

CITY OF LONG BEACH

LONG BEACH HARBOR SOUTHERN QUAY

MAYOR
GEORGE BASS

BOARD OF ALDERMAN

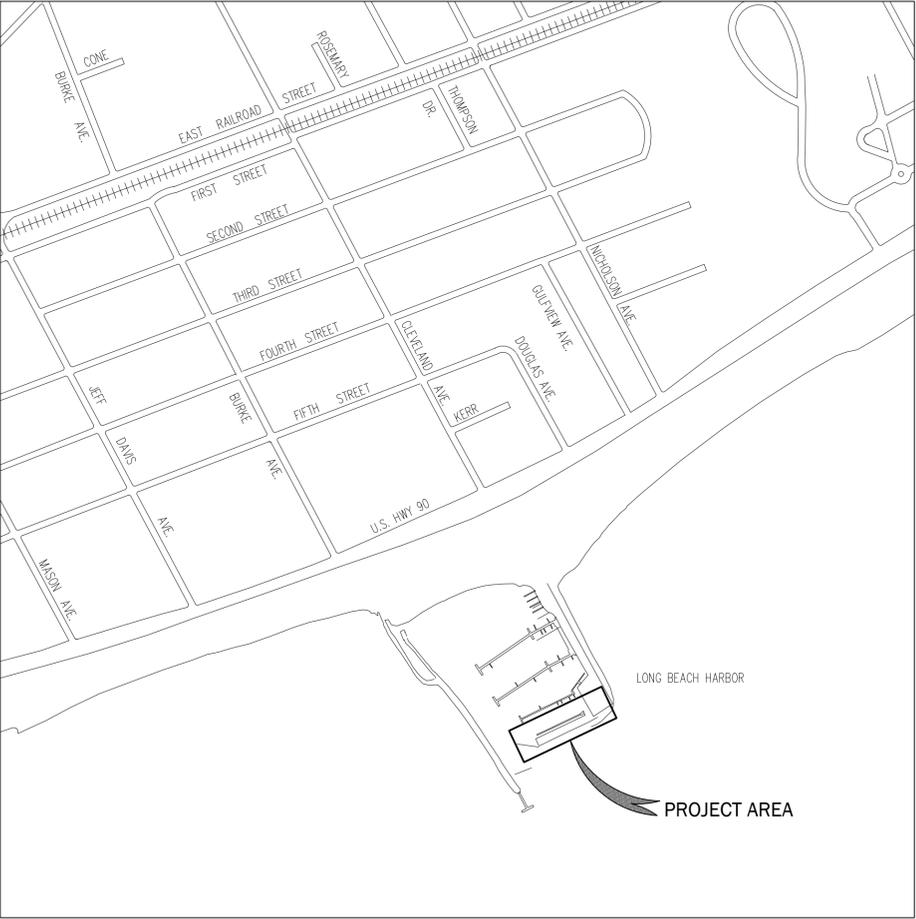
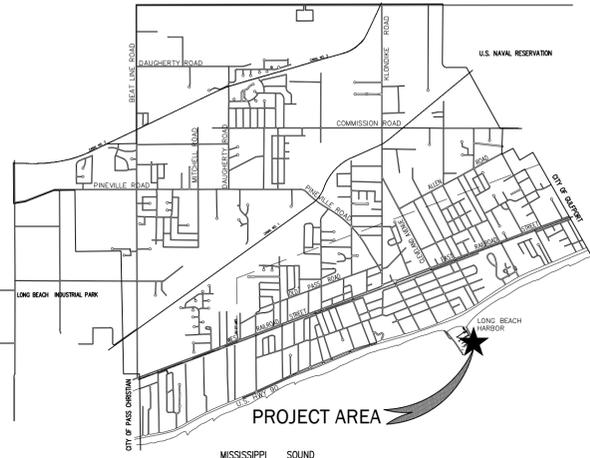
- AT LARGE DONALD FRAZER
- WARD 1 PATRICK BENNETT
- WARD 2 BERNIE PARKER
- WARD 3 ANGIE JOHNSON
- WARD 4 TIMOTHY McCAFFREY
- WARD 5 MIKE BROWN
- WARD 6 PETE McGOEY

UTILITY CONTACTS

- CITY OF LONG BEACH PUBLIC WORKS - (228-863-0440)
- MISSISSIPPI POWER CO. (POWER) - (1-800-532-1502)
- AT&T (TELEPHONE) - (1-877-737-2478)
- SPARKLIGHT (CABLE) - (228-374-5900)
- CENTERPOINT ENERGY ENTEX, INC. (GAS) - (228-896-7500)
- MISSISSIPPI 811 (ONE CALL) - (1-800-227-6477)

UTILITY WARNING

THE ENGINEER AND SURVEYOR MAKE NO GUARANTEE THAT UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHER, THE ENGINEER AND SURVEYOR MAKE NO WARRANTY THAT THE UNDERGROUND UTILITIES ARE IN THE EXACT LOCATION INDICATED IN THESE PLANS. CONTRACTOR IS TO HAVE ALL UNDERGROUND UTILITIES FIELD MARKED PRIOR TO EXCAVATION CALL MS-811.



VICINITY MAP
SCALE: 1" = 500'

SHEET INDEX

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S2.0	DEMOLITION SECTION
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S4.0-S4.4	STRUCTURAL DETAILS

PLANS PREPARED BY

OVERSTREET & ASSOCIATES
CONSULTING ENGINEERS
161 Lameuse St., Suite 203 Biloxi, MS 39530 228-967-7137

NO.	DATE:	REVISIONS DESCRIPTION:	BY

CITY OF LONG BEACH
LONG BEACH HARBOR
SOUTHERN QUAY



PROJECT NO: 1171-3
DATE: 11/17/23
DRAWN BY: mbt
CHECKED BY: dwt/rdb/ds

TITLE SHEET

SHEET NUMBER
C0.0

LEGEND

RAILROAD TRACKS	
FENCE	
OVERHEAD LINES	
EXISTING UNDERGROUND ELECTRIC LINES	
EXISTING UNDERGROUND FIBER OPTIC LINES	
EXISTING SEWER MAIN	
EXISTING FORCE MAIN	
EXISTING WATER MAIN	
EXISTING GAS LINE	
EXISTING STORM DRAINS	
EXISTING RIGHT-OF-WAY	
PROPERTY CORNER	
POWER POLE	
LIGHT POLE	
EXISTING ELECTRICAL BOX	
EXISTING MANHOLE	
EXISTING WATER METER	
EXISTING WATER VALVE	
EXISTING FIRE HYDRANT	
EXISTING GAS METER	
EXISTING GAS VALVE	
EXISTING SEWER CLEAN OUT	
RIGHT-OF-WAY MARKER	
UTILITY JUNCTION BOX	
BENCH MARK	
CONTROL PANEL	
METER	
EXISTING WOODEN POST	

