Alabama State Port Authority

Addendum to R&P or Specification Booklet

Project Name Terminal Railway Office Addition/Renovation

Project No. 11012 **Task No.** 02 **Addendum No.** 2

To: Prospective Bidders **Date:** 8/25/2022

The following items are clarifications to questions received. These items are hereby included in the bid documents by this addendum.

Item	Description
1.	The Pre-Bid sign in sheet is attached and is hereby incorporated into the bid documents by this addendum.
2.	Attached is the revised Division I schedule of prices and is hereby incorporated into the bid documents by this addendum
3.	A 5'x5 exterior canopy has been added above the exterior door on DWG. 4146-S3. DWG. 4146-S3 Rev C is attached and is hereby incorporated into the bid documents by this addendum.
4.	The required U-Factor and SHGC value for windows has been revised on DWG. 4146-S4. DWG. 4146-S4 Rev C is attached and is hereby incorporated into the bid documents by this addendum.
5.	Note 9 on DWG.4146-E1 has been revised to clarify the contractors requirement for installation of the automatic transfer switch. DWG. 4146-E1 Rev C is attached and is hereby incorporated into the bid documents by this addendum.
6.	Additional exit fixtures and exterior wall mounted area fixtures have been added to DWG. 4146-E2. DWG. 4146-E2. Rev C is attached and is hereby incorporated into the bid documents by this addendum
7.	Additional exit fixtures and exterior wall mounted area fixtures have been added to DWG. 4146-E3. DWG. 4146-E3. Rev C is attached and is hereby incorporated into the bid documents by this addendum
8.	Note 12 on DWG.4146-E4 has been revised to clarify the contractors requirement for installation of the automatic transfer switch. DWG. 4146-E4 Rev C is attached and is hereby incorporated into the bid documents by this addendum.
9.	Question: According the bid documents the breakroom is illustrated with case work. Please provide details and specs for this scope. Answer: A new drawing (4146-S4A) has been created to provide details and specifications for the case

	work in breakroom 209. DWG. 4146-S4A Rev C is attached and is hereby incorporated into the bid documents by this addendum.
10.	Question: What color exterior wall panels is the owner requesting? Answer: New exterior wall panels shall be white.
11.	Question: Is a geotechnical report available? Answer: Yes, the geotechnical report is attached to this addendum.
12.	Question: Are test piles required to be driven for this project? Answer: No test piles will be required for this project.
13.	Question: What master keying system does the owner use? Answer: Currently the owner uses Cal-Royal for locks. All new lock sets shall be compatible with the current building key.
14.	Question: There are no specifications for the manufacturers for locks, hinges, closers. What locks are being used? Answer: Currently the owner uses Cal-Royal for locks and hinges.
15.	Question: Per the door schedule the owner is only requiring hinges, locks, and some closers. Will floor stops and kick plates be required? Answer: Wall stops will be required. Kick Plates and floor stops are not required.
16.	Question: Will the doors be welded or knockdown frames? Answer: New doors shall be welded frame
17.	Question: What specific Vinyl Composition Tile (VCT) flooring product shall be used? Answer: Armstrong Standard Excelon Imperial Texture (Contractor shall provide owner with samples to determine color)
18.	Question: Are all components of the exterior stairs on DWG. 4146-S10 to be galvanized or just the handrails? Answer: All components of the exterior stairs are to be hot dipped galvanized, in addition, generator platform and HVAC platform components are to be hot dipped galvanized.
19.	Question: Can you provide information on the door hardware that need to be furnished for this job? In the specs it states lockets, passage, and strikes are to be furnished as per the Owner's master keying system. Answer: Contractor shall provide lock sets, hinges, and door closers as indicated on DWG. 4146-S4. Currently the owner uses Cal-Royal for locks. All new lock sets shall be compatible with the current building key.
20.	Question: The door schedule calls for impact rated glass for all the interior door lites. The door schedule notes noted that the doors shall be 30-minute fire rated, but the rating on the door

	schedule notes "none". Can you confirm what type of glass you wanted to go in the interior door lites. Answer: DWG. 4146-S4 has been revised to state that interior door lites are to be tempered glass. In addition, the door schedule note for doors to be 30-minute fire rated has been deleted. DWG. 4146-S4 Rev C is attached and is hereby incorporated into the bid documents by this addendum.
21.	Question: In the meeting it was stated by the electrical engineer that the future generator would need the future conduit ran. As per DWG 4146-E5 note 6 this is not the case. Please advise Answer: DWG. 4146-E5 has been revised to state that the future generator and conductors are not part of this contract and that the contractor shall install conduit from the ATS to the generator platform, stub-up, cap and install pull string for future use, see notes 4,7 & 8. DWG. 4146-E5 Rev C is attached and is hereby incorporated into the bid documents by this addendum.
22.	Question: DWG 4146-E5 shows the electrical riser and the panel board coordination schedule. These conflict with each other, please clarify conduit/wire size for new service and service loads. Answer: The electrical riser diagram and panelboard schedules have been revised to reflect the required panelboard coordination schedule requirements. DWG. 4146-E5 Rev C is attached and is hereby incorporated into the bid documents by this addendum.

Please indicate your receipt of this addendum by adding the addendum number in the appropriate place in your Requisition & Proposal or Specification Book.

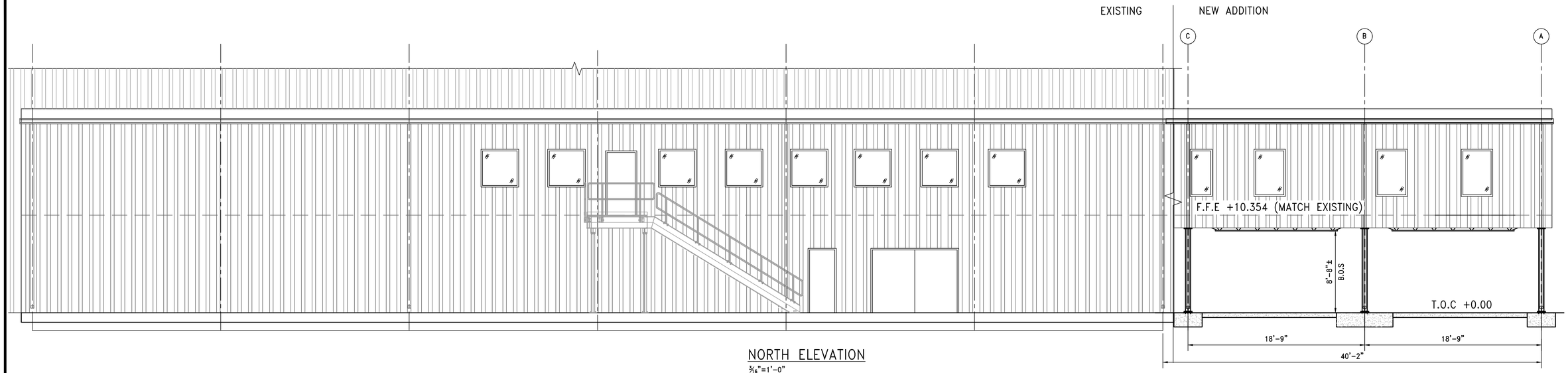
4146-ASPA TRR Office Expansion			Date: 8/23/22
Name	Company Name	Phone	Email
Miles Dearing	CMG-a	251-433-1611	mdearing@cmg-a.com
Clayton Elder	Persons Services	251-349-5813	celder@personsservices.com
Wes Cooke	PERSONS	251-331-6790	wes@personsservices.com
Richard Deas	RH Deas Building Co	251-591-1271	richard@rhdeasbuildingco.com
Leah Dees	Rogers & Willard	251-709-2259	LDees@RogersWillard.com
Daniel Haas	Rogers & Willard	251-709-3790	Dhaas@rogerswillard.com
Thomas Cotter	Thomas Construction	251-929-1546	Thomas@thomasconst.com
Robbie Henriksen	Gulf Electric	251-331-2778	Rhenriksen@gulfelec.com
Bryant Baggett	RJ Baggett	251-404-8330	bryant@rjbaggett.com
Joey Dicks	RJ Baggett	251-473-3290	joey@rjbaggett.com
ZACH MORGAN	MW ROBERS	850-970-2600	ZACH@MWROBEES.NET
Leroy Fuller	Bagley Russell	251 364 5987	Leroy@BagRus.com
DEREK DIEHL	Gulf Services Contracting	251-443-8161	ddiehlgsc@gmail.com.
Matt Thomas	ASPA	251-441-7247	matthew.thomas@alports.com

SCHEDULE OF PRICES

ITEM	DESCRIPTION	QUANTITY	UNIT PRICE	AMOUNT
1.0	General Construction Requirements	1 LS	Lump Sum	$
1.1	Mobilization	1 LS	Lump Sum	$
1.2	Demobilization	1 LS	Lump Sum	$
2.0	***Site Work***			
2.1	Erosion Control	1 LS	Lump Sum	$
2.2	Grading & Excavation for Building Area	_____ CY	$_____ /CY	$
2.3	Concrete for Foundations	_____ CY	$_____ /CY	$
2.4	Generator & HVAC Platform Foundation	_____ CY	$_____ /CY	$
2.5	Timber Pile Installation	1 LS	Lump Sum	$
2.6	Water Meter Relocation	1 LS	Lump Sum	$
2.7	Utility Relocation (Power, Fiber Optics)	1 LS	Lump Sum	$
3.0	***Structural Steel***			
3.1	Generator Platform	1 LS	Lump Sum	$
3.2	HVAC Platform	1 LS	Lump Sum	$
4.0	***Building Addition/Renovation***			
4.1	New Office Addition	LS	Lump Sum	$
4.2	Existing Office Renovation	LS	Lump Sum	$
5.0	***Mechanical Components and Systems***			

5.1	VRF Equipment	LS	Lump Sum	$
5.2	Exhaust Fans	LS	Lump Sum	$
5.3	Ductwork	LS	Lump Sum	$
6.0	***Electrical Components and Systems***			
6.1	Office Area	LS	Lump Sum	$
6.2	Generator Auto-Transfer Switch	LS	Lump Sum	$
7.0	***Plumbing***			
7.1	Office Area	LS	Lump Sum	$
8.0	Miscellaneous	LS	Lump Sum	$
	Total Base Bid		**$**	
9.0	Bid Alternate-Slab-On-Grade	LS	Lump Sum	$

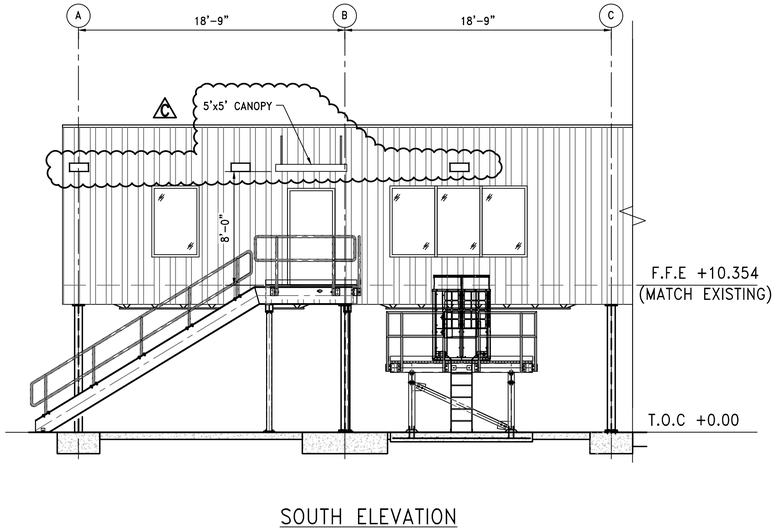
(1) This is a Lump Sum Bid for the work as shown on the drawings and as specified. The quantity under each item may be increased, decreased, or deleted after award of Contract in accordance with provisions of the Contract Documents. The Unit Prices are for adjustment only.
(2) Total Base Bid shall be the sum of Items 1.0 – 8.0. All optional items to be included in the contract shall be approved by the Owner.
(3) The general construction requirements should include insurances, taxes, overhead profit and all other miscellaneous construction activities involved with the specific construction phase including in the drawings or specifications.
(4) Miscellaneous (Item 8.0) should include final grading and any other items not specifically detailed in the schedule of prices but including in the drawings or specifications.



NORTH ELEVATION
3/16"=1'-0"

WEST ELEVATION
3/16"=1'-0"

BID ALTERNATE: IN LIEU OF CRUSHED GRAVEL, PROVIDE 6" SLAB-ON-GRADE WITH 4x4-W4xW4 WWF- SEE BID ALTERNATE SLAB-ON-GRADE DETAIL ON DWG. 4146-F1.



