

KINGSTON WATERFRONT RESILIENCY DESIGN

KINGSTON, NEW YORK
APRIL 17, 2018

PREPARED BY:



PREPARED FOR:



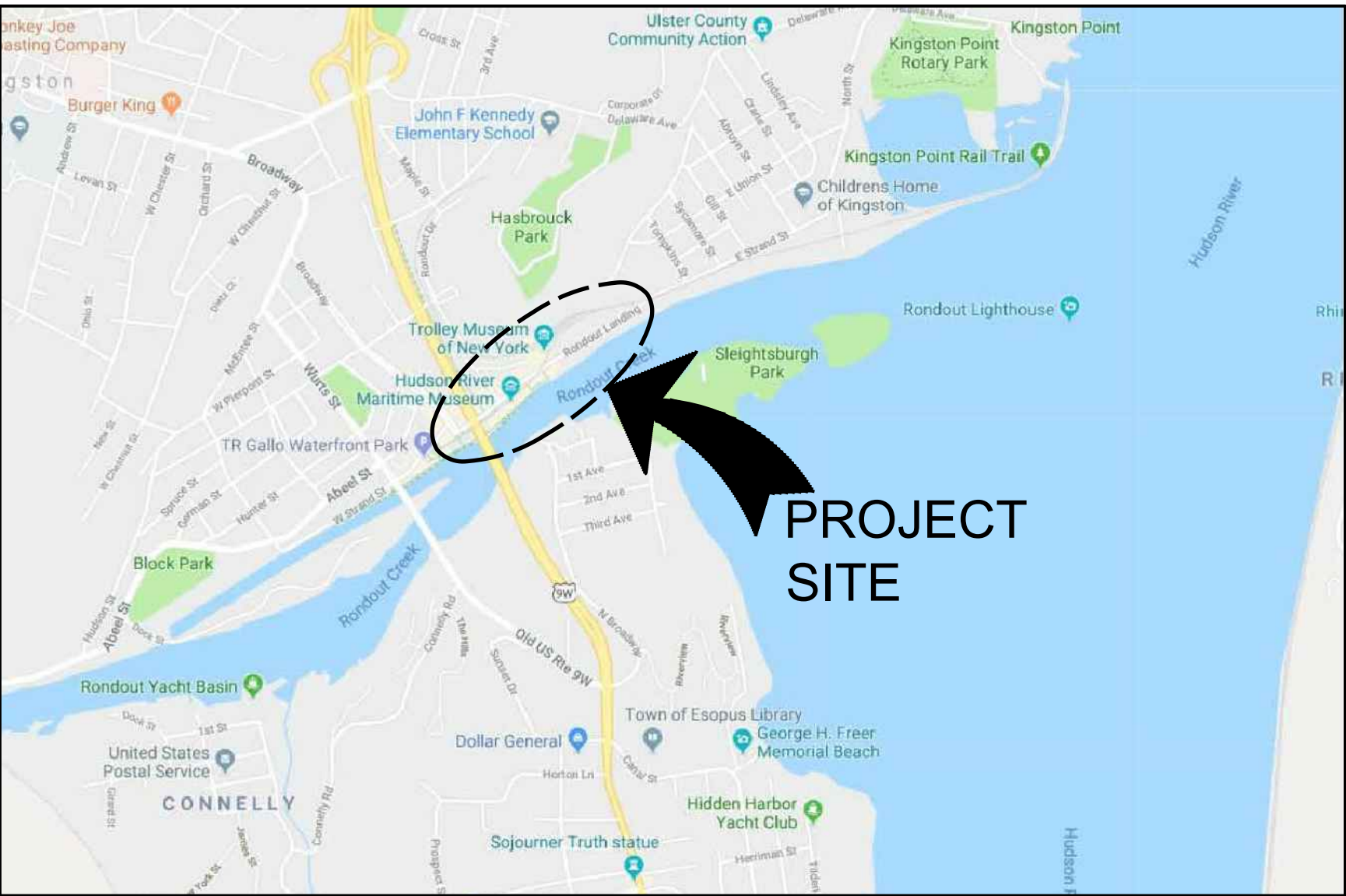
City of Kingston, NY
City Hall, 420 Broadway
Kingston, NY 12401

MAYOR
HONORABLE STEVEN T. NOBLE

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JEFFREY VENTURA MORELL
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STEVEN SCHABOT
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CITY ENGINEER
JOHN SHULTHEIS

DRAWING LIST		
Sheet Number	DRAWING NO.	DRAWING TITLE
1	T-000	TITLE SHEET
2	G-001	GENERAL NOTES - 1
3	G-002	GENERAL NOTES - 2
4	C-001	CIVIL GENERAL NOTES
5	C-002	OVERALL EXISTING SITE PLAN
6	C-003	EXISTING CONDITION & DEMOLITION SITE PLAN - 1
7	C-004	EXISTING CONDITION & DEMOLITION SITE PLAN - 2
8	C-005	EXISTING CONDITION & DEMOLITION SITE PLAN - 3
9	C-101	OVERALL SITE LAYOUT PLAN
10	C-102	PARTIAL SITE LAYOUT PLAN - 1
11	C-103	PARTIAL SITE LAYOUT PLAN - 2
12	C-104	PARTIAL SITE LAYOUT PLAN - 3
13	C-201	OVERALL GRADING AND DRAINAGE PLAN
14	C-202	PARTIAL GRADING AND DRAINAGE PLAN - 1
15	C-203	PARTIAL GRADING AND DRAINAGE PLAN - 2
16	C-204	PARTIAL GRADING AND DRAINAGE PLAN - 3
17	C-301	OVERALL UTILITY PLAN
18	C-302	PARTIAL UTILITY PLAN - 1
19	C-303	PARTIAL UTILITY PLAN - 2
20	C-304	PARTIAL UTILITY PLAN - 3
21	C-401	PARTIAL SOIL EROSION AND SEDIMENT PLANS - 1
22	C-402	PARTIAL SOIL EROSION AND SEDIMENT PLANS - 2
23	C-403	PARTIAL SOIL EROSION AND SEDIMENT PLANS - 3
24	C-501	EROSION AND SEDIMENT CONTROL DETAILS
25	C-502	DETAILS - 1
26	C-503	DETAILS - 2
27	C-504	DETAILS - 3
28	C-505	DETAILS - 4
29	C-506	DETAILS - 5
30	MR-100	GENERAL PLAN - 1
31	MR-101	GENERAL PLAN - 2
32	MR-102	GENERAL PLAN - 3
33	MR-103	BORING LOGS
34	MR-200	DEMOLITION PLAN - 1
35	MR-201	DEMOLITION PLAN - 2
36	MR-202	DEMOLITION PLAN - 3
37	MR-203	DEMOLITION DETAILS - 1
38	MR-204	DEMOLITION DETAILS - 2
39	MR-300	BULKHEAD/ShORE PROTECTION PLAN - 1
40	MR-301	BULKHEAD/ShORE PROTECTION PLAN - 2
41	MR-302	BULKHEAD/ShORE PROTECTION PLAN - 3
42	MR-303	PILE PLAN - 1
43	MR-304	PILE PLAN - 2
44	MR-305	PILE PLAN - 3
45	MR-306	MOORING PLAN
46	MR-307	APPROACH SLAB PLAN
47	MR-400	BULKHEAD/ShORE PROTECTION DETAILS - 1
48	MR-401	BULKHEAD/ShORE PROTECTION DETAILS - 2
49	MR-402	BULKHEAD/ShORE PROTECTION DETAILS - 3
50	MR-403	BULKHEAD/ShORE PROTECTION DETAILS - 4
51	MR-404	MOORING DOLPHIN DETAILS
52	MR-405	MISCELLANEOUS DETAILS - 1
53	MR-406	MISCELLANEOUS DETAILS - 2
54	MR-407	MISCELLANEOUS DETAILS - 3
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LOCATION MAP
N.T.S.



VICINITY MAP
N.T.S.

FINAL DESIGN
APRIL 17, 2020

DEMOLITION NOTES

1. EXISTING BOUNDARY, UTILITY, LAND TOPOGRAPHY AND STRUCTURE LOCATIONS TAKEN FROM SURVEY PREPARED BY OTHER FIRM..

DEMOLITION NOTES

1. CONDUCT DEMOLITION OPERATIONS AND REMOVE DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH SELECTIVE DEMOLITION OPERATION.
2. CONDUCT DEMOLITION OPERATIONS TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS AND FACILITIES TO REMAIN. ENSURE SAFE PASSAGE OF PEOPLE AROUND SELECTIVE DEMOLITION AREA.

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY ALL EXISTING SITE CONDITIONS. ANY DISCREPANCIES BETWEEN THE INFORMATION PROVIDED ON THE PLANS OR SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MARK-OUT OF EXISTING UNDERGROUND UTILITIES ADJACENT TO AND ENTERING THE SITE.
3. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, LAWS AND REGULATIONS GOVERNING THIS WORK. THE CONTRACTOR SHALL COORDINATE DEMOLITION WITH APPLICABLE AGENCIES, UTILITY COMPANIES AND/OR OTHER TRADES WORKING ON-SITE.
4. THE CONTRACTOR SHALL USE CARE DURING CONSTRUCTION TO AVOID DISTURBING OR DAMAGING ADJACENT ABOVE OR BELOW GROUND STRUCTURES, FACILITIES OR FEATURES. ANY DAMAGE RESULTING FROM THESE ACTIVITIES SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
5. WHERE NEW CONSTRUCTION ABUTS EXISTING PAVEMENTS, CURB OR WALLS, THE EXISTING MATERIAL SHALL BE NEATLY SAWCUT TO PROVIDE A CLEAN, STRAIGHT, SMOOTH TRANSITION, AS SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE APPROPRIATE TRANSITION OR JOINT BETWEEN EXISTING AND NEW WORK.
6. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY EXISTING CURB, FENCE, PAVEMENT OR OTHER FEATURE INTENDED TO REMAIN BUT DAMAGED OR DISTURBED BY CONSTRUCTION ACTIVITIES, TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
7. THE CONTRACTOR SHALL TAKE CARE TO PROTECT THE ROOT SYSTEM OF ANY EXISTING TREE, BUSH OR SHRUB TO REMAIN. BULK MATERIALS, EQUIPMENT AND/OR VEHICLES SHALL NOT BE STOCKPILED, PARKED OR DRIVEN WITHIN THE DRIPLINE OF ANY TREE, SHRUB OR BUSH.
8. IN AREAS DESIGNATED FOR EXCAVATION OR RE-GRADING, ALL EXISTING PAVEMENTS, CURBS, AND STRUCTURES SHALL BE REMOVED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
9. THE CONTRACTOR SHALL DISPOSE OF ALL ITEMS AND MATERIALS (SUCH AS FENCING, PAVEMENT STRUCTURES, ETC.) TO BE REMOVED, AT AN OFF-SITE LOCATION IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL LAWS. ALL SPOILS TO REMAIN ON SITE.
10. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE APPROPRIATE AGENCIES PRIOR TO THE START OF WORK.
11. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT SIZE, LOCATION, DEPTH AND INVERT OF ALL EXISTING UTILITIES WITHIN THE LIMITS OF WORK PRIOR TO COMMENCING OPERATIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER FOR RESOLUTION.
12. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS PRIOR TO THE START OF OPERATIONS AND SHALL COMPLY WITH THE LATEST NEW YORK STATE CODE RULE 753 (OR INDUSTRIAL CODE RULE 53).
13. PERMANENT TRAFFIC CORRIDORS SHALL BE ESTABLISHED AND "ROUTES OF CONVENIENCE" SHALL BE AVOIDED.
14. THE LAND OWNER IS RESPONSIBLE FOR ANY CONSTRUCTION OR LANDSCAPING BEYOND THE LIMIT OF DISTURBANCE LINE.

GRADING NOTES

1. ALL LANDSCAPED AREAS AND CURBED ISLANDS SHALL RECEIVE A MINIMUM OF 4" OF TOPSOIL.
2. ALL EXISTING UTILITY STRUCTURE CASTINGS SHALL BE ADJUSTED AS NECESSARY TO BE FLUSH WITH PROPOSED FINISHED GRADE.
3. ALL EARTH EMBANKMENTS SHALL HAVE A MAXIMUM SLOPE OF 2.0 HORIZONTAL TO 1 VERTICAL. ALL ROCK EMBANKMENTS SHALL HAVE A SLOPE OF 1 HORIZONTAL TO 3 VERTICAL OR AS DIRECTED ON THE PLANS.
4. ALL EARTHWORK SHALL BE SMOOTHLY AND EVENLY BLENDED INTO EXISTING CONDITIONS.
5. IN NO CASE SHALL ERODIBLE MATERIALS BE STOCKPILED WITHIN 25 FEET OF ANY DITCH, STREAM, OR OTHER SURFACE WATER BODY.

THIS DOCUMENT WAS PREPARED WITH
FUNDING PROVIDED BY THE NEW YORK STATE
DEPARTMENT OF STATE UNDER TITLE 11 OF
THE ENVIRONMENTAL PROTECTION FUND.

WARNING - IT IS A VIOLATION OF NEW YORK STATE EDUCATIONAL LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATIONAL LAW, SECTION 7209.2

UTILITY NOTES

1. GENERAL
 - a. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY INFORMATION AND REPORT ANY DISCREPANCIES TO THE SITE ENGINEER FOR RESOLUTION.
 - b. THE CONTRACTOR SHALL REFER TO THE BUILD MECHANICAL AND PLUMBING PLANS FOR THE EXACT LOCATIONS AND INVERTS OF ALL BUILDING SERVICE CONNECTIONS.
 - c. THE SITE CONTRACTOR IS ADVISED THAT IF OTHER CONTRACTOR AND/OR UTILITY COMPANIES SHALL BE WORKING IN THE AREA AT THE SAME TIME. THE CONTRACTOR SHALL COORDINATE HIS WORK SUCH THAT THERE WILL BE NO CONFLICT IN OPERATIONS.
2. STORM DRAINS
 - a. STORM DRAINS SHALL BE CONSTRUCTED SMOOTH FLOW POLYETHYLENE PIPE.
 - b. PIPE END SECTIONS SHALL BE PREFABRICATED.
3. SANITARY SEWERS
 - a. ALL SANITARY SEWER SERVICE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF KINGSTON STANDARDS AND SPECIFICATIONS.
4. WATER MAINS
 - a. PIPE BEDDING SHALL BE CONTINUOUS AND UNIFORM. BACKFILL MATERIAL SHALL BE TAMPED IN LAYERS AROUND THE PIPE AND FOR THE FULL DEPTH OF THE TRENCH. STONES FOUND IN THE TRENCH SHALL BE REMOVED FOR A DEPTH OF AT LEAST SIX INCHES BELOW THE BOTTOM OF THE PIPE.
 - b. DEFLECTION OF JOINTS ON WATER MAINS SHALL NOT EXCEED 50% OF THE MAXIMUM DEFLECTION RECOMMENDED BY THE MANUFACTURER OR AS ORDERED BY THE ENGINEER.
 - c. ALL HORIZONTAL AND VERTICAL BENDS SHALL HAVE THRUST BLOCKS AND/OR RETAINER GLANDS.
 - d. IF GROUND WATER IS PRESENT WITHIN 7 FEET OF A HYDRANT, THE HYDRANT DRAINS MUST BE PLUGGED. THE BARRELS MUST BE PUMPED DRY AFTER USE DURING FREEZING WEATHER. WHERE HYDRANT DRAINS ARE NOT PLUGGED A GRAVEL POCKET OR DRY WELL SHALL BE PROVIDED. HYDRANT DRAINS SHALL NOT BE CONNECTED TO OR LOCATED WITHIN 10 FEET OF SANITARY SEWERS OR STORM DRAINS.
 - e. WATER MAINS CROSSING ABOVE OR BELOW STORM AND/OR SANITARY SEWERS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF EIGHTEEN (18) INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER. AT CROSSINGS, ONE FULL LENGTH OF WATER PIPE SHALL BE LOCATED SUCH THAT BOTH JOINTS WILL BE AS FAR AS POSSIBLE FROM THE SEWER.
 - f. WATER MAINS SHALL BE LAID WITH A MINIMUM TEN-(10) FOOT HORIZONTAL CLEARANCE FROM ANY EXISTING OR PROPOSED SEWER LINE.
 - g. PRESSURE AND LEAKAGE TESTING SHALL BE MADE IN ACCORDANCE WITH SECTION 4. HYDROSTATIC TEST OF AWWA C600-99. THE MINIMUM HYDROSTATIC TEST PRESSURE SHALL BE 150 PSI FOR A MINIMUM PERIOD OF TWO (2) HOURS.
 - h. WATER DISTRIBUTION LINES SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651 EXCEPT THAT THE TABLET METHOD SHALL NOT BE PERMITTED. SAMPLES OF WATER SHALL BE COLLECTED AND TAKEN TO THE ULSTER COUNTY DEPARTMENT OF HEALTH FOR BACTERIOLOGICAL ANALYSIS. A MINIMUM OF ONE (1) SAMPLE SHALL BE COLLECTED FOR EACH 1000 LINEAR FEET OF WATER MAIN OR PORTION THEREOF. IF THE SAMPLES FAIL TO MEET THE STANDARDS OF THE ULSTER COUNTY DEPARTMENT OF HEALTH FOR DRINKING WATER, THEN THE WATER MAINS SHALL BE RE-STERILIZED AND THE PROCEDURE REPEATED UNTIL THE SAMPLES ARE SATISFACTORY.
 - i. CROSS CONNECTION CONTROL (BACKFLOW PREVENTORS) SHALL BE SUBMITTED UNDER SEPARATE COVER BY TO THE CITY OF KINGSTON AND THE ULSTER COUNTY DEPARTMENT OF HEALTH FOR REVIEW AND APPROVAL.
 - j. UPON COMPLETION AND PRIOR TO USE, AS BUILT PLANS MUST BE SUBMITTED TOGETHER WITH ENGINEERS CERTIFICATION OF CONSTRUCTION AND TWO (2) ACCEPTABLE RESULTS OF BACTERIOLOGICAL TESTING SAMPLED 24 HOURS APART.
5. PRIVATE UTILITIES

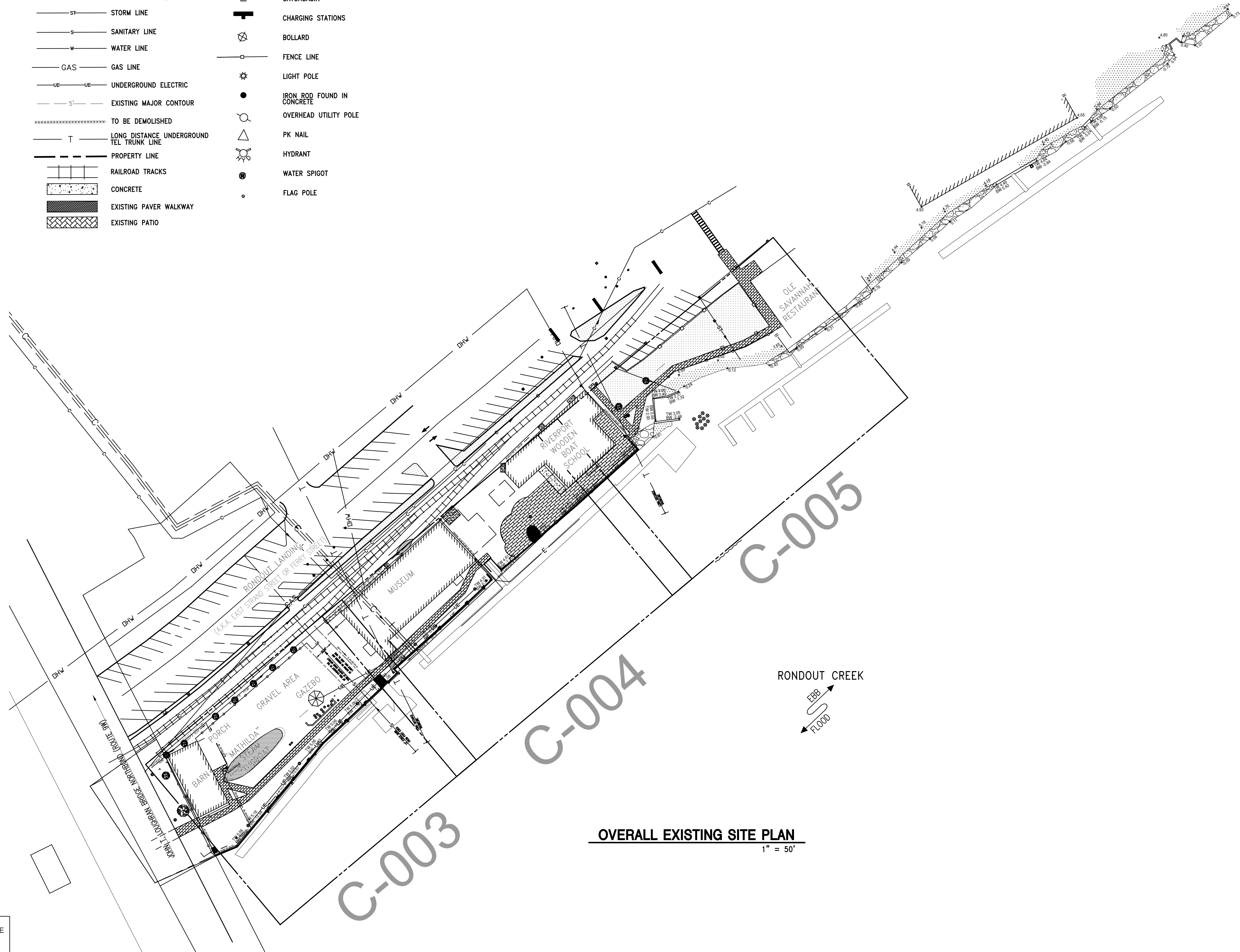
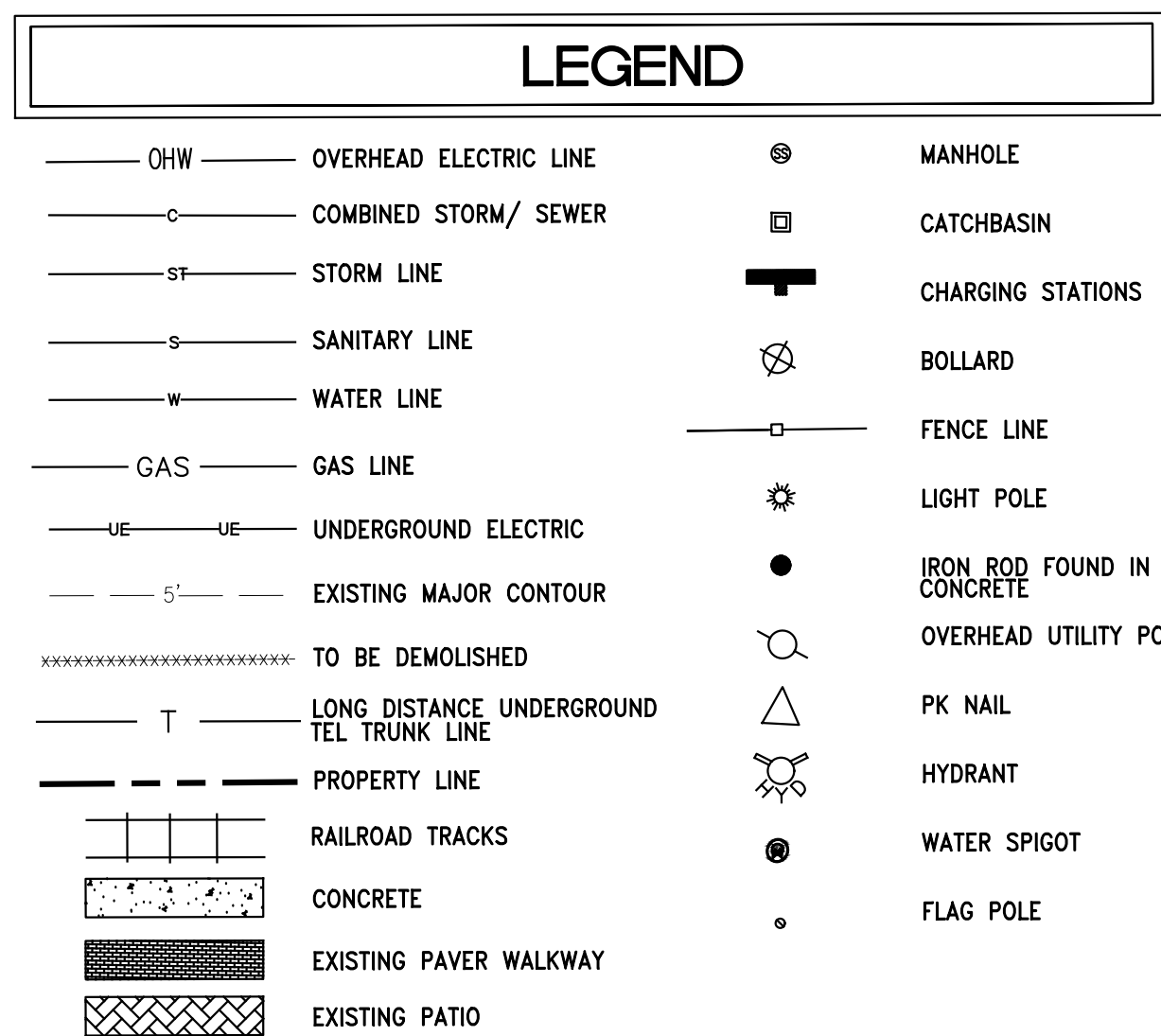
- a. ALL GAS AND ELECTRIC SYSTEM INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF THE LOCAL GOVERNING AUTHORITY. THE DESIGN AND INSTALLATION OF THESE SYSTEMS ARE NOT PART OF THE CIVIL DRAWINGS, AND THESE LINES ARE SHOWN FOR LOCATION AND COORDINATION PURPOSES ONLY.
 - b. INFORMATION TECHNOLOGY (IT), LIGHTING AND SECURITY DESIGN AND INSTALLATION ARE NOT PART OF THE CIVIL DRAWINGS, AND THESE LINES ARE SHOWN FOR LOCATION AND COORDINATION PURPOSES ONLY.
 - c. THE CONTRACTOR SHALL NOT INSTALL ANY PORTION OF THE PAVEMENT SECTION INCLUDING CURBING UNTIL ALL PRIVATE UTILITY LINES AND/OR CONDUITS HAVE BEEN INSTALLED.
 - d. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR TRENCH EXCAVATION AND BACKFILL FOR ALL GAS, ELECTRIC AND TELEPHONE LINES/CONDUITS. EXCAVATION AND BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF THE INDIVIDUAL UTILITY COMPANY.
 - e. THE CONTRACTOR SHALL REFER TO PLANS PREPARED BY EITHER THE APPROPRIATE UTILITY COMPANY OR THE SITE ELECTRICAL/MECHANICAL ENGINEER FOR THE EXACT LOCATION, SIZE AND TYPE OF THE PROPOSED GAS, ELECTRIC OR TELEPHONE SYSTEMS. ANY LOCATIONS SHOWN ON THESE DRAWINGS SHOULD NOT BE USED FOR CONSTRUCTION.
6. PIPE ABANDONMENT
- a. THE CONTRACTOR SHALL NOT REMOVE EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT AREAS AND ANY THAT CONFLICT WITH PROPOSED UTILITY OR OTHER CONSTRUCTION WITHOUT PROPER APPROVAL OF THE UTILITY OWNER. ALL OTHER UTILITIES CAN BE ABANDONED IN PLACE.
 - b. TWELVE (12) INCH AND LARGER PIPES TO BE ABANDONED SHALL BE PLUGGED AND FILLED WITH A CEMENT BASED GROUT SLURRY MIXTURE.
 - c. TEN INCH (10") AND SMALLER PIPES TO BE ABANDONED SHALL BE PLUGGED AT BOTH ENDS WITH A NON-SHRINK MORTAR NOT LESS THAN 2" - 0" THICK.
 - d. THE ABANDONMENT METHOD SHALL ADEQUATELY PROVIDE FOR THE REMOVAL AND LEGAL DISPOSAL OF ALL EXISTING PIPE MATERIALS, OF WHATEVER NATURE, REMOVED FROM THE SYSTEM.

