

# Work Order Signature Document

**NJPA EZIQC Contract No.: FL-SEA-GC04-041019-TCI**

☒

**New Work Order**

☐

**Modify an Existing Work Order**

Work Order Number.: 072736.00

Work Order Date: 10/21/2019

Work Order Title: North Shore Youth Center New Generator

Owner Name: City of Miami Beach

Contractor Name: Team Contracting, Inc.

Contact: Olga Sanchez

Contact: Daniel Gell

Phone: 305.673.7000 x 2567

Phone: 305 207.9799

## Work to be Performed

Work to be performed as per the Final Detailed Scope of Work Attached and as per the terms and conditions of NJPA EZIQC Contract No FL-SEA-GC04-041019-TCI.

### Brief Work Order Description:

The Scope of this project consists of the installation of a new Kohler 500 KW Standby Generator as well as an Automatic Transfer Switch to provide power for the entire facility. The work also includes the installation of a new structural support for the Generator. All work to be in accordance with specifications and construction documents approved by the Building Department.

### **Time of Performance**

Estimated Start Date:

Estimated Completion Date:

### **Liquidated Damages**

Will apply:

☐

Will not apply:

☒

**Work Order Firm Fixed Price: \$502,117.49**

Owner Purchase Order Number:

## Approvals

Owner

Date

Contractor

Date

## Detailed Scope of Work

---

**To:** Daniel Gell  
Team Contracting, Inc.  
13911 SW 42nd St. Suite 209  
Miami, FL 33175  
305 207.9799

**From:** Olga Sanchez  
City of Miami Beach  
1700 Convention Center Drive  
Miami Beach, FL 33139  
305.673.7000 x 2567

**Date Printed:** October 21, 2019

**Work Order Number:** 072736.00

**Work Order Title:** North Shore Youth Center New Generator

**Brief Scope:** The Scope of this project consists of the installation of a new Kohler 500 KW Standby Generator as well as an Automatic Transfer Switch to provide power for the entire facility. The work also includes the installation of a new structural support for the Generator. All work to be in accordance with specifications and construction documents approved by the Building Department.

☐

Preliminary

☐

Revised

☒

Final

---

The following items detail the scope of work as discussed at the site. All requirements necessary to accomplish the items set forth below shall be considered part of this scope of work.

Scope of work is specified in the attached electrical and structural plans, prepared by Manuel Mollinedo, P.E., and Cathy Tiedge, P.E., of TLC Engineering Solutions, Issue Date 8/9/19 with some sheets revised 9/5/19 per BD Comments, Plan Sheets E0.000, E1.000, E2.000, E3.100, E3.100, E3.200, S-001, S-100, S-101, and ME1.101.

Subject to the terms and conditions of JOC Contract **FL-SEA-GC04-041019-TCI**.

---

Contractor

---

Date

---

Owner

---

Date

## Contractor's Price Proposal - Summary

---

**Date:** October 21, 2019

**Re:** IQC Master Contract #: FL-SEA-GC04-041019-TCI  
Work Order #: 072736.00  
Owner PO #:  
Title: North Shore Youth Center New Generator  
Contractor: Team Contracting, Inc.  
Proposal Value: \$502,117.49

---

<b>ELECTRICAL</b>	<b>\$399,302.72</b>
<b>FIRE ALARM</b>	<b>\$7,036.63</b>
<b>FOUNDATIONS</b>	<b>\$16,429.00</b>
<b>GENERAL REQ.</b>	<b>\$17,366.12</b>
<b>SUPERSTRUCTURE</b>	<b>\$61,983.02</b>
<b>Proposal Total</b>	<b>\$502,117.49</b>

---

This total represents the correct total for the proposal. Any discrepancy between line totals, sub-totals and the proposal total is due to rounding.

**The Percentage of NPP on this Proposal:** %

# Contractor's Price Proposal - Detail

Date: October 21, 2019

Re: IQC Master Contract #: FL-SEA-GC04-041019-TCI  
 Work Order #: 072736.00  
 Owner PO #:  
 Title: North Shore Youth Center New Generator  
 Contractor: Team Contracting, Inc.  
 Proposal Value: \$502,117.49

Sect.	Item	Mod.	UOM	Description	Line Total
Labor	Equip.	Material	(Excludes)		
<b>ELECTRICAL</b>					
1	01 22 16 00 0002		EA	Reimbursable FeesReimbursable Fees will be paid to the contractor for eligible costs. Insert the appropriate quantity to adjust the base cost to the actual Reimbursable Fee. If there are multiple Reimbursable Fees, list each one separately and add a comment in the "note" block to identify the Reimbursable Fee (e.g. sidewalk closure, road cut, various permits, extended warranty, expedited shipping costs, etc.). A copy of each receipt shall be submitted with the Price Proposal.	\$7,150.00
			Installation	Quantity 6,500.00 x Unit Price 1.00 x Factor 1.1000 = Total 7,150.00	
				FPL FEE FOR SHUTDOWN	
2	01 22 20 00 0010		HR	ElectricianFor tasks not included in the Construction Task Catalog® and as directed by owner only.	\$4,039.47
			Installation	Quantity 64.00 x Unit Price 55.90 x Factor 1.1291 = Total 4,039.47	
				DEMOLITION EXISTING CT METER AND CT CABINET OVER TIME	
3	01 22 20 00 0010 0001		MOD	For Foreman, Add	\$75.88
			Installation	Quantity 24.00 x Unit Price 2.80 x Factor 1.1291 = Total 75.88	
4	01 22 20 00 0010		HR	ElectricianFor tasks not included in the Construction Task Catalog® and as directed by owner only.	\$12,744.08
			Installation	Quantity 200.00 x Unit Price 55.90 x Factor 1.1399 = Total 12,744.08	
				GENERATOR REMOTE ANNUNCIATOR ALLOWANCE. LOCATION TBD	
5	01 22 20 00 0010		HR	ElectricianFor tasks not included in the Construction Task Catalog® and as directed by owner only.	\$3,029.60
			Installation	Quantity 48.00 x Unit Price 55.90 x Factor 1.1291 = Total 3,029.60	
				TO ASSIST FPL WITH TEMP. SHUTDOWN	
6	01 22 20 00 0010		HR	ElectricianFor tasks not included in the Construction Task Catalog® and as directed by owner only.	\$3,029.60
			Installation	Quantity 48.00 x Unit Price 55.90 x Factor 1.1291 = Total 3,029.60	
				CONNECT TEMPORARY GENERATOR	
7	01 22 23 00 0404		DAY	6,000 LB Mini-Excavator With Full-Time Operator	\$2,502.88
			Installation	Quantity 3.00 x Unit Price 738.90 x Factor 1.1291 = Total 2,502.88	
				TRENCHING AND EXCAVATION OF BOXES	
8	01 22 23 00 0943		DAY	40 To 45 Ton Lift, Truck Mounted Hydraulic Crane With Full-Time Operator	\$4,122.32
			Installation	Quantity 2.00 x Unit Price 1,825.49 x Factor 1.1291 = Total 4,122.32	

## Contractor's Price Proposal - Detail Continues..

Work Order Number: 072736.00

Work Order Title: North Shore Youth Center New Generator

### ELECTRICAL

9	01 71 13 00 0003	EA	Equipment Delivery, Pickup, Mobilization And Demobilization Using A Tractor Trailer With Up To 53' BedIncludes loading, tie-down of equipment, delivery of equipment, off loading on site, rigging, dismantling, loading for return and transporting away. For equipment such as bulldozers, motor scrapers, hydraulic excavators, gradalls, road graders, loader-backhoes, heavy duty construction loaders, tractors, pavers, rollers, bridge finishers, straight mast construction forklifts, telescoping boom rough terrain construction forklifts, telescoping and articulating boom manlifts with >40' boom lengths, etc.					\$721.75
		Installation	Quantity	Unit Price	Factor	=	Total	
			1.00	639.23	1.1291	x	721.75	
10	01 74 19 00 0038	CYM	Hauling On Paved Roads, First 15 Miles					\$638.51
		Installation	Quantity	Unit Price	Factor	=	Total	
			942.50	0.60	1.1291	x	638.51	
			TRENCHING AND EXCAVATION OF BOXES					
11	01 74 19 00 0039	CYM	Hauling On Paved Roads, Miles Over Initial 15 Miles					\$425.67
		Installation	Quantity	Unit Price	Factor	=	Total	
			942.50	0.40	1.1291	x	425.67	
			TRENCHING AND EXCAVATION OF BOXES					
12	05 05 23 00 1602	EA	5/8" Diameter x 2-11/16" Long, Welded Stud Concrete Anchors					\$4.93
		Installation	Quantity	Unit Price	Factor	=	Total	
			1.00	4.37	1.1291	x	4.93	
13	23 05 48 13 0082	EA	4-1/4" x 2-1/2" x 2-1/8" Molded Neoprene Mount, 380-700 LB					\$1,457.60
		Installation	Quantity	Unit Price	Factor	=	Total	
			14.00	92.21	1.1291	x	1,457.60	
14	23 13 23 13 0043	EA	1,000 Gallon Double Wall Steel Day Tank; Tramont UTRXIncludes rust-inhibitor coated interior and gray painted exterior.					\$17,550.00
		Installation	Quantity	Unit Price	Factor	=	Total	
			1.00	15,543.35	1.1291	x	17,550.00	
15	23 21 13 23 1217	EA	1/4" Cap, 6,000 LB, Screwed Carbon Steel					\$9.82
		Installation	Quantity	Unit Price	Factor	=	Total	
			1.00	8.70	1.1291	x	9.82	
16	26 05 13 00 0177	EA	500 MCM Cable Splice, To 5 KV One Conductor, Shielded Medium Voltage To 5 KV					\$17,646.48
		Installation	Quantity	Unit Price	Factor	=	Total	
			60.00	260.48	1.1291	x	17,646.48	
17	26 05 19 16 0280	MLF	#10 AWG Cable - Type THHN-THWN 600 Volt Copper, Single Stranded, Placed In Conduit					\$2,361.72
		Installation	Quantity	Unit Price	Factor	=	Total	
			4.00	522.92	1.1291	x	2,361.72	
18	26 05 19 16 0286	MLF	#1 AWG Cable - Type THHN-THWN 600 Volt Copper, Single Stranded, Placed In Conduit					\$1,310.36
		Installation	Quantity	Unit Price	Factor	=	Total	
			0.48	2,417.78	1.1291	x	1,310.36	
19	26 05 19 16 0289	MLF	#3/0 AWG Cable - Type THHN-THWN 600 Volt Copper, Single Stranded, Placed In Conduit					\$9,728.08
		Installation	Quantity	Unit Price	Factor	=	Total	
			2.24	3,846.33	1.1291	x	9,728.08	
			FROM ITS TO EXISTING ELECT. ROOM					

## Contractor's Price Proposal - Detail Continues..

Work Order Number: 072736.00

Work Order Title: North Shore Youth Center New Generator

### ELECTRICAL

20	26	05	19	16	0292	MLF	300 MCM Cable - Type THHN-THWN 600 Volt Copper, Single Stranded, Placed In Conduit						\$11,988.58
						Installation	Quantity		Unit Price		Factor	=	Total
							1.68	x	6,320.13	x	1.1291	=	11,988.58
							FROM GENERATOR TO ITS						
21	26	05	19	16	0294	MLF	400 MCM Cable - Type THHN-THWN 600 Volt Copper, Single Stranded, Placed In Conduit						\$67,859.90
						Installation	Quantity		Unit Price		Factor	=	Total
							7.36	x	8,165.88	x	1.1291	=	67,859.90
							FROM NEW MAIN HOLE TO NEW ITS +FROM ITS TO EXISTING ELECT. ROOM+NEW CT BOX TO ITS						
22	26	05	33	13	0027	CLF	1" Electrical Metallic Tubing (EMT) Conduit Assembly With 4 #10 Copper THHN And 1 #12 Copper Insulated Grounding ConductorIncludes conduit, set screw connectors, set screw couplings, straps, wire as indicated. Not for use where detail is available.						\$1,217.21
						Installation	Quantity		Unit Price		Factor	=	Total
							1.50	x	718.69	x	1.1291	=	1,217.21
							SHUNT TRIP TRIGGER BUTTON						
23	26	05	33	13	0548	EA	4" Rigid Galvanized Steel (RGS) Threadless Compression Connectors						\$9,631.77
						Installation	Quantity		Unit Price		Factor	=	Total
							56.00	x	152.33	x	1.1291	=	9,631.76
							WATERPROOF POLARIS CABLE CONNECTION						
24	26	05	33	13	0806	EA	3" Intermediate Metal Conduit (IMC) Sealing Fitting, Vertical/Horizontal						\$1,179.95
						Installation	Quantity		Unit Price		Factor	=	Total
							4.00	x	261.26	x	1.1291	=	1,179.95
25	26	05	33	13	1472	LF	3" Schedule 40 Polyvinyl Chloride (PVC) Conduit With Coupled End						\$3,030.50
						Installation	Quantity		Unit Price		Factor	=	Total
							400.00	x	6.71	x	1.1291	=	3,030.50
							EMERGENCY BUTTON SHUT OFF						
26	26	05	33	13	1472	LF	3" Schedule 40 Polyvinyl Chloride (PVC) Conduit With Coupled End						\$12,122.02
						Installation	Quantity		Unit Price		Factor	=	Total
							1,600.00	x	6.71	x	1.1291	=	12,122.02
							FROM MAIN HOLE TO ITS FROM ITS TO GENERATOR FROM ITS TOELEC. ROOM						
27	26	05	33	13	1472	0155	MOD	For Schedule 80, Add					\$1,914.95
						Installation	Quantity		Unit Price		Factor	=	Total
							1,600.00	x	1.06	x	1.1291	=	1,914.95
28	26	05	33	13	1485	EA	3" Schedule 40 Polyvinyl Chloride (PVC) Conduit 90 Degree ElbowSee CSI section 26 05 33 13-2255 for conduit field bending.						\$1,688.41
						Installation	Quantity		Unit Price		Factor	=	Total
							32.00	x	46.73	x	1.1291	=	1,688.41
29	26	05	33	13	1485	0155	MOD	For Schedule 80, Add					\$294.83
						Installation	Quantity		Unit Price		Factor	=	Total
							32.00	x	8.16	x	1.1291	=	294.83
30	26	05	33	13	1498	EA	3" Schedule 40 Polyvinyl Chloride (PVC) Conduit 45 Degree ElbowSee CSI section 26 05 33 13-2255 for conduit field bending.						\$622.45
						Installation	Quantity		Unit Price		Factor	=	Total
							12.00	x	45.94	x	1.1291	=	622.45
31	26	05	33	13	1498	0155	MOD	For Schedule 80, Add					\$106.77
						Installation	Quantity		Unit Price		Factor	=	Total
							12.00	x	7.88	x	1.1291	=	106.77

