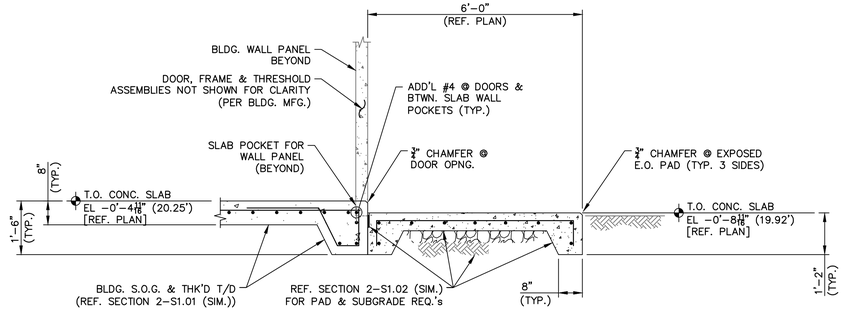
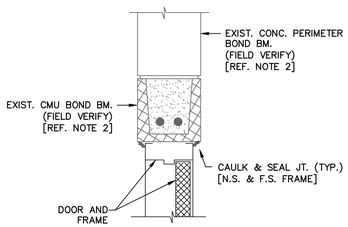
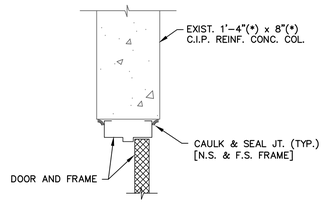


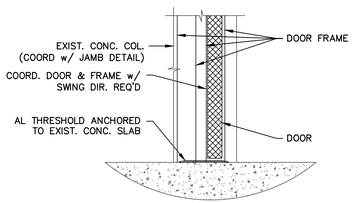




(@ HEAD)



(@ JAMB)



(@ SILL)

NOTES:

1. REGARDING EXPANSION JOINT MAT'L INSTALL W.R. MEADOWS SEALTIGHT FIBRE EXPANSION JOINT IN CONFORMANCE w/ ASTM D1751.
2. FIELD VERIFY PRIOR TO REMOVING EXISTING LOUVER & FRAME ASSEMBLY.
3. REFERENCE DWG. S0.00 FOR ADDITIONAL GENERAL NOTES, MATERIAL SPECIFICATIONS & REQUIREMENTS, DESIGN CRITERIA AND LEGEND.

REV NO.	DESCRIPTION	DATE
0	ADDENDUM #1	JUL 2021

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Manatee County FLORIDA

LIFT STATION 13A ELECTRICAL REHABILITATION

STRUCTURAL

LIFT STA. MODS ADD'L SECTIONS & DETAILS

PROJ. DATE:	2020. JUN
MCE PROJ. #	01024-0182
DRAWN	WFB
DESIGNED	WFB
CHECKED	WFB / AEA
PROJ. MGR.	AAH

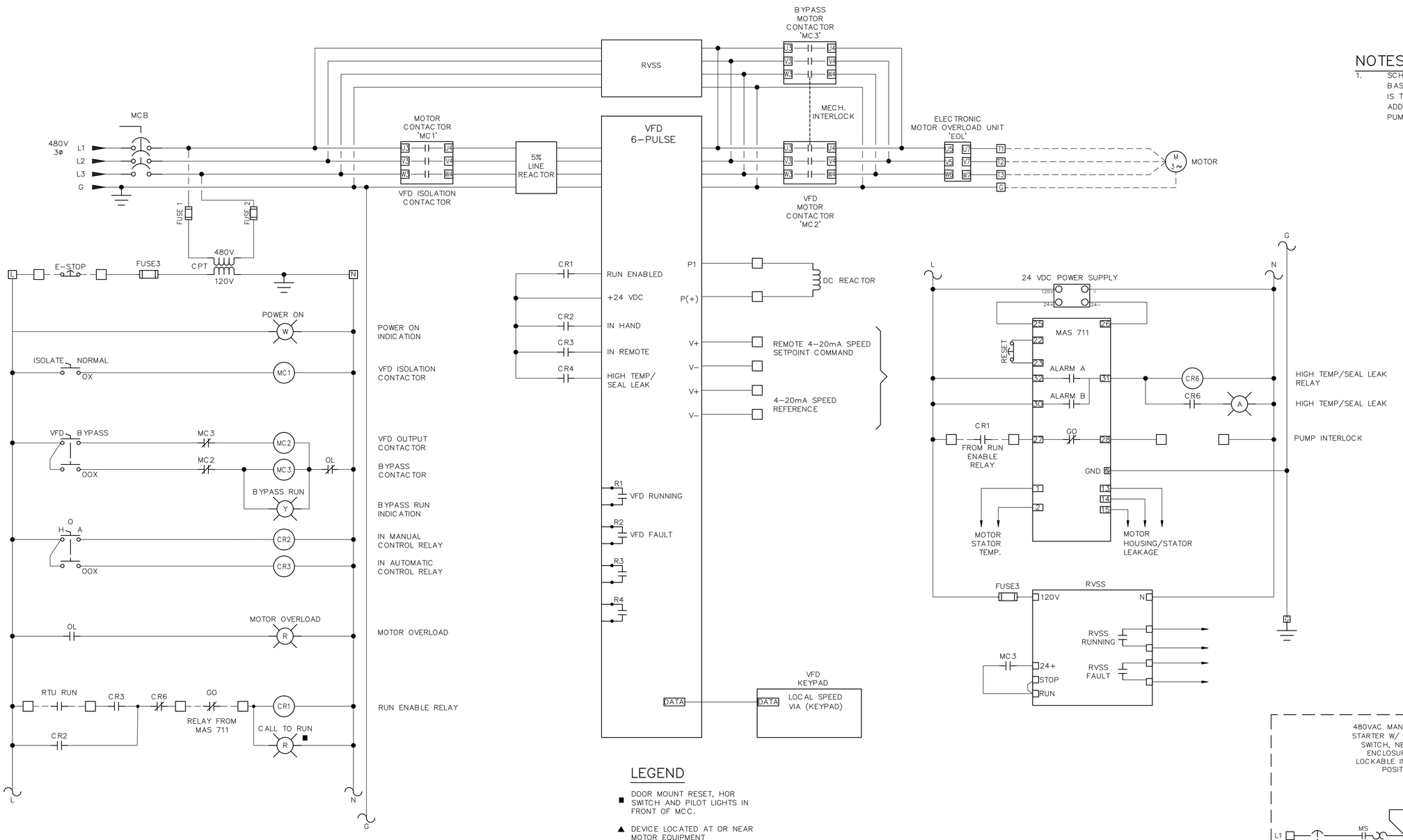
SCALE
HORIZONTAL: AS NOTED
VERTICAL: NA

S1.02
DRAWING NUMBER
0
REVISION

STATUS: **ADDENDUM #1**

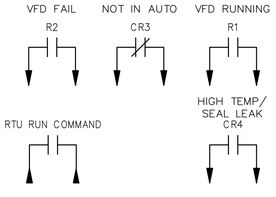
NOTES:

1. SCHEMATIC SHOWN IS MINIMUM REQUIREMENTS AND BASED OFF OF BASIS OF DESIGN PUMPS. CONTRACTOR IS TO VERIFY CONTROL REQUIREMENTS AND PROVIDE ADDITIONAL CONTROL EQUIPMENT AS NEEDED FOR PUMPS SELECTED.