MISCELLANEOUS NOTES

1. PORT EWEN FORCE MAIN
 - a. ALL MACHINERY EQUIPPED WITH OUTRIGGER OR ANY OTHER DEVICE THAT TRANSFERS HEAVY POINT LOADS TO THE GROUND SURFACE SHALL NOT OPERATE WITHIN THE 20 FOOT WIDE EASEMENT TO PREVENT AND DAMAGE TO THE EXISTING FORCE MAIN.
2. TELEPHONE TRUNKLINES
 - a. THE EXACT LOCATION AND DEPTH OF THE TELEPHONE TRUNKLINES SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION. AT THE REQUEST OF VERIZON, THE CONTRACTOR IS NOT AUTHORIZED TO DAMAGE OR REMOVE ANY EXISTING ACTIVE OR ABANDONED TRUNKLINE
3. EXISTING COMBINED SEWER OUTLET OUTFALL
 - a. THE EXACT LOCATION, DEPTH, CONDITION AND SIZE OF THE CSO OUTFALL RUNNING UNDER THE MARITIME MUSEUM IS TO BE FIELD INSPECTED PRIOR TO CONSTRUCTION.

FINAL DESIGN
APRIL 17, 2020

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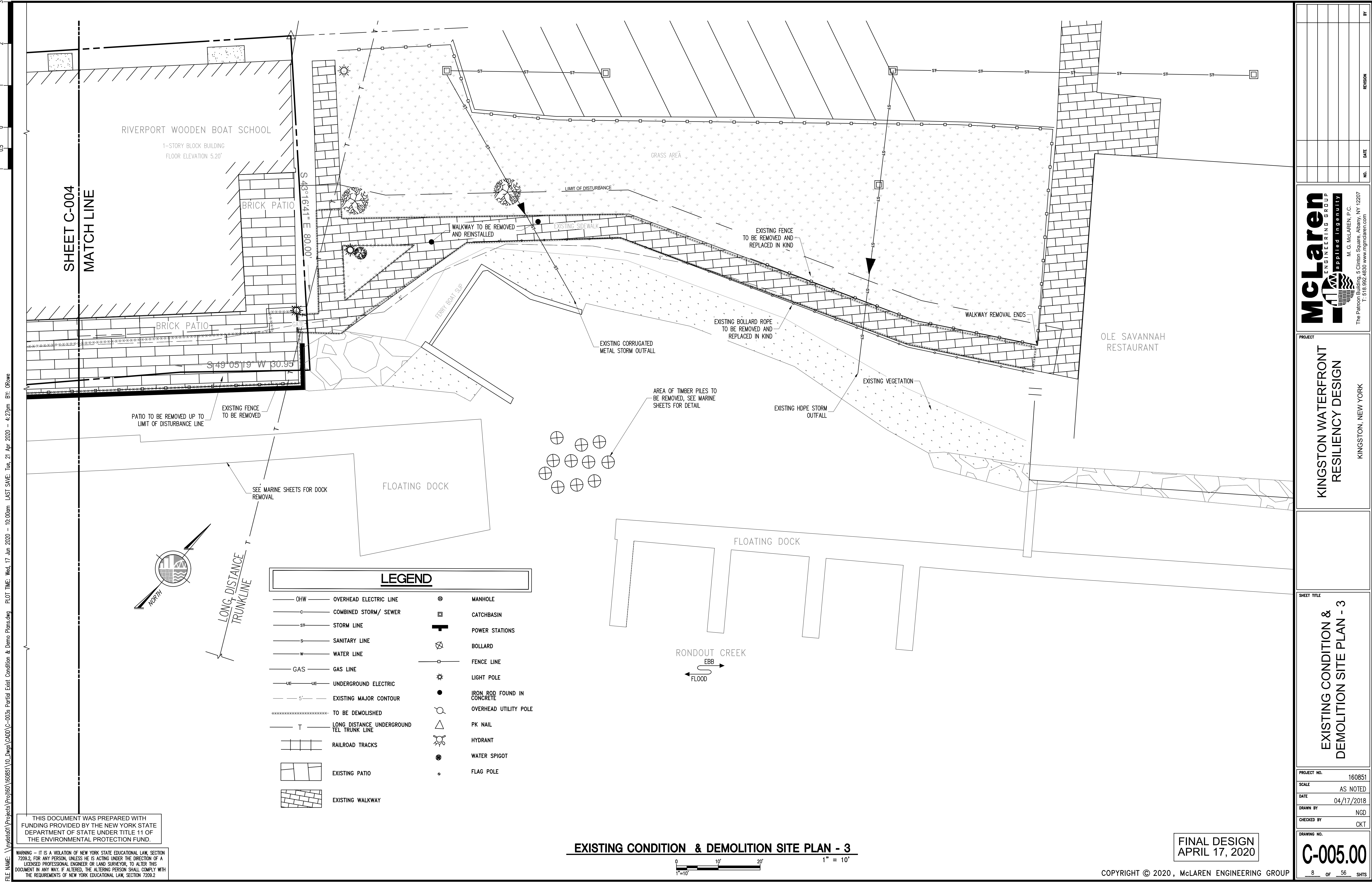
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FILE NAME: \\nyeddata01\Projects\Proj160\160851\10_Dwg\CAD\160851\038_Partial Exist Condition & Demo Plans.dwg PLOT TIME: Wed, 17 Jun 2020 - 10:00am LAST SAVE: Tue, 21 Apr 2020 - 4:27pm BY: Orzwe

PROJECT NO. 160851	
SCALE AS NOTED	
DATE 04/17/2018	
DRAWN BY NGD	
CHECKED BY CKT	
DRAWING NO. C-005.00	
8 OF 56 SHTS	

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**KINGSTON WATERFRONT
RESILIENCY DESIGN**

KINGSTON, NEW YORK

**EXISTING CONDITION &
DEMOLITION SITE PLAN - 3**

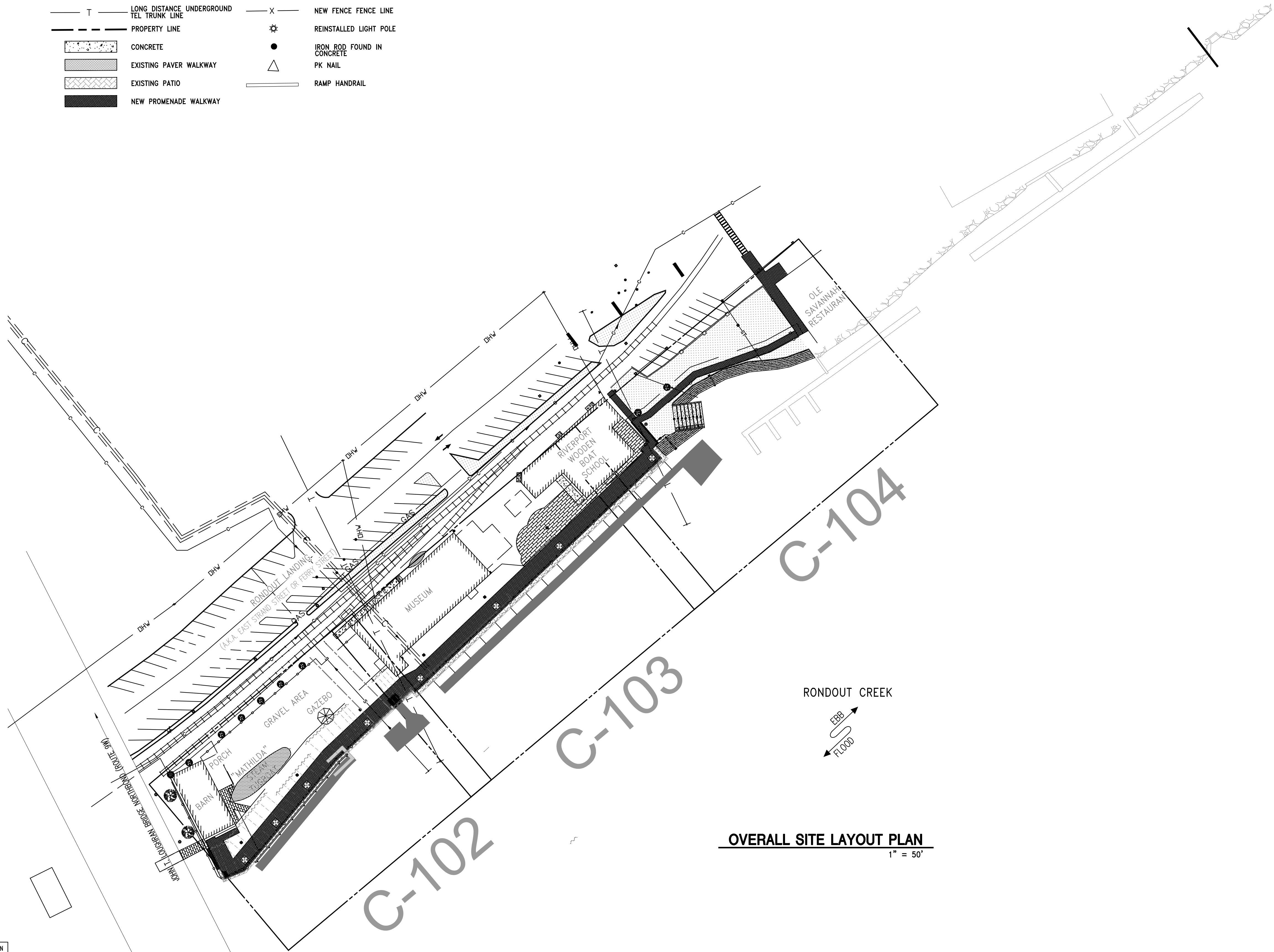
FINAL DESIGN
APRIL 17, 2020

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FILE NAME: \\prodad\Projects\Proj160\60851\10_Dwgs\CAD\01 Overall Site Layout Plan.dwg PLOT TIME: Wed, 17 Jun 2020 - 10:01am LAST SAVE: Tue, 21 Apr 2020 - 4:26pm BY: OFowe



LEGEND			
	COMBINED STORM/ SEWER		EXISTING MANHOLE
	SANITARY LINE		EXISTING CATCH BASIN
	PROJECT SCOPE OF WORK LINE		CHARGING STATIONS
	LONG DISTANCE UNDERGROUND TEL TRUNK LINE		NEW FENCE FENCE LINE
	PROPERTY LINE		REINSTALLED LIGHT POLE
	CONCRETE		IRON ROD FOUND IN CONCRETE
	EXISTING PAVER WALKWAY		PK NAIL
	EXISTING PATIO		RAMP HANDRAIL
	NEW PROMENADE WALKWAY		



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APRIL 17, 2020

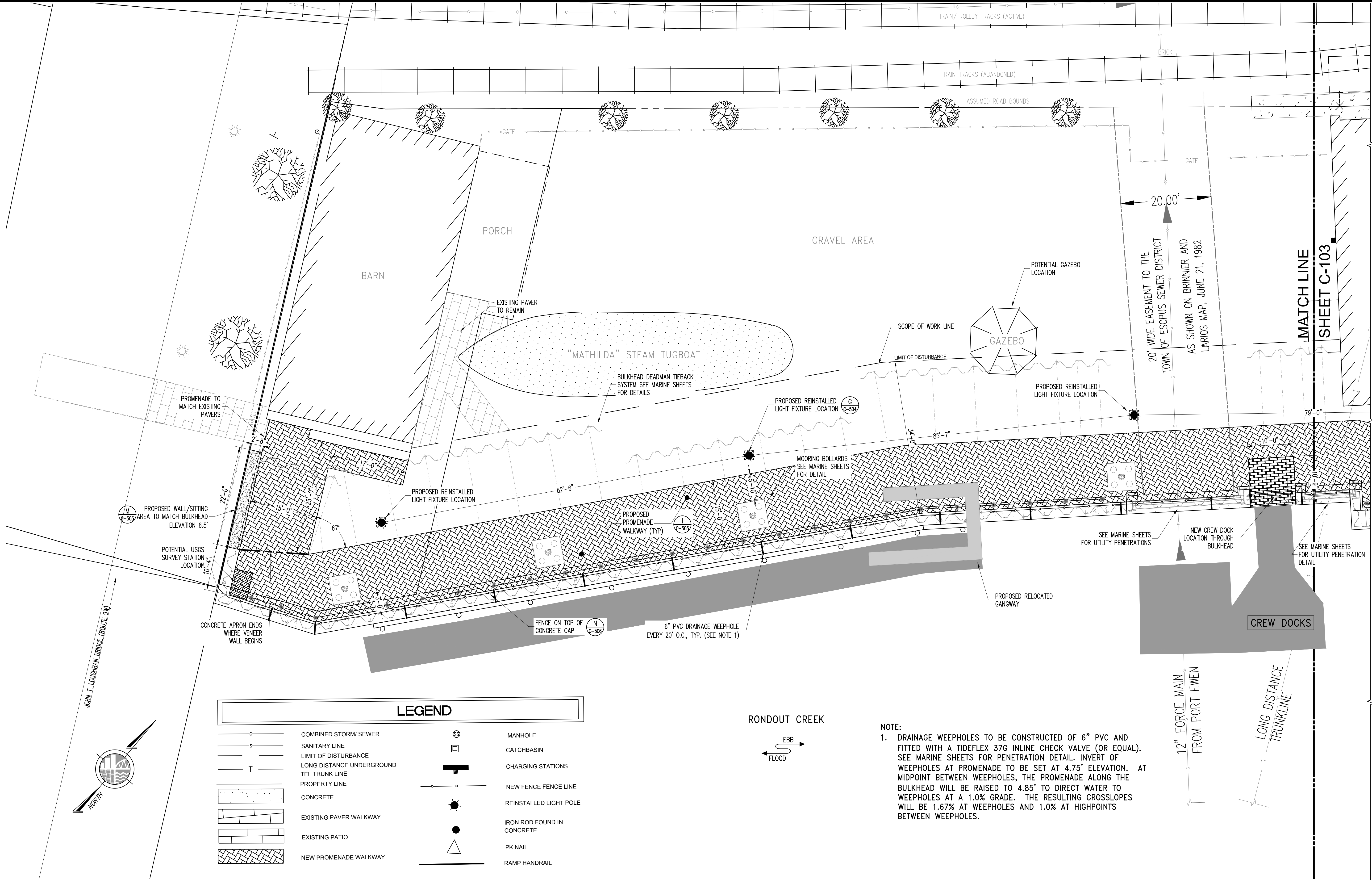
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PROJECT NO.		160851
SCALE		AS NOTED
DATE		04/17/2018
DRAWN BY		NGD
CHECKED BY		CKT
DRAWING NO.		C-101.00
SHEET NO.		9 OF 56
SHEET TITLE		OVERALL SITE LAYOUT PLAN
PROJECT		KINGSTON WATERFRONT RESILIENCY DESIGN KINGSTON, NEW YORK
McLaren		ENGINEERING GROUP M. G. McLAREN, P.C. The Patron Building, 5 Clinton Square, Albany, NY 12207 T: 518.992.4830 www.mgmclaren.com

FILE NAME: \\nyeddata01\Projects\Proj160\160851\0_Dwgs\CADD\C-101s Partial Site Layout Plans.dwg PLOT TIME: Wed, 17 Jun 2020 - 9:47am BY: CRowe

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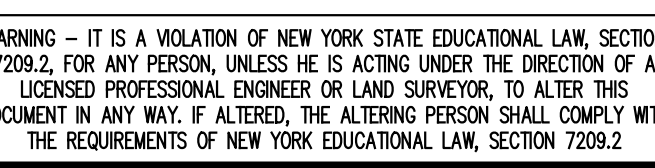
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FINAL DESIGN
APRIL 17, 2020

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PROJECT		KINGSTON WATERFRONT RESILIENCY DESIGN		KINGSTON, NEW YORK	
SHEET TITLE		PARTIAL SITE LAYOUT PLAN - 1		PROJECT NO. 160851	
SCALE		AS NOTED		DATE 04/17/2018	
DRAWN BY		NGD		CHECKED BY CKT	
DRAWING NO.		C-102.00		10 OF 56 SHTS	
McLaren		ENGINEERING GROUP		M. G. McLAREN, P.C.	
The Paterson Building, 6 Clinton Square, Albany, NY 12207		T: 518.982.4630		WWW.MCLAREN.COM	
REVISION		DATE		BY	


$$10'' = 10'$$

FINAL DESIGN
APRIL 17, 2020

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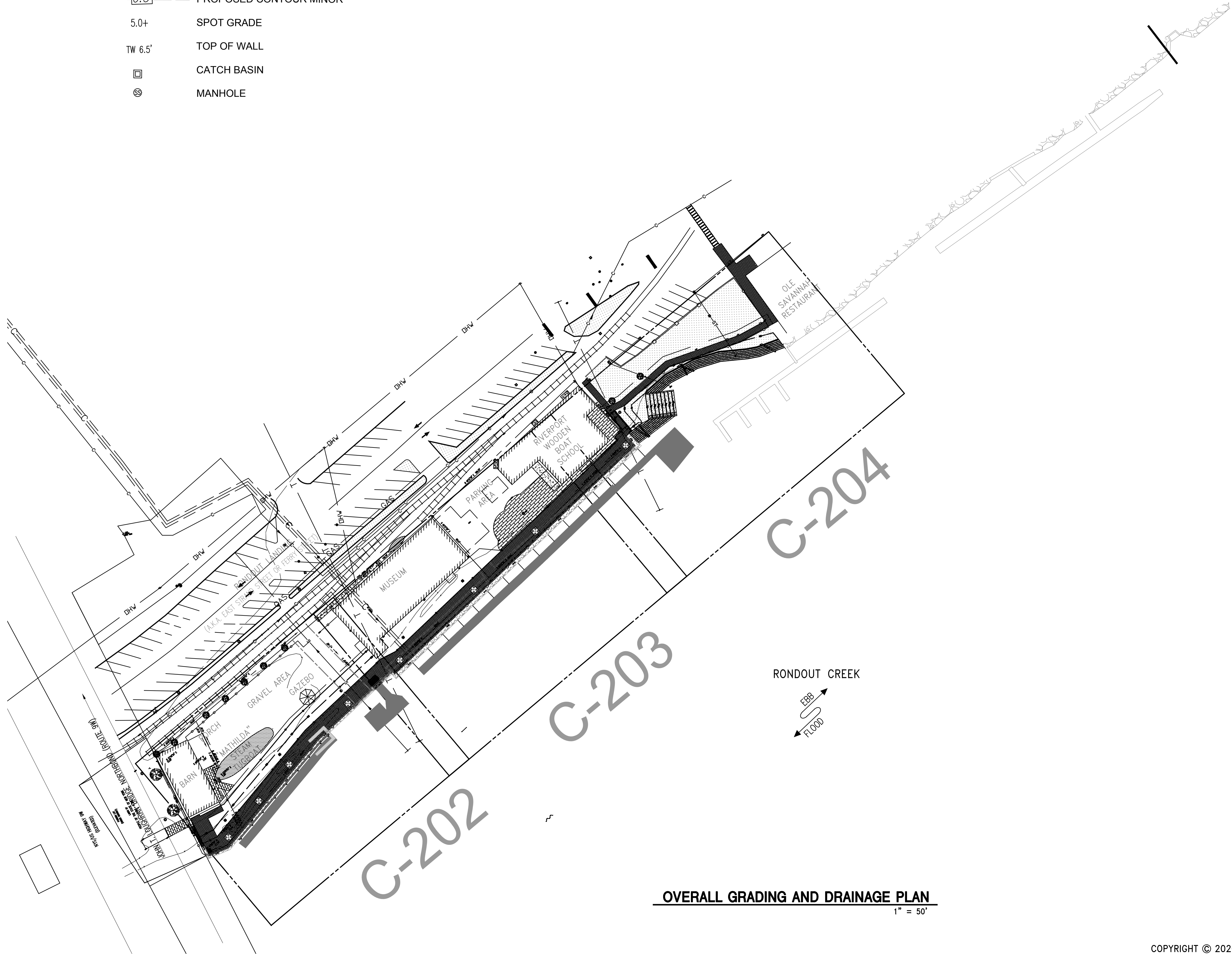
 <p>McLaren ENGINEERING GROUP applied ingenuity the art of engineering</p> <p>The Patron Building, 5 Clinton Square, Albany, NY 12207 T: 518.992.4830 www.mgmcaren.com</p>	PROJECT	KINGSTON WATERFRONT RESILIENCY DESIGN	KINGSTON, NEW YORK
	SHEET TITLE	PARTIAL SITE LAYOUT PLAN - 2	
	PROJECT NO.	160851	
	SCALE	AS NOTED	
	DATE	04/17/2018	
DRAWN BY	NGD		
CHECKED BY	CKT		
DRAWING NO.	C-103.00		
	11	OF	56
	SHTS		