## Contractor's Price Proposal - Detail Continues..

Work Order Number: 072736.00

Work Order Title: North Shore Youth Center New Generator

### ELECTRICAL

32	26	05	33	13	1843	EA	3" Polyvinyl Chloride (PVC) Conduit Female Adapter, Direct Burial									\$249.58
						Installation	Quantity		Unit Price		Factor	=	Total			
							12.00	x	18.42	x	1.1291	=	249.58			
33	26	05	33	13	1843	0389	MOD	For Personal Protective Equipment (Arc Flash) When Working On Energized Equipment, Add								\$57.18
						Installation	Quantity		Unit Price		Factor	=	Total			
							12.00	x	4.22	x	1.1291	=	57.18			
34	26	05	33	13	2101	EA	3" x 12" Long Polyvinyl Chloride (PVC) Coated, Urethane Lined, Rigid Galvanized Steel (RGS) Nipple, Direct Burial									\$1,997.38
						Installation	Quantity		Unit Price		Factor	=	Total			
							10.00	x	176.90	x	1.1291	=	1,997.38			
35	26	11	16	00	0124	EA	Shunt Trip And Auxiliary Switch Accessories, Secondary Distribution Section									\$1,017.67
						Installation	Quantity		Unit Price		Factor	=	Total			
							1.00	x	901.31	x	1.1291	=	1,017.67			
							SHUNT TRIP TRIGGER BUTTON									
36	26	25	00	00	0029	EA	225 Amp Cable Tap Box, 600 Volt, 3 Phase, 3 Wire									\$2,506.25
						Installation	Quantity		Unit Price		Factor	=	Total			
							1.00	x	2,219.69	x	1.1291	=	2,506.25			
							CT METER CAN									
37	26	25	00	00	0040	EA	1,000 Amp Cable Tap Box 277/480 Volt, 3 Phase, 4 Wire									\$3,415.45
						Installation	Quantity		Unit Price		Factor	=	Total			
							1.00	x	3,024.93	x	1.1291	=	3,415.45			
							CT BOX									
38	26	29	13	13	0053	EA	NEMA 4, Non-Reversing Integral HP, 2 Pole, Push Button Operator, NEMA Size M-1P, Manual Motor Starter With Thermal Overload Protection (Square D 2510MCW12)									\$1,347.73
						Installation	Quantity		Unit Price		Factor	=	Total			
							1.00	x	1,193.63	x	1.1291	=	1,347.73			
							EMERGENCY SHUTOFF FOR GENERATOR									
39	26	32	13	13	0020	EA	500 KW Diesel Generator Set, 3 Phase (Cummins DFEK)									\$111,844.38
						Installation	Quantity		Unit Price		Factor	=	Total			
							1.00	x	99,056.22	x	1.1291	=	111,844.38			
40	26	32	13	13	0020	0098	MOD	For Weather Resistant Steel Diesel Generator Enclosure, Add								\$40,755.15
						Installation	Quantity		Unit Price		Factor	=	Total			
							1.00	x	36,095.25	x	1.1291	=	40,755.15			
41	26	36	23	00	0019	EA	1,200 Amp Automatic Transfer Switch, 3 Pole Circuit Breaker, NEMA 1 Enclosure (Cummins OTPC1200)									\$21,607.25
						Installation	Quantity		Unit Price		Factor	=	Total			
							1.00	x	19,136.70	x	1.1291	=	21,607.25			
							NEMA 4X									
42	26	36	23	00	0019	0196	MOD	For NEMA 3R Enclosure, Add								\$3,091.92
						Installation	Quantity		Unit Price		Factor	=	Total			
							1.00	x	2,738.39	x	1.1291	=	3,091.92			
							NEMA 4X									
43	33	71	19	00	0003	EA	24" x 36" x 24", Electric Pull Boxes, Precast Concrete									\$1,222.75
						Installation	Quantity		Unit Price		Factor	=	Total			
							1.00	x	1,082.94	x	1.1291	=	1,222.75			
44	33	71	19	00	0009	EA	48" x 60" x 48", Electric Pull Boxes, Precast Concrete									\$7,356.47
						Installation	Quantity		Unit Price		Factor	=	Total			
							2.00	x	3,257.67	x	1.1291	=	7,356.47			

**Work Order Number:** 072736.00  
**Work Order Title:** North Shore Youth Center New Generator

45	33	71	19	00	0026	EA	3'-6" x 2'-9" x 2' Deep Property Line Box				\$2,627.46	
							Quantity		Unit Price		Factor	Total
						Installation	1.00	x	2,327.04	x	1.1291	= 2,627.46
						CT METER CAN FROM FPL						

## FIRE ALARM

46	28	05	14	23	0007	MLF	2-Pair, 16 AWG, Twisted Pair, Non-Shielded, Plenum Rated, Solid Type FPLP (Red), Fire Alarm/Life Safety Cable, Installed In Conduit					\$2,932.96
						Installation	Quantity		Unit Price		Factor	Total
							1.50	x	1,731.74	x	1.1291	= 2,932.96
47	28	46	21	33	0989	EA	Red, 120 VAC, Intelligent Fire Alarm Control Panel (Notifier NFS-320R)					\$4,103.67
						Installation	Quantity		Unit Price		Factor	Total
							1.00	x	3,634.46	x	1.1291	= 4,103.67

## FOUNDATIONS

48	01	22	23	00	0404		DAY	6,000 LB Mini-Excavator With Full-Time Operator	\$2,502.88
							Installation	Quantity 3.00 x Unit Price 738.90 x Factor 1.1291 = Total 2,502.88	
								Load and excavation of foundation	
49	01	71	13	00	0003		EA	Equipment Delivery, Pickup, Mobilization And Demobilization Using A Tractor Trailer With Up To 53' BedIncludes loading, tie-down of equipment, delivery of equipment, off loading on site, rigging, dismantling, loading for return and transporting away. For equipment such as bulldozers, motor scrapers, hydraulic excavators, gradalls, road graders, loader-backhoes, heavy duty construction loaders, tractors, pavers, rollers, bridge finishers, straight mast construction forklifts, telescoping boom rough terrain construction forklifts, telescoping and articulating boom manlifts with >40' boom lengths, etc.	\$721.75
							Installation	Quantity 1.00 x Unit Price 639.23 x Factor 1.1291 = Total 721.75	
								Load and excavation of foundation	
50	01	74	19	00	0038		CYM	Hauling On Paved Roads, First 15 Miles	\$407.15
							Installation	Quantity 601.00 x Unit Price 0.60 x Factor 1.1291 = Total 407.15	
51	01	74	19	00	0039		CYM	Hauling On Paved Roads, Miles Over Initial 15 Miles	\$271.44
							Installation	Quantity 601.00 x Unit Price 0.40 x Factor 1.1291 = Total 271.44	
52	03	11	13	00	0003		SF	Continuous Footings Foundation Wood Formwork	\$1,615.52
							Installation	Quantity 392.00 x Unit Price 3.65 x Factor 1.1291 = Total 1,615.52	
53	03	11	13	00	0003	0001	MOD	For <1,000, Add	\$278.84
							Installation	Quantity 392.00 x Unit Price 0.63 x Factor 1.1291 = Total 278.84	
54	03	21	11	00	0090		LF	#5, Grade 60, Footings, Steel Reinforcement Bar	\$1,503.96
							Installation	Quantity 1,332.00 x Unit Price 1.00 x Factor 1.1291 = Total 1,503.96	

## Contractor's Price Proposal - Detail Continues..

Work Order Number: 072736.00

Work Order Title: North Shore Youth Center New Generator

### FOUNDATIONS

55	03	31	13	00	0005	SF	6" 3,000 PSI Slab On Grade Concrete Slabs Assembly										\$345.38
						Installation	Quantity		Unit Price		Factor	=	Total				
							52.20	x	5.86	x	1.1291		345.38				
						Stair slab											
56	03	31	13	00	0005	0156	MOD	For Up To 500, Add									\$113.16
							Quantity		Unit Price		Factor	=	Total				
							52.20	x	1.92	x	1.1291		113.16				
57	03	31	13	00	0018		CY	Direct Chute, Place 3,000 PSI Concrete Continuous Footings									\$2,310.52
							Quantity		Unit Price		Factor	=	Total				
							14.14	x	144.72	x	1.1291		2,310.52				
58	03	31	13	00	0018	0039	MOD	For Up To 20, Add									\$138.42
							Quantity		Unit Price		Factor	=	Total				
							14.14	x	8.67	x	1.1291		138.42				
59	03	37	16	00	0010		HR	35 CY/HR, 66 HP Trailer Mounted Concrete PumpIncludes hoses									\$803.56
							Quantity		Unit Price		Factor	=	Total				
							8.00	x	88.96	x	1.1291		803.56				
60	31	23	16	13	0011		CY	Backfilling or Placing Subbase for Trenches with Imported or Stockpiled Materials by Hand									\$1,709.65
							Quantity		Unit Price		Factor	=	Total				
							97.00	x	15.61	x	1.1291		1,709.65				
61	31	23	16	13	0013		CY	Compaction of Fill or Subbase for Trenches by Vibratory Plate, Air Tamper, Etcetera									\$360.33
							Quantity		Unit Price		Factor	=	Total				
							97.00	x	3.29	x	1.1291		360.33				
62	31	23	16	13	0013	0068	MOD	For >20 To 50, Add									\$180.71
							Quantity		Unit Price		Factor	=	Total				
							97.00	x	1.65	x	1.1291		180.71				
63	32	11	29	13	0002		SY	6" Thick FDOT Limerock									\$2,603.89
							Quantity		Unit Price		Factor	=	Total				
							69.40	x	33.23	x	1.1291		2,603.89				
64	32	11	29	13	0002	0010	MOD	For Up To 500, Add									\$561.84
							Quantity		Unit Price		Factor	=	Total				
							69.40	x	7.17	x	1.1291		561.84				

### Subtotal for FOUNDATIONS

**\$16,429.00**

### GENERAL REQ.

65	01	22	16	00	0002	EA	Reimbursable FeesReimbursable Fees will be paid to the contractor for eligible costs. Insert the appropriate quantity to adjust the base cost to the actual Reimbursable Fee. If there are multiple Reimbursable Fees, list each one separately and add a comment in the "note" block to identify the Reimbursable Fee (e.g. sidewalk closure, road cut, various permits, extended warranty, expedited shipping costs, etc.). A copy of each receipt shall be submitted with the Price Proposal.										\$10,808.60
						Installation	Quantity		Unit Price		Factor	=	Total				
							9,826.00	x	1.00	x	1.1000		10,808.60				
						PERFORMANCE BOND											
66	01	74	19	00	0014	EA	20 CY Dumpster (4 Ton) "Construction Debris"Includes delivery of dumpster, rental cost, pick-up cost, hauling, and disposal fee. Non-hazardous material.										\$1,471.49
						Installation	Quantity		Unit Price		Factor	=	Total				
							2.00	x	651.62	x	1.1291		1,471.49				