LEGEND

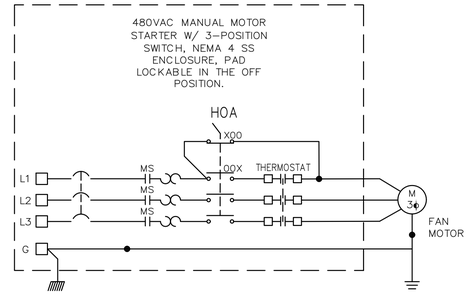
- ■ DOOR MOUNT RESET, HOR SWITCH AND PILOT LIGHTS IN FRONT OF MCC.
- ▲ DEVICE LOCATED AT OR NEAR MOTOR EQUIPMENT



ALL STATUS & CONTROL SIGNALS COMMUNICATED BETWEEN VFD AND RTU VIA ETHERNET DATA HIGHWAY.

PUMP SCHEMATIC: PUMP#1, PUMP#2, PUMP#3

SCALE: NTS



EXHAUST FAN SCHEMATIC

SCALE: NTS

TYPICAL FOR EXHAUST FANS

REV.NO.	DESCRIPTION	DATE
1	ADDENDUM 1	JUNE 2021
0	ISSUED FOR BID	MAR 2021

REVISIONS

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Manatee County FLORIDA

LIFT STATION 13A ELECTRICAL REHABILITATION

ELECTRICAL

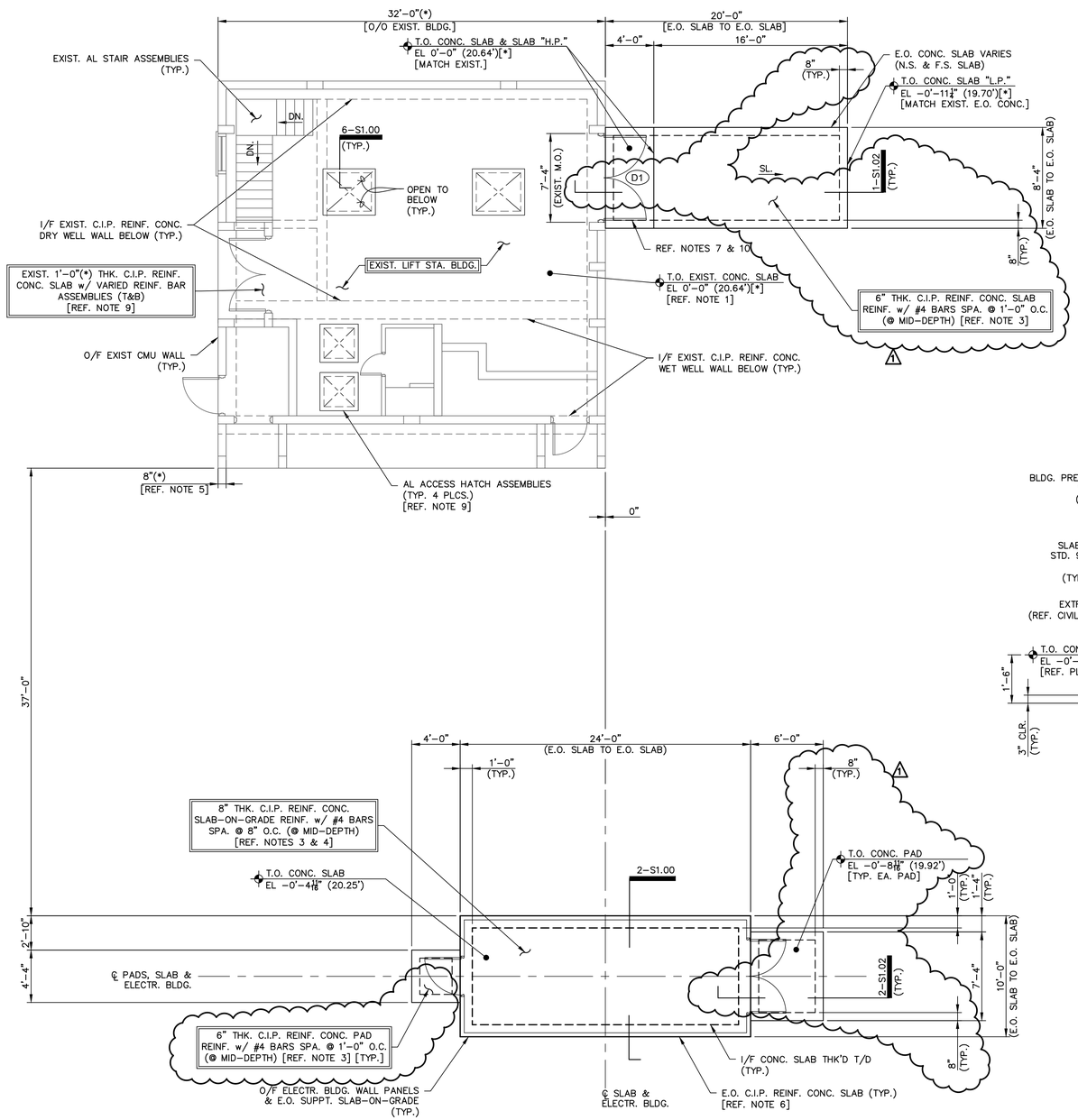
ELECTRICAL CONTROL SCHEMATICS

PROJ. START DATE:	2020. JUN
MCE PROJ. #	01024-0182
DRAWN	JG
DESIGNED	PM
CHECKED	PM
PROJ. MGR.	AAH

SCALE
HORIZONTAL: N/A
VERTICAL: TBD

E1.13
DRAWING NUMBER
0
REVISION

STATUS: ISSUED FOR BID



1 - PLAN - EXIST. LIFT STATION MODS & ELECTRICAL BLDG. FOUNDATION LAYOUT

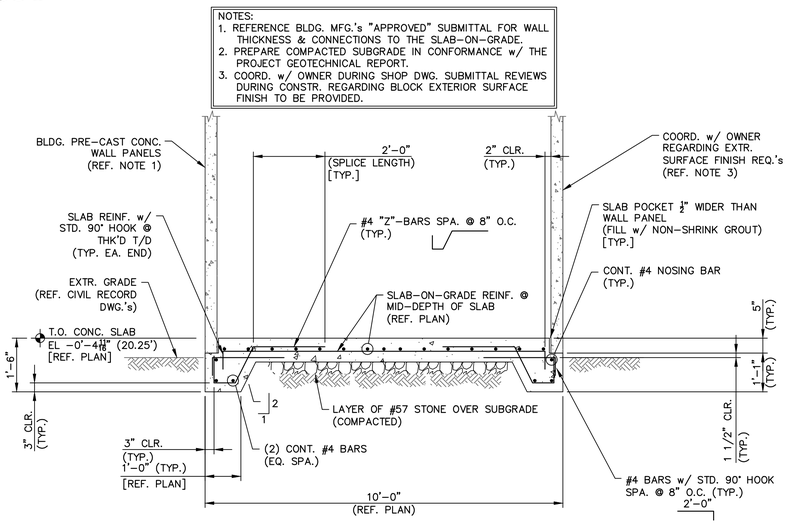
SCALE: 3/16" = 1'-0"

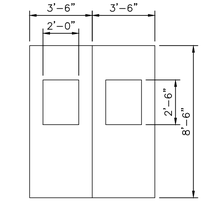
FOUNDATION PLAN NOTES:

1. REFERENCE ELEVATION FOR THE ELECTRICAL BUILDING ADDITION AT THE EXISTING LIFT STATION FACILITY IS THE EXISTING LIFT STATION BLDG.'s OPERATING FLOOR LEVEL TOP SLAB T.O. CONC. EL 0'-0" = EL 0'-0" (20.64'). CONTRACTOR SHALL VERIFY VERTICAL DATUM INDICATED EQUALS N.A.V.D.-88. REFERENCE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
2. GRADE ELEVATION AROUND THIS STRUCTURE VARIES FROM 19.00'(±)[*] TO 20.50'(±)[*]. REFERENCE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
3. PREPARE SUBGRADE FOR THIS FACILITY PER "FOUNDATIONS" STRUCTURAL GENERAL NOTES 3.1, 3.2 & 3.6 ON DWG. S0.00.
4. EQUIPMENT LAYOUTS ARE SHOWN FOR GENERAL INFO ONLY. REFERENCE ELECTRICAL, MECHANICAL & EQUIPMENT VENDOR DRAWINGS FOR LOCATIONS & INFO REGARDING SLAB & WALL PENETRATIONS AND PIPING, CONDUIT & MISCELLANEOUS EQUIPMENT LAYOUTS EITHER SHOWN OR NOT SHOWN.
5. RECORD DWG.'s REVIEWED AND FIELD DIMENSIONS ON SITE APPEARED TO INDICATE THE NOMINAL WALL THICKNESS INDICATED.
6. THE ELECTICAL BLDG. PRE-CAST CONCRETE SUPPORT SLAB-ON-GRADE DIMENSIONS ARE BASED UPON ESTIMATED BUILDING DIMENSIONS PROVIDED BY PRE-CAST CONCRETE BLDG. VENDOR's INFORMATION. SLAB DIMENSIONS PROVIDED THIS DWG. MAY INCREASE/DECREASE DEPENDING UPON THE BUILDING's FINAL APPROVED SHOP DWG.'s DIMENSIONS TO BE REVIEWED & APPROVED PRIOR TO CONSTRUCTING THE SLAB. NOTE THE FOLLOWING:
   a.) ENCLOSURE = 24'-0" LONG x 10'-0" WIDE.
   b.) INSTALL GROUT ALONG VERTICAL EDGE OF POCKET FOR THE BASE OF THE EXTERIOR WALLS & ENSURE SLAB & BUILDING PANELS ARE LEVEL/PLUMB & w/IN BUILDING MFG.'s TOLERANCES.
   1 c.) INSTALL 10 MIL (MIN. THK.) VAPOR BARRIER UNDER THE SLAB-ON-GRADE.

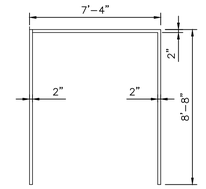
NOTES CTD.

7. "(DX)" SYMBOL ON PLANS REFERS TO DOOR ASSEMBLY MARK NUMBERS. DOOR ASSEMBLY's SHALL INCLUDE BUT NOT LIMITED TO THE FOLLOWING:
   a.) MATERIALS = STEEL HOLLOW CORE PANEL & STEEL FRAME ASSEMBLY w/ PAINTED FINISH.
   b.) ACCESSORIES SHALL DOOR INCLUDE WINDOW PANES, DOOR LEVERS, CLOSER, CYLINDER & DEADBOLT LOCKS, PANIC HARDWARE, SILENCER, KICK PLATE & THRESHOLD.
   c.) COLOR TO MATCH EXISTING DOORS.
   d.) REFERENCE DOOR DWG. SCHEDULE & DETAILS AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
8. RECORD DRAWING's REVIEWED INDICATED VARIED REINFORCING ASSEMBLIES. NOTE THE FOLLOWING:
   a.) IN GENERAL BTM. REINF. = #6, #8 AND/OR #9 BARS SPA. @ 1'-0"(*) O.C. DEPENDING UPON LOCATION & DIRECTION OF SPAN.
   b.) IN GENERAL TOP REINF. = #6, #7 AND/OR #8 BARS SPA. @ 1'-0"(*) O.C. DEPENDING UPON LOCATION & DIRECTION OF SPAN.
   c.) ADDITIONAL #6 BARS AROUND PERIMETER OF DRY WELL HATCH OPENING's.
   d.) ADDITIONAL #8 BARS AROUND PERIMETER OF WET WELL HATCH OPENING's.
9. ACCESS HATCH MODIFICATIONS IN GENERAL INCLUDES REMOVAL OF THE EXISTING HATCH COVERS & INSTALLATION OF NEW ALUMINUM CHECKERED PLATE ACCESS HATCH ASSEMBLIES. REGARDING NEW HATCH ASSEMBLIES NOTE THE FOLLOWING:
   a.) COVERS SHALL BE FLUSH MOUNTED w/ THE EXISTING T.O. CONC. SLABS.
   b.) COVERS OVER WET WELL OPNG.'s SHALL BE HINGED ASSEMBLIES.
   c.) COVERS OVER DRY WELL OPNG.'s SHALL BE REMOVABLE ASSEMBLIES.
10. MODIFICATION OF THE EXISTING LOUVER ASSEMBLY INCLUDES REMOVING THE EXISTING LOUVER & FRAME FOLLOWED BY INSTALLATION OF NEW DOOR & FRAME ASSEMBLY. REFERENCE SECTIONS & DETAILS FOR ADDITIONAL INFORMATION.
11. REFERENCE DWG. S0.00 FOR ADDITIONAL GENERAL NOTES, MATERIAL SPECIFICATIONS & REQUIREMENTS, DESIGN CRITERIA AND LEGEND.





A
AL DBL. DOOR



TYPE 1

DOOR & FRAME SCHEDULE

DOOR NO.	UL LABEL	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR THK.	DOOR MAT'L	DOOR TYPE	DOOR GLAZING	FRAME MAT'L	FRAME TYPE	FRAME DETAILS HEAD	FRAME DETAILS JAMB	FRAME DETAILS SILL	HDW. SET	REMARKS
(D1)	N/A	3'-6" PR.	8'-6"	1¾"	AL	A	LAM	AL	1	*1	*1	*1	*2	REF. 3-S1.00 & 4-S1.00

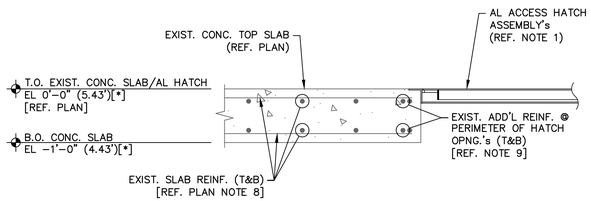
MATERIAL LEGEND:

AL - ALUMINUM
IAL - INSULATED ALUMINUM
SCW-SOLID CORE WOOD
SCW-HALF GLASS [WOOD]
FRP - FIBERGLASS REINFORCED PLASTIC
STL - STEEL
F - FLUSH
FG [W] - FULL GLASS [WOOD]
HM - HOLLOW METAL
LAM - LAMINATE
SLG - SIDE LIGHT GLASS

*1 - REF. 3.S1.02 FOR HEAD, JAMB & SILL DETAILS. 1
*2 - REF. PLAN NOTES & PROJECT SPECS.

5 - SCHEDULE - DOORS & FRAMES

SCALE: N.T.S.



NOTES:
1. ACCESS HATCH ASSEMBLY's TO INCLUDE THE FOLLOWING:
a.) AL TREAD COVER PLATE.
b.) S.S. HARDWARE, SLAM LOCK w/ KEY & HOLD OPEN ARM.
c.) RECESSED LIFT HANDLES.
d.) HINGED & LOCKABLE PROTECTIVE GRATING PANEL w/ SAFETY ORANGE COLOR COATING.
e.) H-20 TRAFFIC LOADING.
f.) EPDM GASKET/CUSHION.
g.) AL EXTRUDED ANGLE FRAME w/ CONT. CONC. EMBED ANCHOR REMOVED. ALL SURFACES IN CONTACT w/ CONC. SHALL BE SHIPPED FROM FACTORY w/ BITUMASTIC TYPE COATING.
h.) MFG.'s LIFETIME GUARANTEE.