FILE NAME: \\prodadad\Projects\Proj160\160851\10_Dwgs\CAD\001\001 Overall Grading and Drainage Plan.dwg PLOT TIME: Wed, 17 Jun 2020 - 10:01am LAST SAVE: Tue, 21 Apr 2020 - 4:24pm BY: GRowe

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LEGEND	
	EXISTING MAJOR CONTOUR
	PROPOSED CONTOURS MAJOR
	PROPOSED CONTOUR MINOR
5.0+	SPOT GRADE
TW 6.5'	TOP OF WALL
	CATCH BASIN
	MANHOLE



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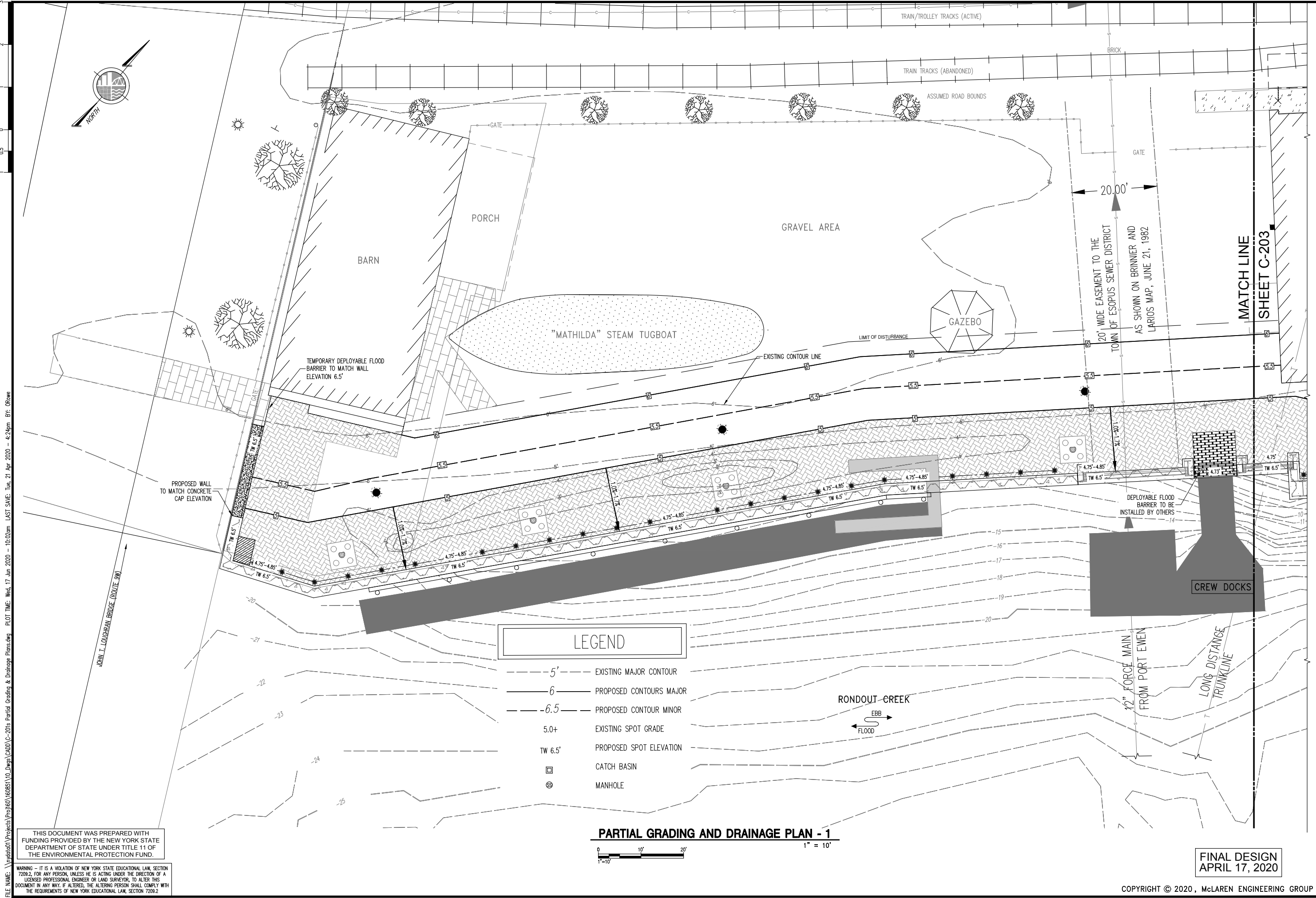
OVERALL GRADING AND DRAINAGE PLAN

1" = 50'

FINAL DESIGN
APRIL 17, 2020

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PROJECT KINGSTON WATERFRONT RESILIENCY DESIGN KINGSTON, NEW YORK	
SHEET TITLE OVERALL GRADING AND DRAINAGE PLAN	
PROJECT NO.	160851
SCALE	AS NOTED
DATE	04/17/2018
DRAWN BY	NGD
CHECKED BY	CKT
DRAWING NO.	C-201.00
13 OF 56 SHTS	

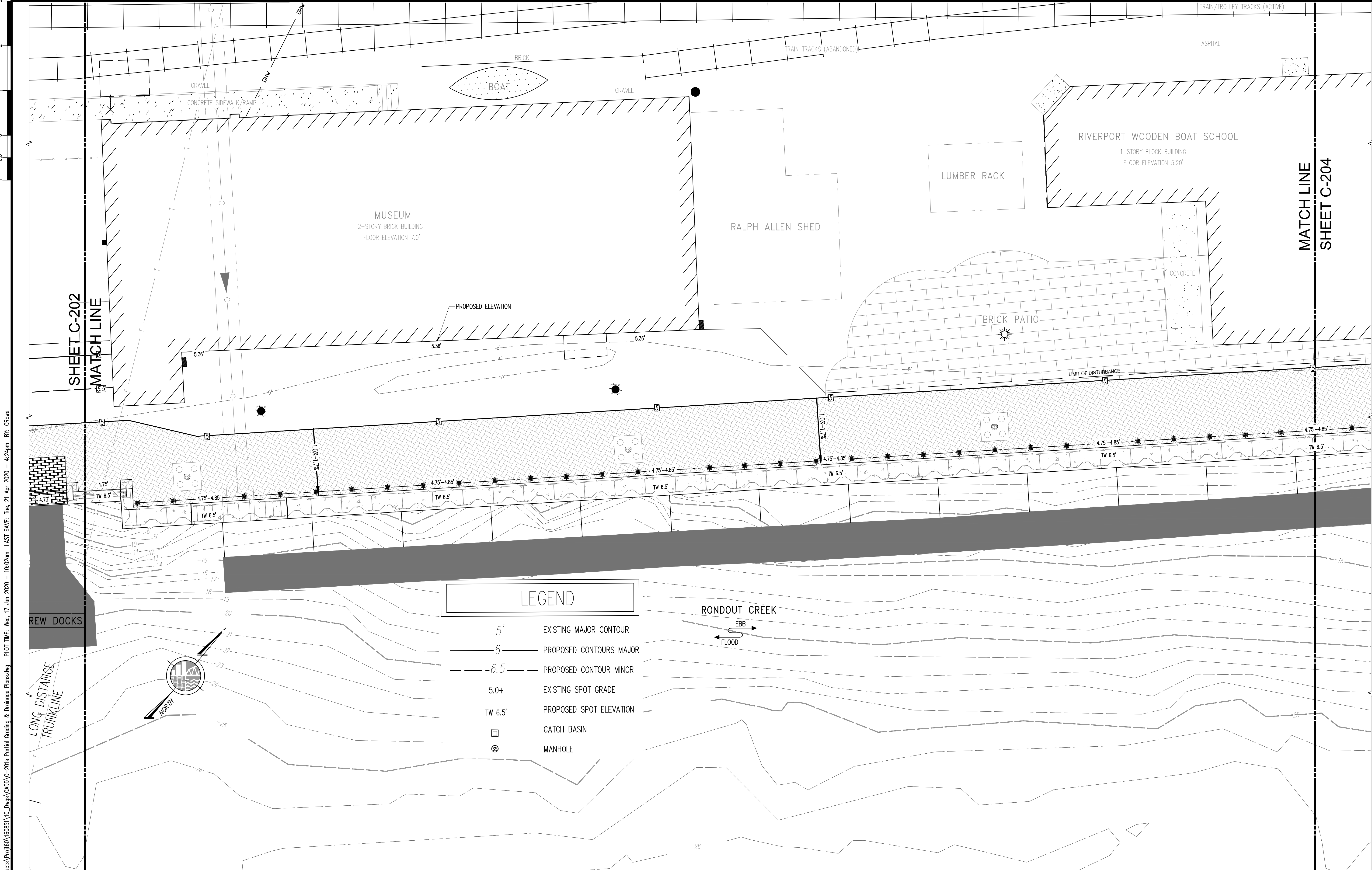


FILE NAME: \\nyeddata01\Projects\Proj160\160851\0_Dwg\CAD\0-C-2018 Partial Grading & Drainage Plans.dwg PLOT TIME: Wed, 17 Jun 2020 - 10:02am LAST SAVE: Tue, 21 Apr 2020 - 4:24pm BY: RRowe

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PROJECT	KINGSTON WATERFRONT RESILIENCY DESIGN
KINGSTON, NEW YORK	
SHEET TITLE	
PARTIAL GRADING AND DRAINAGE PLAN - 1	
PROJECT NO.	160851
SCALE	AS NOTED
DATE	04/17/2018
DRAWN BY	NGD
CHECKED BY	CKT
DRAWING NO.	C-202.00
14 OF 56 SHTS	

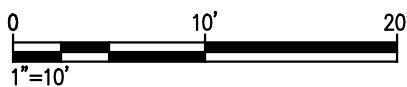


FILE NAME: \\nyeddata01\Projects\Proj160\160851\0_Dwgs\CADD\C-203a Partial Grading & Drainage Plans.dwg PLOT TIME: Wed, 17 Jun 2020 - 10:02am LAST SAVE: Tue, 21 Apr 2020 - 4:24pm BY: OFrowe

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PARTIAL GRADING AND DRAINAGE PLAN - 2



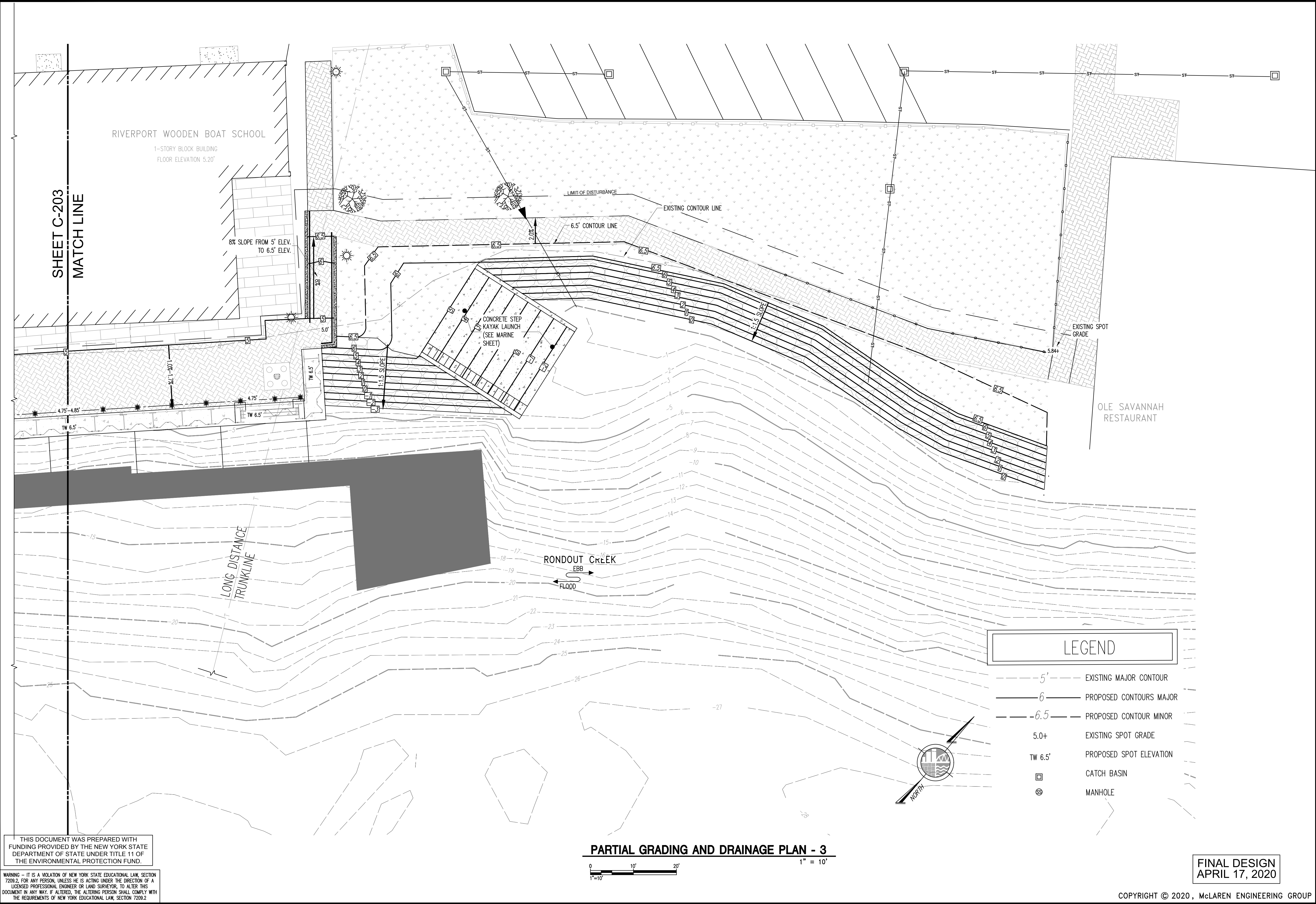
1" = 10'

FINAL DESIGN
APRIL 17, 2020

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PROJECT		KINGSTON WATERFRONT RESILIENCY DESIGN KINGSTON, NEW YORK	
SHEET TITLE		PARTIAL GRADING AND DRAINAGE PLAN - 2	
PROJECT NO.		160851	
SCALE		AS NOTED	
DATE		04/17/2018	
DRAWN BY		NGD	
CHECKED BY		CKT	
DRAWING NO.		C-203.00	
15		OF 56	
SHTS			
REVISION		DATE	
BY			

FILE NAME: \\nyeddata01\Projects\Proj160\160851\0_Dwgs\CADD\C-204\Partial Grading & Drainage Plans.dwg PLOT TIME: Wed, 17 Jun 2020 - 10:02am LAST SAVE: Tue, 21 Apr 2020 - 4:24pm BY: OFRowe



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PROJECT NO.		160851	
SCALE		AS NOTED	
DATE		04/17/2018	
DRAWN BY		NGD	
CHECKED BY		CKT	
DRAWING NO.		C-204.00	
16 OF 56 SHTS			

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**KINGSTON WATERFRONT
RESILIENCY DESIGN**
KINGSTON, NEW YORK

FILE NAME: \\prodadad\Projects\Proj160\160851\10_Dwgs\CAD\0-C-301 Overall Utility Plan.dwg PLOT TIME: Wed, 17 Jun 2020 - 10:03am LAST SAVE: Tue, 21 Apr 2020 - 4:23pm BY: Ofowe

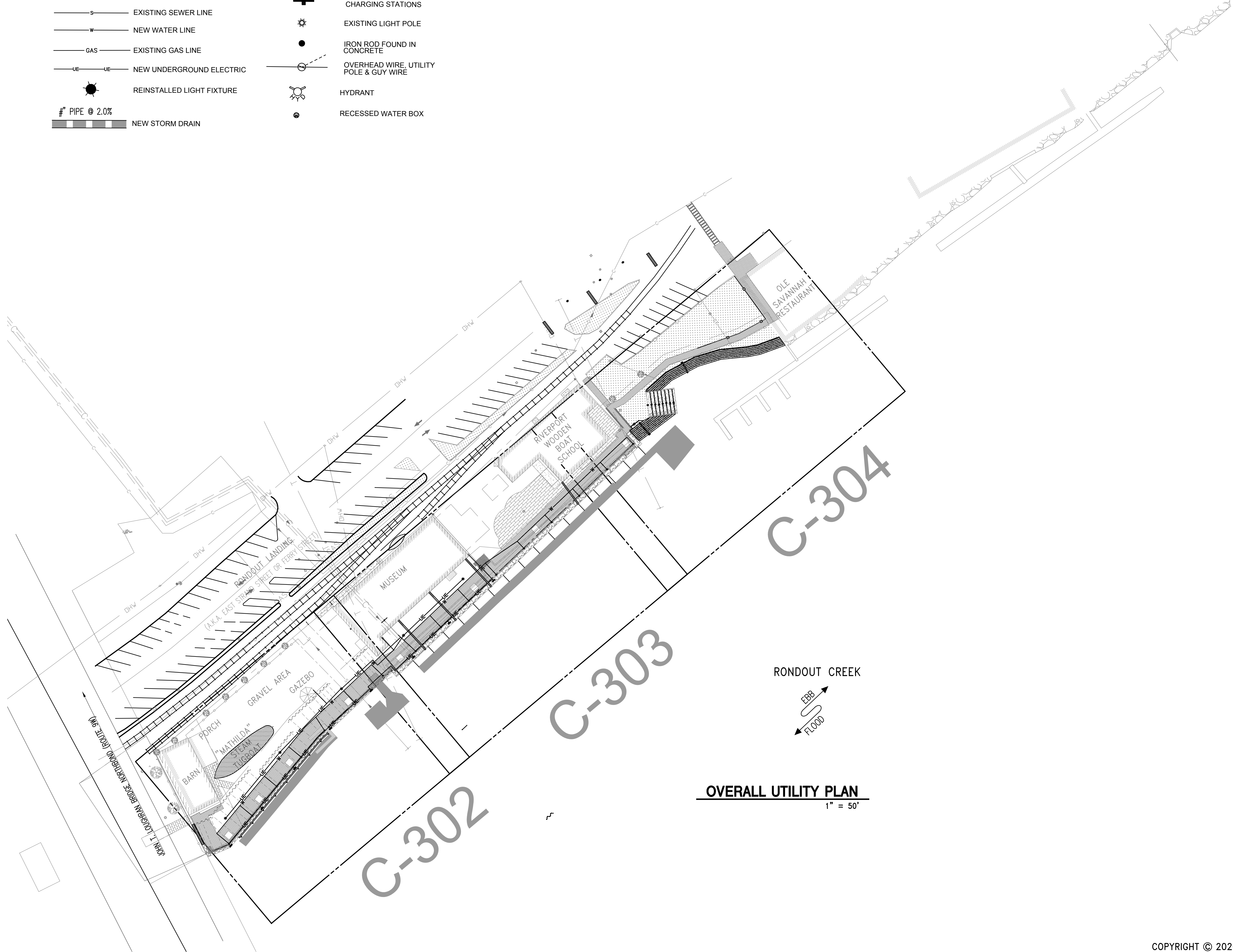
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LEGEND			
ST	EXISTING STORM LINE	⊗	MANHOLE
DW	EXISTING OVERHEAD ELECTRIC LINE	□	CATCHBASIN
C	EXISTING COMBINED STORM/ SEWER	+	CHARGING STATIONS
S	EXISTING SEWER LINE	⊙	EXISTING LIGHT POLE
W	NEW WATER LINE	●	IRON ROD FOUND IN CONCRETE
GAS	EXISTING GAS LINE	○	OVERHEAD WIRE, UTILITY POLE & GUY WIRE
UE	NEW UNDERGROUND ELECTRIC	⊗	HYDRANT
●	REINSTALLED LIGHT FIXTURE	⊙	RECESSED WATER BOX
# PIPE @ 2.0%			
▬	NEW STORM DRAIN		



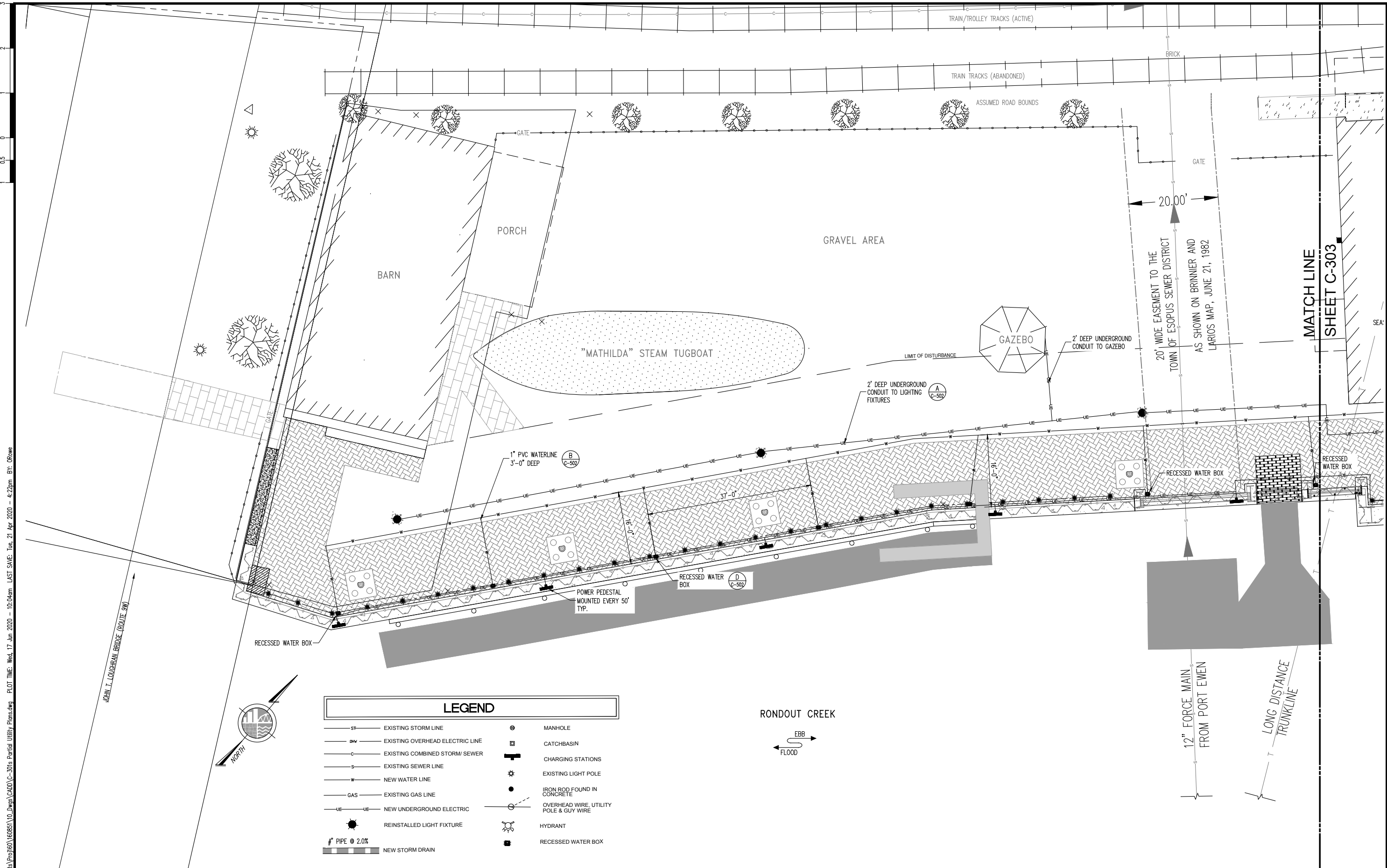
OVERALL UTILITY PLAN
1" = 50'

FINAL DESIGN
APRIL 17, 2020

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PROJECT		KINGSTON WATERFRONT RESILIENCY DESIGN		KINGSTON, NEW YORK	
SHEET TITLE		OVERALL UTILITY PLAN			
PROJECT NO.		160851		BY	
SCALE		AS NOTED		REVISION	
DATE		04/17/2018		DATE	
DRAWN BY		NGD		NO.	
CHECKED BY		CKT			
DRAWING NO.		C-301.00			
17		OF 56		SHTS	

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The Patron Building, 5 Clinton Square, Albany, NY 12207
T: 518.992.4830 www.ngmclaren.com



FILE NAME: \\nyedadd01\Projects\Proj160\160851\0_Dwgs\Partial Utility Plans.dwg PLOT TIME: Wed, 17 Jun 2020 - 10:04am LAST SAVE: Tue, 21 Apr 2020 - 4:22pm BY: CRowe

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PROJECT

KINGSTON WATERFRONT
RESILIENCY DESIGN

KINGSTON, NEW YORK

SHEET TITLE

PARTIAL UTILITY PLAN - 1

PROJECT NO.