## Contractor's Price Proposal - Detail Continues..

Work Order Number: 072736.00

Work Order Title: North Shore Youth Center New Generator

### GENERAL REQ.

67	02	41	16	13	0030	CF	Reinforced Concrete Foundation Demolition										\$5,086.03
							Installation	Quantity	Unit Price	Factor	=	Total					
								550.00	8.19	1.1291		5,086.03					
							slab on site to be removed										

### Subtotal for GENERAL REQ.

**\$17,366.12**

### SUPERSTRUCTURE

68	01	45	23	00	0012	EA	Proctor Compaction 6" Standard Mold, Field Soils Test										\$1,659.24
							Installation	Quantity	Unit Price	Factor	=	Total					
								6.00	244.92	1.1291		1,659.24					
69	01	45	23	00	0226	EA	Professional Engineer Registered in the State of FloridaProfessional Engineering Services are to be used only as directed by the Owner. These services are used for investigational services and not for AE design services. 2 hour minimum.										\$3,810.71
							Installation	Quantity	Unit Price	Factor	=	Total					
								45.00	75.00	1.1291		3,810.71					
							RAILING AND STAIRS SHOP DRAWING										
70	03	21	13	00	0124	LF	#5, Grade 60, Elevated Slabs, Galvanized Steel Reinforcement Bar										\$1,552.51
							Installation	Quantity	Unit Price	Factor	=	Total					
								1,100.00	1.25	1.1291		1,552.51					
71	03	31	13	00	0007	SF	8" 3,000 PSI Slab On Grade Concrete Slabs Assembly										\$5,619.53
							Installation	Quantity	Unit Price	Factor	=	Total					
								700.00	7.11	1.1291		5,619.53					
72	03	31	13	00	0007	0157	MOD	For >500 To 1,000, Add									\$1,240.88
							Installation	Quantity	Unit Price	Factor	=	Total					
								700.00	1.57	1.1291		1,240.88					
73	03	37	16	00	0010	HR	35 CY/HR, 66 HP Trailer Mounted Concrete PumpIncludes hoses										\$1,607.12
							Installation	Quantity	Unit Price	Factor	=	Total					
								16.00	88.96	1.1291		1,607.12					
							2 DAYS GROUTING BLOCK+ SLAB ELEVATED										
74	04	05	16	26	0009	SF	Grout Concrete Block Cores- 8" Block, Grout Fill Block Solid (0.258 CF/SF)										\$4,309.77
							Installation	Quantity	Unit Price	Factor	=	Total					
								1,100.00	3.47	1.1291		4,309.77					
75	04	22	23	13	0006	SF	8" x 8" x 16", Cored, Lightweight, Concrete Block										\$8,023.38
							Installation	Quantity	Unit Price	Factor	=	Total					
								1,100.00	6.46	1.1291		8,023.38					
76	05	05	23	00	1072	EA	1/2" Diameter x 10" Length, 316 Stainless Steel, Hex Head Bolt										\$398.69
							Installation	Quantity	Unit Price	Factor	=	Total					
								10.00	35.31	1.1291		398.69					
77	05	05	23	00	1120	EA	3/4" Diameter x 8" Length, 316 Stainless Steel, Hex Head Bolt										\$724.25
							Installation	Quantity	Unit Price	Factor	=	Total					
								16.00	40.09	1.1291		724.25					
78	05	73	00	00	0003	LF	Aluminum Ornamental Handrail Vertical Square Bars At 6", Shaped Top Rail, Up To 42" High										\$11,233.02
							Installation	Quantity	Unit Price	Factor	=	Total					
								115.00	86.51	1.1291		11,233.02					

## Contractor's Price Proposal - Detail Continues..

Work Order Number: 072736.00

Work Order Title: North Shore Youth Center New Generator

### SUPERSTRUCTURE

79	05	73	00	00	0003	0143	MOD	For 4" On Center Standards, Add									\$586.91
							Installation	Quantity	Unit Price	Factor	=	Total					
								115.00	4.52	1.1291		586.91					
80	09	24	23	00	0004		SF	Two Coat Troweled Stucco, Scratch/FinishExcludes lath and felt. Interior or exterior, one side.									\$3,440.37
							Installation	Quantity	Unit Price	Factor	=	Total					
								1,100.00	2.77	1.1291		3,440.37					
81	09	24	23	00	0004	0034	MOD	For Smooth Float Finish, Add									\$732.79
							Installation	Quantity	Unit Price	Factor	=	Total					
								1,100.00	0.59	1.1291		732.79					
82	09	66	16	00	0039		SF	3" Thick Precast Terrazzo Stair Landing Structural, Non Slip									\$9,886.60
							Installation	Quantity	Unit Price	Factor	=	Total					
								186.50	46.95	1.1291		9,886.60					
83	09	91	13	00	0089		SF	Paint Exterior Stucco Walls, 1 Coat Primer, Brush/Roller Work									\$571.32
							Installation	Quantity	Unit Price	Factor	=	Total					
								1,100.00	0.46	1.1291		571.32					
84	09	91	13	00	0091		SF	Paint Exterior Stucco Walls, 2 Coats Paint, Brush/Roller Work									\$606.65
							Installation	Quantity	Unit Price	Factor	=	Total					
								553.90	0.97	1.1291		606.65					
85	32	11	16	16	0009		SY	12" Crushed Aggregate Base Course For Roadways And Parking Areas									\$4,793.03
							Installation	Quantity	Unit Price	Factor	=	Total					
								193.13	21.98	1.1291		4,793.03					
								6 LAYERS PROPERLY COMPACTED									
86	32	11	16	16	0009	0010	MOD	For Up To 500, Add									\$1,186.26
							Installation	Quantity	Unit Price	Factor	=	Total					
								193.13	5.44	1.1291		1,186.26					

Subtotal for SUPERSTRUCTURE

\$61,983.02

Proposal Total

\$502,117.49

This total represents the correct total for the proposal. Any discrepancy between line totals, sub-totals and the proposal total is due to rounding.

The Percentage of NPP on this Proposal: %

## Subcontractor Listing

---

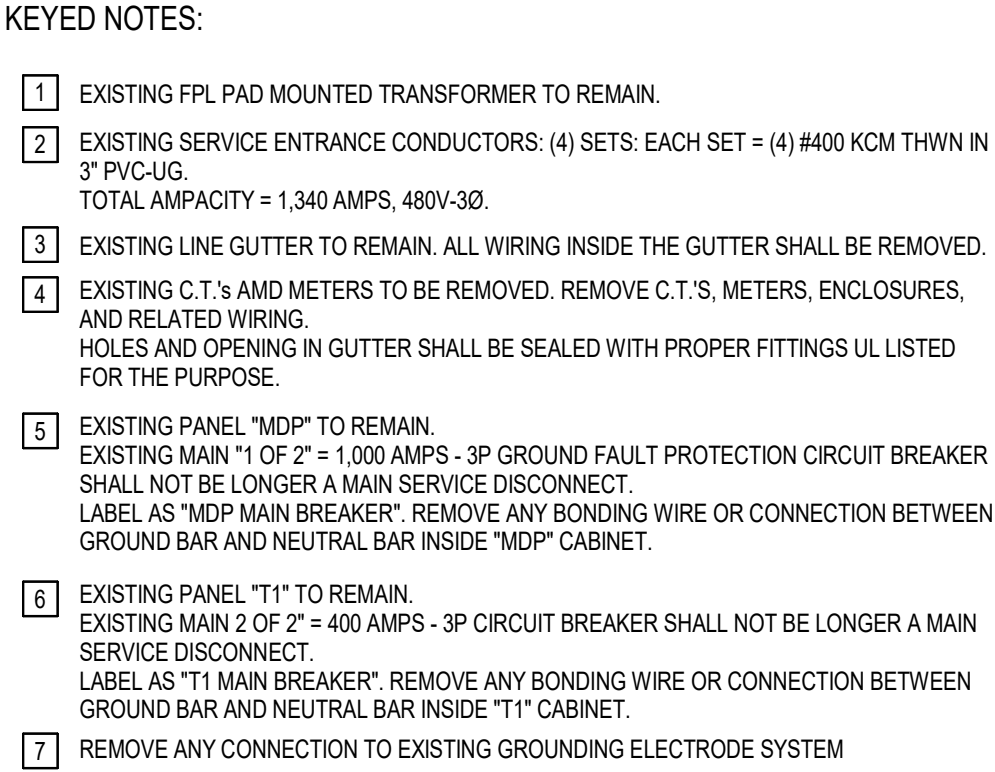
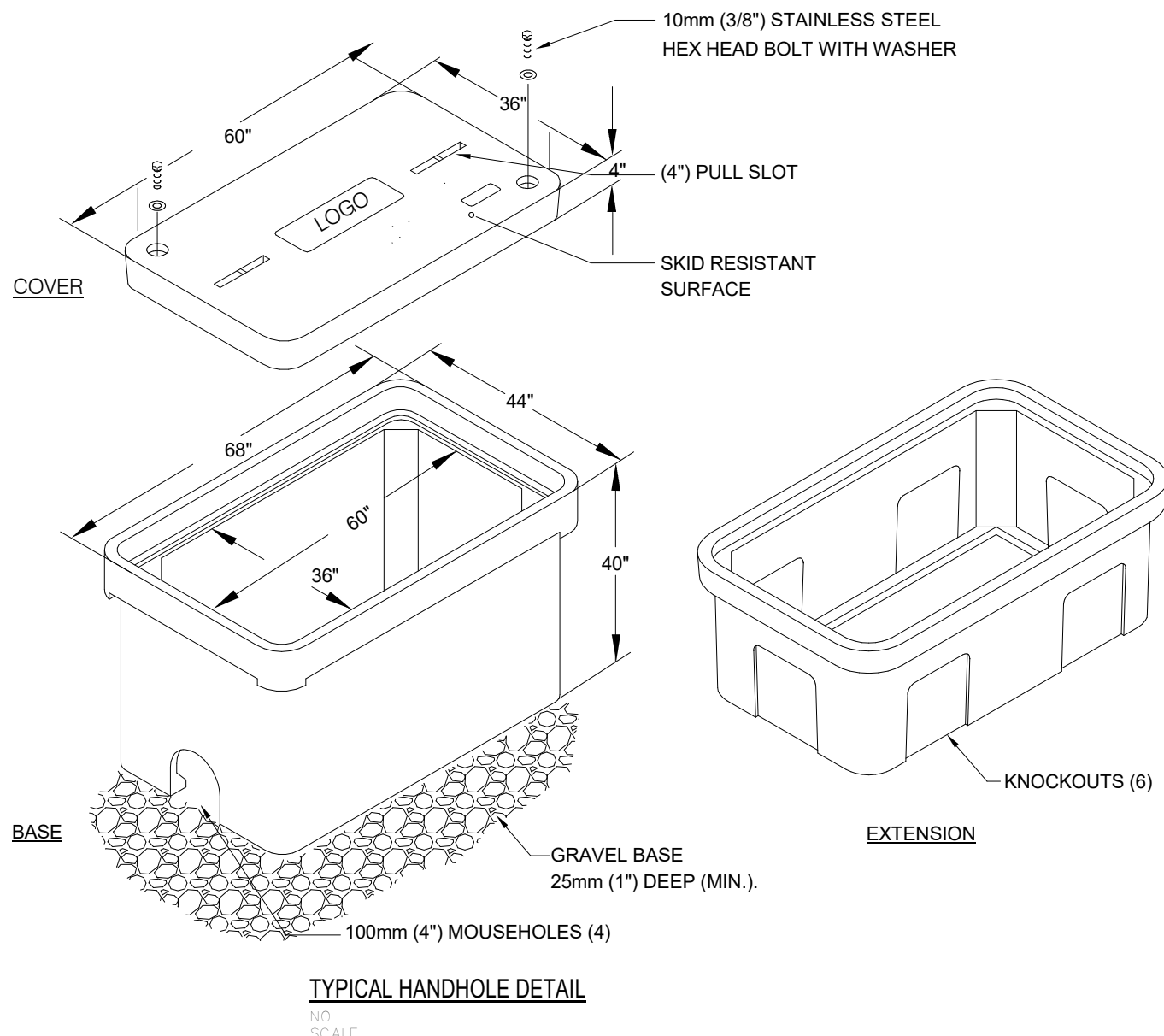
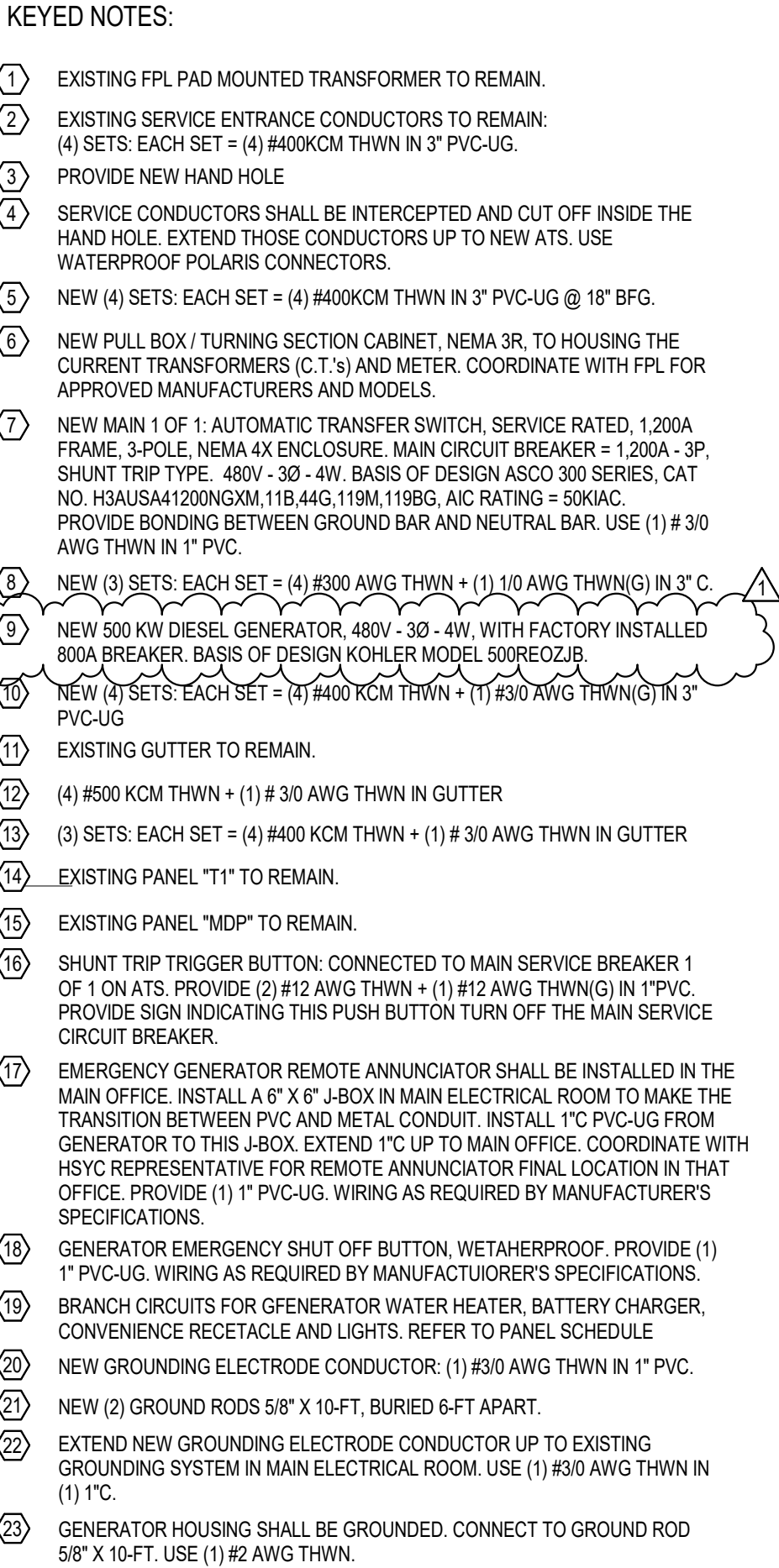
**Date:** October 21, 2019