GENERAL NOTES

- EXISTING UNDERGROUND UTILITIES ARE SHOWN BASED UPON THE BEST INFORMATION AVAILABLE. THE ENGINEER CAN NOT AND DOES NOT WARRANT THAT THIS INFORMATION IS COMPLETE OR ACCURATE. CONTRACTOR MUST COORDINATE DIRECTLY WITH THE INVOLVED UTILITY OWNERS TO GET UNDERGROUND UTILITY LINES FIELD LOCATED IN ADVANCE OF CONSTRUCTION. ANY UTILITY LINES DAMAGED BY CONTRACTOR MUST BE REPAIRED BY THE CONTRACTOR.
- CONTRACTOR SHALL PROPERLY LOCATE AND EXPOSE ALL UNDERGROUND FACILITIES IN ADVANCE OF CONSTRUCTION AND DETERMINE IF ANY CONFLICTS EXIST WITH THE ALIGNMENT OR GRADE OF THE PROPOSED FACILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL POTENTIAL CONFLICTS PRIOR TO CONSTRUCTION IN THE PROXIMITY OF THE POTENTIAL CONFLICT.
- ALL EXCAVATED MATERIAL THAT IS DEEMED SUITABLE BY LABORATORY TESTING SHALL BE USED AS BACK FILL AND FINISH GRADING WHERE APPLICABLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF UNSUITABLE AND EXCESS MATERIAL AWAY FROM THE PROJECT SITE AT NO ADDITIONAL COST TO THE OWNER OR ENGINEER.
- ALL BACKFILL MATERIAL, REGARDLESS IF IT IS NATIVE OR IMPORTED, SHALL MEET THE REQUIREMENTS OF CLASS II BACKFILL AS DESCRIBED IN THESE SPECIFICATIONS.
- ALL FACILITIES DISTURBED AS A RESULT OF CONSTRUCTION BY THE CONTRACTOR, INCLUDING VARIOUS TYPES OF PAVEMENTS, PAVEMENT MARKINGS DRIVEWAYS, CURB AND GUTTERS SIDEWALKS, FENCES ESTABLISHMENT OF GRASS AND SOLID SOD SHALL BE PROMPTLY RESTORED DURING THE PROGRESS OF THE PROJECT. PAYMENT FOR RESTORATION OF DISTURBED FACILITIES WILL BE LIMITED TO A WIDTH NOT GREATER THAN THE PIPE O.D. PLUS 2 X DEPTH OF CUT, CENTERED OVER THE PROPOSED PIPE, OR THE WIDTH OF THE PROPOSED CONSTRUCTION LIMITS, WHICHEVER IS GREATER, FACILITIES DISTURBED OUTSIDE THE ALLOWABLE RESTORATION LIMITS SHALL BE RESTORED BY THE CONTRACTOR, BUT AT NO ADDITIONAL COMPENSATION.
- THE CONTRACTOR SHALL KEEP HIS OPERATIONS WITHIN THOSE AREAS BOUNDED BY THE CONSTRUCTION LIMITS AS DESIGNATED FOR CONSTRUCTION OF THE PROJECT. CONTRACTOR WILL BE RESPONSIBLE FOR THE PRESERVATION OF ALL PUBLIC AND PRIVATE PROPERTY AND WILL USE EVERY PRECAUTION NECESSARY TO PREVENT DAMAGE THERETO. ANY DAMAGE BY THE CONTRACTOR OUTSIDE OF DESIGNATED PROJECT LIMITS SHALL BE RESTORED BY THE CONTRACTOR AT NO ADDITIONAL COMPENSATION.
- THE CONTRACTOR SHALL AT ALL TIMES, EMPLOY "BEST MANAGEMENT PRACTICES" (BMP'S) FOR ENVIRONMENTAL PROTECTION WHILE COMPLETING THE WORK. THE CONTRACTOR'S WORK PLAN MUST COVER HIS PROPOSALS FOR CONTROLLING AND MINIMIZING EROSION AND SILTATION DAMAGES DURING CONSTRUCTION. WHERE APPROPRIATE, OR REQUIRED, CERTAIN TEMPORARY SEDIMENT CONTROL MEASURES SUCH AS SILT FENCES, BERMS, DIKES, DRAINS, BASINS, ETC. SHALL BE PROVIDED AND MAINTAINED UNTIL PERMANENT FACILITIES ARE PROVIDED.
- ADVANCE WARNING SIGNS, BARRICADES, FLAGMEN, DETOUR ROUTE SIGNS, AND OTHER MEASURES BE PROVIDED BY CONTRACTOR TO PROTECT THE MOTORING PUBLIC AND PROVIDE REASONABLE ACCESS TO LOCAL HOMES AND BUSINESSES. THESE REQUIREMENTS SHOULD BE CONSTRUED AS MINIMUM REQUIREMENTS ONLY, AND IN NO WAY RELIEVES THE CONTRACTOR FROM HIS RESPONSIBILITY TO FULLY PROTECT THE SAFETY OF THE PUBLIC AND HIS OWN EMPLOYEES.
- CONTRACTOR SHALL RECOGNIZE THAT WORK IS BEING PERFORMED BY OTHERS ON THE SITE AND SHALL MAINTAIN REASONABLE ACCESS TO THE SITE FOR OTHERS AND SHALL NOT UNREASONABLY IMPACT THE SITE SO AS TO PREVENT THE WORK OF OTHERS. CONTRACTOR SHALL COORDINATE WITH OTHERS FOR SCHEDULING, ACCESS, AND IMPACTED AREAS OF WORK.
- STORAGE AREAS AND LAYDOWN AREAS IN THE HARBOR ARE VERY LIMITED. CONTRACTOR SHALL PROVIDE HIS OWN STORAGE & LAYDOWN AREAS OFF-SITE OR IN ENGINEER-APPROVED AREAS ON-SITE, BUT WHICH DO NOT CONFLICT WITH OTHERS' USE OF THE SITE.

NO.	DATE:	REVISIONS DESCRIPTION:	BY

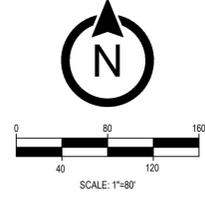
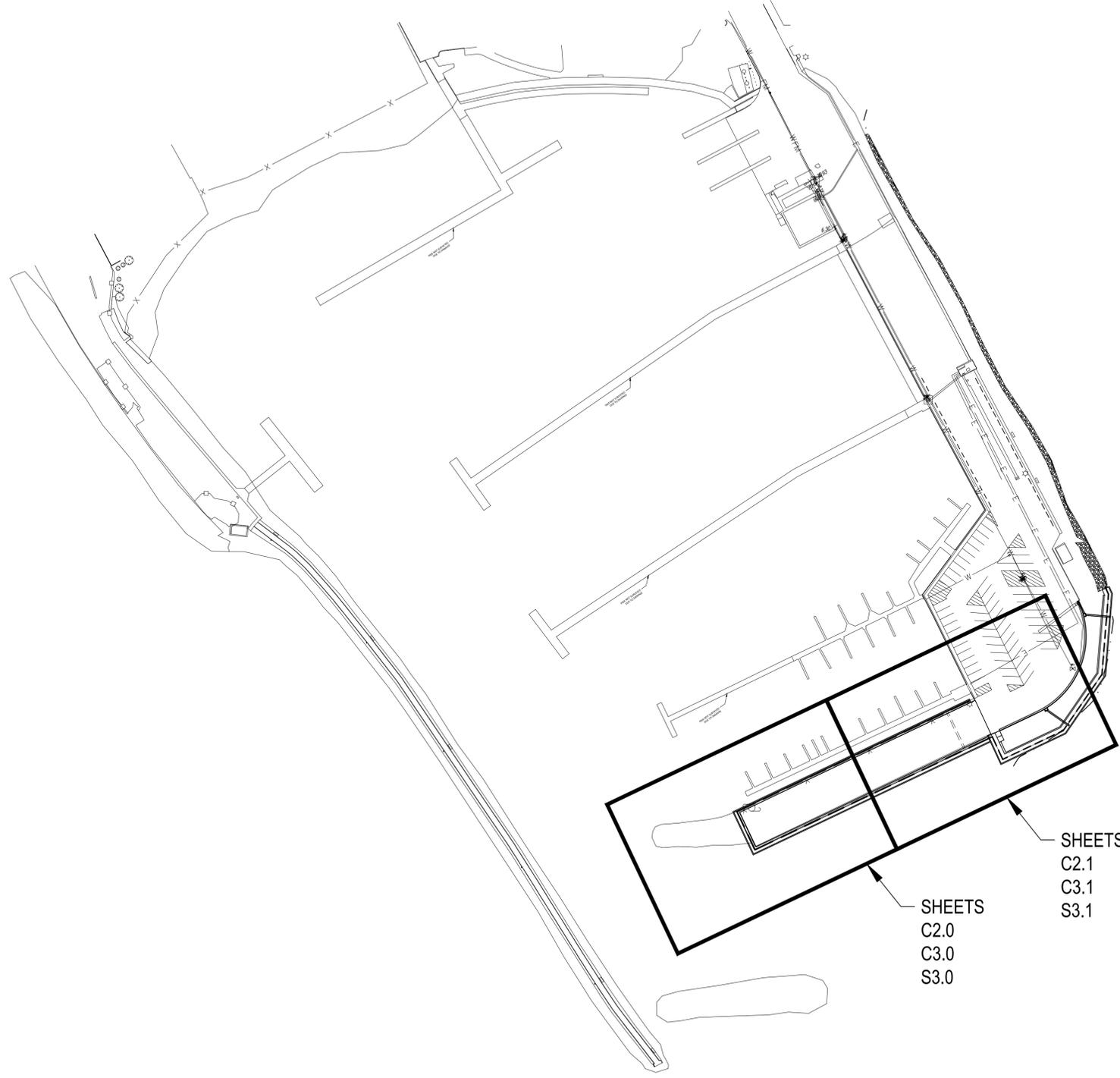
CITY OF LONG BEACH
LONG BEACH HARBOR
SOUTHERN QUAY