160851

SCALE

AS NOTED

DATE

04/17/2018

DRAWN BY

NGD

CHECKED BY

CKT

DRAWING NO.

C-302.00

18 OF 56

SHTS

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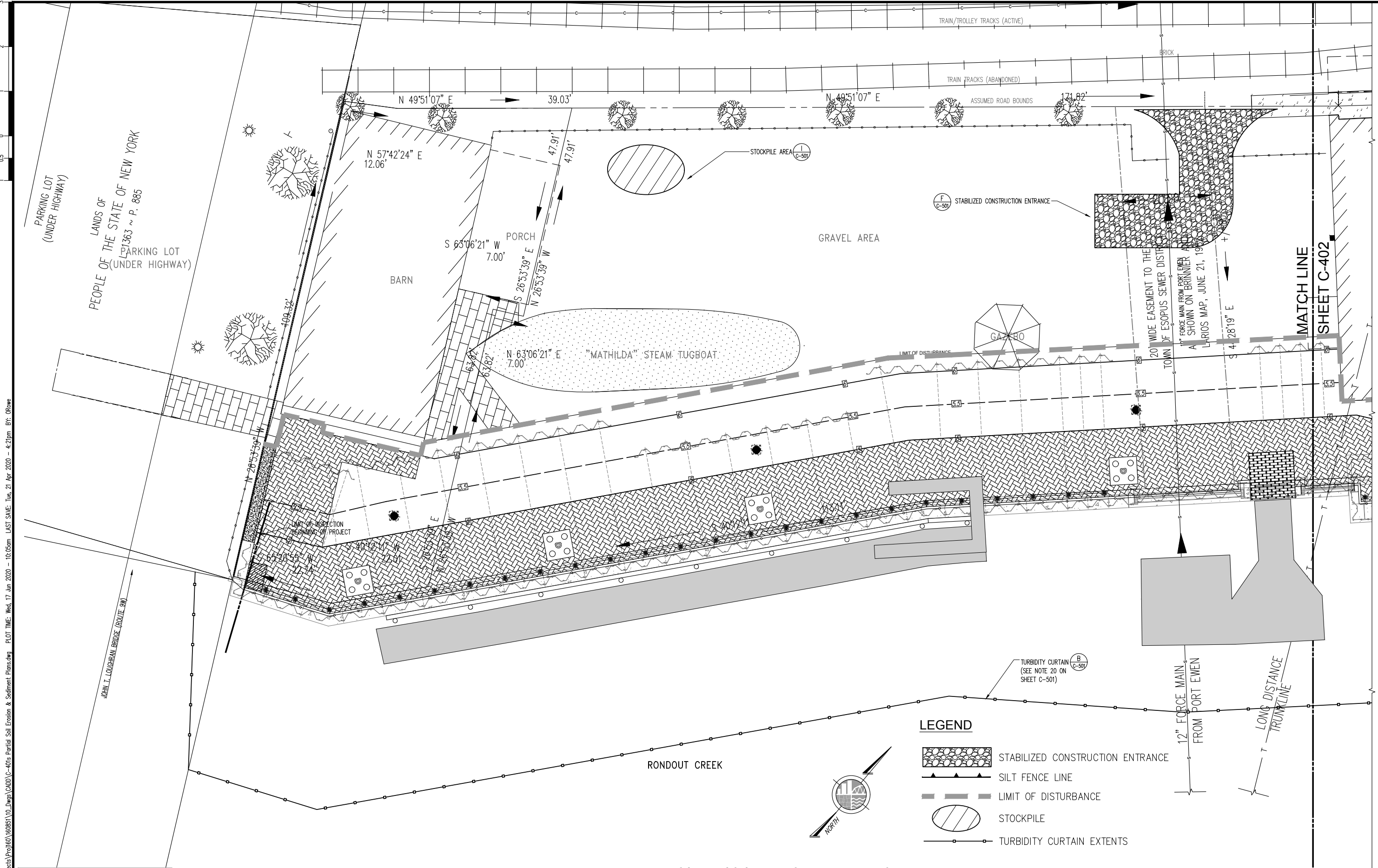
BY

DATE

NO.

REVISION

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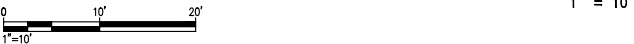


FILE NAME: \\nyedadd01\Projects\Proj160\160851\0_Dwgs\Partial Soil Erosion & Sediment Plans.dwg PLOT TIME: Wed, 17 Jun 2020 - 10:05am LAST SAVE: Tue, 21 Apr 2020 - 4:21pm BY: Grove

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PARTIAL SOIL EROSION AND SEDIMENT PLANS - 1



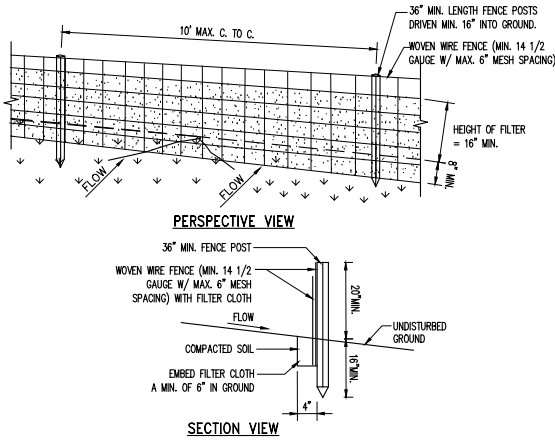
FINAL DESIGN
APRIL 17, 2020

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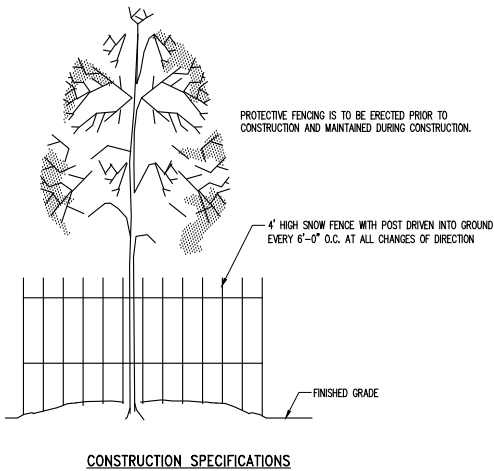
McLaren ENGINEERING GROUP applied ingenuity	
The Patron Building, 5 Clinton Square, Albany, NY 12207 T: 518.582.4630 www.mclaren.com	
PROJECT KINGSTON WATERFRONT RESILIENCY DESIGN KINGSTON, NEW YORK	
SHEET TITLE PARTIAL SOIL EROSION AND SEDIMENT PLANS - 1	
PROJECT NO.	160851
SCALE	AS NOTED
DATE	04/17/2018
DRAWN BY	NGD
CHECKED BY	CKT
DRAWING NO.	C-401.00
21 OF 56 SHTS	

FILE NAME: \\nyedac01\Projects\Proj160\160851\0_Dwgs\CAUD\0-C-501 Erosion & Sediment Control Details.dwg PLOT TIME: Wed, 17 Jun 2020 - 10:05am LST SAVE: Tue, 21 Apr 2020 - 4:21pm BY: Orwe

1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED IN ACCORDANCE WITH NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (NYSEEC, DIVISION OF WATER, LATEST EDITION) AND SPOES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITY (PERMIT NO. GP-0-15-002).
2. CONSTRUCTION SHALL BE SEQUENCED IN ACCORDANCE WITH THE CONSTRUCTION SEQUENCE NOTES.
3. ANY DISTURBED AREAS THAT ARE LEFT EXPOSED MORE THAN 14 DAYS, AND ARE NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL. THE SEEDING WILL BE DONE IN ACCORDANCE WITH STANDARDS, AS FOLLOWS:
 - A. FERTILIZER: FERTILIZER SHALL BE APPLIED AT THE RATE OF 14-LBS/1000 S.F. OR 600 LBS./ACRE, USING 5-10-10 OR EQUIVALENT.
 - B. SEED: ANNUAL RYEGRASS APPLIED AT THE RATE OF 30 LBS./ACRE, OR OTHER SELECT MIXTURE DESCRIBED IN THE STANDARDS.
 - C. MULCH: SMALL GRAIN STRAW MULCH APPLIED AT A RATE OF 90-LBS./1000 S.F. OR 2 TONS/ACRE, TO BE APPLIED AND ANCHORED ACCORDING TO THE STANDARDS.
4. ANY GRADED AREAS NOT SUBJECT TO FURTHER DISTURBANCE OR CONSTRUCTION TRAFFIC SHALL, WITHIN 10 DAYS OF FINAL GRADING, RECEIVE PERMANENT VEGETATIVE COVER IN COMBINATION WITH SUITABLE MULCH AS FOLLOWS:
 - A. FERTILIZER: FERTILIZER APPLIED AT THE RATE OF 20-LBS./1000 S.F. USING 5-10-10 OR EQUIVALENT. SELECT MIXTURE DESCRIBED IN THE STANDARDS.
 - B. SEED MIXTURE: TO BE PLANTED BETWEEN APRIL 1 AND MAY 15, OR BETWEEN AUGUST 15 AND OCTOBER 15.
 - C. MULCH: SMALL GRAIN STRAW MULCH APPLIED AT A RATE OF 90-LBS./1000 S.F. OR 2 TONS/ACRE, TO BE APPLIED AND ANCHORED ACCORDING TO THE STANDARDS.
5. CUT OR FILL SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED IMMEDIATELY AFTER GRADING.
6. PAVED ROADWAYS SHALL BE KEPT CLEAN AT ALL TIMES.
7. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORMWATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
8. ALL STORM DRAINAGE OUTLETS SHALL BE STABILIZED, AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
9. CONSTRUCTION FENCING SHALL BE USED TO PROTECT EXISTING TREES TO REMAIN, WETLANDS AND OTHER SENSITIVE AREAS.
10. IF FOR ANY REASON THE CONSTRUCTION IS HALTED FOR PROTRACTED PERIODS, THE CONTRACTOR SHALL STABILIZE THE SELECT MATERIAL BY HYDRO-SEED OR OTHER MEANS TO THE SATISFACTION OF THE ENGINEER FOR ALL AREAS DENUDE OF VEGETATION.
11. STORMWATER FROM DISTURBED AREAS MUST BE PASSED THROUGH A SEDIMENT CONTROL DEVICE BEFORE BEING DISCHARGED BEYOND DISTURBED AREAS OR DISCHARGED INTO INLETS OR OTHER DRAINAGE SYSTEMS.
12. DUST CONTROL - WATER SHALL BE APPLIED BY SPRINKLER OR WATER TRUCK DURING GRADING OPERATIONS TO MINIMIZE SEDIMENT TRANSPORT AND MAINTAIN ACCEPTABLE AIR QUALITY CONDITIONS. REPETITIVE TREATMENTS SHALL BE DONE AS NEEDED UNTIL GRADES ARE STABILIZED.
13. THE CONTRACTOR SHALL INSPECT THE EFFECTIVENESS AND CONDITION OF EROSION CONTROL DEVICES DURING STORM EVENTS, AFTER EACH RAINFALL OF ONE-HALF (1/2) INCH MAGNITUDE OR GREATER, PRIOR TO WEEKENDS AND PRIOR TO FORECASTED STORM.
14. THE CONTRACTOR SHALL REPAIR OR REPLACE DAMAGED EROSION CONTROL DEVICES IMMEDIATELY, AND IN NO CASE, MORE THAN TWENTY-FOUR (24) HOURS AFTER OBSERVING SUCH DEFICIENCIES.
15. THE CONTRACTOR SHALL BE PREPARED TO IMPLEMENT INTERIM DRAINAGE CONTROLS AND EROSION CONTROL MEASURES AS MAY BE NECESSARY DURING THE COURSE OF CONSTRUCTION.
16. THE CONTRACTOR SHALL MAKE AVAILABLE ON-SITE ALL EQUIPMENT, MATERIALS AND LABOR NECESSARY TO EFFECT EMERGENCY EROSION CONTROL AND DRAINAGE IMPROVEMENTS WITHIN TWENTY FOUR (24) HOURS OF ANY IMPENDING EMERGENCY SITUATION.
17. ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL FINAL ACCEPTANCE OF THE SITE WORK BY THE OWNER. UPON CERTIFICATION OF FINAL ACCEPTANCE, THE OWNER WILL ASSUME RESPONSIBILITY FOR THE CONTINUED MAINTENANCE OF PERMANENT SOIL EROSION AND SEDIMENTATION CONTROL MEASURES.
18. THE CITY OF KINGSTON OR THE INSPECTOR OR THE SITE ENGINEER MAY REQUEST ADDITIONAL MEASURES TO MINIMIZE THE POTENTIAL FOR ON-SITE OR OFF-SITE EROSION PROBLEMS THAT MAY OCCUR DURING CONSTRUCTION.
19. ALL STOCKPILE AREAS TO REMAIN MORE THAN 14 DAYS SHALL BE STABILIZED PER NOTE THREE ABOVE, JUTE MATTING OR SPRAY EMISSIONS ARE ACCEPTABLE SUBJECT TO APPROVAL OF THE ENGINEER.
20. THE TURBIDITY LOCATION SHOWN IN THE PLANS IS CONCEPTUAL ONLY. THE CONTRACTOR SHALL PROVIDE A TURBIDITY CURTAIN IN THE CREEK AT THE MINIMUM DISTANCE NECESSARY TO PERFORM THE WORK. THE PHASING AND PROGRESSION OF THE WORK ALONG THE BLUEHEAD WILL BE AGREED UPON BY THE CONTRACTOR AND EROSION CONTROL INSPECTOR PRIOR TO CONSTRUCTION. DISTURBANCE TO THE UPLAND AREAS WILL BE LIMITED TO THOSE AREAS ABOVE A TURBIDITY CURTAIN.



A SOIL EROSION AND SEDIMENT CONTROL NOTES
C-501 N.T.S.

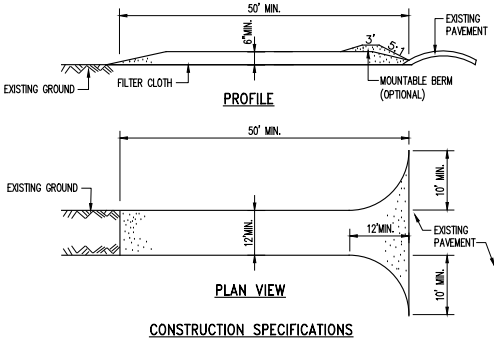


1. NO CONSTRUCTION ACTIVITY IS PERMITTED WITHIN THE PROTECTIVE FENCING.
2. AS CONSTRUCTION NEARS COMPLETION THE FENCING WILL BE REMOVED.
3. AT THE COMPLETION OF CONSTRUCTION ALL TREES WILL BE PRUNED AS NECESSARY TO CORRECT ANY DAMAGE RESULTING FROM CONSTRUCTION ACTIVITY.

CONSTRUCTION SPECIFICATIONS

E TEMPORARY TREE PROTECTION DETAIL
C-501 N.T.S.

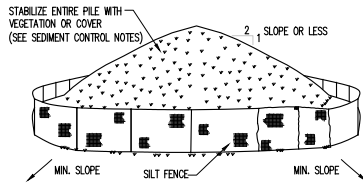
B SILT FENCE
C-501 N.T.S.



1. STONE SIZE - USE 2\"/>
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BEAM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. IF WASHING IS USED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

CONSTRUCTION SPECIFICATIONS

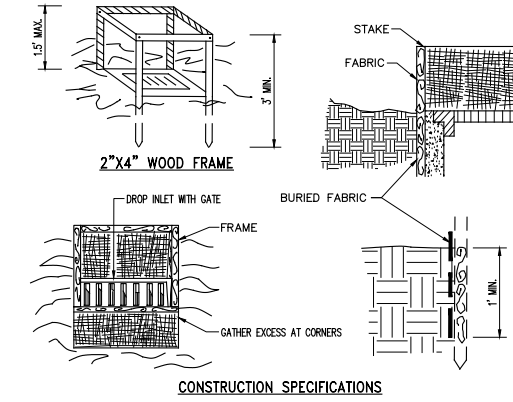
F STABILIZED CONSTRUCTION ENTRANCE
C-501 N.T.S.



INSTALLATION NOTES

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2:1.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED WITH VEGETATION OR COVER.
4. SEE DETAIL ON THIS DRAWING FOR INSTALLATION OF SILT FENCE.

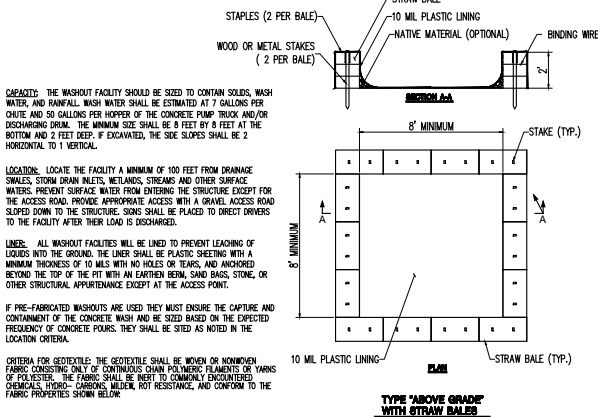
I SOIL STOCKPILING
C-501 N.T.S.



CONSTRUCTION SPECIFICATIONS

1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2\"/>
4. SPACED STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
6. A 2\"/>

C FILTER FABRIC DROP INLET PROTECTION
C-501 N.T.S.



CAPACITY: THE WASHOUT FACILITY SHOULD BE SIZED TO CONTAIN SOLIDS, WASH WATER, AND RAINFALL. WASH WATER SHALL BE ESTIMATED AT 7 GALLONS PER OUTLET AND 50 GALLONS PER HOPPER OF THE CONCRETE PUMP TRUCK AND/OR DISCHARGING DRUM. THE MINIMUM SIZE SHALL BE 8 FEET BY 8 FEET AT THE BOTTOM AND 2 FEET DEEP. IF EXCAVATED, THE SIDE SLOPES SHALL BE 2 HORIZONTAL TO 1 VERTICAL.

LOCATION: LOCATE THE FACILITY A MINIMUM OF 100 FEET FROM DRAINAGE SWALES, STORM DRAIN INLETS, WETLANDS, STREAMS AND OTHER SURFACE WATERS. PREVENT SURFACE WATER FROM ENTERING THE STRUCTURE EXCEPT FOR THE ACCESS ROAD. PROVIDE APPROPRIATE ACCESS WITH A GRAVEL ACCESS ROAD SLOPED DOWN TO THE STRUCTURE. SOLIDS SHALL BE PLACED TO DIRECT DRIVERS TO THE FACILITY AFTER THEIR LOAD IS DISCHARGED.

LINER: ALL WASHOUT FACILITIES WILL BE LINED TO PREVENT LEACHING OF LIQUIDS INTO THE GROUND. THE LINER SHALL BE PLASTIC SHEETING WITH A MINIMUM THICKNESS OF 10 MILS WITH NO HOLES OR TEARS, AND ANCHORED BEYOND THE TOP OF THE PIT WITH AN EARTHEN BEAM, SAND BAGS, STONE, OR OTHER STRUCTURAL APPURTENANCE EXCEPT AT THE ACCESS POINT.

IF PRE-FABRICATED WASHOUTS ARE USED THEY MUST ENSURE THE CAPTURE AND CONTAINMENT OF THE CONCRETE WASH AND BE SIZED BASED ON THE EXPECTED FREQUENCY OF CONCRETE POURS. THEY SHALL BE SITED AS NOTED IN THE LOCATION CRITERIA.

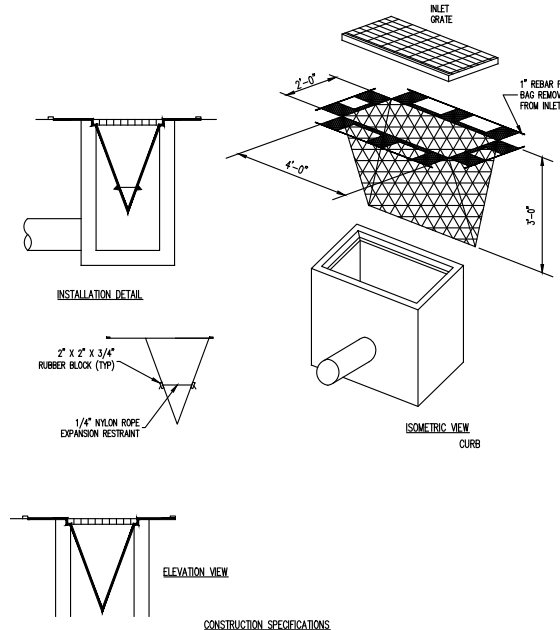
CRITERIA FOR GEOTEXTILES: THE GEOTEXTILE SHALL BE WOVEN OR NONWOVEN FABRIC CONSISTING ONLY OF CONTINUOUS CHAIN POLYMERIC FILAMENTS OR YARNS OF POLYESTER. THE FABRIC SHALL BE TEST TO COMMONLY ENCOUNTERED CHEMICALS: HYDRO-CARBONS, WILDER, ROH RESISTANCE, AND CONFORM TO THE FABRIC PROPERTIES SHOWN BELOW.

FABRIC PROPERTIES(1)	ROAD GRADE SUBGRADE	HAUL ROADS ROUGH GRADED	TEST METHODS
GRAB TENSILE STRENGTH (LBS)	200	220	ASTM D1682
ELONGATION AT FAILURE (%)	50	60	ASTM D1682
MULLEN BURST STRENGTH (LBS)	190	430	ASTM D3786
PUNCTURE STRENGTH (LBS)	40	125	ATM D751
EQUIVALENT	40-80	40-80	US STD SIEVE
OPENING SIZE			CW-02215

(1) FABRICS NOT MEETING THESE SPECIFICATIONS MAY BE USED ONLY WHEN DESIGN PROCEDURE AND SUPPORTING DOCUMENTATION ARE SUPPLIED TO DETERMINE AGGREGATE DEPTH AND FABRIC STRENGTH.

- MAINTENANCE
1. ALL CONCRETE WASHOUT FACILITIES SHALL BE INSPECTED DAILY. DAMAGED OR LEAKING FACILITIES SHALL BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY.
 2. ACCUMULATED MATERIAL SHALL BE REMOVED WHEN 75% OF THE STORAGE CAPACITY OF THE STRUCTURE IS FILLED.
 3. DISPOSE OF THE HARDENED MATERIAL OFF-SITE IN A CONSTRUCTION/DEMOLITION LANDFILL. ON-SITE DISPOSAL MAY BE ALLOWED IF THIS HAS BEEN APPROVED AND ACCEPTED AS PART OF THE PROJECTS SWPPP. IN THAT CASE, THE MATERIAL SHOULD BE RECYCLED AS SPECIFIED, OR BURIED AND COVERED WITH A MINIMUM OF 2 FEET OF CLEAN COMPACTED EARTH/CLAY THAT IS PERMANENTLY STABILIZED TO PREVENT EROSION.
 4. THE PLASTIC LINER SHALL BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.
 5. INSPECT THE PROJECT SITE FREQUENTLY TO ENSURE THAT NO CONCRETE DISCHARGES ARE TAKING PLACE IN NON-DESIGNATED AREAS.