**Re:** IQC Master Contract #: FL-SEA-GC04-041019-TCI  
Work Order #: 072736.00  
Owner PO #:  
Title: North Shore Youth Center New Generator  
Contractor: Team Contracting, Inc.  
Proposal Value: \$502,117.49

Name of Contractor	Duties	Amount	%
No Subcontractors have been selected for this Work Order		\$0.00	0.00



E1.000

[illegible]

2 HAND HOLE  
E2.000 N.T.S.

North Shore Youth Center  
Generator-ATS  
501 72nd St, Miami Beach, FL 33141

## Consultants

[illegible]

Seal

Manuel Mollinedo, P.E.  
Florida License # 63096

---

Project No.: 619056

---

Issue Date: 08/09/2019

---

Drawn By: Author

Approved By: Approver

Scale: As indicated

Drawing Title:  
**ELECTRICAL RISER  
DIAGRAM**

Drawing No.:

E2.000

KOHLER.

Model: 500REOZJB

208-600 V Diesel

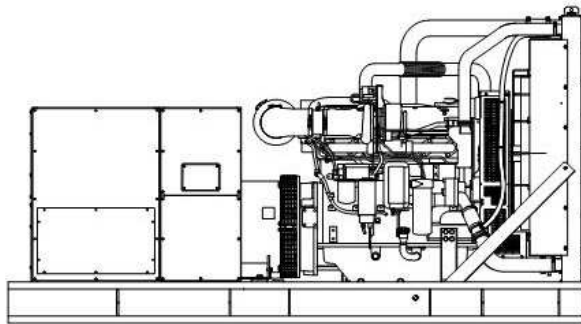
9001  
KOHLER  
NATIONALLY REGISTERED

Tier 2 EPA-Certified for Stationary Emergency Applications

Ratings Range

Standby: kW  
kVA

60 Hz  
400-510  
500-638



Generator Set Ratings

Alternator	Voltage	Ph	Hz	150° C Rise Standby Rating		130° C Rise Standby Rating	
				kW/kVA	Amps	kW/kVA	Amps
5M4024	120/208	3	60	450/563	1561	440/550	1527
	127/220	3	60	465/581	1595	465/581	1525
	138/240	3	60	505/631	1519	475/594	1428
	220/380	3	60	400/500	760	400/500	760
	240/416	3	60	450/563	781	440/550	763
5M4027	277/480	3	60	505/631	759	475/594	714
	120/208	3	60	505/631	1752	475/594	1648
	127/220	3	60	505/631	1657	500/625	1640
	138/240	3	60	505/631	1519	505/631	1519
	220/380	3	60	400/500	760	400/500	760
5M4028	240/416	3	60	505/631	876	475/594	824
	277/480	3	60	505/631	759	505/631	759
	120/208	3	60	510/638	1770	510/638	1770
	127/220	3	60	510/638	1673	510/638	1673
	138/240	3	60	510/638	1534	510/638	1534
5M4270	220/380	3	60	470/588	883	470/588	883
	240/416	3	60	510/638	885	510/638	885
	277/480	3	60	510/638	767	510/638	767
	347/600	3	60	505/631	607	505/631	607
	347/600	3	60	510/638	613	510/638	613

NOTES: All three-phase units are rated at 1.0 power factor. Standby ratings are applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO 8528-1 and ISO 3046-1. Clean received information (TR 101) for ratings guidelines, complete ratings definitions, and also condition details. The generator manufacturer reserves the right to change the specifications without notice and without any obligation of liability whatsoever.

GS-404 (500REOZJB) 4/19

Alternator Specifications

Specifications	Alternator
Type	4-Pole, Rotating-Field
Exciter type	Brushless, Permanent-Magnet, Pilot Exciter
Leads: quantity, type	10/12, Reconnectable engine, L (gal.)
Voltage regulator	Solid State, Volts/Hz
Insulation:	NEMA MG1 Class H, Synthetic, Nonhygroscopic
Temperature rise	130° C, 150° C Standby
Bearing: quantity, type	1, Sealed
Coupling	Flexible Disc
Armature windings	Full
Rotor balancing	125%
Voltage regulation, no-load to full-load	Controller Dependent
One-step load acceptance	100% of Rating
Unbalanced load capability	100% of Rated Standby Current
Peak motor starting kVA:	(35% dip for voltages below)
480 V	5M4024 (10 lead) 1350
480 V	5M4027 (12 lead) 1550
480 V	5M4028 (10 lead) 1800
600 V	5M4270 (4 lead) 1250
600 V	5M4272 (4 lead) 1750

Application Data

Engine	Engine Electrical
Engine Specifications	Engine Electrical System
Engine manufacturer	John Deere
Engine model	6135HF675
Engine type	4-Cycle, Turbocharged, Charge Air-Cooled
Cylinder arrangement	6, In-line
Displacement, L (cu. in.)	13.5 (82.4)
Bore and stroke, mm (in.)	132 x 165 (5.2 x 6.5)
Compression ratio	16.0:1
Piston speed, m/min. (ft./min.)	594 (1949)
Main bearings: quantity, type	7, Replaceable Insert
Rated rpm	1800
Max. power at rated rpm, kWm (BHP)	563 (755)
Crankshaft material	Forged Steel
Valve material	Nickel-Chromium Head Chromium-Silicone Stem
Governor: type, make/model	JDECO Electronic L15
Frequency regulation, no-load to full-load	Isosynchronous
Frequency regulation, steady state	±0.25%
Frequency	Fixed
Air cleaner type, all models	Dry
Exhaust	Exhaust
Exhaust System	Exhaust System
Exhaust manifold type	Dry
Exhaust flow at rated kW, m³/min. (cfm)	97.2 (3433)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	524 (975)
Maximum allowable back pressure, kPa (in. Hg)	Min. 4 (1.2) Max. 10 (3.0)
Engine exhaust outlet size, mm (in.)	See ADV drawing

GS-404 (500REOZJB) 4/19

Cooling

Radiator System	
Ambient temperature, °C (°F)	50 (122)
Engine jacket water capacity, L (gal.)	19 (4.8)
Radiator system capacity, including engine, L (gal.)	67.2 (17.8)
Engine jacket water flow, Lpm (gpm)	400 (106)
Heat rejected to air charge cooler at rated kW, dry exhaust, kW (Btu/min.)	209 (1189)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	116 (6603)
Water pump type	Centrifugal
Fan diameter, including blades, mm (in.)	365 (14.4)
Fan, kWm (HP)	18 (24)
Max. restriction of cooling air, intake and discharge side of radiator, kPa (in. H <sub>2</sub> O)	0.125 (0.5)
* Enclosure with internal silencer reduces ambient temperature capability by 5° C (9° F).	

Operation Requirements

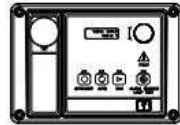
Air Requirements	
Radiator-cooled cooling air, m³/min. (cfm)	651 (23000)
Cooling air required for generator set when equipped with city water cooling or remote radiator, based on 14° C (55° F) rise, m³/min. (cfm)	279 (9867)
Combustion air, m³/min. (cfm)	38 (1342)
Heat rejected to ambient air, Engine, kW (Btu/min.)	38 (2163)
Alternator, kW (Btu/min.)	40 (2277)
* Air density = 1.20 kg/m³ (0.075 lbm/ft³)	

Fuel Consumption	
Diesel, Lph (gph) at 1 load	Standby Rating
100%	134.5 (35.5)
75%	104.6 (27.6)
50%	75.3 (19.9)
25%	38.8 (10.2)

Fuel System	
Fuel supply line, min. ID, mm (in.)	13 (0.50)
Fuel return line, min. ID, mm (in.)	10 (0.38)
Max. lift, fuel pump: type, m (ft.)	Electronic 2.1 (6.8)
Max. fuel flow, Lph (gph)	214.8 (56.7)
Max. return line restriction, kPa (in. Hg)	35 (10.3)
Fuel prime pump	Electronic
Fuel filter	Secondary
Water Separator	Primary
Recommended fuel	Yes #2 Diesel
Lubrication	
Lubrication System	
Type	Full Pressure
Oil pan capacity, L (qt.)	40.0 (42.3)
Oil pan capacity with filter, L (qt.)	42.0 (44.4)
Oil filter: quantity, type	1, Cartridge
Oil cooler	Water-Cooled
	§ Kohler recommends the use of Kohler Genuine oil and filters.

Application Data

Controllers



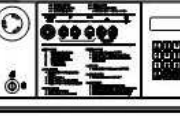
APM402 Controller

- Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.
- Digital display and menu control provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or serial configuration
- Controller supports Modbus® protocol
- Integrated hybrid voltage regulator with ±0.5% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability
- Refer to GS-161 for additional controller features and accessories.



APM403 Controller

- Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.
- Graphic display with touch screen and menu control provides easy local data access
- Measurements are selectable in metric or English units
- Paralleling capability with first-on logic, synchronizer, kW and kVAR load sharing, and protective relays
- Note: Parallel with other APM403 controllers only
- Generator management to turn parallel generators on and off as required by load demand
- Load management to connect and disconnect loads as required
- Controller supports Modbus® RTU, Modbus® TCP, SNMP and BACnet
- Integrated voltage regulator with ±0.25% regulation
- Built-in alternator thermal overload protection
- UL-listed overcurrent protective device
- NFPA 110 Level 1 capability
- Refer to GS-161 for additional controller features and accessories.



Decision-Maker® 6000 Paralleling Controller

- Provides advanced control, system monitoring, and system diagnostics with remote monitoring capabilities for paralleling multiple generator sets.
- Paralleling capability with first-on logic, synchronizer, kW and kVAR load sharing, and protective relays
- Note: Parallel with other Decision-Maker® 6000 controllers only
- Digital display and keypad provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or modem configuration
- Controller supports Modbus® protocol
- Integrated voltage regulator with ±0.25% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability
- Refer to GS-107 for additional controller features and accessories.

Modbus® is a registered trademark of Schneider Electric.

