



Work Order Signature Document

NJPA EZIQc Contract No.: FL-MDCAE04-052014-SES

New Work Order **Modify an Existing Work Order**

Work Order Number.: 062105.00 Work Order Date: 11/06/2018

Work Order Title: Miami Beach Property Management Office New Generator

Owner Name: City of Miami Beach Contractor Name: Solares Electrical Services, Inc

Contact: Adrian Morales Contact: Andres Solares

Phone: 305-673-7000 Phone:

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-MDCAE04-052014-SES.

Brief Work Order Description:

Time of Performance Estimated Start Date:
Estimated Completion Date:

Liquidated Damages Will apply: Will not apply:

Work Order Firm Fixed Price: \$228,947.59

Owner Purchase Order Number:

Approvals

Owner Date Contractor Date

Detailed Scope of Work

To: Andres Solares
Solares Electrical Services, Inc
10421 NW 28th Street
Miami, FL 33172
No Data Input

From: Adrian Morales
City of Miami Beach
1700 Convention Center Drive
Miami Beach, FL 33139
305-673-7000

Date Printed: November 06, 2018

Work Order Number: 062105.00

Work Order Title: Miami Beach Property Management Office New Generator

Brief Scope:

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.

Provide and Install new generator, ATS, conduit, wiring, concrete pad, demo etc as indicated in the electrical drawings E1.01.

Subject to the terms and conditions of JOC Contract **FL-MDCAE04-052014-SES**.

Contractor

Date

Owner

Date

Contractor's Price Proposal - Summary

Date: November 06, 2018

Re: IQC Master Contract #: FL-MDCAE04-052014-SES
Work Order #: 062105.00
Owner PO #:
Title: Miami Beach Property Management Office New Generator
Contractor: Solares Electrical Services, Inc
Proposal Value: \$228,947.59

Section - 01	\$24,234.05
Section - 02	\$668.03
Section - 03	\$5,177.56
Section - 22	\$961.75
Section - 23	\$1,744.47
Section - 26	\$185,982.37
Section - 28	\$567.67
Section - 32	\$9,611.69
Proposal Total	\$228,947.59

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: 60.40%

Contractor's Price Proposal - Detail

Date: November 06, 2018

Re: IQC Master Contract #: FL-MDCAE04-052014-SES
 Work Order #: 062105.00
 Owner PO #:
 Title: Miami Beach Property Management Office New Generator
 Contractor: Solares Electrical Services, Inc
 Proposal Value: \$228,947.59

Sect.	Item	Mod.	UOM	Description	Line Total
Labor	Equip.	Material	(Excludes)		
Section - 01					
1	01 22 16 00 0002		EA	Reimbursable Fees Reimbursable fees will be paid to the contractor for the actual cost, without mark-up, for which a receipt or bill is received. The Adjustment Factor applied to Reimbursable Fees will be 1.0750. The labor cost involved in obtaining all permits is in the Adjustment Factor. The base cost of the Reimbursable Fee is \$1.00. The quantity used will adjust the base cost to the actual Reimbursable Fee (e.g. quantity of 125 = \$125.00 Reimbursable Fee). If there are multiple Reimbursable Fees, each one shall be listed separately with a comment in the "note" block to identify the Reimbursable Fees (e.g. sidewalk closure, road cut, various permits, extended warrantee, expedited shipping costs, etc.). A copy of each receipt shall be included with the Proposal.	\$4,929.02
			Installation	Quantity 4,427.00 x Unit Price 1.00 x Factor 1.1134 = Total 4,929.02	
				permit	
2	01 22 20 00 0010		HR	Electrician Tasks in the CTC include appropriate costs to cover labor. These tasks will be requested specifically by the owner for miscellaneous work not covered in the CTC.	\$1,320.40
			Installation	Quantity 32.00 x Unit Price 37.06 x Factor 1.1134 = Total 1,320.40	
				work related to note 12 page E-1.01	
3	01 22 20 00 0049		HR	Investigating Senior Engineer Or Specialty Consultant For special investigatory engineering requirements or other miscellaneous professional services.	\$3,340.20
			Installation	Quantity 24.00 x Unit Price 125.00 x Factor 1.1134 = Total 3,340.20	
				for permitting, testing and owner;s training	
4	01 22 23 00 0386		WK	1/2 To 5/8 CY, 65 HP, Loader-Backhoe With Standard Bucket And Full-Time Operator	\$2,548.33
			Installation	Quantity 1.00 x Unit Price 2,288.78 x Factor 1.1134 = Total 2,548.33	
5	01 22 23 00 0718		DAY	650 KW A/C Resistive Loadbank	\$1,003.46
			Installation	Quantity 2.00 x Unit Price 450.63 x Factor 1.1134 = Total 1,003.46	
6	01 22 23 00 0736		EA	Fuel Reimbursement For Generators Purchases made by the contractor for fuel will be reimbursed to the Contractor at the actual cost of the purchase, without mark-up, for which a receipt or bill is received. The Adjustment Factor applied to Reimbursable Fees will be 1.0000. The base cost of the purchase is \$1.00, quantity will adjust cost to actual purchase cost; i.e., quantity of 125 = \$125.00 purchase. If there are multiple purchases, each one shall be listed separately with a comment in the "note" block to identify the purchase.	\$2,226.80
			Installation	Quantity 2,000.00 x Unit Price 1.00 x Factor 1.1134 = Total 2,226.80	
7	01 22 23 00 1173		WK	3 Ton, 4 x 2 Flat Bed Truck With Full-Time Truck Driver	\$3,103.20
			Installation	Quantity 1.00 x Unit Price 2,787.14 x Factor 1.1134 = Total 3,103.20	

Contractor's Price Proposal - Detail Continues..

Work Order Number: 062105.00
Work Order Title: Miami Beach Property Management Office New Generator

Section - 01

8	01 45 23 00 0011	EA	Proctor Compaction 4" Standard Mold ASTM D698, Field Soils Test						\$356.98
		Installation	Quantity	Unit Price	Factor	=	Total		
			2.00	160.31	1.1134		356.98		
9	01 71 13 00 0005	EA	Up To 20 Ton Lift Move On/Off Cost, Truck Mounted CraneIncludes delivery and pickup.						\$278.35
		Installation	Quantity	Unit Price	Factor	=	Total		
			1.00	250.00	1.1134		278.35		
10	01 71 13 00 0005 0047	MOD	For >30 To 60 Miles Radius, Add						\$69.59
		Installation	Quantity	Unit Price	Factor	=	Total		
			1.00	62.50	1.1134		69.59		
11	01 71 23 16 0005	HR	2 Person Survey Crew (Unit Of Measure Is Per Crew Hour Worked)Includes surveyor, rodman, equipment and instruments.						\$178.58
		Installation	Quantity	Unit Price	Factor	=	Total		
			1.00	160.39	1.1134		178.58		
12	01 71 23 16 0023	ACR	Survey Clear Area For Underground Utilities						\$3,633.86
		Installation	Quantity	Unit Price	Factor	=	Total		
			1.00	3,263.75	1.1134		3,633.86		
13	01 71 36 00 0003	EA	X-Ray Or Electromagnetic Survey Minimum Set-Up ChargeFor projects where the total charges are less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.						\$331.20
		Installation	Quantity	Unit Price	Factor	=	Total		
			1.00	297.47	1.1134		331.20		
14	01 74 19 00 0016	EA	30 CY Dumpster (4 Ton) "Construction Debris"Includes delivery of dumpster, rental cost, pick-up cost, hauling, and disposal fee. Non-hazardous material.						\$686.95
		Installation	Quantity	Unit Price	Factor	=	Total		
			1.00	616.98	1.1134		686.95		
15	01 74 19 00 0037	CYM	Hauling On Paved Roads, Miles Over Initial 15 Miles						\$227.13
		Installation	Quantity	Unit Price	Factor	=	Total		
			600.00	0.34	1.1134		227.13		

Subtotal for Section - 01 **\$24,234.05**

Section - 02

16	02 41 19 13 0057	EA	Saw Cut Minimum ChargeFor projects where the total saw cutting charge is less than the minimum charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.						\$512.15
		Installation	Quantity	Unit Price	Factor	=	Total		
			1.00	459.99	1.1134		512.15		
17	02 66 23 00 0065	SF	Cleanup And Re-Grade Working Surface						\$155.88
		Installation	Quantity	Unit Price	Factor	=	Total		
			2,000.00	0.07	1.1134		155.88		

Subtotal for Section - 02 **\$668.03**

Section - 03

18	03 11 13 00 0026	SF	Elevated Slab Wood Formwork						\$299.95
		Installation	Quantity	Unit Price	Factor	=	Total		
			60.00	4.49	1.1134		299.95		
19	03 21 11 00 0009	TON	>#6, Grade 70, Footings And Slabs, Reinforcing Steel						\$3,911.29
		Installation	Quantity	Unit Price	Factor	=	Total		
			2.00	1,756.46	1.1134		3,911.29		

Contractor's Price Proposal - Detail Continues..

Work Order Number: 062105.00
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Section - 03

20	03 31 13 00 0018	CY	Direct Chute, Place 3,000 PSI Concrete Continuous Footings						\$966.32
		Installation	Quantity	Unit Price	Factor	=	Total		
			10.00	86.79	1.1134		966.32		

Subtotal for Section - 03 **\$5,177.56**

Section - 22

21	22 11 16 00 0007	LF	2" Schedule 40 Threaded Galvanized Steel Pipe With 150 LB Malleable Iron Fitting Assembly Includes all hangers and all galvanized malleable iron fittings (couplings, elbows, tees and reducer fittings). All hangers are complete assemblies. Not for use where detail is available.						\$961.75
		Installation	Quantity	Unit Price	Factor	=	Total		
			70.00	12.34	1.1134		961.75		

Subtotal for Section - 22 **\$961.75**

Section - 23

22	23 05 48 00 0021	EA	550-1,920 LB Rubber In Shear Vibration Isolation With 0.48" Deflection						\$1,619.28
		Installation	Quantity	Unit Price	Factor	=	Total		
			4.00	363.59	1.1134		1,619.28		
23	23 09 23 00 0907	EA	Break Glass Switch						\$125.19
		Installation	Quantity	Unit Price	Factor	=	Total		
			1.00	112.44	1.1134		125.19		

Subtotal for Section - 23 **\$1,744.47**

Section - 26

24	26 00 00 00 0000		KOHLER Model 500REOZJ, EPA Certified Diesel Generator Set, 500KW, @ 0.8 PF, 60 Hz, 3 Phase, UL 2200, 277/480 Volt						\$138,277.41
		NPP Installation	Quantity	Unit Price	Factor	=	Total		
			1.00	111,227.00	1.2432		138,277.41		
25	26 05 13 00 0182	EA	500 MCM Cable Splice, To 5 KV One Conductor, Shielded Medium Voltage To 5 KV						\$1,546.65
		Installation	Quantity	Unit Price	Factor	=	Total		
			8.00	173.64	1.1134		1,546.65		
26	26 05 19 16 0251	MLF	#6 AWG Cable - XLPE-USE-RHH-RHW 600 V Copper, Single Stranded, Placed In Conduit						\$278.49
		Installation	Quantity	Unit Price	Factor	=	Total		
			0.20	1,250.64	1.1134		278.49		
27	26 05 19 16 0258	MLF	#3/0 AWG Cable - XLPE-USE-RHH-RHW 600 V Copper, Single Stranded, Placed In Conduit						\$361.93
		Installation	Quantity	Unit Price	Factor	=	Total		
			0.05	6,501.43	1.1134		361.93		
28	26 05 19 16 0284	MLF	#1/0 AWG Cable - Type THHN-THWN 600 V Copper, Single Stranded, Placed In Conduit						\$1,411.02
		Installation	Quantity	Unit Price	Factor	=	Total		
			0.41	3,079.20	1.1134		1,405.64		
		Demolition	Quantity	Unit Price	Factor	=	Total		
			0.02	241.97	1.1134		5.39		
29	26 05 19 16 0293	MLF	600 MCM Cable - Type THHN-THWN 600 V Copper, Single Stranded, Placed In Conduit						\$23,304.24
		Installation	Quantity	Unit Price	Factor	=	Total		
			1.38	15,119.98	1.1134		23,231.73		
		Demolition	Quantity	Unit Price	Factor	=	Total		
			0.12	542.69	1.1134		72.51		

Contractor's Price Proposal - Detail Continues..

Work Order Number: 062105.00
Work Order Title: Miami Beach Property Management Office New Generator

Section - 26

30	26 05 26 00 0099	EA	5/8" Diameter x 10' Long Copper-Clad Ground Rods						\$253.32
		Installation	Quantity	Unit Price	Factor	=	Total		
			4.00	56.88	1.1134		253.32		
31	26 05 29 00 0016	LF	>2' Length x 1-5/8" Wide x 1-5/8" High, 12 Gauge, Steel Unistrut Channel						\$665.37
		Installation	Quantity	Unit Price	Factor	=	Total		
			100.00	5.36	1.1134		596.78		
		Demolition	Quantity	Unit Price	Factor	=	Total		
			80.00	0.77	1.1134		68.59		
32	26 05 29 00 0024	EA	4-Hole, 7-1/4" Length, In-Line, Flat Splice Plate, Unistrut Channel Fitting						\$41.64
		Installation	Quantity	Unit Price	Factor	=	Total		
			10.00	3.74	1.1134		41.64		
33	26 05 29 00 0028	EA	3-Hole, 1-7/16" x 4-1/8", 90 Degree Angle, Unistrut Channel Fitting						\$29.39
		Installation	Quantity	Unit Price	Factor	=	Total		
			6.00	4.40	1.1134		29.39		
34	26 05 29 00 0034	EA	5-Hole, 1-5/8" x 1-5/8", U-Connector, Unistrut Channel Fitting						\$30.66
		Installation	Quantity	Unit Price	Factor	=	Total		
			6.00	4.59	1.1134		30.66		
35	26 05 29 00 0047	EA	4" Diameter, Rigid Steel Conduit Clamp For Unistrut Channel						\$18.26
		Installation	Quantity	Unit Price	Factor	=	Total		
			4.00	4.10	1.1134		18.26		
36	26 05 29 00 0062	EA	5/8-11 Lock Nut With Spring For Unistrut Channel						\$117.58
		Installation	Quantity	Unit Price	Factor	=	Total		
			20.00	5.28	1.1134		117.58		
37	26 05 33 13 0034	CLF	1" RGS With 4 #12 THHN/THWN Wire AssemblyIncludes conduit, terminations, straps, wire as indicated. Not for use where detail is available.						\$90.02
		Installation	Quantity	Unit Price	Factor	=	Total		
			0.15	539.01	1.1134		90.02		
38	26 05 33 13 0922	EA	4" PVC Coated, Urethane Lined, RGS Standard Radius Elbow						\$1,518.12
		Installation	Quantity	Unit Price	Factor	=	Total		
			6.00	227.25	1.1134		1,518.12		
39	26 05 43 00 0174	LF	2 At 4", PVC, Type DB Duct Bank						\$1,719.09
		Installation	Quantity	Unit Price	Factor	=	Total		
			160.00	9.65	1.1134		1,719.09		
40	26 05 43 00 0188	EA	4" Adapter						\$202.15
		Installation	Quantity	Unit Price	Factor	=	Total		
			6.00	30.26	1.1134		202.15		
41	26 05 83 00 0023	EA	1/0 AWG Compression Lugs, 1 Hole, Wrapped, Low Voltage, To 600 Volts						\$100.38
		Installation	Quantity	Unit Price	Factor	=	Total		
			4.00	22.54	1.1134		100.38		
42	26 05 83 00 0075	EA	750 MCM Compression Lugs, 2 Hole, Wrapped, Low Voltage, To 600 Volts						\$3,744.77
		Installation	Quantity	Unit Price	Factor	=	Total		
			48.00	70.07	1.1134		3,744.77		
43	26 27 13 00 0027	EA	4 Meters And Main, 120/240 Volt, 1,200 Amp Bus, 4 Jaw Sockets, 200 Amp Max						\$1,475.01
		Installation	Quantity	Unit Price	Factor	=	Total		
			1.00	1,324.78	1.1134		1,475.01		
44	26 32 13 13 0021	EA	600 KW Diesel Generator Set, 3 Phase (Cummins DQCA)						\$6,898.82
		Installation	Quantity	Unit Price	Factor	=	Total		
			1.00	6,196.17	1.1134		6,898.82		

Contractor's Price Proposal - Detail Continues..

Work Order Number: 062105.00
Work Order Title: Miami Beach Property Management Office New Generator

Section - 26

45	26	32	13	13	0021	0349	MOD	For Weather Resistant Aluminum Diesel Generator Enclosure, Add								\$0.00
							Installation	Quantity	Unit Price	Factor	=	Total				
								0.00	68,478.38	1.1134		0.00				
46	26	33	43	00	0004		EA	Solid State Battery Charger, 12 Cell Single Phase With Wall Bracket, 208/240/480 V								\$2,051.43
							Installation	Quantity	Unit Price	Factor	=	Total				
								1.00	1,842.49	1.1134		2,051.43				
47	26	36	23	00	0048		EA	800 Amp Automatic Transfer Switch/Service Entrance, 3 Pole Circuit Breaker, NEMA 1 Enclosure (Cummins OTPCSE800)								\$793.40
							Installation	Quantity	Unit Price	Factor	=	Total				
								1.00	712.59	1.1134		793.40				
48	26	36	23	00	0048	0235	MOD	For NEMA 12 Enclosure, Add								\$1,053.22
							Installation	Quantity	Unit Price	Factor	=	Total				
								1.00	945.95	1.1134		1,053.22				

Subtotal for Section - 26 **\$185,982.37**

Section - 28

49	28	05	13	23	0003		CLF	Red Teflon 2-Pair #18 Gauge, Twisted Shielded Solid CU								\$162.17
							Installation	Quantity	Unit Price	Factor	=	Total				
								1.00	145.65	1.1134		162.17				
50	28	31	23	00	0347		EA	Remote Annunciator, 80 Character LCD, Common System Indicators, Beige Housing, Mounts To 4" Box With Supplied Ring (EST3 RLCD)								\$405.50
							Installation	Quantity	Unit Price	Factor	=	Total				
								1.00	364.20	1.1134		405.50				

Subtotal for Section - 28 **\$567.67**

Section - 32

51	32	11	16	00	0004		CY	Bituminous Stabilized Base Course 3/4" ASTM C33.								\$2,356.58
							Installation	Quantity	Unit Price	Factor	=	Total				
								24.00	88.19	1.1134		2,356.58				
52	32	12	13	19	0001		SY	Surface Prime Coat, 0.28 Gallon/SY								\$25.12
							Installation	Quantity	Unit Price	Factor	=	Total				
								24.00	0.94	1.1134		25.12				
53	32	12	13	19	0001	0338	MOD	For Up To 150, Add								\$5.88
							Installation	Quantity	Unit Price	Factor	=	Total				
								24.00	0.22	1.1134		5.88				
54	32	12	16	13	0005		SY	2" Thick Binder Course Includes placement, rolling, finishing and sweeping.								\$5,918.83
							Installation	Quantity	Unit Price	Factor	=	Total				
								600.00	8.86	1.1134		5,918.83				
55	32	12	16	13	0022		TON	Base Course, PC-I								\$870.19
							Installation	Quantity	Unit Price	Factor	=	Total				
								6.00	130.26	1.1134		870.19				
56	32	12	16	13	0022	0441	MOD	For >5 To 10, Add								\$435.09
							Installation	Quantity	Unit Price	Factor	=	Total				
								6.00	65.13	1.1134		435.09				

Subtotal for Section - 32 **\$9,611.69**

Contractor's Price Proposal - Detail Continues..

Work Order Number: 062105.00

Work Order Title: Miami Beach Property Management Office New Generator

Proposal Total**\$228,947.59**

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: **60.40%**

Subcontractor Listing

Date: November 06, 2018

Re: IQC Master Contract #: FL-MDCAE04-052014-SES
 Work Order #: 062105.00
 Owner PO #:
 Title: Miami Beach Property Management Office New Generator
 Contractor: Solares Electrical Services, Inc
 Proposal Value: \$228,947.59