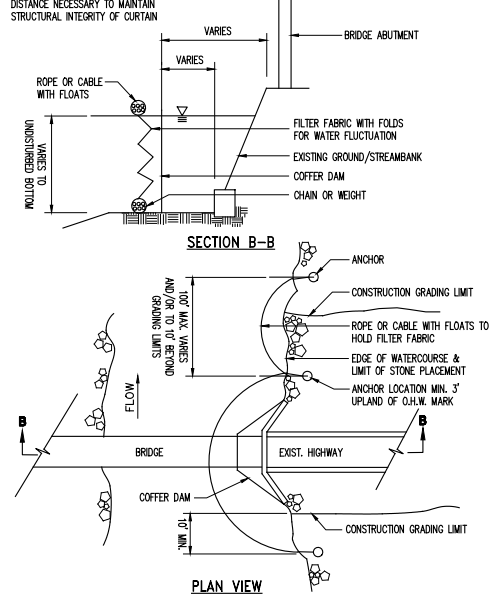
G CONCRETE TRUCK WASHOUT
C-501 N.T.S.



CONSTRUCTION SPECIFICATIONS

1. MAXIMUM DRAINAGE AREA = 1/2 ACRE.
2. INLET PROTECTION IS NOT REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS REQUIRED FOR ALL INSTALLATIONS.

D SILT SACK DETAIL
C-501 N.T.S.



PLAN VIEW

H TURBIDITY CURTAIN
C-501 N.T.S.

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EROSION AND SEDIMENT CONTROL DETAILS

N.T.S.

FINAL DESIGN
APRIL 17, 2020

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The Paterson Building, 6 Clinton Square, Albany, NY 12207
T: 518.592.4630 www.mglaren.com

PROJECT
**KINGSTON WATERFRONT
RESILIENCY DESIGN**
KINGSTON, NEW YORK

SHEET TITLE
**EROSION AND SEDIMENT
CONTROL DETAILS**

PROJECT NO. 160851
SCALE AS NOTED
DATE 04/17/2018
DRAWN BY NGD
CHECKED BY CKT

DRAWING NO.
C-501.00
24 of 56 SHTS

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C-505

N.T.S.



N.T.S.



C-505

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FINAL DESIGN
APRIL 17, 2020

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PROJECT

KINGSTON WATERFRONT
RESILIENCY DESIGN

KINGSTON, NEW YORK

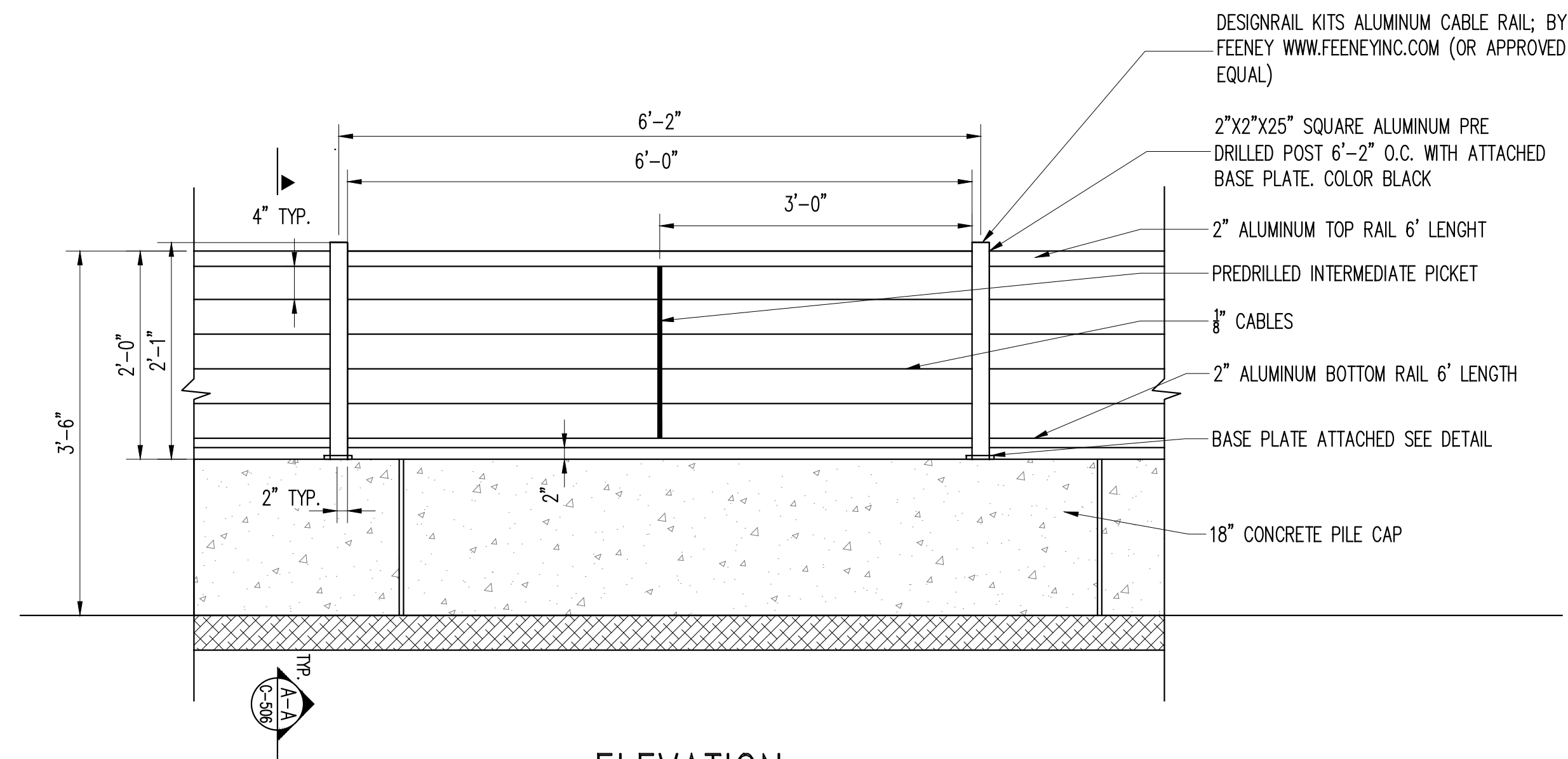
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SHEET TITLE

DETAILS - 4

PROJECT NO.	16085
SCALE	AS NOTED
DATE	04/17/2018
DRAWN BY	NG
CHECKED BY	CK

DRAWING NO.
C-505.00
28 OF 56 SHT

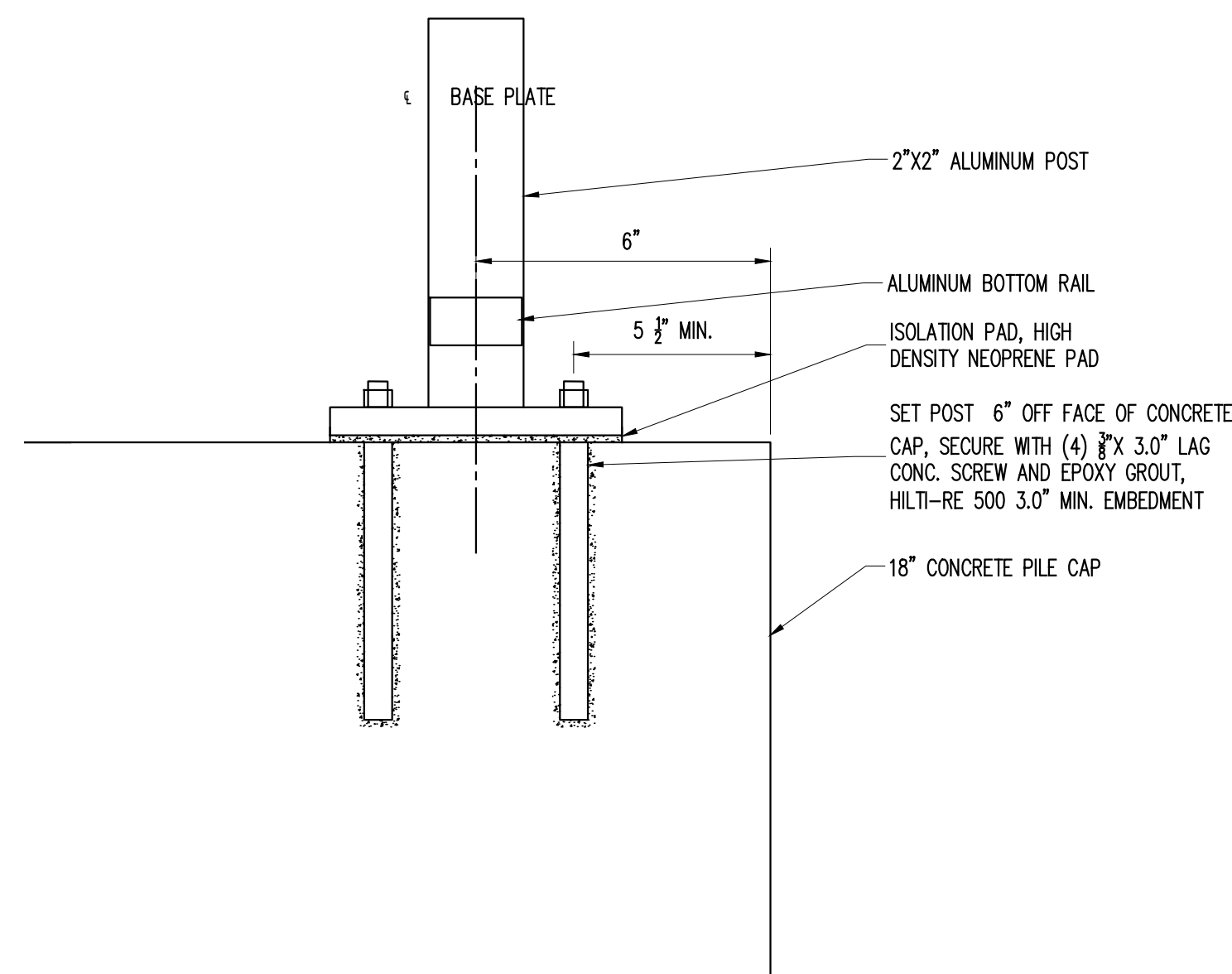


L PILE CAP RAILING

C-506

N.T.S.

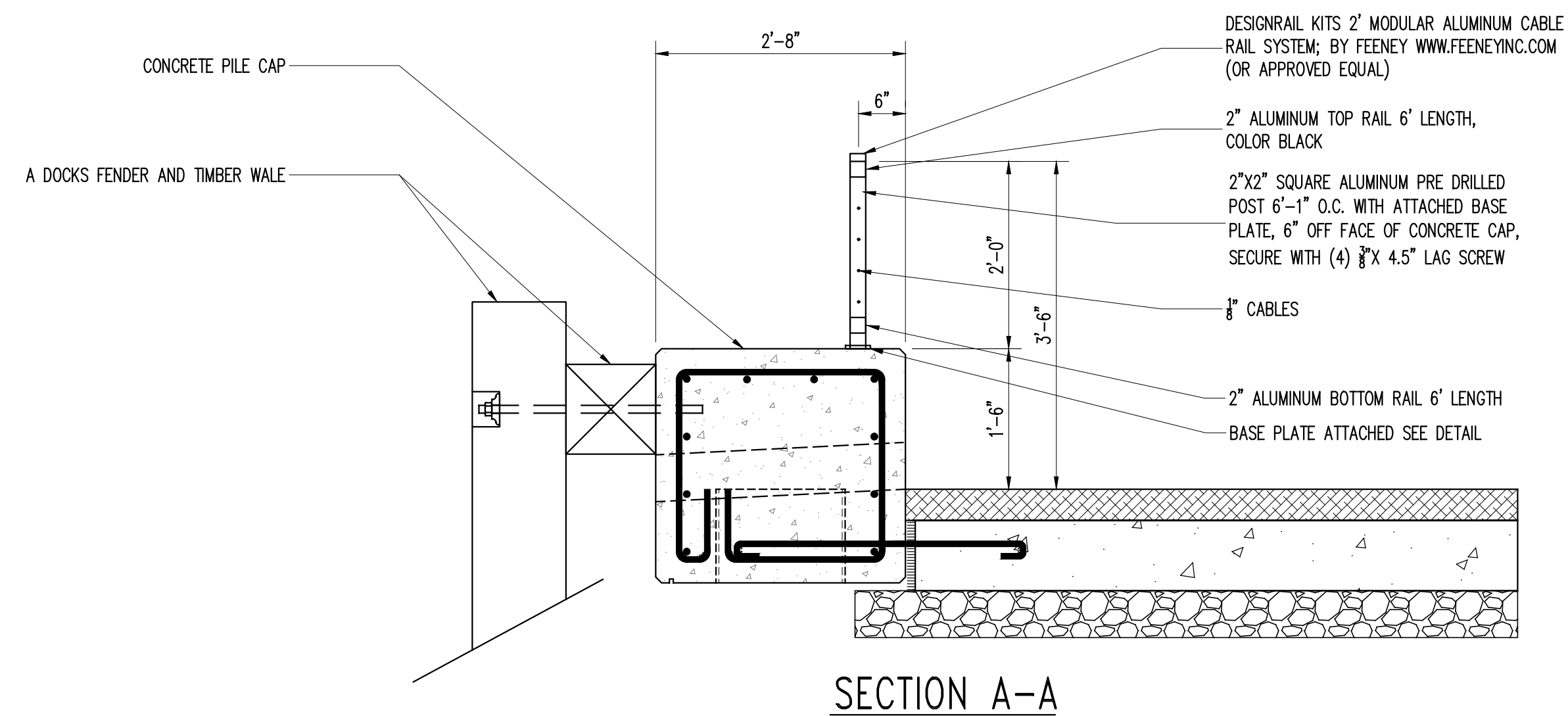
- NOTE:
1. FENCING HEIGHT SHALL BE NOT LESS THAN 42 INCHES HIGH, MEASURED VERTICALLY ABOVE THE ADJACENT WALKING SURFACES.
 2. FENCING SHALL NOT HAVE OPENINGS WHICH ALLOW PASSAGE OF A SPHERE 4 INCHES IN DIAMETER FROM THE WALKING SURFACE TO THE REQUIRED GUARD HEIGHT.



M RAILING CONNECTION DETAIL

C-506

N.T.S.



N PILE CAP RAILING SECTION

C-506

N.T.S.

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APRIL 17, 2020

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M. G. McLaren, P.C.
The Patron Building, 5 Clinton Square, Albany, NY 12207
T: 518.992.4830 www.mgmclaren.com

PROJECT

KINGSTON WATERFRONT
RESILIENCY DESIGN

KINGSTON, NEW YORK

DETAILS - 5

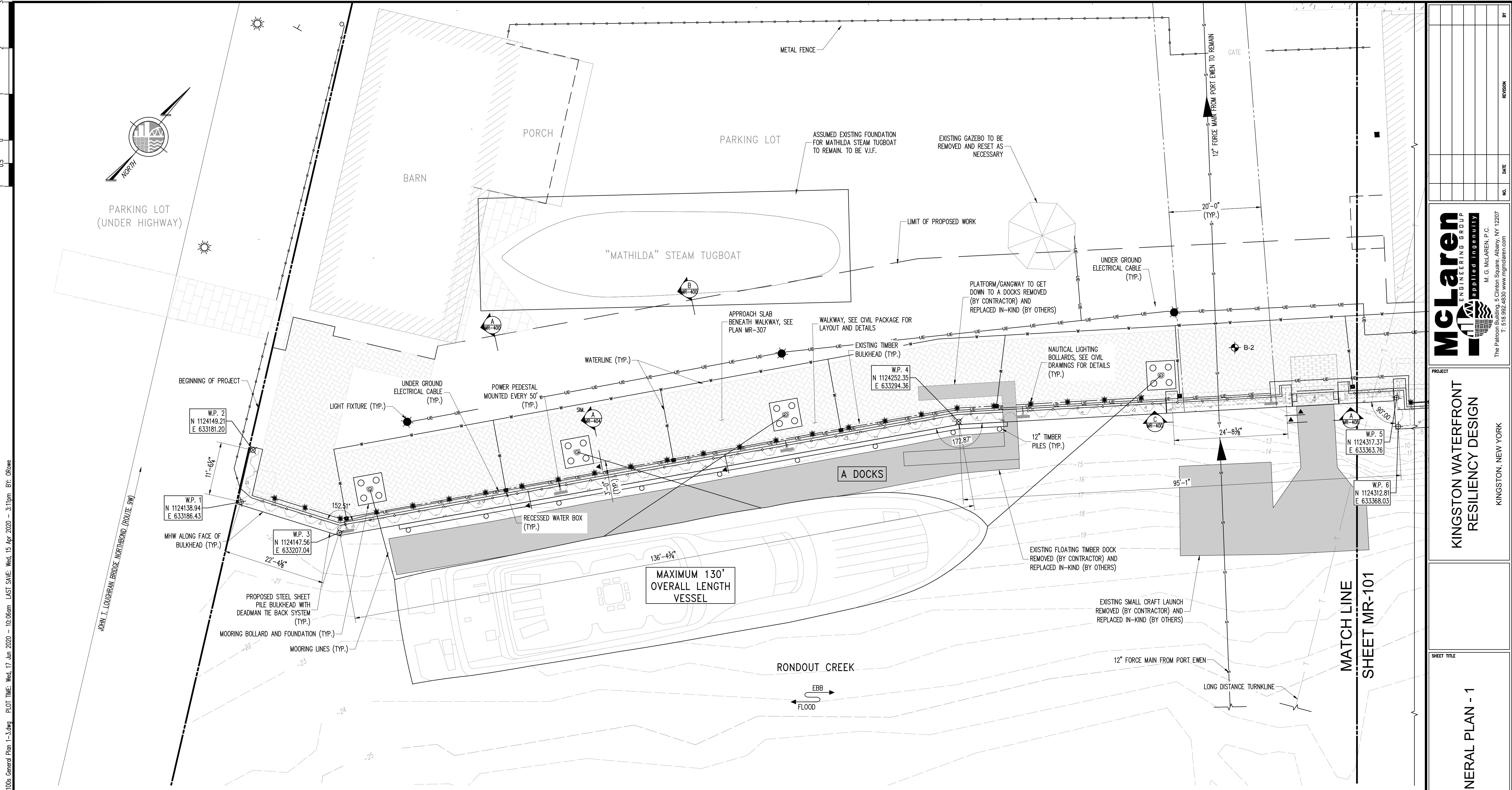
PROJECT NO.	160851
SCALE	AS NOTED
DATE	04/17/2018
DRAWN BY	NGD
CHECKED BY	CKT

DRAWING NO.

C-506.00

29 OF 56 SHTS

FILE NAME: \\nydata01\Projects\Proj160\160851\10_Dwgs\CADD\C-502 Details.dwg PLOT TIME: Wed, 17 Jun 2020 - 10:05am LAST SAVE: Wed, 17 Jun 2020 - 9:48am BY: ORowe



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GENERAL PLAN - 1
1" = 10'

LEGEND:
BORING LOCATION AND NUMBER
B-2

NOTES:
1. TOPOGRAPHICAL SURVEY PERFORMED BY MEDENBACH & EGGERS CIVIL ENGINEERING AND LAND SURVEYING, P.C. ON OCTOBER 2, 2017 UNDER THE SUPERVISION OF WILLIAM ROBERT EGGERS, L.S. LIC. NO.: 49785
2. HYDROGRAPHIC SURVEY PERFORMED BY LANDMETRICS ENGINEERING AND LAND SURVEYING P.C. ON SEPTEMBER 9, 2018 UNDER THE SUPERVISION OF DONALD O'VELE P.L.S. LIC. NO.: 050454
3. ALL UTILITY LOCATIONS SHOWN ARE APPROXIMATE PER DRAWINGS CONTRACT NO. CK-031 RONDOUT INTERCEPTOR, INVERTED SIPHON PROJECT BY BRINNIER & LARIOS ENGINEERS AND LAND SURVEYORS, P.C. DATED JANUARY 2003. UTILITIES MUST BE LOCATED, SURVEYED, AND MARKED OUT PRIOR TO CONSTRUCTION.
4. BORINGS PERFORMED GIFFORD ENGINEERING GEOTECHNICAL & GEOENVIRONMENTAL SERVICES ON JULY 24, 2018 FOR SMV ENGINEERING.
5. WORKING POINTS ARE ALONG FRONT FACE OF STEEL SHEET PILE WALL.

FINAL DESIGN
APRIL 17, 2020

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PROJECT NO. 160851
SCALE AS NOTED
DATE 04/17/2018
DRAWN BY EHC
CHECKED BY KAA
DRAWING NO. MR-100.00
30 OF 56 SHTS

McLaren
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**KINGSTON WATERFRONT
RESILIENCY DESIGN**
KINGSTON, NEW YORK

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PROJECT

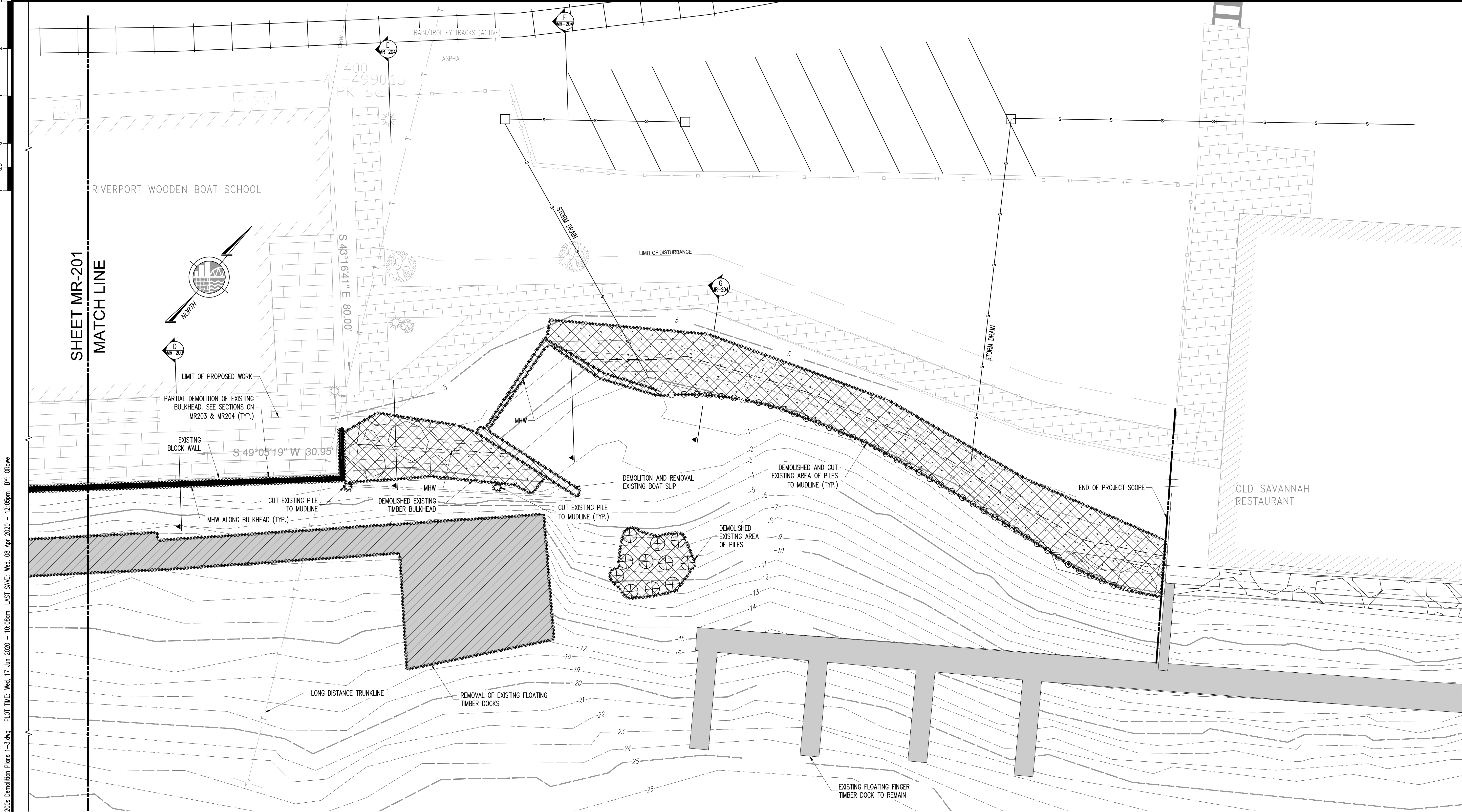
KINGSTON WATERFRONT
RESILIENCY DESIGN

KINGSTON, NEW YORK

SHEET TITLE

BORING LOGS

DRAWING NO.
MR-103.00
33 OF 56 SHTS



DEMOLITION PLAN - 3

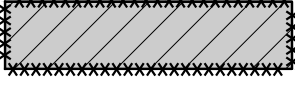
1" = 10'

- NOTE:
- FOR UTILITY AND CONDUIT REMOVALS, SEE CIVIL PACKAGE.
 - TOPOGRAPHICAL SURVEY PERFORMED BY MEDENBACH & EGERS CIVIL ENGINEERING AND LAND SURVEYING, P.C. ON OCTOBER 2, 2017 UNDER THE SUPERVISION OF WILLIAM ROBERT EGERS, L.S. LIC. NO.: 49785
 - HYDROGRAPHIC SURVEY PERFORMED BY LANDMETRICS ENGINEERING AND LAND SURVEYING P.C. ON SEPTEMBER 9, 2018 UNDER THE SUPERVISION OF DONALD O'VELE P.L.S. LIC. NO.: 050454
 - UTILITY LOCATIONS ARE APPROXIMATE PER DRAWINGS CONTRACT NO. CK-031 RONDOUT INTERCEPTOR, INVERTED SIPHON PROJECT BY BRINNIE & LARIOS ENGINEERS AND LAND SURVEYORS, P.C. DATED JANUARY 2003. UTILITIES MUST BE LOCATED, SURVEYED, AND MARKED OUT PRIOR TO CONSTRUCTION.