REV.NO.	DESCRIPTION	DATE
1	ADDENDUM #1	JUL 2021
0	ISSUED FOR BID	FEB 2021

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Manatee County FLORIDA

LIFT STATION 13A ELECTRICAL REHABILITATION

STRUCTURAL

LIFT STA. MODS & ELECTR. BLDG. FDN. PLAN, SECTIONS & DETAILS

PROJ. DATE:	2020. JUN
MCE PROJ. #	01024-0182
DRAWN	DAR / WFB
DESIGNED	WFB
CHECKED	WFB / AEA
PROJ. MGR.	AAH

SCALE
HORIZONTAL: AS NOTED
VERTICAL: NA

S1.00
DRAWING NUMBER
1
REVISION

STATUS: ADDENDUM #1

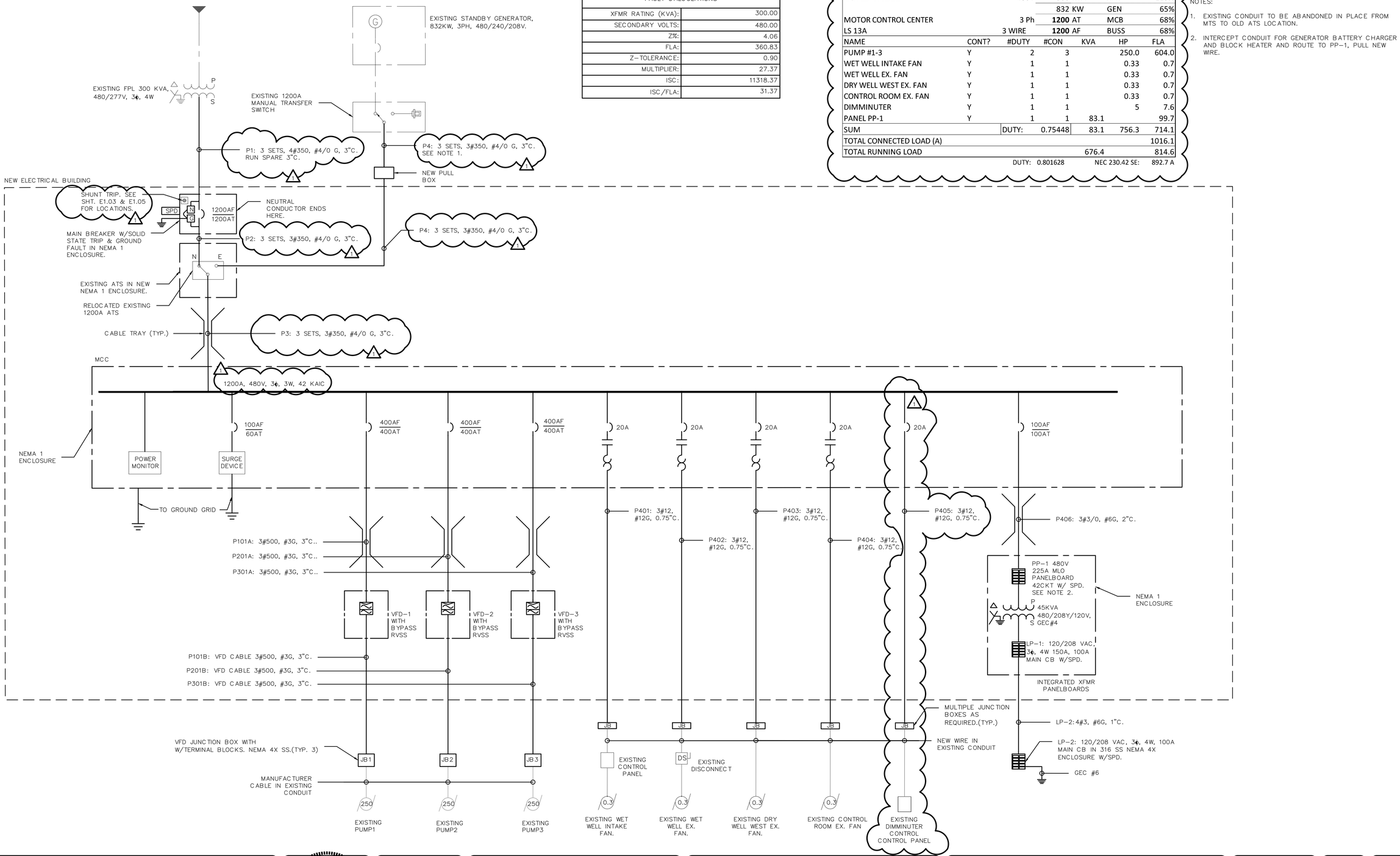
FAULT CALCULATIONS	
XFMR RATING (KVA):	300.00
SECONDARY VOLTS:	480.00
Z%:	4.06
FLA:	360.83
Z-TOLERANCE:	0.90
MULTIPLIER:	27.37
ISC:	11318.37
ISC/FLA:	31.37

LOAD TABLE 480V **300** KVA XFR 225%
832 KW GEN 65%
MOTOR CONTROL CENTER 3 Ph **1200** AT MCB 68%
LS 13A 3 WIRE **1200** AF BUSS 68%

NAME	CONT?	#DUTY	#CON	KVA	HP	FLA
PUMP #1-3	Y	2	3		250.0	604.0
WET WELL INTAKE FAN	Y	1	1		0.33	0.7
WET WELL EX. FAN	Y	1	1		0.33	0.7
DRY WELL WEST EX. FAN	Y	1	1		0.33	0.7
CONTROL ROOM EX. FAN	Y	1	1		0.33	0.7
DIMMINUTER	Y	1	1		5	7.6
PANEL PP-1	Y	1	1	83.1		99.7
SUM		DUTY: 0.75448		83.1	756.3	714.1
TOTAL CONNECTED LOAD (A)						1016.1
TOTAL RUNNING LOAD				676.4		814.6

DUTY: 0.801628 NEC 230.42 SE: 892.7 A

NOTES:
1. EXISTING CONDUIT TO BE ABANDONED IN PLACE FROM MTS TO OLD ATS LOCATION.
2. INTERCEPT CONDUIT FOR GENERATOR BATTERY CHARGER AND BLOCK HEATER AND ROUTE TO PP-1, PULL NEW WIRE.



