Lake Planned Unit Development.

Figure 5. Light Industrial (LI) Zoning Districts



Wholesalers and distributors is currently listed as a permitted use in the Commercial Industrial (CI) and Ridgewood Development (RD) zoning districts. According to the LDC, the intent of the LI zoning district is to provide development for limited industrial operations engaged in the fabricating, repair, or storage of manufactured goods, where no objectionable by-products of the activity (such as odors, smoke, dust, refuse, electromagnetic interference, noise in excess of that customary to loading, unloading, and handling of goods and materials) are noticeable beyond the lot on which the facility is located.

The proposed amendment is intended to assist in attracting businesses to the Eastport Business Park and other areas in the city zoned LI. Because the Light Industrial (LI) Zoning District is intended to allow for more intense uses when compared to the Commercial Industrial (CI) and Ridgewood Development (RD) Zoning Districts, the wholesalers and distributors use is appropriate for the LI zoning district as the use does not produce objectionable by-products (odors, smoke, dust, refuse, electromagnetic interference, excessive noise) and allows for the storage and distribution of manufactured goods. The wholesalers and distributors use is also consistent with the Eastport Business Center Community Redevelopment Area (CRA) Plan for job creation, and to provide an opportunity for businesses to expand or relocate in Port Orange.

RECOMMENDATION

Staff recommends approval of the amendments to Chapters 13 and 17 of the Land Development Code (LDC).

ATTACHMENT

Exhibit 1: Proposed LDC Amendment to Chapters 13 and 17 (See Ordinance Exhibit)



CITY COUNCIL AGENDA ITEM

COUNCIL MEETING DATE 8/2/2022

SUBJECT: (F19) Second Reading - Ordinance No. 2022-20 - Amending Chapter 2, Article VI, Division 3, Relating to Submission of Budget

DEPARTMENT: Finance

GOAL: Goal 5 - Fiscal Sustainability

RECOMMENDED MOTION: Move to approve Ordinance No. 2022-20, amending Chapter 2, Article VI, Division 3, Relating to Submission of Budget.

SUMMARY: The proposed ordinance amends the Code of Ordinances CHAPTER 2, ARTICLE VI, DIVISION 3, relating to the submission of the budget and the contents relating to the submission requirements for the annual budget and amendment authority of the overall budget.

It amends the following:

1. SECTION 2-291 RELATING to the timing requirements of the budget submission to the City Council.

This section moves the date to when the City Manager submits the proposed budget and all supporting capital improvement and capital outlay documentation from August 1 to on or before September 1. This gives staff more flexibility after the conclusion of the budget workshops and the maximum millage meeting to make all necessary changes to the proposed budget before submittal to the City Council. The proposed new date is a typical timeline for Florida communities.

2. SECTIONS 2-293, 2-295, 2-296, and 2-298 relating to the content requirements of the budget submission to the City Council.

City staff works with the departments to develop a five-year capital improvement plan (CIP) that is reviewed and discussed with City Council during several budget workshops throughout the budget process that is approved by the City Council annually. The State has no requirement for the Capital Improvement Plan to be developed and approved separately from the municipal budget process that is required by state statute as part of the Truth in Millage (TRIM) process. Additionally, aligning this with the budget process, the CIP is approved based on funding availability when the final budget document is approved by Council. This requires two public hearings conducted in September and approved by a resolution of the City Council. This section would remove the requirement of providing a separate capital improvement plan document and incorporate it into the overall city-wide budget, budget document, and adoption process.

3. SECTIONS 2-297 related to making the budget submission to City Council more efficient by removing redundant and obsolete sections.

The current ordinance has four key areas that explain how the city is to handle federal awards: the budget hearing, documentation and record-keeping, publication and public inspection requirements, and adoption and amendment by resolution. Since this ordinance was adopted, there have been several changes to the code of federal regulations regarding federal awards. Each federal award that the city receives typically has different requirements for advertisement, public hearing, record keeping, etc. based on the awarding federal agency that the city is required to follow. Removing this section reduces redundancy and conflict between the various federal award requirements and our city ordinance.

4. SECTION 2-299 related to the authority of amendments by the City Council and City Manager.

This clarifies City Manager and City Council authority for budget amendments. This clarifies that the City Manager has authority for budget adjustments within a fund and that only the City Council may make changes between funds and increase or decrease the fund's overall budget. This removes the dated and obsolete language related to the use of "department/programs" versus state law, which currently uses the term "fund". This also clarifies that the City Council must make all year-end budget adjustments within 60 days after the fiscal year's end. All changes to this section are in accordance with state law, particularly as it relates to municipal budget requirements, which are found in Florida Statute Sec. 166.241(7).

All of the proposed amendments provide for a more efficient budget and appropriations process consistent with state law for our budget process.

PRESENTER: John McKinney

ATTACHMENTS:

1.	Ordinance No. 2022-20	Ord. No. 2022-20 Amendment to Ch 2 Finance .pdf
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Robin Fenwick

Created/Initiated - 7/20/2022

ORDINANCE NO. 2022-20

AN ORDINANCE OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA AMENDING CHAPTER 2, ARTICLE VI, DIVISION 3, RELATING TO SUBMISSION OF BUDGET AND CONTENTS THEREOF, AMENDING SECTION 2-291 RELATING TO THE TIMING REQUIREMENTS OF THE BUDGET SUBMISSION TO CITY COUNCIL; AMENDING SECTIONS 2-293 AND 2-295 RELATING TO THE CONTENT REQUIREMENTS OF THE BUDGET SUBMISSION TO CITY COUNCIL; REMOVING SECTIONS 2-296 AND 2-297 RELATED TO THE BUDGET SUBMISSION TO CITY COUNCIL BY REMOVING REDUNDANT AND OBSOLETE SECTIONS; AMENDING SECTION 2-298 BY REMOVING REDUNDANT AND OBSOLETE LANGUAGE; AMENDING SECTION 2-299 BY UPDATING THE LANGUAGE RELATED TO BUDGET AMENDMENT AUTHORITY CONSISTENT WITH STATE LAW; AND PROVIDING FOR REPEAL OF CONFLICTING ORDINANCES; PROVIDING FOR SEVERABILITY; PROVIDING FOR CODIFICATION; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City Council recognizes that the proposed amendments relating to the submission requirements for the annual budget and amendment authority of said budget will provide for a more efficient budget and appropriations process consistent with state law; and

WHEREAS, for purposes of this ordinance words with underlined (underlined) type shall constitute additions to the original text and words with strikethrough (~~strikethrough~~) type shall constitute deletions from the original text.

NOW, THEREFORE, BE IT ENACTED BY THE CITY COUNCIL OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA:

SECTION 1: The City Council of the City of Port Orange hereby amends the Code of Ordinances, Chapter 2, Article VI, to clarify the timing and required contents of the budget submitted to City Council to read as follows:

Chapter 2 Administration, Article VI Finance

DIVISION 3 - BUDGETS AND APPROPRIATIONS

Sec. 2-291. Manager to submit budget and budget message.

On or before ~~August~~September 1 of each year, the city manager shall submit to the city council a budget for the ensuing fiscal year and an accompanying message.

[No change to Sec. 2-292. Contents of budget message.]

Sec. 2-293. Contents, form of budget.

The budget shall provide a complete financial plan of all city funds and activities, including a five-year capital improvement plan budget (CIP), for the ensuing fiscal year and, except as required by law, shall be in such form as the city manager deems desirable or the city council may require. In organizing the budget the city manager shall utilize the most feasible combination of expenditure classification by fund, organization unit, program, purpose or activity, and object. It shall begin with a clear general summary of its contents; shall show in detail all estimated income, indicating the proposed property tax levy, and all proposed expenditures, including debt service, for the ensuing fiscal year; and shall be so arranged as to show comparative figures for actual and estimated income and expenditures of the current fiscal year and actual income and expenditures of the preceding fiscal year. It shall indicate proposed expenditures for current operations during the ensuing fiscal year, detailed by departments in terms of their major expenditure classification and their respective work programs, and the method of financing such expenditures. The total of proposed expenditures shall not exceed the total of estimated income, prior year balances and appropriations from surplus.

[No change to Sec. 2-294. City council action on budget.]

Sec. 2-295. Capital budget.

- (a) *Submission to council.* As part of the overall city budget, ~~the city manager shall prepare and submit to the city council a five-year capital improvement plan budget (CIP) at least three months prior to the final date for submission of the budget.~~

(b) *Contents.* The capital budget shall include:

- (1) A clear general summary of its contents.
- (2) A list of all capital improvements which are proposed to be undertaken during the five fiscal years next ensuing, with appropriate supporting information as to the necessity for such improvements.
- (3) Cost estimates, method of financing and recommended time schedules for each such improvement.
- (4) The estimated annual cost of operating and maintaining the facilities to be constructed or acquired.

The above information may be revised and extended each year with regard to capital improvements still pending or in process of construction or acquisition.

~~Sec. 2-296. Council action on capital budget.~~

~~(a) *Notice and hearing.* The city clerk shall publish in one or more newspapers of general circulation in the city the general summary of the capital program and a notice stating:~~

- ~~(1) The times and places where copies of the capital budget are available for inspection by the public.~~
- ~~(2) The time and place, not more than two weeks after such publication, for a public hearing on the capital program.~~

~~(b) *Adoption.* The city council by resolution shall adopt the capital improvement plan with or without amendment after the public hearing and on or before August 15 of the current fiscal year.~~

~~Sec. 2-297. Federal revenue sharing budget.~~

~~The federal revenue sharing budget of the city shall be adopted according to the following procedure and such other procedures as mandated by the terms of the federal revenue sharing program. In the event of any conflict between this section and the requirements mandated by the federal revenue sharing program the latter shall apply.~~

~~(1) *Budget hearing.* The city council shall have at least one public hearing on revenue sharing funds prior to adopting the budget. The hearing shall be held at a date, place and time to permit and encourage public attendance and participation. Citizens shall be given a reasonable opportunity during the hearing to ask questions concerning the entire budget and the relationship of revenue sharing funds to that budget, as well as to express their views either verbally or in writing. At least ten days prior to the budget hearing, the proposed uses of revenue sharing funds, a summary of the entire proposed budget, and notice of the time and place of the hearing must be published in at least one newspaper of general circulation. This material must also be available for public inspection.~~

~~(2) *Documentation and record keeping.* Minutes and tapes of the budget hearing should be maintained for a period of no less than three years in the event that a question is raised regarding compliance with these requirements.~~

~~(3) *Publication, publicity and public inspection requirements:*~~

~~a. *Budget hearing.* The budget hearing notice shall contain the following:~~

- ~~1. Date, time and place of public hearing.~~
- ~~2. The right of citizens attending the hearing to provide written and oral comments and to ask questions regarding the entire budget and the relationship of revenue sharing to the entire budget.~~
- ~~3. The proposed use of revenue sharing funds in context to the budget.~~
- ~~4. A summary of the entire proposed budget.~~

5. ~~The location where the above information, including a copy of the entire proposed budget, is available for public inspection.~~
- b. ~~Publication requirements after budget adoption.~~ Within 30 days after the adoption of the budget, a summary of the adopted budget showing the intended use of revenue sharing funds must be available for public inspection and notice of its availability must be published in a newspaper of general circulation.
- c. ~~Use report publication requirements.~~ A notification that the use report is available for public inspection must be published in a local newspaper of general circulation. The notification must specify the location and hours during which the report and supporting documents are available to the public. A copy of the use report and documentation to support it is to be available for public inspection within ten days after the report is filed.
- (4) ~~Adoption and amendment by resolution.~~ The revenue sharing budget shall be adopted by resolution of the city council after compliance with the foregoing requirements. Amendments to the revenue sharing budget shall be by resolution of the city council after compliance with requirements mandated by the federal revenue sharing program, if any. Sec. 2-298. Availability of budgets as public records.

Copies of the annual budget and the capital budget as adopted shall be public records and shall be made available for review by the public at the office of the city clerk. Copies of the annual budget and the capital budget may also be offered for sale at cost to interested persons.

Sec. 2-298. Availability of budgets as public records.

Copies of the annual budget and the capital budget as adopted shall be public records and shall be made available for review by the public at the office of the city clerk. Copies of the annual budget and the capital budget may also be offered for sale at cost to interested persons.

Sec. 2-299. Amendments after adoption.

[No changes to subsections (a) thru (c).]

(d) *Transfer of appropriations.* At any time during the fiscal year or within 60 days following the end of the fiscal year, the city manager may transfer part or all of any unencumbered appropriations balance ~~among programs~~ within a ~~department fund~~. The city council may by resolution transfer part or all of any unencumbered appropriation balance from one ~~department fund~~ to another in accordance with state law.

[No change to remaining subsections of Sec. 2-299.]

[No change to the remaining sections of Division 3.]

SECTION 2: All ordinances or parts of ordinances in conflict with the provisions of this Ordinance are hereby repealed to the extent of such conflict.

SECTION 3: If any provision of this Ordinance or the application thereof to any person or circumstance is held invalid, the invalidity shall not affect other provisions or

applications of the Ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this Ordinance are declared severable.

SECTION 4: The provisions of this Ordinance shall become and be made a part of the Code of Ordinances, City of Port Orange, Florida and the Sections of this Ordinance may be renumbered or re-lettered to accomplish such intention. The Code codifier is granted liberal authority to codify the provisions of this Ordinance.

SECTION 5: This Ordinance shall take effect immediately upon adoption.

MAYOR DONALD O. BURNETTE

ATTEST:

Robin L. Fenwick, MMC, City Clerk

Passed on first reading on the day of

Passed and adopted on second and final reading on the day of

Reviewed and Approved: _____
Shannon K. Balmer, Assistant City Attorney



CITY COUNCIL AGENDA ITEM

COUNCIL MEETING DATE 8/2/2022

SUBJECT: (G20) Debt Issuance Process presented by Southeastern Investment Securities, LLC

DEPARTMENT: Finance

GOAL: 5 - Fiscal Sustainability

RECOMMENDED MOTION: Informational Only

SUMMARY: Southeastern Investment Securities, LLC, Port Orange's Financial Advisor for debt related items will present the necessary steps and process on how the city goes about the issuance of different debt instruments.

PRESENTER: John McKinney

ATTACHMENTS:

Robin Fenwick	Created/Initiated - 7/18/2022
John McKinney	Approved - 7/18/2022
Wayne Clark	Approved - 7/22/2022
Robin Fenwick	Final Approval - 7/22/2022



CITY COUNCIL AGENDA ITEM

COUNCIL MEETING DATE 8/2/2022

SUBJECT: (G21a) Intent to award construction contract to Chinchor Electric, Inc for ITB #22-07 Garnsey Water Treatment Plant Generator Installation

DEPARTMENT: Public Utilities

GOAL: 2 - Infrastructure

RECOMMENDED MOTION: Move to award ITB #22-07 to Chinchor Electric, Inc. in the amount of \$4,357,330.00 and authorize \$50,000 for unforeseen conditions for a total not to exceed the amount of \$4,425,330, subject to the approval of Reimbursement Resolution No. 22-22.

SUMMARY: The existing generator at the Garnsey Water Treatment Plant provides emergency backup power to ensure continued operations during power outages and emergencies. Emergency power is a requirement of the Florida Department of Environmental Protection operating permit. The existing generator and main electrical control equipment (Motor Control Center MCC and Automatic Transfer Switch ATS) was placed into service in approximately 2002. The equipment has become unreliable and prone to failure. The MCC equipment is obsolete and parts are not readily available. This project will replace the existing MCC equipment and ATS. The current generator has become problematic as well. This project will add an additional generator to provide redundancy to the sole water treatment plant for the City. With an upgraded MCC and ATS in conjunction with the new generator, the water treatment plant will have a reliable, fully redundant emergency power system.

The project was bid in accordance with City policy. Two bids were received:

Chinchor Electric, Inc. \$4,375,330.00
Eau Gallie Electric, Inc. \$4,684,000.00

Staff recommends awarding the bid to Chinchor Electric, Inc. as the lowest, responsible bid of \$4,375,330 and an additional \$50,000 for unforeseen conditions that may arise from the antiquated equipment replacement for a not to exceed amount of \$4,425,330.

If approved by the Council, Finance will secure a debt issuance or loan to complete the required funding.

This item is contingent on Council approval of Resolution No. 22-22 - Reimbursement Resolution.

ATTACHMENTS:

1.	COMPLETE EJCDC AGREEMENT - Chinchor Electric, Inc. ITB 22-07 Garnsey Water Treatment Plant Generator Installation	COMPLETE EJCDC AGREEMENT - Chinchor Electric, Inc. ITB 22-07 Garnsey Water Treatment Plant Generator Installation.pdf
2.	Department Justification Memo - ITB 22-07 - Chinchor Electric (1)	Department Justification Memo - ITB 22-07 - Chinchor Electric.docx
3.	BID 22-07 BID-SET APRIL 2022	BID 22-07 BID-SET APRIL 2022.pdf
4.	ITB 22-07 Addendum No.1 FINAL 4.13.2022	ITB 22-07 Addendum No.1 FINAL 4.13.2022.pdf
5.	ITB 22-07 Addendum No.2 FINAL 4.21.2022	ITB 22-07 Addendum No.2 FINAL 4.21.2022.pdf
6.	ITB 22-07 Addendum No.3 FINAL 5.2.2022	ITB 22-07 Addendum No.3 FINAL 5.2.2022.pdf
7.	ITB 22-07 Affidavits Complete	ITB 22-07 Affidavits Complete.pdf
8.	ITB 22-07 Attachment 2 Technical Specifications 100 percent Submittal	ITB 22-07 Attachment 2 Technical Specifications 100 percent Submittal.pdf
9.	ITB 22-07 Attachment 3 100 percent Design November 2021	ITB 22-07 Attachment 3 100 percent Design November 2021.pdf
10.	ITB 22-07 Notice of Intent to Award FINAL 5.19 .2022_1	ITB 22-07 Notice of Intent to Award FINAL 5.19 .2022_1.pdf
11.	Chinchor Electric Inc COI - All 8.30.2022	Chinchor Electric Inc COI - All 8.30.2022.pdf
12.	ITB 22-07 Garnsey Water Treatment Plant Generator Installation FINAL(3.21.2022)	ITB 22-07 Garnsey Water Treatment Plant Generator Installation FINAL(3.21.2022).pdf
13.	Chinchor - Bid Submittal	Chinchor - Bid Submittal.pdf

Kelly Klausky	Created/Initiated - 6/22/2022
Julia Wiggins	Approved - 6/22/2022
Richard Colby	Approved - 6/22/2022
Junos Reed	Approved - 6/23/2022
Steve Parnell	Approved - 6/23/2022
Lynn Stevens	Approved - 6/28/2022
John McKinney	Approved - 7/18/2022
Matthew Jones	Approved - 7/18/2022
Wayne Clark	Approved - 7/22/2022
Robin Fenwick	Final Approval - 7/22/2022

**AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)**

**City of Port Orange
1000 City Center Circle
Port Orange, Florida 32129**

THIS AGREEMENT is by and between _____ (“Owner”) and
**Chinchor Electric, Inc.
1460 South Leavitt Avenue
Orange City, Florida 32763** _____ (“Contractor”).

The Effective Date of this Agreement shall be _____ (If no date is specified then the Effective Date shall be the date on which the Agreement is signed by the last of the two parties.)

Owner and Contractor hereby agree as follows:

ARTICLE 1 - WORK

- 1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:
- 1.02 *Installation of one (1) new generator, one (1) new switchgear assembly, one (1) new fuel tank with associated fuel supply and return piping and valves, two (2) MCC and a new electrical room.*

ARTICLE 2 – THE PROJECT

- 2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

ITB 22-07 Garnsey Water Plant Generator Installation

ARTICLE 3 – ENGINEER

- 3.01 *The part of the Project that pertains to the Work has been designed by the Project Engineer, Brad Blais, P.E. (“Engineer”) and Keff Kurella, P.E. (“Engineer”), and shall act as Owner’s representatives, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.*

ARTICLE 4 – CONTRACT TIMES

- 4.01 *Time of the Essence*
- A. All time limits for Substantial Completion and Final Completion as stated in the Contract Documents, particularly Paragraph 4.02 below, are of the essence of the Contract.
- B. All time limits for Milestone dates set forth in the Contract Documents are of the essence of the Contract.

4.02 *Days to Achieve Substantial Completion and Final Completion*

- A. Unless as otherwise modified in a Notice to Proceed issued after the Effective Date of the Agreement or an allowable extension of time in accordance with Paragraph 12.02 of the General Conditions, the Work shall be substantially completed within 400 days after the Effective Date of the Agreement.
- B. Unless as otherwise modified in a Notice to Proceed issued after the Effective Date of the Agreement or an allowable extension of time in accordance with Paragraph 12.02 of the General Conditions, the Work shall be finally completed in accordance with Paragraph 14.06 of the General Conditions within 430 days after the Effective Date of the Agreement.
- C. If a Notice to Proceed is issued more than 60 days from the Effective Date of this Agreement, then the dates for Substantial Completion and the Final Completion shall be extended by the same number of days. (For example, if the Notice to Proceed is issued 63 days after the Effective Date of the Agreement, then the Substantial Completion and Final Completion dates shall be extended by 63 days.)

4.03 *Liquidated Damages*

- A. Contractor and Owner agree and recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial loss that is not readily ascertainable as of the Effective Date of this Agreement if the Work is delayed and not Substantially Completed within the time period specified in Paragraph 4.02 above, plus any allowable extension of time in accordance with Paragraph 12.02 of the General Conditions. Contractor agrees and recognizes that any delay to Substantial Completion shall constitute a material breach. Accordingly, Owner and Contractor agree that as liquidated damages for delay, Contractor shall pay Owner \$0.00 for each day that expires after the date the Work is required to be Substantially Completed until the Contractor achieves Substantial Completion with the Work. Contractor and Owner agree and recognize that the liquidated damages set forth herein shall not be treated as a penalty and are just damages that are proportionate to any damages that might reasonably be expected to follow from a delay to Substantial Completion.
- B. Owner may withhold Contractor's final payment in order offset the liquidated damages that Contractor owes Owner. Owner may also withhold progress payments if Owner reasonably believes that Contractor's final payment will not sufficiency cover the liquidated damages that Contractor owes Owner.

ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to Paragraphs 5.01.A, 5.01.B, and 5.01.C below:

- A. For all Work other than Unit Price Work, a lump sum of: \$ _____

Any allowances specifically identified and called for in the Contract Documents are included in the above price in accordance with Paragraph 11.02 of the General Conditions.

- B. For all Unit Price Work in accordance with Paragraph 11.03 of the General Conditions, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the actual quantity of that item:

<u>UNIT PRICE WORK</u>					
<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>	<u>Bid Unit Price</u>	<u>Bid Price</u>

See Attachments

Total of all Bid Prices (Unit Price Work) \$4,375,330.00

The Bid Unit Prices set forth above are guaranteed prices. Although the Estimated Quantities are estimates and may increase or decrease based on determinations of Engineer, Contractor agrees and understands that the Bid Unit Prices shall remain the same irrespective of the quantities. Contractor understands that in agreeing to any Bid Unit Price it is agreeing to bear the risk associated with any material price increase or escalation. Owner agrees and understands that in agreeing to any Bid Unit Price it is agreeing to bear the risk associated with any material price decrease or reduction.

- C. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 Submittal and Processing of Progress Payments

- A. Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions.

6.02 Progress Payments; Retainage

- A. Progress payments shall be made on account of the Contract Price on the basis of Contractor's Applications for Payment during performance of the Work in accordance with Paragraph 14.02 of the General Conditions. All such payments will be measured by the schedule of values established as provided in Paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed). Progress payments will be made in an amount equal to the percentage of the Work completed in accordance with the Schedule of Values, less the aggregate of payments previously made, less the retainage, and less such amounts as Engineer may determine Owner may withhold, including, but not limited to, liquidated damages.

- B. Owner shall withhold Five percent (5%) of each progress payment as retainage.

6.03 Final Payment

- A. Final Payment inclusive of retainage shall be made to Contractor in accordance with Paragraph 14.07 of the General Conditions.

ARTICLE 7 – INTEREST

7.01 All monies not paid in strict accordance with Florida Statute §218.735 shall bear interest as provided for therein.

ARTICLE 8 – CONTRACTOR’S REPRESENTATIONS

8.01 In order to induce Owner to enter into this Agreement and in determining the Contract Price, Contractor makes the following representations:

- A. Contractor has carefully examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
- B. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), if any, that have been identified in Paragraph SC-4.02 of the Supplementary Conditions as containing reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in Paragraph SC-4.06 of the Supplementary Conditions as containing reliable "technical data." Contractor’s receipt and study of such reports shall not relieve it of visiting the Site and becoming familiar with and satisfied with the Site conditions that may affect cost, progress, and performance of the Work.
- E. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) Contractor’s safety precautions and programs.
- F. Based on the information and observations referred to in Paragraph 8.01.E above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.

- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 Contents

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to 10, inclusive).
 - 2. Combination Payment and Performance Bond (pages 1 to 4, inclusive).
 - 3. General Conditions (pages 1 to 69, inclusive).
 - 4. Supplementary Conditions (pages 1 to 7, inclusive).
 - 5. Technical Specifications – 100% Submittal as listed in ITB 22-07 “Attachment 2” Garnsey Water Plant Generator Installation, as identified in “Section 3 - Specifications” (pages 1 to 297, not attached, on file with Junos Reed, P.E., City Engineering and Construction Manager).
 - 6. BID # 22-07 BID SET April 2022, as listed in ITB 22-07 “Attachment 3” Garnsey Water Plant Generator Installation, as identified in “Section 3 – “Specifications” (pages 1 to 24, not attached, on file with Junos Reed, P.E., City Engineering and Construction Manager).
 - 7. Addendum No. 1 (page 1, inclusive).
 - 8. Addendum No. 2 (pages 1 to 5, inclusive).
 - 9. Addendum No. 3 (pages 1 to 2, inclusive).
 - 10. Exhibits to this Agreement (enumerated as follows):
 - a. Exhibit No. 1 Contractor’s Bid Schedule of Unit Prices (page 1, inclusive).
 - b. Documentation submitted by Contractor prior to Notice of Award (N/A).
 - 1. Affidavit Regarding Workers’ Compensation (page 1, inclusive).
 - 2. Leased Employee Affidavit Exhibit (page 1, inclusive).
 - c. Exhibit No. 2 Contractor’s Proposal (pages 1 to 57, inclusive).

- d. Composite Exhibit No. 3 City's Invitation to Bid Request No. 22-07 (pages 1 to 146, not attached, on file with office of the City Clerk).
11. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
- a. Notice to Proceed (pages _____ to _____, inclusive).
 - b. Work Change Directives.
 - c. Change Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 Terms

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 Assignment of Contract

- A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 Successors and Assigns

- A. Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 Severability

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions and parts shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract

Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision or part that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.
- B. Contractor certifies that in the event a Lien is recorded on the Project by any person or entity providing labor, services, or materials with respect to any portion of the Work, it will immediately transfer such lien to its payment bond or take other appropriate action to immediately remove the encumbrance.

10.06 *No-Damage-for-Delay*

- A. Contractor shall not be entitled to any damages (including, without limitation, expenses, costs, fees, extended field overhead and general conditions, equipment costs, home office overhead, lost productivity and inefficiency damages, additional payroll and labor costs, etc.) for any delay to its Work. Contractor's sole and exclusive remedy for a delay to its Work that is not caused by Contractor (or a person or entity performing a portion of Contractor's scope of Work) shall be an extension of time to substantially complete and finally complete the Project; provided, however, that Owner granting Contractor an extension of time is not a condition precedent to this no-damage-for-delay provision. Contractor shall also not be entitled to any damages for disruption or interference to its Work or for having to accelerate or incur additional labor or payroll costs in order to make up or overcome a delay to its Work so that it can maintain the dates for Substantial Completion and Final Completion. Contractor agrees that in determining and agreeing to the Contract Price it considered this no-damage-for-delay provision and understands that it is not entitled to any damages whatsoever for a delay to its Work.

10.07 *No Intended Third-Party Beneficiaries*

- A. There are no intended third-party beneficiaries to the Contract.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement. Counterparts have been delivered to Owner and Contractor. All portions of the Contract Documents have been signed or have been identified by Owner and Contractor or on their behalf.

CITY OF PORT ORANGE

Owner

By: Donald O. Burnette

Title: Mayor

Date: _____

Attest: Robin L. Fenwick, MMC

Title: City Clerk

Address for giving notices:

1000 City Center Circle

Port Orange, Florida 32129

(386) 506-5500

Chinchor Electric, Inc.
Contractor

By: Timothy I. Chinchor

Title: President

Date: _____

Attest: _____

Title: _____

Address for giving notices:

1460 South Leavitt Avenue

Orange City, Florida 32763

Telephone: (386) 774-1020 E-Mail: dhasco@chinchoelectric.com

License No.: EC13004865

FRONT PAGE FOR BOND REQUIRED BY SECTION 255.05, F.S.

PAYMENT AND PERFORMANCE BOND

(Public Works)

Notice and Time Limitations Must Be In Accordance
With Section 255.05(2), (8) and (10), Florida Statutes

BOND NO. _____

PRINCIPAL:

Developer or Contractor: Chinchor Electric, Inc.
Principal Business Address: 1460 South Leavitt Avenue
Orange City, Florida 32763
Contact Person: Timothy I. Chinchor, President
Phone Number: (386) 774-1020

SURETY:

Address: _____

Contact Person: _____
Phone Number: _____

OWNER:

City of Port Orange, Florida, a chartered municipal corporation
1000 City Center Circle
Port Orange, Florida 32129-4144
Contact Person: City Manager
Phone Number: (386) 506-5501

Amount: \$4,375,330.00 **City Case/Project No.** ITB 22-07 Garnsey Water Treatment Plant Generator Installation

Description of Work: ITB 22-07 Garnsey Water Treatment Plant Generator Installation

Project Location: City of Port Orange, 4400 Wellfield Road, Port Orange, Volusia County, Florida 32129

Legal Description: Portions of Parcel ID#: 6308-00-06-0010
See Attached **Exhibit "A"**

Front Page

All other pages are subsequent to this page regardless of any numbers that may be printed thereon.

**City of Port Orange Garnsey Water Treatment Plant
4440 Wellfield Road, Port Orange, FL 32127**

Short Parcel ID:

6306-00-00-0060

Legal Description:

A portion of the Parcel ID listed above.

EXHIBIT "A"

ITB 22-07 Garnsey Water Treatment Generator Installation

Bond No. _____

**COMBINATION PAYMENT AND PERFORMANCE BOND
FOR
PUBLIC CONSTRUCTION**

per Section 255.05, Florida Statutes
Guaranty for Construction of Public Improvements

BY THIS BOND, We, **CHINCHOR ELECTRIC, INC.** as Principal, and _____, a corporation, as Surety, are bound to **CITY OF PORT ORANGE, FLORIDA**, a Florida municipal corporation, herein called "Owner" or sometimes referred to as "City," in the sum of **FOUR MILLION THREE HUNDRED SEVENTY-FIVE THOUSAND THREE HUNDRED THIRTY AND 00/100 DOLLARS (\$4,375,330.00)**, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that if Principal:

1. Performs the terms of that certain EJCDC Agreement, having an effective date of _____, entered into by and between the Principal and the City, for generator installation at the Garnsey Water Treatment Plant, hereinafter referred to as the "Contract," being made a part of this bond by reference, at the times and in the manner prescribed in the Contract; and
2. Promptly makes payments to all claimants, as defined in Section 255.05(1), Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the Contract (the "Work"); and
3. Pays Owner all losses, damages, delay damages (including contractually authorized liquidated damages), expenses, costs, and attorney's fees, including appellate proceedings, that Owner sustains because of a breach or material breach by Principal under the Contract documents; and
4. Performs the guarantee of all work and materials furnished under the Contract for the time specified in the Contract, then this bond is void; otherwise it remains in full force.

Notice of Nonpayment and Time Limitations

Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provisions in Sections 255.05(2), (8) and (10), Florida Statutes.

Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes does not affect Surety's obligation under this bond.

IN WITNESS WHEREOF, this performance and payment bond is executed and shall be deemed an original, this _____, day of _____, 2022.

Attest:

CHINCHOR ELECTRIC, INC.

(As to Corporate Principal) Secretary

By: _____
Timothy I. Chinchor, President

(Witness to Principal)

(Corporate Seal)

(Surety)

(Witness to Surety)

By: _____
Name: _____
(Attorney-in-Fact)

(Corporate Seal)

NOTE: **Date of BOND must not be prior to date of Contract.** If Developer/Principal is Partnership, all partners should execute BOND. All BONDS signed by an agent must be accompanied by a certified copy of the authority to act.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of Florida.

EJCDC - General Conditions

Consisting of 69 Pages

**Engineers Joint Documents Committee
Design and Construction Related Documents
Instructions and License Agreement**

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2. Make sure that you have the correct version for your word processing software.

How to Use:

1. While EJCDC has expended considerable effort to make the software translations exact, it can be that a few document controls (e.g., bold, underline) did not carry over.
2. Similarly, your software may change the font specification if the font is not available in your system. It will choose a font that is close in appearance. In this event, the pagination may not match the control set.
3. If you modify the document, you must follow the instructions in the License Agreement about notification.
4. Also note the instruction in the License Agreement about the EJCDC copyright.

License Agreement

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Term:

The license is effective until terminated. You may terminate it at any time by destroying **EJCDC Design and Construction Related Documents** altogether with all copies, modifications and merged portions in any form. It will also terminate upon conditions set forth elsewhere in this Agreement or if you fail to comply with any term or condition of this Agreement. You agree upon such termination to destroy **EJCDC Design and Construction Related Documents** along with all copies, modifications and merged portions in any form.

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EJCDC warrants the CDs and diskettes on which **EJCDC Design and Construction Related Documents** is furnished to be free from defects in materials and

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EJCDC's entire liability and your exclusive remedy shall be:

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2. if EJCDC's selling agent is unable to deliver a replacement CD or diskette which is free of defects in materials and workmanship, you may terminate this Agreement by returning EJCDC Document and your money will be refunded.

In no event will EJCDC be liable to you for any damages, including any lost profits, lost savings or other incidental or consequential damages arising out of the use or inability to use **EJCDC Design and Construction Related Documents** even if EJCDC has been advised of the possibility of such damages, or for any claim by any other party.

Some states do not allow the limitation or exclusion of liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you.

General:

You may not sublicense, assign, or transfer this license except as expressly provided in this Agreement. Any attempt otherwise to sublicense, assign, or transfer any of the rights, duties, or obligations hereunder is void.

This Agreement shall be governed by the laws of the State of Virginia. Should you have any questions concerning this Agreement, you may contact EJCDC by writing to:

Arthur Schwartz, Esq.
General Counsel
National Society of Professional Engineers
1420 King Street
Alexandria, VA 22314

Phone: (703) 684-2845

Fax: (703) 836-4875
e-mail: aschwartz@nspe.org

You acknowledge that you have read this agreement, understand it and agree to be bound by its terms and conditions. You further agree that it is the complete and exclusive statement of the agreement between us which supersedes any proposal or prior agreement, oral or written, and any other communications between us relating to the subject matter of this agreement.

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by



AMERICAN COUNCIL OF ENGINEERING COMPANIES

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AMERICAN SOCIETY OF CIVIL ENGINEERS

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A Practice Division of the

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Endorsed by



CONSTRUCTION SPECIFICATIONS INSTITUTE

These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

TABLE OF CONTENTS

	Page
Article 1 – Definitions and Terminology.....	1
1.01 Defined Terms.....	1
1.02 Terminology	5
Article 2 – Preliminary Matters.....	6
2.01 Delivery of Bonds and Evidence of Insurance	6
2.02 Copies of Documents.....	6
2.03 Notice to Proceed; Starting the Work.....	6
2.04 Starting the Work.....	7
2.05 Before Starting Construction.....	7
2.06 Preconstruction Conference; Designation of Authorized Representatives.....	7
2.07 Initial Acceptance of Schedules.....	7
Article 3 – Contract Documents: Intent, Amending, Reuse.....	8
3.01 Intent	8
3.02 Reference Standards	8
3.03 Reporting and Resolving Discrepancies	9
3.04 Amending and Supplementing Contract Documents	10
3.05 Reuse of Documents	10
3.06 Electronic Data.....	10
Article 4 – Availability of Lands; Subsurface and Physical Conditions; Hazardous Environmental Conditions; Reference Points	11
4.01 Availability of Lands	11
4.02 Subsurface and Physical Conditions.....	11
4.03 Differing Subsurface or Physical Conditions	12
4.04 Underground Facilities	13
4.05 Reference Points.....	14
4.06 Hazardous Environmental Condition at Site.....	14
Article 5 – Bonds and Insurance	16
5.01 Performance, Payment, and Other Bonds	16
5.02 Licensed Sureties and Insurers.....	16
5.03 Certificates of Insurance	17
5.04 Contractor’s Insurance.....	17
5.05 Owner’s Liability Insurance.....	19
5.06 Property Insurance	19
5.07 Waiver of Rights	20
5.08 Receipt and Application of Insurance Proceeds	21
5.09 Acceptance of Bonds and Insurance; Option to Replace	21

5.10	Partial Utilization, Acknowledgment of Property Insurer	22
Article 6 – Contractor’s Responsibilities		
6.01	Supervision and Superintendence	22
6.02	Labor; Working Hours.....	22
6.03	Services, Materials, and Equipment	23
6.04	Progress Schedule	23
6.05	Substitutes and “Or-Equals”.....	23
6.06	Concerning Subcontractors, Suppliers, and Others	26
6.07	Patent Fees and Royalties.....	27
6.08	Permits	27
6.09	Laws and Regulations.....	28
6.10	Taxes	28
6.11	Use of Site and Other Areas.....	28
6.12	Record Documents.....	29
6.13	Safety and Protection	29
6.14	Safety Representative	30
6.15	Hazard Communication Programs.....	30
6.16	Emergencies	30
6.17	Shop Drawings and Samples.....	30
6.18	Continuing the Work	32
6.19	Contractor’s General Warranty and Guarantee	32
6.20	Indemnification	33
6.21	Delegation of Professional Design Services	34
Article 7 – Other Work at the Site.....		
7.01	Related Work at Site	34
7.02	Coordination	35
7.03	Legal Relationships.....	35
Article 8 – Owner’s Responsibilities		
8.01	Communications to Contractor	36
8.02	Replacement of Engineer	36
8.03	Furnish Data	36
8.04	Pay When Due.....	36
8.05	Lands and Easements; Reports and Tests	36
8.06	Insurance	36
8.07	Change Orders.....	36
8.08	Inspections, Tests, and Approvals	36
8.09	Limitations on Owner’s Responsibilities	37
8.10	Undisclosed Hazardous Environmental Condition	37
8.11	Evidence of Financial Arrangements	37
8.12	Compliance with Safety Program	37
Article 9 – Engineer’s Status During Construction		
9.01	Owner’s Representative.....	37
9.02	Visits to Site	37
9.03	Project Representative	38

9.04	Authorized Variations in Work.....	38
9.05	Rejecting Defective Work	38
9.06	Shop Drawings, Change Orders and Payments	38
9.07	Determinations for Unit Price Work	39
9.08	Decisions on Requirements of Contract Documents and Acceptability of Work.....	39
9.09	Limitations on Engineer's Authority and Responsibilities	39
9.10	Compliance with Safety Program	40
Article 10	– Changes in the Work; Claims.....	40
10.01	Authorized Changes in the Work.....	40
10.02	Unauthorized Changes in the Work.....	40
10.03	Execution of Change Orders	40
10.04	Notification to Surety.....	41
10.05	Claims	41
Article 11	– Cost of the Work; Allowances; Unit Price Work	42
11.01	Cost of the Work	42
11.02	Allowances	45
11.03	Unit Price Work	45
Article 12	– Change of Contract Price; Change of Contract Times	46
12.01	Change of Contract Price.....	46
12.02	Change of Contract Times.....	47
12.03	Delays	47
Article 13	– Tests and Inspections; Correction, Removal or Acceptance of Defective Work	48
13.01	Notice of Defects	48
13.02	Access to Work	48
13.03	Tests and Inspections	48
13.04	Uncovering Work.....	49
13.05	Owner May Stop the Work	50
13.06	Correction or Removal of Defective Work.....	50
13.07	Correction Period	50
13.08	Acceptance of Defective Work.....	51
13.09	Owner May Correct Defective Work	51
Article 14	– Payments to Contractor and Completion.....	52
14.01	Schedule of Values	52
14.02	Progress Payments	52
14.03	Contractor's Warranty of Title.....	55
14.04	Substantial Completion.....	55
14.05	Partial Utilization	56
14.06	Final Completion- Punchlist.....	56
14.07	Final Payment.....	57
14.08	Final Completion Delayed	58
14.09	Waiver of Claims	58

Article 15 – Suspension of Work and Termination	59
15.01 Owner May Suspend Work	59
15.02 Owner May Terminate for Cause	59
15.03 Owner May Terminate For Convenience.....	60
15.04 Contractor May Stop Work or Terminate	60
Article 16 – Dispute Resolution	61
16.01 Methods and Procedures.....	61
Article 17 – Miscellaneous	61
17.01 Giving Notice	61
17.02 Computation of Times	62
17.03 Cumulative Remedies.....	62
17.04 Survival of Obligations.....	62
17.05 Controlling Law	62
17.06 Headings	62

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
 3. *Application for Payment*—The form acceptable to Engineer and Owner which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 6. *Bidder*—The individual or entity who submits a Bid directly to Owner.
 7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
 8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
 9. *Change Order*—A document recommended by Engineer and/or Owner which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
 10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
 11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; (iii) achieve Final Completion; and (iv) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 for definition.
17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed by the last of the two parties.
19. *Engineer*—The individual or entity named as such in the Agreement.
20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
21. *Final Completion* – This shall occur when Contractor, in the opinion of Engineer or Owner, performs and completes all corrective action associated with the Punchlist in addition to any other work required of Contractor under the Contract Documents.
22. *General Requirements*—Sections of Division 1 of the Specifications.
23. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
24. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
26. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

27. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.
28. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
29. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
30. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
31. *PCBs*—Polychlorinated biphenyls.
32. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
33. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
34. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
35. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
36. *Punchlist* – The detailed list of incomplete, unsatisfactory or unacceptable, or defective items that Contractor is required to complete to achieve Final Completion that is generated in accordance with Paragraph 14.06 of the General Conditions.
37. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
38. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
39. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
40. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.

41. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.
42. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, samples, product data, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
43. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
44. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
45. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
46. *Substantial Completion*—The time and date at which the Work has progressed to the point where, in the opinion of Engineer, the Work is sufficiently complete, in accordance with the Contract Documents, so that the Work can be occupied and/or utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof. Substantial Completion cannot occur before the Project is issued a Certificate of Occupancy (or Completion, if applicable) by the governing building department that allows Owner to begin to utilize the entire Project for the purposes for which it is intended.
47. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.
48. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
49. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
50. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
51. *Unit Price Work*—Work to be paid for on the basis of unit prices.
52. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or

providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

53. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 *Terminology*

- A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives:*

1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day:*

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective:*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

c. is failing or has been damaged.

E. *Furnish, Install, Perform, Provide:*

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request such as the specific additional insured endorsement included in the liability policy) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5 and/or the Supplementary Conditions.

2.02 *Copies of Documents*

- A. At the request of Contractor, Owner or Engineer shall furnish to Contractor up to 5 hard copies of the Drawings and Specifications. Additional copies of the Drawings and Specifications will be furnished upon request at the cost of reproduction.

2.03 *Notice to Proceed; Starting the Work*

- A. Contractor shall not commence the Work until Owner issues a Notice to Proceed. A Notice to Proceed may be issued by Owner at any time after the Effective Date of the Agreement.

2.04 N/A

2.05 *Before Starting Construction*

A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer and Owner for timely review:

1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents, and identifying the Substantial Completion and Final Completion dates;
2. a preliminary Schedule of Submittals; and
3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts / line-items in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.07 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer or Owner, and others as appropriate will be held to review for acceptability to Engineer or Owner as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted and approved by Engineer and Owner.
1. The Progress Schedule will be acceptable to Engineer and Owner if it provides an orderly progression of the Work to completion within the Contract Times and identifies Contractor's critical path sequence of scheduled activities with the earliest start dates for scheduled activities, the earliest finish date for scheduled activities, the latest start date for scheduled activities, and the latest finish date for scheduled activities. All float in the Progress Schedule shall belong to Owner in order to offset a delay attributable to Owner or its agents. Such

acceptance will not impose on Engineer or Owner responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer and Owner if it provides a workable arrangement for reviewing and processing the required submittals.
3. Contractor's Schedule of Values will be acceptable to Engineer and Owner as to form and substance if it provides a reasonable allocation of the Contract Price to component parts / line-items of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 Intent

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents (*e.g.*, answering Requests for Information) shall be issued by Engineer as provided in Article 9.

3.02 Reference Standards

- A. Standards, Specifications, Codes, Laws, and Regulations
 1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements and dimensions. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04 below.
3. Contractor shall not be liable to Owner for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof or could have discovered the conflict or error by carefully studying and comparing the Contract Documents and checking and verifying pertinent figures therein and all applicable field measurements and dimensions.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).
2. In the event there is a discrepancy or conflict in the Drawings and Specifications applicable to a particular detail or assembly of the Work, Contractor must promptly seek clarification from Engineer before proceeding with the Work. Subject to Paragraph 3.03.A.3 above, if Contractor proceeds with the Work without seeking such clarification, Contractor will be bound by the stricter and more expensive detail or assembly. Contractor agrees and recognizes that in agreeing to the Contract Price it has factored in the costs associated with installing the stricter and more expensive detail or assembly.

3.04 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
 - 1. A Field Order;
 - 2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or
 - 3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

- A. Contractor and any Subcontractor or Supplier shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or
 - 2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

- A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting

from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.
- B. *N/A*
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities, staging, or storage of materials and equipment. Contractor shall have the obligation to restore the additional lands to their original condition.

4.02 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions may identify:
 - 1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
 - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents and shall under no circumstance relieve Contractor from visiting the Site and becoming familiar with and satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work. Such "technical data" is identified in the Supplementary Conditions. Except for such limited reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:

1. is of such a nature as to establish that any “technical data” on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
2. is of such a nature as to require a change in the Contract Documents; or
3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after first becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition within 5 days. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer’s Review:* After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner’s obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer’s findings and conclusions.

C. *Possible Price and Times Adjustments:*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor’s cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A;
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03; and
 - c. Contractor notifies Owner and Engineer of such condition within 5 days after first becoming aware of such condition.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
 - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
 - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 4.03.A within 5 days after first becoming aware of such condition.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

- A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
 1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all such information and data;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents;
 - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
 - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated:*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after first becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer within 5 days. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that (i) they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents or a report listed in the Supplemental Conditions, (ii) Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or location, and (iii) Contractor notifies Owner and Engineer of such condition within 5 days after first becoming aware of such condition. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.
- B. Contractor shall lay-out and verify all field dimensions and measurements at the Site before proceeding with any portion of the Work.

4.06 *Hazardous Environmental Condition at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and

drawings are not Contract Documents. Such “technical data” is identified in the Supplementary Conditions. Except for such reliance on such “technical data,” Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor’s purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work or identified in a report listed in the Supplemental Conditions. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible or if such condition is caused by the negligence, recklessness, or intentional misconduct of Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing) within 5 days of first becoming aware of the condition. Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.
- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that (i) they are attributable to the existence or location of any Hazardous Environmental Condition that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents or a report listed in the Supplemental Conditions, (ii) Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the Hazardous Environmental Conditions, (iii) Contractor did not negligently, recklessly, or intentionally cause the Hazardous Environmental Condition, and (iv) Contractor notifies Owner and Engineer of such condition within 5 days after first becoming aware of such condition. If Owner and Contractor cannot agree as to entitlement

to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.

- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. N/A
- H. N/A
- I. N/A

ARTICLE 5 – BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish performance and payment bonds in accordance with Florida Statute §255.05, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. The obligations, duties, responsibilities, and requirements of Contractor set forth in this Contract shall be incorporated into Contractor's performance bond.
- B. All bonds shall be in the form prescribed by the Contract Documents. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond. The performance and payments bonds shall be recorded in the public records in and for Volusia County, Florida. As a courtesy to the Contractor and to expedite recording, the City shall record the bond on behalf of the Contractor and shall cause a copy of the recording information to be provided to the Contractor by the Project Engineer.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in Florida or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed

or authorized in Florida to issue bonds or insurance policies for the limits and coverages so required.

5.03 *Certificates of Insurance*

- A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.
- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.
- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. *N/A*
- F. In the event of any conflict between this Paragraph 5.03 and the specific insurance requirements of Contractor set forth in the Supplemental Conditions, the specific insurance requirements in the Supplemental Conditions govern.

5.04 *Contractor's Insurance*

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
 - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
 - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
 - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:

- a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
 - b. by any other person for any other reason;
 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom;
 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle;
- B. The policies of insurance required by this Paragraph 5.04 shall:
1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds for ongoing and completed operations, and include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;
 2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
 3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraph 6.20 below and as otherwise set forth in the Contract;
 4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
 5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
 6. include completed operations coverage:
 - a. Such insurance shall remain in effect for 10 years after Substantial Completion.
 - b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment.

- C. Contractor shall be solely responsible for any insurance deductible or self-insured retention.
- D. In the event of any conflict between this Paragraph 5.04 and the specific insurance requirements of Contractor set forth in the Supplemental Conditions, the specific insurance requirements in the Supplemental Conditions govern.

5.05 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 *Property Insurance*

- A. Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). Such policy shall identify both Contractor and Owner as named insureds. Contractor shall solely be responsible for any deductible. This insurance shall:
 - 1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;
 - 2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, flood, windstorm, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.
 - 3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 - 4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
 - 5. allow for partial utilization of the Work by Owner;
 - 6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.

B. *N/A*

- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.

D. *N/A*

E. *N/A*

- F. Contractor's all-risk property insurance shall not terminate or expire if Owner elects to utilize or occupy any portion or portions of the Project prior to Substantial Completion. Contractor shall obtain an occupancy / use endorsement that allows Owner to utilize or occupy a portion or portions of the Project prior to Substantial Completion (such that if a temporary Certificate of Occupancy or Completion is issued for a portion(s) of the Project, the all-risk property insurance shall remain in full force).

- G. In the event of any conflict between this Paragraph 5.06 and the specific insurance requirements of Contractor set forth in the Supplemental Conditions, the specific insurance requirements in the Supplemental Conditions govern.

5.07 *Waiver of Rights*

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Contractor as trustee or otherwise payable under any policy so issued.

- B. *N/A*
- C. *N/A*
- D. In the event of any conflict between this Paragraph 5.07 and the specific insurance requirements of Contractor set forth in the Supplemental Conditions, the specific insurance requirements in the Supplemental Conditions govern.

5.08 *Receipt and Application of Insurance Proceeds*

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Contractor and made payable to Contractor as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Contractor shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and, only if applicable, the cost thereof covered by an appropriate Change Order.
- B. Contractor as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Contractor's exercise of this power. If such objection be made, Contractor as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Contractor as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.
- C. Owner, at its sole discretion, may elect to fund the costs associated with any property insurance claim, excluding the deductible, and seek reimbursement from Contractor's policy that identifies both Contractor and Owner as named insureds. If Owner exercises this right, it shall have sole authority to settle and adjust any claim and receive reimbursement under the policy with the proceeds made payable to Owner. Contractor shall have the obligation to cooperate and comply with all terms and provisions of the policy and its failure to do so shall constitute a material breach of the Contract. If Owner does not elect this right, Contractor shall be required to fund the costs associated with any property insurance claim and seek reimbursement under the policy.
- D. In the event of any conflict between this Paragraph 5.08 and the specific insurance requirements of Contractor set forth in the Supplemental Conditions, the specific insurance requirements in the Supplemental Conditions govern.

5.09 *Acceptance Insurance; Option to Replace*

- A. If Owner has any objection to the coverage afforded by or other provisions of the insurance required to be purchased and maintained by the Contractor in accordance with Article 5 and/or the Supplementary Conditions on the basis of non-conformance with the Contract Documents, Owner shall so notify Contractor in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Contractor shall provide Owner such additional information in respect of insurance provided as the Owner may reasonably request. If Contractor does not purchase or maintain all of the insurance required of it by the Contract

Documents, Owner shall notify Contractor in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage, which shall constitute a material breach of the Contract by Contractor. Without Owner's prejudice to any other right or remedy, Owner may elect to obtain equivalent insurance to protect its interests at the expense of Contractor, and a Change Order shall be issued to adjust the Contract Price accordingly.

- B. In the event of any conflict between this Paragraph 5.09 and the specific insurance requirements of Contractor set forth in the Supplemental Conditions, the specific insurance requirements in the Supplemental Conditions govern.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

- A. N/A

ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents. Contractor shall submit a Request for Information to Engineer seeking clarification as to any aspect of the Contract Documents as soon as practical to, among other things, maintain the orderly progress of the Work and avoid any delay to the Work.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent or superintendents, as appropriate, who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

6.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer and Owner for acceptance (to the extent indicated in Paragraph 2.07) proposed monthly adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will be submitted with Contractor's Applications for Payment, as conditions precedent to payment, and will comply with any provisions of the General Requirements applicable thereto.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.
 - 3. All proposed Progress Schedules submitted to Engineer and Owner shall identify Contractor's critical path sequence of scheduled activities of the Work as well as earliest start dates for scheduled activities, the earliest finish date for scheduled activities, the latest start date for scheduled activities, and the latest finish date for scheduled activities. All float in the Progress Schedules shall belong to Owner to offset a delay to Contractor's critical path attributable to Owner or its agents.

6.05 *Substitutes and "Or-Equals"*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.

1. *“Or-Equal” Items:* If in Engineer’s sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an “or-equal” item, in which case review and approval of the proposed item may, in Engineer’s sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
 - 3) it has a proven record of performance and availability of responsive service.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.
2. *Substitute Items:*
 - a. If in Engineer’s sole discretion an item of material or equipment proposed by Contractor does not qualify as an “or-equal” item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
 - b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
 - c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
 - d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - 1) shall certify that the proposed substitute item will:
 - a) perform adequately the functions and achieve the results called for by the general design,

- b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified;
- 2) will state:
 - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
 - b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
- 3) will identify:
 - a) all variations of the proposed substitute item from that specified, and
 - b) available engineering, sales, maintenance, repair, and replacement services; and
- 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.

- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor,

Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

- F. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection. Additionally, subject to Paragraph 6.06.B below, Contractor shall provide to Owner within 10 days from the Effective Date of this Agreement a written list of all Subcontractors (or other individuals or entities it plans on engaging to perform a scope of the Work), together with their Certificates of Insurance that must identify Owner as an additional insured. Subcontractors must identify Owner as an additional insured for purposes of ongoing and completed operations.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.
- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor and ensure that they perform the Work in a good and workmanlike manner and pursuant to the Contract Documents.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. *N/A*
- C. *N/A*

6.08 *Permits*

- A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

6.11 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas:*

- 1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
- 2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
- 3. *N/A*

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show as-built conditions and changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

6.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.

- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*
 - a. Submit number of copies specified in the General Requirements.
 - b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.
 2. *Samples:*
 - a. Submit number of Samples specified in the Specifications.
 - b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.
- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Submittal Procedures:*
1. Before submitting each Shop Drawing or Sample, Contractor shall have:
 - a. thoroughly reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
 2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
 3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop

Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. *Engineer's Review:*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 *Continuing the Work*

- A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements regarding payment or otherwise, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. use or occupancy of the Work or any part thereof by Owner;
 5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
 6. any inspection, test, or approval by others;
 7. any correction of defective Work by Owner; or
 8. the achievement of Final Completion (including Contractor's completion of Punchlist items that were deemed satisfactory to Engineer).

6.20 *Indemnification*

- A. To the fullest extent permitted by Florida law including Florida Statute §725.06, Contractor shall indemnify and hold harmless Owner (including Owner's officers and employees) from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by the negligence, recklessness, or intentional misconduct of Contractor and the persons or entities employed or utilized by Contractor in the performance of the Contract. Contractor agrees and understands that the monetary limitation on the extent of its indemnification shall be \$1 million per occurrence or the per occurrence limits of its commercial general liability (CGL) insurance, whichever is greater, which bears a reasonable commercial relationship to the Contract and is hereby part of the project specifications and bid documents.
- B. To the fullest extent permitted by Florida law, Contractor shall defend Owner (including Owner's officers and employees) from claims, demands, and litigation asserted against Owner to the extent such claims, demands, or litigation are caused by the negligence, recklessness, or intentional misconduct of Contractor and the persons or entities employed or utilized by Contractor in the performance of the Contract.
- C. Contractor agrees and understands that its obligation to indemnify, hold harmless, and defend as set forth in Paragraphs 6.20.A and B above includes, without limitation, claims, losses, etc. for

personal injury, death, property damage, Hazardous Environmental Conditions, infringement of patent rights or copyrights incident to the use or incorporation in the performance of the Work, etc., to the extent caused by the negligence, recklessness, or intentional misconduct of Contractor and the persons or entities employed or utilized by Contractor in the performance of the Contract.

6.21 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 – OTHER WORK AT THE SITE

7.01 *Related Work at Site*

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
 - 1. written notice thereof will be given to Contractor prior to starting any such other work; and

2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.
- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
 2. the specific matters to be covered by such authority and responsibility will be itemized; and
 3. the extent of such authority and responsibilities will be provided.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 *Legal Relationships*

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.

- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

ARTICLE 8 – OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

8.02 *Replacement of Engineer*

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C or as otherwise provided in Florida Statute §218.735.

8.05 *Lands and Easements; Reports and Tests*

- A. Owner's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

8.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

- A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

- A. N/A

8.12 *Compliance with Safety Program*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.

9.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods,

techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

- A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Authorized Variations in Work*

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.
- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the clarification or interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing as soon as practical (so as to maintain the orderly progress of the Work and to avoid any delay to the Work) but in no event later than 30 days of the event giving rise to the question.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred or render a written answer with respect to any Request for Information Contractor submits to Engineer seeking clarification as to an aspect of the Contract Documents. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. *N/A*
- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

9.10 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

10.03 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:

1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05 that are then resolved by the parties to the Agreement.

10.04 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 *Claims*

- A. *Engineer's Decision Required:* All Claims, except those otherwise waived pursuant to the Contract, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims. Owner, however, may, but is not required to, refer to Engineer its assessment of liquidated damages against Contractor in accordance with Paragraph 4.03 of the Agreement or any claim it has with respect to construction defects discovered after Final Completion.
- B. *Notice:* Unless as otherwise set forth herein, written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with detailed, supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event. A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event.
- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant take one of the following actions in writing:
 1. deny the Claim in whole or in part;
 2. approve the Claim; or

3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.
- E. *N/A*
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.
- G. All Claims Contractor submits for an adjustment in Contract Time or Contract Price shall be subject to the No-Damage-For-Delay provision in Paragraph 10.06 of the Agreement.

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:
 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors) employed for services specifically related to the Work. Attorneys and accountants shall not constitute a Cost of the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
 - g. The cost of utilities, fuel, and sanitary facilities at the Site.

- h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence, recklessness, or intentional misconduct of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.

C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data. Owner shall have the right to inspect and audit Contractor's books and cost records at any time during the course of the Project and for three years after Final Completion. Owner must give Contractor 7 days written notice that it plans on inspecting and auditing Contractor's books and cost records.

11.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances specifically identified and called for in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances:*
 - 1. Contractor agrees that:
 - a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- C. *Contingency Allowance:*
 - 1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items are estimates and solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- C. Each unit price shall be guaranteed and will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
 - 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

2. there is no corresponding adjustment with respect to any other item of Work; and
3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense for supplying additional units or Owner believes that Owner is entitled to a decrease in Contract Price for Contractor supplying fewer units and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
 1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01 excluding 11.01.A.1) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C). Contractor shall keep detailed backup supporting its actual costs incurred associated with the adjustment in Contract Price.
- C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:
 1. a mutually acceptable fixed fee; or
 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1

and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

- d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
- e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
- f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires not caused by Contractor or anyone whom Contractor is responsible, floods not caused by Contractor or anyone whom Contractor is responsible, epidemics, abnormal weather conditions not anticipated or customary in Volusia County, or acts of God.
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall only be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Contractor must provide Engineer and Engineer an updated Progress Schedule reflecting how the critical path has been impacted as a condition precedent to being entitled to an adjustment in Contract Time.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions not anticipated or customary in Volusia County, acts of God, acts

or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall only be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Contractor must provide Engineer and Engineer an updated Progress Schedule reflecting how the critical path has been impacted as a condition precedent to being entitled to an adjustment in Contract Time.

- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 *Notice of Defects*

- A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
 - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
 - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and

3. as otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.
- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).
- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. repair such defective land or areas; or
 - 2. correct such defective Work; or
 - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute

resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.
- B. Owner shall not be deemed to have accepted any defective work from Contractor that was not discovered by Engineer or Owner unless the defect was specifically detailed to Owner in writing by Contractor notifying Owner of the defective work and Owner notifies Contractor in writing that it will accept the defective work (whether as-is, by receiving a credit, or receiving other compensation, losses, or damage from Contractor as discussed above in Paragraph 13.08). Contractor recognizes and understands that it shall not be relieved of responsibility or liability with performing defective Work even if such defective work previously passed inspection by any inspector, including, without limitation, an inspector with the governing building department or a threshold inspector.

13.09 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the

Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after 7 days written notice to Contractor, correct, or remedy any such deficiency.

- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

- A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer and Owner. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 *Progress Payments*

A. *Applications for Payments:*

- 1. Contractor, on the 25th of each month, shall submit to Engineer for review an Application for Payment (in a form approved by Owner) filled out and signed by Contractor covering the Work completed or which will be completed by the end of the month, accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation

warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor (in a form approved by Owner) certifying that all previous progress payments received on account of the Work have been applied to pay Contractor's Subcontractors and Suppliers and to otherwise discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments is set forth in Paragraph 6.02.B of the Agreement.

B. Review of Applications:

1. Engineer will, within 10 days after receipt of each Application for Payment, indicate in writing a recommendation of payment or nonpayment and present the Application to Owner. If Contractor's Application for Payment is deficient, Owner shall reject the payment request and return it to Contractor within 20 business days after the date on which the payment request is stamped as received indicating in writing the reasons for refusing to recommend payment; Contractor shall make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or

- b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
- 4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
- 5. Neither Engineer's review of Contractor's Work for purposes of recommending payments nor Engineer's recommendation of any payment shall relieve Contractor for any responsibility or liability with defects in the Work.
- 6. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
 - d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. Payment Becomes Due:

- 1. Subject to the provisions of Paragraph 14.02.D and Florida Statute §218.735, Owner shall pay Contractor 25 business days after the date on which the payment request is stamped as received by Engineer.

D. *Reduction in Payment:*

1. Owner may refuse to make payment of the full amount recommended by Engineer because:
 - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
 - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - c. there are other items entitling Owner to a set-off against the amount recommended; or
 - d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any undisputed amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion; provided, however, that Substantial Completion shall not occur until the governing building department issues a Certificate of Occupancy (or Certificate of Completion, if applicable) that allows Owner to utilize the entire Project for the purposes for which it is intended.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion subject to the Certificate of Occupancy (or Completion).
- D. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the Punchlist.

14.05 *Partial Utilization*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - 1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.
 - 2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
 - 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Completion- Punchlist*

- A. Within 30 days from Contractor achieving Substantial Completion the following must occur: Contractor shall notify Engineer and Owner in writing that the Project is complete in which case Engineer and Owner will promptly make a final inspection (or inspections, if necessary) with Contractor for the purpose of reviewing and developing a detailed Punchlist of items that are incomplete, unsatisfactory or unacceptable, or defective that Contractor is required to complete. However, if the Contract Price is \$10 million or more, the foregoing must occur within 60 days from Contractor achieving Substantial Completion.

- B. The Punchlist shall be provided to Contractor by Engineer and/or Owner no later than 5 days after the punchlist of items has been reviewed and developed in accordance with paragraph 14.06.A above. Contractor shall then have 30 days from its receipt of the Punchlist to perform and complete the corrective work identified therein.
- C. Final Completion shall be the date that Engineer or Owner determines that Contractor satisfactorily performed and completed the corrective work identified in the Punchlist in addition to any other work required of Contractor under the Contract Documents.

14.07 *Final Payment*

A. Application for Payment:

1. After Contractor achieves Final Completion and furnishes all required maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up or as-built record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment inclusive of retainage following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents, including, but not limited to, the evidence that Contractor maintains completed operations coverage for its required commercial general liability (CGL) insurance;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and
 - d. complete and legally effective final releases or waivers (satisfactory to Owner) of all Lien rights or Liens filed in connection with the Work.
3. In lieu of the final releases or waivers of Liens specified in Paragraph 14.07.A.2.d and as approved by Owner, Contractor may furnish an affidavit of Contractor whereby Contractor swears that: (i) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner has paid Contractor through the date of Contractor's final Application for Payment have been paid by Contractor and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner will pay Contractor in the final Application for Payment will represent Contractor's receipt of all payments for the Work except for the specifically enumerated Claims (and Claims not specifically enumerated are deemed released and waived) and that Contractor will promptly pay its Subcontractors and Suppliers upon its receipt of the final payment.
4. The documents and materials that Contractor is required to submit to accompany its Final Application for Payment (as set forth in this Paragraph 14.07) are conditions precedent to final payment.

B. Engineer's Review of Application and Acceptance:

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09 below. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due:

1. Twenty-five (25) business days after the date on which the Application for Payment is stamped as received by Engineer, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 *Final Completion Delayed*

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 *Waiver of Claims*

- A. The making and acceptance of final payment will constitute:
 1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
 2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
 - 2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
 - 3. Contractor's repeated disregard of the authority of Engineer;
 - 4. Contractor's violation in any substantial way of any provisions of the Contract Documents;
 - 5. Contractor's failure to timely pay Subcontractors and Suppliers after it receives payment from Owner; or
 - 6. Contractor's failure to obtain or maintain the insurance required of it in the Contract.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) 5 days written notice of its intent to terminate the services of Contractor:
 - 1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);
 - 2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and
 - 3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such

unpaid balance, Contractor shall pay the difference to Owner. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within 5 days of the notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

15.03 *Owner May Terminate For Convenience*

- A. Upon 5 days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
 - 3. N/A; and
 - 4. reasonable expenses directly attributable to termination such as demobilization expenses. Attorneys' fees, accountant fees, and home office overhead expenses shall not be deemed reasonable expenses.
- B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority or (ii) Contractor complies with all conditions precedent to payment and Owner fails for 60 days to pay Contractor the sum Owner undisputedly determined to be due to Contractor, then Contractor may, upon 7 days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such

suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03. Contractor, however, cannot terminate the Contract due to any dispute (i) concerning the amount of payment due Contractor or (ii) any amounts Owner is withholding from Contractor.

- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Contractor complies with all conditions precedent to payment and Owner has failed for 60 days to pay Contractor any sum Owner undisputedly determined to be due to Contractor, Contractor may, 7 days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph. Contractor, however, cannot stop the Work due to any dispute (i) concerning the amount of payment due Contractor or (ii) any amounts Owner is withholding from Contractor.

ARTICLE 16 – DISPUTE RESOLUTION

16.01 *Methods and Procedures*

- A. Mediation shall be a condition precedent to any dispute between Owner and Contractor relating to the Contract; provided, however, that Owner, in its sole discretion, can waive mediation as a condition precedent to pursue a claim / litigation against Contractor or defend a claim / litigation from Contractor. The party initiating mediation must submit written request to the other party of its desire to mediate and provide the names of suggested mediators. The parties shall work together to mutually agree on a mediator within 30 days from the written request. The parties shall mediate the dispute within 60 days from the written request unless a different date is agreed upon due to the availability of the mediator, the availability of the parties and their counsel, or upon the mutual agreement of the parties. If the parties are unable to agree on a mediator (and the Owner has not elected to waive mediation), the parties, subject to Paragraph 16.01.C below, agree to allow the court to unilaterally select the mediator and any litigation will be stayed pending the outcome of such mediation.
- B. *N/A.*
1. *N/A.*
- C. Any litigation arising out of or relating to the Contract shall be brought in the exclusive venue of Volusia County, Florida. The prevailing party shall be entitled to all attorneys' fees and court costs at the trial and appellate level. **CONTRACTOR VOLUNTARILY AND KNOWINGLY WAIVES IT RIGHT TO A TRIAL BY JURY.**

ARTICLE 17 – MISCELLANEOUS

17.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
2. delivered at or sent by registered or certified mail, postage prepaid, or an overnight carrier (such as UPS or FedEx) to the last business address known to the giver of the notice.

17.02 *Computation of Times*

- A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 *Controlling Law*

- A. This Contract is to be governed by the law of the state of Florida.

17.06 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

EJCDC - Supplemental Conditions

Consisting of 7 Pages

SUPPLEMENTARY CONDITIONS

TABLE OF CONTENTS

SC-4.02	Subsurface and Physical Conditions
SC-4.06	Hazardous Environmental Conditions
SC-5.04	Contractor's Liability Insurance
SC-5.06	Property Insurance
SC-6.06	Concerning Subcontractors, Suppliers, and Others
SC-12.01	Change of Contract Price
SC-17-07	Public Records Compliance
SC-17-08	Examination of Records
SC-17-09	Sovereign Immunity

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC C-700 (2007 Edition). All provisions which are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

SC-4.02 *Subsurface and Physical Conditions*

SC-4.02 Delete Paragraphs 4.02.A and 4.02.B in their entirety and insert the following:

A. No reports of explorations or tests of subsurface conditions at or contiguous to the Site, or drawings of physical conditions relating to existing surface or subsurface structures at the Site, are known to Owner.

SC-4.06 *Hazardous Environmental Conditions*

SC-4.06 Delete Paragraphs 4.06.A and 4.06.B in their entirety and insert the following:

A. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner.

B. Not Used.

SC-5.04 *Contractor's Liability Insurance*

SC-5.04 Add the following new paragraph immediately after Paragraph 5.04.B:

C. The limits of liability for the insurance required by Paragraph 5.04 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. Workers' Compensation, and related coverages under Paragraphs 5.04.A.1 and A.2 of the General Conditions:

- | | |
|--|-----------------------|
| a. State: | Statutory |
| b. Applicable Federal (e.g., Longshoreman's): | Statutory |
| c. Employer's Liability: | \$1,000,000.00 |

2. Contractor's General Liability under Paragraphs 5.04.A.3 through A.6 of the General Conditions which shall include completed operations and product liability coverages and eliminate the exclusion with respect to property under the care, custody and control of Contractor:

- | | |
|---|----------------|
| a. General Aggregate | \$1,000,000.00 |
| b. Products - Completed Operations Aggregate | N/A |
| c. Personal and Advertising Injury | \$1,000,000.00 |
| d. Each Occurrence (Bodily Injury and Property Damage) | \$1,000,000.00 |
| e. Property Damage liability insurance will provide Explosion, Collapse, and Under-ground coverages where applicable. | |
| f. Excess or Umbrella Liability | |
| ☒ General Aggregate | \$1,000,000.00 |
| ☒ Each Occurrence | \$500,000.00 |

3. Automobile Liability under Paragraph 5.04.A.6 of the General Conditions:

SC-5.06 *Property Insurance*

SC-5.06.A. Delete Paragraph 5.06.A in its entirety and insert the following in its place:

- A. Contractor shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof. Contractor shall be responsible for any deductible or self-insured retention. This insurance shall:
1. include the interests of Owner, Contractor, Subcontractors, Engineer, and the officers, directors, partners, employees, agents and other consultants and subcontractors of any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or loss payee;

2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss and damage to the Work, temporary buildings, falsework, and materials and equipment in transit and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by these Supplementary Conditions.
3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
5. allow for partial utilization of the Work by Owner;
6. include testing and startup;
7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued; and
8. comply with the requirements of Paragraph 5.06.C of the General Conditions.

-SC-6.06 *Concerning Subcontractors, Suppliers, and Others*

SC-6.06 Add a new paragraph immediately after Paragraph 6.06.G:

H. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by a particular Subcontractor or Supplier.

SC-12.01 *Change of Contract Price*

SC-12.01.C *Contractor's Fee.* Delete the semicolon at the end of GC 12.01.C.2.c, and add the following language:

, provided, however, that on any subcontracted work the total maximum fee to be paid by Owner under this subparagraph shall be

no greater than 27 percent of the costs incurred by the Subcontractor who actually performs the work;

SC-17-07 *Public Records Compliance*

SC-17-07 Add the following new paragraph immediately after Paragraph 17.06:

A. *Public Records Compliance.* Contractor shall comply with public records laws as set forth in Chapter 119, Florida Statutes, and shall specifically:

(a) Keep and maintain public records required by the City to perform the service.

(b) Upon request from the City's custodian of public records, provide the City with a copy of the requested record or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Section 119, Florida Statutes, or as otherwise provided by law.

(c) Ensure that public records that are exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Contract term and following completion of the Contract if the Contractor does not transfer the records to the City.

(d) Upon completion of the Contract, Contractor shall transfer to the City, at no cost, all public records in possession of the Contractor and destroy any duplicate public records that are exempt from public records disclosure requirements. All records stored electronically must be provided to the City, upon request from the City's custodian of public records, in a format that is compatible with the information technology systems of the City.

If Contractor does not comply with a public records request, the City shall deem the non-compliance a breach of this Contract, and the Contractor may be subject to penalties under Section 119.10, Florida Statutes.

**CONTRACTOR QUESTIONS RELATING TO
CONTRACTOR'S DUTIES TO PROVIDE PUBLIC
RECORDS RELATING TO THIS CONTRACT
MUST BE FORWARDED TO THE OFFICE OF THE
CITY CLERK, CITY HALL, 1000 CITY CENTER
CIRCLE, PORT ORANGE, FLORIDA 32129
TELEPHONE: (386) 506-5563
E-MAIL: CITYCLERK@PORT-ORANGE.ORG**

SC-17-08 *Examination of Records*

SC-17-08 Add the following new paragraph immediately after Paragraph 17.07:

A. *Examination of Records.*

(a) The Contractor agrees that the City, or any duly authorized representative, shall, until the expiration of five (5) years after final payment hereunder, have access to and the right to examine and copy any pertinent books, documents, papers and records of the Contractor involving transactions related to this Contract.

(b) The Contractor further agrees to include in any subcontract for more than \$10,000 entered into as a result of this Contract, a provision to the effect that the subcontractor agrees that the City or any duly authorized representative shall, until the expiration of five (5) years after final payment under the subcontract, have access to and the right to examine and copy any pertinent books, documents, papers and records of such contractor involved in transactions related to such subcontract, or this Contract. The term subcontract as used herein shall exclude purchase orders for public utility services at rates established for uniform applicability to the general public.

(c) The period of access provided in subparagraphs (a) and (b) above for records, books, documents and papers which may relate to any arbitration, litigation, or the settlement of claims arising out of the performance of this contract or any subcontract shall continue until any appeals, arbitration, litigation or claims shall have been finally disposed of.

SC-17-09 *Sovereign Immunity*

SC-17-09 Add the following new paragraph immediately after Paragraph 17.08:

A. *Sovereign Immunity.* The City expressly retains all rights, benefits and immunities of sovereign immunity in accordance with Section 768.28, Florida Statutes. Notwithstanding anything set forth in any section of this Contract to the contrary, nothing in this Contract shall be deemed as a waiver of immunity or limits of liability of the City beyond any statutory limited waiver of immunity or limits of liability which may have been adopted by the Florida Legislature or may be adopted by the Florida Legislature and the cap on the amount and liability of the City for damages regardless of the number or nature of claims in tort or equity shall not exceed the dollar amount set by the legislature for tort. Nothing in this Contract shall inure to the benefit of any third party for the purpose of allowing any claim against the

City which would otherwise be barred under the Doctrine of Sovereign Immunity or operation of law.

EJCDC

Attachment 2 Technical Specifications - ITB 22-07

Not attached, on file with Junos Reed, P.E., City Engineering and Construction Manager

Consisting of 297 Pages

EJCDC

Drawings Bid Set April 2022 - ITB 22-07 Attachment 3

Not attached, on file with Junos Reed, P.E., City Engineering and Construction Manager

Consisting of 24 Pages

EJCDC
Addendum No. 1
Dated April 13, 2022
Consisting of 1 Page



CITY OF PORT ORANGE

PURCHASING DIVISION
1000 CITY CENTER CIRCLE
PORT ORANGE, FLORIDA 32129
TELEPHONE 386-506-5717
purchdiv@port-orange.org

ADDENDUM # 1

April 13, 2022

ITB #22-07 GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION

To All Bidders:

The following changes, clarifications and additions are hereby made part of the bidding and specifications for the above referenced project dated March 22, 2022 and prepared by the City of Port Orange Purchasing Division as fully and completely as if the same were fully set forth therein. It is the sole responsibility of bidder to confirm that all addenda have been received prior to submitting bid and acknowledge such in the bid documents.

NEW BID OPENING DATE

The bid opening date of April 26, 2022 at 2:30pm is hereby changed to May 10, 2022 at 2:30pm.

In all other respects, except as specifically stated herein, the subject ITB # 22-07 GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION remains unchanged.

END OF ADDENDUM #1

Joseph Castro

Buyer

jcastro@port-orange.org

EJCDC
Addendum No. 2
Dated April 21, 2022
Consisting of 5 Pages



CITY OF PORT ORANGE

PURCHASING DIVISION
1000 CITY CENTER CIRCLE
PORT ORANGE, FLORIDA 32129
TELEPHONE 386-506-5717
purchdiv@port-orange.org

ADDENDUM # 2

April 21, 2022

ITB #22-07 GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION

To All Bidders:

The following changes, clarifications and additions are hereby made part of the bidding and specifications for the above referenced project dated March 22, 2022 and prepared by the City of Port Orange Purchasing Division as fully and completely as if the same were fully set forth therein. It is the sole responsibility of bidder to confirm that all addenda have been received prior to submitting bid and acknowledge such in the bid documents.

REVISED CONTENTS

The Contents page (pg.4 of the ITB) is hereby replaced with the Revised Contents page that is posted as a separate document on the Purchasing web page and DemandStar that can be accessed using these links: www.port-orange.org/bids.aspx or www.demandstar.com.

REVISED SECTION 7 – REQUIRED FORMS

Section 7 – Required Forms (pg.38 of the ITB) is hereby replaced with Revised Section 7 – Required Forms that is posted as a separate document on the Purchasing web page and DemandStar that can be accessed using these links: www.port-orange.org/bids.aspx or www.demandstar.com.

FORM 7.13 LISTING OF SUBCONTRACTORS

FORM 7.13 Listing of Subcontractors is hereby added to ITB 22-07 as page 51 and must be included in bidder's submittal. FORM 7.13 Listing of Subcontractors can be downloaded from the Purchasing web page at www.port-orange.org/bids.aspx or DemandStar website at www.demandstar.com.

A. CLARIFICATIONS:

None

B. CHANGES TO SPECIFICATIONS:

Attachment 3 "100% Design November 2021" is hereby replaced with BID # 22-07 BID-SET April 2022 and is posted as separate document on the Purchasing web page www.port-orange.org/bids.aspx and Demand Star www.demandstar.com.

Specification 01 30 00 Administrative Requirements, Item 1.06, page 26 currently reads:

The CONTRACTOR agrees that the work shall be started not later than the date indicated in the "Notice to Proceed" and shall substantially complete all work within **180 calendar days**, with final completion within **30 days** of substantial completion.

Specification 01 30 00 Administrative Requirements, Item 1.06, page 26 is hereby modified to read: The CONTRACTOR agrees that the work shall be started not later than the date indicated in the "Notice to Proceed" and shall substantially complete all work within **400 calendar days**, with final completion within **30 days** of substantial completion.

C. QUESTIONS AND ANSWERS:

Question #1 What is the estimated budget?

ANSWER: \$1,730,000.00

Question #2: Is a General Contractors' license required to bid this project or can an Electrical Contractor bid as prime?

ANSWER: A Certified Electrical Contractor can bid as the Prime Contractor.

Question #3: What are the Liquidated Damages per day for this project?

ANSWER: Liquidated damages are \$1,000 per day according to Section 01 30 00 Administrative Requirements, Item 1.06A on page 26 and page 27 of the technical specifications.

Question #4: At the prebid, the contract days amount was said to be 400 to substantial completion. Specification 01 30 00/1.06 shows substantial completion within 180 calendar days. Please confirm which is the appropriate time frame.?

ANSWER: Please refer to Item B Changes To Specifications of this Addendum.

Question #5: Is the City aware of the extra ordinarily long lead times for generators and switchgear? These lead times are a year or more currently.

ANSWER: Yes, thus the long contract duration.

Question #6: Specification section 01 30 00/1.24 states to hand dig and expose all existing public/private utilities and other existing facilities which may be in conflict with the proposed construction in order to adjust the proposed facility alignments to avoid any conflicts. Does this mean that all excavations for trenching and electrical manholes shall be hand dug?

ANSWER: The Contractor is required to 'clear' the route and expose existing utilities to verify vertical and horizontal (VVH) locations of conflict utilities prior to equipment excavation.

Question #7: Are the time-lapse and web-based construction photographs described in specification section 01 32 33 required for this project?

ANSWER: Time lapse photography is NOT required. Pre-construction video is required.

Question #8: Does the permit allowance cover just the building permit or does it cover all permits needed? (i.e., Electrical)

ANSWER: Permit allowance is for all permits.

Question #9: Specification 26 05 02/3.4 mentions cleaning and repairing existing materials and equipment that remain or are to be reused. Does this just pertain to the MCC's and Main circuit breaker that are being refed from the new electric room? Could an allowance be added to the bid form as the extent of possible repairs could be difficult to include in the bid?

ANSWER: The specification article only pertains to equipment that is affected by the scope of work. This would include the MCC's that are being refed.

Question #10: Will any lightning protection be required for any of the new or existing structures?

ANSWER: Lightning protection is not part of the scope of work.

Question #11: Specification section 26 05 43/3.5/D says to use manufactured long sweep bends with a minimum radius of 48 inches, both horizontally and vertically. Does this mean that all pvc coated rigid risers need to be 48" radius, 90-degree elbows?

ANSWER: Specifically, 48" radius, 90-degree elbows shall be required at all conduits rising from below grade to above grade.

Question #12: Specification section 26 05 43/3.5/K/9 says to encase elbows for stub-ups throughout the length of the elbow, but this is in the direct burial spec section. Do direct burial conduits need the stub up elbow encased in concrete?

ANSWER: Specifically at building entrances, elbows for stub-ups require concrete encasement as per the specification.

Question #13: Is VFD cable needed to refeed the HSP VFD's?

ANSWER: VFD cable is not necessary.

Question #14: HSP-4 VFD on sheet E-701 is marked as future but the conduit schedule calls for it to have wire. Is this just supposed to be an empty conduit, or will it require wire to be pulled and made safe in a junction box or enclosure?

ANSWER: It is our understanding that HSP-4 VFD is installed and as such conduit & wire will be required.

Question #15: Do any of the in ground electrical pull boxes need to be traffic rated?

ANSWER: None of the pull boxes are located in roadways and as such should not need to be traffic rated.

Question #16: Does the City have a specific Integrator or Instrumentation and Control contractor to provide the communication cabinet? Can contact information be provided?

ANSWER: The City does not have a preferred System Integrator or Control Contractor for this project.

Question #17: Vendors for the custom auto-transfer switchgear have asked if the bid date could be extended to allow time to acquire accurate current pricing/availability of specialty equipment.

ANSWER: The bid opening date is extended 2 weeks from April 26 to May 10 to allow for accurate pricing and availability of the switchgear.

Question #18: REF: Drawing E-702 SINGLE LINE DIAGRAM MCC-3 & MCC-4, Note 3 FIELD VERIFY EXISTING BREAKER, MCP, STARTER AND MOTOR HP SIZE TO COORDINATE CONNECTION AND MOTOR CONTROL CENTER BUCKET CONFIGURATION PRIOR TO MCC PROCUREMENT. Please clarify the size/ratings of the circuit breakers and starters marked with NOTE 3 for estimating purposes.

ANSWER: For bidding purposes, assume each of the breakers with note 3 are 100A, 3-pole. Assume any starters with note 3 are NEMA size 3.

Question #19: Will the contractor be responsible for the cost of filling the fuel storage tanks or just the cost of fuel for testing?

ANSWER: The Contractor will be responsible for providing adequate fuel for startup and testing.

Question #20: Will contractor be responsible for removing fuel from existing tank? If so, will the fuel be re-used in the new system?

ANSWER: The Contractor will be responsible for removing fuel from the existing tank. If the fuel that is removed is properly stored, then it may be re-used in the new system.

Question #21: Why is the ATS inside the Gear?

ANSWER: The new main switchgear is designed to include the ATS as an integral part of the construction of the gear.

Question #22: Is paralleling required between the three sources (Utility, Gen 1, and Gen 2)?

ANSWER: Paralleling is not required between the three sources.

Question #23: Is paralleling required between the two generators?

ANSWER: Paralleling is not required between the two generators.

Question #24: Is Closed Transition required between the Gens and Utility?

ANSWER: Closed transition is not required.

Question #25: Load-shed is shown on the spec. However, I could not find the ATSs in the one-line. No priority load is shown. Could you please clarify? Do you have a list of load priorities?

ANSWER: Load shed is not required.

Question #26: Please provide a detailed spec for each ATS.

ANSWER: The new main switchgear is designed to include the ATS as an integral part of the construction of the gear.

Question #27: Drawing C-102 SITE PLAN -EXISTING/DEMOLITION & PROPOSED SITE WORK. Technical Specifications 01 11 00 Summary of Work and 23 11 00 Facility Fuel Piping. Demolition plan instructs "REMOVE EXISTING TANK AND ALL APPURTENANCES." Proposed Site Work shows two (2) NEW PROPOSED 5200 GAL FUEL TANKS. 01 11 00 SUMMARY OF WORK states "*Removal and relocation of the existing fuel tank*" and "*one (1) new fuel tank with associated fuel supply and return piping and valves*". 23 11 00 FACILITY FUEL PIPING includes specifications for CONCRETE-VAULTED, STEEL, FUEL-OIL AST ACCESSORIES, SPECIALTIES, PUMPS, GAGE SYSTEM and LEAK-DETECTION SYSTEM. Are both of the PROPOSED FUEL TANKS to be new or are we to re-use the EXISTING FUEL TANK? If we are to re-use EXISTING FUEL TANK, please clarify SCOPE OF WORK needed/expected to incorporate EXISTING FUEL TANK into the NEW FUEL SYSTEM. Will the EXISTING FUEL TANK require new ACCESSORIES, SPECIALTIES, FUEL PUMPS, LIQUID-LEVEL GAGE SYSTEM and LEAK DETECTION AND MONITORING SYSTEM?

ANSWER: The scope of work includes removal of the existing fuel tank and providing (2) new 5200-gallon fuel tanks with all accessories as described in Specification Section 23 11 00.

Question #28: Please provide CONTROL SCHEMATIC showing control wiring needed between generators and MSB SWITCHGEAR.

ANSWER: As the control wiring required by each generator supplier may vary, it is up to the contractor to coordinate with the switchgear and generator suppliers for the proper control wiring and connections required.

Question #29: REF: Drawing E-702 NOTE 1 ALL BRANCH LOADS ARE EXISTING TO REMAIN. Is it the intent to reuse & re-terminate all existing branch wire at NEW MCC-3 and MCC-4? If so and the EXISTING circuit wire is not long enough to reach the new termination points in NEW MCC-3 and MCC-4 can they be spliced, or will the entire circuit need to be replaced?

ANSWER: The intent is to reuse the existing branch wiring for reconnection to new MCC-3 and MCC-4. Cable splicing will be acceptable.

Question #30: Is the new ELECTRICAL ROOM to be a NEW PRE-ENGINEERED BUILDING or is it only enclosing the walls of the EXISTING overhead structure?

ANSWER: The new electrical room is formed by enclosing walls of an existing structure.

Question #31: If it is to enclose walls to the existing structure, please provide the MANUFACTURER'S DRAWINGS of the EXISTING PRE-ENGINEERED METAL BUILDING.

ANSWER: These are not available.

Question #32: What size is the generator needed? Are there more than one?

ANSWER: 1250 KW Diesel Generator. Only one generator.

In all other respects, except as specifically stated herein, the subject ITB # 22-07 GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION remains unchanged.

END OF ADDENDUM #2

Joseph Castro

Buyer

jcastro@port-orange.org

EJCDC
Addendum No. 3
Dated May 2, 2022
Consisting of 2 Pages



CITY OF PORT ORANGE

PURCHASING DIVISION
1000 CITY CENTER CIRCLE
PORT ORANGE, FLORIDA 32129
TELEPHONE 386-506-5717
purchdiv@port-orange.org

ADDENDUM # 3

May 2, 2022

ITB #22-07 GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION

To All Bidders:

The following changes, clarifications and additions are hereby made part of the bidding and specifications for the above referenced project dated March 22, 2022 and prepared by the City of Port Orange Purchasing Division as fully and completely as if the same were fully set forth therein. It is the sole responsibility of bidder to confirm that all addenda have been received prior to submitting bid and acknowledge such in the bid documents.

A. CLARIFICATIONS:

None

B. CHANGES TO SPECIFICATIONS:

None

QUESTIONS AND ANSWERS:

Question #1: Are the metal building panels metal or do they have a special PVC resin on them?

ANSWER: As shown on the provided Bid Set drawings, the existing panels are "FRP Panels Manufactured by Resolite Type 1240. Profile 7.2 x 1.5". Color to be Stone White.

Question #2: Will the weight of this conduit and wire will be able to be supported from the existing metal building ceiling. There will be about (21) 3" conduits with wire suspended from the ceiling and spanning across the building. Is the ceiling of the existing building rated to support that extra weight?

ANSWER: The contractor should not rely on the existing metal building ceiling structure and will need to provide supplemental steel in order to support the conduits in the existing metal building.

Question #3: Will a Fireguard Cylindrical tank be accepted? The tank is UL 2085 with 3" lightweight concrete between two steel walls.

ANSWER: The cylindrical tank proposed appears to be acceptable as long as it meets all other requirements of the drawings and specifications.

Question #4: Rack Mounted Fiber Patch Panel for Termination of 12-Count Fiber Cabling - What is the mode and termination style (LC, ST,SC) of the Fiber?

ANSWER: For the purposes of bidding, assume single-mode fiber with SC connections.

Question #5: The Chatsworth 25500-X12 has been discontinued with no replacement. Could you please provide the current specification for desired Cabinet?

ANSWER: The updated basis of design for the communications cabinet shall be Chatsworth CUBE-iT series, model #11890-724.

In all other respects, except as specifically stated herein, the subject ITB # 22-07 GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION remains unchanged.

END OF ADDENDUM #3

Joseph Castro

Buyer

jcastro@port-orange.org

EXHIBIT “1”

Contractor's Bid Schedule of Unit Prices

Consisting of 1 Page



(ATTACHMENT 1) SCHEDULE OF UNIT PRICING
BID FORM

CITY OF PORT ORANGE

ITB #22-07

GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION

Completed (Attachment 1) Schedule of Unit Pricing form **MUST** be included with Bid Submission

Instruction to save Attachment from DemandStar website:

Perform "File Save As" and save spreadsheet to your computer. Fill in pricing in highlighted cells, preferably electronically.

Bidders are required to complete all fields shaded in green.

(ATTACHMENT 1) SCHEDULE OF UNIT PRICING **MUST BE SIGNED**

NAME OF BUSINESS:	Chinchor Electric Inc				
CONTACT PERSON:	Don Hasco				
EMAIL ADDRESS:	dhasco@chinchorelectric.com				
AUTHORIZED SIGNATURE:					
ITEM #	DESCRIPTION	QTY	UNIT	TOTAL COST	
1	Pre-Construction Video	1	LS	\$3,300.00	
2	Mobilization and Demobilization	1	LS	\$300,000.00	
3	Demolition	1	LS	\$115,000.00	
4	Packaged Generator and ATS System	1	LS	\$1,082,200.00	
5	Fuel Systems	1	LS	\$307,900.00	
6	Electrical Switchgear	1	LS	\$486,570.00	
7	Civil Site Work and Mechanical	1	LS	\$407,000.00	
8	New Electrical Room	1	LS	\$519,060.00	
9	Motor Control Centers	1	LS	\$110,000.00	
10	HVAC	1	LS	\$20,000.00	
11	Site Electrical	1	LS	\$906,300.00	
12	Temporary Power	1	LS	\$30,000.00	
13	Permit Allowance	1	LS	\$10,000.00	
14	As-Built Plans	1	LS	\$10,000.00	
15	Utility Relocation Allowance	1	LS	\$50,000.00	
TOTAL BID PRICE (Items 1-15)				\$4,357,330.00	

Affidavit Regarding Workers' Compensation

Consisting of 1 Page

AFFIDAVIT REGARDING WORKERS' COMPENSATION

IMPORTANT

This certificate must be completed and returned by the Awarded Vendor, upon issuance of a Notice of Intent to Award by the Purchasing Department of the City of Port Orange. Please note, the City of Port Orange does not accept exemptions for Workers' Compensation coverage.

State of Florida

County of Volusia

I, Mariah Anselmo, being duly sworn according to law, deposes and says (it, he, she, they) have accepted the Workers' Compensation laws of the State of Florida, with its supplements and amendments and has insured (its, his, her, their) liability there under accordance with the terms of said Laws with the Amerisure Insurance Company, under the terms of Policy Number WC-2106047-04 for a period from August 30th, 2021 to August 30th, 2022

WITNESS:

By: Kathryn Quintana
Name: Kathryn Quintana, Corporate Sec.

CONTRACTOR:

Company: Chinchor Electric, Inc.
By: [Signature]
Name/Title: Mariah Anselmo, Vice President

Sworn to and subscribed before me this 19 day of 5 2022.

My Commission Expires: 6/28/2025 [Signature]
Notary Public



PEYTON HICKOX
Notary Public
State of Florida
Comm# HH146746
Expires 6/28/2025

Peyton Hickox
Notary Public Printed Name

Leased Employee Affidavit

Consisting of 1 Page

This certificate must be completed and returned by the Awarded Vendor, upon issuance of a Notice of Intent to Award by the Purchasing Department of the City of Port Orange. Please note, the City of Port Orange does not accept exemptions for Workers' Compensation coverage.

LEASED EMPLOYEE AFFIDAVIT

EXHIBIT CONTRACT # ITB 22-07

☒ I hereby certify that I do not utilize an employee leasing company or employee leased employees. I further agree to notify the City in the event these circumstances change.

OR

☐ I affirm that an employee leasing company provides my workers' compensation coverage. I further understand that my contract with the employee leasing company limits my workers' compensation coverage to enrolled worksite employees only. My leasing arrangement does not cover un-enrolled worksite employees, independent contractors, uninsured sub-contractors or casual labor exposure.

I hereby certify that 100% of my workers are covered as worksite employees with the employee leasing company. I certify that I do not hire any casual or uninsured labor outside the employee leasing arrangement. I agree to notify the City in the event that I have any workers not covered by the employee leasing workers' compensation policy. In the event that I have any workers not subject to the employee leasing arrangement, I agree to obtain a separate workers' compensation policy to cover these workers. I further agree to provide the City with a certificate of insurance providing proof of workers' compensation coverage prior to these workers entering any City jobsite.

I further agree to notify the City if my employee leasing arrangement terminates with the employee leasing company and I understand that I am required to furnish proof of replacement workers' compensation coverage prior to the termination of the employee leasing arrangement.

I certify that I have workers' compensation coverage for all of my workers through the employee leasing arrangement specified below:

Name of Employee Leasing Company: _____

Workers' Compensation Carrier: _____

A.M. Best Rating of Carrier: _____

Inception Date of Leasing Arrangement: _____

I further agree to notify the City in the event that I switch employee-leasing companies. I recognize that I have an obligation to supply an updated workers' compensation certificate to the City that documents the change of carrier.

I hereby attest that the information provided in this affidavit is accurate. In addition,

I certify that I have read and understand the above statements regarding my responsibility under the Workers' Compensation coverage.

Name of Contractor: Chinchor Electric, Inc.

Signature of Owner/Officer: _____

Title: Vice President Date: 05/19/2022

EXHIBIT "2"

Contractor's Proposal

Consisting of 57 Pages

SECTION 2 – INSTRUCTIONS TO BIDDERS

Firms or companies (Bidder) desiring to provide services, as described herein shall submit sealed bids including **one (1) original copy and one (1) digital (flash drive) version in PDF format**, in conformance with the detailed submittal instructions.

TIMELINE (Local Time):

The City reserves the right to alter dates as needed.

Date of Distribution.....	March 22, 2022
Non-Mandatory Pre-Bid Conference & Site Visit.....	April 5, 2022 10:00A.M.
Deadline for Questions.....	April 12, 2022 by 5:00P.M.
Final Addendum Posting	April 19, 2022 by 5:00 P.M.
Bids Due.....	April 26, 2022 by 2:30 P.M.
City Council Meeting for Approval of Recommendation of Award.....	To Be Determined

Bids must be delivered in a sealed envelope/package and delivered to:

City of Port Orange City Clerk's Office
Attn: Joseph Castro, Buyer
Purchasing Division
1000 City Center Circle
Port Orange, Florida 32129

Sealed Bids must be delivered **no later** than the date and time listed in the Timeline above. All times referenced are local time.

Bids shall be sealed and Bidders shall clearly indicate on the outside of their bid the following:

- a) Invitation to Bid (ITB) Number and Title
- b) Date of Opening
- c) Name of Bidder
- d) Address of Bidder

Due to the timing of mail service, the City cautions Bidders to assure actual delivery of Bids to the City prior to the deadline set for receiving bids. Carrier and hand deliveries of bids will be accepted in the City Clerk's Office, Port Orange City Hall, 1000 City Center Circle, Port Orange, Florida 32129 until the date and time referenced in the Timeline above or as amended by addendum issued by the City. Bids received after the established deadline shall not be considered.

Bidders are cautioned that they are responsible for delivery to the specific location cited above. Therefore, if your bid, proposal, statement or quotation is delivered by an express mail carrier or by any other means, it is your responsibility to ensure delivery to the above address. This office will not be responsible for deliveries made to any place other than the specified address.

Offers by telephone or email shall not be accepted. Also, Bidders are instructed NOT to fax their bid package. **Faxed bids shall be rejected as non-responsive regardless of where or when the fax is received.**

All Bids will be opened publicly, and the names of all Bidders shall be read aloud. All conferences and meetings regarding this ITB are recorded electronically (audio only). The City of Port Orange reserves the right to reject any or all Bids or parts of Bids, if it is in the best interest of the City.

PRE-BID CONFERENCE/SITE VISIT:

There will be a Non-Mandatory Pre-Bid Conference and Site Visit for the project on the date and time referenced in the Timeline above at City Hall, Council Chambers (1st Floor), 1000 City Center Circle, Port Orange, Florida 32129.

REVISED SECTION 7 – REQUIRED FORMS

FORM 7.1 – BID SUBMITTAL CHECKLIST

- ☒ Form 7.2 – Bidder's Acknowledgement Form
- ☒ Form 7.3 – Addendum and Change Order Procedure Acknowledgement
- ☒ Form 7.4 – Drug Free Preference Statement
- ☒ Form 7.5 – Public Entity Crimes Statement
- ☒ Form 7.6 – Anti-Collusion Form
- ☒ Form 7.7 – Statement of Bidder's Qualifications
- ☒ Form 7.8 – Professional References for Previous Experience
- ☒ Form 7.9 – Local Business Affidavit of Eligibility
- ☒ Form 7.10 – E-Verify Affidavit
- ☒ Form 7.11 – Debarment, Suspension and Other Responsibility Matters
- N/A Form 7.12 – No Submittal Response Form
- ☒ Form 7.13 – Listing of Subcontractors
- ☒ Attachment 1 – Schedule of Unit Pricing
- ☒ Original Recorded Bid Bond
- ☒ Current Bonding Capacity Letter (as outlined in Section 6)
- ☒ Copy of all currently held Licenses (Contractor, Sunbiz, etc.)
- ☒ Submission of one (1) original marked "ORIGINAL" and one (1) digital (CD or flash drive) version in PDF format.

BY: Chincho Electric, Inc.
Name of Business

[Signature]
Authorized Signature

5/10/2022
Date

This document must be completed and returned with your Submittal

FORM 7.2 – BIDDER'S ACKNOWLEDGEMENT FORM

I have carefully examined the Invitation to Bid (ITB), Instructions to Bidders, General and/or Special Conditions, Specifications, and any other documents accompanying or made a part of this invitation.

I hereby propose to furnish the goods or services specified in the Invitation to Bid at the prices or rates as finally negotiated. I agree that my bid will remain firm for a period of up to ninety (90) days in order to allow the City of Port Orange adequate time to evaluate the proposed bid. Furthermore, I agree to abide by all conditions of the Invitation to Bid.

I certify that all information contained in this Bid is truthful to the best of my knowledge and belief. I further certify that I am a duly authorized to submit this Bid on behalf of the Bidder / Contractor as its act and deed and that the Bidder / Contractor is ready, willing and able to perform if awarded the contract.

I further certify that this Bid is made without prior understanding, Contract, connection, discussion, or collusion with any person, firm or corporation submitting a Bid for the same product or service; no officer, employee or agent of the City of Port Orange City Council or of any other Bidder interested in said ITB; and that the undersigned executed this Bidder's Acknowledgement with full knowledge and understanding of the matters therein contained and was duly authorized to do so.

I further certify that having read and examined the specifications and documents for the designated services and understanding the general conditions for contract under which services will be performed, does hereby propose to furnish all labor, equipment, and material to provide the services set forth in the ITB.

I hereby declare that the following listing states any clarifications, any and all variations from and exceptions to the requirements of the specifications and documents. The undersigned further declares that the "work" will be performed in strict accordance with such requirements and understands that any exceptions to the requirements of the specifications and documents may render the Bid non-responsive.

NO EXCEPTIONS ALLOWED AFTER THE BID IS SUBMITTED:

Please check one: ☒ I take NO exceptions. ☐ Exceptions (list below; add additional pages if necessary):

Chinchor Electric, Inc.

NAME OF BUSINESS

1460 S Leavitt Ave

MAILING ADDRESS

Orange City, FL 32763

CITY, STATE & ZIP CODE

AUTHORIZED SIGNATURE

Timothy I. Chinchor, President

NAME, TITLE, TYPED

386-774-1020 / 386-774-7223

TELEPHONE NUMBER / FAX NUMBER

59-3044703

FEDERAL IDENTIFICATION #

dhasco@chinchorelectric.com

E-MAIL ADDRESS

STATE OF FL COUNTY OF Volusia

The foregoing instrument was acknowledged before me this day of MAY, 2022 by Timothy Chinchor, who is personally known to me or who has produced ad identification and who did take an oath.

My Commission Expires: 12/14/24

Notary Public

This document must be completed and returned with your Submittal



Madison Lankford
Notary Public
State of Florida
Comm# HH072136
Expires 12/14/2024

FORM 7.3 – ADDENDUM and CHANGE ORDER PROCEDURE ACKNOWLEDGEMENT

ADDENDUM ACKNOWLEDGEMENT

I have carefully examined the Invitation to Bid (ITB), Instructions to Bidders, General and/or Special Conditions, Specifications, and any other documents accompanying or made a part of this invitation to Bid.

I acknowledge receipt and incorporation of the following addenda, and the cost, if any, of such revisions has been included in the price of the bid proposal.

Addendum # 1 Date: 4/13/22 Addendum # 2 Date: 4/21/22
Addendum # 3 Date: 5/2/22 Addendum # _____ Date: _____

CHANGE ORDER PROCEDURE ACKNOWLEDGEMENT

If awarded the Contract for this Solicitation, I acknowledge that no oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All change orders requests shall be made in writing by the Contractor for review by the Contract Administrator for the City of Port Orange. No work shall be performed as set forth in the change order until the Contractor receives an executed Purchase Order for the requested change.

I acknowledge the following statement regarding Change Orders to the awarded Contract:

"The Successful Contractor is responsible for giving the City of Port Orange, prior to the Contract expiration date, at least forty-five (45) calendar days' advance notice for any anticipated changes in price greater than \$25,000.00, time and/or scope of the awarded Contract. The Contractor shall not continue to provide services past the Contract expiration date unless approved by a written Change Order Notice from the City."

Chinchor Electric, Inc.

Name of Business

By: _____

Printed Name: Timothy I. Chinchor

Title: President

STATE OF FL

COUNTY OF Volusia

Sworn to (or affirmed) and subscribed before me this 10th day of May, 2022, by
Timothy Chinchor, as president of
(NAME) (TITLE)
Chinchor Electric, Inc. and who:
(NAME OF ORGANIZATION)

[Notary: Please select one]

☒ is personally known to me; or

☐ has produced _____ as identification.



Madison Lankford
Notary Public
State of Florida
Comm# HH072136
Expires 12/14/2024

Notary Public, State of Florida

Printed, typed or stamped name, commission and expiration:

This document must be completed and returned with your Submittal

FORM 7.4 – DRUG-FREE PREFERENCE STATEMENT

IDENTICAL TIE BIDS - Preference shall be given to businesses with drug-free workplace programs. Whenever two or more bids, proposals, statements, or replies that are equal with respect to price, quality, and service are received by the city for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie bids will be followed if none of the tied Bidders have a drug-free workplace program.

In order to have a drug-free workplace program, a business shall:

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction on or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of Section 287.087, Florida Statutes.

As an authorized representative of the firm, I certify that this firm complies fully with the above requirements.

Chinchor Electric, Inc.

Name of Business

By: [Signature]

Printed Name: Timothy I. Chinchor

Title: President

STATE OF FL

COUNTY OF Volusia

Sworn to (or affirmed) and subscribed before me this 10TH day of MAY, 2022, by Timothy chinchor, as President of

(NAME)

(TITLE)

Chinchor Electric, Inc. and who:
(NAME OF ORGANIZATION)

[Notary: Please select one]

☒ is personally known to me; or

☐ has produced _____ as identification.

[Signature]

Notary Public, State of Florida

Printed, typed or stamped name, commission and expiration:



Madison Lankford
Notary Public
State of Florida
Comm# HH072136
Expires 12/14/2024

This document must be completed and returned with your Submittal

FORM 7.5 – SWORN STATEMENT UNDER SECTION 287.133(3)(A), FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

(To be signed in the presence of notary public or other officer authorized to administer oaths.)

Before me, the undersigned Authority, personally appeared affiant Timothy I. Chinchor, who, being by me first duly sworn, made the following statement:

1. The business address of Chinchor Electric, Inc. (name of Offeror or business) is 1460 S Leavitt Ave, Orange City, FL 32763.
2. My relationship to Chinchor Electric, Inc. (name of Offeror or business) is President (relationship such as sole proprietor, partner, president, vice president).
3. I understand that a public entity crime as defined in Section 287.133 of the Florida Statutes includes a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity in Florida or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any proposal or contract for goods or services to be provided to any public entity or such an agency or political subdivision and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy or material misrepresentation.
4. I understand that "convicted" or "conviction" is defined by the Florida Statutes to mean a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, non-jury trial, or entry of a plea of guilt or nolo contendere.
5. I understand that "affiliate" is defined by the Florida Statutes to mean (1) a predecessor or successor of a person or a corporation convicted of a public entity crime, or (2) an entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime, or (3) those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate, or (4) a person or corporation who knowingly entered into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months.
6. Neither the Offeror or contractor, nor any officer, director, executive, partner, shareholder, employee, member or agent who is active in the management of the Offeror or contractor, nor any affiliate of the Offeror or contractor has been convicted of a public entity crime subsequent to July 1, 1989. **(Draw a line through paragraph 6 if paragraph 7 below applies.)**
7. ~~There has been a conviction of a public entity crime by the Offeror or contractor, or an officer, director, executive, partner, shareholder, employee, member or agent of the Offeror or contractor who is active in the management of the Offeror or contractor or an affiliate of the Offeror or contractor. A determination has been made pursuant to Section 207.133(3) by order of the Division of Administrative Hearings that it is not in the public interest for the name of the convicted person or affiliate to appear on the convicted Vendor list. The name of the convicted person or affiliate is _____ A copy of the order of the Division of Administrative Hearings is attached to this statement. **(Draw a line through paragraph 7 if paragraph 6 above applies.)**~~

Chinchor Electric, Inc.

Name of Business

By: [Signature]

Printed Name: Timothy I. Chinchor

Title: President

STATE OF FL
COUNTY OF Volusia

Sworn to (or affirmed) and subscribed before me this 10TH day of MAY, 2022 by Timothy Chinchor, as President of Chinchor Electric, Inc. and who:

[Notary: Please select one]

☒ is personally known to me; or

☐ has produced _____ as identification.

[Signature]
Notary Public, State of Florida

Printed, typed or stamped name, commission and expiration:

This document must be completed and returned with your Submittal



Madison Lankford
Notary Public
State of Florida
Comm# HH072136
Expires 12/14/2024

FORM 7.6 – ANTI-COLLUSION FORM

ANTI-COLLUSION STATEMENT BID FORM:

By signing this form, the Proposer agrees that this Bid is made without any other understanding, agreement, or connection with any person, corporation, or firm submitting a bid for the same purpose and that the bid is in all respects fair and without collusion or fraud.

SIGN in ink in the space provided below. Unsigned Bids will be considered incomplete, and will be disqualified, and rejected.

IT IS AGREED BY THE UNDERSIGNED VENDOR THAT THE SIGNING AND DELIVERY OF THE BID REPRESENTS THE VENDORS ACCEPTANCE OF THE TERMS AND CONDITIONS OF THE FOREGOING SPECIFICATIONS, CONTRACT AND PROVISIONS, AND IF AWARDED, THIS CONTRACT WILL REPRESENT THE AGREEMENT BETWEEN THE VENDORS AND THE CITY OF PORT ORANGE.

NAME OF FIRM: Chinchor Electric, Inc.

SIGNED BY: Timothy I. Chinchor
(MUST BE SIGNED BY A COMPANY OFFICER OR AUTHORIZED AGENT)

PRINTED SIGNATURE: 

TITLE: President

ADDRESS: 1460 S Leavitt Ave

CITY: Orange City STATE: FL ZIP CODE: 32763

TELEPHONE: 386-774-1020 FAX: 386-774-7223

F.E.I.N. NUMBER: 59-3044703

NO Bid may be withdrawn for a period of ninety (90) days subsequent to the submittal of the Bids, without the consent of the City of Port Orange.

This document must be completed and returned with your Submittal

FORM 7.7 – STATEMENT OF BIDDER'S QUALIFICATIONS

The undersigned warrants that he or she is duly authorized to complete this document, and hereby affirms that the information contained in Form 7.7 is complete, true, and correct to the best of his or her knowledge and belief. If necessary, questions may be answered on separate paper and attached, with any additional information that may be pertinent.

- A. Name of Bidder: Chinchor Electric, Inc.
- B. Permanent main office address: 1460 S Leavitt Ave, Orange City, FL 32763
- C. Date organized: 1991
- D. If a corporation, where incorporated: Florida
- E. How many years have you been engaged in the business under your present firm or trade name? 31
- F. Contracts on hand: (List these, showing amount of each contract and the appropriate anticipated dates of completion.) **USE SEPARATE SHEET & ATTACH TO SUBMITTAL**
- G. General character of work performed by your company: Electrical Work, Signalization, Highway Lighting
- H. Have you ever failed to complete any work awarded to you? If so, where and why? No
- I. Have you ever defaulted on a contract? If so, where and why? No
- J. List the more important projects recently completed by your company, stating the approximate cost for each and the month and year completed: **USE SEPARATE SHEET & ATTACH TO SUBMITTAL**
- K. List your major equipment currently owned or leased: **USE SEPARATE SHEET & ATTACH TO SUBMITTAL**
- L. Experience in work similar to this type of project: Yes see attached
- M. Background and experience of the principal members of your organization, including the officers: **USE SEPARATE SHEET & ATTACH TO SUBMITTAL**
- N. Credit currently available: \$ 7,000,000
- O. Give bank name, contact name and phone number: Mainstreet Community Bank of Florida, Scott Miller, 386-774-2090
- P. Will you, upon request, fill out a detailed financial statement and furnish any other information that may be required by the Owner? YES ☒ NO ☐

The undersigned hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the Owner in verification of the recitals comprising this Statement of Bidder's Qualifications.

Chinchor Electric, Inc.
Name of Business
By: [Signature]
Printed Name: Timothy I. Chinchor
Title: President

STATE OF: FL
COUNTY OF: Volusia

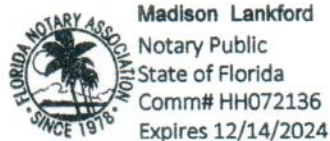
Sworn to (or affirmed) and subscribed before me this 10TH day of MAY, 20 22, by and who:

[Notary: Please select one]

- ☒ Is personally known to me; or
☐ Has produced _____ as identification.

Notary Public, State of: Florida

Printed, typed or stamped name, commission and expiration:



This document must be completed and returned with your Submittal

FORM 7.8 – PROFESSIONAL REFERENCES FOR PREVIOUS EXPERIENCE

The Bidder proposes that he/she is qualified to perform the referenced work and has successfully done so on recent projects similar in nature and size. The City reserves the right to check references and confirm information provided herein.

Please provide three (3) current and correct references from clients for similar services.

(Do not include the City of Port Orange)

1. Company Name: Seminole County, FL
Contact Person: Mike Boggs
City, State: Sanford, FL
Telephone Number: 407-665-2026
Email Address: mboggs@seminolecounty.fl.gov
Description of goods or
Services provided: Install 13 Generators, ATS, concrete pads, and electrical work on active lift stations.
Contract Amount: \$1,230,870.00
Start/End Date of Contract: 11/7/19
2. Company Name: Volusia County, FL
Contact Person: Mike Paris
City, State: Daytona Beach, FL
Telephone Number: 386-566-3029
Email Address: mparis@volusia.org
Description of goods or
Services provided: Installation of a 1.5MW generator, ATS's, bus duct, fuel tank and piping, concrete pads and all associated work on an active County Jail.
Contract Amount: \$1,440,612.00
Start/End Date of Contract: 11/28/17
3. Company Name: Seacoast Utility Authority
Contact Person: Keith Haas
City, State: Palm Beach Gardens, FL
Telephone Number: 561-627-2900
Email Address: khaas@sua.com
Description of goods or
Services provided: Install a 4160V loop around the west wellfield. Install medium voltage transformers, concrete duct banks, concrete manholes. Installed medium voltage cabling and terminations. Installed a new dual 2,000amp 480V main switchboard, (2) 2000amp ATS's, (2) parallel 500KW owner furnished generators, 1,600amp distribution switchboard, all electrical work, concrete slabs, and fuel piping.
Contract Amount: \$1,861,164.00
Start/End Date of Contract: Jan. 2021

This document must be completed and returned with your Submittal.

(FORM 7.8 – PROFESSIONAL REFERENCES FOR PREVIOUS EXPERIENCE page 2)

LISTING OF PREVIOUS EXPERIENCE

Commercial Client List

The Bidder proposes that he/she is qualified to perform the referenced work and has successfully done so on recent projects similar in nature and size. **A minimum of three (3) projects must be listed below.** The City reserves the right to check references and confirm information provided herein.

List all clients to whom you currently provide or have in the past provided goods or services equal or similar to those required under the City's contract and as outlined in this bid package. **A minimum of three (3) projects shall be listed below in order to bid on this contract.**

	Contact Name	Phone	Current Client? Y or N	Number of years service provided	Description of service
1	Mary Kronenberg City of Palm Coast	386-986-2306	N	2	Installed 5 generators, ATS, concrete pads and all associated electrical work on active lift stations
2	Danus Utilities Inc. Dan Pardus	386-233-5588	Y	10	Install electrical work on lift stations and plants throughout the state of Florida. Many of the LS's have had generators installed.
3	Curtis Matte Wharton Smith, Inc.	407-321-8410	Y	15	Install electrical work on Water & Wastewater treatment plants throughout the state of Florida. Motor control centers, VFD's, RVSS's, PLC's, duct banks, lighting, and associated electrical work.

This document must be completed and returned with your Submittal.

F. Contracts on Hand

Chinchor Electric, Inc.

Project Status

05/09/22

Job Number	Under Contract	Contract Amount	C.O. Amount	Total Contract Value	Amount Billed to Date	Back Log to Invoice	Expected Completion
221CAS01	Altamonte Solar Array Electrical	\$331,633.00	-\$69,008.53	\$262,624.47	\$257,422.48	\$5,201.99	11/30/2022
222CFX01	408-128A SR408 Sign Truss	\$1,135,780.17	\$0.00	\$1,135,780.17	\$0.00	\$1,135,780.17	
221DOT15	E53A8 - ITS Surveillance System	\$1,713,110.53	-\$23,050.47	\$1,690,060.06	\$1,644,093.53	\$45,966.53	6/1/2022
221DOT22	T9024 - Sneads WS WIM	\$3,198,515.31	\$31,621.39	\$3,230,136.70	\$2,000,754.78	\$1,229,381.92	6/1/2022
221DT026	T9026 - Seffner WS WIM	\$4,025,439.43	\$0.00	\$4,025,439.43	\$177,430.10	\$3,848,009.33	
219L7C02	Altamonte Springs RWRP Phase 1	\$824,580.00	\$193,962.63	\$1,018,542.63	\$1,009,319.74	\$9,222.89	6/30/2022
222OMC04	Glencoe WTP Chemical Improv.	\$416,600.00	\$0.00	\$416,600.00	\$0.00	\$416,600.00	
720SUP01	T5706 SR44 Bridge	\$775,501.32	\$54,476.97	\$829,978.29	\$244,698.81	\$585,279.48	8/1/2023
221WSI09	Parkway WTP HSP & DBP	\$1,206,956.00	\$80,443.11	\$1,287,399.11	\$635,194.10	\$652,205.01	12/31/2022
221WSI10	Kanapaha WRF Electrical Equip.	\$401,660.00	\$633,511.84	\$1,035,171.84	\$321,627.45	\$713,544.39	9/1/2022
321CSF07	Magnolia Square	\$45,956.00	\$0.00	\$45,956.00	\$0.00	\$45,956.00	6/30/2022
221DAN40	LGPA Lift Station 97	\$55,104.00	\$0.00	\$55,104.00	\$41,328.00	\$13,776.00	5/30/2022
221SAN03	Maitland LS #1 Relocation	\$131,115.00	\$0.00	\$131,115.00	\$41,279.61	\$89,835.39	9/30/2022
221WSI08	Osprey WRF	\$1,399,200.00	-\$10,461.03	\$1,388,738.97	\$791,292.49	\$597,446.48	12/31/2022
322CAU02	UCF Charging Stations - Outlets	\$5,500.00	\$0.00	\$5,500.00	\$0.00	\$5,500.00	on hold
221PCF01 & 02	Charlotte Cty LS Generators	\$1,063,464.39	\$164,928.60	\$1,228,392.99	\$524,197.61	\$704,195.38	5/30/2022
221CLM06	Lift Station Electrical Improvements	\$267,293.92	\$0.00	\$267,293.92	\$173,919.76	\$93,374.16	5/30/2022
221COR01	Generators for Critical Facilities	\$888,291.04	\$125,204.28	\$1,013,495.32	\$691,046.57	\$322,448.75	6/3/2022
222COR02	Fire Station ATS	\$20,816.00	\$0.00	\$20,816.00	\$0.00	\$20,816.00	
222COR03	LS#5 Wet Well Coring & Conduit	\$2,300.00	\$0.00	\$2,300.00	\$0.00	\$2,300.00	
221COV01	Mitchell Hammock WTP Gen	\$1,394,000.00	-\$569,574.47	\$824,425.53	\$11,454.00	\$812,971.53	7/13/2023
221DAN44	Tree Tops Lift Station	\$60,259.00	\$0.00	\$60,259.00	\$0.00	\$60,259.00	7/31/2022
222DAN46	Oak Point LS - Titusville	\$96,150.00	\$0.00	\$96,150.00	\$0.00	\$96,150.00	12/31/2022
221DOT19	E55A1 - Flagler Weigh Station	\$1,267,717.97	\$0.00	\$1,267,717.97	\$1,126,771.50	\$140,946.47	5/30/2022
221DTX79	E5X79 - Highway Lighting Repair	\$250,000.00	\$12,274.00	\$262,274.00	\$197,353.00	\$64,921.00	6/10/2022
221JTA01	JTA BRT East TSP	\$2,142,726.80	\$5,265.88	\$2,147,992.68	\$1,678,770.60	\$469,222.08	5/30/2022
221MAS11	Graham Swamp Trail	\$477,458.52	\$0.00	\$477,458.52	\$202,912.14	\$274,546.38	
221PCG08	Deltana Phase 4B Lake Monroe	\$532,116.00	\$0.00	\$532,116.00	\$100,941.92	\$431,174.08	
221PCG09	Downtown SW Pond & Park	\$249,352.00	\$0.00	\$249,352.00	\$101,363.13	\$147,988.87	6/30/2022
222SCP06	Sem. LS Generators Phase IV	\$679,565.00	-\$349,582.51	\$329,982.49	\$0.00	\$329,982.49	12/10/2022
222VCS02	Atlantic HS Generator	\$426,950.00	\$0.00	\$426,950.00	\$0.00	\$426,950.00	
222YCC01	Druid Hills PS	\$61,104.00	\$0.00	\$61,104.00	\$0.00	\$61,104.00	
221COF01	LS 59, 61, 73, 83, 94, 126, 129 Gens	\$2,596,057.20	-\$1,212,021.24	\$1,384,035.96	\$95,028.02	\$1,289,007.94	4/25/2023
222DAN47	Shoney's LS 127	\$44,460.00	\$0.00	\$44,460.00	\$0.00	\$44,460.00	9/30/2022
222DAN49	Causeway LS - Titusville	\$61,690.00	\$0.00	\$61,690.00	\$0.00	\$61,690.00	
222L7C04	Altamonte RWRP Blower	\$301,298.00	\$0.00	\$301,298.00	\$0.00	\$301,298.00	
221PLK01	Standby Power Phase 2 - NE2 & NW	\$1,117,512.60	\$0.00	\$1,117,512.60	\$148,241.56	\$969,271.04	8/31/2022
222RJS02	Palm Coast WWTF No 2	\$3,950,000.00	\$0.00	\$3,950,000.00	\$0.00	\$3,950,000.00	
221CAN01	Cape Canaveral SCADA	\$723,211.00	-\$1,901.00	\$721,310.00	\$201,178.00	\$520,132.00	7/26/2022
222DAN48	Brevard LS M-16	\$130,820.00	\$0.00	\$130,820.00	\$0.00	\$130,820.00	
222DAN50	Brevard LS S-26	\$40,169.58	\$0.00	\$40,169.58	\$0.00	\$40,169.58	
322FEC04	Wekiva Phase 3	\$12,500.00	\$0.00	\$12,500.00	\$0.00	\$12,500.00	
221RJS01	Palm Bay South Regional WRF	\$2,523,640.00	\$0.00	\$2,523,640.00	\$328,353.31	\$2,195,286.69	12/31/2023

220ASF01	<u>SUA Hood Road Well HR-8B</u>	\$29,101.00	\$0.00	\$29,101.00	\$18,050.00	\$11,051.00	9/30/2022
722CAP02	<u>Vick Rd @ Lester Road</u>	\$428,008.73	\$0.00	\$428,008.73	\$0.00	\$428,008.73	
721RCI01	<u>SR 417 - Boggy Creek to Narcoossee</u>	\$19,565,161.96	\$0.00	\$19,565,161.96	\$2,154,982.05	\$17,410,179.91	9/9/2023
721RCI02	<u>E8T21 - SR417 Seminole Co.</u>	\$3,620,909.80	\$0.00	\$3,620,909.80	\$683,090.52	\$2,937,819.28	1/31/2023
522BOE01	<u>MLK Beltway @ Cassadaga Rd</u>	\$374,002.48	\$0.00	\$374,002.48	\$80,177.76	\$293,824.72	7/31/2022
522BOE02	<u>Sawgrass Bay Blvd @ Sanctuary Dr.</u>	\$407,211.60	\$0.00	\$407,211.60	\$44,592.00	\$362,619.60	12/31/2022
521DBC01	<u>Parramore Road Extension</u>	\$712,541.23	\$0.00	\$712,541.23	\$555,339.82	\$157,201.41	6/6/2022
521DOT17	<u>T5700 - SR44</u>	\$1,579,513.27	\$0.00	\$1,579,513.27	\$1,503,741.30	\$75,771.97	5/30/2022
522JDC02	<u>Bill Beck Blvd Extension</u>	\$843,945.94	\$0.00	\$843,945.94	\$88,175.02	\$755,770.92	6/30/2023
519MAS09	<u>T5680 SR436</u>	\$1,153,537.01	\$21,079.41	\$1,174,616.42	\$1,116,652.77	\$57,963.65	
521MAS12	<u>T5736 - SR426 / CR419</u>	\$3,509,529.83	\$512,071.16	\$4,021,600.99	\$821,510.66	\$3,200,090.33	10/5/2023
521PSP13	<u>T5709 - SR19 & CR452</u>	\$295,899.73	\$2,457.00	\$298,356.73	\$284,635.63	\$13,721.10	5/30/2022
521PSP14	<u>E56A2 - SR15A Deland</u>	\$263,856.40	\$0.00	\$263,856.40	\$260,191.55	\$3,664.85	5/30/2022
520TMC01	<u>E5293 - SR535</u>	\$2,546,554.96	\$4,337.31	\$2,550,892.27	\$2,468,472.73	\$82,419.54	5/30/2022
521DOT18	<u>E7N50 - SR582 / Fowler Ave</u>	\$1,696,925.70	\$0.00	\$1,696,925.70	\$746,693.01	\$950,232.69	9/30/2022
520JDC01	<u>Holden Ave</u>	\$1,131,281.94	\$150,430.83	\$1,281,712.77	\$1,247,228.17	\$34,484.60	5/30/2022
521ORG01	<u>Orange Co. Traffic Signal Mast Arms</u>	\$2,131,028.95	\$0.00	\$2,131,028.95	\$924,115.00	\$1,206,913.95	9/8/2022
SC40450	<u>SR 426 @ Red Bug</u>	\$255,805.61	\$0.00	\$255,805.61	\$253,702.25	\$2,103.36	5/30/2022
SC44620	<u>SR426 @ Red Bug EXTRA</u>	\$50,000.00	\$0.00	\$50,000.00	\$34,804.07	\$15,195.93	5/30/2022
SC46986	<u>Connected Vehicle / ICM Equipment</u>	\$90,190.83	\$0.00	\$90,190.83	\$0.00	\$90,190.83	9/30/2022
SC50706	<u>SR 426 @ Red Bug EXTRA'S</u>	\$50,000.00	\$0.00	\$50,000.00	\$0.00	\$50,000.00	5/30/2022
521VCT21	<u>Signal 339 Elkcam Blvd & Lake Helen C</u>	\$178,348.52	\$0.00	\$178,348.52	\$136,265.81	\$42,082.71	6/30/2022
521AJV02	<u>T5716 - US192 @ Hoagland Blvd</u>	\$805,112.26	\$0.00	\$805,112.26	\$653,077.87	\$152,034.39	5/17/2022
521ANC02	<u>T2793 - I95 from SR207 to Intl Golf Prk</u>	\$1,913,179.36	\$0.00	\$1,913,179.36	\$370,064.70	\$1,543,114.66	6/12/2023
421ANC01	<u>T2793 - I95 MATERIALS ONLY</u>	\$786,760.99	\$0.00	\$786,760.99	\$225,276.58	\$561,484.41	6/12/2023
522ANC03	<u>T5721 - SR44 @ US301</u>	\$1,908,155.91	\$0.00	\$1,908,155.91	\$39,481.00	\$1,868,674.91	11/9/2023
522ANC04	<u>T5597 - I75 @ CR484 Marion County</u>	\$2,590,056.27	\$0.00	\$2,590,056.27	\$0.00	\$2,590,056.27	1/24/2024
721ACC11	<u>T5715 - I4 @ CR532</u>	\$2,095,950.42	\$0.00	\$2,095,950.42	\$1,156,954.92	\$938,995.50	9/16/2022
520MAS10	<u>Howland Blvd.</u>	\$281,236.80	\$0.00	\$281,236.80	\$227,893.78	\$53,343.02	6/30/2022
520OSC04	<u>John Young Pkwy @ Columbia Ave</u>	\$589,983.20	\$7,000.00	\$596,983.20	\$558,147.74	\$38,835.46	5/30/2022
521OSC08	<u>Old Lake Wilson Rd & Livingston Rd</u>	\$491,287.23	\$0.00	\$491,287.23	\$365,470.71	\$125,816.52	5/30/2022
521ACS03	<u>I-95 Port Orange ITS Pole</u>	\$32,424.00	\$0.00	\$32,424.00	\$31,128.00	\$1,296.00	5/30/2022
522T5754	<u>T5754 - Marion ITS</u>	\$478,356.03	\$0.00	\$478,356.03	\$0.00	\$478,356.03	
521HRP01	<u>SR414 @ Trelago Way</u>	\$556,796.46	\$9,612.00	\$566,408.46	\$313,575.56	\$252,832.90	8/17/2022
521MAS13	<u>E57A1 - SR600 N Alabama to Kepler</u>	\$716,015.14	\$0.00	\$716,015.14	\$61,927.05	\$654,088.09	1/19/2023
521MAS14	<u>E57A4 - SR442</u>	\$811,710.39	\$0.00	\$811,710.39	\$85,674.16	\$726,036.23	10/19/2022
520PSP10	<u>Orange Camp Road Widening</u>	\$309,112.30	\$0.00	\$309,112.30	\$308,019.04	\$1,093.26	8/1/2022
521SJC03	<u>US1 @ Shore Drive Signalization</u>	\$570,815.26	\$2,009.65	\$572,824.91	\$325,867.15	\$246,957.76	6/20/2022
521SJC04	<u>US-1 @ Lewis Point Road</u>	\$609,696.50	\$7,735.78	\$617,432.28	\$350,518.59	\$266,913.69	8/21/2022
521BTC02	<u>Cross Property - Avalon Rd & Lake Sta</u>	\$175,470.63	\$5,773.83	\$181,244.46	\$163,788.03	\$17,456.43	6/30/2022
521BTC03	<u>Storey Drive & Vanguard Street</u>	\$50,695.88	\$30,041.70	\$80,737.58	\$0.00	\$80,737.58	
520CCF01	<u>SR436 @ Casselton - Casselberry PO</u>	\$75,000.00	\$0.00	\$75,000.00	\$50,350.21	\$24,649.79	6/30/2022
522CSF01	<u>Sanford Loop PO - 038418</u>	\$30,000.00	\$0.00	\$30,000.00	\$4,370.70	\$25,629.30	9/30/2022
OC106838	<u>Clarcona-Ocoee Rd @ Ingram Road</u>	\$478,021.23	\$0.00	\$478,021.23	\$0.00	\$478,021.23	
OC106480	<u>Clarcona-Ocoee Rd @ Ingram Road Ex</u>	\$4,808.16	\$0.00	\$4,808.16	\$0.00	\$4,808.16	
521PLA01	<u>Amazon Melbourne Last Mile</u>	\$637,234.42	\$0.00	\$637,234.42	\$64,285.46	\$572,948.96	
SC44780	<u>17/92 @ 15th St. \$268K</u>	\$268,000.00	\$0.00	\$268,000.00	\$218,395.05	\$49,604.95	5/30/2022
SC44782	<u>17/92 @ 25th St \$282K</u>	\$282,000.00	\$0.00	\$282,000.00	\$214,862.33	\$67,137.67	5/30/2022
SC46624	<u>SR436 @ Casselton - Seminole Co. PO</u>	\$266,118.76	\$0.00	\$266,118.76	\$129,726.44	\$136,392.32	6/30/2022

SC48646	Airport Blvd & Placid Lake	\$92,457.00	\$0.00	\$92,457.00	\$70,745.25	\$21,711.75	5/30/2022
SC48790	Red Bug Lake Rd @ SR417 SB Off Ram	\$350,000.00	\$0.00	\$350,000.00	\$133,160.51	\$216,839.49	6/30/2022
522SCC01	E59A0 - SunRail VSLMF Noise Wall	\$253,137.50	\$0.00	\$253,137.50	\$50,313.75	\$202,823.75	
522VCT35	Clyde Morris @ Herbert Street	\$512,300.52	\$0.00	\$512,300.52	\$0.00	\$512,300.52	
522CAP01	Kelly Park Rd @ Jason Dwelley Rd	\$232,099.50	\$0.00	\$232,099.50	\$0.00	\$232,099.50	7/31/2022
522E52B4	E52B4 - SR500 (OBT) Holde Ave to 34t	\$8,745,313.16	\$0.00	\$8,745,313.16	\$395,065.87	\$8,350,247.29	5/24/2023
522HCC07	d Lake Rd Entrances - SR482 / Kirkmar	\$375,900.52	\$0.00	\$375,900.52	\$0.00	\$375,900.52	
522T5762	T5762 - SR436 @ SR552	\$2,950,211.81	\$0.00	\$2,950,211.81	\$0.00	\$2,950,211.81	
522WCC01	San Pablo Road Widening	\$1,601,289.96	\$0.00	\$1,601,289.96	\$0.00	\$1,601,289.96	
519MAS08	SR 46 T5642	\$2,285,586.47	\$123,733.02	\$2,409,319.49	\$2,148,662.97	\$260,656.52	6/1/2022
		\$113,173,223.31	-\$57,628.86	\$113,115,594.45	\$34,885,195.75	\$78,230,398.70	

Garnsey WTP Bid

Form 7.7-J

Project Reference #1

Project Name – Hood Road Wellfield Electrical

Owner – Seacoast Utility Authority

Owner Contact – Keith Haas khaas@sua.com

Engineer – Holtz Consulting Engineers

Engineer Contact – Curtis Robinson curtis.robinson@holtzconsulting.com

Prime General Contractor – Chinchor Electric, Inc.

G.C. Project Manager – Don Hasco dhasco@chinchorelectric.com 386-774-1020

Project Details: Install a 4160V loop around the wellfield. Install (2) 300KVA, (2) 150KVA, and (3) 75KVA medium voltage transformers. Installed over 5,000LF of concrete duct bank with concrete manholes. Installed Medium Voltage Cabling and performed MV Cable terminations. Install a new Dual 2,000amp 480V Main Switchboard, (2) 2000amp ATS's, (2) Parallel 500KW Owner Furnished Generators, Docking Station, 1600amp MTS Modifications, a new 1,600amp Distribution SWBD, and all associated electrical work. Scope also included concrete work and fuel piping for generators.

Electrical Project Value: \$1,861,164.00

Project Reference #2

Project Name – T5572

Owner – Florida Department of Transportation

Owner Contact – Michael "Glenn" Raney Michael.raney@dot.state.fl.us

Engineer/CEI – Mehta & Associates, Inc.

CEI Contact – Anu Shah ashah@mehtaeng.com 407-201-7165

Prime General Contractor – Chinchor Electric, Inc.

G.C. Project Manager – Bret Fudge bfudge@chinchorelectric.com 386-774-1020

Project Details: Installation of Highway Lighting and Signage of I-4 in Volusia and Seminole Counties. Highway Lighting was installed on six interchanges which included 446 conventional light pole assembly's, 27 high mast light pole assembly's with drill shafts, 51 over head sign replacements, 10 new load center service points, directional boring, and all associated electrical work.

Electrical Project Value: \$6,782,246.00

Project Reference #3

Project Name – OUC Stanton Energy Center – Coal Ash Storage Expansion

Owner – Orlando Utilities Commission (OUC) Doud, Charles W. (CDoud@ouc.com)

Engineer – Tetra Tech **Engineer Contact** – David Burger 407-855-3860

Prime General Contractor – Charah, LLC.

G.C. Project Manager – Lewis Crawford lcrawford@charah.com

Chinchor Electric Project Manager – Bret Fudge bfudge@chinchorelectric.com 386-774-1020

Project Details: Scope- Horizontal expansion of combustion waste storage area cell 2. Installed over 6,000' LF of concrete duct banks for 480V power and fiber optics. Installed 2 new electrical service racks for 3 phase 480V that fed 8 new control panels for the landfill sumps. Replaced 4 additional control panels at the CWSA pond. Installed aerial site lighting for oversized dump truck traffic. Raised an existing PLC 18" for the North and South Coal Pond. Pulled in over 10,000LF of fiber. Installed a temporary electrical service for a temporary guard shack.

Attended weekly progress meetings to ensure proper planning and meeting schedule deadlines.

Electrical Project Value: \$1,593,950.48

Project Reference #4

Project Name – Jerry Sellers WRF MCC & Conduit Replacement

Owner – City of Cocoa

Engineer – CDM Smith

Engineer Contact – Spencer Perry perrysj@cdmsmith.com

Prime General Contractor – Chinchor Electric, Inc.

G.C. Project Manager – Don Hasco dhasco@chinchorelectric.com 386-774-1020

Project Details: Plant Wide Electrical Upgrades. New Main Switchboard, six (6) new MCC's, new 480V panelboard, VFD's and motor starters. Concrete encased duct banks with manholes all around plant, new in-ground concrete pull boxes, new conduit work in existing building, main electrical building structural modification, new A/C unit. All 480V loads in plant received new wiring and MCC's. All work completed with no interruption to an active WWTP.

Electrical Project Value: \$2,257,872.26

Project Reference #5

Project Name – T2716

Owner – Florida Department of Transportation

Owner Contact – Donald Devenny Donald.devenny@dot.state.fl.us

Engineer/CEI – GAI Consultants

CEI Contact – Kevin Lairsey k.lairsey@gaiconsultants.com 904-559-8108

Prime General Contractor – Chinchor Electric, Inc.

G.C. Project Manager – David Morris dmorris@chinchorelectric.com 386-774-1020

Project Details: Installation of Highway Lighting and Signage on SR16 in St. Johns County. Highway Lighting was installed over 12 miles of roadway which included 423 conventional light pole assembly's with both precast bases and spread footers, replacement of high mast lighting fixtures, under deck lighting, 7 new load center service points, directional boring, concrete sidewalk removal and replacement, single post signs, striping, and all associated electrical work.
Electrical Project Value: \$4,919,571.12

Project Reference #6

Project Name – CC-2037-18 Lift Station Generators Phase 1

Owner – Seminole County Florida

Owners Contact – Mike Boggs 407-665-2026 mboggs@seminolecounty.fl.gov

Engineer – N/A **Engineer Contact** – N/A

Prime Contractor – Chinchor Electric, Inc.

Chinchor Project Manager – David Morris 386-774-1020 dmorris@chinchorelectric.com

Project Details: Install thirteen (13) generators, ATS's, concrete pads, control panel modifications and all associated electrical work on active lift stations throughout the County.

Contract Amount: \$1,230,870.00 before O.D.P. (Owner Direct Purchase)

Substantial Completion Date: 11/7/2019

Project Reference #7

Project Name – Contract No. 1573 - Volusia County Branch Jail & Volusia County Correction Facility Emergency Generators

Owner – Volusia County, FL

Owner Contact – Mike Paris mparis@volusia.org 386-566-3029

Engineer – AZ Power Systems Engineering and Consulting, LLC

Engineer Contact – Alexander E. Zvonaryov azpowersystems@yahoo.com 407-694-1781

Prime Contractor – Chinchor Electric, Inc.

Chinchor Project Manager – Bret Fudge bfudge@chinchorelectric.com 386-774-1020

Project Details: Removal of existing 750KW generator at the one jail and install it at the other jail. Furnish and installation of a 1.5MW generator, ATS's, Bus Duct, fuel tank, fuel piping, concrete pads and all associated electrical work on an active County Jail.

Contract Amount: \$1,440,612.00 before O.D.P. (Owner Direct Purchase)

Substantial Completion Date: 11/28/17

EQUIPMENT

UPDATED 5/9/2022

Equipment #	Equipment	Serial Number/VIN	Model Number	MISC/Plate Number
1	98798 Case Backhoe/ Loader	240242	5801 SERIES 2	Backhoe
2	913707 Vermeer Trencher	1VRX0721971001374	RT450	
	Backhoe	1VRZ060E471000531	B450	
	Trencher Blade	1VRX080V2711000854	S0450	
3	911694 Sellick Forklift (large)	2225410832	SD-80	
4	914811 2011 CAT 259B Multi Terrain Loader	CAT0259BAVYZ01951	259B3	Skid Steer
5	914711 2011 CAT 305B CR Excavator	CAT0305DHXER01071	305DCR	Excavator
6	10275 Terex RL4 Light Tower	4ZJSA1416D1005683	RL413-5683	CCAG88
7	10276 Terex RL4 Light Tower	4ZJSL141XD1004577	RL413-4577	BC80RB
8	10277 SULLAIR 185D Air Compressor	201205260012	185D	BZKE92
9	916907 CAT 420E Backhoe/ Loader	1HTWJAAT8BJ360820	HSL07381	Backhoe
10	917014 2014 CAT 302.7DCR	LJ700203	302.7DCR	
11	10281 2005 Kubota L3901HST	54129	L3901HST	Tractor
	Loader	Q4133	LA525	Attachment
	Backhoe	B0266	BH77	Attachment
	Land Pride 60" Claw Grapple	1307260	SGC1060	Attachment
	60" Box Blade	58315F	1932374	Attachment
12	10282 2012 CAT TL943C Telehandler	THH00385	TL943C	
	TL943C Hook	1898		Attachment
13	10284 Plate Compactor	MVC88VTH / T2A8596	Honda	
14	10285 Multi Quip Plate Compactor	A7487	MVH-150VGH	
15	10287 2016 CAT 305.5ECR	CR502011	305.5ECR	Excavator
16	10288 2015 CAT 303ECR	HHM01501	303ECR	Excavator
	Bucket	A4168BK30589		Attachment
	Bucket	A4167BK30868		Attachment
17	10289 2015 CAT 302.7DCR	CAT3027DTLJ700551	302.7DCR	Excavator
18	10290 Kawasaki Mule Pro DX 4X4	JKAAFCE10GB500531	Mule DX 4X4	UTV
19	10291 Kawasaki Mule Pro DX 4X4	JKAAFCE18GB500468	Mule DX 4X4	UTV
20	10292 2017 CAT 289D	TAW06763	CAT 289D	Skid Steer Enclosed
21	10293 2012 CAT TL943C Telehandler	THH00405	TL943C	Telehandler
22	10295 2015 Sullair 185D Air Compressor	201509020047	185D	IMDA71
23	10296 Sullair 185D Air Compressor	201508190012	185D	IMDA72
24	10297 TL Hook	000R04192	TL Hook	Attachment
25	10298 2017 Mitsubishi Forklift	AF17E03825	FG25N5	Forklift
26	10299 2017 Mitsubishi Forklift	AF17E03819	FG25N5	Forklift
27	10300 2015 CAT TL943C Telehandler	THH01559	TL943C	Telehandler
28	10301 2016 CAT 308E2CRSB	FJX05022	308E2CRSB	Excavator
29	10303 2018 CAT 289D	TAW10004	289D	Skid Steer
30	10304 Arrow Board	7128340	Old Model	No Tag
31	10306 2016 CAT Breaker	X9F00877	H95E	Attachment
32	10307 2017 CAT Mulcher	PS500343	HM315C	Attachment
33	10308 2018 Genie Scissor Lift	176096	GS1930	Scissor Lift
34	10309 2018 Genie Scissor Lift	176108	GS1930	Scissor Lift
35	10310 2019 CAT 304E2 24' Bucket	CAT0304EKM0405958 A4191BK30931	304E2CR 464-9904	Excavator Attachment
36	10311 2019 CAT 304E2 24' Bucket	CAT0304ETME406041 A4191BK30993	304E2CR 464-9904	Excavator Attachment
37	10312 2019 CAT Thumb 305D	A4199TH20314	523-8648	305 Attachment
38	10313 2020 CAT TH255C Telehandler	JK204482	TH255C	Telehandler
	2019 JLG Forks	1001104009/ 331-3251	201934704	Attachment
	2014 Bucket	207-5154-01	CH-02-2014-17	Attachment
39	10314 Mitsubishi 36V Electric Pallet Jack	8280123	ESR23N2	
40	10315 CAT 289D3 80" Bucket	CAT0289DKJX904535 A4208BK21317	289D3 279-5376	Skid Steer Attachment
	Pallet Forks	65SSFP076369	351-9371	Attachment
41	10316 BA118C Hydraulic Sweeper	BX804032	448-5670	High Flow Attachment
42	10317 Mitsubishi 36V Electric Pallet Jack	82827035	ESR23N2	
43	10318 2020 Multi Quip Power Buggy	1L0907	WBH-16EF	Family: LMLTPNEQMLA
44	10319 2018 CAT TL943C Telehandler	0MLJ00716	TL943D	

EQUIPMENT

UPDATED 5/9/2022

		TL Lifting Hook	100902	R05667	Attachment
45	10320	2020 CSC 40' High Cube Container	CPLU4966957		40' Storage Conex
46	10321	40' High Cube Container	TRLU4515913		40' Storage Conex
47	10322	CAT 289D3	CAT0289DHJX907573	289D3	Skid Steer
		80" Bucket	A4219BK20568	279-5376	Attachment
		Pallet Forks	A4218CC20342	351-9371	Attachment
48	10323	500G Fuel Tank			500G Double Wall Tank
49	10324	2018 CAT TL1055D	ML501257	TL1055D	10K # Telehandler
		Forks	None	None	Attachment
		TL Lifting Hook	2416	169-6460	Attachment
50	10325	2022 CAT 289D3 Canopy	JX908549	289D3	SkidSteer
		80" Bucket	A4218BK22465	279-5372	Attachment
		Pallet Forks	A421BCC20622	351-9371	Attachment
51	10326	2022 CAT 306CR Excavator	6G604832	306CR	Excavator
		24" Bucket			Attachment
52	10327	Kubota Tractor MX5400 DTC	KBUL3BDCCL8M17992	MX5400 DTC	Tractor
		Loader	B4224	LA1065A	Attachment
		72" Bucket	I4979	L2235A	Attachment
		Land Pride 6ft Bush Hog	826-384C 03095	2072	Attachment
		Tarter 6ft Tiller	55167	TILLER	Attachment
		48" Pallet Forks	PF-46C	PF463548	Attachment
		Land Pride Quick Hitch	QH15	1871857	Attachment
53	10328	2022 CAT 303	CAT00303CMY300661	303CR	Excavator
		16" Bucket	A4219BK30588	464-9902	Attachment
54	10329	Gray WPLS-190	958-007767	WPLS-190	19,000 LB Lift
55	10330	Gray WPLS-190	958-007779	WPLS-190	19,000 LB Lift
56	10331	Gray WPLS-190	958-007774	WPLS-190	19,000 LB Lift
57	10332	Gray WPLS-190	958-007782	WPLS-190	19,000 LB Lift
58	10333	Gray WPLS-190	958-007911	WPLS-190	19,000 LB Lift
59	10334	Gray WPLS-190	958-007916	WPLS-190	19,000 LB Lift

TRAILERS

UPDATED 5/9/2022

Trailer #	YEAR	MANUFACTURER	V.I.N.	COLOR	MODEL	AXLES	EQUIPMENT
1	40286	1997 PACE	4FPFB1215VG020173	WHITE	F6125A	1	16' Enclosed Trailer
2	40289	1992 A.O.K. FLAT 470	A0K061	WHITE	10 STEEL FLAT/WIRE	1	Double Wire Racks
3	40293	1989 WELLS CARGO	1WC200G28K3017417	WHITE	18'	2	Enclosed Trailer
4	40294	1994 PACE	4FPAB2024RG003297	WHITE	2085	2	20' Enclosed Trailer
5	40298	1992 TRAIL EZE	1DA72C764NM018597	BLACK	RS35H48	2	34T Lowboy
6	40207	2007 COVENT	5RMBE16237D010060	WHITE	ENCLOSED	2	
7	40300	2000 ANDERSON	4YNBN27212C010978	BLACK	12T LOWBOY	2	Flat Deck Trailer
8	40301	2001 ASPT	FLT4016PP	BLACK	DROPGATE	1	Tool Box
9	40404	2004 PACE SETTER 760	46UFU162341093567	BLACK	RAMPS	2	Ramps
10	40306	2007 IMPERIAL	1Z9DT16247J213069	BLACK	D 7167T24	2	Dump Trailer
11	40307	2007 IMPERIAL	1Z9GN35247J213299	BLACK	30+ 5 GOOSE NECK	2	Ramps
12	40308	2008 IMPERIAL	1Z9DT16288S213944	BLACK	DUMP	2	7 x 16 Dump Trailer
13	40408	2008 IMPERIAL FLAT	1Z9BU17218J213079	BLACK	TILT DECK	2	
14	40503	2003 HDME	NOVIN0200300999	BLACK	WIRE SPOOL	2	Single Reel Trailer
15	40912	2012 VAC- TRON	5HZBF1921CLAC1225	YELLOW	VT-19 LP85SDT 121077	2	Vacuum Trailer
16	41012	2012 AMERICAN MADE PRODUCTS	1A9EE1613CD853717	BLACK	6 x 12 AMP	1	Utility Trailer
17	41112	2012 BIG TEX	16VCX2025C2339503	BLACK	14TL-20BK	2	Tilt Deck
18	42013	2013 BIG TEX	16VGX3528D2658931	BLACK	22GN-35BK+5	2	40' Gooseneck Trailer
19	42014	2014 CUSTOM HEAVY HAUL	1L9PU1013EG423486	YELLOW	RTH-60	1	Single Reel Trailer
20	42114	2014 BIG TEX	16VCX222XE2047958	BLACK	14TL-22BK	2	Tilt Deck
21	43015	2006 EMES	1E9VL10196L252767	BLACK	10' Trailer		
22	43115	2015 BIG TEX	16VCX2023F2027975	BLACK	14TL-20BK	2	Tilt Deck
23	44016	2016 LARK	5RTBE1620GD050343	WHITE	716TA	2	Enclosed Trailer
24	44116	2016 LARK	5RTBE1625GD049737	WHITE	7 x 16 Enclosed	2	Enclosed Trailer
25	44216	2016 BIG TEX	16VGX2027G6099712	BLACK	22GN-20BK+5	2	20' Gooseneck Trailer
26	44316	2016 BIG TEX	16VDX1624G5078827	BLACK	14LX-16BK P4	2	16' High Dump Trailer
27	44617	2017 BIG TEX	16VGX2824H6050120	BLACK	22GN-28BK+5MR	2	28' Gooseneck
28	44717	2017 BIG TEX	16VAX1216H3064554	BLACK	35SA-12BK4RG	2	Utility Trailer
29	44817	2017 BIG TEX	16VFX2023H2066663	BLACK	140A-20BK-8SIR	2	Flat Deck Trailer
30	44818	2018 BIG TEX	16VFX2020J2089985	BLACK	140A-20BK-8SIR	2	Flat Deck Trailer
31	44918	2018 BIG TEX	16VDX1421J5010172	BLACK	14LX-14	2	14' Dump Trailer
32	45106	2006 TRAIL KING	1TKA048206M124118	BLACK	TK70HT-482	2	48' Lowboy
33	45217	2017 BIG TEX	16VGX3027H6069245	BLACK	22GN-30BK+5MR	2	30' Gooseneck
34	45218	2019 VER- MAC	1V9US1118JH223222	ORANGE	ST-4815	1	Arrow Board
35	45219	2019 VER- MAC	1V9US1119JH223228	ORANGE	ST-4815	1	Arrow Board
36	45220	2019 CARRY-ON UTILITY	4YMBU0812KG015262	BLACK	5 x 8 UTILITY	1	Utility Trailer
37	45221	2018 ATLAS COPCO	4500A1012JR058075	YELLOW	XAS 185 CD7	1	Air Compressor
38	45222	2018 ATLAS COPCO	4500A1010JR058088	YELLOW	XAS 185 CD7	1	Air Compressor
39	45223	2020 BIG TEX	16VDX1228L5068379	BLACK	10SR-12XL BK7SIR	2	Dump Trailer
40	45224	2020 BIG TEX	16VID1621L5086566	BLACK	10SR-12XL BK7SIR	2	Dump Trailer
41	45226	2021 ANVIL	7FYBE2023MD016249	WHITE	AT85X20TA3	2	8.5 x 20 Enclosed
42	45227	2021 ARISING	5YBE2428MH000039	WHITE	8.24VTRW	2	8.5 x 24 Enclosed
43	45228	2021 ARISING	5YCBF1625MH0002516	WHITE	716VTRW	2	7 x 16 Enclosed
44	45229	2021 BIG TEX	16V3F4127M6097949	BLACK	22GN-28BK+5MR	2	28' Gooseneck
45	45230	2021 CALIBER	57BED8204M1052251	BLACK	FC102-20T7-BE	2	Triple Reel Trailer
46	45231	2021 HMDE	NOVIN0201328590	GREY	SINGLE REEL TRAILER	1	Single Reel Trailer
47	45232	2021 MULTIQUEIP	3AUBC121XMM02060599	YELLOW	C30HDGAWR	1	Concrete Pump Trailer
48	45233	2021 ALLMAND	5AEA1AA19MH003807	YELLOW	PRO II / SN 08-004649	1	VERTICAL LIGHT TOWER
49	45234	2021 ALLMAND	5AEA1AA17MH003806	YELLOW	PRO II / SN 08-044648	1	VERTICAL LIGHT TOWER
50	45235	2021 PJ	4P5T62225M1363096	BLACK	T6	2	22' Tilt Trailer
51	45236	2022 BIG TEX	16VID192XN5112547	BLACK	14LP-14BK-6SIR	2	14' Dump Trailer
52	45237	2022 BIG TEX	16VID1922N5112557	BLACK	14LP-14BK-6SIR	2	14' Dump Trailer
53	45238	2021 WANCO	5F11S1015M1004928	ORANGE	WTSP	1	Arrow Board
54	45239	2021 WANCO	5F11S1013M1005298	ORANGE	WTSP	1	Arrow Board
55	45240	2021 WANCO	5F11S101XM1004925	ORANGE	WTSP	1	Arrow Board
56	45241	2022 BIG TEX	16V1F2628N2126324	BLACK	140A-20BK-8SIR	2	Triple Reel Trailer
57	45242	2017 BIG TEX	16VDX1424H5030300	BLACK	14LX-14BK7SIRPD	2	Dump Trailer
58	45243	2022 J & C Suppliers	1J9BE0726ND498257	WHITE	7X16TA	2	Enclosed trailer
59	45244	2017 AMERICAN MADE PRODUCTS	1A9EE1612HD853327	BLACK	6 X 12 SA	1	Utility Trailer
60	45245	2022 LEGEND TRAILERS	59VBP2529NE001271	GREY	FP102-25T10-LP/MPD	2	25' Flatbed w/dovetail
61	45246	2022 SGAC	54GVC12D7N7055318	BLACK	SG612SA	1	6'x12' Single Axle Enclosed
62	45247	KAUFMAN		BLACK	FH-15K-35D	2	30'+5' Gooseneck
63	45248	KAUFMAN		BLACK	FH-15K-35D	2	30'+5' Gooseneck
64	45249	2022 LOAD TRAIL LLC	4ZECHE2227N1268248	BLACK	EO83-22T8-KR	2	22' x 7' Equipment Trailer
65	45250	2022 VIKING	1V9CR5331N062250	BLACK	40 TON LOWBOY	3	53' Skidder Lowboy
66	45251	2022 VIKING	1V9CR4626N062249	BLACK	35 TON LOWBOY	2	46' Skidder Lowboy

VEHICLES

UPDATED 5/9/2022

	Vehicle #	Fuel Type	Fuel	YEAR	MAKE	V.I.N.	COLOR	MODEL	AXLES	Operator	EQUIPMENT
			Capacity (Gal)								TYPE
1	98202	Diesel	50	2002	STERLING	2FZHANAK32AJ70540	WHITE	8500	3	General	Digger Derrick
2	99002	Diesel	50	2002	FORD	3FDNF65482MA06661	WHITE	F650	2		Dump Truck
3	99101	Diesel	50	2001	FORD	3FDNF65551MA86220	WHITE	F650	2		Small Dump
4	914494	Gas	20	1994	FORD	1FTEF14YXRNB32659	GREEN	F150	2	Tim Chinchor Jr.	Pick up
5	914912	Diesel	40	2012	FORD	1FD0W5HT7CEB31553	WHITE	F550	2	Electrical Floater Flatbed	Traffic
6	915112	Gas	36	2012	FORD	1FTVX1CF0CKD53113	WHITE	F150	2	Ron Burge	Pick up
7	915412	Gas	36	2012	FORD	1FTNF1CF3CKE02145	WHITE	F150	2	Richard Mann	Pick up
8	915613	Diesel	40	2012	DODGE	3C7WDNAL5CG296544	WHITE	3500	2	Gary K. 2nd Bucket	Bucket Truck
9	915713	Diesel	40	2013	FORD	1FD0W5HT0DEA47141	WHITE	F550	2	SOLD	Flat Bed
10	915813	Diesel	40	2013	FORD	1FD8W3HT8DEA81402	WHITE	F350	2	SOLD	FOR SALE
11	916213	Gas	36	2013	FORD	1FTFW1ET4DFA11359	WHITE	F150	2	April Johnson	Pick up
12	916514	Diesel	75	2014	KENWORTH	2NKLHJ9X8EM404821	WHITE	PACCAR	3	Spiradrill	LHD- 40 SM
13	916710	Diesel	75	2010	INTERNATIONAL	1HTWJAAT8BJ360820	WHITE	7400	3	Admiral	Digger Derrick
14	916814	Diesel	40	2014	DODGE	3C7WRNAL9EG156825	WHITE	5500	2	Signal Floater Bucket	Bucket Truck
15	917315	Gas	36	2015	FORD	1FT7W2B63FEC31044	BLACK	F250	2	Bryan Noske	Pick up
16	917415	Diesel	40	2015	FORD	1FD0W4HT5FED00080	WHITE	F450	2	Jesse Agosto	Flat Bed
17	917515	Diesel	40	2015	FORD	1FD0W5HT0FED11591	WHITE	F550	2	Carlo L.	Service Body
18	917616	Diesel	50	2016	FORD	1FT7W2BT4GEA96194	WHITE	F250	2	Billy Chinchor	Pick up
19	917716	Diesel	40	2016	FORD	1FT7W2BT8GEA09560	WHITE	F250	2	Adam Blocker	Pick up
20	917816	Diesel	40	2016	DODGE	3C7WRNFL2GG113617	WHITE	5500	2	David Oliva	TRAFFIC
21	917916	Diesel	40	2016	DODGE	3C7WRSL3GG119574	WHITE	3500	2	Electrical Utility Floater	ELECTRICAL
22	918016	Diesel	40	2016	DODGE	3C7WRTCL3GG112761	WHITE	3500 4X4	2	Electrical Utility Floater	ELECTRICAL

VEHICLES

UPDATED 5/9/2022

23	918112	Diesel	40	2012	DODGE	3C7WDNEL7CG205011	WHITE	5500	2	Signal Floater Bucket	Bucket Truck
24	918314	Diesel	75	2014	CAT	3HTJGTKT4EN789098	WHITE	CT660S	3		Dump Truck
25	918412	Diesel	40	2012	DODGE	3C7WDNBL0CG296613	WHITE	5500	2	Auto Shop Floater	Fleet Service Truck
26	918512	Diesel	40	2012	DODGE	3C7WDNBL5CG181179	WHITE	5500	2	Electrical Auto Crane	Stellar Crane
27	918612	Diesel	40	2012	DODGE	3C7WDNBL9CG296609	WHITE	5500	2	Signal Floater	Stellar Crane
28	918713	Diesel	150	2013	MACK	1M1AN07Y5DM011785	WHITE	CHU613	3		Manual Tractor
29	918816	Gas	20	2016	FORD	3FA6P0G77GR338312	BLACK	FUSION	2	Office Floater Car	
30	919016	Gas	36	2016	FORD	1FTEW1EF8GKF15575	WHITE	F150	2	Mike Thomas	Pick up
31	919116	Gas	36	2016	FORD	1FTEW1EFXGKF15576	WHITE	F150	2	Craig Monroe	Pick up
32	919215	Diesel	40	2015	DODGE	3C7WRNALXFG588938	WHITE	5500	2	Fletcher Bell	Bucket Truck
33	919315	Diesel	40	2015	DODGE	3C7WRNAL8FG588937	WHITE	5500	2	Lizandro Rodriguez	Bucket Truck
34	919415	Diesel	75	2016	FREIGHTLINER	1FVKCYCY6GHGT5940	WHITE	M2 106	3	Lieutenant	Digger Derrick
35	919517	Diesel	40	2017	DODGE	3C7WRNFLXHG636658	WHITE	5500	2	Chris Arnold	Flat Bed
36	919617	Diesel	40	2017	DODGE	3C7WRNFL2HG636654	WHITE	5500	2	Electrical Floater Flatbed	Flat Bed
37	919717	Diesel	40	2017	DODGE	3C7WRTCL6HG500746	WHITE	3500	2	Mike Elias	Flat Bed
38	919817	Diesel	40	2017	DODGE	3C7WRNFL8HG636657	WHITE	5500	2	Paul Mosler / Concrete Pump Flatbed	Flat Bed
39	919917	Gas	36	2017	FORD	1FTEW1EG3HFB86481	WHITE	F150	2	Chris Massalone	Pick up
40	920085	Gas	30	1985	AMER/JEEP	1JCNJ15N6FT041994	BURGANDY	WAGONEER	2	Tim Chinchor Sr.	Personal
41	920117	Diesel	75	2017	FREIGHTLINER	1FVKCYCY8HHHV8446	WHITE	M2 106	3	Sergeant	Digger Derrick
42	920216	Diesel	40	2016	FORD	1FD0W5HT6GED15520	WHITE	F550	2	Floater Flatbed	Flat Bed
43	920316	Diesel	40	2016	FORD	1FD0W5HT3GED29942	WHITE	F550	2	Electrical Floater Flatbed	Flat Bed
44	920417	Diesel	40	2017	FORD	1FD0W5HT2HEC16887	WHITE	F550	2	Josh Smith	Flat Bed
45	920418	Diesel	75	2018	FREIGHTLINER	1FVKCYFE6JHJS2497	WHITE	M2 106	3	Elliott	D115R

VEHICLES

UPDATED 5/9/2022

46	920515	Diesel	40	2015	DODGE	3C7WRNAL6FG588936	WHITE	5500	2	Charles Creech	Bucket Truck
47	920615	Diesel	40	2015	DODGE	3C7WRNAL3FG607197	WHITE	5500	2	Hunter Smith	Bucket Truck
48	920717	Diesel	40	2017	FORD	1FT7W2BT6HEE79295	GRAY	F250	2	Brian Silva	Pick up
49	920813	Diesel	150	2013	MACK	1M1AN07Y8DM012154	WHITE	CHU613	3		Automatic Tractor
50	920915	Diesel	40	2015	DODGE	3C7WRNAL4FG706286	WHITE	5500	2	Victor Garcia	Bucket Truck
51	921071	Diesel		1971	GENERAL	04L08771052523117	OD GREEN	DUECE	2	Tim Chinchor Sr.	DIV 3
52	921116	Diesel	40	2015	DODGE	3C7WRNBL4FG559059	WHITE	5500	2	Gary Kongmany	Bucket Truck
53	921315	Diesel	50	2016	FREIGHTLINER	1FVKCYCYXGHGT5939	WHITE	M2 106	3	Major	Digger Derrick
54	921419	Diesel	40	2019	FORD	1FD0W4HT7KEC15381	WHITE	F450	2	Mike Johnston Sr	Service Body
55	921519	Diesel	40	2019	FORD	1FD0W4HT4KEC47141	WHITE	F450	2	Sean Gilbert	Flat Bed
56	921619	Diesel	40	2019	FORD	1FD0W5HT9KED02964	WHITE	F550	2	Clayton Almstead	
57	921817	Gas	26	2017	FORD	1FTEW1CP2HFC06156	WHITE	F150	2	Daniel Mauldin	Pick up
58	921917	Gas	26	2017	FORD	1FTEW1CP4HFC06157	WHITE	F150	2	Office Floater 4 door	Pick up
59	922018	Diesel	26	2018	FORD	1FTFW1E1XJFD73108	WHITE	F150	2	Dan Chinchor	Personal
60	922114	Gas	18	2014	FORD	1FM5K7D83EGB22936	SILVER	EXPLORER XL	2	Ronald Younger	Safety Vehicle
61	922219	Gas	18	2019	LINCOLN	2LMPJ6L98KBL28275	WHITE	NAUTILUS	2	Christine Chinchor	Personal
62	922318	Gas	18	2018	JEEP	1C4HJWDG5JL927702	WHITE	JK Unlimited	2	Tim Chinchor Sr.	Personal
63	922419	Diesel	55	2019	FORD	1FT7W2BT8KEE96008	WHITE	F250	2	Tim Chinchor Jr.	Personal
64	922519	Gas	26	2019	FORD	1FTEW1E4XKFC16752	WHITE	F150	2	Mariah Anselmo	Personal
65	922618	Diesel	70	2018	FREIGHTLINER	3ALHG5FE4JDJK3098	WHITE	108 SD	3	5,000 Gallon	Water Tank
66	922769	RACE 110	20	1969	GMC	CE1OD-BA12129	WHITE	Custom	2	FMP	Pick up
67	922816	Gas	26	2016	FORD	1FTMF1C85GFC12956	WHITE	F150	2	Office Floater	Pick up
68	922915	Gas	26	2015	FORD	1FTEX1CPXFFB57573	WHITE	F150	2	Daniel Lucas	Pick up
69	923019	Diesel	40	2019	FORD	1FD0W5HT3KEF20981	WHITE	F550	2	David Valdes	Service Body

VEHICLES

UPDATED 5/9/2022

70	923119	Diesel	40	2019	FORD	1FD0W5HT5KEF20982	WHITE	F550	2	Spencer Taylor	Service Body
70	923219	Diesel	40	2019	FORD	1FD0W5HT7KEC46328	WHITE	F550	2	Ty Squire	Flat Bed
72	923319	Diesel	40	2019	FORD	1FD0W5HT2KEC14404	WHITE	F550	2	Shane Crowley	Flat Bed
73	923417	Diesel	40	2017	FORD	1FD0W5HT6HEC82276	WHITE	F550	2	Billy Chinchor	Flat Bed
74	923518	Diesel	40	2018	FORD	1FD8W3HT8JEB30965	WHITE	F350	2	Chris Bennett	Flat Bed
75	923618	Diesel	40	2018	FORD	1FD8W3HT7JEB30973	WHITE	F350	2	Signal Floater Flatbed #2	Flat Bed
76	923819	Diesel	40	2019	FORD	1FD0W5HT1KEF79513	WHITE	F550	2	Alex Mejia	Bucket Truck
77	923919	Diesel	50	2019	FREIGHTLINER	1FVDCXFC4KHKP9481	WHITE	M2 106	2	TC55	Bucket Truck
78	924003	Gas	19	2003	JEEP	1J4FA39S43P312941	GREEN	TJ Wrangler	2	Tim Chinchor Jr	Personal
79	924116	Diesel	50	2016	FREIGHTLINER	1FVKCYCYXGHT5942	WHITE	M2 106	3	Captain	Digger Derrick
80	924219	Gas	26	2019	FORD	1FTFW1E57KFB37696	WHITE	F150	2	Rick Stock	Pick up
81	924319	Diesel	40	2019	FORD	1FD0W5HT8KEG57611	WHITE	F550	2	Alex Roseborough	Service Body
82	924419	Diesel	40	2019	FORD	1FD0W5HT1KEG57627	WHITE	F550	2	Justin Evans	Service Body
83	924520	Gas	27	2020	FORD	1FTEW1EP3LFA34614	WHITE	F150	2	Brandon Miller	Pick up
84	924620	Diesel	34	2020	FORD	1FT8W2BT8LED45756	WHITE	F250	2	Don Hasco	Pick up
85	924720	Diesel	34	2020	FORD	1FT8W2BT5LEC59613	WHITE	F250	2	Bret Fudge	Pick up
86	924820	Diesel	48	2020	FORD	1FT8W3BT2LEC16966	BLACK	F350	2	Tim Chinchor Sr.	Pick up
87	924920	Diesel	34	2020	FORD	1FT7W2BTXLED19400	WHITE	F250	2	Jeff Soltis	Pick up
88	925018	Diesel	40	2018	FORD	1FD0W5HT2JEC62824	WHITE	F550	2	Electrical Div Bucket #1	Bucket Truck
89	925119	Diesel	40	2019	FORD	1FD8W3HT2KED42407	WHITE	F350	2	Gregg Nutt	Service Body
90	925219	Diesel	40	2019	FORD	1FD0W5HT1KEF61514	WHITE	F550	2	Chris Gage	Service Body
91	925319	Diesel	40	2019	FORD	1FD0W5HT8KEG57625	WHITE	F550	2	Livan Hernandez	Service Body
92	925419	Diesel	40	2019	FORD	1FD0W5HTXKEG57626	WHITE	F550	2	Mark Fischer	Service Body
93	925520	Diesel	40	2020	FORD	1FD0W4HT5LED42423	WHITE	F450	2	Fernando Beltran	Service Body
94	925619	Diesel	40	2019	FORD	1FDUF5HT3KEG12917	WHITE	F550	2	Ronald Marsden	IMT Crane

VEHICLES

UPDATED 5/9/2022

95	925719	Diesel	40	2019	FORD	1FD0W5HT2KEG49066	WHITE	F550	2	Eric Abbott	Bucket Truck
96	925819	Diesel	40	2019	FORD	1FD0W5HT8KEG49072	WHITE	F550	2	Logan Schaffer	Bucket Truck
97	925920	Diesel	40	2020	FORD	1FT7W2BT7LEE66385	WHITE	F250	2	Kevin Brand	Pick up
98	926020	Diesel	40	2020	FORD	1FD0W5HT2LEE46678	WHITE	F550	2	Christian Vickers	Bucket Truck
99	926121	Diesel	40	2021	FORD	1FD0W5HT8MEC12546	WHITE	F550	2	Kevin Brand Jr	Flat Bed
100	926220	Diesel	40	2020	FORD	1FD0W5HTXLEE46685	WHITE	F550	2	Peyton Henley	Bucket Truck
101	926320	Diesel	40	2020	FORD	1FD0W5HT5LEE46691	WHITE	F550	2	Dillon Marie	Bucket Truck
102	926420	Diesel	40	2020	FORD	1FD0W5HT2LEE46695	WHITE	F550	2	Jarrett Stadler	Bucket Truck
103	926520	Diesel	50	2020	FREIGHTLINER	1FVDCXFE8LHKJ6211	WHITE	M2 106	2	TL60 Bucket Truck	Bucket Truck
104	926620	Diesel	40	2020	FORD	1FD0X5HT2LEE49593	WHITE	F550	2	Ryan Allen	Fleet Service Truck
105	926721	Diesel	80	2021	INTERNATIONAL	3HAEGTAT6ML856080	WHITE	HV 507	3		Flatbed Slurry Tanker
106	926821	Diesel	110	2021	KENWORTH	1NKZX4EX2MJ442986	BLUE	T880	3		Tri Axle Dump
107	926921	Gas	36	2021	FORD	1FTEW1C8XMFB29491	WHITE	F150	2	Sarah Chinchor	Pick up
108	927021	Gas	36	2021	FORD	1FTFW1E8XMKE03703	WHITE	F150	2	Dave Morris	Pick up
109	927121	Diesel	40	2021	FORD	1FD0W5HT3MEC75201	WHITE	F550	2	Richard Freeman	Flat bed
110	927221	Diesel	40	2021	FORD	1FD0W5HT5MEC75202	WHITE	F550	2	Cory Zarch	Flat bed
111	927318	Gas	36	2018	FORD	1FTEW1EG3JKC07164	WHITE	F150	2	Randy Ossowski	Pick up
112	927421	Diesel	40	2021	FORD	1FD0W5HT1MEC75200	WHITE	F550	2	Jon Menegay	Flat bed
113	927521	Diesel	40	2021	FORD	1FD0W5HT0MED60321	WHITE	F550	2	Randy States	Flat bed
114	927618	Diesel	40	2018	FORD	1FDUF5HT0JEC28866	WHITE	F550	2	Hunter Dewoehrel	Bucket Truck
115	927721	Gas	18	2021	CHEVROLET	1G1YC2D45M5113849	BLUE	PTT	2	Tim Chinchor Sr.	PTT
116	927818	Diesel	40	2018	FORD	1FD0W5HT4JEC62825	WHITE	F550	2	Electrical Div Bucket #2	Bucket Truck
117	927915	Gas	27	2015	LAND ROVER	SALGS2VF7FA226680	WHITE	Range Rover	2	Kathryn Quintana	Personal
118	928021	Diesel	34	2021	FORD	1FT7W2BT2MED86638	WHITE	F250	2	Austin Degaetani	Pick up
119	928120	Diesel	50	2020	FREIGHTLINER	1FVKCYFE8LHKV3949	WHITE	M2 106	3	Master Gunnery	General 65 Derrick Digger
120	928221	Diesel	40	2021	FORD	1FD0W5HT7MED95793	WHITE	F550	2	Dalton Mathis	Flat bed
121	928321	Diesel	40	2021	FORD	1FD0W5HT1MED95790	WHITE	F550	2	David Mitchell	Flat bed
122	928421	Diesel	40	2021	FORD	1FD0W5HT4MED95783	WHITE	F550	2	Jason Simoneaux	Flat bed

VEHICLES

UPDATED 5/9/2022

123	928521	Diesel	40	2021	FORD	1FD0W5HT3MED95791	WHITE	F550	2	Luis Santos	Flat bed
124	928621	Diesel	40	2021	FORD	1FD0W5HTXMED95786	WHITE	F550	2	Josh Richardson	Flat bed
125	928721	Diesel	40	2021	FORD	1FD0W5HT3MED95792	WHITE	F550	2	Kenny Otero	Flat bed
126	928821	Diesel	110	2021	PETERBILT	1NPCXPEXXMD713471	WHITE	567	4	Spiradrill	MHD-XL50
127	928922	Diesel	50	2022	FREIGHTLINER	3ALKCYFE2NDNA4162	WHITE	M2106	3	Corporal	General 65 Digger Derrick
128	929017	Diesel	40	2017	DODGE	3C7WRNBL5HG510164	WHITE	5500	2	Justin Murfitt	AUTO CRANE HC7
129	929121	Gas	36	2021	FORD	1FTEW1EP7MKE34541	WHITE	F150	2	Randy Meintzer	Pick up
130	929221	Gas	36	2021	FORD	1FTEX1EB9MFA03645	WHITE	F150	2	Jared Zabele	Pick up
131	929321	Diesel	40	2021	FORD	1FD0W5HT9MED46904	WHITE	F550	2	Dustin Bailley	LT40 Bucket Truck
132	929421	Diesel	40	2021	FORD	1FD0W5HT9MED46921	WHITE	F550	2	Dillan Fontaine	LT 40 Bucket Truck
133	929520	Diesel	40	2020	FORD	1FD0W5HT9LEE46693	WHITE	F550	2	Jarek McElroy	LT 40 Bucket Truck
134	929622	Gas	36	2022	FORD	1FTEW1EP3NKD34096	WHITE	F150	2	Sean McKee	Pick up
135	929722	Gas	36	2022	FORD	1FTFW1E52NFA61518	WHITE	F150	2	Rob Micale	Pickup
136	929822	Gas	36	2022	FORD	1FTFW1E50NFA61517	WHITE	F150	2	Jeff Sumner	Pickup
137	929922	Diesel	40	2022	FORD	1FD0W5HT0NED19110	WHITE	F550	2	Rudy Zibron	Flatbed
138	930022	Diesel	50	2022	FREIGHTLINER	3ALKCYFE9NDNK3148	WHITE	M2106	3	Commodore	General 65 Derrick Digger
139	930122	Diesel	40	2022	FORD	1FD0X5HT1NED47379	WHITE	F550	2		Knapheide KMT-11 w/ Stellar 7630 Crane
140	930223	Diesel		2023	KENWORTH	1XKZDP9X0PJ243305	WHITE	T880	3	Semi Tractor	Semi Tractor
141	930323	Diesel		2023	KENWORTH	1XKZDP9X1PJ252112	WHITE	T880	3	Semi Tractor	Semi Tractor



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Timothy I. Chinchor
President
EC13004865

Tim Chinchor, Jr. has worked with Chinchor Electric since 2005. He has held all Electrical and Traffic Signal Division positions; Leading to his new role as President of the Corporation. As Estimator and Project Manager from 2007 to 2018, Tim has had a broad level of experience in electrical and signal applications including Water and Wastewater Industrial Construction and Controls, Heavy Generator Installation, Street and Highway Lighting, Traffic Signal Construction, ITS, and Facility Maintenance. Mr. Chinchor was appointed Vice President in spring of 2012 and has learned the in-depth skills it takes to manage a multimillion-dollar Company. In early 2018, Tim Chinchor Jr. was appointed President of Chinchor Electric, Inc. and is looking forward to growing the Corporation to new heights.

Growth & Experience:

- 2018 Appointed President
- 2012 Appointed Vice President
- 2011 Appointed Project Manager & Estimator of the Traffic Signal Division
- 2011 Master Electrician EC13004865
- 2009 Licensed Journeyman
- 2009 FEAT Graduate
- 2007 Appointed Project Manager & Estimator of the Electrical Division
- 2007 Class A CDL
- 2006 Level I & Level II Traffic Signal Technician
- 2006 MOT Certified Level I, and II
- 2005 Jessica Lunsford Security Clearance, Volusia County Schools
- 2005 OSHA & First Aid Certified

Significant Projects Overseen and Completed with Chinchor Electric, Inc.:

- Orange County Traffic Signal Push Button 100 plus projects
- Seminole County Traffic Signal Push Button 50 plus projects
- FDOT – T5619 US 1 @ Reed Canal
- FDOT – Fin ID: 418321-1-52-01 SR 500 @ US 192 (Vine St.)
- FDOT - Fin ID: 240233-4-58-01 SR 434 @ Florida Central Parkway
- FDOT- T5576 SR 434 Oviedo



- FDOT – E5209 Sanford Sun rail Fiber
- FDOT – AVI E5Y06 Bluetooth Vehicle Detection
- FDOT – T5540 Bluetooth Vehicle Detection
- FDOT - T5506 SR 600 Signalization & ITS
- FDOT - T5580 SR 520 Signalization & ITS
- FDOT – T5581 Alexandria @ SR 434
- FDOT – GPS PH II T5577 Opticom EV Detection
- FDOT – GPS PH I T5540 Opticom EV Detection
- International Drive SR 528 to South Westwood
- Simpson @ Eagle Bay
- Simpson @ Royal Palm
- Remington @ Partin settlement
- Neptune middle @ Tohoqua
- Oak ridge @ Chancellor
- Lock wood @ Mitchell Hammock
- Lake Jessup @ Mitchell Hammock
- Eastbridge @ Mitchell Hammock
- Airport rd. @ pioneer trail
- Wilbur Ave. @ Country Club
- Harmony WWTP – Toho Water Authority
- Jerry Sellers WRF – City of Cocoa
- SWR WRF BNR Project – Volusia County
- Cranes Roost Park – Altamonte Springs
- SER-WTP HSP VFD Project – Seminole County
- Glen Abbey WTP Backup Control – Volusia County
- SSNOCWWTA – Numerous Pump Stations
- Brevard County – Numerous Lift Stations
- Flagler Beach – Numerous Lift Stations
- SWWRF Reclaimed Pump Station – St. Petersburg
- St. Cloud WTP #1
- Edgewater WWTP
- City of Cocoa Beach WRF
- Orange County SW Marriott Master Pump Station
- Pinellas County EMS Parallel Generators
- FDOT US17/92 Decorative Lighting, Sanford
- FDOT US441 & SR436 Lighting, Apopka
- City of Cocoa Beach WRF Rehabilitation
- City of St. Cloud WTP #1
- PGA WWTP 1250KW Generator
- St. Cloud SWAF



- Ormond Beach Reuse and WWTP
- City of Ocala Streetscape
- David Hanson WWTP
- US 1 Decorative Street Lighting
- Fire Station #13, Apopka
- Winn Dixie Generator upgrade, Statewide
- Glen Abbey WTP Well Expansion, Debary, FL
- DeLand WWTP
- Lake Jesup SR 417 Toll Plaza, Seminole, FL
- Low Voltage Wiring Phase IV, Altamonte Springs WWTP
- VFD Installation at Holly Hill WTP





CHINCHOR
ELECTRIC INC.

Donald J. Hasco
Director of Operations
EC13006447

Don Hasco came to work at Chinchor Electric in 2003 starting in the field as an Electrical Apprentice. While in the field, Don attended Florida Electrical Apprenticeship and Training at Seminole Community College (currently Seminole State College) in Sanford Florida. Upon graduation he went on to receive his Journeyman License through Orange County in November 2007. Since obtaining his Journeyman License, Don became a Master Electrician and State Certified Unlimited Electrical Contractor in November 2014. Don worked his way to Lead Estimator for the Electrical Division in 2010, Director of the Electrical Division in 2014, and finally in January 2020 Don became the Director of Operations. Don is currently responsible for the day-to-day operations of the company including overseeing the estimating and project management in both the Electrical and Signal Divisions. Mr. Hasco has a broad level of experience working and overseeing many projects with extensive concentrations in Water and Wastewater Industrial Construction, Generator Installations, Highway Lighting, ITS, and Traffic Signal Construction.

Growth & Experience:

- 2020 Appointed Director of Operations
- 2014 Appointed Director of the Electrical Division
- 2014 Unlimited Electrical Contractor EC13006447
- 2010 Appointed Estimator of the Electrical Division
- 2007 Licensed Journeyman Electrician
- 2007 FEAT Graduate
- 2006 Intermediate MOT
- 2005 Jessica Lunsford Security Clearance, Volusia County Schools
- 2003 Class A CDL
- 2003 OSHA & First Aid Certified

Significant Projects Overseen and Completed with Chinchor Electric, Inc.:

- T9022 Hamilton Weigh Station – Weigh in Motion
- E53A8 – ITS Surveillance System
- E20B6 – Yulee Weigh Station Lighting
- Hood Road Re-Pump Electrical & Generators – Seacoast Utility Authority



- Richard Rd. & Lilac Street Re-Pump Facilities – Seacoast Utility Authority
- Repair & Replacement at WWTP Facilities – Florida Keys Aqueduct Auth.
- Buc-ee's Daytona Beach – Traffic Signals and Lighting
- Buc-ee's St. Johns – Traffic Signals and Lighting
- T5689 – SR421 Traffic Adaptive Signal Control System
- E5Z62 – SR40 Traffic Adaptive Signal Control System
- T5664 – US 17/92 Volusia Co. Traffic Adaptive Signal Control Systems
- FDOT T9021 – Sneads Weigh Station Electrical & Lighting
- FDOT T2716 – SR16 Lighting St. Augustine
- FDOT T2770 – SR24 Lighting Gainesville
- Central Blvd N HSPS Electrical – Town of Jupiter
- Western Regional WSF Phase IIIB – Orange County Utilities
- Harmony WWTP – Toho Water Authority
- South Bermuda WRF – Toho Water Authority
- FDOT T5587- Highway Lighting I-95 Brevard County
- FDOT T5588 – Highway Lighting I-95 Volusia & Flagler Counties
- Jerry Sellers WRF – City of Cocoa
- Polk County Lift Stations 35 & 99
- SWR WRF BNR Project – Volusia County
- Cranes Roost Park – City of Altamonte Springs
- SER-WTP HSP VFD Project – Seminole County
- Glen Abbey WTP Backup Control – Volusia County
- SSNOCWWTA – Numerous Pump Stations with Generators
- Brevard County – Numerous Lift Stations
- SWWRF Reclaimed Pump Station – City of St. Petersburg
- City of St. Cloud WTP #1
- City of Edgewater WWTP
- City of Cocoa Beach WRF
- Orange County SW Marriott Master Pump Station
- Pinellas County EMS Facility Parallel Generators
- Orange County Master Pump Stations VFD Replacement (x18)
- Altamonte Springs WRF 12.47KV Service
- PGA WWTP 1250KW Generator -Seacoast Utility Authority
- Lake Jesup Water Augmentation Facility - City of Winter Springs
- Winn Dixie Generator Installation, 26 stores throughout Florida
- S.R. 417 Lake Jessop Toll Plaza - Seminole County FL

Other Related Experience:

- Class A CDL
- Pryor Learning – Supervisor Course
- Red Vector – Continuing Education Courses for EC License



Bret Fudge came to work at Chinchor Electric in 2005 starting in the field as an Electricians Apprentice. While in the field, Bret attended Florida Electrical Apprenticeship and Training in Sanford, Florida. Upon graduation he went on to receive his Journeyman License through Orange County in June, 2009. Since obtaining his Journeyman License, Bret worked his way to Project Manager with Chinchor Electric. In March of 2014 he passed his masters exam and he received an electrical contractor license and is now a secondary qualifier for Chinchor Electric, Inc. Mr. Fudge has an extensive level of experience working and overseeing many projects in the Water and Waste Water Industrial Construction, Heavy Generator Installations, Traffic signals, and Street Lighting.

Significant Projects Completed with Chinchor Electric, Inc.:

- Deltona North WTP Improvements
- Coal Waste Ash Storage Expansion for OUC-Stanton Energy Center, Orange County, FL.
- Palm Coast WTP #1
- Wekiva Reliability Improvements WWTP
- City of Ormond Beach WTP Improvements
- Toho Water Authority- Harmony WTP Phase 1- Sulfide Treatment
- Narcoossee Booster Pump Station
- South County Advanced Wastewater Plant Expansion 4.5 MGD to 10 MGD Ruskin, FL.
- FDOT Lighting Contract ID #T-5572 (I-4 Volusia and Seminole County)
- Alexander Ave Reclaimed Water Augmentation
- Volusia County Branch Jail and Correctional Facility Upgrades
- Numerous Lift Stations throughout the state of Florida
- City of Edgewater WWTP
- City of Cocoa Beach WRF
- City of Deltona WTP (x12 sites)
- Port St. John WWTP
- Jerry Sellers WWTP
- South Central WWTP (Brevard)



- Barefoot Bay WTP
- Mourning Dove WTP
- Pennbrooke WTP
- City of Casselberry WTP
- Palm Bay WTP
- Haselton WTP
- City of Melbourne WTP
- Orlando LS #5
- Brevard County Landfill Leachate Systems
- Volusia County Landfill Leachate Systems
- PGA WWTP 1250KW Generator, Seacoast Utility Authority
- Lake Jesup Water Augmentation Facility, City of Winter Springs
- St. Johns County Lift Stations Groups I & III
- City of Groveland WTP#5, Groveland, FL
- David Hanson WWTP, Bushnell, FL
- Winn Dixie Generator Installation, 26 stores throughout Florida
- Holly Hill WWTP, Holly Hill, FL
- S.R. 417 Lake Jesup Toll Plaza, Seminole County FL
- Rima Ridge Wells #54, 55 & 56, City of Ormond Beach, FL
- Ormond Beach WWTP Rehabilitation, Ormond Beach, FL
- City of Ocala Streetscape
- City of South Daytona Decorative Street Lighting
- Altamonte Spring WRF, Low Voltage Wiring Phase IV
- 434 Traffic Signal Upgrade
- Lancaster Traffic Signal Upgrade
- A1A Daytona Beach Traffic Signal Upgrade
- Continuing Service Agreement With US Foods
- Continuing Service Agreement with Volusia County Schools & Parks and Recreation

Other Related Experience:

- Class A CDL
- Maintenance of Traffic Certification
- Intermediate FDOT Work Zone Control Course
- Jessica Lunsford Security Clearance, Volusia County Schools
- First Aid Certification
- Level 1 Traffic Signal Tech
- Certified Rigger



- Fire Fighter/EMT



Chris Massalone came to work at Chinchor Electric in 2012 starting in the field as an Electrician's Apprentice. While in the field, Chris attended Florida Electrical Apprenticeship and Training in Sanford, Florida. Upon graduation he went on to receive his Journeyman License through Orange County in 2016. Chris worked as a field Superintendent since 2016 and in 2021 Chris was promoted to Project Manager. In his time with Chinchor Electric he has worked on many projects in the Water and Waste Water Industrial Construction, Heavy Generator Installations, Traffic signals, and Street Lighting.