LEGEND:



EXISTING STRUCTURE OR DEBRIS TO BE REMOVED



EXISTING STRUCTURE TO BE REMOVED AND REPLACED IN-KIND (BY OTHERS)



EXISTING FLOATING DECK TO REMAIN

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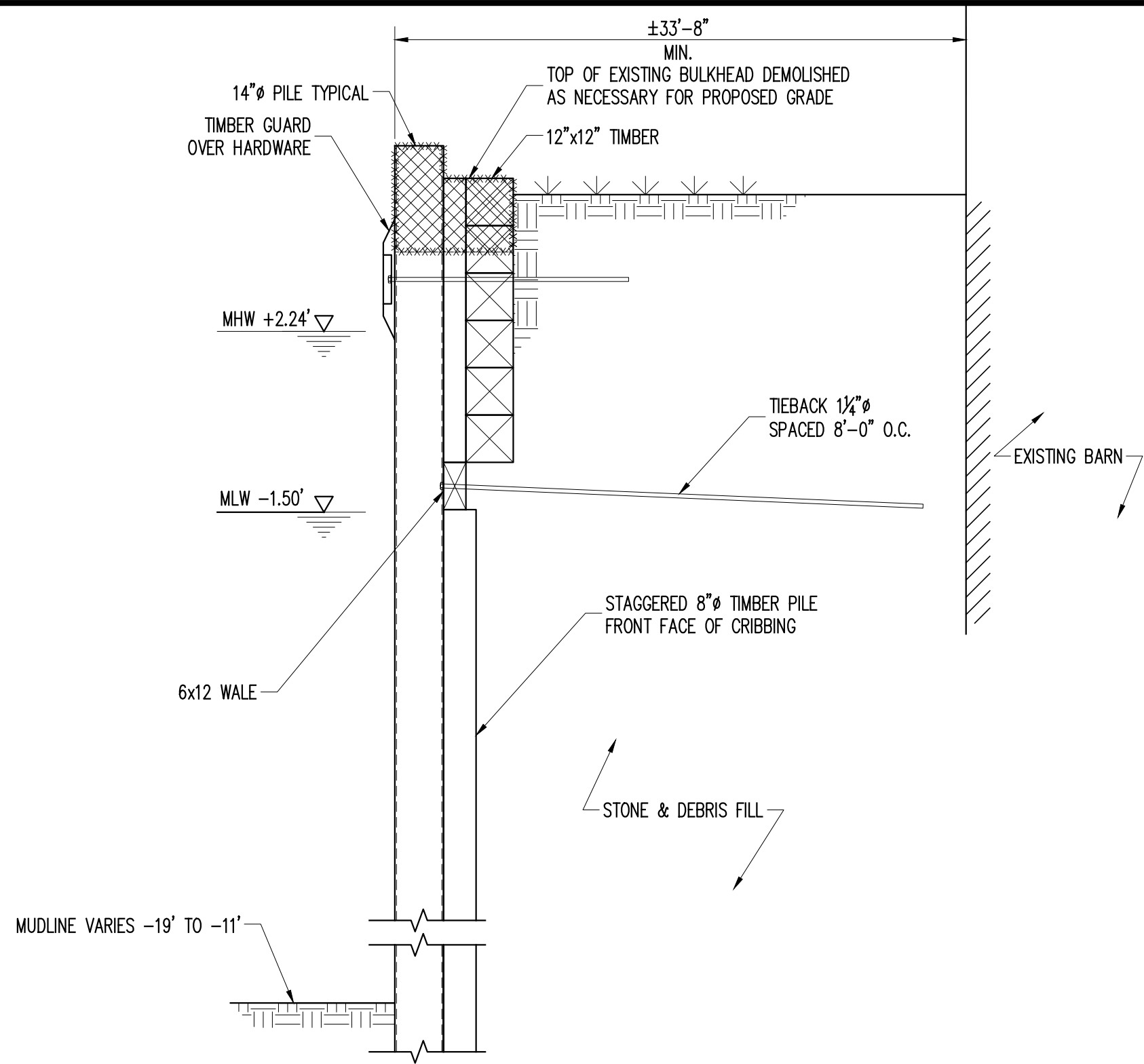
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FINAL DESIGN
APRIL 17, 2020

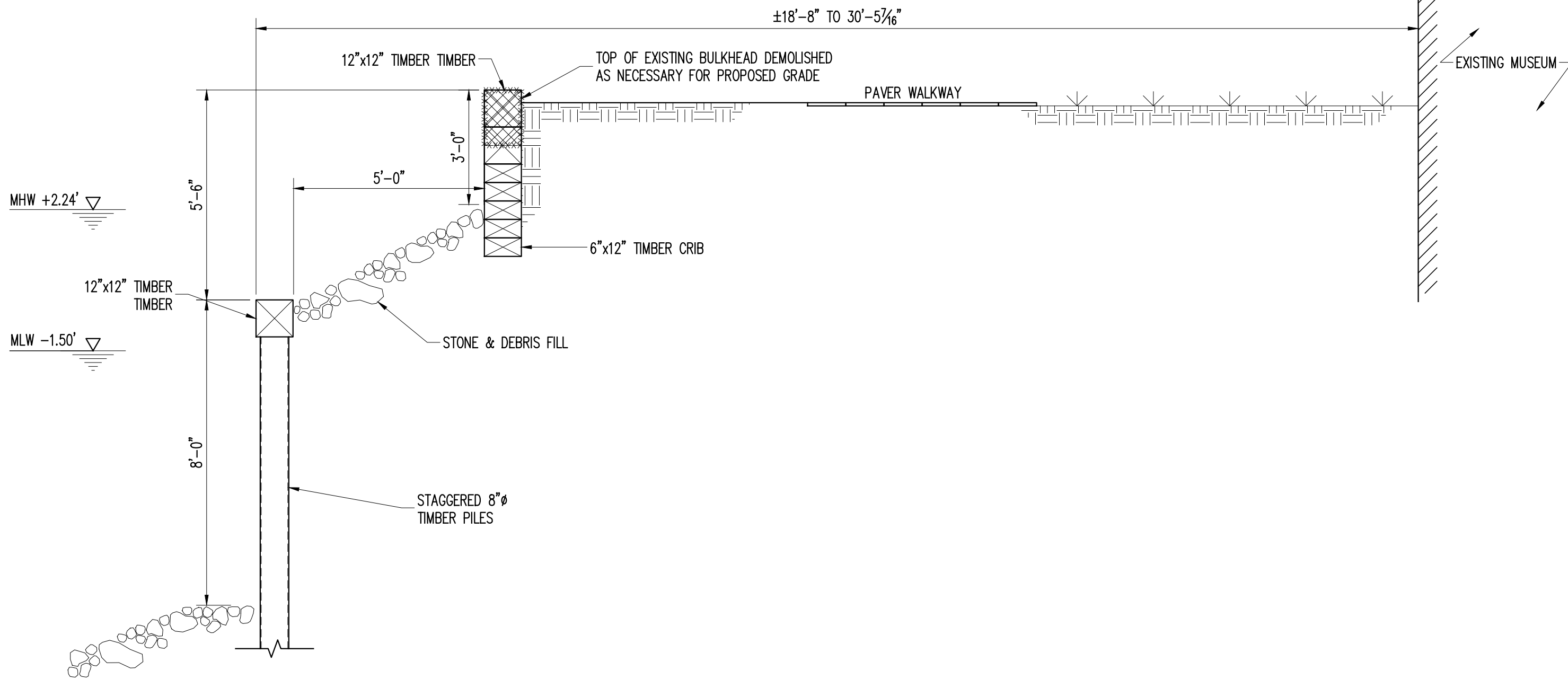
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PROJECT NO.		160851	
SCALE		AS NOTED	
DATE		04/17/2018	
DRAWN BY		EHC	
CHECKED BY		KAA	
DRAWING NO.		MR-202.00	
SHEET TITLE		DEMOLITION PLAN - 3	
PROJECT		KINGSTON WATERFRONT RESILIENCY DESIGN KINGSTON, NEW YORK	
McLaren		ENGINEERING GROUP	
M. G. McLAREN, P.C.		The Paterson Building, 5 Clinton Square, Albany, NY 12207 T: 518.992.4630 www.mclaren.com	
REVISION		DATE	
BY			

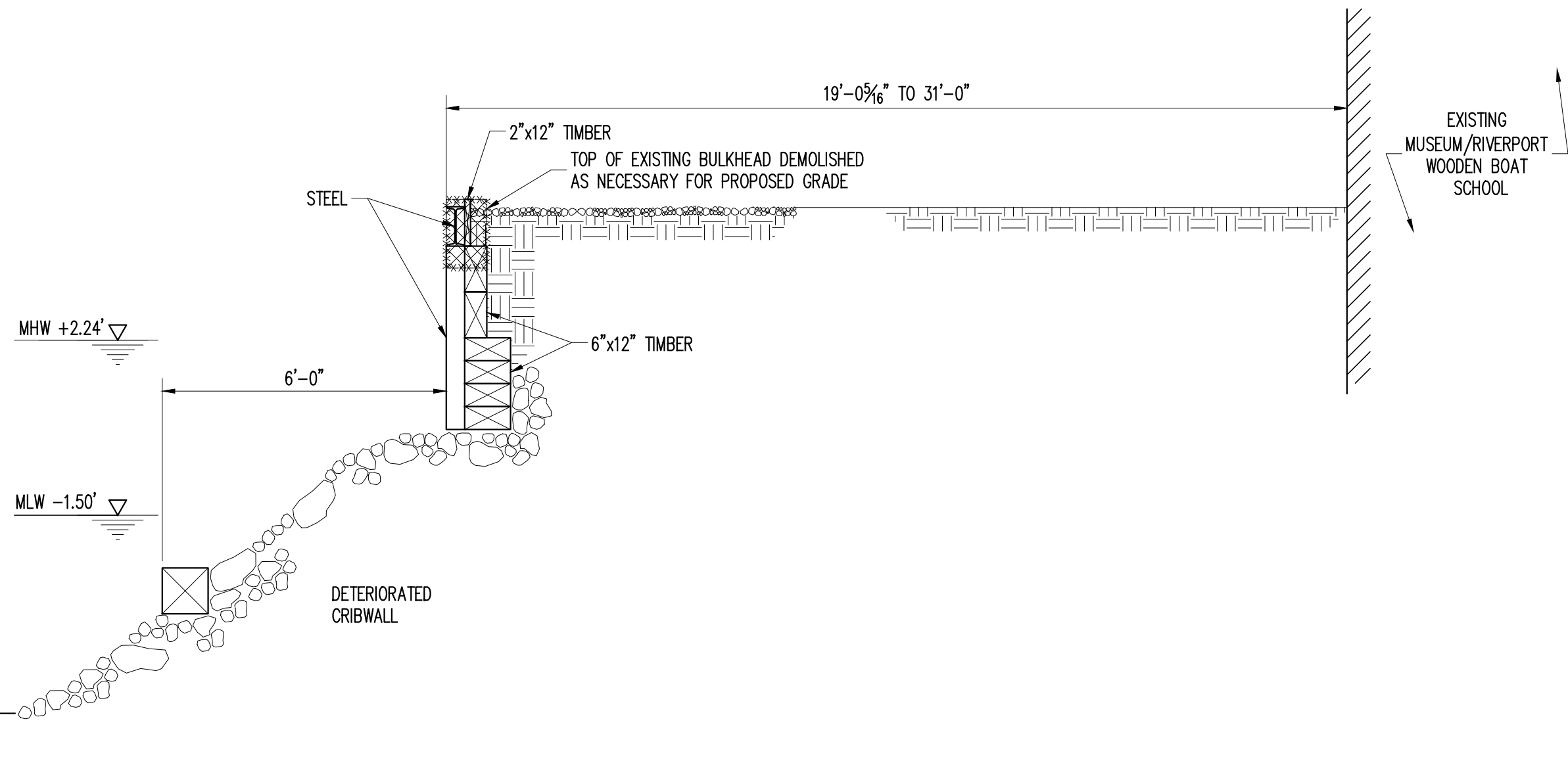
FILE NAME: \\prod001\Projects\Proj160\160851\0_Dwg\CAD\WR-203 & 204-Demolition Details 1-2.dwg PLOT TIME: Wed, 17 Jun 2020 - 10:08am LAST SAVE: Wed, 08 Apr 2020 - 11:06am BY: ORave



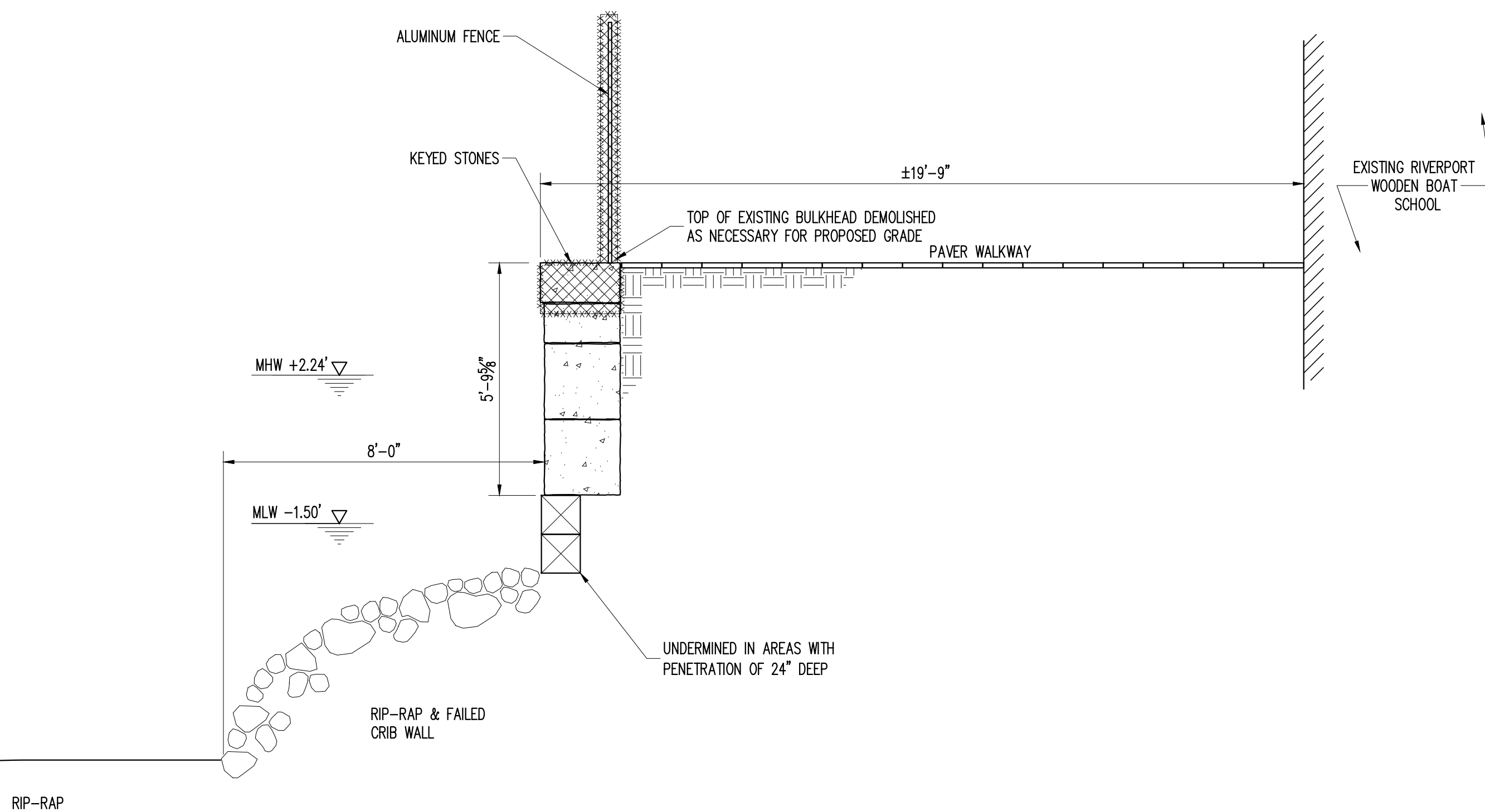
A EXISTING SECTION
WR-203 3/8" = 1'-0"



B EXISTING SECTION
WR-203 3/8" = 1'-0"



C EXISTING SECTION
WR-203 3/8" = 1'-0"



D EXISTING SECTION
WR-203 3/8" = 1'-0"



LEGEND:
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NO.	DATE	REVISION	BY

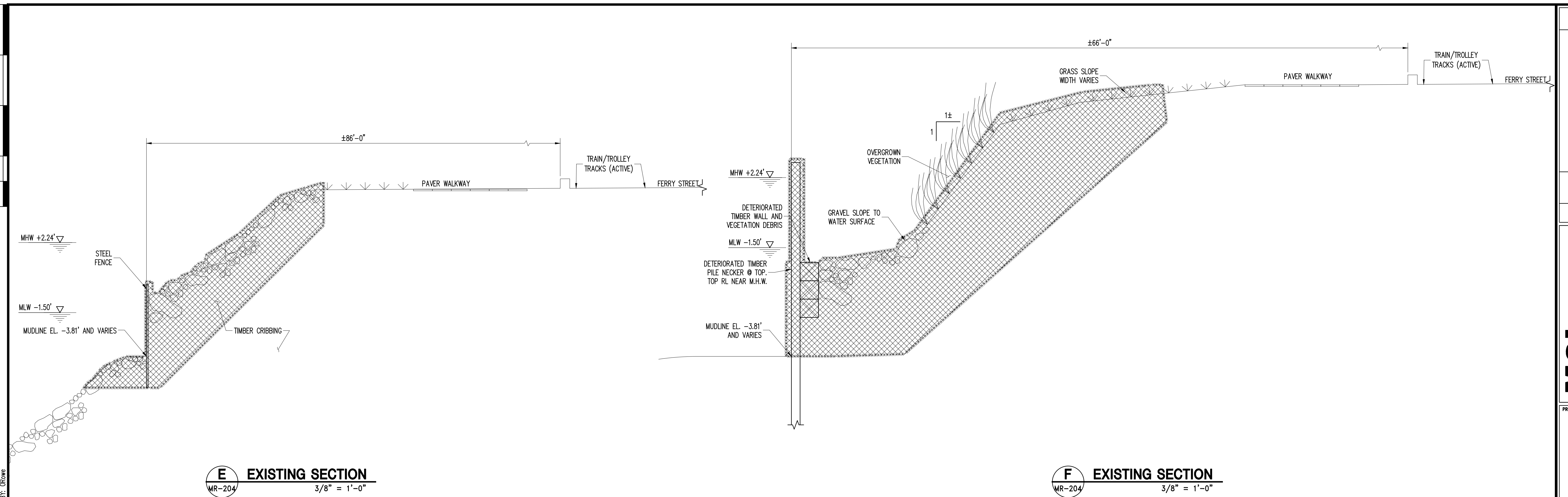
McLaren
ENGINEERING GROUP
applied ingenuity
M. G. McLAREN, P.C.
The Patron Building, 6 Clinton Square, Albany, NY 12207
T: 518.992.4630 www.mclaren.com

PROJECT
**KINGSTON WATERFRONT
RESILIENCY DESIGN**
KINGSTON, NEW YORK

SHEET TITLE
DEMOLITION DETAILS - 1

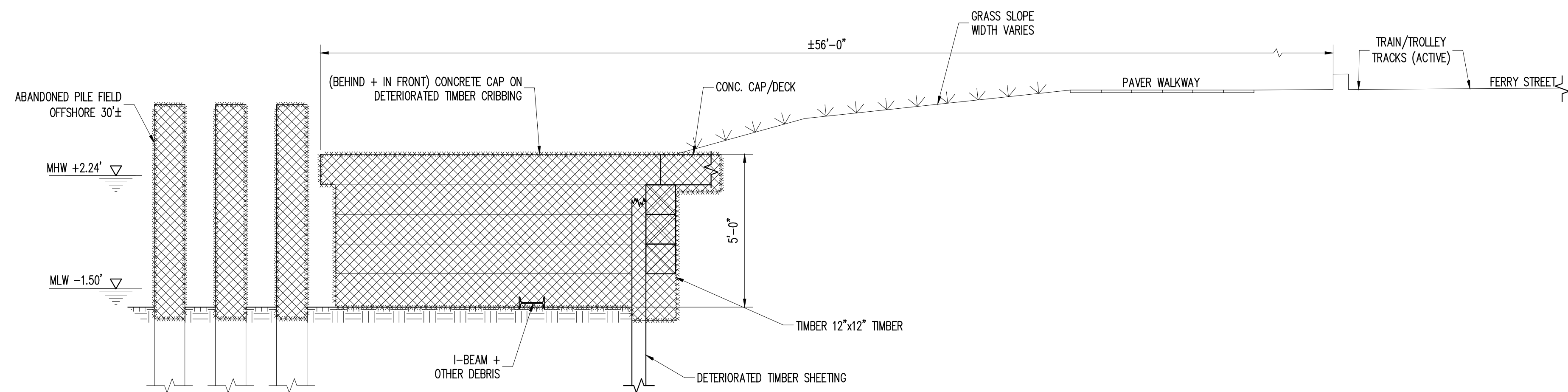
PROJECT NO.	160851
SCALE	AS NOTED
DATE	04/17/2018
DRAWN BY	EHC
CHECKED BY	KAA

DRAWING NO.
MR-203.00
37 OF 56 SHTS




E **EXISTING SECTION**
MR-204 $3/8" = 1'-0"$

F **EXISTING SECTION**
MR-204 $3/8" = 1'-0"$



LEGEND:

	EXISTING STRUCTURE OR DEBRIS TO BE DEMOLISHED OR REMOVED
---	---

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FINAL DESIGN
APRIL 17, 2020

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[illegible]

PROJECT

KINGSTON WATERFRONT
RESILIENCY DESIGN

KINGSTON, NEW YORK

SHEET TITLE

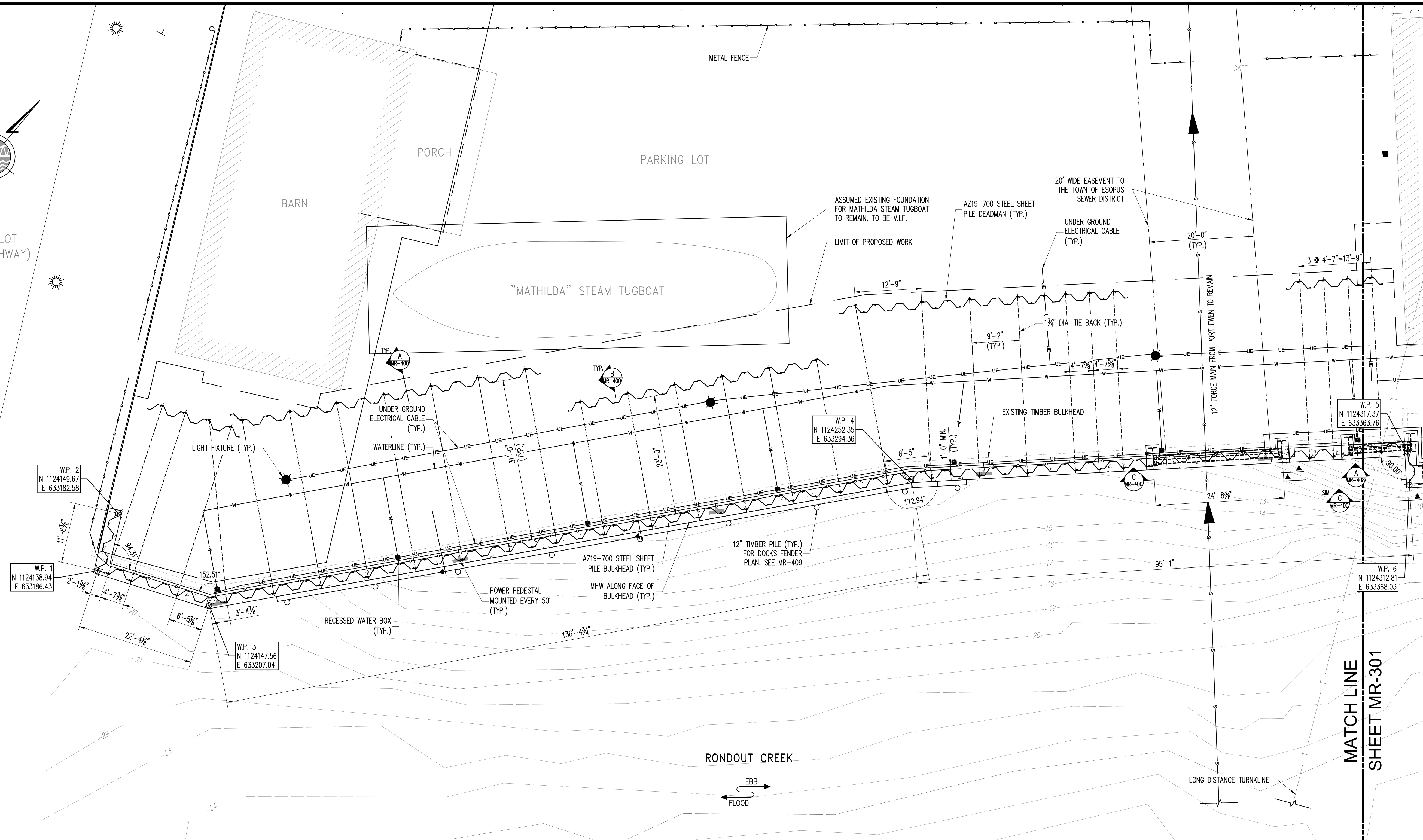
DEMOLITION DETAILS - 2

PROJECT NO.	160851
SCALE	AS NOTED
DATE	04/17/2018
DRAWN BY	EHC
CHECKED BY	KAA

DRAWING NO.

