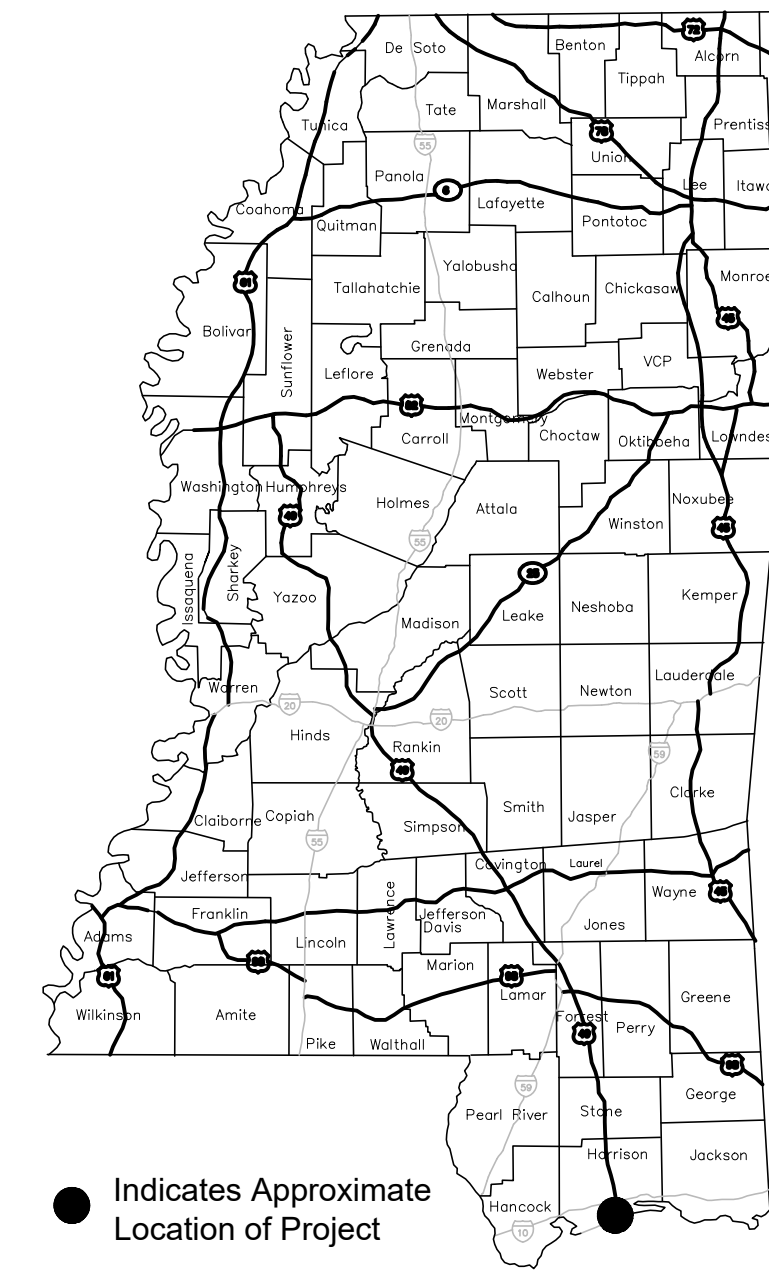
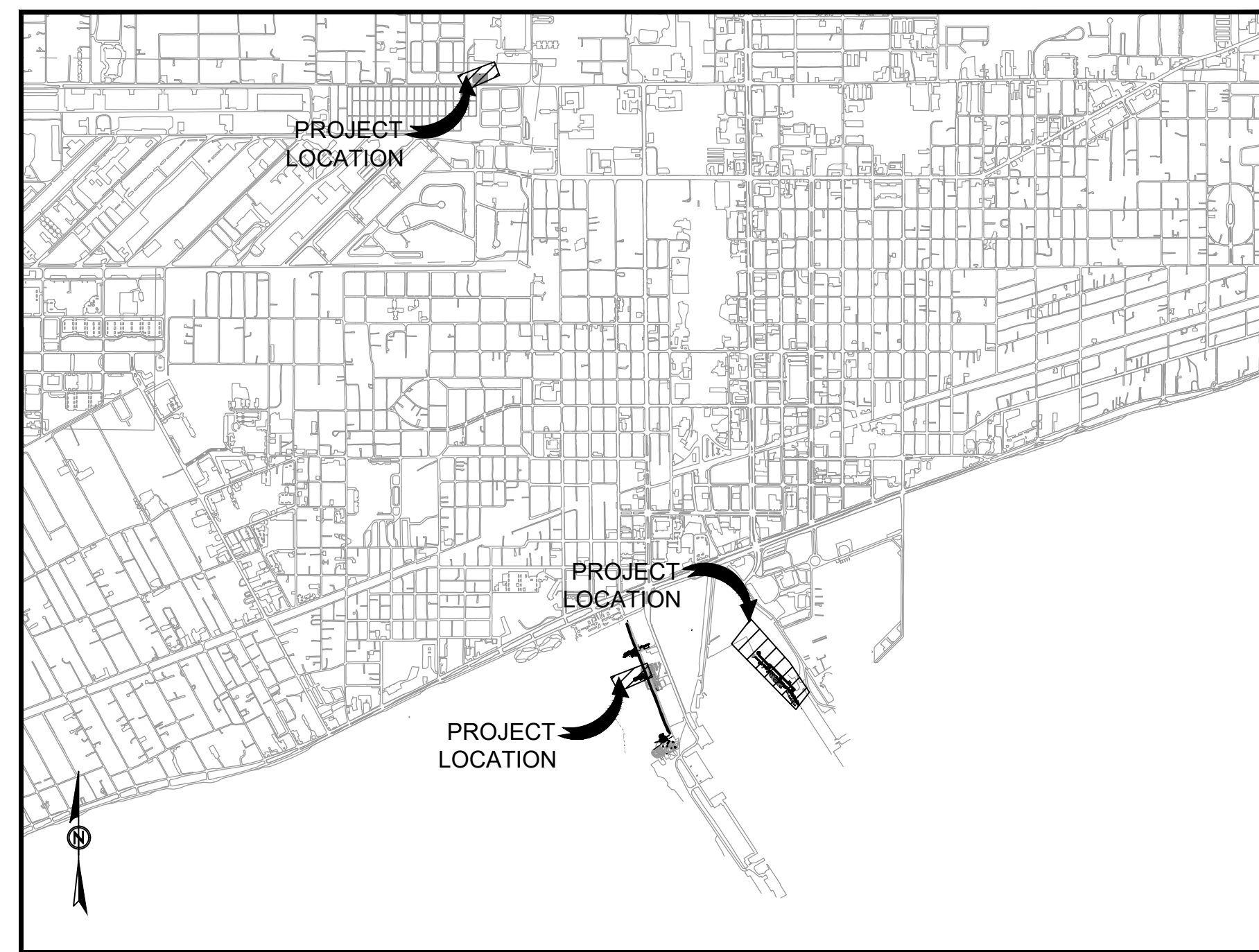


PORT OF GULFPORT MISSISSIPPI STATE PORT AUTHORITY EAST PIER DEEP WATER WHARF FOR USM/NOAA

PORT OF GULFPORT



● Indicates Approximate Location of Project
LOCATION MAP

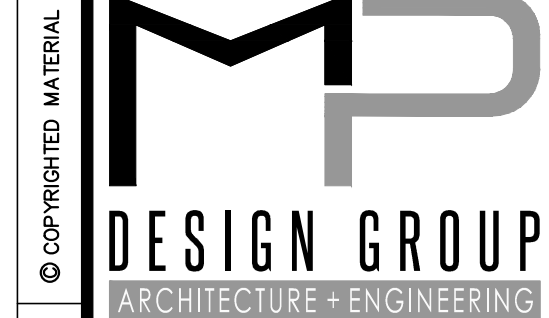
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T001	TITLE SHEET
C100	OVERALL SITE MAP
C101	SITE DEMOLITION PLAN EAST PIER
C102	SEVERE WEATHER STORAGE DEMOLITION PLAN
C200	SITE PLAN - MOORING SCENARIO #1 USM-AGOR VARIANT-AGOR VARIANT
C201	SITE PLAN - MOORING SCENARIO #2 USM-AGOR VARIANT-RON BROWN
C202	SITE PLAN - MOORING SCENARIO #3 USM-RON BROWN-RON BROWN
C203	SITE PLAN - ASPHALT PAVING FOR UTILITIES
C204	SMALL BOAT PIER SITE PLAN ALTERNATE #1
C205	SEVERE WEATHER STORAGE SITE PLAN
C206	VESSEL SECTION VIEWS
C207	VESSEL SECTION VIEWS
C400	SITE UTILITY PLAN
C401	SITE UTILITY PLAN
C620	CONSTRUCTION DETAILS
C621	CONSTRUCTION DETAILS
C622	CONSTRUCTION DETAILS
C623	CONSTRUCTION DETAILS
S001	DESIGN NOTES, LEGEND, AND ABBREVIATIONS
SD100	PARTIAL EXISTING AND DEMOLITION SITE PLAN
SD101	PARTIAL EXISTING AND DEMOLITION SITE PLAN
S100	PARTIAL NEW STRUCTURAL PLAN
S101	ENLARGED ELECTRICAL PLATFORM #1 FOUNDATION AND FRAMING PLANS
S102	ENLARGED ELECTRICAL PLATFORM #2 FOUNDATION AND FRAMING PLANS
S103	ELECTRICAL PLATFORM SECTIONS
S104	CRANE PLATFORM
S110	ELECTRICAL PLATFORM DETAILS
S200	DETAIL SHEET
S201	DETAIL SHEET
S202	DETAIL SHEET
P001	PLUMBING NOTES
P002	PLUMBING SYMBOLS & ABBREVIATIONS
P101	SANITARY DEMOLITION PLAN
P102	OVERALL SANITARY PLAN
P103	ENLARGED SANITARY PLAN

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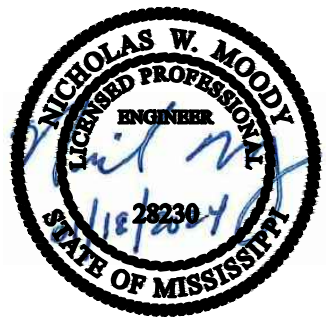
P104	ENLARGED SANITARY PLAN
P105	OVERALL WATER SUPPLY PLAN
P106	ENLARGED WATER SUPPLY PLAN
P107	ENLARGED WATER SUPPLY PLAN
P401	ENLARGED WATER SUPPLY PLAN & SECTIONS @ USM DOCK
P402	ENLARGED WATER SUPPLY PLAN & SECTIONS @ NOAA DOCK
P403	ENLARGED WATER SUPPLY PLAN & SECTIONS @ NOAA DOCK
P404	ENLARGED SANITARY SEWER PLAN & SECTION
P501	SANITARY SEWER CONTAINMENT DETAILS
P502	PIPE SUPPORT & BRACING DETAILS
E001	ELECTRICAL SYMBOLS
E002	ELECTRICAL NOTES
E003	ELECTRICAL ABBREVIATIONS, LUMINAIRE SCHEDULE, & FEEDER SCHEDULE
E010	ELECTRICAL DEEP WATER PIER DEMO PLAN
E011	ELECTRICAL DEMO PLAN - SMALL BOAT PIER - ALTERNATE #1
E101	ELECTRICAL DEEP WATER PIER SITE PLAN
E111	ELECTRICAL DEEP WATER PIER LIGHTING AND POWER PLAN
E112	ELECTRICAL POWER PLAN - SMALL BOAT PIER - ALTERNATE #1
E113	ELECTRICAL POWER PLAN - SEVERE WEATHER STORAGE - ALTERNATE #2
E121	ELECTRICAL LIGHTING PLAN - SMALL BOAT PIER - ALTERNATE #1
E141	ELECTRICAL DEEP WATER SPECIAL SYSTEMS PLAN
E161	ELECTRICAL DEEP WATER PIER ELECTRICAL GROUNDING PLAN
E201	ENLARGED ELECTRICAL PLATFORM
E202	ENLARGED ELECTRICAL ACCESS CONTROL PANEL
E501	ELECTRICAL GENERAL DETAILS
E502	ELECTRICAL GENERAL DETAILS
E503	ELECTRICAL GENERAL DETAILS
E504	ELECTRICAL GENERAL DETAILS
E601	ELECTRICAL ONE-LINE DIAGRAM NORTH PLATFORM USM VESSEL
E602	ELECTRICAL ONE-LINE DIAGRAM SOUTH PLATFORM NOAA VESSEL
E603	ELECTRICAL ONE-LINE DIAGRAM DEMO PLAN SMALL BOAT PIER - ALTERNATE #1
E604	ELECTRICAL ONE-LINE DIAGRAM PLAN SMALL BOAT PIER - ALTERNATE #1
E605	ELECTRICAL ONE-LINE DIAGRAM PLAN SEVERE WEATHER - ALTERNATE #2
E621	ELECTRICAL PANEL SCHEDULES

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**EAST PIER DEEP WATER WHARF FOR
USM/NOAA
PORT OF GULFPORT MISSISSIPPI
STATE PORT AUTHORITY**
30TH AVENUE
GULFPORT, MS 39501

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PROJECT NO: 0297.23.001
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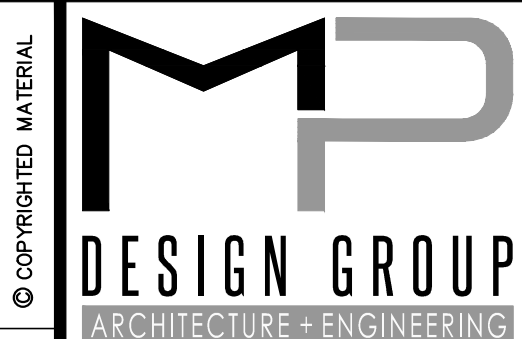
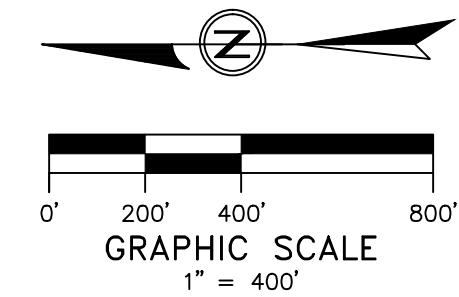
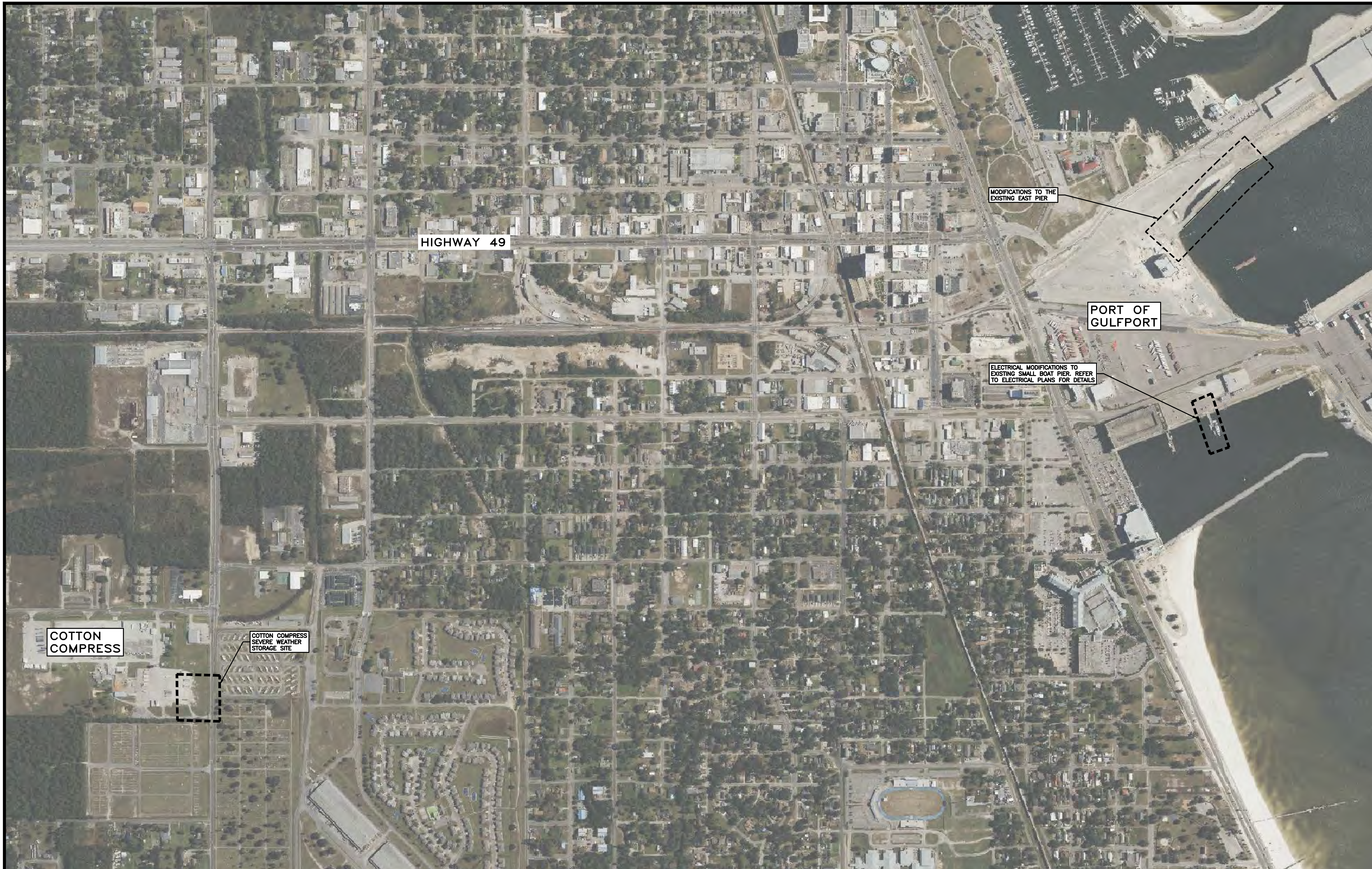
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OVERALL SITE MAP

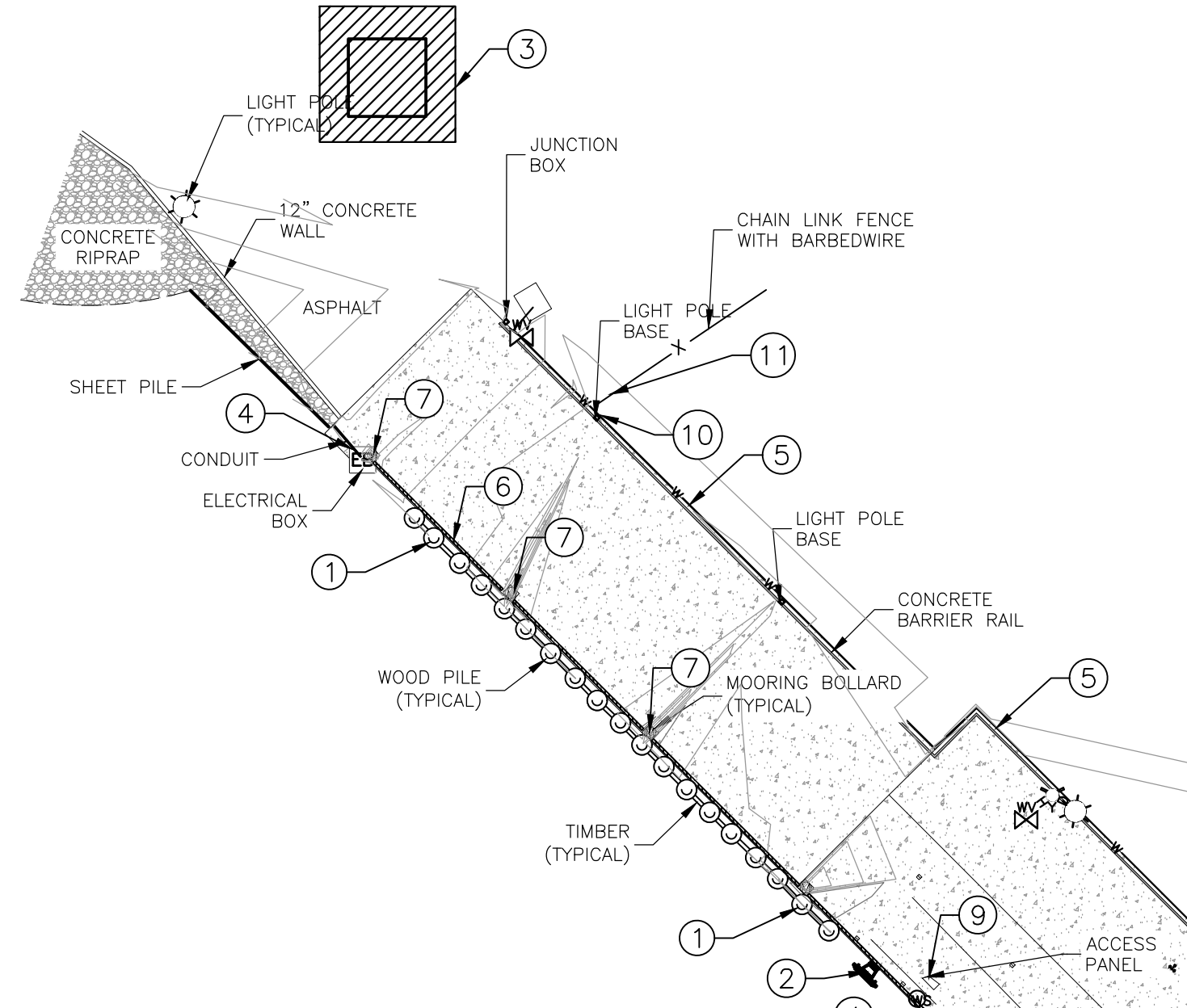
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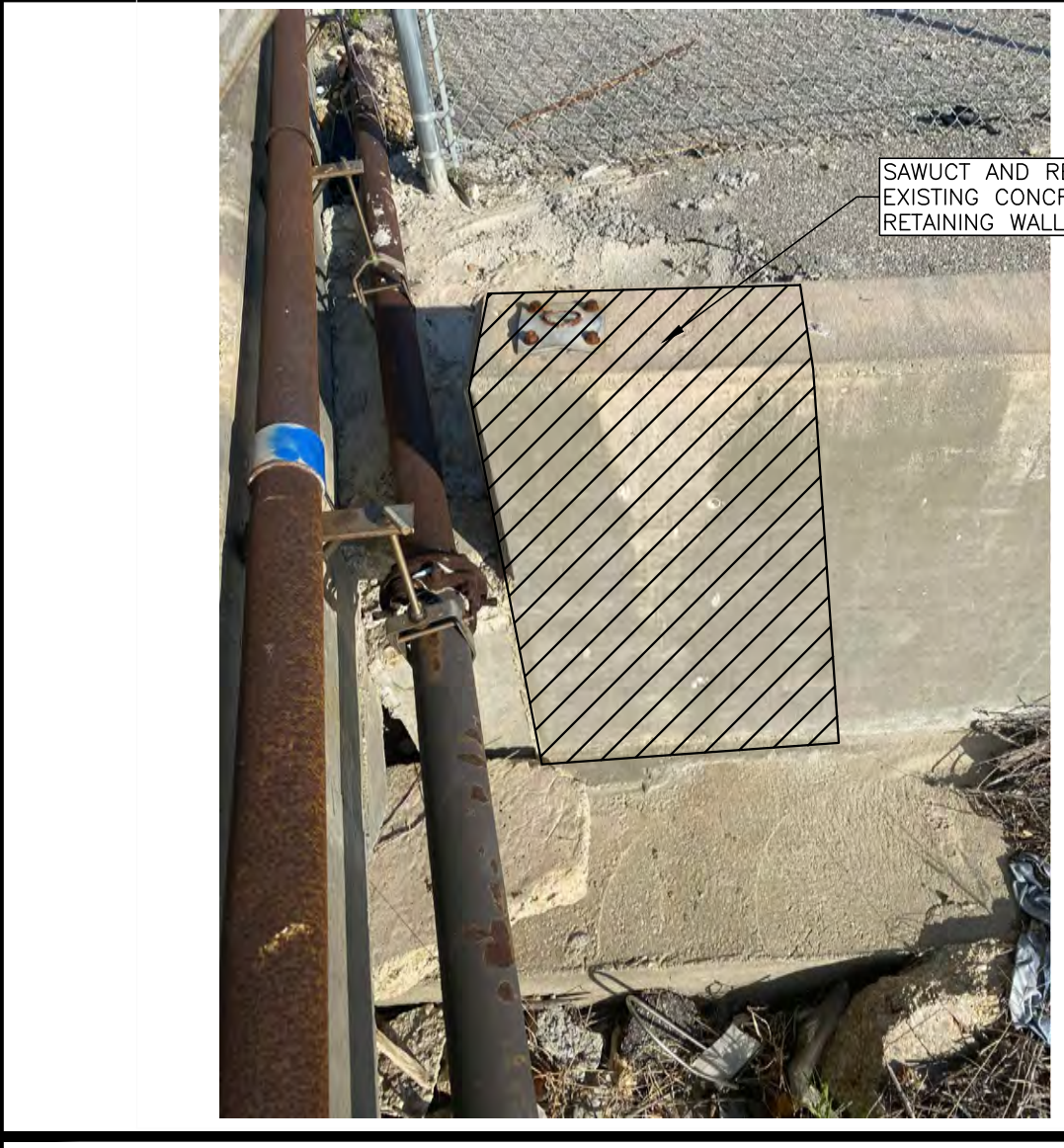
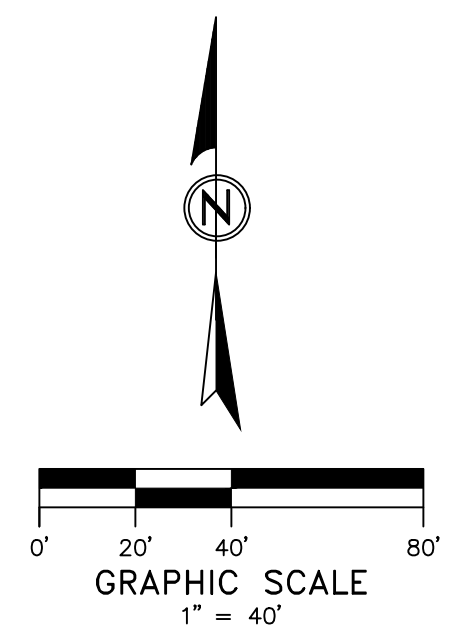


SURVEY LEGEND	
	DENOTES WATER VALVE
	DENOTES ELECTRICAL MANHOLE
	DENOTES FIRE HYDRANT
	DENOTES DRAIN INLET
	DENOTES COMMUNICATIONS MANHOLE
	DENOTES EXISTING FENDER
	DENOTES EXISTING MOORING BOLLARD

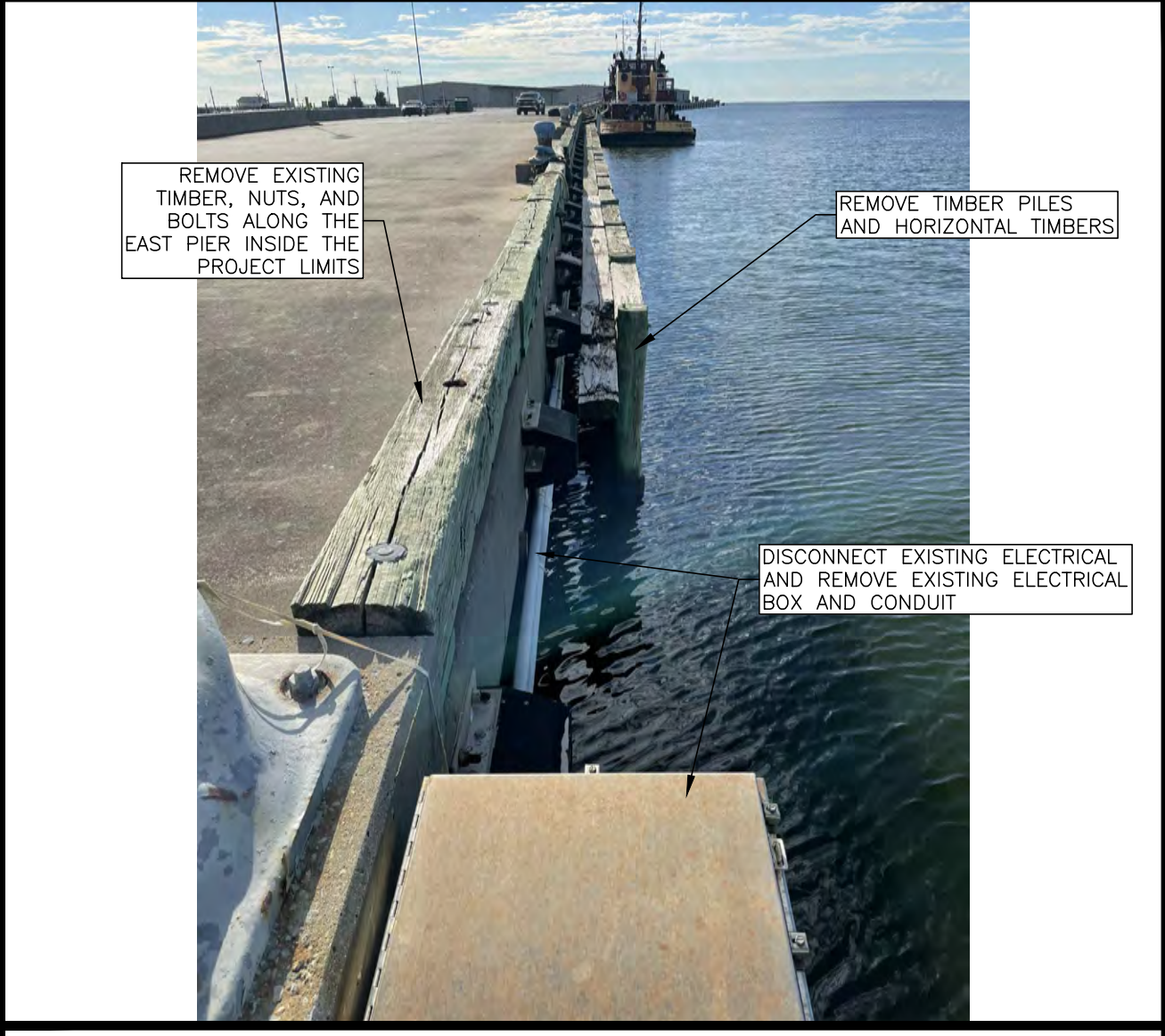
DEMOLITION NOTES	
1	CONTRACTOR TO REMOVE EXISTING TIMBER PILES AND HORIZONTAL TIMBER COMPONENTS.
2	CONTRACTOR TO REMOVE EXISTING FENDER (ALTERNATE #3). CONTRACTOR TO PROVIDE FENDERS TO THE OWNER ONCE REMOVED.
3	CONTRACTOR TO SAWCUT AND REMOVE EXISTING ASPHALT TO CONSTRUCT NEW ELECTRICAL PLATFORM.
4	CONTRACTOR TO REMOVE EXISTING ELECTRICAL BOX AND CONDUIT ALONG THE FACE OF THE EAST PIER.
5	CONTRACTOR TO REMOVE EXISTING CONDUIT AND PIPE. SEE PICTURE #3 AND #4 ON THIS SHEET.
6	CONTRACTOR TO REMOVE EXISTING TIMBERS, NUTS, AND BOLTS ALONG THE EAST PIER.
7	CONTRACTOR TO REMOVE EXISTING BIT BOLLARDS. REFER TO STRUCTURAL PLANS FOR DEMO OF EXISTING CONCRETE PEDESTALS OR MODIFICATIONS, IF REQUIRED.
8	CONTRACTOR TO DISCONNECT EXISTING ELECTRICAL AND REMOVE EXISTING ELECTRICAL PANELS, TRANSFORMER, CONDUIT, AND CONDUCTOR.
9	CONTRACTOR TO REMOVE EXISTING WATER VALVES AND PIPING INSIDE THE ACCESS PANEL.
10	CONTRACTOR TO SAWCUT AND REMOVE A PORTION OF THE EXISTING CONCRETE RETAINING WALL. SEE PIC #1 THIS SHEET.
11	CONTRACTOR TO REMOVE EXISTING CHAIN LINK FENCE BACK TO THE NEAREST POST. REINSTALL FENCE ONCE ALL CONDUITS AND PIPING HAVE BEEN INSTALLED.
12	CONTRACTOR TO SAWCUT AND REMOVE EXISTING CONCRETE TO INSTALL UTILITIES. CONTRACTOR TO ANTICIPATE CONCRETE GROUT REMOVAL TO INSTALL UTILITIES.
13	CONTRACTOR TO REMOVE FENDERS TO MODIFY FENDERS. REFER TO STRUCTURAL FOR DETAILS.

NOTE: CONTRACTOR TO BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ANY AND ALL DEBRIS RELATED TO THE ITEMS ABOVE.

SITE DEMOLITION NOTES	
1.	INFORMATION GIVEN WAS TAKEN FROM TOPOGRAPHICAL SURVEY SUPPLIED BY MACHADO PATANO, PLLC, DATED JUNE, 2023. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND CONDITIONS AND REPORT ANY DISCREPANCIES, CONFLICTS OR OTHER UNSATISFACTORY CONDITIONS TO THE ENGINEER PRIOR TO CONSTRUCTION.
2.	THE CONTRACTOR SHALL CALL MISSISSIPPI ONE CALL (1-800-227-6477) BY LAW TO LOCATE ALL EXISTING UTILITIES ON SITE PRIOR TO THE START OF HIS WORK.
3.	CONTRACTOR SHALL MAINTAIN EROSION AND SEDIMENT CONTROLS DURING THE ENTIRE COURSE OF WORK AS DETAILED ON THE STORM WATER POLLUTION PREVENTION PLANS, AND IN ACCORDANCE WITH THE STATE STORM WATER POLLUTION PREVENTION REQUIREMENTS.
4.	ALL OTHER MATERIALS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF OFF SITE IN A LEGAL LANDFILL. CONTRACTOR IS NOT ALLOWED TO STOCKPILE NON-RECYCLED OR NON-SALVAGED DEMOLITION MATERIALS ON SITE. ALL MATERIALS SHALL BE REMOVED IN A TIMELY FASHION.



PIC #1 - EAST PIER DEMO



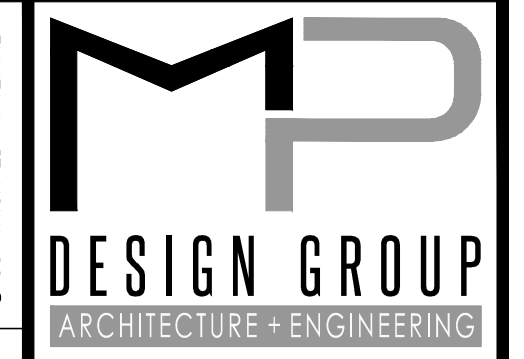
PIC #2 - EAST PIER DEMO



PIC #3 - EAST PIER DEMO



PIC #4 - EAST PIER DEMO



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PORT OF GULFPORT MISSISSIPPI
STATE PORT AUTHORITY
 30TH AVENUE
 GULFPORT, MS 39501

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PROJECT NO:	0297.23.001
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SITE DEMOLITION PLAN
EAST PIER

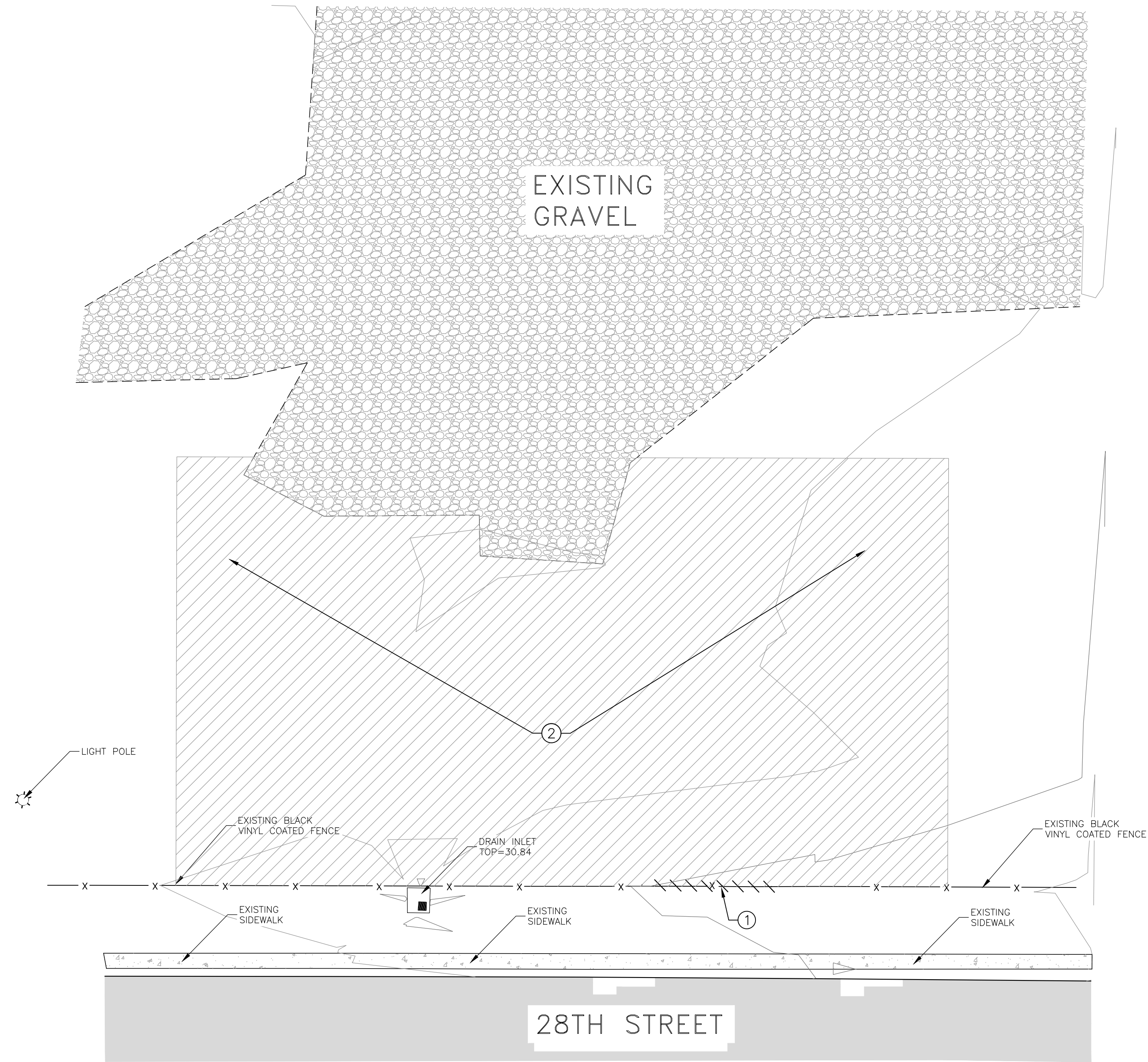
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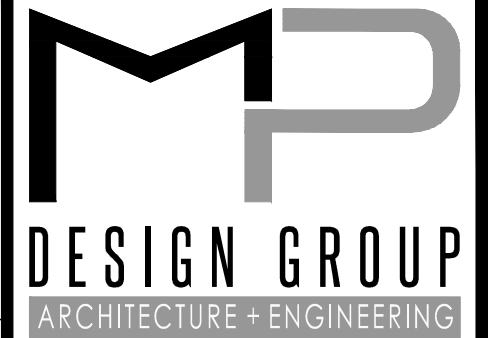
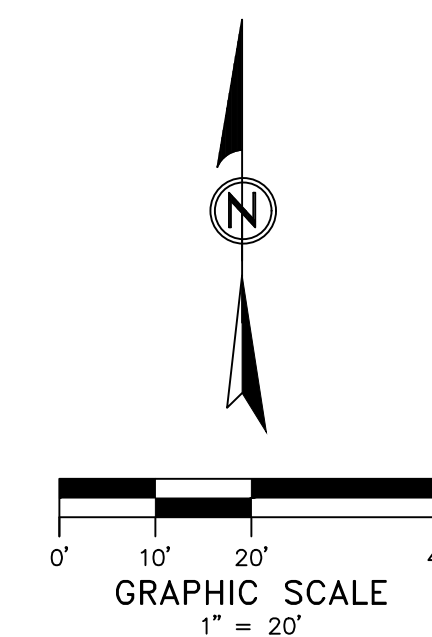


DEMOLITION NOTES

- ① CONTRACTOR TO REMOVE APPROXIMATELY 20 FT. OF BLACK VINYL COATED CHAIN LINK FENCE. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ANY AND ALL DEBRIS RELATED TO THIS ITEM.
- ② CONTRACTOR TO STRIP AREA OF EXISTING VEGETATION. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ANY AND ALL DEBRIS RELATED TO THIS ITEM.

SITE DEMOLITION NOTES

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2. THE CONTRACTOR SHALL CALL MISSISSIPPI ONE CALL (1-800-227-6477) BY LAW TO LOCATE ALL EXISTING UTILITIES ON SITE PRIOR TO THE START OF HIS WORK.
3. CONTRACTOR SHALL MAINTAIN EROSION AND SEDIMENT CONTROLS DURING THE ENTIRE COURSE OF WORK AS DETAILED ON THE STORM WATER POLLUTION PREVENTION PLANS, AND IN ACCORDANCE WITH THE STATE STORM WATER POLLUTION PREVENTION REQUIREMENTS.
4. ALL OTHER MATERIALS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF OFF SITE IN A LEGAL LANDFILL. CONTRACTOR IS NOT ALLOWED TO STOCKPILE NON-RECYCLED OR NON-SALVAGED DEMOLITION MATERIALS ON SITE. ALL MATERIALS SHALL BE REMOVED IN A TIMELY FASHION.
5. CONTRACTOR TO OBTAIN ALL NECESSARY PERMIT FOR THE AUTHORITY HAVING JURISDICTION (A.H.) PRIOR TO COMMENCEMENT OF ANY WORK.



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STATE PORT AUTHORITY
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SEVERE WEATHER STORAGE DEMOLITION PLAN

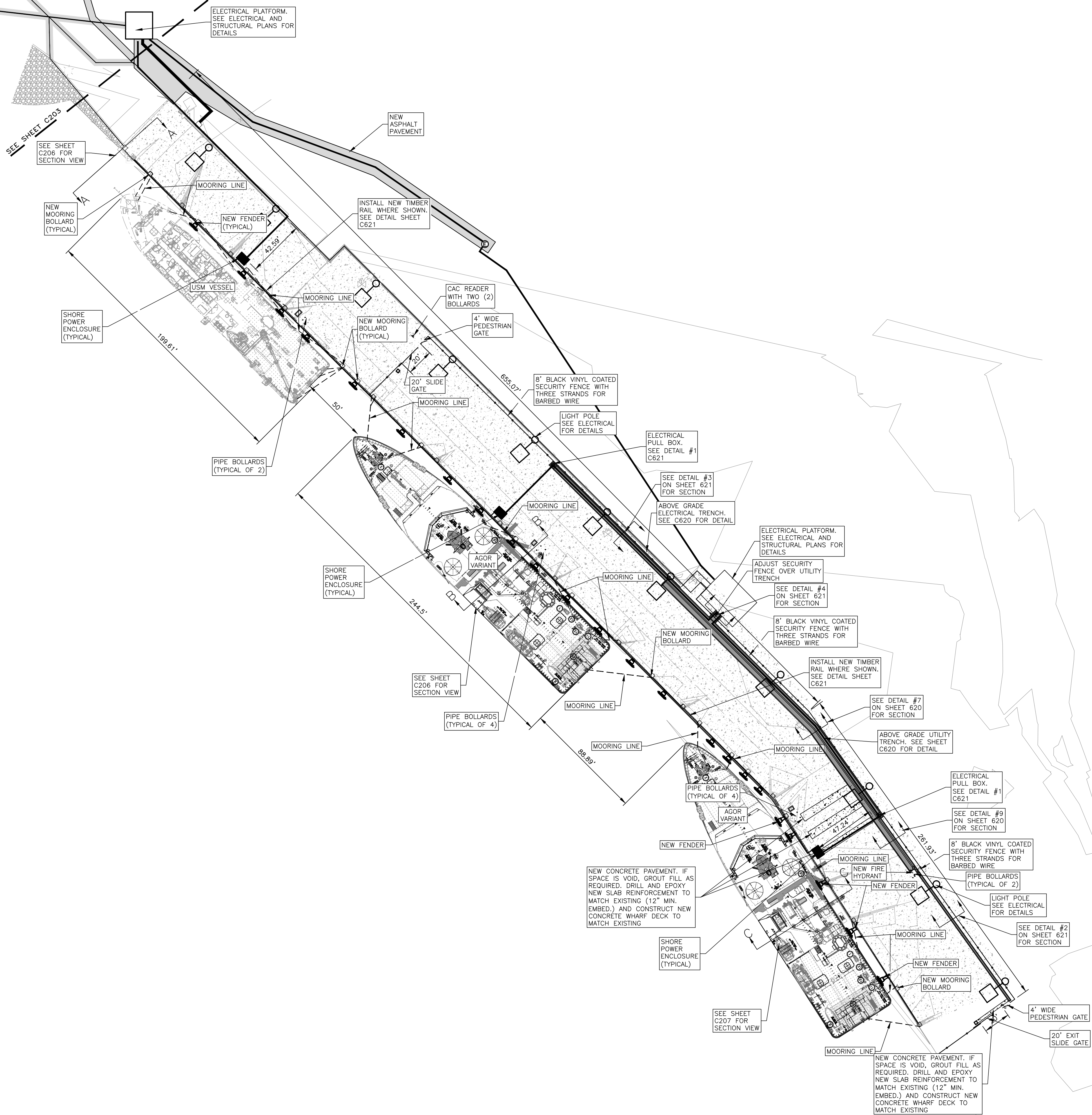
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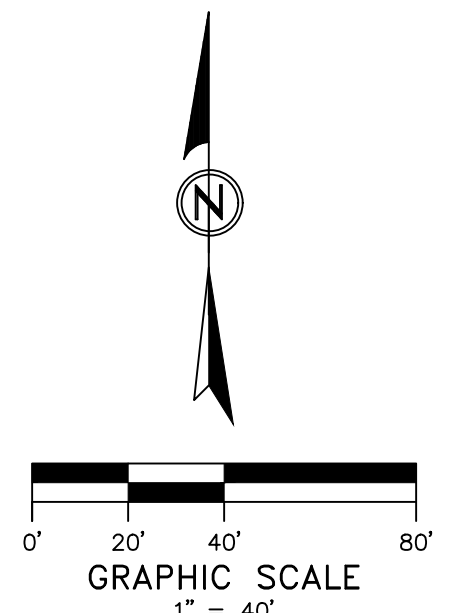
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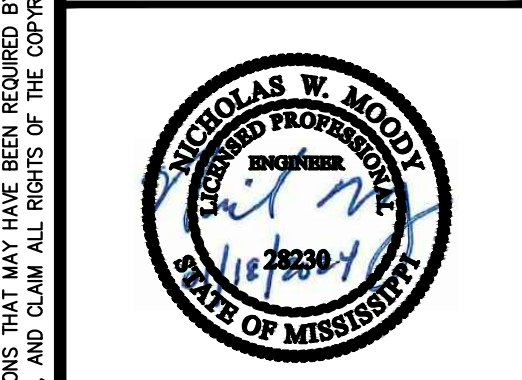


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	DENOTES DRAIN INLET
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	DENOTES EXISTING FENDER
	DENOTES EXISTING MOORING BOLLARD



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SITE PLAN - MOORING SCENARIO #1
USM-AGOR VARIANT-AGOR VAR.

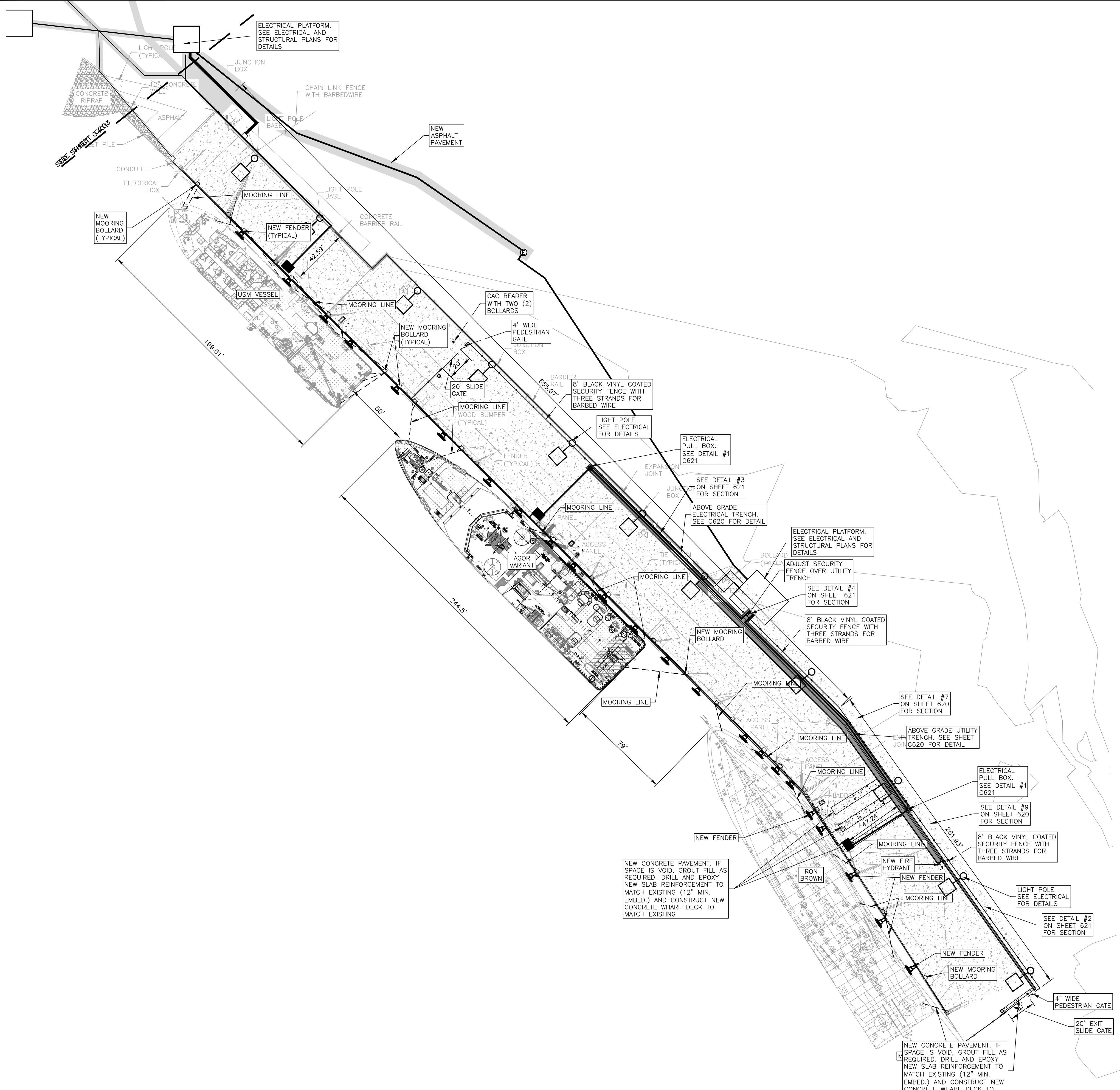
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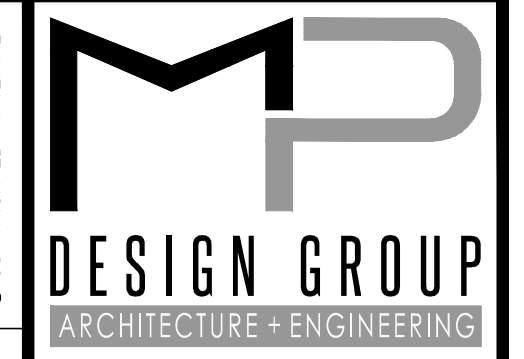
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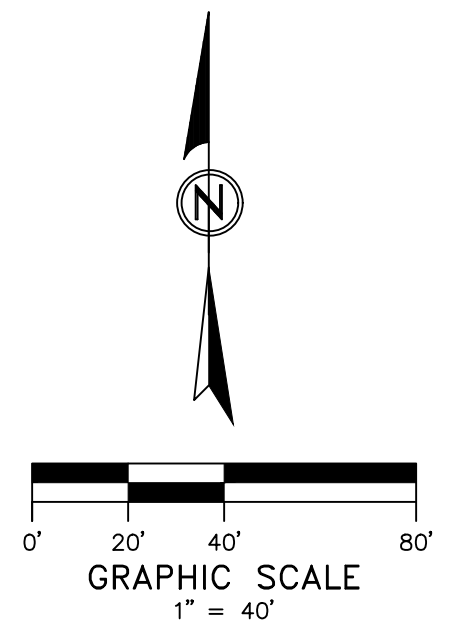
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SITE PLAN - MOORING SCENARIO #2
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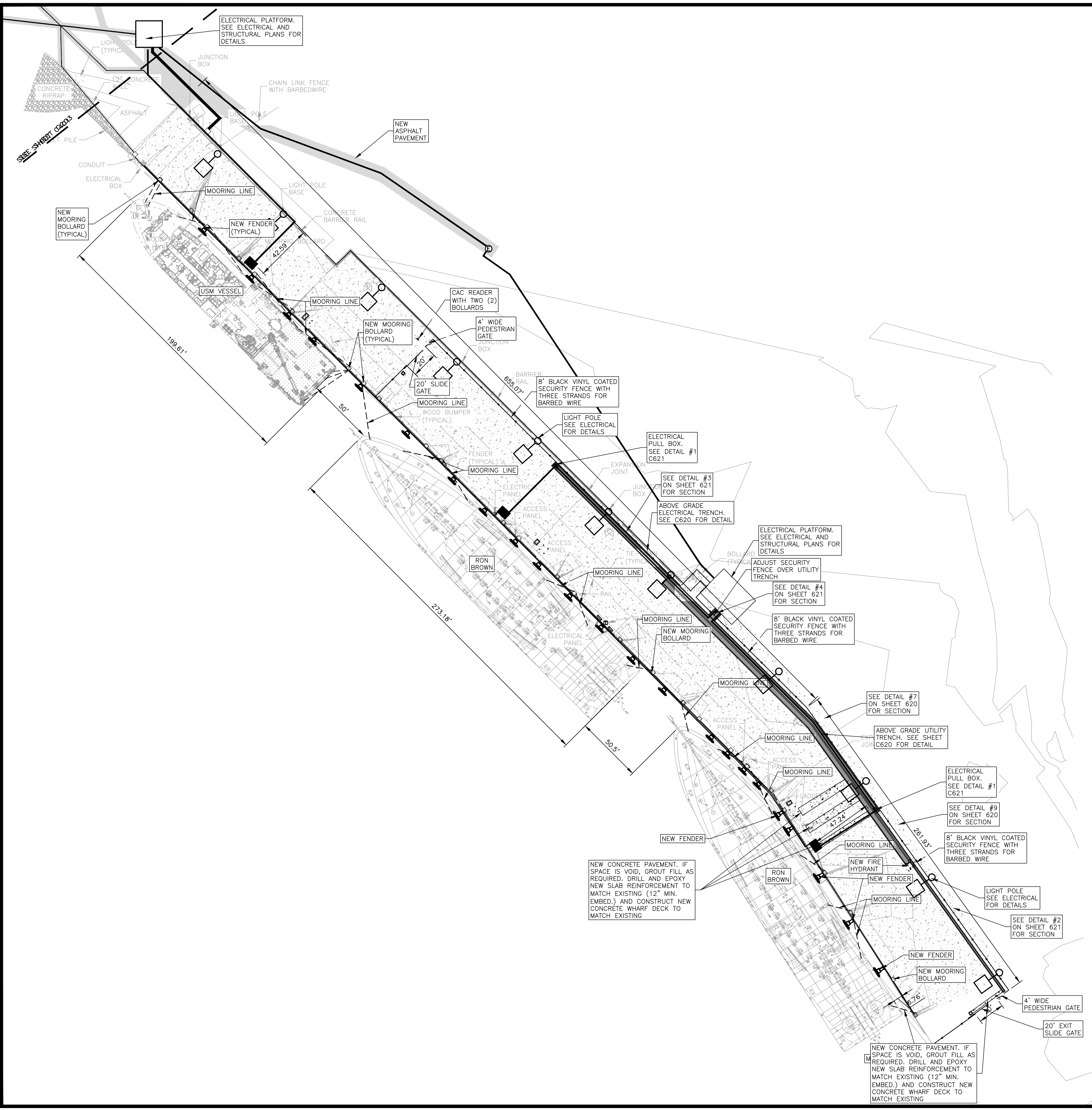
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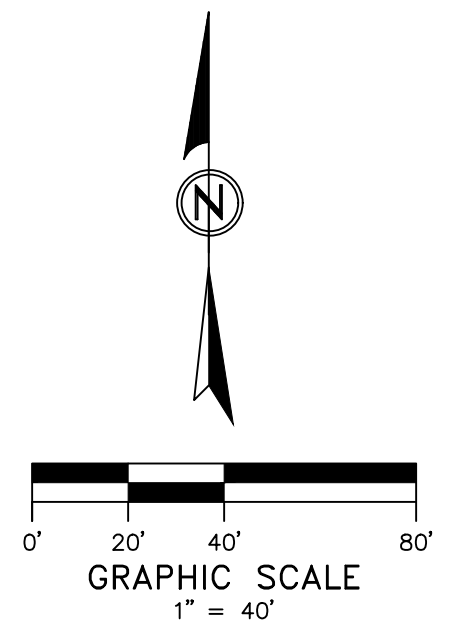


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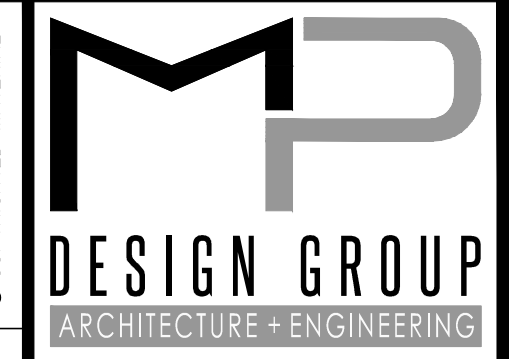


SURVEY LEGEND	
	DENOTES WATER VALVE
	DENOTES ELECTRICAL MANHOLE
	DENOTES FIRE HYDRANT
	DENOTES DRAIN INLET
	DENOTES COMMUNICATIONS MANHOLE
	DENOTES FENDER
	DENOTES MOORING BOLLARD



NEW CONCRETE PAVEMENT. IF SPACE IS VOID, GROUT FILL AS REQUIRED. DRILL AND EPOXY NEW SLAB REINFORCEMENT TO MATCH EXISTING (12" MIN. EMBED.) AND CONSTRUCT NEW CONCRETE WHARF DECK TO MATCH EXISTING

NEW CONCRETE PAVEMENT. IF SPACE IS VOID, GROUT FILL AS REQUIRED. DRILL AND EPOXY NEW SLAB REINFORCEMENT TO MATCH EXISTING (12" MIN. EMBED.) AND CONSTRUCT NEW CONCRETE WHARF DECK TO MATCH EXISTING



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EAST PIER DEEP WATER WHARF FOR USM/NOAA
PORT OF GULFPORT MISSISSIPPI
STATE PORT AUTHORITY
 30TH AVENUE
 GULFPORT, MS 39501

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SITE PLAN - MOORING SCENARIO #3
USM-ROB BROWN-ROB BROWN

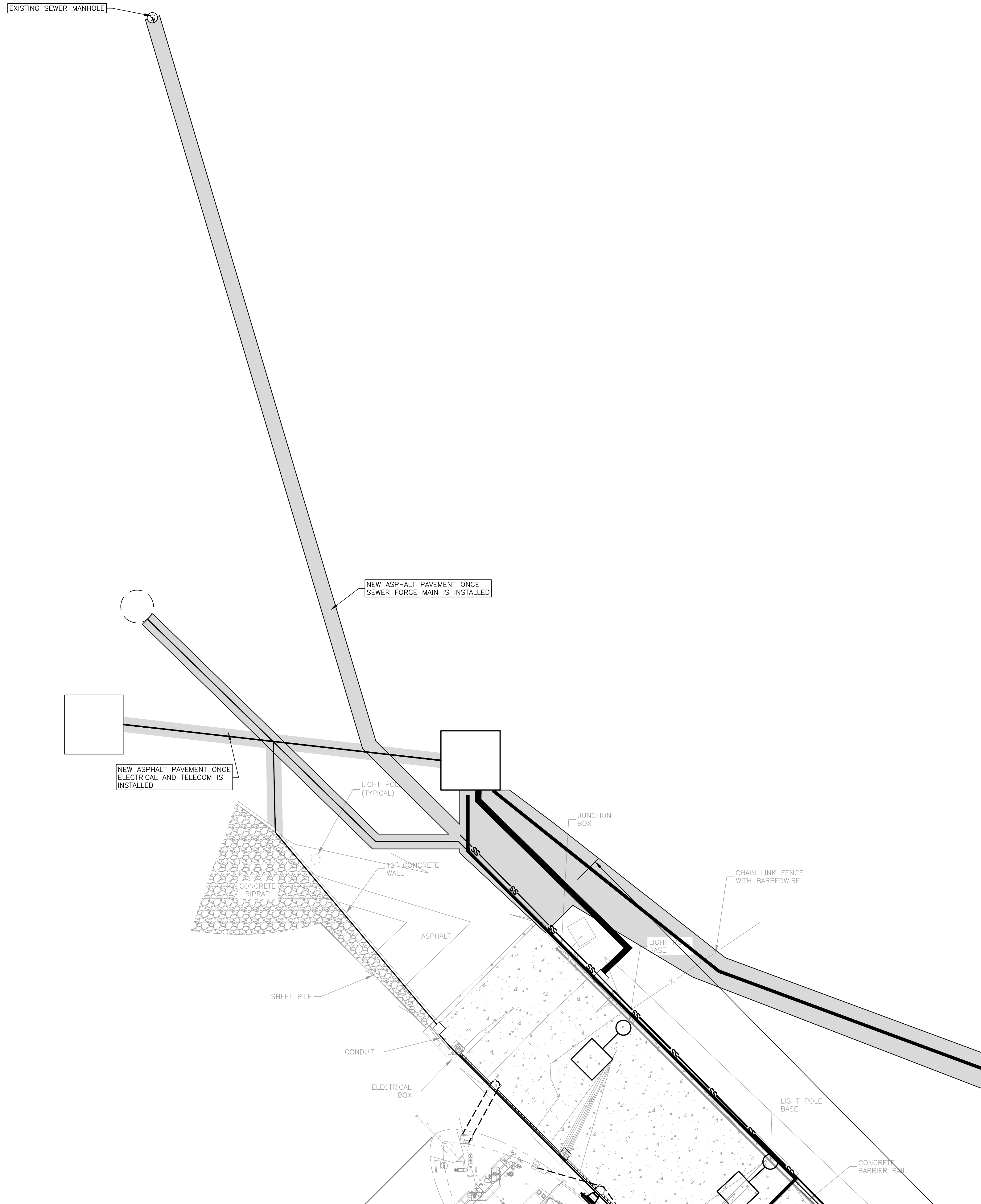
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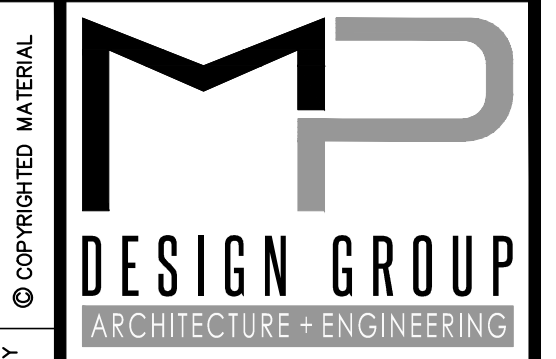
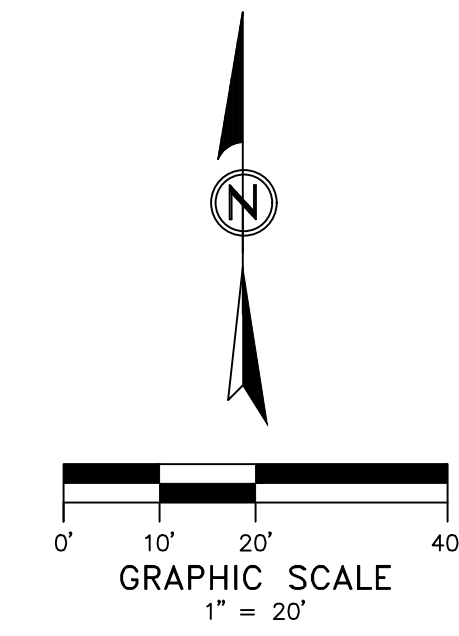
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SURVEY LEGEND	
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EAST PIER DEEP WATER WHARF FOR USM/NOAA
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 GULFPORT, MS 39501

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SITE PLAN - ASPHALT PAVING FOR UTILITIES

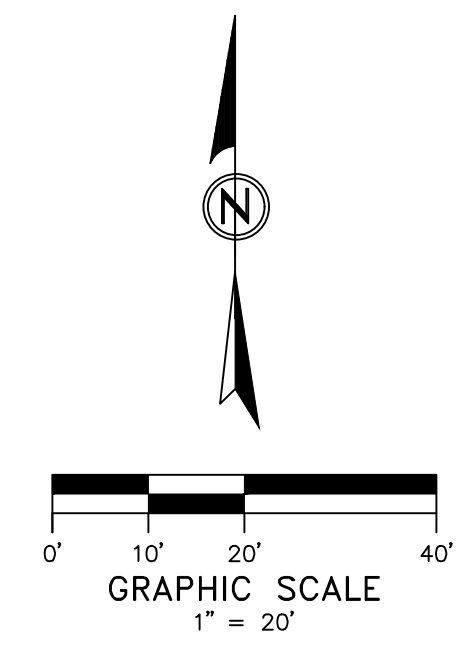
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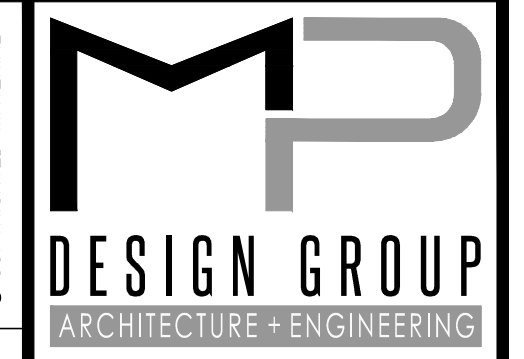
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**EAST PIER DEEP WATER WHARF FOR
 USM/NOAA
 PORT OF GULFPORT MISSISSIPPI
 STATE PORT AUTHORITY**

30TH AVENUE
 GULFPORT, MS 39501

SCALE: AS INDICATED
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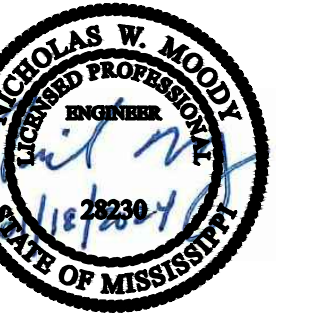
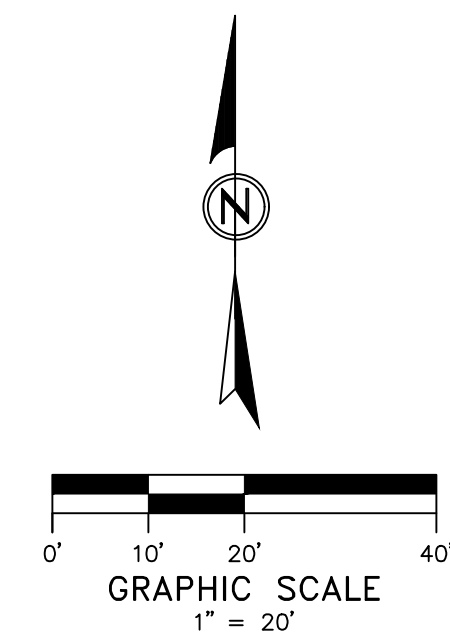
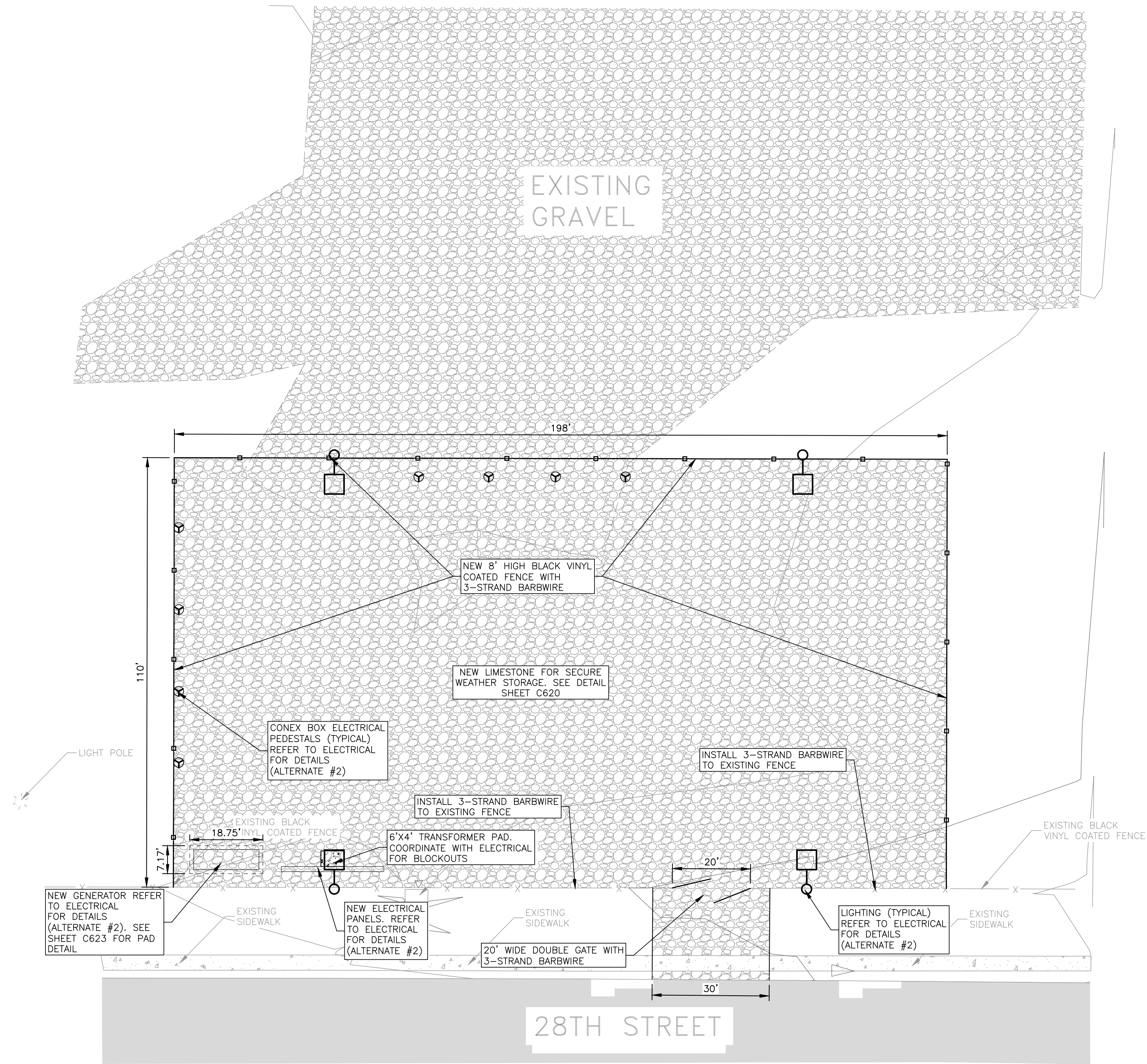
**SMALL BOAT PIER SITE PLAN
 ALTERNATE #1**

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**SEVERE WEATHER STORAGE
 SITE PLAN**

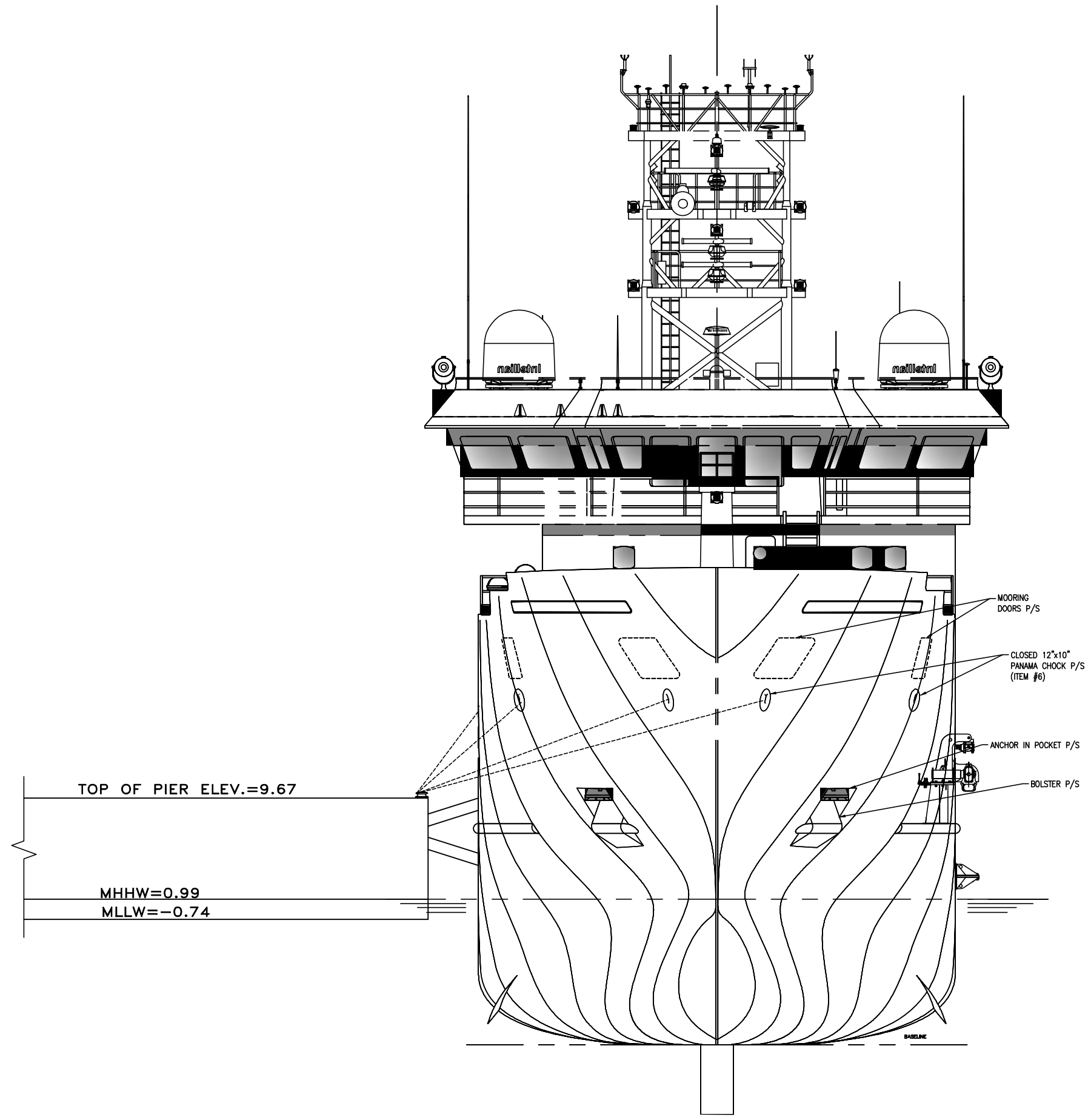
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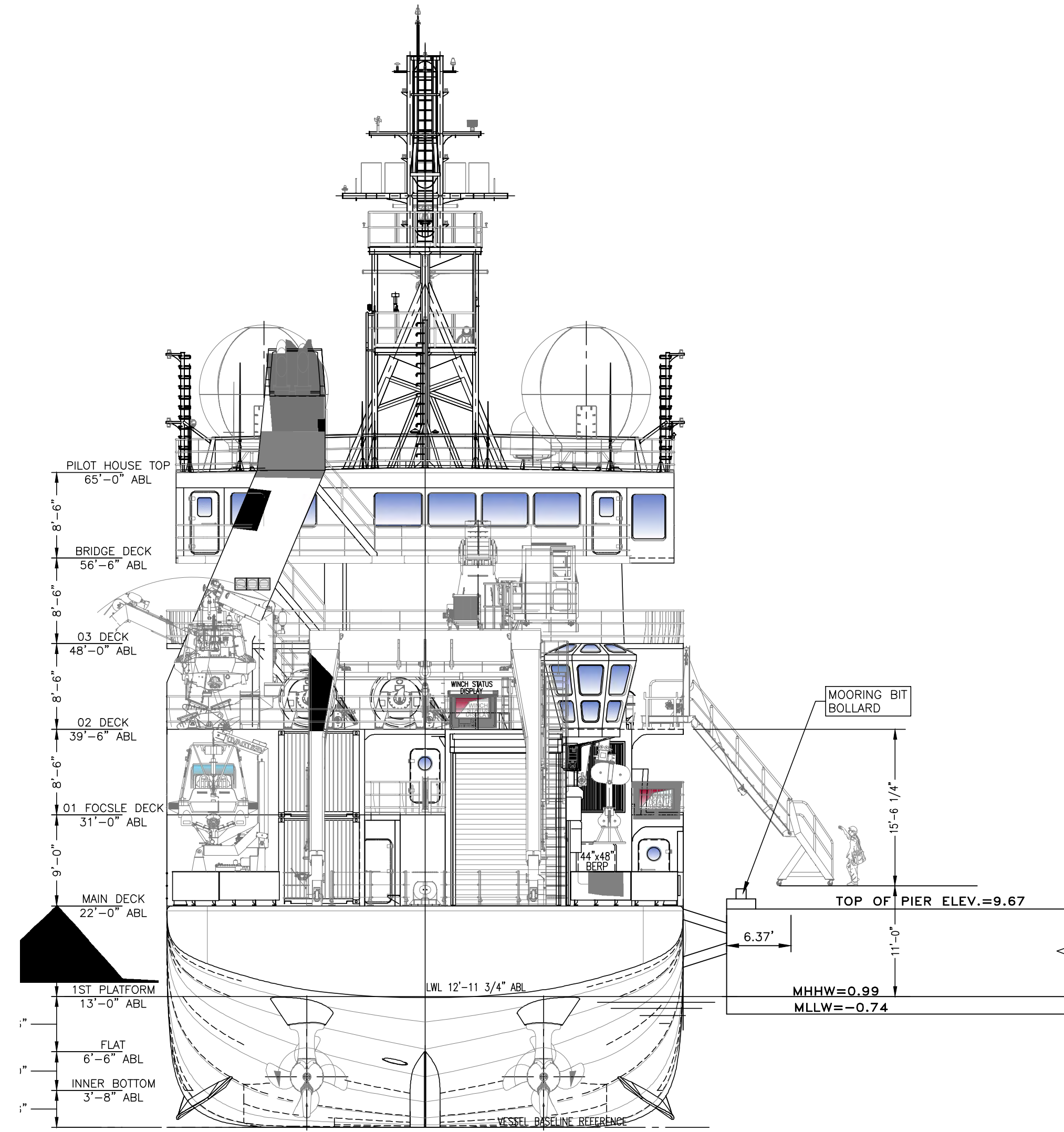
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1 SECTION A-A (USM VESSEL)