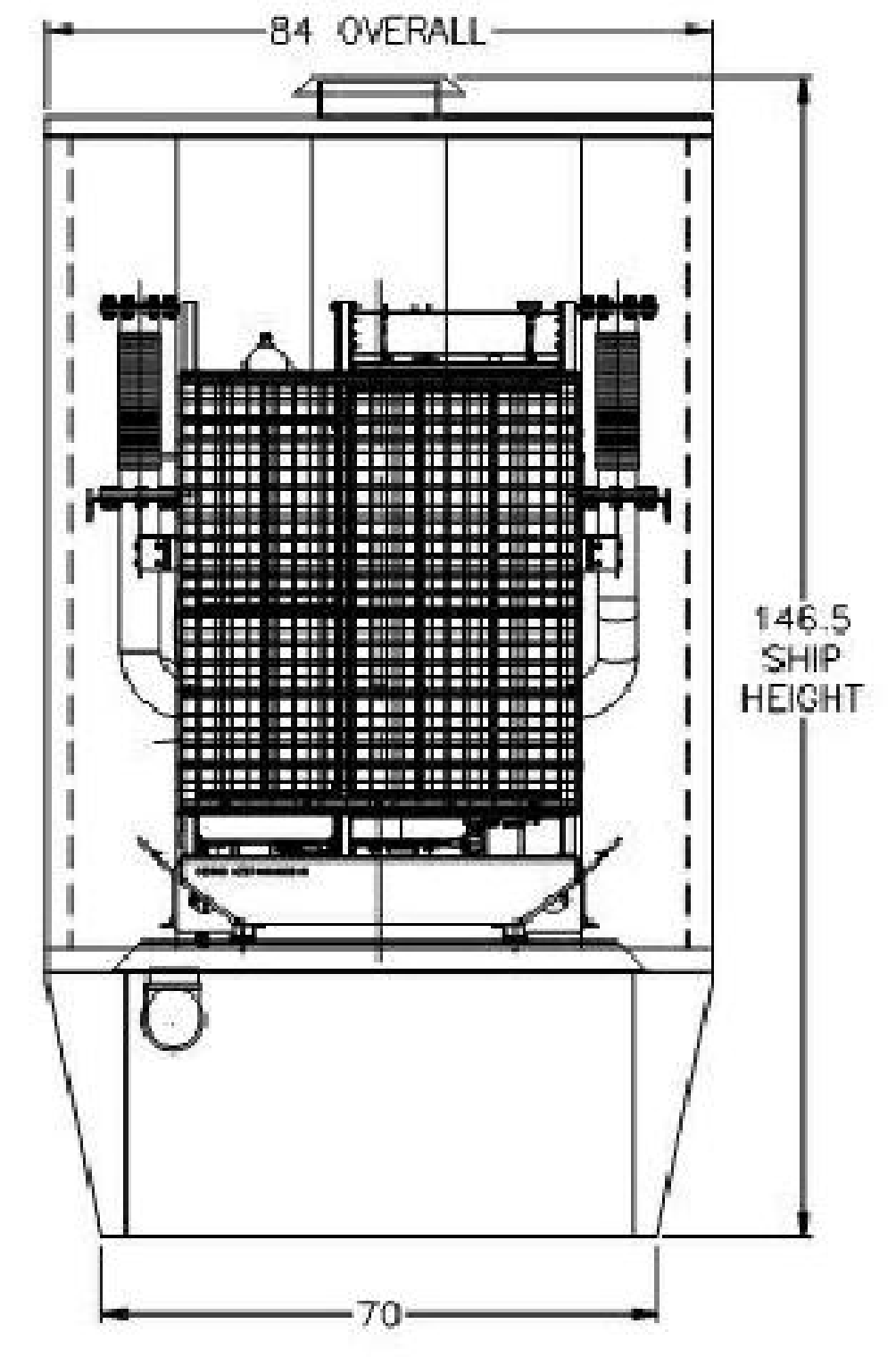
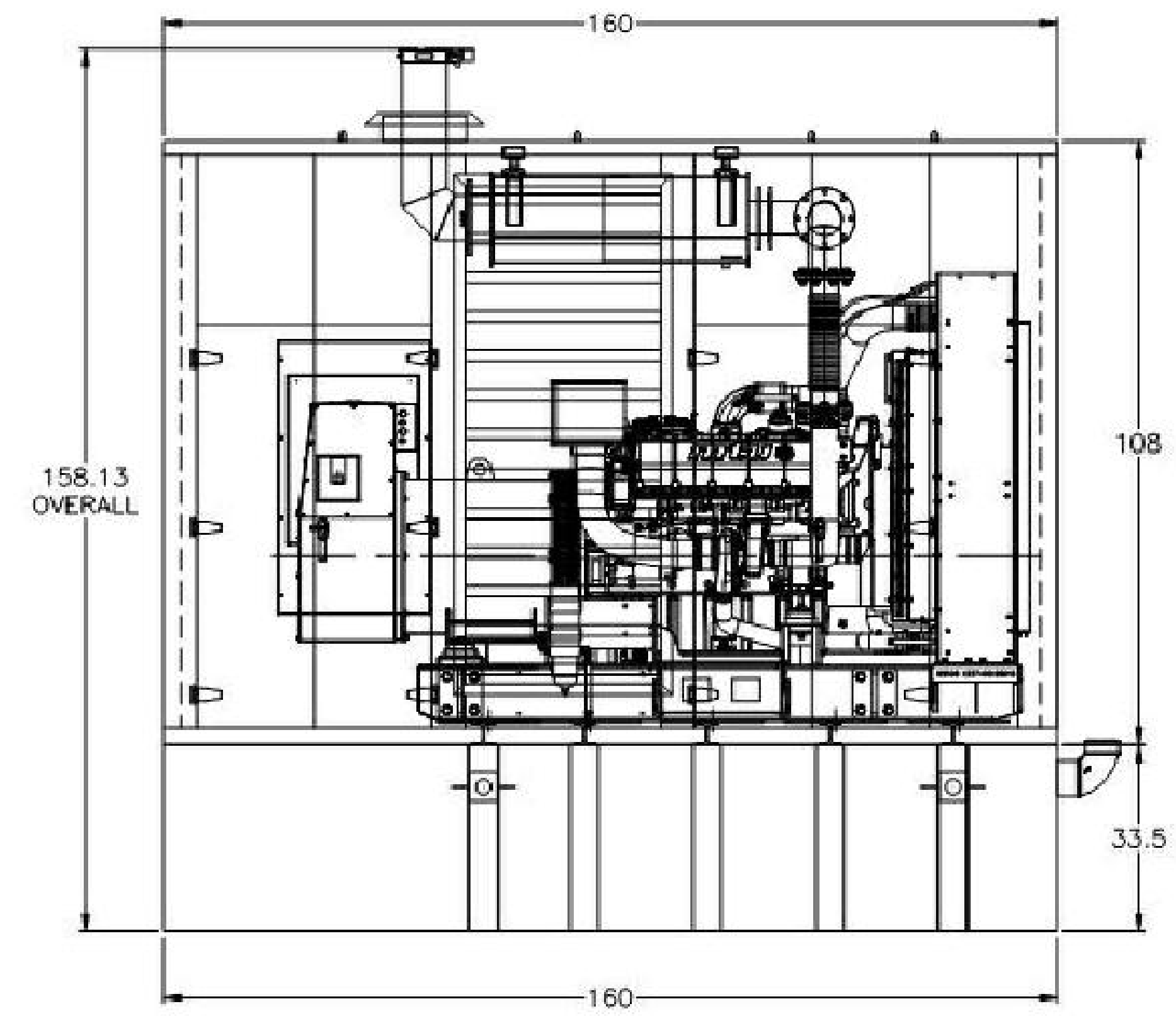
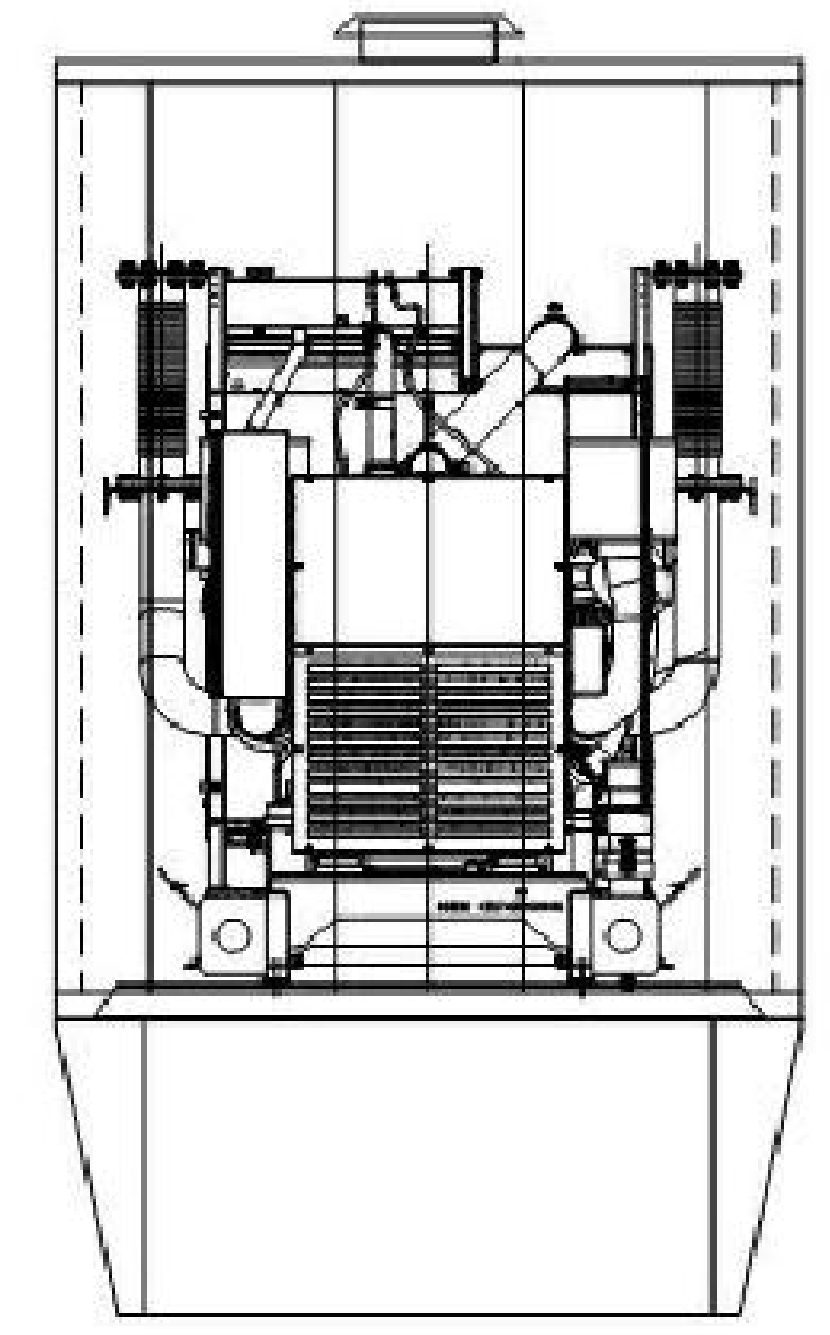
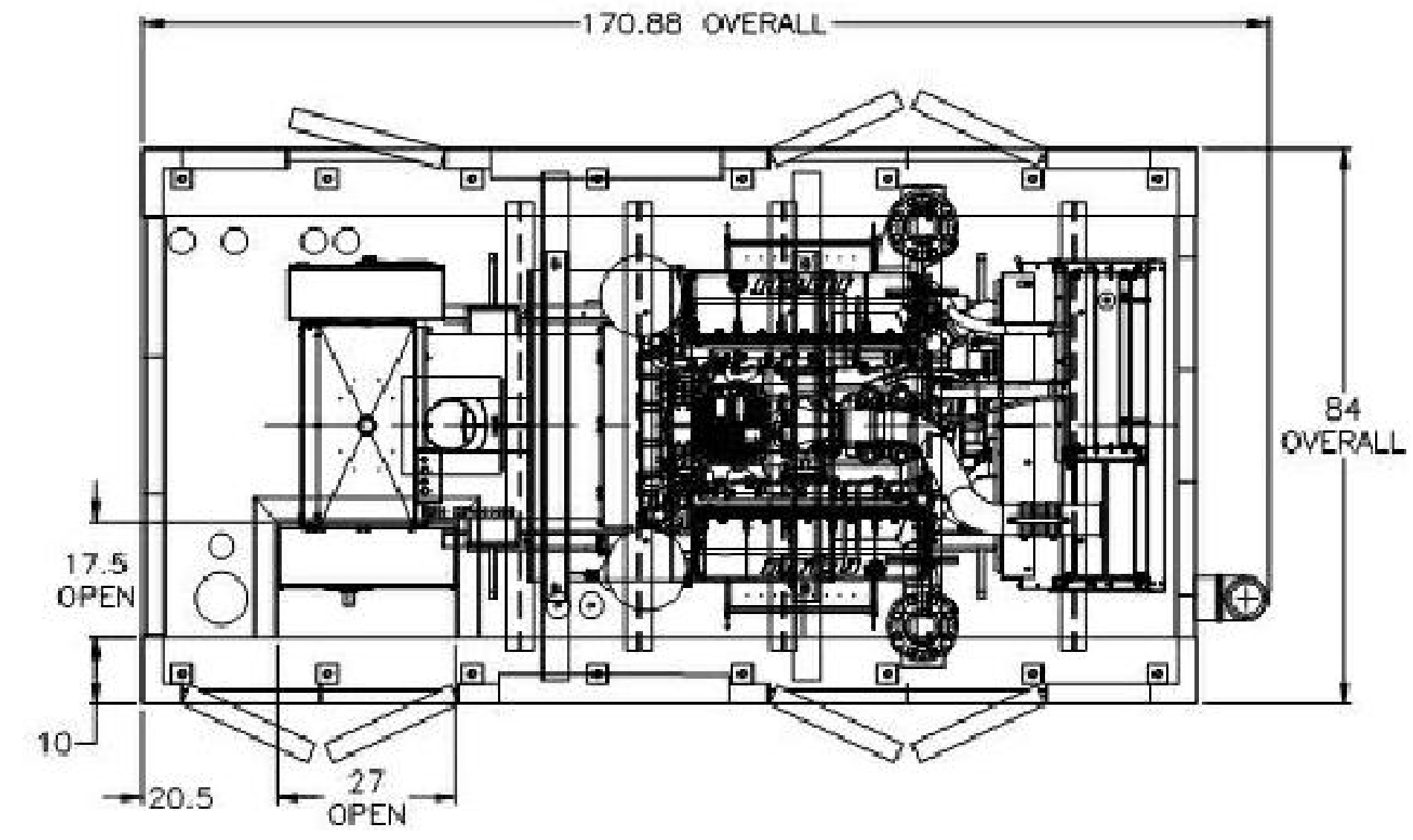
Name of Contractor	Duties	Amount	%
No Subcontractors have been selected for this Work Order		\$0.00	0.00



**ENGINEERING
FOR ARCHITECTURE**
5757 Blue Lagoon Dr.
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Miami, FL 33126
Phone: 305.266.6553
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www.tlc-engineers.com
EB #0000015
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QUOTE #	TANK GAL	GENSET MODEL	GENSET FOOTPRINT	ASSY. WEIGHT
33787	1100 GAL	DS500	132" X 74"	X LBS

BILL OF MATERIAL		
PART #	DESCRIPTION	QTY
GWE-A1	ALUMINUM CONSTRUCTION (OBO)	1
6548	186MPH STRUCTURE REINFORCEMENT	1
6505	ACCESS DOOR	7
6501	STAINLESS STEEL DOOR HARDWARE	7
6604	FIXED INTAKE HURRICANE LOUVER	2
6600	DISCHARGE GRILL	1
6900	2" BLACK FOAM INSULATION	1
6845	CUSTOMER SUPPLIED FLEX	1
6840	GPG SUPPLIED EXHAUST SYSTEM	1
6805	RAIN COLLAR	1
6855	INTERNALLY MOUNTED SILENCER	1
	SIL: E-C-12-08-XXXX	1
	VERTICAL SILENCER DISCHARGE	1
6870	ELBOW: EL-8F-C3000	1
	RAIN CAP: PF-55-01-08	1
6518	EXTEND FUMES/DRAINS TO EXTERIOR	1
6902	WIRE BLOCK HEATER	1
6904	MOUNT & WIRE BATTERY CHARGER	1
SPECIAL	INSTALL FDDA LABELS	2
91467	PAINT COLOR EGGSHELL WHITE	



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REVISIONS			REVISIONS		
REV	DATE	CHANGE MADE	REV	DATE	CHANGE MADE

GWE-A1-500-1100 ASSEMBLY
CUSTOMER/ID: FLORIDA DDA
JOB REF:
DRAWING REF: AAAQ33787
DWG #: X
DATE: 5/30/17
DRAWN BY: MTB



**PROPERTY MANAGEMENT
FACILITY**
1833 BAY ROAD
MIAMI BEACH, FL 33139

Revisions:		
No.	Date	Description

Seal
Manuel Mollinedo, P.E.
Florida License #63096

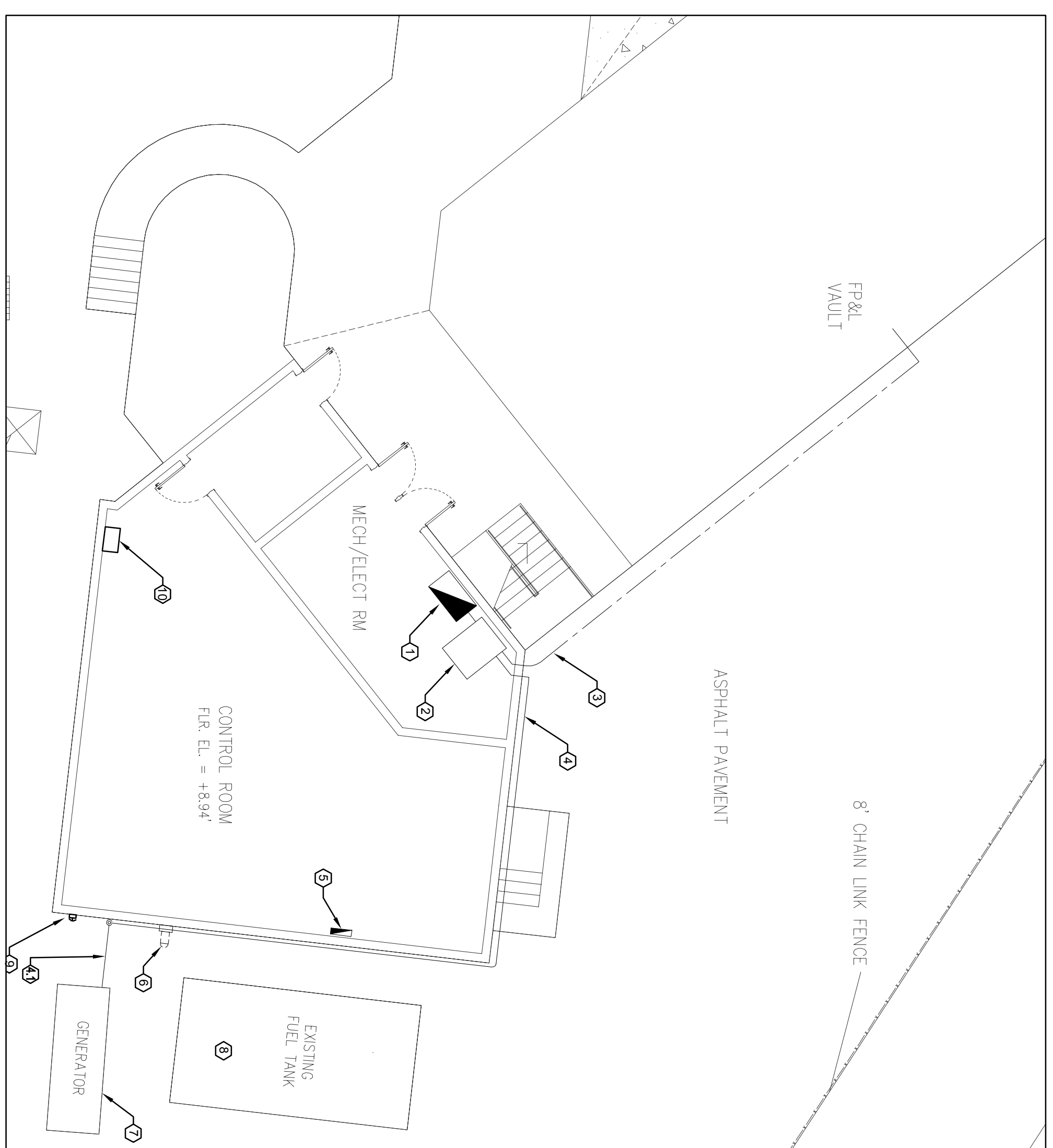
Project No.: 618043
Issue Date: 04-11-2018
Drawn By: TLC
Approved By: TLC
Scale:

Drawing Title:
**STANDBY GENERATOR
DIMENSIONS**

Drawing No.:
E-1.02

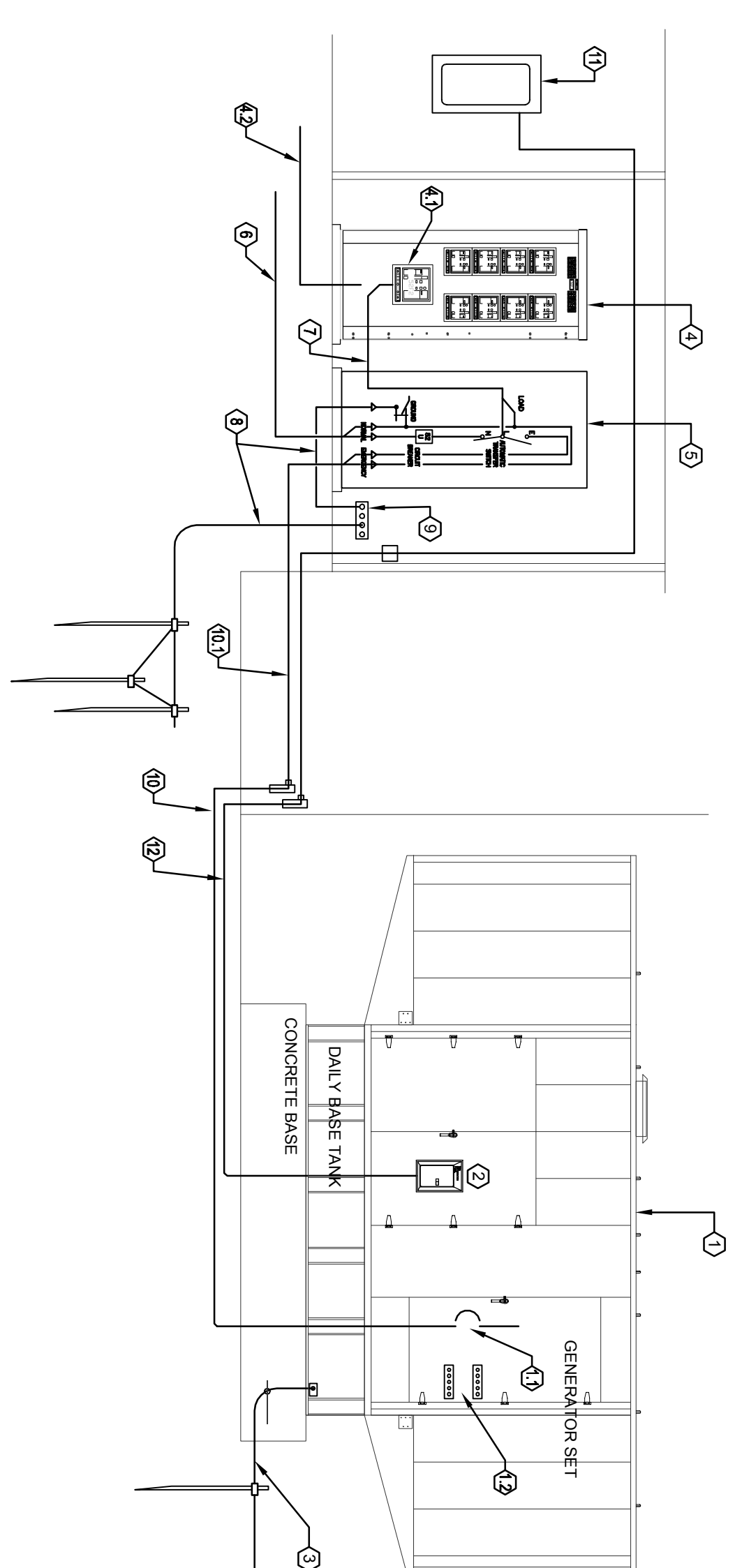
Sheet: of

100% PROGRESS SET



- KEY NOTES:**
- EXISTING MAIN DISTRIBUTION PANEL, MAIN 1 OF 1 TO REMAIN. REFER TO RISER DIAGRAM FOR FURTHER INFORMATION.
 - NEW AUTOMATIC TRANSFER SWITCH, SERVICE RATED, 800A, 3 POLE, 480V, BASIS OF DESIGN "ASCO" - MODEL: JUS480NCGXV, 11BE-18BX, WITH A MAIN COPD = 800A, 3 POLE, SOLID STATE, LABEL AS MAIN 1 OF 1.
 - NEW SERVICE ENTRANCE CONDUCTORS INSTALLED UNDERGROUND, REFER TO RISER DIAGRAM FOR SIZES.
 - NEW GENERATOR FEEDERS, 3" RIGID CONDUIT ATTACHED TO EXTERIOR WALL. REFER TO RISER DIAGRAM FOR WIRE SIZES.
 - NEW GENERATOR FEEDERS, 4" PVC SCH 40, UNDERGROUND, AT 18" BFG, REFER TO RISER DIAGRAM FOR WIRE SIZES.
 - EXISTING PANEL, "P" LOCATED AT CONTROL ROOM, INSTALL NEW 40A-POLE CIRCUIT BREAKER TO FEED GENERATOR BUILT-IN LOAD CENTER, PROVIDE PANEL CIRCUIT DIRECTORY, REFER TO PANEL SCHEDULE FOR FURTHER INFORMATION.
 - EXISTING CANLOCKS TO BE REMOVED, REMOVE WIRES AND CONDUITS ALL THE WAY BACK TO ELECTRICAL / MECHANICAL ROOM.
 - NEW STANDBY GENERATOR, 600 KW, 480V, 3Ø, PROVIDE CONCRETE PAD.
 - EXISTING FUEL TANK, CONNECT TO NEW STANDBY GENERATOR.
 - GENERATOR EMERGENCY SHUT-OFF BUTTON.
 - REMOTE ANNUNCIATOR PANEL.