GS-404 (500REOZJB) 4/19

KOHLER.

KOHLER CO., Kohler, Wisconsin 53044 USA  
Phone 920-457-4441, Fax 920-459-1646  
For the nearest sales and service outlet in the US and Canada, phone 1-800-544-2444  
KOHLERPower.com

Standard Features

- Alternator Protection
- Battery Rack and Cables
- Customer Connector (standard with Decision-Maker® 6000 controller only)
- Local Emergency Stop Switch
- Oil Drain Extension
- Operation and Installation Literature

Available Options

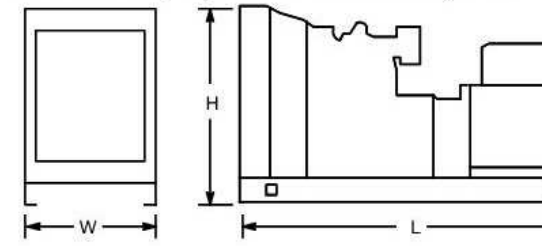
- Circuit Breakers
  - Type
    - Magnetic Trip
    - Thermal Magnetic Trip
    - Electronic Trip (L)
    - Electronic Trip with Short Time (LS)
    - Electronic Trip with Ground Fault (LSG)
  - Circuit Breaker Mounting
    - Generator Mounted
    - Remote Mounted
    - Bus Bar (for remote mounted breakers)
  - Enclosures for Remote Mounted Circuit Breakers
    - NEMA 1
    - NEMA 3R
  - Approvals and Listings
    - California CSHPD Pre-Approval
    - CSA Certified
    - IBC Seismic Certification
    - UL 2000 Listing
    - Hurricane Rated Enclosure
  - Enclosed Unit
    - Sound Enclosure Level 1 and Subbase Fuel Tank Packages
    - Sound Enclosure Level 2 and Subbase Fuel Tank Packages
    - Weather Enclosure and Subbase Fuel Tank Packages
  - Open Unit
    - Exhaust Silencer, Critical (kit: PA-354880)
    - Flexible Exhaust Connector, Stainless Steel
  - Fuel System
    - Flexible Fuel Lines (Select rubber or stainless steel)
  - Controller
    - Common Failure Relay
    - Decision-Maker® 6000 and APM402 controllers only
    - Dry Contact (isolated alarm) (Decision-Maker® 6000 controller only)
    - Two Input/Five Output Module (APM402 controller only)
    - Four Input/Five Output Module (APM403 controller only)
    - Remote Audiovisual Alarm Panel (Decision-Maker® 6000 controller only)
    - Lockable Emergency Stop Switch
    - Remote Emergency Stop Switch
    - Remote Serial Annunciator Panel
    - Run Relay (standard with APM403, optional with others)
    - Manual Key Switch (APM402 controller only)
    - Manual Speed Adjust (APM402 controller only)

- Cooling System
  - Block Heater, 2500 W, 90-120 V, 1 Ph
  - Block Heater, 2500 W, 190-208 V, 1 Ph
  - Block Heater, 2500 W, 210-240 V, 1 Ph
  - Block Heater, 2500 W, 380-480 V, 1 Ph
  - Required for ambient temperatures below 0°C (32°F)
  - Radiator Duct Flange
- Electrical System
  - Generator Heater
  - Battery
  - Battery Charger, Equalize/Float Type
  - Battery Heater
- Paralleling System
  - Voltage Sensing
- Miscellaneous
  - Air Cleaner, Heavy Duty
  - Air Cleaner Restriction Indicator
  - Crankcase Emissions Canister
  - Engine Fluids Added
  - Rated Power Factor Testing
- Literature
  - General Maintenance
  - NFPA 110
  - Overhaul
  - Production
- Warranty
  - 2-Year Basic Limited Warranty
  - 5-Year Basic Limited Warranty
  - 5-Year Comprehensive Limited Warranty

Dimensions and Weights

Overall Size, L x W x H, max., mm (in.): 3630 x 1425 x 1893 (142.9 x 56.1 x 74.5)  
Weight (radiator model), wet, max., kg (lb): 3883 (8560)

Note: See ADV drawing for specific dimensions based on accessory selections.



NOTE: This drawing is provided for reference only and should not be used for planning installation. Contact your local distributor for more detailed information.

DISTRIBUTED BY:

© 2012, 2013, 2014, 2015, 2016, 2018 by Kohler Co. All rights reserved.

GS-404 (500REOZJB) 4/19

TLC  
ENGINEERING  
SOLUTIONS®

5757 Lagoon Drive, Suite 400  
Miami, Florida 33126  
P 305.266.6553  
www.tlc-engineers.com

COA 15

© Copyright 2019 TLC Engineering Solutions, Inc.

TLC Project No.: 619056

THINK. LISTEN. CREATE.

EMERGENCY POWER SYSTEM:  
STANDBY GENERATOR SHALL BE SUCH THAT, IN THE EVENT OF FAILURE OF THE NORMAL POWER, THE EMERGENCY POWER SHALL BE AVAILABLE WITHIN THE TIME REQUIRED FOR THE APPLICATION BUT NOT TO EXCEED 30 SECONDS.

EXISTING EMERGENCY LIGHTS ARE CURRENTLY POWERED WITH BATTERY BACKUP AND READY TO START 10 SECONDS AFTER THE POWER FAILURE.

STANDBY GENERATOR SHALL COMPLY WITH UL 2200, EPA TIER 2 AND NFPA 110 GENERATOR SET SHALL BE DESIGNED AND MANUFACTURED BY A UNIQUE SOURCE SUPPLIER, IN FACILITIES CERTIFIED TO STANDARDS ISO 9001 AND ISO 14001.

GENERATOR SHALL ACCEPT RATED LOAD IN ONE STEP AS PER NFPA 110.

EMERGENCY GENERATOR ENGINE SHALL BE AN INTERNAL COMBUSTION ENGINE FUELED BY DIESEL #2 TYPE. A 1,600 GALS SUB-BASE FUEL TANK SHALL BE PROVIDED WITH ENOUGH CAPACITY FOR 48 HOURS OF CONTINUOUS OPERATION AT A LOA OF 100% POWER RATING.

CLASSIFICATION OF THE EMERGENCY POWER SUPPLY SYSTEM.

THIS STANDBY GENERATOR AND THE ATS SHALL BE PART OF THE EPSS AND SHALL BE CLASSIFIED AS LEVEL 2, TYPE 30, AND CLASS 48.

THE STANDBY GENERATOR SHALL BE HEATED AS NECESSARY TO MAINTAIN THE WATER JACKET AND BATTERY TEMPERATURE DETERMINED BY THE MANUFACTURER FOR COLD START AND LOAD ACCEPTANCE.

THE GENERATOR SET SHALL BE MONITORED BY THE REMOTE ANNUNCIATOR AND CONTROL PANEL.

THE CONTROL PANEL SHALL BE CAPABLE TO OFFER THE REQUIRED INDICATIONS AND CONTROL AS PER NFPA 110 - 5.6.5.2

AN EMERGENCY MANUAL STOP STATION SHALL BE FACTORY BUILT-IN ON THE GENERATOR HOUSING. ADDITIONAL A REMOTE EMERGENCY MANUAL STOP STATION SHALL BE PROVIDED ATTACHED TO EXTERIOR WALL OF THE ELECTRICAL ROOM. THE REMOTE MANUAL STOP BUTTON SHALL BE WEATHERPROOF AND LABELED.

REQUIRED WIRING BETWEEN TRANSFER SWITCH A AND GENERATOR CONTROL PANEL SHALL BE RUN BY THE ELECTRICAL CONTRACTOR. PROVIDE NECESSARY CONDUITS AND WIRES FOR CONTROL FUNCTIONS. COORDINATE WITH GENERATOR / TRANSFER SWITCH MANUFACTURER'S SPECIFICATIONS FOR QUANTITY AND SIZE.

GENERATOR HOUSING SHALL BE ALUMINUM, SOUND PROOF LEVEL 1, AND CAPABLE TO WITHSTAND WIND GUST UP TO 186 MPH.

1 GENERATOR SPECIFICATIONS  
N.T.S.

SUB BASE DIESEL FUEL TANK SHALL BE CONSTRUCTED OF HEAVY GAUGE STEEL (7 AND 11 GAUGE) AND INCLUDE AN INTERNALLY REINFORCED BAFFLE STRUCTURE FOR GENERATOR SUPPORT. DESIGN SHALL HAVE FEWER EXPOSED SEAMS AND WELDS FOR INCREASED CORROSION RESISTANCE, AND HAS BEEN TESTED TO WITHSTAND GREATER THAN 18,000 POUNDS OF LOAD BEARING.

TANKS SHALL BE PRESSURE WASHED WITH AN IRON PHOSPHATE SOLUTION AND THEN COATED WITH A MEDIUM TEXTURE FINISH T-GLICOPOLYESTER POWDER PAINT.

TANKS SHALL BE UL LISTED AS SECONDARY CONTAINMENT GENERATOR BASE TANKS COMPLYING WITH UL 142.

SUB BASE TANK SHALL BE COMPATIBLE WITH GENERATOR ENCLOSURE.

GENERATOR SUB BASE TANK SHALL MEETS UL 142 REQUIREMENTS AS SECONDARY CONTAINMENT (MIN. 110%).

SECONDARY CONTAINMENT (MINIMUM OF 110%) SUB BASE TANK MEETS BOTH NFPA AND IFC REQUIREMENTS.

EMERGENCY PRESSURE RELIEF VENT CAP - MEETS OR EXCEED UL REQUIREMENTS. INSURES ADEQUATE VENTING AND PRESSURE RELIEF FOR INNER AND OUTER TANK UNDER EXTREME TEMPERATURE AND EMERGENCY CONDITIONS.

LOW FUEL LEVEL SWITCH - ACTIVATE AT 50% REMAINING USABLE FUEL. FDEP APPROVED.

SECONDARY CONTAINMENT BASIN SWITCH - ACTIVATES WITH PRIMARY CONTAINMENT FAILURE. FDEP APPROVED.

ATMOSPHERIC VENT CAP - ACCOMMODATES NORMAL VENTING (OVERSIZE 2" VENT IS RAISED ABOVE THE FUEL FILL).

RAISED FUEL FILL - INCLUDES LOCKABLE FLIP TOP TO PREVENT TAMPERING AND/OR FUEL CONTAMINATION. MAY BE INSTALLED INSIDE OR OUTSIDE GENERATOR SET SKID RAILS.

FUEL LEVEL GAUGE - PROVIDES DIRECT READING, TOP MOUNTED.

ENCLOSURE COMPATIBLE - ACCEPTS EXISTING CPG WEATHER PROTECTIVE AND SOUND ATTENUATED ENCLOSURES.

TANK TO FOUNDATION GROUND CLEARANCE - BOLT ON RISERS ALLOW FOR VISUAL CONTAINMENT LEAK DETECTION.

TANK TOP MOUNTING BRACKET - PROVIDES MOUNTING FOR PUMP AND CONTROL FOR DAY TANK OPERATION.

SPILL FILL CONTAINMENT - ALL FUEL TANKS EXCEED 125% SECONDARY CONTAINMENT.

- OTHER FEATURES -
- SPILL FILL BOX (5 GALS)
- OVER FILL PREVENTION VALVE 95% ACTIVATION. INCLUDES DOWNTUBE AND 2" CAM LOCK CONNECTOR.
- RUPTURE BASIN SWITCH.
- OVER FILL PREVENTION VALVE 90%
- HIGH FUEL SWITCH 90%
- HIGH FUEL ALARM PANEL, NEMA 3R
- CRITICAL LOW FUEL SWITCH, WITH SIGNALS AT 10% FUEL REMAINING.
- FILL DOWN TUBE
- FUEL GAUGE WITH SENDER
- NORMAL VENT EXTENSION, MEETS IFC CODE OF 12" ABOVE GRADE
- EMERGENCY VENT EXTENSIONS
- PUMP, CONTROL, MOTOR, AND SWITCH KIT.
- 5 FLOAT SWITCHES.

ELECTRICAL CONTRACTOR SHALL PROVIDE SUB BASE FUEL TANK SHOP DRAWINGS FROM MANUFACTURER TO AHJ FOR APPROVAL.