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2 SECTION B-B (AGOR VARIANT VESSEL)

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 GULFPORT, MS 39501

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PROJECT NO:	0297.23.001
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VESSEL SECTION VIEWS

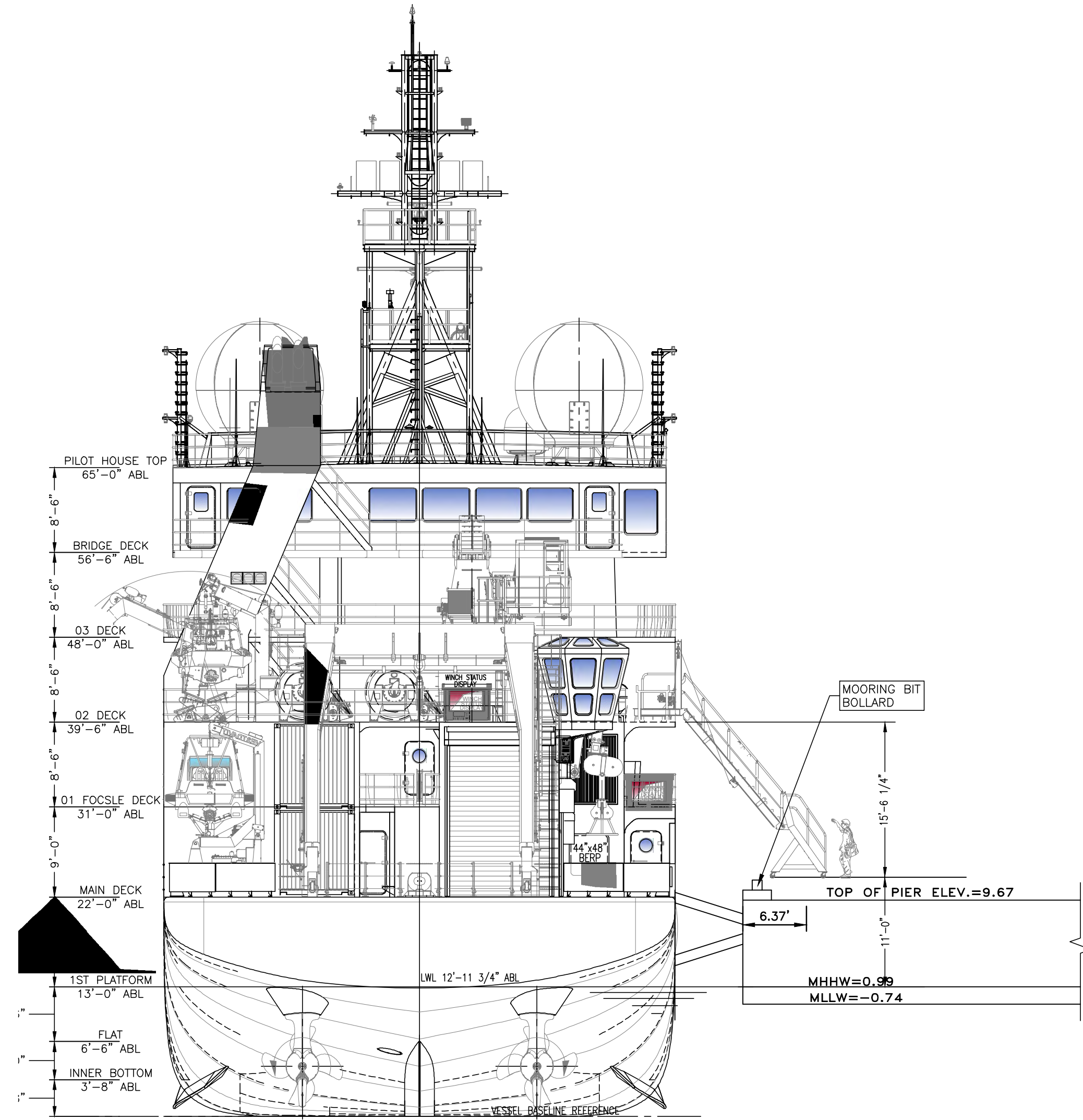
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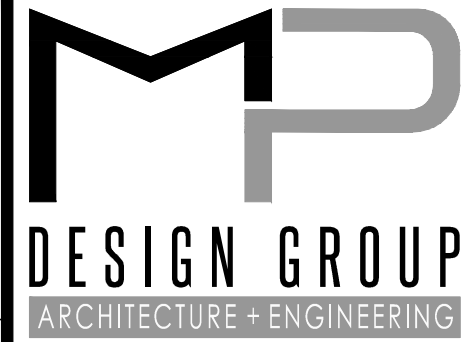
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1 SECTION C-C (AGOR VARIANT VESSEL)

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 STATE PORT AUTHORITY
 30TH AVENUE
 GULFPORT, MS 39501

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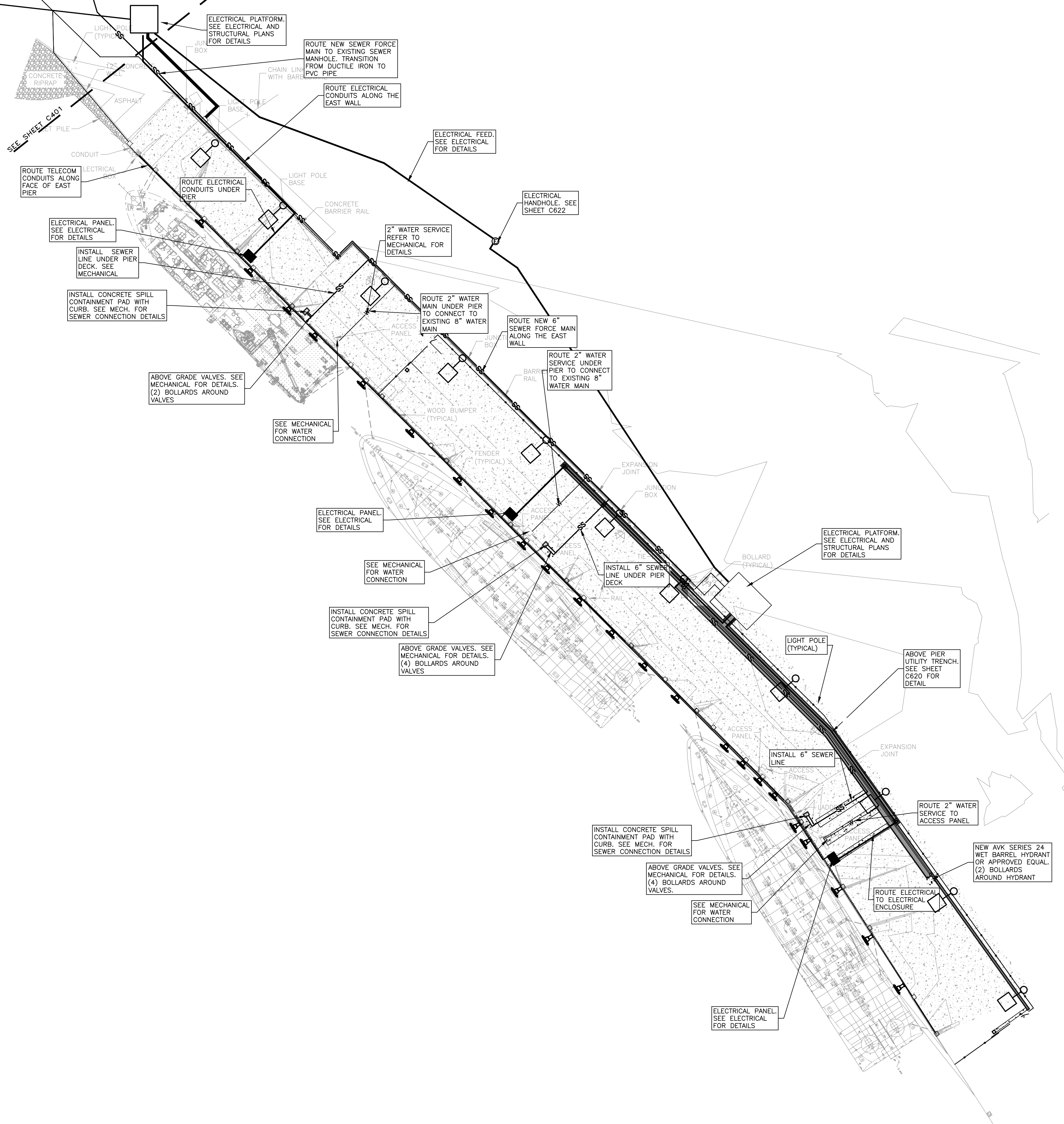
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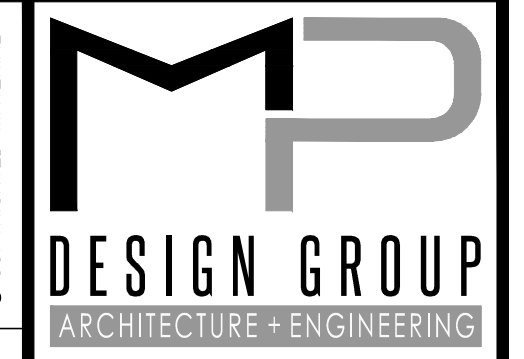
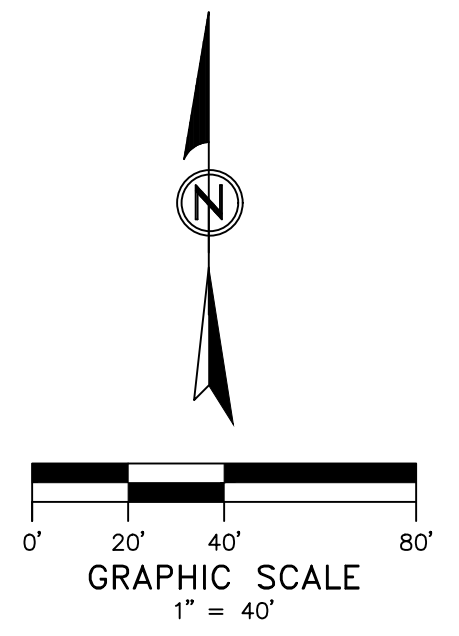
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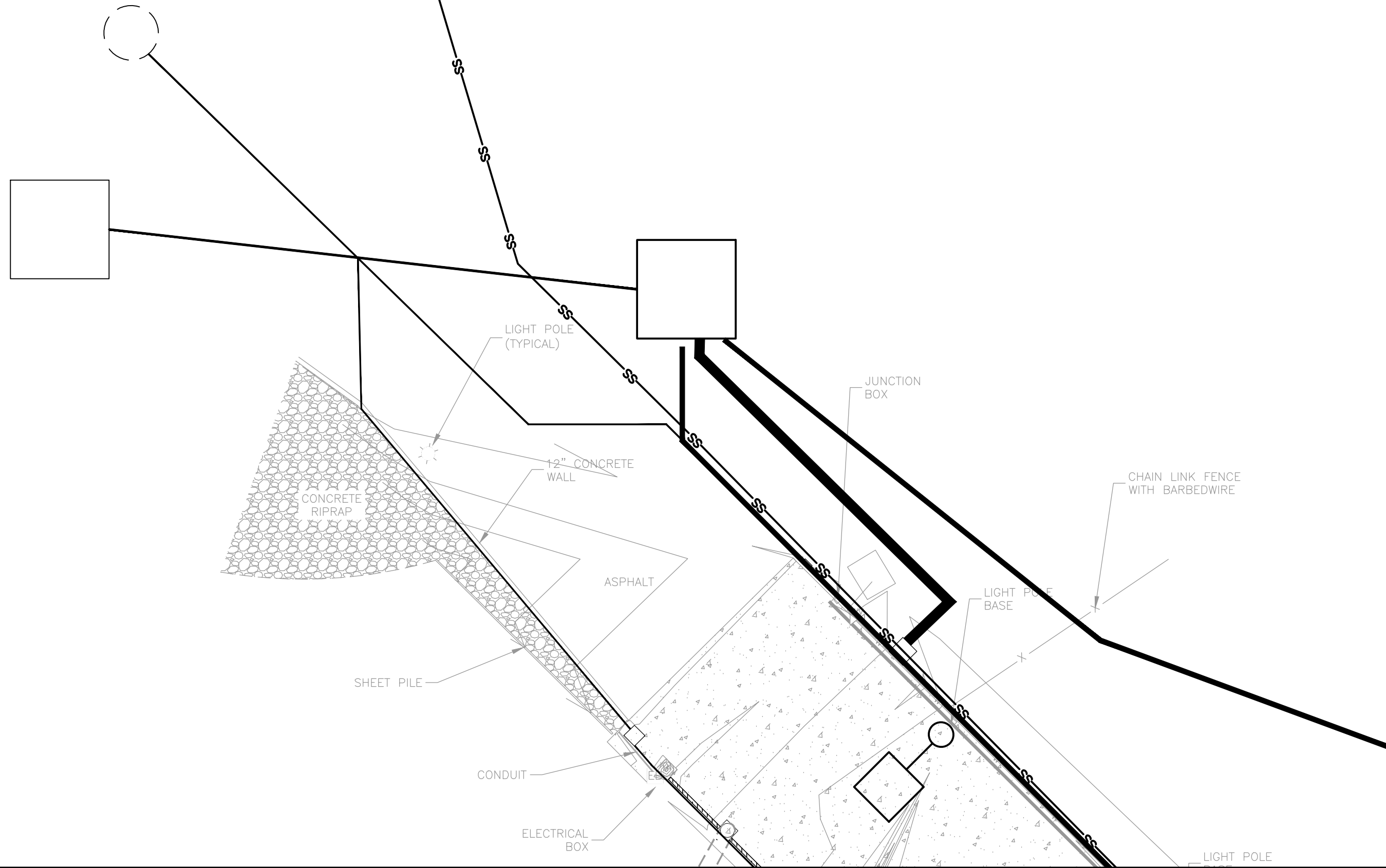
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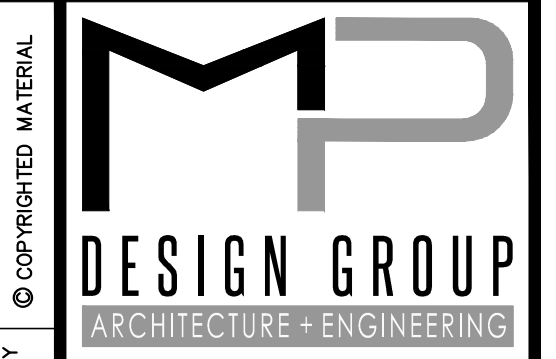
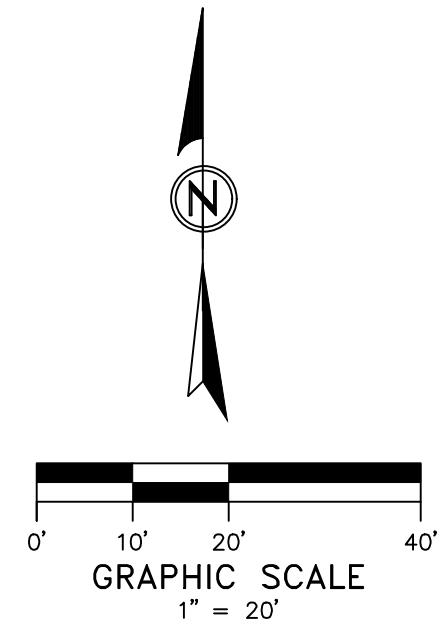
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CORE EXISTING SEWER MANHOLE
 AND INSTALL SEWER FORCE MAIN.
 EPOXY COAT INSIDE OF MANHOLE
 WITH 100% COAL TAR EPOXY

INSTALL ±375 LF OF 6" PVC
 SDR 26 SEWER FORCE MAIN



SURVEY LEGEND	
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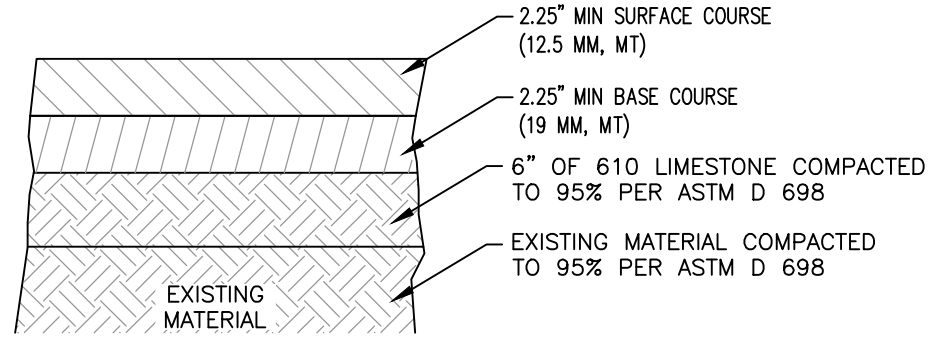
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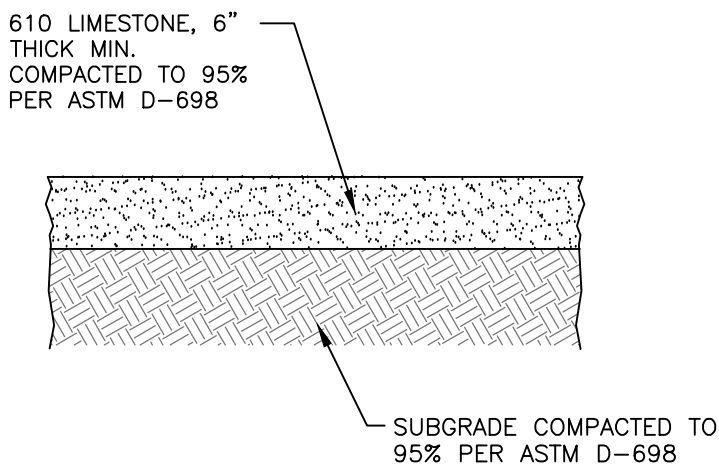
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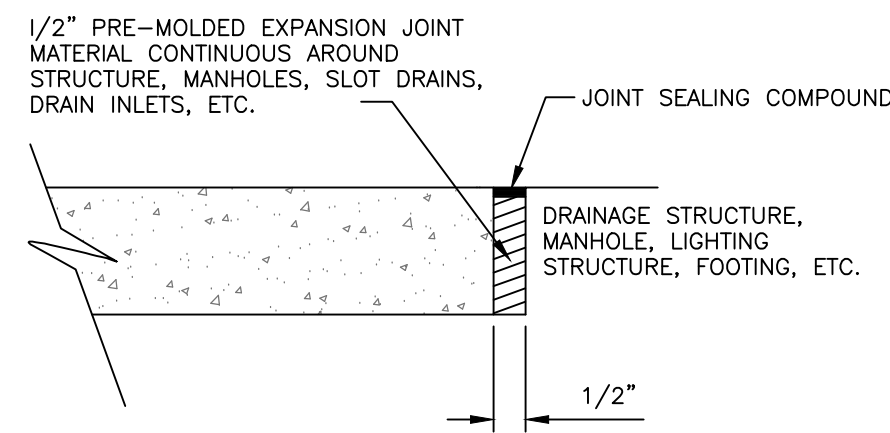
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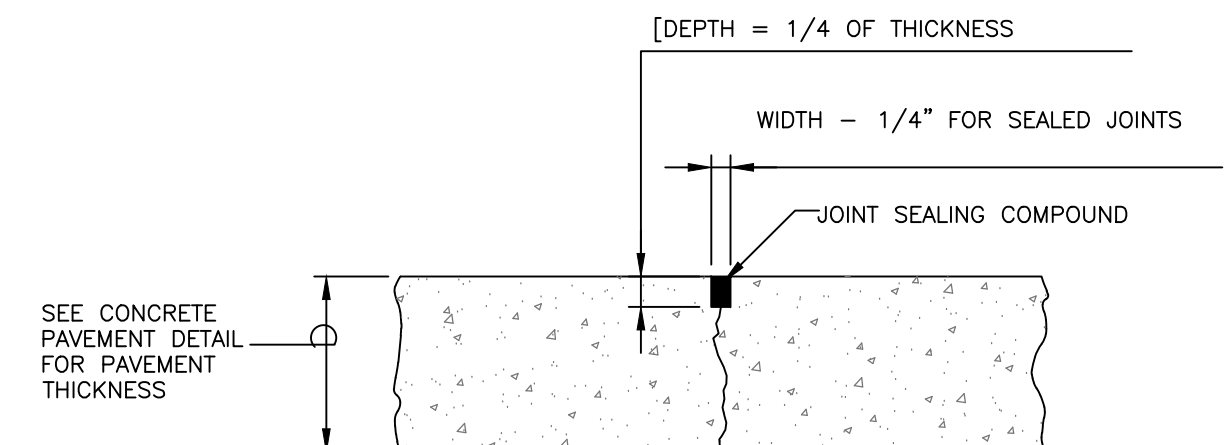
1 ASPHALT PAVEMENT DETAIL NOT TO SCALE



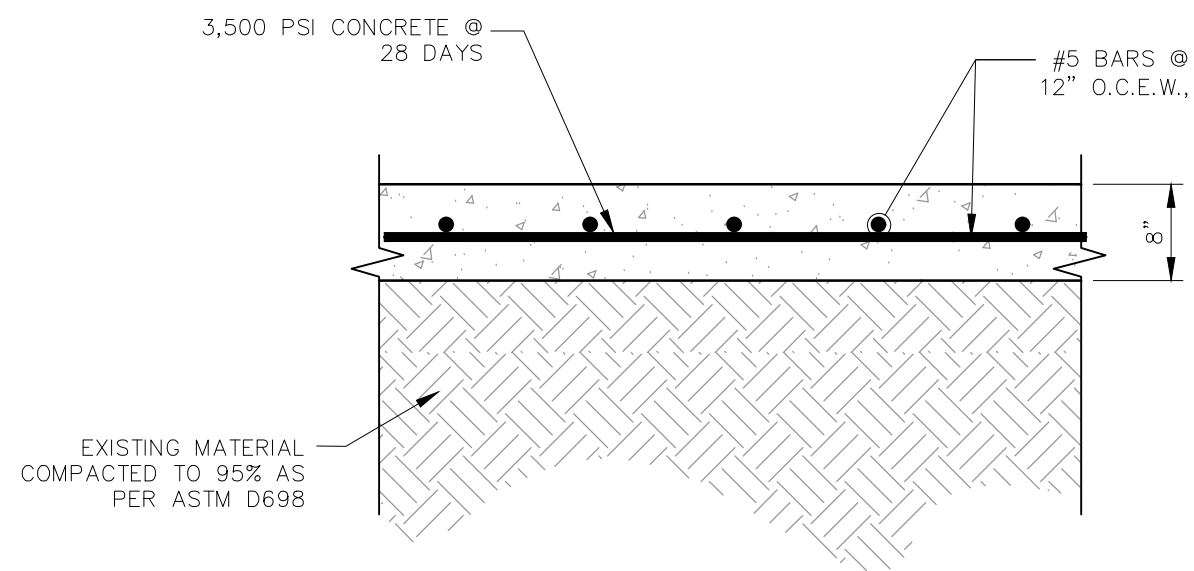
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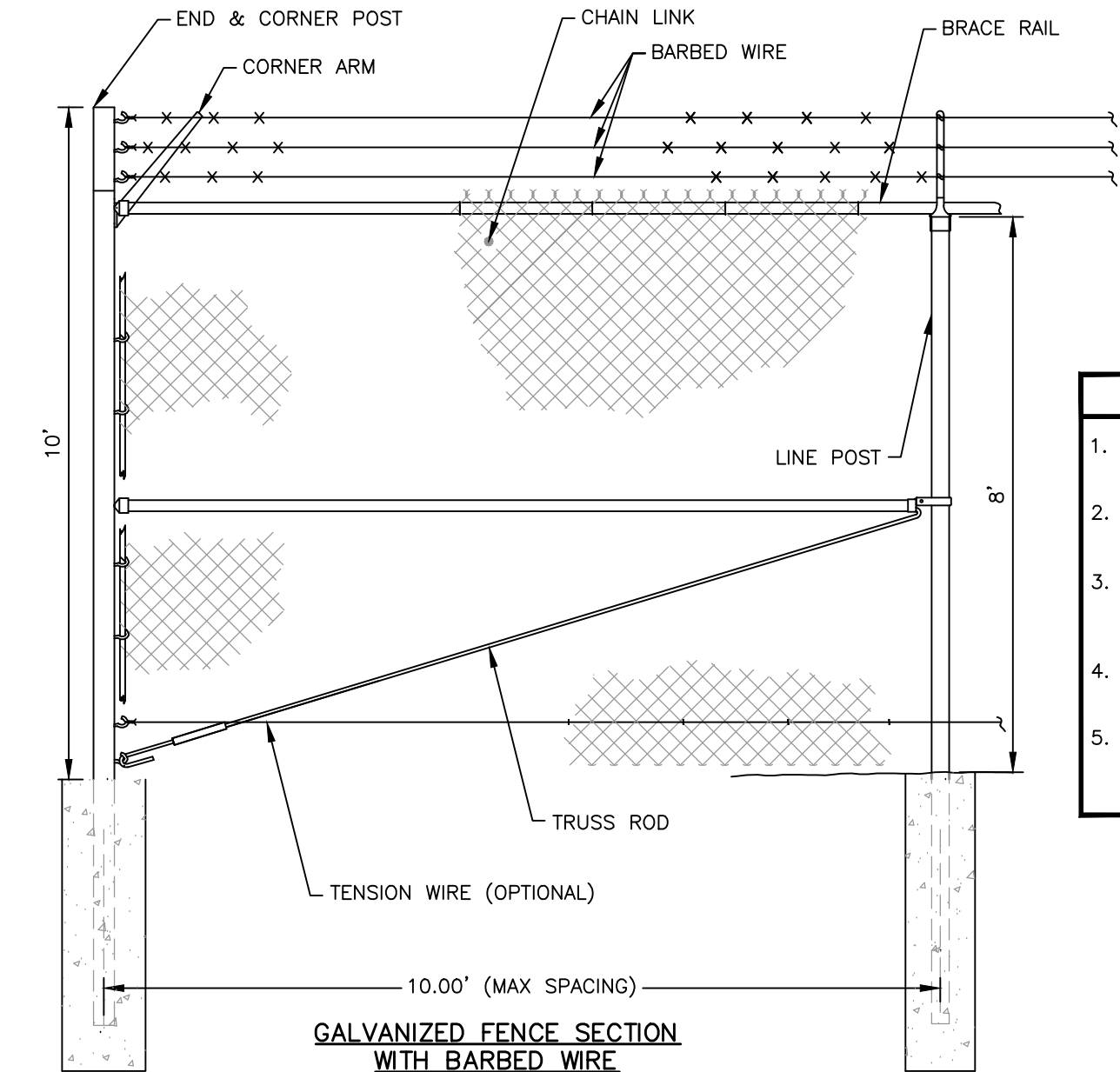
3 ISOLATION / EXPANSION DETAIL NOT TO SCALE



4 CONTRACTION JOINT DETAIL NOT TO SCALE

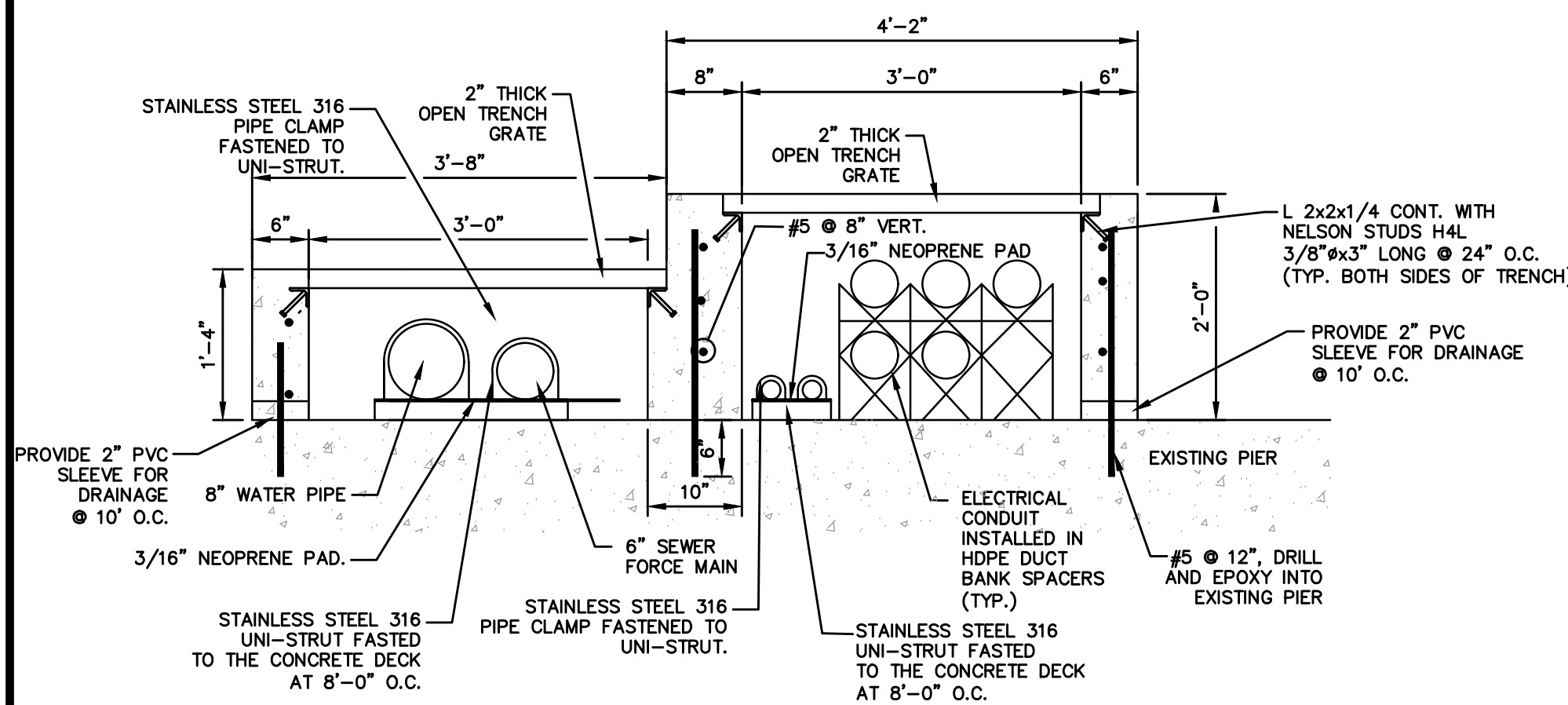


5 CONCRETE SLAB DETAIL (SMALL BOAT PIER) NOT TO SCALE



- FENCE NOTES**
- ALL POSTS, FABRIC, BRACKETS, HORIZONTAL SUPPORTS SHOULD BE BLACK VINYL COATED.
 - ALL POSTS SHALL BE SET IN 2500 PSI FOOTINGS APPROXIMATELY 24\"/>

6 FENCE DETAIL NOT TO SCALE

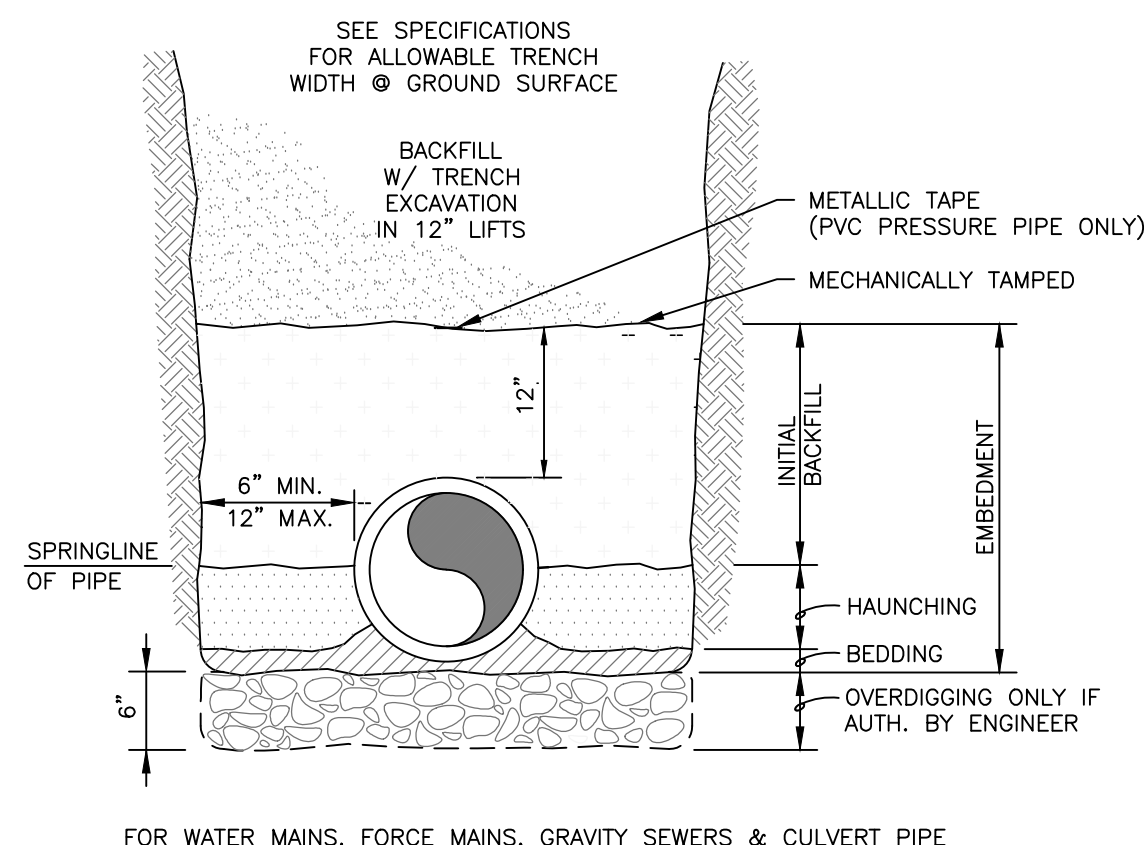


7 UTILITY TRENCH DETAIL NOT TO SCALE

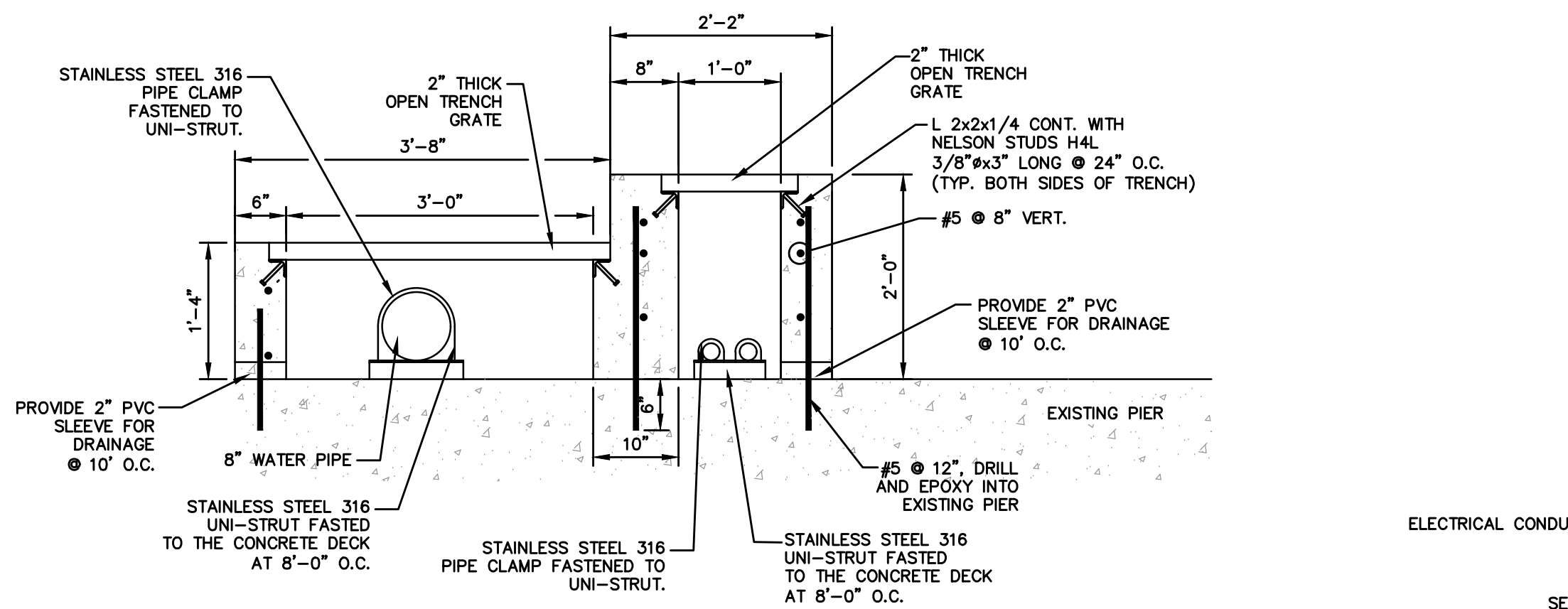
- GENERAL CONCRETE JOINTING NOTES**
- ALL JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 330R-08 OR SECTION 3.07 IN THE NRMCA GUIDE SPECIFICATIONS.
 - ISOLATION JOINTS SHALL BE APPLIED AROUND IN-PAVEMENT AND FIXED STRUCTURES, SUCH AS DRAINAGE INLETS, MANHOLES, SLOT DRAIN, ETC. AND AS NOTED ON PLANS.
 - JOINTS ARE TO ENTER CURVED EDGES WITH PERPENDICULAR CUTS.
 - JOINTS SHALL BE CUT WITHIN TWELVE (12) HOURS OF FINISHING CONCRETE.
 - CONTRACTION JOINT CUTS SHALL BE 1/3 OF THE PAVEMENT THICKNESS DEEP. THE WIDTH OF THE CUT SHOULD BE APPROXIMATELY 1/4 INCH WIDE AND SEALED.
 - CONTRACTOR SHALL INSTALL CONSTRUCTION JOINTS AT THE END OF ONE PLACEMENT AND THE BEGINNING OF A SECOND PLACEMENT. LOCATION SHALL BE PLANNED AS NOTED IN NOTE 1 ABOVE.
 - THICKENED EDGES SHALL BE PROVIDED AT ALL PAVEMENT TRANSITIONS.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ISOLATION JOINTS AROUND ALL IN PAVEMENT AND FIXED STRUCTURES AS NOTED ABOVE WHETHER THEIR LOCATION IS SHOWN ON THIS PLAN OR NOT.
 - A PREFORMED JOINT FILLER MATERIAL OCCUPIES THE GAP BETWEEN THE STRUCTURE AND PAVEMENT.
 - FILLER MATERIAL IS A BITUMEN - TREATED FIBER BOARD, (SEE DETAIL)
 - JOINT SEALER IS APPLIED ABOVE THE FILLER MATERIAL AND AT EACH CONTRACTION JOINT.
 - MAXIMUM JOINT SPACING FOR EIGHT INCHES OF PCC IS 15 FEET.
 - EXPANSION JOINTS TO BE INSTALLED EVERY 45 FEET.

PIPE EMBEDMENT AND BACKFILL NOTE

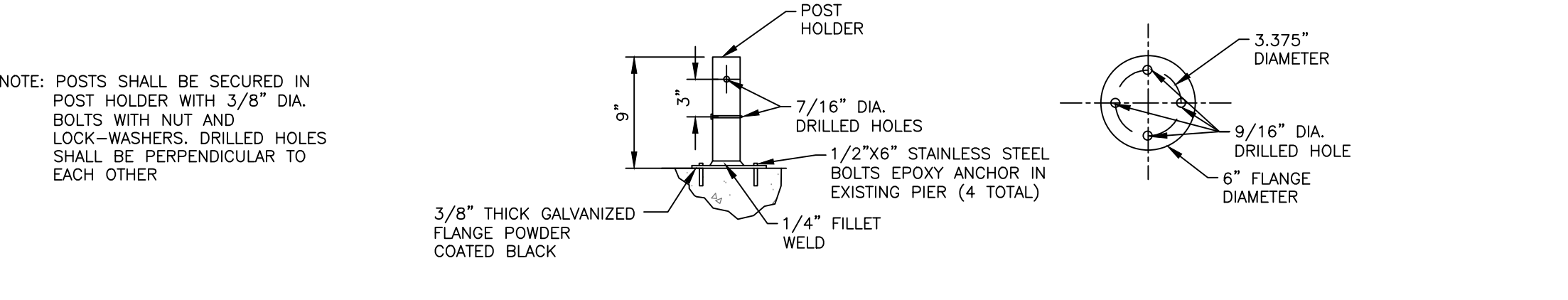
SHOULD ENGINEER DETERMINE THAT THE NATIVE MATERIAL AT THE BOTTOM OF THE TRENCH IS NOT A SUITABLE FOUNDATION FOR THE PIPE, HE MAY AUTHORIZE OVERDIGGING THE TRENCH A DEPTH OF 6 INCHES AND REPLACE WITH A SUITABLE FOUNDATION MATERIAL WHICH IS INCLUDED IN THE CONTRACT AS A PAY ITEM. GENERALLY, LOOSE MATERIAL LEFT BY THE EXCAVATOR ON THE TRENCH BOTTOM AND SOFT MATERIAL SHAVED FROM THE TRENCH EXCAVATION WILL BE ADEQUATE FOR BEDDING THE PIPE SO THAT IT IS FULLY SUPPORTED. THE HAUNCHING MATERIAL SHALL BE SELECT MATERIAL SECURED FROM THE TRENCH EXCAVATION AND THOROUGHLY COMPACTED TO THE SPRING LINE OF THE PIPE AND EXTENDING TO THE SIDE WALLS OF THE TRENCH. A MINIMUM 90 PERCENT STANDARD PROCTOR WILL BE CONSIDERED ADEQUATE COMPACTION. THE INITIAL BACKFILL (SELECT MATERIAL SECURED FROM THE TRENCH EXCAVATION) MAY THEN PROCEED TO A HEIGHT OF 12 INCHES ABOVE THE TOP OF THE PIPE AND MECHANICALLY TAMPED. FURTHER BACKFILL SHALL NOT PROCEED UNTIL INITIAL BACKFILL HAS BEEN OBSERVED BY ENGINEER. SHOULD ENGINEER DETERMINE THAT THE SELECT MATERIAL SECURED FROM THE TRENCH EXCAVATION IS NOT SUITABLE FOR EMBEDMENT AND/OR BACKFILL, HE MAY AUTHORIZE THE USE OF A SUITABLE BACKFILL MATERIAL WHICH IS INCLUDED IN THE CONTRACT AS A PAY ITEM. FURTHER BACKFILL MAY THEN PROCEED TO THE ORIGINAL GROUND SURFACE IN 12 INCH LIFTS COMPACTED TO ELIMINATE AIR VOIDS. IN AREAS WHERE THE GROUND SURFACE IS TO RECEIVE PAVEMENT, A MINIMUM 90 PERCENT STANDARD PROCTOR FOR EACH LIFT SHALL BE CONSIDERED ADEQUATE COMPACTION. CONTRACTOR SHALL MAINTAIN TRENCH BACKFILL AT ORIGINAL GROUND SURFACE UNTIL FINAL ACCEPTANCE OF THE WORK. ALL SURPLUS MATERIALS NOT USED IN BACKFILLING SHALL BE REMOVED AND DISPOSED OF BY CONTRACTOR AT HIS OWN EXPENSE. METALLIC TAPE WILL BE PLACED IN THE BACKFILL 12 INCHES ABOVE THE TOP OF PVC WATER MAINS AND SEWAGE FORCE MAINS WITH LETTERING FACING UP. PVC SANITARY SEWERS DO NOT REQUIRE MARKING TAPE.



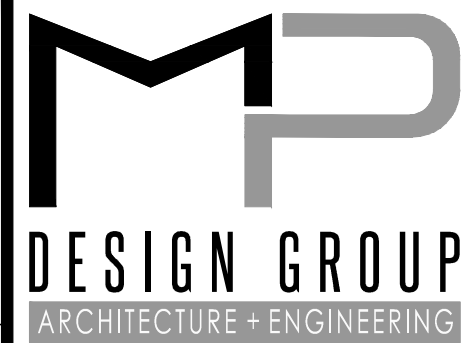
8 TYPICAL PIPE EMBEDMENT AND BACKFILL DETAIL NOT TO SCALE



9 UTILITY TRENCH DETAIL NOT TO SCALE

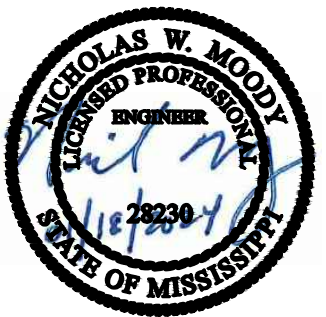


10 FENCE CONNECTION TO CONCRETE PIER DETAIL NOT TO SCALE



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Bradford A. Jones, AIA



EAST PIER DEEP WATER WHARF FOR USM/NOAA
PORT OF GULFPORT MISSISSIPPI STATE PORT AUTHORITY
30TH AVENUE
GULFPORT, MS 39501

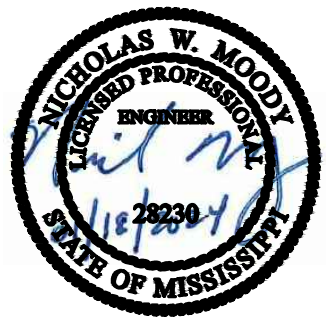
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DRAWN BY: NWM
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CONSTRUCTION DETAILS

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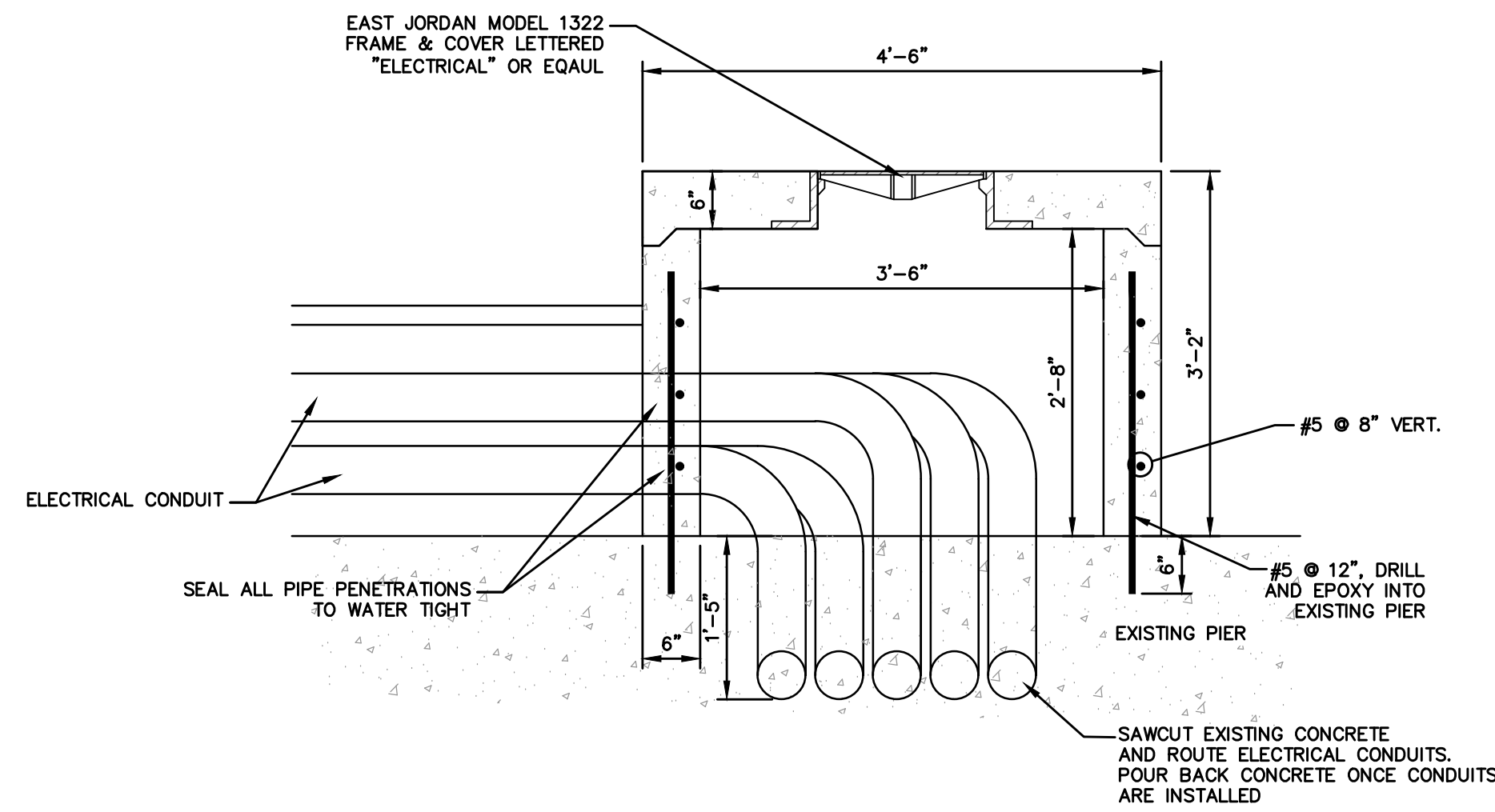
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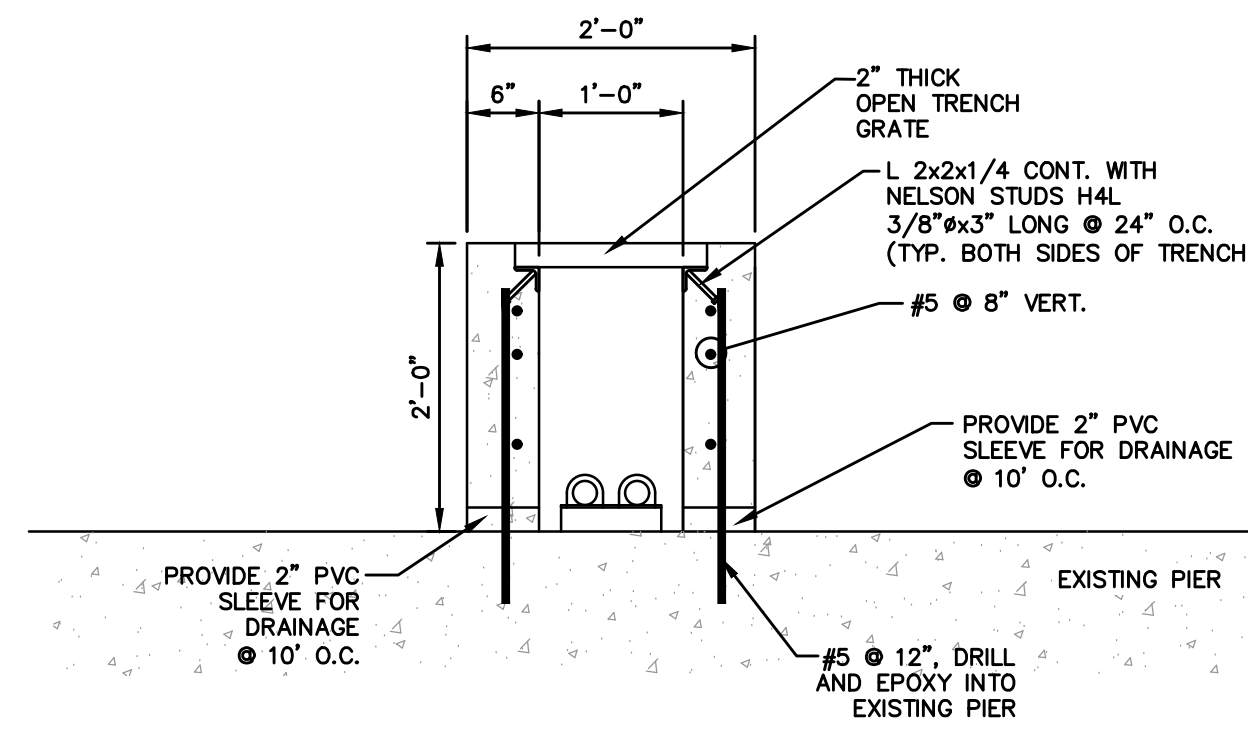
C621

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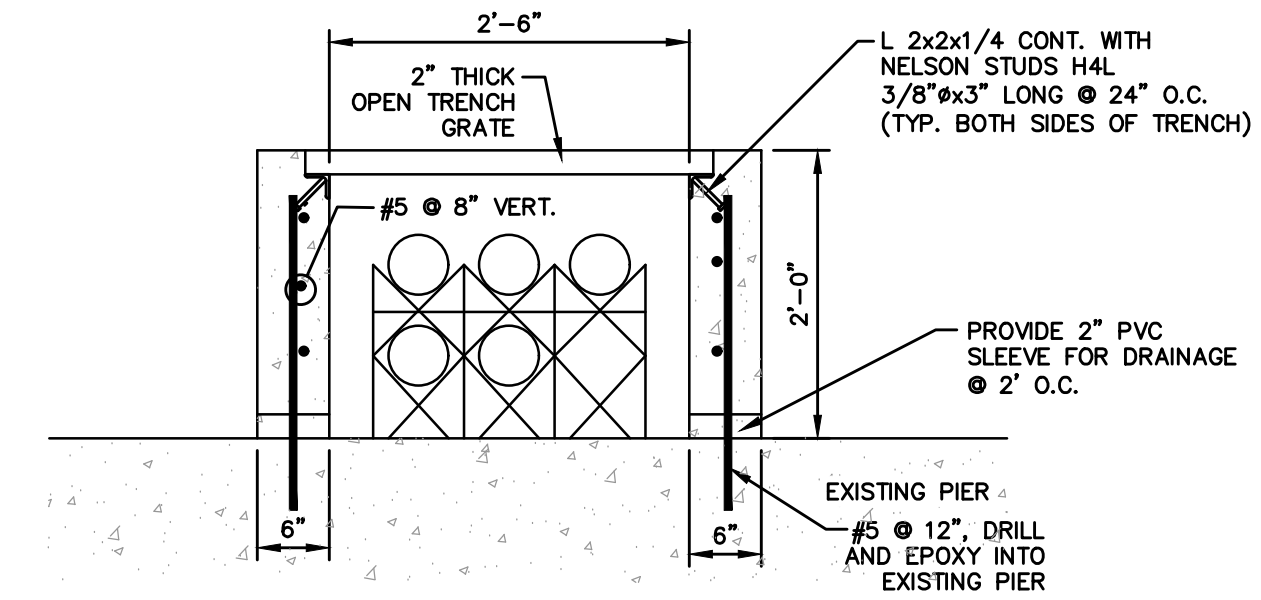
1 ELECTRICAL PULL BOX DETAIL

NOT TO SCALE



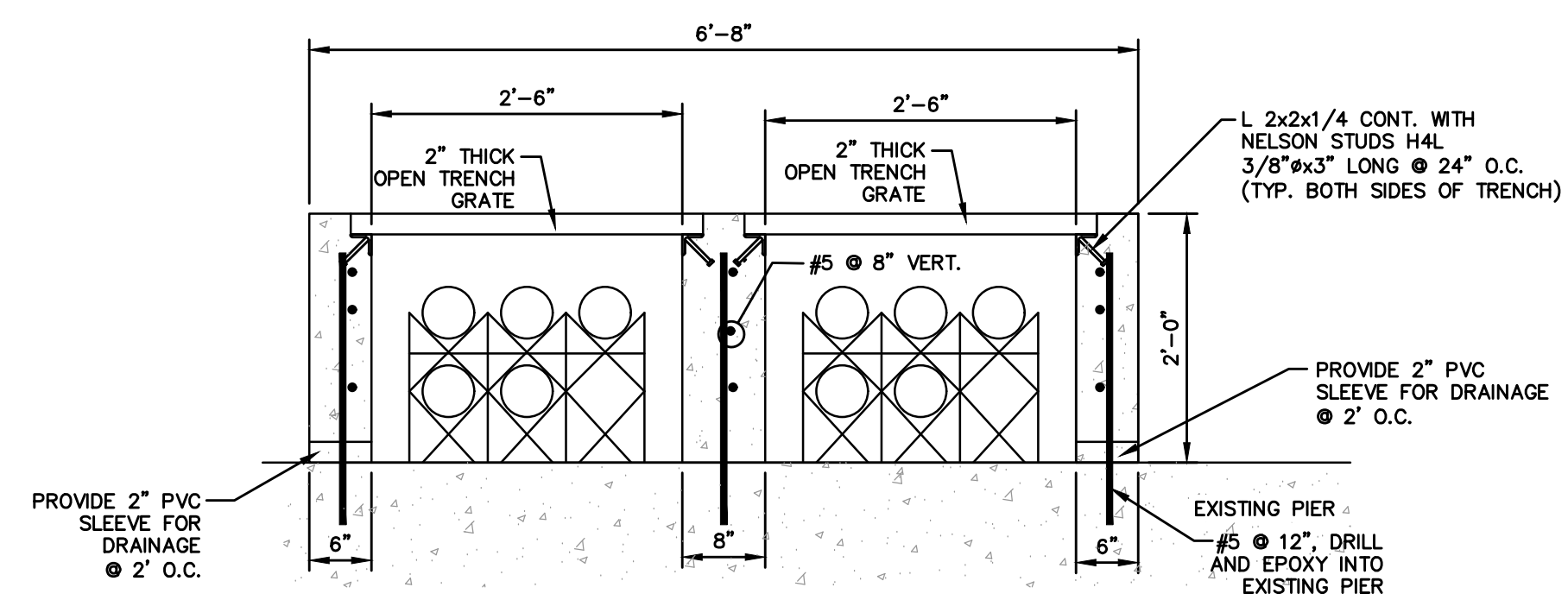
2 UTILITY TRENCH DETAIL

NOT TO SCALE



3 UTILITY TRENCH DETAIL

NOT TO SCALE



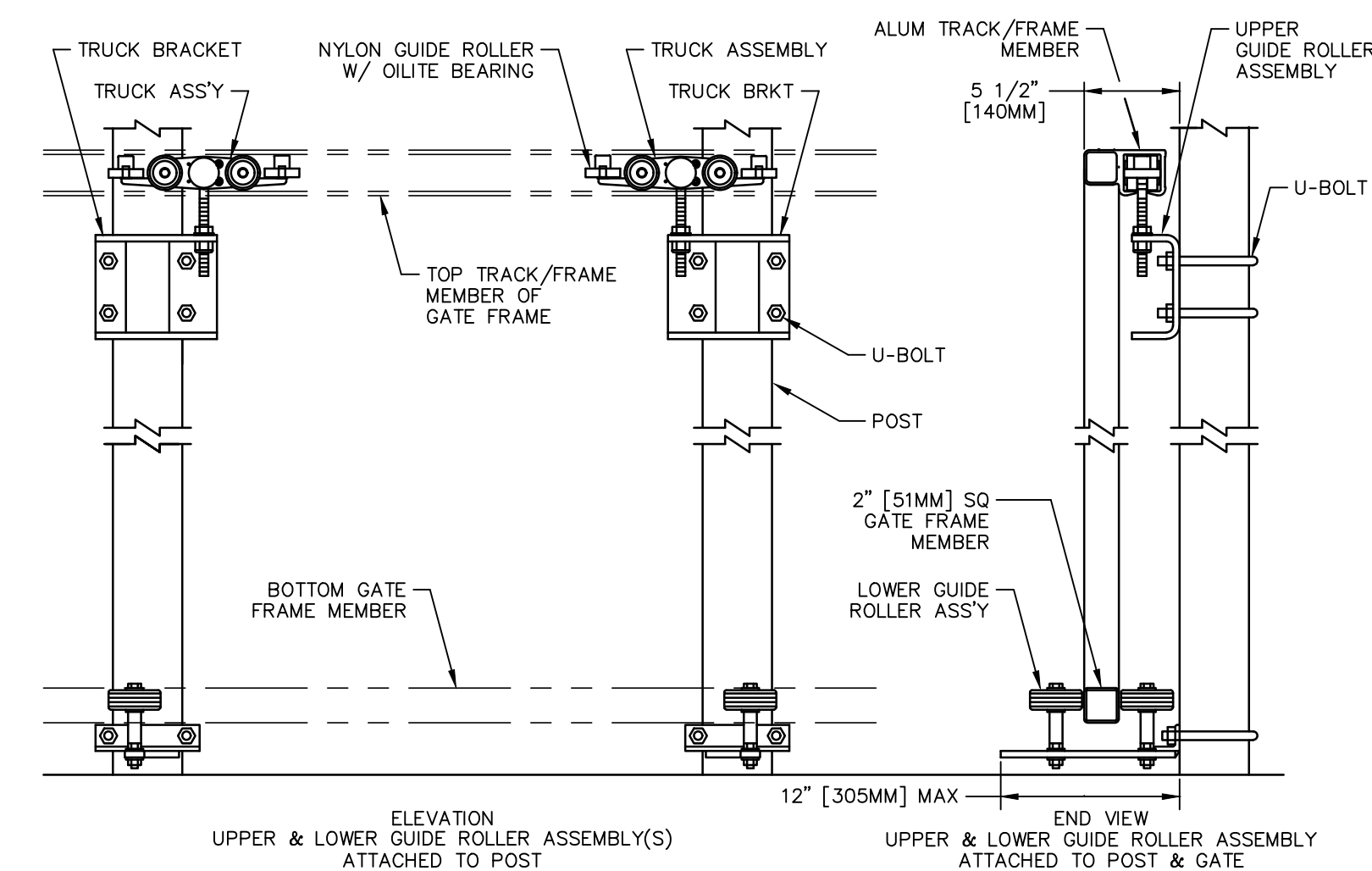
4 UTILITY TRENCH DETAIL

NOT TO SCALE

GATE ELEVATION - (3) BAYS SHOWN
SEE VIEW #4 THIS SHEET FOR DIM'S, DETAILS & SECTIONS

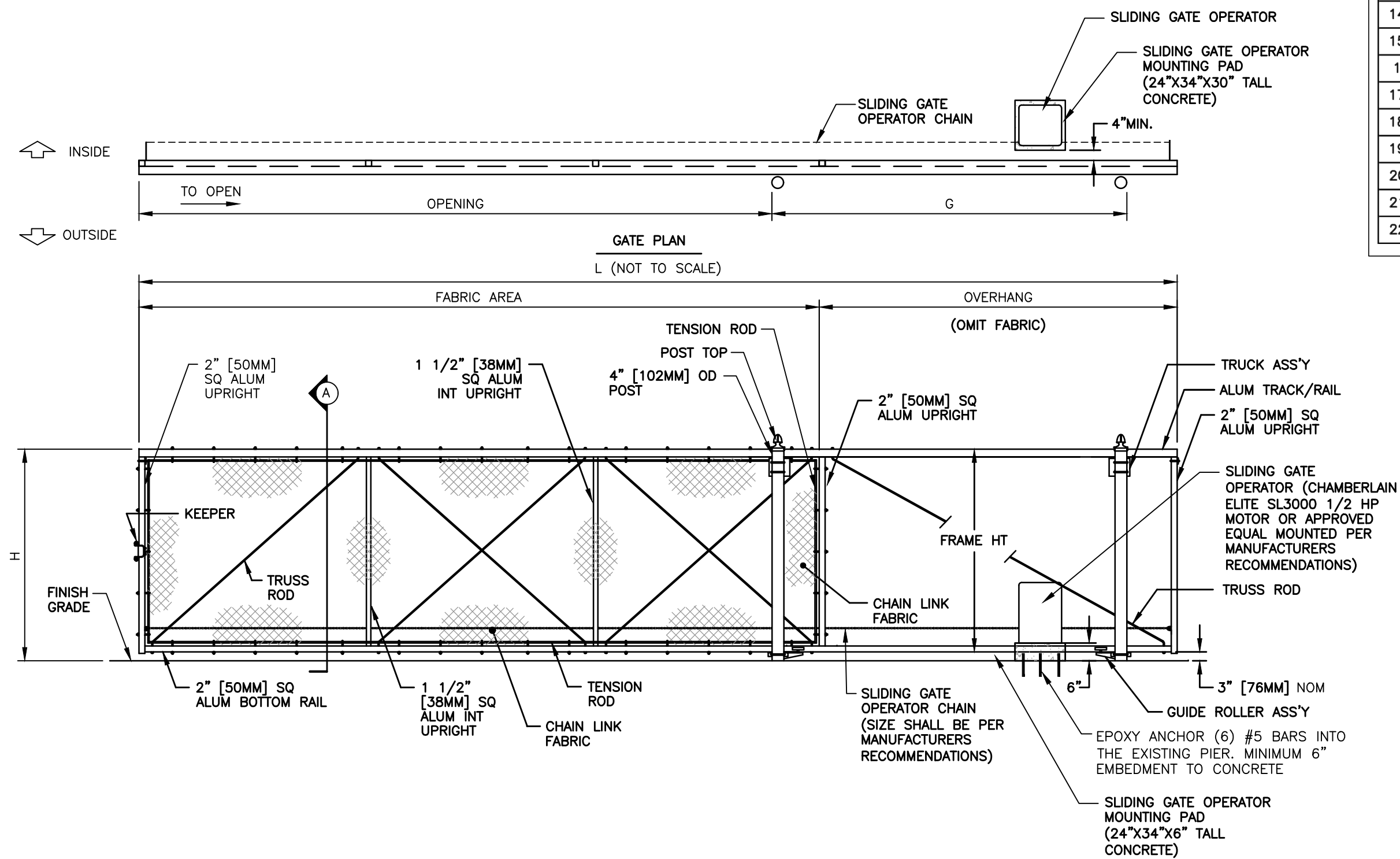
NOTES:
1. METRIC DIMENSIONS ARE NOMINAL EQUIVALENTS TO U.S. DIMENSIONS.
2. SPECIFICATIONS SHOWN CAN BE CHANGED BY MASTER HALCO ONLY.
3. FOOTING WIDTH TO BE (4)X POST WIDTH. MIN DEPTH TO BE 36" [914MM].
4. GATES MAY BE MANUALLY OR ELECTRICALLY OPERATED. HARDWARE WILL VARY FOR ELECTRICALLY OPERATED GATES.

OPENING	LENGTH (L)	GATE POSTS (G)	BAYS	OVERHANG
1/S POST FACE TO 1/S POST FACE	O/S DIM OF GATE LEAF	O/S POST FACE TO O/S POST FACE	NUMBER OF BAYS WITH CHAIN LINK	NUMBER OF BAYS WITHOUT CHAIN LINK
6'-0" [1829MM]	12'-9" [3886MM]	6'-6" [1981MM]	(1) ONE	(1) ONE
7'-0" [2134MM]	13'-9" [4191MM]	6'-6" [1981MM]	(1) ONE	(1) ONE
8'-0" [2438MM]	14'-9" [4496MM]	6'-6" [1981MM]	(1) ONE	(1) ONE
9'-0" [2743MM]	15'-9" [4801MM]	6'-6" [1981MM]	(2) TWO	(1) ONE
10'-0" [3048MM]	16'-9" [5105MM]	6'-6" [1981MM]	(2) TWO	(1) ONE
11'-0" [3353MM]	18'-9" [5715MM]	7'-6" [2286MM]	(2) TWO	(1) ONE
12'-0" [3658MM]	19'-9" [6020MM]	7'-6" [2286MM]	(2) TWO	(1) ONE
13'-0" [3962MM]	20'-9" [6325MM]	7'-6" [2286MM]	(2) TWO	(1) ONE
14'-0" [4267MM]	21'-9" [6629MM]	7'-6" [2286MM]	(2) TWO	(1) ONE
15'-0" [4572MM]	25'-3" [7696MM]	10'-0" [3048MM]	(2) TWO	(1) ONE
16'-0" [4877MM]	26'-3" [8001MM]	10'-0" [3048MM]	(2) TWO	(1) ONE
17'-0" [5182MM]	27'-3" [8306MM]	10'-0" [3048MM]	(3) THREE	(1) ONE
18'-0" [5486MM]	28'-3" [8611MM]	10'-0" [3048MM]	(3) THREE	(1) ONE
19'-0" [5791MM]	29'-3" [8915MM]	10'-0" [3048MM]	(3) THREE	(1) ONE
20'-0" [6096MM]	30'-3" [9220MM]	10'-0" [3048MM]	(3) THREE	(1) ONE
21'-0" [6401MM]	31'-3" [9525MM]	10'-0" [3048MM]	(3) THREE	(1) ONE
22'-0" [6706MM]	32'-3" [9830MM]	10'-0" [3048MM]	(3) THREE	(1) ONE



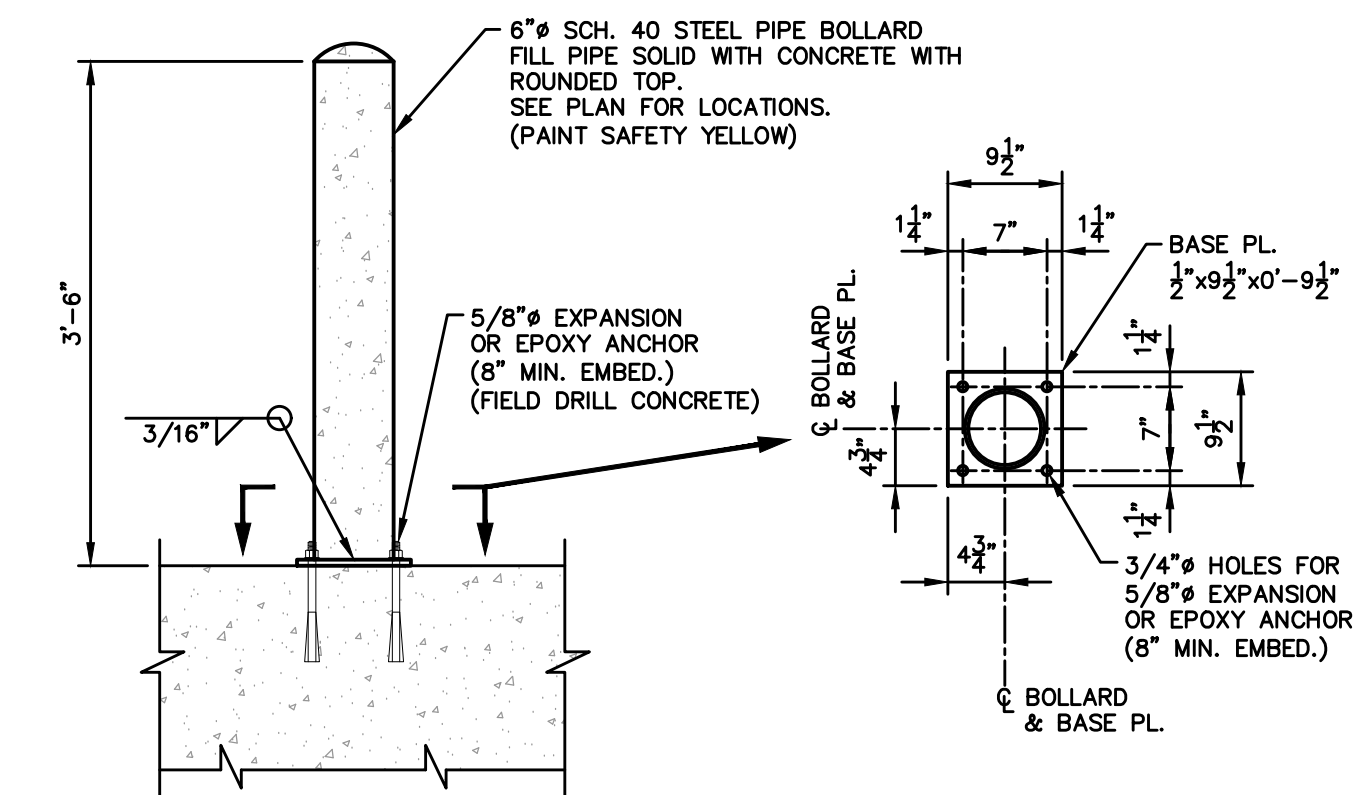
6 CANTILEVERED SLIDE GATE INSTALLATION

NOT TO SCALE



5 CANTILEVER SIDE GATE DETAIL

NOT TO SCALE



7 BOLLARD DETAIL

NOT TO SCALE

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DESIGN NOTES:

- CONCRETE SHALL BE 5000 PSI MINIMUM 28 DAY COMPRESSIVE STRENGTH
- STEEL REINFORCEMENT: REBAR, ASTM A-615, GRADE 60 OR MESH, A-185, C-180 SPECIFICATIONS
- STRIP @ 2000 PSI CONCRETE

SEE SHEET #2 FOR REINFORCING DETAILS

#	QTY	DESCRIPTION	AM#
1	1 EA	SUMPS, PLASTIC 12"	5427000
2	0.5 FT	PIPE, 2" PVC	6174800
3	4 EA	FULL IRON POCKETS	5426550
4	16 EA	TERMINATOR, 4" SINGLE DBL STP	5427340
5	8 EA	4-TON UTILITY ANCHOR 79J55	5429450
1.08 CYD		TOCCOA MIX 5000 PSI 1 CY	5000550
48.54 LBS		REBAR #4, GRADE 60	5102200

PRODUCT WEIGHTS

PRODUCT	WEIGHT
3X3 BOTTOM	4,354 LBS

APPROVED FOR "FABRICATION"

DATE: _____ INITIALS: _____

Oldcastle Precast®

ALABAMA REGION
 400 STEEL DRIVE, FIVE HOLLOW, ALABAMA 36809
 PHONE: 205-398-1000 FAX: 205-398-1001
 THE TARRANT ROAD, PRATTVILLE, ALABAMA 36067
 PHONE: 205-398-1000 FAX: 205-398-1001

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3' X 3' X 3' VAULT
 PRODUCTION DRAWING
 ITEM NO. 0200220
 3'0" X 3'0" X 3'0" 1/2" LD.