SOUTH ELEVATION
3/16"=1'-0"

REV.	DESCRIPTION	DATE	BY	CHK'D
C	ADDENDUM 2 ADD EGRESS LIGHTING AND CANOPY	08/25/22	JWM	GDEC
B	ISSUED FOR BID	08/01/22	JWM	GDEC

Cowles, Murphy, Glover & ASSOCIATES
A Full Service Engineering Firm
PERFORMANCE • RELIABILITY • EXPERIENCE
457 St. Michael St., Mobile, AL 36602
13 Thrash Rd., LaGrange, GA 30241
11880 Cranston Dr. Ste 102, Arlington, TN 38002
Alabama (251) 433-1611
Georgia (706) 302-2831 Tennessee (901) 290-5444

PROJECT
TERMINAL RAILWAY OFFICE ADDITION/RENOVATION
126 INDUSTRIAL CANAL ROAD
MOBILE, ALABAMA

TITLE
EXTERIOR ELEVATIONS

SCALE	DRAWN BY	DATE	SHEET	REV.
AS NOTED	JWM	05/31/22	— OF — (22x34)	C
JOB NO.	CHECKED BY	DATE	DRAWING NUMBER	
4146-22	JDG	05/31/22	4146-S3	

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ROOM FINISH SCHEDULE

ROOM		FLOOR	BASE	WALL				CEILING		REMARKS
				N	S	E	W	MAT'L	HEIGHT	
201	OFFICE 1	VCT	VB	2	1	1	1	LI	8'	
202	OFFICE 2	VCT	VB	2	1	1	1	LI	8'	
203	OFFICE 3	VCT	VB	2	1	1	1	LI	8'	
204	CONFERENCE ROOM	VCT	VB	1	2	1	1	LI	8'	
205	OFFICE 4	VCT	VB	2	1	1	1	LI	8'	
206	OFFICE 5	VCT	VB	2	1	1	1	LI	8'	
207	OFFICE 6	VCT	VB	2	1	1	2	LI	8'	
208	OFFICE 7	VCT	VB	1	2	1	2	LI	8'	
209	BREAKROOM	VCT	VB	1	2	1	1	LI	8'	
210	OFFICE 8	VCT	VB	1	2	1	1	LI	8'	
211	OFFICE 9	VCT	VB	1	2	1	1	LI	8'	
212	OFFICE 10	VCT	VB	1	2	1	1	LI	8'	
213	CORRIDOR	VCT	VB	1	1	1	1	LI	8'	
214	CORRIDOR	VCT	VB	1	1	1	1	LI	8'	
215	CLOSET	VCT	VB	1	1	1	1	LI	8'	
216	RESTROOM	VCT	CB	3	3	3	3	LI	8'	
217	OFFICE 11	VCT	VB	1	2	2	1	LI	8'	
218	OPERATIONS OFFICE	VCT	VB	2	1	1	1	LI	8'	
219	CLOSET	EX	EX	4	4	4	4	LI	8'	
220	CLOSET	EX	EX	4	4	4	4	LI	8'	
221	LOCKER ROOM	EX	EX	4	4	4	4	LI	8'	
222	WOMEN'S RESTROOM	EX	EX	4	4	4	4	LI	8'	TOILET PARTITIONS TO REMAIN
223	MEN'S RESTROOM	EX	EX	4	4	4	4	LI	8'	TOILET PARTITIONS TO REMAIN

ROOM FINISH SCHEDULE KEY NOTES

WALLS:

1. 3⅝" METAL STUD WALL FRAMING WITH ⅝" PAINTED GYPSUM WITH 3½" BATT INSULATION
2. 3⅝" METAL STUD WALL FRAMING WITH ⅝" PAINTED GYPSUM WITH SPRAY FOAM INSULATION
3. 3⅝" METAL STUD WALL FRAMING WITH ⅝" MOISTURE RESISTANT PAINTED GYPSUM WITH 3½" BATT INSULATION AND ¼" FRP 4'-0" HIGH WITH 3" OF BATT INSULATION
4. EXISTING WALLS TO REMAIN

FLOORING:

VCT VINYL COMPOSITION TILE

EX EXISTING TO REMAIN

CEILING:

LI ARMSTRONG TILE #1728 FINE FISSURED 2'X2'X⅝" MINERAL BOARD, WHITE, SQUARE EDGE DETAIL, 6¼" BATT INSULATION.

BASE:

CB 6" HIGH CERAMIC BASE

VB VINYL BASE

EX EXISTING TO REMAIN

DOOR #	RATING	DOOR SIZE	DOOR MATERIAL	FRAME MATERIAL	HARDWARE	REMARKS
201A	NONE	3'-0" x 7'-0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	CT GLASS-SEE DOOR TYPE "B"
201B	NONE	3'-0" x 7'-0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	CT GLASS-SEE DOOR TYPE "B"
202A	NONE	3'-0" x 7'-0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	CT GLASS-SEE DOOR TYPE "B"
202B	NONE	3'-0" x 7'-0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	CT GLASS-SEE DOOR TYPE "B"
203	NONE	3'-0" x 7'-0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	CT GLASS-SEE DOOR TYPE "B"
204A	NONE	3'-0" x 7'-0"	SCWD	METAL	DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES	CT GLASS-SEE DOOR TYPE "C"
204B	60 PSF	3'-0" x 7'-0"	METAL DOOR WITH POLY CORE	METAL	ENTRY LOCKSET W/ DEADBOLT, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES, VINYL DOOR SEAL, NEOPRENE SWEEP, SADDLE THRESHOLD	CT/IR GLASS-SEE DOOR TYPE "A"
205	NONE	3'-0" x 7'-0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	CT GLASS-SEE DOOR TYPE "B"
206	NONE	3'-0" x 7'-0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	CT GLASS-SEE DOOR TYPE "B"
207	NONE	3'-0" x 7'-0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	CT GLASS-SEE DOOR TYPE "B"
208	NONE	3'-0" x 7'-0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	CT GLASS-SEE DOOR TYPE "B"
209A	NONE	3'-0" x 7'-0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	CT GLASS-SEE DOOR TYPE "B"
209B	NONE	3'-0" x 7'-0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	CT GLASS-SEE DOOR TYPE "B"
210	NONE	3'-0" x 7'-0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	CT GLASS-SEE DOOR TYPE "B"
211	NONE	3'-0" x 7'-0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	CT GLASS-SEE DOOR TYPE "B"
212	NONE	3'-0" x 7'-0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	CT GLASS-SEE DOOR TYPE "B"
213	NONE	3'-0" x 7'-0"	SCWD	METAL	DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES	CT GLASS-SEE DOOR TYPE "C"
214	NONE	3'-0" x 7'-0"	SCWD	METAL	PRIVACY LOCK SET, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES	CT GLASS-SEE DOOR TYPE "B"
215	NONE	3'-0" x 7'-0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	CT GLASS-SEE DOOR TYPE "B"
216	NONE	3'-0" x 7'-0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	SEE DOOR TYPE "D"
217	NONE	3'-0" x 7'-0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	CT GLASS-SEE DOOR TYPE "C"
218A	60 PSF	2'-8" x 7'-0"	METAL DOOR WITH POLY CORE	METAL	EXISTING DOOR & HARDWARE TO REMAIN	EXISTING DOOR & HARDWARE TO REMAIN
218B	NONE	3'-0" x 7'-0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	CT GLASS-SEE DOOR TYPE "C"
219	NONE	6'-0" x 7'-0"	SCWD	METAL	EXISTING DOOR & HARDWARE TO REMAIN	EXISTING DOOR & HARDWARE TO REMAIN
220	60 PSF	2'-8" x 7'-0"	METAL DOOR WITH POLY CORE	METAL	EXISTING DOOR & HARDWARE TO REMAIN	EXISTING DOOR & HARDWARE TO REMAIN
221	NONE	2'-8" x 7'-0"	SCWD	METAL	DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES	EXISTING DOOR & HARDWARE TO REMAIN
222	NONE	2'-8" x 7'-0"	SCWD	METAL	DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES	EXISTING DOOR & HARDWARE TO REMAIN

NOTE:

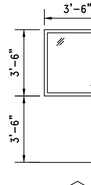
-ALL EXTERIOR GLASS TO BE CLEAR TEMPERED, IMPACT RESISTANT, MEETING WIND REQUIREMENT OF 161 MPH.
-ALL EXTERIOR DOORS SHALL BE AIR TIGHT AND WEATHER TIGHT. (DOORS SHALL PERMIT LESS THAN 0.01 CU.FT./MIN. OF OUTSIDE AIR)

WINDOW SCHEDULE NOTES:

1. CLEAR TEMPERED
2. IMPACT RESISTANT: 161 WIND REQUIREMENT MIN.
3. VINYL FRAME FIXED
4. U-FACTOR: 0.35
5. SHGC: 0.27
6. **WINDOW TYPE AA, EE, AND FF ARE REPLACING EXISTING. CONTRACTOR SHALL VERIFY DIMENSIONS PRIOR TO PLACING ORDER.**

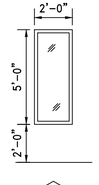
DOOR SCHEDULE NOTES:

GENERAL: PROVIDE WALL BUMPERS FOR ALL DOORS.
1. SCWD = SOLID CORE WOOD DOOR
   1A. WOOD DOORS TO HAVE HOLLOW METAL FRAME
   1B. WOOD DOORS TO BE ROTARY NATURAL BIRCH, FACTORY PRE-FINISHED, STANDARD COLOR STAINED.
2. NL = NIGHTLATCH
3. SS = STAINLESS STEEL
4. ALL DOORS NOT TYPE A TO BE FLUSH, UNLESS NOTED OTHERWISE.
5. IR = IMPACT RESISTANT
   CT = CLEAR TEMPERED



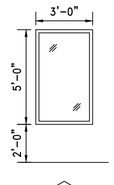
AA

STOREFRONT KAWNEER IR 501 CLEAR INSULATED-LOW-E #2 HURRICANE RESISTANT GLAZING. **SEE NOTE 6.**



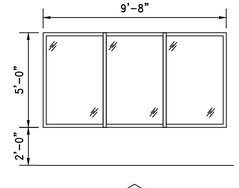
BB

STOREFRONT KAWNEER IR 501 CLEAR INSULATED-LOW-E #2 HURRICANE RESISTANT GLAZING



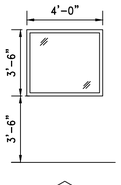
CC

STOREFRONT KAWNEER IR 501 CLEAR INSULATED-LOW-E #2 HURRICANE RESISTANT GLAZING



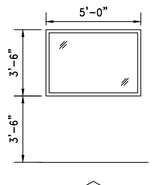
DD

STOREFRONT KAWNEER IR 501 CLEAR INSULATED-LOW-E #2 HURRICANE RESISTANT GLAZING



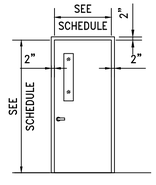
EE

STOREFRONT KAWNEER IR 501 CLEAR INSULATED-LOW-E #2 HURRICANE RESISTANT GLAZING. **SEE NOTE 6.**



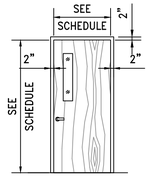
FF

STOREFRONT KAWNEER IR 501 CLEAR INSULATED-LOW-E #2 HURRICANE RESISTANT GLAZING. **SEE NOTE 6.**



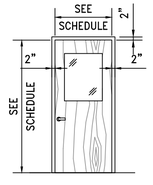
A

HOLLOW METAL DOOR WITH POLYSTYRENE CORE AND IR TOP WINDOW (6"W x 30"H)



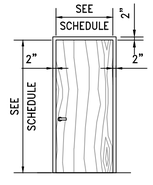
B

SOLID CORE WOOD DOOR CT TOP WINDOW (6"W x 30"H)



C

SOLID CORE WOOD DOOR CT HALF GLASS WINDOW



D

SOLID CORE WOOD DOOR

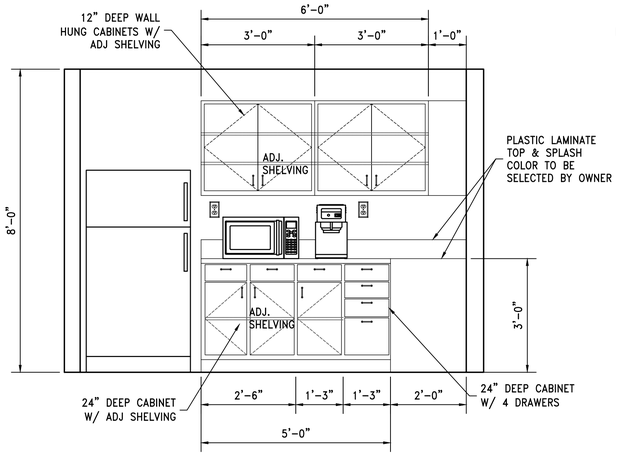
REV.	DESCRIPTION	DATE	BY	CHK'D
C	REVISED PER ADDENDUM 2	08/24/22	MAD	JDG
B	ISSUED FOR BID	08/01/22	JWM	GDEC

Cowles, Murphy, Glover & ASSOCIATES
A Full Service Engineering Firm
PERFORMANCE • RELIABILITY • EXPERIENCE
457 St. Michael St., Mobile, AL 36602
13 Thrash Rd., LaGrange, GA 30241
11880 Cranston Dr. Ste 102, Arlington, TN 38002
Alabama (251) 433-1611
Georgia (706) 302-2831 Tennessee (901) 290-5444

PROJECT
TERMINAL RAILWAY
OFFICE ADDITION/RENOVATION
126 INDUSTRIAL CANAL ROAD
MOBILE, ALABAMA

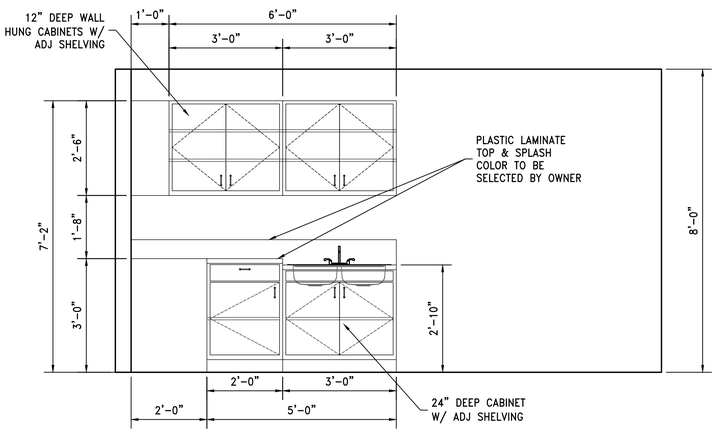
TITLE
DOOR AND WINDOW SCHEDULE

SCALE	DRAWN BY	DATE	SHEET	REV.
AS NOTED	JWM	05/31/22	— OF — 22x34	C
JOB NO. 4146-22	CHECKED BY JDG	DATE 05/31/22	DRAWING NUMBER 4146-S4	