Significant Projects Completed with Chinchor Electric, Inc.:

- Hillsborough County – S. County Advanced WWTP Expansion Ph 3 & 4
- City of Deltona – Alexander Ave Reclaimed Water Augmentation Facility
- Numerous lift stations throughout the Central Florida Area
- Lake Jesup Water Augmentation Facility, City of Winter Springs
- Palm Beach Gardens WWTP Generator Replacement
- City of Edgewater WWTP
- City of Frostproof Generator addition
- US 92 Daytona Beach Traffic Signal Upgrade
- Lee road Flyover Lighting
- Lake County Buildings interior lighting upgrade
- Grand Island Shores WTP upgrade
- City of Titusville Osprey WRP upgrades
- City of Melbourne Reverse osmosis WTP pump replacements
- Volusia County Landfill Leachate Systems
- City of Sanford WTP upgrade
- Lady Lake Town Public Works blowers replacement
- Palm Bay WTP upgrade
- City of Edgewater WTP VFD's
- City Of Debary WWTP
- City of Mims WWTP
- City of Deltona WRP
- Continuing Service Agreement with US Foods
- Continuing Service Agreement with Volusia County Schools & Parks and Recreation



Other Related Experience:

- Class A CDL
- Maintenance of Traffic Certification
- Digger Derrick & Boom Truck Certification



FORM 7.9 - LOCAL BUSINESS AFFIDAVIT OF ELIGIBILITY

City of Port Orange

*This declaration is executed under penalty of perjury of the laws to the United States and State of Florida***THIS AFFIDAVIT IS SUBMITTED IN REFERENCE TO THE FOLLOWING SOLICITATION:**RFSQ/RFP/ITN/BID/CONTRACT/PROJECT #(as applicable): ITB 22-07BUSINESS NAME: Chinchor Electric, Inc. CONTACT PERSON/TITLE: Don Hasco / Director of Operations MAILING ADDRESS: 1460 S Leavitt AveCITY-STATE-ZIP: Orange City, FL 32763 Length of Time at Address Provided: 4 years**Physical Presence of Business** ☒ **Headquarters and/or** ☒ **Principal Place of Business**And within Legal Boundaries: ☐ City of Port Orange ☒ Volusia County ☒ State of FloridaFEIN (Federal Employer Identification Number): 59-3044703BUSINESS STRUCTURE: ☒ Corporation ☐ LLC ☐ Partnership ☐ Sole Proprietorship☐ Other (Specify): _____PHONE NUMBER: 386-774-1020FAX: 386-774-7223EMAIL: dhasco@chinchorelectric.com****Please attach a valid business tax receipt, or other such documentation******ATTESTATION – I understand that:**

- In accordance with City of Port Orange City Code 2-275, local businesses shall have five (5) business days from bid/proposal opening to submit a best and final bid for evaluation. To qualify: A Port Orange business initial bid must be within (8%) of the lowest and best responsible bid from a non-Port Orange business; A Volusia County business initial bid must be within (5%) of the lowest and best responsible bid from a non-Volusia County business; A State of Florida business initial bid must be within (3%) of the lowest and best responsible bid from a non-State of Florida business.
- A local business must have its headquarters and/or principal place of business located within the legal boundaries of the City of Port Orange, Volusia County, or the State of Florida, as indicated herein, for at least twelve (12) months prior to the bid or proposal opening date and a valid business license, issued by the corresponding government agency. Post office boxes are not verifiable and shall not be used for the purpose of establishing said physical address. Bidders shall attach to this affidavit of eligibility with a bid or proposal, a copy of a valid business tax receipt or such other documentation, to the city's satisfaction, demonstrating the physical business presence of the firm within corresponding local limits.
- The preference does not apply to goods or services exempted by statute or prohibited by Federal law, State law, or other funding source

As an authorized representative of the firm, I certify that this firm complies fully with the above requirements.

Chinchor Electric, Inc.

Name of Business

By: _____

Printed Name: Timothy I. ChinchorTitle: PresidentSTATE OF FLCOUNTY OF Volusia

The foregoing instrument was acknowledged before me by means of X physical presence or _____ online notarization, this 10th day of MAY, 2022 by Timothy Chinchor as President of Chinchor Electric, Inc. a _____ He or she is X personally known or _____ produced _____ as identification.

 Notary Public, State of Florida
 Printed, typed or stamped name, commission and expiration:



Madison Lankford
 Notary Public
 State of Florida
 Comm# HH072136
 Expires 12/14/2024

This document must be completed and returned with your Submittal.



FORM 7.10 CITY OF PORT ORANGE CONTRACTOR E-VERIFY AFFIDAVIT

IN ACCORDANCE WITH SECTION 448.095, FLORIDA STATUTES

Project Name: Garnsey Water Treatment Plant Generator Installation

Solicitation Number: ITB 22-07

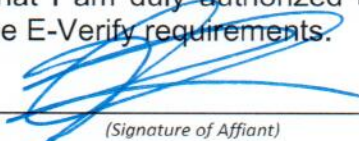
I, the undersigned, hereby certify that Chinchor Electric, Inc. [insert contractor company name] does not employ, contract with, or subcontract with an unauthorized alien, and is otherwise in full compliance with Section 448.095, Florida Statutes.

Further, I certify all employees hired on or after January 1, 2022 have had their work authorization status verified through the E-Verify system. I acknowledge that it is my responsibility to insure full compliance with Section 448.095, Florida Statutes. I am aware enrollment in the E-Verify system for employers can be done at www.e-verify.gov.

A true and correct copy of Chinchor Electric, Inc. [insert contractor company name] **proof of registration in the E-Verify system is attached to this Affidavit.**

By affixing my signature below, I hereby affirm that I am duly authorized to bind the company reference herein and I will comply with all applicable E-Verify requirements.

Timothy I. Chinchor, President
(Print or Type Name, Title)


(Signature of Affiant)

59-3044703
(Federal Employer ID Number – FEIN)

388872
(E-Verify Number)

STATE OF FLORIDA
COUNTY OF Volusia

The foregoing instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization, this 10th day of May, 20 22, by Timothy Chinchor as president of Chinchor Electric, Inc. on behalf of the company. He/she is personally known to me or has produced _____ (TYPE OF ID) as identification.

 **Madison Lankford**
Notary Public
State of Florida
Comm# HH072136
Expires 12/14/2024


Notary Public, State of Florida at Large
Printed, typed or stamped name, commission and expiration of commission term

This document must be completed and returned with your Submittal

FORM 7.11 CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS
PRIMARY COVERED TRANSACTIONS
(TO BE COMPLETED BY PRIME CONTRACTOR)

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1) (b) of this certification;

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Chinchor Electric, Inc.

Organization Name

ITB 22-07 Garnsey Water Treatment Plant Generator Installation

Bid Number or Project Name

Timothy I. Chinchor, President

Name(s) and Title(s) of Authorized Representatives

Signature

May 10, 2022

Date

This document must be completed and returned with your Submittal

FORM 7.13 – LISTING OF SUBCONTRACTORS

The Bidder proposes that the following subcontractors are qualified to perform the referenced work and have successfully done so on recent projects similar in nature and size. All subcontractors whose work product accounts for 5% or more of the total contract value shall be listed. Upon approval of subcontractors listed, the successful Bidder shall not substitute subcontractors without approval from the City. Bidder shall attach additional sheets as necessary. **Please mark N/A for no subcontractors.**

Subcontractor No. 1

Name: Lawrence Lee Construction Services

Description of Work: General Contracting

Percent of Contract Price: 14%

Previous Experience Together: Yes/No Yes

Subcontractor No. 2

Name: JF Petroleum Group

Description of Work: Fuel tanks and fuel piping

Percent of Contract Price: 7%

Previous Experience Together: Yes/No Yes

Subcontractor No. 3

Name: _____

Description of Work: _____

Percent of Contract Price: _____

Previous Experience Together: Yes/No _____

Subcontractor No. 4

Name: _____

Description of Work: _____

Percent of Contract Price: _____

Previous Experience Together: Yes/No _____

Subcontractor No. 5

Name: _____

Description of Work: _____

Percent of Contract Price: _____

Previous Experience Together: Yes/No _____

This document must be completed and returned with your Submittal



(ATTACHMENT 1) SCHEDULE OF UNIT PRICING
BID FORM

CITY OF PORT ORANGE

ITB #22-07

GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION

Completed (Attachment 1) Schedule of Unit Pricing form **MUST** be included with Bid Submission

Instruction to save Attachment from DemandStar website:

Perform "File Save As" and save spreadsheet to your computer. Fill in pricing in highlighted cells, preferably electronically.

Bidders are required to complete all fields shaded in green.

(ATTACHMENT 1) SCHEDULE OF UNIT PRICING **MUST BE SIGNED**

NAME OF BUSINESS:	Chinchor Electric Inc				
CONTACT PERSON:	Don Hasco				
EMAIL ADDRESS:	dhasco@chinchorelectric.com				
AUTHORIZED SIGNATURE:					
ITEM #	DESCRIPTION	QTY	UNIT	TOTAL COST	
1	Pre-Construction Video	1	LS	\$3,300.00	
2	Mobilization and Demobilization	1	LS	\$300,000.00	
3	Demolition	1	LS	\$115,000.00	
4	Packaged Generator and ATS System	1	LS	\$1,082,200.00	
5	Fuel Systems	1	LS	\$307,900.00	
6	Electrical Switchgear	1	LS	\$486,570.00	
7	Civil Site Work and Mechanical	1	LS	\$407,000.00	
8	New Electrical Room	1	LS	\$519,060.00	
9	Motor Control Centers	1	LS	\$110,000.00	
10	HVAC	1	LS	\$20,000.00	
11	Site Electrical	1	LS	\$906,300.00	
12	Temporary Power	1	LS	\$30,000.00	
13	Permit Allowance	1	LS	\$10,000.00	
14	As-Built Plans	1	LS	\$10,000.00	
15	Utility Relocation Allowance	1	LS	\$50,000.00	
TOTAL BID PRICE (Items 1-15)				\$4,357,330.00	

BID BOND

BID BOND

Bond No.: N/A

KNOW ALL MEN BY THESE PRESENTS that Chinchor Electric, Inc., as Contractor, duly authorized to conduct business in the State of Florida, whose principal place of business is located at 1460 S. Leavitt Avenue, Orange City, FL 32763, Tel.: 386-774-1020, (hereinafter called "PRINCIPAL"), and United Fire & Casualty Company, as SURETY, duly authorized to conduct business in the State of Florida, whose principal place of business is located at 118 Second Ave. SE, Cedar Rapids, IA 52401*, Tel.: 319-399-5700 (hereinafter called "SURETY"), are held and firmly bound unto the City of Port Orange, Florida, as CITY, a Florida municipal corporation, whose address is City of Port Orange, 1000 City Center Circle, Port Orange, Florida 32129, Tel.: (386) 506-5501, (hereinafter called "OBLIGEE" or "CITY"), in the penal sum of Five Percent of Amount Bid----- dollars and (-----)/100 (\$-----5%-----), lawful money of the United States, for the payment of which sum shall and truly be made, whereof PRINCIPAL and SURETY bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that, whereas the Principal has submitted the accompanying bid, dated May 10, 2022, for:

Project Name / Bid No.: ITB 22-07, GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION

Project Address: Port Orange, FL

Legal Description: ITB 22-07, GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION

Description of Work: Removal, relocation of fuel tank, new generator installation and construction of new electrical building

NOW, THEREFORE,

A. If the principal shall not withdraw said bid within one hundred twenty (120) days after date of opening of the same, and shall within ten (10) days after the prescribed forms are presented to it for signature, enter into a written contract with the City in accordance with the bid as accepted, and give bonds with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such contract, then the above obligations shall be void and of no effect, otherwise to remain in full force and virtue.

B. In the event of the withdrawal of said bid within the period specified, or the failure to enter into such contract and give such bonds within the time specified, if the principal shall pay the City the difference between the amount specified in said bid and the amount for which the City may procure the required work and supplies, if the latter amount be in excess of the former, then the above obligations shall be void and of no effect, otherwise to remain in full force and virtue.

*PO Box 73909, Cedar Rapids, IA 52407-3909

IN WITNESS WHEREOF, the above parties have executed this instrument under their several seals, this 10th day of May, A.D. 2022, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Note: If the firm is a sole ownership or partnership including limited liability company, two (2) witnesses are required to attest the signature. If the firm is a corporation, then the corporate secretary shall attest and affix the corporate seal (Attach power of attorney to original bid bond and financial statement of Surety Company).

PRINCIPAL: Chinchor Electric, Inc.

Signature

Corporate Officer & Title

ATTEST:

Signature

Corporate Secretary (Affix Corporate Seal)

WITNESSES:

SURETY: United Fire & Casualty Company

Attorney-in-Fact (signature)

Gloria A. Richards*, Attorney-In-Fact

Name & Title

Gloria A. Richards*, FL Licensed Resident Agent

Name of Local Resident Agent

PO Box 73909, Cedar Rapids, IA 52407-3909

City, State, Zip

319-399-5700

Telephone:

A.M. Best No.: 000928 NAIC No.: 13021

*Inquiries: 407-786-7770

STATE OF FLORIDA

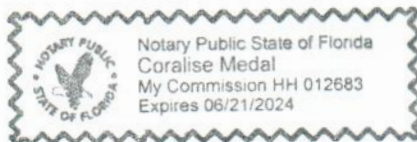
COUNTY OF ORANGE

Before me this day personally appeared Gloria A. Richards (affiant), who, being duly sworn, deposes and says that he/she is the Attorney-in-Fact for the United Fire & Casualty Company (corporate surety) and that this person has been authorized by United Fire & Casualty Company (corporate surety) to execute the foregoing bond on behalf of the Contractor named therein in favor of the City of Port Orange, Florida.

Signature of Affiant

Gloria A. Richards

Sworn to / Affirmed and subscribed before me this 10th day of May, 2022, by Gloria A. Richards who is personally known to me or who produced N/A as identification.



NOTARY PUBLIC -- STATE OF FLORIDA

Type or print name: Coralise Medal

Commission No.: HH 012683

Commission Expires: 06/21/2024

(Seal)

END OF BID BOND

This document must be completed and returned with your Submittal

UNITED FIRE AND CASUALTY COMPANY

P.O Box 73909, Cedar Rapids, IA. 52407

Statement of Financial Condition

As Of December 31, 2021

ASSETS

Bonds	\$746,814,976
Stocks	516,513,849
Real Estate and Equipment	44,213,351
Cash in Banks and Offices and Short Term Investments	209,971,868
Premiums in Course of Collection (less than 90 days old)	301,000,201
Reinsurance and Other Accounts Receivable	39,248,115
Deposits and Other Non Invested Assets	135,994,633
Total Admitted Assets	<u>\$1,993,756,993</u>

LIABILITIES, SURPLUS AND OTHER FUNDS

Reserve for Unearned Premiums	\$263,748,093
Reserve for Claims and Claim Expense	940,326,439
Reserve for Taxes and Expense	<u>35,271,673</u>
Total Liabilities	<u>\$1,239,346,205</u>
Capital Stock and Paid In Capital	\$213,779,588
Surplus Notes	50,000,000
Surplus	490,631,200
Surplus as regards Stockholders	<u>754,410,788</u>
Total	<u>\$1,993,756,993</u>

Securities carried at \$7,494,138 in the above statement are deposited as required by law.

Securities carried on the basis prescribed by the National Association of Insurance Commissioners. On the basis of December 31, 2021 market quotations for all bonds and stocks owned, the Company's total admitted assets would be \$1,993,756,993 and surplus as regards shareholders \$754,410,88.

I, Janice A. Martin, Treasurer of United Fire and Casualty Company, do hereby certify that the foregoing statement is a correct exhibit of the assets and liabilities of the said Company on the 31st day of December, 2021


Treasurer

State of Iowa
City of Cedar Rapids } SS:

Subscribed and sworn to, before me, a Notary Public of the State of Iowa in the City of Cedar Rapids, this
16th day of March, 2022


Notary Public





UNITED FIRE & CASUALTY COMPANY, CEDAR RAPIDS, IA
 UNITED FIRE & INDEMNITY COMPANY, WEBSTER, TX
 FINANCIAL PACIFIC INSURANCE COMPANY, LOS ANGELES, CA
 CERTIFIED COPY OF POWER OF ATTORNEY
 (original on file at Home Office of Company – See Certification)

Inquiries: Surety Department
 118 Second Ave SE
 Cedar Rapids, IA 52401

KNOW ALL PERSONS BY THESE PRESENTS, That United Fire & Casualty Company, a corporation duly organized and existing under the laws of the State of Iowa; United Fire & Indemnity Company, a corporation duly organized and existing under the laws of the State of Texas; and Financial Pacific Insurance Company, a corporation duly organized and existing under the laws of the State of California (herein collectively called the Companies), and having their corporate headquarters in Cedar Rapids, State of Iowa, does make, constitute and appoint

KIM E. NIV, JEFFREY W. REICH, SUSAN L. REICH, TERESA L. DURHAM, GLORIA A. RICHARDS, LISA A. ROSELAND, SONJA AMANDA FLOREE HARRIS, CHERYL A. FOLEY, ROBERT P. O'LINN, SARAH K. O'LINN, EMILY J. GOLECKI, EACH INDIVIDUALLY

their true and lawful Attorney(s)-in-Fact with power and authority hereby conferred to sign, seal and execute in its behalf all lawful bonds, undertakings and other obligatory instruments of similar nature provided that no single obligation shall exceed \$100,000,000.00 and to bind the Companies thereby as fully and to the same extent as if such instruments were signed by the duly authorized officers of the Companies and all of the acts of said Attorney, pursuant to the authority hereby given and hereby ratified and confirmed.

The Authority hereby granted shall expire the 13th day of July, 2023 unless sooner revoked by United Fire & Casualty Company, United Fire & Indemnity Company, and Financial Pacific Insurance Company.

This Power of Attorney is made and executed pursuant to and by authority of the following bylaw duly adopted by the Boards of Directors of United Fire & Casualty Company, United Fire & Indemnity Company, and Financial Pacific Insurance Company.

"Article VI – Surety Bonds and Undertakings"

Section 2, Appointment of Attorney-in-Fact. "The President or any Vice President, or any other officer of the Companies may, from time to time, appoint by written certificates attorneys-in-fact to act in behalf of the Companies in the execution of policies of insurance, bonds, undertakings and other obligatory instruments of like nature. The signature of any officer authorized hereby, and the Corporate seal, may be affixed by facsimile to any power of attorney or special power of attorney or certification of either authorized hereby; such signature and seal, when so used, being adopted by the Companies as the original signature of such officer and the original seal of the Companies, to be valid and binding upon the Companies with the same force and effect as though manually affixed. Such attorneys-in-fact, subject to the limitations set forth in their respective certificates of authority shall have full power to bind the Companies by their signature and execution of any such instruments and to attach the seal of the Companies thereto. The President or any Vice President, the Board of Directors or any other officer of the Companies may at any time revoke all power and authority previously given to any attorney-in-fact.

IN WITNESS WHEREOF, the COMPANIES have each caused these presents to be signed by its vice president and its corporate seal to be hereto affixed this 13th day of July, 2021

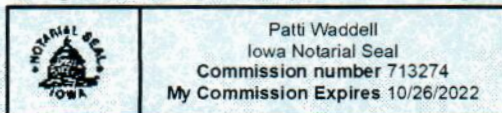


UNITED FIRE & CASUALTY COMPANY
 UNITED FIRE & INDEMNITY COMPANY
 FINANCIAL PACIFIC INSURANCE COMPANY

By: *Dennis J. Richmann*
 Vice President

State of Iowa, County of Linn, ss:

On 13th day of July, 2021, before me personally came Dennis J. Richmann to me known, who being by me duly sworn, did depose and say; that he resides in Cedar Rapids, State of Iowa; that he is a Vice President of United Fire & Casualty Company, a Vice President of United Fire & Indemnity Company, and a Vice President of Financial Pacific Insurance Company the corporations described in and which executed the above instrument; that he knows the seal of said corporations; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporations and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporations.



Patti Waddell
 Notary Public
 My commission expires: 10/26/2022

I, Mary A. Bertsch, Assistant Secretary of United Fire & Casualty Company and Assistant Secretary of United Fire & Indemnity Company, and Assistant Secretary of Financial Pacific Insurance Company, do hereby certify that I have compared the foregoing copy of the Power of Attorney and affidavit, and the copy of the Section of the bylaws and resolutions of said Corporations as set forth in said Power of Attorney, with the ORIGINALS ON FILE IN THE HOME OFFICE OF SAID CORPORATIONS, and that the same are correct transcripts thereof, and of the whole of the said originals, and that the said Power of Attorney has not been revoked and is now in full force and effect.

In testimony whereof I have hereunto subscribed my name and affixed the corporate seal of the said Corporations this 10th day of May, 2022.



By: *Mary A. Bertsch*
 Assistant Secretary,
 UF&C & UF&I & FPIC



Florida Department of Transportation

RON DESANTIS
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

KEVIN J. THIBAUT, P.E.
SECRETARY

January 28, 2022

CHINCHOR ELECTRIC INC.
1460 S. LEAVITT AVE.
ORANGE CITY, FLORIDA 32763

RE: CERTIFICATE OF QUALIFICATION

The Department of Transportation has qualified your company for the type of work indicated below.

FDOT APPROVED WORK CLASSES:

COMPUTERIZED TRAFFIC CONTROL, ELECTRICAL WORK, INTELLIGENT TRANSPORTATION SYSTEMS, ROADWAY SIGNING, SIDEWALK, TRAFFIC SIGNAL, Drilled Shafts.

Unless notified otherwise, this Certificate of Qualification will expire **3/30/2023**.

In accordance with Section 337.14(4), Florida Statutes, changes to Ability Factor or Maximum Capacity Rating will not take effect until after the expiration of the current certificate of prequalification (if applicable).

In accordance with Section 337.14(1), Florida Statutes, an application for qualification must be filed within (4) months of the ending date of the applicant's audited annual financial statements.

If the company's maximum capacity has been revised, it may be accessed by logging into the Contractor Prequalification Application System via the following link:

[HTTPS://fdotwp1.dot.state.fl.us/ContractorPreQualification](https://fdotwp1.dot.state.fl.us/ContractorPreQualification)

Once logged in, select "View" for the most recently approved application, and then click the "Manage" and "Application Summary" tabs.

The company may apply for a Revised Certificate of Qualification at any time prior to the expiration date of this certificate according to Section 14-22.0041(3), Florida Administrative Code (F.A.C.), by accessing the most recently approved application as shown above and choosing "Update" instead of "View." If certification in additional classes of work is desired, documentation is needed to show that the company has performed such work.

All prequalified contractors are required by Section 14-22.006(3), F.A.C., to certify their work underway monthly in order to adjust maximum bidding capacity to available bidding capacity. You can find the link to this report at the website shown above.

Sincerely,

for Alan Autry, Manager
Contracts Administration Office

AA:cg

**City of Orange City**

205 E. Graves Ave.
Orange City FL, 32763
386-775-5403

BUSINESS TAX RECEIPT

Business Name: Chinchor Electric
DBA: Chinchor Electric
Business Location: 1440-1460 S Leavitt AVE
Orange City, FL 32763

Owner:

License Number: CONS-012742-2021
Issued Date: 9/30/2021
Expiration Date: 9/30/2022

Business Type(s): 238990 All Other Specialty Trade
Contractors

Mailing Address: 1460 S Leavitt AVE
Enterprise, FL 32763

License Type: Construction
Classification: Contractor - Sub
Fees Paid: \$321.25

Signature

TO BE POSTED IN A CONSPICUOUS PLACE



[Department of State](#) / [Division of Corporations](#) / [Search Records](#) / [Search by Entity Name](#) /

Detail by Entity Name

Florida Profit Corporation
CHINCHOR ELECTRIC, INC.

Filing Information

Document Number	S19759
FEI/EIN Number	59-3044703
Date Filed	12/17/1990
Effective Date	01/01/1991
State	FL
Status	ACTIVE
Last Event	AMENDMENT
Event Date Filed	09/21/2021
Event Effective Date	NONE

Principal Address

1460 South Leavitt Ave
ORANGE CITY, FL 32763

Changed: 10/01/2021

Mailing Address

1460 South Leavitt Ave
ORANGE CITY, FL 32763

Changed: 10/01/2021

Registered Agent Name & Address

CHINCHOR, TIMOTHY Z.
1460 SOUTH LEAVITT AVENUE
ORANGE CITY, FL 32763

Address Changed: 11/03/2021

Officer/Director Detail

Name & Address

Title VP

SOLTIS, JEFF C
1460 SOUTH LEAVITT AVENUE
ORANGE CITY, FL 32763

Title P

CHINCHOR, TIMOTHY I
1460 SOUTH LEAVITT AVENUE
ORANGE CITY, FL 32763

Title CEO

CHINCHOR, TIMOTHY Z
1460 SOUTH LEAVITT AVENUE
ORANGE CITY, FL 32763

Title D

HASCO, DONALD J
1460 SOUTH LEAVITT AVE
ORANGE CITY, FL 32763

Title C

CHINCHOR, TIMOTHY Z
1460 SOUTH LEAVITT AVENUE
ORANGE CITY, FL 32763

Title D

FUDGE, BRETON R
1460 SOUTH LEAVITT AVE
ORANGE CITY, FL 32763

Title D

CHINCHOR, DANIEL S.

1460 SOUTH LEAVITT AVE
ORANGE CITY, FL 32763

Title CFO

SURMIK, ZACHARY D
1460 SOUTH LEAVITT AVE
ORANGE CITY, FL 32763

Title V

ANSELMO, MARIAH
1460 South Leavitt Ave
ORANGE CITY, FL 32763

Title S

QUINTANA, KATHRYN M
1460 SOUTH LEAVITT AVE
ORANGE CITY, FL 32763

Title D

SILVA, ROBERT B.
1460 SOUTH LEAVITT AVE
ORANGE CITY, FL 32763

Annual Reports

Report Year	Filed Date
-------------	------------

2020	02/19/2020
2021	02/09/2021
2022	03/09/2022

Document Images

03/09/2022 -- ANNUAL REPORT	View image in PDF format
11/03/2021 -- Reg. Agent Change	View image in PDF format
09/21/2021 -- Amendment	View image in PDF format
04/15/2021 -- Amendment	View image in PDF format
02/09/2021 -- ANNUAL REPORT	View image in PDF format
01/14/2021 -- Amendment	View image in PDF format
03/25/2020 -- Amendment	View image in PDF format
02/19/2020 -- ANNUAL REPORT	View image in PDF format
01/15/2019 -- ANNUAL REPORT	View image in PDF format
05/25/2018 -- Amendment	View image in PDF format
01/18/2018 -- ANNUAL REPORT	View image in PDF format
01/16/2017 -- ANNUAL REPORT	View image in PDF format
01/28/2016 -- ANNUAL REPORT	View image in PDF format
03/10/2015 -- Amendment	View image in PDF format
02/27/2015 -- ANNUAL REPORT	View image in PDF format
01/14/2014 -- ANNUAL REPORT	View image in PDF format
03/19/2013 -- ANNUAL REPORT	View image in PDF format
04/24/2012 -- Amendment	View image in PDF format
01/26/2012 -- ANNUAL REPORT	View image in PDF format
02/15/2011 -- ANNUAL REPORT	View image in PDF format
02/19/2010 -- ANNUAL REPORT	View image in PDF format

<u>03/24/2009 -- ANNUAL REPORT</u>	View image in PDF format
<u>01/14/2008 -- ANNUAL REPORT</u>	View image in PDF format
<u>01/10/2007 -- ANNUAL REPORT</u>	View image in PDF format
<u>04/27/2006 -- ANNUAL REPORT</u>	View image in PDF format
<u>03/01/2005 -- ANNUAL REPORT</u>	View image in PDF format
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<u>01/13/2003 -- ANNUAL REPORT</u>	View image in PDF format
<u>04/07/2002 -- ANNUAL REPORT</u>	View image in PDF format
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<u>05/07/1997 -- ANNUAL REPORT</u>	View image in PDF format
<u>08/05/1996 -- ANNUAL REPORT</u>	View image in PDF format
<u>04/28/1995 -- ANNUAL REPORT</u>	View image in PDF format



**STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION**

ELECTRICAL CONTRACTORS LICENSING BOARD
2601 BLAIR STONE ROAD
TALLAHASSEE FL 32399-0783

(850) 487-1395

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Our mission at the Department is: License Efficiently, Regulate Fairly. We constantly strive to serve you better so that you can serve your customers. Thank you for doing business in Florida, and congratulations on your new license!



**STATE OF FLORIDA DEPARTMENT
OF BUSINESS AND PROFESSIONAL
REGULATION**

EC13004865

ISSUED: 07/02/2020

CERTIFIED ELECTRICAL CONTRACTOR
CHINCHOR, TIMOTHY IAN
CHINCHOR ELECTRIC, INC.

Signature

LICENSED UNDER CHAPTER 489, FLORIDA STATUTES
EXPIRATION DATE: AUGUST 31, 2022

Ron DeSantis, Governor

Halsey Beshears, Secretary

**STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
ELECTRICAL CONTRACTORS LICENSING BOARD**

LICENSE NUMBER: EC13004865

EXPIRATION DATE: AUGUST 31, 2022

THE ELECTRICAL CONTRACTOR HEREIN IS CERTIFIED UNDER THE
PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

CHINCHOR, TIMOTHY IAN
CHINCHOR ELECTRIC, INC.
1460 S LEAVITT AVE
ORANGE CITY FL 32763



ISSUED: 07/02/2020

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Ron DeSantis, Governor

Halsey Beshears, Secretary



STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

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1460 S LEAVITT AVE
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LICENSE NUMBER: EC13004865

EXPIRATION DATE: AUGUST 31, 2022

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2021 / 2022

Volusia County Business Tax Receipt

Issued pursuant to F.S. 205 and Volusia County Code of Ordinances Chapter 114-1 by:
Volusia County Treasury and Billing - 125 W New York Ave, Room 120, Deland, FL 32720 - (386) 943-7085



Account #: 200107120014

Expires: September 30, 2022

Business Location: 1440 S LEAVITT AVE

Business Name: CHINCHOR ELECTRIC INC

Owner Name: TIMOTHY Z CHINCHOR

Mailing Address: 1460 S LEAVITT AVE
ORANGE CITY, FL 32763

BUSINESS TYPE	REQ DOC #	CODE	COUNT	TAX
Electrical Contractor	EC0002457 & EC130048	301E	85	\$225.00

- This receipt indicates payment of a tax, which is levied for the privilege of doing the type(s) of business listed above within Volusia County. This receipt is non-regulatory in nature and is not meant to be a certification of the holder's ability to perform the service for which he is registered. This receipt also does not indicate that the business is legal or that it is in compliance with State or local laws and regulations.
- The business must meet all County and/or Municipality planning and zoning requirements or this Business Tax Receipt may be revoked and all taxes paid would be forfeited.
- The information contained on this Business Tax Receipt must be kept up to date. Contact the Volusia County Treasury and Billing for instructions on making changes to your account.

**THIS PORTION OF THE BUSINESS TAX RECEIPT MUST BE
POSTED CONSPICUOUSLY IN YOUR PLACE OF BUSINESS**

Volusia County Business Tax Receipt

Treasury and Billing - 125 W New York Ave, Room 120, Deland, FL 32720 - (386) 943-7085

DATE PAID: 07/29/2021
RECEIPT #: 443832
TOTAL TAX: \$225.00
PENALTY: \$0.00
TOTAL PAID: \$225.00



Business Name: CHINCHOR ELECTRIC INC
Owner Name: TIMOTHY Z CHINCHOR
Mailing Address: 1460 S LEAVITT AVE
ORANGE CITY, FL 32763

Account #: 200107120014

Expires: September 30, 2022

Business Location: 1440 S LEAVITT AVE

PLEASE DETATCH THIS PORTION OF THE BUSINESS TAX RECEIPT FOR YOUR RECORDS.



FLORIDA SURETY BONDS, INC.

620 N Wymore Road Suite 200
Maitland, FL 32751
(407) 786-7770 ♦ Fax (407) 786-7766

Toll Free (888) 786-BOND
www.FloridaSuretyBonds.com
Susan@FloridaSuretyBonds.com

January 21, 2022

RE: Chinchor Electric, Inc.

To Whom It May Concern,

We are pleased to be the surety agents for Chinchor Electric, Inc. and have served them since 2004. Bonds are currently written through United Fire & Casualty Company which is A.M. Best Rated "A, X" and has a U.S. Treasury Listing of \$57,550,000.

We usually anticipate no difficulties in providing surety bonds for Chinchor Electric, Inc. in the \$35,000,000 single, \$100,000,000 bidding aggregate range. This letter is not a commitment to provide any bonds unless all underwriting requirements including contract, bond form and financing review are met prior to issuing any bonds. Neither our agency, nor the surety is liable for any damages relating to this letter or project.

Should you have any questions, please do not hesitate to contact us.

Sincerely,

Susan Reich
Vice President

CHINCHOR ELECTRIC INC.

INDUSTRIAL

COMMERCIAL

SIGNALIZATION

CEI Claims and Litigation History

Auto Liability:

Claim Number: 2145403

Claimant: Andre Small / Alili Contreras

Date of Loss: 05/17/2018

Loss Description: IV rear-ended OV1 which caused them to get pushed into OV2

Claim status: Settlement reached in the amount of \$6,000 for Alili Contreras. No demand received for Andre Small, current reserves set at \$15,000.

General Liability:

Claim Number: 2185051

Claimant: Sebastian Duque

Date of Loss: 12/26/17

Loss Description: Estate of Sebastian Duque alleges Chinchor failed to operate crosswalk machine leading to a malfunctioning cross walk light which resulted in Sebastian Duque being struck by a car and sustaining fatal injuries.

Claim Status: Initial indemnity reserves set at \$50,000 and \$25,000 in expense. Carrier has assigned council in anticipation of litigation. Currently working to obtain logs and homicide report to determine liability.

STATE LICENSE EC 0002457 EC 13004865

1460 SOUTH LEAVITT AVE • ORANGE CITY, FL 32763 • 386-774-1020 • FAX 386-774-7223

EXHIBIT "3"

ITB 22-07

Consisting of 146 Pages

Not attached, on file with office of the City Clerk



City of Port Orange Public Works & Utilities Department

TO: Wayne Clark, City Manager

THRU: Lynn Stevens, Public Works & Utilities Director
Julia Wiggins, Public Works & Utilities Budget Analyst

FROM: Junos Reed, Public Works & Utilities Engineering and Construction Manager

DATE: June 20, 2022

SUBJECT: Recommend award of construction contract to Chinchor Electric, Inc for ITB #22-07 Garnsey Water Treatment Plant Generator Installation

REQUEST:

The Public Works & Utilities Department is requesting the City Council award the construction contract to Chinchor Electric, Inc. in the amount of \$4,357,330.00.

PURPOSE:

This water treatment plant improvement project involves the design, permitting, and bidding assistance for an upgraded emergency backup power system to ensure uninterrupted production and distribution of potable water.

CONSIDERATION:

The existing generator at the Garnsey Water Treatment Plant has the capacity to provide backup power for all the equipment within the plant site. However, the main electrical switch gear was placed into service in approximately 2002 and has become unreliable and prone to failure. In addition, the replacement part for the existing switch gears is no longer available. This project will optimize the backup power systems based on the existing and the proposed improvements to the facility. The existing Motor Control Center (MCC) and Automatic Transfer Switch (ATS) will be replaced as deemed necessary during the design phase of the project. With an upgraded MCC and ATS in conjunction with the existing and proposed new generator, the water treatment plant will have a reliable and fully redundant backup power system.

The project was bid in accordance with City policy. Two bids were received:

Chinchor Electric, Inc. \$4,375,330.00
Eau Gallie Electric, Inc. \$4,684,000.00

This item is contingent on Council approval of Reimbursement Resolution No 22-22.

Once approved by Council, Finance will secure a debt issuance or loan to complete the funding.

FUNDING:

Water Treatment Plant Generator Upgrades

Project #: SSP018 (Generator Replacements)

Fund – 403 Water and Sewer R&R Fund

Cost Center – Water and Sewer

Program – Water Production

Spend Category: Water - Capital

Contract Amount: \$4,357,330.00

RECOMMENDATION:

The Public Utilities Department recommends the City Council award the construction contract to Chinchor Electric, Inc. in the amount of \$4,357,330.00, plus an additional \$50,000 for unforeseen conditions that may arise from the antiquated equipment replacement for a not to exceed amount of \$4,425,330.

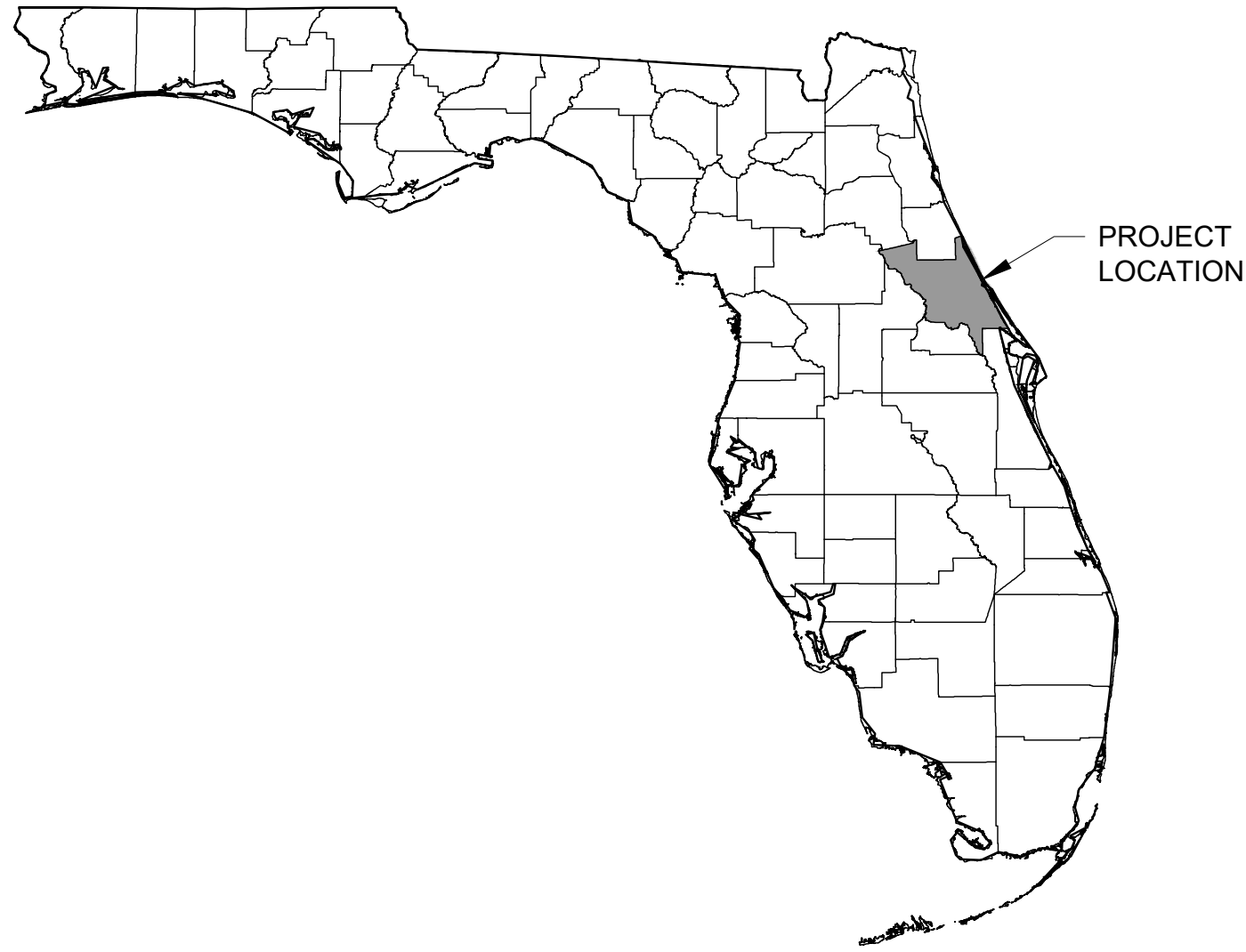
ANTICIPATED SCHEDULE:

- a) August 2, 2022, Council Approval
- b) Notice to Proceed for construction, approximately 60 days after Council Approval
- c) The project will be substantially complete 400 days from the Notice to Proceed date.

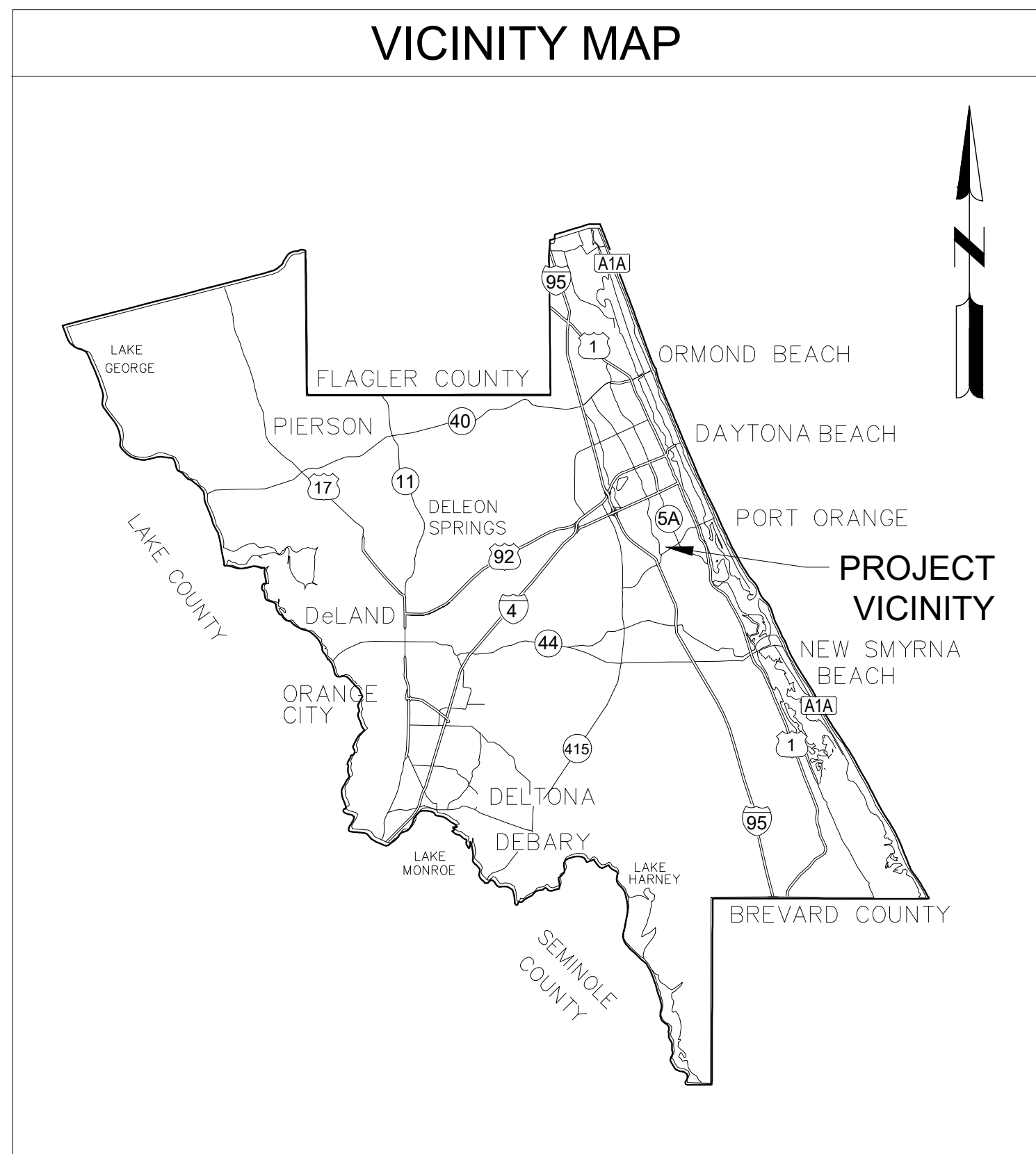
ATTACHMENTS:

- 1. ITB #22-07 Garnsey Water Treatment Plant Generator Installation Bid Tabulation
- 2. Mead & Hunt Letter of Recommendation of Award
- 3. Notice of Intent to Award

CITY OF PORT ORANGE
GARNSEY WATER TREATMENT PLANT
GENERATOR INSTALLATION

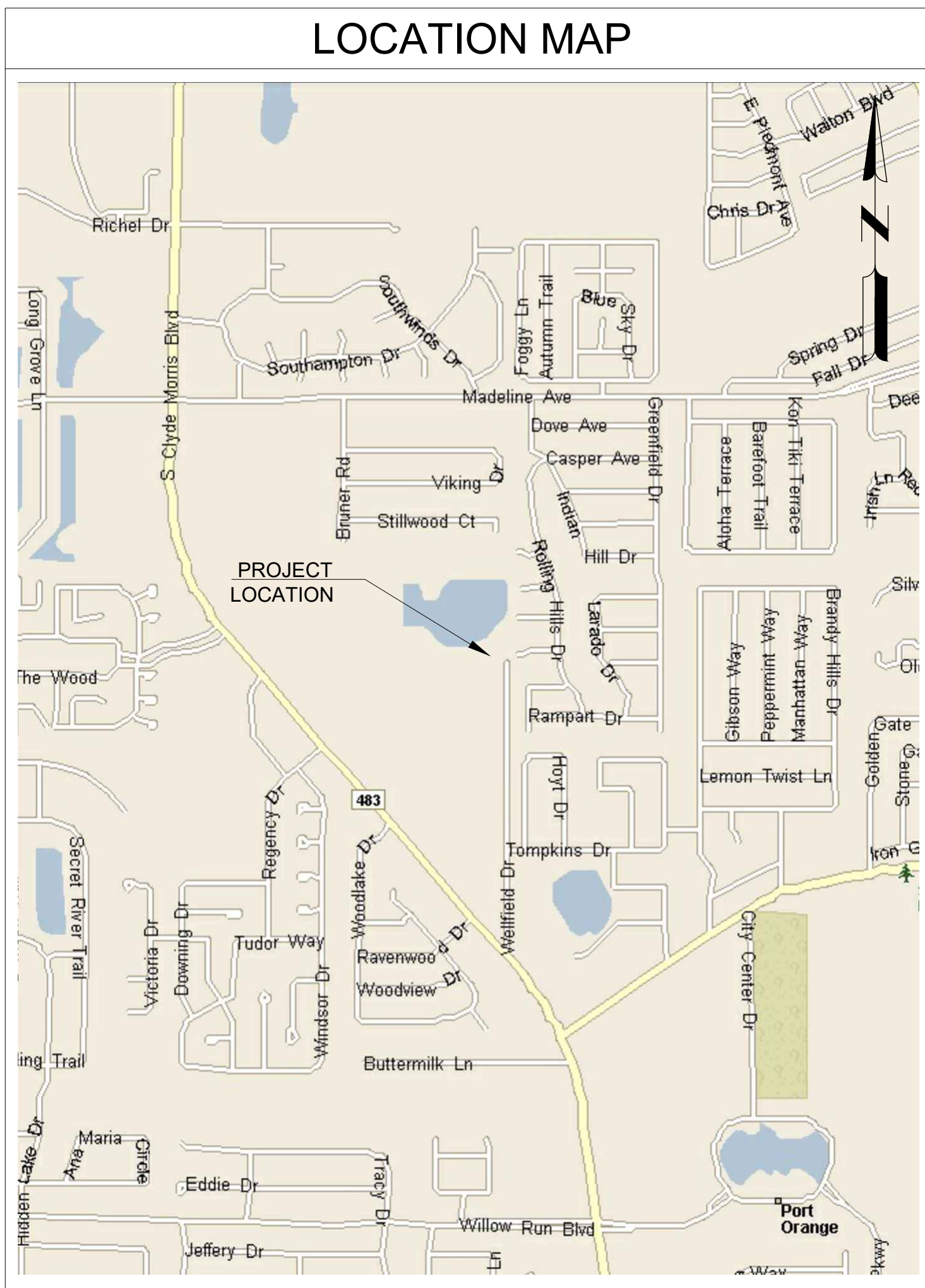


VOLUSIA COUNTY



BID # 22-07
BID - SET
APRIL 2022

LOCATION MAP



SHEET INDEX

SHEET NUMBER	SHEET TITLE
G-001	COVER SHEET
G-002	LEGEND AND ABBREVIATIONS
C-101	OVERALL SITE PLAN - GENERAL NOTES
C-102	GENERATOR SITE - DEMOLITION & PROPOSED SITE WORK
C-103	PROPOSED SITE PLAN
C-104	GENERATOR SITE -DETAILS
C-105	PROPOSED ELECTRIC ROOM
M-101	MECHANICAL - HVAC PLAN
E-001	ELECTRICAL LEGEND AND NOTES
ED101	ELECTRICAL DEMOLITION
ED701	SINGLE LINE DIAGRAM DEMOLITION
E-011	ELECTRICAL SITE PLAN EXISTING
E-012	ELECTRICAL SITE PLAN PROPOSED
E-101	ELECTRICAL PLANS
E-102	ELECTRICAL PLAN
E-701	SINGLE LINE DIAGRAM SWITCHGEAR MSB
E-702	SINGLE LINE DIAGRAM MCC-3 & MCC-4
AB-1	GENERATOR BUILDING PLAN RECORD DRAWING
AB-2	STORAGE BUILDING DETAILS RECORD DRAWING
AB-3	STORAGE BUILDING FLOOR PLAN RECORD DRAWING
AB-4	STORAGE BUILDING ELEVATIONS RECORD DRAWING
AB-5	MASTER SINGLE LINE DIAGRAM RECORD DRAWING
AB-6	GENERATOR BUILDING ELECTRIC RECORD DRAWING

ENGINEER OF RECORD: BRAD T. BLAIS, P.E.

P.E. NUMBER: 47130

ELECTRICAL ENGINEER: KEFF S. KURELLA, P.E.

P.E. NUMBER: 62496

CITY OF PORT ORANGE
PROJECT MANAGER: JUNOS REED, P.E.



Know what's below.
Call before you dig.

**Mead
& Hunt**

Mead and Hunt, Inc.
4401 Eastport Parkway
Port Orange, FL 32127
phone: 386-761-6810
meadhunt.com
FL Cert. #26730



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**CITY OF PORT ORANGE
GARNSEY WTP GENERATOR
INSTALLATION**
4400 Wellfield Drive
Port Orange, FL 32119

ISSUED
04/18/2022 BID SET

NOT FOR CONSTRUCTION

M&H NO.: 1000715-192311.01
DATE: AUGUST, 2021
DESIGNED BY: BTB
DRAWN BY: SEM
CHECKED BY: BTB
DO NOT SCALE DRAWINGS

SHEET CONTENTS

COVER SHEET

SHEET NO.

G-001

A		
ABD.	ABANDON OR ABANDONED	
AC.	ACRE	
A/C	AIR CONDITIONING	
ACCOMP	ASPHALT COATED CORRUGATED METAL PIPE	
ACP	ASBESTOS CEMENT PIPE	
AFF	ABOVE FINISHED FLOOR	
AFG	ABOVE FINISHED GRADE	
AHD	AHEAD	
AIR	AIR	
AL	ALUMINUM	
ALT.	ALTERNATE	
APPROX.	APPROXIMATE	
ARCH.	ARCHITECTURE	
ARV	AIR RELEASE VALVE	
ARVV	AIR RELEASE VACUUM VALVE	
ASPH.	ASPHALT	
ASSY.	ASSEMBLY	
AVE.	AVENUE	
AUTO	AUTOMATIC	

B		
BCV	BALL CHECK VALVE	
BF	BLIND FLANGE	
BFV	BUTTERFLY VALVE	
BK.	BACK	
B	BASE LINE	
BLDG.	BUILDING	
BLK	BLOCK	
BM	BENCH MARK	
BOC	BACK OF CURB	
BOT.	BOTTOM	
BRG.	BEARING	
BS	BLACK STEEL PIPE	
BV	BALL VALVE	
BWW	BACKWASH WATER	

C		
CATV	CABLE TELEVISION	
C.B.	CATCH BASIN	
CFM	CUBIC FEET PER MINUTE	
CFPS	CUBIC FEET PER SECOND	
C & G	CURB AND GUTTER	
CIP	CAST IRON PIPE	
CIR.	CIRCUIT	
CISP	CAST-IRON SOIL PIPE	
C.J.	CONSTRUCTION JOINT	
C	CENTER LINE	
CL.	CLASS	
C.L.F.	CHAIN LINK FENCE	
CLR.	CLEARANCE	
CMP	CORRUGATED METAL PIPE	
CMPA	CORRUGATED METAL PIPE ARCH	
C.M.U.	CONCRETE MASONRY UNIT	
CND.	CONDUIT	
C.O.	CLEANOUT	
CO.	COMPANY	
COL.	COLUMN	
CONC.	CONCRETE	
CONV.	CONNECTION	
CONST.	CONSTRUCT/CONSTRUCTION	
CONT.	CONTINUOUS	
COORD.	COORDINATE	
COR.	CORNER	
CPLG.	COUPLING	
CPVC	CHLORINATED POLYVINYL CHLORIDE	
CS	CHLORINE SOLUTION	
CTR.	CENTER	
CULV	CULVERT	
CY	CUBIC YARD	
CYL.	CYLINDER	
CU.FT.	CUBIC FEET	
CU.IN.	CUBIC INCHES	
CV	CHECK VALVE	

D		
DBL.	DEGREE OF CURVATURE	
DBL.	DOUBLE	
DET.	DETAIL	
D.F.	DRINKING FOUNTAIN	
D.F.	DIESEL FUEL	
D.I.	DUCTILE IRON/DROP INLET	
DIA.	DIAMETER	
DIAG.	DIAGONAL	
DIFF.	DIFFUSER	
DIM.	DIMENSION	
DIP	DUCTILE IRON PIPE	
DISCH.	DISCHARGE	
DR.	DRIVE	
DRN.	DRAIN	
DWG.	DRAWING	
DWL.	DESIGN WATER LEVEL	
DVV	DRAIN, WASTE AND VENT	
DW	DRIVEWAY	

E		
E	EAST	
EA.	EACH	
ECC.	ECCENTRIC	
ECC.	EACH FACE	
EFF.	EFFLUENT	
E	EASEMENT LINE	
EL	ELEVATION	
ELEC.	ELECTRIC/ELECTRICAL	
ELP.	ELLIPTICAL	
ENC.	ENCASEMENT	
ENGR.	ENGINEER	
EOP	EDGE OF PAVEMENT	
EQUIP.	EQUIPMENT	
ESMT.	EASEMENT	
EST.	ESTIMATE/ESTIMATED	
E.W.	EACH WAY	
EXIST.	EXISTING	
EXP.	EXPANSION	
EXT.	EXTERIOR/EXTENSION	

F		
FAB.	FABRICATE	
FAC	FLANGED ADAPTER COUPLING	
F.C.V.	FLOW CONTROL VALVE	
F.D.	FLOOR DRAIN	
FE	FILTERED EFFLUENT	
F.F.	FINISHED FLOOR	
F.G.	FINISHED GRADE	
F.H.	FIRE HYDRANT	
FIG.	FIGURE	
FIN.	FINISH	
F.L.	FLOW LINE	
FL	FLOOR/FLOOR LINE	
FLG.	FLANGE	
F.M.	FORCE MAIN	
FRP	FIBERGLASS REINFORCED PLASTIC	
FSP	FLOOR STAND	
FT.	FEET/FOOT	
FTG.	FOOTING	
FUT.	FUTURE	
FV	FOOT VALVE	

G		
GA.	GAUGE	
GAL.	GALLON	
GALV.	GALVANIZED	
GAS	GAS MAIN	
G.E.J.	GROOVED END JOINT	
GND.	GROUND	
GPD	GALLONS PER DAY	
GPM	GALLONS PER MINUTE	
GR.	GRADE	
G.S.	GALVANIZED STEEL	

G		
G.S.	GALVANIZED STEEL	
GSP.	GALVANIZED STEEL PIPE	
GSR.	GROUND STORAGE RESERVOIR	
GV	GATE VALVE	

H		
HB	HOSE BIBB	
H.D.	HEAVY DUTY	
HOA	HAND/OFF/AUTO	
HORIZ.	HORIZONTAL	
HP	HORSEPOWER	
HR.	HOOR	
HT.	HEIGHT	
HVAC	HEATING, VENTILATION & AIR CONDO	
H.W.L.	HIGH WATER LEVEL	
HVY	HYDRAULIC	

I		
ID	INSIDE DIAMETER	
IN.	INCHES	
INF.	INFLUENT	
INT.	INTERSECTION	
INV.	INVERT	
IP	IRON PIPE	
IRR.	IRRIGATION	

J		
J.B.	JUNCTION BOX	
JT	JOINT	

L		
LAB	LABORATORY	
LAT.	LATERAL	
LAV.	LAVATORY	
LB	POUND	
L.F.	LINEAR FEET	
L.P.	LIGHT POLE	
L.S.	LIFT STATION	
LT	LEFT	
LVR.	LOUVER	
L.W.L.	LOW WATER LEVEL	

M		
MATL.	MATERIAL	
MAX.	MAXIMUM	
M.B.	MACHINE BOLT	
MCC	MOTOR CONTROL CENTER	
M.E.	MITERED END	
MECH.	MECHANICAL	
MFR.	MANUFACTURER	
MGD	MILLION GALLONS PER DAY	
M.H.	MANHOLE	
MIN.	MINIMUM	
MISC.	MISCELLANEOUS	
M.J.	MECHANICAL JOINT	
MOD.	MODIFY/MODIFIED	
MON.	MONUMENT	
M.W.	MANWAY	
M.W.L.	MEAN WATER LEVEL	
M.G.	MILLION GALLON	
MTD.	MOUNT	

N		
N	NORTH	
N/A	NOT APPLICABLE	
N & C	NAIL AND CAP	
N.C.	NORMALLY CLOSED	
NE	NORTHEAST	
NG.	NATURAL GROUND	
NIC	NOT IN CONTRACT	
NO.	NUMBER	
N.O.	NORMALLY OPEN	
NOM.	NOMINAL	
NPT	NATIONAL PIPE THREAD	
NPW	NON-POTABLE WATER	
N.R.S.	NON-RISING STEM	
N.S.	NEAR SIDE	
NT	NOT TO SCALE	
NW	NORTHWEST	
NY.	NYLON TUBING	

O		
O.C.	ON CENTER	
O.D.	OUTSIDE DIAMETER	
O.D.P.	OPEN DRIP PROOF	
O/E	OR EQUAL	
O.F.	OUTSIDE FACE	
O.H.	OVERHEAD	
OPP.	OPPOSITE	
OPT.	OPTIONAL	
O.S.Y.	OUTSIDE SCREW AND YOKE	

P		
PAVT	PAVEMENT	
PC	POINT OF CURVATURE	
P.C.M.	PERMANENT CONTROL MONUMENT	
PE	POLYETHYLENE	
P.E.	PLAIN END	
P.E.J.M.	PREMOLDED EXPANSION JOINT MATERIAL	
PEP	POLYETHYLENE PIPE	
PF	POLYMER FEE	
P.G.	PRESSURE GAUGE	
PI	POINT OF INTERSECTION	
PL	PROPERTY LINE	
PLAS.	PLASTIC/PLASTER	
POLY.	POLYETHYLENE-LINED DUCTILE IRON	
POB	POINT OF BEGINNING	
P.O.J.	PUSH ON JOINT	
P.P.	POWER POLE	
PPD	POUNDS PER DAY	
PP	POLYPROPYLENE	
PPM	PARTS PER MILLION	
PRESS.	PRESSURE	
PROP.	PROPOSED	
PRT	PRESSURED TREATED	
P.R.V.	PRESSURE REDUCING VALVE	
P.S.	PUMP STATION	
P.S.F.	POUNDS PER SQUARE FOOT	
PSI	POUNDS PER SQUARE INCH	
PSIG	POUNDS PER SQUARE INCH GAUGE	
PSIA	POUNDS PER SQUARE INCH ABSOLUTE	
PT	POINT OF TANGENCY	
P.V.	PLUG VALVE	
PVC	POLYVINYL CHLORIDE - PIPE	
PVMT.	PAVEMENT	
PW	POTABLE WATER	
PWL	PEAK WATER LEVEL	
PWR	POWER	

Q		
Q	FLOW RATE	

R		
R	RADIUS	
RAS	RETURN ACTIVATED SLUDGE	
RBR.	RUBBER HOSE	
R.C.	REINFORCED CONCRETE	
R.C. BOX	REINFORCED CONCRETE BOX	
RCP	REINFORCED CONCRETE PIPE	
RPCA	REINFORCED CONCRETE PIPE ARCH	
RD.	ROAD	
R.DRN.	ROOF DRAIN	

R		
RED.	REDUCER	
REBAR	REINFORCING STEEL	
REF.	REFERENCE	
REINF.	REINFORCE/REINFORCED	
RPMP	REINFORCED PLASTIC MORTAR PIPE	
REM.	REMOVE/REMOVABLE	
REQD.	REQUIRED	
R.DRN	ROOF DRAIN	
RIV.	RIVETED	
R.J.	RESTRAINED JOINT	
RM.	ROOM	
RND.	ROUND	
RPM	REVOLUTIONS PER MINUTE	
R.R.	RAILROAD	
R.S.	RESILIENT SEAT (VALVE)	
RT.	RIGHT	
R.V.	RELIEF VALVE	
RW	RIGHT OF WAY	
R.W.L.	RAW WATER LINE	

S		
S	SOUTH	
SAN	SANITARY SEWER	
SCUM	SCUM	
S=	SLOPE (FT/FT)	
SAN	SANITARY	
SCHED.	SCHEDULE	
SE	SOUTHEAST	
SE	SECONDARY EFFLUENT	
SER	SECONDARY EFFLUENT RETURN	
SECT	SECTION	
SF	SQUARE FOOT	
SGL	SINGLE	
SHLD.	SHOULDER	
SHT.	SHEET/SHEETING	
SIG.	SIGNAL	
SIM.	SIMILAR	
SLV.	SLEEVE	
S.M.	SHEET METAL	
SOFT	SOFT	
SOL	SOLUTION	
SOL.V.	SOLENOID VALVE	
SP	SPACE	
SPCG	SPACING	
SPEC.	SPECIFICATION	
SPRT.	SUPPORT	
SQ	SQUARE	
S.S.	SANITARY SEWER	
S.STL	STAINLESS STEEL	
ST.	STREET	
STA.	STATION	
STD.	STANDARD	
STK.	STAKE	
STL	STEEL	
STL.P	STEEL PIPE	
STR.	STRAIGHT	
STRUCT.	STRUCTURAL	
ST.S.	STORM SEWER	
SURF.	SURFACE	
SVC.	SERVICE	
SW	SOUTHWEST	
SYM.	SYMMETRICAL	

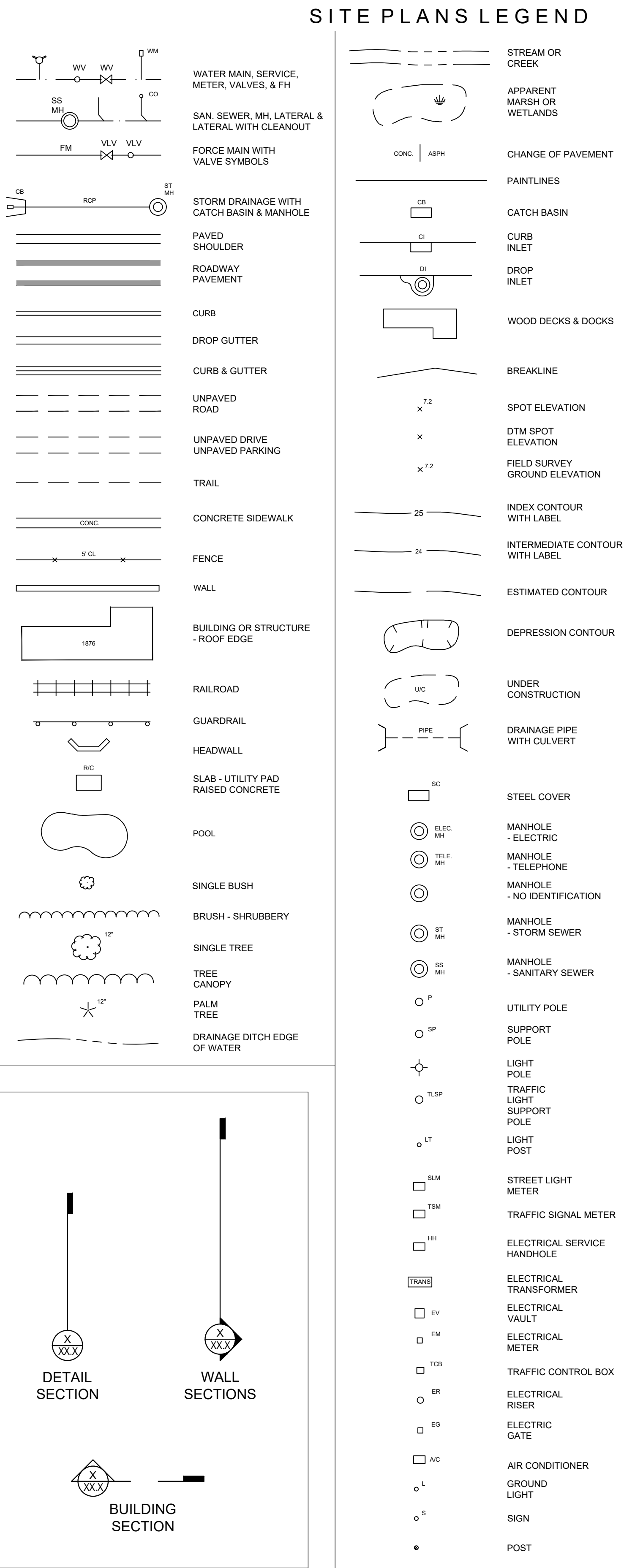
T		
TAN.	TANGENT	
T & B	TOP & BOTTOM	
T/B	TOP OF BEAM	
T.B.M.	TEMPORARY BENCH MARK	
T.E.	TOTALLY ENCLOSED	
T.E.F.C.	TOTALLY ENCLOSED, FAN COOLED	
TEL	TELEPHONE	
TEMP.	TEMPORARY/TEMPERATURE	
T.E.N.V.	TOTALLY ENCLOSED, NON-VENTILATED	
THD.	THREAD/THREADED	
THK.	THICK	
TN.O.	TURNOUT	
T.O.	TOP OF	
T.O.B.	TOP OF BANK	
T.O.C.	TOP OF CURB	
T.O.S.	TOP OF SLAB	
TOT.	TOTAL	
T/P	TOP OF PIPE	
T.P.	TELEPHONE POLE	
TR	TREAD OF STAIR	
T.R.A.	TIE ROD ASSEMBLY	
TRANS.	TRANSFER	
T.S.	TUBE STEEL	
T.V.	TELEVISION	
TYP.	TYPICAL	

U		
U.D.	UNDERDRAIN	
U.G.	UNDERGROUND	
U.G.P.	UNDERGROUND POWER	
ULT.	ULTIMATE	
U.O.N.	UNLESS OTHERWISE NOTED	
UP	UTILITY POLE	
U.T.C.	UNDERGROUND TELEPHONE CABLE	
UTIL.	UTILITY	
UN.	UNION	

V		
VAC.	VACUUM	
VAR.	VARIES	
VB	VALVE BOX	
V.C.	VERTICAL CURVE	
VCP	VITRIFIED CLAY PIPE	
VEL	VELOCITY	
VERT.	VERTICAL	
VFD	VARIABLE FREQUENCY DRIVE	
VFC	VERTICAL POINT OF CURVATURE	
VOL.	VOLUME	
VTR	VENT THROUGH ROOF	

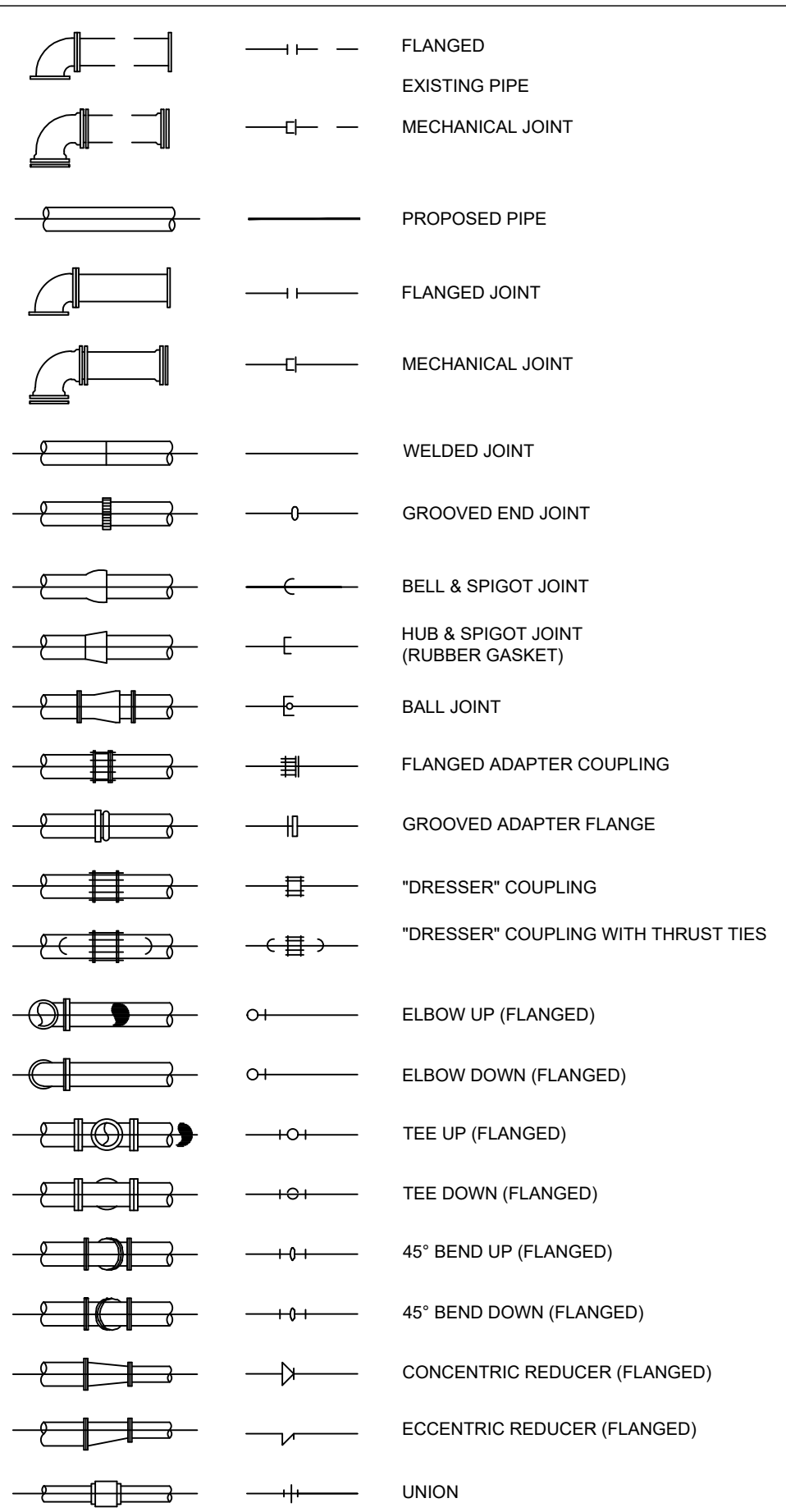
W		
W	WEST	
W/	WITH (COMBINED FORM)	
WAS	WASTE ACTIVATED SLUDGE	
W.C.	WATER CLOSET (TOILET)	
W.C.O.	WALL CLEANOUT	
W.F.	WIDE FLANGE	
W.G.	WATER GAUGE	
W.H.C.	WELDED HALF COUPLING	
W.L.	WATER LINE	
WM	WATER MAIN	
W/O	WITHOUT	
W.P.	WATER PROOF	
WP-1	WEATHER PROTECTED-1	
W.S.	WATER SURFACE	
W.S.EL.	WATER SURFACE ELEVATION	
WSP	WELDED STEEL PIPE	
WT.	WEIGHT	
WTP	WATER TREATMENT PLANT	
W.W.F.	WELDED WIRE FABRIC	
W.W.M.	WELDED WIRE MESH	
WWTP	WASTEWATER TREATMENT PLANT	

Y		
YD(S)	YARD(S)	
YH	YARD HYDRANT	
YR.	YEAR	

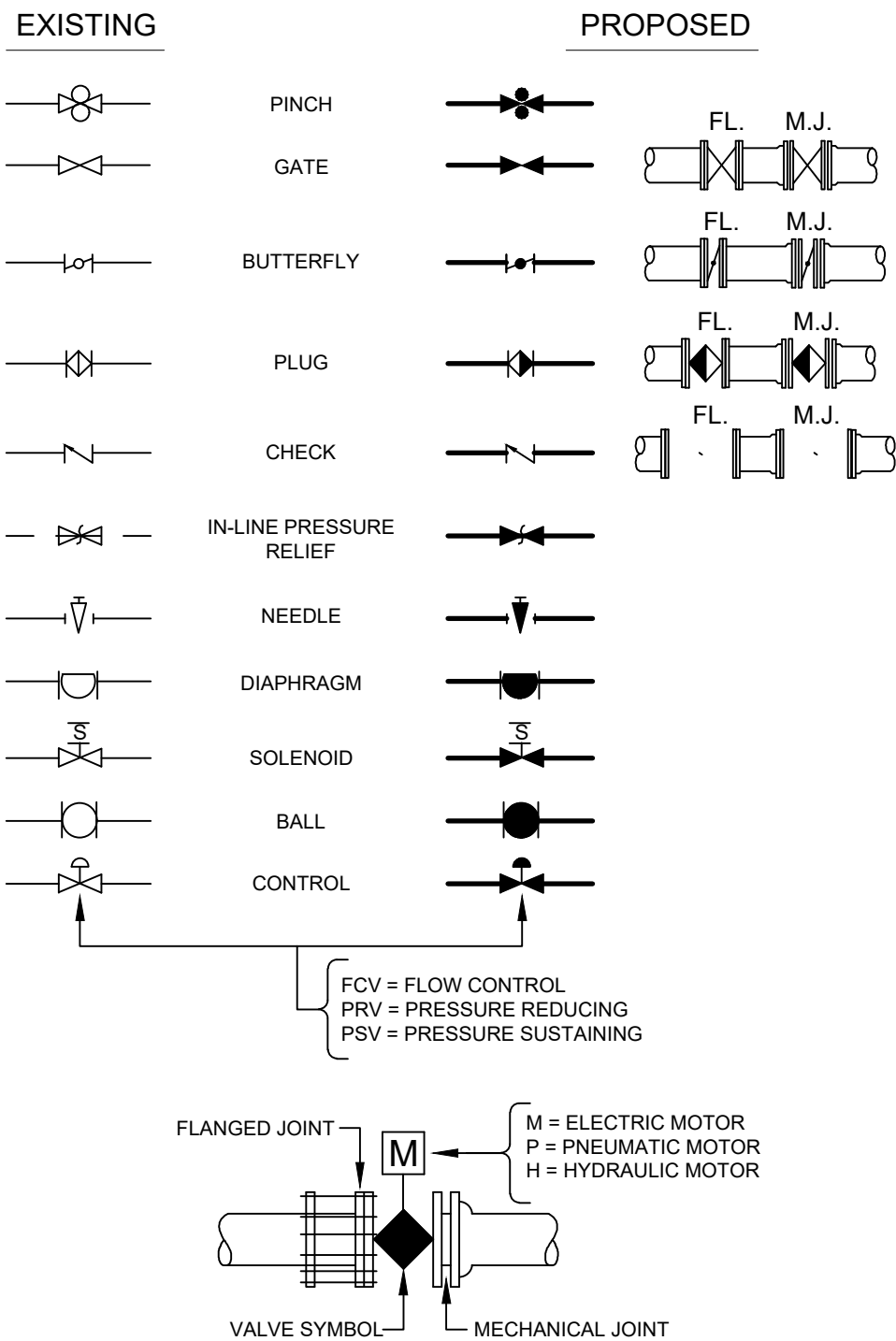


PIPING LEGEND

NOTE:
ALL MECHANICAL JOINT PIPING IN THIS PROJECT SHALL BE INSTALLED WITH "MEGA-LUG" TYPE JOINT RESTRAINT AT ALL PIPE JOINTS AND FITTINGS.



VALVE SYMBOLS



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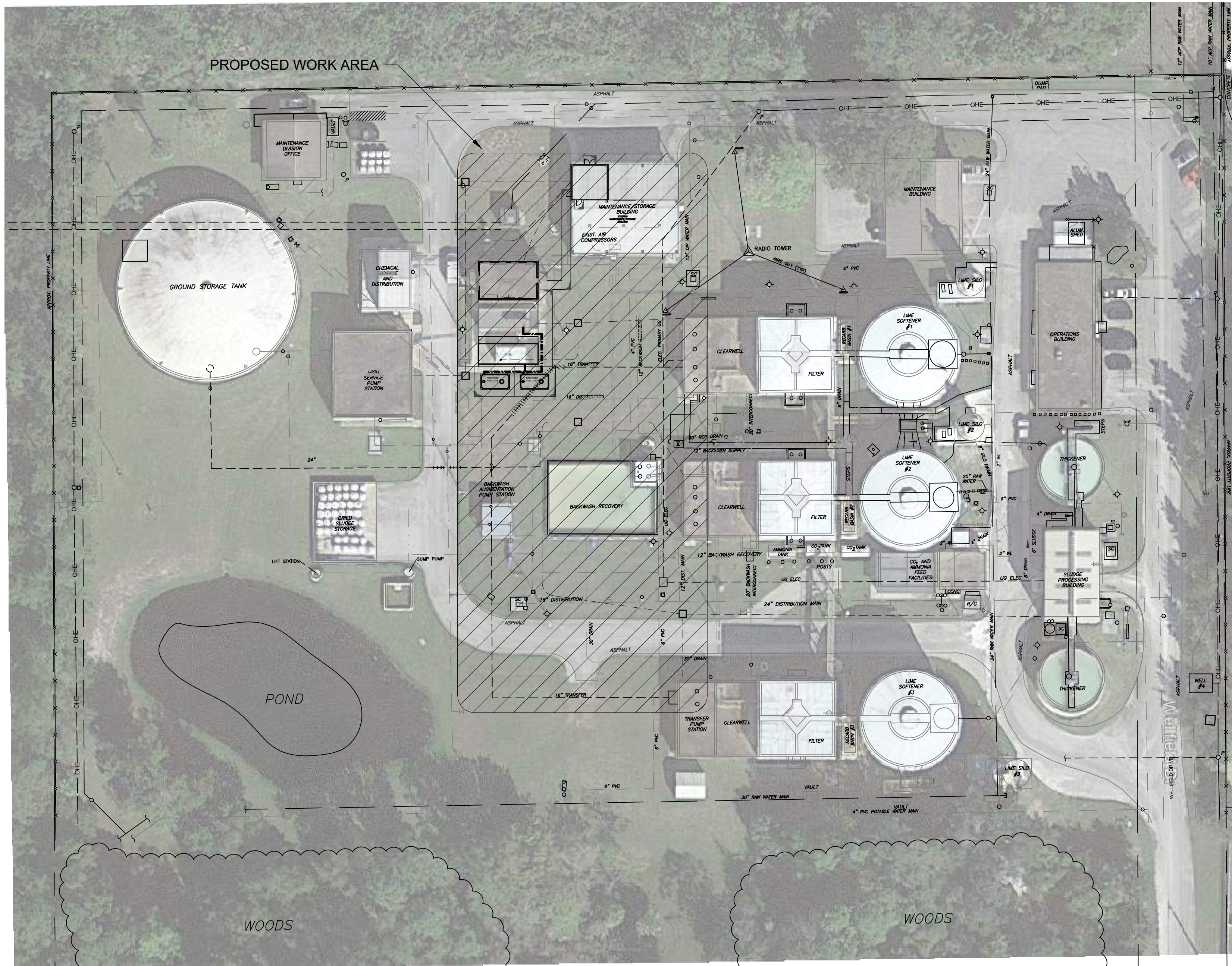
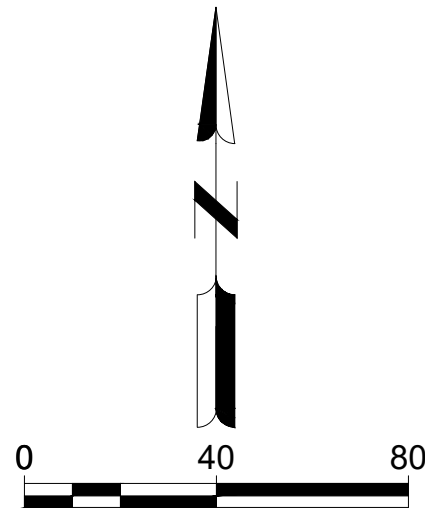
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**CITY OF PORT ORANGE
GARNSEY WTP GENERATOR
INSTALLATION**

4400 Wellfield Drive
Port Orange, FL 32119

ISSUED
04/18/2022

BID SET



PLAN NORTH
EXISTING SITE PLAN
1" = 40'

GENERAL PROJECT REQUIREMENTS

1. UTILITIES & STRUCTURES AS SHOWN ON PLANS HAVE BEEN LOCATED FROM AVAILABLE RECORDS, BUT IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THE LOCATION OF ALL UTILITIES AND STRUCTURES TO BE ENCOUNTERED IN THE WORK AREA AND TO AVOID CONFLICT WITH EXISTING FACILITIES PRIOR TO CONSTRUCTION.
2. THE OWNER SHALL NOT BE HELD RESPONSIBLE FOR INACCURACIES OR OMISSIONS IN THE LOCATION, ELEVATION AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER EXISTING FEATURES.
3. THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY UPON ANY CONFLICTS DURING CONSTRUCTION OF THE IMPROVEMENTS SHOWN ON THESE DRAWINGS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE TO, AND REPLACEMENT OF, EXISTING UTILITIES. REPLACEMENT SHALL BE TO THE COMPLETE SATISFACTION OF THE ENGINEER AND CITY. AT NO ADDITIONAL COST TO THE OWNER.
5. THE CONTRACTOR SHALL PRESERVE FROM DAMAGE ALL PROPERTY THAT IS IN THE VICINITY, OR IS IN ANY WAY AFFECTED BY THE WORK. THE REMOVAL OF OR DESTRUCTION OF PROPERTY WHICH IS NOT CALLED FOR BY THE PLANS, SHALL BE IMMEDIATELY RESTORED TO ITS ORIGINAL CONDITION BY THE CONTRACTOR AT NO COST TO THE OWNER.
6. THE CONTRACTOR SHALL PROVIDE FORTY-EIGHT (48) HOURS NOTICE TO THE VARIOUS UTILITY OWNERS PRIOR TO BEGINNING CONSTRUCTION.
7. ALL UTILITY OUTAGES SHALL BE COORDINATED WITH AND APPROVED BY THE SUPERINTENDENT OF THE DEPARTMENT AFFECTED, PRIOR TO OUTAGE.
8. THE CONTRACTOR SHALL CONDUCT HIS WORK AS TO INSURE LEAST POSSIBLE OBSTRUCTION TO TRAFFIC, AND INCONVENIENCE TO THE PLANT STAFF AND/OR THE RESIDENTS IN THE VICINITY OF THE WORK AND TO INSURE THE PROTECTION OF PERSONS AND PROPERTY. NO ROAD SHALL BE CLOSED TO THE PUBLIC EXCEPT WITH THE APPROVAL OF THE ENGINEER AND THE PROPER GOVERNMENTAL AUTHORITIES.
9. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR, REGISTERED IN THE STATE OF FLORIDA, TO REFERENCE AND RESTORE PROPERTY CORNERS AND LAND MARKERS WHICH MAY BE DISTURBED BY CONSTRUCTION AND TO ASSURE ACCURATE HORIZONTAL AND VERTICAL CONTROLS DURING CONSTRUCTION.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EFFECTIVE DRAINAGE AND EROSION CONTROL DURING CONSTRUCTION AND RESTORATION. TEMPORARY PROVISIONS SHALL BE MADE TO INSURE THE PROPER FUNCTIONING OF ALL SWALES, SEWER INLETS AND DRAINAGE DITCHES. CONTRACTOR SHALL SUBMIT SWPPP.
11. RIGHT-OF-WAY RESTORATION IS TO BE CONDUCTED CONCURRENTLY WITH CONSTRUCTION AS DIRECTED BY THE ENGINEERS. THE ENGINEER SHALL HAVE AUTHORITY TO SUSPEND CONSTRUCTION WORK WHEN RESTORATION IS NOT BEING ADEQUATELY PERFORMED ACCORDING TO THE CONTRACT DOCUMENTS OR BEST MANAGEMENT PRACTICES (BMP). ALL DISTURBED AREAS ARE TO BE RESTORED TO PRE-CONSTRUCTION OR BETTER CONDITION. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE SODDED TO MATCH EXISTING SPECIES AND VARIETY OF GRASS. NO SEEDING SHALL BE PERMITTED.
12. THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN ALL NECESSARY TRAFFIC CONTROL AND SAFETY DEVICES IN ACCORDANCE WITH THE "U.S. DEPARTMENT OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE LATEST "FLORIDA DEPARTMENT OF TRANSPORTATION ROAD DEPARTMENT STANDARDS."
13. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND THE CONTRACTOR'S EXPENSE TO PROVIDE THE ENGINEER WITH CERTIFIED "AS-BUILT" DRAWINGS OF FINISHED CONSTRUCTION AS A REQUIREMENT FOR FINAL PAYMENT. DRAWINGS SHALL CONTAIN SPECIFIC LOCATION OF ALL WATER MAINS, FORCE MAINS AND RECLAIMED WATER MAINS, VALVES AND SERVICE WITHIN THE CONSTRUCTION AREA. "AS-BUILT" DRAWINGS ARE ALSO TO INCLUDE ELECTRICAL, INSTRUMENTATION, AND CONTROLS INFORMATION.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER APPLICATION OF THRUST RESTRAINT SYSTEM TO PREVENT MOVEMENT OF PRESSURIZED PIPE AND FITTINGS.
15. NO FLANGED PIPE SHALL BE INSTALLED UNDERGROUND UNLESS SPECIFICALLY NOTED ON PLAN OR IN SPECIFICATIONS.
16. PIPE BEDDING SHALL BE CLASS I SOIL COMPACTED IN 6" LAYERS TO A HEIGHT OF 18" ABOVE PIPE, 12" LAYERS ARE ACCEPTABLE FROM 18" ABOVE PIPE TO FINISH GRADE, COMPACTED TO 98% OF MODIFIED PROCTOR DENSITY. (AASHTO-T-18) PIPE TO BE LAID OF FIRM FOUNDATION.
17. COMPACTION TEST TO BE TAKEN AT POINTS ONE (1) FOOT ABOVE PIPE AND ONE (1) FOOT VERTICAL INTERVALS TO FINISH GRADE AND AT HORIZONTAL SPACING OF THREE HUNDRED (300) FEET BY A CERTIFIED THIRD PARTY INSPECTOR, ACCORDING TO THE F.B.C.
18. ADEQUATE EXCAVATION, SHEETING, SHORING AND BRACING SHALL BE PROVIDED AND SHALL CONFORM TO CONSTRUCTION REQUIREMENTS AS SET FORTH BY THE FEDERAL DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
19. PROVISIONS FOR DEWATERING SHALL BE MADE TO KEEP GROUNDWATER ELEVATION A MINIMUM OF 6" BELOW THE PIPE BEING INSTALLED.
20. LENGTHS OF PIPE ARE APPROXIMATE ONLY AND EXACT LENGTHS ARE TO BE DETERMINED IN THE FIELD.
21. PAVEMENT OVERLAY PRICING SHALL INCLUDE VALVE BOX AND MANHOLE ADJUSTMENT AND PAVEMENT RESTRIPING.
22. CONTRACTOR SHALL CALL FOR UTILITY LOCATES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. ALL CITY LOCATES SHALL BE THROUGH THE ENGINEER'S REPRESENTATIVE.
23. IN AREAS WHERE PIPELINE INSTALLATION WILL DISTURB EXISTING SWALES, ELEVATIONS WILL BE REQUIRED AT 50 FT. INTERVALS AT LEAST 2 WEEKS PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE SURVEYS WILL BE BY A FLA. REGISTERED SURVEYOR AND ARE SUBJECT TO APPROVAL BY THE ENGINEER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
24. ACCESS FOR POSTAL SERVICE AND SOLID WASTE COLLECTORS SHALL BE CONTINUOUSLY PROVIDED, SECURED AND MAINTAINED DURING PROJECT.
25. IF ANY MUCK OR MUCK-LIKE MATERIAL IS DISCOVERED, IT WILL BE REQUIRED TO BE REMOVED, BACKFILLED WITH CLEAN FILL, COMPACTED, AND TESTED USING AASHTO T-180 MODIFIED PROCTOR METHOD.
26. PRIOR TO THE FILLING ON FUTURE ROADWAY AND LOT AREAS, THE REMOVAL OF ANY VEGETATION AND TOP SOIL MUST BE PERFORMED.
27. A SIGNED, SEALED, AND DATED LETTER FROM A SOILS ENGINEER OR ENGINEER OF RECORD CERTIFYING THAT THE AREAS TO BE FILLED HAVE BEEN STRIPPED OF ORGANIC MATERIAL MUST BE SUBMITTED TO THE OWNER PRIOR TO FILLING.
28. NO BURYING OF ANY ORGANIC MATERIALS IS PERMITTED.
29. ANY BURNING OF ANY MATERIALS ON-SITE MUST BE APPROVED AND PERMITTED BY THE FIRE MARSHALL. A PERMIT MUST BE OBTAINED ON A DAILY BASIS PRIOR TO THE DAY OF THE ANTICIPATED BURNING.
30. ALL FILLING TO BE PERFORMED IN ONE-FOOT LIFTS. THE COMPACTION REQUIREMENT IS 98% PER AASHTO T-180 FOR PAVED AREAS AND 95% FOR UNPAVED AREAS.
31. TEMPORARY FILL STOCKPILING IS NOT PERMITTED IN LIFTS GREATER THAN SIX FEET.
32. AT A MINIMUM, STOCKPILES THAT WILL REMAIN IN PLACE IN EXCESS OF 20 DAYS, SHOULD BE SEEDDED AND MULCHED IMMEDIATELY UPON PLACEMENT OF THE FINAL LIFT.
33. SOILS ARE TO BE STABILIZED BY WATER OR OTHER MEANS DURING CONSTRUCTION. THIS IS INTENDED TO REDUCE SOIL EROSION AND THE IMPACT TO NEIGHBORING COMMUNITIES. IN ACCORDANCE WITH THE S.W.P.P.P.
34. UPON COMPLETION OF EACH PORTION OF A PROJECT WITHIN A PHASE OF THE PROJECT, SODDING IS TO BE PERFORMED PRIOR TO COMMENCING THE NEXT PHASE.
35. ONCE AN AREA IS SODDED, IT MUST BE MAINTAINED AND PROTECTED TO ALLOW THE GRASS TO GROW.
36. CONTRACTOR SHALL BE REQUIRED TO COMPLETE UTILITY CONNECTIONS TO EXISTING FACILITIES THAT REQUIRE "SHUTDOWNS" DURING NIGHTTIME HOURS AFTER 11:00 P.M. AND TO COORDINATE SUCH WORK WITH THE OWNER.
37. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND PAYING ALL COST ASSOCIATED WITH TEMPORARY HOLDING OF UTILITY POLES. (EXISTING AND PROPOSED)
38. CONTRACTOR SHALL ALLOW FOR UP TO 3 WEEKS FOR REMOVAL OF EXISTING PRIVATE UTILITIES BY PRIVATE UTILITY COMPANIES. CONTRACTOR SHALL COORDINATE THIS WORK.

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GARNSEY WTP GENERATOR
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4400 Wellfield Drive
Port Orange, FL 32119

ISSUED
04/18/2022 BID SET

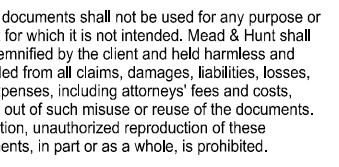
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M&H NO.: 1000715-192311.01
DATE: AUGUST, 2021
DESIGNED BY: BTB
DRAWN BY: SEM
CHECKED BY: BTB
DO NOT SCALE DRAWINGS

SHEET CONTENTS
OVERALL SITE PLAN -
GENERAL NOTES

SHEET NO.

C-101

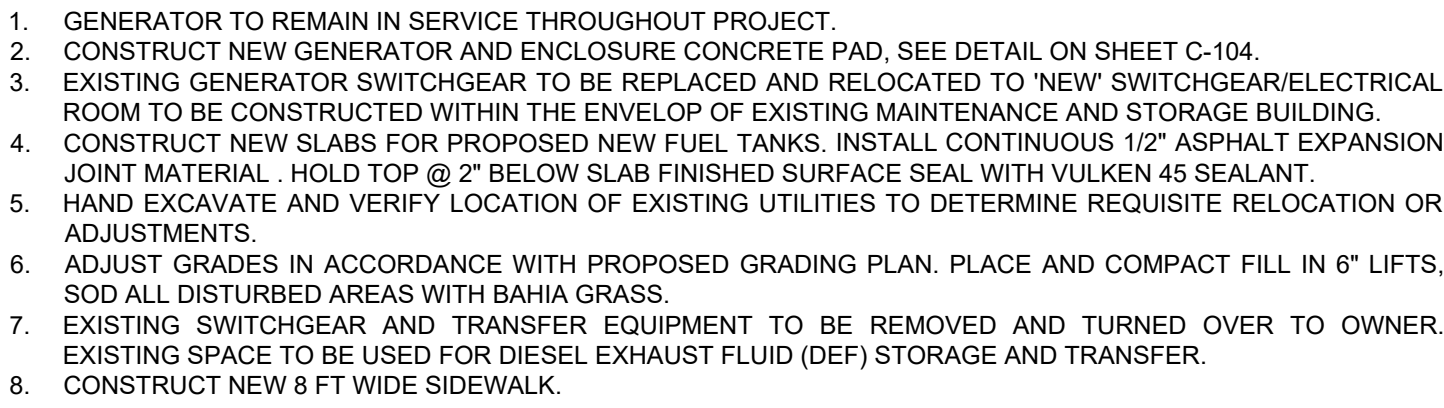


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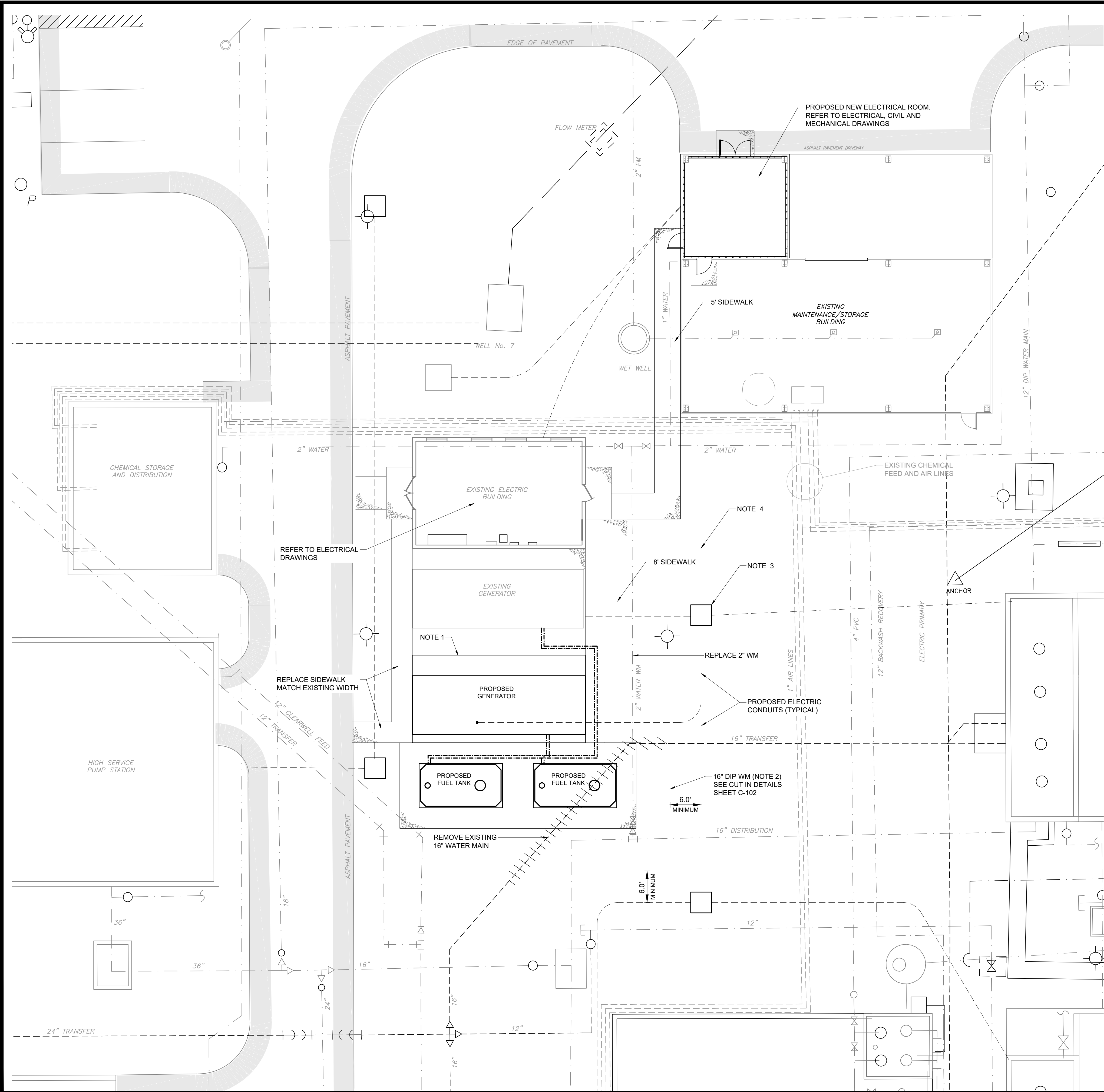
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NO.

C-102



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ENLARGED PROJECT AREA
1" = 10'

- NOTES:**
1. MATCH EXISTING SLAB GRADE.
 2. DIVERT EXISTING 16" TRANSFER MAIN AS REQUIRED.
 3. 4x 4x 4" POLYMER CONCRETE ELECTRICAL PULL BOX.
 4. ELECTRICAL CONDUITS AND PULL BOXES LAYOUT SUBJECT TO FIELD INVESTIGATION OF EXISTING UTILITIES.
 5. A BID ITEM IS ESTABLISHED IN THE SCHEDULE OF VALUES FOR EXPOSING THE SITE EXISTING ELECTRICAL U/G UTILITIES AND ESTABLISHING A CLEAR CORRIDOR FOR ELECTRICAL DUCT BANKS. THE CONTRACTOR SHALL ASSUME, FOR BIDDING PURPOSES, THAT EXISTING TRANSFER AND DISTRIBUTION PIPING IS 3'-6" DEEP AND NEW DUCT BANK WILL BE INSTALLED BELOW EXISTING BURIED PIPING. SWEEPS WILL BE INSTALLED BELOW PROPOSED PULL BOXES TO ACCOMMODATE PROPOSED GRADE CHANGES.

Mead & Hunt

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GARNSEY WTP GENERATOR
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4400 Wellfield Drive
Port Orange, FL 32119

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SHEET CONTENTS
PROPOSED SITE PLAN

SHEET NO.

C-103



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GARNSEY WTP GENERATOR INSTALLATION

4400 Wellfield Drive
Port Orange, FL 32119

D
3/2022 BID SET

FOR CONSTRUCTION

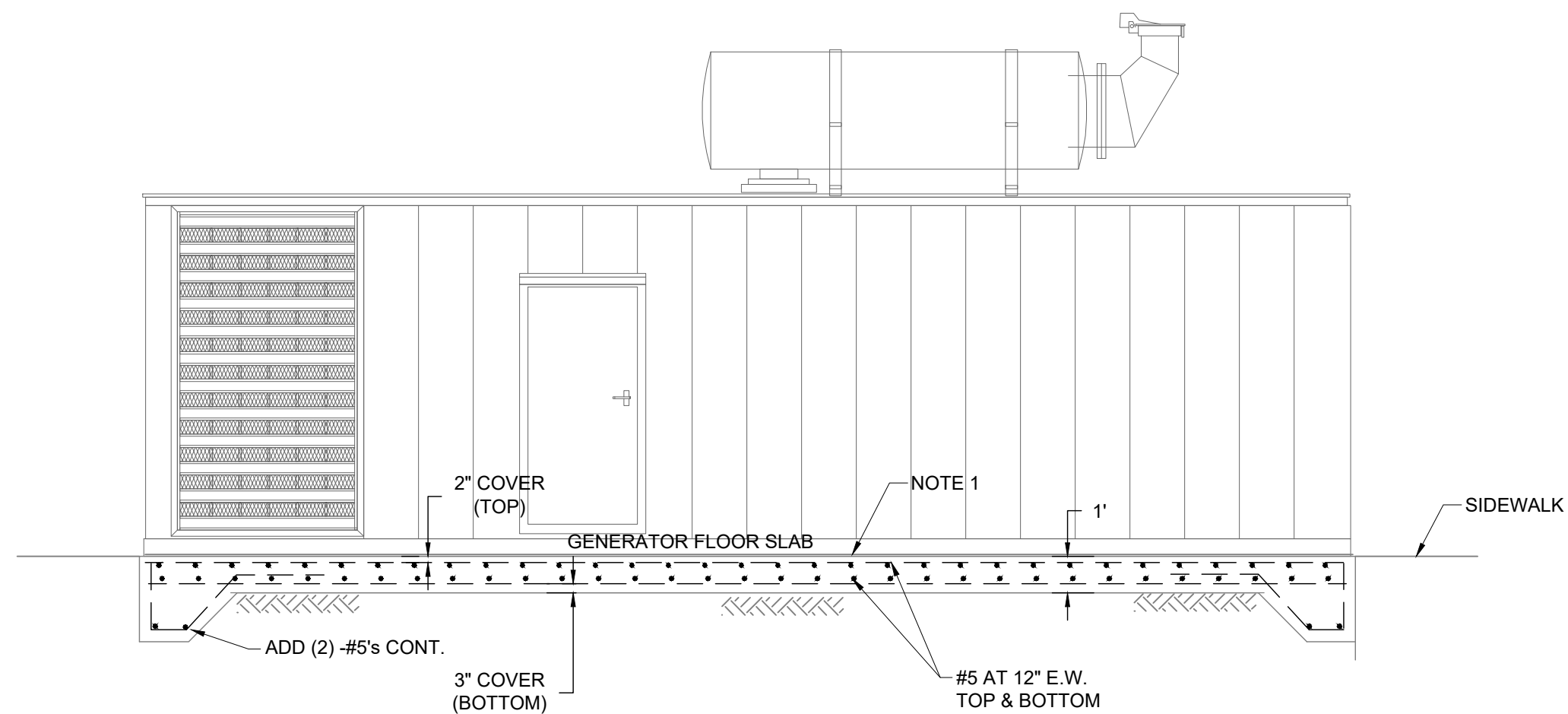
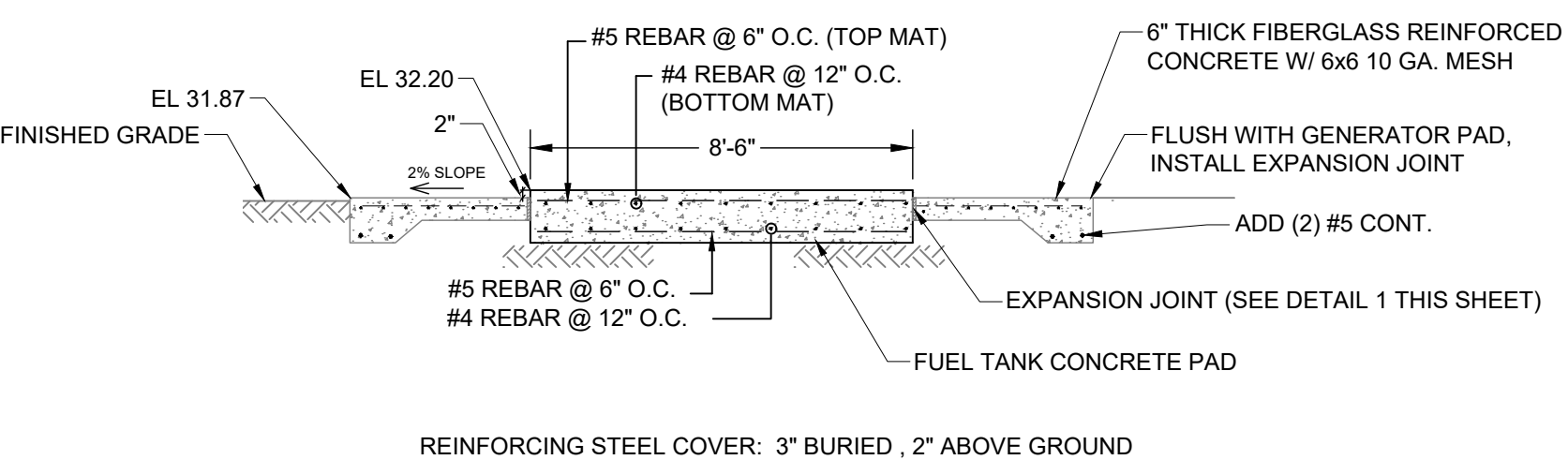
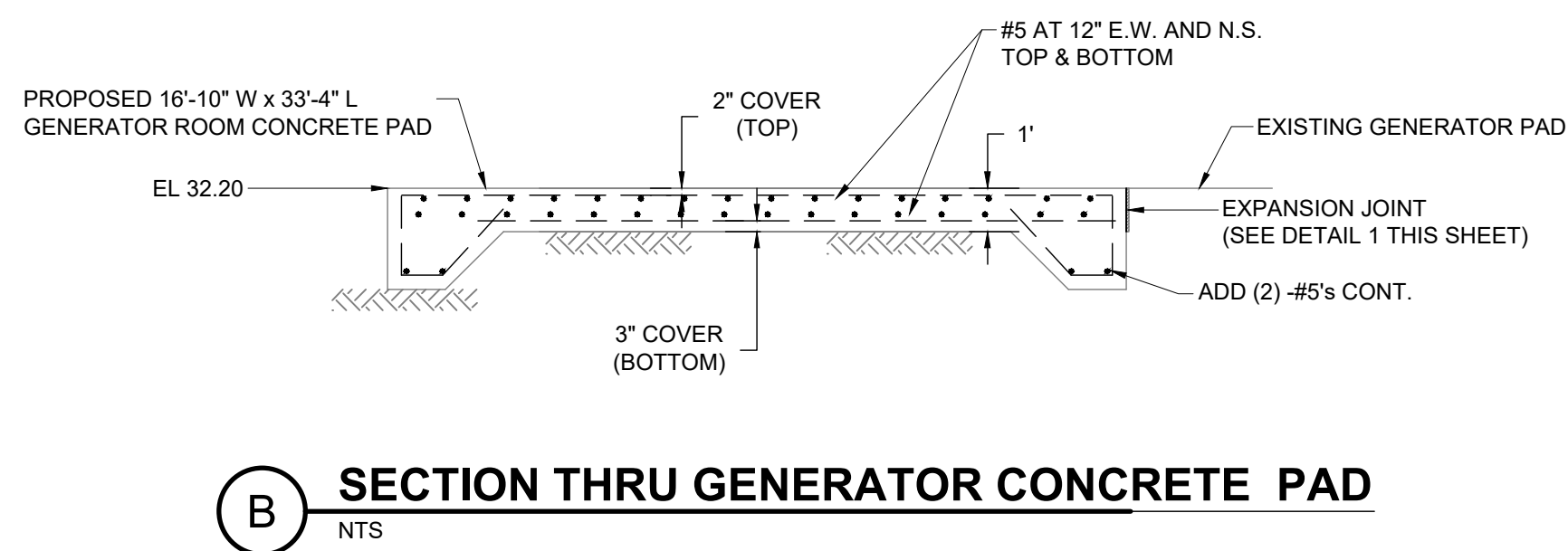
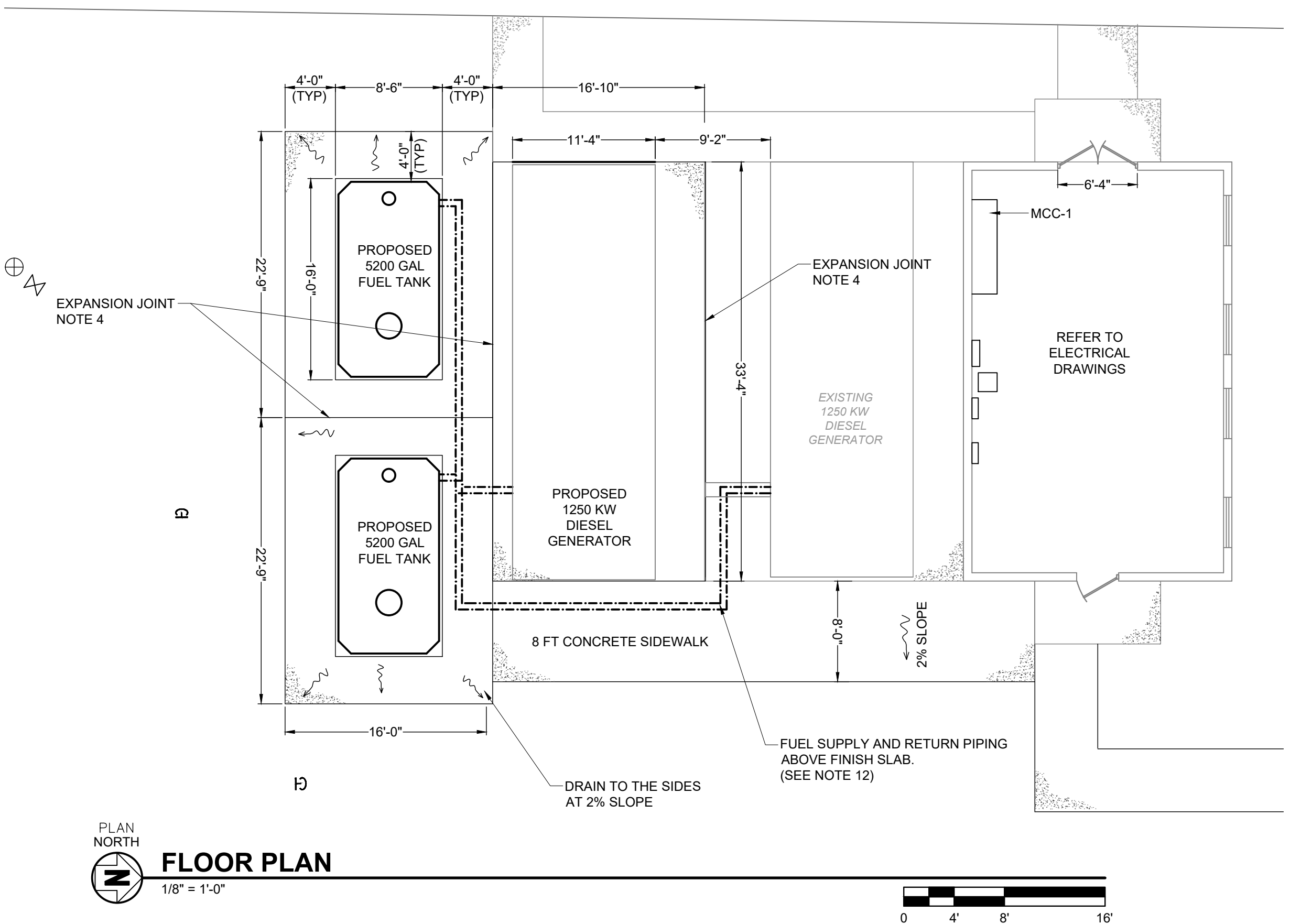
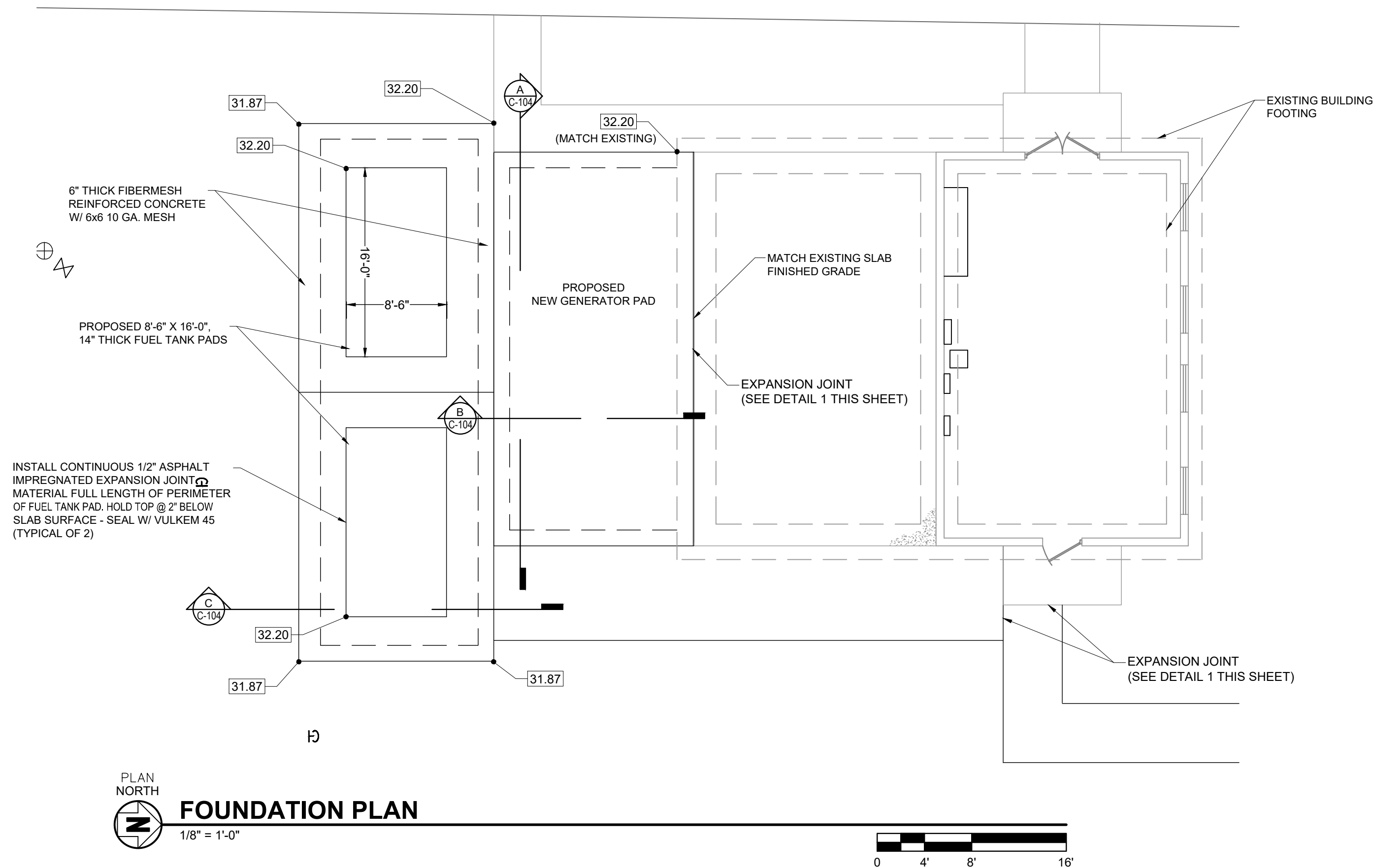
NO.: 1000715-192311.01
AUGUST, 2021
NED BY: BTB
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CONTENTS

GENERATOR SITE DETAILS

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C-104



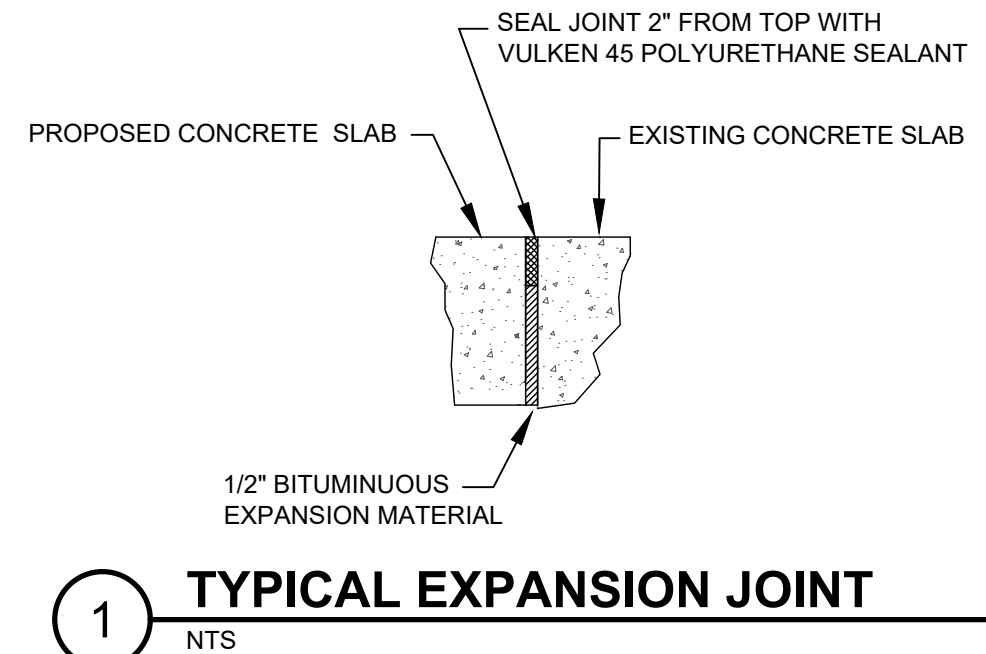
NOTES:

1. MATCH EXISTING SLAB GRADE.
2. FILL TO BE INSTALLED IN 6" LIFTS OVER CLEAN SUBGRADE.
3. ALL DISTURBED AREAS SHALL BE SODDED WITH BAHIA GRASS.
4. INSTALL CONTINUOUS 1/2" ASPHALT EXPANSION JOINT MATERIAL . HOLD TOP @ 1/2" BELOW SLAB FINISHED SURFACE . SEAL WITH VULKEN 45 SEALANT.



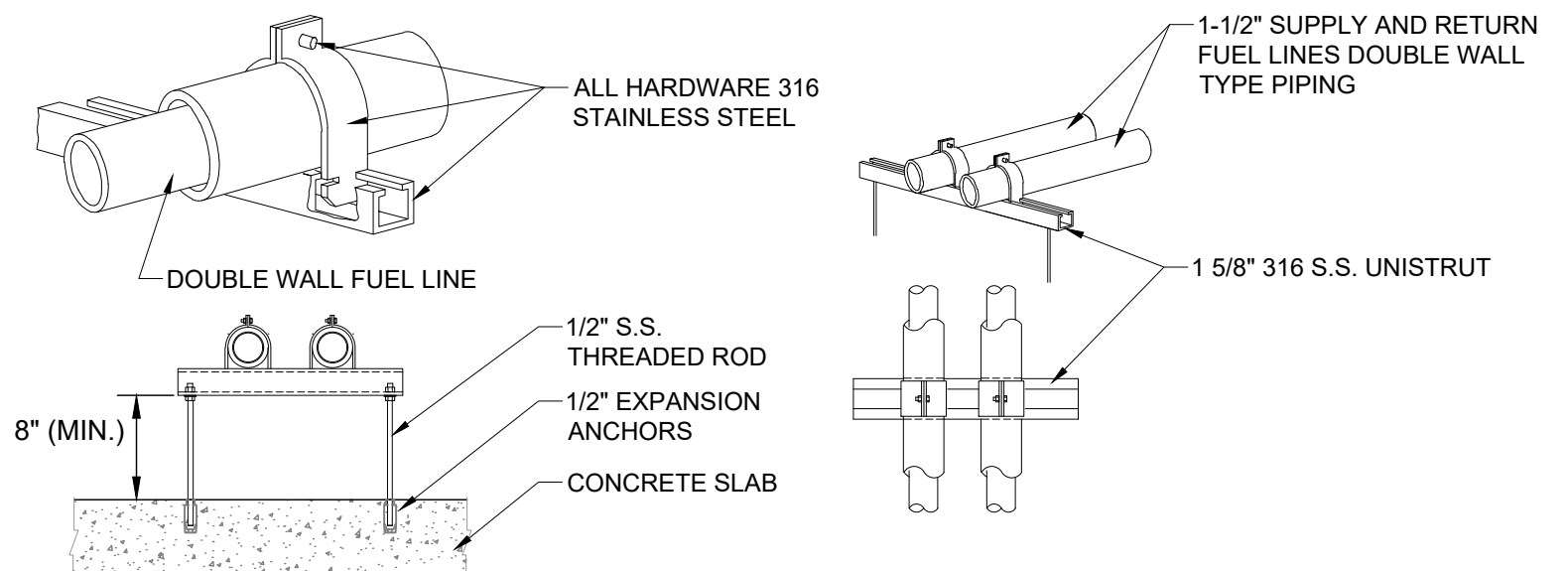
INSTALLATION NOTES:

1. ALL 90° BENDS IN EXHAUST SHALL HAVE RADI OF AT LEAST ONE AND ONE HALF TIMES THE PIPE DIAMETER.
2. PROVIDE EXHAUST PIPE SUPPORTS PER MANUFACTURER'S SPECS (SCH 40 PIPING).
3. COORDINATE ALL ROOF PENETRATIONS WITH PRECAST MANUF. AND ROOFING CONTRACTOR.
4. PROVIDE FLEXIBLE PIPE CONNECTION AT ENGINE EXHAUST OUTLET.
5. INSULATE FUELER & FUEL PIPING INSIDE GENERATOR ROOM W/ 3" THICK CALCIUM SILICATE INSULATION DOWN TO FLEX CONNECTION.
6. MAINTAIN MIN 9" CLEAR FROM COMBUSTIBLE MATERIALS.
7. SLOPE EXHAUST PIPE AWAY FROM MUFFLER AT 1/8" PER FOOT.
8. FUEL SUPPLY AND RETURN LINES TO BE DOUBLE WALL STYLE PIPING AND INSTALLED ABOVE FINISHED SLAB (SEE DETAIL 2 THIS SHEET).
9. WEATHER SEAL AROUND SHROUD WALL PENETRATION AND JOINTS FOR MINIMUM WATER PENETRATION.
10. INSTALLATION SHALL CONFORM TO ALL APPLICABLE NFPA CODES AND MANUFACTURER RECOMMENDATIONS.
11. COORDINATE WITH ARCHITECT TO COORDINATE GENERATOR AND FUEL TANK PAD SIZES WITH MANUFACTURER AND MINIMUM DISTANCES AS SHOWN ON THE DRAWINGS.
12. VALVE PIPING SUCH THAT EACH GENERATOR AND FUEL TANK CAN BE ISOLATED FROM EITHER FUEL TANK AND GENERATOR, WHILE MAINTAINING SYSTEM OPERATIONS.



1 TYPICAL EXPANSION JOINT

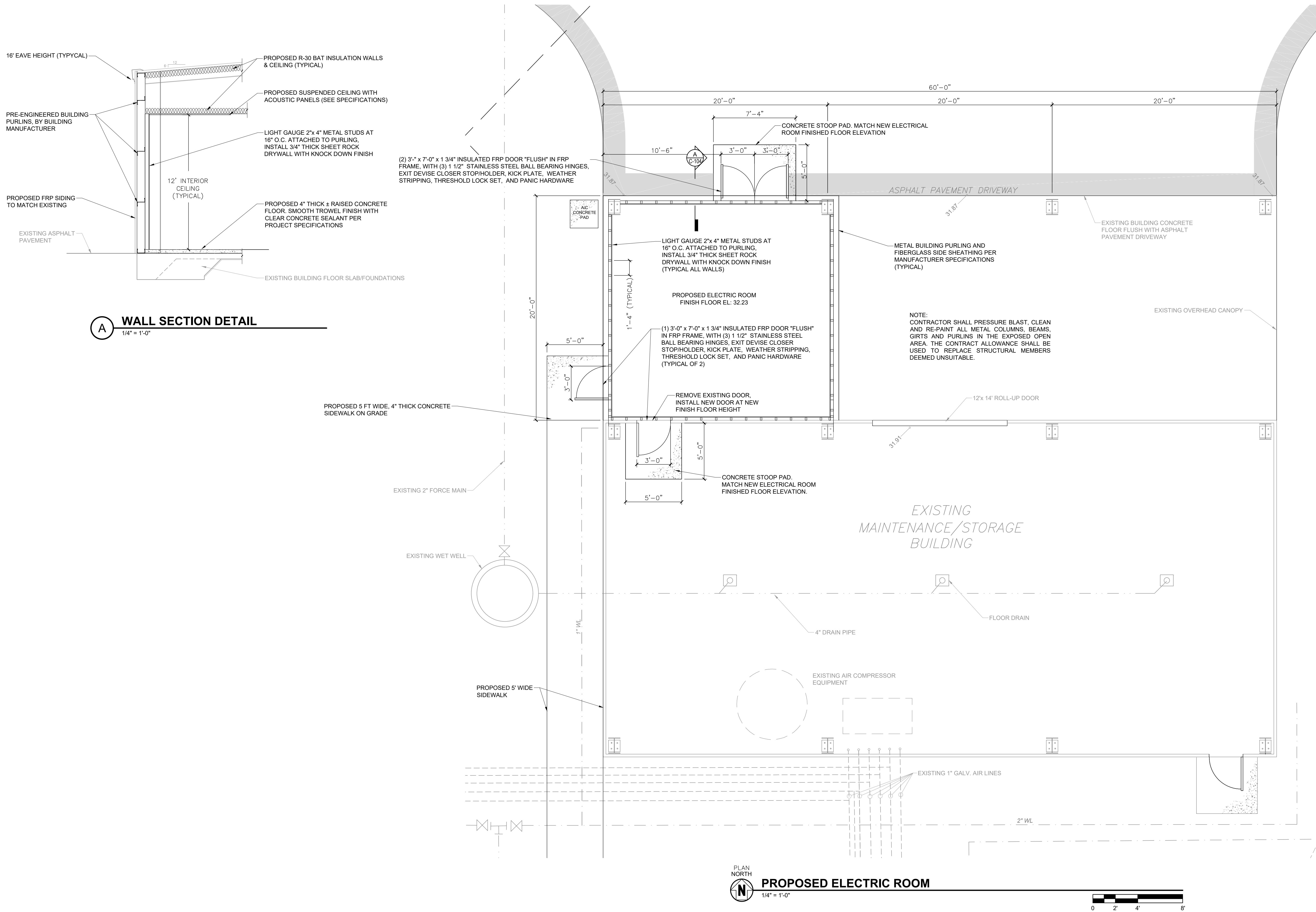
NTS



FUEL LINES PIPING INSTALLATION DETAIL

NTS

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CITY OF PORT ORANGE
GARNSEY WTP GENERATOR
INSTALLATION
4400 Wellfield Drive
Port Orange, FL 32119

ISSUED
04/18/2022
BID SET

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M&H NO.: 1000715-192311.01
DATE: AUGUST, 2021
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SHEET CONTENTS
PROPOSED ELECTRIC ROOM

SHEET NO.

C-105

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4/18/2022 5:22:45 PM

System Checksums

By Mead & Hunt

System - 001

COOLING COIL PEAK					CLG SPACE PEAK					HEATING COIL PEAK					TEMPERATURES				
Peaked at Time: Outside Air: Mo/Hr: 6 / 19 OADB/WBHR: 88 / 73 / 99					Mo/Hr: 6 / 19 OADB: 88					Mo/Hr: Heating Design OADB: 38					Cooling Heating				
Sens. + Lat. Blt/h					Sens. + Lat. Blt/h					Sens. + Lat. Blt/h					SADB Cooling Heating				
Envelope Loads					Envelope Loads					Envelope Loads					Ra Plenum Return RevOA Fm MTD Fm BldTD Fm Frict				
Skylite Solar 0 0 0 0 0					Skylite Solar 0 0 0 0 0					Skylite Solar 0 0 0 0 0					55.0 55.0 55.0 55.0 55.0				
Skylite Cond 978 0 0 0 0					Skylite Cond 978 0 0 0 0					Skylite Cond -270 0 0 0 0					85.0 85.0 85.0 85.0 85.0				
Roof Cond 0 0 0 0 0					Roof Cond 0 0 0 0 0					Roof Cond 0 0 0 0 0					0.1 0.0 0.2 0.0 0.0				
Glass Solar 297 0 0 0 0					Glass Solar 297 0 0 0 0					Glass/Door Cond -811 0 0 0 0					547 547 547 547 547				
Glass/Door Cond 6,904 0 0 0 0					Glass/Door Cond 6,904 0 0 0 0					Glass/Door Cond -3,990 0 0 0 0					53 53 53 53 53				
Wall Cond 0 0 0 0 0					Wall Cond 0 0 0 0 0					Wall Cond 0 0 0 0 0					0 0 0 0 0				
Partition/Door 0 0 0 0 0					Partition/Door 0 0 0 0 0					Partition/Door 0 0 0 0 0					0 0 0 0 0				
Floor 0 0 0 0 0					Floor 0 0 0 0 0					Floor 0 0 0 0 0					0 0 0 0 0				
Adjacent Floor 0.00 0.00 0.00 0.00 0.00					Adjacent Floor 0.00 0.00 0.00 0.00 0.00					Adjacent Floor 0.00 0.00 0.00 0.00 0.00					0 0 0 0 0				
Infiltration 1,858 0 0 0 0					Infiltration 1,858 0 0 0 0					Infiltration 1,858 0 0 0 0					0 0 0 0 0				
Sub Total ==> 10,037 0 10,037 49 8,368 46					Sub Total ==> 10,037 0 10,037 49 8,368 46					Sub Total ==> 10,037 0 10,037 49 8,368 46					0 0 0 0 0				
Internal Loads					Internal Loads					Internal Loads					Internal Loads				
Lights 1,365 0 1,365 7 1,365 7					Lights 1,365 0 1,365 7 1,365 7					Lights 1,365 0 1,365 7 1,365 7					1,365 0 1,365 7 1,365 7				
People 0 0 0 0 0					People 0 0 0 0 0					People 0 0 0 0 0					0 0 0 0 0				
Misc 8,500 0 8,500 41 8,500 47					Misc 8,500 0 8,500 41 8,500 47					Misc 8,500 0 8,500 41 8,500 47					8,500 0 8,500 41 8,500 47				
Sub Total ==> 9,865 0 9,865 48 9,865 54					Sub Total ==> 9,865 0 9,865 48 9,865 54					Sub Total ==> 9,865 0 9,865 48 9,865 54					9,865 0 9,865 48 9,865 54				
Ceiling Load 0 0 0 0 0					Ceiling Load 0 0 0 0 0					Ceiling Load 0 0 0 0 0					0 0 0 0 0				
Ventilation Load 0 0 0 0 0					Ventilation Load 0 0 0 0 0					Ventilation Load 0 0 0 0 0					0 0 0 0 0				
Adj Air Trans Heat 0 0 0 0 0					Adj Air Trans Heat 0 0 0 0 0					Adj Air Trans Heat 0 0 0 0 0					0 0 0 0 0				
Dehumid. Ov Sizing 0 0 0 0 0					Dehumid. Ov Sizing 0 0 0 0 0					Dehumid. Ov Sizing 0 0 0 0 0					0 0 0 0 0				
OvUndr Sizing 0 0 0 0 0					OvUndr Sizing 0 0 0 0 0					OvUndr Sizing 0 0 0 0 0					0 0 0 0 0				
Exhaust Heat 0 0 0 0 0					Exhaust Heat 0 0 0 0 0					Exhaust Heat 0 0 0 0 0					0 0 0 0 0				
Sup. Fan Heat 0 0 0 0 0					Sup. Fan Heat 0 0 0 0 0					Sup. Fan Heat 0 0 0 0 0					0 0 0 0 0				
Ret. Fan Heat 0 0 0 0 0					Ret. Fan Heat 0 0 0 0 0					Ret. Fan Heat 0 0 0 0 0					0 0 0 0 0				
Duct Heat PkUp 0 0 0 0 0					Duct Heat PkUp 0 0 0 0 0					Duct Heat PkUp 0 0 0 0 0					0 0 0 0 0				
Underfir Sup Ht PkUp 0 0 0 0 0					Underfir Sup Ht PkUp 0 0 0 0 0					Underfir Sup Ht PkUp 0 0 0 0 0					0 0 0 0 0				
Supply Air Leakage 0 0 0 0 0					Supply Air Leakage 0 0 0 0 0					Supply Air Leakage 0 0 0 0 0					0 0 0 0 0				
Grand Total ==> 19,902 0 20,550 100.00 18,234 100.00					Grand Total ==> 19,902 0 20,550 100.00 18,234 100.00					Grand Total ==> 19,902 0 20,550 100.00 18,234 100.00					19,902 0 20,550 100.00 18,234 100.00				

Project Name: Garsey WTP Generator
Dataset Name: Port Orange FL_Atrc

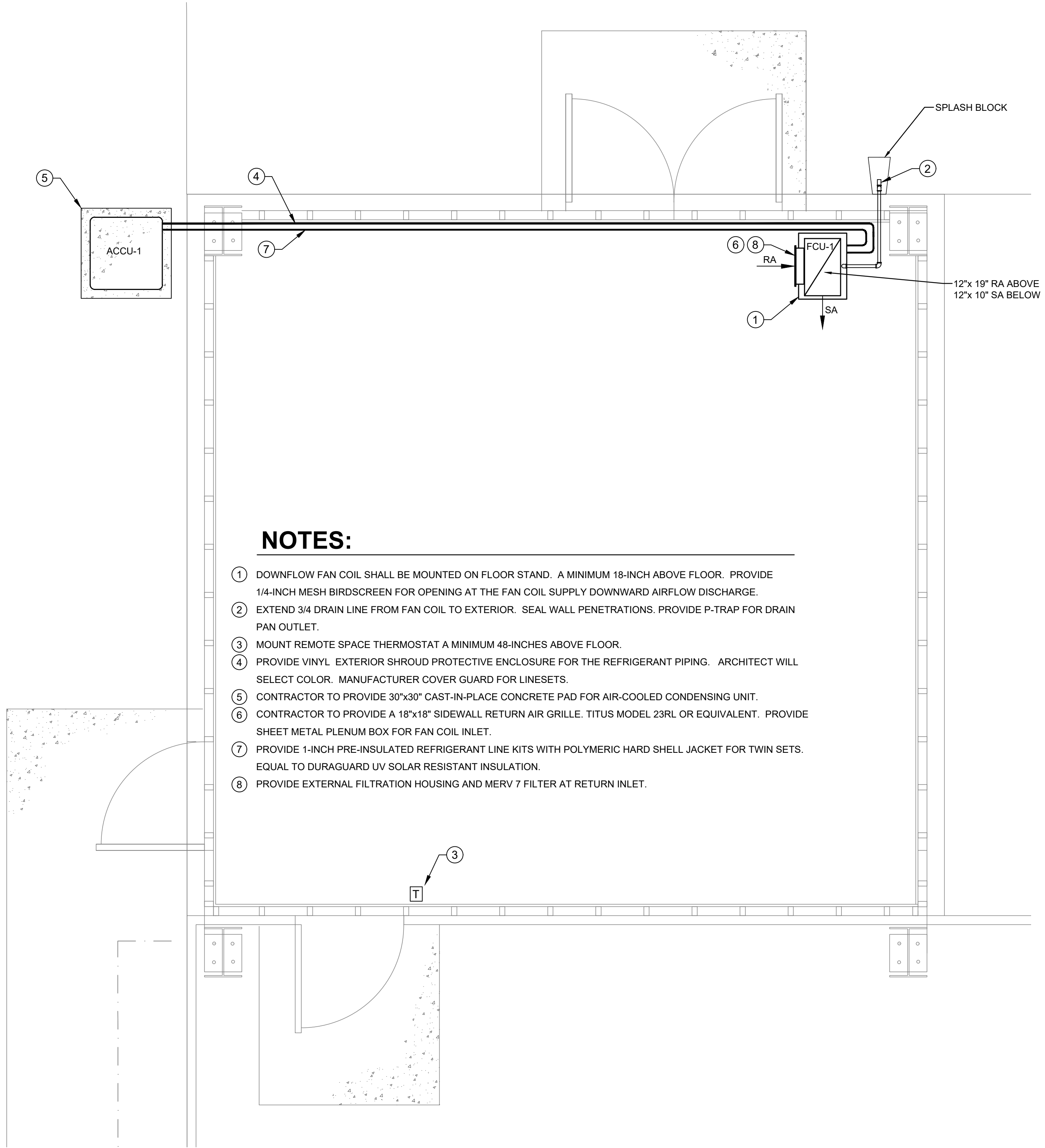
TRACE® 700 v6.3.5 calculated at 07:49 AM on 08/25/2021
Alternative - 1 System Checksums Report Page 1 of 1

AIR COOLED CONDENSING UNIT (ACCU) SCHEDULE																	
MARK	MANUFACTURER, MODEL NUMBER	NOM. CAP. (TON)	MIN. EER	MIN. SEER	REF. TYPE	SST (°F)	HOT GAS BYPASS	NO. OF STAGES	AMB. AIR TEMP. (°F)		COMPRESSORS		ELECTRICAL				(2) MAX. SOUND (dBA)
									MINIMUM	MAXIMUM	QTY.	TYPE	VOLTS	PHASE	MCA	MOCp	MATCHING EQUIPMENT COOLING COIL
ACCU-1	CARRIER, 24AGB324A0930	2	12.0	13.0	R-410A	46	-	2	55	105	1	SCR	208	1	14.3	25.0	74
COMPRESSOR TYPE																	
RCP RECIPROCATING																	
SCR SCROLL - HERMETICALLY SEALED																	
SCW SCREW																	

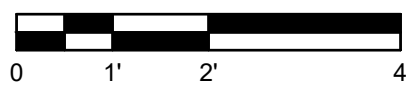
REMARKS:
(1) MANUFACTURER SHALL SIZE REFRIGERANT PIPING, TXV VALVE, FILTER DRIER, AND ACCESSORIES FOR PROPER OPERATION OF SYSTEM.
(2) PER ARI STANDARD 330 "SOUND RATING OF LARGE OUTDOOR REFRIGERATING AND AIR-CONDITIONING EQUIPMENT".
(3) SEA COASTAL AIR UNIT WITH ARMORPLATE COATED COILS WITH STEEL WIRE SAFETY GUARDS OR EQUIVALENT. PROVIDE DUAL PAINT COVERAGE ON ALL EXTERNAL SURFACES.

FORCED AIR - DOWNFLOW FAN COIL (FCU) SCHEDULE																	
MARK	MANUFACTURER, MODEL NUMBER	TYPE	AIR FLOW (CFM)		FAN MOTOR SIZE (HP)	ECM FAN SPEED (RPM)	ELECTRICAL (VOLTS/PH)	MOCp	HEATING (KW)	STAGES	TOTAL TC (MBH)	SENS. SHC (MBH)	COOLING EAT (°F)		LAT (°F)	(1) ASSOC ACCU	(2) ACCESSORIES
			SUPPLY	OUTDOOR	(2) ESP (IN WC)	(1/3)	MULTI-TAP (4)						DB	WB	DB	WB	WEIGHT (LB)
FCU-1	CARRIER, FB4CNB02405	HD	800	0	0.25	1/3	208 / 1	30.0	5.0	1	28.0	20.0	80.0	67.0	55.0	54.0	150
TYPE																	
ACCESSORIES																	
VU	VERTICAL UPFLOW	1	FILTER RACK	5	COOLING COIL CABINET	9	DOWNFLOW SUBBASE										
VD	VERTICAL DOWNFLOW	2	ELECTRONIC AIR CLEANER	6	NON-PROGRAMMABLE THERMOSTAT	10	RETURN AIR PLENUM										
HU	HORIZONTAL UPFLOW	3	MECHANICAL AIR CLEANER	7	PROGRAMMABLE THERMOSTAT	11	FLOOR STAND										
HD	HORIZONTAL DOWNFLOW	4	HUMIDIFIER	8	TWINNING KIT												

REMARKS:
(1) SEE AIR COOLED CONDENSING UNIT (ACCU) SCHEDULE.
(2) DOES NOT INCLUDE PRESSURE DROP FOR INTERNAL COMPONENTS.
(3) SEE SPECIFICATION SECTION 230219 - FORGED AIR FAN COIL. FOR ADDITIONAL INFORMATION. PROVIDE MULTI-TAP ECM MOTOR. MINIMUM 700 CFM FOR ELECTRIC COIL.
(4) PROVIDE CASED COIL FOR DOWNFLOW ARRANGEMENT WITH FILTER MERV 13.



PLAN NORTH
1 HVAC PLAN
1/2" = 1'-0"



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CITY OF PORT ORANGE
GARNSEY WTP GENERATOR
INSTALLATION
4400 Wellfield Drive
Port Orange, FL 32119

ISSUED
04/18/2022 BID SET

NOT FOR CONSTRUCTION

M&H NO.: 1000715-192311.01
DATE: AUGUST, 2021
DESIGNED BY: KSK
DRAWN BY: SEM
CHECKED BY: BTB
DO NOT SCALE DRAWINGS

ELECTRICAL SYMBOL SCHEDULE

LUMINAIRE SYMBOLS

	RECESSED LUMINAIRE
	RECESSED TROFFER
	RECESSED LINEAR
	SURFACE LUMINAIRE
	SURFACE LINEAR
	SURFACE COVE STRIP
	PENDANT LUMINAIRE
	PENDANT LINEAR
	PENDANT INDUSTRIAL
	TRACK (# INDICATES NUMBER TRACK HEADS)
	WALL BRACKET
	WALL SURFACE LINEAR
	WALL RECESSED LINEAR
	CEILING MOUNTED EXIT SIGN
	WALL MOUNTED EXIT SIGN
	ARROW DENOTES EXIT SIGN CHEVRON
	EMERGENCY BATTERY UNIT
	RECESSED EMERGENCY BATTERY UNIT
	WALL WASH MODIFIER
	EMERGENCY SHADING MODIFIER (PARTIAL OR FULL SHADE)
LUMINAIRE CIRCUITRY & CONTROL KEY:	
	LUMINAIRE TYPE
	LOWER CASE LETTER INDICATES SWITCHLEG CONTROL
	"R" INDICATES LIGHTING CONTROL PANEL REFER TO LIGHTING CONTROL PANEL SCHEDULE
	NUMBER INDICATES BRANCH PANEL CIRCUIT NUMBER

RACEWAYS SYMBOLS

	ABOVEGROUND CONDUIT
	UNDERGROUND CONDUIT
	CONCEALED CONDUIT IN CEILING OR WALL
	WIREWAY, SIZE AND TYPE AS INDICATED ON DRAWINGS
	CABLE TRAY, SIZE AND TYPE AS INDICATED ON DRAWINGS
	UNDERFLOOR DUCT
	JUNCTION BOX
	HANDHOLE
	MANHOLE

RECEPTACLE SYMBOLS

	60"	DUPLEX RECEPTACLE TEXT INDICATES MOUNTING HEIGHT
		DOUBLE DUPLEX RECEPTACLE
		ABOVE COUNTER DUPLEX RECEPTACLE
		SIMPLEX RECEPTACLE
		SPLIT WIRED DUPLEX RECEPTACLE
		SPECIAL PURPOSE CONNECTION, SEE EQUIPMENT WIRING SCHEDULE
	F	FLOOR BOX
	P	POKE THRU
	⌀ _C	CEILING MOUNTED DUPLEX RECEPTACLE
	⌀ _C	CEILING MOUNTED DOUBLE DUPLEX RECEPTACLE
	⌀ _C	SPECIAL PURPOSE RECEPTACLE, NEMA TYPE ON DRAWING
	E	CORD REEL

RECEPTACLE NOTATIONS:

a	DENOTES SWITCH LEG FOR SWITCHED OUTLETS
D	DENOTES DEDICATED OUTLETS
EW	DENOTES ELECTRIC WATER COOLER OUTLETS
GFCI	DENOTES GROUND FAULT INTERRUPTER OUTLETS
IG	DENOTES ISOLATED GROUND OUTLETS
H	DENOTES HORIZONTALLY MOUNTED OUTLETS
TR	DENOTES TAMPER RESISTANT SAFETY OUTLETS
USB	DENOTES COMBINATION DUPLEX/USB OUTLETS
WP	DENOTES WEATHER PROOF OUTLETS
X1	DENOTES EXPLOSION PROOF CLASS 1 DIVISION 1 OUTLETS
X2	DENOTES EXPLOSION PROOF CLASS 1 DIVISION 2 OUTLETS

SERVICE & DISTRIBUTION SYMBOLS

	UTILITY METER SOCKET
	SWBD-x SWITCHBOARD (x REPRESENTS SWITCHBOARD DESIGNATION)
	CUSTOMER METERING
	GENERATOR ANNUNICATOR PANEL
	EMERGENCY POWER OFF
	POWER FACTOR CORRECTION CAPACITOR
	ACTIVE HARMONIC FILTER
	GROUND ACCESS WELL
	GROUND ROD
	GROUND RECEPTACLE
	LIGHTNING ROD
	GROUNDING CONDUCTOR
	PAD MOUNTED SWITCH
	GENERAL LIGHTING AND POWER TRANSFORMER-DRY TYPE
	WALL MOUNTED LIGHTING AND POWER TRANSFORMER-DRY TYPE
	DISTRIBUTION TRANSFORMER FOR NON-LINEAR LOADS
	PLUG-IN BUS DUCT
	FEEDER BUS DUCT
	NEW PANELBOARD
	EXISTING PANELBOARD

SITE SYMBOLS

	GROUND MOUNTED LIGHT (ABOVE OR BELOW GRADE)
	ELECTRIC HANDHOLE
	HANDHOLE, GENERIC
	ELECTRIC MANHOLE
	ELECTRIC METER
	ELECTRIC SERVICE PANEL
	ELECTRIC TRANSFORMER
	ELECTRIC PEDESTAL BOX
	FLOOD LIGHT POLE
	BOLLARD LIGHT
	DOUBLE LIGHT POLE
	LIGHT POLE
	POWER POLE
	DOUBLE POWER POLE
	POWER POLE WITH LIGHT

MOTORS & MOTOR CONTROL SYMBOLS

	3 PHASE MOTOR CONNECTION
	1 PHASE MOTOR CONNECTION
	EQUIPMENT CONNECTION
	COMBINATION MAGNETIC MOTOR CONTROLLER
	MANUAL MOTOR CONTROLLER (3 PHASE)
	SOLID STATE MOTOR CONTROLLER
	VARIABLE FREQUENCY MOTOR CONTROLLER
	MAGNETIC MOTOR CONTROLLER
	NON-FUSED DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	DOUBLE THROW SWITCH
	FUSED SINGLE POLE SWITCH
	MOTOR RATED STARTER / DISCONNECT SWITCH
	PUSH BUTTON STATION
	MOTOR CONTROL CENTER

ABBREVIATIONS

ACCU	AIR COOLED CONDENSING UNIT
A/E	ARCHITECT/ENGINEER
AF	AMP FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
AT	AMP TRIP
ATS	AUTOMATIC TRANSFER SWITCH
C	CONDUIT
CF	CIRCULATION FAN
CHWP	CHILLED WATER PUMP
CP	CIRCULATION PUMP
CUH	CABINET UNIT HEATER
DH	DUCT HEATER
DPM	DIGITAL POWER METER
(E)	EXISTING
EL	EMERGENCY LIGHT
EMT	ELECTRICAL METALLIC TUBING
ETR	EXISTING TO REMAIN
EW	ELECTRICAL WATER COOLER
EW	ELECTRICAL WATER HEATER
FA	FIRE ALARM
FAF	FORCED AIR FURNACE
GFI	GROUND FAULT INTERRUPTER
GRS	GALVANIZED RIGID STEEL
GEC	GROUNDING ELECTRODE CONDUCTOR
HD	HAND DRYER
HP	HORSEPOWER
HVAC	HEATING, VENTILATION, AIR CONDITIONING
HWB	HOT WATER BOILER
HSP	HIGH SERVICE PUMP
IEWH	INSTANTANEOUS ELECTRIC WATER HEATER
IH	INFRARED HEATER
IMC	INTERMEDIATE METALLIC CONDUIT
KW	KILOWATT
MLO	MAIN LUG ONLY
MM	MULTI-MODE FIBER OPTIC CABLE
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MPR	MULTIFUNCTION PROTECTION RELAY
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
N/L	NIGHT LIGHT AND EMERGENCY LIGHT
NTS	NOT TO SCALE
PVC	POLYVINYL CHLORIDE
RCP	RADIATE CEILING PANEL
REQ'D	REQUIRED
RF	RETURN FAN
SF	SUPPLY FAN
SM	SINGLE-MODE FIBER OPTIC CABLE
SP	SUMP PUMP
SS	STAINLESS STEEL
TBR	TO BE REMOVED
TYP	TYPICAL
UC	UNIT COOLER
UG	UNDERGROUND
UH	UNIT HEATER
UNO	UNLESS NOTED OTHERWISE
VFD	VARIABLE FREQUENCY DRIVE
WFE	WELDING FUME EXTRACTOR
WL	WET LOCATION LISTED
WP	WEATHERPROOF
3R	NEMA 3R RATING
4X	NEMA 4X RATING

GENERAL NOTES:

- THE INFORMATION SHOWN IS BASED ON EXISTING DRAWINGS AND SITE OBSERVATIONS TO ASSIST CONTRACTOR IN BIDDING. THE ELECTRICAL DRAWINGS INDICATE EXISTING ELECTRICAL ITEMS TO BE REMOVED. THE DRAWINGS ARE INTENDED TO INDICATE THE SCOPE OF WORK REQUIRED AND DO NOT INDICATE EVERY BOX, CONDUIT, OR WIRE THAT MUST BE REMOVED. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID AND VERIFY EXISTING CONDITIONS. REFER TO SPECIFICATION SECTION 26 05 02 FOR ADDITIONAL REQUIREMENTS.
- ELECTRICAL ITEMS (i.e., LIGHTING FIXTURES, PANELBOARDS, DISCONNECTS, MOTOR CONTROLLERS, ETC.) REMOVED AND NOT RELOCATED REMAIN THE PROPERTY OF THE OWNER AND SHALL BE TURNED OVER TO THE OWNER IN A STORAGE AREA TO BE DESIGNATED BY THE OWNER. EQUIPMENT BEING REMOVED SHALL BE HANDLED SO AS NOT TO FURTHER REDUCE ITS VALUE TO THE OWNER. THE CONTRACTOR SHALL DISPOSE OF MATERIAL THE OWNER DOES NOT WANT TO REUSE OR RETAIN FOR MAINTENANCE PURPOSES.
- THIS CONTRACTOR SHALL COORDINATE ALL HIS WORK, INCLUDING PHASING WITH OTHER CONTRACTORS AT THE JOB SITE BEFORE REMOVING EXISTING ELECTRICAL AND INSTALLING NEW ITEMS.
- EXISTING CONDUIT IN GOOD CONDITION, MAY BE REUSED IN PLACE. RELOCATED EXISTING CONDUIT SHALL NOT BE ALLOWED. BONDING CONDUCTORS SHALL BE INSTALLED IN ALL REUSED CONDUIT TO ASSURE PROPER GROUND PATH.
- MAINTAIN CONTINUITY OF DEVICES LOCATED OUTSIDE OF CONSTRUCTION AREA. DEVICE AND EQUIPMENT REMOVAL IN CERTAIN LOCATIONS MAY REQUIRE THE INSTALLATION OF A JUNCTION BOX TO RECONNECT CIRCUITS THAT REMAIN IN OPERATION. EXTEND CONDUIT AND WIRING AS REQUIRED TO MAINTAIN POWER TO REMAINING EQUIPMENT.
- PROVIDE REVISED TYPED CIRCUIT DIRECTORY IN PANELBOARDS THAT HAVE CIRCUITS REMOVED OR ADDED CIRCUITS.
- REMOVE, RELOCATE, AND EXTEND EXISTING INSTALLATIONS TO ACCOMMODATE NEW CONSTRUCTION.
- REMOVE EXPOSED ABANDONED CONDUIT, INCLUDING ABANDONED CONDUIT ABOVE ACCESSIBLE CEILING FINISHES. CUT RACEWAY FLUSH WITH WALLS AND FLOORS, PATCH SURFACES TO MATCH EXISTING. REMOVE ALL ASSOCIATED CLAMPS, HANGERS, SUPPORTS, ETC. ASSOCIATED WITH RACEWAY REMOVAL.
- DO NOT SCALE DRAWINGS. USE GIVEN DIMENSIONS. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE PROJECT SITE PRIOR TO THE START OF CONSTRUCTION. WHERE SPECIFIC DIMENSIONS, DETAILS OR DESIGN INTENT CANNOT BE DETERMINED, CONSULT ENGINEER BEFORE PROCEEDING WITH THE WORK.
- THE SYMBOLS AND ABBREVIATIONS ON THIS SHEET IS A COMPREHENSIVE STANDARD GUIDE INTENDED FOR GENERAL USE ON ALL PROJECTS. NOT ALL THE SYMBOLS AND ABBREVIATIONS CONTAINED IN THE LIST ARE NECESSARILY USED ON THIS PARTICULAR PROJECT AND SHOULD BE USED FOR CLARIFICATION ONLY.
- CONTRACTOR SHALL VISIT THE SITE AND MAKE HIMSELF/HERSELF AWARE OF ALL EXISTING CONDITIONS PRIOR TO SUBMITTING A BID FOR THIS WORK.
- "PROVIDE" MEANS TO FURNISH AND INSTALL.
- COORDINATE ANY AND ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION IN ORDER TO AVOID CONFLICTS DURING CONSTRUCTION.
- WHERE JOB CONDITIONS REQUIRE CHANGES FROM THE CONTRACT DOCUMENTS THAT DO NOT CHANGE THE SCOPE OF INSTALLATION OR NATURE OF THE WORK REQUIRED, THE CONTRACTOR SHALL MAKE SUCH CHANGES WITHOUT ANY ADDITIONAL COST TO THE OWNER. NO OTHER CHANGES MAY BE MADE WITHOUT WRITTEN CONSENT FROM THE ENGINEER AND OWNER.
- MOUNTING HEIGHTS INDICATED ARE TO THE CENTER OF THE DEVICE UNLESS OTHERWISE NOTED.
- EQUIPMENT LOCATIONS SHOWN ARE APPROXIMATE. EXTEND CONDUIT AND WIRE TO INSTALLED LOCATIONS AT NO ADDITIONAL COST TO THE OWNER.
- ALL ELECTRICAL SYSTEMS SHALL BE COMPLETE AND OPERATIONAL UPON PROJECT COMPLETION.

Mead & Hunt

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Port Orange, FL 32127
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Port Orange, FL 32119

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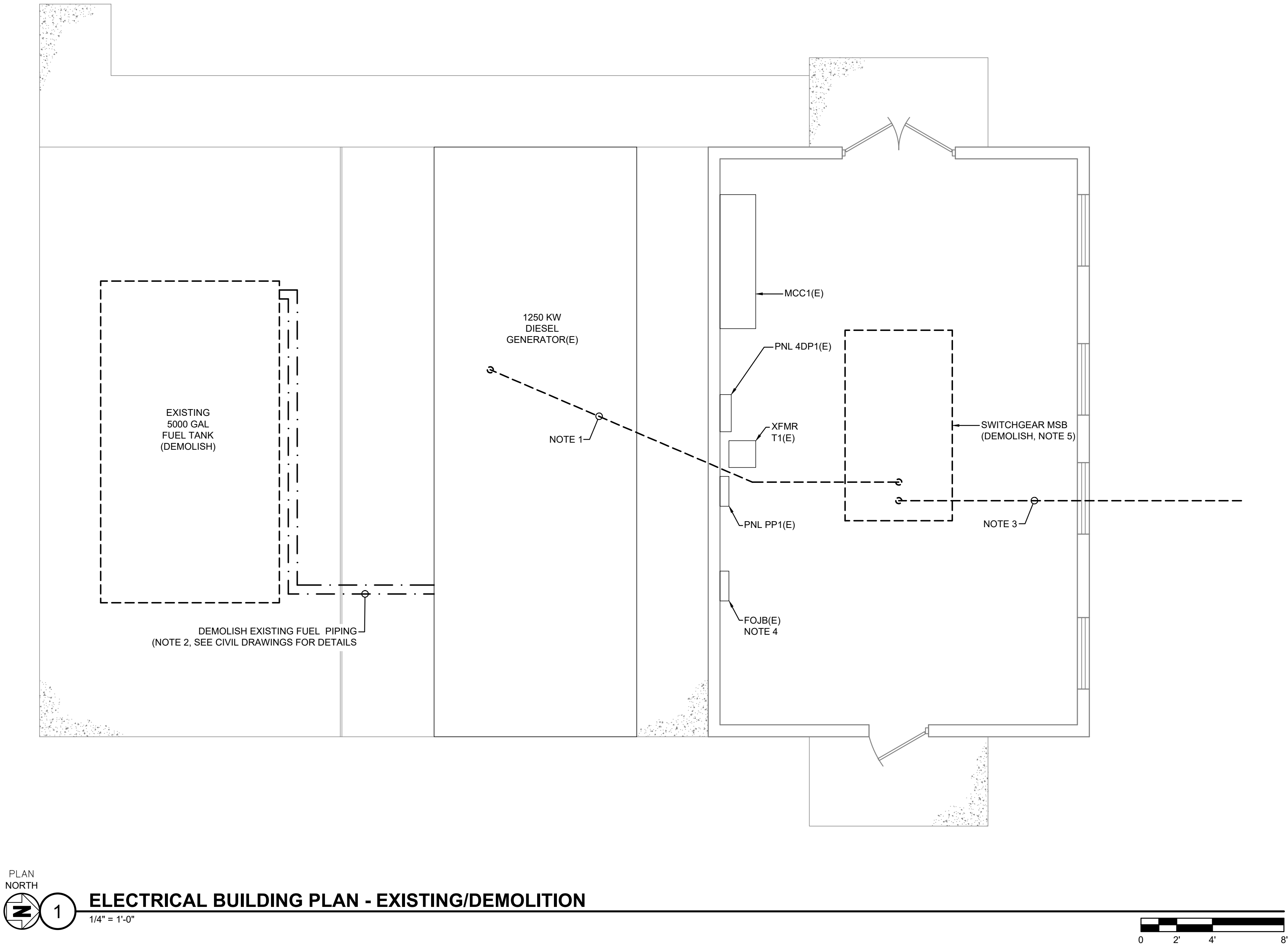
M&H NO.:	1000715-192311.01
DATE:	AUGUST, 2021
DESIGNED BY:	KSK
DRAWN BY:	SEM
CHECKED BY:	BTB
DO NOT SCALE DRAWINGS	

SHEET CONTENTS
ELECTRICAL LEGEND
AND NOTES

SHEET NO.

E-001

X:\1000715\192311.01\TECH\CADD\DRAWINGS\ED101 ELECTRICAL DEMOLITION.DWG
4/18/2022 5:23:01 PM



NOTES:

1. EXISTING DISTRIBUTION FROM THE GENERATOR CIRCUIT BREAKER TO THE SWITCHGEAR MSB SHALL BE DEMOLISHED. REFER TO SINGLE LINE DIAGRAM ON SHEET E-701 FOR MORE INFORMATION. REMOVE EXISTING CABLING. RACEWAYS MAY BE ABANDONED BELOW GRADE.
2. FILL IN EXISTING TRENCH ONCE PIPING IS REMOVED.
3. DEMOLISH EXISTING SERVICE TO UTILITY TRANSFORMER. REMOVE EXISTING CABLING. RACEWAYS MAY BE ABANDONED BELOW GRADE.
4. EXISTING FIBER OPTIC JUNCTION BOX. REFER TO SHEET E-101 FOR NEW WORK.
5. OWNER HAS FIRST RIGHT OF REFUSAL TO SALVAGE EXISTING SWITCHGEAR AND/OR SPECIFIC COMPONENTS. CONTRACTOR TO COORDINATE WITH OWNER PRIOR TO REMOVAL AND DISPOSAL.

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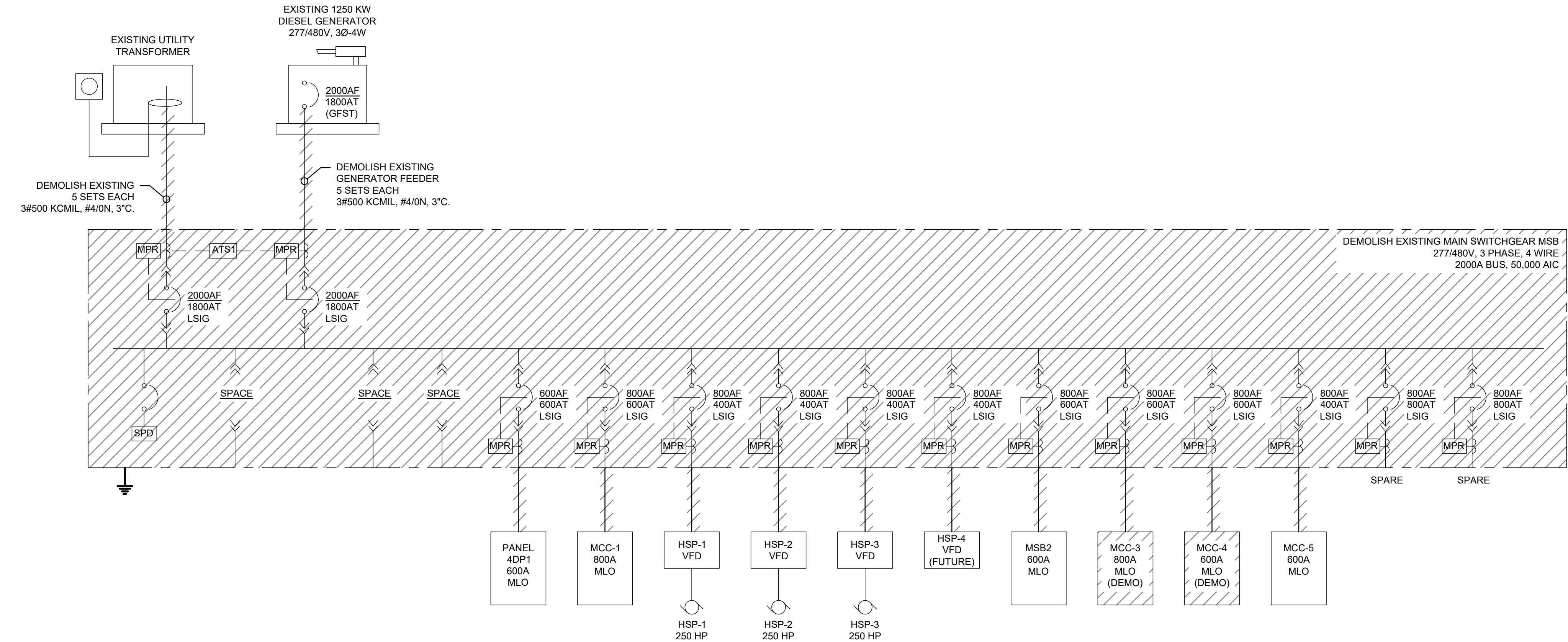
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SHEET CONTENTS
ELECTRICAL
DEMOLITION

SHEET NO.

ED101

X:\1000715\192311.01\TECH\CADD\DRAWINGS\ED701 SINGLE LINE DIAGRAM DEMO.DWG
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1 EXISTING/DEMOLITION SINGLE LINE DIAGRAM
NO SCALE

NOTES:

1. RACEWAYS ROUTED BELOW GRADE MAY BE ABANDONED IN PLACE. REMOVE CABLING AND DEMOLISHED CONDUIT DOWN TO 6" BELOW FINISHED GRADE.
2. OWNER HAS FIRST RIGHT OF REFUSAL TO SALVAGE EXISTING SWITCHGEAR AND/OR SPECIFIC COMPONENTS. CONTRACTOR TO COORDINATE WITH OWNER PRIOR TO REMOVAL AND DISPOSAL.

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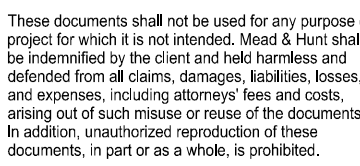
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SHEET CONTENTS
SINGLE LINE DIAGRAM
DEMOLITION

SHEET NO.

ED701

1. ALL SWITCHGEAR, PANELS AND OTHER EQUIPMENT SHOWN ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
2. MCC-3 AND MCC-4 SHALL BE DEMOLISHED AND REPLACED WITH NEW. CAPTURE ALL EXISTING BRANCH CIRCUITS AND FEEDERS FOR CONNECTION TO NEW SWITCHGEAR.
3. THE CONTRACTOR SHALL DEVELOP A COMPREHENSIVE CONSTRUCTION PHASING PLAN THAT DETAILS ANY AND ALL SHUTDOWN ACTIVITIES. COORDINATE WITH THE OWNER FOR ALL SHUTDOWN LIMITATION REQUIREMENTS.
4. REFER TO DEMOLITION SHEETS FOR THE EXTENT OF WORK FOR DEMOLITION OF EXISTING FEEDERS AND ASSOCIATED RACEWAYS. UNDERGROUND RACEWAYS SCHEDULED FOR DEMOLITION MAY BE ABANDONED BELOW GRADE. REFER TO SHEET E-012 FOR NEW UNDERGROUND DISTRIBUTION WORK.



ISSUED
04/18/2022 BID SET

M&H NO.: 1000715-192311.0
DATE: AUGUST, 2021
DESIGNED BY: KSK
DRAWN BY: SEM
CHECKED BY: BTB
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SHEET NO.

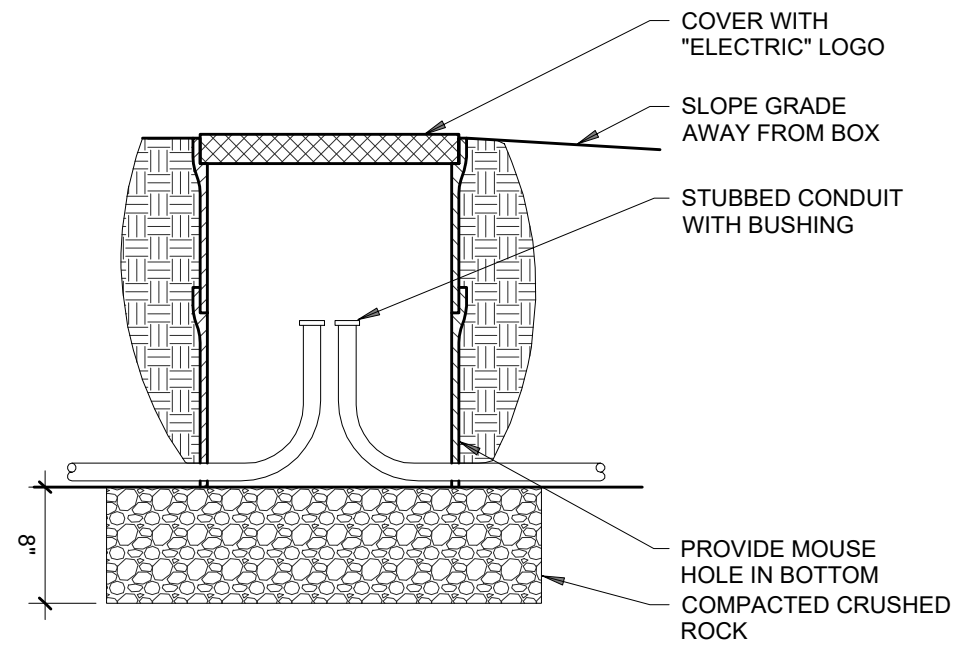
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SEQUENCE OF CONSTRUCTION:

THE CONTRACTOR SHALL DEVELOP A SCHEDULE AND SEQUENCE OF CONSTRUCTION FOR REVIEW BY THE OWNER AND ENGINEER PRIOR TO START OF WORK. THE FOLLOWING IS A PROPOSED SEQUENCE THAT OUTLINES BASIC GUIDELINES AND CONSTRAINTS. THE CONTRACTOR SHALL PROVIDE A PORTABLE GENERATOR AS NECESSARY TO LIMIT DOWNTIME AS REQUIRED BY THE OWNER.

1. INSTALL ALL NEW RACEWAYS.
2. BUILDING NEW ELECTRICAL ROOM AND INSTALL NEW 480V MAIN SWITCHGEAR.
3. INSTALL NEW WIRING AS MUCH AS POSSIBLE IN PREPARATION FOR TERMINATION ON EXISTING SWITCHGEAR.
4. INSTALL NEW 480V SERVICE FROM EXISTING OR NEW UTILITY TRANSFORMER.
5. TRANSITION EXISTING SWITCHGEAR OVER TO NEW MAIN SWITCHGEAR, EXCEPT FOR MCC-3, MCC-4.
6. INSTALL NEW SWITCHGEAR MCC-3 AND MCC-4.
7. INSTALL NEW GENERATOR.
8. TRANSITION EXISTING GENERATOR OVER TO NEW MAIN SWITCHGEAR.

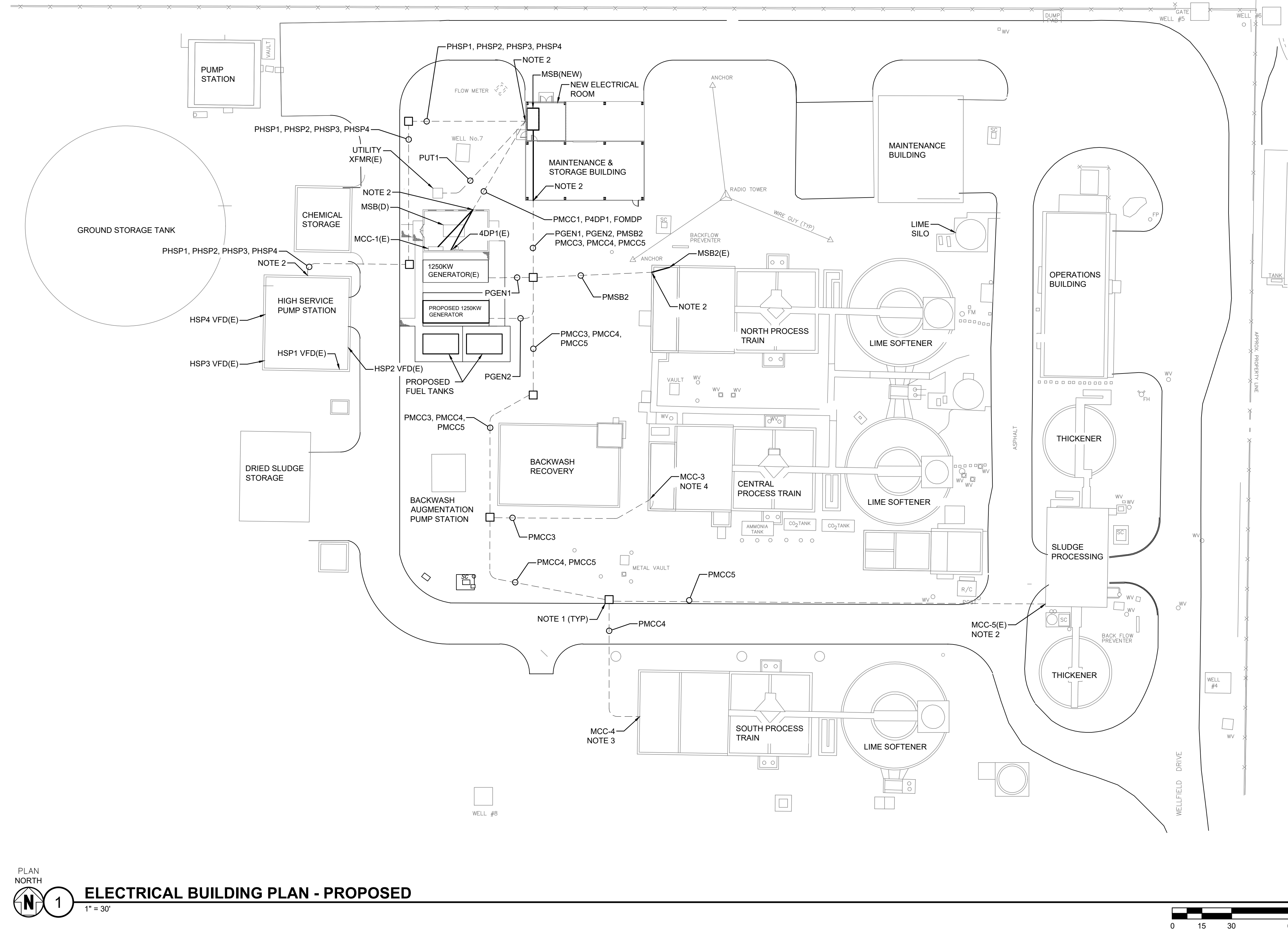


UNDERGROUND PULLBOX DETAIL

NO SCALE

NOTES:

1. 48"x48"x36" DEEP, STACKABLE POLYMER CONCRETE PULLBOX. QUAZITE PG SERIES OR APPROVED EQUIVALENT. TYPICAL UNLESS NOTED OTHERWISE.
2. RISE UP ALONG THE EXTERIOR OF THE BUILDING. PENETRATE THE EXTERIOR WALL INTO THE BUILDING AND ROUTE TO THE TERMINATION POINT OVERHEAD. FIELD COORDINATE THE BEST POSSIBLE ELEVATION TO AVOID ANY STRUCTURAL COMPONENTS AND ALLOW FOR REQUIRED CABLING BENDING RADIUS.
3. EXISTING MCC-4 REPLACED WITH NEW. RISE UP ALONG THE EXTERIOR OF THE BUILDING. PENETRATE THE EXTERIOR WALL INTO THE BUILDING AND ROUTE TO THE TOP FEED CABLE LUG TERMINATION POINT.
4. EXISTING MCC-3 REPLACED WITH NEW. RISE UP ALONG THE EXTERIOR OF THE BUILDING. PENETRATE THE EXTERIOR WALL INTO THE BUILDING AND ROUTE TO THE TOP FEED CABLE LUG TERMINATION POINT.
5. A BID ITEM IS ESTABLISHED IN THE SCHEDULE OF VALUES FOR EXPOSING EXISTING SITE ELECTRICAL U/G UTILITIES AND ESTABLISHING A CLEAR CORRIDOR FOR ELECTRICAL DUCT BANKS. THE CONTRACTOR SHALL ASSUME, FOR BIDDING PURPOSES, THAT EXISTING TRANSFER AND DISTRIBUTION PIPING IS 3'-6" DEEP AND NEW DUCT BANK WILL BE INSTALLED BELOW EXISTING BURIED PIPING. SWEEPS WILL BE INSTALLED BELOW PROPOSED PULL BOXES TO ACCOMMODATE PROPOSED GRADE CHANGES.



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CITY OF PORT ORANGE
GARNSEY WTP GENERATOR
INSTALLATION
4400 Wellfield Drive
Port Orange, FL 32119

ISSUED
04/18/2022 BID SET

NOT FOR CONSTRUCTION

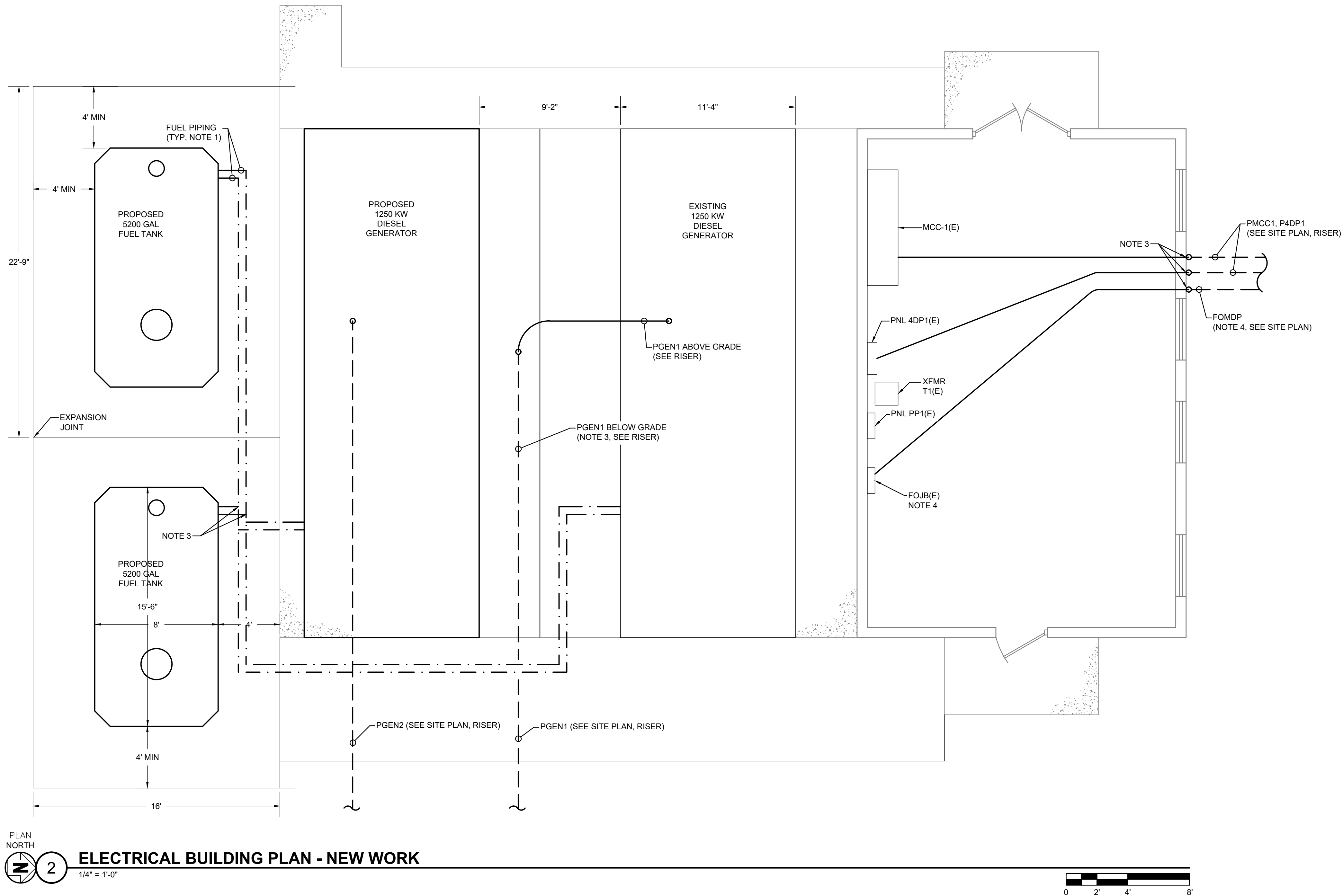
M&H NO.: 1000715-192311.01
DATE: AUGUST, 2021
DESIGNED BY: KSK
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SHEET CONTENTS
ELECTRICAL SITE
PLAN PROPOSED

SHEET NO.

E-012

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NOTES:

1. ROUTE FUEL PIPING EXPOSED ABOVE GRADE. DIVISION 25 CONTRACTOR TO PROVIDE DOUBLE WALL CONTAINMENT TYPE PIPING.
2. PROVIDE VALVES THAT WILL ALLOW EACH FUEL TANK TO FEED TO EACH OF THE GENERATORS.
3. RISE UP ALONG THE EXTERIOR WALL OF THE BUILDING AND PENETRATE THE WALL WITH RACEWAY AND CABLING. ROUTE TO EXISTING SWITCHGEAR FOR NEW CONNECTION.
4. PROVIDE A 2" CONDUIT WITH 12-COUNT FIBER OPTIC CABLE FROM THE EXISTING FIBER OPTIC JUNCTION BOX TO THE NEW COMMUNICATIONS CABINET IN THE MAINTENANCE BUILDING. REFER TO SHEET E-102 FOR ADDITIONAL INFORMATION.

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GARNSEY WTP GENERATOR
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SHEET CONTENTS
ELECTRICAL PLANS

SHEET NO.

E-101

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NEW ELECTRICAL ROOM LIGHTING PLAN

1/4" = 1'-0"



600AF 600AT 4DP1	800AF 400AT HSP-3	800AF 600AT MCC-4	800AF PREPARED SPACE		
800AF 600AT MCC-1	800AF 400AT HSP-4	800AF 800AT SPARE	800AF PREPARED SPACE		HMI
800AF 400AT HSP-1	800AF 600AT MSB2	800AF 800AT SPARE	2000AF 1800AT GEN 2	2000AF 1800AT GEN 1	2000AF 1800AT MAIN
800AF 400AT HSP-2	800AF 600AT MCC-3	800AF 600AT MCC-5	800AF PREPARED SPACE	ATS PLC	

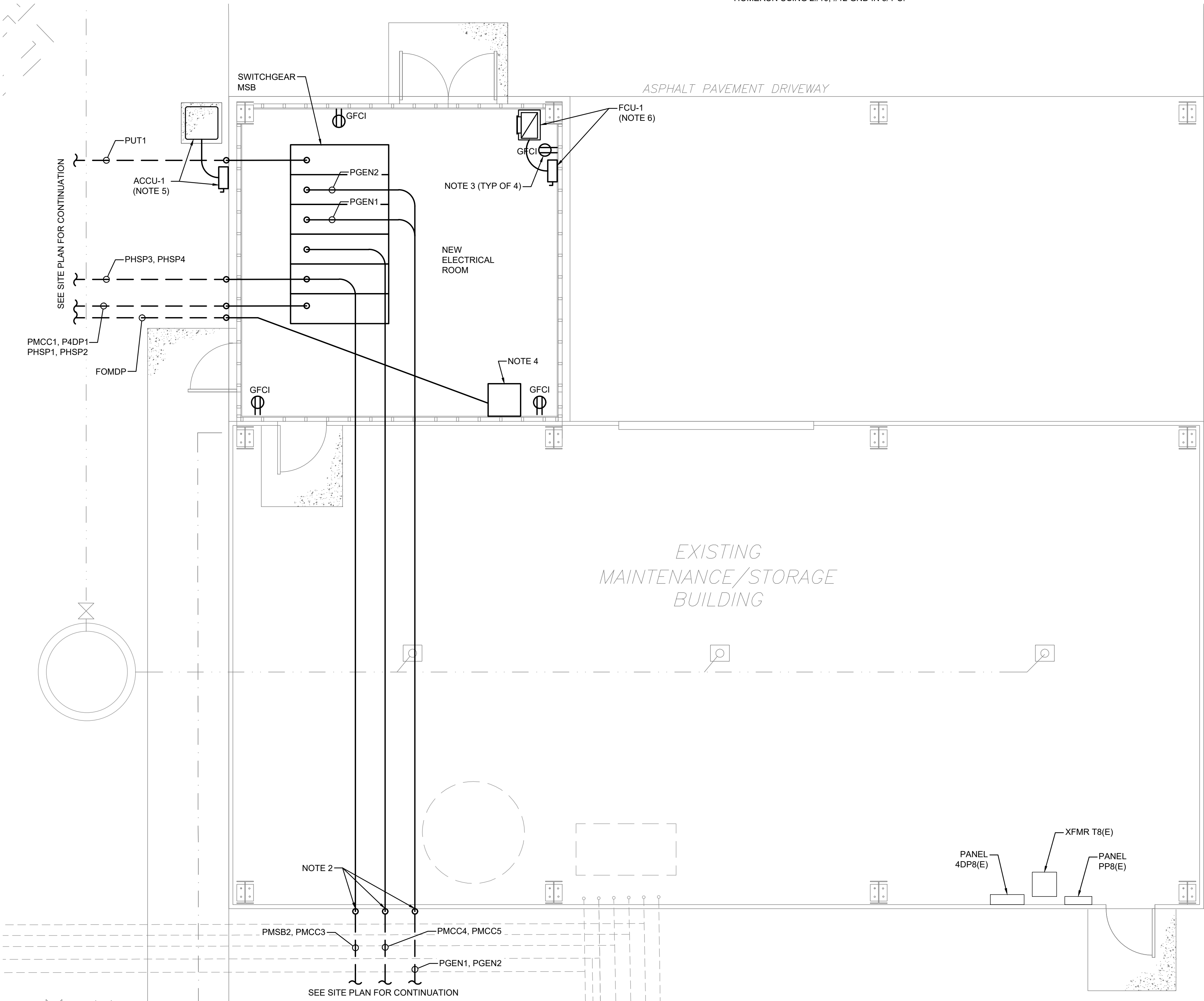
2

SWITCHGEAR ELEVATION



MAINTENANCE BUILDING PLAN - NEW WORK

1/4" = 1'-0"



NOTES:

1. LINEAR INDUSTRIAL LED. BASIS OF DESIGN SHALL BE LITHONIA #CSS L48 AL03 MVOLT 40K 80CRI. SUBMIT EQUIVALENT FOR APPROVAL. SURFACE MOUNT TO BOTTOM OF NEW CEILING. PROVIDE A NEW 20A/1P CIRCUIT BREAKER IN EXISTING PANEL 4DP8 IN AVAILABLE SPACE. PROVIDE 3/4" CONDUIT WITH 2#12, #12 GND FOR CIRCUITRY.
2. RACEWAY RISING UP FROM BELOW GRADE ALONG THE EXTERIOR WALL OF THE EXISTING BUILDING AND TRAVERSE OVERHEAD TO THE NEW SWITCHGEAR IN THE NEW ELECTRICAL ROOM.
3. PROVIDE A NEW 20A/1P CIRCUIT BREAKER IN EXISTING PANEL PP8 IN AVAILABLE SPACE. PROVIDE 3/4" CONDUIT WITH 2#12, #12 GND FOR CIRCUITRY.
4. PROVIDE A 19" WIDE, 18" DEEP, 12U HIGH, WALL-MOUNT COMMUNICATIONS CABINET. PROVIDE SOLID HINGED DOOR. BASIS OF DESIGN SHALL BE CHATSWORTH #25500-X12. PROVIDE A RACK MOUNT FIBER PATCH PANEL FOR TERMINATION OF THE 12-COUNT FIBER CABLING (SEE SHEET E-101). PROVIDE A 24-PORT, HIGH DENSITY CAT-6 PATCH PANEL. PROVIDE SUBMITTALS FOR ALL EQUIPMENT FOR APPROVAL.
5. PROVIDE A 208V, 30A, 2-POLE, NON-FUSED, NEMA 3R RATED DISCONNECT FOR CONNECTION TO NEW AIR COOLED CONDENSING UNIT. PROVIDE A 30A, 2-POLE CIRCUIT BREAKER IN EXISTING PANEL PP8 IN AVAILABLE SPACE TO FEED THE NEW EQUIPMENT. HOMERUN USING 2#10, #12 GND IN 3/4"C.
6. PROVIDE A 208V, 30A, 2-POLE, NON-FUSED, NEMA 1 RATED DISCONNECT FOR CONNECTION TO NEW FAN COIL UNIT. PROVIDE A 30A, 2-POLE CIRCUIT BREAKER IN EXISTING PANEL PP8 IN AVAILABLE SPACE TO FEED THE NEW EQUIPMENT. HOMERUN USING 2#10, #12 GND IN 3/4"C.