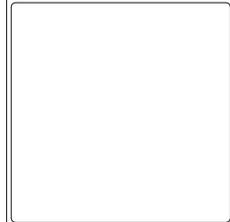
LEGEND AND GENERAL NOTES

PROJECT NO: 1171-3	DATE: 10/9/23
DRAWN BY: mbt	CHECKED BY: dwwr/dbr/ds

SHEET NUMBER **C1.0**

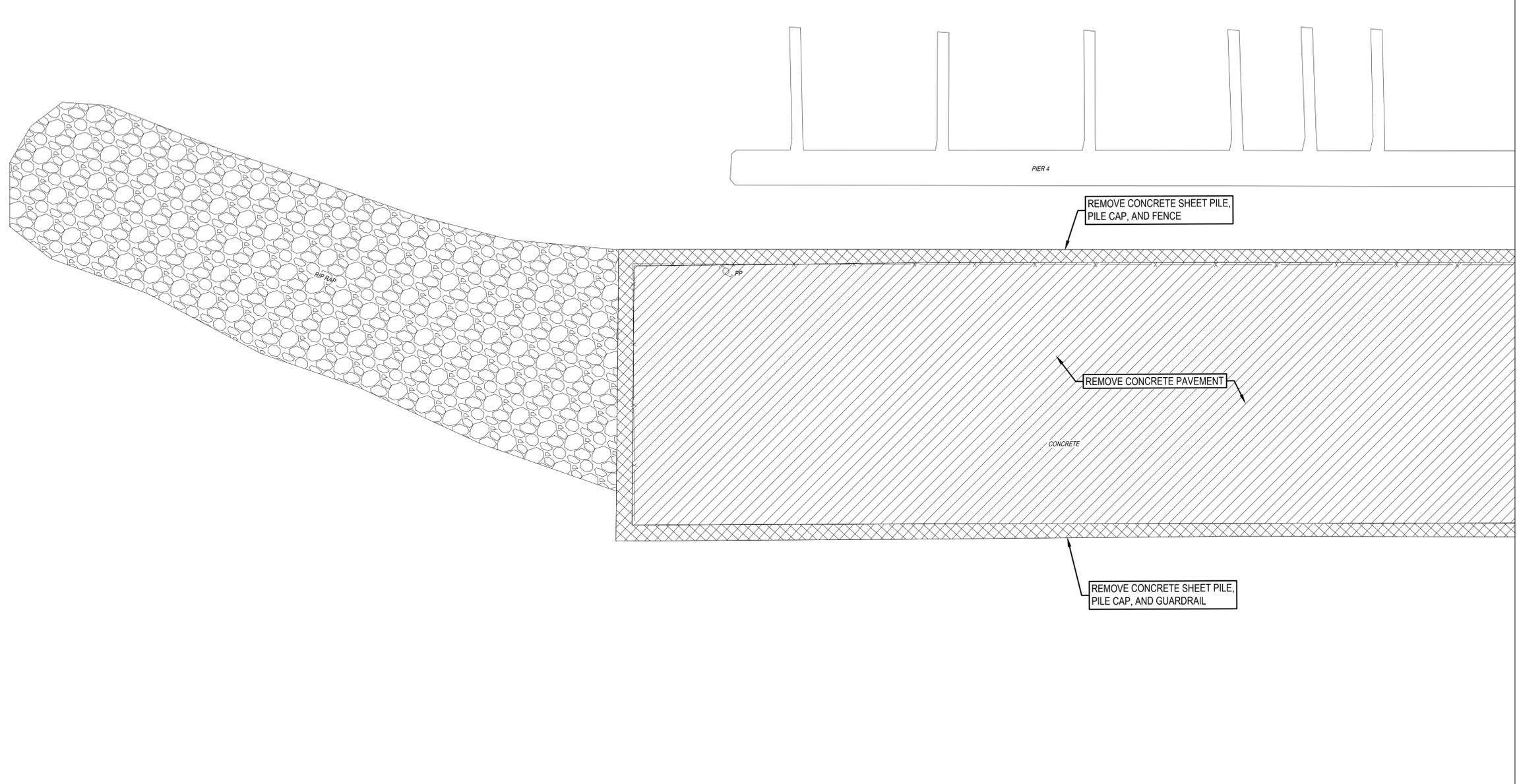


PROJECT NO: 1171-3	KEY PLAN
DATE: 11/17/23	
DRAWN BY: mbt	
CHECKED BY: dtw/rdb/ds	
SHEET NUMBER	C1.1



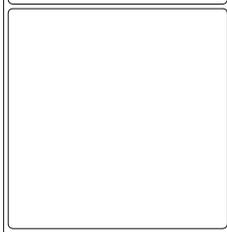
CITY OF LONG BEACH
LONG BEACH HARBOR
SOUTHERN QUAY

NO:	DATE:	REVISIONS DESCRIPTION:	BY:



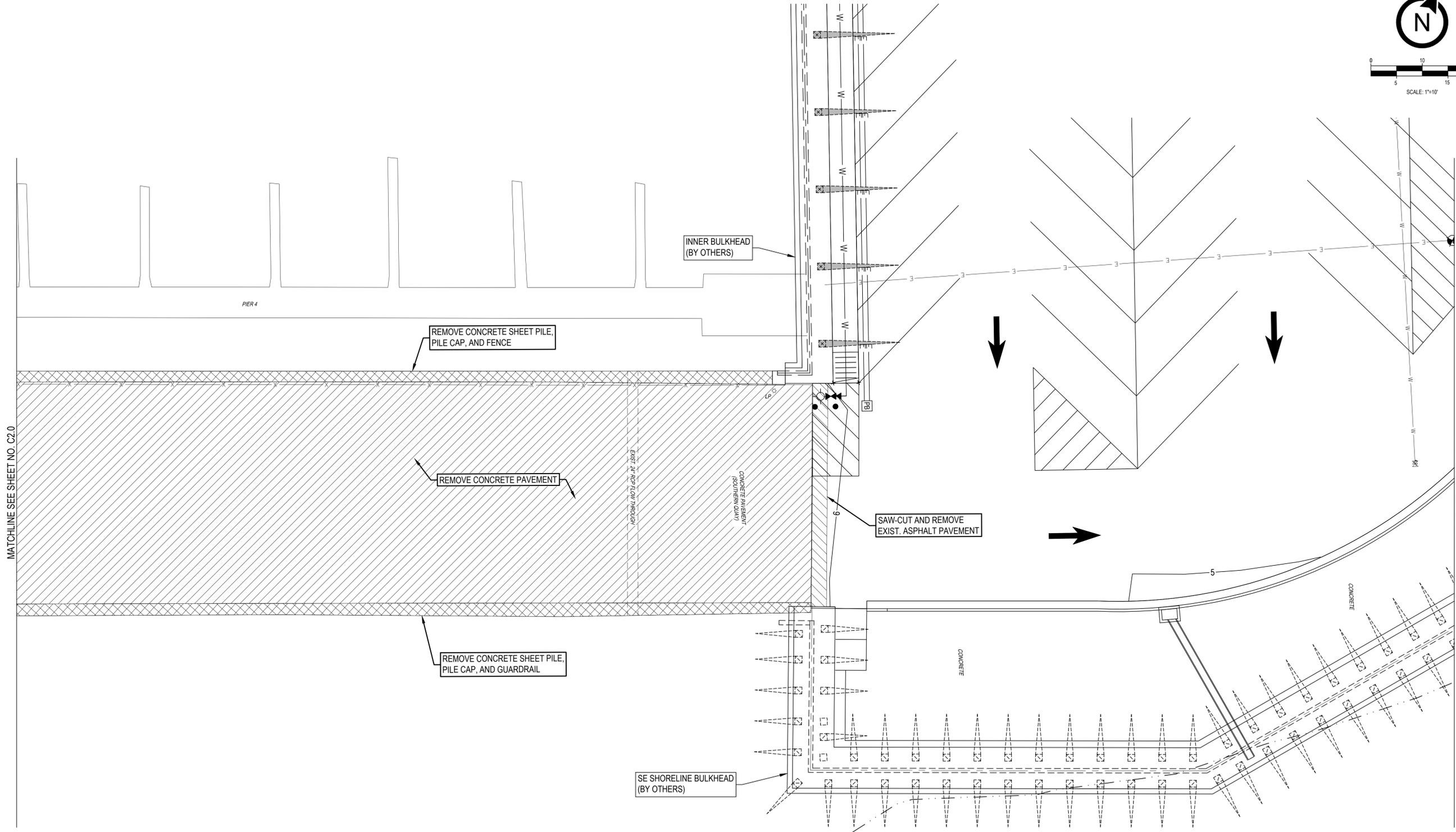
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CITY OF LONG BEACH
LONG BEACH HARBOR
SOUTHERN QUAY



PROJECT NO: 1171-3	EXISTING CONDITIONS AND DEMOLITION
DATE: 11/17/23	
DRAWN BY: mbt	
CHECKED BY: dwwr/dbr/ds	

SHEET NUMBER	C2.0
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NO.	DATE:	REVISIONS DESCRIPTION:	BY

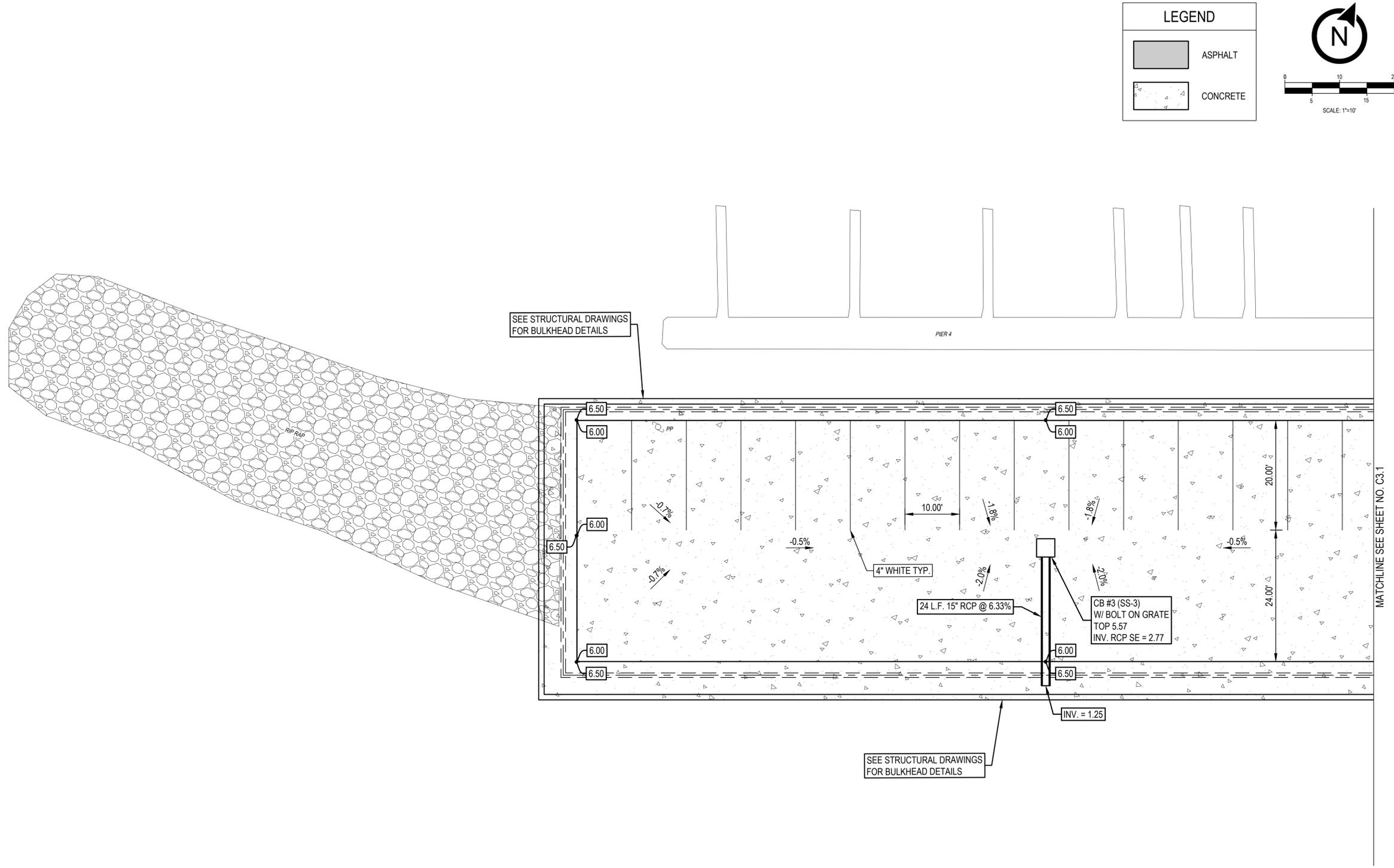
CITY OF LONG BEACH
LONG BEACH HARBOR
SOUTHERN QUAY



