

MIAMI BEACH

PUBLIC WORKS DEPARTMENT

TERMINAL ISLAND

TERMINAL ISLAND WATER BOOSTER PUMP STATION (PACKAGE A)

JUNE 2024

60% SET



3150 SW 38th Avenue
Suite 950
Miami, FL, 33146
786.497.1500
www.chenmoore.com

CITY OF MIAMI BEACH

MAYOR: STEVEN MEINER

COMMISSIONERS: KRISTEN ROSEN GONZALEZ
LAURA DOMINGUEZ
ALEX J. FERNANDEZ
TANYA K. BHATT
DAVID SUAREZ
JOSEPH MAGAZINE

INTERIM CITY MANAGER: RICKELLE WILLIAMS

ACTING CITY ATTORNEY: RICARDO J. DOPICO

PUBLIC WORKS DIRECTOR: JOE L. GÓMEZ, PE, TTCP, F. FES

CITY ENGINEER: CRISTINA ORTEGA CASTINEIRAS, P.E., ENV SP



Section 03, Township 53S, Range 42E

LOCATION MAP

SCALE: 1" = 1000'

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ENGINEER OF RECORD:

ERNESTO GARCIA,
P.E. NO. 96461

Work Order 2023-456-NA Sheet 1 of 22 Drawing G0-01 (2)

ABBREVIATIONS / ACRONYMS

DESCRIPTION	ABBREVIATIONS / ACRONYMS
ABUTTING	ABUT.
ACRES	AC
ADDITION	ADD.
ADJACENT OR ADJOINING	ADJ.
ALONG	ALG.
ALSO KNOWN AS	AKA
APPROACH	APR.
APPROACH SLAB	APR.SL.
APPROXIMATE	APPROX. or ≈
ARC LENGTH	L.
ASPHALT	ASPH.
AVENUE	AVE or AV
BACK OF CURB	BC
BACK OF SIDEWALK	BSW
BASE LINE	BL or B/L
BEGINNING	BEG.
BELL SOUTH TELECOMMUNICATIONS	BELLS
BENCH MARK	BM
BETWEEN	BETW.
BISCAYNE	BISC.
BLACK STEEL ENAMEL	BSE
BLOCK	BLK.
BOUNDARY	BDRY.
BOUNDED	BDDED.
BRIDGE	BR.
BUILDING	BLDG.
BULKHEAD	BLKHD.
BUTTERFLY VALVE	BV
CABLE TELEVISION	CATV
CANAL	CAN.
CAST IRON	CI
CAST IRON PIPE	CIP
CATCH BASIN	CB
CENTER	CTR.
CENTER LINE	CL or C/L
CHAIN LINK FENCE	CLF
CLEARANCE	CL.
CONCRETE	CONC.
CONCRETE BLOCK STRUCTURE	CBS
CONCRETE MONUMENT	CM
CONTIGUOUS	CONTIG.
CONTINUE	CONT.
CORNER	COR.
COUNTY	CTY.
COURT	CT
CURB AND GUTTER	C&G

DESCRIPTION	ABBREVIATIONS / ACRONYMS
DEGREE	DEG. or °
DIAMETER	DIA. or Ø
DIMENSION	DIM.
DISTANCE	DIST.
DOWN	DN.
DRAWING	DWG.
DRILL HOLE	DH
DRIVE	DR.
DRIVEWAY	DRWY.
DUCTILE IRON	DI
DUCTILE IRON PIPE	DIP
DUCTILE IRON PIPE SIZE	DIPS
EASEMENT	EASMT.
EAST	E.
EAST LINE	E/L
EDGE OF PAVEMENT	EOP
ELECTRICAL	ELECT.
ELECTRICAL MANHOLE	ELECTMH
ELECTRICAL PULL BOX	ELECTPB
ELEVATION	ELEV.
ENCROACHMENT	ENC.
EXISTING	EXIST.
EXPRESSWAY	EXPWY.
EXTENDED	EXTD.
EXTENDING	EXTG.
EXTENSION	EXTN.
FEDERAL	FED.
FEET	FT or '
FIRE HYDRANT	FH
FLORIDA EAST COAST RAILROAD	FEC.RR.
FLORIDA POWER & LIGHT	FPL
FLOW LINE	FL
FORCE MAIN	FM
FORMERLY KNOWN AS	FKA
FOUND	FD.
FOUND IRON PIPE	FD. IP
GARDEN	GDN.
GAS LINE	GASLN
GATE VALVE	GV
GOVERNMENT	GOVT.
HIGH DENSITY POLYETHYLENE	HDPE
HIGH WATER LINE	HWL
HIGHWAY	HWY.
HOMEUSE CONNECTION	HC
HORIZONTAL	HORIZ.
INTEREST	INT.

DESCRIPTION	ABBREVIATIONS / ACRONYMS
INVERT	INV.
IRON PIPE	IP
ISLAND	ISL.
LANE	LN
LATERAL	LAT.
LEFT	LT.
LINE	LN
LIGHT	LT
LYING	LYG.
MANHOLE	MH
MAXIMUM	MAX.
MEANDERING	MEAND.
MECHANICAL JOINT	MJ
MINIMUM	MIN.
MINUTES	MINT
MORE OR LESS	M/L
NAIL & DISC	N&D
NAIL & WASHER	N&W
NON REINFORCED CONCRETE PIPE	NRCP
NON RISING STEM	NRS
NORTH	N.
NORTH LINE	N/L
NOW ASSESSED WITH	N/A/W
OUTSIDE DIAMETER	OD
PARALLEL	PAR.
PARK	PK
PARKWAY	PKWY.
PAVEMENT	PAVT.
PLAIN END	PLE
POINT	PT
POINT OF BEGINNING	POB
POINT OF COMMENCE	POC
POINT OF COMPUND CURVATURE	PCC
POINT OF CURVATURE	PC
POINT OF INSERTION	PI
POINT OF REVERSE CURVATURE	PRC
POINT OF TANGENCY	PT
POLYVINYL CHLORIDE	PVC
PORTION	PORT.
POWER POLE	PP
PROPERTY LINE	PL or P/L
PROPOSED	PROP.
PULL BOX	PB
RADIUS	R.
RAILROAD	R.R.
REDUCER	RED.

DESCRIPTION	ABBREVIATIONS / ACRONYMS
REFERENCE	REF.
REINFORCED CONCRETE PIPE	RCP
REVISED	REV.
RIGHT	RT.
RIGHT ANGLES	R/A
RIGHT OF WAY	ROW or R/W
RIGHT OF WAY LINE	R/W/L
RIM ELEVATION	RIM
RIPARIAN RIGHTS	RIP. RTS.
ROAD	RD
SANITARY	SN or SAN.
SANITARY LINE	SNLN
SANITARY MANHOLE	SNMH
SECTION	SECT.
SERVICE	SERV.
SANITARY SEWER	SS
SIDEWALK	SWK.
SLAB	SL.
SOUTH	S.
SOUTH LINE	S/L
SOUTHERN BELL TELEPHONE	SBT
STATE ROAD	SR
STATION	STA.
STORM	ST
STORMWATER SEWER	STS
STORMWATER LINE	STLN
STORMWATER MANHOLE	STMH
STREET	ST.
STREET LIGHT	ST.LT.
SUBAQUEOUS	SUBAQ.
SUBDIVISION	SUBD.
TELEPHONE	TEL.
TELEPHONE MANHOLE	TELMH
TELEPHONE PULL BOX	TELPB
TEMPORARY	TEMP.
TEMPORARY BENCH MARK	TBM
TERRACE	TER. or TR
TERRACOTA	TC
TOP OF CURB	TOC
TOP OF PIPE	TOP
TRACT	TRT
TR-FLEX	TR-FLEX
TYPICAL	TYP.
VERTICAL	VERT.
VISUAL VERIFICATION HOLE	VVH
WATER	W.

[illegible]

<u>SYMBOLS</u>	
	AIR CONDITIONING UNIT
	BACKFLOW PREVENTER
	BIKE RACK
	BOLLARD
	BUS BENCH
	CATCH BASIN TYPE "D"
	CATCH BASIN TYPE "DC"
	CATCH BASIN TYPE "F"
	CENTER LINE
	CLEAN OUT
	COMMUNICATION BOX
	DRAIN
	ELECTRICAL BOX
	ELECTRICAL MANHOLE
	ELECTRICAL METER
	ELECTRICAL OUTLET
x 00.00	EXISTING ELEVATION
<	FIRE DEPARTMENT CONNECTION
	FIRE HYDRANT
	FLAG POLE
	FLOOD LIGHT
	FORCE MAIN VALVE BOX
	GAS MANHOLE
	GAS METER
	GAS VALVE
	GUY WIRE AND ANCHOR
	HEDGE
	IRRIGATION VALVE
	LAMP, MAST ARM
	LIGHT POLE
	MAILBOX
	MONITORING WELL
	NORTH ORIENTATION
	PALM TREE
	PARKING METER
	PEDESTRIAN SIGNAL
	PINE TREE
	POST
	POWER POLE
	POWER AND TELEPHONE POLE
	SANITARY SEWER MANHOLE
	SANITARY VALVE
	SERVICE BOX
	SIGN
	SIGNAL CONTROL PANEL
	STANDING PIPE
	STORM DRAINAGE MANHOLE
	TELEPHONE BOX
	TELEPHONE MANHOLE
	TELEPHONE POLE
	TRAFFIC SIGNAL, MAST ARM
	TRASH CAN
	TREE
	WATER METER BOX
	WATER VALVE
	WATER VALVE BOX
	WIRING BOX
	WOOD POWER POLE

LEGEND

LINE TYPES		HATCHES	
	BURIED ELECTRIC		EXISTING BURIED ELECTRIC
	RIGHT OF WAY		EXISTING ELECTRIC METER
	CENTER LINE		EXISTING PIPE (20"Ø AND LARGER)
	PROPERTY LINE		EXISTING WATER METER AND SERVICE LATERAL
	EXISTING OVERHEAD WIRES		EXISTING TREE LINE
	EXISTING HEDGE LINE		EXISTING WATER'S EDGE
	EXISTING WATER MAIN		
	EXISTING SANITARY SEWER		EXISTING CONCRETE
	EXISTING STORM DRAINAGE		EXISTING ASPHALT
	EXISTING SANITARY SEWER FORCE MAIN		EXISTING BRICK PAVEMENT
	ABANDONED SANITARY SEWER FORCE MAIN		EXISTING RIP RAP ROCK
	EXISTING GAS LINE		
	EXISTING COMMUNICATION LINE		
	EXISTING WATER SERVICE		
	FENCE		
	PROPOSED FENCE		
			PROPOSED CONCRETE (REFER TO STRUCTURAL PLANS)

<div>MIAMI BEACH</div> <div>PUBLIC WORKS DEPARTMENT</div> <div>1700 CONVENTION CENTER DRIVE, MIAMI BEACH, FL.33139</div>	CITY MANAGER: ALINA T. HUDAK	5				<div>cma</div> <div>chen moore and associates</div> <div>3150 SW 38th Avenue</div> <div>Suite 950</div> <div>Miami, FL 33146</div> <div>786.497.1500</div> <div>www.chenmoore.com</div>	ENGINEER OF RECORD:	ENGINEER OF RECORD: <u>EG</u>	PROJECT NAME: TERMINAL ISLAND WATER BOOSTER PUMP STATION (PACKAGE A)	File Name: 20241267-CS-COVER SHEET.DWG			
	DIRECTOR: JOE L. GÓMEZ, PE, TTCP, F. FES	4						DESIGN ENGINEER: <u>EG</u>			Survey Reference:		
	CITY ENGINEER: CRISTINA ORTEGA CASTINEIRAS, P.E.	3							DRAWN BY: <u>AV</u>	Field Book: _____	Page: _____	Work Order: <u>2024-1267-NA</u>	
		2							CHECKER: <u>EG</u>	DRAWING TITLE: LEGEND	Date: <u>04/08/24</u>	Sheet: <u>2</u> of <u>22</u>	Drawing: <u>G0-02 (2)</u>
		1							SCALE: <u>AS NOTED</u>				
		NO. DATE REVISION APP'D. BY											

GENERAL NOTES:

1.

ALL APPLICABLE PERMITS MUST BE OBTAINED PRIOR TO COMMENCEMENT OF CONSTRUCTION.

2.

CONTRACTOR MUST CALL CITY OF MIAMI BEACH, PUBLIC WORKS DEPARTMENT TO OBTAIN A RIGHT OF WAY PERMIT. CONTRACTOR MUST ARRANGE A PRE-CONSTRUCTION MEETING 48 HOURS PRIOR TO START OF CONSTRUCTION.

3.

ALL MATERIALS AND CONSTRUCTION UNDER THIS PROJECT SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND THE CITY OF MIAMI BEACH PUBLIC WORKS MANUAL.

4.

THE CONTRACTOR SHALL MAINTAIN A CURRENT APPROVED SET OF CONSTRUCTION PLANS ON SITE. THE PLANS ARE TO BE MADE AVAILABLE TO THE ENGINEERING INSPECTOR OF THE CITY OF MIAMI BEACH OR HIS DESIGNEE UPON REQUEST.

5.

NO DEVIATION FROM APPROVED PLANS SHALL BE PERMITTED WITHOUT THE WRITTEN CONSENT OF THE CITY OF MIAMI BEACH DEPARTMENT OF PUBLIC WORKS OR ENGINEER OF RECORD.

6.

TOPOGRAPHIC INFORMATION SHOWN ON THE PLANS WERE BASED ON THE SURVEY BY LONGITUDE SURVEYORS, DATED 08/04/2023, PROJECT ID: 23141.0.01 ELEVATIONS REFER TO NAVD 88, BASED ON THE FOLLOWING DESCRIBED BENCHMARK(S):

BENCHMARK: M-313
LOCATED 1:
LOCATED 2:
DESCRIPTION:
VENDOME, &

ELEVATION: +2.94' (N.A.V.D.'88)
RUE VENDOME --- 32' EAST OF EAST CURB
NORMANDY DRIVE --- 51' SOUTH OF SOUTH CURB
TRIANGLE FORMED BY INTERSECTION OF 71 ST, RUE
NORMANDY DRIVE

BENCHMARK: L-313-R
LOCATED 1:
LOCATED 2:
DESCRIPTION:
ABUTMENT OF

ELEVATION: +10.20' (N.A.V.D.'88)
INDIAN CREEK --- 7.4' NORTH OF NORTH CURB OF BRIDGE
COLLINS AVE --- 0.4 MILE WEST OF
US C & G BRASS DISC IN TOP OF NORTH END OF EAST
BRIDGE

7.

EXISTING BENCHMARKS LOCATED WITHIN THE LIMITS OF CONSTRUCTION SHALL NOT BE DISTURBED. IN THE EVENT THAT THE BENCHMARKS ARE DISTURBED OR DESTROYED, THEY SHALL BE REPLACED UPON COMPLETION OF THE PROJECT.

8.

THE CONTRACTOR SHALL PROVIDE ACCESS AND ASSISTANCE TO CITY OF MIAMI BEACH INSPECTORS, ENGINEER OF RECORD, OR HIS DESIGNEE TO MAKE INSPECTIONS AS NECESSARY DURING CONSTRUCTION.

9.

ENGINEERING PERSONNEL WILL INSPECT ALL FACILITIES IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS. ALL PERMITTING REQUIREMENTS SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION.

10.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING NECESSARY MEASURES TO PROTECT THE HEALTH, SAFETY, AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.

11.

INFORMATION SHOWN ON THE DRAWINGS AS TO THEIR LOCATION AND CHARACTER HAS BEEN PREPARED FROM THE MOST RELIABLE DATA AVAILABLE TO THE ENGINEER. THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED. THE ENGINEER IS NOT LIABLE FOR ANY UTILITY CONFLICTS AND UNKNOWNNS THAT ARE DISCOVERED DURING CONSTRUCTION.

12.

THE CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA, INC. DBA SUNSHINE 811 TWO (2) BUSINESS DAYS PRIOR TO ANY EXCAVATION TO DETERMINE UNDERGROUND UTILITY LOCATIONS AND THE LOCATIONS OF RECENT ADDITIONS TO THE SYSTEMS NOT SHOWN. CONTRACTOR MUST VERIFY RECEIPT OF RESPONSES FROM ALL SUNSHINE 811 UTILITY OWNERS, PRIOR TO EXCAVATION.

13.

EXTREME CAUTION SHALL BE EXERCISED BY THE CONTRACTOR TO ELIMINATE ANY POSSIBILITY OF DAMAGE TO UTILITIES DURING CONSTRUCTION. THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AS SHOWN ON THE APPROVED PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE CITY OF MIAMI BEACH PUBLIC WORKS DEPARTMENT OF ANY DISCREPANCY OR VARIATION FROM THE APPROVED DRAWINGS OR POTENTIAL CONFLICT THAT MIGHT OCCUR SO THE ENGINEER OF RECORD OR HIS DESIGNEE SHALL CAN MAKE THE APPROPRIATE DESIGN CHANGES.

14.

THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED UTILITIES AND PROVIDE PROTECTION FROM DAMAGE, DISRUPTION OF SERVICE, OR DESTRUCTION.

15.

ANY DAMAGED PUBLIC OR PRIVATE PROPERTY BY THE CONTRACTOR SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER AT NO EXPENSE TO THE PRIVATE PROPERTY OWNER OR THE CITY.

16.

ALL EXISTING GRASSED AREAS DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE SOODED COMPLETELY TO RESTORE TO PRE-EXISTING CONDITIONS OR BETTER AND SHALL BE APPROVED BY THE CONSTRUCTION MANAGER AT NO ADDITIONAL COST TO THE OWNER OR THE CITY.

17.

WHERE PAVEMENT DEMOLITION IS REQUIRED, THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION TO PROTECT AND PREVENT DAMAGE TO ADJACENT STRUCTURES AND PAVEMENTS TO REMAIN. LIMITS OF PAVEMENT DEMOLITION SHALL BE PERFORMED IN A NEAT, STRAIGHT LINE BY SAW CUTTING.

18.

ALL EXISTING UTILITIES, MANHOLE COVERS, ELECTRICAL BOXES, VALVE BOXES, METER BOXES, DRAINAGE STRUCTURES, ETC. WITHIN PROPOSED AREAS OF IMPROVEMENTS SHALL BE ADJUSTED TO GRADE ELEVATION, UNLESS OTHERWISE NOTED.

19.

CONTRACTOR SHALL REPLACE ALL UTILITY BOXES/COVERS DAMAGED DURING CONSTRUCTION. CONTRACTOR SHALL NOTE THE CONDITION OF WATER METER BOXES BEFORE STARTING WORK. CONTRACTOR SHALL CONTACT THE CITY OF MIAMI BEACH PUBLIC WORKS DEPARTMENT TO INSPECT METERS AND BOXES AHEAD OF CONSTRUCTION TO DETERMINE WHETHER REPLACEMENT IS NECESSARY. ALL WATER METER BOXES DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH CITY ISSUED WATER METER BOXES AND PAID FOR BY CONTRACTOR.

20.

CONTRACTOR SHALL EXERCISE CARE WHEN WORKING NEAR EXISTING CLAY PIPING.

21.

PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COMPLY WITH FLORIDA STATUTE 553.851 FOR THE PROTECTION OF UNDERGROUND GAS LINES.

22.

CONTRACTOR SHALL USE AN APPROVED STREET SWEEPER AND WATER TRUCK OR OTHER APPROVED EQUIPMENT CAPABLE OF CONTROLLING AND REMOVING DUST.

23.

CONTRACTOR SHALL PROTECT MATERIALS AND EQUIPMENT ON SITE FROM WEATHER, DUST, AND DEBRIS AT ALL TIMES, AND AVOID THE CREATION OF NUISANCE OR HAZARD IN THE SURROUNDING AREA.

24.

ALL CONSTRUCTION DEBRIS SHALL BE PROPERLY DISPOSED OF OFFSITE AT THE CONTRACTOR'S EXPENSE.

25.

ADJUSTMENT AND CLEANING: CLEAN DEBRIS FROM AREAS OF DEMOLITION LEAVING AREA SUITABLE FOR WORK.

26.

MATERIALS RESULTING FROM DEMOLITION WORK SHALL BECOME THE PROPERTY OF THE CONTRACTOR. REMOVE FROM SITE AND DISPOSE OF THESE MATERIALS IN A MANNER AND LOCATION APPROVED BY CITY AND MIAMI-DADE COUNTY REGULATIONS.

27.

ALL DEFECTIVE WORK NOT ACCEPTED BY THE CITY OF MIAMI BEACH OR BY ANY GOVERNMENT PERMITTING AGENCY SHALL BE IMMEDIATELY REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

28.

WORK PERFORMED UNDER THIS PROJECT WILL NOT BE CONSIDERED COMPLETE UNTIL ALL REQUIRED CLOSEOUT DOCUMENTATION HAS BEEN SUBMITTED AS REQUIRED BY THE CONTRACT DOCUMENTS AND CITY OF MIAMI BEACH PUBLIC WORKS DEPARTMENT. AS PART OF CLOSEOUT, AS-BUILT DRAWINGS IN ACCORDANCE WITH CITY OF MIAMI BEACH PUBLIC WORKS MANUAL SECTION 8 SHALL BE PROVIDED.

29.

ERECTION OR INSTALLATION OF APPROPRIATE SAFETY AND WARNING DEVICES SHALL BE REQUIRED DURING THE COURSE OF CONSTRUCTION. CONTRACTOR SHALL PROVIDE MAINTENANCE OF TRAFFIC DURING CONSTRUCTION IN ACCORDANCE WITH ALL CITY, COUNTY, AND STATE, REQUIREMENTS.

30.

MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH CURRENT FDOT STANDARD INDEXES (102-600 SERIES), THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS," AND ALL OTHER CITY, COUNTY, AND STATE REQUIREMENTS.

32.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) BEST MANAGEMENT PRACTICES (BMP) FOR SEDIMENTATION AND EROSION WORK MUST BE STRICTLY FOLLOWED DURING AND AFTER CONSTRUCTION.

33.

TRENCH EXCAVATIONS IN EXCESS OF 5 FEET DEEP SHALL COMPLY WITH THE TRENCH SAFETY ACT AS PER O.S.H.A. STANDARD 29 CFR 1926.650 SUBPART P IN STATUTES. THE TRENCHES AND DITCHES SHALL BE PROTECTED IN ACCORDANCE WITH RULE 38c-43.02 FAC AND 6A-1.095(2).

34.

DUE TO SOIL CONDITIONS, HIGH WATER TABLE AND PROTECTION OF ROADWAY, UTILITIES AND EXISTING LANDSCAPING, SHORING MAY BE REQUIRED FOR TRENCH AND STRUCTURE CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE A SHORING SUBMITTAL WITH SIGNED AND SEALED CALCULATIONS FROM A FLORIDA LICENSED PROFESSIONAL ENGINEER TO THE CITY FOR REVIEW AND COMMENT AT THE PRECONSTRUCTION MEETING. THE COST OF SHORING WILL BE INCLUDED IN THE OVERALL PROJECT COST. DEWATERING MAY BE REQUIRED AND SHALL BE INCLUDED IN THE OVERALL PROJECT COST.

35.

WHEN POWER POLES ARE ADJACENT TO ANY PROPOSED UTILITY, THE CONTRACTOR SHALL PROVIDE PROPER SHORING OR OTHER SUITABLE SUPPORT DURING CONSTRUCTION. THE SHORING AND SUPPORT METHODS SHALL BE APPROVED BY THE UTILITY COMPANY ENGINEERING DEPARTMENT. THE COST OF SHORING WILL BE INCLUDED IN THE OVERALL PROJECT COST.

36.

PLANS AND SPECIFICATIONS REQUIRE THAT COMPACTED BACKFILL BE PLACED ALONGSIDE OF AND OVER ALL UTILITIES. THE CITY REQUIRES THAT COMPACTION TESTS BE TAKEN TO VERIFY BACKFILL COMPACTION. THE COST OF SUCH COMPACTION TESTS WILL BE BORNE BY THE CITY. IF RESULTS OF TESTS TAKEN DURING THE PROGRESS OF THE WORK INDICATE COMPACTED MATERIALS DO NOT MEET SPECIFIED REQUIREMENTS, SUCH DEFECTIVE WORK WILL BE REMOVED, REPLACED, AND RE-TESTED AS DIRECTED BY THE ENGINEER AND AT THE CONTRACTOR'S SOLE EXPENSE.

37.

ALL DUCTILE IRON PIPE SHALL CONFORM TO THE MINIMUM THICKNESS CLASS SPECIFIED IN THE CITY OF MIAMI BEACH PUBLIC WORKS MANUAL AND SHALL BE ZINC COATED POLYWRAPPED IN ACCORDANCE WITH AWWA C105 AND THE CITY OF MIAMI BEACH PUBLIC WORKS MANUAL STANDARD DETAILS.

38.

ALL PIPES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF MIAMI BEACH PUBLIC WORKS MANUAL SPECIFICATION REQUIREMENTS.

39.

A CONCRETE SLAB SHALL BE INSTALLED OVER ANY PIPE INSTALLED WITH LESS THAN 30" OF COVER AS PER CITY OF MIAMI BEACH PUBLIC WORKS MANUAL STANDARD DETAILS.

40.

PROVIDE PIPING AND RESTRAINTS IN ACCORDANCE WITH CITY OF MIAMI BEACH PUBLIC WORKS MANUAL SPECIFICATION REQUIREMENTS.

41.

THRUST BLOCK NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY THE CITY OF MIAMI BEACH PUBLIC WORKS DEPARTMENT IN WRITING. USE MEGALUGS OR CLASS 316 STAINLESS STEEL RESTRAINING RODS.

42.

ALL RELATED HARDWARE FOR RESTRAINING RODS TO BE CLASS 316STAINLESS STEEL.

43.

CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING UNINTERRUPTED SEWER SERVICE DURING THE CONSTRUCTION OF THE TIE-IN CONNECTION OF ALL PROPOSED WATER SYSTEMS TO ANY EXISTING WATER SERVICE LINES. ABANDONMENT SHALL NOT OCCUR UNTIL THE PROPOSED WORK HAS BEEN APPROVED AND ACCEPTED FOR OPERATION BY THE ENGINEER OF RECORD AND THE CITY OF MIAMI BEACH PUBLIC WORKS DEPARTMENT, INFRASTRUCTURE DIVISION. CONTRACTOR SHALL REQUEST FROM CITY OF MIAMI BEACH 48 HOURS PRIOR FOR WATER MAIN SHUTDOWN.

44.

PRIOR TO THE SHUTDOWN FOR TIE IN OF ANY SEWER, FIRE, SEWER, OR STORMWATER MAINS, THE CITY SHALL PERFORM AN ONSITE INSPECTION TO VERIFY: 1) SIZE OF PIPE AND 2) MATERIALS ONSITE. IF THIS INSPECTION DOES NOT OCCUR OR PARTS ARE MISSING, THE SHUTDOWN WILL BE CANCELED. THE CITY CAN, AT ANY TIME, CANCEL SCHEDULED SHUTDOWNS DUE TO INCLEMENT WEATHER EVENTS AND/OR SPECIAL EVENTS.

45.

FOR SEWER, TAPPING SLEEVE VALVE TO BE PRESSURE TESTED AT 100 PSI FOR TWO (2) HOURS BEFORE TAPPING.

46.

ALL TAPS MUST BE WITNESSED BY THE CITY. SIZE-ON-SIZE TAPS ARE NOT ALLOWED UNLESS APPROVED BY THE CITY OF MIAMI BEACH PUBLIC WORKS DEPARTMENT IN WRITING.

47.

CITY TO OPERATE ALL EXISTING VALVES. VALVES BETWEEN EXISTING AND NEW WORK SHALL BE OPERATED BY CITY PERSONNEL. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR'S PERSONNEL OPERATE ANY SUCH VALVE.

48.

THE CONTRACTOR SHALL BE GOVERNED BY THE LATEST APPLICABLE PORTIONS OF THE F.D.O.T. STANDARDS PLANS, AND THE F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND SUPPLEMENTS THERE TO IF NOTED IN THE SPECIAL PROVISIONS FOR THIS PROJECT.

49.

FOR THE COLOR OF THE DETECTABLE WARNINGS ON CONCRETE OF COLORS OTHER THAN MIAMI BEACH RED, COORDINATE WITH THE PUBLIC WORKS DEPARTMENT FOR APPROPRIATE COLOR AND CONTRAST.

50.

ALL SIGNING AND PAVEMENT MARKINGS INSTALLED AS PART OF THESE PLANS SHALL CONFORM TO THE LATEST EDITION OF THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD PLANS. ALL SIGN PANELS SHALL BE FABRICATED TO COMPLY WITH THE LATEST EDITION OF THE FEDERAL HIGHWAY AND ADMINISTRATION STANDARD HIGHWAY SIGNS.

51.

MATCH EXISTING PAVEMENT MARKINGS AT THE BEGINNING AND THE END OF THE PROJECT WITHOUT JOGS OR OFFSETS.

52.

INCORRECTLY PLACED (THERMOPLASTIC OR) PAINT MARKINGS OVER ASPHALT PAVEMENT WILL BE REMOVED BY MILLING AND REPLACING THE ASPHALT PAVEMENT A MINIMUM WIDTH 18 INCHES AT THE CONTRACTOR'S EXPENSE. THE ENGINEER MAY APPROVE AN ALTERNATE METHOD IF IT CAN BE DEMONSTRATED TO COMPLETELY REMOVE THE MARKINGS WITHOUT DAMAGING THE ASPHALT.

53.

PRESSURIZED PIPE SHALL HAVE AUTOMATIC AIR RELEASE VALVES ON ALL HIGH POINTS.

GENERAL NOTES

1.

ALL DEVIATIONS FROM PLANS ARE TO BE APPROVED IN WRITING PRIOR TO CONSTRUCTION AND FOR ALL INSPECTIONS AND TESTING.

2.

THE WORDS 'NEW', 'PROPOSED', 'INSTALL', 'PROVIDE', OR WORDS WITH SIMILAR MEANINGS, ON ANY PART OF THESE CONSTRUCTION DOCUMENTS, SHALL BE INTERPRETED, UNLESS OTHERWISE SPECIFICALLY STATED, TO MEAN FURNISHING AND INSTALL COMPLETE IN PLACE AND READY FOR SERVICE.

3.

EXISTING UTILITIES AND SITE CONDITIONS WERE TAKEN FROM THE BEST AVAILABLE DATA AND MAY NOT ACCURATELY REFLECT PRESENT CONDITIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH CURRENT SITE CONDITIONS, AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO STARTING WORK.

4.

IT IS THE INTENT OF THESE PLANS TO BE IN ACCORDANCE WITH APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION. ANY DISCREPANCIES BETWEEN THESE PLANS AND APPLICABLE CODES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.

5.

ALL EXCAVATED MATERIAL REMOVED FROM THIS PROJECT SHALL BE DISPOSED OF PROPERLY BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

6.

TEMPORARY PATCH MATERIAL MUST BE ON THE JOB SITE WHENEVER PAVEMENT IS CUT.

APPLICABLE CODES

1. GENERAL
ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF CITY OF MIAMI BEACH, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP), ENVIRONMENTAL PROTECTION AGENCY (EPA), AND ALL OTHER LOCAL AND NATIONAL CODES WHERE APPLICABLE.

2. CONSTRUCTION SAFETY
ALL CONSTRUCTION SHALL BE PERFORMED IN A SAFE MANNER. SPECIFICALLY, THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL BE STRICTLY OBSERVED.

3. TRENCH SAFETY ACT
A. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLIANCE WITH THE STATE OF FLORIDA TRENCH SAFETY ACT.
B. WHERE EXCAVATIONS TO A DEPTH IN EXCESS OF FIVE FEET (5') ARE REQUIRED, THE CONTRACTOR SHALL INCLUDE THE FOLLOWING INFORMATION IN THE BID:
1) A REFERENCE TO THE TRENCH SAFETY STANDARDS THAT WILL BE IN EFFECT DURING THE PERIOD OF CONSTRUCTION OF THE PROJECT.
2) WRITTEN ASSURANCES BY THE CONTRACTOR PERFORMING THE TRENCH EXCAVATION THAT SUCH CONTRACTOR WILL COMPLY WITH THE APPLICABLE TRENCH SAFETY STANDARDS.
3) A SEPARATE ITEM IDENTIFYING THE COST OF COMPLIANCE WITH THE APPLICABLE TRENCH SAFETY STANDARDS.
C. WHEN A BID IS NOT SUBMITTED, THE CONTRACTOR SHALL SUBMIT THE INFORMATION LISTED IN ITEM 2 TO THE ENGINEER PRIOR TO STARTING WORK.

5. GEOTECHNICAL DATA WERE PREPARED BY PANGEO CONSULTANTS, PROJECT NO. N/A, DATED 08/17/2023.

PRECONSTRUCTION RESPONSIBILITIES

1. UPON RECEIPT OF NOTICE OF AWARD AND AFTER OBTAINING AN ENGINEERING CONSTRUCTION PERMIT FROM THE COUNTY, THE CONTRACTOR SHALL ARRANGE A PRECONSTRUCTION CONFERENCE TO INCLUDE THE OWNER, APPLICABLE UTILITY REPRESENTATIVES AND APPLICABLE REGULATORY AGENCY REPRESENTATIVES, AND THE ENGINEER OF RECORD.