CUSTOMER: _____

DATE	SALES	DRAWN	ENGINEER	CHECKED	SALES ORDER
4/7/10	---	D.S.	T.W.	---	---

410-333M/Term-001

DESIGN NOTES:

- THE CONCRETE SHALL BE 5000 PSI MIN. AT 28 DAYS COMPRESSIVE STRENGTH
- STEEL REINFORCEMENT: REBAR, ASTM A-615 GRADE 60, MESH, A-185 GRADE 60
- STRIP AT 2000 PSI CONCRETE STRENGTH

#	QTY	DESCRIPTION	AM#
1	4 EA	4-TON UTILITY ANCHOR 79J55	5249450
0.20 CYD		TOCCOA MIX 5000 PSI 1 CY	5000550
18.97 LBS		REBAR #4, GRADE 60	5102200

PRODUCT WEIGHTS

PRODUCT	WEIGHT
TOP SLAB w/30" HOLE CENTERED	785 LBS

APPROVED FOR "FABRICATION"

DATE: _____ INITIALS: _____

Oldcastle Precast®

ALABAMA REGION
 400 STEEL DRIVE, FIVE HOLLOW, ALABAMA 36809
 PHONE: 205-398-1000 FAX: 205-398-1001
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TOP SLAB w/30" OPENING
 PRODUCTION DRAWING
 ITEM # 0200220
 4' X 4' X 6"

CUSTOMER: _____

DATE	SALES	DRAWN	ENGINEER	CHECKED	SALES ORDER
2/18/10	---	CLP	TW	---	---

410-0200220-001

2" (51mm) LETTERS (RECESSED FLUSH)

(4) 1 1/2" (38mm) DIA HOLES ON ALT. RIBS.

(4) OPEN PICKHOLES

(4) 1 1/16" DIA HOLES ON 43 1/2" (1105mm) BOLT CIRCLE.

31 15/16" DIA [811mm]

1 3/8" [35mm]

3 3/8" [86mm]

COVER SECTION

34" DIA [864mm]

32" DIA [813mm]

1 3/8" [35mm]

30 1/16" DIA [764mm]

10" [254mm]

38" DIA [965mm]

46" DIA [1168mm]

FRAME SECTION

MACHINE SURFACE

EAST JORDAN IRON WORKS, INC.
 P. O. BOX 439
 EAST JORDAN, MI. 49727
 1-800-874-4100
 FAX 231-536-4458

DRAWN: JJJ DATE: 05/29/03
 APPROVED: _____ DATE: _____

MANHOLE ASSEMBLY

PRODUCT NO. 00182566

CATALOG NO. 1810A2VH 1825ZVH

REF. PRODUCT DRAWING 00182511 00181023

EST. WT. COVER: 285 LBS 129kg
 FRAME: 366 LBS 166kg
 UNIT: 651 LBS 295kg

OPEN AREA

MAT'L SPEC.
 COVER - GRAY IRON ASTM A48 CL35B
 FRAME - GRAY IRON ASTM A48 CL35B

LOAD RATING
HEAVY DUTY

AVK SERIES 24 WET BARREL HYDRANT OR APPROVED EQUAL. (YELLOW)

1/8" SHEET RUBBER

3,500 PSI CONCRETE

#5 BAR, DRILL AND EPOXY INTO EXISTING PIER

EXISTING PIER

2 CONCRETE THRUST BLOCK DETAIL NOT TO SCALE

COUNTERSUNK WASHER AND NUT

MARINE TREATED TIMBER, 0.40 ACQ

1/2" GALVANIZED BOLT, MIN. 8" EMBED, SPACED EVERY 2' O.C.

3 TIMBER RAIL DETAIL NOT TO SCALE

CONSTRUCTION DETAILS

NO.	DATE	REVISION / SUBMITTAL
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 Bradford A. Jones, AIA

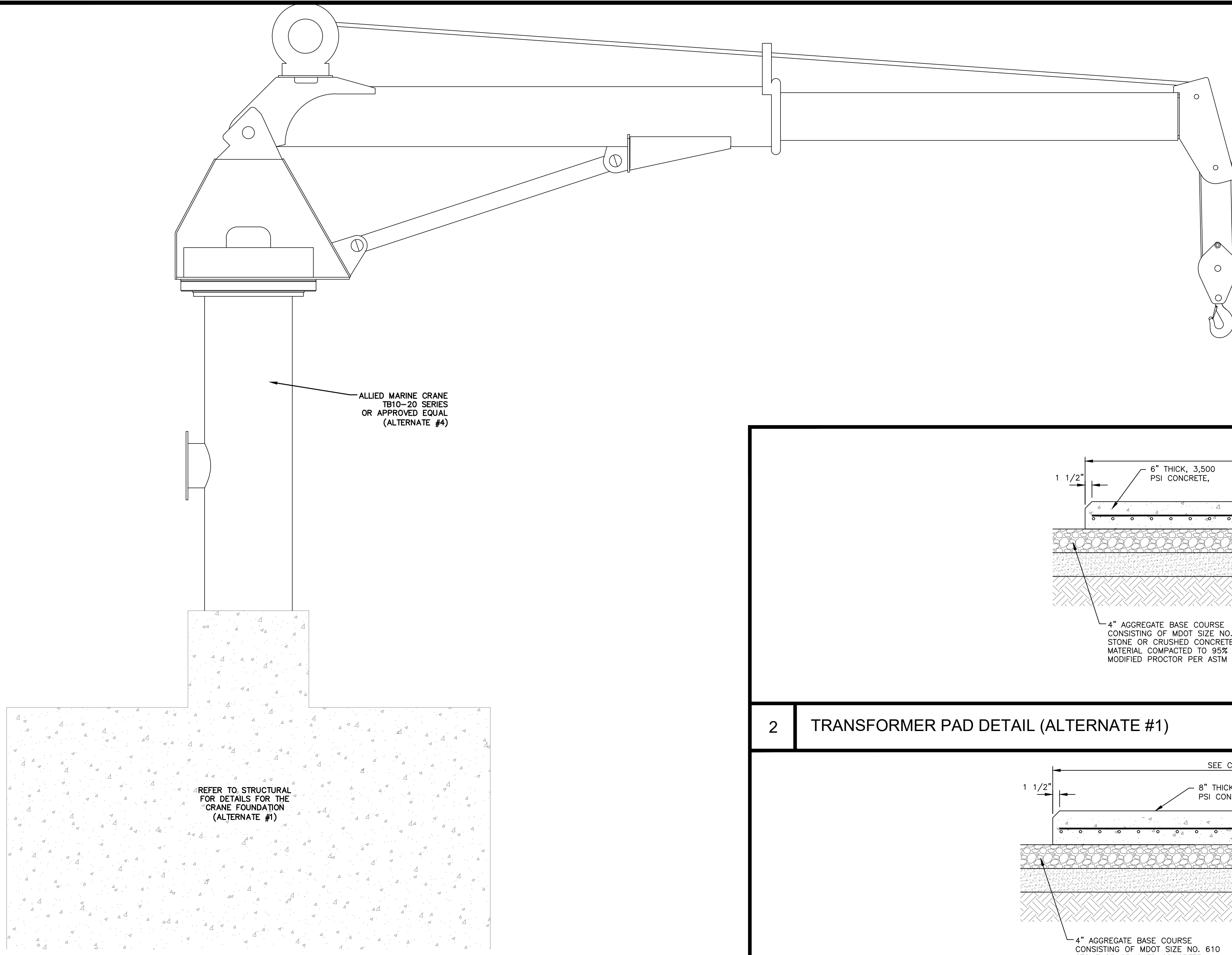
NICHOLAS W. MOODY
 LICENSED PROFESSIONAL ENGINEER
 STATE OF MISSISSIPPI

EAST PIER DEEP WATER WHARF FOR USM/NOAA
PORT OF GULFPORT MISSISSIPPI
STATE PORT AUTHORITY
 30TH AVENUE
 GULFPORT, MS 39501

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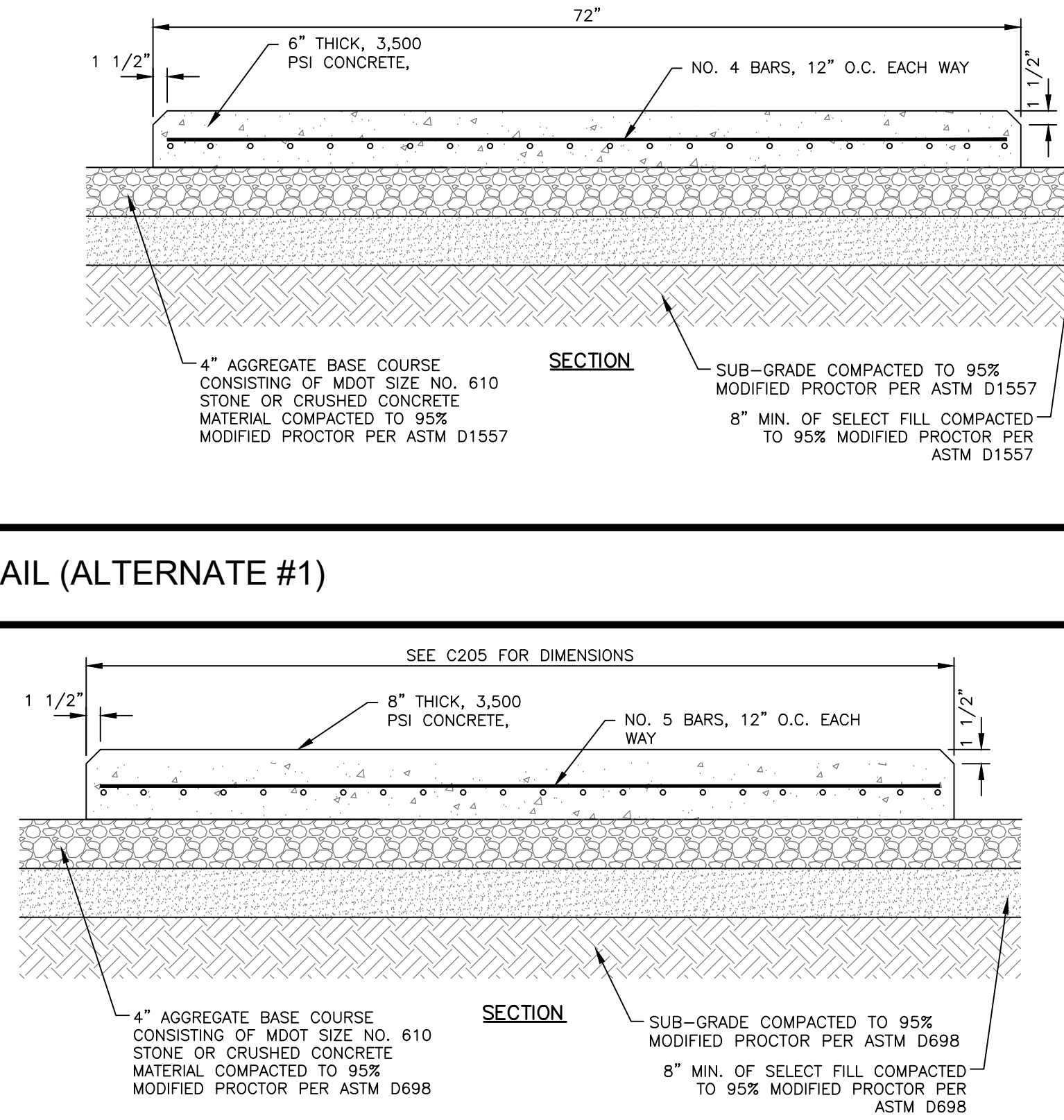


1 SMALL BOAT PIER DAVIT CRANE DETAIL (ALTERNATE #4)

NOT TO SCALE

2 TRANSFORMER PAD DETAIL (ALTERNATE #1)

NOT TO SCALE



3 GENERATOR PAD DETAIL (ALTERNATE #1)

NOT TO SCALE

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PORT OF GULFPORT MISSISSIPPI
STATE PORT AUTHORITY
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GENERAL:

- ALL DRAWINGS (ARCHITECTURAL, STRUCTURAL, CIVIL, PLUMBING, MECHANICAL, ELECTRICAL, ETC.) AND THE SPECIFICATIONS ARE COMPLIMENTARY AND MUST BE USED IN COMBINATION WITH EACH OTHER TO OBTAIN COMPLETE CONSTRUCTION INFORMATION.
- NO STRUCTURAL MEMBER SHALL BE CUT, DRILLED OR BURNED UNLESS PREVIOUSLY APPROVED BY THE ENGINEER OF RECORD. CONTRACTOR SHALL NOT CUT OR PATCH STRUCTURAL WORK IN A MANNER THAT WOULD RESULT IN A REDUCTION OF THE LOAD CARRYING CAPACITY OR THE LOAD/DEFLECTION RATIO.
- STRUCTURAL DESIGN IS BASED ON DIMENSIONS SHOWN ON STRUCTURAL PLANS. IF ANY DIMENSIONAL DISCREPANCIES ARE FOUND BETWEEN STRUCTURAL PLANS AND PLANS OF OTHER DISCIPLINES, CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER OF RECORD FOR RESOLUTION.
- THE GENERAL CONTRACTOR SHALL SUBMIT DATA SHEETS OF EQUIPMENT PURCHASED TO THE ENGINEER OF RECORD FOR VERIFICATION OF LOADS USED IN THE DESIGN AT LEAST TWO WEEKS PRIOR TO FABRICATION OF THE SUPPORTING STRUCTURE.
- DO NOT SCALE DRAWINGS; IF DIMENSIONS ARE IN QUESTION, CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ENGINEER OF RECORD BEFORE CONTINUING WITH CONSTRUCTION.
- BIDDERS SHALL FIELD VERIFY ALL EXISTING CONDITIONS ON THE PROJECT JOB SITE PRIOR TO BIDDING.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING WORK OF ALL TRADES TO INSURE A USABLE AND FUNCTIONAL END PRODUCT. ANY CONFLICTS BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE CLARIFIED BY THE ENGINEER. IF NO CLARIFICATION IS ISSUED THE BIDDER SHALL BID THE MOST STRINGENT PRODUCT OR APPLICATION.
- GENERAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND SUBMITTALS FOR REVIEW BEFORE PROCEEDING WITH CONSTRUCTION. CONTRACTOR IS PROCEEDING AT HIS OWN RISK IF MATERIAL OR COMPONENTS ARE INSTALLED PRIOR TO RECEIVING REVIEWED AND EXECUTED SHOP DRAWINGS AND SUBMITTALS. CONTRACTOR SHALL TAKE LIABILITY FOR REMOVAL AND REPLACEMENT, AT NO ADDITIONAL COST TO THE OWNER, OF ALL MATERIAL COMPONENTS AND LABOR FOR WORK INSTALLED WITHOUT REVIEWED SHOP DRAWINGS AND SUBMITTALS.

TIMBER PILING NOTES:

- MATERIAL: ASTM D-25, CLASS B.
- CAPACITY: 40 KIP COMPRESSION, 20 KIP TENSION (WORKING)
- EMBEDMENT: 65 FEET BELOW EXISTING GRADE. (VERIFY WITH TEST PILE PROGRAM)
- PRE-DRILLING A PILOT HOLE 2/3 THE PILE TIP DIAMETER TO A DEPTH OF NO MORE THAN 10 FEET IS ACCEPTABLE, IF NEEDED TO INSTALL THE PILES AT THE PROPER ALIGNMENT.
- MINIMUM PILE SIZE: 10" TIP.
- THE PILES SHALL BE SOUTHERN PINE, PRESSURE TREATED WITH CHROMATED COPPER ARSENATE (CCA) SOLUTION SO THAT AT LEAST 2.5 POUNDS OF PRESERVATIVE PER CUBIC FOOT WILL BE RETAINED IN EACH PILE. TREATMENT AND PENETRATION SHALL CONFORM TO AWP STANDARD C1 AND C3, LATEST EDITION.
- INSTALL 1 TEST PILES AS INDICATED, REPORT DRIVING RECORD (BLOWS PER FOOT) TO ARCHITECT TO DETERMINE PRODUCTION PILE LENGTH.
- TIMBER PILES SHALL BE DRIVEN WITH A DRIVING HAMMER AND EQUIPMENT CAPABLE OF DRIVING PILES TO THE DEPTH AND ACCURACY REQUIRED. CONTRACTOR SHALL KEEP A COMPLETE AND ACCURATE RECORD OF EACH PILE DRIVEN. RECORD SHALL INDICATE LOCATION, BUTT AND TIP DIAMETER, ORIGINAL LENGTH, TIP ELEVATION, CUT-OFF ELEVATION, PENETRATION IN BLOW PER FOOT FOR ENTIRE DRIVING LENGTH, HAMMER DATA, AND ANY UNUSUAL PILE BEHAVIOR DURING INSTALLATION. AFTER INSTALLATION, SUBMIT RECORDS TO ARCHITECT.
- ALL PILES SHALL BE DRIVEN IN ACCORDANCE WITH LINES AND SPACING SHOWN ON THE CONTRACT DRAWINGS. PILES SHALL NOT BE DRIVEN WITH A VARIATION GREATER THAN 1/4-INCH PER FOOT FROM THE VERTICAL. ANY PILE DAMAGED BY REASON OF INTERNAL DEFECT OR IMPROPER DRIVING SHALL BE WITHDRAWN AND REPLACED BY A NEW, AND IF NECESSARY, A LONGER PILE DRIVEN TO GREATER PENETRATION, AT CONTRACTOR'S EXPENSE.
- CUSHIONS, OR CAP BLOCKS, SHALL CONSIST OF ONE SOLID BLOCK OF HARD WOOD OF PROPER SHAPE AND DIMENSIONS TO FIT THE HAMMER OR OF LAMINATED MATERIAL PROPERLY ENGINEERED TO TRANSMIT THE HAMMER ENERGY EFFICIENTLY. THE GRAIN OF THE BLOCK SHALL BE PERPENDICULAR (PARALLEL TO THE AXIS OF THE PILE). IF LAMINATED MATERIALS ARE USED, THE STRENGTH OF SUCH MATERIALS SHALL BE EQUAL TO OR GREATER THAN HARD WOOD. THE USE OF WOOD CHIPS, SMALL WOOD BLOCK, SHAVINGS, ROPE OR ANY SIMILAR MATERIAL WHICH EXCESSIVELY DAMPENS THE HAMMER BLOW SHALL NOT BE PERMITTED. THE CONTINUOUS OR FREQUENT INTRODUCTION OF MATERIALS TO CUSHION THE HAMMER BLOWS WILL BE PROHIBITED. DETAILS OF CAP BLOCK ARRANGEMENTS SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW BEFORE PILES ARE DRIVEN.
- IMMEDIATELY AFTER COMPLETING THE CUT OFF, DRILL FOUR 1/2-INCH DIAMETER HOLES 2-INCH DEEP INTO THE HEAD OF THE PILE TO FORM A RESERVOIR FOR FIELD-APPLIED PRESERVATIVE. PLACE PRESERVATIVE IN HOLES AS REQUIRED.
- ALL HOLES BORED AFTER TREATMENT OF THE LUMBER SHALL BE TREATED THOROUGHLY BY SWABBING WITH APPROVED PRESERVATIVE. ANY UNFILLED HOLES AFTER BEING TREATED WITH PRESERVATIVE SHALL BE PLUGGED TIGHTLY WITH TREATED WOOD PLUGS.

FENDER NOTES:

- SEE ALSO DIVISION 63 OF SPECIFICATIONS.
- FENDER SYSTEM
 - TYPE 1 FENDER SYSTEM SHOWN BASED ON (2) MV1000X900B FENDER AS MANUFACTURED BY TRELLEBORG MARINE SYSTEMS USA (OR APPROVED EQUAL).
 - TYPE 2 FENDER SYSTEM SHOWN BASED ON SCN 800 F 2.4 SUPER CONE FENDER AS MANUFACTURED BY TRELLEBORG MARINE SYSTEMS USA (OR APPROVED EQUAL).
- FENDER SYSTEM NOMINAL PERFORMANCE
 - NOMINAL PERFORMANCE FOR EACH TYPE 1 MV TYPE FENDER SYSTEM SHALL BE AS FOLLOWS:
 - REACTION = 152 KIPS
 - ENERGY ABSORPTION = 226 FT-KIPS
 - DEFLECTION = 72 %
 - MAXIMUM SINGLE CHAIN LOADING = 212 KIPS (HORIZONTAL LOAD CASE)
 - NOMINAL PERFORMANCE FOR EACH TYPE 2 SUPER CONE TYPE FENDER SYSTEM SHALL BE AS FOLLOWS:
 - REACTION = 136 KIPS
 - ENERGY ABSORPTION = 200 FT-KIPS
 - DEFLECTION = 72 %
 - MAXIMUM SINGLE CHAIN LOADING = 212 KIPS (HORIZONTAL LOAD CASE)
- ALL FENDERS SUPPLIED FOR THIS PROJECT SHALL BE COMPRESSED TO ITS RATED DEFLECTION AT LEAST ONCE BEFORE BEING SHIPPED TO THE JOB SITE IN ORDER TO BREAK IN THE FENDERS.
- EPOXY FOR DRILLED IN ANCHOR BOLTS SHALL BE HIT-RE500 V3 SAFE SET SYSTEM BY HILTI CORP. (OR APPROVED EQUAL)
- BOLTS SHALL BE AS SPECIFIED AND FURNISHED BY FENDER SUPPLIER.
- UHMW HARDWARE TO BE STAINLESS STEEL. ALL OTHER HARDWARE TO BE HOT DIPPED GALVANIZED.

CONCRETE NOTES:

- SEE ALSO DIVISION 3 OF SPECIFICATIONS.
- ALL WORK SHALL CONFORM TO THE LATEST REQUIREMENTS OF ACI 318, CRSI AND THE INTERNATIONAL BUILDING CODE.
- ALL CONCRETE SHALL OBTAIN A 28 DAY STRENGTH AS SPECIFIED.
 - ALL WORK = 4000 PSI (SEE SPECS.)
- SUBMIT MIX DESIGN TO THE A/E FOR APPROVAL. THIS SUBMITTAL SHALL CONFORM TO SECTION 5.3 OF ACI 318-14 AND SECTION 1905 OF THE INTERNATIONAL BUILDING CODE. MIX DESIGN WILL NOT BE APPROVED WITHOUT BREAK DATA AS REQUIRED BY ACI.
- REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
- CHAMFER ALL EXPOSED EXTERNAL CORNERS OF CONCRETE WITH 45 DEGREE CHAMFER.
- CONTRACTOR TO REFER TO MECHANICAL, CIVIL, AND ELECTRICAL DRAWINGS FOR EMBEDDED ITEMS NOT SHOWN.
- FINISHES:
SEE SPECIFICATIONS

CARBON FIBER-REINFORCED POLYMER SYSTEM

- CODE: ACI 440.2R
- CARBON FIBER REINFORCED POLYMER (CFRP) LAMINATE, CARBODUR S1012, AS MANUFACTURED BY SIKA OR APPROVED EQUAL
- TENSILE STRENGTH = 75.5x10 LBS
- APPLICATION:
CFRP STRIPS MUST BE APPLIED BY AN INSTALLER CERTIFIED BY THE CFRP MANUFACTURER. APPLY SIKADUR 30 EPOXY RESIN (OR APPROVED EQUAL) PER MANUFACTURER'S REQUIREMENTS. APPLY CARBODUR LAMINATE (OR APPROVED EQUAL) PER MANUFACTURER'S REQUIREMENTS.
- TESTING:
RANDOM PULL-OFF TESTING WILL BE REQUIRED PER ACI503R TO VERIFY THE ADHESIVE STRENGTH OF THE CONCRETE AFTER SURFACE PREPARATION. MINIMUM TENSILE STRENGTH, 200 PSI WITH CONCRETE. SUBSTRATE FAILURE. PROVIDE ONE TEST PER EACH LEVEL.
- EXPERIENCE:
MINIMUM FIVE YEARS EXPERIENCE IN THE INSTALLATION/TESTING OF FIBER-REINFORCED POLYMER SYSTEM APPLICATIONS.

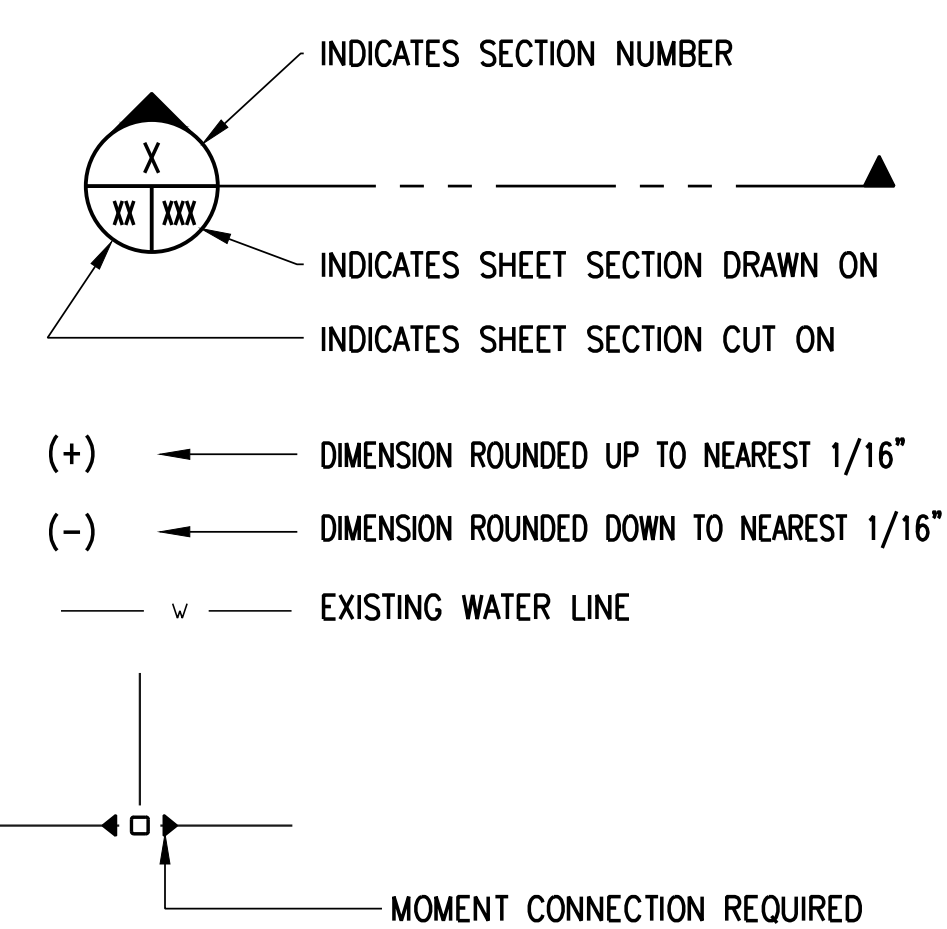
REINFORCING STEEL NOTES:

- REINFORCING BARS SHALL CONFORM TO ASTM A615, MARKED S, AND A616, MARKED R, GRADE 60. BARS REQUIRING A TIGHT BENDING RADIUS (TIES AND STIRRUPS) AND BARS TO BE WELDED SHALL CONFORM TO ASTM A706, LATEST REVISION.
- ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING STEEL SHALL CONFORM TO THE A.C.I. MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES, A.C.I. 315.
- CONCRETE PROTECTION FOR REINFORCEMENT: A.C.I. 318 OR AS INDICATED.
- ALL BAR SPLICES SHALL BE 40d LAP SPLICES, UNLESS OTHERWISE SHOWN.
- SPLICE TOP BARS AT CENTER OF SPAN AND BOTTOM BARS AT THE SUPPORT.
- UNLESS OTHERWISE NOTED, ALL REINFORCING SPLICES SHALL BE IN CONFORMANCE WITH A.C.I. 318, LATEST REVISION.
- ALL REINFORCEMENT BAR BENDS AND HOOKS SHALL BE IN CONFORMANCE WITH A.C.I. 315, LATEST REVISION UNLESS OTHERWISE NOTED.

STEEL:

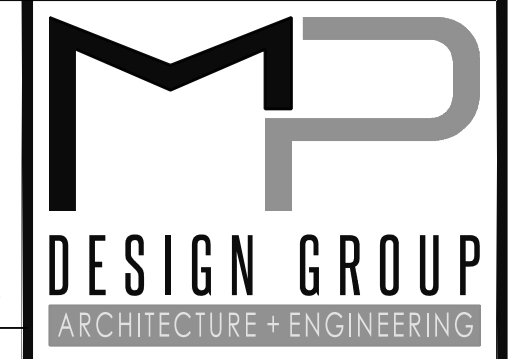
- SEE ALSO DIVISION 5 OF SPECIFICATIONS.
- ALL STEEL WORK SHALL BE PERFORMED ACCORDING TO THE A.I.S.C. SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS. ALL WELDING SHALL CONFORM TO A.W.S.D.1.1.
- MATERIAL:
 - ALL WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992, Fy=50 KSI.
 - ALL PLATES, SHAPES (EXCEPT W-SHAPES) AND BARS SHALL CONFORM TO ASTM A572, GRADE 50, Fy=50 KSI.
 - ALL ANCHOR RODS SHALL CONFORM TO ASTM F1554, GRADE 36, Fy=36KSI.
 - ALL STRUCTURAL FASTENERS SHALL BE 3/4"Ø A325 HIGH STRENGTH BOLTS (HSB).
 - ALL NUTS SHALL CONFORM TO ASTM A 563, GRADE A, HEAVY HEX STYLE.
 - ALL WASHERS SHALL CONFORM TO ANSI B18.22.1, TYPE B.
 - ALL STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B, Fy= 46 KSI.
 - ALL STRUCTURAL PIPE SHALL CONFORM TO ASTM A53, GRADE B, Fy=35 KSI.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AS NEEDED FOR ERECTION UNTIL ALL STRUCTURAL ELEMENTS ARE INSTALLED.
- CONNECTIONS NOT SHOWN ON THE DRAWINGS SHALL BE DESIGNED BY THE FABRICATOR AS DOUBLE ANGLE SIMPLE SHEAR CONNECTIONS PER AISC. THE CONNECTIONS SHALL DEVELOP 1/2 THE TOTAL UNIFORM LOAD CAPACITY OF BEAM. THE CONNECTION LENGTH SHALL NOT BE LESS THAN 1/2 THE "T" DISTANCE OF THE BEAM (2 BOLT MINIMUM).
- BEAM TO COLUMN CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR AS MOMENT RESISTING CONNECTIONS. SHEAR CAPACITY SHALL BE PER NOTE 5 ABOVE. THE MOMENT CAPACITY SHALL BE THAT OF THE LARGEST BEAM IN CONNECTION FRAMING.
- ALL SHAPES, CONNECTIONS AND FASTENERS NOT IN CONDITIONED SPACE SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION. ALL H.D. GALVANIZING SHALL BE REPAIRED WITH 2 COATS OF FIELD APPLIED GALVANIZED PAINT (ASTM A-780) 3 MILS MINIMUM PER COAT.
- ALL EPOXY ANCHORS NOT IN CONDITIONED SPACE SHALL BE AISI TYPE 316 STAINLESS STEEL WITH STAINLESS STEEL NUTS CONFORMING TO ASTM F594 AND ANSI B18.2.2. AND STAINLESS STEEL WASHERS AISI TYPE 316 STAINLESS STEEL AND CONFORM TO ASTM A240.
- STEEL BAR GRATING
 - TYPE: HEAVY-DUTY WELDED STEEL
 - BEARING BAR SPACING: 1-3/16 INCH
 - BEARING BAR DEPTH: AS INDICATED
 - BEARING BAR THICKNESS: 1/4 INCH
 - CROSSBAR SPACING: 2 INCHES O.C.
 - TRAFFIC SURFACE: SERRATED; NON-SLIP
 - STEEL FINISH: GALVANIZED: ALL COMPONENTS AND FASTENERS SHALL BE 304 STAINLESS STEEL.
 - FRAMES AND SUPPORTS: FABRICATE FROM METAL SHAPES, PLATES AND BARS OF WELDED CONSTRUCTION TO SIZES, SHAPES AND PROFILES AS NECESSARY TO RECEIVE GRATINGS. MITER AND WELD CONNECTIONS FOR PERIMETER ANGLE FRAMES. CUT DRILL AND TAP UNITS TO RECEIVE HARDWARE AND SIMILAR ITEMS.
- STEEL FLOOR PLATE:
 - STEEL FINISH: GALVANIZED STEEL. ALL COMPONENTS AND FASTENERS SHALL BE 304 STAINLESS STEEL.
 - TRAFFIC SURFACE: CHECKERED SLIP RESISTANT FLOOR PLATE
- SHOP DRAWINGS:
 - SUBMIT FOR APPROVAL BY THE ENGINEER PRIOR TO FABRICATION. PREPARE IN ACCORDANCE WITH THE AISC "DETAILING FOR STEEL CONSTRUCTION" AND AISC "ENGINEERING FOR STEEL CONSTRUCTION". SHOP DRAWINGS SHALL NOT BE REPRODUCTIONS OF CONTRACT DRAWINGS. INCLUDE COMPLETE INFORMATION FOR THE FABRICATION AND ERECTION OF THE STRUCTURE'S COMPONENTS, INCLUDING THE LOCATION, TYPE, AND SIZE OF BOLTS, WELDS, MEMBER SIZES AND LENGTHS, CONNECTION DETAILS, BLOCKS, COPEES, AND CUTS. USE AWS STANDARD WELDING SYMBOLS.

LEGEND:



ABBREVIATIONS:

- BD. → BOLLARD
- CL → CENTER LINE
- C.I.P. → CAST IN PLACE
- CONT. → CONTINUOUS
- O.C. → ON CENTER
- MLLW → MEAN LOWER LOW WATER
- WPS → WATER PIT



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STATE PORT AUTHORITY
30TH AVENUE
GULFPORT, MS 39501

SCALE:	AS NOTED
PROJECT NO:	0297.23.001
DRAWN BY:	TJR/RS
CHECKED BY:	MCP

DESIGN NOTES, LEGEND, AND ABBREVIATIONS

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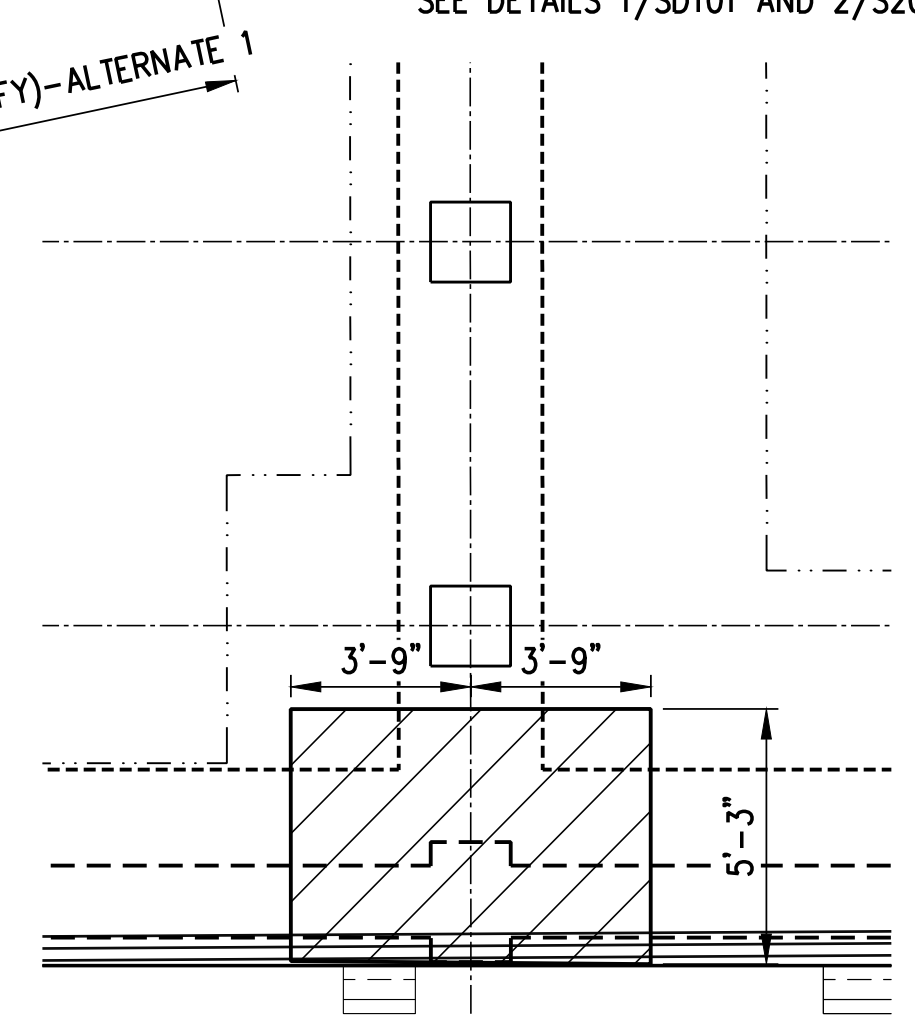
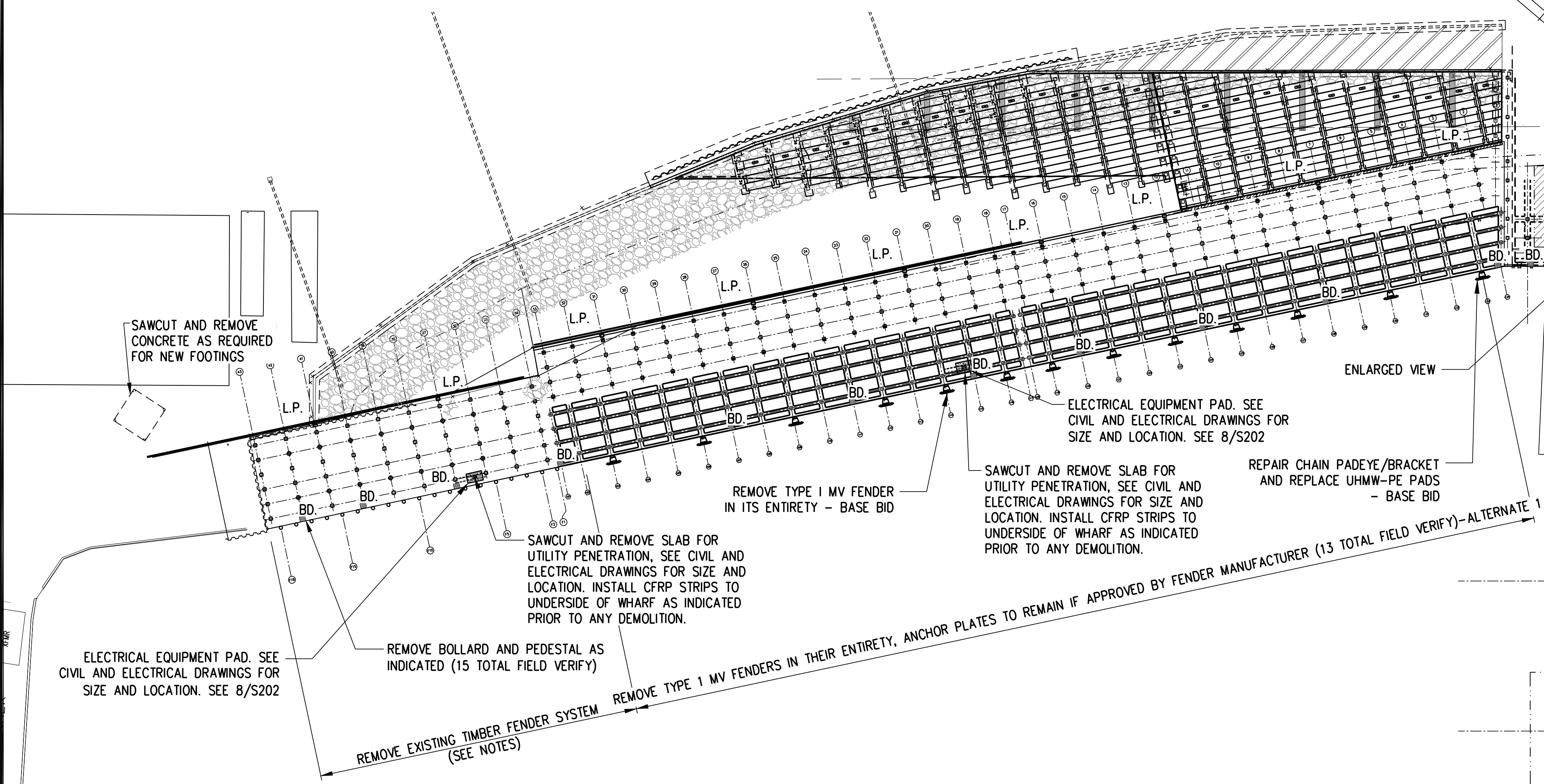
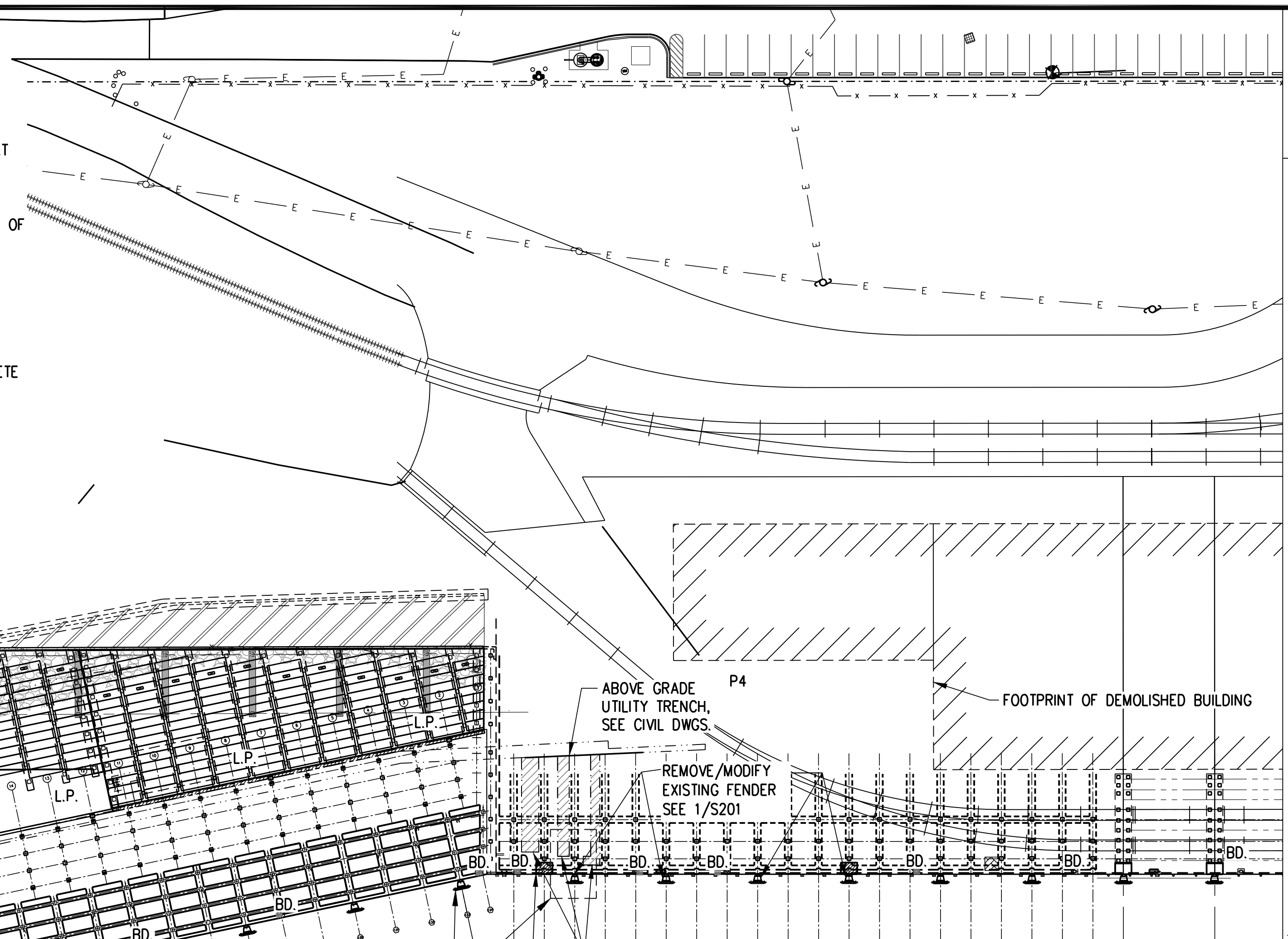
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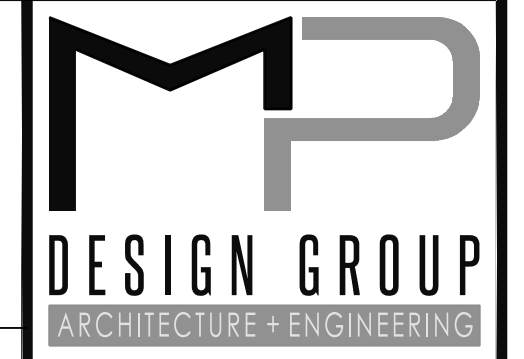
NOTE:

1. SEE ALSO DIVISION 2 OF THE SPECIFICATIONS.
2. REMOVE ALL TIMBER FENDER SYSTEM COMPONENTS. "D" FENDERS WILL REMAIN WHERE NO CONFLICT WITH NEW FENDER SYSTEM OCCURS. FILL ALL HOLES AND VOIDS THAT RESULT FROM DEMOLITION ACTIVITIES WITH APPROVED EPOXY FILLER (MINIMUM 1" DEEP) SEE SPECIFICATIONS. NO ADDITIONAL PAYMENT WILL BE MADE IF "D" FENDER REMOVAL IS WITHIN CONCRETE DEMOLITION WORK.
3. LIMITED INVESTIGATION WAS AVAILABLE AND RESULTS ARE SHOWN HEREIN. IT IS ASSUMED THAT STRUCTURAL PATTERN OCCURS THRU THIS AREA. SECTIONS AND DETAILS OF EXISTING CONSTRUCTION ARE SHOWN FROM INFORMATION AVAILABLE AND SHOULD BE FIELD VERIFIED BY CONTRACTOR.
4. DIMENSIONS ARE BASED ON INFORMATION AVAILABLE. ALL DIMENSIONS AND LOCATIONS SHOWN SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO ANY DEMOLITION OF CONSTRUCTION WORK.
5. TIMBER FENDERS SHALL BE REMOVED IN SECTIONS AS INDICATED ONE AT A TIME AFTER A NEW FENDER SYSTEM HAS BEEN INSTALLED.
6. REMOVE CONCRETE WHERE INDICATED. EXISTING REINFORCEMENT SHALL PROJECT, WHERE POSSIBLE, A MINIMUM OF 24" TO LAB NEW REINFORCING BARS IN LATER CONCRETE PLACEMENT.
7. EXISTING REINFORCING BAR SIZES & LOCATIONS SHOWN ARE DERIVED FROM ORIGINAL CONSTRUCTION DRAWINGS. NO GUARANTEE IS MADE BY THESE DRAWINGS OF THE ACCURACY OF THIS INFORMATION. INFORMATION IS FURNISHED FOR CONTRACTOR DIRECTION IN HIS WORK. IF ACTUAL CONDITIONS DIFFER SIGNIFICANTLY, ADVISE ENGINEER AND FIELD ADJUSTMENTS MAY BE MADE.
8. TEMPORARY BARRICADES ARE TO BE PRECAST CONCRETE MEDIAN BARRIERS PER MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION DRAWING, WORKING NUMBER MB-2A, SHEET NO. 205, DATED MARCH 1, 2022.
9. COORDINATE ALL WORK WITH THE MISSISSIPPI STATE PORT AUTHORITY.



ENLARGED VIEW
SCALE: N.T.S.

PARTIAL EXISTING AND DEMOLITION SITE PLAN
SCALE: 1" = 40'



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Bradford A. Jones, AIA



EAST PIER DEEP WATER WHARF FOR US/MNOAA
PORT OF GULFPORT MISSISSIPPI
STATE PORT AUTHORITY
30TH AVENUE
GULFPORT, MS 39501

SCALE: AS NOTED
PROJECT NO: 0297.23.001
DRAWN BY: TJ/RSS
CHECKED BY: MCP

PARTIAL EXISTING AND DEMOLITION SITE PLAN

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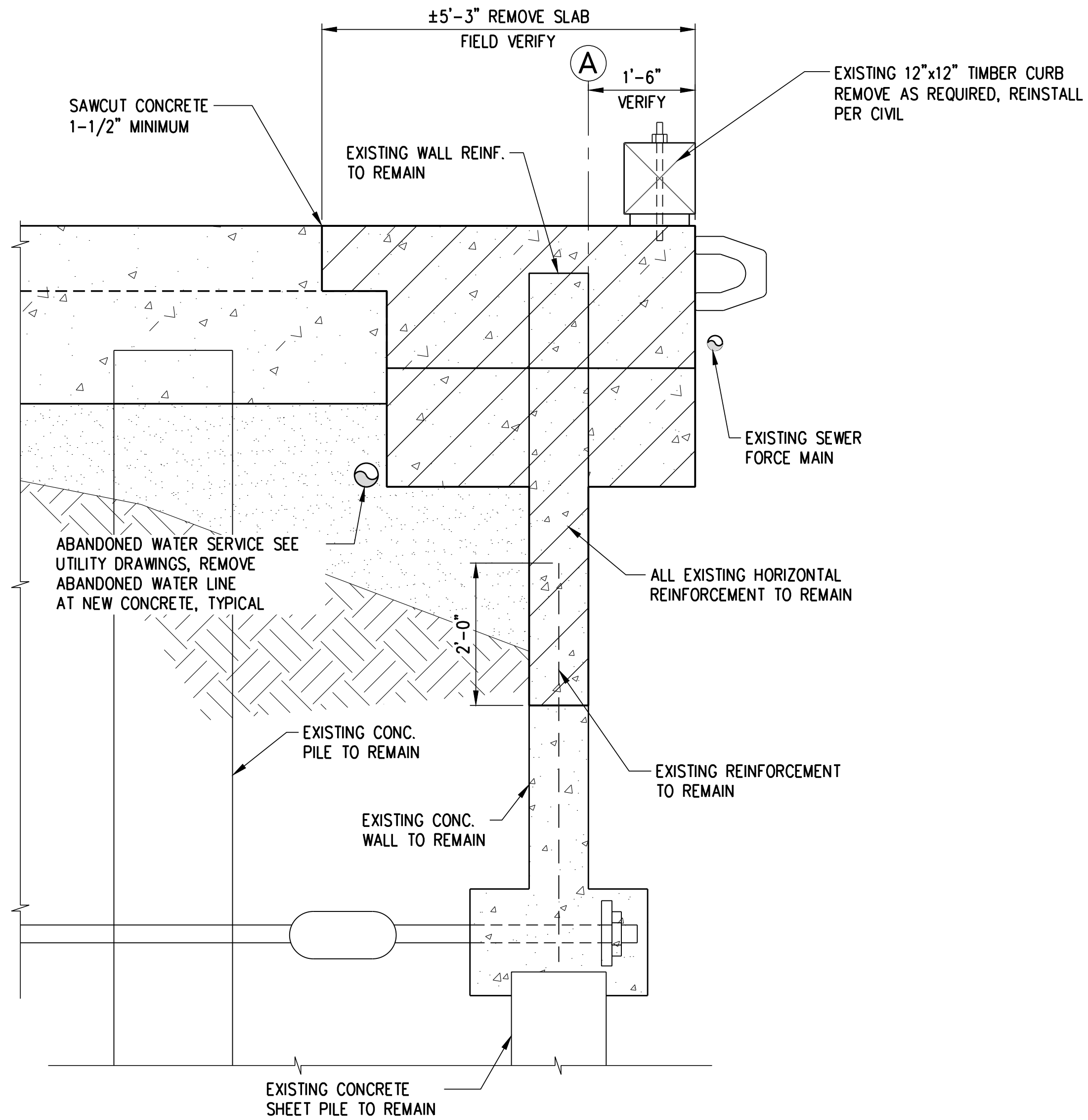
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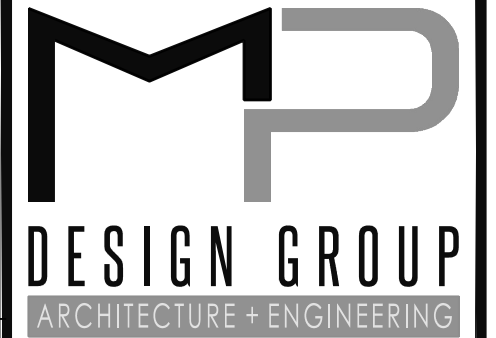
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1 DEMOLITION DETAIL
 SCALE: 3/4" = 1'-0"

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**PARTIAL EXISTING AND
 DEMOLITION SITE PLAN**

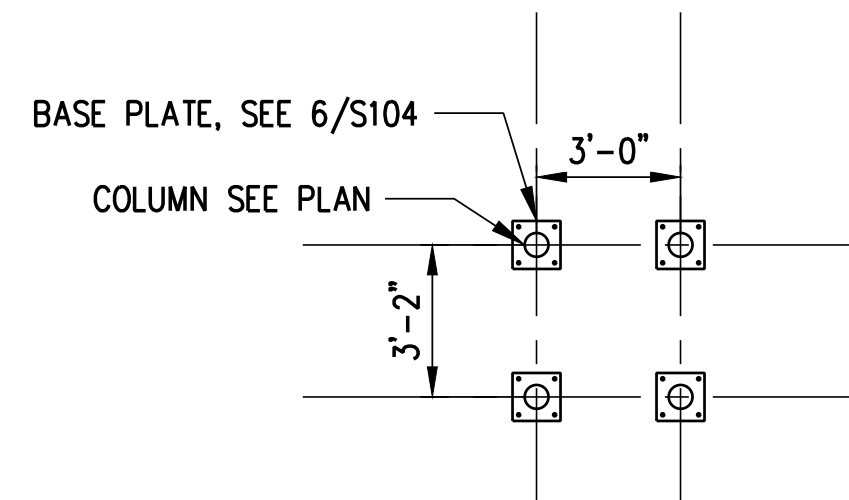
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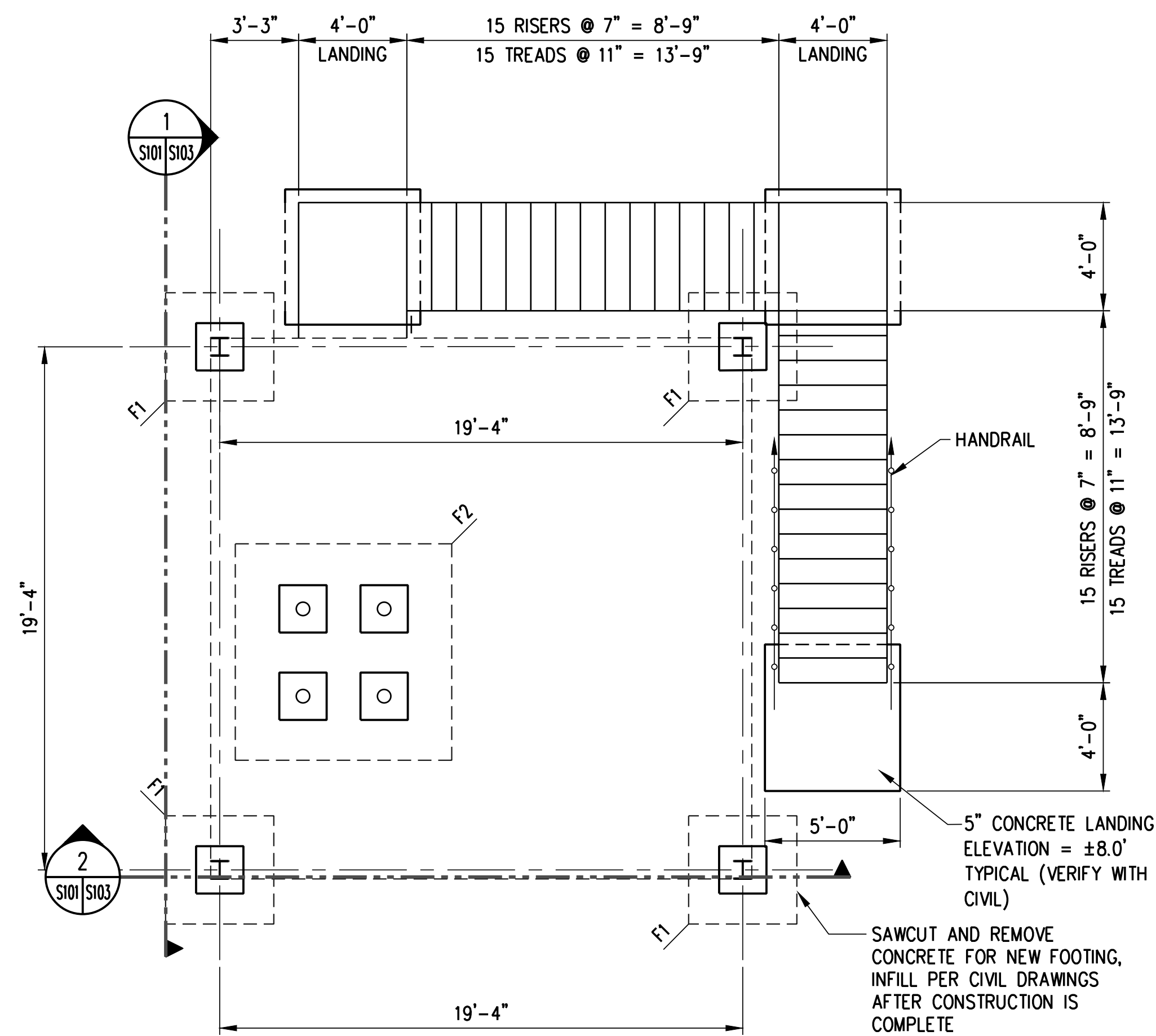
FOOTING SCHEDULE			
MARK	SIZE	THICKNESS	REINFORCING
F1	4'-0" x 4'-0"	1'-6"	#5 @ 8" O.C. E.W. T & B
F2	8'-0" x 8'-0"	1'-6"	#5 @ 8" O.C. E.W. T & B

- NOTE:
- VERIFY FINAL ELEVATIONS WITH CIVIL AND FRAMING DIMENSIONS WITH ELECTRICAL PRIOR TO FABRICATION. NOTIFY EOR OF ANY DISCREPANCIES.
 - DESIGN LIVE LOAD = 100PSF



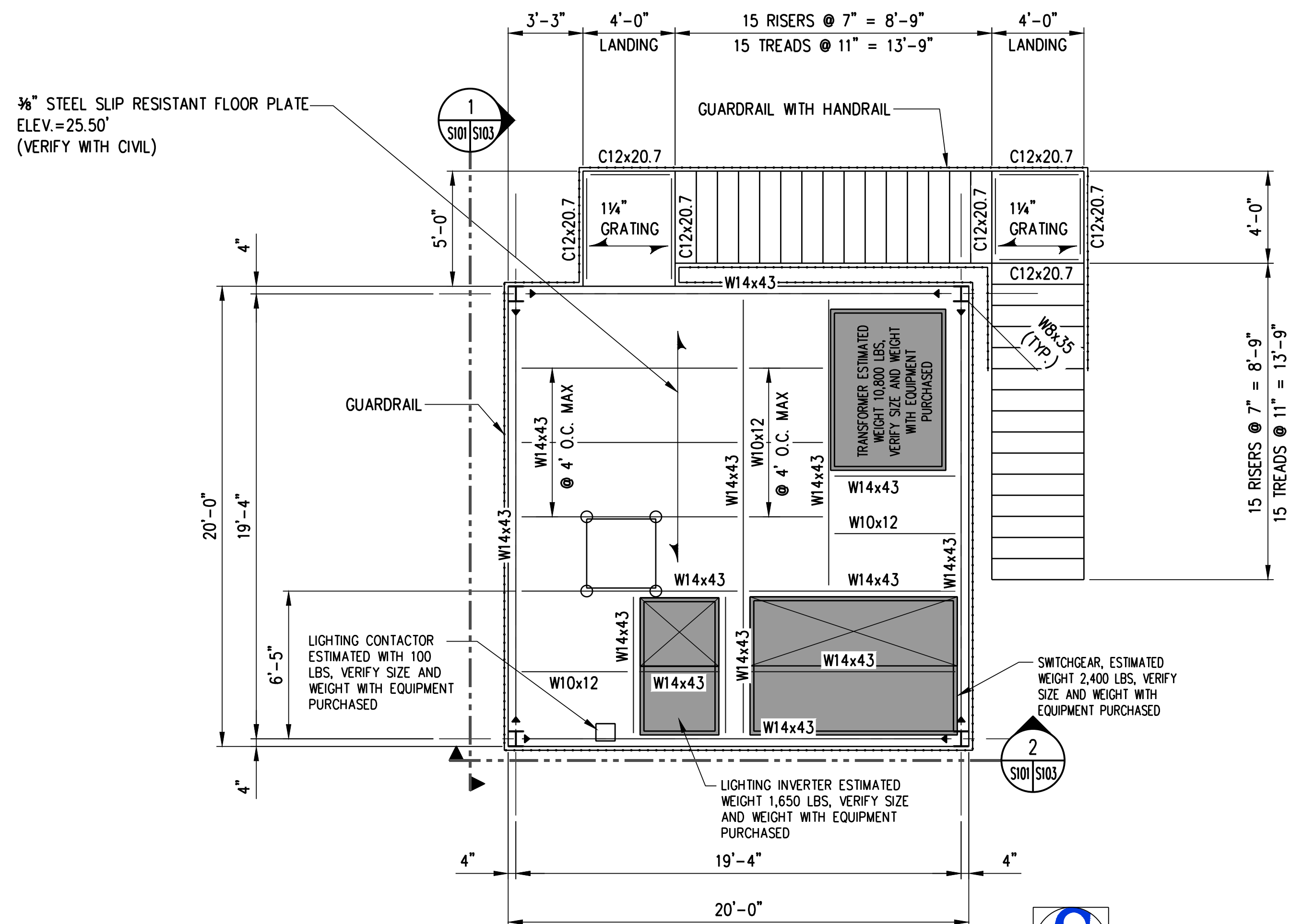
CONDUIT RISER SUPPORT PLAN

SCALE: 1/4" = 1'-0"



ENLARGED FOUNDATION PLAN - PLATFORM #1

SCALE: 1/4" = 1'-0"

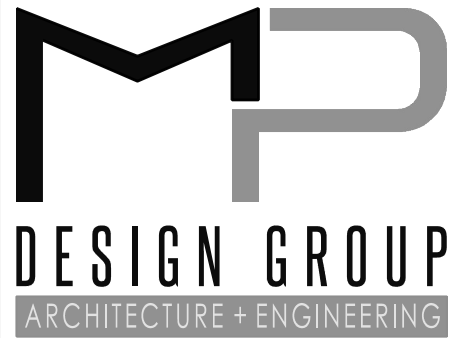


ENLARGED FRAMING PLAN - PLATFORM #1

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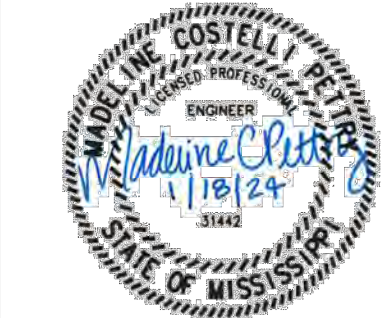


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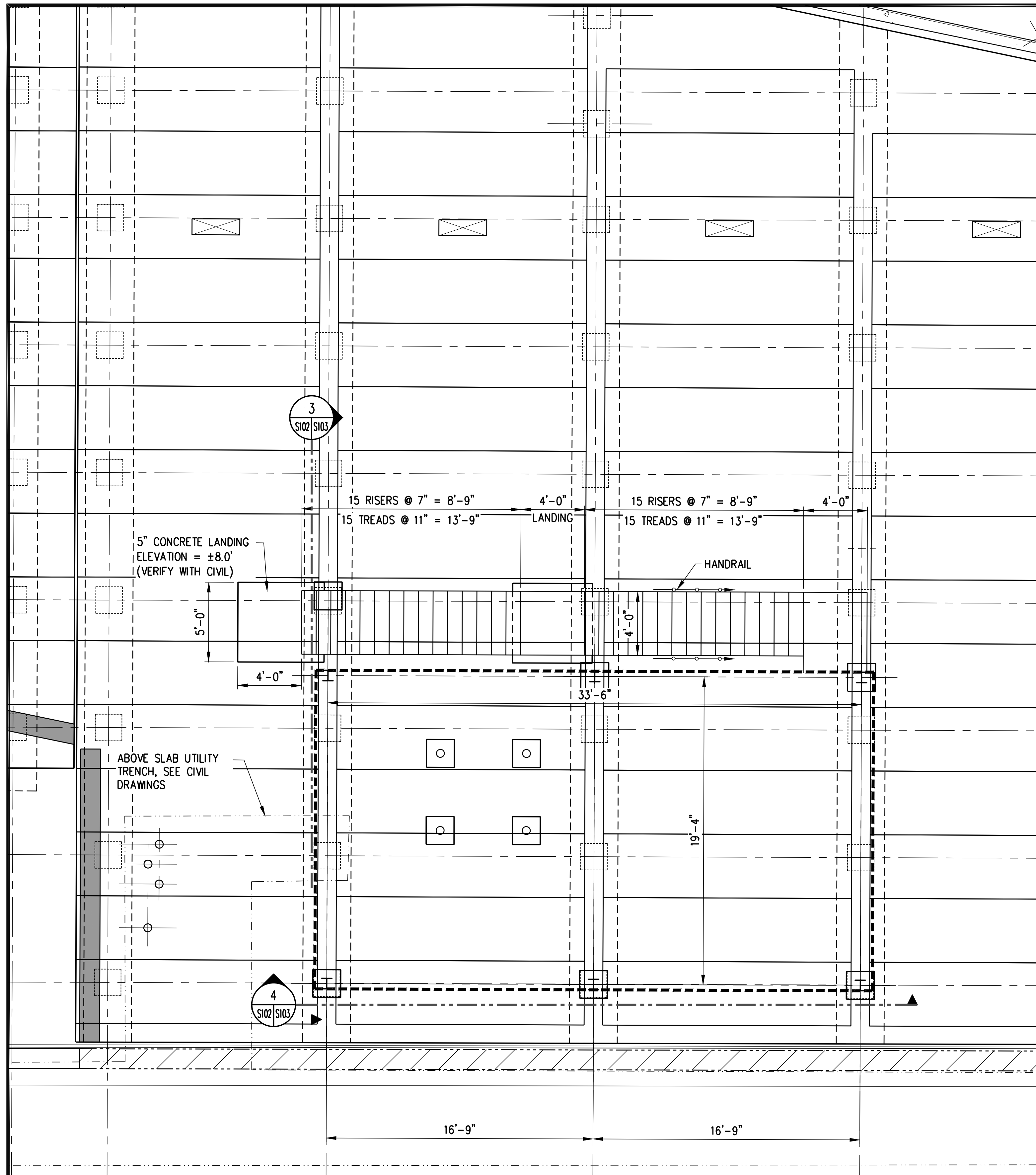
ENLARGED ELECTRICAL
PLATFORM #1
FOUNDATION AND
FRAMING PLANS

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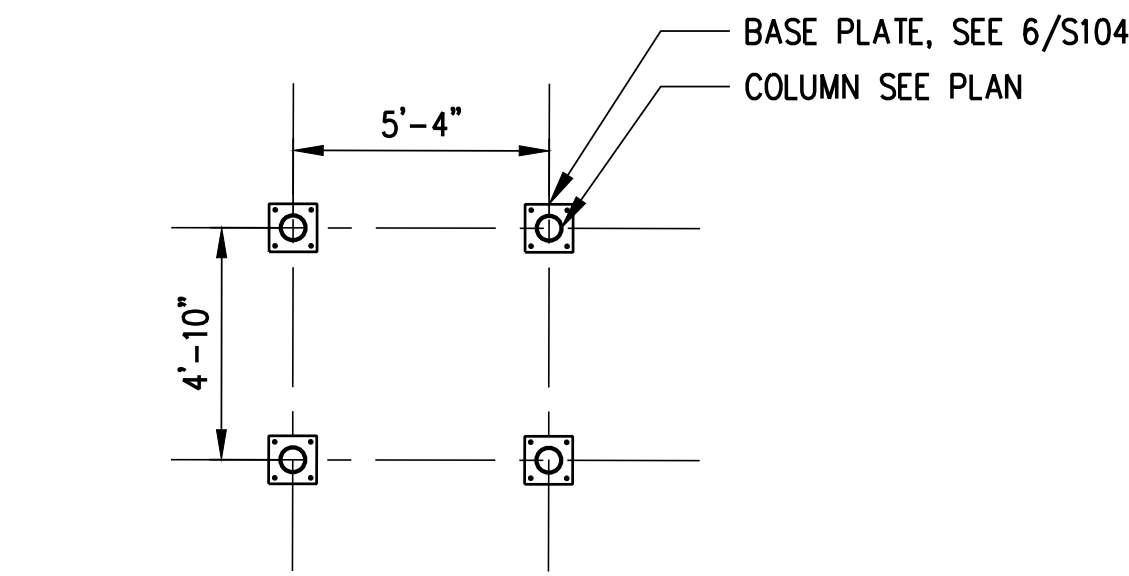
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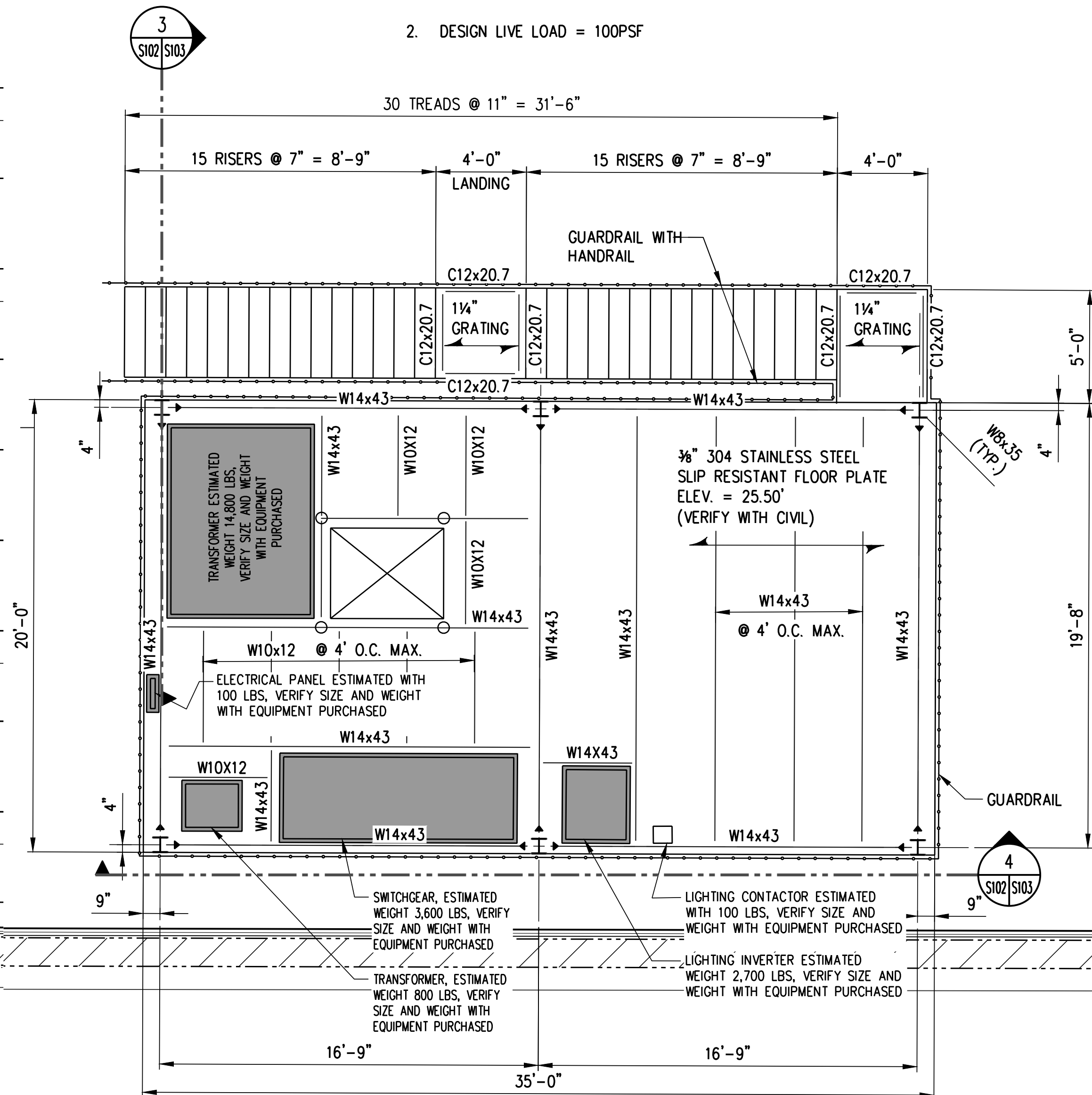


ENLARGED FOUNDATION PLAN - PLATFORM #2
 SCALE: 1/4" = 1'-0"



CONDUIT RISER SUPPORT PLAN
 SCALE: 1/4" = 1'-0"

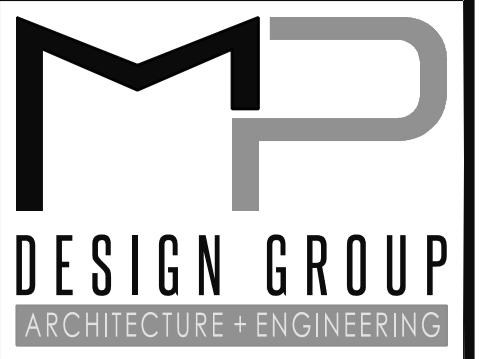
- NOTE:
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 2. DESIGN LIVE LOAD = 100PSF



ENLARGED FRAMING PLAN - PLATFORM #2
 SCALE: 1/4" = 1'-0"

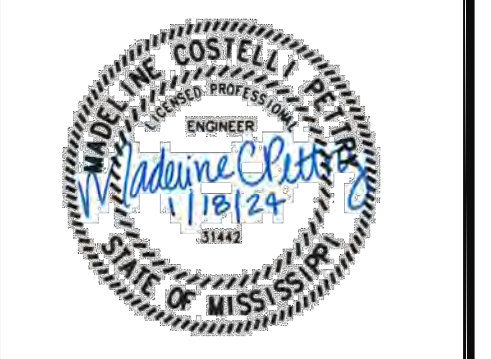


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EAST PIER DEEP WATER WHARF FOR USMNOAA
PORT OF GULFPORT MISSISSIPPI STATE PORT AUTHORITY
 30TH AVENUE
 GULFPORT, MS 39501