PROJECT NO: 1171-3
 DATE: 3/11/24
 DRAWN BY: mbt
 CHECKED BY: dwt/rdb/ds

**EXISTING CONDITIONS
 AND DEMOLITION**

SHEET NUMBER
C2.1



LEGEND

ASPHALT

CONCRETE

N

0 5 10 15 20

SCALE: 1"=10'

NO:	DATE:	REVISIONS DESCRIPTION:	BY:

CITY OF LONG BEACH

LONG BEACH HARBOR

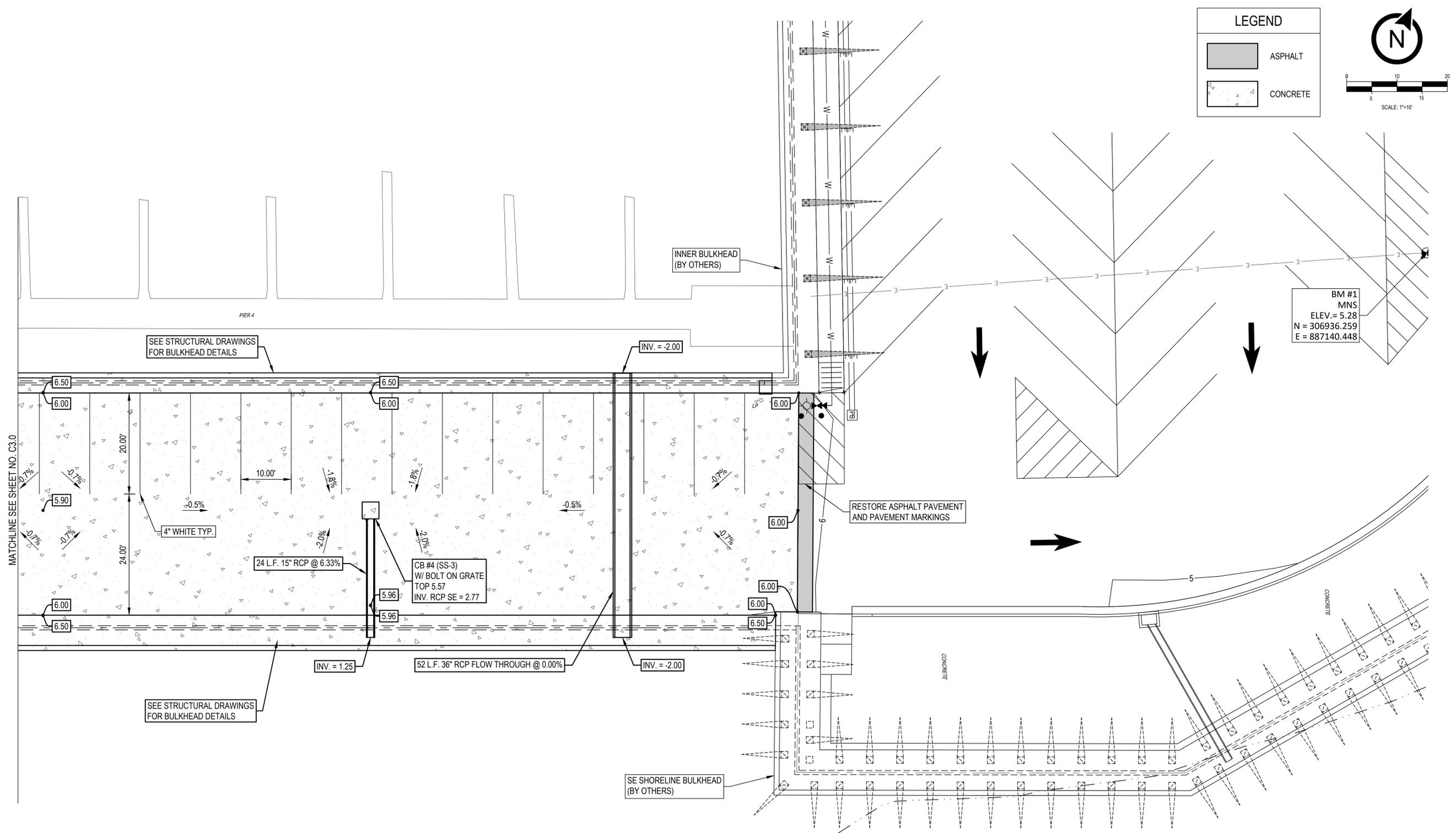
SOUTHERN QUAY



MATCHLINE SEE SHEET NO. C3.1

PROJECT NO: 1171-3	DATE: 11/17/23	DRAWN BY: mbt	CHECKED BY: dtw/rdb/ds	GRADING AND DRAINAGE PLAN
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SHEET NUMBER **C3.0**



LEGEND

- ASPHALT
- CONCRETE

N

0 5 10 15 20

SCALE: 1"=10'

BM #1
MNS
ELEV. = 5.28
N = 306936.259
E = 887140.448

NO:	DATE:	REVISIONS DESCRIPTION:	BY:

CITY OF LONG BEACH
LONG BEACH HARBOR
SOUTHERN QUAY

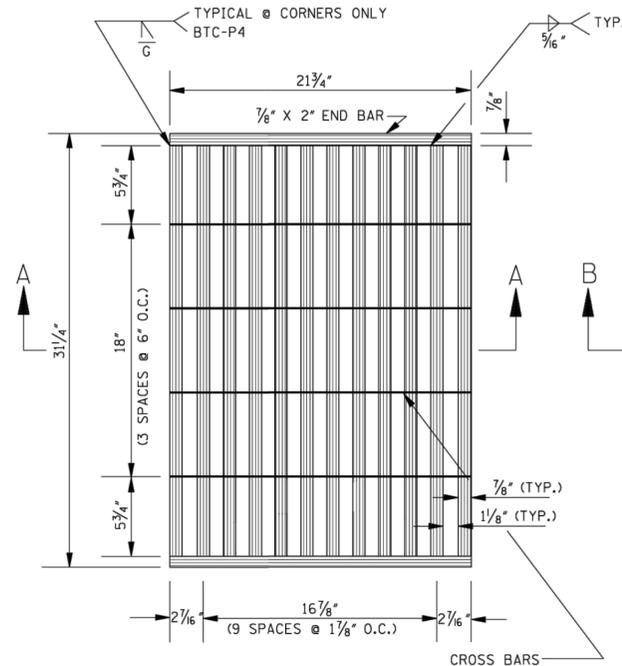


PROJECT NO: 1171-3
DATE: 3/11/24
DRAWN BY: mbt
CHECKED BY: dwt/ab/ds

GRADING AND DRAINAGE PLAN

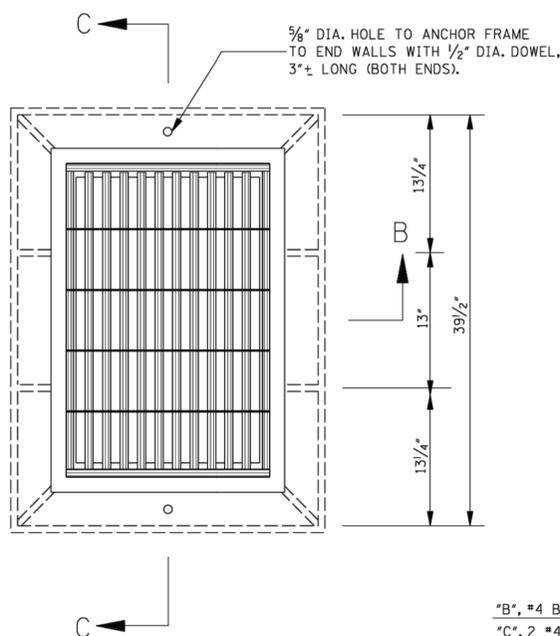
SHEET NUMBER **C3.1**

STATE	PROJECT NO.
MISS.	

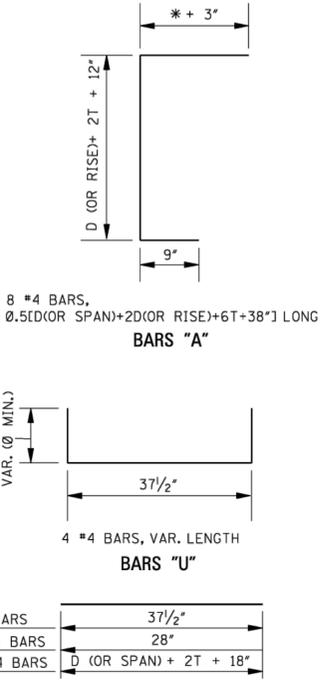


PLAN OF GRATE NO.1

NOTE: FOR OTHER GRATE DETAILS SEE SHEET IG-2.