REV.NO.	DESCRIPTION	DATE
1	ADDENDUM 1	JUNE 2021
0	ISSUED FOR BID	MAR 2021

REVISIONS

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Manatee County FLORIDA

LIFT STATION 13A ELECTRICAL REHABILITATION

ELECTRICAL

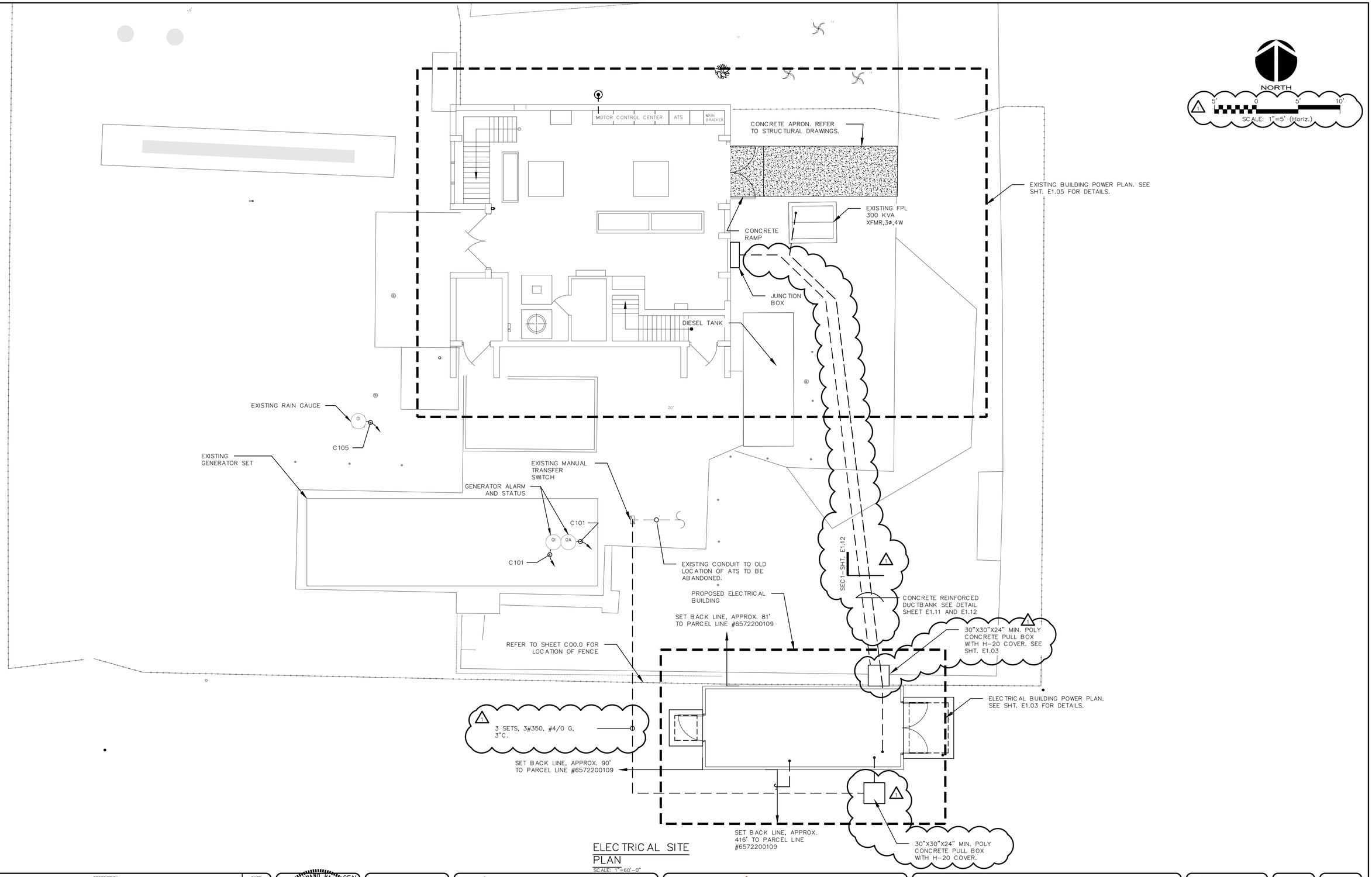
SINGLE LINE DIAGRAM

PROJ. START DATE:	2020. JUN
MCE PROJ. #	01024-0182
DRAWN	JG
DESIGNED	SS
CHECKED	MAC
PROJ. MGR.	AAH

SCALE
HORIZONTAL: N/A
VERTICAL: TBD

E1.01
DRAWING NUMBER
0
REVISION

STATUS: ISSUED FOR BID



ELECTRICAL SITE PLAN

SCALE: 1"=60'-0"

REV NO.	DESCRIPTION	DATE
1	ADDENDUM 1	JUNE 2021
0	ISSUED FOR BID	MAR 2021

REVISIONS

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Manatee County FLORIDA

LIFT STATION 13A ELECTRICAL REHABILITATION

ELECTRICAL

ELECTRICAL SITE PLAN

PROJ. START DATE:	2020. JUN
MCE PROJ. #	01024-0182
DRAWN	JG
DESIGNED	SS
CHECKED	MAC
PROJ. MGR.	AAH

SCALE
HORIZONTAL: 3/16"=1'-0"
VERTICAL: TBD

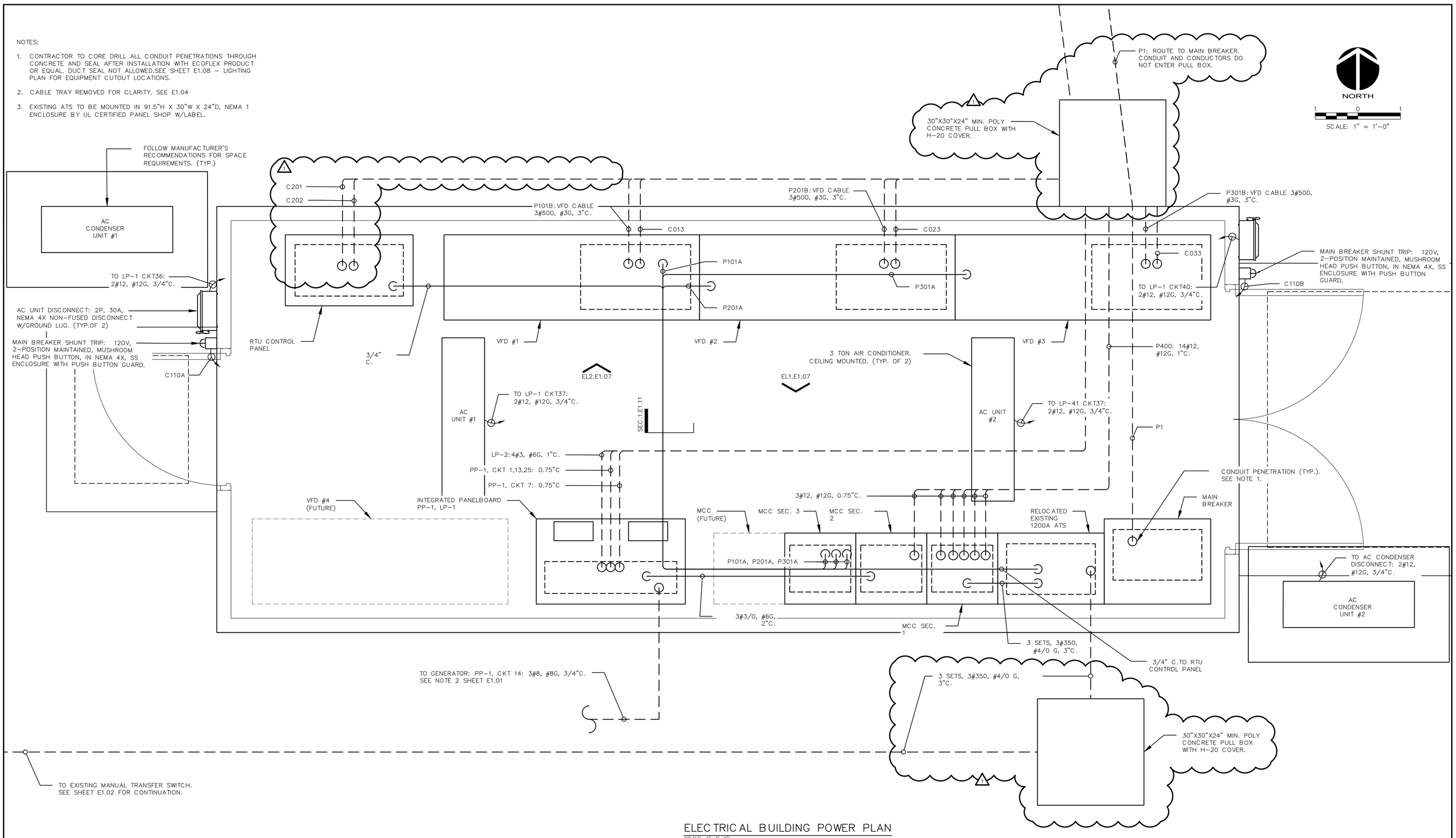
E1.02
DRAWING NUMBER
0
REVISION

STATUS: ISSUED FOR BID

\\MCKIMCREED.COM\NASUNI\DATA\PROJ\01024\0182\WATER\80-DRAWINGS\ELECTRICAL\ELECTRICAL SITE PLAN.DWG 07/14/2021 11:38:05 SUVATH SENG

NOTES:

1. CONTRACTOR TO CORE DRILL ALL CONDUIT PENETRATIONS THROUGH CONCRETE AND SEAL AFTER INSTALLATION WITH ECOFLEX PRODUCT OR EQUAL. DUCT SEAL NOT ALLOWED.SEE SHEET E1.08 – LIGHTING PLAN FOR EQUIPMENT CUTOUT LOCATIONS.
2. CABLE TRAY REMOVED FOR CLARITY. SEE E1.04
3. EXISTING ATS TO BE MOUNTED IN 91.5"H X 30"W X 24"D, NEMA 1 ENCLOSURE BY UL CERTIFIED PANEL SHOP W/LABEL.