2. THE CONTRACTOR SHALL OBTAIN A "SUNSHINE ONE CALL" CERTIFICATION NUMBER AND NOTIFY THE UTILITIES DEPARTMENT AT LEAST 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION.

4. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, ELEVATION, AND MATERIAL OF ALL EXISTING UTILITIES WITHIN THE AREA OF CONSTRUCTION.

4. EXISTING UTILITY LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING UTILITIES SHOWN OR FOR ANY EXISTING UTILITIES NOT SHOWN.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING UTILITIES FOR WHICH IT FAILS TO REQUEST LOCATIONS FROM THE UTILITY OWNER. THE CONTRACTOR IS RESPONSIBLE AS WELL FOR DAMAGE TO ANY EXISTING UTILITIES WHICH ARE PROPERLY LOCATED.

6. IF UPON EXCAVATION, AN EXISTING UTILITY IS FOUND TO BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION OR TO BE OF A SIZE OR MATERIAL DIFFERENT FROM THAT SHOWN ON THE PLANS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER.

INSPECTIONS/TESTING

1. THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER OF RECORD AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION AND PRIOR TO THE INSPECTION/TESTING OF THE FOLLOWING ITEMS:
A. PUMP STATION COMMISSIONING
B. SUB-GRADE
E. SUBSTANTIAL COMPLETION
F. FINAL COMPLETION

2. CONTRACTOR SHALL COORDINATE ALL REQUIRED INSPECTIONS WITH APPLICABLE REGULATORY AGENCIES AND OWNER AS NECESSARY. THE ENGINEER OF RECORD WILL PROVIDE PERIODIC SITE VISITS TO OBSERVE CONSTRUCTION.

3.

THE ENGINEER OF RECORD SHALL BE PRESENT FOR ALL REQUIRED TESTING. PRIOR TO ANY FINAL TESTING, THE CONTRACTOR SHALL HAVE PERFORMED PRELIMINARY TESTING TO CONFIRM THE CONSTRUCTION HAS BEEN COMPLETED TO MEET THE TESTING REQUIREMENTS. ADDITIONAL TESTING REQUIRED FOR ANY FAILED TESTS TO BE WITNESSED BY THE ENGINEER OF RECORD MAY BE CONDUCTED AT THE CONTRACTOR'S EXPENSE.

SHOP DRAWINGS

1. PRIOR TO CONSTRUCTION COMMENCEMENT, THE CONTRACTOR SHALL PROVIDE THE ENGINEER OF RECORD A SHOP DRAWING LOG AND SUBMITTAL SCHEDULE FOR REVIEW. SHOP DRAWINGS SHALL BE PROVIDED IN APPLICABLE PACKAGES FOR THE COMPLETE INSTALLATION/CONSTRUCTION (WATER, SEWER, STORMWATER, PAVING, ETC.).

2. PRIOR TO THEIR CONSTRUCTION OR INSTALLATION, SHOP DRAWINGS SHALL BE SUBMITTED TO AND REVIEWED BY THE ENGINEER OF RECORD FOR VALVES AND OTHER ACCESSORIES. CATALOGUE LITERATURE SHALL BE SUBMITTED FOR WATER PIPES, FITTINGS, AND APPURTENANCES.

3. PRIOR TO SUBMITTING SHOP DRAWINGS TO THE ENGINEER, THE CONTRACTOR SHALL REVIEW AND APPROVE THE DRAWINGS, AND SHALL NOTE IN RED ANY DEVIATIONS FROM THE ENGINEER'S PLANS OR SPECIFICATIONS. ENGINEER WILL CONDUCT UP TO TWO (2) SHOP DRAWING REVIEWS. ADDITIONAL REVIEWS MAY BE CONDUCTED AT THE CONTRACTOR'S EXPENSE.

4. INDIVIDUAL SHOP DRAWINGS FOR ALL PRECAST STRUCTURES ARE REQUIRED. CATALOGUE LITERATURE WILL NOT BE ACCEPTED FOR PRECAST STRUCTURES.

TEMPORARY FACILITIES

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY UTILITIES INCLUDING BUT NOT LIMITED TO TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY TO ITS EMPLOYEES AND SUBCONTRACTORS FOR THEIR USE DURING CONSTRUCTION.

2. TRAFFIC REGULATION
A. MAINTENANCE OF TRAFFIC IN THE PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE MUTCD AND THE AUTHORITY HAVING JURISDICTION (FDOT, CITY OF MIAMI BEACH, ETC.)
B. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAYS OR WALKWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
C. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MAINTENANCE OF TRAFFIC AND SAFETY OF THE PROJECT SITE DURING CONSTRUCTION UNTIL FINAL COMPLETION AND ACCEPTANCE.

PROJECT CLOSEOUT

1. CLEANING UP
A. DURING CONSTRUCTION, THE PROJECT SITE AND ALL ADJACENT AREAS SHALL BE MAINTAINED IN A NEAT AND CLEAN MANNER. UPON FINAL CLEAN UP, THE PROJECT SITE SHALL BE LEFT CLEAR OF ALL SURPLUS MATERIAL OR TRASH. THE PAVED AREAS SHALL BE SWEEPED BROOM CLEAN.
B. THE CONTRACTOR SHALL RESTORE OR REPLACE, WHEN AND AS DIRECTED BY THE ENGINEER OR THE CITY, ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY ITS WORK, EQUIPMENT, EMPLOYEES OR THOSE OF ITS SUBCONTRACTORS TO A CONDITION AT LEAST EQUAL OR BETTER TO THE EXISTING CONDITION IMMEDIATELY PRIOR TO THE BEGINNING OF OPERATIONS.
C. WHERE MATERIAL OR DEBRIS HAS WASHED OR FLOWED INTO OR BEEN PLACED IN WATER COURSES, DITCHES, DRAINS, CATCH BASINS, OR ELSEWHERE AS A RESULT OF THE CONTRACTOR'S OPERATIONS, SUCH MATERIAL OR DEBRIS SHALL BE REMOVED AND SATISFACTORILY DISPOSED OF DURING PROGRESS OF THE WORK, AND THE AREA KEPT IN A CLEAN AND NEAT CONDITION.

2. PROJECT RECORD DOCUMENTS
A. THE CONTRACTOR SHALL MAINTAIN ACCURATE AND COMPLETE RECORDS OF WORK ITEMS COMPLETED.
B. ALL REQUIRED DENSITY AND LBR TEST RESULTS FOR SUB-GRADE SHALL BE PROVIDED TO THE ENGINEER PRIOR TO PLACING LIMEROCK BASE MATERIAL.
C. ALL "AS-BUILT" INFORMATION SUBMITTED TO THE ENGINEER SHALL BE SUFFICIENTLY ACCURATE, CLEAR AND LEGIBLE TO SATISFY THE ENGINEER THAT THE INFORMATION PROVIDES A TRUE REPRESENTATION OF THE IMPROVEMENTS CONSTRUCTED.
D. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD COMPLETE SETS OF "AS-BUILT" CONSTRUCTION DRAWINGS AS REQUIRED FOR SUBMITTAL AND APPROVAL. THESE DRAWINGS SHALL BE MARKED TO SHOW "AS-BUILT" CONSTRUCTION CHANGES AND DIMENSIONED LOCATIONS AND ELEVATIONS OF ALL IMPROVEMENTS AND SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR.
E. ALL "AS-BUILT" INFORMATION ON ELEVATIONS OF WATER, SHALL BE CERTIFIED BY A FLORIDA REGISTERED LAND SURVEYOR.
F. AS-BUILT INFORMATION ON THE WATER SYSTEM SHALL INCLUDE LOCATIONS OF ALL VALVES, FITTINGS, AND TOP OF PIPE ELEVATIONS AT ALL FITTINGS AND AT A MINIMUM OF 100' SPACING.
3. ALL NON-PAVED SURFACES IN THE ROW DISTURBED BY THIS PROJECT SHALL BE SOODED.

MIAMI BEACH

PUBLIC WORKS DEPARTMENT
1700 CONVENTION CENTER DRIVE, MIAMI BEACH, FL. 33139

CITY MANAGER: ALINA T. HUDAK
DIRECTOR: JOE L. GÓMEZ, PE, TTCP, F. FES
CITY ENGINEER: CRISTINA ORTEGA CASTINEIRAS, P.E.

5

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2

1

NO

DATE

REVISION

APP'D. BY

ema

chen moore and associates
3150 SW 38th Avenue
Suite 950
Miami, FL 33146
786.497.1500
www.chenmoore.com

ENGINEER OF RECORD:
ERNESTO GARCIA, P.E.,
P.E. NO. 96461

ENGINEER OF RECORD: EG
DESIGN ENGINEER: EG
DRAWN BY: AV
CHECKER: EG
SCALE: AS NOTED

GENERAL NOTES

PROJECT NAME:
TERMINAL ISLAND WATER BOOSTER PUMP STATION
(PACKAGE A)
DRAWING TITLE:

File Name: 20241267-CS-COVER SHEET.DWG
Survey Reference:
Field Book: _____ Page: _____ Work Order: 2024-1267-NA
Date: 04/08/24 Sheet: 3 of 22 Drawing: G0-03 (2)

P.E. SEAL:

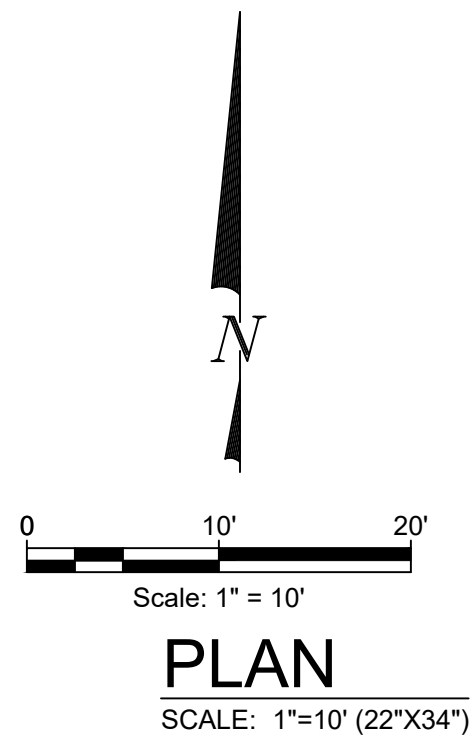
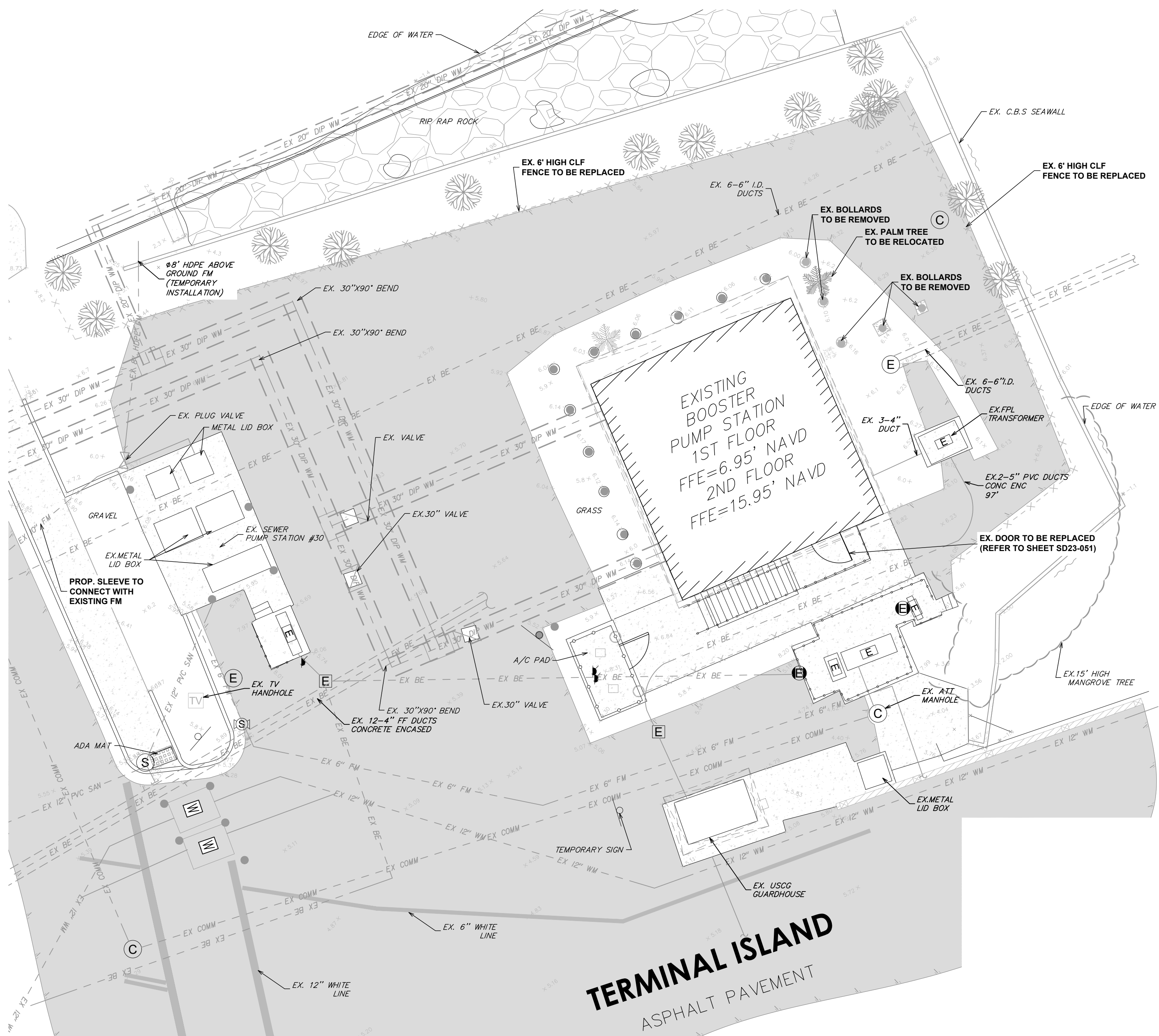
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ERNESTO GARCIA
LICENSE
No. 96461
STATE OF FLORIDA
PROFESSIONAL ENGINEER

60% SET

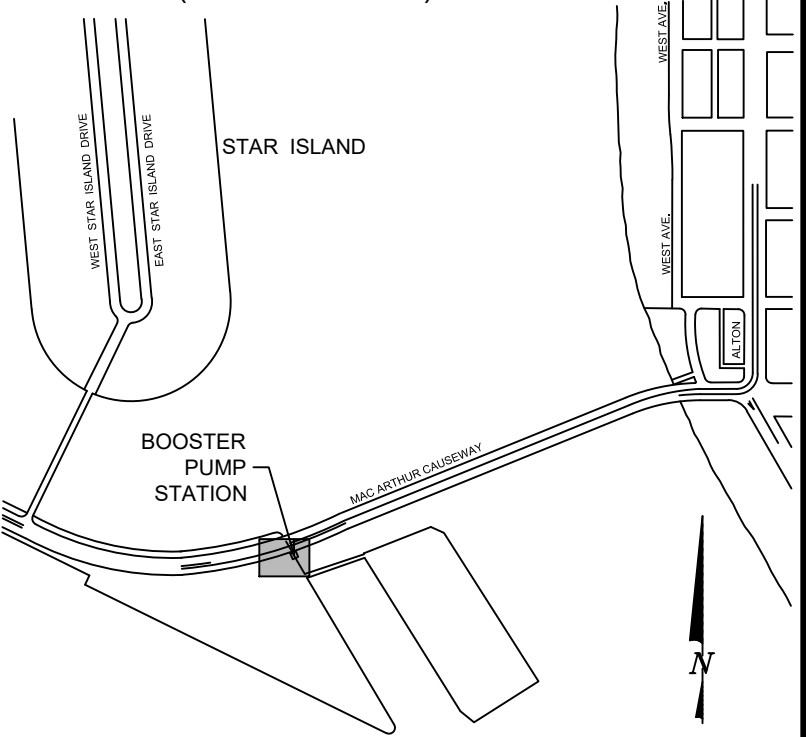
File Path: V:\Projects\2023\23-0099.00014 - Terminal Island Water Booster Pump StatiDesign\CAD\Sheets\20241267-cs-cover sheet.dwg



NOTES:

1.CMB HAS A 100% DESIGN PROJECT CURRENTLY ON HOLD, FOR THE REPLACEMENT OF THE EXISTING 10" DISCHARGE FM FROM PS30 CONTRACTOR TO COORDINATE WITH THE CMB FOR PROJECT STATUS , BEFORE COMMENCE ANY CONSTRUCTION WORK.

KEY PLAN (NOT TO SCALE):

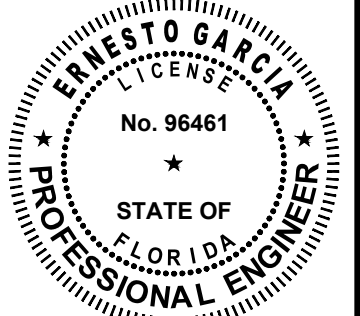


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EX. CONDITIONS NOTES:

- EX. CONDITIONS PRESENTED ARE BASED ON A TOPOGRAPHIC SURVEY PROVIDED BY LONGITUDE SURVEYORS, PROJECT NO.23226.0.01 ON JAN/11/2024. ADDITIONAL INFORMATION WAS OBTAINED FROM AS-BUILTS AND RECORD DRAWINGS PROVIDED BY UTILITY COMPANIES, G.I.S. INFORMATION AND FIELD VISITS.
- ALL ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- NATIONAL GEODETIC SURVEY (NGS) BENCHMARK USED: DESIGNATION = T.B.M 1 DESCRIPTION = SET MAG NAIL & WASHER (L.B 7335)
ELEVATION = 6.89' NAVD 88
- CONTRACTOR IS TO PROTECT ALL EX. TREES, SIGNS, AND ABOVE GROUND UTILITIES NOT IMPACTED BY THIS PLAN.

VERTICAL DATUM INFORMATION
ALL ELEVATIONS SHOWN ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
CONVERSION FACTOR:
NAVD88 + 1.543 = NGVD29 IN THIS AREA

LEGEND

---	EX BE	---	EX. BURIED ELECTRIC	—	EX. SIGN
---	EX COMM	---	EX. COMMUNICATIONS CABLE OR DUCT	—	EX.BOLLARD
---	EX FM	---	EX. FORCE MAIN	---	EX. WATER'S EDGE
---	EX WM	---	EX. ELECTRIC METER	---	EX. WATER GATE VALVE
---	EX WM	---	EX. WATER MAIN	---	EX.30" TEE
---	EX WM	---	EX. PIPE (20"Ø AND LARGER)	---	EX. WATER METER
---	EX WM	---	EX. CHAIN OR WIRE FENCE	---	EX. SANITARY MANHOLE
---	EX WM	---	EX. TREE LINE	---	EX. CONCRETE
---	EX WM	---	EX.WATER VALVE	---	EX. ASPHALT
---	EX WM	---	EX.COMMUNICATION MANHOLE	---	EX. RIP RAP ROCK
---	EX WM	---	EX.ELECTRIC MANHOLE		
---	EX WM	---	EX.ELECTRIC PANEL		
---	EX WM	---	EX.ELECTRIC BOX		
---	EX WM	---	EX.ELECTRIC SWITCH		
---	EX WM	---	EX.CABLE TELEVISION BOX		
---	EX WM	---	EX.TREE		

MIAMI BEACH
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DIRECTOR: JOE L. GÓMEZ, PE, TTCP, F. FES
CITY ENGINEER: CRISTINA ORTEGA CASTINEIRAS, P.E.

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NO.	DATE	REVISION	APP'D.	BY

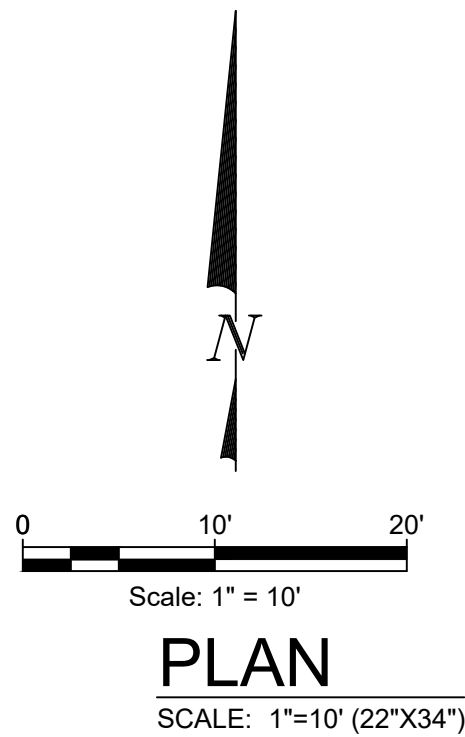
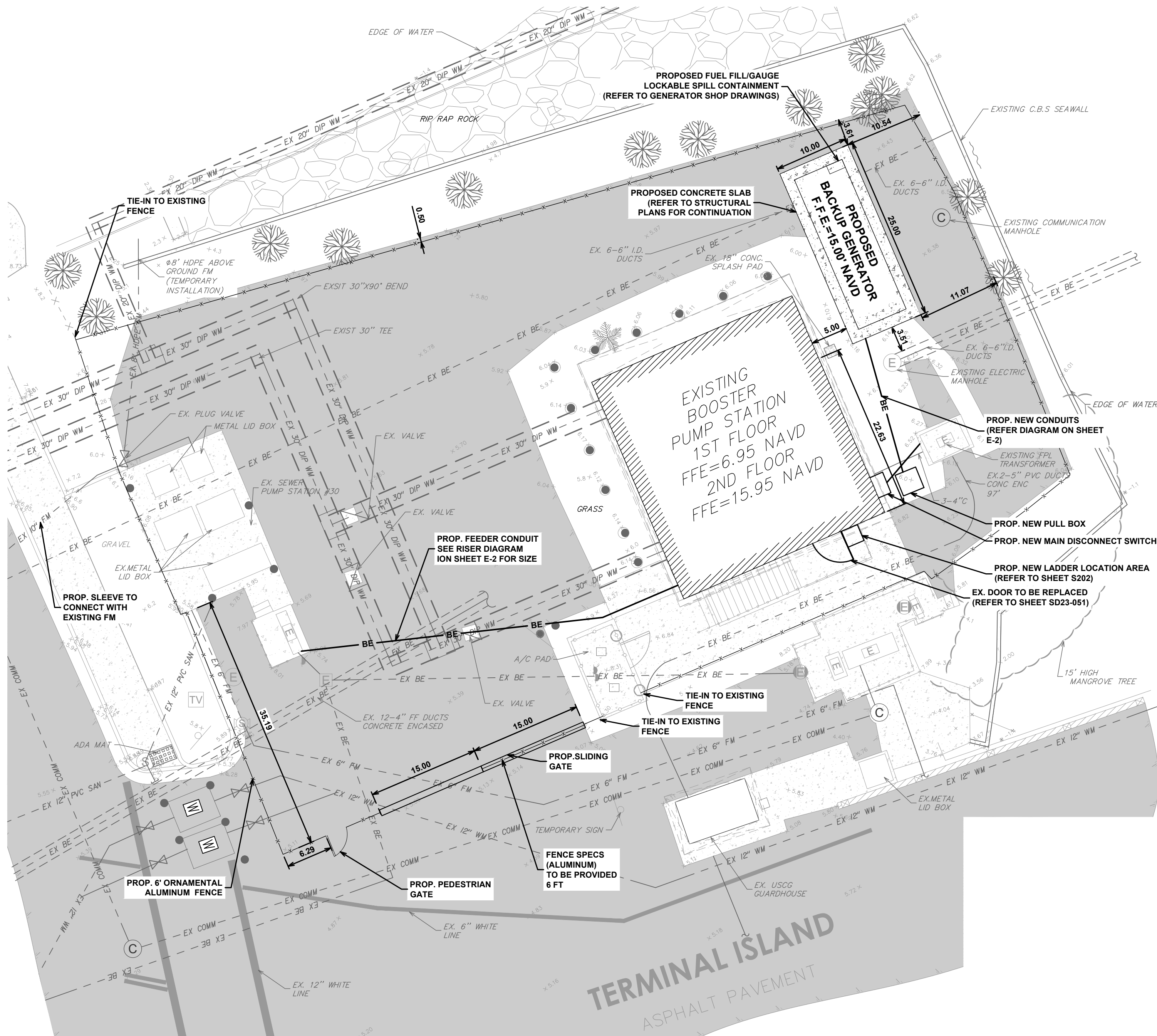
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3150 SW 38th Avenue
Suite 950
Miami, FL 33146
786.497.1500
www.chenmoore.com

ENGINEER OF RECORD:
ERNESTO GARCIA, P.E.,
P.E. NO. 96461

ENGINEER OF RECORD: EG
DESIGN ENGINEER: EG
DRAWN BY: AV
CHECKER: GAM
SCALE: AS NOTED

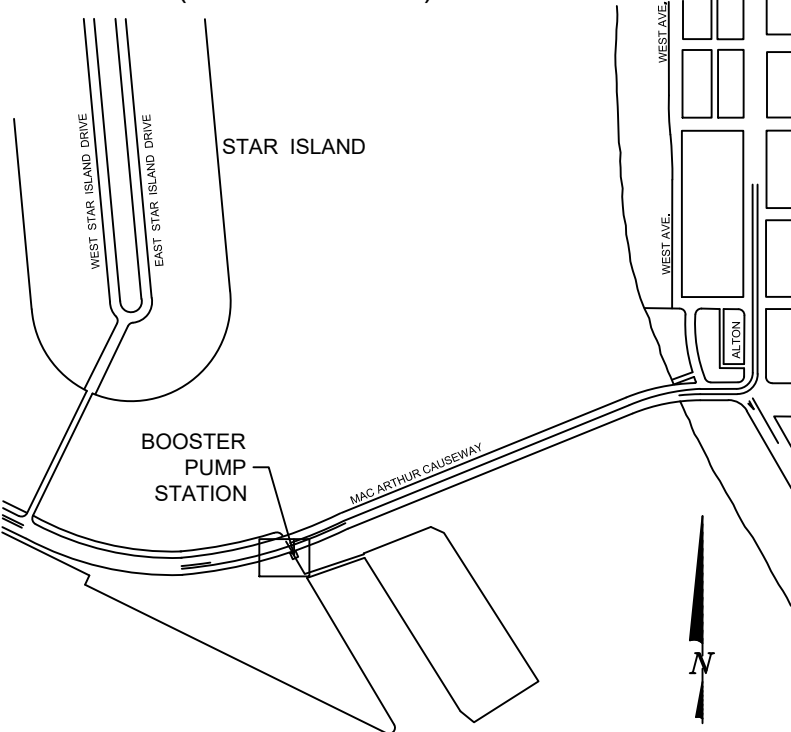
PROJECT NAME: TERMINAL ISLAND WATER BOOSTER PUMP STATION (PACKAGE A)
DRAWING TITLE: EXISTING CONDITIONS AND EMOLITION PUMP STATION PLAN

20241267-CS-EXISTING CONDITIONS AND DEMOLITION
File Name: PLAN.DWG
Survey Reference:
Field Book: _____ Page: _____ Work Order: 2024-1267-NA
Date: 04/08/24 Sheet: 4 of 22 Drawing: C1-01



NOTES:

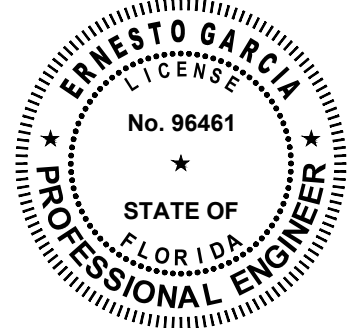
KEY PLAN (NOT TO SCALE):



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VERTICAL DATUM INFORMATION
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CONVERSION FACTOR:
NAVD88 + 1.543 = NGVD29 IN THIS AREA

LEGEND

--- EX BE --- EX. BURIED ELECTRIC
--- EX COMM --- EX. COMMUNICATIONS CABLE OR DUCT
--- EX FM --- EX. FORCE MAIN
--- EX WM --- EX. WATER MAIN
--- EX PIPE (20"Ø AND LARGER) --- EX. PIPE (20"Ø AND LARGER)
--- EX CHAIN OR WIRE FENCE --- EX. CHAIN OR WIRE FENCE
--- EX TREE LINE --- EX. TREE LINE
--- EX WATER VALVE --- EX. WATER VALVE
--- EX COMMUNICATION MANHOLE --- EX. COMMUNICATION MANHOLE
--- EX ELECTRIC MANHOLE --- EX. ELECTRIC MANHOLE
--- EX ELECTRIC PANEL --- EX. ELECTRIC PANEL
--- EX ELECTRIC BOX --- EX. ELECTRIC BOX
--- EX ELECTRIC SWITCH --- EX. ELECTRIC SWITCH
--- EX CABLE TELEVISION BOX --- EX. CABLE TELEVISION BOX
--- EX TREE --- EX. TREE

--- EX SIGN --- EX. SIGN
--- EX BOLLARD --- EX. BOLLARD
--- EX WATER'S EDGE --- EX. WATER'S EDGE
--- EX. 30" TEE --- EX. 30" TEE
--- EX. WATER METER --- EX. WATER METER
--- EX. SANITARY MANHOLE --- EX. SANITARY MANHOLE
--- EX. CONCRETE --- EX. CONCRETE
--- EX. ASPHALT --- EX. ASPHALT
--- EX. RIP RAP ROCK --- EX. RIP RAP ROCK
--- EX. CHAIN OR WIRE FENCE --- EX. CHAIN OR WIRE FENCE
--- EX. CONCRETE --- EX. CONCRETE

--- EX. SIGN --- EX. SIGN
--- EX. BOLLARD --- EX. BOLLARD
--- EX. WATER'S EDGE --- EX. WATER'S EDGE
--- EX. 30" TEE --- EX. 30" TEE
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--- EX. CONCRETE --- EX. CONCRETE
--- EX. ASPHALT --- EX. ASPHALT
--- EX. RIP RAP ROCK --- EX. RIP RAP ROCK
--- EX. CHAIN OR WIRE FENCE --- EX. CHAIN OR WIRE FENCE
--- EX. CONCRETE --- EX. CONCRETE

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ENGINEER OF RECORD:
ERNESTO GARCIA, P.E.,
P.E. NO. 96461

ENGINEER OF RECORD: EG
DESIGN ENGINEER: EG
DRAWN BY: AV
CHECKER: GAM
SCALE: AS NOTED

PROJECT NAME:
TERMINAL ISLAND WATER BOOSTER PUMP STATION (PACKAGE A)
DRAWING TITLE:
PROPOSED PUMP STATION IMPROVEMENT PLAN

File Name: 20241267-CS-PROPOSED SITE PLAN.DWG

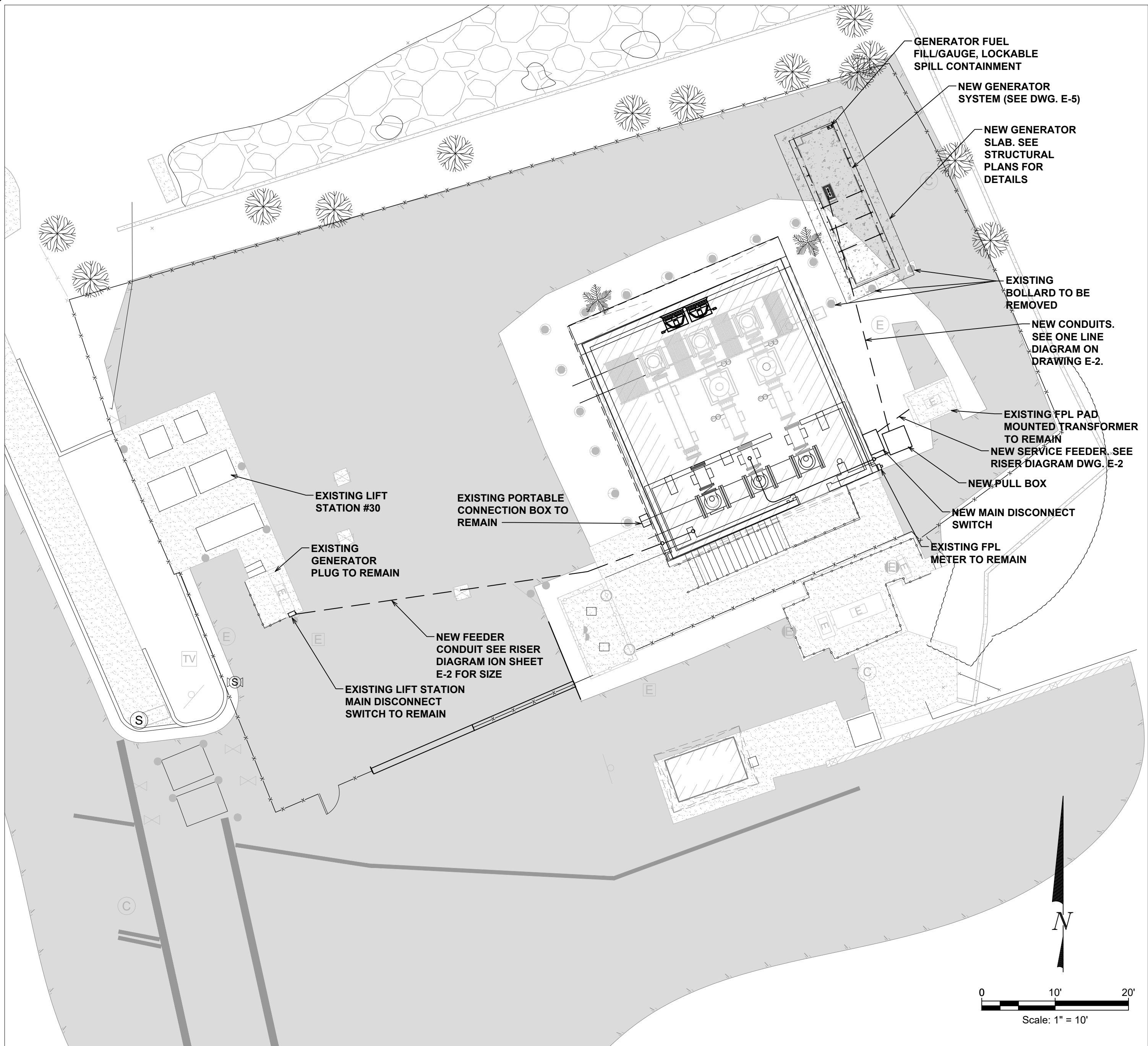
Survey Reference:

Field Book: _____ Page: _____ Work Order: 2024-1267-NA

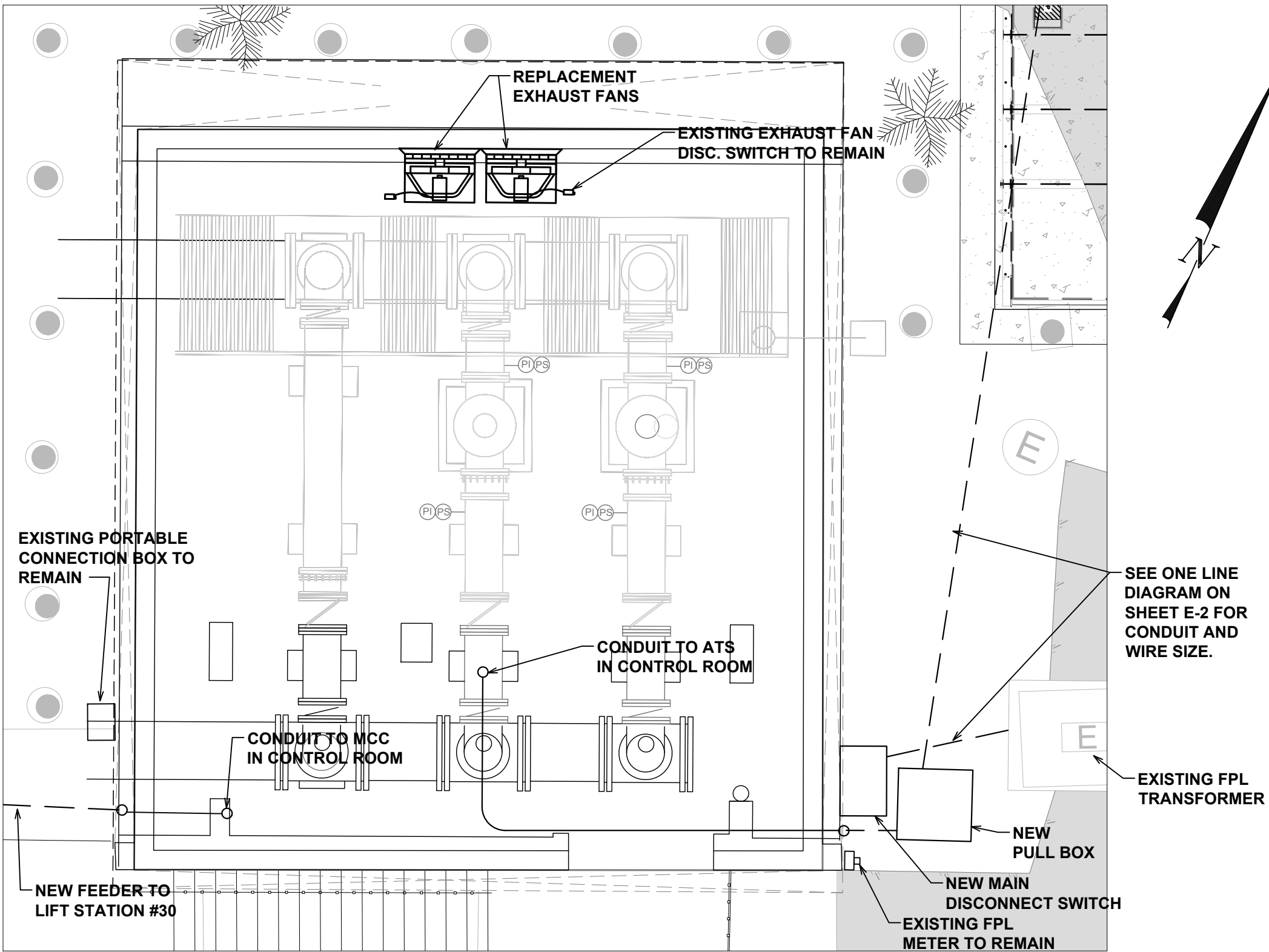
Date: 04/08/24 Sheet: 5 of 22 Drawing: C1-03


$$3/4'' = 1'-0''$$

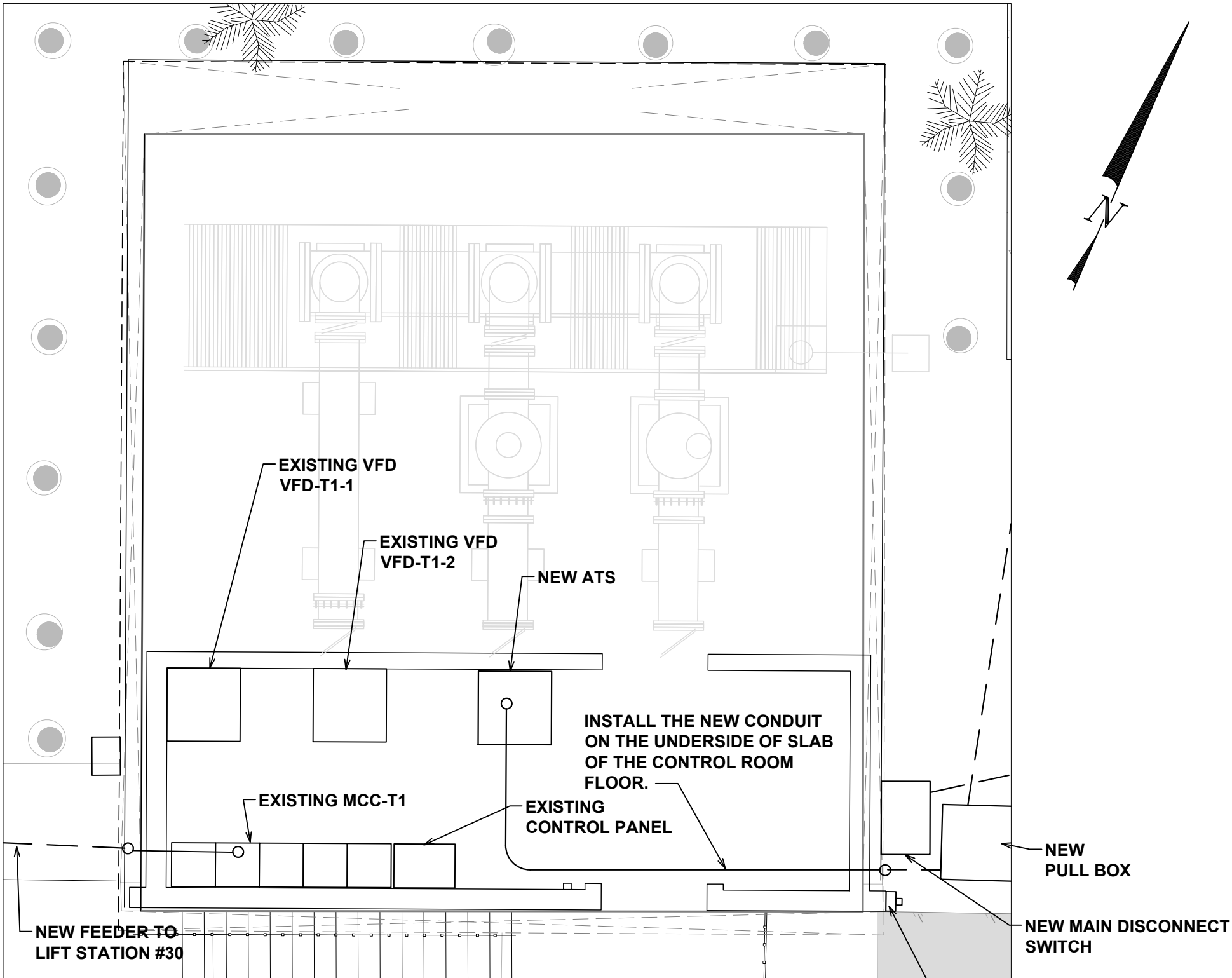

A circular professional engineer seal for Ernesto Garcia. The outer ring contains the text "ERNESTO GARCIA" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. Inside the ring, the word "LICENSE" is at the top, "No. 96461" is in the center, and "STATE OF FLORIDA" is at the bottom, also separated by two stars. The seal has a dashed outer border.



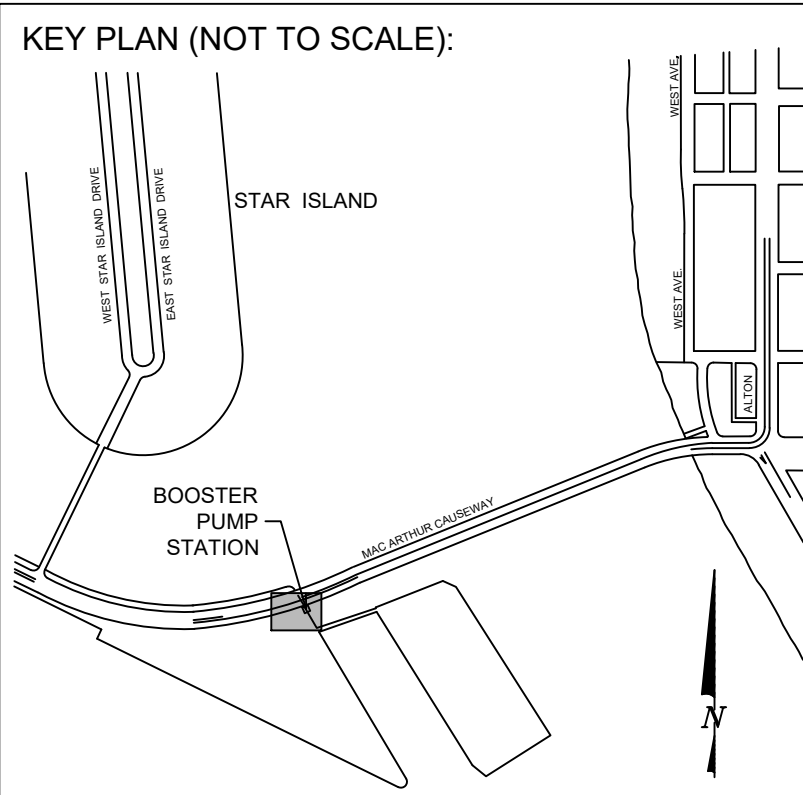
PLAN
SCALE: 1"=10'-0"



PLAN (INTERIOR GROUND FLOOR)
SCALE: 1"=5'



PLAN (INTERIOR 2ND FLOOR)
SCALE: 1"=5'

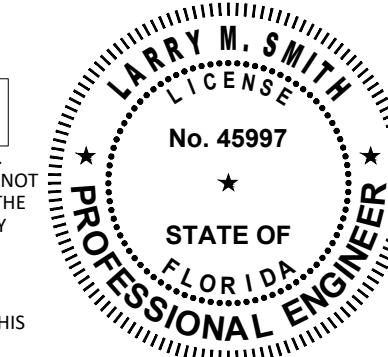


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ENGINEER SHALL BE RESPONSIBLE FOR THIS
SHEET IN ACCORDANCE WITH RULE
61G15-23.004, F.A.C.



VERTICAL DATUM INFORMATION
ALL ELEVATIONS SHOWN ARE IN NORTH
AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
CONVERSION FACTOR:
NAVD88 + 1.543 = NGVD29 IN THIS AREA

MIAMI BEACH

PUBLIC WORKS DEPARTMENT
1700 CONVENTION CENTER DRIVE, MIAMI BEACH, FL 33139

CITY MANAGER: ALINA T. HUDAK
DIRECTOR: JOE L. GÓMEZ, PE, TTCP, F. FES
CITY ENGINEER: CRISTINA ORTEGA
CASTINEIRAS, P.E.

NO.	DATE	REVISION	APP'D. BY
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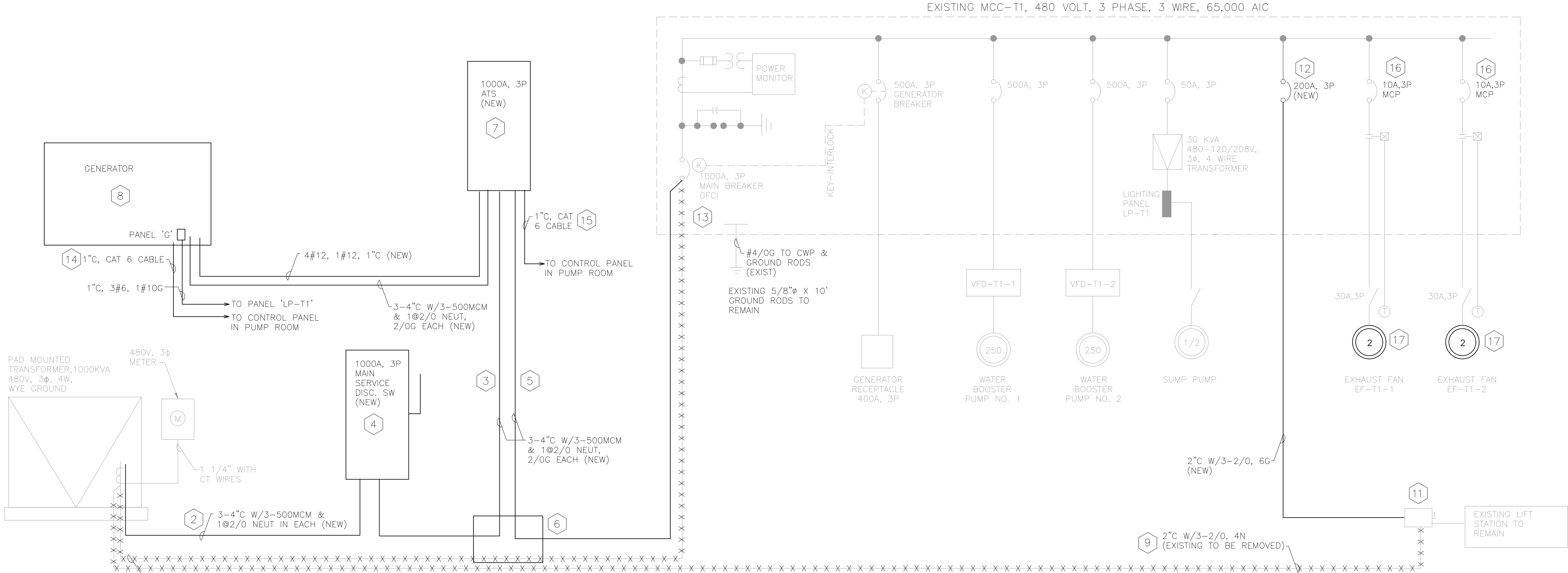


ENGINEER OF RECORD:
LARRY M. SMITH,
P.E. NO. 45997

ENGINEER OF RECORD: LMS
DESIGN ENGINEER: SPH
DRAWN BY: SPH
CHECKER: LMS
SCALE: AS NOTED

PROJECT NAME:
SANITARY SEWER PUMP STATION 22 DISCHARGE FORCE MAIN
DRAWING TITLE:
ELECTRICAL SITE PLAN

File Name: 20241267-E-1-PLAN.DWG
Survey Reference:
Field Book: _____ Page: _____ Work Order: 2024-1267-NA
Date: 06/06/2024 Sheet: 7 of - Drawing: E-1



MCC-T1 ONE LINE DIAGRAM (MODIFICATION)

ELECTRICAL KEYED NOTES:

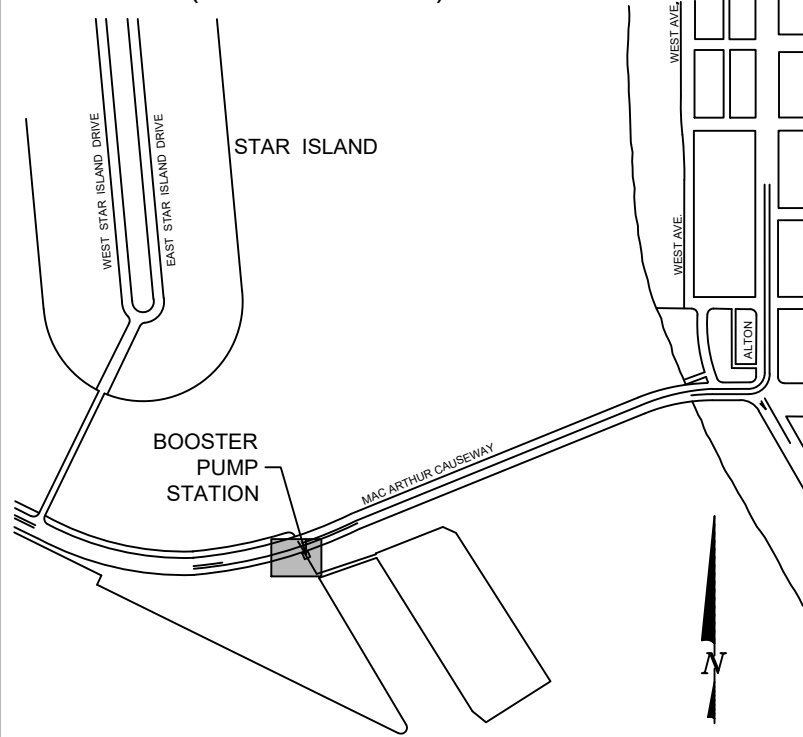
- 1 CONTRACTOR SHALL DISCONNECT AND REMOVE THE EXISTING WIRE FROM FPL TRANSFORMER TO THE EXISTING MCC MAIN BREAKER COMPLETE.
- 2 CONTRACTOR SHALL PROVIDE AND INSTALL NEW CONDUIT FROM FPL TRANSFORMER TO THE NEW MAIN SERVICE DISCONNECT SWITCH. MAKE ALL CONNECTIONS NECESSARY FOR A COMPLETE WORKING SYSTEM IN PLACE.
- 3 CONTRACTOR SHALL PROVIDE AND INSTALL NEW CONDUIT FROM THE MAIN DISCONNECT SWITCH TO THE NEW ATS LOCATED ON THE 2ND FLOOR OF THE CONTROL ROOM.
- 4 CONTRACTOR SHALL PROVIDE AND INSTALL NEW 3 POLE, 1000A, 480 VOLT MAIN DISCONNECT SWITCH WITH GFCI PROTECTION. SERVICE ENTRANCE RATED. NEMA 4X 316 STAINLESS STEEL ENCLOSURE. INSTALL NEW DISCONNECT SWITCH ON WALL. BOTTOM OF SWITCH SHALL BE MIN. 1 FOOT ABOVE THE 100 YEAR FLOOD LEVEL. SEE CIVIL PLANS FOR ELEVATIONS. PROVIDE ELEVATED SLAB AS NECESSARY TO ACCESS THE SWITCH FOR SERVICE.
- 5 CONTRACTOR SHALL PROVIDE AND INSTALL NEW CONDUIT FROM THE ATS TO OUT SIDE OF BUILDING NEAR THE FPL TRANSFORMER AND INTERCEPT THE EXISTING SERVICE CONDUIT GOING TO THE EXISTING MCC.
- 6 CONTRACTOR SHALL PROVIDE AND INSTALL NEW PULL BOX OVER THE EXISTING SERVICE CONDUITS. SIZE PULL BOX AS PER NEC.
- 7 CONTRACTOR SHALL PROVIDE AND INSTALL NEW 3 POLE, 1000A, 480 VOLT MAIN AUTOMATIC TRANSFER SWITCH. NEMA 1 ENCLOSURE. ATS SHALL BE INSTALLED IN THE CONTROL ROOM LOCATED ON THE SECOND FLOOR OF THE PUMP ROOM.
- 8 CONTRACTOR SHALL PROVIDE AND INSTALL NEW 750 KW GENERATOR IN AND OUTDOOR ENCLOSURE WITH A SUB-BASE FUEL TANK.
- 9 CONTRACTOR SHALL DISCONNECT EXISTING SERVICE CONDUCTORS FROM THE FPL PAD MOUNTED TRANSFORMER AND REMOVE BACK TO THE LIFT STATION DISCONNECT SWITCH COMPLETE.

- 10 CONTRACTOR SHALL DISCONNECT AND REMOVE THE EXISTING WIRE FROM FPL TRANSFORMER TO THE EXISTING MCC MAIN BREAKER COMPLETE.
- 11 EXISTING 3P-200A-480V DISCONNECT SWITCH SHALL REMAIN. CONTRACTOR SHALL REMOVE THE BOND FROM SERVICE SWITCH. CONNECT NEW SERVICE CONDUIT FROM THE MCC FOR A COMPLETE WORKING SYSTEM IN PLACE.
- 12 CONTRACTOR SHALL PROVIDE AND INSTALL NEW 3P-200A-480V CIRCUIT BREAKER IN EXISTING MCC. PROVIDE ALL NECESSARY MCC BUCKET, DOOR, ETC. FOR A COMPLETE WORKING SYSTEM IN PLACE. VERIFY WITH EXISTING MCC AIC RATINGS AND MATCH.
- 13 CONTRACTOR SHALL REMOVE THE EXISTING NEUTRAL/GROUND BOND FROM THE EXISTING MCC.
- 14 CONTRACTOR SHALL PROVIDE AND INSTALL CAT 6 CABLE FROM THE GENERATOR CONTROL PANEL TO THE PUMP STATION CONTROL PANEL FOR MONITORING THE GENERATOR STATUS SIGNALS, THE FUEL TANK STATUS, ETC. SEE GENERATOR SPEC FOR ALL REQUIRED SIGNALS.
- 15 CONTRACTOR SHALL PROVIDE AND INSTALL CAT 6 CABLE FROM THE ATS TO THE PUMP STATION CONTROL PANEL FOR MONITORING THE ATS STATUS SIGNALS,
- 16 CONTRACTOR SHALL REPLACE EXISTING CIRCUIT BREAKER AS REQUIRED FOR THE NEW EXHAUST FAN. VERIFY EXACT SIZE WITH MOTOR PRIOR TO CHANGING.
- 17 CONTRACTOR SHALL DISCONNECT THE EXISTING EXHAUST FAN COMPLETING. AFTER THE NEW FAN IS INSTALLED, THE CONTRACTOR SHALL RECONNECT NEW EXHAUST FAN FOR A COMPLETE WORKING SYSTEM IN PLACE.

LOAD CALCULATIONS:

NEC 220.87:
PER F.P.L., MAX. 12 MO. KWD = 175
= 210.8A @ 480V (0.85 p.f. ASSUMED)
X1.25 = 263.5A
THEREFORE THE EXISTING 1000A SERVICE IS ADEQUATE.

KEY PLAN (NOT TO SCALE):

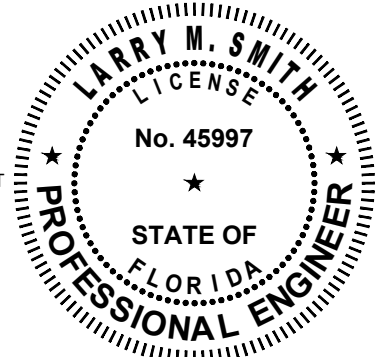


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VERTICAL DATUM INFORMATION
ALL ELEVATIONS SHOWN ARE IN NORTH
AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
CONVERSION FACTOR:
NAVD88 + 1.543 = NGVD29 IN THIS AREA

MIAMI BEACH

PUBLIC WORKS DEPARTMENT
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DIRECTOR: JOE L. GÓMEZ, PE, TTCP, F. FES
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CHECKER: LMS
SCALE: AS NOTED

PROJECT NAME:
SANITARY SEWER PUMP STATION 22 DISCHARGE FORCE MAIN
DRAWING TITLE:
SINGLE LINE DIAGRAM MODIFICATIONS

File Name: 20241267-E-2-PLAN.DWG

Survey Reference:

Field Book: Page: Work Order: 2024-1267-NA

Date: 06/06/2024 Sheet: 7 of Drawing: E-2



MCC-T1 MODIFICATIONS



MCC-T1 MAIN MODIFICATIONS

1

PANEL "LP-T1" (EXISTING)																(1)(2)	
MOUNTING: RECESSED																VOLT: 208/120V,3Ø,4W	
SHORT CIRCUIT RATING: 10K AIC																MAIN BUS AMPS: 100 A	
POLES: 42																MAIN BREAKER AMPS: 100 A	
FED FROM PANEL: MCC VIA 30 KVA TRANSF.																MANUFACTURER/TYPE: CUTLER-HAMMER	
CKT	LOAD SERVED	POLE	TRIP	WIRE	COND	AMPS 'A'	AMPS 'B'	AMPS 'C'	AMPS 'A'	AMPS 'B'	AMPS 'C'	COND	WIRE	TRIP	POLE	LOAD SERVED	CKT
1	PUMP ROOM LTGS	1	20	12	3/4"	3.0			3.0			3/4"	12	20	1	PUMP ROOM LTGS	2
3	PUMP ROOM LTGS	1	20	12	3/4"		3.0			3.0		3/4"	12	20	1	PUMP ROOM LTGS	4
5	PUMP ROOM LTGS	1	20	12	3/4"			3.0			3.0	3/4"	12	20	1	PUMP RM OUTLETS	6
7	PUMP RM OUTLETS	1	20	12	3/4"	3.0			3.0			3/4"	12	20	1	PUMP RM OUTLETS	8
9	PUMP RM OUTLETS	1	20	12	3/4"		3.0			6.0		3/4"	12	20	2	AHU-T1-1	10
11	ACCU-T1-1	2	40	8	1"			24.0			6.0						12
13						24.0			6.0			3/4"	12	20	2	AHU-T1-2	14
15	ACCU-T1-2	2	40	8	1"			24.0			6.0						16
17								24.0			2.0	3/4"	12	20	1	MISC. EQUIPMENT	18
19	MISC. EQUIPMENT	1	20	12	3/4"	3.0			2.0			3/4"	12	20	1	MISC. EQUIPMENT	20
21	PUMP CONTROL PNL	1	20	12	3/4"		2.0			4.0		3/4"	12	20	1	PUMP CONTROL PNL	22
23	SPARE	1	20								3.0	1/2"	12	20	2	PUMP RM SUMP PUMP	24
25	SPARE	1	20						3.0								26
27	MH-1 SUMP PUMP	1	20	12	3/4"		3.0			4.0		3/4"	12	20	1	MH-2 SUMP PUMP	28
29	SPARE	1	20											20	1	SPARE	30
31	SPARE	1	20											20	1	SPARE	32
33	PANEL 'G'	3	30	8	1"		15.0							100	3	SPARE	34
35								15.0									36
37						15.0											38
39	SPARE	1	20											20	1	SPARE	40
41	SPARE	1	20											20	1	SPARE	42
CONNECTED AMPS =						48.0	50.0	66.0	17.0	23.0	14.0						
TOTAL CONNECTED AMPS =						65.0	73.0	80.0									
Note: (1) MAX 3% VD ON BRANCH CIRCUITS AS PER FBC (2) NEMA 1 ENCLOSURE																	

ELECTRICAL KEYED NOTES:

- 1
- CONTRACTOR SHALL CONNECT NEW GENERATOR PANEL 'G' TO EXISTING 3P-30A SPARE BREAKER IN EXISTING PANEL 'LP-T1'.
- 2
- CONTRACTOR SHALL PROVIDE NEW 3P-200A-480 CIRCUIT BREAKER FOR LIFT STATION. SEE RISER ON DRAWING E-2. PROVIDE BUCK, BREAKER, DOOR AS NECESSARY FOR A COMPLETE WORKING SYSTEM IN PLACE. VERIFY EXISTING MCC RATING AND MATCH.
- 3
- CONTRACTOR SHALL REMOVE NEUTRAL/GROUNDING BOND FROM EXISTING MCC MAIN BREAKER. SEE ONE LINE DIAGRAM ON DRAWING E-2.
- 4
- CONTRACTOR SHALL REMOVED EXISTING WINDOW AS NECESSARY FOR INSTALLATION OF NEW CONDUITS. OPENING SHALL BE BLOCKED UP WITH APPROVED MEANS.



SERVICE MODIFICATIONS



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LARRY M. SMITH

LICENSE

No. 45997

STATE OF FLORIDA

PROFESSIONAL ENGINEER

1. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR TO INSTALL THE ELECTRICAL SYSTEMS AS INDICATED ON THE DRAWINGS. ITEMS NOT SHOWN BUT OBVIOUSLY NECESSARY FOR COMPLETION OF THE WORK AND A FULLY FUNCTIONAL SYSTEM SHALL BE INCLUDED.
2. THE INSTALLATION SHALL BE IN ACCORDANCE WITH THE 2020 NATIONAL ELECTRICAL CODE, LATEST ADOPTED NATIONAL ELECTRICAL SAFETY CODE, LOCAL CODES, CITY CODES AND THE 2023 FLORIDA BUILDING CODE (8TH EDITION).
3. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INSPECTIONS AND APPROVALS AND SHALL INCLUDE ALL FEES AS PART OF HIS BID IF NOT OTHERWISE NOTED.
4. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE OWNER & ENGINEER.
5. THE CONTRACTOR SHALL, BEFORE SUBMITTING HIS BID, VISIT THE SITE OF THE PROJECT AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS. NO ALLOWANCE WILL BE MADE FOR EXISTING CONDITIONS OR FAILURE OF THE CONTRACTOR TO OBSERVE THEM.
6. ALL EQUIPMENT AND MATERIAL SHALL BE UNUSED AND U.L. LISTED. ALL REFERENCES TO A PARTICULAR MANUFACTURER ARE GIVEN ON AN "APPROVED EQUAL" BASIS UNLESS OTHERWISE NOTED.
7. THE CONTRACTOR IS RESPONSIBLE TO TEST ALL SYSTEMS INSTALLED OR MODIFIED UNDER THIS PROJECT AND REPAIR OR REPLACE ALL DEFECTIVE WORK TO THE SATISFACTION OF THE ENGINEER AND OWNER.
8. ALL EQUIPMENT FURNISHED AND INSTALLED BY THE CONTRACTOR SHALL BE GUARANTEED AGAINST DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE.
9. ALL CONDUCTORS SHALL BE 600V THWN, COPPER. NO ALUMINUM ALLOWED UNLESS SPECIFICALLY INDICATED ON DRAWINGS.
10. THE DRAWINGS ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO SHOW THE EXACT LOCATION OF CONDUIT RUNS. THESE ARE TO BE COORDINATED/CONFIRMED WITH THE OTHER TRADES AND MANUFACTURES SO THAT CONFLICTS ARE AVOIDED PRIOR TO INSTALLATIONS. CONDUITS ARE TO BE PROVIDED FOR FUTURE FACILITIES WHERE INDICATED
11. ALL MOUNTING HARDWARE SHALL BE 316 STAINLESS STEEL. PROVIDE ANTI-GELLING AGENT ON BOLTS AND NUTS.
12. GROUNDING SHALL BE INSTALLED IN ACCORDANCE WITH NEC, ARTICLE 250. THE GROUNDING SYSTEM TEST SHALL NOT EXCEED A 48 HOUR SPAN DRY RESISTANCE OF 5 OHMS. ADDITIONAL GROUNDING TO MEET THIS REQUIREMENT SHALL BE INSTALLED AT NO EXTRA COST. GROUNDING AND BONDING CONNECTIONS SHALL NOT BE PAINTED. ALL GROUNDING CONNECTIONS SHALL BE EXOTHERMIC UNLESS SPECIFICALLY INDICATED OTHERWISE.
13. AN EQUIPMENT GROUND WIRE SIZED PER NEC SHALL BE PULLED IN ALL ELECTRICAL CONDUITS, POWER AND CONTROL, WHETHER OR NOT INDICATED ON THE PLANS.
14. PROVIDE CONDUIT DUCT SEAL AT ALL CONDUIT ENDS.
15. CONTRACTOR SHALL, WITHIN 30 DAYS AFTER THE DATE OF THE SYSTEM ACCEPTANCE, PROVIDE TO THE OWNER RECORD DRAWINGS OF THE ACTUAL INSTALLATION INCLUDING A SINGLE LINE DIAGRAM OF THE ELECTRICAL DISTRIBUTION SYSTEM AND RELATED FLOOR PLANS INDICATING THE LOCATION AND AREA SERVED FOR THE DISTRIBUTION.
16. CONTRACTOR SHALL PROVIDE TO THE OWNER THE OPERATING AND MAINTENANCE MANUAL IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION C405.5.4.2 OF THE 2023 FLORIDA BUILDING CODE – ENERGY CONSERVATION, INCLUDING ANY AMENDMENTS THERETO
17. ALL UNDERGROUND CONDUIT SHALL BE SCHEDULE 80 PVC CONDUIT. EXPOSED CONDUIT AND ABOVE GROUND SHALL BE RIGID ALUMINUM. PVC 80 CONDUIT SHALL TRANSITION FROM PVC TO RIGID ALUMINUM CONDUIT MIN. 12" BELOW GRADE PRIOR TO BECOMING EXPOSED.
18. SCOPE OF ELECTRICAL WORK:
 - A. PROVIDE AND INSTALL NEW CONDUIT AND WIRE AS PER PLANS COMPLETE.
 - B. PROVIDE AND INSTALL NEW AUTOMATIC TRANSFER SWITCH COMPLETE.
 - C. PROVIDE AND INSTALL NEW GENERATOR COMPLETE IN PLACE.
 - D. PROVIDE AND INSTALL NEW MAIN DISCONNECT SWITCH COMPLETE IN PLACE.
 - E. PROVIDE TEMPORARY GENERATOR AS NECESSARY DURING THE SERVICE MODIFICATIONS.
 - F. DEMO EXISTING WIRE AS PER ONE LINE DIAGRAM.
19. ALL CONDUIT PENETRATIONS INTO EQUIPMENT SHALL BE FROM THE BOTTOM WHERE POSSIBLE.