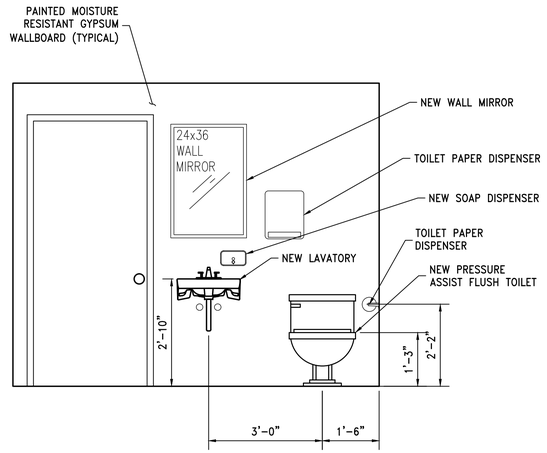
OFFICE BREAKROOM ELEVATION

3/8"=1'-0"



OFFICE BREAKROOM ELEVATION

3/8"=1'-0"



RESTROOM ELEVATION

3/8"=1'-0"

REV.	DESCRIPTION	DATE	BY	CHK'D
C	REVISED PER ADDENDUM 2	08/24/22	MAD	JDG
B	ISSUED FOR BID	08/01/22	JWM	GDEC

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PROJECT

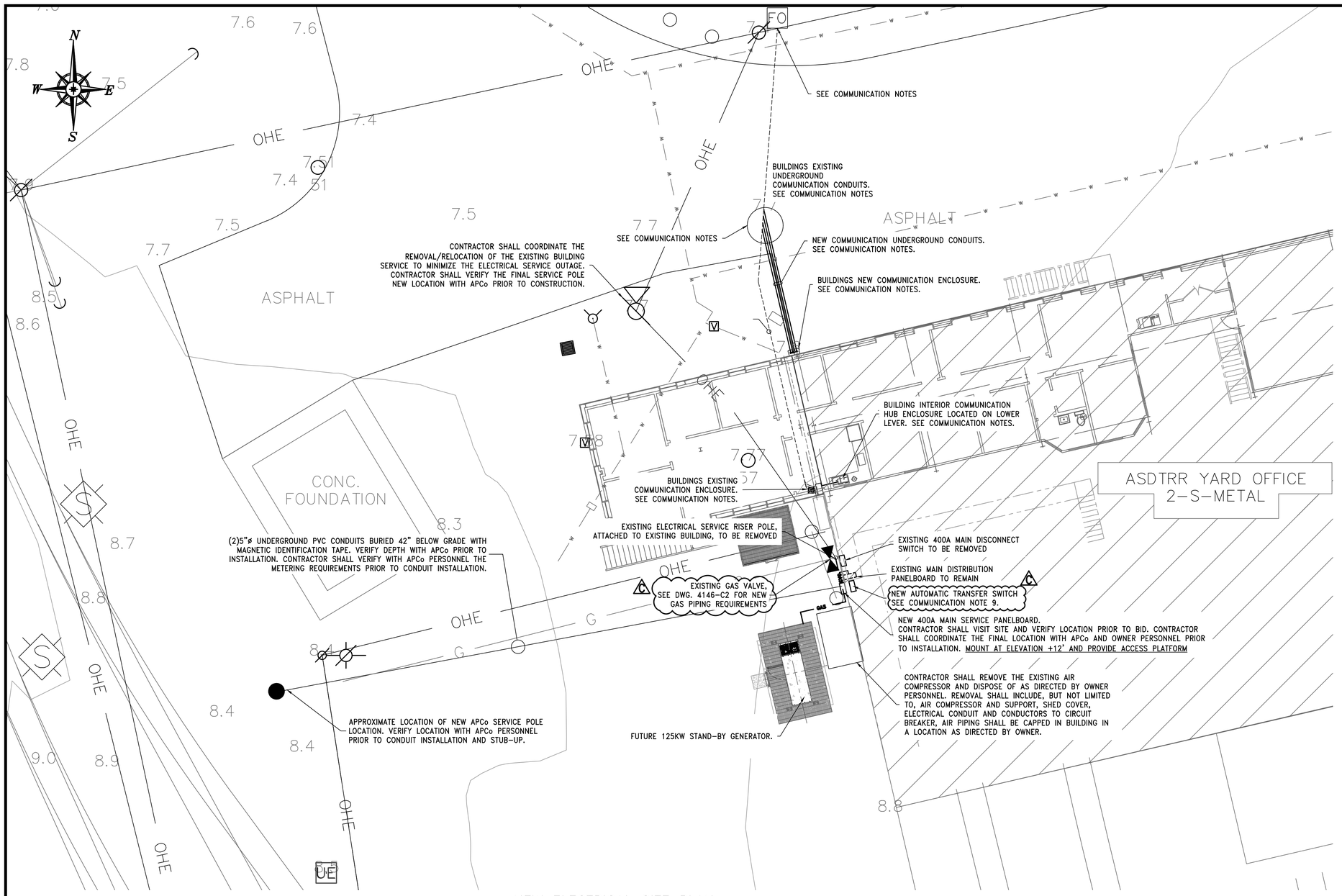
TERMINAL RAILWAY
OFFICE ADDITION/RENOVATION

126 INDUSTRIAL CANAL ROAD
MOBILE, ALABAMA

TITLE

INTERIOR ELEVATIONS

SCALE	DRAWN BY	DATE	SHEET 22x34	REV.
AS NOTED	JWM	05/31/22	— of —	C
JOB NO. 4146-22	CHECKED BY JDG	DATE 05/31/22	DRAWING NUMBER 4146-S4A	



COMMUNICATION NOTES:

1. CONTRACTOR SHALL VERIFY WITH TRR IT PERSONNEL THE LOCATION OF THE EXISTING COMMUNICATION ENCLOSURE AND THE ROUTING OF THE CONDUIT THAT SERVE THE BUILDINGS INSIDE COMMUNICATION HUB.
2. CONTRACTOR SHALL LOCATE THE EXISTING UNDERGROUND COMMUNICATION CONDUITS ROUTED FROM THE COMMUNICATION PROVIDER JUNCTION ENCLOSURE TO THE BUILDINGS EXISTING COMMUNICATION ENCLOSURE LOCATED ON THE EXTERIOR OF THE BUILDING.
3. CONTRACTOR SHALL FURNISH AND INSTALL BUILDING NEW COMMUNICATION ENCLOSURE, NEMA-3R RATED, IN A LOCATION AS SHOWN ON THE SITE PLAN OR AS DIRECTED BY THE TRR IT PERSONNEL. BUILDINGS NEW COMMUNICATION ENCLOSURE SHALL BE SIMILAR IN SIZE AND RATING AS THE BUILDINGS EXISTING COMMUNICATION ENCLOSURE.
4. CONTRACTOR SHALL LOCATE AND UNCOVER THE EXISTING COMMUNICATION UNDERGROUND CONDUITS NEAR A LOCATION AS SHOWN ON THE SITE PLAN OR A LOCATION THAT BEST SUITS THE REROUTING OF THE COMMUNICATION CONDUITS. CONTRACTOR SHALL PROVIDE PROTECTION AND BARRIERS FOR THE EXPOSED CONDUITS IN THE OPEN GROUND AREA.
5. CONTRACTOR SHALL FURNISH AND INSTALL (4) UNDERGROUND COMMUNICATION CONDUITS, SIMILAR IN SIZE AND MATERIAL, FROM THE NEW BUILDING COMMUNICATION ENCLOSURE TO OPEN GROUND AREA NEAR THE EXPOSED EXISTING COMMUNICATION CONDUITS. THE NEW UNDERGROUND CONDUIT SHALL BE USED TO REROUTE THE COMMUNICATION CONDUCTORS/FIBER OPTIC CABLES FROM THE COMMUNICATION PROVIDERS JUNCTION ENCLOSURE TO THE NEW BUILDING COMMUNICATION ENCLOSURE
6. CONTRACTOR SHALL COORDINATE WITH THE TRR IT PERSONNEL THE BEST AVAILABLE TIME TO REMOVE THE COMMUNICATION CABLES FROM THE BUILDINGS EXISTING COMMUNICATION ENCLOSURE AND UNDERGROUND CONDUITS FOR REROUTING INTO BUILDINGS NEW COMMUNICATION ENCLOSURE.
7. CONTRACTOR SHALL, AFTER COMMUNICATION CABLE REMOVAL, SPLICE NEW UNDERGROUND COMMUNICATE CONDUITS WITH THE EXISTING UNDERGROUND COMMUNICATION CONDUITS AND VERIFY THE CONDUIT ARE SEALED WHEN CONNECTED.
8. CONTRACTOR SHALL REINSTALL OR FURNISH NEW COMMUNICATION CABLES FROM THE COMMUNICATION PROVIDER JUNCTION ENCLOSURE TO THE BUILDINGS NEW COMMUNICATION ENCLOSURE. COMMUNICATION CABLES SHALL BE ROUTED FROM THE BUILDING NEW COMMUNICATION ENCLOSURE TO THE INTERIOR COMMUNICATION HUB AND TERMINATED BY TRR IT PERSONNEL. COMMUNICATION CABLE SHALL BE INSTALLED IN CONDUIT THRU THE INTERIOR OF THE BUILDING.
9. CONTRACTOR SHALL FURNISH AND INSTALL NEW KOHLER #KSS-AMTA-260-S (OR APPROVED EQUAL) AUTOMATIC TRANSFER SWITCH WITH GENERATOR MONITORING SYSTEM FOR FUTURE 125kW STAND-BY GENERATOR INSTALLATION. 125kW STAND-BY GENERATOR SHALL BE A FUTURE ADDITION BY OTHERS. CONTRACTOR SHALL LOCATE THE ATS IN A LOCATION +1' ABOVE THE FEMA FLOOD ELEVATION AE, EL.+11. BOTTOM OF ATS SHALL BE AT ELEVATION +12'. ATS SHALL BE INSTALLED INDOORS AND SURFACE MOUNT. VERIFY LOCATION WITH ASPA PERSONNEL PRIOR TO INSTALLATION.

NEW ELECTRICAL SITE PLAN

1"=10'-0"

REV.	DESCRIPTION	DATE	BY	CHK'D
C	REVISED PER ADDENDUM 2	08/24/22	MAD	JJM
B	ISSUED FOR BID	08/01/22	RCC	JJM

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PROJECT
TERMINAL RAILWAY
OFFICE ADDITION/RENOVATION
126 INDUSTRIAL CANAL ROAD
MOBILE, ALABAMA

TITLE
NEW ELECTRICAL SITE PLAN

SCALE	DRAWN BY	DATE	SHEET	REV.
AS NOTED	RCC	03/30/22	— OF —	C
JOB NO. 4146-22	CHECKED BY JJM	DATE 07/01/22	DRAWING NUMBER 4146-E1	

22x34

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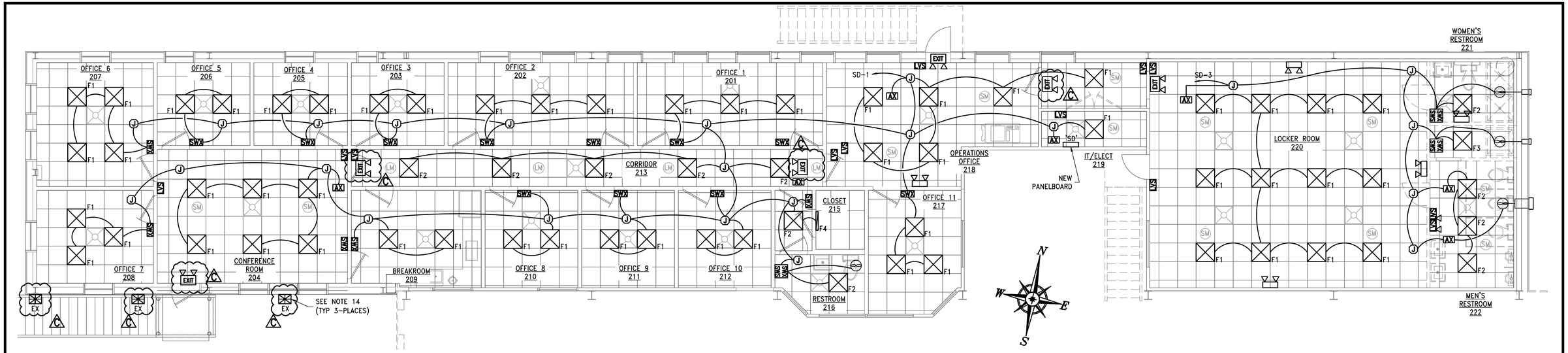