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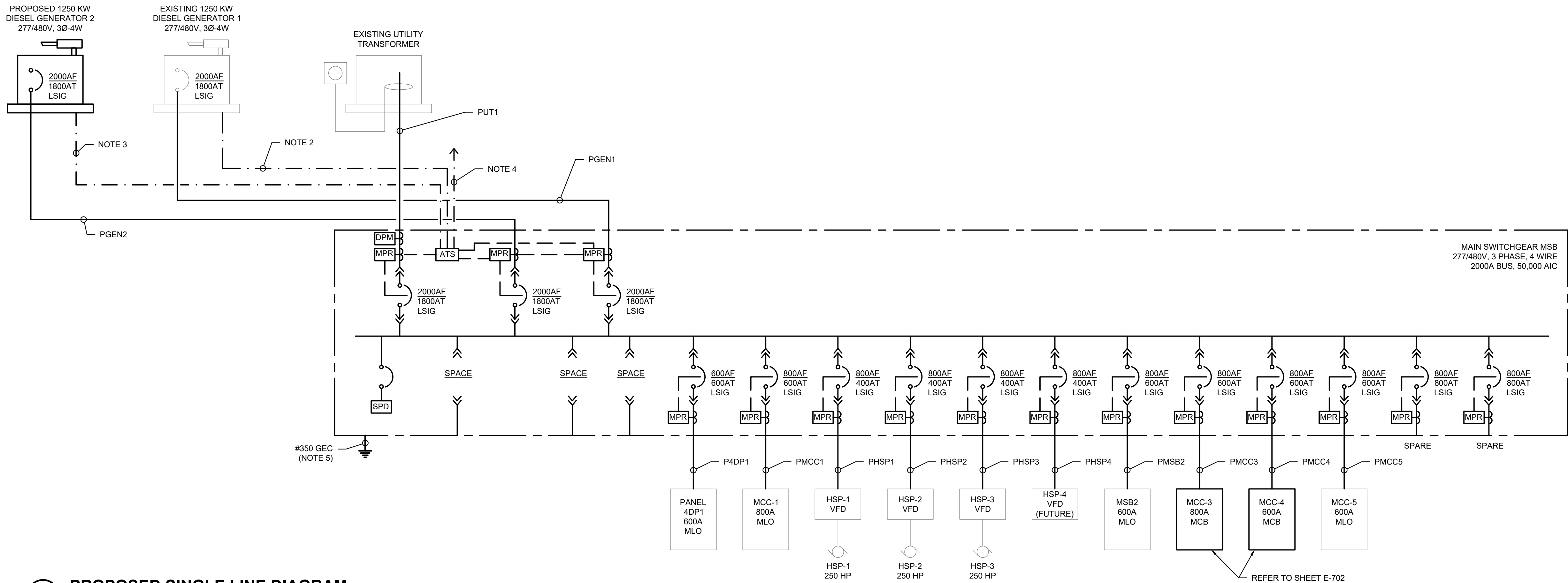
SHEET CONTENTS
ELECTRICAL PLAN

SHEET NO.

E-102

X:\1000715\192311.01\TECH\CAD\DRAWINGS\E-701 SINGLE LINE DIAGRAM.DWG
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2 PROPOSED SINGLE LINE DIAGRAM
NO SCALE



FEEDER SCHEDULE						
MARK	AMPACITY	NO. OF SETS	CONDUCTOR SIZES (AWG or KCML)			
			PHASE	NEUTRAL	EQ GND	ISO GND
PUT1	2000	6	3 - 400	1 - 400	1 - 350	-
PGEN1	2000	6	3 - 400	1 - 400	1 - 350	-
PGEN2	2000	6	3 - 400	1 - 400	1 - 350	-
P4DP1	600	2	3 - 350	-	1 - #1	-
PMCC1	600	2	3 - 350	-	1 - #1	-
PHSP1	400	1	3 - 500	-	1 - #1/0	-
PHSP2	400	1	3 - 500	-	1 - #1/0	-
PHSP3	400	1	3 - 500	-	1 - #1/0	-
PHSP4	400	1	3 - 500	-	1 - #1/0	-
PMSB2	800	3	3 - 350	-	1 - #1/0	-
PMCC3	600	2	3 - 350	-	1 - #1	-
PMCC4	600	2	3 - 350	-	1 - #1	-
PMCC5	600	2	3 - 350	-	1 - #1	-

FEEDER SCHEDULE NOTES:

- THE SCHEDULE IS A SCHEDULE OF TYPICAL FEEDERS AND SOME OF THE SIZES MAY NOT APPLY TO THIS PROJECT.
- ALL THE CONDUCTOR AMPACITIES ARE BASED ON TABLE 310.15(B)(16) OF THE NEC FOR COPPER CONDUCTORS (75 DEGREE CELSIUS CHART).
- FEEDER SIZES SHOWN ON THE RISER DIAGRAM INDICATE FEEDER AMPACITIES AND DO NOT NECESSARILY CORRESPOND TO THE CIRCUIT BREAKER AMPACITIES. CERTAIN FEEDERS MAY BE SIZED FOR DERATION FACTORS AND/OR OVERSIZED FOR VOLTAGE DROP PER NEC REQUIREMENTS.

NOTES:

- PROPOSED 1250 KW GENERATOR SHALL BE THE PRIMARY INPUT SELECTION FOR AUTOMATIC TRANSFER.
- PROVIDE A 1" CONDUIT AND ALL NECESSARY COMMUNICATIONS CABLING BETWEEN THE ATS IN SWITCHGEAR MSB EXISTING GENERATOR.
- PROVIDE A 1" CONDUIT AND ALL NECESSARY COMMUNICATIONS CABLING BETWEEN NEW SWITCHGEAR ATS AND NEW GENERATOR CONTROL PANEL FOR ALL OPERATION AND FUNCTIONALITY REQUIREMENTS. REFER TO THE SPECIFICATIONS FOR MORE INFORMATION.
- PROVIDE A 1" CONDUIT AND CAT-6 CABLING TO LOCAL COMMUNICATIONS CABINET FOR ETHERNET CONNECTION TO PLANT SCADA SYSTEM.
- PROVIDE A MINIMUM OF (3) 3/4" DIAMETER x 10'-0" COPPER GROUND RODS SPACED AT LEAST 10'-0" APART. PROVIDE AN ACCESS WELL FOR ONE OF THE RODS FOR TESTING. REFER TO SPECIFICATION SECTION 260526 FOR FURTHER REQUIREMENTS.

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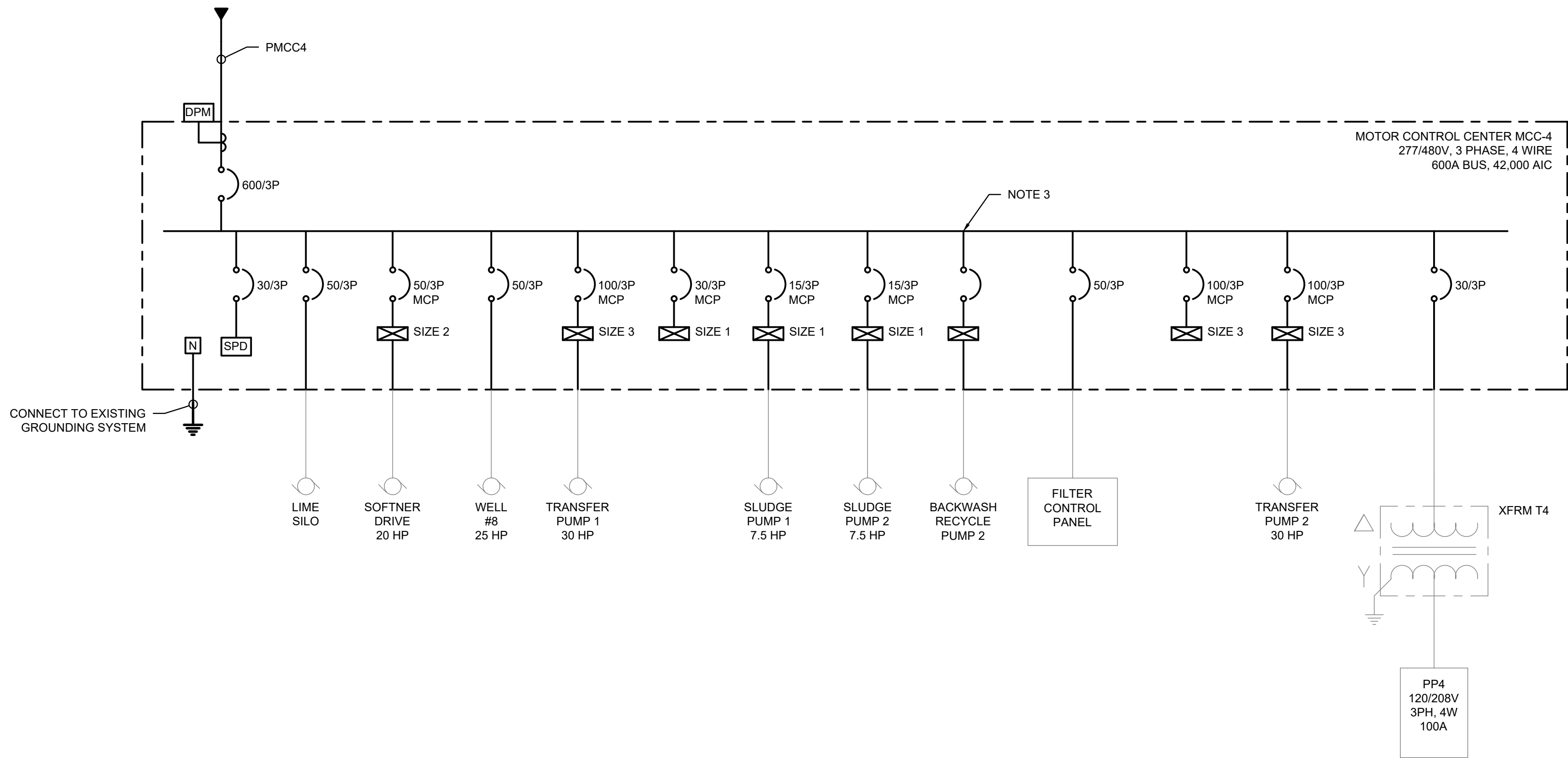
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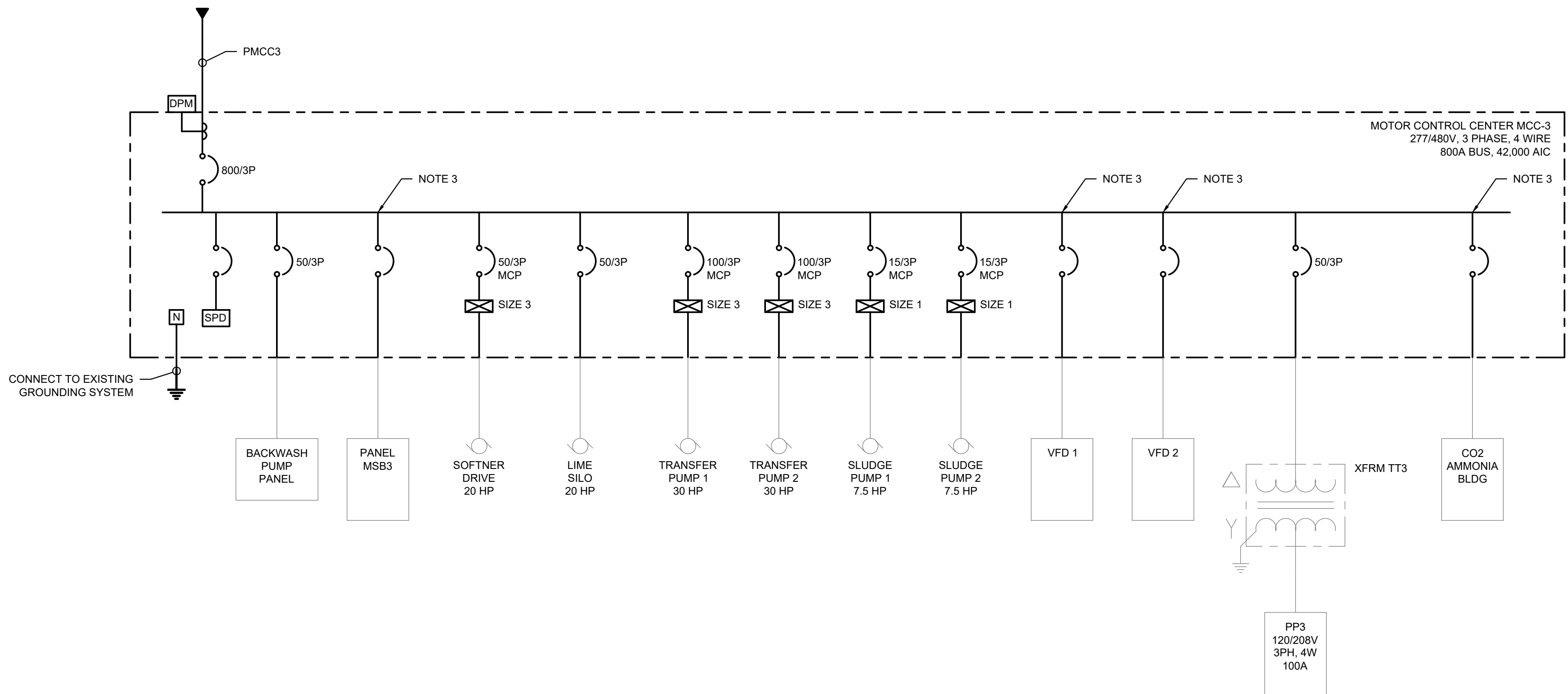
SHEET CONTENTS
SINGLE LINE DIAGRAM
SWITCHGEAR MSB

SHEET NO.

E-701



2 PROPOSED SINGLE LINE DIAGRAM - MCC-4
NO SCALE



1 PROPOSED SINGLE LINE DIAGRAM - MCC-3
NO SCALE

NOTES:

- ALL BRANCH LOADS SHOWN ARE EXISTING TO REMAIN. DISCONNECT, CAPTURE AND PROTECT EXISTING WIRING AND RACEWAYS.
- EXISTING MOTOR CONTROL CENTER MCC-3 AND MCC-4 SHALL BE REPLACED WITH NEW. COORDINATE ALL DOWNTIME WITH THE OWNER PRIOR TO DEMOLITION AND NEW INSTALLATION.
- FIELD VERIFY EXISTING BREAKER, MCP, STARTER AND MOTOR HP SIZE TO COORDINATE CONNECTION AND MOTOR CONTROL CENTER BUCKET CONFIGURATION PRIOR TO MCC PROCUREMENT.

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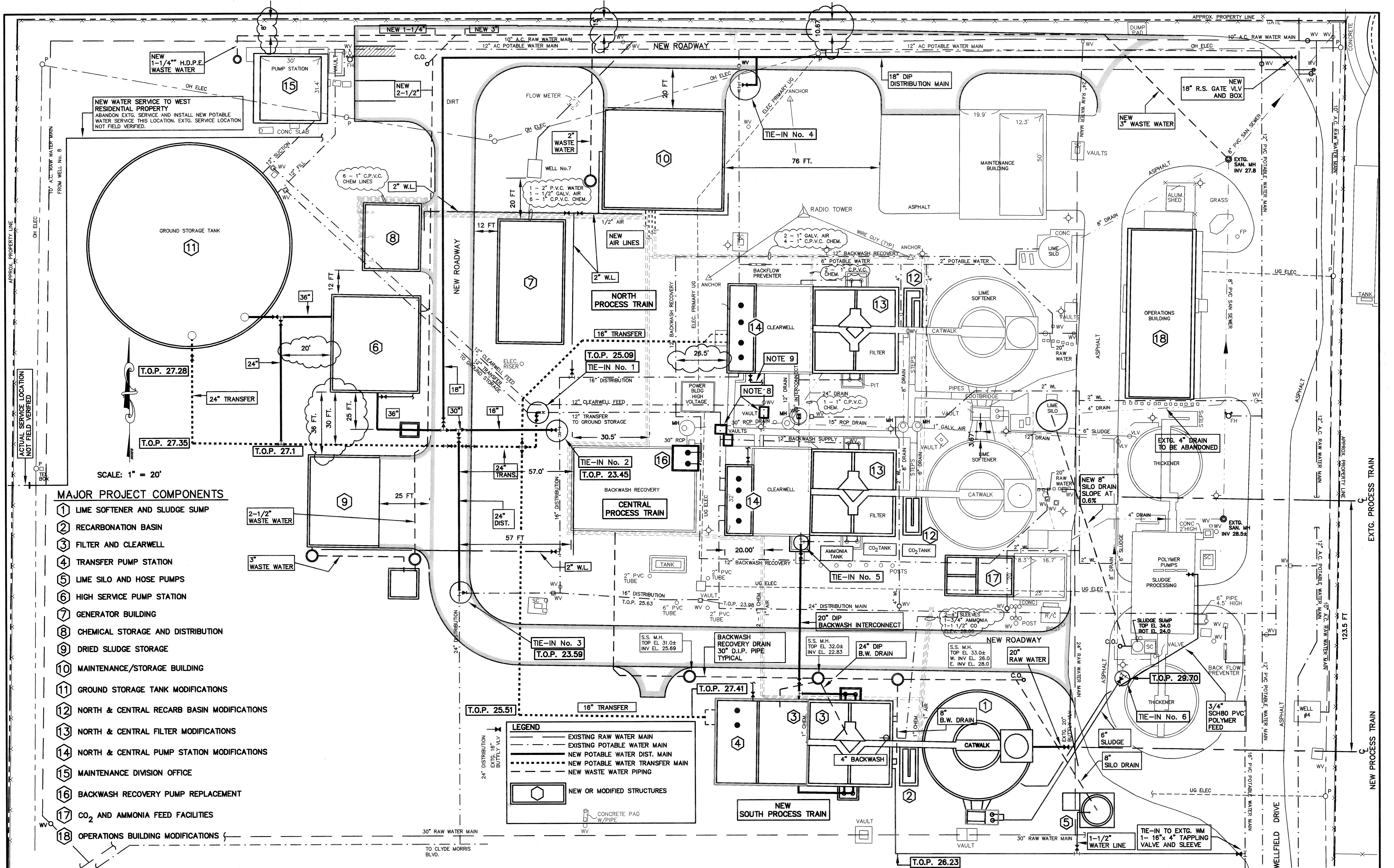
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SHEET CONTENTS
SINGLE LINE DIAGRAM
MCC-3 & MCC-4

SHEET NO.

E-702

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CONSULTING ENGINEERS

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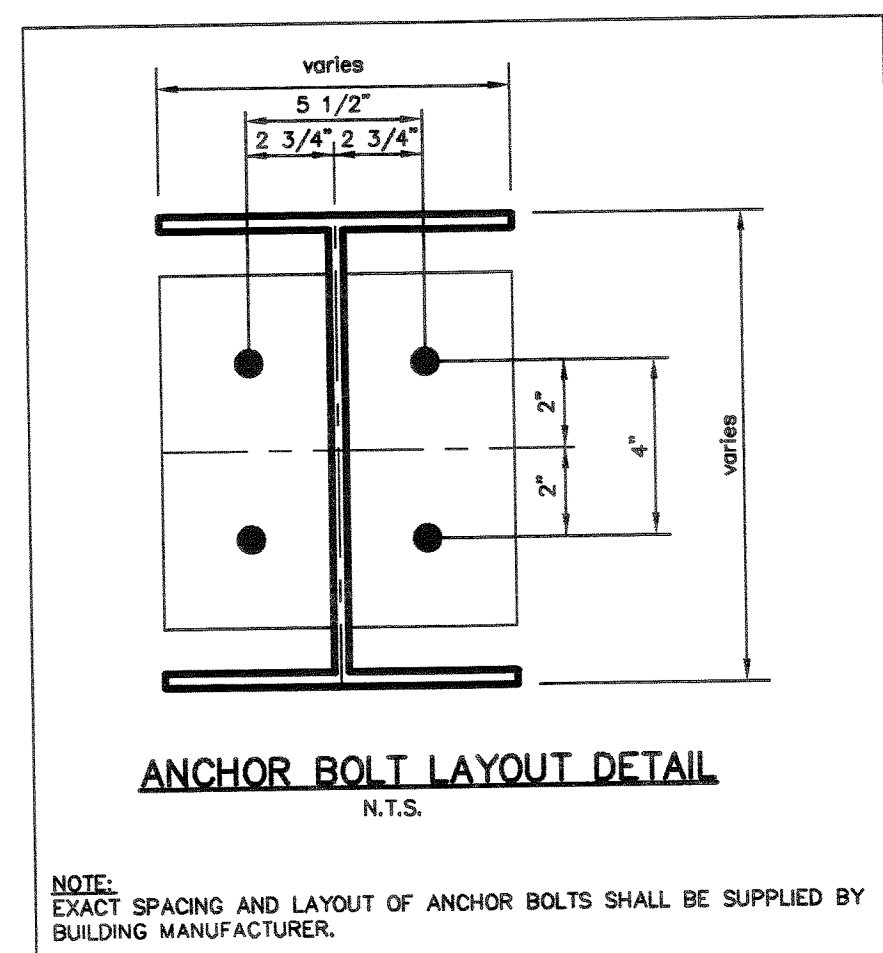
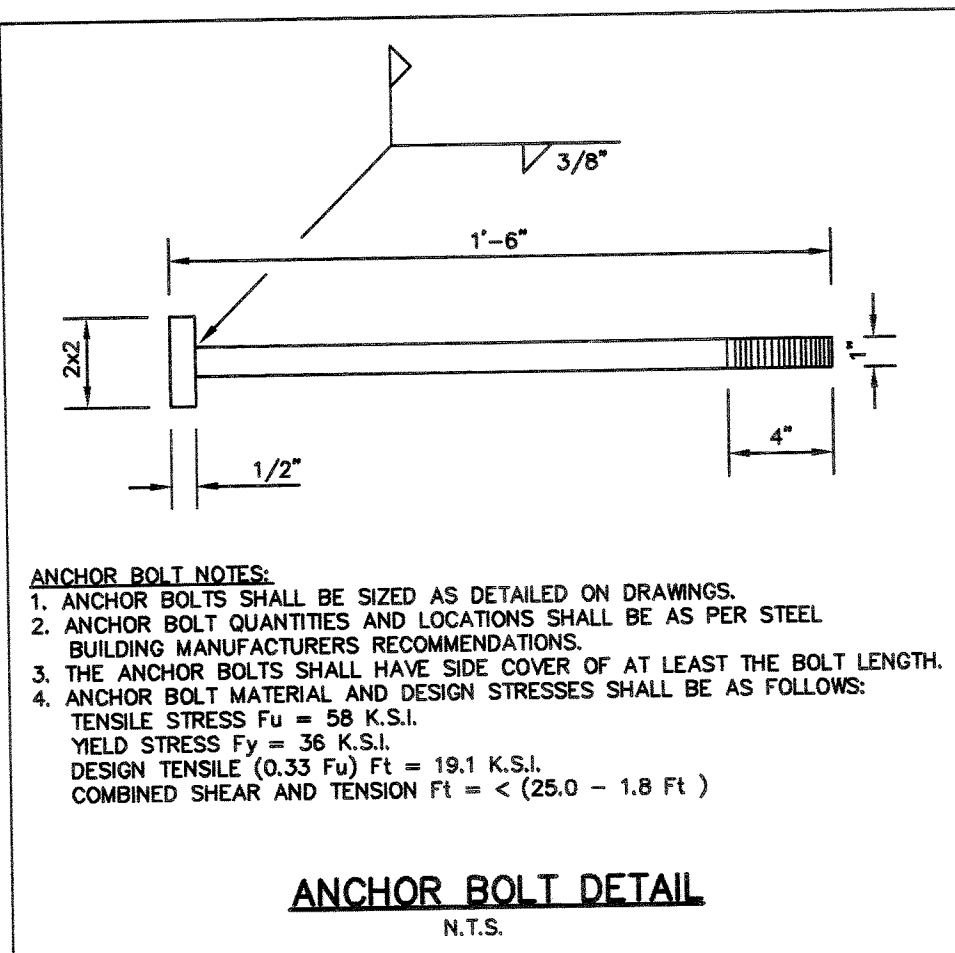
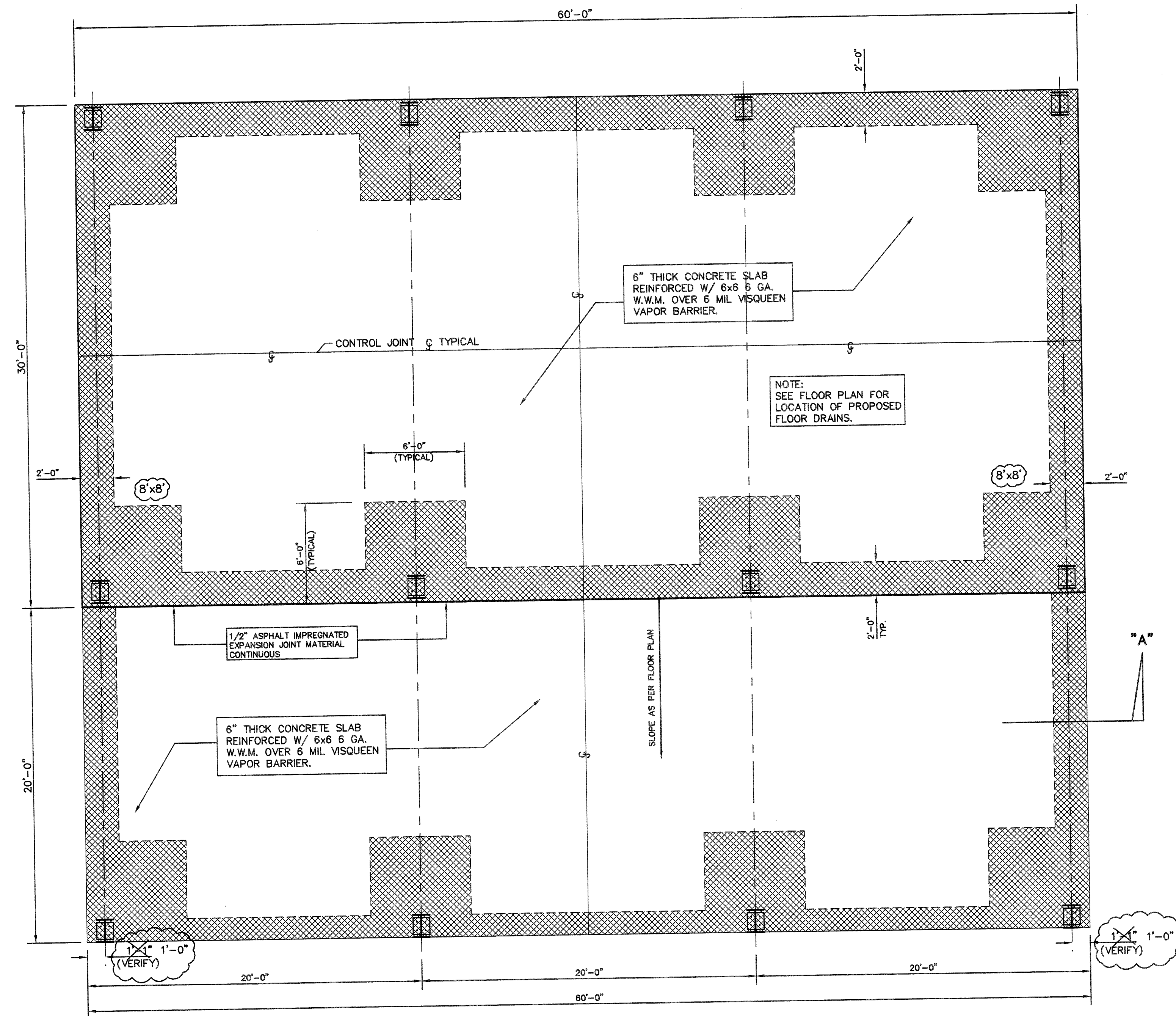
CITY OF
PORT ORANGE
VOLUSIA COUNTY, FLORIDA

GARNSEY WATER PLANT EXPANSION
STATE PROJECT No. DW6413010

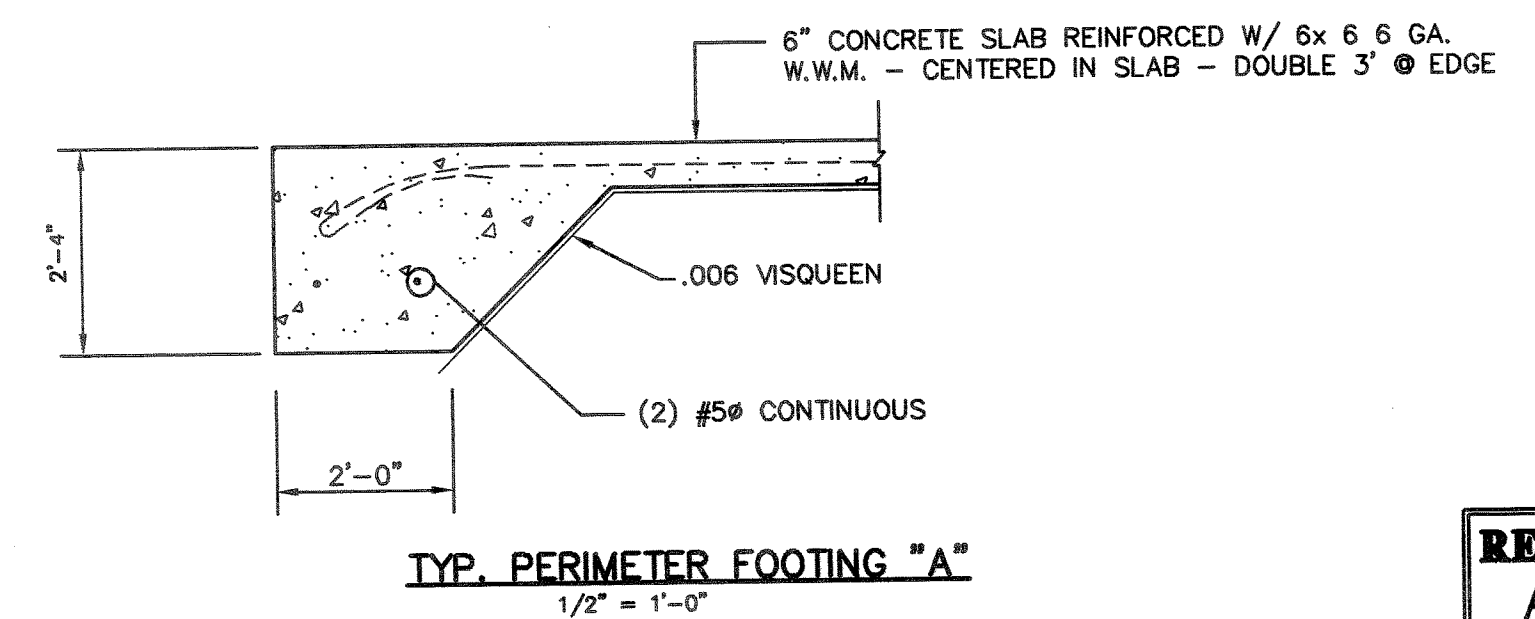
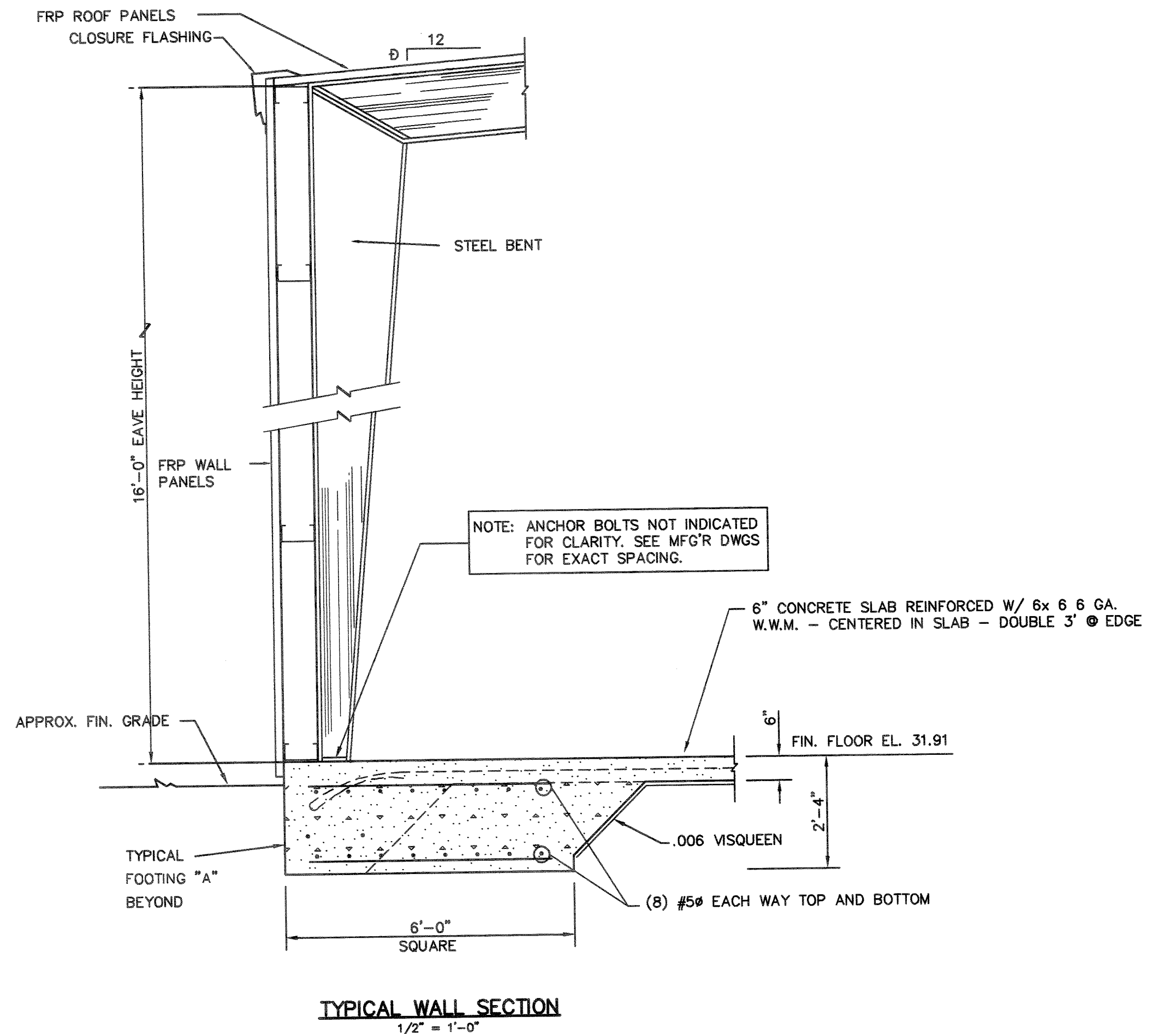
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DESIGNED	RWF	DATE	SCALE	SHEET NO.
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CHECKED		DATE		
APPROVED		DATE		
			JOB NO.	OF 90

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FOUNDATION PLAN
SCALE: 1/4"=1'-0"



- STEEL BUILDING NOTES:**
- BUILDING MANUFACTURER SHALL DESIGN STRUCTURE TO WITHSTAND 110 M.P.H. WIND SPEED IN ACCORD WITH 1997 S.B.C.
 - FOR EXACT LOCATION OF ANCHOR BOLTS, SEE PLAN PROVIDED BY BUILDING MANUFACTURER.
 - PROVIDE ENGINEERED SHOP DRAWINGS TO PROJECT ENGINEER FOR APPROVAL.
 - SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED ENGINEER CERTIFYING THE REQUIREMENTS OF THE DESIGN CRITERIA.
 - BUILDING MANUFACTURER IS REQUIRED TO SUBMIT VERTICAL REACTIONS TO PROJECT ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION OF BUILDING FOUNDATION AND FLOOR SLAB.
 - PROVIDE MANUFACTURERS STANDARD BASE ANGLE AT BOTTOM OF WALL PANELS WHERE PANEL TERMINATES AT SLAB.
 - ALL BUILDING COMPONENTS SHALL BE OF A SIMILAR FINISH AND COLOR.
 - ALL WALL PANELS, ROOF PANELS, AND TRIM SHALL BE SUPPLIED BY SAME MANUFACTURER TO ASSURE COMPATIBILITY AND UNIFORM APPEARANCE.
 - ALL COLORS AND FINISHES SHALL BE SELECTED BY PROJECT ENGINEER.

NO	BY	REVISIONS	DATE

QUENTIN L. HAMPTON ASSOCIATES, INC.
CONSULTING ENGINEERS
P.O. DRAWER 290247 PORT ORANGE, FLORIDA 32128-0247 904 761-6810

CITY OF
PORT ORANGE
VOLUSIA COUNTY, FLORIDA

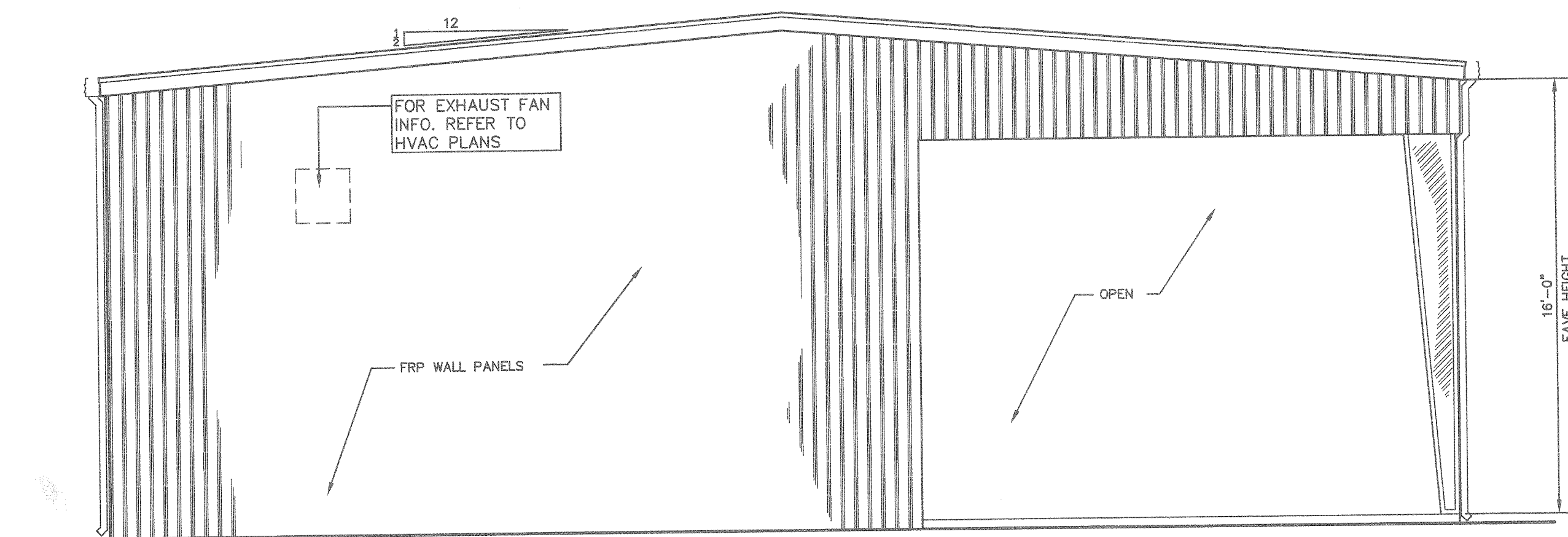
GARNSEY WATER PLANT EXPANSION
STATE PROJECT No. DW6413010

PROPOSED STORAGE BUILDING
FOUNDATION PLAN
SECTIONS AND DETAILS

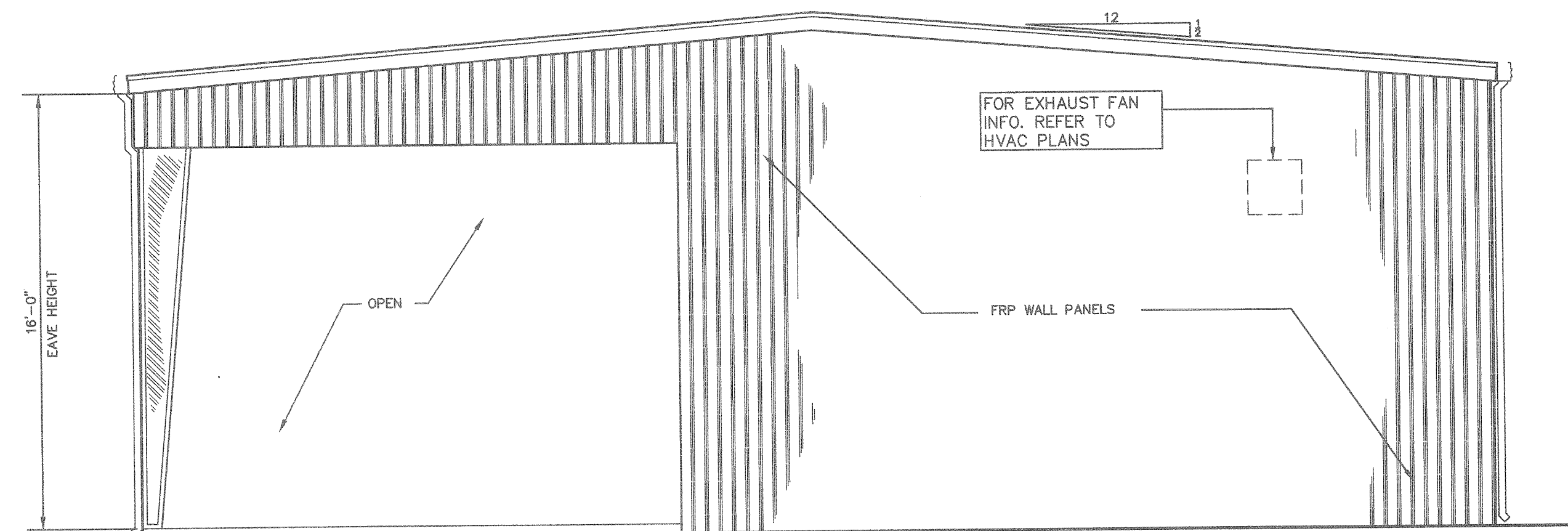
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AS SHOWN	47
JOB NO.	OF 90



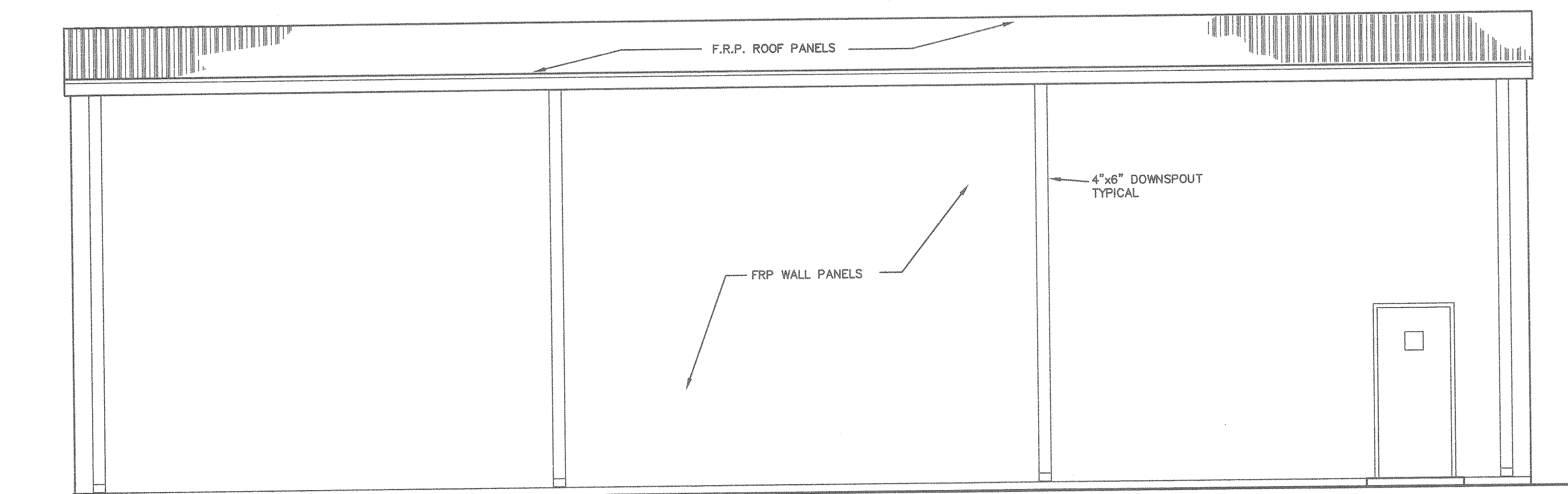
EAST ELEVATION
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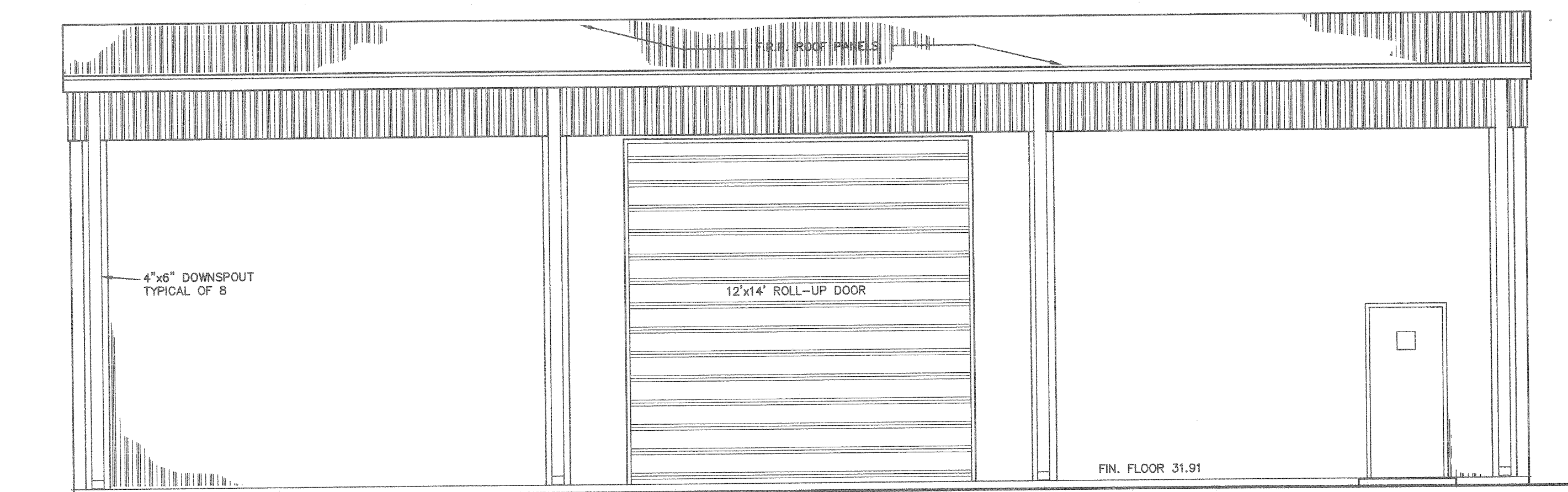
WEST ELEVATION
SCALE: 1/4"=1'-0"

ALL FRP PANELS SHALL BE SIMILAR TO THOSE MANUFACTURED BY RESOLITE TYPE 1240, PROFILE 7.2 x 1.5". COLOR TO BE STONE WHITE. METAL BUILDING SUPPLIER SHALL PROVIDE ADEQUATE SUPPORT FOR PANEL INSTALLATION.

ALL ROOF PANELS SHALL BE APPROVED BY MANUFACTURER FOR USE UNDER "LOW-SLOPE" APPLICATIONS.



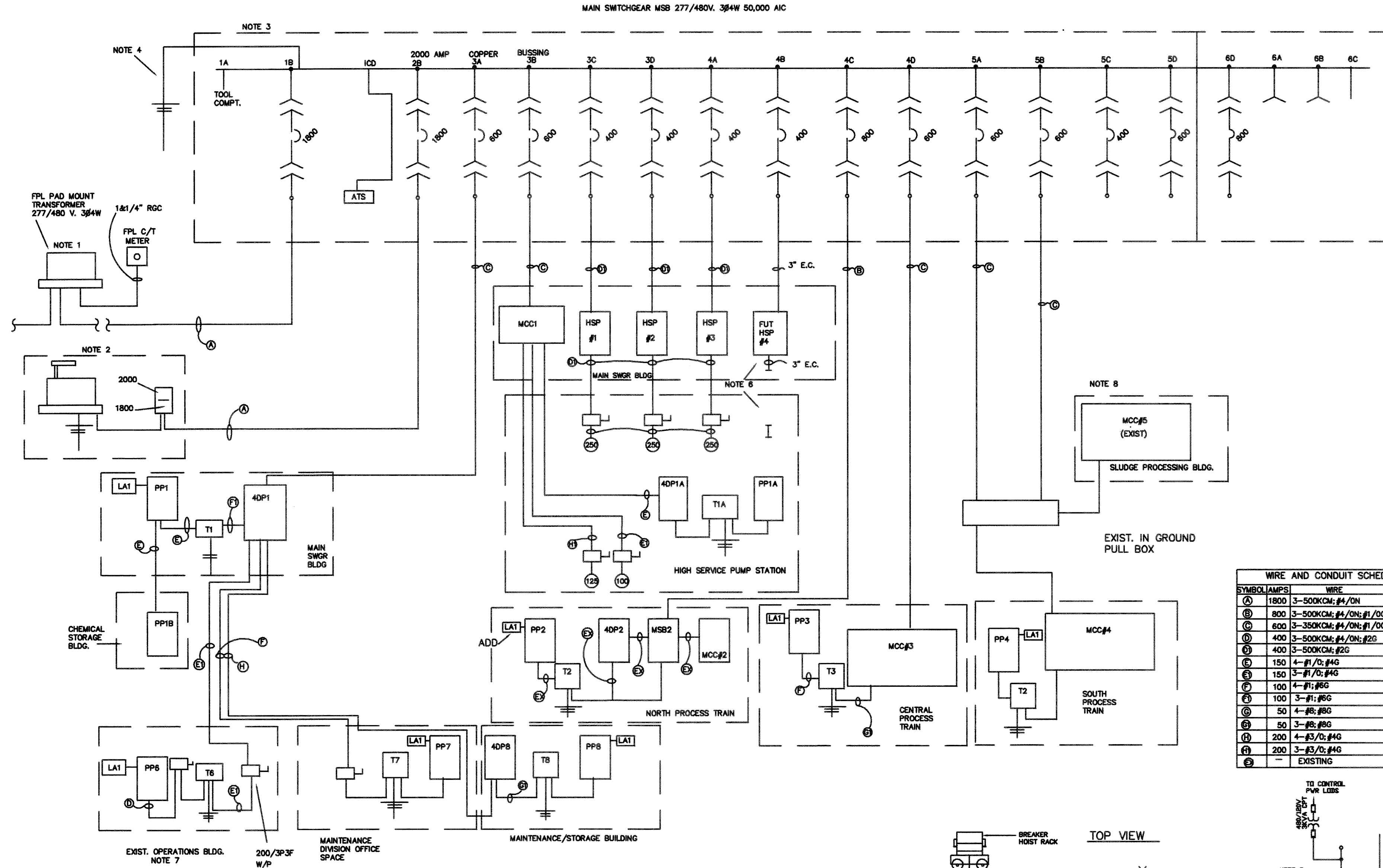
SOUTH ELEVATION
SCALE: 1/4"=1'-0"



NORTH ELEVATION
SCALE: 1/4"=1'-0"

RECORD DRAWING
APRIL 2003
JRB

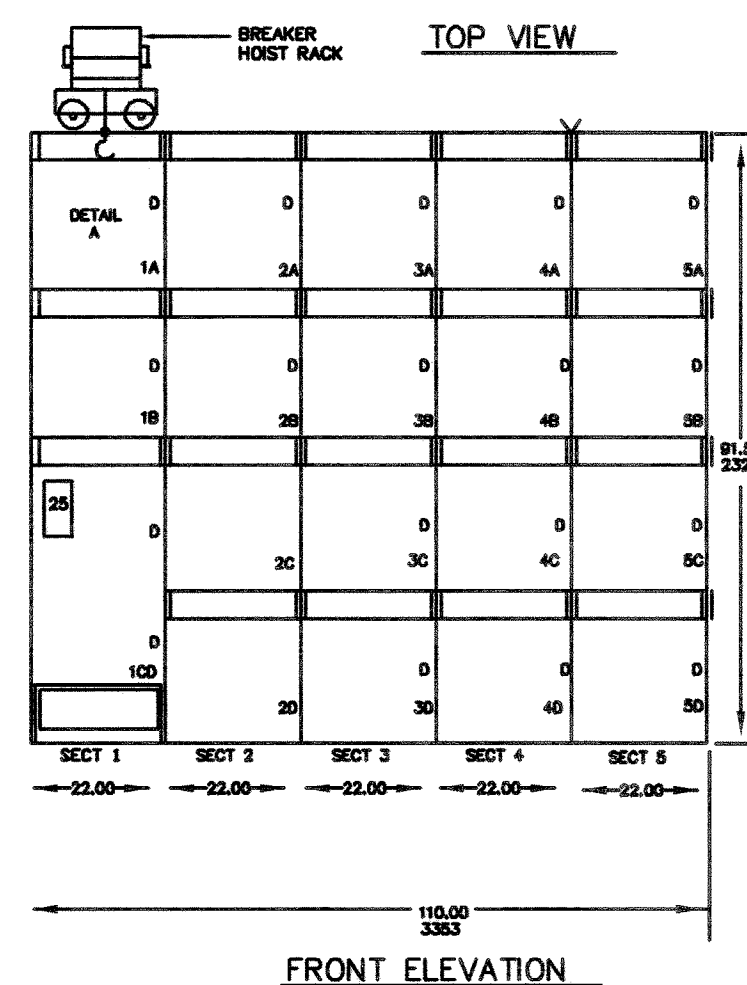
NO	BY	REVISIONS	DATE	P.O. DRAWER 290247	PORT ORANGE, FLORIDA 32129-0247	904 761-6810	QUENTIN L. HAMPTON ASSOCIATES, INC. CONSULTING ENGINEERS	CITY OF PORT ORANGE VOLUSIA COUNTY, FLORIDA	GARNSEY WATER PLANT EXPANSION STATE PROJECT No. DW6413010	PROPOSED STORAGE BUILDING ARCHITECTURAL ELEVATIONS	DESIGNED	RWF	DATE	SCALE AS SHOWN	SHEET NO. 49 OF 90
											DRAWN	DLB	DATE		
											CHECKED		DATE		
											APPROVED		DATE		



CELL NO.	BREAKER TYPE	BREAKER OPERATION	BREAKER TRIP UNIT	FRAME SIZE	SENSOR SIZE	RATING PLUG	* TRIP SETTING	INTERRUPTING CAPACITY	TRIPPING PARAMETERS	DESIGNATION
1A	TOOL COMPT.	ELECTRIC	DIGITRIP 8100	2000A	2000	2000	1800	65,000A	LSIG, 4W	UTILITY MAIN
1B	DSI-620	ELECTRIC	DIGITRIP 8100	2000A	2000	2000	1800	65,000A	LSIG, 4W	ATS
1C0	DSI-620	ELECTRIC	DIGITRIP 8100	2000A	2000	2000	1800	65,000A	LSIG, 4W	GEN MAIN
3A	DSI-508	MANUAL	DIGITRIP 8100	800A	800	800	600	50,000A	LSIG, 4W	MCC-1
3B	DSI-508	MANUAL	DIGITRIP 8100	800A	800	800	600	50,000A	LSIG, 4W	MCC-1
3C	DSI-508	MANUAL	DIGITRIP 8100	800A	800	800	600	50,000A	LSIG, 4W	MCC-1
3D	DSI-508	MANUAL	DIGITRIP 8100	800A	800	800	600	50,000A	LSIG, 4W	MCC-1
4A	DSI-508	MANUAL	DIGITRIP 8100	800A	800	800	600	50,000A	LSIG, 4W	HSP-1
4B	DSI-508	MANUAL	DIGITRIP 8100	800A	800	800	600	50,000A	LSIG, 4W	HSP-2
4C	DSI-508	MANUAL	DIGITRIP 8100	800A	800	800	600	50,000A	LSIG, 4W	FUTURE HSP-4
4D	DSI-508	MANUAL	DIGITRIP 8100	800A	800	800	600	50,000A	LSIG, 4W	MCC-2
5A	DSI-508	MANUAL	DIGITRIP 8100	800A	800	800	600	50,000A	LSIG, 4W	MCC-3
5B	DSI-508	MANUAL	DIGITRIP 8100	800A	800	800	600	50,000A	LSIG, 4W	MCC-4
5C	DSI-508	MANUAL	DIGITRIP 8100	800A	800	800	600	50,000A	LSIG, 4W	MCC-5
5D	DSI-508	MANUAL	DIGITRIP 8100	800A	800	800	600	50,000A	LSIG, 4W	SPARE

* TRIP SETTING IS FACTORY SET AT PLUG RATING BUT IS FIELD ADJUSTABLE FROM 50 TO 100% OF PLUG RATING.

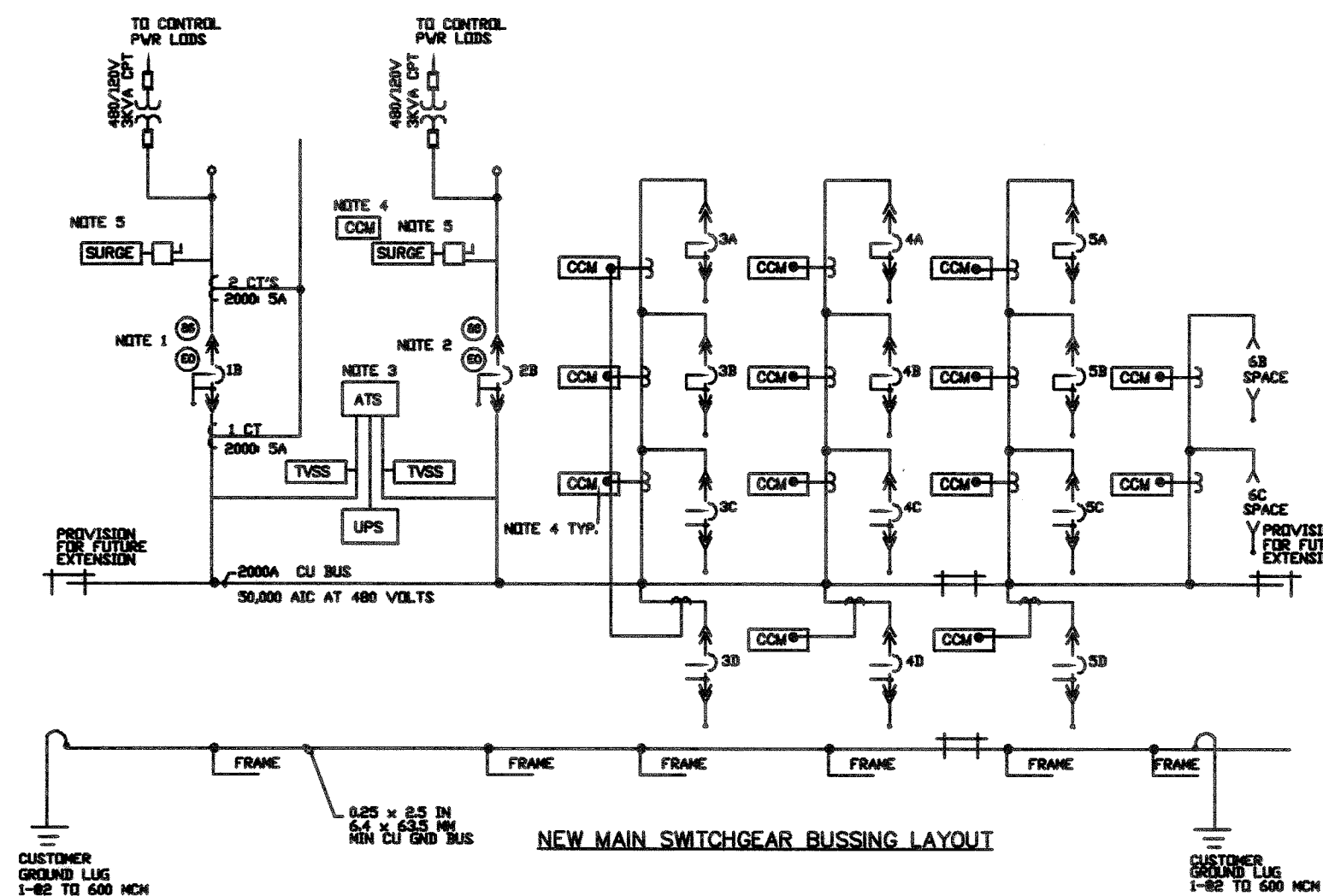
- NOTES:
- UTILITY POWER MAIN CIRCUIT BREAKER.
 - GENERATOR POWER MAIN CIRCUIT BREAKER.
 - AUTOMATIC TRANSFER SCHEME TO MONITOR NORMAL POWER, STANDBY POWER, UTILITY POWER ON FAILURE, START GENERATOR, AND CLOSE GENERATOR BREAKER. PROVIDE COVER MOUNTED 4 POSITION SELECTOR SWITCH AND 3 - STATUS INDICATING PILOT LIGHTS. PROVIDE EXERCISE TIMER FOR 1 HOUR EXERCISE UNDER LOAD EACH WEEK.
 - POWER CIRCUIT MONITOR TO MONITOR VOLTAGE, AMPERAGE, HARMONICS, LOAD ETC. SQUARE D MODEL COM-2350 OR APPROVED EQUAL. PROVIDE FOR EACH MAIN BREAKER AND EACH FEEDER BREAKER. DAISY CHAIN RS-485 CABLE BETWEEN UNITS FOR FUTURE POWER MONITORING COMPUTER.
 - PROVIDE FUSED DISCONNECT TO SERVE SURGE ARRESTOR. ARRESTOR TO BE LEVITON 57277M-3 OR EQUAL BY ATLANTIC SCIENTIFIC, DYNATEC, OR EDCO.



SYMBOL	AMPS	WIRE	CONDUIT(S)
1A	1800	3-500KCM; #4/ON	5-3"
1B	800	3-500KCM; #4/ON; #1/OG	2-3&1/2"
1C	600	3-350KCM; #4/ON; #1/OG	2-3&1/2"
1D	400	3-500KCM; #4/ON; #2G	1-3"
1E	400	3-500KCM; #2G	1-3"
1F	150	4-#1/0; #4G	1-2"
1G	150	3-#1/0; #4G	1-1&1/2"
1H	100	4-#1; #6G	1-1&1/2"
1I	100	3-#1; #6G	1-1&1/2"
1J	50	4-#8; #8G	1-1"
1K	50	3-#8; #8G	1-1"
1L	200	4-#3/0; #4G	1-2&1/2"
1M	200	3-#3/0; #4G	1-2&1/2"
1N	-	EXISTING	-

DESIGNATION	KVA	LOCATION
T1	45	MAIN SWGR BLDG
T1A	30	HIGH SERVICE PUMP STATION
T2	EXIST	NORTH PROCESS TRAIN
T3	30	CENTRAL PROCESS TRAIN
T4	30	SOUTH PROCESS TRAIN
T5	EXIST	SLUDGE PROCESSING BLDG
T6	75	EXIST OPERATIONS BLDG
T7	30	MAINT OFFICE
T8	15	MAINT/STORAGE

- NOTES:
- ALL TRANSFORMERS TO BE DRY TYPE.
 - 3 PHASE 480-120/208 VOLTS, 150°C.
 - RISE, GROUND SECONDARY PER N.E.C.
 - * TO INCLUDE WEATHER SHIELD



WATER PLANT SWITCHGEAR NOTES

- PROPOSED FPL PAD MOUNT TRANSFORMER. REFER TO SITE PLAN AND SUBSEQUENT SHEET NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS. PROVIDE NEW SERVICE LATERAL TO NOTE 3 EQUIPMENT SHOWN.
- PROPOSED 1250 KW STANDBY GENERATOR IN SOUND ATTENUATED ENCLOSURE. REFER TO SPECIFICATIONS AND ADDITIONAL NOTES REGARDING THIS EQUIPMENT ITEM. FEED NOTE 3 EQUIPMENT AS SHOWN.
- NEW MAIN SWITCHGEAR FOR ENTIRE FACILITY. SWITCHGEAR TO INCLUDE NORMAL POWER MAIN BREAKER, STANDBY POWER MAIN BREAKER, AUTOMATIC TRANSFER SCHEME, SERVICE ENTRANCE SURGE PROTECTION, AND SERVICE GROUNDING. REFER TO SPECIFICATIONS AND SUBSEQUENT SHEETS FOR ADDITIONAL REQUIREMENTS FOR THIS EQUIPMENT. PROVIDE NAMEPLATES, ETC. AS REQUIRED. PROVIDE FEEDS TO LOAD SIDE EQUIPMENT IN THIS STRUCTURE AND OTHER STRUCTURES INDICATED ON THIS SHEET. REFER TO SITE PLAN FOR SPECIFIC LOCATIONS. ISOLATE GROUND AND NEUTRAL DOWNSTREAM FROM THIS DISTRIBUTION EQUIPMENT PER NEC.
- SERVICE GROUND TO INCLUDE #4/0 COPPER, RUN TO BUILDING SLAB STEEL, BUILDING PERIMETER GROUND LOOP IDENTIFIED ON THAT STRUCTURE DETAIL, "EXOTHERMIC" CONNECTION TO BUILDING SLAB STEEL AT 5 LOCATIONS, CONNECTION TO 3-10' DRIVEN ELECTRODES, AND "PIPE STRAP" TO LOCAL STEEL PIPING SYSTEM. PROVIDE GROUND RESISTANCE TESTING PER SPECIFICATIONS.
- SURGE SUPPRESSION COMPONENTS TO BE AS FOLLOWS:
 - MAIN SWITCHGEAR SUPPRESSORS TO BE LEVITON MODEL 57277-M3 OR APPROVED EQUAL BY ATLANTIC SCIENTIFIC, DYNATEC, EDCO.
 - DEVICES TYPE LA1 TO BE LEVITON MODEL 52120-M3 OR APPROVED EQUAL BY ATLANTIC SCIENTIFIC, DYNATEC, EDCO.
 - WHERE NOT INDICATED, PROVIDE A 3 POLE BREAKER IN SWITCHGEAR OR PANEL FOR DISCONNECTING/OVER-CURRENT PROTECTION OF TVSS DEVICE AS REQUIRED BY UL 1441.
 - DEVICES MANUFACTURED BY ADVANCED PROTECTION TECHNOLOGIES (APT), UNACCEPTABLE THIS PROJECT.
- PROVIDE CONDUIT SLEEVES FOR FUTURE HIGH-SERVICE PUMPS WITHIN MAIN SWITCHGEAR BUILDING AND CONDUIT TO HIGH SERVICE PUMP STATION.
- PROVIDE NEW FEEDER TO EXISTING OPERATIONS BUILDING AS SHOWN, INCLUDING PRIMARY SERVICE DISCONNECT, (125 AMP 3 POLE/SOLID NEUTRAL, WEATHERPROOF ENCLOSED CIRCUIT BREAKER); FEED TO NEW TRANSFORMER T6, AND FEED SHOWN TO TRANSFORMER SECONDARY MAIN BREAKER (225 AMP, 3 POLE, SOLID NEUTRAL, WEATHERPROOF, ENCLOSED CIRCUIT BREAKER). UPGRADE FEED TO EXISTING PANEL PP6 AS SHOWN.
- REFEED SLUDGE PROCESSING BUILDING FROM NEW MAIN SWITCHBOARD AS INDICATED. REFER TO SITE PLAN FOR LAYOUT OF DISTRIBUTION SYSTEM, REUSE OF EXISTING PULL BOX, ETC. RE-PULL NEW FEEDER CONDUCTORS TO THIS FACILITY INCLUDING ISOLATED GROUND CONDUCTOR INDICATED ON WIRE AND CONDUIT SCHEDULE. ISOLATE NEUTRAL AND GROUND WITHIN MCCS TO COMPLY WITH NEC REQUIREMENTS. MAINTAIN BOND BETWEEN MCC5 GROUND BUSS AND EXISTING STRUCTURAL STEEL, ETC. PROVIDE NAMEPLATE INDICATING SLUDGE PROCESSING BUILDING SERVICE MAIN DISCONNECT; NOTE FEEDER FROM MAIN SWITCHBOARD IN MAIN ELECTRICAL BUILDING.
- PROVIDE SHORT CIRCUIT AND COORDINATION STUDY FOR COMPLETE DISTRIBUTION SYSTEM INDICATED ON THIS SHEET. STUDY TO INCLUDE TIME/CURRENT CURVES FOR ALL FEEDER BREAKERS, AND SUGGESTED SETTINGS FOR ALL ADJUSTABLE TRIP BREAKERS THIS PROJECT.

RECORD DRAWING
APRIL 2003
JRB

PAUL M. ESTES, P.E.
615 N. PENINSULA DR.
DAYTONA BEACH, FL., 32118
(904)-252-6948

QUENTIN L. HAMPTON ASSOCIATES, INC.
CONSULTING ENGINEERS

P.O. DRAWER 290247 PORT ORANGE, FLORIDA 32129-0247 904 761-6810

CITY OF
PORT ORANGE
VOLUSIA COUNTY, FLORIDA

GARNSEY WATER PLANT EXPANSION
STATE PROJECT No. DW6413010

MASTER SINGLE
LINE DIAGRAM
ADDENDUM No. 1 DATED 10/21/99

DESIGNED	PME	DATE		SCALE	SHEET NO.
DRAWN	DLB	DATE	10/99	AS SHOWN	66
CHECKED		DATE			
APPROVED		DATE		JOB NO.	OF 90



CITY OF PORT ORANGE

PURCHASING DIVISION
1000 CITY CENTER CIRCLE
PORT ORANGE, FLORIDA 32129
TELEPHONE 386-506-5717
purchdiv@port-orange.org

ADDENDUM # 1

April 13, 2022

ITB #22-07 GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION

To All Bidders:

The following changes, clarifications and additions are hereby made part of the bidding and specifications for the above referenced project dated March 22, 2022 and prepared by the City of Port Orange Purchasing Division as fully and completely as if the same were fully set forth therein. It is the sole responsibility of bidder to confirm that all addenda have been received prior to submitting bid and acknowledge such in the bid documents.

NEW BID OPENING DATE

The bid opening date of April 26, 2022 at 2:30pm is hereby changed to May 10, 2022 at 2:30pm.

In all other respects, except as specifically stated herein, the subject ITB # 22-07 GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION remains unchanged.

END OF ADDENDUM #1

Joseph Castro

Buyer

jcastro@port-orange.org



CITY OF PORT ORANGE

PURCHASING DIVISION
1000 CITY CENTER CIRCLE
PORT ORANGE, FLORIDA 32129
TELEPHONE 386-506-5717
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ADDENDUM # 2

April 21, 2022

ITB #22-07 GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION

To All Bidders:

The following changes, clarifications and additions are hereby made part of the bidding and specifications for the above referenced project dated March 22, 2022 and prepared by the City of Port Orange Purchasing Division as fully and completely as if the same were fully set forth therein. It is the sole responsibility of bidder to confirm that all addenda have been received prior to submitting bid and acknowledge such in the bid documents.

REVISED CONTENTS

The Contents page (pg.4 of the ITB) is hereby replaced with the Revised Contents page that is posted as a separate document on the Purchasing web page and DemandStar that can be accessed using these links: www.port-orange.org/bids.aspx or www.demandstar.com.

REVISED SECTION 7 – REQUIRED FORMS

Section 7 – Required Forms (pg.38 of the ITB) is hereby replaced with Revised Section 7 – Required Forms that is posted as a separate document on the Purchasing web page and DemandStar that can be accessed using these links: www.port-orange.org/bids.aspx or www.demandstar.com.

FORM 7.13 LISTING OF SUBCONTRACTORS

FORM 7.13 Listing of Subcontractors is hereby added to ITB 22-07 as page 51 and must be included in bidder's submittal. FORM 7.13 Listing of Subcontractors can be downloaded from the Purchasing web page at www.port-orange.org/bids.aspx or DemandStar website at www.demandstar.com.

A. CLARIFICATIONS:

None

B. CHANGES TO SPECIFICATIONS:

Attachment 3 "100% Design November 2021" is hereby replaced with BID # 22-07 BID-SET April 2022 and is posted as separate document on the Purchasing web page www.port-orange.org/bids.aspx and Demand Star www.demandstar.com.

Specification 01 30 00 Administrative Requirements, Item 1.06, page 26 currently reads:

The CONTRACTOR agrees that the work shall be started not later than the date indicated in the "Notice to Proceed" and shall substantially complete all work within **180 calendar days**, with final completion within **30 days** of substantial completion.

Specification 01 30 00 Administrative Requirements, Item 1.06, page 26 is hereby modified to read: The CONTRACTOR agrees that the work shall be started not later than the date indicated in the "Notice to Proceed" and shall substantially complete all work within **400 calendar days**, with final completion within **30 days** of substantial completion.

C. **QUESTIONS AND ANSWERS:**

Question #1 What is the estimated budget?

ANSWER: \$1,730,000.00

Question #2: Is a General Contractors' license required to bid this project or can an Electrical Contractor bid as prime?

ANSWER: A Certified Electrical Contractor can bid as the Prime Contractor.

Question #3: What are the Liquidated Damages per day for this project?

ANSWER: Liquidated damages are \$1,000 per day according to Section 01 30 00 Administrative Requirements, Item 1.06A on page 26 and page 27 of the technical specifications.

Question #4: At the prebid, the contract days amount was said to be 400 to substantial completion. Specification 01 30 00/1.06 shows substantial completion within 180 calendar days. Please confirm which is the appropriate time frame.?

ANSWER: Please refer to Item B Changes To Specifications of this Addendum.

Question #5: Is the City aware of the extra ordinarily long lead times for generators and switchgear? These lead times are a year or more currently.

ANSWER: Yes, thus the long contract duration.

Question #6: Specification section 01 30 00/1.24 states to hand dig and expose all existing public/private utilities and other existing facilities which may be in conflict with the proposed construction in order to adjust the proposed facility alignments to avoid any conflicts. Does this mean that all excavations for trenching and electrical manholes shall be hand dug?

ANSWER: The Contractor is required to 'clear' the route and expose existing utilities to verify vertical and horizontal (VVH) locations of conflict utilities prior to equipment excavation.

Question #7: Are the time-lapse and web-based construction photographs described in specification section 01 32 33 required for this project?

ANSWER: Time lapse photography is NOT required. Pre-construction video is required.

Question #8: Does the permit allowance cover just the building permit or does it cover all permits needed? (i.e., Electrical)

ANSWER: Permit allowance is for all permits.

Question #9: Specification 26 05 02/3.4 mentions cleaning and repairing existing materials and equipment that remain or are to be reused. Does this just pertain to the MCC's and Main circuit breaker that are being refed from the new electric room? Could an allowance be added to the bid form as the extent of possible repairs could be difficult to include in the bid?

ANSWER: The specification article only pertains to equipment that is affected by the scope of work. This would include the MCC's that are being refed.

Question #10: Will any lightning protection be required for any of the new or existing structures?

ANSWER: Lightning protection is not part of the scope of work.

Question #11: Specification section 26 05 43/3.5/D says to use manufactured long sweep bends with a minimum radius of 48 inches, both horizontally and vertically. Does this mean that all pvc coated rigid risers need to be 48" radius, 90-degree elbows?

ANSWER: Specifically, 48" radius, 90-degree elbows shall be required at all conduits rising from below grade to above grade.

Question #12: Specification section 26 05 43/3.5/K/9 says to encase elbows for stub-ups throughout the length of the elbow, but this is in the direct burial spec section. Do direct burial conduits need the stub up elbow encased in concrete?

ANSWER: Specifically at building entrances, elbows for stub-ups require concrete encasement as per the specification.

Question #13: Is VFD cable needed to refeed the HSP VFD's?

ANSWER: VFD cable is not necessary.

Question #14: HSP-4 VFD on sheet E-701 is marked as future but the conduit schedule calls for it to have wire. Is this just supposed to be an empty conduit, or will it require wire to be pulled and made safe in a junction box or enclosure?

ANSWER: It is our understanding that HSP-4 VFD is installed and as such conduit & wire will be required.

Question #15: Do any of the in ground electrical pull boxes need to be traffic rated?

ANSWER: None of the pull boxes are located in roadways and as such should not need to be traffic rated.

Question #16: Does the City have a specific Integrator or Instrumentation and Control contractor to provide the communication cabinet? Can contact information be provided?

ANSWER: The City does not have a preferred System Integrator or Control Contractor for this project.

Question #17: Vendors for the custom auto-transfer switchgear have asked if the bid date could be extended to allow time to acquire accurate current pricing/availability of specialty equipment.

ANSWER: The bid opening date is extended 2 weeks from April 26 to May 10 to allow for accurate pricing and availability of the switchgear.

Question #18: REF: Drawing E-702 SINGLE LINE DIAGRAM MCC-3 & MCC-4, Note 3 FIELD VERIFY EXISTING BREAKER, MCP, STARTER AND MOTOR HP SIZE TO COORDINATE CONNECTION AND MOTOR CONTROL CENTER BUCKET CONFIGURATION PRIOR TO MCC PROCUREMENT. Please clarify the size/ratings of the circuit breakers and starters marked with NOTE 3 for estimating purposes.

ANSWER: For bidding purposes, assume each of the breakers with note 3 are 100A, 3-pole. Assume any starters with note 3 are NEMA size 3.

Question #19: Will the contractor be responsible for the cost of filling the fuel storage tanks or just the cost of fuel for testing?

ANSWER: The Contractor will be responsible for providing adequate fuel for startup and testing.

Question #20: Will contractor be responsible for removing fuel from existing tank? If so, will the fuel be re-used in the new system?

ANSWER: The Contractor will be responsible for removing fuel from the existing tank. If the fuel that is removed is properly stored, then it may be re-used in the new system.

Question #21: Why is the ATS inside the Gear?

ANSWER: The new main switchgear is designed to include the ATS as an integral part of the construction of the gear.

Question #22: Is paralleling required between the three sources (Utility, Gen 1, and Gen 2)?

ANSWER: Paralleling is not required between the three sources.

Question #23: Is paralleling required between the two generators?

ANSWER: Paralleling is not required between the two generators.

Question #24: Is Closed Transition required between the Gens and Utility?

ANSWER: Closed transition is not required.

Question #25: Load-shed is shown on the spec. However, I could not find the ATSs in the one-line. No priority load is shown. Could you please clarify? Do you have a list of load priorities?

ANSWER: Load shed is not required.

Question #26: Please provide a detailed spec for each ATS.

ANSWER: The new main switchgear is designed to include the ATS as an integral part of the construction of the gear.

Question #27: Drawing C-102 SITE PLAN -EXISTING/DEMOLITION & PROPOSED SITE WORK. Technical Specifications 01 11 00 Summary of Work and 23 11 00 Facility Fuel Piping. Demolition plan instructs "REMOVE EXISTING TANK AND ALL APPURTENANCES." Proposed Site Work shows two (2) NEW PROPOSED 5200 GAL FUEL TANKS. 01 11 00 SUMMARY OF WORK states "*Removal and relocation of the existing fuel tank*" and "*one (1) new fuel tank with associated fuel supply and return piping and valves*". 23 11 00 FACILITY FUEL PIPING includes specifications for CONCRETE-VAULTED, STEEL, FUEL-OIL AST ACCESSORIES, SPECIALTIES, PUMPS, GAGE SYSTEM and LEAK-DETECTION SYSTEM. Are both of the PROPOSED FUEL TANKS to be new or are we to re-use the EXISTING FUEL TANK? If we are to re-use EXISTING FUEL TANK, please clarify SCOPE OF WORK needed/expected to incorporate EXISTING FUEL TANK into the NEW FUEL SYSTEM. Will the EXISTING FUEL TANK require new ACCESSORIES, SPECIALTIES, FUEL PUMPS, LIQUID-LEVEL GAGE SYSTEM and LEAK DETECTION AND MONITORING SYSTEM?

ANSWER: The scope of work includes removal of the existing fuel tank and providing (2) new 5200-gallon fuel tanks with all accessories as described in Specification Section 23 11 00.

Question #28: Please provide CONTROL SCHEMATIC showing control wiring needed between generators and MSB SWITCHGEAR.

ANSWER: As the control wiring required by each generator supplier may vary, it is up to the contractor to coordinate with the switchgear and generator suppliers for the proper control wiring and connections required.

Question #29: REF: Drawing E-702 NOTE 1 ALL BRANCH LOADS ARE EXISTING TO REMAIN. Is it the intent to reuse & re-terminate all existing branch wire at NEW MCC-3 and MCC-4? If so and the EXISTING circuit wire is not long enough to reach the new termination points in NEW MCC-3 and MCC-4 can they be spliced, or will the entire circuit need to be replaced?

ANSWER: The intent is to reuse the existing branch wiring for reconnection to new MCC-3 and MCC-4. Cable splicing will be acceptable.

Question #30: Is the new ELECTRICAL ROOM to be a NEW PRE-ENGINEERED BUILDING or is it only enclosing the walls of the EXISTING overhead structure?

ANSWER: The new electrical room is formed by enclosing walls of an existing structure.

Question #31: If it is to enclose walls to the existing structure, please provide the MANUFACTURER'S DRAWINGS of the EXISTING PRE-ENGINEERED METAL BUILDING.

ANSWER: These are not available.

Question #32: What size is the generator needed? Are there more than one?

ANSWER: 1250 KW Diesel Generator. Only one generator.

In all other respects, except as specifically stated herein, the subject ITB # 22-07 GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION remains unchanged.

END OF ADDENDUM #2

Joseph Castro

Buyer

jcastro@port-orange.org



CITY OF PORT ORANGE

PURCHASING DIVISION
1000 CITY CENTER CIRCLE
PORT ORANGE, FLORIDA 32129
TELEPHONE 386-506-5717
purchdiv@port-orange.org

ADDENDUM # 3

May 2, 2022

ITB #22-07 GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION

To All Bidders:

The following changes, clarifications and additions are hereby made part of the bidding and specifications for the above referenced project dated March 22, 2022 and prepared by the City of Port Orange Purchasing Division as fully and completely as if the same were fully set forth therein. It is the sole responsibility of bidder to confirm that all addenda have been received prior to submitting bid and acknowledge such in the bid documents.

A. CLARIFICATIONS:

None

B. CHANGES TO SPECIFICATIONS:

None

QUESTIONS AND ANSWERS:

Question #1: Are the metal building panels metal or do they have a special PVC resin on them?

ANSWER: As shown on the provided Bid Set drawings, the existing panels are "FRP Panels Manufactured by Resolite Type 1240. Profile 7.2 x 1.5". Color to be Stone White.

Question #2: Will the weight of this conduit and wire will be able to be supported from the existing metal building ceiling. There will be about (21) 3" conduits with wire suspended from the ceiling and spanning across the building. Is the ceiling of the existing building rated to support that extra weight?

ANSWER: The contractor should not rely on the existing metal building ceiling structure and will need to provide supplemental steel in order to support the conduits in the existing metal building.

Question #3: Will a Fireguard Cylindrical tank be accepted? The tank is UL 2085 with 3" lightweight concrete between two steel walls.

ANSWER: The cylindrical tank proposed appears to be acceptable as long as it meets all other requirements of the drawings and specifications.

Question #4: Rack Mounted Fiber Patch Panel for Termination of 12-Count Fiber Cabling - What is the mode and termination style (LC, ST,SC) of the Fiber?

ANSWER: For the purposes of bidding, assume single-mode fiber with SC connections.

Question #5: The Chatsworth 25500-X12 has been discontinued with no replacement. Could you please provide the current specification for desired Cabinet?

ANSWER: The updated basis of design for the communications cabinet shall be Chatsworth CUBE-iT series, model #11890-724.

In all other respects, except as specifically stated herein, the subject ITB # 22-07 GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION remains unchanged.

END OF ADDENDUM #3

Joseph Castro

Buyer

jcastro@port-orange.org

This certificate must be completed and returned by the Awarded Vendor, upon issuance of a Notice of Intent to Award by the Purchasing Department of the City of Port Orange. Please note, the City of Port Orange does not accept exemptions for Workers' Compensation coverage.

LEASED EMPLOYEE AFFIDAVIT

EXHIBIT CONTRACT # ITB 22-07

☒ I hereby certify that I do not utilize an employee leasing company or employee leased employees. I further agree to notify the City in the event these circumstances change.

OR

☐ I affirm that an employee leasing company provides my workers' compensation coverage. I further understand that my contract with the employee leasing company limits my workers' compensation coverage to enrolled worksite employees only. My leasing arrangement does not cover un-enrolled worksite employees, independent contractors, uninsured sub-contractors or casual labor exposure.

I hereby certify that 100% of my workers are covered as worksite employees with the employee leasing company. I certify that I do not hire any casual or uninsured labor outside the employee leasing arrangement. I agree to notify the City in the event that I have any workers not covered by the employee leasing workers' compensation policy. In the event that I have any workers not subject to the employee leasing arrangement, I agree to obtain a separate workers' compensation policy to cover these workers. I further agree to provide the City with a certificate of insurance providing proof of workers' compensation coverage prior to these workers entering any City jobsite.

I further agree to notify the City if my employee leasing arrangement terminates with the employee leasing company and I understand that I am required to furnish proof of replacement workers' compensation coverage prior to the termination of the employee leasing arrangement.

I certify that I have workers' compensation coverage for all of my workers through the employee leasing arrangement specified below:

Name of Employee Leasing Company: _____

Workers' Compensation Carrier: _____

A.M. Best Rating of Carrier: _____

Inception Date of Leasing Arrangement: _____

I further agree to notify the City in the event that I switch employee-leasing companies. I recognize that I have an obligation to supply an updated workers' compensation certificate to the City that documents the change of carrier.

I hereby attest that the information provided in this affidavit is accurate. In addition,

I certify that I have read and understand the above statements regarding my responsibility under the Workers' Compensation coverage.

Name of Contractor: Chinchor Electric, Inc.

Signature of Owner/Officer: _____

Title: Vice President Date: 05/19/2022

AFFIDAVIT REGARDING WORKERS' COMPENSATION

IMPORTANT

This certificate must be completed and returned by the Awarded Vendor, upon issuance of a Notice of Intent to Award by the Purchasing Department of the City of Port Orange. Please note, the City of Port Orange does not accept exemptions for Workers' Compensation coverage.

State of Florida

County of Volusia

I, Mariah Anselmo, being duly sworn according to law, deposes and says (it, he, she, they) have accepted the Workers' Compensation laws of the State of Florida, with its supplements and amendments and has insured (its, his, her, their) liability there under accordance with the terms of said Laws with the Amerisure Insurance Company, under the terms of Policy Number WC-2106047-04 for a period from August 30th, 2021 to August 30th, 2022

WITNESS:

By: Kathryn Quintana
Name: Kathryn Quintana, Corporate Sec.

CONTRACTOR:

Company: Chinchor Electric, Inc.
By: [Signature]
Name/Title: Mariah Anselmo, Vice President

Sworn to and subscribed before me this 19 day of 5 2022.

My Commission Expires: 6/28/2025 [Signature]
Notary Public



PEYTON HICKOX
Notary Public
State of Florida
Comm# HH146746
Expires 6/28/2025

Peyton Hickox
Notary Public Printed Name

GARNSEY WTP GENERATOR INSTALLATION

BID NO. 22-07

Mead & Hunt, Inc.
Project # 1000715-192311.01



Prepared for:

City of Port Orange
January 2022

Mead&Hunt

4401 Eastport Parkway
Port Orange, FL 32127
Phone: 386-761-6810
www.meadhunt.com

**TABLE OF CONTENTS
CITY OF PORT ORANGE
GARNSEY WTP GENERATOR INSTALLATION
BID NO. XX-XX**

<u>Section</u>	<u>Title</u>
DIVISION 1 – GENERAL REQUIREMENTS	
01 00 00	General Requirements
01 11 00	Summary of Work
01 20 00	Price and Payment Procedures
01 29 73	Schedule of Values
01 29 76	Progress Payment Procedures
01 30 00	Administrative Requirements
01 31 19	Project Meetings
01 32 16	Construction Progress Schedules
01 32 33	Photographic Documentation
01 33 23	Shop Drawings
01 35 13	Special Project Procedures
01 45 29	Testing Laboratory Services
01 57 13	Temporary Erosion and Sedimentation Controls
01 60 00	Product Requirements
01 71 13	Mobilization
01 74 00	Cleaning and Waste Management
01 75 16	Start-Up Procedures
01 77 00	Close-Out Procedures
01 78 23	Operating and Maintenance Data
01 78 36	Warranties
01 78 39	Project Record Documents
DIVISION 2 - SITEWORK	
02 41 00	Demolition
DIVISION 3 – CONCRETE	
03 30 00	Cast In Place Concrete
DIVISION 13 – SPECIAL CONSTRUCTION	
13 34 19	Metal Building Systems
DIVISION 23 – SPECIAL CONSTRUCTION	
23 11 00	Facility Fuel Piping

DIVISION 26 – ELECTRICAL

26 05 00	Common Work Results for Electrical
26 05 02	Electrical Demolition and Alteration
26 05 19	Low-Voltage Electrical Power Conductors and Cables
26 05 26	Grounding and Bonding for Electrical Systems
26 05 29	Hangers and Supports for Electrical Systems
26 05 33	Raceways and Boxes for Electrical Systems
26 05 43	Underground Ducts and Raceways for Electrical Systems
26 05 53	Identification for Electrical Systems
26 05 74	Overcurrent Protective Device Arc Flash Study
26 23 00	Low Voltage Switchgear
26 24 19	Motor Control Centers
26 32 13	Engine Generators

DIVISION 31 – EARTHWORK

31 22 00	Site Grading
31 23 00	Excavation and Fill
31 23 19	Dewatering

DIVISION 32 – EXTERIOR IMPROVEMENTS

32 10 00	Bases, Ballasts and Paving
32 92 23	Sodding

END OF TABLE OF CONTENTS

SECTION 01 00 00
GENERAL REQUIREMENTS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Scope of Work: The Work to be done consists of the furnishing of all labor, materials and equipment, and the performance of all Work included in this Contract. The summary of the Work is presented in Section 01 11 00: Summary of Work.
- B. Work Included:
 - 1. The Contractor shall furnish all labor, superintendence, materials, plant power, light, heat, fuel, water, tools, appliances, equipment, supplies, and means of construction necessary for proper performance and completion of the Work. The Contractor shall obtain and pay for all necessary local building permits. The Contractor shall perform and complete the work in the manner best calculated to promote rapid construction consistent with safety of life and property and to the satisfaction of the Engineer, and in strict accordance with the Contract Documents. The Contractor shall clean up the Work and maintain it during and after construction, until accepted, and shall do all Work and pay all costs incidental thereto. He shall repair or restore all structures and property that may be damaged or disturbed during performance of the Work.
 - 2. The cost of incidental work described in these Project Requirements, for which there are no specific Contract Items, shall be considered as part of the general cost of doing the Work and shall be included in the prices for the various Contract Items. No additional payment will be made therefore.
 - 3. The Contractor shall provide and maintain such modern plant, tools, and equipment as may be necessary, in the opinion of the Engineer, to perform in a satisfactory and acceptable manner all the Work required by this Contract. Only equipment of established reputation and proven efficiency shall be used. The Contractor shall be solely responsible for the adequacy of his workmanship, materials, and equipment, prior approval of the Engineer notwithstanding.
- C. Public Utility Installations and Structures:
 - 1. Public utility installations and structures shall be understood to include all poles, tracks, pipes, wires, conduits, vaults, manholes, and all other appurtenances and facilities pertaining thereto whether owned or controlled by the Owner, other governmental bodies, or privately owned by individuals, firms, or corporations,

used to serve the public with transportation, traffic control, gas, electricity, telephone, sewerage, drainage, water, or other public or private property which may be affected by the Work shall be deemed included hereunder.

2. The Contract Documents contain data relative to existing public utility installations and structures above and below the ground surface. These data are not guaranteed as to their completeness or accuracy and it is the responsibility of the Contractor to make his own investigations to inform himself fully of the character, condition, and extent of all such installations and structures as may be encountered and as may affect the construction operations.
3. The Contractor shall protect all public utility installations and structures from damage during the Work. Access across any buried public utility installation or structure shall be made to avoid any damage to these facilities. All required protective devices and construction shall be provided by the Contractor at his expense. All existing public utilities damaged by the Contractor shall be repaired by the Contractor, at his expense. No separate payment shall be made for such protection or repairs to public utility installations or structures.
4. Public utility installations or structures owned or controlled by the Owner or other governmental body which are shown on the Drawings to be removed, relocated, replaced, or rebuilt by the Contractor shall be considered as a part of the general cost of doing the Work and shall be included in the prices bid for the various Contract Items; therefore, no separate payment shall be made.
5. Where public utility installations or structures owned or controlled by the Owner or other governmental body are encountered during the course of the Work, and are not indicated on the Drawings or in the Specifications, and when, in the opinion of the Engineer, removal, relocation, replacement, or rebuilding is necessary to complete the Work under this Contract, such Work shall be accomplished by the utility having jurisdiction, or such Work may be ordered, in writing by the Engineer, for the Contractor to accomplish. If such work is accomplished by the utility having jurisdiction it will be carried out expeditiously, and the Contractor shall give full cooperation to permit the utility to complete the removal, relocation, replacement, or rebuilding as required. If such work is accomplished by the Contractor, it will be paid for as extra work as provided in the Agreement.
6. The Contractor shall, at all times in performance of the Work, employ acceptable methods and exercise reasonable care and skill so as to avoid unnecessary delay, injury, damage, or destruction of public utility installations and structures; and shall, at all times in the performance of the Work, avoid unnecessary interference with, or interruption of, public utility services, and shall cooperate fully with the owners thereof to that end.

7. The Contractor shall give written notice to Owner and other governmental utility departments and other owners of public utilities of the location of his proposed construction operations, at least forty-eight (48) hours in advance of breaking ground in any area or on any unit of the Work.
8. The maintenance, repair, removal, relocation, or rebuilding of public utility installations and structures, when accomplished by the Contractor as herein provided, shall be done by methods approved by the owners of such utilities.

1.02 DRAWINGS AND PROJECT MANUAL

- A. Drawings: When obtaining data and information from the Drawings, figures shall be used in preference to scaled dimensions, and large-scale drawings in preference to small-scale drawings.
- B. Supplementary Drawings:
 1. When, in the opinion of the Engineer, it becomes necessary to explain more fully the Work to be done or to illustrate the Work further or to show any changes which may be required, drawings known as Supplementary Drawings, with specifications pertaining thereto, will be prepared by the Engineer, and the Contractor will be furnished an electronic copy of the plans and project manual.
 2. The Supplementary Drawings shall be binding upon the Contractor with the same force as the Contract Drawings. Where such Supplementary Drawings require either less or more than the estimated quantities of Work, credit to the Owner or compensation therefore to the Contractor shall be subject to the terms of the Agreement.
- C. Contractor to Check Drawings and Data:
 1. The Contractor shall verify all dimensions, quantities, and details shown on the Drawings, Supplementary Drawings, schedules, Specifications, or other data received from the Engineer, and shall notify him of all errors, omissions, conflicts, and discrepancies found therein. Failure to discover or correct errors, omissions, conflicts, or discrepancies shall not relieve the Contractor of full responsibility for unsatisfactory work, faulty construction, or improper operation resulting there from, nor from rectifying such conditions at his own expense. He will not be allowed to take advantage of any errors or omissions, as full instructions will be furnished by the Engineer, should such errors or omissions be discovered.

2. All schedules are given for the convenience of the Engineer and the Contractor and are not guaranteed to be complete. The Contractor shall assume all responsibility or the making of estimates of the size, kind, and quality of materials and equipment included in work to be done under the Contract.
- D. Specifications: The Technical Specifications consist of three (3) parts: General, Products, and Execution. The General part of a Specification contains General Requirements which govern the Work. The Products and Execution parts modify and supplement the General Requirements by detailed requirements for the Work and shall always govern whenever there appears to be a conflict.
- E. Intent:
1. All Work called for in the Specifications applicable to this Contract, but not shown on the Drawings in their present form, or vice versa, shall be of like effect as if shown or mentioned in both. Work not specified in either the Drawings or in the Specifications but involved in carrying out their intent or in the complete and proper execution of the Work, is required and shall be performed by the Contractor as though it were specifically delineated or described.
 2. The apparent silence of the Specifications as to any detail, or the apparent omission from them of a detailed description concerning any work to be done and materials to be furnished, shall be regarded as meaning that only the best general practice is to prevail and that only material and workmanship of the best quality is to be used, the interpretation of these Specifications shall be made upon that basis.

1.03 MATERIALS AND EQUIPMENT

- A. Manufacturer:
1. All transactions with the manufacturers or subcontractors shall be through the Contractor, unless the Contractor shall request and at the Engineer's option, that the manufacturer or subcontractor deal directly with the Engineer. Any such transactions shall not in any way release the Contractor from his full responsibility under this Contract.
 2. Any two (2) or more pieces of material or equipment of the same kind, type, or classification, and being used for identical types of service, shall be made by the same manufacturer.

B. Delivery:

1. The Contractor shall deliver materials in ample quantities to ensure the most speedy and uninterrupted progress of the Work so as to complete the Work within the allotted time.
2. The Contractor shall also coordinate deliveries in order to avoid delay in, or impediment of, the progress of the work of any related Contractor.

C. Tools and Accessories:

1. The Contractor shall, unless otherwise stated in the Contract Documents, furnish with each type, kind, or size of equipment, one (1) complete set of suitably marked high grade special tools and appliances which may be needed to adjust, operate, maintain, or repair the equipment. Such tools and appliances shall be furnished in approved painted steel cases, properly labeled and equipped with good grade cylinder locks and duplicate keys.
2. Spare parts shall be furnished as specified herein and as recommended by the manufacturer necessary for the operation of the equipment, not including materials required for routine maintenance.
3. Each piece of equipment shall be provided with a substantial nameplate, securely fastened in place and clearly inscribed with the manufacturer's name, year of manufacture, serial number, weight, and principal rate data.

D. Service of Manufacturer's Engineer:

1. The Contract Prices for equipment shall include the cost of furnishing a competent and experienced Engineer or superintendent who shall represent the manufacturer and shall assist the Contractor, when required, to install, adjust, test, and place in operation, the equipment in conformity with the Contract Documents.
2. After the equipment is placed in permanent operation by the Owner, such Engineer or superintendent shall make all adjustments and tests required by the Engineer to prove that such equipment is in proper and satisfactory operating condition, and shall instruct such personnel as may be designated by the Owner in the proper operation and maintenance of such equipment.

1.04 INSPECTION AND TESTING

A. General:

1. For tests specified to be made by the Contractor, the testing personnel shall make the necessary inspections and tests, and the reports thereof shall be in such form as will facilitate checking to determine compliance with the Contract Documents. One (1) original and one (1) electronic copy of the reports shall be submitted, and authoritative certification thereof must be furnished to the Engineer as a prerequisite for the acceptance of any material or equipment.
2. If, in the making of any test of any material or equipment, it is ascertained by the Engineer that the material or equipment does not comply with the Contract Documents, the Contractor will be notified thereof, and he will be directed to refrain from delivering said material or equipment, or to remove it promptly from the site or from the Work and replace it with acceptable material, without cost to the Owner.
3. Tests of electrical and mechanical equipment and appliances shall be conducted in accordance with the recognized test codes of the ANSI, ASME, or the IEEE, except as may otherwise be stated herein.
4. The Contractor shall be fully responsible for the proper operation of equipment during testing and instruction periods and shall neither have nor make any claim for damage which may occur to equipment prior to the time when the Owner formally takes over the operation thereof.

B. Costs:

1. All inspection and testing of materials furnished under this Contract will be provided by the Contractor, unless otherwise expressly specified.
2. The cost of shop and field tests of equipment and of certain other tests specifically called for in the Contract Documents shall be borne by the Contractor, and such costs shall be deemed to be included in the Contract Price.
3. Materials and equipment submitted by the Contractor as the equivalent to those specifically named in the Contract may be tested by the Owner for compliance. The Contractor shall reimburse the Owner for the expenditures incurred in making such tests of materials and equipment which are rejected for non-compliance.

C. Certificate of Manufacture:

1. Contractor shall furnish to Engineer authoritative evidence in the form of a certificate of manufacture that the materials to be used in the Work have been manufactured and tested in conformity with the Contract Documents.
2. These certificates shall be notarized and shall include copies of the results of physical tests and chemical analyses, where necessary, that have been made directly on the product or on similar products of the manufacturer.

D. Shop Tests:

1. Each piece of equipment for which pressure, duty, capacity, rating, efficiency, performance, function, or special requirements are specified shall be tested in the shop of the maker in a manner which shall conclusively prove that its characteristics comply fully with the requirements of the Contract Documents.
2. Five (5) copies of the manufacturer's actual test data and interpreted results thereof, accompanied by a certificate of authenticity sworn to by a responsible official of the manufacturing company and/or independent laboratory, shall be submitted to the Engineer for approval.
3. The cost of shop tests and of furnishing manufacturer's preliminary and shop test data of operating equipment shall be borne by the Contractor.

E. Start-up Tests:

1. As soon as conditions permit, the Contractor shall furnish all labor, materials, and instruments and shall make start-up tests of equipment.
2. If the start-up tests disclose any equipment furnished under this Contract which does not comply with the requirements of the Contract Documents, the Contractor shall, prior to demonstration tests, make all changes, adjustments, and replacements required. The furnishing Contractor shall assist in the start-up tests as applicable.

F. Demonstration Tests:

1. Prior to Contractor's request for a Substantial Completion inspection, all equipment and piping installed under this Contract shall be subjected to demonstration tests as specified or required to prove compliance with the Contract Documents.

2. The Contractor shall furnish labor, fuel, energy, water, and all other materials, equipment, and instruments necessary for all demonstration tests, at no additional cost to the Owner. Contractor shall assist in the demonstration tests as applicable.

1.05 LINES AND GRADES

A. Grade:

1. All work under this Contract shall be constructed in accordance with the lines and grades shown on the Drawings, or as given by the Engineer. The full responsibility for keeping alignment and grade shall rest upon the Contractor.
2. The vertical bench marks provided is USGS "Public Records" monumentation and the horizontal control is the monumentation on plats contained in the "Public Records of Volusia County."

B. Surveys:

1. The Contractor shall furnish and maintain, at his own expense, stakes and other such materials.
2. The Contractor shall check such reference marks by such means as he may deem necessary and, before using them, shall call the Engineer's attention to any inaccuracies.
3. The Contractor shall, at his own expense, establish all working or construction lines and grades as required from the reference marks set by the Engineer, and shall be solely responsible for the accuracy thereof. He shall, however, be subject to the check and review by the Engineer.

C. Safeguarding Marks:

1. The Contractor shall safeguard all points, stakes, grade marks, monuments, and bench marks made or established on the Work, bear the cost of re-establishing them if disturbed, and bear the entire expense of rectifying work improperly installed due to not maintaining or protecting or to removing without authorization such established points, stakes, and marks.
2. The Contractor shall safeguard all existing and known property corners, monuments, and marks adjacent to but not related to the Work and shall bear the cost of re-establishing them if disturbed or destroyed.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 11 00
SUMMARY OF WORK

PART 1 – GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS

- A. This Contract is for the construction of the **GARNSEY WTP GENERATOR INSTALLATION**. The work consists of furnishing all labor, equipment, and materials for the construction of the facilities consisting of, but not limited to, the following:

Removal and relocation of the existing fuel tank, including the demolition and replacement of the fuel supply and return lines. Salvage the existing electrical switchgear to Owner.

Installation of one (1) new generator, one (1) new switchgear assembly, one (1) new fuel tank with associated fuel supply and return piping and valves, two (2) MCC replacements, structural work to build the new climate controlled electrical room, miscellaneous pipeline work, and various electrical appurtenances including conduit and wire.

- B. The CONTRACTOR shall furnish all labor, equipment, tools, services, and incidentals to complete all Work required by these Specifications and as shown on the Drawings.
- C. The CONTRACTOR shall perform the Work complete, in place, and ready for continuous service, and shall include repairs, testing, permits, cleanup, replacements and restoration required as a result of damages caused during this construction.
- D. All materials, equipment, skills, tools, and labor which is reasonably and properly inferable and necessary for the proper completion of the Work in a substantial manner and in compliance with the requirements stated or implied by these Specification or Drawings shall be furnished and installed by the CONTRACTOR without additional compensation, whether specifically indicated in the Contract Documents or not.
- E. The CONTRACTOR shall comply with all City, County, State, Federal, and other codes which are applicable to this Project.

1.02 CONTRACTOR'S USE OF PREMISES

- A. The CONTRACTOR shall assume full responsibility for the protection and safekeeping of products and materials at the job site. If additional storage or work areas are required, they shall be obtained by the CONTRACTOR at no additional cost to the OWNER.

1.03 PROJECT SEQUENCE

- A. The CONTRACTOR shall establish his work sequence based on the use of crews to facilitate completion of construction and testing within the specified Contract time. Sequence shall be reviewed and approved by the City.
- B. Refer to the Drawings and Specifications for Work Restrictions.

END OF SECTION

SECTION 01 20 00
PRICE AND PAYMENT PROCEDURES

PART 1 – GENERAL

1.01 SCOPE

- A. Separate payment will be made only for the items of work described herein and listed on the Bid Form. Any related work not specifically listed, but required for satisfactory completion of the work, shall be considered to be included in the scope of the appropriate listed work items.
- B. The Contractor's attention is called to the fact that cleanup is considered a part of the work of construction. No payment will be made until cleanup is essentially complete.
- C. No separate payment will be made for the following items and the cost of such work shall be included in the applicable pay items of work if not shown as a separate pay item.
 - 1. Clearing and grubbing.
 - 2. Excavation, including necessary pavement base removal.
 - 3. Shoring and sheeting.
 - 4. Dewatering and disposal of surplus water.
 - 5. Structural fill.
 - 6. Backfill.
 - 7. Grading.
 - 8. Replacement of unpaved roadways, grass, and shrubbery plots.
 - 9. Cleanup.
 - 10. Testing and placing system in operation.
 - 11. Any material and equipment required to be installed and utilized for the test.
 - 12. Pipe, structures, pavement replacement and/or appurtenances included within the limits of lump sum work.
 - 13. Maintaining the existing quality of service during construction.
 - 14. Appurtenant work as required for a complete and operable system.
 - 15. Maintaining or detouring or traffic.
- D. No payment shall be made for work constructed outside the authorized limits of work.

PART 2 - MATERIALS AND EQUIPMENT

2.01 Pre-construction Video

BID ITEM 1

Lump sum payment shall be made for the pre-construction video. Video shall be prepared by a professional videographer and delivered in accordance with the project specifications. The lump sum price shall be full compensation for all materials, labor and equipment for this work.

2.02 Mobilization/Demobilization

BID ITEM 2

The lump sum to complete this item shall be full compensation for the preparatory work and operations in mobilizing for beginning work on the Project including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies and incidentals to the project site, and for the establishment of field office, building, safety equipment and first aid supplies, sanitary and other facilities, as required by these Specifications, and state and local laws and regulations; and any other pre-construction expense necessary for Work; the cost of field engineering including disposal of cleared and grubbed material and debris, permits and fees, construction schedules, project signs, shop drawings, temporary facilities, laydown storage area, construction aids, erosion control, work associated with Contractor support during Owner/Engineer reviews and inspection, re-inspections, and any other re-work resulting from same, cleaning, operation and maintenance data, and for all other work required for demobilization. The Contractor shall submit invoices substantiating the cost of mobilization and demobilization with each pay request. Five percent (5%) for the cost of mobilization and demobilization will be withheld until acceptance and final payment.

2.03 Demolition

BID ITEM 3

Lump sum payment shall be made for the site demolition as detailed on the plans and described in the specifications. This item includes maintenance of temporary access to facilities, disposal of debris and all ancillary work associated with this item. The lump sum price shall be full compensation for all materials, labor and equipment for this work.

2.04 Packaged Generator and ATS System

BID ITEM 4

Lump sum payment shall be made for provision and installation of a new packaged generator and automatic transfer switch (ATS) system as detailed on the plans and described in the specifications. The new generator shall operate as the new primary generator and operate in conjunction with the existing generator and ATS equipment. This item includes all work associated with the new generator installation, with the exception of the foundation and fuel systems. These will be paid under separate bid items. The lump sum price shall be full compensation for all materials, labor and equipment associated with this work.

2.05 Fuel Systems

BID ITEM 5

Lump sum payment shall be made for the complete installation of a new fuel storage tank, relocation of the existing fuel tank, fuel piping and all items associated with the generator fueling systems for both generators. This item includes all work associated with the new fuel storage tank, existing tank, wiring and piping, with the exception of the foundation and site work. These will be paid under separate bid items. The lump sum price shall be full compensation for all materials, labor and equipment associated with this work.

2.06 Electrical Switchgear

BID ITEM 6

Lump sum payment shall be made for replacement of the primary switchgear as detailed on the plans and described in the specifications. This item includes provision and installation of the new switchgear and removal of existing. The scope of work includes all staging, preparation and construction of new devices and decommissioning of old equipment for a complete and operable installation. This item includes all work associated with replacement of the switchgear with the exception of temporary power, this will be paid under a separate bid item.

2.07 Civil and Mechanical Sitework

BID ITEM 7

Lump sum payment shall be made for all civil, site and mechanical work detailed on the plans and described in the specifications. This includes sidewalks, foundations, exposing existing utilities, yard piping, utility adjustments, grading, sodding, erosion control and restoration. The lump sum price shall be full compensation for all materials, labor and equipment associated with this work. This item includes all new and replacement piping shown, utility relocation required due to the results of field investigations shall be paid under bid item 15 'Utility Relocation'.

2.08 New Electrical Room

BID ITEM 8

Lump sum payment will be made for modification of the existing storage/maintenance building for the new electrical room as detailed on the plans and described in the specifications. This work includes all structural, architectural, electrical and ancillary work to construct the new electrical room complete and ready for outfitting. It includes preparation and painting of existing structural members in the outdoor area in addition to raising the concrete floor in the new room and all other work required to complete the new electrical room. HVAC for this room is paid under a separate bid item. The lump sum price shall be full compensation for all materials, labor and equipment associated with this work.

2.09 Motor Control Centers

BID ITEM 9

Lump sum payment will be made for replacement of MCC #3 and 4. The lump sum price shall be full compensation for all materials, labor and equipment required to complete the proposed work as detailed on the plans and described in the specifications. Water treatment operations must be maintained throughout construction. A single process train may be taken out of service at a given time, with prior coordination. This bid item includes all demolition, conduit, wiring, terminations and ancillary work associated with this MCC replacement. If temporary power is proposed to perform this work, payment should be included in Bid Item 12 'Temporary Power'.

2.10 HVAC

BID ITEM 10

Lump sum payment will be made for all HVAC work detailed on the plans and described in the specifications. This work includes all air handler, condensing unit, duct work, drains, piping, supports, fasteners, testing, balancing, startup, warranties, filters and ancillary equipment. The lump sum price shall

be full compensation for all materials, labor and equipment required to complete the work necessary for a complete and operable installation.

2.11 Site Electrical

BID ITEM 11

Lump sum payment will be made for all site electrical work as detailed on the plans and described in the specifications. This work includes all conduit, wiring, pull boxes, excavation, exposing and locating existing utilities, maintenance of power to existing facilities, backfill, compaction and restoration. The lump sum price shall be full compensation for all materials, labor and equipment required to complete the work necessary for a complete and operable installation.

2.12 Temporary Power

BID ITEM 12

Lump sum payment will be made for temporary power, as determined by the Contractor, to continuously maintain permanent and emergency power supply while the new generator, automatic transfer switch (ATS) and new switchgear is installed. Additionally, the Contractor's schedule or means and methods may necessitate temporary power during replacement of either MCC #3 or 4. The lump sum price shall be full compensation for all materials, labor and equipment required to provide temporary power supply as required to maintain continuous primary and emergency power supply during construction

2.13 Permit Allowance

BID ITEM 13

An allowance is established to reimburse costs associated with Building Permit fees, inspections and City authorized expenses. The Contractor will be reimbursed at actual cost for invoices associated with this item.

2.14 As-Built Plans

BID ITEM 14

Lump sum payment will be made for preparation and submission of As-Built plans during and upon completion of project construction. The as-built plans shall be signed and sealed by a Florida licensed surveyor and shall satisfy all technical requirements indicated in the project specifications. The lump sum price shall be full compensation for all materials, labor and required for complete and accurate interim and final as-builts.

2.15 Utility Relocation

BID ITEM 15

An allowance is established to reimburse costs associated with relocation of utilities that are not depicted for relocation or adjustment on the yard piping plan or site electrical plan. This item will be used to pay actual labor and equipment costs plus a markup of 15% for contractor profit and expenses. Prior to encumbering expenses associated with this item, the Contractor shall submit a written cost estimate for the work. This estimate must be approved in writing the Engineer and City prior to construction.

END OF SECTION

01 20 00-4

SECTION 01 29 73
SCHEDULE OF VALUES

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. Submit to the Engineer a Schedule of Values allocated to the various lump sum portions of the Work, at the Pre-Construction Conference, and as otherwise specified or requested to be submitted earlier as evidence of the Apparent Low Bidder's qualifications.
2. Upon request of the Engineer support the values with data which will substantiate their correctness. The data shall include, but not be limited to quantity of materials, all sub-elements of the activity, and their units of measure.
3. The Schedule of Values shall establish the actual value for each activity of the Work to be completed taken from the approved Critical Path Method (CPM) Construction Schedule and shall be used as the basis for the Contractor's Applications for Payment.

B. Related Requirements Described Elsewhere:

1. Conditions of the Construction Contract.

1.02 FORM AND CONTENT OF SCHEDULE OF VALUES

A. Identify schedule with:

1. Title of project and location.
2. Owner and purchase order number.
3. Engineer and project number.
4. Name and address of Contractor.
5. Contract designation.
6. Date of submission.

- B. Schedule shall list the installed value of the component parts of the Work in sufficient detail to serve as a basis for computing item prices for progress payments during construction.

- C. Identify each line item with the number and the title of the respective section of the Specifications.
- D. For each major item of the Work, list sub-values of major products or operations under the major item.
- E. For the various portions of the Work:
 - 1. The amount for each item shall reflect a total installed cost including a directly proportional amount of the Contractor's overhead and profit.
 - 2. For items on which progress payments will be requested for stored materials, break down the value into:
 - a. The cost of the materials delivered and unloaded, with taxes paid. Paid invoices are required for materials. Payment for materials shall be limited to the invoiced amount only.
 - b. The total installed value.
- F. Round off figures to nearest dollar amount.
- G. The sum of the costs of all items listed in the schedule shall equal the total Contract Price.
- H. For each item which has an installed value of more than \$15,000, provide a breakdown of costs to list major products or operations under each item.

1.03 SUB-SCHEDULE OF UNIT MATERIAL VALUES

- A. Submit a separate schedule of unit prices for materials to be stored on site and for those materials incorporated into the Work for which progress payments will be requested.
- B. The unit values for the materials shall be broken down into:
 - 1. Cost of the material, delivered and unloaded at the site, with taxes paid.
 - 2. Copies of paid invoices for component material shall be included with the payment request in which the material first appears.
- C. Only materials unique to the project may be billed when stored on site. Materials of standard use such as conduit, wire, small-diameter pipe, steel, etc., shall not be accepted for payment.

- D. The installed unit value multiplied by the quantity listed shall equal the cost of that item in the Schedule of Values.

1.04 REVIEW AND RESUBMITTAL

- A. After review by Engineer, revise and resubmit Schedule of Values and Schedule of Unit Material Values as required.
- B. Resubmit revised schedules in same manner.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 29 76
PROGRESS PAYMENT PROCEDURES

PART I - GENERAL

1.01 DESCRIPTION

- A. Scope of Work: Submit Application for payment to the Engineer in accordance with schedule established by Conditions of the Contract and Agreement between Owner and Contractor.
- B. Related Requirements Described Elsewhere:
 - 1. Agreement: Section 00 50 00.
 - 2. Section 01 32 16 - Construction Progress Schedules
 - 3. Section 01 29 73 - Schedule of Values
 - 4. Section 01 32 33 - Photographic Documentation
 - 5. Section 01 78 39 - Project Record Documents
 - 6. Section 01 77 00 - Closeout Procedures

1.02 FORMAT REQUIRED

- A. Provide itemized data on continuation sheets of format, schedules, line items, and values specified on the Application and Certificate for Payment Form. The Contractor shall use the item descriptions and contract values included in schedule of values, approved and accepted by the Engineer as a basis for preparation of the Application for Payment Form.

1.03 PREPARATION OF APPLICATION FOR EACH PROGRESS PAYMENT

- A. Application Form:
 - 1. Fill in required information, including that for Change Orders executed prior to date of submittal of application.
 - 2. Fill in percent complete for each activity and dollar values to agree with respective percents.

3. Execute certification with signature of a responsible officer of Contractor.

B. Continuous Sheets:

1. Fill in total of all scheduled component items of the Work, with item number and schedule dollar value for each item.
2. Fill in dollar value in each column for each scheduled line item when Work has been performed or products stored. Round off values to nearest dollar, or as specified for Schedule of Values.
3. List each Change Order executed prior to date of submission, at the end of the continuation sheets. List by Change Order Number, and description, as for an original component item Work.
4. To receive approval for payment on component material stored on site, submit copies of the original invoices with Application and Certificate for Payment.
5. As provided for in the Application and Certificate for Payment Form, the Contractor shall certify, for each current pay request, that all previous progress payments received from the Owner, under this Contract, have been applied by the Contractor to discharge in full, all obligations of the Contractor in connection with Work covered by prior Applications for Payment, and all materials and equipment incorporated into the Work are free and clear of all liens, claims, security interest, and encumbrances. Contractor shall attach to each Application and Certificate for Payment like affidavits by all Subcontractors.

1.04 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

A. Contractor shall submit suitable information, with a cover letter identifying:

1. Project.
2. Application number and date.
3. Detailed list of enclosures.
4. For stored products:
 - a. Item number and identification as shown on application.
 - b. Description of specific material.

- B. Submit one (1) copy of data and cover letter for each copy of application.
- C. The Contractor is to maintain an updated set of drawings to be used as record drawings in accordance with Section 01 78 39: Project Record Documents. As a prerequisite for monthly progress payments, the Contractor is to exhibit the updated record drawings for review by the Owner and the Engineer.
- D. Each monthly application for payment shall incorporate the corresponding "monthly progress status report" and updated construction schedule, prepared in accordance with the requirements of Section 01 32 16: Construction Progress Schedules.
- E. As a prerequisite for payment, Contractor shall submit a duly executed letter from surety consenting to payment due and progress to date.
- F. Provide construction photographs in accordance with Section 01 32 33: Photographic Documentation.

1.05 PREPARATION OF APPLICATION FOR FINAL PAYMENT

- A. Fill in application form as specified for progress payments. Provide information as required by the General Conditions and Section 01 77 00: Closeout Procedures
- B. Furnish evidence of completed operations and insurance in accordance with the General Conditions.
- C. Provide Contractor's Final Release of Lien and other close-out submittals as required by the General Conditions.

1.06 SUBMITTAL PROCEDURE

- A. Submit Application for Payment to the Engineer at the time stipulated in the Agreement, or as agreed to at the pre-construction meeting. Review the percentage complete with the Engineer and resolve any conflict or discrepancies.
- B. Application for payment to be submitted electronically in color for processing and payment.
- C. When the Engineer finds the Application and Certificate for Payment Form is properly completed and correct, he will execute the Certificate for Payment and transmit the forms to the Owner, with a copy to the Contractor.

PART II - PRODUCTS (NOT USED)

PART III - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 30 00
ADMINISTRATIVE REQUIREMENTS

PART 1 – GENERAL

- 1.01 The CONTRACTOR shall not have any right in property in any materials taken from any excavation and he shall not remove any earth, sand, or other material from the lines of the work before the excavation is refilled except upon direction of the ENGINEER. The provisions of this paragraph shall not be construed as relieving the CONTRACTOR of any kind of his obligations to remove and dispose of any of the material excavated, with or without rehandling, at his cost and expense as provided in these specifications.
- 1.02 From investigations, including surveys made at the site, it is assumed that physical conditions are approximately as indicated on the drawings, but the nature of the materials below the surface, the depth to satisfactory foundations, or the stability of beds or banks or quantity of groundwater are not guaranteed.
- 1.03 Where reference is made within these documents to government specifications, or those of well known organizations such as ASTM, ASA, ASME, etc., the latest editions shall be used, any or all references in these documents to earlier stated editions notwithstanding.
- 1.04 The CONTRACTOR shall take all necessary precautions to prevent damage to existing City utilities which are to remain in service during any of his construction operations. Should such utilities be damaged by the CONTRACTOR, he shall be required to replace, or repair same, to the satisfaction of the ENGINEER, at no additional cost to the OWNER.
- 1.05 Certain information regarding the reputed presence, size, character, and location of existing underground structure, pipes and conduits has been shown on the contract drawings. The location of underground structures shown may be inaccurate, and other obstructions than those shown may be encountered. The CONTRACTOR distinctly agrees that the ENGINEER and the OWNER are not responsible for the correctness or sufficiency of the information given; that in no event is this information to be considered as a part of the Contract; that he shall have no claim for delay or extra compensation on account of incorrectness of information given; or on account of insufficiency or absence of information regarding obstructions either revealed or not revealed by the drawings; and that he shall have no claim for relief from any obligation or responsibility under this Contract, in case the location, size or character of any pipe or other underground structure is encountered that is not shown on the drawings.
- 1.06 The CONTRACTOR agrees that the work shall be started not later than the date indicated in the "Notice to Proceed" and shall substantially complete all work within **180 calendar days**, with final completion within **30 days** of substantial completion.
- A. The CONTRACTOR further agrees that for each calendar day, with the exception of Sundays and legal holidays, that any such work shall remain uncompleted after the

completion time stipulated above, the sum of **One Thousand Dollars (\$1,000)** per day shall be deducted by the OWNER from monies due the CONTRACTOR, not as a penalty but as liquidated damages. If the CONTRACTOR is declared in default in accordance with the provisions of the specifications, liquidated damages shall be charged as provided herein, and such amounts shall be deducted from the final amount payable to the CONTRACTOR or his Surety. Should the total amount chargeable as liquidated damages exceed the amount due or payable to the CONTRACTOR or his Surety, then such excess shall be paid to the OWNER by the CONTRACTOR or his Surety.

- 1.07 The City shall provide reference points as shown on the plans. CONTRACTOR shall be responsible for having a land surveyor registered in the State of Florida and approved by the ENGINEER lay out the work, shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of the ENGINEER. CONTRACTOR shall report to ENGINEER whenever such reference point is lost or destroyed or required location because of necessary changes in grades or locations, and the CONTRACTOR shall be responsible for replacement or relocation of such reference points by professionally qualified personnel, registered in the State of Florida and approved by the ENGINEER.
- 1.08 At least 30 days prior to the first progress payment request, the CONTRACTOR shall submit to the OWNER a schedule of anticipated draws, which estimates as accurately as possible the amount of the anticipated "work in place" which will be completed each month. Failure to comply may result in delay in payment, as funds from several sources customarily serve as the project funding source.
- 1.09 All dewatering and pumping necessary to accomplish the work of this Contract shall be performed by the CONTRACTOR at no extra or additional cost to the OWNER. Any permits required shall be the responsibility of the CONTRACTOR.
- 1.10 Examination of Contract Documents and Site. Before submitting a Bid, each CONTRACTOR must (a) examine the Contract Documents thoroughly, (b) visit the site to familiarize himself with local conditions that may in any manner affect cost, progress, or performance of the work, (c) familiarize himself with federal, state and local laws, ordinance, rules, and regulations that may in any manner affect cost, progress or performance of the work, and (d) study and carefully correlate Bidder's observations with the Contract Documents.
- 1.11 Attention is directed to the requirements of the following agencies with regard to permits and construction requirements within their jurisdiction.
 - A. City of Port Orange
 - B. The OWNER will make necessary application for permits or permit exemptions to construct such facilities. It shall be, however, the responsibility of the CONTRACTOR to construct the facilities in strict accordance with the requirements of the above-mentioned agencies, and no extra or additional payments will be made by the OWNER for this work.

- 1.12 Construction shall be limited to weekday “day light” working hours. No “weekend”, “night time”, or “holiday” work shall be performed without obtaining permission in advance from the Project Engineer. Certain non-essential items such as clean up, seeding and mulching, sodding, some well pointing operations, saw cutting of pavement, etc. may be performed by the CONTRACTOR during the above times by giving the Project Engineer “Advance Notice” of such operations. The Prime CONTRACTOR shall establish the “normal (40 hour)” work week and all subcontractors shall work only during this “normal (40 hour)” work week to allow the Project Engineer’s Representative to observe the contract work during this “normal (40 hour)” work week. Any weekend, nighttime, or holiday work permitted to be performed by the CONTRACTOR shall be by agreement of both the ENGINEER and the City. Such work shall be performed in the presence of the ENGINEER’s Project Representative, paid for and scheduled at least 48 hours in advance of the activity planned. The fee shall be \$500 per inspector per day or any portion thereof, paid in advance directly to the ENGINEER. The fee shall only cover the activities the ENGINEER can reasonably inspect with one person. The ENGINEER solely reserves the right to determine the number of inspectors required for the number of CONTRACTOR’s crews working outside of the normal 40-hour work week.
- 1.13 The CONTRACTOR is responsible for recording a copy of the Payment and Performance Bond in the Official Records of Volusia County, Florida and shall provide copies of the recorded documents to the ENGINEER prior to the issuance of the “Notice to Proceed”. The CONTRACTOR shall be responsible for paying all costs associated with the recording of these documents and no contract payment shall be made to the CONTRACTOR for this item.
- 1.14 The CONTRACTOR acknowledges that he is responsible for complying with all aspects of the Florida Trench Safety Act (90-96, Laws of Fla.) effective October 1, 1990. He assumes all responsibility and costs entailed.
- 1.15 The proposed work indicated on the project plans may require adjustment in the field due to conflicts or field conditions. Field changes which do not substantially alter the character of the work shall not be grounds for the issuance of the change order.
- 1.16 Construction materials may be stockpiled. All arrangements and costs incurred are the responsibility of the CONTRACTOR. Prior to making arrangements with individual property owners, the CONTRACTOR shall indicate to the City and the ENGINEER which sites have been targeted for material storage. The City reserves the right to approve or disapprove the proposed locations. The CONTRACTOR shall provide a notarized written letter from the property owner approving use of the property by the property owner prior to using the property.
- 1.17 The CONTRACTOR is responsible for obtaining a Water Management District Permit for (dewatering) consumptive use if the CONTRACTOR’s “means or methods” trip the Agency’s thresholds requiring permits. No separate payment or contract time extension for the CONTRACTOR obtaining the permit shall be granted by the City.

- 1.18 Land disturbed shall have hay bales or “turbidity curtains” installed around the perimeter to control erosion and sediment runoff where it is likely to occur during construction at no extra cost to the OWNER.
- 1.19 All contract unit pricing shall remain valid for the duration of the contract.
- 1.20 Florida Sales Tax on materials, as well as all other customary taxes on construction activities, shall be paid for by the CONTRACTOR at no additional expense to the OWNER.
- 1.21 Limitations on the ENGINEER’s Responsibilities:
- A. Neither the ENGINEER’s authority to act under this Paragraph nor any decision made by him in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of the ENGINEER to the CONTRACTOR, any Subcontractor, any of their agents or employees or any other person performing any of the work.
 - B. The ENGINEER will not be responsible for the construction means, methods, techniques, sequences or procedures, or the safety precautions and programs incident thereto, and he will not be responsible for the CONTRACTOR’s failure to perform the work in accordance with the Contract Documents.
 - C. The ENGINEER will not be responsible for the acts or omissions of the CONTRACTOR, any subcontractors, or any of his or their agents or employees, or any other persons performing any of the work.
- 1.22 Reasonable care shall be taken during construction to avoid damage to vegetation. Ornamental shrubbery and tree branches shall be temporarily tied back, where appropriate, to minimize damage. Trees which receive damage to branches shall be trimmed of those branches to improve the appearance of the tree. Tree trunks receiving damage from equipment shall be treated with a tree dressing.
- 1.23 Substantial completion is defined as materials in place tested and in use, sodding, and sidewalk and other restoration items complete.
- 1.24 The CONTRACTOR’s forces shall be required to “hand dig” and expose all existing public/private utilities and other existing facilities which may be in conflict with the proposed construction in order to adjust the proposed facility alignments to avoid any conflicts.
- 1.25 All existing improved areas disturbed by construction shall be sodded with the same type sod as the existing variety of sod encountered. Payment will be made for this work under the appropriate lump sum pay item. No separate payment will be made for sodding.

- 1.26 The CONTRACTOR shall make his own provisions for materials security. Any City provided work areas shall be returned to its original or better condition upon the completion of the project. Sodding of any disturbed areas utilized by the CONTRACTOR for work area will be accomplished by the CONTRACTOR at no additional cost to the City. Separate payment for this work will not be made and shall be included in the appropriate contract work items by the CONTRACTOR in the bid proposal.
- 1.27 The OWNER shall provide copies of previous surveys for the CONTRACTOR's surveyor's use. The CONTRACTOR shall bear all costs for a registered professional surveyor to "layout" the proposed project. At project completion time, the CONTRACTOR shall bear the costs of setting property corners which were lost during construction if they were disturbed by the CONTRACTOR's construction operation.
- 1.28 The Contract shall perform on the site and with his own organization work equivalent to not less than 50 percent (50%) of the total dollar value of the work to be performed under this contract. The exception is specialty work may be performed by subcontractors and the cost of any such specialty work so performed by subcontract may be deducted from the total contract amount before computing the amount of work required to be performed by the CONTRACTOR with his own organization.
- 1.29 The CONTRACTOR shall be responsible for dust control on the project. The CONTRACTOR shall control dust when conditions as determined by the ENGINEER warrant. Water shall be provided by the City for this use in accordance with Paragraph 1.30 of this section. No separate payment shall be made for this item.
- 1.30 The CONTRACTOR and/or subcontractor shall not work on City's holidays. City Utility personnel are not available for emergency repairs nor are construction representatives on these holidays.
- 1.31 No construction trailer shall be required for this project.
- 1.32 All construction, manufacturing, fabrication and testing of materials shall be performed under the guidelines set forth in applicable local, state and federal codes, and/or under recommendations provided in technical publications of respected professional or industry organizations. Material testing programs, where applicable, shall be presented to the ENGINEER for review and approval prior to construction. All products constructed or manufactured/supplied for the project shall be accompanied by industry acceptable warranties or guarantees.
- 1.33 For the purpose of these specifications. "Project Completion" is defined as completion of an agreed upon list of punch-list items compiled in a planned project walkthrough held at a time the CONTRACTOR considers the project to be "Substantially Complete". The CONTRACTOR shall notify the OWNER and ENGINEER at least 48 hours in advance of substantial completion and schedule a mutually agreeable walkthrough.

- 1.34 The CONTRACTOR shall maintain a clean and neat site, void of loose debris, trash, remnant parts or materials. Trash receptacles and removal service shall be maintained by the CONTRACTOR specifically for this project. Existing facilities shall not be used to maintain the project. Temporary debris piles shall be limited in number as much as practical and contained in designated areas until removal. Debris and trash shall not be scattered in areas outside the limited designated areas at anytime. Removal of debris/trash shall be scheduled as appropriate to not allow piles to reach five feet in height or greater than ten feet in diameter. Debris individually larger than these dimensions shall be removed from the site within five working days. Receptacles shall not be allowed to overflow at any time. Where necessary, the CONTRACTOR shall employ a Maintenance of Traffic Plan (MOTP) for vehicles and pedestrians. The plan must be in writing, including sketches or drawings, and must be submitted to the OWNER, OWNER's Representative or ENGINEER for review and approval before commencement of the plan. The CONTRACTOR shall follow all applicable local, state and federal codes regarding site safety and maintenance.

END OF SECTION

SECTION 01 31 19
PROJECT MEETINGS

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. The Contractor shall coordinate with the Engineer to schedule and administer the preconstruction meeting, resident meeting, utility coordination, periodic progress meetings, and specifically called meetings throughout the progress of the Work.
2. The Engineer shall:
 - a. Prepare agenda for meetings.
 - b. Make physical arrangements for meetings.
 - c. Preside at meetings.
 - d. Take and distribute meeting minutes.
3. The Contractor shall:
 - a. Attend all meetings along with pertinent subcontractors and suppliers.
 - b. Appoint attendees who are qualified and authorized to act on behalf of the entity each represents.
 - c. Provide requested information at meetings.
4. The Owner shall:
 - a. Attend meetings to ascertain that the Work is expedited consistent with Contract Documents and construction schedules.

B. RELATED REQUIREMENTS DESCRIBED ELSEWHERE:

1. Section 01 32 16 - Construction Progress Schedules
2. Section 01 33 23 - Shop Drawings, Product Data, and Samples
3. Section 01 78 39 - Project Record Documents

1.02 PRECONSTRUCTION MEETING

- A. Purpose: To initiate coordination of contractual requirements prior to start of work.
- B. Scheduling: Engineer will schedule a preconstruction meeting after execution of the Contract. Invites shall be sent via electronic mail.

- C. Location: A local site, convenient for all parties, designated by the Engineer.

- D. Attendance:
 - 1. Owner's representative.
 - 2. Engineer
 - 3. Resident project representative.
 - 4. Contractor and their superintendent.
 - 5. Major subcontractors.
 - 6. Representatives of major suppliers and manufacturers, as appropriate.
 - 7. Governmental and franchised utility representatives, as appropriate.
 - 8. Permit agency representatives, as appropriate.
 - 9. Funding agency representatives, as appropriate.
 - 10. Others as requested by the Contractor, Owner, and Engineer.

- E. Suggested Agenda:
 - 1. Introductions and Roles
 - 2. Contract Execution and Dates
 - a. Contracts
 - b. Contract Time/Dates
 - c. Copies of Conformed Documents
 - 3. Communications
 - a. Lines of Communication
 - b. Coordination Meetings
 - c. Contact List
 - d. Requests for Information (RFIs)
 - 4. Preconstruction Matters
 - a. Submittals
 - b. Material Acquisition
 - c. Mobilization
 - d. Permitting
 - 5. Construction/Coordination
 - a. Working Days/Hours
 - b. Change Orders
 - c. Locating Existing Facilities
 - d. Demolition
 - e. Testing

f. Updated Schedules

6. Pay Requests

- a. Process
- b. Schedule of Values
- c. Stored Materials
- d. Preliminary As-Builts

7. Contract Closeout

- a. Substantial Completion
- b. Punch-list
- c. Final Acceptance
- d. Warranty
- e. Final Payment

1.03 RESIDENT MEETING(S)

- A. Purpose: To present construction approach to affected residents and to allow residents to ask questions concerning such.
- B. Scheduling: Engineer/Owner will schedule resident meeting(s) after preconstruction meeting is held, but before construction begins. Invites shall be distributed via electronic mail and hard copy flyers. Contractor shall assist in the distribution of flyers.
- C. Location: A local site, convenient for all parties, designated by the Engineer/Owner.
- D. Attendance:
 - 1. Owner's representative.
 - 2. Engineer.
 - 3. Resident project representative.
 - 4. Contractor and his superintendent.
 - 5. Major subcontractors, as appropriate.
 - 6. Residents.
- E. Suggested Agenda: To be determined by Engineer/Owner

1.04 UTILITY COORDINATION MEETING(S)

- A. Purpose: To discuss the coordination of the construction with existing and proposed utilities.

- B. Scheduling: Engineer will schedule utility coordination meeting(s) as needed. These meetings may be held in conjunction with Progress Meetings. Invites shall be distributed via electronic mail.
- C. Location: A local site, convenient for all parties, designated by the Engineer.
- D. Attendance:
 - 1. Owner's representative.
 - 2. Engineer.
 - 3. Resident project representative.
 - 4. Contractor and their superintendent.
 - 5. Major subcontractors, as appropriate.
 - 6. Utility representatives.
- E. Suggested Agenda: To be determined by Engineer.

1.05 PROGRESS MEETINGS

- A. Purpose: To discuss the progress of the construction and projected work activities.
- B. Scheduling: Engineer will schedule progress meetings on a regular basis at a maximum frequency of once per week or less frequently, i.e. once per month, depending on the level of communication required for the project. Invites shall be distributed via electronic mail.
- C. Location: A local site, convenient for all parties, designated by the Engineer.
- D. Attendance:
 - 1. Owner's representative.
 - 2. Engineer and sub-consultants, as appropriate.
 - 3. Resident project representative.
 - 4. Contractor and his superintendent.
 - 5. Major subcontractors, as appropriate.
 - 6. Utility representatives, as appropriate.
 - 7. Permit agency representatives, as appropriate.
 - 8. Funding agency representatives, as appropriate.
- E. Suggested Agenda:
 - 1. Work progress since last meeting
 - 2. Work scheduled this period
 - 3. Field observations, problems and conflicts.
 - 4. Construction schedule

- a. Status of current schedule
 - b. Issues impacting schedule
 - c. Fabrication and delivery schedules
 - d. Corrective measures to regain projected schedule
5. Submittals
6. RFIs
7. Pending Changes and Substitutions
8. Quality Control
9. Pay Requests
10. Other Business

PART 2- PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 32 16
CONSTRUCTION PROGRESS SCHEDULES

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. Promptly after award of the Contract, prepare and submit to the Engineer estimated construction progress schedules demonstrating complete fulfillment of all Contract requirements utilizing a Critical Path Method (hereinafter referred to as CPM) in planning, coordinating, and performing the Work under this Contract (including all activities of subcontractors, equipment vendors, and suppliers). The principles and definition of CPM terms used herein shall be as set forth in the Associated General Contractors of America (AGC) publication, The Use of CPM in Construction, A Manual for General Contractors and the Construction Industry, latest edition, but the provisions of this Specification shall govern the planning, coordinating, and performance of the Work.
2. Submit revised progress schedules on a monthly basis. No partial payments shall be approved until there is an approved construction progress schedule on hand.

B. Related Requirements Described Elsewhere:

1. Conditions of the Contract.
2. Section 01 11 00 - Summary of Work
3. Section 01 31 19 - Project Meetings
4. Section 01 29 76 - Progress Payment Procedures
5. Section 01 33 23 - Shop Drawings, Project Data, and Samples
6. Section 01 29 73 - Schedule of Values

1.02 QUALIFICATIONS

- A. A statement of computerized CPM capability shall be submitted in writing prior to the award of the Contract and shall verify that either Contractor's organization has in-house capability to use the CPM technique or that Contractor will employ a CPM consultant who is so qualified.
- B. In-house capability shall be verified by description of construction projects to which Contractor or Contractor's consultant has successfully applied computerized CPM and shall include at least two (2) projects valued at least half the expected value of this project.

1.03 FORM OF SCHEDULES

- A. Prepare schedules in the form of a horizontal bar chart.
 - 1. Provide a separate horizontal bar for each trade or operation within each structure or item.
 - 2. Horizontal time scale:
 - a. Show starting and completion dates for each activity in terms of the number of days after Notice to Proceed. All completion dates shown shall be within the period specified for contract completion.
 - b. Identify the first workday of each month.
 - 3. Scale and Spacing: Sufficient to allow space for notations and future revisions.
 - 4. Maximum Sheet Size: 24 inches by 36 inches.
- B. Format of Listings: The chronological order of the start of each item of work for each structure.
- C. Identification of Listings: By major specification section numbers as applicable and by utility.
- D. Construction Progress Schedules shall be computer generated using software offered by Primavera or approved equal.

1.04 CONTENT OF SCHEDULES

- A. Construction Progress Schedule:
 - 1. Show the complete sequence of construction by activity and by structure.
 - 2. Show the dates for the beginning and completion of each major element of construction in no more than a two (2) week increment scale. Specifically, list, but do not limit to:
 - a. Shop Drawing Schedule.
 - b. Installation of temporary facilities.
 - c. Clearing.
 - d. Demolition
 - e. Subcontractor work

- f. Utility Installations
 - g. Paving
 - h. Start-Up
 - i. Project closeout
- 3. Show projected percentage of completion for each item, as of the first day of each month.
- 4. Show projected dollar cash flow requirements for each month of construction and for each activity as indicated by the approved Schedule of Values.
- B. Submittals for construction progress schedules shall be in accordance with Section 01 33 23: Shop Drawings, Product Data, and Samples. Indicate on the schedule the following:
 - 1. The dates for Contractor's submittals.
 - 2. The date submittals will be required for Owner-furnished products, if applicable.
 - 3. The date approved submittals will be required from the Engineer.
- C. A typewritten list of all long lead items (equipment, materials, etc.).
- D. To the extent that the progress schedule or any revised progress schedule shows anything not jointly agreed upon or fails to show anything jointly agreed upon, it shall not be deemed to have been approved by the Engineer. Failure to include any element of work required for the performance of this Contract shall not excuse the Contractor from completing all work required within any applicable completion date, notwithstanding the Engineer's approval of the progress schedule.
- E. Scheduling Constraints: The work within Owner's property must be completed within the maximum number of days start to finish, as indicated in the Contract. Additionally, work must proceed on a continuous basis, without stoppages, except for nights and weekends. There shall be no lapses between phases of construction.

1.05 PROGRESS REVISIONS

- A. Indicate progress of each activity to date of submission.
- B. Show changes occurring since previous submission of schedule:
 - 1. Major changes in scope.
 - 2. Activities modified since previous submission.
 - 3. Revised projections of progress and completion.
 - 4. Other identifiable changes.

- C. Provide a narrative report as needed to define:
 - 1. Problem areas, anticipated delays, and the impact on the schedule.
 - 2. Corrective action recommended, and its effect.
 - 3. The effect of changes on schedules of other prime contractors.
- D. If the Work falls behind the critical path schedule by two (2) weeks or more, the Contractor shall prepare a recovery schedule.

1.06 SUBMISSIONS

- A. Submittal Requirements.
 - 1. Logic network and/or time-phased bar chart, computer generated.
 - 2. Computerized network analysis:
 - a. Sort by early start
 - b. Sort by float
 - c. Sort by predecessor/successor
 - 3. Narrative description of the logic and reasoning of the schedule.

- B. Time of Submittals.

Within ten (10) working days after Notice to Proceed, Contractor shall submit a network diagram describing the activities to be accomplished in the project and their dependency relationships, (predecessor/successor) as well as a tabulated schedule as herein defined. The total length of time indicated on the initial CPM schedule shall equal the exact number of days in the Contract Time as defined in Agreement. The schedule produced and submitted shall also indicate calendar dates, including project starting and completion dates, based on the Contract Commencement and completion dates indicated in the Notice to Proceed. The Engineer will complete the review of the complete schedule within fifteen (15) working days after receipt. During the review process, the Engineer may meet with a representative of Contractor to review the proposed plan and schedule to discuss any clarifications that may be necessary.

- C. Within ten (10) working days after the conclusion of the Engineer's review period, Contractor shall revise the network diagram as required and resubmit the network diagram and a tabulated schedule produced therefrom. The revised network diagram and tabulated schedule shall be reviewed and accepted or rejected by the Engineer within fifteen (15) working days after receipt. The network diagram and tabulated schedule, when accepted

by the Engineer, shall constitute the project work schedule unless a revised schedule is required due to substantial changes in the Work, a change in Contract Time or a recovery schedule is required and requested.

- D. Acceptance. The finalized schedule will be acceptable to the Engineer when, in the opinion of the Engineer, it demonstrates an orderly progression of the Work to completion in accordance with the Contract Documents. Such acceptance will neither impose on the Engineer responsibility for the progress or scheduling of the Work nor relieve Contractor from full responsibility, therefore. The finalized schedule of shop drawing submittals will be acceptable to the Engineer when, in the opinion of the Engineer, it demonstrates a workable arrangement for processing the submittals in accordance with the requirements. The finalized Schedule of Values (lump sum price breakdown), as applicable, will be acceptable to the Engineer as to form and content when, in the opinion of the Engineer, it demonstrates a substantial basis for equitably distributing the Contract Price. When the network diagram and tabulated schedule have been accepted, the Contractor shall submit to the Engineer six (6) copies of the time-scaled network diagram, six (6) copies of a computerized tabulated schedule in which the activities have been sequenced by numbers, six (6) copies of a computerized tabulated schedule in which the activities have been sequenced by early starting date, and six (6) copies of a computerized, tabulated schedule in which activities have been sequenced by total float, and six (6) copies sorted by predecessor/successor.
- E. Revised Work Schedules. Contractor, if requested by the Engineer, shall provide a revised work schedule if, at any time, the Engineer considers the completion date to be in jeopardy because of "activities behind schedule." The revised work schedule shall include a new diagram and tabulated schedule conforming to the requirements of Paragraph 1.09 herein, designed to show how Contractor intends to accomplish the Work to meet the completion date. The form and method employed by Contractor shall be the same as for the original work schedule. No payment will be made if activities fall more than two (2) weeks behind schedule and a revised work schedule is not furnished.
- F. Schedule Revisions. The Engineer may require Contractor to modify any portions of the work schedule that become infeasible because of "activities behind schedule" or for any other valid reason. An activity that cannot be completed by its original latest completion date shall be deemed to be behind schedule. No change may be made to the sequence, duration, or relationships of any activity without approval of the Engineer.

1.07 DISTRIBUTION

- A. Distribute copies of the reviewed schedules to:
 - 1. Engineer.
 - 2. Jobsite file.
 - 3. Subcontractors.
 - 4. Other concerned parties.
 - 5. Owner (two copies).
- B. Instruct recipients to report promptly to the Contractor, in writing, any problems anticipated by the projections shown in the schedules.

1.08 CHANGE ORDERS

- A. Upon approval of a change order, the approved changes shall be reflected in the next scheduled revision or update submittal of the construction progress schedule by the Contractor.

1.09 CPM STANDARDS

- A. CPM, as required by this Section, shall be interpreted to be generally as outlined in the Associated General Contractors (AGC) publication, The Use of CPM in Construction, A Manual for General Contractors and the Construction Industry, Copyright 1976.
- B. Work schedules shall include a graphic network and computerized, tabulated schedules as described below. To be acceptable the schedule must demonstrate the following:
 - 1. A logical succession of work from start to finish.
 - 2. Definition of each activity. Activities shall be identified by major specification section numbers, as applicable, and by major utility.
 - 3. A logical flow of work crews/equipment (crews are to be defined by manpower category and man-hours; equipment by type and hours).
 - 4. Show all work activities and interfaces including submittals as well as major material and equipment deliveries.

C. Networks.

1. The CPM network, or diagram, shall be in the form of a time-scaled diagram of the customary activity-on-type and may be divided into a number of separate pages with suitable notation relating the interface points among the pages. Notation on each activity line shall include a brief work description and duration, as described in Paragraph 1.09, D. herein.
2. All construction activities and procurement shall be indicated in a time-scaled format, and a calendar shall be shown on all sheets along the entire sheet length. Each activity arrow shall be plotted so the beginning and completion dates of said activity can be determined graphically by comparison with the calendar scale. All activities shall be shown using the symbols that clearly distinguish between critical path activities, non-critical path activities, and float for each non-critical activity. All non-critical path activities shall show estimated performances time and float time in scaled form.

- D. The duration indicated for each activity shall be in calendar days and shall represent the single best time considering the scope of the work and resources planned for the activity including time for inclement weather. Except for certain non-labor activities, such as curing concrete or delivering materials, activity durations shall not exceed fourteen (14) days nor be less than one (1) day unless otherwise accepted by the Engineer.

- E. Tabulated Schedules. The initial schedule shall include the following minimum data for each activity:

1. Activity Beginning and Ending Numbers (i-j numbers) (single activity numbers may be used).
2. Duration.
3. Activity Description.
4. Early Start Date (Calendar Dated).
5. Late Start Date (Calendar Dated).
6. Early Finish Date (Calendar Dated).
7. Late Finish Date (Calendar Dated).
8. Identified Critical Path.
9. Total Float (Note: No activity may show more than 20 days float).
10. Cost of Activity.
11. Equipment Hours, by type; Man-Power Hours, by crew or trade.

- F. Project Information. Each tabulation shall be prefaced with the following summary data:

1. Project Name.
2. Contractor.

3. Type of Tabulation (Initial or Updated).
4. Project Duration.
5. Project Scheduled Completion Date.
6. Effective or Starting Date of the Schedule.
7. New Project Completion Date and Project Status (if an updated or revised schedule).
8. Actual Start Date and Actual Finish Date (for all updated schedules.)

1.10 SCHEDULE MONITORING

- A. At not less than monthly intervals or when specifically requested by Engineer, Contractor shall submit to the Engineer a computer printout of an updated schedule for those activities that remain to be completed. Typically, the updated schedule will be submitted with the application for payment as specified below.
- B. The updated schedule shall be submitted in the form, sequence, and number of copies requested for the initial schedule.

1.11 PROGRESS MEETINGS

- A. For the monthly progress meeting, Contractor shall submit a revised CPM schedule and a three-week look-ahead schedule, showing all activities completed, in progress, uncompleted, or scheduled to be worked during the weeks. The three weeks include the current week plus the next two weeks. All activities shall be from the approved CPM and must be as shown on the CPM unless behind or ahead of schedule. One copy of the revised CPM schedule shall be submitted with each copy of that month's application for payment, electronically in color.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 32 33
PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.01 SCOPE OF WORK

- A. Scope of Work: The Contractor shall employ a competent photographer to take construction record photographs and video recording prior to start of the Work, periodically during the course of the Work, and following the completion of the Work.
- B. Summary: This Section includes administrative and procedural requirements for the following:
 - 1. Preconstruction photographs.
 - 2. Preconstruction video recordings.
 - 3. Periodic Construction ground and aerial photographs.
 - 4. Periodic Construction video recordings.
 - 5. Completion construction photographs.
 - 6. Web-based construction photographic documentation.
- C. Related Requirements Described Elsewhere:
 - 1. Section 01 00 00 - General Requirements
 - 2. Section 01 11 00 - Summary of Work
 - 3. Section 01 30 00 - Administrative Requirements
 - 4. Section 01 78 39 - Project Record Documents
- D. Photographs and videos shall be taken in conformance with this Section and shall be furnished to the Engineer with each pay request. Failure to comply will result in rejection of pay request.

1.02 INFORMATIONAL SUBMITTALS

- A. Key Plan: Submit key plan of the Project site and building with notation of vantage points marked for location and direction of each photograph. Indicate elevation or story of construction. Include the same information as corresponding photographic documentation.
- B. Digital Photographs: Submit image files within three (3) days of taking photographs
 - 1. Digital Camera: Minimum sensor resolution of 8 megapixels.

2. Format: Minimum 3200 by 2400 pixels, in unaltered original files, with same aspect ratio as the sensor, uncropped, date and time stamped, in folder named by date of photograph accompanied by key plan file.
 3. Identification: Provide the following information with each image description in file metadata tag:
 - a. Name of Project.
 - b. Name and contact information for photographer.
 - c. Name of Engineer.
 - d. Name of Contractor.
 - e. Date photograph was taken.
 - f. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
 - g. Unique sequential identifier keyed to accompanying key plan.
- C. Construction Photographs: Submit two (2) prints of each photographic view within seven (7) days of taking photographs.
1. Format: Electronic submittal to Engineer.
 2. Identification: With each submittal, provide the following information:
 - a. Name of Project.
 - b. Name and contact information for photographer.
 - c. Name of Engineer and Construction Manager.
 - d. Name of Contractor.
 - e. Date photograph was taken if not date stamped by camera.
 - f. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
 - g. Unique sequential identifier keyed to accompanying key plan.
- D. Video Recordings: Submit video recordings within seven (7) days of recording.
1. Submit video recordings in digital video disc format acceptable to Engineer by posting to Web-based photographic documentation service provider's Web site.
 2. Identification: With each submittal, provide the following information:
 - a. Name of Project.
 - b. Name and address of photographer.
 - c. Name of Engineer and Construction Manager.
 - d. Name of Contractor.
 - e. Date video recording was recorded.
 - f. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.

- g. Weather conditions at time of recording.
 - E. Web-Based Photographic Documentation: Submit time-lapse sequence video recordings simultaneously with recording within seven (7) days of recording.
 - 1. Submit time-lapse sequence video recordings by posting to Web-based photographic documentation service provider's Web Site, identify the posting location. A digital video disc is required monthly.
 - 2. Identification: For each recording, provide the following information:
 - a. Name of Project.
 - b. Name and contact information for photographer.
 - c. Name of Engineer and Construction Manager.
 - d. Name of Contractor.
 - e. Date(s) and time(s) video recording was recorded.
 - f. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
 - g. Weather conditions at time of recording.

1.03 COST OF PHOTOGRAPHY

- A. The Contractor shall pay costs for specified ground and aerial photography, videography, and web-based documentation.

1.04 QUALITY ASSURANCE

- A. Photographer Qualifications: An individual who has been regularly engaged as a professional photographer of construction projects for not less than three (3) years.
- B. Digital photographs may be taken by the Contractor's personnel but must be of professional quality as herein specified. Photographs which are deemed unsatisfactory will be rejected and retakes will be required.
- C. Web-Based Photographic Documentation Service Provider: A firm specializing in providing photographic equipment, Web-based software, and related services for construction projects with record of providing satisfactory services similar to those required for the Project.

1.05 USAGE RIGHTS

- A. Obtain and transfer copyright usage rights from the Photographer to the Owner for unlimited reproduction of photographic documentation.

PART 2 - PRODUCTS

2.01 PHOTOGRAPHIC MEDIA

- A. Digital Images: Provide images in JPG format, produced by a digital camera with minimum sensor size of 8 megapixels, and at an image resolution of not less than 3200 by 2400 pixels.
- B. Digital Video Recordings: Provide high- resolution digital video disc in format acceptable to Engineer.

2.02 WEB-BASED PHOTOGRAPHIC DOCUMENTATION

- A. Project Camera: Provide fixed exterior camera installation, mounted to provide unobstructed view of construction site from location approved by Engineer.
 - 1. Provide **(Insert Number)** fixed-location camera(s), with the following characteristics:
 - a. Static View, remotely controllable view with mouse click user navigation for horizontal pan, vertical tile and optical zoom of 500 percent minimum.
 - b. Capable of producing minimum 3.0-megapixel pictures.
 - c. Provide power supply, active high-speed data connection to service provider's network, and static IP address for each camera.
- B. Wireless Hand-Held Cameras: Provide portable camera system capable of producing images complying with requirements in this Section, with wireless transmission to service provider's network enabling a live image stream viewable by multiple parties.
 - 1. Provide battery charger, spare battery pack, base station hub, and base station connections in a number and distribution adequate to enable wireless camera operation throughout Project site.
 - 2. Provide power supply, active high-speed data connection to service provider's network, and static public IP address at base station hub and base station connections.
- C. Web-Based Image Access: Password-protected access for Project team administered by Contractor, providing current image access and archival image access by date and time, with images downloadable to viewer's device.
 - 1. Provide public viewer open access to most recent project camera image.

PART 3 - EXECUTION

3.01 CONSTRUCTION PHOTOGRAPHS

- A. Photographer: Engage a qualified photographer to take construction photographs.
- B. General: Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted.
 - 1. Maintain key plan with each set of construction photographs that identifies each photographic location.
- C. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
 - 1. Date and Time: Include date and time in file name for each image.
 - 2. Field Office Images: Maintain one (1) set of images accessible in the field office at Project site, available always for reference. Identify images in the same manner as those submitted to Engineer and Construction Manager.
- D. Preconstruction Photographs: Before starting construction, take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by Engineer and Construction Manager.
 - 1. Flag excavation areas and construction limits before taking construction photographs.
 - 2. Take twenty (20) photographs to show existing conditions adjacent to property before starting the Work.
 - 3. Take twenty (20) photographs of existing buildings either on or adjoining property to accurately record physical conditions at start of construction.
 - 4. Take additional photographs as required to record settlement or cracking of adjacent structures, pavements, and improvements.
- E. Periodic Construction Photographs: Take twenty (20) photographs weekly, with timing each month adjusted to coincide with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken.
- F. Engineer and Construction Manager - Directed Construction Photographs: From time to time, Engineer and Construction Manager will instruct photographer about number and frequency of photographs and general directions on vantage points. Select actual vantage points and take photographs to show the status of construction and progress since last photographs were taken.

- G. Time-Lapse Sequence Construction Photographs: Take twenty (20) photographs as indicated, to show status of construction and progress since last photographs were taken.
1. Frequency: Take photographs weekly, with timing each month adjusted to coincide with the cutoff date associated with each Application for Payment.
 2. Vantage Points: Following suggestions by Engineer and Construction Manager and Contractor, photographer to select vantage points. During each of the following construction phases, take not less than two of the required shots from same vantage point each time to create a time-lapse sequence as follows:
 - a. Commencement of the Work, through completion of subgrade construction.
 - b. Above-grade structural framing.
 - c. Exterior building enclosure.
 - d. Interior Work, through date of Substantial Completion.
- H. Final Completion Construction Photographs: Take twenty (20) color photographs after date of Substantial Completion for submission as project record documents. Engineer and Construction Manager will inform photographer of desired vantage points.
1. Do not include date stamp.
- I. Additional Photographs: Engineer or Construction Manager may request photographs in addition to periodic photographs specified. Additional photographs will be paid for by Change Order and are not included in the Contract Sum.
1. Three (3) days' notice will be given, where feasible.
 2. In emergency situations, take additional photographs within 24 hours of request.
 3. Circumstances that could require additional photographs include, but are not limited to, the following:
 - a. Special events planned at Project site.
 - b. Immediate follow-up when on-site events result in construction damage or losses.
 - c. Photographs to be taken at fabrication locations away from Project site. These photographs are not subject to unit prices or unit-cost allowances.
 - d. Substantial Completion of a major phase or component of the Work.
 - e. Extra record photographs at time of final acceptance.
 - f. Owner's request for special publicity photographs.
- J. Periodic Aerial Construction Photographs: Provide at least two (2) aerial photographs monthly, coinciding with the cutoff date associated with each Application for Payment.

Select vantage points to show status of construction and progress since last photographs were taken.

3.02 CONSTRUCTION VIDEO RECORDINGS

- A. Video Recording Photographer: Engage a qualified videographer to record construction video recordings. Time must be accurate and continuously generated.
- B. Recording: Mount camera on tripod before starting recording unless otherwise necessary to show area of construction. Display continuous running time and date. At start of each video recording, record weather conditions from local newspaper or television and the actual temperature reading at Project site.
- C. Narration: Describe scenes on video recording by dubbing audio narration off-site after video recording is recorded. Include description of items being viewed, recent events, and planned activities. At each change in location, describe vantage point, location, direction (by compass point), and elevation or story of construction.
 - 1. Confirm date and time at beginning and end of recording.
 - 2. Begin each video recording with name of Project, Contractor's name, videographer's name, and Project location.
- D. Transcript: Provide a typewritten transcript of the narration. Display images and running time captured from video recording opposite the corresponding narration segment.
- E. Preconstruction Video Recording: Before starting construction, record video recording of Project site and surrounding properties from different vantage points, as directed by Engineer and Construction Manager.
 - 1. Flag excavation areas and construction limits before recording construction video recordings.
 - 2. Show existing conditions adjacent to Project site before starting the Work.
 - 3. Show existing buildings either on or adjoining Project site to accurately record physical conditions at the start of construction.
 - 4. Show protection efforts by Contractor.
- F. Periodic Construction Video Recordings: Record video recording monthly, coinciding weekly, with timing each month adjusted to coincide with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last video recordings were recorded. Minimum recording time shall be thirty (30) minutes.

- G. Time-Lapse Sequence Construction Video Recordings: Record video recording to show status of construction and progress.
 - 1. Frequency: During each of the following construction phases, set up video recorder to automatically record one frame of video recording every five (5) minutes, from same vantage point each time, to create a time-lapse sequence of thirty (30) minutes in length as follows:
 - a. Commencement of the Work, through completion of subgrade construction.
 - b. Above-grade structural framing.
 - c. Exterior building enclosure.
 - 2. Timer: Provide timer to automatically start and stop video recorder so recording occurs only during daylight construction work hours.
 - 3. Vantage points: Following suggestions by Engineer and Construction Manager and Contractor, photographer shall select vantage points.

3.03 WEB-BASED CONSTRUCTION PHOTOGRAPHIC DOCUMENTATION

- A. Live Streaming Construction Site Images: Provide Web-accessible image of current site image from fixed, viewer-controlled, location camera(s), updated at fifteen (15) minute intervals during daytime operation.
- B. Time-Lapse Sequence Construction Site Recordings: Provide video recording from a fixed location camera to show status of construction and progress.
 - 1. Frequency: Record one (1) frame of video recording every fifteen (15) minutes, from same vantage point each time, to create a time-lapse sequence of construction activities.
 - 2. Timer: Provide timer to automatically start and stop video recorder so recording occurs only during daylight construction work hours.
- C. Maintain cameras and Web-based access in good working order according to Web-based construction photographic documentation service provider's written instructions until final completion. Provide for service of cameras and related networking devices and software.

3.04 DELIVERY OF PHOTOGRAPHS AND VIDEOS

- A. Photographs and videos will be delivered electronically following specifications above with a coordinating log, to the Engineer as attachment to Application for Payment.
- B. Distribution of construction photographs, as soon as processed, is anticipated to be as follows:
 - 1. Engineer one (1) set.
 - 2. Project record file one (1) set to be stored by Contractor until the end of the project which shall then be delivered with Project Record Documents as specified in Section 01 78 39.
 - 3. Contractor one (1) set.

END OF SECTION

SECTION 01 33 23
SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall submit to the Engineer for review and approval, such working drawings, shop drawings, test reports and data on materials and equipment, and material samples materials list, certificates and affidavits as are required for the proper control of work, including but not limited to those working drawings, shop drawings, data and samples for materials and equipment specified elsewhere in the Specifications and in the Contract Drawings.
- B. Within twenty (20) calendar days after the Effective Date of the Agreement, the Contractor shall submit to the Engineer a complete materials list of preliminary data on items for which Shop Drawings are to be submitted. Included in this materials list shall be the names of all proposed manufacturers furnishing specified items. Review of this list by the Engineer shall in no way be expressed or implied relief to the Contractor from submitting complete Shop Drawings and providing material, equipment, etc., fully in accordance with the Specifications. This procedure is required in order to expedite final review of Shop Drawings.
- C. The Contractor shall maintain an accurate updated submittal log and will bring this log to each scheduled progress meeting with the Owner and the Engineer. This log shall include the following items:
 - 1. Submittal Description and Number assigned.
 - 2. Date submitted to Engineer
 - 3. Date returned to Contractor (from Engineer).
 - 4. Status of Submittal (Approved, Approved as Noted, Not Approved/Resubmit).
 - 5. Date of Resubmittal and Return (as applicable).
 - 6. Date of material release (for fabrication).
 - 7. Projected date of fabrication.
 - 8. Projected date of delivery to site.
 - 9. Status of O&M manuals submitted.
 - 10. Specification Section.
 - 11. Drawings Sheet Number.

D. Related Work Specified Elsewhere

1. Section 01 60 00: Product Requirements

1.02 CONTRACTOR'S RESPONSIBILITY

- A. It is the duty of the Contractor to check all drawings, data and samples prepared by or for him before submitting them to the Engineer for review. Each and every copy of the drawings and data shall bear Contractor's stamp and signature showing that they have been so checked. Shop drawings submitted to the Engineer without the Contractor's stamp and signature will be returned to the Contractor for conformance with this requirement. Shop drawings shall indicate any deviations in the submittal from requirements of the Contract Documents. If the Contractor takes exception to the specifications, the Contractor shall note the exception in the letter of transmittal to the Engineer. Shop drawings submittals shall not be used as a vehicle for requesting approval of substitute or alternative equipment and materials. Substitution requests will be considered only when submitted in accordance with the applicable provisions of Section 01 60 00.
- B. Determine and Verify:
1. Field measurements.
 2. Field construction criteria.
 3. Catalog numbers and similar data.
 4. Conformance with Specifications.
- C. The Contractor shall furnish the Engineer a schedule of Shop Drawings submittals fixing the respective dates for the submission of shop and working drawings, the beginning of manufacture, testing and installation of materials, supplies and equipment. This schedule shall indicate those that are critical to the progress schedule.
- D. The Contractor shall not begin any of the work covered by a drawing, data, or a sample returned for correction until a revision or correction thereof has been reviewed and returned to him, by the Engineer, with approval.
- E. The Contractor shall submit to the Engineer all drawings and schedules sufficiently in advance of construction requirements to provide no less than thirty (30) calendar days for checking and appropriate action from the time the Engineer receives them.
- F. All submittals shall be accompanied by a transmittal letter prepared in duplicate containing the following information:
1. Date.

2. Project Title and Number.
 3. Contractor's name and address.
 4. Notification of deviations from Contract Documents.
 5. Submittal Log Number conforming to Specification Section Numbers.
- G. The Contractor shall submit descriptive or product data submittals/drawings electronically to the Engineer. The Engineer will review the submittals/drawings and return marked-up submittals/drawings with appropriate review comments electronically to the Contractor.
- H. Once submittals/drawings are approved, they are to be distributed electronically to the Owner, Engineer and Contractor.
- I. The Contractor shall be responsible for and bear all costs of damages which may result from the ordering of any material or from proceeding with any part of work prior to the completion of the review by Engineer of the necessary shop drawings.
- J. The Contractor shall be fully responsible for observing the need for and making any changes in the arrangement of piping, connections, wiring, manner of installation, etc., which may be required by the materials/equipment he proposed to supply both as pertaining to his own work and any work affected under other parts, headings, or divisions of Drawings and Specifications.

1.03. ENGINEER'S REVIEW OF SHOP DRAWINGS

- A. The Engineer's review of drawings, data and samples submitted by the Contractor will cover only general conformity to the Specifications, external connections, and dimensions which affect the installation. The Engineer's review and exceptions, if any, will not constitute an approval of dimensions, quantities, and details of the material, equipment, device, or item shown.
- B. The review of drawings and schedules will be general, and shall not be construed:
1. As permitting any departure from the Contract requirements;
 2. As relieving the Contractor of responsibility of any errors, including details, dimensions, and materials;

3. As approving departures from details furnished by the Engineer, except as otherwise provided herein.
- C. If the drawings or schedules as submitted describe variations and show a departure from the Contract requirements which Engineer finds to be in the interest of the Owner and to be so minor as not to involve a change in Contract Price or time for performance, the Engineer may return the reviewed drawings, without noting an exception.
- D. When reviewed by the Engineer, each of the Shop Drawings will be identified as having received such review, being so stamped and dated. Shop Drawings stamped "NOT APPROVED/RESUBMIT" and with required corrections shown will be returned to the Contractor for correction and re-submittal.
- E. Resubmittals will be handled in the same manner as first submittals. On Resubmittals the Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, to revisions other than the corrections requested by the Engineer on previous submissions. The Contractor shall make any corrections required by the Engineer.
- F. If the Contractor considers any correction indicated on the drawings to constitute a change to the Contract Drawings or Specifications, the Contractor shall give written notice thereof to the Engineer.
- G. Shop Drawings and submittal data shall be reviewed by the Engineer for each original submittal and first Resubmittal; thereafter review time for subsequent Resubmittals shall be charged to the Contractor in accordance with the terms of the Engineer's Agreement with the Owner.
- H. When the Shop Drawings have been completed to the satisfaction of the Engineer, the Contractor shall carry out the construction in accordance therewith and shall make no further changes therein except upon written instructions from the Engineer.
- I. No partial submittals will be reviewed. Submittals not complete will be returned to the Contractor for Resubmittal. Unless otherwise specifically permitted by the Engineer, make all submittals in groups containing all associated items for:
 1. Systems
 2. Processes

3. As indicated in Specifications Sections, all drawings, schematics, manufacturer's product data, certifications and other shop drawing submittals required by a system specification shall be submitted at one time as a package to facilitate interface checking.

1.04 SHOP DRAWINGS

- A. When used in the Contract Documents, the term "Shop Drawings" shall be considered to mean Contractor's plans for materials and equipment which become an integral part of the Project. These drawings shall be completed and detailed. Shop Drawings shall consist of fabrication, erection and setting drawings and schedule drawings, manufacturer's scale drawing, and wiring and control diagrams. Cuts, catalogs, pamphlets, descriptive literature, and performance and test data shall be considered only as supportive to required shop drawings as defined above. As used herein, the term "manufactured" applied to standard units usually mass-produced; and "fabricate" means items specifically assembled or made out of selected materials to meet individual design requirements.
- B. Manufacturer's catalog sheets, brochures, diagrams, illustrations and other standard descriptive data shall be clearly marked to identify pertinent materials, product or models. Delete information which is not applicable to the Work by striking or cross-hatching.
- C. Drawings and schedules shall be checked and coordinated with the work of all trades involved, before they are submitted for review by the Engineer and shall bear the Contractor's stamp of approval as evidence of such checking and coordination. Drawings or schedules submitted without this stamp of approval shall be returned to the Contractor for resubmission.
- D. Each Shop Drawing shall have a transmittal sheet. The transmittal sheet shall display the following:
 1. Project title and number.
 2. Name of project building or structure.
 3. Number and title of the shop drawing.
 4. Date of shop drawing or revision.
 5. Name of Contractor and subcontractor submitting drawing.
 6. Supplier/manufacturer.
 7. Separate detailer when pertinent.
 8. Specification number.
 9. Drawing number.

A Letter of Transmittal Excel document shall be provided to the Contractor per request.

[Contractor Company Logo]		[Contractor Company Name]		LETTER OF TRANSMITTAL	
		[Address]			
		[Address]			
		[Phone #]			
TO:	Mead & Hunt			DATE:	
ATTN:	Karen Gimbel	karen.gimbel@meadhunt.com		M&H PROJECT NO.	
				COUNTY BID NO.	
		-		RE:	
		-			
SUBMITTAL #	SPEC SECTION(S) #	SHEET(S) #		SUBMITTAL DESCRIPTION	
				SUPPLIER/MANUFACTURER	
Notification of deviations from Contract Documents:					

I hereby certify that the Contractor has satisfied Contractor's obligations under the Contract Documents relative to Contractor's review and approval of this submittal.

Signed:	
Type Name:	

- E. If drawings show variations from Contract requirements because of standard shop practice or for other reasons, the Contractor shall describe such variations in his letter of transmittal. If acceptable, proper adjustment in the Contract shall be implemented where appropriate. If the Contractor fails to describe such variations, he shall not be relieved of the responsibility for executing the work in accordance with the Contract, even though such drawings have been reviewed.
- F. Data on materials and equipment include, without limitation, materials and equipment lists, catalog data sheets, cuts, performance curves, diagrams, materials of construction and similar descriptive material. Materials and equipment lists shall give, for each item thereon, the name and location of the supplier or manufacturer, trade name, catalog reference, size, finish and all other pertinent data.
- G. For all mechanical and electrical equipment furnished, the Contractor shall provide a list including the equipment name, address and telephone number of the manufacturer's representative and service company so that service and/or spare parts can be readily obtained.
- H. All manufacturers or equipment suppliers who are proposed to furnish equipment or products shall submit an installation list to the Engineer along with the required shop drawings. The installation list shall include at least five (5) installations where identical equipment has been installed and has been in operation for a period of at least one (1) year.
- I. Only the Engineer will utilize the color "red" in marking shop drawing submittals.

1.05 WORKING DRAWINGS

- A. When used in the Contract Documents, the term "working drawings" shall be considered to mean the Contractor's plan for temporary structures such as temporary bulkheads, support of open cut excavation, support of utilities, ground water control systems, forming and false work; for underpinning; and for such other work as may be required for construction but does not become an integral part of the project.
- B. Copies of working drawings as noted in paragraph 1.05 A. above, shall be submitted to the Engineer where required by the Contract Documents or requested by the Engineer, and shall be submitted at least thirty (30) calendar days (unless otherwise specified by the Engineer) in advance of their being required for work.

- C. Working drawings shall be signed by a registered Professional Engineer, currently licensed to practice in the State of Florida and shall convey, or be accompanied by, calculation or other sufficient information to completely explain the structure, machine, or system described and its intended manner of use. Review of working drawings by the Engineer will not relieve the Contractor in any way from his responsibility with regard to the fulfillment of the terms of the Contract. All risks of error are assumed by the Contractor; the Owner and Engineer shall have no responsibility therefore.

1.06 SAMPLES

- A. The Contractor shall furnish, for the approval of the Engineer, samples required by the Contract Documents or requested by the Engineer. Samples shall be delivered to the Engineer as specified or directed. The Contractor shall prepay all shipping charges on samples. Materials or equipment for which samples are required shall not be used in work until approved by the Engineer.
- B. Samples shall be of sufficient size and quantity to clearly illustrate:
 - 1. Functional characteristics of the product, with integrally related parts and attachment devices.
 - 2. Full range of color, texture and pattern.
 - 3. A minimum of two (2) samples of each item shall be submitted.
- C. Each sample shall have a label indicating:
 - 1. Name of project.
 - 2. Name of Contractor and subcontractor.
 - 3. Material or equipment represented.
 - 4. Place of origin.
 - 5. Name of producer and brand (if any).
 - 6. Location in project.
 - 7. Submittal Number.

(Samples of finished materials shall have additional marking that will identify them under the finish schedules).

- D. The Contractor shall prepare a transmittal letter in triplicate for each shipment of samples containing the information required in paragraph 1.06 B. above. He shall enclose a copy of this letter with the shipment and send a copy of this letter to the Engineer. Approval of

a sample shall be only for the characteristics or use names in such approval and shall not be construed to change or modify any Contract requirements.

- E. Approved samples not destroyed in testing shall be sent to the Engineer or stored at the site of work. Approved samples of the hardware in good condition will be marked for identification and may be used in the work. Materials and equipment incorporated in work shall match the approved samples. Samples which failed testing or were not approved will be returned to the Contractor at his expense, if so, requested at time of submission.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 35 13
SPECIAL PROJECT PROCEDURES

PART 1 - GENERAL

1.01 PUBLIC NUISANCE

- A. The Contractor shall not create a public nuisance including, but not limited to, encroachment on adjacent lands, flooding of adjacent lands, or excessive noise.
- B. Sound levels measured by the Engineer shall not exceed 50 dBA from 7 P.M. to 7 A.M. or 60 dBA 7 A.M. to 7 P.M. This sound level shall be measured at the exterior of the nearest exterior wall of the nearest residence. Levels at the equipment shall not exceed 85 dBA at any time. Sound levels in excess of these values are sufficient cause to have the Work halted until equipment can be quieted to these levels. Work stoppage by the Engineer or Owner for excessive noise shall not relieve the Contractor of the other portions of this Specification including, but not limited to, completion dates and bid amounts.
- C. No extra charge may be made for time lost due to work stoppage resulting from the creation of a public nuisance.

1.02 JURISDICTIONAL DISPUTES

- A. It shall be the responsibility of the Contractor to pay all costs that may be required to perform any of the Work shown on the Drawings or specified herein in order to avoid any work stoppages due to jurisdictional disputes. The basis for subletting Work in question, if any, shall conform to precedent agreements and decisions on record with the Building and Construction Trades Department, AFL-CIO, dated June, 1973, including any amendments thereto.

1.03 EXCAVATION AROUND AND CONNECTION TO EXISTING UTILITIES

- A. It is essential that the Contractor understand that the existing Owner's facilities must be kept in operation with minimal impact and shut-downs. To this end, the Contractor shall coordinate and consult with the Owner's operating personnel before excavating around or cutting into existing utilities on the site. Existing utilities of major concern are water, sanitary sewer, electrical power conduits, phone and television cables, instrumentation conduits, and cables.
- B. Some areas within the construction site may require hand excavation due to the congestion of underground piping systems and/or due to the criticality of piping systems that may be damaged unavoidably during machine excavation.

- C. Cover for underground piping shall not be less than that indicated on the Drawings, up to a minimum of 30 inches of cover where obtainable. In areas where other piping conflicts preclude the minimum cover desired, the piping shall be laid to provide the maximum cover obtainable.
- D. All connections to existing piping systems shall be made as shown or indicated on the Drawings after consultation, cooperation, and coordination with the Owner's management personnel. Some such connections may have to be made during off-peak hours (late night or early morning hours). The Contractor shall give a minimum of three (3) working days' notice to the Owner when tie-ins with the existing plant utilities are required.
- E. For major utility pipeline tie-ins and relocations, the Contractor shall submit a detailed Plan of Action for review and approval by the Owner and the Engineer. No major utility relocation or tie-ins shall proceed until the Plan of Action for that Work is approved.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 45 29
TESTING LABORATORY SERVICES

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. Contractor will employ and pay for services of an Independent testing Laboratory to perform testing specifically indicated on the Contract Documents or specified in the Specifications herein and may at any other time elect to have materials and equipment tested for conformity with the Contract Documents.
2. Contractor shall cooperate with the laboratory to facilitate the execution of its required services.
3. Contractor shall provide Engineer with all test results as indicated herein within five (5) days of receipt.

B. Related Requirements Described Elsewhere:

1. Testing laboratory inspection, sampling and testing is required for, but not limited to the following:
 - a. Section 31 23 00 - Excavation and Fill
 - b. Section 32 10 00 - Bases, Ballasts and Paving
 - c. Section 03 30 00 - Cast-in-Place Concrete
 - d. Section 33 05 05.31 - Hydrostatic Testing

C. The following schedule defines the responsibility for various tests.

<u>Test</u>	<u>Notes</u>	<u>Paid for By</u>
Soil Compaction	Pipe Work: every 300 ft. at each lift of compaction minimum. Beneath Structures: each 500 sq. ft. lift of compaction minimum and each lift around structures.	Contractor

Pressure	As specified in Section 33 05 05.31	Contractor
Bacteriological	As required by local and state agencies.	Contractor
LBR	Each 1500 SF of pavement (minimum).	Contractor
Concrete	Slump test each delivery and compression test five cylinders every 50 C.Y. (minimum).	Contractor

- D. Additional Tests: The Contractor shall pay for first tests as specified herein. In the event that first test samples do not meet the applicable material specification, the Contractor shall take measures to conform the material and equipment to the Specifications. All subsequent tests shall be paid for by the Contractor.

1.02 LABORATORY TESTS

- A. The materials listed below shall require advance and periodic laboratory tests as indicated, and shall be sampled in accordance with the methods of the A.S.T.M. and as directed by the Engineer. With the exception of concrete test cylinders and mixing water, duplicate advance samples of all materials requiring laboratory tests shall be submitted to the Engineer, one of which will be certified by the Engineer for submission to the testing laboratory and the other retained on the job site in suitable storage provided by the Contractor. Except as noted below, preliminary samples of materials for advance laboratory tests shall be submitted at least two (2) weeks prior to starting delivery of such materials to the site of the project. The testing laboratory shall furnish both the Engineer and the Contractor with two (2) copies of the reports showing the results of such tests, and the reports shall be considered as sufficient evidence of the acceptance or rejection of the quality of the materials tested. The specifications for, and the method of testing, will be found under the detailed specifications for the particular material involved. All samples shall be properly packed and clearly marked as to source and intended use.

MATERIALS	TEST FREQUENCY	SAMPLE SIZE	SHIPPING CONTAINER
Fine Aggregate	Advance, first shipment then each 100 tons	100 lbs.	Canvas Sack
Coarse Aggregate	Advance, first shipment then each 200 tons	Stone or Gravel 200 lbs.	Strong Sack
Concrete	Advance test using approved materials	4 cylinders per mix, 2 broken at 7 days, 2 at 28 days	
Concrete (b) Air Entrainment	Advance test on trial mix air entraining agent is used. Test as specified under Article 405 (e)		

1.03 TESTS

- A. The materials listed below shall be tested at the shop or plant of, and by, the producer. Each manufacturer of such materials shall be fully equipped to carry out the tests herein designated. Upon demand of the Engineer, the manufacturer shall perform such additional number of tests as the Engineer may deem necessary to establish the quality of the material offered for use. The Engineer shall be furnished with the certified records of reports of the results of all tests, such reports of records to contain a sworn statement that the tests have been made as specified.

MATERIAL	TEST METHOD
Cement	ASTM C114
Ductile Iron Pipe (Centrifugally Cast)	As required under ANSI A21.51-1176
Brick	ASTM C-32
Reinforcement	ASTM A-15 & A-305

1.04 FIELD TESTS

- A. All sewers, water lines, piping and equipment shall be tested in the field in the presence of the Engineer or his authorized assistant, in the manner prescribed in the sections of these specifications pertaining to such installations. The Engineer may also perform or have performed any other field tests necessary to determine compliance with the Contract requirements. The Contractor shall furnish all necessary labor, equipment, and materials for such tests and, with the exception of the Engineer's expenses, shall bear all the cost thereof.

1.05 PAVING TESTS

- A. The following tests will be made, unless otherwise stipulated by the Engineer, by a testing laboratory approved by the Engineer:

Material	Test or Test Method	Frequency
Subbase	1) AASHTO T-180 (Modified Proctor Minimum 98% Density)	Every 300 LF
	2) Lime rock Bearing Ratio 40	Every 300 LF
Base	(Soil Cement) (1) Mix Design 350 psi @ 28 days. Mix design required 7 days in advance.	Prior to Mixing Base
	(2) Optimum Moisture content and Maximum Density (AASHTO T-134)	Every 300 LF
	(3) LBR 100	Every 1500 sf
	(4) Depth (6-inch minimum)	Every 300 feet
Paving	(1) Job Mix Formula. Required 7 days in advance and submit to Engineer	Each Job
	(2) Bitumen Content of Mix	Every 2500 SY or fraction thereof
	(3) In Place Density	Every 300' (left, right & center)
	(4) Marshall Field Stability Index	Every 1500 SY or fraction thereof
	(5) Thickness Cores	Every 300' (left, right, & center)

1.06 Basis of Payment

- A. All shop tests and mill inspection shall be included in the price of the manufactured article, and no separate or extra payment will be made for such tests and inspection.
- B. All laboratory and field tests will be paid for by the Contractor; he shall furnish all necessary labor, equipment and materials for such tests and, with the exception of the Engineer's expenses, shall bear all the costs thereof.

1.07 LABORATORY DUTIES: LIMITATIONS OF AUTHORITY

- A. Cooperate with Engineer and Contractor; provide qualified personnel promptly on notice.
- B. Perform specified inspections, sampling and testing of materials and methods of construction:
 - 1. Comply with specific standards; ASTM, other recognized authorities, and as specified.
 - 2. Determine and report on compliance with requirements of Contract Documents.
- C. Promptly notify the Engineer and Contractor of material or operations which do not meet the specifications.
- D. Promptly submit one (1) original and (1) electronic copy of reports of inspections and tests to the Engineer including:
 - 1. Date issued.
 - 2. Project title and Engineer's job number.
 - 3. Testing Laboratory name and address.
 - 4. Name and signature of inspector.
 - 5. Date of inspection of inspector.
 - 6. Date of inspection or sampling.
 - 7. Date of test.
 - 8. Identification of product and Specification section.
 - 9. Location in project.
 - 10. Type of inspection or test.
 - 11. Compliance with Contract Documents or not.
- E. Laboratory is not authorized to:
 - 1. Release, revoke, alter, or enlarge on requirements of Contract Documents.
 - 2. Approve or reject any portion of work.
 - 3. Perform any duties of the Contractor.

1.08 CONTRACTOR'S RESPONSIBILITIES

- A. Cooperate with laboratory personnel; provide access to Work and manufacture's operations.
- B. Secure and deliver to the laboratory adequate representational samples of materials purposed to be used and which require testing.

- C. Provide to the laboratory the preliminary design mix proposed to be for concrete, and other materials mixes which require control by the testing laboratory.
- D. Materials and equipment used in the performance of work under this Contract are subject to inspection and testing at the point of manufacturer of fabrication. Standard specifications for quality and workmanship are indicated in the Contract Documents. The Engineer may require the Contractor to provide statements or certificates from the manufacturers and fabricators that in full accordance with the standard specifications for quality and workmanship indicated in the Contract Documents. All costs of this testing and providing statements and certificates shall be a subsidiary obligation of the Contractor, and no extra charge to the Owner shall be allowed on account of such testing and certification.
- E. Furnish incidental labor and facilities:
 - 1. To provide access to Work to be tested.
 - 2. To obtain and handle samples at the Project site or at the source of the product to be tested.
 - 3. To facilitate inspections and tests.
 - 4. For storage and curing of test samples.
 - 5. Notify laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 57 13
TEMPORARY EROSION AND SEDIMENTATION CONTROLS

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. The Work specified in this Section consists of designing, providing, maintaining and removing temporary erosion and sedimentation controls for construction activities impacting **less** than one acre, as required by Rules and Regulations and permit conditions.

a. If activity impact should **exceed** one acre:

- i. The Contractor must apply for a NPDES permit with the Florida Department of Environmental Protection (FDEP), accessible through the provided link below.