-
- Diagram illustrating the required coating height for a 90-degree elbow connection. The diagram shows a cross-section of the ground with a finished grade or slab. An aluminum RGS pipe is shown above the grade, and an aluminum RGS elbow is shown below the grade. The elbow is coated with bitumatic coating. The coating height is indicated as 6 inches above the finished grade. The elbow is connected to a PVC Schedule 80 conduit. Labels include: EXPOSED CONDUIT TO EQUIPMENT, ALUMINUM RGS PIPE, FINISHED GRADE OR SLAB, 6", COAT THE ELBOW UP TO MIN. 6" ABOVE GRADE WITH BITUMATIC COATING, ALUMINUM RGS ELBOW, and PVC SCHEDULE 80 CONDUIT.

Diagram illustrating the correct method for grounding rigid conduit. The diagram shows two vertical rigid conduits connected by a horizontal rigid conduit. A ground wire is attached to the end of the horizontal conduit. Labels indicate:

- GROUND WIRE (GROUND ONE END OF CONDUIT ONLY)
- EQUIPMENT ENCLOSURE
- RIGID CONDUIT
- ALL CONDUIT SHALL BE GROUNDED WITH "O-Z/GEDNEY" TYPE BLG GROUNDING BUSHINGS
- LOCK WASHER

EXISTING BUILDING WALL

CONDUIT PENETRATION

OLB CONDULETS

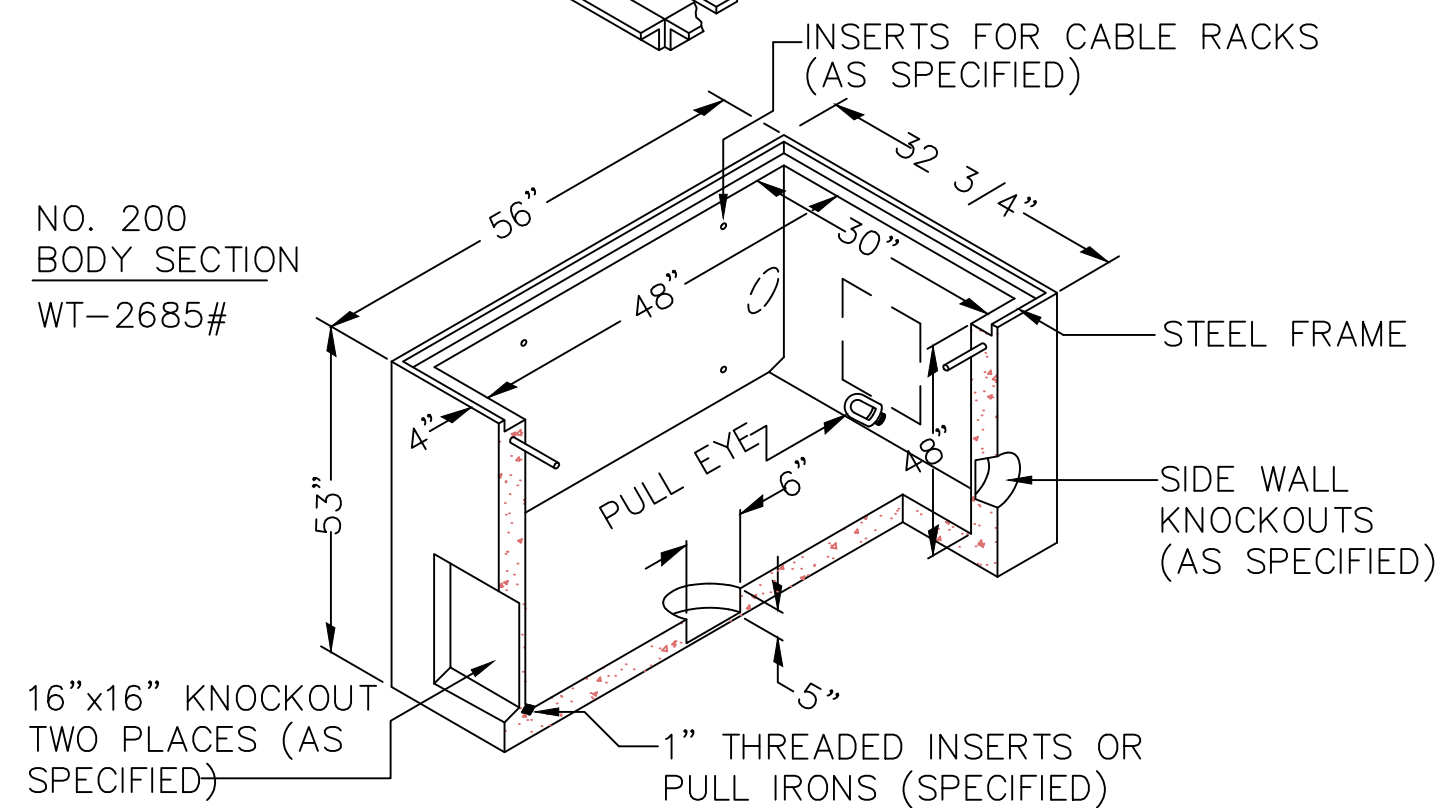
FINISH GRADE

NOTE:
1. CONDUIT PENETRATION LOCATION VARIES. ADJUST ACCORDINGLY.

Diagram illustrating a fire-rated wall penetration assembly. The assembly consists of a wall or slab with a U.L. approved fire-rated joint filler. A core drill opening is made through the wall, and a conduit is installed through this opening. The conduit is sealed with caulk at both ends, ensuring the assembly is fire-rated. The diagram shows the wall, the joint filler, the core drill opening, the conduit, and the caulked ends.

- WALL OR SLAB
- U.L. APPROVED FIRE RATED JOINT FILLER
- CORE DRILL OPENING
- CONDUIT
- CAULK ENDS ALL AROUND TYPICAL BOTH SIDES

NO. 200-18
TRAFFIC COVER
WT-260#
3/8" FLOOR PL



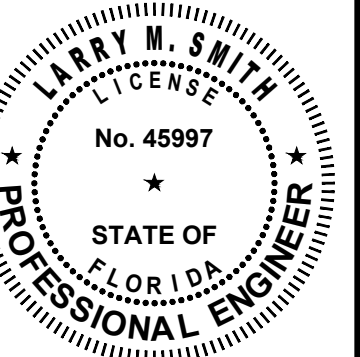
1. LID SHALL BE MARKED "ELECTRICAL" WITH A PERMANENT SYSTEM. LETTERS SHALL BE MIN 1" HIGH.
2. PULL BOX SHOW IS MINIMUM SIZE. CONTRACTOR SHALL INCREASE PULL BOX AS REQUIRED BY NEC AT NO ADDITIONAL COST.

[illegible]

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DIRECTOR: JOE L. GÓMEZ, PE, TTCP, F. FES
CITY ENGINEER: CRISTINA ORTEGA
CASTINEIRAS, P.E.

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ENGINEER OF RECORD:

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DRAWN BY: SPH
CHECKER: LMS
SCALE: AS NOTED

PROJECT NAME:	SANITARY SEWER PUMP STATION 22 DISCHARGE FORCE MAIN
DRAWING TITLE:	ELECTRICAL DETAILS - SHEET 2

File Name: 20241267-E-4-PLAN.DWG

Survey Reference:

Page: _____

Work Order: 2024-1267-NA

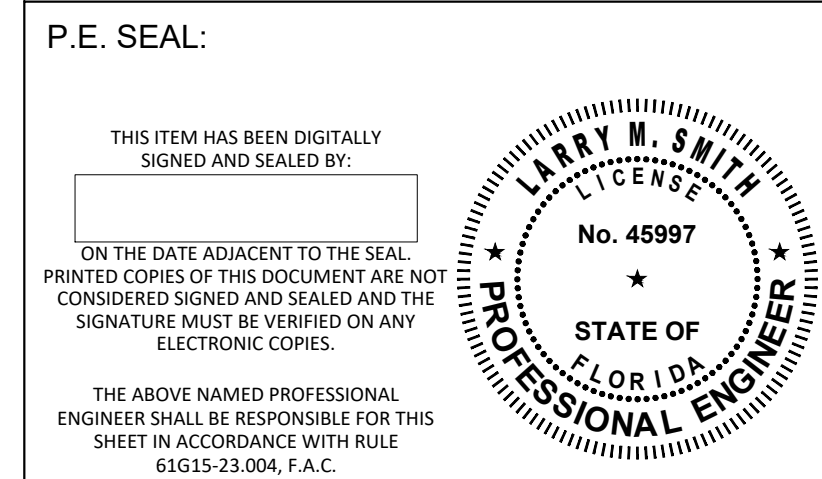
Date: 06/06/2024 Sheet: 7 of - Drawing: E-4

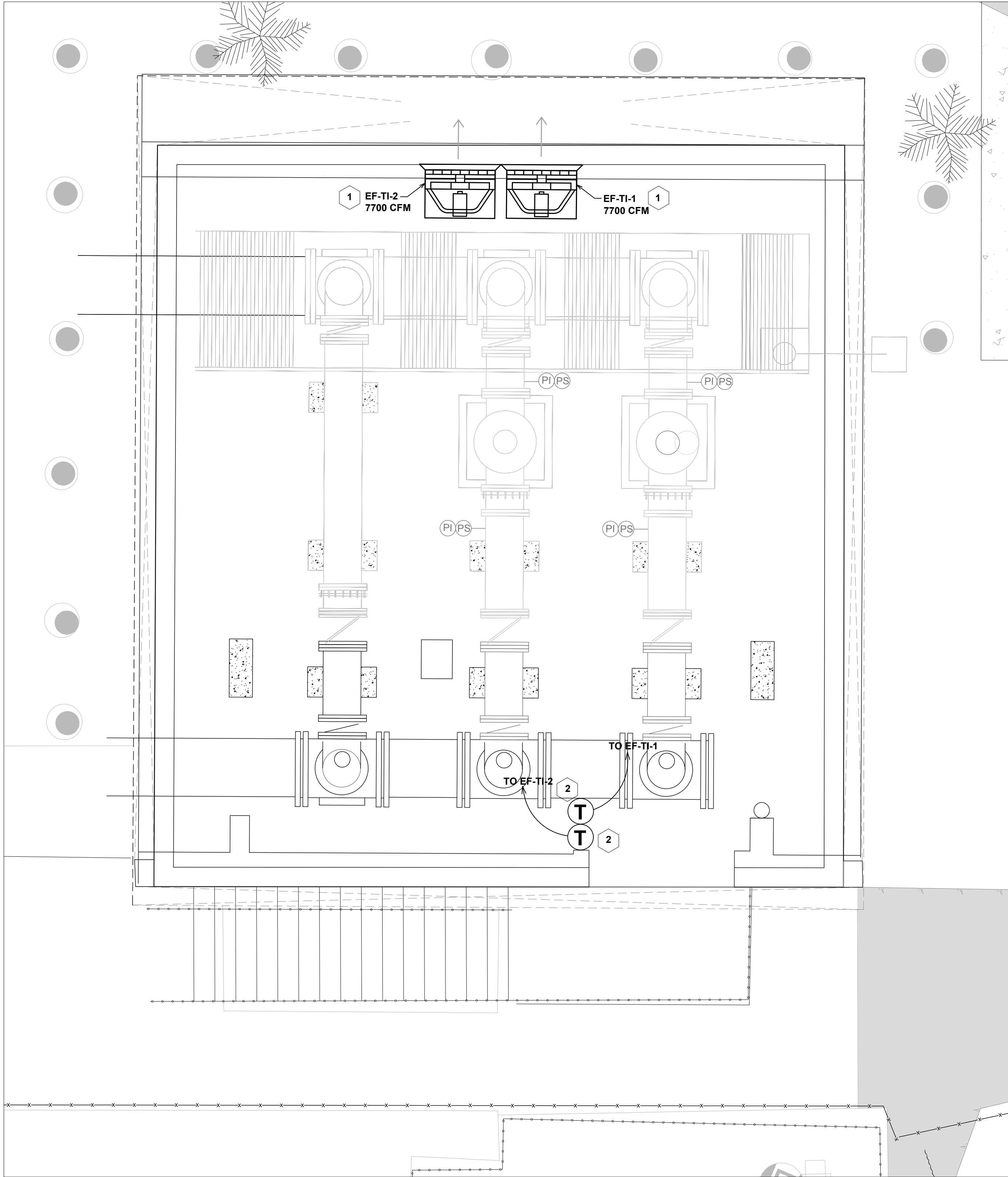


Note: (1) MAX 3% VD ON BRANCH CIRCUITS AS PER FBC
(2) NEMA 3 ENCLOSURE

-
- BEAMS OR MOUNT BEAM CLAMPS TO STEEL BEAMS FOR
THREADED ROD SUPPORT.
- 1/2" X 1 1/2"
STAINLESS STEEL CHANNEL
- CONDUIT
CLAMP
- THREADED ROD SUPPORT
FROM BUILDING STRUCTURE.
- TRAPEZE ASSEMBLY

CONDUIT PIPE STRAP MOUNTING DETAILS





PLAN (INTERIOR GROUND FLOOR)
SCALE: 1"=3'-0"

MECHANICAL KEYED NOTES:

- 1 CONTRACTOR SHALL DISCONNECT AND REMOVE THE EXISTING EXHAUST FANS COMPLETE. PROVIDE AND INSTALL NEW, GREENHECK EXHAUST FAN. MODEL AER-20-03-0925-VG. 7700 CFM, 2 HP MOTOR, 480V, 3Ø. PROVIDE NEW HOUSING AROUND THE NEW FAN.
- 2 CONTRACTOR SHALL REMOVE EXISTING THERMOSTATS COMPLETE. PROVIDE AND INSTALL NEW THERMOSTAT COMPETE IN PLACE. RECONNECT NEW THERMOSTAT TO NEW EXHAUST FAN.



BUILDING EXHAUST FAN PHOTO

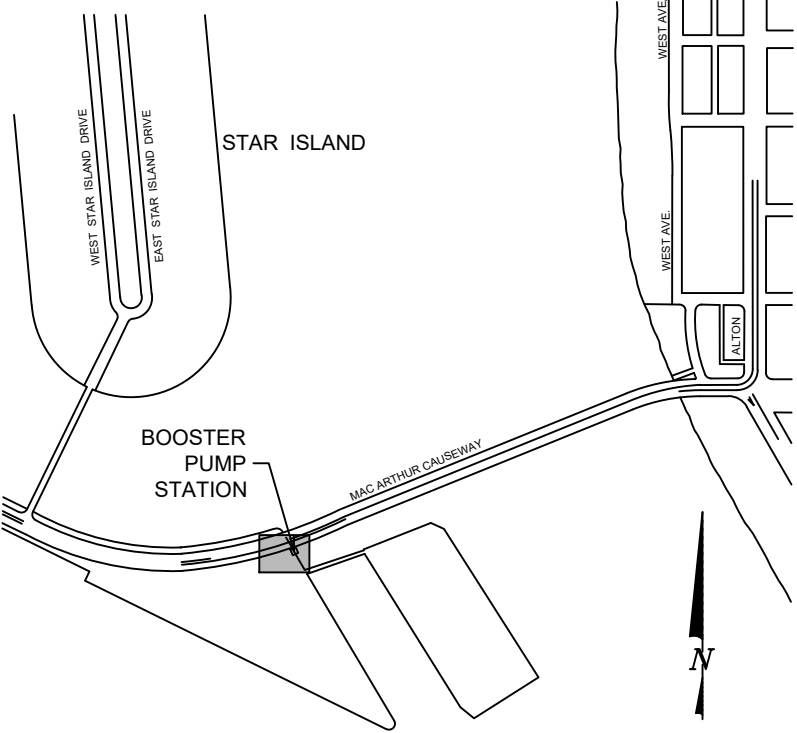
EXISTING
DISCONNECT TO
REMAIN

EXISTING EXHAUST FAN
AND HOUSING TO BE
REMOVED AND
REPLACED
COMPLETELY. TYPICAL
FOR 2

MECHANICAL NOTES:

- 1. INSTALLATION OF EXHAUST FANS SHALL MEET THE FLORIDA BUILDING CODE.
- 2. PROVIDE NEW MOUNTING SUPPORTS PER MANUFACTURERS REQUIREMENTS.

KEY PLAN (NOT TO SCALE):

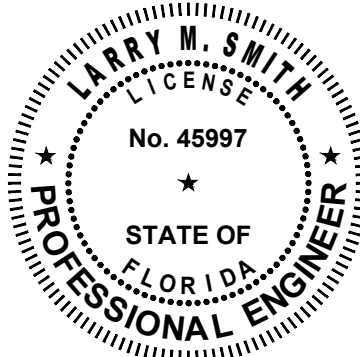


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PROJECT NAME:
SANITARY SEWER PUMP STATION 22 DISCHARGE FORCE MAIN
DRAWING TITLE:
HVAC PLAN MODIFICATION

File Name: 20241267-M-1-PLAN.DWG

Survey Reference:
Field Book: _____ Page: _____ Work Order: 2024-1267-NA
Date: 06/06/2024 Sheet: 7 of - Drawing: M-1

GENERAL STRUCTURAL NOTES

GENERAL NOTES:

- CONTRACTOR IS RESPONSIBLE FOR AND SHALL VERIFY AND COORDINATE ALL DIMENSIONS AND DETAILS BEFORE PROCEEDING WITH WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT AND ENGINEERS.
- DETAILS SHOWN IN ANY SECTION APPLY TO ALL SIMILAR SECTIONS AND CONDITIONS UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL FULLY BRACE AND OTHERWISE PROTECT ALL WORK IN PROGRESS UNTIL THE BUILDING IS COMPLETED.
- ALL STRUCTURAL ITEMS FOR THIS PROJECT HAVE BEEN DESIGNED IN ACCORDANCE WITH APPROPRIATE PROVISIONS OF EACH OF THE FOLLOWING:
 - THE FLORIDA BUILDING CODE, (EIGHTH EDITION) 2023.
 - ACI STANDARD 318-19 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
 - BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (TMS 402-22).
 - AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" 360-16.
 - ASCE 7-22 "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES".
- THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS AND THE CIVIL AND MECHANICAL DRAWINGS. IF THERE IS A DISCREPANCY BETWEEN DRAWINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ARCHITECT PRIOR TO PERFORMING WORK. IN CASE OF CONFLICT THE MOST STRINGENT CONDITION SHALL APPLY.
- ALL DIMENSIONS MUST BE COORDINATED WITH MECHANICAL DRAWINGS AND WITH EQUIPMENT MANUFACTURER (I.E. WINDOW, DOOR, AIR HANDLER, ETC.). CONTRACTOR MUST OBTAIN AN CIVIL DIRECTIVE IN CASE OF ANY CONFLICT. REFER TO CIVIL DRAWINGS FOR DIMENSIONS NOT SHOWN IN STRUCTURAL DRAWINGS.
- ALLOWANCES FOR THIS PROJECT:
 - 2 CUBIC YARDS OF 4,000 PSI STRUCTURAL CONCRETE.
 - 0.5 TONS REINFORCED STEEL.
 - 0.5 TONS STRUCTURAL STEEL FRAMING.
 - \$200,000 ALLOWANCE FOR EXTERIOR RESTORATION.
 - CONTRACTOR SHALL GIVE CREDIT TO OWNER FOR ANY UNUSED PORTION OF THIS ALLOWANCE AT THE END OF THE PROJECT.

CONCRETE AND REINFORCING:

- ALL CONCRETE WORK SHALL CONFORM TO THE LATEST ACI "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, ACI-318".
- ALL CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTHS AS INDICATED BELOW:

CONCRETE STRENGTH	MAX WATER CEMENT RATIO	TYPE AGGREGATE	LOCATION USED
4000 PSI	0.45	STONE	SLAB ON GRADE
- STRUCTURAL LIGHT WEIGHT CONCRETE SHOULD HAVE A DENSITY BETWEEN 80 PCF AND 115 PC.
- ALL REINFORCING STEEL SHALL BE INTERMEDIATE GRADE, NEW BILLET STEEL, DEFORMED BARS, CONFORMING TO ASTM A-615, GRADE 60. ALL BARS SHALL BE SECURELY SUPPORTED AND WIRED IN PLACE, PRIOR TO POURING CONCRETE. ALL REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A-706.
- ALL WELDED WIRE FABRIC (W.W.F.) IN FLAT SHEETS ONLY AND SHALL CONFORM TO ASTM A-185.
- UNLESS NOTED, ALL BARS MARKED CONTINUOUS SHALL BE SPLICED AT ALL LAP POINTS AND CORNERS AND DEVELOPED AT NON-CONTINUOUS ENDS AS PER TYPICAL DETAILS. SPLICE CONTINUOUS TOP BARS AT CENTER BETWEEN SUPPORTS AND SPLICE CONTINUOUS BOTTOM BARS AT SUPPORTS.
- CONCRETE COVER FOR REINFORCING BARS SHOWN IN TYPICAL DETAILS.
- UNLESS NOTED, TEMPERATURE REINFORCING (ASTM A-615-60) TO BE 0.0018 X CONCRETE AREA.
- PROVIDE #4 @ 12" O.C., WITH STANDARD HOOK, TOP BARS IN ALL SLABS AT DISCONTINUOUS ENDS UNLESS OTHERWISE NOTED ON PLANS. LENGTH OF BARS 1/4 OF SPAN, MINIMUM 3'-0". UNLESS OTHERWISE NOTED PROVIDE #4 @ 12" O.C. IN ALL CANTILEVERS. BAR LENGTH SHALL BE CANTILEVER SPAN PLUS 10'-0" PLUS STANDARD HOOK AT CANTILEVER ENDS.
- WHERE PIPE SLEEVES (UP TO 2" IN DIAMETER) PASS THROUGH CONCRETE BEAMS, PROVIDE ADDITIONAL STIRRUP EACH SIDE OF SLEEVE, SLEEVES FOR PIPES 2" IN DIAMETER OR LARGER MUST BE STEEL OR CAST IRON, AND THE LOCATION MUST BE APPROVED BY THE STRUCTURAL ENGINEER.
- ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED JUST BEFORE PLACING NEW CONCRETE IN ACCORDANCE WITH THE BUILDING CODE.
- FOR CHAMFER OF EXPOSED CORNERS OF BEAMS AND/OR COLUMNS, SEE ARCHITECTURAL DRAWINGS.
- CONTRACTOR SHALL COORDINATE PLACEMENT OF, OR BOX OUT FOR, ALL PIPE SLEEVES, OPENINGS, ETC, REQUIRED FOR VARIOUS TRADES.
- CONTRACTOR SHALL COORDINATE AND NOTIFY OTHER TRADES IN SUFFICIENT TIME TO ALLOW THEM TO SET ANCHORS, INSERTS, BOLTS, HANGERS, ETC., AS REQUIRED FOR THEIR USE.
- SEE ARCHITECTURAL DRAWINGS FOR DETAILS OF FLASHING REGLETS, FASCIA DETAILS, ETC.
- UNDER NO CIRCUMSTANCES SHALL CONCRETE BE PUMPED THROUGH ALUMINUM PIPES. CONCRETE SHALL NOT BE PLACED IN CONTACT WITH ALUMINUM, ALUMINUM MIXING DRUMS, TRUCK MIXERS, BUGGIES, CHUTES, CONVEYORS, TREME PIPES, AND OTHER EQUIPMENT MADE OF ALUMINUM SHALL NOT BE USED ON THIS PROJECT.
- SLUMPS OF OVER 4 INCHES WILL NOT BE PERMITTED UNLESS THE HRWR ADMIXTURE (SUPER PLASTICIZER) IS USED. MAXIMUM SLUMP IS THEN 8 INCHES UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- NO ADMIXTURE SHALL BE USED IN CONCRETE EXCEPT WITH THE PERMISSION OF THE ENGINEERS AND AFTER LABORATORY DESIGN MIX APPROVAL. ALL ADMIXTURES SHALL CONTAIN NO MORE CHLORIDE IONS THAN ARE PRESENT IN MUNICIPAL DRINKING WATER.
- WATER REDUCING ADMIXTURE SHALL CONFORM TO THE ASTM C-494, TYPE A, AND SHALL BE USED IN ALL CONCRETE.
- AIR ENTRAINING ADMIXTURE SHALL CONFORM TO ASTM C260. AIR CONTENT OF CONCRETE SHALL BE USED AS FOLLOWS:
 - FOR CONCRETE EXPOSED TO SOIL AND/OR WEATHER, 5%.
 - FOR INTERIOR WALLS, COLUMNS, AND SLABS, 3%.
- FLY ASH - ASTM C618, TYPE C OR TYPE F SHOULD BE USED BUT NOT TO EXCEED 20% CEMENTIOUS CONTENT.
- ALL EXPOSED CONCRETE SHALL RECEIVE A CURING COMPOUND. THE CURING COMPOUND SHALL CONFORM TO ASTM C309 AND SHALL HAVE 30% SOLIDS MINIMUM. WATER/BLANKET CURING AS PER ACI RECOMMENDATION MAY BE USED AS ALTERNATE.

- UNLESS NOTED IN PROJECT SPECIFICATIONS, A TESTING LAB SHOULD PERFORM THE FOLLOWING TEST:
 - ATTENDANCE AT THE PROJECT SITE DURING ALL CONCRETE PLACING OPERATIONS
 - CONTROL THE ADDITION OF MIXING WATER TO MAINTAIN THE REQUIRED WATER/CEMENT RATIO AND INDICATED IN THE REPORT ANY ADDED WATER TO THE MIX AND THE LOCATION OF PLACEMENT.
 - ENSURE THAT THE CONCRETE IS OF THE PROPER TEMPERATURE WHEN PLACED.
 - AIR CONTENT TESTS - AT LEAST TWO TESTS SHALL BE MADE FOR EACH DAY'S PLACING OR FROM EACH BATCH OF CONCRETE FROM WHICH CYLINDERS ARE CAST.
 - SLUMP TESTS - AT FREQUENT INTERVALS TO PROPERLY CONTROL THE CONSISTENCY AND AT LEAST ONE AT THE TIME OF CASTING EACH GROUP OF CYLINDERS AND AT LEAST ONE TEST FOR EVERY 25 CUBIC YARDS.
 - CONCRETE COMPRESSION CYLINDERS SHALL BE TAKEN FROM THE CONCRETE OF EACH STRENGTH PLACED ON ANY ONE DAY AT LEAST ONE SET OF FIVE REPRESENTATIVE 6" X 12" TEST CYLINDERS. FOR LARGE PLACEMENTS ON ANY ONE DAY, THERE SHALL BE TAKEN NOT LESS THAN ONE SET OF FIVE REPRESENTATIVE TYPE CYLINDERS FOR EACH 100 CUBIC YARDS OF CONCRETE OF EACH STRENGTH PLACED. TWO CYLINDERS ARE TO BE TESTED AT 7 DAYS, TWO AT THE AGE OF 28 DAYS, AND THE FIFTH CYLINDER IN RESERVE FOR FURTHER TESTING. ASCERTAIN THAT THE TEST SPECIMENS ARE PROPERLY PROTECTED UNTIL SHIPPED TO THE TESTING LABORATORY. RECORD AND IDENTIFY EACH CYLINDER WITH THE LOCATION OF THE CONCRETE FROM WHICH THE SPECIMEN WAS TAKEN. KEEP MARKING IN SEQUENCE.

STRUCTURAL STEEL:

- ALL STRUCTURAL STEEL WORK SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST A.I.S.C. SPECIFICATIONS.
- STRUCTURAL STEEL SHALL CONFORM TO:

WIDE FLANGE (WF)	ASTM A992 (50 KSI)
SHAPES (L,T,C,PL)	ASTM A36
STRUCTURAL TUBE (HSS)	ASTM A500 (46 KSI)
STEEL PIPE (HSS)	ASTM A500 (42 KSI)
ANCHOR BOLTS	ASTM F1554 (36 KSI) U.N.O. IN PLANS, OR SECTIONS.
FRAMING BOLTS	ASTM A325 OR A490
SHEAR STUDS	ASTM A108
WELDING ELECTRODES	E70XX
- ALL HIGH STRENGTH BOLTS SHALL CONFORM TO ASTM SPECIFICATION A325 AND SHALL BE PROVIDED WITH HARDENED WASHERS UNDER THE TURNED ELEMENT (NUT OR BOLT HEAD).
- INSTALLATION AND TIGHTENING OF ALL HIGH STRENGTH BOLTS SHALL CONFORM TO THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS".
- SHOP CONNECTIONS MAY BE WELDED OR HIGH STRENGTH BOLTED. ALL BOLTS SHALL BE 3/4" DIAMETER MINIMUM. ALL CONNECTIONS SHALL CONFORM TO THE TYPICAL CONNECTION DETAILS SHOWN ON THE PLANS UNLESS SPECIFICALLY APPROVED BY THE ENGINEER.
- ALL FIELD CONNECTIONS SHALL BE BOLTED WITH HIGH STRENGTH BOLTS, SLIP-CRITICAL (FRICTION) TYPE EXCEPT WHERE SLOTTED HOLES ARE SPECIFIED OR WHERE MOVEMENT OF THE CONNECTED MEMBERS IS EXPECTED. IN THESE CASES PROVIDE OVERSIZED WASHER, HAND TIGHTEN BOLTS, AND TACK WELD WASHER TO NUT TO VERIFY ASSEMBLY IS HELD TOGETHER.
- ALL WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY CODE, AWS D1.1. ALL WELDING SHALL BE PERFORMED USING E70XX U.N.O. CUTS, HOLES, COPINGS, ETC. REQUIRED IN STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES SHALL BE SHOWN IN THE STRUCTURAL STEEL SHOP DRAWINGS AND SHALL BE MADE IN THE SHOP. HOLES SHALL BE REINFORCED AS REQUIRED BY THE ENGINEER.
- BURNING OF HOLES, CUTS, ETC. IN STRUCTURAL STEEL MEMBERS IN THE FIELD WILL NOT BE PERMITTED, EXCEPT WITH THE SPECIFIC APPROVAL OF THE ENGINEER.
- ALL STEEL MEMBERS (SUCH AS BEAMS, COLUMNS, PLATES, BOLTS, LINTELS, DOOR JAMBS, ETC.) EXPOSED TO WEATHER AND ALL MEMBERS IN AN EXTERIOR ENCLOSED NON-AIR-CONDITIONED AREA SHALL BE HOT DIPPED GALVANIZED.
- FOR MISCELLANEOUS STEEL, SEE ARCHITECTURAL DRAWINGS.
- ANY STEEL MEMBERS REQUIRED BY THE ELECTRICAL OR MECHANICAL TRADES FOR THE SUPPORT OF THEIR EQUIPMENT, WHICH ARE NOT SHOWN ON ARCHITECTURAL OR STRUCTURAL DRAWINGS, SHALL BE PROVIDED BY THE TRADE REQUIRING SUCH SUPPORT.
- SEE SPECIFICATIONS FOR PAINTING OF STRUCTURAL STEEL. ALL FABRICATION AND ERECTION MARKS SHALL BE COVERED DURING FIELD TOUCH-UP PAINTING.
- ALL CONNECTIONS TO BE DOUBLE ANGLE FRAMED BEAM CONNECTION PER AISC UNLESS NOTED OTHERWISE. ALL BOLTS TO BE 3/4" MINIMUM DIAMETER UNLESS NOTED OTHERWISE. SHOP CONNECTIONS MAY BE WELDED OR BOLTED. WELDS ARE TO BE EQUAL IN STRENGTH TO BOLTS.
- DESIGN CONNECTIONS FOR HALF THE MAXIMUM SHEAR (V IN KIPS) LISTED IN THE TABLE 3-6 "MAXIMUM TOTAL UNIFORM LOAD" AT THE BOTTOM OF EACH PAGE IN THE "BEAM PROPERTIES" OF THE AISC 360-16" MANUAL OF STEEL CONSTRUCTION. MINIMUM CONNECTION SHALL CONSIST OF TWO 3/4"x0 A325 BOLTS. REACTIONS SHOWN ARE BASED ON UNFACTORED LOADS, PROVIDE SIGNED AND SEALED DRAWINGS AND CALCULATIONS BY A PROFESSIONAL ENGINEER.
- DESIGN BASE PLATE ANCHOR BOLTS FOR LATERAL MEMBERS USING FORCES INDICATED IN DRAWINGS. PROVIDE SIGNED AND SEALED DRAWINGS AND CALCULATIONS BY A PROFESSIONAL ENGINEER.
- WHEN STEEL MEMBERS ARE WELDED TO EMBED PLATES IN CONCRETE, WELDING PROCESS SHOULD BE PERFORMED IN SUCH WAY THAT EMBED PLATE DOES NOT OVERHEAT AND EXPAND. SUCH EXPANSION WILL CRACK THE CONCRETE SURROUNDING THE EMBED PLATE AND MAY WEAKEN THE STRUCTURAL CAPACITY OF THE CONNECTION. WE RECOMMEND TO PROVIDE SEVERAL SINGLE PASSES TO BUILT UP THE WELD SIZE REQUIRE WITH COOLING OFF PERIODS TO AVOID THE EMBED PLATE EXPANSION. UNDER NO CIRCUMSTANCES PROVIDE MORE THAN 6" OF 1/4" WELD WITHOUT ALLOWING A COOLING OFF PERIOD.
- EXPOSED ENDS OF STRUCTURAL TUBES OR PIPES SHALL BE CAPPED WITH A MINIMUM 1/4" PLATE U.N.O.
- ALL WELDS SHALL BE VISUALLY INSPECTED AND COMPLIANT WITH AWS D1.1 ACCEPTANCE CRITERIA. ALL COMPLETE JOINT PENETRATION WELDS SHALL BE TESTED FOR THEIR FULL LENGTH BY MEANS OF AN APPROVED NONDESTRUCTIVE TEST IN ACCORDANCE WITH AWS D1.1.