2 SUB BASE TANK  
SPECIFICATIONS  
N.T.S.

Drawing No.:

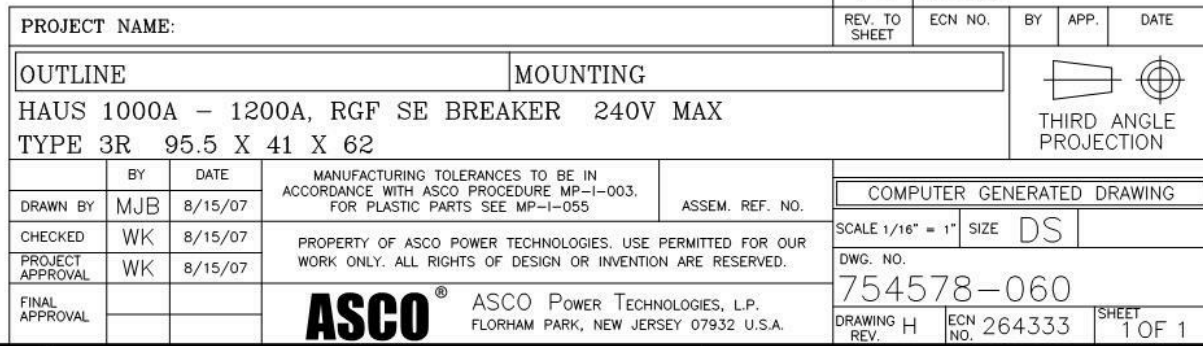
E3.100

Consultants:

Seal

Drawing Title:  
**ELECTRICAL  
DETAILS**

E3.200



C:\Revit Local\619056 NORTH SHORE GEN\_R19\_STR\_Robee.Sandoval.m

8/8/2019 4:21:19 PM

**DETAIL NUMBER**

**SECTION / DETAIL MARK**

**SHEET NUMBER**

**ELEVATION MARK**

**PLAN NOTE**

**NOTE:** SYMBOLS AND LEGEND SHOWN ARE GENERIC AND DO NOT NECESSARILY INDICATE ACTUAL OCCURRENCES IN THESE DRAWINGS.

A circular professional engineer seal for Cathy Gasper Tiedge. The outer ring contains the text "CATHY GASPER TIEDGE" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. The inner circle contains the word "LICENSE" at the top, the license number "No 47763" in the center, a single star below the number, and the words "STATE OF FLORIDA" at the bottom.The logo for TLC Engineering Solutions. It features a stylized graphic on the left consisting of a triangle with a circle inside, divided into four quadrants. To the right of the graphic, the letters "TLC" are in a large, bold, sans-serif font. Below "TLC", the words "ENGINEERING" and "SOLUTIONS" are stacked in a smaller, bold, sans-serif font, separated by a thin horizontal line. A registered trademark symbol (®) is at the end of "SOLUTIONS".

© Copyright 2019 TLC Engineering Solutions, Inc.  
TLC Project No.: 619056  
**THINK. LISTEN. CREATE.**

501 72nd St, Miami Beach, FL 33141

## 042200 MASONRY WALLS

1. ALL MASONRY CONSTRUCTION SHALL CONFORM TO TMS 402 "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" AND TMS 602 "SPECIFICATION FOR MASONRY STRUCTURES", LATEST EDITION.
2. MASONRY UNITS SHALL MEET ASTM C-90 FOR HOLLOW LOAD BEARING TYPE MASONRY WITH UNIT STRENGTH OF 2000 PSI ON THE NET AREA ( $f_m = 2000$  PSI). MORTAR SHALL BE TYPE "M" OR "S" AND MEET ASTM C-270.
3. GROUT SHALL BE 3000 PSI MINIMUM COMPRESSIVE STRENGTH AND MEET ASTM C-476 AND HAVE A SLUMP BETWEEN 8" AND 11" WITH WATER CM RATIO OF 0.55 MAXIMUM AND WITH 3/8" MAXIMUM AGGREGATE.
4. PROVIDE HOOKED DOWELS IN FOUNDATIONS FOR VERTICAL REINFORCING ABOVE. LAP SPICES SHALL BE PER LAP SPlice SCHEDULE SHOWN IN TYPICAL DETAIL.
5. BLOCK CELLS SHALL BE GROUT FILLED WITH VERTICAL REINFORCING BARS AT CORNERS, INTERSECTIONS, EACH SIDE OF OPENINGS AND AS SHOWN ON THE DRAWINGS.
6. DOWELS SHALL BE USED TO PROVIDE CONTINUITY INTO THE STRUCTURE ABOVE AND/OR BELOW, UNLESS NOTED OTHERWISE.
7. MASONRY SHALL BE LAID IN RUNNING BOND PATTERN UNLESS NOTED OTHERWISE. AT FILLED CELLS LAY UNITS WITH FULL BED JOINTS AROUND CELLS.
8. SUBMIT PROPOSED GROUT MIX DESIGNS FOR REVIEW PRIOR TO USE. MIX NUMBER OR OTHER POSITIVE IDENTIFICATION SHALL UNQUELY IDENTIFY MIX.
9. USE OF SUPERPLASTICIZER IS PROHIBITED.
10. CELLS TO BE GROUT FILLED SHALL HAVE VERTICAL ALIGNMENT SUFFICIENT TO MAINTAIN A CLEAR, UNOBSTRUCTED, CONTINUOUS VERTICAL GROUT SPACE.
11. ANY OVERHANGING MORTAR OR OTHER OBSTRUCTION OR DEBRIS SHALL BE REMOVED FROM THE INSIDES OF SUCH CELL WALLS.
12. VERTICAL REINFORCEMENT SHALL BE HELD IN POSITION AT TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 192 BAR DIAMETERS.
13. CELLS CONTAINING REINFORCEMENT SHALL BE FILLED SOLIDLY WITH GROUT. SAMPLE AND TEST GROUT PER ASTM C1019.
14. GROUT SHALL BE POURED IN LIFTS OF 4 FEET MAXIMUM HEIGHT. GROUT SHALL BE CONSOLIDATED AT TIME OF PLACING BY VIBRATING AND RECONSOLIDATED LATER BY VIBRATING BEFORE PLASTICITY IS LOST.
15. WHEN THE GROUTING IS STOPPED FOR ONE HOUR OR LONGER, HORIZONTAL CONSTRUCTION JOINTS SHALL BE MADE BY STOPPING THE POUR OF GROUT NOT LESS THAN 1-1/2 INCH BELOW THE TOP OF THE UPRIGHT UNIT GROUTED.
16. REINFORCING SHALL BE ASTM A615 GRADE 80 DEFORMED BARS, FREE FROM OIL, SCALE AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL BENDING DIAGRAM AND PLACING DETAILS OF ACI STANDARDS AND SPECIFICATIONS.
17. PROVIDE DOWELS INTO FOOTINGS, PILE CAPS, SUPPORT BEAMS, ETC. TO MATCH VERTICAL BARS WITH LAP SPICES PER SPlice TABLE IN TYPICAL DETAIL, UNO.

1. ALL SHOP DRAWINGS MUST BE REVIEWED AND STAMPED APPROVED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL.
2. THE GENERAL CONTRACTOR SHALL SUBMIT FOR ENGINEER REVIEW SHOP DRAWINGS FOR THE FOLLOWING ITEMS:
  - ITEMS MARKED (D) SHALL HAVE SHOP DRAWINGS SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA (IN WHICH THE PROJECT RESIDES).
  - ITEMS MARKED (#) SHALL BE SUBMITTED FOR ENGINEERS RECORD ONLY.
- A. REINFORCING STEEL
- B. CONCRETE MIX DESIGNS
- C. METAL STAIRS (D)
- D. GUARDRAILS (D)
3. MANUFACTURER'S LITERATURE. SUBMIT TWO COPIES OF MANUFACTURER'S LITERATURE FOR ALL MATERIALS AND PRODUCTS USED IN CONSTRUCTION ON THE PROJECT.

1. SHALL BE ASTM A615 GRADE 60 DEFORMED BARS, FREE FROM OIL, SCALE AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL BENDING DIAGRAM AND PLACING DETAILS OF ACI STANDARDS AND SPECIFICATIONS.
2. PROVIDE CONCRETE COVER OVER PRIMARY REINFORCEMENT, TIES, AND STIRRUPS, AS FOLLOWS, UNLESS OTHERWISE NOTED:

3. SECURE APPROVAL OF SHOP DRAWINGS PRIOR TO COMMENCING FABRICATION.
4. PROVIDE STANDARD HOOKS AT DISCONTINUOUS ENDS OF ALL TOP BARS.
5. WHERE REINFORCING IS SHOWN CONTINUOUS, SPlice BOTTOM BARS OVER SUPPORTS AND TOP BARS AT CENTER OF SPAN. ALL OTHER LAP SPICES SHALL BE IN ACCORDANCE WITH SPICE DETAIL ON DRAWING.
6. PROVIDE DOWELS IN TOP FOOTINGS, PILE CAPS, SUPPORT BEAMS, ETC. TO MATCH VERTICAL BARS WITH CLASS B TENSION LAP SPICES, U.N.O.
7. LENGTH OF LAP SPICES AND BAR EMBEDMENT SHALL BE AS SHOWN IN TABLE, UNLESS OTHERWISE NOTED:

WHERE "T" IS DEPTH OF CONCRETE UNDER BARS AND "DB" IS BAR DIAMETER.  
UTILIZE CLASS "B" SPLICE FOR ALL SPLICES, U.N.O. ON PLANS OR DETAILS.

8. AT CHANGES IN DIRECTION OF CONCRETE WALLS AND TIE BEAMS, PROVIDE CORNER BARS OF SAME SIZE AND SPACING AS HORIZONTAL STEEL.

9. WHERE HOOKS ARE SHOWN ON THE PLANS OR DETAILS, HOOKS SHALL BE DETAILED TO EXTEND DEEP ENOUGH INTO SUPPORTING STRUCTURE TO DEVELOP THE FULL STRENGTH OF THE HOOKED BAR. PROVIDE ADDITIONAL TIES OR STIRRUPS IN SUPPORTING STRUCTURE AS REQUIRED TO SATISFY ACI 318 HOOD DEVELOPMENT, CONFINEMENT, AND ANCHORAGE CRITERIA.

1. CONCRETE SHALL BE PER AN APPROVED MIX DESIGN PROPORTIONED TO ACHIEVE A STRENGTH AT 28 DAYS OF 4,000 PSI WITH A PLASTIC AND WORKABLE MIX.
2. CONCRETE SHALL BE PLACED AND CURED ACCORDING TO ACI STANDARDS AND SPECIFICATIONS.
3. SUBMIT PROPOSED MIX DESIGN WITH RECENT FIELD CYLINDER OR LAB TESTS FOR REVIEW PRIOR TO USE.
4. MIX SHALL BE UNIQUELY IDENTIFIED BY MIX NUMBER OR OTHER POSITIVE IDENTIFICATION.
5. MIX SHALL MEET THE REQUIREMENT OF ASTM C33 FOR COARSE AGGREGATE.

1. AN INDEPENDENT TESTING LABORATORY SHALL PERFORM THE FOLLOWING TESTS ON CAST IN PLACE CONCRETE:

- A. ASTM C143 - "STANDARD TEST METHOD FOR SLUMP OF PORTLAND CEMENT CONCRETE."
- B. ASTM C39 - "STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS:" A SEPARATE TEST SHALL BE CONDUCTED FOR EACH CLASS, FOR EVERY 50 CUBIC YARDS (OR FRACTION THEREOF), PLACED PER DAY. REQUIRED LAB CURED CYLINDER QUANTITIES AND TEST AGE AS FOLLOWS:
  - (2) AT 7 DAYS
  - (2) AT 28 DAYS

ONE ADDITIONAL RESERVE CYLINDER TO BE TESTED UNDER THE DIRECTION OF THE ENGINEER, IF REQUIRED. IF 28-DAY STRENGTH IS ACHIEVED, THE ADDITIONAL CYLINDER(S) MAY BE DISCARDED.