Sizing Parameters by Utility Service Area:		Customer Contact	
Voltage	277-480V	Project Location	5/18/2018
Frequency	60 Hz	End Type	Standard
Phase	Three Phase	Rating Type	3 in (18 in)
Product Type	Standard	Site Altitude	27°C (80°F)
		Ambient Temperature	50 mmHg (20.1 in Hg)
		Permitted Back Pressure	
		Load Analysis Summary	
		Running kW	450
		Starting kW	450
		Running VA	450
		Starting VA	450
		Running PF	0.9
		Generator Set Details	
		Generator set Model	MTU 10V160 S5430 (99.7)
		Alternator Model	37354023 w/ PAVG
		Temperature Rise	100°C
		Engine Model	30 12V160G165 E24 N6000C T3 Comp (DCEB3) H20cm TD
		Engine Rating	Star kW Rating: 450
		Engine Model	Star kW Rating: 450
		Load Change	
		0-25 %	1.7%
		0-50 %	2.5%
		0-75 %	4.3%
		0-100 %	5.7%
		Technical Data at 100% Manoeuvre Rated Load(s)	
		Electronic Governor (A/B/C)	57°C (147°F)
		Maximum Ambient Heating	57°C (147°F)
		Heat Rejection to Air	335 kW (1384 BTU/hr)
		Heat Rejection to Coolant	113 kW (4711 BTU/hr)
		Heat Rejection to CAC	4.8 kW (202 BTU/hr)
		Heat Rejection to Fuel	33 kW (333 BTU/hr)
		Exhaust Stack Temperature	421°C (782°F)
		Exhaust Stack Temperature	1583°F (799°C)



- KEY NOTES:**
- NEW 600 KW STANDBY GENERATOR, 480V, 3Ø, 3 POLE, 480V, 3 POLE, AUTOMATIC TRANSFER SWITCH, SERVICE RATED, 800A, 3 POLE, BASIS OF DESIGN "ASCO" - MODEL: JUS480NCGXV, 11BE-18BX, WITH A MAIN COPD = 800A, 3 POLE, SOLID STATE, LABEL AS MAIN 1 OF 1.
 - NEW SERVICE ENTRANCE CONDUCTORS INSTALLED UNDERGROUND, REFER TO RISER DIAGRAM FOR SIZES.
 - NEW GENERATOR FEEDERS, 3" RIGID CONDUIT ATTACHED TO EXTERIOR WALL. REFER TO RISER DIAGRAM FOR WIRE SIZES.
 - NEW GENERATOR FEEDERS, 4" PVC SCH 40, UNDERGROUND, AT 18" BFG, REFER TO RISER DIAGRAM FOR WIRE SIZES.
 - EXISTING PANEL, "P" LOCATED AT CONTROL ROOM, INSTALL NEW 40A-POLE CIRCUIT BREAKER TO FEED GENERATOR BUILT-IN LOAD CENTER, PROVIDE PANEL CIRCUIT DIRECTORY, REFER TO PANEL SCHEDULE FOR FURTHER INFORMATION.
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 - EXISTING FUEL TANK, CONNECT TO NEW STANDBY GENERATOR.
 - GENERATOR EMERGENCY SHUT-OFF BUTTON.
 - REMOTE ANNUNCIATOR PANEL.

SCOPE OF WORK:
THE SCOPE OF WORK FOR THE PRESENT DESIGN IS TO PROVIDE STANDBY POWER TO MIAMI BEACH - PUBLIC WORK FACILITY.
THIS SHALL BE DONE BY INSTALLING A 600KW DIESEL FUELED GENERATOR @ 480/277 V, THREE PHASE.

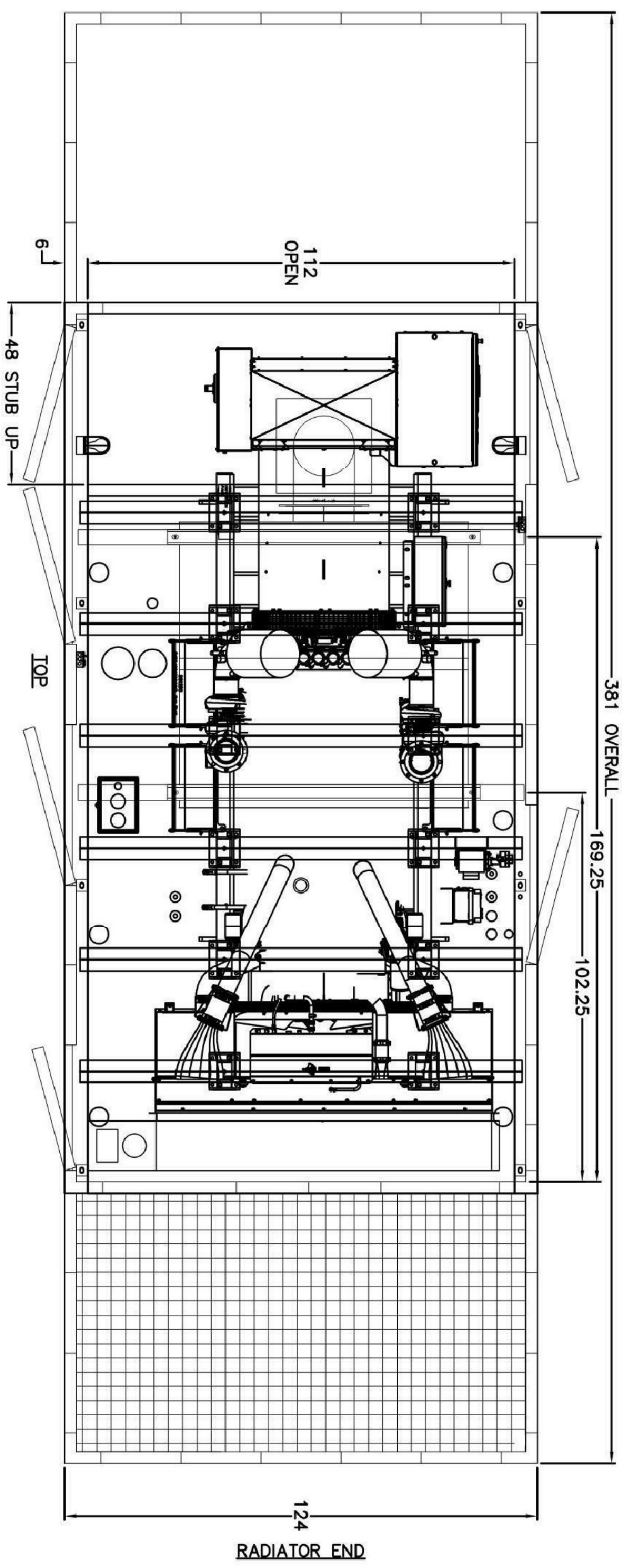
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MIAMI BEACH PUBLIC WORKS GENERATOR
451 Dade Blvd,
Miami Beach, FL 33140

JOB #	TANK GAL	GENSET MODEL	GENSET FOOTPRINT	TOTAL WEIGHT
	5000 GAL	DS1250	198.25" X 90"	48,750 LBS

NEC 2014

ALL VERTICAL WALL & DOOR PANELS & ROOF PANELS 2" FIBER INSULATION BOARD W/ PERF



PART #	DESCRIPTION	QTY
ONE-A1	ALUMINUM CONSTRUCTION (6061, T27)	1
6546	100 MFT STRUCTURE RENOVATION	1
6547	SPECIAL MFGD RND PER BLACKWATER TESTING	1
6503	ACCESS DOOR	6
6501	STAINLESS STEEL DOOR HARDWARE	6
6510	EXTERNAL VERTICAL TRINKE HOOD	1
6518	EXTERNAL VERTICAL DISCHARGE HOOD	1
6520	2" FIBER INSULATION BOARD	1
6521	LINE INSULATION ALUMINUM FIBER	1
6544	CUSTOMER SUPPLIED EXHAUST SYSTEM	2
6540	GENC SUPPLIED EXHAUST SILENCER	1
6555	INTERNALLY INQUINATED SILENCER	1
6556	SIL. GRC-F-C-12-16-0754-BW	1
6557	VERTICAL SILENCER DISCHARGE	1
6558	ELEV. EL.-16F-C300-STD	1
6970	RAIN CAP. PARKER FIB-55-03-16	2
6900	EXHAUST EXTENSION	1
6518	EXTEND FIBER/DRANS. F. VALVE PRESSNT	1
6904	MOUNT & WIRE BATTERY CHARGER	1
6902	MOUNT & WIRE BLOCK HEATER	1
6910	INCANDESCENT LIGHT PACKAGE	1
6911	INCANDESCENT FIXTURE (100 WATT)	3
6913	LIGHT SWITCH (1-POLE)	1
6916	GFCI OUTLET (20 AMP)	1
6918	GFCI PROTECTED OUTLET (20 AMP)	1
6914	100A DIST PANEL (16, 120/240V)	1
6555	MOUNT & WIRE LOAD BANK	1
6556	MOUNT & WIRE LOAD BANK CONTROLS	1
91467	PAINT COLOR EGGSHELL WHITE	1

DPBR #1D MFT-10468

GENERAL SPECIFICATIONS:
- CERTIFICATIONS AND STANDARDS:
EMISSIONS: COMPLYING WITH EPA TIER 3.
MANUFACTURED IN ISO 9001 AND ISO 14001 CERTIFIED FACILITY.

UL 2200 COMPLIANT.
ISO 8528-5 FOR TRANSIENT RESPONSE.
POWER RATING: ACCEPTS DESIGN LOAD IN ONE STEP PER NEC 110.
POWER FACTOR > 0.8.
2 YEAR STANDARD WARRANTY.

ELECTRIC STARTING MOTOR - 24V.
CHARGING ALTERNATOR - 24V.
SUSTAINED SHORT CIRCUIT CURRENT UP TO 300% IN 10 SEC.

DIGITAL, SOLID STATE, VOLT-PER-HERTZ REGULATOR.
+/- 0.25 % VOLTAGE REGULATION.
COMMUNICATION TO REMOTE ANNUNCIATOR.
ENGINE JACKET WATER HEATER.

FUEL CONSUMPTION AT 100 % = 4.2
G/L/HR
FUEL CONSUMPTION AT 75 % = 3.3
G/L/HR

EMERGENCY POWER SYSTEM.

POWER SUPPLY - GENERAL REQUIREMENTS
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 EXCEED 30 SECONDS.
EXISTING EMERGENCY LIGHTS ARE CURRENTLY POWERED WITH BATTERY BACKUP AND READY TO STAR 10 SECONDS AFTER THE POWER FAILURE.

EMERGENCY GENERATOR PRIME MOVERS SHALL BE AN INTERNAL COMBUSTION ENGINE FUELED BY DIESEL #2 TYPE A SUB-SEA FUEL TANK SHALL BE PROVIDED WITH ENOUGH CAPACITY FOR 12 HOURS OF CONTINUOUS OPERATION AT A LOAD OF 100% POWER RATING. AUXILIARY FUEL TANK WITH CAPACITY FOR 96 HOURS IS EXISTING AT THE FACILITY.

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 12. ELECTRICAL CONTRACTOR SHALL VERIFY THAT THE EPSS IS CAPABLE TO ACTIVATE IN LESS THAN 30 SECONDS FROM THE INSTANT THE NORMAL POWER FAILS. ELECTRICAL CONTRACTOR SHALL MAKE THE REQUIRED ADJUSTING TO GET THAT TIME.

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.

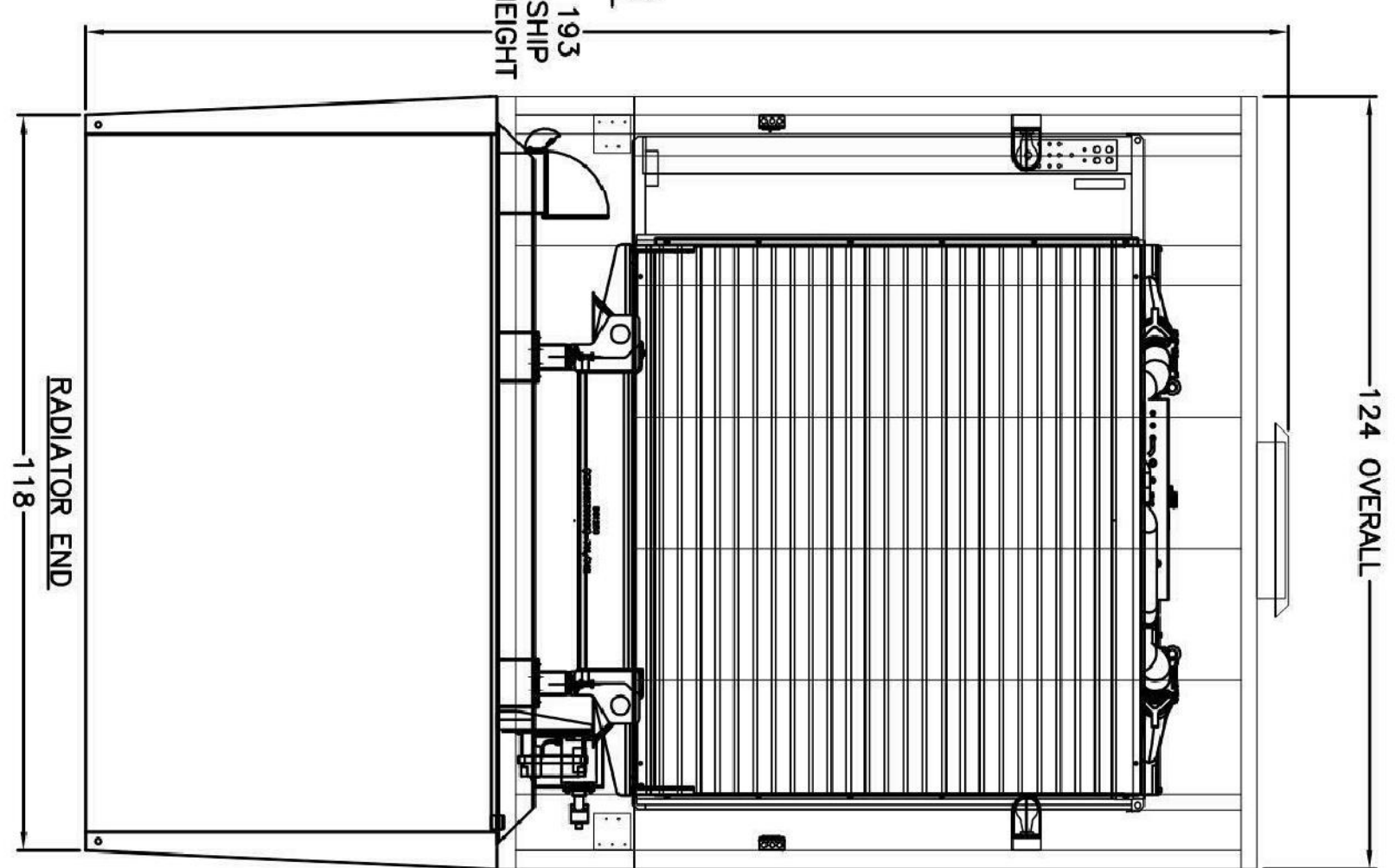
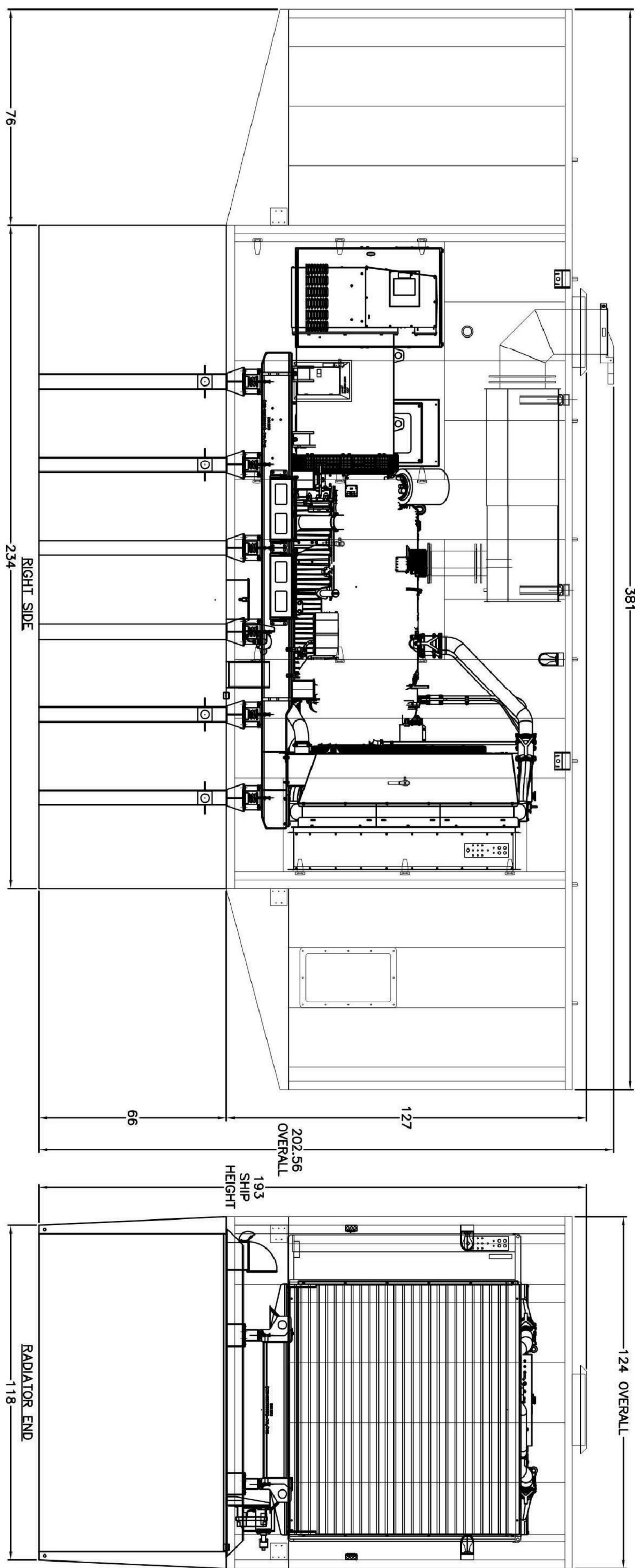
THE EMERGENCY GENERATOR SHALL BE PROVIDED WITH A CONTROL PANEL CONTAINING THE FOLLOWING:
A - AUTOMATIC REMOTE START CAPABILITY.
B - "RUN-OFF-AUTOMATIC" SWITCH.
C - SHUTDOWNS, ALARMS, AND CONTROLS AS REQUIRED BY NFPA 110 INFORMATION.

- A - HIGH ENGINE TEMPERATURE PRE-ALARM
- B - HIGH ENGINE TEMPERATURE (AND SHUTDOWN).
- C - LOW LUBE OIL PRESSURE PRE-ALARM
- D - LOW LUBE OIL PRESSURE ALARM (AND SHUTDOWN).
- E - OVERSPEED (AND SHUTDOWN).
- F - LOW FUEL MAIN TANK.
- G - CONTROL SWITCH NOT IN AUTOMATIC POSITION.
- H - LOW VOLTAGE IN BATTERY.
- I - BATTERY CHARGER AC FAILURE.
- J - AIR SHUTDOWN DAMPER WHEN USED (AND SHUTDOWN).
- K - REMOTE EMERGENCY STOP.

AN EMERGENCY MANUAL STOP STATION SHALL BE FACTORY BUILT-IN ON THE GENERATOR HOUSING. ADDITIONAL A REMOTE EMERGENCY MANUAL STOP STATION SHALL BE PROVIDED INSIDE THE OFFICE AREA IN MARINE PAROL MAIN OFFICE. THE REMOTE MANUAL STOP STATION SHALL BE LABELED.

REQUIRED WIRING BETWEEN TRANSFER SWITCH 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 REPRESENTATIVE FOR QUANTITY AND SIZES.

100% PROGRESS SET



REV DATE:	CHANGES MADE	BY	REV DATE:	CHANGES MADE	BY
1	12/8 CHANGE LENGTH & WIDTH, ADD LOAD BANK	MTB			
2	12/16 UPDATED SILENCER, ELBOW, & RAINCAP MOVE DOORS	MTB			

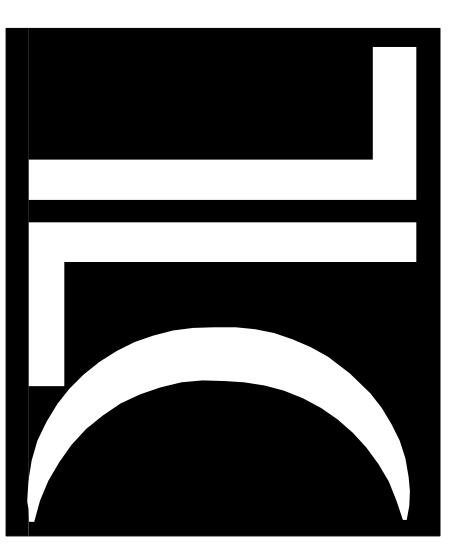
REV DATE:	CHANGES MADE	BY	REV DATE:	CHANGES MADE	BY

GWE-A1-1250-2000 ASSEMBLY

CUSTOMER/ID: FLORIDA DDA
JOB REF: MIAMI AIRPORT
DRAWING REF: AAQA14276
DWG #: 45-25377
DATE: 10/22/15
DRAWN BY: SK



ASSY



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PROPERTY MANAGEMENT FACILITY GENERATOR
1833 BAY ROAD
MIAMI BEACH, FL. 33139

Revisions:	No.	Date	Description

Seal
Manuel Molinero, P.E.
Florida License #63096

Project No.: 618043
Issue Date: 04-11-2018

Drawn By: TLC
Approved By: TLC
Scale: 1/8" = 1'-0"

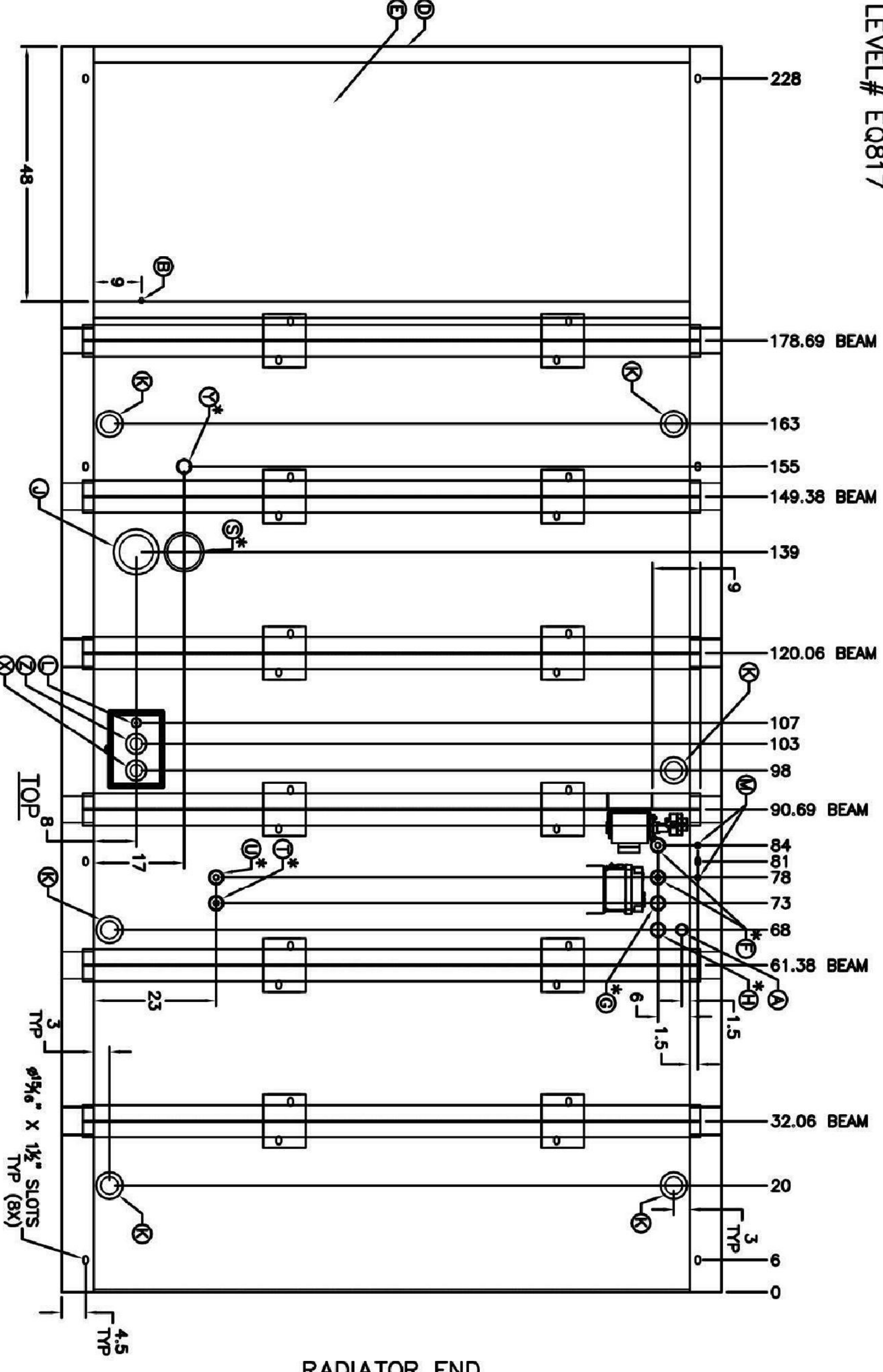
Drawing Title: STANDBY GENERATOR DIMENSIONS