FOUNDATION NOTES:

- SITE SOIL FOR THIS PROJECT HAS BEEN INVESTIGATED BY THE FIRM OF PAN GEO CONSULTANTS, LLC, AND FOUND, AS PRESENTED IN THEIR REPORT DATED MONTH 02/2024, SUITABLE TO SUPPORT 2 X 6SF SPREAD FOOTINGS. FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE ABOVE STATED CRITERIA.
- FILL AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER RECOMMENDATION AS CONTAINED IN THEIR REPORT STATED IN ITEM 1.
- ALL COLUMN FOOTINGS SHALL BE CENTERED UNDER COLUMN CENTERLINES UNLESS OTHERWISE NOTED.
- BACKFILLING AGAINST FOUNDATION WALLS SHALL BE DONE CAREFULLY WITH SMALL COMPACTION EQUIPMENT, AFTER SLABS ON GROUND ARE IN PLACE AND CONCRETE HAS SET, NO TRUCKS, BULLDOZERS, ETC. SHALL BE ALLOWED CLOSER THAN 6'-0" TO ANY FOUNDATION WALL. ANY WALL 3'-0" OR HIGHER MUST BE BRACED DURING THE CONSTRUCTION PROCESS.
- NO FOUNDATIONS SHALL BE PLACED ABOVE 1 VERTICAL ON 2 HORIZONTAL SLOPES EXTENDED FROM THE CLOSEST EDGE OF ANY UNDISTURBED SOIL OR OTHER FOUNDATION STRUCTURE. BOTTOM OF FOOTINGS SHALL NOT BE LESS THAN 1'-0" BELOW EXISTING GRADE (U.N.O.).
- FOR FOUNDATIONS SIZE AND REINFORCING SEE SCHEDULE.
- TERMITE PROTECTION INCLUDING PIPING SLEEVES MUST FOLLOW THE REQUIREMENTS OF SECTIONS 1816.1 AND 1816.2 OF THE FLORIDA BUILDING CODE, 8TH EDITION, 2023.

SHOP DRAWINGS:

- NO STRUCTURAL DRAWINGS SHALL BE REPRODUCED FOR USE AS SHOP DRAWINGS.
- ALL DIMENSIONAL COORDINATION SHALL BE DONE BY THE CONTRACTOR AND/OR HIS DETAILER.
- DETAILER SHALL CHECK ALL ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ALL ATTACHMENTS, CLIPS, OPENINGS, OR DUCT WORK AFFECTING STRUCTURAL MEMBERS. ALL ITEMS SHALL BE SHOWN ON SHOP DRAWINGS.
- ALL SHOP DRAWINGS SHALL BE SUBMITTED ELECTRONICALLY IN PDF FORMAT. DISTRIBUTION AS PER ARCHITECT INSTRUCTIONS.
- PROVIDE SUFFICIENT SPACE ON SHOP DRAWINGS NEAR TITLE BOX (ABOUT 40 SQUARE INCHES) FOR STAMPS AND ENGINEERS COMMENTS.
- THE SHOP DRAWINGS SHALL BEAR INITIALS OF DETAILER'S CHECKER AND CONTRACTOR PRIOR TO SUBMISSION.
- COMPLETED ERECTION PLANS SHALL BE SUBMITTED PRIOR TO OR IN CONJUNCTION WITH DETAIL DRAWINGS, BUT IN NO CASE SHALL DETAIL DRAWINGS BE SUBMITTED PRIOR TO ERECTION PLANS.
- DETAILER SHALL SUBMIT AN INDEX OF THE DETAIL DRAWINGS WITH EACH SHOP DRAWING SUBMITTAL.
- SHOP DRAWINGS NOT COMPLYING WITH ALL THE ABOVE ITEMS SHALL BE RETURNED FOR CORRECTIONS WITHOUT PROCESSING.
- RESUBMITTED SHOP DRAWINGS SHALL HAVE THE FOLLOWING CHANGES INCORPORATED: FIRST RESUBMISSION TO HAVE LETTER "A" ADDED TO DRAWING
 - NUMBER AND ANY CHANGES MARKED ON THE DRAWING MARKED 1 AT EACH ITEM CHANGED. ALL ITEMS TO BE NOTED IN REVISION BOX.
 - SUBSEQUENT RESUBMISSION SHALL BEAR CHANGES "B" AND 2 AND 3 ETC. AS IN 11A.

- CONTRACTOR SHALL HAVE SHOP DRAWINGS WHICH HAVE BEEN SATISFACTORILY REVIEWED BY THE ARCHITECT AND/OR ENGINEER AND CONFIRMED BY THE CONTRACTOR BEFORE PROCEEDING WITH ANY WORK.
- DETAILER SHALL USE THE SAME STRUCTURAL ELEMENT NUMBERS IN HIS DETAILS AS THOSE SHOWN ON CONTRACT DRAWINGS.
- SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOULD BE SUBMITTED TO MCE WITH A MINIMUM TIME TO BE REVIEWED OF 10 WORKING DAYS. IN CASE OF A LARGE SUBMITTAL OR MORE THAN ONE SUBMITTAL FOR THE SAME PROJECT, AN ADDITIONAL WORKING DAY IS REQUIRED FOR EVERY 5 DRAWINGS/SHEETS OVER 30 DRAWINGS/SHEETS. THE TIME INDICATED ABOVE IS FOR MCE REVIEW ONLY. CONTRACTOR MUST INCLUDE ENOUGH TIME FOR DELIVERY, ARCHITECTURAL REVIEW, AND OWNERS REVIEW AND WORK THIS TIME IN THE PROJECT SCHEDULE AS NEEDED.
- THERE SHALL BE NO DEVIATION FROM THESE CONSTRUCTION DOCUMENTS. IF ANY CHANGES ARE PROPOSED BY THE CONTRACTOR OR THE PROVIDER OF THE SHOP DRAWINGS, THEY SHOULD BE CLEARLY INDICATED, SIGNED AND SEALED DRAWINGS AND CALCULATIONS BY A FLORIDA PROFESSIONAL ENGINEER MUST BE PROVIDED. ANY CHANGES WITHOUT PROPER DOCUMENTATION INDICATED ABOVE WILL RESULT IN SOME REVISIONS BY THE ENGINEER OF RECORD AND/OR ARCHITECT. THE COST FOR THESE REVISIONS, INCLUDING ENGINEER AND ARCHITECTURAL FEES SHALL BE PAID BY THE CONTRACTOR.

DELEGATED DESIGN

- SELECT SCOPE ITEMS IN THE PROJECT ARE CUSTOM DESIGNED AND ENGINEERED. THE ENGINEERING RESPONSIBILITY IS DELEGATED TO THE CONTRACTOR AND RELATED SUBCONTRACTORS.
- CONTRACTOR SHALL SUBMIT SIGNED AND SEALED SHOP DRAWINGS AND CALCULATIONS FOR SUCH ELEMENTS DESIGNATED TO BE DESIGNED BY A DELEGATED ENGINEER.
- DELEGATED ENGINEERING WILL ADDRESS ALL LOADING REQUIREMENTS INCLUDING WIND PRESSURES IN ACCORDANCE WITH THE LATEST FLORIDA BUILDING CODE. REFER TO THE COMPONENTS AND CLADDING PRESSURES PROVIDED FOR DESIGN PRESSURES ELEMENTS SHALL BE IN CONFORMANCE WITH.
- DELEGATED ENGINEERED DRAWINGS SHALL DEFINE MATERIAL THICKNESS, SIZING, CONNECTIONS, ETC. OF THE SUBMITTED SYSTEM.
- DELEGATED ENGINEERED DRAWINGS AND CALCULATIONS WILL BE REVIEWED AS PART OF THE SUBMITTAL PROCESS.
- BUILDING COMPONENTS THAT ARE NOT SPECIFIED AS DELEGATED TO OTHER ENGINEERS SHALL BE SUBMITTED WITH APPROPRIATE FLORIDA PRODUCT APPROVAL INFORMATION IN THE SUBMITTAL. WHERE A FLORIDA PRODUCT APPROVAL DOES NOT EXIST FOR A COMPONENT REQUIRING APPROVAL, THE DESIGN SHALL BE DELEGATED TO AN ENGINEER ON THE CONTRACTOR'S TEAM.
- DELEGATED ENGINEERING AND DEFERRED SUBMITTALS:
 - DEFERRED SUBMITTALS SHALL HAVE THE SHOP DRAWINGS AND DELEGATED DESIGN SUBMITTALS (INCLUDING CALCULATIONS) SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA.
 - DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE REGISTERED DESIGN PROFESSIONAL FOR REVIEW AND SHALL BE FORWARDED TO THE BUILDING OFFICIAL.
 - DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.
 - THE FOLLOWING ITEMS ARE CONSIDERED DEFERRED SUBMITTALS BY THE REGISTERED DESIGN PROFESSIONAL:
 - EXTERIOR OR LOAD BEARING COLD FORMED METAL FRAMING
 - METAL FABRICATIONS, RAILINGS, LADDERS AND GRATINGS
 - STEEL STAIRS
 - MECHANICAL PIPING SUPPORTS
 - STRUCTURAL STEEL CONNECTIONS
 - ROOF TOP EQUIPMENT AND ANCHORAGES
 - STRUCTURAL PRECAST CONCRETE

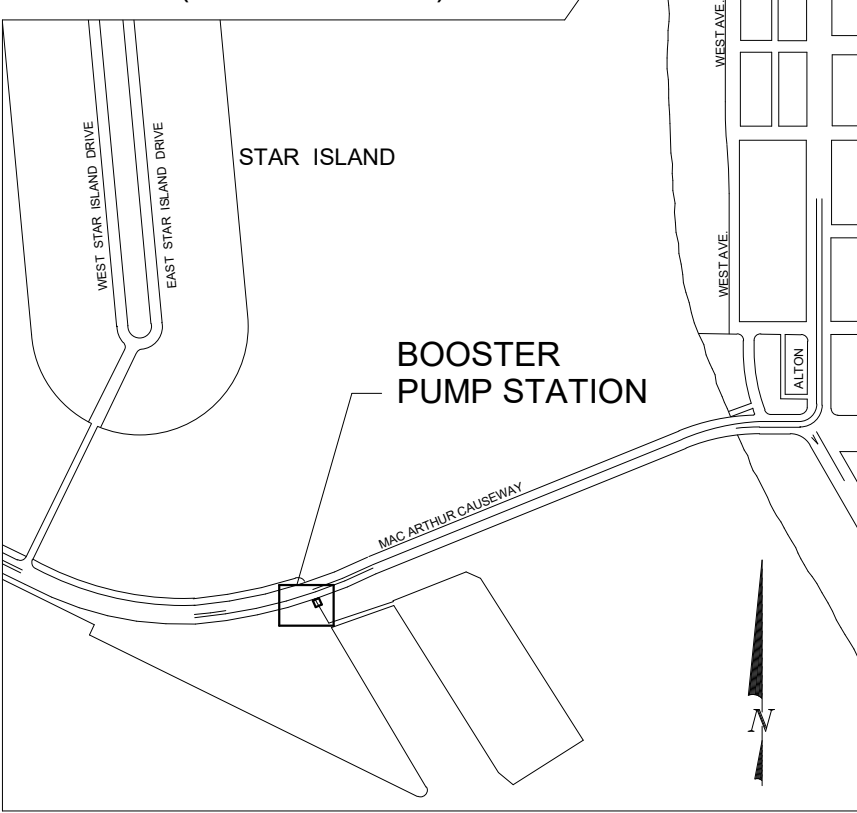
POST-INSTALLED ANCHORS

- POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. SPECIAL INSPECTIONS ARE REQUIRED PER THE PROVISIONS SET FORTH BELOW. CONTRACTOR TO CONTACT MANUFACTURER'S REPRESENTATIVE FOR PROPER PRODUCT INSTALLATION TRAINING ON INITIAL ANCHORS.
- SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE SPECIFIED BELOW, SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER-OF-RECORD ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES (MINIMUM) OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARD(S) AS REQUIRED BY THE BUILDING CODE.
- EXPANSION ANCHORS SHALL BE STUD TYPE WITH A SINGLE PIECE OF THREE SECTION WEDGE AND ZINC PLATED IN ACCORDANCE WITH ASTM B633. THE ANCHORS SHALL MEET FEDERAL SPECIFICATION FF-S-325, GROUP II, TYPE 4, CLASS I FOR CONCRETE EXPANSION ANCHORS. ANCHORS SHALL BE HILTI KWIK BOLT 3 AS SUPPLIED BY HILTI INC. TULSA OKLAHOMA. ANCHORS SHALL BE INSTALLED IN HOLES DRILLED WITH HILTI CARBIDE TIPPED DRILL BITS OR MATCHED TOLERANCE DIAMOND CORE BITS. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS.
- INJECTED ADHESIVE ANCHORS SHALL BE USED FOR INSTALLATION OF THREADED RODS. ADHESIVE SHALL BE FURNISHED IN A SIDE BY SIDE REFILL PACK WHICH KEEP COMPONENT A AND B SEPARATE. INJECTION ADHESIVE SHALL BE HILTI HIT HY 200 AS SUPPLIED BY HILTI INC. TULSA OKLAHOMA. ANCHOR RODS MEET ASTM F 1554 (36 KSI). NUTS AND WASHERS SHALL BE FURNISHED TO MEET THE REQUIREMENTS OF AN ASTM F 1554 (36 KSI) STEEL ROD.

SHEET LIST	
Sheet Number	Sheet Name
S101	GENERAL STRUCTURAL NOTES
S102	WIND DESIGN & LOAD SCHEDULE
S200	OVERALL PLAN
S201	GENERATOR PAD, SECTIONS AND DETAILS
S301	TYPICAL DETAILS

NOTES:

KEY PLAN (NOT TO SCALE)



P.E. SEAL:

TO THE BEST OF OUR KNOWLEDGE INFORMATION AND BELIEF, THESE STRUCTURAL PLANS CONFORM TO AND SATISFY, THE FLORIDA BUILDING CODE, EIGHTH EDITION 2023, ACI 318-14 AND LOCAL CODES AS APPLICABLE

ARMANDO A. CASTELLON, P.E.
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DIRECTOR: JOE L. GÓMEZ, PE, TTCP, F. FES

CITY ENGINEER: CRISTINA ORTEGA
CASTINEIRAS, P.E.

NO.	DATE	DESCRIPTION	APP'D BY.

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CA 8426 PROJ NO. 1288-007-31

ENGINEER OF RECORD: CV
DESIGN ENGINEER: JB
DRAWN BY: JAC
CHECKER: CV
SCALE: 1/8" = 1'-0"

PROJECT NAME:

TERMINAL ISLAND BOOSTER STATION

SHEET CONTENT:

GENERAL STRUCTURAL NOTES

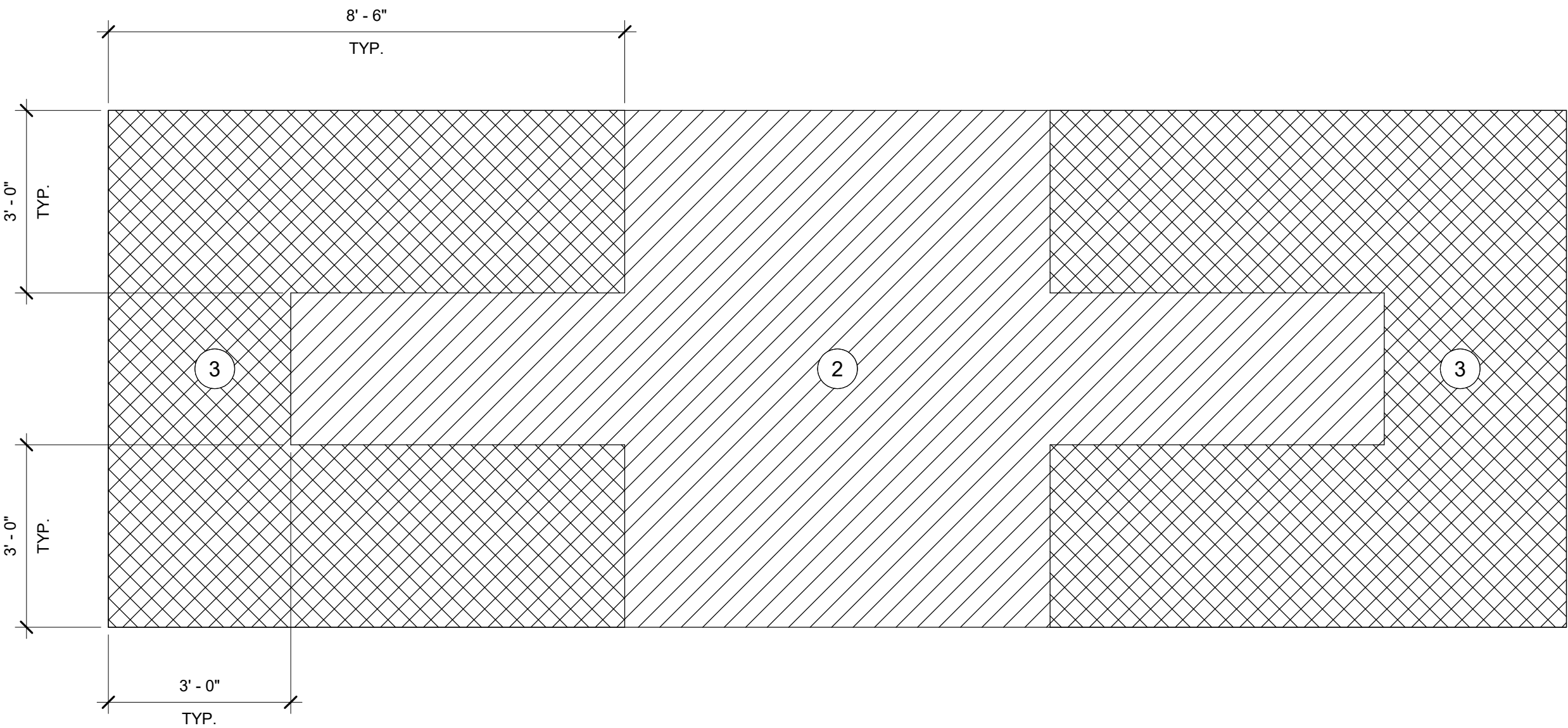
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Field Book: _____ Page: _____ Work Order: 2024-1267-NA

Date: 2024-05-31 Sheet: 1 OF- 5 Drawing: S101

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WIND DESIGN - GENERATOR ENCLOSURE ROOF PLAN
SCALE: 1/2" = 1'-0"

WIND DESIGN DATA:

CODE:
FLORIDA BUILDING CODE, 2023 (8th Ed.) ASCE/SEI 7-22

BASIC WIND SPEED 175 mph (Vult)
136 mph (Vasd)
CATEGORY (RISK) II
EXPOSURE D
BUILDING HEIGHT 28.5ft.
ENCLOSURE CLASSIFICATION ENCLOSED
INTERNAL PRESSURE COEFFICIENT ± 0.18

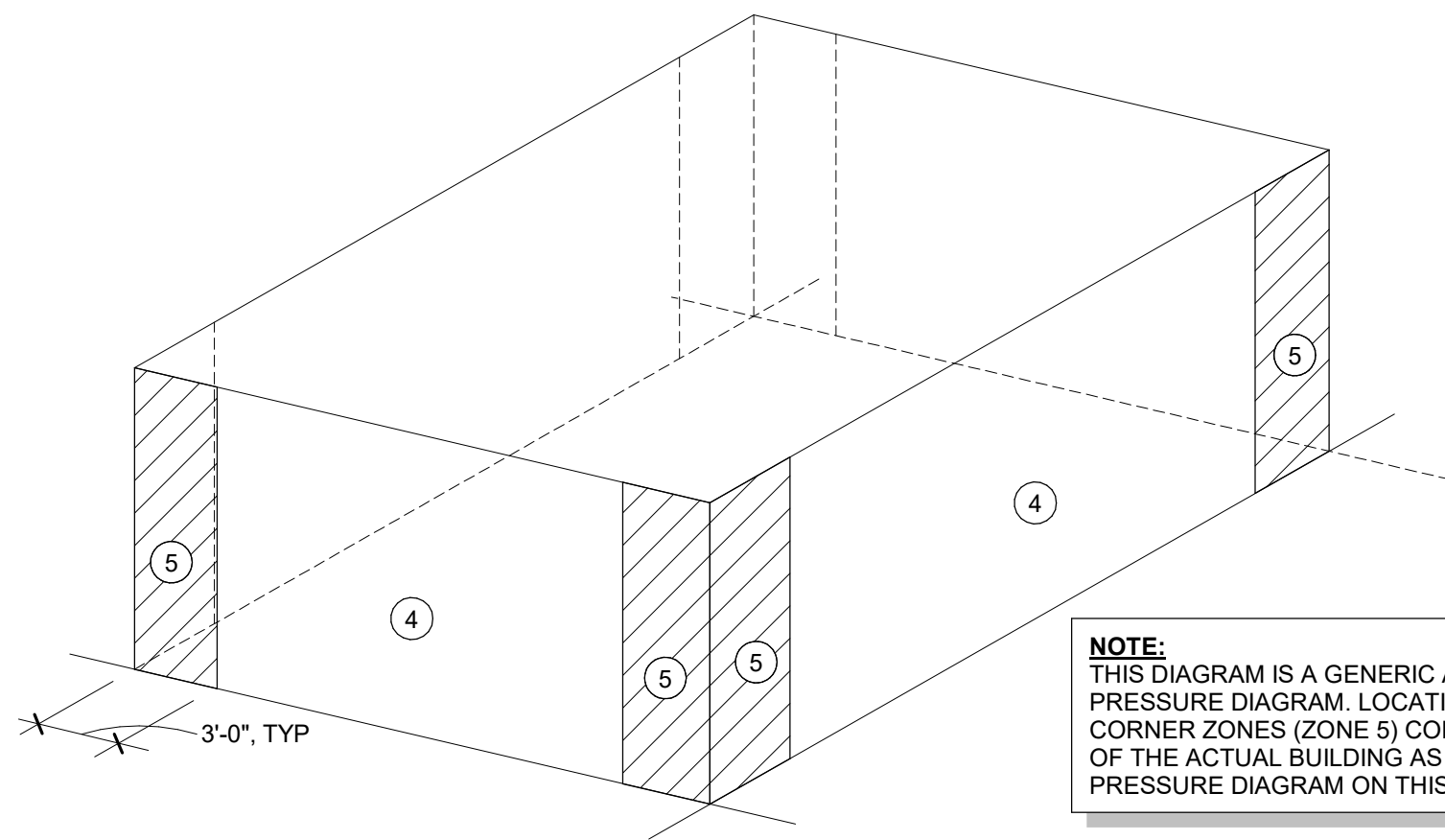
* GLAZED OPENINGS IN RISK CATEGORY II, III, IV
LOCATED IN HURRICANE PRONE REGIONS SHALL BE
PROTECTED IN ACCORDANCE WITH FBC 2023 SEC.
1609.1.2

GENERATOR ENCLOSURE - ROOF							
COMPONENTS AND CLADDING (ULTIMATE) UPLIFT PRESSURE SCHEDULE							
PATTERN	ZONE	EFFECTIVE WIND AREA					
		10 sf	20 sf	50 sf	100 sf	200 sf	500 sf
	2	+33 PSF/-171PSF	+31 PSF/-160PSF	+29 PSF/-145PSF	+27 PSF/-134PSF	+27 PSF/-123PSF	+27 PSF/-109PSF
	3	+33 PSF/-232PSF	+31 PSF/-211PSF	+29 PSF/-182PSF	+27 PSF/-160PSF	+27 PSF/-138PSF	+27 PSF/-109PSF

GENERATOR ENCLOSURE - WALLS							
COMPONENTS AND CLADDING (ULTIMATE) UPLIFT PRESSURE SCHEDULE							
PATTERN	ZONE	EFFECTIVE WIND AREA					
		10 sf	20 sf	50 sf	100 sf	200 sf	500 sf
	4	+75 PSF/-81PSF	+71 PSF/-77PSF	+67 PSF/-73PSF	+64 PSF/-70PSF	+60 PSF/-67PSF	+56 PSF/-62PSF
	5	+75 PSF/-99PSF	+71 PSF/-93PSF	+67 PSF/-84PSF	+64 PSF/-77PSF	+60 PSF/-71PSF	+56 PSF/-62PSF

NOTE:

- ALL EXTERIOR DOORS & WINDOW ASSEMBLIES SHALL SATISFY THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (EIGHTH EDITION 2023, SECTION 1709.5). ALL CONNECTIONS TO BUILDING STRUCTURE SHALL HAVE THE CAPACITY TO WITHSTAND THE PRESSURES INDICATED ON SCHEDULES.
- PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACES, RESPECTIVELY.
- ALL WIND PRESSURE VALUES INDICATED ARE IN POUNDS PER SQUARE FOOT (PSF). MULTIPLY ULTIMATE WIND PRESSURE BY 0.60 FOR ASD PRESSURE.
- FOR NET UPLIFT CALCULATION, THE WEIGHT OF THE STRUCTURAL MEMBER AND THE STRUCTURAL DECK SUPPORTED ARE THE ONLY TWO LOADS THAT CAN BE DEDUCTED FROM THE UPLIFT PRESSURES INDICATED ON SCHEDULES.



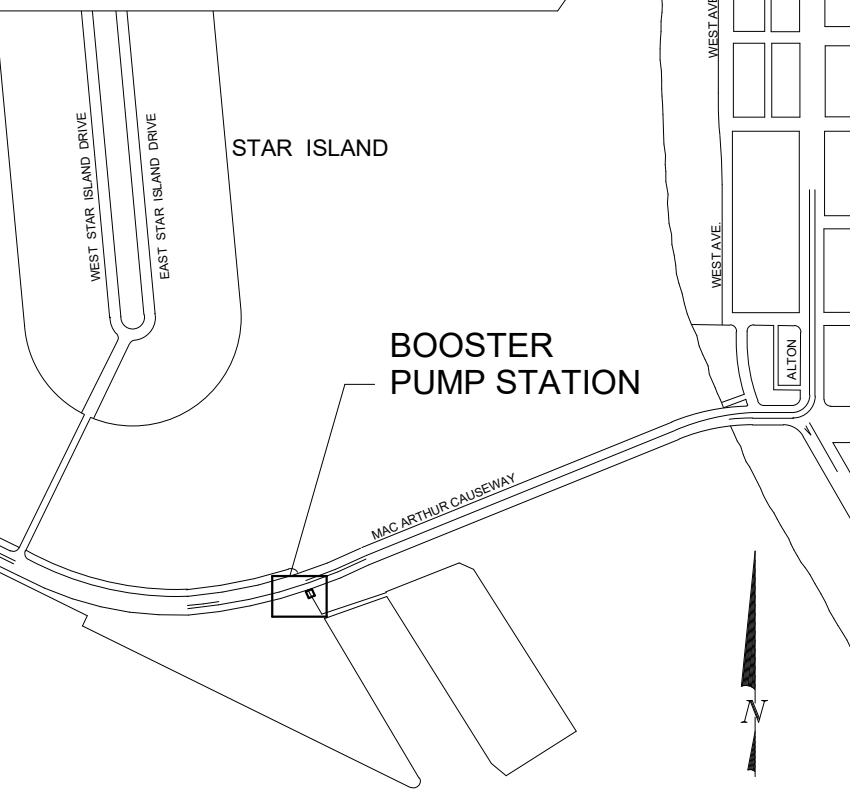
NOTE:
THIS DIAGRAM IS A GENERIC AND SIMPLIFIED WALL PRESSURE DIAGRAM. LOCATION AND WIDTH OF CORNER ZONES (ZONE 5) CORRESPOND TO ZONE 3 OF THE ACTUAL BUILDING AS SHOWN IN THE ROOF PRESSURE DIAGRAM ON THIS SHEET.