1. https://floridadep.gov/sites/default/files/CGP%20NOI%2062-621.300_4b_0.pdf

- ii. The Contractor must create a Stormwater Pollution Prevention Plan (SWPPP) and provide its location in the NPDES permit, requirements and guidelines are accessible through the provided links below.

1. <http://www.swppps.org/requirements>
2. https://floridadep.gov/sites/default/files/ConstructionSWPPP_0.pdf

- iii. The Contractor must create a weekly inspection schedule.

1. Additional inspections are required after rainfall exceeding 0.5 inches.

- iv. The Contractor must provide a Certified Person for contact.

1. Certified Person(s) must have Erosion and Sedimentation Control training.

- Page 493 of

- a. FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System.
 - i. FDOT Index No. 102 -- Temporary Erosion and Sediment Control.
 - b. FDOT Standard Specifications for Road and Bridge Construction.
 - i. FDOT Section 104 -- Prevention, Control, and Abatement of Erosion and Water Pollution.
 - ii. FDOT Section 570 -- Performance Turf.
 - iii. FDOT Section 901 -- Coarse Aggregate.
 - iv. FDOT Section 981 -- Turf Materials.
 - v. FDOT Section 985 -- Geotextile Fabrics.
 - vi. FDOT Section 987 -- Prepared Soil Layer Materials.
4. U.S. Environmental Protection Agency (EPA):
- a. EPA (NPDES) -- National Pollutant Discharge Elimination System.

PART 2 - PRODUCTS

2.01 EROSION CONTROL

- A. Sodding, mulching, grassing and seeding are specified in Section 32 92 00.
- B. Backfill is specified in Section 31 23 00.
- C. Netting shall be fabricated of material acceptable to the Owner.

2.02 SEDIMENTATION CONTROL

- A. Netting shall be fabricated of material acceptable to the Owner.
- B. Filter stone shall be crushed stone which conforms to Florida Department of Transportation (FDOT) specifications.
- C. Concrete block shall be hollow, non-load bearing type.
- D. Concrete shall be exterior grade not less than one-inch thick.
- E. Sediment Fence.

2.03 DUST CONTROL

A. Sodding, mulching, grassing, seeding and tilling are specified in Section 32 92 00.

2.04 BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL

NAME	APPLICATION	MAX DRAINAGE AREA	USEFUL LIFE	COMMENT
Block & Gravel	Inlet protection	<1 acre	3-6 Months	Routine Maintenance Required
Brush Barrier	Perimeter Control	Unspecified	3-6 Months	Routine Maintenance Required
Check Dam / Hay Bale	Control Water Velocity	10 Acres	< 3 Months	Replace as Needed
Check Dam / Rock (Gravel)	Control Water Velocity	10 Acres	18 Months	Max Height 2 feet
Check Dam / Silt Fence	Control Water Velocity	10 Acres	6 Months	Replace as Needed
Construction Road Stabilization	Road Stabilization	Unspecified	Project Life	Routine Maintenance Required
Curb and Gutter Sediment Barrier	Inlet Protection	< 1 Acre	> 6 Months	Routine Maintenance Required
Drain field Pipe Inlet Protection	Inlet Protection	< 1 Acre	> 6 Months	Routine Maintenance Required
Floating Turbidity Barrier	Silt/Sediment Containment	Unspecified	> 18 Months	Use in Low Flow Water Body
GeoHay Curb Inlet Protection	Inlet Protection	< 1 Acre	> 6 Months	Routine Maintenance Required
Gravel and Wire Mesh	Inlet Protection	<1 Acre	3-6 Months	Routine Maintenance Required
Silt Fence	Perimeter Control	< ¼ Acre per 100 ft of length	3 Months	Trench In & Compact
Silt Fence (Filter Fabric)	Inlet Protection	< 1 Acre	3 Months	Routine Maintenance Required
Sod	Inlet Protection	< 1 Acre	> 6 Months	Routine Maintenance Required
Temporary Diversion Dike	Slope Protection	5 Acres	> 18 Months	Compact / Stabilize Slopes
Temporary Fill Diversion	Slope Protection	5 Acres	1 Day – 1 Week	Rebuild as Needed

Temporary Gravel Construction Entrance	Entrance	Unspecified	Project Life	Routine Maintenance Required
Temporary Sediment Basin	Sediment Removal	> 5 Acres	18 Months	Engineer Must Design
Temporary Sediment Trap	Sediment Removal	5 Acres	18 Months	Stabilize Interior/Exterior Slopes
Temporary Slope Drain	Slope Protection	5 Acres	3-6 Months	Stabilize Outfall
Temporary Right-Of- Way Diversion	Shorten Flow Length	< 5 Acres	3-6 Months	Inspect Weekly or After Rain

PART 3 – EXECUTION

3.01 PREPARATION AND INSTALLATION

- A. No clearing or rough cutting shall be permitted until temporary erosion, sediment and dust control systems are in place, unless permitted directly by the City Engineer.
- B. Installation of erosion and sediment control materials shall be per manufacturer recommendations and in accordance with FDOT standards.
- C. Any damage caused by construction traffic to temporary erosion, sediment and dust controls systems shall be repaired immediately by the Contractor.
- D. The Contractor shall be responsible for collecting, storing, hauling and disposing of soil, silt, and waste materials as specified in this or other Specifications and in compliance with relevant federal, state, and local rules and regulations.
- E. Contractor shall make a visual inspection of all sedimentation and erosion control devices (including turbidity barriers) on a daily basis and promptly after every rainstorm. If such inspection reveals that additional measures are needed to prevent movement of sediment beyond the barrier limits, the Contractor shall promptly install additional devices as needed. Sediment controls shall be promptly repaired and maintained, as needed. The Contractor shall keep a log of all inspections indicating the following:
 - 1. Date and time of inspection.
 - 2. Inspector.
 - 3. Amount of rainfall.
 - 4. Erosion and sediment control devices inspected.
 - 5. Condition of sediment and erosion control devices.

6. Repairs or maintenance needed.
7. Date repair or maintenance is completed.

3.02 EROSION CONTROL

A. Minimum procedures for grassing are:

1. Scarify slopes to a depth of not less than six inches and remove large clods, rock, stumps, roots larger than 1/2-inch in diameter and debris.
2. Sow seed within twenty-four (24) hours after the ground is scarified with either mechanical seed drills or rotary hand seeders.
3. Apply mulch loosely and to a thickness of between 3/4 inch and 1-1/2 inches.
4. Apply netting over mulched areas on sloped surfaces.
5. Roll and water seeded areas in a manner which will encourage sprouting of seeds and growing of grass. Reseed areas which exhibit unsatisfactory growth. Backfill and seed eroded areas.

3.03 SEDIMENTATION CONTROL

- #### A.
- Install and maintain silt dams, traps, barriers, and appurtenances as shown on the approved descriptions and working drawings. Hay bales which deteriorate and filter stone which is dislodged shall be replaced.

3.04 DUST CONTROL

- #### A.
- The dust control product chosen shall be appropriate for to the site conditions (topography and soils).
- #### B.
- Grade and/or smooth the surfaces to be treated as needed and prescribed by the product guidance before the dust control product is applied.

3.05 PERFORMANCE

- #### A.
- Should any of the temporary erosion and sediment control measures employed by the Contractor fail to produce results which comply with the requirements of the State of Florida, the Owner or Engineer, the Contractor shall immediately take whatever steps are necessary to correct the deficiency at his own expense.

END OF SECTION

SECTION 01 60 00
PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. Conform to applicable specifications and standards.
2. Comply with size, make, type and quality specified, or as specifically approved in writing by Engineer.
3. Manufactured and fabricated products:
 - a. Design, fabricate and assemble in accordance with the best engineering and shop practices.
 - b. Manufacture like parts of duplicate units to standard sizes and gauges, to be interchangeable.
 - c. Two or more items of the same kind shall be identical, by the same manufacturer.
 - d. Products shall be suitable for service conditions.
 - e. Equipment capacities, sizes and dimensions shown or specified shall be adhered to unless variations are specifically approved in writing.
4. Do not use material or equipment for any purpose other than that for which it is designed or is specified.

1.02 APPROVAL OF MATERIALS

- A. Only new materials and equipment shall be incorporated in the work. All materials and equipment furnished by Contractor shall be subject to the inspection and approval of Engineer. No material shall be delivered to the work without prior approval of Engineer.
- B. Within twenty (20) days after the Effective Date of the Agreement, Contractor shall submit to Engineer, data relating to materials and equipment he proposes to furnish for the work. Such data shall be in sufficient detail to enable Engineer to identify the particular product to form an opinion as to its conformity to the specifications.

- C. Facilities and labor for handling and inspection of all materials and equipment shall be furnished by Contractor. If Engineer requires, either prior to beginning or during progress of the work, Contractor shall submit samples of materials for such special tests as may be necessary to demonstrate that they conform to the specifications. Such samples shall be furnished, stored, packed and shipped as directed at Contractor's expense. Except as otherwise noted, Contractor shall make arrangements for and pay for the tests.
- D. Contractor shall submit data and samples sufficiently early to permit consideration and approval before materials are necessary for incorporation in the work. Any delay of approval resulting from Contractor's failure to submit samples or data promptly shall not be used as a basis of claim against Owner or Engineer.
- E. In order to demonstrate the proficiency of workers or to facilitate the choice among several textures, types, finishes and surfaces, Contractor shall provide such samples of workmanship or finish as may be required.
- F. The materials and equipment used on the work shall correspond to the approved samples or other data.

1.03 SUBSTITUTIONS AND PRODUCT OPTIONS

- A. The substitution requirements of this Section are in addition to the requirements of the General Conditions and Supplementary Conditions.
- B. The intent of these Specifications is to provide Owner with a quality facility without discouraging competitive bidding. Substitutions may be submitted and will be evaluated as specified herein.
- C. A Request for Substitution of Product may be submitted after the Contractor:
 - 1. Has investigated the proposed product and determined that it is equal to or superior to specified product, furnishes a certification to that effect and waives all rights to additional payment or time that may subsequently become necessary due to the failure of the substituted product to perform adequately.
 - 2. Agrees to provide same warranties or bonds for product substitution as for product specified.
 - 3. Agrees to be responsible for coordinating and paying for any necessary changes to other work required by approved substitutions or product options which he selects and shall pay all such costs including the costs of the services of the design professional to revise the Contract Documents, if such revisions are required.

4. Waives all claims for additional costs due to substitution which may subsequently become apparent.
5. Is offering either a substantial credit to the Owner for acceptance of the substitution or a convincing justification that the product to be provided as the substitution is substantially superior in quality, performance, compatibility with adjacent products, durability, vandal-resistance or in other important ways.

D. Engineer's Action:

1. Engineer will consider written requests for product substitution for a period of forty-five (45) calendar days after the effective date of the Agreement. Engineer will review requests for substitutions and notify Contractor in writing of Owner's decision to accept or reject requested substitutions within ten (10) working days of receiving request. Only the Owner may accept a substitution.
2. Substitution requests made by means of Shop Drawings or product data submittal will not be considered.
3. After the period of forty-five (45) days has elapsed, the only substitution requests which will be considered are those which are made necessary by the removal of the specified products from the market or by other similar, unavoidable circumstances beyond the control of the Contractor.

1.04 MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION

- A. When Contract Documents require that installation of work shall comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to parties involved in the installation, including electronic copies to Engineer.
 1. Maintain one set of complete instructions at the job site during installation and until completion.
- B. Handle, install, correct, clean, condition and adjust products in strict accord with such instructions and in conformity with specified requirements.
 1. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with Engineer for further instructions.
 2. Do not proceed with work without clear instructions.
- C. Perform work in accordance with manufacturer's instructions. Do not omit any preparatory step or installation procedure unless specifically modified or exempted by Contract Documents.

1.05 TRANSPORTATION AND HANDLING

- A. Arrange deliveries of products in accordance with construction schedules, coordinate to avoid conflict with work and conditions at the site.
 - 1. Deliver products in undamaged condition, in manufacturer's original containers or packaging, with identifying labels intact and legible.
 - 2. Immediately on delivery, inspect shipments to assure compliance with requirements of Contract Documents and approved submittals, and that products are properly protected and undamaged.
- B. Provide equipment and personnel to handle products by methods to prevent soiling or damage to products or packaging.

1.06 STORAGE AND PROTECTION

- A. The Contractor shall furnish a covered, weather-protected storage structure providing a clean, dry, noncorrosive environment for all mechanical equipment, valves, architectural items, electrical and instrumentation equipment, and special equipment to be incorporated into this project. Storage of equipment shall be in strict accordance with the "instructions for storage" of each equipment supplier and manufacturer including connection of heaters, placing of storage lubricants in equipment, etc. Corroded, damaged or deteriorated equipment and parts shall be replaced before acceptance of the project. Equipment and materials not properly stored will not be included in a payment estimate.
- B. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible.
 - 1. Store products subject to damage by the elements in weathertight enclosures such as buildings or trailers which have a concrete or wooden floor, a roof and fully closed walls on all sides.
 - 2. Maintain temperature and humidity within the ranges required by manufacturer's instructions (i.e. electrical and instrumentation equipment).
 - 3. Protect mechanical and electrical equipment from being contaminated by dust, dirt and moisture.
 - 4. Store fabricated products above the ground, on blocking or skids prevent soiling and staining. Cover products which are subject to deterioration with impervious sheet coverings, provided adequate ventilation to avoid condensation.
 - 5. Provide heated storage space for material which would be damaged by freezing.

6. Store loose granular materials in a well-drained area on solid surfaces to prevent mixing with foreign matter.
 7. Prior to the installation of equipment, it shall be stored at locations designated and approved by the Engineer.
- C. All materials and equipment to be incorporated in the work shall be handled and stored by Contractor before, during and after shipment in a manner to prevent warping, twisting, bending, breaking, chipping, rusting, and any injury, theft or damage of any kind whatsoever to the material or equipment.
- D. Cement, sand and lime shall be stored under a roof and off the ground and shall be kept completely dry at all times. All structural and miscellaneous steel and reinforcing steel shall be stored off the ground or otherwise to prevent accumulations of dirt or grease, and in a position to prevent accumulations of standing water and to minimize rusting. Beams shall be stored with the webs vertical. Precast concrete beams shall be handled and stored in a manner to prevent accumulations of dirt, standing water, staining, chipping or cracking. Brick, block and similar masonry products shall be handled and stored in a manner to reduce breakage, chipping, cracking and spalling to a minimum.
- E. All materials which, in the opinion of Engineer, have become so damaged as to be unfit for the use intended or specified shall be promptly removed from the site of the work, and Contractor shall receive no compensation for the damaged material or its removal.
- F. Arrange storage in a manner to provide easy access for inspection. Make periodic inspections of stored materials and equipment to assure that products are maintained under specified conditions, and free from damage or deterioration.
- G. Protection After Installation: Provide substantial coverings as necessary to protect installed products from damage from traffic and subsequent construction operations. Remove covering when no longer needed.
- H. The Contractor shall be responsible for all material, equipment, and supplies delivered to Owner under this Contract until final inspection of the work and acceptance thereof by Owner. In the event any such material, equipment and supplies are lost, stolen, damaged or destroyed prior to final inspection and acceptance, Contractor shall replace same without additional cost to Owner.
- I. Should Contractor fail to take proper action on storage and handling of equipment supplied under the Contract within seven (7) days after written notice to do so has been given, Owner retains the right to correct all deficiencies noted in previously transmitted written notice and deduct the cost associated with these corrections from Contractor's Contract. These costs may be comprised of expenditures for labor, equipment usage, administrative,

clerical, engineering and any other costs associated with making the necessary corrections.

1.07 SPECIAL TOOLS

- A. Manufacturers of equipment and machinery shall furnish any special tools (including grease guns or other lubricating devices) required for normal adjustment, operations and maintenance, together with instructions for their use. Contractor shall preserve and deliver to Owner these tools and instructions in good order no later than upon completion of the Contract.

1.08 STORAGE AND HANDLING OF EQUIPMENT ON SITE.

- A. Attention shall be given to the storage and handling of equipment on site. As a minimum, the procedure outlined below shall be followed:
 - 1. Equipment shall not be shipped until approved by Engineer. The intent of this requirement is to reduce on-site storage time prior to installation and/or operation. Under no circumstances shall equipment be delivered to the site more than one month prior to installation without written authorization from Engineer. Equipment shipped to the site shall be stored in accordance with Paragraph 1.06, herein. Operation and maintenance data shall be submitted to Engineer for review prior to shipment of equipment.
 - 2. All equipment having moving parts such as gears, electric motors, etc. and/or instruments shall be stored in a temperature and humidity-controlled building approved by Engineer, until such time as the equipment is to be installed.
 - 3. All equipment shall be stored fully lubricated with oil, grease, etc. unless otherwise instructed by the manufacturer.
 - 4. Manufacturer's storage instructions shall be carefully studied by Contractor and reviewed with Engineer by him. These instructions shall be carefully followed and a written record of this kept by the Contractor.
 - 5. Moving parts shall be rotated a minimum of once weekly to ensure proper lubrication and to avoid metal-to-metal "welding". Upon installation of the equipment, Contractor shall start the equipment, at least half load, once weekly for an adequate period of time to ensure that the equipment does not deteriorate from lack of use.
 - 6. Lubricants shall be changed upon completion of installation and as frequently as required thereafter during the period between installation and acceptance. Mechanical equipment to be used in the work, if stored for longer than ninety (90)

days, shall have the bearings cleaned, flushed and lubricated prior to testing and startup, at no extra cost to Owner.

7. Prior to acceptance to the equipment, Contractor shall have the manufacturer inspect the equipment and certify that its condition has not been detrimentally affected by the long storage period. Such certifications by the manufacturer shall be deemed to mean that the equipment is judged by the manufacturer to be in a condition equal to that of equipment that has been shipped, installed, tested and accepted in a minimum time period. As such, the manufacturer will guarantee the equipment equally in both instances. If such a certification is not given, the equipment shall be judged to be defective. It shall be removed and replaced at Contractor's expense.

1.09 WARRANTY

- A. For all major pieces of equipment, submit a warranty from the equipment manufacturer as specified. The manufacturer's warranty period shall be concurrent with the Contractor's for one (1) year after the time of acceptance.

1.10 SPARE PARTS

- A. Spare parts for certain equipment have been specified in the pertinent sections of the Specifications. Contractor shall collect and store all spare parts so required in an area to be designated by Engineer. In addition, Contractor shall furnish Engineer an inventory listing all spare parts, the equipment they are associated with, the name and address of the supplier, and the delivered cost of each items. Spare parts shall be turned over in conjunction with the "Spare Parts List" as shown. Copies of actual invoices for each item shall be furnished with the inventory to substantiate the delivered cost.

1.11 GREASE, OIL AND FUEL

- A. All grease, oil and fuel required for testing of equipment shall be furnished with the respective equipment. Owner shall be furnished with a year's supply of required lubricants including grease and oil of the type recommended by manufacturer with each item of equipment supplied.
- B. Contractor shall be responsible for changing the oil in all drives and intermediate drives of each mechanical equipment after initial break-in of the equipment, which in no event shall be any longer than three (3) weeks of operation.

END OF SECTION

SECTION 01 71 13
MOBILIZATION

PART 1 - GENERAL

1.01 DEFINITION AND SCOPE

- A. Mobilization shall include the obtaining of all permits, insurance, and bonds; moving onto the site of all plant and equipment; furnishing and erecting plants, temporary buildings, and other construction facilities; all as required for the proper performance and completion of the Work. Mobilization shall include, but not be limited to, the following principal items.
1. Move onto the site all Contractors' plant and equipment required for first month operations.
 2. Install temporary construction power, wiring, and lighting facilities.
 3. Establish fire protection plan and safety program.
 4. Secure construction water supply.
 5. Provide field office trailers for Contractor and as may be specified for Owner and Engineer.
 6. Provide on-site sanitary facilities and potable water facilities as specified.
 7. Arrange for and erect Contractor's work and storage yard and employee's parking facilities.
 8. Submit all required insurance certificates and bonds.
 9. Obtain all required permits.
 10. Post all OSHA, EPA, Department of Labor, and all other required notices.
 11. Have Contractor's superintendent at the job site full time.
 12. Submit a detailed construction CPM schedule acceptable to the Engineer as specified.
 13. Submit a schedule of values of the Work.
 14. Submit a schedule of submittals.

1.02 DEMOBILIZATION

- A. Demobilization is the timely and proper removal of all Contractor-owned material, equipment or plant, from the job site and the proper restoration or completion of work necessary to bring the site into full compliance with the contract documents.

1.03 PAYMENT FOR MOBILIZATION/DEMOBILIZATION

- A. The Contractor's attention is directed to the condition that no payment for mobilization, or any part thereof, will be approved for payment under the Contract. Mobilization/Demobilization is a subsidiary obligation of the Contractor.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01 74 00
CLEANING AND WASTE MANAGEMENT

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Scope of Work: Execute cleaning, during the progress of Work and at completion of the Work. This Section includes operations which cannot be specified in detail as separate items but can be sufficiently described as to the kind and extent of work involved. The Contractor shall furnish all labor, materials, equipment and incidentals to complete the work under this Section.

- 1. The work of this Section includes, but is not limited to, the following:

- a. Restoring of driveways and fences.
- b. Cleaning up.
- c. Incidental work.

1.02 DISPOSAL REQUIREMENTS

- A. Conduct cleaning and disposal operations to comply with codes, ordinances, regulations and anti-pollution laws.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Use only those cleaning materials which will not create hazards to health or property and which will not damage surfaces.
- B. Use only those cleaning materials and methods recommended by manufacturer of the surface material to be cleaned.
- C. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.
- D. Materials required for this Section shall be of the same quality as materials that are to be restored. Where possible, the Contractor shall reuse existing materials that are removed and then replaced.

PART 3 - EXECUTION

3.01 DURING CONSTRUCTION

- A. Execute daily cleaning to keep the Work, the site and adjacent properties free from accumulations of waste materials, rubbish and windblown debris, resulting from construction operations or personal activities.
- B. Provide on-site containers for the collection of waste materials, debris and rubbish.
- C. Remove waste materials, debris and rubbish from the site periodically, or as directed by the Owner and dispose of at legal disposal areas away from the site.

3.02 DUST CONTROL

- A. The Contractor shall employ construction techniques that minimize the production and distribution of dust.
- B. Clean interior spaces prior to the start of finish painting and continue cleaning on an as-needed basis until painting is finished.
- C. Schedule operations so that dust and other contaminants resulting from cleaning process will not fall on wet or newly-coated surfaces.

3.03 RESTORATION OF DRIVEWAYS, FENCES, AND SIDEWALKS

- A. Existing public and private driveways and sidewalks disturbed by the Contractor shall be replaced. Paved drives shall be repaved to the limits and thickness existing prior to construction. Gravel drives shall be replaced and regraded. Concrete driveways and sidewalks shall be replaced.
- B. The Contractor shall remove, store and replace existing fences during construction. Only the sections directed by the Engineer shall be removed. If any section of fence is damaged due to the Contractor's negligence, it shall be replaced with fencing equal to or better than that damaged, and the work shall be satisfactory to the Engineer.

3.04 INCIDENTAL WORK

- A. Do all incidental work not otherwise specified, but obviously necessary for the proper completion of the contract as specified and as shown on the Drawings.

3.05 FINAL CLEANING

- A. Employee skilled workman for final cleaning.
- B. Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels, and other foreign materials from sight-exposed interior and exterior surfaces.
- C. Prior to final completion, or Owner occupancy, Contractor shall conduct an inspection of sight-exposed interior and exterior surfaces and all work areas, to verify that the entire Work site is clean.

END OF SECTION

SECTION 01 75 16
STARTUP PROCEDURES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Work may be segmented into several phases of construction in a logical order to meet the project schedule. Portions of the Work may be utilized prior to Substantial Completion of all the Work. Also, certain items of equipment are to be temporarily utilized in a phased segment of the Work and then relocated in a subsequent phase in a permanent installation.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 PRELIMINARY MATTERS

- A. Start-up Certification: Prior to start-up, successfully complete all testing required of the individual components of work in the presence of the Engineer or their representative.
- B. Demonstrate to the Engineer that all temporary jumpers and/or bypass have been removed and that all components are operating under their own controls as designated.
- C. Coordinate start-up activities with equipment suppliers, subcontractors, and the Owner's operating personnel at the site and with the Engineer prior to commencing system start-up. All coordination is the responsibility of the Contractor.

3.02 START-UP

- A. Confirm that all equipment is properly installed and that the flow path through the new work is unobstructed.
- B. Make adjustments as necessary.

3.03 START-UP DEMONSTRATION AND TESTING

- A. After all Work components have been constructed, field tested and started up in accordance with the individual specifications, perform the start-up demonstration and testing in the presence of the Engineer and the Owner. The demonstration shall be held upon completion of all systems at a date to be agreed upon in writing with the Owner.

- B. Acceptability of the Work's performance will be based on the Work performing as specified, under these actual and simulated operating conditions as defined in the Contract Documents. The intent of the start-up demonstration and testing is for the Contractor to demonstrate to the Owner and the Engineer the Work will function as a complete and operable system under normal operating conditions and is ready for acceptance.
- C. Certificate of Completed Demonstration: Submit five (5) copies of Demonstration Certification memo signed by the Contractor, Subcontractor and Owner and insert one (1) copy in each Operation and Maintenance Manual.

EQUIPMENT TRAINING & STARTUP CHECKLIST

PROJECT: _____

OWNER: _____

Engineer: _____

CONTRACTOR: _____

DATE: _____

STRUCTURE: _____

EQUIPMENT DESCRIPTION:

VENDOR: _____

REPRESENTATIVE: _____ INIT.: _____

of training days required: _____ # received:

STARTUP/TRAINING DESCRIPTION:

COMMENTS:

ACCEPTABLE: __ PARTIALLY ACCEPTABLE: __ NON-ACCEPTABLE:

ATTENDEES:

<u>NAME</u>	<u>AFFILIATION</u>	<u>DATE</u>
_____	_____	
_____	_____	
_____	_____	
_____	_____	
_____	_____	

END OF SECTION

SECTION 01 77 00
CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Scope of Work: Comply with requirement stated in Conditions of the Contract and in Specifications for administrative procedures in closing out the Work.
- B. Related Requirements Described Elsewhere:
 - 1. Startup Procedures: Section 01 75 16
 - 2. Cleaning and Waste Management: Section 01 74 00
 - 3. Project Record Documents: Section 01 78 39
 - 4. Operation and Maintenance Data: Section 01 78 23
 - 5. Bonds: Section 01 78 33
 - 6. Warranties: Section 01 78 36

1.02 SUBSTANTIAL COMPLETION

- A. The Work will not be substantially complete, and Contractor may not request substantial completion inspection unless the following submittals and work is completed:
 - 1. All Operation and Maintenance manuals have been submitted and approved to the requirements of Section 01 78 23.
 - 2. All equipment has been checked-out by the equipment manufacturer and Certificates of Manufacturer's Check-Out has been submitted as required by Section 01 75 16.
 - 3. All start-up and demonstration testing completed, and Certificates of Completed Demonstration submitted to the requirements of Section 01 75 16.
 - 4. Project Record Documents are complete and have been submitted and reviewed to the requirements of Section 01 78 39.
 - 5. All training of Owner's personnel completed.
 - 6. All areas to be used and occupied are safe, operable in automatic and complete.

7. All building occupancy certificates have been issued by the appropriate building permitting agency.
 8. All painting, finishes, fencing, cleanup, final grading, grassing, planting, sidewalk construction, and paving shall have been completed and ready for inspection.
 9. All deficiencies noted on inspection reports or nonconformances are corrected or the correction plan approved.
- B. When the conditions of paragraph 1.02 A. are met the Contractor shall submit to the Engineer:
1. A written notice that he considers the Work, or portion thereof, is substantially complete, and requests an inspection.
 2. A punchlist of items to be corrected. (Uncompleted work which is not related to the safe, effective, efficient use of the Project may be allowed on the punchlist with the Engineer's approval.)
- C. Within ten (10) working days after receipt of such notice, the Engineer will make an inspection to determine the status of completion.
- D. Should the Engineer determine that the Work is not substantially complete:
1. The Engineer will promptly notify the Contractor in writing, giving the reasons therefore.
 2. Contractor shall remedy the deficiencies in the Work and send another written notice of substantial completion to the Engineer.
 3. The Engineer will, within ten (10) working days, reinspect the Work. The Contractor will be liable for reinspection fees as described in paragraph 1.04, herein.
- E. When the Engineer finds that the Work is substantially complete, he will:
1. Schedule a walk-through of the facility to include the Owner. Engineer shall determine the completeness of the punchlist and readiness of the facility for occupancy by the Owner.
 2. Prepare and deliver to Owner a tentative Certificate of Substantial Completion with the tentative punchlist of items to be completed or corrected before final inspection.

3. After consideration of any objections made by the Owner as provided in Conditions of the Contract, and when the Engineer considers the Work substantially complete, he will execute and deliver to the Owner and the Contractor a definite Certificate of Substantial Completion with a revised tentative list of items to be completed or corrected. Any incomplete work allowed on a punchlist must be reinspected upon completion and any deficiencies found will be added to the punchlist.

1.03 FINAL INSPECTION

- A. Prior to Contractor's request for a final inspection the following submittals and work must be complete:
 1. Project Record Documents must be approved.
 2. All spare parts and maintenance materials must be suitably delivered to the Owner per the requirements of the Technical Sections of the Specifications.
 3. Contractor to submit evidence of compliance with requirements of governing authorities.
- B. After satisfying the requirements of paragraph 1.03 A. and when Contractor considers the Work complete, he shall submit written certification that:
 1. Contract Document requirements have been met.
 2. Work has been inspected for compliance with Contract Documents.
 3. Work has been completed in accordance with Contract Documents.
 4. Equipment and systems have been tested in the presence of the Owner's representative and are operational.
 5. All punchlist items have been corrected or completed and the Work is ready for final inspection.
- C. The Engineer will, within ten (10) working days, make an inspection to verify the status of completion after receipt of such certification.
- D. Should the Engineer consider that the Work is incomplete or defective:
 1. The Engineer will promptly notify the Contractor in writing, listing the incomplete or defective work.

2. Contractor shall take immediate steps to remedy the stated deficiencies and send another written certification to the Engineer that the Work is complete.
 3. The Engineer will, within ten (10) working days, reinspect the Work and the Contractor shall be liable for reinspection fees as described in paragraph 1.04, herein.
- D. When the Engineer finds that the Work is acceptable under the Contract Documents, the Contractor may make closeout submittals.

1.04 REINSPECTION FEES

- A. Should the Engineer perform reinspections due to failure of the Work to comply with the claims of status of completion made by the Contractor:
1. Contractor will compensate the Owner for such additional services.
 2. Owner will deduct the amount of such compensation from the final payment to the Contractor.

1.05 CONTRACTOR'S CLOSEOUT SUBMITTALS

- A. Warranties and Bonds: To requirements of Sections 01 78 36 and 01 78 33.
- B. Evidence of Payment and Release of Liens: To requirements of General and Supplementary Conditions.
- C. Certificate of Insurance for Products and Completed Operations.

1.06 FINAL ADJUSTMENT OF ACCOUNTS

- A. Submit a final statement of accounting to the Engineer.
- B. Statement shall reflect all adjustments to the Contract Sum:
1. The original Contract Sum.
 2. Additions and deductions resulting from:
 - a. Previous change orders or written amendment.
 - b. Allowances.
 - c. Unit prices.
 - d. Deductions for uncorrected work.

- e. Penalties and bonuses.
 - f. Deductions for liquidated damages.
 - g. Deductions for reinspection payments
 - h. Other adjustments.
- 3. Total Contract Sum, as adjusted.
- 4. Previous payments.
- 5. Sum remaining due.
- C. Engineer will prepare a final Change Order, reflecting approved adjustments to the Contract Sum which were not previously made by Change Orders.

1.07 FINAL APPLICATION FOR PAYMENT

- A. Contractor shall submit the final Application for Payment in accordance with procedures and requirements stated in the Conditions of the Contract.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 78 23
OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. Compile product data and related information appropriate for Owner's maintenance and operation of products furnished under Contract.
2. Prepare operating and maintenance data as specified in this Section and as referenced in other pertinent sections of the Specifications.
3. Instruct Owner's personnel in maintenance of products and in operation of equipment and systems.

B. Related Requirements Described Elsewhere:

1. Section 01 33 23: Shop Drawings, Product Data, and Samples
2. Section 01 78 39: Project Record Documents
3. Section 01 78 33: Bonds
4. Section 01 78 36: Warranties

1.02 QUALITY ASSURANCE

A. Preparation of data shall be done by personnel:

1. Trained and experienced in maintenance and operation of described products.
2. Familiar with requirements of this Section.
3. Skilled as a technical writer to the extent required to communicate essential data.
4. Skilled as draftsman competent to prepare required drawings.

1.03 FORM OF SUBMITTALS

A. Prepare data in form of an instructional manual for use by Owner's personnel.

B. Hard Copy Format:

1. Size: 8½" x 11 inches
2. Paper: 20 pound minimum, white, for typed pages.
3. Text: Manufacturer's printed data, or neatly typewritten

4. Drawings:
 - a. Provide reinforced punched binder tab, bind in with text.
 - b. Reduce larger drawings and fold to size of text pages but not larger than 14 inches x 17 inches.
5. Provide fly-leaf for each separate product, or each piece of operating equipment.
 - a. Provide typed description of products and major component parts of equipment.
 - b. Provide indexed tabs.
6. Cover: Identify each volume with typed or printed title "OPERATING AND MAINTENANCE INSTRUCTIONS". List:
 - a. Title of project.
 - b. Identity of separate structure as applicable.
 - c. Identity of general subject matter covered in the manual.
7. Binders:
 - a. Commercial quality three-post binders with durable and cleanable plastic covers.
 - b. Maximum post width: 2 inches.
 - c. When multiple binders are used, correlate the data into related consistent groupings.

C. Electronic Format Copy

1. Provide electronic copy of operation and maintenance data on CD/DVD or portable storage device. File(s) should be organized/named to correspond with hard copy.

1.04 CONTENT OF MANUAL

- A. Neatly typewritten table of contents for each volume, arranged in systematic order.
 1. Contractor, name of responsible principal, address and telephone number.

2. A list of each product required to be included, indexed to content of the volume.
 3. List, with each product, name, address and telephone number of:
 - a. Subcontractor or installer.
 - b. A list of each product required to be included, indexed to content of the volume.
 - c. Identify area of responsibility of each.
 - d. Local source of supply for parts and replacement.
 4. Identify each product by product name and other identifying symbols as set forth in Contract Documents.
- B. Product Data:
1. Include only those sheets which are pertinent to the specified product.
 2. Annotate each sheet to:
 - a. Clearly identify specific product or part installed.
 - b. Clearly identify data applicable to installation.
 - c. Delete references to inapplicable information.
- C. Drawings:
1. Supplement product data with drawings as necessary to clearly illustrate:
 - a. Relations of component parts of equipment and systems.
 2. Coordinate drawings with information in Project Record Documents to assure correct illustration of completed installation.
 3. Do not use Project Record Documents as maintenance drawings.

- D. Written text, as required to supplement product data for the particular installation:
 - 1. Organize in consistent format under separate headings for different procedures.
 - 2. Provide logical sequence of instructions of each procedure.
- E. Copy of each warranty, bond and service contract issued.
 - 1. Provide information sheet for Owner's personnel, give:
 - a. Proper procedures in event of failure.
 - b. Instances which might affect validity of warranties or bonds.

1.05 MANUAL FOR MATERIALS AND FINISHES

- A. Submit four copies of the complete manual in final form.
- B. Content: for architectural products, applied materials and finishes:
 - 1. Manufacturer's data, giving full information on products
 - a. Catalog number, size, and composition.
 - b. Color and texture designations.
 - c. Information required for reordering special manufactured products.
 - 2. Instructions for care and maintenance
 - a. Manufacturer's recommendation for types of cleaning agents and methods.
 - b. Cautions against cleaning agents and methods which are detrimental to product.
 - c. Recommend schedule for cleaning and maintenance.
- C. Content, for moisture protection and weather-exposed products:
 - 1. Manufacturer's data, giving full information on products.
 - a. Applicable standards.

- b. Chemical composition.
 - c. Details of installation.
 - 2. Instructions for inspection, maintenance and repair.
- D. Additional requirements for maintenance data: Applicable sections of the Specifications.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 78 36
WARRANTIES

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. Compile specified warranties as specified in these Specifications.
2. Co-execute submittals when so specified.
3. Review submittals to verify compliance with Contract Documents.
4. Submit to Engineer for review and transmittal to Owner.

1.02 SUBMITTAL REQUIREMENTS

A. Assembly warranties and service and maintenance contracts, executed by each of the respective manufacturers, suppliers, and subcontractors.

B. Number of original signed copies required: Two (2) each.

C. Table of Contents: Neatly typed, in orderly sequence. Provide complete information for each item.

1. Product of work item.
2. Firm, with name of principal, address and telephone number.
3. Scope.
4. Date of beginning of warranty or service and maintenance contract.
5. Duration of warranty or service maintenance contract.
6. Provide information for Owner's personnel:
 - a. Proper procedure in case of failure.
 - b. Instances which might affect the validity of warranty.
7. Contractor, name of responsible principal, address and telephone numbers.

1.03 FORM OF SUBMITTALS

A. Prepare in duplicate packets.

B. Format:

1. Size 8 ½" x 11 inches, punch sheets for standard three-post binder.
 - a. Fold larger sheets to fit into binders.
2. Cover: Identify each packet with typed or printed title "WARRANTIES". List:
 - a. Title of Project.
 - b. Name of Contractor.

- C. Binders: Commercial quality, three-post binder, with durable and cleanable plastic covers and maximum post width of two inches.

1.04 WARRANTY SUBMITTALS REQUIREMENTS

- A. For all major pieces of equipment, submit a warranty from the equipment manufacturer. Manufacturer's warranty period shall be concurrent with Contractor's for one (1) year, unless otherwise specified, commencing at the time of final acceptance by Owner.
- B. Contractor shall be responsible for obtaining certificates for equipment warranty for all major equipment which has at least a 1 hp motor or which lists for more than \$1,000. Engineer reserves the right to request warranties for equipment not classified as major. Contractor shall still warrant equipment not considered to be "major" in the Contractor's one-year warranty period even though certificates of warranty may not be required.
- C. In the event that the equipment manufacturer or supplier is unwilling to provide a one-year warranty commencing at the time of Owner acceptance, the Contractor shall obtain from the manufacturer a two (2) year warranty commencing at the time of equipment delivery to the job site. This two-year warranty from the manufacturer shall not relieve the Contractor of the one-year warranty starting at the time of Owner acceptance of the equipment.
- D. Owner shall incur no labor or equipment cost during the guarantee period.
- E. Guarantee shall cover all necessary labor, equipment and replacement parts resulting from faulty or inadequate design, improper assembly or erection, defective workmanship and materials, leakage, breakage or other failure of all equipment and components furnished by manufacturer.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

01 78 36-2

SECTION 01 78 39
PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Maintain at the site for the Owner one record copy of:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications of the contract.
 - 5. Engineer's Field Orders or written instructions.
 - 6. Approved Shop Drawings.
 - 7. Field Test records.
 - 8. Construction photographs, preconstruction videos, and pipeline videos.
 - 9. Preliminary as-built drawings.

B. RELATED WORK SPECIFIED ELSEWHERE

- 1. Section 00 80 00: Supplementary Conditions

1.02 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Store documents and samples in Contractor's field office apart from documents used for construction.
 - 1. Provide files and racks for storage of documents.
 - 2. Provide locked cabinet or secure storage space for storage of samples.
- B. File documents and samples in accordance with CSI format with section numbers as provided herein.
- C. Maintain documents in a clean, dry, legible, condition and in good order. Do not use record documents for construction purposes.
- D. Make documents and samples available at all times for inspection by the Engineer.
- E. As a prerequisite for monthly progress payments, the Contractor shall provide the currently updated "Record Documents" for review by the Engineer and Owner.

1.03 MARKING DEVICES

- A. Provide felt tip marking pens for recording information in the color code designated by the Engineer.

1.04 RECORDING

- A. Label each document. "PROJECT RECORD" in neat large printed letters.
- B. Record information concurrently with construction progress. Do not conceal any work until required information is recorded.
- C. Drawings: Legibly mark to record actual construction:
 - 1. Depths of various elements of foundation in relation to finish first floor datum.
 - 2. All underground piping with elevations and dimensions. Change to piping location. Horizontal and vertical locations of underground utilities and appurtenances referenced to permanent surface improvements. Actual installed pipe materials, class, etc.
 - 3. Location of internal utilities and appurtenances concealed in the construction, referenced to visible and accessible features of the structure.
 - 4. Field changes of dimensional and detail.
 - 5. Changes made by Field Order or by Change Order.
 - 6. Details not on original contract drawings.
 - 7. Equipment and piping relocations.
 - 8. Major architectural and structural changes including relocation of doors, windows, etc.
 - 9. Architectural schedule changes according to Contractor's records or shop drawings.
 - a. Contractor shall provide copies of all such recordings to the Contractor's surveyor for incorporation into the preliminary and final as-builts drawings.

- D. Specifications and Addenda: Legibly mark each section to record:
1. Manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.
 2. Changes made by Field Order or by Change Order.
- E. Shop Drawings (after final review and approval): Provide four (4) sets of record drawings for each process equipment, piping, electrical system and instrumentation system.

1.05 SUBMITTAL

- A. Accompany each submittal with transmittal letter in duplicate, containing:
1. Date.
 2. Project title and number.
 3. Contractor's name and address.
 4. Title and number of each Record Document.
 5. Signature of Contractor of his authorized representative.
- B. Preliminary As-built Drawings: The Contractor shall submit to the Engineer two (2) paper copies of preliminary as-built drawings prepared and signed/sealed by the Contractor's surveyor with each monthly progress payment request. Preliminary as-built drawings shall conform to the requirements of final as-built drawings and shall represent the completed work to date. Preliminary as-built drawings shall include all work which the Contractor is requesting to be paid for.
- C. Final As-built Drawings: Upon project closeout and as a prerequisite to the final pay request, the Contractor shall submit to the Engineer final as-built drawings Administrative Code, pursuant to Section 472.027 of the Florida Statutes. The Engineer shall supply the Contractor copies of AutoCAD files for the Contractor's use in the as-built drawing preparation. Final as-built drawings shall include all work which the Contractor is requesting to be paid for. The final as-built drawing submittal shall include:
1. Two (2) sets of paper plans signed and sealed by a professional land surveyor licensed in the State of Florida and CD(s) or other media containing AutoCAD, version 2015 or higher, drawing files.
 2. AutoCAD drawing files shall include as-built information on layers separate from the original drawing layers and shall be named descriptively to represent the as-built features. (i.e. - Layer "wat ab" and "wat ab txt" for water as-built line work and text, respectively.) Drawing entities are to be shown on the correct layer. All as-

built entities shall have color and line type set "by-layer". Text sizes shall be relative to the plotted scale. Additional details or exploded views shall be included to accurately and fully represent the as-built conditions.

3. Certification by surveyor that the as-built information shown is accurate and that all improvements shown were constructed within or on public rights-of-way, easements or property specifically owned by the Owner. Certification shall be to the Owner, Engineer and St. Johns River Water Management (if applicable.)
4. No line work and text shall be erased from the original design (construction) drawings during the as-built drawing preparation. Original line work or text shall be circled if accurate or stricken (not erased) if not with the accurate information noted/shown. New line work and text shall be provided to accurately show the as-built information for the constructed improvements. Revisions to design dimensions alone will not be permitted.
5. Pressure Pipeline and Utility Conduit Improvements: For utility improvement projects, horizontal locations of the constructed pipelines with respect to the right-of-way lines or other readily visible, permanent features at 100-foot minimum intervals and at critical locations such as road intersections shall be shown. For treatment plant and pump station improvements, horizontal locations shall be provided at 20-foot intervals. Vertical locations of the constructed pipelines by elevation of centerline of pipe for above ground/exposed pipe or with respect to finished grade over buried pipe shall be shown at 100 feet minimum intervals. (i.e. final cover) For underground piping, all valves, blow-offs, stub-outs, pigging stations, fire hydrants, backflow preventers and services shall be located horizontally in relation to readily visible, permanent features with three-way horizontal dimensions less than 100 feet, each. Three-way dimensions to all buried fittings on treatment plant and pump station improvement projects shall be provided. If adequate features are not available, a station and offset dimensioning system can be used if prior approval is obtained from the Engineer. For above ground/exposed pipe, as-built dimensions between fittings or flanges shall be provided. Separations between "sanitary hazards" to potable water and reclaimed water mains per FDEP shall be shown.
6. Gravity Pipeline Improvements: Show elevations for all inverts, manhole tops, inlet throats/weirs, grate tops, etc. Show size and type of each structure. As-built length, size and type of pipes between the structures shall be shown. All service laterals and cleanouts shall be located horizontally to readily visible, permanent features with three-way horizontal dimensions less than 100 feet, each. If adequate features are not available, a station and offset dimensioning system can be used if prior approval is obtained from the Engineer. A labeling and dimension table scheme is recommended for the three way or station/offset dimensioning.

(i.e. - constructed feature labeled as "A", permanent feature labeled as "B", "A"-
"B" dimension shown in table for distance measured between the two. Use
continuous labeling and complete single table per plan sheet.) Separations
between gravity "sanitary hazards" to potable water and reclaimed water mains
per FDEP shall be shown.

7. Roadway Improvements: Elevation, size and location of swales, ditches, gutter flowlines, edge of pavement, and road crown on both sides of the road if applicable shall be provided at 100-foot minimum intervals and at critical areas such as intersections and inlets/flumes. As-built points of curvature, tangent and vertical intersection, along with radii of road alignment, intersecting streets and driveways and other alignment information shall be provided.
8. Stormwater Improvements: The limits, slopes and bottom depths of stormwater ponds, swales and other retention areas shall be provided. All stormwater piping information shall conform to the Gravity Pipeline Improvement requirements. Size, type, material, and elevations of all stormwater structures, including appurtenances such as weirs, orifices, skimmer plates, etc. shall be shown. As-built information shall conform to St. Johns River Water Management District requirements.
9. Treatment Facility Improvements: Location, size, number, and type of treatment equipment and structures shall be shown. Applicable requirements of as-built information listed herein for similar improvements shall be required.
10. Building Improvements: Finished floor elevations, ceiling heights, building locations, wall opening dimensions, equipment (electrical, mechanical, plumbing) locations, etc. shall be provided. Change of material shall be specifically noted as such.
11. Landscaping Improvements: Number, type, size, and general location of installed plant material shall be provided. Change of material shall be specifically noted as such. Location of irrigation meters, services, manual valves, automatic valves, controllers, rain shut off switches, etc. shall be shown. Changes to the designed irrigation system shall be shown.
12. Other Improvements: Changes from the original design of other improvements such as electrical, mechanical and structural improvements shall be noted as such on the as-built drawings with the size, number, type and location of the constructed/installed improvements noted.
13. Contractor may be required to reimburse the Owner for services rendered by the Engineer for review of multiple resubmittals.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 02 41 00
DEMOLITION

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. This Section includes furnishing all labor, materials, equipment and incidentals required for selective site demolition.
2. This Section provides for the complete or partial removal and disposal of specified existing structures, foundations, piping, mechanical, and miscellaneous appurtenances encountered during construction operations.
3. This Section specifies certain activities necessary to maintain and facilitate operation during and immediately following construction and do not purport to cover all the activities necessary. The Contractor shall exercise due care for the existing system operation and shall maintain continuous operation of the existing lift station and the overall wastewater service and minimize operation inconvenience. In accordance with this requirement, a Demolition and Removal Plan shall be developed in accordance with Paragraph 1.06.
4. Demolition includes:
 - a. Demolition, complete or partial removal and cutting of existing piping and/or structures as required for the new construction.
 - b. Disposal of salvageable and excess unacceptable material as specified below.
 - c. Complete removal and off-site disposal of excess and unacceptable materials.
5. The Contractor shall examine the various drawings regarding the proposed site, visit the proposed site and determine for himself the extent of the work, the extent of work affected therein and all conditions under which he is required to perform the various operations.
6. Specific piping and/or structures to be partially or completely demolished are identified in the Construction Drawings.

1.02 PERMITS AND NOTICES

- A. Permits and Licenses: Contractor shall obtain all necessary permits and licenses for performing the work and shall furnish a copy of same to the Engineer prior to commencing the work. The Contractor shall comply with the requirements of the permits.
- B. Notices: Contractor shall issue written notices of planned demolition to Owner, Engineer and companies or local residents located within the project site. Notices shall be received at least 48 hours in advance of the planned demolition activity.
- C. Utility Services: Contractor shall notify utility companies or local authorities furnishing gas, sewer, water, electrical or telephone to remove any equipment owned by them in structures to be demolished and to remove, disconnect, cap or plug their services to facilitate demolition.

1.03 CONDITIONS OF PIPING AND/OR STRUCTURES

- A. The Standard Building Codes shall control the demolition, modification or alteration of the existing piping and structures.
- B. No blasting shall be done on site. The Contractor shall not bring or store any explosives on site.

1.04 DISPOSAL OF MATERIAL

- A. Salvageable material shall become the property of the Owner, if the Owner requests any specific item. The Contractor shall dismantle all materials to such a size that it can readily handle and deliver any of this salvageable material requested by the Owner to a storage area designated by the Owner.
- B. The following materials are examples of the type that the Owner may maintain ownership of:
 - 1. Valves greater than 3 inches in diameter.
 - 2. Water meters on service connections.
- C. Any materials that the Owner rejects shall become the Contractor's property and must be removed from the site.
- D. Concrete, concrete block and unsalvageable bricks shall be hauled to a waste disposal site by the Contractor.
- E. All other material shall be hauled to a waste disposal site by the Contractor.

- F. The storage of or sale of removed items on the site will not be allowed.

1.05 SUBMITTALS

- A. Submit to the Engineer for approval, two (2) copies of the proposed Demolition and Removal Plan for the modifications as shown on the Drawings or as specified herein prior to the start of work. Include in the schedule the coordination of shutoff, capping and continuation of utility service as required. The Demolition and Removal Plan shall include as a minimum, the following:
 - 1. A detailed sequence of demolition and removal work to insure the uninterrupted operation of the Owner's utility systems, and the expeditious completion of the Contractor's work.
 - 2. Evidence (by signature) of approval by the Owner of the work plan.
- B. Before commencing demolition work, all modifications necessary to bypass the affected portion of the system will be completed. Contractor shall coordinate with the residential Owner's personnel to determine the locations of the affected valves, fittings and water meters.
- C. The above procedure must be followed for each individual demolition operation.

1.06 TRAFFIC AND ACCESS

- A. Conduct demolition and modification operation, and removal of piping and debris to ensure minimum interference with roads, streets, and sidewalks both onsite and off-site and to ensure minimum interference with occupied or used facilities.
- B. Contractor shall at all times maintain safe and convenient access to the existing site.
- C. Do not close or obstruct streets or walks without permission from the Owner and Engineer. Provided alternate traffic routes around closed or obstructed access ways.

1.07 DAMAGE

- A. Promptly repair damage caused to adjacent facilities by demolition operations at no cost to the Owner.

1.08 UTILITIES

- A. Maintain existing utilities to remain in service and protect against damage during demolition operations. This may include the installation/construction of bypass piping where necessary.
- B. Do not interrupt existing utilities serving occupied or used facilities, except when authorized by the Owner and Engineer. Provide temporary services during interruption to existing utilities as required by the Owner.
- C. The Contractor shall cooperate with the Owner to shut off utilities serving the existing facilities as required by demolition operations. If service must be cut off to existing customers, the Owner must have at least three (3) days' notice to make necessary preparations.
- D. The Contractor shall be solely responsible for making all necessary arrangements and for performing any necessary work involved in connection with the discontinuance or interruption of all public and private utilities or services under this jurisdiction of utility companies.
- E. All utilities being abandoned shall be disconnected and terminated at the service mains in conformance with requirements of the utility companies or the municipality owning or controlling them.

1.09 POLLUTION CONTROL

- A. For pollution control, use water sprinkling, temporary enclosures, and other suitable methods as necessary to limit the amount of dust and dirt rising and scattering in the air to the lowest level of air pollution practical for the conditions or work. Comply with the governing regulations.
- B. Clean structures and improvements of all dust, dirt and debris caused by demolition operations as directed by the Engineer. Return areas to conditions existing prior to the start of work.

1.10 QUALITY CONTROL

- A. Protect all existing materials and equipment to be salvaged or reused from damage.
- B. Cap or plug all lines to be abandoned.
- C. Leave all exposed ends of all pipe covered and safe.

PART 2 - MATERIALS (NOT USED)

PART 3 - EXECUTION

3.01 SEQUENCE OF WORK

- A. The sequence of demolition and removal of the existing facilities will be in accordance with the approved Demolition and Removal Plan as specified in Paragraph 1.05 of this Section. The Contractor is solely responsible for construction and demolition sequencing of the Work.

3.02 REMOVAL OF EXISTING PIPING AND APPURTENANCES

- A. Subject to the constraints of maintaining the existing systems in operation, existing piping and appurtenances not necessary for the operation of the new system shall be removed as shown or indicated on the Drawings.
- B. All piping and appurtenances shall be cleaned, flushed and drained. Equipment to be retained by the Owner as specified in Paragraph 1.04 above shall be dismantled sufficiently to permit thorough cleaning and draining. All valves shall be left open. All abandoned piping shall be capped and sleeves and openings remaining after removal of the existing equipment, piping, and appurtenances shall be plugged and sealed as shown on the Drawings.
- C. All water meters on residential service connections located within the right-of-way that have not been relocated and connected to the new service lines shall be removed and given to the Owner.

3.03 STRUCTURES TO BE COMPLETELY DEMOLISHED

- A. Existing structures shall be completely demolished as shown on the Drawings. Structures shall be demolished to make room for construction of new facilities, unless otherwise shown on the Drawings. All demolished material shall be removed from site.

END OF SECTION

SECTION 03 30 00
CAST IN PLACE CONCRETE

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. The work included under this section consists of furnishing all materials, forms, transportation and equipment, and performing all necessary labor to do all the plain and reinforced concrete work shown on the Drawings, or incidental to the proper execution of the work, or as herein specified.
- B. Composition: Concrete shall be composed of cement, fine aggregate, coarse aggregate, and water so proportioned and mixed as to produce a plastic workable mixture in accordance with all requirements under this section suitable to the specific conditions of placement.

1.02 SUBMITTALS

- A. All materials specified shall be certified by the producer or manufacturer that the furnished material meets the specific requirements of the specifications. Concrete mix designs shall be submitted for approval prior to placement.

1.03 CODES AND STANDARDS

- A. ACI 301 "Specifications for Structural Concrete for Buildings", ACI 318" Building Code Requirements for Structural Concrete", ACI 347 "Recommended Practice for Concrete Formwork"; ACI 304 "Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete"; comply with applicable provisions except as otherwise indicated.

1.04 TESTING

- A. Air content shall be in accordance with American Society for Testing Materials Standard Methods C 173, one for each set of compressive strength specimens.
- B. Sampling of freshly mixed concrete shall be in accordance with ASTM C172.
- C. Slump: ASTM C-143
- D. Test results will be reported in writing to Engineer, Contractor, Owner and Concrete producer on same day tests are made.
- E. Laboratory Reports: Submit two (2) copies of laboratory test or evaluation reports for concrete materials and mix designs.

PART 2 - MATERIALS AND EQUIPMENT

2.01 PORTLAND CEMENT

- A. Shall comply with the standard specifications for Portland Cement, A.S.T.M. designation C-150, Type II, or Type III (high-early), where indicated on drawings.

2.02 CONCRETE AGGREGATE

- A. Shall conform to standard specifications for concrete aggregate, A.S.T.M. Designation C-33 or to ASTM C-330. Maximum size of aggregate shall not exceed one-fifth of the narrowest dimension between reinforcing bars.
- B. Fine Aggregate - Fine aggregate shall be clean, hard, strong, durable, uncoated particles of natural sand known as Lake Wales, Interlachen, or approved equal. The source, composition, quality and gradation of the fine aggregate shall be subject to the approval of the Engineer. Samples of the sand shall be furnished, together with certified copies of the gradation and analysis from the recognized testing laboratory.

1. The weight of extraneous or deleterious substances shall not exceed the following percentages:

Loss by Decantation	3%
Shale	1%
Clay Lumps	1%
Coal and Lignite	1%

2. The fine aggregate shall be reasonably well graded from coarse to fine and when tested by means of laboratory sieves shall meet the following requirements in percent of total weight:

<u>Total Retained On</u>	<u>Percent Retained</u>
No. 4 Sieve	0 - 5
No. 10 Sieve	3 - 30
No. 30 Sieve	30 - 70
No. 50 Sieve	65 - 95
No. 100 Sieve	95 - 100

- C. Deficiencies in the percentages of the fine aggregates passing the No. 50 and No. 100 Sieves may be remedied by the addition of pozzolanic or cementitious materials excepting Portland cement. Such materials must meet the approval of the Engineer.

D. Coarse Aggregate.

1. Coarse aggregate shall consist of hard, tough, durable components free from adherent coatings and vegetable matter, and shall not contain soft, friable, thin or elongated particles in quantities considered deleterious by the Engineer. Coarse aggregate shall be properly graded from fine to coarse to produce concrete of desired strength, density, and workability. The source, composition, quality and gradation of the coarse aggregate shall be subject to the approval of the Engineers. Samples of the coarse aggregate shall be furnished together with certified copies of the gradation and analysis from a recognized testing laboratory.
2. All coarse aggregate shall be washed and shall be free from disintegrated pieces, salt, alkali, vegetable matter and adherent coatings. The total percentage of all deleterious substances shall not exceed five percent (5%) by weight. The substances designated shall not be present in excess of the following amounts.

Loss by Decantation	1%
Clay Lumps or Other Soluble Materials	3%
Soft Fragments	5%

3. Where the cover over reinforcing is 2 inches or more, the maximum size of aggregate shall be 12 inches. Where the cover over reinforcing is less than 2 inches, the maximum size of aggregate shall be 3/4 inch. The maximum size of aggregate shall not exceed one-fifth of the narrowest dimension between forms nor three-fourths of the minimum clear spacing between reinforcing bars. The grading of the coarse aggregate in the concrete shall be within the following limits.

Percent Passing

Maximum Size Square Mesh Screen	97 - 100%
2 Maximum Size Square Mesh Screen	40 - 70%
No. 4 Sieve	0 - 6%

2.03 WATER

- A. Water shall be clean and free from oil, acids, alkalis, organic materials or other injurious substances.

2.04 REINFORCEMENT

- A. Reinforcing Bars: ASTM A615, Grade 60, deformed bars of USA manufacture.
- B. Welded Wire Fabric: ASTM A185, gauges, spacing and dimensions as indicated.

- C. Metal Bar Supports: CRSI MSP-1, Chapter 3, Class 2, Type B, Stainless Steel Protected Bar Supports, or otherwise approved by the Engineer. Use concrete supports for reinforcement in concrete placed on grade.
- D. Tie Wire: 16 gauge minimum, black, soft annealed.
- E. Coupler Splice Devices: Cadweld tensions couplers, capable of developing the ultimate strength of the bar as manufactured by Erico Products, Incorporated, Solon, Ohio, or equal.
- F. Epoxy coated or FRP rebar shall be used for all marine applications.

2.05 FORM WORK

- A. Lumber: Douglas Fir or Larch, No. 2 grade, seasoned and surfaced on four sides.
- B. Plywood: Plyform, Class 1, BB-Exterior type, mill oiled, and edge sealed, with thickness not less than 3/4 inch.
- C. Medium Density Overlay (MDO) Plywood Forms: PS-1, B-B High Density Concrete Form Overlay, Class I, unoled.
 - 1. Butt form panels, make contact surface fully flush and seal butting holes with sponge form tape. Chamfer edges of beams and ceilings.
 - 2. Where MDO plywood is used to form beams, do not use MDO plywood that has been patched or damaged.
- D. Drip Forms: Varnished ponderosa pine or equally rigid non-staining plastic, 2-inch-wide on each leg.
- E. Steel Forms. Uncoated steel, 3/16-inch minimum thickness, fabricated to close tolerances, protected only by the specified release agent, braced so as not to bend, dent, or dimple under wet concrete load, vibrator impact, and tool impact. Maintain steel form in rust-free condition by use of steel wood and light grinding, followed by coats of specified release agent. Use forms that can be adjusted into true alignment without stops or ridges.
- F. Glass Fiber Reinforced Plastic (FRP) Forms: Smooth coated forms, braced so as not to bend, dent or dimple under wet concrete loads, vibrator impact and tool impact, and at least 0.11 inch thick. Design forms for external bracing at piers and columns, without use of form ties.
- G. Plugged Cone Form Ties: Rod type, with ends or end fasteners which can be removed without spalling the concrete and which leave a hole equal in depth to the required reinforcement clearance. Form ties shall be of a design in which the hole left by the removed end or end fastener is easily filled to match the surface of the hardened concrete.

Provide removable cones 13 inches in diameter by 12 inches deep. Provide preformed mortar plugs to match the color of the concrete, recessed 3 inches, adhered with an approved two-part epoxy.

- H. Weep Hole Forms: PVC polyethylene, or ABS pipe, matching color of the concrete, 4 inch inside diameter, with outlet projecting 12 inches from wall and cutoff in a plane parallel to it.
- I. Circular and Elliptical Column Forms: Fabricate of two (2) pieces, clamped watertight using gaskets and without horizontal joints. Install horizontal construction joints only where indicated or as directed by the Engineer.
- J. Beam Forms: Provide in one length without form joints and suitable for cambering up to 1/160 of span without distortion of profile or opening of seams.
- K. Forms of Hammerhead Pier Caps: Provide in one length with adjustable soffits, bulkheads and screens as necessary to accommodate different hammerhead beam configurations. Provide no construction joints in hammerhead pier caps. Where three or fewer identical hammerhead pier caps occur within a line section, steel braced HDO plywood forms may be substituted for steel forms if:
 - 1. Working drawings of formwork are submitted.
 - 2. Internal form ties are regularly spaced no less than 48 inches each way and are made watertight.
 - 3. Form ties have removable cones, which are filled to match concrete.
 - 4. Joints in panels are fully watertight.
 - 5. The resulting surface matches the appearance of steel formed hammerhead caps, with no visible discoloration due to form leakage.
- L. Styrofoam Board: Expanded polystyrene extruded into board form, closed cell, moisture resistant, capable of maintaining indicated clear space between concrete structures.
- M. Control Joint Filler: Use epoxy joint filler equal to BurkEpoxy Joint Filler to fill voids left by saw cuts and to resist against spalling caused by vehicle traffic in concrete slabs.
- N. Inserts: Galvanized cast steel or galvanized welded steel, complete with anchors to concrete and fittings such as bolts, wedges and straps. Provide hanger inserts spaced to match grid of suspended ceilings.
- O. Shoring: As designed and executed by Contractor to support all loads.

- P. Chamfer Strips: Polyvinyl strips designed to be nailed in the forms to provide a 3/4-inch chamfer at exposed edges of concrete members.
- Q. Form Release Agent: A blend of natural and synthetic chemicals that employs a chemical reaction to provide quick, easy and clean release of concrete from forms, and equal to Eucoslip, by the Euclid Chemical Company, or Release #1, by The Burke Company. Use a non-staining release agent that leaves the concrete with a paintable surface.

2.06 ADMIXTURES

- A. Air Entraining Admixture: ASTM C260.
- B. Water Reducing and Retarding Admixture:
 - 1. Concrete Without Superplasticizer:
 - a. Water Reducing Admixtures: ASTM C494, Type A, equal to Eucon WR-75 by the Euclid Company, Pozzolith 200N by Master Builders, Plastocrete 161 by Sika Chemical Corporation, and containing no calcium chloride.
 - b. Water Reducing and Retarding Admixtures: ASTM C494, Type D, equal to Eucon Retarder-75 by the Euclid Company, Pozzolith 100 XR by Master Builders, Plastiment by Sika Chemical Corporation, and containing no calcium chloride.
 - c. Accelerating Admixtures: ASTM C494, Type C or E, equal to Accelguard 80 by the Euclid Company, Darex Set Accelerator by W.R. Grace, and containing no calcium chloride.
 - 2. Concrete with Superplasticizer:
 - a. Water Reducing, High Range Admixtures: ASTM C494, Type F or G, equal to Eucon 37 by the Euclid Company, Rheobild 716 by Master Builders, Daracem 100 by W.R. Grace, Sikament by Sika Chemical Corporation, and consisting of a second generation admixture, free of chlorides and alkalis (except for those attributable to water) composed of a synthesized sulfonated complex polymer, enabling the concrete to maintain its rheoplastic state in excess of two (2) hours if necessary.
 - b. Manufacturer's Job Site Representation: Provide the services of a competent field service representative from the manufacturer of each of the admixtures selected for use to provide at the job site advice and consultation on the use of the admixture materials, including the effect on

the concrete in place, including recommending maximum discharge time for superplasticizer method and procedure to induce superplasticizer into mixer, quantities of admixtures to be used if variations are required because of temperature/humidity, wind or other environmental considerations, and to be available on short call at any time requested by the Owner, Contractor, or concrete producer.

3. Concrete used in Marine Applications:

- a. Micro Silica admixtures shall be used for concrete installed in marine and coastal applications. Concrete designs shall meet the appropriate requirements of EN206-1, BS 8500 and BS 5075. Contractor shall provide plant certification for all mix designs used in marine and coastal applications.

2.07 GROUT

- A. Nonshrink, Nonmetallic Grout: The Burke Company's Non-Ferrous, Non-Shrink Grout, Sauereisen F-100 Level Fill, Master Builders Masterflow 713, Euclid NS Grout, or equal pre-mixed type.
- B. Nonshrink Metallic Grout: The Burke Company's Metallic Spec Grout, Master Builders Embeco 636 Grout pre-mixed type, or equal.
- C. Epoxy Grout: Sikadur 42 Grout-Pak, or equal, for grouting sleeves for anchor bolts, etc.
- D. Clarifier Basin Grout: Class B concrete of coarse aggregate shall pass the 3/4 inch sieve.

2.08 MEMBRANE CURING COMPOUND.

- A. Membrane curing compound shall be wax-free, pigmented, 100 percent resin base compound such as A.C. Horn's "Horncure 30 C", Hunt Process Corporation; Southern's "All-Resin", or equal.

2.09 BONDING AGENT.

- A. Bonding agent shall be Colma Fix, as manufactured by Sika Chemical Corporation, of Passaic, New Jersey or equal. To be considered equal, the material must be a two-component epoxy-polysulphide resin system, and it must have a demonstrated record of strong adhesion to both wet and dry concrete in either the hardened or the plastic state. It must also be of equal strength.

2.10 ACCESSORIES

- A. Precast Concrete Block Supports for Reinforcing Bars: Comply with ACI 315. Provide blocks with No. 4 dowels bent 90° to support top bars.
- B. Membrane: 6 mil polyethylene film.
- C. Water Stops: Polyvinyl chloride meeting all requirements of U.S. Army Corps of Engineer's Specification CRD-C-572 and equal to Burke Water Stops as manufactured by The Burke Company. Provide flat dumbbell type and center bulb type, 9 inches x 3/8 inch at wall thickness of 12 inches or greater, and 6 inches x 3/8 inches at wall thickness less than 12 inches. Provide 6-inch split-ribbed with center bulb type at connections of new concrete structures with existing concrete. Provide water stops as indicated on the Drawings.
- D. Preformed Expansion Joint Filler:
 - 1. Bituminous type conforming to the requirements of ASTM D994.
 - 2. Nonextruding type, self-expanding cork, 3/4-inch thick or as otherwise shown on the Drawings, conforming to the requirements of ASTM D1752, Type III, and compatible with the specified joint sealant compound.
- E. Joint Sealant: A multipart gray polyurethane sealant, meeting U.S. Federal Specification TT-S-00227E (3) Type 1, Class A self-leveling for horizontal joints, and Type II, Class A, non-sag for vertical joints, and recommended by the manufacturer for continuous immersion in water. Provide sealants as manufactured by Products Research and Chemical Corporation, Mameco International, The Burke Company, W.R. Meadows, or equal.
- F. Tongue and Groove Joint Forms: 24-gauge steel forms complete with steel stakes and splice plates, designed for joints not to receive a poured seal, and equal to Burke Keyed Kold Joint as manufactured by The Burke Company.
- G. Inserts: Galvanized steel to fit the proposed hanger or support.
- H. Mortar for Repair of Concrete: Same materials as used for concrete, except omit coarse aggregate and use not more than one-part cement to two and one-half parts sand by damp loose volume. Use no more mixing water than is necessary for handling and placing.
- I. Burlap Mats: Conform to AASHTO Specification M182.
- J. Epoxy Bonding Agent: Euco #452, BurkEpoxy MV, Sikadur Hi Mod, Concresive 1001-LPL, or equal.

- K. Powered Epoxy Coating for Anchor Bolts: Powdered epoxy resin as manufactured by the 3M Company, Scotchkote No. 213, Armstrong No. R349.

2.11 CONDUITS AND PIPES EMBEDDED IN CONCRETE

- A. Conduits, pipes and sleeves of any material not harmful to concrete shall be permitted to be embedded in concrete with approval of the Engineer, provided they are not considered to replace structurally the displaced concrete.
- B. Conduits and pipes of aluminum shall not be embedded in structural concrete unless effectively coated or covered to prevent electrolytic action between aluminum and steel.
- C. Conduits and pipes, with their fittings, embedded within a column shall not displace more than four percent (4%) of the area of cross section on which strength is calculated or which is required for fire protections.
- D. Conduits, pipes, sleeves passing through a slab, wall or beam shall not impair significantly the strength of the construction.
- E. Except when plans for conduits and pipes are approved by the Engineer, conduits and pipes embedded within a slab, wall, or beam shall satisfy the following:
 - 1. They shall not be larger in outside dimension than one-third overall thickness of slab, wall, or beam in which they are embedded.
 - 2. They shall not be spaced closer than three diameters or widths on center.

2.12 PIPES CONTAINING LIQUID, GAS, OR VAPOR

- A. Pipes that will contain liquid, gas or vapor may be embedded in structural concrete under the following conditions:
 - 1. Pipes and fittings shall be designed to resist effects of the material, pressure, and temperature to which they will be subjected.
 - 2. No liquid, gas, or vapor, except water not exceeding 90°F (32C) nor 50 psi (345 kPa) pressure, shall be placed in the pipes until the concrete has attained its design strength.
 - 3. Concrete cover for pipes, conduits and fittings shall be not less than 12 inches (38 mm) for concrete exposed to earth or weather or in contact with ground.

4. Reinforcement with an area of not less than 0.002 times area of concrete section shall be provided normal to piping.
5. Piping and conduit shall be so fabricated and installed that cutting, bending or displacement of reinforced from its proper location will not be required.

PART 3 - EXECUTION

3.01 PROPORTIONING

- A. The proportions of aggregate to cement shall be such as to produce a thoroughly plastic mixture which will work readily into the corners and angles of the forms and around the reinforcement but without permitting the materials to segregate or excess free water to collect on the surface. The percentage of sand shall not be less than thirty percent (30%) nor more than fifty percent (50%) of the total weight of the aggregate.
- B. The total content, including the surface water contained in the aggregate, shall not exceed 5.7 gallons per sack of cement. The slump shall not exceed 4 inches. Air-entraining admixture shall be Darex AEA as manufactured by the Dewey and Almy Chemical Company.
- C. The amount of air entrained in the freshly mixed concrete shall not be less than three percent (3%) nor more than six percent (6%). The minimum cement content in sacks per cubic yard of concrete shall not be less than 6 sacks per cubic yard for Class "A" concrete.
- D. Concrete materials shall be accurately measured by weight. Measurement of materials for ready-mixed concrete shall conform to the "Standard Specifications for Ready-Mixed Concrete", (A.S.T.M. designation C-94).
 1. Class "A" concrete for all structures shall have minimum compressive strength of 4000 psi at 28 days.
 2. Class "B" concrete for sidewalks shall have minimum compressive strength of 3000 psi at 28 days.
 3. All concrete shall be Class "A" unless otherwise shown on the drawings.

3.02 MIXING AND PLACING

- A. Concrete shall be mixed, conveyed and deposited in accordance with the "A.C.I. Building Code" (A.C.I. 318).
- B. Prior to placing any concrete, the Contractor shall submit for the Engineer's approval a design mix, calculated by a recognized testing laboratory, and using the approved

aggregates to produce a workable mix of the desired strength, together with certified copies of 7 days and 28 day tests of cylinders taken from concrete made according to the design mix. The mixes shall be designed to secure concrete having a minimum compressive strength at age 28 days.

- C. Ready-mixed concrete delivered shall be accompanied by delivery tickets showing the following:

1.	Date and time leaving plant	Additives (if any)
2.	Type of cement and weight	Site arrival time
3.	Quantity of water and time added	Site leaving time

- D. Concrete.

1. Ready-mixed concrete shall be used. All mixing requirements specified herein shall be enforced, and the Owner's laboratory representative and the Engineer shall have free access to the mixing plant at all times.
2. Except for materials and/or procedures otherwise specified herein, ready-mixed concrete shall be mixed and delivered in accordance with the requirements of ASTM C 94.
3. No water shall be added to the concrete after it leaves the plant except where part of the design water was purposely omitted at the plant, and then only as approved by the Engineer.

- E. Mixer Speed.

1. Neither the speed of any mixer nor the quantity of material loaded into any mixer shall exceed the recommendations of the manufacturer.
2. Excessive over-mixing, required additions of water to preserve the required consistency, shall be cause for rejection of the batch.
3. Concrete shall not remain in a transit mixer or agitator truck more than ninety (90) minutes after the water has been introduced, and not for more than forty-five (45) minutes if any approved retarding agent is not used.
4. Minimum mixing time shall be fifty (50) revolutions of drum at rated speed.

- F. Measurement.

1. Equipment necessary to determine and control the actual amounts of all materials entering the concrete shall be provided by the concrete manufacturer.

2. All materials shall be measured by weight, except that water may be measured by volume calculated at 8-1/3 pounds per gallon. One bag of cement will be considered as 94 pounds in weight.

G. Mixes.

1. Mix Design: Conform to ACI 318, Section 4.3. Submit data on consecutive tests and standard deviation.
2. Maximum Water-Cement Ratio:
 - .37 (lbs/lb) - Concrete with superplasticizer
 - .38 (lbs/lb) – Concrete in Marine Environments
 - .45 (lbs/lb) - Class A concrete without superplasticizer
 - .55 (lbs/lb) - Class B concrete without superplasticizer
 - .65 (lbs/lb) - Class C concrete without superplasticizer
3. Air Content: 5 percent plus or minus 1.5 percent (Class A and B).
4. Slump: 4 inches plus or minus 1 inch for Class A and B without superplasticizer.
 - 7 inches plus or minus 1 inch for Class A and B with superplasticizer.
 - 8 inches plus or minus 1 inch for tremie concrete or as specified by details.

H. Placing Concrete.

1. All concrete shall be placed in clean, damp forms that are not hot to the touch.
2. To prevent segregation, concrete shall be deposited as nearly as practicable in final position and not allowed to drop freely more than necessary and in no case more than five feet, except in an approved funnel or tremie. All concrete shall be placed during daylight unless otherwise authorized at least four (4) hours in advance. Where the reinforcing steel above the top of the concrete being placed becomes coated with laitance or partially set-up concrete, all such concrete shall be removed from the reinforcing steel prior to placing concrete around the bars.
3. Concrete shall be packed carefully and tightly around pipe and other items to secure maximum adhesion.
4. Concrete shall be placed in layers not over 12 inches deep before compacting. Concrete shall be compacted by internal vibrating equipment supplemented by spading and hand-rodding between reinforcing steel and form to eliminate air bubbles and honeycomb. Vibrators shall not be used to move the concrete laterally

inside the forms. Duration of vibration shall be limited to the time necessary to provide satisfactory consolidation without causing segregation, not less than five and not more than 15 seconds per square foot of exposed top surface. The vibrator shall be constantly relocated and shall be placed in each specific spot only once for each layer. The Contractor shall take steps to assure that sufficient personnel are available to devote full time to operating vibrator, spading and rodding.

5. Wall concrete shall be placed in layers as indicated above, with the first lift preceded by a 1-inch minimum layer of 1:2-1/2 cement-sand grout, with a 6-inch to 8-inch slump, placed on existing concrete not more than twenty (20) minutes before concrete placement. The surface of previously placed hardened concrete shall be clean and wet before grouting or shall be treated with a bonding agent as required. Puddles of water in horizontal recessed keys shall be avoided by the use of drain recesses to outside edge of concrete. Concrete in walls and deep beams shall be placed in lifts not to exceed three layers at 12 inches each for the full length of the pour before proceeding higher. The placing of concrete shall not be delayed more than twenty (20) minutes between layers or lifts.
6. Slab forms shall be thoroughly cleaned after placing wall concrete below. Concrete in beams or walls shall be placed to bottom of floor slab. After concrete in walls below floor slab has been in place for approximately thirty (30) minutes, the concrete for the floor slab and upper portion of the beam shall be placed and vibrated.
7. When concrete is conveyed by chutes, the equipment shall be of proper size and design to ensure a continuous flow in the chute. The chutes shall be metal or metal lined, and the different portions shall have approximately the same slope. The slope shall not be less than one vertical to three horizontal or more than one vertical to two horizontal, and there shall be provision for a baffle at the discharge end of the chute to prevent segregation. If the vertical distance between the discharge end of the chute and the surface of the concrete is more than five feet, a spout shall be used. The lower end of the spout shall be kept as near the surface of the deposit as is practicable. All chutes and spouts shall be thoroughly cleaned before and after each run. All debris and water shall be discharged outside the forms.

3.03 CURING AND PROTECTION

A. Curing:

1. Immediately after surface defects have been repaired, apply a spray coat of curing compound to all exposed surfaces, including slabs, walls, beams and columns in accordance with the manufacturer's recommendations. Protect exposed steel

keyways and other embedded items from the curing compound. Water cure, as specified in paragraph B hereunder, all concrete surfaces that are to be exposed to wastewater, surfaces that are to be coated with a coal tar epoxy system, and concrete floors requiring a bond for special finishes.

2. Do not apply compound during periods of rainfall. Should the film become damaged from any cause within the required curing period, immediately repair the damaged portions with additional compound. Upon removal of forms, immediately coat the newly exposed surfaces to provide a curing treatment equal to that provided for the surface.
 3. Curing and Sealing Compound: Use clear compound conforming to Federal Specification TT-C-800A, thirty percent (30%) solids content minimum, having test data from an independent laboratory indicating a maximum moisture loss of 0.030 grams per sq. cm. when applied at a coverage rate of 300 sq. ft per gallon, and equal to Super Floor Coat or Super Pliocure by The Euclid Chemical Company or Masterseal 66 by Master Builders. Furnish manufacturer's certification as required.
 4. Apply specified clear curing and sealing compound to all horizontal areas so noted on the Drawings or in the Specifications. Apply immediately after final finishing. Apply this compound to non-structural construction joints of slabs on grade to act as a bond breaker prior to placement of adjacent concrete.
- B. Water Curing Method: Cure all concrete that is to be water cured by either the wet burlap method, by continuous fogging or by covering with waterproof sheet.
1. Wet Burlap Method: Cover concrete surface with a double thickness of burlap, cotton mats, or other approved material, kept thoroughly saturated with water. Keep the forms wet until removed and upon removal, start the curing specified herein immediately. Cure the concrete for a period of seven (7) days for normal Portland cement or four (4) days for high early strength cement. Do not submerge concrete poured in the dry until it has attained sufficient strength to adequately sustain the stress involved and do not subject it to flowing water across its surface until it has cured four (4) days.
 2. Continuous Fogging: Perform continuous fogging by fogging with a nozzle which so atomizes the flow of water that a mist, and not a spray, is formed. Fog the concrete surface regularly without allowing any part of the surface to become dry. Take all necessary precautions to prevent erosion of the concrete surface by the water.
 3. Covering with Waterproof Sheets: Keep the entire area to be cured continuously wet by fogging, as specified in the fogging paragraph above, for at least eighteen

(18) hours and then immediately cover with waterproof curing sheet conforming to ASTM C171, waterproof paper and polyethylene film, free of holes or tears. Keep sheet fully flat, without wrinkles or air bubbles, held down tautly at all edges. Do not use this method on slabs which will be exposed to view.

3.04 PLACING REINFORCEMENT

- A. All reinforcement shall be detailed, fabricated and erected in accordance with the A.C.I. "Manual of Standard Practice for Detailing Reinforced Concrete Structure", (A.C.I. 315), including bar supports and spacers. At splices all reinforcing bars shall be lapped a minimum of 24 bar diameters but not less than 12 inches.
- B. The reinforcing shall be fabricated to the shapes and dimensions shown and shall be placed where indicated on the drawing. Before placing, all reinforced steel shall be thoroughly cleaned of rust, mill scale or coatings, which would reduce or destroy the bond. Reinforcing bars shall conform to the requirements of the latest editions of the A.C.I. Code and the CRSI Manuals.
- C. Wire mesh, unless otherwise shown on the drawings or specified, shall be 6" x 6" No. 10 woven or electrically welded wire fabric conforming to the requirements of ASTM Designation A185, latest revision.
- D. Space chairs and bolsters in accordance with ACI 315 and 318 using height to furnish cover over reinforcing required. Chairs with plastic feet or stainless steel shall be used in all beams and elevated slabs. Chairs for other concrete adjacent to or on the ground may be pieces of concrete block or concrete brick compressed into subgrade with the rebars bearing directly on the pointed edge of the masonry supports, or chairs set on precast concrete pads compressed into the subgrade.
- E. When placed in the forms, reinforcement shall be clean and free of all loose rust, scale, dust, dirt, paint, oil or other foreign material, and shall be accurately and securely positioned both laterally and vertically before placing concrete. Minimum clearances between the steel and face of concrete shall be maintained as shown.
- F. The rebars shall be fastened together at every intersection or at intervals not greater than 24 bar diameters by wire ties or by some alternate method acceptable to the Engineer. In areas where large bars are closer together, the wire ties may be spaced not more than 30 bar diameters apart, rather than as specified above.

3.05 FORMS

- A. Installation and erection shall be in accordance with ACI 347 and as specified hereinafter.

- B. Forms shall conform to shape, lines and dimensions of numbers indicated, and shall be sufficiently tight to prevent leakage of mortar. They shall not deflect under dead load weight of construction as a liquid or of construction load. Forms shall be properly braced or tied together so as to maintain position and shape within specified tolerances. Construct forms so that they can be removed steadily without hammering or prying against the concrete. Forms for exposed concrete shall be carefully made and accurately placed to obtain correct shape and line.
- C. Forms shall be of wood, metal, or other approved materials. Metal forms shall be of a type and manufacture acceptable to the Engineer. Plywood, fiberboard, or absorptive type form linings may be used where appropriate. Sectional forms shall produce a uniform surface and shall be assembled in a modular pattern. Pours will not be scheduled until all erection and bracing is complete. Walers, ties and braces shall be required for all forms.

Chamfer strips made from nominal dimensional 1" x 1" lumber cut on the diagonal shall be installed at the top of the forms on all exposed edges of walls, slabs, beams and other structures above grade.

- D. Drip edge shall be made from wood quarter round and installed where shown. Extruded plastic fillets shall be used where detailed. Circular structures shall be formed with special care, and attention to the appearance of the finished structure. Random location of fillers, non-modular sections, and excessive deviations from true circular segments shall be cause for rejection of the forms.
- E. The Contractor shall be fully responsible for the adequacy of formwork in its entirety. Forms shall support required loads and shall maintain their dimensional and surface correctness to produce members required by drawings.
- F. Slots, chases, recesses, or other openings as shown on the drawings or as needed for the work of any other trades shall be boxed out.
- G. Box out for all temporary openings and build forms to seal them up when and as required.
- H. After sealing and immediately before the placing of reinforcing, faces of all forms in contact with the concrete shall receive a thorough coating of the liquid form releasing agent, applied in compliance with the manufacturer's instructions.
- I. Reused forms shall be thoroughly cleaned out of dirt, debris, concrete and foreign matter. Forms shall not be reused if they have developed defects which would affect their tightness and strength or desired surface finish. Used forms shall not be used for architectural concrete.

- J. Forms shall be removed in a manner that will prevent injury to concrete. Supporting forms or shoring shall not be removed until the members have acquired sufficient strength to support their weight and any load thereon.
- K. Removal shall be in sequence as approved by the Engineer. Unless test cylinders warrant another procedure, the forms shall not be removed from members prior to the time listed in the schedule hereinafter unless otherwise directed.
- L. Bonding to Existing Surfaces: Clean existing concrete surfaces that are to have new concrete bonded thereto of all grease, oil, dust, dirt and loose particles and coat with an epoxy bonding agent just prior to placing of the new concrete. Apply the bonding agent as recommended by the manufacturer and allow the agent to become tacky before the new concrete is placed. Do not allow the bonding agent to overlap or be spilled on the surfaces to be exposed after the work is completed.

3.06 FORM REMOVAL

- A. Maintain formwork in place for the following structural conditions until the concrete has attained the minimum percentage of indicated design compressive strength or for the period of time specified in the following table.

Note: Time periods in the table include all days except those in which the temperature falls below 40°F.

<u>Structural Member or Condition</u>	<u>Normal Strength Concrete</u>	<u>Normal High-Early Strength Concrete</u>	<u>Minimum Compressive Strength for Form Removal (% Design Strength)</u>
Cantilevers	12 days	7 days	90
Over 20 feet between supports	12 days	7 days	90
Stairway	10 days	5 days	80
Floor Slabs	5 days	3 days	70
Free standing walls, column and piers	5 days	3 days	70
Walls, piers columns, sides	24-48 hours	12-24 hours	70

of beams, footings
slabs on grade, and
vertical surfaces

Front face form of curbs	6-24 hours	6 hours	70
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3.07 CONCRETE FINISHINGS

A. Repair of Surface Defects:

1. General: Repair surface defects, including tie holes immediately after form removal. Dampen the area to be patched and an area at least six inches wide surrounding it to prevent absorption of water from the patching mortar. Notify the Engineer prior to commencing operations.
2. Removal of Defective Concrete: Remove all honeycombed and other defective concrete down to sound concrete. Cut edges perpendicular to the surface or slightly under cut. Sand blast surfaces to receive repair.
3. Bonding Grout: Thoroughly dampen surfaces to be patched and apply a coat of bonding grout consisting of one-part cement to one part fine sand passing a No. 30 sieve and having the consistency of thick cream.
4. Placing Patching Mortar: After the bonding grout begins to lose its water sheen, apply a premixed patching mortar, thoroughly consolidating it into place and striking it off so as to leave the patch slightly higher than the surrounding surface. Leave mortar undisturbed for one hour to permit initial shrinkage and then finally finish.
5. Tie Holes: After being cleaned and thoroughly dampened, fill the tie holes solid with patching mortar.

B. Concrete Finishes:

1. Formed Surfaces: After removal of forms, chip off all irregular projections, grind flush with adjacent surfaces and finish concrete surfaces in accordance with the following schedule:

Finish	
<u>Designation</u>	<u>Area Applied</u>

- F-1 Exterior walls below grade not exposed to water: Repair defective concrete, fill depressions deeper than two inches, and fill tie holes.
- F-2 Exterior and interior walls exposed to water: Repair defective concrete, remove fins, fill depressions 3 inches or deeper, and fill tie holes.
- F-3 Walls of structures of buildings exposed to view and underside of formed floors or slabs: In addition to Finish F-2, fill depressions and airholes in mortar. Dampen surfaces and then spread a slurry consisting of one-part cement and one and one-half parts sand by damp loose volume on the surface with clean burlap pads or sponge rubber floats. Remove any surplus by scraping and then rubbing with clean burlap.
- F-4 Tops of walls, beams and similar unformed surfaces occurring adjacent to formed surfaces: Strike smooth after concrete is placed and float to a texture reasonably consistent with that of formed surfaces.

2. Slab Surfaces:

- a. General: After concrete has been consolidated, finish all concrete slabs with a floated finish. After floating, trowel finish all concrete slabs, except for areas to receive roofing, insulation, tile or topping, and immediately light broom finish. Where a finish is not indicated, provide a troweled finish.

Finish
Designation

Area Applied

- S-1 Slabs and floors not water bearing: Smooth steel trowel finish.
- S-2 Slabs and floors which are water bearing and slab surfaces on which mechanical equipment moves: Steel trowel finish free from trowel marks and all irregularities.
- S-3 Slabs, floors and stair treads of structures or buildings exposed to view: Steel trowel finish without local depressions or high points and apply a light hair-broom finish. Do not use stiff bristle brooms or brushes. Leave hair-broom lines parallel to the direction of slab drainage.
- S-4 Slabs and floors at slopes greater than ten percent (10%): Steel trowel finish without local depressions or high points. Apply a stiff bristle broom finish. Leave broom lines parallel to the direction of slope drainage.

S-5

Exposed edges of slabs, floors and tops of walls: Finish with a 3-inch radius edge if a chamfer is not indicated.

- C. Floated Finish: After concrete has been placed, consolidated, struck off and leveled, do not work the surface further until water sheen has disappeared and the surface has hardened sufficiently to permit floating. During the first floating, check the planeness of the slab with a 10-foot straightedge applied at no less than two angles. Cut down all high spots and fill all low spots to produce a surface having the required tolerance. Then refloat the slab to a uniform sandy texture.
- D. Light Broomed Finish: After floating, power trowel slabs to receive a light broomed finish to produce a smooth surface, relatively free of defects. Before the surface sets, pass a soft broom drag over the surface to produce a surface uniform in texture and appearance.
- E. Troweled Finish: After floating, power trowel slabs to receive a troweled finish to produce a smooth surface, relatively free of defects. Hand trowel after the surface has hardened sufficiently. When a ringing sound is produced as the trowel is moved over the surfaces, perform final troweling by hand to produce a surface which is thoroughly consolidated, free from trowel marks, uniform in texture and appearance and plane to a tolerance of 1/8 inch in 10 feet as determined by a 10-foot straightedge placed anywhere on the slab in any direction.
- F. Hardener Finish: Where indicated to receive a troweled hardener finish, water cure slabs without application of curing and sealing agent. When slab is at least twenty (20) days old and thoroughly dry, apply the hardener in accordance with the manufacturer's recommendations. Where dry-shake hardener or slip resistant finish is required, apply the hardener or slip-resistant product prior to complete curing and finishing, in accordance with the requirements and recommendations of the product manufacturer.
- G. Saw Cut Joints: Cut joints that are to be saw cut not sooner than two (2) hours after the concrete is poured and not later than eight (8) hours after the pour.

3.07 TESTS

- A. Compressive strength tests shall be made by breaking standard 6-inch diameter by 12-inch high test specimens prepared, cured and broken in accordance with the American Society for Testing Materials Standard Methods C-31 and C-39, latest revision. Four (4) specimen test cylinders shall be taken from each pour of five cubic yards or more. One additional test shall be taken from each 30 cubic yards or fraction thereof in each pour in excess of 30 cubic yards.
- B. Test specimens shall be taken from manhole bottom pours of less than five cubic yards as directed by the Engineer. Test specimens shall be taken in the presence of the Engineer. One cylinder from each pour shall be broken at seven (7) days, the remainder at

twenty-eight (28) days. Additional test cylinders may be ordered for determining the characteristics of a new design mix or changes in equipment or methods, and under adverse weather or curing conditions.

- C. Slump test shall be made in accordance with ASTM C143, latest revision, and shall be made with each load and at time of cylinders.
- D. The Contractor shall supply all cylinder molds, slump cones, tools and labor for preparing specimen, and shall provide clean, moist sand or burlap for curing. Cylinder shall not be shipped to the testing laboratory until the third day following preparation and shall be protected from accidental damage at all times.
- E. The test cylinders shall be tested in a recognized commercial testing laboratory at the expense of the Contractor.

3.08 EXPANSION JOINTS, CONSTRUCTION JOINTS AND WATER STOPS

- A. Expansion Joints shall be places as indicated on the drawings. Joint materials for surfaces exposed to water and sewage shall conform to ASTM D175, Preformed Joint Filler, non-extruding and resilient (bituminous type), thickness as shown on the drawings. Joint materials for isolation joints, slab-on-grade joints and wall joints not exposed to water and sewage shall conform to ASTM D994, preformed expansion joint filler for concrete (bituminous type), thickness as shown on the drawings.
- B. Construction Joints shall be located in accordance with a schedule of pours which shall be prepared and submitted by the Contractor. Vertical construction joints shall be held to the minimum number consistent with good standard practice.
- C. Water Stops. Material for water stops shall be 9-inch PVC multi-rib center-bulb type for expansion joints, and 1/4" x 4" and 1/8" x 4" structural steel sheets for construction joints. PVC joint material shall be as manufactured by The Burke Company, or approved equal.

END OF SECTION

SECTION 13 34 19
METAL BUILDING SYSTEMS

PART 1 - GENERAL

1.01 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required to construct the steel building.
- B. The work includes, but is not necessarily limited to, furnishing and installing primary and secondary structural framing, connection, bolts, covering, skylights, windows, doors, flashing, fasteners, closures, sealer and other miscellaneous items.
- C. Provide engineered plans, signed and sealed by a registered PE, licensed in Florida. The design shall conform to the Florida Building Code, latest edition.

1.02 SUBMITTALS

- A. Submit complete shop drawings showing layout and details of the proposed building.
- B. Submit samples of standard colors to achieve compatibility with the existing sludge processing building.

1.03 QUALIFICATIONS

- A. Manufacturer and erector shall demonstrate a minimum of five (5) years of experience with this type of project.
- B. The steel building shall be similar to that manufactured by Butler, Kansas City, MO; Atlind, Savannah, GA; DuPont Steel Buildings, St. Augustine, FL; Nucor Building Systems, Swansea, SC; or equal.

PART 2 - PRODUCTS

2.01 DESIGN REQUIREMENTS AND APPLICABLE CODE

- A. Structural framing members, bracing and connections: American Institute of Steel Construction specifications for design, fabrication and erection of steel buildings; American Iron and Steel Institute specification for the design of cold-formed steel structural members.

- B. Roof and Wall Coverings: American Iron and Steel Institute specification for the design of cold-formed steel structural members.
- C. Miscellaneous: Metal Building Manufacturers' Association Metal Building Systems Manual. Steel Window Institute Recommended Standards for Steel Windows. Architectural Aluminum Manufacturers' Association Standard Specifications for Aluminum Windows. Steel Door Institute Standards for Steel Doors and Frames. Southern Standard Building Code for Coastal Regions.
- D. The building shall be so designed to withstand the dead load of its own structure. In addition, the building shall be so designed to withstand roof live loads and wind loads. Other design loads shall be considered as auxiliary or collateral loads.
- E. The minimum roof live load shall be as set forth in the latest edition of the MBMA Metal Building Systems Manual or as designed by stipulated local code.
- F. The minimum wind pressure shall not be less than 15 pounds per square foot as applied in accordance with the MBMA Metal Building Systems Manual or as designated by stipulated local codes.

2.02 MATERIALS AND DESIGN

- A. Primary framing shall consist of the main load carrying members of the structural system. This shall include, but not be limited to, the following: transverse building frames, lean-to-frames, roof overhand and canopy beams, wind frames, and light end frames. All base plates, splice plates, connection plates, stiffeners, lugs, clips and brackets shall be shop welded into place on these members. Primary framing shall be fabricated plate having a minimum flange thickness of 1/3" and a minimum web thickness of 3/16" or from mill rolled sections. All field connections shall be bolted. All bolts shall be zinc plated A325 bolts and tightened by the turn of the nut method. Bolts shall be a minimum of 3/4" in diameter unless otherwise noted. All connection holes and bracing holes shall be prefabricated.
- B. Secondary framing shall consist of all members which carry loads to the primary framing. This shall include, but not be limited to, the following:
 - 1. Purlins and Girts: Cold-formed zee sections, 7" or 8" deep with stiffened flange lip formed at a 45-degree angle with the flanges. Material shall be a minimum of 16-gauge thickness.
 - 2. Eave Struts: Cold-formed, box type zee sections, 7" or 8" deep with stiffened flange lips. Materials shall be a minimum of 14-gauge thickness.
 - 3. Base Support: A continuous base angle shall be provided for the entire lower perimeter of the building panels. It shall be secured in place to the concrete

foundations using 1/3" diameter "drive pins" on 48" (maximum) centers. Base angle material shall be a minimum of 14-gauge thickness. When base anchorage is not available, the base support shall be provided by an additional girt located near the column base.

4. Light gauge, cold-formed sections shall be manufactured by a precision roll or break forming. All dimensions shall be true and be free of fluting, buckling, or waviness within manufacturing tolerances.
 5. All field connections shall be bolted. All bolts shall be zinc plated machine bolts. Bolts shall be a minimum of 1/2" in diameter unless otherwise noted.
- C. Wall bracing shall be used to transfer horizontal loads typically produced by wind or cranes from the super-structure to the building foundations. Standard bracing shall consist of 1/2" (minimum) diameter steel tension rods. Portal frames or compression angles may be used when wall openings interfere with standard bracing. Wall diaphragm action shall not be considered. Flange bracing shall be used to brace the inner flange of primary framing where required by design. They shall consist of a minimum of 1 1/2" x 1 1/2" x 1/8" angle and shall be field bolted into place.
- D. Sag rods may be used to limit deflection of purlins in the direction of their weak axis. They shall consist of 1/2" diameter steel tension rods.
- E. Miscellaneous framing such as for mansard, facias, soffits, rolling doors, sliding doors, hangers, etc. shall be cold-formed, light gauge steel (A375) or structural steel (A36) as required by design. Clips, lugs, brackets, shims, spacers, etc. shall be fabricated from structural steel (A36) shapes and/or plates.
- F. Cast-in place structural anchor bolts shall be provided for all columns subject to uplift. Gauge and location, as well as minimum projection and diameter, to be specified by DuPont, as required for design. Anchor bolt embedment to be specified by the foundation engineer.
- G. All structural steel shall be cleaned to remove all loose dirt, grease, oil and loose mill scale and then be painted with one coat of fast drying red iron oxide primer paint with a rust inhibitor additive for protection against the elements during shipping and erection. All steel support members shall be finish coated with an epoxy paint that is resistant to an oceanfront environment.

2.03 ROOF AND WALL COVERINGS

- A. Materials shall be 26-gauge steel. They shall be cold formed by precision roll or break forming. All dimensions shall be true and free of fluting, buckling, or waviness.

- B. Standard finishes shall be color coated. Color coated coverings shall have a baked siliconized polyester enamel coating on the exterior surfaces and a white enamel "wash coat" on the underside. Exterior colors shall be selected by the City.
- C. The covering system consisting of exterior panels, trim, fasteners, closures and sealants shall provide a weather-tight system.
- D. Panels corrugated for structural integrity shall be used for exterior roof and wall coverings, mansard fascia panels, soffit panels, and interior liner panels. High corrugations shall occur no less frequently than every 12". Each panel shall provide 36" net coverage.
 - 1. Panels shall span in the direction of the corrugations. Panels shall be applied with the corrugations perpendicular to their support members.
 - 2. Roof panels shall be continuous from ridge to eave for gable buildings 60' wide or less. Where endlaps are required, they shall be a minimum of 8". All endlaps shall be located over a roof purlin.
 - 3. Wall panels shall be continuous from eave line to a point 1 ½" below exterior column base plate.
- E. Finishings and trim shall be provided to ensure weather tightness and enhance the appearance of the building. They shall be provided for the apex, rakes, corners, eaves, windows, doors, framed openings, etc.
- F. Fasteners shall be self-tapping sheet metal screws, No. 14, Type "A", zinc plated, indented hexhead, carbon steel. Each screw shall have a 5/8" o.d., 20-gauge, galvanized steel dome type washer backed with a neoprene seal for leak protection. When used with a color coated panel, screw heads and washer shall be color matched to panel. Zinc plated or white painted steel "pop-rivets" may be substituted for screws when fastening flashing or wall panel's sidelaps. When used with gal-valume panels, fasteners shall have an aluminum washer.
 - 1. All corrugated panels shall be fastened to building along purlins, girts, and eave struts at a maximum of 12" centers.
 - 2. All flashings and trim shall be fastened to corrugated panels at 36" maximum centers or as necessary to ensure proper alignment and anchorage. Screw spacing at all endlaps shall not exceed 6" centers.
 - 3. Sidelaps of corrugated panels shall be stitched along the high rib with fasteners. Continuous sealer shall be applied between lapped sides of roof panel with roof slopes less than 10°.

- G. Closures shall be 1" thick, closed cell, non-shrinking, laminated polyethylene preformed to match the profile of the corrugated steel.
 - 1. Closures shall be located between the apex cap and roof sheet, between the roof sheet and eave strut, and between the base of the wall sheet and concrete slab. However, closures may be omitted where insulation occurs.
 - 2. Sealant shall be used to close cracks, laps and joints as required to protect against leaks. Caulking shall be general purpose white, butyl caulk. Sidelaps sealant shall be micro-celled, polymerized vinyl chloride with pressure sensitive adhesive on both sides.
- H. Gutters shall be located along the eaves of the outermost roof coverings. They shall be a minimum 4" x 6" deep and be supported directly from the eave framing member.
- I. Downspouts shall be located on exterior of building at each frame line. They shall have a minimum cross-sectional area of 12 square inches. They shall be adequately secured in place and extend down to the column base plate elevation with a "turn-out" to direct discharge away from the building.
- J. Skylights (located on the roof) shall be Type 1, 6-ounce translucent fiberglass, corrugated panels with smooth surface finish. Each unit opening shall be 3' wide x 10' long nominal.

PART 3 - EXECUTION

3.01 ERECTION

- A. Erection shall be on-site assembling of the metal building components as required by the building design.
- B. Unloading instructions, storage of materials and erection procedures as outlined and recommended shall be followed as closely as possible and, together with accepted trade practices, shall conform to details and instructions as shown on the erection drawings.
- C. Erection shall be done by qualified workmen using proper tools and equipment. They shall be responsible for accurate, good quality workmanship and procedures as set forth in these specifications.

3.02 DAMAGED MATERIAL

- A. Repair or replace all damaged material to the satisfaction of the Engineer.

END OF SECTION

SECTION 23 11 00
FACILITY FUEL-OIL PIPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 DEFINITIONS

- A. AST: Aboveground storage tank.
- B. Exposed, Interior Installations: Exposed to view indoors. Examples include finished occupied spaces and mechanical equipment rooms.
- C. Exposed, Exterior Installations: Exposed to view outdoors or subject to outdoor ambient temperatures and weather conditions. Examples include rooftop locations.
- D. Finished Spaces: Spaces other than mechanical and electrical equipment rooms, furred spaces, pipe and duct shafts, unheated spaces immediately below roof, spaces above ceilings, unexcavated spaces, crawlspaces, and tunnels.
- E. FPM: Vinylidene fluoride-hexafluoropropylene copolymer rubber.
- F. FRP: Glass-fiber-reinforced plastic.
- G. UST: Underground storage tank.

1.3 PERFORMANCE REQUIREMENTS

- A. Maximum Operating-Pressure Ratings: 3-psig (21-kPa) fuel-oil supply pressure at oil-fired appliances.
- B. Delegated Design: Design restraint and anchors for fuel-oil piping, ASTs, and equipment, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, and dimensions of individual components and profiles. Also include, where applicable, rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.
1. Piping specialties.
 2. Valves: Include pressure rating, capacity, settings, and electrical connection data of selected models.
 3. Each type and size of fuel-oil storage tank. Indicate dimensions, weights, loads, components, and location and size of each field connection.
 4. Fuel-oil storage tank accessories.
 5. Fuel-oil storage tank piping specialties.
 6. Fuel-oil storage tank pumps.
 7. Fuel-oil transfer pumps.
 8. Fuel maintenance system.
 9. Liquid-level gage system.
 10. Leak-detection and monitoring system.
- B. Shop Drawings: For facility fuel-oil piping layout. Include plans, piping layout and elevations, sections, and details for fabrication of pipe anchors, hangers, supports for multiple pipes, alignment guides, expansion joints and loops, and attachments of the same to building structure. Detail location of anchors, alignment guides, and expansion joints and loops.
1. Shop Drawing Scale: 1/4 inch per foot (1:50).
 2. For fuel-oil storage tanks and pumps, include details of supports and anchors.

1.5 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings: Plans and details, drawn to scale, on which fuel-oil piping is shown and coordinated with other installations, using input from installers of the items involved.
- B. Site Survey: Plans, drawn to scale, on which fuel-oil piping and tanks are shown and coordinated with other services and utilities.
- C. Brazing certificates.
- D. Welding certificates.
- E. Field quality-control reports.
- F. Warranty: Sample of special warranty.

1.6 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For fuel-oil equipment and accessories to include in emergency, operation, and maintenance manuals.

1.7 QUALITY ASSURANCE

- A. Brazing: Qualify processes and operators according to ASME Boiler and Pressure Vessel Code: Section IX.
- B. Steel Support Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- C. Pipe Welding Qualifications: Qualify procedures and operators according to ASME Boiler and Pressure Vessel Code.
- D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- E. Comply with ASME B31.9, "Building Services Piping," for fuel-oil piping materials, installation, testing, and inspecting.
- F. Comply with requirements of the EPA and of state and local authorities having jurisdiction. Include recording of fuel-oil storage tanks and monitoring of tanks and piping.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Lift and support fuel-oil storage tanks only at designated lifting or supporting points, as shown on Shop Drawings. Do not move or lift tanks unless empty.
- B. Deliver pipes and tubes with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe end damage and to prevent entrance of dirt, debris, and moisture.
- C. Store pipes and tubes with protective PE coating to avoid damaging the coating and to protect from direct sunlight.
- D. Store PE pipes and valves protected from direct sunlight.

1.9 COORDINATION

- A. Coordinate sizes and locations of concrete bases with actual equipment provided.

1.10 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of fuel-oil storage tanks and flexible, double-containment piping and related equipment that fail in materials or workmanship within specified warranty period.
1. Storage Tanks:
 - a. Failures include, but are not limited to, the following when used for storage of fuel oil at temperatures not exceeding 150 deg F (66 deg C):
 - 1) Structural failures including cracking, breakup, and collapse.
 - 2) Corrosion failure including external and internal corrosion of steel tanks.
 - b. Warranty Period: 30 years from date of Substantial Completion.
 2. Flexible, Double-Containment Piping and Related Equipment:
 - a. Failures due to defective materials or workmanship for materials installed together, including piping, dispenser sumps, entry boots, and sump mounting adapters.
 - b. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PIPES, TUBES, AND FITTINGS

- A. See Part 3 piping schedule articles for where pipes, tubes, fittings, and joining materials are applied in various services.
- B. Steel Pipe: ASTM A 53/A 53M, black steel, Schedule 40, Type E or S, Grade B.
1. Malleable-Iron Threaded Fittings: ASME B16.3, Class 150, standard pattern.
 2. Wrought-Steel Welding Fittings: ASTM A 234/A 234M, for butt and socket welding.
 3. Unions: ASME B16.39, Class 150, malleable iron with brass-to-iron seat, ground joint, and threaded ends.
 4. Forged-Steel Flanges and Flanged Fittings: ASME B16.5, minimum Class 150, including bolts, nuts, and gaskets of the following material group, end connections, and facings:
 - a. Material Group: 1.1.
 - b. End Connections: Threaded or butt welding to match pipe.
 - c. Lapped Face: Not permitted underground.
 - d. Gasket Materials: Asbestos free, ASME B16.20 metallic, or ASME B16.21 nonmetallic, gaskets compatible with fuel oil.
 - e. Bolts and Nuts: ASME B18.2.1, cadmium-plated steel.

2.2 DOUBLE-CONTAINMENT PIPE AND FITTINGS

A. Rigid, Double-Containment Piping: Comply with UL 971.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Ameron International; Fiberglass Pipe Group.
 - b. Conley Corporation.
 - c. Perma-Pipe, Inc.
 - d. Smith Fibercast.
2. RTRP: ASTM D 2996 or ASTM D 2997 carrier and containment piping and mechanical couplings to seal carrier and containment piping or individually bonded joints.
 - a. Minimum Operating-Pressure Rating for RTRP NPS 2 and NPS 3 (DN 50 and DN 80): 150 psig (1035 kPa).
 - b. Minimum Operating-Pressure Rating for RTRP NPS 4 and NPS 6 (DN 100 and DN 150): 125 psig (860 kPa). Compliance with UL 971 is not required for NPS 6 (DN 150) and larger piping.
 - c. Fittings: RTRF complying with ASTM D 2996 or ASTM D 2997 and made by RTRP manufacturer; watertight sump entry boots, termination, or other end fittings.

2.3 PIPING SPECIALTIES

A. Flexible Connectors: Comply with UL 567.

1. Metallic Connectors:
 - a. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1) American Flexible Hose Co., Inc.
 - 2) Flexicraft Industries.
 - 3) FLEX-ING, Inc.
 - 4) Hose Master, Inc.
 - 5) Metraflex Company (The).
 - 6) Proco Products, Inc.
 - 7) Tru-Flex Metal Hose Corp.
 - 8) Unaflex.

- b. Listed and labeled for aboveground and underground applications by an NRTL acceptable to authorities having jurisdiction.
- c. Stainless-steel bellows with woven, flexible, bronze or stainless-steel, wire-reinforcing protective jacket.
- d. Minimum Operating Pressure: 150 psig (1035 kPa).
- e. End Connections: Socket, flanged, or threaded end to match connected piping.
- f. Maximum Length: 30 inches (762 mm.)

B. Manual Air Vents:

- 1. Body: Bronze.
- 2. Internal Parts: Nonferrous.
- 3. Operator: Screwdriver or thumbscrew.
- 4. Inlet Connection: NPS 1/2 (DN 15).
- 5. Discharge Connection: NPS 1/8 (DN 6).
- 6. CWP Rating: 150 psig (1035 kPa).
- 7. Maximum Operating Temperature: 225 deg F (107 deg C).

2.4 JOINING MATERIALS

- A. Joint Compound and Tape: Suitable for fuel oil.
- B. Welding Filler Metals: Comply with AWS D10.12/D10.12M for welding materials appropriate for wall thickness and chemical analysis of steel pipe being welded.
- C. Brazing Filler Metals: Alloy with melting point greater than 1000 deg F (540 deg C) complying with AWS A5.8/A5.8M. Brazing alloys containing more than 0.05 percent phosphorus are prohibited.

2.5 MANUAL FUEL-OIL SHUTOFF VALVES

- A. See valve schedule in Part 3 for where each valve type is applied in various services.
- B. General Requirements for Metallic Valves, NPS 2 (DN 50) and Smaller for Liquid Service: Comply with UL 842.
 - 1. CWP Rating: 125 psig (860 kPa).
 - 2. Threaded Ends: Comply with ASME B1.20.1.
 - 3. Dryseal Threads on Flare Ends: Comply with ASME B1.20.3.
 - 4. Tamperproof Feature: Locking feature for valves indicated in the valve schedule.
 - 5. Service Mark: Initials "WOG" shall be permanently marked on valve body.
- C. General Requirements for Metallic Valves, NPS 2-1/2 (DN 65) and Larger: Comply with UL 842.

1. CWP Rating: 125 psig (860 kPa).
2. Flanged Ends: Comply with ASME B16.5 for steel flanges.
3. Tamperproof Feature: Locking feature for valves indicated in the valve schedule.
4. Service Mark: Initials "WOG" shall be permanently marked on valve body.

D. Two-Piece, Full-Port, Bronze Ball Valves with Bronze Trim: MSS SP-110.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. BrassCraft Manufacturing Company; a Masco company.
 - b. Conbraco Industries, Inc.; Apollo Div.
 - c. Lyall, R. W. & Company, Inc.
 - d. McDonald, A. Y. Mfg. Co.
 - e. Perfection Corporation; A Subsidiary of American Meter Company.
2. Body: Bronze, complying with ASTM B 584.
3. Ball: Chrome-plated bronze.
4. Stem: Bronze; blowout proof.
5. Seats: Reinforced TFE; blowout proof.
6. Packing: Threaded-body packnut design with adjustable-stem packing.
7. Ends: Threaded, flared, or socket as indicated in the valve schedule.
8. CWP Rating: 600 psig (4140 kPa).
9. Service Mark: Initials "WOG" shall be permanently marked on valve body.

2.6 SPECIALTY VALVES

A. Pressure Relief Valves: Comply with UL 842.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Anderson Greenwood; Division of Tyco Flow Control.
 - b. Fulflo Specialties, Inc.
 - c. Webster Fuel Pumps & Valves; a division of Capital City Tool, Inc.
2. Listed and labeled for fuel-oil service by an NRTL acceptable to authorities having jurisdiction.
3. Body: Brass, bronze, or cast steel.
4. Springs: Stainless steel, interchangeable.
5. Seat and Seal: Nitrile rubber.
6. Orifice: Stainless steel, interchangeable.

7. Factory-Applied Finish: Baked enamel.
8. Maximum Inlet Pressure: 150 psig (1035 kPa).
9. Relief Pressure Setting: 60 psig (414 kPa).

B. Oil Safety Valves: Comply with UL 842.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Anderson Greenwood; Division of Tyco Flow Control.
 - b. Suntec Industries Incorporated.
 - c. Webster Fuel Pumps & Valves; a division of Capital City Tool, Inc.
2. Listed and labeled for fuel-oil service by an NRTL acceptable to authorities having jurisdiction.
3. Body: Brass, bronze, or cast steel.
4. Springs: Stainless steel.
5. Seat and Diaphragm: Nitrile rubber.
6. Orifice: Stainless steel, interchangeable.
7. Factory-Applied Finish: Baked enamel.
8. Manual override port.
9. Maximum Inlet Pressure: 60 psig (414 kPa).
10. Maximum Outlet Pressure: 3 psig (21 kPa).

C. Mechanical Leak Detector: Comply with UL 842.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. FE Petro, Inc.
 - b. Red Jacket Pumps; a division of Veeder-Root.
2. Listed and labeled for fuel-oil service by an NRTL acceptable to authorities having jurisdiction.
3. Body: ASTM A 126, cast iron.
4. O-Rings: Elastomeric compatible with fuel oil.
5. Piston and Stem Seals: PTFE.
6. Stem and Spring: Stainless steel.
7. Piston Cylinder: Burnished brass.
8. Indicated Leak Rate: Maximum 3 gph (3 mL/s) at 10 psig (69 kPa).
9. Leak Indication: Reduced flow.

2.7 CONCRETE-VAULTED, STEEL, FUEL-OIL AST

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Cardinal Tank Corp.
 - 2. ConVault, Inc.
 - 3. Earthsafe Systems, Inc.
 - 4. Armorcast
 - 5. EcoVault, Inc.
- B. Description: UL 142 and UL 2085; thermally insulated, fire-resistant and protected, double-wall, horizontal, steel tank; with primary- and secondary-containment walls and insulation and with interstitial space.
- C. Construction: Fabricated with welded, carbon steel and insulation and encased in concrete that will protect from bullets; suitable for operation at atmospheric pressure and for storing fuel oil with specific gravity up to 1.1 and with test temperature according to UL 2085.

2.8 SHOP PAINTING OF AST

- A. Apply manufacturer's standard prime coat to exterior steel surface of AST.
- B. Prepare exterior steel surface of AST.
- C. Shop Cleaning: After fabrication, blast clean according to SSPC-SP 6/NACE No. 3.
- D. After cleaning, remove dust or residue from cleaned surfaces.
- E. If surface develops rust before prime coat is applied, repeat surface preparation.
- F. Apply manufacturer's standard prime coat to shop-cleaned, dry surface same day as surface preparation.
- G. Apply manufacturer's standard two-component, epoxy finish coats.

2.9 FUEL-OIL AST ACCESSORIES

- A. Tank Manholes: 22-inch- (560-mm-) minimum diameter; bolted, flanged, and gasketed; centered on top of tank.
- B. Threaded pipe connection fittings on top of tank, for fill, supply, return, vent, sounding, and gaging. Include cast-iron plugs for shipping.

- C. Striker Plates: Inside tank, on bottom below fill, vent, sounding, gage, and other tube openings.
- D. Lifting Lugs: For handling and installation.
- E. Ladders: Carbon-steel ladder inside tank, anchored to top and bottom, and located as indicated. Include reinforcement of tank at bottom of ladder.
- F. Supply Tube: Extension of supply piping fitting into tank, terminating 6 inches (150 mm) above tank bottom and cut at a 45-degree angle (1:1 slope).
- G. Sounding and Gage Tubes: Extension of fitting into tank, terminating 6 inches (150 mm) above tank bottom and cut at a 45-degree angle (1:1 slope).

2.10 FUEL-OIL STORAGE TANK PIPING SPECIALTIES

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. EBW, Inc.
 - 2. Environ Products, Inc.
 - 3. Morrison Bros. Co.
 - 4. OPW.
 - 5. Preferred Utilities Manufacturing Corporation.
 - 6. Universal Valve Company.
- B. Fitting Materials: Cast iron, malleable iron, brass, or corrosion-resistant metal; suitable for fuel-oil service.
 - 1. Surface, Flush-Mounted Fittings: Waterproof and suitable for truck traffic.
 - 2. Aboveground-Mounted Fittings: Weatherproof.
- C. Locking Fill Boxes: Flush mounting, with locking-type inner fill cap for standard padlock and threaded fill-pipe connection.
- D. Supply and Sounding Drop Tubes: Fuel-oil supply piping or fitting, inside tank, terminating 6 inches (150 mm) above bottom of tank, and with end cut at a 45-degree angle (1:1 slope).
- E. Pipe Adapters and Extensions: Compatible with piping and fittings.
- F. Suction Strainers and Check Valves: Bronze or corrosion-resistant metal components.
- G. Foot Valves and Antisiphon Valves: Poppet-type, bronze or corrosion-resistant metal components.

- H. Weatherproof Vent Cap: Cast- or malleable-iron increaser fitting with corrosion-resistant wire screen, with free area at least equal to cross-sectional area of connecting pipe and threaded-end connection.
- I. Metal Manholes: 22-inch- (560-mm-) minimum diameter frame and cover. Furnish manhole units of adequate size for access to fittings if size is not indicated.
- J. Monitoring Well Caps: Locking pipe plug and manhole.

2.11 SUBMERSIBLE FUEL-OIL PUMPS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. FE Petro, Inc.
 - 2. Red Jacket Pumps; a division of Veeder-Root.
- B. Description: Comply with UL 79, UL 87, and UL 343.
 - 1. Listed and labeled for fuel-oil service by an NRTL acceptable to authorities having jurisdiction.
 - 2. Impeller: Turbine.
 - 3. Housing and Volute: Cast iron.
 - 4. Bearings: Bronze, self-lubricating.
 - 5. Seals: Mechanical.
 - 6. Shaft: Polished steel.
 - 7. Suspension Piping: Telescoping to accommodate tank diameter and depth of bury.
 - 8. Base: Steel.
 - 9. Pressure Relief: Built in.
 - 10. Discharge Check Valve: Built in.
 - 11. Drive: Direct, close coupled.
- C. Controls: Pump controller panel complying with UL 353 and UL 508C and with interlock and terminals for connections to diesel-driven emergency generators.
 - 1. Run pumps to maintain minimum manifold pressure with outdoor-air temperature less than 60 deg F (16 deg C).
 - 2. Run pumps on seven-day schedule.
 - 3. Stage pumps on pressure at a common supply manifold.
 - 4. Alternate pumps to equalize run time.
 - 5. Alarm motor failure.
 - 6. Manual reset dry-run protection. Stop pumps if fuel level falls below pump suction.
 - 7. Deenergize and alarm pump locked rotor condition.
 - 8. Alarm open circuit, high and low voltage.

9. Indicating lights for power on, run, and off normal conditions.
- D. Motor: Comply with NEMA designation, temperature rating, service factor, enclosure type, and efficiency requirements for motors.
1. Motor Sizes: Minimum size as indicated. If not indicated, large enough so driven load will not require motor to operate in service factor range above 1.0.
 2. Thermal-Overload Protection: Motor-winding temperature sensor.
 3. Controllers, Electrical Devices, and Wiring: Comply with requirements for electrical devices and connections specified in electrical Sections.

2.12 LIQUID-LEVEL GAGE SYSTEM

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
1. Caldwell Systems Corporation.
 2. Clawson Tank Company.
 3. EBW, Inc.
 4. Highland Tank & Manufacturing Company, Inc.
 5. INCON, Inc.
 6. King Engineering Corp.
 7. Krueger Sentry Gauge.
 8. Pneumercator Inc.
 9. Preferred Utilities Manufacturing Corporation.
 10. Rochester Gauges, Inc.
 11. Tuthill Corporation; Tuthill Transfer Systems; Sotera Systems.
 12. Uehling Instrument Company.
 13. Venture Measurement Company, LLC.
- B. Description: Calibrated, liquid-level gage system complying with UL 180 with floats or other sensors and remote annunciator panel.
- C. Annunciator Panel: With visual and audible, high-tank-level and low-tank-level alarms, fuel indicator with registration in gallons (liters), and overfill alarm. Include gage volume range that covers fuel-oil storage capacity.
- D. Controls: Electrical, operating on 120-V ac.

2.13 LEAK-DETECTION AND MONITORING SYSTEM

- A. Hydrostatic System: Comply with UL 1238.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Caldwell Systems Corporation.
 - b. Containment Solutions, Inc.
 - c. EBW, Inc.
 - d. Gems Sensors Inc.
 - e. Highland Tank & Manufacturing Company, Inc.
 - f. INCON, Inc.
 - g. In-Situ, Inc.
 - h. MSA; Instrument Div.
 - i. Perma-Pipe, Inc.
 - j. Pneumercator Inc.
 - k. Raychem Corp; Tyco Electronics Corporation.
 - l. Tuthill Corporation; Tuthill Transfer Systems; Sotera Systems.
 - m. Veeder-Root; a Danaher Corporation Company.
2. Calibrated, leak-detection and monitoring system with brine antifreeze solution, reservoir sensor, and electronic control panel to monitor leaks in inner and outer tank walls.
3. Include fittings and devices required for testing.
4. Controls: Electrical, operating on 120-V ac.

2.14 FUEL OIL

- A. Diesel Fuel Oil: ASTM D 975, Grade No. 2-D, general-purpose, high volatility.

2.15 SOURCE QUALITY CONTROL

- A. Pressure test and inspect fuel-oil storage tanks, after fabrication and before shipment, according to ASME and the following:
 1. Horizontal, Concrete-Vaulted, Steel ASTs: UL 142 and UL 2085.
- B. Affix standards organization's code stamp.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine roughing-in for fuel-oil piping system to verify actual locations of piping connections before equipment installation.

- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 EARTHWORK

- A. Comply with requirements in Division 31 for excavating, trenching, and backfilling.

3.3 PREPARATION

- A. Close equipment shutoff valves before turning off fuel oil to premises or piping section.
- B. Comply with NFPA 30 and NFPA 31 requirements for prevention of accidental ignition.

3.4 OUTDOOR PIPING INSTALLATION

- A. Steel Piping with Protective Coating:
 - 1. Apply joint cover kits to pipe after joining, to cover, seal, and protect joints.
 - 2. Repair damage to PE coating on pipe as recommended in writing by protective coating manufacturer. Review protective coating damage with Architect prior to repair.
- B. Install double-containment, fuel-oil pipe at a minimum slope of 1 percent downward toward fuel-oil storage tank sump.
- C. Install vent pipe at a minimum slope of 2 percent downward toward fuel-oil storage tank sump.
- D. Assemble and install entry boots for pipe penetrations through sump sidewalls for liquid-tight joints.
- E. Install metal pipes and tubes, fittings, valves, and flexible connectors at piping connections to AST and UST.
- F. Install fittings for changes in direction in rigid pipe.
- G. Install system components with pressure rating equal to or greater than system operating pressure.
- H. Provide additional intermediate supports as required so deflection of piping does not exceed 1/240 of span.
- I. Support spacings listed above are minimum requirements. Contractor shall provide additional supports as required by codes or authority having jurisdiction at no additional cost to contract.

3.5 VALVE INSTALLATION

- A. Install manual fuel-oil shutoff valves on branch connections to fuel-oil appliance.
- B. Install valves in accessible locations.
- C. Protect valves from physical damage.
- D. Install metal tag attached with metal chain indicating fuel-oil piping systems.
- E. Install pressure relief valves in distribution piping between the supply and return lines.
- F. Install one-piece, bronze ball valve with hose end connection at low points in fuel-oil piping.
- G. Install manual air vents at high points in fuel-oil piping.

3.6 PIPING JOINT CONSTRUCTION

- A. Ream ends of pipes and tubes and remove burrs.
- B. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.
- C. Threaded Joints: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full ID. Join pipe fittings and valves as follows:
 - 1. Apply appropriate tape or thread compound to external pipe threads unless dry seal threading is specified.
 - 2. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged. Do not use pipe sections that have cracked or open welds.
- D. Welded Joints: Construct joints according to AWS D10.12/D10.12M, using qualified processes and welding operators according to "Quality Assurance" Article.
 - 1. Bevel plain ends of steel pipe.
 - 2. Patch factory-applied protective coating as recommended by manufacturer at field welds and where damage to coating occurs during construction.
- E. Brazed Joints: Construct joints according to AWS's "Brazing Handbook," "Pipe and Tube" Chapter.
- F. Flanged Joints: Install gasket material, size, type, and thickness for service application. Install gasket concentrically positioned.

- G. Flared Joints: Comply with SAE J513. Tighten finger tight, then use wrench according to fitting manufacturer's written recommendations. Do not overtighten.
- H. Fiberglass-Bonded Joints: Prepare pipe ends and fittings, apply adhesive, and join according to pipe manufacturer's written instructions.

3.7 FUEL-OIL AST INSTALLATION

- A. Install tank bases and supports.
- B. Connect piping and vent fittings.
- C. Install ground connections.
- D. Install tank leak-detection and monitoring devices.
- E. Install steel ASTs according to STI R912.
- F. Install insulated and concrete-vaulted, steel ASTs according to STI R942.
- G. Fill storage tanks with fuel oil.

3.8 HANGER AND SUPPORT INSTALLATION

- A. Install hangers for horizontal steel piping with the following maximum spacing and minimum rod sizes:
 - 1. NPS 1-1/4 (DN 32) and Smaller: Maximum span, 84 inches (2130 mm); minimum rod size, 3/8 inch (10 mm).
 - 2. NPS 1-1/2 (DN 40): Maximum span, 108 inches (2740 mm); minimum rod size, 3/8 inch (10 mm).
 - 3. NPS 2 (DN 50): Maximum span, 10 feet (3 m); minimum rod size, 3/8 inch (10 mm).
 - 4. NPS 2-1/2 (DN 65): Maximum span, 11 feet (3.4 m); minimum rod size, 1/2 inch (13 mm).
 - 5. NPS 3 (DN 80): Maximum span, 12 feet (3.7 m); minimum rod size, 1/2 inch (13 mm).
 - 6. NPS 4 (DN 100): Maximum span, 13 feet (4 m); minimum rod size, 5/8 inch (16 mm).
- B. Support vertical steel pipe at each floor and at spacing not greater than 15 feet (4.5 m).
- C. Provide additional intermediate supports as required so deflection of piping does not exceed 1/240 of span.
- D. Support spacings listed above are minimum requirements. Contractor shall provide additional supports as required by codes or authority having jurisdiction at no additional cost to contract.

3.9 FUEL-OIL PUMP INSTALLATION

- A. Submersible Pumps:
 - 1. Suspend pumps from supply piping and anchored to bottom of tank.
- B. Install two-piece, full-port ball valves at suction and discharge of pumps.
- C. Install mechanical leak-detector valves at pump discharge.

3.10 LIQUID-LEVEL GAGE SYSTEM INSTALLATION

- A. Install liquid-level gage system. Locate panel inside building where indicated.

3.11 LEAK-DETECTION AND MONITORING SYSTEM INSTALLATION

- A. Install leak-detection and monitoring system. Install alarm panel inside building where indicated.
 - 1. Double-Wall, Fuel-Oil Storage Tanks: Install probes or use factory-installed integral probes in interstitial space.
 - 2. Install liquid-level gage.

3.12 CONNECTIONS

- A. Install piping adjacent to equipment to allow service and maintenance.
- B. Install unions, in piping NPS 2 (DN 50) and smaller, adjacent to each valve and at final connection to each piece of equipment having threaded pipe connection.
- C. Install flanges, in piping NPS 2-1/2 (DN 65) and larger, adjacent to flanged valves and at final connection to each piece of equipment having flanged pipe connection.
- D. Connect piping to equipment with ball valve and union. Install union between valve and equipment.
- E. Install flexible piping connectors at final connection to burners or oil-fired appliances that must be moved for maintenance access.

3.13 LABELING AND IDENTIFYING

- A. Equipment Nameplates and Signs: Install engraved plastic-laminate equipment nameplates and signs on or near each service regulator, service meter, and earthquake valve.

1. Text: In addition to identifying unit, distinguish between multiple units, inform operator of operational requirements, indicate safety and emergency precautions, and warn of hazards and improper operations.

3.14 FIELD PAINTING OF ABOVEGROUND PIPING

- A. Comply with requirements in Division 09 for painting interior and exterior fuel-oil piping.
- B. Paint exposed, exterior metal piping, valves, and piping specialties, except components with factory-applied paint or protective coating.
 1. Alkyd System: MPI EXT 5.1D.
 - a. Prime Coat: Alkyd anticorrosive metal primer.
 - b. Intermediate Coat: Exterior alkyd enamel matching topcoat.
 - c. Topcoat: Exterior alkyd enamel (semigloss).
 - d. Color: Gray.
- C. Damage and Touchup: Repair marred and damaged factory-applied finishes with materials and by procedures to match original factory finish.

3.15 CONCRETE BASES

- A. Concrete Bases: Anchor equipment to concrete base according to equipment manufacturer's written instructions and according to seismic codes at Project.
 1. Construct concrete bases of dimensions indicated, but not less than 4 inches (100 mm) larger in both directions than supported unit.
 2. Install dowel rods to connect concrete base to concrete floor. Unless otherwise indicated, install dowel rods on 18-inch (457-mm) centers around the full perimeter of the base.
 3. Install epoxy-coated anchor bolts for supported equipment that extend through concrete base, and anchor into structural concrete floor.
 4. Place and secure anchorage devices. Use supported equipment manufacturer's setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 5. Install anchor bolts to elevations required for proper attachment to supported equipment.
 6. Use 3000-psig (20.7-MPa), 28-day, compressive-strength concrete and reinforcement as specified in Division 03

3.16 FIELD QUALITY CONTROL

- A. Perform tests and inspections.

1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.

B. Tests and Inspections:

1. Tanks: Minimum hydrostatic or compressed-air test pressures for fuel-oil storage tanks that have not been factory tested and do not bear the ASME code stamp or a listing mark acceptable to authorities having jurisdiction:
 - a. Single-Wall Tanks: Minimum 3 psig (20.7 kPa) and maximum 5 psig (34.5 kPa).
 - b. Double-Wall Tanks:
 - 1) Inner Tanks: Minimum 3 psig (20.7 kPa) and maximum 5 psig (34.5 kPa).
 - 2) Interstitial Space: Minimum 3 psig (20.7 kPa) and maximum 5 psig (34.5 kPa), or 5.3-in. Hg (18-kPa) vacuum.
 - c. Where vertical height of fill and vent pipes is such that the static head imposed on the bottom of the tank is greater than 10 psig (69 kPa), hydrostatically test the tank and fill and vent pipes to a pressure equal to the static head thus imposed.
 - d. Maintain the test pressure for one hour.
2. Piping: Minimum hydrostatic or pneumatic test-pressures measured at highest point in system:
 - a. Fuel-Oil, Double-Containment Piping:
 - 1) Carrier Pipe: Minimum 5 psig (34.5 kPa) for minimum 30 minutes.
 - 2) Containment Conduit: Minimum 5 psig (34.5 kPa) for minimum 60 minutes.
 - b. Suction Piping: Minimum 20-in. Hg (68 kPa) for minimum 30 minutes.
 - c. Isolate storage tanks if test pressure in piping will cause pressure in storage tanks to exceed 10 psig (69 kPa).
3. Inspect and test fuel-oil piping according to NFPA 31, "Tests of Piping" Paragraph; and according to requirements of authorities having jurisdiction.
4. Test liquid-level gage for accuracy by manually measuring fuel-oil levels at not less than three different depths while filling tank and checking against gage indication.
5. Test leak-detection and monitoring system for accuracy by manually operating sensors and checking against alarm panel indication.
6. Start fuel-oil transfer pumps to verify for proper operation of pump and check for leaks.
7. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
8. Bleed air from fuel-oil piping using manual air vents.

- C. Fuel-oil piping and equipment will be considered defective if it does not pass tests and inspections.
- D. Prepare test and inspection reports.

3.17 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain liquid-level gage systems, leak-detection and monitoring systems, and fuel-oil pumps.

3.18 OUTDOOR PIPING SCHEDULE

- A. Aboveground fuel-oil piping shall be one of the following:
 - 1. NPS 2 (DN 50) and Smaller: Steel pipe, steel or malleable-iron threaded fittings, and threaded joints.
 - 2. NPS 2-1/2 (DN 65) and Larger: Steel pipe, steel welding fittings, and welded joints.

3.19 ABOVEGROUND MANUAL FUEL-OIL SHUTOFF VALVE SCHEDULE

- A. Distribution piping valves for pipe NPS 2 (DN 50) and smaller shall be one of the following:
 - 1. One-piece, bronze ball valve with bronze trim.
 - 2. Two-piece, full-port, bronze ball valves with bronze trim.
- B. Distribution piping valves for pipe NPS 2-1/2 (DN 65) and larger shall be one of the following:
 - 1. Two-piece, full-port, bronze ball valves with bronze trim.
 - 2. Bronze, nonlubricated plug valve.
- C. Valves in branch piping for single appliance shall be one of the following:
 - 1. One-piece, bronze ball valve with bronze trim.
 - 2. Two-piece, full-port, bronze ball valves with bronze trim.

END OF SECTION

SECTION 26 05 00
COMMON WORK RESULTS FOR ELECTRICAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 DESCRIPTION

- A. Work to be performed under the sections of Division 26 includes all labor, materials, and equipment required to install complete electrical systems as described in these specifications and as shown on the drawings. This section includes information common to two or more technical specification sections or items that are of a general nature, not conveniently fitting into other technical sections.
- B. Before submitting a bid, the Contractor shall examine the drawings and specifications, visit the work site, and be informed of local conditions, all federal, state and local ordinances, regulations and all other pertinent items which may affect cost, schedule, and completion of this project.
- C. Drawings accompanying these specifications are a part of these specifications. Drawings are intended to show general arrangement, design, and extent of work and are diagrammatic. Drawings are not intended to show exact locations except where dimensions are shown. Any substantial differences existing between drawings and conditions in the field shall be submitted to the Engineer for consideration before proceeding with work. Electrical work is shown on plans using standard industry symbols.
- D. Before ordering materials or doing work, the Contractor shall verify all measurements pertaining to work scope and assume installation responsibility for complete and fully functional electrical systems.
- E. The electrical work included in all other divisions of this specification and related documents is the responsibility of the contractor performing the division 26 work unless specifically noted otherwise.

1.3 REFERENCED STANDARDS

- A. Abbreviations of standards organizations referenced in this and other sections are as follows:
- | | |
|------|--|
| ANSI | American National Standards Institute |
| ASTM | American Society for Testing and Materials |
| EPA | Environmental Protection Agency |
| ETL | Electrical Testing Laboratories, Inc. |

IBC	International Building Code
IEEE	Institute of Electrical and Electronics Engineers
IES	Illuminating Engineering Society
ISA	Instrument Society of America
NBS	National Bureau of Standards
NEC	National Electric Code
NECA	National Electrical Contractors Association
NEMA	National Electrical Manufacturers Association
NESC	National Electrical Safety Code
NFPA	National Fire Protection Association
UL	Underwriters Laboratories Inc.

1.4 QUALITY ASSURANCE

- A. Manufacturer references used herein are intended to establish a level of quality and performance requirements unless more explicit restrictions are stated to apply.
- B. Where equipment or accessories are used which differ in arrangement, configuration, dimensions, ratings, or engineering parameters from those indicated on the contract documents, the contractor is responsible for all costs involved in integrating the equipment or accessories into the system and the assigned space and for obtaining the performance from the system into which these items are placed.
- C. All materials shall be listed by and shall bear the label of an approved electrical testing laboratory. If none of the approved electrical testing laboratories has published standards for a particular item, then other national independent testing standards, subject to approval by the Engineer, shall apply and such items shall bear those labels. Where one of the approved electrical testing laboratories has an applicable system listing and label, the entire system shall be so labeled. The Contractor shall not modify new equipment in such a way as to nullify the Testing Laboratories label. All equipment and materials shall be used or installed in accordance with any instruction included in the listing by the laboratory.

1.5 DEFINITIONS

- A. Activation: Nomenclature used by some manufacturers for a service fitting.
- B. ARC: Aluminum rigid conduit.
- C. ATS: Acceptance Testing Specifications.
- D. BACnet: A networking communication protocol that complies with ASHRAE 135.
- E. BAS: Building automation system.

- F. CPT: Control power transformer.
- G. Delegated-Design Submittals: Documents, including drawings, calculations, and material and product specifications prepared as a responsibility of Contractor to obtain acceptance by Owner and authorities having jurisdiction.
- H. Direct Buried: Duct or a duct bank that is buried in the ground, without any additional casing materials such as concrete.
- I. Duct: A single duct or multiple ducts. Duct may be either installed singly or as component of a duct bank.
- J. Duct Bank: Two or more ducts installed in parallel, with or without additional casing materials and or multiple duct bank.
- K. EMI: Electromagnetic interference.
- L. EMT: Electrical metallic tubing.
- M. Ethernet: Local area network based on IEEE 802.3 standards.
- N. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.
- O. FEP: Fluorinated ethylene propylene.
- P. Firmware: Software (programs or data) that has been written onto read-only memory (ROM). Firmware is a combination of software and hardware. Storage media with ROMs that have data or programs recorded on them are firmware.
- Q. FMG: Factory Mutual Group
- R. GFCI: Ground-Fault Circuit Interrupter.
- S. GRC: Galvanized rigid steel conduit.
- T. HTML: Hypertext markup language.
- U. IBC: International Building Code.
- V. I/O: Input/output.
- W. IP: Internet protocol.
- X. IR: Infrared.

- Y. Jacket: A continuous nonmetallic outer covering for conductors or cables.
- Z. LAN: Local area network; sometimes plural as "LANs."
- AA. Legally Required: As used in this Section, it shall have the same meaning as used in NFPA 70.
- BB. Low Voltage: As defined in NFPA 70 for circuits and equipment operating at less than 50 V or remote-control, signaling and power-limited circuits.
- CC. LP: Liquid petroleum.
- DD. MCC: Motor-control center.
- EE. MCCB: Molded-case circuit breaker.
- FF. MCP: Motor-circuit protector.
- GG. Modbus TCP/IP: An open protocol for exchange of process data.
- HH. MOV: Metal-oxide varistor; an electronic component with a significant non-ohmic current-voltage characteristic.
- II. NC: Normally closed.
- JJ. NETA ATS: Acceptance Testing Specification.
- KK. NO: Normally open.
- LL. OCPD: Overcurrent protective device.
- MM. One-Line Diagram: A diagram which shows, by means of single lines and graphic symbols, the course of an electric circuit or system of circuits and the component devices or parts used therein.
- NN. PC: Personal computer; sometimes plural as "PCs."
- OO. PID: Control action, proportional plus integral plus derivative.
- PP. Pigtail: Short lead used to connect a device to a branch-circuit conductor.
- QQ. Protective Device: A device that senses when an abnormal current flow exists and then removes the affected portion from the system.
- RR. PT: Potential transformer.

- SS. RMC: Rigid metal conduit.
- TT. rms: Root-mean-square value of alternating voltage, which is the square root of the mean value of the square of the voltage values during a complete cycle.
- UU. RS-232: A TIA standard for asynchronous serial data communications between terminal devices.
- VV. RS-485: A serial network protocol, similar to RS-232, complying with TIA-485-A
- WW. Service: The conductors and equipment for delivering electric energy from the serving utility to the wiring system of the premises served.
- XX. Sheath: A continuous metallic covering for conductors or cables.
- YY. SPD: Surge protective device.
- ZZ. SPDT: Single pole, double throw.
- AAA. TCP/IP: Transport control protocol/Internet protocol incorporated into Microsoft Windows.
- BBB. TVSS: Transient voltage surge suppressor.
- CCC. Uninterruptible: As used in the Section Text, an on-line, double-conversion (rectifier/inverter) unit, with no interruption of power to the load on interruption and restoration of the "normal" source.
- DDD. UPS: Uninterrupted power supply.
- EEE. UTP: Unshielded twisted pair.
- FFF. VFC: Variable-frequency motor controller.
- GGG. VFD: Variable frequency drive or motor controller.
- HHH. VPN: Virtual private network.
- III. WAN: Wide area network.

1.6 REGULATORY REQUIREMENTS

- A. All work and materials are to conform in every detail to applicable rules and requirements of local codes and regulations, the National Electrical Code (NFPA 70), other applicable National Fire Protection Association codes, and current manufacturing standards (including NEMA) and any additional local modifications enacted by the Local Authority Having Jurisdiction. Contractor shall

be responsible to verify what if any local modifications are in place or enacted by the Local Authority Having Jurisdiction.

- B. All work shall be installed in accordance with NECA standards of installation.
- C. All work shall conform where applicable to the Williams-Steiger Occupational Safety and Health Act of 1970 (OSHA), Part 1910, "Occupational Safety and Health Standards." This shall include any local or state modifications enacted by the Authority having Jurisdiction.

1.7 CONTINUITY OF EXISTING SERVICES AND SYSTEMS

- A. No outages shall be permitted on existing systems except at the time and during the interval specified by the Owner. The Owner may require written approval. Any outage must be scheduled when the interruption causes the least interference with normal Owner schedules and business routines. No extra costs will be paid to the Contractor for such outages which must occur outside of regular weekly working hours.
- B. Interruption of Existing Electric Service: Do not interrupt electric service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary electric service according to requirements indicated:
 - 1. Notify Owner no fewer than seven days in advance of proposed interruption of electric service.
 - 2. Indicate method of providing temporary electric service.
 - 3. Do not proceed with interruption of electric service without Owner's written permission.
- C. This Contractor shall restore any circuit interrupted as a result of this work to proper operation as soon as possible.

1.8 OMISSIONS

- A. A. No later than ten (10) days before bid opening, the Contractor shall call to the attention of the Engineer any materials or apparatus the Contractor believes to be inadequate and to any necessary items of work omitted.

1.9 SUBMITTALS

- A. Refer to Division 01 for Submittal requirements.
- B. Submit for all equipment and systems as indicated in the respective specification sections, marking each submittal with that specification section number. Mark general catalog sheets and drawings to indicate specific items being submitted and proper identification of equipment by name or number, as indicated in the contract documents. Failure to do this may result in the submittal(s) being returned to the Contractor for correction and resubmission. Failing to follow

these instructions does not relieve the Contractor from the requirement of meeting the project schedule.

- C. On request, the Contractor shall furnish additional drawings, illustrations, catalog data, performance characteristics, etc. to clarify intent of construction or operations.
- D. Submittals shall be grouped to include complete submittals of related systems, products, and accessories in a single submittal. Mark dimensions and values in units to match those specified. Include wiring diagrams of electrically powered equipment.
- E. The submittals must be approved before fabrication.

1.10 WORK SEQUENCE AND SCHEDULING

- A. See the General Conditions of the Contract, Scheduling and Coordination of Work, and Time for Completion of the Project, and General Requirements, Mutual Responsibility for additional requirements.

1.11 WORK BY OTHER TRADES

- A. Every attempt has been made to indicate in this trade's specifications and drawings all work required of this Contractor. However, there may be additional specific paragraphs in other trade specifications and addenda, and additional notes on drawings for other trades which pertain to this Trade's work, and thus those additional requirements are hereby made a part of these specifications and drawings.
- B. Electrical details on drawings for equipment to be provided by others is based on preliminary design data only. This Contractor shall lay out the electrical work and shall be responsible for its correctness to match equipment actually provided by others.

1.12 OPERATING AND MAINTENANCE INSTRUCTIONS

- A. Refer to Division 1, General Requirements, Operating and Maintenance Instructions for additional requirements.

1.13 TRAINING

- A. Instruct Owner's personnel in the proper operation and maintenance of systems and equipment provided as part of this project; video record all training sessions. Use the Operating and Maintenance manuals during this instruction. Demonstrate startup and shutdown procedures for all equipment. All training to be during normal working hours.
- B. The requirement for recording training sessions may be deleted on some projects but not the requirement for the training itself.
- C. Refer to other sections in Division 26 for specific section and equipment training requirements.

1.14 RECORD DRAWINGS

- A. Contractor shall provide drawings to document as-built conditions per Division 1.
- B. The daily record of changes shall be the responsibility of the Contractor's field representative. No arbitrary mark-ups will be permitted.
- C. The record drawing set shall be made available and may be audited periodically by the Owner to assure the changes are being recorded.
- D. At the completion of the project, the Contractor shall submit the marked-up record drawings to the Owner prior to request for final payment.

1.15 MANUFACTURERS

- A. Reference applicable sections within Division 26.

PART 2 - EXECUTION

2.1 WORK INCLUDED

- A. The scope of work shall include all work, including all labor, materials and equipment, testing required to install a complete electrical system as indicated in the project Manual. The Project Manual consists of the bidding documents, the contract, specifications, contract drawings and all subsequent addenda and modifications. The contractor shall furnish and install all necessary materials, apparatus and devices to complete the electrical equipment and systems installation herein specified, except such parts as are specifically exempted herein.
- B. All work items shown on the drawings is within the scope of work and shall be provided as indicated. Only items that are clearly indicated as being provided by others or under a separate contract shall be out of scope.
- C. In general, the specifications indicate the requirements and quality for products required and the executions for those products. Only items that are clearly indicated as being provided by others or under a separate contract shall be out of scope.
- D. If there is any discrepancy between the drawings and the specifications, it is the contractor's responsibility to notify the Engineer for resolution, prior to procuring equipment or starting work.
- E. Coordinate and verify all equipment being supplied by equipment supplier and other trades. Verify equipment size, motor HP, dimensions, locations, etc. as all are subject to change.
- F. All permits and inspection fees required to complete the work shall be paid for by the Contractor unless noted otherwise.

- G. All electrical equipment and fixtures shall be installed in complete accordance with the manufacturers' recommendations.

2.2 CONCRETE

- A. All concrete work required for the proper installation of electrical equipment including transformer, switchgear and motor control center pads and other equipment pads shall be provided by the Contractor and shall conform to specifications in Division 3.

2.3 SITE WORK

- A. The Contractor shall provide excavation and backfill for all electrical underground work as indicated on the drawings and as required. The Contractor shall perform this work and provide compaction as specified in Division 2. Finish grading and final restoration shall be by the General Contractor.

2.4 PERMITS, FEES, TAXES, INSPECTIONS

- A. Procure all applicable permits and licenses.
- B. Abide by all laws, regulations, ordinances, and other rules of the State or Political Subdivision where the work is done, or as required by any duly constituted public authority.
- C. ELECTRICAL CONTRACTOR to pay all charges for permits or licenses.
- D. Pay all fees and taxes imposed by State, Municipal, and other regulatory bodies.
- E. Pay all charges arising out of required inspections by an authorized body.
- F. Pay all charges arising out of required contract document reviews associated with the project and as initiated by the Owner or authorized agency/consultant.
- G. Where applicable, all fixtures, equipment and materials shall be listed by Underwriter's Laboratories, Inc. or a nationally recognized testing organization.

2.5 COORDINATION

- A. The Contractor shall cooperate with other trades and the Owner's construction representative in locating work in a proper manner. Should it be necessary to raise or lower or move longitudinally any part of the electrical work to better fit the general installation, such work shall be done at no extra cost, provided such decision is reached prior to actual installation. The Contractor shall check location of electrical outlets with respect to other installations before installing.
- B. Coordinate all work with other trades prior to installation. Any installed work that is not coordinated and that interferes with another trades work shall be removed or relocated at the installing contractor's expense.

2.6 HOUSEKEEPING AND CLEAN UP

- A. Refer to Division 1, General Requirements, and Cleaning for additional requirements.

END OF SECTION 26 05 00

SECTION 26 05 02
ELECTRICAL DEMOLITION AND ALTERATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this section.
- B. Section 26 05 00 "Common Work Results for Electrical."
- C. NFPA 70 – National Electrical Code

1.2 COORDINATION

- A. Coordinate sequencing with Owner and other Contractors. Coordinate scope of work with all other Contractors and the Owner at the project site. Schedule removal of equipment and electrical service to avoid conflicts.

1.3 SUMMARY

- A. Electrical Demolition
- B. The drawings are intended to indicate the scope of work required and do not indicate every box, conduit, or wire that must be removed. The Contractor shall visit the site prior to submitting a bid and verify existing conditions.

1.4 CONTINUITY OF EXISTING SERVICES AND SYSTEMS

- A. No outages shall be permitted on existing systems except at the time and during the interval specified by the Owner. The Owner may require written approval. Any outage must be scheduled when the interruption causes the least interference with normal Owner schedules and business routines. No extra costs will be paid to the Contractor for such outages which must occur outside of regular weekly working hours.
- B. This Contractor shall restore any circuit interrupted as a result of this work to proper operation as soon as possible.
- C. Prior to demolition or alteration of structures, the following shall be accomplished:
 - 1. Owner release of structure.
 - 2. Disconnection of electrical power to utilization equipment and circuits removed or affected by demolition work.
 - 3. Electrical services rerouted or shut off outside area of demolition.
 - 4. Survey and record condition of existing facilities to remain in place that may be affected by demolition operations. After demolition operations are completed, survey conditions again and restores existing facilities to their pre-demolition condition.
 - 5. Notify utilities prior to razing operations to permit them to disconnect and remove or relocate equipment that served existing facilities.
 - 6. Contractor shall notify Architect/Engineer of existing code violations observed during the course of performing his work. If corrective action needs to be taken that changes the scope of the work, corrective action to proceed only after approved by Architect/Engineer.

7. Provide temporary wiring and connections to maintain existing systems in service during construction. Assume all equipment and systems must remain operational unless specifically noted otherwise on drawings.
8. Existing Electrical Service: Maintain existing system in service until new system is completed and ready for service. Disable system only to make switchovers and connections. Obtain permission no fewer than seven days in advance of proposed interruption of electric service before partially or completely disabling system. Minimize outage duration. If required, make temporary connections to maintain service in areas adjacent to work area. Do not proceed with interruption of electric service without Owner's written permission.

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT

- A. Materials and equipment for patching and extending work as specified in the individual Sections.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that abandoned wiring and equipment serve only abandoned equipment or facilities. Extend conduit and wire to facilities and equipment that will remain in operation following demolition. Extension of conduit and wire to equipment shall be compatible with the surrounding area.

3.2 PREPARATION

- A. Where walls, ceilings, structures, etc., are indicated as being renovated and/or removed on general drawings, the Contractor shall be responsible for the removal of all electrical equipment, devices, fixtures, raceways, wiring, systems, etc., from the removed area.
- B. Where ceilings, walls, structures, etc., are temporarily removed and replaced by others, this Contractor shall be responsible for the removal, storage, and replacement of equipment, devices, fixtures, raceways, wiring, systems, etc.

3.3 DEMOLITION AND EXTENSION OF EXISTING ELECTRICAL WORK

- A. Disconnect abandoned outlets and remove devices. Remove abandoned outlets if conduit servicing them is abandoned and removed. Provide blank cover for abandoned outlets which are not removed. Patch openings created from removal of devices to match surrounding finishes.
- B. Repair adjacent construction and finishes damaged during demolition and extension work. Patch openings to match existing surrounding finishes.
- C. Maintain access to existing electrical installations which remain active. Modify installation or provide access panel as appropriate.
- D. Extend existing installations using materials and methods compatible with existing electrical installations, or as specified. This includes the extension of the circuit from the last active device to the next device in the system to be activated.

- E. Equipment removal in certain locations may require the installation of a junction box to reconnect circuits that remain in operation. Extend conduit and wiring as required to maintain power to remaining equipment.
- F. Contractor shall remove and install all ceiling tiles as required for the execution of electrical work that is outside the contract limits of construction. Contractor shall replace ceiling tiles with identical material where damaged by this Contractor.
- G. Regulatory Requirements: Comply with governing EPA notification regulations before beginning demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- H. Contractor is responsible for all costs incurred in repair, relocations, or replacement of any cables, conduits, or other services if damaged without proper investigation.

3.4 CLEANING AND REPAIR

- A. Clean and repair existing materials and equipment that remain or are to be reused.
- B. Panelboards: Within the project scope. Clean exposed surfaces and check tightness of electrical connections. Replace damaged circuit breakers and provide closure plates for vacant positions. Provide typed circuit directory showing revised circuiting arrangement.
- C. Electrical items (i.e., lighting fixtures, panelboard motor controllers, disconnects, switches, conduit, wire, etc.) Removed and not relocated remain the property of the owner. The contractor shall dispose of material the owner does not want.

3.5 ASBESTOS REMOVAL

- A. If this Contractor shall discover the presence of asbestos material he shall cease work immediately and notify Owner architect and Engineer of condition.

3.6 INSTALLATION

- A. Install relocated materials and equipment under the provisions of Division 26 Specifications.

END OF SECTION 26 05 02

SECTION 26 05 19

LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Building wires and cables rated 600 V and less.
 - 2. Connectors, splices, and terminations rated 600 V and less.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.

1.4 INFORMATIONAL SUBMITTALS

- A. Field quality-control reports.

PART 2 - PRODUCTS

2.1 CONDUCTORS AND CABLES

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Belden Inc.
 - 2. Encore Wire Corporation.
 - 3. General Cable Technologies Corporation.
 - 4. Southwire Incorporated.
- B. Copper Conductors: Comply with NEMA WC 70/ICEA S-95-658.
- C. Conductor Insulation: Comply with NEMA WC 70/ICEA S-95-658 for Type THHN-THWN-2.
- D. Conductor sizes shown on drawings are based on 75 Degree C copper.
- E. All conductors shall be rated 600 volts.

- F. Branch circuit wire sizes not shown on the drawings shall be #12 AWG minimum.

2.2 CONNECTORS AND SPLICES

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Hubbell Power Systems, Inc.
 - 2. IlSCO; a branch of Barden Corporation.
 - 3. Thomas and Betts Corp.
 - 4. 3M; Electrical Markets Division.
- B. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.
 - 1. Split Bolt Connectors: Not acceptable.
 - 2. Solderless Pressure Connectors: High copper alloy terminal. May be used only for cable termination to equipment pads or terminals. Not approved for splicing.
 - 3. Spring Wire Connectors: Solderless spring type pressure connector with insulating covers for copper wire splices and taps. Use for conductor sizes 10 AWG and smaller.
 - 4. All wire connectors used in underground or exterior pull boxes shall be gel filled twist connectors or a connector designed for damp and wet locations.
 - 5. Mechanical Connectors: Bolted type tin-plated; high conductivity copper alloy; spacer between conductors; beveled cable entrances.
 - 6. Compression (crimp) Connectors: Long barrel; seamless, tin-plated electrolytic copper tubing; internally beveled barrel ends. Connector shall be clearly marked with the wire size and type and proper number and location of crimps.

2.3 SYSTEM DESCRIPTION

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

PART 3 - EXECUTION

3.1 CONDUCTOR MATERIAL APPLICATIONS

- A. Feeders: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.
- B. Branch Circuits: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

3.2 CONDUCTOR INSULATION AND WIRING METHODS

- A. Service Entrance: Type THHN-THWN-2, single conductors in raceway.
- B. Exposed Feeders: Type THHN-THWN-2, single conductors in raceway.

- C. Feeders Concealed in Ceilings, Walls, Partitions, and Crawlspace: Type THHN-THWN-2, single conductors in raceway.
- D. Feeders Concealed in Concrete, below Slabs-on-Grade, and Underground: Type THHN-THWN-2, single conductors in raceway.
- E. Branch Circuits Concealed in Concrete, below Slabs-on-Grade, and Underground: Type THHN-THWN-2, single conductors in raceway.

3.3 INSTALLATION OF CONDUCTORS AND CABLES

- A. Feeder and branch circuit routing is shown diagrammatically on the drawings and is approximate unless dimensioned. Route feeders and branch circuits as required to meet project conditions.
- B. All 120- and 277-volt branch circuits shall have a dedicated neutral conductor. The neutral conductor shall be considered current-carrying conductor for wire derating. The use of multi-wire branch circuits with a common neutral is not permitted.
- C. All power wiring shall be installed in conduit unless specifically indicated otherwise.
- D. Conceal feeders and branch circuits in finished walls, ceilings, and floors, unless otherwise indicated.
- E. Conceal cables in finished walls, ceilings, and floors unless otherwise indicated.
- F. Complete raceway installation between conductor and cable termination points according to Section 260533 Raceways and Boxes for Electrical Systems prior to pulling conductors and cables.
- G. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
- H. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips that will not damage cables or raceway.
- I. Install exposed feeders and branch circuits parallel and perpendicular to surfaces of exposed structural members and follow surface contours where possible.
- J. Install exposed cables parallel and perpendicular to surfaces of exposed structural members and follow surface contours where possible.

3.4 CONNECTIONS

- A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.

- B. Make splices, terminations, and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.

3.5 IDENTIFICATION

- A. Identify and color-code conductors and cables according to Section 260553 Identification for Electrical Systems.
- B. Identify each spare conductor at each end with identity number and location of other end of conductor and identify as spare conductor.

3.6 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections:
 - 1. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
 - 2. Perform insulation-resistance test, with respect to ground and adjacent conductors, on each conductor of power feeders 100 amperes or greater. Applied potential shall be 1000 volts dc for 600 volt rated cable. Test duration shall be one minute. Insulating-resistance values should not be less than 50 megohms.
 - 3. Any conductors that fail the above-mentioned tests shall be replaced, and those new conductors shall be tested and meet the requirements mentioned above.
- B. Test and Inspection Reports: Prepare a written report to record the following:
 - 1. Procedures used.
 - 2. Results that comply with requirements.
 - 3. Results that do not comply with requirements and corrective action taken to achieve compliance with requirements.
- C. Cables will be considered defective if they do not pass tests and inspections.

END OF SECTION 26 05 19

SECTION 26 05 26
GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. Extent of grounding work is indicated by drawings and schedules.
- B. Application of grounding work in this section includes the following:
 - 1. Underground Metal Piping
 - 2. Metal Building Frames
 - 3. Grounding Electrodes
 - 4. Separately Derived Systems
 - 5. Service Equipment
 - 6. Enclosures
 - 7. Equipment
- C. Requirements of this section apply to electrical grounding work specified elsewhere in these specifications.
- D. Conductors. Copper cable; strand dia. 0.045"; 14 strands.
- E. Ground Rods. Solid copper 5/8" dia. x 10'.

PART 2 - INSTALLATION

2.10 GENERAL

- A. Install electrical grounding systems where shown, in accordance with applicable portion of NEC, with NECA's "Standard of Installation", and in accordance with recognized industry practices to ensure that products comply with requirements and serve intended functions.

END OF SECTION

SECTION 26 05 29

HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Hangers and supports for electrical equipment and systems.
 - 2. Construction requirements for concrete bases.

1.3 PERFORMANCE REQUIREMENTS

- A. Provide supports for multiple raceways capable of supporting combined weight of supported systems and its contents.
- B. Provide equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.

1.4 ACTION SUBMITTALS

- A. Shop Drawings: Show fabrication and installation details and include calculations for the following:
 - 1. Trapeze hangers. Include Product Data for components.
 - 2. Steel slotted channel systems. Include Product Data for components.
 - 3. Equipment supports.

1.5 QUALITY ASSURANCE

- A. Welding: Qualify procedures and personnel according to AWS D1.1/D1.1M, Structural Welding Code - Steel.

1.6 COORDINATION

- A. Coordinate size and location of concrete bases. Cast anchor-bolt inserts into bases.

- B. Coordinate installation of roof curbs, equipment supports, and roof penetrations.

PART 2 - PRODUCTS

2.1 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

- A. Steel Slotted Support Systems: Comply with MFMA-4, factory-fabricated components for field assembly.
 - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Allied Tube & Conduit.
 - b. Cooper B-Line, Inc.; a division of Cooper Industries.
 - c. Thomas & Betts Corporation.
 - d. Unistrut; Tyco International, Ltd.
 - 2. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA-4.
- B. Stainless steel supports, fittings and hardware shall be ASTM type 316 with polished finish. Stainless steel screws, nuts, and bolts shall be ASTM type 316N2-33.
- C. Raceway and Cable Supports: As described in NECA 1 and NECA 101.
- D. Conduit and Cable Support Devices: Steel hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.
- E. Support for Conductors in Vertical Conduit: Factory-fabricated assembly consisting of threaded body and insulating wedging plug or plugs for non-armored electrical conductors or cables in riser conduits. Plugs shall have number, size, and shape of conductor gripping pieces as required to suit individual conductors or cables supported. Body shall be malleable iron.
- F. Structural Steel for Fabricated Supports and Restraints: ASTM A 36/A 36M, steel plates, shapes, and bars; black and galvanized.
- G. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:
 - 1. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete, steel, or wood, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.
 - a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1) Hilti Inc.
 - 2) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.

- 3) MKT Fastening, LLC.
 - 4) Simpson Strong-Tie Co., Inc.; Masterset Fastening Systems Unit.
2. Mechanical-Expansion Anchors: Insert-wedge-type, stainless steel, for use in hardened portland cement concrete with tension, shear, and pullout capacities appropriate for supported loads and building materials in which used. Plastic type expansion anchors are unacceptable.
 - a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1) Cooper B-Line, Inc.; a division of Cooper Industries.
 - 2) Empire Tool and Manufacturing Co., Inc.
 - 3) Hilti Inc.
 - 4) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
 - 5) MKT Fastening, LLC.
 3. Concrete Inserts: Steel or malleable-iron, slotted support system units similar to MSS Type 18; complying with MFMA-4 or MSS SP-58.
 4. Clamps for Attachment to Steel Structural Elements: MSS SP-58, type suitable for attached structural element.
 5. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A 325.
 6. Toggle Bolts: All-steel springhead type.
 7. Hanger Rods: Threaded steel.

2.2 FABRICATED METAL EQUIPMENT SUPPORT ASSEMBLIES

- A. Description: Welded or bolted, structural-steel shapes, shop or field fabricated to fit dimensions of supported equipment.

PART 3 - EXECUTION

3.1 APPLICATION

- A. Comply with NECA 1 and NECA 101 for application of hangers and supports for electrical equipment and systems except if requirements in this Section are stricter.
- B. Maximum Support Spacing and Minimum Hanger Rod Size for Raceway: Space supports for EMT, IMC, and RMC as scheduled in NECA 1, where its Table 1 lists maximum spacings less than stated in NFPA 70. Minimum rod size shall be 1/4 inch (6 mm) in diameter.
- C. Multiple Raceways or Cables: Install trapeze-type supports fabricated with steel slotted or other support system, sized so capacity can be increased by at least 25 percent in future without exceeding specified design load limits.
 1. Secure raceways and cables to these supports with two-bolt conduit clamps.

- D. All supports installed outside, exposed to the weather, or inside in wet or damp areas shall utilize corrosion resistant supports, fittings, hardware, conduit clamps and all accessories.

3.2 SUPPORT INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this Article.
- B. Raceway Support Methods: In addition to methods described in NECA 1, EMT, IMC, and RMC may be supported by openings through structure members, as permitted in NFPA 70.
- C. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb (90 kg).
- D. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:
 - 1. To Wood: Fasten with lag screws or through bolts.
 - 2. To New Concrete: Bolt to concrete inserts.
 - 3. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
 - 4. To Existing Concrete: Expansion anchor fasteners.
 - 5. Instead of expansion anchors, powder-actuated driven threaded studs provided with lock washers and nuts may be used in existing standard-weight concrete 4 inches (100 mm) thick or greater. Do not use for anchorage to lightweight-aggregate concrete or for slabs less than 4 inches (100 mm) thick.
 - 6. To Steel: Beam clamps (MSS Type 19, 21, 23, 25, or 27) complying with MSS SP-69.
 - 7. To Light Steel: Sheet metal screws.
 - 8. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted-channel racks attached to substrate.
- E. Drill holes for expansion anchors in concrete at locations and to depths that avoid reinforcing bars.
- F. Do not drill or weld structural steel members unless approved by Engineer.

3.3 INSTALLATION OF FABRICATED METAL SUPPORTS

- A. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor electrical materials and equipment.
- B. Field Welding: Comply with AWS D1.1/D1.1M.

3.4 CONCRETE BASES

- A. Construct concrete bases of dimensions indicated but not less than 4 inches (100 mm) larger in both directions than supported unit, and so anchors will be a minimum of 10 bolt diameters from edge of the base.
- B. Use 3000-psi (20.7-MPa), 28-day compressive-strength concrete.
- C. Anchor equipment to concrete base.
 - 1. Place and secure anchorage devices. Use supported equipment manufacturer's setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 - 2. Install anchor bolts to elevations required for proper attachment to supported equipment.
 - 3. Install anchor bolts according to anchor-bolt manufacturer's written instructions.

3.5 PAINTING

- A. Touchup: Clean field welds and abraded areas of shop paint. Paint exposed areas immediately after erecting hangers and supports. Use same materials as used for shop painting. Comply with SSPC-PA 1 requirements for touching up field-painted surfaces.
 - 1. Apply paint by brush or spray to provide minimum dry film thickness of 2.0 mils (0.05 mm).
- B. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A 780.

END OF SECTION 26 05 29

SECTION 26 05 33
RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
1. Metal conduits and fittings.
 2. Nonmetallic conduits and fittings.
 3. Metal wireways and auxiliary gutters.
 4. Boxes, enclosures, and cabinets.
- B. Related Requirements:
1. Division 7 for firestopping at conduit and box entrances.
 2. Section 260543 Underground Ducts and Raceways for Electrical Systems for exterior ductbanks, manholes, and underground utility construction.

1.3 ACTION SUBMITTALS

- A. Product Data: For wireways and fittings, hinged-cover enclosures, and cabinets.
- B. Sustainable Design Submittals:
1. Product Data: For solvents and adhesives, indicating VOC content.
 2. Laboratory Test Reports: For solvents and adhesives, indicating compliance with requirements for low-emitting materials.
- C. Shop Drawings: For custom enclosures and cabinets. Include plans, elevations, sections, and attachment details.

1.4 COORDINATION

- A. Coordinate layout and installation of raceways, boxes, enclosures, cabinets, and suspension system with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, fire-suppression system, and partition assemblies.

PART 2 - PRODUCTS

2.1 METAL CONDUITS AND FITTINGS

A. Metal Conduit:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Allied Tube & Conduit; a part of Atkore International.
 - b. Southwire Company.
 - c. Thomas & Betts Corporation; A Member of the ABB Group.
 - d. Western Tube and Conduit Corporation.
 - e. Wheatland Tube Company.
2. Listing and Labeling: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
3. RMC: Comply with ANSI C80.1 and UL 6.
4. ARC: Comply with ANSI C80.5 and UL 6A.
5. IMC: Comply with ANSI C80.6 and UL 1242.
6. PVC-Coated Steel Conduit: PVC-coated rigid steel conduit.
 - a. Comply with NEMA RN 1.
 - b. Coating Thickness: 0.040 inch (1 mm), minimum.
7. EMT: Comply with ANSI C80.3 and UL 797.
8. FMC: Comply with UL 1; zinc-coated steel or aluminum.
9. LFMC: Flexible steel conduit with PVC jacket and complying with UL 360.
10. Stainless Steel Conduit: Polished schedule 10 tubing in 20-foot lengths maximum, 1 inch diameter minimum.

B. Metal Fittings:

1. Comply with NEMA FB 1 and UL 514B.
2. Listing and Labeling: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
3. Fittings, General: Listed and labeled for type of conduit, location, and use.
4. Conduit Fittings for Hazardous (Classified) Locations: Comply with UL 1203.
5. Fittings for EMT:
 - a. Material: Steel.
 - b. Type: Setscrew.
6. Expansion Fittings: PVC or steel to match conduit type, complying with UL 651 for PVC and type XJ for steel, rated for environmental conditions where installed, and including flexible external bonding jumper.
7. Coating for Fittings for PVC-Coated Conduit: Minimum thickness of 0.040 inch (1 mm), with overlapping sleeves protecting threaded joints.

- C. Joint Compound for IMC, GRC, or ARC: Approved, as defined in NFPA 70, by authorities having jurisdiction for use in conduit assemblies, and compounded for use to lubricate and protect threaded conduit joints from corrosion and to enhance their conductivity.

2.2 NONMETALLIC CONDUITS AND FITTINGS

A. Nonmetallic Conduit:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Allied Tube & Conduit; a part of Atkore International.
 - b. CANTEX, Inc.
 - c. Champion Fiberglass, Inc.
 - d. Kraloy
 - e. Thomas & Betts Corporation; A Member of the ABB Group.
 - f. United Fiberglass.
2. Fiberglass:
 - a. Comply with NEMA TC 14.
 - b. Comply with UL 2515 for aboveground raceways.
 - c. Comply with UL 2420 for belowground raceways.
3. ENT: Comply with NEMA TC 13 and UL 1653.
4. RNC: Type EPC-40-PVC, complying with NEMA TC 2 and UL 651 unless otherwise indicated.
5. LFNC: Comply with UL 1660.
6. RTRC: Comply with UL 2515A and NEMA TC 14.

B. Nonmetallic Fittings:

1. Fittings, General: Listed and labeled for type of conduit, location, and use.
2. Fittings for ENT and RNC: Comply with NEMA TC 3; match to conduit or tubing type and material.
3. Fittings for LFNC: Comply with UL 514B.
4. Solvents and Adhesives: As recommended by conduit manufacturer.
5. Adhesive shall comply with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

2.3 METAL WIREWAYS AND AUXILIARY GUTTERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. B-line, an Eaton business.
2. Hoffman; a brand of Pentair Equipment Protection.

3. MonoSystems, Inc.
 4. Square D.
- B. Description: Sheet metal, complying with UL 870 and NEMA 250, Type 1 unless otherwise indicated, and sized according to NFPA 70.
- C. Material and Construction of Stainless Steel Wireway: Sized and shaped as indicated, 14 gauge minimum, type 304 stainless steel with stainless steel covers, Type as shown on drawings.
1. Flanges shall be 10-gauge stainless steel minimum.
 2. Wireway shall be constructed with continuously welded seams and with no holes or knockouts.
 3. All covers and flanges shall utilize solid oil-resistant gasket covers and shall be hinged with extended screw clamps.
 4. Connectors shall be flanged.
 5. Fittings shall be lay-in type with removable top.
- D. Fittings and Accessories: Include covers, couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.
- E. Wireway Covers: Hinged type unless otherwise indicated.
- F. Wireway Covers for Stainless Steel Wireway: Flanged-and-gasketed type.
- G. Finish: ANSI 61 Gray Unpainted galvanized for steel wireways and brushed stainless steel for stainless steel wireways.

2.4 BOXES, ENCLOSURES, AND CABINETS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Crouse-Hinds, an Eaton business.
 2. EGS/Appleton Electric.
 3. Hoffman; a brand of Pentair Equipment Protection.
 4. Hubbell Incorporated.
 5. O-Z/Gedney; a brand of Emerson Industrial Automation.
 6. RACO; Hubbell.
 7. Thomas & Betts Corporation; A Member of the ABB Group.
 8. Wiremold / Legrand.
- B. General Requirements for Boxes, Enclosures, and Cabinets: Boxes, enclosures, and cabinets installed in wet locations shall be listed for use in wet locations.
- C. Sheet Metal Outlet and Device Boxes: Comply with NEMA OS 1 and UL 514A.
- D. Cast-Metal Outlet and Device Boxes: Comply with NEMA FB 1, deep-type, ferrous alloy, Type FD, with gasketed cover, threaded hubs.

- E. Sheet Metal Pull and Junction Boxes: NEMA OS 1, galvanized steel.
- F. Cast-Metal Access, Pull, and Junction Boxes: Comply with NEMA FB 1 and UL 1773, cast aluminum with gasketed cover and stainless-steel cover screws.
 - 1. Flanged Type boxes shall be used where installed flush in wall.
- G. Box extensions used to accommodate new building finishes shall be of same material as recessed box.
- H. Device Box Dimensions: 4 inches square by 2-1/8 inches deep (100 mm square by 60 mm deep).
- I. Gangable boxes are prohibited.
- J. Hinged-Cover Enclosures: Comply with UL 50 and NEMA 250, Type 1 with continuous-hinge cover with flush latch unless otherwise indicated.
 - 1. Metal Enclosures: Steel, finished inside and out with manufacturer's standard enamel.
 - 2. Interior Panels: Steel; all sides finished with manufacturer's standard enamel.
- K. Cabinets:
 - 1. NEMA 250, Type 1 galvanized-steel box with removable interior panel and removable front, finished inside and out with manufacturer's standard enamel.
 - 2. Hinged door in front cover with flush latch and concealed hinge.
 - 3. Key latch to match panelboards.
 - 4. Metal barriers to separate wiring of different systems and voltage.
 - 5. Accessory feet where required for freestanding equipment.
- L. Accessories
 - 1. Fire rated Moldable pads: UL #9700, moldable sheet putty at required thickness on all five sides of back boxes. Acceptable manufacturers: Kinetics Noise Control, IsoBacker Pad, SSP Putty and Pads or equal.
 - 2. Sound Barrier Insulation Pads: Mastic, non-hardening, sheet material, and minimum 1/8" thickness applied to all five sides of the back boxes. Acceptable manufacturers: Kinetics Noise Control, SealTight Backer Pad and L.H. Dottie Co., #68 or equal.

PART 3 - EXECUTION

3.1 RACEWAY SIZING

- A. Size conduit as shown on the drawings and specifications. Where not indicated in the contract documents, conduit size shall be according to NEC. (Latest Edition). Conduit and conductor sizing shall be coordinated to limit conductor fill to less than 40%, maintain conductor ampere capacity as required by the National Electrical Code (to include enlarged conductor's due to temperature and quantity derating values) and to

prevent excessive voltage drop and pulling tension due to long conduit/conductor lengths.

- B. Minimum (Unless noted otherwise) Raceway Size 3/4-inch (21 mm) trade size. The use of 1/2 inch would be allowed for installation of conduit to individual light switches, individual receptacles and individual fixture whips from junction boxes.
- C. Minimum Raceway Size Control Conduit: 1-inch, unless noted otherwise in documents.
- D. Minimum Raceway Size; Below Grade 5'-0" or less from Building Foundation: 1 inch, unless noted otherwise in documents.
- E. Minimum Raceway Size; Below Grade more than 5'-0" from Building Foundation: 1-inch, unless noted otherwise in documents.
- F. Conduit sizes shall change only at the entrance or exit to a junction box, unless specifically noted on the drawings.

3.2 RACEWAY APPLICATION

- A. Outdoors: Apply raceway products as specified below unless otherwise indicated:
 - 1. Exposed Conduit: RMC.
 - 2. Concealed Conduit, Aboveground: IMC.
 - 3. Underground Conduit: Refer to Section 260543.
 - 4. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): LFMC.
 - 5. Boxes and Enclosures, Aboveground: NEMA 250, Type 3R.
- B. Indoors: Apply raceway products as specified below unless otherwise indicated:
 - 1. Exposed, Not Subject to Physical Damage: EMT.
 - 2. Exposed, Not Subject to Severe Physical Damage: EMT.
 - 3. In slabs above grade: RMC.
 - 4. In or under slabs on grade: IMC.
 - 5. Concealed in Ceilings and Interior Walls and Partitions: EMT.
 - 6. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): FMC, except use LFMC in damp or wet locations.
 - 7. Flexible Metal Conduit (FMC) 3/4 inch, unless otherwise noted. Lighting branch circuit wiring to an individual luminaire. Flexible metal conduit may be a manufactured, UL listed 3/8-inch flexible metal conduit and fittings with #14 AWG THHN conductors and an insulated ground wire. Maximum length of 3/8 inch FMC shall be six (6) feet.
 - 8. Damp or Wet Locations: RMC.
 - 9. Damp or Wet Locations and subject to Physical Damage: RMC
 - 10. Hazardous Locations: All raceways installed in hazardous locations shall be suitable for locations as defined in the NEC Article 500.

- C. Raceway Fittings: Compatible with raceways and suitable for use and location.
1. Rigid and Intermediate Steel Conduit: Use threaded rigid steel conduit fittings unless otherwise indicated. Comply with NEMA FB 2.10.
 2. PVC Externally Coated, Rigid Steel Conduits: Use only fittings listed for use with this type of conduit. Patch and seal all joints, nicks, and scrapes in PVC coating after installing conduits and fittings. Use sealant recommended by fitting manufacturer and apply in thickness and number of coats recommended by manufacturer.
 3. Aluminum Conduits: Use Stainless Steel fittings, unless otherwise indicated.
 4. Stainless Steel Conduit: Use Stainless Steel fittings, unless otherwise indicated. Flexible conduit connections from stainless steel boxes shall utilize Ocal-Blue PVC coated connectors with sealing O-rings.
 5. EMT: Use setscrew, steel fittings. Comply with NEMA FB 2.10.
 6. Flexible Conduit: Use only fittings listed for use with flexible conduit. Comply with NEMA FB 2.20.

3.3 BOXES AND ENCLOSURES APPLICATIONS

- A. Boxes and Enclosures:
1. NEMA 250, Type 1, except use NEMA 250, Type 4 in institutional and commercial kitchens and damp or wet locations.
 2. Dirty locations: NEMA 250, Type 12.
 3. Hazardous Locations: All boxes and enclosures installed in hazardous locations shall be suitable for locations as defined by NEC Article 500.

3.4 INSTALLATION

- A. Comply with requirements in Section 260529 Hangers and Supports for Electrical Systems for hangers and supports.
- B. Comply with NECA 1 and NECA 101 for installation requirements except where requirements on Drawings or in this article are stricter. Comply with NECA 102 for aluminum conduits. Comply with NFPA 70 limitations for types of raceways allowed in specific occupancies and number of floors.
- C. In general, conduits shall be installed concealed in walls, in finished spaces and where possible or practical, or as noted otherwise. In unfinished spaces, mechanical and utility areas, conduit may run either concealed or exposed as conditions dictate and as practical unless noted otherwise on drawings. Installation shall maintain headroom in exposed vicinities of pedestrian or vehicular traffic.
- D. Route conduit through roof openings provided for piping and ductwork where possible. If not provided or routing through provided openings is not possible, rough through jack with pitch pocket. Coordinate roof penetrations with others.
- E. Conduit runs shall be routed as shown on the large-scale drawings. Conduit routing on drawings scaled $\frac{1}{4}" = 1'-0"$ or less shall be considered diagrammatic, unless noted

otherwise. The correct routing, when shown diagrammatically shall be chosen by the Contractor based on information provided in the contract documents, in accordance with manufacturer's written instructions, applicable coded, NECA 1 and NECA 101 and coordinated with other contractors.

- F. Do not install raceways or electrical items on any "explosion-relief" walls or rotating equipment.
- G. Do not fasten conduits onto the bottom side of a metal deck roof.
- H. Keep raceways at least 6 inches (150 mm) away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.
- I. Complete raceway installation before starting conductor installation.
- J. Install temporary closures to prevent foreign matter from entering raceways.
- K. Unused openings in boxes and fittings shall be plugged with suitable devices rated for the proper environment.
- L. Make bends and offsets so ID is not reduced. Keep legs of bends in the same plane and keep straight legs of offsets parallel, unless otherwise indicated.
- M. Arrange stub-ups so curved portions of bends are not visible above finished slab. Where rigid non-metallic conduit (RNC) conduit is used below grade, in slab, below slab, etc., a transition to rigid galvanized steel or PVC-coated steel conduit shall be installed before conduit exits the earth. The metallic conduit shall extend a minimum of 6" into the surface concealing the non-metallic conduit.
- N. Stub-Ups to Above Recessed Ceilings:
 - 1. Use EMT, IMC, or RMC for raceways.
 - 2. Use a conduit bushing or insulated fitting to terminate stub-ups not terminated in hubs or in an enclosure.
- O. Install no more than the equivalent of three 90-degree bends in any conduit run except for control wiring conduits, for which fewer bends are allowed. Support within 12 inches of changes in direction and within 12 inches of enclosures to which attached to.
- P. Make bends in raceway using large-radius preformed ells. Field bending shall be according to NFPA 70 minimum radii requirements. Use only equipment specifically designed for material and size involved.
- Q. Conceal conduit within finished walls, and ceilings, unless otherwise indicated. Install conduits parallel or perpendicular to building lines. Conduit runs installed above suspended ceilings shall be properly supported. In no case shall conduit rest on the suspended ceiling construction, nor utilize ceiling support system for conduit supports.
- R. Install exposed raceways parallel or at right angles to nearby surfaces or structural members and follow surface contours as much as possible.

1. Run parallel or banked raceways together on common supports.
 2. Make parallel bends in parallel or banked runs. Use factory elbows only where elbows can be installed parallel; otherwise, provide field bends for parallel raceways.
- S. Install concealed raceways with a minimum of bends in the shortest practical distance, considering type of building construction and obstructions, unless otherwise indicated.
- T. Conduit shall not be routed under floor slab unless specifically noted on drawings.
- U. Contractor shall be responsible for all openings required in masonry or exterior walls under this division. A qualified mason at the expense of this contractor shall repair all openings to match existing conditions.
- V. Stainless Steel Conduit:
1. Stainless steel conduit sections shall be purge welded, polished, and de-burred.
 2. Transitions from stainless steel conduits to other conduit systems shall occur at NEMA 4X stainless steel boxes. Stainless steel conduit shall be purge welded to stainless steel boxes and weld polished and de-burred. Weld at exterior connection and soliflex inside.

3.5 CONDUIT TERMINATIONS

- A. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.
- B. Coat field-cut threads on PVC-coated raceway with a corrosion-preventing conductive compound prior to assembly.
- C. Join raceways with fittings designed and approved for that purpose and make joints tight.
- D. When raceways are terminated with locknuts and bushings, align raceways to enter squarely and install locknuts with dished part against box. Use two locknuts, one inside and one outside box.
- E. Where raceways are terminated with threaded hubs, screw raceways or fittings tightly into hub so end bears against wire protection shoulder. Where chase nipples are used, align raceways so coupling is square to box; tighten chase nipple so no threads are exposed.
- F. Raceway Terminations at Locations Subject to Moisture or Vibration: Use insulating bushings to protect conductors including conductors smaller than No. 4 AWG.
- G. Terminate threaded conduits into threaded hubs or with locknuts on inside and outside of boxes or cabinets. Install bushings on conduits up to 1-1/4-inch (35mm) trade size and insulated throat metal bushings on 1-1/2-inch (41-mm) trade size and larger conduits terminated with locknuts. Install insulated throat metal grounding bushings on service conduits.

- H. Install raceways square to the enclosure and terminate at enclosures with locknuts. Install locknuts hand tight plus 1/4 turn more.
- I. Do not rely on locknuts to penetrate nonconductive coatings on enclosures. Remove coatings in the locknut area prior to assembling conduit to enclosure to assure a continuous ground path.
- J. Cut conduit perpendicular to the length. For conduits 2-inch (53-mm) trade size and larger, use roll cutter or a guide to make cut straight and perpendicular to the length.
- K. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb (90-kg) tensile strength. Leave at least 12 inches (300 mm) of slack at each end of pull wire. Cap underground raceways designated as spare above grade alongside raceways in use.
- L. Install raceway sealing fittings at accessible locations according to NFPA 70 and fill them with listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces. Install raceway sealing fittings according to NFPA 70.
- M. Install devices to seal raceway interiors at accessible locations. Locate seals so no fittings or boxes are between the seal and the following changes of environments. Seal the interior of all raceways at the following points:
 - 1. Where conduits pass from warm to cold locations, such as boundaries of refrigerated spaces.
 - 2. Where an underground service raceway enters a building or structure.
 - 3. Conduit extending from interior to exterior of building.
 - 4. Conduit extending into pressurized duct and equipment.
 - 5. Conduit extending into pressurized zones that are automatically controlled to maintain different pressure set points.
 - 6. Where otherwise required by NFPA 70.
- N. Comply with manufacturer's written instructions for solvent welding RNC and fittings.
- O. Expansion fittings shall be installed across expansion joints in structures and concrete construction where such joints are shown on the architectural and structural drawings.
- P. Stub-up Connections: Extend conduits through concrete floor for connection to freestanding equipment. Install with an adjustable top or coupling threaded inside for plugs set flush with finished floor. Extend conductors to equipment with rigid steel conduit; FMC may be used 6 inches (150 mm) above the floor. Install screwdriver-operated, threaded plugs flush with floor for future equipment connections.
- Q. Flexible Conduit Connections: Comply with NEMA RV 3. Use a maximum of 72 inches (1830 mm) of flexible conduit for equipment subject to vibration, noise transmission, or movement; and for transformers and motors.
 - 1. Use LFMC in damp or wet locations subject to severe physical damage.
 - 2. Use LFMC or LFNC in damp or wet locations not subject to severe physical damage.

3.6 BOX INSTALLATION

- A. Mount boxes at heights indicated on Drawings. If mounting heights of boxes are not individually indicated, give priority to ADA requirements. Install boxes with height measured to center of box unless otherwise indicated.
- B. Recessed Boxes in Masonry Walls: Saw-cut opening for box in corner of cell of masonry block and install box flush with surface of wall. Prepare block surfaces to provide a flat surface for a raintight connection between box and cover plate or supported equipment and box.
- C. Locate and install boxes to allow access to them. Where installation is inaccessible, coordinate locations and provide 18 inch by 24 inch access doors.
- D. Electrical box locations shown on drawings are approximate unless dimensioned. Verify location of floor boxes and outlets in offices and work areas prior to rough-in.
- E. No outlet shall be located where it will be obstructed by other equipment, piping, lockers, benches, counters, etc.
- F. It shall be the Contractor's responsibility to study drawings pertaining to other trades, to discuss location of outlets with workmen installing other piping and equipment and to fit all electrical outlets to job conditions.
- G. The proper location of each outlet is considered a part of this contract and no additional compensation will be paid to the Contractor for moving outlets which were improperly located.
- H. Coordinate mounting heights and locations of outlets mounted above counters, benches, and backsplashes.
- I. Horizontally separate boxes mounted on opposite sides of walls so they are not in the same vertical channel.
- J. Locate boxes so that cover or plate will not span different building finishes.
- K. Support boxes of three gangs or more from more than one side by spanning two framing members or mounting on brackets specifically designed for the purpose.
- L. Fasten junction and pull boxes to or support from building structure. Do not support boxes by conduits.
- M. Install hinged-cover enclosures and cabinets plumb. Support at each corner.

3.7 PROTECTION

- A. Protect coatings, finishes, and cabinets from damage and deterioration.
 - 1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.
 - 2. Repair damage to PVC coatings or paint finishes with matching touchup coating recommended by manufacturer.