E-102

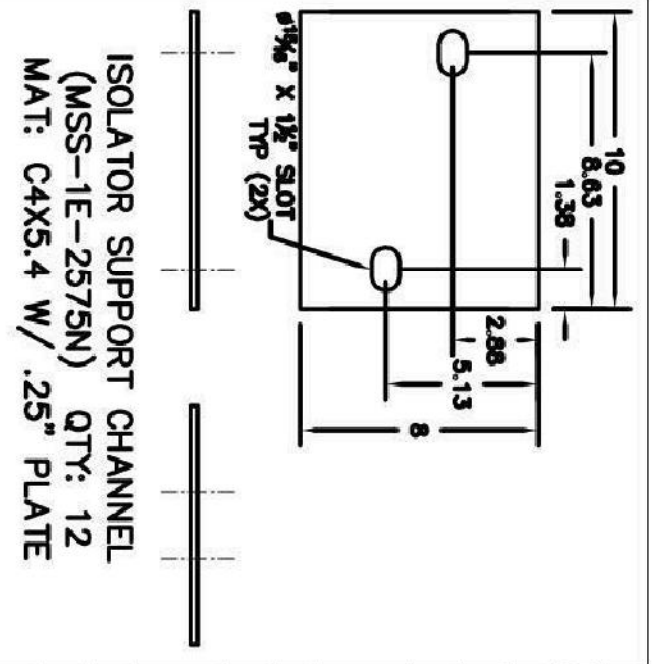
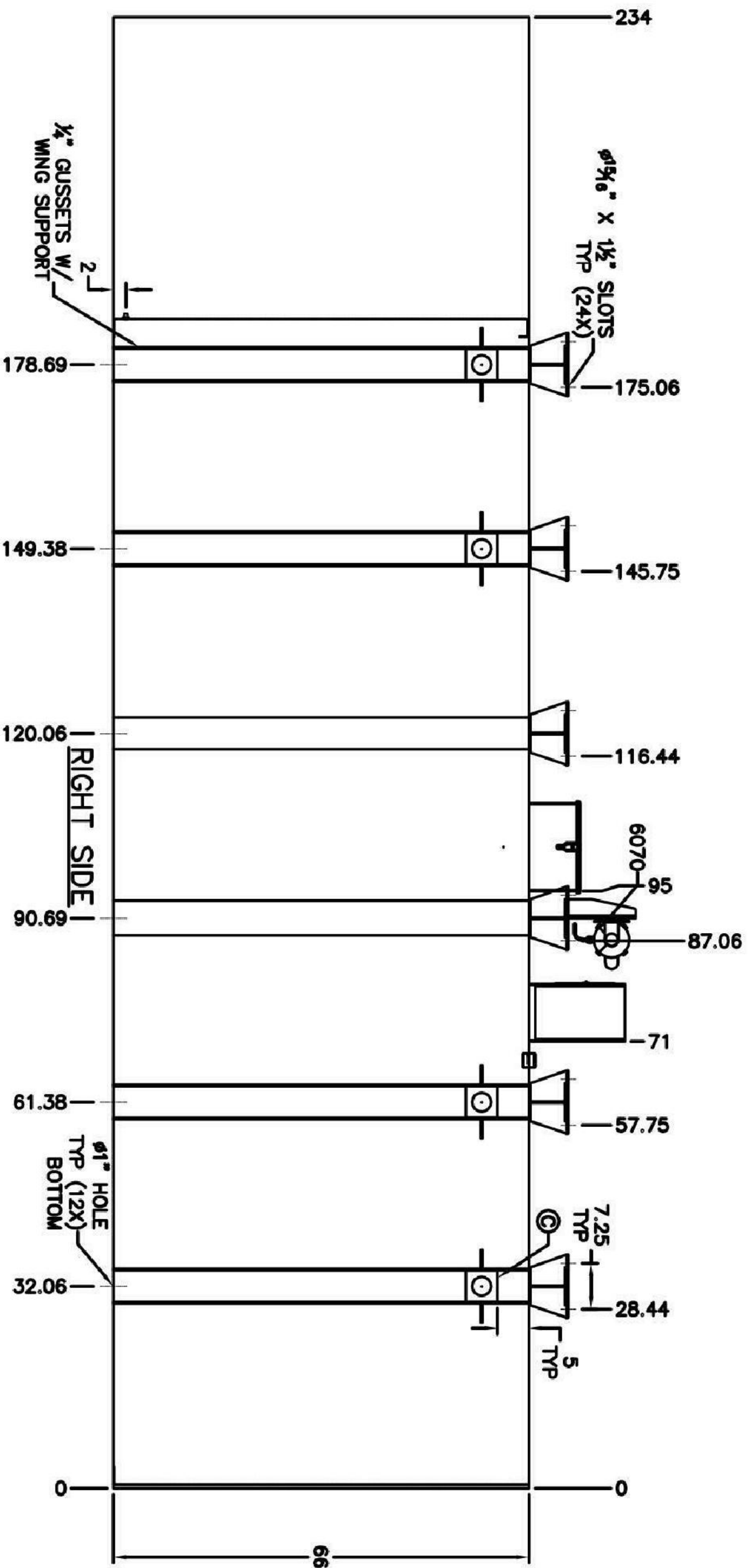
JOB #	TANK GAL	GENSET MODEL	GENSET FOOTPRINT	TANK WEIGHT
	5000 GAL	DS1250	198.25" X 90"	16,525 LBS

* = 2" PIPE TO TANK TOP UNLESS OTHERWISE NOTED

FDEP:
TANK# EQ716
SPILL BOX# EQ567
BASIN ALARM# EQ817
HIGH LEVEL# EQ817



RADIATOR END

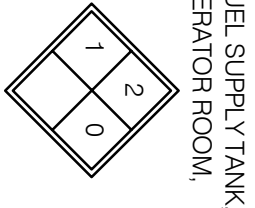


Underwriters Laboratories, Inc.
UL 142 LISTED PRODUCT
File Numbers:
MH18481 MH46743 MH25279

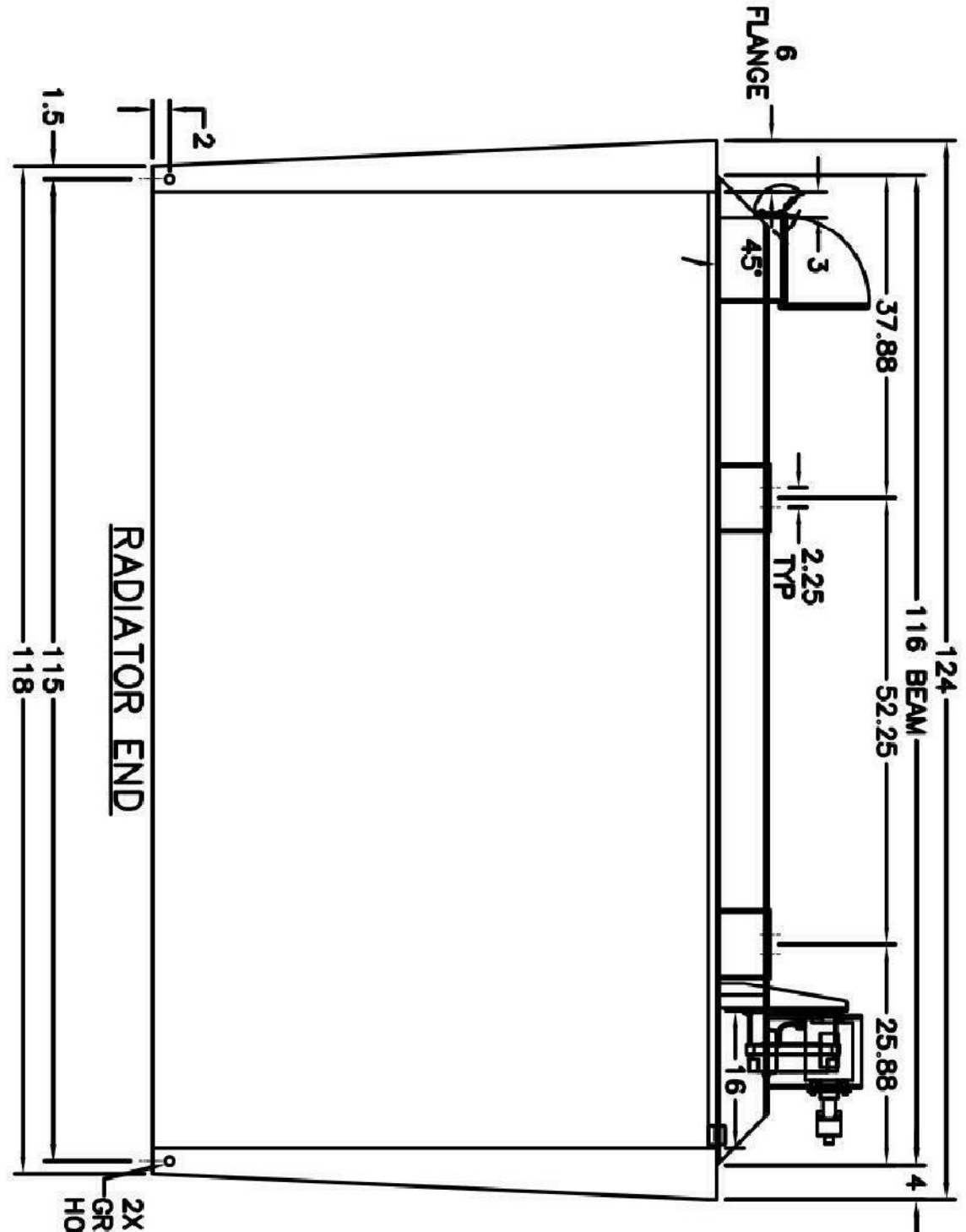
GLOBAL POWER COMPONENTS	
1100 GLS UL142 SUB-BASE TANK - EQ# 567	TMR/JUC
DATE: 8/20/07	AMC/STB
CONSOLE	BAC PROJECTS/COPAL/ET/ESL
SCALE	

ANCHOR REQUIREMENT:
- 1/60 7/8" DIA. HEX HEAD ASTM F1554 GR. 105 ANCHOR BOLTS.
- 6 EMBEDMENT
- 4000 PSI CRACKED CONCRETE.

PROVIDE SIGN AS PER NFPA 704 FOR FUEL SUPPLY TANK FUELING PORT AND OUTSIDE THE GENERATOR ROOM. INDICATING THE FOLLOWING:
- HEALTH HAZARD = 1
- FUEL HAZARD = 2
- INSTABILITY HAZARD = 0
- SPECIAL HAZARD = N/A



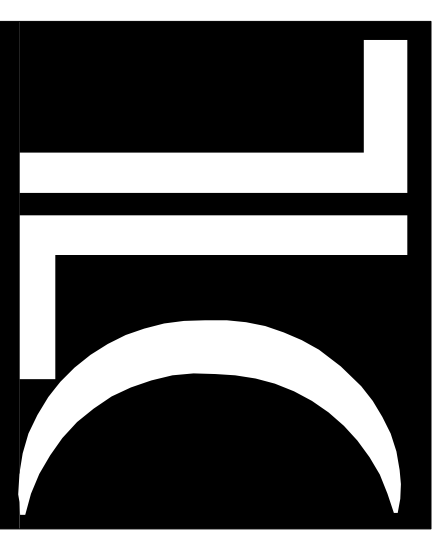
SUB-BASE FUEL TANK



GENSET OFFSET 6" TO LEFT SIDE

LETTER PART #	DESCRIPTION	QTY
S 3166	F. CRIG. 6" E-VENT	1
T 3655	F. CRIG. 2" RETURN W/ 3/4" DIP TUBE	1
U 3655	F. PLUG. 2", SUPPLY W/ 3/4" DIP TUBE	1
X 1003	FLANGE, 2", FUEL LEVEL GAUGE	1
Y 1003-TS	ROCHASTER TUNING ADAPTER (#256850247)	1
Z 3152	F. CRIG. 2", STANDARD VENT CAP	1
3005	FLANGE, 2", LOCKING FILL CAP	1
4301	#1-1/2" PIPE TOE L = 30-1/2"	1
A	SPECIAL F. CRIG. 1-1/2" LD-FI-BB15 FLUMI	1
B 3502	FLANGE, 1/2" BASIN DRAIN	1
C 8410	1/2" FLUSH MOUNT LIFTING PLATE	8
D 8003	REMOVABLE END PLATE - 3" BEND	1
E 4000	48" STANDARD ELECTRICAL STUB UP	1
F 3600	F. CRIG. 2", FITTING W/ 1/2" DIP TUBE	2
G 1093	F. CRIG. 2", 3-FLAT ASSEMBLY (LUM. RIMP QY/CR)	1
J 3196	FLANGE, 6", CONTAINMENT E-VENT	1
K 3196	FLANGE, 3", FITTING W/ PLUG	8
L 3190	F. CRIG. 3/8" FITTING W/ PLUG	2
M 3191	F. CRIG. 1/2" FITTING W/ PLUG	1
8220	7 GAL. SPILL CONTAINMENT BOX	1
8303	6" I-BEAM GENSET SUPPORT	6
8420	ISOLATOR SUPPORT PLATE	12
8426	GPC SUPPLIED ISOLATORS (MSS-1E-2575)	12
1380	SERIES 400 CONTROLLER (SINGLE/REVERSE)	1
2025	SINGLE SUPPLY PUMP SYSTEM	1
6400	1/3 HP CARBONATE MOTOR, 1 Φ	1
6040	115/230V, 50/60HZ, 487Z FRAME BRONZE CLOSED COUPLED 4GPM ROTARY GEAR PUMP, 3/8" PORTS	1
2010	REVERSE PUMP SYSTEM	1
6400	REAR PUMP BASE W/ END FOR SUPPLY PUMP	1
6070	1/2 HP CAPACITOR START MOTOR 1 Φ, 115/230V, 60HZ, 48 FRAME BRONZE CLOSED COUPLED 7GPM ROTARY GEAR PUMP, 1/2" PORTS	1
700-1025	1/2" FUEL STRAINER	1
700-1065	1/2" SPRING CHECK VALVE	1
700-1096	1/2" SOLENOID VALVE (120VAC, NC)	1
UL2085	2HR FIRE RATED DOUBLE WALL TANK	1
9638	PAINT COLOR GLOSS BLACK	1

REV	DATE	REVISIONS	BY	REV	DATE	REVISIONS	BY
		CHANGE MADE				CHANGE MADE	
SUB BASE TANK W/ RUPTURE BASIN & STUB UP							
TANK							



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**PROPERTY MANAGEMENT FACILITY
GENERATOR**
1833 BAY ROAD
MIAMI BEACH, FL. 33139

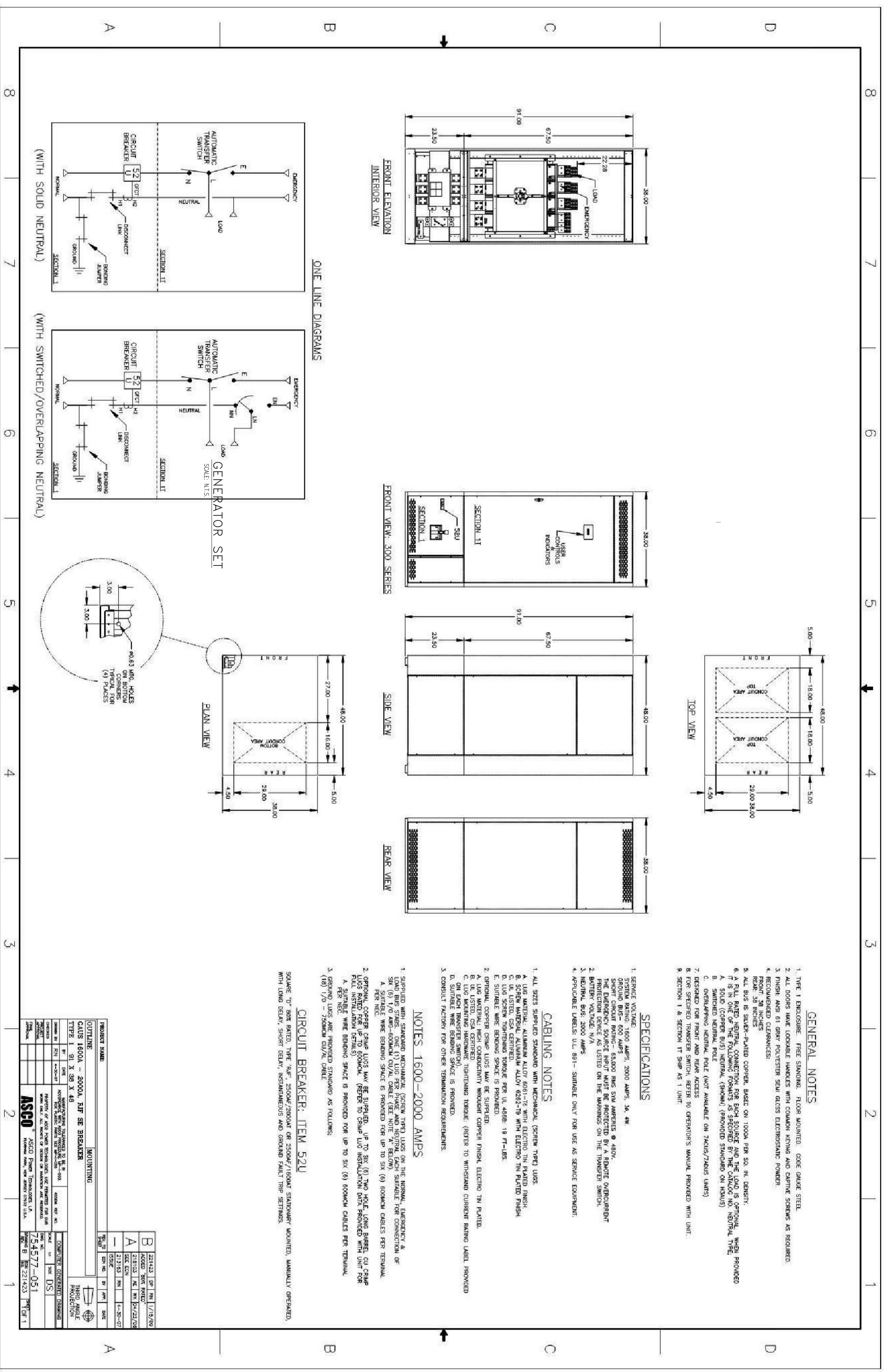
Revisions:	No.	Date	Description

Seal
Manuel Molinero, P.E.
Florida License #63096

Project No.: 618043
Issue Date: 04-11-2018
Drawn By: TLC
Approved By: TLC
Scale: 1/8" = 1'-0"
Drawing Title:
**SUB-BASE
DAILY
FUEL TANK**

E-103

100% PROGRESS SET



- GENERAL NOTES**
- TYPE 1 ENCLOSURE, FREE STANDING, FLOOR MOUNTED, CODE GAUGE STEEL.
 - ALL DOORS HAVE LOCKABLE HANDLES WITH COMMON KEYS AND CARTRIDGE SCREWS AS REQUIRED.
 - FINISH: ASH 61 GRAY POLYESTER SEMI GLOSS ELECTROSTATIC POWDER.
 - RECOMMENDED CLEARANCES:
 FRONT: 36 INCHES
 REAR: 36 INCHES
 - ALL BUS BARS SHALL BE RATED COPPER, BASED ON 1000A PER 50. IN. LENGTH.
 - ALL BUS BARS SHALL BE RATED COPPER, BASED ON 1000A PER 50. IN. LENGTH.
 6. THE ONE OF THE FOLLOWING FORMATS AS SPECIFIED BY THE CATALOG NO. NEUTRAL TYPE:
 A. SOLID (COPPER BUS) NEUTRAL (SHOWN) (PROVIDED STANDARD ON HOURS)
 B. SWITCHED NEUTRAL POLE (NOT AVAILABLE ON 700A/240A UNITS)
 C. OVERLAPPING NEUTRAL POLE (NOT AVAILABLE ON 700A/240A UNITS)
 - DESIGNED FOR FRONT AND REAR ACCESS.
 - FOR SPECIFIED TRANSFER SWITCH, REFER TO OPERATOR'S MANUAL PROVIDED WITH UNIT.
 - SECTION 1 & SECTION 11 SHIP AS 1 UNIT.

- SPECIFICATIONS**
- SERVICE VOLTAGE:
 1. SYSTEM RATING: 1600 AMPS, 2000 AMPS, 3K, 4K.
 GROUND BUS - 600 AMP/5000 BUS FOR AMPS 8 & ABOVE.
 THE EMERGENCY SOURCE INPUT MUST BE PROTECTED BY A REMOTE OVERCURRENT PROTECTION DEVICE AS LISTED ON THE WARNINGS ON THE TRANSFER SWITCH.
 - BATTERY VOLTAGE: 120V
 - NEUTRAL BUS: 2000 AMPS
 - APPLICABLE LABELS: U.L. 891 - SUITABLE ONLY FOR USE AS SERVICE EQUIPMENT.

- CABLING NOTES**
- ALL SIZES SUPPLIED STANDARD WITH MECHANICAL (SCREW TYPE) LUGS.
 A. LUG MATERIAL: ALUMINUM ALLOY 6061-T16 WITH ELECTRO TIN PLATED FINISH.
 B. LUG SCREW: ALUMINUM ALLOY 6062-T16 WITH ELECTRO TIN PLATED FINISH.
 C. LUG LISTED, CSA CERTIFIED.
 D. LUG SCREW TIGHTENING TORQUE PER UL 468B: 19 FT-LBS.
 E. SUITABLE WIRE BENDING SPACE IS PROVIDED.
 - OPTIONAL COPPER CHAMP LUGS MAY BE SUPPLIED.
 A. LUG MATERIAL: HIGH CONDUCTIVITY WROUGHT COPPER FINISH, ELECTRO TIN PLATED.
 B. LUG SCREW: ALUMINUM ALLOY 6062-T16 WITH ELECTRO TIN PLATED FINISH.
 C. LUG MOUNTING HARDWARE: TIGHTENING TORQUE: (REFER TO WINDWARD CURRENT RATING LABEL PROVIDED ON EACH TRANSFER SWITCH).
 D. ON EACH TRANSFER SWITCH, THE FOLLOWING INFORMATION SHALL BE PROVIDED:
 1. WINDWARD CURRENT RATING (WCR)
 2. WINDWARD CURRENT RATING (WCR) FACTOR
 3. CONSULT FACTORY FOR OTHER TERMINATION REQUIREMENTS.