SCALE: AS NOTED
 PROJECT NO: 0297.23.001
 DRAWN BY: TJ/RSS
 CHECKED BY: MCP

ENLARGED ELECTRICAL PLATFORM #2 FOUNDATION AND FRAMING PLANS

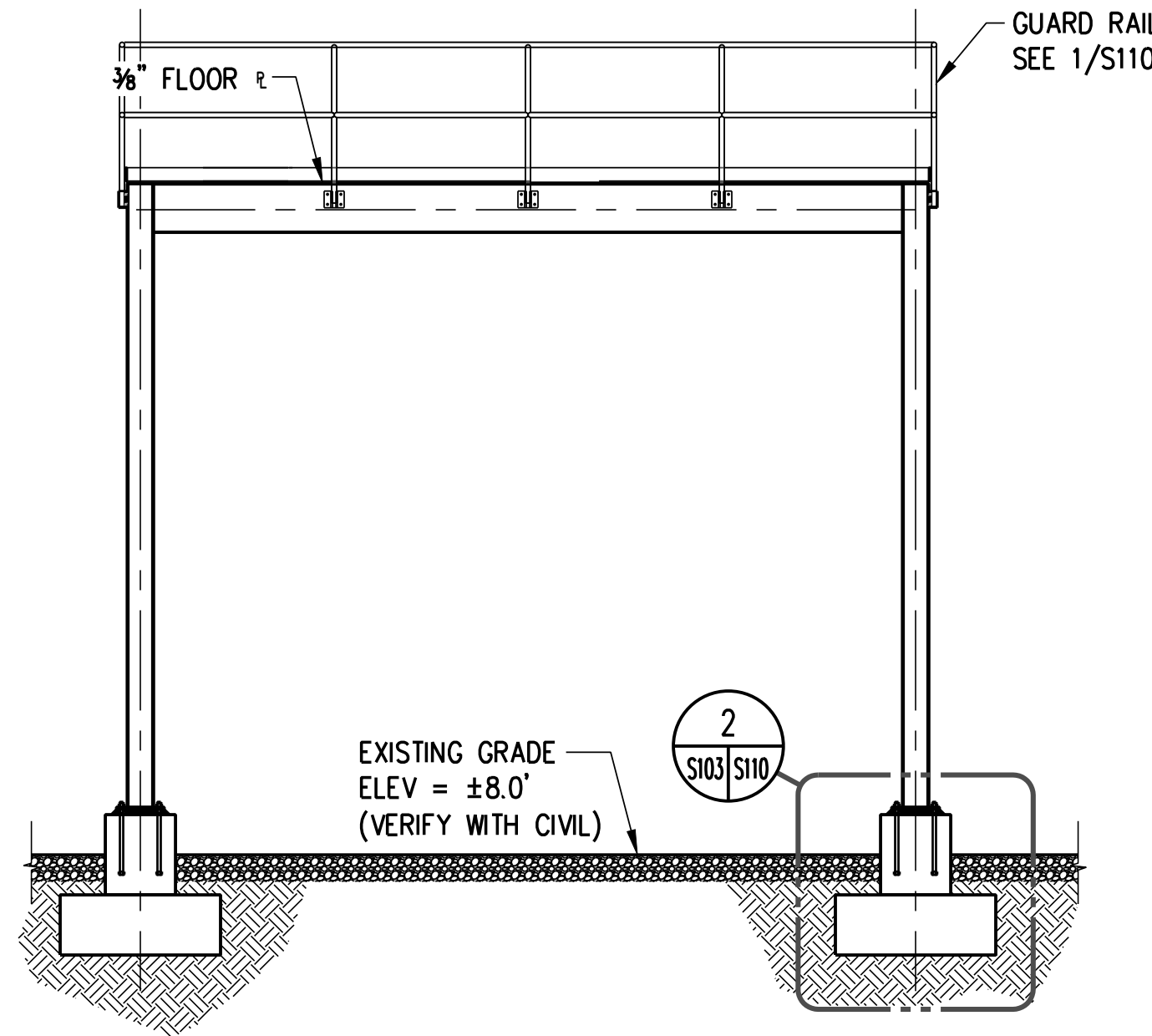
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S102

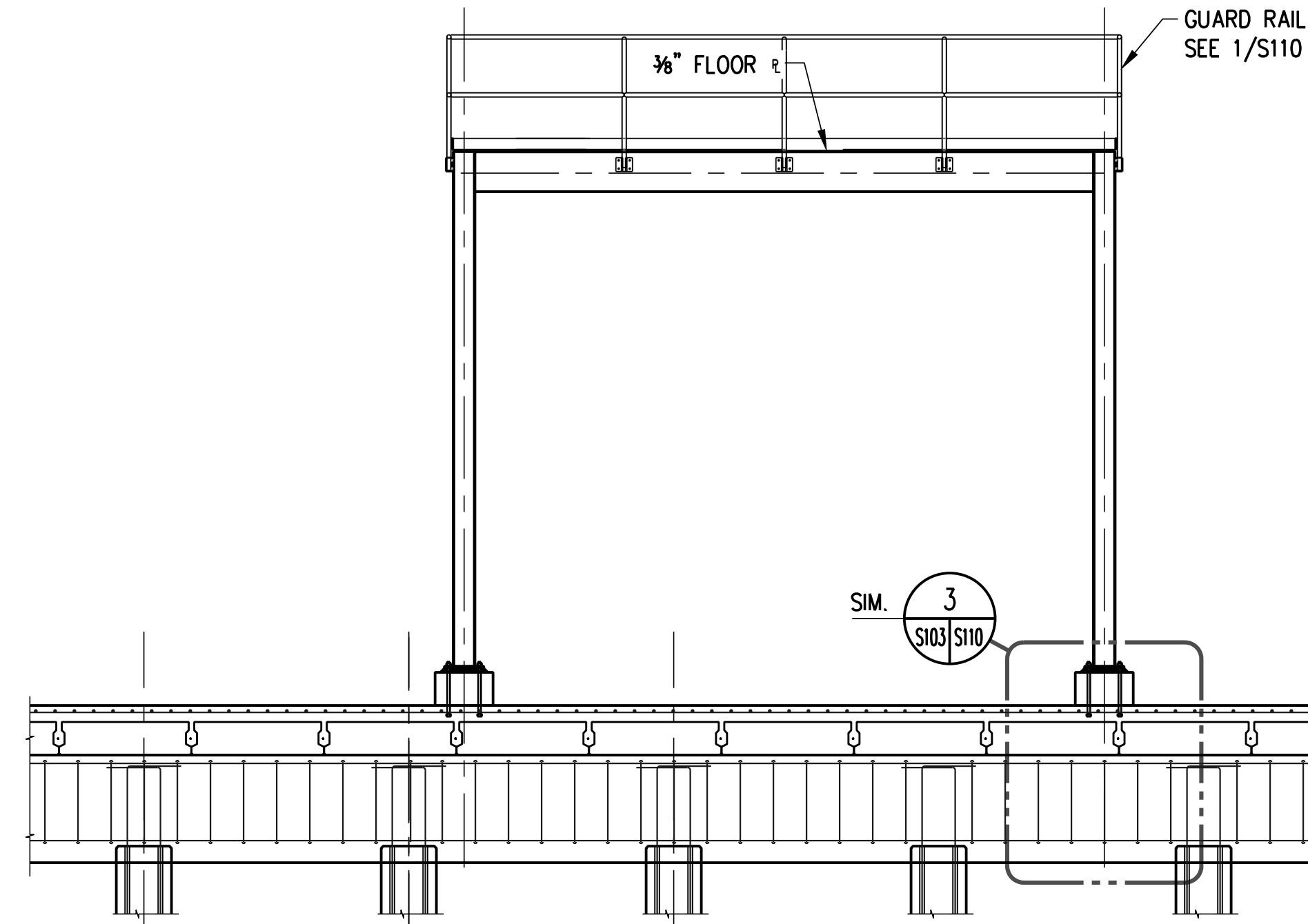
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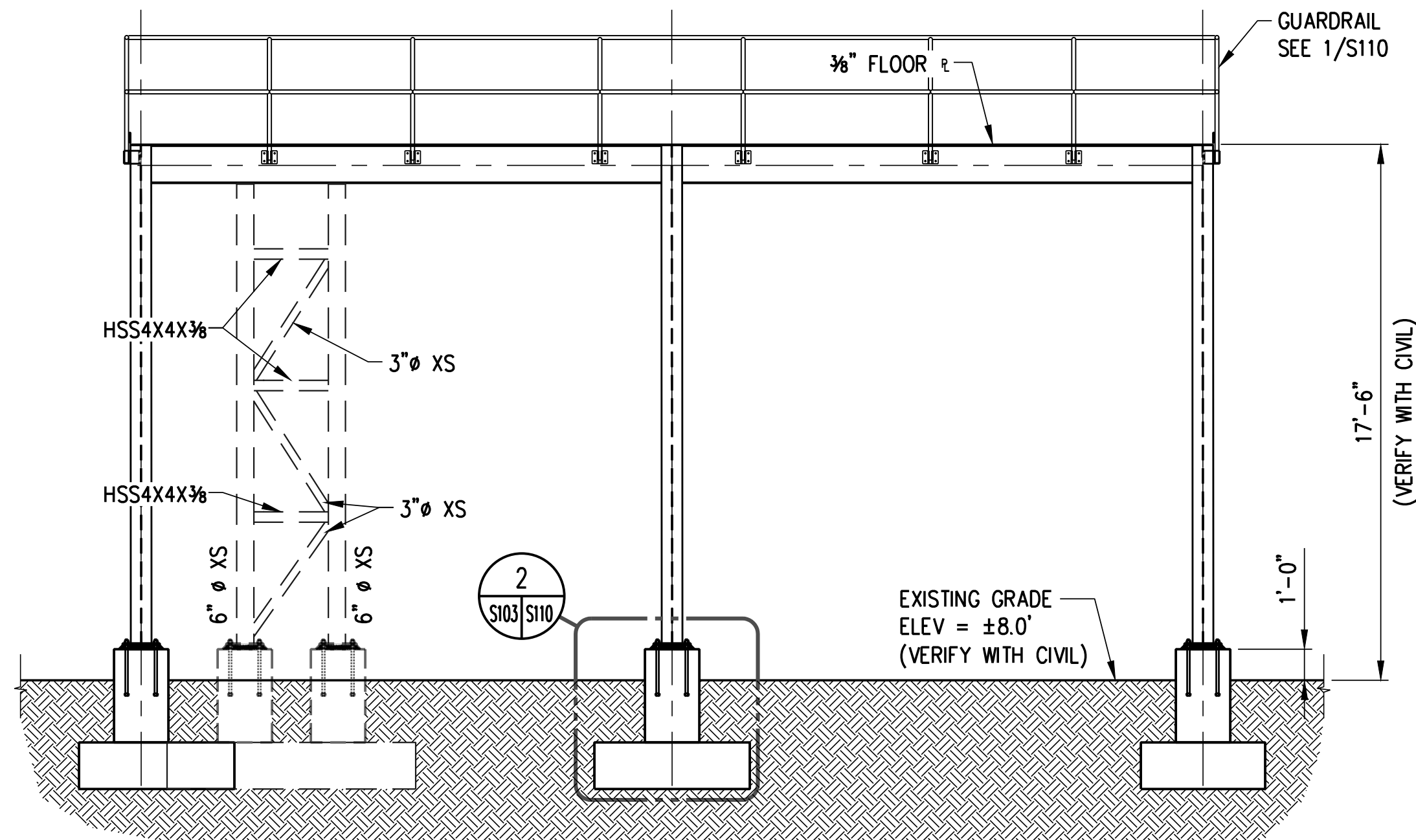
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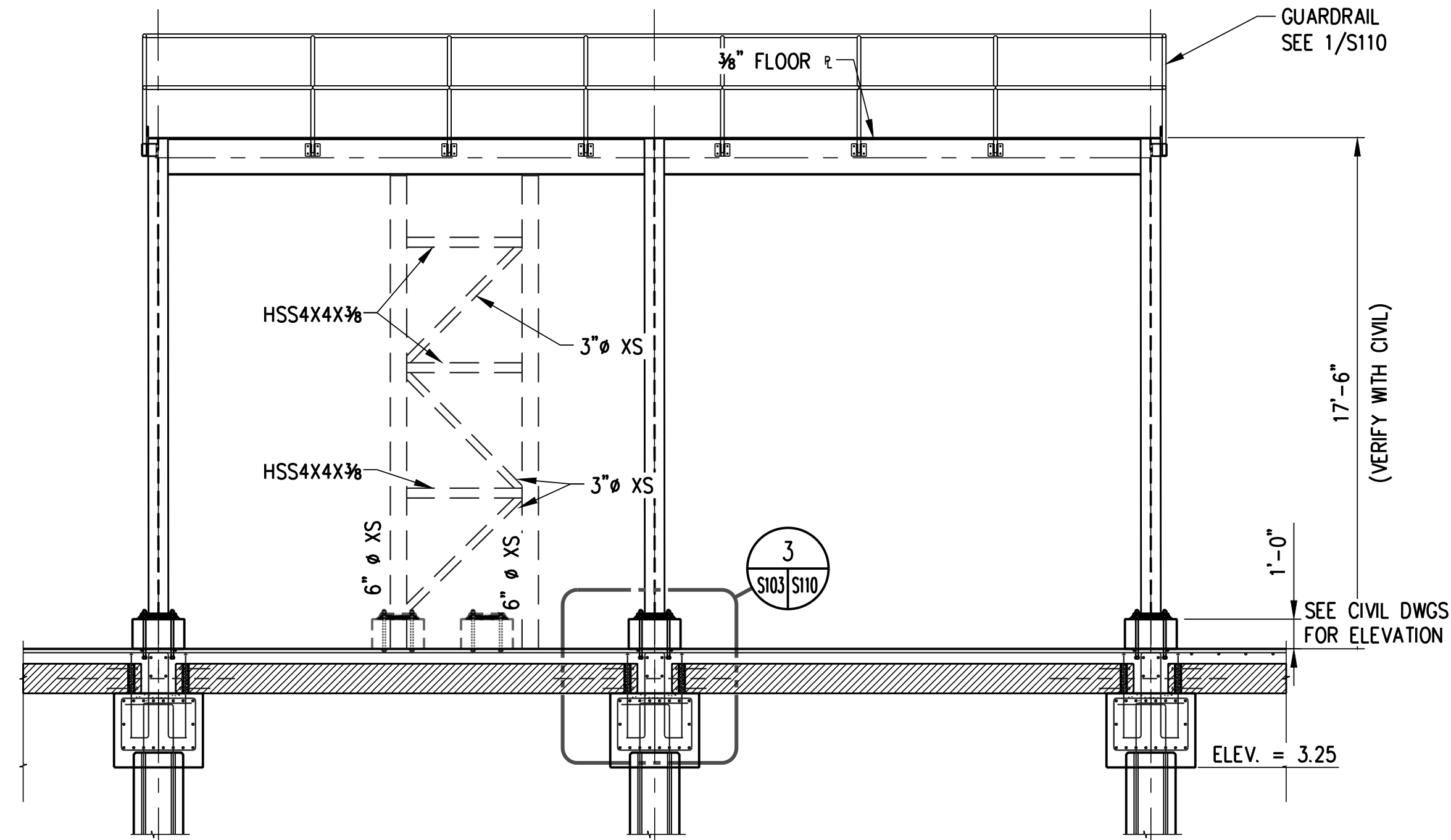
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 S101/S103 SCALE: 1/4" = 1'-0"



3 SECTION:
 S102/S103 SCALE: 1/4" = 1'-0"



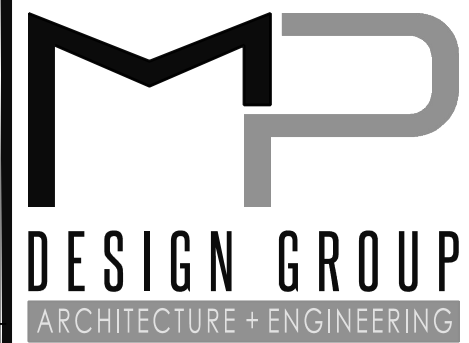
2 SECTION:
 S101/S103 SCALE: 1/4" = 1'-0"



4 SECTION:
 S102/S103 SCALE: 1/4" = 1'-0"

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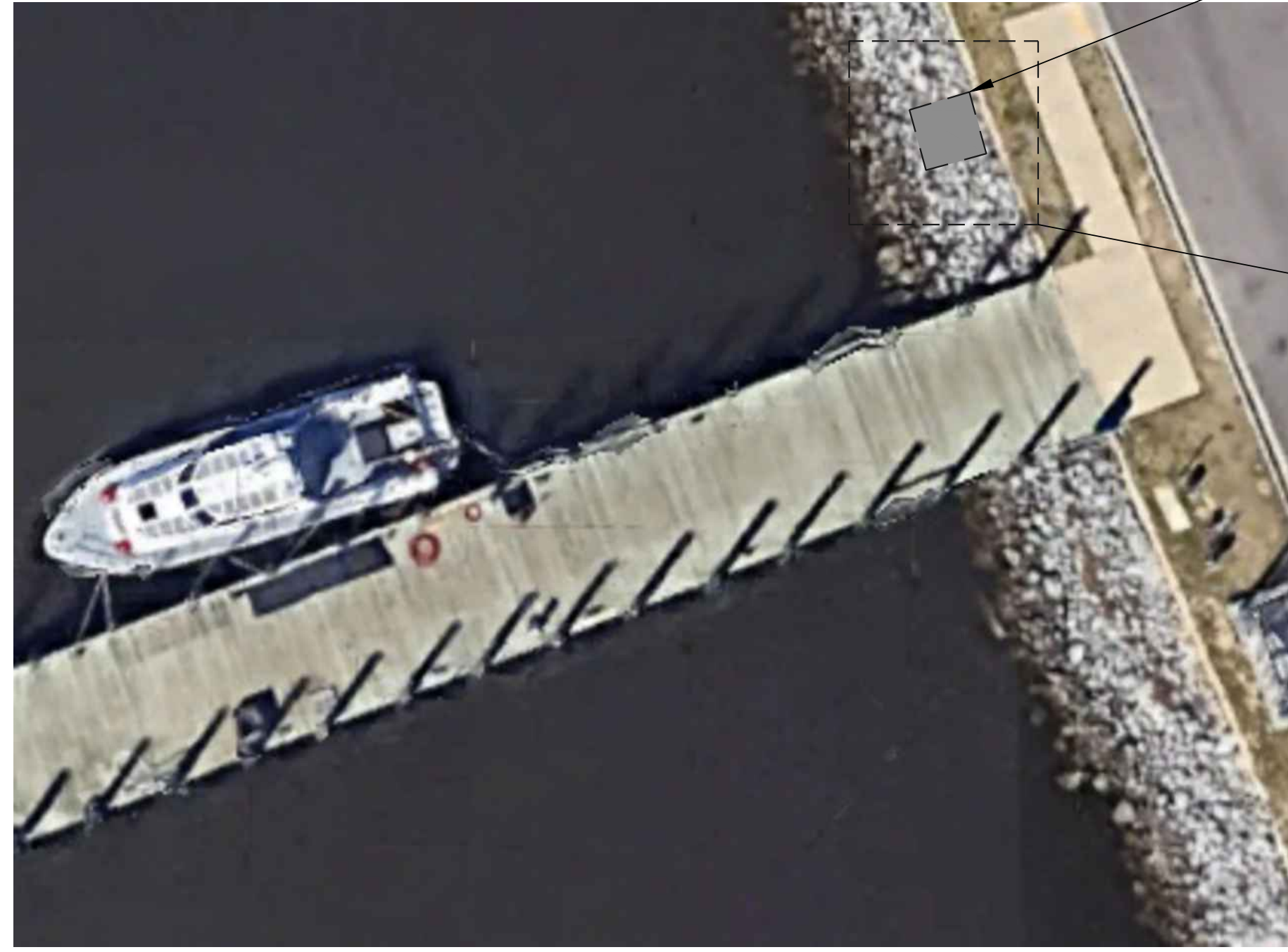
ELECTRICAL PLATFORM SECTIONS

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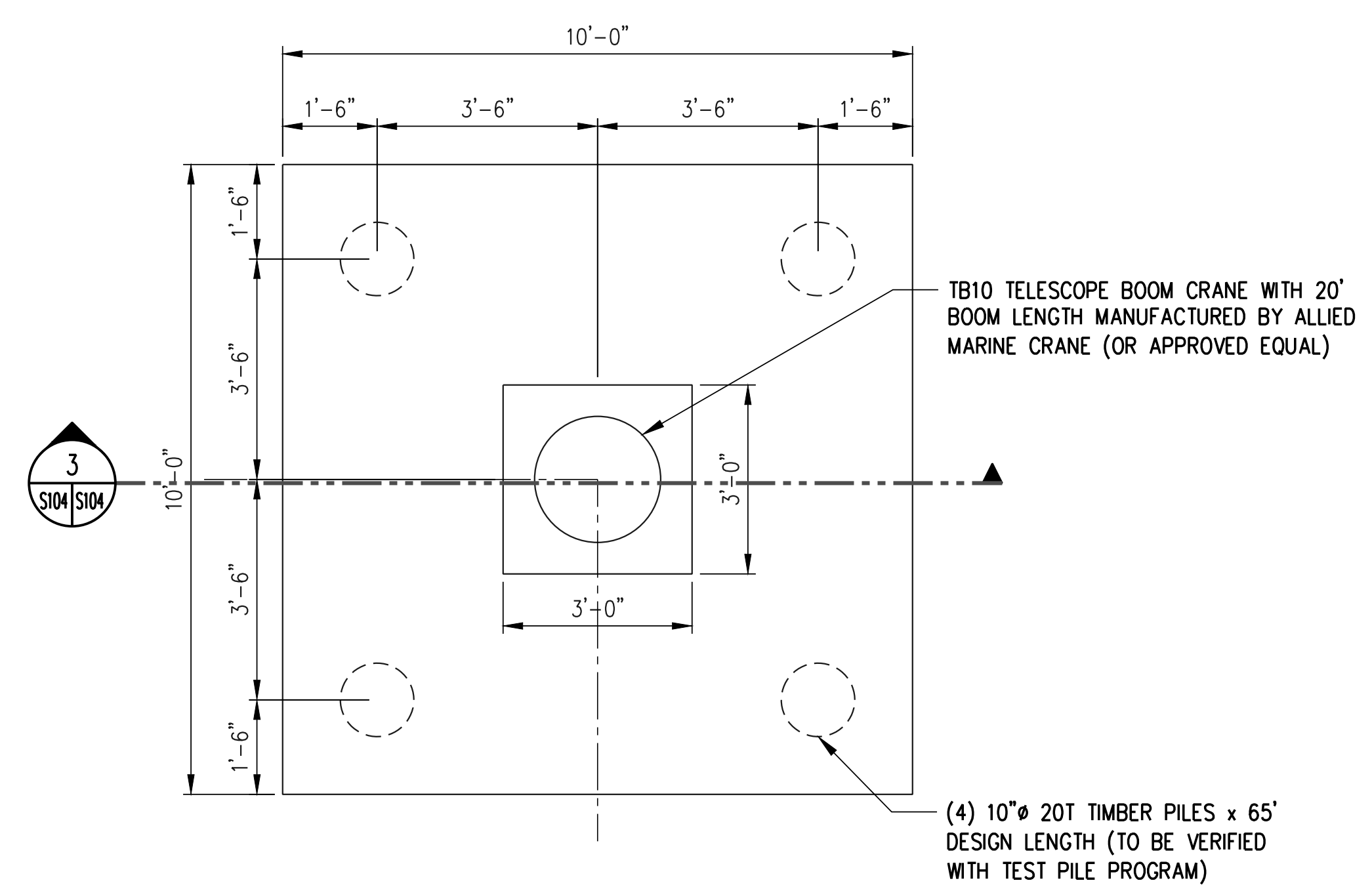
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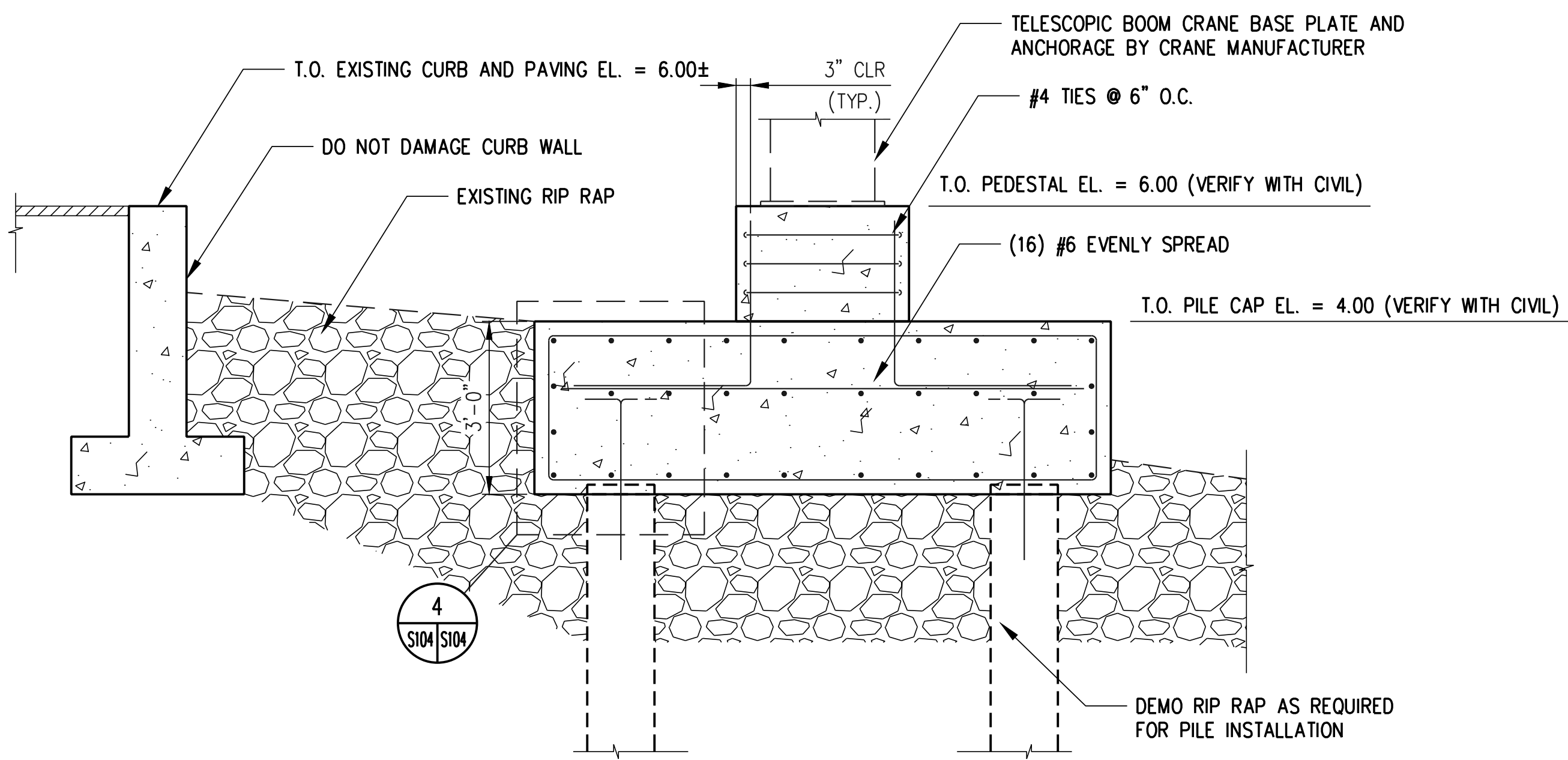
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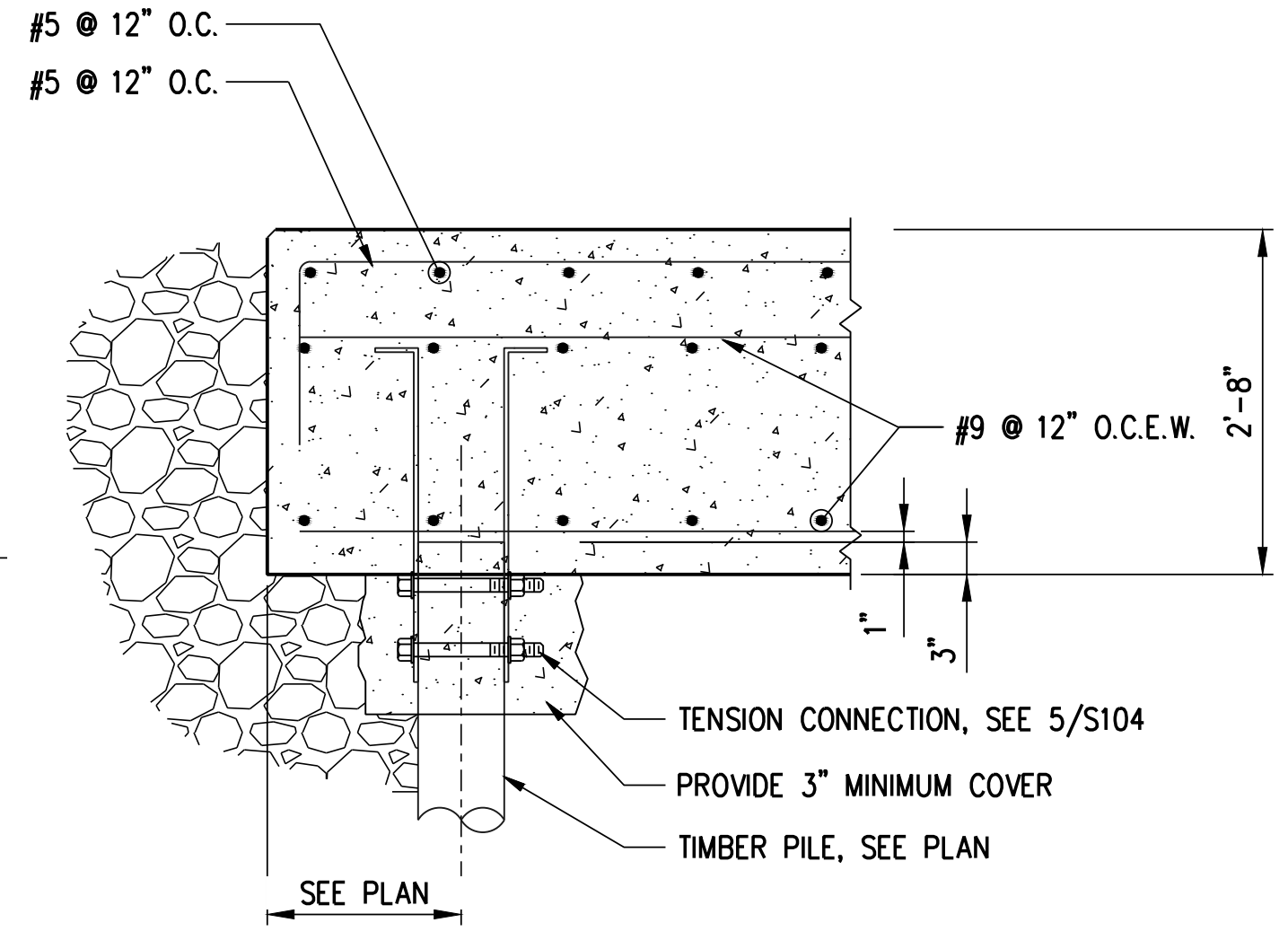
1 PLAN
S104/S104 SCALE: N.T.S.



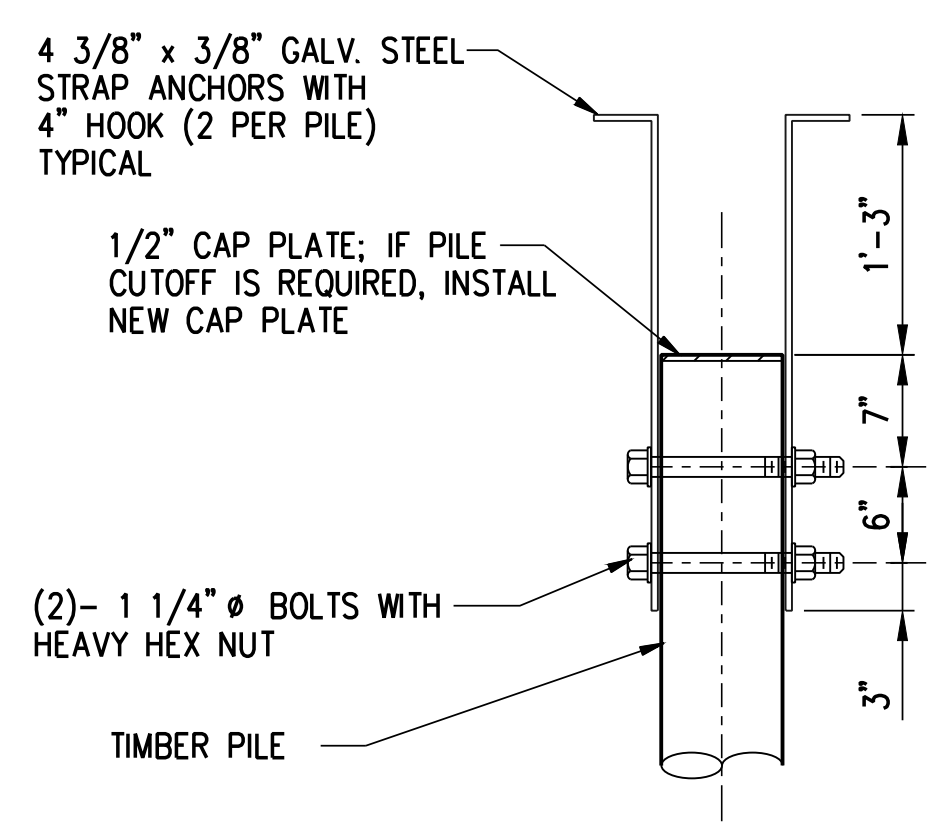
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S104/S104 SCALE: 1/2" = 1'-0"



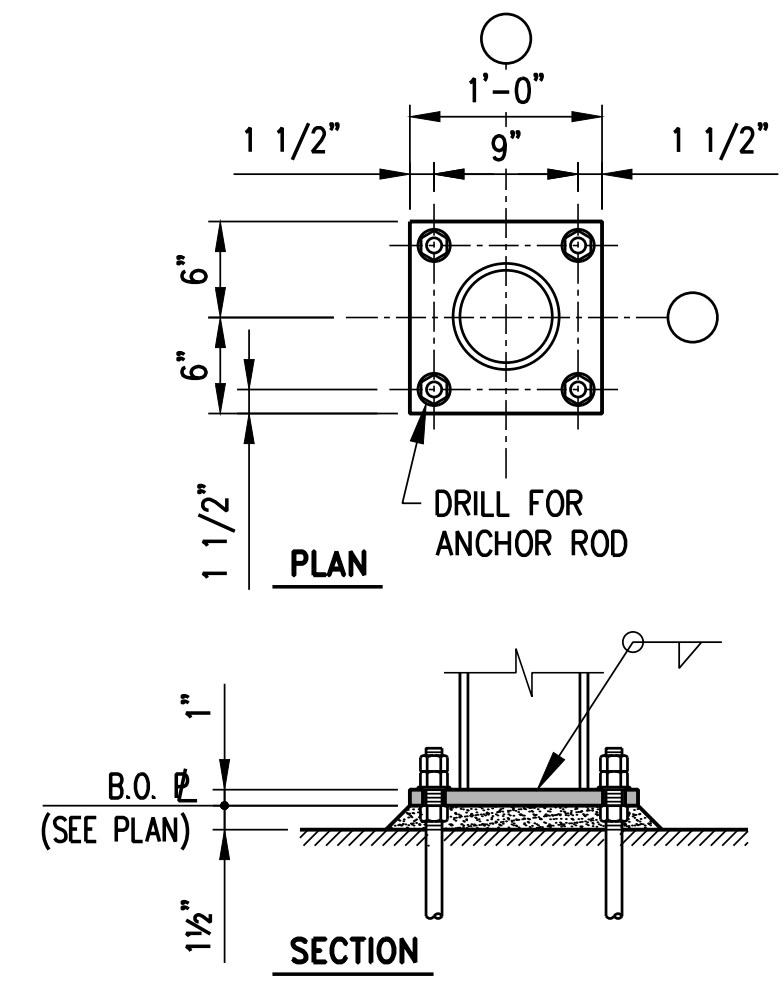
3 SECTION
S104/S104 SCALE: 1/2" = 1'-0"



4 PILE CAP DETAIL
S104/S104 SCALE: 3/4" = 1'-0"



5 TENSION CONNECTOR
S104/S104 SCALE: 1" = 1'-0"



6 BASE PLATE
S104/S104 SCALE: 1" = 1'-0"



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CRANE PLATFORM

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S104

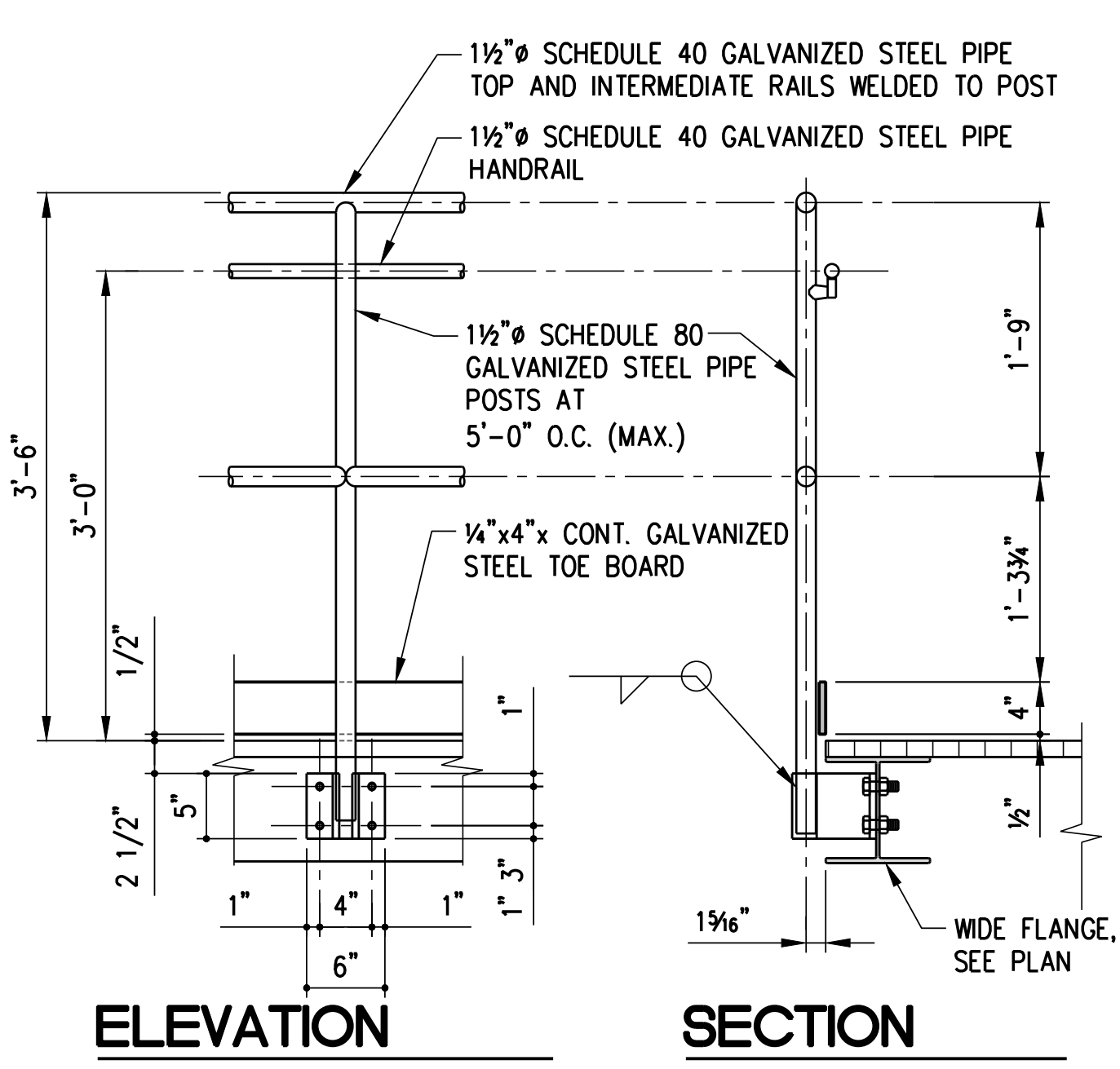
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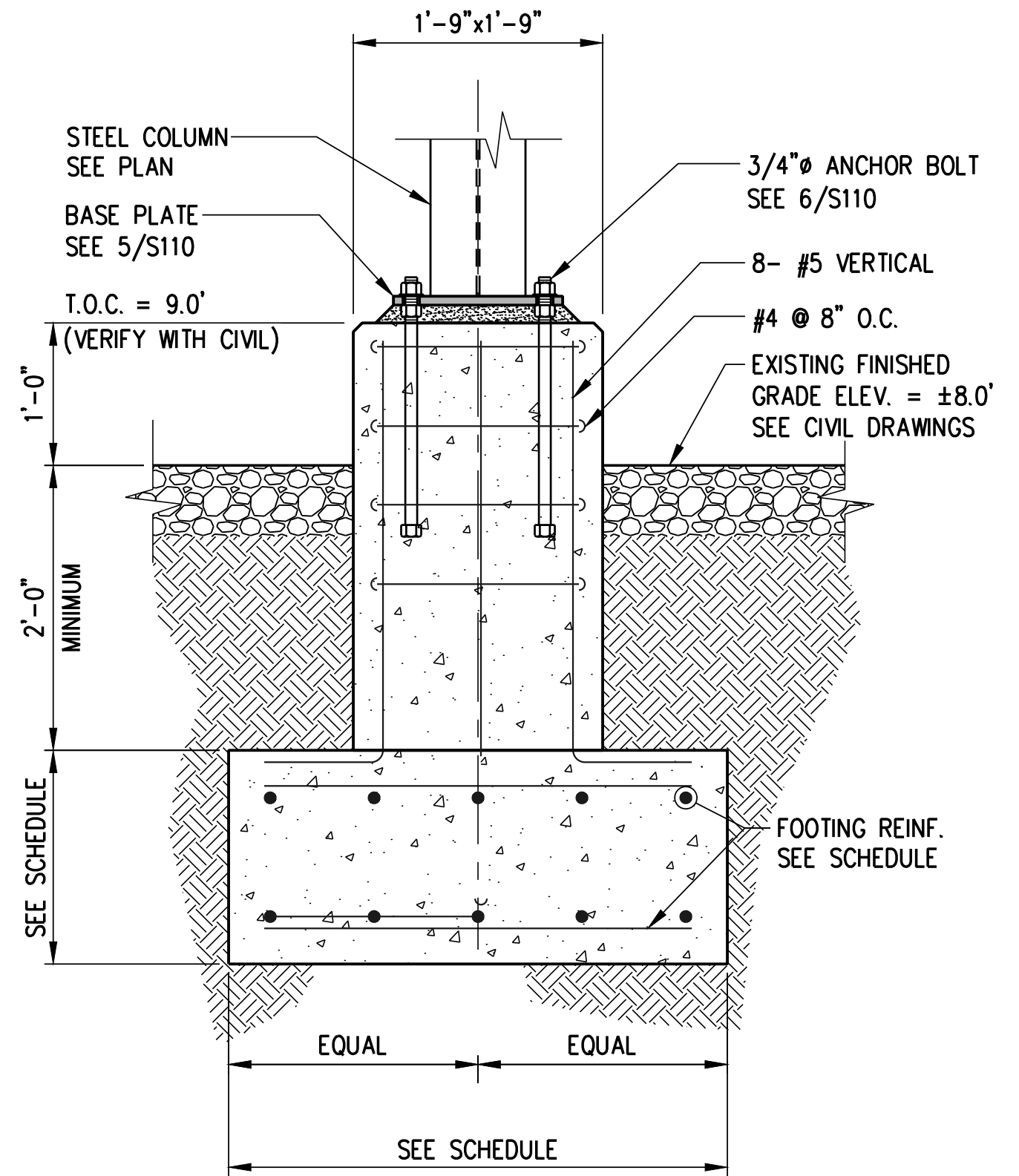
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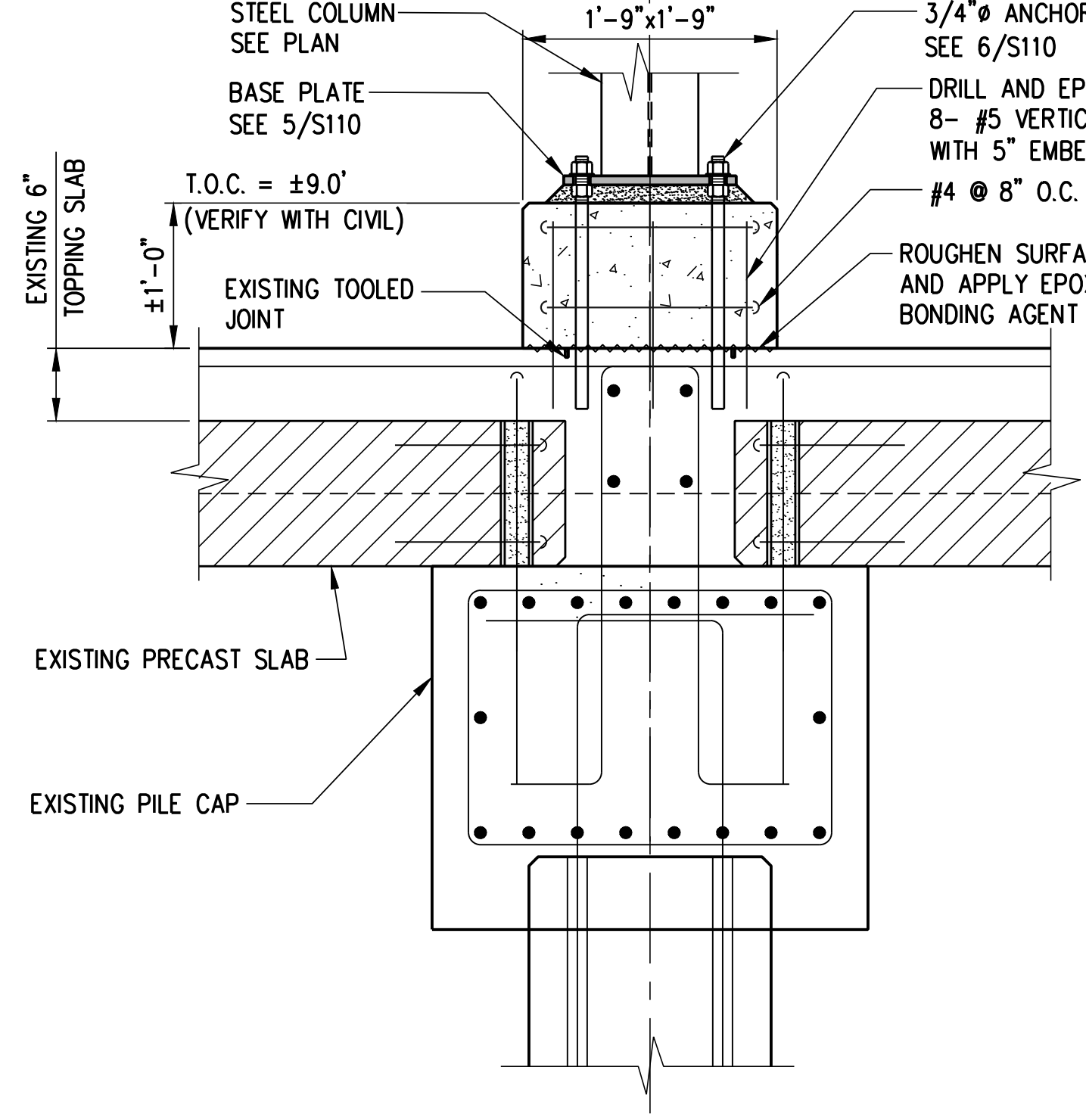


ELEVATION SECTION

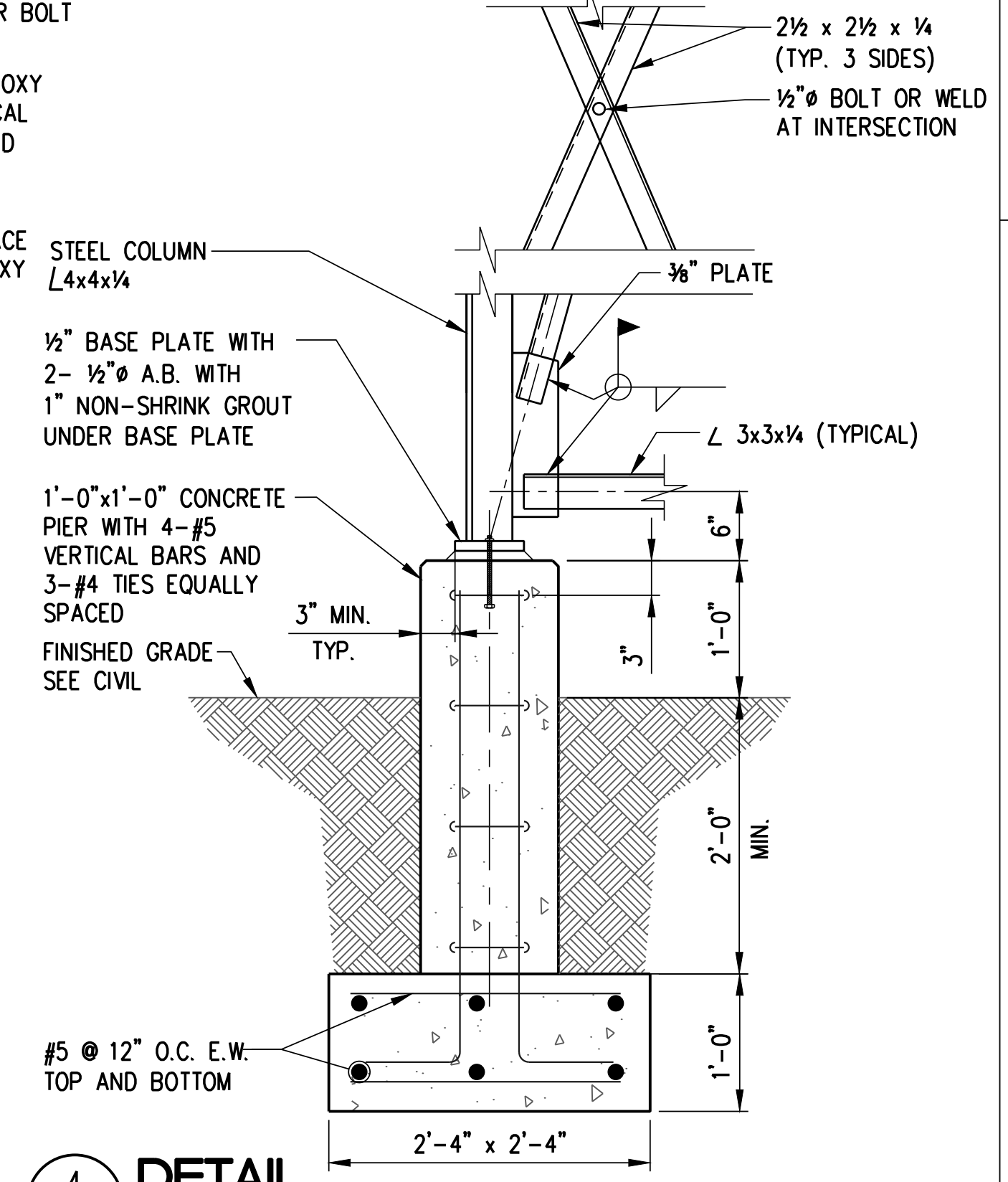
NOTES:
1. HANDRAILS ONLY REQUIRED AT STAIRS.



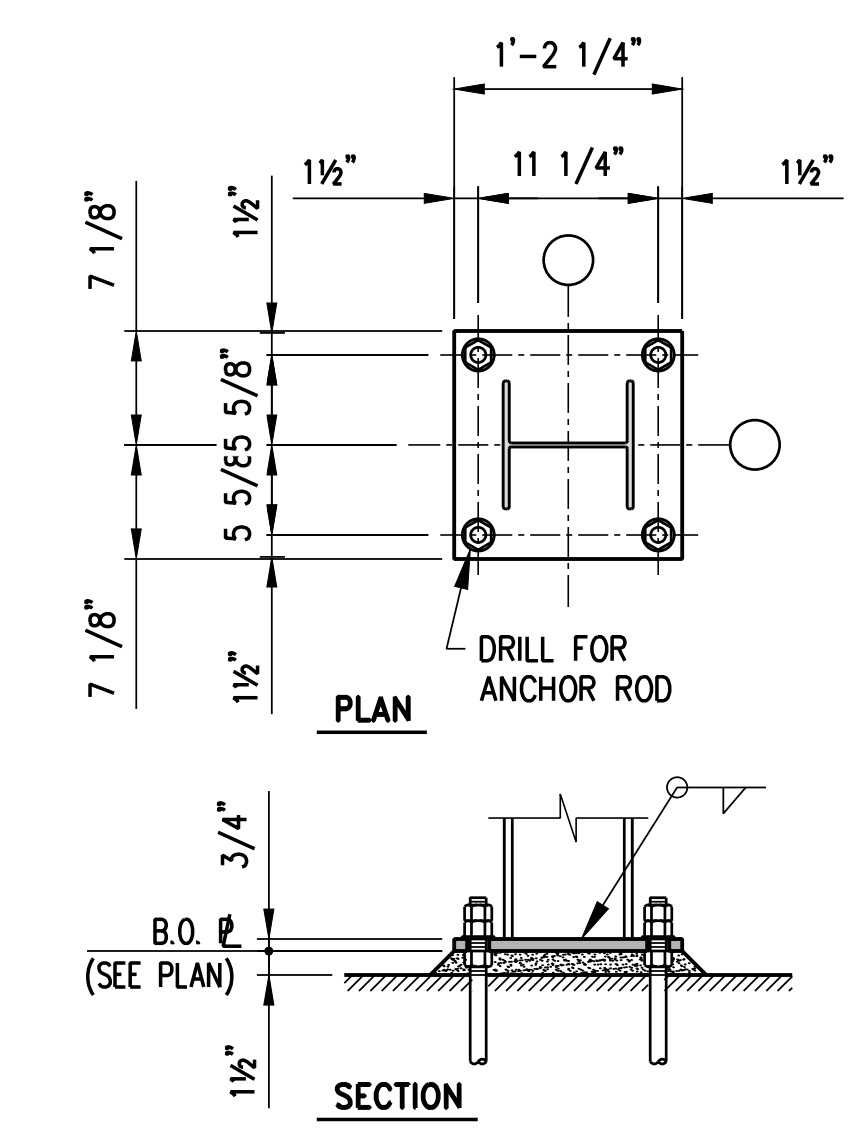
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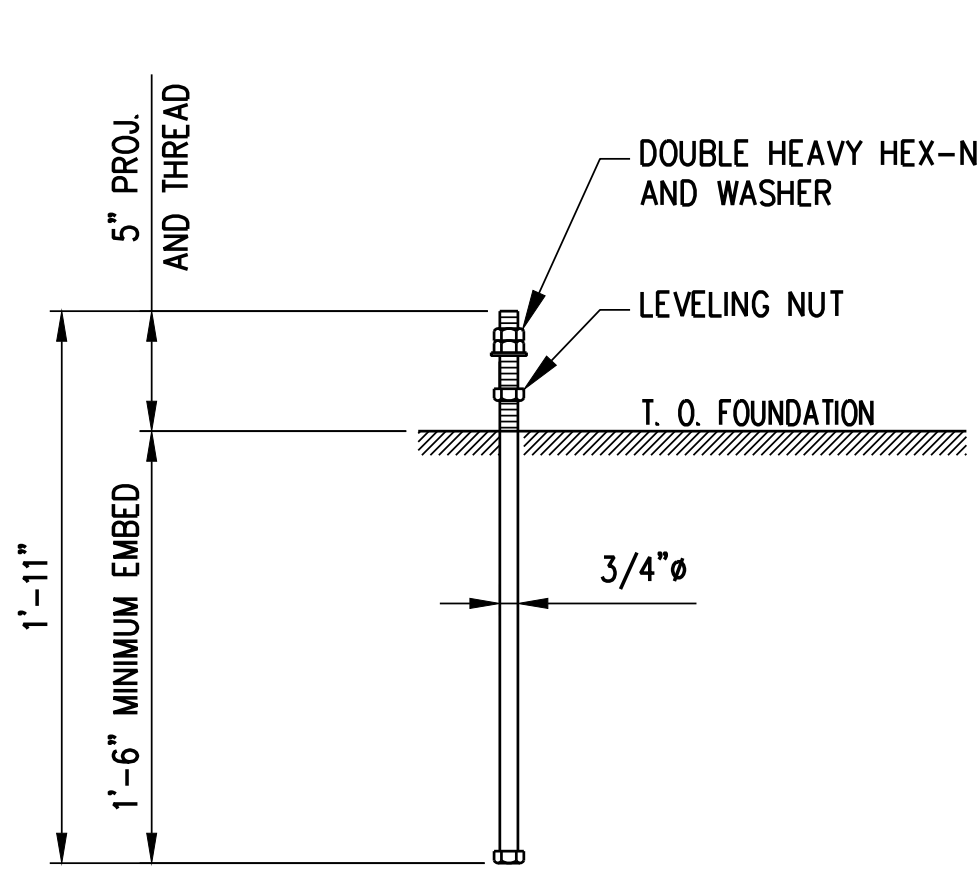
3 DETAIL
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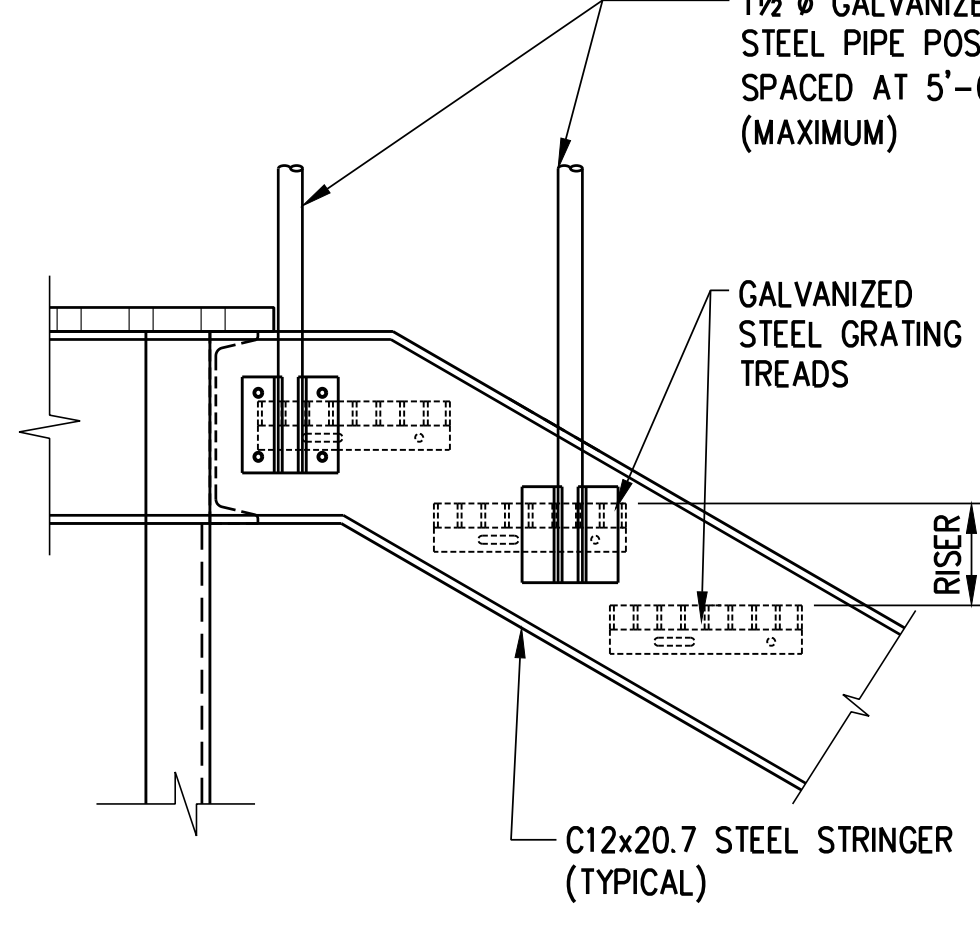
4 DETAIL
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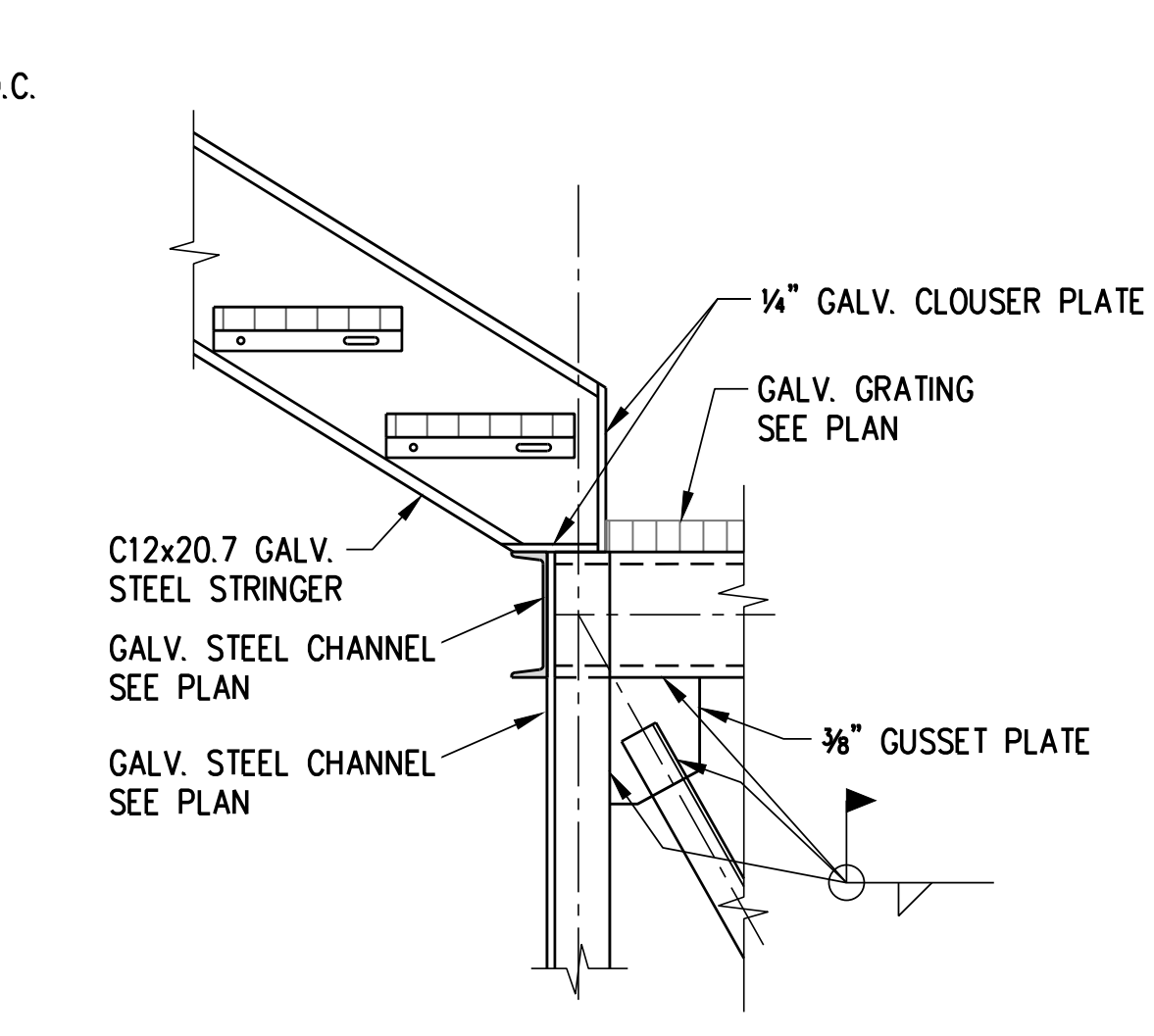
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SCALE: 1" = 1'-0"



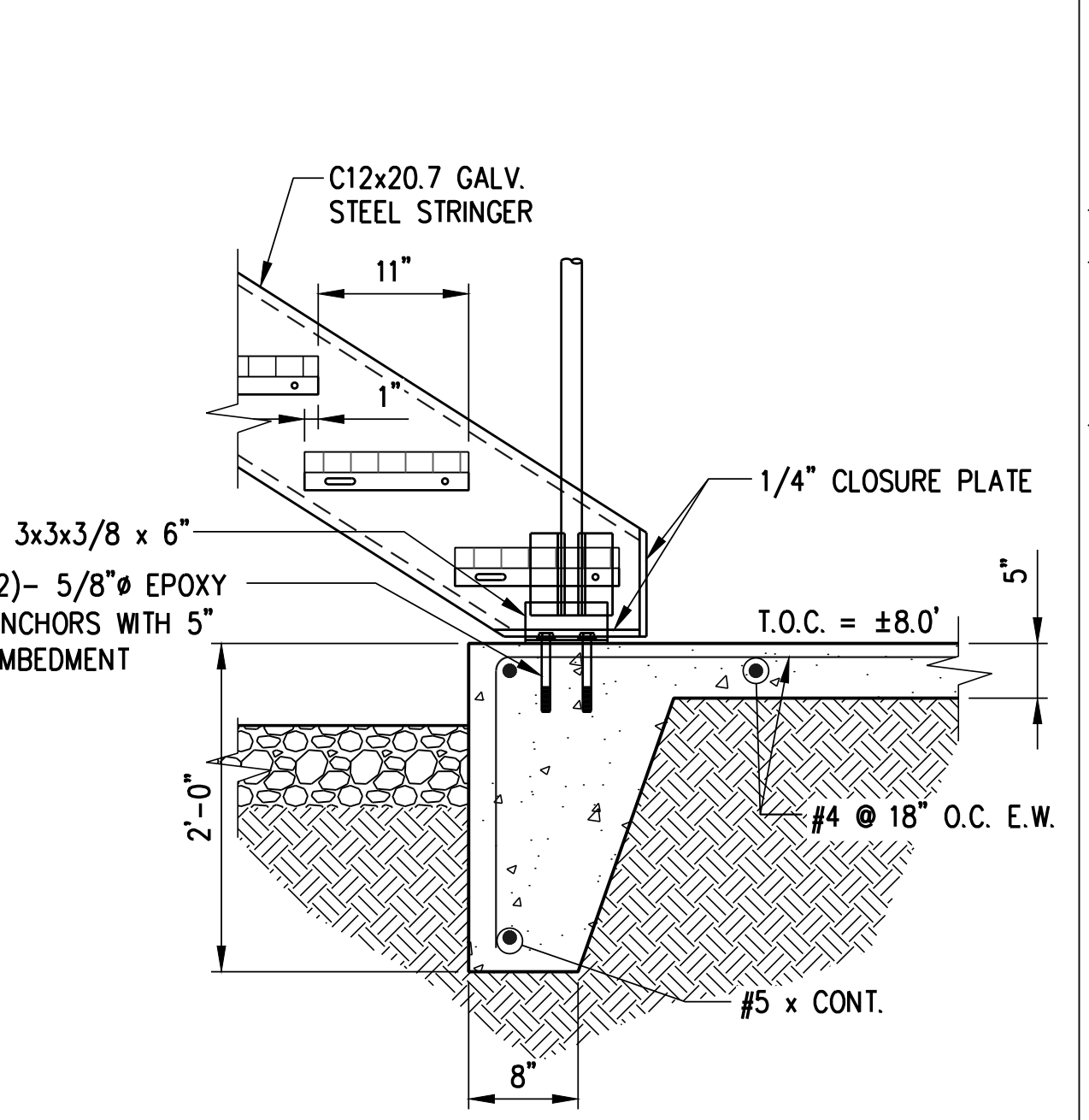
6 ANCHOR ROD DETAIL
SCALE: 1 1/2" = 1'-0"



7 DETAIL
SCALE: 1" = 1'-0"



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



9 DETAIL
SCALE: 1" = 1'-0"

NOTE:
ALL COMPONENTS SHALL BE HOT DIPPED GALVANIZED

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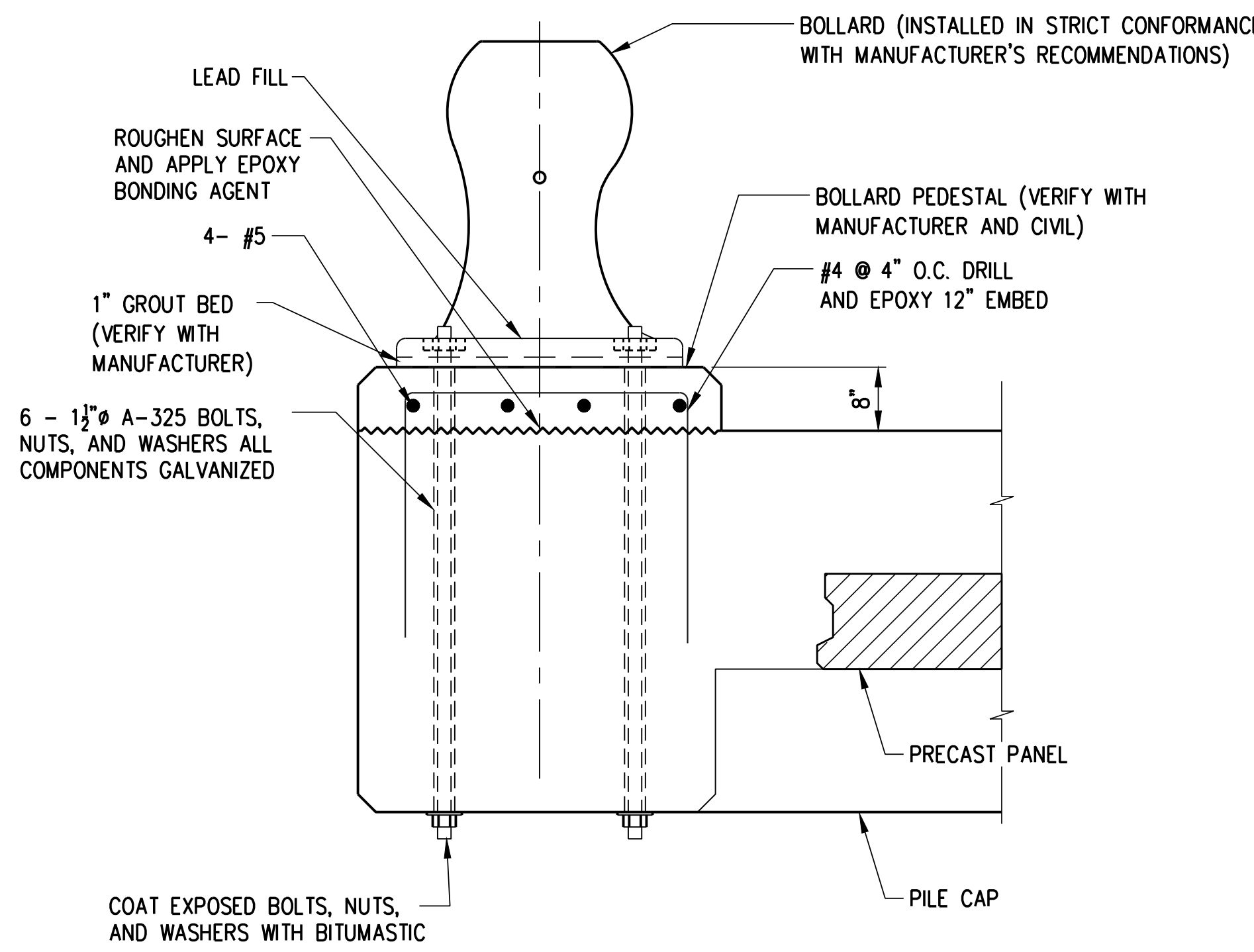
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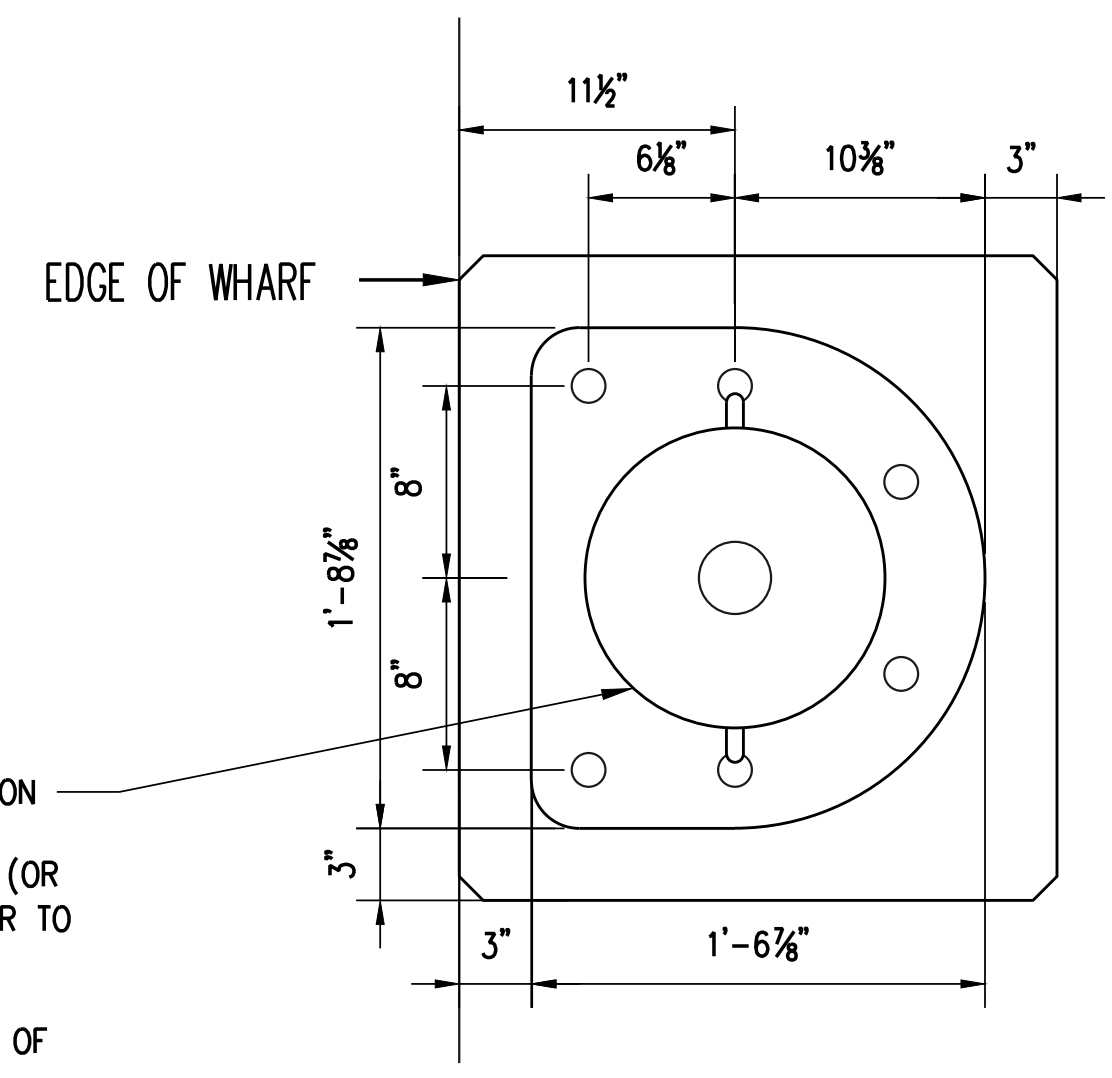
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1 DETAIL:
SCALE: 3/4" = 1'-0"

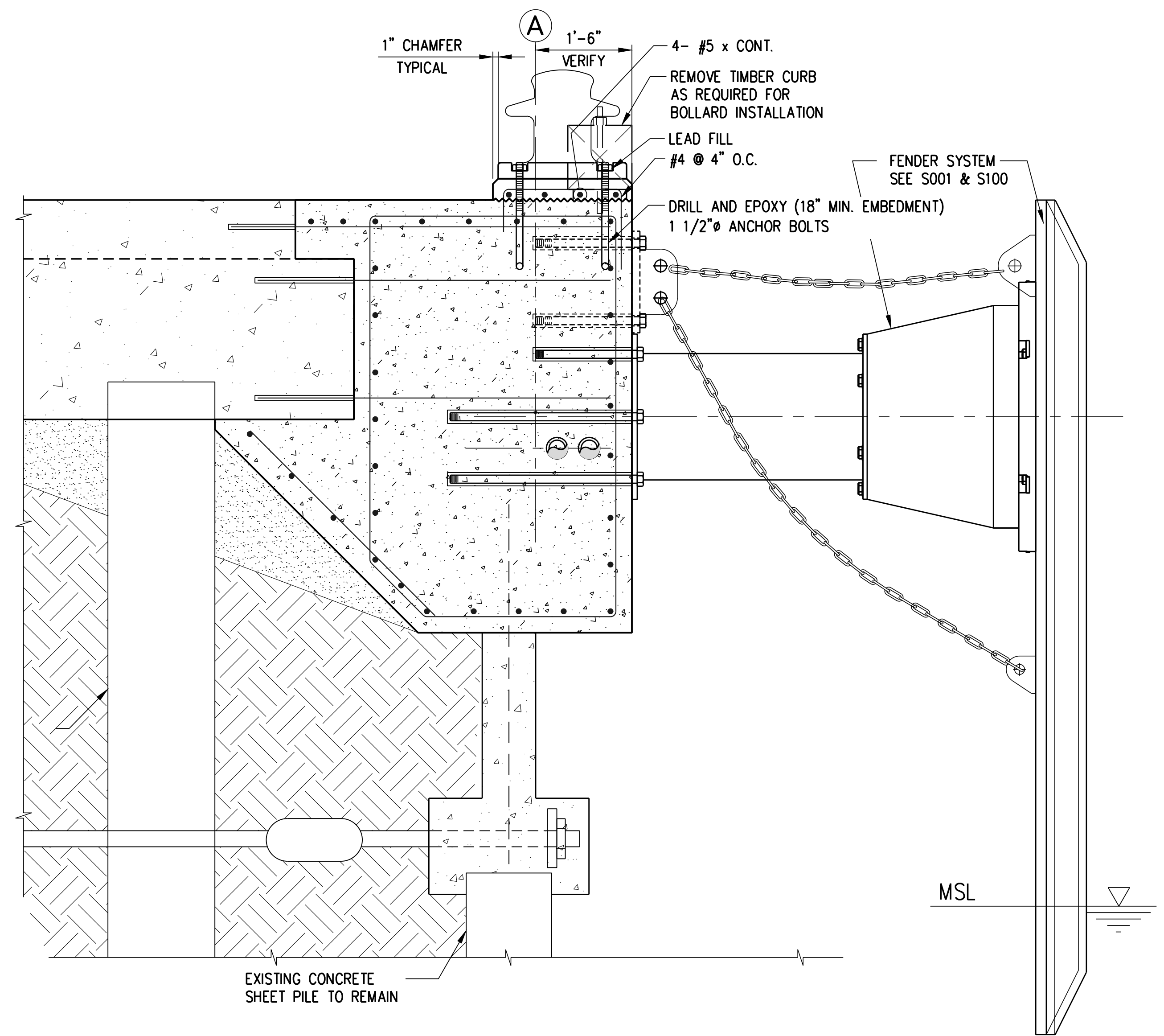


SINGLE BITT 50T DUCTILE CAST IRON BOLLARD AS MANUFACTURED BY TELLEBORG MARINE SYSTEMS USA (OR APPROVED EQUAL). MANUFACTURER TO REVIEW CONNECTION DESIGN FOR CONFORMANCE WITH THEIR RATED DESIGN AND PROVIDE CERTIFICATE OF CONFORMANCE.