OFFICE ELECTRICAL LIGHTING PLAN

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

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
F1	METALUX #22PD-40-PB1-L840-U, 2x2 LED RECESSED, BEVEL SHIELDING, 0-10V DIMMIMG, 33W (4,000 LUMENS) OR ENGINEER APPROVED EQUAL.
F2	METALUX #22PD-30-PB1-L840-U, 2x2 LED RECESSED, BEVEL SHIELDING, 0-10V DIMMING 25W (3,000 LUMENS) OR ENGINEER APPROVED EQUAL.
F3	METALUX #22PD-50-PB1-L840-U, 2x2 LED RECESSED, BEVEL SHIELDING, 0-10V DIMMING 42W (5,000 LUMENS) OR ENGINEER APPROVED EQUAL.
F4	METALUX #2SNLED-LD5-30HL-LW-UNV-L840-CD1-U ENGINEER, LED SURFACE FIXTURE, FULL FROST LENS-WIDE SPREAD, 4000K, 28W (2,975 LUMENS) OR APPROVED EQUAL.
J	JUNCTION BOX WITH COVER
EXIT	EXIT LED FIXTURE EXITRONIX #VLED-U-WH-EL90-G2. BATTERY BACKUP EXIT LIGHT WITH EMERGENCY LED LAMPS, MOUNT 12" BELOW CEILING OR ENGINEER APPROVED EQUAL.
	EXITRONIX #LED-52-WH-G2, LED BATTERY BACK-UP, 2 WATT LAMPS, SELF-TEST/SELD-DIAGNOSTUCS, MOUNT 9' A.F.F. OR ENGINEER APPROVED EQUAL
SM	SENSORWORX #SWX-221-1, CEILING MOUNT OCCUPANCY SENSOR, LOW VOLTAGE, PASSIVE DUAL TECHNOLOGY (PIR/ACOUSTIC), SMALL MOTION 360°.
LM	SENSORWORX #SWX-222-1, CEILING MOUNT OCCUPANCY SENSOR, LOW VOLTAGE, PASSIVE DUAL TECHNOLOGY (PIR/ACOUSTIC), LARGE MOTION 360°.
LVS	SENSORWORX #SWX-801-WH, DECORATOR LOW VOLTAGE WALL SWITCH, MOMENTARY OPERATION, WHITE.
LVD	SENSORWORX #SWX-803-WH, DECORATOR LOW VOLTAGE DIMMER (0-10V) WALL SWITCH, MOMENTARY OPERATION, WHITE.
AX	SENSORWORX #SWX-900-AX, POWER PACK CONTROLLER, LINE VOLTAGE, 120/277V, SINGLE RELAY +150mA SUPPLY
SWX	SENSORWORX #SWX-121-WH, OCCUPANCY SENSOR, LINE VOLTAGE, WALL SWITCH, PASSIVE DUAL TECHNOLOGY (PIR/ACOUSTIC), 1-POLE:AUTO ON (OCCUPANCY), WHITE
SWD	SENSORWORX #SWX-121-D-WH, 0-10V DIMMING OCCUPANCY SENSOR, LINE VOLTAGE, WALL SWITCH, PASSIVE DUAL TECHNOLOGY (PIR/ACOUSTIC), 1-POLE:AUTO ON (OCCUPANCY), WHITE
SWX SWS	SENSORWORX #SWX-122-WH, OCCUPANCY SENSOR, LINE VOLTAGE, WALL SWITCH, PASSIVE DUAL TECHNOLOGY (PIR/ACOUSTIC), 2-POLE: PARTIAL ON, W/#SWX-831-SC, SIDECAR SWITCH, WHITE, 2-GANG
	NEMA-1/3R DISTRIBUTION PANEL, SEE SCHEDULE
MEF	BATHROOM EXHAUST FAN TO BE SWITCHED FROM WALL MOUNTED SWITCH.
EX	McGRAW-Edison #GWC-SA2C-740-U-SL3-GM-CBP-CC-AHD245-BPC120, LED WALL MOUNT AREA FIXTURE, SL3 W/SPILL CONTROL OPTICS, BATTERY PACK, COASTAL CONSTRUCTION FINISH, AFTER HOURS DIM, BUTTON TYPE PHOTOCONTROL 120V, OR ENGINEER, 60W (7,555 LUMENS) OR APPROVED EQUAL.

C

ELECTRICAL GENERAL NOTES:

1. ALL ELECTRICAL WORK SHALL BE INSTALLED AS REQUIRED BY THE NATIONAL ELECTRIC CODE (N.E.C.) AND ANY STATE, CITY AND/OR LOCAL CODE REQUIREMENTS. THE MORE STRINGENT CODE REQUIREMENT SHALL BE UTILIZED AND VERIFIED WITH THE LOCAL INSPECTION APPROVAL AGENCY. (DEFINITION "CODE" – STATE, CITY AND/OR LOCAL CODE REQUIREMENTS)

2. CONTRACTOR SHALL INSTALL ALL GROUNDING AS REQUIRED BY THE NATIONAL ELECTRIC CODE (N.E.C.) AND ANY STATE, CITY AND/OR LOCAL CODE REQUIREMENTS. THE MORE STRINGENT CODE REQUIREMENT SHALL BE UTILIZED AND VERIFIED WITH THE LOCAL INSPECTION APPROVAL AGENCY.

3. CONTRACTOR SHALL (PRIOR TO BID)
   (a) VISIT THE JOB/CONSTRUCTION SITE AND FIELD VERIFY ALL EXISTING CONDITIONS
   (b) TAKE ALL CONSIDERATIONS INTO ACCOUNT AT THE TIME OF BID. NO CONSIDERATIONS WILL BE GRANTED TO THE CONTRACTOR AFTER THE BID HAS BEEN ACCEPTED.

4. **ALL LIGHT FIXTURES SHOWN/LISTED IN LIGHTING FIXTURE SCHEDULE SHALL BE 10-DAY PRE-APPROVED BY THE ENGINEER PRIOR TO BID.**

5. ALL ELECTRICAL SWITCHES SHALL BE INSTALLED AS PER N.E.C. ARTICLE 404 AND AS REQUIRED BY CODE. LIGHT SWITCHES AND COVERS SHALL BE WHITE UNLESS NOTED OTHERWISE BY THE ARCHITECT.

6. ALL RECEPTACLES AND COVERS SHALL BE INSTALLED AS PER N.E.C. ARTICLE 406 AND AS REQUIRED BY CODE. LIGHT SWITCHES AND COVERS SHALL BE WHITE UNLESS NOTED OTHERWISE BY THE ARCHITECT.

7. ALL ELECTRICAL METALLIC TUBING (EMT), RIGID NON-METALLIC CONDUIT, FLEXIBLE METALLIC CONDUIT, FLEXIBLE NON-METALLIC CONDUIT, 'SEALTIGHT' TYPE CONDUITS AND ALL OTHER CONDUITS THAT DO NOT CONTAIN A REQUIRED CODE SIZED GROUND WIRE SHALL HAVE A REQUIRED CODE SIZED BOND WIRE INSTALLED WITH THE CIRCUIT CONDUCTORS.

8. RECEPTACLES INSTALLED WITHIN 6'-0" OF SINKS OR WATER SHALL BE CONNECTED TO A GROUND FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER OR TO A GROUND FAULT CIRCUIT INTERRUPTER TYPE RECEPTACLE.

9. CONTRACTOR SHALL FURNISH AND INSTALL WEATHER PROOF G.F.C.I. RECEPTACLE AT AN ACCESSIBLE LOCATION NEAR ALL HVAC EQUIPMENT IN ACCORDANCE WITH N.E.C. ARTICLE 210.63 AND AS REQUIRED BY CODE. CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THESE RECEPTACLES IN THE FIELD REGARDLESS OF THE PLAN LAYOUT.

10. CONTRACTOR SHALL, PRIOR TO BID AND ROUGH-IN, FIELD VERIFY ALL HVAC ELECTRICAL REQUIREMENTS AGAINST THE PLAN REQUIREMENTS. FAILURE TO VERIFY AND NOTIFY ENGINEER/ARCHITECT PRIOR TO ROUGH-IN SHALL INDICATE THAT THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THE DESIGN AND INSTALLATION REQUIREMENTS.

11. CONTRACTOR SHALL FURNISH AND INSTALL ALL AC UNITS SHALL HAVE INTEGRAL CONTROLLERS WITH OVERLOAD PROTECTION AND DISCONNECT FUNCTIONS PER N.E.C. CONTRACTOR SHALL INSTALL GFI DUPLEX SERVICE RECEPTACLES NEAR CONDENSER UNIT. PROVIDE MOTOR STARTERS WITH OVERLOAD PROTECTION AND DISCONNECT FUNCTIONS FOR AIR HANDLERS, IF NOT PROVIDED BY MECHANICAL CONTRACTOR.

12. CONTRACTOR SHALL FURNISH AND INSTALL NON-FUSED DISCONNECT SWITCHES AT EACH WATER HEATER. DISCONNECT SWITCH SHALL BE RATED AS REQUIRED BY THE EQUIPMENT SERVED.

13. SEE REFERENCE DRAWING 4146-E3 FOR OFFICE LIGHTING CONTROL PLAN.

14. CONTRACTOR SHALL ROUTE ½"ø CONDUIT W/(2)#12AWG & (1)#12AWG GRD FROM THE EMERGENCY LIGHTING ELECTRICAL TO EACH EXTERIOR EGRESS LIGHT FIXTURE 'EX'. EXTERIOR LIGHT FIXTURES 'EX' SHALL BE CONNECT TO CONSTANT POWER FROM THE LIGHTING CIRCUIT SERVING ROOM 204.

15. CONTRACTOR SHALL CONNECT EXIT AND EMERGENCY LIGHT FIXTURES TO THE CONSTANT POWER OF THE LIGHTING CIRCUIT SERVING EACH LOCAL AREA.

C

REV.	DESCRIPTION	DATE	BY	CHK'D
C	ADDENDUM 2 ADD EGRESS LIGHTING	08/25/22	RCC	JJM
B	ISSUED FOR BID	08/01/22	RCC	JJM

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PROJECT
TERMINAL RAILWAY
OFFICE ADDITION/RENOVATION
126 INDUSTRIAL CANAL ROAD
MOBILE, ALABAMA

TITLE
OFFICE ELECTRICAL LIGHTING PLAN

SCALE	DRAWN BY	DATE	SHEET	REV.
AS NOTED	JDG	03/30/22	— OF — (22x34)	C
JOB NO.	CHECKED BY	DATE	DRAWING NUMBER	
4146-22	JJM	07/01/22	4146-E2	

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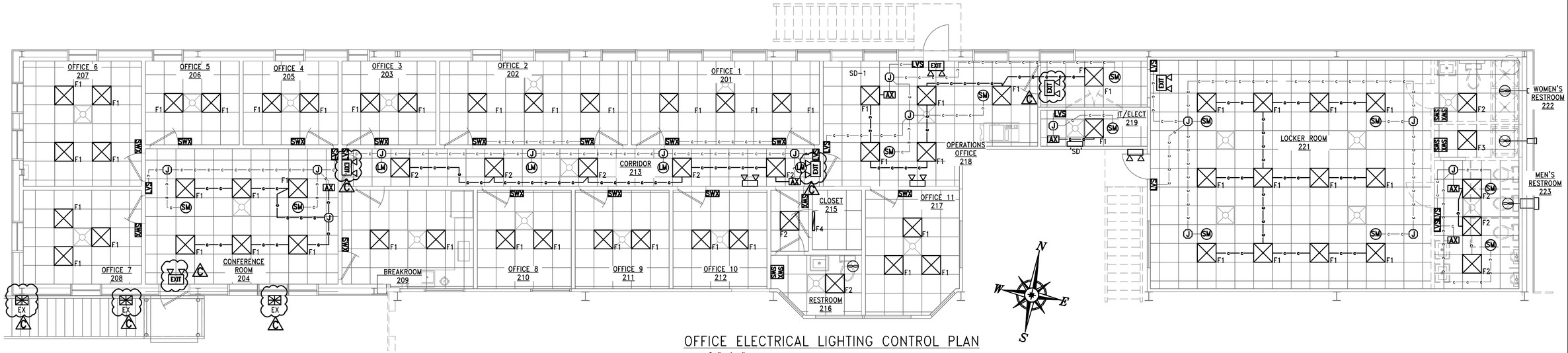

OFFICE ELECTRICAL LIGHTING CONTROL PLAN

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

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
F1	METALUX #22PD-40-PB1-L840-U, 2x2 LED RECESSED, BEVEL SHIELDING, 0-10V DIMMIMG, 33W (4,000 LUMENS) OR ENGINEER APPROVED EQUAL.
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F3	METALUX #22PD-50-PB1-L840-U, 2x2 LED RECESSED, BEVEL SHIELDING, 0-10V DIMMING 42W (5,000 LUMENS) OR ENGINEER APPROVED EQUAL.
F4	METALUX #2SNLED-LD5-30HL-LW-UNV-L840-CD1-U ENGINEER, LED SURFACE FIXTURE, FULL FROST LENS-WIDE SPREAD, 4000K, 28W (2,975 LUMENS) OR APPROVED EQUAL.
J	JUNCTION BOX WITH COVER
EXIT	EXIT LED FIXTURE EXITRONIX #VLED-U-WH-EL90-G2. BATTERY BACKUP EXIT LIGHT WITH EMERGENCY LED LAMPS, MOUNT 12" BELOW CEILING OR ENGINEER APPROVED EQUAL.
	EXITRONIX #LED-52-WH-G2, LED BATTERY BACK-UP, 2 WATT LAMPS, SELF-TEST/SELD-DIAGNOSTUCS, MOUNT 9' A.F.F. OR ENGINEER APPROVED EQUAL
SM	SENSORWORX #SWX-221-1, CEILING MOUNT OCCUPANCY SENSOR, LOW VOLTAGE, PASSIVE DUAL TECHNOLOGY (PIR/ACOUSTIC), SMALL MOTION 360°.
LM	SENSORWORX #SWX-222-1, CEILING MOUNT OCCUPANCY SENSOR, LOW VOLTAGE, PASSIVE DUAL TECHNOLOGY (PIR/ACOUSTIC), LARGE MOTION 360°.
LVS	SENSORWORX #SWX-801-WH, DECORATOR LOW VOLTAGE WALL SWITCH, MOMENTARY OPERATION, WHITE.
AX	SENSORWORX #SWX-900-AX, POWER PACK CONTROLLER, LINE VOLTAGE, 120/277V, SINGLE RELAY +150mA SUPPLY
SWX	SENSORWORX #SWX-121-WH, OCCUPANCY SENSOR, LINE VOLTAGE, WALL SWITCH, PASSIVE DUAL TECHNOLOGY (PIR/ACOUSTIC), 1-POLE:AUTO ON (OCCUPANCY), WHITE
SWX SMS	SENSORWORX #SWX-122-WH, OCCUPANCY SENSOR, LINE VOLTAGE, WALL SWITCH, PASSIVE DUAL TECHNOLOGY (PIR/ACOUSTIC), 2-POLE: PARTIAL ON, INCLUDES #SWX-831-SC, SIDECAR SWITCH, WHITE, 2-GANG
	NEMA-1/3R DISTRIBUTION PANEL, SEE SCHEDULE
MFF	BATHROOM EXHAUST FAN TO BE SWITCHED FROM WALL MOUNTED SWITCH.
EX	McGRAW-Edison #GWC-SA2C-740-U-SL3-GM-CBP-CC-AHD245-BPC120, LED WALL MOUNT AREA FIXTURE, SL3 W/SPILL CONTROL OPTICS, BATTERY PACK, COASTAL CONSTRUCTION FINISH, AFTER HOURS DIM, BUTTON TYPE PHOTOCONTROL 120V, OR ENGINEER, 60W (7,555 LUMENS) OR APPROVED EQUAL.