PLAN OF INLET



BAR DETAILS

*NOTE:

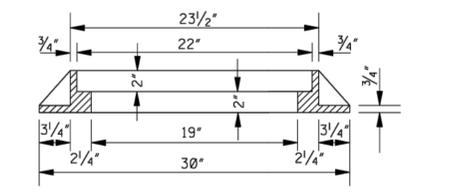
$$* \left[\frac{D \text{ (OR SPAN)} + 2T - 10"}{2} \right]$$

PIPE SIZE	MIN. DEPTH TO F.L.	MIN. DEPTH INLET		PIPE OPENING DEDUCTION (yd ³)	T	BARS/SIZES				
		CONC. (yd ³)	STEEL (lbs)			"A"	"B"	"C"	"D"	"U"
						NO. @ LGTH.	NO. @ LGTH.	NO. @ LGTH.	NO. @ LGTH.	NO. @ LGTH.
18"	2.792'	0.869	76	0.053	2 1/2"	8 @ 4'-5 1/2"	12 @ 3'-1 1/2"	2 @ 2'-4"	6 @ 3'-5"	4 @ 3'-9 1/2"
24"	3.334'	1.117	87	0.091	3"	8 @ 5'-4"	14 @ 3'-1 1/2"	2 @ 2'-4"	6 @ 4'-0"	4 @ 3'-9 1/2"
30"	3.875'	1.385	94	0.138	3 1/2"	8 @ 6'-2 1/2"	14 @ 3'-1 1/2"	2 @ 2'-4"	6 @ 4'-7"	4 @ 3'-9 1/2"
36"	4.417'	1.671	105	0.196	4"	8 @ 7'-1"	16 @ 3'-1 1/2"	2 @ 2'-4"	6 @ 5'-2"	4 @ 3'-9 1/2"
42"	4.959'	1.978	116	0.263	4 1/2"	8 @ 7'-11 1/2"	18 @ 3'-1 1/2"	2 @ 2'-4"	6 @ 5'-9"	4 @ 3'-9 1/2"
48"	5.500'	2.305	123	0.340	5"	8 @ 8'-10"	18 @ 3'-1 1/2"	2 @ 2'-4"	6 @ 6'-4"	4 @ 3'-9 1/2"
54"	6.042'	2.650	135	0.427	5 1/2"	8 @ 9'-8 1/2"	20 @ 3'-1 1/2"	2 @ 2'-4"	6 @ 6'-11"	4 @ 3'-9 1/2"
60"	6.583'	3.016	146	0.524	6"	8 @ 10'-7"	22 @ 3'-1 1/2"	2 @ 2'-4"	6 @ 7'-6"	4 @ 3'-9 1/2"
66"	7.125'	3.402	153	0.630	6 1/2"	8 @ 11'-5 1/2"	22 @ 3'-1 1/2"	2 @ 2'-4"	6 @ 8'-1"	4 @ 3'-9 1/2"
72"	7.667'	3.806	164	0.747	7"	8 @ 12'-4"	24 @ 3'-1 1/2"	2 @ 2'-4"	6 @ 8'-8"	4 @ 3'-9 1/2"
22" X 13"	2.417'	0.855	76	0.053	2 1/2"	8 @ 4'-3"	12 @ 3'-1 1/2"	2 @ 2'-4"	6 @ 3'-9"	4 @ 3'-9 1/2"
29" X 18"	2.833'	1.085	83	0.087	3"	8 @ 5'-0 1/4"	12 @ 3'-1 1/2"	2 @ 2'-4"	6 @ 4'-4 1/2"	4 @ 3'-9 1/2"
36" X 23"	3.250'	1.358	94	0.129	3 1/2"	8 @ 5'-10"	14 @ 3'-1 1/2"	2 @ 2'-4"	6 @ 5'-1"	4 @ 3'-9 1/2"
44" X 27"	3.635'	1.631	101	0.185	4"	8 @ 6'-7 1/2"	14 @ 3'-1 1/2"	2 @ 2'-4"	6 @ 5'-10"	4 @ 3'-9 1/2"
51" X 31"	4.068'	1.942	113	0.245	4 1/2"	8 @ 7'-5 1/2"	16 @ 3'-1 1/2"	2 @ 2'-4"	6 @ 6'-6"	4 @ 3'-9 1/2"
58" X 36"	4.500'	2.269	120	0.318	5"	8 @ 8'-3"	16 @ 3'-1 1/2"	2 @ 2'-4"	6 @ 7'-2 1/2"	4 @ 3'-9 1/2"
65" X 40"	4.875'	2.575	130	0.394	5 1/2"	8 @ 9'-0"	18 @ 3'-1 1/2"	2 @ 2'-4"	6 @ 7'-10"	4 @ 3'-9 1/2"
73" X 45"	5.333'	2.966	139	0.489	6"	8 @ 9'-10 1/2"	18 @ 3'-1 1/2"	2 @ 2'-4"	6 @ 8'-7"	4 @ 3'-9 1/2"
88" X 54"	6.167'	3.765	156	0.688	7"	8 @ 11'-6"	20 @ 3'-1 1/2"	2 @ 2'-4"	6 @ 10'-0"	4 @ 3'-9 1/2"

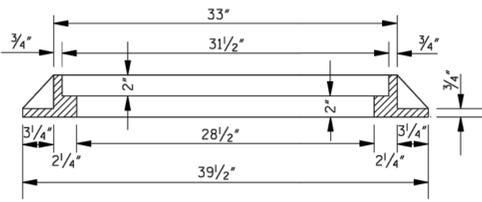
- NOTES:
- ONE (1) PIPE OPENING HAS BEEN DEDUCTED FROM THE STRUCTURE.
 - FOR EACH ADDITIONAL FOOT OF INLET HEIGHT, ADD 0.184 yd³ CLASS "B" CONCRETE AND 17 lbs REINFORCING STEEL.
 - 4 BARS "B" AND 2 BARS "C" REQUIRED PER EACH ADDITIONAL FOOT OF INLET HEIGHT.
 - WEIGHT OF FRAME CASTING = 244 lbs. WEIGHT OF GRATE = SEE SHEET IG-2.

GENERAL NOTES:

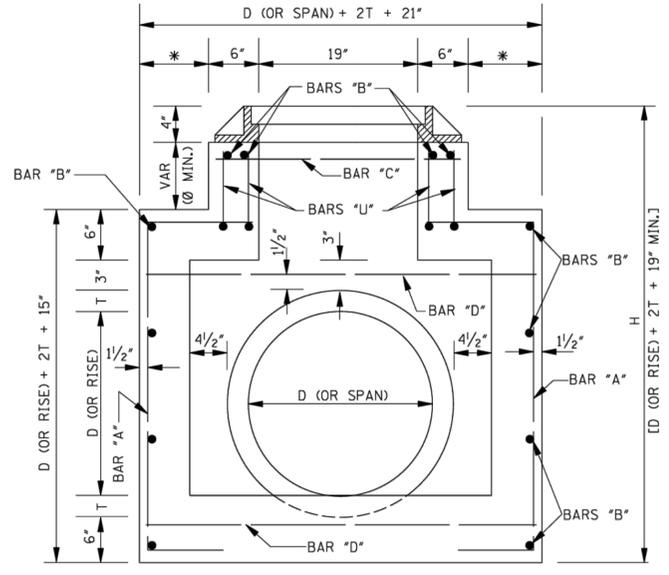
- QUANTITIES SHOWN WILL BE THE BASIS OF PAYMENT UNLESS AUTHORIZED MODIFICATIONS ARE MADE.
- CONCRETE SHALL BE CLASS "B" CONCRETE AND REINFORCING STEEL SHALL BE DEFORMED BARS.
- THE CONTRACTOR HAS THE OPTION TO PROVIDE GRATE NO. 1 OR GRATE NO. 2 AS SHOWN ON SHEET IG-2.
- FRAME TO BE GRAY IRON CASTING, (AASHTO M 105, CLASS 30).



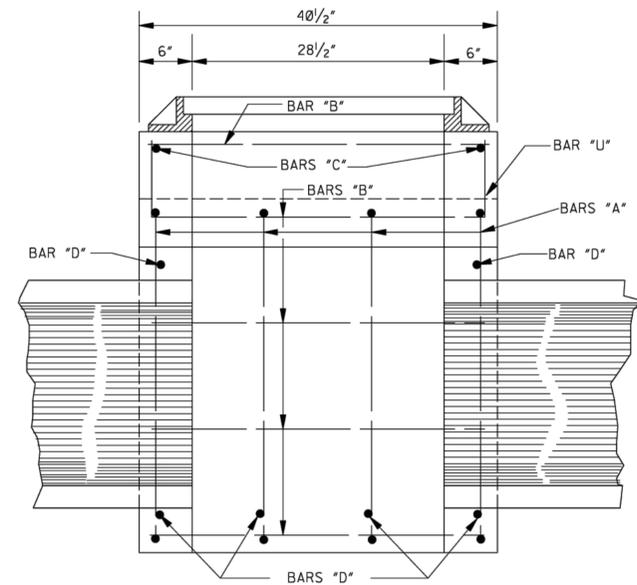
SECTION B-B (FRAME)



SECTION C-C (FRAME)