NOTE: VERIFY BOLT SIZE & SPACING

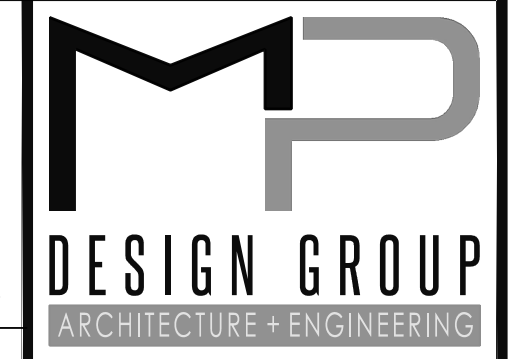
2 DETAIL: NEW BOLLARD
SCALE: 3/4" = 1'-0"

NOTE:
1. BOLLARD IS TO BE REINSTALLED PER THIS DETAIL WITHIN THE EXTENTS OF THE NEW CONCRETE. ORIGINAL LOCATION TO BE REPAIRED AS REQUIRED. NEW 1-1/4" Ø ANCHOR BOLTS TO HAVE A MINIMUM 12" EMBEDMENT TO EXISTING CONCRETE. CONFIRM BOLT PATTERN WITH EXISTING BOLLARD. CONCRETE PEDESTAL TO MATCH EXISTING DIMENSIONS.



3 NEW BOLLARD
SCALE: 3/4" = 1'-0"

EXISTING WALL REINFORCEMENT NOT SHOWN



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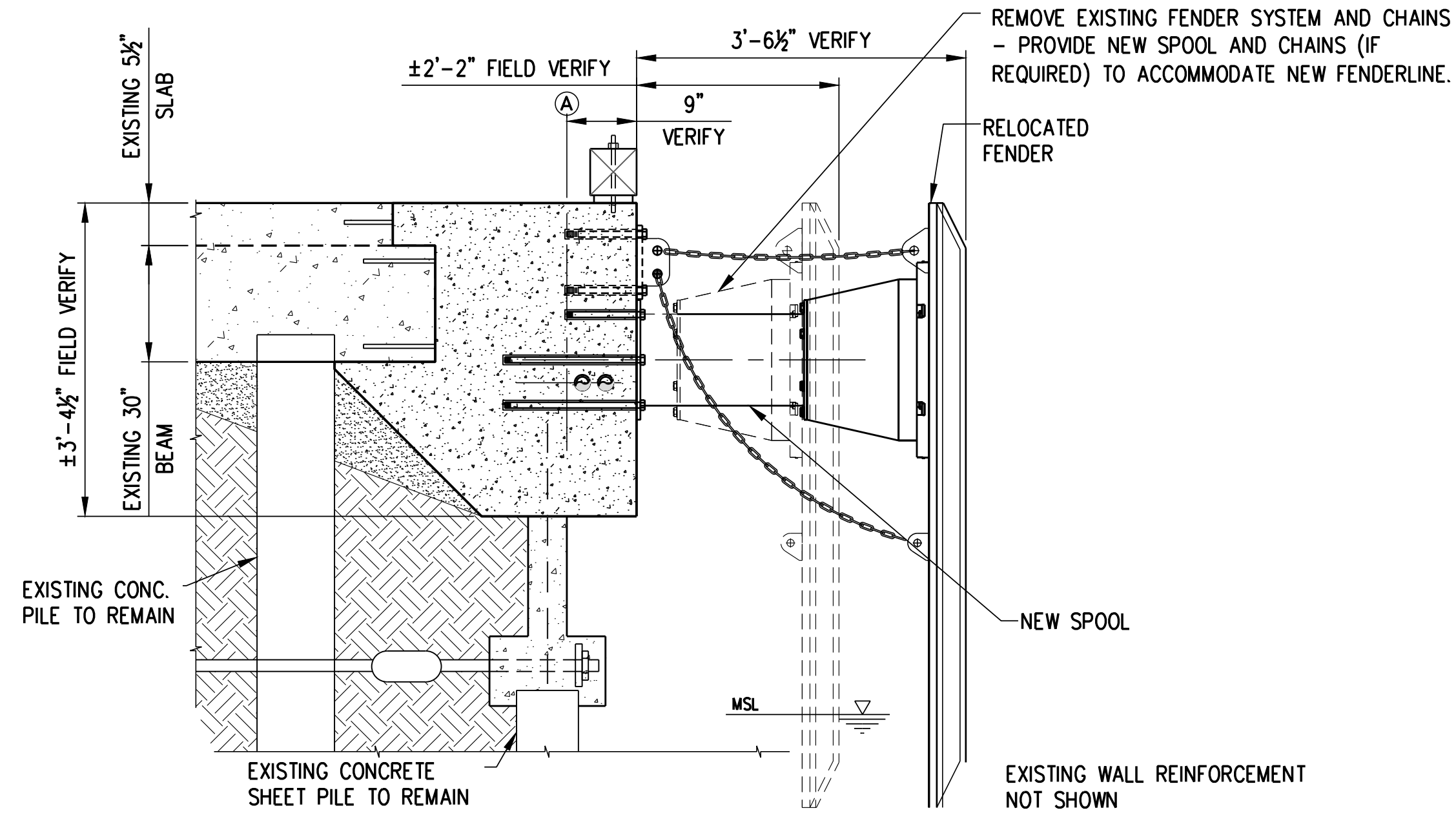
S200

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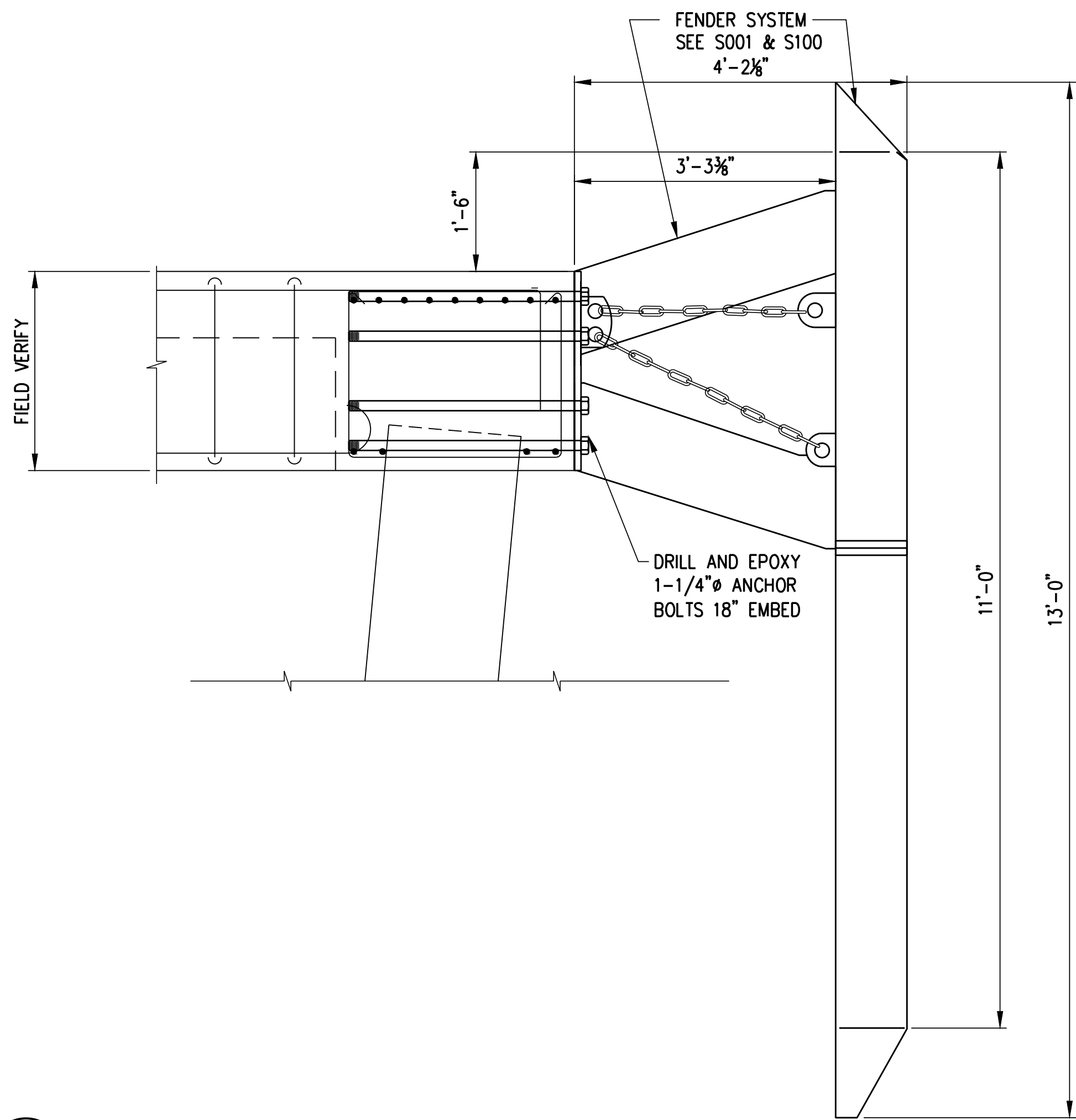
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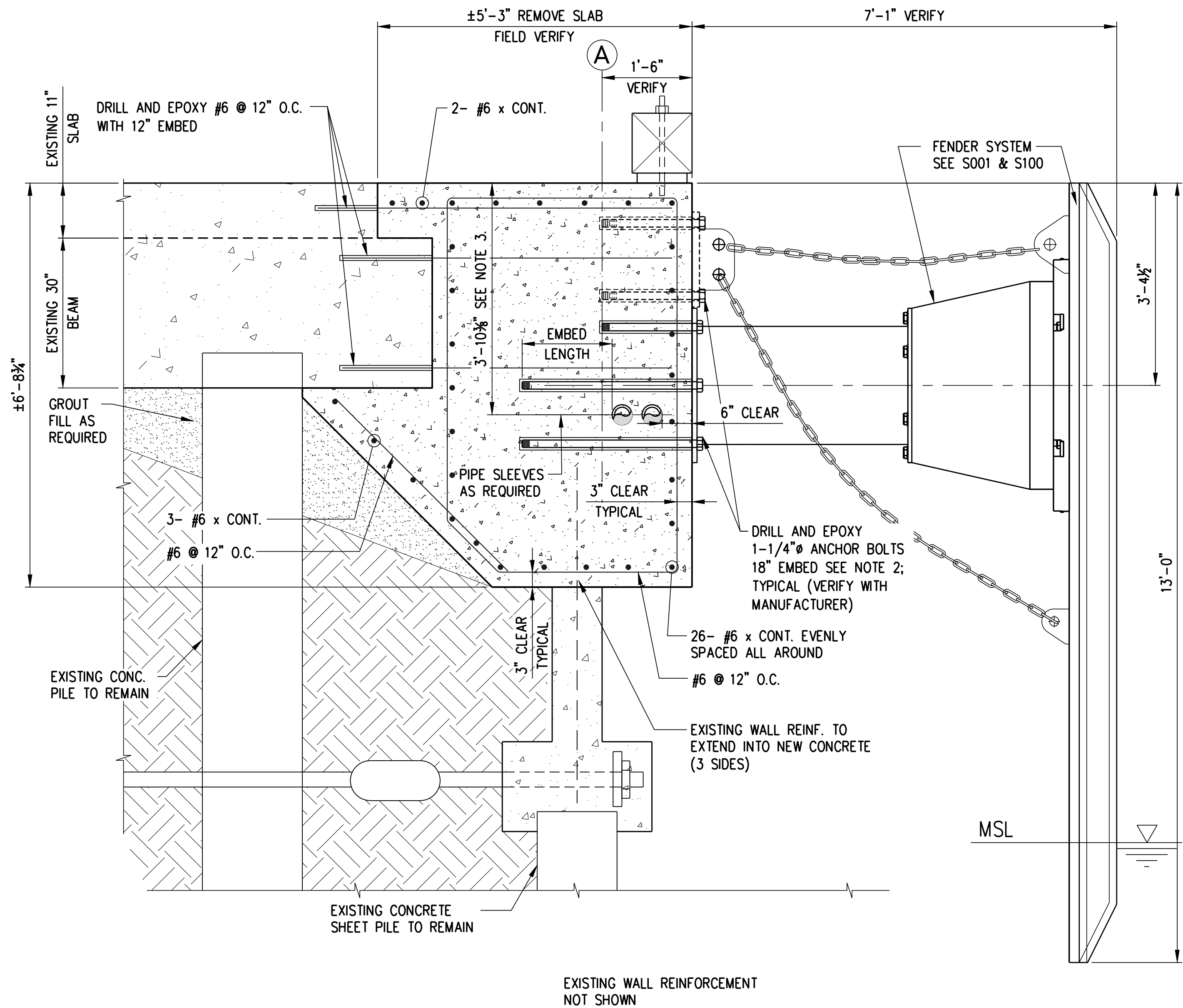
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1 **DETAIL: TYPE 2 FENDER (SPOOL CHANGE)**
 SCALE: 3/8" = 1'-0"



3 **SECTION**
 SCALE: 3/4" = 1'-0"

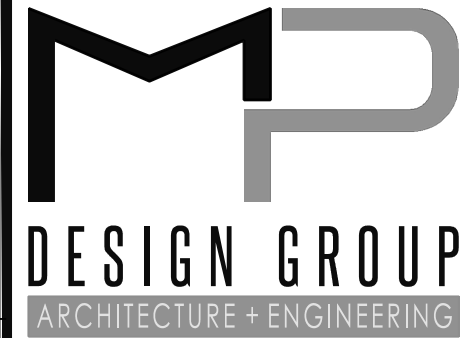


2 **DETAIL: TYPE 2 FENDER (NEW FENDER SYSTEM)**
 SCALE: 3/4" = 1'-0"

- NOTES:
1. APPLY EPOXY BONDING AGENT TO EXISTING CONCRETE SURFACE.
 2. VERIFY BOLT DIAMETER AND EMBEDMENT DEPTH WITH FENDER SYSTEM MANUFACTURER.
 3. UTILITY CONTRACTOR SHALL COORDINATE WITH FENDER ANCHOR BOLT PATTERN AND ADJUST PIPE SLEEVE AS REQUIRED.

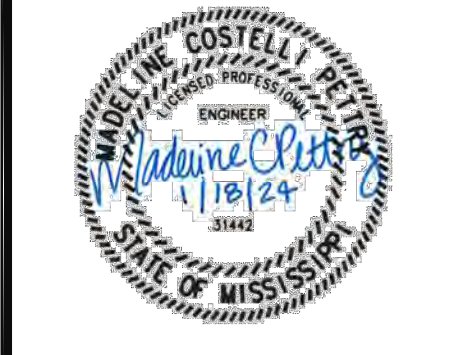
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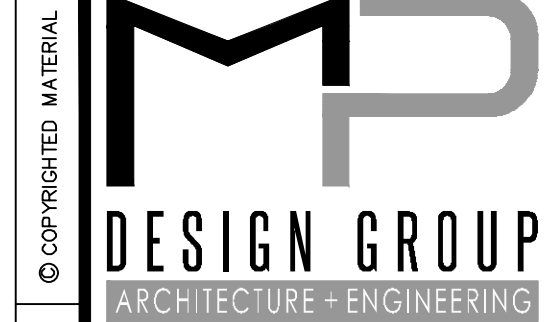
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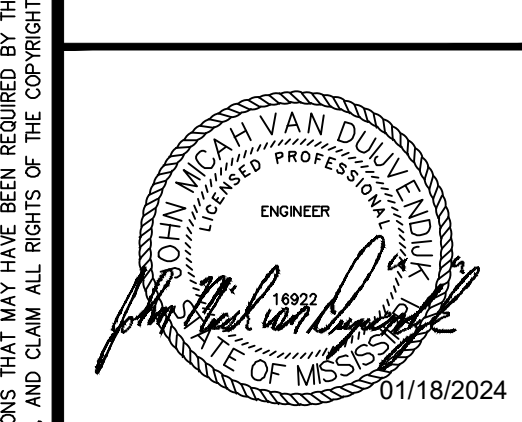
PLUMBING ABBREVIATIONS			
A		M	
A	AMPS	MAX	MAXIMUM
AFF	ABOVE FINISHED FLOOR	MBH	ONE THOUSAND BRITISH THERMAL UNITS PER HOUR
ASSE	AMERICAN SOCIETY OF SAFETY ENGINEERS	MC	MECHANICAL CONTRACTOR
C		MCA	MINIMUM CIRCUIT AMPACITY
CFH	CUBIC FEET PER HOUR	MDPE	MEDIUM DENSITY POLYETHYLENE
CO	CLEAN OUT	MIN	MINIMUM
CW	COLD WATER	MOCP	MAXIMUM OVERCURRENT PROTECTION
D		N	
D	DRAIN OR DEMOLISH	NIC	NOT IN CONTRACT
DCW	DOMESTIC COLD WATER	NRS	NON RISING STEM
DHW	DOMESTIC HOT WATER	NTS	NOT TO SCALE
DR	DIMENSION RATIO	P	
E		PC	PLUMBING CONTRACTOR
E	EXISTING	PH	PHASE
EC	ELECTRICAL CONTRACTOR	PRV	PRESSURE REDUCING VALVE
F		PSIA	POUNDS PER SQUARE INCH ATMOSPHERE
F	FAHRENHEIT	PSIG	POUNDS PER SQUARE INCH GAUGE
FCO	FLOOR CLEAN OUT	PSI	POUNDS PER SQUARE INCH
FT	FOOT/FEET	R	
G		RPM	REVOLUTIONS PER MINUTE
G	GAS	RPZ	REDUCED PRESSURE ZONE
GAL	GALLONS	S	
GC	GENERAL CONTRACTOR	S	SANITARY
GCO	GRADE CLEAN OUT	SOFT	SQUARE FEET
H		T	
HB	HOSE BIB	TW	TEMPERED WATER
HDPE	HIGH DENSITY POLYETHYLENE	T&P	TEMPERATURE AND PRESSURE
HP	HORSEPOWER	TYP	TYPICAL
HW	HOT WATER	U	
HWR	HOT WATER RETURN	UV	ULTRA VIOLET
HWS	HOT WATER SUPPLY	V	
K		V	VOLTAGE OR VENT
KW	KILOWATT	VTR	VENT TO ROOF
L		W	
LBS	POUNDS	W	WATT
LNG	LIQUEFIED NATURAL GAS	WCO	WALL CLEAN OUT
LP	LIQUEFIED PETROLEUM (PROPANE OR BUTANE)	WH	WATER HEATER
LPG	LIQUEFIED PETROLEUM GAS (PROPANE OR BUTANE)		

PLUMBING SYMBOLS	
----	COLD WATER
----	EXISTING COLD WATER
----	HOT WATER
----	EXISTING HOT WATER
----	HOT WATER RETURN
----	EXISTING HOT WATER RETURN
----	SANITARY
----	EXISTING SANITARY
----	VENT
----	EXISTING VENT
--- GAS --- GAS ---	GAS
--- GAS --- GAS ---	EXISTING GAS
- - - - -	FIRE PROTECTION
- - - - -	EXISTING FIRE PROTECTION
.....	EXISTING TO BE REMOVED
⊥	LEVER BALL VALVE
⊥	HOSE BIB
⊕	CONNECT TO EXISTING
⌈	CAP AND SEAL



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PLUMBING SYMBOLS & ABBREVIATIONS

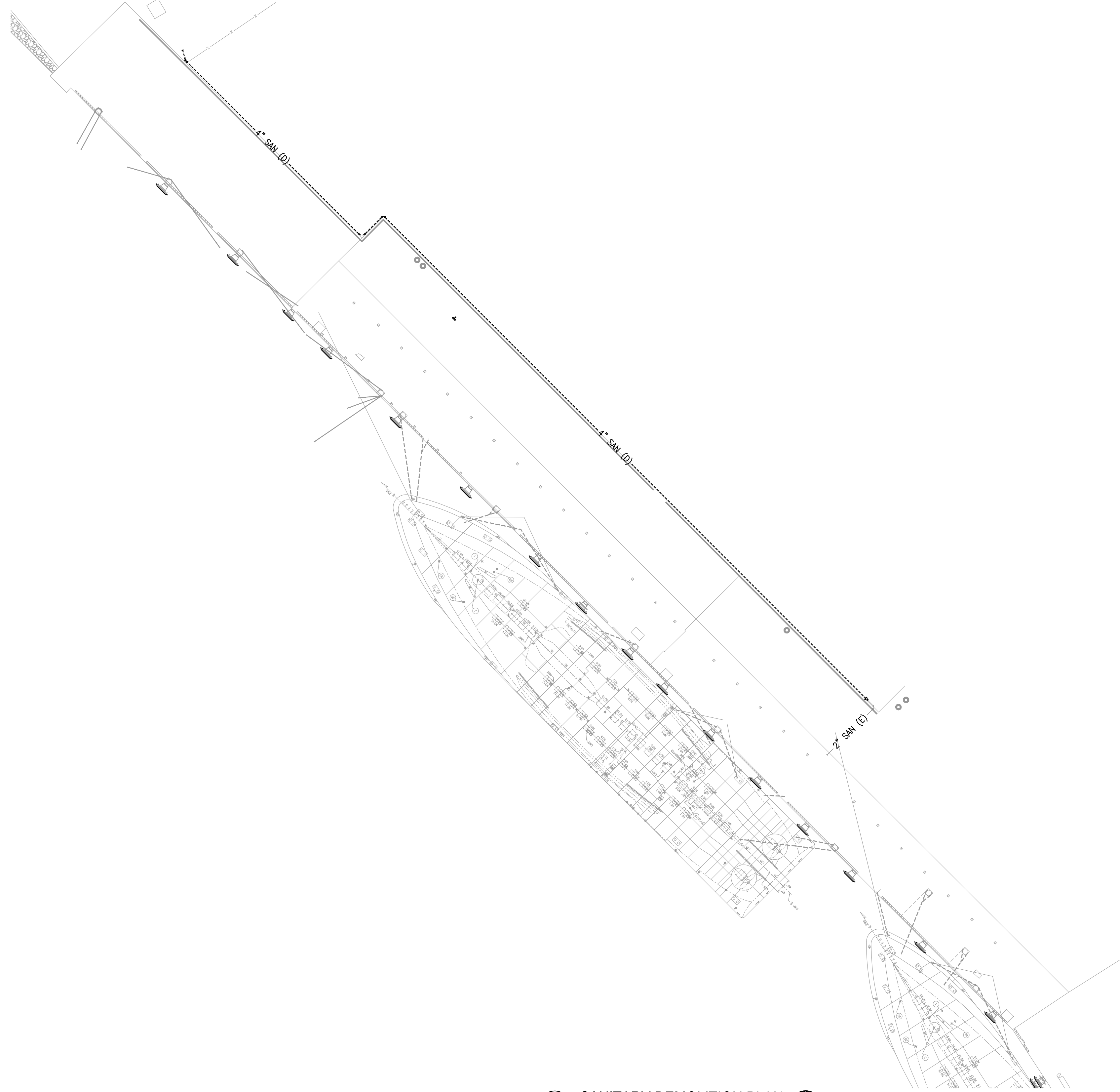
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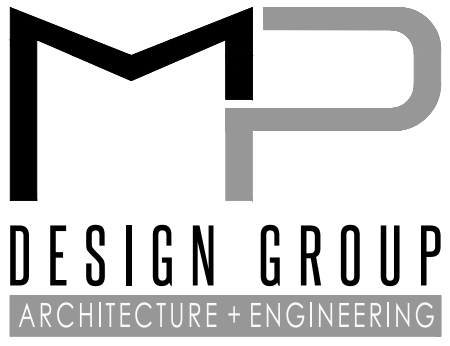


1 SANITARY DEMOLITION PLAN

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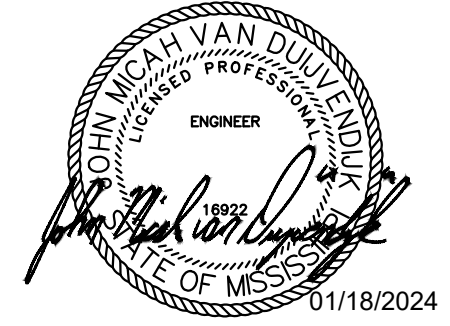


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**EAST PIER DEEP WATER WHARF FOR
 USM/NOAA
 PORT OF GULFPORT MISSISSIPPI
 STATE PORT AUTHORITY**
 30TH AVENUE
 GULFPORT, MS 39501

SCALE: 1/32"=1'-0"
 PROJECT NO: 0297.23.001
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 CHECKED BY: JMV

SANITARY DEMOLITION PLAN

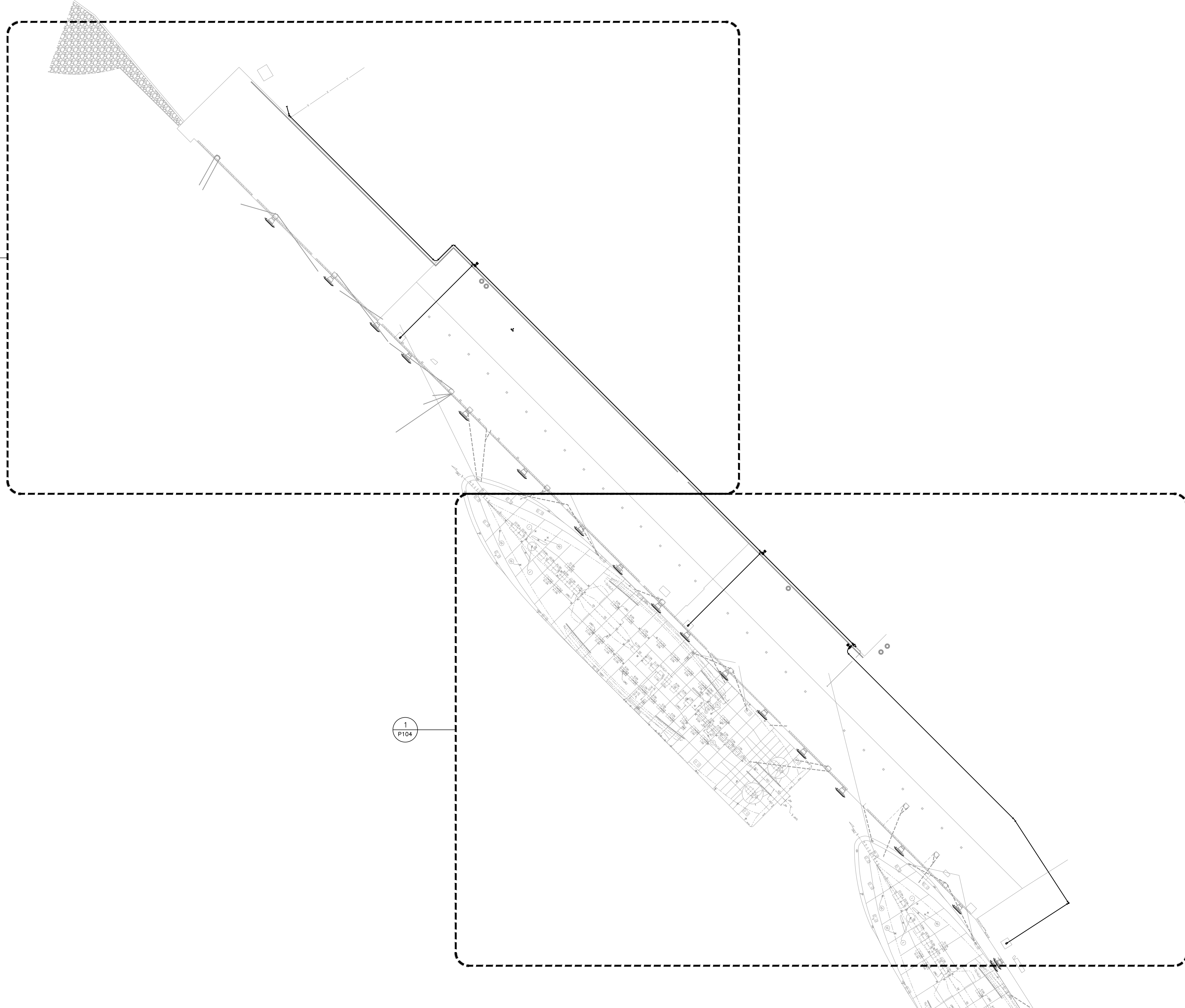
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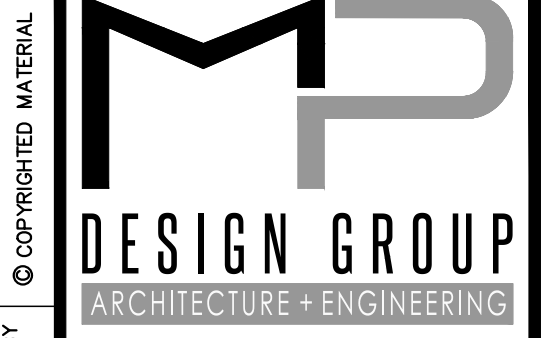
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P103



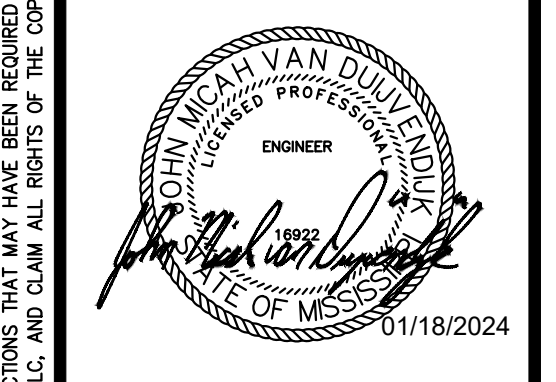
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P104

1 OVERALL SANITARY PLAN
 SCALE: 1/32"=1'-0"



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 USM/NOAA
 PORT OF GULFPORT MISSISSIPPI
 STATE PORT AUTHORITY**

30TH AVENUE
 GULFPORT, MS 39501

SCALE: 1/32"=1'-0"
 PROJECT NO: 0297.23.001
 DRAWN BY: JMV
 CHECKED BY: JMV

OVERALL SANITARY PLAN

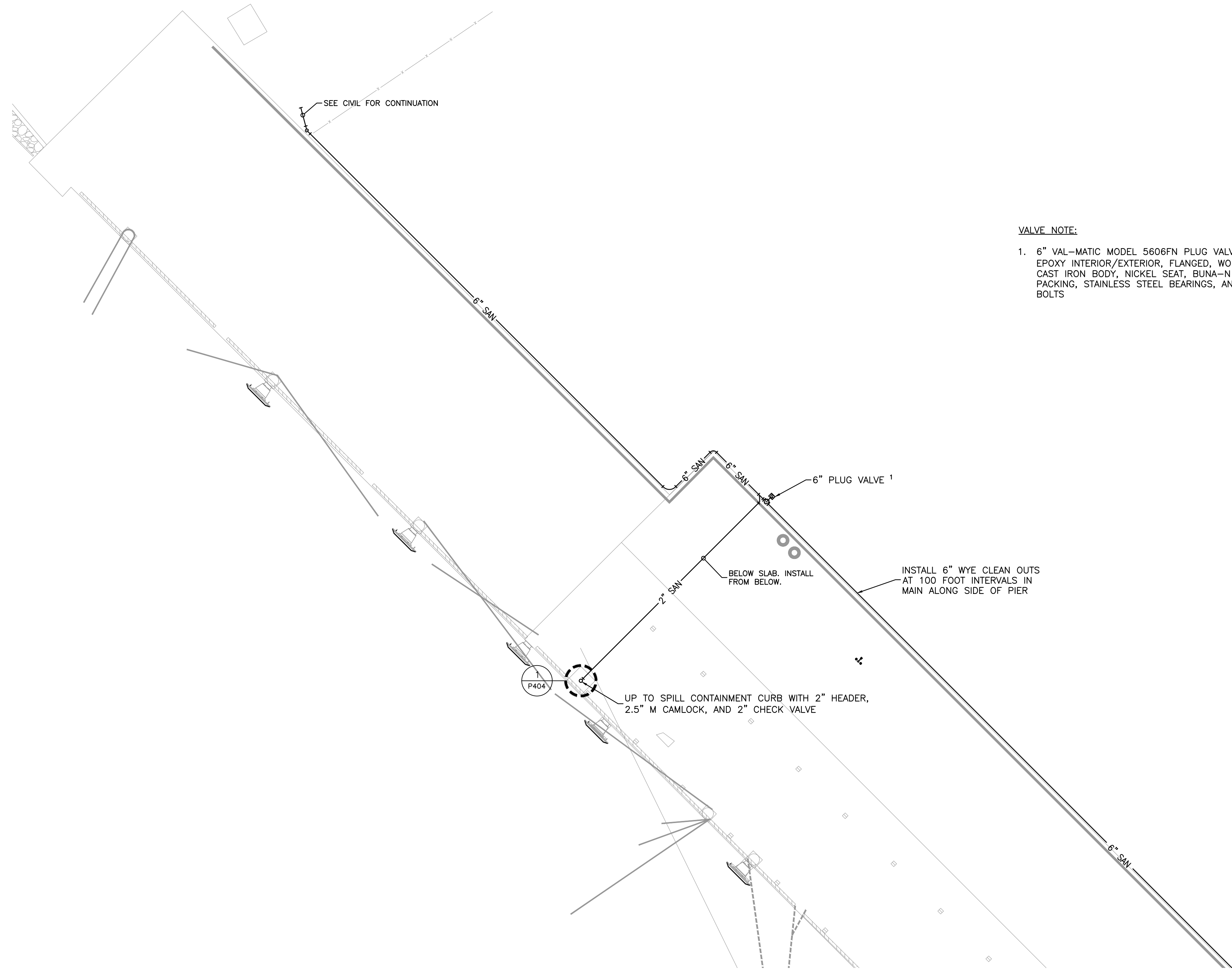
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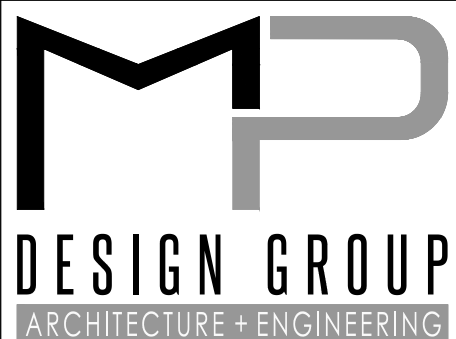


VALVE NOTE:

1. 6" VAL-MATIC MODEL 5606FN PLUG VALVE WITH FUSION BONDED EPOXY INTERIOR/EXTERIOR, FLANGED, WORM GEAR ACTUATED, CAST IRON BODY, NICKEL SEAT, BUNA-N PLUG, VEE TYPE PACKING, STAINLESS STEEL BEARINGS, AND STAINLESS STEEL BOLTS

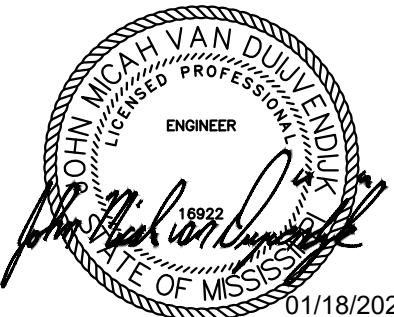
1 ENLARGED SANITARY PLAN
 SCALE: 1/16"=1'-0"

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EAST PIER DEEP WATER WHARF FOR USM/NOAA

PORT OF GULFPORT MISSISSIPPI

STATE PORT AUTHORITY

30TH AVENUE
 GULFPORT, MS 39501

SCALE: 1/16"=1'-0"	
PROJECT NO: 0297.23.001	
DRAWN BY: JMV	
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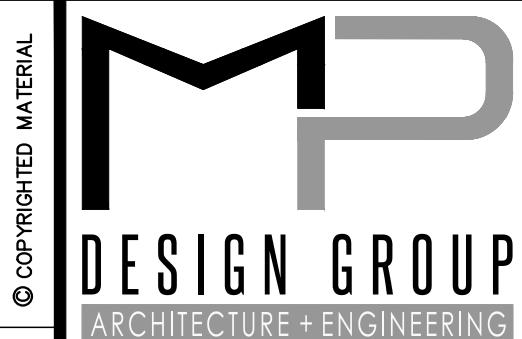
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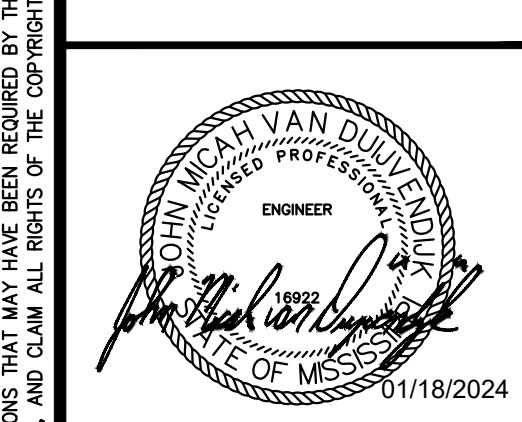
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 STATE PORT AUTHORITY**

30TH AVENUE
 GULFPORT, MS 39501

SCALE: 1/16"=1'-0"
 PROJECT NO: 0297.23.001
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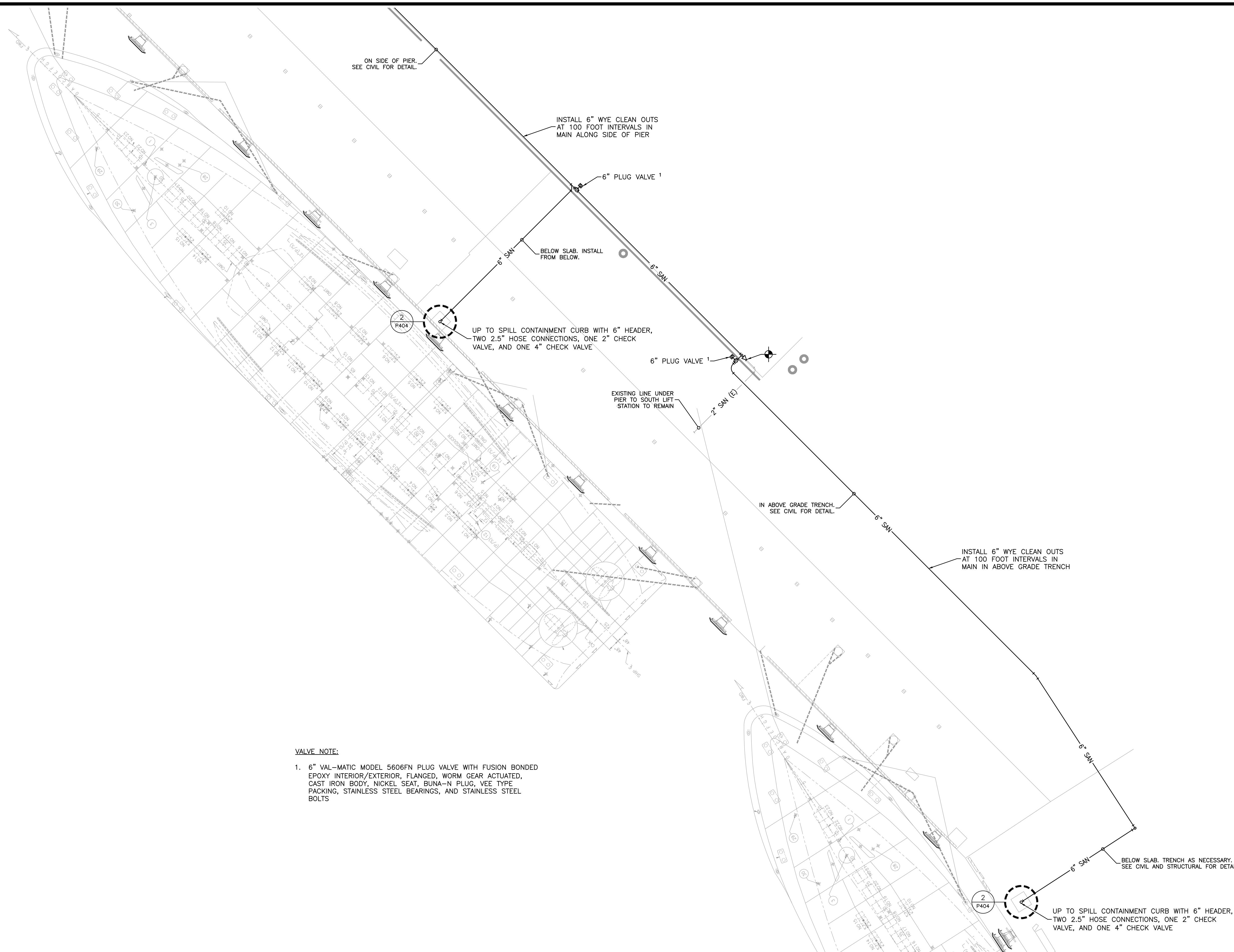
ENLARGED SANITARY PLAN

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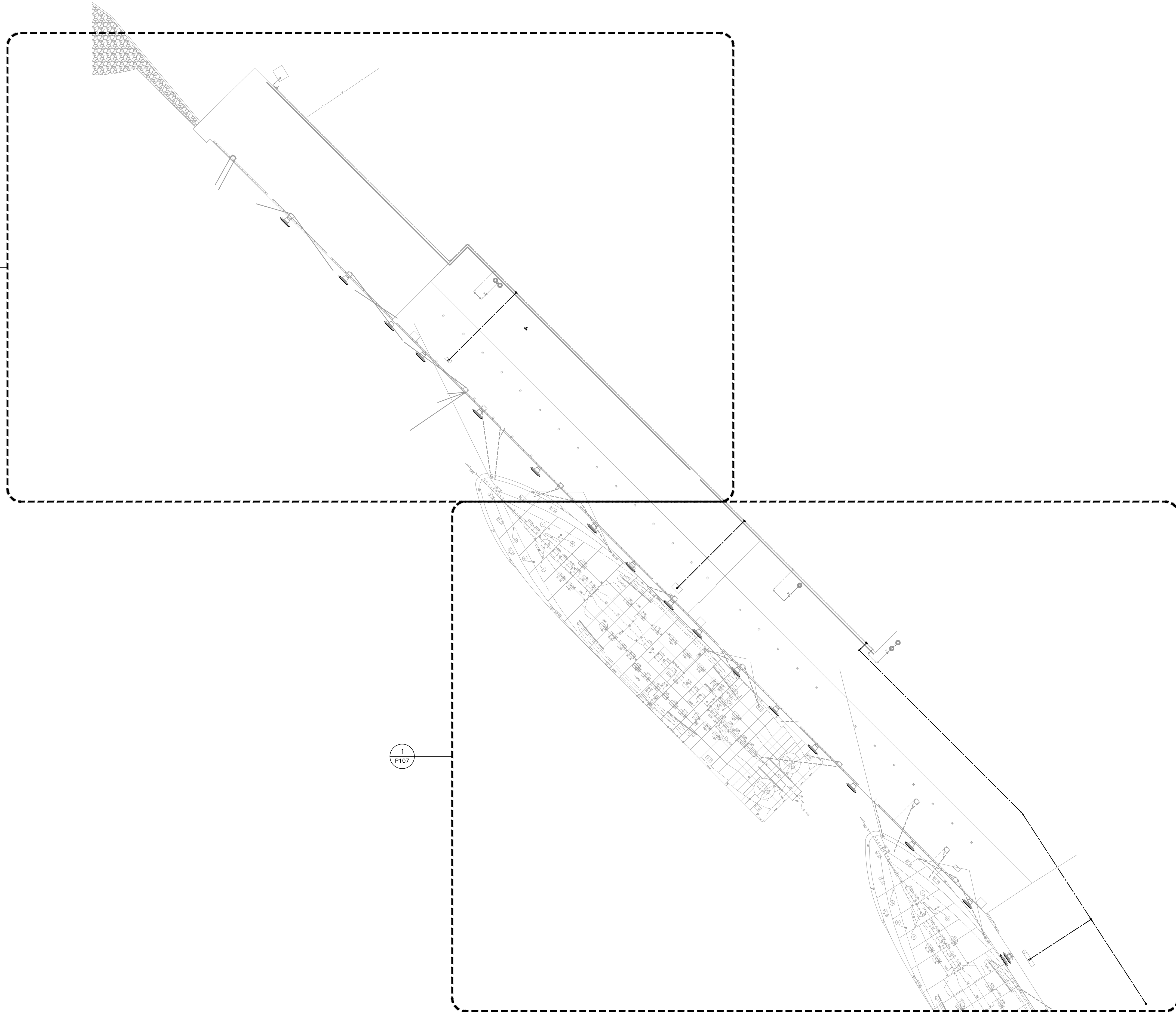
VALVE NOTE:

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1 ENLARGED SANITARY PLAN
 SCALE: 1/16"=1'-0"

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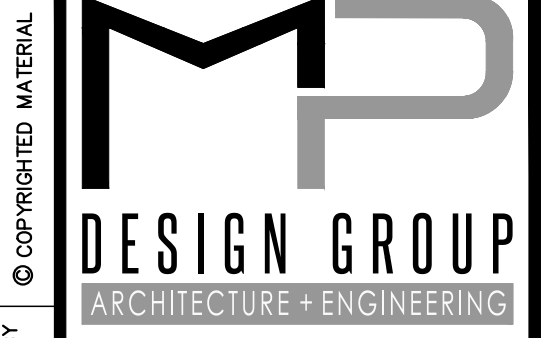
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P107

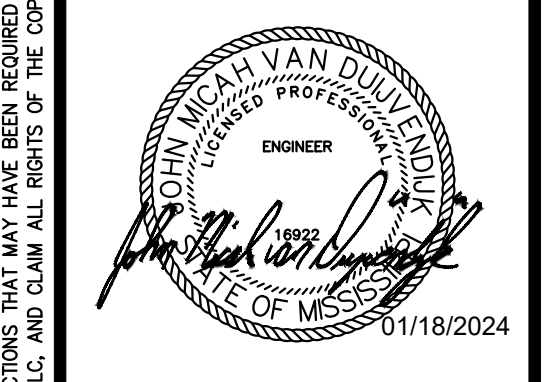
1 OVERALL WATER SUPPLY PLAN

SCALE: 1/32"=1'-0"



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 STATE PORT AUTHORITY**

30TH AVENUE
 GULFPORT, MS 39501

SCALE: 1/32"=1'-0"
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OVERALL WATER SUPPLY PLAN

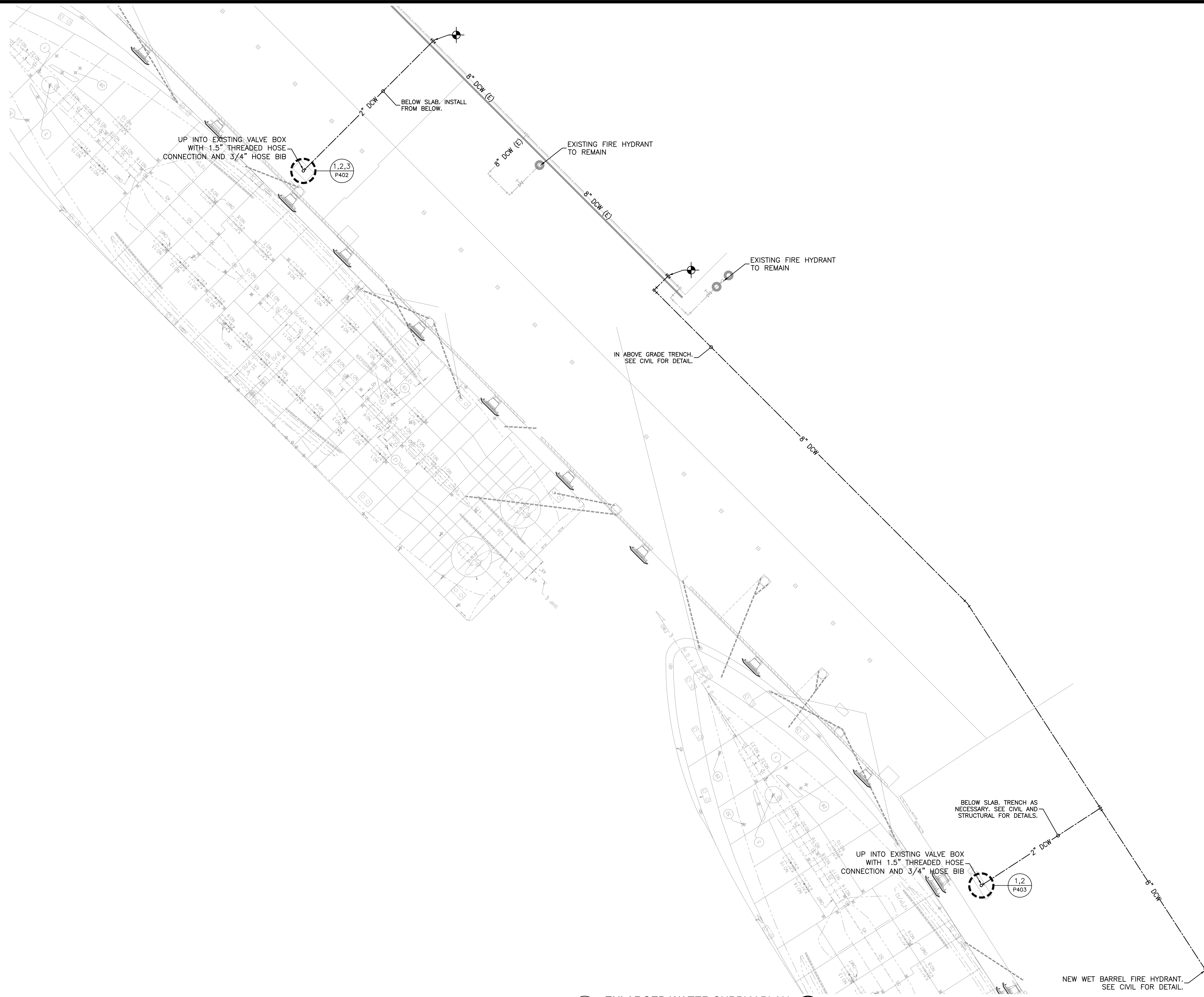
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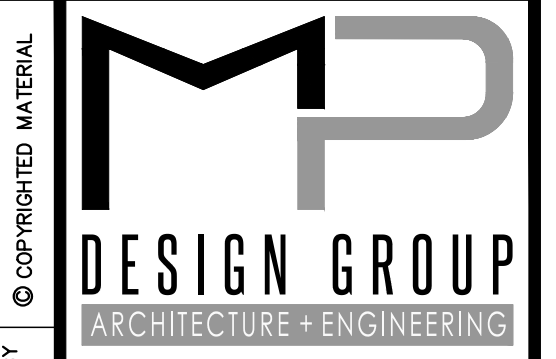
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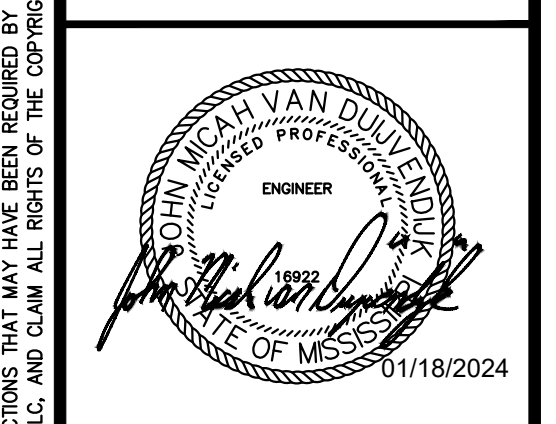
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1 ENLARGED WATER SUPPLY PLAN
 SCALE: 1/16"=1'-0"



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 STATE PORT AUTHORITY**
 30TH AVENUE
 GULFPORT, MS 39501

SCALE: 1/16"=1'-0"
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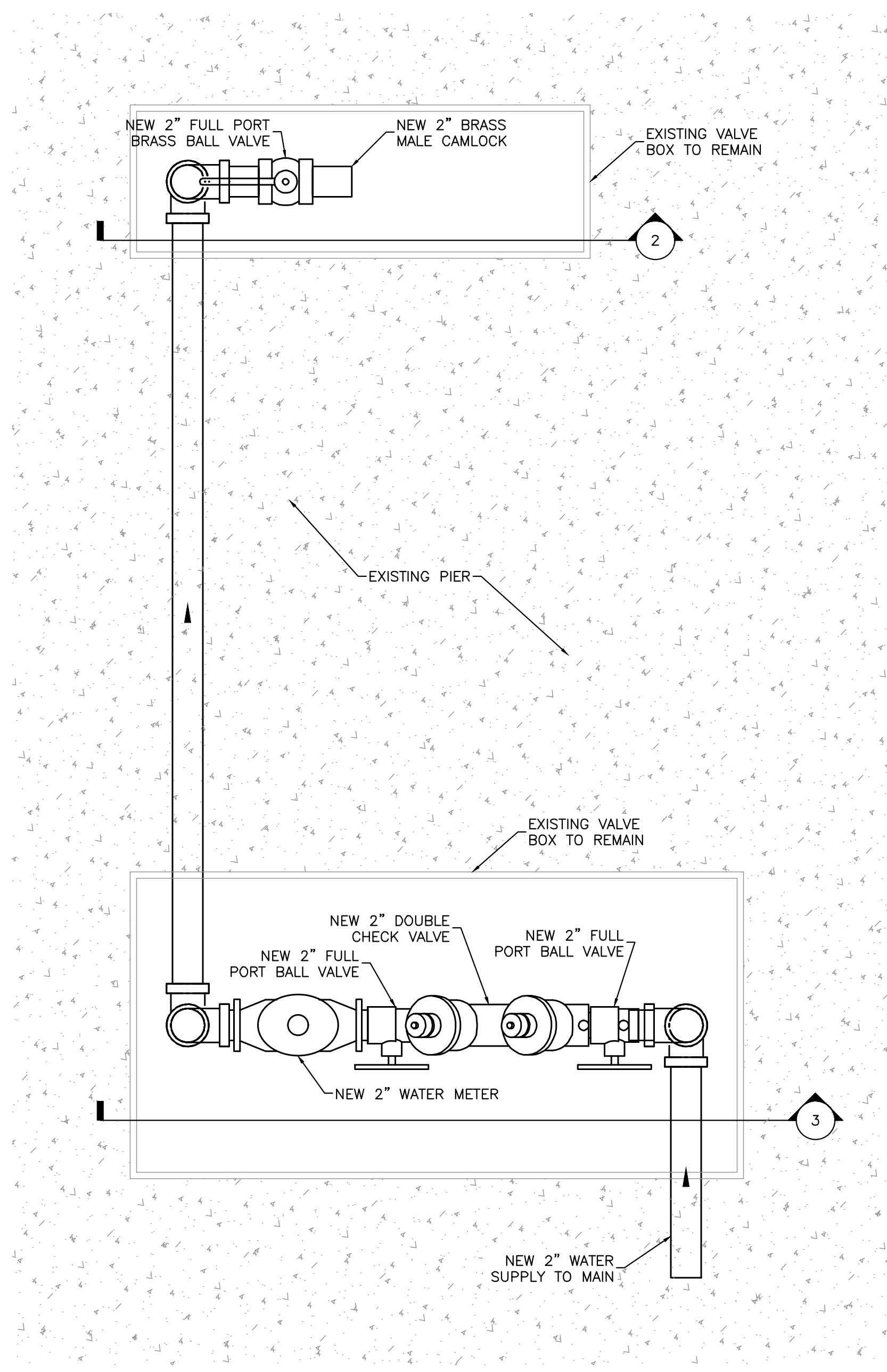
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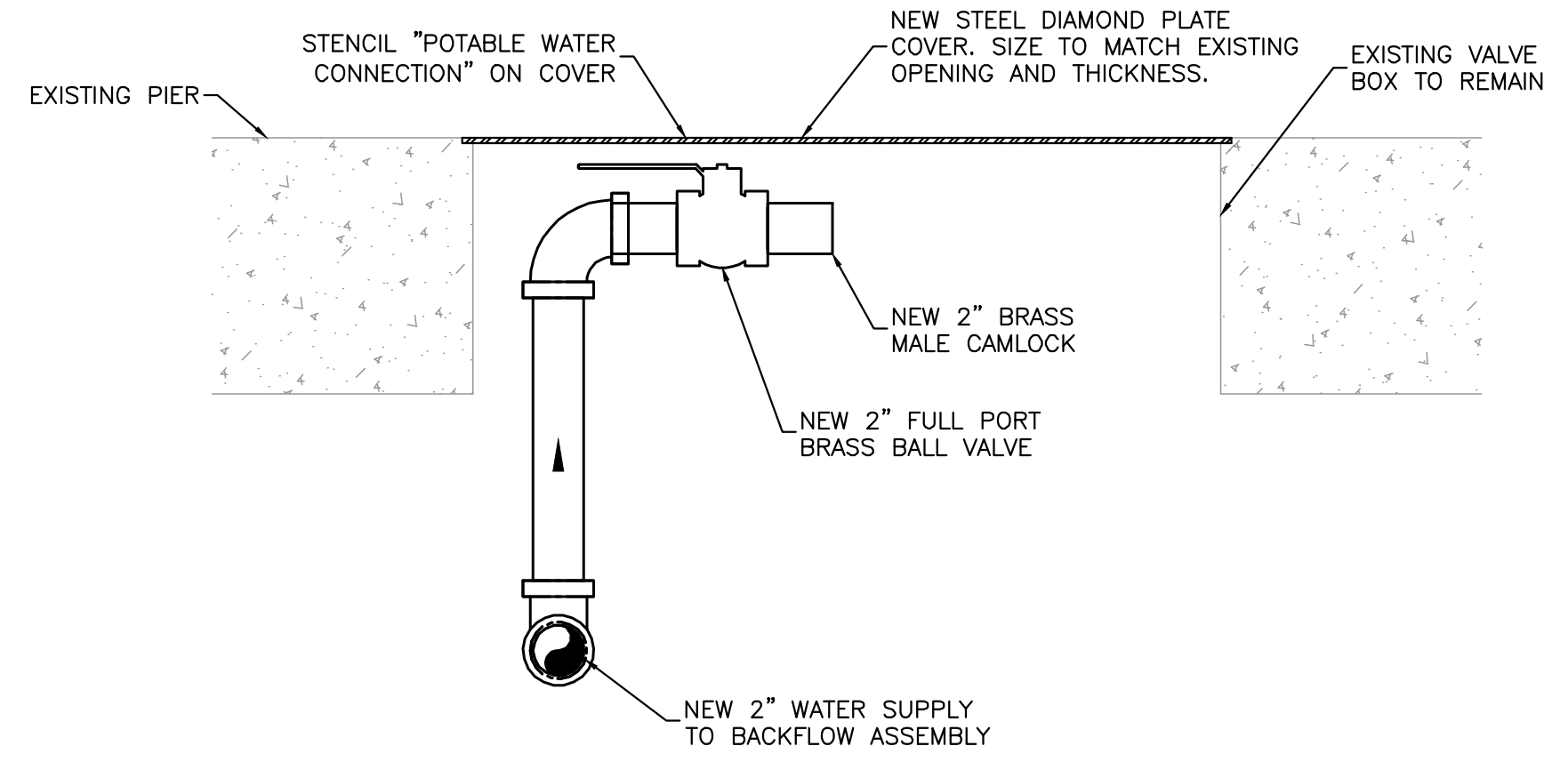
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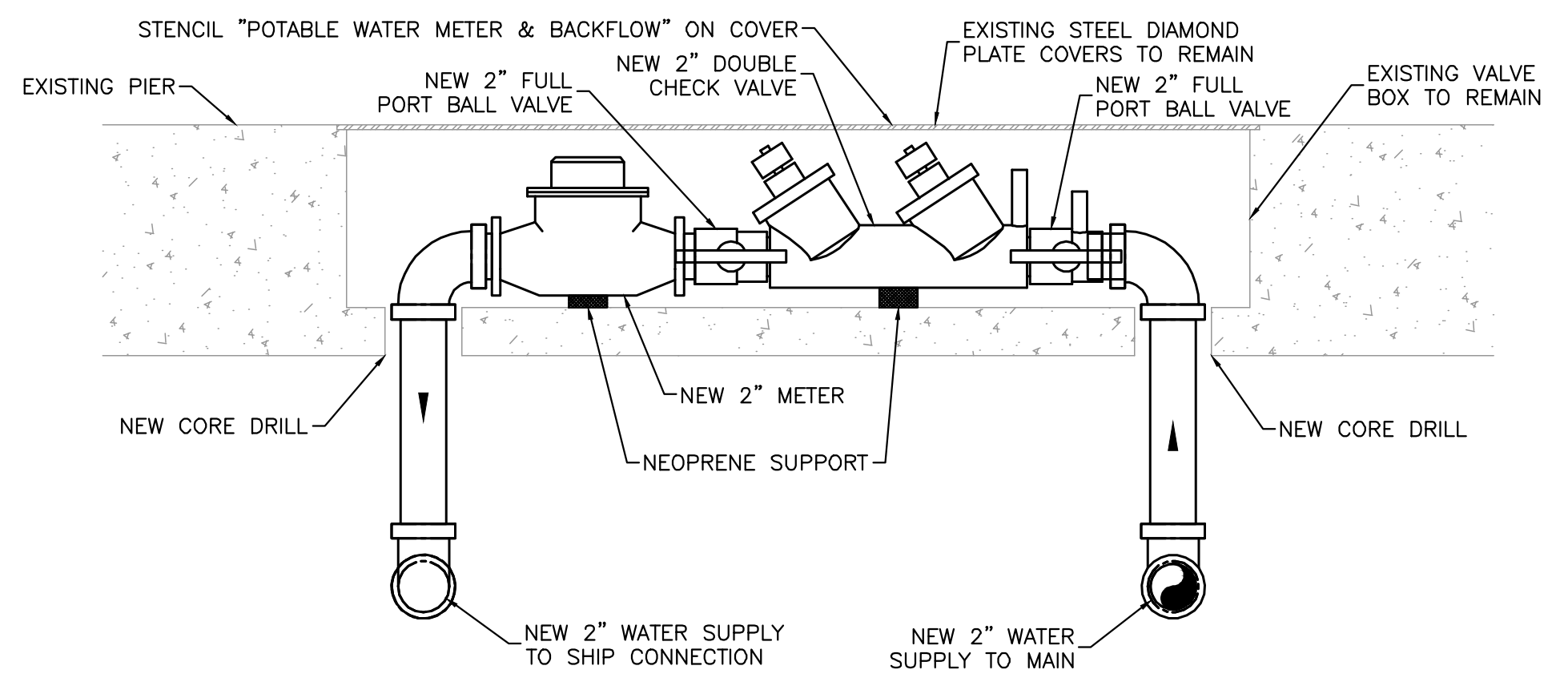
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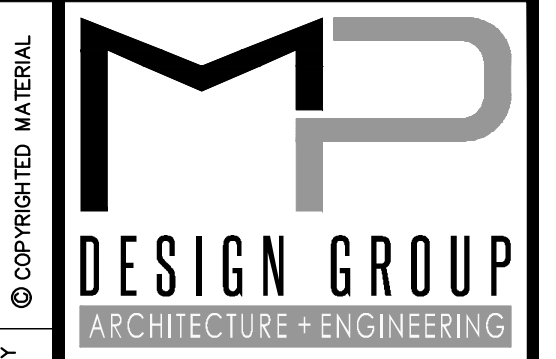
1 ENLARGED WATER CONNECTION PLAN
NTS



2 SHIP CONNECTION SECTION
NTS

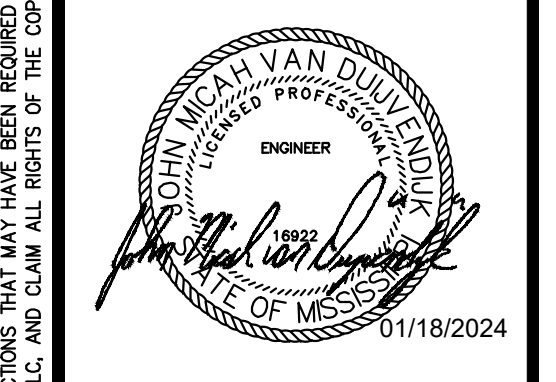


3 BACKFLOW PREVENTER SECTION
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EAST PIER DEEP WATER WHARF FOR USM/NOAA
PORT OF GULFPORT MISSISSIPPI
STATE PORT AUTHORITY
30TH AVENUE
GULFPORT, MS 39501

SCALE: NONE
PROJECT NO: 0297.23.001
DRAWN BY: JMV
CHECKED BY: JMV

ENLARGED WATER SUPPLY PLAN & SECTIONS @ USM DOCK

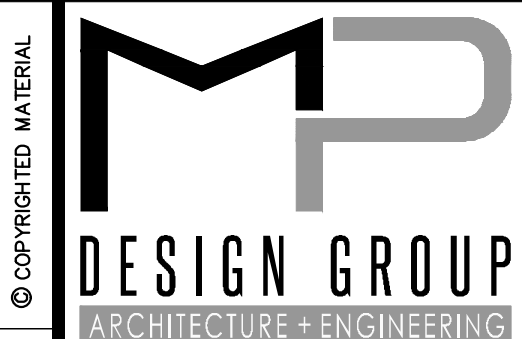
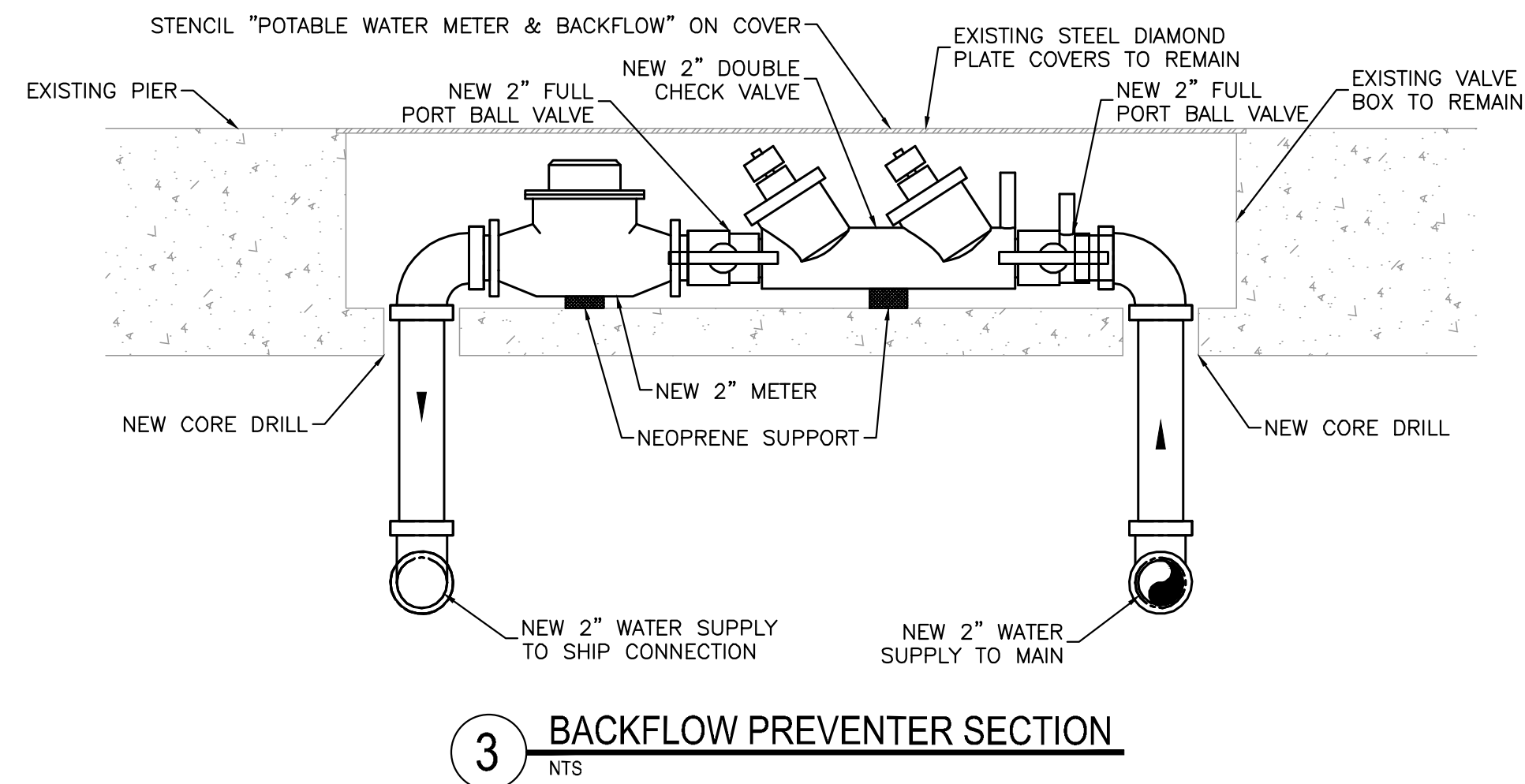
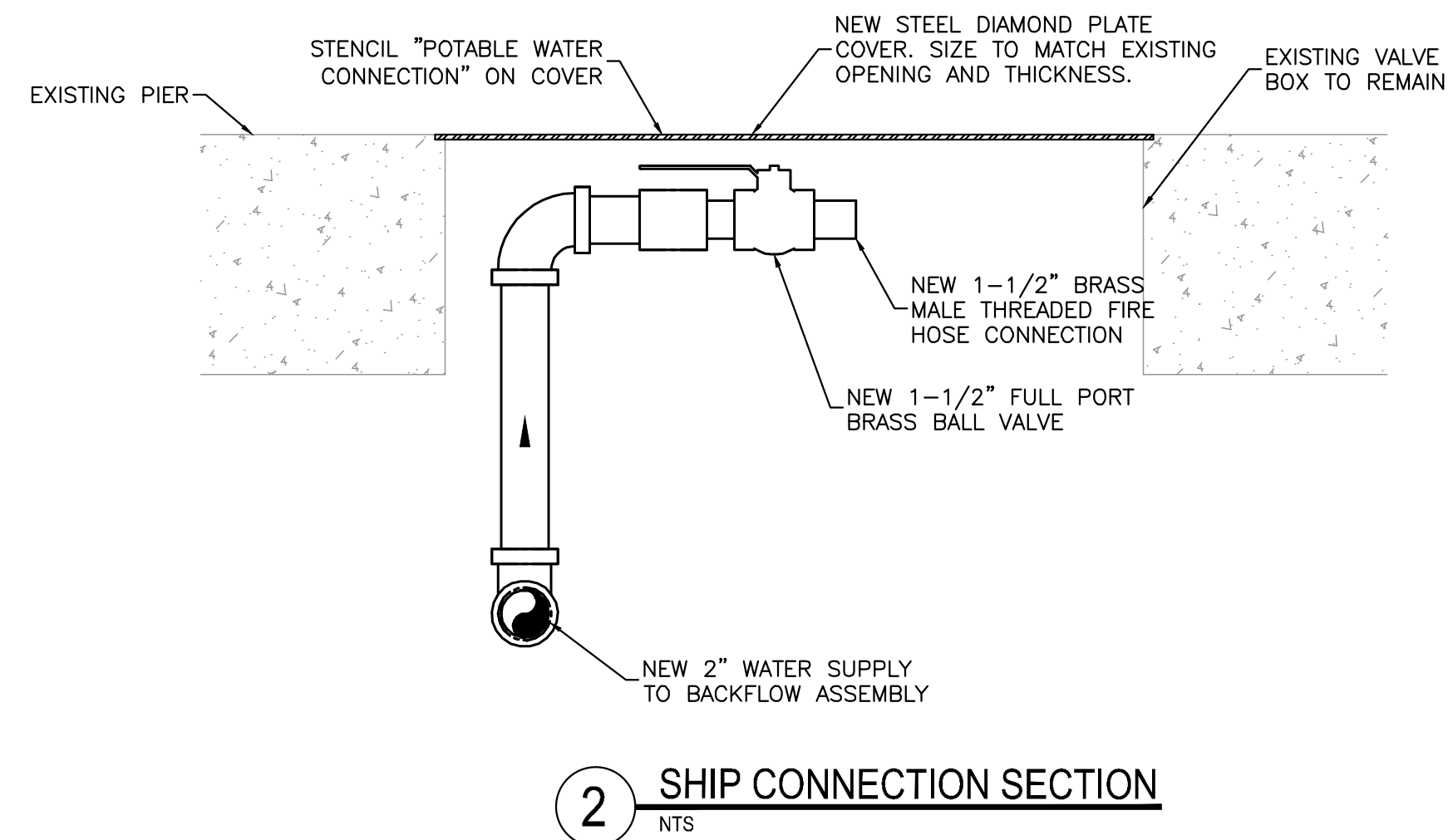
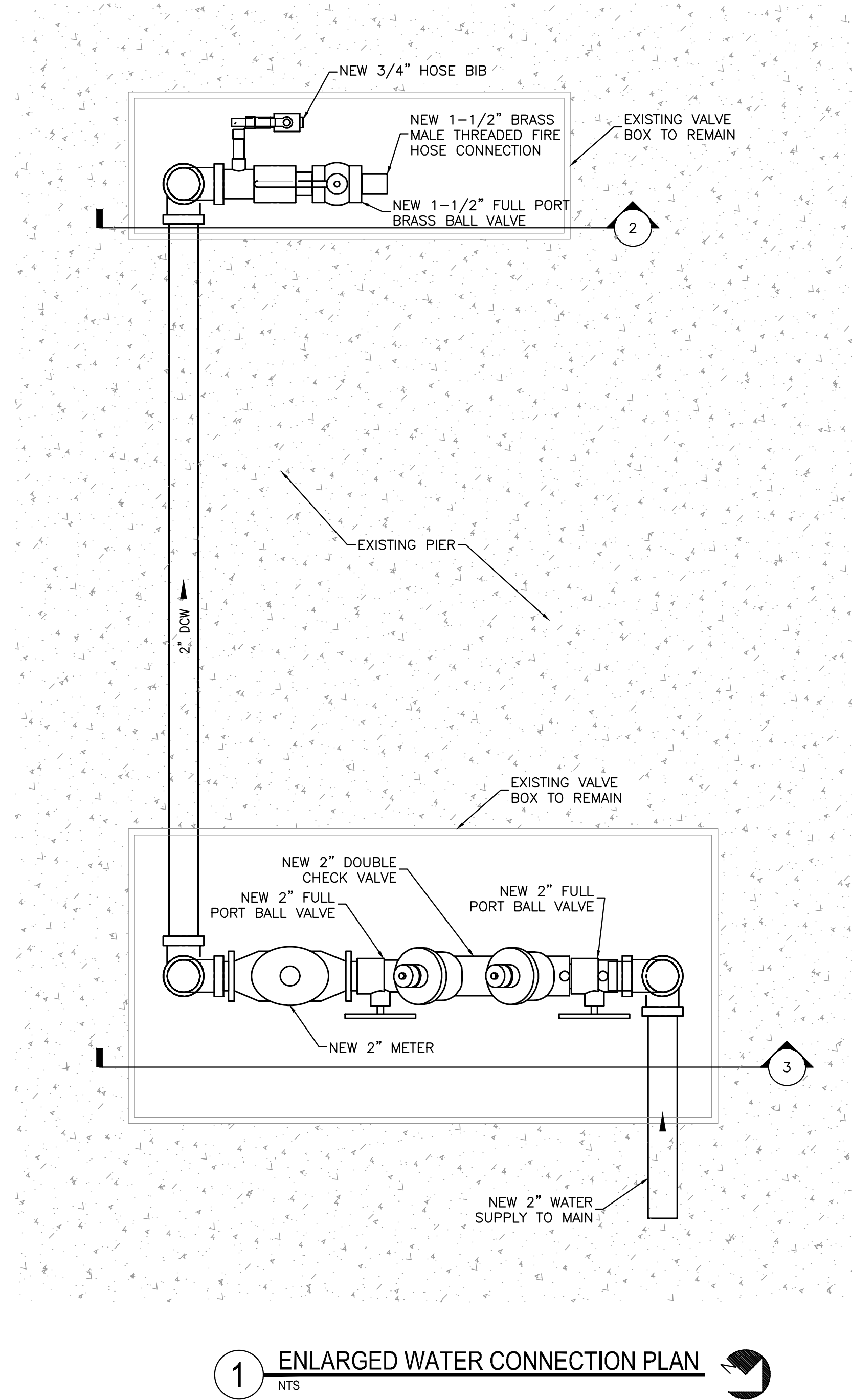
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JOHN MICHAEL VAN DUJVENDIJK
 LICENSED PROFESSIONAL ENGINEER
 STATE OF MISSISSIPPI
 01/18/2024