C

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4. **ALL LIGHT FIXTURES SHOWN/LISTED IN LIGHTING FIXTURE SCHEDULE SHALL BE 10-DAY PRE-APPROVED BY THE ENGINEER PRIOR TO BID.**
5. ALL ELECTRICAL SWITCHES SHALL BE INSTALLED AS PER N.E.C. ARTICLE 404 AND AS REQUIRED BY CODE. LIGHT SWITCHES AND COVERS SHALL BE WHITE UNLESS NOTED OTHERWISE BY THE ARCHITECT.
6. ALL RECEPTACLES AND COVERS SHALL BE INSTALLED AS PER N.E.C. ARTICLE 406 AND AS REQUIRED BY CODE. LIGHT SWITCHES AND COVERS SHALL BE WHITE UNLESS NOTED OTHERWISE BY THE ARCHITECT.
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8. RECEPTACLES INSTALLED WITHIN 6'-0" OF SINKS OR WATER SHALL BE CONNECTED TO A GROUND FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER OR TO A GROUND FAULT CIRCUIT INTERRUPTER TYPE RECEPTACLE.
9. CONTRACTOR SHALL FURNISH AND INSTALL WEATHER PROOF G.F.C.I. RECEPTACLE AT AN ACCESSIBLE LOCATION NEAR ALL HVAC EQUIPMENT IN ACCORDANCE WITH N.E.C. ARTICLE 210.63 AND AS REQUIRED BY CODE. CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THESE RECEPTACLES IN THE FIELD REGARDLESS OF THE PLAN LAYOUT.
10. CONTRACTOR SHALL, PRIOR TO BID AND ROUGH-IN, FIELD VERIFY ALL HVAC ELECTRICAL REQUIREMENTS AGAINST THE PLAN REQUIREMENTS. FAILURE TO VERIFY AND NOTIFY ENGINEER/ARCHITECT PRIOR TO ROUGH-IN SHALL INDICATE THAT THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THE DESIGN AND INSTALLATION REQUIREMENTS.
11. CONTRACTOR SHALL FURNISH AND INSTALL ALL AC UNITS SHALL HAVE INTEGRAL CONTROLLERS WITH OVERLOAD PROTECTION AND DISCONNECT FUNCTIONS PER N.E.C. CONTRACTOR SHALL INSTALL GFI DUPLEX SERVICE RECEPTACLES NEAR CONDENSER UNIT. PROVIDE MOTOR STARTERS WITH OVERLOAD PROTECTION AND DISCONNECT FUNCTIONS FOR AIR HANDLERS, IF NOT PROVIDED BY MECHANICAL CONTRACTOR.
12. CONTRACTOR SHALL FURNISH AND INSTALL NON-FUSED DISCONNECT SWITCHES AT EACH WATER HEATER. DISCONNECT SWITCH SHALL BE RATED AS REQUIRED BY THE EQUIPMENT SERVED.
13. SEE REFERENCE DRAWING 4146-E2 FOR OFFICE LIGHTING ELECTRICAL REQUIREMENTS.

REV.	DESCRIPTION	DATE	BY	CHK'D
C	ADDENDUM 2 ADD EGRESS LIGHTING	08/25/22	RCC	JJM
B	ISSUED FOR BID	08/01/22	RCC	JJM

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PROJECT
TERMINAL RAILWAY
OFFICE ADDITION/RENOVATION
126 INDUSTRIAL CANAL ROAD
MOBILE, ALABAMA

TITLE
OFFICE ELECTRICAL LIGHTING CONTROL PLAN

SCALE	DRAWN BY	DATE	SHEET	REV.
AS NOTED	JDG	03/30/22	— OF — (22x34)	B
JOB NO. 4146-22	CHECKED BY JJM	DATE 07/01/22	DRAWING NUMBER 4146-E3	

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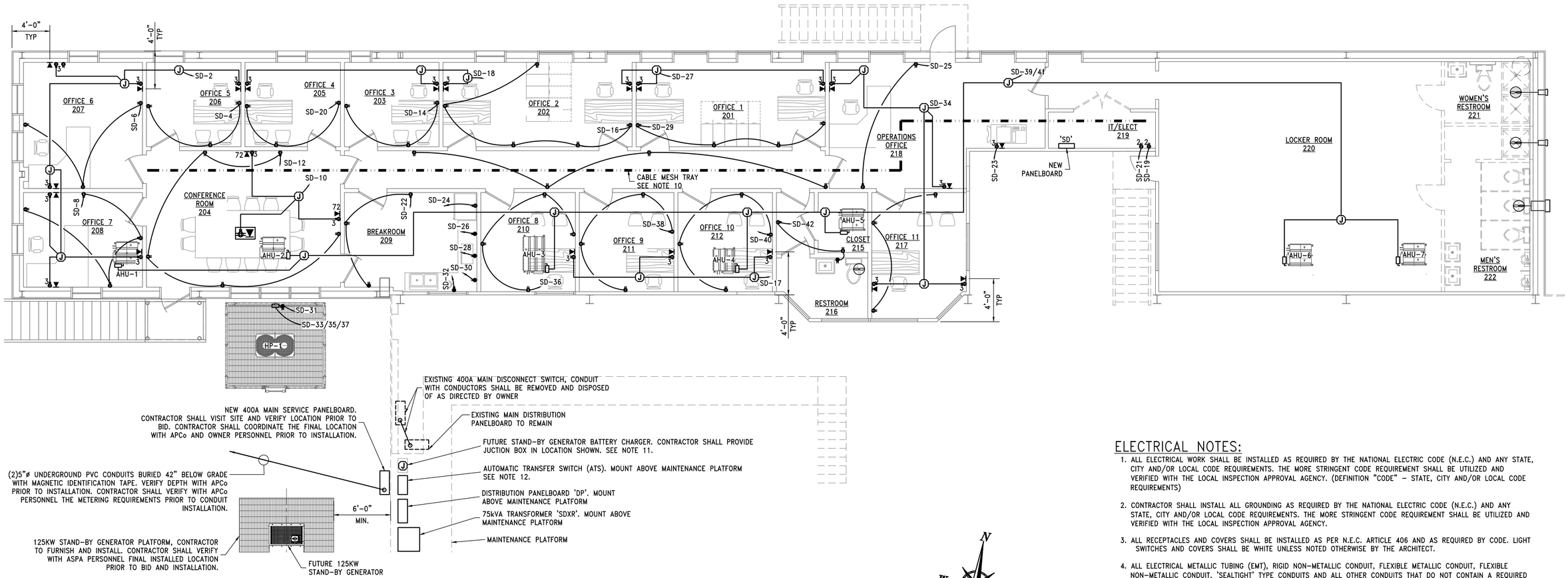

OFFICE ELECTRICAL POWER PLAN

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

ELECTRICAL SCHEDULE

SYMBOL	DESCRIPTION
	DATA JACK DUPLEX J-BOX WITH CONDUIT TO OVERHEAD CEILING. (2) CAT6 DATA CABLES ROUTED TO IT ROOM. TERMINATIONS BY OTHERS.
	DUPLEX RECEPTACLE. 110 VOLT GROUNDING TYPE, FLUSH WALL MTD. 18" A.F.F. UNLESS NOTED OTHERWISE.
2	(2) DUPLEX RECEPTACLE. 110 VOLT GROUNDING TYPE, FLUSH WALL MTD. 18" A.F.F. UNLESS NOTED OTHERWISE.
3	(3) DUPLEX RECEPTACLE. 110 VOLT GROUNDING TYPE, FLUSH WALL MTD. 18" A.F.F. UNLESS NOTED OTHERWISE.
WT	GROUND FAULT DUPLEX RECEPTACLE. FLUSH WALL MTD. 42" A.F.F. UNLESS NOTED OTHERWISE. WT IS FOR WEATHER TIGHT ENCLOSURE WHERE APPLICABLE
	(2)DUPLEX RECEPTACLE AND (1)DUPLEX DATA CONNECTION IN FLUSH MOUNTED FLOOR BOX. CONNECT RECEPTACLES TO GROUND FAULT CIRCUIT BREAKER. (2) CAT6 CABLE TO DATA POINT
	NON-FUSED DISCONNECT SWITCH, NEMA-3R, SIZED AS REQUIRED
	NEMA-12 OR NEMA-1 DISTRIBUTION PANEL, SEE SCHEDULE
J	JUNCTION BOX WITH COVER

ELECTRICAL NOTES:

1. ALL ELECTRICAL WORK SHALL BE INSTALLED AS REQUIRED BY THE NATIONAL ELECTRIC CODE (N.E.C.) AND ANY STATE, CITY AND/OR LOCAL CODE REQUIREMENTS. THE MORE STRINGENT CODE REQUIREMENT SHALL BE UTILIZED AND VERIFIED WITH THE LOCAL INSPECTION APPROVAL AGENCY. (DEFINITION "CODE" – STATE, CITY AND/OR LOCAL CODE REQUIREMENTS)
2. CONTRACTOR SHALL INSTALL ALL GROUNDING AS REQUIRED BY THE NATIONAL ELECTRIC CODE (N.E.C.) AND ANY STATE, CITY AND/OR LOCAL CODE REQUIREMENTS. THE MORE STRINGENT CODE REQUIREMENT SHALL BE UTILIZED AND VERIFIED WITH THE LOCAL INSPECTION APPROVAL AGENCY.
3. ALL RECEPTACLES AND COVERS SHALL BE INSTALLED AS PER N.E.C. ARTICLE 406 AND AS REQUIRED BY CODE. LIGHT SWITCHES AND COVERS SHALL BE WHITE UNLESS NOTED OTHERWISE BY THE ARCHITECT.
4. ALL ELECTRICAL METALLIC TUBING (EMT), RIGID NON-METALLIC CONDUIT, FLEXIBLE METALLIC CONDUIT, FLEXIBLE NON-METALLIC CONDUIT, 'SEALTIGHT' TYPE CONDUITS AND ALL OTHER CONDUITS THAT DO NOT CONTAIN A REQUIRED CODE SIZED GROUND WIRE SHALL HAVE A REQUIRED CODE SIZED BOND WIRE INSTALLED WITH THE CIRCUIT CONDUCTORS.
5. RECEPTACLES INSTALLED WITHIN 6'-0" OF SINKS OR WATER SHALL BE CONNECTED TO A GROUND FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER OR TO A GROUND FAULT CIRCUIT INTERRUPTER TYPE RECEPTACLE.
6. CONTRACTOR SHALL FURNISH AND INSTALL WEATHER PROOF G.F.C.I. RECEPTACLE AT AN ACCESSIBLE LOCATION NEAR ALL HVAC EQUIPMENT IN ACCORDANCE WITH N.E.C. ARTICLE 210.63 AND AS REQUIRED BY CODE. CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THESE RECEPTACLES IN THE FIELD REGARDLESS OF THE PLAN LAYOUT.
7. CONTRACTOR SHALL, PRIOR TO BID AND ROUGH-IN, FIELD VERIFY ALL HVAC ELECTRICAL REQUIREMENTS AGAINST THE PLAN REQUIREMENTS. FAILURE TO VERIFY AND NOTIFY ENGINEER/ARCHITECT PRIOR TO ROUGH-IN SHALL INDICATE THAT THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THE DESIGN AND INSTALLATION REQUIREMENTS.
8. CONTRACTOR SHALL FURNISH AND INSTALL ALL AC UNITS SHALL HAVE INTEGRAL CONTROLLERS WITH OVERLOAD PROTECTION AND DISCONNECT FUNCTIONS PER N.E.C. CONTRACTOR SHALL INSTALL GFI DUPLEX SERVICE RECEPTACLES NEAR CONDENSER UNIT. PROVIDE MOTOR STARTERS WITH OVERLOAD PROTECTION AND DISCONNECT FUNCTIONS FOR AIR HANDLERS, IF NOT PROVIDED BY MECHANICAL CONTRACTOR.
9. CONTRACTOR SHALL FURNISH AND INSTALL NEW IT SERVER RACK IN IT/ELECT ROOM 219 AS DIRECTED BY THE OWNER. CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF THE IT SERVER RACK WITH OWNER PERSONNEL PRIOR TO BID.
10. CONTRACTOR SHALL FURNISH AND INSTALL CABLE MESH TRAY SYSTEM IN OFFICE AREA FOR DATA CABLE ROUTING AND SUPPORT TO IT ROOM. CABLE MESH TRAY SHALL BE CABLOFIL, BY LEGRAND, #CF150-30 OR APPROVED EQUAL. CONTRACTOR SHALL FURNISH AND INSTALL THE REQUIRED SUPPORTS, GROUND STRAPS, FITTINGS AND CABLE MESH TRAY. CABLE MESH TRAY SHALL BE INSTALLED OVER THE CEILING AND LOCATED FOR EASY ACCESS. LOCATE CABLE MESH TRAY AS DIRECTED BY IT PERSONNEL.
11. BATTERY CHARGER NOT IN THIS CONTRACT. BATTERY CHARGER CONDUIT AND CONDUCTORS SHALL BE INSTALLED AND TERMINATED IN A JUNCTION BOX LOCATED AS SHOWN ON PLANS.
12. CONTRACTOR SHALL FURNISH AND INSTALL NEW KOHLER #KSS-AMTA-260-S (OR APPROVED EQUAL) AUTOMATIC TRANSFER SWITCH WITH GENERATOR MONITORING SYSTEM FOR FUTURE 125kW STAND-BY GENERATOR INSTALLATION. 125kW STAND-BY GENERATOR SHALL BE A FUTURE ADDITION BY OTHERS. CONTRACTOR SHALL LOCATE THE ATS IN A LOCATION +1' ABOVE THE FEMA FLOOD ELEVATION AE, EL.+11. BOTTOM OF ATS SHALL BE AT ELEVATION +12'. ATS SHALL BE INSTALLED INDOORS AND SURFACE MOUNT. VERIFY LOCATION WITH ASPA PERSONNEL PRIOR TO INSTALLATION.