- NOTES: 1600-2000 AMPS**
- SUPPLIED WITH STANDARD MECHANICAL (SCREW TYPE) LUGS ON THE NEUTRAL, EMERGENCY & TRANSFER SWITCHES. THE WINDWARD CURRENT RATING (WCR) SHALL BE 100% OF THE WINDWARD CURRENT RATING (WCR) OF THE TRANSFER SWITCH (SEE NOTE 2, BELOW).
 A. SUITABLE WIRE BENDING SPACE IS PROVIDED FOR UP TO SIX (6) BONDING CABLES PER TERMINAL PER USE.
 - WIRE BENDING SPACE FOR LUGS MAY BE SUPPLIED UP TO SIX (6) TWO WIRE CABLES PER LUG. LUGS SHALL BE RATED FOR 50% OF WINDWARD CURRENT RATING (WCR) AND RATED FOR FULL INSTALLATION DETAILS.
 A. SUITABLE WIRE BENDING SPACE IS PROVIDED FOR UP TO SIX (6) BONDING CABLES PER TERMINAL.
 - GROUND LUGS ARE PROVIDED STANDARD AS FOLLOWS:
 (18) 1/0 - 750MM CU/AL CABLE

CIRCUIT BREAKER: ITEM 52U
 SQUARE "D" 80% RATED TYPE "R" 2500A/2000A OR 2500A/1500A STANDARDLY MOUNTED, MANUALLY OPERATED, WITH LONG DELAY, SHORT DELAY, INSTANTANEOUS AND GROUND FAULT TRIP SETTINGS.

PROJECT NAME	WORKING	DATE	BY	CHK
GAUSS 1600A - 2000A, IIF SE BREAKER				
OUTLINE				
TYPE 1 91 X 38 X 48				
REV	DESCRIPTION	DATE	BY	CHK
1	ISSUED FOR FABRICATION	03/22/2016	JR	DS
2	ISSUED FOR FABRICATION	03/22/2016	JR	DS

COMPONENT	QUANTITY	DESCRIPTION
1	1	ASCO 1600A - 2000A, IIF SE BREAKER
2	1	ASCO 1600A - 2000A, IIF SE BREAKER

- SUPPLIED WITH STANDARD MECHANICAL (SCREW TYPE) LUGS ON THE LOAD & EMERGENCY BUS STABS ONE (1) LUG PER PHASE AND NEUTRAL EACH SUITABLE FOR CONNECTION OF THREE SETS OF CABLES UP TO 600KCM CU/AL.
 - GROUND LUGS ARE PROVIDED STANDARD AS FOLLOWS: (3) #1/0 - 300 AWG CU/AL CABLE.
- CIRCUIT BREAKER: ITEM 52U
- 100% RATED MOLDED CASE CIRCUIT BREAKER, 800A/800A/NT SOLID STATE ELECTRONIC TRIP.

60% PROGRESS SET

TIC ENGINEERING FOR ARCHITECTURE
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MIAMI BEACH PUBLIC WORKS GENERATOR
 451 Dade Blvd,
 Miami Beach, FL 33140

Revisions:	No.	Date	Description

Seal
 Manuel Mollinedo, P.E.
 Florida License #63096

Project No.: 618902
 Issue Date: 03-31-18
 Drawn By: TLC
 Approved By: TLC
 Scale: 1/8" = 1'-0"

Drawing Title:
AUTOMATIC TRANSFER SWITCH DIAGRAM

Drawing No.: **E-104**



TAW POWER SYSTEMS, INC.
 1500 NW 15th Ave
 Pompano Beach, FL 33069
 Ph.: (954) 977-0202 x1759 (800) 876-0990
 Fax: (954) 977-9249
John.Potts@tawinc.com
Kohler Generator Systems Distributors

KOHLER POWER SYSTEMS DISTRIBUTOR FOR ALABAMA, SOUTH GEORGIA, FLORIDA, LOUISIANA AND MISSISSIPPI

Date: August 8, 2018
Contact: John Potts

Offer No: P1808-0106
Contact Cell #: (954)-234-4226

Project: City of Miami Beach – Property Management

One New **KOHLER Model 500REOZJ**, EPA Certified **Diesel** Generator Set,
 500KW, @ 0.8 PF, 60 Hz, 3 Phase, UL 2200, 277/480 Volt with the following:

CONTROLLER:

APM402
 Controller meets NFPA 110

ENCLOSURE:

Aluminum Sound Enclosure
 181 MPH Wind Load Rated
 Critical Silencer

COOLING:

Unit Mounted Radiator
 Block Heater, 120 Volt

FUEL SYSTEM:

Flexible Fuel Lines
 Sub-base Fuel Tank, 1,700 Gallon, UL142 Listed
 FDEP Package
 Fuel Water Separator

GENERATOR ACCESSORIES (Electrical):

Line Circuit Breaker, 3 Pole, 100 % Rated
 Qty (1) 800 Amps, Electronic,

ENGINE ELECTRICAL ACCESSORIES:

Battery Rack and Cables
 Starting Battery, Lead Acid
 Battery Charger: 10 Amps

CONTROLLER ACCESSORIES LOOSE:

Remote Emergency Stop, Break Glass
 Remote Annunciator Panel

AUTOMATIC TRANSFER SWITCH:

Qty (1) Kohler Model KEP-DMTC-0800-NK
 208 Volt, 3 Ph., 3 Pole, 800A, NEMA 3R,
 Service Entrance Rated

ADDITIONAL ACCESSORIES:

Certified Factory Test @ 0.8 P.F.
 3 Engine, Generator Parts, Maintenance Manuals
 1 Electronic Manual
 Vibration Isolators: Internal
 5 Year Comprehensive Warranty

SUPPLIED BY OTHERS

New Fuel – First Fill of New Tank

Installation

Local and State Permitting by Others

All Infrared, 3rd Party and NETA Testing if Required

TOTAL NET LOT: \$103,950.00

ESTIMATED LEAD TIME:

16 to 18 weeks after release of the order. This estimated lead time is subject to change daily due to availability

F.O.B. FACTORY, FREIGHT ALLOWED TO JOB SITE

SALES TAX NOT INCLUDED

Regards,

TAW Power Systems, Inc.

John Potts

Senior Sales Engineer

OFFER VALID FOR 30 DAYS FROM THIS OFFER DATE (LISTED ABOVE)

EXCEPTIONS/ CLARIFICATIONS/ NOTES:

Delivery, start up, and load testing are quoted as during normal business hours. If after hour, weekend, or holiday work hours are required, the Contractor will be responsible for the overtime differential unless otherwise noted.

OFFER BASED UPON:

- Drawing E-101

NOTE: TAW's STANDARD TERMS and CONDITIONS apply to all offers for purchase and any purchase orders accepted by TAW. You may find a copy under the terms and conditions section at TAWINC.com or please contact our office at 800-456-9449 and we will forward you a copy. TAW will transmit a written delivery schedule based on the manufacturer's confirmation, approximately fifteen (15) days after product release. Also included will be the related progress invoice values based on material shipments.

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(OFFER ACCEPTANCE BELOW)

COMPANY

AUTHORIZED SIGNATURE

TITLE

PRINT NAME

DATE

TERMS & CONDITIONS ACKNOWLEDGED:

INITIAL



Detailed Scope of Work

To: Andres Solares
Solares Electrical Services, Inc
10421 NW 28th Street
Miami, FL 33172
No Data Input

From: Isreal Baker
The Gordian Group
30 Patewood Dr
Greenville, SC 29615
(800) 874-2291

Print Date: November 06, 2018

Work Order Number: 062105.00

Work Order Title: Miami Beach Property Management Office New Generator

Brief Scope:

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.

Detailed Scope:

Provide and Install new generator, ATS, conduit, wiring, concrete pad, demo etc as indicated in the electrical drawings E1.01.

Subject to the terms and conditions of JOC Contract **FL-MDCAE04-052014-SES**.

Isreal Baker

Date

Andres Solares

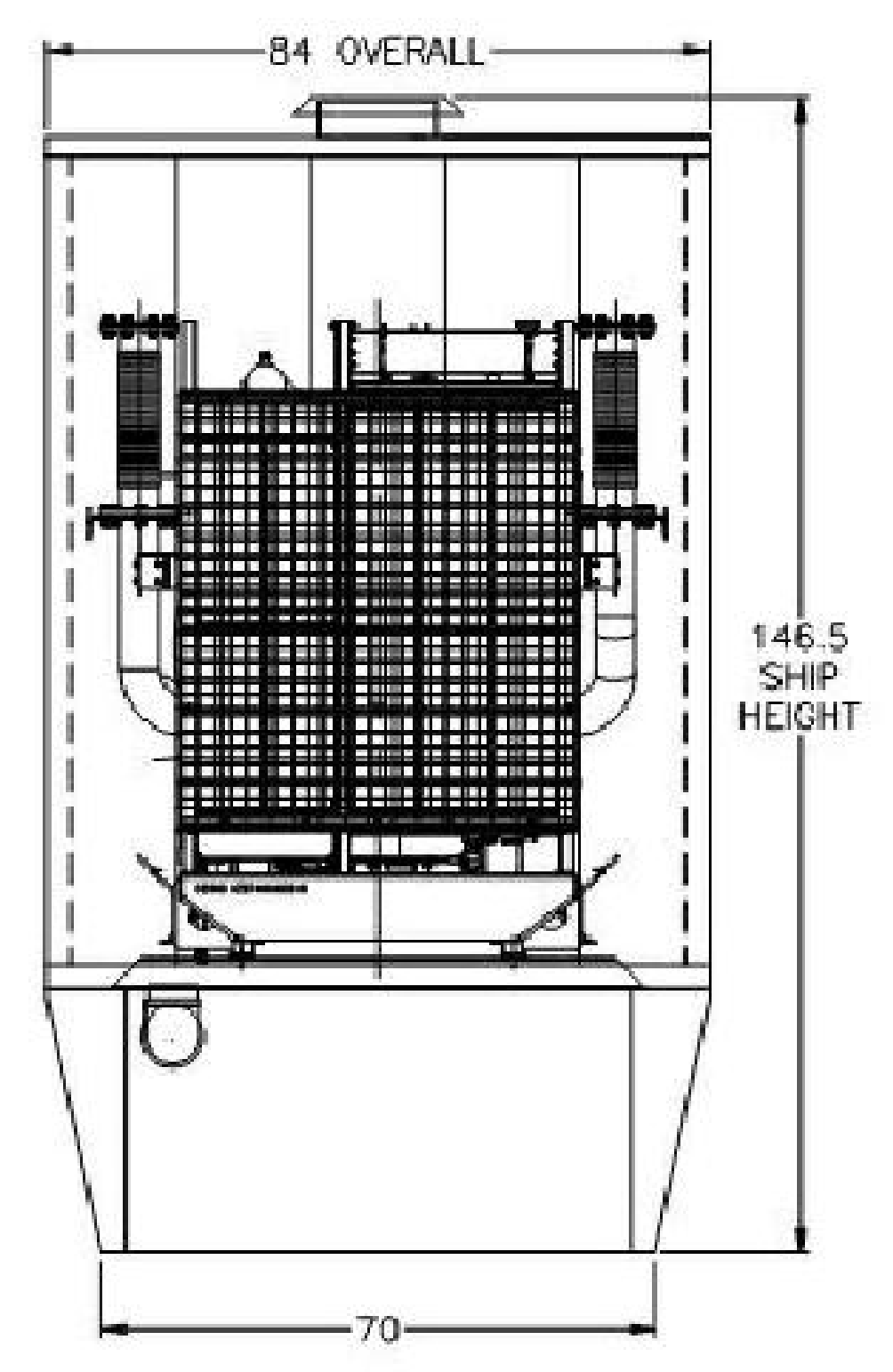
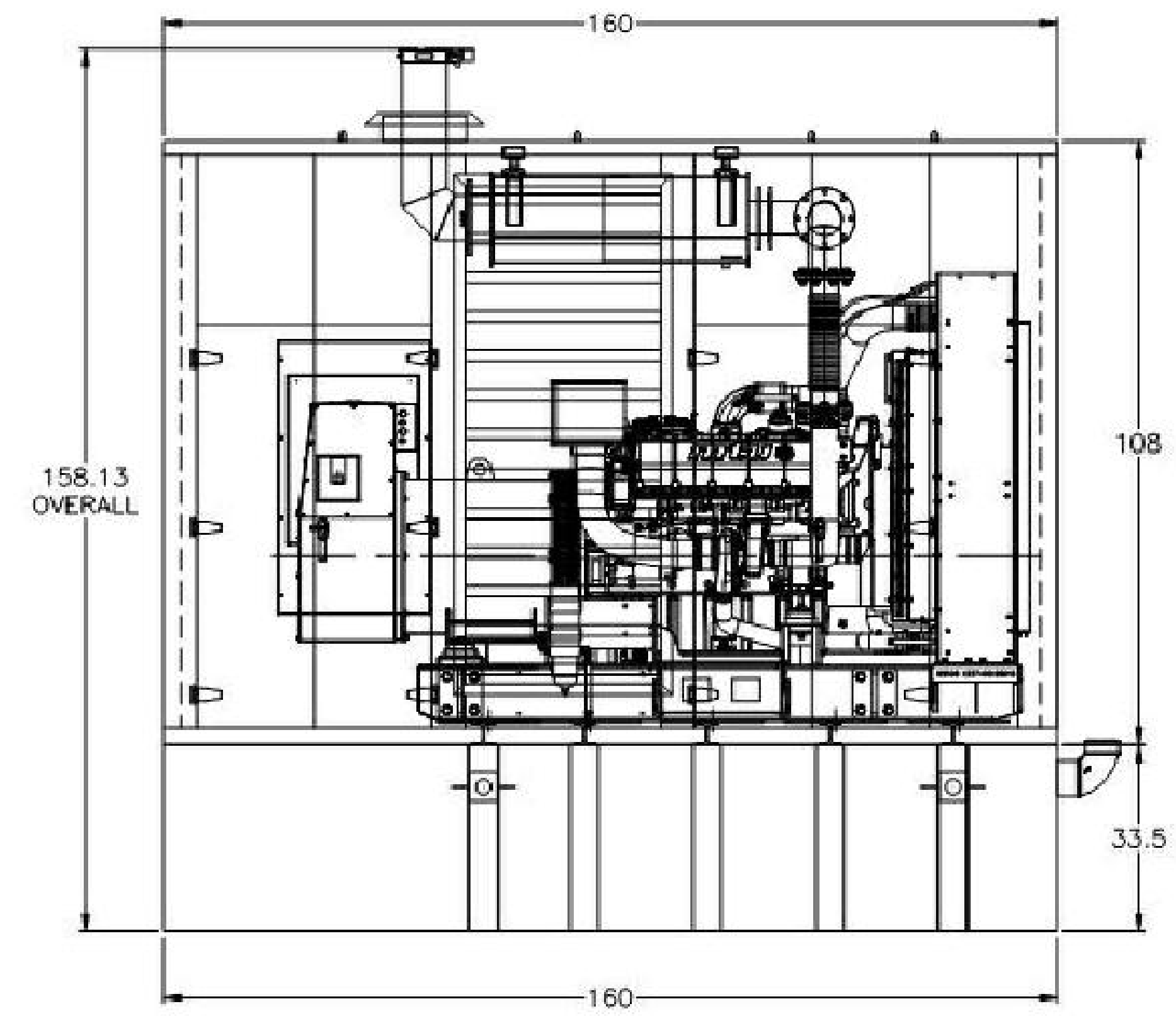
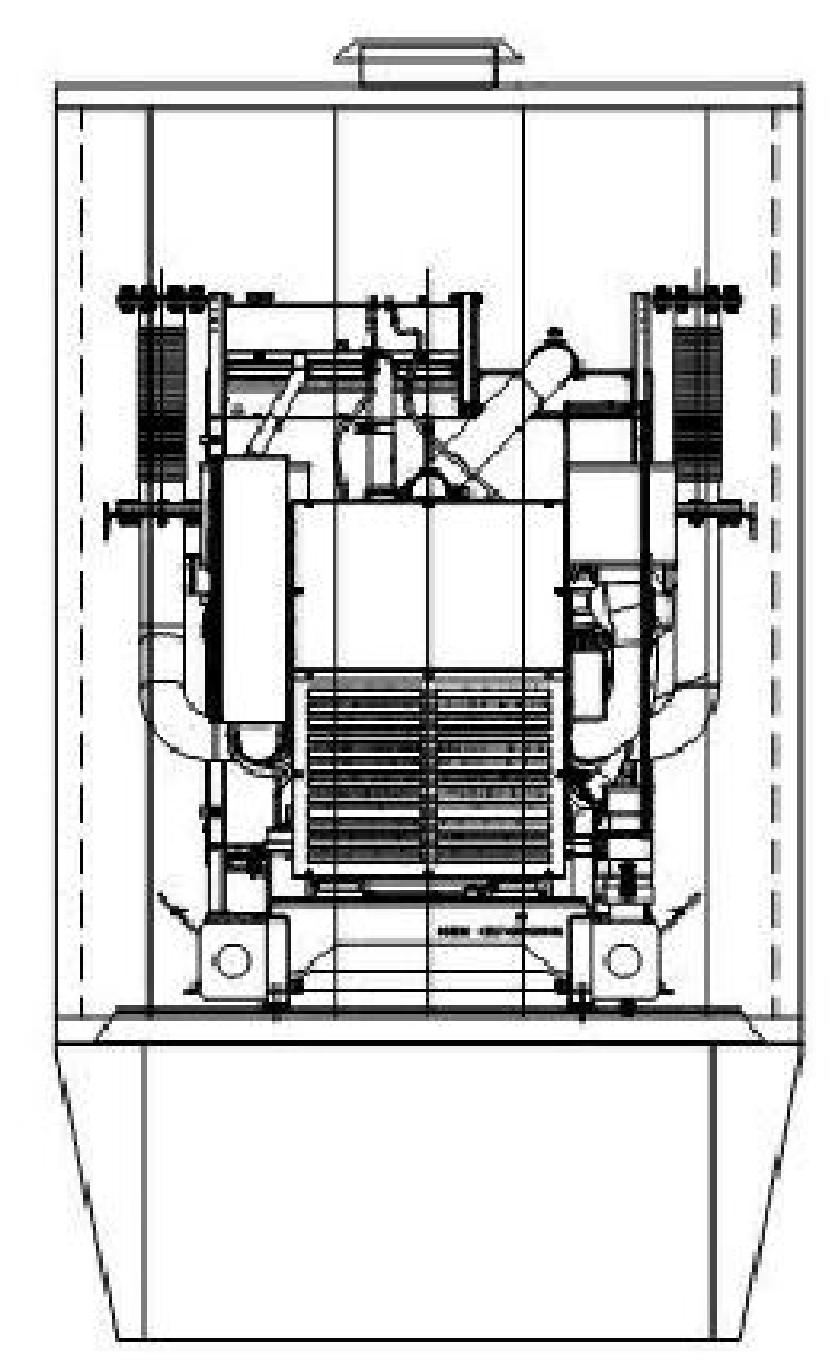
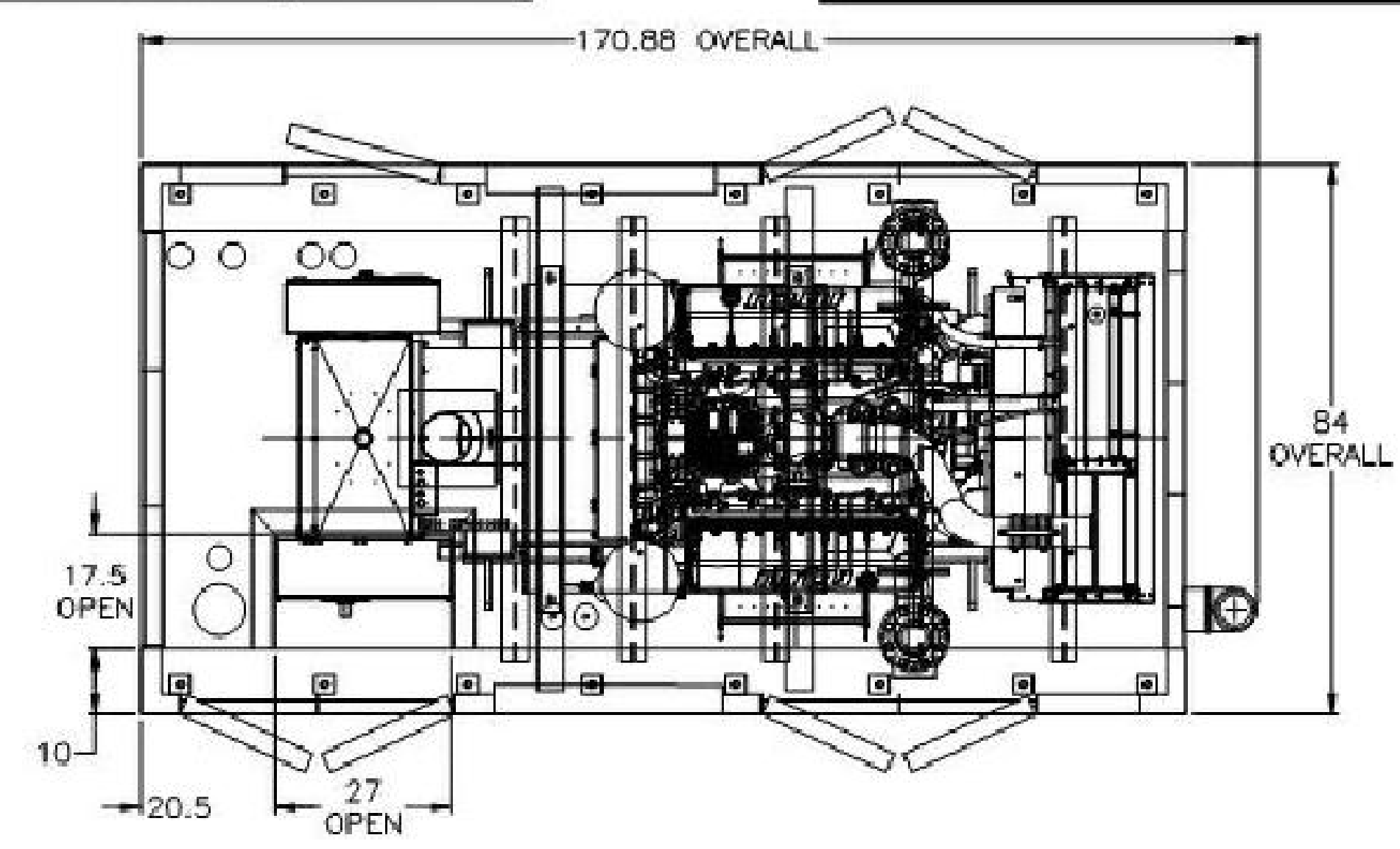
Date