ELECTRICAL BUILDING POWER PLAN

SCALE: 1"=1'-0"

REV NO.	DESCRIPTION	DATE
1	ADDENDUM 1	JUNE 2021
0	ISSUED FOR BID	MAR 2021

REVISIONS

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Manatee County FLORIDA

LIFT STATION 13A ELECTRICAL REHABILITATION

ELECTRICAL

ELECTRICAL BUILDING POWER PLAN

PROJ. START DATE:	2020. JUN
MCE PROJ. #	01024-0182
DRAWN	JG
DESIGNED	SS
CHECKED	MAC
PROJ. MGR.	AAH

SCALE
HORIZONTAL: 1"=1'-0"
VERTICAL: TBD

E1.03
DRAWING NUMBER

0
REVISION

STATUS: **ISSUED FOR BID**

LP-2: 120/208 VAC, 3ϕ, 4W, 100A MAIN CB IN 316 SS NEMA 4X ENCLOSURE W/SPD. REPULL ALL NEW WIRE.

NEW DISCONNECT FOR EXISTING HOIST GROUND FLOOR: 3P, 30A, NEMA 4X SS NON-FUSED.

3/4"X10' CU-CLAD GROUND ROD. (TYP.). SEE DETAILS SHT.E1.11

GEC #6

JUNCTION BOX, NEMA 4X SS. SEE NOTE 1.

CONTROLS TERMINAL BOX WITH TERMINAL BLOCKS. NEMA 4X SS. SEE NOTE 4.

FIT FIT

C103 C103

C107

C201

C202

LSH LS

C106

EXISTING DRY WELL FLOAT SWITCH LOCATED IN DRY WELL TO REMAIN.

EXISTING SUMP PUMP FLOAT SWITCH LOCATED IN DRY WELL TO REMAIN.

P400: 14#12, #12G, 1"C.

PP-1, CKT 1,13,25: 0.75"C

LP-2:4#3, #6G, 1"C.

PP-1, CKT 7: 0.75"C

1

VFD#3 JUNCTION BOX

C033

SHUNT TRIP IN NEMA 4X ENCLOSURE

C112

OA

P301B

1

C110C

NEW NEMA 4X LED STROBE FOR HIGH LEVEL ALARM

32"HX18L"X18W" MIN. JUNCTION BOX WITH TERMINAL BLOCKS. NEMA 4X SS. (TYP. OF 3). SEE NOTE 2.

EXISTING CONDUIT TO BE REUSED.

VFD#2 JUNCTION BOX

VFD#1 JUNCTION BOX

P201B C023

P101B C013

EXISTING MUFFIN MONSTER CONTROL PANEL

OA OI

C104

LIT LSL LSH

EXISTING CONDUIT AND CONDUCTORS TO CONTROLS TB.

EXISTING INSTRUMENTS LOCATED IN WET WELL TO REMAIN.

MUFFIN MONSTER GRINDER LOCATED IN WET WELL.

LS LT

EXISTING GENERATOR FUEL MONITORING AND LEAK DETECTION PANEL

C102 C102A

CONCRETE APRON. REFER TO STRUCTURAL DRAWINGS.

CONCRETE RAMP

36"WX36"HX12"D JUNCTION BOX NEMA 4X SS.

EXISTING FPL 300 KVA XFMR,3ϕ,4W

1

RESET TRANSFORMER PAD. SEE NOTE 3.

BOLLARD

BOLLARD

BOLLARD

SEC1-SHT. E1.12

1

DIESEL TANK

NOTES:

1. INSTALL NEW JB TO INTERCEPT EXISTING PANELBOARD CONDUITS. EXTEND CONDUIT AS NECESSARY. SIZE JB PRIMARILY FOR TOP ENTRY (APPROX. 13 TOTAL).
2. JUNCTION BOX SHALL CAPTURE EXISTING CONDUIT TO DRY WELL.
3. COORDINATE WITH FPL TO RESET TRANSFORMER PAD. COMPACT AND LEVEL GROUND.
4. TERMINAL BOX SHALL CAPTURE EXISTING CONDUITS. INTERCEPT SIGNAL WIRES FROM INSTRUMENTS.
5. ROUTE ALL INSTRUMENTATION WIRING TO NEW ELEC. BLDG. THROUGH NEW CONTROL TERMINAL BOX

1

NORTH

2 0 2

SCALE: 1/2" = 1'-0"

EXISTING BUILDING POWER PLAN

SCALE: 1/2"=1'-0"

REV.NO.	DESCRIPTION	DATE
1	ADDENDUM 1	JUNE 2021
0	ISSUED FOR BID	MAR 2021

REVISIONS

PROFESSIONAL ENGINEER SEAL — AUBREY ARMAND HAUBENCOURT — LICENSE — No 66861 — STATE OF FLORIDA

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Manatee County FLORIDA

LIFT STATION 13A ELECTRICAL REHABILITATION

ELECTRICAL

EXISTING BUILDING POWER PLAN

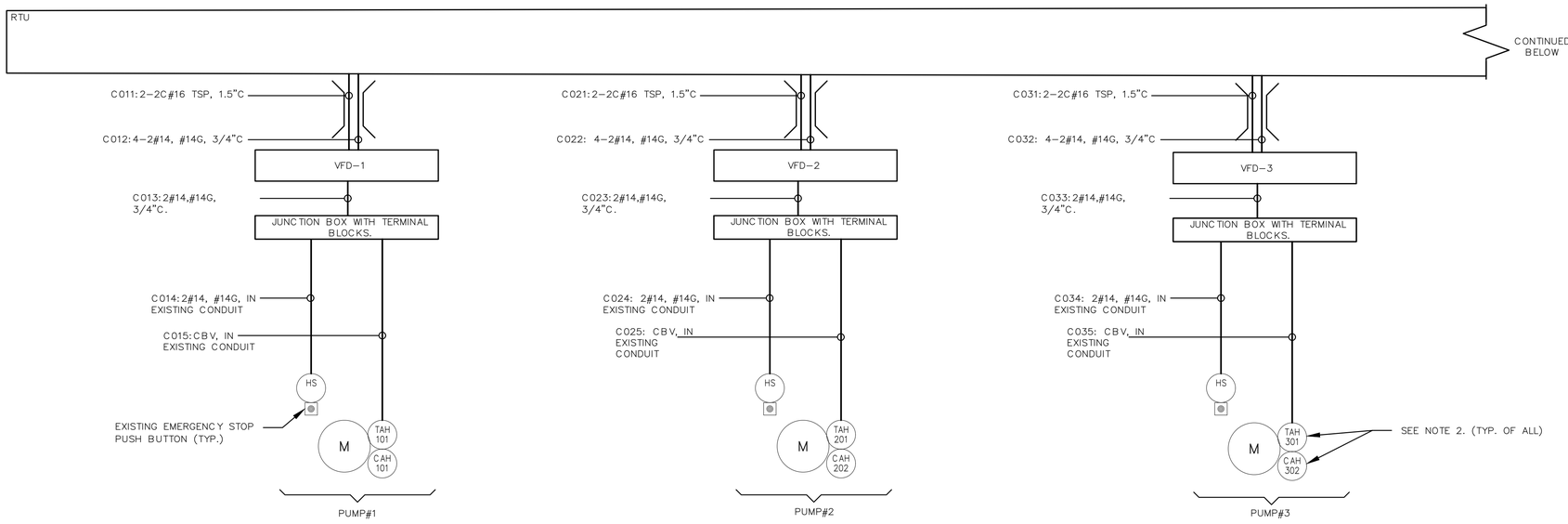
PROJ. START DATE:	2020. JUN
MCE PROJ. #	01024-0182
DRAWN	JG
DESIGNED	SS
CHECKED	MAC
PROJ. MGR.	AAH