EAST PIER DEEP WATER WHARF FOR USM/NOAA
PORT OF GULFPORT MISSISSIPPI
STATE PORT AUTHORITY
 30TH AVENUE
 GULFPORT, MS 39501

SCALE: NONE
 PROJECT NO: 0297.23.001
 DRAWN BY: JMV
 CHECKED BY: JMV

ENLARGED WATER SUPPLY PLAN & SECTIONS @ NOAA DOCK

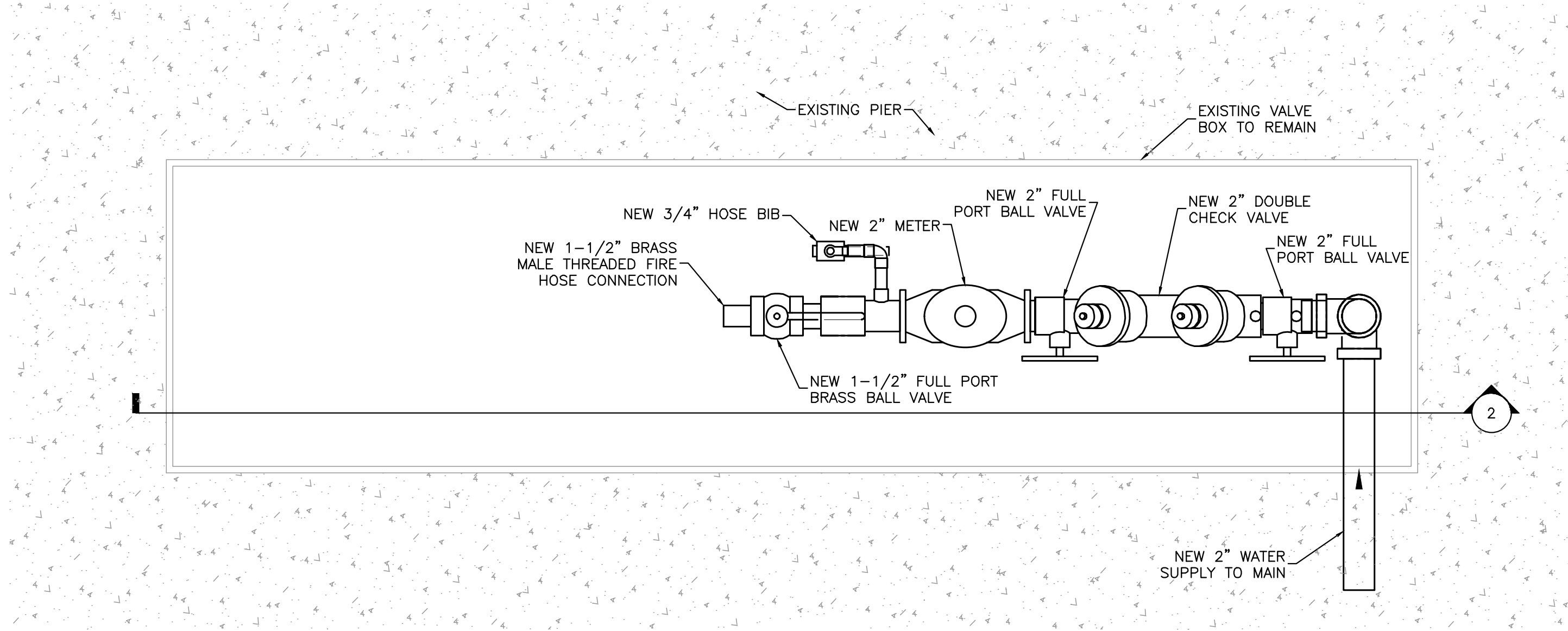
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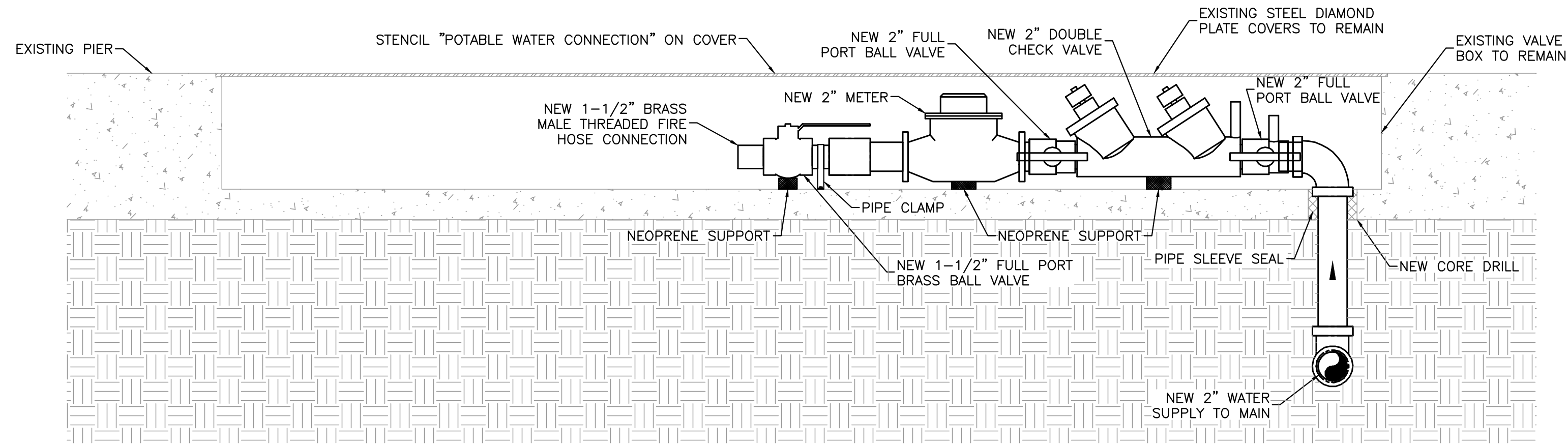
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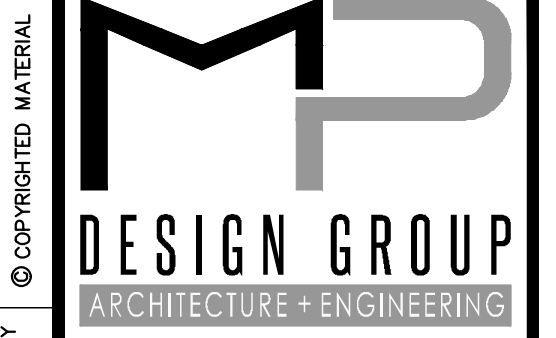
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1 ENLARGED WATER CONNECTION PLAN
NTS

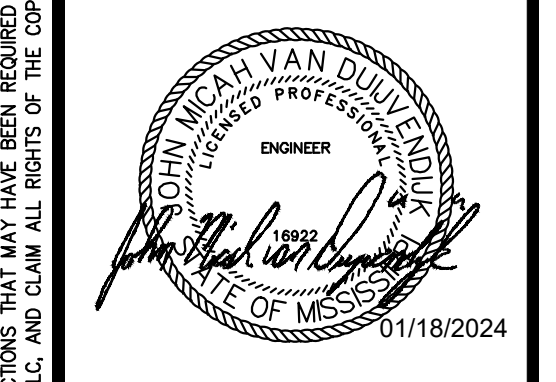


2 BACKFLOW PREVENTER & SHIP CONNECTION SECTION
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EAST PIER DEEP WATER WHARF FOR
USM/NOAA
PORT OF GULFPORT MISSISSIPPI
STATE PORT AUTHORITY
30TH AVENUE
GULFPORT, MS 39501

SCALE: NONE
PROJECT NO: 0297.23.001
DRAWN BY: JMV
CHECKED BY: JMV

ENLARGED WATER SUPPLY PLAN
& SECTIONS @ NOAA DOCK

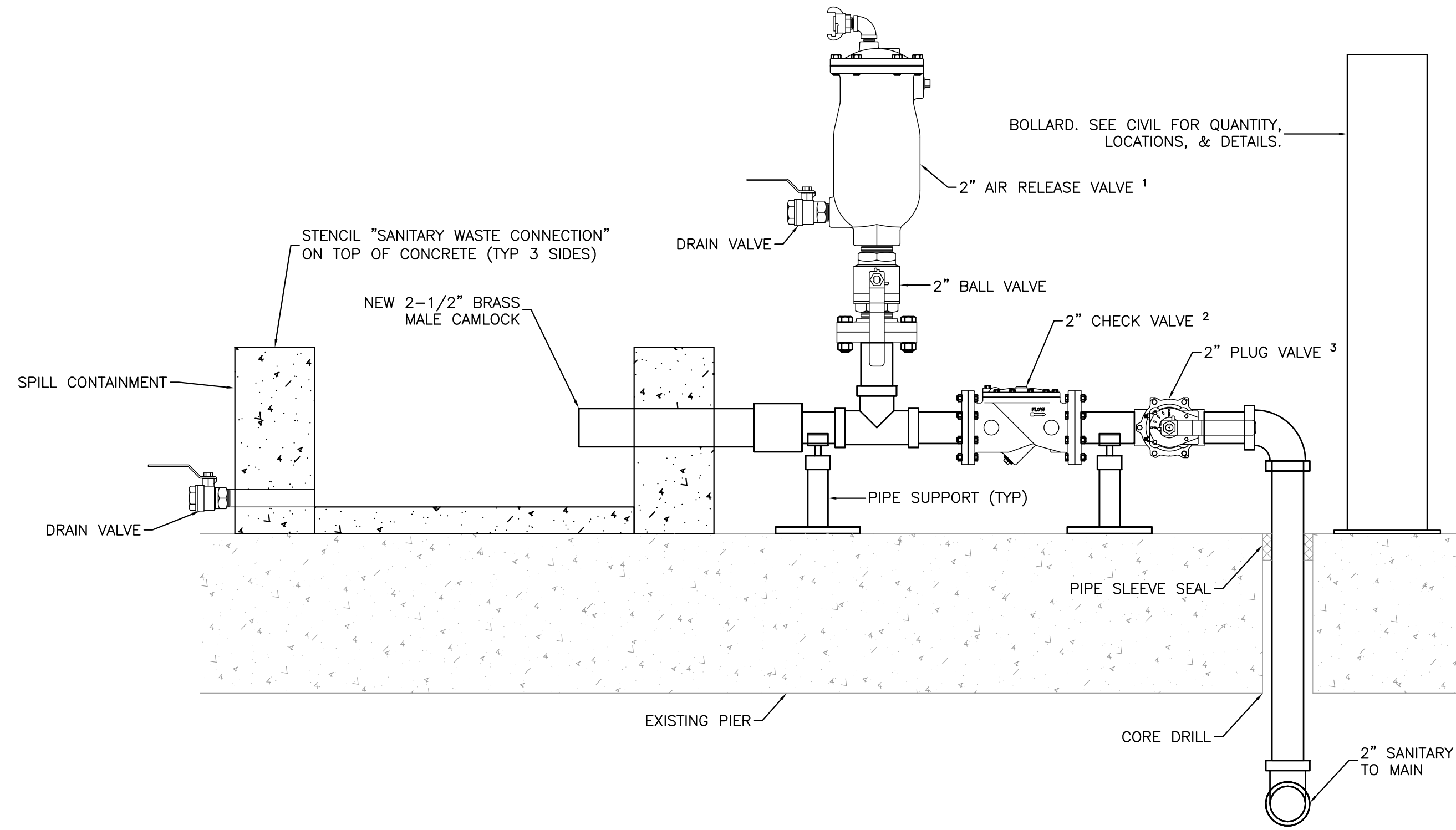
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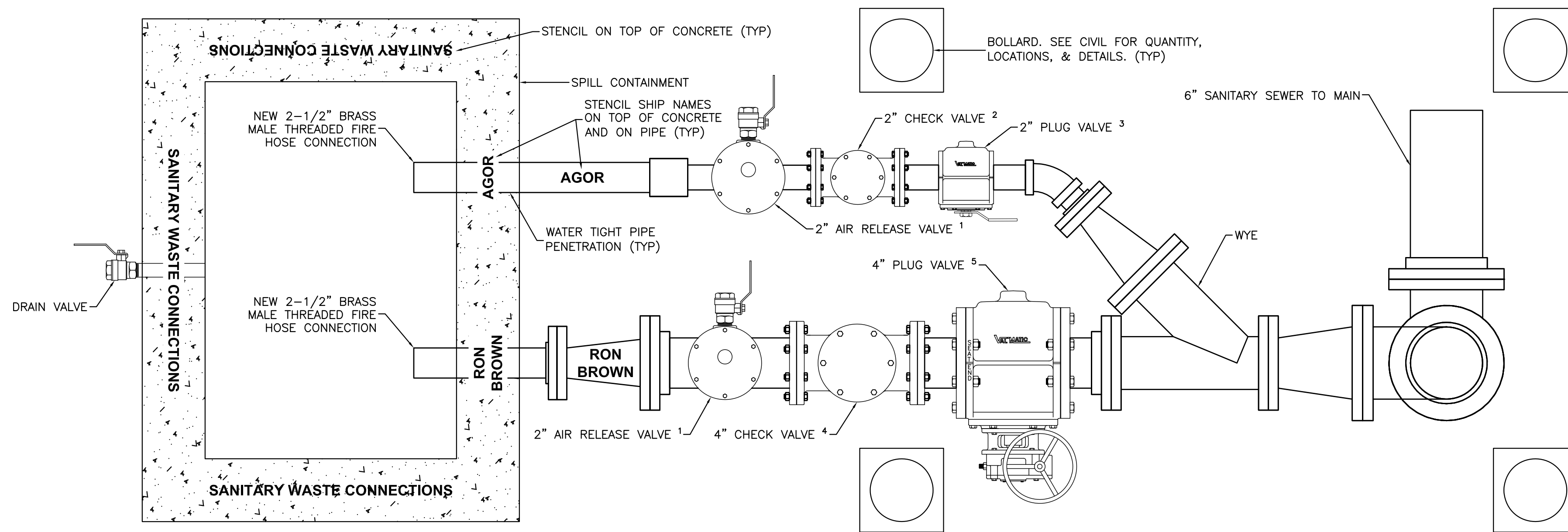
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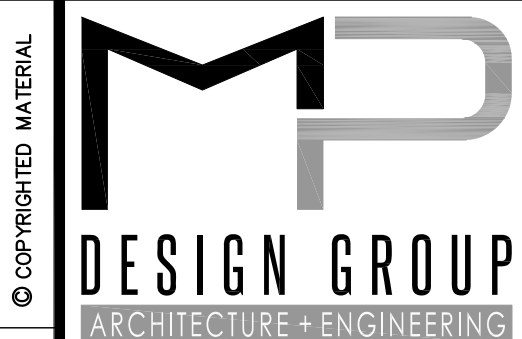
1 SANITARY SEWER CONNECTION SECTION - USM DOCK
 NTS

VALVE NOTES:

- 2" VAL-MATIC MODEL 48A WASTEWATER AIR RELEASE VALVE WITH FUSION BONDED EPOXY INTERIOR/EXTERIOR, FLANGED, CAST IRON BODY, TYPE 316 STAINLESS STEEL TRIM, BUNA-N SEATING, AND STAINLESS STEEL BOLTS
- 2" VAL-MATIC MODEL 502A SWING FLEX CHECK VALVE WITH FUSION BONDED EPOXY INTERIOR/EXTERIOR, FLANGED, DUCTILE IRON BODY, BUNA-N DISC, ANSI CLASS 125, CWP 250, AND STAINLESS STEEL BOLTS
- 2" VAL-MATIC MODEL 5802RTL PLUG VALVE WITH FUSION BONDED EPOXY INTERIOR/EXTERIOR, THREADED, LEVER ACTUATED, CAST IRON BODY, NICKEL SEAT, BUNA-N PLUG, VEE TYPE PACKING, STAINLESS STEEL BEARINGS, AND STAINLESS STEEL BOLTS
- 4" VAL-MATIC MODEL 504A SWING FLEX CHECK VALVE WITH FUSION BONDED EPOXY INTERIOR/EXTERIOR, FLANGED, DUCTILE IRON BODY, BUNA-N DISC, ANSI CLASS 125, CWP 250, AND STAINLESS STEEL BOLTS
- 4" VAL-MATIC MODEL 5604FN PLUG VALVE WITH FUSION BONDED EPOXY INTERIOR/EXTERIOR, FLANGED, WORM GEAR ACTUATED, CAST IRON BODY, NICKEL SEAT, BUNA-N PLUG, VEE TYPE PACKING, STAINLESS STEEL BEARINGS, AND STAINLESS STEEL BOLTS

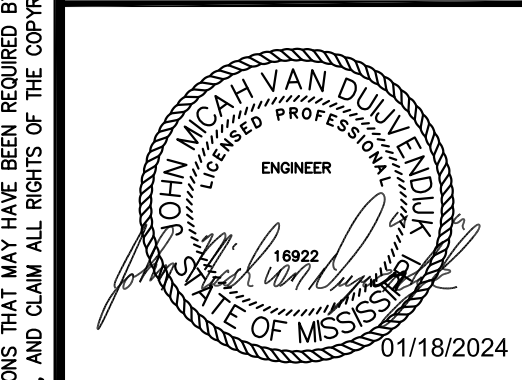


2 ENLARGED SANITARY SEWER CONNECTION PLAN - NOAA DOCKS (AGOR & RON BROWN)
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EAST PIER DEEP WATER WHARF FOR
 USM/NOAA
 PORT OF GULFPORT MISSISSIPPI
 STATE PORT AUTHORITY
 30TH AVENUE
 GULFPORT, MS 39501

SCALE: NONE
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 DRAWN BY: JMV
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ENLARGED SANITARY SEWER PLAN
 & SECTION

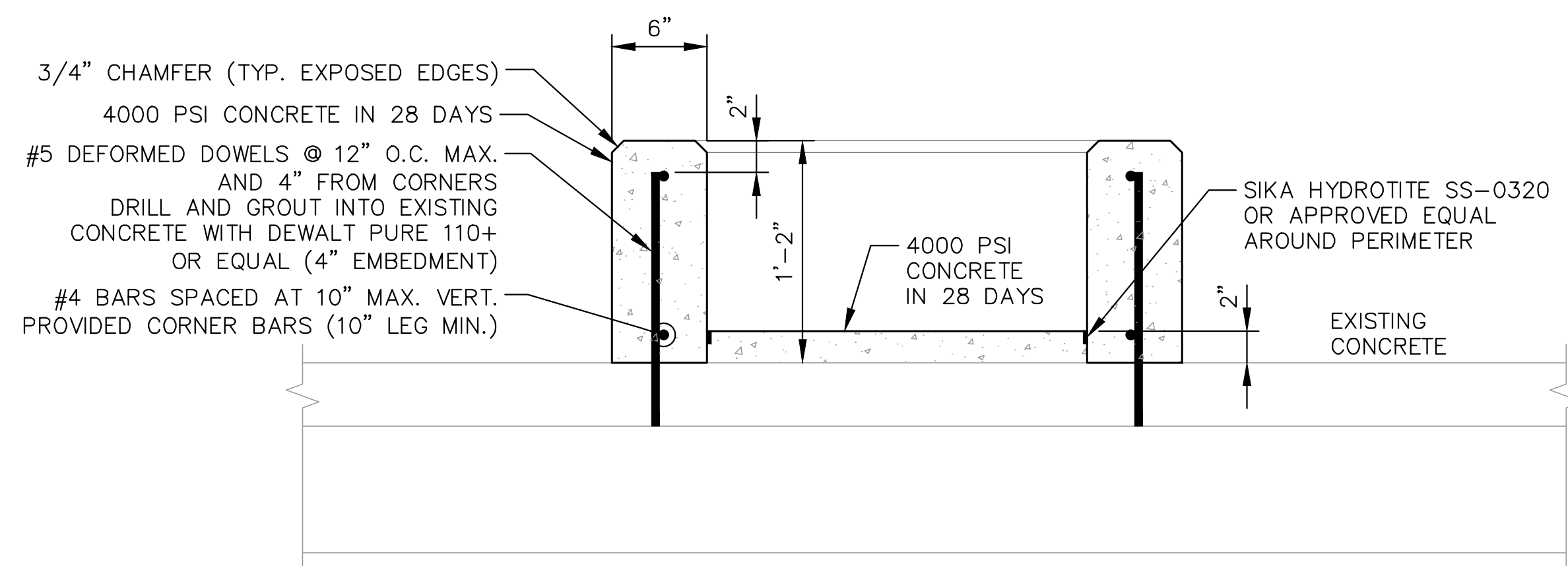
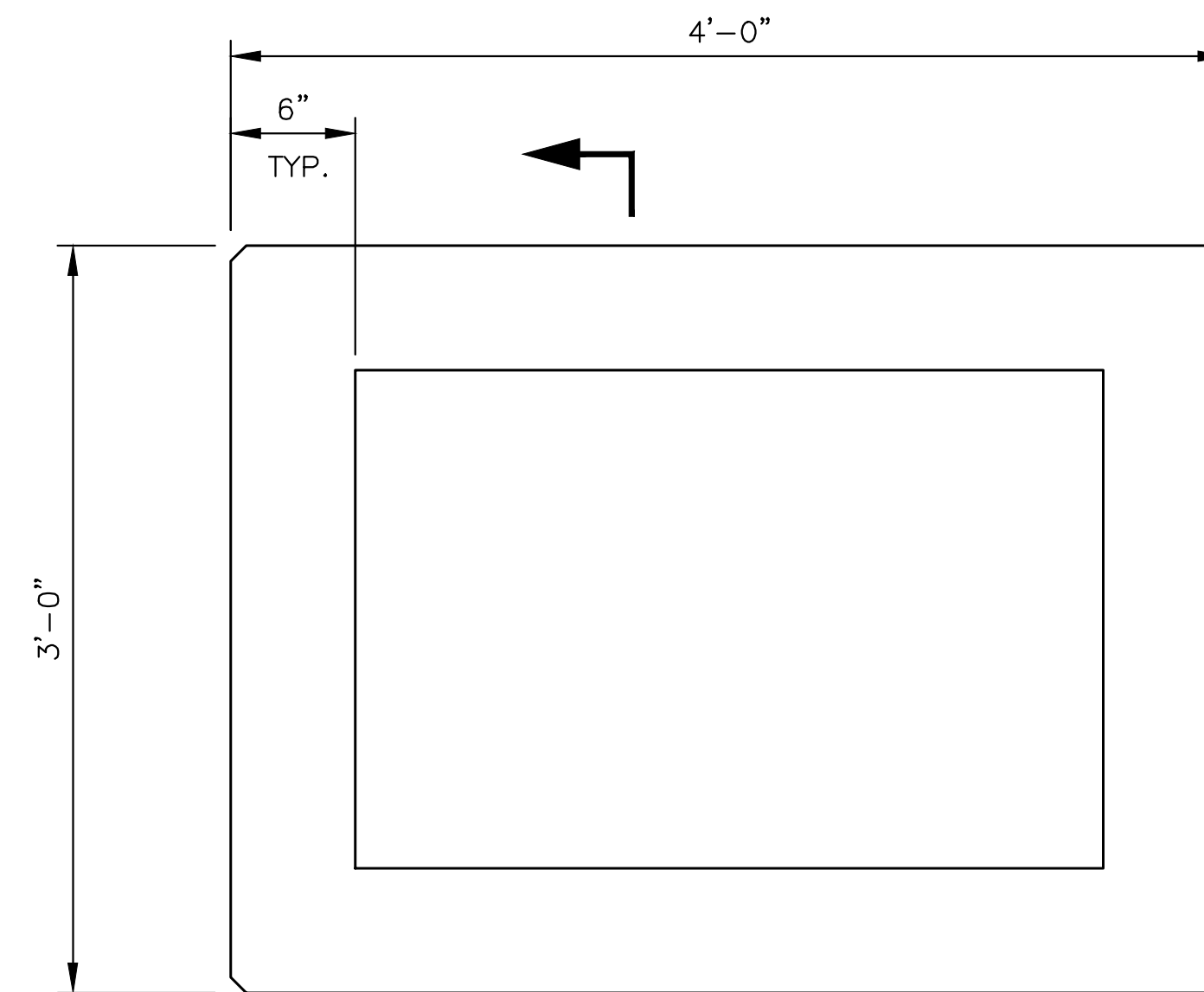
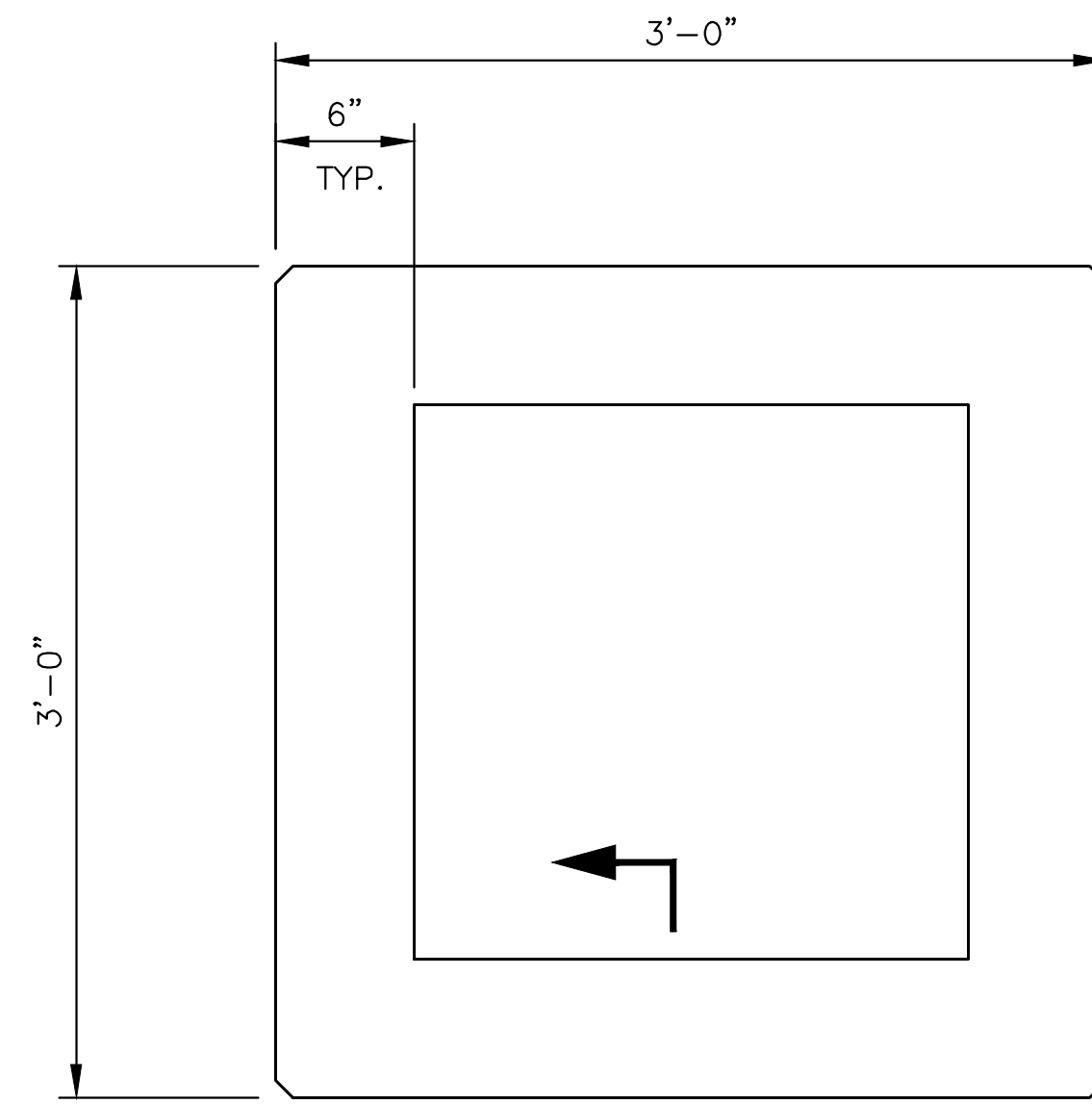
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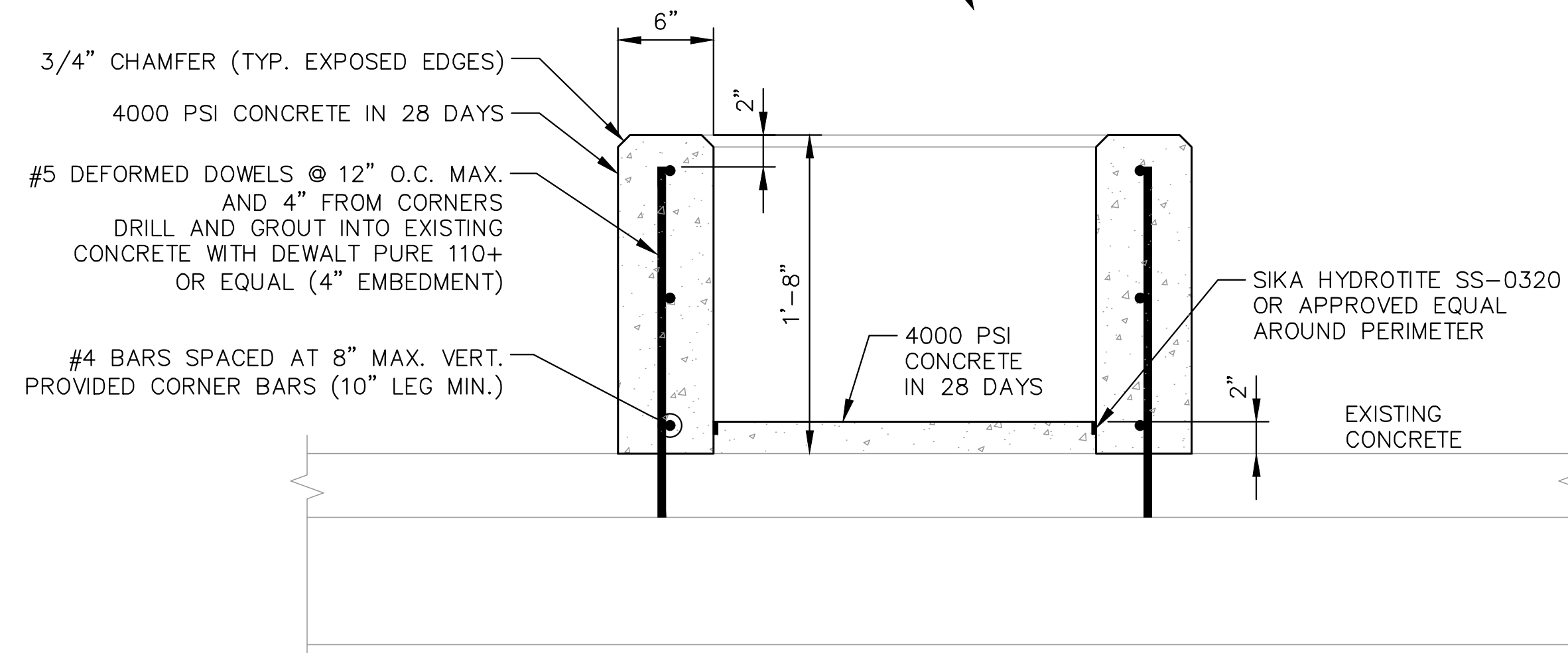
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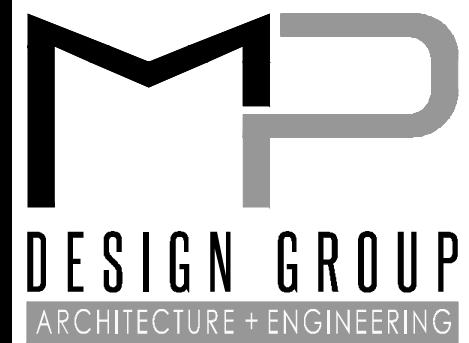


1 SANITARY SEWER CONTAINMENT DETAIL - USM DOCK
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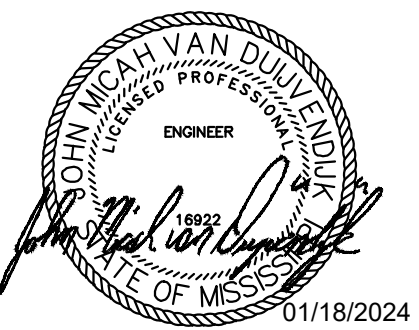
2 SANITARY SEWER CONTAINMENT DETAIL - NOAA DOCKS
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 30TH AVENUE
 GULFPORT, MS 39501

SCALE: NONE
 PROJECT NO: 0297.23.001
 DRAWN BY: JMV
 CHECKED BY: JMV

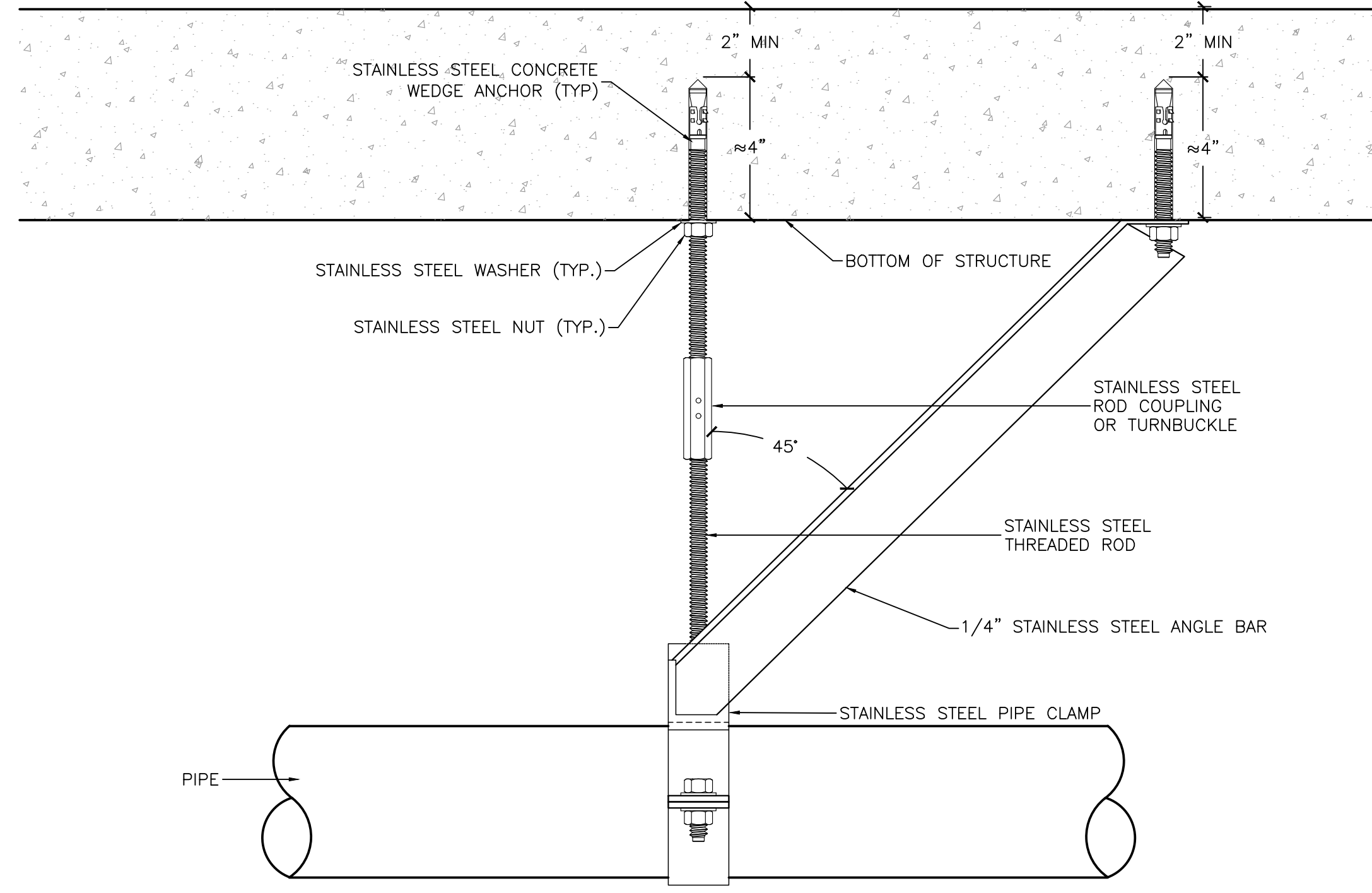
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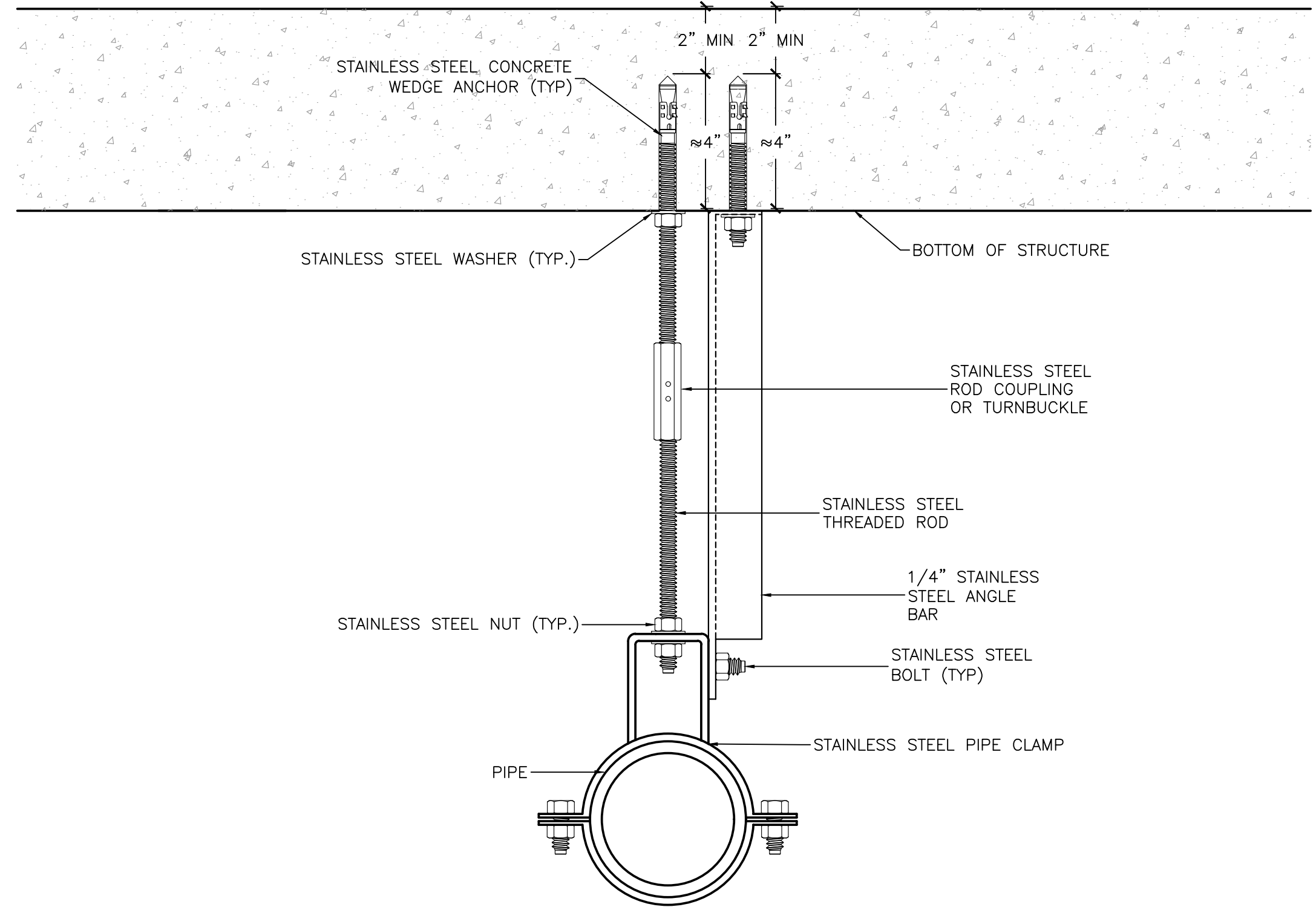
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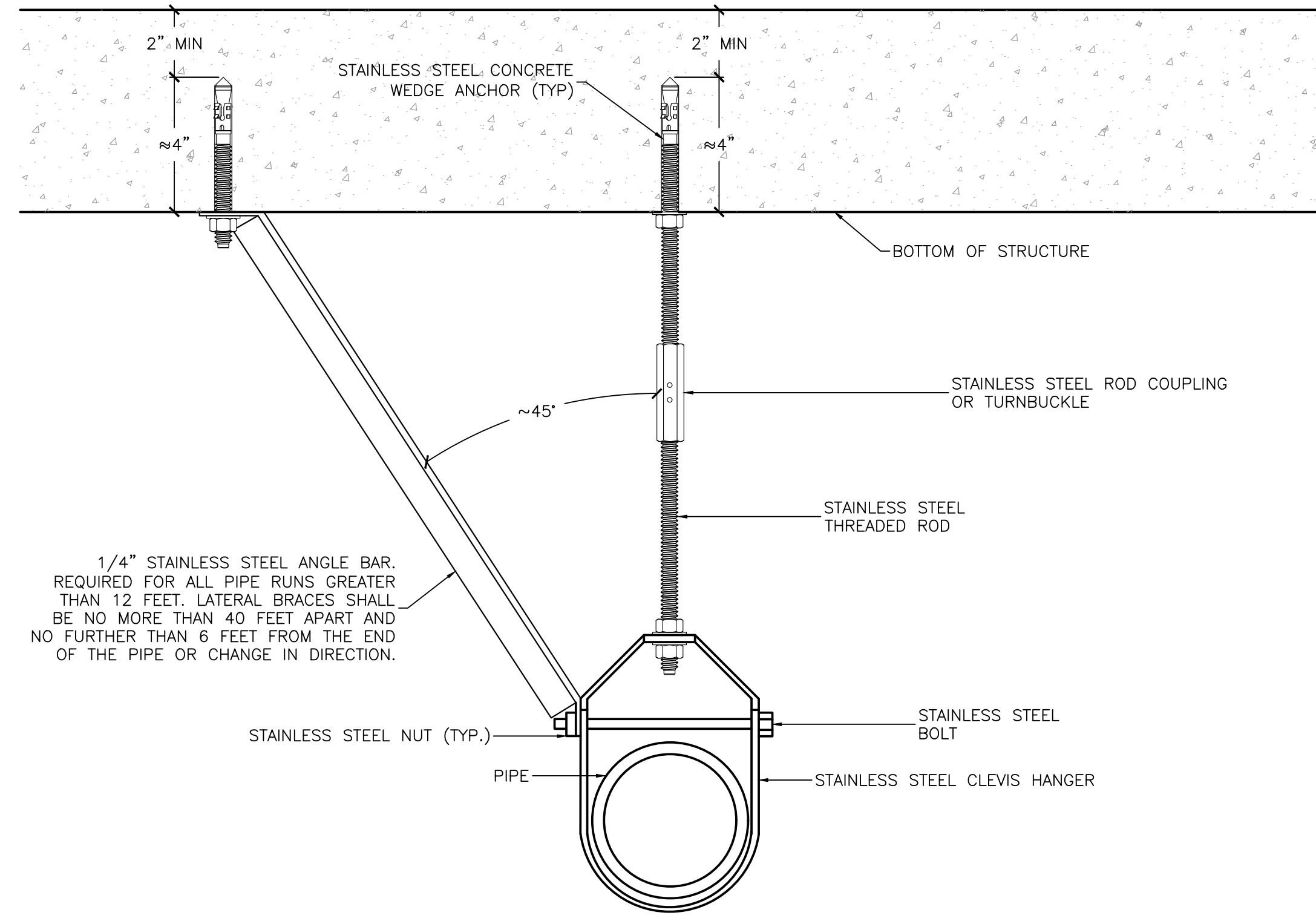
NOTE:
 REQUIRED FOR ALL PIPE RUNS GREATER THAN 12 FEET. LONGITUDINAL BRACES SHALL BE NO MORE THAN 80 FEET APART AND NO FURTHER THAN 40 FEET FROM THE END OF THE PIPE OR CHANGE IN DIRECTION.

1 LONGITUDINAL PIPE BRACE DETAIL (ELEVATION)
 NTS



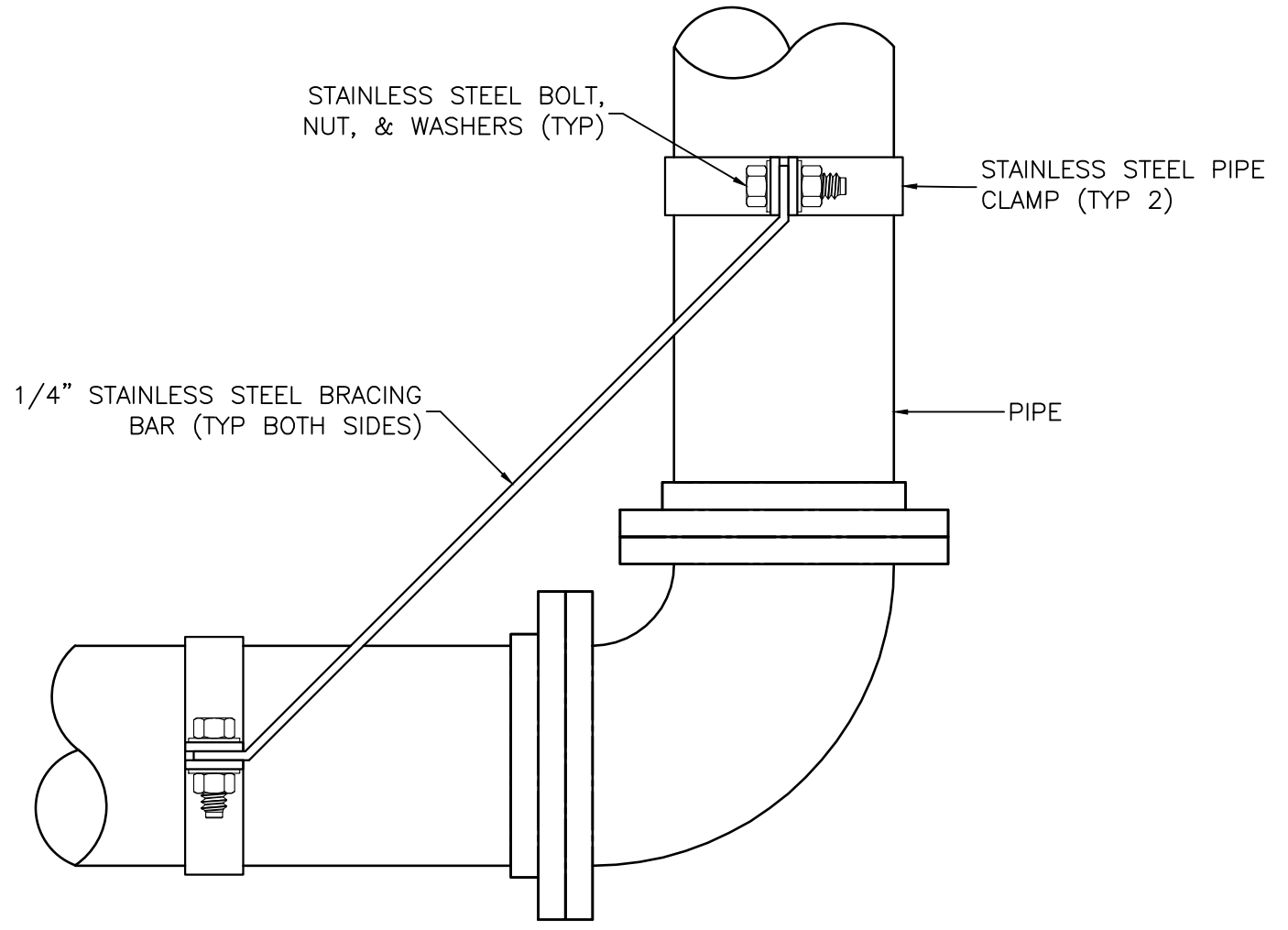
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2 LONGITUDINAL PIPE BRACE DETAIL (SECTION)
 NTS



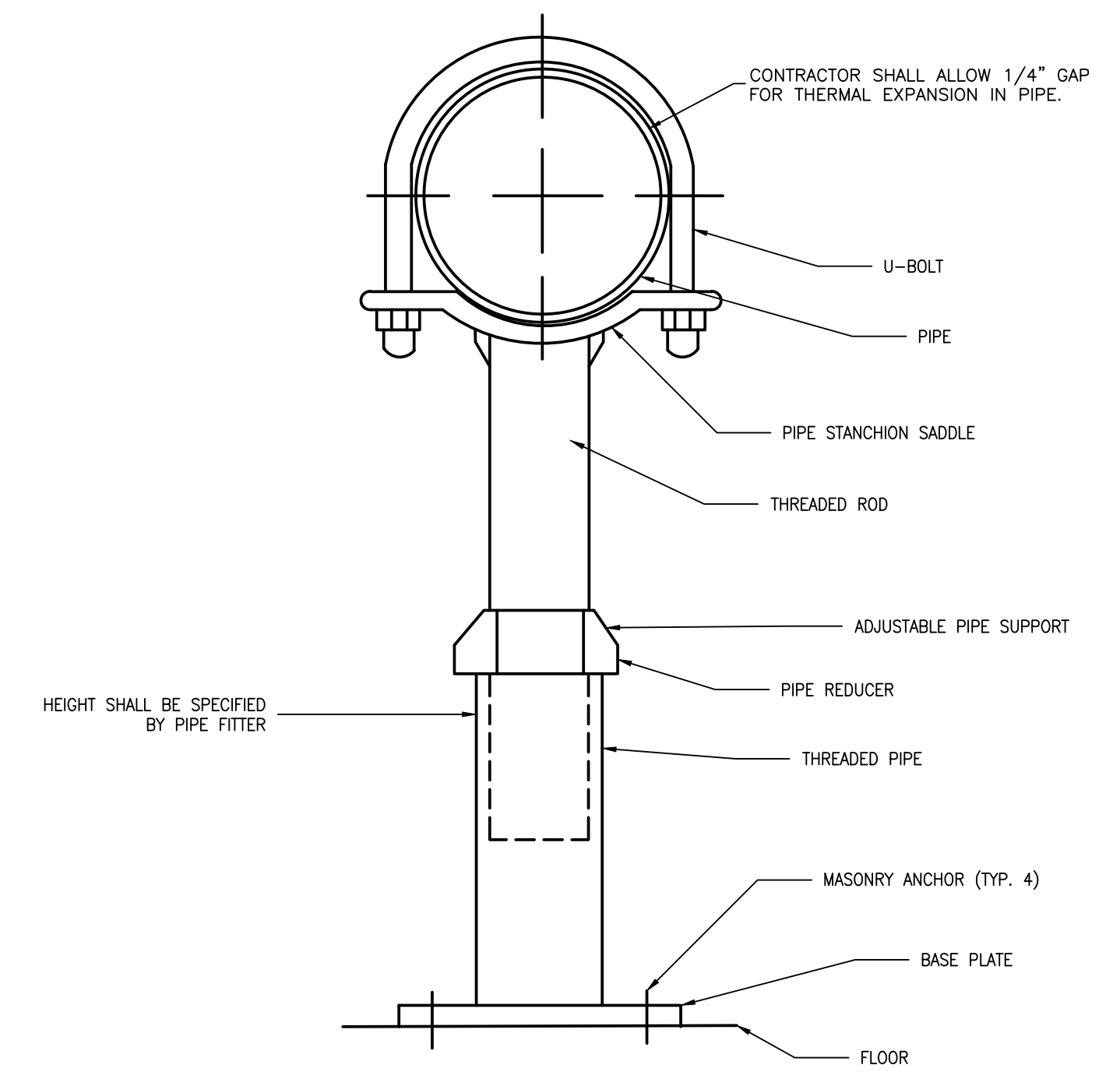
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 REQUIRED FOR ALL PIPE RUNS GREATER THAN 12 FEET. LATERAL BRACES SHALL BE NO MORE THAN 40 FEET APART AND NO FURTHER THAN 6 FEET FROM THE END OF THE PIPE OR CHANGE IN DIRECTION.

3 HORIZONTAL PIPE SUPPORT DETAIL
 NTS



NOTE:
 USE FOR ALL 5\"/>
 AT ELBOWS 45\"/>

4 LARGE DIAMETER ELBOW BRACING
 NTS



HEIGHT SHALL BE SPECIFIED BY PIPE FITTER

5 FLOOR PIPE SUPPORT DETAIL
 NTS

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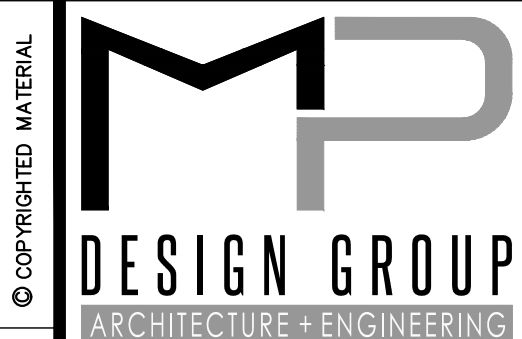
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GENERAL NOTES

- EQUIPMENT SHALL BE MOUNTED ON MATERIALS SUITABLE FOR THE ENVIRONMENT WHICH IT IS INSTALLED WITH THE APPROPRIATE NEMA ENCLOSURE RATING.
- WORKING CLEARANCES FOR ELECTRICAL EQUIPMENT SHALL BE IN COMPLIANCE WITH ARTICLE 110 AND 408.
- THE DEDICATED ELECTRICAL SPACE EXTENDED FROM THE FLOOR TO THE STRUCTURAL CEILING WITH THE WIDTH AN DEPTH OF THE PANEL-BOARD OR SWITCHBOARD, MUST BE CLEAR OF ALL PIPING, DUCTS, EQUIPMENT FOREIGN TO THE ELECTRICAL OR ARCHITECTURAL APPURTENANCES IN ACCORDANCE WITH THE NEC 110 & 408. COORDINATE INSTALLATION OF ELECTRICAL EQUIPMENT WITH OTHER TRADES PRIOR TO ROUGHING IN EQUIPMENT.
- ALL ELECTRICAL EQUIPMENT AND THE RESULTANT INSTALLATION OF SUCH EQUIPMENT, DEVICES, ETC., SHALL BE IN STRICT COMPLIANCE WITH THE NATIONAL ELECTRIC CODE, NFPA 70, ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES AND THE STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE NFPA 70E.
- DRAWINGS AND SPECIFICATIONS FORM A COMPLETE SET OF DOCUMENTS FOR THE WORK IN THIS PROJECT. NEITHER IS COMPLETE WITHOUT THE OTHER. ANY ITEM MENTIONED IN ONE SHALL BE BINDING AS MENTIONED IN BOTH.
- CONTRACTOR SHALL TAKE RESPONSIBILITY FOR FIELD VERIFICATION OF ALL DIMENSIONS AND LOCATIONS OF EXISTING, RELOCATED AND NEW EQUIPMENT AND SHALL BE RESPONSIBLE FOR COORDINATION WITH THE WORK OF OTHER TRADES NECESSARY TO THE PROJECT.
- THESE DRAWINGS ARE INTENDED TO OUTLINE THE SCOPE OF WORK REQUIRED TO PROVIDE A COMPLETE AND OPERABLE PROJECT CONCLUSION. ALL MISCELLANEOUS COMPONENTS, PARTS, FASTENERS, SPLICES AND OTHER INCIDENTAL ITEMS NECESSARY TO PROVIDE A COMPLETED PROJECT SHALL BE PROVIDED WHETHER OR NOT SPECIFICALLY NOTED.
- CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY CONFLICTS ARISING FROM DISCOVERED CONDITIONS AT ANY PHASE OF THE PROJECT.
- CONTRACTOR SHALL NOTIFY MISSISSIPPI ONE CALL TO DETERMINE THE LOCATION AND DEPTH OF UNDERGROUND UTILITIES PRIOR TO EXCAVATION.
- AT ANY LOCATION WHERE EXCAVATION OR ASSOCIATED WORK CAUSES DAMAGE TO EXISTING UNDERGROUND UTILITIES, CONTRACTOR SHALL RESTORE THE DAMAGED SYSTEM TO LIKE-NEW STATE.
- ALL BRANCH CIRCUITS SHALL HAVE A SEPARATE NEUTRAL AND GROUND UNLESS OTHERWISE STATED.
- ALL ABOVE GROUND EXPOSED CONDUIT SHALL BE REINFORCED THERMOSETTING RESIN CONDUIT UNLESS OTHERWISE NOTED.
- LOCATIONS OF OTHER EQUIPMENT SPECIFIED BY OTHER TRADES OR PROVIDED BY OWNER ARE APPROXIMATE. COORDINATE EXACT LOCATION IN FIELD PRIOR TO ROUGHING IN AND ROUTING CONDUIT.
- CONDUITS ARE NOT NECESSARILY SHOWN ON PLAN DRAWINGS FOR SAKE OF CLARITY. PROVIDE CONDUITS BETWEEN DEVICES AND TO PANELS PER REQUIREMENTS LISTED IN DIVISION 26 SPECIFICATIONS. INDICATE EXACT ROUTING OF CONDUIT ON PLAN DRAWINGS AS PART OF AS BUILD DOCUMENTATION TO BE SUBMITTED AFTER FINAL COMPLETION.
- FINAL CONNECTION TO ALL MOTORS SHALL BE WITH FLEXIBLE CONDUIT CONNECTION.
- ALL EXIT, AND EMERGENCY FIXTURES SHALL BE CONNECTED TO LIGHT CIRCUIT AHEAD OF LOCAL SWITCH.
- GENERAL CONTRACTOR SHALL FIELD-VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING ANY WORK AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES. FAILURE TO DO SO INDICATES THAT THE CONTRACTOR ACCEPTS THE CONDITIONS AS THEY EXIST, AND SHALL PERFORM THE WORK REQUIRED AS SHOWN AND SPECIFIED..
- ALL DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO QUANTIFY THE MATERIALS SPECIFIED AND INDICATED THEIR INTENDED RELATIONSHIP TO EACH OTHER. THE DRAWINGS ARE NOT TO BE SCALED. THE VARIOUS SCALES USED ON THE DRAWINGS MAY NOT ALLOW FOR ALL FITTINGS, OFFSETS, AND ACCESSORIES THAT MAY BE REQUIRED TO COMPLETE THE WORK. THE CONTRACTOR SHALL CAREFULLY INVESTIGATE THE CONDITIONS THAT WOULD AFFECT THE WORK TO BE PERFORMED AND SHALL ARRANGE SUCH WORK AS NECESSARY TO COMPLY WITH THE INTENT OF THE CONSTRUCTION DOCUMENTS.
- ALL OPERABLE WALL MOUNTED DEVICES (SWITCHES, PULL STATIONS, ETC.) SHALL BE INSTALLED SO THAT THE OPERABLE COMPONENT IS A MAXIMUM OF 48" AFF AND IN ACCORDANCE WITH ADA AND ABA STANDARDS.

DEMOLITION NOTES

- PLANS DO NOT ATTEMPT TO SHOW ALL DEMOLITION ITEMS. SOME LIGHT FIXTURES, SWITCHES, RECEPTACLES, TELEPHONE, DATA, MISC. OUTLETS, COMMUNICATION DEVICES ARE SHOWN FOR INFORMATION PURPOSES AND GENERAL LAYOUT IN THESE AREAS TO BE RENOVATED. HOWEVER, THE ITEMS SHOWN ARE NOT NECESSARILY COMPLETE, ELECTRICAL CONTRACTOR (E.C.) TO FIELD VERIFY ALL DEMOLITION ITEMS AND PROVIDE REMOVAL OF ALL DEVICES ACCORDINGLY. SEE RELATED NOTES ON MAINTAINING SERVICE TO NON-DEMOLITION AREAS.
- E.C. SHALL REMOVE ALL EXISTING LIGHT POLES AND FIXTURES, SWITCHES, RECEPTACLES, TELEPHONE, DATA, MISC. OUTLETS, COMMUNICATION DEVICES IN DEMOLITION AREAS. REMOVE CONDUIT/WIRE BACK TO PANELS ON ELECTRICAL PLATFORM UNLESS RE-USED FOR NEW AND/OR RELOCATED WORKS. FIXTURES AND ELECTRICAL EQUIPMENT NOT INDICATED FOR RE-USE SHALL BE DELIVERED TO A LOCATION TO BE SPECIFIED BY OWNER.
- DAMAGE TO EXISTING MATERIALS/EQUIPMENT WILL BE REPAIRED AT NO ADDITIONAL COST TO OWNER.
- NON-DEMOLITION AREAS: DEMOLITION WORKS SHALL NOT AFFECT AREAS NOT INCLUDED IN DEMOLITION. E.C. SHALL BE RESPONSIBLE FOR THE CONTINUITY OF ALL SERVICES (POWER, TELEPHONE, FIRE ALARM, DATA, PAGING, INTERCOM, ETC.) IN NON-DEMOLITION AREAS. ALL SERVICES SHALL BE MAINTAINED AT ALL TIMES. E.C. SHALL MAINTAIN SERVICE BY EXTENDING, RE-ROUTING AND/OR RECONNECTING ANY CIRCUITS AFFECTED BY DEMOLITION.
- E.C. SHALL FIELD INVESTIGATE EXISTING ELECTRICAL INSTALLATION. ALL EXISTING INSTALLATION IN THE RENOVATION AREAS THAT ARE TO REMAIN BUT ARE NOT CURRENTLY IN COMPLIANCE WITH CURRENT CODES SHALL BE CORRECTED BY E.C.
- ALL EXISTING ABANDONED AND/OR UN-USED CONDUIT/WIRE, SWITCHES/STARTERS, JUNCTION BOXES, COMMUNICATION SYSTEM AND DEVICES IN PROJECT AREAS SHALL BE REMOVED BACK TO PANELS AND/OR CONTROL PANELS. ALL ITEMS DEMOLISHED BY E.C. SHALL BE REMOVED BACK TO PANELS AND/OR CONTROL PANELS.
- SEE CIVIL DRAWINGS FOR ADDITIONAL SCOPE OF DEMOLITION WORK.
- ALL WORK SHALL BE DONE IN TOTAL COORDINATION WITH THE PORTS ELECTRICAL MAINTENANCE STAFF TO AVOID ANY INTERRUPTION TO EXISTING CIRCUITS IN USE.
- CONTRACTOR TO PROVIDE OSHA APPROVED TEMPORARY LIGHTING AND POWER AS REQUIRED FOR THE DURATION OF THE PROJECT.



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EAST PIER DEEP WATER WHARF FOR USM/NOAA
PORT OF GULFPORT MISSISSIPPI
STATE PORT AUTHORITY
 30TH AVENUE
 GULFPORT, MS 39501

SCALE: NTS
 PROJECT NO: 0297.23.001
 DRAWN BY: MAB
 CHECKED BY: KDB

ELECTRICAL NOTES

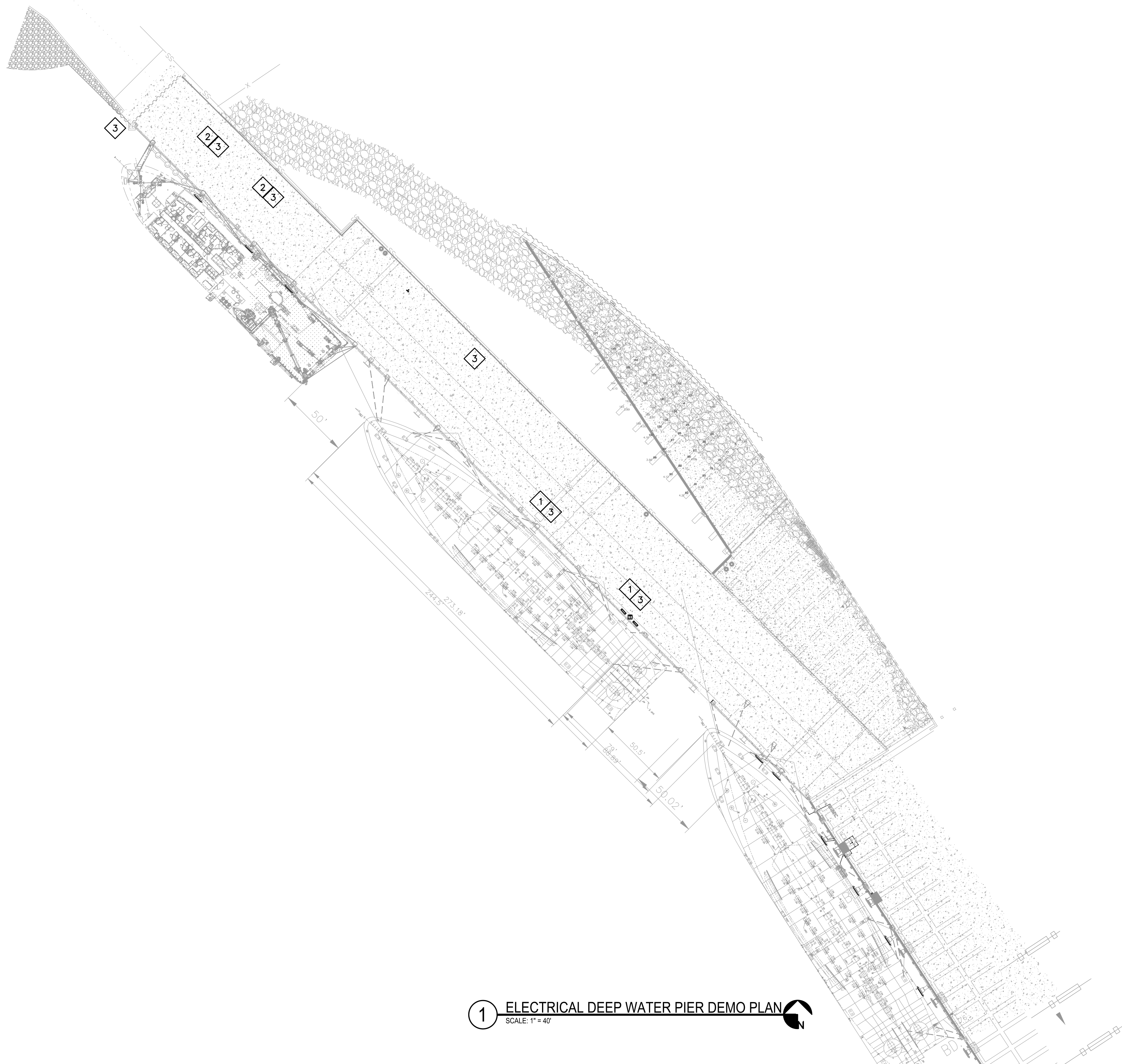
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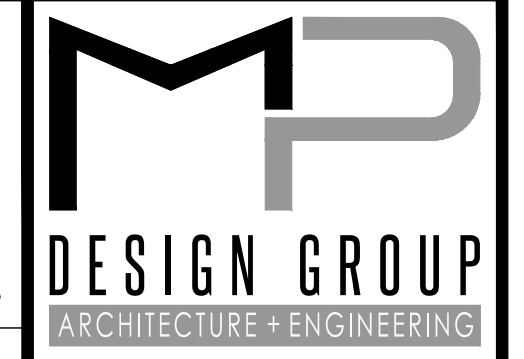
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1 ELECTRICAL DEEP WATER PIER DEMO PLAN
 SCALE: 1" = 40'

- DRAWING E010 SPECIFIC NOTES**
- 1** CONTRACTOR SHALL REMOVE EXISTING PANELS, TRANSFORMER, RECEPTACLES, SWITCHES, DISCONNECTS AND SUPPORTS ON EAST PIER WITH CARE. COORDINATE WITH PORT OF GULFPORT FOR SALVAGE.
 - 2** CONTRACTOR SHALL REMOVE EXISTING LIGHTS AND LIGHT POLES WITH CARE. COORDINATE WITH PORT OF GULFPORT FOR SALVAGE.
 - 3** CONTRACTOR SHALL REMOVE ALL CABLES, CONDUIT, AND ACCESSORIES ON EAST PIER BACK TO SOURCE.



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**EAST PIER DEEP WATER WHARF FOR
 USM/NOAA
 PORT OF GULFPORT MISSISSIPPI
 STATE PORT AUTHORITY**

30TH AVENUE
 GULFPORT, MS 39501

SCALE: AS SHOWN
 PROJECT NO: 0297.23.001
 DRAWN BY: MAB
 CHECKED BY: KDB

**ELECTRICAL DEEP WATER PIER
 DEMO PLAN**

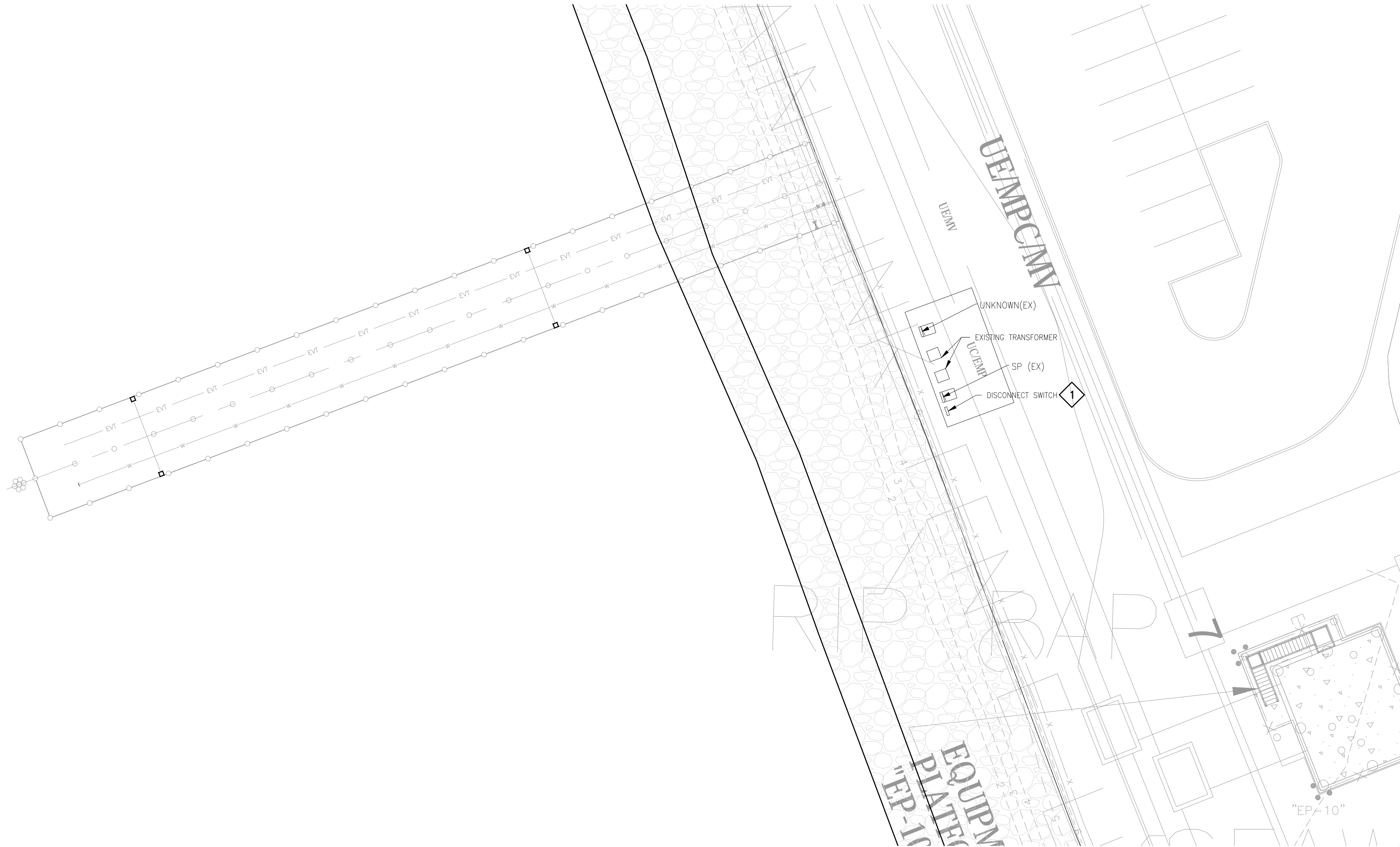
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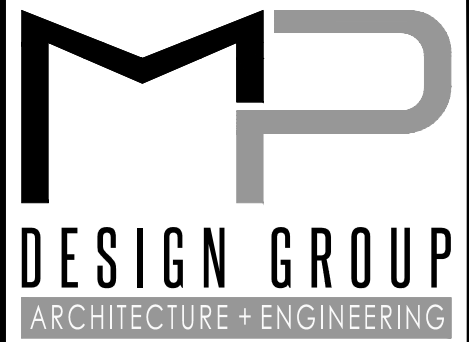
1 ELECTRICAL DEMO PLAN - SMALL BOAT PIER
 SCALE: 1/16" = 1'

DRAWING E011 NOTES

1. CONTRACTOR SHALL COORDINATE WITH OWNER PRIOR TO DISPOSING OF ALL DEMOLISHED EQUIPMENT.

DRAWING E011 SPECIFIC NOTES

1 CONTRACTOR SHALL DEMOLISH EXISTING DISCONNECT AND FEEDER. CONTRACTOR SHALL DEMOLISH CONDUIT AND FEEDER FROM PANEL TO DISCONNECT. CONTRACTOR SHALL DEMOLISH CONDUIT AND FEEDER FROM DISCONNECT TO SWITCHBOARD. CONTRACTOR SHALL REFERENCE SHEET E603 FOR DETAILS ON DEMOLISHED ITEMS.