REV.	DESCRIPTION	DATE	BY	CHK'D
C	REVISED PER ADDENDUM 2	08/24/22	MAD	JJM
B	ISSUED FOR BID	08/01/22	RCC	JJM

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Alabama (251) 433-1611
Georgia (706) 302-2831 Tennessee (901) 290-5444

PROJECT
TERMINAL RAILWAY
OFFICE ADDITION/RENOVATION
126 INDUSTRIAL CANAL ROAD
MOBILE, ALABAMA

TITLE
OFFICE ELECTRICAL POWER PLAN

SCALE	DRAWN BY	DATE	SHEET	REV.
AS NOTED	RCC	03/30/22	22x34 — OF —	C
JOB NO.	CHECKED BY	DATE	DRAWING NUMBER	
4146-22	JJM	06/10/22	4146-E4	

PANELBOARD SCHEDULE (277/480V 3ø, 4W)

MARK: SERVICE PANEL "MDP"

CKT #	LOAD DESCRIPTION	BREAKER P	BREAKER TRIP	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	PHASE (kVA) A	PHASE (kVA) B	PHASE (kVA) C	PHASE (kVA) A	PHASE (kVA) B	PHASE (kVA) C	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	BREAKER P	BREAKER TRIP	LOAD DESCRIPTION	CKT #
1	EXISTING MAIN PANELBOARD	3	350	500 MCM	2	4"	44.25*			–			–	–	–	–	–	SPACE	2
3								44.25*			–		–	–	–	–	–	SPACE	4
5									44.25*			–	–	–	–	–	–	SPACE	6
7	AUTO-TRANSFER SWITCH	3	225	4/0	4	2½"	25.0			–			–	–	–	–	–	SPACE	8
9								25.0			–		–	–	–	–	–	SPACE	10
11									25.0			–	–	–	–	–	–	SPACE	12
13	SPACE	–	–	–	–	–	–			–			–	–	–	–	–	SPACE	14
15	SPACE	–	–	–	–	–		–			–		–	–	–	–	–	SPACE	16
17	SPACE	–	–	–	–	–			–			–	–	–	–	–	–	SPACE	18
							69.25	69.25	69.25	–	–	–							

TOTAL (kVA) øA 69.25 øB 69.25 øC 69.25 HIGH PHASE (AMPS) 250.0

TOTAL CONNECTED LOAD (kVA) 207.75 TOTAL LOAD (AMPS) 249.9

*** – LOAD BASED ON HIGHEST APCo kWH MONTHLY BILLING FOR 2021**

PANELBOARD SCHEDULE (277/480V 3ø, 4W)

MARK: SERVICE PANEL "DP"

CKT #	LOAD DESCRIPTION	BREAKER P	BREAKER TRIP	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	PHASE (kVA) A	PHASE (kVA) B	PHASE (kVA) C	PHASE (kVA) A	PHASE (kVA) B	PHASE (kVA) C	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	BREAKER P	BREAKER TRIP	LOAD DESCRIPTION	CKT #
1	75kVA 480V–120/208V SECOND FLOOR TRANSFORMER	3	150	2/0	4	2"	25.0			–			–	–	–	–	–	SPACE	2
3								25.0			–		–	–	–	–	–	SPACE	4
5									25.0			–	–	–	–	–	–	SPACE	6
7	SPACE	–	–	–	–	–	–			–			–	–	–	–	–	SPACE	8
9	SPACE	–	–	–	–	–		–			–		–	–	–	–	–	SPACE	10
11	SPACE	–	–	–	–	–			–			–	–	–	–	–	–	SPACE	12
13	SPACE	–	–	–	–	–	–			–			–	–	–	–	–	SPACE	14
15	SPACE	–	–	–	–	–		–			–		–	–	–	–	–	SPACE	16
17	SPACE	–	–	–	–	–			–			–	–	–	–	–	–	SPACE	18
							69.25	69.25	69.25	–	–	–							

TOTAL (kVA) øA 25.00 øB 25.00 øC 25.00 HIGH PHASE (AMPS) 90.3

TOTAL CONNECTED LOAD (kVA) 75.0 TOTAL LOAD (AMPS) 90.2

PANELBOARD SCHEDULE (120/208V 3ø, 4W)

MARK: "SD"

CKT #	LOAD DESCRIPTION	BREAKER P	BREAKER TRIP	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	BREAKER P	BREAKER TRIP	LOAD DESCRIPTION	CKT #
1	RM 201–219 LIGHTING	1	20	10	12	½"	1,500			1,620			10	12	½"	1	20	RM 206–207 DATA RECEPT	2
3	RM 220–222 LIGHTING	1	20	10	12	½"		770			540		10	12	½"	1	20	RM 206 RECEPT	4
5	SPARE	1	20	–	–	–			–			720	10	12	½"	1	20	RM 207 RECEPT	6
7	SPARE	1	20	–	–	–	–			720			10	12	½"	1	20	RM 208 RECEPT	8
9	SPACE	–	–	–	–	–		–			1,440		10	12	½"	1	20	RM 204 DATA RECEPT	10
11	SPACE	–	–	–	–	–			–			900	10	12	½"	1	20	RM 204 RECEPT	12
13	SPACE	–	–	–	–	–	–			540			10	12	½"	1	20	RM 203 RECEPT	14
15	SPACE	–	–	–	–	–		–			900		10	12	½"	1	20	RM 202 RECEPT	16
17	RM 210–212 DATA RECEPT	1	20	10	12	½"			1,620			1,620	10	12	½"	1	20	RM 202/203/205 DATA RECEPT	18
19	IT QUAD RECEPT	1	20	10	12	½"	720			540			10	12	½"	1	20	RM 205 RECEPT	20
21	IT QUAD RECEPT	1	20	10	12	½"		720			540		10	12	½"	1	20	RM 209 RECEPT	22
23	COPIER RECEPT	1	20	10	12	½"			1,200			1,200	10	12	½"	1	20	RM 209 REFRIG RECEPT	24
25	RM 218 RECEPT	1	20	10	12	½"	360			180			10	12	½"	1	20	RM 209 COUNTER RECEPT	26
27	RM 201/202 DATA RECEPT	1	20	10	12	½"		1,620			1,100		10	12	½"	1	20	RM 209 MICROWAVE RECEPT	28
29	RM 201 RECEPT	1	20	10	12	½"			720			180	10	12	½"	1	20	RM 209 COUNTER RECEPT	30
31	HP–1 RECEPT	1	20	10	12	½"	360			1,200			10	12	½"	1	20	RM 209 COFFEE RECEPT	32
33	HP–1	3	50	6	10	1"		4,805			1,620		10	12	½"	1	20	RM 201/217/218 DATA RECEPT	34
35									4,805			720	10	12	½"	1	20	RM 210 RECEPT	36
37							4,805			720			10	12	½"	1	20	RM 211 RECEPT	38
39	AHU–1 – AHU–5	2	20	10	12	½"		540			720		10	12	½"	1	20	RM 212 RECEPT	40
41									–			540	10	12	½"	1	20	RM 215–216 RECEPT	42
43	SPACE	–	–	–	–	–	–						–	–	-	1	20	SPARE	44
45	SPACE	–	–	–	–	–		–					–	–	-	1	20	SPARE	46
47	SPACE	–	–	–	–	–			–				–	–	-	–	–	SPACE	48
49	SPACE	–	–	–	–	–	–						–	–	-	–	–	SPACE	50
51	SPACE	–	–	–	–	–		–					–	–	-	–	–	SPACE	52
53	GENERATOR BATTERY CHARGER	1	20	10	12	½"			840				–	–	-	–	–	SPACE	54
							7,745	8,455	9,185	5,520	6,860	5,880							

TOTAL (kVA) øA 13.265 øB 15.315 øC 15.06 HIGH PHASE (AMPS) 127.6

TOTAL CONNECTED LOAD (kVA) 43.64 TOTAL LOAD (AMPS) 121.2

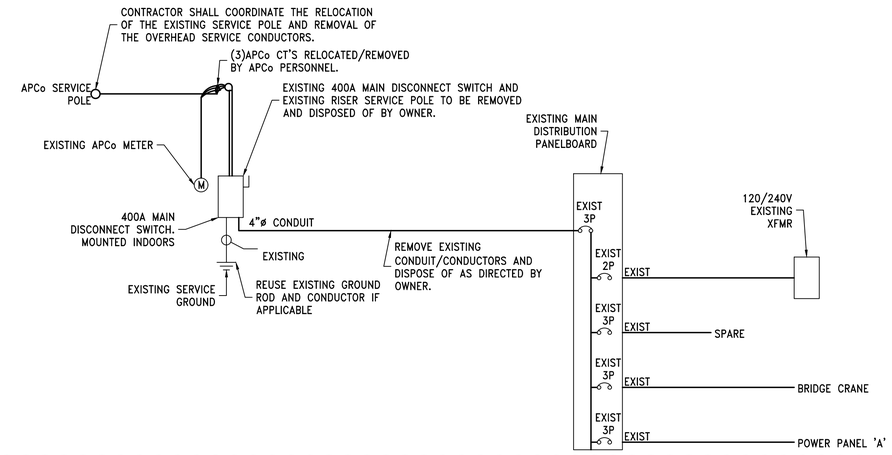
NOTES:

CONTRACTOR SHALL VERIFY WITH THE OWNER THE REQUIRED CIRCUIT BREAKERS TO BE FURNISHED WITH PANELBOARD PRIOR TO PURCHASE AND INSTALLATION.

PANELBOARD COORDINATION SCHEDULE

MARK	TYPE	MOUNTING	VOLTAGE	ø	WIRE	MAIN	SERVICE RATED	kAIC RATING	BUS RATING	NEUTRAL RATING	C/B TYPE	FEEDER CONDUCTORS	FEEDER GROUND	FEEDER CONDUIT
MDP	NEMA–12	SURFACE	480/277	3	4	MLO	YES	35	400	400	BOLT–ON	(4)600MCM	(1)#2/0	(2)5":(1–SPARE)
DP	NEMA–12	SURFACE	480/277	3	4	MLO	NO	35	250	250	BOLT–ON	(4)#4/0 AWG	(1)#4	(1)2½"
SD	NEMA–12	SURFACE	120/208	3	4	250MB	NO	18	250	250	BOLT–ON	(4)#250MCM	(1)#4	(1)3"

NOTES: ALL BUSSING COPPER, INCLUDING NEUTRAL AND GROUND.
ALL LUGS 100 AMPS AND GREATER SHALL BE COPPER.
ALL LUGS ON CIRCUIT BREAKERS GREATER THAN 400 AMPS SHALL BE COPPER.

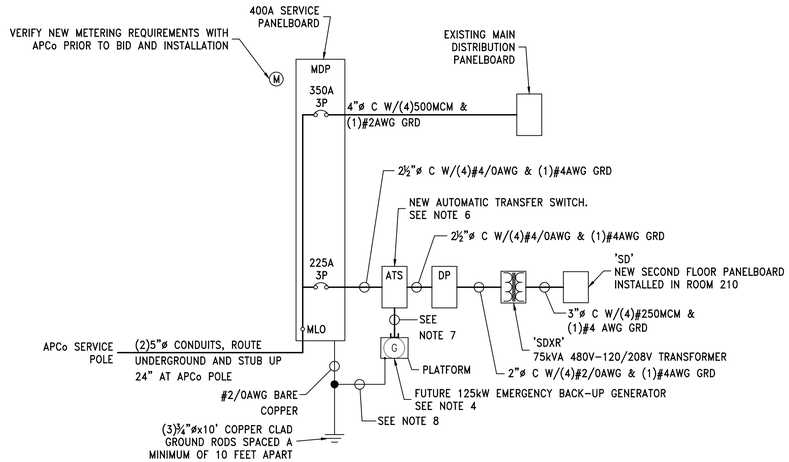


EXISTING ELECTRICAL AC RISER DIAGRAM WITH DEMO NOTES

SCALE:N.T.S.

NOTES:

1. CONTRACTOR SHALL COORDINATE THE REMOVAL OF THE EXISTING ELECTRICAL SERVICE EQUIPMENT WITH APCo/OWNER REPRESENTATIVE AND THE INSTALLATION OF THE NEW ELECTRICAL SERVICE EQUIPMENT AS TO MINIMIZE THE ELECTRICAL SERVICE OUTAGE.
2. CONTRACTOR SHALL VERIFY WITH APCo PERSONNEL THE REQUIREMENTS FOR A NEW FACILITY METERING EQUIPMENT LOCATION AND INSTALL AS PER APCo REQUIREMENTS.