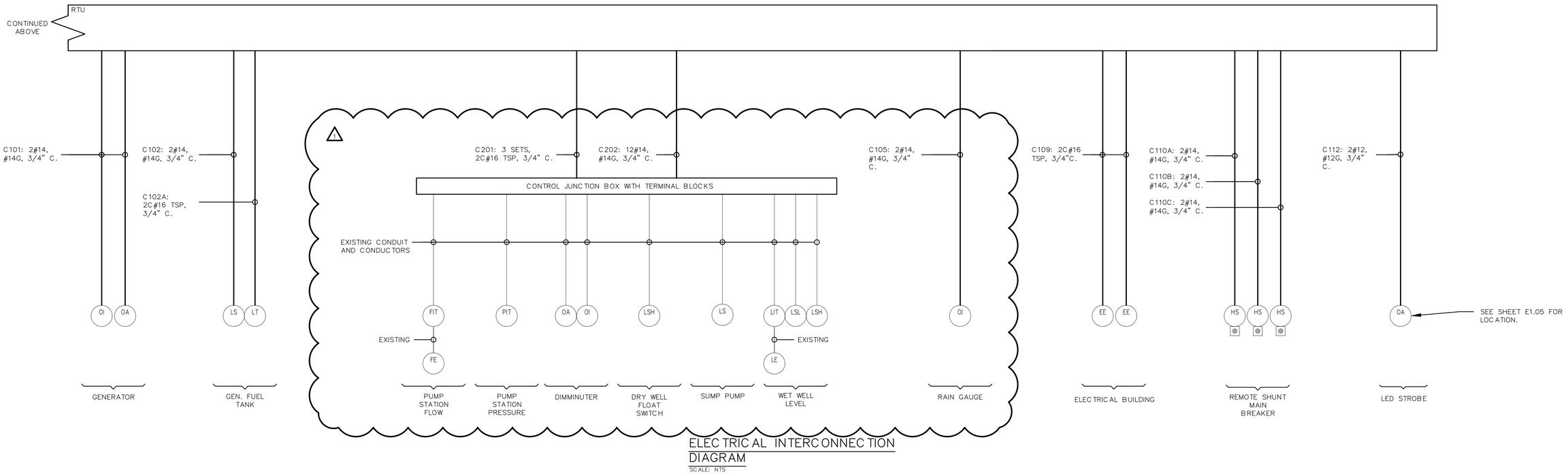
SCALE
HORIZONTAL: 1/2"=1'-0"
VERTICAL: TBD

E1.05
DRAWING NUMBER
0
REVISION

STATUS: ISSUED FOR BID

NOTES:
1. SURGE PROTECTION DEVICES REQUIRED, THOUGH GENERALLY NOT SHOWN. REFER TO I-SHEETS AND CONTRACT SPECIFICATIONS FOR REQUIREMENTS.
2. COORDINATE WITH THE PROVIDER OF THE VARIABLE FREQUENCY MOTOR CONTROLLERS TO PROVIDE THE THERMAL AND LEAK DETECTION SIGNALS TO THE DRIVE MANUFACTURER AND SUPPLY ANY ANCILLARY EQUIPMENT REQUIRED FOR THESE SIGNALS, INCLUDING ANY CONDITIONING DEVICES. SEE SPECIFICATIONS 11310, PART 1 B.1.





ELECTRICAL INTERCONNECTION DIAGRAM
SCALE: NTS

REV.NO.	DESCRIPTION	DATE
1	ADDENDUM 1	JUNE 2021
0	ISSUED FOR BID	MAR 2021

REVISIONS

SEAL
AUBREY ARMAND HAUBERT COURT
LICENSE
No 66861
STATE OF FLORIDA
PROFESSIONAL ENGINEER
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Manatee County FLORIDA

LIFT STATION 13A ELECTRICAL REHABILITATION

ELECTRICAL

ELECTRICAL INTERCONNECTION DIAGRAM

PROJ. START DATE:	2020. JUN
MCE PROJ. #	01024-0182
DRAWN	JG
DESIGNED	SS
CHECKED	MAC
PROJ. MGR.	AAH

SCALE
HORIZONTAL: N/A
VERTICAL: TBD

DRAWING NUMBER: E1.09
REVISION: 0

STATUS: ISSUED FOR BID

CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD KVA	AMPS	POLES	KVA PER PHASE A	KVA PER PHASE B	KVA PER PHASE C	POLES	AMPS	LOAD KVA	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	20	HOIST DRY WELL	0.27	1.0	3	2.1			3	6.5	1.8	ODOR CONTROL	20	2
			0.27				2.1				1.8			
			0.27					2.1			1.8			
7	20	HOIST GROUND FLOOR	0.27	1.0	3	10.3			3	36.1	10	30KVA EXISITNG GENERATOR	50	8
			0.27				10.3				10	TRANSFORMER		
			0.27					10.3			10			
13	20	HOIST OVER WET WELL	0.27	1.0	3	15.3			3	54.1	15	45KVA TRANSFORMER	70	14
			0.27				15.3				15			
			0.27					15.3			15			
19	20	SPARE			3	0.0			3			SURGE PROTECTION DEVICE	20	20
							0.0							
								0.0						
25	20	INTAKE EAST DRY FAN	0.075	0.3	3	0.1			3			SPARE	30	26
			0.075				0.1							
			0.075					0.1						
31		SPARE			3	0.0			3			SPACE		32
							0.0							
								0.0						
37		SPARE			3	0.0			3			SPACE		38
							0.0							
								0.0						