WALL PRESSURES DIAGRAM

SCALE: 1/8" = 1'-0"

NOTES:

KEY PLAN (NOT TO SCALE)



P.E. SEAL:

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CA 8426 PROJ NO. 1288-007-31

ENGINEER OF RECORD: Approver
DESIGN ENGINEER: Designer
DRAWN BY: _____ Author
CHECKER: _____ Checker
SCALE: _____ As indicated

PROJECT NAME:

TERMINAL ISLAND BOOSTER STATION

SHEET CONTENT:

WIND DESIGN & LOAD SCHEDULE

File Name:

Survey Reference:


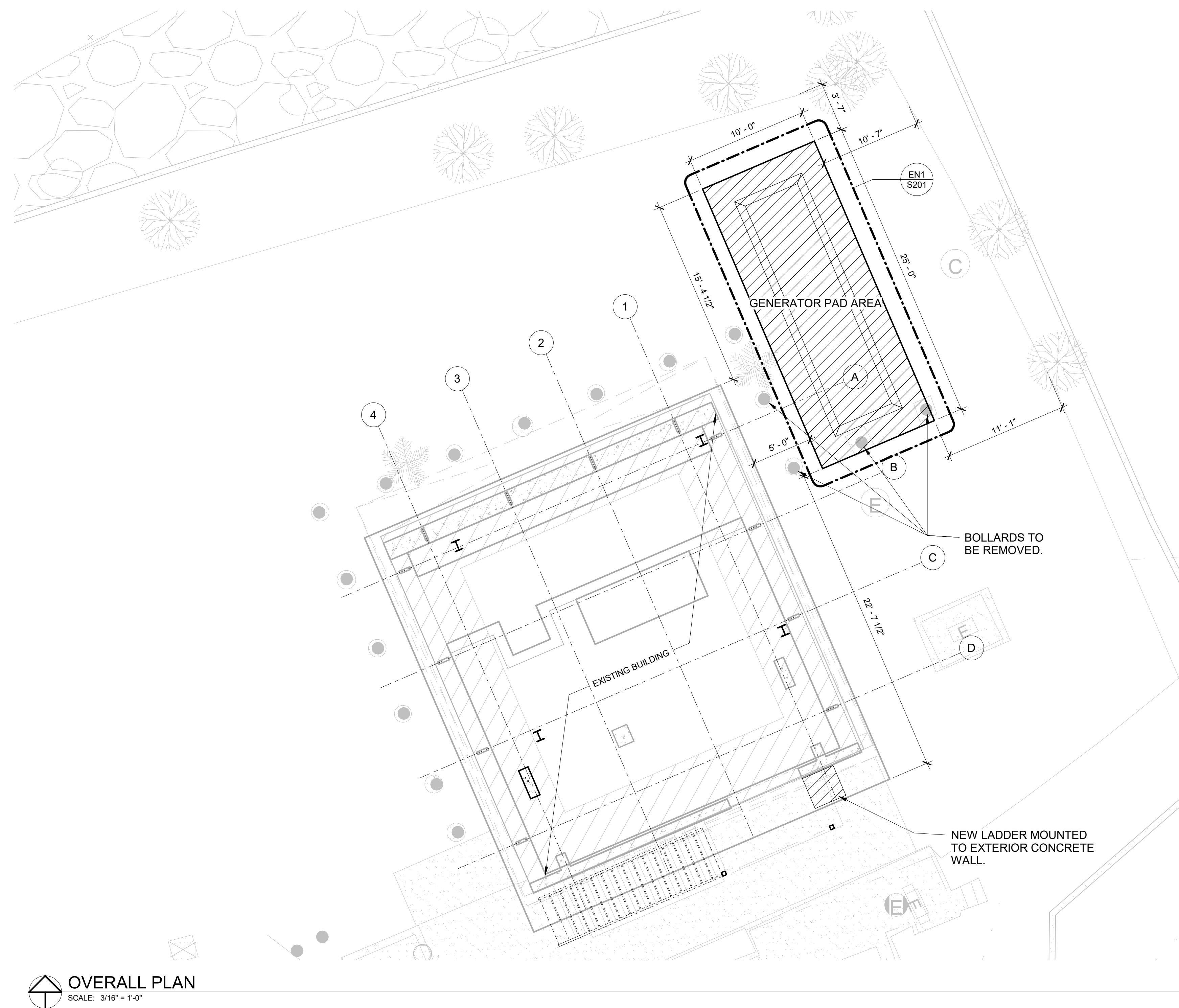
Field Book: _____ Page: _____ Work Order: 2024-1267-NA

Date: 2024-05-31 Sheet: 2 OF 5 Drawing: S102

TO THE BEST OF OUR KNOWLEDGE INFORMATION AND BELIEF,
THESE STRUCTURAL PLANS CONFORM TO AND SATISFY THE
FLORIDA BUILDING CODE, EIGHTH EDITION 2023, ACI 318-14
AND LOCAL CODES AS APPLICABLE

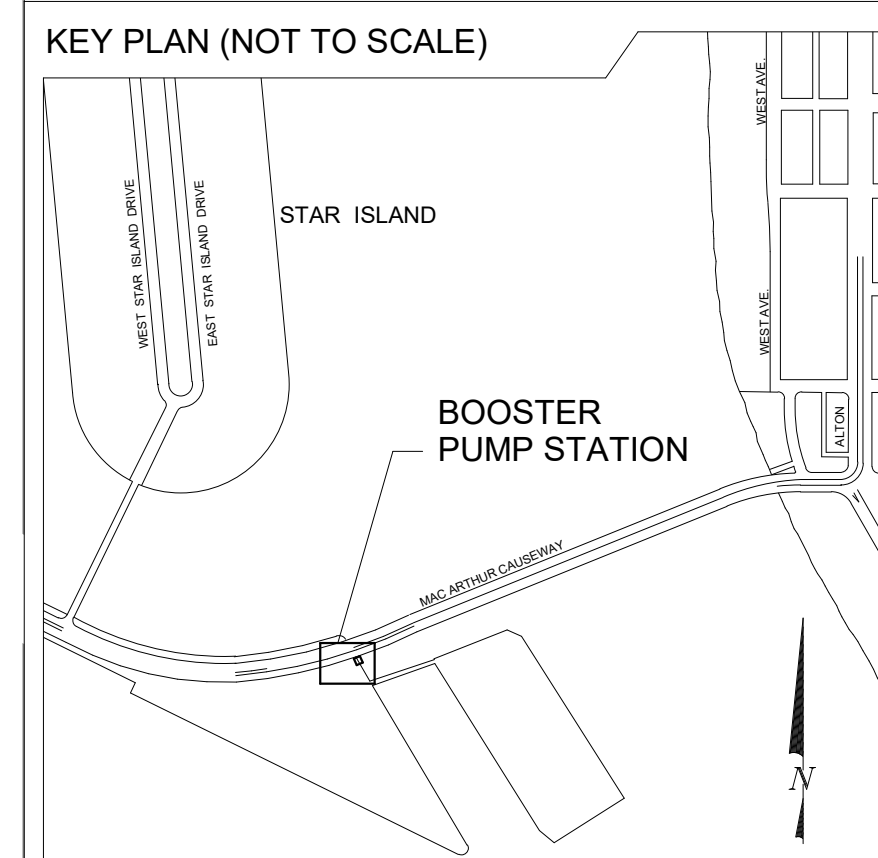
6/13/2024 2:04:43 PM

NOTES:



OVERALL PLAN

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



P.E. SEAL:

ARMANDO A. CASTELLON, P.E.
FL. LIC. No. 43453

TO THE BEST OF OUR KNOWLEDGE INFORMATION AND BELIEF,
THESE STRUCTURAL PLANS CONFORM TO AND SATISFY, THE
FLORIDA BUILDING CODE, EIGHTH EDITION 2023, ACI 318-14
AND LOCAL CODES AS APPLICABLE

PROJECT NAME:	TERMINAL ISLAND BOOSTER STATION
SHEET CONTENT:	OVERALL PLAN

ENGINEER OF RECORD: CV
DESIGN ENGINEER: JE
DRAWN BY: JAC
CHECKER: CV
SCALE: 3/16" = 1'-0"

MC MASTER CONSULTING ENGINEERS, INC.
STRUCTURAL CONSULTANTS
4101 RAVENSWOOD RD., STE. 320
FT. LAUDERDALE, FLORIDA 33312
P | 954.210.7871 F | 813.287.3622

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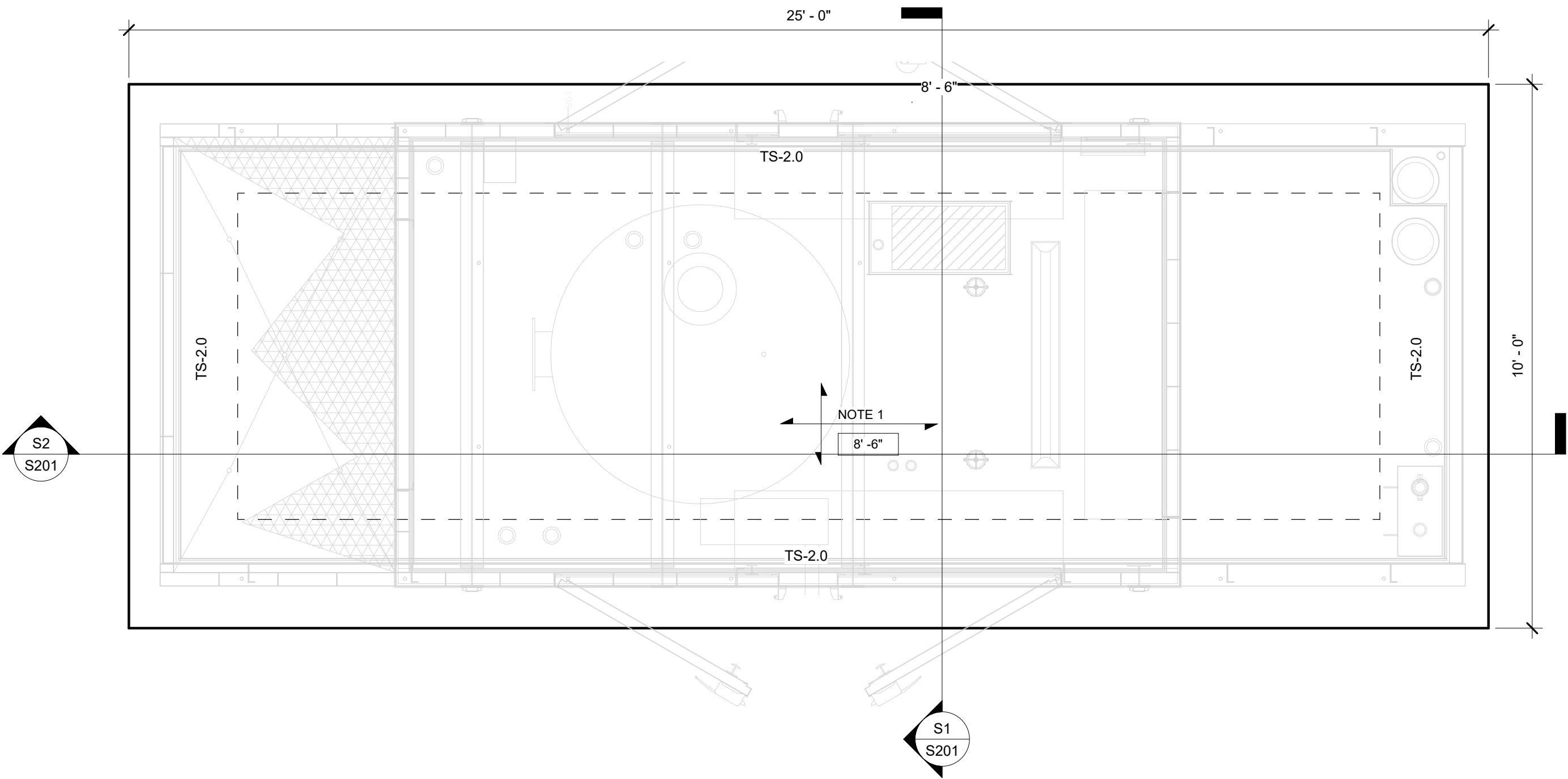
CA: 8426 PROJ NO. 1288-007-

cm
chen moore and associates
3150 SW 38th Avenue
Suite 950
Miami, FL 33146
786.497.1500
www.chenmoore.com

NO.	DATE	DESCRIPTION	APP'D BY.

CITY MANAGER: ALINA T. HUDAK
DIRECTOR: JOE L. GÓMEZ, PE, TTCP, F. FES
CITY ENGINEER: CRISTINA ORTEGA
CASTINEIRAS, P.E.

MIAMI BEACH
PUBLIC WORKS DEPARTMENT
1700 CONVENTION CENTER DRIVE, MIAMI BEACH, FL. 33139



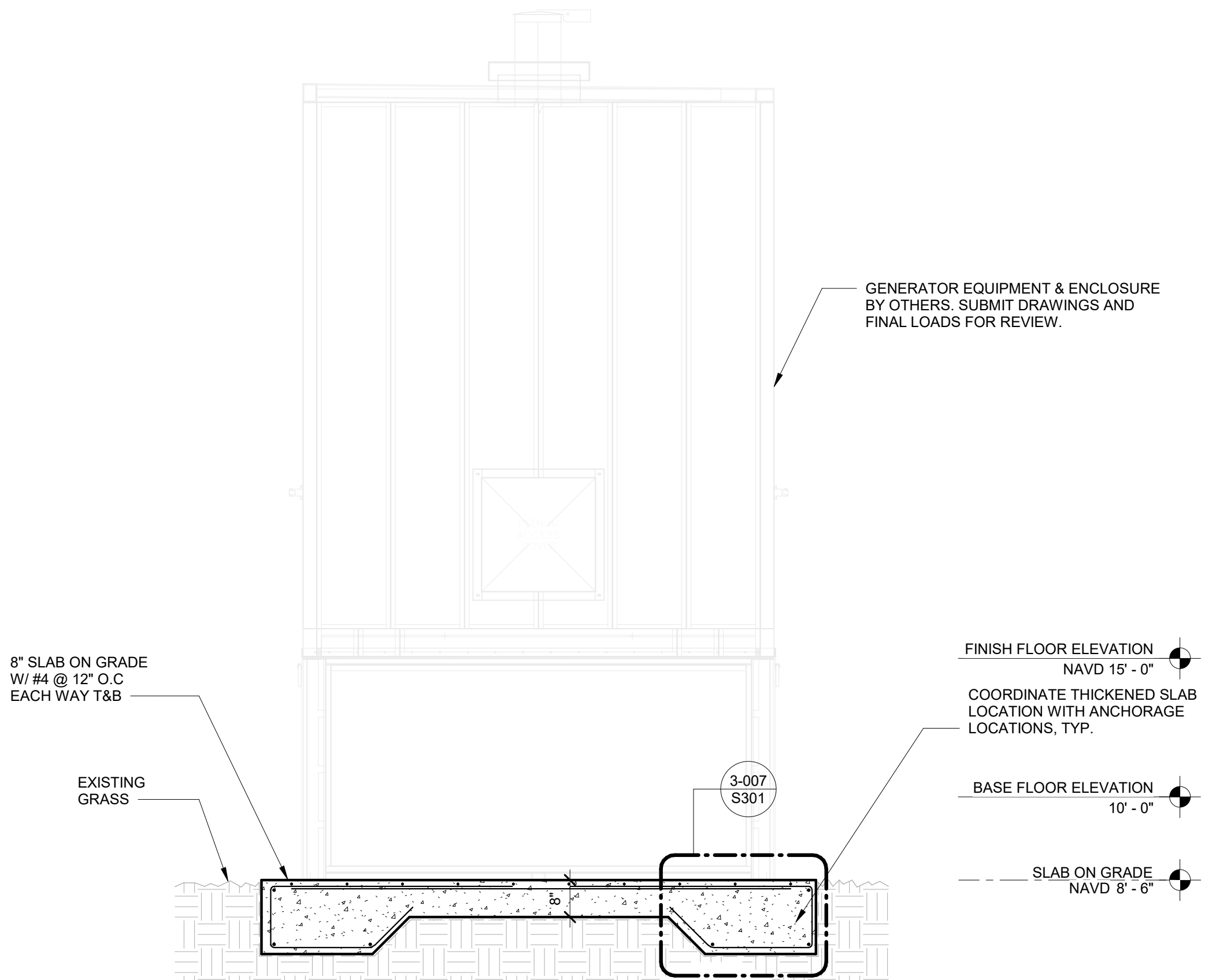
THICKENED SLAB SCHEDULE					
MARK*	SIZE	THICKNESS	TOP & BOTTT.* REINF. CONT.	TOP & BOTTT.* REINF. TRANSV.	REMARKS
TS-2.0	2' - 0" x CONT.	1' - 4"	(3)-#5	#5 @ 10" O.C.	

- FOUNDATION PLAN NOTES:**
- SLAB ON GRADE TO BE MINIMUM 8" THICK CONCRETE OVER COMPACTED SUB BASE PER GEOTECHNICAL REPORT AND TO BE REINFORCED WITH #4 @ 12" O.C. BOTH WAYS ON TOP & BOTTOM. SUPPORT REINFORCEMENT WITH 2" SLAB BOLSTER OR APPROVED EQUAL @ 3'-0" (±) O.C. BOTH WAYS. USE OF CONCRETE BRICK IS NOT ALLOWED.
 - SEE ELECTRICAL SHEET FOR GENERATOR LOCATION AND LAYOUT.
 - FOR SLAB BLOCK-OUT LOCATIONS AND LIMITS, SEE MANUFACTURER CUT SHEET AND GENERATOR MANUFACTURER SPECIFICATIONS.
 - REFER TO THE GENERATOR SPECIFICATIONS AND DRAWINGS FOR DRAINAGE REQUIREMENTS (SLOPED AREAS) OF FINISHED SLAB IF REQUIRED.
 - SEE GENERATOR SPECIFICATIONS FOR HOLD-DOWN CONNECTIONS OF UNIT TO CONCRETE SUPPORT SLAB.
 - EXISTING PAVEMENT SHALL BE REMOVED FOR INSTALLATION OF NEW GENERATOR SUPPORT SLAB. ALL UNDERGROUND UTILITIES WITHIN THE FOOTPRINT OF THE NEW GENERATOR SHALL BE REMOVED OR RELOCATED.
 - TOP OF SUPPORT SLAB ELEVATION ABOVE EXISTING GRADE SHOWN THUS ON PLAN.

- SLAB ON GRADE PLAN NOTES:**
- SLAB ON GRADE TO BE 10" THICK CONCRETE OVER VAPOR BARRIER ON COMPACTED SUB-BASE AS PER GEOTECHNICAL REPORT REINFORCED WITH #5 @ 18" O.C. BOTH WAYS ON TOP & BOTTOM. SUPPORT REINFORCEMENT WITH 2" SLAB BOLSTER OR APPROVED EQUAL @3'-0" (±) O.C. BOTH WAYS. USE OF CONCRETE BRICK IS NOT ALLOWED.
 - SLAB ON GRADE TO BE 8" THICK CONCRETE OVER VAPOR BARRIER ON COMPACTED SUB-BASE AS PER GEOTECHNICAL REPORT REINFORCED WITH #4 @ 12" O.C. BOTH WAYS ON TOP & BOTTOM. SUPPORT REINFORCEMENT WITH 2" SLAB BOLSTER OR APPROVED EQUAL @3'-0" (±) O.C. BOTH WAYS. USE OF CONCRETE BRICK IS NOT ALLOWED.

EN1
S201
SCALE: 1/2" = 1'-0"

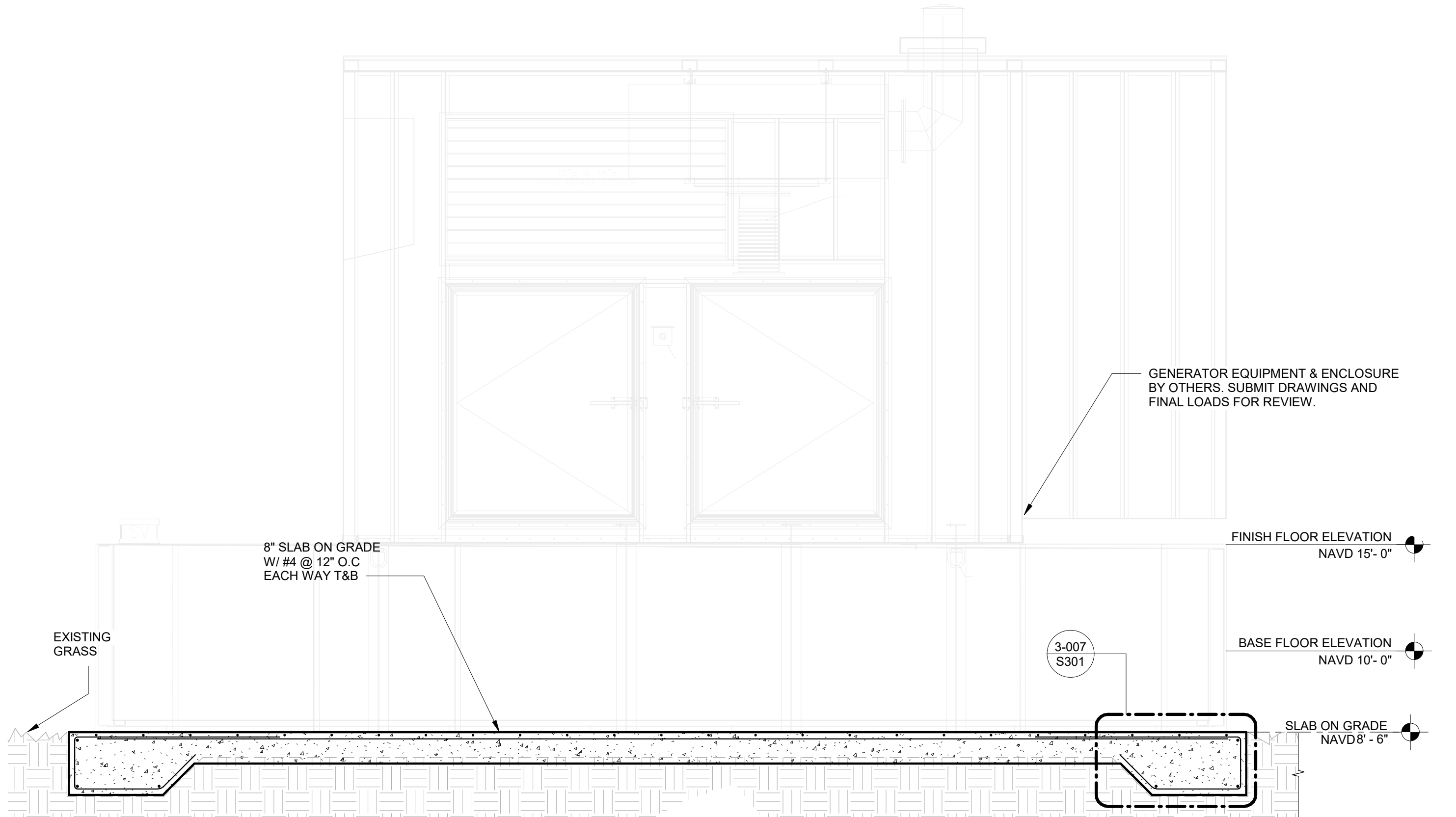
GENERATOR PAD SLAB ON GRADE PLAN



S1
S201
SCALE: 1/2" = 1'-0"

SECTION 1

FOUNDATIONS ARE PRELIMINARY, FINAL FOUNDATIONS DESIGN WILL BE PROVIDED AFTER FINAL DRAWINGS/SPECS ARE PROVIDED. CONSTRUCTION CAN NOT START UNTIL WE CONFIRM IT.

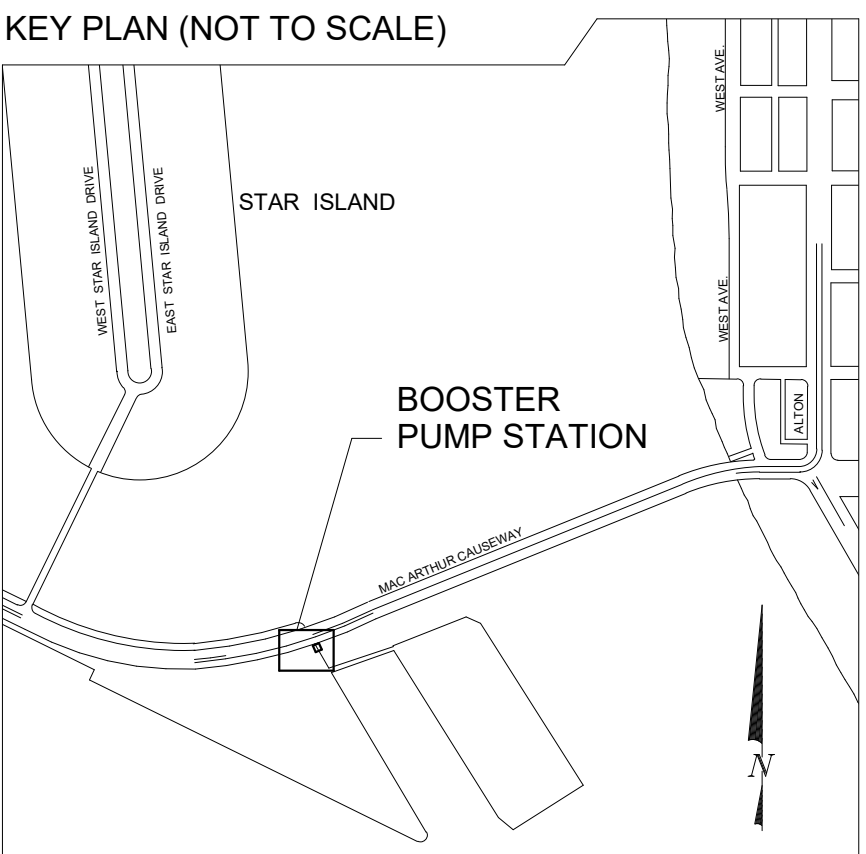


S2
S201
SCALE: 1/2" = 1'-0"

SECTION 2

TO THE BEST OF OUR KNOWLEDGE INFORMATION AND BELIEF, THESE STRUCTURAL PLANS CONFORM TO AND SATISFY, THE FLORIDA BUILDING CODE, EIGHTH EDITION 2023, ACI 318-14 AND LOCAL CODES AS APPLICABLE

NOTES:



P.E. SEAL:

ARMANDO A. CASTELLON, P.E.
FL. LIC. No. 43453

MIAMI BEACH

PUBLIC WORKS DEPARTMENT
1700 CONVENTION CENTER DRIVE, MIAMI BEACH, FL.33139

CITY MANAGER: ALINA T. HUDAK
DIRECTOR: JOE L. GÓMEZ, PE, TTCP, F. FES
CITY ENGINEER: CRISTINA ORTEGA CASTINEIRAS, P.E.

NO.	DATE	DESCRIPTION	APP'D BY.

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MASTER CONSULTING ENGINEERS, INC.
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ENGINEER OF RECORD: CV
DESIGN ENGINEER: JB
DRAWN BY: JAC
CHECKER: CV
SCALE: As indicated

PROJECT NAME:

TERMINAL ISLAND BOOSTER STATION

SHEET CONTENT:

GENERATOR PAD, SECTIONS AND DETAILS

File Name:

Survey Reference:

Field Book:

Page:

Work Order: 2024-1267-NA

Date: 2024-05-31

Sheet: 4 OF 5

Drawing: S201

6/13/2024 2:04:44 PM

CITY MANAGER: ALINA T. HUDAK
DIRECTOR: JOE L. GÓMEZ, PE, TTCP, F. FES
CITY ENGINEER: CRISTINA ORTEGA CASTINEIRAS, P.E.

NO.	DATE	DESCRIPTION	APP'D BY.

ENGINEER OF RECORD: CV
DESIGN ENGINEER: JB
DRAWN BY: JAC
CHECKER: CV
SCALE: As indicated

PROJECT NAME:

TERMINAL ISLAND BOOSTER STATION

SHEET CONTENT:

TYPICAL DETAILS

File Name:

Survey Reference:

Field Book:

Page:

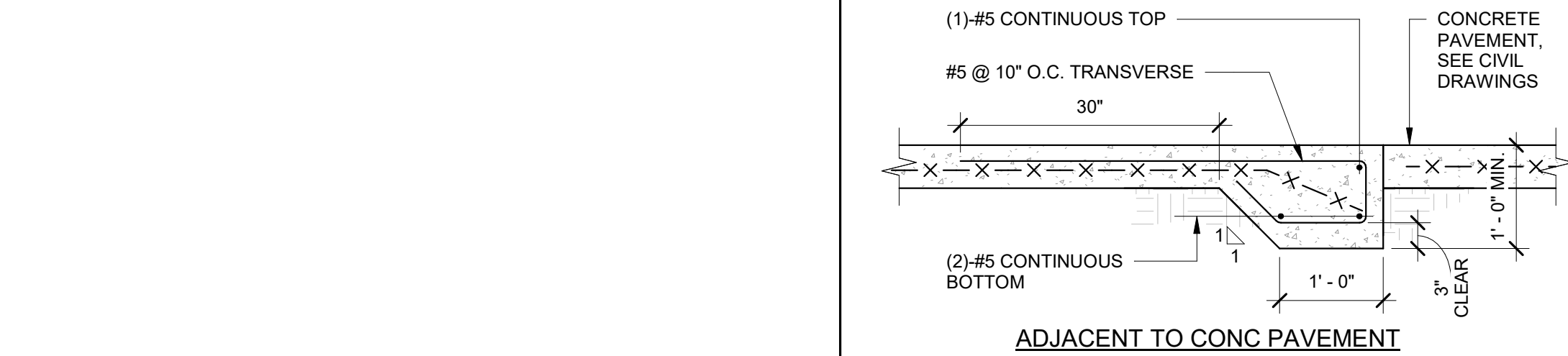
Work Order: 2024-1267-NA

Date: 2024-05-31

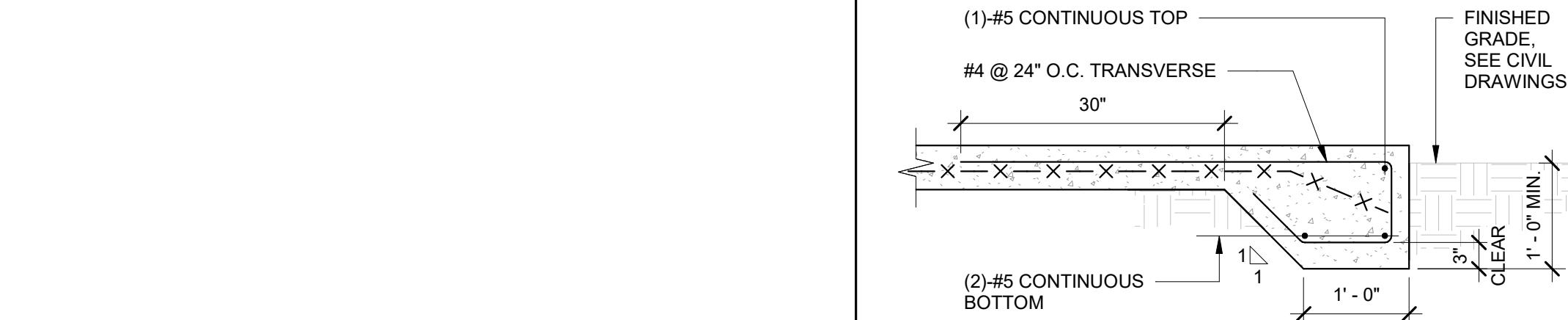
Sheet: 5 OF 5

Drawing: S301

NOTES:



ADJACENT TO CONC PAVEMENT



ADJACENT TO NON-CONCRETE

SLAB ON GRADE EDGE

3-007

TYPICAL CONCRETE COVER FOR REINFORCING BARS

3-064

THE MINIMUM CLEAR COVER FOR REINFORCEMENT BARS SHALL BE ONE BAR DIAMETER OR THE VALUES TABULATED BELOW, WHICHEVER IS THE GREATER.	
SLABS (LT.WT. CONC. OR STONE CONC.)	1"
GIRDERS AND BEAMS (TO STIRRUPS)	1 1/2"
JOISTS (STONE OR LT.WT.) BOTTOM BARS	1 1/4"
TIED COLUMNS AND PIERS	
SURFACE EXPOSED TO EARTH AND WEATHER (TO TIES)	2"
OTHER SURFACES (TO TIES)	1 1/2"
FOUNDATION ELEMENTS	
FORMED SURFACES	2"
SURFACES PLACED AGAINST EARTH	3"
EXPOSED TO EARTH OR WEATHER	2"
WALLS	
SURFACES EXPOSED TO EARTH	2"
SURFACES EXPOSED TO WEATHER	1 1/2"
OTHER SURFACES	1"

f_c = 3000 PSI, NORMAL WEIGHT

		TENSION LAP SPLICES				COMPRESSION LAP SPLICES
BAR SIZE	LAP CLASS	LAP LENGTH PER SPACING AND COVER CASE				
		CASE 1		CASE 2		
		TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	
#3	A	22	17	32	25	12
	B	28	22	42	32	
#4	A	29	22	43	33	15
	B	37	29	56	43	
#5	A	36	28	54	41	19
	B	47	36	70	54	
#6	A	43	33	64	50	23
	B	56	43	84	64	
#7	A	63	48	94	72	26
	B	81	63	122	94	
#8	A	72	55	107	82	30
	B	93	72	139	107	
#9	A	81	62	121	93	34
	B	105	81	157	121	
#10	A	91	70	136	105	38
	B	118	91	177	136	
#11	A	101	78	151	116	42
	B	131	101	196	151	

NOTES:

CASE 1

BEAMS AND COLUMNS:
CONCRETE COVER \geq BAR DIAMETER, C-C BAR SPACING \geq 2X BAR DIAMETER AND WITH STIRRUPS OR TIES THROUGHOUT TENSION LAP SPLICE LENGTH NOT LESS THAN THE CODE MINIMUM.

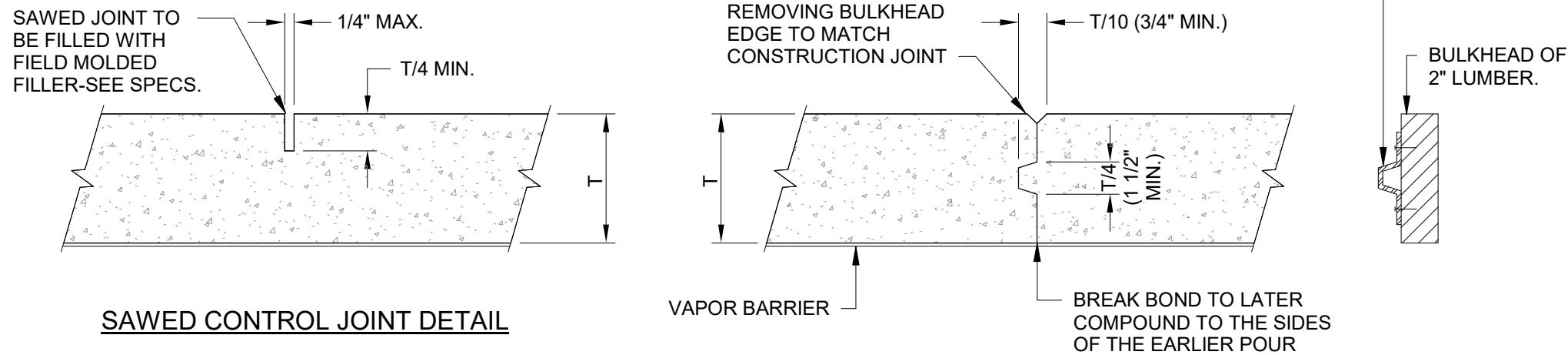
OTHER MEMBERS:
CONCRETE COVER \geq TO THE BAR DIAMETER AND C-C BAR SPACING \geq TO 3X BAR DIAMETER.

CASE 2

BEAMS AND COLUMNS:
CONCRETE COVER < BAR DIAMETER AND C-C BAR SPACING < 2X BAR DIAMETER.

OTHER MEMBERS:
CONCRETE COVER < BAR DIAMETER OR C-C BAR SPACING < 3X BAR DIAMETER.

* LAP CLASS "B" IS TO BE USED UNLESS OTHERWISE SPECIFIED IN THESE CONTRACT DOCUMENTS.