**ENGINEERING
FOR ARCHITECTURE**
5757 Blue Lagoon Dr.
Suite 400
Miami, FL 33126
Phone: 305.266.6553
Fax: 305.266.6895
www.tlc-engineers.com
EB #0000015
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QUOTE #	TANK GAL	GENSET MODEL	GENSET FOOTPRINT	ASSY. WEIGHT
33787	1100 GAL	DS500	132" X 74"	X LBS

BILL OF MATERIAL		
PART #	DESCRIPTION	QTY
GWE-A1	ALUMINUM CONSTRUCTION (OBO)	1
6548	186MPH STRUCTURE REINFORCEMENT	1
6505	ACCESS DOOR	7
6501	STAINLESS STEEL DOOR HARDWARE	7
6604	FIXED INTAKE HURRICANE LOUVER	2
6600	DISCHARGE GRILL	1
6900	2" BLACK FOAM INSULATION	1
6845	CUSTOMER SUPPLIED FLEX	1
6840	GPG SUPPLIED EXHAUST SYSTEM	1
6805	RAIN COLLAR	1
6855	INTERNALLY MOUNTED SILENCER	1
	SIL: E-C-12-08-XXXX	1
	VERTICAL SILENCER DISCHARGE	1
6870	ELBOW: EL-8F-C3000	1
	RAIN CAP: PF-55-01-08	1
6518	EXTEND FUMES/DRAINS TO EXTERIOR	1
6902	WIRE BLOCK HEATER	1
6904	MOUNT & WIRE BATTERY CHARGER	1
SPECIAL	INSTALL FDDA LABELS	2
91467	PAINT COLOR EGGSHELL WHITE	



THIS AUTOCAD DRAWING IS THE PROPERTY OF GLOBAL POWER COMPONENTS AND MAY NOT BE USED IN ANY WAY DETRIMENTAL TO THE INTERESTS OF G.P.C. ANY MANUAL CHANGES WILL VOID THIS DRAWING. SPECIFICATIONS MAY CHANGE WITHOUT NOTICE. ASSY

REVISIONS			REVISIONS			GWE-A1-500-1100 ASSEMBLY	
REV	DATE	CHANGE MADE	REV	DATE	CHANGE MADE	BY	
							CUSTOMER/ID: FLORIDA DDA
							JOB REF:
							DRAWING REF: AAAQ33787
							DWG #: X
							DATE: 5/30/17
							DRAWN BY: MTB



PROPERTY MANAGEMENT
FACILITY
1833 BAY ROAD
MIAMI BEACH, FL 33139

Revisions:		
No.	Date	Description

Seal
Manuel Mollinedo, P.E.
Florida License #63096

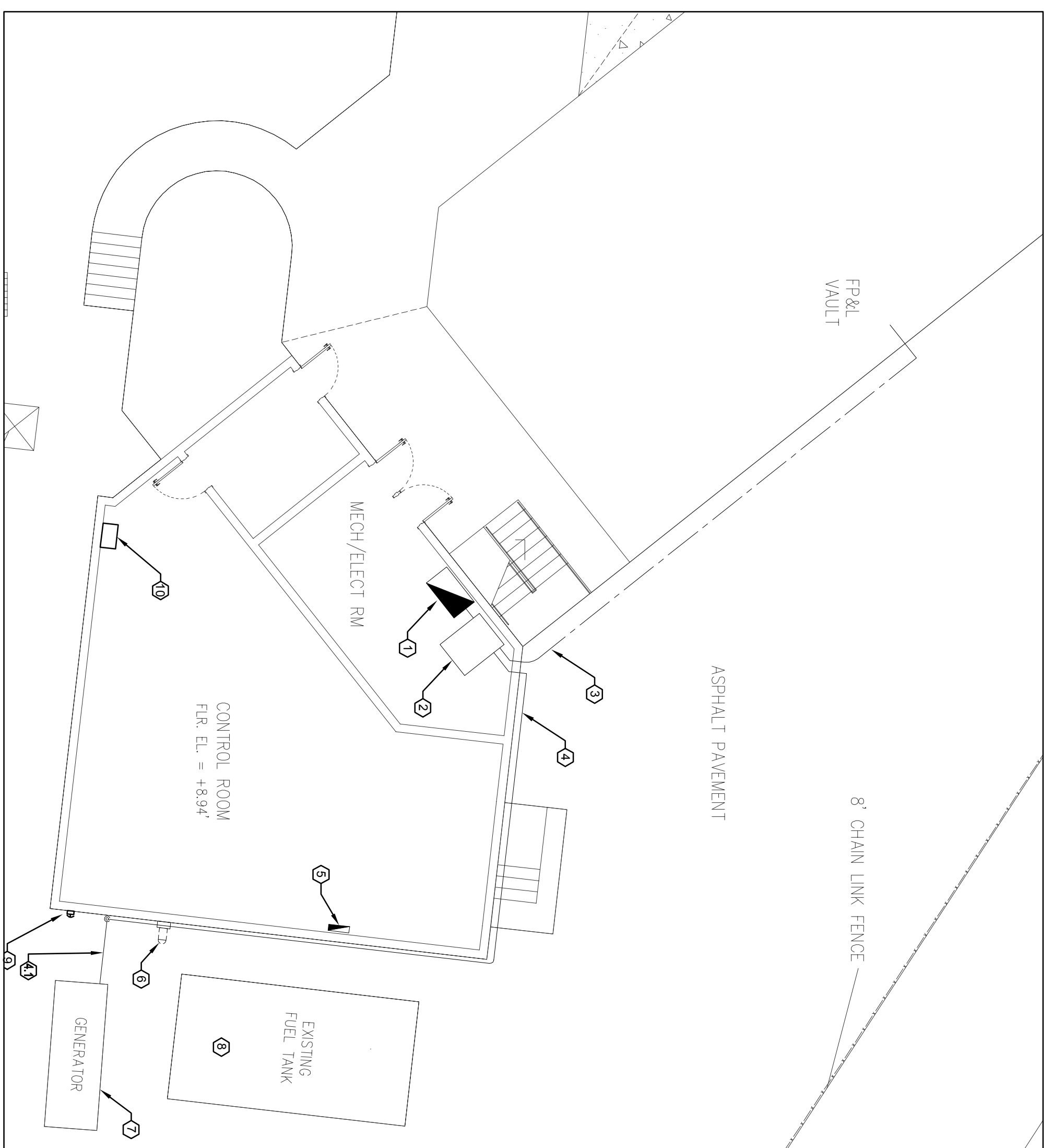
Project No.: 618043
Issue Date: 04-11-2018
Drawn By: TLC
Approved By: TLC
Scale:

Drawing Title:
**STANDBY GENERATOR
DIMENSIONS**

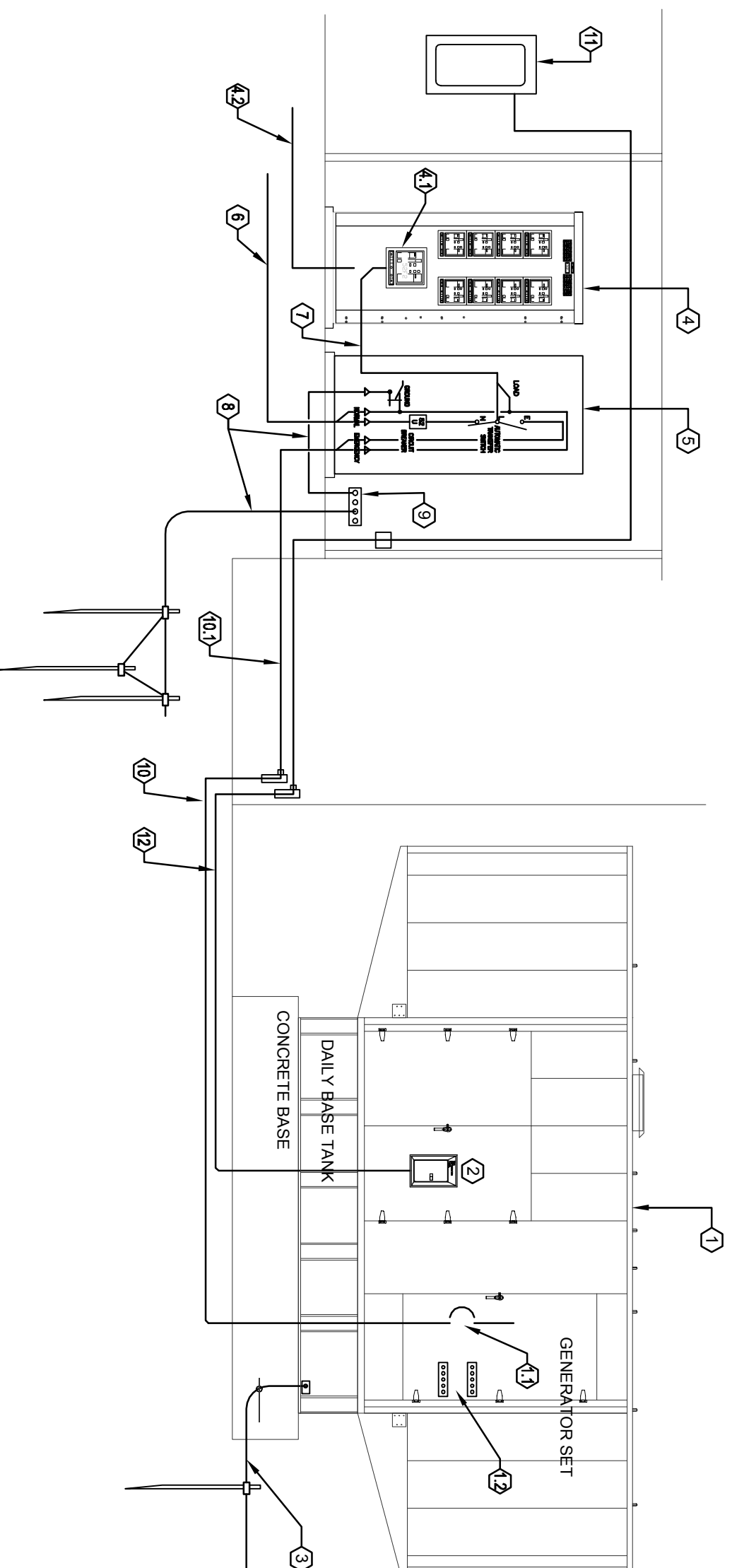
Drawing No.:
E-1.02

Sheet: of

100% PROGRESS SET



ELECTRICAL SITE PLAN
SCALE: 1/8" = 1'-0"



PARTIAL RISER DIAGRAM
SCALE: N.T.S.

KEY NOTES:

- ① EXISTING MAIN DISTRIBUTION PANEL, MAIN 1 OF 1 TO REMAIN. REFER TO RISER DIAGRAM FOR FURTHER INFORMATION.
- ② NEW AUTOMATIC TRANSFER SWITCH, SERVICE RATED, 800A, 3 POLE, 480V, BASIS OF DESIGN "ASCO" - MODEL, JUS480N0CM, 11BE-18BX, WITH A MAIN COPD = 800A, 3 POLE, SOLID STATE, LABEL AS MAIN 1 OF 1.
- ③ NEW SERVICE ENTRANCE CONDUCTORS INSTALLED UNDERGROUND. REFER TO RISER DIAGRAM FOR SIZES.
- ④ NEW GENERATOR FEEDERS, 3" RIGID CONDUIT ATTACHED TO EXTERIOR WALL. REFER TO RISER DIAGRAM FOR WIRE SIZES.
- ⑤ NEW GENERATOR FEEDERS, 4" PVC SCH 40, UNDERGROUND, AT 18" BFG, REFER TO RISER DIAGRAM FOR WIRE SIZES.
- ⑥ EXISTING PANEL, "P" LOCATED AT CONTROL ROOM, INSTALL NEW 40A-POLE CIRCUIT BREAKER TO FEED GENERATOR BUILT-IN LOAD CENTER. PROVIDE PANEL CIRCUIT DIRECTORY, REFER TO PANEL SCHEDULE FOR FURTHER INFORMATION.
- ⑦ EXISTING CANLOCKS TO BE REMOVED. REMOVE WIRES AND CONDUITS ALL THE WAY BACK TO ELECTRICAL / MECHANICAL ROOM.
- ⑧ NEW STANDBY GENERATOR, 600 KW, 480V, 3Ø, PROVIDE CONCRETE PAD.
- ⑨ EXISTING FUEL TANK, CONNECT TO NEW STANDBY GENERATOR.
- ⑩ GENERATOR EMERGENCY SHUT-OFF BUTTON.
- ⑪ REMOVE ANNUNCIATOR PANEL.

Sizing Prepared By:		Customer Contact:	
United States of America		MBCH PUBLIC WORKS	
Model: NTU1201800 25150		Scale: Recommended	
Voltage:	277/480V	End Type:	End
Frequency:	60 Hz	Rating Type:	Standby
Phase:	Three Phase	Site Altitude:	3 ft (0.9 ft)
Product Type:	Standby	Ambient Temperature:	27°C (80°F)
		Permitted Back Pressure:	50 mmHg (20.1 in. H ₂ O)
Peak kW:	600	Load Analysis Summary:	
Peak kVA:	450	Running kW:	450
		Running kVA:	450
		Running PF:	0.9
Generator set Model:	NTU1201800 25150 (CP, J)	Generator set Details:	
Alternator Model:	3725A4023 w/ P/MG	Rated P.F.:	0.8
Temperature Rise:	100°C	Site kW Rating:	450
Engine Model:	3D12V530CT05 E2A Inverter T3 Comp (DCEB3) 1800mm TD		
Load Change:		Frequency Times:	
0-25 %	1.7%	100%	33%
0-50 %	2.5%	6.6%	20%
0-75 %	4.3%	10.4%	30%
0-100 %	8.7%	18.9%	35%
Technical Data at 100% Manipulated Rated Load(s):			
Make:	NTU	Governor:	Electronic Isochronous (ABC)
Model:	NTU 201800 25150	Control Pkg Ambient Rating:	57°C (142°F)
Rated Power:	600 kW @ 90% pf	Rated Power (at 100%):	667 kW (945.7 hp)
Cylinder Configuration:	12 V, 6-Cyl, 90°	Heat Rejection to Coolant:	235 kW (328.4 BTU/min)
Displacement:	113.1 (1008 in ³)	Heat Rejection to CAC:	118 kW (161.1 BTU/min)
Rated RPM:	1,800	Heat Rejection to Fuel:	4.8 kW (6.5 BTU/min)
Fuel Consumption:	115.4 (L/hr, 30.3 gal/hr)	Heat Related to Ambient:	58 kW (79.3 BTU/min)
Aspiration Airflow:	33 ft ³ /min (12.8 ft ³ /min)	Exhaust Stack Temperature:	421°C (782°F)
Exhaust Airflow:	33 ft ³ /min (12.8 ft ³ /min)	Exhaust Stack Temperature:	421°C (782°F)
<p>1. Standby generator set shall be installed in accordance with the National Electrical Code (NEC) and applicable local codes.</p> <p>2. Standby generator set shall be installed in accordance with the National Electrical Code (NEC) and applicable local codes.</p> <p>3. Standby generator set shall be installed in accordance with the National Electrical Code (NEC) and applicable local codes.</p> <p>4. Standby generator set shall be installed in accordance with the National Electrical Code (NEC) and applicable local codes.</p> <p>5. Standby generator set shall be installed in accordance with the National Electrical Code (NEC) and applicable local codes.</p> <p>6. Standby generator set shall be installed in accordance with the National Electrical Code (NEC) and applicable local codes.</p> <p>7. Standby generator set shall be installed in accordance with the National Electrical Code (NEC) and applicable local codes.</p> <p>8. Standby generator set shall be installed in accordance with the National Electrical Code (NEC) and applicable local codes.</p>			

KEY NOTES:

- ① NEW 600 KW STANDBY GENERATOR, 480V, 3Ø, 800A, 3 POLE, AUTOMATIC TRANSFER SWITCH, SERVICE RATED, 800A, 3 POLE, 480V, BASIS OF DESIGN "ASCO" - MODEL, JUS480N0CM, 11BE-18BX, WITH A MAIN COPD = 800A, 3 POLE, SOLID STATE, LABEL AS MAIN 1 OF 1.
- ② NEW SERVICE ENTRANCE CONDUCTORS INSTALLED UNDERGROUND. REFER TO RISER DIAGRAM FOR SIZES.
- ③ NEW GENERATOR FEEDERS, 3" RIGID CONDUIT ATTACHED TO EXTERIOR WALL. REFER TO RISER DIAGRAM FOR WIRE SIZES.
- ④ NEW GENERATOR FEEDERS, 4" PVC SCH 40, UNDERGROUND, AT 18" BFG, REFER TO RISER DIAGRAM FOR WIRE SIZES.
- ⑤ EXISTING PANEL, "P" LOCATED AT CONTROL ROOM, INSTALL NEW 40A-POLE CIRCUIT BREAKER TO FEED GENERATOR BUILT-IN LOAD CENTER. PROVIDE PANEL CIRCUIT DIRECTORY, REFER TO PANEL SCHEDULE FOR FURTHER INFORMATION.
- ⑥ EXISTING CANLOCKS TO BE REMOVED. REMOVE WIRES AND CONDUITS ALL THE WAY BACK TO ELECTRICAL / MECHANICAL ROOM.
- ⑦ NEW STANDBY GENERATOR, 600 KW, 480V, 3Ø, PROVIDE CONCRETE PAD.
- ⑧ EXISTING FUEL TANK, CONNECT TO NEW STANDBY GENERATOR.
- ⑨ GENERATOR EMERGENCY SHUT-OFF BUTTON.
- ⑩ REMOVE ANNUNCIATOR PANEL.
- ⑪ NEW AUTOMATIC TRANSFER SWITCH, 800A, 3 POLE, SERVICE RATED, BASIS OF DESIGN "ASCO" - MODEL, JUS480N0CM, 11BE-18BX, WITH A MAIN COPD = 800A, 3 POLE, SOLID STATE, LABEL AS MAIN 1 OF 1, LABEL AS REQUIRED.
- ⑫ NEW SERVICE ENTRANCE CONDUCTORS, (3) SETS EACH SET = (4) #300 KCM THWN IN 4" PVC/CUG, TOTAL AMPACITY = 865AMPS.
- ⑬ (2) SETS EACH SET = (4) #600 KCM THWN + (1) #1/0 AWG THWING IN 4" C.
- ⑭ NEW GROUNDING ELECTRODE CONDUCTOR: (1) #30 AWG THWN.
- ⑮ NEW MAIN GROUND BAR: 1/4" X 4" X 1/8" COPPER PLATE & CONDUITATION, HOLE PATTERN = OCC.
- ⑯ #1/0 AWG THWING IN 4" PVC/CUG @ 18" BFG.
- ⑰ (3) SETS EACH SET = (4) #300 KCM THWN + (1) #1/0 AWG THWING IN 4" PVC/CUG @ 18" BFG.
- ⑱ EXISTING PANEL, "P" PROVIDE NEW 40A, 2-POLE CIRCUIT BREAKER IN POSITION 14, 18 TO FEED GENERATOR BUILT-IN LOAD CENTER. REFER TO PANEL SCHEDULE FOR FURTHER INFORMATION.
- ⑳ #36 AWG THWN + (1) #36 AWG THWING IN 1" C. (USE PVC IN UNDERGROUND SECTION).

SCOPE OF WORK:

THE SCOPE OF WORK FOR THE PRESENT DESIGN IS TO PROVIDE STANDBY POWER TO MIAMI BEACH - PUBLIC WORK FACILITY. THIS SHALL BE DONE BY INSTALLING A 600KW DIESEL FUELED GENERATOR @ 480/277 V, THREE PHASE.

ENGINEERING FOR ARCHITECTURE
Suite 400
5757 Blue Lagoon Dr.
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MIAMI BEACH PUBLIC WORKS GENERATOR
451 Dade Blvd,
Miami Beach, FL 33140

Revisions:

No.	Date	Description

Seal
Manuel Mollinedo, P.E.
Florida License #63096

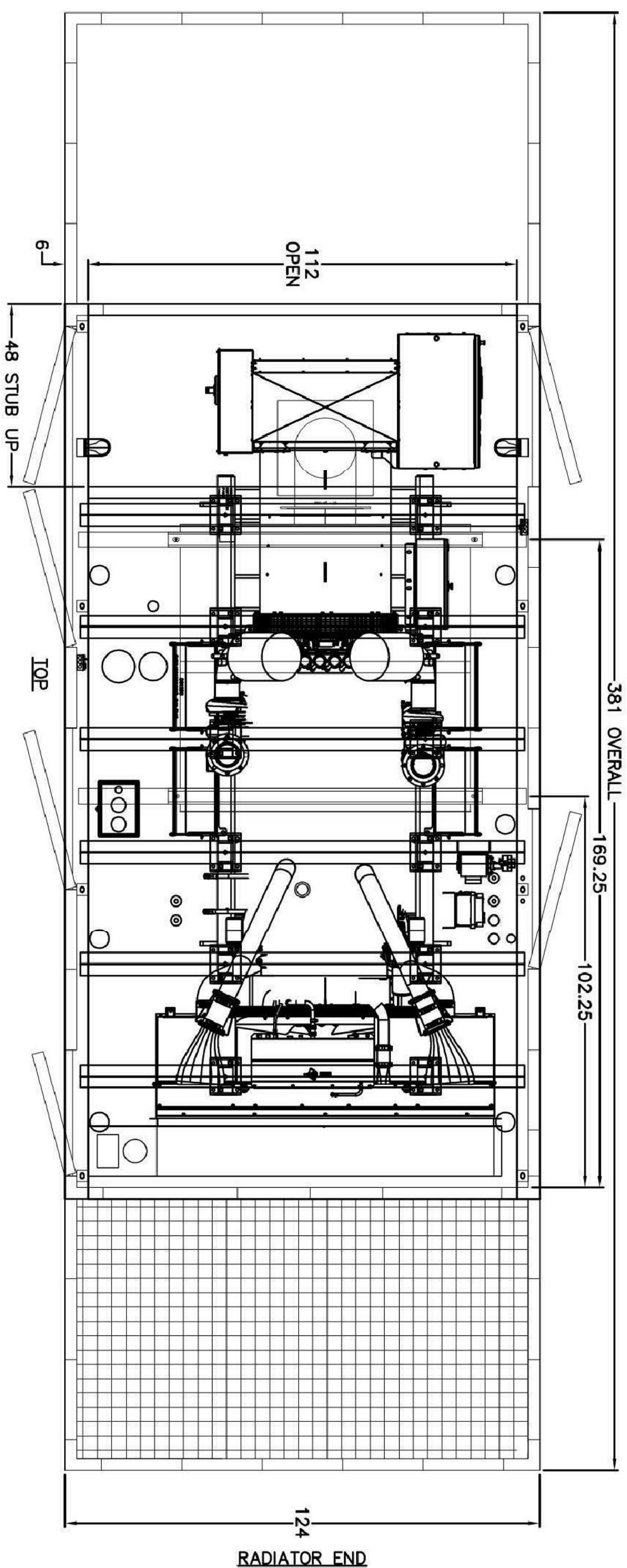
Project No.: 618902
Issue Date: 03-31-08
Drawn By: TLC
Approved By: TLC
Scale: 1/8" = 1'-0"