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**EAST PIER DEEP WATER WHARF FOR
 USM/NOAA
 PORT OF GULFPORT MISSISSIPPI
 STATE PORT AUTHORITY
 30TH AVENUE
 GULFPORT, MS 39501**

SCALE: AS SHOWN
 PROJECT NO: 0297.23.001
 DRAWN BY: DLM
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**ELECTRICAL DEMO PLAN - SMALL
 BOAT PIER - ALTERNATE #1**

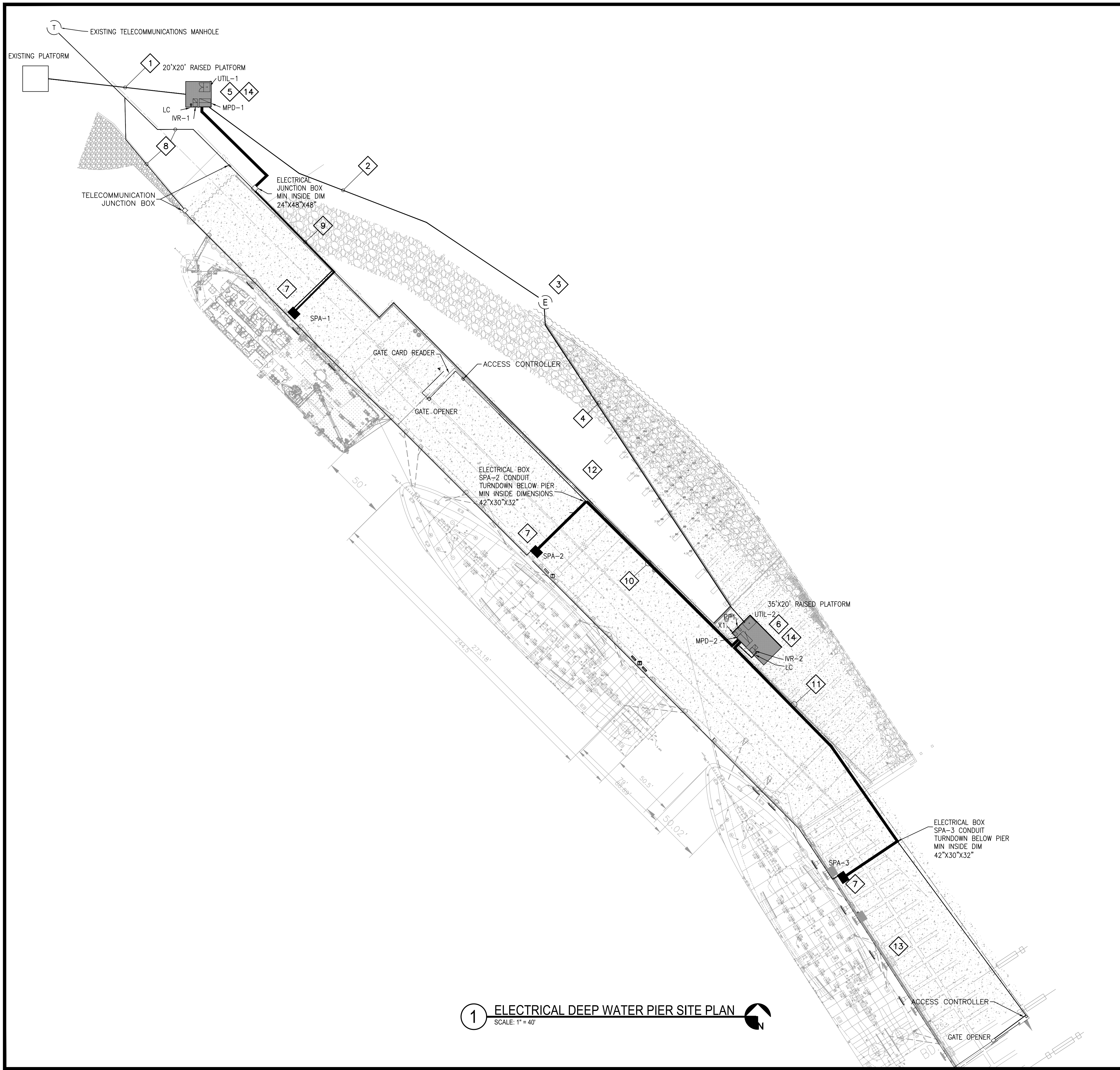
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E011

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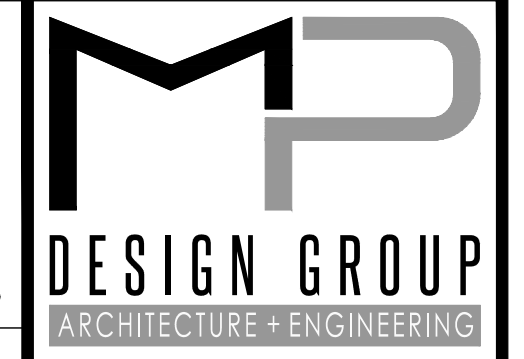
1 ELECTRICAL DEEP WATER PIER SITE PLAN
 SCALE: 1" = 40'

DRAWING E101 NOTES

1. CONTRACTOR SHALL REMOVE ALL EXISTING RECEPTACLES, LIGHTING, SWITCHES, DISCONNECTS, CABLES AND CONDUIT ON PIER BACK TO SOURCE. COORDINATE WITH PORT
2. ALL UNDERGROUND CONDUIT FITTINGS SHALL BE 36" LONG RADII.
3. ALL UNDERGROUND CONDUIT SHALL BE SCHEDULE 80 PCV
4. INSTALL A METALLIC TRACER/WARNING TAPE 12" ABOVE ALL EXTERIOR CONDUITS. RED FOR POWER AND ORANGE FOR TELECOMMUNICATIONS.
5. ALL EXTERIOR CONDUIT ABOVE GRADE SHALL BE REINFORCED THERMOSETTING RESIN (RTRC). CONDUIT UNDER PIER SHALL BE EXTRA HEAVY WALL.
6. SAW CUT THROUGH EXISTING ASPHALT AND CONCRETE AND RETURN SURFACE GRADE MATERIALS AND GROUND TO ORIGINAL CONDITION.
7. ALL UNDERGROUND CONDUIT SHALL BE AT LEAST 36" BELOW GRADE.
8. CONTRACTOR SHALL COORDINATE CONDUIT ROUTING WITH CIVIL PLANS FOR POTABLE WATER AND SANITARY SEWER CROSSINGS.
9. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY FOR SERVICE ENTRANCE REQUIREMENTS. CONTRACTOR SHALL PAY ALL UTILITY FEES INCLUDING COST FOR TEMPORARY POWER DURING CONSTRUCTION.

DRAWING E101 SPECIFIC NOTES

1. CONTRACTOR SHALL PROVIDE AND INSTALL (3) 3" SCHEDULE 80 PVC CONDUITS FROM EXISTING ELECTRICAL PLATFORM TO NEW NORTH ELECTRICAL PLATFORM. PRIMARY ELECTRICAL CABLE SHALL BE PROVIDED, INSTALLED AND TERMINATED BY UTILITY. COORDINATE EXACT ROUTING AND TERMINATIONS WITH UTILITY.
2. CONTRACTOR SHALL PROVIDE AND INSTALL (3) 3" SCHEDULE 80 PVC CONDUITS FROM THE NORTH ELECTRICAL PLATFORM TO ELECTRICAL MANHOLE. PRIMARY CABLE SHALL BE PROVIDED, INSTALLED AND TERMINATED BY UTILITY. COORDINATE EXACT ROUTING AND TERMINATIONS WITH UTILITY.
3. CONTRACTOR SHALL SUPPLY AND INSTALL 4'x4' (INSIDE DIMENSIONS) CONCRETE ELECTRICAL MANHOLE.
4. CONTRACTOR SHALL SUPPLY AND INSTALL (3) 3" RTRC CONDUIT FROM ELECTRICAL MANHOLE TO NEW SOUTH ELECTRICAL PLATFORM. MOUNT CONDUIT ON REAR OF EXISTING PIER WALL
5. CONTRACTOR SHALL PROVIDE AND INSTALL (6) 4" RTRC CONDUITS FROM THE MPD-1 TO UTILITY PROVIDED TRANSFORMER (UTIL-1) ON THE NEW NORTH ELECTRICAL PLATFORM. CONTRACTOR SHALL COORDINATE EXACT TURN UP AND TERMINATION POINT ON THE ELECTRICAL PLATFORM WITH THE LOCAL UTILITY.
6. CONTRACTOR SHALL PROVIDE AND INSTALL (8) 4" RTRC CONDUITS FROM THE MPD-2 TO UTILITY PROVIDED TRANSFORMER (UTIL-2) ON THE NEW ELECTRICAL PLATFORM EAST OF PIER. CONTRACTOR SHALL COORDINATE EXACT TURN UP AND TERMINATION POINT ON THE ELECTRICAL PLATFORM WITH THE LOCAL UTILITY.
7. CONTRACTOR SHALL PROVIDE AND INSTALL CUSTOM SHORE POWER ASSEMBLIES. ASSEMBLIES SHALL BE BY ESL POWER SYSTEMS OR APPROVED EQUAL.
8. CONTRACTOR SHALL PROVIDE AND INSTALL (2) 3" RTRC CONDUIT FOR DATA, TELEPHONE, AND CABLE TELEVISION FROM EXISTING TELECOMMUNICATION MANHOLE TO EACH SHORE POWER ASSEMBLY. CONTRACTOR SHALL COORDINATE INSIDE TERMINATION POINT WITH THE LOCATION OF THE SHORE POWER ASSEMBLY'S INTEGRATED TELECOMMUNICATION CABINET. SPA-1 CONDUIT ROUTING SHALL BE ON REAR OF PIER. SPA-2 AND SPA-3 CONDUIT SHALL BE ON FACE OF PIER.
9. CONTRACTOR SHALL PROVIDE AND INSTALL (5) 4" RTRC CONDUITS ON BACK OF PIER FROM MPD-1 TO SHORE POWER ASSEMBLY 1. COORDINATE INSIDE TERMINATION POINT WITH LOCATION OF THE SHORE POWER ASSEMBLY. ALL CONDUIT ON PIER SHALL BE EXTRA HEAVY WALL IMPACT RESISTANT RTRC. SEE E502 FOR DETAIL.
10. CONTRACTOR SHALL PROVIDE AND INSTALL (5) 4" RTRC CONDUITS FROM MPD-2 TO SHORE POWER ASSEMBLY 2. CONTRACTOR SHALL COORDINATE INSIDE TERMINATION POINT WITH LOCATION OF SHORE POWER ASSEMBLY. CONDUIT SHALL BE IN ABOVE GRADE TRENCH. SEE CIVIL DRAWINGS FOR DETAILS.
11. CONTRACTOR SHALL PROVIDE AND INSTALL (5) 4" RTRC CONDUITS FROM MPD-2 TO SHORE POWER ASSEMBLY 3. CONTRACTOR SHALL COORDINATE INSIDE TERMINATION POINT WITH LOCATION OF SHORE POWER ASSEMBLY. CONDUIT SHALL BE IN ABOVE GRADE TRENCH. SEE CIVIL DRAWINGS FOR DETAILS.
12. CONTRACTOR SHALL PROVIDE AND INSTALL (1) 1" RTRC CONDUIT FROM SHORE POWER ASSEMBLY 2 TELECOMMUNICATIONS COMPARTMENT TO NORTH GATE ACCESS CONTROLLER.
13. CONTRACTOR SHALL PROVIDE AND INSTALL (1) 1" RTRC CONDUIT FROM SHORE POWER ASSEMBLY 3 TELECOMMUNICATIONS COMPARTMENT TO SOUTH GATE ACCESS CONTROLLER.
14. SEE STRUCTURAL DRAWINGS FOR PLATFORM DETAILS.



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EAST PIER DEEP WATER WHARF FOR USM/NOAA
PORT OF GULFPORT MISSISSIPPI
STATE PORT AUTHORITY
 30TH AVENUE
 GULFPORT, MS 39501

SCALE: AS SHOWN
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ELECTRICAL DEEP WATER PIER SITE PLAN

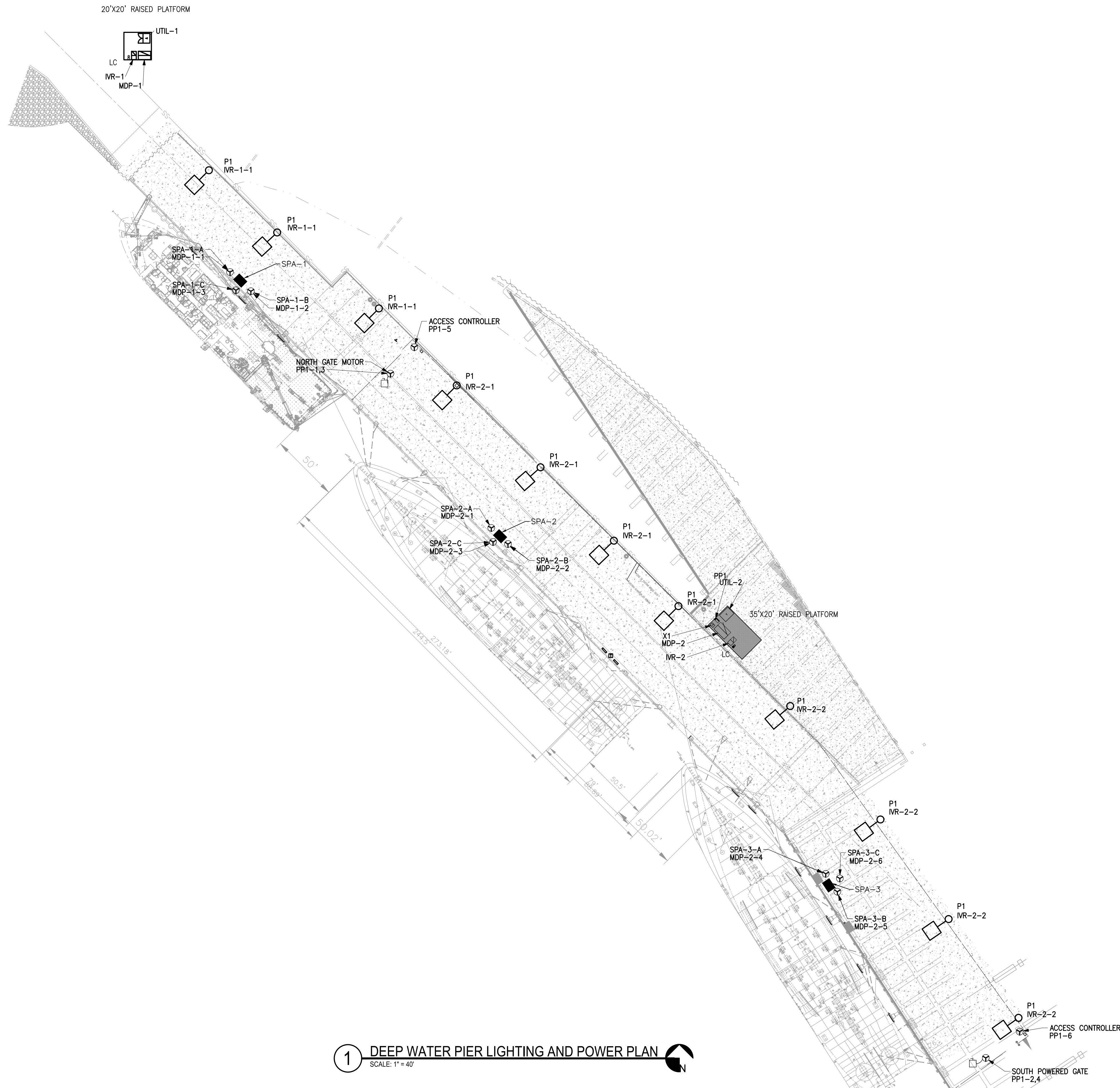
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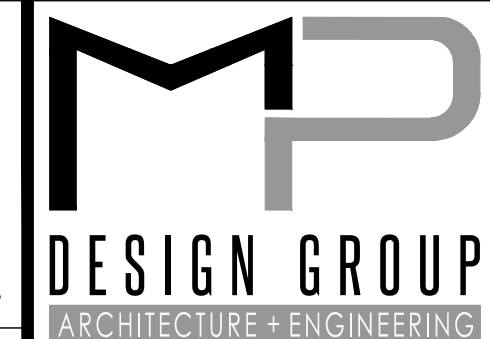
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1 DEEP WATER PIER LIGHTING AND POWER PLAN
 SCALE: 1" = 40'

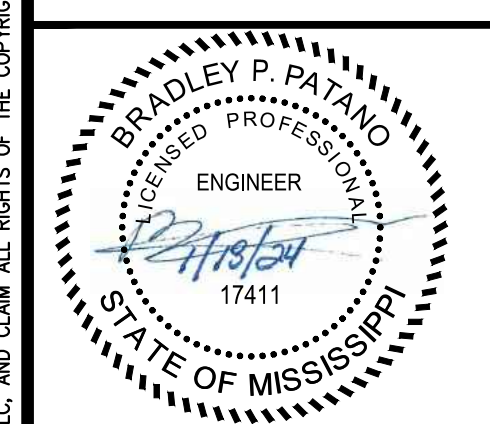
DRAWING E111 NOTES

1. LIGHTING CIRCUITS SHALL BE THROUGH INVERTER AND LIGHTING CONTACTOR WITH DUSK TO DAWN PHOTOCELL AND PROVISION TO TEST LIGHTING DURING DAYLIGHT HOURS.
2. SHORE POWER ASSEMBLIES BY ESL POWER SYSTEMS OR APPROVED EQUAL. ESL REFERENCE #3001662



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ELECTRICAL DEEP WATER PIER LIGHTING AND POWER PLAN

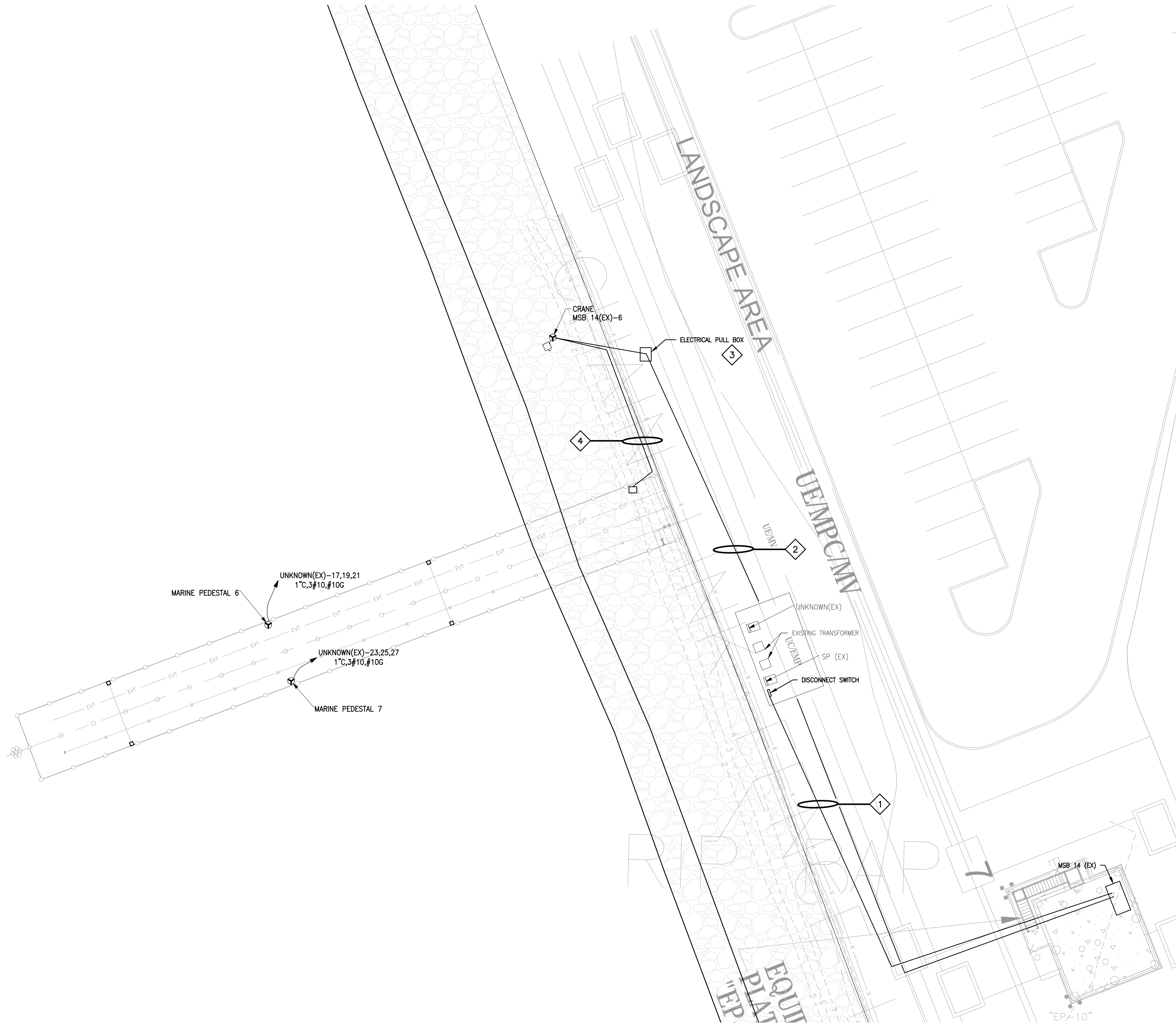
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E111

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1 ELECTRICAL POWER PLAN - SMALL BOAT PIER
 SCALE: 1/16" = 1'

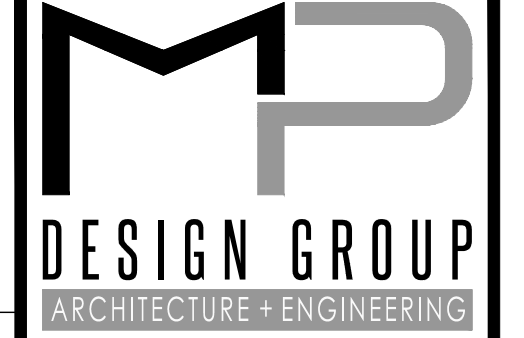
- ### DRAWING E112 NOTES
1. ALL UNDERGROUND CONDUIT FITTINGS SHALL BE 36" LONG RADIUS.
 2. INSTALL A METALLIC TRACER/WARNING TAPE 12" ABOVE ALL EXTERIOR CONDUITS. RED FOR POWER, ORANGE FOR COMMUNICATIONS.
 3. ALL EXTERIOR CONDUIT ABOVE GRADE SHALL BE RIGID GALVANIZED STEEL.
 4. SAW CUT THROUGH EXISTING ASPHALT AND CONCRETE AND RETURN SURFACE GRADE MATERIALS AND GROUND TO ORIGINAL CONDITION.
 5. ALL CONDUIT SHALL BE AT LEAST 36" BELOW GRADE.
 6. COORDINATE CONDUIT RUNS WITH EXISTING PIER FRAMING.
 7. CONTRACTOR SHALL VERIFY LOCATION OF ALL EQUIPMENT BEFORE INSTALLATION.
 8. ALL RECEPTACLES TO BE MOUNTED AT 48" ABOVE PIER.
 9. ALL ELECTRICAL EQUIPMENT & ENCLOSURES SHALL BE NEMA 4X.
 10. CONTRACTOR SHALL USE FIBERGLASS CONDUIT ON PIER.

MARINE PEDESTAL SCHEDULE

TAG	NOTES	DESCRIPTION / CATALOG NUMBER
MARINE PEDESTAL	1,2,3,4,5,6	EATON LIGHTHOUSE MARINE PEDESTAL

1. OR APPROVED EQUAL.
2. WITH LED LIGHTING - AMBER LENS.
3. WITH 20A, GFCI, DUPLEX RECEPTACLE.
4. WITH NEMA L5-30 RECEPTACLE.
5. (3) EMPTY SPACES ON PEDESTAL W/50A MAX CAPABILITY PER SPACE.
6. 3-PHASE, 208V, 4-WIRE POWER SUPPLY TO INTEGRATED BUS BAR.

- ### DRAWING E112 SPECIFIC NOTES
- 1** CONTRACTOR SHALL PROVIDE AND INSTALL (2) 2 1/2" CONDUIT FROM EXISTING SWITCHBOARD TO NEW DISCONNECT SWITCH. CONTRACTOR SHALL REFERENCE SHEET E604 FOR NEW FEEDER SIZE.
 - 2** CONTRACTOR SHALL PROVIDE AND INSTALL (1) 1 1/4" CONDUIT FROM EXISTING SWITCHBOARD TO NEW CRANE. CONTRACTOR SHALL REFERENCE SHEET E605 FOR NEW FEEDER SIZE.
 - 3** CONTRACTOR SHALL PROVIDE AND INSTALL ELECTRICAL PULL BOX IN THE GROUND. CONTRACTOR SHALL PROVIDE 12"x12"x12" ELECTRICAL PULL BOX.
 - 4** CONTRACTOR SHALL PROVIDE AND INSTALL (1) 1" CONDUIT FROM CRANE TO THE PIER. CONTRACTOR SHALL PROVIDE AND INSTALL JUNCTION BOX ON PIER FOR CONTROLS TO CRANE.



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EAST PIER DEEP WATER WHARF FOR USM/NOAA
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STATE PORT AUTHORITY
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ELECTRICAL POWER PLAN - SMALL BOAT PIER - ALTERNATE #1

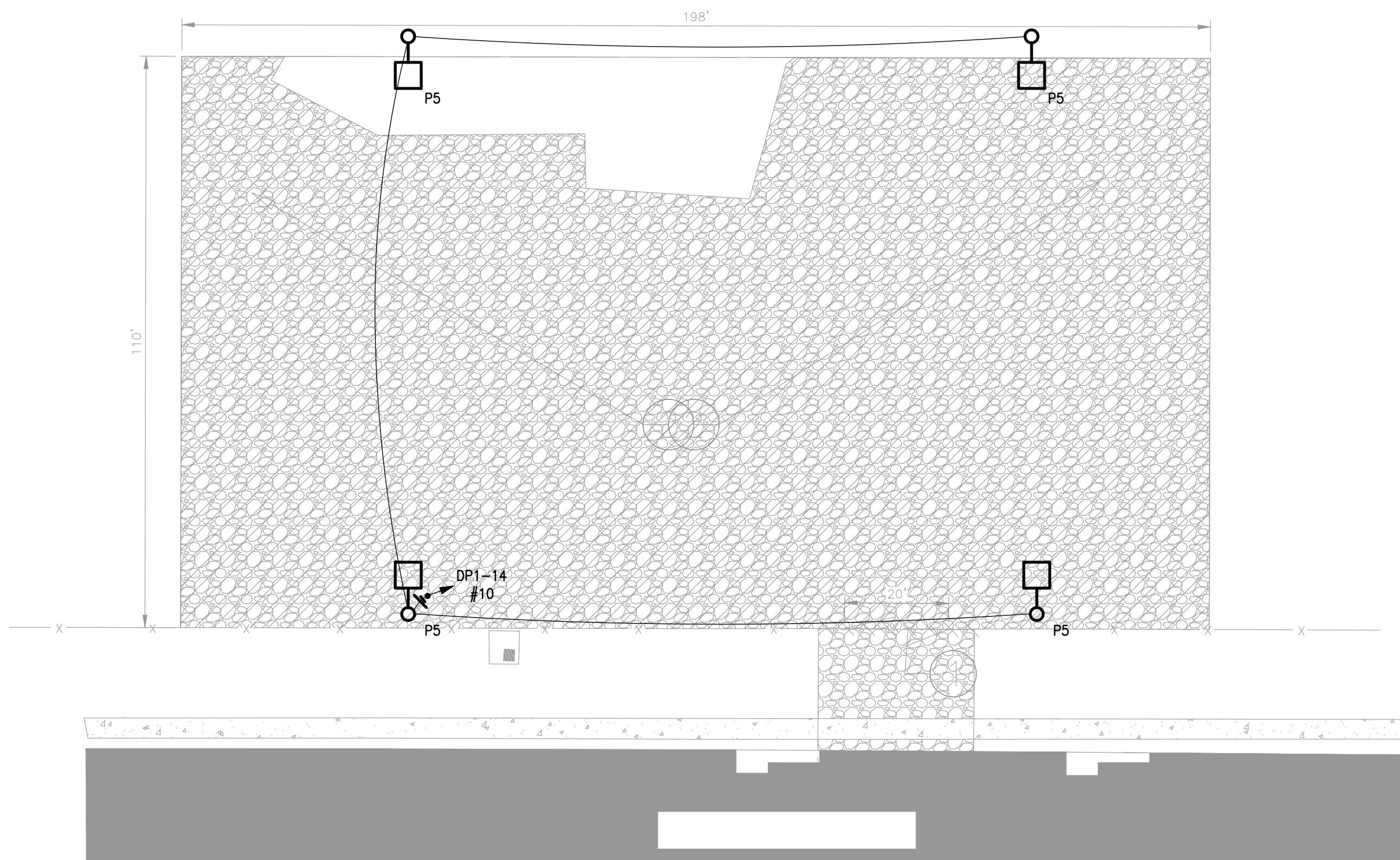
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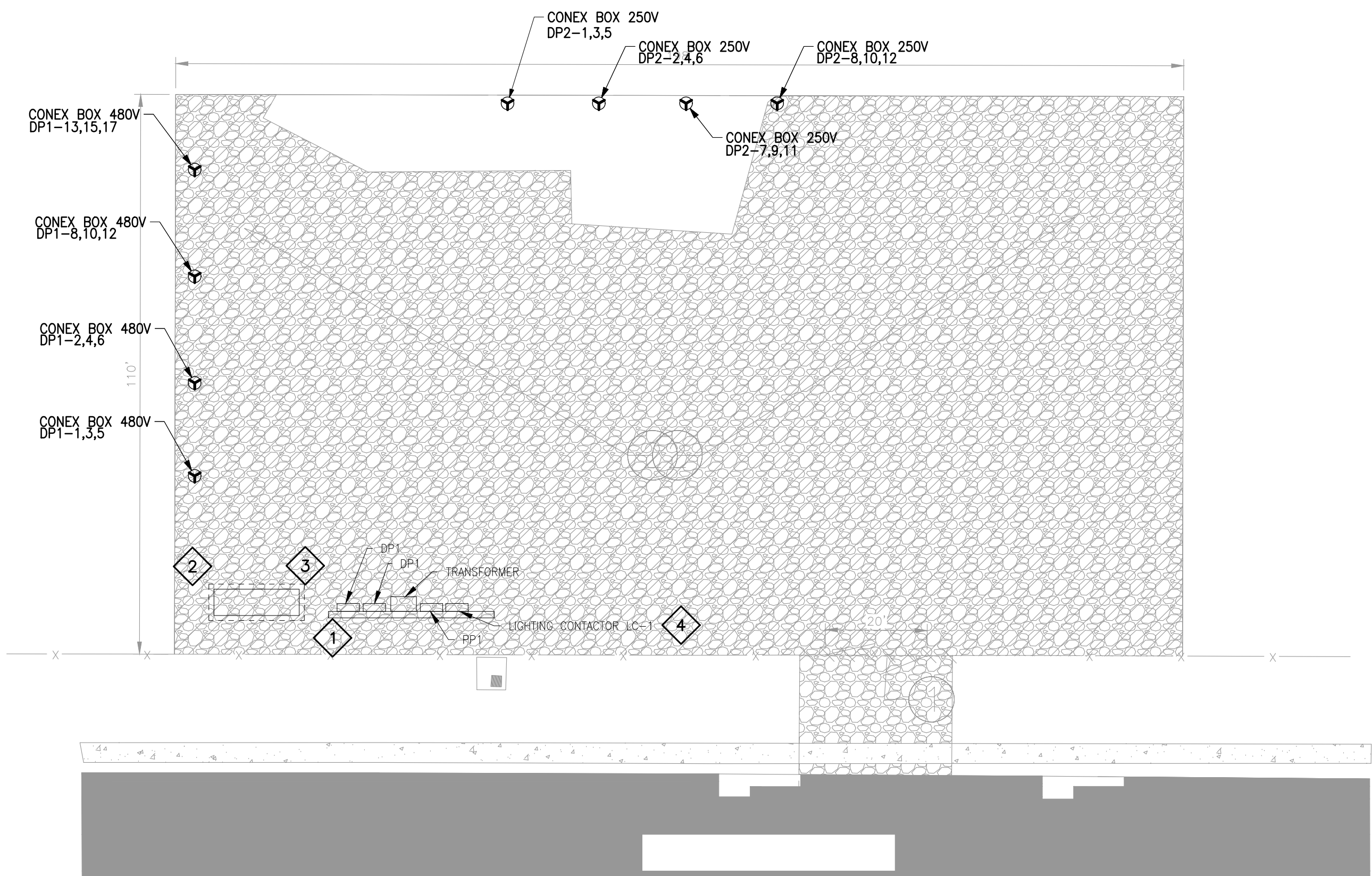
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1 ELECTRICAL LIGHTING PLAN- SEVERE WEATHER STORAGE
 SCALE: 1" = 20'-0"



1 ELECTRICAL POWER PLAN- SEVERE WEATHER STORAGE
 SCALE: 1" = 20'-0"

DRAWING E113 NOTES

1. ALL UNDERGROUND CONDUIT FITTINGS SHALL BE 36" LONG RADIUS.
2. INSTALL A METALLIC TRACER/WARNING TAPE 12" ABOVE ALL EXTERIOR CONDUITS. RED FOR POWER, ORANGE FOR COMMUNICATIONS.
3. ALL EXTERIOR CONDUIT ABOVE GRADE SHALL BE RIGID GALVANIZED STEEL.
4. SAW CUT THROUGH EXISTING ASPHALT AND CONCRETE AND RETURN SURFACE GRADE MATERIALS AND GROUND TO ORIGINAL CONDITION.
5. ALL CONDUIT SHALL BE AT LEAST 36" BELOW GRADE.

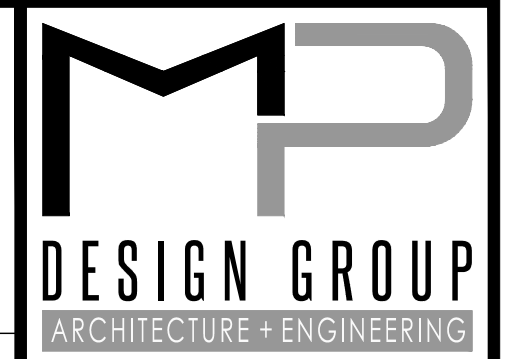
LIGHTING SCHEDULE

TAG	DESCRIPTION	VOLTAGE	LAMP	CATALOG NUMBER
F5	LED AREA FLOOD FIXTURE	277	312W	RSX3 LED 40K R4 MVOLT RPA DDBXD

1. CONTRACTOR SHALL PROVIDE AND INSTALL NEW POLE, MODEL NUMBER-RTA 30 8E DM19 FBC DDBXD. CONTRACTOR SHALL REFERENCE SHEET E504 FOR POLE BASE DETAIL.

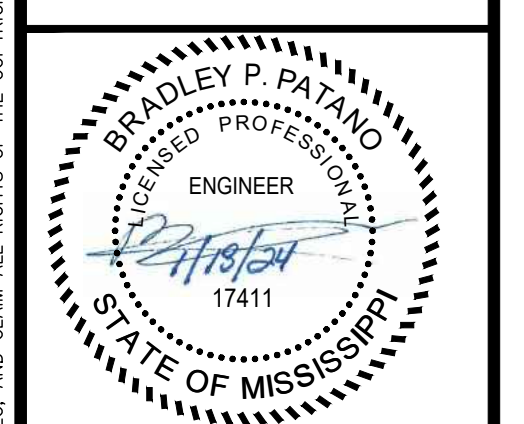
DRAWING E113 SPECIFIC NOTES

1. CONTRACTOR SHALL REFERENCE SHEET E504 FOR LAYOUT OF NEW PANELBOARDS. CONTRACTOR SHALL PROVIDE AND INSTALL NEW UNI-STRUT FOR HOUSING OF NEW PANELBOARDS AND TRANSFER SWITCH.
2. CONTRACTOR SHALL PROVIDE AND INSTALL NEW GENERATOR. CONTRACTOR SHALL REFERENCE SHEET E605 FOR DETAILS OF NEW GENERATOR.
3. CONTRACTOR SHALL PROVIDE AND INSTALL NEW GENERATOR PAD. CONTRACTOR SHALL REFERENCE CIVIL DRAWINGS FOR EXACT LOCATION OF NEW GENERATOR PAD.
4. CONTRACTOR SHALL PROVIDE AND INSTALL LIGHTING CONTACTOR PANELBOARD. CONTRACTOR SHALL PLACE PHOTOCCELL ON TOP OF CONTACTOR PANEL.



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ELECTRICAL POWER PLAN - SEVERE WEATHER STORAGE - ALTERNATE #2

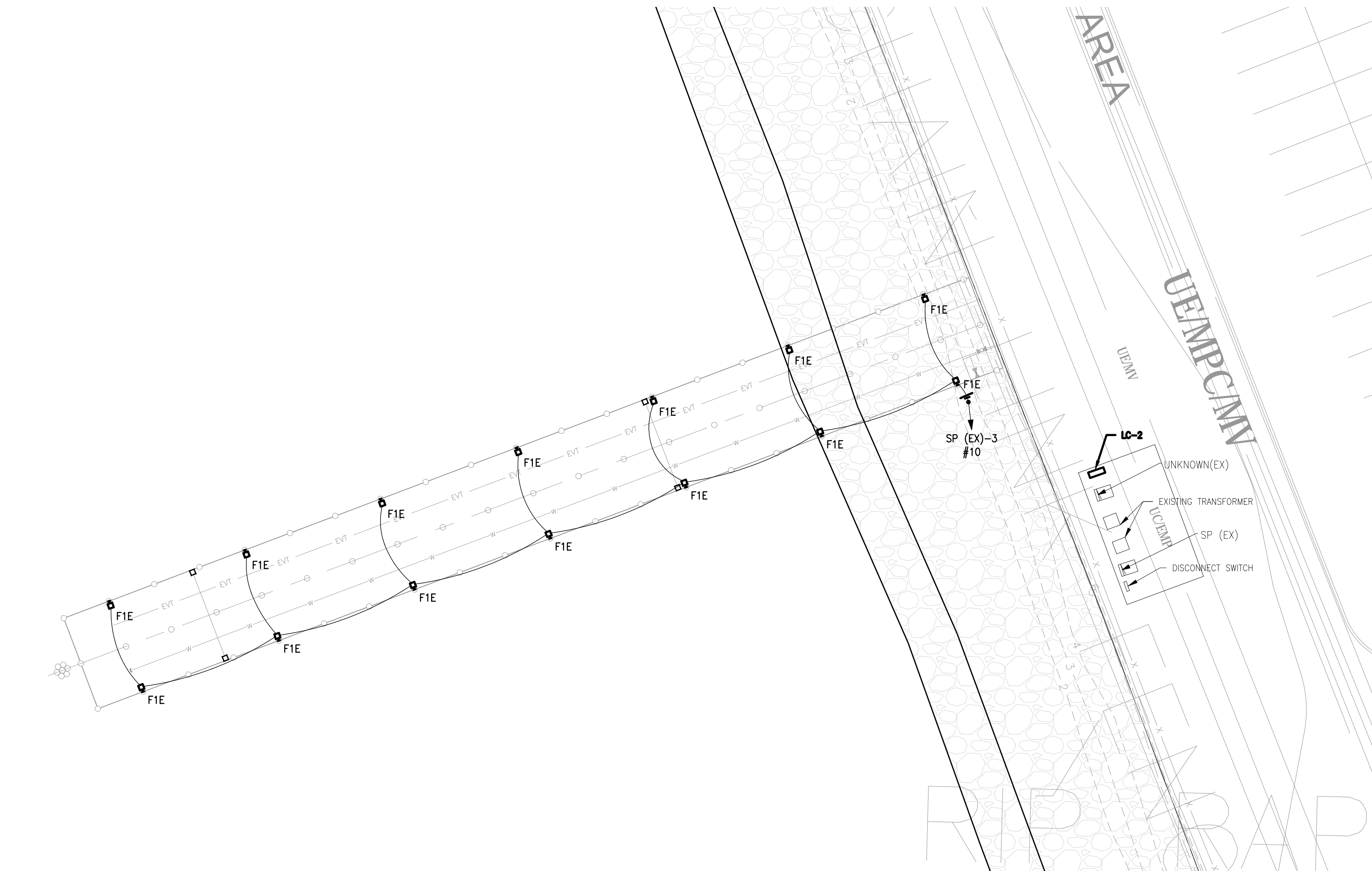
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E113

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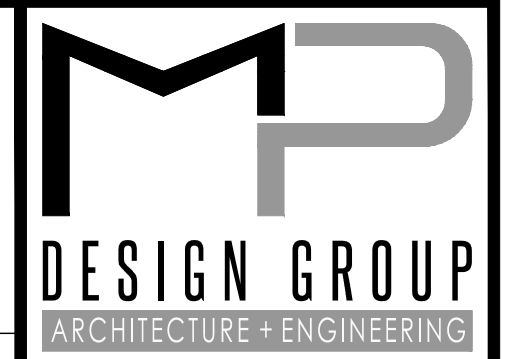
1 ELECTRICAL LIGHTING PLAN - SMALL BOAT PIER
 SCALE: 1/16" = 1'

- ### DRAWING E121 NOTES
1. ALL UNDERGROUND CONDUIT FITTINGS SHALL BE 36" LONG RADIUS.
 2. INSTALL A METALLIC TRACER/WARNING TAPE 12" ABOVE ALL EXTERIOR CONDUITS. RED FOR POWER, ORANGE FOR COMMUNICATIONS.
 3. ALL EXTERIOR CONDUIT ABOVE GRADE SHALL BE RIGID GALVANIZED STEEL.
 4. SAW CUT THROUGH EXISTING ASPHALT AND CONCRETE AND RETURN SURFACE GRADE MATERIALS AND GROUND TO ORIGINAL CONDITION.
 5. ALL CONDUIT SHALL BE AT LEAST 36" BELOW GRADE.
 6. COORDINATE CONDUIT RUNS WITH EXISTING PIER FRAMING.
 7. CONTRACTOR SHALL VERIFY LOCATION OF ALL EQUIPMENT BEFORE INSTALLATION.
 8. ALL RECEPTACLES TO BE MOUNTED AT 48" ABOVE PIER.
 9. ALL ELECTRICAL EQUIPMENT & ENCLOSURES SHALL BE NEMA 4X.
 10. ALL CONDUIT ON PIER SHALL BE FIBERGLASS.
 11. CONTRACTOR SHALL ROUTE LIGHTING FIXTURES THROUGH LIGHTING CONTACTOR LC-2. CONTRACTOR SHALL MOUNT PHOTOCELL ON TOP OF PANEL.

LIGHTING SCHEDULE

TAG	DESCRIPTION	VOLTAGE	LAMP	CATALOG NUMBER
F1E	LED AREA & ROADWAY FIXTURE	120	59W	DS80-PLED-III-20LED-875mA-40K-UNV-1-RAL-9003-T-PC277V

1. CONTRACTOR SHALL PROVIDE AND INSTALL BRACKET FOR INSTALLATION ABOVE PILES. SUN VALLEY LIGHTING MODEL NUMBER- PM1 36INCH SHAFT.
2. CONTRACTOR SHALL PROVIDE AND INSTALL ARM FOR LIGHT TO BE MOUNTED TO. U.S. ARCHITECTURAL LIGHTING MODEL NUMBER- XPX.



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**ELECTRICAL LIGHTING PLAN -
 SMALL BOAT PIER - ALTERNATE #1**

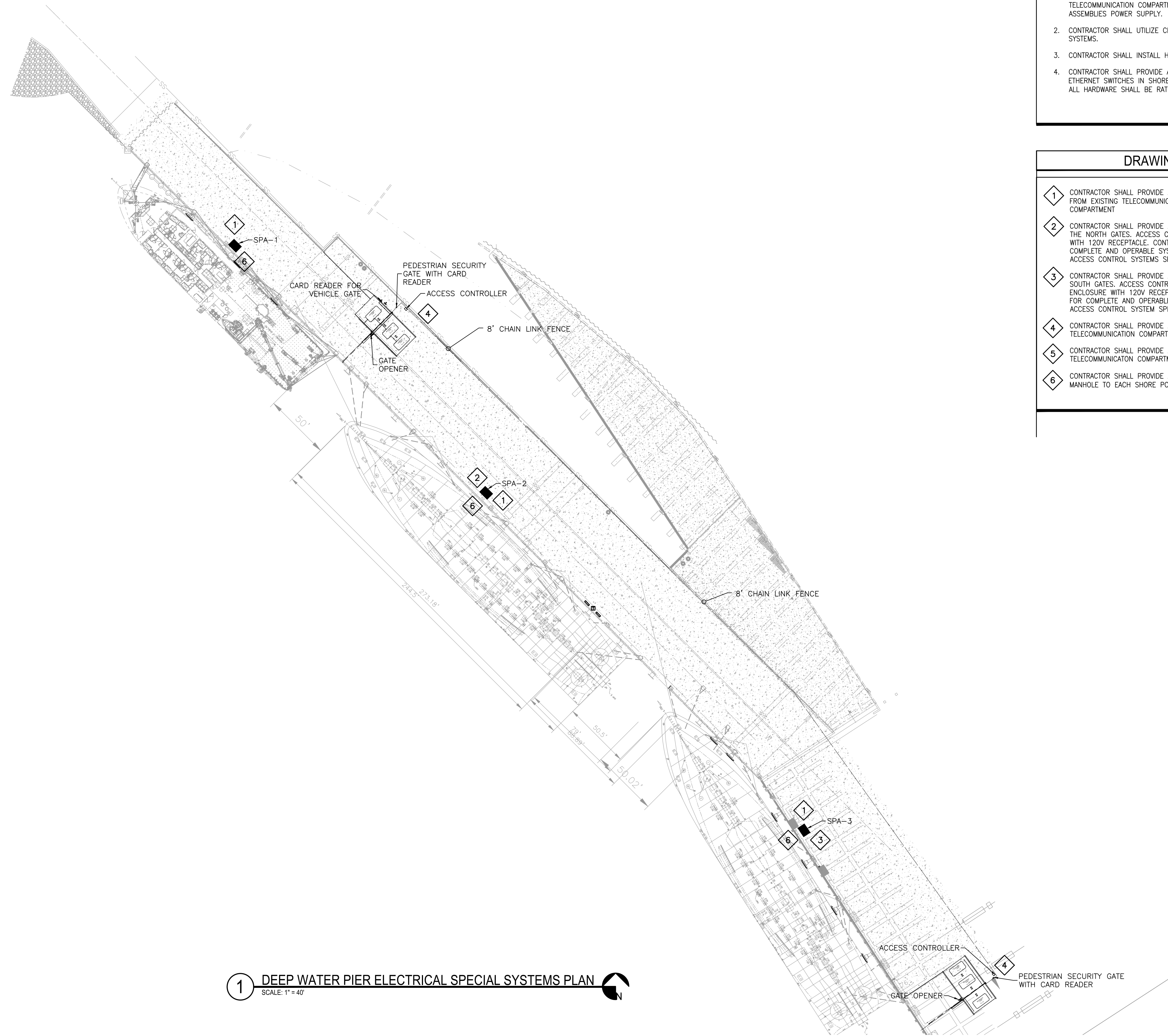
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EXISTING TELECOMMUNICATIONS MANHOLE



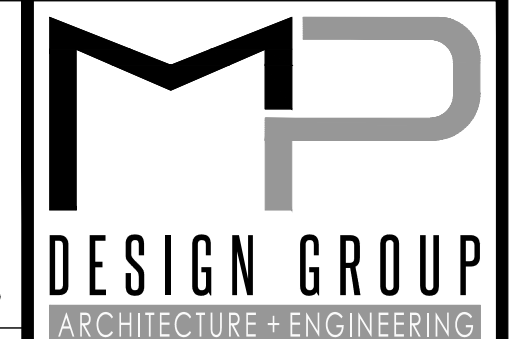
1 DEEP WATER PIER ELECTRICAL SPECIAL SYSTEMS PLAN
SCALE: 1" = 40'

DRAWING E141 NOTES

1. SHORE POWER ASSEMBLIES SHALL HAVE A PRE-WIRED 120V QUAD RECEPTACLE IN THE TELECOMMUNICATION COMPARTMENT FED FROM INTEGRATED 208/120V SHORE POWER ASSEMBLIES POWER SUPPLY.
2. CONTRACTOR SHALL UTILIZE CENTER FOR OCEAN ENTERPRISE TELECOMMUNICATION SYSTEMS.
3. CONTRACTOR SHALL INSTALL HOMERUN FROM EACH GATE TO ASSOCIATED CONTROL PANEL.
4. CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY MEDIA CONVERTER AND ETHERNET SWITCHES IN SHORE POWER ASSEMBLY'S TELECOMMUNICATION COMPARTMENT. ALL HARDWARE SHALL BE RATED FOR HARSH ENVIRONMENT USE.

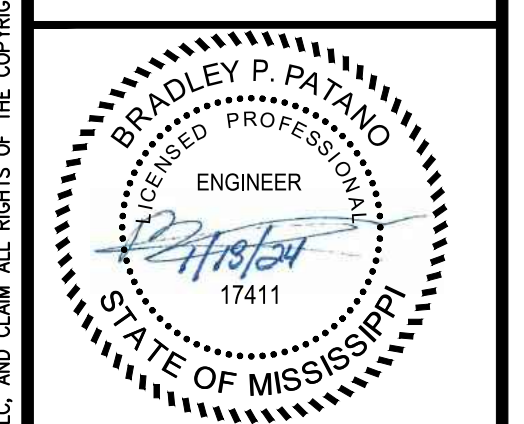
DRAWING E141 SPECIFIC NOTES

1. CONTRACTOR SHALL PROVIDE AND INSTALL (4) 12 STRAND SINGLE MODE FIBER OPTIC CABLES FROM EXISTING TELECOMMUNICATION MANHOLE TO SHORE POWER ASSEMBLY TELECOMMUNICATION COMPARTMENT
2. CONTRACTOR SHALL PROVIDE AND INSTALL NEW ACCESS CONTROL PANEL AND CARD READERS AT THE NORTH GATES. ACCESS CONTROL PANEL SHALL BE MOUNTED IN A NEMA 4X ENCLOSURE WITH 120V RECEPTACLE. CONTRACTOR SHALL PROVIDE ALL NECESSARY COMPONENTS FOR COMPLETE AND OPERABLE SYSTEM. COORDINATE WITH USM FACILITIES DIRECTOR FOR EXACT ACCESS CONTROL SYSTEMS SPECIFICATIONS.
3. CONTRACTOR SHALL PROVIDE AND INSTALL NEW ACCESS CONTROL PANEL AND CARD READERS AT SOUTH GATES. ACCESS CONTROL PANEL SHALL BE MOUNTED IN A CONDITIONED NEMA 4X ENCLOSURE WITH 120V RECEPTACLE. CONTRACTOR SHALL SUPPLY ALL NECESSARY COMPONENTS FOR COMPLETE AND OPERABLE SYSTEM. COORDINATE WITH USM FACILITIES DIRECTOR FOR EXACT ACCESS CONTROL SYSTEM SPECIFICATIONS.
4. CONTRACTOR SHALL PROVIDE AND INSTALL CAT 6 SHIELDED CABLE FROM SPA-2 TELECOMMUNICATION COMPARTMENT TO ACCESS CONTROL PANEL AT NORTH GATE.
5. CONTRACTOR SHALL PROVIDE AND INSTALL CAT 6 SHIELDED CABLE FROM SPA-3 TELECOMMUNICATION COMPARTMENT TO ACCESS CONTROL PANEL AT SOUTH GATE.
6. CONTRACTOR SHALL PROVIDE AND INSTALL (2) RG-6 COAXIAL CABLES FROM TELECOMMUNICATION MANHOLE TO EACH SHORE POWER ASSEMBLY TELECOMMUNICATION CABINET.



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EAST PIER DEEP WATER WHARF FOR USM/NOAA
PORT OF GULFPORT MISSISSIPPI
STATE PORT AUTHORITY
30TH AVENUE
GULFPORT, MS 39501

SCALE: AS SHOWN
PROJECT NO: 0297.23.001
DRAWN BY: MAB
CHECKED BY: KDB

ELECTRICAL DEEP WATER PIER SPECIAL SYSTEMS PLAN

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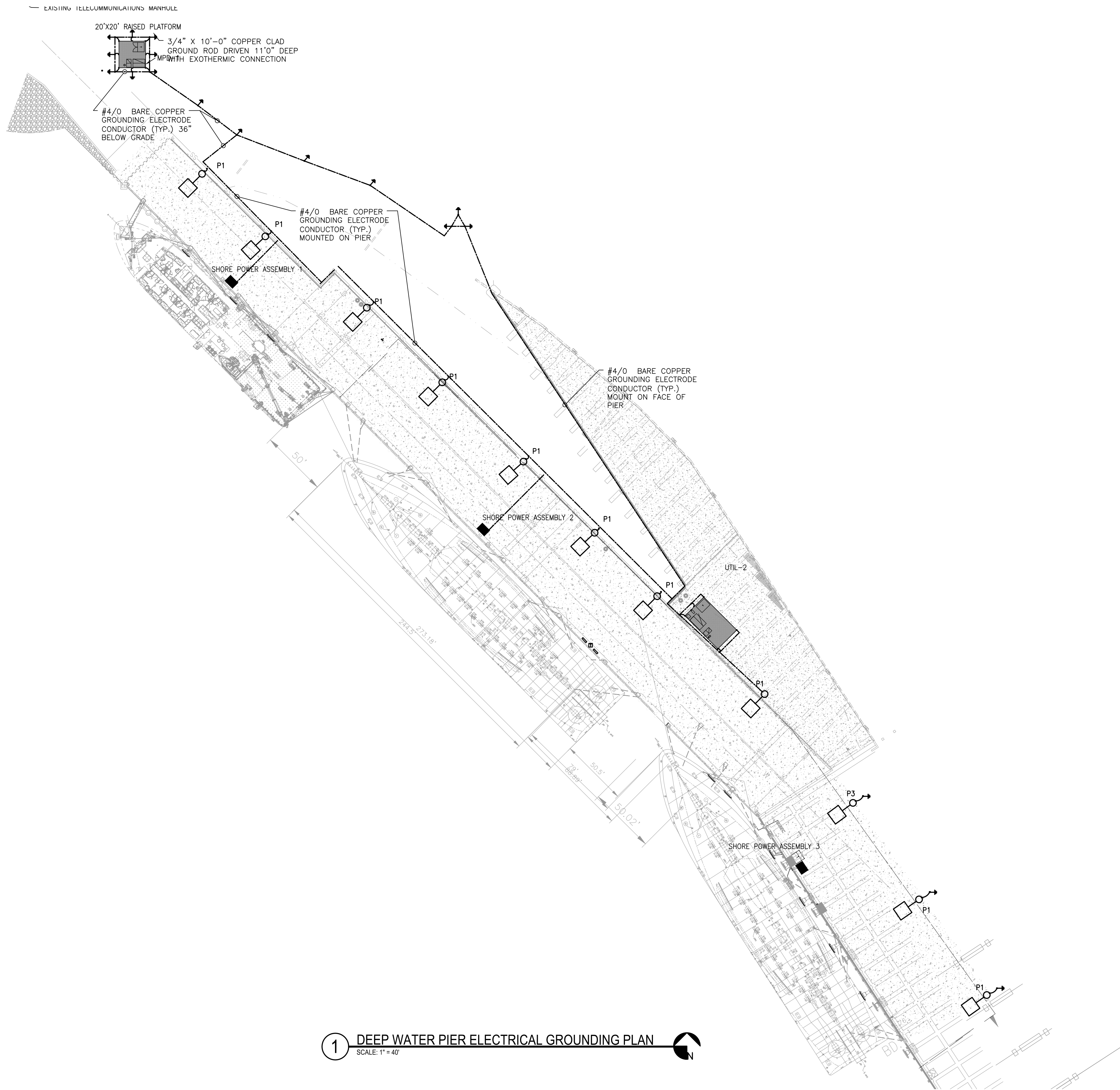
E141

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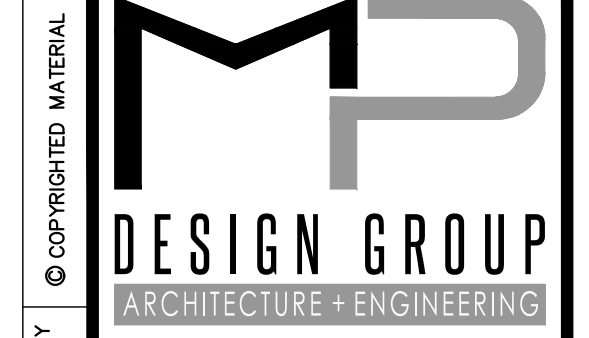
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1 DEEP WATER PIER ELECTRICAL GROUNDING PLAN
 SCALE: 1" = 40'

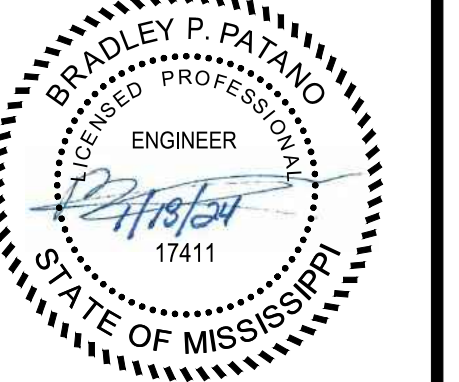
DRAWING E161 NOTES

1. REFER TO SHEET E503 FOR TYPICAL GROUNDING AND BONDING DETAILS
2. 45'-0" MAX GROUND ROD SPACING
3. INSTALL #6 BARE COPPER GROUND FROM EACH PANEL AND TRANSFORMER TO GROUND CONNECTION BAR. PROVE GROUND CONNECTION BAR ON EACH PLATFORM
4. ALL METALLIC WATER PIPING SHALL BE BONDED TO ELECTRODE GROUNDING SYSTEM.
5. ALL CONCRETE PENETRATIONS SHALL BE WITH CONDUIT SLEEVE TO PROTECT GROUNDING CONDUCTORS.
6. CONTRACTOR SHALL BOND ALL EXPOSED METAL PARTS INCLUDING BUT NOT LIMITED TO STEEL DECKING, HAND RAILS, FENCING, CABLE SUPPORTS AND ALL ELECTRICAL EQUIPMENT (PRIMARY SWITCH, SECONDARY SWITCHGEARS, PANELBOARDS, SHORE POWER ASSEMBLIES ETC.)



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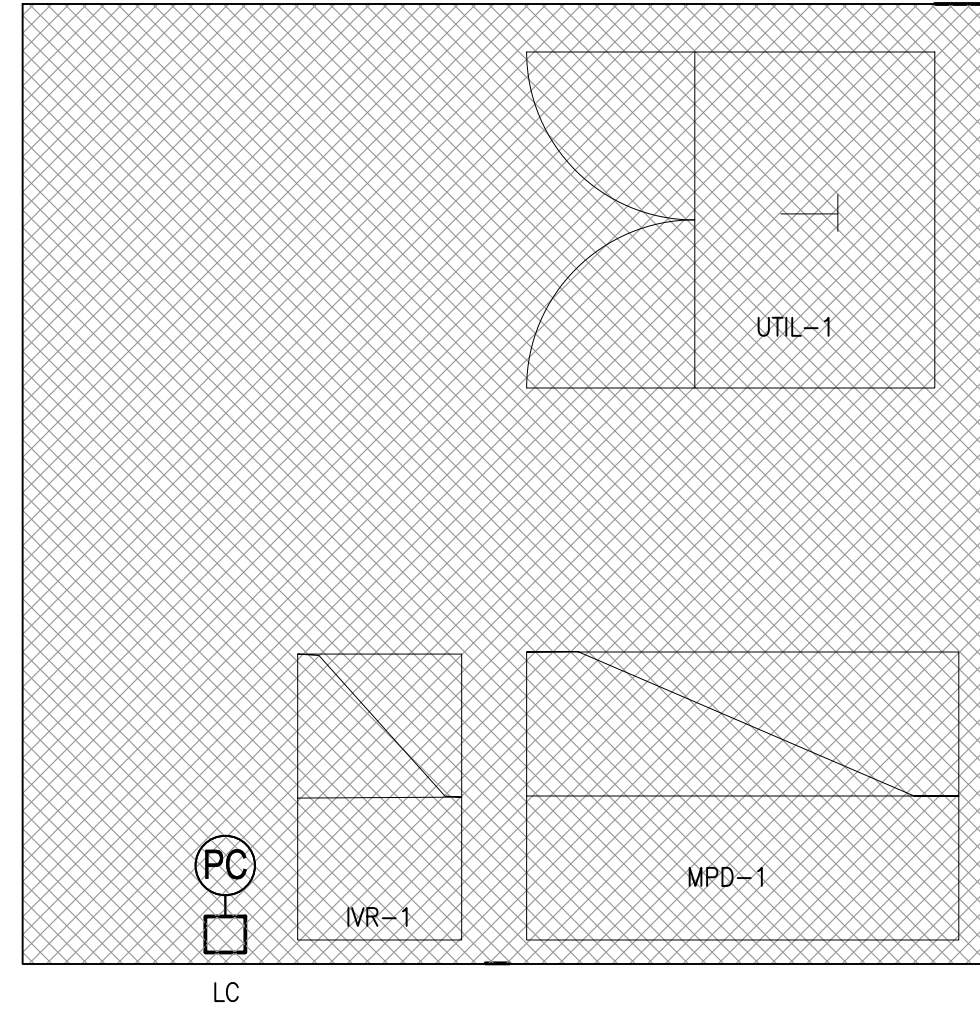
ELECTRICAL DEEP WATER PIER GROUNDING PLAN

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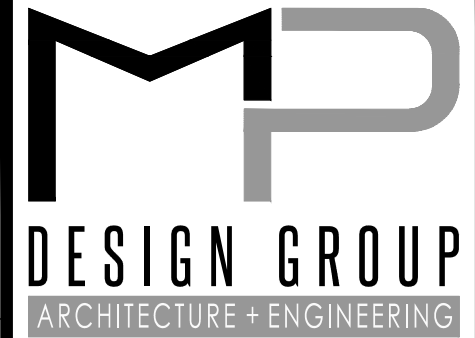


1 ENLARGED NORTH ELECTRICAL PLATFORM PLAN
 SCALE: 1/4" = 1'0"



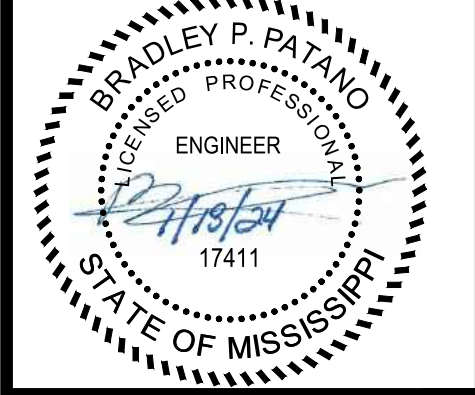
2 ENLARGED SOUTH ELECTRICAL PLATFORM PLAN
 SCALE: 3/16" = 1'0"

- DRAWING E201 NOTES**
- CONTRACTOR SHALL VERIFY ALL NATIONAL ELECTRICAL CODE CLEARANCE REQUIREMENTS.
 - CONTRACTOR SHALL PROVIDE AND INSTALL ARC-FAULT STICKERS FOR ALL SWITCHBOARDS, PANELBOARDS, AND TRANSFORMERS. CONTRACTOR SHALL PROVIDE ALL NECESSARY LOAD STUDIES PER SPECIFICATION. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY FOR ALL NEEDED INFORMATION IN ORDER TO COMPLETE THE LOAD STUDY.