MR-204.00

38 OF 56 SHTS



BULKHEAD/SHORE PROTECTION PLAN - 1

$$1'' = 10'$$

NOTES:

1. TOPOGRAPHIC SURVEY PERFORMED BY MEDENBACH & EGGERS CIVIL ENGINEERING AND LAND SURVEYING, P.C. ON OCTOBER 2, 2017 UNDER THE SUPERVISION OF WILLIAM ROBERT EGGERS, L.S. LIC. NO.: 49785
2. HYDROGRAPHIC SURVEY PERFORMED BY LANDMETRICS ENGINEERING AND LAND SURVEYING P.C. ON SEPTEMBER 9, 2018 UNDER THE SUPERVISION OF DONALD O'VELLE P.L.S. LIC. NO.: 050454
3. WORKING POINTS ARE ALONG FRONT FACE OF STEEL SHEET PILE WALL.
4. ALL BUILDING, MONUMENT, OR DISPLAY FOUNDATIONS MUST BE MAINTAINED AND PROTECTED DURING CONSTRUCTION.
5. SHOULD A BUILDING, MONUMENT, OR DISPLAY FOUNDATION INTERFERE WITH THE BULKHEAD OR DEADMAN SYSTEM, THE ENGINEER SHOULD BE NOTIFIED IMMEDIATELY.
6. THERE IS AN EXISTING DEADMAN SYSTEM THAT COULD NOT BE LOCATED. IF THERE IS ANY INTERFERENCE, THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF THE EXISTING DEADMAN SYSTEM AND STABILIZING THE BULKHEAD WALL.
7. SEVERAL UTILITIES RUN THROUGH THE PROPOSED BULKHEAD WALL. CONTRACTOR TO LOCATE ALL UTILITIES, DEPTH OF UTILITIES, AND RIGHT-OF-WAY PRIOR TO CONSTRUCTION. IF ANY DISCREPANCY IS FOUND FROM THE CONSTRUCTION DRAWINGS, CONTRACTOR TO SUBMIT AN ALTERNATE SOLUTION FOR INSTALLATION OF THE WALL WITHOUT DAMAGING THE EXISTING UTILITIES.
- 7.1. UTILITY LOCATIONS ARE APPROXIMATE PER DRAWINGS CONTRACT NO. CK-031 RONDOUT INTERCEPTOR, INVERTED SIPHON PROJECT BY BRINNER & LARIOS ENGINEERS AND LAND SURVEYORS, P.C. DATED JANUARY 2003. UTILITIES MUST BE LOCATED, SURVEYED, AND MARKED OUT PRIOR TO CONSTRUCTION.
8. BORINGS PERFORMED GIFFORD ENGINEERING GEOTECHNICAL & GEONENVIRONMENTAL SERVICES ON JULY 24, 2018 FOR SMV ENGINEERING.
9. CONTRACTOR SHALL DESIGN CLOSURE DOWN TO FIVE (5) FEET BELOW EXISTING MUDLINE. CONTRACTOR TO SUBMIT DETAIL TO OWNER'S REPRESENTATIVE FOR REVIEW

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FINAL DESIGN
APRIL 17, 2020

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PROJECT

KINGSTON WATERFRONT
RESILIENCY DESIGN

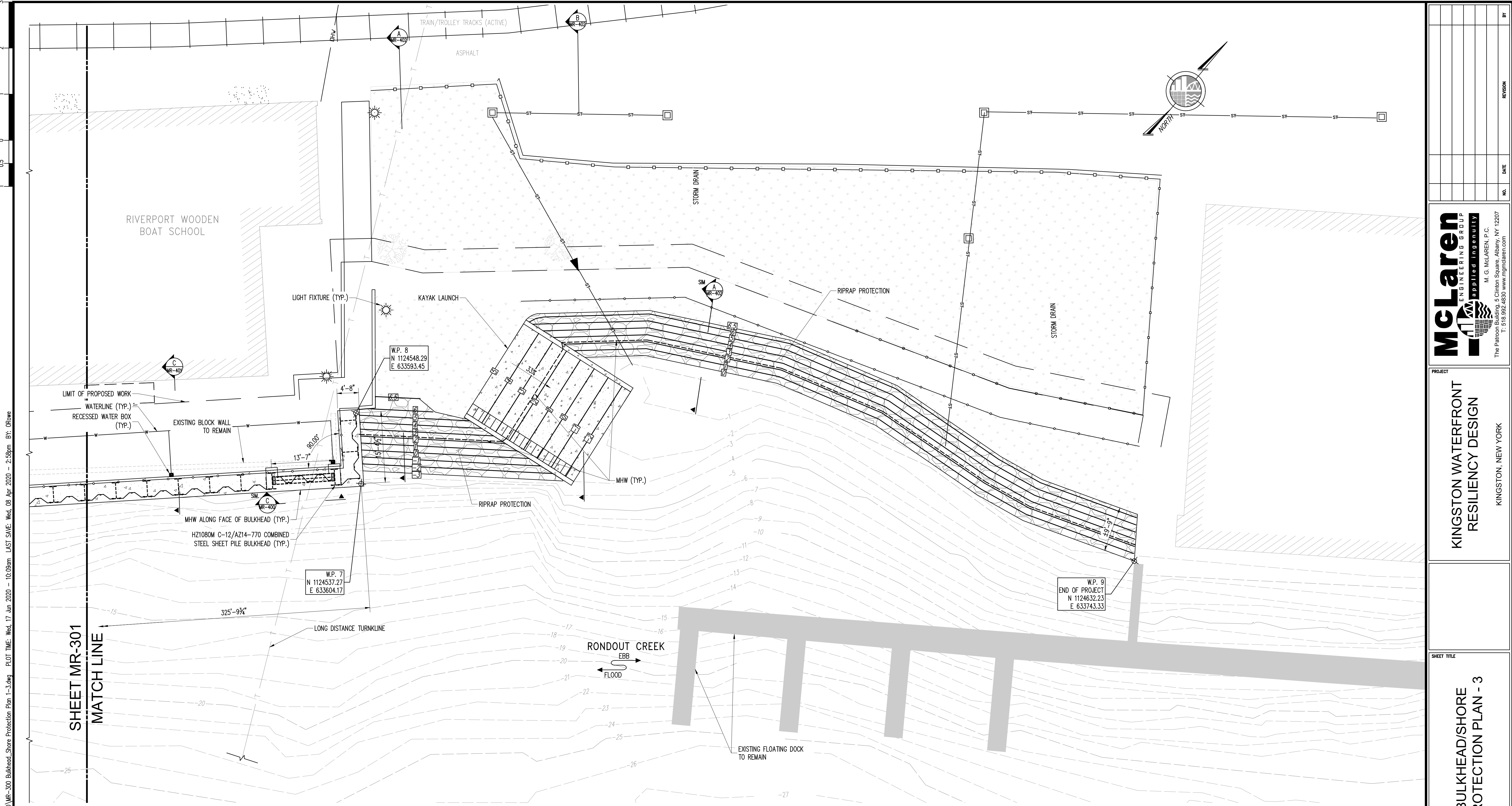
**BULKHEAD/SHORE
PROTECTION PLAN - 1**

PROJECT NO.	160851
SCALE	AS NOTED
DATE	04/17/2018
DRAWN BY	EHC
CHECKED BY	KAA

DRAWING NO.

MR-300.00

[illegible]



FILE NAME: \\prod001\Projects\Proj160\160851\0005\10_Dwg\CADD\MR-300 Bulkhead Shore Protection Plan 1-3.dwg PLOT TIME: Wed, 17 Jun 2020 - 10:08am LAST SAVE: Wed, 08 Apr 2020 - 2:58pm BY: Orwe

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BULKHEAD/ShORE PROTECTION PLAN - 3

1" = 10'

- NOTES:
1. TOPOGRAPHICAL SURVEY PERFORMED BY MEDENBACH & EGGERS CIVIL ENGINEERING AND LAND SURVEYING, P.C. ON OCTOBER 2, 2017 UNDER THE SUPERVISION OF WILLIAM ROBERT EGGERS, L.S. LIC. NO.: 49785
 2. HYDROGRAPHIC SURVEY PERFORMED BY LANDMETRICS ENGINEERING AND LAND SURVEYING P.C. ON SEPTEMBER 9, 2018 UNDER THE SUPERVISION OF DONALD O'WIELE P.L.S. LIC. NO.: 050454
 3. WORKING POINTS ARE ALONG FRONT FACE OF STEEL SHEET PILE WALL.
 4. ALL BUILDING, MONUMENT, OR DISPLAY FOUNDATIONS MUST BE MAINTAINED AND PROTECTED DURING CONSTRUCTION.
 5. SHOULD A BUILDING, MONUMENT, OR DISPLAY FOUNDATION INTERFERE WITH THE BULKHEAD OR DEADMAN SYSTEM, THE ENGINEER SHOULD BE NOTIFIED IMMEDIATELY.
 6. THERE IS AN EXISTING DEADMAN SYSTEM THAT COULD NOT BE LOCATED. IF THERE IS ANY INTERFERENCE, THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF THE EXISTING DEADMAN SYSTEM AND STABILIZING THE BULKHEAD WALL.
 7. SEVERAL UTILITIES RUN THROUGH THE PROPOSED BULKHEAD WALL. CONTRACTOR TO LOCATE ALL UTILITIES, DEPTH OF UTILITIES, AND RIGHT-OF-WAY PRIOR TO CONSTRUCTION. IF ANY DISCREPANCY IS FOUND FROM THE CONSTRUCTION DRAWINGS, CONTRACTOR TO SUBMIT AN ALTERNATE SOLUTION FOR INSTALLATION OF THE WALL WITHOUT DAMAGING THE EXISTING UTILITIES.
 - 7.1. UTILITY LOCATIONS ARE APPROXIMATE PER DRAWINGS CONTRACT NO. CK-031 ROUNDOUT INTERCEPTOR, INVERTED SIPHON PROJECT BY BRINNIER & LARIOS ENGINEERS AND LAND SURVEYORS, P.C. DATED JANUARY 2003. UTILITIES MUST BE LOCATED, SURVEYED, AND MARKED OUT PRIOR TO CONSTRUCTION.
 8. BORINGS PERFORMED GIFFORD ENGINEERING GEOTECHNICAL & GEONVIRONMENTAL SERVICES ON JULY 24, 2018 FOR SMV ENGINEERING.

FINAL DESIGN
APRIL 17, 2020

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PROJECT NO.		160851	
SCALE		AS NOTED	
DATE		04/17/2018	
DRAWN BY		EHC	
CHECKED BY		KAA	
DRAWING NO.		MR-302.00	
SHTS		41 OF 56	

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M. G. McLAREN, P.C.
The Patron Building, 6 Clinton Square, Albany, NY 12207
T: 518.992.4630 www.mclareneng.com

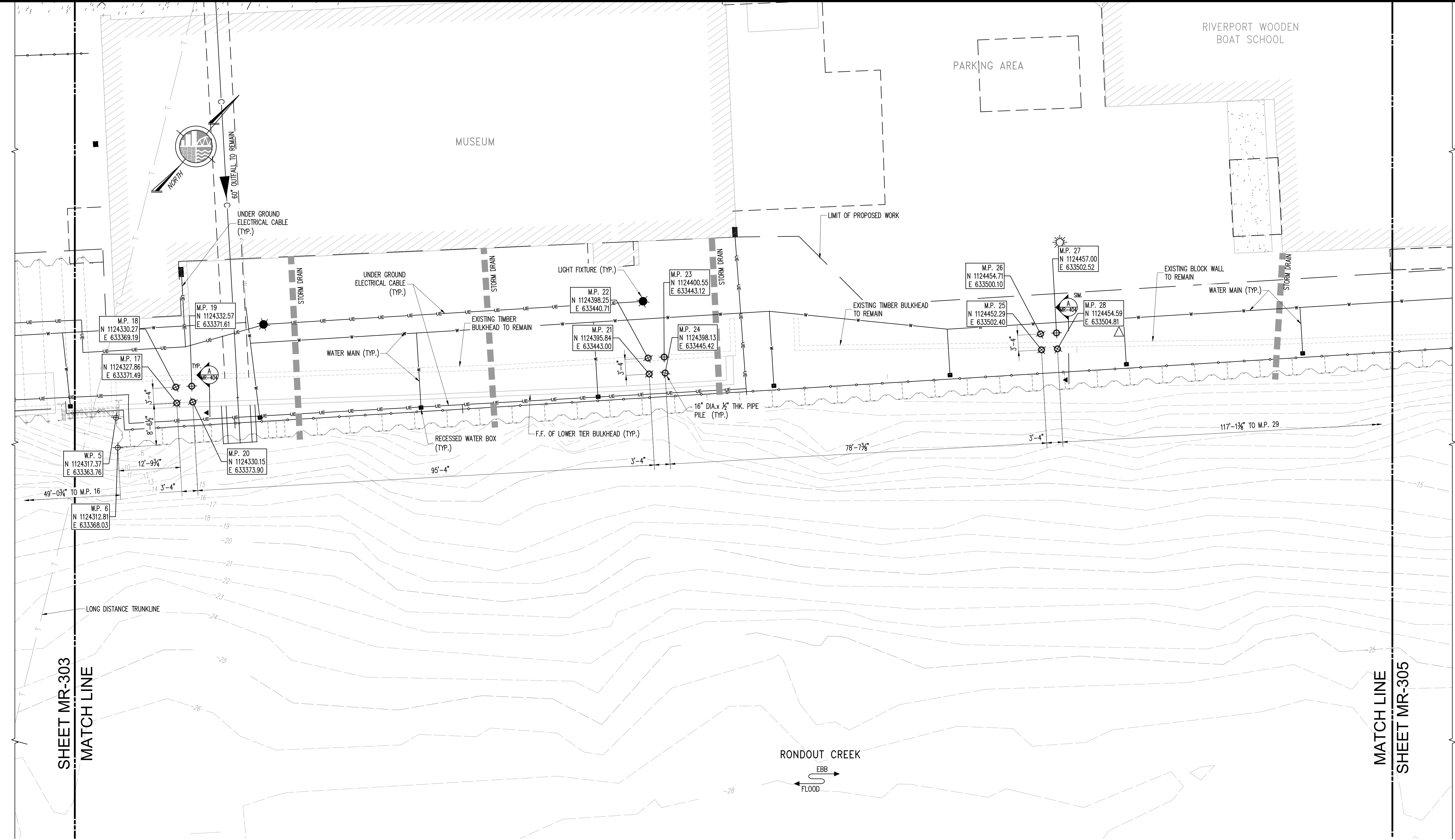
PROJECT
**KINGSTON WATERFRONT
RESILIENCY DESIGN**
KINGSTON, NEW YORK

SHEET TITLE
**BULKHEAD/ShORE
PROTECTION PLAN - 3**

FILE NAME: \\prod001\Projects\Proj160\160851\0_Dwg\CADD\MR-303 Pile Plan 1-3.dwg PLOT TIME: Wed, 17 Jun 2020 - 10:10am LAST SAVE: Wed, 08 Apr 2020 - 2:59pm BY: Crows

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PILE PLAN - 2

1" = 10'

LEGEND:

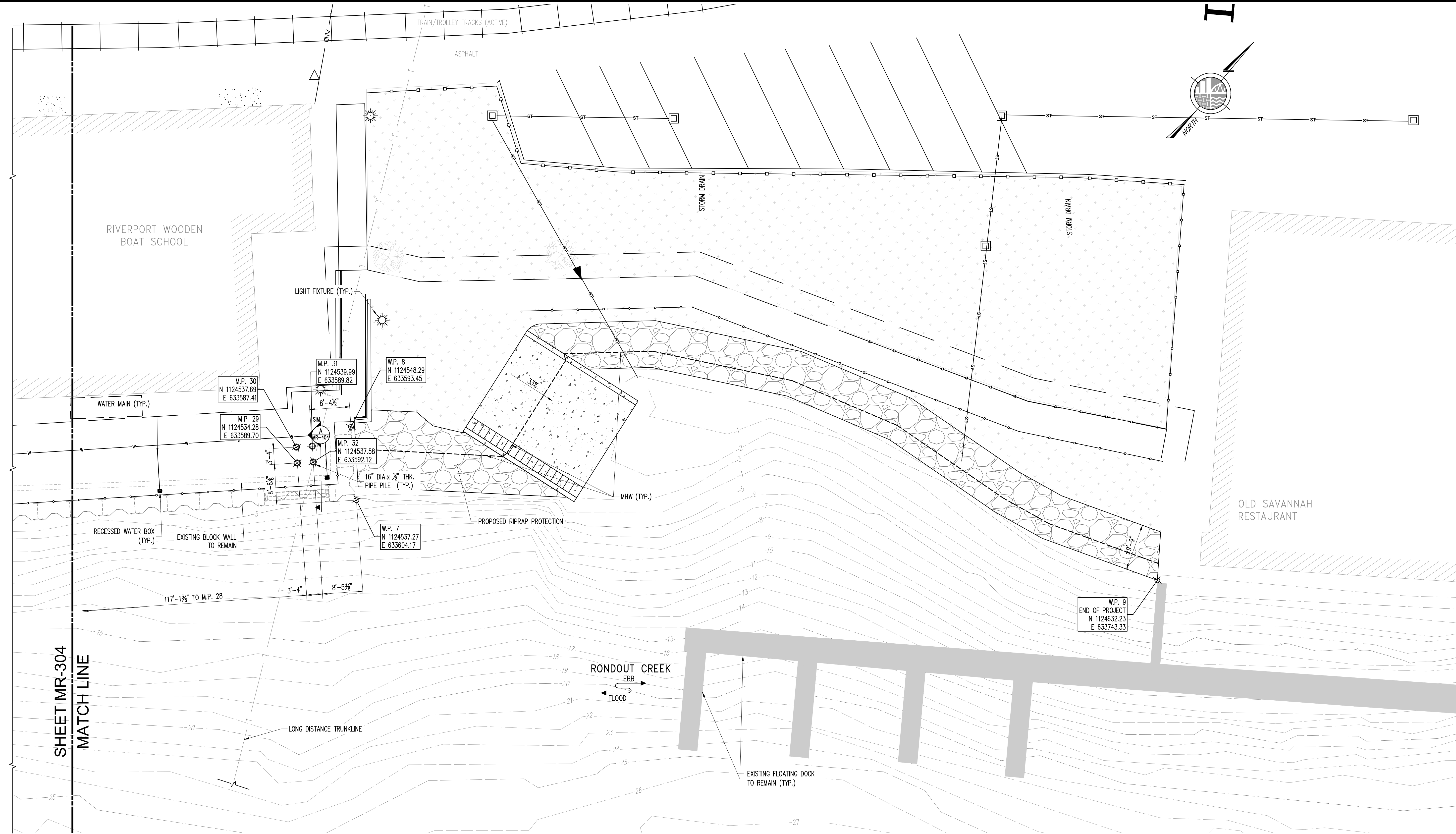
- M.P. # - 16" Ø x 1/2" THK WALL STEEL PIPE PILE
- AZ19-700 STEEL SHEET PILE BULKHEAD
- TIE BACK
- AZ19-700 STEEL SHEET PILE DEADMAN
- HZ1080M C-12/AZ14-770 COMBINED STEEL SHEET PILE BULKHEAD

FINAL DESIGN
APRIL 17, 2020

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PROJECT NO.		160851	
SCALE		AS NOTED	
DATE		04/17/2018	
DRAWN BY		EHC	
CHECKED BY		KAA	
DRAWING NO.		MR-304.00	
SHEET TITLE		PILE PLAN - 2	
PROJECT		KINGSTON WATERFRONT RESILIENCY DESIGN KINGSTON, NEW YORK	
McLaren ENGINEERING GROUP		M. G. McLAREN, P.E. The Patron Building, 6 Clinton Square, Albany, NY 12207 T: 518.982.4630 www.mclareneng.com	
BY		REVISION	
DATE		NO.	