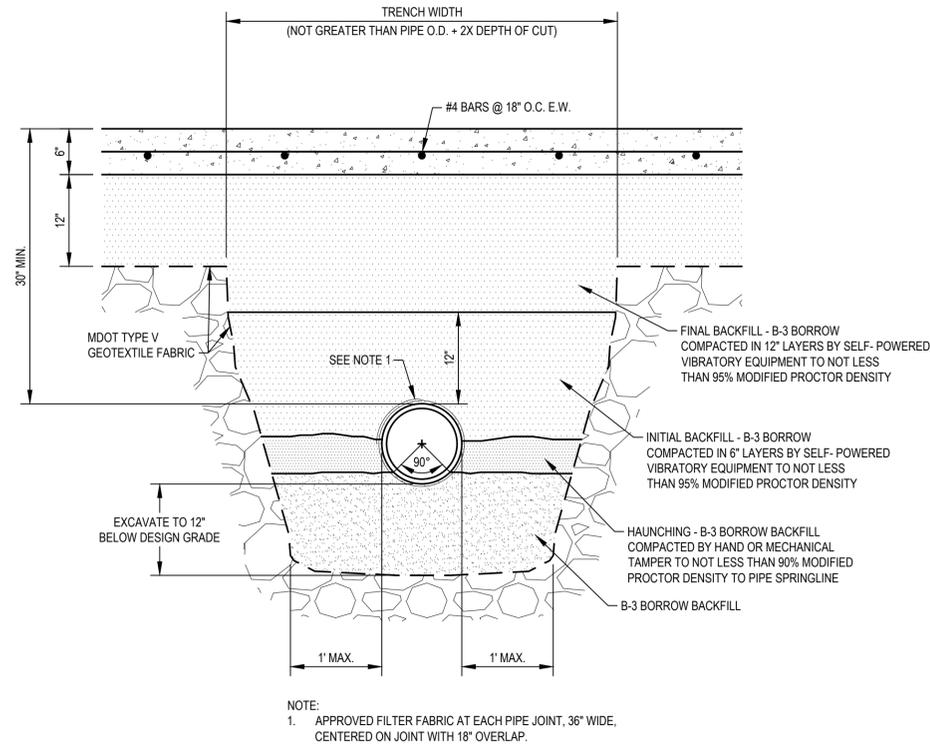


SECTION B-B

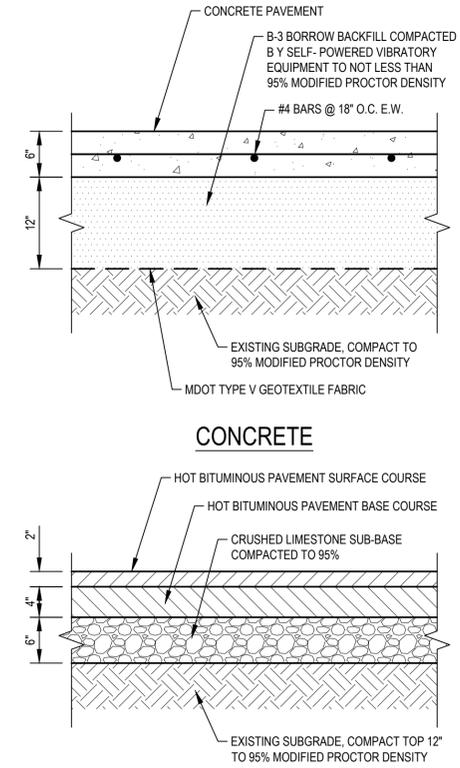


SECTION C-C

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		STORM SEWER INLET TYPE SS-3	
DATE		ISSUE DATE: AUGUST 01, 2017	
PROJECT NO: 1171-3		WORKING NUMBER SS-3	
DATE: 11/17/23		SHEET NUMBER 6525	
DRAWN BY: mbt		PROJECT NO: 1171-3	
CHECKED BY: dwt/dl/ds		DATE: 11/17/23	
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		DATE: 11/17/23	
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		CHECKED BY: dwt/dl/ds	
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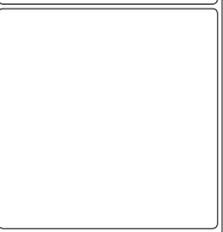
**PIPE BEDDING / BACKFILL
UNDER CONCRETE PAVEMENT**
NOT TO SCALE



TYPICAL PAVEMENT SECTION
NOT TO SCALE

NO:	DATE:	REVISIONS DESCRIPTION:	BY:

CITY OF LONG BEACH
LONG BEACH HARBOR
SOUTHERN QUAY



PROJECT NO: 1171-3	DATE: 9/13/23	DRAWN BY: mbt	CHECKED BY: dwt/rdb/ds	DETAILS

SHEET NUMBER **C4.1**

GENERAL NOTES:

1. ALL DRAWINGS (ARCHITECTURAL, STRUCTURAL, CIVIL, ETC.) AND THE SPECIFICATIONS ARE COMPLIMENTARY AND MUST BE USED IN COMBINATION WITH EACH OTHER TO OBTAIN COMPLETE CONSTRUCTION INFORMATION.
2. 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.
3. 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.
4. THE STRUCTURAL NOTES DEFINE GENERAL DESIGN AND MATERIAL REQUIREMENTS AND ARE INTENDED TO SUPPLEMENT, BUT NOT REPLACE THE PROJECT SPECIFICATIONS.

DESIGN CRITERIA:

1. THE BULKHEAD IS A 10 INCH CONCRETE SHEET PILE WALL STABILIZED Laterally WITH BATTERED 14"x 14" CONCRETE PILES. THE BULKHEAD SYSTEM IS DESIGNED TO RESIST A SURCHARGE LOAD BEHIND THE WALL OF 200 PSF AND A LIVE LOAD OF 100 PSF ATOP THE PILE CAP WALKWAY. PILE CAPACITIES ARE DERIVED FROM GEOTECHNICAL REPORT M22-158 DATED MAY 5, 2022 AND "ADDENDUM 1 - EASTERN BULKHEAD SHEET PILE" DATED NOVEMBER 8, 2023, ALL AS PREPARED BY SOUTHERN EARTH SCIENCES, INC.

PRESTRESSED CONCRETE PILE NOTES:

1. SPIRAL TIES: EACH WRAP OF SPIRALS SHALL BE TIED TO AT LEAST TWO CORNER STRANDS.
2. MATERIAL FOR SPIRAL TIES: SPIRALS MAY BE MANUFACTURED FROM STOCK MEETING REQUIREMENTS OF ANY GRADE OF REINFORCING STEEL, OR HARD DRAWN STEEL.
3. PILE CUT OFF: IN CUTTING OFF CONCRETE PILES, AN ABRASIVE SAW SHALL BE USED TO CUT PILES FULL SECTION DEPTH AS INDICATED. PROVIDE CORED HOLES IN PILE HEAD AND EPOXY GROUT DOWELS TO MATCH THOSE AS SHOWN IN PILE HEAD DETAILS.
4. CONCRETE STRENGTH: THE CONCRETE CYLINDER STRENGTH SHALL BE 5000 P.S.I. MINIMUM AT 28 DAYS AND 4000 P.S.I. MINIMUM TRANSFER AT THE PRE-STRESSING FORCE.
5. PICK-UP POINTS: PILES SHALL BE MARKED AT PICK-UP POINTS TO INDICATE PROPER POINTS FOR ATTACHING HANDLING LINES.
6. UNLESS SPECIAL LIFTING DEVICES ARE ATTACHED FOR PICKUP, PICKUP POINTS SHALL BE PLAINLY MARKED ON ALL PILES AFTER REMOVAL OF THE FORMS. ALL LIFTING SHALL BE DONE AT THESE POINTS. THE USE OF SPECIAL EMBEDDED OR ATTACHED LIFTING DEVICES, THE EMPLOYMENT OF OTHER PICK-UP POINTS, OR ANY OTHER METHOD OF PICK-UP SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER.
7. REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE GRADE 60.
8. ALL PILES SHALL BE DOWELED AT THE TOP AS INDICATED.
9. SPLICED PILES: SPLICED PILES MAY BE DRIVEN AFTER SPLICE IS THREE DAYS OLD AND CONCRETE HAS REACHED A MINIMUM STRENGTH OF 5000 P.S.I..
10. BUILDUPS: ALL BUILDUPS SHALL BE MADE WITH 5000 P.S.I. CONCRETE.
11. WHERE PILES MUST BE CUT OFF, DRILL NEW HOLES OR DEEPEN EXISTING HOLES TO RECEIVE DOWELS.
12. PILES WHICH BECOME DAMAGED OR FOR OTHER REASONS DO NOT BECOME A PERMANENT PART OF THE STRUCTURE SHALL BE EXTRACTED.
13. PILE TIP ELEVATION OF -28 FEET MSL SHALL BE BASIS OF BID FOR 16"x16" PILES OR / DETERMINED FROM TEST PILE DATA & ENGINEER RECOMMENDED LENGTHS.
14. PILE CAPACITY IS 52 TONS COMPRESSION AND 45 TONS TENSION WITH TIP ELEVATION @ -28 FEET MSL OR ADJUSTED DEPTHS BY ENGINEER.

CONCRETE SHEET PILE NOTES:

1. CONCRETE TO HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 6000 PSI.
2. CEMENT SHALL CONFORM TO PORTLAND CEMENT ASTM C150. USE TYPE II WITH A MINIMUM 7 SACK (650 LBS)/CUBIC YARD (MAXIMUM WATER/CEMENT RATIO 0.45).
3. DEFORMED REINFORCING STEEL SHALL CONFORM TO ASTM 615 GRADE 60. A YIELD HIGHER THAN 60 KSI CAN BE USED.
4. STANDARD WIDTH IS 3'-0" NOMINAL. SHEET PILES CAN BE OTHER WIDTHS.
5. LATERAL REINFORCEMENT SHOULD NOT BE LESS THAN MINIMUM SHRINKAGE AND TEMPERATURE STEEL REQUIREMENTS PER ACI 318. PROVIDE MIN 3" COVER EXCEPT AS NOTED.
6. INTERNAL JET PIPES SHOULD BE GROUTED SOLID W/ NON-SHRINK GROUT.
7. CONTRACTOR SHALL FURNISH STRUCTURAL DESIGN CALCULATIONS FOR SHEET PILE DESIGN (ALL PIECES). SHEET PILE SHALL BE DESIGNED TO RESIST A BENDING MOMENT = 13 FT-K/LIN FT OF WALL.
8. PROVIDE SLEEVES THRU PILES FOR WATER & ELECTRICAL PENETRATIONS. IF APPLICABLE, SEE CIVIL DRAWINGS.
9. PILE TIP ELEVATION OF -28 FEET MSL SHALL BE THE BASIS OF BID FOR SHEET PILES.
10. SHEET PILING SHALL BE DRIVEN TO MINIMUM 3.5 TON/FT CAPACITY.
11. CONTRACTOR SHALL MONITOR & RECORD BLOW COUNTS AND PROVIDE INFO TO ENGINEER.