Drawing Title:
GENERATOR FLOOR PLAN & RISER DIAGRAM

Drawing No.: **E-101**

60% PROGRESS SET

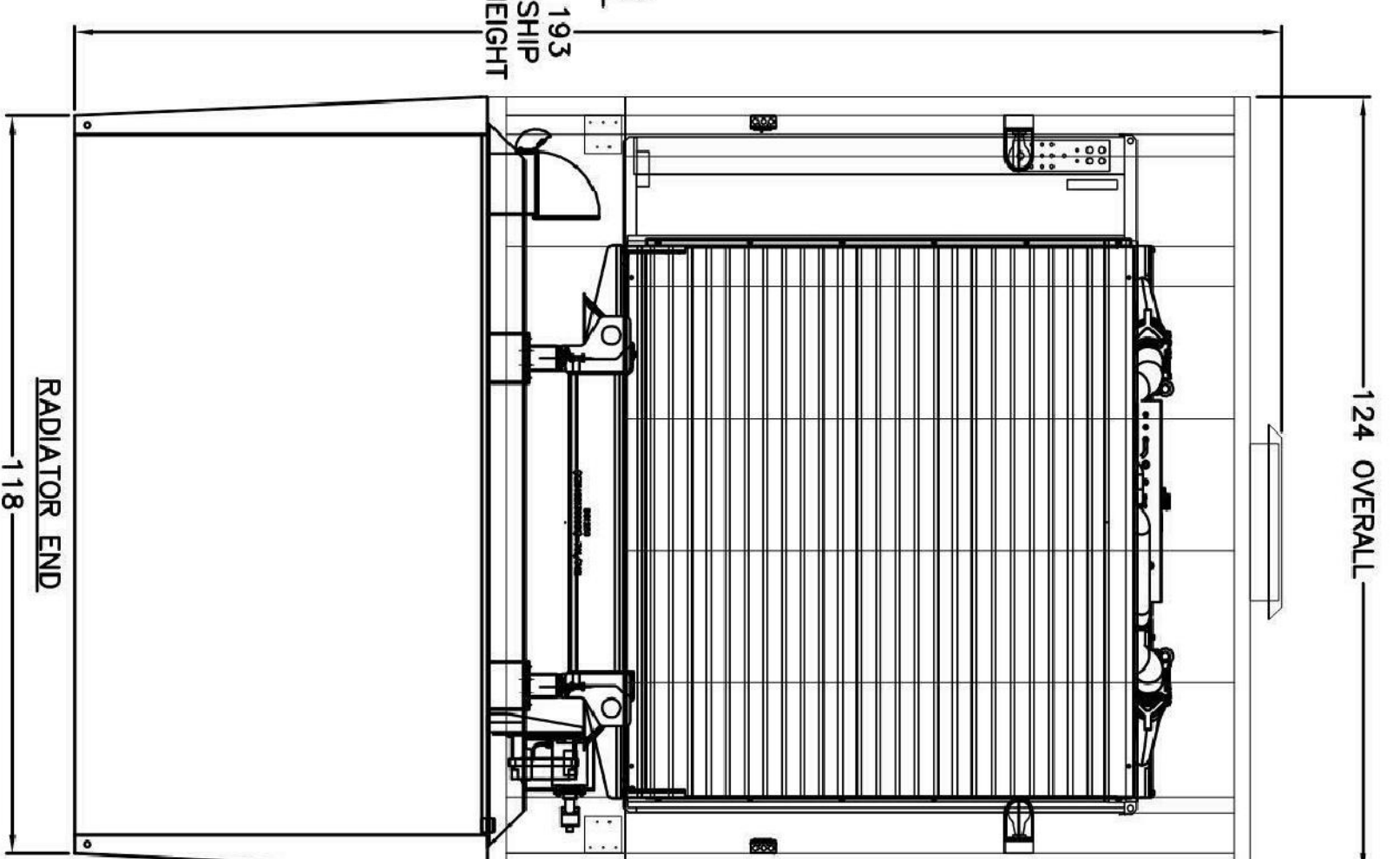
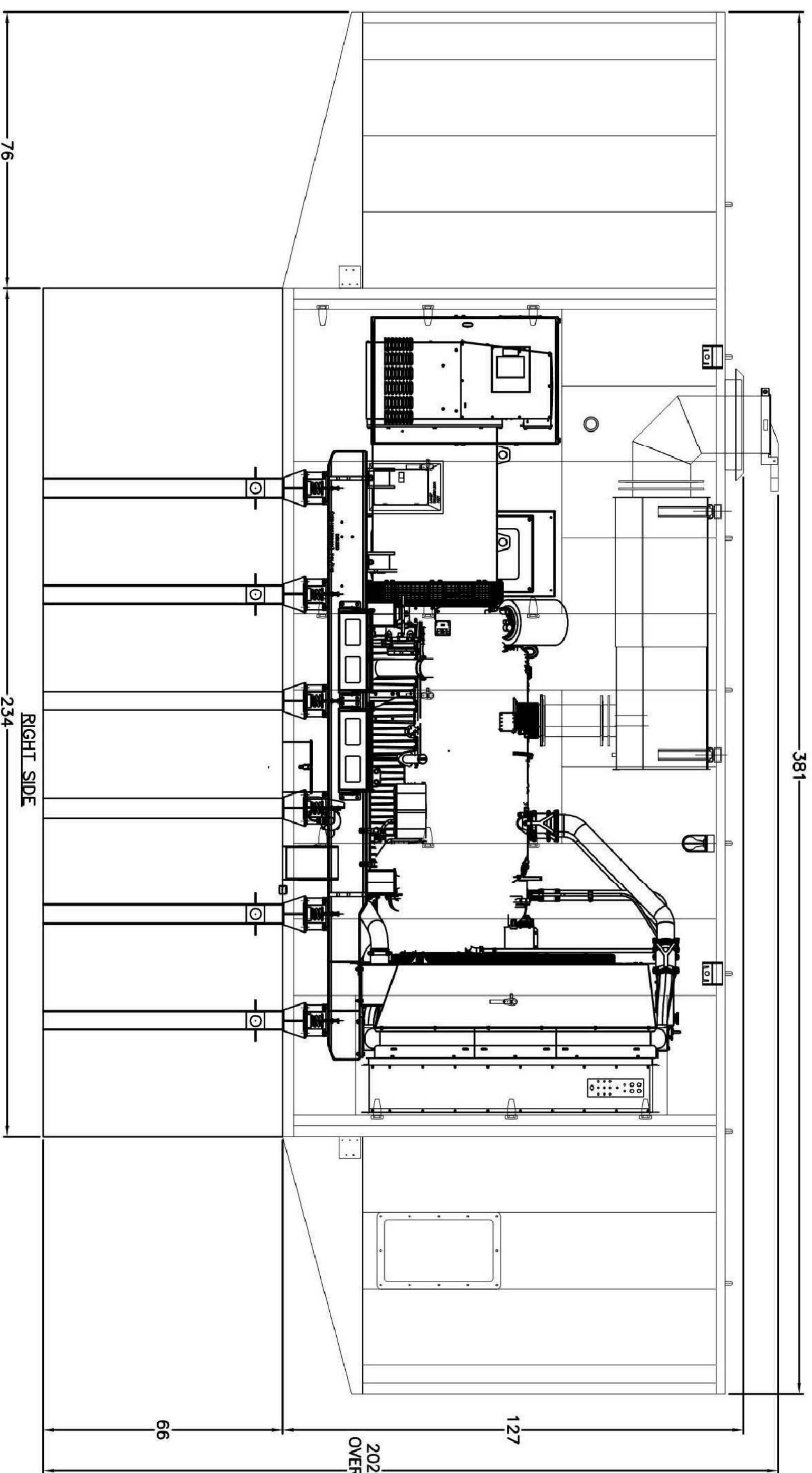
JOB #	TANK GAL	GENSET MODEL	GENSET FOOTPRINT	TOTAL WEIGHT
	5000 GAL	DS1250	198.25" X 90"	48,750 LBS



NEC 2014
ALL VERTICAL WALL & DOOR PANELS & ROOF PANELS 2" FIBER INSULATION BOARD W/ PERF

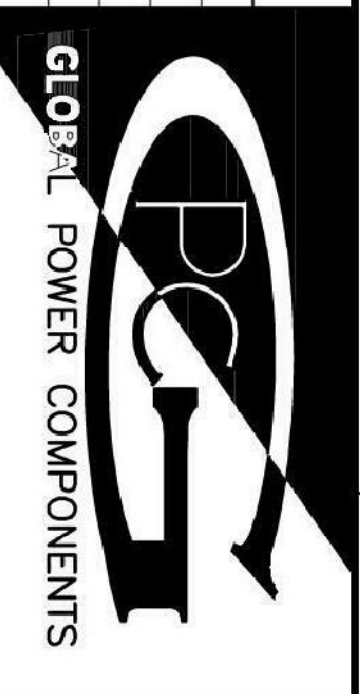
PART #	DESCRIPTION	QTY
ONE-A1	ALUMINUM CONSTRUCTION (100, 125)	1
6546	100 MFT STRUCTURE REINFORCEMENT	1
SP504	100 MFT RIB PER BLACKWATER TESTING	1
6505	ACCESS DOOR	6
6501	STAINLESS STEEL DOOR HARDWARE	6
6510	EXTERNAL VERTICAL TRINKE HOOD	1
6518	EXTERNAL VERTICAL DISCHARGE HOOD	1
SP504	2" FIBER INSULATION BOARD	1
6520	LINE INTERIOR WALL ALUMINUM FIBER	1
6540	CUSTOMER SUPPLIED EXHAUST SYSTEM	2
6540	GENC SUPPLIED EXHAUST SYSTEM	1
6555	INTERNALLY INQUINATED SILENCER	1
6555	SIL. GFC-F-C-12-16-0754-BW	1
6555	VERTICAL SILENCER DISCHARGE	1
6555	ELBOW. EL-16F-C300-STD	1
6970	RAIN CAP. PARKER PAR-55-03-16	2
6900	EXHAUST EXTENSION	1
6518	EXTEND FIBER/DRINKS F. VALVE PRESSNT	1
6904	MOUNT & WIRE BATTERY CHARGER	1
6902	MOUNT & WIRE BLOCK HEATER	1
6910	INCANDESCENT LIGHT PACKAGE	1
6911	INCANDESCENT FIXTURE (100 WATT)	3
6913	LIGHT SWITCH (1-POLE)	1
6916	GFCI OUTLET (20 AMP)	1
6918	GFCI PROTECTED OUTLET (20 AMP)	1
6914	100A DIST PANEL (16, 120/240V)	1
6555	MOUNT & WIRE LOAD BANK	1
6556	MOUNT & WIRE LOAD BANK CONTROLS	1
91467	PAINT COLOR EGGSHELL WHITE	1

DPBR #10 MFT-10468



REV DATE:	CHANGES MADE	BY	REV DATE:	CHANGES MADE	BY
1	12/8 CHANGE LENGTH & WIDTH, ADD LOAD BANK	MTB			
2	12/16 UPDATED SILENCER, ELBOW, & RAINCAP MOVE DOORS	MTB			

GWE-A1-1250-2000 ASSEMBLY
CUSTOMER/ID: FLORIDA DDA
JOB REF: MIAMI AIRPORT
DRAWING REF: AAQA14276
DWG #: 45-25377
DATE: 10/22/15
DRAWN BY: SK



ASSY

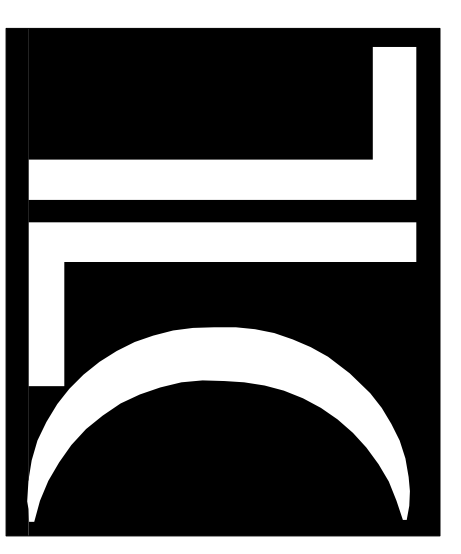
GENERAL SPECIFICATIONS:
- CERTIFICATIONS AND STANDARDS:
EMISSIONS: COMPLYING WITH EPA TIER 3.
MANUFACTURED IN ISO 9001 AND ISO 14001 CERTIFIED FACILITY.

UL 2200 COMPLIANT.
ISO 8528-5 FOR TRANSIENT RESPONSE.
POWER RATING: ACCEPTS DESIGN LOAD IN ONE STEP PER NEC 110.
POWER FACTOR > 0.8.
2 YEAR STANDARD WARRANTY.

ELECTRIC STARTING MOTOR - 24V.
CHARGING ALTERNATOR - 24V.
SUSTAINED SHORT CIRCUIT CURRENT UP TO 300% IN 10 SEC.
DIGITAL, SOLID STATE, VOLT-HERTZ REGULATOR.
+/- 0.25 % VOLTAGE REGULATION.
COMMUNICATION TO REMOTE ANNUNCIATOR.
ENGINE JACKET WATER HEATER.
FUEL CONSUMPTION AT 100 % = 4.2 G/HR
FUEL CONSUMPTION AT 75 % = 3.3 G/HR

EMERGENCY POWER SYSTEM.
POWER SUPPLY - GENERAL REQUIREMENTS
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 EXCEED 30 SECONDS.
EXISTING EMERGENCY LIGHTS ARE CURRENTLY POWERED WITH BATTERY BACKUP AND READY TO STAR 10 SECONDS AFTER THE POWER FAILURE.
EMERGENCY GENERATOR PRIME MOVERS SHALL BE AN INTERNAL COMBUSTION ENGINE FUELED BY DIESEL #2 TYPE A SUB-SEA FUEL TANK SHALL BE PROVIDED WITH ENOUGH CAPACITY FOR 12 HOURS OF CONTINUOUS OPERATION AT A LOAD OF 100% POWER RATING. AUXILIARY FUEL TANK WITH CAPACITY FOR 96 HOURS IS EXISTING AT THE FACILITY.
CLASSIFICATION OF THE EMERGENCY POWER SUPPLY SYSTEM
THIS STANDBY GENERATOR AND THE AIS SHALL BE PART OF THE EPSS AND SHALL BE CLASSIFIED AS LEVEL 2, TYPE 30, AND CLASS 12. ELECTRICAL CONTRACTOR SHALL VERIFY THAT THE EPSS IS CAPABLE TO ACTIVATE IN LESS THAN 30 SECONDS FROM THE INSTANT THE NORMAL POWER FAILS. ELECTRICAL CONTRACTOR SHALL MAKE THE REQUIRED ADJUSTING TO GET THAT TIME.
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 EMERGENCY GENERATOR SHALL BE PROVIDED WITH A CONTROL PANEL CONTAINING THE FOLLOWING:
A- AUTOMATIC REMOTE START CAPABILITY.
B- "RUN-OFF-AUTOMATIC" SWITCH.
C- SHUTDOWNS, ALARMS, AND CONTROLS AS REQUIRED BY NFPA 110 INFORMATION:
A- HIGH ENGINE TEMPERATURE PRE-ALARM
B- HIGH ENGINE TEMPERATURE (AND SHUTDOWN).
C- LOW LUBE OIL PRESSURE PRE-ALARM
D- LOW LUBE OIL PRESSURE ALARM (AND SHUTDOWN).
E- OVERSPEED (AND SHUTDOWN).
F- LOW FUEL MAIN TANK.
G- CONTROL SWITCH NOT IN AUTOMATIC POSITION.
H- LOW VOLTAGE IN BATTERY.
I- BATTERY CHARGER AC FAILURE.
J- AIR SHUTDOWN DAMPER WHEN USED (AND SHUTDOWN).
K- REMOTE EMERGENCY STOP.
AN EMERGENCY MANUAL STOP STATION SHALL BE FACTORY BUILT-IN ON THE GENERATOR HOUSING. ADDITIONAL A REMOTE EMERGENCY MANUAL STOP STATION SHALL BE PROVIDED INSIDE THE OFFICE AREA IN MARINE PAROL MAIN OFFICE. THE REMOTE MANUAL STOP STATION SHALL BE LABELED.
REQUIRED WIRING BETWEEN TRANSFER SWITCH 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 REPRESENTATIVE FOR QUANTITY AND SIZES.

100% PROGRESS SET



ENGINEERING FOR ARCHITECTURE
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Tel: #1000015
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PROPERTY MANAGEMENT FACILITY GENERATOR
1833 BAY ROAD
MIAMI BEACH, FL. 33139

Revisions:	No.	Date	Description

Seal
Manuel Molinero, P.E.
Florida License #63096

Project No.: 618043
Issue Date: 04-11-2018

Drawn By: TLC
Approved By: TLC
Scale: 1/8" = 1'-0"

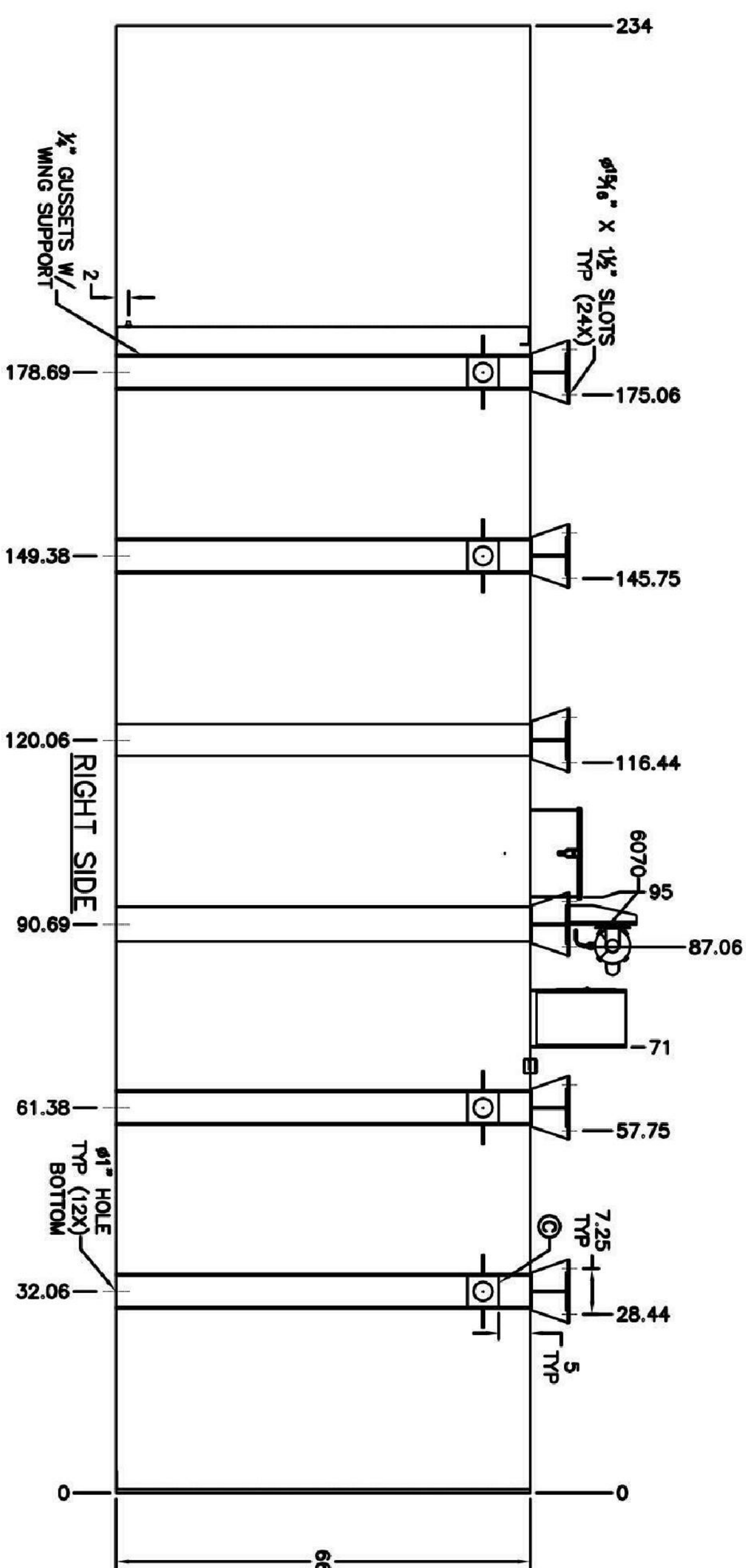
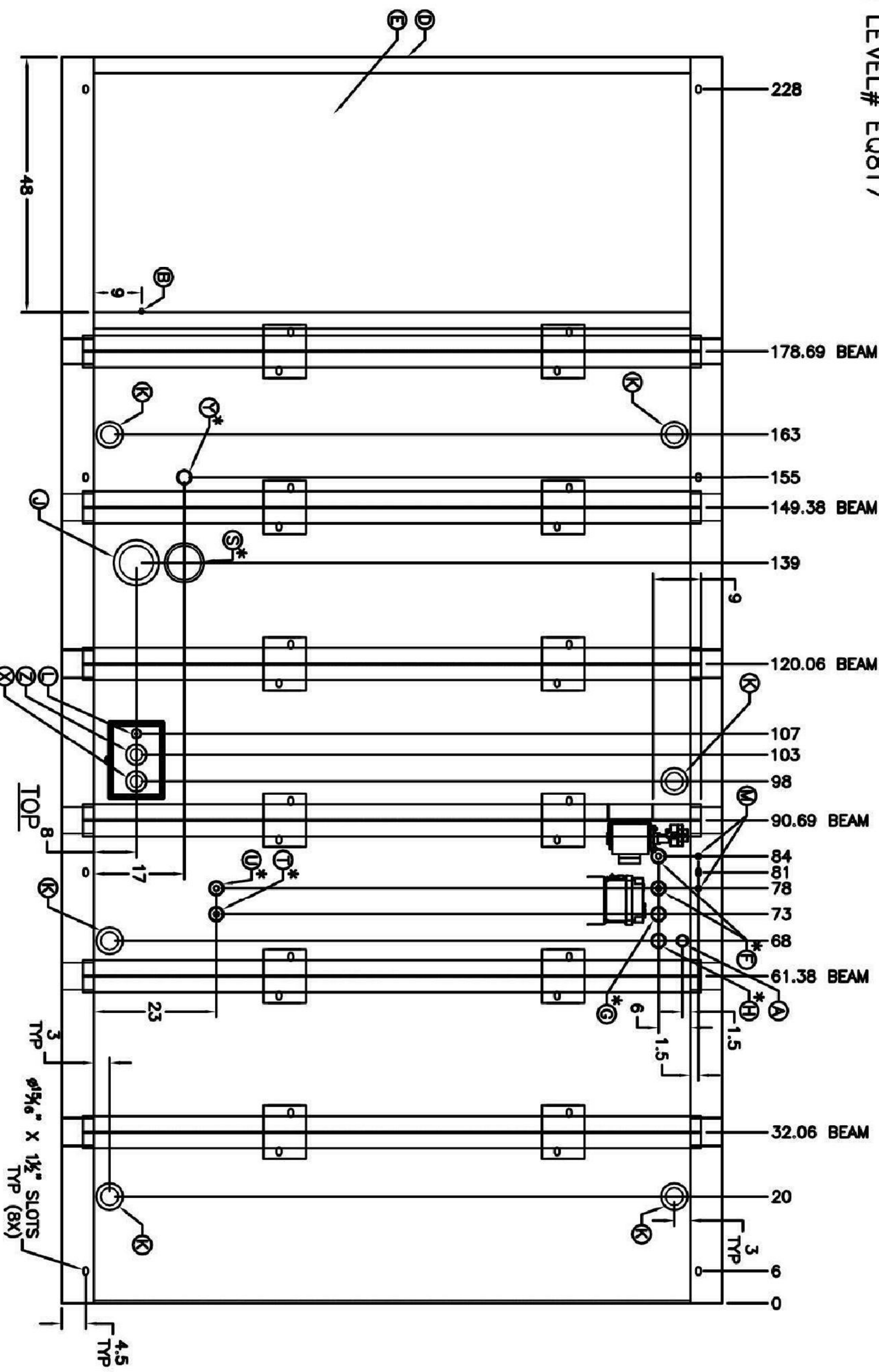
Drawing Title: STANDBY GENERATOR DIMENSIONS