END OF SECTION 26 05 33

26 05 33 - 11

SECTION 26 05 43
UNDERGROUND DUCTS AND RACEWAYS FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
1. Metal conduits and fittings, including RMC.
 2. Rigid nonmetallic duct.
 3. Flexible nonmetallic duct.
 4. Duct accessories.
 5. Polymer concrete handholes and boxes with polymer concrete cover.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
1. Include duct-bank materials, including spacers and miscellaneous components.
 2. Include duct, conduits, and their accessories, including elbows, end bells, bends, fittings, and solvent cement.
 3. Include accessories for manholes, handholes, boxes.
 4. Include underground-line warning tape.
- B. Shop Drawings:
1. Factory-Fabricated Handholes and Boxes Other Than Precast Concrete:
 - a. Include dimensioned plans, sections, and elevations, and fabrication and installation details.
 - b. Include duct entry provisions, including locations and duct sizes.
 - c. Include cover design.
 - d. Include grounding details.
 - e. Include dimensioned locations of cable rack inserts, and pulling-in and lifting irons.

1.4 QUALITY ASSURANCE

- A. Testing Agency Qualifications: Qualified according to ASTM E 329 for testing indicated.

1.5 FIELD CONDITIONS

- A. Ground Water: Assume ground-water level is 36 inches (900 mm) below ground surface unless a higher water table is noted on Drawings.

PART 2 - PRODUCTS

2.1 METAL CONDUIT AND FITTINGS

- A. RMC: Comply with ANSI C80.1 and UL 6.
- B. Coated Steel Conduit: PVC-coated RMC.
 - 1. Comply with NEMA RN 1.
 - 2. Coating Thickness: 0.040 inch (1 mm), minimum.
- C. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Allied Tube & Conduit; a part of Atkore International.
 - 2. Thomas & Betts Corporation; A Member of the ABB Group.
 - 3. Western Tube and Conduit Corporation.
 - 4. Wheatland Tube Company.

2.2 RIGID NONMETALLIC DUCT

- A. Underground Plastic Utilities Duct: Type EPC-40-PVC RNC, complying with NEMA TC 2 and UL 651, with matching fittings complying with NEMA TC 3 by same manufacturer as duct.
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Allied Tube and Conduit; a part of Atkore International.
 - 2. CANTEX INC.
 - 3. Kraloy.
 - 4. Thomas & Betts Corporation; A Member of the ABB Group.
- C. Solvents and Adhesives: As recommended by conduit manufacturer.
 - 1. VOC Content: 510 g/L or less for PVC conduit and fittings.

2.3 DUCT ACCESSORIES

- A. Duct Spacers: Factory-fabricated, rigid, PVC interlocking spacers; sized for type and size of duct with which used and selected to provide minimum duct spacing indicated while supporting duct during concreting or backfilling.
- B. Underground-Line Warning Tape: Comply with requirements for underground-line warning tape specified in Section 260553 Identification for Electrical Systems.

2.4 POLYMER CONCRETE HANDHOLES AND BOXES WITH POLYMER CONCRETE COVER

- A. Description: Molded of sand and aggregate, bound together with a polymer resin, and reinforced with steel or fiberglass or a combination of the two.

- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Armorcast Products Company.
 - 2. Oldcastle Enclosure Solutions.
 - 3. Quazite: Hubbell Power Systems, Inc.
- C. Standard: Comply with SCTE 77. Comply with tier requirements in Underground Enclosure Application Article.
- D. Color: Gray.
- E. Configuration: Units shall be designed for flush burial and have open bottom unless otherwise indicated.
- F. Cover: Weatherproof, secured by tamper-resistant locking devices and having structural load rating consistent with enclosure.
- G. Cover Finish: Nonskid finish shall have a minimum coefficient of friction of 0.50.
- H. Cover Legend: Molded lettering, as indicated for each service.
- I. Handholes 12 inches wide by 24 inches long (300 mm wide by 600 mm long) and larger shall have factory-installed inserts for cable racks and pulling-in irons.

2.5 SOURCE QUALITY CONTROL

- A. Test and inspect precast concrete utility structures according to ASTM C 1037.
- B. Nonconcrete Handhole and Pull-Box Prototype Test: Test prototypes of manholes and boxes for compliance with SCTE 77. Strength tests shall be for specified tier ratings of products supplied.
 - 1. Strength tests of complete boxes and covers shall be by an independent testing agency or manufacturer. A qualified registered professional engineer shall certify tests by manufacturer.
 - 2. Testing machine pressure gages shall have current calibration certification, complying with ISO 9000 and ISO 10012, and traceable to NIST standards.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Coordinate layout and installation of duct, duct bank, manholes, handholes, and boxes with final arrangement of other utilities, site grading, and surface features as determined in the field. Notify Architect if there is a conflict between areas of excavation and existing structures or archaeological sites to remain.
- B. Coordinate elevations of duct and duct-bank entrances into manholes, handholes, and boxes with final locations and profiles of duct and duct banks, as determined by coordination with other utilities, underground obstructions, and surface features. Revise

locations and elevations as required to suit field conditions and to ensure that duct and duct bank will drain to manholes and handholes, and as approved by Architect.

3.2 UNDERGROUND DUCT APPLICATION

- A. Duct for Electrical Cables More Than 600 V: Type EPC-40-PVC RNC, concrete-encased unless otherwise indicated.
- B. Duct for Electrical Feeders 600 V and Less: Type EPC-40-PVC RNC, direct-buried unless otherwise indicated.
- C. Duct for Electrical Branch Circuits: Type EPC-40-PVC RNC, direct-buried unless otherwise indicated.
- D. Underground Ducts Crossing Walks and Driveways and Railroads: Type EPC-40 PVC RNC, encased in reinforced concrete.

3.3 UNDERGROUND ENCLOSURE APPLICATION

- A. Handholes and Boxes for 600 V and Less:
 - 1. Units in Roadways and Other Deliberate Traffic Paths: Precast concrete. AASHTO HB 17, H-20 structural load rating.
 - 2. Units in Driveway, Parking Lot, and Off-Roadway Locations, Subject to Occasional, Nondeliberate Loading by Heavy Vehicles: Polymer concrete, SCTE 77, Tier 15 structural load rating.
 - 3. Units in Sidewalk and Similar Applications with a Safety Factor for Nondeliberate Loading by Vehicles: Polymer concrete units, SCTE 77, Tier 8 structural load rating.
 - 4. Units Subject to Light-Duty Pedestrian Traffic Only: Polymer concrete units, SCTE 77, Tier 8.
 - 5. Cover design load shall not exceed the design load of the handhole or box.

3.4 EARTHWORK

- A. Excavation and Backfill: Do not use heavy-duty, hydraulic-operated, compaction equipment.
- B. Restoration: Replace area immediately after backfilling is completed.
- C. Restore surface features at areas disturbed by excavation and re-establish original grades unless otherwise indicated. Replace removed sod immediately after backfilling is completed.
- D. Restore areas disturbed by trenching, storing of dirt, cable laying, and other work. Restore vegetation and include necessary topsoiling, fertilizing, liming, seeding, sodding, sprigging, and mulching.

3.5 DUCT AND DUCT-BANK INSTALLATION

- A. Where indicated on Drawings, install duct, spacers, and accessories into the duct-bank configuration shown. Duct installation requirements in this Section also apply to duct bank.
- B. Install duct according to NEMA TCB 2.
- C. Slope: Pitch duct a minimum slope of 1:300 down toward manholes and handholes and away from buildings and equipment. Slope duct from a high point between two manholes, to drain in both directions.
- D. Curves and Bends: Use 5-degree angle couplings for small changes in direction. Use manufactured long sweep bends with a minimum radius of 48 inches (1200 mm), both horizontally and vertically, at other locations unless otherwise indicated.
 - 1. Duct shall have maximum of two 90-degree bends or the total of all bends shall be no more 180 degrees between pull points.
- E. Joints: Use solvent-cemented joints in duct and fittings and make watertight according to manufacturer's written instructions. Stagger couplings so those of adjacent duct do not lie in same plane.
- F. Installation Adjacent to High-Temperature Steam Lines: Where duct is installed parallel to underground steam lines, perform calculations showing the duct will not be subject to environmental temperatures above 40 deg C. Where environmental temperatures are calculated to rise above 40 deg C, and anywhere the duct crosses above an underground steam line, install insulation blankets listed for direct burial to isolate the duct bank from the steam line.
- G. Building Wall Penetrations: Make a transition from underground duct to RMC at least 10 feet (3 m) outside the building wall, without reducing duct line slope away from the building and without forming a trap in the line. Use fittings manufactured for RNC-to-RMC transition.
- H. Sealing: Provide temporary closure at terminations of duct with pulled cables. Seal spare duct at terminations. Use sealing compound and plugs to withstand at least 15-psig (1.03-MPa) hydrostatic pressure.
- I. Pulling Cord: Install 200-lbf- (1000-N-) test nylon cord in empty ducts.
- J. Concrete-Encased Ducts and Duct Bank:
 - 1. Excavate trench bottom to provide firm and uniform support for duct.
 - 2. Width: Excavate trench 12 inches (300 mm) wider than duct on each side.
 - 3. Width: Excavate trench 3 inches (75 mm) wider than duct on each side.
 - 4. Depth: Install so top of duct envelope is at least 24 inches (600 mm) below finished grade in areas not subject to deliberate traffic, and at least 30 inches (750 mm) below finished grade in deliberate traffic paths for vehicles unless otherwise indicated.
 - 5. Support duct on duct spacers coordinated with duct size, duct spacing, and outdoor temperature.

6. **Spacer Installation:** Place spacers close enough to prevent sagging and deforming of duct, with not less than four spacers per 20 feet (6 m) of duct. Place spacers within 24 inches (600 mm) of duct ends. Stagger spacers approximately 6 inches (150 mm) between tiers. Secure spacers to earth and to duct to prevent floating during concreting. Tie entire assembly together using fabric straps; do not use tie wires or reinforcing steel that may form conductive or magnetic loops around ducts or duct groups.
7. **Minimum Space between Duct:** 3 inches (75 mm) between edge of duct and exterior envelope wall, 2 inches (50 mm) between ducts for like services, and 4 inches (100 mm) between power and communications ducts.
8. **Elbows:** Use manufactured duct elbows for stub-ups, at building entrances, and at changes of direction in duct unless otherwise indicated. Extend encasement throughout length of elbow.
9. **Reinforcement:** Reinforce concrete-encased duct where crossing disturbed earth and where indicated. Arrange reinforcing rods and ties without forming conductive or magnetic loops around ducts or duct groups.
10. **Forms:** Use walls of trench to form side walls of duct bank where soil is self-supporting and concrete envelope can be poured without soil inclusions; otherwise, use forms.
11. **Concrete Cover:** Install a minimum of 3 inches (75 mm) of concrete cover between edge of duct to exterior envelope wall, 2 inches (50 mm) between duct of like services, and 4 inches (100 mm) between power and communications ducts.
12. **Concreting Sequence:** Pour each run of envelope between manholes or other terminations in one continuous operation.
 - a. Start at one end and finish at the other, allowing for expansion and contraction of duct as its temperature changes during and after the pour. Use expansion fittings installed according to manufacturer's written instructions or use other specific measures to prevent expansion-contraction damage.
 - b. If more than one pour is necessary, terminate each pour in a vertical plane and install 3/4-inch (15-mm) reinforcing-rod dowels extending a minimum of 18 inches (450 mm) into concrete on both sides of joint near corners of envelope.
13. **Pouring Concrete:** Place concrete carefully during pours to prevent voids under and between duct and at exterior surface of envelope. Do not allow a heavy mass of concrete to fall directly onto ducts. Allow concrete to flow around duct and rise up in middle, uniformly filling all open spaces. Do not use power-driven agitating equipment unless specifically designed for duct-installation application.

K. **Direct-Buried Duct and Duct Bank:**

1. **Excavate trench bottom** to provide firm and uniform support for duct.
2. **Width:** Excavate trench 12 inches (300 mm) wider than duct on each side.

3. Width: Excavate trench 3 inches (75 mm) wider than duct on each side.
4. Depth: Install top of duct at least 36 inches (900 mm) below finished grade unless otherwise indicated.
5. Set elevation of bottom of duct bank below frost line.
6. Support ducts on duct spacers coordinated with duct size, duct spacing, and outdoor temperature.
7. Spacer Installation: Place spacers close enough to prevent sagging and deforming of duct, with not less than four spacers per 20 feet (6 m) of duct. Place spacers within 24 inches (600 mm) of duct ends. Stagger spacers approximately 6 inches (150 mm) between tiers. Secure spacers to earth and to ducts to prevent floating during concreting. Tie entire assembly together using fabric straps; do not use tie wires or reinforcing steel that may form conductive or magnetic loops around ducts or duct groups.
8. Install duct with a minimum of 3 inches (75 mm) between ducts for like services and 6 inches (150 mm) between power and communications duct.
9. Elbows: Install manufactured duct elbows for stub-ups, at building entrances, and at changes of direction in duct direction unless otherwise indicated. Encase elbows for stub-up ducts throughout length of elbow.
10. After installing first tier of duct, backfill and compact. Start at tie-in point and work toward end of duct run, leaving ducts at end of run free to move with expansion and contraction as temperature changes during this process. Repeat procedure after placing each tier. After placing last tier, hand place backfill to 4 inches (100 mm) over duct and hand tamp. Firmly tamp backfill around ducts to provide maximum supporting strength. Use hand tamper only. After placing controlled backfill over final tier, make final duct connections at end of run and complete backfilling with normal compaction. Comply with requirements in Section 312000 "Earth Moving" for installation of backfill materials.
 - a. Place minimum 3 inches (75 mm) of sand as a bed for duct. Place sand to a minimum of 6 inches (150 mm) above top level of duct.
 - b. Place minimum 6 inches (150 mm) of engineered fill above concrete encasement of duct.
- L. Underground-Line Warning Tape: Bury conducting underground line specified in Section 260553 Identification for Electrical Systems no less than 12 inches (300 mm) above all concrete-encased duct and duct banks. Align tape parallel to and within 3 inches (75 mm) of centerline of duct bank. Provide an additional warning tape for each 12-inch (300-mm) increment of duct-bank width over a nominal 18 inches (450 mm). Space additional tapes 12 inches (300 mm) apart, horizontally.

3.6 INSTALLATION OF HANDHOLES AND BOXES OTHER THAN PRECAST CONCRETE

- A. Install handholes and boxes level and plumb and with orientation and depth coordinated with connecting duct, to minimize bends and deflections required for proper entrances. Use box extension if required to match depths of duct, and seal joint between box and extension as recommended by manufacturer.

- B. Unless otherwise indicated, support units on a level bed of crushed stone or gravel, graded from 1/2-inch (12.5-mm) sieve to No. 4 (4.75-mm) sieve and compacted to same density as adjacent undisturbed earth.
- C. Elevation: In paved areas and trafficways, set cover flush with finished grade. Set covers of other handholes 1 inch (25 mm) above finished grade.
- D. Install removable hardware, including pulling eyes, cable stanchions, cable arms, and insulators, as required for installation and support of cables and conductors and as indicated. Select arm lengths to be long enough to provide spare space for future cables, but short enough to preserve adequate working clearances in enclosure.
- E. Field cut openings for duct according to enclosure manufacturer's written instructions. Cut wall of enclosure with a tool designed for material to be cut. Size holes for terminating fittings to be used, and seal around penetrations after fittings are installed.
- F. For enclosures installed in asphalt paving and subject to occasional, nondeliberate, heavy-vehicle loading, form and pour a concrete ring encircling, and in contact with, enclosure and with top surface screeded to top of box cover frame. Bottom of ring shall rest on compacted earth.
 - 1. Concrete: 3000 psi (20 kPa), 28-day strength, with a troweled finish.
 - 2. Dimensions: 10 inches wide by 12 inches deep (250 mm wide by 300 mm deep).

3.7 GROUNDING

- A. Ground underground ducts and utility structures according to Section 260526 Grounding and Bonding for Electrical Systems.

3.8 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections:
 - 1. Demonstrate capability and compliance with requirements on completion of installation of underground duct, duct bank, and utility structures.
 - 2. Pull solid aluminum or wood test mandrel through duct to prove joint integrity and adequate bend radii, and test for out-of-round duct. Provide a minimum 12-inch- (300-mm-) long mandrel equal to duct size minus 1/4 inch (6 mm). If obstructions are indicated, remove obstructions and retest.
 - 3. Test manhole and handhole grounding to ensure electrical continuity of grounding and bonding connections. Measure and report ground resistance as specified in Section 260526 Grounding and Bonding for Electrical Systems.
- B. Correct deficiencies and retest as specified above to demonstrate compliance.
- C. Prepare test and inspection reports.

3.9 CLEANING

- A. Pull leather-washer-type duct cleaner, with graduated washer sizes, through full length of duct until duct cleaner indicates that duct is clear of dirt and debris. Follow with rubber duct swab for final cleaning and to assist in spreading lubricant throughout ducts.
- B. Clean internal surfaces of manholes, including sump.
 - 1. Sweep floor, removing dirt and debris.
 - 2. Remove foreign material.

END OF SECTION 26 05 43

SECTION 26 05 53

IDENTIFICATION FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Identification for raceways.
 - 2. Identification of power and control cables.
 - 3. Identification for conductors.
 - 4. Underground-line warning tape.
 - 5. Warning labels and signs.
 - 6. Instruction signs.
 - 7. Equipment identification labels.
 - 8. Miscellaneous identification products.

1.3 ACTION SUBMITTALS

- A. Product Data: For each electrical identification product indicated.
- B. Samples: For each type of label and sign to illustrate size, colors, lettering style, mounting provisions, and graphic features of identification products.
- C. Identification Schedule: An index of nomenclature of electrical equipment and system components used in identification signs and labels.

1.4 QUALITY ASSURANCE

- A. Comply with ANSI A13.1 and IEEE C2.
- B. Comply with NFPA 70.
- C. Comply with 29 CFR 1910.144 and 29 CFR 1910.145.
- D. Comply with ANSI Z535.4 for safety signs and labels.
- E. Adhesive-attached labeling materials, including label stocks, laminating adhesives, and inks used by label printers, shall comply with UL 969.

1.5 COORDINATION

- A. Coordinate identification names, abbreviations, colors, and other features with requirements in other Sections requiring identification applications, Drawings, Shop Drawings, manufacturer's wiring diagrams, and the Operation and Maintenance Manual; and with those required by codes, standards, and 29 CFR 1910.145. Use consistent designations throughout Project.
- B. Coordinate installation of identifying devices with completion of covering and painting of surfaces where devices are to be applied.
- C. Coordinate installation of identifying devices with location of access panels and doors.
- D. Install identifying devices before installing acoustical ceilings and similar concealment.

PART 2 - PRODUCTS

2.1 POWER AND CONTROL RACEWAY IDENTIFICATION MATERIALS

- A. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each raceway size.
- B. Colors for Raceways Carrying Circuits at 600 V or Less:
 - 1. Black letters on an orange field.
 - 2. Legend: Indicate voltage.
- C. Colors for Raceways Carrying Circuits at More Than 600 V:
 - 1. Black letters on an orange field.
 - 2. Legend: "DANGER CONCEALED HIGH VOLTAGE WIRING."
- D. Vinyl Labels for Raceways Carrying Circuits at 600 V or Less: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound clear adhesive tape for securing ends of legend label.
- E. Snap-Around Labels for Raceways Carrying Circuits at 600 V or Less: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeve, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.
- F. Snap-Around, Color-Coding Bands for Raceways Carrying Circuits at 600 V or Less: Slit, pretensioned, flexible, solid-colored acrylic sleeve, 2 inches (50 mm) long, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.
- G. Tape and Stencil for Raceways Carrying Circuits More Than 600 V: 4-inch- (100-mm-) wide black stripes on 10-inch (250-mm) centers diagonally over orange background that extends full length of raceway or duct and is 12 inches (300 mm) wide. Stop stripes at legends.
- H. Metal Tags: Brass or aluminum, 2 by 2 by 0.05 inch (50 by 50 by 1.3 mm), with stamped legend, punched for use with self-locking cable tie fastener.

- I. Write-On Tags: Polyester tag, 0.010 inch (0.25 mm) thick, with corrosion-resistant grommet and cable tie for attachment to conductor or cable.
 - 1. Marker for Tags: Permanent, waterproof, black ink marker recommended by tag manufacturer.

2.2 ARMORED AND METAL-CLAD CABLE IDENTIFICATION MATERIALS

- A. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each cable size.
- B. Colors for Cables Carrying Circuits at 600 V and Less:
 - 1. Black letters on an orange field.
 - 2. Legend: Indicate voltage.
- C. Colors for Cables Carrying Circuits at More Than 600 V:
 - 1. Black letters on an orange field.
 - 2. Legend: "DANGER HIGH VOLTAGE WIRING."
- D. Vinyl Labels: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound clear adhesive tape for securing ends of legend label.
- E. Self-Adhesive Vinyl Tape: Colored, heavy duty, waterproof, fade resistant; 2 inches (50 mm) wide; compounded for outdoor use.
- F. Heat-Shrink Preprinted Tubes: Flame-retardant polyolefin tube with machine-printed identification label. Sized to suit diameter of and shrinks to fit firmly around cable it identifies. Full shrink recovery at a maximum of 200 deg F (93 deg C). Comply with UL 224.

2.3 POWER AND CONTROL CABLE IDENTIFICATION MATERIALS

- A. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each cable size.
- B. Vinyl Labels: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound clear adhesive tape for securing ends of legend label.
- C. Self-Adhesive, Self-Laminating Polyester Labels: Write-on, 3-mil- (0.08-mm-) thick flexible label with acrylic pressure-sensitive adhesive that provides a clear, weather- and chemical-resistant, self-laminating, protective shield over the legend. Labels sized to fit the cable diameter such that the clear shield overlaps the entire printed legend.
- D. Heat-Shrink Preprinted Tubes: Flame-retardant polyolefin tube with machine-printed identification label. Sized to suit diameter of and shrinks to fit firmly around cable it identifies. Full shrink recovery at a maximum of 200 deg F (93 deg C). Comply with UL 224.
- E. Metal Tags: Brass or aluminum, 2 by 2 by 0.05 inch (50 by 50 by 1.3 mm), with stamped legend, punched for use with self-locking cable tie fastener.

- F. Write-On Tags: Polyester tag, 0.010 inch (0.25 mm) thick, with corrosion-resistant grommet and cable tie for attachment to conductor or cable.
 - 1. Marker for Tags: Permanent, waterproof, black ink marker recommended by tag manufacturer.
 - 2. Marker for Tags: Machine-printed, permanent, waterproof, black ink marker recommended by printer manufacturer.
- G. Snap-Around Labels: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeve, with diameter sized to suit diameter of cable it identifies and to stay in place by gripping action.
- H. Snap-Around, Color-Coding Bands: Slit, pretensioned, flexible, solid-colored acrylic sleeve, 2 inches (50 mm) long, with diameter sized to suit diameter of cable it identifies and to stay in place by gripping action.

2.4 CONDUCTOR IDENTIFICATION MATERIALS

- A. Color-Coding Conductor Tape: Colored, self-adhesive vinyl tape not less than 3 mils (0.08 mm) thick by 1 to 2 inches (25 to 50 mm) wide.
- B. Self-Adhesive, Self-Laminating Polyester Labels: Write-on, 3-mil- (0.08-mm-) thick flexible label with acrylic pressure-sensitive adhesive that provides a clear, weather- and chemical-resistant, self-laminating, protective shield over the legend. Labels sized to fit the conductor diameter such that the clear shield overlaps the entire printed legend.
- C. Snap-Around Labels: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeve, with diameter sized to suit diameter of conductor it identifies and to stay in place by gripping action.
- D. Snap-Around, Color-Coding Bands: Slit, pretensioned, flexible, solid-colored acrylic sleeve with diameter sized to suit diameter of conductor it identifies and to stay in place by gripping action.
- E. Heat-Shrink Preprinted Tubes: Flame-retardant polyolefin tube with machine-printed identification label. Sized to suit diameter of and shrinks to fit firmly around conductor it identifies. Full shrink recovery at a maximum of 200 deg F (93 deg C). Comply with UL 224.
- F. Marker Tapes: Vinyl or vinyl-cloth, self-adhesive wraparound type, with circuit identification legend machine printed by thermal transfer or equivalent process.
- G. Write-On Tags: Polyester tag, 0.010 inch (0.25 mm) thick, with corrosion-resistant grommet and cable tie for attachment to conductor or cable.
 - 1. Marker for Tags: Permanent, waterproof, black ink marker recommended by tag manufacturer.
 - 2. Labels for Tags: Self-adhesive label, machine-printed with permanent, waterproof, black ink recommended by printer manufacturer, sized for attachment to tag.

2.5 FLOOR MARKING TAPE

- A. 2-inch- (50-mm-) wide, 5-mil (0.125-mm) pressure-sensitive vinyl tape, with yellow and black stripes and clear vinyl overlay.

2.6 UNDERGROUND-LINE WARNING TAPE

- A. Tape:
 - 1. Recommended by manufacturer for the method of installation and suitable to identify and locate underground electrical utility lines.
 - 2. Printing on tape shall be permanent and shall not be damaged by burial operations.
 - 3. Tape material and ink shall be chemically inert, and not subject to degrading when exposed to acids, alkalis, and other destructive substances commonly found in soils.
- B. Color and Printing:
 - 1. Comply with ANSI Z535.1 through ANSI Z535.5.
 - 2. Inscriptions for Red-Colored Tapes: ELECTRIC LINE, HIGH VOLTAGE .
- C. Tag:
 - 1. Multilayer laminate consisting of high-density polyethylene scrim coated with pigmented polyolefin, bright-colored, compounded for direct-burial service.
 - 2. Thickness: 12 mils (0.3 mm).
 - 3. Weight: 36.1 lb/1000 sq. ft. (17.6 kg/100 sq. m).
 - 4. 3-Inch (75-mm) Tensile According to ASTM D 882: 400 lbf (1780 N), and 11,500 psi (79.2 MPa).

2.7 WARNING LABELS AND SIGNS

- A. Comply with NFPA 70 and 29 CFR 1910.145.
- B. Self-Adhesive Warning Labels: Factory-printed, multicolor, pressure-sensitive adhesive labels, configured for display on front cover, door, or other access to equipment unless otherwise indicated.
- C. Baked-Enamel Warning Signs:
 - 1. Preprinted aluminum signs punched or drilled for fasteners, with colors, legend, and size required for application.
 - 2. 1/4-inch (6.4-mm) grommets in corners for mounting.
 - 3. Nominal size, 7 by 10 inches (180 by 250 mm).
- D. Metal-Backed, Butyrate Warning Signs:
 - 1. Weather-resistant, nonfading, preprinted, cellulose-acetate butyrate signs with 0.0396-inch (1-mm) galvanized-steel backing; and with colors, legend, and size required for application.
 - 2. 1/4-inch (6.4-mm) grommets in corners for mounting.

3. Nominal size, 10 by 14 inches (250 by 360 mm).

E. Warning label and sign shall include, but are not limited to, the following legends:

1. Multiple Power Source Warning: "DANGER - ELECTRICAL SHOCK HAZARD - EQUIPMENT HAS MULTIPLE POWER SOURCES."
2. Workspace Clearance Warning: "WARNING - OSHA REGULATION - AREA IN FRONT OF ELECTRICAL EQUIPMENT MUST BE KEPT CLEAR FOR 36 INCHES (915 MM)."

2.8 EQUIPMENT IDENTIFICATION LABELS

- A. Adhesive Film Label: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch (10 mm).
- B. Adhesive Film Label with Clear Protective Overlay: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch (10 mm). Overlay shall provide a weatherproof and UV-resistant seal for label.
- C. Self-Adhesive, Engraved, Laminated Acrylic or Melamine Label: Adhesive backed, with white letters on a dark-gray background. Minimum letter height shall be 3/8 inch (10 mm).
- D. Engraved, Laminated Acrylic or Melamine Label: Punched or drilled for screw mounting. White letters on a dark-gray background. Minimum letter height shall be 3/8 inch (10 mm).
- E. Stenciled Legend: In nonfading, waterproof, black ink or paint. Minimum letter height shall be 1 inch (25 mm).

2.9 CABLE TIES

- A. General-Purpose Cable Ties: Fungus inert, self-extinguishing, one piece, self-locking, Type 6/6 nylon.
 1. Minimum Width: 3/16 inch (5 mm).
 2. Tensile Strength at 73 deg F (23 deg C), According to ASTM D 638: 12,000 psi (82.7 MPa).
 3. Temperature Range: Minus 40 to plus 185 deg F (Minus 40 to plus 85 deg C).
 4. Color: Black except where used for color-coding.
- B. UV-Stabilized Cable Ties: Fungus inert, designed for continuous exposure to exterior sunlight, self-extinguishing, one piece, self-locking, Type 6/6 nylon.
 1. Minimum Width: 3/16 inch (5 mm).
 2. Tensile Strength at 73 deg F (23 deg C), According to ASTM D 638: 12,000 psi (82.7 MPa).
 3. Temperature Range: Minus 40 to plus 185 deg F (Minus 40 to plus 85 deg C).
 4. Color: Black.

2.10 MISCELLANEOUS IDENTIFICATION PRODUCTS

- A. Paint: Comply with requirements in painting Sections for paint materials and application requirements. Select paint system applicable for surface material and location (exterior or interior).
- B. Fasteners for Labels and Signs: Self-tapping, stainless-steel screws or stainless-steel machine screws with nuts and flat and lock washers.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Verify identity of each item before installing identification products.
- B. Location: Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment.
- C. Apply identification devices to surfaces that require finish after completing finish work.
- D. Self-Adhesive Identification Products: Clean surfaces before application, using materials and methods recommended by manufacturer of identification device.
- E. Attach signs and plastic labels that are not self-adhesive type with mechanical fasteners appropriate to the location and substrate.
- F. Attach plastic raceway and cable labels that are not self-adhesive type with clear vinyl tape with adhesive appropriate to the location and substrate.
- G. System Identification Color-Coding Bands for Raceways and Cables: Each color-coding band shall completely encircle cable or conduit. Place adjacent bands of two-color markings in contact, side by side. Locate bands at changes in direction, at penetrations of walls and floors, at 50-foot (15-m) maximum intervals in straight runs, and at 25-foot (7.6-m) maximum intervals in congested areas.
- H. Aluminum Wraparound Marker Labels and Metal Tags: Secure tight to surface of conductor or cable at a location with high visibility and accessibility.
- I. Cable Ties: For attaching tags. Use general-purpose type, except as listed below:
 - 1. Outdoors: UV-stabilized nylon.
 - 2. In Spaces Handling Environmental Air: Plenum rated.
- J. Underground-Line Warning Tape: During backfilling of trenches install continuous underground-line warning tape directly above line at 6 to 8 inches (150 to 200 mm) below finished grade. Use multiple tapes where width of multiple lines installed in a common trench exceeds 16 inches (400 mm) overall.
- K. Painted Identification: Comply with requirements in painting Sections for surface preparation and paint application.

3.2 IDENTIFICATION SCHEDULE

- A. Concealed Raceways, Duct Banks, More Than 600 V, within Buildings: Tape and stencil 4-inch- (100-mm-) wide black stripes on 10-inch (250-mm) centers over orange background that extends full length of raceway or duct and is 12 inches (300 mm) wide. Stencil legend "DANGER CONCEALED HIGH VOLTAGE WIRING" with 3-inch- (75-mm-) high black letters on 20-inch (500-mm) centers. Stop stripes at legends. Apply to the following finished surfaces:
 - 1. Floor surface directly above conduits running beneath and within 12 inches (300 mm) of a floor that is in contact with earth or is framed above unexcavated space.
 - 2. Wall surfaces directly external to raceways concealed within wall.
 - 3. Accessible surfaces of concrete envelope around raceways in vertical shafts, exposed in the building, or concealed above suspended ceilings.
- B. Accessible Raceways, Armored and Metal-Clad Cables, More Than 600 V: Snap-around labels. Install labels at 30-foot (10-m) maximum intervals.
- C. Accessible Raceways and Metal-Clad Cables, 600 V or Less, for Service, Feeder, and Branch Circuits More Than 30A, and 120V to ground: Identify with self-adhesive vinyl label. Install labels at 30-foot (10-m) maximum intervals.
- D. Accessible Raceways and Cables within Buildings: Identify the covers of each junction and pull box of the following systems with self-adhesive vinyl labels with the wiring system legend and system voltage. System legends shall be as follows:
 - 1. Emergency Power.
 - 2. Power.
 - 3. UPS.
- E. Power-Circuit Conductor Identification, 600 V or Less: For conductors in vaults, pull and junction boxes, manholes, and handholes, use color-coding conductor tape to identify the phase.
 - 1. Color-Coding for Phase and Voltage Level Identification, 600 V or Less: Use colors listed below for ungrounded feeder and branch-circuit conductors.
 - a. Color shall be factory applied.
 - b. Colors for 208/120-V Circuits:
 - 1) Phase A: Black.
 - 2) Phase B: Red.
 - 3) Phase C: Blue.
 - c. Colors for 480/277-V Circuits:
 - 1) Phase A: Brown.
 - 2) Phase B: Orange.
 - 3) Phase C: Yellow.
 - d. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of 6 inches (150 mm) from terminal points and in boxes where

splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding. Locate bands to avoid obscuring factory cable markings.

- F. Power-Circuit Conductor Identification, More than 600 V: For conductors in vaults, pull and junction boxes, manholes, and handholes, use write-on tags.
- G. Install instructional sign including the color-code for grounded and ungrounded conductors using adhesive-film-type labels.
- H. Control-Circuit Conductor Identification: For conductors and cables in pull and junction boxes, manholes, and handholes, use write-on tags with the conductor or cable designation, origin, and destination.
- I. Control-Circuit Conductor Termination Identification: For identification at terminations provide heat-shrink preprinted tubes with the conductor designation.
- J. Conductors to Be Extended in the Future: Attach write-on tags to conductors and list source.
- K. Auxiliary Electrical Systems Conductor Identification: Identify field-installed alarm, control, and signal connections.
 - 1. Identify conductors, cables, and terminals in enclosures and at junctions, terminals, and pull points. Identify by system and circuit designation.
 - 2. Use system of marker tape designations that is uniform and consistent with system used by manufacturer for factory-installed connections.
 - 3. Coordinate identification with Project Drawings, manufacturer's wiring diagrams, and the Operation and Maintenance Manual.
- L. Locations of Underground Lines: Identify with underground-line warning tape for power, lighting, communication, and control wiring and optical fiber cable.
 - 1. Limit use of underground-line warning tape to direct-buried cables.
 - 2. Install underground-line warning tape for both direct-buried cables and cables in raceway.
- M. Workspace Indication: Install floor marking tape to show working clearances in the direction of access to live parts. Workspace shall be as required by NFPA 70 and 29 CFR 1926.403 unless otherwise indicated. Do not install at flush-mounted panelboards and similar equipment in finished spaces.
- N. Warning Labels for Indoor Cabinets, Boxes, and Enclosures for Power and Lighting: Baked-enamel warning signs.
 - 1. Comply with 29 CFR 1910.145.
 - 2. Identify system voltage with black letters on an orange background.
 - 3. Apply to exterior of door, cover, or other access.
 - 4. For equipment with multiple power or control sources, apply to door or cover of equipment including, but not limited to, the following:
 - a. Power transfer switches.
 - b. Controls with external control power connections.

- O. Operating Instruction Signs: Install instruction signs to facilitate proper operation and maintenance of electrical systems and items to which they connect. Install instruction signs with approved legend where instructions are needed for system or equipment operation.
- P. Emergency Operating Instruction Signs: Install instruction signs with white legend on a red background with minimum 3/8-inch- (10-mm-) high letters for emergency instructions at equipment used for power transfer.
- Q. Equipment Identification Labels: On each unit of equipment, install unique designation label that is consistent with wiring diagrams, schedules, and the Operation and Maintenance Manual. Apply labels to disconnect switches and protection equipment, central or master units, control panels, control stations, terminal cabinets, and racks of each system. Systems include power, lighting, control, communication, signal, monitoring, and alarm systems unless equipment is provided with its own identification.

1. Labeling Instructions:

- a. Indoor Equipment: Self-adhesive, engraved, laminated acrylic or melamine label. Unless otherwise indicated, provide a single line of text with 1/2-inch- (13-mm-) high letters on 1-1/2-inch- (38-mm-) high label; where two lines of text are required, use labels 2 inches (50 mm) high.
- b. Outdoor Equipment: Engraved, laminated acrylic or melamine label.
- c. Elevated Components: Increase sizes of labels and letters to those appropriate for viewing from the floor.
- d. Unless provided with self-adhesive means of attachment, fasten labels with appropriate mechanical fasteners that do not change the NEMA or NRTL rating of the enclosure.

2. Equipment to Be Labeled:

- a. Panelboards: Typewritten directory of circuits in the location provided by panelboard manufacturer. Panelboard identification shall be engraved, laminated acrylic or melamine label.
- b. Enclosures and electrical cabinets.
- c. Access doors and panels for concealed electrical items.
- d. Switchgear.
- e. Switchboards.
- f. Transformers: Label that includes tag designation shown on Drawings for the transformer, feeder, and panelboards or equipment supplied by the secondary.
- g. Substations.
- h. Emergency system boxes and enclosures.
- i. Motor-control centers.
- j. Enclosed switches.
- k. Enclosed circuit breakers.
- l. Enclosed controllers.
- m. Variable-speed controllers.
- n. Push-button stations.
- o. Power transfer equipment.
- p. Contactors.
- q. Remote-controlled switches, dimmer modules, and control devices.
- r. Power-generating units.

- s. Monitoring and control equipment.
- t. UPS equipment.

END OF SECTION 26 05 53

SECTION 26 05 74
OVERCURRENT PROTECTIVE DEVICE ARC-FLASH STUDY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes a computer-based, arc-flash study to determine the arc-flash hazard distance and the incident energy to which personnel could be exposed during work on or near electrical equipment.

1.3 DEFINITIONS

- A. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.
- B. One-Line Diagram: A diagram which shows, by means of single lines and graphic symbols, the course of an electric circuit or system of circuits and the component devices or parts used therein.
- C. Protective Device: A device that senses when an abnormal current flow exists and then removes the affected portion from the system.
- D. SCCR: Short-circuit current rating.
- E. Service: The conductors and equipment for delivering electric energy from the serving utility to the wiring system of the premises served.

1.4 ACTION SUBMITTALS

- A. Product Data: For computer software program to be used for studies.
- B. Study Submittals: Submit the following submittals after the approval of system protective devices submittals. Submittals shall be in digital form.
 - 1. Arc-flash study input data, including completed computer program input data sheets.
 - 2. Arc-flash study report; signed, dated, and sealed by a qualified professional engineer.
 - a. Submit study report for action prior to receiving final approval of the distribution equipment submittals. If formal completion of studies will cause delay in equipment manufacturing, obtain approval from Architect for preliminary

submittal of sufficient study data to ensure that the selection of devices and associated characteristics is satisfactory.

1.5 INFORMATIONAL SUBMITTALS

- A. Product Certificates: For arc-flash hazard analysis software, certifying compliance with IEEE 1584 and NFPA 70E.

1.6 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data:
 - 1. Maintenance procedures according to requirements in NFPA 70E shall be provided in the equipment manuals.

1.7 QUALITY ASSURANCE

- A. Studies shall use computer programs that are distributed nationally and are in wide use. Software algorithms shall comply with requirements of standards and guides specified in this Section. Manual calculations are unacceptable.
- B. Arc-Flash Study Software Developer Qualifications: An entity that owns and markets computer software used for studies, having performed successful studies of similar magnitude on electrical distribution systems using similar devices.
 - 1. The computer program shall be developed under the charge of a licensed professional engineer who holds IEEE Computer Society's Certified Software Development Professional certification.
- C. Arc-Flash Study Specialist Qualifications: Professional engineer in charge of performing the study, analyzing the arc flash, and documenting recommendations, licensed in the state where Project is located. All elements of the study shall be performed under the direct supervision and control of this professional engineer.

PART 2 - PRODUCTS

2.1 COMPUTER SOFTWARE DEVELOPERS

- A. Approved software
 - 1. ETAP
 - 2. SKM
 - 3. Easypower
- B. Comply with IEEE 1584 and NFPA 70E.

2.2 ARC-FLASH STUDY REPORT CONTENT

- A. Executive summary.
- B. Study descriptions, purpose, basis and scope.
- C. One-line diagram, showing the following:
 - 1. Protective device designations and ampere ratings.
 - 2. Cable size and lengths.
 - 3. Transformer kilovolt ampere (kVA) and voltage ratings.
 - 4. Motor and generator designations and kVA ratings.
 - 5. Switchgear, switchboard, motor-control center and panelboard designations.
- D. Study Input Data: As described in "Power System Data" Article.
- E. Arc-Flash Study Output:
 - 1. Interrupting Duty Report: Three-phase and unbalanced fault calculations, showing the following for each overcurrent device location:
 - a. Voltage.
 - b. Calculated symmetrical fault-current magnitude and angle.
 - c. Fault-point X/R ratio.
 - d. No AC Decrement (NACD) ratio.
 - e. Equivalent impedance.
 - f. Multiplying factors for 2-, 3-, 5-, and 8-cycle circuit breakers rated on a symmetrical basis.
 - g. Multiplying factors for 2-, 3-, 5-, and 8-cycle circuit breakers rated on a total basis.
- F. Incident Energy and Flash Protection Boundary Calculations:
 - 1. Arcing fault magnitude.
 - 2. Protective device clearing time.
 - 3. Duration of arc.
 - 4. Arc-flash boundary.
 - 5. Working distance.
 - 6. Incident energy.
 - 7. Hazard risk category.
 - 8. Recommendations for arc-flash energy reduction.
- G. Fault study input data, case descriptions, and fault-current calculations including a definition of terms and guide for interpretation of the computer printout.

2.3 ARC-FLASH WARNING LABELS

- A. Comply with requirements in Section 26 05 53 "Identification for Electrical Systems" for self-adhesive equipment labels. Produce a 3.5-by-5-inch (76-by-127-mm) self-adhesive equipment label for each work location included in the analysis.

- B. The label shall have an orange header with the wording, "WARNING, ARC-FLASH HAZARD," and shall include the following information taken directly from the arc-flash hazard analysis:
 - 1. Location designation.
 - 2. Nominal voltage.
 - 3. Flash protection boundary.
 - 4. Hazard risk category.
 - 5. Incident energy.
 - 6. Working distance.
 - 7. Engineering report number, revision number, and issue date.
- C. Labels shall be machine printed, with no field-applied markings.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine Project overcurrent protective device submittals. Proceed with arc-flash study only after relevant equipment submittals have been assembled. Overcurrent protective devices that have not been submitted and approved prior to arc-flash study may not be used in study.

3.2 ARC-FLASH HAZARD ANALYSIS

- A. Comply with NFPA 70E and its Annex D for hazard analysis study.
- B. Preparatory Studies:
 - 1. Short-Circuit Study.
 - 2. Protective Device Coordination Study.
- C. Calculate maximum and minimum contributions of fault-current size.
 - 1. The minimum calculation shall assume that the utility contribution is at a minimum and shall assume no motor load.
 - 2. The maximum calculation shall assume a maximum contribution from the utility and shall assume motors to be operating under full-load conditions.
- D. Calculate the arc-flash protection boundary and incident energy at locations in the electrical distribution system where personnel could perform work on energized parts.
- E. Include medium- and low-voltage equipment locations, except equipment rated 240-V ac or less fed from transformers less than 125 kVA.
- F. Safe working distances shall be specified for calculated fault locations based on the calculated arc-flash boundary, considering incident energy of 1.2 cal/sq.cm.

- G. Incident energy calculations shall consider the accumulation of energy over time when performing arc-flash calculations on buses with multiple sources. Iterative calculations shall take into account the changing current contributions, as the sources are interrupted or decremented with time. Fault contribution from motors and generators shall be decremented as follows:
 - 1. Fault contribution from induction motors should not be considered beyond three to five cycles.
 - 2. Fault contribution from synchronous motors and generators should be decayed to match the actual decrement of each as closely as possible (e.g., contributions from permanent magnet generators will typically decay from 10 per unit to three per unit after 10 cycles).
- H. Arc-flash computation shall include both line and load side of a circuit breaker as follows:
 - 1. When the circuit breaker is in a separate enclosure.
 - 2. When the line terminals of the circuit breaker are separate from the work location.
- I. Base arc-flash calculations on actual overcurrent protective device clearing time. Cap maximum clearing time at two seconds based on IEEE 1584, Section B.1.2.

3.3 POWER SYSTEM DATA

- A. Obtain all data necessary for the conduct of the arc-flash hazard analysis.
 - 1. Verify completeness of data supplied on the one-line diagram on Drawings. Call discrepancies to the attention of Architect.
 - 2. For new equipment, use characteristics submitted under the provisions of action submittals and information submittals for this Project.
 - 3. For existing equipment, whether or not relocated, obtain required electrical distribution system data by field investigation and surveys, conducted by qualified technicians and engineers.
- B. Electrical Survey Data: Gather and tabulate the following input data to support study. Comply with recommendations in IEEE 1584 and NFPA 70E as to the amount of detail that is required to be acquired in the field. Field data gathering shall be under the direct supervision and control of the engineer in charge of performing the study and shall be by the engineer or its representative who holds NETA ETT Level III certification or NICET Electrical Power Testing Level III certification.
 - 1. Product Data for overcurrent protective devices specified in other Sections and involved in overcurrent protective device coordination studies. Use equipment designation tags that are consistent with electrical distribution system diagrams, overcurrent protective device submittals, input and output data, and recommended device settings.
 - 2. Obtain electrical power utility impedance at the service.
 - 3. Power sources and ties.
 - 4. Short-circuit current at each system bus, three phase and line-to-ground.
 - 5. Full-load current of all loads.
 - 6. Voltage level at each bus.
 - 7. For transformers, include kVA, primary and secondary voltages, connection type, impedance, X/R ratio, taps measured in per cent, and phase shift.

8. For reactors, provide manufacturer and model designation, voltage rating and impedance.
9. For circuit breakers and fuses, provide manufacturer and model designation. List type of breaker, type of trip and available range of settings, SCCR, current rating, and breaker settings.
10. Generator short-circuit current contribution data, including short-circuit reactance, rated kVA, rated voltage, and X/R ratio.
11. For relays, provide manufacturer and model designation, current transformer ratios, potential transformer ratios, and relay settings.
12. Busway manufacturer and model designation, current rating, impedance, lengths, and conductor material.
13. Motor horsepower and NEMA MG 1 code letter designation.
14. Low-voltage cable sizes, lengths, number, conductor material and conduit material (magnetic or nonmagnetic).
15. Medium-voltage cable sizes, lengths, conductor material, and cable construction and metallic shield performance parameters.

3.4 LABELING

- A. Apply one arc-flash label for 600-V ac, 480-V ac, and applicable 208-V ac panelboards and disconnects and for each of the following locations:
 1. Motor-control center.
 2. Low-voltage switchboard.
 3. Switchgear.
 4. Medium-voltage switch.
 5. Control panel.

3.5 APPLICATION OF WARNING LABELS

- A. Install the arc-fault warning labels under the direct supervision and control of the Arc-Flash Study Specialist.

END OF SECTION 26 05 74

SECTION 26 23 00
LOW-VOLTAGE SWITCHGEAR

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes: Metal-enclosed, low-voltage, draw-out type, circuit-breaker switchgear rated 600 VAC and less, and associated PLC-based monitoring and control systems for two (2) standby generator inputs on an isolated bus and for distributing electrical power.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of switchgear, circuit breaker, accessory, and component indicated. Include dimensions and manufacturers' technical data on features, performance, electrical characteristics, ratings, and finishes.
- B. Shop Drawings: For each type of switchgear and related equipment.
 - 1. Dimensioned plans, elevations, sections, and details, including required clearances and service space around equipment. Include the following:
 - a. Tabulation of installed devices with features and ratings.
 - b. Enclosure types and details.
 - c. Outline and general arrangement drawing showing dimensions, shipping sections, and weights of each assembled section.
 - d. Bus configuration with size and number of conductors in each bus run, including phase, neutral, and ground conductors of main and branch buses.
 - e. Current rating of buses.
 - f. Short-time and short-circuit current rating of switchgear assembly.
 - g. Nameplate legends.
 - h. Mimic-bus diagram.
 - i. Utility company's metering provisions with indication of approval by utility company.
 - j. Features, characteristics, ratings, and factory settings of individual overcurrent protective devices and auxiliary components.
 - k. Time-current characteristic curves for overcurrent protective devices.
 - l. Technical data on features, performance, electrical characteristics, ratings, and finishes for programmable logic controllers, instrumentation, control devices, monitoring devices and display components.

2. Wiring Diagrams: Power, signal, and control wiring.
 - a. Three-line power wiring diagrams for low-voltage switchgear, generators, and related equipment showing device terminal numbers.
 - b. Point-to-point schematic control, monitoring, and alarm wiring diagrams showing internal component terminal numbers.
 - c. Point-to-point schematic control, monitoring, and alarm wiring diagrams for external components indicating terminal numbers for the following:
 - 1) Engine generators.
 - 2) Other load-control devices.
 - 3) SCADA remote terminal unit and/or Ethernet TCP/IP
- C. Sequence of Operation: Description of sequence of operation for controls in automatic, manual, system test, and peak-shaving modes.
 1. Include the following in the description of the automatic-mode sequence of operation:
 - a. Programmed sequence of initial generator starting and connection of generators to the isolated bus, including a description of how the proposed design complies with the requirements for redundancy.
 - b. Programmed sequence of transferring loads to the isolated bus based on operator-adjustable preset priorities and preset loads. Include initial load settings.
 - c. Programmed sequence of starting and stopping generators based on actual real-time measured loads.
 - d. Programmed sequence of sending a load-shed signal to transfer switches, and to other devices when the generator frequency does not return to the normal frequency within the adjustable time period.
 - e. Programmed sequence of stopping generators based on no transfer switch or other device sending a start signal.
 2. Include the following in the description of the system testing mode sequence of operation:
 - a. Load.
 - b. No load.
 3. Include in the description, the peak-shaving-mode sequence of operation.
 4. Include in the description, the manual-mode sequence of operation showing that the manual mode fulfills the requirement to permit the operator at the low-voltage switchgear to accomplish all automatic, system test, and peak-shaving functions.

1.4 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings: Floor plans showing dimensioned layout, required working clearances, and required area above and around switchgear where pipe and ducts are prohibited. Show switchgear layout and relationships between components and adjacent structural and mechanical elements. Show support locations, type of support, and weight on each support. Indicate field measurements.
- B. Field quality-control test reports.
- C. Updated mimic-bus diagram reflecting field changes after final switchgear load connections have been made, for record.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For switchgear and components to include in emergency, operation, and maintenance manuals. In addition to items specified in Section 01, include the following:
 - 1. Manufacturer's written instructions for sequence of operation.
 - 2. Manufacturer's system checklists, maintenance schedule, and maintenance log sheets complying with NFPA 110.
 - 3. Manufacturer's written instructions for testing and adjusting overcurrent protective devices and relays.
 - 4. Time-current curves, including selectable ranges for each type of overcurrent protective device and relay.

1.6 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Fuses: Six of each type and rating used. Include spares for potential transformer fuses, control power fuses, and fuses and fusible devices for fused circuit breakers.
 - 2. Indicating Lights: Six of each type installed.
 - 3. Touchup Paint: 3 containers of paint matching enclosure finish, each 0.5 pint (250 mL).

1.7 QUALITY ASSURANCE

- A. Source Limitations: Obtain switchgear through one source from a single manufacturer.
- B. Product Options: Drawings indicate size, profiles, and dimensional requirements of switchgear and are based on the specific system indicated.
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- D. Comply with NFPA 70.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver switchgear in sections of lengths that can be moved past obstructions in delivery path.
- B. Store switchgear indoors in clean dry space with uniform temperature to prevent condensation. Protect switchgear from exposure to dirt, fumes, water, corrosive substances, and physical damage.

1.9 PROJECT CONDITIONS

- A. Installation Pathway: Remove and replace building components and structures to provide pathway for moving switchgear into place.
- B. Environmental Limitations: Rate equipment for continuous operation under the following conditions, unless otherwise indicated:
 - 1. Ambient Temperature: Not exceeding 40 deg C.
 - 2. Altitude: Not exceeding 6600 feet (2010 m).

1.10 COORDINATION

- A. Coordinate layout and installation of switchgear and components with other construction that penetrates ceilings or is supported by them, including conduit, piping, equipment, and adjacent surfaces. Maintain required clearances for workspace and equipment access doors and panels.
- B. Coordinate size and location of concrete bases. Concrete, reinforcement, and formwork requirements are specified with concrete.

1.11 WARRANTY

- A. Manufacturer's Warranty: Manufacturer agrees to repair or replace paralleling equipment that fails in materials or workmanship within specified warranty period.
 - 1. Warranty Period: Two year(s) from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SYSTEM DESCRIPTION

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. The multiple-generator input monitoring and control panel in the low-voltage switchgear shall monitor and control the following standby power system components:
 - 1. Low-voltage switchgear.
 - 2. Dual-generator monitoring and control system.
 - 3. Engine generators.
 - 4. Transfer switches.
 - 5. Circuit breakers downstream of transfer switches.
- C. Redundant Standby Power System:
 - 1. Two (2) individual generators with associated monitoring and control system.
 - 2. Black-start controller with backup control in the dual generator monitoring and control system.

3. Multiple-generator monitoring and control system shall automatically be performed by a backup system without degradation in the event that primary system fails to function for any reason (such as component failure or off-line maintenance), except for the following manually operated functions:
 - a. Load management.
 - b. Peak shaving.
- D. Sequence of Operation for Normal Conditions:
 1. Low-voltage switchgear, including controlled generators, controlled circuit breakers, and transfer switches, shall be in the automatic position and ready to operate on loss of power or other designated initiation conditions.
 2. Each single-generator monitoring and control system has not received a "start" signal from the following:
 - a. Transfer switch.
 - b. Dual generator monitoring and control system.
- E. Sequence of Operation for Loss of Normal Power Conditions:
 1. The designated primary generator shall receive a start signal from the monitoring and control system transfer switch that monitors loss of normal source availability.
 2. On receiving a start signal, the designated primary generator monitoring and control system shall start and achieve rated voltage and frequency.
 3. If the primary generator fails to start, after expiration of overcrank time delay, engine generator shuts down and trouble signal is initiated.
 4. Should the primary generator fail to start, the secondary generator monitoring and control system shall start and achieve rated voltage and frequency.
 5. If the secondary generator fails to start, after expiration of overcrank time delay, engine generator shuts down and alarm is initiated.
 6. Black-Start Control: Prevent out-of-phase paralleling. After selecting the first generator to achieve 90 percent rated voltage and frequency, inhibit the connection of generator-controlled circuit breakers to the isolated paralleling bus, then close the circuit breaker connecting the first generator to the isolated paralleling bus.
 - a. Comply with requirements in Section 263213 "Engine Generators" for selection of the first engine generator to connect to the isolated paralleling bus.
- F. Transfer Switch Return to Normal Condition Sequence of Operation: Enable individual transfer switches to return to normal power when normal power is available at the transfer switch.
- G. Return to Normal Condition Sequence of Operation:
 1. Process starts on removal of start signals from system.
 2. When no load remains on isolated bus, generator breaker opens, go through cool-down period, and shut down.
 3. If start signal is received during cool-down period, the secondary generator is reconnected to isolated bus, and system operation follows that of "loss of normal power."
- H. System Test Sequence of Operation:
 1. Configure tests to comply with NFPA 110, Level 1 testing requirements for each generator. Automatically generate NFPA 110, Level 1 reports.
 2. Single-generator test.
 3. Dual-generator test.

4. Start generators manually, by generator exerciser on user-defined schedule, or by remote contact from SCADA system.
5. Engine generator(s) start and achieve rated voltage and frequency.
6. Failure of Engine Generator to Start: After expiration of overcrank time delay, engine generator shuts down and alarm is initiated.
7. Manually select or automatically preselect whether test is a load or no-load test. If test is a load test, manually select or automatically preselect loads to be transferred according to schedule or by adjustable time delays at transfer switches. After generator is connected to isolated bus, transfer loads by sending signal to load-add relay that is connected to input for "remote transfer to generator source" of transfer switch controller or to other devices.
8. On sensing available bus capacity diminished to set point, controller starts and closes engine generators to the isolated bus to accommodate load.
9. After system test is completed, transfer loads back to normal power with transfer switches. Shut down system using sequence in automatic mode.
10. If there is an outage during this mode of operation, automatically change to requirements specified in "Sequence of Operation for Loss of Normal Power Conditions" Paragraph, send load-shed signals to lower-priority loads until load is below generator capacity, signal any engine generator that is not currently operating to start, and cancel system test.

- I. Comply with NFPA 110 for the following:
 1. Legally Required Standby: EPSS Level 1, Type 60.
 2. Optional Standby: EPSS Level 2.

2.2 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 1. Square D; Schneider Electric.
 2. ABB Inc.
 3. Cutler-Hammer, Inc.; Eaton Corporation.

2.3 RATINGS

- A. As indicated on drawings.

2.4 MULTIPLE GENERATOR MONITORING AND CONTROL SYSTEM

- A. Components and Devices: Factory mounted in a low-voltage switchgear.
 1. Door-Mounted Control Devices: Industrial, oil-type devices.
 2. Indicator Lamps: High-intensity digital display.
- B. System Controller:
 1. Fully equip with hot swappable programmable logic controller, power supplies, and I/O points.

2. Basis of design for PLC shall be Allen Bradley Compact Logix 5370 processor and 1769 series I/O.
 3. Ethernet communication capability to existing plant SCADA control system.
 4. Black-start control equipment specified in Section 263213 "Engine Generators."
- C. Multiple generator monitoring and control system auto/manual selector switch.
- D. Full-Color, Touch-Screen, Human-Machine Interface Device:
1. Basis of design – Allen Bradley Panelview Plus
 2. Minimum viewing area of 60 sq. in. (387 sq. cm) shall be configurable in either U.S. standard or SI (metric) units.
 3. Main Menu: Include date, time, and system status messages. Configure screens so that no screen is more than three touches from any other screen.
 - a. Individual engine generator data shall be accessed at the low-voltage switchgear from the main menu.
 4. One-Line Diagram: Depicting system configuration and system status by screen animation, screen colors, text messages, or pop-up indicators.
 - a. Conditions for Engine Generators, Buses, and Circuit Breakers: Energized or de-energized.
 - b. Engine Generator Modes:
 - 1) Auto.
 - 2) Lockout.
 - 3) Reset.
 - 4) Off.
 - 5) Cool down.
 - 6) Test offline.
 - 7) Test on load.
 - c. Engine Generator Status: Normal, warning, shutdown, or load-demand stop.
 - d. Circuit-Breaker Status: Open, closed, or tripped.
 - e. Bus Conditions: Energized or de-energized.
 - f. Percent load.
 5. AC metering screen for isolated bus shall display the following:
 - a. Phase, volts, and amperes.
 - b. Kilowatts.
 - c. Kilovolt amperes.
 - d. Kilovolt-ampere rating.
 - e. Power factor.
 - f. Frequency.
 - g. Kilowatt hour.
 - h. Kilowatt demand.
 - i. Real-time trend chart for system kilowatts and volts updated on not less than one-second intervals.
 - j. A minimum of one historical trend chart for total system loads with intervals no shorter than five minutes and a minimum duration of four hours.
 6. Engine Generator Monitoring and Control Screen:
 - a. Control:
 - 1) Engine generator manual start/stop control.
 - 2) Engine generator alarm reset.
 - 3) Engine function and timer settings.
 - 4) System function, testing, and timer settings.

- 5) Engine generator optimization settings: automatically determine the priority of the engine generators based on engine run time and number of engine starts or manually assign engine priorities.
 - b. Status and Alarms:
 - 1) Power Metering: Watts, volt-ampere reactive, power factor, frequency, amperes, and voltage.
 - 2) Engine run hours.
 - 3) Engine status.
 - 4) Number of generator circuit-breaker operations.
 - 5) Replicate status and alarms from each single-generator paralleling monitoring and control panel.
7. Dual, Three-Phase, Metering Screen: Graphical analog (270 electrical degree) metering representation with digital display. Display two generators at the same time or one generator and the isolated bus at the same time. Display graphical synchroscope when one generator and the isolated bus are selected.
 - a. True rms, three-phase voltage, amperes, kilowatts, kilovolt amperes, kilovolt-ampere reactive, power factor, and frequency parameters.
 - b. Engine battery voltage display.
8. Password-Protected System Control Screen:
 - a. System Test Modes: Test with load/test without load/normal/retransfer time-delay override.
 - b. Test with Load: Starts engine generator on isolated bus; all loads are transferred to the isolated bus.
 - c. Test without Load: Starts and synchronizes engine generator on isolated bus but does not transfer loads to the isolated bus.
 - d. Time adjustments for retransfer time delay, transfer time delay, system time delay on stopping, and system time delay on starting.
9. Alarm Summary and Run Report Screen:
 - a. Lists most recent alarm conditions and status changes.
 - b. Lists a minimum of the most recent 32 alarm conditions by name and time/date; acknowledges alarm conditions with time/date.
 - c. For each start signal, lists start time and date, stop time and date, maximum kilowatt and ampere load on system during run time, and start and stop times of individual engine generators.
 - d. Lists generator circuit position and status.
 - e. 16-gigabyte hard-disk space for storing the database file for multiple-generator monitoring and control panel trending and event logging. Trend and log data at a resolution of one second. If hard drive is full, overwrite in a first-in-first-out procedure.
 - 1) Trend up to eight monitored points simultaneously.
10. Load Status and Control Screen: Displays status of automatic transfer switch.
 - a. Automatic transfer switch connected to normal.
 - b. Automatic transfer switch connected to emergency.
 - c. Controlled circuit breakers downstream from the automatic transfer switch device enabled or disabled.
 - d. Engine start indication.
 - e. Transfer Switch Power Metering Function: Total kilowatt, three-phase current, and three-phase voltage.
11. Automated email messages shall be transmitted when shutdowns occur and shall include time and date of alarm.

12. Based on either the number operations or the time since the last maintenance, suggest maintenance period for generator (run hours), controlled circuit breaker (number of operations), and transfer switches (number of transfers).
13. Status and Alarm Screen:
 - a. Visual alarm status indicator and alarm horn with silence and acknowledge push button.
 - b. Status, Light Only:
 - 1) "SYSTEM NOT IN AUTO" (red).
 - 2) Running Status: Display engine generator number and running-status light (green).
 - 3) Load-demand mode (green).
 - 4) System test (green).
 - 5) Remote system start (red).
 - 6) Monitoring of Transfer Switch:
 - a) Normal source available for each (green).
 - b) Connected to normal (green).
 - c) Generator source available (green).
 - d) Connected to generator source (green).
 - c. Status Light and Alarm:
 - 1) Isolated bus under frequency (red).
 - 2) Isolated bus over frequency (red).
 - 3) Auxiliary power failure (red).
 - 4) Emergency start signal power failure (red).
 - 5) Generator Alarm Status: Displays generator number and red "Check Generator" status light.
 - 6) Controller malfunction (red).
 - 7) Check station battery (red).
 - 8) Isolated bus overload (red).
 - 9) System not in auto (red).
 - 10) Main tank, low fuel (amber)
 - 11) Main tank, high fuel (amber).
 - 12) Main tank, fuel leak (red).

E. Remote Monitoring: Replicate human-machine interface monitoring functions at SCADA.

2.5 FABRICATION

- A. Factory assembled and tested and complying with IEEE C37.20.1.
- B. Indoor Enclosure Material: Steel.
- C. Finish: IEEE C37.20.1, manufacturer's standard gray finish over a rust-inhibiting primer on phosphatizing-treated metal surfaces.
- D. Section barriers between main and tie circuit-breaker compartments shall be extended to rear of section.
- E. Bus isolation barriers shall be arranged to isolate line bus from load bus at each main and tie circuit breaker.

- F. Circuit-breaker compartments shall be equipped to house draw out type circuit breakers and shall be fitted with hinged outer doors.
- G. Fabricate enclosure with removable, hinged, rear cover panels to allow access to rear interior of switchgear.
- H. Auxiliary Compartments: Match and align with basic switchgear assembly. Include the following:
 - 1. Utility metering compartment that complies with utility company requirements.
 - 2. Bus transition sections.
 - 3. Hinged front panels for access to metering, accessory, and blank compartments.
 - 4. Pull box on top of switchgear for extra room for pulling cable, with removable top, front, and side covers and ventilation provisions adequate to maintain air temperature in pull box within same limits as switchgear.
 - a. Set pull box back from front to clear circuit-breaker lifting mechanism.
 - b. Bottom: Insulating, fire-resistant material with separate holes for cable drops into switchgear.
 - c. Cable Supports: Arranged to ease cabling and adequate to support cables indicated, including those for future installation.
- I. Bus bars connect between vertical sections and between compartments. Cable connections are not permitted.
 - 1. Main Phase Bus: Uniform capacity the entire length of assembly.
 - 2. Neutral Bus: **100** percent of phase-bus ampacity, except as indicated. Equip bus with pressure-connector terminations for outgoing circuit neutral conductors. Include braces for neutral-bus extensions for busway feeders.
 - 3. Vertical Section Bus Size: Comply with IEEE C37.20.1, including allowance for spare circuit breakers and spaces for future circuit breakers.
 - 4. Phase- and Neutral-Bus Material: Hard-drawn copper of 98 percent minimum conductivity, with copper feeder circuit-breaker line connections.
 - 5. Use copper for connecting circuit-breaker line to copper bus.
 - 6. Contact Surfaces of Buses: Silver plated.
 - 7. Feeder Circuit-Breaker Load Terminals: Silver-plated copper bus extensions equipped with pressure connectors for outgoing circuit conductors.
 - 8. Ground Bus: Hard-drawn copper of 98 percent minimum conductivity, with pressure connector for feeder and branch-circuit ground conductors, minimum size 1/4 by 2 inches (6 by 50 mm).
 - 9. Supports and Bracing for Buses: Adequate strength for indicated short-circuit currents.
 - 10. Neutral bus equipped with pressure-connector terminations for outgoing circuit neutral conductors. Neutral-bus extensions for busway feeders are braced.
 - 11. Neutral Disconnect Link: Bolted, uninsulated, 1/4-by-2-inch (6-by-50-mm) copper bus, arranged to connect neutral bus to ground bus.
 - 12. Provide for future extensions from either end of main phase, neutral, and ground bus by means of predrilled bolt-holes and connecting links.
 - 13. Bus-Bar Insulation: Individual bus bars wrapped with factory-applied, flame-retardant tape or spray-applied, flame-retardant insulation.

- a. Sprayed Insulation Thickness: 3 mils (0.08 mm), minimum.
- b. Bolted Bus Joints: Insulate with secure joint covers that can easily be removed and reinstalled.

2.6 COMPONENTS

- A. Instrument Transformers: Comply with IEEE C57.13.
 1. Potential Transformers: Secondary-voltage rating of 120 V and NEMA accuracy class of 0.3 with burdens of W, X, and Y.
 2. Current Transformers: Ratios as indicated; burden and accuracy class suitable for connected relays, meters, and instruments.
- B. Multifunction Digital-Metering Monitor: UL-listed or -recognized, microprocessor-based unit suitable for three- or four-wire systems and with the following features:
 1. Inputs from sensors or 5-A current-transformer secondaries, and potential terminals rated to 600 V.
 2. Switch-selectable digital display of the following:
 - a. Phase Currents, Each Phase: Plus or minus 1 percent.
 - b. Phase-to-Phase Voltages, Three Phase: Plus or minus 1 percent.
 - c. Phase-to-Neutral Voltages, Three Phase: Plus or minus 1 percent.
 - d. Three-Phase Real Power: Plus or minus 2 percent.
 - e. Three-Phase Reactive Power: Plus or minus 2 percent.
 - f. Power Factor: Plus or minus 2 percent.
 - g. Frequency: Plus or minus 0.5 percent.
 - h. Integrated Demand, with Demand Interval Selectable from 5 to 60 Minutes: Plus or minus 2 percent.
 - i. Accumulated energy, in megawatt hours (joules), plus or minus 2 percent; stored values unaffected by power outages for up to 72 hours.
 3. Mounting: Display and control unit flush or semiflush mounted in instrument compartment door.
- C. Surge Arresters: Distribution class, metal-oxide-varistor type. Comply with IEEE C62.11 and NEMA LA 1.
 1. Install in cable termination compartments and connect in each phase of circuit.
 2. Coordinate rating with circuit voltage.
- D. Provision for Future Devices: Equip compartments with rails, mounting brackets, supports, necessary appurtenances, and bus connections.
- E. Fungus Proofing: Permanent fungicidal treatment for switchgear interior, including instruments and instrument transformers.
- F. Control Power Supply: Control power transformer supplying 120-V control circuits through secondary disconnect devices. Include the following features:

1. Dry-type transformers, in separate compartments for units larger than 3 kVA, including primary and secondary fuses.
 2. Two control power transformers in separate compartments with necessary interlocking relays; each transformer connected to line side of associated main circuit breaker.
 - a. Secondary windings connected through an internal automatic transfer switch to switchgear control power bus.
 3. Control Power Fuses: Primary and secondary fuses with current-limiting and overload protection.
- G. Control Wiring: Factory installed, complete with bundling, lacing, and protection; and complying with the following:
1. Flexible conductors for No. 8 AWG and smaller, for conductors across hinges and for conductors for interconnections between shipping units.
 2. Conductors sized according to NFPA 70 for duty required.

2.7 CIRCUIT BREAKERS

- A. Description: Comply with IEEE C37.13.
- B. Ratings: As indicated for continuous, interrupting, and short-time current ratings for each circuit breaker; voltage and frequency ratings same as switchgear.
- C. Operating Mechanism: Mechanically and electrically trip-free, stored-energy operating mechanism with the following features:
1. Normal Closing Speed: Independent of both control and operator.
 2. Slow Closing Speed: Optional with operator for inspection and adjustment.
 3. Stored-Energy Mechanism: Electrically charged, with optional manual charging.
 4. Operation counter.
- D. Trip Devices: Solid-state, overcurrent trip-device system consisting of one or two current transformers or sensors per phase, a release mechanism, and the following features:
1. Functions: Long-time-delay, short-time-delay, and instantaneous-trip functions, independent of each other in both action and adjustment.
 2. Temperature Compensation: Ensures accuracy and calibration stability from minus 5 to plus 40 deg C.
 3. Field-adjustable, time-current characteristics.
 4. Current Adjustability: Dial settings and rating plugs on trip units or sensors on circuit breakers, or a combination of these methods.
 5. Three bands, minimum, for long-time- and short-time-delay functions; marked "minimum," "intermediate," and "maximum."
 6. Pickup Points: Five minimum, for long-time- and short-time-trip functions. Equip short-time-trip function for switchable I^2t operation.
 7. Pickup Points: Five minimum, for instantaneous-trip functions.
 8. Ground-fault protection with at least three short-time-delay settings and three trip-time-delay bands; adjustable current pickup. Arrange to provide protection for the following:

- a. Three-wire circuit or system.
 - b. Four-wire circuit or system.
 - c. Four-wire, double-ended substation.
9. Trip Indication: Labeled, battery-powered lights or mechanical targets on trip device to indicate type of fault.
- E. Drawout Features: Circuit-breaker mounting assembly equipped with a racking mechanism to position circuit breaker and hold it rigidly in connected, test, and disconnected positions. Include the following features:
 1. Interlocks: Prevent movement of circuit breaker to or from connected position when it is closed and prevent closure of circuit breaker unless it is in connected, test, or disconnected position.
 2. Circuit-Breaker Positioning: An open circuit breaker may be racked to or from connected, test, and disconnected positions only with the associated compartment door closed unless live parts are covered by a full dead-front shield. An open circuit breaker may be manually withdrawn to a position for removal from the structure with the door open. Status for connection devices for different positions includes the following:
 - a. Test Position: Primary disconnect devices disengaged, and secondary disconnect devices and ground contact engaged.
 - b. Disconnected Position: Primary and secondary devices and ground contact disengaged.
- F. Arc Chutes: Readily removable from associated circuit breaker when it is in disconnected position and arranged to permit inspection of contacts without removing circuit breaker from switchgear.
- G. Padlocking Provisions: For installing at least three padlocks on each circuit breaker to secure its enclosure and prevent movement of drawout mechanism.
- H. Electric Close Button: One for each electrically operated circuit breaker.
- I. Key Interlocks: Arranged so keys are attached at devices indicated. Mountings and hardware are included where future installation of key-interlock devices is indicated.
- J. Undervoltage Trip Devices: Adjustable time-delay and pickup voltage.
- K. Indicating Lights: To indicate circuit breaker is open or closed, for main and bus tie circuit breakers interlocked either with each other or with external devices.

2.8 ACCESSORIES

- A. Accessory Set: Furnish tools and miscellaneous items required for circuit-breaker and switchgear test, inspection, maintenance, and operation.
 1. Racking handle to manually move circuit breaker between connected and disconnected positions.

2. Portable test set for testing all functions of circuit-breaker, solid-state trip devices without removal from switchgear.
 3. Relay and meter test plugs suitable for testing switchgear meters and switchgear class relays.
- B. Circuit-Breaker Removal Apparatus: Portable, floor-supported, roller-base, elevating carriage arranged for moving circuit breakers in and out of compartments.
- C. Storage for Manual: Include a rack or holder, near the operating instructions, for a copy of maintenance manual.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine elements and surfaces where switchgear will be installed for compliance with installation tolerances, required clearances, and other conditions affecting performance.
1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Comply with applicable portions of NECA 400.
- B. Anchor switchgear assembly to 4-inch (100-mm), channel-iron floor sill embedded in concrete base and attach by bolting.
1. Sills: Select to suit switchgear; level and grout flush into concrete base.
 2. Concrete Bases: 4 inches (100 mm) high, reinforced, with chamfered edges. Extend base no more than 3 inches (75 mm) in all directions beyond the maximum dimensions of switchgear unless otherwise indicated or unless required for seismic anchor support.
- C. Temporary Lifting Provisions: Remove temporary lifting eyes, channels, brackets, and temporary blocking of moving parts from switchgear units and components.

3.3 IDENTIFICATION

- A. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs as specified in Section 260553 "Identification for Electrical Systems."
- B. Diagram and Instructions:
1. Frame and mount under clear acrylic plastic on the front of switchgear.
 - a. Operating Instructions: Printed basic instructions for switchgear, including control and key-interlock sequences and emergency procedures.

- b. System Power Riser Diagrams: Depict power sources, feeders, distribution components, and major loads.
- 2. Storage for Maintenance: Include a rack or holder, near the operating instructions, for a copy of maintenance manual.

3.4 CONNECTIONS

- A. Ground equipment according to Section 260526 "Grounding and Bonding for Electrical Systems."
- B. Connect wiring according to Section 260519 "Low-Voltage Electrical Power Conductors and Cables."
- C. Confirm Ethernet communication with plant SCADA control system.

3.5 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to perform the following:
 - 1. Inspect switchgear installation, including wiring, components, connections, and equipment.
 - 2. Complete installation and startup check according to manufacturer's written instructions.
 - 3. Assist in field testing of equipment including pretesting and adjusting of equipment and components.
 - 4. Report results in writing.
- B. Perform the following field tests and inspections and prepare test reports:
 - 1. Perform each visual and mechanical inspection and electrical test stated in NETA ATS. Certify compliance with test parameters. Perform NETA tests and inspections for each of the following NETA categories:
 - a. Switchgear.
 - b. Circuit breakers.
 - c. Protective relays.
 - d. Instrument transformers.
 - e. Metering and instrumentation.
 - f. Ground-fault systems.
 - g. Battery systems.
 - h. Surge arresters.
 - i. Capacitors.
 - 2. Remove and replace malfunctioning units and retest as specified above.
- C. Infrared Scanning: After Substantial Completion, but not more than 60 days after Final Acceptance, perform an infrared scan of each switchgear. Remove front and rear panels so joints and connections are accessible to portable scanner.

1. Follow-up Infrared Scanning: Perform an additional follow-up infrared scan of each switchgear 11 months after date of Substantial Completion.
2. Instrument: Use an infrared scanning device designed to measure temperature or to detect significant deviations from normal values. Provide calibration record for device.
3. Record of Infrared Scanning: Prepare a certified report that identifies switchgear checked and that describes scanning results. Include notation of deficiencies detected, remedial action taken, and observations after remedial action.

3.6 ADJUSTING

- A. Set field-adjustable, protective-relay trip characteristics according to results in Section 260573.16 "Overcurrent Protective Device Coordination Study."
- B. Set field-adjustable, protective-relay trip characteristics.

3.7 CLEANING

- A. On completion of installation, inspect interior and exterior of switchgear. Remove paint splatters and other spots. Vacuum dirt and debris; do not use compressed air to assist in cleaning. Repair exposed surfaces to match original finish.

3.8 PROTECTION

- A. Temporary Heating: Apply temporary heat to switchgear, according to manufacturer's written instructions, throughout periods when switchgear environment is not controlled for temperature and humidity within manufacturer's stipulated service conditions.

3.9 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain switchgear.

END OF SECTION 26 23 00

SECTION 26 24 19
MOTOR-CONTROL CENTERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes MCCs for use with ac circuits rated 600 V and less and having the following factory-installed components:
 - 1. Incoming main lugs and OCPDs.
 - 2. Full-voltage magnetic controllers.
 - 3. TVSS.
 - 4. Instrumentation.
 - 5. Auxiliary Devices.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of controller and each type of MCC. Include shipping and operating weights, features, performance, electrical ratings, operating characteristics, and furnished specialties and accessories.
- B. Shop Drawings: For each MCC, manufacturer's approval drawings as defined in UL 845. In addition to requirements specified in UL 845, include dimensioned plans, elevations, and sections; and conduit entry locations and sizes, mounting arrangements, and details, including required clearances and service space around equipment.
 - 1. Show tabulations of installed devices, equipment features, and ratings. Include the following:
 - a. Each installed unit's type and details.
 - b. Factory-installed devices.
 - c. Enclosure types and details.
 - d. Nameplate legends.
 - e. Short-circuit current (withstand) rating of complete MCC, and for bus structure and each unit.
 - f. Features, characteristics, ratings, and factory settings of each installed controller and feeder device and installed devices.
 - g. Specified optional features and accessories.
 - 2. Schematic and Connection Wiring Diagrams: For power, signal, and control wiring for each installed controller.
 - 3. Nameplate legends.
 - 4. Vertical and horizontal bus capacities.
 - 5. Features, characteristics, ratings, and factory settings of each installed unit.

1.4 INFORMATIONAL SUBMITTALS

- A. Standard Drawings: For each MCC, as defined in UL 845.
- B. Product Certificates: For each MCC, from manufacturer.
- C. Source quality-control reports.
- D. Field quality-control reports.
- E. Load-Current and Overload-Relay Heater List: Compile after motors have been installed and arrange to demonstrate that selection of heaters suits actual motor nameplate full-load currents.
- F. Load-Current and List of Settings of Adjustable Overload Relays: Compile after motors have been installed and arrange to demonstrate that switch settings for motor running overload protection suit actual motors to be protected.
- G. Warranty: Sample of special warranty.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For MCCs, all installed devices, and components to include in emergency, operation, and maintenance manuals. Include the following:
 - 1. Manufacturer's Record Drawings: As defined in UL 845. In addition to requirements specified in UL 845, include field modifications and field-assigned wiring identification incorporated during construction by manufacturer, Contractor, or both.
 - 2. Manufacturer's written instructions for testing and adjusting circuit breaker and MCP trip settings.
 - 3. Manufacturer's written instructions for setting field-adjustable overload relays.
 - 4. Manufacturer's written instructions for testing, adjusting, and reprogramming microprocessor control modules.
 - 5. Manufacturer's written instructions for setting field-adjustable timers, controls, and status and alarm points.

1.6 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Control Power Fuses: Equal to 10 percent of quantity installed for each size and type, but no fewer than two of each size and type.
 - 2. Indicating Lights: Two of each type and color installed.
 - 3. Auxiliary Contacts: Furnish one spare(s) for each size and type of magnetic controller installed.
 - 4. Power Contacts: Furnish three spares for each size and type of magnetic contactor installed.

1.7 QUALITY ASSURANCE

- A. Source Limitations: Obtain MCCs and controllers of a single type from single source from single manufacturer.

- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. Comply with NFPA 70.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Handle MCCs according to the following:
 - 1. NEMA ICS 2.3, "Instructions for the Handling, Installation, Operation, and Maintenance of Motor Control Centers Rated Not More Than 600 Volts."
 - 2. NECA 402, "Recommended Practice for Installing and Maintaining Motor Control Centers."
- B. If stored in space that is not permanently enclosed and air conditioned, remove loose packing and flammable materials from inside MCCs.

1.9 COORDINATION

- A. Coordinate features of MCCs, installed units, and accessory devices with remote pilot devices and control circuits to which they connect.
- B. Coordinate features, accessories, and functions of each MCC, each controller, and each installed unit with ratings and characteristics of supply circuits, motors, required control sequences, and duty cycle of motors and loads.

1.10 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace TVSS that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURED UNITS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. ABB; Control Products.
 - 2. Eaton Electrical Inc.; Cutler-Hammer Business Unit.
 - 3. Square D; a brand of Schneider Electric.
- B. General Requirements for MCCs: Comply with NEMA ICS 18 and UL 845.

2.2 FUNCTIONAL FEATURES

- A. Description: Modular arrangement of main units, controller units, control devices, feeder-tap units, instruments, metering, auxiliary devices, and other items mounted in vertical sections of MCC.
- B. Controller Units: Combination controller units.
 - 1. Install units up to and including Size 3 on drawout mountings with connectors that automatically line up and connect with vertical-section buses while being racked into their normal, energized positions.
 - 2. Equip units in Type B and Type C MCCs with pull-apart terminal strips for external control connections.
- C. Future Units: Compartments fully bused and equipped with guide rails or equivalent, ready for insertion of drawout units.
- D. Spare Units: Installed in compartments indicated "spare."

2.3 INCOMING MAINS

- A. Incoming Mains Location: Top.
- B. Main Lugs Only: Conductor connectors suitable for use with conductor material and sizes.
 - 1. Material: Hard-drawn copper, 98 percent conductivity.
 - 2. Main and Neutral Lugs: Mechanical type.
- C. MCCB: Comply with UL 489, with interrupting capacity to meet available fault currents.
 - 1. Thermal-Magnetic Circuit Breakers: Inverse time-current element for low-level overloads, and instantaneous magnetic trip element for short circuits. Adjustable magnetic trip setting for circuit-breaker frame sizes 250 A and larger.
 - 2. Adjustable Instantaneous-Trip Circuit Breakers: Magnetic trip element with front-mounted, field-adjustable trip setting.
 - 3. Electronic trip circuit breakers with rms sensing; field-replaceable rating plug or field-replaceable electronic trip; and the following field-adjustable settings:
 - a. Instantaneous trip.
 - b. Long- and short-time pickup levels.
 - c. Long- and short-time time adjustments.
 - d. Ground-fault pickup level, time delay, and I^2t response.
 - 4. Current-Limiting Circuit Breakers: Frame sizes 400 A and smaller; let-through ratings less than NEMA FU 1, RK-5.
 - 5. Integrally Fused Circuit Breakers: Thermal-magnetic trip element with integral limiter-style fuse listed for use with circuit breaker; trip activation on fuse opening or on opening of fuse compartment door.
 - 6. MCCB Features and Accessories:
 - a. Standard frame sizes, trip ratings, and number of poles.
 - b. Lugs: Mechanical style, suitable for number, size, trip ratings, and conductor material.

- c. Application Listing: Appropriate for application; Type SWD for switching fluorescent lighting loads; Type HID for feeding fluorescent and high-intensity discharge (HID) lighting circuits.
 - d. Ground-Fault Protection: Integrally mounted relay and trip unit with adjustable pickup and time-delay settings, push-to-test feature, and ground-fault indicator.
 - e. Zone-Selective Interlocking: Integral with electronic trip unit; for interlocking ground-fault protection function.
 - f. Communication Capability: Circuit-breaker-mounted communication module with functions and features compatible with power monitoring and control system."
 - g. Auxiliary Contacts: One SPDT switch with "a" and "b" contacts; "a" contacts mimic circuit-breaker contacts, "b" contacts operate in reverse of circuit-breaker contacts.
- D. Insulated-Case Circuit Breaker: 100 percent rated, sealed, insulated-case power circuit breaker with interrupting capacity rating to meet available fault current.
 - 1. Fixed circuit-breaker mounting.
 - 2. Two-step, stored-energy closing.
 - 3. Standard-function, microprocessor-based trip units with interchangeable rating plug, trip indicators, and the following field-adjustable settings:
 - a. Instantaneous trip.
 - b. Long- and short-time time adjustments.
 - c. Ground-fault pickup level, time delay, and I^2t response.
 - 4. Zone-Selective Interlocking: Integral with electronic trip unit; for interlocking ground-fault protection function.
 - 5. Remote trip indication and control.
 - 6. Communication Capability: Integral communication module with functions and features compatible with power monitoring and control system.
 - 7. Control Voltage: 120-VAC.

2.4 COMBINATION CONTROLLERS

- A. Full-Voltage Controllers:
 - 1. General Requirements for Full-Voltage Enclosed Controllers: Comply with NEMA ICS 2, general purpose, Class A.
 - 2. Magnetic Controllers: Full voltage, across the line, electrically held.
 - a. Configuration: non-reversing.
- B. Disconnecting Means and OCPDs:
 - 1. MCP Disconnecting Means:
 - a. UL 489, NEMA AB 1, and NEMA AB 3, with interrupting capacity to comply with available fault currents, instantaneous-only circuit breaker with front-mounted, field-adjustable, short-circuit trip coordinated with motor locked-rotor amperes.
 - b. Lockable Handle: Accepts three padlocks and interlocks with cover in closed position.
 - c. NO alarm contact that operates only when MCP has tripped.
 - 2. MCCB Disconnecting Means:

- a. UL 489, NEMA AB 1, and NEMA AB 3, with interrupting capacity to comply with available fault currents; thermal-magnetic MCCB, with inverse time-current element for low-level overloads and instantaneous magnetic trip element for short circuits.
 - b. Front-mounted, adjustable magnetic trip setting for circuit-breaker frame sizes 250 A and larger.
 - c. Lockable Handle: Accepts three padlocks and interlocks with cover in closed position.
 - d. NO alarm contact that operates only when MCCB has tripped.
 3. Molded-Case Switch Disconnecting Means:
 - a. UL 489, NEMA AB 1, and NEMA AB 3, with in-line fuse block for Class J or L power fuses (depending on ampere rating), providing an interrupting capacity to comply with available fault currents; MCCB with fixed, high-set instantaneous trip only.
 - b. Lockable Handle: Accepts three padlocks and interlocks with cover in closed position.
 - c. NO alarm contact that operates only when molded-case switch has tripped.
- C. Overload Relays:
 1. Solid-State Overload Relays:
 - a. Switch or dial selectable for motor running overload protection.
 - b. Sensors in each phase.
 - c. Class 10/20 selectable tripping characteristic selected to protect motor against voltage and current unbalance and single phasing.
 2. NO isolated overload alarm contact.
 3. External overload reset push button.
- D. Control Power:
 1. Control Circuits: 120-V ac; obtained from integral CPT, with primary and secondary fuses, with CPT of sufficient capacity to operate integral devices and remotely located pilot, indicating, and control devices.
 - a. CPT Spare Capacity: 100 VA.

2.5 TRANSIENT VOLTAGE SUPPRESSION DEVICES

- A. Surge Protection Device Description: IEEE C62.41-compliant, integrally mounted, wired-in, solid-state, parallel-connected, modular (with field-replaceable modules) type, with sine-wave tracking suppression and filtering modules, UL 1449, second edition, short-circuit current rating matching or exceeding the MCC short-circuit rating, and with the following features and accessories:
 1. Fuses, rated at 200-kA interrupting capacity.
 2. Fabrication using bolted compression lugs for internal wiring.
 3. Redundant suppression circuits.
 4. Redundant replaceable modules.
 5. Arrangement with wire connections to phase buses, neutral bus, and ground bus.
 6. LED indicator lights for power and protection status.

7. Audible alarm, with silencing switch, to indicate when protection has failed.
 8. Form-C contacts rated at 5 A and 250-V ac, one NO and one NC, for remote monitoring of system operation. Contacts shall reverse position on failure of any surge diversion module or on opening of any current-limiting device. Coordinate with building power monitoring and control system.
 9. Four-digit, transient-event counter set to totalize transient surges.
- B. Withstand Capabilities: 12,000 IEEE C62.41, Category C3 (10 kA), 8-by-20-mic.sec. surges with less than 5 percent change in clamping voltage.
- C. Protection modes and UL 1449 SVR for grounded wye circuits with 480Y/277-V, three-phase, four-wire circuits shall be as follows:
1. Line to Neutral: 800 V for 480Y/277.
 2. Line to Ground: 800 V for 480Y/277.
 3. Neutral to Ground: 800 V for 480Y/277.

2.6 INSTRUMENTATION

- A. Instrument Transformers: IEEE C57.13, NEMA EI 21.1, and the following:
1. Current Transformers: IEEE C57.13; 5 A, 60 Hz, secondary; wound type; single secondary winding and secondary shorting device. Burden and accuracy shall be consistent with connected metering and relay devices.
 2. CPTs: Dry type, mounted in separate compartments for units larger than 3 kVA.
 3. Current Transformers for Neutral and Ground-Fault Current Sensing: Connect secondary wiring to ground overcurrent relays, via shorting terminals, to provide selective tripping of main and tie circuit breaker. Coordinate with feeder circuit-breaker, ground-fault protection.
- B. Multifunction Digital-Metering Monitor: Microprocessor-based unit suitable for three- or four-wire systems and with the following features:
1. Listed or recognized by a nationally recognized testing laboratory.
 2. Inputs from sensors or 5-A current-transformer secondaries, and potential terminals rated to 600 V.
 3. Switch-selectable digital display of the following values with the indicated maximum accuracy tolerances:
 - a. Phase Currents, Each Phase: Plus or minus 1 percent.
 - b. Phase-to-Phase Voltages, Three Phase: Plus or minus 1 percent.
 - c. Phase-to-Neutral Voltages, Three Phase: Plus or minus 1 percent.
 - d. Three-Phase Real Power (Megawatts): Plus or minus 2 percent.
 - e. Three-Phase Reactive Power (Megavars): Plus or minus 2 percent.
 - f. Power Factor: Plus or minus 2 percent.
 - g. Frequency: Plus or minus 0.5 percent.
 - h. Accumulated Energy, Megawatt Hours: Plus or minus 2 percent; accumulated values unaffected by power outages up to 72 hours.
 - i. Megawatt Demand: Plus or minus 2 percent; demand interval programmable from five to 60 minutes.
 4. Mounting: Display and control unit flush or semiflush mounted in instrument compartment door.

2.7 MCC CONTROL POWER

- A. Control Circuits: 120-V ac, supplied through secondary disconnecting devices from CPT.
- B. Control Power Fuses: Primary and secondary fuses for current-limiting and overload protection of transformer and fuses for protection of control circuits.
- C. Control Wiring: Factory installed, with bundling, lacing, and protection included. Provide flexible conductors for No. 8 AWG and smaller, for conductors across hinges, and for conductors for interconnections between shipping units.

2.8 ENCLOSURES

- A. Indoor Enclosures: Freestanding steel cabinets unless otherwise indicated. NEMA 250, Type 12 unless otherwise indicated to comply with environmental conditions at installed location.
- B. Enclosure Finish for Indoor Units: Factory-applied finish in manufacturer's standard gray finish over a rust-inhibiting primer on treated metal surface.
- C. Compartments: Modular; individual doors with concealed hinges and quick-captive screw fasteners. Interlocks on units requiring disconnecting means in off position before door can be opened or closed, except by operating a permissive release device.
- D. Interchangeability: Compartments constructed to allow for removal of units without opening adjacent doors, disconnecting adjacent compartments, or disturbing operation of other units in MCC; same size compartments to permit interchangeability and ready rearrangement of units, such as replacing three single units with a unit requiring three spaces, without cutting or welding.
- E. Wiring Spaces:
 - 1. Vertical wireways in each vertical section for vertical wiring to each unit compartment; supports to hold wiring in place.
 - 2. Horizontal wireways in bottom and top of each vertical section for horizontal wiring between vertical sections; supports to hold wiring in place.

2.9 AUXILIARY DEVICES

- A. General Requirements for Control-Circuit and Pilot Devices: NEMA ICS 5; factory installed in controller enclosure cover unless otherwise indicated.
 - 1. Push Buttons, Pilot Lights, and Selector Switches: Heavy-duty, oiltight type.
 - a. Push Buttons: Recessed type; maintained contact unless otherwise indicated.
 - b. Pilot Lights: LED type.
 - c. Selector Switches: Rotary type.
- B. Reversible NC/NO contactor auxiliary contact(s).
- C. Control Relays: Auxiliary and adjustable solid-state time-delay relays.

- D. Phase-Failure, Phase-Reversal, and Undervoltage and Overvoltage Relays: Solid-state sensing circuit with isolated output contacts for hard-wired connections. Provide adjustable undervoltage, overvoltage, and time-delay settings.
- E. Cover gaskets for Type 1 enclosures.
- F. Spare control-wiring terminal blocks; unwired.

2.10 CHARACTERISTICS AND RATINGS

- A. Wiring: NEMA ICS 18, Class I, Type B, for starters above Size 3.
- B. Control and Load Wiring: Factory installed, with bundling, lacing, and protection included. Provide flexible conductors for No. 8 AWG and smaller, for conductors across hinges, and for conductors for interconnections between shipping units.
- C. Nominal System Voltage: 480Y/277 V, three phase, four wire.
- D. Environmental Ratings:
 - 1. Ambient Temperature Rating: Not less than 0 deg F (minus 18 deg C) and not exceeding 104 deg F (40 deg C), with an average value not exceeding 95 deg F (35 deg C) over a 24-hour period.
 - 2. Ambient Storage Temperature Rating: Not less than minus 4 deg F (minus 20 deg C) and not exceeding 140 deg F (60 deg C)
 - 3. Humidity Rating: Less than 95 percent (noncondensing).
 - 4. Altitude Rating: Not exceeding 6600 feet (2000 m), or 3300 feet (1000 m) if MCC includes solid-state devices.
- E. Main Horizontal and Equipment Ground Buses: Uniform capacity for entire length of MCC's main and vertical sections. Provide for future extensions from both ends.
- F. Vertical Phase and Equipment Ground Buses: Uniform capacity for entire usable height of vertical sections, except for sections incorporating single units.
- G. Phase- and Neutral-Bus Material: Hard-drawn copper of 98 percent conductivity, tin plated.
- H. Neutral Buses: 100 percent of the ampacity of phase buses unless otherwise indicated, equipped with mechanical connectors for outgoing circuit neutral cables.
- I. Ground Bus: Minimum size required by UL 845, hard-drawn copper of 98 percent conductivity, equipped with mechanical connectors for feeder and branch-circuit equipment grounding conductors.
- J. Front-Connected, Front-Accessible MCCs:
 - 1. Main Devices: Drawout mounted.
 - 2. Controller Units: Drawout mounted.
 - 3. Sections front and rear aligned.
- K. Bus Transition and Incoming Pull Sections: Matched and aligned with basic MCC.

- L. Future Devices: Equip compartments with mounting brackets, supports, bus connections, and appurtenances at full rating of unit.
- M. Bus-Bar Insulation: Factory-applied, flame-retardant, tape wrapping of individual bus bars or flame-retardant, spray-applied insulation. Minimum insulation temperature rating of 105 deg C.
- N. Fungus Proofing: Permanent fungicidal treatment for OCPDs and other components including instruments and instrument transformers.

2.11 SOURCE QUALITY CONTROL

- A. MCC Testing: Inspect and test MCCs according to requirements in NEMA ICS 18.
- B. MCCs will be considered defective if they do not pass tests and inspections.
- C. Prepare test and inspection reports.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and surfaces to receive MCCs, with Installer present, for compliance with requirements for installation tolerances, and other conditions affecting performance of the Work.
- B. Examine enclosed controllers before installation. Reject enclosed controllers that are wet, moisture damaged, or mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Coordinate layout and installation of MCCs with other construction including conduit, piping, equipment, and adjacent surfaces. Maintain required workspace clearances and required clearances for equipment access doors and panels.
- B. Floor-Mounting Controllers: Install MCCs on 4-inch (100-mm) nominal thickness concrete base.
 - 1. Install dowel rods to connect concrete base to concrete floor. Unless otherwise indicated, install dowel rods on 18-inch (450-mm) centers around the full perimeter of concrete base.
 - 2. For supported equipment, install epoxy-coated anchor bolts that extend through concrete base and anchor into structural concrete floor.
 - 3. Place and secure anchorage devices. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 - 4. Install anchor bolts to elevations required for proper attachment to supported equipment.
- C. Temporary Lifting Provisions: Remove temporary lifting eyes, channels, and brackets and temporary blocking of moving parts from enclosures and components.

- D. Install heaters in thermal-overload relays. Select heaters based on actual nameplate full-load amperes after motors have been installed.
- E. Install, connect, and fuse thermal-protector monitoring relays furnished with motor-driven equipment.
- F. Comply with NECA 1.

3.3 IDENTIFICATION

- A. Comply with requirements in Section 260553 "Identification for Electrical Systems" for identification of MCC, MCC components, and control wiring.
 - 1. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs.
 - 2. Label MCC and each cubicle with engraved nameplate.
 - 3. Label each enclosure-mounted control and pilot device.
 - 4. Mark up a set of manufacturer's connection wiring diagrams with field-assigned wiring identifications and return to manufacturer for inclusion in Record Drawings.
- B. Operating Instructions: Frame printed operating instructions for MCCs, including control sequences and emergency procedures. Fabricate frame of finished metal, and cover instructions with clear acrylic plastic. Mount on front of MCCs.

3.4 CONTROL WIRING INSTALLATION

- A. Bundle, train, and support wiring in enclosures.
- B. Connect selector switches and other automatic-control selection devices where applicable.
 - 1. Connect selector switches to bypass only those manual- and automatic-control devices that have no safety functions when switch is in manual-control position.
 - 2. Connect selector switches within enclosed controller circuit in both manual and automatic positions for safety-type control devices such as low- and high-pressure cutouts, high-temperature cutouts, and motor overload protectors.

3.5 CONNECTIONS

- A. Comply with requirements for installation of conduit in Section 260533 "Raceways and Boxes for Electrical Systems." Drawings indicate general arrangement of conduit, fittings, and specialties.
- B. Comply with requirements in Section 260526 "Grounding and Bonding for Electrical Systems."

3.6 FIELD QUALITY CONTROL

- A. Perform tests and inspections.

1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.
- B. Acceptance Testing Preparation:
 1. Test insulation resistance for each enclosed controller, component, connecting supply, feeder, and control circuit.
 2. Test continuity of each circuit.
- C. Tests and Inspections:
 1. Inspect controllers, wiring, components, connections, and equipment installation.
 2. Test insulation resistance for each enclosed controller element, component, connecting motor supply, feeder, and control circuits.
 3. Test continuity of each circuit.
 4. Verify that voltages at controller locations are within 10 percent of motor nameplate rated voltages. If outside this range for any motor, notify Owner before starting the motor(s).
 5. Test each motor for proper phase rotation.
 6. Perform each electrical test and visual and mechanical inspection stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
 7. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.
 8. Test and adjust controls, remote monitoring, and safeties. Replace damaged and malfunctioning controls and equipment.
 9. Mark up a set of manufacturer's drawings with all field modifications incorporated during construction and return to manufacturer for inclusion in Record Drawings.
- D. Enclosed controllers will be considered defective if they do not pass tests and inspections.
- E. Prepare test and inspection reports, including a certified report that identifies enclosed controllers and that describes scanning results. Include notation of deficiencies detected, remedial action taken, and observations after remedial action.

3.7 ADJUSTING

- A. Set field-adjustable switches, auxiliary relays, time-delay relays, timers, and overload-relay pickup and trip ranges.
- B. Adjust overload relay heaters or settings if power factor correction capacitors are connected to the load side of the overload relays.
- C. Adjust the trip settings of MCPs and thermal-magnetic circuit breakers with adjustable, instantaneous trip elements. Initially adjust to six times the motor nameplate full-load amperes and attempt to start motors several times, allowing for motor cool-down between starts. If tripping occurs on motor inrush, adjust settings in increments until motors start without tripping. Do not exceed eight times the motor full-load amperes (or 11 times for NEMA Premium Efficient motors if required). Where these maximum settings do not allow starting of a motor, notify Owner before increasing settings.
- D. Set field-adjustable switches and program microprocessors for required start and stop sequences in reduced-voltage, solid-state controllers.

- E. Set field-adjustable circuit-breaker trip ranges.

3.8 PROTECTION

- A. Temporary Heating: Apply temporary heat to maintain temperature according to manufacturer's written instructions until enclosed controllers are ready to be energized and placed into service.
- B. Replace controllers whose interiors have been exposed to water or other liquids prior to Substantial Completion.

3.9 DEMONSTRATION

- A. Train Owner's maintenance personnel to adjust, operate, and maintain enclosed controllers.

END OF SECTION

SECTION 26 32 13

ENGINE GENERATORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes packaged engine-generator sets for emergency power supply with the following features:
 - 1. Diesel engine (Tier 4 exhaust system).
 - 2. Unit-mounted cooling system.
 - 3. Unit-mounted control and monitoring.
 - 4. Outdoor enclosure.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of packaged engine generator indicated. Include rated capacities, operating characteristics, and furnished specialties and accessories. In addition, include the following:
 - 1. Thermal damage curve for generator.
 - 2. Time-current characteristic curves for generator protective device.
- B. Shop Drawings: Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
 - 1. Dimensioned outline plan and elevation drawings of engine-generator set, and other components specified.
 - 2. Detail fabrication, including anchorages and attachments to structure and to supported equipment. Include base weights.
 - 3. Wiring Diagrams: Power, signal, and control wiring.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For manufacturer.
- B. Source quality-control test reports.

1. Certified summary of prototype-unit test report.
 2. Certified Test Reports: For components and accessories that are equivalent, but not identical, to those tested on prototype unit.
 3. Report of factory test on units to be shipped for this Project, showing evidence of compliance with specified requirements.
 4. Report of sound generation.
 5. Report of exhaust emissions showing compliance with applicable regulations.
 6. Certified Torsional Vibration Compatibility: Comply with NFPA 110.
- C. Field quality-control test reports.
- D. Warranty: Special warranty specified in this Section.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For packaged engine generators to include in emergency, operation, and maintenance manuals. Include the following:
1. List of tools and replacement items recommended to be stored at Project for ready access. Include part and drawing numbers, current unit prices, and source of supply.

1.6 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
1. Fuses: One for every 10 of each type and rating, but no fewer than one of each.
 2. Indicator Lamps: Two for every six of each type used, but no fewer than two of each.
 3. Filters: One set each of lubricating oil, fuel, and combustion-air filters.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.
1. Maintenance Proximity: Not more than four hours' normal travel time from Installer's place of business to Project site.
- B. Manufacturer Qualifications: A qualified manufacturer. Maintain, within 200 miles (321 km) of Project site, a service center capable of providing training, parts, and emergency maintenance repairs.
- C. Source from a single manufacturer.
- D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- E. Comply with ASME B15.1.

- F. Comply with NFPA 37.
- G. Comply with NFPA 110 requirements for Level 2 emergency power supply system.
- H. Comply with UL 2200.
- I. Engine Exhaust Emissions: Comply with EPA Tier 4 standard.
- J. Noise Emission: Comply with applicable state and local government requirements for maximum noise level at adjacent property boundaries due to sound emitted by generator set including engine, engine exhaust, engine cooling-air intake and discharge, and other components of installation.

1.8 PROJECT CONDITIONS

- A. Environmental Conditions: Engine-generator system shall withstand the following environmental conditions without mechanical or electrical damage or degradation of performance capability:
 - 1. Ambient Temperature: 5 to 40 deg C.
 - 2. Relative Humidity: 0 to 95 percent.
 - 3. Altitude: Sea level to 1000 feet (300 m).

1.9 COORDINATION

- A. Coordinate size and location of concrete bases for package engine generators. Cast anchor-bolt inserts into bases. Concrete, reinforcement, and formwork requirements are specified with concrete.

1.10 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of packaged engine generators and associated auxiliary components that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Period: 5 years from date of Substantial Completion.

1.11 MAINTENANCE SERVICE

- A. Initial Maintenance Service: Beginning at Substantial Completion, provide 12 months' full maintenance by skilled employees of manufacturer's designated service organization. Include quarterly exercising to check for proper starting, load transfer, and running under load. Include routine preventive maintenance as recommended by manufacturer and adjusting as required for proper operation. Provide parts and supplies same as those used in the manufacture and installation of original equipment.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Spectrum Detroit Diesel.
 - 2. Caterpillar
 - 3. Cummins-Onan

2.2 ENGINE-GENERATOR SET

- A. Factory-assembled and -tested, engine-generator set.
- B. Mounting Frame: Maintain alignment of mounted components without depending on concrete foundation; and have lifting attachments.
- C. Capacities and Characteristics:
 - 1. Power Output Ratings: Nominal ratings as indicated.
 - 2. Output Connections: Three-phase, four wire.
 - 3. Nameplates: For each major system component to identify manufacturer's name and address, and model and serial number of components.
- D. Generator-Set Performance:
 - 1. Steady-State Voltage Operational Bandwidth: 3 percent of rated output voltage from no load to full load.
 - 2. Transient Voltage Performance: Not more than 20 percent variation for 50 percent step-load increase or decrease. Voltage shall recover and remain within the steady-state operating band within three seconds.
 - 3. Steady-State Frequency Operational Bandwidth: 0.5 percent of rated frequency from no load to full load.
 - 4. Steady-State Frequency Stability: When system is operating at any constant load within the rated load, there shall be no random speed variations outside the steady-state operational band and no hunting or surging of speed.
 - 5. Transient Frequency Performance: Less than 5 percent variation for 50 percent step-load increase or decrease. Frequency shall recover and remain within the steady-state operating band within five seconds.
 - 6. Output Waveform: At no load, harmonic content measured line to line or line to neutral shall not exceed 5 percent total and 3 percent for single harmonics. Telephone influence factor, determined according to NEMA MG 1, shall not exceed 50 percent.
 - 7. Sustained Short-Circuit Current: For a 3-phase, bolted short circuit at system output terminals, system shall supply a minimum of 250 percent of rated full-load current for not less than 10 seconds and then clear the fault automatically, without damage to generator system components.
 - 8. Start Time: Comply with NFPA 110, Type 10, system requirements.

2.3 ENGINE

- A. Fuel: Fuel oil, Grade DF-2.
- B. Rated Engine Speed: 1800 rpm.
- C. Maximum Piston Speed for Four-Cycle Engines: 2250 fpm (11.4 m/s).
- D. Lubrication System: The following items are mounted on engine or skid:
 - 1. Filter and Strainer: Rated to remove 90 percent of particles 5 micrometers and smaller while passing full flow.
 - 2. Thermostatic Control Valve: Control flow in system to maintain optimum oil temperature. Unit shall be capable of full flow and is designed to be fail-safe.
 - 3. Crankcase Drain: Arranged for complete gravity drainage to an easily removable container with no disassembly and without use of pumps, siphons, special tools, or appliances.
- E. Engine Fuel System:
 - 1. Main Fuel Pump: Mounted on engine. Pump ensures adequate primary fuel flow under starting and load conditions.
 - 2. Relief-Bypass Valve: Automatically regulates pressure in fuel line and returns excess fuel to source.
- F. Coolant Jacket Heater: Electric-immersion type, factory installed in coolant jacket system. Comply with NFPA 110 requirements for Level 1 equipment for heater capacity.
- G. Governor: Adjustable isochronous, with speed sensing.
- H. Cooling System: Closed loop, liquid cooled, with radiator factory mounted on engine-generator-set mounting frame and integral engine-driven coolant pump.
 - 1. Coolant: Solution of 50 percent ethylene-glycol-based antifreeze and 50 percent water, with anticorrosion additives as recommended by engine manufacturer.
 - 2. Size of Radiator: Adequate to contain expansion of total system coolant from cold start to 110 percent load condition.
 - 3. Expansion Tank: Constructed of welded steel plate and rated to withstand maximum closed-loop coolant system pressure for engine used. Equip with gage glass and petcock.
 - 4. Temperature Control: Self-contained, thermostatic-control valve modulates coolant flow automatically to maintain optimum constant coolant temperature as recommended by engine manufacturer.
 - 5. Coolant Hose: Flexible assembly with inside surface of nonporous rubber and outer covering of aging-, ultraviolet-, and abrasion-resistant fabric.
 - a. Rating: 50-psig (345-kPa) maximum working pressure with coolant at 180 deg F (82 deg C), and non-collapsible under vacuum.
 - b. End Fittings: Flanges or steel pipe nipples with clamps to suit piping and equipment connections.

- I. Muffler/Silencer: Critical type, sized as recommended by engine manufacturer and selected with exhaust piping system to not exceed engine manufacturer's engine backpressure requirements.
 - 1. Minimum sound attenuation of 25 dB at 500 Hz.
 - 2. Sound level measured at 10 feet (3 m) from exhaust discharge after installation is complete shall be 85 dBA or less.
- J. Air-Intake Filter: Standard-duty, engine-mounted air cleaner with replaceable dry-filter element and "blocked filter" indicator.
- K. Starting System: 12-V electric, with negative ground.
 - 1. Components: Sized so they will not be damaged during a full engine-cranking cycle with ambient temperature at maximum specified in Part 1 "Project Conditions" Article.
 - 2. Cranking Motor: Heavy-duty unit that automatically engages and releases from engine flywheel without binding.
 - 3. Cranking Cycle: As required by NFPA 110 for system level specified.
 - 4. Battery: Adequate capacity within ambient temperature range specified in Part 1 "Project Conditions" Article to provide specified cranking cycle at least twice without recharging.
 - 5. Battery Cable: Size as recommended by engine manufacturer for cable length indicated. Include required interconnecting conductors and connection accessories.
 - 6. Battery Compartment: Factory fabricated of metal with acid-resistant finish and thermal insulation. Thermostatically controlled heater shall be arranged to maintain battery above 10 deg C regardless of external ambient temperature within range specified in Part 1 "Project Conditions" Article. Include accessories required to support and fasten batteries in place.
 - 7. Battery-Charging Alternator: Factory mounted on engine with solid-state voltage regulation and 35-A minimum continuous rating.
 - 8. Battery Charger: Current-limiting, automatic-equalizing and float-charging type. Unit shall comply with UL 1236 and include the following features:
 - a. Operation: Equalizing-charging rate of 10 A shall be initiated automatically after battery has lost charge until an adjustable equalizing voltage is achieved at battery terminals. Unit shall then be automatically switched to a lower float-charging mode and shall continue to operate in that mode until battery is discharged again.
 - b. Automatic Temperature Compensation: Adjust float and equalize voltages for variations in ambient temperature from minus 40 deg C to plus 60 deg C to prevent overcharging at high temperatures and undercharging at low temperatures.
 - c. Automatic Voltage Regulation: Maintain constant output voltage regardless of input voltage variations up to plus or minus 10 percent.
 - d. Ammeter and Voltmeter: Flush mounted in door. Meters shall indicate charging rates.
 - e. Safety Functions: Sense abnormally low battery voltage and close contacts providing low battery voltage indication on control and monitoring panel. Sense high battery voltage and loss of ac input or dc output of battery charger. Either condition shall close contacts that provide a battery-charger malfunction indication at system control and monitoring panel.
 - f. Enclosure and Mounting: NEMA 250, Type 1, wall-mounted cabinet.

2.4 FUEL OIL STORAGE

- A. Comply with NFPA 30.
- B. Day Tank: Comply with UL 142, freestanding, factory-fabricated fuel tank assembly, with integral, float-controlled transfer pump and the following features:
 - 1. Containment: Integral rupture basin with a capacity of 150 percent of nominal capacity of day tank.
 - a. Leak Detector: Locate in rupture basin and connect to provide audible and visual alarm in the event of day-tank leak.
 - 2. Tank Capacity: As recommended by engine manufacturer for an uninterrupted period of 4 hours' operation at 100 percent of rated power output of engine-generator system without being refilled.
 - 3. Pump Capacity: Exceeds maximum flow of fuel drawn by engine-mounted fuel supply pump at 110 percent of rated capacity, including fuel returned from engine.
 - 4. Low-Level Alarm Sensor: Liquid-level device operates alarm contacts at 25 percent of normal fuel level.
 - 5. High-Level Alarm Sensor: Liquid-level device operates alarm and redundant fuel shutoff contacts at midpoint between overflow level and 100 percent of normal fuel level.
 - 6. Piping Connections: Factory-installed fuel supply and return lines from tank to engine; local fuel fill, vent line, overflow line; and tank drain line with shutoff valve.
 - 7. Redundant High-Level Fuel Shutoff: Actuated by high-level alarm sensor in day tank to operate a separate motor device that disconnects day-tank pump motor. Sensor shall signal solenoid valve, located in fuel suction line between fuel storage tank and day tank, to close. Both actions shall remain in shutoff state until manually reset. Shutoff action shall initiate an alarm signal to control panel but shall not shut down engine-generator set.

2.5 CONTROL AND MONITORING

- A. Automatic Starting System Sequence of Operation: When mode-selector switch on the control and monitoring panel is in the automatic position, remote-control contacts in one or more separate automatic transfer switches initiate starting and stopping of generator set. When mode-selector switch is switched to the on position, generator set starts. The off position of same switch initiates generator-set shutdown. When generator set is running, specified system or equipment failures or derangements automatically shut down generator set and initiate alarms. Operation of a remote emergency-stop switch also shuts down generator set.
- B. Configuration: Operating and safety indications, protective devices, basic system controls, and engine gages shall be grouped in a common control and monitoring panel mounted on the generator set. Mounting method shall isolate the control panel from generator-set vibration.
- C. Indicating and Protective Devices and Controls:
 - 1. AC voltmeter.
 - 2. AC ammeter.
 - 3. AC frequency meter.

4. DC voltmeter (alternator battery charging).
 5. Engine-coolant temperature gage.
 6. Engine lubricating-oil pressure gage.
 7. Running-time meter.
 8. Ammeter-voltmeter, phase-selector switch(es).
 9. Generator-voltage adjusting rheostat.
 10. Start-stop switch.
 11. Overspeed shutdown device.
 12. Coolant high-temperature shutdown device.
 13. Coolant low-level shutdown device.
 14. Oil low-pressure shutdown device.
- D. Supporting Items: Include sensors, transducers, terminals, relays, and other devices and include wiring required to support specified items. Locate sensors and other supporting items on engine or generator, unless otherwise indicated.
- E. Connection to Data Link: A separate terminal block, factory wired to Form C dry contacts, for each alarm and status indication is reserved for connections for data-link transmission of indications to remote data terminals.
- F. Common Remote Audible Alarm: Signal the occurrence of any events listed below without differentiating between event types. Connect so that after an alarm is silenced, clearing of initiating condition will reactivate alarm until silencing switch is reset.
1. Engine high-temperature shutdown.
 2. Lube-oil, low-pressure shutdown.
 3. Overspeed shutdown.
 4. Remote emergency-stop shutdown.
 5. Engine high temperature prealarm.
 6. Lube-oil, low-pressure prealarm.
 7. Fuel tank, low-fuel level.
 8. Low coolant level.
- G. Remote Emergency-Stop Switch: Flush; wall mounted, unless otherwise indicated; and labeled. Push button shall be protected from accidental operation.

2.6 GENERATOR OVERCURRENT AND FAULT PROTECTION

- A. Generator Circuit Breaker: Molded-case, electronic-trip type; 100 percent rated; complying with UL 489.
1. Tripping Characteristics: Adjustable long-time and short-time delay and instantaneous.
 2. Trip Settings: Selected to coordinate with generator thermal damage curve.
 3. Shunt Trip: Connected to trip breaker when generator set is shut down by other protective devices.
 4. Mounting: Adjacent to or integrated with control and monitoring panel.
- B. Ground-Fault Indication: Comply with NFPA 70, "Emergency System" signals for ground-fault. Integrate ground-fault alarm indication with other generator-set alarm indications.

2.7 GENERATOR, EXCITER, AND VOLTAGE REGULATOR

- A. Comply with NEMA MG 1.
- B. Drive: Generator shaft shall be directly connected to engine shaft. Exciter shall be rotated integrally with generator rotor.
- C. Electrical Insulation: Class H or Class F.
- D. Stator-Winding Leads: Brought out to terminal box to permit future reconnection for other voltages if required.
- E. Construction shall prevent mechanical, electrical, and thermal damage due to vibration, overspeed up to 125 percent of rating, and heat during operation at 110 percent of rated capacity.
- F. Enclosure: Drip proof.
- G. Instrument Transformers: Mounted within generator enclosure.
- H. Voltage Regulator: Solid-state type, separate from exciter, providing performance as specified.
 - 1. Adjusting rheostat on control and monitoring panel shall provide plus or minus 5 percent adjustment of output-voltage operating band.
- I. Windings: Two-thirds pitch stator winding and fully linked amortisseur winding.
- J. Subtransient Reactance: 12 percent, maximum.

2.8 OUTDOOR GENERATOR-SET ENCLOSURE

- A. Description: Prefabricated or pre-engineered walk-in enclosure with the following features:
 - 1. Construction: Galvanized-steel, metal-clad, integral structural-steel-framed building erected on concrete foundation.
 - 2. Structural Design and Anchorage: Comply with ASCE 7 for wind loads.
 - 3. Space Heater: Thermostatically controlled and sized to prevent condensation.
 - 4. Louvers: Equipped with bird screen and filter arranged to permit air circulation when engine is not running while excluding exterior dust, birds, and rodents.
 - 5. Hinged Doors: With padlocking provisions.
 - 6. Ventilation: Louvers equipped with bird screen and filter arranged to permit air circulation while excluding exterior dust, birds, and rodents.
 - 7. Thermal Insulation: Manufacturer's standard materials and thickness selected in coordination with space heater to maintain winter interior temperature within operating limits required by engine-generator-set components.
 - 8. Muffler Location: External to enclosure.
- B. Engine Cooling Airflow through Enclosure: Maintain temperature rise of system components within required limits when unit operates at 110 percent of rated load for 2 hours with ambient temperature at top of range specified in system service conditions.

1. Louvers: Fixed-engine, cooling-air inlet and discharge. Storm-proof and drainable louvers prevent entry of rain and snow.
 2. Automatic Dampers: At engine cooling-air inlet and discharge. Dampers shall be closed to reduce enclosure heat loss in cold weather when unit is not operating.
- C. Interior Lights with Switch: Factory-wired, vaporproof-type fixtures within housing; arranged to illuminate controls and accessible interior. Arrange for external electrical connection.
1. AC lighting system and connection point for operation when remote source is available.
 2. DC lighting system for operation when remote source and generator are both unavailable.
- D. Convenience Outlets: Factory wired, GFCI. Arrange for external electrical connection.

2.9 VIBRATION ISOLATION DEVICES

- A. Restrained Spring Isolators: Freestanding, steel, open-spring isolators with seismic restraint.
1. Housing: Steel with resilient vertical-limit stops to prevent spring extension due to wind loads or if weight is removed; factory-drilled baseplate bonded to 1/4-inch- (6-mm-) thick, elastomeric isolator pad attached to baseplate underside; and adjustable equipment mounting and leveling bolt that acts as blocking during installation.
 2. Outside Spring Diameter: Not less than 80 percent of compressed height of the spring at rated load.
 3. Minimum Additional Travel: 50 percent of required deflection at rated load.
 4. Lateral Stiffness: More than 80 percent of rated vertical stiffness.
 5. Overload Capacity: Support 200 percent of rated load, fully compressed, without deformation or failure.

2.10 FINISHES

- A. Indoor and Outdoor Enclosures and Components: Manufacturer's standard finish over corrosion-resistant pretreatment and compatible primer.

2.11 SOURCE QUALITY CONTROL

- A. Prototype Testing: Factory test engine-generator set using same engine model, constructed of identical or equivalent components and equipped with identical or equivalent accessories.
1. Tests: Comply with NFPA 110, Level 1 Energy Converters and with IEEE 115.
- B. Project-Specific Equipment Tests: Before shipment, factory test engine-generator set and other system components and accessories manufactured specifically for this Project. Perform tests at rated load and power factor. Include the following tests:
1. Test components and accessories furnished with installed unit that are not identical to those on tested prototype to demonstrate compatibility and reliability.
 2. Full load run.
 3. Maximum power.
 4. Voltage regulation.

5. Transient and steady-state governing.
6. Single-step load pickup.
7. Safety shutdown.
8. Provide 14 days' advance notice of tests and opportunity for observation of tests by Owner's representative.
9. Report factory test results within 10 days of completion of test.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas, equipment bases, and conditions, with Installer present, for compliance with requirements for installation and other conditions affecting packaged engine-generator performance.
- B. Examine roughing-in of piping systems and electrical connections. Verify actual locations of connections before packaged engine-generator installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Comply with packaged engine-generator manufacturers' written installation and alignment instructions and with NFPA 110.
- B. Install packaged engine generator to provide access, without removing connections or accessories, for periodic maintenance.
- C. Install packaged engine generator with restrained spring isolators having a minimum deflection of 1 inch (25 mm) on 4-inch- (100-mm-) high concrete base. Secure sets to anchor bolts installed in concrete bases.
- D. Electrical Wiring: Install electrical devices furnished by equipment manufacturers but not specified to be factory mounted.

3.3 CONNECTIONS

- A. Piping installation requirements are specified in other Sections. Drawings indicate general arrangement of piping and specialties.
- B. Connect fuel, cooling-system, and exhaust-system piping adjacent to packaged engine generator to allow service and maintenance.
- C. Connect engine exhaust pipe to engine with flexible connector.
- D. Connect fuel piping to engines with a gate valve and union and flexible connector.

1. Diesel storage tanks, tank accessories, piping, valves, and specialties for fuel systems are specified in Section 231113 Facility Fuel-Oil Piping.
- E. Ground equipment according to Section 260526 Grounding and Bonding for Electrical Systems.
- F. Connect wiring according to Section 260519 Low-Voltage Electrical Power Conductors and Cables.

3.4 IDENTIFICATION

- A. Identify system components according to Section 260553 Identification for Electrical Systems.

3.5 FIELD QUALITY CONTROL

- A. Perform tests and inspections and prepare test reports.
 1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.
- B. Tests and Inspections:
 1. Perform tests recommended by manufacturer and each electrical test and visual and mechanical inspection for "AC Generators and for Emergency Systems" specified in NETA Acceptance Testing Specification. Certify compliance with test parameters.
 2. NFPA 110 Acceptance Tests: Perform tests required by NFPA 110 that are additional to those specified here including, but not limited to, single-step full-load pickup test.
 3. Battery Tests: Equalize charging of battery cells according to manufacturer's written instructions. Record individual cell voltages.
 - a. Measure charging voltage and voltages between available battery terminals for full-charging and float-charging conditions. Check electrolyte level and specific gravity under both conditions.
 - b. Test for contact integrity of all connectors. Perform an integrity load test and a capacity load test for the battery.
 - c. Verify acceptance of charge for each element of the battery after discharge.
 - d. Verify that measurements are within manufacturer's specifications.
 4. Battery-Charger Tests: Verify specified rates of charge for both equalizing and float-charging conditions.
 5. System Integrity Tests: Methodically verify proper installation, connection, and integrity of each element of engine-generator system before and during system operation. Check for air, exhaust, and fluid leaks.
 6. Exhaust Emissions Test: Comply with applicable government test criteria.
 7. Voltage and Frequency Transient Stability Tests: Use recording oscilloscope to measure voltage and frequency transients for 50 and 100 percent step-load increases and decreases and verify that performance is as specified.

- 8. Harmonic-Content Tests: Measure harmonic content of output voltage under 25 percent and at 100 percent of rated linear load. Verify that harmonic content is within specified limits.
 - 9. Noise Level Tests: Measure A-weighted level of noise emanating from generator-set installation, including engine exhaust and cooling-air intake and discharge, at four locations on the property line, and compare measured levels with required values.
- C. Coordinate tests with tests for transfer switches and run them concurrently.
 - D. Test instruments shall have been calibrated within the last 12 months, traceable to standards of NIST, and adequate for making positive observation of test results. Make calibration records available for examination on request.
 - E. Leak Test: After installation, charge system and test for leaks. Repair leaks and retest until no leaks exist.
 - F. Operational Test: After electrical circuitry has been energized, start units to confirm proper motor rotation and unit operation.
 - G. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
 - H. Remove and replace malfunctioning units and retest as specified above.
 - I. Retest: Correct deficiencies identified by tests and observations and retest until specified requirements are met.
 - J. Report results of tests and inspections in writing. Record adjustable relay settings and measured insulation resistances, time delays, and other values and observations. Attach a label or tag to each tested component indicating satisfactory completion of tests.

3.6 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain packaged engine generators.

END OF SECTION 26 32 13

SECTION 31 22 00
GRADING

PART 1 - GENERAL

1.01 Work Includes

- A. Excavation and embankment necessary for grading the site shall be considered to include that required for roads, walks, culvert installations, and drainage ditches and channels.

PART 2 - EXECUTION

2.01 Preparation

- A. After the removal of topsoil, the then existing surface is to be excavated or filled to the elevations and slopes indicated on the Drawings, or as directed by the Engineer. Additional fill, if required, and is not available elsewhere, shall be excavated from borrow areas selected by the Contractor, but subject to the approval of the Engineer. Unless otherwise provided, all borrow pits shall be located entirely outside the limits of the site.
- B. On areas where roadway pavement is to be placed, the subgrade therefore shall be no more than 0.10 foot above or below the established grade; in other areas, the finished grade shall be not more than 0.15 foot above or below the established grade.
- C. Where rock is encountered at road subgrade or finished grade in areas other than roads, it shall be removed for a depth of six inches below such subgrade or finished grade elevation.
- D. Subgrades and shoulders for the access and service roads shall be constructed to the lines and grades indicated, and in conformance with the applicable requirements of the "Standard Specifications" for the Florida State Department of Transportation.

2.02 Embankment

- A. On hillsides in which the existing slope is steeper than four to one, the Engineer may require the surface to be plowed to provide binding of the embankment with the original ground. When, in the opinion of the Engineer, existing slopes are excessive, the Engineer may require the original ground to be cut into the steps or berms.
- B. All materials removed from classes of excavation, which are determined as suitable by the Engineer, shall be used in the formation of embankments. Excavated material which is not required for embankments shall be disposed of by the Contractor, at his responsibility and expense, outside the limits of the site, unless the Engineer gives notice of some point of disposal within the site. No material shall be disposed of in any flood channel area.

- C. Earth or other friable materials shall be placed in successive horizontal layers of loose material not more than nine inches in depth, spread uniformly by use of graders or other approved devices, and rolled until thoroughly compacted with an approved three wheel power roller weighing not less than 10 tons. The Engineer may permit the Contractor to use approved sheep-foot tamping rollers. Embankments at points inaccessible to the roller shall be made in horizontal layers of loose material not exceeding six inches in depth and thoroughly compacted by mechanical tampers.
- D. Where rock only is available, it shall be placed in loose layers not exceeding two feet in depth and rolled as provided above. Rock fills shall only be considered as such where the earth or other finer materials is uniformly distributed and is considerably less than sufficient to fill the voids and interstices; otherwise it shall be considered and placed as earth fill. The top layer of rock fills shall not exceed eight inches in depth, and the interstices shall be thoroughly filled with small spall, shale, gravel, or other similar approved material and thoroughly compacted. This top layer of rock shall be kept at least eight inches below the elevation of subgrade for payments, and finished grade elsewhere, with the balance of the fill formed by topsoil or other approved material, as required.
- E. No roots, leaves, grass, or any form of vegetation shall be placed or allowed to remain in filled or graded areas.
- F. The Contractor shall be responsible for the stability of all embankments and shall replace all sections which, in the opinion of the Engineer, have been damaged or displaced due to carelessness or neglect on the part of the Contractor due to natural causes, such as storms.
- G. During grading operations, cuts and fills shall be kept shaped and drained at all times.

END OF SECTION

SECTION 31 23 00
EXCAVATION AND FILL

PART 1 - GENERAL

1.01 SCOPE

- A. The work covered by this section and required by this Contract includes the completion of all excavation, backfilling and embankment to the lines and grades indicated by the drawings, as further specified below, and necessary to the following operations:
1. Stripping, storing and replacing topsoil.
 2. Excavation and backfill for pipe trenches.
 3. Excavation and embankment for road, grading and drainage of the site.
 4. Excavation and backfill for buildings and structures.
 5. Borrow excavation.

1.02 CHARACTER OF MATERIAL.

- A. The Contractor must satisfy himself regarding the character and amount of loam, clay, sand, quicksand, muck, gravel, rock, water and all other material to be encountered in the work to be performed.

1.03 DESCRIPTION

- A. The Contractor shall excavate, protect and backfill all foundations, trenches, tunnels and other excavations that may be necessary for completing the work to be done under this Contract. All excavation shall be in open cuts, except where and to such extent as the Engineer may authorize or direct that the same be done in tunnel, or where such is specified in the Special Requirements or Contract drawings. Trenches may, in general, be excavated and backfilled either by machinery, or by hand as the Contractor may elect; provided, however, that the Engineer shall be empowered, wherever he shall decide that such necessity exists, to direct that hand excavation be employed; and, provided, further that backfilling by hand shall be done to the extent hereinafter specified. The Contractor shall have no claim for extra compensation due to the fact that hand, instead of machine, excavation may be necessary from any cause whatever.

- B. The Contractor shall perform all excavation of every description and of whatever substances encountered, to the lines and grades or depths indicated by the drawings, as specified herein, or as directed by the Engineer. Embankments shall be prepared in accordance with the Specifications, and as necessary to bring the ground surface to the subgrade elevation for roads and to finished grade elevations for other areas as shown on the drawings, or directed by the Engineer. All excavated material not required for backfill or embankment shall be removed and wasted or otherwise disposed of as directed or specified.
- C. The term "subgrade" as used herein shall have the meaning given below:
 - 1. The bed of a trench prepared as specified to receive pipes or other conduits.
 - 2. The area upon which the lower surface of roadway paving, walks, gutters, or curb rests.
 - 3. The surface of excavation or embankment areas prepared to receive topsoil.
 - 4. The areas upon which rest the planned bottom of footings, foundations, or slabs.

PART 2 - MATERIALS

2.01 TOPSOIL

- A. Stripping. The area from which topsoil is to be stripped and the locations where it is to be stored shall be as shown on the drawings or as specified below. The topsoil shall be stripped to a depth of not less than six inches. On all areas where any type of grading is to be performed, including the areas within the lines of buildings and structures, the topsoil shall be carefully removed and spread either on areas already graded or prepared for topsoil, or in stockpiles conveniently located to the areas which are later to receive application of topsoil.
- B. Spreading. On areas intended to receive topsoil, the compacted subgrade shall be scarified to a depth of two inches for bonding topsoil with subsoil. The topsoil shall then be evenly spread, compacted and graded to the finished elevations shown on the drawings or as specified by the Engineer. Compaction shall be affected by a single pass of an approved roller.

2.02 REMOVAL AND STORAGE OF MATERIAL

- A. In locations where the working space is limited, the material excavated from the first 100 feet of any trench, or from such additional length as may be required, shall upon order of the Engineer, be removed at the Contractor's own cost and expense, as soon

as excavated. The materials subsequently excavated shall be used to refill the trench. In no case will the Contractor be allowed to cast excavated material beyond curb of right-of-way lines, or on sidewalks or lawns, and the failure or refusal of the Contractor to comply with this requirement shall be sufficient cause for the Engineer to stop all work under the Contract.

- B. In case more material is excavated from any trench than can be backfilled over the completed sewer or can be stored within the limits of the right-of-way, leaving space for the traffic and drainage as herein provided, the excess material shall be removed to some convenient place, provided by the Contractor. The Contractor shall at his own cost and expense bring back as much of the material so removed, as may be required to properly backfill the trench, if of the proper kind; or, if so directed by the Engineer, the Contractor shall, at his own cost and expense, furnish such other suitable material as may be necessary.
- C. When it is necessary to haul soft or wet material over the streets, the Contractor shall provide suitable tight vehicles, or a pattern approved by the Engineer for this purpose.

2.03 SHEETING, BRACING AND SHORING

- A. The Contractor shall furnish the material for, and do all timber shoring, bracing and sheeting necessary to perform and protect the excavation, and as required by the Engineer to protect the work, other structures, the public, and the Contractor's employees. If trench protection is necessary, per OSHA requirements, the Contractor shall account for the anticipated expense in the appropriate bid item, or in the unit cost for pipe installed, or a combination of both. If the Engineer deems that sheeting, bracing, or shoring is necessary, it shall be supplied by the Contractor at no additional expense to the Owner. Such sheeting, etc. may be removed as the work progresses, but where, in the opinion of the Engineer, damage may result through removal; it shall be left in place with payment therefore made as hereinafter provided. The right of the Engineer to order sheeting, etc. left in place shall not render the issuance of such order obligatory on the part of the Engineer.
- B. All sheeting, etc. shall be arranged so that it may be withdrawn, as the trenches are backfilled, without injury to the pipe and its appurtenances, and without injury to or settlement of adjacent structures and pavements. All voids caused by withdrawal shall be immediately filled with sand or other satisfactory material and compacted by ramming or other method satisfactory to the Engineer.
- C. No timber sheeting, bracing or shoring shall be left within 18 inches of any natural ground surfaces or within 12 inches of the subgrade of any rigid or flexible type pavement, or railroad roadbed. In any trench shoring system, no vertical member shall remain directly over the pipe and no horizontal member shall remain within 12 inches of any pipe. After backfilling is started, no sheeting shall extend below the horizontal diameter of the pipe

without the Engineer's approval. Sheeting left in place shall be cut off at such point as the Engineer may order, and the portions cut off shall be removed from the work.

- D. If the Engineer determines that the material furnished is not of proper size or quality, or not properly placed, the Contractor shall furnish and place other and satisfactory material in an acceptable manner and shall not be entitled to additional compensation for such corrective work.

PART 3 - EXECUTION

3.01 ORDER OF WORK

- A. The Contractor shall submit a progress schedule as specified in Article 2.40 and shall carry on his work in strict accordance therewith. Deviations from the progress schedule may be made only with the approval of the Engineer.
- B. Manholes shall be constructed either at the same time as the main sewer or immediately after its completion.

3.02 SEWER LINES AND GRADES. Sewer lines and grades shall be laid out and maintained during construction in the following manner.

- A. Prior to the commencement of trench excavation, the Contractor shall prepare and submit to the Engineer for approval, detailed cut sheets provided by the Contractor's surveyor. The surveyor shall be registered in the State of Florida. Cut sheet shall show; the beginning and ending of manholes; the distance between manholes; the grade, size and type of line, the depth of cut; etc. The form of cut sheets shall be satisfactory to the Engineer. All expense for the preparation of cut sheets shall be borne by the Contractor and be included in the unit price per foot of pipe. Cut sheets must be approved by the Engineer in writing before pipe laying operations may be permitted. It shall be the responsibility of the Contractor to prepare cut sheets far enough in advance of his anticipated trenching schedule so that avoidable delay in the work will not occur.
- B. Before beginning the excavation for any run of main sewer, the Contractor's forces, under the direction of the Engineer, shall:
 - 1. Set control points for line and grade as given on the Drawings or as otherwise determined by the Engineer. In unpaved or unsurfaced areas, these points shall be placed on the top of stakes securely driven into the ground. In paved areas, there may be spikes driven into the paving or crosses cut into the paving, and in either case, enclosed in a painted circle. Stakes or points shall be sufficiently offset from the centerline so as to be undisturbed during the excavation and pipe laying operations. The offset shall be on the side of the centerline opposite to that on which excavation will be thrown.

2. As the rough excavation is completed, the Contractor's surveyor shall place grade or batter boards of finished, straight lumber across the trench opposite each stake or point. The grade boards shall be securely supported so as not to be subject to accidental displacement. The top of each board shall be leveled and set at the same distance above the sewer invert. A nail shall then be driven into the top of each board on the centerline of the sewer and each nail connected by a string line pulled taut.
 3. The preparation of the final subgrade and the pipe laying shall then proceed in the manner specified herein, beginning at the manhole having the lower invert and working upgrade and using the string line as control for maintaining sewer grade and horizontal alignment. A straight wooden pole suitably marked and with a right-angled offset at the bottom to project past the bell of the pipe and rest upon the pipe invert, shall be used to check the vertical distance from string line to invert.
- C. The use of laser beams shall be acceptable as a method of controlling pipe alignment and grade.

3.03 WIDTH AND DEPTH OF TRENCHES

- A. From the subgrade elevation to an elevation at least 12 inches above the top of the outside barrel of the pipe, the banks of trenches in all cases shall be excavated to vertical lines, and the trenches shall be not less than 12 inches nor more than 16 inches wider nor more than eight inches in width is provided on each side of the barrel of the pipe. If sheeting is required, the foregoing dimensions shall be applicable to the inside faces of the sheeting.
- B. From a point 12 inches above the top of the outside barrel of the pipe to the surface, the banks of trenches in all streets, roads or highways, paved or unpaved, shall be kept as nearly vertical as possible, and in no case shall the width of trench at the top exceed the outside diameter of the pipe plus 40 inches. If the specified maximum width of trench cannot otherwise be maintained, the Contractor shall install temporary sheeting at his own cost and expense. Where sewers are to be constructed on rights-of-way or easements in open country, the specified maximum width of trench at the top may be exceeded only if the construction is kept entirely within the limits of the easements or rights-of-way and can be carried on without damage to adjoining property.
- C. Except at locations where excavation of rock or unsuitable material is required, care shall be taken not to excavate below the depths specified, when rock is encountered, it shall be removed to a depth six inches below the outside bottom of the pipe at the barrel. When

the material encountered at subgrade is unstable, it shall be removed from under the pipe and on each side of the pipe for a distance of one diameter of the pipe. Such rock or unsuitable material excavation below subgrade shall be backfilled with moist clay, sand, bankrun gravel, or other suitable material compacted to the satisfaction of the Engineer, and the bed thus formed shaped as required above. In rock excavation, if trenches are shattered by blasting below the lines of excavation specified herein, the trench shall be refilled to subgrade with sand, well tamped earth, or concrete, if required by the Engineer, at the Contractor's expense. If earth trenches are excavated beyond the specified depths, they shall be backfilled to the proper grade with suitable, thoroughly tamped material at the expense of the Contractor.

3.04 PREPARATION OF FOUNDATION

- A. In earth trenches, the bottom thereof shall be carefully rounded to fit the lower 90 degrees of the circumference of the pipe, i.e., so that one-fourth of the external circumference of the pipe will rest firmly on the undisturbed soil. Bell-holes shall be excavated to ensure that the barrel of the pipe will rest for its entire length upon the trench bottom.
- B. Bell-holes shall be properly cut to provide free support of the pipe barrel and shall be directed by the Engineer. All irregularities and cavities, either in earth or rock excavation, in the bottom of trenches or tunnels, shall be filled up to a level which will support 90 degrees of the lower pipe circumference with selected material free from large gravel, rocks and stones, firmly compacted before pipe lines are laid therein.
- C. Where, in the opinion of the Engineer, the ground does not afford a sufficiently firm foundation, the Contractor shall construct a timber foundation, or shall excavate the trench to such increased depth as may be directed, and then shall bring up the bottom of the trench to the required level and form with such material and in such manner as the Engineer may direct.

3.05 CONCRETE CRADLE AND ENCASEMENT

- A. The profiles generally indicate the approximate vertical limits where concrete cradle and encasement are necessary to support the anticipated loads on completed sewers for the widths of trench as required for each size and class of pipe, based on the crushing strength of the pipe.
- B. The Contractor is warned that if the trench widths or clearances between pipe and trench walls or face of sheeting, as specified above, are exceeded, he will be required to furnish in all locations at his own expense either concrete cradle or encasement as directed by the Engineer.

- C. It is anticipated that subsurface conditions may require a cradle for a portion of the project to provide an adequate foundation, even though the ultimate anticipated load on the pipe is less than the minimum crushing strength for sand bearing. The Contractor shall place the cradle or encasement at the location, and of the materials, as directed and required by the Engineer. The Contractor will not be paid for any cradle beyond the required widths of trench.
- D. All excavation made beyond the required limits shall be at the Contractor's expense.

3.06 LENGTH OF OPEN TRENCH

- A. The Engineer shall have the right to limit the amount of trench opened in advance of pipe laying and the amount of pipe laid in advance of backfilling, but in no case, except when leakage tests are required by the Engineer, shall these amounts exceed 300 feet and 100 feet, respectively. Trench excavation shall be fully completed, except for the shaping of the bottom of the trench, at least 20 feet in advance of the pipe placement and shall be kept free from obstructions, except that at the close of work at night, or at the discontinuance of work, the pipe laying may be completed to within five feet of the end of the open trench.
- B. The Engineer shall be empowered, at any time, to require the refilling of open trenches over completed pipe lines, if, in his judgment, such action is necessary, and the Contractor shall thereby have no claim for extra compensation even though to accomplish said refilling, he is compelled temporarily to stop excavation or other work at any place.
- C. If the work is stopped on any trench, for any reason except by order of the Engineer, and the excavation is left open for an unreasonable length of time (in the opinion of the Engineer) in advance of construction, the Contractor shall, if so directed, refill such trench at his own cost and shall not again open said trench until he is ready to complete the structure therein.

3.07 ACCOMMODATION OF TRAFFIC

- A. Streets shall not be unnecessarily obstructed and, unless the Engineer, in writing, shall authorize the complete closing of the street, the Contractor shall take such measures at his own expense as may be necessary to keep the street or road open and safe for traffic.
- B. The Contractor shall construct and maintain without extra compensation such adequate and proper bridges over excavations as may be necessary or as directed for the safe accommodation of pedestrians or vehicles. The Contractor shall furnish and erect without cost to the Owner substantial barricades at crossings of trenches, or along the trench, to protect the traveling public.
- C. The Contractor shall not obstruct fire hydrants.

- D. The roadway on one side of the line of work shall be kept open at all times.
- E. The streets, crosswalks and sidewalks shall be kept clean, clear and free for the passage of vehicles or pedestrians, unless otherwise authorized in writing by the Engineer. A straight and continuous passageway on sidewalks and over crosswalks, at least three feet in width, shall be preserved free from all obstruction.
- F. Where deemed necessary, such additional passageway as may be directed shall be maintained free from obstructions.
- G. In narrow or congested streets or alleys, when so directed, the Contractor shall complete his work up to a point designated by the Engineer before opening the work ahead, in order to give access to garages and other places. The Contractor shall in all cases so arrange his work as to cause the least inconvenience to property owners consistent with the proper precaution of the work as determined by the Engineer.

3.08 ACCOMMODATION OF DRAINAGE

- A. Gutters, sewers, drains and ditches shall be kept open at all times for surface drainage. No damming or ponding of water in gutters or other waterways will be permitted, except where stream crossings are necessary and then only to an extent which the Engineer shall consider necessary. The Contractor will be responsible for all clean-up to existing utilities caused by their activities.
- B. The Contractor shall not direct any flow of water across or over pavements except through approved pipes or properly constructed troughs and he shall, when so required at his own expense and cost, provide pipes or troughs of such sizes and lengths as may be required and place the same as directed.
- C. The grading in the vicinity of sewer trenches shall be controlled so that the ground surface is properly pitched to prevent water running into trenches.

3.09 PUMPING

- A. The Contractor shall keep all excavations free from water, at his own expense, while structural work is in progress, and to such extent as may be necessary while excavation work along is being carried on.
- B. The Contractor shall build all dams and other devices necessary for this purpose, including lowering the water table below trench bottom by well points and pumping, and provide and operate pumps of sufficient capacity for dewatering the excavations.
- C. He shall provide for the disposal of the water removed from excavation in such manner as shall not cause injury to the public health, to public or private property, to the work of other

Contractors, to any portion of the work completed or in progress, or produce any impediment to the use of the highways, roads, lanes, and streets by the public.

- D. Any dewatering required shall be performed at the Contractor's expense. Payment for dewatering shall be included in the Contractor's bid prices for pipe or other structures requiring dewatering for installation. If holes made for installation of well points are installed in a roadway, shoulder, or under a structure, these holes shall be filled with lean grout prior to backfill and compaction. Any permits needed for dewatering shall be obtained and paid for by the contractor.

3.10 EMBANKMENT

- A. Where embankment is necessary to support the foundations of the pipe or structure, it shall be made to the height, width and slopes shown on the drawings, or as directed. The entire embankment, or such portion thereof as may be deemed necessary by the Engineer, shall be made prior to the construction of the sewer, structure, or the foundation thereof, at such time and in such order as the Engineer may direct; and the embankment, sewer, or structure, and appurtenances, which may be laid thereon or therein, shall be maintained by the Contractor, at his own cost and expense, until the completion of the period of one (1) year from and after the date of the Certificate of Completion and Acceptance.
- B. After carefully grubbing and clearing the ground, removing all loose rock and stone, and all muck and improper material, to such a depth as the Engineer may determine, the embankment shall be built up of good loam, gravel or sand, or other selected and approved material, free from all stone above four inches diameter, and not containing in any place a proportion of stones exceeding one (1) part stone to three (3) parts earth.
- C. In cast material which is unsatisfactory for the foundation of any embankment is encountered, said material shall be removed to such depth, and for such length and width as may be directed by the Engineer. Payment for the removal of material unfit for the foundation of an embankment will be made at the price bid or stipulated per cubic yard for excavation below subgrade.
- D. The material for embankment shall be deposited in layers of not more than nine inches in thickness; each layer shall be separately compacted by heavy, grooved iron rollers, or where such rollers cannot be used, by heavy paver's rammers. The embankment shall be watered during rolling, if so required. No breaks or irregularities in the distribution of the material or the formation of the layers will be allowed. The whole embankment shall be carried up evenly to the height given by the Engineer in such a manner as to make a compact and solid foundation. When pipe is to be laid in a fill, the embankment shall be brought to a height of at least one foot above the proposed top of the pipe before the trench is excavated. The embankment shall then be excavated to the proper form and

grade, and the sewer placed thereon; after which the embankment shall be carried up to a height of not less than three feet above the top of the sewer, the material being placed and rolled or rammed in layers as above described.

3.11 BACKFILLING TRENCHES

- A. It is the intent of the following requirements for the backfilling of trenches to specify materials and methods which will:
 - 1. Result in thorough compaction of the backfilled material without the displacement of the grade or alignment of the sewer line and its appurtenances.
 - 2. Eliminate settlement of the backfilled material.
- B. If displacement of the sewer or settlement of the backfilled material does occur, it will be considered as conclusive evidence of improper workmanship or the inclusion of unsuitable materials or both, and it shall be the Contractor's responsibility, at his own expense, to remove and recompact the settled material and regrade and realign the sewer. During the course of the backfilling operation, the Engineer may, at any location of depth of trench, make tests to determine whether the Contractor's compaction operations are sufficient to meet the requirements specified below.
- C. The procedure of backfilling shall be as follows:
 - 1. After the structure, pipe, or conduit and its appurtenances have been installed or constructed, the excavation, to a height of at least two feet above the top of pipe or conduit, shall be refilled with clean earth deposited in four-inch layers and solidly rammed down and tamped around the pipe, or conduit and under it, with mechanical tampers and proper tools made for this purpose. The operation shall be done in such manner as not to disturb the structure. The area around the pipe shall be hand-tamped.
 - 2. The earth, to the height specified above, shall be carefully thrown in with hand shovels; under no condition shall any other means than hand shoveling, such as pushing in with heavy equipment be used.
 - 3. The remainder of the trench, except as described below, shall then be refilled evenly to the required height in layers, each layer not to exceed six inches in thickness after compaction. Mechanical tampers shall be used so as to produce a density of backfill (as determined by weight) at the bottom of each layer of not less than ninety-five percent (95%) of the optimum density of that material based upon the AASHTO T-180 modified proctor. The earth shall be properly rammed as directed and wetted as required as the work progresses.

4. Care shall be taken to carry the fill up evenly on opposite side of the sewer, other trench excavations, and around the sides of all structures.
- D. If, in the opinion of the Engineer, the material being used for backfilling is of such character that satisfactory results cannot be obtained by tamping and ramming, the Contractor shall backfill and puddle the excavations in such manner and at such times as the Engineer may direct.
- E. If the material excavated is not clean earth, as above specified, the best of the materials excavated shall be used in backfilling, in position and manner as directed by the Engineer.
- F. In rock trenches, selected earth, sand or gravel shall be provided and used as backfill in the manner hereinbefore described to a height of two feet above the top of the sewer. The backfill for the balance of the trench in all cases shall be of good earth, sand or gravel, which may contain stones not more than six inches in largest dimensions, but not in proportion exceeding twenty percent (20%) of the total volume of backfill.
- G. No bulkheads, or retaining walls for the backfilling, will be allowed in the trenches over the sewer, except for temporary use.
- H. Should there be a deficiency of proper material for refilling the Contractor shall furnish acceptable material at his own cost and expense.
- I. No house ashes, putrescible refuse or other material of unsatisfactory character shall be used in refilling, and the Contractor shall not permit the trench to be used as a dumping ground for refuse.
- J. Testing of backfill in trenches shall be performed as deemed necessary by the Engineer or his representatives; the Contractor will supply and pay for the testing.

3.12 BORROW EXCAVATION

- A. In cases where the amount of embankment exceeds the amount of excavation within the limits of the site as indicated by the Drawings, and where material is not available from other sources of contracts, the Contractor shall obtain sufficient, suitable material from borrow pits located entirely beyond the limits of the site unless the Engineer gives written permission to obtain such material from an area within the site.
- B. The Contractor shall notify the Engineer sufficiently in advance of borrow excavation requirements to permit the Engineer to determine necessity and to view the proposed borrow pit.

- C. Borrow obtained from within the site shall be removed to uniform lines and grades satisfactory to the Engineer, and in such a manner as not to detract from the general appearance of the improvement and shall not create unsatisfactory conditions.
- D. All borrow pits shall be stripped of brush, roots, grass and other vegetation prior to removal of material for embankment purposes.

3.13 BUILDINGS AND STRUCTURES

A. Excavation.

- 1. All excavation for buildings and structures shall be performed in the dimensions indicated on the Drawings. If suitable bearing is not encountered at the planned footing or foundation elevations, the excavation shall be carried to such elevations as are approved by the Engineer.
- 2. Prior to construction of foundations, the excavation shall be inspected by the Engineer and no foundation work shall be started prior to the Engineer's approval of the excavation. Care shall be exercised to avoid excavation below the depths indicated on the Drawings or as directed by the Engineer.
- 3. Where excavation is made below plan elevation or below elevations directed by the Engineer. Where excavation is made below plan elevation or below elevations directed by the Engineer, through the fault of the Contractor, the excavation shall be restored to the proper elevation in the manner described for backfill below, or the heights of walls or footings shall be increased, as may be directed by the Engineer, at the expense of the Contractor.

B. Drainage.

- 1. Grading in the vicinity of structures shall be controlled to prevent water running into excavated areas. Any accumulation of water in excavations shall be removed by pumping or other means at the Contractor's expense.

C. Backfill.

- 1. After completion of footings and walls, and the removal of forms, and prior to backfilling, the excavation shall be cleaned of all trash and debris.
- 2. Backfill material shall consist of the excavation or other materials free from trash, lumbar or other debris. It shall be placed in horizontal layers not exceeding six inches in depth, moistened if required and compacted by hand or mechanical tampers to a density to prevent excessive settlement.

3.14 RESPONSIBILITY FOR CONDITION OF EXCAVATION

- A. The Contractor shall be responsible for the condition of all excavations made by him. All slides and cave-ins shall be removed without extra compensation, at whatever time and under whatever circumstances they may occur.
- B. The failure of the Engineer to order the use of bracing or sheeting or a better quality, grade or section, or larger sizes of steel or timber, or to order sheeting, bracing, struts, or shoring to be left in place, or the failure to give orders or directions as to the manner or methods of placing or driving sheeting, bracing jacks, wales, rangers, or other members, shall not in any way or to any extent relieve the Contractor of any responsibility concerning the condition of excavation or of any of his obligations under the Contract; nor shall any delay, whether caused by any action or want of action on the part of the Contractor, or by any act of the Owner, or his agents, or employees, resulting in the keeping of an excavation open longer than would otherwise have been necessary, relieve the Contractor or from the necessity of properly and adequately protecting the excavation from caving or slipping, nor from any of his obligations under the Contract relating to injury of persons or property, nor entitle him to any claim for extra compensation.

3.15 PROTECTION OF PROPERTY AND STRUCTURES

- A. The Contractor shall, at his own expense, sustain in their places, and protect from direct or indirect injury, all pipes, tracks, walls, buildings, and other structures or property in the vicinity of his work, whether above or below the ground, or that may appear in the excavation. He shall at all times have a sufficient quantity of timber and plank, chains, ropes, trench boxes, and other material and equipment, on the ground and shall use them as necessary for sheeting his excavations and for sustaining or supporting any structures that are uncovered, undermined, endangered, threatened or weakened.
- B. The Contractor shall take all risks attending the presence of proximity of pipes, poles, tracks, walls, buildings, and other structures and property, of every kind and description, in or over his excavation, or in the vicinity of his work, whether above or below the surface of the ground; and he shall be responsible for all damages and assume all expense for direct or indirect injury, caused by his work, to any of time, or to any person or property by reason of injury to them, whether such structures are not shown on the Drawings.
- C. Where necessary, in order to keep one side of the street or roadway free from any obstruction or to keep the material piled alongside the excavation from falling on private property outside the right of way, a safe and suitable fence shall be placed alongside the excavation.
- D. In the event of encountering quicksand, subsurface streams or similar dangerous contingencies, or where passing especially heavy building or any structures which by their construction or position might bring a great pressure upon the excavations the right is reserved by the Engineer to direct that such buildings, or structures, shall be underpinned,

or supported and protected, or that special sheeting shall be driven in such a manner and to such depth, as may be directed, or that only a short length of excavation shall be opened at one time; and furthermore, if necessary, that the excavation shall be securely sheeted and braced on all sides, after the manner of a shaft, and that the permanent work shall be constructed in the same manner and the shaft backfilled before another opening is made. Any work done as above directed shall be at the cost and expense of the Contractor.

- E. The Engineer reserves the right under such conditions to stop the excavation or any other part of the work, and to require the Contractor to complete the structure and the backfilling up to such a point as the Engineer may direct before proceeding further with the excavation; and the Contractor shall not thereby become entitled to demand or to receive any allowance or compensation, other than an extension of the contract time for as many days as the Engineer may determine that the work was delayed by such stoppage.

3.16 OBSTRUCTION SHOWN ON DRAWINGS

- A. Certain information regarding the reputed presence, size, character, and location of existing underground structures, pipes and conduits has been shown on the Contract Drawings. There is no certainty of the accuracy of this information. The location of underground structures shown may be inaccurate and other obstructions not shown may be encountered.
- B. The Contractor hereby distinctly agrees that the Owner is not responsible for the correctness or sufficiency of the information given; that in no event is this information to be considered as a part of the Contract; that he shall have no claim for delay or extra compensation on account of incorrectness of information given, or on account of the insufficiency or absence of information regarding obstructions either revealed or not revealed by the Drawings; and that he shall have no claim for relief from an obligation of responsibility under the Contract, in case the location, size or character of any pipe or other underground structure is not as indicated on the Drawings; or in case any pipe or other underground structure is encountered that is not shown on the Drawings.
- C. The Contractor is solely and completely responsible for contacting utility providers and locating services to field locate existing utilities forty-eight (48) hours in advance of his activities. If inadequate locations are made, or if hand-digging of "test holes" is deemed necessary, this shall be accomplished and affected by the Contractor at no additional expense to the Owner.

3.17 REMOVAL OF OBSTRUCTIONS

- A. Should the position of any pipe, conduits, pole, or other structures, above or below the ground be such as, in the opinion of the Engineer, to require its removal, realignment, or change due to work to be done under the Contract, the work of

removal, realignment, or change will be done as extra work, or will be done by the Owner of the obstructions, without cost to the Contractor; but the Contractor shall uncover and sustain the structures, at his own expense, before such removal and before and after such realignment or change as constituting part of the Contract; and the Contractor shall not be entitled to any claim for damage or extra compensation on account of the presence of said structure, or on account of any delay in the removal or rearrangement of the same.

- B. The Contractor shall, without extra compensation, break through and reconstruct, if necessary, the invert or arch of any sewer, culver, or conduit that may be encountered, if the said structure is in such a position that in the judgment of the Engineer, as not to require its removal, realignment or complete reconstruction.
- C. The Contractor shall not interfere with any persons, firms or corporations, or with the Owner in protecting, removing, changing, or replacing their pipes, conduits, poles, or other structures; but he shall suffer said persons, firms, or corporations, or the Owner to take all such measures as they may deem necessary or advisable for the purpose aforesaid, and the Contractor shall thereby be in no way relieved of any of his responsibilities under this Contract. At railway or railroad track crossings or paralleling, any expense to which the Owner of the trackage is put in shoring up tracks, or in maintaining traffic, shall be borne by the Contractor, whether the same is billed directly to him, or the Owner. Should any such bill be unpaid by the Contractor, before final payment under the Contract is made, the Owner shall be empowered to pay said bill and retain the amount thereof, from any monies due, or to become due the Contractor.
- D. Except where trees are in rights-of-way, in immediate proximity to the excavation, they shall not be cut down except by authorization of the Engineer and the Contractor shall have no claim for the extra compensation owing to the fact that he may be required to excavate by hand, or tunnel in the vicinity of trees that may be left standing.

3.18 CHANGE OF EXCAVATION LOCATION

- A. In case the Engineer shall direct that the location of a trench or other excavation be changed from that shown on the Drawings, on account of the presence of an obstruction, or from other cause, or if a changed location shall be authorized upon the Contractor's request, the Contractor shall not be entitled to extra compensation, or to a claim for damage, provided that the change is made before the excavation is begun. If, however, such change, made at the direction of the Engineer, involves the abandonment of excavation already made, such abandoned excavation, together with the necessary refill, will be classed as miscellaneous excavation. In the event that the excavation is abandoned in favor of a new location, at the Contractor's request, the abandoned excavation and refill shall be at the Contractor's expense.

- B. Minor changes in alignment of pipe or other structures to accommodate the actual location of existing facilities shall be considered typical of construction activities and no additional compensation will be made for changes of this nature.

3.19 CLEANUP

- A. As the trenches are filled in and the work completed, the Contractor shall immediately and at his own cost and expense remove and dispose of all surplus earth, stone or other material from the work, in such manner and at such point or points, as he may select or provide, subject to the approval of the Engineer; or he may deposit the same, either with or without rehandling, at any point or points on the line of the work covered by the Contract, if so directed by the Engineer; and shall leave all roads, sidewalks and other places free, clear and in good order. In case the Contractor shall fail or neglect to do so, or to make satisfactory progress in doing so within twenty-four (24) hours after the receipt of a written notice from the Engineer, the Owner may remove such surplus material and clear the roadways, sidewalks and other places, and the cost of said work shall be charged to the Contractor and deducted from any monies due or to become due him under the Contract.
- B. All surplus earth or other material wasted on public property shall be evenly spread and left in a neat and smooth condition. All removed materials shall become the property of the Owner, if they so desire. If the Owner does not want the removed materials, surplus materials will be removed by the Contractor at no extra cost to the Owner.
- C. As soon as the trenches are refilled, all surplus earth, sand or rubbish shall be removed and kept removed to a point not more than two hundred feet from the head of the open trench, unless otherwise authorized by the Engineer.

3.20 MAINTENANCE OF BACKFILLED TRENCH SURFACES

- A. The Contractor shall crown to such height, as directed by the Engineer, the top of all backfilled trench excavations. The Contractor shall also maintain these crowned surfaces to the satisfaction of the Engineer, without additional compensation, from the time of crowning operation to and including a period of eight (8) months beyond date of a Certificate of Completion of the work under this contract.
- B. The Contractor shall be responsible for any injury or damage resulting from lack of required trench maintenance during the prescribed maintenance period. If the Contractor does not satisfactorily provide specified maintained surfaces or begin repairs of such surfaces when needed, within twenty-four (24) hours after written notice from the Engineer, such work may be done by the Owner and the cost thereof charged against the Contractor.

END OF SECTION

SECTION 31 23 19
DEWATERING

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. Scope: In general, the work specified in this section of the specifications shall consist of supplying labor, materials, and plant, and performing all work necessary to lower and control the groundwater levels and hydrostatic pressures to permit all excavations and construction specified under this Contract to be performed in the dry.
- B. Examination of Site: The Contractor shall take all steps that he considers necessary to familiarize himself with the site conditions, the ground conditions and the groundwater conditions. It is expressly understood that neither the Owner nor the Engineer will be held responsible for any interpretations or conclusions drawn by the Contractor.

PART 2 - PRODUCT

2.01 METHOD AND EQUIPMENT

- A. The Contractor may use any dewatering method he deems feasible so long as it results in working in the dry and in stable soil conditions. It is the intent of these specifications that an adequate dewatering system be installed to lower and control the groundwater in order to permit excavation, construction of the structures, construction of pipelines, and the placement of the fill materials, all to be performed under dry conditions. The dewatering system shall be adequate to pre-drain the water-bearing strata above and below the bottom of the foundations, the drains, the sewers and all other excavations. An adequate weight of fill material shall be in place prior to discontinuing operation of dewatering to prevent buoyancy of the structure.

PART 3 - EXECUTION

3.01 GENERAL

- A. The Contractor shall be solely responsible for the arrangement, location and depths of the dewatering system necessary to accomplish the work described under this section of the specifications. The dewatering shall be accomplished in a manner that will reduce the hydrostatic head below any excavation to the extent that the water level and piezometric water levels in the construction area are below the prevailing excavation surface; will prevent the loss of fines, seepage, boils, quick conditions, or softening of the foundation strata; will maintain stability of the sides and bottom of the excavation; and will result in all construction operations being performed in the dry.

- B. Disposal of Water: The Contractor shall promptly dispose of all water removed from the excavations in such a manner as will not endanger public health, damage public or private property, or affect adversely any portion of the work under construction or completed by him or any other Contractor. Contractor shall obtain written permission from the Owner of any property involved before digging ditches or constructing water courses for the removal of water.
- C. Siltation and Erosion:
 - 1. The Contractor shall take steps and make suitable provisions to minimize siltation and erosion which may result from, or as a result of, his operations during the course of construction of this project.
 - 2. The methods and provisions utilized by the Contractor to minimize siltation and erosion shall be approved by the Engineer and shall be in conformance with current Florida Department of Environmental Protection and St. Johns River Water Management District practices and regulations.
- D. Inadequate System: If the dewatering requirements are not satisfied due to inadequacy or failure of the dewatering system, then loosening of the foundation strata, or instability of the slopes, or damage to the foundations or structures may occur. The supply of all labor, materials, and plant, and the performance of all work necessary to carry out additional work for reinstatement of the structures of foundation soil resulting from such inadequacy or failure shall be undertaken by the Contractor to the approval of the Engineer, and at no additional expense to the Owner.

END OF SECTION

SECTION 32 10 00
BASES, BALLASTS AND PAVING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. The work covered and described in this section includes the furnishing and construction of paved surfaces, including roadways, driveways, bicycle paths, shoulders, and other paved surfaces, or paving work as shown or indicated on the drawings, specified herein, and as listed in this contract.
- B. All work shall conform to the applicable Technical Specifications of Florida Department of Transportation "Standard Specifications for Road Bridge Construction" latest Edition (Divisions II and III) and Design Standards", latest Edition, including any amendments thereto. The Contractor shall acquire his own copies of the Department of Transportation Standards. In the event of conflict between the Department of Transportation Standards and the specifications listed in these documents, the Owner/Engineer shall determine which shall govern. Reference to the Department of Transportation Standards, to the Department or its representatives shall be interpreted for this contract to be the Owner/Engineer or their authorized representative.

PART 2 - MATERIALS

2.01 SUBBASE

- A. The materials used should be high bearing value soil, sand-clay, ground limestone, crushed lime rock, coquina, or any other material suitable for stabilization. Muck shall not be used.

2.02 BASE COURSE

- A. The base course material used shall be that specified in the plan sheets or contract documents. If no base material is specified, limerock shall be used, unless otherwise indicated. All base material shall be approved by the Owner/Engineer and supplied by the Contractor.
- B. The lime rock base material shall have a minimum of seventy percent (70%) carbonates, calcium and magnesium and no more than three percent (3%) water sensitive clay. The liquid limit shall not exceed 35 and the plastic index shall not exceed 10. The average LBR value of the material shall be no less than 100, nor be large amounts of extremely hard pieces of clay pockets.

- C. Soil-cement base shall be composed of a combination of soil and Portland cement uniformly mixed, moistened, compacted, finished, and cured. The soil shall be either existing in-place material or that brought from borrow locations. All soil must meet the requirements set forth in FDOT Standards and Specifications for Road and Bridge Construction Latest Edition, The cement used shall be Portland cement Type I or I-P and water shall be free from any substances deleterious to hardening of the soils-cement mixture.
1. The soil-cement mixture shall be proportioned in accordance with a design mix prepared by a testing laboratory and approved by the Owner/Engineer. The design mix shall be submitted for approval at least thirty (30) calendar days prior to beginning of soil-cement construction. The cement content shall be expressed in percentage of dry weight of the soil. Rate of application shall be based on the maximum density of the soil, determined in accordance with AASHTO T 99 and a thickness one inch greater than the base course thickness shown on the plans.
- D. Asphalt base courses shall have a bituminous material content of asphalt cement, viscosity Grade AC-20 or AC-30, meeting the requirements of FDOT Standards and Specifications for Road and Bridge Construction, Latest Edition. The bituminous mixture shall be composed of a combination of aggregate, bituminous material. The job mix formula, as established by the Contractor, must be approved by the Owner/Engineer. The asphalt base mix shall be within the design ranges specified for mix Type ABC-3 or S-II, (Use of any other mix is subject to the approval of the Owner/Engineer.). The constituents of the mixture shall be combined to produce a mixture having Marshal properties within the limits of Appropriate Table of the FDOT Standards and Specifications for Road and Bridge Construction, latest Edition.
- E. Coquina shell used in the base course shall have an organic material of not greater than 0.5% or contain significant quantities of sand or other impurities which would prevent bonding. At least ninety-seven percent (97%) of the coquina used shall pass through a three and one-half inch ring.
- F. Recycled concrete aggregate used in the base course shall conform to Appropriate Section, graded aggregate base, of the latest revision of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

2.03 PRIME AND TACK COATS

- A. Bituminous prime coats shall be applied to previously prepared bases. Bituminous tack coats shall be placed on existing paved surfaces and between successive lifts of asphalt material.

- B. The prime coat shall be Cut-back asphalt Grade RC-70 or RC-250; Emulsified Asphalt Grades SS-I, CSS-I, SS-1H or CSS-1H diluted in equal proportion with water or other types and grades of bituminous material specified or approved by the Owner/Engineer.
- C. The tack coat shall be RA-500 heated to a temperature of 250°F to 300°F. For undiluted Emulsified Asphalt, Grades RS-1 or RS-2 heated to a temperature of 140°F to 180°F.
- D. A cover material must be placed on the prime coat to ensure that the prime coat remains intact until the surface course is placed.

2.04 ASPHALT WEARING SURFACE

- A. The bituminous wearing surface applied shall be that specified in the plan sheets or contract documents. If no asphalt mix is specified, Type SP-9.5 Super Pave asphaltic concrete shall be used as the paving material, unless otherwise indicated.
- B. The asphaltic mixture shall be transported to the site at a temperature of 300°F to 350°F. Mixtures that have cooled below 270°F will be rejected. The mix temperature will be taken on the first five loads each day and on an average of once every five loads thereafter.
- C. The Contractor is entirely responsible for producing a homogenous mixture, free from moisture and with no segregated materials, and meeting all requirements of the specifications for the mixture. Prior to the production of any asphalt paving mixture, the Contractor shall submit, in writing, a proposed job mix formula, at least two (2) weeks prior to the beginning of any paving activities. All requests for design mix adjustments, redesigns and new design mixes will be submitted, in writing, to the Owner/Engineer.

PART 3 - EXECUTION

3.01 SUBBASE

- A. Prior to installation of base material, the area shall be graded to within 0.2 feet, and soft, spongy or mucky material removed. Sufficient stabilizing material shall be cut in to achieve a Florida Bearing Value (FBV) in excess of 75 psi or lime rock bearing ratio (LBR) greater than 40 pounds at a minimum density of ninety-eight percent (98%) of a maximum density as defined and measured in AASHTO T 180 (Modified Proctor), to a six inch minimum depth.
- B. Density test for subbase materials shall be taken at 300 foot intervals and around structures as required. If compaction procedures allow testing requirements may be reduced at the Owner/Engineer's discretion.

3.02 BASE COURSE

- A. The base course shall be constructed on the prepared subgrade, in accordance with the specifications and plan sheets. All base material shall be placed in accordance with the lines, grades, notes, and typical cross sections shown on the plans. Any deviation from the plan sheets is subject to the approval of the Owner/Engineer. Any deviations not approved by the Owner/Engineer shall be repaired to the satisfaction of the Owner/Engineer at no expense to the Owner.
- B. Lime Rock Base
1. Lime rock base shall be spread by mechanical spreaders, equipped to produce an even distribution with a uniform thickness. When the specified compacted thickness of the base is greater than six inches, the base shall be constructed in two (2) courses. The thickness of the first course shall be one-half the total thickness of the finished base. After spreading is completed, the entire surface shall be scarified and shaped so as to produce the required grade and cross section after compaction. If two (2) courses are required, each lift shall be prepared as previously described. Prior to spreading of the upper course, density tests will have been taken for the lower and determined to be satisfactory.
 2. All materials shall be compacted to a density of not less than ninety-eight percent (98%) of maximum density as determined by AASHTO T 180. Density tests shall be taken in at least three locations on each day's final compaction of each course. Density determinations shall be made at more frequent intervals, at no extra cost, if deemed necessary by the Owner/Engineer.
 3. The finished surface of the base course shall be checked with a template cut to the required crown and a 15-foot straight edge laid parallel to the center line of the road. All irregularities greater than 1/4 inch shall be corrected to the satisfaction of the Owner/Engineer.
 4. The base material shall extend at least 12 inches outside the edge of the finished paved surface, unless otherwise indicated. Thickness of the base shall be measured at 200-foot intervals at various points in the cross section. Where the compacted thickness is deficient by 1/2 inch or more, the Contractor shall correct the deficiency by scarifying and adding rock for a distance of 100 feet in each direction from the edge of the deficient area. The required thickness, compaction and cross section will then be achieved.

5. Prime coat shall be applied only when the base meets the specified density and the moisture content in the top half of the base does not exceed ninety percent (90%) of the optimum moisture of the base material.

C. Soil Cement Base

1. Soil-cement mixing shall be either mixed-in-place or a central plant mix.
2. If mixed-in-place, the entire width of the base shall be processed in a single operation, where possible. The specified quantity of cement shall be applied at the required rate by means of an approved method. Mixing will begin within sixty (60) minutes after the cement has been applied. Processing may be to full depth in one (1) course, provided that the satisfactory distribution of cement, water, soil and the specified density can be obtained. If not, construction shall be in courses of such thickness to obtain satisfactory results. Adequate bonding between courses must be achieved. After mixing soil and cement, additional water shall be added, if necessary. After all mixing water has been applied, mixing shall continue until a uniform mixture has been obtained. Excessive concentrations of water shall be avoided.
3. Central plant mixtures shall have been mixed for at least thirty (30) seconds. The mixture shall be placed on the moistened subgrade in a uniform layer by an approved spreader. The layer of soil-cement shall be of uniform thickness and surface contour. The completed base will conform to the required grade and cross section.
4. Compaction of the soil-cement mixture shall begin immediately after mixing is complete. The optimum moisture content and maximum density shall be determined in the field by the methods described in AASHTO T 143. The base shall be compacted to not less than ninety-five percent (95%) of the maximum density. The soil-cement mix design shall be 350 psi at 28 days, unless otherwise indicated, and moisture content and density tests shall be taken every 300 lineal feet to a minimum depth of six inches.
5. After compaction, the surface shall be shaped to the required lines, grades and cross section. The moisture content of the surface material shall not be more than two percent (2%) less than the specified optimum moisture content during finishing operations. The finished surface shall be smooth, dense, and free of compaction planes, cracks, ridges and loose material.
6. Construction joints shall be formed by cutting back in the completed work to form a true vertical face. The vertical face shall be a straight transverse line perpendicular to the centerline of the roadway.

7. The finished surface of the base shall be tested with a template and a 15-foot straight edge. All irregularities greater than 1/4 inch shall be corrected to the satisfaction of the Owner/Engineer.
8. The finished surface shall be kept continuously moist until the surface is treated with either cut-back asphalt, Grade RC-70 applied at .15 to .20 gallons per square yard; or a mixture of emulsified asphalt and water applied at a rate of .20 of .25 gallons per square yard. If the Owner/Engineer deems it necessary, the surface shall be sanded using 10 pounds of clean sand per yard.

D. Asphalt Base Course

1. Asphalt base courses shall be applied in accordance with FDOT Standards and Specifications for Road and Bridge Construction, Appropriate Section. The job mix formula approved for the project shall be used. Any deviation from the approved mix must be submitted to the Owner/Engineer and approved before being implemented.
2. The base course material shall be placed with an approved paving machine. A motor grader may be required if a leveling course is needed. The base mix may be placed when the air temperature is at least 40°F and rising, provided that the sub-grade is not frozen or affected by frost.
3. A paver, equipped with automatic screed control, shall be used for all machine-laid courses. The automatic joint matcher shall be used on the top course of the base after the first pass with a paving machine. All mixtures shall be laid by the string line method, with the exception of areas adjacent to curb and gutter or other true edges. The temperature of the mix shall be between 300° and 350°F. Any mixture caught by rain in transit may be laid at the Contractor's own risk; if removal and replacement is required, it shall be at the expense of the Contractor. In no case shall the mixture be spread when rain is falling or when there is water on the surface to be covered. The layer thickness for asphalt concrete structure courses shall match those listed in the table below.

E. Recycled Concrete Base Course

1. Recycled concrete base course shall be transported, spread compacted and finished per Appropriate Section, of the latest revision of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

2. The depth of all layers shall be checked every 50 feet. A tack coat, as specified, will be required on existing pavements to be overlaid with an asphalt mix and between successive layers of all asphalt mixes.

F. Compaction.

1. After the asphalt mixture has been spread to the proper lines, grades, and cross sections, compaction operations may begin. The Contractor shall establish rolling procedures and submit his sequence of compaction operations to the Owner/Engineer for approval. The equipment used may include, but is not committed to steel-wheeled rollers, pneumatic tired rollers, and vibratory rollers. Areas which are inaccessible to a roller shall be compacted by the use of hand tamps or other satisfactory means. An entire sequence of compaction operations shall be performed for each layer of applied material, density determinations shall also be made.
2. The in-place density of each course shall be determined through core samples and the nuclear backscatter method. A core sample of a representative paving section shall be taken for each day's production of paved surface; backscatters shall be taken every 30 feet at various locations in the cross section. Additional testing around manholes or other structures may be required.
3. Testing and density requirements shall not apply to the following construction activities: Asphalt patching courses, leveling and intermediate course less than one-inch thick, overbuild courses less than one-inch thick and open graded friction courses.

G. Shell Base Material

1. Shell base material shall be constructed on the prepared subgrade in accordance with these specifications and in conformity with the lines, grades and cross sections shown on the plans. The shell base shall be spread uniformly and evenly; during spreading operations the shell shall be thoroughly saturated with water.
2. After spreading the shell shall be compacted, with water being added as required, until the required density is obtained. Compaction and density shall be as required for lime rock base, except that the testing methods shall be modified in the laboratory and in the field. At least three (3) density determinations shall be made on each day's final compaction operations.
3. Upon completion of initial compaction, the entire surface shall be scarified and shaped to exact crown and cross section. The base shall then be re-watered and compacted to the required density. The finished surface shall be tested with a

template and 15-foot straight edge. All irregularities greater than 1/4 inch shall be corrected to the satisfaction of the Owner/Engineer. The prime coat shall be applied after the base meets all density and finish requirements.

3.03 ASPHALT WEARING SURFACE

- A. The asphalt wearing surface shall be constructed on the prepared base in accordance with the plans and specifications and in conformity with the indicated lines, grades, and cross sections. If no asphalt mixture is indicated, the specified mixture shall be Type SP-9.5 Super Pave Asphaltic Concrete. A job mix formula shall be submitted to the Owner/Engineer for approval at least two (2) weeks prior to the application of paved surfaces.
- B. The mixture shall be spread only when the base is clean, dry, properly cured, and approved by the Owner/Engineer. The temperature shall be at least 40°F and rising. No paving operations will be permitted if it is raining or rain is imminent. The mix shall be between 270°F and 350°F.
- C. The asphalt mixture shall be spread with an approved paving machine to the required width and depth. All mixes, except those adjacent to curb and gutter, shall be laid according to the string line method. The depth of each layer shall be checked every 50 feet.
- D. The mixture shall be compacted to its final depth, no less than 1-1/4 inch and thicker if so indicated. Compaction and layering procedures specified for asphalt base courses shall apply to surface courses. All testing and density requirements will also apply.
- E. When laying operations are interrupted, a transverse joint shall be constructed by cutting back on the previous run to expose the full depth of material. Longitudinal joints are to be sloped or rolled over and sealed. When the adjacent strip is constructed, the edge shall be trimmed back to expose the unsealed face. All longitudinal construction joints shall be offset 6 inches to 12 inches laterally between layers.
- F. When fresh mixture is laid against transverse or longitudinal joints, it shall be placed in contact to produce an even, well compacted joint after rolling.
- G. The finished surface shall be tested with a template and 15-foot rolling straight edge. Any irregularities shall be repaired to the satisfaction of the Owner/Engineer. The surface shall be of uniform texture and compaction. No sand spots, ripples, or loosened portions shall be evident. No traffic shall be allowed onto the finished surface until it is deemed acceptable by the Owner/Engineer.

3.04 CURING COAT

- A. During the period when finishing and surface corrosion of the soil-cement base are being accomplished, the surface of the base shall be kept continuously moist by sprinkling as necessary. As soon as deemed practicable, the curing seal shall be applied to the soil-cement base. The curing seal shall consist of Emulsified Asphalt Grade SS-I or SS-1H, diluted in equal proportion with water, and be applied at the rate of 0.15 to 0.30 gallons per square yard.
- B. The actual rate of application shall be as directed and shall provide complete coverage without excessive runoff. At the time the bituminous material is applied, the soil-cement surface shall be dense and free of all loose and extraneous material and shall contain sufficient moisture to prevent excessive penetration to the bituminous materials.
- C. Should it be necessary to allow construction equipment or other traffic to use the completed base before the bituminous material has cured sufficiently to prevent pickup or displacement; the bituminous material shall be sanded, using approximately 10 pounds of clean sand per yard.

END OF SECTION

SECTION 32 92 23
SODDING

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Preparation of subsoil.
2. Placing topsoil.
3. Fertilizing.
4. Sod installation.
5. Maintenance.

1.02 REFERENCES

A. ASTM International:

1. ASTM C602 - Standard Specification for Agricultural Liming Materials.

B. Turfgrass Producers International:

1. TPI - Guideline Specifications to Turfgrass Sodding.

1.03 DEFINITIONS

- A. Weeds: Vegetative species other than specified species to be established in given area.

1.04 SUBMITTALS

- A. Section 01 33 23 – Shop Drawings, Product Data and Samples: Requirements for submittals.
- B. Product Data: Submit data for sod grass species, fertilizer, mulch, and other accessories.
- C. Submit minimum 10 oz sample of topsoil proposed. Forward sample to approved testing laboratory in sealed containers to prevent contamination.
- D. Test Reports: Indicate topsoil nutrient and pH levels with recommended soil supplements and application rates.
- E. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.05 CLOSEOUT SUBMITTALS

- A. Section 01 77 00 - Closeout Procedures: Requirements for submittals.
- B. Operation and Maintenance Data: Submit maintenance instructions, cutting method and maximum grass height; types, application frequency, and recommended coverage of fertilizer;

1.06 QUALITY ASSURANCE

- A. Sod: Root development capable of supporting its own weight without tearing, when suspended vertically by holding upper two corners.
- B. Perform Work in accordance with Florida Department of Transportation standard.

1.07 QUALIFICATIONS

- A. Sod Producer: Company specializing in manufacturing Products specified in this section with minimum three years documented experience.
- B. Installer: Company specializing in performing work of this section with minimum three years documented experience.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 60 00 - Product Requirements: Product storage and handling requirements.
- B. Deliver sod on pallets or in rolls. Protect exposed roots from dehydration.
- C. Do not deliver more sod than can be laid within 24 hours.

1.09 COORDINATION

- A. Section 01 30 00 - Administrative Requirements: Requirements for coordination.
- B. Coordinate with installation of underground sprinkler system piping and watering heads when applicable.

1.10 MAINTENANCE SERVICE

- A. Section 01 77 00 - Closeout Procedures: Maintenance service.
- B. Maintain sodded areas sodded areas for three months from Date of Substantial Completion or until Final Completion, whichever is later.
- C. Maintain sodded areas immediately after placement until grass is well established and exhibits vigorous growing condition.

- D. Repair any damage due to washouts, erosion or other causes which might occur prior to final acceptance of this work.

PART 2 - PRODUCTS

2.01 SOD

- A. Furnish materials in accordance with Florida Department of Transportation standard.
- B. Sod: Certified grade; cultivated grass sod; type indicated; with strong fibrous root system, free of stones, burned or bare spots; containing no more than 5 weeds per 1000 sq ft.
- C. Type of sod to match existing. If restoration, type of sod to be shown on plans otherwise.
- D. The sod shall be taken up in commercial-size rectangles, preferably 16-inch by 24-inch, except where rolled sod is utilized.
- E. The sod shall be sufficiently thick to secure a dense stand of live grass. The sod shall be live, fresh and uninjured, at the time of planting.
- F. No sod shall be used which is not certified as being free of the imported fire ant, and must be obtained from an area outside of the zone of quarantine of the imported fire ant.

2.02 SOIL MATERIALS

- A. Topsoil: Imported or excavated on-site, fertile, agricultural soil, typical for locality, capable of sustaining vigorous plant growth, taken from drained site; free of subsoil, clay, or impurities, plants, weeds and roots; pH value of minimum 5.4 and maximum 7.0.

2.03 ACCESSORIES

- A. Fertilizer: Commercial grade; recommended for grass, with fifty percent of elements derived from organic sources; of proportion necessary to eliminate deficiencies of topsoil to the following proportions: nitrogen 6 percent, phosphoric acid 6 percent, soluble potash 6 percent.
- B. Lime: ASTM C602, Class T agricultural limestone containing a minimum 80 percent calcium carbonate equivalent.
- C. Water: Clean, fresh and free of substances or matter capable of inhibiting vigorous growth of grass.
 - 1. The water used in the grassing operations may be obtained from the reclaimed water system.

2. The water shall be free of excess and harmful chemicals, acids, alkalis, or any substance which might be harmful to plant growth or obnoxious to traffic.
 3. Salt water shall not be used.
- D. Water-Metering Devices: The vehicle used for applying the water to the grassed areas shall be equipped with an approved metering device installed at such point on the vehicle as to measure the water at the time of its being applied to the grassed areas.
 - E. Wood Pegs: Softwood, sufficient size and length to anchor sod on slope.
 - F. Wire Mesh: Interwoven hexagonal plastic mesh of 2 inch size.
 - G. Edging: Plastic.
 - H. Rollers: A cultipacker, traffic roller, or other roller approved by the Engineer, will be required for rolling the grassed and mulched areas.

2.04 SOURCE QUALITY CONTROL

- A. Section 01 45 29 – Testing Laboratory Services: Testing, inspection and analysis requirements.
- B. Analyze to ascertain percentage of nitrogen, phosphorus, potash, soluble salt content, organic matter content, and pH value.
- C. Provide recommendation for fertilizer and lime application rates for specified sod grass species as result of testing
- D. Testing is not required when recent tests are available for imported topsoil. Submit these test results to testing laboratory. Indicate, by test results, information necessary to determine suitability.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Section 01 30 00 - Administrative Requirements: Verification of existing conditions before starting work.
- B. Verify prepared soil base is ready to receive the Work of this section.

3.02 PREPARATION OF SUBSOIL

- A. Prepare sub-soil and eliminate uneven areas and low spots.

- B. Maintain lines, levels, profiles and contours. Make changes in grade gradual. Blend slopes into level areas.
- C. Remove foreign materials and undesirable plants and their roots. Do not bury foreign material beneath areas to be sodded.
- D. Remove contaminated subsoil.
- E. Scarify sub-soil to depth of 4 inches where topsoil is to be placed.
- F. Repeat cultivation in areas where equipment, used for hauling and spreading topsoil, has compacted subsoil.

3.03 PLACING TOPSOIL

- A. Spread topsoil to minimum depth of 3 inches over area to be sodded.
- B. Place topsoil during dry weather and on dry unfrozen subgrade.
- C. Remove vegetable matter and foreign non-organic material from topsoil while spreading.
- D. Grade topsoil to eliminate rough, low or soft areas and to ensure positive drainage.
- E. Install edging at periphery of sodded areas in straight lines to consistent depth.

3.04 FERTILIZING

- A. Apply lime at application rate recommended by soil analysis. Work lime into top 6 inches of soil.
- B. Application:
 - 1. The fertilizer shall be spread or sprayed uniformly over the area to be grassed by use of the approved distributing device, except that on steep slopes or other areas where machine-spreading may not be practicable, spreading may be done by hand or by hose if the Engineer so directs.
 - 2. Immediately after dry fertilizer is spread, it shall be harrowed in and mixed with the soil to a depth of approximately four inches.
 - 3. When liquid fertilizer is sprayed, the soil, if dry, shall be moistened by sprinkling before the liquid fertilizer is applied not later than seven days after the seed is in place.
- C. Rate of Application: Apply fertilizer at application rate as determined by soil analysis.
- D. Apply fertilizer after smooth raking of topsoil and prior to installation of sod.

- E. Apply fertilizer no more than 48 hours before laying sod.
- F. Mix fertilizer thoroughly into upper 4 inches of topsoil.
- G. Lightly water soil to aid dissipation of fertilizer.
- H. Fertilizing operations will not be permitted when wind velocities exceed 15 miles per hour.