SAWED CONTROL JOINT DETAIL

BULKHEAD DETAILS FOR CONSTRUCTION JOINT

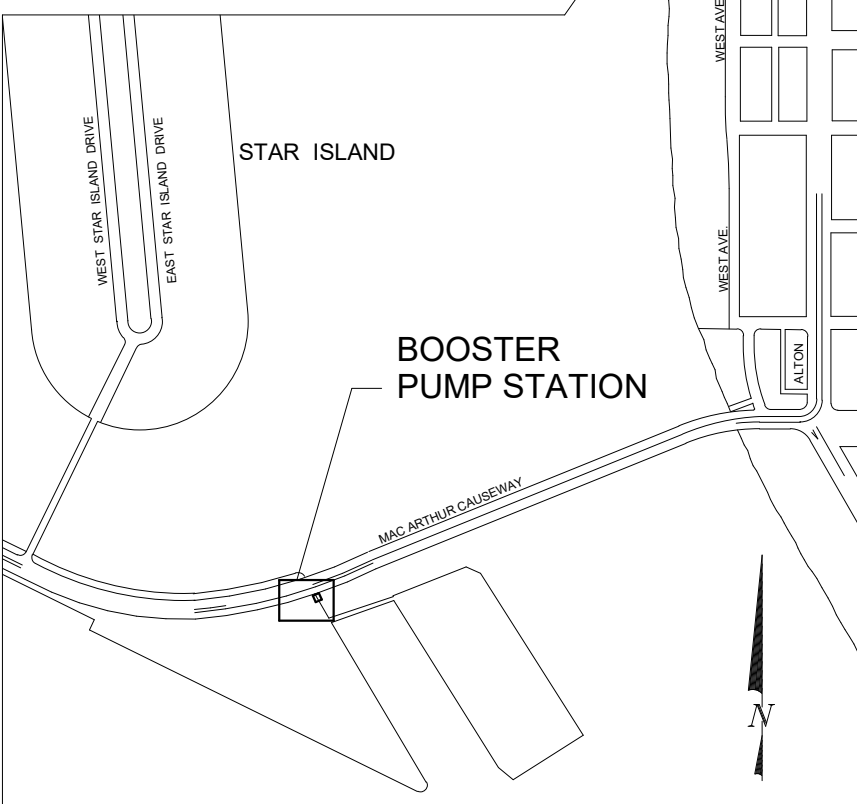
NOTES:

1. CONCRETE FOR SLAB ON GRADE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AS INDICATED ON THE "CONCRETE AND REINFORCING" NOTES.
2. SUPERPLASTICIZER SHALL BE USED IN SLAB ON GRADE CONCRETE - SEE SPECIFICATIONS.
3. SLAB ON GRADE CONCRETE MIX SHALL HAVE A WATER-CEMENT RATIO AS INDICATED IN SPECS AND OR NOTES.
4. CONSTRUCTION JOINTS SHALL BE LOCATED A MINIMUM OF 5'-0" AWAY FROM ANY OTHER JOINTS TO WHICH THEY ARE PARALLEL.
5. SAW CUTTING SHALL BE DONE WITH A POWER SAW WITH A MASONRY CUTTING BLADE. CUTTING SHALL BE DONE AS SOON AS CONCRETE HARDENS ENOUGH SO THAT THE BLADE DOES NOT DISLODGE THE AGGREGATES.
6. WHERE SAWCUT IS DISCONTINUED AT A TRANSVERSE JOINT, STOP CUT 2' SHORT.
7. SLAB REINFORCING NOT SHOWN FOR CLARITY.

TYPICAL SLAB ON GRADE JOINT DETAILS

3-201

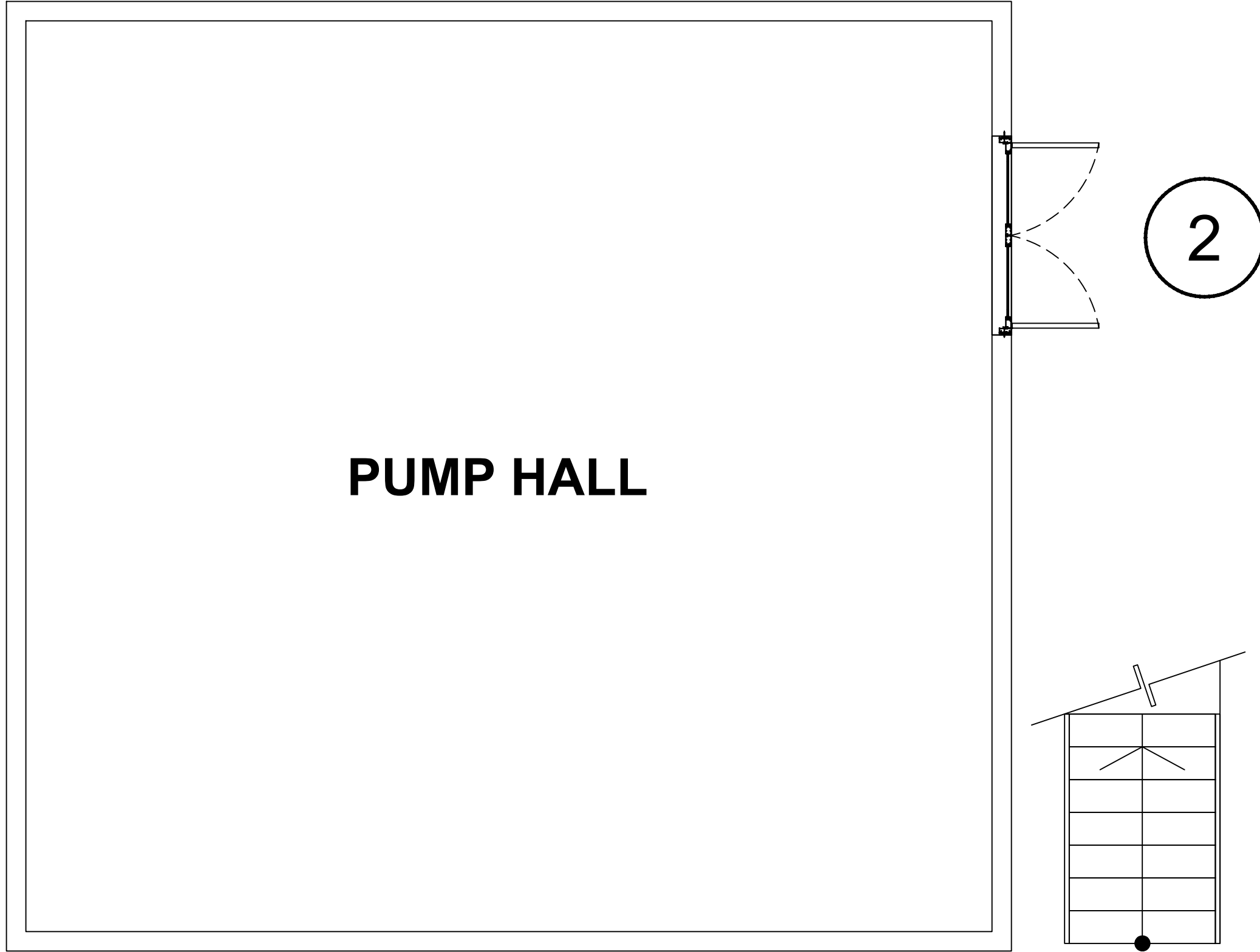
KEY PLAN (NOT TO SCALE)



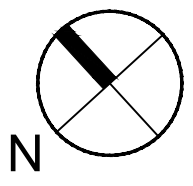
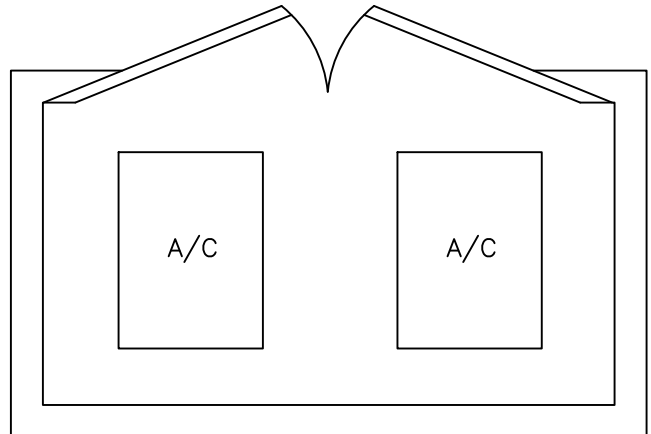
P.E. SEAL:

ARMANDO A. CASTELLON, P.E.
FL. LIC. No. 43453

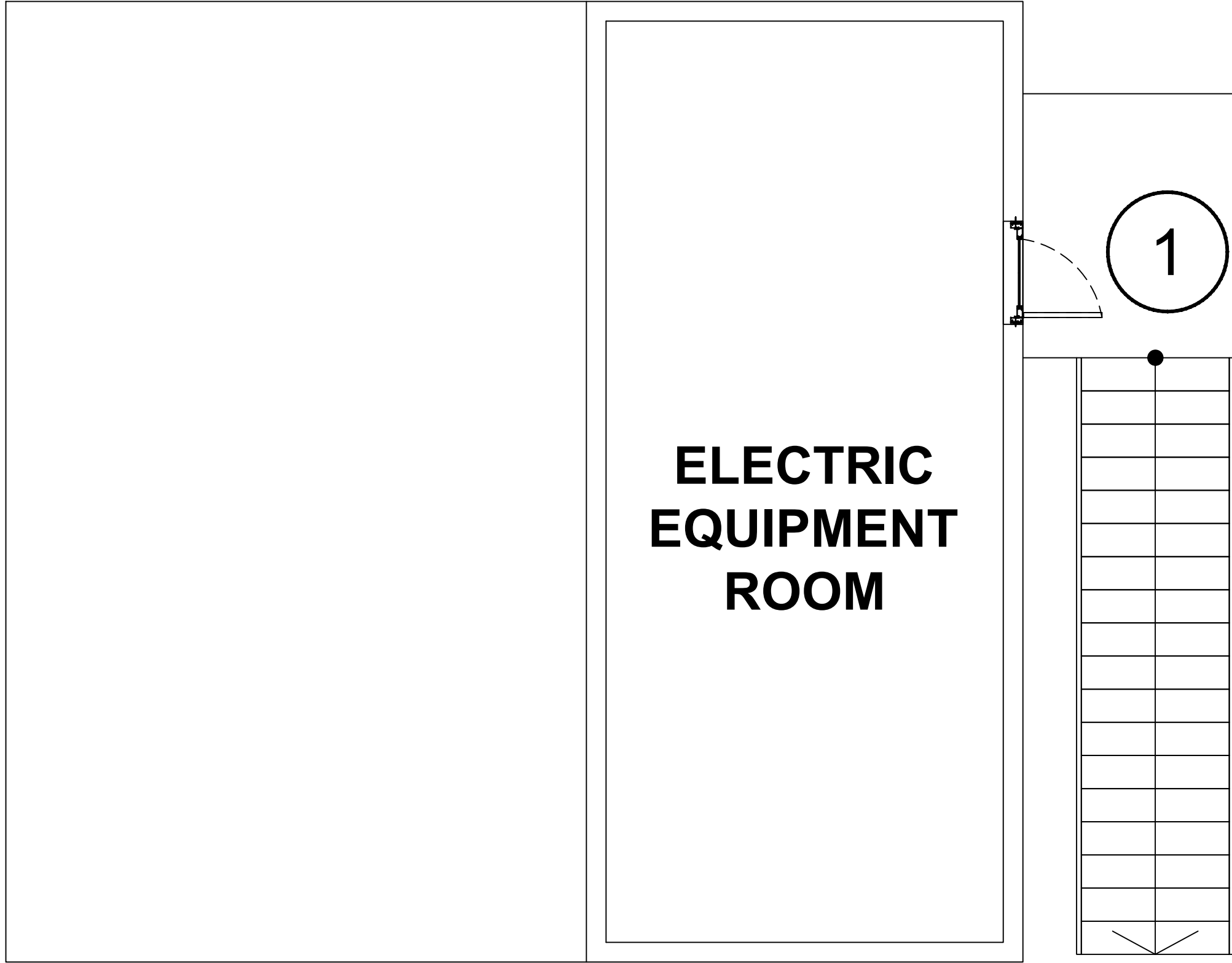
TO THE BEST OF OUR KNOWLEDGE INFORMATION AND BELIEF, THESE STRUCTURAL PLANS CONFORM TO AND SATISFY, THE FLORIDA BUILDING CODE, EIGHTH EDITION 2023, ACI 318-14 AND LOCAL CODES AS APPLICABLE



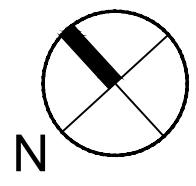
PUMP HALL



1 FIRST FLOOR PLAN (FOR REFERENCE ONLY)
BE1 SCALE 1/8" = 1'-0"

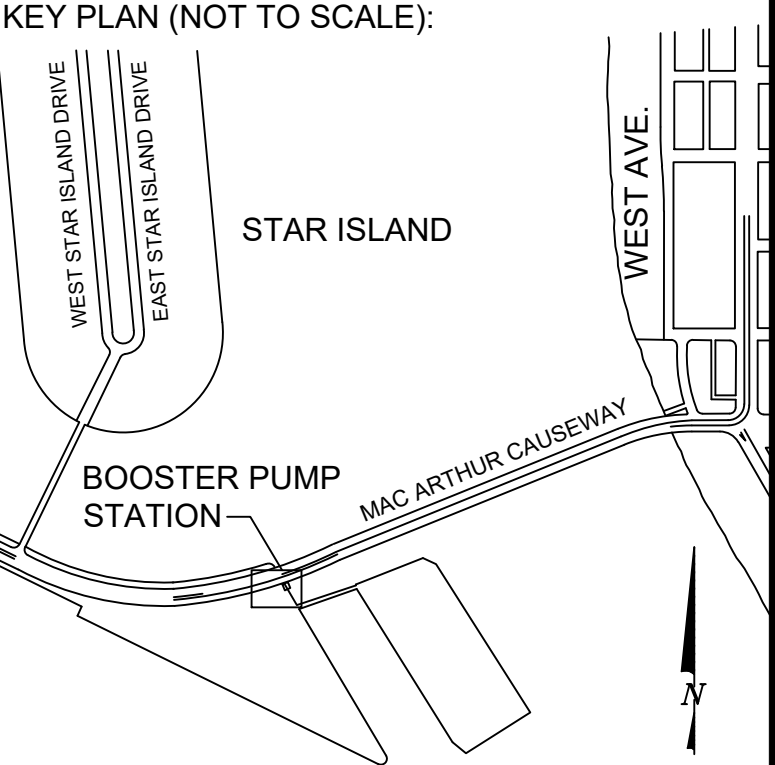


ELECTRIC
EQUIPMENT
ROOM



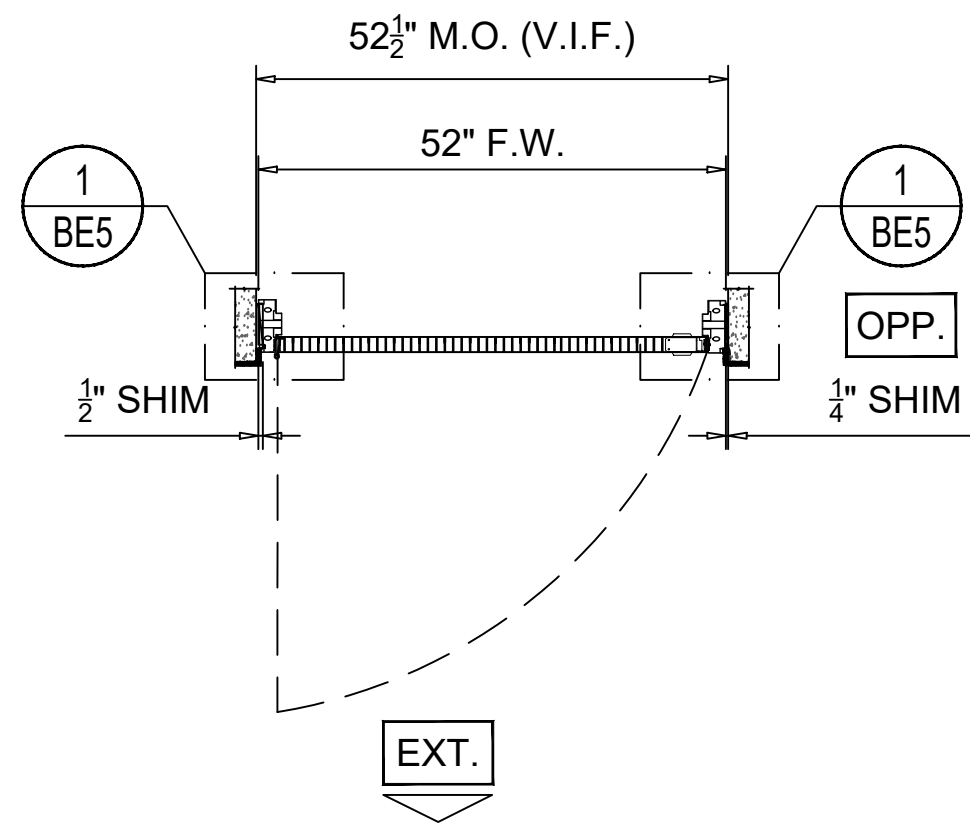
2 SECOND FLOOR PLAN (FOR REFERENCE ONLY)
BE1 SCALE 1/8" = 1'-0"

NOTES:

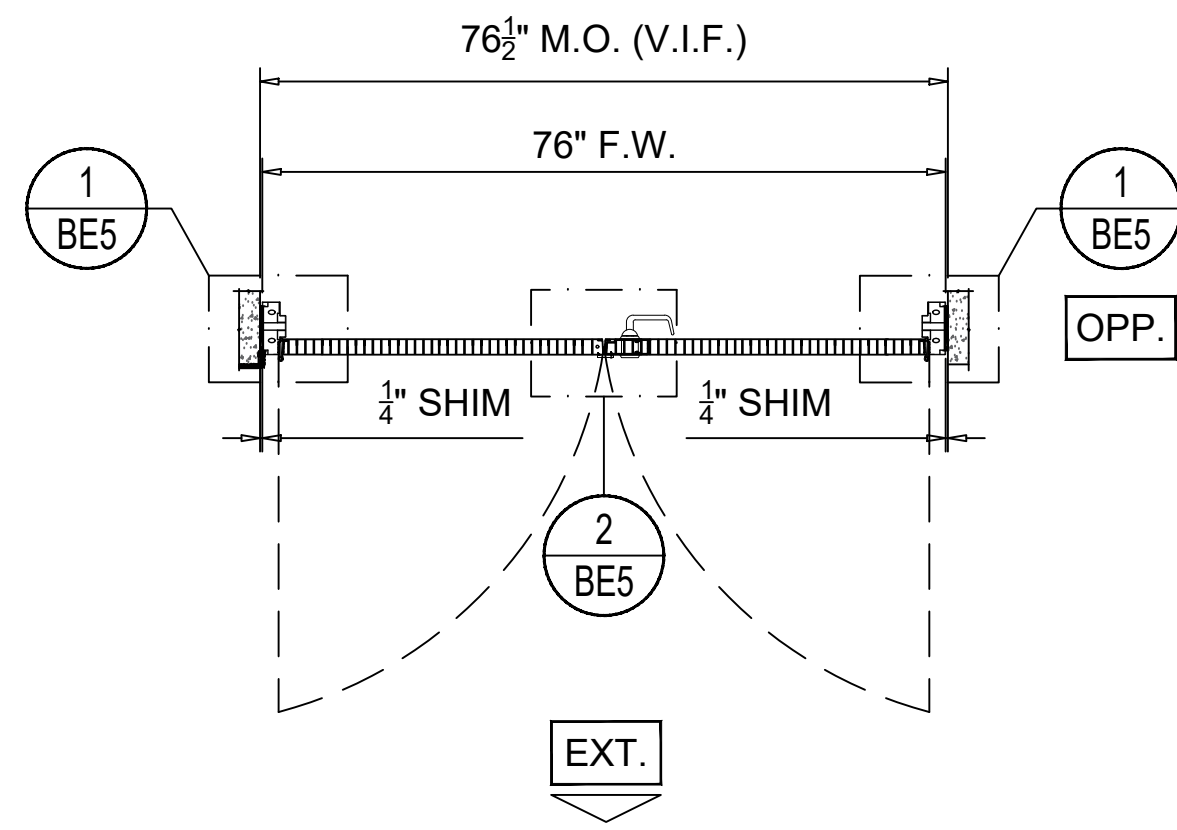


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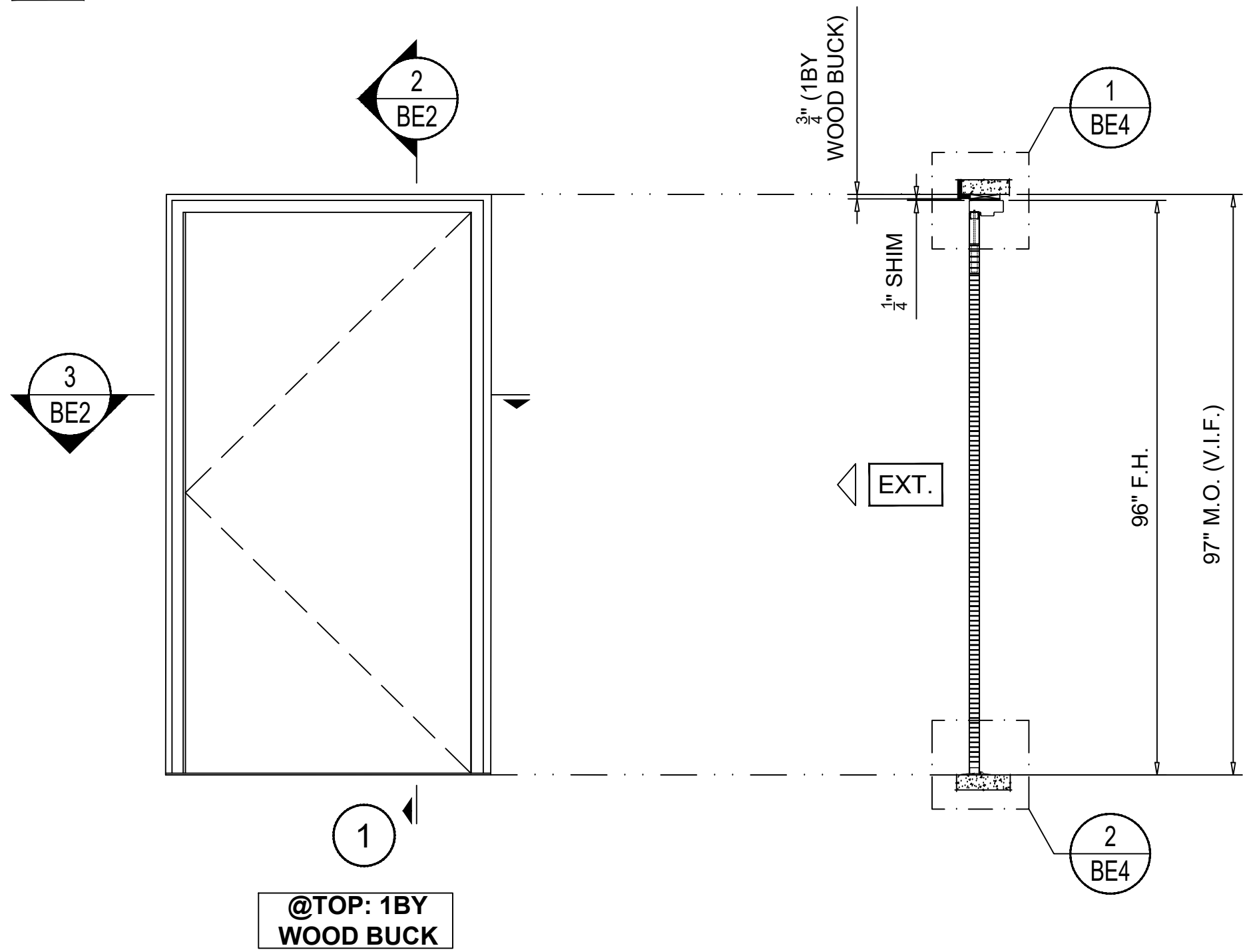
WIMAL SUARIS, P.E.
PE# 37369
CA# 28476



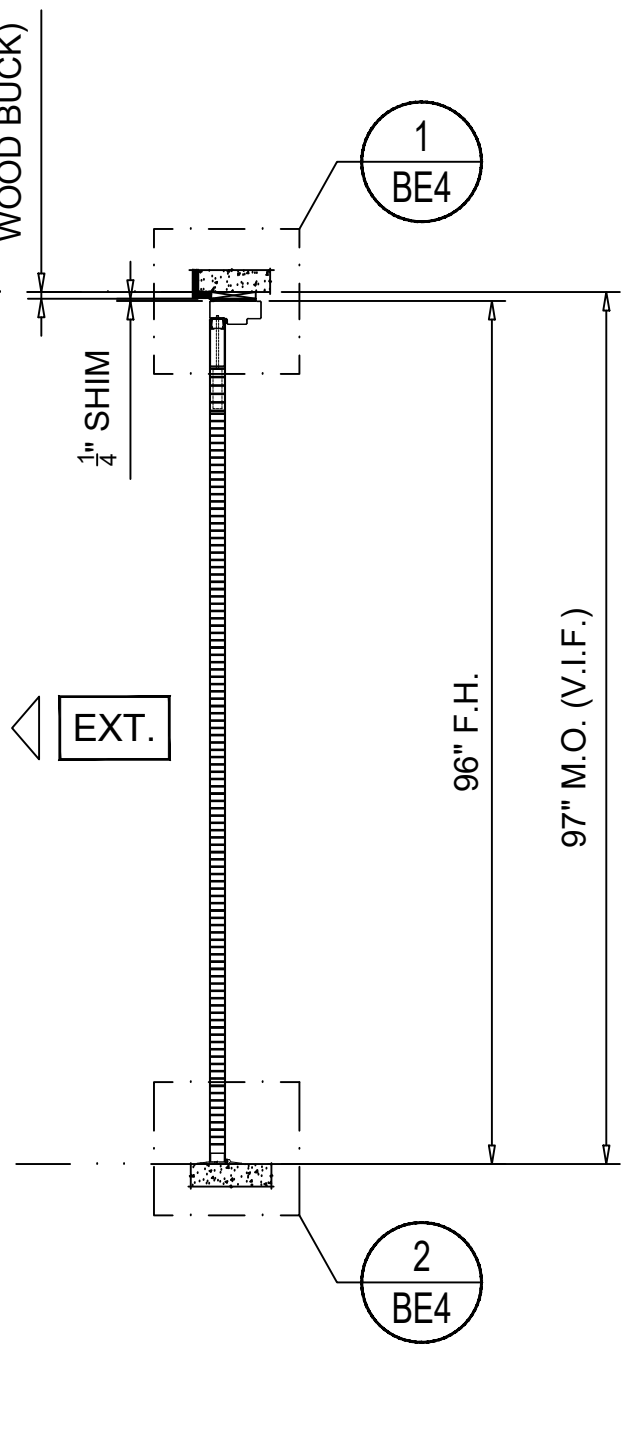
3 ENLARGED PLAN
BE2 SCALE 9/16" = 1'-0"



6 ENLARGED PLAN
BE2 SCALE 9/16" = 1'-0"



1 ENLARGED ELEVATION
BE2 SCALE 9/16" = 1'-0"

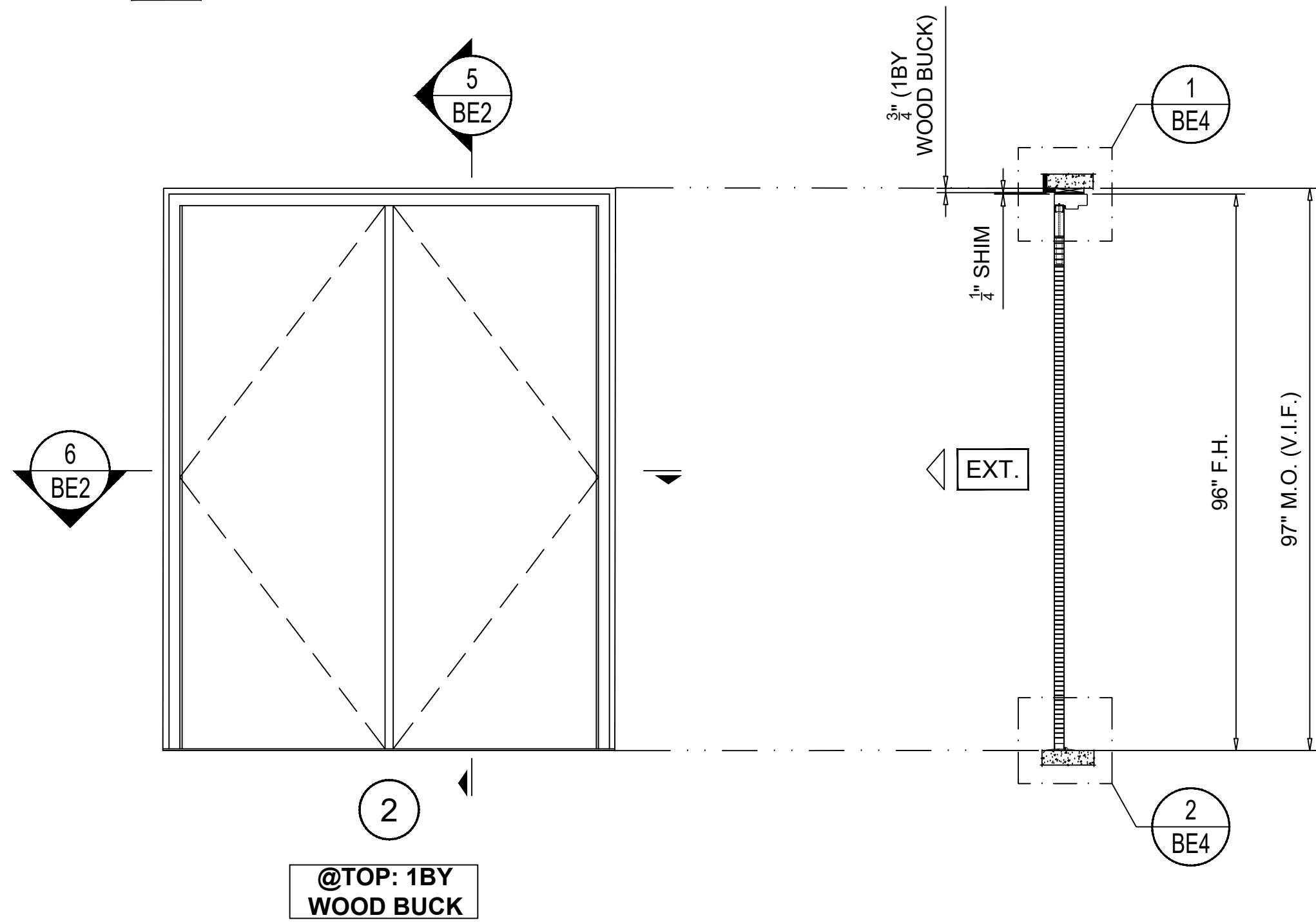


2 SECTION
BE2 SCALE 9/16" = 1'-0"

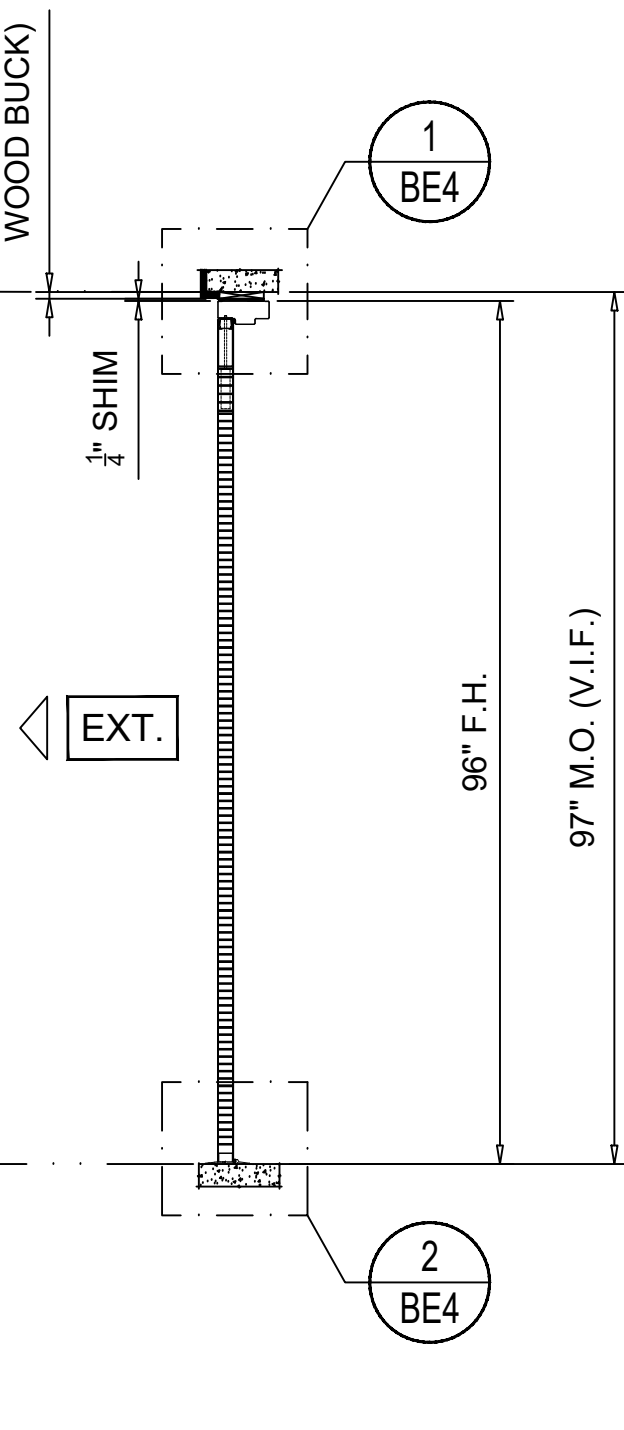
QTY ('1')=1
NOA# 21-0708.15
SERIES LS1875 OUTSWING DOUBLE STEEL DOORS - LMI
WIND ZONE 5