NEW ELECTRICAL AC RISER DIAGRAM

SCALE:N.T.S.

NOTES:

1. CONTRACTOR SHALL COORDINATE THE REMOVAL OF THE EXISTING ELECTRICAL SERVICE EQUIPMENT WITH APCo/OWNER REPRESENTATIVE AND THE INSTALLATION OF THE NEW ELECTRICAL SERVICE EQUIPMENT AS TO MINIMIZE THE ELECTRICAL SERVICE OUTAGE.
2. CONTRACTOR SHALL VERIFY WITH APCo PERSONNEL THE REQUIREMENTS FOR A NEW FACILITY METERING EQUIPMENT LOCATION AND INSTALL AS PER APCo REQUIREMENTS.
3. CONTRACTOR SHALL VISIT THE SITE AND VERIFY THE LOCATION OF THE NEW MAIN SERVICE PANELBOARD PRIOR TO BID AND INSTALLATION.
4. STAND–BY GENERATOR NOT IN THIS CONTRACT. STAND–BY GENERATOR AND CONDUCTORS SHALL NOT BE INSTALLED UNDER THIS CONTRACT.
5. BATTERY CHARGER NOT IN THIS CONTRACT. BATTERY CHARGER CONDUIT AND CONDUCTORS SHALL BE INSTALLED AND TERMINATED IN A JUNCTION BOX LOCATED AS SHOWN ON 4146–E4.
6. CONTRACTOR SHALL FURNISH AND INSTALL NEW KOHLER #KSS–AMTA–260–S (OR APPROVED EQUAL) AUTOMATIC TRANSFER SWITCH WITH GENERATOR MONITORING SYSTEM FOR FUTURE 125kW STAND–BY GENERATOR INSTALLATION. 125kW STAND–BY GENERATOR SHALL BE A FUTURE ADDITION BY OTHERS.
7. CONTRACTOR SHALL ROUTE (1)2½"ø CONDUIT (POWER) AND (1)1½"ø CONDUIT (CONTROL/MONITORING) FROM THE ATS ENCLOSURE TO THE GENERATOR PLATFORM AND STUB–UP IN A LOCATION NEAR THE FUTURE GENERATOR CONTROL ENCLOSURE, STUB–UP 4 FOOT, CAP AND INSTALL PULL STRING FOR FUTURE USE.
8. CONTRACTOR SHALL ROUTE (1)#2 AWG BARE COPPER GROUND CONDUCTOR FROM THE NEW SERVICE GROUND CONNECTION TO THE GENERATOR PLATFORM AND SECURE TO PLATFORM STRUCTURE COLUMN WITH CADWELD DEVICE.

REV.	DESCRIPTION	DATE	BY	CHK'D
C	REVISED PER ADDENDUM 2	08/24/22	RCC	JJM
B	ISSUED FOR BID	08/01/22	RCC	JJM

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PROJECT
TERMINAL RAILWAY OFFICE ADDITION/RENOVATION
126 INDUSTRIAL CANAL ROAD
MOBILE, ALABAMA

TITLE
ELECTRICAL AC–ONE–RISER DIAGRAM

SCALE	DRAWN BY	DATE	SHEET	REV.
AS NOTED	JDG	03/30/22	– OF – (22x34)	C
JOB NO. 4146–22	CHECKED BY JJM	DATE 06/10/22	DRAWING NUMBER 4146–E5	

Z:\4100-4199\4146-ASPA TRR Office Expansion\Design\4146-E5.dwg, 8/24/2022 4:38:03 PM, DWG To PDF.pc3

SOUTHERN EARTH SCIENCES
Geotechnical | Environmental | Materials Testing

Alabama State Docks
Terminal Railway Office Expansion
126 Industrial Canal Road
Mobile, AL

Report of Subsurface Investigation and

Geotechnical Engineering Evaluation

Prepared for:
COWLES, MURPHY, GLOVER & ASSOCIATES
SESI Project No: M22-264
April 22, 2022

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www.soearth.com

April 22, 2022

COWLES, MURPHY, GLOVER & ASSOCIATES
457 St. Michael Street
Mobile, AL 36602

ATTENTION: Mr. Miles Dearing

REFERENCE: Report of Subsurface Investigation and Geotechnical Engineering Evaluation
Alabama State Docks Terminal Railway Office Expansion
126 Industrial Canal Road
Mobile, AL
SESI Project No: M22-264

Dear Mr. Dearing,

Southern Earth Sciences, Inc. (SESI) has completed the authorized scope of subsurface investigation and geotechnical engineering evaluation for the referenced project. This report presents our understanding of the available project information and outlines our soil related recommendations and comments regarding construction and foundation support for the proposed office expansion.

We appreciate this opportunity to be of service and look forward to our continued involvement throughout pile testing and construction phases of the project. Please do not hesitate to contact us if you have any questions.

Sincerely,

SOUTHERN EARTH SCIENCES, INC.

Curran Nicholas, E.I.
Geotechnical Project Manager

Matt Coaker, P.E.
Vice President
Registered, Alabama 30850

ALABAMA LICENSED No. 30835 PROFESSIONAL 4/22/22 ENGINEER ROBERT MATTHEW COAKER

CN/mc

Attachments

COWLES, MURPHY, GLOVER & ASSOCIATES

Report of Subsurface Investigation and Geotechnical Engineering Evaluation
Alabama State Docks Terminal Railway Office Expansion
Mobile, AL
SESI Project No: M22-264
April 22, 2022

SOUTHERN EARTH SCIENCES

1.0 PROJECT INFORMATION

Based on our understanding of the provided information, the project will consist of the expansion of the existing elevated, wood framed, pile supported office building structure. The expansion is approximately 1,000 ft^2 in plan area. The office expansion will be constructed on the west side of the existing office building located at 126 Industrial Canal Road in Mobile, Alabama. The project site is currently a gravel parking/drive area. We assume that final site grade beneath and adjacent to the structure will be no more than about 2 feet above existing site grade. According to Miles Dearing with Cowles, Murphy, Glover & Associates (CGL), the maximum column load is on the order of 25 kips. No detailed grading or topographic information was available for the structure at the writing of this report.

2.0 FIELD INVESTIGATION

One (1) Cone Penetrometer Test (CPT) sounding was performed within close proximity to the proposed office expansion area. Test location was selected by SES personnel using the provided site plan, reference to site features and a handheld GPS with an accuracy of ±30 feet. A Test Location Plan depicting the approximate test location is attached in **Appendix 1**.

The CPT sounding was performed in general accordance with ASTM Specification D-5778 using a 20-ton Hogentogler Electronic truck-mounted CPT rig. The CPT sounding was advanced to a depth of approximately 50 feet below the existing ground surface. Soil classifications were interpreted from methods recommended by Robertson and Campanella. Correlations between Cone Resistance values and Standard Penetration Testing "N" values were performed according to the methods developed by Robertson, Campanella and Wightman. The soil types and stratigraphy shown on the CPT Log sheet are based upon material parameters measured and evaluated as the cone is advanced. The CPT Log sheet graphically showing the cone tip resistance, friction, equivalent N60-value and interpreted soil behavior type at the sounding location is attached in **Appendix 2**.

3.0 GENERALIZED SUBSURFACE CONDITIONS

Subsurface descriptions below are generalized to highlight the major subsurface stratigraphy encountered across the site. The CPT sounding log sheet attached in **Appendix 2** presents specific information at the individual sounding location including correlated soil behavior type, equivalent SPT values and ground water level. This information is representative of conditions encountered at this test location. Variations may occur and should be expected throughout the project site. The stratification represents the approximate boundary between subsurface materials as the actual transition may be gradual.

Beneath an upper layer of gravel, soils at this site generally consist of medium dense sands to an approximate depth of about 3 feet underlain by soft to medium silt and clay to an approximate depth of 9 feet. Below about 9 feet, loose to medium dense sands were encountered to approximately 25 feet beneath the existing ground surface underlain by soft to medium silt and clay to approximately 39 feet below existing ground surface. Medium dense to dense sands were encountered below this level to termination of the investigation at approximately 50 feet below existing ground surface. Detailed descriptions of soils encountered at this test location are shown on the CPT Sounding log included in **Appendix 2**. Reference to depth has been made with respect to the existing ground surface at the time of our field investigation.

4.0 GROUNDWATER

The CPT sounding hole collapsed at a depth of approximately 5.7 feet below the existing ground surface. The CPT sounding hole caved in upon removal of the CPT rods with no free water being observed at the cave-in depth. A hole collapse often occurs at or slightly above the groundwater or saturated soil level but can also occur due to the presence of loose soils without the presence of groundwater. The shallow collapsed depths at most locations are likely the result of perched groundwater caused by the low permeability silty and clayey soils present within the upper reaches of much of this site.

Groundwater depths or elevations should be verified at the time of construction for cases where groundwater variations are potentially significant for construction. Fluctuation in the groundwater table will occur due to variances in rainfall, elevation, drainage, types of soil encountered and other factors not evident at the time measurements were made. Reference to depth has been made with respect to the existing ground surface encountered at the time of our field investigation. Groundwater levels encountered at the test location at the time of our investigation is shown on the CPT sounding Log attached in **Appendix 2.**

5.0 FOUNDATION CONSIDERATIONS AND CONCLUSIONS

Our evaluation of foundation conditions has been based on the project previously described in this report and subsurface data obtained during the investigation. In evaluating the CPT sounding, we have used empirical correlations previously established between standard penetration resistances, soil index properties and foundation stability and the characteristics for soils similar to those encountered at the referenced site. Soil parameters used in the evaluation were derived from the CPT sounding data using the interpretation software RAPID CPT® by Dataforensics.

5.1 Pile Supported Foundation

To assist in project planning and foundation design, we have developed the following table presenting recommended pile penetration depths and allowable compression and tension pile capacities from static analysis. The allowable pile capacities are based on a Factor of Safety (FOS) of 2.0 for compression and 2.5 for tension, respectively.

Piles have been designed to derive their capacity as a result of a combination of side resistance in the medium dense sands and soft to medium silts and clays in the upper 40 feet of the site and primarily in end bearing in the medium dense sands beginning at about 40 feet below ground surface. Pile foundation recommendations are provided in the following sections of this report.

TABLE 1 - TAPERED TIMBER PILE CAPACITIES

Recommended Penetration Below Existing Grade (ft)	*Tip Diameter Size (inches)*	*Allowable Axial Compressive Capacity (tons)*	*Allowable Axial Tension Capacity (tons)*
40 - 42	8	15	9
	9	17	10
	10	20	12

*Penetration depths referenced from existing ground surface at the time of investigation

We will be pleased to evaluate additional pile types/sections at your request. The pile length, sizes and capacities presented are based on soil-pile interaction and do not consider the structural aspects of the pile. *Pile penetration depths are measured from the existing ground surface and should be adjusted accordingly to ensure that the correct penetration depth is achieved*. Fill heights exceeding about 2 feet above original site elevations would result in reduced pile capacity as a result of down drag forces on the piles caused by fill induced settlement. We should be notified if more than 2 feet of fill will be placed above the original ground surface.

5.1.1 Test Pile Recommendations

We recommend a test pile program which includes installing one (1) test pile using a Pile Driving Analyzer (PDA). PDA results, in conjunction with driving resistances, can be calibrated with the driving hammer to formulate installation criteria and estimate the installed capacity of individual piles, allowing full utilization of the achieved capacity. The test pile should be installed using the same equipment configuration to be used for production pile installation in accordance with the installation procedures described above.

A tentative driving resistance should be computed using a dynamic formula such as the Wave Equation. In computing the required driving resistance, we recommend an ultimate capacity of at least two times the design capacity be used in the dynamic formula.

PDA results would be used to verify the placement procedures and that the pile section produces the desired design capacity. The test pile section, equipment, and installation procedures should be the same as those planned for use in the foundation. Since adjustments of the pile lengths or installation procedures may be made based on the test pile installation and PDA test results, we recommend the test pile program and production pile installation be performed under the direct supervision of the project geotechnical engineer of record.

5.1.2 Pile Installation Considerations

Hard driving is expected between approximately 10 to 15 feet below ground surface. Consideration should be given to the means and methods that will be required to advance piling to the recommended tip elevation. Medium dense sands were encountered above the intended bearing stratum. Jetting through these intermediate sands will help facilitate pile penetration while reducing driving effort and associated vibrations. Piles may be jetted to within 5 feet of the recommended penetration depth. Jetting should not be performed within about 5 feet of design pile tip elevation. Piles should be driven a minimum of 5 feet to final tip elevation.

5.1.3 Vibration Monitoring During Pile Driving

Infrastructure, underground utilities, and nearby structures can be damaged by vibrations and subsidence caused by vibrations during pile driving. Care should be taken by the contractor to ensure that vibrations do not impact the adjacent structure.

Due to the existing building adjacent to the site, monitoring of the ground vibration during installation of the planned foundation system may need to be considered. We offer this service and would be please to assist at your request. Thresholds of vibration induced cracking are generally site specific and depend on the type and age of the structure, the frequency of ground vibration, and the type of soil supporting the structure. Research by the U.S. Bureau of Mines (USBM) and other investigative groups have established criteria relating the occurrence of structural damage to certain frequencies and level of peak ground motion.

6.0 GENERAL COMMENTS AND LIMITATIONS

While the CPT sounding is representative of subsurface conditions at the respective locations and for its respective vertical reach, local variations characteristic of the subsurface materials of the region are anticipated and may be encountered. The delineation between soil types shown on the log is approximate and the description represents our interpretation of subsurface conditions at the designated test location and on the particular date explored.