CONCRETE NOTES:

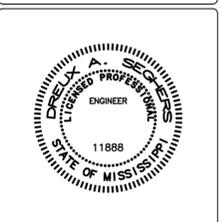
1. SEE APPLICABLE TECHNICAL SPECIFICATIONS.
2. ALL WORK SHALL CONFORM TO THE LATEST REQUIREMENTS OF ACI 318, CRSI AND THE INTERNATIONAL BUILDING CODE.
3. ALL CONCRETE SHALL OBTAIN A 28 DAY STRENGTH AS SPECIFIED.
4. SUBMIT MIX DESIGN TO THE ENGINEER FOR APPROVAL.
5. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
6. CHAMFER ALL EXPOSED EXTERNAL CORNERS OF CONCRETE WITH 1" 45 DEGREE CHAMFER, UNLESS NOTED OTHERWISE.
7. CONTRACTOR TO REFER TO CIVIL DRAWINGS FOR PIPING PENETRATIONS.
8. PROVIDE JOINTS PER S4.0 AND S4.4, EXPANSION JOINTS IN CAP AND KNEE WALL SHALL MATCH SHEET PILE WALL. PROVIDE TOOLED JOINTS @ 6'-0" O.C. MAXIMUM. CORNERS SHALL HAVE A MINIMUM ANGLE OF 90 DEGREES.
9. FINISHES:
TOP OF PILE CAP: LIGHT BROOM FINISH
EXPOSED VERTICAL SURFACES: RUBBED FINISH

GENERAL NOTES:

1. 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.
2. CMU OR CLAY BRICK SHALL NOT BE USED TO SUPPORT SLAB REINFORCEMENT. SUPPORT SLAB REINFORCEMENT ON STEEL CHAIRS WITH SAND PLATES OR APPROVED SUPPORTS.
3. 4000 PSI CONCRETE BLOCKS MAY BE USED TO SUPPORT REINFORCEMENT IN SPREAD FOOTINGS AND STRIP FOOTINGS. CMU OR CLAY BRICKS SHALL NOT BE USED.
4. 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.
5. CONCRETE PROTECTION FOR REINFORCEMENT: A.C.I. 318 OR AS INDICATED.
6. ALL BAR SPLICES SHALL BE 40d LAP SPLICES, UNLESS OTHERWISE SHOWN.
7. SPLICE TOP BARS AT CENTER OF SPAN AND BOTTOM BARS AT THE SUPPORT.
8. UNLESS OTHERWISE NOTED, ALL REINFORCING SPLICES SHALL BE IN CONFORMANCE WITH A.C.I. 318, LATEST REVISION.
9. ALL REINFORCEMENT BAR BENDS AND HOOKS SHALL BE IN CONFORMANCE WITH A.C.I. 315, LATEST REVISION UNLESS OTHERWISE NOTED.
10. ALL CONCRETE INSTALLED AS PART OF THE SHEET PILES AND BULKHEAD CAP/STEM WALL SHALL CONTAIN A CORROSION-INHIBITING OR WATERPROOFING ADMIXTURE PER THE SPECIFICATIONS. ALL REINFORCING STEEL INSTALLED IN THOSE STRUCTURAL COMPONENTS SHALL BE EPOXY-COATED PER THE SPECIFICATIONS.
11. CONTRACTOR SHALL BE AWARE THAT TEST PILES WHERE SHOWN SHALL BE INSTALLED BY OTHERS. CONTRACTOR MAY BE REQUIRED TO CUT-OFF OR BUILD-UP THE TEST PILES PER FIELD CONDITIONS.

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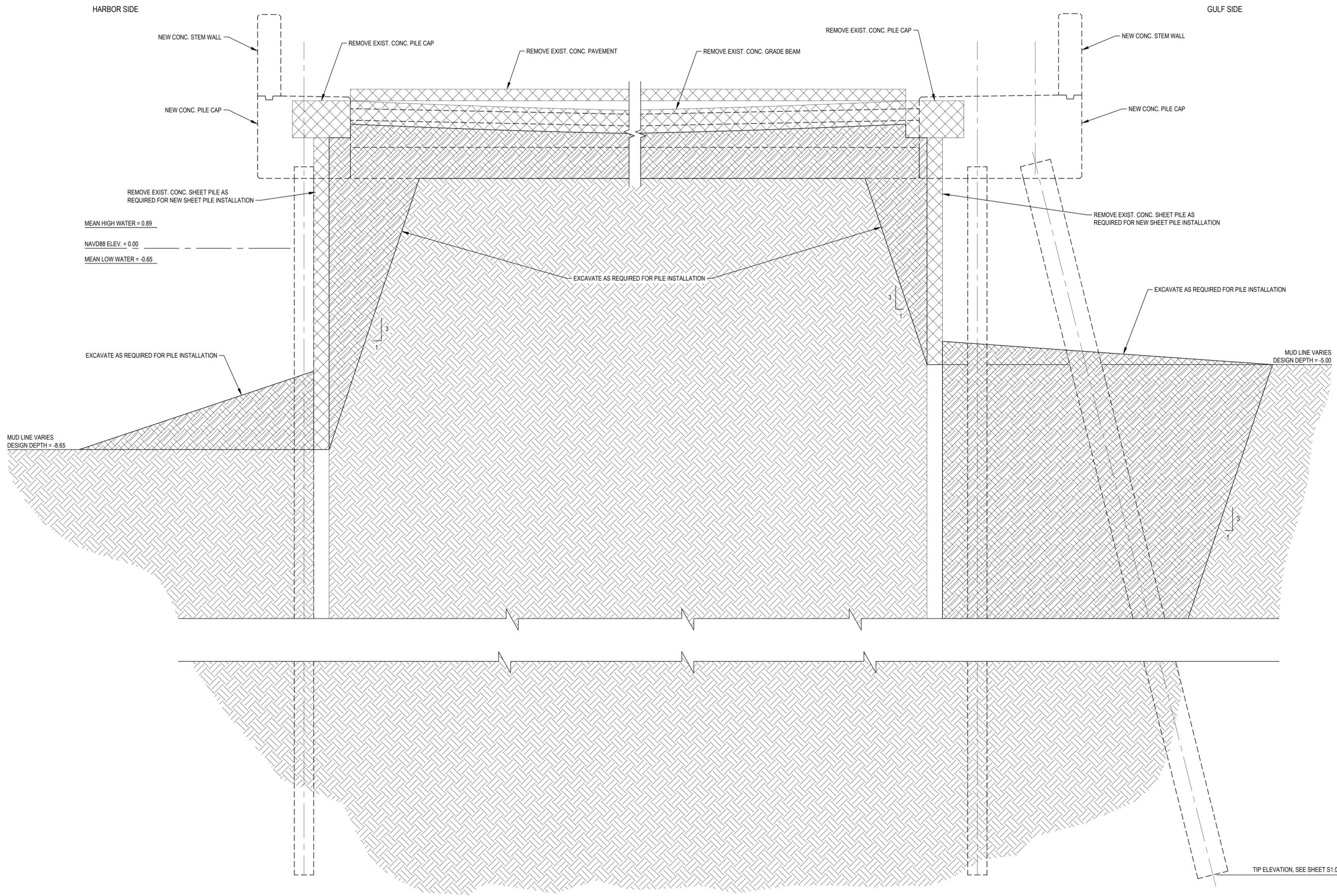
CITY OF LONG BEACH
LONG BEACH HARBOR
SOUTHERN QUAY



PROJECT NO: 1171-3	DATE: 3/12/24	DRAWN BY: mbt	CHECKED BY: dwt/rdb/ds	STRUCTURAL NOTES

SHEET NUMBER **S1.0**

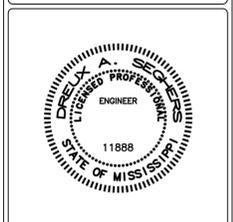
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DEMOLITION SECTION
NOT TO SCALE