E-102

JOB #	TANK GAL	GENSET MODEL	GENSET FOOTPRINT	TANK WEIGHT
	5000 GAL	DS1250	198.25' X 90'	16,525 LBS

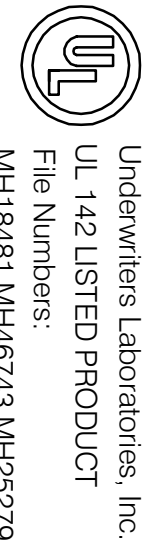
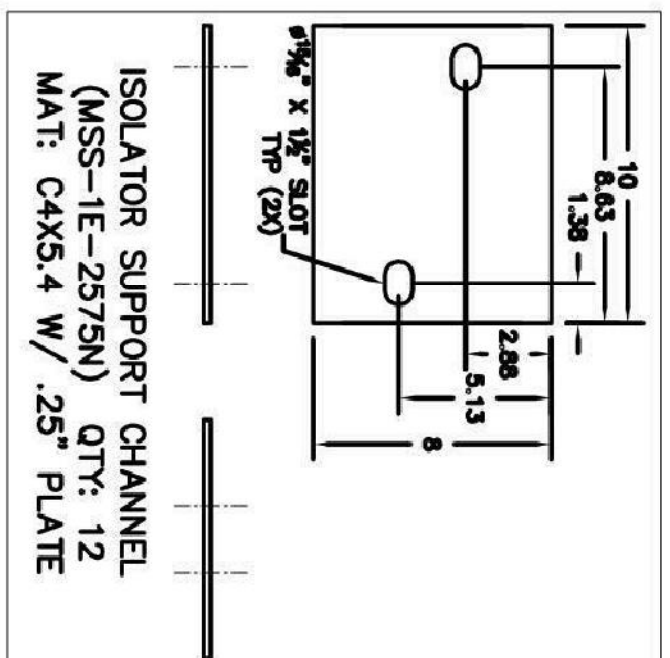
FDEP:
TANK# EQ716
SPILL BOX# EQ567
BASIN ALARM# EQ817
HIGH LEVEL# EQ817

* = 2" PIPE TO TANK TOP UNLESS OTHERWISE NOTED



REV	DATE	REVISIONS	BY	REV	DATE	REVISIONS	BY
		CHANGE MADE				CHANGE MADE	

SUB BASE TANK W/ RUPTURE BASIN & STUB UP TANK



GLOBAL POWER COMPONENTS	
1100 GLS UL142 SUB-BASE TANK - EQ# 567	DATE: 8/20/07
1100 GLS UL142 SUB-BASE TANK - EQ# 567	DATE: 8/20/07
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RADIATOR END

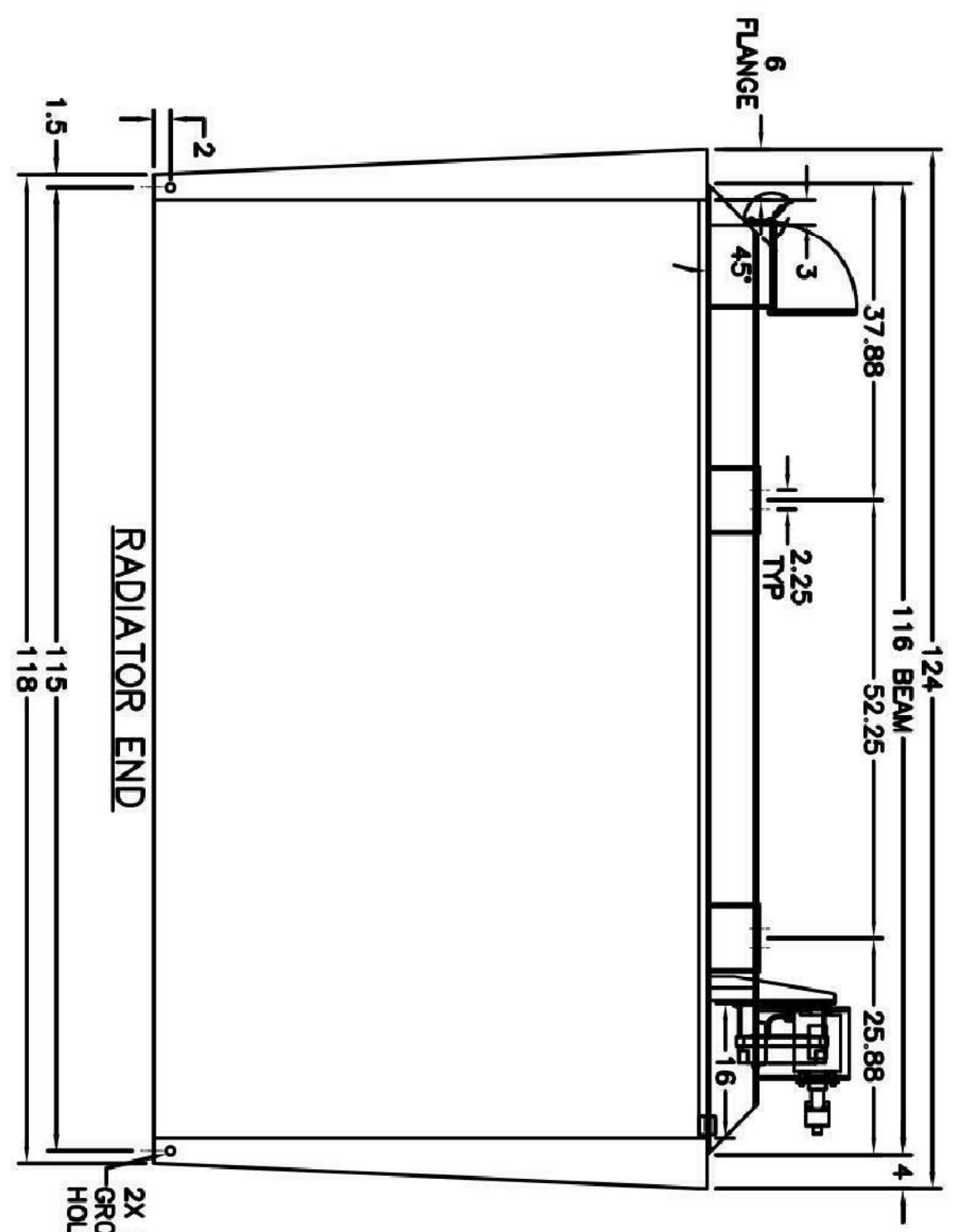
ANCHOR REQUIREMENT:
- 1/8" DIA. HEX HEAD ASTM F1554 GR. 105 ANCHOR BOLTS
- 6 EMBEDMENT
- 4000 PSI CRACKED CONCRETE

PROVIDE SIGN AS PER NFPA 704 FOR FUEL SUPPLY TANK
FUELING PORT AND OUTSIDE THE GENERATOR ROOM.
INDICATING THE FOLLOWING:
- HEALTH HAZARD = 1
- FLAMMABILITY = 2
- INSTABILITY/HAZARD = 0
- SPECIAL HAZARD = N/A

SUB-BASE FUEL TANK

LETTER	PART #	DESCRIPTION	QTY
S	3166	F. ORIG. 6" E-VENT	1
T	3655	F. ORIG. 2" RETURN W/ 3/4" DIP TUBE	1
U	3655	F. ORIG. 2" SUPPLY W/ 3/4" DIP TUBE	1
X	1003	FLANGE, 2" FUEL LEVEL GAUGE	1
Y	1003-TS	ROCHESTER TMSITE ADAPTER (#P56850247)	1
Z	3152	F. ORIG. 2" STANDARD VENT CAP	1
A	4301	#1-1/2" PIPE TOE L = 30-1/2"	1
B	3502	FLANGE, 1/2" BASIN DRAIN	1
C	8410	1/2" FLUSH MOUNT LIFTING PLATE	8
D	8003	REMOVABLE END PLATE - 3" BEND	1
E	4000	48" STANDARD ELECTRICAL STUB UP	1
F	3600	F. ORIG. 2" FITTING W/ 1/2" DIP TUBE	2
G	1093	F. ORIG. 2" 3-FLOAT ASSEMBLY (LUM. RIMP QV/087)	1
J	3186	FLANGE, 6" CONTAINMENT E-VENT	1
K	3196	FLANGE, 3" FITTING W/ PLUG	8
L	3190	F. ORIG. 3/8" FITTING W/ PLUG	2
M	3191	F. ORIG. 1/2" FITTING W/ PLUG	1
	8220	7 GAL SPILL CONTAINMENT BOX	1
	8303	6" I-BEAM GENSET SUPPORT	6
	8420	ISOLATOR SUPPORT PLATE	12
	8426	GPC SUPPLIED ISOLATORS (MSS-1E-2575)	12
	1380	SERIES 400 CONTROLLER (SINGLE/REVERSE)	1
	2025	SINGLE SUPPLY PUMP SYSTEM	1
	6400	1/3 HP CARBONATE MOTOR, 1φ	1
	6040	115/230V, 50/60HZ, 487Z FRAME	1
	6070	BRONZE CLOSED COUPLED 4GPM	1
	6400	ROTARY GEAR PUMP, 3/8" PORTS	1
	2010	REVERSE PUMP SYSTEM	1
	6400	ROTARY GEAR PUMP, 3/8" PORTS	1
	700-1025	1/2" FUEL STRAINER	1
	700-1065	1/2" SPRING CHECK VALVE	1
	700-1096	1/2" SOLENOID VALVE (120VAC, NC)	1
	UL2095	2HR FIRE RATED DOUBLE WALL TANK	1
	9638	PAINT COLOR GLOSS BLACK	1

GENSET OFFSET 6" TO LEFT SIDE



100% PROGRESS SET

ENGINEERING
FOR ARCHITECTURE

5757 Blue Lagoon Dr.
Suite 400
Miami, FL 33126
Phone: 305.286.6593
Fax: 305.286.0855
www.tlc-engineering.com
Miami, FL 33131

PROPERTY MANAGEMENT FACILITY
GENERATOR

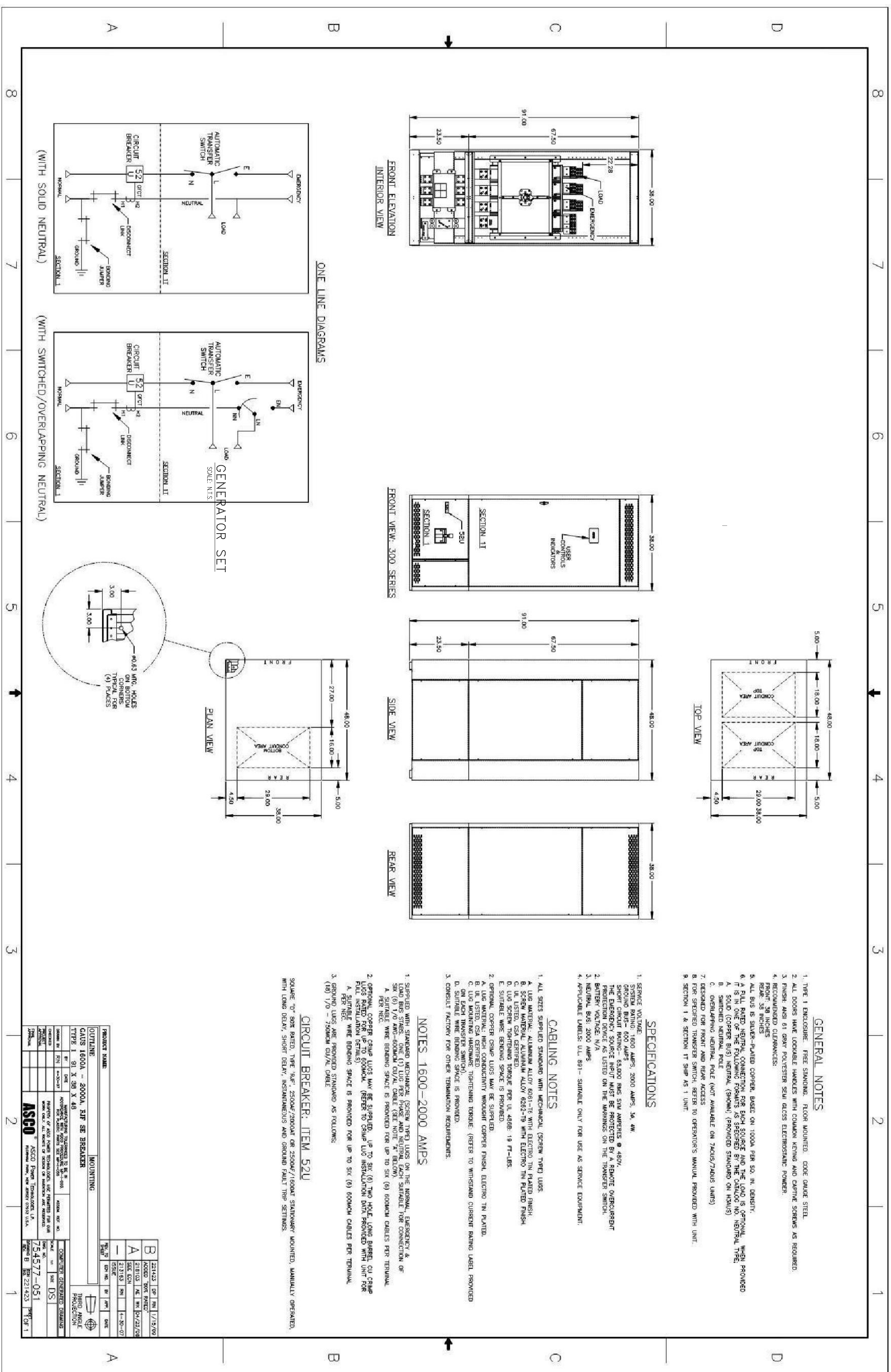
1833 BAY ROAD
MIAMI BEACH, FL. 33139

Revisions:	No.	Date	Description
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Seal
Manuel Molinero, P.E.
Florida License #63096

Project No.:	618043
Issue Date:	04-11-2018
Drawn By:	TLC
Approved By:	TLC
Scale:	1/8" = 1'-0"

E-103



- GENERAL NOTES**
- TYPE 1 ENCLOSURE: FREE STANDING, FLOOR MOUNTED, CODE GAUGE STEEL.
 - ALL DOORS HAVE LOCKABLE HANDLES WITH COMMON KEYS AND CARTRIDGE SCREWS AS REQUIRED.
 - FINISH: ASH 61 GRAY POLYESTER SEMI GLOSS ELECTROSTATIC POWDER.
 - RECOMMENDED CLEARANCES:
FRONT: 36 INCHES
REAR: 36 INCHES
 - ALL BUS BARS SHALL BE RATED COPPER, BASED ON 1000A PER BUS IN COUNTRY.
 - ALL BUS BARS SHALL BE RATED COPPER, BASED ON 1000A PER BUS IN COUNTRY.
 - THE ONE OF THE FOLLOWING FORMATS AS SPECIFIED BY THE CATALOG NO. NEUTRAL TYPE:
A. SOLID (COPPER BUS) NEUTRAL (SHOWN) (PROVIDED STANDARD ON HOURS)
B. SWITCHED NEUTRAL POLE (NOT AVAILABLE ON 7500/2400 UNITS)
C. OVERLAPPING NEUTRAL POLE (NOT AVAILABLE ON 7500/2400 UNITS)
 - DESIGNED FOR FRONT AND REAR ACCESS
 - FOR SPECIFIED TRANSFER SWITCH, REFER TO OPERATOR'S MANUAL PROVIDED WITH UNIT.
 - SECTION 1 & SECTION 11 SHIP AS 1 UNIT.

- SPECIFICATIONS**
- SERVICE VOLTAGE:
SYSTEM RATING: 1600 AMPS, 2000 AMPS, 3K, 4K, 5K
GROUND BUS - 600 AMP/5000 BUS BARS AMPERES @ 480V.
THE DEFERRING SOURCE INQUIRY MUST BE PROTECTED BY A REMOTE OVERCURRENT PROTECTION DEVICE AS LISTED ON THE WARNINGS ON THE TRANSFER SWITCH.
 - BATTERY VOLTAGE: 120V
 - NEUTRAL BUS: 2000 AMPS
 - APPLICABLE LABELS: ILL. 891 - SUITABLE ONLY FOR USE AS SERVICE EQUIPMENT.

- CABLING NOTES**
- ALL SIZES SUPPLIED STANDARD WITH MECHANICAL (SCREW TYPE) LUGS.
A. LUG MATERIAL: ALUMINUM ALLOY 6061-T6 WITH ELECTRO TIN PLATED FINISH.
B. DIE LISTED, CSA CERTIFIED.
C. LUG SCREW TIGHTENING TORQUE PER UL 468B: 19 FT-LBS.
D. SUITABLE WIRE BENDING SPACE IS PROVIDED.
E. OPTIONAL COPPER CHAMP LUGS MAY BE SUPPLIED.
A. LUG MATERIAL: HIGH CONDUCTIVITY WROUGHT COPPER FINISH, ELECTRO TIN PLATED.
B. LUG MATERIAL: HIGH CONDUCTIVITY WROUGHT COPPER FINISH, ELECTRO TIN PLATED.
C. LUG MOUNTING HARDWARE: TIGHTENING TORQUE: (REFER TO WINDWARD CURRENT RATING LABEL PROVIDED ON EACH TRANSFER SWITCH).
D. ON EACH TRANSFER SWITCH, THE FOLLOWING INFORMATION SHALL BE PROVIDED:
1. CATALOG NUMBER FOR OTHER TERMINATION REQUIREMENTS.
2. CONSULT FACTORY FOR OTHER TERMINATION REQUIREMENTS.

- NOTES: 1600-2000 AMPS**
- SUPPLIED WITH STANDARD MECHANICAL (SCREW TYPE) LUGS ON THE NEUTRAL, EMERGENCY & TRANSFER SWITCH. THE DEFERRING SOURCE INQUIRY MUST BE PROTECTED BY A REMOTE OVERCURRENT PROTECTION DEVICE AS LISTED ON THE WARNINGS ON THE TRANSFER SWITCH.
 - SUPPLIED WITH STANDARD MECHANICAL (SCREW TYPE) LUGS ON THE NEUTRAL, EMERGENCY & TRANSFER SWITCH. THE DEFERRING SOURCE INQUIRY MUST BE PROTECTED BY A REMOTE OVERCURRENT PROTECTION DEVICE AS LISTED ON THE WARNINGS ON THE TRANSFER SWITCH.
 - GROUND LUGS ARE PROVIDED STANDARD AS FOLLOWS:
(18) 1/0 - 75000M CU/AL CABLE



- ONE LINE DIAGRAMS**
- (WITH SOLID NEUTRAL)
- (WITH SWITCHED/OVERLAPPING NEUTRAL)
- GENERATOR SET**

- GENERAL NOTES**
- SUPPLIED WITH STANDARD MECHANICAL (SCREW TYPE) LUGS ON THE LOAD & EMERGENCY BUS STABS. ONE (1) LUG PER PHASE AND NEUTRAL EACH SUITABLE FOR CONNECTION OF THREE SETS OF CABLES UP TO 600KCM CU/AL.
 - GROUND LUGS ARE PROVIDED STANDARD AS FOLLOWS: (3) #1/0 - 300 AWG CU/AL CABLE.

CIRCUIT BREAKER: ITEM 52U

- 100% RATED MOLDED CASE CIRCUIT BREAKER, 800AF/800AT SOLID STATE ELECTRONIC TRIP.

60% PROGRESS SET

Project No.: 6189002
Issue Date: 03-31-08
Drawn By: TLC
Approved By: TLC
Scale: 1/8" = 1'-0"
Drawing Title: AUTOMATIC TRANSFER SWITCH DIAGRAM
Drawing No.: E-104

Seal
Manuel Mollinedo, P.E.
Florida License #63096

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GENERATOR
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Miami Beach, FL 33140

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Miami, FL 33126
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www.tic-engineering.com
Miami, FL 33130
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TAW POWER SYSTEMS, INC.
 1500 NW 15th Ave
 Pompano Beach, FL 33069
 Ph.: (954) 977-0202 x1759 (800) 876-0990
 Fax: (954) 977-9249
John.Potts@tawinc.com
Kohler Generator Systems Distributors

KOHLER POWER SYSTEMS DISTRIBUTOR FOR ALABAMA, SOUTH GEORGIA, FLORIDA, LOUISIANA AND MISSISSIPPI

Date: August 8, 2018
Contact: John Potts

Offer No: P1808-0106
Contact Cell #: (954)-234-4226

Project: City of Miami Beach – Property Management

One New **KOHLER Model 500REOZJ**, EPA Certified **Diesel** Generator Set,
 500KW, @ 0.8 PF, 60 Hz, 3 Phase, UL 2200, 277/480 Volt with the following:

CONTROLLER:

APM402
 Controller meets NFPA 110

ENCLOSURE:

Aluminum Sound Enclosure
 181 MPH Wind Load Rated
 Critical Silencer

COOLING:

Unit Mounted Radiator
 Block Heater, 120 Volt

FUEL SYSTEM:

Flexible Fuel Lines
 Sub-base Fuel Tank, 1,700 Gallon, UL142 Listed
 FDEP Package
 Fuel Water Separator

GENERATOR ACCESSORIES (Electrical):

Line Circuit Breaker, 3 Pole, 100 % Rated
 Qty (1) 800 Amps, Electronic,

ENGINE ELECTRICAL ACCESSORIES:

Battery Rack and Cables
 Starting Battery, Lead Acid
 Battery Charger: 10 Amps

CONTROLLER ACCESSORIES LOOSE:

Remote Emergency Stop, Break Glass
 Remote Annunciator Panel

AUTOMATIC TRANSFER SWITCH:

Qty (1) Kohler Model KEP-DMTC-0800-NK
 208 Volt, 3 Ph., 3 Pole, 800A, NEMA 3R,
 Service Entrance Rated

ADDITIONAL ACCESSORIES:

Certified Factory Test @ 0.8 P.F.
 3 Engine, Generator Parts, Maintenance Manuals
 1 Electronic Manual
 Vibration Isolators: Internal
 5 Year Comprehensive Warranty

SUPPLIED BY OTHERS

New Fuel – First Fill of New Tank

Installation

Local and State Permitting by Others

All Infrared, 3rd Party and NETA Testing if Required

TOTAL NET LOT: \$103,950.00

ESTIMATED LEAD TIME:

16 to 18 weeks after release of the order. This estimated lead time is subject to change daily due to availability

F.O.B. FACTORY, FREIGHT ALLOWED TO JOB SITE

SALES TAX NOT INCLUDED

Regards,

TAW Power Systems, Inc.

John Potts

Senior Sales Engineer

**OFFER VALID FOR 30 DAYS FROM THIS OFFER DATE
 (LISTED ABOVE)**

EXCEPTIONS/ CLARIFICATIONS/ NOTES:

Delivery, start up, and load testing are quoted as during normal business hours. If after hour, weekend, or holiday work hours are required, the Contractor will be responsible for the overtime differential unless otherwise noted.

OFFER BASED UPON:

- Drawing E-101

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(OFFER ACCEPTANCE BELOW)

COMPANY

AUTHORIZED SIGNATURE

TITLE

PRINT NAME

DATE

TERMS & CONDITIONS ACKNOWLEDGED:

INITIAL