This report has been prepared in order to aid in the evaluation of this project and to assist the engineers in the project planning and structural design. At the time of writing, changes were still being considered to foundations, site grading, and other aspects of the project that could have a significant impact on the applicability or relevance of the recommendations provided in this report. SESI should be consulted as the design process continues to ensure that the recommendations provided in this report are still applicable, and that they are being properly interpreted.

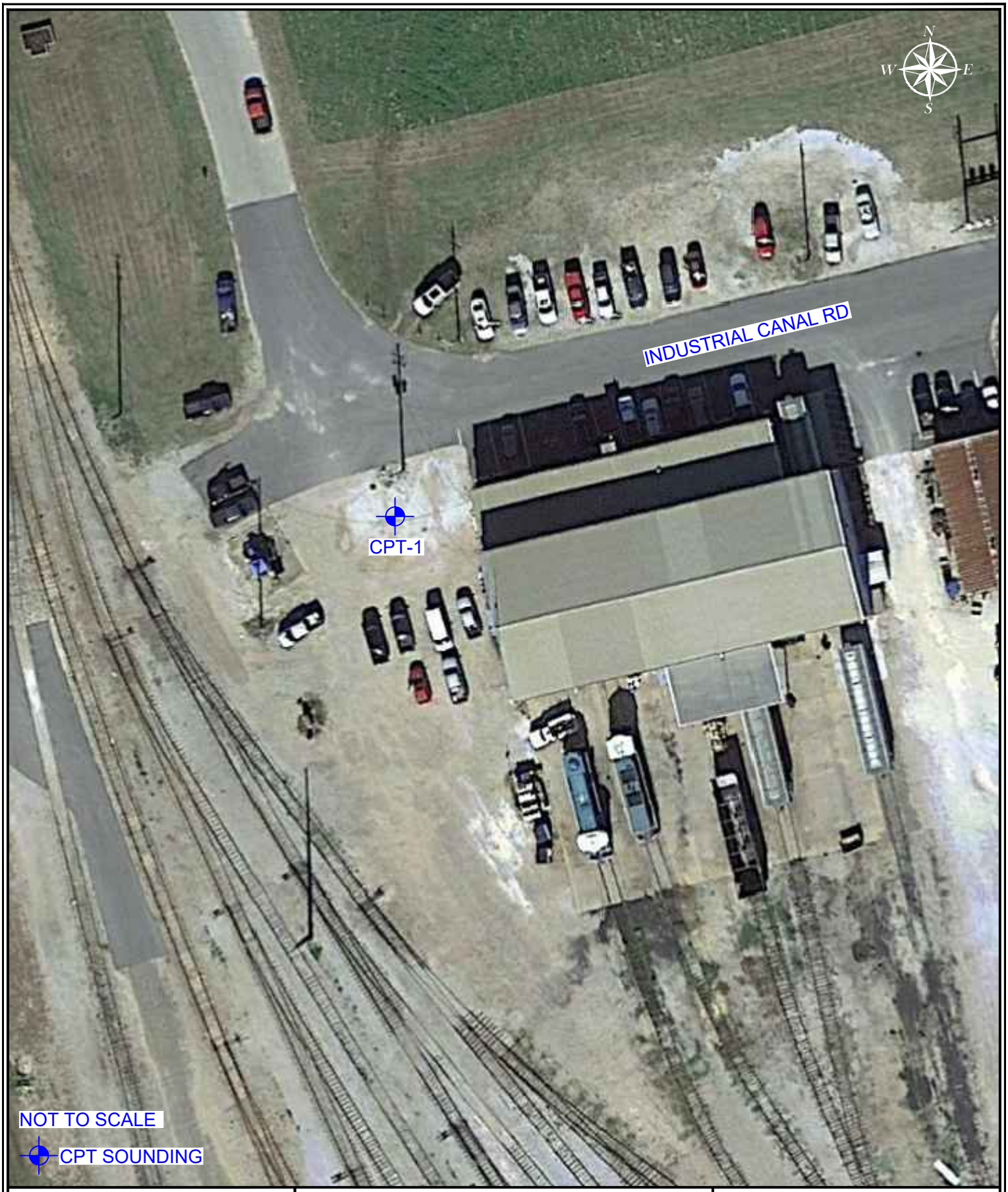
This report is intended for use with regard to the specific project discussed herein as we understand it at this time, and any substantial changes in the project, loads, locations, or assumed grades should be brought to our attention so that we may determine how such changes may affect our conclusions and recommendations. We would appreciate the opportunity to review the plans and specifications for construction to ensure that our conclusions and recommendations are interpreted correctly.

Professional judgments on design alternatives and criteria are presented in this report. These are based partly on our evaluations of technical information gathered, partly on our understanding of the characteristics of the project being planned, and partly on our general experience with subsurface conditions in the area. We do not guarantee performance of the project in any respect, only that our engineering work and judgments rendered meet the standard of care of our profession.

The Geotechnical Engineer of Record should be retained by the Owner in the construction phase of the project so they can observe subsurface conditions revealed during construction, confirm that design assumptions are still applicable or provide revised recommendations based on conditions encountered during construction, and to help ensure that our recommendations are properly interpreted. We recommend that Southern Earth Sciences, Inc. be retained to perform observation and field-testing services during the site preparation and foundation construction.

APPENDIX 1

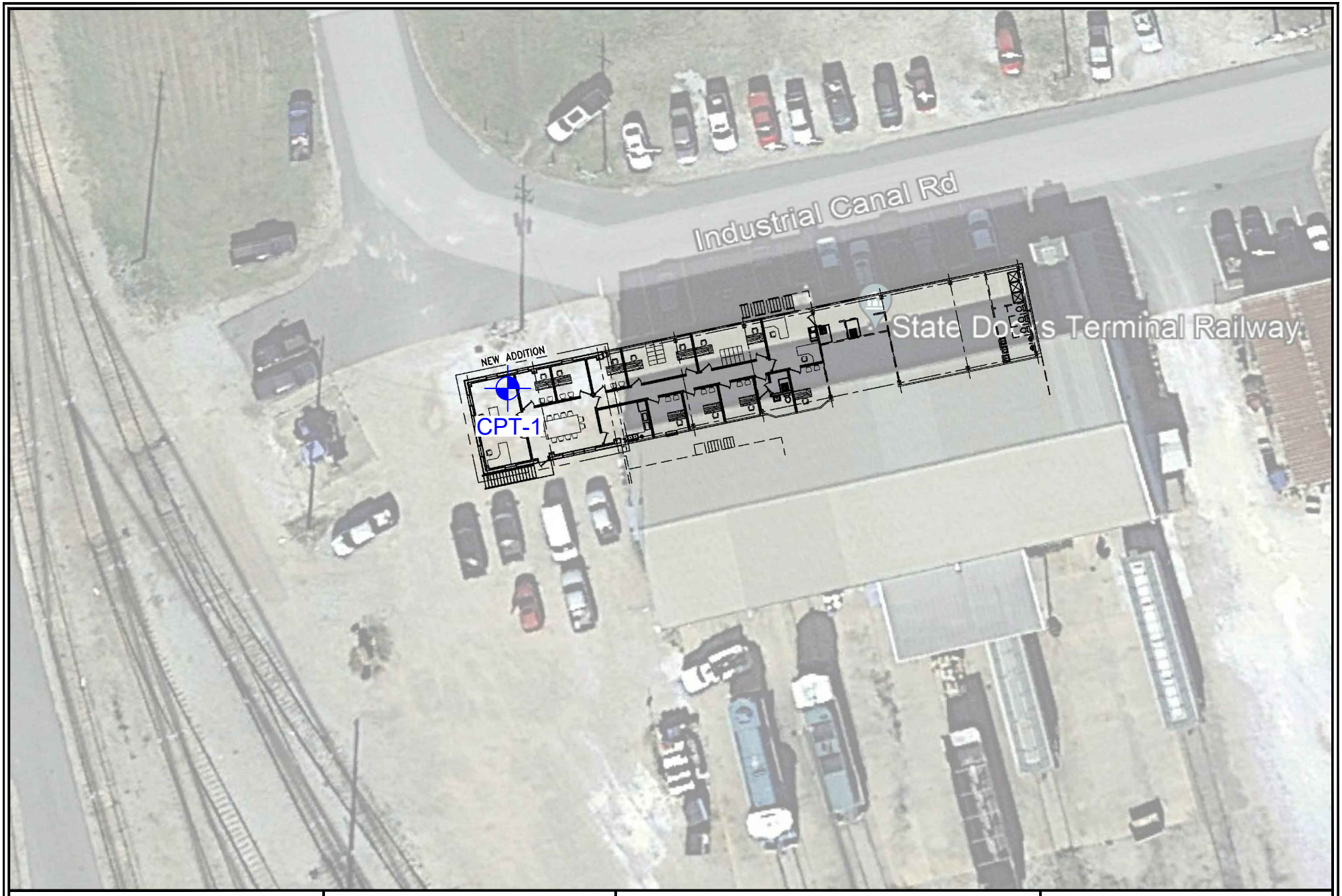
Test Location Plan



STATE DOCKS TERMINAL RAILWAY
FACILITY EXPANSION
MOBILE, AL

SOUTHERN EARTH SCIENCES
Geotechnical | Environmental | Materials Testing

TEST LOCATION PLAN
SESI JOB #: M22-264



NOT TO SCALE

CPT SOUNDING

STATE DOCKS TERMINAL RAILWAY
FACILITY EXPANSION
MOBILE, AL

SOUTHERN EARTH SCIENCES
Geotechnical | Environmental | Materials Testing

TEST LOCATION PLAN
SESI JOB #: M22-264

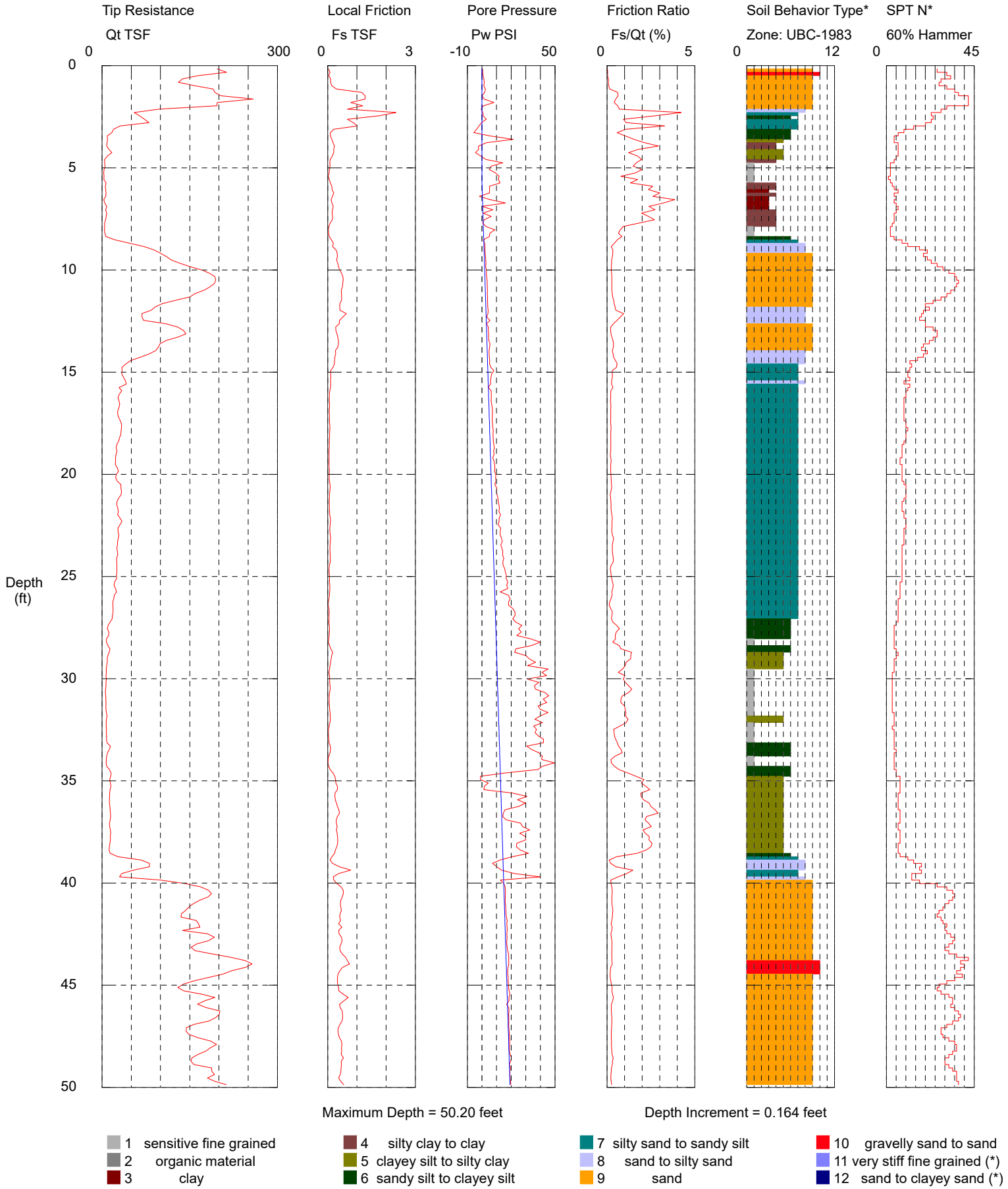
APPENDIX 2

CPT Sounding Log

Southern Earth Sciences

Operator: Brandon Green
Sounding: CPT-1
Cone Used: DDG1526
GPS Data: N30.72421 W88.05273

CPT Date/Time: 3/30/2022 2:00:50 PM
Location: S.D.T. Railway Expansion
Job Number: M22-264
Groundwater: Collapsed Dry At 5.7-ft.



Maximum Depth = 50.20 feet

Depth Increment = 0.164 feet

1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*Soil behavior type and SPT based on data from UBC-1983