3.05 LAYING SOD

- A. Moisten prepared surface immediately prior to laying sod.
- B. Lay sod within 24 hours after harvesting to prevent deterioration.
- C. Lay sod tight with no open joints visible, and no overlapping; stagger end joints 12 inches minimum. Do not stretch or overlap sod pieces.
- D. Lay smooth. Align with adjoining grass areas.
- E. Place top elevation of sod 1/2 inch below adjoining edging paving or curbs.
- F. On slopes and elevations 6 inches per foot and steeper:
 - 1. On slopes 6 inches per foot and steeper, lay sod pieces perpendicular to slope and secure every row with wooden pegs at maximum 2 feet on center. When using rolled sod, lay sod parallel to slope. Drive pegs flush with soil portion of sod.
 - 2. Prior to placing sod, on slopes exceeding 8 inches per foot, place wire mesh over topsoil. Securely anchor wire mesh in place with wood pegs sunk firmly into ground.
- G. Do not place sod when temperature is lower than 32 degrees F.
- H. Water sodded areas immediately after installation. Saturate sod to 4 inches of soil.
- I. After sod and soil have dried, roll sodded areas to bond sod to soil and to remove minor depressions and irregularities.
- J. Roll before first watering.

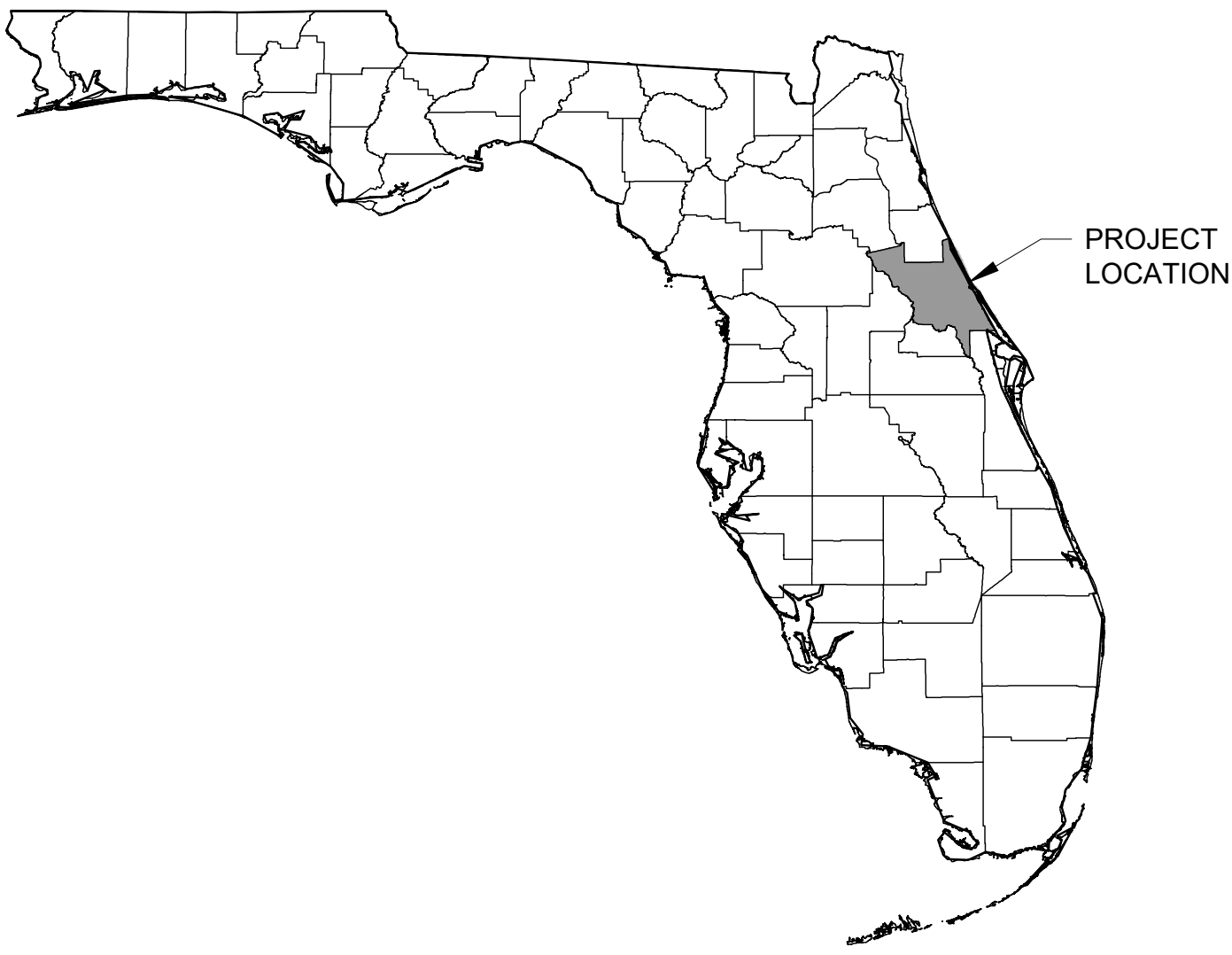
3.06 MAINTENANCE

- A. Mow grass at regular intervals to maintain at maximum height of 2-1/2 inches. Do not cut more than 1/3 of grass blade at each mowing.
- B. Neatly trim edges and hand clip where necessary.

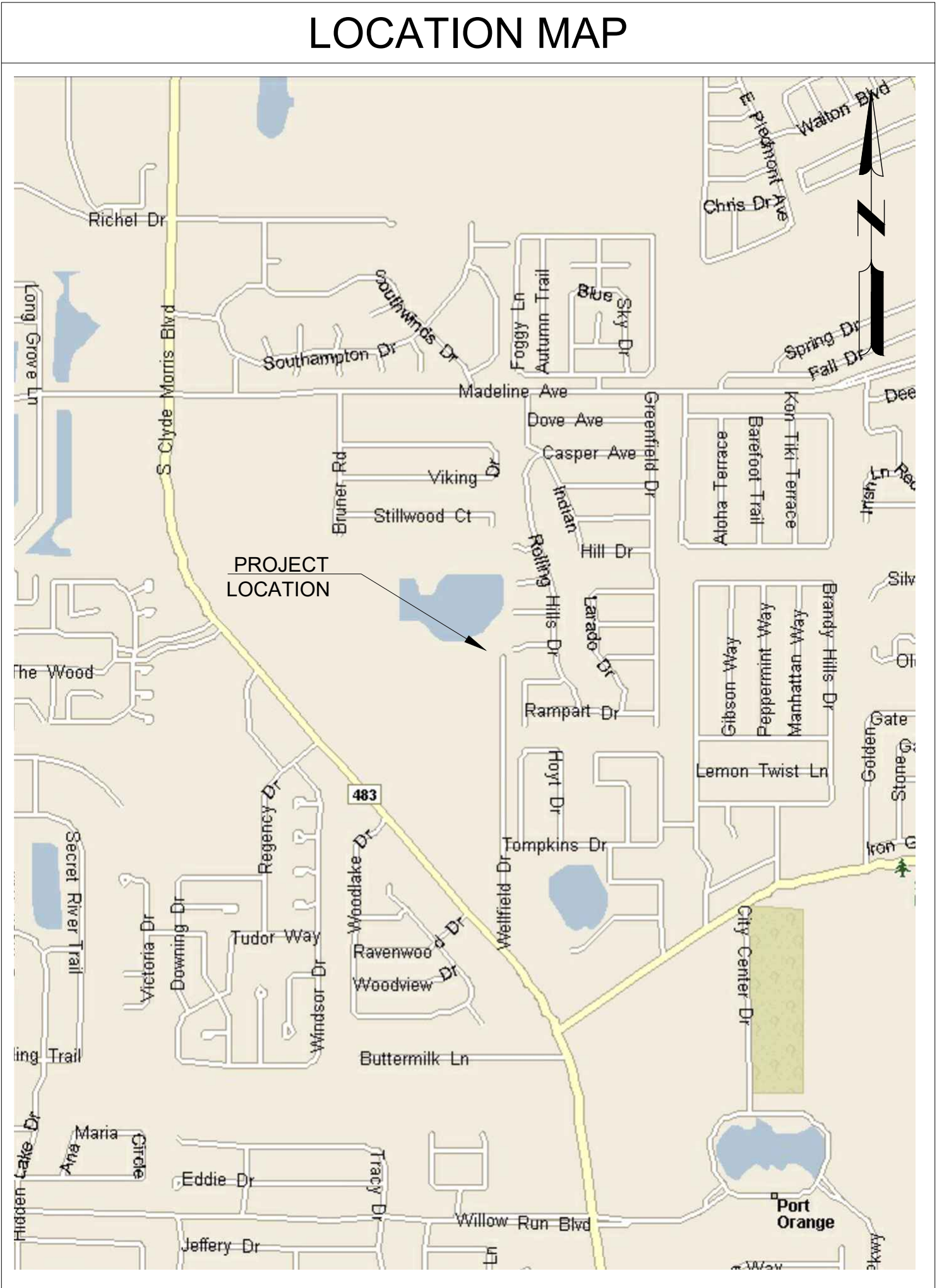
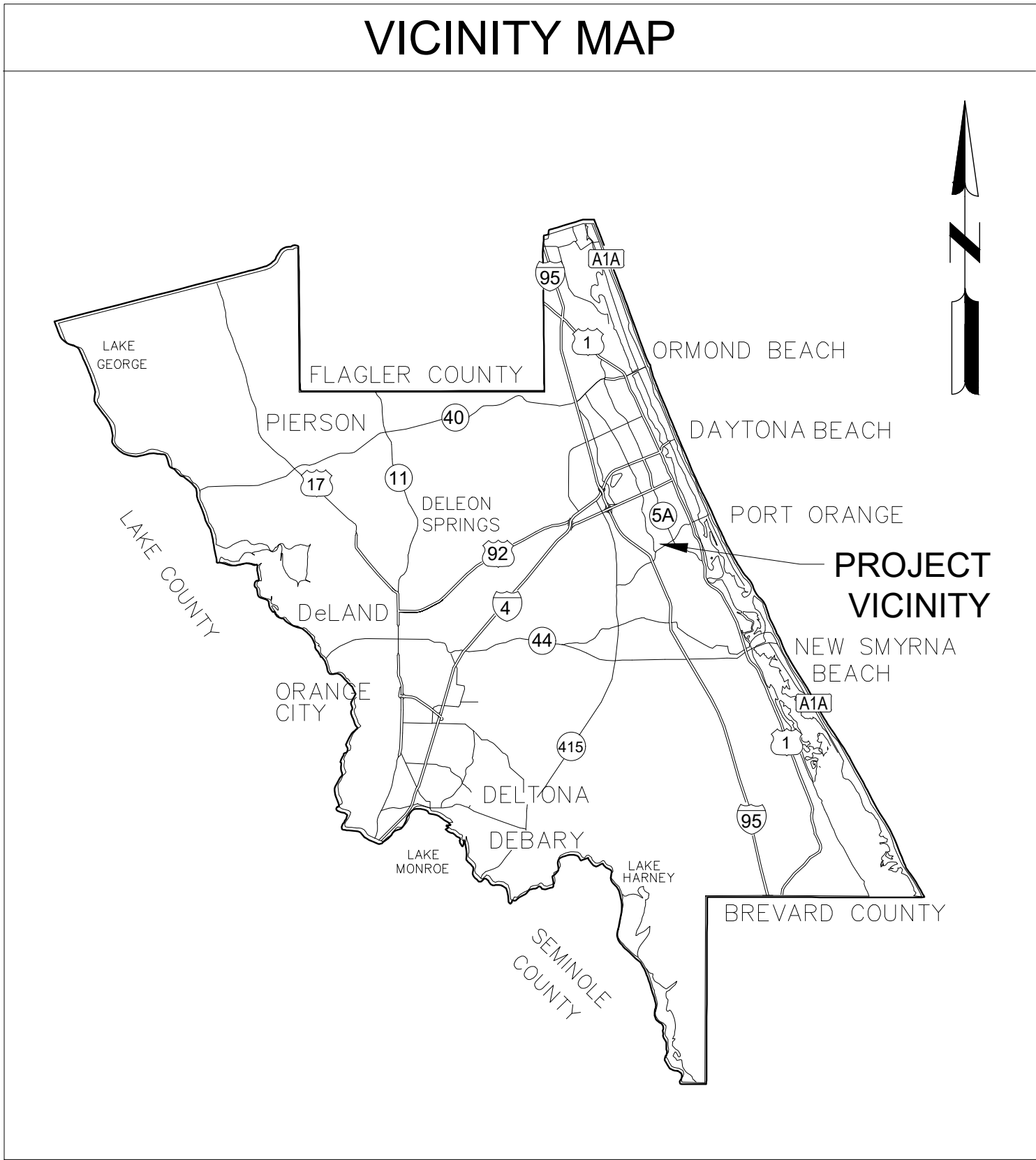
- C. Immediately remove clippings after mowing and trimming.
- D. Water to prevent grass and soil from drying out.
- E. The soil shall be maintained in a moist condition for a period of at least two weeks after the planting.
- F. Roll surface to remove or irregularities.
- G. Control growth of weeds. Apply herbicides. Remedy damage resulting from improper use of herbicides.
- H. Immediately replace sod on areas showing deterioration or bare spots.
 - 1. i.e. damage due to washouts, erosion or other causes which might occur.
- I. Protect sodded areas with warning signs during maintenance period.

END OF SECTION

CITY OF PORT ORANGE
GARNSEY WATER TREATMENT PLANT
GENERATOR INSTALLATION



VOLUSIA COUNTY



LOCATION MAP

BID # _____
100% DESIGN
NOVEMBER 2021

SHEET INDEX

SHEET NUMBER	SHEET TITLE
G-001	COVER SHEET
G-002	LEGEND AND ABBREVIATIONS
C-101	OVERALL SITE PLAN - GENERAL NOTES
C-102	GENERATOR SITE - DEMOLITION & PROPOSED SITE WORK
C-103	PROPOSED SITE PLAN
C-104	GENERATOR SITE -DETAILS
C-105	PROPOSED ELECTRIC ROOM
M-101	MECHANICAL - HVAC PLAN
E-001	ELECTRICAL LEGEND AND NOTES
ED101	ELECTRICAL DEMOLITION
ED701	SINGLE LINE DIAGRAM DEMOLITION
E-011	ELECTRICAL SITE PLAN EXISTING
E-012	ELECTRICAL SITE PLAN PROPOSED
E-101	ELECTRICAL PLANS
E-102	ELECTRICAL PLAN
E-701	SINGLE LINE DIAGRAM SWITCHGEAR MSB
E-702	SINGLE LINE DIAGRAM MCC-3 & MCC-4
AB-1	GENERATOR BUILDING PLAN RECORD DRAWING
AB-2	STORAGE BUILDING DETAILS RECORD DRAWING
AB-3	STORAGE BUILDING FLOOR PLAN RECORD DRAWING
AB-4	STORAGE BUILDING ELEVATIONS RECORD DRAWING
AB-5	MASTER SINGLE LINE DIAGRAM RECORD DRAWING
AB-6	GENERATOR BUILDING ELECTRIC RECORD DRAWING

ENGINEER OF RECORD: BRAD T. BLAIS, P.E.

P.E. NUMBER: 47130

ELECTRICAL ENGINEER: KEFF S. KURELLA, P.E.

P.E. NUMBER: 62496

CITY OF PORT ORANGE
PROJECT MANAGER: JUNOS REED, P.E.



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CITY OF PORT ORANGE
GARNSEY WTP GENERATOR
INSTALLATION
4400 Wellfield Drive
Port Orange, FL 32119

ISSUED	
07/01/2021	60% DESIGN
08/30/2021	90% DESIGN
11/12/2021	100% DESIGN

NOT FOR CONSTRUCTION

MSH NO.:	1000715-192311.01
DATE:	AUGUST, 2021
DESIGNED BY:	BTB
DRAWN BY:	SEM
CHECKED BY:	BTB
DO NOT SCALE DRAWINGS	

SHEET CONTENTS
COVER SHEET

SHEET NO.

G-001

A	
ABD.	ABANDON OR ABANDONED
AC.	ACRE
A/C	AIR CONDITIONING
ACCOMP	ASPHALT COATED CORRUGATED METAL PIPE
ACP	ASBESTOS CEMENT PIPE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHD	AHEAD
AIR	AIR
AL	ALUMINUM
ALT.	ALTERNATE
APPROX.	APPROXIMATE
ARCH.	ARCHITECTURE
ARV	AIR RELEASE VALVE
ARVV	AIR RELEASE VACUUM VALVE
ASPH.	ASPHALT
ASSY.	ASSEMBLY
AVE.	AVENUE
AUTO	AUTOMATIC

B	
BCV	BALL CHECK VALVE
BF	BLIND FLANGE
BFV	BUTTERFLY VALVE
BK.	BACK
B	BASE LINE
BLDG.	BUILDING
BLK	BLOCK
BM	BENCH MARK
BOC	BACK OF CURB
BOT.	BOTTOM
BRG.	BEARING
BS	BLACK STEEL PIPE
BV	BALL VALVE
BWW	BACKWASH WATER

C	
CATV	CABLE TELEVISION
C.B.	CATCH BASIN
CFM	CUBIC FEET PER MINUTE
CFPS	CUBIC FEET PER SECOND
C & G	CURB AND GUTTER
CIP	CAST IRON PIPE
CIR.	CIRCUIT
CISP	CAST-IRON SOIL PIPE
C.J.	CONSTRUCTION JOINT
C	CENTER LINE
CL.	CLASS
C.L.F.	CHAIN LINK FENCE
CLR.	CLEARANCE
CMP	CORRUGATED METAL PIPE
CMPA	CORRUGATED METAL PIPE ARCH
C.M.U.	CONCRETE MASONRY UNIT
CND.	CONDUIT
C.O.	CLEANOUT
CO.	COMPANY
COL.	COLUMN
CONC.	CONCRETE
CONV.	CONNECTION
CONST.	CONSTRUCT/CONSTRUCTION
CONT.	CONTINUOUS
COORD.	COORDINATE
COR.	CORNER
CPLG.	COUPLING
CPVC	CHLORINATED POLYVINYL CHLORIDE
CS	CHLORINE SOLUTION
CTR.	CENTER
CULV	CULVERT
CY	CUBIC YARD
CYL.	CYLINDER
CU.FT.	CUBIC FEET
CU.IN.	CUBIC INCHES
CV	CHECK VALVE

D	
DBL.	DEGREE OF CURVATURE
DBL.	DOUBLE
DET.	DETAIL
D.F.	DRINKING FOUNTAIN
D.F.	DIESEL FUEL
D.I.	DUCTILE IRON/DROP INLET
DIA.	DIAMETER
DIAG.	DIAGONAL
DIFF.	DIFFUSER
DIM.	DIMENSION
DIP	DUCTILE IRON PIPE
DISCH.	DISCHARGE
DR.	DRIVE
DRN.	DRAIN
DWG.	DRAWING
DWL.	DESIGN WATER LEVEL
DVV	DRAIN, WASTE AND VENT
DW	DRIVEWAY

E	
E	EAST
EA.	EACH
ECC.	ECCENTRIC
ECC.	EACH FACE
EFF.	EFFLUENT
E	EASEMENT LINE
EL	ELEVATION
ELEC.	ELECTRIC/ELECTRICAL
ELP.	ELLIPTICAL
ENC.	ENCASEMENT
ENGR.	ENGINEER
EOP	EDGE OF PAVEMENT
EQUIP.	EQUIPMENT
ESMT.	EASEMENT
EST.	ESTIMATE/ESTIMATED
E.W.	EACH WAY
EXIST.	EXISTING
EXP.	EXPANSION
EXT.	EXTERIOR/EXTENSION

F	
FAB.	FABRICATE
FAC	FLANGED ADAPTER COUPLING
F.C.V.	FLOW CONTROL VALVE
F.D.	FLOOR DRAIN
FE	FILTERED EFFLUENT
F.F.	FINISHED FLOOR
F.G.	FINISHED GRADE
F.H.	FIRE HYDRANT
FIG.	FIGURE
FIN.	FINISH
F.L.	FLOW LINE
FL	FLOOR/FLOOR LINE
FLG.	FLANGE
F.M.	FORCE MAIN
FRP	FIBERGLASS REINFORCED PLASTIC
FS	FLOOR STAND
FT.	FEET/FOOT
FTG.	FOOTING
FUT.	FUTURE
FV	FOOT VALVE

G	
GA.	GAUGE
GAL.	GALLON
GALV.	GALVANIZED
GAS	GAS MAIN
G.E.J.	GROOVED END JOINT
GND.	GROUND
GPD	GALLONS PER DAY
GPM	GALLONS PER MINUTE
GR.	GRADE
G.S.	GALVANIZED STEEL

G	
G.S.	GALVANIZED STEEL
GSP.	GALVANIZED STEEL PIPE
GSR.	GROUND STORAGE RESERVOIR
GV	GATE VALVE

H	
HB	HOSE BIBB
H.D.	HEAVY DUTY
HOA	HAND/OFF/AUTO
HORIZ.	HORIZONTAL
HP	HORSEPOWER
HR.	HOUR
HT.	HEIGHT
HVAC	HEATING, VENTILATION & AIR CONDO
H.W.L.	HIGH WATER LEVEL
HVY	HYDRAULIC

I	
ID	INSIDE DIAMETER
IN.	INCHES
INF.	INFLUENT
INT.	INTERSECTION
INV.	INVERT
IP	IRON PIPE
IRR.	IRRIGATION

J	
J.B.	JUNCTION BOX
JT	JOINT

L	
LAB	LABORATORY
LAT.	LATERAL
LAV.	LAVATORY
LB	POUND
L.F.	LINEAR FEET
L.P.	LIGHT POLE
L.S.	LIFT STATION
LT	LEFT
LVR.	LOUVER
L.W.L.	LOW WATER LEVEL

M	
MATL.	MATERIAL
MAX.	MAXIMUM
M.B.	MACHINE BOLT
MCC	MOTOR CONTROL CENTER
M.E.	MITERED END
MECH.	MECHANICAL
MFR.	MANUFACTURER
MGD	MILLION GALLONS PER DAY
M.H.	MANHOLE
MIN.	MINIMUM
MISC.	MISCELLANEOUS
M.J.	MECHANICAL JOINT
MOD.	MODIFY/MODIFIED
MON.	MONUMENT
M.W.	MANWAY
M.W.L.	MEAN WATER LEVEL
M.G.	MILLION GALLON
MTD.	MOUNT

N	
N	NORTH
N/A	NOT APPLICABLE
N & C	NAIL AND CAP
N.C.	NORMALLY CLOSED
NE	NORTHEAST
NG.	NATURAL GROUND
NIC	NOT IN CONTRACT
NO.	NUMBER
N.O.	NORMALLY OPEN
NOM.	NOMINAL
NPT	NATIONAL PIPE THREAD
NPW	NON-POTABLE WATER
N.R.S.	NON-RISING STEM
N.S.	NEAR SIDE
N.T.S.	NOT TO SCALE
NW	NORTHWEST
NY.	NYLON TUBING

O	
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.D.P.	OPEN DRIP PROOF
O/E	OR EQUAL
O.F.	OUTSIDE FACE
O.H.	OVERHEAD
OPP.	OPPOSITE
OPT.	OPTIONAL
O.S.Y.	OUTSIDE SCREW AND YOKE

P	
PAVT	PAVEMENT
PC	POINT OF CURVATURE
P.C.M.	PERMANENT CONTROL MONUMENT
PE	POLYETHYLENE
P.E.	PLAIN END
P.E.J.M.	PREMOLDED EXPANSION JOINT MATERIAL
PEP	POLYETHYLENE PIPE
PF	POLYMER FEE
P.G.	PRESSURE GAUGE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PLAS.	PLASTIC/PLASTER
POLY.	POLYETHYLENE-LINED DUCTILE IRON
POB	POINT OF BEGINNING
P.O.J.	PUSH ON JOINT
P.P.	POWER POLE
P.P.D.	POUNDS PER DAY
PP	POLYPROPYLENE
PPM	PARTS PER MILLION
PRESS.	PRESSURE
PROP.	PROPOSED
PRT	PRESSURED TREATED
P.R.V.	PRESSURE REDUCING VALVE
P.S.	PUMP STATION
P.S.F.	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PT	POINT OF TAGENCY
P.V.	PLUG VALVE
PVC	POLYVINYL CHLORIDE - PIPE
PVMT.	PAVEMENT
PW	POTABLE WATER
PWL	PEAK WATER LEVEL
PWR	POWER

Q	
Q	FLOW RATE

R	
R	RADIUS
RAS	RETURN ACTIVATED SLUDGE
RBR.	RUBBER HOSE
R.C.	REINFORCED CONCRETE
R.C. BOX	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RCPA	REINFORCED CONCRETE PIPE ARCH
RD.	ROAD
R.DRN.	ROOF DRAIN

R	
RED.	REDUCER
REBAR	REINFORCING STEEL
REF.	REFERENCE
REINF.	REINFORCE/REINFORCED
RPMP	REINFORCED PLASTIC MORTAR PIPE
REM.	REMOVE/REMOVABLE
REQD.	REQUIRED
R.DRN	ROOF DRAIN
RIV.	RIVETED
R.J.	RESTRAINED JOINT
RM.	ROOM
RND.	ROUND
RPM	REVOLUTIONS PER MINUTE
R.R.	RAILROAD
R.S.	RESILIENT SEAT (VALVE)
R.T.	RIGHT
R.V.	RELIEF VALVE
R.W.	RIGHT OF WAY
R.W.L.	RAW WATER LINE

S	
S	SOUTH
SAN	SANITARY SEWER
SC	SCUM
S=	SLOPE (FT/FT)
SAN	SANITARY
SCHED.	SCHEDULE
SE	SOUTHEAST
SE	SECONDARY EFFLUENT
SER	SECONDARY EFFLUENT RETURN
SECT	SECTION
SF	SQUARE FOOT
SGL	SINGLE
SHLD.	SHOULDER
SHT.	SHEET/SHEETING
SIG.	SIGNAL
SIM.	SIMILAR
SLV.	SLEEVE
S.M.	SHEET METAL
SOFT	SOFT
SOL	SOLUTION
SOL.V.	SOLENOID VALVE
SP	SPACE
SPCG	SPACING
SPEC.	SPECIFICATION
SPRT.	SUPPORT
SQ	SQUARE
S.S.	SANITARY SEWER
S.STL	STAINLESS STEEL
ST.	STREET
STA.	STATION
STD.	STANDARD
STK.	STAKE
STL	STEEL
STL.P	STEEL PIPE
STR.	STRAIGHT
STRUCT.	STRUCTURAL
ST.S.	STORM SEWER
SURF.	SURFACE
SVC.	SERVICE
SW	SOUTHWEST
SYM.	SYMMETRICAL

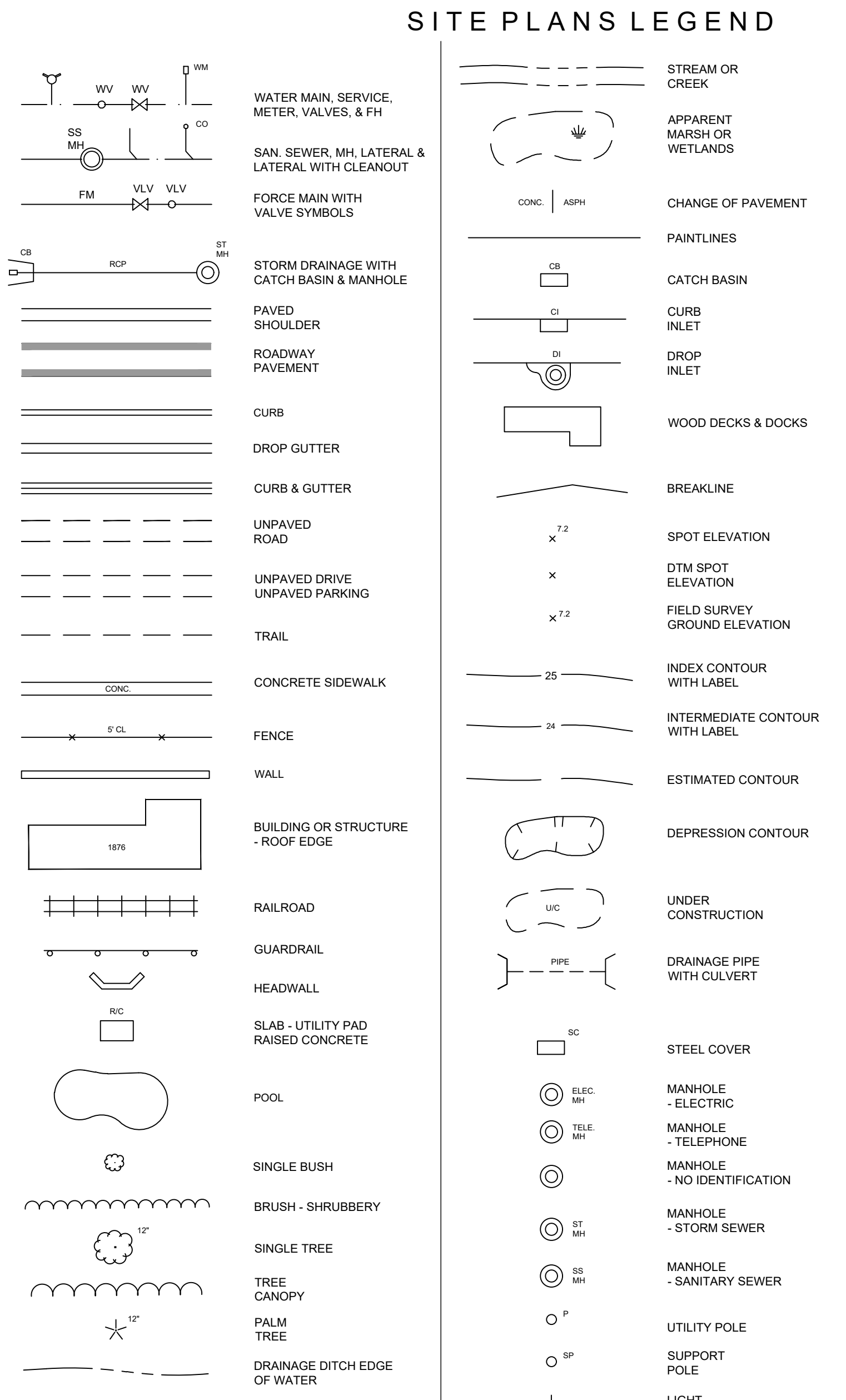
T	
TAN.	TANGENT
T & B	TOP & BOTTOM
T/B	TOP OF BEAM
T.B.M.	TEMPORARY BENCH MARK
T.E.	TOTALLY ENCLOSED
T.E.F.C.	TOTALLY ENCLOSED, FAN COOLED
TEL	TELEPHONE
TEMP.	TEMPORARY/TEMPERATURE
T.E.N.V.	TOTALLY ENCLOSED, NON-VENTILATED
THD.	THREAD/THREADED
THK.	THICK
TN.O.	TURNOUT
T.O.	TOP OF
T.O.B.	TOP OF BANK
T.O.C.	TOP OF CURB
T.O.S.	TOP OF SLAB
TOT.	TOTAL
T/P	TOP OF PIPE
T.P.	TELEPHONE POLE
TR	TREAD OF STAIR
T.R.A.	TIE ROD ASSEMBLY
TRANS.	TRANSFER
T.S.	TUBE STEEL
T.V.	TELEVISION
TYP.	TYPICAL

U	
U.D.	UNDERDRAIN
U.G.	UNDERGROUND
U.G.P.	UNDERGROUND POWER
ULT.	ULTIMATE
U.O.N.	UNLESS OTHERWISE NOTED
UP	UTILITY POLE
U.T.C.	UNDERGROUND TELEPHONE CABLE
UTIL.	UTILITY
UN.	UNION

V	
VAC.	VACUUM
VAR.	VARIABLE
VB	VALVE BOX
V.C.	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VEL	VELOCITY
VERT.	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VFC	VERTICAL POINT OF CURVATURE
VOL.	VOLUME
VTR	VENT THROUGH ROOF

W	
W	WEST
W/	WITH (COMBINED FORM)
WAS	WASTE ACTIVATED SLUDGE
W.C.	WATER CLOSET (TOILET)
W.C.O.	WALL CLEANOUT
W.F.	WIDE FLANGE
W.G.	WATER GAUGE
W.H.C.	WELDED HALF COUPLING
W.L.	WATER LINE
WM	WATER MAIN
W/O	WITHOUT
W.P.	WATER PROOF
WP-1	WEATHER PROTECTED-1
W.S.	WATER SURFACE
W.S.EL.	WATER SURFACE ELEVATION
WSP	WELDED STEEL PIPE
WT.	WEIGHT
WTP	WATER TREATMENT PLANT
W.W.F.	WELDED WIRE FABRIC
W.W.M.	WELDED WIRE MESH
WWTP	WASTEWATER TREATMENT PLANT

Y	
YD(S)	YARD(S)
YH	YARD HYDRANT
YR	YEAR



PIPING LEGEND

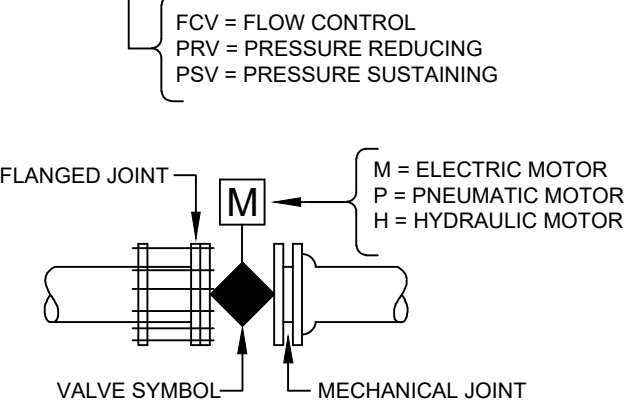
NOTE:
ALL MECHANICAL JOINT PIPING IN THIS PROJECT SHALL BE INSTALLED WITH "MEGA-LUG" TYPE JOINT RESTRAINT AT ALL PIPE JOINTS AND FITTINGS.

●	POST
○ FP	FLAG POLE
○ MB	MAIL BOX
○ A	ANCHOR, GUY
CH	OVERHANG
□	MINOR BUILDING, SHED
△	HORIZONTAL CONTROL POINT
△	HORIZONTAL CONTROL POINT
△	HORIZONTAL & VERTICAL CONTROL POINT
△	HORIZONTAL & VERTICAL CONTROL POINT
○	ROCK & BOULDERS PILES
TANK	SMALL TANKS
RAILROAD SWITCH	RAILROAD SWITCH
BUILDINGS UNDER CONSTRUCTION	BUILDINGS UNDER CONSTRUCTION
RUNS	RUINS
PIPE	ABOVE GROUND PIPE
R	RISER TYPE UNKNOWN
VP	VERTICAL PIPE
V	VALVE - TYPE UNKNOWN
WV	FIRE HYDRANT
WM	WATER VALVE
WM	WATER METER
SPK	SPRINKLER CONTROL VALVE
STP	STANDPIPE
PV	POST INDICATOR VALVE
SV	SEWER VALVE
CO	CLEAN OUT
GV	NATURAL GAS VALVE
GM	NATURAL GAS METER
UG GAS	UNDERGROUND GAS MARKER
FV	FUEL VALVE
FFC	FUEL FILLER CAP
MW	MONITOR WELL
VP	VENT PIPE
TELE	TELEPHONE BOOTH
PLB	TELEPHONE PULL BOX
UG TELE	UNDERGROUND TELEPHONE MARKER
TR	TELEPHONE RISER
TV	CABLE TV RISER
RWW	RECLAIMED WATER VALVE
IR	SURVEY MONUMENT - IRON REBAR
CM	SURVEY MONUMENT - CONCRETE POST
---	FIELD SURVEY - RIGHT OF WAY LINE

FLANGED	FLANGED
EXISTING PIPE	EXISTING PIPE
MECHANICAL JOINT	MECHANICAL JOINT
PROPOSED PIPE	PROPOSED PIPE
FLANGED JOINT	FLANGED JOINT
MECHANICAL JOINT	MECHANICAL JOINT
WELDED JOINT	WELDED JOINT
GROOVED END JOINT	GROOVED END JOINT
BELL & SPIGOT JOINT	BELL & SPIGOT JOINT
HUB & SPIGOT JOINT (RUBBER GASKET)	HUB & SPIGOT JOINT (RUBBER GASKET)
BALL JOINT	BALL JOINT
FLANGED ADAPTER COUPLING	FLANGED ADAPTER COUPLING
GROOVED ADAPTER FLANGE	GROOVED ADAPTER FLANGE
"DRESSER" COUPLING	"DRESSER" COUPLING
"DRESSER" COUPLING WITH THRUST TIES	"DRESSER" COUPLING WITH THRUST TIES
ELBOW UP (FLANGED)	ELBOW UP (FLANGED)
ELBOW DOWN (FLANGED)	ELBOW DOWN (FLANGED)
TEE UP (FLANGED)	TEE UP (FLANGED)
TEE DOWN (FLANGED)	TEE DOWN (FLANGED)
45° BEND UP (FLANGED)	45° BEND UP (FLANGED)
45° BEND DOWN (FLANGED)	45° BEND DOWN (FLANGED)
CONCENTRIC REDUCER (FLANGED)	CONCENTRIC REDUCER (FLANGED)
ECCENTRIC REDUCER (FLANGED)	ECCENTRIC REDUCER (FLANGED)
UNION	UNION

VALVE SYMBOLS

EXISTING	PROPOSED
PINCH	PINCH
GATE	GATE
BUTTERFLY	BUTTERFLY
PLUG	PLUG
CHECK	CHECK
IN-LINE PRESSURE RELIEF	IN-LINE PRESSURE RELIEF
NEEDLE	NEEDLE
DIAPHRAGM	DIAPHRAGM
SOLENOID	SOLENOID
BALL	BALL
CONTROL	CONTROL



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GARNSEY WTP GENERATOR
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Port Orange, FL 32119

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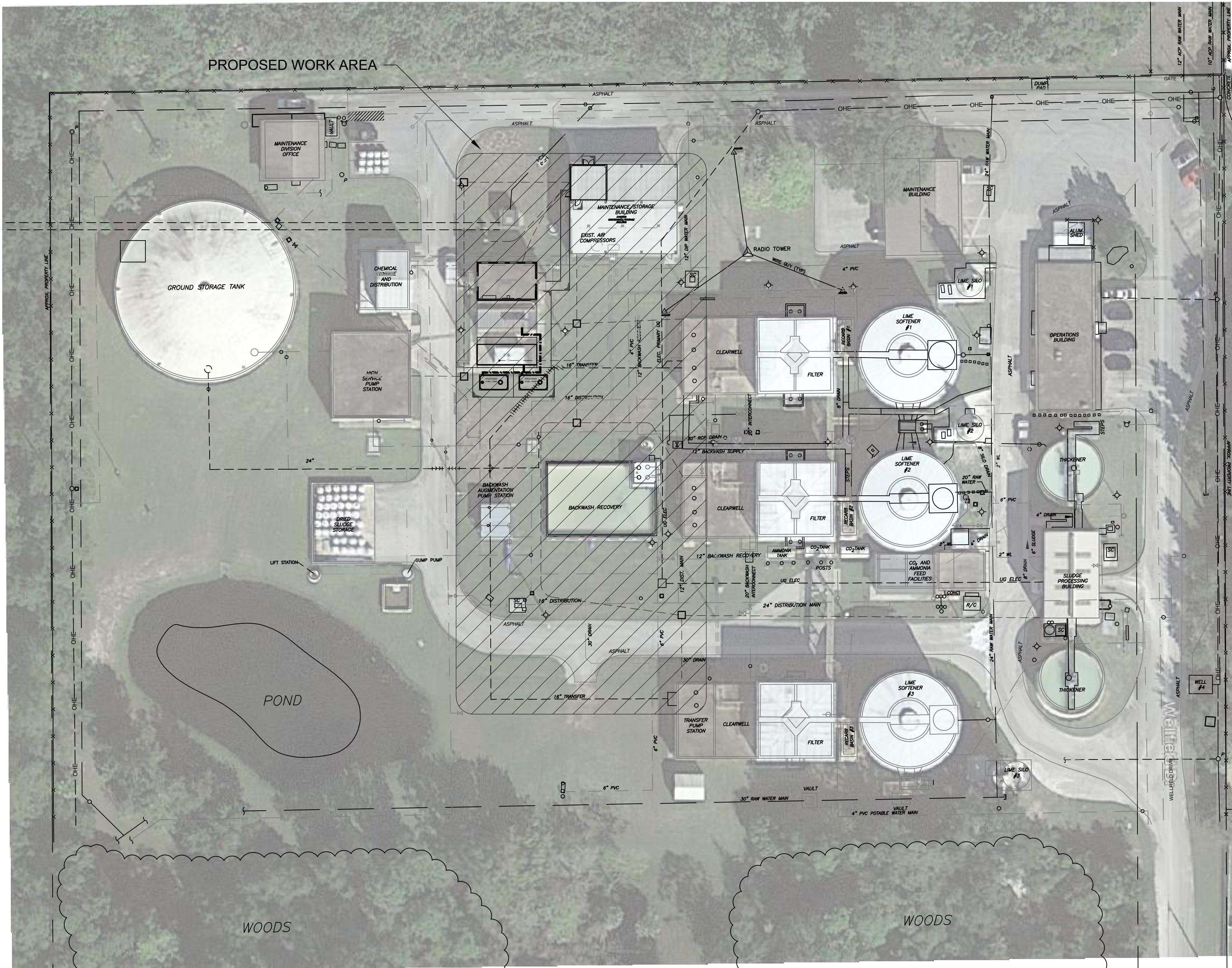
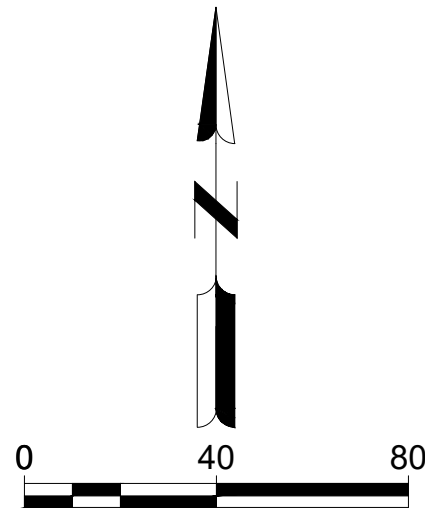
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**SHEET CONTENTS
LEGEND AND
ABBREVIATIONS**

SHEET NO.

G-002



PLAN NORTH
EXISTING SITE PLAN
1" = 40'

GENERAL PROJECT REQUIREMENTS

1. UTILITIES & STRUCTURES AS SHOWN ON PLANS HAVE BEEN LOCATED FROM AVAILABLE RECORDS, BUT IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THE LOCATION OF ALL UTILITIES AND STRUCTURES TO BE ENCOUNTERED IN THE WORK AREA AND TO AVOID CONFLICT WITH EXISTING FACILITIES PRIOR TO CONSTRUCTION.
2. THE OWNER SHALL NOT BE HELD RESPONSIBLE FOR INACCURACIES OR OMISSIONS IN THE LOCATION, ELEVATION AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER EXISTING FEATURES.
3. THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY UPON ANY CONFLICTS DURING CONSTRUCTION OF THE IMPROVEMENTS SHOWN ON THESE DRAWINGS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE TO, AND REPLACEMENT OF, EXISTING UTILITIES. REPLACEMENT SHALL BE TO THE COMPLETE SATISFACTION OF THE ENGINEER AND CITY. AT NO ADDITIONAL COST TO THE OWNER.
5. THE CONTRACTOR SHALL PRESERVE FROM DAMAGE ALL PROPERTY THAT IS IN THE VICINITY, OR IS IN ANY WAY AFFECTED BY THE WORK. THE REMOVAL OF OR DESTRUCTION OF PROPERTY WHICH IS NOT CALLED FOR BY THE PLANS, SHALL BE IMMEDIATELY RESTORED TO ITS ORIGINAL CONDITION BY THE CONTRACTOR AT NO COST TO THE OWNER.
6. THE CONTRACTOR SHALL PROVIDE FORTY-EIGHT (48) HOURS NOTICE TO THE VARIOUS UTILITY OWNERS PRIOR TO BEGINNING CONSTRUCTION.
7. ALL UTILITY OUTAGES SHALL BE COORDINATED WITH AND APPROVED BY THE SUPERINTENDENT OF THE DEPARTMENT AFFECTED, PRIOR TO OUTAGE.
8. THE CONTRACTOR SHALL CONDUCT HIS WORK AS TO INSURE LEAST POSSIBLE OBSTRUCTION TO TRAFFIC, AND INCONVENIENCE TO THE PLANT STAFF AND/OR THE RESIDENTS IN THE VICINITY OF THE WORK AND TO INSURE THE PROTECTION OF PERSONS AND PROPERTY. NO ROAD SHALL BE CLOSED TO THE PUBLIC EXCEPT WITH THE APPROVAL OF THE ENGINEER AND THE PROPER GOVERNMENTAL AUTHORITIES.
9. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR, REGISTERED IN THE STATE OF FLORIDA, TO REFERENCE AND RESTORE PROPERTY CORNERS AND LAND MARKERS WHICH MAY BE DISTURBED BY CONSTRUCTION AND TO ASSURE ACCURATE HORIZONTAL AND VERTICAL CONTROLS DURING CONSTRUCTION.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EFFECTIVE DRAINAGE AND EROSION CONTROL DURING CONSTRUCTION AND RESTORATION. TEMPORARY PROVISIONS SHALL BE MADE TO INSURE THE PROPER FUNCTIONING OF ALL SWALES, SEWER INLETS AND DRAINAGE DITCHES. CONTRACTOR SHALL SUBMIT SWPPP.
11. RIGHT-OF-WAY RESTORATION IS TO BE CONDUCTED CONCURRENTLY WITH CONSTRUCTION AS DIRECTED BY THE ENGINEERS. THE ENGINEER SHALL HAVE AUTHORITY TO SUSPEND CONSTRUCTION WORK WHEN RESTORATION IS NOT BEING ADEQUATELY PERFORMED ACCORDING TO THE CONTRACT DOCUMENTS OR BEST MANAGEMENT PRACTICES (BMP). ALL DISTURBED AREAS ARE TO BE RESTORED TO PRE-CONSTRUCTION OR BETTER CONDITION. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE SODDED TO MATCH EXISTING SPECIES AND VARIETY OF GRASS. NO SEEDING SHALL BE PERMITTED.
12. THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN ALL NECESSARY TRAFFIC CONTROL AND SAFETY DEVICES IN ACCORDANCE WITH THE "U.S. DEPARTMENT OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE LATEST "FLORIDA DEPARTMENT OF TRANSPORTATION ROAD DEPARTMENT STANDARDS."
13. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND THE CONTRACTOR'S EXPENSE TO PROVIDE THE ENGINEER WITH CERTIFIED "AS-BUILT" DRAWINGS OF FINISHED CONSTRUCTION AS A REQUIREMENT FOR FINAL PAYMENT. DRAWINGS SHALL CONTAIN SPECIFIC LOCATION OF ALL WATER MAINS, FORCE MAINS AND RECLAIMED WATER MAINS, VALVES AND SERVICE WITHIN THE CONSTRUCTION AREA. "AS-BUILT" DRAWINGS ARE ALSO TO INCLUDE ELECTRICAL, INSTRUMENTATION, AND CONTROLS INFORMATION.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER APPLICATION OF THRUST RESTRAINT SYSTEM TO PREVENT MOVEMENT OF PRESSURIZED PIPE AND FITTINGS.
15. NO FLANGED PIPE SHALL BE INSTALLED UNDERGROUND UNLESS SPECIFICALLY NOTED ON PLAN OR IN SPECIFICATIONS.
16. PIPE BEDDING SHALL BE CLASS I SOIL COMPACTED IN 6" LAYERS TO A HEIGHT OF 18" ABOVE PIPE, 12" LAYERS ARE ACCEPTABLE FROM 18" ABOVE PIPE TO FINISH GRADE, COMPACTED TO 98% OF MODIFIED PROCTOR DENSITY. (AASHTO-T-18) PIPE TO BE LAID OF FIRM FOUNDATION.
17. COMPACTION TEST TO BE TAKEN AT POINTS ONE (1) FOOT ABOVE PIPE AND ONE (1) FOOT VERTICAL INTERVALS TO FINISH GRADE AND AT HORIZONTAL SPACING OF THREE HUNDRED (300) FEET BY A CERTIFIED THIRD PARTY INSPECTOR, ACCORDING TO THE F.B.C.
18. ADEQUATE EXCAVATION, SHEETING, SHORING AND BRACING SHALL BE PROVIDED AND SHALL CONFORM TO CONSTRUCTION REQUIREMENTS AS SET FORTH BY THE FEDERAL DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
19. PROVISIONS FOR DEWATERING SHALL BE MADE TO KEEP GROUNDWATER ELEVATION A MINIMUM OF 6" BELOW THE PIPE BEING INSTALLED.
20. LENGTHS OF PIPE ARE APPROXIMATE ONLY AND EXACT LENGTHS ARE TO BE DETERMINED IN THE FIELD.
21. PAVEMENT OVERLAY PRICING SHALL INCLUDE VALVE BOX AND MANHOLE ADJUSTMENT AND PAVEMENT RESTRIPIING.
22. CONTRACTOR SHALL CALL FOR UTILITY LOCATES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. ALL CITY LOCATES SHALL BE THROUGH THE ENGINEER'S REPRESENTATIVE.
23. IN AREAS WHERE PIPELINE INSTALLATION WILL DISTURB EXISTING SWALES, ELEVATIONS WILL BE REQUIRED AT 50 FT. INTERVALS AT LEAST 2 WEEKS PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE SURVEYS WILL BE BY A FLA. REGISTERED SURVEYOR AND ARE SUBJECT TO APPROVAL BY THE ENGINEER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
24. ACCESS FOR POSTAL SERVICE AND SOLID WASTE COLLECTORS SHALL BE CONTINUOUSLY PROVIDED, SECURED AND MAINTAINED DURING PROJECT.
25. IF ANY MUCK OR MUCK-LIKE MATERIAL IS DISCOVERED, IT WILL BE REQUIRED TO BE REMOVED, BACKFILLED WITH CLEAN FILL, COMPACTED, AND TESTED USING AASHTO T-180 MODIFIED PROCTOR METHOD.
26. PRIOR TO THE FILLING ON FUTURE ROADWAY AND LOT AREAS, THE REMOVAL OF ANY VEGETATION AND TOP SOIL MUST BE PERFORMED.
27. A SIGNED, SEALED, AND DATED LETTER FROM A SOILS ENGINEER OR ENGINEER OF RECORD CERTIFYING THAT THE AREAS TO BE FILLED HAVE BEEN STRIPPED OF ORGANIC MATERIAL MUST BE SUBMITTED TO THE OWNER PRIOR TO FILLING.
28. NO BURYING OF ANY ORGANIC MATERIALS IS PERMITTED.
29. ANY BURNING OF ANY MATERIALS ON-SITE MUST BE APPROVED AND PERMITTED BY THE FIRE MARSHALL. A PERMIT MUST BE OBTAINED ON A DAILY BASIS PRIOR TO THE DAY OF THE ANTICIPATED BURNING.
30. ALL FILLING TO BE PERFORMED IN ONE-FOOT LIFTS. THE COMPACTION REQUIREMENT IS 98% PER AASHTO T-180 FOR PAVED AREAS AND 95% FOR UNPAVED AREAS.
31. TEMPORARY FILL STOCKPILING IS NOT PERMITTED IN LIFTS GREATER THAN SIX FEET.
32. AT A MINIMUM, STOCKPILES THAT WILL REMAIN IN PLACE IN EXCESS OF 20 DAYS, SHOULD BE SEEDDED AND MULCHED IMMEDIATELY UPON PLACEMENT OF THE FINAL LIFT.
33. SOILS ARE TO BE STABILIZED BY WATER OR OTHER MEANS DURING CONSTRUCTION. THIS IS INTENDED TO REDUCE SOIL EROSION AND THE IMPACT TO NEIGHBORING COMMUNITIES. IN ACCORDANCE WITH THE S.W.P.P.P.
34. UPON COMPLETION OF EACH PORTION OF A PROJECT WITHIN A PHASE OF THE PROJECT, SODDING IS TO BE PERFORMED PRIOR TO COMMENCING THE NEXT PHASE.
35. ONCE AN AREA IS SODDED, IT MUST BE MAINTAINED AND PROTECTED TO ALLOW THE GRASS TO GROW.
36. CONTRACTOR SHALL BE REQUIRED TO COMPLETE UTILITY CONNECTIONS TO EXISTING FACILITIES THAT REQUIRE "SHUTDOWNS" DURING NIGHTTIME HOURS AFTER 11:00 P.M. AND TO COORDINATE SUCH WORK WITH THE OWNER.
37. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND PAYING ALL COST ASSOCIATED WITH TEMPORARY HOLDING OF UTILITY POLES. (EXISTING AND PROPOSED)
38. CONTRACTOR SHALL ALLOW FOR UP TO 3 WEEKS FOR REMOVAL OF EXISTING PRIVATE UTILITIES BY PRIVATE UTILITY COMPANIES. CONTRACTOR SHALL COORDINATE THIS WORK.

Mead & Hunt

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**CITY OF PORT ORANGE
GARNSEY WTP GENERATOR
INSTALLATION
4400 Wellfield Drive
Port Orange, FL 32119**

ISSUED		
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08/30/2021	90% DESIGN	
11/12/2021	100% DESIGN	

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SHEET CONTENTS
**OVERALL SITE PLAN -
GENERAL NOTES**

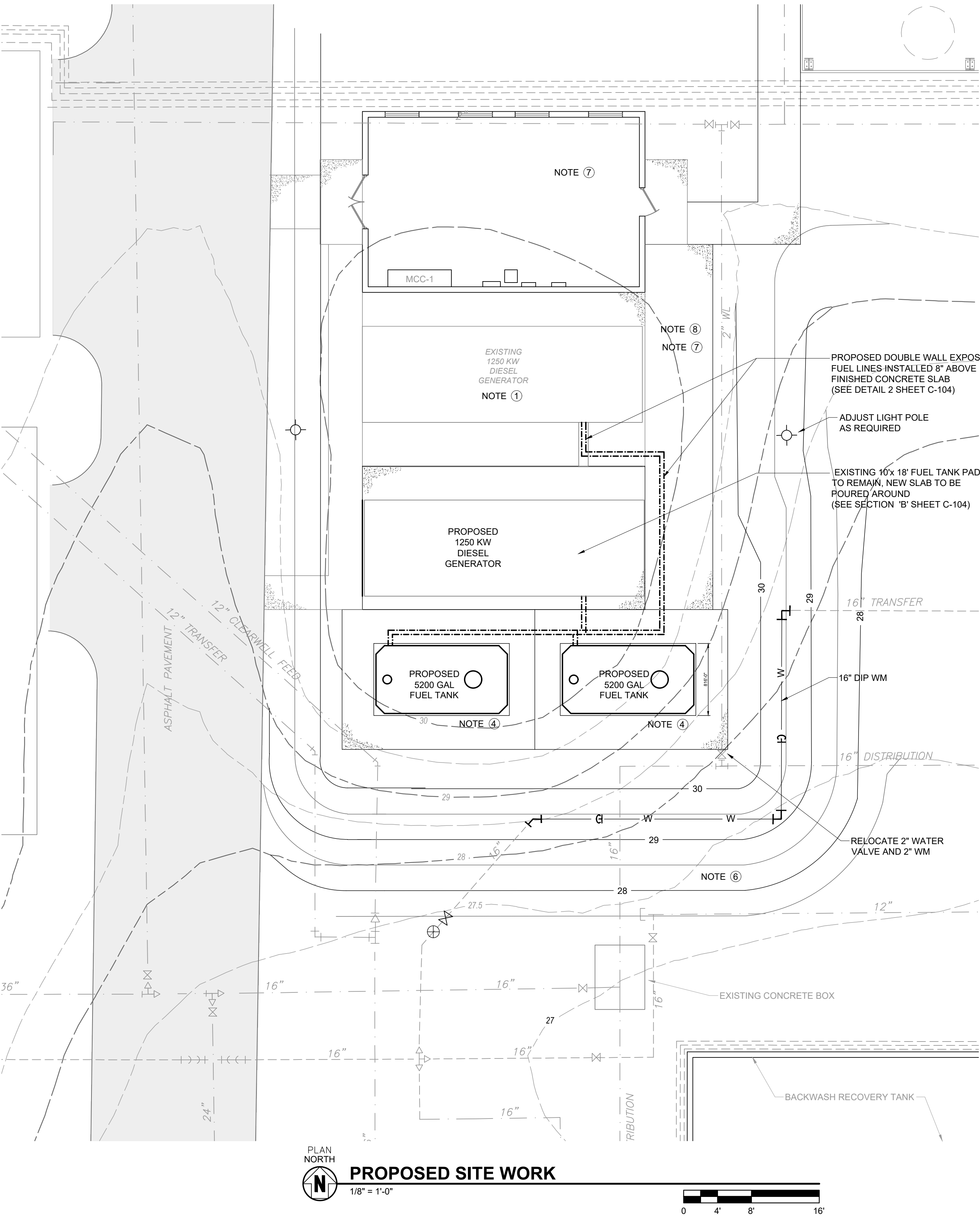
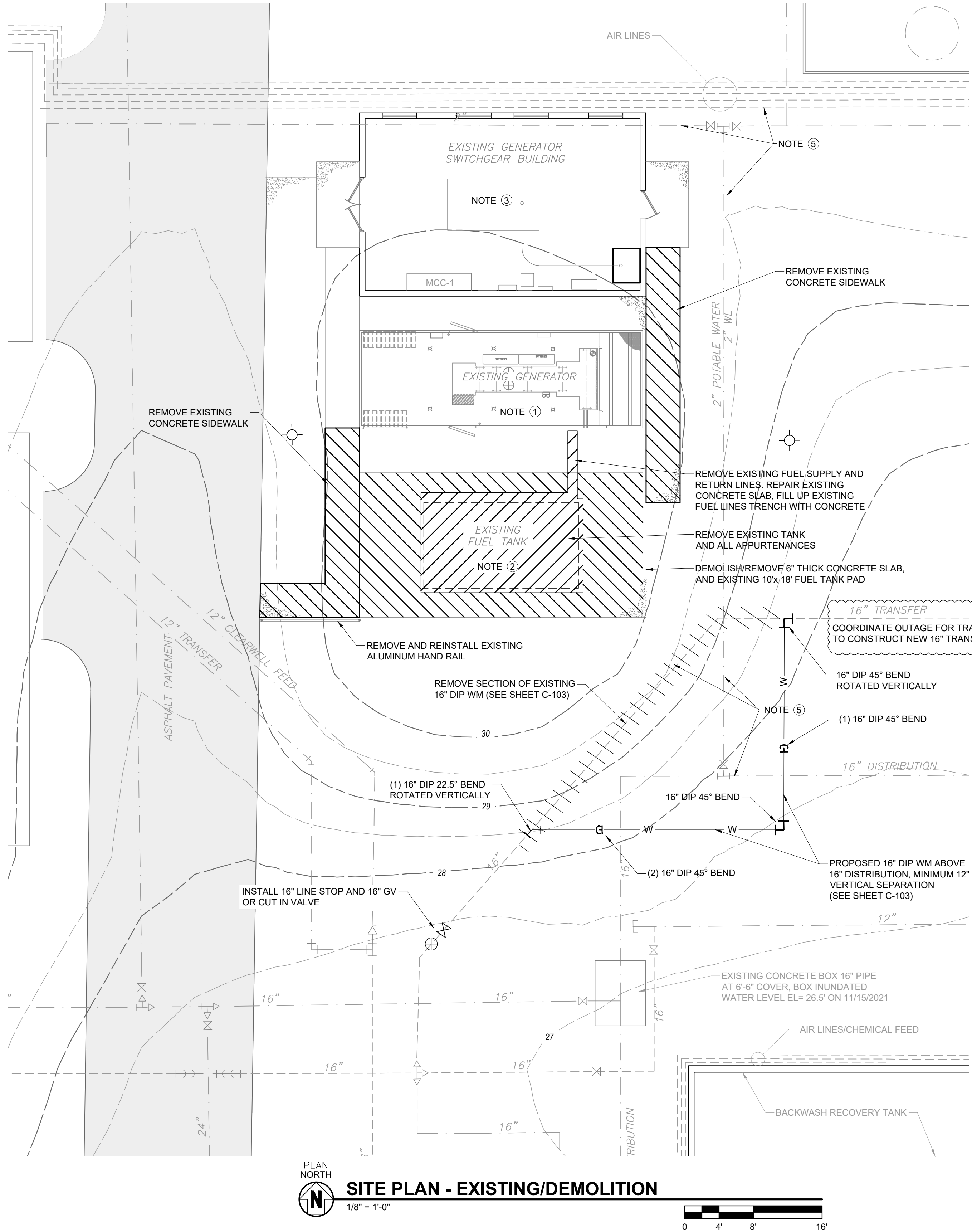
SHEET NO.

C-101

X:\1000715192311\01\TECH\DRAWINGS\C-103 GENERATOR SITE - DEMOLITION & PROPOSED SITE WORK.DWG
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CONSTRUCTION NOTES:

1. GENERATOR TO REMAIN IN SERVICE THROUGHOUT PROJECT.
2. CONSTRUCT NEW GENERATOR AND ENCLOSURE CONCRETE PAD, SEE DETAIL ON SHEET C-104.
3. EXISTING GENERATOR SWITCHGEAR TO BE REPLACED AND RELOCATED TO 'NEW' SWITCHGEAR/ELECTRICAL ROOM TO BE CONSTRUCTED WITHIN THE ENVELOP OF EXISTING MAINTENANCE AND STORAGE BUILDING.
4. CONSTRUCT NEW SLABS FOR PROPOSED NEW FUEL TANKS. INSTALL CONTINUOUS 1/2" ASPHALT EXPANSION JOINT MATERIAL. HOLD TOP @ 2" BELOW SLAB FINISHED SURFACE SEAL WITH VULKEN 45 SEALANT.
5. HAND EXCAVATE AND VERIFY LOCATION OF EXISTING UTILITIES TO DETERMINE REQUISITE RELOCATION OR ADJUSTMENTS.
6. ADJUST GRADES IN ACCORDANCE WITH PROPOSED GRADING PLAN. PLACE AND COMPACT FILL IN 6" LIFTS. SOD ALL DISTURBED AREAS WITH BAHIA GRASS.
7. EXISTING SWITCHGEAR AND TRANSFER EQUIPMENT TO BE REMOVED AND TURNED OVER TO OWNER. EXISTING SPACE TO BE USED FOR DIESEL EXHAUST FLUID (DEF) STORAGE AND TRANSFER.
8. CONSTRUCT NEW 8 FT WIDE SIDEWALK.



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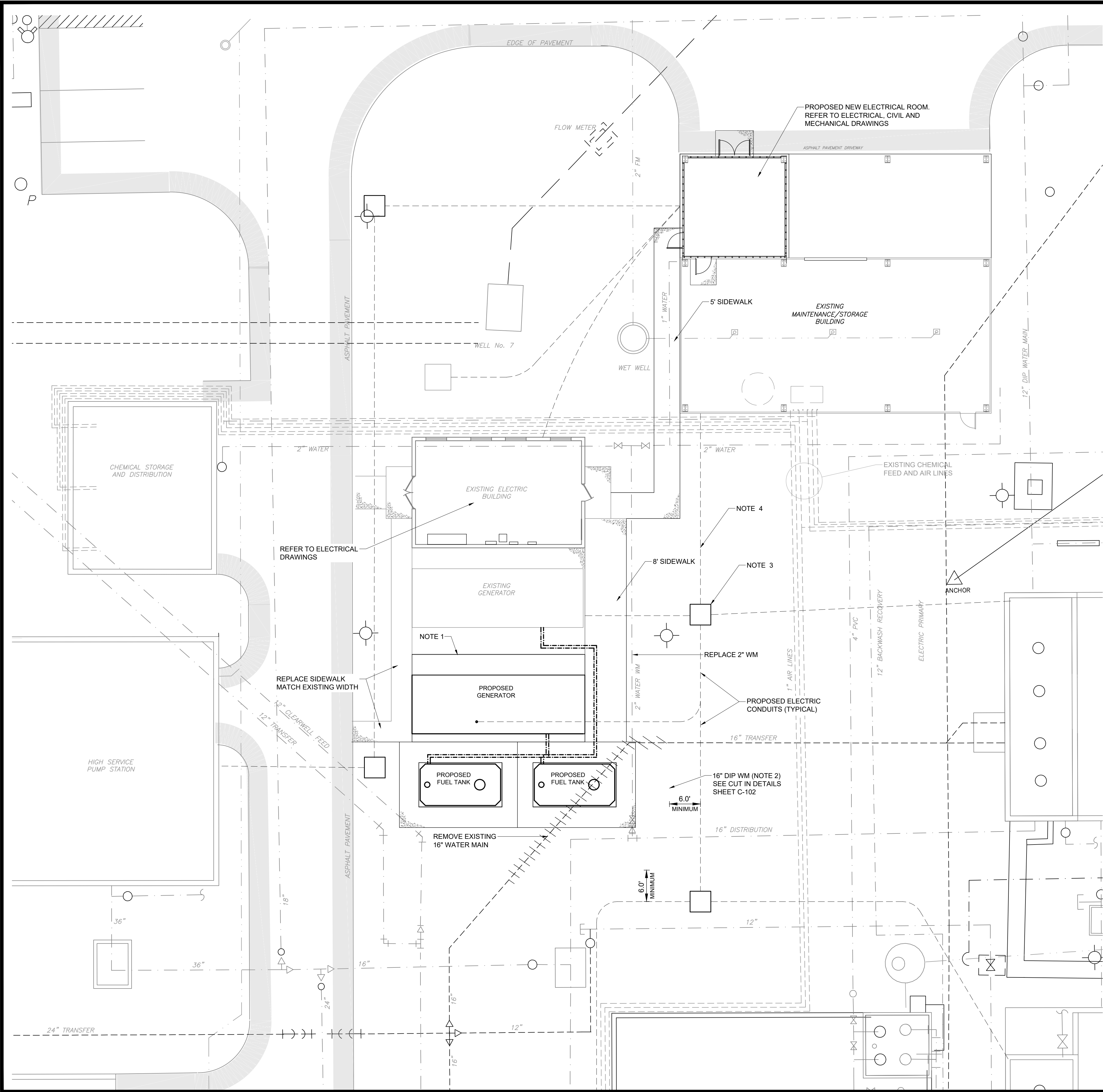
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SHEET CONTENTS
GENERATOR SITE -
DEMOLITION &
PROPOSED SITE WORK

SHEET NO.

C-102

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ENLARGED PROJECT AREA

1" = 10'

NOTES:

1. MATCH EXISTING SLAB GRADE.
2. DIVERT EXISTING 16" TRANSFER MAIN AS REQUIRED.
3. 4x 4x 4" POLYMER CONCRETE ELECTRICAL PULL BOX.
4. ELECTRICAL CONDUITS AND PULL BOXES LAYOUT SUBJECT TO FIELD INVESTIGATION OF EXISTING UTILITIES.
5. A BID ITEM IS ESTABLISHED IN THE SCHEDULE OF VALUES FOR EXPOSING THE SITE EXISTING ELECTRICAL U/G UTILITIES AND ESTABLISHING A CLEAR CORRIDOR FOR ELECTRICAL DUCT BANKS. THE CONTRACTOR SHALL ASSUME, FOR BIDDING PURPOSES, THAT EXISTING TRANSFER AND DISTRIBUTION PIPING IS 3'-6" DEEP AND NEW DUCT BANK WILL BE INSTALLED BELOW EXISTING BURIED PIPING. SWEEPS WILL BE INSTALLED BELOW PROPOSED PULL BOXES TO ACCOMMODATE PROPOSED GRADE CHANGES.

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SHEET CONTENTS
PROPOSED SITE PLAN

SHEET NO.

C-103



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CITY OF PORT ORANGE GARNSEY WTP GENERATOR INSTALLATION 4400 Wellfield Drive Port Orange, FL 32119

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08/30/2021	90% DESIGN
11/12/2021	100% DESIGN

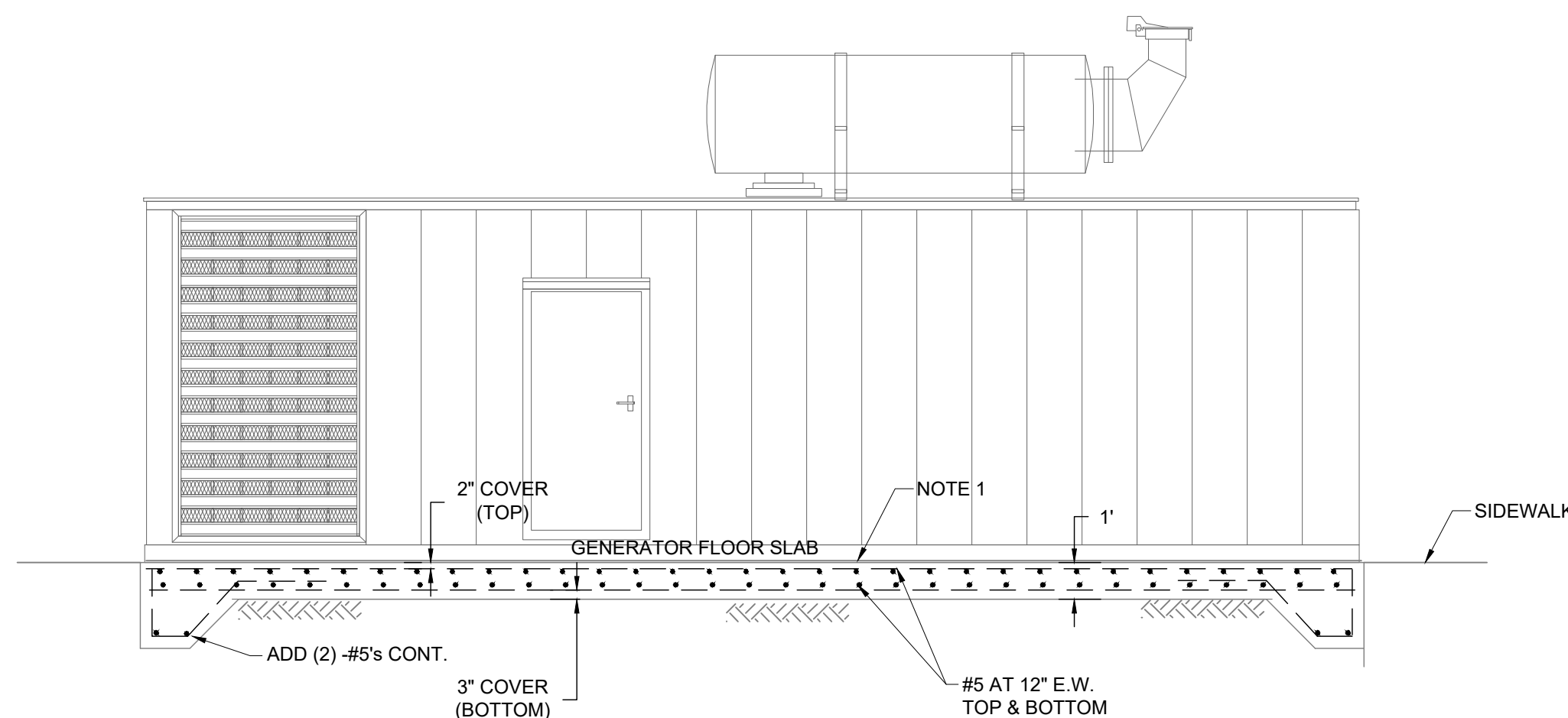
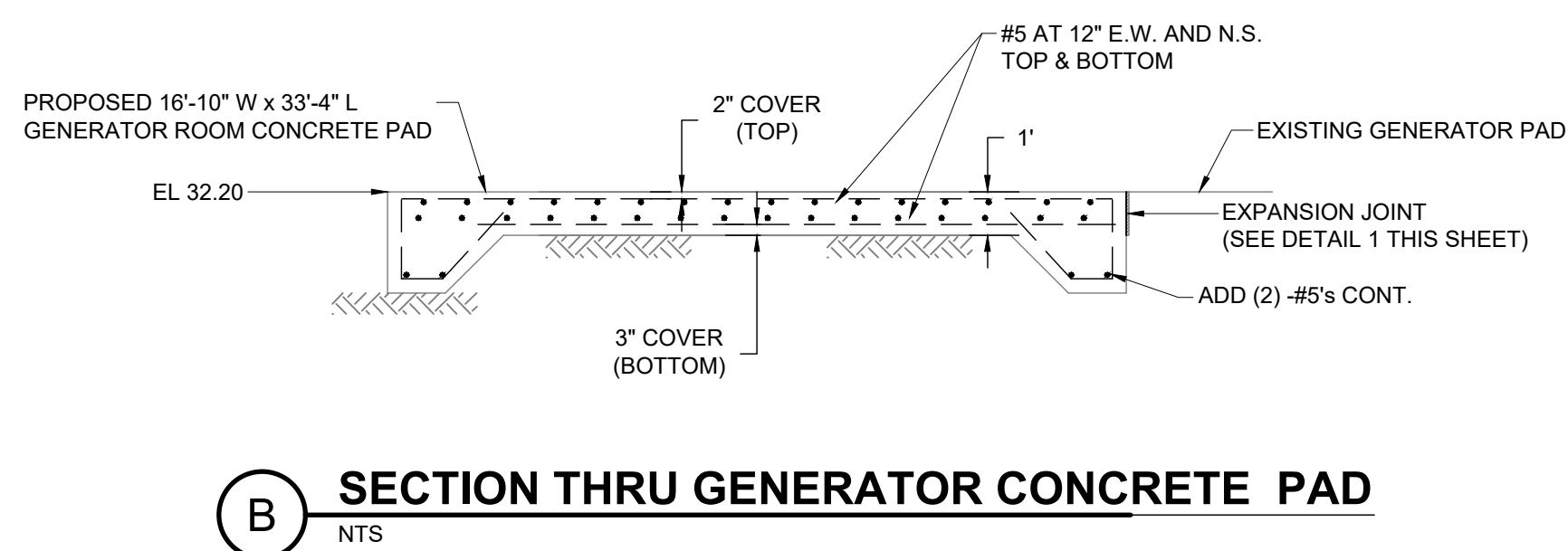
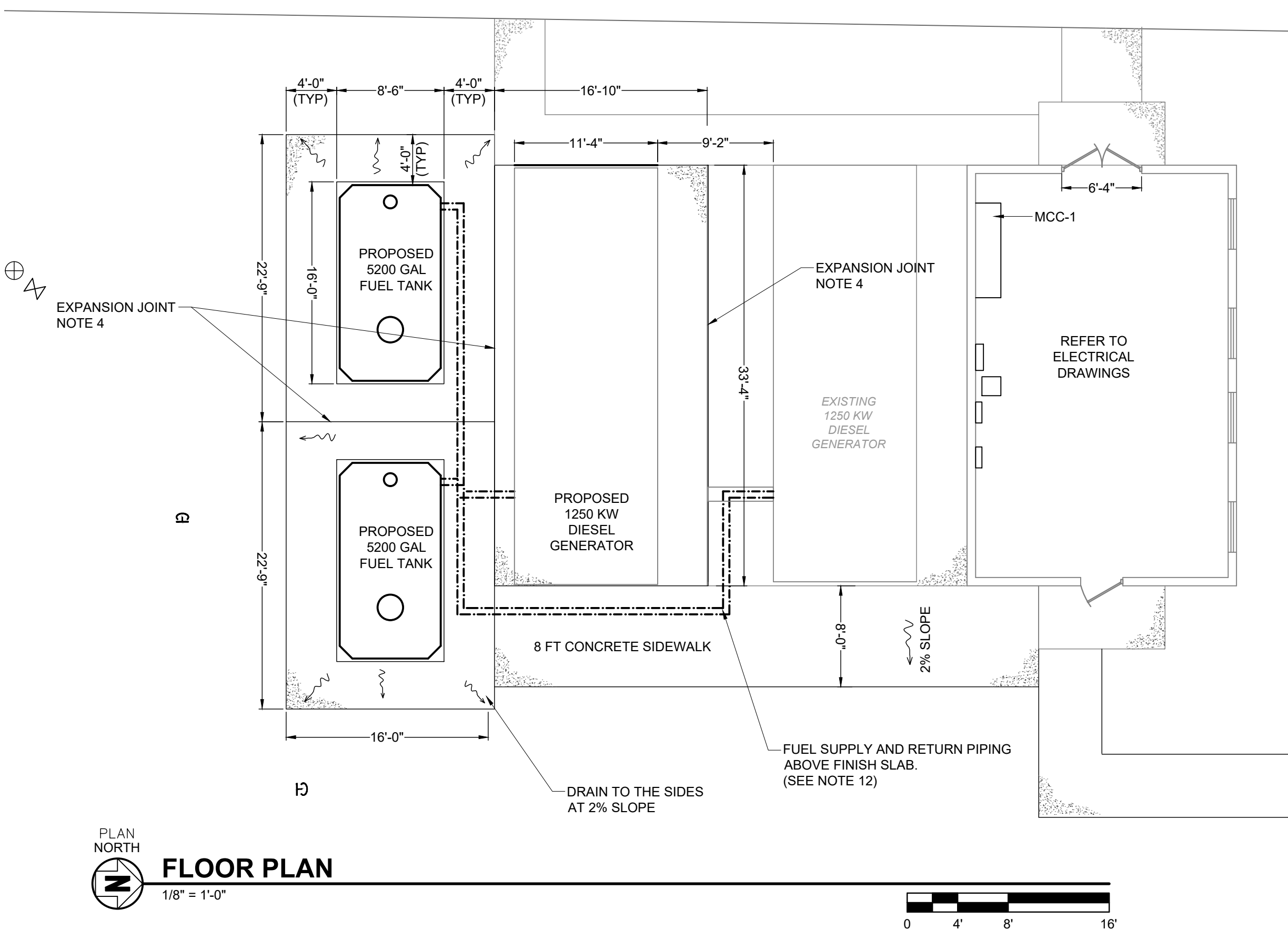
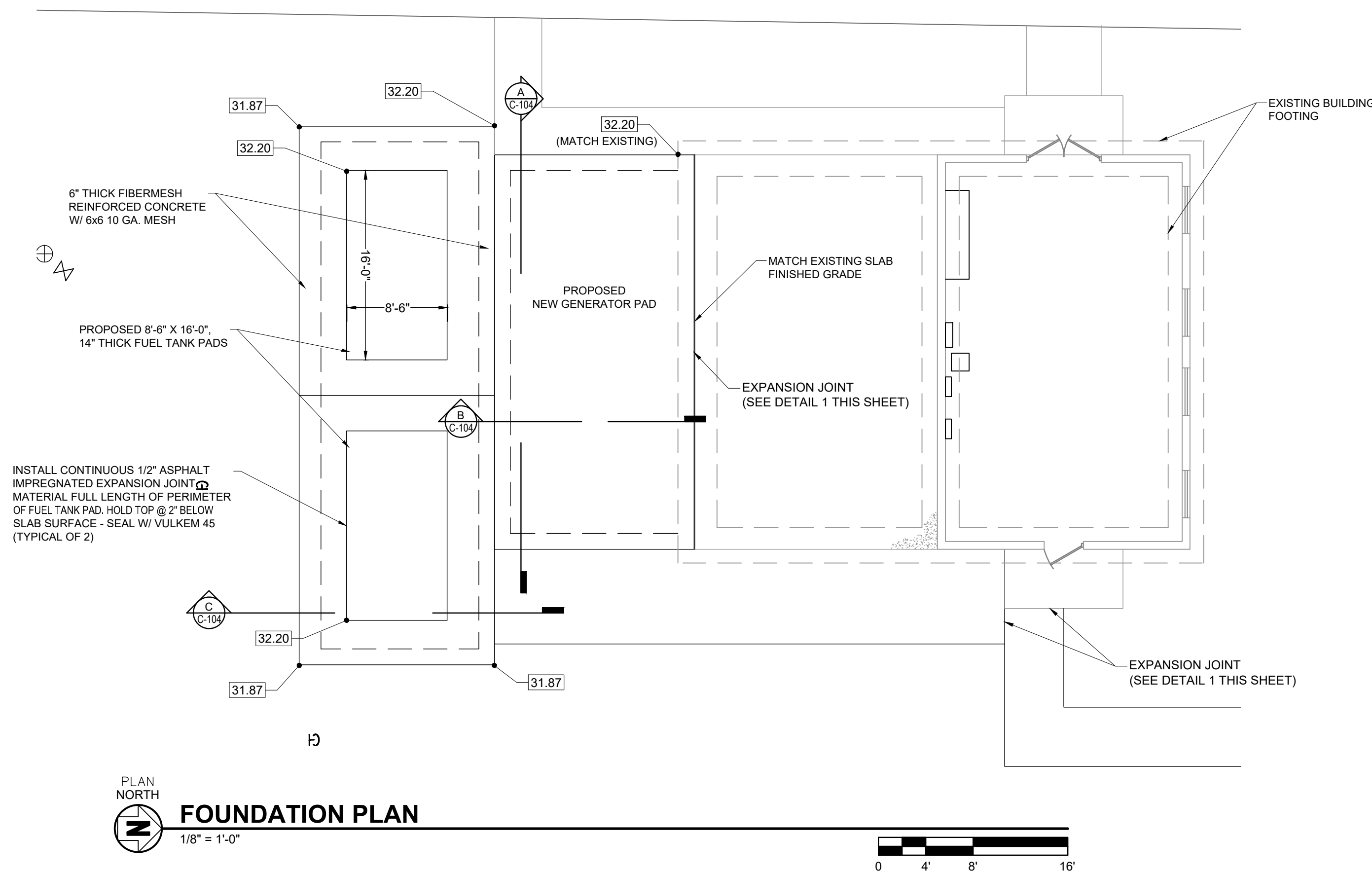
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SHEET CONTENTS GENERATOR SITE -DETAILS

SHEET NO.

C-104

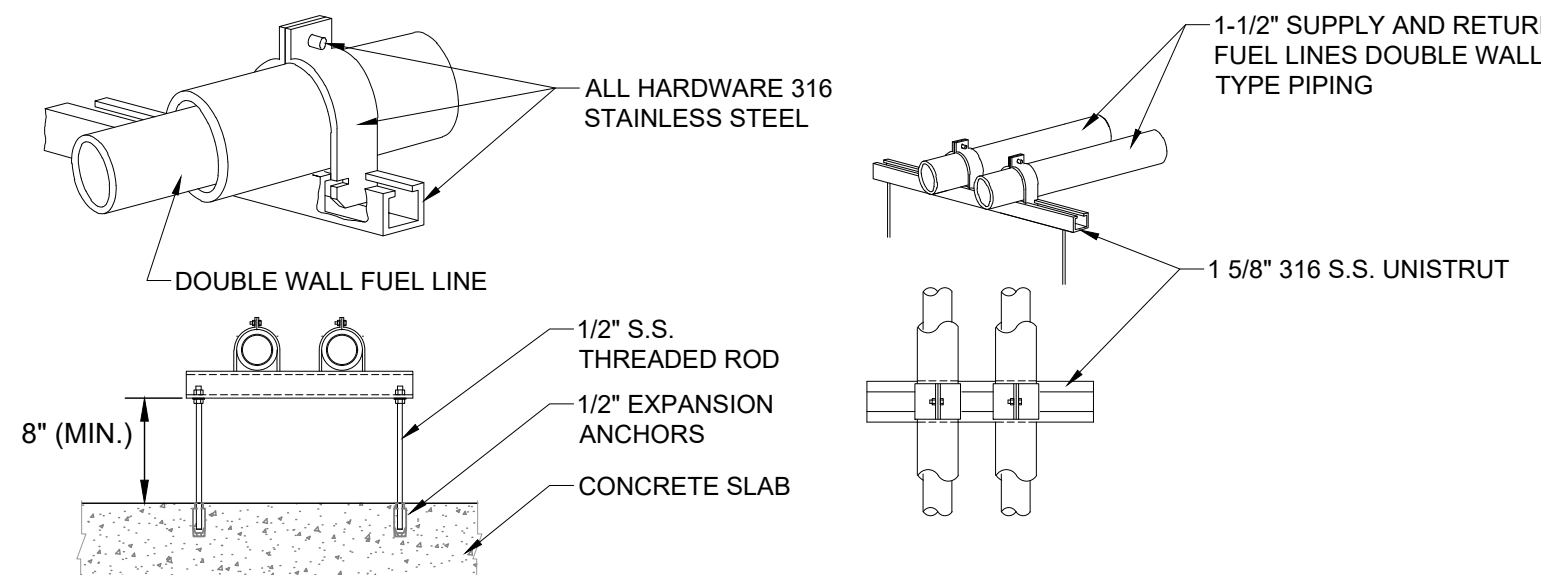
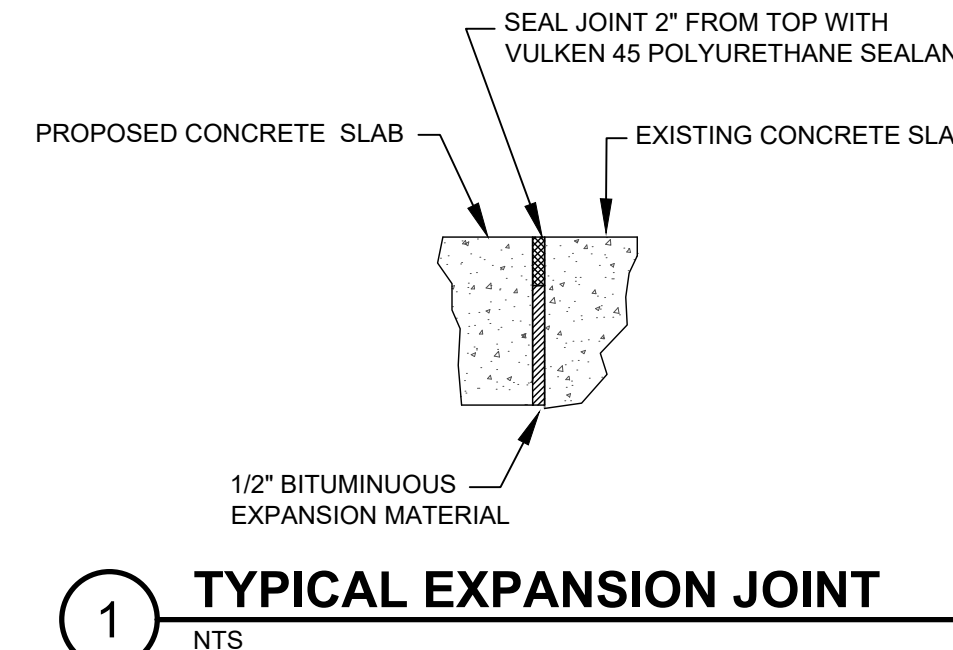
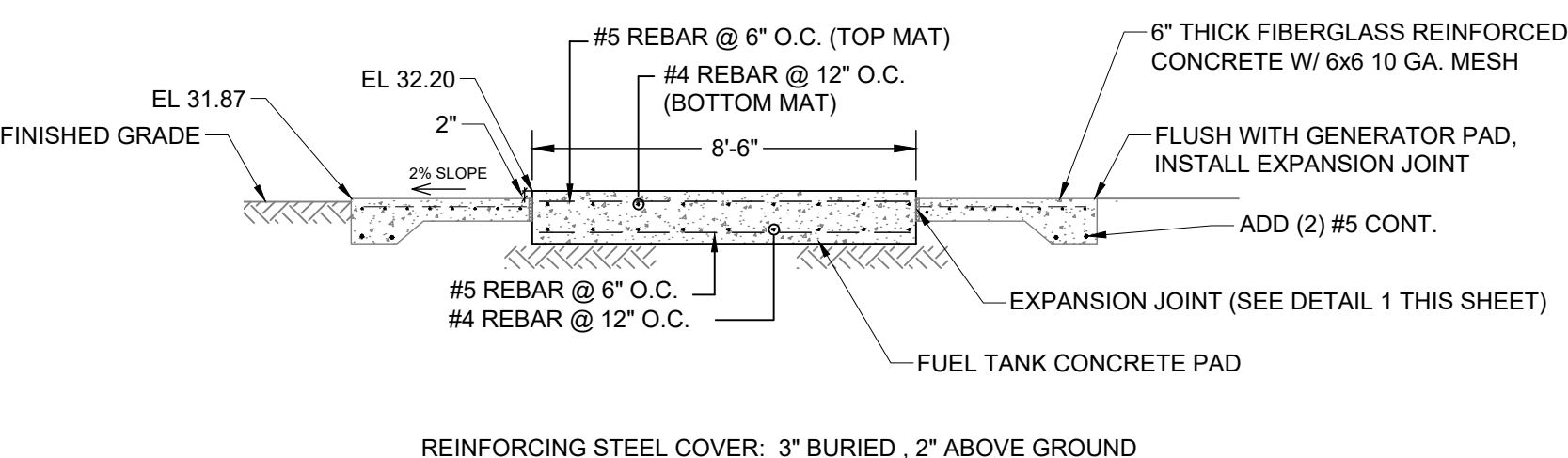


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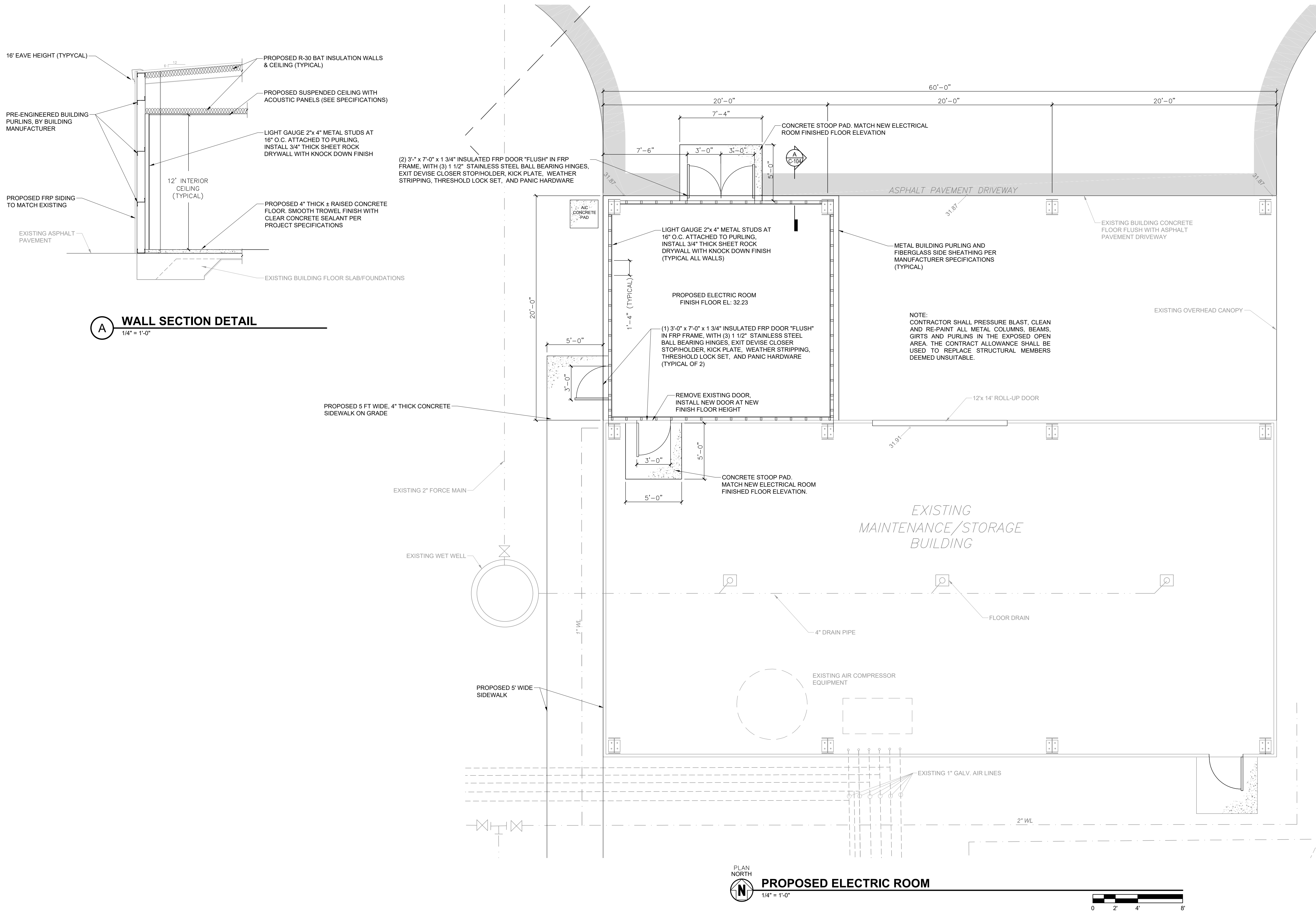
1. MATCH EXISTING SLAB GRADE.
2. FILL TO BE INSTALLED IN 6" LIFTS OVER CLEAN SUBGRADE.
3. ALL DISTURBED AREAS SHALL BE SODDED WITH BAHIA GRASS.
4. INSTALL CONTINUOUS 1/2" ASPHALT EXPANSION JOINT MATERIAL. HOLD TOP @ 1/2" BELOW SLAB FINISHED SURFACE, SEAL WITH VULKEN 45 SEALANT.

INSTALLATION NOTES:

1. ALL 90° BENDS IN EXHAUST SHALL HAVE RADII OF AT LEAST ONE AND ONE HALF TIMES THE PIPE DIAMETER.
2. PROVIDE EXHAUST PIPE SUPPORTS PER MANUFACTURER'S SPECS (SCH 40 PIPING).
3. COORDINATE ALL ROOF PENETRATIONS WITH PRECAST MANUF. AND ROOFING CONTRACTOR.
4. PROVIDE FLEXIBLE PIPE CONNECTION AT ENGINE EXHAUST OUTLET.
5. INSULATE MUFFLER & PIPE INSIDE GENERATOR ROOM W/ 3" THICK CALCIUM SILICATE INSULATION DOWN TO FLEX CONNECTION.
6. MAINTAIN MIN 9" CLEAR FROM COMBUSTIBLE MATERIALS.
7. SLOPE EXHAUST PIPE AWAY FROM MUFFLER AT 1/8" PER FOOT.
8. FUEL SUPPLY AND RETURN LINES TO BE DOUBLE WALL STYLE PIPING AND INSTALLED ABOVE FINISHED SLAB (SEE DETAIL 2 THIS SHEET).
9. WEATHER SEAL AROUND SHROUD WALL PENETRATION AND JOINTS FOR MINIMUM WATER PENETRATION.
10. INSTALLATION SHALL CONFORM TO ALL APPLICABLE NFPA CODES AND MANUFACTURER RECOMMENDATIONS.
11. CONTRACTOR TO COORDINATE GENERATOR AND FUEL TANK PAD SIZES WITH MANUFACTURER AND MINIMUM DISTANCES AS SHOWN ON THE DRAWINGS.
12. VALVE PIPING SUCH THAT EACH GENERATOR AND FUEL TANK CAN BE ISOLATED FROM EITHER FUEL TANK AND GENERATOR, WHILE MAINTAINING SYSTEM OPERATIONS.



X:\1000715\192311\01\TECH\CADD\DRAWINGS\C-103 GENERATOR SITE - DEMOLITION & PROPOSED SITE WORK.DWG
11/17/2021 9:21:51 AM



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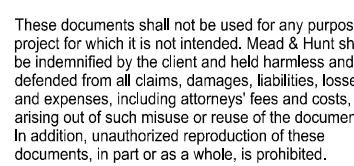
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SHEET CONTENTS
PROPOSED ELECTRIC
ROOM

SHEET NO.

C-105



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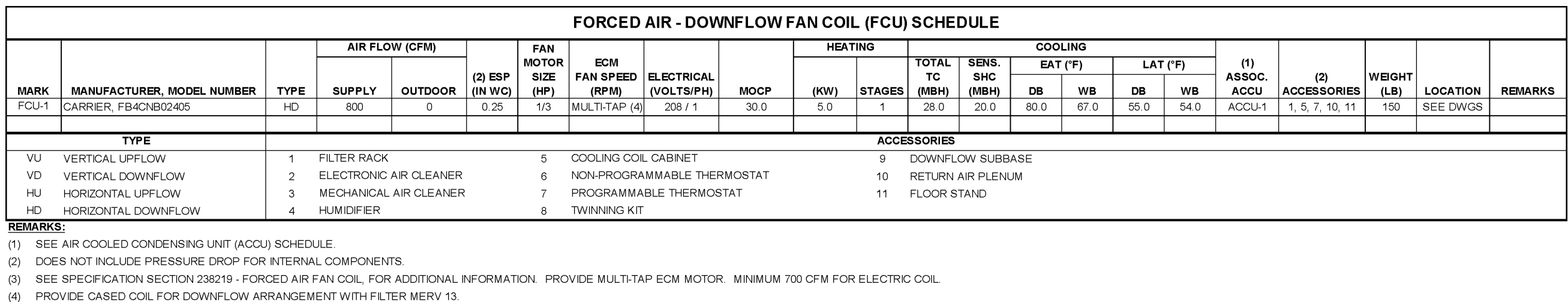
PLAN
NORTH

 **N**

 **1**

HVAC PLAN

$1/2" = 1'-0"$



ELECTRICAL SYMBOL SCHEDULE

LUMINAIRE SYMBOLS

	RECESSED LUMINAIRE
	RECESSED TROFFER
	RECESSED LINEAR
	SURFACE LUMINAIRE
	SURFACE LINEAR
	SURFACE COVE STRIP
	PENDANT LUMINAIRE
	PENDANT LINEAR
	PENDANT INDUSTRIAL
	TRACK (# INDICATES NUMBER TRACK HEADS)
	WALL BRACKET
	WALL SURFACE LINEAR
	WALL RECESSED LINEAR
	CEILING MOUNTED EXIT SIGN
	WALL MOUNTED EXIT SIGN
	ARROW DENOTES EXIT SIGN CHEVRON
	EMERGENCY BATTERY UNIT
	RECESSED EMERGENCY BATTERY UNIT
	WALL WASH MODIFIER
	EMERGENCY SHADING MODIFIER (PARTIAL OR FULL SHADE)
LUMINAIRE CIRCUITRY & CONTROL KEY:	
	LUMINAIRE TYPE
	LOWER CASE LETTER INDICATES SWITCHLEG CONTROL
	"R" INDICATES LIGHTING CONTROL PANEL REFER TO LIGHTING CONTROL PANEL SCHEDULE
	NUMBER INDICATES BRANCH PANEL CIRCUIT NUMBER

RACEWAYS SYMBOLS

	ABOVEGROUND CONDUIT
	UNDERGROUND CONDUIT
	CONCEALED CONDUIT IN CEILING OR WALL
	WIREWAY, SIZE AND TYPE AS INDICATED ON DRAWINGS
	CABLE TRAY, SIZE AND TYPE AS INDICATED ON DRAWINGS
	UNDERFLOOR DUCT
	JUNCTION BOX
	HANDHOLE
	MANHOLE

RECEPTACLE SYMBOLS

	DUPLEX RECEPTACLE TEXT INDICATES MOUNTING HEIGHT
	DOUBLE DUPLEX RECEPTACLE
	ABOVE COUNTER DUPLEX RECEPTACLE
	SIMPLEX RECEPTACLE
	SPLIT WIRED DUPLEX RECEPTACLE
	SPECIAL PURPOSE CONNECTION, SEE EQUIPMENT WIRING SCHEDULE
	FLOOR BOX
	POKE THRU
	CEILING MOUNTED DUPLEX RECEPTACLE
	CEILING MOUNTED DOUBLE DUPLEX RECEPTACLE
	SPECIAL PURPOSE RECEPTACLE, NEMA TYPE ON DRAWING
	CORD REEL

RECEPTACLE NOTATIONS:

a	DENOTES SWITCH LEG FOR SWITCHED OUTLETS
D	DENOTES DEDICATED OUTLETS
EW	DENOTES ELECTRIC WATER COOLER OUTLETS
GFCI	DENOTES GROUND FAULT INTERRUPTER OUTLETS
IG	DENOTES ISOLATED GROUND OUTLETS
H	DENOTES HORIZONTALLY MOUNTED OUTLETS
TR	DENOTES TAMPER RESISTANT SAFETY OUTLETS
USB	DENOTES COMBINATION DUPLEX/USB OUTLETS
WP	DENOTES WEATHER PROOF OUTLETS
X1	DENOTES EXPLOSION PROOF CLASS 1 DIVISION 1 OUTLETS
X2	DENOTES EXPLOSION PROOF CLASS 1 DIVISION 2 OUTLETS

SERVICE & DISTRIBUTION SYMBOLS

	UTILITY METER SOCKET
	SWBD-x SWITCHBOARD (x REPRESENTS SWITCHBOARD DESIGNATION)
	CUSTOMER METERING
	GENERATOR ANNUNICATOR PANEL
	EMERGENCY POWER OFF
	POWER FACTOR CORRECTION CAPACITOR
	ACTIVE HARMONIC FILTER
	GROUND ACCESS WELL
	GROUND ROD
	GROUND RECEPTACLE
	LIGHTNING ROD
	GROUNDING CONDUCTOR
	PAD MOUNTED SWITCH
	GENERAL LIGHTING AND POWER TRANSFORMER-DRY TYPE
	WALL MOUNTED LIGHTING AND POWER TRANSFORMER-DRY TYPE
	DISTRIBUTION TRANSFORMER FOR NON-LINEAR LOADS
	PLUG-IN BUS DUCT
	FEEDER BUS DUCT
	NEW PANELBOARD
	EXISTING PANELBOARD

SITE SYMBOLS

	GROUND MOUNTED LIGHT (ABOVE OR BELOW GRADE)
	ELECTRIC HANDHOLE
	HANDHOLE, GENERIC
	ELECTRIC MANHOLE
	ELECTRIC METER
	ELECTRIC SERVICE PANEL
	ELECTRIC TRANSFORMER
	ELECTRIC PEDESTAL BOX
	FLOOD LIGHT POLE
	BOLLARD LIGHT
	DOUBLE LIGHT POLE
	LIGHT POLE
	POWER POLE
	DOUBLE POWER POLE
	POWER POLE WITH LIGHT

MOTORS & MOTOR CONTROL SYMBOLS

	3 PHASE MOTOR CONNECTION
	1 PHASE MOTOR CONNECTION
	EQUIPMENT CONNECTION
	COMBINATION MAGNETIC MOTOR CONTROLLER
	MANUAL MOTOR CONTROLLER (3 PHASE)
	SOLID STATE MOTOR CONTROLLER
	VARIABLE FREQUENCY MOTOR CONTROLLER
	MAGNETIC MOTOR CONTROLLER
	NON-FUSED DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	DOUBLE THROW SWITCH
	FUSED SINGLE POLE SWITCH
	MOTOR RATED STARTER / DISCONNECT SWITCH
	PUSH BUTTON STATION
	MOTOR CONTROL CENTER

ABBREVIATIONS

ACCU	AIR COOLED CONDENSING UNIT
A/E	ARCHITECT/ENGINEER
AF	AMP FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
AT	AMP TRIP
ATS	AUTOMATIC TRANSFER SWITCH
C	CONDUIT
CF	CIRCULATION FAN
CHWP	CHILLED WATER PUMP
CP	CIRCULATION PUMP
CUH	CABINET UNIT HEATER
DH	DUCT HEATER
DPM	DIGITAL POWER METER
(E)	EXISTING
EL	EMERGENCY LIGHT
EMT	ELECTRICAL METALLIC TUBING
ETR	EXISTING TO REMAIN
EW	ELECTRICAL WATER COOLER
EW	ELECTRICAL WATER HEATER
FA	FIRE ALARM
FAF	FORCED AIR FURNACE
GFI	GROUND FAULT INTERRUPTER
GRS	GALVANIZED RIGID STEEL
GEC	GROUNDING ELECTRODE CONDUCTOR
HD	HAND DRYER
HP	HORSEPOWER
HVAC	HEATING, VENTILATION, AIR CONDITIONING
HWB	HOT WATER BOILER
HSP	HIGH SERVICE PUMP
IEWH	INSTANTANEOUS ELECTRIC WATER HEATER
IH	INFRARED HEATER
IMC	INTERMEDIATE METALLIC CONDUIT
KW	KILOWATT
MLO	MAIN LUG ONLY
MM	MULTI-MODE FIBER OPTIC CABLE
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MPR	MULTIFUNCTION PROTECTION RELAY
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
N/L	NIGHT LIGHT AND EMERGENCY LIGHT
NTS	NOT TO SCALE
PVC	POLYVINYL CHLORIDE
RCP	RADIATE CEILING PANEL
REQ'D	REQUIRED
RF	RETURN FAN
SF	SUPPLY FAN
SM	SINGLE-MODE FIBER OPTIC CABLE
SP	SUMP PUMP
SS	STAINLESS STEEL
TBR	TO BE REMOVED
TYP	TYPICAL
UC	UNIT COOLER
UG	UNDERGROUND
UH	UNIT HEATER
UNO	UNLESS NOTED OTHERWISE
VFD	VARIABLE FREQUENCY DRIVE
WFE	WELDING FUME EXTRACTOR
WL	WET LOCATION LISTED
WP	WEATHERPROOF
3R	NEMA 3R RATING
4X	NEMA 4X RATING

GENERAL NOTES:

- THE INFORMATION SHOWN IS BASED ON EXISTING DRAWINGS AND SITE OBSERVATIONS TO ASSIST CONTRACTOR IN BIDDING. THE ELECTRICAL DRAWINGS INDICATE EXISTING ELECTRICAL ITEMS TO BE REMOVED. THE DRAWINGS ARE INTENDED TO INDICATE THE SCOPE OF WORK REQUIRED AND DO NOT INDICATE EVERY BOX, CONDUIT, OR WIRE THAT MUST BE REMOVED. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID AND VERIFY EXISTING CONDITIONS. REFER TO SPECIFICATION SECTION 26 05 02 FOR ADDITIONAL REQUIREMENTS.
- ELECTRICAL ITEMS (i.e., LIGHTING FIXTURES, PANELBOARDS, DISCONNECTS, MOTOR CONTROLLERS, ETC.) REMOVED AND NOT RELOCATED REMAIN THE PROPERTY OF THE OWNER AND SHALL BE TURNED OVER TO THE OWNER IN A STORAGE AREA TO BE DESIGNATED BY THE OWNER. EQUIPMENT BEING REMOVED SHALL BE HANDLED SO AS NOT TO FURTHER REDUCE ITS VALUE TO THE OWNER. THE CONTRACTOR SHALL DISPOSE OF MATERIAL THE OWNER DOES NOT WANT TO REUSE OR RETAIN FOR MAINTENANCE PURPOSES.
- THIS CONTRACTOR SHALL COORDINATE ALL HIS WORK, INCLUDING PHASING WITH OTHER CONTRACTORS AT THE JOB SITE BEFORE REMOVING EXISTING ELECTRICAL AND INSTALLING NEW ITEMS.
- EXISTING CONDUIT IN GOOD CONDITION, MAY BE REUSED IN PLACE. RELOCATED EXISTING CONDUIT SHALL NOT BE ALLOWED. BONDING CONDUCTORS SHALL BE INSTALLED IN ALL REUSED CONDUIT TO ASSURE PROPER GROUND PATH.
- MAINTAIN CONTINUITY OF DEVICES LOCATED OUTSIDE OF CONSTRUCTION AREA. DEVICE AND EQUIPMENT REMOVAL IN CERTAIN LOCATIONS MAY REQUIRE THE INSTALLATION OF A JUNCTION BOX TO RECONNECT CIRCUITS THAT REMAIN IN OPERATION. EXTEND CONDUIT AND WIRING AS REQUIRED TO MAINTAIN POWER TO REMAINING EQUIPMENT.
- PROVIDE REVISED TYPED CIRCUIT DIRECTORY IN PANELBOARDS THAT HAVE CIRCUITS REMOVED OR ADDED CIRCUITS.
- REMOVE, RELOCATE, AND EXTEND EXISTING INSTALLATIONS TO ACCOMMODATE NEW CONSTRUCTION.
- REMOVE EXPOSED ABANDONED CONDUIT, INCLUDING ABANDONED CONDUIT ABOVE ACCESSIBLE CEILING FINISHES. CUT RACEWAY FLUSH WITH WALLS AND FLOORS, PATCH SURFACES TO MATCH EXISTING. REMOVE ALL ASSOCIATED CLAMPS, HANGERS, SUPPORTS, ETC. ASSOCIATED WITH RACEWAY REMOVAL.
- DO NOT SCALE DRAWINGS. USE GIVEN DIMENSIONS. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE PROJECT SITE PRIOR TO THE START OF CONSTRUCTION. WHERE SPECIFIC DIMENSIONS, DETAILS OR DESIGN INTENT CANNOT BE DETERMINED, CONSULT ENGINEER BEFORE PROCEEDING WITH THE WORK.
- THE SYMBOLS AND ABBREVIATIONS ON THIS SHEET IS A COMPREHENSIVE STANDARD GUIDE INTENDED FOR GENERAL USE ON ALL PROJECTS. NOT ALL THE SYMBOLS AND ABBREVIATIONS CONTAINED IN THE LIST ARE NECESSARILY USED ON THIS PARTICULAR PROJECT AND SHOULD BE USED FOR CLARIFICATION ONLY.
- CONTRACTOR SHALL VISIT THE SITE AND MAKE HIMSELF/HERSELF AWARE OF ALL EXISTING CONDITIONS PRIOR TO SUBMITTING A BID FOR THIS WORK.
- "PROVIDE" MEANS TO FURNISH AND INSTALL.
- COORDINATE ANY AND ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION IN ORDER TO AVOID CONFLICTS DURING CONSTRUCTION.
- WHERE JOB CONDITIONS REQUIRE CHANGES FROM THE CONTRACT DOCUMENTS THAT DO NOT CHANGE THE SCOPE OF INSTALLATION OR NATURE OF THE WORK REQUIRED, THE CONTRACTOR SHALL MAKE SUCH CHANGES WITHOUT ANY ADDITIONAL COST TO THE OWNER. NO OTHER CHANGES MAY BE MADE WITHOUT WRITTEN CONSENT FROM THE ENGINEER AND OWNER.
- MOUNTING HEIGHTS INDICATED ARE TO THE CENTER OF THE DEVICE UNLESS OTHERWISE NOTED.
- EQUIPMENT LOCATIONS SHOWN ARE APPROXIMATE. EXTEND CONDUIT AND WIRE TO INSTALLED LOCATIONS AT NO ADDITIONAL COST TO THE OWNER.
- ALL ELECTRICAL SYSTEMS SHALL BE COMPLETE AND OPERATIONAL UPON PROJECT COMPLETION.

Mead & Hunt

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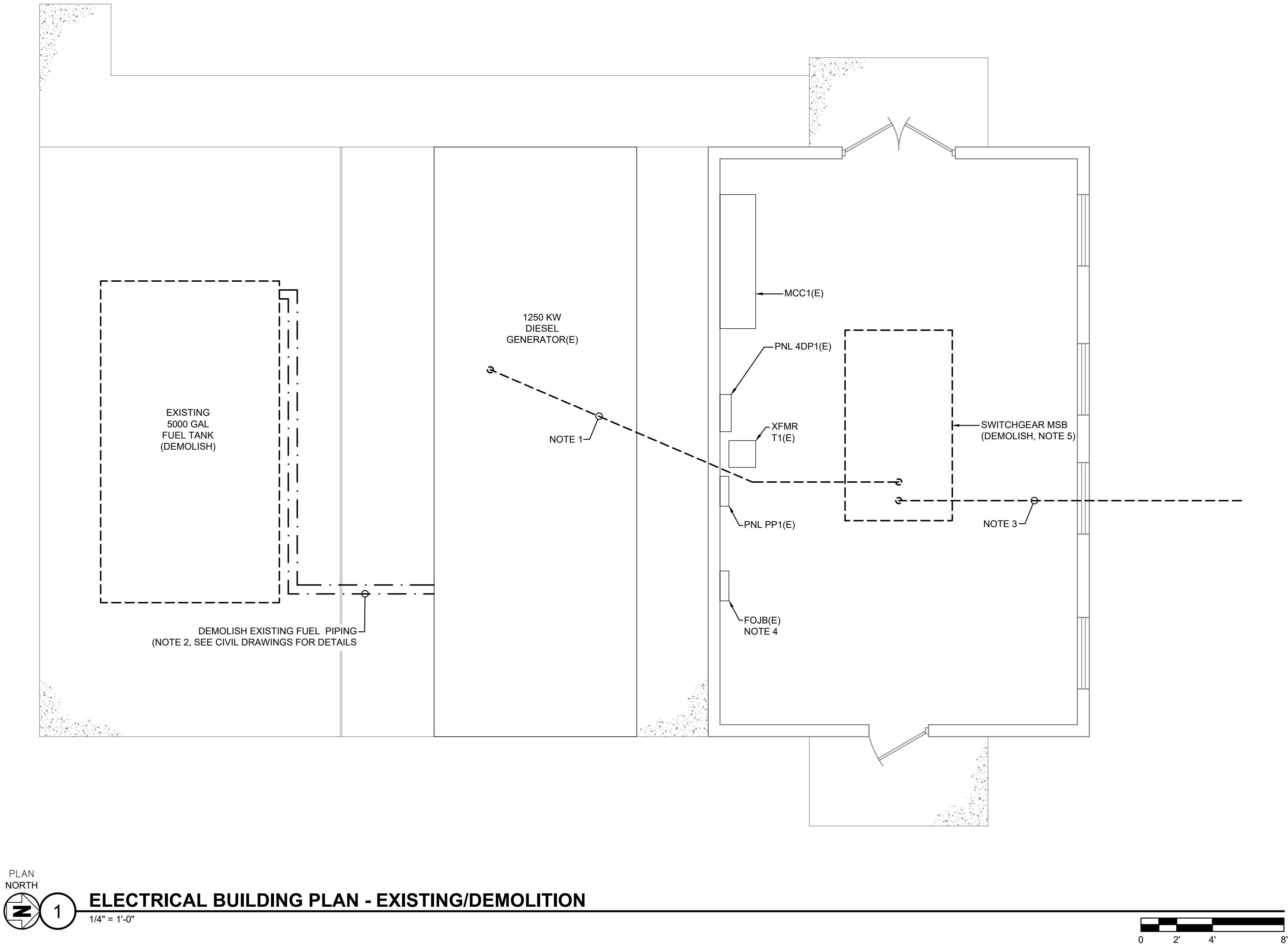
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SHEET CONTENTS
ELECTRICAL LEGEND
AND NOTES

SHEET NO.

E-001

X:\1000715\192311\01\TECH\CADD\DRAWINGS\ED101 ELECTRICAL DEMOLITION.DWG
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NOTES:

- EXISTING DISTRIBUTION FROM THE GENERATOR CIRCUIT BREAKER TO THE SWITCHGEAR MSB SHALL BE DEMOLISHED. REFER TO SINGLE LINE DIAGRAM ON SHEET E-701 FOR MORE INFORMATION. REMOVE EXISTING CABLING. RACEWAYS MAY BE ABANDONED BELOW GRADE.
- FILL IN EXISTING TRENCH ONCE PIPING IS REMOVED.
- DEMOLISH EXISTING SERVICE TO UTILITY TRANSFORMER. REMOVE EXISTING CABLING. RACEWAYS MAY BE ABANDONED BELOW GRADE.
- EXISTING FIBER OPTIC JUNCTION BOX. REFER TO SHEET E-101 FOR NEW WORK.
- OWNER HAS FIRST RIGHT OF REFUSAL TO SALVAGE EXISTING SWITCHGEAR AND/OR SPECIFIC COMPONENTS. CONTRACTOR TO COORDINATE WITH OWNER PRIOR TO REMOVAL AND DISPOSAL.

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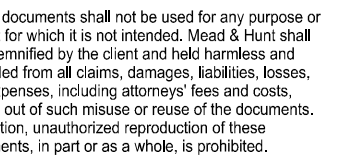
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SHEET CONTENTS
ELECTRICAL
DEMOLITION

SHEET NO.

ED101

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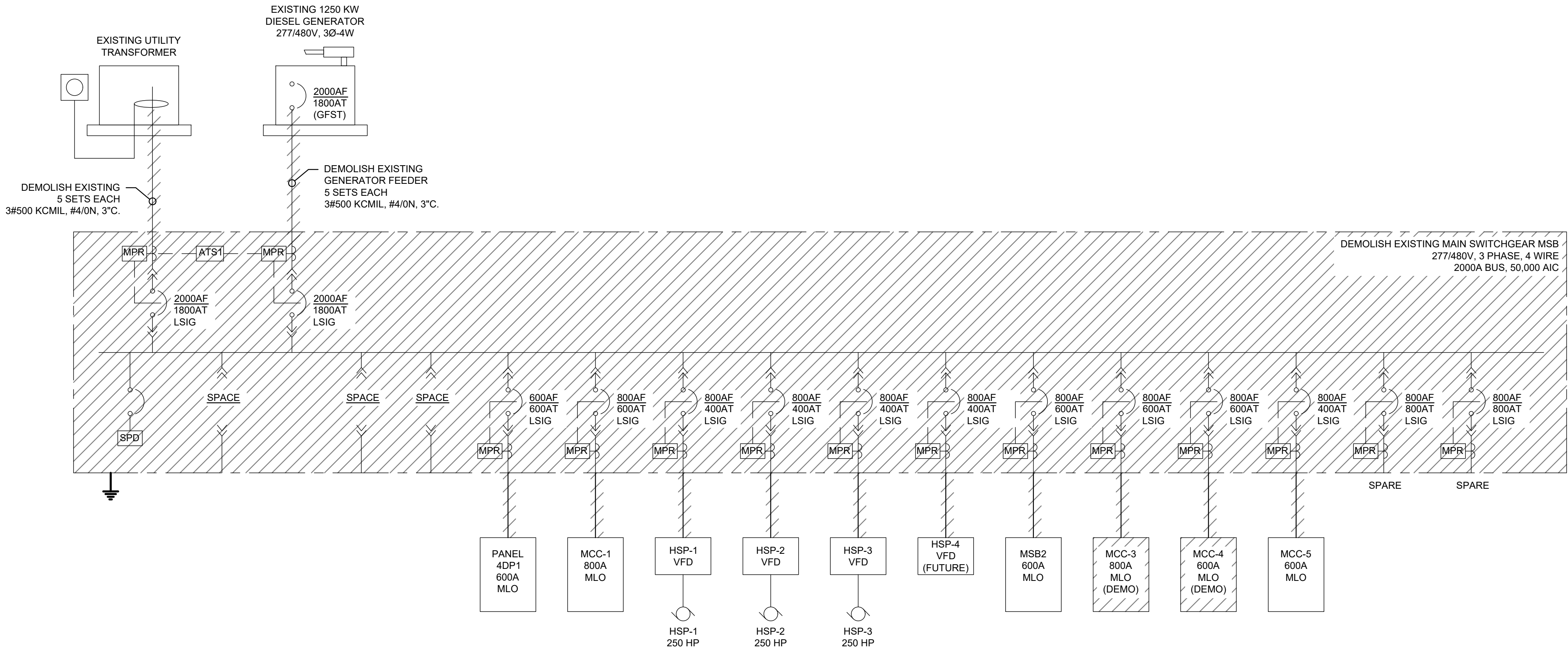
GLE LINE DIAGRAM

MOLITION

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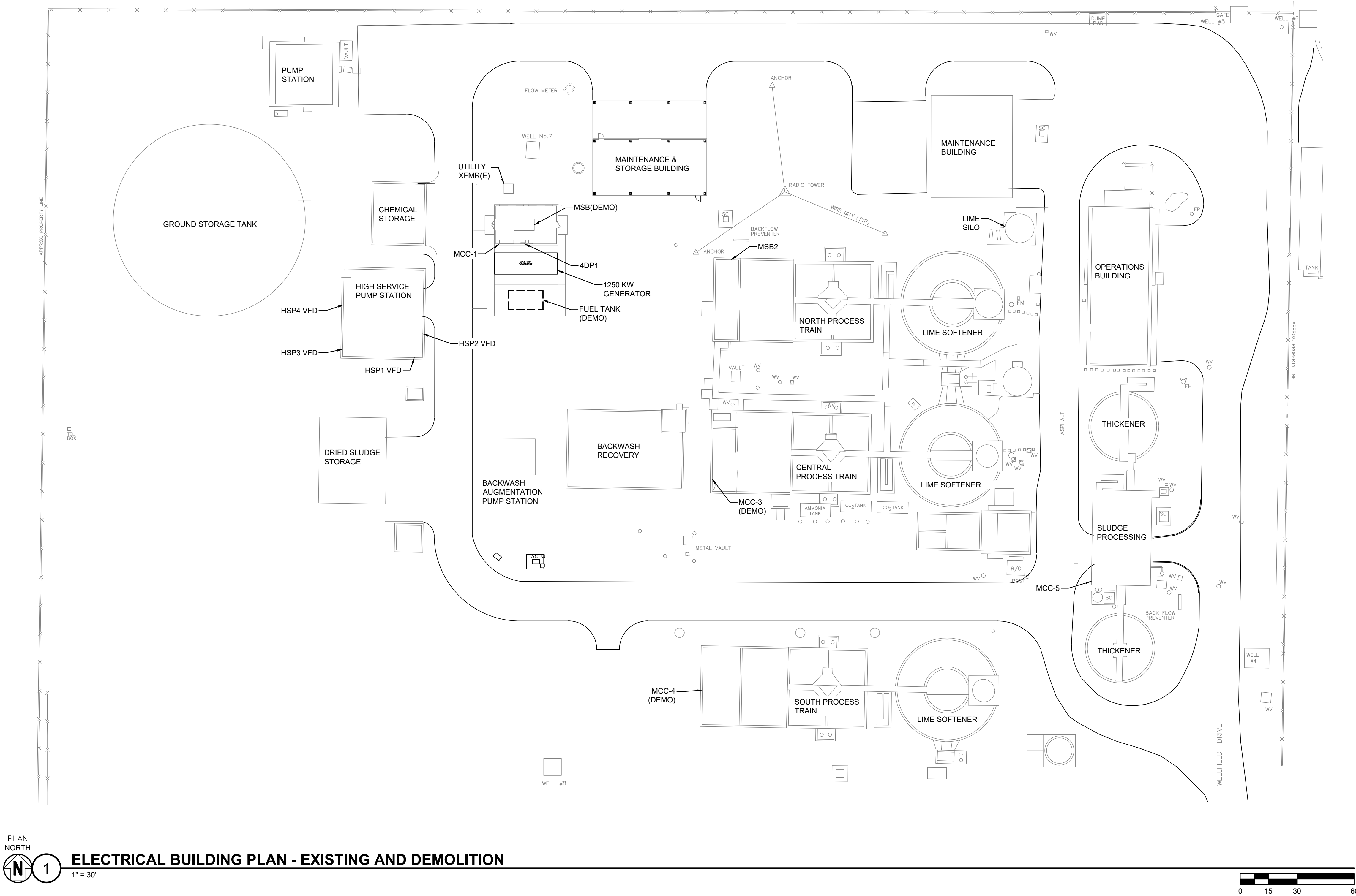
ED701

- NOTES:**
1. RACEWAYS ROUTED BELOW GRADE MAY BE ABANDONED IN PLACE. REMOVE CABLING AND DEMOLISHED CONDUIT DOWN TO 6" BELOW FINISHED GRADE.
 2. OWNER HAS FIRST RIGHT OF REFUSAL TO SALVAGE EXISTING SWITCHGEAR AND/OR SPECIFIC COMPONENTS. CONTRACTOR TO COORDINATE WITH OWNER PRIOR TO REMOVAL AND DISPOSAL.



1 EXISTING/DEMOLITION SINGLE LINE DIAGRAM
NO SCALE

X:\1000715\192311\01\TECH\CADDRAWINGS\E-011 ELECTRICAL SITE PLAN - EXISTING.DWG
11/17/2021 9:22:34 AM



NOTES:

1. ALL SWITCHGEAR, PANELS AND OTHER EQUIPMENT SHOWN ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
2. MCC-3 AND MCC-4 SHALL BE DEMOLISHED AND REPLACED WITH NEW. CAPTURE ALL EXISTING BRANCH CIRCUITS AND FEEDERS FOR CONNECTION TO NEW SWITCHGEAR.
3. THE CONTRACTOR SHALL DEVELOP A COMPREHENSIVE CONSTRUCTION PHASING PLAN THAT DETAILS ANY AND ALL SHUTDOWN ACTIVITIES. COORDINATE WITH THE OWNER FOR ALL SHUTDOWN LIMITATION REQUIREMENTS.
4. REFER TO DEMOLITION SHEETS FOR THE EXTENT OF WORK FOR DEMOLITION OF EXISTING FEEDERS AND ASSOCIATED RACEWAYS. UNDERGROUND RACEWAYS SCHEDULED FOR DEMOLITION MAY BE ABANDONED BELOW GRADE. REFER TO SHEET E-012 FOR NEW UNDERGROUND DISTRIBUTION WORK.



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SHEET CONTENTS
ELECTRICAL SITE
PLAN EXISTING

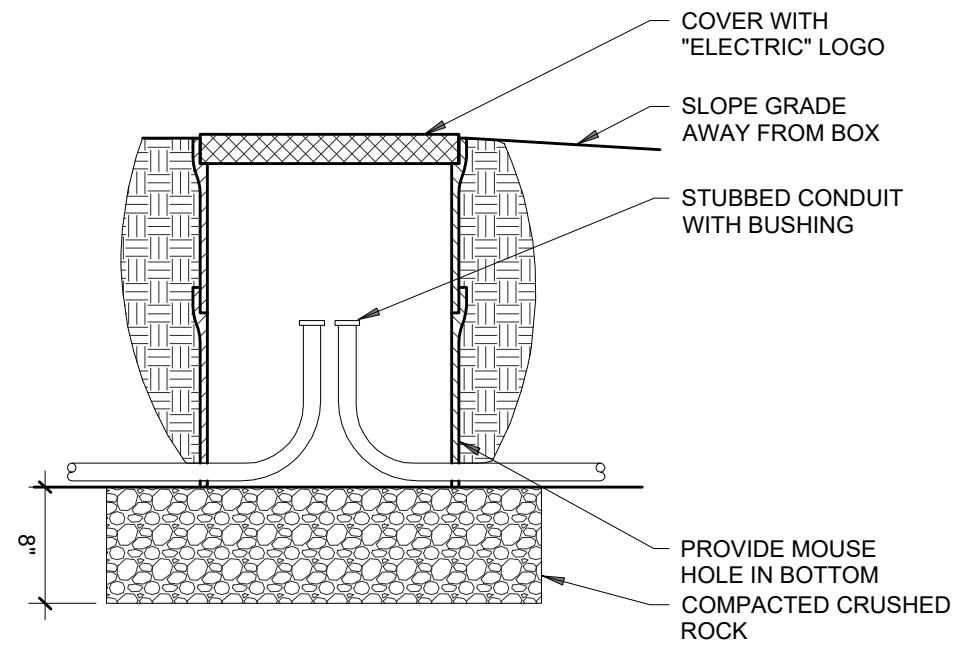
SHEET NO.

E-011

SEQUENCE OF CONSTRUCTION:

THE CONTRACTOR SHALL DEVELOP A SCHEDULE AND SEQUENCE OF CONSTRUCTION FOR REVIEW BY THE OWNER AND ENGINEER PRIOR TO START OF WORK. THE FOLLOWING IS A PROPOSED SEQUENCE THAT OUTLINES BASIC GUIDELINES AND CONSTRAINTS. THE CONTRACTOR SHALL PROVIDE A PORTABLE GENERATOR AS NECESSARY TO LIMIT DOWNTIME AS REQUIRED BY THE OWNER.

1. INSTALL ALL NEW RACEWAYS.
2. BUILDING NEW ELECTRICAL ROOM AND INSTALL NEW 480V MAIN SWITCHGEAR.
3. INSTALL NEW WIRING AS MUCH AS POSSIBLE IN PREPARATION FOR TERMINATION ON EXISTING SWITCHGEAR.
4. INSTALL NEW 480V SERVICE FROM EXISTING OR NEW UTILITY TRANSFORMER.
5. TRANSITION EXISTING SWITCHGEAR OVER TO NEW MAIN SWITCHGEAR, EXCEPT FOR MCC-3, MCC-4.
6. INSTALL NEW SWITCHGEAR MCC-3 AND MCC-4.
7. INSTALL NEW GENERATOR.
8. TRANSITION EXISTING GENERATOR OVER TO NEW MAIN SWITCHGEAR.

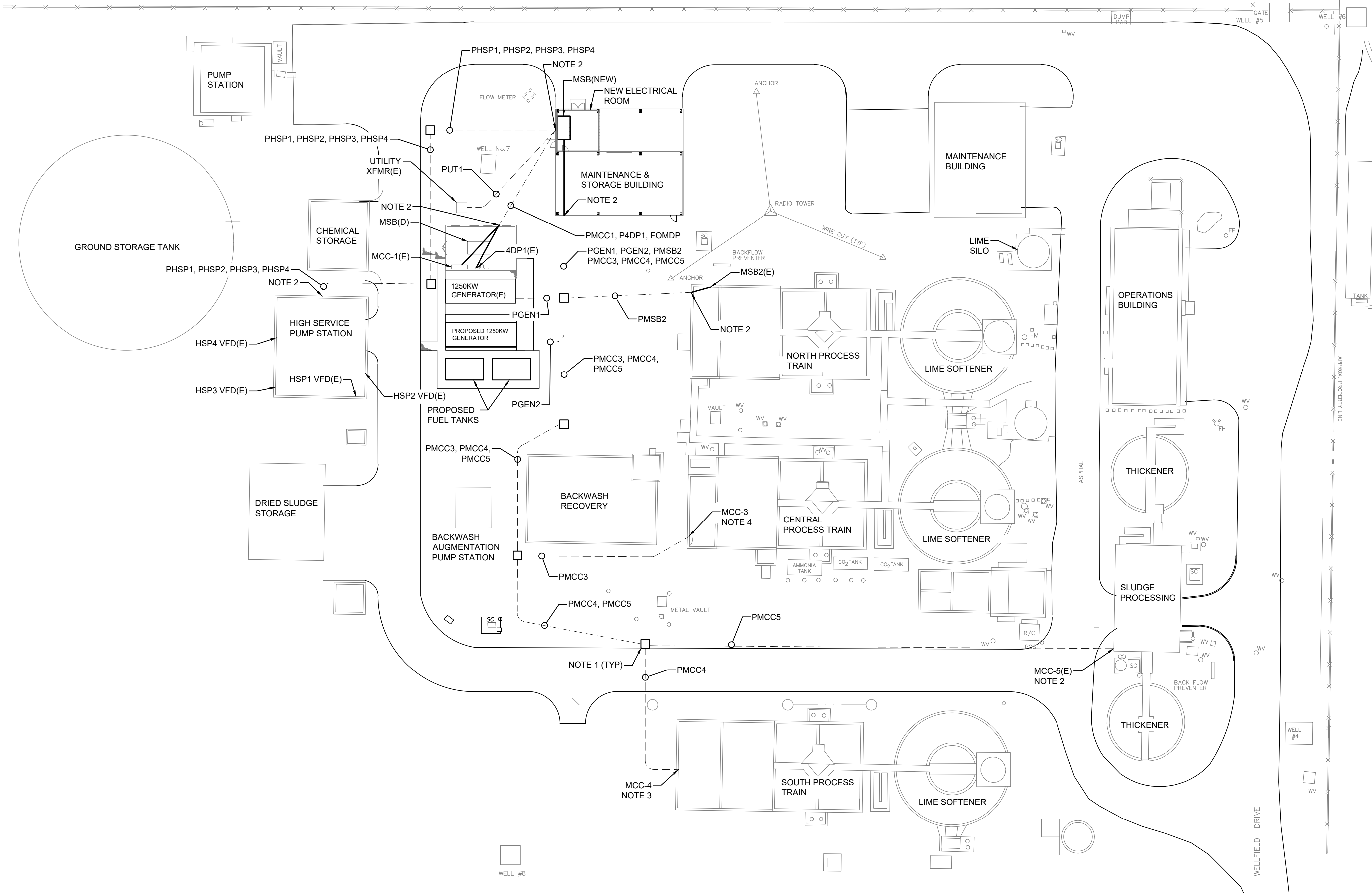


UNDERGROUND PULLBOX DETAIL

NO SCALE

NOTES:

1. 48"x48"x36" DEEP, STACKABLE POLYMER CONCRETE PULLBOX. QUAZITE PG SERIES OR APPROVED EQUIVALENT. TYPICAL UNLESS NOTED OTHERWISE.
2. RISE UP ALONG THE EXTERIOR OF THE BUILDING. PENETRATE THE EXTERIOR WALL INTO THE BUILDING AND ROUTE TO THE TERMINATION POINT OVERHEAD. FIELD COORDINATE THE BEST POSSIBLE ELEVATION TO AVOID ANY STRUCTURAL COMPONENTS AND ALLOW FOR REQUIRED CABLING BENDING RADIUS.
3. EXISTING MCC-4 REPLACED WITH NEW. RISE UP ALONG THE EXTERIOR OF THE BUILDING. PENETRATE THE EXTERIOR WALL INTO THE BUILDING AND ROUTE TO THE TOP FEED CABLE LUG TERMINATION POINT.
4. EXISTING MCC-3 REPLACED WITH NEW. RISE UP ALONG THE EXTERIOR OF THE BUILDING. PENETRATE THE EXTERIOR WALL INTO THE BUILDING AND ROUTE TO THE TOP FEED CABLE LUG TERMINATION POINT.
5. A BID ITEM IS ESTABLISHED IN THE SCHEDULE OF VALUES FOR EXPOSING EXISTING SITE ELECTRICAL U/G UTILITIES AND ESTABLISHING A CLEAR CORRIDOR FOR ELECTRICAL DUCT BANKS. THE CONTRACTOR SHALL ASSUME, FOR BIDDING PURPOSES, THAT EXISTING TRANSFER AND DISTRIBUTION PIPING IS 3'-6" DEEP AND NEW DUCT BANK WILL BE INSTALLED BELOW EXISTING BURIED PIPING. SWEEPS WILL BE INSTALLED BELOW PROPOSED PULL BOXES TO ACCOMMODATE PROPOSED GRADE CHANGES.



PLAN NORTH



ELECTRICAL BUILDING PLAN - PROPOSED

1" = 30'



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CITY OF PORT ORANGE
GARNSEY WTP GENERATOR
INSTALLATION
4400 Wellfield Drive
Port Orange, FL 32119

ISSUED	
07/01/2021	60% DESIGN
08/30/2021	90% DESIGN
11/12/2021	100% DESIGN

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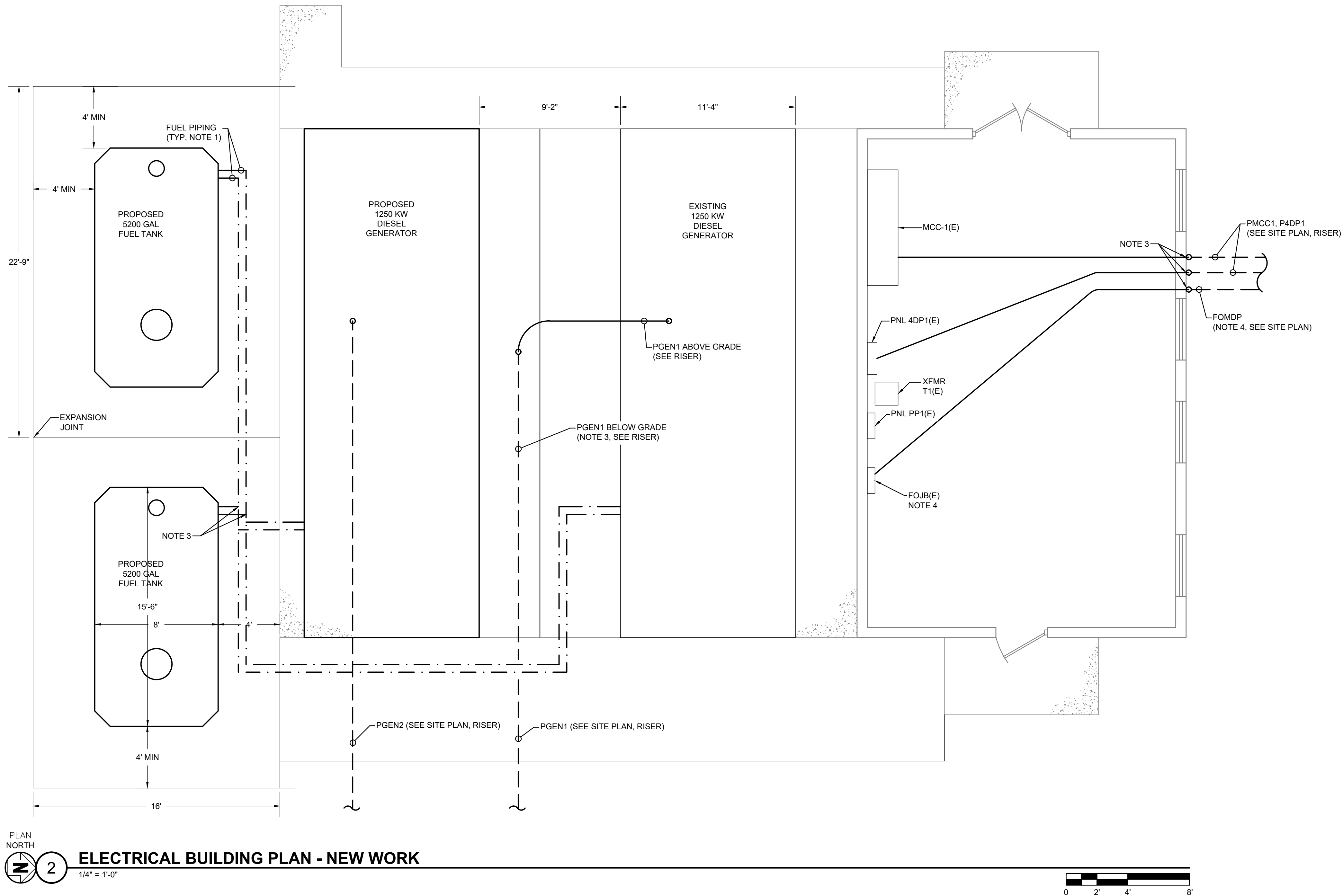
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DATE:	AUGUST, 2021
DESIGNED BY:	KSK
DRAWN BY:	SEM
CHECKED BY:	BTB
DO NOT SCALE DRAWINGS	

SHEET CONTENTS
ELECTRICAL SITE
PLAN PROPOSED

SHEET NO.

E-012

X:\1000715192311.01\TECH\CAD\DRAWINGS\E-101 ELECTRICAL PLANS.DWG
11/17/2021 9:22:45 AM



NOTES:

1. ROUTE FUEL PIPING EXPOSED ABOVE GRADE. DIVISION 25 CONTRACTOR TO PROVIDE DOUBLE WALL CONTAINMENT TYPE PIPING.
2. PROVIDE VALVES THAT WILL ALLOW EACH FUEL TANK TO FEED TO EACH OF THE GENERATORS.
3. RISE UP ALONG THE EXTERIOR WALL OF THE BUILDING AND PENETRATE THE WALL WITH RACEWAY AND CABLING. ROUTE TO EXISTING SWITCHGEAR FOR NEW CONNECTION.
4. PROVIDE A 2" CONDUIT WITH 12-COUNT FIBER OPTIC CABLE FROM THE EXISTING FIBER OPTIC JUNCTION BOX TO THE NEW COMMUNICATIONS CABINET IN THE MAINTENANCE BUILDING. REFER TO SHEET E-102 FOR ADDITIONAL INFORMATION.

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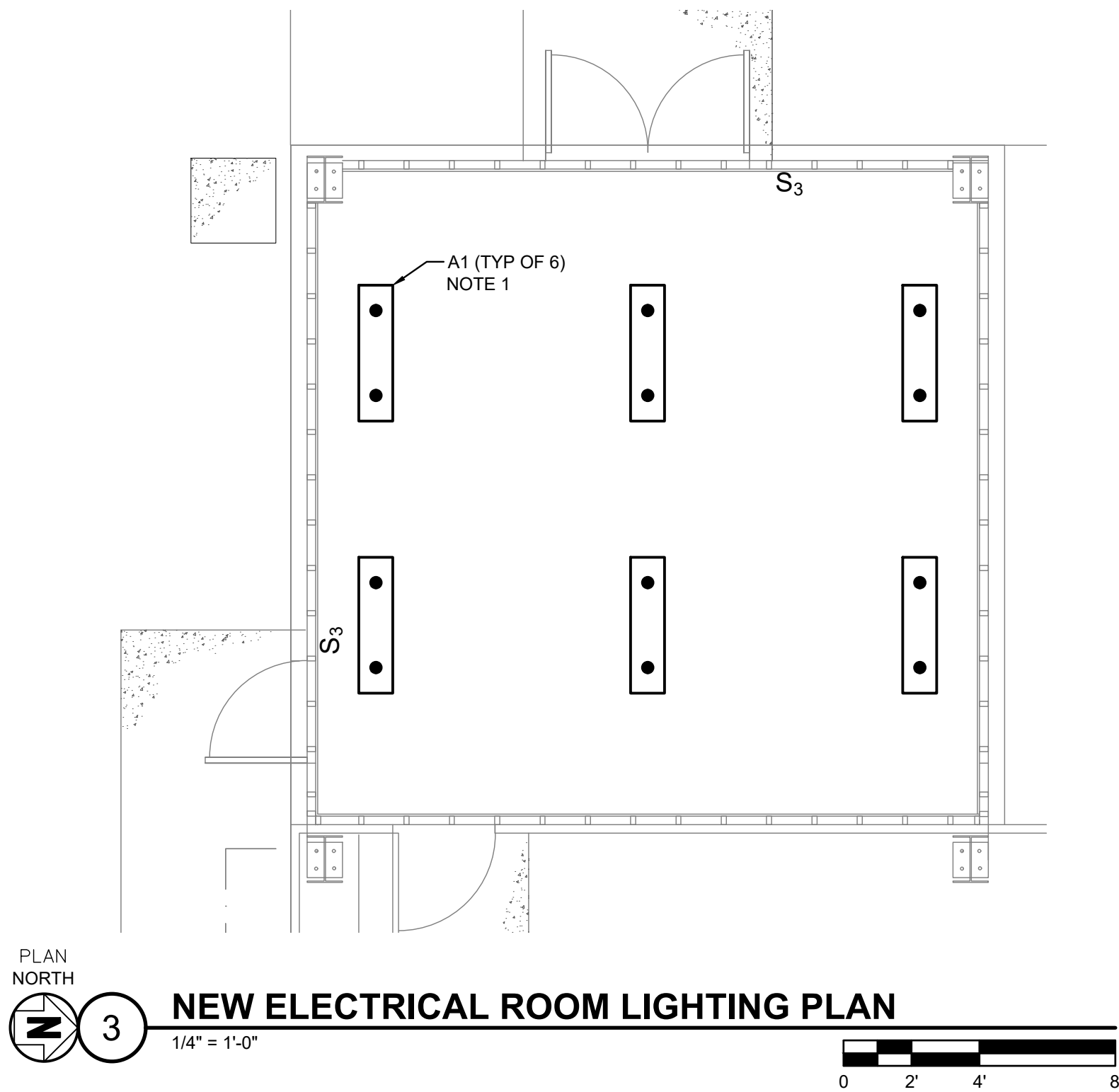
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SHEET CONTENTS
ELECTRICAL PLANS

SHEET NO.

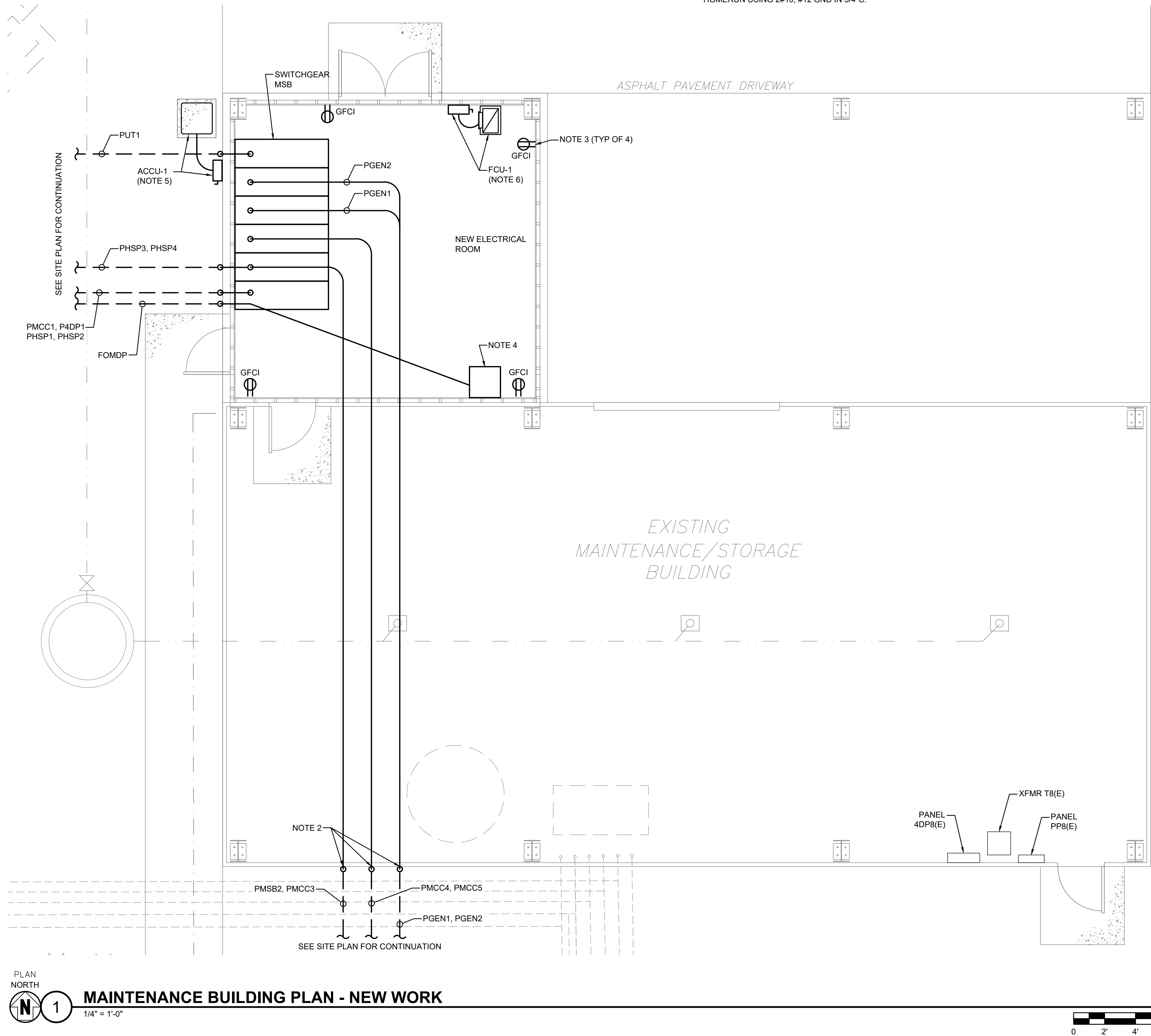
E-101

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600AF 600AT 4DP1	800AF 400AT HSP-3	800AF 600AT MCC-4	800AF PREPARED SPACE		
800AF 600AT MCC-1	800AF 400AT HSP-4	800AF 800AT SPARE	800AF PREPARED SPACE		HMI
800AF 400AT HSP-1	800AF 600AT MSB2	800AF 800AT SPARE	2000AF 1800AT GEN 2	2000AF 1800AT GEN 1	2000AF 1800AT MAIN
800AF 400AT HSP-2	800AF 600AT MCC-3	800AF 600AT MCC-5	800AF PREPARED SPACE	ATS PLC	

2 SWITCHGEAR ELEVATION



1 MAINTENANCE BUILDING PLAN - NEW WORK

NOTES:

1. LINEAR INDUSTRIAL LED. BASIS OF DESIGN SHALL BE LITHONIA #CSS L48 AL03 MVOLT 40K 80CRI. SUBMIT EQUIVALENT FOR APPROVAL. SURFACE MOUNT TO BOTTOM OF NEW CEILING. PROVIDE A NEW 20A/1P CIRCUIT BREAKER IN EXISTING PANEL 4DP8 IN AVAILABLE SPACE. PROVIDE 3/4" CONDUIT WITH 2#12, #12 GND FOR CIRCUITRY.
2. RACEWAY RISING UP FROM BELOW GRADE ALONG THE EXTERIOR WALL OF THE EXISTING BUILDING AND TRAVERSE OVERHEAD TO THE NEW SWITCHGEAR IN THE NEW ELECTRICAL ROOM.
3. PROVIDE A NEW 20A/1P CIRCUIT BREAKER IN EXISTING PANEL PP8 IN AVAILABLE SPACE. PROVIDE 3/4" CONDUIT WITH 2#12, #12 GND FOR CIRCUITRY.
4. PROVIDE A 19" WIDE, 18" DEEP, 12U HIGH, WALL-MOUNT COMMUNICATIONS CABINET. PROVIDE SOLID HINGED DOOR. BASIS OF DESIGN SHALL BE CHATSWORTH #25500-X12. PROVIDE A RACK MOUNT FIBER PATCH PANEL FOR TERMINATION OF THE 12-COUNT FIBER CABLING (SEE SHEET E-101). PROVIDE A 24-PORT, HIGH DENSITY CAT-6 PATCH PANEL. PROVIDE SUBMITTALS FOR ALL EQUIPMENT FOR APPROVAL.
5. PROVIDE A 208V, 30A, 2-POLE, NON-FUSED, NEMA 3R RATED DISCONNECT FOR CONNECTION TO NEW AIR COOLED CONDENSING UNIT. PROVIDE A 30A, 2-POLE CIRCUIT BREAKER IN EXISTING PANEL PP8 IN AVAILABLE SPACE TO FEED THE NEW EQUIPMENT. HOMERUN USING 2#10, #12 GND IN 3/4"C.
6. PROVIDE A 208V, 30A, 2-POLE, NON-FUSED, NEMA 1 RATED DISCONNECT FOR CONNECTION TO NEW FAN COIL UNIT. PROVIDE A 30A, 2-POLE CIRCUIT BREAKER IN EXISTING PANEL PP8 IN AVAILABLE SPACE TO FEED THE NEW EQUIPMENT. HOMERUN USING 2#10, #12 GND IN 3/4"C.

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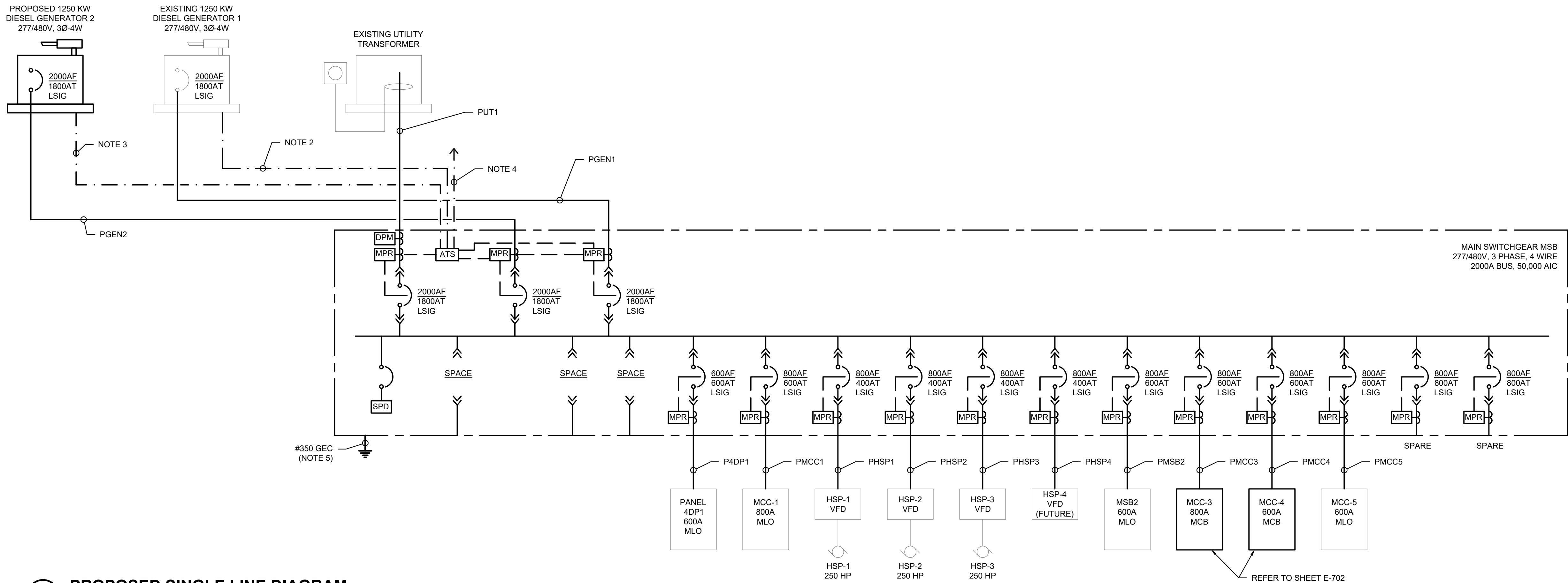
SHEET CONTENTS
ELECTRICAL PLAN

SHEET NO.

E-102

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11/17/2021 9:23:02 AM

2 PROPOSED SINGLE LINE DIAGRAM
NO SCALE



FEEDER SCHEDULE						
MARK	AMPACITY	NO. OF SETS	CONDUCTOR SIZES (AWG or KCML)			
			PHASE	NEUTRAL	EQ GND	ISO GND
PUT1	2000	6	3 - 400	1 - 400	1 - 350	-
PGEN1	2000	6	3 - 400	1 - 400	1 - 350	-
PGEN2	2000	6	3 - 400	1 - 400	1 - 350	-
P4DP1	600	2	3 - 350	-	1 - #1	-
PMCC1	600	2	3 - 350	-	1 - #1	-
PHSP1	400	1	3 - 500	-	1 - #1/0	-
PHSP2	400	1	3 - 500	-	1 - #1/0	-
PHSP3	400	1	3 - 500	-	1 - #1/0	-
PHSP4	400	1	3 - 500	-	1 - #1/0	-
PMSB2	800	3	3 - 350	-	1 - #1/0	-
PMCC3	600	2	3 - 350	-	1 - #1	-
PMCC4	600	2	3 - 350	-	1 - #1	-
PMCC5	600	2	3 - 350	-	1 - #1	-

FEEDER SCHEDULE NOTES:

- THE SCHEDULE IS A SCHEDULE OF TYPICAL FEEDERS AND SOME OF THE SIZES MAY NOT APPLY TO THIS PROJECT.
- ALL THE CONDUCTOR AMPACITIES ARE BASED ON TABLE 310.15(B)(16) OF THE NEC FOR COPPER CONDUCTORS (75 DEGREE CELSIUS CHART).
- FEEDER SIZES SHOWN ON THE RISER DIAGRAM INDICATE FEEDER AMPACITIES AND DO NOT NECESSARILY CORRESPOND TO THE CIRCUIT BREAKER AMPACITIES. CERTAIN FEEDERS MAY BE SIZED FOR DERATION FACTORS AND/OR OVERSIZED FOR VOLTAGE DROP PER NEC REQUIREMENTS.

- NOTES:
- PROPOSED 1250 KW GENERATOR SHALL BE THE PRIMARY INPUT SELECTION FOR AUTOMATIC TRANSFER.
 - PROVIDE A 1" CONDUIT AND ALL NECESSARY COMMUNICATIONS CABLING BETWEEN THE ATS IN SWITCHGEAR MSB EXISTING GENERATOR.
 - PROVIDE A 1" CONDUIT AND ALL NECESSARY COMMUNICATIONS CABLING BETWEEN NEW SWITCHGEAR ATS AND NEW GENERATOR CONTROL PANEL FOR ALL OPERATION AND FUNCTIONALITY REQUIREMENTS. REFER TO THE SPECIFICATIONS FOR MORE INFORMATION.
 - PROVIDE A 1" CONDUIT AND CAT-6 CABLING TO LOCAL COMMUNICATIONS CABINET FOR ETHERNET CONNECTION TO PLANT SCADA SYSTEM.
 - PROVIDE A MINIMUM OF (3) 3/4" DIAMETER x 10'-0" COPPER GROUND RODS SPACED AT LEAST 10'-0" APART. PROVIDE AN ACCESS WELL FOR ONE OF THE RODS FOR TESTING. REFER TO SPECIFICATION SECTION 260526 FOR FURTHER REQUIREMENTS.

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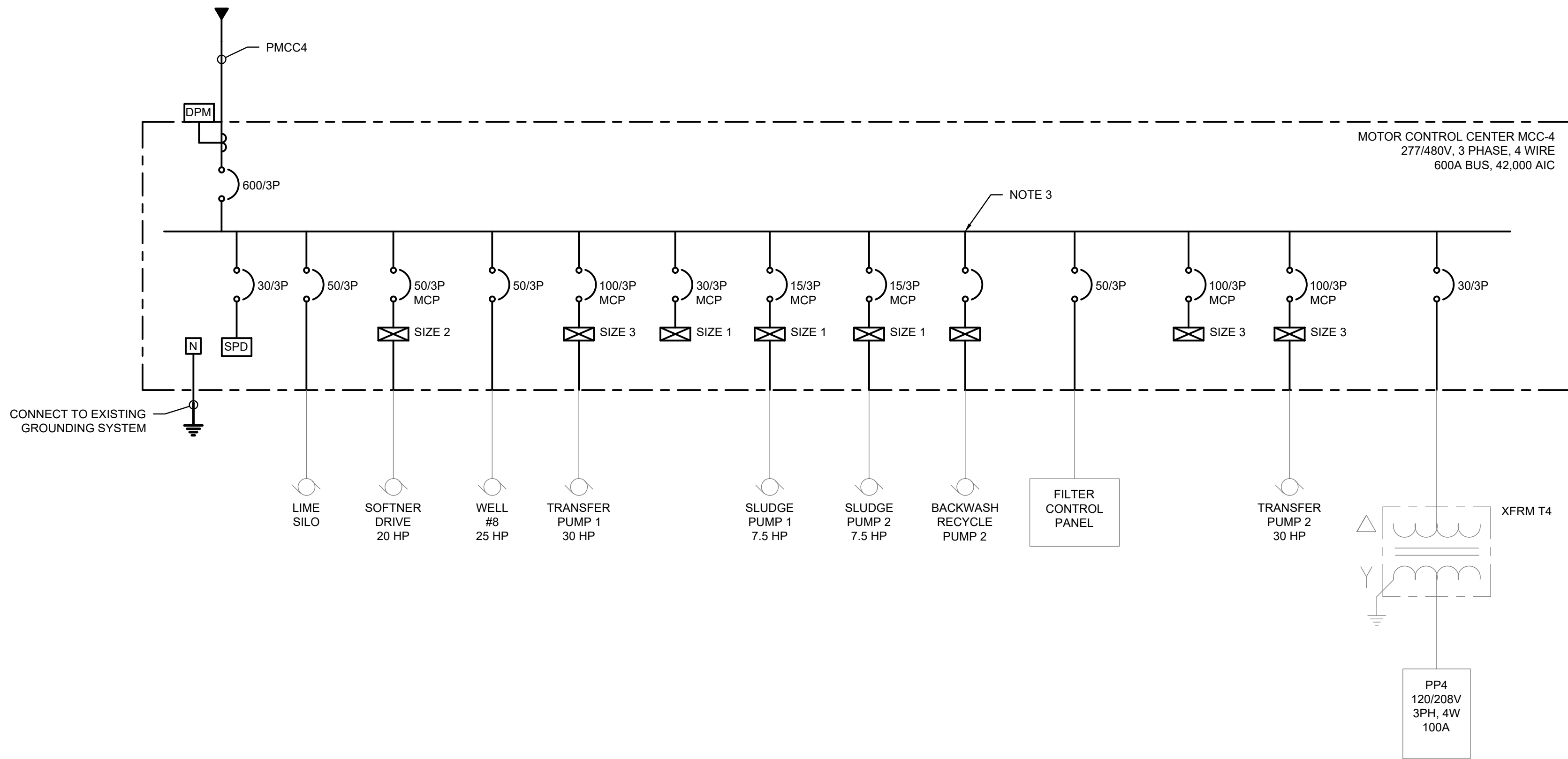
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M&H NO.:	1000715-192311.01
DATE:	AUGUST, 2021
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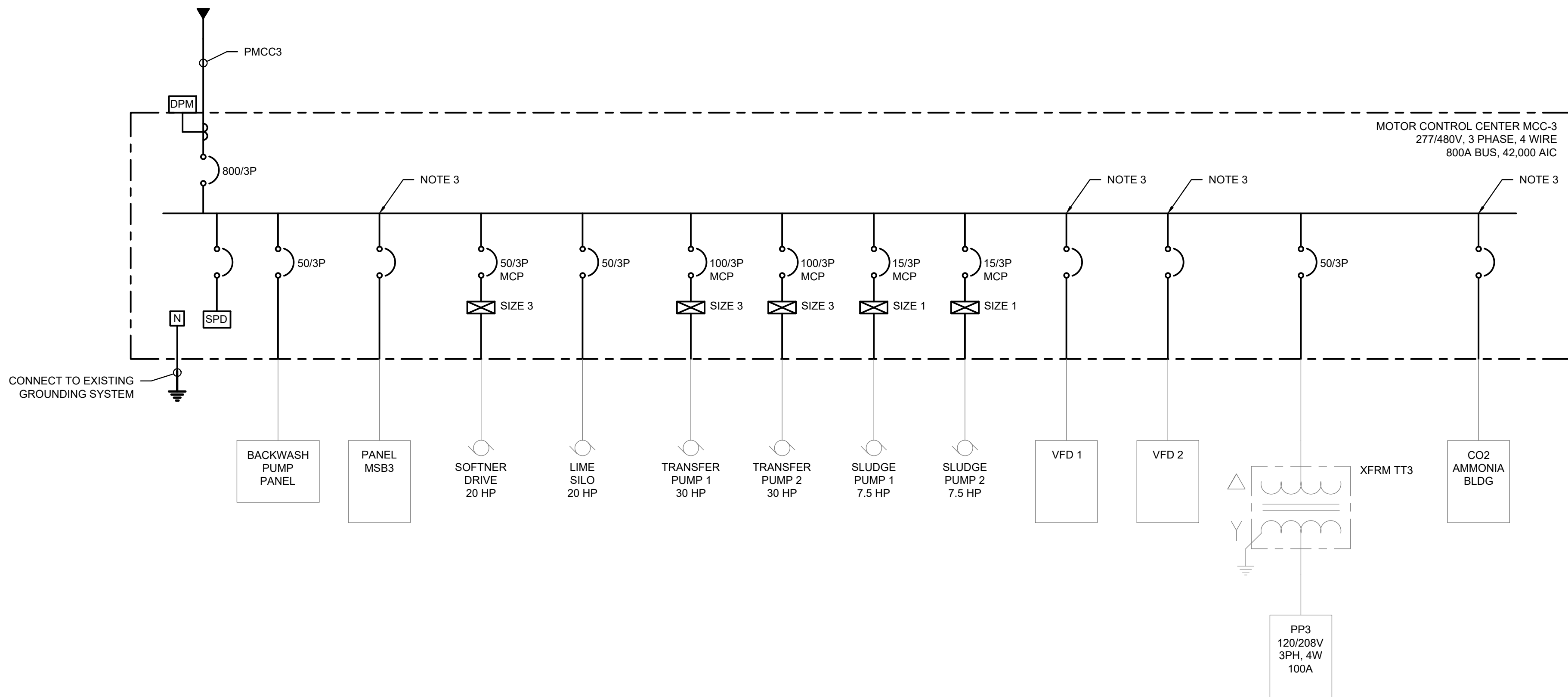
SHEET CONTENTS
SINGLE LINE DIAGRAM
SWITCHGEAR MSB

SHEET NO.
E-701

X:\1000715\192311.01\TECH\CAD\DRAWINGS\E-702 SINGLE LINE DIAGRAM.DWG
11/17/2021 9:23:11 AM



2 PROPOSED SINGLE LINE DIAGRAM - MCC-4
NO SCALE



1 PROPOSED SINGLE LINE DIAGRAM - MCC-3
NO SCALE

NOTES:

1. ALL BRANCH LOADS SHOWN ARE EXISTING TO REMAIN. DISCONNECT, CAPTURE AND PROTECT EXISTING WIRING AND RACEWAYS.
2. EXISTING MOTOR CONTROL CENTER MCC-3 AND MCC-4 SHALL BE REPLACED WITH NEW. COORDINATE ALL DOWNTIME WITH THE OWNER PRIOR TO DEMOLITION AND NEW INSTALLATION.
3. FIELD VERIFY EXISTING BREAKER, MCP, STARTER AND MOTOR HP SIZE TO COORDINATE CONNECTION AND MOTOR CONTROL CENTER BUCKET CONFIGURATION PRIOR TO MCC PROCUREMENT.

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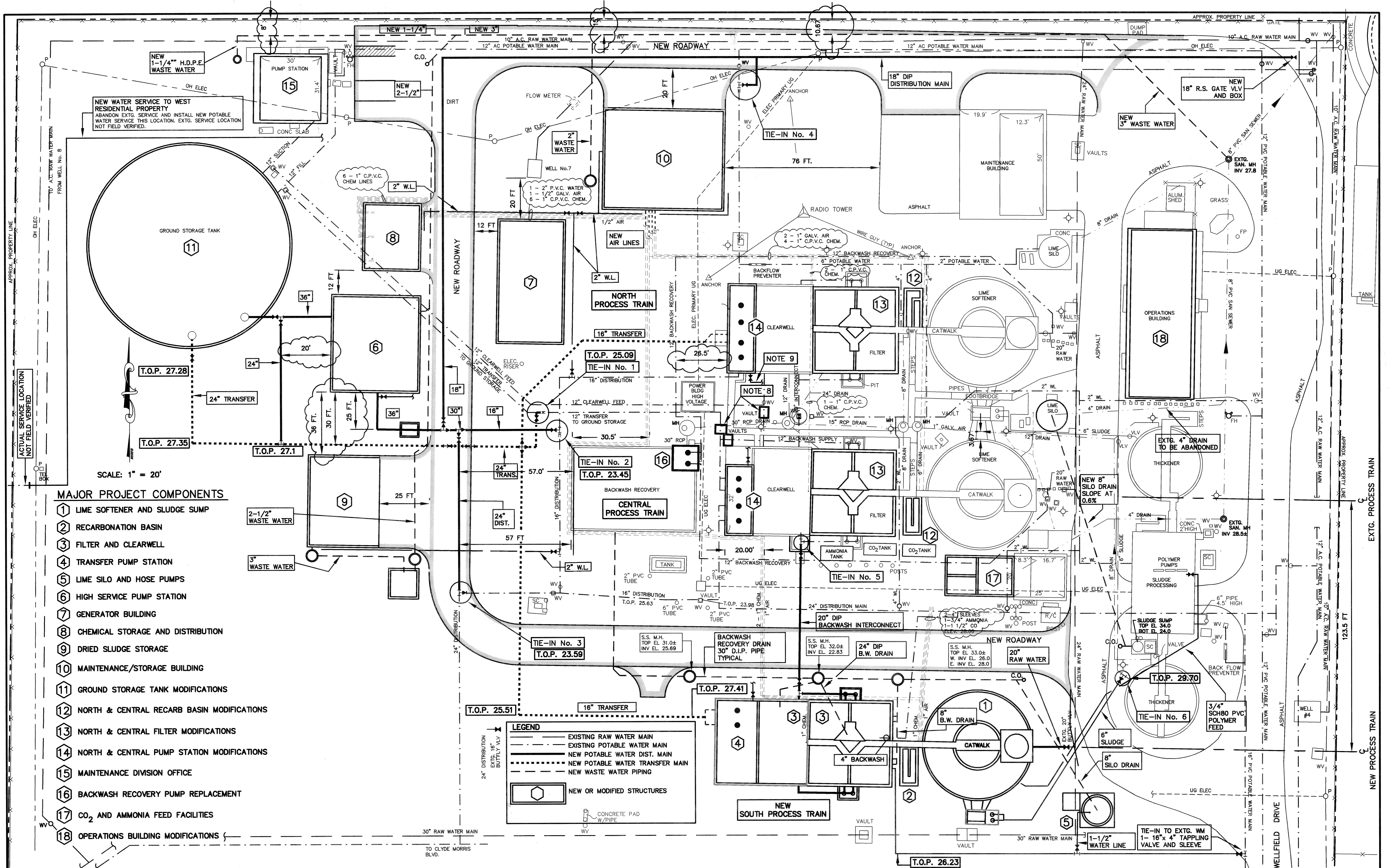
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M&H NO.:	1000715-192311.01
DATE:	AUGUST, 2021
DESIGNED BY:	KSK
DRAWN BY:	SEM
CHECKED BY:	BTB
DO NOT SCALE DRAWINGS	

SHEET CONTENTS
SINGLE LINE DIAGRAM
MCC-3 & MCC-4

SHEET NO.
E-702

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NO	BY	REVISIONS	DATE
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CITY OF
PORT ORANGE
VOLUSIA COUNTY, FLORIDA

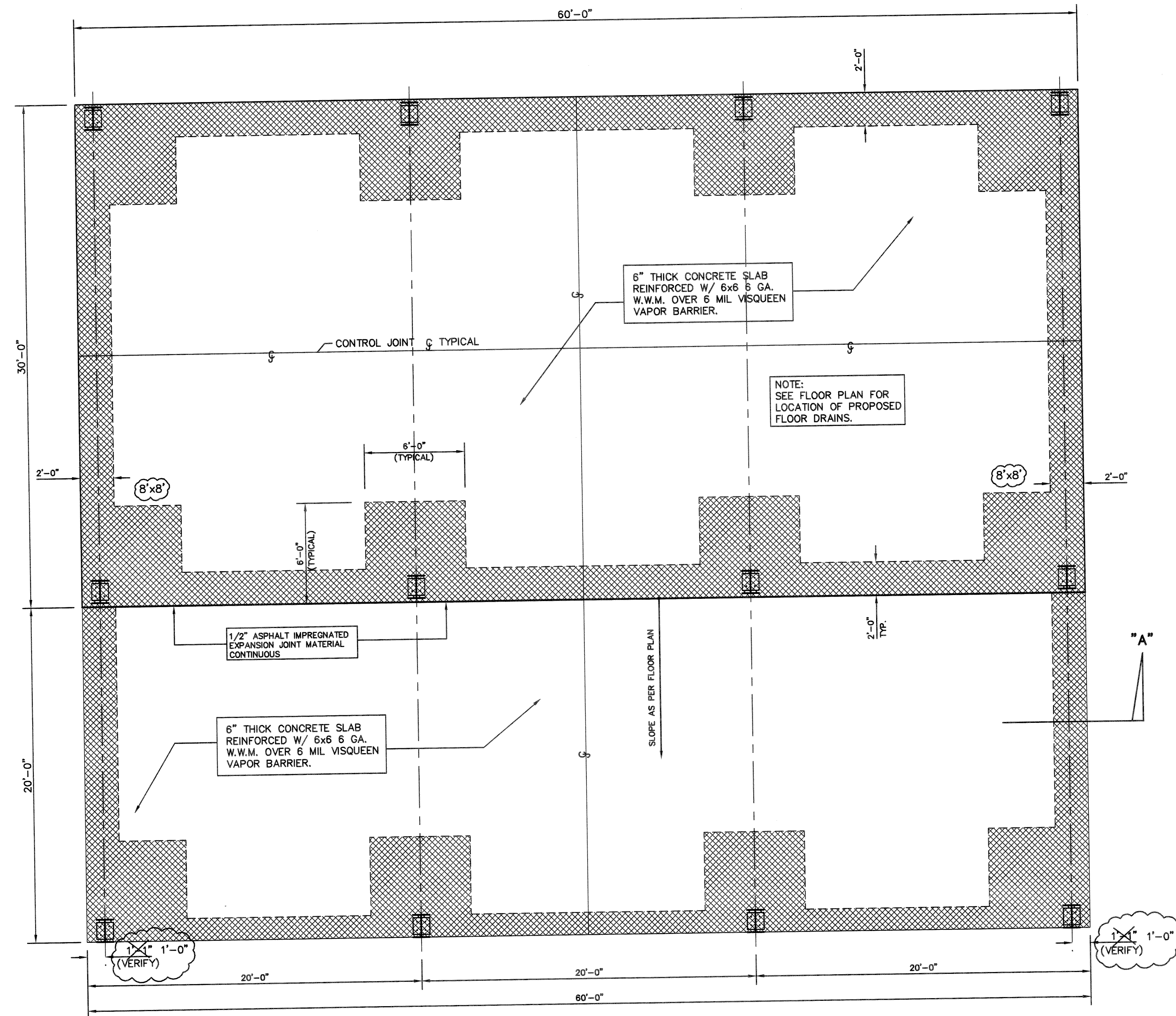
GARNSEY WATER PLANT EXPANSION
STATE PROJECT No. DW6413010

RECORD DRAWING
APRIL 2003
JRB

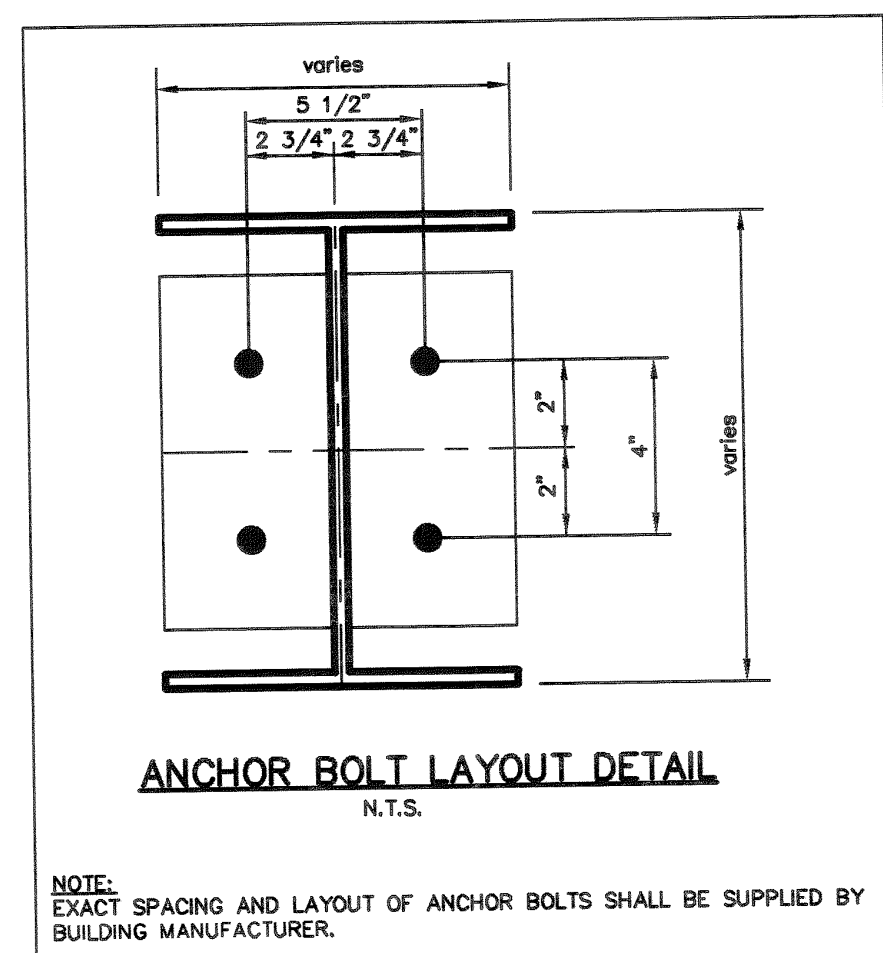
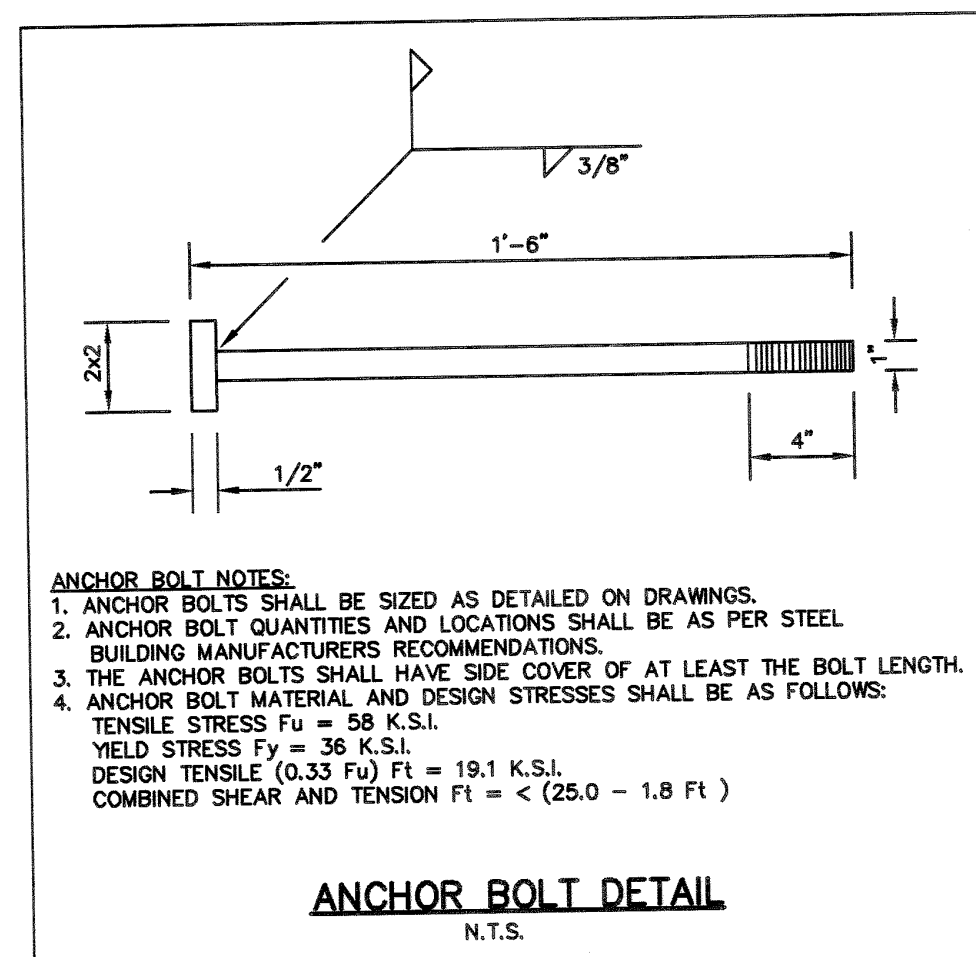
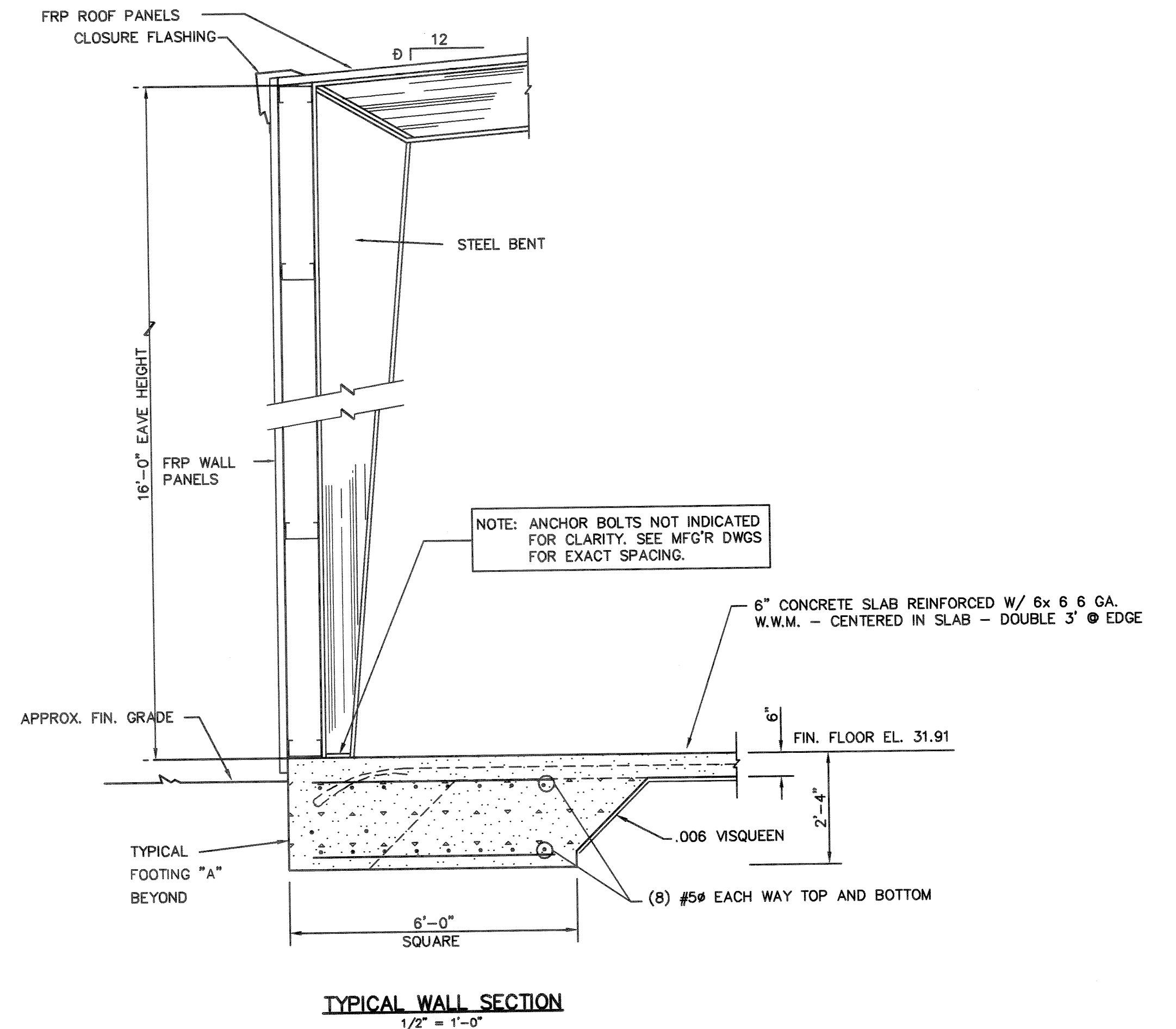
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CHECKED	DATE	2-01		
APPROVED	DATE			

JOB NO. 1235 FT
OF 90

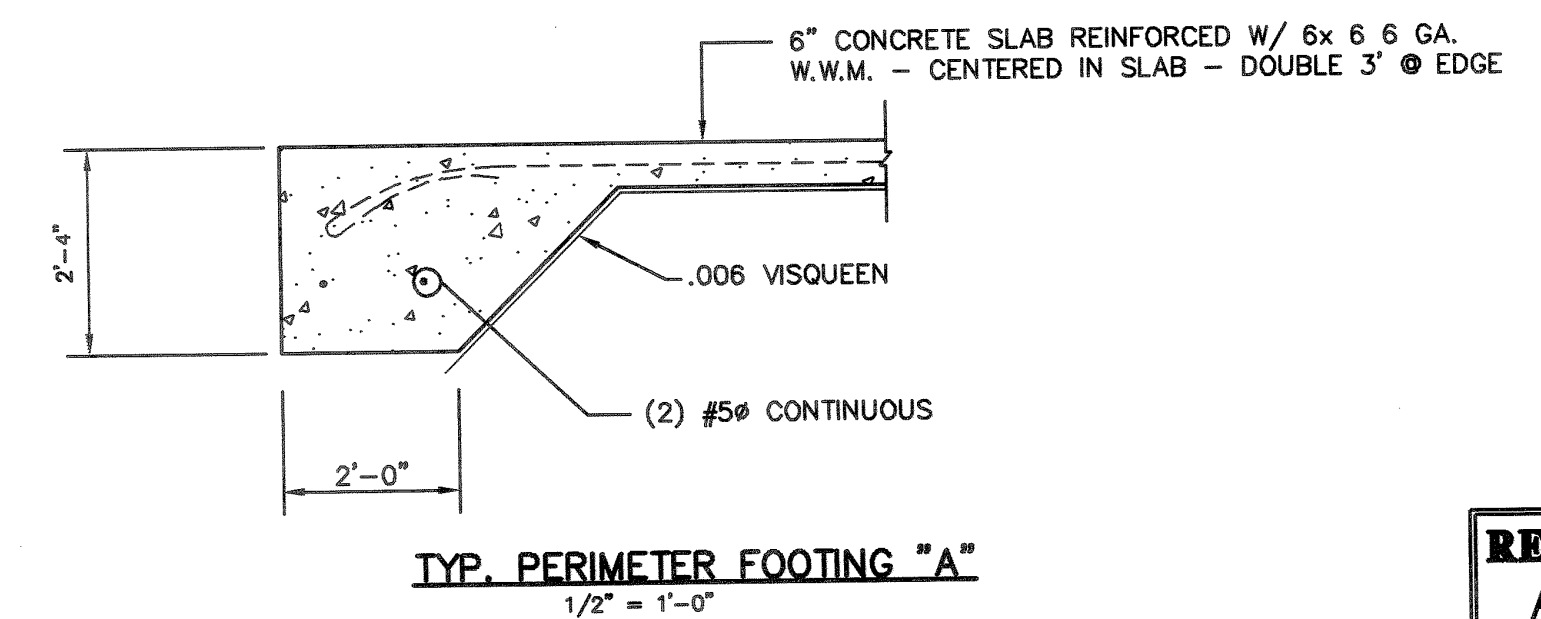
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- STEEL BUILDING NOTES:**
1. BUILDING MANUFACTURER SHALL DESIGN STRUCTURE TO WITHSTAND 110 M.P.H. WIND SPEED IN ACCORD WITH 1997 S.B.C.
 2. FOR EXACT LOCATION OF ANCHOR BOLTS, SEE PLAN PROVIDED BY BUILDING MANUFACTURER.
 3. PROVIDE ENGINEERED SHOP DRAWINGS TO PROJECT ENGINEER FOR APPROVAL.
 4. SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED ENGINEER CERTIFYING THE REQUIREMENTS OF THE DESIGN CRITERIA.
 5. BUILDING MANUFACTURER IS REQUIRED TO SUBMIT VERTICAL REACTIONS TO PROJECT ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION OF BUILDING FOUNDATION AND FLOOR SLAB.
 6. PROVIDE MANUFACTURERS STANDARD BASE ANGLE AT BOTTOM OF WALL PANELS WHERE PANEL TERMINATES AT SLAB.
 7. ALL BUILDING COMPONENTS SHALL BE OF A SIMILAR FINISH AND COLOR.
 8. ALL WALL PANELS, ROOF PANELS, AND TRIM SHALL BE SUPPLIED BY SAME MANUFACTURER TO ASSURE COMPATIBILITY AND UNIFORM APPEARANCE.
 9. ALL COLORS AND FINISHES SHALL BE SELECTED BY PROJECT ENGINEER.