1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH PROJECT SPECIFICATIONS AND ELECTRICAL DRAWINGS. CONSULT THESE DRAWINGS FOR OPENINGS, DEPRESSIONS, EQUIPMENT WEIGHTS AND LOCATIONS, EMBEDDED ITEMS AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.
2. DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
3. NO STRUCTURAL MEMBER OR COMPONENT SHALL BE CUT, NOTCHED, OR OTHERWISE ALTERED UNLESS APPROVED IN WRITING BY THE ENGINEER OF RECORD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL COSTS INCURRED BY THE ENGINEER OF RECORD FOR REVIEW OF ANY SUCH DEVIATIONS.
4. DO NOT SCALE DRAWINGS.
5. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS.
6. DETAILS LABELED "TYPICAL DETAILS" ON THE DRAWINGS SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. THE APPLICABILITY OF THE DETAIL TO ITS LOCATION ON THE DRAWINGS CAN BE DETERMINED BY THE TITLE OF DETAIL. SUCH DETAILS SHALL APPLY WHETHER OR NOT THEY ARE REFERENCED AT EACH LOCATION. QUESTIONS REGARDING APPLICABILITY OF TYPICAL DETAILS SHALL BE DETERMINED BY THE ENGINEER OF RECORD.
7. THE GENERAL CONTRACTOR SHALL COMPARE THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, CIVIL AND OTHER DRAWINGS AND REPORT ANY DISCREPANCIES BETWEEN EACH SET OF DRAWINGS AND WITHIN EACH SET OF DRAWINGS TO THE ARCHITECT AND ENGINEER OF RECORD PRIOR TO THE FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS.
8. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE, AND DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, SEQUENCE AND SAFETY. THE ENGINEER DOES NOT HAVE CONTROL OR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSION OF THE CONTRACTOR, SUBCONTRACTOR OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
9. THE STRUCTURAL ENGINEER'S OBLIGATIONS TO REVIEW SHOP DRAWINGS AND OTHER SUBMITTALS AND TO RETURN THEM IN A TIMELY MANNER ARE CONDITIONED UPON THE PRIOR REVIEW AND APPROVAL OF SHOP DRAWINGS OR SUBMITTALS BY THE CONTRACTOR AS REQUIRED IN THE CONSTRUCTION CONTRACT AND THE CONTRACTOR'S SUBMITTAL OF THE SHOP DRAWINGS AND OTHER SUBMITTALS IN ACCORDANCE WITH A WRITTEN SCHEDULE DISTRIBUTED IN ADVANCE TO THE ENGINEER IDENTIFYING THE DATES FOR THE SUBMITTAL OF THE VARIOUS SHOP DRAWINGS AND SUBMITTALS.
10. ALL STRUCTURES REQUIRE PERIODIC MAINTENANCE TO EXCEED LIFE SPAN AND TO ENSURE STRUCTURAL INTEGRITY FROM EXPOSURE TO THE ENVIRONMENT. A PLANNED PROGRAM OF MAINTENANCE SHALL BE ESTABLISHED BY THE OWNER. THIS PROGRAM SHALL INCLUDE ITEMS SUCH AS, BUT NOT LIMITED TO, PAINTING OF STRUCTURAL STEEL, PROTECTIVE COATINGS FOR CONCRETE, SEALANTS, CAULKED JOINTS, EXPANSION JOINTS, CONTROL JOINTS, SPALLS AND CRACKS IN CONCRETE, AND PRESSURE WASHING OF EXPOSED STRUCTURAL ELEMENTS EXPOSED TO SALT ENVIRONMENT OR OTHER HARMFUL CHEMICALS.
11. IN THE PROFESSIONAL OPINION OF TLO ENGINEERING SOLUTIONS, THE STRUCTURAL CONTRACT DOCUMENTS FOR THIS PROJECT HAVE BEEN PREPARED IN ACCORDANCE WITH THE DESIGN CRITERIA AS SET FORTH IN THE FLORIDA BUILDING CODE (FBC) 6th EDITION (2017).

1. THE STRUCTURAL SYSTEM FOR THIS BUILDING HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, 6th EDITION (2017), AND AS SUPPLEMENTED BY LOCAL AMENDMENTS.
2. THE FOLLOWING SUPERIMPOSED LOADINGS HAVE BEEN UTILIZED:

## 2.2 LIVE LOADS

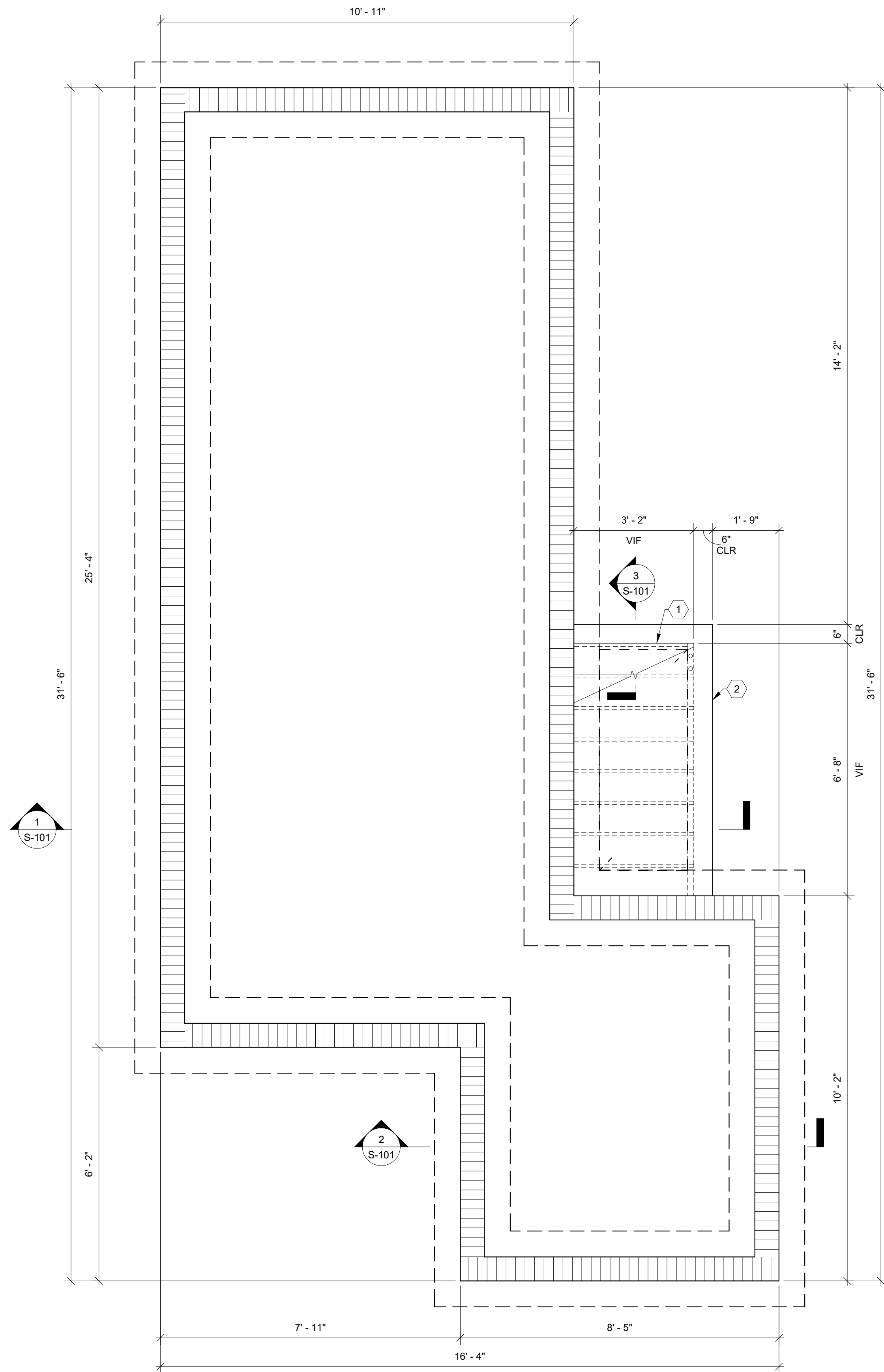
2.2 WIND LOADS: PER FLORIDA BUILDING CODE, SECTION 1609.

NOMINAL DESIGN WIND SPEED, $V_{asd}$	136 MPH (3 SEC. GUST)
--------------------------------------	-----------------------

2.4 SEISMIC LOADS: PER FLORIDA BUILDING CODE, SECTION 1610.

SPECTRAL RESPONSE ACCELERATION, 1.0 SECOND DURATION (S1)	0.02
SITE CLASSIFICATION	D
SEISMIC USE GROUP	I
SEISMIC DESIGN CATEGORY	A
SEISMIC IMPORTANCE FACTOR	1.0

1. RFI SHALL ORIGINATE WITH CONTRACTOR AND SHALL BE SUBMITTED IN THE FORM SPECIFIED WITHIN CONTRACT DOCUMENTS. RFI SHALL BE SUBMITTED IN A PROMPT MANNER AS TO AVOID DELAYS IN CONTRACTORS WORK.
2. RFI SHALL BE SUBMITTED AS SPECIFIED WITHIN THE CONTRACT DOCUMENTS AND SHALL BE FORWARDED TO THE ENGINEER BY THE ARCHITECT OR DIRECTLY TO THE ENGINEER BY THE CONTRACTOR WHEN APPROVED BY THE ARCHITECT.
3. ENGINEER SHALL TAKE UP TO 5 BUSINESS DAYS TO REVIEW AND RETURN RFIS. HOWEVER, THE ENGINEER WILL ATTEMPT TO EXPEDITE THE REVIEW OF ALL RFIS WITHIN A REASONABLE TIME FRAME.
4. RFI RESPONSES ARE NOT INTENDED TO AUTHORIZE ANY INCREASE IN CONSTRUCTION COST, SCHEDULE OR TIME EXTENSIONS, OR CONSTRUCTION IN CONFLICT WITH ANY APPLICABLE CODES OR SPECIFIED DESIGN STANDARDS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE DESIGN TEAM IMMEDIATELY OF ANY PERCEIVED SCOPE, SCHEDULE, OR COST IMPACTS OR ADJUSTMENTS. IF THE CONTRACTOR REQUESTS AN ADDITIONAL COST, INCREASE IN SCHEDULE OR ADJUSTMENT IN SCOPE, THE CONTRACTOR SHALL NOT PROCEED WITH ADDITIONAL WORK UNTIL APPROVED IN WRITING BY THE CONSTRUCTION ADMINISTRATOR.

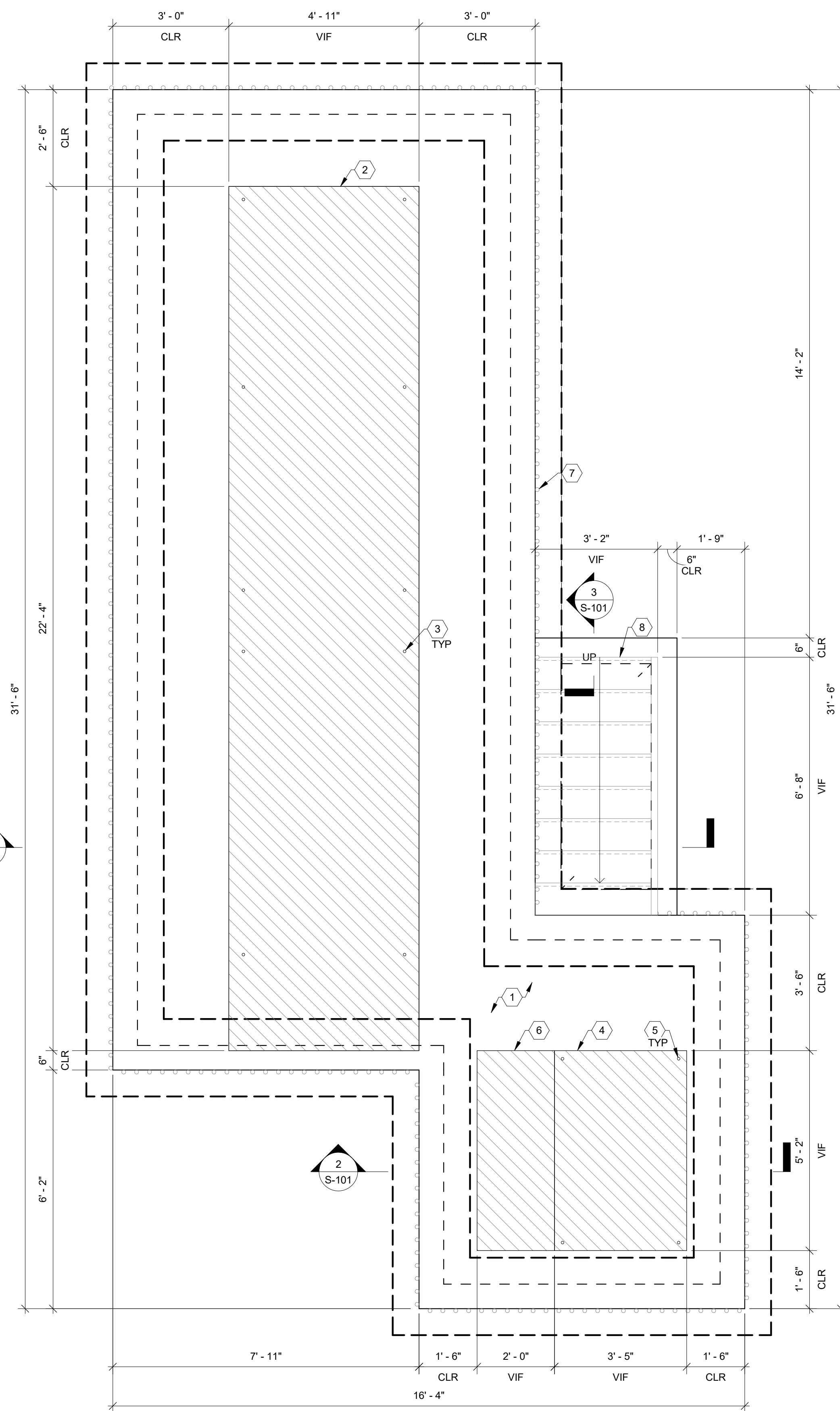


FOUNDATION PLAN NOTES

- 1 STEEL STAIRS BY OTHERS.
- 2 4" CONC SLAB-ON-GRADE W/ 6x6-  
W2.9xW2.9 WWF (FLA1 /S-101/S). SEE

**NOTE:**

1. STEEL REINFORCEMENT, METAL GUARDRAILS, AND STEEL STAIRS SHALL BE BONDED TO GROUND. SEE ELECTRICAL DRAWINGS FOR GROUNDING INFORMATION.
2. ALL EXPOSED STEEL, FASTENERS, HARDWARE AND ACCESSORIES TO BE HOT-DIPPED GALVANIZED.