PANEL **PP-1**
LOCATION MANATEE COUNTY LS13A
BUILDING ELECTRICAL BUILDING
NOTES: INTEGRATED PANELBOARD

TOTAL KVA	27.7	27.7	27.7
GRAND CONNECTED TOTAL KVA	83.1		

SERVICE CHARACTERISTICS
VOLTS: 480
PHASE: 3
WIRE: 3
10 MIN AIC SYMM, FULLY RATED ASSEMBLY

225 A MLO
0 A MCB

PANEL SCHEDULE PP–1
SCALE: NTS

CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD KVA	AMPS	POLES	KVA PER PHASE A	KVA PER PHASE B	KVA PER PHASE C	POLES	AMPS	LOAD KVA	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	20	ELEC. BUILDING RECEPTACLES OUTSIDE	0.36	3.0	1	0.5			1	1.5	0.18	ELEC. BUILDING EMERG. EXIT LIGHT	20	2
3	20	ELEC. BUILDING RECEPTACLES INSIDE	0.72	6.0	1		1.5		1	6.7	0.8	ELEC. BUILDING LIGHTING INSIDE	20	4
5	20	ELEC. BUILDING OUTSIDE WALL PACKS	0.5	4.2	1			2.1	2	15.4	1.6	ELEC. BUILDING AC OUTDOOR UNIT #1	25	6
7	15	ELEC. BUILDING AC INDOOR UNIT #1	0.1	1.0	2	1.7					1.6			
			0.1				1.7		2	15.4	1.6	ELEC. BUILDING AC OUTDOOR UNIT #2	25	10
11	15	ELEC. BUILDING AC INDOOR UNIT #2	0.1	1.0	2			1.7			1.6			
			0.1			8.9			3	73.3	8.8	PANEL LP-2	100	14
15	20	SURGE PROTECTION DEVICE	0.1	0.8	3		8.9				8.8			
	20		0.1					8.9			8.8			
	20		0.1			1.6			1	12.5	1.5	RTU CONTROL PANEL	20	20
21		SPARE			1		0.0		1			SPARE	20	22
23		SPARE			1			0.0	1			SPARE	20	24
25		SPARE			1	0.0			1			SPARE	20	26
27		SPARE			1		0.0		1			SPARE	20	28
29		SPARE			1			0.0	1			SPARE	20	30
31		SPARE			1	0.0			1			SPARE	20	32
33		SPARE			1		0.0		1			SPARE	20	34
35		SPARE			1			0.0	1			SPARE	20	36
37		SPARE			1	0.0			1			SPARE	20	38
39		SPARE			1		0.0		1			SPARE	20	40
41		SPARE			1			0.0	1			SPARE	20	42

PANEL **LP-1**
LOCATION MANATEE COUNTY LS13A
BUILDING ELECTRICAL BUILDING
NOTES: INTEGRATED PANELBOARD

TOTAL KVA	12.7	12.1	12.7
GRAND CONNECTED TOTAL KVA	37.6		

SERVICE CHARACTERISTICS
VOLTS: 208Y/120
PHASE: 3
WIRE: 4
10K MIN AIC SYMM, FULLY RATED ASSEMBLY

A MLO
150 A MCB

PANEL SCHEDULE LP–1
SCALE: NTS

CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD KVA	AMPS	POLES	KVA PER PHASE A	KVA PER PHASE B	KVA PER PHASE C	POLES	AMPS	LOAD KVA	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	50	HOT WATER	4	38.5	2	4.2			1	1.7	0.2	OPER FL RECEPT	20	2
			4				4.2		1	1.7	0.2	OPER FL RECEPT	20	4
5	20	EMERGENCY LIGHTING	0.2	1.7	1			1.0	1	6.9	0.83	SUMP PUMP 0.33 HP	20	6
7	20	OPER FL LIGHTING	0.2	1.7	1	0.8			1	5.0	0.6	ALARM SYSTEM PANEL	20	8
9	20	OPER FL LIGHTING	0.2	1.7	1		0.9		1	5.6	0.67	FUEL TRANSFER PUMP	20	10
11	20	OUTDOOR LIGHTING	0.5	4.2	1			1.8	1	10.8	1.3	ENG. HEATERS	20	12
13	20	CHLOR STR. LIGHTING	0.2	1.7	1	0.5			1	2.3	0.28	TOILET FAN	20	14
15	20	DRY WELL LIGHTING	1.2	10.0	1		2.7		1	12.5	1.5	WATER HEATER	20	16
17	20	DRY WELL LIGHTING	1.6	13.3	1			1.7	1	0.4	0.05	SPRINKLER SYSTEM	20	18
19	20	WET WELL LIGHTING	1.5	12.5	1	2.2			1	5.6	0.67	WET WELL SUPPLY	30	20
21	20	CHLOR RM & TOILET LIGHTING	0.2	1.7	1		1.5		1	10.8	1.3	OPERATION FLOOR EXHAUST FAN	20	22
23	20	DRY WELL SUPPLY & EX. FAN TIMER	0.1	0.8	1			0.1	1			SPARE	20	24
25	20	WET WELL SUPPLY	1.3	10.8	1	1.3			1			SPARE	20	26
27	30	OPERATION FLOOR EXHAUST FAN	1.3	10.8	1		1.3		1			SPARE	20	28
29	20	SURGE PROTECTION DEVICE	0.1	0.8	3			0.1	1			SPARE	20	30
			0.1			0.1			1			SPARE	20	32
			0.1				0.1		1			SPARE	20	34
35	20	SPARE			1			0.0	1			SPARE	20	36
37	20	SPARE			1	0.0			1			SPARE	20	38
39	20	SPARE			1		0.0		1			SPARE	20	40
41	20	SPARE			1			0.0	1			SPARE	20	42

PANEL **LP-2**
LOCATION MANATEE COUNTY
BUILDING OLD PUMP BUILDING
NOTES:

TOTAL KVA	9.1	10.7	4.7
GRAND CONNECTED TOTAL KVA	24.4		

SERVICE CHARACTERISTICS
VOLTS: 208Y/120
PHASE: 3
WIRE: 4
10K MIN AIC SYMM, FULLY RATED ASSEMBLY

A MLO
100 A MCB

PANEL SCHEDULE LP–2
SCALE: NTS

REV.NO.	DESCRIPTION	DATE
1	ADDENDUM 1	JUNE 2021
0	ISSUED FOR BID	MAR 2021

REVISIONS

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Manatee County FLORIDA

LIFT STATION 13A ELECTRICAL REHABILITATION

ELECTRICAL

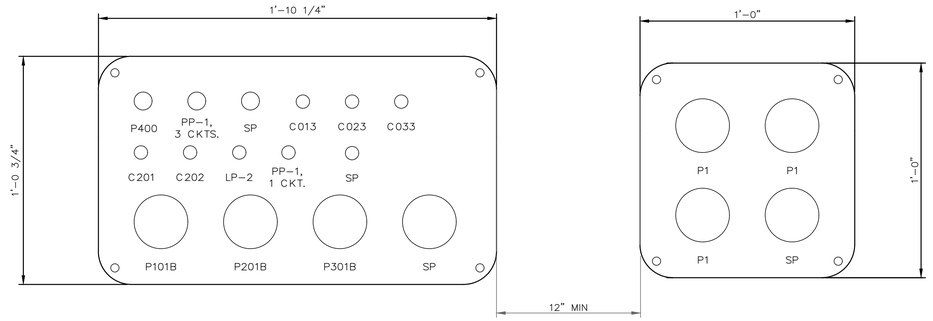
PANELBOARD SCHEDULES

PROJ. START DATE:	2020. JUN
MCE PROJ. #	01024-0182
DRAWN	JG
DESIGNED	SS
CHECKED	MAC
PROJ. MGR.	AAH

SCALE
HORIZONTAL: N/A
VERTICAL: TBD

E1.10
DRAWING NUMBER
0
REVISION

STATUS: ISSUED FOR BID



1
E1.05 E1.12

DUCTBANK - SECTION 1

SCALE: NTS

REV.NO.	DESCRIPTION	DATE
1	ADDENDUM 1	JUNE 2021
0	ISSUED FOR BID	MAR 2021

REVISIONS

SEAL
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Manatee County FLORIDA

LIFT STATION 13A ELECTRICAL REHABILITATION

ELECTRICAL

DETAILS II

PROJ. START DATE:	2020. JUN
MCE PROJ. #	01024-0182
DRAWN	JG
DESIGNED	PM
CHECKED	PM
PROJ. MGR.	AAH

SCALE
HORIZONTAL: N/A
VERTICAL: TBD

1 E1.12
DRAWING NUMBER
0
REVISION

STATUS: ISSUED FOR BID