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ENLARGED ELECTRICAL PLATFORM

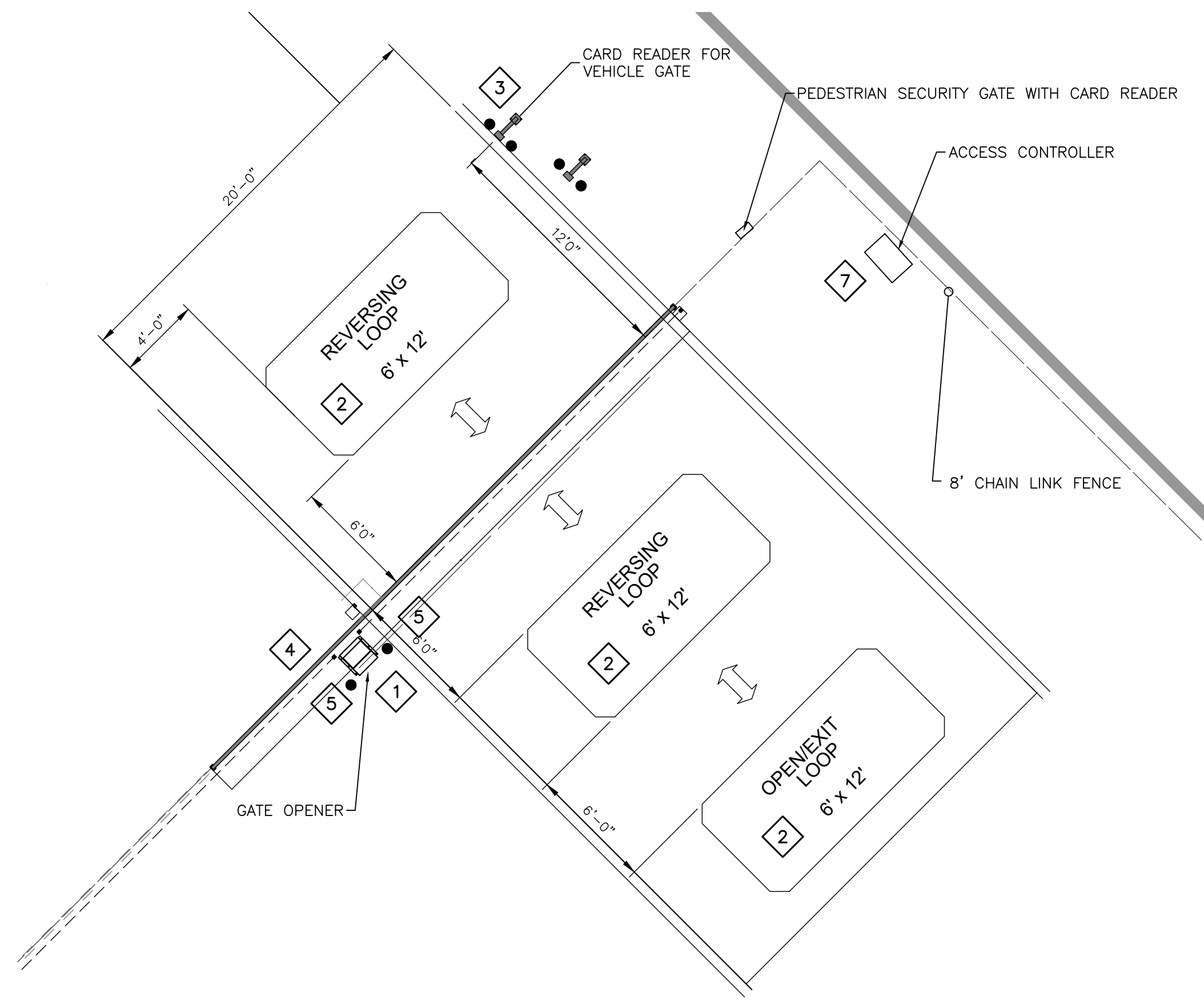
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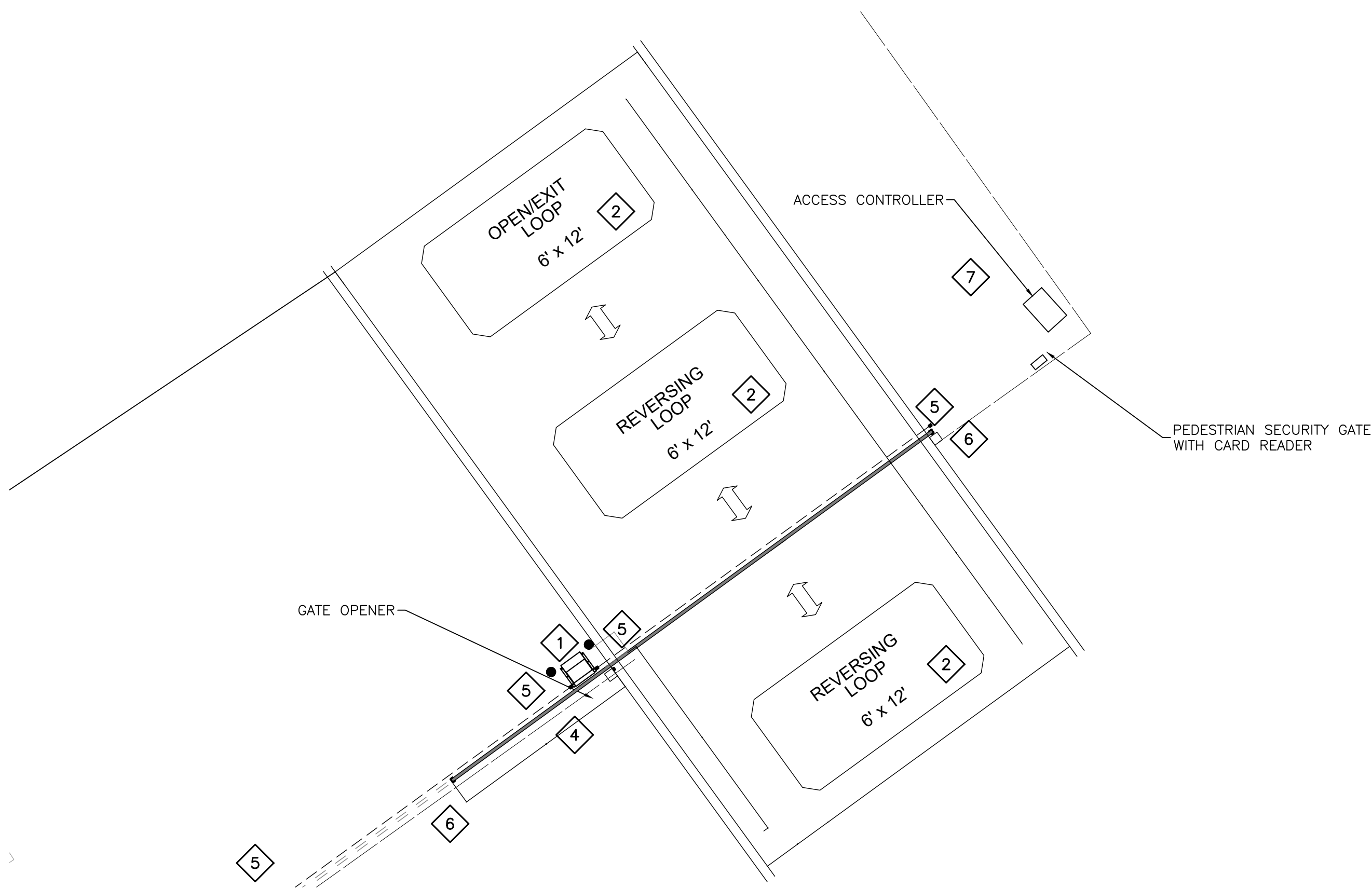
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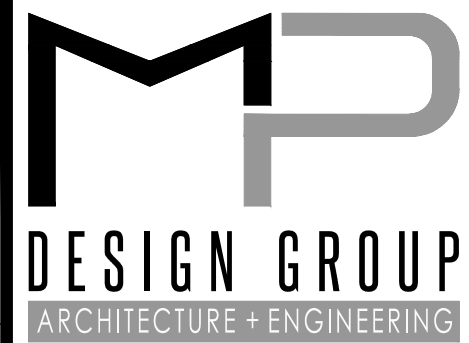
1 ELECTRICAL ENLARGED VIEW OF ACCESS CONTROLLED NORTH GATE
 SCALE: 3/16" = 1"



2 ELECTRICAL ENLARGED VIEW OF ACCESS CONTROLLED SOUTH GATE
 SCALE: 3/16" = 1"

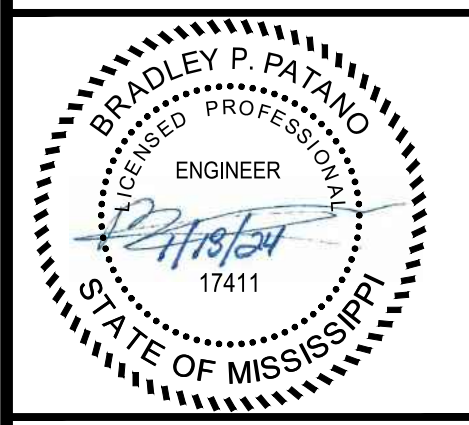
- ### DRAWING E202 NOTES
- CONTRACTOR SHALL VERIFY SYSTEM IS COMPLIANT WITH UL325 AND ASTM F2200.
 - CONTRACTOR SHALL REFERENCE CIVIL SHEETS FOR GATE EXACT LOCATION AND SIZE.
 - CONTRACTOR SHALL PROVIDE AND INSTALL ACCESS CONTROL SYSTEM COMPATIBLE WITH EXISTING ACCESS CONTROL OF USM'S CENTER FOR OCEAN ENTERPRISE FACILITY. COORDINATE WITH USM FACILITIES FOR EXACT REQUIREMENTS

- ### DRAWING E202 SPECIFIC NOTES
- CONTRACTOR SHALL PROVIDE AND INSTALL NEW GATE OPENER LIFTMASTER MODEL CSL24UL.
 - CONTRACTOR SHALL PROVIDE AND INSTALL NEW VEHICLE DETECTION LOOP. PROVIDE AND INSTALL ALL CONDUIT AND WIRING FOR SYSTEM BACK TO GATE OPENER.
 - CONTRACTOR SHALL PROVIDE AND INSTALL STANDARD MOUNTING POST WITH CARD READER. COORDINATE WITH USM FACILITIES DIRECTOR FOR EXACT REQUIREMENTS.
 - CONTRACTOR SHALL PROVIDE AND INSTALL FIRE DEPARTMENT LOCK BOX ON FENCE POST.
 - CONTRACTOR SHALL PROVIDE AND INSTALL NEW PHOTO BEAM DETECTOR. LIFTMASTER MODEL LMTBUL. PHOTO BEAM MUST COVER THE ENTIRE LENGTH OF TRAVEL OF THE GATE.
 - CONTRACTOR SHALL PROVIDE AND INSTALL NEW REVERSING EDGE FOR GATE.
 - CONTRACTOR SHALL PROVIDE NEW ACCESS CONTROLLER IN NEMA 4X RATED ENCLOSURE COORDINATE WITH USM FACILITIES DIRECTOR FOR EXACT CONTROLLER SPECIFICATIONS



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**EAST PIER DEEP WATER WHARF FOR
 USM/NOAA
 PORT OF GULFPORT MISSISSIPPI
 STATE PORT AUTHORITY**
 30TH AVENUE
 GULFPORT, MS 39501

SCALE: AS SHOWN
 PROJECT NO: 0297.23.001
 DRAWN BY: MAB
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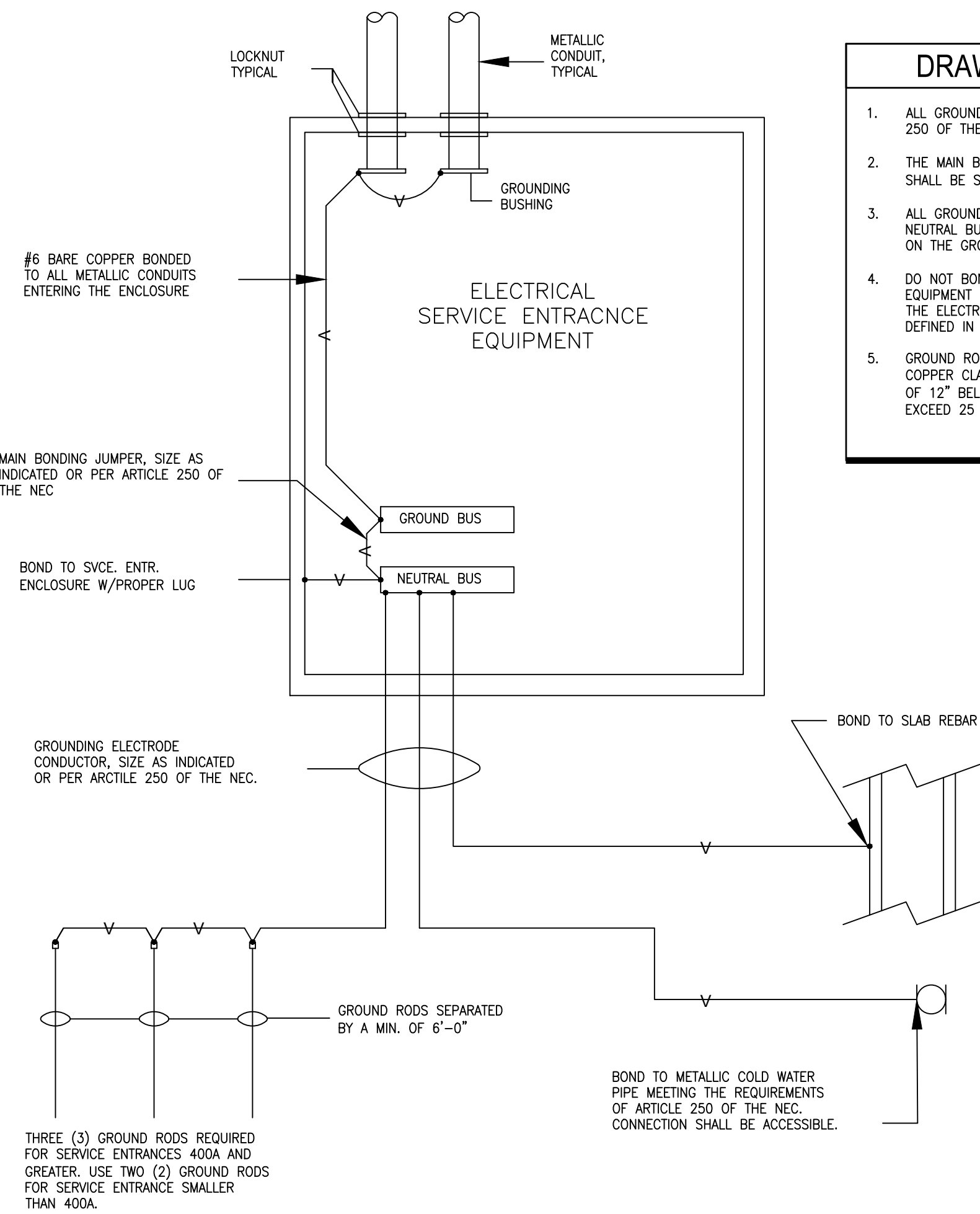
**ENLARGED ELECTRICAL
 ACCESS CONTROL PLAN**

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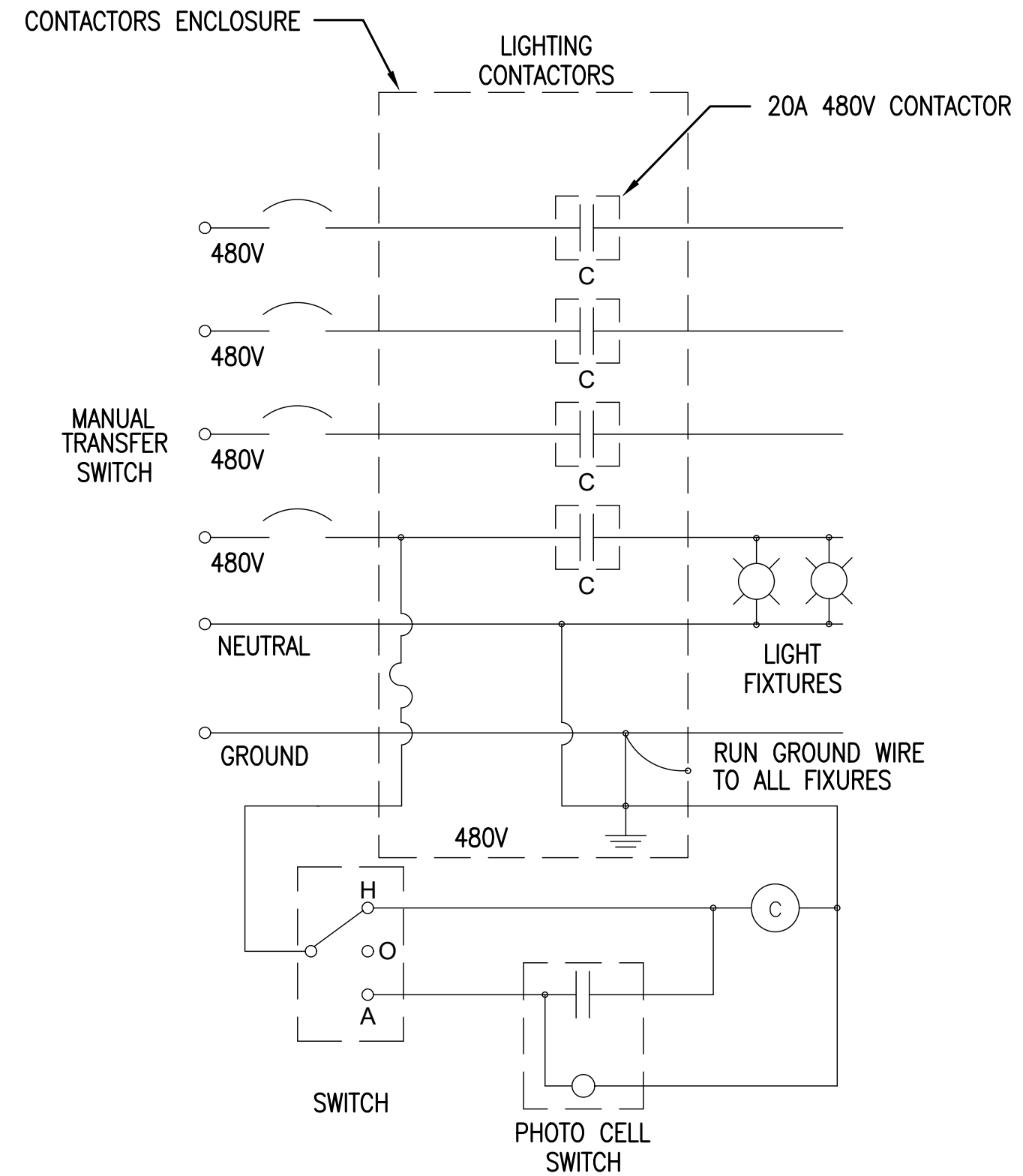
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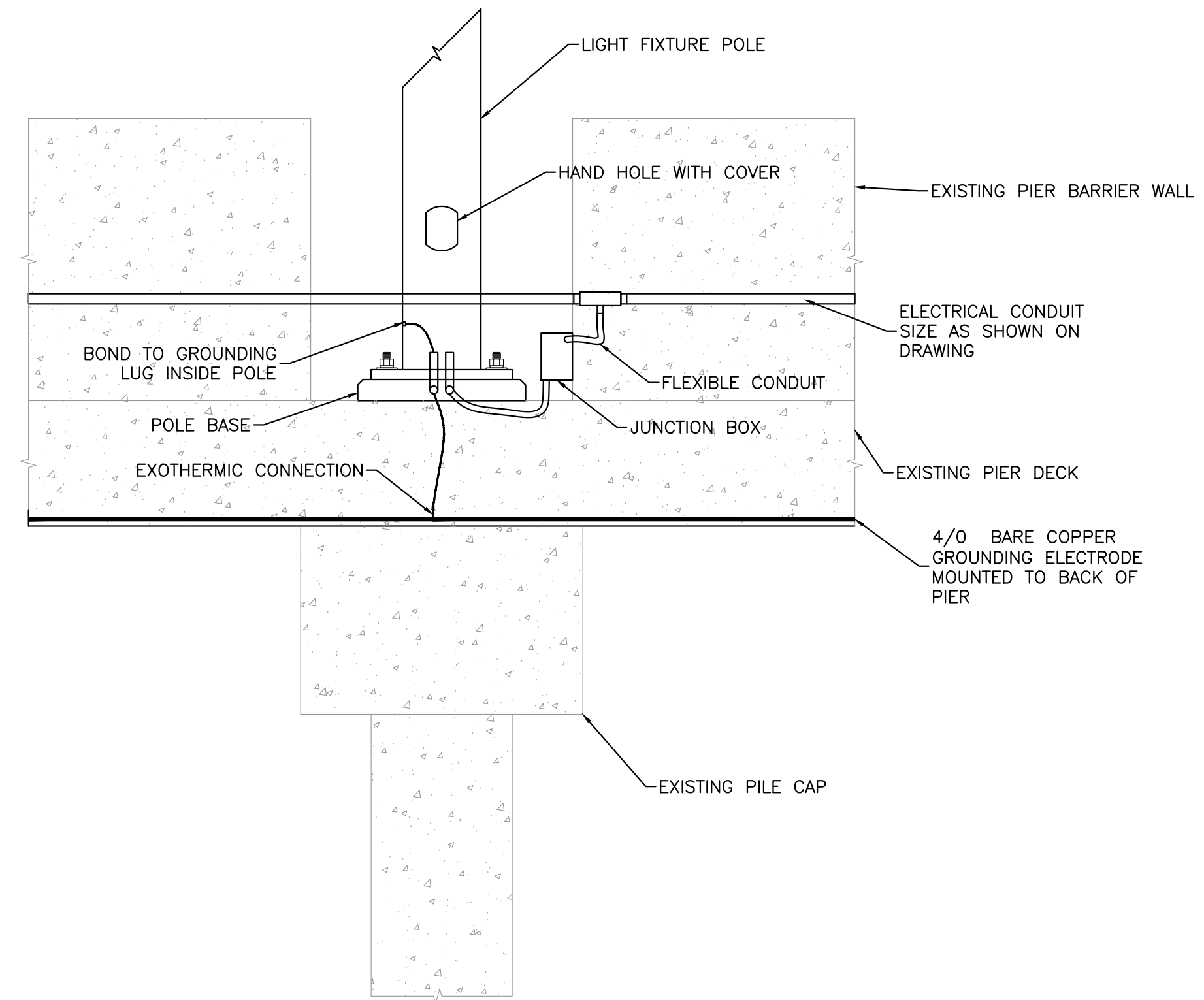
1 GROUNDING AND BONDING DETAIL
 SCALE: NTS

DRAWING E501 SPECIFIC NOTES

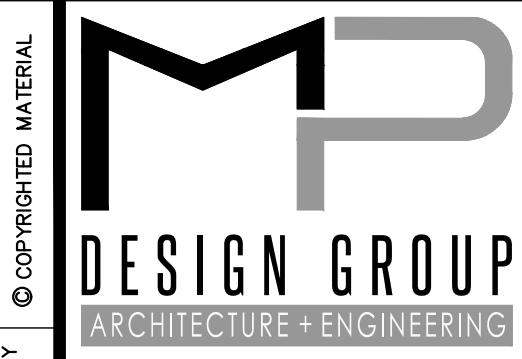
1. ALL GROUNDING AND BONDING SHALL BE IN ACCORDANCE WITH ARTICLE 250 OF THE NEC.
2. THE MAIN BONDING JUMPER & THE GROUNDING ELECTRODE CONDUCTOR(S) SHALL BE SIZED AS INDICATED AND/OR PER NEC ARTICLE 250.
3. ALL GROUNDED (NEUTRAL) CONDUCTORS SHALL TERMINATE ON THE NEUTRAL BUS & ALL EQUIPMENT GROUNDING CONDUCTOR SHALL TERMINATE ON THE GROUND BUS. ONE LUG OR TERMINAL PER CONDUCTOR.
4. DO NOT BOND OR CONNECT THE GROUNDED (NEUTRAL) CONDUCTOR & THE EQUIPMENT GROUNDING CONDUCTOR TOGETHER AT ANY OTHER POINT IN THE ELECTRICAL SYSTEM EXCEPT AT SEPARATELY DERIVED SYSTEMS AS DEFINED IN THE NEC.
5. GROUND RODS USED FOR GROUNDING ELECTRODE SYSTEMS SHALL BE COPPER CLAD, 3/4"x10' MIN. AND SHALL BE INSTALLED WITH TOP A MIN. OF 12" BELOW FINISHED GRADE. RESISTANCE TO GROUND SHALL NOT EXCEED 25 OHMS PER NEC.



2 LIGHTING CONTACTOR DETAIL
 SCALE: NTS



3 POLE BASE DETAIL
 SCALE: N.T.S.



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ELECTRICAL GENERAL DETAILS

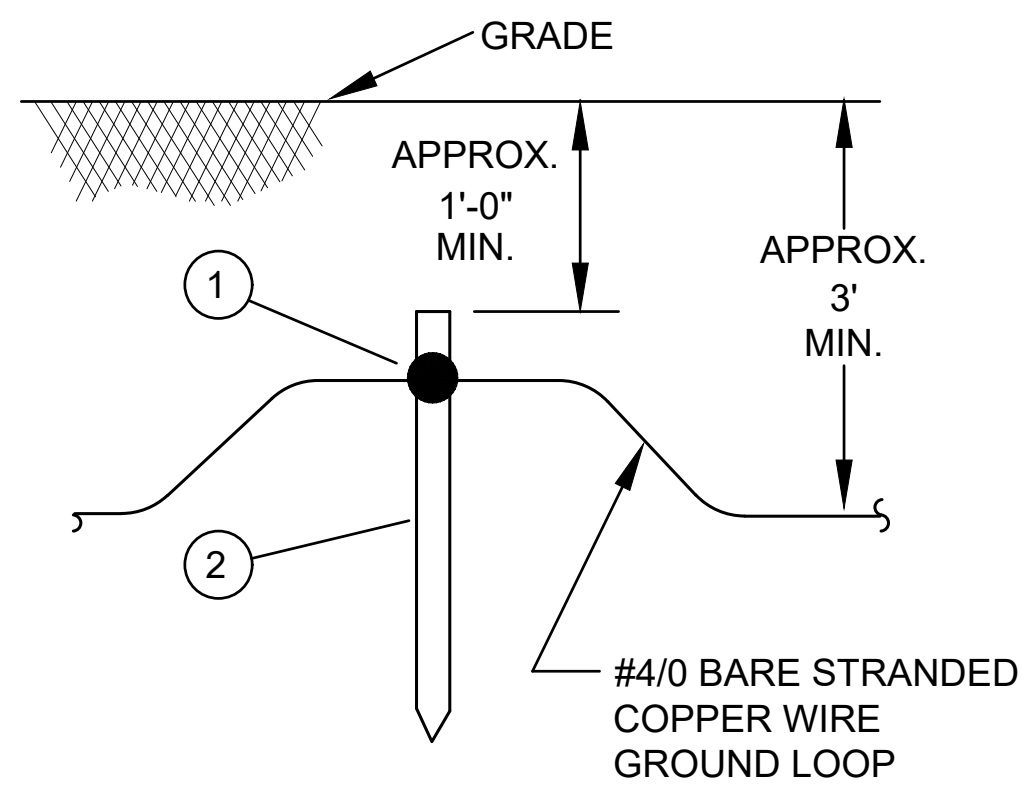
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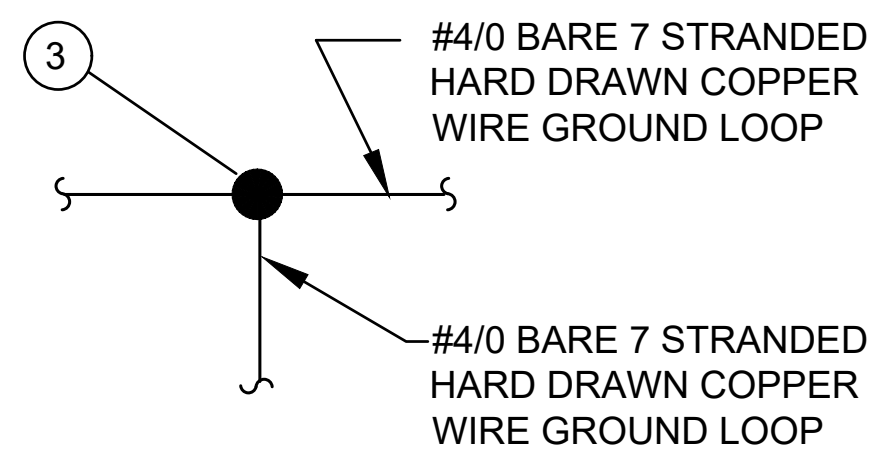
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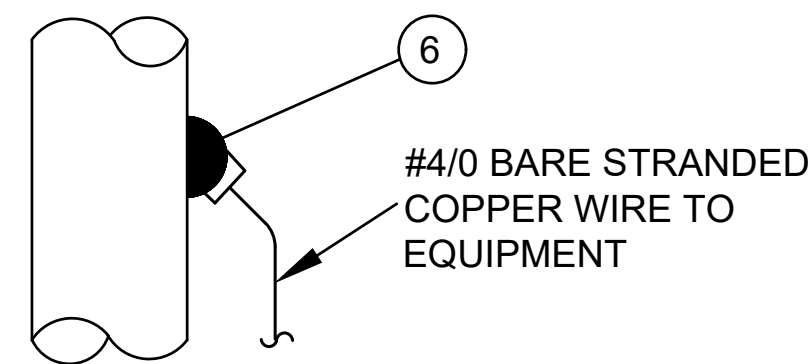
TYPICAL EXOTHERMIC WELD
CABLE TO ROD CONNECTION

(A)



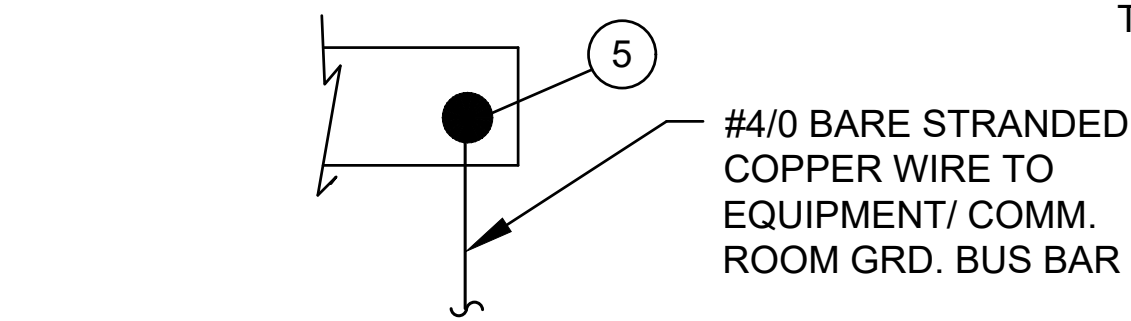
TYPICAL EXOTHERMIC WELD
TEE CONNECTION

(B)



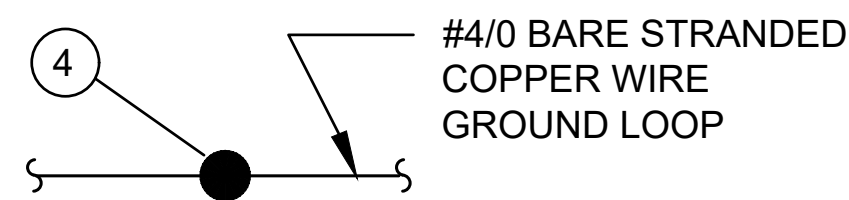
TYPICAL EXOTHERMIC WELD
CABLE TO STEEL PIPE CONNECTION

(C)



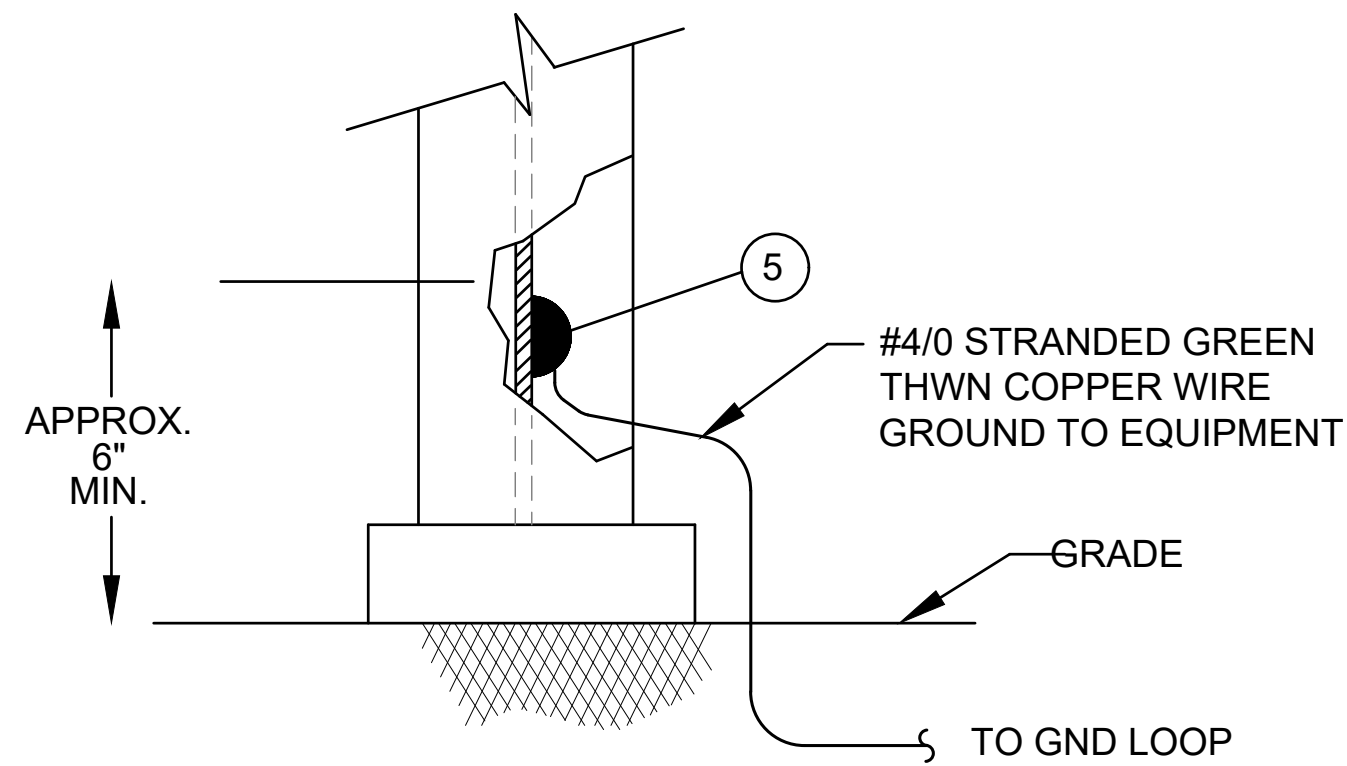
TYPICAL EXOTHERMIC WELD
CABLE TO FLAT STEEL CONNECTION

(D)



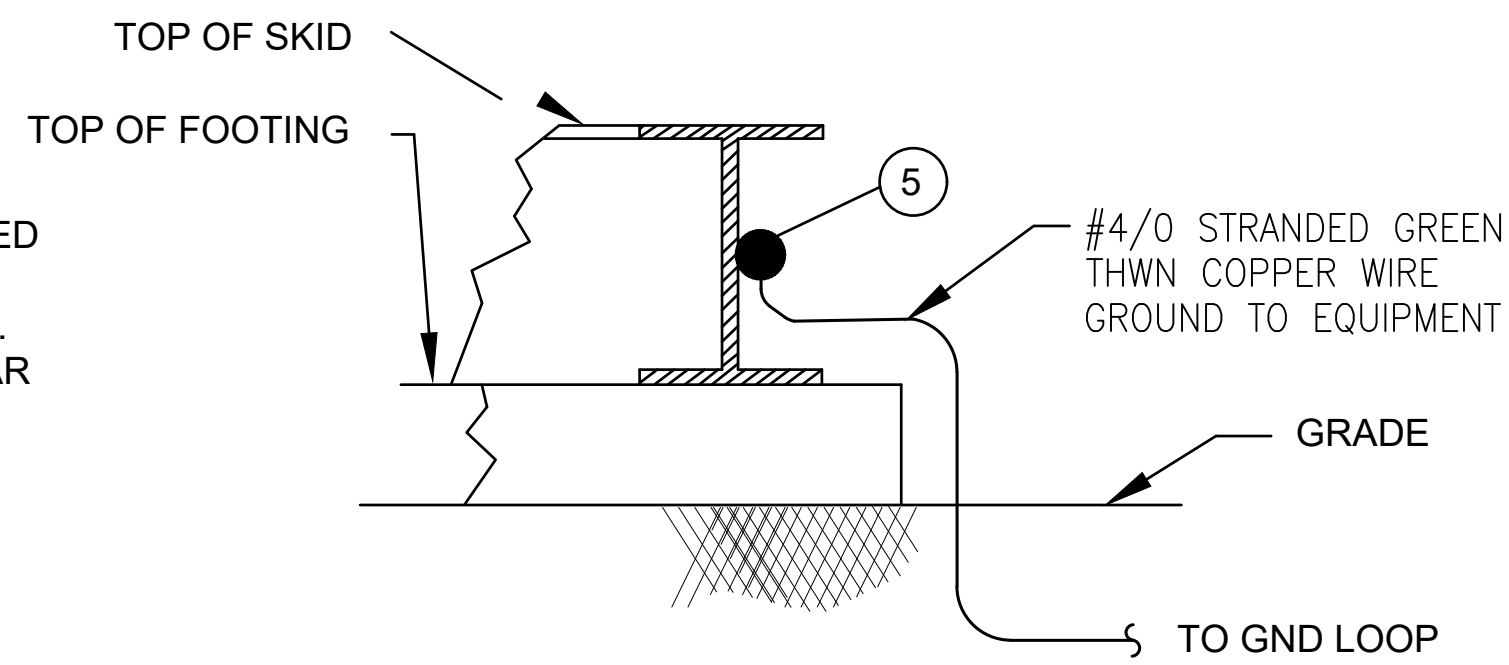
TYPICAL EXOTHERMIC WELD
SPLICE CONNECTION

(E)



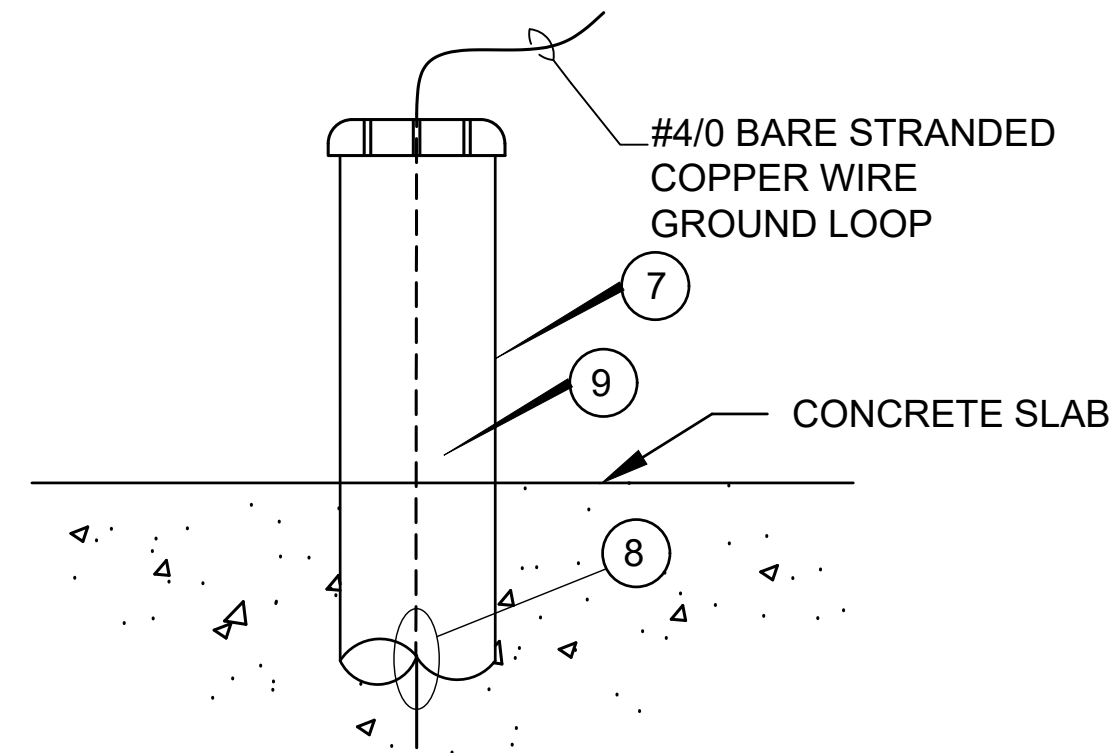
TYPICAL BUILDING STEEL OR PIPERACK
COLUMN EXOTHERMIC GND CONNECTION

(F)



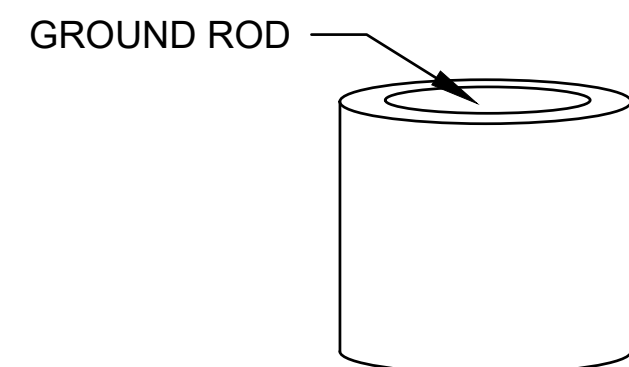
TYPICAL GROUND CONNECTION
OF EQUIPMENT SKID

(G)



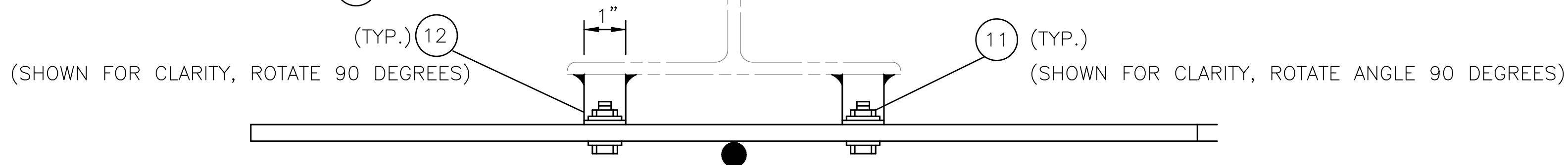
GROUND CONDUCTOR CONCRETE
PENETRATION DETAIL

(H)



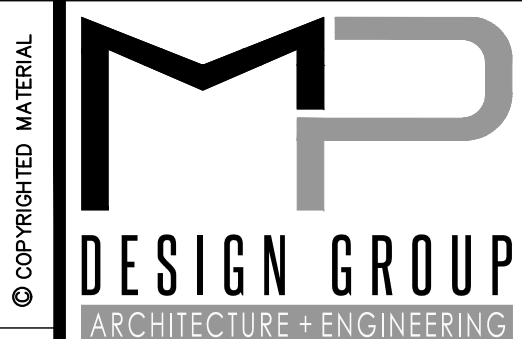
GROUND TEST WELL

(I)



(J)

PART DESCRIPTION	
ITEM #	DESCRIPTION (ALL MANUFACTURERS ARE "OR EQUAL")
1	EXOTHERMIC WELD, CABLE/ROD CONNECTION, ROD SIZE 3/4", CABLE SIZE #4/0
2	SOLID COPPER CLAD GROUND ROD, 3/4" DIA., 10'-0" LONG.
3	EXOTHERMIC WELD, CABLE/CABLE TEE CONNECTION, CABLE SIZE #4/0 AND TAP RANGE #4 - #4/0
4	EXOTHERMIC WELD, CABLE SPLICE CONNECTION, CABLE SIZE #4/0
5	EXOTHERMIC WELD, CABLE/FLAT STEEL/COPPER CONNECTION, CABLE SIZE #4/0
6	EXOTHERMIC WELD, CABLE/STEEL PIPE CONNECTION, CABLE SIZE #4/0, PIPE SIZE RANGE 4"-6"
7	PVC SCH. 80 1" CONDUIT, LENGTH AS REQUIRED WITH MALE CONNECTOR AND BUSHING. (ISOLATE COPPER FROM CONCRETE)
8	WRAP SCOTCH MASTIC PAD ON CABLE WHERE CONDUCTOR CONTACTS CONCRETE.
9	FILL CONDUIT WITH RTV COMPOUND. (FILL TOP OF CONDUIT)
10	GROUND BUS BAR, HARD DRAWN COPPER 1/4" X 6" X 14 1/2" LONG
11	STAINLESS STEEL BOLT WITH NUT AND LOCK WASHER 3/8" X 1" LONG
12	STEEL ANGLE 1 1/2" X 1 1/2" X 1/4", 1" LONG, WITH COLD GALVANIZED
13	LUG AND BOLT #6 WIRE TO COPPER BUS



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 USM/NOAA
 PORT OF GULFPORT MISSISSIPPI
 STATE PORT AUTHORITY
 30TH AVENUE
 GULFPORT, MS 39501

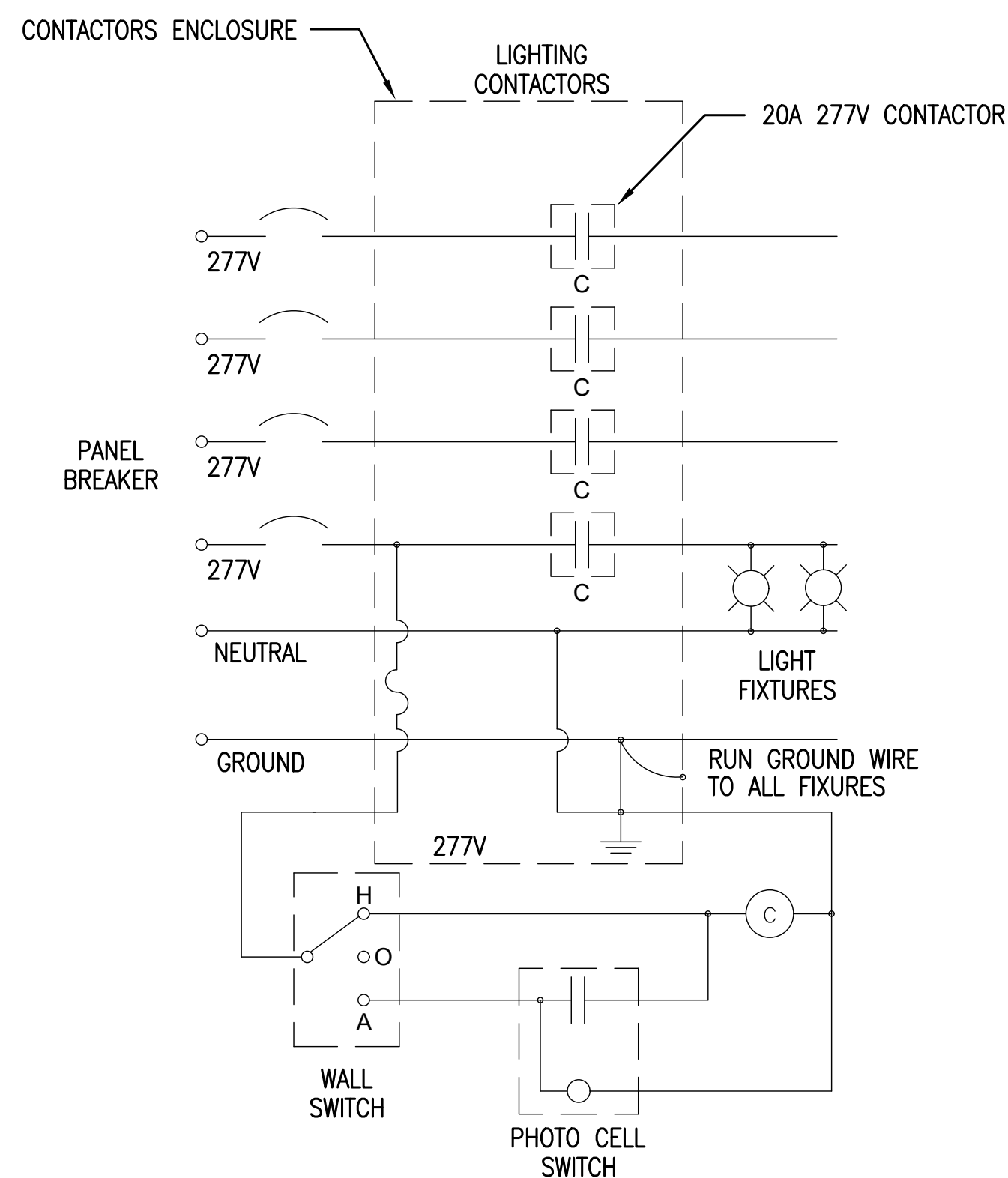
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ELECTRICAL GENERAL DETAILS

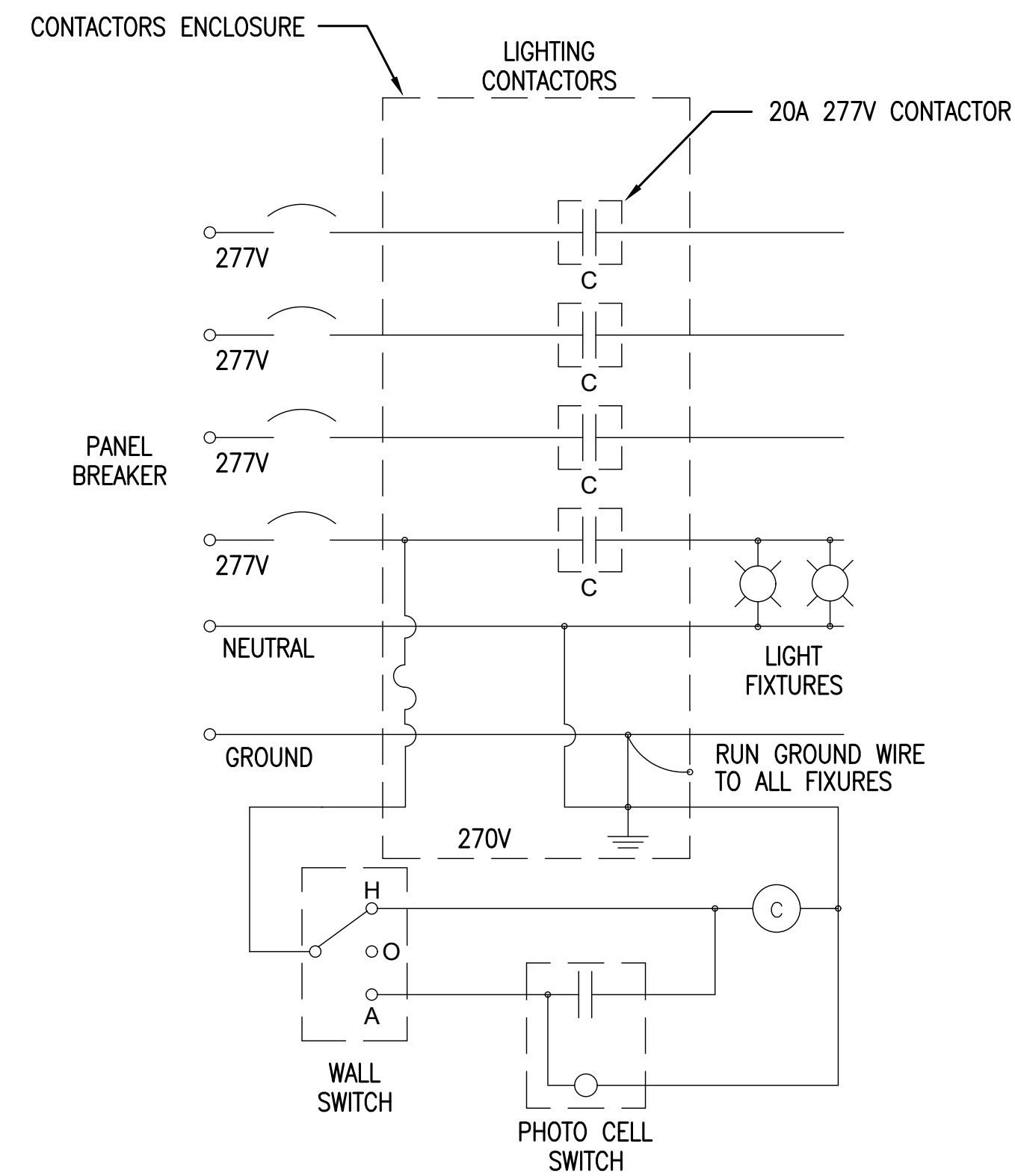
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E503

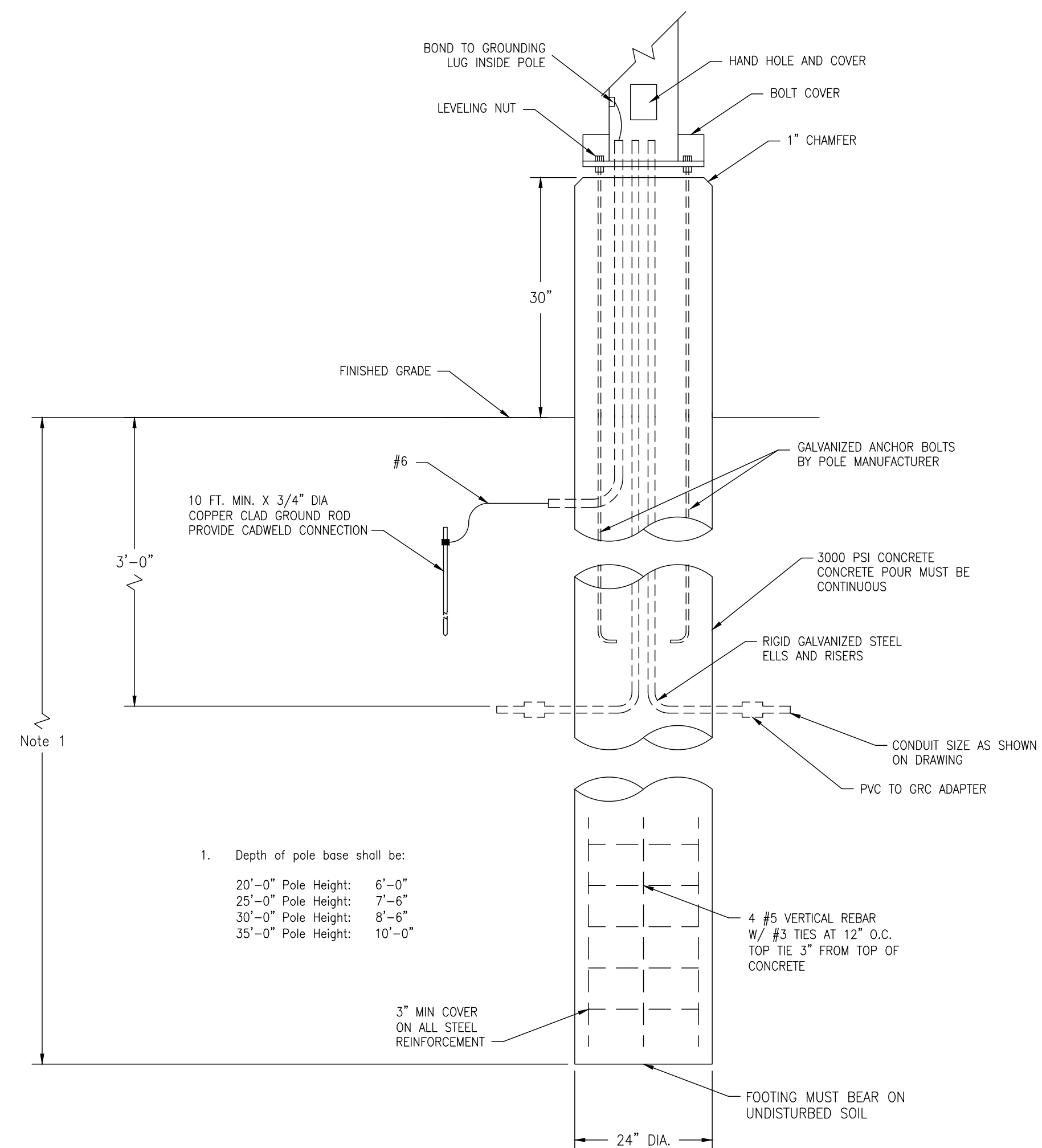
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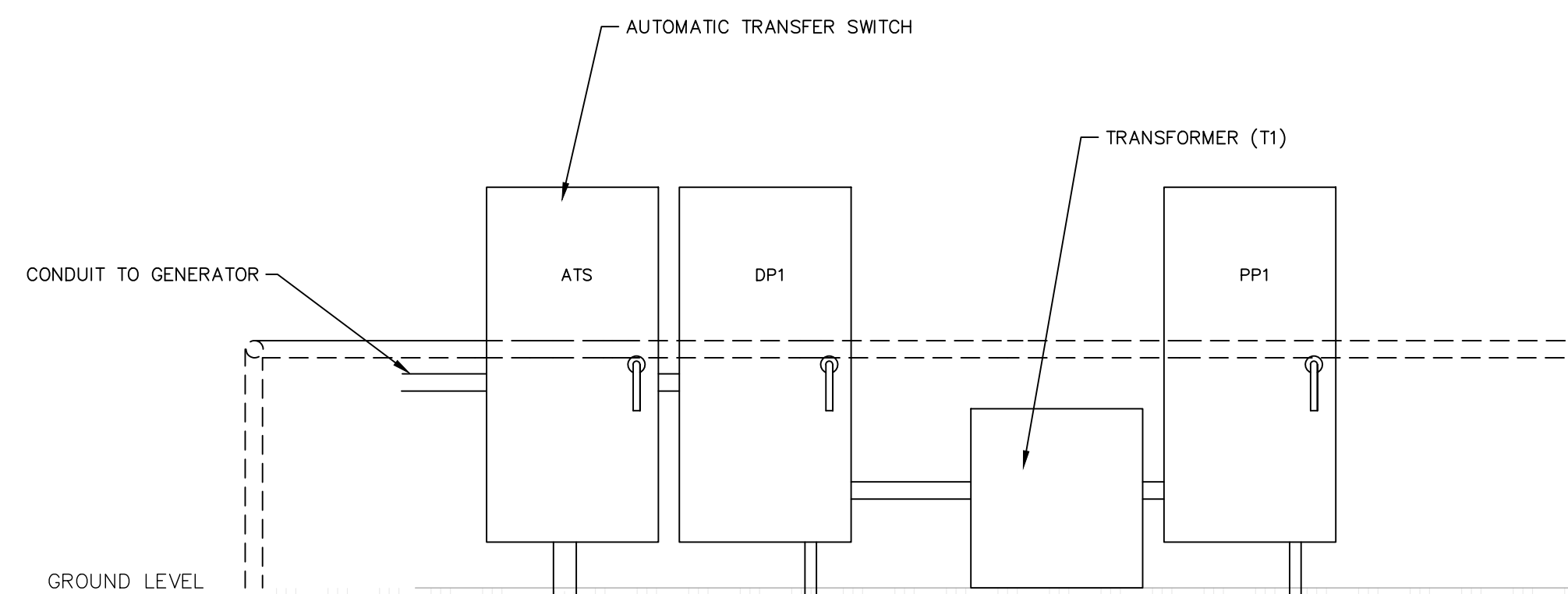
1 LIGHTING CONTACTOR LC-1 DETAIL
SCALE: N.T.S.



2 LIGHTING CONTACTOR LC-2 DETAIL
SCALE: N.T.S.



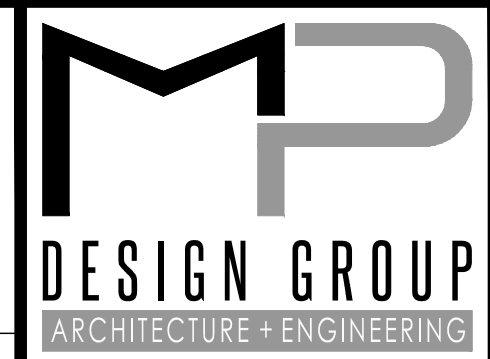
3 POLE BASE DETAIL
SCALE: N.T.S.



4 PANELBOARD LAYOUT DETAIL
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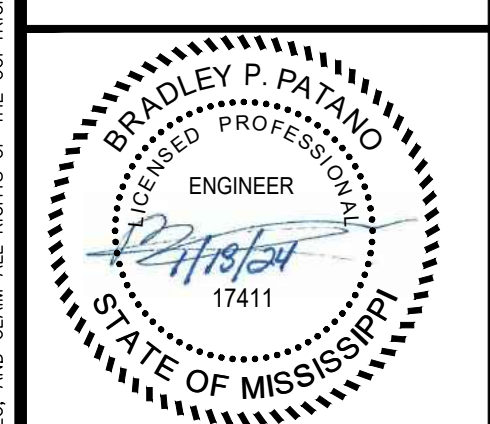
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m:\0297_mspa_gulport\0297.23.001_work_order no. 4 - usm & noaa piers\06-electrical\02-production\01-production drawings\small boat pier.dwg

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EAST PIER DEEP WATER WHARF FOR USM/NOAA
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30TH AVENUE
GULFPORT, MS 39501

SCALE: AS SHOWN
PROJECT NO: 0297.23.001
DRAWN BY: DLM
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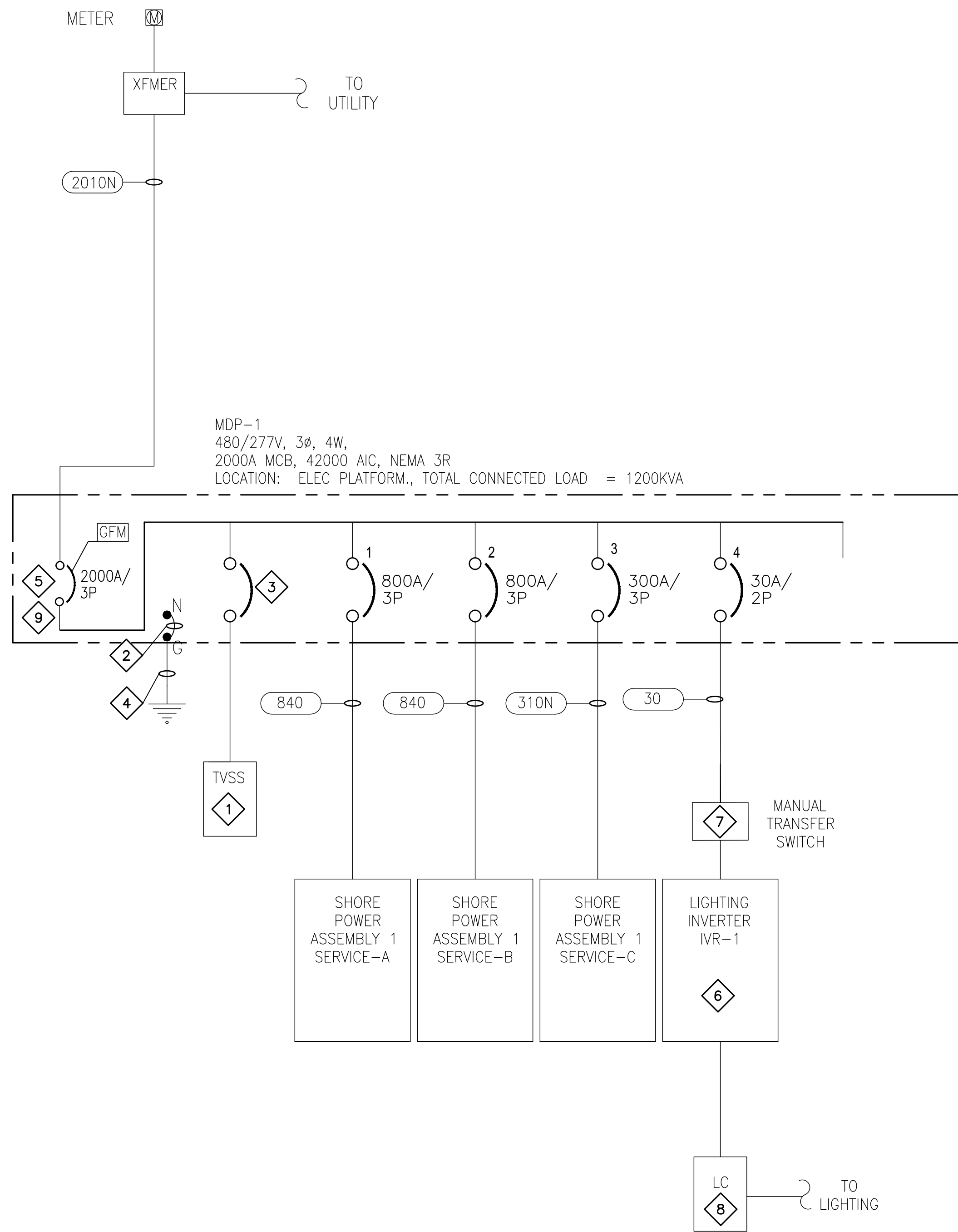
ELECTRICAL GENERAL DETAILS

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E504

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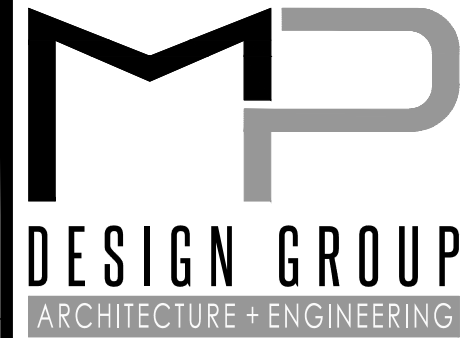


MDP-1
 480/277V, 3Ø, 4W,
 2000A MCB, 42000 AIC, NEMA 3R
 LOCATION: ELEC PLATFORM., TOTAL CONNECTED LOAD = 1200KVA

DRAWING E601 SPECIFIC NOTES

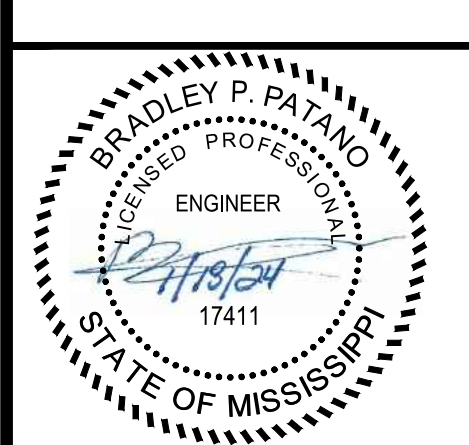
- 1 120KA SERVICE ENTRANCE RATED, INTERNALLY MOUNTED TVSS UNIT WITH AUDIBLE ALARM, ENABLE/DISABLE SWITCH AND (2) N.O./N.C. CONTACTS.
- 2 MAIN BONDING JUMPER SHALL BE SIZED PER NATIONAL ELECTRICAL CODE.
- 3 BREAKER SHALL BE SIZED BY PANEL MANUFACTURER.
- 4 4/0 CU GROUND IN 3/4" CONDUIT. CONNECT TO THE GROUNDING ELECTRODE SYSTEM. SEE DETAIL 1 ON E501.
- 5 MAIN CIRCUIT BREAKER SHALL BE 100% RATED
- 6 CONTRACTOR SHALL PROVIDE AND INSTALL EMERGENCY LIGHTING INVERTER. IVR-1 SHALL BE 5.25KW BARRON SONORAN SERIES EMERGENCY LIGHTING INVERTER WITH NEMA 4X CABINET OR APPROVED EQUAL.
- 7 CONTRACTOR SHALL PROVIDE AND INSTALL MANUAL TRANSFER SWITCH WITH PORTABLE GENERATOR CONNECTION PORTS.
- 8 LIGHTING CIRCUITS SHALL BE THROUGH LIGHTING CONTACTOR WITH PHOTOCELL FOR DUSK TO DAWN OPERATION WITH DAYLIGHT HOURS TEST SWITCH.
- 9 PROVIDE WITH ENERGY REDUCTION MAINTENANCE SETTINGS SWITCH

MPD-1 LOAD BREAKDOWN					
	CONN KVA	CALC KVA		CALC KVA	
LIGHTING	3.71	4.63	(125%)	TOTAL LOAD	1,220
NONCONTINUOUS	1,220	1,220	(100%)	BALANCED 3-PHASE LOAD	1,470 A



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EAST PIER DEEP WATER WHARF FOR USM/NOAA
PORT OF GULFPORT MISSISSIPPI
STATE PORT AUTHORITY
 30TH AVENUE
 GULFPORT, MS 39501

SCALE: NTS
 PROJECT NO: 0297.23.001
 DRAWN BY: MAB
 CHECKED BY: KDB

ELECTRICAL ONE-LINE DIAGRAM
USM VESSEL

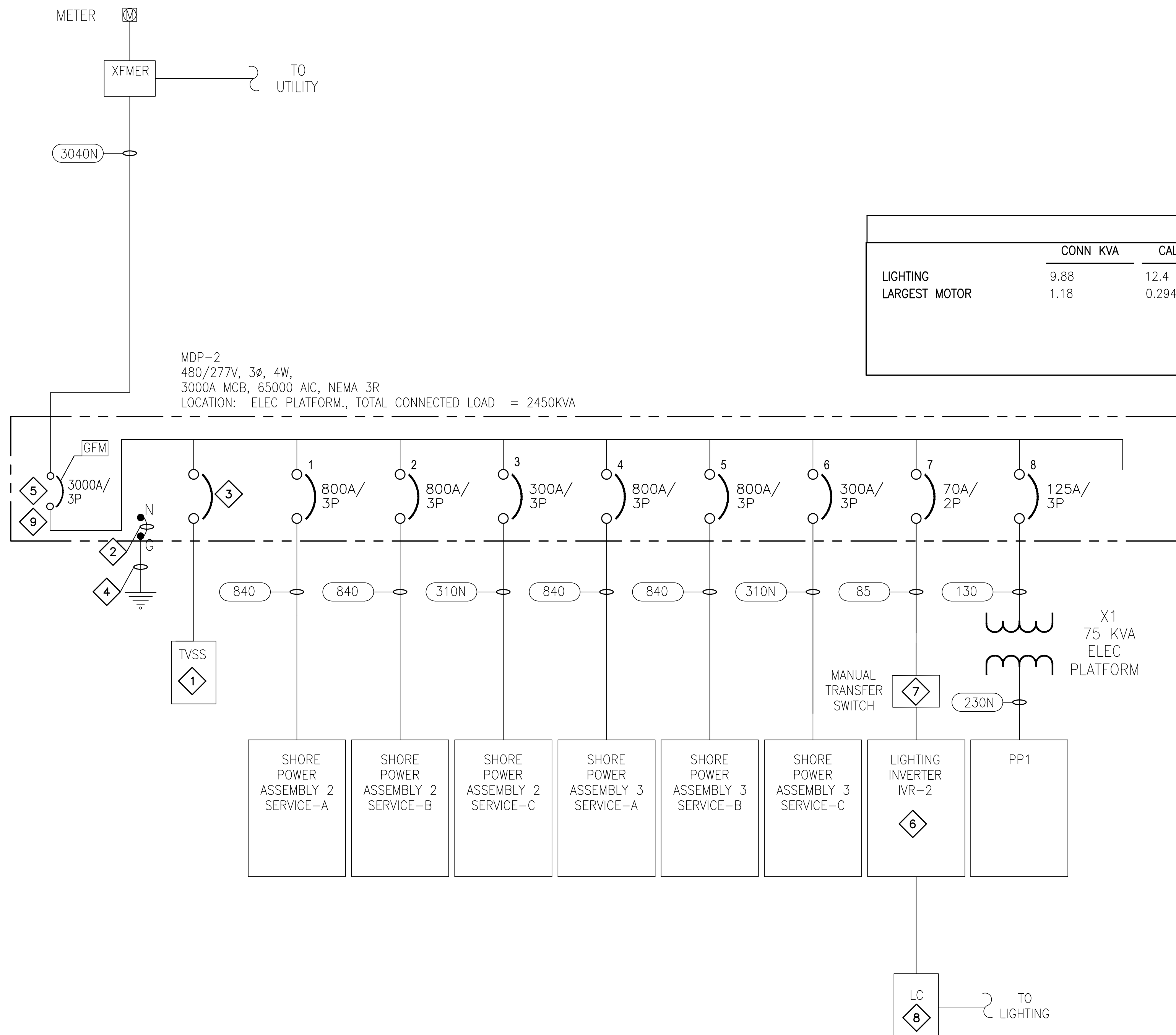
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E601

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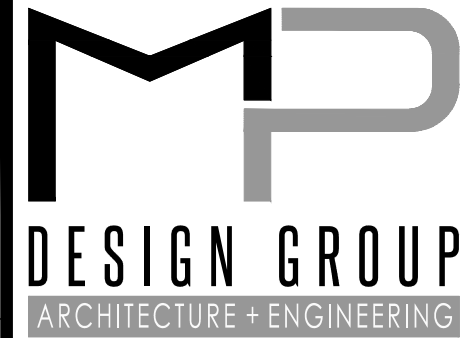


MDP-2
 480/277V, 3φ, 4W,
 3000A MCB, 65000 AIC, NEMA 3R
 LOCATION: ELEC PLATFORM., TOTAL CONNECTED LOAD = 2450KVA

- ### DRAWING E602 SPECIFIC NOTES
- 1 120KA SERVICE ENTRANCE RATED, INTERNALLY MOUNTED TVSS UNIT WITH AUDIBLE ALARM, ENABLE/DISABLE SWITCH AND (2) N.O./N.C. CONTACTS.
 - 2 MAIN BONDING JUMPER SHALL BE SIZED PER NATIONAL ELECTRICAL CODE.
 - 3 BREAKER SHALL BE SIZED BY PANEL MANUFACTURER.
 - 4 4/0 CU GROUND IN 3/4" CONDUIT. CONNECT TO THE GROUNDING ELECTRODE SYSTEM. SEE DETAIL 1 ON E501.
 - 5 MAIN CIRCUIT BREAKER SHALL BE 100% RATED
 - 6 CONTRACTOR SHALL PROVIDE AND INSTALL EMERGENCY LIGHTING INVERTER. IVR-2 SHALL BE 12.0KW BARRON SONORAN SERIES EMERGENCY LIGHTING INVERTER WITH NEMA 4X CABINET OR APPROVED EQUAL.
 - 7 CONTRACTOR SHALL PROVIDE AND INSTALL MANUAL TRANSFER SWITCH WITH PORTABLE GENERATOR CONNECTION PORTS.
 - 8 LIGHTING CIRCUITS SHALL BE THROUGH LIGHTING CONTACTOR WITH PHOTOCCELL FOR DUSK TO DAWN OPERATION WITH DAYLIGHT HOURS TEST SWITCH.
 - 9 PROVIDE WITH ENERGY REDUCTION MAINTENANCE SETTINGS SWITCH

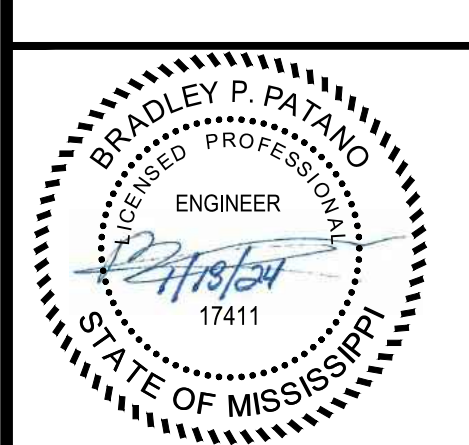
MPD-1 LOAD BREAKDOWN

	CONN KVA			CONN KVA		
LIGHTING	9.88	12.4	(125%)	MOTORS	2.35	2.35 (100%)
LARGEST MOTOR	1.18	0.294	(25%)	RECEPTACLES	1.5	1.5 (50%>10)
				NONCONTINUOUS	2,430	2,430 (100%)
				TOTAL LOAD		2,450
				BALANCED 3-PHASE LOAD		2,950 A



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**EAST PIER DEEP WATER WHARF FOR
 USM/NOAA
 PORT OF GULFPORT MISSISSIPPI
 STATE PORT AUTHORITY**

30TH AVENUE
 GULFPORT, MS 39501

SCALE: NTS
 PROJECT NO: 0297.23.001
 DRAWN BY: MAB
 CHECKED BY: KDB

**ELECTRICAL ONE-LINE DIAGRAM
 NOAA VESSELS**

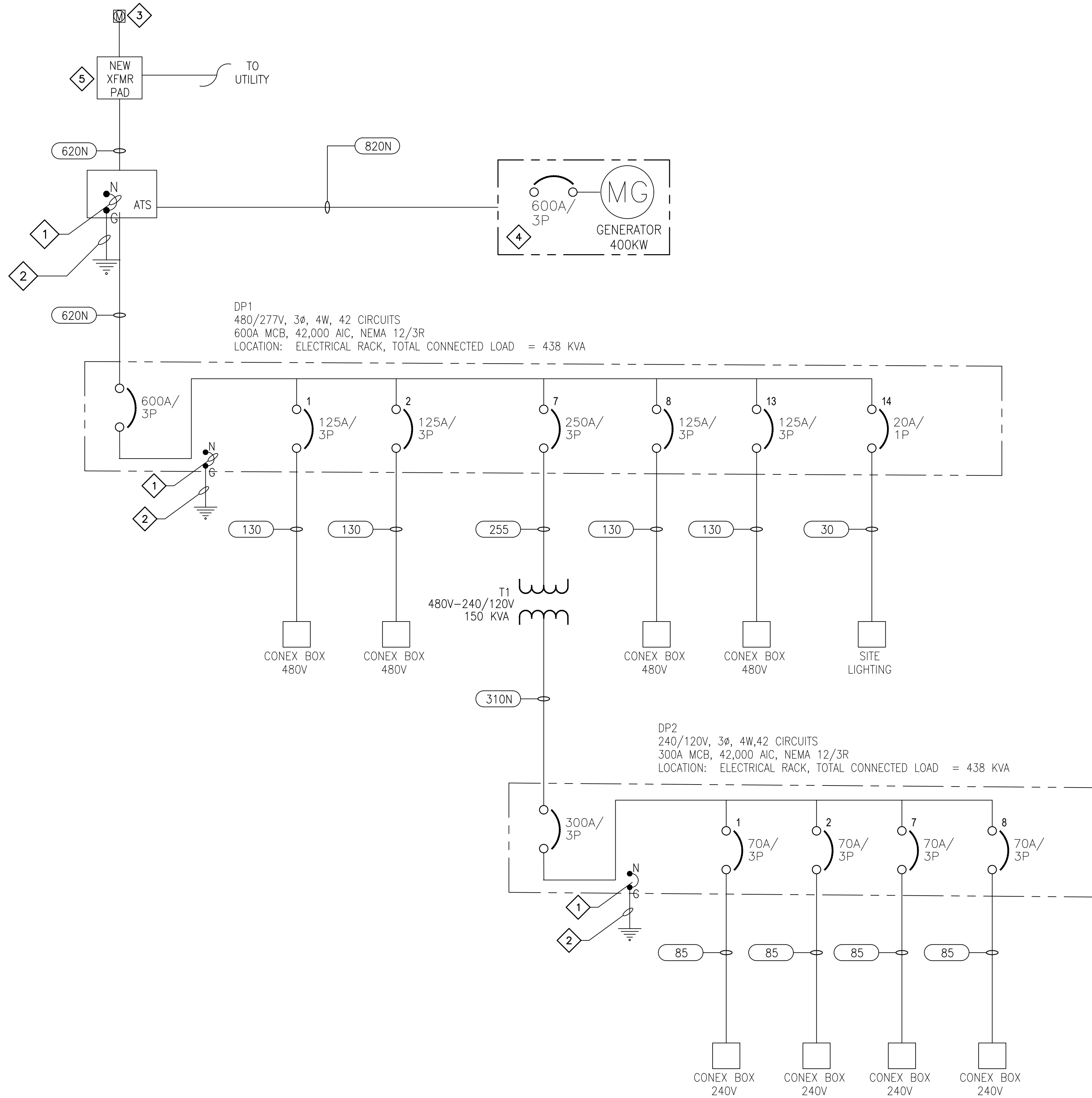
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E602

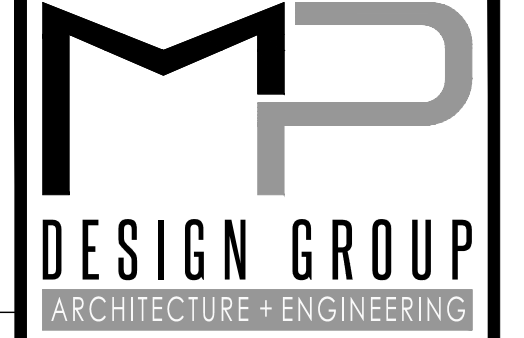
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- ### DRAWING E605 SPECIFIC NOTES
- 1 MAIN BONDING JUMPER SHALL REFERENCE SHEET E501.
 - 2 4/0 CU GROUND IN 3/4" CONDUIT. CONNECT TO THE BUILDING GROUNDING ELECTRODE SYSTEM. SEE DETAIL 1 ON E501.
 - 3 CONTRACTOR SHALL PROVIDE AND INSTALL METER CAN. LOCAL POWER COMPANY TO PROVIDE AND INSTALL METER.
 - 4 CONTRACTOR SHALL PROVIDE AND INSTALL CATERPILLAR OR APPROVED EQUAL 400KW 480/277 VAC 3 PHASE 60HZ GASOLINE POWERED GENERATOR WITH 600 AMP SERVICE ENTRANCE RATED ISO AUTOMATIC TRANSFER SWITCH. AUTOMATIC TRANSFER SWITCH SHALL HAVE 42,000 KAIC FAULT CURRENT RATING. REFERENCE SHEET E113 FOR EXACT LOCATION.
 - 5 CONTRACTOR SHALL PROVIDE AND INSTALL NEW TRANSFORMER PAD. CONTRACTOR SHALL COORDINATE WITH LOCAL POWER COMPANY FOR EXACT REQUIREMENTS FOR NEW TRANSFORMER PAD. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY FOR EXACT REQUIREMENTS FOR CONDUIT AND FEEDER FOR PRIMARY SIDE OF TRANSFORMER.



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STATE PORT AUTHORITY
 30TH AVENUE
 GULFPORT, MS 39501

SCALE: NTS
 PROJECT NO: 0297.23.001
 DRAWN BY: DLM
 CHECKED BY: KDB

ELECTRICAL ONE-LINE DIAGRAM - SEVERE WEATHER - ALTERNATE #2

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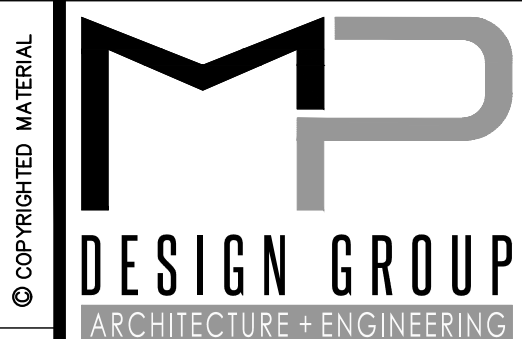
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IVR-1					
ROOM		INPUT VOLTS 480V 2P 2W		AIC 22,000	
MOUNTING FLOOR		OUTPUT VOLTS 480V 2P 2W		INPUT KVA 10.5	
FED FROM MDP-1				OUTPUT KVA 5.25	
NOTE					
CKT #	BREAKER TRIP/POLES	CIRCUIT DESCRIPTION	LOAD KVA		FEEDER RACEWAY AND CONDUCTORS
			A	B	
1	20/2	LIGHTING	1.85	1.85	1/2"C,2#10,#10G
TOTAL CONNECTED KVA BY PHASE			1.85	1.85	
		CONN KVA	4.63	4.63	CALC KVA
LIGHTING			3.71	4.63	(125%)
TOTAL LOAD			4.63		
BALANCED LOAD			9.65 A		

IVR-2					
ROOM		INPUT VOLTS 480V 2P 2W		AIC 22,000	
MOUNTING FLUSH		OUTPUT VOLTS 480V 2P 2W		INPUT KVA 23.35	
FED FROM MDP-2				OUTPUT KVA 12	
NOTE					
CKT #	BREAKER TRIP/POLES	CIRCUIT DESCRIPTION	LOAD KVA		FEEDER RACEWAY AND CONDUCTORS
			A	B	
1	20/2	LIGHTING	2.47	2.47	1/2"C,2#10,#10G
2	20/2	LIGHTING	2.47	2.47	1/2"C,2#10,#10G
TOTAL CONNECTED KVA BY PHASE			4.94	4.94	
		CONN KVA	12.4	12.4	CALC KVA
LIGHTING			9.88	12.4	(125%)
TOTAL LOAD			12.4		
BALANCED LOAD			25.7 A		

PP1							
ROOM		INPUT VOLTS 208Y/120V 3P 4W		AIC 22,000			
MOUNTING SURFACE		BUS AMPS 125		MAIN BKR 125			
FED FROM X1		NEUTRAL 100%		LUGS STANDARD			
NOTE NEMA 3R							
CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION	CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	20/2	2.88	NORTH GATE MOTOR	2	20/2	2.88	SOUTH POWERED GATE
3				4			
5	20/1	0.75	ACCESS CONTROLLER	6	20/1	0.75	ACCESS CONTROLLER
7	20/1	0	SPARE	8	20/1	0	SPARE
9	20/1	0	SPARE	10	20/1	0	SPARE
11	20/1	0	SPARE	12	20/1	0	SPARE
13	20/1	0	SPARE	14	20/1	0	SPARE
15	20/1	0	SPARE	16	20/1	0	SPARE
17	20/1	0	SPARE	18	20/1	0	SPARE
		CONN KVA	5.76	5.76	CALC KVA		
LARGEST MOTOR			2.88	0.72	(25%)		
		MOTORS	5.76		5.76	(100%)	
		RECEPTACLES	1.5		1.5	(50%>10)	
		TOTAL LOAD	7.98				
		BALANCED 3-PHASE LOAD	22.2 A				
		PHASE A	122%				
		PHASE B	122%				
		PHASE C	55.2%				



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ELECTRICAL PANEL SCHEDULES

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