### ELEVATED SLAB PLAN NOTES

1. VERIFY EQUIPMENT PAD LOCATION W/ ELECTRICAL DRAWINGS.
2. NEW STANDBY GENERATOR. ENCLOSURE AND SUB-BASE TANK - SEE ELECTRICAL DRAWINGS FOR SIZE AND LOCATION.
3. 3/4" Ø ASTM F1554 GRADE 36 ANCHOR BOLTS W/ MIN EMBEDMENT = 6". REFER TO GENERATOR BASE SHOP DRAWING FOR ANCHOR BOLT LOCATION AND SPACING.
4. NEW AUTOMATIC TRANSFER SWITCH - SEE ELECTRICAL DRAWINGS FOR SIZE AND LOCATION.
5. 1/2" Ø ASTM F1554 GRADE 36 ANCHOR BOLTS W/ MIN EMBEDMENT = 6". REFER TO AUTOMATIC TRANSFER SWITCH SHOP DRAWING FOR ANCHOR BOLT LOCATION AND SPACING.
6. NEW PULL BOX - SEE ELECTRICAL DRAWINGS FOR SIZE AND LOCATION.
7. GUARDRAIL ALL AROUND BY OTHERS.
8. STEEL STAIRS BY OTHERS.

**NOTE:**

1. STEEL REINFORCEMENT, METAL GUARDRAILS, AND STEEL STAIRS SHALL BE BONDED TO GROUND. SEE ELECTRICAL DRAWINGS FOR GROUNDING INFORMATION.
2. ALL EXPOSED STEEL, FASTENERS, HARDWARE AND ACCESSORIES TO BE HOT-DIPPED GALVANIZED.



874 Dixon Blvd.  
Cocoa, FL 32922  
P 321.636.0274  
[www.tlc-engineers.com](http://www.tlc-engineers.com)

COA 15

© Copyright 2019 TLC Engineering Solutions, Inc.

TLC Project No.: 619056

**THINK. LISTEN. CREATE.**

North Shore Youth Center  
Generator-ATS

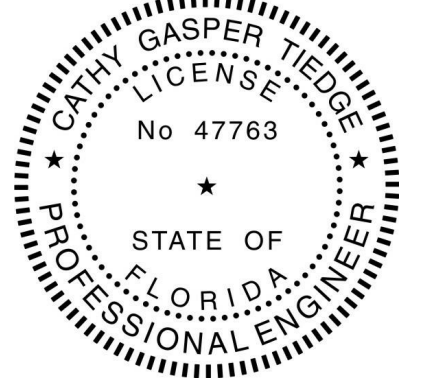
501 72nd St, Miami Beach, FL 33141

Consultants:

[illegible]

Seal

CATHY TIEDGE, P.E.  
Florida License #47763



Project No.: 619056

Issue Date: 08/08/19

Drawn By: MTO

Approved By: CGT

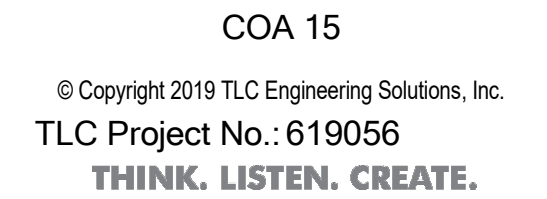
Scale: As indicated

Drawing Title: \_\_\_\_\_

FOUNDATION PLAN &  
ELEVATED SLAB  
PLAN

Drawing No.:

S-100



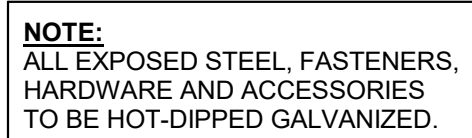
501 72nd St, Miami Beach, FL 33141

[illegible]

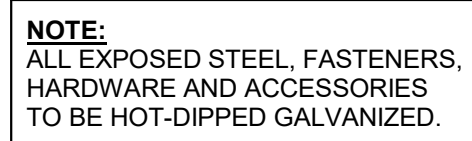
A circular professional engineer seal for Cathy Gasper Tiede. The outer ring contains the text "CATHY GASPER TIEDE" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. Inside this ring, the word "LICENSE" is at the top, "No 47763" is in the center, and "STATE OF FLORIDA" is at the bottom, also separated by two stars. The seal has a decorative, serrated border.

Drawing Title:  
**SECTIONS**

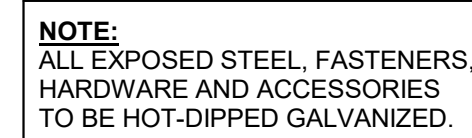
Drawing No.:  
**S-101**



C:\Revit Local\619056 NORTH SHORE GEN\_R19\_STR\_Robee Sandoval.rvt



8/8/2019 4:21:22 PM



② SECTION AT ATS PLATFORM  
3/4" = 1'-0"

No.	Date	Description
1	09-05-19	BD COMMENTS



FAULT CURRENT CALCULATIONS POINT TO POINT METHOD FOR 3-PHASE SERVICE			POINT A
Utility Transformer Capacity (Kva)	Kva	1500	
Utility Transformer in per-cent (%Z)	%Z	3	
Volts Line to Line (On Secondary of Utility Transformer) (Volts)	$V_{(L-L)}$	480	
Nominal Secondary Current (Calculated) (Amps)	$I_{(SC)}$	1805	
Distance from Xfrm to calculated point (in feet)	L	150	
Number of sets	# sets	4	
Conductor size	KCM	400	
Conduit metal or non-magnetic	Metallic?	NO	
Value equals to one over the impedance per foot of values found in IEEE 241-1990 tables for conductors & bussway	"C"	24,297	
Sum of the full load current of all contributing motors	MC	140	

ITEM	CALCULATION	
Nominal Current @ Xmer Secondary	1,805	Amps
Transformer multiplier = $100/(\%Z)$	30	
(*) Fault current at Xfmr location:	54,150	Amps
Factor "f" for 3-phase	0.3016	
Multiplier "MF"	0.7683	
Symmetrical RMS fault at location	41,603	Amps
Motor contribution	560	Amps
Total fault current at Point "A" location	42,163	Amps

(\*) If the available short-circuit current in the secondary of the transformer is known enter this number in the cell and discard the transformer capacity and impedance value

MECHANICAL SPECIFIC NOTE:  
FLUE EXHAUST TERMINATION POINT OUTDOOR:  
- FLUE EXHAUST TERMINATION POINT SHALL BE 30 FEET FROM PROPERTY LINES AND FROM COMBUSTIBLE WALLS AND OPERABLE OPENINGS INTO BUILDINGS WHICH ARE IN THE DIRECTION OF THE EXHAUST DISCHARGE; 10 FEET FROM OPERABLE OPENINGS INTO BUILDINGS AND ABOVE ADJOINING GRADE; 6 FEET FROM EXTERIOR WALLS AND ROOFS. FBC M-501.3.1. ITEM 1.

KEYED NOTES:

- EXISTING SERVICE ENTRANCE CONDUCTORS COMING FROM FPL PAD MOUNTED TRANSFORMER. REFER TO SHEET E1.000 - ELECTRICAL SITE PLAN. CALL 811 TO DETERMINE THE EXACT ROUTING FOR THE EXISTING SERVICE ENTRANCE CONDUCTORS.
- INSTALL NEW HANDHOLE W36" X L60" X D40" MINIMUM. REFER TO SHEET E2.000 FOR DETAILS.
- EXISTING SERVICE ENTRANCE CONDUCTORS SHALL BE CUT OFF AND EXTENDED UP TO PULL-BOX CABINET ATTACHED TO TRANSFER SWITCH. EXTEND WIRES USING (4) SETS. EACH SET=4#400KCM THWN IN 3" PVC-UG. USE WATERPROOF POLARIS CONNECTORS INSIDE THE HANDHOLE.
- NEW PULL-BOX. NEMA 3R. LOCKABLE WITH PAD LOCK. INSTALL CURRENT TRANSFORMERS AND FPL METER INSIDE. COORDINATE WITH FPL FOR APPROVED MANUFACTURER AND MODELS.
- NEW AUTOMATIC TRANSFER SWITCH - SERVICE RATED, 1,200A - 3P - 480V WITH MAIN CIRCUIT BREAKER = 1,200A - 3P. GROUND FAULT PROTECTION, AND SHUNT TRIP CAPABILITY, AIC = 65,000; NEMA 4X ENCLOSURE. LABEL AS "MAIN 1 OF 1" - "1,200A-480V".
- NEW 3 SETS. EACH SET = (4) #300 KCM THWN + (1) #1/0 AWG THWN(G) IN 3" PVC-UG.
- NEW EMERGENCY GENERATOR 500 KW - 480V - 3Ø - 4W. WITH MAIN CIRCUIT BREAKER = 800A - 3P. REFER TO SHEET E3.001 FOR FURTHER DETAILS.
- NEW 4 SETS. EACH SET = (4) #400 KCM THWN + (1) #3/0 AWG THWN(G) IN 3" PVC-UG.
- NEW 4 SETS. EACH SET = (4) #400 KCM THWN + (1) #3/0 AWG THWN(G) IN EXISTING 3" PVC-UG.
- EXISTING GUTTER. EXISTING WIRES INSIDE THE GUTTER SHALL BE REMOVED AND REPLACED AS INDICATED ON THE ELECTRICAL RISER DIAGRAM. ALL OPENING SHALL BE COVERED.
- EXISTING PANEL "T1" MCB = 400A - 3P - 480V. THIS MCB IS NOT LONGER A MAIN SERVICE DISCONNECT. REMOVE ANY BONDING WIRE BETWEEN NEUTRAL BAR AND GROUND BAR INSIDE PANEL "T1" CABINET.
- EXISTING PANEL "MDP". MCB = 1,000A - 3P - 480V. THIS MCB IS NOT LONGER A MAIN SERVICE DISCONNECT. REMOVE ANY BONDING WIRE BETWEEN NEUTRAL BAR AND GROUND BAR INSIDE PANEL "MDP" CABINET.
- EXISTING FPL METER TO BE REMOVED. REMOVE ALL WIRING
- EXISTING C.T.'S AND C.T. CABINET TO BE REMOVED.
- NEW PUSH BUTTON TO TRIGGER THE SHUNT TRIP ON THE MAIN CIRCUIT BREAKER (MAIN 1 OF 1) LOCATED AT THE NEW TRANSFER SWITCH. PROVIDE A SIGN (1-IN LETTER) CLOSE TO THE BUTTON READING "SHUNT TRIP MAIN 1 OF 1 LOCATED OUTSIDE AT THE TRANSFER SWITCH"
- NEW J-BOX FOR REMOTE ANNUNCIATOR WIRING. REMOTE ANNUNCIATOR SHALL BE LOCATED AT THE MAIN OFFICE. FINAL LOCATION OF REMOTE ANNUNCIATOR WILL BE DEFINED BY PROPERTY MANAGER. EXTEND CIRCUIT FROM J-BOX UP TO FINAL LOCATION OF THE REMOTE ANNUNCIATOR.
- NEW EMERGENCY GENERATOR SHUT OFF BUTTON. J-BOX FOR REMOTE ANNUNCIATOR WIRING. FINAL LOCATION OF REMOTE ANNUNCIATOR WILL BE DEFINED BY PROPERTY MANAGER. EXTEND CIRCUIT FROM J-BOX UP TO FINAL LOCATION OF THE REMOTE ANNUNCIATOR.
- EXISTING PANEL "T1A" TO REMAIN.

GENERAL NOTES:

NEW GENERATOR AND ATS SHALL BE INSTALLED ABOVE THE ELECTRICAL DATUM GRADE. PROVIDE SUPPORT STRUCTURE AS INDICATED ON STRUCTURAL DRAWINGS.

SUPPORT STRUCTURE SHALL HAVE REQUIRE HANDRAILS AND RAILS.

GENERATOR ENCLOSURE SHALL BE ALUMINUM, LEVEL 1 SOUND PROOF, AND CAPABLE TO WITHSTAND WIND GUST UP TO 186 MPH.

AUTOMATIC TRANSFER SWITCH SHALL BE SERVICE RATED, NEMA 3R AND CAPABLE TO WITHSTAND WIND GUST UP TO 186 MPH.

NEW UNDERGROUND CONDUITS SHALL BE INSTALLED A 24" BFG.

COORDINATE WITH FPL AND OWNER FOR POWER INTERRUPTION DURING CONSTRUCTION PHASES.

NO FUEL PORT IS REQUIRED. SUB BASE TANK IS ACCESSIBLE TO FUELING TRUCK THROUGH THE GATE.

1 ENLARGED ELECTRICAL PARTIAL FLOOR PLAN  
ME1.101 1/4" = 1'-0"