LOAD= + 46.60*PSF
- 60.06*PSF

* TRIBUTARY AREA = 26.64 Sq ft



4 ENLARGED ELEVATION
BE2 SCALE 9/16" = 1'-0"



5 SECTION
BE2 SCALE 9/16" = 1'-0"

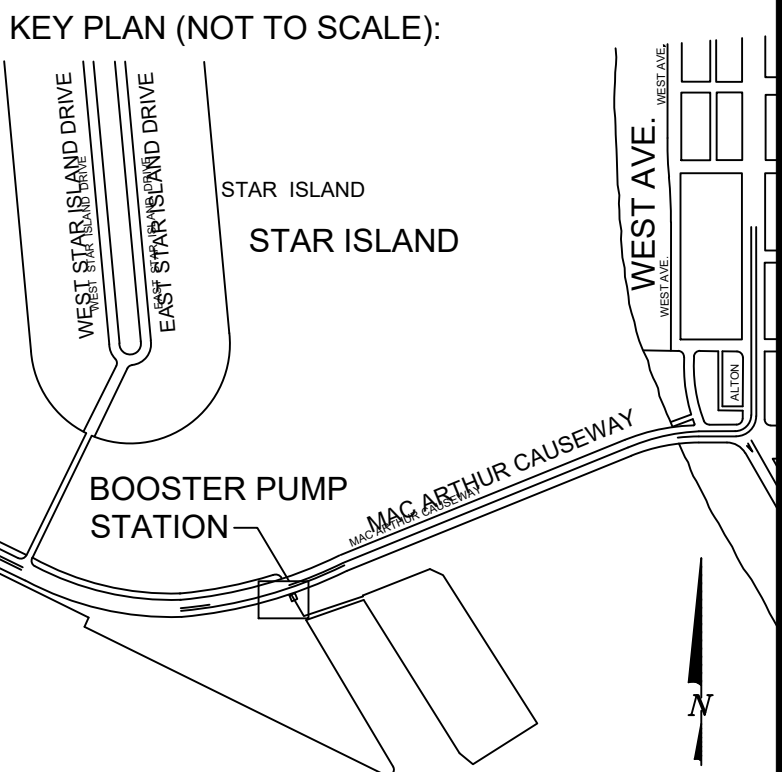
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NOA# 21-0708.15
SERIES LS1875 OUTSWING DOUBLE STEEL DOORS - LMI
WIND ZONE 5

LOAD= + 46.60*PSF
- 60.06*PSF

* TRIBUTARY AREA = 26.64 Sq ft

WINDOW & DOOR SCHEDULE												
MARK	QTY.	GLASS TYPE	M.O. DIMENSIONS (WXH)	FRAME SIZE (WXH)	WIND ZONE	DESIGN LOADS PER ASCE 7-22		ALLOWABLE LOADS PER APPROVAL		PRODUCT DESCRIPTION	NOA No. / FL No.	REMARKS
						(+)'PSF	(-)'PSF	(+)'PSF	(-)'PSF			
1	1	-	52.5" X 97.0"	52.0" X 96.0"	5	46.60*	60.06*	75.0	75.0	SERIES "LS1875" OUTSWING DOUBLE STEEL DOOR - L.M.I.	21-0708.15	XL CONFIGURATION / FINISH: TBD
2	1	-	76.5" X 97.0"	76.0" X 96.0"	5	46.60*	60.06*	75.0	75.0	SERIES "LS1875" OUTSWING DOUBLE STEEL DOOR - L.M.I.	21-0708.15	XX-RA CONFIGURATION / FINISH: TBD
NOTE: ANCHORAGE PATTERN AND SPECIFICATIONS AS PER MARKED UP PRODUCT APPROVALS INCLUDED IN PERMIT SUBMITTAL * TRIBUTARY AREA = 26.64 Sq ft												

NOTES:



P.E. SEAL:

WIMAL SUARIS, P.E.
PE# 37369
CA# 28476

MIAMI BEACH

PUBLIC WORKS DEPARTMENT
1700 CONVENTION CENTER DRIVE, MIAMI BEACH, FL 33139

CITY MANAGER: ALINA T. HUDAK
DIRECTOR: JOE L. GÓMEZ, PE, TTCP, F. FES
CITY ENGINEER: CRISTINA ORTEGA CASTINEIRAS, P.E.

5				
4				
3				
2				
1				
NO.	DATE	REVISION	APP'D. BY	

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Miami, FL 33146
786.497.1500
www.chenmeers.com

ENGINEER OF RECORD:

ENGINEER OF RECORD: _____
DESIGN ENGINEER: _____
DRAWN BY: AA
CHECKER: JRO
SCALE: 9/16"=1'-0"

PROJECT NAME:

TERMINAL ISLE
WATER BOOSTER PUMP STATION

DRAWING TITLE:

BUILDING ENVELOPE 2

File Name:

Survey Reference:

Field Book: _____

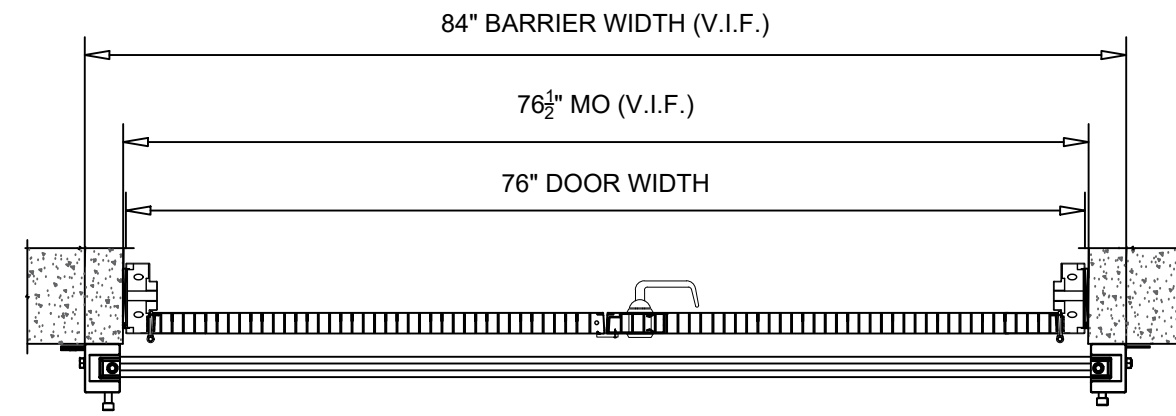
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Work Order: 2024-1267-NA

Date: 04-15-2024

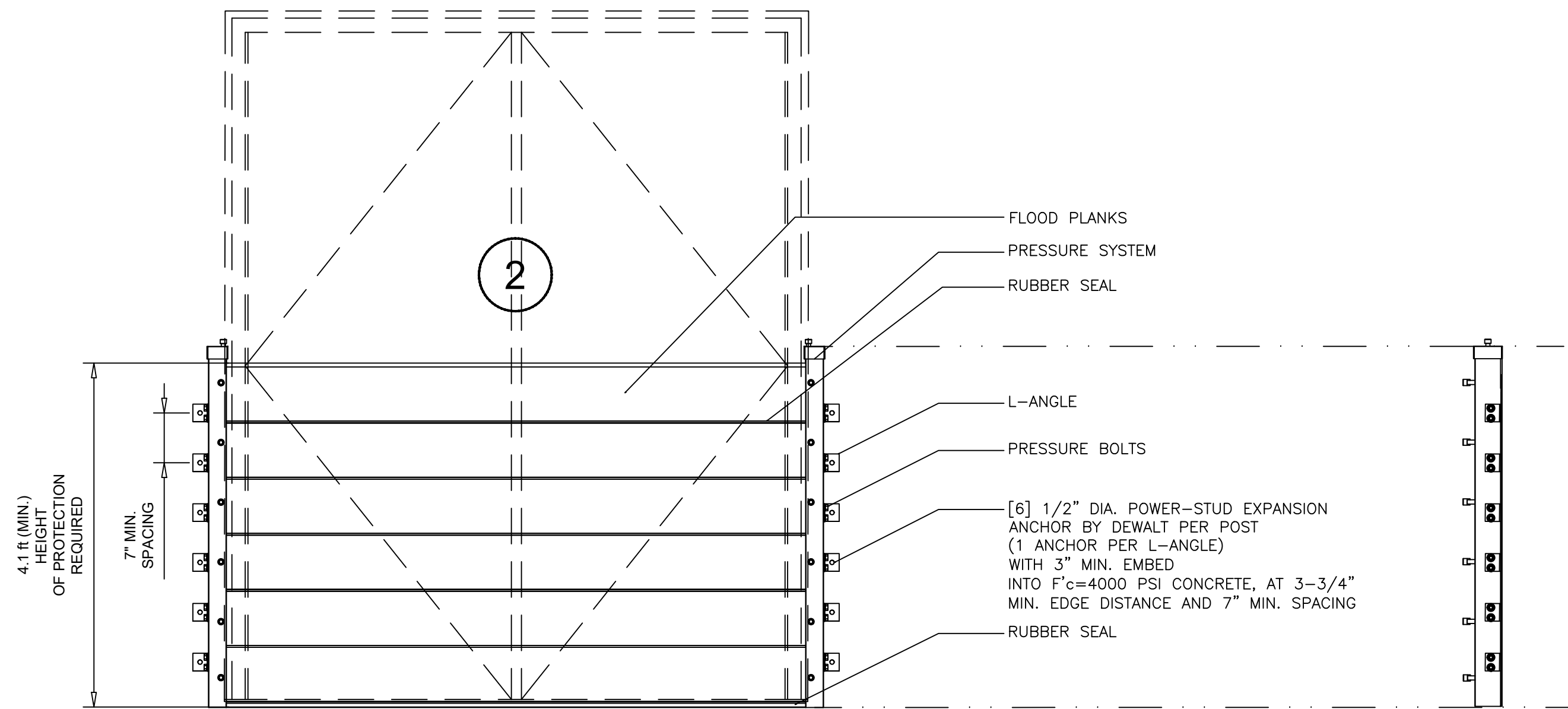
Sheet: _____

Drawing: 23-051



EXT.

2 ENLARGED PLAN
BE3 SCALE 3/4" = 1'-0"



NOTE:
- CONCRETE COLUMNS ADJACENT TO DOOR MARK "2" ARE REQUIRED TO CONNECT THE FLOOD BARRIER SYSTEM
- FOLLOW MANUFACTURER INSTRUCTIONS FOR INSTALLATION

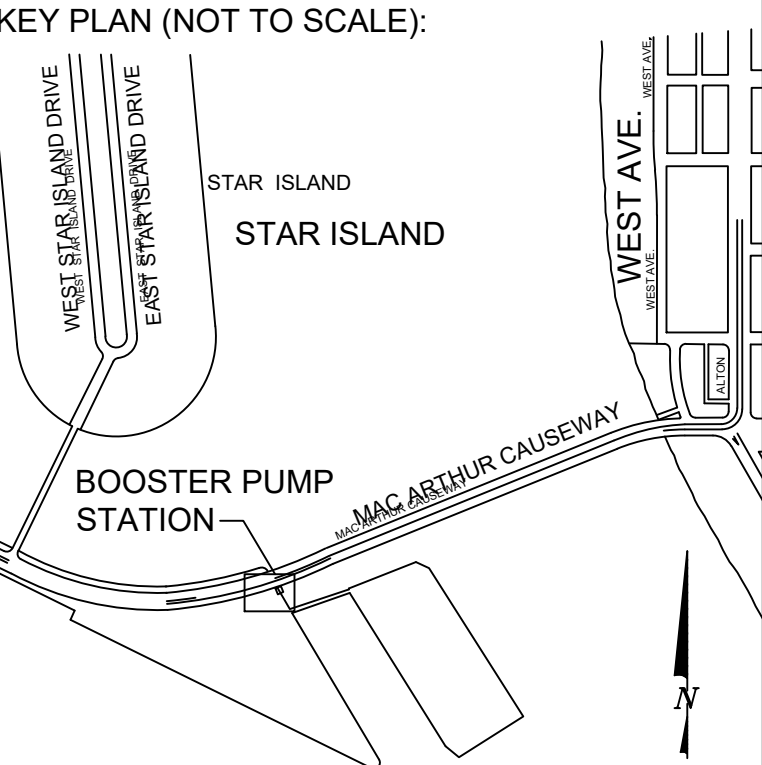
1 ENLARGED ELEVATION
BE3 SCALE 3/4" = 1'-0"

3 SECTION
BE3 SCALE 3/4" = 1'-0"

DOOR FLOOD BARRIER
HAMMERHEAD ALUMINUM FLOOD PLANKS FOR DOORS
OUTSIDE MOUNT POSTS

HYDROSTATIC LOAD = 255.85 PSF

NOTES:



P.E. SEAL:

WIMAL SUARIS, P.E.
PE# 37369
CA# 28476

MIAMI BEACH

PUBLIC WORKS DEPARTMENT
1700 CONVENTION CENTER DRIVE, MIAMI BEACH, FL. 33139

CITY MANAGER: ALINA T. HUDAK
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CITY ENGINEER: CRISTINA ORTEGA
CASTINEIRAS, P.E.

5			
4			
3			
2			
1			
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ENGINEER OF RECORD:

ENGINEER OF RECORD: _____
DESIGN ENGINEER: _____
DRAWN BY: AA
CHECKER: JRO
SCALE: 9/16"=1'-0"

PROJECT NAME:

TERMINAL ISLE
WATER BOOSTER PUMP STATION

DRAWING TITLE:

BUILDING ENVELOPE 3

File Name:

Survey Reference:

Field Book: _____

Page: _____

Work Order: 2024-1267-NA

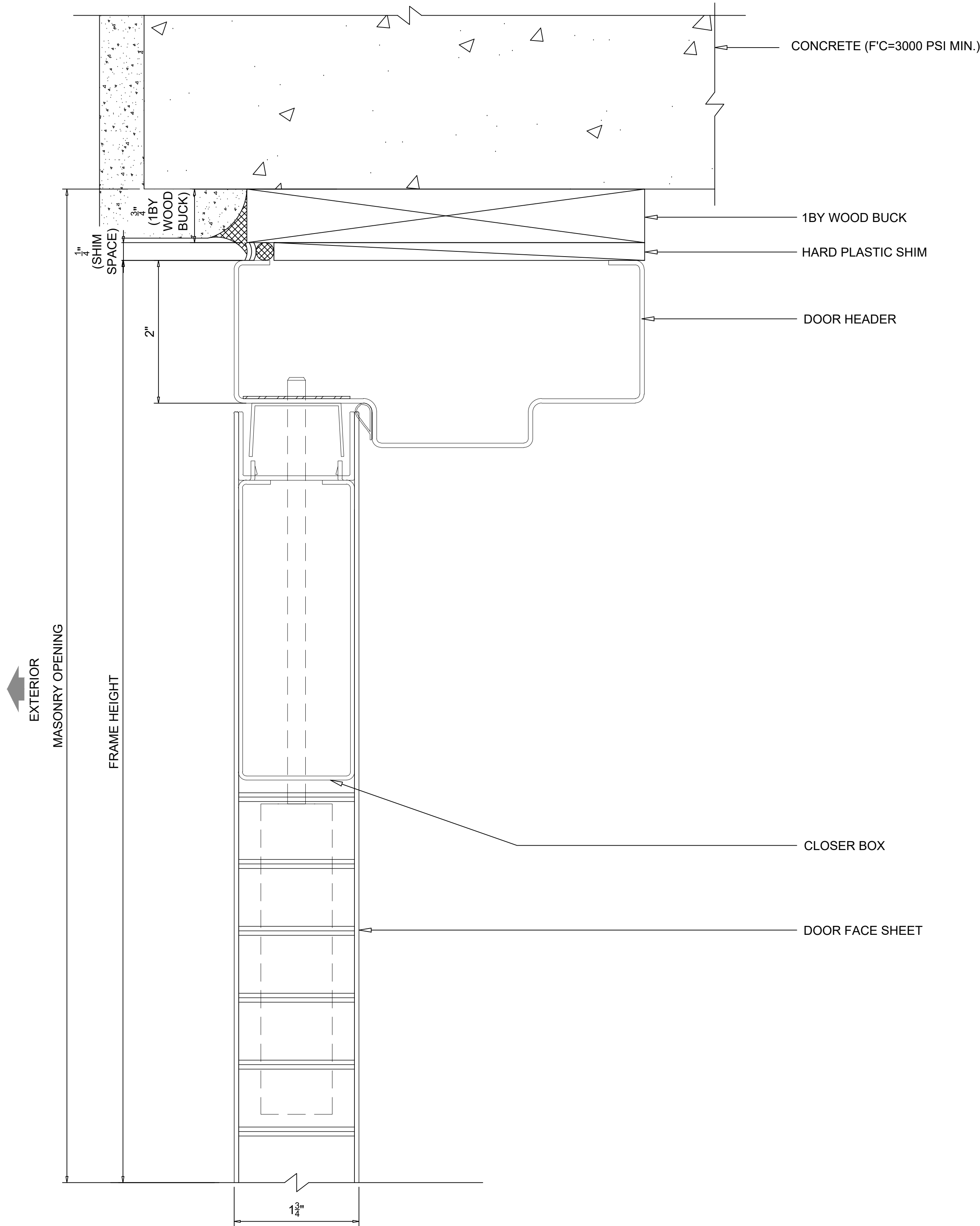
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Sheet: _____

Drawing: 23-051

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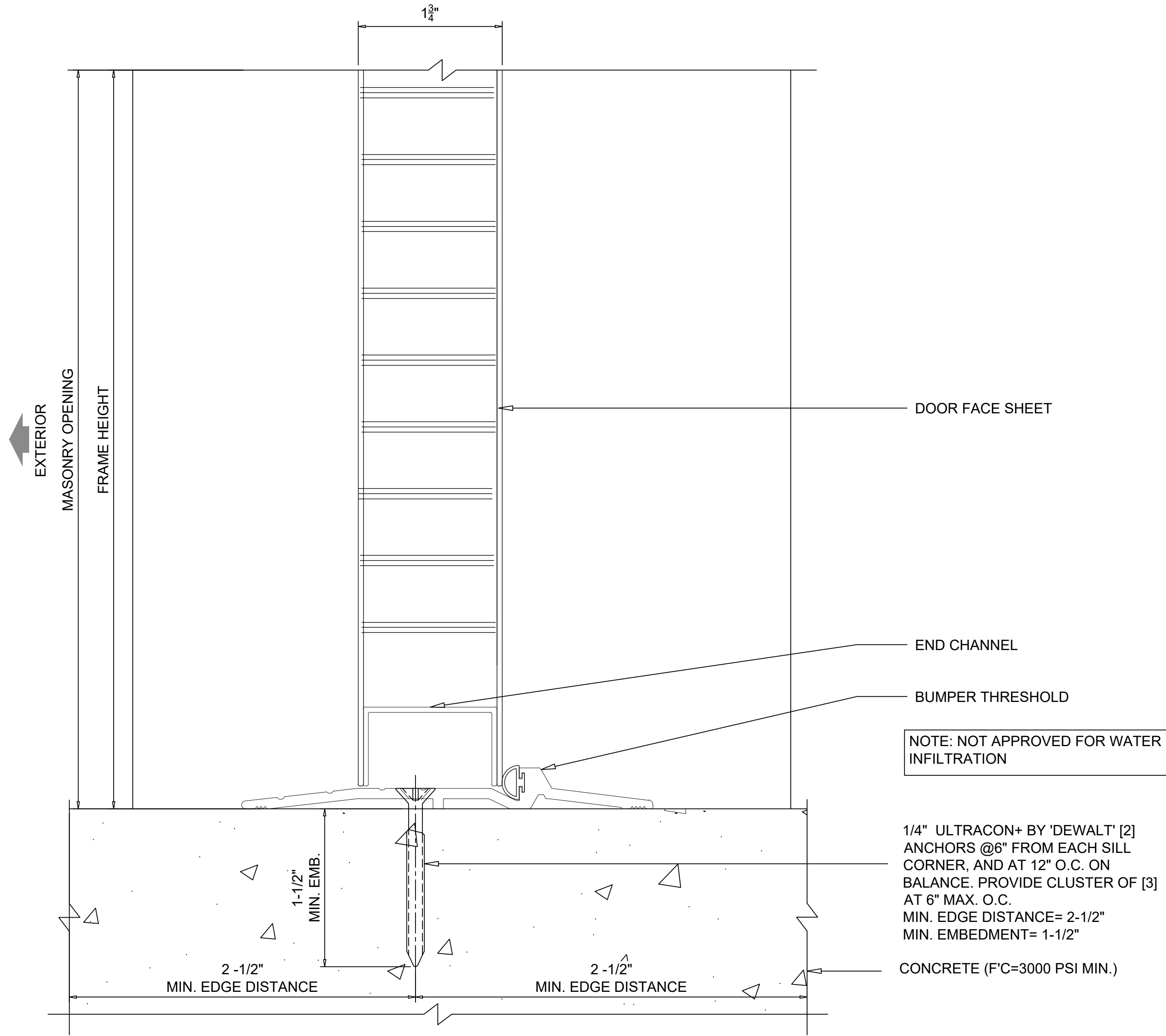
NOTES:



1 SERIES LS1875 ALUMINUM DOUBLE STEEL DOORS - LMI
DOOR HEADER THRU 1BY WOOD BUCKS INTO CONCRETE

BE4 SCALE

1" = 1'-0"

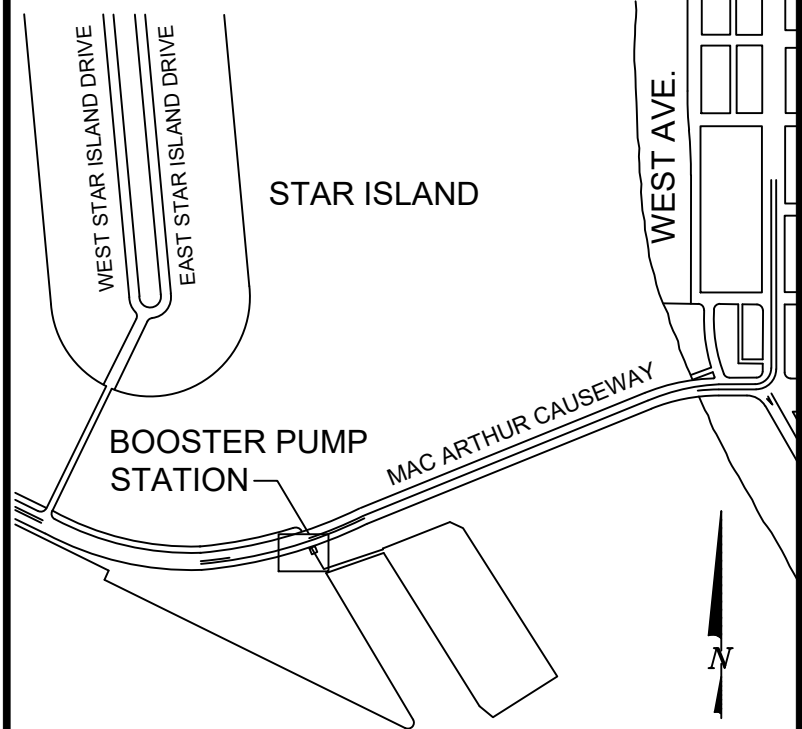


2 SERIES LS1875 ALUMINUM DOUBLE STEEL DOORS - LMI
DOOR SILL TO CONCRETE

BE4 SCALE

1" = 1'-0"

KEY PLAN (NOT TO SCALE):



P.E. SEAL:

WIMAL SUARIS, P.E.
PE# 37369
CA# 28476

MIAMI BEACH

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1700 CONVENTION CENTER DRIVE, MIAMI BEACH, FL 33139

CITY MANAGER: ALINA T. HUDAK
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5				
4				
3				
2				
1				
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786.497.1500
www.chenmoers.com

ENGINEER OF RECORD:

ENGINEER OF RECORD: _____
DESIGN ENGINEER: _____
DRAWN BY: AA
CHECKER: JRO
SCALE: 1'-0" = 1'-0"

PROJECT NAME:

TERMINAL ISLE
WATER BOOSTER PUMP STATION

DRAWING TITLE:

BUILDING ENVELOPE 4

File Name:

Survey Reference:

Field Book: _____

Page: _____

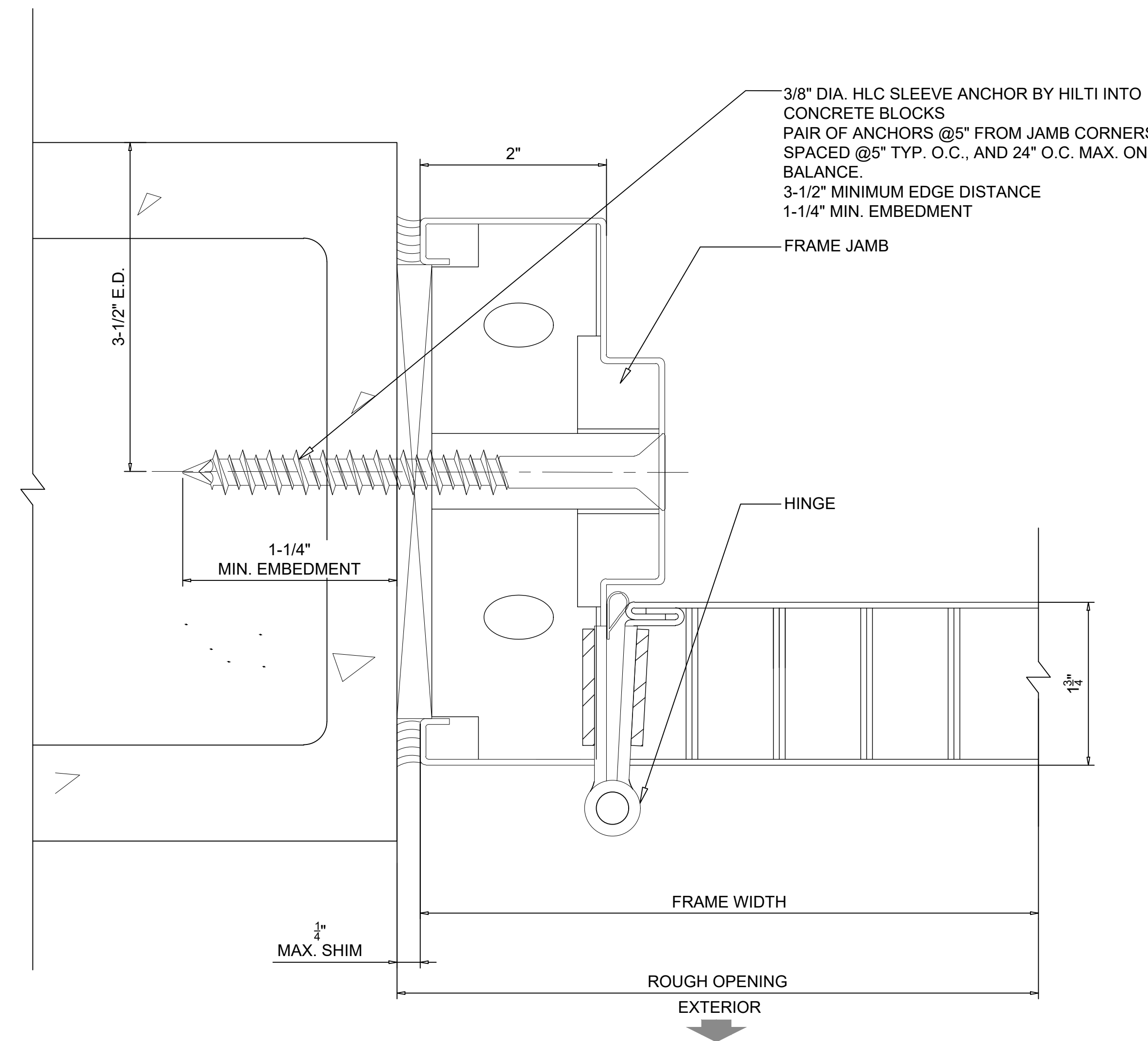
Work Order: 2024-1267-NA

Date: 04-15-2024

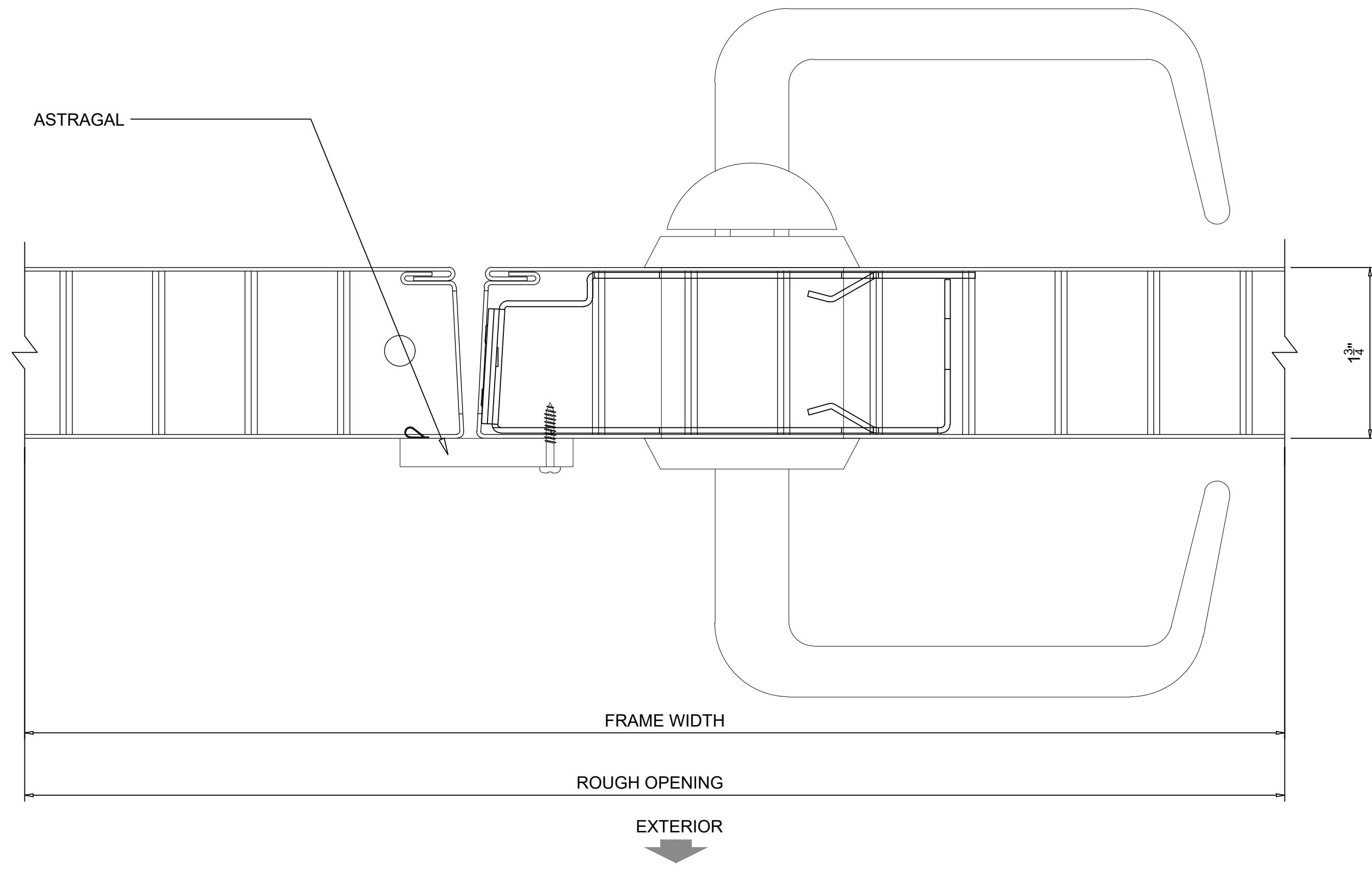
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1 SERIES 9000 ALUMINUM OUTSWING FRENCH DOOR WWO TRANSOM - LMI
DOOR JAMB W/ HINGE TO FILLED CELLS
BES SCALE 1'-0" = 1'-0"



2 SERIES LS1875 ALUMINUM DOUBLE STEEL DOORS - LMI
DOOR MEETING STILE
BES SCALE 1'-0" = 1'-0"

NOTES:

KEY PLAN (NOT TO SCALE):

P.E. SEAL:

WIMAL SUARIS, P.E.
PE# 37369
CA# 28476