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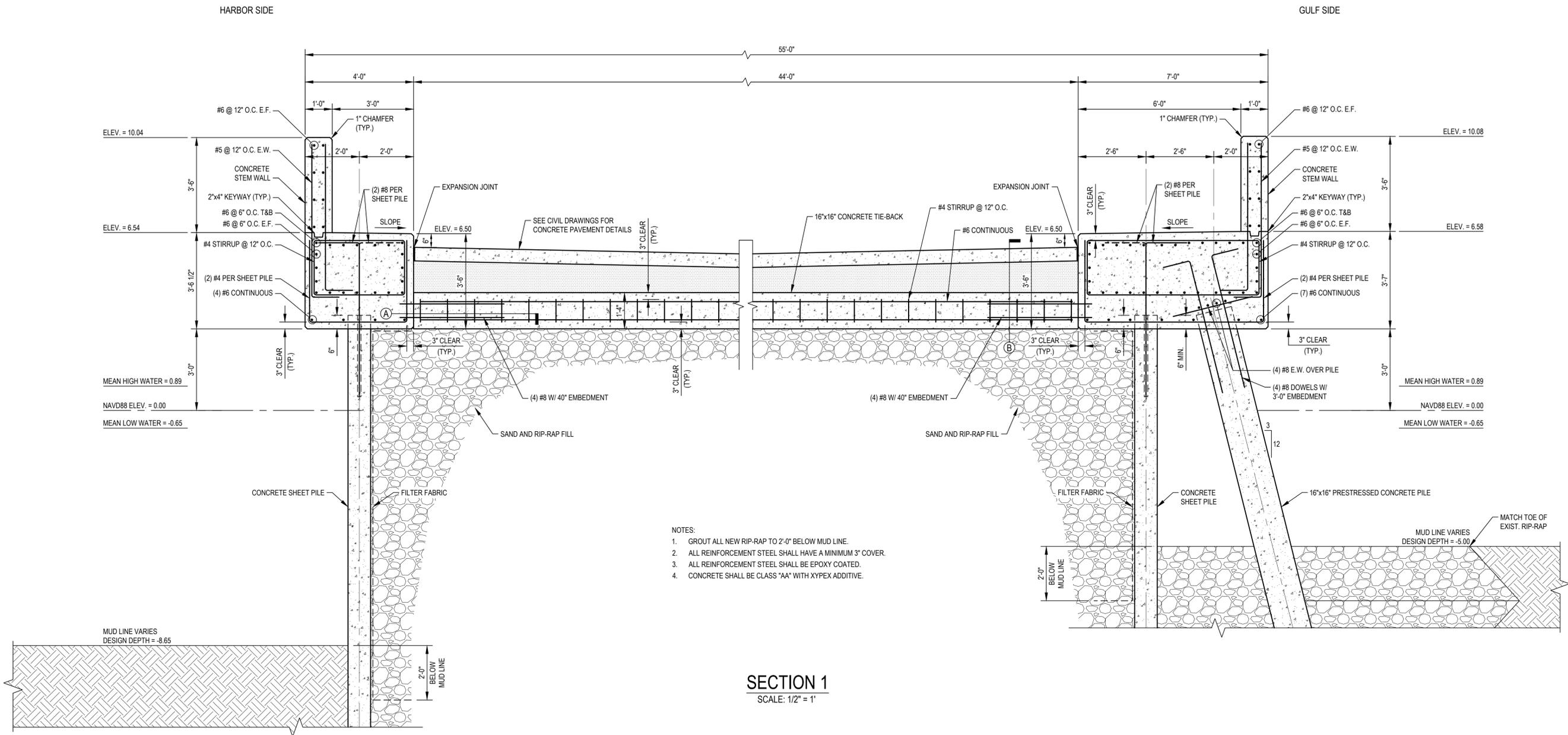
CITY OF LONG BEACH
LONG BEACH HARBOR
SOUTHERN QUAY



PROJECT NO: 1171-3	DATE: 3/12/24	DRAWN BY: mbt	CHECKED BY: dwt/dtds	DEMOLITION SECTION
TIP ELEVATION, SEE SHEET S1.0				

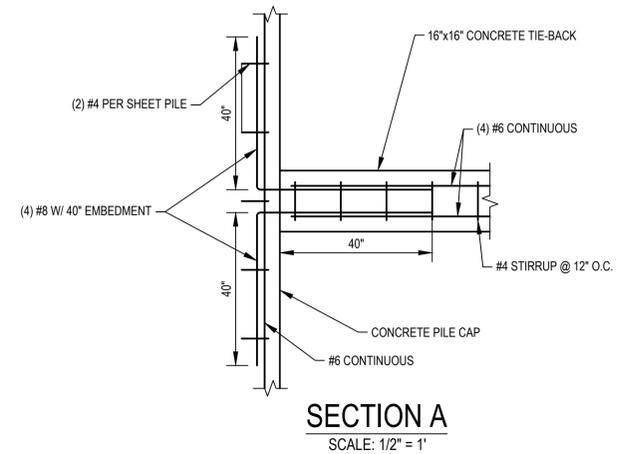
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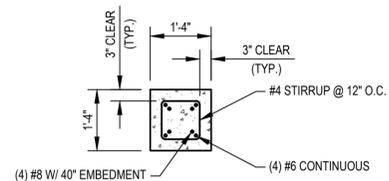


- NOTES:
1. GROUT ALL NEW RIP-RAP TO 2'-0" BELOW MUD LINE.
 2. ALL REINFORCEMENT STEEL SHALL HAVE A MINIMUM 3" COVER.
 3. ALL REINFORCEMENT STEEL SHALL BE EPOXY COATED.
 4. CONCRETE SHALL BE CLASS "AA" WITH XYPEX ADDITIVE.

SECTION 1
SCALE: 1/2" = 1'



SECTION A
SCALE: 1/2" = 1'



SECTION B
SCALE: 1/2" = 1'

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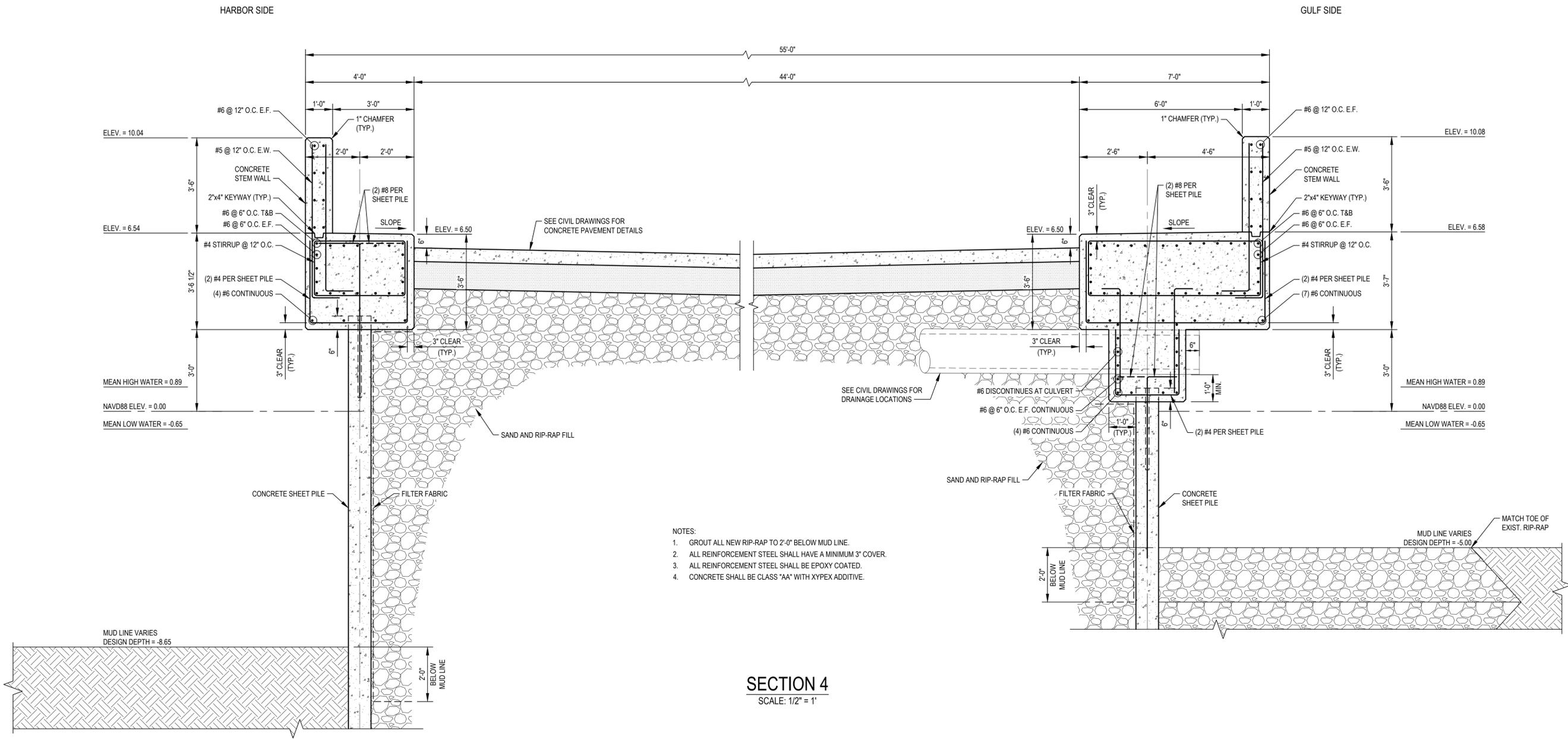
CITY OF LONG BEACH
LONG BEACH HARBOR
SOUTHERN QUAY



PROJECT NO: 1171-3	DATE: 3/13/24	DRAWN BY: mbt	CHECKED BY: dwt/ab/ds	STRUCTURAL DETAILS

SHEET NUMBER **S4.1**

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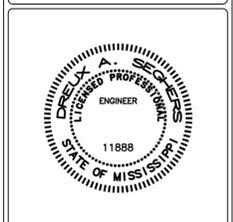


- NOTES:
1. GROUT ALL NEW RIP-RAP TO 2'-0" BELOW MUD LINE.
 2. ALL REINFORCEMENT STEEL SHALL HAVE A MINIMUM 3" COVER.
 3. ALL REINFORCEMENT STEEL SHALL BE EPOXY COATED.
 4. CONCRETE SHALL BE CLASS "AA" WITH XYPEX ADDITIVE.

SECTION 4
SCALE: 1/2" = 1'

NO.	DATE:	REVISIONS DESCRIPTION:	BY

CITY OF LONG BEACH
LONG BEACH HARBOR
SOUTHERN QUAY



PROJECT NO: 1171-3	DATE: 3/13/24	DRAWN BY: mbt	CHECKED BY: dwt/ab/ds	STRUCTURAL DETAILS

SHEET NUMBER **S4.2**