FOUNDATION PLAN
SCALE: 1/4"=1'-0"



RECORD DRAWING
APRIL 2003
JRB

NO	BY	REVISIONS	DATE

QUENTIN L. HAMPTON ASSOCIATES, INC.
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CITY OF
PORT ORANGE
VOLUSIA COUNTY, FLORIDA

GARNSEY WATER PLANT EXPANSION
STATE PROJECT No. DW6413010

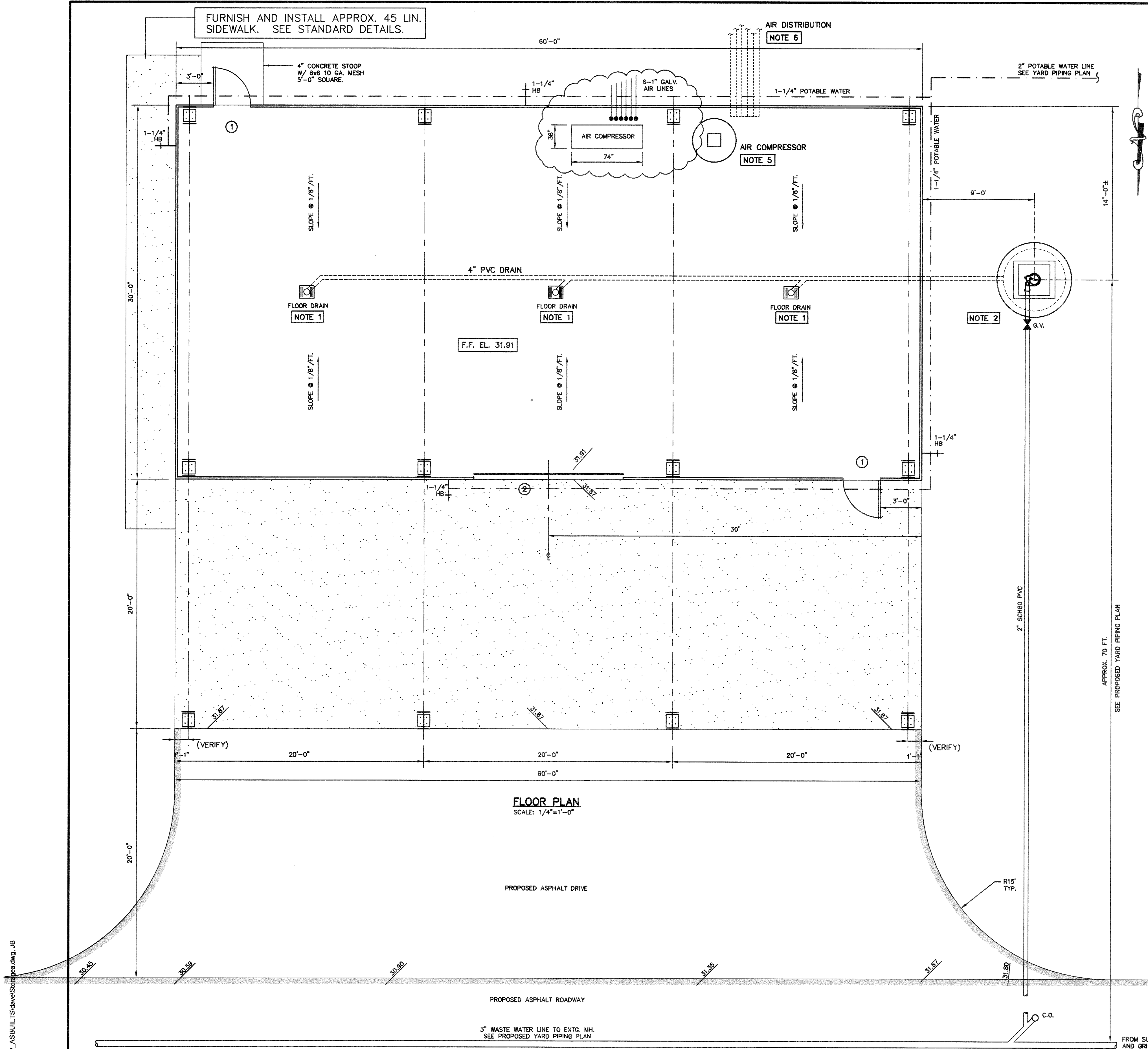
PROPOSED STORAGE BUILDING
FOUNDATION PLAN
SECTIONS AND DETAILS

DESIGNED	RWF	DATE
DRAWN	DLB	DATE 10/99
CHECKED	DATE	
APPROVED	DATE	

SCALE
AS SHOWN
JOB NO.

SHEET NO.
47
OF 90

FURNISH AND INSTALL APPROX. 45 LIN. SIDEWALK. SEE STANDARD DETAILS.



FLOOR PLAN
SCALE: 1/4"=1'-0"

PROPOSED ASPHALT DRIVE

PROPOSED ASPHALT ROADWAY

3" WASTE WATER LINE TO EXTG. MH.
SEE PROPOSED YARD PIPING PLAN

AIR DISTRIBUTION
NOTE 6

AIR COMPRESSOR
NOTE 5

2" POTABLE WATER LINE
SEE YARD PIPING PLAN

NOTE 2

APPROX. 70 FT.
SEE PROPOSED YARD PIPING PLAN

FROM SUMP PUMP AT LINE SLUDGE WASHDOWN WATER FILTER BED
AND GRINDER PUMP AT MAINTENANCE OFFICE.

DOOR SCHEDULE

NOTE: EACH DOOR TO RECEIVE 1 1/2 PAIR OF STAINLESS STEEL BALL BEARING HINGES.

MARK	SIZE	DESCRIPTION	CLOSER	HOLDER	PANIC HARDWARE
①	3'-0" x 7'-0" x 1 3/4"	FRP DOOR "FLUSH" IN F.R.P. FRAME W/ 9" x 1/4" WIRE GLASS VIEW WINDOW	YES	—	YES
②	12'-0" x 14'-0"	CHAIN OPERATED ROLL-UP DOOR MOD. # ASD-FN2 AS MFG'D BY OVERHEAD DOOR CO. OR EQUAL	—	—	—

NOTES: REFER TO PROJECT SPECIFICATIONS FOR MATERIAL PERFORMANCE STANDARDS, SUBMITTAL REQUIREMENTS, AND APPROVED MANUFACTURERS.

DOORS REQUIRING PANIC HARDWARE SHALL NOT BE EQUIPPED WITH ANY LOCKING DEVICE, SET SCREW OR OTHER ARRANGEMENT WHICH CAN BE USED TO PREVENT THE RELEASE OF THE LATCH WHEN PRESSURE IS APPLIED TO THE BAR.

HARDWARE REQUIREMENTS

EXTERIOR DOORS:

1 & 1/2 PAIR HINGES

EXIT DEVICE

CLOSER

STOP/HOLDER

KICK PLATE

WEATHERSTRIPPING

THRESHOLD

LOCKSET (ENTRANCE)

INTERIOR DOORS:

1 & 1/2 PAIR HINGES

LOCKSET (PASSAGE)

CLOSER

STOP/HOLDER

KICK PLATE

* ANY STORAGE, CLOSET OR BATHROOM SHALL REQUIRE AN ENTRANCE LOCKSET

DOOR BUCK SCHEDULE

EXTERIOR DOORS INDICATED (2) USE P.T. 1x4 BUCK, BEVEL CUT ON JAMBS AND HEAD

USE REQ'D NO. OF FASTENERS TO RESIST 37# PER LIN. FT. —

MIN. NO. OF FASTENERS REQ'D IS (8), TWO (2) ON TOP AND THREE (3) PER SIDE.

SPACE FASTENERS EQUALLY, CENTERED ALONG BUCK STRIP.

RESISTANCE RATING FOR APPROVED FASTENERS ARE AS FOLLOWS:

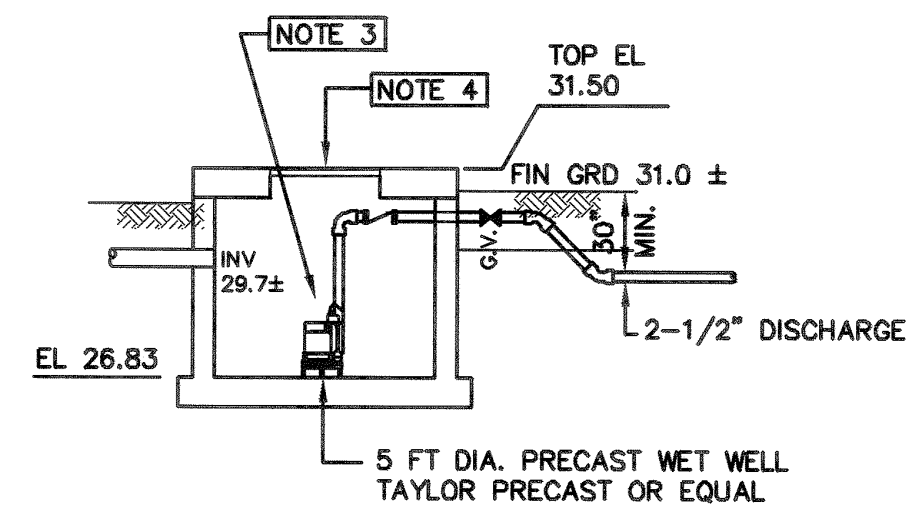
3/16" TAPCON W/ 1 3/4" PENETRATION = 230#

1/4" TAPCON W/ 2" PENETRATION = 380#

1" NAIL, 1 3/8" LENGTH, = 44#

NOTES:

- CAST IRON FLOOR DRAINS (3)
ZURN MODEL Z-645 12" x 14" TOP DRAIN WITH 4" SIDE OUTLET
INTERNAL TRAP WITH BRONZE CLEANOUT, SEEPAGE PAN,
MEMBRANE FLASHING CLAMP AND FRAME FOR CAST IRON
HINGED EXTRA HEAVY DUTY SLOTTED GRATE WITH SUSPENDED
SEDIMENT BUCKET.
- 5 FT. PRECAST WET WELL
TAYLOR PRECAST OR EQUAL
- SUBMERSIBLE EFFLUENT PUMP
1/2 HP 460V 3PH
50 GPM AT 30 FT. TDH 2" DISCHARGE
INSTALL CHECK VALVE AND GATE VALVE
ON DISCHARGE LINE
- ACCESS HATCH
U.S. FOUNDRY A.H.S. 30"x30"
ALUMINUM HATCH H-20 LOAD RATING
- AIR COMPRESSOR
INGERSOLL-RAND MODEL 3000
30 HP 460V 3PH 1100 RPM
125 P.S.I. 100.7 A.C.F.M.
- PLANT AIR DISTRIBUTION LINES
ROUTE ALL EXISTING AIR LINES TO HEADER AT
PROPOSED AIR COMPRESSOR. ROUTE NEW AIR
LINES FROM CHEMICAL BLDG., SOUTH PROCESS
TRAIN SOFTENER AND FILTER TO NEW COMPRESSOR.
CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS
SHOWING NEW AIR LINE ROUTING ON SITE.



DRAIN SUMP DETAIL

SCALE: 1/4"=1'-0"

RECORD DRAWING
APRIL 2003
JRB

NO	BY	REVISIONS	DATE

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CONSULTING ENGINEERS

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VOLUSIA COUNTY, FLORIDA

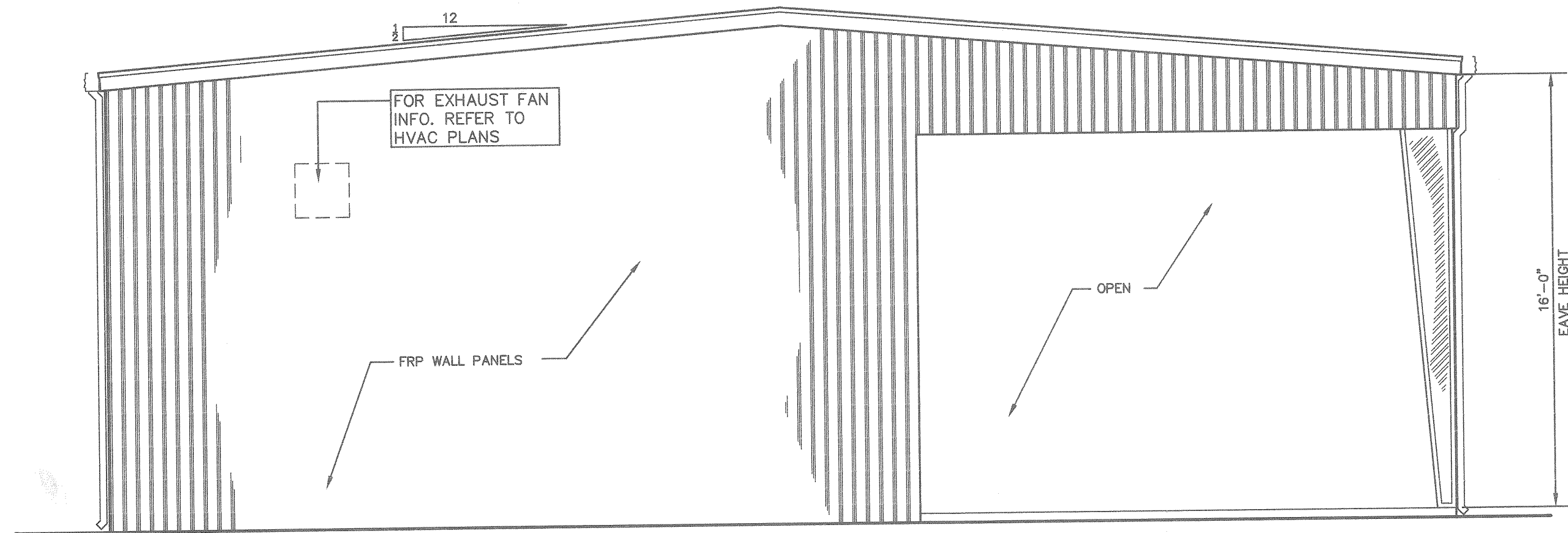
GARNSEY WATER PLANT EXPANSION
STATE PROJECT No. DW6413010

PROPOSED STORAGE BUILDING
FLOOR PLAN

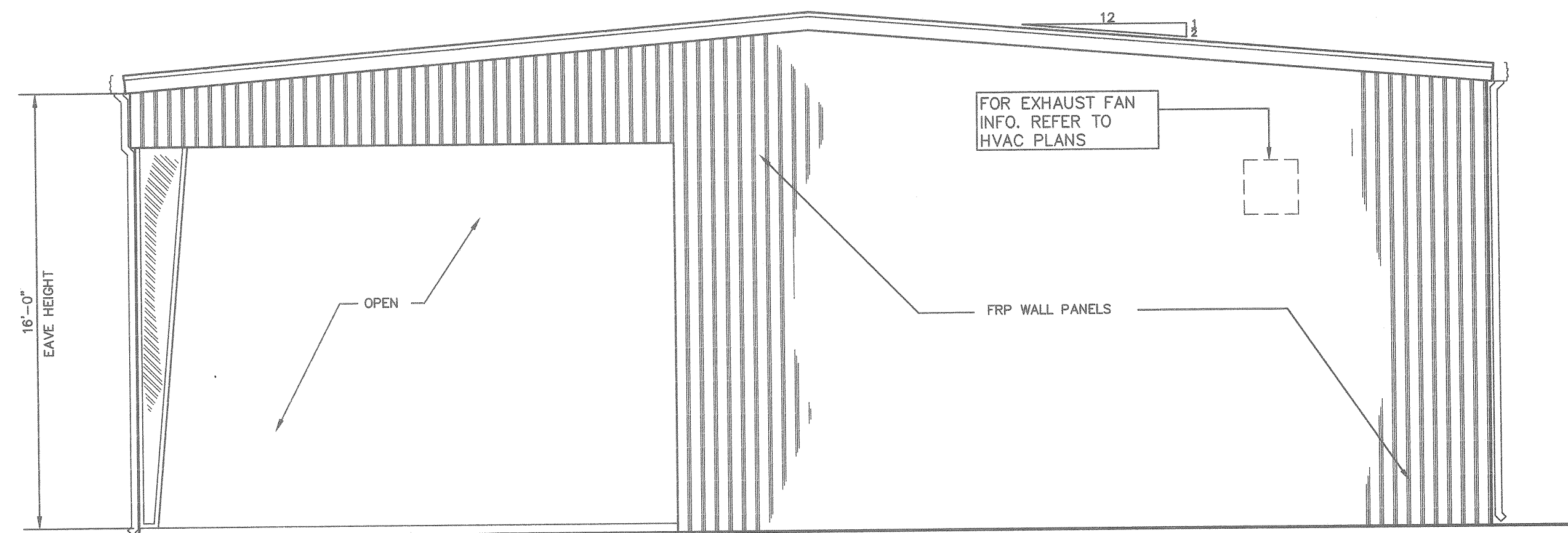
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APPROVED		DATE

SCALE
AS SHOWN
JOB NO.

SHEET NO.
48
OF 90



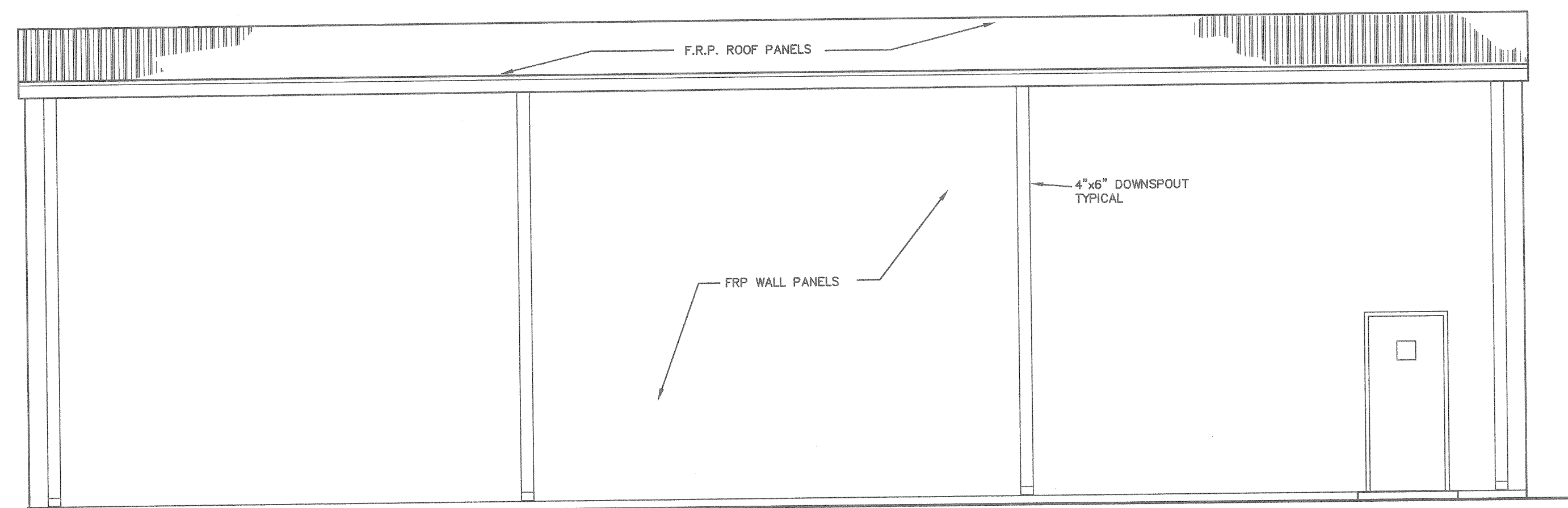
EAST ELEVATION
SCALE: 1/4"=1'-0"



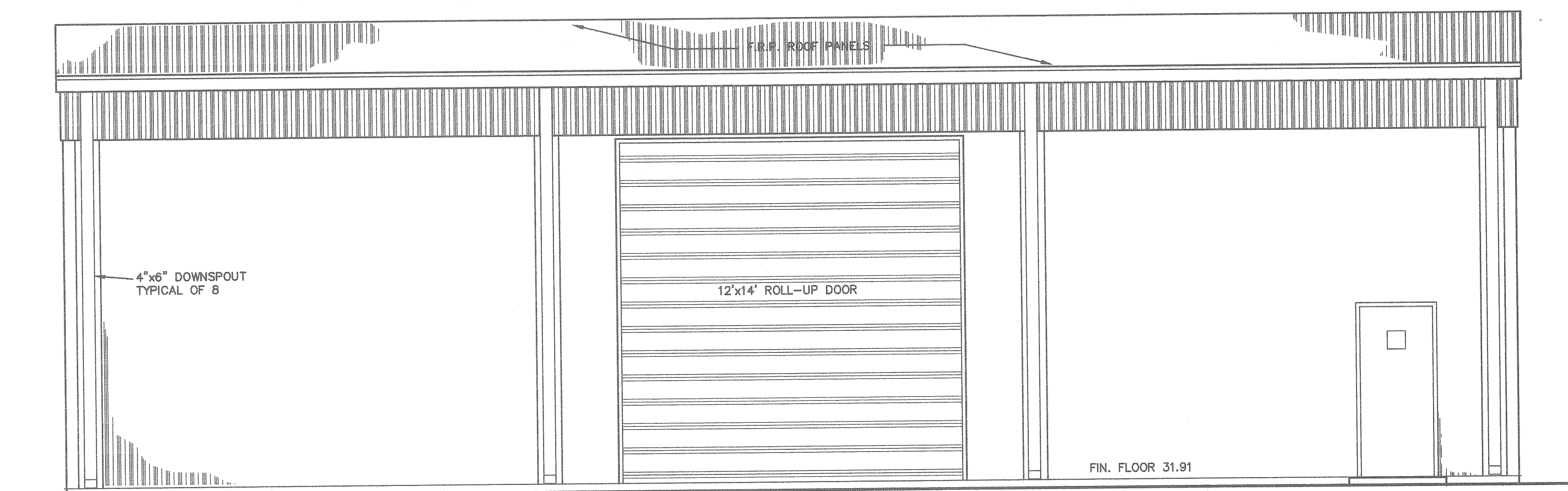
WEST ELEVATION
SCALE: 1/4"=1'-0"

ALL FRP PANELS SHALL BE SIMILAR TO THOSE MANUFACTURED BY RESOLITE TYPE 1240, PROFILE 7.2 x 1.5". COLOR TO BE STONE WHITE. METAL BUILDING SUPPLIER SHALL PROVIDE ADEQUATE SUPPORT FOR PANEL INSTALLATION.

ALL ROOF PANELS SHALL BE APPROVED BY MANUFACTURER FOR USE UNDER "LOW-SLOPE" APPLICATIONS.



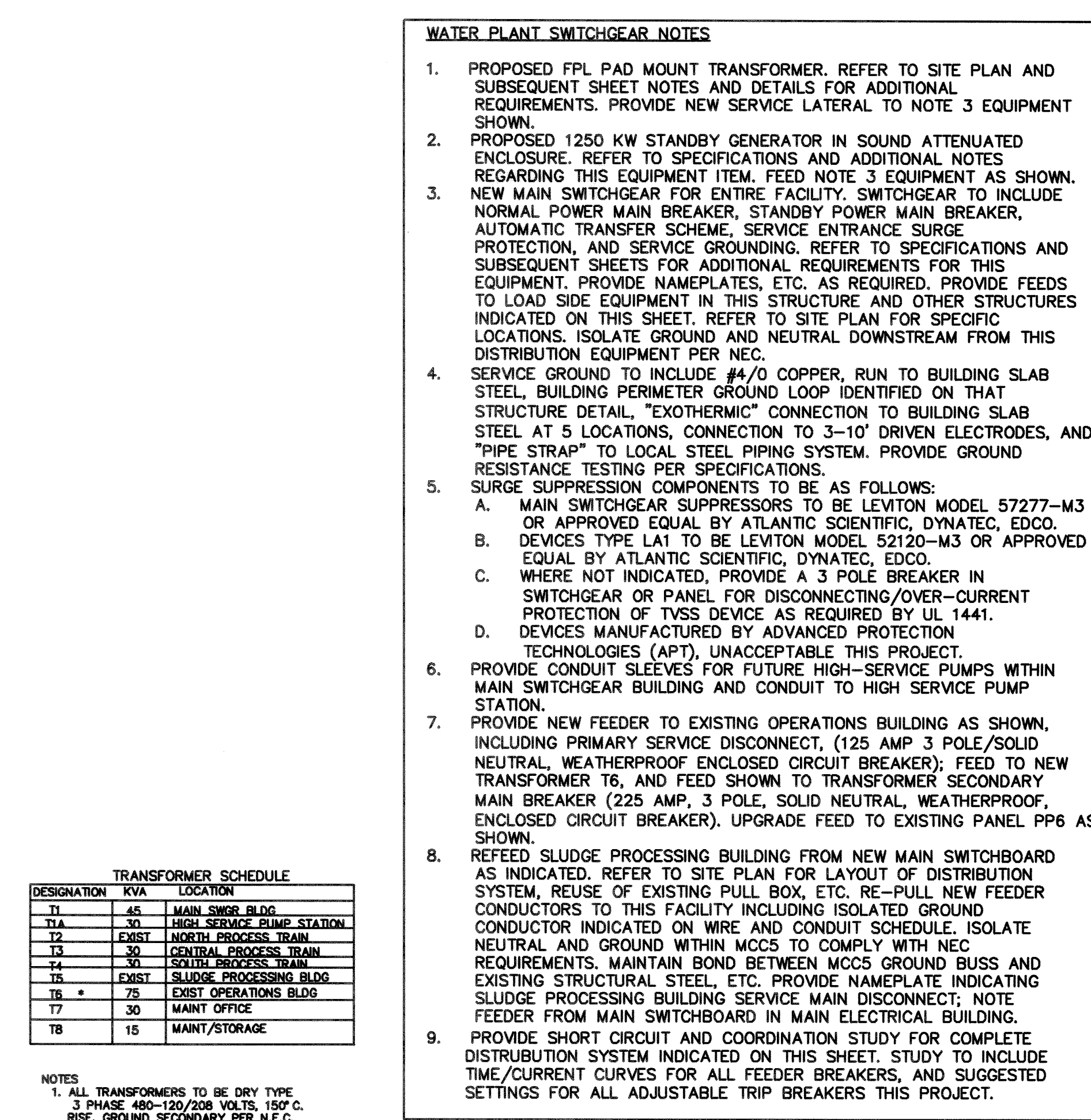
SOUTH ELEVATION
SCALE: 1/4"=1'-0"



NORTH ELEVATION
SCALE: 1/4"=1'-0"

RECORD DRAWING
APRIL 2003
JRB

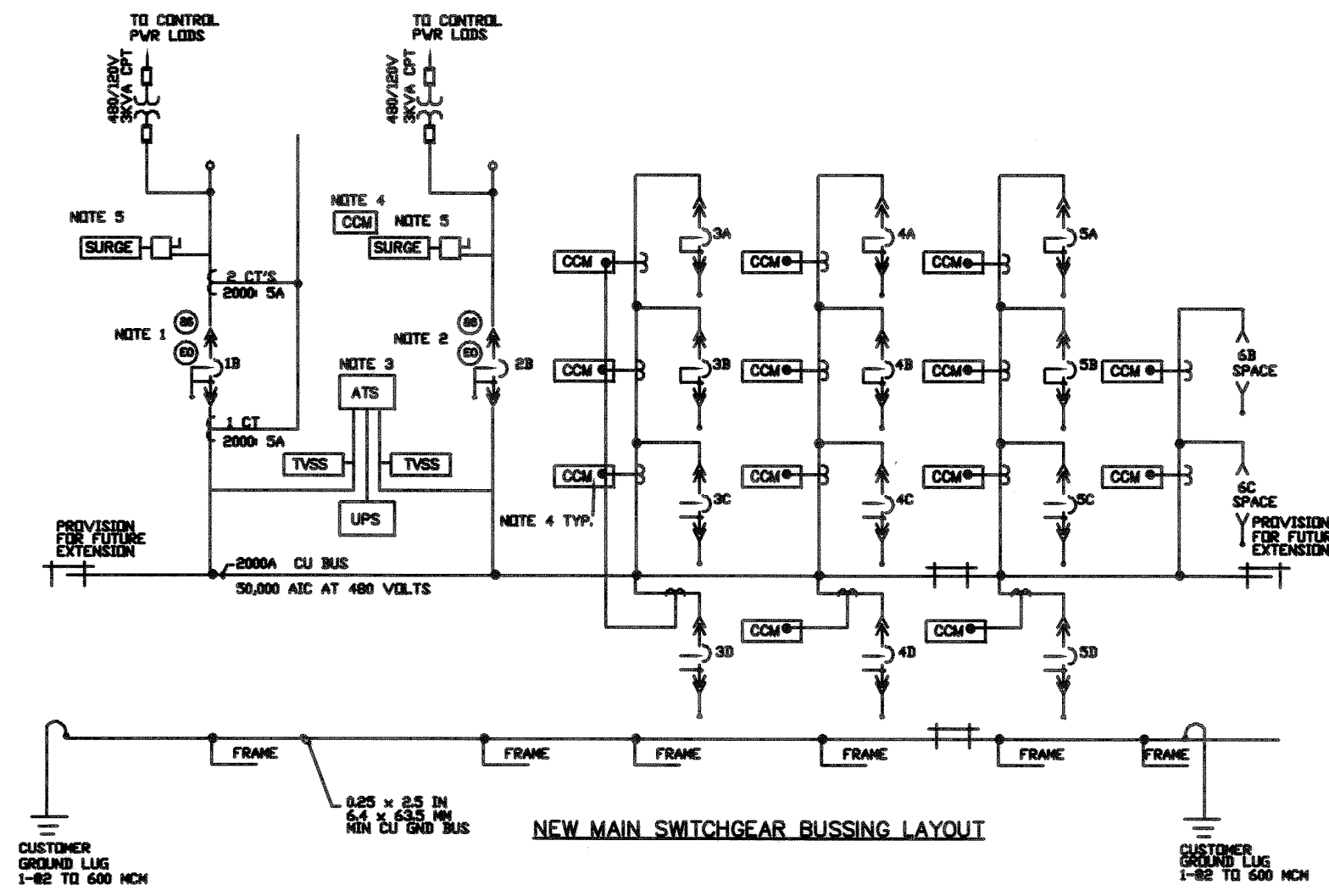
				QUENTIN I. HAMPTON ASSOCIATES, INC. CONSULTING ENGINEER&				CITY OF PORT ORANGE VOLUSIA COUNTY, FLORIDA				GARNSEY WATER PLANT EXPANSION STATE PROJECT No. DW6413010				PROPOSED STORAGE BUILDING ARCHITECTURAL ELEVATIONS				SCALE AS SHOWN JOB NO. 49 OF 90					
				P.O. DRAWER 290247 PORT ORANGE, FLORIDA 32129-0247 904 761-6810																					
NO		BY		REVISIONS				DATE																	



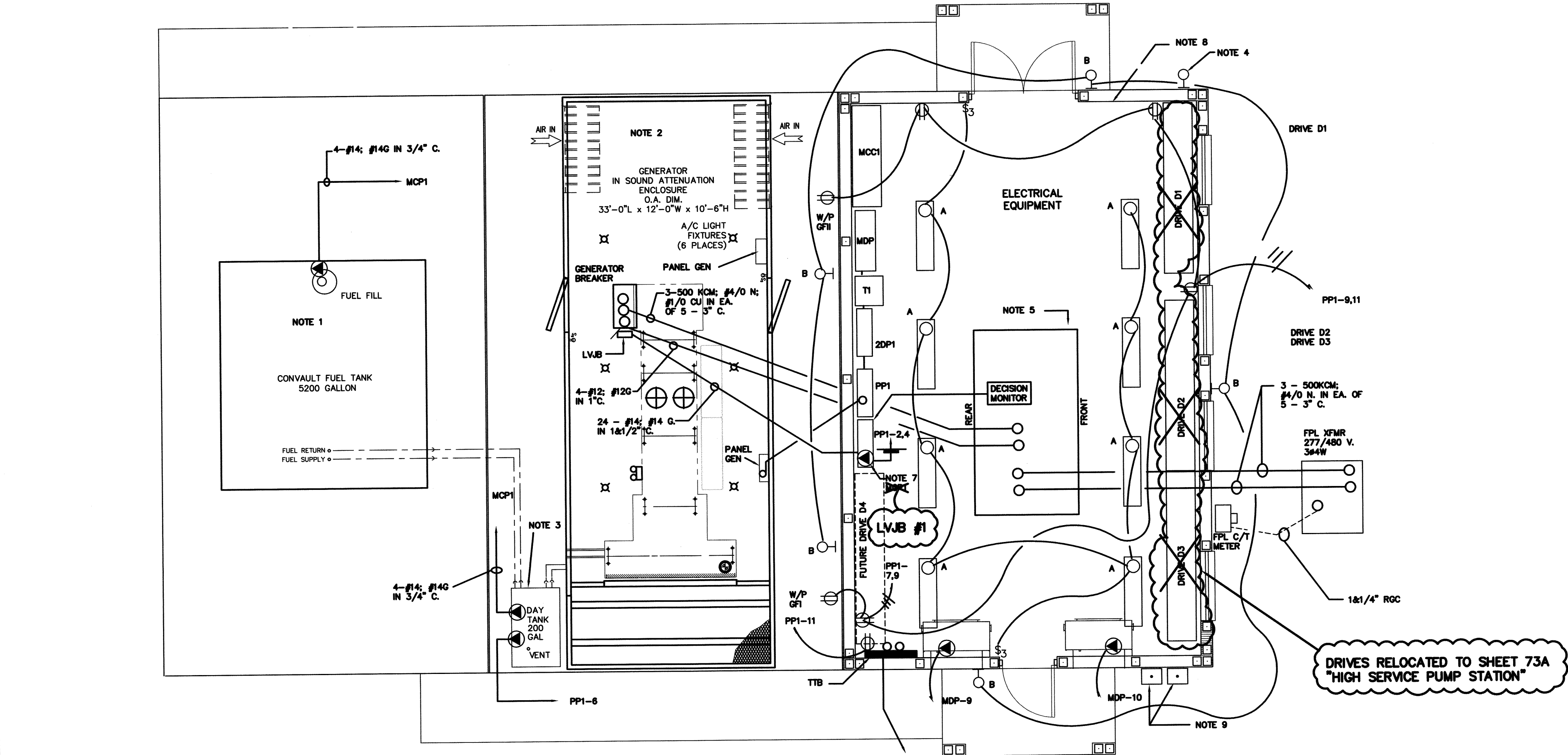
DESIGNATION	KVA	LOCATION
T1	45	MAIN SWGR BLDG
T1A	30	HIGH SERVICE PUMP STATION
T2	EXIST	NORTH PROCESS TRAIN
T3	30	CENTRAL PROCESS TRAIN
T4	30	SOUTH PROCESS TRAIN
T5	EXIST	SLUDGE PROCESSING BLDG
T6 *	75	EXIST OPERATIONS BLDG
T7	30	MAINT OFFICE
T8	15	MAINT/STORAGE

NOTES:

1. UTILITY POWER MAIN CIRCUIT BREAKER.
2. GENERATOR POWER MAIN CIRCUIT BREAKER.
3. AUTOMATIC TRANSFER SCHEME TO MONITOR NORMAL POWER STANDBY POWER, UTILITY POWER ON FAILURE, START GENERATOR, AND CLOSE GENERATOR BREAKER. PROVIDE OVERCURRENT MOUNTED POSITION SELECTOR SWITCH AND 3 - STATUS INDICATING PILOT LIGHTS, PROVIDE EXERCISE TIMER FOR 1 HOUR EXERCISE UNDER LOAD EACH WEEK.
4. FEEDER CIRCUIT MONITOR TO MONITOR VOLTAGE, AMPERAGE, HARMONICS, LOAD ETC. SQUARE D MODEL CCM-2350 OR APPROVED EQUIV. PROVIDE FOR EACH MAIN BREAKER AND EACH FEEDER BREAKER. DAISY CHAIN RS-485 CABLE BETWEEN UNITS FOR FUTURE POWER MONITORING AND COMPUTER MONITORING.
5. PROVIDE LEWISON 57277M-3 OR EQUAL BY ATLANTIC SCIENTIFIC, ARRESTOR TO BE FUNCTION 57277M-3 OR EQUAL BY ATLANTIC SCIENTIFIC, DYNATECH, OR EDDCO.



C:\asat\POGWP\REV1 gen_ elec.dwg, 03/15/00 02:16:47 PM, 1:48



- NOTES:
- PROPOSED NEW GENERATOR DIESEL FUEL TANK. REFER TO MECHANICAL AND ARCHITECTURAL DETAILS FOR ADDITIONAL INFORMATION. PROVIDE LOW FUEL ALARM WIRING TO PANEL MCP1 AS INDICATED.
 - PROPOSED 1250 KW STANDBY GENERATOR, 277/480 VOLT 3 PHASE 4 WIRE. PROVIDE ALL APPURTENANCES NECESSARY AND SPECIFIED FOR COMPLETE INSTALLATION OF THIS EQUIPMENT, INCLUDING SOUND ATTENUATED (30dB REDUCTION) WALK IN HOUSING, WIRING TO ENGINE BLOCK HEATER, CONTROL WIRING FROM MAIN LINE SECONDARY BREAKER INDICATED TO NOTE 5 EQUIPMENT, WIRING OF BATTERY CHARGER, ETC. DIMENSIONAL LAYOUT IS BASED ON SPECIFIED MANUFACTURER. USE OF AN ALTERNATE VENDOR REQUIRING DIFFERENT ROUGH-IN LOCATION, POWER/CIRCUITING REQUIREMENTS, ETC. IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. CONTRACTOR TO COORDINATE ANY NECESSARY REVISIONS WITH GENERAL CONTRACTOR AND OWNER'S REPRESENTATIVE AND INCLUDE ANY AND ALL SPACES ASSOCIATED WITH VARIANCE FROM SPECIFIED EQUIPMENT. CONTRACTOR TO INCLUDE ALL BATTERY AND BATTERY CHARGING EQUIPMENT, COOLANT LINES, FUELING LINES, ETC. REFER TO BIDDING DOCUMENTS FOR BASE BID AND ACCEPTABLE ALTERNATE MANUFACTURERS.
 - PROVIDE 200 GALLON WEATHERPROOF DOUBLE WALL DAY TANK WITH ELECTRIC FUEL PUMP AND FUEL LINE AND SUPPLY AND RETURN PIPING BETWEEN NOTE 1 LOCATION AND FUEL TANK AND NOTE 3 LOCATION AND FUEL TANK. PROVIDE STATUS/ALARM WIRING SHOWN.
 - PROVIDE ALARM HORN/LIGHT THIS LOCATION. POWER AND WIRE FROM MCP1 W/ 2 - #12 - #12G IN 1/2\"/>

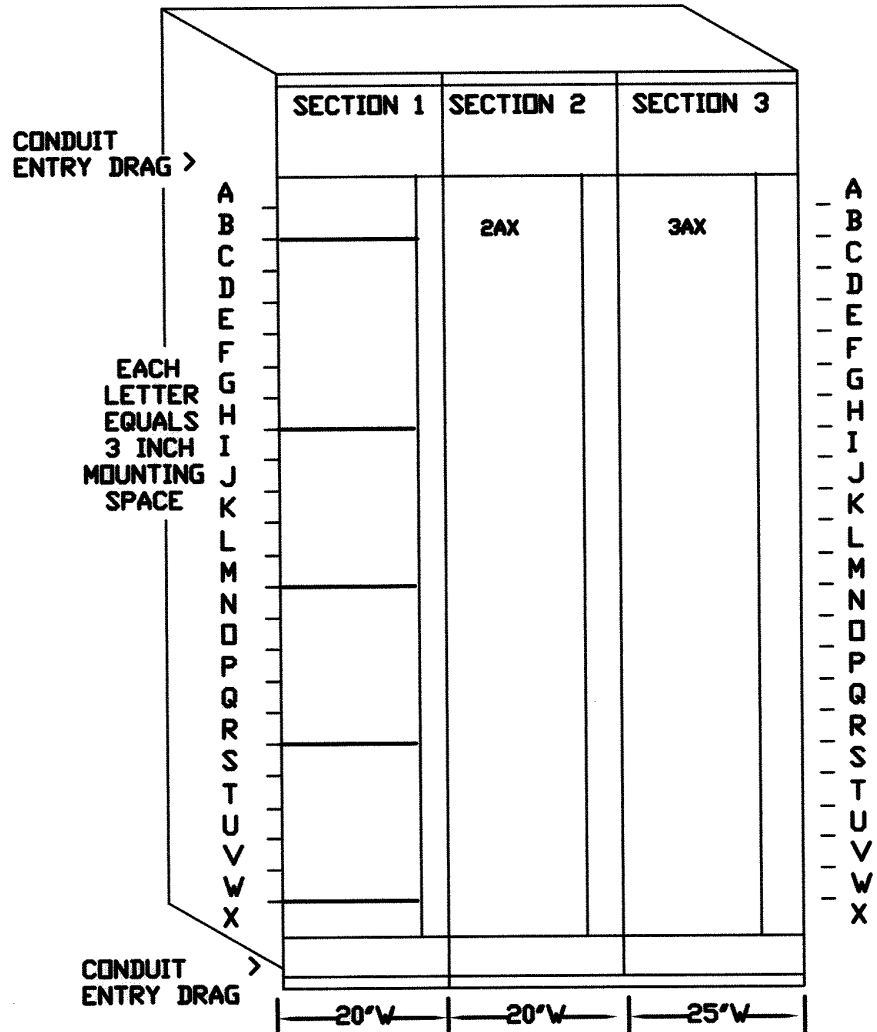
MOTOR CONTROLLER NOTES

- VARIABLE FREQUENCY DRIVES D1, D2, D3 TO BE FREESTANDING 250 HP, 480 VOLT, 3 PHASE CONTROLLERS AND INCLUDE REDUCED VOLTAGE SOLID STATE BYPASS CABINET, 250 HP VARIABLE TORQUE, 480 VOLT AC DRIVE, 12 PULSE IGBT SOLID STATE DRIVE, SOLID STATE OVERLOAD INCLUDING OVERLOAD, PHASE REVERSAL, PHASE FAILURE, GROUND FAULT, PROTECTION FEATURES. INHERENT TO DRIVE WILL BE DRIVE FAULT CONDITIONS. ON COVER OF DRIVE, PROVIDE SPEED INDICATION, HAND/OFF AUTO SELECTOR SWITCH WITH MANUAL SPEED POT, LCO INDICATION OF LINE VOLTAGE, POWER FACTOR, OUTPUT FREQUENCY, RUN/FAULT DIAGNOSTICS, ETC. INPUT SIGNAL TO BE PROGRAMMED FOR 4-20ma FROM LOCAL MCP. PROVIDE OUTPUT SPEED SIGNAL 4-20ma TO MCP1 FOR SPEED FEEDBACK SIGNAL. PROVIDE CONTROL POWER TRANSFORMER FOR MOTOR SPACE HEAT, 300 VA MINIMUM, WITH 2 PRIMARY, 1 SECONDARY FUSES. IT IS NOTED THIS CONTROL POWER TRANSFORMER MAY ALSO SERVE BYPASS REDUCED VOLTAGE SOLID STATE STARTER ASSEMBLY. PROVIDE TIME DELAY RELAY AS REQUIRED FOR VALVE FAIL LIMIT SWITCH AND WIRE TO DISABLE DRIVE AND BYPASS CONTACTOR UNDER VALVE FAIL CONDITIONS. PROVIDE DRIVE STATUS, ALARM, RUN CONTACTS BETWEEN DRIVE AND MCP1. WIRING FROM EACH DRIVE TO MCP1. PROVIDE AUXILIARY INTERLOCK ON DRIVE AND BYPASS TO OPERATE MOTOR SPACE HEAT. THOSE CONTACTS TO BE WIRED IN SERIES WITHIN DRIVE CABINET TO ASSURE MOTOR SPACE HEAT OPERATION WHEN EITHER CONTACTOR IS DISABLED.
- STARTERS IN MOTOR CONTROL CENTER #1 TO BE REDUCED VOLTAGE SOLID STATE MOTOR STARTERS WITH BYPASS CONTACTOR AND FEED PUMPS IN HIGH SERVICE PUMP BUILDING. PROVIDE OVERSIZED CONTROL POWER TRANSFORMER (300 VA MINIMUM) WITH 2 PRIMARY AND 1 SECONDARY FUSES TO PROVIDE WIRING THROUGH NORMALLY CLOSED CONTACT OF RUN CONTACTOR TO MOTOR SPACE HEATERS. ALSO PROVIDE TIME DELAY RELAY FOR VALVE FAIL LIMIT SWITCH TO DISABLE STARTER/BYPASS UNDER VALVE FAIL CONDITION. PROVIDE WIRING TO MCP1 FOR RUN/STOP/STATUS/ALARM CONDITIONS. WIRE ALARM CONDITION TO SOLID STATE MOTOR STARTER FAULT OUTPUT, MOTOR OVERLOAD RELAY OUTPUT. WIRING BETWEEN EACH STARTER IN MCC1 TO INCLUDE 12-#14/14G IN 1\"/>

MOTOR CONTROL CENTER SCHEDULE

MCC DESIGNATION A		BUSSING AMPACITY 800 BUS BRACING 42,000		VOLTS 480 ENCLOSURE 12		NEUTRAL BUS NO	GROUND BUS X
UNIT	EQUIPMENT SERVED	LOAD HP (KW)	C/B	CONTROLLER	ACCESSDRIES	WIRE & CONDUIT	CONTROL
1AB	MAIN LUG COMPT.	-	-	-	-	-	-
1CH	PANEL 4DP1A	(65)	150 T-M	-	FT,X4,PR,PG,HDA,DLR	-	-
1JM	SPARE	-	50 MCP	2-FVNR	FT,X4,PR,PG,HDA,DLR	-	MCP1
1MX	SPARE	-	30MCP	1-FVNR	-	-	MCP1
2AX	SPACE	-	-	-	-	-	-
3AX		100	200TM	VFD	FT,X4,PR,PG,HDA,VFT,DLR,VLS	#3/0 IN 2&1/2" C.	MCP1
4AX		100	200TM	VFD	FT,X4,PR,PG,HDA,VFT,DLR,VLS	#1/0 IN 2"C.	MCP1

LEGEND: T-M THERMAL MAGNETIC MOLDED CASE CIRCUIT BREAKR
MCP- MOLDED CASE MOTOR CIRCUIT PROTECTOR
*-FVNR - FULL VOLTAGE NON-REVERSING MAGNETIC
*INDICATES STARTER SIZE
*-RVAT - REDUCED VOLTAGE AUTO-TRANSFORMER MAGNETIC
MOTOR STARTER * INDICATES STARTER SIZE
VFD - VARIABLE FREQUENCY DRIVE WITH BYPASS. RATE PER HORSEPOWER, VOLTAGE, AND MOTOR RPM. SEE SPECIFICATIONS FOR FEATURES, ETC.
*-2S2W - 2-SPEED 2-WINDING MAGNETIC MOTOR STARTER WITH COMPELLING RELAY TO START IN LOW SPEED. SET AT 30 SECONDS.
* INDICATES STARTER SIZE.
FT - CONTROL POWER TRANSFORMER WITH 120 VOLT SECONDARY. PROVIDE 2-PRIMARY AND 1-SECONDARY FUSES.
X4 - 2 N.D. AND 2- N.C. AUXILIARY INTERLOCKS ON MAIN 'RUN' CONTACTOR.
P-R - RED 'RUN' PUSH TO TEST PILOT LIGHT
P-G - GREEN 'STOP' PUSH TO TEST PILOT LIGHT
HDA - COVER MOUNTED DILTIGHT HAND-OFF-AUTO SELECTOR SWITCH
VFT - VALVE FAIL TIMING RELAY 0-30 SECOND ADJUSTABLE 'ON DELAY'
CT - CYCLE TIMER 'ON-OFF' ADJUSTABLE 0-12 HOURS
DLR - N.D. DRY CONTACT TO INDICATE MOTOR STARTER OVERLOAD TRIP



MCC ELEVATION
N.T.S.

PANEL: 4DP1									
MFG.	SO	D	VOLTAGE	277/480	PHASE	3	WIRE	4	
CAT.	HCM		AMPS	600	SYM.	A.I.C. (I.E.R.)	30,000		
MOUNT	SURFACE		MAIN	LUGS ONLY		GRD.	BUS	X	
CT	DESCRIPTION	POLE	AMPS	WIRE	COND	#A	#B	#C	
1,3,5	XFMR T1	3	70	#4	1"				
2,4,6	EXIST. OPER.	3	100	#3	181/2"				
7,9,11	MAINT. DIV	3	90	#3	181/2"				
8,10,12	PANEL 4DPB	3	200	#3/0	2"				
13,15,17	AC1	3	30	#10	3/4"				
14,16,18	AC2	3	30	#10	3/4"				
19,21,23	WELL #7	3	60	#6	181/2"				
20,22,24	SPARE	3	150	-	-				
25,27,29	SPARE	3	200	-	-				
26,28,30	LIGHTS	1	20	#8	1"				
31,33,35	SPARE	3	100	-	-				
32,34,36	LIGHTS	1	20	#12	1/2"				

PANEL: PP1									
MFG.	SO	D	VOLTAGE	120/208	PHASE	3	WIRE	4	
CAT.	MOOD		AMPS	150	SYM.	A.I.C. (I.E.R.)	10,000		
MOUNT	SURFACE		MAIN	150/3 C/B		GRD.	BUS	X	
CT	DESCRIPTION	POLE	AMPS	WIRE	COND	#A	#B	#C	
1,3,5	PANEL GEN	3	100	#3	181/4"				
2,4	MAIN CONTROL PANEL	1	20	#12	3/4"				
6	DAY TANK	1	20	#12	3/4"				
2,4	MAIN CONTROL PANEL	1	20	#12	3/4"				
7,9,11	OUTLETS	1	20	#12	3/4"				
8,10,12	LIGHTS	1	20	#12	3/4"				
13,15,17	TVSS	3	30	#10	-				
18	GST-LEVEL INDICATOR	1	20	#10	1"				
19-24	SPARE	1	20	-	-				
25-48	PREPARED SPACE	1	20	#12	3/4"				

RECORD DRAWING

APRIL 2003
JRB

PAUL M. ESTES, P.E.
615 N. PENINSULA DR.
DAYTONA BEACH, FL., 32118
(904)-252-6948

QUENTIN L. HAMPTON ASSOCIATES, INC.
CONSULTING ENGINEERS

P.O. DRAWER 290247 PORT ORANGE, FLORIDA 32129-0247 904 761-8810

CITY OF
PORT ORANGE
VOLUSIA COUNTY, FLORIDA

GARNSEY WATER PLANT EXPANSION
STATE PROJECT No. DW6413010

PROPOSED GENERATOR BUILDING
ADDENDUM No. 1 DATED 10/21/99

DESIGNED	PME	DATE	SCALE	SHEET NO.
DRAWN	DLB	DATE	AS SHOWN	74A
CHECKED		DATE		
APPROVED		DATE		

JOB NO.	OF
	90



NOTICE OF INTENT TO AWARD

ITB # 22-07

GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION

May 19, 2022

On May 10, 2022, Purchasing received 2 (two) submittals for ITB # 22-07 Garnsey Water Treatment Plant Generator Installation.

After review of the responses, City Staff has made a recommendation to award to the following firm:

Chinchor Electric, Inc.

This recommendation of award will be presented to City Council for approval in the near future. Interested parties may review the City Council agenda at:

<https://www.port-orange.org/776/Agendas-and-Minutes>.

Joseph Castro
Buyer

"Failure to file a protest within the time prescribed in section 120.57(3), Florida Statutes or failure to post the bond or other security required by law within the time allowed, shall constitute a waiver of proceedings under Chapter 120, Florida Statutes." The 72-hour posting requirement will elapse on May 24, 2022 at 1:00pm E.S.T.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

05/26/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must have **ADDITIONAL INSURED** provisions or be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Brown & Brown of Florida, Inc. P.O. Box 2412 Daytona Beach FL 32115-2415		CONTACT NAME: Denise D'Abato PHONE (A/C, No, Ext): (386) 239-7281 FAX (A/C, No): (386) 323-9121 E-MAIL ADDRESS: Denise.DAbato@bbrown.com	
		INSURER(S) AFFORDING COVERAGE	
		INSURER A: Imperium Insurance Co	
		INSURER B: XL Specialty Insurance Company	
		INSURER C: Amerisure Insurance Co	
		INSURER D: LLOYD'S OF LONDON	
		INSURER E: Great American Insurance Company	
		INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** 21-22 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☒ PRO-JECT ☐ LOC OTHER:	Y		CON-IIC-00000475-00	08/30/2021	08/30/2022	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
A	AUTOMOBILE LIABILITY ☒ ANY AUTO ☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY	Y		CON-IIC-00000474-00	08/30/2021	08/30/2022	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ PIP-Basic \$ 10,000
A	☐ UMBRELLA LIAB ☒ OCCUR ☒ EXCESS LIAB ☐ CLAIMS-MADE DED ☒ RETENTION \$ 0			CON-IIC-00000476-00	08/30/2021	08/30/2022	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	N/A	WC-2106047-04	08/30/2021	08/30/2022	☒ PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
B	INLAND MARINE	Y		UM00058950MA21A	08/30/2021	08/30/2022	RENTED EQUIPMENT \$100,000 INSTALLATION \$426,950

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

SEE NOTES FOR POLICY COVERAGE FORMS
 RE: GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION ITB #22-07
 CITY OF PORT ORANGE IS ADDITIONAL INSURED AND WAIVER OF SUBROGATION APPLIES AS REQUIRED BY WRITTEN CONTRACT AND IF APPLICABLE, PER THE FORMS LISTED ON THE ATTACHED ADDITIONAL REMARKS SCHEDULE. CITY OF PORT ORANGE IS ADDITIONAL INSURED ON THE INSTALLATION FLOATER PER FORM HBM050 0612.
 30 DAY NOTICE OF CANCELLATION, EXCEPT FOR NON-PAYMENT OF PREMIUM, WILL BE PROVIDED TO THE CERTIFICATE HOLDER BY THE CARRIER FOR GENERAL LIABILITY, AUTO LIABILITY, WORKERS COMPENSATION AND UMBRELLA LIABILITY POLICIES.

CERTIFICATE HOLDER

CANCELLATION

CITY OF PORT ORANGE 1000 CITY CENTER CIRCLE PORT ORANGE FL 32129	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE

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ADDITIONAL REMARKS SCHEDULE

AGENCY Brown & Brown of Florida, Inc.		NAMED INSURED CHINCHOR ELECTRIC, INC.
POLICY NUMBER		
CARRIER	NAIC CODE	EFFECTIVE DATE:

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: 25 **FORM TITLE:** Certificate of Liability Insurance: Notes

INSURER D - PROFESSIONAL/POLLUTION LIABILITY

POLICY NUMBER: B0621PCHIN000221

08/30/2021 TO 08/30/2022

PER OCCURENCE: \$1,000,000

AGGREGATE: \$2,000,000

INSURER- E - EXCESS LIABILITY

POLICY NUMBER: TUE 3964300 00

06/15/2021 - 08/30/2022

\$5,000,000 OCC/\$5,000,000 AGG

CURRENT BLANKET POLICY FORMS

GENERAL LIABILITY:

- 1.) HIIG CG2007 1018 - PER PROJECT AGGREGATE; CAP AMOUNT \$15M
- 2.) CG2010 1219 - ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS - SCHEDULED PERSON OR ORGANIZATION
- 3.) CG2037 1219 - ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS - COMPLETED OPERATIONS
- 4.) CG2028 1219 - ADDITIONAL INSURED - LESSOR OF LEASED EQUIPMENT
- 5.) CG2011 1219 - ADDITIONAL INSURED - MANAGERS OR LESSORS OF PREMISES
- 6.) CG2032 1219 - ADDITIONAL INSURED - ENGINEERS, ARCHITECTS OR SURVEYORS NOT ENGAGED BY THE NAMED
- 7.) CG2404 1219 - WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US
- 8.) CG2001 1219 - PRIMARY AND NONCONTRIBUTORY - OTHER INSURANCE CONDITION
- 9.) CGHIIG2028 0614 - CANCELLATION OR NON-RENEWAL TO SPECIFIED PERSONS OR ORGANIZATIONS ENDORSEMENT

AUTO LIABILITY:

- 1.) CA2048 1013 - DESIGNATED INSURED FOR COVERED AUTOS LIABILITY COVERAGE (ADDITIONAL INSURED)
- 2.) CA0444 1013 - WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US
- 3.) CA0449 1116 - PRIMARY AND NONCONTRIBUTORY - OTHER INSURANCE CONDITION
- 4.) IL1207 0702 - FLORIDA POLICY CHANGES - (3RD PARTY NOTICE OF CANCELLATION)

WORKERS COMPENSATION:

- 1.) WC000313 0484-WAIVER OF OUR RIGHT TO RECOVER FROM THE OTHERS ENDORSEMENT
- 2.) WC990902 0607 - EARLIER NOTICE OF CANCELLATION PROVIDED BY US- FLORIDA

UMBRELLA LIABILITY:

- 1.) CX0001 0413 - COMMERCIAL EXCESS LIABILITY COVERAGE FORM (FOLLOW FORM FOR ADDITIONAL INSURED AND WAIVER OF SUBROGATION)

- 2.) CX 2433 1116 -NONCONTRIBUTORY - OTHER INSURANCE CONDITION

- 3.) IL1207 0702 - FLORIDA POLICY CHANGES - (3RD PARTY NOTICE OF CANCELLATION)

THE EXCESS POLICY APPLIES IN EXCESS OF THE GENERAL LIABILITY, AUTO LIABILITY AND EMPLOYERS LIABILITY. THE INSURANCE UNDER THIS POLICY WILL FOLLOW THE SAME PROVISIONS, EXCLUSIONS, CONDITIONS AND LIMITATIONS THAT ARE CONTAINED IN THE APPLICABLE CONTROLLING UNDERLYING INSURANCE, UNLESS OTHERWISE DIRECTED BY THIS POLICY.

EQUIPMENT:

- 1.)HCM050 0112-BLANKET LOSS PAYEE

POLLUTION:

- 1.)B0621PCHIN000220 - DESIGN BUILD AND CONTRACTORS PROFESSIONAL LIABILITY, CONTRACTORS POLLUTION LIABILITY, CONTRACTORS MICROBIAL CONDITION LIABILITY, TRANSPORTATION POLLUTION LIABILITY, NON-OWNED DISPOSAL SITE TECHNOLOGY BASED SERVICES, TECHNOLOGY PRODUCTS, COMPUTER NETWORK SECURITY, AND MULTIMEDIA AND ADVERTISING AND PRIVACY LIABILITY INSURANCE (ADDITIONAL INSURED, WAIVER OF SUBROGATION)

CITY OF PORT ORANGE, FLORIDA

INVITATION TO BID

GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION ITB #22-07



City of Port Orange Purchasing Division

Prepared by: Joseph Castro, Buyer

Release Date: March 22, 2022

Bid Due Date & Time: April 26, 2022 at 2:30 P.M.

City of Port Orange, Florida

1000 City Center Circle

Port Orange, FL 32129

(386) 506-5717

purchdiv@port-orange.org

www.port-orange.org



Legal Notice to Proposers

ITB #22-07

GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION

Notice is hereby given that the City of Port Orange is soliciting bids for ITB #22-07 GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION. Bids will be accepted in the City Clerk's Office, Port Orange City Hall, 1000 City Center Circle, Port Orange, Florida 32129 until **2:30 P.M. on April 26, 2022** which may be amended by addendum issued by the City. All untimely Bids will not be considered and will be returned to the Bidder unopened. All Bids will be evaluated to ensure they contain all required forms to deem the Bidder responsive or non-responsive. Bids will be opened and read aloud at 2:30 P.M. in Council Chambers.

There will be a Non-Mandatory Pre-Bid Conference and Site Visit at 10:00 A.M. (local time) on April 5, 2022 for the project at City Hall, Council Chambers (1st floor), 1000 City Center Circle, Port Orange, Florida 32129. All attendees to the Pre-Bid Conference must sign in. The representative of each Bidder shall be an authorized employee of the Bidder and shall sign in accordingly. Bidders are urged to obtain Bid documents and familiarize themselves with the documents prior to the Pre-Bid Conference.

A Bid Guarantee in the form of a Bid Bond executed by the Bidder and an acceptable surety or a certified check or bank draft payable to the City of Port Orange, Florida in an amount equal to five percent (5%) of the proposed bid shall be submitted with each bid.

***DESCRIPTION:** The City of Port Orange is soliciting sealed bids for removal, relocation of fuel tank, new generator installation and construction of new electrical building.*

Bidders must be a commercial entity licensed to do business in the State of Florida and perform the services identified herein and properly registered and licensed to provide the goods or services identified in the scope of work, by all applicable state and local agencies.

All Bids are solicited and shall be made pursuant to the Code of Ordinances, City of Port Orange, Chapter 2, Article VI, Division 2, Section 2-263, and all Bids will be evaluated in accordance with the provisions thereof. Code of Ordinances, City of Port Orange is on file in the Office of the City Clerk, City Hall, 1000 City Center Circle, Port Orange, Florida 32129, and at www.municode.com. Local bidders may be given a local preference pursuant to the Code of Ordinances, City of Port Orange, Chapter 2, Article VI, Division 2, Section 2-275.

Copies of the Bid documents, requirements, scope of service and all other pertinent information necessary to submit a complete package may be obtained electronically from the City of Port Orange website at www.port-orange.org/bids.aspx and DemandStar via their website at www.demandstar.com.

All questions shall be directed **in writing** to the Buyer, Joseph Castro, jcastro@port-orange.org or purchdiv@port-orange.org and reference **"Questions on ITB #22-07 GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION"** in the subject line. Last day for questions will be **April 12, 2022 at 5:00 P.M.**

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Cut along the outer border and affix this label to the outside of your sealed bid envelope/package to identify it as a "Sealed Bid". Be sure to include the name of the company submitting the bid where requested.



SEALED BID • DO NOT OPEN	
SEALED BID NO.	ITB #22-07
BID TITLE:	GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION
DUE DATE/TIME:	April 26, 2022 at 2:30 P.M.
SUBMITTED BY:	(Name of Company)
ADDRESS:	
DELIVER TO:	City of Port Orange Attn: Joseph Castro, Buyer Purchasing Division 1000 City Center Circle Port Orange, Florida 32129
DATE/TIME RECEIVED:	
	(To be stamped by Clerk's Office)

Contents

SECTION 1 – PURPOSE AND OVERVIEW	5
SECTION 2 – INSTRUCTIONS TO BIDDERS	6
SECTION 3 – SPECIFICATIONS.....	10
SECTION 4 – STANDARD PURCHASE DEFINITIONS.....	11
SECTION 5 – GENERAL TERMS AND CONDITIONS.....	14
SECTION 6 – SPECIAL CONDITIONS.....	37
SECTION 7 – REQUIRED FORMS.....	38
FORM 7.1 – BID SUBMITTAL CHECKLIST	38
FORM 7.2 – BIDDER’S ACKNOWLEDGEMENT FORM	39
FORM 7.3 – ADDENDUM and CHANGE ORDER PROCEDURE ACKNOWLEDGEMENT	40
FORM 7.4 – DRUG FREE PREFERENCE STATEMENT	41
FORM 7.5 – SWORN STATEMENT UNDER SECTION 287.133(3)(A), FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES	42
FORM 7.6 – ANTI-COLLUSION FORM.....	43
FORM 7.7 – STATEMENT OF BIDDER’S QUALIFICATIONS	44
FORM 7.8 – PROFESSIONAL REFERENCES FOR PREVIOUS EXPERIENCE	45
FORM 7.9 – LOCAL BUSINESS AFFIDAVIT OF ELIGIBILITY.....	47
FORM 7.10 – E-VERIFY AFFIDAVIT.....	48
FORM 7.11 - DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS.....	49
FORM 7.12 - NO SUBMITTAL RESPONSE FORM.....	50
ATTACHMENT 1 – SCHEDULE OF UNIT PRICING.....	51
BID BOND.....	52
PAYMENT & PERFORMANCE BOND.....	54
LEASED EMPLOYEE AFFIDAVIT FORM (FOR INFORMATIONAL PURPOSES ONLY)	58
AFFIDAVIT REGARDING WORKERS COMPENSATION FORM (FOR INFORMATIONAL PURPOSES ONLY).....	59
EJCDC AGREEMENT 121817 C-520 (FOR INFORMATIONAL PURPOSES ONLY).	60
STANDARD GENERAL CONDITIONS - EJCDC C-700 (FOR INFORMATIONAL PURPOSES ONLY)	69
SUPPLEMENTARY CONDITIONS - EJCDC C-700 (FOR INFORMATIONAL PURPOSES ONLY)	139

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SECTION 1 – PURPOSE AND OVERVIEW

The purpose for this Invitation to Bid (ITB) is to solicit competitive sealed bids from Firms or Companies (Bidders) to remove and relocate an existing fuel tank, new generator installation services and new electrical room construction for the Garnsey Water Treatment Plant.

It is the intent and purpose of the City of Port Orange (City) that this Invitation to Bid promotes competitive selection. It shall be the Bidder's responsibility to advise the Purchasing Division if any language, requirements, etc., or any combination thereof, inadvertently restricts or limits the requirements stated in this ITB to a single source.

READ THIS ENTIRE DOCUMENT CAREFULLY. FOLLOW ALL INSTRUCTIONS. YOU ARE RESPONSIBLE FOR FULFILLING ALL REQUIREMENTS AND SPECIFICATIONS. BE SURE YOU UNDERSTAND THEM.

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SECTION 2 – INSTRUCTIONS TO BIDDERS

Firms or companies (Bidder) desiring to provide services, as described herein shall submit sealed bids including one (1) original copy and one (1) digital (flash drive) version in PDF format, in conformance with the detailed submittal instructions.

TIMELINE (Local Time):

The City reserves the right to alter dates as needed.

Date of Distribution.....	March 22, 2022
Non-Mandatory Pre-Bid Conference & Site Visit.....	April 5, 2022 10:00A.M.
Deadline for Questions.....	April 12, 2022 by 5:00P.M.
Final Addendum Posting	April 19, 2022 by 5:00 P.M.
Bids Due.....	April 26, 2022 by 2:30 P.M.
City Council Meeting for Approval of Recommendation of Award.....	To Be Determined

Bids must be delivered in a sealed envelope/package and delivered to:

City of Port Orange City Clerk's Office
Attn: Joseph Castro, Buyer
Purchasing Division
1000 City Center Circle
Port Orange, Florida 32129

Sealed Bids must be delivered **no later** than the date and time listed in the Timeline above. All times referenced are local time.

Bids shall be sealed and Bidders shall clearly indicate on the outside of their bid the following:

- a) Invitation to Bid (ITB) Number and Title
- b) Date of Opening
- c) Name of Bidder
- d) Address of Bidder

Due to the timing of mail service, the City cautions Bidders to assure actual delivery of Bids to the City prior to the deadline set for receiving bids. Carrier and hand deliveries of bids will be accepted in the City Clerk's Office, Port Orange City Hall, 1000 City Center Circle, Port Orange, Florida 32129 until the date and time referenced in the Timeline above or as amended by addendum issued by the City. Bids received after the established deadline shall not be considered.

Bidders are cautioned that they are responsible for delivery to the specific location cited above. Therefore, if your bid, proposal, statement or quotation is delivered by an express mail carrier or by any other means, it is your responsibility to ensure delivery to the above address. This office will not be responsible for deliveries made to any place other than the specified address.

Offers by telephone or email shall not be accepted. Also, Bidders are instructed NOT to fax their bid package. **Faxed bids shall be rejected as non-responsive regardless of where or when the fax is received.**

All Bids will be opened publicly, and the names of all Bidders shall be read aloud. All conferences and meetings regarding this ITB are recorded electronically (audio only). The City of Port Orange reserves the right to reject any or all Bids or parts of Bids, if it is in the best interest of the City.

PRE-BID CONFERENCE/SITE VISIT:

There will be a Non-Mandatory Pre-Bid Conference and Site Visit for the project on the date and time referenced in the Timeline above at City Hall, Council Chambers (1st Floor), 1000 City Center Circle, Port Orange, Florida 32129.

The representative of each Bidder shall be an authorized employee of the Bidder and shall sign in accordingly.

QUESTIONS REGARDING THIS ITB:

All questions shall reference “**ITB #22-07 GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION**” in the subject line. All questions concerning this ITB shall be submitted in writing no later than the date and time referenced in the Timeline above to:

Joseph Castro, Buyer
1000 City Center Circle
Port Orange, FL 32129
jcastro@port-orange.org or
purchdiv@port-orange.org

ADDENDA REGARDING THE INVITATION TO BID:

The City will issue responses to inquiries and any other corrections or amendments it deems necessary in written addenda issued prior to the Bid Due Date. Addenda will be provided via the City website www.port-orange.org/bids.aspx and DemandStar website www.demandstar.com. Bidders should not rely on any representations, statements or explanations other than those made in this ITB or in any addendum to this ITB. Where there appears to be a conflict between the ITB and any addenda issued, the last addendum issued will prevail. It is the Bidders responsibility to be sure all correct number of addenda were received by completing Form 7.3 Addendum and Change Order Procedure Acknowledgement. Bidders who do not acknowledge the correct number of addenda may be deemed non-responsive.

CLARIFICATIONS:

It is the Bidder’s responsibility to become familiar with and fully informed regarding the terms, conditions and specifications of this ITB. Lack of understanding and/or misinterpretation of any portions of this ITB shall not be cause for withdrawal of your Bid after opening or for subsequent protest of award.

MINIMUM QUALIFICATIONS:

Bidders must be licensed to do business in the State of Florida and submit Sunbiz report showing their company registered as “Active”. Bidders must provide a minimum of three (3) verifiable references from similar scopes of work as identified in this ITB on the provided “Professional References” form. Failure to provide references that verify required experience will cause the Bidder to be deemed non-responsive. The City of Port Orange is not to be used as a reference.

NO LOBBYING

All Bidders are hereby placed on notice that the City of Port Orange Council, City Employees/Staff, nor Members of the Evaluation Committee (with the exception of the City of Port Orange Purchasing Division personnel designated to receive requests for interpretations or corrections) are not to be lobbied, directly or indirectly either individually or collectively, regarding this ITB. During the entire procurement process, all Bidders and their subcontractors, sub-consultants, or agents are hereby placed on notice that they are not to contact any persons listed above for such purposes as holding meetings of introduction, dinners, etc., if they intend to submit or have submitted Bids for this project. Any Bidder contacting individuals mentioned herein in violation of this warning may automatically be disqualified from further consideration for this ITB.

SCHEDULE OF UNIT PRICING:

Schedule of Unit Pricing (Attachment 1) is to be completed as directed and without modification and returned as part of the ITB submittal prior to the ITB deadline for submission. Failure to fill out the Schedule of Unit Pricing as directed and without modification may negatively affect the evaluation of your bid.

EXCEPTIONS TO SPECIFICATIONS:

If taking exception to any portion of the ITB specifications, the Bidder must indicate those exceptions as stated on the Bidder’s Acknowledgement Form.

BID SUBMISSION AND WITHDRAWAL:

Unless otherwise specified, Bidder shall use the forms supplied by the Purchasing Division. Bids, once opened, become the property of the City, cannot be withdrawn, and will not be returned to the Bidders. Upon opening, Bids become subject to public disclosure in accordance with Chapter 119, Florida Statutes.

CORRECTION OF BIDS:

Correction of inadvertently erroneous Bids shall be permitted up to the time of ITB opening. Bidders shall not be allowed to modify their Bids after the opening time and date.

WITHDRAWAL OF BIDS:

NO bid shall be withdrawn for a period of ninety (90) days subsequent to the Bid opening without the consent of the City of Port Orange, Florida. Negligence on the part of the Bidder in preparing the Bid confers no right of withdrawal or modification after the Bid has been opened, at the appointed time and place by the City of Port Orange. Any such withdrawn Bid shall not be resubmitted.

OPENING OF BIDS:

Bids will be received until the date and time stated in this ITB and will be publicly opened and read at the place, time and date stated. The Purchasing Department shall bear no responsibility for the premature opening of a Bid not properly addressed and identified.

LITIGATION HISTORY:

The City will consider a Bidder's litigation history information in its review and determination of responsibility. All Bidders are required to disclose to the City all "material" cases filed, pending, or resolved during the last five (5) years prior to the solicitation response due date, whether such cases were brought by or against the Bidder, any parent or subsidiary of the Bidder, or any predecessor organization. If the Bidder is a joint venture, the information provided should encompass the joint venture (if it is not newly formed for purposes of responding to the solicitation) and each of the entities forming the joint venture. Although the review of a Bidder's litigation history is an issue of responsibility, the failure to provide litigation history as required may result in a recommendation of nonresponsive by the Purchasing Manager.

DEBARMENT HISTORY:

The City will consider a Bidder's debarment history information in its review and determination of responsibility. All Bidders are required to disclose to the City all cases of debarment filed, pending, or resolved by the City or other public entity during the last five (5) years prior to the solicitation response due date, whether such actions were brought by or against the Bidder, any parent or subsidiary of the Bidder, or any predecessor organization. If the Bidder is a joint venture, the information provided should encompass the joint venture (if it is not newly formed for purposes of responding to the solicitation) and each of the entities forming the joint venture. Although the review of a Bidder's debarment history is an issue of responsibility, the failure to provide debarment history on Form 7.12 as required in the ITB may result in a recommendation of non-responsive by the Purchasing Manager.

REJECTION OF BIDS:

The City reserves the right to reject any and/or all Bids when such rejection is in the best interest of the City.

BIDS MAY BE REJECTED AND/OR BIDDER(S) DISQUALIFIED FOR THE FOLLOWING REASONS:

- (a) Failure to update the information on file including address, product, service or business descriptions.
- (b) Failure to perform according to contract provisions.
- (c) Conviction in a court of law of any criminal offense in connection with the conduct of business.
- (d) Evidence of a violation of any federal or state anti-trust law based on the submission of bids or

proposals, or the awarding of contracts.

- (e) Evidence that the Bidder has attempted to give a City employee a gratuity of any kind for the purpose of influencing a recommendation or decision in connection with any part of the Board's purchasing activity.
- (f) Other reasons deemed appropriate by the City.

OWNERSHIP OF DOCUMENTS:

All documents resulting from this project will become the sole property of the City of Port Orange. The Bidder must meet all requirements for retaining public records and transfer, at no cost, to the City all public records in possession of the Bidder upon termination of this Agreement and destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. All records stored electronically must be provided to the City in a format that is compatible with the information technology systems of the City.

AMERICANS WITH DISABILITIES ACT (ADA):

If you need special services provided for under the Americans with Disabilities Act, contact the ADA Coordinator in our Human Resources office at 386-506-5560 at least 48 hours before the scheduled event.

REQUIRED DOCUMENTS FOR AWARDED BIDDER:

The awarded Bidder shall return all of the required post-award documents within 10 days after the issuance of the Notice of Intent to Award in order to execute the contract.

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SECTION 3 – SPECIFICATIONS

1. Please refer to Attachment 2 “Technical Specifications – 100% Submittal” and Attachment 3 “100% Design November 2021” posted as separate documents on the City’s webpage www.port-orange.org/bids.aspx and DemandStar www.demandstar.com.

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SECTION 4 – STANDARD PURCHASING DEFINITIONS

The City will use the following definitions in instructions to bidders, terms and conditions, special provisions, technical specifications and any other solicitation documents.

1. **Addendum** is a formal written document, released prior to the public opening that modifies any aspect of a Solicitation. Plural: Addenda
2. **Alternate Bid** means multiple Bids with substantive variations from the same Bidder in response to a Solicitation.
3. **Amendment** is a formal written agreement, signed by both parties, that modifies an existing contractual agreement.
4. **Appropriate, Appropriated, or Appropriation** means the adoption by the City Council of the City of a budget for a fiscal year that includes payments to be made under the Contract during the respective fiscal year.
5. **Best Value** means the highest overall value to the City based on factors that include, but are not limited to, price, quality, design, and workmanship.
6. **Bid** is a complete, properly signed response to an Invitation to Bid, which if accepted, would bind the Bidder to perform the resultant Contract.
7. **Bid Guaranty (Bid Bond)** guarantees that the Bidder (a) will not withdraw the Bid within the period specified for acceptance, and (b) will execute a Contract and furnish required bonds and any necessary insurance within the time specified in the Solicitation, unless a longer time is allowed by the City. The guarantee will be returned to the Bidder upon execution of a Contract
8. **Bidder or Proposer** is a person, firm, or entity that that submits a Response to a Solicitation. Any Bidder/Proposer may be represented by an agent after submitting evidence demonstrating the agent's authority. The agent cannot certify as to his own agency status. (See also "Vendor")
9. **City** means the City of Port Orange.
10. **Competitive Negotiation** means a method for acquiring goods, services, and construction for public use in which discussions or negotiations may be conducted with responsible offerors who submit Responses through a Request for Proposals, Request for Statements of Qualifications, or Invitation to Negotiate.
11. **Competitive (Formal) Solicitation** is the process of requesting and receiving two or more sealed bids, proposals, statements of qualifications or replies submitted by responsive vendors in accordance with the terms of a competitive process, regardless of the method of procurement.
12. **Competitive Range** means the responsive submissions that meet the evaluation criteria and are considered to be reasonably susceptible of award.
13. **Construction** means the process of building, repairing, improving, and alterations, conversion or extension of building, parks, utilities, streets or other improvements or alterations to real property.
14. **Contract** is a written agreement or purchase order issued for the purchase of goods or services.
15. **Contractor** means the person, firm or entity selling goods or services to the City under a Contract.
16. **Deliverables** means the goods, products, materials, and/or services to be provided to the City by a Bidder.
17. **Due Date** means the date and time specified for receipt of Responses to a Solicitation.
18. **End User** is a person, program, agency, or other eligible user who uses a contract to purchase a commodity or contractual service.
19. **Evaluation Committee/Team** is a temporary group of City personnel who are responsible for the evaluation of proposals, statements of qualifications or replies as part of a Request for Proposals (RFP), Request for Submission of Qualifications (RFSQ), or Invitation to Negotiate (ITN), or competitive grant process.
20. **Evaluator** is a member of the evaluation committee/team.
21. **Goods** are supplies, materials, or equipment.
22. **Intent to Award** is a document, published on DemandStar, that informs the public and respondents of the City's decision to award a contract pursuant to a previously issued competitive solicitation.
23. **Invitation to Bid (ITB) or Bid** means a formal request to prospective vendors requesting pricing for a specified Good or Service which has been advertised for Bid in a newspaper.

24. **Invitation to Negotiate (ITN)** means a formal request to prospective vendors requesting proposed specifications and pricing of a product and/or service which has been advertised for replies in a newspaper.
25. **Issues** means points, matters, or concerns to be addressed during negotiations.
26. **Lead Negotiator** is the negotiator responsible for leading and facilitating the formal negotiation discussions and selecting other required negotiation team members. Is often the “driver of change” and seeks alternatives/options.
27. **Lowest Responsible Bid** means the responsive Bid meeting all requirements of the specifications, terms, and conditions of the Invitation to Bid resulting in the lowest cost to the City in a total cost concept or based solely on price, taking into consideration the financial and practical ability of the Bidder to perform the Contract, past performance of the Bidder, and compliance with all City ordinances concerning the purchasing process.
28. **Lowest Responsive and Responsible Bidder** means the Bidder submitting lowest responsive and responsible Bid.
29. **Negotiation Team** is a temporary group of City personnel who are responsible for negotiations as part of an Invitation to Negotiate (ITN).
30. **Negotiator** is a member of the negotiation team.
31. **Non-Professional Services** are services performed that are not of a professional nature such as lawn care, security, janitorial, etc.
32. **Offer** means a complete signed Response submitted to the City in response to a Solicitation including, but not limited to, a Bid submitted in response to an Invitation to Bid, a Proposal submitted in response to a Request for Proposal, a Quote submitted in response to a Request for Quotation, a Statement of Qualifications and interest submitted in response to a Request for Statements of Qualifications, or a Reply submitted in response to an Invitation to Negotiate.
33. **DemandStar** is the official online repository for all City competitive solicitations.
34. **Outlier** is a bid, offer, or proposal which is determined by the Purchasing Director or Manager to be significantly dissimilar to or inconsistent with, competing bids or offers.
35. **Pre-Bid/Proposal/Statement/Reply Conference** means a meeting conducted by the Purchasing Office, held in order to allow Vendors to ask questions about the proposed Contract and particularly the Contract specifications with the City department requesting the goods/services.
36. **Price Analysis** is an evaluation of the total cost of a contract in order to determine if the price is reasonable.
37. **Procurement (Process)** is a term used in the governmental sector for the combined functions of acquiring (purchasing) needed goods and/or services, receiving and inspection, inventory management, contract administration, and disposal/surplus.
38. **Professional Services** means those services within the scope of the practice of architecture, professional engineering, landscape architecture, or registered surveying and mapping, as defined by the laws of the state, or those performed by any architect, professional engineer, landscape architect, or registered surveyor and mapper in connection with his or her professional employment or practice.
39. **Protest** is a formalized process by which respondents have an opportunity to challenge a procurement practice or contract award.
40. **Proposal** is a complete, properly signed Response to a Request for Proposal, based on performance that is offered rather than on that of price alone, which if accepted, would bind the Vendor to perform the resultant Contract.
41. **Purchase Order** is an order placed by the Purchasing Division for the purchase of Goods or Services written on the City’s standard Purchase Order form and which, when accepted by the Bidder, becomes a contract. The Purchase Order is the Bidder’s authority to deliver and invoice the City for Goods or Services specified, and the City’s commitment to accept the Goods or Services for an agreed upon price.
42. **Request for Proposal (RFP)** means a formal request to prospective vendors requesting qualifications of the vendor and pricing for a specified Good or Service which has been advertised for Proposal in a newspaper.
43. **Request for Statement of Qualifications (RFSQ)** means a formal request to prospective vendors

requesting statements of qualifications pursuant to Florida Statute 287.055 “Consultant’s Competitive Negotiation Act” which has been advertised for Statement in a newspaper.

44. **Respondent** means an entity that has (or will, i.e. “prospective respondents”) submitted a response to a competitive solicitation conducted to create a contractual relationship for the provision of commodities or services.
45. **Response/Submission** means all materials submitted to the City by a respondent as part of a solicitation. A response may be called a bid, proposal, statement of qualifications, or a reply, depending on the type of competitive solicitation being issued.
46. **Responsible (Bidder)** is a bidder who has the capability in all respects to fully perform the contract requirements and the integrity and reliability that will assure good faith performance.
47. **Responsive (Bidder)** is a bidder that has submitted a bid, proposal, statement of qualifications, or reply that conforms in all material respects to the solicitation.
48. **Scope** means the extent of the area or subject matter that something deals with or to which it is relevant.
49. **Scope of Work** means a description of the work activities, deliverables, and/or timeline that a vendor must execute in terms of delivering specific commodities or in performance of contractual services.
50. **Services** include all work or labor performed for the City on an independent contractor basis other than construction.
51. **Solicitation** means a formal request, as applicable, for prospective vendors to submit responses to an Invitation to Bid, Request for Proposal, Request for Qualifications, Invitation to Negotiate, or a Request for Quotation.
52. **Solicitation Document** means a document, or collection of documents, either paper or electronic, that contains all information required to conduct a competitive procurement project according to § 287.057, Florida Statutes.
53. **Stakeholder** means an individual, who is not likely to become a vendor, who has an interest in the commodities/contractual services needed.
54. **Subcontractor** means a person, firm or entity providing goods or services to a Vendor to be used in the performance of the Vendor’s obligations under the Contract.
55. **Subject Matter Expert** means a person who has working or expert knowledge about a particular topic or field.
56. **Unbalanced Bid** means a Bid that is based on prices which are significantly less than cost for some bid items and significantly more than cost for others.
57. **Vendor** is a person, firm, or entity that provides commodities or services and submits a Response to a Solicitation. Any Vendor may be represented by an agent after submitting evidence demonstrating the agent’s authority. The agent cannot certify as to his own agency status. (Also called “Bidder” or “Proposer”.)

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SECTION 5 – GENERAL TERMS AND CONDITIONS

These instructions are standard for all contracts for commodities or services issued through the City of Port Orange Purchasing Division. General Requirements apply to all advertised Solicitations; however, **these may be superseded, in whole or in part, by the SPECIAL REQUIREMENTS/INSTRUCTIONS OR OTHER DATA CONTAINED HEREIN.**

READ THIS ENTIRE DOCUMENT CAREFULLY. FOLLOW ALL INSTRUCTIONS. YOU ARE RESPONSIBLE FOR FULFILLING ALL REQUIREMENTS AND SPECIFICATIONS. BE SURE YOU UNDERSTAND THEM.

1. ACCEPTANCE BY CITY

The City shall have a reasonable time (but not less than 30 days) after receipt to inspect the goods and services tendered by Bidder. The City at its option may reject all or any portion of such goods or services which do not, in City's sole discretion, comply in every respect with all terms and conditions of the contract. The City may elect to reject the entire goods and services tendered even if only a portion thereof is nonconforming. If the City elects to accept nonconforming goods and services, the City, in addition to its other remedies, shall be entitled to deduct a reasonable amount from the price thereof to compensate the City for the nonconformity. Any acceptance by the City, even if non-conditional, shall not be deemed a waiver or settlement of any defect in such goods and services. The material delivered as a result of this solicitation shall remain the property of the seller until a physical inspection and actual usage of the item(s) is made and thereafter deemed acceptable to the satisfaction of the City, in compliance with the terms and specifications contained herein. In the event that the item(s) supplied to the City is/are found to be defective, or does/do not conform to specifications, the City reserves the right to cancel the order upon written notice to the seller and return the item(s) to the seller at the seller's expense.

2. ADDENDUM

The City shall issue responses to inquiries and any other corrections or amendments it deems necessary in written addenda issued prior to the Solicitation Response Due Date. When specifications are revised, the City of Port Orange Purchasing Division will issue an addendum addressing the nature of the change. Bidders shall acknowledge all addenda by completing Form 7.3 Addendum and Change Order Procedure Acknowledgement and include it in the returned Response package. Failure to acknowledge the correct number of addenda issued may result in rejection of the Response. All Addenda shall be posted by the CITY on www.demandstar.com and City of Port Orange website, www.port-orange.org/bids.aspx

The City shall issue responses to inquiries and any other corrections or amendments it deems necessary in written addenda issued prior to the Solicitation Response Due Date. Bidders should not rely on any representations, statements or explanations other than those made in this Solicitation or in any addendum to the Solicitation. Where there appears to be a conflict between the Solicitation and any addenda issued, the last addendum issued shall prevail.

3. ADDITIONAL GOODS

Products, Materials and Goods not specifically identified in this bid request may be added to any resultant contract upon mutual consent of the contracting parties. The City reserves the right to add or delete products or materials of similar nature, within the family of products of "ITB Item(s)" and their commodity codes, to those items requested in this bid.

4. ANTI-COLLUSION STATEMENT

By submitting this Response to a Formal Solicitation, the Bidder affirms that this Response is without previous understanding, agreement, or connection with any person, business, or corporation submitting a Response for the same materials, supplies, or equipment, and that this response is in all respects fair, and without collusion or fraud. Additionally, Bidder agrees to abide by all conditions of this Solicitation and certifies that they are authorized to sign this Response for

the Bidder. In submitting a Response to the City of Port Orange, the Bidder offers and agrees that if the Response is accepted, the Bidder shall convey, sell, assign or transfer to the City of Port Orange all rights, title and interest in and to all causes of action it may now or hereafter acquire under the Anti-trust laws of the United States and the State of Florida for price fixing relating to the particular commodities or services purchased or acquired by the City of Port Orange. At the City's discretion, such assignment shall be made and become effective at the time the City tenders final payment to the Bidder.

5. **APPLICABLE LAWS**

In connection with the furnishing of supplies or performance of work under the Contract, the Bidder agrees to comply with the Fair Labor Standards Act, Equal Opportunity Employment Act, and all other applicable federal and state laws, regulations and executive orders to the extent that the same may be applicable.

6. **ASSIGNMENT**

The successful Bidder shall not sell, assign, transfer or convey this contract in whole or in part, without the prior written consent of the City of Port Orange. Any such assignment or transfer shall not release Bidder from all contractual obligations.

7. **AUTHORITY TO CONDUCT BUSINESS IN FLORIDA:**

A Florida corporation or partnership is required to provide evidence with its response that the Bidder is authorized to transact business in Florida and is in good standing with the Florida Department of State. If not with the response from the successful bidder, such evidence must be submitted to the City no later than five (5) business days from request of the Purchasing Manager. A foreign (out-of-state) corporation or partnership is required to provide evidence with its response that the Bidder is authorized to transact business in Florida and is in good standing with the Florida Department of State. If not with the response from the successful bidder, such evidence must be submitted to the City no later than five (5) business days from request of the Purchasing Manager. A joint venture is required to provide evidence with its response that the joint venture, or at least one of the joint venture partners, is authorized to transact business in Florida and is in good standing with the Florida Department of State. If not with its response, such evidence must be submitted to the City no later than five (5) business days from request of the Purchasing Manager. However, the joint venture is required to provide evidence prior to contract execution that the joint venture is authorized to transact business in Florida and provide the City with a copy of the joint venture Agreement. A joint venture is also required to provide with its response a Statement of Authority indicating that the individual submitting the joint venture's proposal has the legal authority to bind the joint venture. If not with its response, such evidence must be submitted to the City no later than five (5) business days from the request of the Purchasing Manager.

8. **AWARDS**

Results from the recommendation of the requesting department's evaluation will be considered by the City of Port Orange City Council at the earliest possible regular meeting subsequent to the evaluation process. This ITB is issued in accordance with and shall be governed by the provisions of the City's Purchasing Policy.

The City of Port Orange City Council reserves the right to make award(s) by individual sections, groups, all or none, or a combination thereof, with one or more Bidders; to reject any and all sealed bid proposals, or to waive any informality or technicality in proposals received as deemed to be in the best interest of the City.

The City does not award publicly funded contracts to those who knowingly employ unauthorized alien workers in violation of section 274A(e) of the Immigration and Naturalization Act, 8 United States Code s1324a(e). Such employment deprives legal workers of job opportunities. Violation of section 274A(e) shall be grounds for unilateral cancellation of the contract, Contract, proposal or

quote for purchase of services and goods by the City of Port Orange.

9. **AWARD AND EXECUTION OF CONTRACT:**

When a bid received has been determined to be satisfactory, a Contract will be awarded, or Purchase Order issued to the LOWEST Responsible and Responsive Bidder within the time designated in the Contract Documents. The Bidder(s) to whom the award is made shall execute the Contract(s) and return, together with the properly executed bonds and insurance certificates to the office of the Owner, within the time specified.

10. **BID RETURNS**

Bidders shall return all completed Responses to the City of Port Orange at the address set forth in Section 2 of this document on the date and at the time specified. Late submissions will not be accepted and shall be returned to Bidders unopened.

11. **BID PROTEST**

Any person who is adversely affected by the City's decision or intended decision shall file with the City Purchasing Manager a notice of protest in writing within 72 hours after the posting of the notice of decision or intended decision. With respect to a protest of the terms, conditions, and specifications contained in a solicitation, including any provisions governing the methods for ranking Bids, Proposals, Statements, or Replies, awarding contracts, reserving rights of further negotiation, or modifying or amending any contract, the notice of protest shall be filed in writing within 72 hours after the posting of the Solicitation. Saturdays, Sundays, and state holidays shall be excluded in the computation of the 72-hour time established herein. The formal written protest shall be filed with the Purchasing Manager in writing within ten (10) days after the date the notice of protest is filed. The formal written protest shall state with particularity the facts and law upon which the protest is based. Failure to file a notice of protest or failure to file a formal written protest shall constitute a waiver of proceedings. Upon receipt of the formal written protest that has been timely filed, the City shall stop the solicitation or contract award process until the subject of the protest is resolved by final City action. However, the City may continue the solicitation or award process, provided the City Manager sets forth in writing particular facts and circumstances which require the continuance of the solicitation or contract award process without delay in order to avoid an immediate and serious danger to the public health, safety, or welfare. The City shall provide an opportunity to resolve the protest by mutual agreement between the parties. The policy this City has established is as follows:

- a. As soon as possible after receipt, the Purchasing Manager shall provide written bid protest to City Manager, City Attorney, Department Head involved, and Supervisor directly involved in the acquisition. Purchasing Manager shall schedule within seven (7) business days, excluding weekends and holidays, a meeting with the above-mentioned individuals or designee and protestor. The intent of the meeting is to provide a review and/or solution prior to going before Council. After reviewing all relevant information, the City Manager shall render a decision.
- b. If the protestor disagrees, he/she may appeal to the City Council at a formal council meeting. After reviewing the evidence, the City Council will issue their decision. The City Council's decision is final; however, the protestor can appeal the decision to the Circuit Court in Volusia County, Florida within thirty (30) days of the City Council's final decision. Decisions at all levels shall be in writing to the protestor.

12. **BID/PROPOSAL TABULATION**

Bidders who wish to receive a copy of the bid/proposal tabulation may obtain it via www.demandstar.com or on the City of Port Orange website, Bid opportunities page at www.port-orange.org/bids.aspx or by email purchdiv@port-orange.org.

13. BONDS

If this Solicitation requires submission of bid guarantee and performance bonds, there will be a separate page explaining those requirements. Responses submitted without the required bid bond or certified check shall be deemed non-responsive. When the Purchasing Manager deems it necessary, bid bonds/deposits shall be prescribed and are advertised in the public notices inviting bids. Normally, if a bid bond/deposit is requested, it is in the amount of five percent (5%) of the bid amount. Payment and Performance Bonds requested for construction projects shall be in an amount equal to one hundred percent (100%) of the total contract amount. Upon award, the successful Bidder may also be required to furnish and pay for a satisfactory contract one hundred percent (100%) Payment and Performance Bond which will be recorded by the City, at the Bidder's sole cost and expense, with the Clerk of the Circuit Court, Volusia County, Florida, and to enter into a written contract with the City of Port Orange. After recording, the City will furnish to the Contractor the recording information for the bond to evidence that the Contractor has met the requirements of Florida law. The City will bill the cost of recording to the Contractor. Payment and Performance Bonds shall also be recorded at the Bidder's expense in the Office of the Clerk of the Circuit Court, Volusia County, Florida. All bonds no matter which kind, are advertised in the Solicitation which appears in the newspaper. Unsuccessful Bidders are entitled to the return of their surety where the Purchasing Manager has required such. A successful Bidder shall forfeit any surety required by the Purchasing Manager upon failure on the part of the Bidder to enter into a contract within the time specified after the award of bid.

14. CERTIFICATE OF INSURANCE

Upon notice of intent to award contract resulting from this solicitation, the selected Bidder will be required to submit a Certificate of Insurance showing proof of adequate coverage for professional general liability, errors and omissions and workers' compensation as identified under the insurance requirements of this solicitation and listing the City of Port Orange as a Certificate Holder prior to execution of the contract.

15. CHANGE ORDERS

No oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All change order requests shall be made in writing by the Contractor for review by the Contract Administrator for the City of Port Orange. No work shall be performed as set forth in the change order until the Contractor receives an executed Purchase Order for the requested change.

16. CHANGE ORDER REQUEST NOTIFICATION

The Successful Contractor is responsible for giving the City of Port Orange, prior to the Contract expiration date, at least forty-five (45) calendar days advance notice for any anticipated changes to time and/or scope of the awarded Contract. The Contractor **shall not** continue to provide services past the Contract expiration date unless approved by a written Change Order Notice from the City.

17. CLEAN UP

Upon completion of the delivery of materials and or services, the Contractor shall restore any/all public and private property which was damaged during delivery. Restoration is meant to include removal of any spillage or restoring damage to the edge of pavement, sidewalks, driveways, landscaped areas, etc. Contractor shall make repairs consistent with or better than what existed prior to delivery. This shall be understood to include the use of sod or seed and mulch to replace (if necessary) existing grass that has been damaged. If sod is used it shall match the sod present on the effected property. Contractor shall make all repairs and restorations at his/her expense.

18. CONDUCT OF BIDDERS

All Bidders or individuals acting on behalf of a Bidder are hereby prohibited from lobbying or otherwise attempting to persuade or influence any member of the City Council members, or City staff at any time during the course of the solicitation process. All Bidders or individuals acting on behalf of a Bidder are further prohibited from contacting or otherwise attempting to communicate with any member of the staff or City Council members regarding the pending solicitation or its outcome until after the issuance of the written recommendation of the most qualified Bidder. The solicitation process shall end upon issuance of the written Notice of Intended Action containing the recommendation of award to the Bidder. Until such recommendation is issued in writing, any questions regarding the pending solicitation shall be submitted to the Purchasing Manager. Failure to comply with this procedure shall result in rejection/disqualification of said submittal without exception. Contact with staff, City Council members during a public meeting shall not be considered a violation of this requirement.

19. CONE OF SILENCE

The Cone of Silence is designed to protect the integrity of the procurement process by shielding it from undue influences prior to the execution of the award. The Cone of Silence is defined as the period beginning with the issuance of the solicitation document and continues through the execution of the award document. During this time Bidders, service providers and the like are prohibited from all communications regarding the solicitation with City staff, City consultants, City legal counsel, City Agents, or elected officials. Any Bidder who initiates any discussions or attempts to influence a member or members of the aforementioned shall be disqualified from continued participation in the procurement process with regard to that particular solicitation.

Exceptions to the Cone of Silence:

- Written communication directed to the Procurement Officer;
- All communications occurring at Pre-Proposal Conferences;
- Oral presentations before publicly noticed committee meetings;
- Procurement of goods and services for Emergency situations; and
- Contractors already on contract with the City to perform services for the City are allowed discussions necessary for the completion of an existing contract.

20. CONFLICT OF INTEREST

For purposes of determining any possible conflict of interest, all Bidders must disclose if any City of Port Orange employee is also an owner, corporate officer, or employee of Bidder's business. No official or employee of the City who exercises any functions or responsibilities in the review or approval of the undertaking or carrying out of the Scope of Work covered by the Contract shall voluntarily acquire any personal interest, directly or indirectly, in the contract or proposed Contract.

21. CONFLICT OF INSTRUCTIONS

If a conflict exists between the General Terms and Conditions and instructions contained herein, and the Special Terms and Conditions and instructions contained herein, the Special Terms and Conditions shall govern.

22. CONTRACT

Any acquisition above the \$25,000 level shall be done through one of the formal competitive methods except upon City Council waiver and/or shall have City Council approval. Only the Purchasing Manager and/or City Manager, have the authority to obligate the City by entering into a written contract to purchase goods and/or services up to \$25,000.00. The City of Port Orange, Florida reserves the right to reject any and all Responses or to waive any and all non-substantial irregularity in Responses received, whenever such waiver or rejection is in the best interest of the City.

23. CONTRACT OBLIGATION

The City of Port Orange City Council shall approve the contract if greater than \$25,000.00 annually. The Mayor or other person authorized by the Mayor must sign the contract before it becomes binding on the City of Port Orange or the Bidder. Department heads are NOT authorized to sign contracts for the City of Port Orange. Binding agreements shall remain in effect until all products and/or services covered by this purchase have been satisfactorily delivered and accepted.

24. CONTRACT RENEWALS

Renewals may be made ONLY by written agreement between the City of Port Orange and the Contractor. Any price escalations are limited to those stated by the Contractor on the original response.

25. COOPERATIVE PURCHASING

The City Manager may elect to purchase through or join with other governmental units in cooperative purchasing ventures when the best interest of the City would be served thereby, provided the same is in accordance with all applicable laws. In the event the City Manager should elect to purchase through or join with other governmental agencies in cooperative purchasing ventures, all purchases in excess of twenty-five thousand dollars (\$25,000) shall require City Council approval before the purchasing contracts are entered into. (Code 1981, § 8-33, Ord. 1997-22, § 5. 5-6-1997; Ord. No. 2004-15, § 4, 7-20-2004)

26. COPYRIGHT AND PATENT RIGHTS

Bidder warrants that there has been no violation of copyrights or patent rights in manufacturing, producing and/or selling the item(s) ordered or shipped as a result of this Response, and successful Bidder agrees to hold the City harmless from any and all liability, loss or expense by any such violation.

27. COST INCURRED BY BIDDER

All expenses, including costs for required bonds, involved with the preparation and submission of Responses to the City, or any work performed in connection therewith shall be borne by the Bidder. No payment shall be made for any response received, nor for any other effort required of or made by the Bidder prior to commencement of work as defined by the contract approved by the City Council.

28. DAMAGE

The Contractor shall hold sole responsibility for any damages to the City's equipment or property, the workplace and its contents due to work, negligence in work, personnel and equipment. The Contractor shall be responsible and liable for the safety, injury and health of its working personnel while its employees are performing service work.

29. DEFAULT PROVISIONS

In the event of default by the Contractor, the City reserves the right to procure the item(s) bid from other sources and hold the Contractor responsible for excess costs incurred as a result. If a Contractor defaults on a City contract the City Council may elect to refrain from doing business with the Bidder for a period of 36 months from the date of default.

30. DELIVERY OF GOODS/SERVICES

Upon approval of a contract, the Contractor is obligated to deliver the goods to the destination specified in the Solicitation or the Purchase Order and bears the risk of loss until delivery. If this Solicitation or Purchase Order does not contain delivery instructions, Contractor shall request instructions in writing from the Purchasing Manager. If the delivery instructions contained in the Solicitation allocate delivery costs and risks in a manner contrary to this section, the provisions of this Competitive Solicitation shall prevail.

When delivery is not met as provided for in the contract, the Purchasing Division reserves the right to make the purchase on the open market, with any cost in excess of the contract price paid by the Contractor, in addition to any other damages, direct or consequential, incurred by the City as a result thereof. In addition, failure of the Contractor to meet the contract delivery dates will be cause for removal of the Contractor from the City's list of eligible Bidders/Proposers as determined by the Purchasing Division.

31. DETERMINATION OF LOWEST AND BEST RESPONSIBLE BIDDER/PROPOSER

In determining the lowest and best responsible Bidder/Proposer, in addition to price, there will be considered the following:

- a. The ability, capacity and skill of the Bidder/Proposer to perform the contract.
- b. Whether the Bidder/Proposer can perform the contract within the time specified, without delay or interference.
- c. The character, integrity, reputation, judgment, experience, and efficiency of the Bidder/Proposer.
- d. The quality of performance of previous contracts.
- e. The previous and existing compliance by the Bidder/Proposer with laws and ordinances relating to the contract.
- f. The sufficiency of the financial resources and ability of the Bidder/Proposer to perform the contract or provide the service.
- g. The quality, availability and adaptability of the supplies or contractual services to the particular use required.
- h. The ability of the Bidder/Proposer to provide further maintenance and service for the use of the subject of the contract.
- i. The number and scope of conditions attached to the bid.
- j. Such other factors as appear to the city council to be pertinent to the bid or the contract under all of the circumstances involved.

32. DISCLOSURE OF CONFLICTS

The award is subject to the provisions of Chapter 112.313, Florida Statutes. All Bidders must disclose with their Response the name of any officer, director, or agent who is also an employee of the City. Further, all Bidders must disclose the name of any employee who owns, directly or indirectly, an interest in the Bidder's firm or any of its branches. The Bidder shall not compensate, in any manner, directly or indirectly, any officer, agent, or employee of the City for any act or service that he/she may do, or perform for, or on behalf of any officer, agent or employee of the Bidder. No officer, agent, or employee of the City shall have any interest, directly or indirectly, in any contract or purchase made, or authorized to be made by anyone for, or on behalf of the City.

The Bidder shall have no interest and shall not acquire any interest that shall conflict in any manner or degree with the performance of the services required under the Solicitation.

33. DISQUALIFICATION OF BIDDER/PROPOSER

The Purchasing Manager shall maintain a current listing of qualified Bidders. The Purchasing Manager may, from time to time, remove any Bidder's name from the list of qualified Bidders. Normally the removal of a Bidder from the Bidder list is done after nonresponse from that Bidder for three (3) consecutive Solicitations. Such action may also arise out of breach of contract, default, or irregular business practice, based on the Finance Director and City Attorney's recommendation. Any or all Responses may be rejected if the City believes that collusion exists among the Bidders/Proposers. Responses in which the prices are obviously unbalanced may be rejected. If multiple Responses are submitted by a Bidder/Proposer and after the Responses are opened one of the Responses is withdrawn, the result will be that all of the Responses submitted by that Bidder/Proposer will be withdrawn; however, nothing herein prohibits a Bidder from submitting multiple Responses for different products or services.

34. EXCEPTIONS TO SPECIFICATIONS

For purposes of evaluation, the Bidder must indicate any exception to the specifications, terms, and/or conditions, no matter how minor. This includes any agreement or contract forms supplied by the Bidder that are required to be signed by the City. If exceptions are not stated by the Bidder, in his/her bid, it will be understood that the item(s)/services fully comply with the specifications, terms and/or conditions stated by the City. Exceptions are to be listed by the Bidder on an attachment included with the bid. The City will not determine exceptions based on a review of any attached sales or manufacturer's literature.

35. E-VERIFY

Bidders shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all employees hired on or after January 1, 2022 by the Bidder and shall expressly require any subcontractor performing services pursuant to the contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the term of contract. Bidders shall complete Form 7.11 E-Verify Affidavit and include it in the returned Response package. Failure to include the affidavit may result in rejection of the Response.

36. FACILITIES

The City reserves the right to inspect the Bidder's facilities at any time.

37. FAILURE TO RESPOND

If the Bidder elects not to bid, he/she should return the enclosed "Bidder Acknowledgement Form" by the bid due date and state the reason(s) for not bidding. Failure to respond, either by submitting a bid, or by submitting a "Statement of No Bid", three (3) times, shall result in the Bidder's name being removed from the City's mailing list.

38. FINANCIAL STABILITY

Bidders shall be prepared to supply a financial statement upon request, preferably a certified audit of the last available fiscal year. A third party prepared financial statement and the latest Dunn & Bradstreet report will be accepted in lieu thereof.

39. FORCE MAJEURE

Neither party shall be liable for any delay in performance or failure to perform any obligation hereunder if, and to the extent that, such failure or delay is caused by an event of Force Majeure. Force majeure shall mean any act, event or condition that is beyond the party's reasonable control, that materially and adversely affects the party's ability to perform its obligations hereunder, and that is not the result of the party's willful neglect, error, omission or failure to exercise reasonable due diligence.

40. GOVERNING FORMS

In the event of any conflict between the terms and provisions of these requirements and the specifications, the specifications shall govern. In the event of any conflict of interpretation of any part of this overall document, the City's interpretation shall govern.

41. GOVERNING LAW

Bidders shall comply with all applicable federal, state and local laws and regulations. All Responses are solicited and shall be made pursuant to the Code of Ordinances, City of Port Orange, Chapter 2, Article VI, Division 2, Section 2-263, and all Responses will be evaluated in accordance with the provisions thereof. Code of Ordinances, City of Port Orange is on file in the Office of the City Clerk, City Hall, 1000 City Center Circle, Port Orange, Florida and at www.municode.com. The City of Port Orange is also governed by the Consultants' Competitive Negotiation Act, Section 287.055, Florida Statutes, as the method of selecting architects, engineers and land surveyors. The City has utilized the procedures in the Act for Professional counselors, environmentalists, planners,

general contractors, computer systems, designers, telecommunications consultants, maintenance technicians, financial services and other professional services. Every acquisition equal to or greater than \$10,000.00 must have a signed, notarized "Public Entity Crimes Form" to comply with Section 287.133(3)(a), Florida Statutes. Also required is the "Drug- Free Preference Form" to comply with Section 287.087, Florida Statutes. Each form is included in the Solicitation.

42. GRANT FUNDING

Any contract entered into by the City that is to be paid from grant funds shall be limited to payment from the grant funding and the Contractor/Provider understands that the City has not set aside any City funds for the payment of obligations under a grant contract. If grant funding should become unavailable at any time for the continuation of services paid for by the grant, and further funding cannot be obtained for the contract, then the sole recourse of the provider shall be to terminate any further services under the contract and the contract shall be null and void.

43. HIPAA COMPLIANCE

The Bidder agrees to comply with the Standards for Privacy of Individually Identifiable Health Information of the Health Insurance Portability and Accountability Act of 1996, PL 104-191, 45 CFR Parts 160-164, as amended, referred to as "HIPAA," to the extent that the Contractor uses, discloses or has access to protected health information as defined by HIPAA.

44. IDENTICAL TIE BIDS

The City may award a solicitation to multiple bidders, and the need for a "tiebreaker" would therefore not be necessary. However, for award to one bidder, in the event of a tie between two or more bidders, the award shall be made to the bidder who meets one of the below criteria in the sequence provided when all other factors are equal. For example: two bidders are tied and both are in compliance with #1 below (Drug-Free workplace pursuant to F.S. 287.087). If only one of the tied bidders is a Certified service-disabled veteran, then the award would go to the Certified service-disabled veteran. If both tied bidders are Certified service-disabled veterans, then #3 is used as tiebreaker per 2-275 of the City's Code of Ordinances. If both tied bidders are the same level of Local business per 2-275, the award will go to the bidder that meets #4 below.

(1) Drug-free workplace pursuant to F.S. 287.087

(2) Certified service-disabled veteran

(3) Local business as defined in Section 2-275 of the City's Code of Ordinances

(4) The bidder with the lowest volume of work on City projects within the last five (5) years. If all conditions are equal, the Purchasing Division will draw lots or flip a coin. At least three (3) individuals must witness this process and document in writing the witnesses' and the facilitator's names and addresses.

45. INDEMNIFICATION/HOLD HARMLESS

(a) Contractor shall be liable for any loss of, or damage to, City property caused by the negligence, recklessness, or intended wrongful misconduct of Contractor, his/its agents, servants and employees and shall indemnify and save the City harmless against all actions, proceedings, claims, demands, costs, damages and expenses, including attorney's fees, by reason of any suit or action brought for any actual or alleged injury to or death of any person or damage to property other than City property, resulting from the performance of the Contract by Contractor, his/its agents, servants and employees. Contractor shall submit a full written report to the Finance Director within twenty-four (24) hours following the occurrence of such damage, loss or injury.

(b) To the fullest extent permitted by law, in addition to the express duty to indemnify City when there is any causal connection between Contractor's work and any injury, loss, damage, death or property damage, Contractor expressly undertakes a duty to defend City as a separate duty, independent of and broader than the duty to indemnify. The duty to defend agreed to by Contractor hereby expressly include all costs of litigation, attorney's fees, settlement costs and reasonable expenses in connection with the litigation, whether or not the claims made for loss,

injury, damage or property damage are valid or groundless and regardless of whether the defense of City is maintained by the City or assumed by Contractor as long as the claims made could be causally connected to Contractor as reasonable determined by City.

46. INDEPENDENT CONTRACTOR

It is expressly understood and agreed by both parties hereto that the City is contracting with the successful Bidder as an independent contractor. The parties hereto understand and agree that the City shall not be liable for any claims which may be asserted by any third party occurring in connection with the services to be performed by the successful Bidder under this contract and that the successful Bidder has no authority to bind the City. The Bidder represents itself to be an independent contractor offering such services to the public and shall not represent himself/herself or his/her employees to be an employee of the City. Therefore, the Bidder shall assume all legal and financial responsibility for taxes, FICA, employee fringe benefits, worker's compensation, employee insurance, minimum wage requirements, overtime, etc., and agrees to indemnify, save, and hold the City, its officers, agents, and employees, harmless from and against, any and all loss; cost (including attorney's fees); and damage of any kind related to such matters. The Bidder shall further understand that the City cannot save and hold harmless and or indemnify the Bidder and/or the Bidder's employees against any liability incurred as arising as a result of any activity of the Bidder/Proposer or any activity of the Bidder's employees performed in connection with the Contract.

47. INSPECTIONS AND TESTING

City of Port Orange reserves the right to inspect any item(s) or service location for compliance with specifications and requirements and needs of the using department. If a Bidder cannot furnish a sample of a Response item, where applicable, for review, or fails to satisfactorily show an ability to perform, the City can reject the Response as inadequate and non-responsive.

48. INSURANCE CANCELLATION

No change or cancellation in insurance shall be made without thirty (30) days' written notice by the Bidder to the City. Insurance coverage required in these specifications shall be in force throughout the contract term. Should any awardee fail to maintain or to provide acceptable evidence of current insurance within five (5) days after receipt of written notice at any time during the contract term, the City shall have the right to consider the Contract breached which shall justify the termination thereof.

49. INSURANCE REQUIREMENTS

Contractor shall maintain insurance, as required herein, during the life of this Contract. Contractor shall provide to the City, a certificate of insurance endorsing the City of Port Orange as an additional named insured. All insurance coverages of the Contractor shall be primary and non-contributory. All insurance coverages of the Contractor shall not seek contribution from any other insurance or self-insurance available to the City. For workers' compensation coverage, the Contractor's insurance certificate shall include the insurer's waiver of subrogation in lieu of endorsing the City as an additional insured for workers' compensation.

IMPORTANT: The City does not accept Workers' Compensation Exemptions. Contractor may use leased employees if the Contractor ensures that all workers who access the jobsite are employees covered by the employee leasing company, and no non-employees are permitted to access the jobsite. Any Contractor using a leased employee shall complete the City's Leased Employee Affidavit Form Exhibit. Policies for Workers' Compensation may be issued by companies authorized as a group self-insurer by F.S. 440.572. Policies other than Workers' Compensation shall be issued by insurers licensed and/or duly authorized under Florida Law to do business in the State of Florida and all insuring companies are required to have a minimum rating of "A-" in the "Best Key Rating Guide" published by A.M. Best & Company, Inc. Contractor shall not commence work under this Contract until the City has received a certificate or certificates of insurance with endorsement evidencing the required insurance. Insurer shall provide the City written notice of

cancellation, nonrenewal or any other changes in coverage no later than thirty (30) days prior to the effective date of the change and shall provide notice to the City no later than 10 days after non-payment. The Certificates of Insurance and required insurance policies shall contain provisions that thirty (30) days prior written notice shall be given to the City of any cancellation, intent not to renew, or reduction in the policies or coverages. Contractor shall require and ensure each of its subcontractors to maintain, until the completion of the subcontractor's work, insurance of the types and to the limits set forth herein. All insurance coverages shall be primary and non-contributory. All insurance coverages of the subcontractors shall not seek contribution from any other insurance or self-insurance available to the City. The Contractor is responsible for ensuring that its subcontractors maintain the required coverage. Failure of the Contractor to ensure the subcontractors maintain the required coverage, shall not relieve the Contractor of any contractual responsibility, obligation or liability.

The City reserves the right to increase insurance coverage as determined for higher risk contracts. The acceptance by the City of any Certificate of Insurance does not constitute approval or agreement by the City that the insurance requirements have been satisfied or that the insurance policy shown on the Certificate of Insurance is in compliance with and does not waive the insurance required by this.

Should at any time the Contractor or subcontractors not maintain the insurance coverages required herein, the City may terminate the Contract or at its sole discretion shall be authorized to purchase such coverages and charge the Contractor for such coverages purchased. The City shall be under no obligation to purchase such insurance, nor shall it be responsible for the coverages purchased or the insurance company or companies used. The decision of the City to purchase such insurance coverages shall in no way be construed to be a waiver of any of its rights under the Contract.

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Standard Insurance Requirements

	Insurance	Standards	Additional Requirements
REQUIRED	<u>Workers' Compensation</u> The Contractor shall maintain coverage for its employees with statutory workers' compensation limits, and no less than the limits indicated in the Schedule of Limits for Employers' Liability. Said coverage shall include a waiver of subrogation in favor of the City. The City will not accept elective exemptions. Any contractor using an employee leasing company shall complete the Leased Employee Affidavit Form Exhibit.	<u>Contract Amount Limits</u> Up to \$10 million Statutory/\$500,000 \$10 - \$20 million Statutory/\$1,000,000 Contracts over \$20 million To Be Determined by the City.	☐ If Contract requires work on or about navigable waters, Longshoreman's and Harbor Workers' Coverage required. ☐ If vessels involved, Jones Act coverage with limits of \$500,000 required.
REQUIRED	Comprehensive General Liability (including Completed Operations and Contractual Liability)	<u>Limits:</u> Combined Single Limit Bodily Injury and Property damage \$1,000,000 occurrence \$1,000,000 aggregate	☐ When work is on or under Railroad rights of way or properties, the Contractor shall take out and maintain during the life of the Contract, Railroad protective liability and property damage insurance in amounts as requested by the Railroad.
REQUIRED	Comprehensive Business, Automobile Liability to include all owned, hired and non-owned automobiles.	<u>Limits:</u> Auto Liability Body Injury and Property Damage: \$1,000,000 each occurrence \$1,000,000 aggregate	
Additional Insurance Requirements			
REQUIRED	Property Insurance Builders Risk. <u>Additional Coverage:</u>	Limits: Buildings - Completed value of Contract. "All Risk" coverage on latest ISO for or its equivalent. Permission granted to occupy. Owner named as insured AIMA	If Agreement requires handling or installation of Owner's equipment, coverage should be furnished on "All Risk" form, including transit and Owner shall be named.
☐	Professional Liability	Limits: Coverage - \$1,000,000	
☐	Installation Floater (IT)	Limits: Coverage - \$ <u>To be determined.</u>	
☐	Contractor Pollution Liability	Limits: Coverage - \$1,000,000	
☐	Errors and Omissions	Limits: Coverage - \$1,000,000	
☐	Umbrella Policy	Limits: Coverage – \$ <u>To be determined.</u>	
REQUIRED	Payment and Performance Bond Required	Limits: Coverage - Equal to amount of Contract.	
☐	City Manager waives Payment and Performance Bond for work under \$25,000.00.		
☐	Unless otherwise required by law, City Manager waives Insurance for FOB goods under \$25,000.00.		

[Remainder of this page left intentionally blank]

50. INVOICES AND PAYMENTS

All invoices shall be sent to: City of Port Orange, Accounts Payable, P.O. Box 291759, Port Orange, Florida, 32129. In accordance with Florida Statutes, Chapter 218, payment will be made within 45 days after receipt of merchandise and a proper invoice. The City will attempt to pay within fewer days if Contractor offers a payment discount. The City cannot make advance payments, make deposits in advance of receipt of goods, or pay C.O.D.

51. IRREVOCABILITY OF RESPONSES

Each Bidder agrees that Responses shall remain open until the effective date not to exceed 90 days after selection, shall not be subject to revocation or withdrawal, and shall be subject to the City Council's acceptance of a contract with the Bidder.

52. LATE SUBMISSIONS, LATE MODIFICATIONS AND LATE WITHDRAWALS

Responses received after the Response Due Date and time are late and shall not be considered. Modifications received after the Response Due Date are also late and shall not be considered. Letters of withdrawal received after the Response Due Date are late and shall not be considered. Letters of withdraw received after contract award shall be deemed a breach of contract, subject to penalties as set forth in the contract and Solicitation.

53. LEGAL REQUIREMENTS

Applicable provision of all federal, state, county and local laws, and all ordinances, rules, and regulations shall govern development, submittal and evaluation of all Responses received in response hereto and shall govern any and all claims and disputes which may arise between person(s) submitting a response to a Solicitation hereto and the City by and through its officers, employees and authorized representatives, or any other person, natural or otherwise; and lack of knowledge by any Bidder shall not constitute a cognizable defense against the legal effect thereof.

54. LICENSES, PERMITS AND TAXES

The Bidder shall comply with all rules, regulations, laws and permitting requirements of the City, Volusia County, the State of Florida, and the United States Government now in force or hereafter to be adopted. The Bidder shall abide by all ordinances and laws pertaining to his/her operations and shall secure, at his/her expense, all licenses and permits necessary for construction and operation.

55. LITERATURE (if applicable):

If no brand, model or make is specified, Bidders shall submit descriptive literature and technical data, fully detailing all features, designs, construction, appointments, finishes and the like not covered in the specifications, necessary to fully describe the equipment, material, and/or services Bidder proposes to furnish.

56. LOCAL PREFERENCE

In accordance with City of Port Orange City Code 2-275, except where federal or state law, or any other funding source, mandates to the contrary, the City shall give preference to local businesses in the following manner:

(a) Competitive Bids

- (1) Port Orange Business: In any competitive bidding process where a bid submitted by a Port Orange business is within eight percent (8%) of the lowest and best responsible bid submitted by a non-Port-Orange business, then the Port Orange business shall have the opportunity to submit, within five (5) working days of the bid opening, a best and final bid equal to or lower than the amount of the original low bid. The bid shall then be awarded to the lowest and best responsible bidder.

- (2) Volusia County business: In any competitive bidding process where a Volusia County business is within five percent (5%) of the lowest and best responsible bid submitted by a business other than a Port Orange business or Volusia County business, then the Volusia County business shall have the opportunity to submit, within five (5) working days of the bid opening, a best and final bid equal to or lower than the amount of the original low bid. The bid shall then be awarded to the lowest and best responsible bidder.
 - (3) Florida Business: In any competitive bidding process where a State of Florida business is within three percent (3%) of the lowest and best responsible bid submitted by a non-local business, then the Florida business shall have the opportunity to submit, within five (5) working days of the bid opening, a best and final bid equal to or lower than the amount of the original low bid. The bid shall then be awarded to the lowest and best responsible bidder.
 - (4) Tied Bid Preference: In case of a tie bid between a local business and a non-local business, the local business shall prevail. In case of a tie between two or more local businesses, the following order of preference shall control: first priority to Port Orange business, second priority to Volusia County business, and third priority to Florida business.
- (b) Definitions. The following words, terms and phrases, when used in this section, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Port Orange Business means a business having its headquarters and principal place of business within the City of Port Orange at least twelve (12) months prior to the bid or proposal opening date, as evidenced by a valid business tax receipt or such other documentation, to the City's satisfaction, demonstrating the physical business presence of the firm within the limits of the City of Port Orange.

Volusia County Business means a business having its headquarters and principal place of business within the County of Volusia, and not within the City of Port Orange, at least twelve (12) months prior to the bid or proposal opening date, as evidenced by a valid business tax receipt or such other documentation, to the City's satisfaction, demonstrating the physical business presence of the firm within the limits of Volusia County.

Florida Business means a business having its headquarters and principal place of business within the State of Florida, and not within Volusia County, at least twelve (12) months prior to the bid or proposal opening date, as evidenced by a valid business tax receipt or such other documentation, to the city's satisfaction, demonstrating the physical business presence of the firm within the limits of the State of Florida.

57. **MAINTENANCE**

Maintenance required for equipment Solicitation is preferred to be available in the City of Port Orange by a manufacturer-authorized maintenance facility. Costs for this service shall be shown on the Pricing/Delivery Information form. If the City of Port Orange opts to include maintenance, it shall be so stated in the purchase order and said cost will be included. Service will commence only upon expiration of applicable warranties and shall be priced accordingly.

58. **NAME BRANDS**

Specifications may reference name brands and model numbers. It is not the intent of the City of Port Orange to restrict these bids in such cases, but to establish a desired quality level of merchandise or to meet a pre-established standard due to like existing items. Bidders may offer items of equal stature and the burden of proof of such stature rests with the Bidder, unless otherwise specified by the City. The City of Port Orange shall act as sole judge in determining equality and acceptability of products offered.

59. NON-DISCRIMINATION

There shall be no discrimination as to race, color, religion, gender, age, marital status, national origin, ancestry, and physical or mental disability in the operations conducted under this contract. Included as applicable activities by the Contractor under this section are the solicitation for or purchase of goods or services, or the subcontracting of work in performance of this contract.

60. NON-EXCLUSIVITY OF CONTRACT

The selected Bidder understands and agrees that any resulting contractual relationship is non-exclusive, and the City of Port Orange reserves the right to seek similar or identical services elsewhere if deemed in the best interest of the City of Port Orange.

61. NON-PERFORMANCE:

Failure to meet the expected quality of workmanship, schedule, or other criteria agreed upon, shall be considered a default. In case of default, the City may procure the required services from other sources and hold the Contractor responsible for any excess costs occasioned thereby and may immediately cancel the contract.

62. NOTICE TO CONTRACTOR

The employment of unauthorized aliens by any Contractor is considered a violation of Section 274A (e) of the Immigration and Nationality Act. If the Contractor knowingly employs unauthorized aliens, such violation shall be cause for unilateral cancellation of the contract.

63. OPTIONAL CONTRACT USAGE

As provided in Section 287.042(16), Florida Statutes, State of Florida agencies may purchase from a contract resulting from this solicitation, provided the Department of Management Services, Division of Purchasing, has certified its use to be cost effective and in the best interest of the State. Contractor(s) may sell such commodities or services certified by the Division to State of Florida agencies at the Contractor's option.

64. OTHER AGENCIES

- (a) All Bidders awarded contracts from this Bid may, upon mutual agreement, permit any municipality or other governmental agency to participate in the contract under the same prices, terms, and conditions, if agreed to by both parties.
- (b) It is understood that at no time will any city, municipality, or other agency be obligated for placing an order for any other city, municipality, or agency; nor will any city, municipality, or agency be obligated for any bills incurred by any other city, municipality, or agency. Further, it is understood that each agency will issue its own purchase order to the awarded Bidder(s).

65. PATENTS/COPYRIGHTS

The successful Bidder agrees to indemnify and hold the City harmless from any claim involving patent infringement or copyrights on goods supplied.

66. PRE-BID CONFERENCE OR PRE-PROPOSAL CONFERENCE

The Purchasing Manager shall determine if a pre-bid conference is required and provide the date, time and location in the Solicitation legal advertisement and Solicitation specifications. The conference shall normally be held in the Council Chambers, located on the first floor of City Hall, 1000 City Center Circle, Port Orange, Florida. A site visit may be included and shall immediately follow. Attendance to the pre-bid and pre-proposal conference is normally non-mandatory. Only Bidders attending a mandatory pre-bid conference will be eligible to submit a Response. The representative of each Bidder shall be an authorized employee of the Bidder and shall sign in accordingly.

67. PREPARATION OF RESPONSES

In preparing Responses, the Proposal Form, the Bid Form (when a Bid Bond is permitted as proposal security), Certificate as to Corporate Principal, Public Entity Crimes Statement, Anti- Collusion Statement, and Drug Free Preference Statement must be properly executed in ink. Upon the prescribed Schedule of Unit Prices, all bid prices shall be typewritten or written in ink, or electronically imputed in the blank spaces for each item, with the amounts extended if a unit price bid, and all amounts totaled. The sum of the Total Bid as calculated from the individual items, Schedule of Unit Prices, shall equal the Total Price. Except as provided below, bids containing substitutions or combinations of alternates will not be considered unless such substitutions or combinations are specifically authorized by the Proposal. The Bidder shall sign his/her name and give his/her business address in the spaces provided therefore. If the Proposal is made as a partnership, it shall be signed by all partners; if made by a corporation, it shall be signed in the name of the corporation by one of the officers thereof and shall have affixed the seal of the corporation.

68. POSTPONEMENT / CANCELLATION / WAIVER OF IRREGULARITIES

The City may, at its sole and absolute discretion, reject any and all, or parts of, Responses; re-advertise the Solicitation for new Responses; postpone or cancel, at any time, the Solicitation process; or waive any irregularities in the Solicitation or in the Responses received as a result of the Solicitation, or to accept that Response which best serves the interest of the City.

69. PRICING

The Bidder certifies that prices, terms and conditions in the Response will be firm for acceptance for a period of ninety (90) days from the date of Response opening unless otherwise stated by the City. Responses may not be withdrawn before the expiration of ninety (90) days. Prices shall be firm, with no escalator clauses unless specified by the City. Responses may be withdrawn after ninety (90) days only upon written notification to the City. Prices for all goods and/or services shall be firm for the duration of this contract and shall be stated on the Pricing/Delivery Information form. Prices shall be all inclusive: no price changes, additions, or subsequent qualifications will be honored during the course of the contract. All prices must be written in ink or typewritten. Pricing on all transportation, freight, drayage and other charges are to be prepaid by the Contractor and included in the bid prices. If there are any additional charges of any kind, other than those mentioned above, specified or unspecified, the Bidder shall indicate the items required and attendant costs or forfeit the right to payment for such items. Where unit pricing and extended pricing differ, unit pricing prevails. In the event of any discrepancy between the written amounts and the numerals, the written amounts shall govern and will be considered as the price bid. When submitting Bids/Proposals based on a Lump Sum basis, Bidders shall be required to submit a Schedule of Unit Pricing for each line item listed on the Bid Proposal in order to be considered for award.

70. PRODUCTS/ESTIMATES:

Items included on the Bid Form represent the needs of various departments within the City. This is in no way to be construed as the entire or complete list of products to be purchased from the resulting contract. There is no anticipated dollar volume for this contract and cannot be guaranteed. Items shall be ordered on an as needed, when needed basis. Exact quantities or estimated quantities cannot be predetermined.

71. PROPRIETY INFORMATION

Upon receipt by the City, responses to Solicitations, become public records subject to the provisions Florida's state policy on public records, Section 119, Florida Statutes. If you believe that any portion of your response is exempt, you should clearly identify the specific documents for which confidentiality is claimed and provide specific legal authority of the asserted exemption. Any financial statement that an agency requires a prospective Bidder to submit in order to prequalify

for bidding or for responding to a proposal for a road or any other public works project is exempt from Section 119.07, Florida Statutes, and Article I, 24(a), Florida Constitution.

72. PROTECTION

Precaution shall be exercised at all times for the protection of persons, (including employees) and property. All existing structures, utilities, services, roads, trees, shrubbery, etc. shall be protected against damage or interrupted service at all times by the Contractor during the term of contract, and the Contractor shall be held responsible for any damage to the property occurring by reason of his operation on the property.

73. PUBLIC ENTITY CRIMES

In accordance Section 287.133 (2)(a), Florida Statutes: A person or affiliate who has been placed on the convicted Bidder list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a Contractor, supplier, subcontractor or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided Section 287.017, Florida Statutes, for CATEGORY TWO for a period of 36 Months from the date of being placed on the convicted Bidder list.

74. PUBLIC RECORDS COMPLIANCE

Contractor shall comply with public records laws as set forth in Section 119, Florida Statutes, and shall specifically:

- a. Keep and maintain public records that ordinarily and necessarily would be required by the City in order to perform the service.
- b. Provide the public with access to public records on the same terms and conditions that the City would provide the records and at a cost that does not exceed the cost provided in Section 119, Florida Statutes, or as otherwise provided by law.
- c. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law.
- d. Meet all requirements for retaining public records and transfer to the City, at no cost, all public records in possession of the Contractor upon termination of the Contract and destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. All records stored electronically must be provided to the City in a format that is compatible with the information technology systems of the City.

The failure of Contractor to comply with a public records request shall constitute a material breach of the contract.

75. PUBLIC RECORDS/PUBLIC MEETINGS EXEMPTION STATEMENT

Section 119.071(1)(c), Florida Statutes: **Any financial statement that an agency requires a prospective Bidder to submit in order to prequalify for bidding or for responding to a proposal for a road or any other public works project is exempt from s. 119.07(1) and s. 24(a), Art. I of the State Constitution. On June 2, 2011, Governor Scott signed HB 7223 into law.** This new legislation amends Florida's Public Records and Sunshine Laws, by expanding "exemptions" applicable to bids, proposals and replies to sealed competitive solicitations, and closes evaluation meetings from the public in certain instances. First, Section 119.071, Florida Statutes was amended to provide that sealed bids, proposals, or replies received by a Florida public agency shall remain exempt from disclosure until an intended decision is announced or until 30 days from the opening, whichever is earlier. This means that Bidders will not be able to procure a copy of their competitor's bids until an intended decision is reached or 30 days has elapsed since the time of the bid opening. The prior version of the law provided for a 10-day exemption. Next, Section 286.0113, Florida Statutes was

amended to provide that meetings of persons appointed to evaluate bids or proposals and negotiate contracts shall be closed in certain circumstances. Specifically, portions of such meetings may now be closed to the public during oral presentations made by a Bidder, or where a Bidder answers questions. In other words, neither Bidders, nor the public will be permitted to sit in on meetings, unless this exemption is waived by the City Council, wherein their competitors are making presentations or discussing their bid or proposal with the committee members. The portions of these meetings must still be recorded and are subject to disclosure at the time of an intended award decision or within 30 days of the bid or proposal opening, whichever is earlier. Portions of the meetings that do not involve presentations, questions and answers, or negotiation strategy or negotiation sessions are still open to the public and competing Bidders, but the new law limits public attendance to portions of such meetings.

76. PURCHASE ORDER AND DELIVERY

The successful Bidder shall not deliver products or provide services without a City of Port Orange Purchase Order, signed by an authorized agent of the City of Port Orange. The fastest, most reasonable delivery time shall be indicated by the Bidder. Any special information concerning delivery should also be included, on a separate sheet, if necessary. All items shall be shipped F.O.B. INSIDE DELIVERY unless otherwise stated in the specifications. This shall be understood to include bringing merchandise to the appropriate room or place designated by the using department. Every tender or delivery of goods must fully comply with all provisions of these requirements and the specifications including time, delivery and quality. Nonconformance shall constitute a breach which shall be rectified prior to expiration of the time for performance. Failure to rectify within the performance period shall be considered cause to reject future deliveries and cancellation of the contract by City of Port Orange without prejudice to other remedies provided by law. Where delivery times are critical, the City of Port Orange reserves the right to award accordingly.

77. QUALITY

All materials used for the manufacture or construction of any supplies, materials or equipment covered by this bid shall be new. The items bid must be new, the latest model, of the best quality and highest-grade workmanship unless otherwise specified in this bid by the City.

78. RECORDS/AUDIT

- (a) The Contractor agrees that the City, or any duly authorized representative, shall, until the expiration of five (5) years after final payment hereunder, have access to and the right to examine and copy any pertinent books, documents, papers and records of the Contractor involving transactions related to this Contract.
- (b) The Contractor further agrees to include in any subcontract for more than \$10,000 entered into as a result of this Contract, a provision to the effect that the subcontractor agrees that the City or any duly authorized representative shall, until the expiration of five (5) years after final payment under the subcontract, have access to and the right to examine and copy any pertinent books, documents, papers and records of such Contractor involved in transactions related to such subcontract, or this Contract. The term subcontract as used herein shall exclude purchase orders for public utility services at rates established for uniform applicability to the general public.
- (c) The period of access provided in subparagraphs (a) and (b) above for records, books, documents and papers which may relate to any arbitration, litigation, or the settlement of claims arising out of the performance of this contract or any subcontract shall continue until any appeals, arbitration, litigation or claims shall have been finally disposed of.

79. RECYCLED MATERIALS

City of Port Orange encourages the use of products made of recycled materials.

80. REJECTING OF RESPONSES, REBIDDING

The City reserves the right to accept or reject any or all Responses or parts of Responses, to waive irregularities and technicalities, and to request re-bids. The City also reserves the right to award the contract on such items the City deems will best serve the interests of the City. The City further reserves the right to award the contract on a "split order" basis, or such combination as shall best serve the interests of the City unless otherwise specified. The City Council shall have the authority to reject any and all Responses. If the lowest and best Response exceeds the budgeted amount and the City Council does not make additional funds available, the purchasing agent with the help of the department head shall have the authority to re-advertise the article or articles for bidding after making sufficient changes in the plans or specifications to bring the cost within the limit of the money available. (Code 1981, § 8-28.)

81. REQUEST FOR ADDITIONAL INFORMATION

Prior to the final Solicitation selection, Bidders may be required to submit additional information which the City may deem necessary to further evaluate the Bidder's qualifications to perform under the terms of the Solicitation and subsequent Contract.

82. REVIEW OF RESPONSES/SUBMISSIONS

Each Response will be reviewed to determine if the Response is responsive to the submission requirements outlined in the Solicitation. A responsive Response is one which follows the requirements of the Solicitation, includes all required documentation, is submitted in the format outlined in the Solicitation, is of timely submission, and has the appropriate signatures as required on each document. Failure to comply with these requirements may deem your Response non-responsive.

83. RIGHT OF WITHDRAWAL

A bid, proposal, statement, or reply may not be withdrawn before the expiration of ninety (90) days from the Response due date.

84. RIGHTS TO SOLICITATION SUBMITTED MATERIAL

All Responses, inquiries, or correspondence relating to or in reference to a Solicitation, and all reports, charts, and other documentation submitted by Bidders shall become the property of the City when received.

85. RULES, REGULATIONS AND LICENSING REQUIREMENT

The Bidder shall comply with all laws, ordinances and regulations applicable to the services contemplated herein, including those applicable to conflict of interest and collusion. Bidders are presumed to be familiar with all federal, state and local laws, ordinances, codes and regulations that may in any way affect the services offered.

86. SAMPLES

Samples, when requested, must be furnished at, or before, Response opening, (unless otherwise specified), and will be delivered at no charge to the City. If not used and/or destroyed in testing, said sample(s) will, at the Bidder's request, be returned within thirty (30) days after bid award at the Bidder's expense. If requested by the City, samples and/or inspection of like items are to be made available in the central Florida area.

87. SEPARATION AND DISTRIBUTION

The Solicitation has been designed for transmittal as a complete document to interested parties. It is recommended that it not be separated; however, it may be reproduced in its entirety as additional distribution might dictate.

88. SEVERABILITY

If any section, subsection, paragraph, sentence, clause, phrase or word of these requirements or the specifications shall be held invalid, such holding shall not affect the remaining portions of these requirements and the specifications and it is hereby declared that such remaining portions would have been included in these requirements and the specifications as though the invalid portion had been omitted.

89. SIGNATURE REQUIRED

All Responses must show the company name and be signed by a company officer or employee who has the authority to bind the company or firm by their signature. UNSIGNED RESPONSES WILL BE REJECTED. All manual signatures must be original - no rubber stamp, photocopy, etc.

90. SIGNED RESPONSE CONSIDERED AN OFFER

The signed Response is considered an offer on the part of the Bidder, which offer shall be considered accepted upon approval by the City of Port Orange City Council (if required). The City of Port Orange will issue a purchase order or a letter of authorization to the successful Bidder, as authorization for delivery of the items awarded subject to requirements of detailed specifications and those contained herein. In the event of default on the part of the Bidder after such acceptance, the City may take such action as it deems appropriate including legal action for damages or specific performance.

91. SILENCE OF SPECIFICATIONS

The apparent silence of specifications as to any detail, or the apparent omission from it of a detailed description concerning any point, shall be regarded as meaning that only the best commercial practice is to prevail and that only material and workmanship of the finest quality are to be used. All interpretations of specifications shall be made on the basis of this statement. The items furnished under this contract shall be new, unused of the latest product in production to commercial trade and shall be of the highest quality as to materials used and workmanship. Manufacturer furnishing these items shall be experienced in design and construction of such items and shall be an established supplier of the item bid.

92. SOLICITATION FORM COMPLETION, SUBMISSION AND RECEIPT OF RESPONSES

Unless otherwise specified, Bidders shall use the Solicitation forms supplied by the Purchasing Division. Responses shall be typewritten or handwritten in ink and shall bear the original signature of the Bidder's authorized representative. Responses containing erasures or corrections must be initialed by the Bidder in ink. Responses shall be submitted by mail or hand delivery only. No Response will be accepted by facsimile transmission, e-mail or other electronic delivery. Responses submitted by mail shall be addressed to: Joseph Castro, Buyer, Purchasing Office, a division of the Finance Department, Port Orange City Hall, 1000 City Center Circle, Port Orange, Florida 32129. Responses submitted by hand delivery shall be delivered to: City Clerk, Port Orange City Hall, 1000 City Center Circle, Port Orange, Florida 32129. Responses will be accepted until 2:30 p.m. on the date indicated in the Solicitation documents or as addenda issued by the City.

One (1) sealed envelope or package shall be submitted. The sealed envelope/package must contain the required forms and price proposals, where applicable, and will be evaluated and deemed responsive or non-responsive. All late responses will be returned to the Bidder and will not be unopened. Bids (Envelope/Package) shall contain one (1) original and one (1) digital (CD or flash drive) version unless otherwise indicated in the legal advertisement and shall be mailed or delivered as set forth in the preceding paragraph in one (1) SEALED ENVELOPE/PACKAGE. The envelope/package shall be clearly marked on the outside to include the bid project name, bid number, name and address of the Bidder.

93. STATE LICENSING REQUIREMENTS

All entities defined under Chapters 607, 608, 617 or 620, Florida Statutes, seeking to do business with the City shall be on file and in good standing with the State of Florida's Department of State. Prior to making an offer, the Bidder shall have met the license, certification, and any other requirements of the state, county, city and/or other agency of authority with jurisdiction in such matters and should provide copies of documentation that evidence such qualifications with the response to the Solicitation; and, that the Bidder shall provide follow-up evidence that the Bidder maintains such credentials throughout the period of the agreement. A copy of a current certificate of authority from the Secretary of State authorizing the Bidder/Responder to do business in the State of Florida, or other evidence of legal authority to do business in the state, county, city and/or any other agency of authority should be provided with your response to the Solicitation. Information concerning certification with the Secretary of State may be obtained at <http://ccfcorp.dos.state.fl.us/index.html>. Contract documents shall be executed by the entity's duly authorized officer as evidenced by entity records.

94. SUBCONTRACTING

The Contractor will not sub-contract or enter into any subcontracting agreements pertaining to this contract, without obtaining written approval from the City of Port Orange.

95. SUPPLEMENTAL MATERIALS

Bidders are responsible for including all pertinent product data in the returned bid package. Literature, brochures, data sheets, specification information, completed forms requested as part of the bid package and any other facts which may affect the evaluation and subsequent contract award should be included. Materials such as legal documents and contractual agreements that the Bidder wishes to include as a condition of the bid must also be in the returned bid package. Failure to include all necessary and proper supplemental materials may be cause to reject the entire bid.

96. TAXES

The City of Port Orange is exempt from all federal excise, state and local taxes unless otherwise stated in this document. A Tax Exemption Certificate will be furnished upon written request to the City of Port Orange Purchasing Division.

97. TERM CONTRACTS

Acceptance by the City of Port Orange of Bidder's offer shall be limited to the terms herein unless expressly agreed in writing by the City. If the contract is intended to cover a specific time period, the term will be given in the bid specifications.

98. TERMINATION CONVENIENCE – NOTICE

The City of Port Orange reserves the right to terminate the contract for default if the Contractor breaches any of the terms therein, including warranties of the Contractor or if the Contractor becomes insolvent or commits acts of bankruptcy. Such right of termination is in addition to and not in lieu of any other remedies which the City of Port Orange may have in law or equity. Default may be construed as, but not limited to, failure to deliver the proper goods and/or services within the proper amount of time, and/or to properly perform any and all services required to the City's satisfaction and/or to meet all other obligations and requirements. The City may cancel the Contract at any time for breach of contractual obligations by providing the Contractor with a written notice of such cancellation. Should the City exercise its right to cancel the contract for such reasons, the cancellation shall become effective on the date as specified in the notice of cancellation sent to the Contractor.

99. TERMINATION - NOTICE

Either party may cancel the contract at any time after award, unless otherwise specified. The City shall be required to give the Bidder notice of thirty days prior to the date of cancellation of the

contract. The Bidder shall be required to give the City written notice (60) sixty days prior to the date of cancellation of the contract. The City of Port Orange may terminate the contract without cause upon thirty (30) days written notice.

100. TITLE TRANSFER

Title and Risk of Loss of goods shall not pass to City of Port Orange until City of Port Orange actually receives and takes possession of the goods at the point or points of delivery. Receiving times may vary with the using department. Generally, deliveries may be made between 8:30 a.m. and 3:00 p.m., Monday through Friday. The Contractor is advised to consult the using department for instructions. The place of delivery shall be specified in the bid specification and/or on the Purchase Order as a "Deliver To:" address.

101. UNBALANCED BID

A mathematically unbalanced bid is where a bidder places a high price on some items and a low price on other items in a unit price contract. A bid is materially unbalanced when there is reasonable doubt that acceptance of a mathematically unbalanced bid will result in the lowest overall cost to the City. Unbalanced Bids will be rejected if the prices are deemed materially unbalanced.

102. USE OF SOLICITATION FORMS

The Bidder shall complete the appropriate Solicitation Form(s) included in the Solicitation. All blanks on the Solicitation Forms shall be completed. If a question or confirmation is not applicable, it should be answered with an "N/A." Supplemental information may be attached to the Solicitation Forms. Failure to fully complete the appropriate Solicitation Forms may result in disqualification of the Response. If additional space for a response is required, attach an additional page to the page on which the question is stated. Clearly identify the number of the question to which the response is attached. Further, if additional Solicitation Form pages are needed, photocopy or replicate as appropriate, and attach such additional pages to the page on which the question or chart is stated. The signature of the Authorized Person or Entity must be that of an officer, partner or a sole proprietor of the entity making the Response. The original Response, and each copy submitted shall contain an original signature on the Bidder's Acknowledgement Form contained in each Solicitation.

103. VARIANCES

For purposes of Response evaluation, Bidders must indicate any variances, no matter how slight, contained in the Response. No variations or exceptions by a Bidder will be considered or deemed a part of the Response submitted unless such variances or exceptions are listed in the Response and referenced in the space provided on the Response pages. If variances are not stated, or referenced as required, it will be assumed that the product or service complies with the City's terms, conditions and specifications. By receiving a Response, the City does not necessarily accept any variances contained in the Response. All variances submitted are subject to review and approval by the City. If any Response contains material variances that, in the City's sole opinion, make that Response conditional in nature, the City reserves the right to reject the Response or part of the Response that is declared, by the City, as conditional.

104. BIDDER'S PRODUCT OR SERVICES

The Bidder's product (if applicable) delivered to the City shall be free of all liens, claims or encumbrances, and the Bidder warrants that it has a clear title to the product being delivered.

- a. If the Bidder is contracted to provide services, such services shall be fully satisfactory to the City as determined by the City.
- b. The Bidder shall provide the City with any data, reports or other information as required and requested by the City to enable it to utilize the product or service furnished by the Bidder.

- c. In furnishing the service or product to the City, the Bidder shall comply with all federal, state, county laws, and city rules, regulations and codes and their successors or amendments. Violation of such laws, rules, regulations and codes may be grounds for delaying or reducing the amount due, or in rescinding the contract, Contract, proposal or quote.

105. WAIVER OF IRREGULARITIES

The City of Port Orange reserves the right to waive and/or reject any non-substantial irregularity in Responses received whenever such waiver or rejection is in the best interest of the City and/or it does not meet the minimum requirements set forth. All reasonably responsive Responses will be considered. However, the City reserves the right to waive formalities or informalities in Responses, to reject, with or without cause, any or all Responses or portions of Responses, or to interview or not interview individual Bidders, and to accept any Responses or portions of Responses deemed to be in the best interest of the City. The City Council shall grant the City Manager to waive any and all non-substantial irregularities in any and all formal Solicitations. (Code 1981, § 8-29; Ord. No. 2015-17, § 1, 5-19-2015)

106. WARRANTIES

Bidders shall furnish all data pertinent to warranties or guarantees which may apply to items in the Response. Bidders may not limit or exclude any implied warranties. The Bidder warrants that product sold to the City shall conform to the standards established by the U.S. Department of Labor under the Occupational Safety and Health Act of 1970. In the event product does not conform to OSHA Standards, where applicable, City of Port Orange may return the product for correction or replacement at the Bidder's expense. If the Bidder fails to make the appropriate correction within a reasonable time, City of Port Orange may correct at the Bidder's expense.

[Remainder of page left intentionally blank]

SECTION 6 – SPECIAL REQUIREMENTS/INSTRUCTIONS

PERIOD OF OFFER VALIDITY:

Bids offered in this ITB must remain firm for a period of ninety (90) days from the ITB opening date.

CONTRACT TERM:

Four hundred (400) days from notice to proceed for substantial completion and an additional thirty (30) days for final completion, not to exceed a total of four hundred and thirty (430) for the term of the contract.

AWARD RECOMMENDATION:

It is the intent of the City to award a contract to the lowest responsive and responsible bidder as outlined in Section 3 – Specifications, Attachment 2 “Technical Specifications – 100% Submittal” and Attachment 3 “100% Design November 2021” and (Attachment 1) Schedule of Unit Pricing.

TIME-LINE:

- A. Notice of Award: after bid opening and complete review of submitted bid information.
- B. Notice to Proceed: TBD by the using department.
- C. Start Date and Time: TBD by the using department.

ELIGIBILITY OF BIDDER:

To be eligible to respond to this ITB, the Bidders must demonstrate proof of prior experience working with the services described in this ITB. Please provide eligibility experience with your submittal.

PROOF OF E-VERIFY REGISTRATION

Bidders who do not include proof of E-Verify registration with FORM 7.10 City of Port Orange Contractor Affidavit may be deemed non-responsive.

LICENSES AND PERMITS:

Contractor is responsible for all applicable local and state licenses, permits and fees.

NOTICE:

The City reserves the right to consider cooperative contracts, federal, state municipal etc., in the evaluation process. If in the City’s best interest, the City may utilize a cooperative contract in lieu of making an award.

BID BONDS:

A certified check or bank draft, payable to the City of Port Orange, Florida or a satisfactory bid bond executed by the Bidder and an acceptable surety, in an amount equal to five percent (5%) of the total amount bid shall be submitted with each bid. Bidders who do not include their original recorded bid bond with their submittal will be deemed non-responsive.

PAYMENT & PERFORMANCE BONDS

The Bidder must be able to obtain both payment and performance bonds from a surety company licensed in Florida and **must submit proof of their present bonding capacity with their bid submittal package** in the form of a current letter from bidder’s bonding agent. Bidder’s bonding capacity must be equal to or greater than 100% of the total amount bid. Bidders who do not include their present bonding capacity letter in the submittal may be deemed non-responsive. Upon award, the successful bidder will also be required to furnish and pay for a satisfactory contract one hundred percent (100%) Payment and Performance Bond to be recorded by the City, with the Clerk of the Circuit Court, Volusia County, Florida and to enter into a contract for services with the City of Port Orange. After recording, the City will furnish to the Contractor the recording information for the bond to evidence that the Contractor has met the requirement of Florida law. The City will bill the cost of recording to the Contractor.

SECTION 7 – REQUIRED FORMS

FORM 7.1 – BID SUBMITTAL CHECKLIST

- _____ Form 7.2 – Bidder’s Acknowledgement Form
- _____ Form 7.3 – Addendum and Change Order Procedure Acknowledgement
- _____ Form 7.4 – Drug Free Preference Statement
- _____ Form 7.5 – Public Entity Crimes Statement
- _____ Form 7.6 – Anti-Collusion Form
- _____ Form 7.7– Statement of Bidder’s Qualifications
- _____ Form 7.8 – Professional References for Previous Experience
- _____ Form 7.9 – Local Business Affidavit of Eligibility
- _____ Form 7.10 – E-Verify Affidavit
- _____ Form 7.11 - Debarment, Suspension and Other Responsibility Matters
- _____ Form 7.12 - No Submittal Response Form
- _____ Attachment 1 – Schedule of Unit Pricing
- _____ Original Recorded Bid Bond
- _____ Current Bonding Capacity Letter (as outlined in Section 6)
- _____ Copy of all currently held Licenses (Contractor, Sunbiz, etc.)
- _____ Submission of one (1) original marked “ORIGINAL” and one (1) digital (CD or flash drive) version in PDF format.

BY: _____
Name of Business

Authorized Signature

Date

This document must be completed and returned with your Submittal

FORM 7.2 – BIDDER’S ACKNOWLEDGEMENT FORM

I have carefully examined the Invitation to Bid (ITB), Instructions to Bidders, General and/or Special Conditions, Specifications, and any other documents accompanying or made a part of this invitation.

I hereby propose to furnish the goods or services specified in the Invitation to Bid at the prices or rates as finally negotiated. I agree that my bid will remain firm for a period of up to ninety (90) days in order to allow the City of Port Orange adequate time to evaluate the proposed bid. Furthermore, I agree to abide by all conditions of the Invitation to Bid.

I certify that all information contained in this Bid is truthful to the best of my knowledge and belief. I further certify that I am a duly authorized to submit this Bid on behalf of the Bidder / Contractor as its act and deed and that the Bidder / Contractor is ready, willing and able to perform if awarded the contract.

I further certify that this Bid is made without prior understanding, Contract, connection, discussion, or collusion with any person, firm or corporation submitting a Bid for the same product or service; no officer, employee or agent of the City of Port Orange City Council or of any other Bidder interested in said ITB; and that the undersigned executed this Bidder’s Acknowledgement with full knowledge and understanding of the matters therein contained and was duly authorized to do so.

I further certify that having read and examined the specifications and documents for the designated services and understanding the general conditions for contract under which services will be performed, does hereby propose to furnish all labor, equipment, and material to provide the services set forth in the ITB.

I hereby declare that the following listing states any clarifications, any and all variations from and exceptions to the requirements of the specifications and documents. The undersigned further declares that the “work” will be performed in strict accordance with such requirements and understands that any exceptions to the requirements of the specifications and documents may render the Bid non-responsive.

NO EXCEPTIONS ALLOWED AFTER THE BID IS SUBMITTED:

Please check one: ☐ I take NO exceptions. ☐ Exceptions (list below; add additional pages if necessary):

NAME OF BUSINESS

MAILING ADDRESS

AUTHORIZED SIGNATURE

CITY, STATE & ZIP CODE

NAME, TITLE, TYPED

TELEPHONE NUMBER / FAX NUMBER

FEDERAL IDENTIFICATION #

E-MAIL ADDRESS

STATE OF _____ COUNTY OF _____

The foregoing instrument was acknowledged before me this day of _____, 20____ by _____, who is personally known to me or who has produced ad identification and who did take an oath.

My Commission Expires:

Notary Public

This document must be completed and returned with your Submittal

FORM 7.3 – ADDENDUM and CHANGE ORDER PROCEDURE ACKNOWLEDGEMENT

ADDENDUM ACKNOWLEDGEMENT

I have carefully examined the Invitation to Bid (ITB), Instructions to Bidders, General and/or Special Conditions, Specifications, and any other documents accompanying or made a part of this invitation to Bid.

I acknowledge receipt and incorporation of the following addenda, and the cost, if any, of such revisions has been included in the price of the bid proposal.

Addendum # _____ Date: _____ Addendum # _____ Date: _____

Addendum # _____ Date: _____ Addendum # _____ Date: _____

CHANGE ORDER PROCEDURE ACKNOWLEDGEMENT

If awarded the Contract for this Solicitation, I acknowledge that no oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All change orders requests shall be made in writing by the Contractor for review by the Contract Administrator for the City of Port Orange. No work shall be performed as set forth in the change order until the Contractor receives an executed Purchase Order for the requested change.

I acknowledge the following statement regarding Change Orders to the awarded Contract:

“The Successful Contractor is responsible for giving the City of Port Orange, prior to the Contract expiration date, at least forty-five (45) calendar days’ advance notice for any anticipated changes in price greater than \$25,000.00, time and/or scope of the awarded Contract. The Contractor shall not continue to provide services past the Contract expiration date unless approved by a written Change Order Notice from the City.”

Name of Business

By: _____

Printed Name: _____

Title: _____

STATE OF _____

COUNTY OF _____

Sworn to (or affirmed) and subscribed before me this _____ day of _____, 20____, by _____, as _____ of _____

(NAME)

(TITLE)

and who:

(NAME OF ORGANIZATION)

[Notary: Please select one]

☐ is personally known to me; or

☐ has produced _____ as identification.

Notary Public, State of _____

Printed, typed or stamped name, commission and expiration:

This document must be completed and returned with your Submittal

FORM 7.4 – DRUG-FREE PREFERENCE STATEMENT

IDENTICAL TIE BIDS - Preference shall be given to businesses with drug-free workplace programs. Whenever two or more bids, proposals, statements, or replies that are equal with respect to price, quality, and service are received by the city for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie bids will be followed if none of the tied Bidders have a drug-free workplace program.

In order to have a drug-free workplace program, a business shall:

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction on or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of Section 287.087, Florida Statutes.

As an authorized representative of the firm, I certify that this firm complies fully with the above requirements.

Name of Business

By: _____

Printed Name: _____

Title: _____

STATE OF _____

COUNTY OF _____

Sworn to (or affirmed) and subscribed before me this _____ day of _____, 20____, by _____, as _____ of _____

(NAME)

(TITLE)

and who:

(NAME OF ORGANIZATION)

[Notary: Please select one]

☐ is personally known to me; or

☐ has produced _____ as identification.

Notary Public, State of _____

Printed, typed or stamped name, commission and expiration:

This document must be completed and returned with your Submittal

FORM 7.5 – SWORN STATEMENT UNDER SECTION 287.133(3)(A), FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

(To be signed in the presence of notary public or other officer authorized to administer oaths.)

Before me, the undersigned Authority, personally appeared affiant _____, who, being by me first duly sworn, made the following statement:

1. The business address of _____ (name of Offeror or business) is _____.
2. My relationship to _____ (name of Offeror or business) is _____ (relationship such as sole proprietor, partner, president, vice president).
3. I understand that a public entity crime as defined in Section 287.133 of the Florida Statutes includes a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity in Florida or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any proposal or contract for goods or services to be provided to any public entity or such an agency or political subdivision and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy or material misrepresentation.
4. I understand that "convicted" or "conviction" is defined by the Florida Statutes to mean a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, non-jury trial, or entry of a plea of guilt or nolo contendere.
5. I understand that "affiliate" is defined by the Florida Statutes to mean (1) a predecessor or successor of a person or a corporation convicted of a public entity crime, or (2) an entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime, or (3) those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate, or (4) a person or corporation who knowingly entered into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months.
6. Neither the Offeror or contractor, nor any officer, director, executive, partner, shareholder, employee, member or agent who is active in the management of the Offeror or contractor, nor any affiliate of the Offeror or contractor has been convicted of a public entity crime subsequent to July 1, 1989. **(Draw a line through paragraph 6 if paragraph 7 below applies.)**
7. There has been a conviction of a public entity crime by the Offeror or contractor, or an officer, director, executive, partner, shareholder, employee, member or agent of the Offeror or contractor who is active in the management of the Offeror or contractor or an affiliate of the Offeror or contractor. A determination has been made pursuant to Section 287.133(3) by order of the Division of Administrative Hearings that it is not in the public interest for the name of the convicted person or affiliate to appear on the convicted Vendor list. The name of the convicted person or affiliate is _____. A copy of the order of the Division of Administrative Hearings is attached to this statement. **(Draw a line through paragraph 7 if paragraph 6 above applies.)**

Name of Business

By: _____

Printed Name: _____

Title: _____

STATE OF _____

COUNTY OF _____

Sworn to (or affirmed) and subscribed before me this _____ day of _____, 20____, by _____, as _____ of _____ and who:

[Notary: Please select one]

☐ is personally known to me; or

☐ has produced _____ as identification.

Notary Public, State of _____

Printed, typed or stamped name, commission and expiration:

This document must be completed and returned with your Submittal

FORM 7.6 – ANTI-COLLUSION FORM

ANTI-COLLUSION STATEMENT BID FORM:

By signing this form, the Proposer agrees that this Bid is made without any other understanding, agreement, or connection with any person, corporation, or firm submitting a bid for the same purpose and that the bid is in all respects fair and without collusion or fraud.

SIGN in ink in the space provided below. Unsigned Bids will be considered incomplete, and will be disqualified, and rejected.

IT IS AGREED BY THE UNDERSIGNED VENDOR THAT THE SIGNING AND DELIVERY OF THE BID REPRESENTS THE VENDORS ACCEPTANCE OF THE TERMS AND CONDITIONS OF THE FOREGOING SPECIFICATIONS, CONTRACT AND PROVISIONS, AND IF AWARDED, THIS CONTRACT WILL REPRESENT THE AGREEMENT BETWEEN THE VENDORS AND THE CITY OF PORT ORANGE.

NAME OF FIRM: _____

SIGNED BY: _____
(MUST BE SIGNED BY A COMPANY OFFICER OR AUTHORIZED AGENT)

PRINTED SIGNATURE: _____

TITLE: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP CODE: _____

TELEPHONE: _____ FAX: _____

F.E.I.N. NUMBER: _____

NO Bid may be withdrawn for a period of ninety (90) days subsequent to the submittal of the Bids, without the consent of the City of Port Orange.

This document must be completed and returned with your Submittal

FORM 7.7 – STATEMENT OF BIDDER’S QUALIFICATIONS

The undersigned warrants that he or she is duly authorized to complete this document, and hereby affirms that the information contained in Form 7.7 is complete, true, and correct to the best of his or her knowledge and belief. If necessary, questions may be answered on separate paper and attached, with any additional information that may be pertinent.

- A. Name of Bidder: _____
- B. Permanent main office address: _____
- C. Date organized: _____
- D. If a corporation, where incorporated: _____
- E. How many years have you been engaged in the business under your present firm or trade name? _____
- F. Contracts on hand: (List these, showing amount of each contract and the appropriate anticipated dates of completion.) **USE SEPARATE SHEET & ATTACH TO SUBMITTAL**
- G. General character of work performed by your company: _____
- H. Have you ever failed to complete any work awarded to you? If so, where and why? _____
- I. Have you ever defaulted on a contract? If so, where and why? _____
- J. List the more important projects recently completed by your company, stating the approximate cost for each and the month and year completed: **USE SEPARATE SHEET & ATTACH TO SUBMITTAL**
- K. List your major equipment currently owned or leased: **USE SEPARATE SHEET & ATTACH TO SUBMITTAL**
- L. Experience in work similar to this type of project: _____
- M. Background and experience of the principal members of your organization, including the officers: **USE SEPARATE SHEET & ATTACH TO SUBMITTAL**
- N. Credit currently available: \$_____
- O. Give bank name, contact name and phone number: _____
- P. Will you, upon request, fill out a detailed financial statement and furnish any other information that may be required by the Owner? YES ☐ NO ☐

The undersigned hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the Owner in verification of the recitals comprising this Statement of Bidder's Qualifications.

Name of Business

By: _____

Printed Name: _____

Title: _____

STATE OF: _____

COUNTY OF: _____

Sworn to (or affirmed) and subscribed before me this _____ day of _____, 20_____, by and who:

[Notary: Please select one]

☐ Is personally known to me; or

☐ Has produced _____ as identification.

Notary Public, State of: _____

Printed, typed or stamped name, commission and expiration:

This document must be completed and returned with your Submittal

FORM 7.8 – PROFESSIONAL REFERENCES FOR PREVIOUS EXPERIENCE

The Bidder proposes that he/she is qualified to perform the referenced work and has successfully done so on recent projects similar in nature and size. The City reserves the right to check references and confirm information provided herein.

Please provide three (3) current and correct references from clients for similar services.

(Do not include the City of Port Orange)

1. Company Name: _____
Contact Person: _____
City, State: _____
Telephone Number: _____
Email Address: _____
Description of goods or
Services provided: _____
Contract Amount: _____
Start/End Date of Contract: _____
2. Company Name: _____
Contact Person: _____
City, State: _____
Telephone Number: _____
Email Address: _____
Description of goods or
Services provided: _____
Contract Amount: _____
Start/End Date of Contract: _____
3. Company Name: _____
Contact Person: _____
City, State: _____
Telephone Number: _____
Email Address: _____
Description of goods or
Services provided: _____
Contract Amount: _____
Start/End Date of Contract: _____

This document must be completed and returned with your Submittal.

LISTING OF PREVIOUS EXPERIENCE

Commercial Client List

The Bidder proposes that he/she is qualified to perform the referenced work and has successfully done so on recent projects similar in nature and size. **A minimum of three (3) projects must be listed below.** The City reserves the right to check references and confirm information provided herein.

List all clients to whom you currently provide or have in the past provided goods or services equal or similar to those required under the City's contract and as outlined in this bid package. **A minimum of three (3) projects shall be listed below in order to bid on this contract.**

	Contact Name	Phone	Current Client? Y or N	Number of years service provided	Description of service
1					
2					
3					

This document must be completed and returned with your Submittal.

FORM 7.9 - LOCAL BUSINESS AFFIDAVIT OF ELIGIBILITY

City of Port Orange

*This declaration is executed under penalty of perjury of the laws to the United States and State of Florida***THIS AFFIDAVIT IS SUBMITTED IN REFERENCE TO THE FOLLOWING SOLICITATION:**

RFSQ/RFP/ITN/BID/CONTRACT/PROJECT #(as applicable): _____

BUSINESS NAME: _____ CONTACT PERSON/TITLE: _____ MAILING ADDRESS: _____

CITY-STATE-ZIP: _____ Length of Time at Address Provided: _____

Physical Presence of Business: ☐ Headquarters and/or ☐ Principal Place of Business**And within Legal Boundaries:** ☐ City of Port Orange ☐ Volusia County ☐ State of Florida

FEIN (Federal Employer Identification Number): _____

BUSINESS STRUCTURE: ☐ Corporation ☐ LLC ☐ Partnership ☐ Sole Proprietorship☐ Other (Specify): _____

PHONE NUMBER: _____ FAX: _____

EMAIL: _____

****Please attach a valid business tax receipt, or other such documentation******ATTESTATION – I understand that:**

- In accordance with City of Port Orange City Code 2-275, local businesses shall have five (5) business days from bid/proposal opening to submit a best and final bid for evaluation. To qualify: A Port Orange business initial bid must be within (8%) of the lowest and best responsible bid from a non-Port Orange business; A Volusia County business initial bid must be within (5%) of the lowest and best responsible bid from a non-Volusia County business; A State of Florida business initial bid must be within (3%) of the lowest and best responsible bid from a non-State of Florida business.
- A local business must have its headquarters and/or principal place of business located within the legal boundaries of the City of Port Orange, Volusia County, or the State of Florida, as indicated herein, for at least twelve (12) months prior to the bid or proposal opening date and a valid business license, issued by the corresponding government agency. Post office boxes are not verifiable and shall not be used for the purpose of establishing said physical address. Bidders shall attach to this affidavit of eligibility with a bid or proposal, a copy of a valid business tax receipt or such other documentation, to the city's satisfaction, demonstrating the physical business presence of the firm within corresponding local limits.
- The preference does not apply to goods or services exempted by statute or prohibited by Federal law, State law, or other funding source

As an authorized representative of the firm, I certify that this firm complies fully with the above requirements.

Name of Business

By: _____

Printed Name: _____

Title: _____

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me by means of _____ physical presence or _____ online notarization, this _____ day of _____, 20____, by _____, as _____ of _____, a _____. He or she is _____ personally known or _____ produced _____ as identification.

Notary Public, State of _____

Printed, typed or stamped name, commission and expiration:

This document must be completed and returned with your Submittal.



FORM 7.10 CITY OF PORT ORANGE CONTRACTOR E-VERIFY AFFIDAVIT

IN ACCORDANCE WITH SECTION 448.095, FLORIDA STATUTES

Project Name: _____

Solicitation Number: _____

I, the undersigned, hereby certify that _____ [insert contractor company name] does not employ, contract with, or subcontract with an unauthorized alien, and is otherwise in full compliance with Section 448.095, Florida Statutes.

Further, I certify all employees hired on or after January 1, 2022 have had their work authorization status verified through the E-Verify system. I acknowledge that it is my responsibility to insure full compliance with Section 448.095, Florida Statutes. I am aware enrollment in the E-Verify system for employers can be done at www.e-verify.gov.

A true and correct copy of _____ [insert contractor company name] proof of registration in the E-Verify system is attached to this Affidavit.

By affixing my signature below, I hereby affirm that I am duly authorized to bind the company reference herein and I will comply with all applicable E-Verify requirements.

(Print or Type Name, Title)

(Signature of Affiant)

(Federal Employer ID Number – FEIN)

(E-Verify Number)

STATE OF FLORIDA
COUNTY OF _____

The foregoing instrument was acknowledged before me by means of ☐ physical presence or ☐ online notarization, this __ day of _____, 20 ____, by _____ as _____ of _____ on behalf of the company. He/she is personally known to me or has produced _____ (TYPE OF ID) as identification.

Notary Public, State of Florida at Large
Printed, typed or stamped name, commission and expiration of commission term

This document must be completed and returned with your Submittal

FORM 7.11 CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS
PRIMARY COVERED TRANSACTIONS
(TO BE COMPLETED BY PRIME CONTRACTOR)

1.The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1) (b) of this certification;

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2.Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

_____ Organization Name	_____ Bid Number or Project Name
_____ Name(s) and Title(s) of Authorized Representatives	_____ Signature
	_____ Date

This document must be completed and returned with your Submittal

FORM 7.12 NO SUBMITTAL RESPONSE FORM

If your company will not be submitting a proposal in response to this solicitation, please complete this form and return via e-mail prior to the solicitation due date established within to:

City of Port Orange
Purchasing Division
1000 City Center Circle
Port Orange, FL 32129

purchdiv@port-orange.org

This information will assist the Purchasing Division in the preparation of future solicitations.

Solicitation: ITB 22-07

Company Name: _____

Contact Person Name & Title: _____

Address: _____

Telephone: _____ Fax: _____

E-mail Address: _____

Please check reason for a "no response".

☐ Specifications "too tight" or geared toward one brand or manufacturer (please explain below)

☐ Insufficient time to respond

☐ Specifications unclear (please explain below)

☐ We do not offer this product/service or an equivalent

☐ Our product schedule does not permit us to perform within stated timeline for the project

☐ Unable to meet specifications

☐ Unable to meet bond requirements

☐ Unable to hold prices firm throughout the term of the contract period

☐ Unable to meet insurance requirements

☐ Other: _____

Print Name: _____

Signature: _____

Date: _____

Additional Information:

If submitting this form, only this form needs to be returned. It is not necessary to return the entire solicitation package.



(ATTACHMENT 1) SCHEDULE OF UNIT PRICING

BID FORM

CITY OF PORT ORANGE

ITB #22-07

GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION

Completed (Attachment 1) Schedule of Unit Pricing form MUST be included with Bid Submission

Instruction to save Attachment from DemandStar website:

Perform "File Save As" and save spreadsheet to your computer. Fill in pricing in highlighted cells, preferably electronically.

Bidders are required to complete all fields shaded in green.

(ATTACHMENT 1) SCHEDULE OF UNIT PRICING MUST BE SIGNED

NAME OF BUSINESS:

CONTACT PERSON:

EMAIL ADDRESS:

AUTHORIZED SIGNATURE:

ITEM #	DESCRIPTION	QTY	UNIT	TOTAL COST
1	Pre-Construction Video	1	LS	\$
2	Mobilization and Demobilization	1	LS	\$
3	Demolition	1	LS	\$
4	Packaged Generator and ATS System	1	LS	\$
5	Fuel Systems	1	LS	\$
6	Electrical Switchgear	1	LS	\$
7	Civil Site Work and Mechanical	1	LS	\$
8	New Electrical Room	1	LS	\$
9	Motor Control Centers	1	LS	\$
10	HVAC	1	LS	\$
11	Site Electrical	1	LS	\$
12	Temporary Power	1	LS	\$
13	Permit Allowance	1	LS	\$10,000.00
14	As-Built Plans	1	LS	\$
15	Utility Relocation Allowance	1	LS	\$50,000.00
TOTAL BID PRICE (Items 1-15)				\$

This document must be completed and returned with your Submittal

BID BOND

BID BOND

Bond No.:

KNOW ALL MEN BY THESE PRESENTS that _____, as Contractor, duly authorized to conduct business in the State of Florida, whose principal place of business is located at _____, Tel.: _____, (hereinafter called "PRINCIPAL"), and _____, as SURETY, duly authorized to conduct business in the State of Florida, whose principal place of business is located at _____, Tel.: _____ (hereinafter called "SURETY"), are held and firmly bound unto the City of Port Orange, Florida, as CITY, a Florida municipal corporation, whose address is City of Port Orange, 1000 City Center Circle, Port Orange, Florida 32129, Tel.: (386) 506-5501, (hereinafter called "OBLIGEE" or "CITY"), in the penal sum of _____ dollars and (____)/100 (\$____), lawful money of the United States, for the payment of which sum shall and truly be made, whereof PRINCIPAL and SURETY bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that, whereas the Principal has submitted the accompanying bid, dated _____, 20____, for:

Project Name / Bid No.:

Project Address:

Legal Description:

Description of Work:

NOW, THEREFORE,

A. If the principal shall not withdraw said bid within one hundred twenty (120) days after date of opening of the same, and shall within ten (10) days after the prescribed forms are presented to it for signature, enter into a written contract with the City in accordance with the bid as accepted, and give bonds with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such contract, then the above obligations shall be void and of no effect, otherwise to remain in full force and virtue.

B. In the event of the withdrawal of said bid within the period specified, or the failure to enter into such contract and give such bonds within the time specified, if the principal shall pay the City the difference between the amount specified in said bid and the amount for which the City may procure the required work and supplies, if the latter amount be in excess of the former, then the above obligations shall be void and of no effect, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above parties have executed this instrument under their several seals, this _____ day of _____, A.D. 20____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Note: If the firm is a sole ownership or partnership including limited liability company, two (2) witnesses are required to attest the signature. If the firm is a corporation, then the corporate secretary shall attest and affix the corporate seal (Attach power of attorney to original bid bond and financial statement of Surety Company).

PRINCIPAL:

Signature

Corporate Officer & Title

ATTEST:

Signature

Corporate Secretary (Affix Corporate Seal)

WITNESSES:

SURETY:

Attorney-in-Fact (signature)

Name & Title

Name of Local Resident Agent

City, State, Zip

Telephone:
A.M. Best No.: _____ NAIC No. : _____

ATTEST:

Signature

Corporate Secretary (Affix Corporate Seal)

STATE OF _____
COUNTY OF _____

Before me this day personally appeared _____ (affiant), who, being duly sworn, deposes and says that he/she is the Attorney-in-Fact for the _____ (corporate surety) and that this person has been authorized by _____ (corporate surety) to execute the foregoing bond on behalf of the Contractor named therein in favor of the City of Port Orange, Florida.

Signature of Affiant

Sworn to / Affirmed and subscribed before me this _____ day of _____, 20____, by _____, who is personally known to me or who produced _____ as identification.

NOTARY PUBLIC – STATE OF

Type or print name: _____

Commission No.: _____

Commission Expires: _____

(Seal)

.....
END OF BID BOND

This document must be completed and returned with your Submittal

FRONT PAGE FOR BOND REQUIRED BY SECTION 255.05, F.S.

PAYMENT AND PERFORMANCE BOND

(Public Works)

Notice and Time Limitations Must Be In Accordance
With Section 255.05(2), (8) and (10), Florida Statutes

BOND NO. _____

PRINCIPAL:

Developer or Contractor: _____

Principal Business Address: _____

Contact Person: _____

Phone Number: _____

SURETY:

Address: _____

Contact Person: _____

Phone Number: _____

OWNER:

City of Port Orange, Florida, a chartered municipal corporation

1000 City Center Circle

Port Orange, Florida 32129-4144

Contact Person: _____

City Manager

Phone Number: _____

(386) 506-5501

Amount: \$ _____

City Case: ITB 22-07 Garnsey Water Treatment Plant Generator Installation

Description of Work: ITB 22-07 Garnsey Water Treatment Plant Generator Installation

Project Location: City of Port Orange City Center Walkway, 1000 City Center Circle Port Orange, Volusia County, Florida 32129.

Legal Description: Portions of Parcel ID #: 6308-00-06-0010.
See Attached **Exhibit "A"**

Front Page

All other pages are subsequent to this page regardless of any numbers that may be printed thereon.

**City of Port Orange Garnsey Water Treatment Plant
4440 Wellfield Road, Port Orange, FL 32127**

Short Parcel ID:

6306-00-00-0060

Legal Description:

A portion of the Parcel ID listed above.

EXHIBIT "A"

ITB 22-07 Garnsey Water Treatment Generator Installation

Bond No. _____

**COMBINATION PAYMENT AND PERFORMANCE BOND
FOR
PUBLIC CONSTRUCTION**

per Section 255.05, Florida Statutes
Guaranty for Construction of Public Improvements

BY THIS BOND, We, _____, as Principal, and _____, a corporation, as Surety, are bound to **CITY OF PORT ORANGE, FLORIDA**, a Florida municipal corporation, herein called "Owner" or sometimes referred to as "City," in the sum of _____ **AND /100 DOLLARS (\$_____)**, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that if Principal:

1. Performs the terms of that certain EJCDC Agreement, having an effective date of _____, entered into by and between the Principal and the City, for generator installation at the Garnsey Water Treatment Plant, hereinafter referred to as the "Contract," being made a part of this bond by reference, at the times and in the manner prescribed in the Contract; and
2. Promptly makes payments to all claimants, as defined in Section 255.05(1), Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the Contract (the "Work"); and
3. Pays Owner all losses, damages, delay damages (including contractually authorized liquidated damages), expenses, costs, and attorney's fees, including appellate proceedings, that Owner sustains because of a breach or material breach by Principal under the Contract documents; and
4. Performs the guarantee of all work and materials furnished under the Contract for the time specified in the Contract, then this bond is void; otherwise it remains in full force.

Notice of Nonpayment and Time Limitations

Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provisions in Sections 255.05(2), (8) and (10), Florida Statutes.

Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes does not affect Surety's obligation under this bond.

IN WITNESS WHEREOF, this performance and payment bond is executed and shall be deemed an original, this _____, day of _____, 2022.

Attest:

(Principal)

(As to Corporate Principal) Secretary

By: _____
Name, Title

(Witness to Principal)

(Corporate Seal)

(Surety)

(Witness to Surety)

By: _____
Name: _____
(Attorney-in-Fact)

(Corporate Seal)

NOTE: Date of BOND must not be prior to date of Contract. If Developer/Principal is Partnership, all partners should execute BOND. All BONDS signed by an agent must be accompanied by a certified copy of the authority to act.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of Florida.

This certificate must be completed and returned by the Awarded Vendor, upon issuance of a Notice of Intent to Award by the Purchasing Department of the City of Port Orange. Please note, the City of Port Orange does not accept exemptions for Workers' Compensation coverage.

LEASED EMPLOYEE AFFIDAVIT

EXHIBIT CONTRACT # _____

☐ I hereby certify that I do not utilize an employee leasing company or employee leased employees. I further agree to notify the City in the event these circumstances change.

OR

☐ I affirm that an employee leasing company provides my workers' compensation coverage. I further understand that my contract with the employee leasing company limits my workers' compensation coverage to enrolled worksite employees only. My leasing arrangement does not cover un-enrolled worksite employees, independent contractors, uninsured sub-contractors or casual labor exposure.

I hereby certify that 100% of my workers are covered as worksite employees with the employee leasing company. I certify that I do not hire any casual or uninsured labor outside the employee leasing arrangement. I agree to notify the City in the event that I have any workers not covered by the employee leasing workers' compensation policy. In the event that I have any workers not subject to the employee leasing arrangement, I agree to obtain a separate workers' compensation policy to cover these workers. I further agree to provide the City with a certificate of insurance providing proof of workers' compensation coverage prior to these workers entering any City jobsite.

I further agree to notify the City if my employee leasing arrangement terminates with the employee leasing company and I understand that I am required to furnish proof of replacement workers' compensation coverage prior to the termination of the employee leasing arrangement.

I certify that I have workers' compensation coverage for all of my workers through the employee leasing arrangement specified below:

Name of Employee Leasing Company: _____

Workers' Compensation Carrier: _____

A.M. Best Rating of Carrier: _____

Inception Date of Leasing Arrangement: _____

I further agree to notify the City in the event that I switch employee-leasing companies. I recognize that I have an obligation to supply an updated workers' compensation certificate to the City that documents the change of carrier.

I hereby attest that the information provided in this affidavit is accurate. In addition,

I certify that I have read and understand the above statements regarding my responsibility under the Workers' Compensation coverage.

Name of Contractor: _____

Signature of Owner/Officer: _____

Title: _____ **Date:** _____

AFFIDAVIT REGARDING WORKERS' COMPENSATION

IMPORTANT

This certificate must be completed and returned by the Awarded Vendor, upon issuance of a Notice of Intent to Award by the Purchasing Department of the City of Port Orange. Please note, the City of Port Orange does not accept exemptions for Workers' Compensation coverage.

State of _____

County of _____

I, _____, being duly sworn according to law, deposes and says (it, he, she, they) have accepted the Workers' Compensation laws of the State of Florida, with its supplements and amendments and has insured (its, his, her, their) liability there under accordance with the terms of said Laws with the _____ Company, under the terms of Policy Number _____ for a period from _____, 20__ to _____, 20__.

WITNESS:

By: _____

Name: _____

CONTRACTOR:

Company: _____

By: _____

Name/Title: _____

Sworn to and subscribed before me this _____ day of __, 20__.

My Commission Expires: _____

Notary Public

Notary Public Printed Name

**AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)**

**City of Port Orange
1000 City Center Circle
Port Orange, Florida 32129**

THIS AGREEMENT is by and between _____ (“Owner”) and _____ (“Contractor”).

The Effective Date of this Agreement shall be _____ (If no date is specified then the Effective Date shall be the date on which the Agreement is signed by the last of the two parties.)

Owner and Contractor hereby agree as follows:

ARTICLE 1 - WORK

- 1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:
- 1.02 *Installation of one (1) new generator, one (1) new switchgear assembly, one (1) new fuel tank with associated fuel supply and return piping and valves, two (2) MCC and a new electrical room.*

ARTICLE 2 – THE PROJECT

- 2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

ITB 22-07 Garnsey Water Plant Generator Installation

ARTICLE 3 – ENGINEER

- 3.01 *The part of the Project that pertains to the Work has been designed by the Project Engineer, Brad Blais, P.E. (“Engineer”) and Keff Kurella, P.E. (“Engineer”), and shall act as Owner’s representatives, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.*

ARTICLE 4 – CONTRACT TIMES

- 4.01 *Time of the Essence*
- A. All time limits for Substantial Completion and Final Completion as stated in the Contract Documents, particularly Paragraph 4.02 below, are of the essence of the Contract.
- B. All time limits for Milestone dates set forth in the Contract Documents are of the essence of the Contract.

4.02 *Days to Achieve Substantial Completion and Final Completion*

- A. Unless as otherwise modified in a Notice to Proceed issued after the Effective Date of the Agreement or an allowable extension of time in accordance with Paragraph 12.02 of the General Conditions, the Work shall be substantially completed within 400 days after the Effective Date of the Agreement.
- B. Unless as otherwise modified in a Notice to Proceed issued after the Effective Date of the Agreement or an allowable extension of time in accordance with Paragraph 12.02 of the General Conditions, the Work shall be finally completed in accordance with Paragraph 14.06 of the General Conditions within 430 days after the Effective Date of the Agreement.
- C. If a Notice to Proceed is issued more than 60 days from the Effective Date of this Agreement, then the dates for Substantial Completion and the Final Completion shall be extended by the same number of days. (For example, if the Notice to Proceed is issued 63 days after the Effective Date of the Agreement, then the Substantial Completion and Final Completion dates shall be extended by 63 days.)

4.03 *Liquidated Damages*

- A. Contractor and Owner agree and recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial loss that is not readily ascertainable as of the Effective Date of this Agreement if the Work is delayed and not Substantially Completed within the time period specified in Paragraph 4.02 above, plus any allowable extension of time in accordance with Paragraph 12.02 of the General Conditions. Contractor agrees and recognizes that any delay to Substantial Completion shall constitute a material breach. Accordingly, Owner and Contractor agree that as liquidated damages for delay, Contractor shall pay Owner \$0.00 for each day that expires after the date the Work is required to be Substantially Completed until the Contractor achieves Substantial Completion with the Work. Contractor and Owner agree and recognize that the liquidated damages set forth herein shall not be treated as a penalty and are just damages that are proportionate to any damages that might reasonably be expected to follow from a delay to Substantial Completion.
- B. Owner may withhold Contractor's final payment in order offset the liquidated damages that Contractor owes Owner. Owner may also withhold progress payments if Owner reasonably believes that Contractor's final payment will not sufficiency cover the liquidated damages that Contractor owes Owner.

ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to Paragraphs 5.01.A, 5.01.B, and 5.01.C below:

- A. For all Work other than Unit Price Work, a lump sum of: \$ _____

Any allowances specifically identified and called for in the Contract Documents are included in the above price in accordance with Paragraph 11.02 of the General Conditions.

- B. For all Unit Price Work in accordance with Paragraph 11.03 of the General Conditions, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the actual quantity of that item:

<u>UNIT PRICE WORK</u>					
<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>	<u>Bid Unit Price</u>	<u>Bid Price</u>

See Attachments

Total of all Bid Prices (Unit Price Work) \$0.00

The Bid Unit Prices set forth above are guaranteed prices. Although the Estimated Quantities are estimates and may increase or decrease based on determinations of Engineer, Contractor agrees and understands that the Bid Unit Prices shall remain the same irrespective of the quantities. Contractor understands that in agreeing to any Bid Unit Price it is agreeing to bear the risk associated with any material price increase or escalation. Owner agrees and understands that in agreeing to any Bid Unit Price it is agreeing to bear the risk associated with any material price decrease or reduction.

- C. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 Submittal and Processing of Progress Payments

- A. Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions.

6.02 Progress Payments; Retainage

- A. Progress payments shall be made on account of the Contract Price on the basis of Contractor's Applications for Payment during performance of the Work in accordance with Paragraph 14.02 of the General Conditions. All such payments will be measured by the schedule of values established as provided in Paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed). Progress payments will be made in an amount equal to the percentage of the Work completed in accordance with the Schedule of Values, less the aggregate of payments previously made, less the retainage, and less such amounts as Engineer may determine Owner may withhold, including, but not limited to, liquidated damages.

- B. Owner shall withhold Five percent (5%) of each progress payment as retainage.

6.03 Final Payment

- A. Final Payment inclusive of retainage shall be made to Contractor in accordance with Paragraph 14.07 of the General Conditions.

ARTICLE 7 – INTEREST

7.01 All monies not paid in strict accordance with Florida Statute §218.735 shall bear interest as provided for therein.

ARTICLE 8 – CONTRACTOR’S REPRESENTATIONS

8.01 In order to induce Owner to enter into this Agreement and in determining the Contract Price, Contractor makes the following representations:

- A. Contractor has carefully examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
- B. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), if any, that have been identified in Paragraph SC-4.02 of the Supplementary Conditions as containing reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in Paragraph SC-4.06 of the Supplementary Conditions as containing reliable "technical data." Contractor’s receipt and study of such reports shall not relieve it of visiting the Site and becoming familiar with and satisfied with the Site conditions that may affect cost, progress, and performance of the Work.
- E. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) Contractor’s safety precautions and programs.
- F. Based on the information and observations referred to in Paragraph 8.01.E above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.

- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to 10, inclusive).
 - 2. Combination Payment and Performance Bond (pages 1 to 4, inclusive).
 - 3. General Conditions (pages 1 to 69, inclusive).
 - 4. Supplementary Conditions (pages 1 to 7, inclusive).
 - 5. Technical Specifications – 100% Submittal as listed in ITB 22-07 “Attachment 2” Garnsey Water Plant Generator Installation, as identified in “Section 3 - Specifications” (pages 1 to ___, not attached, on file with Junos Reed, P.E., City Engineering and Construction Manager).
 - 6. Design November 2021 as listed in ITB 22-07 “Attachment 3” Garnsey Water Plant Generator Installation, as identified in “Section 3 – “Specifications” (pages 1 to ___, inclusive).
 - 7. Addendum No. ___ (page ___, inclusive).
 - 8. Exhibits to this Agreement (enumerated as follows):
 - a. Exhibit No. 1 Contractor’s Bid Schedule of Unit Prices (page ___, inclusive).
 - b. Documentation submitted by Contractor prior to Notice of Award (N/A).
 - 1. Affidavit Regarding Workers’ Compensation (page 1, inclusive).
 - 2. Leased Employee Affidavit Exhibit (page 1, inclusive).
 - c. Exhibit No. 2 Contractor’s Proposal (pages ___ to ___, inclusive).
 - d. Composite Exhibit No. 3 City’s Invitation to Bid Request No. 22-07 (pages 1 to ___, inclusive).
 - 9. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:

- a. Notice to Proceed (pages _____ to _____, inclusive).
 - b. Work Change Directives.
 - c. Change Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 Terms

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 Assignment of Contract

- A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 Successors and Assigns

- A. Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 Severability

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions and parts shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision or part that comes as close as possible to expressing the intention of the stricken provision.

10.05 Contractor's Certifications

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
1. “corrupt practice” means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 2. “fraudulent practice” means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 3. “collusive practice” means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 4. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.
- B. Contractor certifies that in the event a Lien is recorded on the Project by any person or entity providing labor, services, or materials with respect to any portion of the Work, it will immediately transfer such lien to its payment bond or take other appropriate action to immediately remove the encumbrance.

10.06 *No-Damage-for-Delay*

- A. Contractor shall not be entitled to any damages (including, without limitation, expenses, costs, fees, extended field overhead and general conditions, equipment costs, home office overhead, lost productivity and inefficiency damages, additional payroll and labor costs, etc.) for any delay to its Work. Contractor’s sole and exclusive remedy for a delay to its Work that is not caused by Contractor (or a person or entity performing a portion of Contractor’s scope of Work) shall be an extension of time to substantially complete and finally complete the Project; provided, however, that Owner granting Contractor an extension of time is not a condition precedent to this no-damage-for-delay provision. Contractor shall also not be entitled to any damages for disruption or interference to its Work or for having to accelerate or incur additional labor or payroll costs in order to make up or overcome a delay to its Work so that it can maintain the dates for Substantial Completion and Final Completion. Contractor agrees that in determining and agreeing to the Contract Price it considered this no-damage-for-delay provision and understands that it is not entitled to any damages whatsoever for a delay to its Work.

10.07 *No Intended Third-Party Beneficiaries*

- A. There are no intended third-party beneficiaries to the Contract.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement. Counterparts have been delivered to Owner and Contractor. All portions of the Contract Documents have been signed or have been identified by Owner and Contractor or on their behalf.

CITY OF PORT ORANGE

Owner

By: Donald O. Burnette

Title: Mayor

Date: _____

Attest: Robin L. Fenwick, MMC

Title: City Clerk

Address for giving notices:

1000 City Center Circle

Port Orange, Florida 32129

(386) 506-5500

Contractor

By: _____

Title: _____

Date: _____

Attest: _____

Title: _____

Address for giving notices:

Telephone: (____) ____-____ E-Mail: _____

License No.: _____

**Engineers Joint Documents Committee
Design and Construction Related Documents
Instructions and License Agreement**

Instructions

Before you use any EJCDC document:

1. Read the License Agreement. You agree to it and are bound by its terms when you use the EJCDC document.
2. Make sure that you have the correct version for your word processing software.

How to Use:

1. While EJCDC has expended considerable effort to make the software translations exact, it can be that a few document controls (e.g., bold, underline) did not carry over.
2. Similarly, your software may change the font specification if the font is not available in your system. It will choose a font that is close in appearance. In this event, the pagination may not match the control set.
3. If you modify the document, you must follow the instructions in the License Agreement about notification.
4. Also note the instruction in the License Agreement about the EJCDC copyright.

License Agreement

You should carefully read the following terms and conditions before using this document. Commencement of use of this document indicates your acceptance of these terms and conditions. If you do not agree to them, you should promptly return the materials to the vendor, and your money will be refunded.

The Engineers Joint Contract Documents Committee ("EJCDC") provides **EJCDC Design and Construction Related Documents** and licenses their use worldwide. You assume sole responsibility for the selection of specific documents or portions thereof to achieve your intended results, and for the installation, use, and results obtained from **EJCDC Design and Construction Related Documents**.

You acknowledge that you understand that the text of the contract documents of **EJCDC Design and Construction Related Documents** has important legal consequences and that consultation with an attorney is recommended with respect to use or modification of the text. You further acknowledge that EJCDC documents are protected by the copyright laws of the United States.

License:

You have a limited nonexclusive license to:

1. Use **EJCDC Design and Construction Related Documents** on any number of machines owned, leased or rented by your company or organization.
2. Use **EJCDC Design and Construction Related Documents** in printed form for bona fide contract documents.
3. Copy **EJCDC Design and Construction Related Documents** into any machine readable or printed form for backup or modification purposes in support of your use of **EJCDC Design and Construction Related Documents**.

You agree that you will:

1. Reproduce and include EJCDC's copyright notice on any printed or machine-readable copy, modification, or portion merged into another document or program. All proprietary rights in **EJCDC Design and Construction Related Documents** are and shall remain the property of EJCDC.
2. Not represent that any of the contract documents you generate from **EJCDC Design and Construction Related Documents** are EJCDC documents unless (i) the document text is used without alteration or (ii) all additions and changes to, and deletions from, the text are clearly shown.

You may not use, copy, modify, or transfer EJCDC Design and Construction Related Documents, or any copy, modification or merged portion, in whole or in part, except as expressly provided for in this license. Reproduction of EJCDC Design and Construction Related Documents in printed or machine-readable format for resale or educational purposes is expressly prohibited.

If you transfer possession of any copy, modification or merged portion of EJCDC Design and Construction Related Documents to another party, your license is automatically terminated.

Term:

The license is effective until terminated. You may terminate it at any time by destroying **EJCDC Design and Construction Related Documents** altogether with all copies, modifications and merged portions in any form. It will also terminate upon conditions set forth elsewhere in this Agreement or if you fail to comply with any term or condition of this Agreement. You agree upon such termination to destroy **EJCDC Design and Construction Related Documents** along with all copies, modifications and merged portions in any form.

Limited Warranty:

EJCDC warrants the CDs and diskettes on which **EJCDC Design and Construction Related Documents** is furnished to be free from defects in materials and

workmanship under normal use for a period of ninety (90) days from the date of delivery to you as evidenced by a copy of your receipt.

There is no other warranty of any kind, either expressed or implied, including, but not limited to the implied warranties of merchantability and fitness for a particular purpose. Some states do not allow the exclusion of implied warranties, so the above exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

EJCDC does not warrant that the functions contained in **EJCDC Design and Construction Related Documents** will meet your requirements or that the operation of **EJCDC Design and Construction Related Documents** will be uninterrupted or error free.

Limitations of Remedies:

EJCDC's entire liability and your exclusive remedy shall be:

1. the replacement of any document not meeting EJCDC's "Limited Warranty" which is returned to EJCDC's selling agent with a copy of your receipt, or
2. if EJCDC's selling agent is unable to deliver a replacement CD or diskette which is free of defects in materials and workmanship, you may terminate this Agreement by returning EJCDC Document and your money will be refunded.

In no event will EJCDC be liable to you for any damages, including any lost profits, lost savings or other incidental or consequential damages arising out of the use or inability to use **EJCDC Design and Construction Related Documents** even if EJCDC has been advised of the possibility of such damages, or for any claim by any other party.

Some states do not allow the limitation or exclusion of liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you.

General:

You may not sublicense, assign, or transfer this license except as expressly provided in this Agreement. Any attempt otherwise to sublicense, assign, or transfer any of the rights, duties, or obligations hereunder is void.

This Agreement shall be governed by the laws of the State of Virginia. Should you have any questions concerning this Agreement, you may contact EJCDC by writing to:

Arthur Schwartz, Esq.
General Counsel
National Society of Professional Engineers
1420 King Street
Alexandria, VA 22314

Phone: (703) 684-2845

Fax: (703) 836-4875
e-mail: aschwartz@nspe.org

You acknowledge that you have read this agreement, understand it and agree to be bound by its terms and conditions. You further agree that it is the complete and exclusive statement of the agreement between us which supersedes any proposal or prior agreement, oral or written, and any other communications between us relating to the subject matter of this agreement.

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

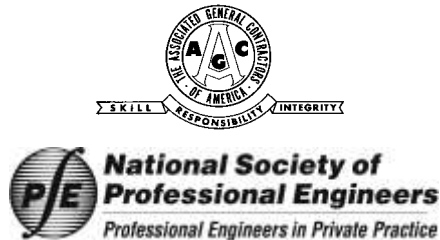
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These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

TABLE OF CONTENTS

	Page
Article 1 – Definitions and Terminology.....	1
1.01 Defined Terms.....	1
1.02 Terminology	5
Article 2 – Preliminary Matters.....	6
2.01 Delivery of Bonds and Evidence of Insurance	6
2.02 Copies of Documents.....	6
2.03 Notice to Proceed; Starting the Work.....	6
2.04 Starting the Work.....	7
2.05 Before Starting Construction.....	7
2.06 Preconstruction Conference; Designation of Authorized Representatives.....	7
2.07 Initial Acceptance of Schedules.....	7
Article 3 – Contract Documents: Intent, Amending, Reuse.....	8
3.01 Intent	8
3.02 Reference Standards	8
3.03 Reporting and Resolving Discrepancies	9
3.04 Amending and Supplementing Contract Documents	10
3.05 Reuse of Documents	10
3.06 Electronic Data.....	10
Article 4 – Availability of Lands; Subsurface and Physical Conditions; Hazardous Environmental Conditions; Reference Points	11
4.01 Availability of Lands	11
4.02 Subsurface and Physical Conditions.....	11
4.03 Differing Subsurface or Physical Conditions	12
4.04 Underground Facilities	13
4.05 Reference Points.....	14
4.06 Hazardous Environmental Condition at Site.....	14
Article 5 – Bonds and Insurance	16
5.01 Performance, Payment, and Other Bonds	16
5.02 Licensed Sureties and Insurers.....	16
5.03 Certificates of Insurance	17
5.04 Contractor’s Insurance.....	17
5.05 Owner’s Liability Insurance.....	19
5.06 Property Insurance	19
5.07 Waiver of Rights	20
5.08 Receipt and Application of Insurance Proceeds	21
5.09 Acceptance of Bonds and Insurance; Option to Replace	21

5.10	Partial Utilization, Acknowledgment of Property Insurer	22
Article 6 – Contractor’s Responsibilities		
6.01	Supervision and Superintendence	22
6.02	Labor; Working Hours.....	22
6.03	Services, Materials, and Equipment	23
6.04	Progress Schedule	23
6.05	Substitutes and “Or-Equals”.....	23
6.06	Concerning Subcontractors, Suppliers, and Others	26
6.07	Patent Fees and Royalties.....	27
6.08	Permits	27
6.09	Laws and Regulations.....	28
6.10	Taxes	28
6.11	Use of Site and Other Areas.....	28
6.12	Record Documents.....	29
6.13	Safety and Protection	29
6.14	Safety Representative	30
6.15	Hazard Communication Programs.....	30
6.16	Emergencies	30
6.17	Shop Drawings and Samples.....	30
6.18	Continuing the Work	32
6.19	Contractor’s General Warranty and Guarantee	32
6.20	Indemnification	33
6.21	Delegation of Professional Design Services	34
Article 7 – Other Work at the Site.....		
7.01	Related Work at Site	34
7.02	Coordination	35
7.03	Legal Relationships.....	35
Article 8 – Owner’s Responsibilities		
8.01	Communications to Contractor	36
8.02	Replacement of Engineer	36
8.03	Furnish Data	36
8.04	Pay When Due.....	36
8.05	Lands and Easements; Reports and Tests	36
8.06	Insurance	36
8.07	Change Orders.....	36
8.08	Inspections, Tests, and Approvals	36
8.09	Limitations on Owner’s Responsibilities	37
8.10	Undisclosed Hazardous Environmental Condition	37
8.11	Evidence of Financial Arrangements	37
8.12	Compliance with Safety Program	37
Article 9 – Engineer’s Status During Construction		
9.01	Owner’s Representative.....	37
9.02	Visits to Site	37
9.03	Project Representative	38

9.04	Authorized Variations in Work.....	38
9.05	Rejecting Defective Work	38
9.06	Shop Drawings, Change Orders and Payments	38
9.07	Determinations for Unit Price Work	39
9.08	Decisions on Requirements of Contract Documents and Acceptability of Work.....	39
9.09	Limitations on Engineer’s Authority and Responsibilities	39
9.10	Compliance with Safety Program	40
Article 10 –	Changes in the Work; Claims.....	40
10.01	Authorized Changes in the Work.....	40
10.02	Unauthorized Changes in the Work.....	40
10.03	Execution of Change Orders	40
10.04	Notification to Surety.....	41
10.05	Claims	41
Article 11 –	Cost of the Work; Allowances; Unit Price Work	42
11.01	Cost of the Work	42
11.02	Allowances	45
11.03	Unit Price Work	45
Article 12 –	Change of Contract Price; Change of Contract Times	46
12.01	Change of Contract Price.....	46
12.02	Change of Contract Times.....	47
12.03	Delays	47
Article 13 –	Tests and Inspections; Correction, Removal or Acceptance of Defective Work	48
13.01	Notice of Defects	48
13.02	Access to Work	48
13.03	Tests and Inspections	48
13.04	Uncovering Work.....	49
13.05	Owner May Stop the Work	50
13.06	Correction or Removal of Defective Work.....	50
13.07	Correction Period	50
13.08	Acceptance of Defective Work.....	51
13.09	Owner May Correct Defective Work	51
Article 14 –	Payments to Contractor and Completion.....	52
14.01	Schedule of Values	52
14.02	Progress Payments	52
14.03	Contractor’s Warranty of Title.....	55
14.04	Substantial Completion.....	55
14.05	Partial Utilization	56
14.06	Final Completion- Punchlist.....	56
14.07	Final Payment.....	57
14.08	Final Completion Delayed	58
14.09	Waiver of Claims	58

Article 15 – Suspension of Work and Termination	59
15.01 Owner May Suspend Work	59
15.02 Owner May Terminate for Cause	59
15.03 Owner May Terminate For Convenience.....	60
15.04 Contractor May Stop Work or Terminate	60
Article 16 – Dispute Resolution	61
16.01 Methods and Procedures.....	61
Article 17 – Miscellaneous	61
17.01 Giving Notice	61
17.02 Computation of Times	62
17.03 Cumulative Remedies.....	62
17.04 Survival of Obligations.....	62
17.05 Controlling Law	62
17.06 Headings	62

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
 3. *Application for Payment*—The form acceptable to Engineer and Owner which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 6. *Bidder*—The individual or entity who submits a Bid directly to Owner.
 7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
 8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
 9. *Change Order*—A document recommended by Engineer and/or Owner which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
 10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
 11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; (iii) achieve Final Completion; and (iv) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 for definition.
17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed by the last of the two parties.
19. *Engineer*—The individual or entity named as such in the Agreement.
20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
21. *Final Completion* – This shall occur when Contractor, in the opinion of Engineer or Owner, performs and completes all corrective action associated with the Punchlist in addition to any other work required of Contractor under the Contract Documents.
22. *General Requirements*—Sections of Division 1 of the Specifications.
23. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
24. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
26. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

27. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.
28. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
29. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
30. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
31. *PCBs*—Polychlorinated biphenyls.
32. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
33. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
34. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
35. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
36. *Punchlist* – The detailed list of incomplete, unsatisfactory or unacceptable, or defective items that Contractor is required to complete to achieve Final Completion that is generated in accordance with Paragraph 14.06 of the General Conditions.
37. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
38. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
39. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
40. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.

41. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.
42. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, samples, product data, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
43. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
44. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
45. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
46. *Substantial Completion*—The time and date at which the Work has progressed to the point where, in the opinion of Engineer, the Work is sufficiently complete, in accordance with the Contract Documents, so that the Work can be occupied and/or utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof. Substantial Completion cannot occur before the Project is issued a Certificate of Occupancy (or Completion, if applicable) by the governing building department that allows Owner to begin to utilize the entire Project for the purposes for which it is intended.
47. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.
48. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
49. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
50. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
51. *Unit Price Work*—Work to be paid for on the basis of unit prices.
52. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or

providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

53. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 Terminology

- A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives:*

1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day:*

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective:*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

c. is failing or has been damaged.

E. *Furnish, Install, Perform, Provide:*

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request such as the specific additional insured endorsement included in the liability policy) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5 and/or the Supplementary Conditions.

2.02 *Copies of Documents*

- A. At the request of Contractor, Owner or Engineer shall furnish to Contractor up to 5 hard copies of the Drawings and Specifications. Additional copies of the Drawings and Specifications will be furnished upon request at the cost of reproduction.

2.03 *Notice to Proceed; Starting the Work*

- A. Contractor shall not commence the Work until Owner issues a Notice to Proceed. A Notice to Proceed may be issued by Owner at any time after the Effective Date of the Agreement.

2.04 N/A

2.05 *Before Starting Construction*

A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer and Owner for timely review:

1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents, and identifying the Substantial Completion and Final Completion dates;
2. a preliminary Schedule of Submittals; and
3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts / line-items in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.07 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer or Owner, and others as appropriate will be held to review for acceptability to Engineer or Owner as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted and approved by Engineer and Owner.
1. The Progress Schedule will be acceptable to Engineer and Owner if it provides an orderly progression of the Work to completion within the Contract Times and identifies Contractor's critical path sequence of scheduled activities with the earliest start dates for scheduled activities, the earliest finish date for scheduled activities, the latest start date for scheduled activities, and the latest finish date for scheduled activities. All float in the Progress Schedule shall belong to Owner in order to offset a delay attributable to Owner or its agents. Such

acceptance will not impose on Engineer or Owner responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer and Owner if it provides a workable arrangement for reviewing and processing the required submittals.
3. Contractor's Schedule of Values will be acceptable to Engineer and Owner as to form and substance if it provides a reasonable allocation of the Contract Price to component parts / line-items of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 Intent

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents (*e.g.*, answering Requests for Information) shall be issued by Engineer as provided in Article 9.

3.02 Reference Standards

- A. Standards, Specifications, Codes, Laws, and Regulations
 1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements and dimensions. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04 below.
3. Contractor shall not be liable to Owner for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof or could have discovered the conflict or error by carefully studying and comparing the Contract Documents and checking and verifying pertinent figures therein and all applicable field measurements and dimensions.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).
2. In the event there is a discrepancy or conflict in the Drawings and Specifications applicable to a particular detail or assembly of the Work, Contractor must promptly seek clarification from Engineer before proceeding with the Work. Subject to Paragraph 3.03.A.3 above, if Contractor proceeds with the Work without seeking such clarification, Contractor will be bound by the stricter and more expensive detail or assembly. Contractor agrees and recognizes that in agreeing to the Contract Price it has factored in the costs associated with installing the stricter and more expensive detail or assembly.

3.04 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
 - 1. A Field Order;
 - 2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or
 - 3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

- A. Contractor and any Subcontractor or Supplier shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or
 - 2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

- A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting

from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.
- B. *N/A*
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities, staging, or storage of materials and equipment. Contractor shall have the obligation to restore the additional lands to their original condition.

4.02 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions may identify:
 - 1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
 - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents and shall under no circumstance relieve Contractor from visiting the Site and becoming familiar with and satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work. Such "technical data" is identified in the Supplementary Conditions. Except for such limited reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:

1. is of such a nature as to establish that any “technical data” on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
2. is of such a nature as to require a change in the Contract Documents; or
3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after first becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition within 5 days. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer’s Review:* After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner’s obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer’s findings and conclusions.

C. *Possible Price and Times Adjustments:*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor’s cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A;
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03; and
 - c. Contractor notifies Owner and Engineer of such condition within 5 days after first becoming aware of such condition.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
 - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
 - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 4.03.A within 5 days after first becoming aware of such condition.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

- A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
 1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all such information and data;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents;
 - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
 - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated:*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after first becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer within 5 days. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that (i) they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents or a report listed in the Supplemental Conditions, (ii) Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or location, and (iii) Contractor notifies Owner and Engineer of such condition within 5 days after first becoming aware of such condition. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.
- B. Contractor shall lay-out and verify all field dimensions and measurements at the Site before proceeding with any portion of the Work.

4.06 *Hazardous Environmental Condition at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and

drawings are not Contract Documents. Such “technical data” is identified in the Supplementary Conditions. Except for such reliance on such “technical data,” Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor’s purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work or identified in a report listed in the Supplemental Conditions. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible or if such condition is caused by the negligence, recklessness, or intentional misconduct of Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing) within 5 days of first becoming aware of the condition. Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.
- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that (i) they are attributable to the existence or location of any Hazardous Environmental Condition that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents or a report listed in the Supplemental Conditions, (ii) Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the Hazardous Environmental Conditions, (iii) Contractor did not negligently, recklessly, or intentionally cause the Hazardous Environmental Condition, and (iv) Contractor notifies Owner and Engineer of such condition within 5 days after first becoming aware of such condition. If Owner and Contractor cannot agree as to entitlement

to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.

- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. N/A
- H. N/A
- I. N/A

ARTICLE 5 – BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish performance and payment bonds in accordance with Florida Statute §255.05, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. The obligations, duties, responsibilities, and requirements of Contractor set forth in this Contract shall be incorporated into Contractor's performance bond.
- B. All bonds shall be in the form prescribed by the Contract Documents. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond. The performance and payments bonds shall be recorded in the public records in and for Volusia County, Florida. As a courtesy to the Contractor and to expedite recording, the City shall record the bond on behalf of the Contractor and shall cause a copy of the recording information to be provided to the Contractor by the Project Engineer.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in Florida or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed

or authorized in Florida to issue bonds or insurance policies for the limits and coverages so required.

5.03 *Certificates of Insurance*

- A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.
- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.
- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. *N/A*
- F. In the event of any conflict between this Paragraph 5.03 and the specific insurance requirements of Contractor set forth in the Supplemental Conditions, the specific insurance requirements in the Supplemental Conditions govern.

5.04 *Contractor's Insurance*

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
 - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
 - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
 - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:

- a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
 - b. by any other person for any other reason;
 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom;
 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle;
- B. The policies of insurance required by this Paragraph 5.04 shall:
1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds for ongoing and completed operations, and include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;
 2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
 3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraph 6.20 below and as otherwise set forth in the Contract;
 4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
 5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
 6. include completed operations coverage:
 - a. Such insurance shall remain in effect for 10 years after Substantial Completion.
 - b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment.

- C. Contractor shall be solely responsible for any insurance deductible or self-insured retention.
- D. In the event of any conflict between this Paragraph 5.04 and the specific insurance requirements of Contractor set forth in the Supplemental Conditions, the specific insurance requirements in the Supplemental Conditions govern.

5.05 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 *Property Insurance*

- A. Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). Such policy shall identify both Contractor and Owner as named insureds. Contractor shall solely be responsible for any deductible. This insurance shall:
 - 1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;
 - 2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, flood, windstorm, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.
 - 3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 - 4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
 - 5. allow for partial utilization of the Work by Owner;
 - 6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.

B. *N/A*

- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.

D. *N/A*

E. *N/A*

- F. Contractor's all-risk property insurance shall not terminate or expire if Owner elects to utilize or occupy any portion or portions of the Project prior to Substantial Completion. Contractor shall obtain an occupancy / use endorsement that allows Owner to utilize or occupy a portion or portions of the Project prior to Substantial Completion (such that if a temporary Certificate of Occupancy or Completion is issued for a portion(s) of the Project, the all-risk property insurance shall remain in full force).

- G. In the event of any conflict between this Paragraph 5.06 and the specific insurance requirements of Contractor set forth in the Supplemental Conditions, the specific insurance requirements in the Supplemental Conditions govern.

5.07 *Waiver of Rights*

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Contractor as trustee or otherwise payable under any policy so issued.

- B. *N/A*
- C. *N/A*
- D. In the event of any conflict between this Paragraph 5.07 and the specific insurance requirements of Contractor set forth in the Supplemental Conditions, the specific insurance requirements in the Supplemental Conditions govern.

5.08 *Receipt and Application of Insurance Proceeds*

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Contractor and made payable to Contractor as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Contractor shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and, only if applicable, the cost thereof covered by an appropriate Change Order.
- B. Contractor as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Contractor's exercise of this power. If such objection be made, Contractor as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Contractor as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.
- C. Owner, at its sole discretion, may elect to fund the costs associated with any property insurance claim, excluding the deductible, and seek reimbursement from Contractor's policy that identifies both Contractor and Owner as named insureds. If Owner exercises this right, it shall have sole authority to settle and adjust any claim and receive reimbursement under the policy with the proceeds made payable to Owner. Contractor shall have the obligation to cooperate and comply with all terms and provisions of the policy and its failure to do so shall constitute a material breach of the Contract. If Owner does not elect this right, Contractor shall be required to fund the costs associated with any property insurance claim and seek reimbursement under the policy.
- D. In the event of any conflict between this Paragraph 5.08 and the specific insurance requirements of Contractor set forth in the Supplemental Conditions, the specific insurance requirements in the Supplemental Conditions govern.

5.09 *Acceptance Insurance; Option to Replace*

- A. If Owner has any objection to the coverage afforded by or other provisions of the insurance required to be purchased and maintained by the Contractor in accordance with Article 5 and/or the Supplementary Conditions on the basis of non-conformance with the Contract Documents, Owner shall so notify Contractor in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Contractor shall provide Owner such additional information in respect of insurance provided as the Owner may reasonably request. If Contractor does not purchase or maintain all of the insurance required of it by the Contract

Documents, Owner shall notify Contractor in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage, which shall constitute a material breach of the Contract by Contractor. Without Owner's prejudice to any other right or remedy, Owner may elect to obtain equivalent insurance to protect its interests at the expense of Contractor, and a Change Order shall be issued to adjust the Contract Price accordingly.

- B. In the event of any conflict between this Paragraph 5.09 and the specific insurance requirements of Contractor set forth in the Supplemental Conditions, the specific insurance requirements in the Supplemental Conditions govern.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

- A. N/A

ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents. Contractor shall submit a Request for Information to Engineer seeking clarification as to any aspect of the Contract Documents as soon as practical to, among other things, maintain the orderly progress of the Work and avoid any delay to the Work.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent or superintendents, as appropriate, who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

6.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer and Owner for acceptance (to the extent indicated in Paragraph 2.07) proposed monthly adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will be submitted with Contractor's Applications for Payment, as conditions precedent to payment, and will comply with any provisions of the General Requirements applicable thereto.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.
 - 3. All proposed Progress Schedules submitted to Engineer and Owner shall identify Contractor's critical path sequence of scheduled activities of the Work as well as earliest start dates for scheduled activities, the earliest finish date for scheduled activities, the latest start date for scheduled activities, and the latest finish date for scheduled activities. All float in the Progress Schedules shall belong to Owner to offset a delay to Contractor's critical path attributable to Owner or its agents.

6.05 *Substitutes and "Or-Equals"*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.

1. *“Or-Equal” Items:* If in Engineer’s sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an “or-equal” item, in which case review and approval of the proposed item may, in Engineer’s sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
 - 3) it has a proven record of performance and availability of responsive service.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.
2. *Substitute Items:*
 - a. If in Engineer’s sole discretion an item of material or equipment proposed by Contractor does not qualify as an “or-equal” item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
 - b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
 - c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
 - d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - 1) shall certify that the proposed substitute item will:
 - a) perform adequately the functions and achieve the results called for by the general design,

- b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified;
- 2) will state:
 - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
 - b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
- 3) will identify:
 - a) all variations of the proposed substitute item from that specified, and
 - b) available engineering, sales, maintenance, repair, and replacement services; and
- 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.

- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor,

Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

- F. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection. Additionally, subject to Paragraph 6.06.B below, Contractor shall provide to Owner within 10 days from the Effective Date of this Agreement a written list of all Subcontractors (or other individuals or entities it plans on engaging to perform a scope of the Work), together with their Certificates of Insurance that must identify Owner as an additional insured. Subcontractors must identify Owner as an additional insured for purposes of ongoing and completed operations.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.
- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor and ensure that they perform the Work in a good and workmanlike manner and pursuant to the Contract Documents.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. *N/A*
- C. *N/A*

6.08 *Permits*

- A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

6.11 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas:*

- 1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
- 2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
- 3. *N/A*

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show as-built conditions and changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

6.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.

- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*
 - a. Submit number of copies specified in the General Requirements.
 - b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.
 2. *Samples:*
 - a. Submit number of Samples specified in the Specifications.
 - b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.
- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Submittal Procedures:*
1. Before submitting each Shop Drawing or Sample, Contractor shall have:
 - a. thoroughly reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
 2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
 3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop

Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. *Engineer's Review:*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 *Continuing the Work*

- A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements regarding payment or otherwise, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. use or occupancy of the Work or any part thereof by Owner;
 5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
 6. any inspection, test, or approval by others;
 7. any correction of defective Work by Owner; or
 8. the achievement of Final Completion (including Contractor's completion of Punchlist items that were deemed satisfactory to Engineer).

6.20 *Indemnification*

- A. To the fullest extent permitted by Florida law including Florida Statute §725.06, Contractor shall indemnify and hold harmless Owner (including Owner's officers and employees) from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by the negligence, recklessness, or intentional misconduct of Contractor and the persons or entities employed or utilized by Contractor in the performance of the Contract. Contractor agrees and understands that the monetary limitation on the extent of its indemnification shall be \$1 million per occurrence or the per occurrence limits of its commercial general liability (CGL) insurance, whichever is greater, which bears a reasonable commercial relationship to the Contract and is hereby part of the project specifications and bid documents.
- B. To the fullest extent permitted by Florida law, Contractor shall defend Owner (including Owner's officers and employees) from claims, demands, and litigation asserted against Owner to the extent such claims, demands, or litigation are caused by the negligence, recklessness, or intentional misconduct of Contractor and the persons or entities employed or utilized by Contractor in the performance of the Contract.
- C. Contractor agrees and understands that its obligation to indemnify, hold harmless, and defend as set forth in Paragraphs 6.20.A and B above includes, without limitation, claims, losses, etc. for

personal injury, death, property damage, Hazardous Environmental Conditions, infringement of patent rights or copyrights incident to the use or incorporation in the performance of the Work, etc., to the extent caused by the negligence, recklessness, or intentional misconduct of Contractor and the persons or entities employed or utilized by Contractor in the performance of the Contract.

6.21 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 – OTHER WORK AT THE SITE

7.01 *Related Work at Site*

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
 - 1. written notice thereof will be given to Contractor prior to starting any such other work; and

2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.
- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
 2. the specific matters to be covered by such authority and responsibility will be itemized; and
 3. the extent of such authority and responsibilities will be provided.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 *Legal Relationships*

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.

- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

ARTICLE 8 – OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

8.02 *Replacement of Engineer*

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C or as otherwise provided in Florida Statute §218.735.

8.05 *Lands and Easements; Reports and Tests*

- A. Owner's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

8.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

- A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

- A. N/A

8.12 *Compliance with Safety Program*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.

9.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods,

techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

- A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Authorized Variations in Work*

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.
- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the clarification or interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing as soon as practical (so as to maintain the orderly progress of the Work and to avoid any delay to the Work) but in no event later than 30 days of the event giving rise to the question.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred or render a written answer with respect to any Request for Information Contractor submits to Engineer seeking clarification as to an aspect of the Contract Documents. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. *N/A*
- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

9.10 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

10.03 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:

1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05 that are then resolved by the parties to the Agreement.

10.04 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 *Claims*

- A. *Engineer's Decision Required:* All Claims, except those otherwise waived pursuant to the Contract, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims. Owner, however, may, but is not required to, refer to Engineer its assessment of liquidated damages against Contractor in accordance with Paragraph 4.03 of the Agreement or any claim it has with respect to construction defects discovered after Final Completion.
- B. *Notice:* Unless as otherwise set forth herein, written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with detailed, supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event. A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event.
- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant take one of the following actions in writing:
 1. deny the Claim in whole or in part;
 2. approve the Claim; or

3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.
- E. *N/A*
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.
- G. All Claims Contractor submits for an adjustment in Contract Time or Contract Price shall be subject to the No-Damage-For-Delay provision in Paragraph 10.06 of the Agreement.

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:
 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors) employed for services specifically related to the Work. Attorneys and accountants shall not constitute a Cost of the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
 - g. The cost of utilities, fuel, and sanitary facilities at the Site.

- h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence, recklessness, or intentional misconduct of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.

C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data. Owner shall have the right to inspect and audit Contractor's books and cost records at any time during the course of the Project and for three years after Final Completion. Owner must give Contractor 7 days written notice that it plans on inspecting and auditing Contractor's books and cost records.

11.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances specifically identified and called for in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances:*
 - 1. Contractor agrees that:
 - a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- C. *Contingency Allowance:*
 - 1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items are estimates and solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- C. Each unit price shall be guaranteed and will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
 - 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

2. there is no corresponding adjustment with respect to any other item of Work; and
3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense for supplying additional units or Owner believes that Owner is entitled to a decrease in Contract Price for Contractor supplying fewer units and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
 1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01 excluding 11.01.A.1) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C). Contractor shall keep detailed backup supporting its actual costs incurred associated with the adjustment in Contract Price.
- C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:
 1. a mutually acceptable fixed fee; or
 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1

and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

- d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
- e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
- f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires not caused by Contractor or anyone whom Contractor is responsible, floods not caused by Contractor or anyone whom Contractor is responsible, epidemics, abnormal weather conditions not anticipated or customary in Volusia County, or acts of God.
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall only be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Contractor must provide Engineer and Engineer an updated Progress Schedule reflecting how the critical path has been impacted as a condition precedent to being entitled to an adjustment in Contract Time.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions not anticipated or customary in Volusia County, acts of God, acts

or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall only be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Contractor must provide Engineer and Engineer an updated Progress Schedule reflecting how the critical path has been impacted as a condition precedent to being entitled to an adjustment in Contract Time.

- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 Notice of Defects

- A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 Access to Work

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

13.03 Tests and Inspections

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
 - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
 - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and

3. as otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.
- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).
- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. repair such defective land or areas; or
 - 2. correct such defective Work; or
 - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute

resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.
- B. Owner shall not be deemed to have accepted any defective work from Contractor that was not discovered by Engineer or Owner unless the defect was specifically detailed to Owner in writing by Contractor notifying Owner of the defective work and Owner notifies Contractor in writing that it will accept the defective work (whether as-is, by receiving a credit, or receiving other compensation, losses, or damage from Contractor as discussed above in Paragraph 13.08). Contractor recognizes and understands that it shall not be relieved of responsibility or liability with performing defective Work even if such defective work previously passed inspection by any inspector, including, without limitation, an inspector with the governing building department or a threshold inspector.

13.09 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the

Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after 7 days written notice to Contractor, correct, or remedy any such deficiency.

- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

- A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer and Owner. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 *Progress Payments*

A. *Applications for Payments:*

- 1. Contractor, on the 25th of each month, shall submit to Engineer for review an Application for Payment (in a form approved by Owner) filled out and signed by Contractor covering the Work completed or which will be completed by the end of the month, accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation

warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor (in a form approved by Owner) certifying that all previous progress payments received on account of the Work have been applied to pay Contractor's Subcontractors and Suppliers and to otherwise discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments is set forth in Paragraph 6.02.B of the Agreement.

B. Review of Applications:

1. Engineer will, within 10 days after receipt of each Application for Payment, indicate in writing a recommendation of payment or nonpayment and present the Application to Owner. If Contractor's Application for Payment is deficient, Owner shall reject the payment request and return it to Contractor within 20 business days after the date on which the payment request is stamped as received indicating in writing the reasons for refusing to recommend payment; Contractor shall make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or

- b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
- 4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
- 5. Neither Engineer's review of Contractor's Work for purposes of recommending payments nor Engineer's recommendation of any payment shall relieve Contractor for any responsibility or liability with defects in the Work.
- 6. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
 - d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. Payment Becomes Due:

- 1. Subject to the provisions of Paragraph 14.02.D and Florida Statute §218.735, Owner shall pay Contractor 25 business days after the date on which the payment request is stamped as received by Engineer.

D. *Reduction in Payment:*

1. Owner may refuse to make payment of the full amount recommended by Engineer because:
 - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
 - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - c. there are other items entitling Owner to a set-off against the amount recommended; or
 - d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any undisputed amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion; provided, however, that Substantial Completion shall not occur until the governing building department issues a Certificate of Occupancy (or Certificate of Completion, if applicable) that allows Owner to utilize the entire Project for the purposes for which it is intended.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion subject to the Certificate of Occupancy (or Completion).
- D. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the Punchlist.

14.05 *Partial Utilization*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - 1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.
 - 2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
 - 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Completion- Punchlist*

- A. Within 30 days from Contractor achieving Substantial Completion the following must occur: Contractor shall notify Engineer and Owner in writing that the Project is complete in which case Engineer and Owner will promptly make a final inspection (or inspections, if necessary) with Contractor for the purpose of reviewing and developing a detailed Punchlist of items that are incomplete, unsatisfactory or unacceptable, or defective that Contractor is required to complete. However, if the Contract Price is \$10 million or more, the foregoing must occur within 60 days from Contractor achieving Substantial Completion.

- B. The Punchlist shall be provided to Contractor by Engineer and/or Owner no later than 5 days after the punchlist of items has been reviewed and developed in accordance with paragraph 14.06.A above. Contractor shall then have 30 days from its receipt of the Punchlist to perform and complete the corrective work identified therein.
- C. Final Completion shall be the date that Engineer or Owner determines that Contractor satisfactorily performed and completed the corrective work identified in the Punchlist in addition to any other work required of Contractor under the Contract Documents.

14.07 *Final Payment*

A. Application for Payment:

1. After Contractor achieves Final Completion and furnishes all required maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up or as-built record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment inclusive of retainage following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents, including, but not limited to, the evidence that Contractor maintains completed operations coverage for its required commercial general liability (CGL) insurance;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and
 - d. complete and legally effective final releases or waivers (satisfactory to Owner) of all Lien rights or Liens filed in connection with the Work.
3. In lieu of the final releases or waivers of Liens specified in Paragraph 14.07.A.2.d and as approved by Owner, Contractor may furnish an affidavit of Contractor whereby Contractor swears that: (i) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner has paid Contractor through the date of Contractor's final Application for Payment have been paid by Contractor and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner will pay Contractor in the final Application for Payment will represent Contractor's receipt of all payments for the Work except for the specifically enumerated Claims (and Claims not specifically enumerated are deemed released and waived) and that Contractor will promptly pay its Subcontractors and Suppliers upon its receipt of the final payment.
4. The documents and materials that Contractor is required to submit to accompany its Final Application for Payment (as set forth in this Paragraph 14.07) are conditions precedent to final payment.

B. Engineer's Review of Application and Acceptance:

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09 below. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due:

1. Twenty-five (25) business days after the date on which the Application for Payment is stamped as received by Engineer, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 Final Completion Delayed

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 Waiver of Claims

- A. The making and acceptance of final payment will constitute:
 1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
 2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will justify termination for cause:
 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
 2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
 3. Contractor's repeated disregard of the authority of Engineer;
 4. Contractor's violation in any substantial way of any provisions of the Contract Documents;
 5. Contractor's failure to timely pay Subcontractors and Suppliers after it receives payment from Owner; or
 6. Contractor's failure to obtain or maintain the insurance required of it in the Contract.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) 5 days written notice of its intent to terminate the services of Contractor:
 1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);
 2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and
 3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such

unpaid balance, Contractor shall pay the difference to Owner. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within 5 days of the notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

15.03 *Owner May Terminate For Convenience*

- A. Upon 5 days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
 - 3. N/A; and
 - 4. reasonable expenses directly attributable to termination such as demobilization expenses. Attorneys' fees, accountant fees, and home office overhead expenses shall not be deemed reasonable expenses.
- B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority or (ii) Contractor complies with all conditions precedent to payment and Owner fails for 60 days to pay Contractor the sum Owner undisputedly determined to be due to Contractor, then Contractor may, upon 7 days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such

suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03. Contractor, however, cannot terminate the Contract due to any dispute (i) concerning the amount of payment due Contractor or (ii) any amounts Owner is withholding from Contractor.

- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Contractor complies with all conditions precedent to payment and Owner has failed for 60 days to pay Contractor any sum Owner undisputedly determined to be due to Contractor, Contractor may, 7 days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph. Contractor, however, cannot stop the Work due to any dispute (i) concerning the amount of payment due Contractor or (ii) any amounts Owner is withholding from Contractor.

ARTICLE 16 – DISPUTE RESOLUTION

16.01 *Methods and Procedures*

- A. Mediation shall be a condition precedent to any dispute between Owner and Contractor relating to the Contract; provided, however, that Owner, in its sole discretion, can waive mediation as a condition precedent to pursue a claim / litigation against Contractor or defend a claim / litigation from Contractor. The party initiating mediation must submit written request to the other party of its desire to mediate and provide the names of suggested mediators. The parties shall work together to mutually agree on a mediator within 30 days from the written request. The parties shall mediate the dispute within 60 days from the written request unless a different date is agreed upon due to the availability of the mediator, the availability of the parties and their counsel, or upon the mutual agreement of the parties. If the parties are unable to agree on a mediator (and the Owner has not elected to waive mediation), the parties, subject to Paragraph 16.01.C below, agree to allow the court to unilaterally select the mediator and any litigation will be stayed pending the outcome of such mediation.
- B. *N/A.*
1. *N/A.*
- C. Any litigation arising out of or relating to the Contract shall be brought in the exclusive venue of Volusia County, Florida. The prevailing party shall be entitled to all attorneys' fees and court costs at the trial and appellate level. **CONTRACTOR VOLUNTARILY AND KNOWINGLY WAIVES IT RIGHT TO A TRIAL BY JURY.**

ARTICLE 17 – MISCELLANEOUS

17.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
2. delivered at or sent by registered or certified mail, postage prepaid, or an overnight carrier (such as UPS or FedEx) to the last business address known to the giver of the notice.

17.02 *Computation of Times*

- A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 *Controlling Law*

- A. This Contract is to be governed by the law of the state of Florida.

17.06 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SUPPLEMENTARY CONDITIONS

TABLE OF CONTENTS

SC-4.02	Subsurface and Physical Conditions
SC-4.06	Hazardous Environmental Conditions
SC-5.04	Contractor's Liability Insurance
SC-5.06	Property Insurance
SC-6.06	Concerning Subcontractors, Suppliers, and Others
SC-12.01	Change of Contract Price
SC-17-07	Public Records Compliance
SC-17-08	Examination of Records
SC-17-09	Sovereign Immunity

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC C-700 (2007 Edition). All provisions which are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

SC-4.02 *Subsurface and Physical Conditions*

SC-4.02 Delete Paragraphs 4.02.A and 4.02.B in their entirety and insert the following:

A. No reports of explorations or tests of subsurface conditions at or contiguous to the Site, or drawings of physical conditions relating to existing surface or subsurface structures at the Site, are known to Owner.

SC-4.06 *Hazardous Environmental Conditions*

SC-4.06 Delete Paragraphs 4.06.A and 4.06.B in their entirety and insert the following:

A. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner.

B. Not Used.

SC-5.04 *Contractor's Liability Insurance*

SC-5.04 Add the following new paragraph immediately after Paragraph 5.04.B:

C. The limits of liability for the insurance required by Paragraph 5.04 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. Workers' Compensation, and related coverages under Paragraphs 5.04.A.1 and A.2 of the General Conditions:

- | | |
|--|-----------------------|
| a. State: | Statutory |
| b. Applicable Federal (e.g., Longshoreman's): | Statutory |
| c. Employer's Liability: | \$1,000,000.00 |

2. Contractor's General Liability under Paragraphs 5.04.A.3 through A.6 of the General Conditions which shall include completed operations and product liability coverages and eliminate the exclusion with respect to property under the care, custody and control of Contractor:

- | | |
|---|----------------|
| a. General Aggregate | \$1,000,000.00 |
| b. Products - Completed Operations Aggregate | N/A |
| c. Personal and Advertising Injury | \$1,000,000.00 |
| d. Each Occurrence (Bodily Injury and Property Damage) | \$1,000,000.00 |
| e. Property Damage liability insurance will provide Explosion, Collapse, and Under-ground coverages where applicable. | |
| f. Excess or Umbrella Liability | |
| ☒ General Aggregate | \$1,000,000.00 |
| ☒ Each Occurrence | \$500,000.00 |

3. Automobile Liability under Paragraph 5.04.A.6 of the General Conditions:

SC-5.06 *Property Insurance*

SC-5.06.A. Delete Paragraph 5.06.A in its entirety and insert the following in its place:

- A. Contractor shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof. Contractor shall be responsible for any deductible or self-insured retention. This insurance shall:
1. include the interests of Owner, Contractor, Subcontractors, Engineer, and the officers, directors, partners, employees, agents and other consultants and subcontractors of any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or loss payee;

2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss and damage to the Work, temporary buildings, falsework, and materials and equipment in transit and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by these Supplementary Conditions.
3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
5. allow for partial utilization of the Work by Owner;
6. include testing and startup;
7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued; and
8. comply with the requirements of Paragraph 5.06.C of the General Conditions.

-SC-6.06 *Concerning Subcontractors, Suppliers, and Others*

SC-6.06 Add a new paragraph immediately after Paragraph 6.06.G:

H. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by a particular Subcontractor or Supplier.

SC-12.01 *Change of Contract Price*

SC-12.01.C *Contractor's Fee.* Delete the semicolon at the end of GC 12.01.C.2.c, and add the following language:

, provided, however, that on any subcontracted work the total maximum fee to be paid by Owner under this subparagraph shall be

no greater than 27 percent of the costs incurred by the Subcontractor who actually performs the work;

SC-17-07 *Public Records Compliance*

SC-17-07 Add the following new paragraph immediately after Paragraph 17.06:

A. *Public Records Compliance.* Contractor shall comply with public records laws as set forth in Chapter 119, Florida Statutes, and shall specifically:

(a) Keep and maintain public records required by the City to perform the service.

(b) Upon request from the City's custodian of public records, provide the City with a copy of the requested record or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Section 119, Florida Statutes, or as otherwise provided by law.

(c) Ensure that public records that are exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Contract term and following completion of the Contract if the Contractor does not transfer the records to the City.

(d) Upon completion of the Contract, Contractor shall transfer to the City, at no cost, all public records in possession of the Contractor and destroy any duplicate public records that are exempt from public records disclosure requirements. All records stored electronically must be provided to the City, upon request from the City's custodian of public records, in a format that is compatible with the information technology systems of the City.

If Contractor does not comply with a public records request, the City shall deem the non-compliance a breach of this Contract, and the Contractor may be subject to penalties under Section 119.10, Florida Statutes.

**CONTRACTOR QUESTIONS RELATING TO
CONTRACTOR'S DUTIES TO PROVIDE PUBLIC
RECORDS RELATING TO THIS CONTRACT
MUST BE FORWARDED TO THE OFFICE OF THE
CITY CLERK, CITY HALL, 1000 CITY CENTER
CIRCLE, PORT ORANGE, FLORIDA 32129
TELEPHONE: (386) 506-5563
E-MAIL: CITYCLERK@PORT-ORANGE.ORG**

SC-17-08 *Examination of Records*

SC-17-08 Add the following new paragraph immediately after Paragraph 17.07:

A. *Examination of Records.*

(a) The Contractor agrees that the City, or any duly authorized representative, shall, until the expiration of five (5) years after final payment hereunder, have access to and the right to examine and copy any pertinent books, documents, papers and records of the Contractor involving transactions related to this Contract.

(b) The Contractor further agrees to include in any subcontract for more than \$10,000 entered into as a result of this Contract, a provision to the effect that the subcontractor agrees that the City or any duly authorized representative shall, until the expiration of five (5) years after final payment under the subcontract, have access to and the right to examine and copy any pertinent books, documents, papers and records of such contractor involved in transactions related to such subcontract, or this Contract. The term subcontract as used herein shall exclude purchase orders for public utility services at rates established for uniform applicability to the general public.

(c) The period of access provided in subparagraphs (a) and (b) above for records, books, documents and papers which may relate to any arbitration, litigation, or the settlement of claims arising out of the performance of this contract or any subcontract shall continue until any appeals, arbitration, litigation or claims shall have been finally disposed of.

SC-17-09 *Sovereign Immunity*

SC-17-09 Add the following new paragraph immediately after Paragraph 17.08:

A. *Sovereign Immunity.* The City expressly retains all rights, benefits and immunities of sovereign immunity in accordance with Section 768.28, Florida Statutes. Notwithstanding anything set forth in any section of this Contract to the contrary, nothing in this Contract shall be deemed as a waiver of immunity or limits of liability of the City beyond any statutory limited waiver of immunity or limits of liability which may have been adopted by the Florida Legislature or may be adopted by the Florida Legislature and the cap on the amount and liability of the City for damages regardless of the number or nature of claims in tort or equity shall not exceed the dollar amount set by the legislature for tort. Nothing in this Contract shall inure to the benefit of any third party for the purpose of allowing any claim against the

City which would otherwise be barred under the Doctrine of Sovereign Immunity or operation of law.



End of Solicitation Documents

SECTION 2 – INSTRUCTIONS TO BIDDERS

Firms or companies (Bidder) desiring to provide services, as described herein shall submit sealed bids including **one (1) original copy and one (1) digital (flash drive) version in PDF format**, in conformance with the detailed submittal instructions.

TIMELINE (Local Time):

The City reserves the right to alter dates as needed.

Date of Distribution.....	March 22, 2022
Non-Mandatory Pre-Bid Conference & Site Visit.....	April 5, 2022 10:00A.M.
Deadline for Questions.....	April 12, 2022 by 5:00P.M.
Final Addendum Posting	April 19, 2022 by 5:00 P.M.
Bids Due.....	April 26, 2022 by 2:30 P.M.
City Council Meeting for Approval of Recommendation of Award.....	To Be Determined

Bids must be delivered in a sealed envelope/package and delivered to:

City of Port Orange City Clerk's Office
Attn: Joseph Castro, Buyer
Purchasing Division
1000 City Center Circle
Port Orange, Florida 32129

Sealed Bids must be delivered **no later** than the date and time listed in the Timeline above. All times referenced are local time.

Bids shall be sealed and Bidders shall clearly indicate on the outside of their bid the following:

- a) Invitation to Bid (ITB) Number and Title
- b) Date of Opening
- c) Name of Bidder
- d) Address of Bidder

Due to the timing of mail service, the City cautions Bidders to assure actual delivery of Bids to the City prior to the deadline set for receiving bids. Carrier and hand deliveries of bids will be accepted in the City Clerk's Office, Port Orange City Hall, 1000 City Center Circle, Port Orange, Florida 32129 until the date and time referenced in the Timeline above or as amended by addendum issued by the City. Bids received after the established deadline shall not be considered.

Bidders are cautioned that they are responsible for delivery to the specific location cited above. Therefore, if your bid, proposal, statement or quotation is delivered by an express mail carrier or by any other means, it is your responsibility to ensure delivery to the above address. This office will not be responsible for deliveries made to any place other than the specified address.

Offers by telephone or email shall not be accepted. Also, Bidders are instructed NOT to fax their bid package. **Faxed bids shall be rejected as non-responsive regardless of where or when the fax is received.**

All Bids will be opened publicly, and the names of all Bidders shall be read aloud. All conferences and meetings regarding this ITB are recorded electronically (audio only). The City of Port Orange reserves the right to reject any or all Bids or parts of Bids, if it is in the best interest of the City.

PRE-BID CONFERENCE/SITE VISIT:

There will be a Non-Mandatory Pre-Bid Conference and Site Visit for the project on the date and time referenced in the Timeline above at City Hall, Council Chambers (1st Floor), 1000 City Center Circle, Port Orange, Florida 32129.

REVISED SECTION 7 – REQUIRED FORMS

FORM 7.1 – BID SUBMITTAL CHECKLIST

- ☒ Form 7.2 – Bidder's Acknowledgement Form
- ☒ Form 7.3 – Addendum and Change Order Procedure Acknowledgement
- ☒ Form 7.4 – Drug Free Preference Statement
- ☒ Form 7.5 – Public Entity Crimes Statement
- ☒ Form 7.6 – Anti-Collusion Form
- ☒ Form 7.7 – Statement of Bidder's Qualifications
- ☒ Form 7.8 – Professional References for Previous Experience
- ☒ Form 7.9 – Local Business Affidavit of Eligibility
- ☒ Form 7.10 – E-Verify Affidavit
- ☒ Form 7.11 – Debarment, Suspension and Other Responsibility Matters
- ☒ N/A Form 7.12 – No Submittal Response Form
- ☒ Form 7.13 – Listing of Subcontractors
- ☒ Attachment 1 – Schedule of Unit Pricing
- ☒ Original Recorded Bid Bond
- ☒ Current Bonding Capacity Letter (as outlined in Section 6)
- ☒ Copy of all currently held Licenses (Contractor, Sunbiz, etc.)
- ☒ Submission of one (1) original marked "ORIGINAL" and one (1) digital (CD or flash drive) version in PDF format.

BY: Chincho Electric, Inc.
Name of Business

[Signature]
Authorized Signature

5/10/2022
Date

This document must be completed and returned with your Submittal

FORM 7.2 – BIDDER'S ACKNOWLEDGEMENT FORM

I have carefully examined the Invitation to Bid (ITB), Instructions to Bidders, General and/or Special Conditions, Specifications, and any other documents accompanying or made a part of this invitation.

I hereby propose to furnish the goods or services specified in the Invitation to Bid at the prices or rates as finally negotiated. I agree that my bid will remain firm for a period of up to ninety (90) days in order to allow the City of Port Orange adequate time to evaluate the proposed bid. Furthermore, I agree to abide by all conditions of the Invitation to Bid.

I certify that all information contained in this Bid is truthful to the best of my knowledge and belief. I further certify that I am a duly authorized to submit this Bid on behalf of the Bidder / Contractor as its act and deed and that the Bidder / Contractor is ready, willing and able to perform if awarded the contract.

I further certify that this Bid is made without prior understanding, Contract, connection, discussion, or collusion with any person, firm or corporation submitting a Bid for the same product or service; no officer, employee or agent of the City of Port Orange City Council or of any other Bidder interested in said ITB; and that the undersigned executed this Bidder's Acknowledgement with full knowledge and understanding of the matters therein contained and was duly authorized to do so.

I further certify that having read and examined the specifications and documents for the designated services and understanding the general conditions for contract under which services will be performed, does hereby propose to furnish all labor, equipment, and material to provide the services set forth in the ITB.

I hereby declare that the following listing states any clarifications, any and all variations from and exceptions to the requirements of the specifications and documents. The undersigned further declares that the "work" will be performed in strict accordance with such requirements and understands that any exceptions to the requirements of the specifications and documents may render the Bid non-responsive.

NO EXCEPTIONS ALLOWED AFTER THE BID IS SUBMITTED:

Please check one: ☒ I take NO exceptions. ☐ Exceptions (list below; add additional pages if necessary):

Chinchor Electric, Inc.

NAME OF BUSINESS

1460 S Leavitt Ave

MAILING ADDRESS

Orange City, FL 32763

CITY, STATE & ZIP CODE

AUTHORIZED SIGNATURE

Timothy I. Chinchor, President

NAME, TITLE, TYPED

386-774-1020 / 386-774-7223

TELEPHONE NUMBER / FAX NUMBER

59-3044703

FEDERAL IDENTIFICATION #

dhasco@chinchorelectric.com

E-MAIL ADDRESS

STATE OF FL COUNTY OF Volusia

The foregoing instrument was acknowledged before me this day of MAY, 2022 by Timothy Chinchor, who is personally known to me or who has produced ad identification and who did take an oath.

My Commission Expires: 12/14/24

Notary Public

This document must be completed and returned with your Submittal



Madison Lankford
Notary Public
State of Florida
Comm# HH072136
Expires 12/14/2024

FORM 7.3 – ADDENDUM and CHANGE ORDER PROCEDURE ACKNOWLEDGEMENT

ADDENDUM ACKNOWLEDGEMENT

I have carefully examined the Invitation to Bid (ITB), Instructions to Bidders, General and/or Special Conditions, Specifications, and any other documents accompanying or made a part of this invitation to Bid.

I acknowledge receipt and incorporation of the following addenda, and the cost, if any, of such revisions has been included in the price of the bid proposal.

Addendum # 1 Date: 4/13/22 Addendum # 2 Date: 4/21/22
Addendum # 3 Date: 5/2/22 Addendum # _____ Date: _____

CHANGE ORDER PROCEDURE ACKNOWLEDGEMENT

If awarded the Contract for this Solicitation, I acknowledge that no oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All change orders requests shall be made in writing by the Contractor for review by the Contract Administrator for the City of Port Orange. No work shall be performed as set forth in the change order until the Contractor receives an executed Purchase Order for the requested change.

I acknowledge the following statement regarding Change Orders to the awarded Contract:

"The Successful Contractor is responsible for giving the City of Port Orange, prior to the Contract expiration date, at least forty-five (45) calendar days' advance notice for any anticipated changes in price greater than \$25,000.00, time and/or scope of the awarded Contract. The Contractor shall not continue to provide services past the Contract expiration date unless approved by a written Change Order Notice from the City."

Chinchor Electric, Inc.

Name of Business

By: _____

Printed Name: Timothy I. Chinchor

Title: President

STATE OF FL

COUNTY OF Volusia

Sworn to (or affirmed) and subscribed before me this 10th day of May, 2022, by
Timothy Chinchor, as president of
(NAME) (TITLE)
Chinchor Electric, Inc. and who:
(NAME OF ORGANIZATION)

[Notary: Please select one]

☒ is personally known to me; or

☐ has produced _____ as identification.



Madison Lankford
Notary Public
State of Florida
Comm# HH072136
Expires 12/14/2024

Notary Public, State of Florida

Printed, typed or stamped name, commission and expiration:

This document must be completed and returned with your Submittal

FORM 7.4 – DRUG-FREE PREFERENCE STATEMENT

IDENTICAL TIE BIDS - Preference shall be given to businesses with drug-free workplace programs. Whenever two or more bids, proposals, statements, or replies that are equal with respect to price, quality, and service are received by the city for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie bids will be followed if none of the tied Bidders have a drug-free workplace program.

In order to have a drug-free workplace program, a business shall:

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction on or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of Section 287.087, Florida Statutes.

As an authorized representative of the firm, I certify that this firm complies fully with the above requirements.

Chinchor Electric, Inc.

Name of Business

By: [Signature]

Printed Name: Timothy I. Chinchor

Title: President

STATE OF FL

COUNTY OF Volusia

Sworn to (or affirmed) and subscribed before me this 10TH day of MAY, 2022, by Timothy chinchor, as President of

(NAME)

(TITLE)

Chinchor Electric, Inc. and who:
(NAME OF ORGANIZATION)

[Notary: Please select one]

☒ is personally known to me; or

☐ has produced _____ as identification.

[Signature]

Notary Public, State of Florida

Printed, typed or stamped name, commission and expiration:



Madison Lankford
Notary Public
State of Florida
Comm# HH072136
Expires 12/14/2024

This document must be completed and returned with your Submittal

FORM 7.5 – SWORN STATEMENT UNDER SECTION 287.133(3)(A), FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

(To be signed in the presence of notary public or other officer authorized to administer oaths.)

Before me, the undersigned Authority, personally appeared affiant Timothy I. Chinchor, who, being by me first duly sworn, made the following statement:

1. The business address of Chinchor Electric, Inc. (name of Offeror or business) is 1460 S Leavitt Ave, Orange City, FL 32763.
2. My relationship to Chinchor Electric, Inc. (name of Offeror or business) is President (relationship such as sole proprietor, partner, president, vice president).
3. I understand that a public entity crime as defined in Section 287.133 of the Florida Statutes includes a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity in Florida or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any proposal or contract for goods or services to be provided to any public entity or such an agency or political subdivision and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy or material misrepresentation.
4. I understand that "convicted" or "conviction" is defined by the Florida Statutes to mean a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, non-jury trial, or entry of a plea of guilt or nolo contendere.
5. I understand that "affiliate" is defined by the Florida Statutes to mean (1) a predecessor or successor of a person or a corporation convicted of a public entity crime, or (2) an entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime, or (3) those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate, or (4) a person or corporation who knowingly entered into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months.
6. Neither the Offeror or contractor, nor any officer, director, executive, partner, shareholder, employee, member or agent who is active in the management of the Offeror or contractor, nor any affiliate of the Offeror or contractor has been convicted of a public entity crime subsequent to July 1, 1989. **(Draw a line through paragraph 6 if paragraph 7 below applies.)**
7. ~~There has been a conviction of a public entity crime by the Offeror or contractor, or an officer, director, executive, partner, shareholder, employee, member or agent of the Offeror or contractor who is active in the management of the Offeror or contractor or an affiliate of the Offeror or contractor. A determination has been made pursuant to Section 207.133(3) by order of the Division of Administrative Hearings that it is not in the public interest for the name of the convicted person or affiliate to appear on the convicted Vendor list. The name of the convicted person or affiliate is _____ A copy of the order of the Division of Administrative Hearings is attached to this statement. **(Draw a line through paragraph 7 if paragraph 6 above applies.)**~~

Chinchor Electric, Inc.

Name of Business

By: [Signature]

Printed Name: Timothy I. Chinchor

Title: President

STATE OF FL
COUNTY OF Volusia

Sworn to (or affirmed) and subscribed before me this 10TH day of MAY, 2022 by Timothy Chinchor, as President of Chinchor Electric, Inc. and who:

[Notary: Please select one]

☒ is personally known to me; or

☐ has produced _____ as identification.

[Signature]
Notary Public, State of Florida

Printed, typed or stamped name, commission and expiration:

This document must be completed and returned with your Submittal



Madison Lankford
Notary Public
State of Florida
Comm# HH072136
Expires 12/14/2024

FORM 7.6 – ANTI-COLLUSION FORM

ANTI-COLLUSION STATEMENT BID FORM:

By signing this form, the Proposer agrees that this Bid is made without any other understanding, agreement, or connection with any person, corporation, or firm submitting a bid for the same purpose and that the bid is in all respects fair and without collusion or fraud.

SIGN in ink in the space provided below. Unsigned Bids will be considered incomplete, and will be disqualified, and rejected.

IT IS AGREED BY THE UNDERSIGNED VENDOR THAT THE SIGNING AND DELIVERY OF THE BID REPRESENTS THE VENDORS ACCEPTANCE OF THE TERMS AND CONDITIONS OF THE FOREGOING SPECIFICATIONS, CONTRACT AND PROVISIONS, AND IF AWARDED, THIS CONTRACT WILL REPRESENT THE AGREEMENT BETWEEN THE VENDORS AND THE CITY OF PORT ORANGE.

NAME OF FIRM: Chinchor Electric, Inc.

SIGNED BY: Timothy I. Chinchor
(MUST BE SIGNED BY A COMPANY OFFICER OR AUTHORIZED AGENT)

PRINTED SIGNATURE: 

TITLE: President

ADDRESS: 1460 S Leavitt Ave

CITY: Orange City STATE: FL ZIP CODE: 32763

TELEPHONE: 386-774-1020 FAX: 386-774-7223

F.E.I.N. NUMBER: 59-3044703

NO Bid may be withdrawn for a period of ninety (90) days subsequent to the submittal of the Bids, without the consent of the City of Port Orange.

This document must be completed and returned with your Submittal

FORM 7.7 – STATEMENT OF BIDDER’S QUALIFICATIONS

The undersigned warrants that he or she is duly authorized to complete this document, and hereby affirms that the information contained in Form 7.7 is complete, true, and correct to the best of his or her knowledge and belief. If necessary, questions may be answered on separate paper and attached, with any additional information that may be pertinent.

- A. Name of Bidder: Chinchor Electric, Inc.
- B. Permanent main office address: 1460 S Leavitt Ave, Orange City, FL 32763
- C. Date organized: 1991
- D. If a corporation, where incorporated: Florida
- E. How many years have you been engaged in the business under your present firm or trade name? 31
- F. Contracts on hand: (List these, showing amount of each contract and the appropriate anticipated dates of completion.) **USE SEPARATE SHEET & ATTACH TO SUBMITTAL**
- G. General character of work performed by your company: Electrical Work, Signalization, Highway Lighting
- H. Have you ever failed to complete any work awarded to you? If so, where and why? No
- I. Have you ever defaulted on a contract? If so, where and why? No
- J. List the more important projects recently completed by your company, stating the approximate cost for each and the month and year completed: **USE SEPARATE SHEET & ATTACH TO SUBMITTAL**
- K. List your major equipment currently owned or leased: **USE SEPARATE SHEET & ATTACH TO SUBMITTAL**
- L. Experience in work similar to this type of project: Yes see attached
- M. Background and experience of the principal members of your organization, including the officers: **USE SEPARATE SHEET & ATTACH TO SUBMITTAL**
- N. Credit currently available: \$ 7,000,000
- O. Give bank name, contact name and phone number: Mainstreet Community Bank of Florida, Scott Miller, 386-774-2090
- P. Will you, upon request, fill out a detailed financial statement and furnish any other information that may be required by the Owner? YES ☒ NO ☐

The undersigned hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the Owner in verification of the recitals comprising this Statement of Bidder's Qualifications.

Chinchor Electric, Inc.
Name of Business
By: [Signature]
Printed Name: Timothy I. Chinchor
Title: President

STATE OF: FL
COUNTY OF: Volusia

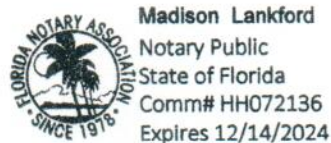
Sworn to (or affirmed) and subscribed before me this 10TH day of MAY, 20 22, by and who:

[Notary: Please select one]

- ☒ Is personally known to me; or
☐ Has produced _____ as identification.

Notary Public, State of: Florida

Printed, typed or stamped name, commission and expiration:



This document must be completed and returned with your Submittal

FORM 7.8 – PROFESSIONAL REFERENCES FOR PREVIOUS EXPERIENCE

The Bidder proposes that he/she is qualified to perform the referenced work and has successfully done so on recent projects similar in nature and size. The City reserves the right to check references and confirm information provided herein.

Please provide three (3) current and correct references from clients for similar services.

(Do not include the City of Port Orange)

1. Company Name: Seminole County, FL
Contact Person: Mike Boggs
City, State: Sanford, FL
Telephone Number: 407-665-2026
Email Address: mboggs@seminolecounty.fl.gov
Description of goods or
Services provided: Install 13 Generators, ATS, concrete pads, and electrical work on active lift stations.
Contract Amount: \$1,230,870.00
Start/End Date of Contract: 11/7/19
2. Company Name: Volusia County, FL
Contact Person: Mike Paris
City, State: Daytona Beach, FL
Telephone Number: 386-566-3029
Email Address: mparis@volusia.org
Description of goods or
Services provided: Installation of a 1.5MW generator, ATS's, bus duct, fuel tank and piping, concrete pads and all associated work on an active County Jail.
Contract Amount: \$1,440,612.00
Start/End Date of Contract: 11/28/17
3. Company Name: Seacoast Utility Authority
Contact Person: Keith Haas
City, State: Palm Beach Gardens, FL
Telephone Number: 561-627-2900
Email Address: khaas@sua.com
Description of goods or
Services provided: Install a 4160V loop around the west wellfield. Install medium voltage transformers, concrete duct banks, concrete manholes. Installed medium voltage cabling and terminations. Installed a new dual 2,000amp 480V main switchboard, (2) 2000amp ATS's, (2) parallel 500KW owner furnished generators, 1,600amp distribution switchboard, all electrical work, concrete slabs, and fuel piping.
Contract Amount: \$1,861,164.00
Start/End Date of Contract: Jan. 2021

This document must be completed and returned with your Submittal.

(FORM 7.8 – PROFESSIONAL REFERENCES FOR PREVIOUS EXPERIENCE page 2)

LISTING OF PREVIOUS EXPERIENCE

Commercial Client List

The Bidder proposes that he/she is qualified to perform the referenced work and has successfully done so on recent projects similar in nature and size. **A minimum of three (3) projects must be listed below.** The City reserves the right to check references and confirm information provided herein.

List all clients to whom you currently provide or have in the past provided goods or services equal or similar to those required under the City's contract and as outlined in this bid package. **A minimum of three (3) projects shall be listed below in order to bid on this contract.**

	Contact Name	Phone	Current Client? Y or N	Number of years service provided	Description of service
1	Mary Kronenberg City of Palm Coast	386-986-2306	N	2	Installed 5 generators, ATS, concrete pads and all associated electrical work on active lift stations
2	Danus Utilities Inc. Dan Pardus	386-233-5588	Y	10	Install electrical work on lift stations and plants throughout the state of Florida. Many of the LS's have had generators installed.
3	Curtis Matte Wharton Smith, Inc.	407-321-8410	Y	15	Install electrical work on Water & Wastewater treatment plants throughout the state of Florida. Motor control centers, VFD's, RVSS's, PLC's, duct banks, lighting, and associated electrical work.

This document must be completed and returned with your Submittal.

F. Contracts on Hand

Chinchor Electric, Inc.

Project Status

05/09/22

Job Number	Under Contract	Contract Amount	C.O. Amount	Total Contract Value	Amount Billed to Date	Back Log to Invoice	Expected Completion
221CAS01	Altamonte Solar Array Electrical	\$331,633.00	-\$69,008.53	\$262,624.47	\$257,422.48	\$5,201.99	11/30/2022
222CFX01	408-128A SR408 Sign Truss	\$1,135,780.17	\$0.00	\$1,135,780.17	\$0.00	\$1,135,780.17	
221DOT15	E53A8 - ITS Surveillance System	\$1,713,110.53	-\$23,050.47	\$1,690,060.06	\$1,644,093.53	\$45,966.53	6/1/2022
221DOT22	T9024 - Sneads WS WIM	\$3,198,515.31	\$31,621.39	\$3,230,136.70	\$2,000,754.78	\$1,229,381.92	6/1/2022
221DT026	T9026 - Seffner WS WIM	\$4,025,439.43	\$0.00	\$4,025,439.43	\$177,430.10	\$3,848,009.33	
219L7C02	Altamonte Springs RWRP Phase 1	\$824,580.00	\$193,962.63	\$1,018,542.63	\$1,009,319.74	\$9,222.89	6/30/2022
222OMC04	Glencoe WTP Chemical Improv.	\$416,600.00	\$0.00	\$416,600.00	\$0.00	\$416,600.00	
720SUP01	T5706 SR44 Bridge	\$775,501.32	\$54,476.97	\$829,978.29	\$244,698.81	\$585,279.48	8/1/2023
221WSI09	Parkway WTP HSP & DBP	\$1,206,956.00	\$80,443.11	\$1,287,399.11	\$635,194.10	\$652,205.01	12/31/2022
221WSI10	Kanapaha WRF Electrical Equip.	\$401,660.00	\$633,511.84	\$1,035,171.84	\$321,627.45	\$713,544.39	9/1/2022
321CSF07	Magnolia Square	\$45,956.00	\$0.00	\$45,956.00	\$0.00	\$45,956.00	6/30/2022
221DAN40	LGPA Lift Station 97	\$55,104.00	\$0.00	\$55,104.00	\$41,328.00	\$13,776.00	5/30/2022
221SAN03	Maitland LS #1 Relocation	\$131,115.00	\$0.00	\$131,115.00	\$41,279.61	\$89,835.39	9/30/2022
221WSI08	Osprey WRF	\$1,399,200.00	-\$10,461.03	\$1,388,738.97	\$791,292.49	\$597,446.48	12/31/2022
322CAU02	UCF Charging Stations - Outlets	\$5,500.00	\$0.00	\$5,500.00	\$0.00	\$5,500.00	on hold
221PCF01 & 02	Charlotte Cty LS Generators	\$1,063,464.39	\$164,928.60	\$1,228,392.99	\$524,197.61	\$704,195.38	5/30/2022
221CLM06	Lift Station Electrical Improvements	\$267,293.92	\$0.00	\$267,293.92	\$173,919.76	\$93,374.16	5/30/2022
221COR01	Generators for Critical Facilities	\$888,291.04	\$125,204.28	\$1,013,495.32	\$691,046.57	\$322,448.75	6/3/2022
222COR02	Fire Station ATS	\$20,816.00	\$0.00	\$20,816.00	\$0.00	\$20,816.00	
222COR03	LS#5 Wet Well Coring & Conduit	\$2,300.00	\$0.00	\$2,300.00	\$0.00	\$2,300.00	
221COV01	Mitchell Hammock WTP Gen	\$1,394,000.00	-\$569,574.47	\$824,425.53	\$11,454.00	\$812,971.53	7/13/2023
221DAN44	Tree Tops Lift Station	\$60,259.00	\$0.00	\$60,259.00	\$0.00	\$60,259.00	7/31/2022
222DAN46	Oak Point LS - Titusville	\$96,150.00	\$0.00	\$96,150.00	\$0.00	\$96,150.00	12/31/2022
221DOT19	E55A1 - Flagler Weigh Station	\$1,267,717.97	\$0.00	\$1,267,717.97	\$1,126,771.50	\$140,946.47	5/30/2022
221DTX79	E5X79 - Highway Lighting Repair	\$250,000.00	\$12,274.00	\$262,274.00	\$197,353.00	\$64,921.00	6/10/2022
221JTA01	JTA BRT East TSP	\$2,142,726.80	\$5,265.88	\$2,147,992.68	\$1,678,770.60	\$469,222.08	5/30/2022
221MAS11	Graham Swamp Trail	\$477,458.52	\$0.00	\$477,458.52	\$202,912.14	\$274,546.38	
221PCG08	Deltana Phase 4B Lake Monroe	\$532,116.00	\$0.00	\$532,116.00	\$100,941.92	\$431,174.08	
221PCG09	Downtown SW Pond & Park	\$249,352.00	\$0.00	\$249,352.00	\$101,363.13	\$147,988.87	6/30/2022
222SCP06	Sem. LS Generators Phase IV	\$679,565.00	-\$349,582.51	\$329,982.49	\$0.00	\$329,982.49	12/10/2022
222VCS02	Atlantic HS Generator	\$426,950.00	\$0.00	\$426,950.00	\$0.00	\$426,950.00	
222YCC01	Druid Hills PS	\$61,104.00	\$0.00	\$61,104.00	\$0.00	\$61,104.00	
221COF01	LS 59, 61, 73, 83, 94, 126, 129 Gens	\$2,596,057.20	-\$1,212,021.24	\$1,384,035.96	\$95,028.02	\$1,289,007.94	4/25/2023
222DAN47	Shoney's LS 127	\$44,460.00	\$0.00	\$44,460.00	\$0.00	\$44,460.00	9/30/2022
222DAN49	Causeway LS - Titusville	\$61,690.00	\$0.00	\$61,690.00	\$0.00	\$61,690.00	
222L7C04	Altamonte RWRP Blower	\$301,298.00	\$0.00	\$301,298.00	\$0.00	\$301,298.00	
221PLK01	Standby Power Phase 2 - NE2 & NW	\$1,117,512.60	\$0.00	\$1,117,512.60	\$148,241.56	\$969,271.04	8/31/2022
222RJS02	Palm Coast WWTF No 2	\$3,950,000.00	\$0.00	\$3,950,000.00	\$0.00	\$3,950,000.00	
221CAN01	Cape Canaveral SCADA	\$723,211.00	-\$1,901.00	\$721,310.00	\$201,178.00	\$520,132.00	7/26/2022
222DAN48	Brevard LS M-16	\$130,820.00	\$0.00	\$130,820.00	\$0.00	\$130,820.00	
222DAN50	Brevard LS S-26	\$40,169.58	\$0.00	\$40,169.58	\$0.00	\$40,169.58	
322FEC04	Wekiva Phase 3	\$12,500.00	\$0.00	\$12,500.00	\$0.00	\$12,500.00	
221RJS01	Palm Bay South Regional WRF	\$2,523,640.00	\$0.00	\$2,523,640.00	\$328,353.31	\$2,195,286.69	12/31/2023

220ASF01	<u>SUA Hood Road Well HR-8B</u>	\$29,101.00	\$0.00	\$29,101.00	\$18,050.00	\$11,051.00	9/30/2022
722CAP02	<u>Vick Rd @ Lester Road</u>	\$428,008.73	\$0.00	\$428,008.73	\$0.00	\$428,008.73	
721RCI01	<u>SR 417 - Boggy Creek to Narcoossee</u>	\$19,565,161.96	\$0.00	\$19,565,161.96	\$2,154,982.05	\$17,410,179.91	9/9/2023
721RCI02	<u>E8T21 - SR417 Seminole Co.</u>	\$3,620,909.80	\$0.00	\$3,620,909.80	\$683,090.52	\$2,937,819.28	1/31/2023
522BOE01	<u>MLK Beltway @ Cassadaga Rd</u>	\$374,002.48	\$0.00	\$374,002.48	\$80,177.76	\$293,824.72	7/31/2022
522BOE02	<u>Sawgrass Bay Blvd @ Sanctuary Dr.</u>	\$407,211.60	\$0.00	\$407,211.60	\$44,592.00	\$362,619.60	12/31/2022
521DBC01	<u>Parramore Road Extension</u>	\$712,541.23	\$0.00	\$712,541.23	\$555,339.82	\$157,201.41	6/6/2022
521DOT17	<u>T5700 - SR44</u>	\$1,579,513.27	\$0.00	\$1,579,513.27	\$1,503,741.30	\$75,771.97	5/30/2022
522JDC02	<u>Bill Beck Blvd Extension</u>	\$843,945.94	\$0.00	\$843,945.94	\$88,175.02	\$755,770.92	6/30/2023
519MAS09	<u>T5680 SR436</u>	\$1,153,537.01	\$21,079.41	\$1,174,616.42	\$1,116,652.77	\$57,963.65	
521MAS12	<u>T5736 - SR426 / CR419</u>	\$3,509,529.83	\$512,071.16	\$4,021,600.99	\$821,510.66	\$3,200,090.33	10/5/2023
521PSP13	<u>T5709 - SR19 & CR452</u>	\$295,899.73	\$2,457.00	\$298,356.73	\$284,635.63	\$13,721.10	5/30/2022
521PSP14	<u>E56A2 - SR15A Deland</u>	\$263,856.40	\$0.00	\$263,856.40	\$260,191.55	\$3,664.85	5/30/2022
520TMC01	<u>E5293 - SR535</u>	\$2,546,554.96	\$4,337.31	\$2,550,892.27	\$2,468,472.73	\$82,419.54	5/30/2022
521DOT18	<u>E7N50 - SR582 / Fowler Ave</u>	\$1,696,925.70	\$0.00	\$1,696,925.70	\$746,693.01	\$950,232.69	9/30/2022
520JDC01	<u>Holden Ave</u>	\$1,131,281.94	\$150,430.83	\$1,281,712.77	\$1,247,228.17	\$34,484.60	5/30/2022
521ORG01	<u>Orange Co. Traffic Signal Mast Arms</u>	\$2,131,028.95	\$0.00	\$2,131,028.95	\$924,115.00	\$1,206,913.95	9/8/2022
SC40450	<u>SR 426 @ Red Bug</u>	\$255,805.61	\$0.00	\$255,805.61	\$253,702.25	\$2,103.36	5/30/2022
SC44620	<u>SR426 @ Red Bug EXTRA</u>	\$50,000.00	\$0.00	\$50,000.00	\$34,804.07	\$15,195.93	5/30/2022
SC46986	<u>Connected Vehicle / ICM Equipment</u>	\$90,190.83	\$0.00	\$90,190.83	\$0.00	\$90,190.83	9/30/2022
SC50706	<u>SR 426 @ Red Bug EXTRA'S</u>	\$50,000.00	\$0.00	\$50,000.00	\$0.00	\$50,000.00	5/30/2022
521VCT21	<u>Signal 339 Elkcam Blvd & Lake Helen C</u>	\$178,348.52	\$0.00	\$178,348.52	\$136,265.81	\$42,082.71	6/30/2022
521AJV02	<u>T5716 - US192 @ Hoagland Blvd</u>	\$805,112.26	\$0.00	\$805,112.26	\$653,077.87	\$152,034.39	5/17/2022
521ANC02	<u>T2793 - I95 from SR207 to Intl Golf Prk</u>	\$1,913,179.36	\$0.00	\$1,913,179.36	\$370,064.70	\$1,543,114.66	6/12/2023
421ANC01	<u>T2793 - I95 MATERIALS ONLY</u>	\$786,760.99	\$0.00	\$786,760.99	\$225,276.58	\$561,484.41	6/12/2023
522ANC03	<u>T5721 - SR44 @ US301</u>	\$1,908,155.91	\$0.00	\$1,908,155.91	\$39,481.00	\$1,868,674.91	11/9/2023
522ANC04	<u>T5597 - I75 @ CR484 Marion County</u>	\$2,590,056.27	\$0.00	\$2,590,056.27	\$0.00	\$2,590,056.27	1/24/2024
721ACC11	<u>T5715 - I4 @ CR532</u>	\$2,095,950.42	\$0.00	\$2,095,950.42	\$1,156,954.92	\$938,995.50	9/16/2022
520MAS10	<u>Howland Blvd.</u>	\$281,236.80	\$0.00	\$281,236.80	\$227,893.78	\$53,343.02	6/30/2022
520OSC04	<u>John Young Pkwy @ Columbia Ave</u>	\$589,983.20	\$7,000.00	\$596,983.20	\$558,147.74	\$38,835.46	5/30/2022
521OSC08	<u>Old Lake Wilson Rd & Livingston Rd</u>	\$491,287.23	\$0.00	\$491,287.23	\$365,470.71	\$125,816.52	5/30/2022
521ACS03	<u>I-95 Port Orange ITS Pole</u>	\$32,424.00	\$0.00	\$32,424.00	\$31,128.00	\$1,296.00	5/30/2022
522T5754	<u>T5754 - Marion ITS</u>	\$478,356.03	\$0.00	\$478,356.03	\$0.00	\$478,356.03	
521HRP01	<u>SR414 @ Trelago Way</u>	\$556,796.46	\$9,612.00	\$566,408.46	\$313,575.56	\$252,832.90	8/17/2022
521MAS13	<u>E57A1 - SR600 N Alabama to Kepler</u>	\$716,015.14	\$0.00	\$716,015.14	\$61,927.05	\$654,088.09	1/19/2023
521MAS14	<u>E57A4 - SR442</u>	\$811,710.39	\$0.00	\$811,710.39	\$85,674.16	\$726,036.23	10/19/2022
520PSP10	<u>Orange Camp Road Widening</u>	\$309,112.30	\$0.00	\$309,112.30	\$308,019.04	\$1,093.26	8/1/2022
521SJC03	<u>US1 @ Shore Drive Signalization</u>	\$570,815.26	\$2,009.65	\$572,824.91	\$325,867.15	\$246,957.76	6/20/2022
521SJC04	<u>US-1 @ Lewis Point Road</u>	\$609,696.50	\$7,735.78	\$617,432.28	\$350,518.59	\$266,913.69	8/21/2022
521BTC02	<u>Cross Property - Avalon Rd & Lake Sta</u>	\$175,470.63	\$5,773.83	\$181,244.46	\$163,788.03	\$17,456.43	6/30/2022
521BTC03	<u>Storey Drive & Vanguard Street</u>	\$50,695.88	\$30,041.70	\$80,737.58	\$0.00	\$80,737.58	
520CCF01	<u>SR436 @ Casselton - Casselberry PO</u>	\$75,000.00	\$0.00	\$75,000.00	\$50,350.21	\$24,649.79	6/30/2022
522CSF01	<u>Sanford Loop PO - 038418</u>	\$30,000.00	\$0.00	\$30,000.00	\$4,370.70	\$25,629.30	9/30/2022
OC106838	<u>Clarcona-Ocoee Rd @ Ingram Road</u>	\$478,021.23	\$0.00	\$478,021.23	\$0.00	\$478,021.23	
OC106480	<u>Clarcona-Ocoee Rd @ Ingram Road Ex</u>	\$4,808.16	\$0.00	\$4,808.16	\$0.00	\$4,808.16	
521PLA01	<u>Amazon Melbourne Last Mile</u>	\$637,234.42	\$0.00	\$637,234.42	\$64,285.46	\$572,948.96	
SC44780	<u>17/92 @ 15th St. \$268K</u>	\$268,000.00	\$0.00	\$268,000.00	\$218,395.05	\$49,604.95	5/30/2022
SC44782	<u>17/92 @ 25th \$282K</u>	\$282,000.00	\$0.00	\$282,000.00	\$214,862.33	\$67,137.67	5/30/2022
SC46624	<u>SR436 @ Casselton - Seminole Co. PO</u>	\$266,118.76	\$0.00	\$266,118.76	\$129,726.44	\$136,392.32	6/30/2022

SC48646	Airport Blvd & Placid Lake	\$92,457.00	\$0.00	\$92,457.00	\$70,745.25	\$21,711.75	5/30/2022
SC48790	Red Bug Lake Rd @ SR417 SB Off Ram	\$350,000.00	\$0.00	\$350,000.00	\$133,160.51	\$216,839.49	6/30/2022
522SCC01	E59A0 - SunRail VSLMF Noise Wall	\$253,137.50	\$0.00	\$253,137.50	\$50,313.75	\$202,823.75	
522VCT35	Clyde Morris @ Herbert Street	\$512,300.52	\$0.00	\$512,300.52	\$0.00	\$512,300.52	
522CAP01	Kelly Park Rd @ Jason Dwelley Rd	\$232,099.50	\$0.00	\$232,099.50	\$0.00	\$232,099.50	7/31/2022
522E52B4	E52B4 - SR500 (OBT) Holde Ave to 34t	\$8,745,313.16	\$0.00	\$8,745,313.16	\$395,065.87	\$8,350,247.29	5/24/2023
522HCC07	d Lake Rd Entrances - SR482 / Kirkmar	\$375,900.52	\$0.00	\$375,900.52	\$0.00	\$375,900.52	
522T5762	T5762 - SR436 @ SR552	\$2,950,211.81	\$0.00	\$2,950,211.81	\$0.00	\$2,950,211.81	
522WCC01	San Pablo Road Widening	\$1,601,289.96	\$0.00	\$1,601,289.96	\$0.00	\$1,601,289.96	
519MAS08	SR 46 T5642	\$2,285,586.47	\$123,733.02	\$2,409,319.49	\$2,148,662.97	\$260,656.52	6/1/2022
		\$113,173,223.31	-\$57,628.86	\$113,115,594.45	\$34,885,195.75	\$78,230,398.70	

Garnsey WTP Bid

Form 7.7-J

Project Reference #1

Project Name – Hood Road Wellfield Electrical

Owner – Seacoast Utility Authority

Owner Contact – Keith Haas khaas@sua.com

Engineer – Holtz Consulting Engineers

Engineer Contact – Curtis Robinson curtis.robinson@holtzconsulting.com

Prime General Contractor – Chinchor Electric, Inc.

G.C. Project Manager – Don Hasco dhasco@chinchorelectric.com 386-774-1020

Project Details: Install a 4160V loop around the wellfield. Install (2) 300KVA, (2) 150KVA, and (3) 75KVA medium voltage transformers. Installed over 5,000LF of concrete duct bank with concrete manholes. Installed Medium Voltage Cabling and performed MV Cable terminations. Install a new Dual 2,000amp 480V Main Switchboard, (2) 2000amp ATS's, (2) Parallel 500KW Owner Furnished Generators, Docking Station, 1600amp MTS Modifications, a new 1,600amp Distribution SWBD, and all associated electrical work. Scope also included concrete work and fuel piping for generators.

Electrical Project Value: \$1,861,164.00

Project Reference #2

Project Name – T5572

Owner – Florida Department of Transportation

Owner Contact – Michael "Glenn" Raney Michael.raney@dot.state.fl.us

Engineer/CEI – Mehta & Associates, Inc.

CEI Contact – Anu Shah ashah@mehtaeng.com 407-201-7165

Prime General Contractor – Chinchor Electric, Inc.

G.C. Project Manager – Bret Fudge bfudge@chinchorelectric.com 386-774-1020

Project Details: Installation of Highway Lighting and Signage of I-4 in Volusia and Seminole Counties. Highway Lighting was installed on six interchanges which included 446 conventional light pole assembly's, 27 high mast light pole assembly's with drill shafts, 51 over head sign replacements, 10 new load center service points, directional boring, and all associated electrical work.

Electrical Project Value: \$6,782,246.00

Project Reference #3

Project Name – OUC Stanton Energy Center – Coal Ash Storage Expansion

Owner – Orlando Utilities Commission (OUC) Doud, Charles W. (CDoud@ouc.com)

Engineer – Tetra Tech **Engineer Contact** – David Burger 407-855-3860

Prime General Contractor – Charah, LLC.

G.C. Project Manager – Lewis Crawford lcrawford@charah.com

Chinchor Electric Project Manager – Bret Fudge bfudge@chinchorelectric.com 386-774-1020

Project Details: Scope- Horizontal expansion of combustion waste storage area cell 2. Installed over 6,000' LF of concrete duct banks for 480V power and fiber optics. Installed 2 new electrical service racks for 3 phase 480V that fed 8 new control panels for the landfill sumps. Replaced 4 additional control panels at the CWSA pond. Installed aerial site lighting for oversized dump truck traffic. Raised an existing PLC 18" for the North and South Coal Pond. Pulled in over 10,000LF of fiber. Installed a temporary electrical service for a temporary guard shack.

Attended weekly progress meetings to ensure proper planning and meeting schedule deadlines.

Electrical Project Value: \$1,593,950.48

Project Reference #4

Project Name – Jerry Sellers WRF MCC & Conduit Replacement

Owner – City of Cocoa

Engineer – CDM Smith

Engineer Contact – Spencer Perry perrysj@cdmsmith.com

Prime General Contractor – Chinchor Electric, Inc.

G.C. Project Manager – Don Hasco dhasco@chinchorelectric.com 386-774-1020

Project Details: Plant Wide Electrical Upgrades. New Main Switchboard, six (6) new MCC's, new 480V panelboard, VFD's and motor starters. Concrete encased duct banks with manholes all around plant, new in-ground concrete pull boxes, new conduit work in existing building, main electrical building structural modification, new A/C unit. All 480V loads in plant received new wiring and MCC's. All work completed with no interruption to an active WWTP.

Electrical Project Value: \$2,257,872.26

Project Reference #5

Project Name – T2716

Owner – Florida Department of Transportation

Owner Contact – Donald Devenny Donald.devenny@dot.state.fl.us

Engineer/CEI – GAI Consultants

CEI Contact – Kevin Lairsey k.lairsey@gaiconsultants.com 904-559-8108

Prime General Contractor – Chinchor Electric, Inc.

G.C. Project Manager – David Morris dmorris@chinchorelectric.com 386-774-1020

Project Details: Installation of Highway Lighting and Signage on SR16 in St. Johns County. Highway Lighting was installed over 12 miles of roadway which included 423 conventional light pole assembly's with both precast bases and spread footers, replacement of high mast lighting fixtures, under deck lighting, 7 new load center service points, directional boring, concrete sidewalk removal and replacement, single post signs, striping, and all associated electrical work.
Electrical Project Value: \$4,919,571.12

Project Reference #6

Project Name – CC-2037-18 Lift Station Generators Phase 1

Owner – Seminole County Florida

Owners Contact – Mike Boggs 407-665-2026 mboggs@seminolecounty.fl.gov

Engineer – N/A **Engineer Contact** – N/A

Prime Contractor – Chinchor Electric, Inc.

Chinchor Project Manager – David Morris 386-774-1020 dmorris@chinchorelectric.com

Project Details: Install thirteen (13) generators, ATS's, concrete pads, control panel modifications and all associated electrical work on active lift stations throughout the County.

Contract Amount: \$1,230,870.00 before O.D.P. (Owner Direct Purchase)

Substantial Completion Date: 11/7/2019

Project Reference #7

Project Name – Contract No. 1573 - Volusia County Branch Jail & Volusia County Correction Facility Emergency Generators

Owner – Volusia County, FL

Owner Contact – Mike Paris mparis@volusia.org 386-566-3029

Engineer – AZ Power Systems Engineering and Consulting, LLC

Engineer Contact – Alexander E. Zvonaryov azpowersystems@yahoo.com 407-694-1781

Prime Contractor – Chinchor Electric, Inc.

Chinchor Project Manager – Bret Fudge bfudge@chinchorelectric.com 386-774-1020

Project Details: Removal of existing 750KW generator at the one jail and install it at the other jail. Furnish and installation of a 1.5MW generator, ATS's, Bus Duct, fuel tank, fuel piping, concrete pads and all associated electrical work on an active County Jail.

Contract Amount: \$1,440,612.00 before O.D.P. (Owner Direct Purchase)

Substantial Completion Date: 11/28/17

EQUIPMENT

UPDATED 5/9/2022

Equipment #	Equipment	Serial Number/VIN	Model Number	MISC/Plate Number
1	98798 Case Backhoe/ Loader	240242	5801 SERIES 2	Backhoe
2	913707 Vermeer Trencher	1VRX0721971001374	RT450	
	Backhoe	1VRZ060E471000531	B450	
	Trencher Blade	1VRX080V2711000854	S0450	
3	911694 Sellick Forklift (large)	2225410832	SD-80	
4	914811 2011 CAT 259B Multi Terrain Loader	CAT0259BAVYZ01951	259B3	Skid Steer
5	914711 2011 CAT 305B CR Excavator	CAT0305DHXER01071	305DCR	Excavator
6	10275 Terex RL4 Light Tower	4ZJSA1416D1005683	RL413-5683	CCAG88
7	10276 Terex RL4 Light Tower	4ZJSL141XD1004577	RL413-4577	BC80RB
8	10277 SULLAIR 185D Air Compressor	201205260012	185D	BZKE92
9	916907 CAT 420E Backhoe/ Loader	1HTWJAAT8BJ360820	HSL07381	Backhoe
10	917014 2014 CAT 302.7DCR	LJ700203	302.7DCR	
11	10281 2005 Kubota L3901HST	54129	L3901HST	Tractor
	Loader	Q4133	LA525	Attachment
	Backhoe	B0266	BH77	Attachment
	Land Pride 60" Claw Grapple	1307260	SGC1060	Attachment
	60" Box Blade	58315F	1932374	Attachment
12	10282 2012 CAT TL943C Telehandler	THH00385	TL943C	
	TL943C Hook	1898		Attachment
13	10284 Plate Compactor	MVC88VTH / T2A8596	Honda	
14	10285 Multi Quip Plate Compactor	A7487	MVH-150VGH	
15	10287 2016 CAT 305.5ECR	CR502011	305.5ECR	Excavator
16	10288 2015 CAT 303ECR	HHM01501	303ECR	Excavator
	Bucket	A4168BK30589		Attachment
	Bucket	A4167BK30868		Attachment
17	10289 2015 CAT 302.7DCR	CAT3027DTLJ700551	302.7DCR	Excavator
18	10290 Kawasaki Mule Pro DX 4X4	JKAAFCF10GB500531	Mule DX 4X4	UTV
19	10291 Kawasaki Mule Pro DX 4X4	JKAAFCF18GB500468	Mule DX 4X4	UTV
20	10292 2017 CAT 289D	TAW06763	CAT 289D	Skid Steer Enclosed
21	10293 2012 CAT TL943C Telehandler	THH00405	TL943C	Telehandler
22	10295 2015 Sullair 185D Air Compressor	201509020047	185D	IMDA71
23	10296 Sullair 185D Air Compressor	201508190012	185D	IMDA72
24	10297 TL Hook	000R04192	TL Hook	Attachment
25	10298 2017 Mitsubishi Forklift	AF17E03825	FG25N5	Forklift
26	10299 2017 Mitsubishi Forklift	AF17E03819	FG25N5	Forklift
27	10300 2015 CAT TL943C Telehandler	THH01559	TL943C	Telehandler
28	10301 2016 CAT 308E2CRSB	FJX05022	308E2CRSB	Excavator
29	10303 2018 CAT 289D	TAW10004	289D	Skid Steer
30	10304 Arrow Board	7128340	Old Model	No Tag
31	10306 2016 CAT Breaker	X9F00877	H95E	Attachment
32	10307 2017 CAT Mulcher	PS500343	HM315C	Attachment
33	10308 2018 Genie Scissor Lift	176096	GS1930	Scissor Lift
34	10309 2018 Genie Scissor Lift	176108	GS1930	Scissor Lift
35	10310 2019 CAT 304E2	CAT0304EKME405958	304E2CR	Excavator
	24" Bucket	A4191BK30931	464-9904	Attachment
36	10311 2019 CAT 304E2	CAT0304ETME406041	304E2CR	Excavator
	24" Bucket	A4191BK30993	464-9904	Attachment
37	10312 2019 CAT Thumb 305D	A4199TH20314	523-8648	305 Attachment
38	10313 2020 CAT TH255C Telehandler	JK204482	TH255C	Telehandler
	2019 JLG Forks	1001104009/ 331-3251	201934704	Attachment
	2014 Bucket	207-5154-01	CH-02-2014-17	Attachment
39	10314 Mitsubishi 36V Electric Pallet Jack	8280123	ESR23N2	
40	10315 CAT 289D3	CAT0289DKJX904535	289D3	Skid Steer
	80" Bucket	A4208BK21317	279-5376	Attachment
	Pallet Forks	65SSFP076369	351-9371	Attachment
41	10316 BA118C Hydraulic Sweeper	BX804032	448-5670	High Flow Attachment
42	10317 Mitsubishi 36V Electric Pallet Jack	82827035	ESR23N2	
43	10318 2020 Multi Quip Power Buggy	1L0907	WBH-16EF	Family: LMLTPNEQMLA
44	10319 2018 CAT TL943C Telehandler	0MLJ00716	TL943D	

EQUIPMENT

UPDATED 5/9/2022

		TL Lifting Hook	100902	R05667	Attachment
45	10320	2020 CSC 40' High Cube Container	CPLU4966957		40' Storage Conex
46	10321	40' High Cube Container	TRLU4515913		40' Storage Conex
47	10322	CAT 289D3	CAT0289DHJX907573	289D3	Skid Steer
		80" Bucket	A4219BK20568	279-5376	Attachment
		Pallet Forks	A4218CC20342	351-9371	Attachment
48	10323	500G Fuel Tank			500G Double Wall Tank
49	10324	2018 CAT TL1055D	ML501257	TL1055D	10K # Telehandler
		Forks	None	None	Attachment
		TL Lifting Hook	2416	169-6460	Attachment
50	10325	2022 CAT 289D3 Canopy	JX908549	289D3	SkidSteer
		80" Bucket	A4218BK22465	279-5372	Attachment
		Pallet Forks	A421BCC20622	351-9371	Attachment
51	10326	2022 CAT 306CR Excavator	6G604832	306CR	Excavator
		24" Bucket			Attachment
52	10327	Kubota Tractor MX5400 DTC	KBUL3BDCCL8M17992	MX5400 DTC	Tractor
		Loader	B4224	LA1065A	Attachment
		72" Bucket	I4979	L2235A	Attachment
		Land Pride 6ft Bush Hog	826-384C 03095	2072	Attachment
		Tarter 6ft Tiller	55167	TILLER	Attachment
		48" Pallet Forks	PF-46C	PF463548	Attachment
		Land Pride Quick Hitch	QH15	1871857	Attachment
53	10328	2022 CAT 303	CAT00303CMY300661	303CR	Excavator
		16" Bucket	A4219BK30588	464-9902	Attachment
54	10329	Gray WPLS-190	958-007767	WPLS-190	19,000 LB Lift
55	10330	Gray WPLS-190	958-007779	WPLS-190	19,000 LB Lift
56	10331	Gray WPLS-190	958-007774	WPLS-190	19,000 LB Lift
57	10332	Gray WPLS-190	958-007782	WPLS-190	19,000 LB Lift
58	10333	Gray WPLS-190	958-007911	WPLS-190	19,000 LB Lift
59	10334	Gray WPLS-190	958-007916	WPLS-190	19,000 LB Lift

TRAILERS

UPDATED 5/9/2022

Trailer #	YEAR	MANUFACTURER	V.I.N.	COLOR	MODEL	AXLES	EQUIPMENT
1	40286	1997 PACE	4FPFB1215VG020173	WHITE	F6125A	1	16' Enclosed Trailer
2	40289	1992 A.O.K. FLAT 470	A0K061	WHITE	10 STEEL FLAT/WIRE	1	Double Wire Racks
3	40293	1989 WELLS-CARGO	1WC200G28K3017417	WHITE	18'	2	Enclosed Trailer
4	40294	1994 PACE	4FPAB2024RG003297	WHITE	2085	2	20' Enclosed Trailer
5	40298	1992 TRAIL EZE	1DA72C764NM018597	BLACK	RS35H48	2	34T Lowboy
6	40207	2007 COVENT	5RMBE16237D010060	WHITE	ENCLOSED	2	
7	40300	2000 ANDERSON	4YNBN27212C010978	BLACK	12T LOWBOY	2	Flat Deck Trailer
8	40301	2001 ASPT	FLT4016PP	BLACK	DROPGATE	1	Tool Box
9	40404	2004 PACE SETTER 760	46UFU162341093567	BLACK	RAMPS	2	Ramps
10	40306	2007 IMPERIAL	1Z9DT16247J213069	BLACK	D 7167T24	2	Dump Trailer
11	40307	2007 IMPERIAL	1Z9GN35247J213299	BLACK	30+ 5 GOOSE NECK	2	Ramps
12	40308	2008 IMPERIAL	1Z9DT16288S213944	BLACK	DUMP	2	7 x 16 Dump Trailer
13	40408	2008 IMPERIAL FLAT	1Z9BU17218J213079	BLACK	TILT DECK	2	
14	40503	2003 HDME	NOVIN0200300999	BLACK	WIRE SPOOL	2	Single Reel Trailer
15	40912	2012 VAC- TRON	5HZBF1921CLAC1225	YELLOW	VT-19 LP85SSDT 121077	2	Vacuum Trailer
16	41012	2012 AMERICAN MADE PRODUCTS	1A9EE1613CD853717	BLACK	6 x 12 AMP	1	Utility Trailer
17	41112	2012 BIG TEX	16VCX2025C2339503	BLACK	14TL-20BK	2	Tilt Deck
18	42013	2013 BIG TEX	16VGX3528D2658931	BLACK	22GN-35BK+5	2	40' Gooseneck Trailer
19	42014	2014 CUSTOM HEAVY HAUL	1L9PU1013EG423486	YELLOW	RTH-60	1	Single Reel Trailer
20	42114	2014 BIG TEX	16VCX222XE2047958	BLACK	14TL-22BK	2	Tilt Deck
21	43015	2006 EMES	1E9VL10196L252767	BLACK	10' Trailer		
22	43115	2015 BIG TEX	16VCX2023F2027975	BLACK	14TL-20BK	2	Tilt Deck
23	44016	2016 LARK	5RTBE1620GD050343	WHITE	716TA	2	Enclosed Trailer
24	44116	2016 LARK	5RTBE1625GD049737	WHITE	7 x 16 Enclosed	2	Enclosed Trailer
25	44216	2016 BIG TEX	16VGX2027G6099712	BLACK	22GN-20BK+5	2	20' Gooseneck Trailer
26	44316	2016 BIG TEX	16VDX1624G5078827	BLACK	14LX-16BK P4	2	16' High Dump Trailer
27	44617	2017 BIG TEX	16VGX2824H6050120	BLACK	22GN-28BK+5MR	2	28' Gooseneck
28	44717	2017 BIG TEX	16VAX1216H3064554	BLACK	35SA-12BK4RG	2	Utility Trailer
29	44817	2017 BIG TEX	16VFX2023H2066663	BLACK	140A-20BK-8SIR	2	Flat Deck Trailer
30	44818	2018 BIG TEX	16VFX2020J2089985	BLACK	140A-20BK-8SIR	2	Flat Deck Trailer
31	44918	2018 BIG TEX	16VDX1421J5010172	BLACK	14LX-14	2	14' Dump Trailer
32	45106	2006 TRAIL KING	1TKA048206M124118	BLACK	TK70HT-482	2	48' Lowboy
33	45217	2017 BIG TEX	16VGX3027H6069245	BLACK	22GN-30BK+5MR	2	30' Gooseneck
34	45218	2019 VER- MAC	1V9US1118JH223222	ORANGE	ST-4815	1	Arrow Board
35	45219	2019 VER- MAC	1V9US1119JH223228	ORANGE	ST-4815	1	Arrow Board
36	45220	2019 CARRY-ON UTILITY	4YMBU0812KG015262	BLACK	5 x 8 UTILITY	1	Utility Trailer
37	45221	2018 ATLAS COPCO	4500A1012JR058075	YELLOW	XAS 185 CD7	1	Air Compressor
38	45222	2018 ATLAS COPCO	4500A1010JR058088	YELLOW	XAS 185 CD7	1	Air Compressor
39	45223	2020 BIG TEX	16VDX1228L5068379	BLACK	10SR-12XL BK7SIR	2	Dump Trailer
40	45224	2020 BIG TEX	16VID1621L5086566	BLACK	10SR-12XL BK7SIR	2	Dump Trailer
41	45226	2021 ANVIL	7FYBE2023MD016249	WHITE	AT85X20TA3	2	8.5 x 20 Enclosed
42	45227	2021 ARISING	5YBE2428MH000039	WHITE	8.24VTRW	2	8.5 x 24 Enclosed
43	45228	2021 ARISING	5YCBF1625MH002516	WHITE	716VTRW	2	7 x 16 Enclosed
44	45229	2021 BIG TEX	16V3F4127M6097949	BLACK	22GN-28BK+5MR	2	28' Gooseneck
45	45230	2021 CALIBER	57BED8204M1052251	BLACK	FC102-20T7-BE	2	Triple Reel Trailer
46	45231	2021 HMDE	NOVIN0201328590	GREY	SINGLE REEL TRAILER	1	Single Reel Trailer
47	45232	2021 MULTIQUEIP	3AUBC121XMM02060599	YELLOW	C30HDGAWR	1	Concrete Pump Trailer
48	45233	2021 ALLMAND	5AEA1AA19MH003807	YELLOW	PRO II / SN 08-004649	1	VERTICAL LIGHT TOWER
49	45234	2021 ALLMAND	5AEA1AA17MH003806	YELLOW	PRO II / SN 08-044648	1	VERTICAL LIGHT TOWER
50	45235	2021 PJ	4P5T62225M1363096	BLACK	T6	2	22' Tilt Trailer
51	45236	2022 BIG TEX	16VID192XN5112547	BLACK	14LP-14BK-6SIR	2	14' Dump Trailer
52	45237	2022 BIG TEX	16VID1922N5112557	BLACK	14LP-14BK-6SIR	2	14' Dump Trailer
53	45238	2021 WANCO	5F11S1015M1004928	ORANGE	WTSP	1	Arrow Board
54	45239	2021 WANCO	5F11S1013M1005298	ORANGE	WTSP	1	Arrow Board
55	45240	2021 WANCO	5F11S101XM1004925	ORANGE	WTSP	1	Arrow Board
56	45241	2022 BIG TEX	16V1F2628N2126324	BLACK	140A-20BK-8SIR	2	Triple Reel Trailer
57	45242	2017 BIG TEX	16VDX1424H5030300	BLACK	14LX-14BK7SIRPD	2	Dump Trailer
58	45243	2022 J & C Suppliers	1J9BE0726ND498257	WHITE	7X16TA	2	Enclosed trailer
59	45244	2017 AMERICAN MADE PRODUCTS	1A9EE1612HD853327	BLACK	6 X 12 SA	1	Utility Trailer
60	45245	2022 LEGEND TRAILERS	59VBP2529NE001271	GREY	FP102-25T10-LP/MPD	2	25' Flatbed w/dovetail
61	45246	2022 SGAC	54GVC12D7N7055318	BLACK	SG612SA	1	6'x12' Single Axle Enclosed
62	45247	KAUFMAN		BLACK	FH-15K-35D	2	30'+5' Gooseneck
63	45248	KAUFMAN		BLACK	FH-15K-35D	2	30'+5' Gooseneck
64	45249	2022 LOAD TRAIL LLC	4ZECHE2227N1268248	BLACK	EO83-22T8-KR	2	22' x 7' Equipment Trailer
65	45250	2022 VIKING	1V9CR5331N062250	BLACK	40 TON LOWBOY	3	53' Skidder Lowboy
66	45251	2022 VIKING	1V9CR4626N062249	BLACK	35 TON LOWBOY	2	46' Skidder Lowboy

VEHICLES

UPDATED 5/9/2022

Vehicle #	Fuel Type	Fuel Capacity (Gal)	YEAR	MAKE	V.I.N.	COLOR	MODEL	AXLES	Operator	EQUIPMENT TYPE
1	Diesel	50	2002	STERLING	2FZHANAK32AJ70540	WHITE	8500	3	General	Digger Derrick
2	Diesel	50	2002	FORD	3FDNF65482MA06661	WHITE	F650	2		Dump Truck
3	Diesel	50	2001	FORD	3FDNF65551MA86220	WHITE	F650	2		Small Dump
4	Gas	20	1994	FORD	1FTEF14YXRNB32659	GREEN	F150	2	Tim Chinchor Jr.	Pick up
5	Diesel	40	2012	FORD	1FD0W5HT7CEB31553	WHITE	F550	2	Electrical Floater Flatbed	Traffic
6	Gas	36	2012	FORD	1FTVX1CF0CKD53113	WHITE	F150	2	Ron Burge	Pick up
7	Gas	36	2012	FORD	1FTNF1CF3CKE02145	WHITE	F150	2	Richard Mann	Pick up
8	Diesel	40	2012	DODGE	3C7WDNAL5CG296544	WHITE	3500	2	Gary K. 2nd Bucket	Bucket Truck
9	Diesel	40	2013	FORD	1FD0W5HT0DEA47141	WHITE	F550	2	SOLD	Flat Bed
10	Diesel	40	2013	FORD	1FD8W3HT8DEA81402	WHITE	F350	2	SOLD	FOR SALE
11	Gas	36	2013	FORD	1FTFW1ET4DFA11359	WHITE	F150	2	April Johnson	Pick up
12	Diesel	75	2014	KENWORTH	2NKLJ9X8EM404821	WHITE	PACCAR	3	Spiradrill	LHD- 40 SM
13	Diesel	75	2010	INTERNATIONAL	1HTWJAAT8BJ360820	WHITE	7400	3	Admiral	Digger Derrick
14	Diesel	40	2014	DODGE	3C7WRNAL9EG156825	WHITE	5500	2	Signal Floater Bucket	Bucket Truck
15	Gas	36	2015	FORD	1FT7W2B63FEC31044	BLACK	F250	2	Bryan Noske	Pick up
16	Diesel	40	2015	FORD	1FD0W4HT5FED00080	WHITE	F450	2	Jesse Agosto	Flat Bed
17	Diesel	40	2015	FORD	1FD0W5HT0FED11591	WHITE	F550	2	Carlo L.	Service Body
18	Diesel	50	2016	FORD	1FT7W2BT4GEA96194	WHITE	F250	2	Billy Chinchor	Pick up
19	Diesel	40	2016	FORD	1FT7W2BT8GEA09560	WHITE	F250	2	Adam Blocker	Pick up
20	Diesel	40	2016	DODGE	3C7WRNFL2GG113617	WHITE	5500	2	David Oliva	TRAFFIC
21	Diesel	40	2016	DODGE	3C7WRSL3GG119574	WHITE	3500	2	Electrical Utility Floater	ELECTRICAL
22	Diesel	40	2016	DODGE	3C7WRTCL3GG112761	WHITE	3500 4X4	2	Electrical Utility Floater	ELECTRICAL

VEHICLES

UPDATED 5/9/2022

23	918112	Diesel	40	2012	DODGE	3C7WDNBL7CG205011	WHITE	5500	2	Signal Floater Bucket	Bucket Truck
24	918314	Diesel	75	2014	CAT	3HTJGTKT4EN789098	WHITE	CT660S	3		Dump Truck
25	918412	Diesel	40	2012	DODGE	3C7WDNBL0CG296613	WHITE	5500	2	Auto Shop Floater	Fleet Service Truck
26	918512	Diesel	40	2012	DODGE	3C7WDNBL5CG181179	WHITE	5500	2	Electrical Auto Crane	Stellar Crane
27	918612	Diesel	40	2012	DODGE	3C7WDNBL9CG296609	WHITE	5500	2	Signal Floater	Stellar Crane
28	918713	Diesel	150	2013	MACK	1M1AN07Y5DM011785	WHITE	CHU613	3		Manual Tractor
29	918816	Gas	20	2016	FORD	3FA6P0G77GR338312	BLACK	FUSION	2	Office Floater Car	
30	919016	Gas	36	2016	FORD	1FTEW1EF8GKF15575	WHITE	F150	2	Mike Thomas	Pick up
31	919116	Gas	36	2016	FORD	1FTEW1EFXGKF15576	WHITE	F150	2	Craig Monroe	Pick up
32	919215	Diesel	40	2015	DODGE	3C7WRNALXFG588938	WHITE	5500	2	Fletcher Bell	Bucket Truck
33	919315	Diesel	40	2015	DODGE	3C7WRNAL8FG588937	WHITE	5500	2	Lizandro Rodriguez	Bucket Truck
34	919415	Diesel	75	2016	FREIGHTLINER	1FVKCYCY6GHGT5940	WHITE	M2 106	3	Lieutenant	Digger Derrick
35	919517	Diesel	40	2017	DODGE	3C7WRNFLXHG636658	WHITE	5500	2	Chris Arnold	Flat Bed
36	919617	Diesel	40	2017	DODGE	3C7WRNFL2HG636654	WHITE	5500	2	Electrical Floater Flatbed	Flat Bed
37	919717	Diesel	40	2017	DODGE	3C7WRTCL6HG500746	WHITE	3500	2	Mike Elias	Flat Bed
38	919817	Diesel	40	2017	DODGE	3C7WRNFL8HG636657	WHITE	5500	2	Paul Mosler / Concrete Pump Flatbed	Flat Bed
39	919917	Gas	36	2017	FORD	1FTEW1EG3HFB86481	WHITE	F150	2	Chris Massalone	Pick up
40	920085	Gas	30	1985	AMER/JEEP	1JCNJ15N6FT041994	BURGANDY	WAGONEER	2	Tim Chinchor Sr.	Personal
41	920117	Diesel	75	2017	FREIGHTLINER	1FVKCYCY8HHHV8446	WHITE	M2 106	3	Sergeant	Digger Derrick
42	920216	Diesel	40	2016	FORD	1FD0W5HT6GED15520	WHITE	F550	2	Floater Flatbed	Flat Bed
43	920316	Diesel	40	2016	FORD	1FD0W5HT3GED29942	WHITE	F550	2	Electrical Floater Flatbed	Flat Bed
44	920417	Diesel	40	2017	FORD	1FD0W5HT2HEC16887	WHITE	F550	2	Josh Smith	Flat Bed
45	920418	Diesel	75	2018	FREIGHTLINER	1FVKCYFE6JHJS2497	WHITE	M2 106	3	Elliott	D115R

VEHICLES

UPDATED 5/9/2022

46	920515	Diesel	40	2015	DODGE	3C7WRNAL6FG588936	WHITE	5500	2	Charles Creech	Bucket Truck
47	920615	Diesel	40	2015	DODGE	3C7WRNAL3FG607197	WHITE	5500	2	Hunter Smith	Bucket Truck
48	920717	Diesel	40	2017	FORD	1FT7W2BT6HEE79295	GRAY	F250	2	Brian Silva	Pick up
49	920813	Diesel	150	2013	MACK	1M1AN07Y8DM012154	WHITE	CHU613	3		Automatic Tractor
50	920915	Diesel	40	2015	DODGE	3C7WRNAL4FG706286	WHITE	5500	2	Victor Garcia	Bucket Truck
51	921071	Diesel		1971	GENERAL	04L08771052523117	OD GREEN	DUECE	2	Tim Chinchor Sr.	DIV 3
52	921116	Diesel	40	2015	DODGE	3C7WRNBL4FG559059	WHITE	5500	2	Gary Kongmany	Bucket Truck
53	921315	Diesel	50	2016	FREIGHTLINER	1FVKCYCYXGHGT5939	WHITE	M2 106	3	Major	Digger Derrick
54	921419	Diesel	40	2019	FORD	1FD0W4HT7KEC15381	WHITE	F450	2	Mike Johnston Sr	Service Body
55	921519	Diesel	40	2019	FORD	1FD0W4HT4KEC47141	WHITE	F450	2	Sean Gilbert	Flat Bed
56	921619	Diesel	40	2019	FORD	1FD0W5HT9KED02964	WHITE	F550	2	Clayton Almstead	
57	921817	Gas	26	2017	FORD	1FTEW1CP2HFC06156	WHITE	F150	2	Daniel Mauldin	Pick up
58	921917	Gas	26	2017	FORD	1FTEW1CP4HFC06157	WHITE	F150	2	Office Floater 4 door	Pick up
59	922018	Diesel	26	2018	FORD	1FTFW1E1XJFD73108	WHITE	F150	2	Dan Chinchor	Personal
60	922114	Gas	18	2014	FORD	1FM5K7D83EGB22936	SILVER	EXPLORER XL	2	Ronald Younger	Safety Vehicle
61	922219	Gas	18	2019	LINCOLN	2LMPJ6L98KBL28275	WHITE	NAUTILUS	2	Christine Chinchor	Personal
62	922318	Gas	18	2018	JEEP	1C4HJWDG5JL927702	WHITE	JK Unlimited	2	Tim Chinchor Sr.	Personal
63	922419	Diesel	55	2019	FORD	1FT7W2BT8KEE96008	WHITE	F250	2	Tim Chinchor Jr.	Personal
64	922519	Gas	26	2019	FORD	1FTEW1E4XKFC16752	WHITE	F150	2	Mariah Anselmo	Personal
65	922618	Diesel	70	2018	FREIGHTLINER	3ALHG5FE4JDJK3098	WHITE	108 SD	3	5,000 Gallon	Water Tank
66	922769	RACE 110	20	1969	GMC	CE1OD-BA12129	WHITE	Custom	2	FMP	Pick up
67	922816	Gas	26	2016	FORD	1FTMF1C85GFC12956	WHITE	F150	2	Office Floater	Pick up
68	922915	Gas	26	2015	FORD	1FTEX1CPXFFB57573	WHITE	F150	2	Daniel Lucas	Pick up
69	923019	Diesel	40	2019	FORD	1FD0W5HT3KEF20981	WHITE	F550	2	David Valdes	Service Body

VEHICLES

UPDATED 5/9/2022

70	923119	Diesel	40	2019	FORD	1FD0W5HT5KEF20982	WHITE	F550	2	Spencer Taylor	Service Body
70	923219	Diesel	40	2019	FORD	1FD0W5HT7KEC46328	WHITE	F550	2	Ty Squire	Flat Bed
72	923319	Diesel	40	2019	FORD	1FD0W5HT2KEC14404	WHITE	F550	2	Shane Crowley	Flat Bed
73	923417	Diesel	40	2017	FORD	1FD0W5HT6HEC82276	WHITE	F550	2	Billy Chinchor	Flat Bed
74	923518	Diesel	40	2018	FORD	1FD8W3HT8JEB30965	WHITE	F350	2	Chris Bennett	Flat Bed
75	923618	Diesel	40	2018	FORD	1FD8W3HT7JEB30973	WHITE	F350	2	Signal Floater Flatbed #2	Flat Bed
76	923819	Diesel	40	2019	FORD	1FD0W5HT1KEF79513	WHITE	F550	2	Alex Mejia	Bucket Truck
77	923919	Diesel	50	2019	FREIGHTLINER	1FVDCXFC4KHKP9481	WHITE	M2 106	2	TC55	Bucket Truck
78	924003	Gas	19	2003	JEEP	1J4FA39S43P312941	GREEN	TJ Wrangler	2	Tim Chinchor Jr	Personal
79	924116	Diesel	50	2016	FREIGHTLINER	1FVKCYCYXGHT5942	WHITE	M2 106	3	Captain	Digger Derrick
80	924219	Gas	26	2019	FORD	1FTFW1E57KFB37696	WHITE	F150	2	Rick Stock	Pick up
81	924319	Diesel	40	2019	FORD	1FD0W5HT8KEG57611	WHITE	F550	2	Alex Roseborough	Service Body
82	924419	Diesel	40	2019	FORD	1FD0W5HT1KEG57627	WHITE	F550	2	Justin Evans	Service Body
83	924520	Gas	27	2020	FORD	1FTEW1EP3LFA34614	WHITE	F150	2	Brandon Miller	Pick up
84	924620	Diesel	34	2020	FORD	1FT8W2BT8LED45756	WHITE	F250	2	Don Hasco	Pick up
85	924720	Diesel	34	2020	FORD	1FT8W2BT5LEC59613	WHITE	F250	2	Bret Fudge	Pick up
86	924820	Diesel	48	2020	FORD	1FT8W3BT2LEC16966	BLACK	F350	2	Tim Chinchor Sr.	Pick up
87	924920	Diesel	34	2020	FORD	1FT7W2BTXLED19400	WHITE	F250	2	Jeff Soltis	Pick up
88	925018	Diesel	40	2018	FORD	1FD0W5HT2JEC62824	WHITE	F550	2	Electrical Div Bucket #1	Bucket Truck
89	925119	Diesel	40	2019	FORD	1FD8W3HT2KED42407	WHITE	F350	2	Gregg Nutt	Service Body
90	925219	Diesel	40	2019	FORD	1FD0W5HT1KEF61514	WHITE	F550	2	Chris Gage	Service Body
91	925319	Diesel	40	2019	FORD	1FD0W5HT8KEG57625	WHITE	F550	2	Livan Hernandez	Service Body
92	925419	Diesel	40	2019	FORD	1FD0W5HTXKEG57626	WHITE	F550	2	Mark Fischer	Service Body
93	925520	Diesel	40	2020	FORD	1FD0W4HT5LED42423	WHITE	F450	2	Fernando Beltran	Service Body
94	925619	Diesel	40	2019	FORD	1FDUF5HT3KEG12917	WHITE	F550	2	Ronald Marsden	IMT Crane

VEHICLES

UPDATED 5/9/2022

95	925719	Diesel	40	2019	FORD	1FD0W5HT2KEG49066	WHITE	F550	2	Eric Abbott	Bucket Truck
96	925819	Diesel	40	2019	FORD	1FD0W5HT8KEG49072	WHITE	F550	2	Logan Schaffer	Bucket Truck
97	925920	Diesel	40	2020	FORD	1FT7W2BT7LEE66385	WHITE	F250	2	Kevin Brand	Pick up
98	926020	Diesel	40	2020	FORD	1FD0W5HT2LEE46678	WHITE	F550	2	Christian Vickers	Bucket Truck
99	926121	Diesel	40	2021	FORD	1FD0W5HT8MEC12546	WHITE	F550	2	Kevin Brand Jr	Flat Bed
100	926220	Diesel	40	2020	FORD	1FD0W5HTXLEE46685	WHITE	F550	2	Peyton Henley	Bucket Truck
101	926320	Diesel	40	2020	FORD	1FD0W5HT5LEE46691	WHITE	F550	2	Dillon Marie	Bucket Truck
102	926420	Diesel	40	2020	FORD	1FD0W5HT2LEE46695	WHITE	F550	2	Jarrett Stadler	Bucket Truck
103	926520	Diesel	50	2020	FREIGHTLINER	1FVDCXFE8LHKJ6211	WHITE	M2 106	2	TL60 Bucket Truck	Bucket Truck
104	926620	Diesel	40	2020	FORD	1FD0X5HT2LEE49593	WHITE	F550	2	Ryan Allen	Fleet Service Truck
105	926721	Diesel	80	2021	INTERNATIONAL	3HAEGTAT6ML856080	WHITE	HV 507	3		Flatbed Slurry Tanker
106	926821	Diesel	110	2021	KENWORTH	1NKZX4EX2MJ442986	BLUE	T880	3		Tri Axle Dump
107	926921	Gas	36	2021	FORD	1FTEW1C8XMFB29491	WHITE	F150	2	Sarah Chinchor	Pick up
108	927021	Gas	36	2021	FORD	1FTFW1E8XMKE03703	WHITE	F150	2	Dave Morris	Pick up
109	927121	Diesel	40	2021	FORD	1FD0W5HT3MEC75201	WHITE	F550	2	Richard Freeman	Flat bed
110	927221	Diesel	40	2021	FORD	1FD0W5HT5MEC75202	WHITE	F550	2	Cory Zarch	Flat bed
111	927318	Gas	36	2018	FORD	1FTEW1EG3JKC07164	WHITE	F150	2	Randy Ossowski	Pick up
112	927421	Diesel	40	2021	FORD	1FD0W5HT1MEC75200	WHITE	F550	2	Jon Menegay	Flat bed
113	927521	Diesel	40	2021	FORD	1FD0W5HT0MED60321	WHITE	F550	2	Randy States	Flat bed
114	927618	Diesel	40	2018	FORD	1FDUF5HT0JEC28866	WHITE	F550	2	Hunter Dewoehrel	Bucket Truck
115	927721	Gas	18	2021	CHEVROLET	1G1YC2D45M5113849	BLUE	PTT	2	Tim Chinchor Sr.	PTT
116	927818	Diesel	40	2018	FORD	1FD0W5HT4JEC62825	WHITE	F550	2	Electrical Div Bucket #2	Bucket Truck
117	927915	Gas	27	2015	LAND ROVER	SALGS2VF7FA226680	WHITE	Range Rover	2	Kathryn Quintana	Personal
118	928021	Diesel	34	2021	FORD	1FT7W2BT2MED86638	WHITE	F250	2	Austin Degaetani	Pick up
119	928120	Diesel	50	2020	FREIGHTLINER	1FVKCYFE8LHKV3949	WHITE	M2 106	3	Master Gunnery	General 65 Derrick Digger
120	928221	Diesel	40	2021	FORD	1FD0W5HT7MED95793	WHITE	F550	2	Dalton Mathis	Flat bed
121	928321	Diesel	40	2021	FORD	1FD0W5HT1MED95790	WHITE	F550	2	David Mitchell	Flat bed
122	928421	Diesel	40	2021	FORD	1FD0W5HT4MED95783	WHITE	F550	2	Jason Simoneaux	Flat bed

VEHICLES

UPDATED 5/9/2022

123	928521	Diesel	40	2021	FORD	1FD0W5HT3MED95791	WHITE	F550	2	Luis Santos	Flat bed
124	928621	Diesel	40	2021	FORD	1FD0W5HTXMED95786	WHITE	F550	2	Josh Richardson	Flat bed
125	928721	Diesel	40	2021	FORD	1FD0W5HT5MED95792	WHITE	F550	2	Kenny Otero	Flat bed
126	928821	Diesel	110	2021	PETERBILT	1NPCXPEXXMD713471	WHITE	567	4	Spiradrill	MHD-XL50
127	928922	Diesel	50	2022	FREIGHTLINER	3ALKCYFE2NDNA4162	WHITE	M2106	3	Corporal	General 65 Digger Derrick
128	929017	Diesel	40	2017	DODGE	3C7WRNBL5HG510164	WHITE	5500	2	Justin Murfitt	AUTO CRANE HC7
129	929121	Gas	36	2021	FORD	1FTEW1EP7MKE34541	WHITE	F150	2	Randy Meintzer	Pick up
130	929221	Gas	36	2021	FORD	1FTEX1EB9MFA03645	WHITE	F150	2	Jared Zabele	Pick up
131	929321	Diesel	40	2021	FORD	1FD0W5HT9MED46904	WHITE	F550	2	Dustin Bailley	LT40 Bucket Truck
132	929421	Diesel	40	2021	FORD	1FD0W5HT9MED46921	WHITE	F550	2	Dillan Fontaine	LT 40 Bucket Truck
133	929520	Diesel	40	2020	FORD	1FD0W5HT9LEE46693	WHITE	F550	2	Jarek McElroy	LT 40 Bucket Truck
134	929622	Gas	36	2022	FORD	1FTEW1EP3NKD34096	WHITE	F150	2	Sean McKee	Pick up
135	929722	Gas	36	2022	FORD	1FTFW1E52NFA61518	WHITE	F150	2	Rob Micale	Pickup
136	929822	Gas	36	2022	FORD	1FTFW1E50NFA61517	WHITE	F150	2	Jeff Sumner	Pickup
137	929922	Diesel	40	2022	FORD	1FD0W5HT0NED19110	WHITE	F550	2	Rudy Zibron	Flatbed
138	930022	Diesel	50	2022	FREIGHTLINER	3ALKCYFE9NDNK3148	WHITE	M2106	3	Commodore	General 65 Derrick Digger
139	930122	Diesel	40	2022	FORD	1FD0X5HT1NED47379	WHITE	F550	2		Knapheide KMT-11 w/ Stellar 7630 Crane
140	930223	Diesel		2023	KENWORTH	1XKZDP9X0PJ243305	WHITE	T880	3	Semi Tractor	Semi Tractor
141	930323	Diesel		2023	KENWORTH	1XKZDP9X1PJ252112	WHITE	T880	3	Semi Tractor	Semi Tractor



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Timothy I. Chinchor
President
EC13004865

Tim Chinchor, Jr. has worked with Chinchor Electric since 2005. He has held all Electrical and Traffic Signal Division positions; Leading to his new role as President of the Corporation. As Estimator and Project Manager from 2007 to 2018, Tim has had a broad level of experience in electrical and signal applications including Water and Wastewater Industrial Construction and Controls, Heavy Generator Installation, Street and Highway Lighting, Traffic Signal Construction, ITS, and Facility Maintenance. Mr. Chinchor was appointed Vice President in spring of 2012 and has learned the in-depth skills it takes to manage a multimillion-dollar Company. In early 2018, Tim Chinchor Jr. was appointed President of Chinchor Electric, Inc. and is looking forward to growing the Corporation to new heights.

Growth & Experience:

- 2018 Appointed President
- 2012 Appointed Vice President
- 2011 Appointed Project Manager & Estimator of the Traffic Signal Division
- 2011 Master Electrician EC13004865
- 2009 Licensed Journeyman
- 2009 FEAT Graduate
- 2007 Appointed Project Manager & Estimator of the Electrical Division
- 2007 Class A CDL
- 2006 Level I & Level II Traffic Signal Technician
- 2006 MOT Certified Level I, and II
- 2005 Jessica Lunsford Security Clearance, Volusia County Schools
- 2005 OSHA & First Aid Certified

Significant Projects Overseen and Completed with Chinchor Electric, Inc.:

- Orange County Traffic Signal Push Button 100 plus projects
- Seminole County Traffic Signal Push Button 50 plus projects
- FDOT – T5619 US 1 @ Reed Canal
- FDOT – Fin ID: 418321-1-52-01 SR 500 @ US 192 (Vine St.)
- FDOT - Fin ID: 240233-4-58-01 SR 434 @ Florida Central Parkway
- FDOT- T5576 SR 434 Oviedo



- FDOT – E5209 Sanford Sun rail Fiber
- FDOT – AVI E5Y06 Bluetooth Vehicle Detection
- FDOT – T5540 Bluetooth Vehicle Detection
- FDOT - T5506 SR 600 Signalization & ITS
- FDOT - T5580 SR 520 Signalization & ITS
- FDOT – T5581 Alexandria @ SR 434
- FDOT – GPS PH II T5577 Opticom EV Detection
- FDOT – GPS PH I T5540 Opticom EV Detection
- International Drive SR 528 to South Westwood
- Simpson @ Eagle Bay
- Simpson @ Royal Palm
- Remington @ Partin settlement
- Neptune middle @ Tohoqua
- Oak ridge @ Chancellor
- Lock wood @ Mitchell Hammock
- Lake Jessup @ Mitchell Hammock
- Eastbridge @ Mitchell Hammock
- Airport rd. @ pioneer trail
- Wilbur Ave. @ Country Club
- Harmony WWTP – Toho Water Authority
- Jerry Sellers WRF – City of Cocoa
- SWR WRF BNR Project – Volusia County
- Cranes Roost Park – Altamonte Springs
- SER-WTP HSP VFD Project – Seminole County
- Glen Abbey WTP Backup Control – Volusia County
- SSNOCWWTA – Numerous Pump Stations
- Brevard County – Numerous Lift Stations
- Flagler Beach – Numerous Lift Stations
- SWWRF Reclaimed Pump Station – St. Petersburg
- St. Cloud WTP #1
- Edgewater WWTP
- City of Cocoa Beach WRF
- Orange County SW Marriott Master Pump Station
- Pinellas County EMS Parallel Generators
- FDOT US17/92 Decorative Lighting, Sanford
- FDOT US441 & SR436 Lighting, Apopka
- City of Cocoa Beach WRF Rehabilitation
- City of St. Cloud WTP #1
- PGA WWTP 1250KW Generator
- St. Cloud SWAF



- Ormond Beach Reuse and WWTP
- City of Ocala Streetscape
- David Hanson WWTP
- US 1 Decorative Street Lighting
- Fire Station #13, Apopka
- Winn Dixie Generator upgrade, Statewide
- Glen Abbey WTP Well Expansion, Debary, FL
- DeLand WWTP
- Lake Jesup SR 417 Toll Plaza, Seminole, FL
- Low Voltage Wiring Phase IV, Altamonte Springs WWTP
- VFD Installation at Holly Hill WTP





Donald J. Hasco
Director of Operations
EC13006447

Don Hasco came to work at Chinchor Electric in 2003 starting in the field as an Electrical Apprentice. While in the field, Don attended Florida Electrical Apprenticeship and Training at Seminole Community College (currently Seminole State College) in Sanford Florida. Upon graduation he went on to receive his Journeyman License through Orange County in November 2007. Since obtaining his Journeyman License, Don became a Master Electrician and State Certified Unlimited Electrical Contractor in November 2014. Don worked his way to Lead Estimator for the Electrical Division in 2010, Director of the Electrical Division in 2014, and finally in January 2020 Don became the Director of Operations. Don is currently responsible for the day-to-day operations of the company including overseeing the estimating and project management in both the Electrical and Signal Divisions. Mr. Hasco has a broad level of experience working and overseeing many projects with extensive concentrations in Water and Wastewater Industrial Construction, Generator Installations, Highway Lighting, ITS, and Traffic Signal Construction.

Growth & Experience:

- 2020 Appointed Director of Operations
- 2014 Appointed Director of the Electrical Division
- 2014 Unlimited Electrical Contractor EC13006447
- 2010 Appointed Estimator of the Electrical Division
- 2007 Licensed Journeyman Electrician
- 2007 FEAT Graduate
- 2006 Intermediate MOT
- 2005 Jessica Lunsford Security Clearance, Volusia County Schools
- 2003 Class A CDL
- 2003 OSHA & First Aid Certified

Significant Projects Overseen and Completed with Chinchor Electric, Inc.:

- T9022 Hamilton Weigh Station – Weigh in Motion
- E53A8 – ITS Surveillance System
- E20B6 – Yulee Weigh Station Lighting
- Hood Road Re-Pump Electrical & Generators – Seacoast Utility Authority



- Richard Rd. & Lilac Street Re-Pump Facilities – Seacoast Utility Authority
- Repair & Replacement at WWTP Facilities – Florida Keys Aqueduct Auth.
- Buc-ee's Daytona Beach – Traffic Signals and Lighting
- Buc-ee's St. Johns – Traffic Signals and Lighting
- T5689 – SR421 Traffic Adaptive Signal Control System
- E5Z62 – SR40 Traffic Adaptive Signal Control System
- T5664 – US 17/92 Volusia Co. Traffic Adaptive Signal Control Systems
- FDOT T9021 – Sneads Weigh Station Electrical & Lighting
- FDOT T2716 – SR16 Lighting St. Augustine
- FDOT T2770 – SR24 Lighting Gainesville
- Central Blvd N HSPS Electrical – Town of Jupiter
- Western Regional WSF Phase IIIB – Orange County Utilities
- Harmony WWTP – Toho Water Authority
- South Bermuda WRF – Toho Water Authority
- FDOT T5587- Highway Lighting I-95 Brevard County
- FDOT T5588 – Highway Lighting I-95 Volusia & Flagler Counties
- Jerry Sellers WRF – City of Cocoa
- Polk County Lift Stations 35 & 99
- SWR WRF BNR Project – Volusia County
- Cranes Roost Park – City of Altamonte Springs
- SER-WTP HSP VFD Project – Seminole County
- Glen Abbey WTP Backup Control – Volusia County
- SSNOCWWTA – Numerous Pump Stations with Generators
- Brevard County – Numerous Lift Stations
- SWWRF Reclaimed Pump Station – City of St. Petersburg
- City of St. Cloud WTP #1
- City of Edgewater WWTP
- City of Cocoa Beach WRF
- Orange County SW Marriott Master Pump Station
- Pinellas County EMS Facility Parallel Generators
- Orange County Master Pump Stations VFD Replacement (x18)
- Altamonte Springs WRF 12.47KV Service
- PGA WWTP 1250KW Generator -Seacoast Utility Authority
- Lake Jesup Water Augmentation Facility - City of Winter Springs
- Winn Dixie Generator Installation, 26 stores throughout Florida
- S.R. 417 Lake Jessop Toll Plaza - Seminole County FL

Other Related Experience:

- Class A CDL
- Pryor Learning – Supervisor Course
- Red Vector – Continuing Education Courses for EC License



Bret Fudge came to work at Chinchor Electric in 2005 starting in the field as an Electricians Apprentice. While in the field, Bret attended Florida Electrical Apprenticeship and Training in Sanford, Florida. Upon graduation he went on to receive his Journeyman License through Orange County in June, 2009. Since obtaining his Journeyman License, Bret worked his way to Project Manager with Chinchor Electric. In March of 2014 he passed his masters exam and he received an electrical contractor license and is now a secondary qualifier for Chinchor Electric, Inc. Mr. Fudge has an extensive level of experience working and overseeing many projects in the Water and Waste Water Industrial Construction, Heavy Generator Installations, Traffic signals, and Street Lighting.

Significant Projects Completed with Chinchor Electric, Inc.:

- Deltona North WTP Improvements
- Coal Waste Ash Storage Expansion for OUC-Stanton Energy Center, Orange County, FL.
- Palm Coast WTP #1
- Wekiva Reliability Improvements WWTP
- City of Ormond Beach WTP Improvements
- Toho Water Authority- Harmony WTP Phase 1- Sulfide Treatment
- Narcoossee Booster Pump Station
- South County Advanced Wastewater Plant Expansion 4.5 MGD to 10 MGD Ruskin, FL.
- FDOT Lighting Contract ID #T-5572 (I-4 Volusia and Seminole County)
- Alexander Ave Reclaimed Water Augmentation
- Volusia County Branch Jail and Correctional Facility Upgrades
- Numerous Lift Stations throughout the state of Florida
- City of Edgewater WWTP
- City of Cocoa Beach WRF
- City of Deltona WTP (x12 sites)
- Port St. John WWTP
- Jerry Sellers WWTP
- South Central WWTP (Brevard)



- Barefoot Bay WTP
- Mourning Dove WTP
- Pennbrooke WTP
- City of Casselberry WTP
- Palm Bay WTP
- Haselton WTP
- City of Melbourne WTP
- Orlando LS #5
- Brevard County Landfill Leachate Systems
- Volusia County Landfill Leachate Systems
- PGA WWTP 1250KW Generator, Seacoast Utility Authority
- Lake Jesup Water Augmentation Facility, City of Winter Springs
- St. Johns County Lift Stations Groups I & III
- City of Groveland WTP#5, Groveland, FL
- David Hanson WWTP, Bushnell, FL
- Winn Dixie Generator Installation, 26 stores throughout Florida
- Holly Hill WWTP, Holly Hill, FL
- S.R. 417 Lake Jesup Toll Plaza, Seminole County FL
- Rima Ridge Wells #54, 55 & 56, City of Ormond Beach, FL
- Ormond Beach WWTP Rehabilitation, Ormond Beach, FL
- City of Ocala Streetscape
- City of South Daytona Decorative Street Lighting
- Altamonte Spring WRF, Low Voltage Wiring Phase IV
- 434 Traffic Signal Upgrade
- Lancaster Traffic Signal Upgrade
- A1A Daytona Beach Traffic Signal Upgrade
- Continuing Service Agreement With US Foods
- Continuing Service Agreement with Volusia County Schools & Parks and Recreation

Other Related Experience:

- Class A CDL
- Maintenance of Traffic Certification
- Intermediate FDOT Work Zone Control Course
- Jessica Lunsford Security Clearance, Volusia County Schools
- First Aid Certification
- Level 1 Traffic Signal Tech
- Certified Rigger



- Fire Fighter/EMT



Chris Massalone came to work at Chinchor Electric in 2012 starting in the field as an Electrician's Apprentice. While in the field, Chris attended Florida Electrical Apprenticeship and Training in Sanford, Florida. Upon graduation he went on to receive his Journeyman License through Orange County in 2016. Chris worked as a field Superintendent since 2016 and in 2021 Chris was promoted to Project Manager. In his time with Chinchor Electric he has worked on many projects in the Water and Waste Water Industrial Construction, Heavy Generator Installations, Traffic signals, and Street Lighting.

Significant Projects Completed with Chinchor Electric, Inc.:

- Hillsborough County – S. County Advanced WWTP Expansion Ph 3 & 4
- City of Deltona – Alexander Ave Reclaimed Water Augmentation Facility
- Numerous lift stations throughout the Central Florida Area
- Lake Jesup Water Augmentation Facility, City of Winter Springs
- Palm Beach Gardens WWTP Generator Replacement
- City of Edgewater WWTP
- City of Frostproof Generator addition
- US 92 Daytona Beach Traffic Signal Upgrade
- Lee road Flyover Lighting
- Lake County Buildings interior lighting upgrade
- Grand Island Shores WTP upgrade
- City of Titusville Osprey WRP upgrades
- City of Melbourne Reverse osmosis WTP pump replacements
- Volusia County Landfill Leachate Systems
- City of Sanford WTP upgrade
- Lady Lake Town Public Works blowers replacement
- Palm Bay WTP upgrade
- City of Edgewater WTP VFD's
- City Of Debary WWTP
- City of Mims WWTP
- City of Deltona WRP
- Continuing Service Agreement with US Foods
- Continuing Service Agreement with Volusia County Schools & Parks and Recreation



Other Related Experience:

- Class A CDL
- Maintenance of Traffic Certification
- Digger Derrick & Boom Truck Certification



FORM 7.9 - LOCAL BUSINESS AFFIDAVIT OF ELIGIBILITY

City of Port Orange

*This declaration is executed under penalty of perjury of the laws to the United States and State of Florida***THIS AFFIDAVIT IS SUBMITTED IN REFERENCE TO THE FOLLOWING SOLICITATION:**RFSQ/RFP/ITN/BID/CONTRACT/PROJECT #(as applicable): ITB 22-07BUSINESS NAME: Chinchor Electric, Inc. CONTACT PERSON/TITLE: Don Hasco / Director of Operations MAILING ADDRESS: 1460 S Leavitt AveCITY-STATE-ZIP: Orange City, FL 32763 Length of Time at Address Provided: 4 years**Physical Presence of Business** ☒ **Headquarters and/or** ☒ **Principal Place of Business**And within Legal Boundaries: ☐ City of Port Orange ☒ Volusia County ☒ State of FloridaFEIN (Federal Employer Identification Number): 59-3044703BUSINESS STRUCTURE: ☒ Corporation ☐ LLC ☐ Partnership ☐ Sole Proprietorship☐ Other (Specify): _____PHONE NUMBER: 386-774-1020FAX: 386-774-7223EMAIL: dhasco@chinchorelectric.com****Please attach a valid business tax receipt, or other such documentation******ATTESTATION – I understand that:**

- In accordance with City of Port Orange City Code 2-275, local businesses shall have five (5) business days from bid/proposal opening to submit a best and final bid for evaluation. To qualify: A Port Orange business initial bid must be within (8%) of the lowest and best responsible bid from a non-Port Orange business; A Volusia County business initial bid must be within (5%) of the lowest and best responsible bid from a non-Volusia County business; A State of Florida business initial bid must be within (3%) of the lowest and best responsible bid from a non-State of Florida business.
- A local business must have its headquarters and/or principal place of business located within the legal boundaries of the City of Port Orange, Volusia County, or the State of Florida, as indicated herein, for at least twelve (12) months prior to the bid or proposal opening date and a valid business license, issued by the corresponding government agency. Post office boxes are not verifiable and shall not be used for the purpose of establishing said physical address. Bidders shall attach to this affidavit of eligibility with a bid or proposal, a copy of a valid business tax receipt or such other documentation, to the city's satisfaction, demonstrating the physical business presence of the firm within corresponding local limits.
- The preference does not apply to goods or services exempted by statute or prohibited by Federal law, State law, or other funding source

As an authorized representative of the firm, I certify that this firm complies fully with the above requirements.

Chinchor Electric, Inc.

Name of Business

By: _____

Printed Name: Timothy I. ChinchorTitle: PresidentSTATE OF FLCOUNTY OF Volusia

The foregoing instrument was acknowledged before me by means of X physical presence or _____ online notarization, this 10th day of MAY, 2022 by Timothy Chinchor as President of Chinchor Electric, Inc. a _____ He or she is X personally known or _____ produced _____ as identification.

 Notary Public, State of Florida
 Printed, typed or stamped name, commission and expiration:



Madison Lankford
 Notary Public
 State of Florida
 Comm# HH072136
 Expires 12/14/2024

This document must be completed and returned with your Submittal.



FORM 7.10 CITY OF PORT ORANGE CONTRACTOR E-VERIFY AFFIDAVIT

IN ACCORDANCE WITH SECTION 448.095, FLORIDA STATUTES

Project Name: Garnsey Water Treatment Plant Generator Installation

Solicitation Number: ITB 22-07

I, the undersigned, hereby certify that Chinchor Electric, Inc. [insert contractor company name] does not employ, contract with, or subcontract with an unauthorized alien, and is otherwise in full compliance with Section 448.095, Florida Statutes.

Further, I certify all employees hired on or after January 1, 2022 have had their work authorization status verified through the E-Verify system. I acknowledge that it is my responsibility to insure full compliance with Section 448.095, Florida Statutes. I am aware enrollment in the E-Verify system for employers can be done at www.e-verify.gov.

A true and correct copy of Chinchor Electric, Inc. [insert contractor company name] **proof of registration in the E-Verify system is attached to this Affidavit.**

By affixing my signature below, I hereby affirm that I am duly authorized to bind the company reference herein and I will comply with all applicable E-Verify requirements.

Timothy I. Chinchor, President

(Print or Type Name, Title)

(Signature of Affiant)

59-3044703

(Federal Employer ID Number – FEIN)

388872

(E-Verify Number)

STATE OF FLORIDA

COUNTY OF Volusia

The foregoing instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization, this 10th day of May, 20 22, by Timothy Chinchor as president of Chinchor Electric, Inc. on behalf of the company. He/she is personally known to me or has produced _____ (TYPE OF ID) as identification.



Madison Lankford
Notary Public
State of Florida
Comm# HH072136
Expires 12/14/2024

Notary Public, State of Florida at Large

Printed, typed or stamped name, commission and expiration of commission term

This document must be completed and returned with your Submittal

FORM 7.11 CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS
PRIMARY COVERED TRANSACTIONS
(TO BE COMPLETED BY PRIME CONTRACTOR)

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1) (b) of this certification;

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Chinchor Electric, Inc.

Organization Name

ITB 22-07 Garnsey Water Treatment Plant Generator Installation

Bid Number or Project Name

Timothy I. Chinchor, President

Name(s) and Title(s) of Authorized Representatives

Signature

May 10, 2022

Date

This document must be completed and returned with your Submittal

FORM 7.13 – LISTING OF SUBCONTRACTORS

The Bidder proposes that the following subcontractors are qualified to perform the referenced work and have successfully done so on recent projects similar in nature and size. All subcontractors whose work product accounts for 5% or more of the total contract value shall be listed. Upon approval of subcontractors listed, the successful Bidder shall not substitute subcontractors without approval from the City. Bidder shall attach additional sheets as necessary. **Please mark N/A for no subcontractors.**

Subcontractor No. 1

Name: Lawrence Lee Construction Services

Description of Work: General Contracting

Percent of Contract Price: 14%

Previous Experience Together: Yes/No Yes

Subcontractor No. 2

Name: JF Petroleum Group

Description of Work: Fuel tanks and fuel piping

Percent of Contract Price: 7%

Previous Experience Together: Yes/No Yes

Subcontractor No. 3

Name: _____

Description of Work: _____

Percent of Contract Price: _____

Previous Experience Together: Yes/No _____

Subcontractor No. 4

Name: _____

Description of Work: _____

Percent of Contract Price: _____

Previous Experience Together: Yes/No _____

Subcontractor No. 5

Name: _____

Description of Work: _____

Percent of Contract Price: _____

Previous Experience Together: Yes/No _____

This document must be completed and returned with your Submittal



(ATTACHMENT 1) SCHEDULE OF UNIT PRICING
BID FORM

CITY OF PORT ORANGE

ITB #22-07

GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION

Completed (Attachment 1) Schedule of Unit Pricing form **MUST** be included with Bid Submission

Instruction to save Attachment from DemandStar website:
Perform "File Save As" and save spreadsheet to your computer. Fill in pricing in highlighted cells, preferably electronically.

Bidders are required to complete all fields shaded in green.

(ATTACHMENT 1) SCHEDULE OF UNIT PRICING **MUST BE SIGNED**

NAME OF BUSINESS:	Chinchor Electric Inc			
CONTACT PERSON:	Don Hasco			
EMAIL ADDRESS:	dhasco@chinchorelectric.com			
AUTHORIZED SIGNATURE:				
ITEM #	DESCRIPTION	QTY	UNIT	TOTAL COST
1	Pre-Construction Video	1	LS	\$3,300.00
2	Mobilization and Demobilization	1	LS	\$300,000.00
3	Demolition	1	LS	\$115,000.00
4	Packaged Generator and ATS System	1	LS	\$1,082,200.00
5	Fuel Systems	1	LS	\$307,900.00
6	Electrical Switchgear	1	LS	\$486,570.00
7	Civil Site Work and Mechanical	1	LS	\$407,000.00
8	New Electrical Room	1	LS	\$519,060.00
9	Motor Control Centers	1	LS	\$110,000.00
10	HVAC	1	LS	\$20,000.00
11	Site Electrical	1	LS	\$906,300.00
12	Temporary Power	1	LS	\$30,000.00
13	Permit Allowance	1	LS	\$10,000.00
14	As-Built Plans	1	LS	\$10,000.00
15	Utility Relocation Allowance	1	LS	\$50,000.00
TOTAL BID PRICE (Items 1-15)				\$4,357,330.00

BID BOND

BID BOND

Bond No.: N/A

KNOW ALL MEN BY THESE PRESENTS that Chinchor Electric, Inc., as Contractor, duly authorized to conduct business in the State of Florida, whose principal place of business is located at 1460 S. Leavitt Avenue, Orange City, FL 32763, Tel.: 386-774-1020, (hereinafter called "PRINCIPAL"), and United Fire & Casualty Company, as SURETY, duly authorized to conduct business in the State of Florida, whose principal place of business is located at 118 Second Ave. SE, Cedar Rapids, IA 52401*, Tel.: 319-399-5700 (hereinafter called "SURETY"), are held and firmly bound unto the City of Port Orange, Florida, as CITY, a Florida municipal corporation, whose address is City of Port Orange, 1000 City Center Circle, Port Orange, Florida 32129, Tel.: (386) 506-5501, (hereinafter called "OBLIGEE" or "CITY"), in the penal sum of Five Percent of Amount Bid----- dollars and (-----)/100 (\$-----5%-----), lawful money of the United States, for the payment of which sum shall and truly be made, whereof PRINCIPAL and SURETY bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that, whereas the Principal has submitted the accompanying bid, dated May 10, 2022, for:

Project Name / Bid No.: ITB 22-07, GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION

Project Address: Port Orange, FL

Legal Description: ITB 22-07, GARNSEY WATER TREATMENT PLANT GENERATOR INSTALLATION

Description of Work: Removal, relocation of fuel tank, new generator installation and construction of new electrical building

NOW, THEREFORE,

A. If the principal shall not withdraw said bid within one hundred twenty (120) days after date of opening of the same, and shall within ten (10) days after the prescribed forms are presented to it for signature, enter into a written contract with the City in accordance with the bid as accepted, and give bonds with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such contract, then the above obligations shall be void and of no effect, otherwise to remain in full force and virtue.

B. In the event of the withdrawal of said bid within the period specified, or the failure to enter into such contract and give such bonds within the time specified, if the principal shall pay the City the difference between the amount specified in said bid and the amount for which the City may procure the required work and supplies, if the latter amount be in excess of the former, then the above obligations shall be void and of no effect, otherwise to remain in full force and virtue.

*PO Box 73909, Cedar Rapids, IA 52407-3909

IN WITNESS WHEREOF, the above parties have executed this instrument under their several seals, this 10th day of May, A.D. 2022, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Note: If the firm is a sole ownership or partnership including limited liability company, two (2) witnesses are required to attest the signature. If the firm is a corporation, then the corporate secretary shall attest and affix the corporate seal (Attach power of attorney to original bid bond and financial statement of Surety Company).

PRINCIPAL: Chinchor Electric, Inc.

Signature

Corporate Officer & Title

ATTEST:

Kathryn Quintana

Signature

Kathryn Quintana
Corporate Secretary (Affix Corporate Seal)

WITNESSES:

SURETY: United Fire & Casualty Company

Gloria A. Richards

Attorney-in-Fact (signature)

Gloria A. Richards*, Attorney-In-Fact

Name & Title

Gloria A. Richards*, FL Licensed Resident Agent

Name of Local Resident Agent

PO Box 73909, Cedar Rapids, IA 52407-3909

City, State, Zip

319-399-5700

Telephone:

A.M. Best No.: 000928 NAIC No.: 13021

*Inquiries: 407-786-7770

STATE OF FLORIDA

COUNTY OF ORANGE

ATTEST:

Susan L. Reich

Signature

Susan L. Reich

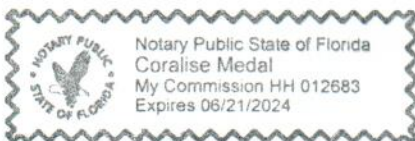
Corporate Secretary (Affix Corporate Seal)

Before me this day personally appeared Gloria A. Richards (affiant), who, being duly sworn, deposes and says that he/she is the Attorney-in-Fact for the United Fire & Casualty Company (corporate surety) and that this person has been authorized by United Fire & Casualty Company (corporate surety) to execute the foregoing bond on behalf of the Contractor named therein in favor of the City of Port Orange, Florida.

Signature of Affiant

Gloria A. Richards

Sworn to / Affirmed and subscribed before me this 10th day of May, 2022, by Gloria A. Richards who is personally known to me or who produced N/A as identification.



NOTARY PUBLIC - STATE OF FLORIDA

Type or print name: Coralise Medal

Commission No.: HH 012683

Commission Expires: 06/21/2024

(Seal)

END OF BID BOND

This document must be completed and returned with your Submittal

UNITED FIRE AND CASUALTY COMPANY

P.O Box 73909, Cedar Rapids, IA. 52407

Statement of Financial Condition
As Of December 31, 2021

ASSETS

Bonds	\$746,814,976
Stocks	516,513,849
Real Estate and Equipment	44,213,351
Cash in Banks and Offices and Short Term Investments	209,971,868
Premiums in Course of Collection (less than 90 days old)	301,000,201
Reinsurance and Other Accounts Receivable	39,248,115
Deposits and Other Non Invested Assets	135,994,633
Total Admitted Assets	<u>\$1,993,756,993</u>

LIABILITIES, SURPLUS AND OTHER FUNDS

Reserve for Unearned Premiums	\$263,748,093
Reserve for Claims and Claim Expense	940,326,439
Reserve for Taxes and Expense	35,271,673
Total Liabilities	<u>\$1,239,346,205</u>
Capital Stock and Paid In Capital	\$213,779,588
Surplus Notes	50,000,000
Surplus	490,631,200
Surplus as regards Stockholders	754,410,788
Total	<u>\$1,993,756,993</u>

Securities carried at \$7,494,138 in the above statement are deposited as required by law.

Securities carried on the basis prescribed by the National Association of Insurance Commissioners. On the basis of December 31, 2021 market quotations for all bonds and stocks owned, the Company's total admitted assets would be \$1,993,756,993 and surplus as regards shareholders \$754,410,88.

I, Janice A. Martin, Treasurer of United Fire and Casualty Company, do hereby certify that the foregoing statement is a correct exhibit of the assets and liabilities of the said Company on the 31st day of December, 2021


Treasurer

State of Iowa
City of Cedar Rapids } SS:

Subscribed and sworn to, before me, a Notary Public of the State of Iowa in the City of Cedar Rapids, this
16th day of March, 2022


Notary Public





UNITED FIRE & CASUALTY COMPANY, CEDAR RAPIDS, IA
 UNITED FIRE & INDEMNITY COMPANY, WEBSTER, TX
 FINANCIAL PACIFIC INSURANCE COMPANY, LOS ANGELES, CA
 CERTIFIED COPY OF POWER OF ATTORNEY
 (original on file at Home Office of Company – See Certification)

Inquiries: Surety Department
 118 Second Ave SE
 Cedar Rapids, IA 52401

KNOW ALL PERSONS BY THESE PRESENTS, That United Fire & Casualty Company, a corporation duly organized and existing under the laws of the State of Iowa; United Fire & Indemnity Company, a corporation duly organized and existing under the laws of the State of Texas; and Financial Pacific Insurance Company, a corporation duly organized and existing under the laws of the State of California (herein collectively called the Companies), and having their corporate headquarters in Cedar Rapids, State of Iowa, does make, constitute and appoint

KIM E. NIV, JEFFREY W. REICH, SUSAN L. REICH, TERESA L. DURHAM, GLORIA A. RICHARDS, LISA A. ROSELAND, SONJA AMANDA FLOREE HARRIS, CHERYL A. FOLEY, ROBERT P. O'LINN, SARAH K. O'LINN, EMILY J. GOLECKI, EACH INDIVIDUALLY

their true and lawful Attorney(s)-in-Fact with power and authority hereby conferred to sign, seal and execute in its behalf all lawful bonds, undertakings and other obligatory instruments of similar nature provided that no single obligation shall exceed \$100,000,000.00 and to bind the Companies thereby as fully and to the same extent as if such instruments were signed by the duly authorized officers of the Companies and all of the acts of said Attorney, pursuant to the authority hereby given and hereby ratified and confirmed.

The Authority hereby granted shall expire the 13th day of July, 2023 unless sooner revoked by United Fire & Casualty Company, United Fire & Indemnity Company, and Financial Pacific Insurance Company.

This Power of Attorney is made and executed pursuant to and by authority of the following bylaw duly adopted by the Boards of Directors of United Fire & Casualty Company, United Fire & Indemnity Company, and Financial Pacific Insurance Company.

"Article VI – Surety Bonds and Undertakings"

Section 2, Appointment of Attorney-in-Fact. "The President or any Vice President, or any other officer of the Companies may, from time to time, appoint by written certificates attorneys-in-fact to act in behalf of the Companies in the execution of policies of insurance, bonds, undertakings and other obligatory instruments of like nature. The signature of any officer authorized hereby, and the Corporate seal, may be affixed by facsimile to any power of attorney or special power of attorney or certification of either authorized hereby; such signature and seal, when so used, being adopted by the Companies as the original signature of such officer and the original seal of the Companies, to be valid and binding upon the Companies with the same force and effect as though manually affixed. Such attorneys-in-fact, subject to the limitations set forth in their respective certificates of authority shall have full power to bind the Companies by their signature and execution of any such instruments and to attach the seal of the Companies thereto. The President or any Vice President, the Board of Directors or any other officer of the Companies may at any time revoke all power and authority previously given to any attorney-in-fact.

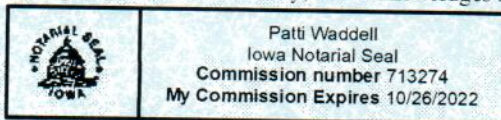
IN WITNESS WHEREOF, the COMPANIES have each caused these presents to be signed by its vice president and its corporate seal to be hereto affixed this 13th day of July, 2021

UNITED FIRE & CASUALTY COMPANY
 UNITED FIRE & INDEMNITY COMPANY
 FINANCIAL PACIFIC INSURANCE COMPANY

By: *Dennis J. Richmann*
 Vice President

State of Iowa, County of Linn, ss:

On 13th day of July, 2021, before me personally came Dennis J. Richmann to me known, who being by me duly sworn, did depose and say; that he resides in Cedar Rapids, State of Iowa; that he is a Vice President of United Fire & Casualty Company, a Vice President of United Fire & Indemnity Company, and a Vice President of Financial Pacific Insurance Company the corporations described in and which executed the above instrument; that he knows the seal of said corporations; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporations and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporations.



Patti Waddell
 Notary Public
 My commission expires: 10/26/2022

I, Mary A. Bertsch, Assistant Secretary of United Fire & Casualty Company and Assistant Secretary of United Fire & Indemnity Company, and Assistant Secretary of Financial Pacific Insurance Company, do hereby certify that I have compared the foregoing copy of the Power of Attorney and affidavit, and the copy of the Section of the bylaws and resolutions of said Corporations as set forth in said Power of Attorney, with the ORIGINALS ON FILE IN THE HOME OFFICE OF SAID CORPORATIONS, and that the same are correct transcripts thereof, and of the whole of the said originals, and that the said Power of Attorney has not been revoked and is now in full force and effect.

In testimony whereof I have hereunto subscribed my name and affixed the corporate seal of the said Corporations this 10th day of may, 2022.



By: *Mary A Bertsch*
 Assistant Secretary,
 UF&C & UF&I & FPIC



Florida Department of Transportation

RON DESANTIS
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

KEVIN J. THIBAUT, P.E.
SECRETARY

January 28, 2022

CHINCHOR ELECTRIC INC.
1460 S. LEAVITT AVE.
ORANGE CITY, FLORIDA 32763

RE: CERTIFICATE OF QUALIFICATION

The Department of Transportation has qualified your company for the type of work indicated below.

FDOT APPROVED WORK CLASSES:

COMPUTERIZED TRAFFIC CONTROL, ELECTRICAL WORK, INTELLIGENT TRANSPORTATION SYSTEMS, ROADWAY SIGNING, SIDEWALK, TRAFFIC SIGNAL, Drilled Shafts.

Unless notified otherwise, this Certificate of Qualification will expire **3/30/2023**.

In accordance with Section 337.14(4), Florida Statutes, changes to Ability Factor or Maximum Capacity Rating will not take effect until after the expiration of the current certificate of prequalification (if applicable).

In accordance with Section 337.14(1), Florida Statutes, an application for qualification must be filed within (4) months of the ending date of the applicant's audited annual financial statements.

If the company's maximum capacity has been revised, it may be accessed by logging into the Contractor Prequalification Application System via the following link:

[HTTPS://fdotwp1.dot.state.fl.us/ContractorPreQualification](https://fdotwp1.dot.state.fl.us/ContractorPreQualification)

Once logged in, select "View" for the most recently approved application, and then click the "Manage" and "Application Summary" tabs.

The company may apply for a Revised Certificate of Qualification at any time prior to the expiration date of this certificate according to Section 14-22.0041(3), Florida Administrative Code (F.A.C.), by accessing the most recently approved application as shown above and choosing "Update" instead of "View." If certification in additional classes of work is desired, documentation is needed to show that the company has performed such work.

All prequalified contractors are required by Section 14-22.006(3), F.A.C., to certify their work underway monthly in order to adjust maximum bidding capacity to available bidding capacity. You can find the link to this report at the website shown above.

Sincerely,

for Alan Autry, Manager
Contracts Administration Office

AA:cg



City of Orange City

205 E. Graves Ave.
Orange City FL, 32763
386-775-5403

BUSINESS TAX RECEIPT

Business Name: Chinchor Electric
DBA: Chinchor Electric
Business Location: 1440-1460 S Leavitt AVE
Orange City, FL 32763

Owner:

License Number: CONS-012742-2021
Issued Date: 9/30/2021
Expiration Date: 9/30/2022

Business Type(s): 238990 All Other Specialty Trade
Contractors

Mailing Address: 1460 S Leavitt AVE
Enterprise, FL 32763

License Type: Construction
Classification: Contractor - Sub
Fees Paid: \$321.25

Signature

TO BE POSTED IN A CONSPICUOUS PLACE



[Department of State](#) / [Division of Corporations](#) / [Search Records](#) / [Search by Entity Name](#) /

Detail by Entity Name

Florida Profit Corporation
CHINCHOR ELECTRIC, INC.

Filing Information

Document Number	S19759
FEI/EIN Number	59-3044703
Date Filed	12/17/1990
Effective Date	01/01/1991
State	FL
Status	ACTIVE
Last Event	AMENDMENT
Event Date Filed	09/21/2021
Event Effective Date	NONE

Principal Address

1460 South Leavitt Ave
ORANGE CITY, FL 32763

Changed: 10/01/2021

Mailing Address

1460 South Leavitt Ave
ORANGE CITY, FL 32763

Changed: 10/01/2021

Registered Agent Name & Address

CHINCHOR, TIMOTHY Z.
1460 SOUTH LEAVITT AVENUE
ORANGE CITY, FL 32763

Address Changed: 11/03/2021

Officer/Director Detail

Name & Address

Title VP

SOLTIS, JEFF C
1460 SOUTH LEAVITT AVENUE
ORANGE CITY, FL 32763

Title P

CHINCHOR, TIMOTHY I
1460 SOUTH LEAVITT AVENUE
ORANGE CITY, FL 32763

Title CEO

CHINCHOR, TIMOTHY Z
1460 SOUTH LEAVITT AVENUE
ORANGE CITY, FL 32763

Title D

HASCO, DONALD J
1460 SOUTH LEAVITT AVE
ORANGE CITY, FL 32763

Title C

CHINCHOR, TIMOTHY Z
1460 SOUTH LEAVITT AVENUE
ORANGE CITY, FL 32763

Title D

FUDGE, BRETON R
1460 SOUTH LEAVITT AVE
ORANGE CITY, FL 32763

Title D

CHINCHOR, DANIEL S.

1460 SOUTH LEAVITT AVE
ORANGE CITY, FL 32763

Title CFO

SURMIAK, ZACHARY D
1460 SOUTH LEAVITT AVE
ORANGE CITY, FL 32763

Title V

ANSELMO, MARIAH
1460 South Leavitt Ave
ORANGE CITY, FL 32763

Title S

QUINTANA, KATHRYN M
1460 SOUTH LEAVITT AVE
ORANGE CITY, FL 32763

Title D

SILVA, ROBERT B.
1460 SOUTH LEAVITT AVE
ORANGE CITY, FL 32763

Annual Reports

Report Year	Filed Date
--------------------	-------------------

2020	02/19/2020
2021	02/09/2021
2022	03/09/2022

Document Images

03/09/2022 -- ANNUAL REPORT	View image in PDF format
11/03/2021 -- Reg. Agent Change	View image in PDF format
09/21/2021 -- Amendment	View image in PDF format
04/15/2021 -- Amendment	View image in PDF format
02/09/2021 -- ANNUAL REPORT	View image in PDF format
01/14/2021 -- Amendment	View image in PDF format
03/25/2020 -- Amendment	View image in PDF format
02/19/2020 -- ANNUAL REPORT	View image in PDF format
01/15/2019 -- ANNUAL REPORT	View image in PDF format
05/25/2018 -- Amendment	View image in PDF format
01/18/2018 -- ANNUAL REPORT	View image in PDF format
01/16/2017 -- ANNUAL REPORT	View image in PDF format
01/28/2016 -- ANNUAL REPORT	View image in PDF format
03/10/2015 -- Amendment	View image in PDF format
02/27/2015 -- ANNUAL REPORT	View image in PDF format
01/14/2014 -- ANNUAL REPORT	View image in PDF format
03/19/2013 -- ANNUAL REPORT	View image in PDF format
04/24/2012 -- Amendment	View image in PDF format
01/26/2012 -- ANNUAL REPORT	View image in PDF format
02/15/2011 -- ANNUAL REPORT	View image in PDF format
02/19/2010 -- ANNUAL REPORT	View image in PDF format

<u>03/24/2009 -- ANNUAL REPORT</u>	View image in PDF format
<u>01/14/2008 -- ANNUAL REPORT</u>	View image in PDF format
<u>01/10/2007 -- ANNUAL REPORT</u>	View image in PDF format
<u>04/27/2006 -- ANNUAL REPORT</u>	View image in PDF format
<u>03/01/2005 -- ANNUAL REPORT</u>	View image in PDF format
<u>04/20/2004 -- ANNUAL REPORT</u>	View image in PDF format
<u>01/13/2003 -- ANNUAL REPORT</u>	View image in PDF format
<u>04/07/2002 -- ANNUAL REPORT</u>	View image in PDF format
<u>03/29/2001 -- ANNUAL REPORT</u>	View image in PDF format
<u>03/01/2000 -- ANNUAL REPORT</u>	View image in PDF format
<u>02/19/1999 -- ANNUAL REPORT</u>	View image in PDF format
<u>05/06/1998 -- ANNUAL REPORT</u>	View image in PDF format
<u>05/07/1997 -- ANNUAL REPORT</u>	View image in PDF format
<u>08/05/1996 -- ANNUAL REPORT</u>	View image in PDF format
<u>04/28/1995 -- ANNUAL REPORT</u>	View image in PDF format



**STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION**

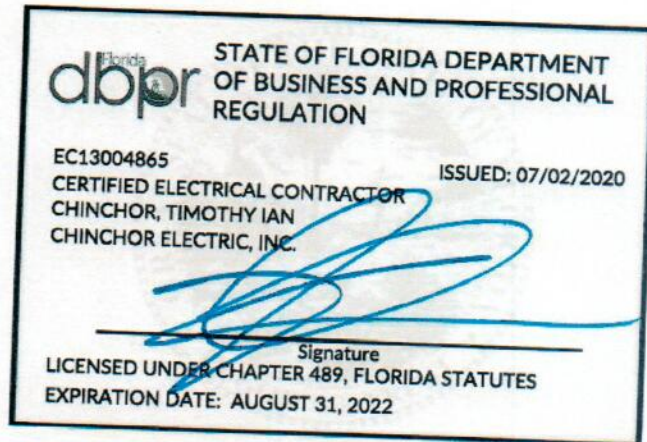
ELECTRICAL CONTRACTORS LICENSING BOARD
2601 BLAIR STONE ROAD
TALLAHASSEE FL 32399-0783

(850) 487-1395

Congratulations! With this license you become one of the nearly one million Floridians licensed by the Department of Business and Professional Regulation. Our professionals and businesses range from architects to yacht brokers, from boxers to barbeque restaurants, and they keep Florida's economy strong.

Every day we work to improve the way we do business in order to serve you better. For information about our services, please log onto www.myfloridalicense.com. There you can find more information about our divisions and the regulations that impact you, subscribe to department newsletters and learn more about the Department's initiatives.

Our mission at the Department is: License Efficiently, Regulate Fairly. We constantly strive to serve you better so that you can serve your customers. Thank you for doing business in Florida, and congratulations on your new license!



Ron DeSantis, Governor

Halsey Beshears, Secretary

**STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
ELECTRICAL CONTRACTORS LICENSING BOARD**

LICENSE NUMBER: EC13004865

EXPIRATION DATE: AUGUST 31, 2022

THE ELECTRICAL CONTRACTOR HEREIN IS CERTIFIED UNDER THE PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

CHINCHOR, TIMOTHY IAN
CHINCHOR ELECTRIC, INC.
1460 S LEAVITT AVE
ORANGE CITY FL 32763



ISSUED: 07/02/2020

Always verify licenses online at MyFloridaLicense.com

Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.



Ron DeSantis, Governor

Halsey Beshears, Secretary



STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

ELECTRICAL CONTRACTORS LICENSING BOARD

THE ELECTRICAL CONTRACTOR HEREIN IS CERTIFIED UNDER THE
PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

CHINCHOR, TIMOTHY IAN

CHINCHOR ELECTRIC, INC.
1460 S LEAVITT AVE
ORANGE CITY FL 32763

LICENSE NUMBER: EC13004865

EXPIRATION DATE: AUGUST 31, 2022

Always verify licenses online at MyFloridaLicense.com



Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.

2021 / 2022

Volusia County Business Tax Receipt

Issued pursuant to F.S. 205 and Volusia County Code of Ordinances Chapter 114-1 by:
Volusia County Treasury and Billing - 125 W New York Ave, Room 120, Deland, FL 32720 - (386) 943-7085



Account #: 200107120014

Expires: September 30, 2022

Business Location: 1440 S LEAVITT AVE

Business Name: CHINCHOR ELECTRIC INC

Owner Name: TIMOTHY Z CHINCHOR

Mailing Address: 1460 S LEAVITT AVE
ORANGE CITY, FL 32763

BUSINESS TYPE	REQ DOC #	CODE	COUNT	TAX
Electrical Contractor	EC0002457 & EC130048	301E	85	\$225.00

- This receipt indicates payment of a tax, which is levied for the privilege of doing the type(s) of business listed above within Volusia County. This receipt is non-regulatory in nature and is not meant to be a certification of the holder's ability to perform the service for which he is registered. This receipt also does not indicate that the business is legal or that it is in compliance with State or local laws and regulations.
- The business must meet all County and/or Municipality planning and zoning requirements or this Business Tax Receipt may be revoked and all taxes paid would be forfeited.
- The information contained on this Business Tax Receipt must be kept up to date. Contact the Volusia County Treasury and Billing for instructions on making changes to your account.

**THIS PORTION OF THE BUSINESS TAX RECEIPT MUST BE
POSTED CONSPICUOUSLY IN YOUR PLACE OF BUSINESS**

Volusia County Business Tax Receipt

Treasury and Billing - 125 W New York Ave, Room 120, Deland, FL 32720 - (386) 943-7085

DATE PAID: 07/29/2021
RECEIPT #: 443832
TOTAL TAX: \$225.00
PENALTY: \$0.00
TOTAL PAID: \$225.00



Business Name: CHINCHOR ELECTRIC INC
Owner Name: TIMOTHY Z CHINCHOR
Mailing Address: 1460 S LEAVITT AVE
ORANGE CITY, FL 32763

Account #: 200107120014

Expires: September 30, 2022

Business Location: 1440 S LEAVITT AVE

PLEASE DETATCH THIS PORTION OF THE BUSINESS TAX RECEIPT FOR YOUR RECORDS.



FLORIDA SURETY BONDS, INC.

620 N Wymore Road Suite 200
Maitland, FL 32751
(407) 786-7770 ♦ Fax (407) 786-7766

Toll Free (888) 786-BOND
www.FloridaSuretyBonds.com
Susan@FloridaSuretyBonds.com

January 21, 2022

RE: Chinchor Electric, Inc.

To Whom It May Concern,

We are pleased to be the surety agents for Chinchor Electric, Inc. and have served them since 2004. Bonds are currently written through United Fire & Casualty Company which is A.M. Best Rated "A, X" and has a U.S. Treasury Listing of \$57,550,000.

We usually anticipate no difficulties in providing surety bonds for Chinchor Electric, Inc. in the \$35,000,000 single, \$100,000,000 bidding aggregate range. This letter is not a commitment to provide any bonds unless all underwriting requirements including contract, bond form and financing review are met prior to issuing any bonds. Neither our agency, nor the surety is liable for any damages relating to this letter or project.

Should you have any questions, please do not hesitate to contact us.

Sincerely,

Susan Reich
Vice President

CHINCHOR ELECTRIC INC.

INDUSTRIAL

COMMERCIAL

SIGNALIZATION

CEI Claims and Litigation History

Auto Liability:

Claim Number: 2145403

Claimant: Andre Small / Alili Contreras

Date of Loss: 05/17/2018

Loss Description: IV rear-ended OV1 which caused them to get pushed into OV2

Claim status: Settlement reached in the amount of \$6,000 for Alili Contreras. No demand received for Andre Small, current reserves set at \$15,000.

General Liability:

Claim Number: 2185051

Claimant: Sebastian Duque

Date of Loss: 12/26/17

Loss Description: Estate of Sebastian Duque alleges Chinchor failed to operate crosswalk machine leading to a malfunctioning cross walk light which resulted in Sebastian Duque being struck by a car and sustaining fatal injuries.

Claim Status: Initial indemnity reserves set at \$50,000 and \$25,000 in expense. Carrier has assigned council in anticipation of litigation. Currently working to obtain logs and homicide report to determine liability.

STATE LICENSE EC 0002457 EC 13004865

1460 SOUTH LEAVITT AVE • ORANGE CITY, FL 32763 • 386-774-1020 • FAX 386-774-7223



CITY COUNCIL AGENDA ITEM

COUNCIL MEETING DATE 8/2/2022

SUBJECT: (G21b) Resolution No. 22-22 - Reimbursement Resolution for ITB #22-07
Garnsey Water Treatment Plant Generator Installation

DEPARTMENT: Finance

GOAL: 5 - Fiscal Sustainability

RECOMMENDED MOTION: Move to approve Resolution No. 22-22.

SUMMARY: On this agenda, Council is asked to award ITB #22-07 to Chinchor Electric, Inc. for equipment replacement at the Garnsey Water Treatment Plant for an amount not to exceed \$4,425,330.

The City intends to finance the costs of the Garnsey Water Treatment Plant Generator Project with the proceeds of bonds, notes or other obligations to be issued in the future in one or more series, the interest on which is intended to be excludable from gross income for federal income tax purposes (the "Tax Exempt Financing").

The City expects to initially pay certain costs of the Garnsey Water Treatment Plant Generator Project with funds other than proceeds of the Tax Exempt Financing (the "Advanced Funds") and to reimburse itself for such expenditures with proceeds from the Tax Exempt Financing when proceeds have been received.

PRESENTER: John McKinney

ATTACHMENTS:

1.	Reso No 22-22 - Reimbursement Resolution - Garnsey Generator	Reso No 22-22 - Reimbursement Resolution - Garnsey Generator.pdf
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Robin Fenwick
John McKinney
Matthew Jones
Wayne Clark
Robin Fenwick

Created/Initiated - 7/18/2022
Approved - 7/18/2022
Approved - 7/21/2022
Approved - 7/22/2022
Final Approval - 7/22/2022

RESOLUTION NO. 22-22

A RESOLUTION EXPRESSING THE INTENT OF THE CITY OF PORT ORANGE, FLORIDA TO ISSUE TAX-EXEMPT DEBT IN AN AGGREGATE PRINCIPAL AMOUNT NOT EXCEEDING \$4,425,330 TO REIMBURSE THE CITY FOR AMOUNTS ADVANCED BY THE CITY TO PAY THE COSTS OF THE GARNSEY WATER TREATMENT PLANT GENERATOR PROJECT; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Port Orange, Florida (the “City”) has received bids for the removal and relocation of an existing fuel tank, acquisition and installation of an electrical generator and construction of the related building as further described in City ITB 22-07 (the “Garnsey Water Treatment Plant Generator Project”);

WHEREAS, the City intends to finance the costs of such Garnsey Water Treatment Plant Generator Project with the proceeds of bonds, notes or other obligations to be issued in the future in one or more series the interest on which is intended to be excludable from gross income for federal income tax purposes (the “Tax Exempt Financing”);

WHEREAS, the City expects to initially pay certain costs of the Garnsey Water Treatment Plant Generator Project with funds other than proceeds of the Tax Exempt Financing (the “Advanced Funds”) and to reimburse itself for such expenditures with proceeds from the Tax Exempt Financing; and

WHEREAS, the City desires to set forth such intent in this Resolution for the purpose of compliance with United States Treasury Regulation Section 1.150-(2)(e).

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF PORT ORANGE, FLORIDA, THAT:

SECTION 1. AUTHORITY. This Resolution is adopted pursuant to Chapter 166, Part II, Florida Statutes, and other applicable provisions of law (collectively, the “Act”).

SECTION 2. FINDINGS. The City Council hereby finds, determines and declares as follows:

A. The City is authorized under law, including, without limitation, the Act, to issue the Tax Exempt Financing for the valid public purpose of paying the costs of the Garnsey Water Treatment Plant Generator Project.

B. It is necessary, desirable, convenient and in the interest of the City that the Garnsey Water Treatment Plant Generator Project be designed, permitted, acquired, installed, constructed and financed as contemplated in this Resolution.

C. The City intends to finance certain of the costs of the acquisition, construction and installation of the Garnsey Water Treatment Plant Generator Project with the proceeds of its Tax Exempt Financing to be issued in the future.

D. The City expects to pay certain costs of the Garnsey Water Treatment Plant Generator Project with Advanced Funds before the issuance of the Tax Exempt Financing.

SECTION 3. EXPRESSION OF INTENT. The City reasonably expects to use the proceeds of the Tax Exempt Financing to reimburse itself for all expenditures described herein made with the Advanced Funds. This Resolution is a declaration of the official intent of the City in that regard, within the contemplation of Section 1.150-(2)(e) of the Income Tax Regulations promulgated by the United States Department of the Treasury.

SECTION 4. MAXIMUM AMOUNT OF REIMBURSEMENT DEBT. The maximum principal amount of the Tax Exempt Financing reasonably expected to be issued to reimburse the City for the cost of the Garnsey Water Treatment Plant Generator Project is \$4,425,330.

SECTION 5. FURTHER ACTION. The officers and employees of the City are hereby authorized to do all acts and things required of them by this Resolution for the full, punctual and complete performance of all the terms, covenants and agreements contained herein or necessary or convenient to the issuance of the Tax Exempt Financing as provided herein.

SECTION 6. EFFECTIVE DATE. This Resolution shall take effect immediately upon its adoption.

DULY PASSED AND ADOPTED at a regular meeting this ____ day of August, 2022.

CITY OF PORT ORANGE, FLORIDA

Donald O. Burnette, Mayor

ATTEST:

Robin L. Fenwick, MMC, City Clerk

APPROVED AS TO FORM AND
CORRECTNESS:

By: _____
City Attorney



CITY COUNCIL AGENDA ITEM

COUNCIL MEETING DATE 8/2/2022

SUBJECT: (G22) Setting Maximum Operating Millage Rate for Fiscal Year 2022-23

DEPARTMENT: Finance

GOAL: 5 - Fiscal Sustainability

RECOMMENDED MOTION: Move to approve a maximum millage rate for Fiscal Year 2022-23 and set the public hearing dates to be held on Wednesday, September 7, 2022 and Wednesday, September 21, 2022 beginning at 5:30 p.m.

SUMMARY: This is a request for the City Council to establish the tentative maximum fiscal year FY 2022-23 millage rate and schedule the public hearings for the FY 2022-23 Proposed Budget. The maximum millage and budget hearing dates are required public notifications under the Florida Truth in Millage (TRIM) statutes.

The property appraiser will use the maximum millage rate voted on during this meeting in the Notice of Proposed Property Taxes and mail it to all property owners in August.

The City Council may reduce the tentative millage rate below the maximum millage rate; however, the City Council cannot increase the tentative millage rate above the maximum millage rate without another public notification to all City property owners. For practical purposes, the rate approved at this meeting will establish the maximum property tax millage rate for the next fiscal year.

The current operating millage rate is \$4.9072 per \$1,000 assessed taxable value; the current year's total taxable value for operating purposes is \$4,513,302,821 as certified by the Volusia County Property Appraiser. The current year's rolled-back millage rate is \$4.4557 per \$1,000 assessed value. The current millage rate of \$4.9072 per \$1,000 would be an increase of 10.13% above the roll-back millage rate.

PRESENTER: John McKinney

ATTACHMENTS:

1.	Max millage up to below 5.1000	Max millage up to below 5.1000.pdf
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John McKinney	Created/Initiated - 7/11/2022
John McKinney	Approved - 7/18/2022
Matthew Jones	Approved - 7/21/2022
Wayne Clark	Approved - 7/22/2022
Robin Fenwick	Final Approval - 7/22/2022

FY23 Millage Scenarios

Millage Change	Millage Rate	% Over Roll Back	Tax Amount	Budget @ 95%	Additional Revenue over Rollback	\$200,000 Taxable Value less exemptions @ 95%	Increase over Rollback	Monthly Increase
0.0250	5.1000	14.46%	23,017,844	21,866,952	2,762,525	726.75	91.81	7.65
0.0250	5.0750	13.90%	22,905,012	21,759,761	2,655,334	723.19	88.25	7.35
0.0250	5.0500	13.34%	22,792,179	21,652,570	2,548,143	719.63	84.69	7.06
0.0250	5.0250	12.78%	22,679,347	21,545,379	2,440,952	716.06	81.13	6.76
0.0250	5.0000	12.22%	22,566,514	21,438,188	2,333,761	712.50	77.56	6.46
0.0250	4.9750	11.65%	22,453,682	21,330,997	2,226,570	708.94	74.00	6.17
0.0250	4.9500	11.09%	22,340,849	21,223,807	2,119,379	705.38	70.44	5.87
0.0050	4.9250	10.53%	22,228,016	21,116,616	2,012,188	701.81	66.88	5.57
0.0100	4.9200	10.42%	22,205,450	21,095,177	1,990,750	701.10	66.16	5.51
0.0028	4.9100	10.20%	22,160,317	21,052,301	1,947,874	699.68	64.74	5.39
0.0072	4.9072	10.13%	22,147,680	21,040,296	1,935,868	699.28	64.34	5.36
0.0390	4.9000	9.97%	22,115,184	21,009,425	1,904,997	698.25	63.31	5.28
0.0140	4.8750	9.41%	22,002,351	20,902,234	1,797,806	694.69	59.75	4.98
0.0110	4.8610	9.10%	21,939,165	20,842,207	1,737,780	692.69	57.76	4.81
0.0250	4.8500	8.85%	21,889,519	20,795,043	1,690,616	691.13	56.19	4.68
0.0250	4.8250	8.29%	21,776,686	20,687,852	1,583,425	687.56	52.63	4.39
0.0250	4.8000	7.73%	21,663,854	20,580,661	1,476,234	684.00	49.06	4.09
0.0250	4.7750	7.17%	21,551,021	20,473,470	1,369,043	680.44	45.50	3.79
0.0250	4.7500	6.61%	21,438,188	20,366,279	1,261,852	676.88	41.94	3.49
0.0250	4.7250	6.04%	21,325,356	20,259,088	1,154,661	673.31	38.38	3.20
0.0250	4.7000	5.48%	21,212,523	20,151,897	1,047,470	669.75	34.81	2.90
0.0250	4.6750	4.92%	21,099,691	20,044,706	940,279	666.19	31.25	2.60
0.0500	4.6500	4.36%	20,986,858	19,937,515	833,088	662.63	27.69	2.31
0.1443	4.6000	3.24%	20,761,193	19,723,133	618,706	655.50	20.56	1.71
	4.4557	Rollback	20,109,923	19,104,427	-	634.94		0.00

Workshop Millage

Current Millage

Rollback Millage