FILE NAME: \\prod001\Projects\Proj160\160851\0_Dwgs\CADD\MR-303 Pile Plan 1-3.dwg PLOT TIME: Wed, 17 Jun 2020 - 10:10am LAST SAVE: Wed, 08 Apr 2020 - 2:59pm BY: CRowe



PILE PLAN - 3

1" = 10'

LEGEND:



M.P. # - 16"Øx½" THK WALL STEEL PIPE PILE



HZ1080M C-12/AZ14-770 COMBINED STEEL SHEET PILE BULKHEAD

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APRIL 17, 2020

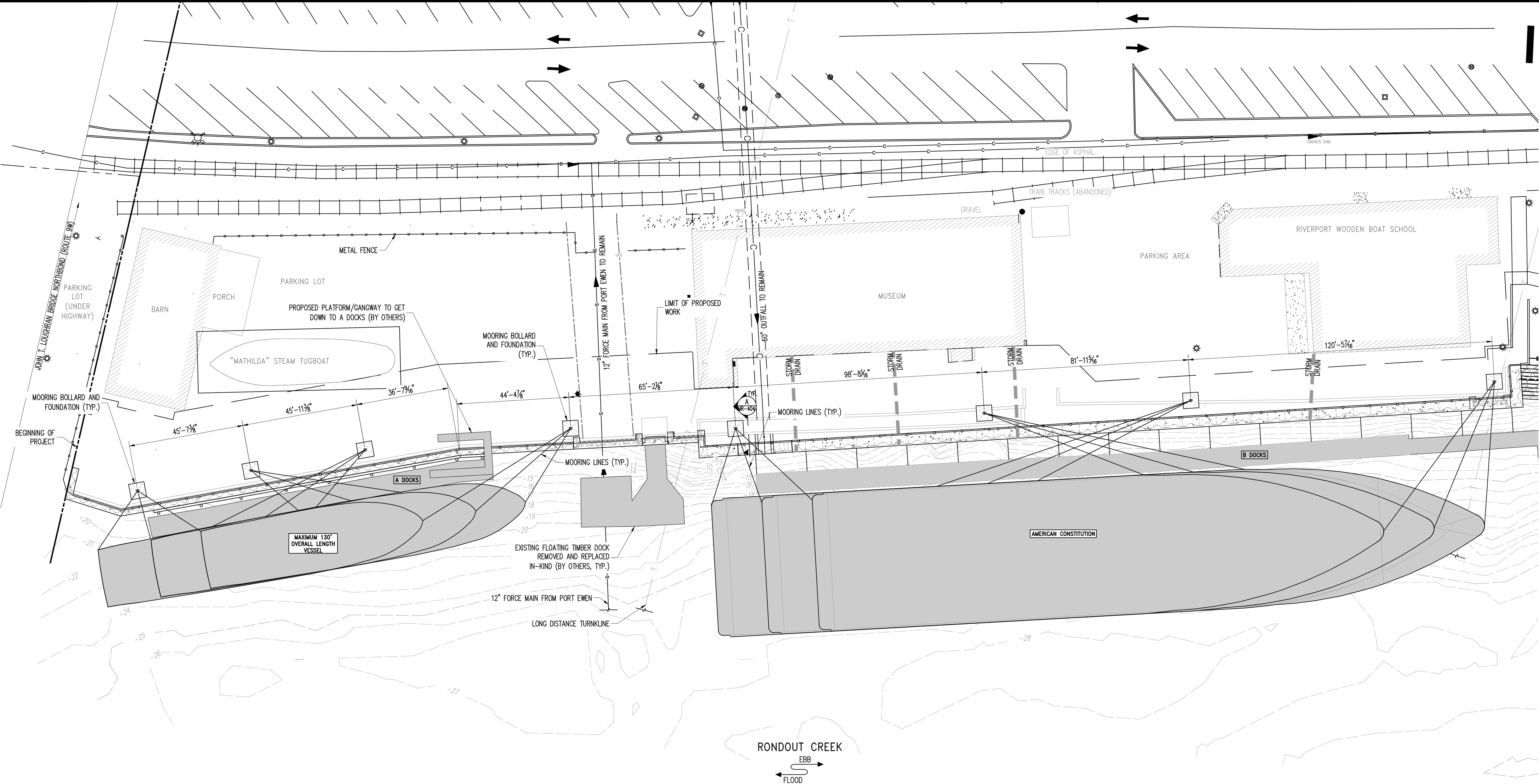
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PROJECT NO.		160851	
SCALE		AS NOTED	
DATE		04/17/2018	
DRAWN BY		EHC	
CHECKED BY		KAA	
DRAWING NO.		MR-305.00	
SHEET TITLE		PILE PLAN - 3	
PROJECT		KINGSTON WATERFRONT RESILIENCY DESIGN KINGSTON, NEW YORK	
McLaren ENGINEERING GROUP applied ingenuity		M. G. McLAREN, P.C. The Patron Building, 6 Clinton Square, Albany, NY 12207 T: 518.992.4630 www.mclaren.com	
REVISION		DATE	
BY			

FILE NAME: \\nyddad01\Projects\Proj160\160851\0_Dwg\DWG\MOORING Plan.dwg PLOT TIME: Wed, 17 Jun 2020 - 10:11am LAST SAVE: Wed, 08 Apr 2020 - 3:03pm BY: ORowe

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MOORING PLAN
1" = 20'

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APRIL 17, 2020

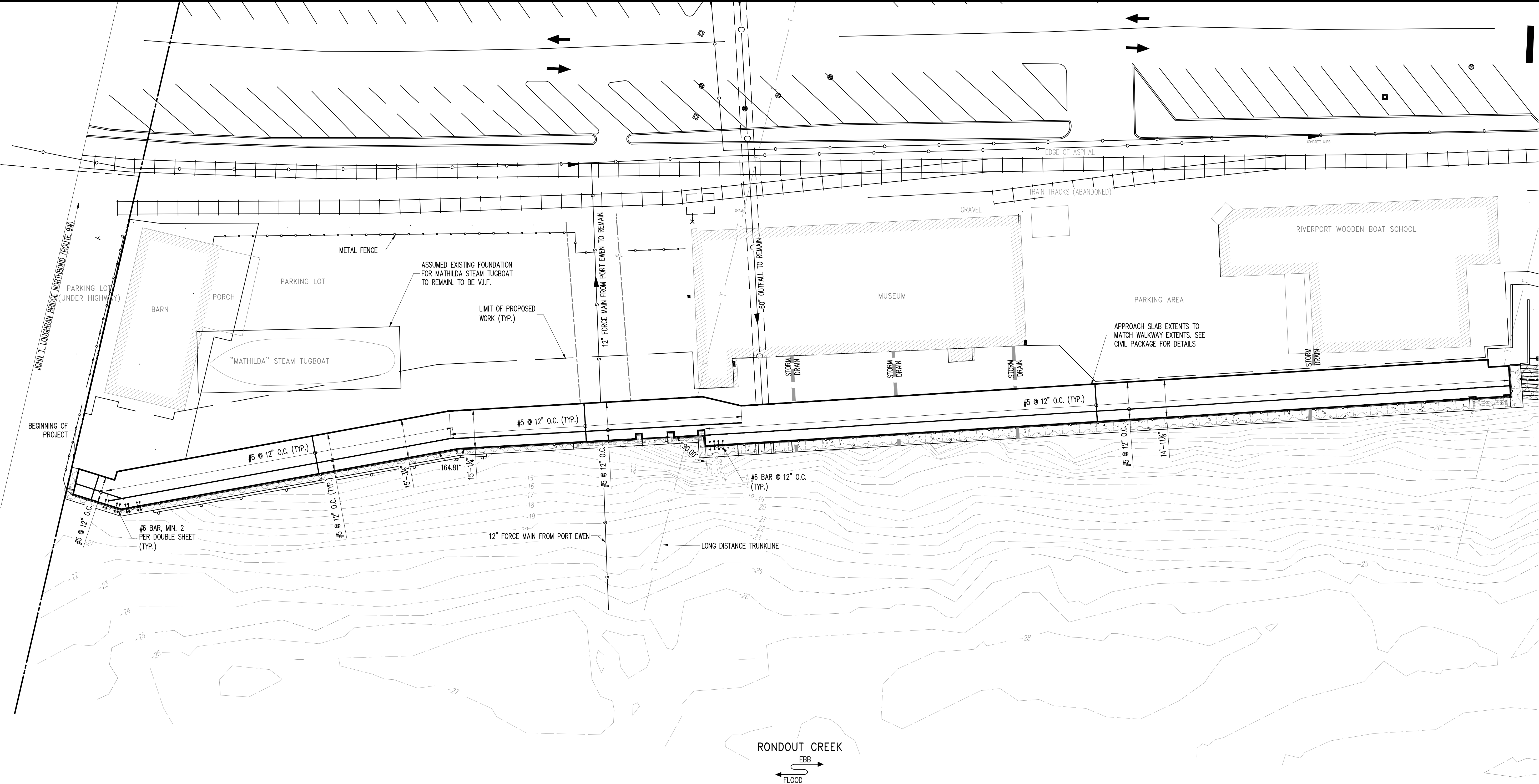
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PROJECT NO. 160851	
SCALE AS NOTED	
DATE 04/17/2018	
DRAWN BY EHC	
CHECKED BY KAA	
DRAWING NO. MR-306.00	
45 OF 56 SHTS	
PROJECT KINGSTON WATERFRONT RESILIENCY DESIGN KINGSTON, NEW YORK	
McLaren ENGINEERING GROUP applied ingenuity M. G. McLAREN, P.E. The Paterson Building, 6 Clinton Square, Albany, NY 12207 T: 518.992.4630 www.mclaren.com	
REVISION	DATE
BY	

FILE NAME: \\prod001\Projects\Proj160\160851\0_Dwg\CAD\MR-307 Approach Slab Plan.dwg PLOT TIME: Wed, 17 Jun 2020 - 10:12am LAST SAVE: Wed, 08 Apr 2020 - 3:00pm BY: Rowe

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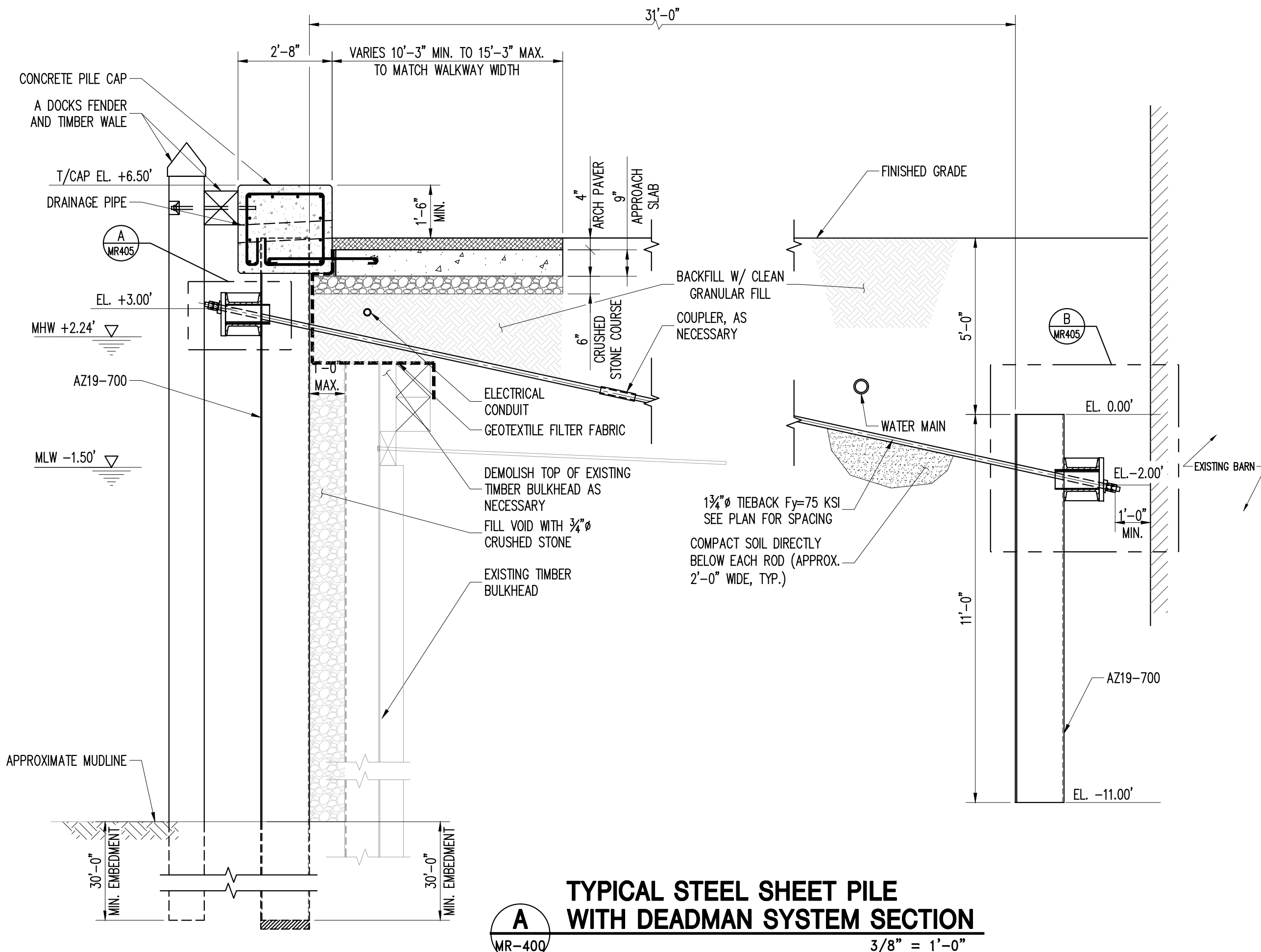
PROJECT NO. 160851	
SCALE AS NOTED	
DATE 04/17/2018	
DRAWN BY EHC	
CHECKED BY KAA	
DRAWING NO. MR-307.00	
46 OF 56 SHTS	
PROJECT KINGSTON WATERFRONT RESILIENCY DESIGN KINGSTON, NEW YORK	
McLaren ENGINEERING GROUP applied ingenuity M. G. McLAREN, P.E. The Patron Building, 6 Clinton Square, Albany, NY 12207 T: 518.992.4630 www.mclaren.com	
REVISION	DATE
BY	

FILE NAME: \\prod001\Projects\Proj160\160851\0\Draws\CAD\MR-400 & 403 Bulkhead, Shore Protection Details 1-4.dwg PLOT TIME: Wed, 17 Jun 2020 - 10:15am LAST SAVE: Wed, 15 Apr 2020 - 2:39pm BY: CRowe

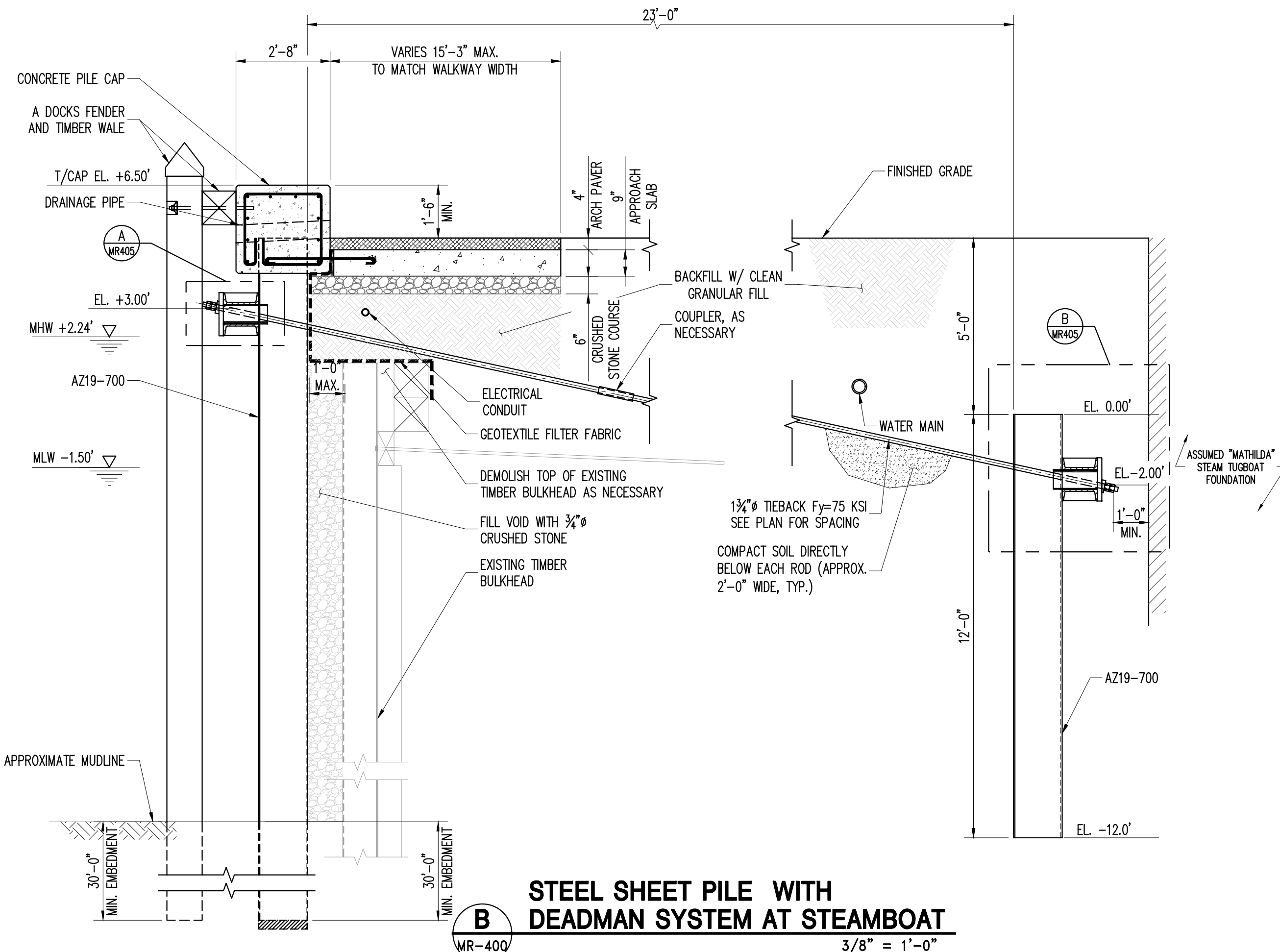
NOTES:
1. LOCATION, RIGHT-OF-WAY, AND BURIED DEPTH OF UTILITIES TO BE VERIFIED IN FIELD AND COORDINATED WITH THE CITY ENGINEER PRIOR TO CONSTRUCTION OF BULKHEAD WALL.
2. LOCATION OF H-PILES/SHEETING, DEPTH OF PLACED STEEL SHEETING, AND STOPPERS MAY BE REVISED BASED ON SURVEYED DEPTH OF UTILITIES.
3. UTILITIES TO BE PROTECTED AND MAINTAINED BY CONTRACTOR DURING CONSTRUCTION.
4. SHEETING OUTSIDE OF H-PILES NOT SHOWN FOR CLARITY. SEE PLANS AND TYPICAL SECTIONS FOR DETAILS.

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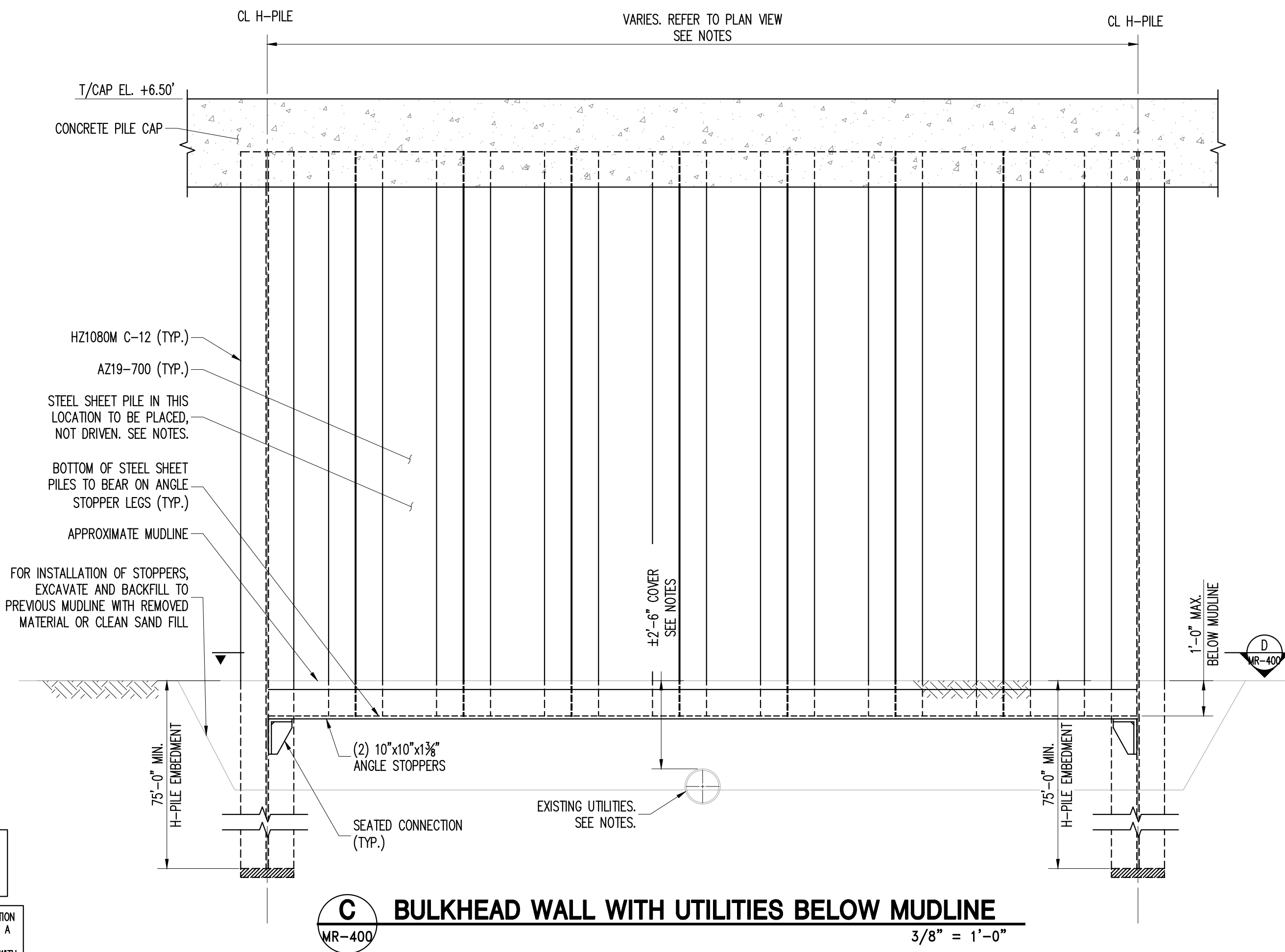
WARNING - IT IS A VIOLATION OF NEW YORK STATE EDUCATIONAL LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER THIS DOCUMENT IN ANY WAY, IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATIONAL LAW, SECTION 7209.2



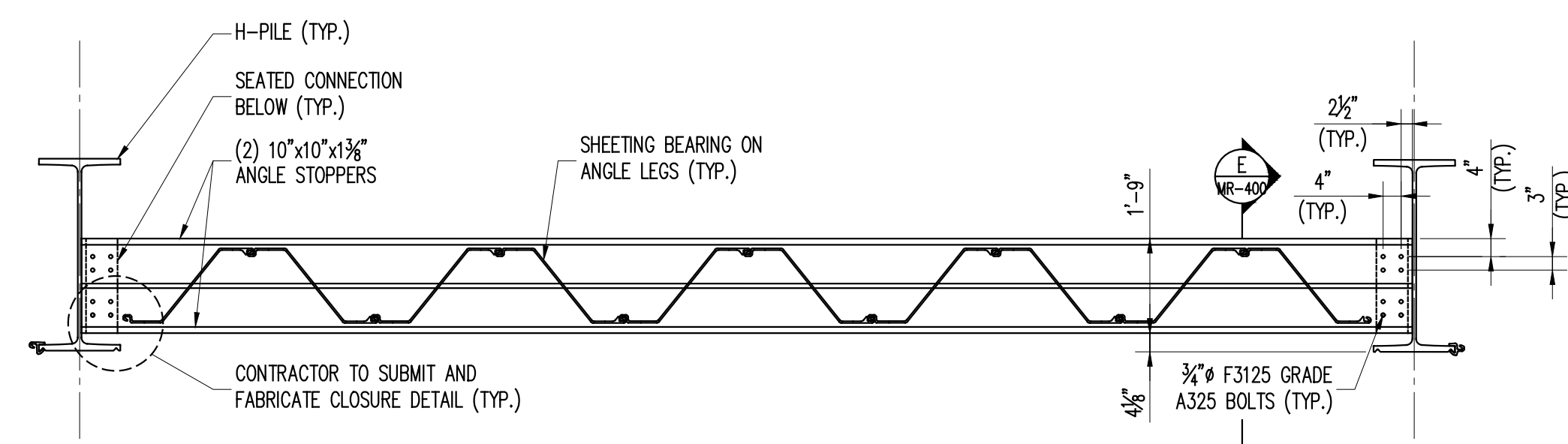
TYPICAL STEEL SHEET PILE WITH DEADMAN SYSTEM SECTION
3/8" = 1'-0"



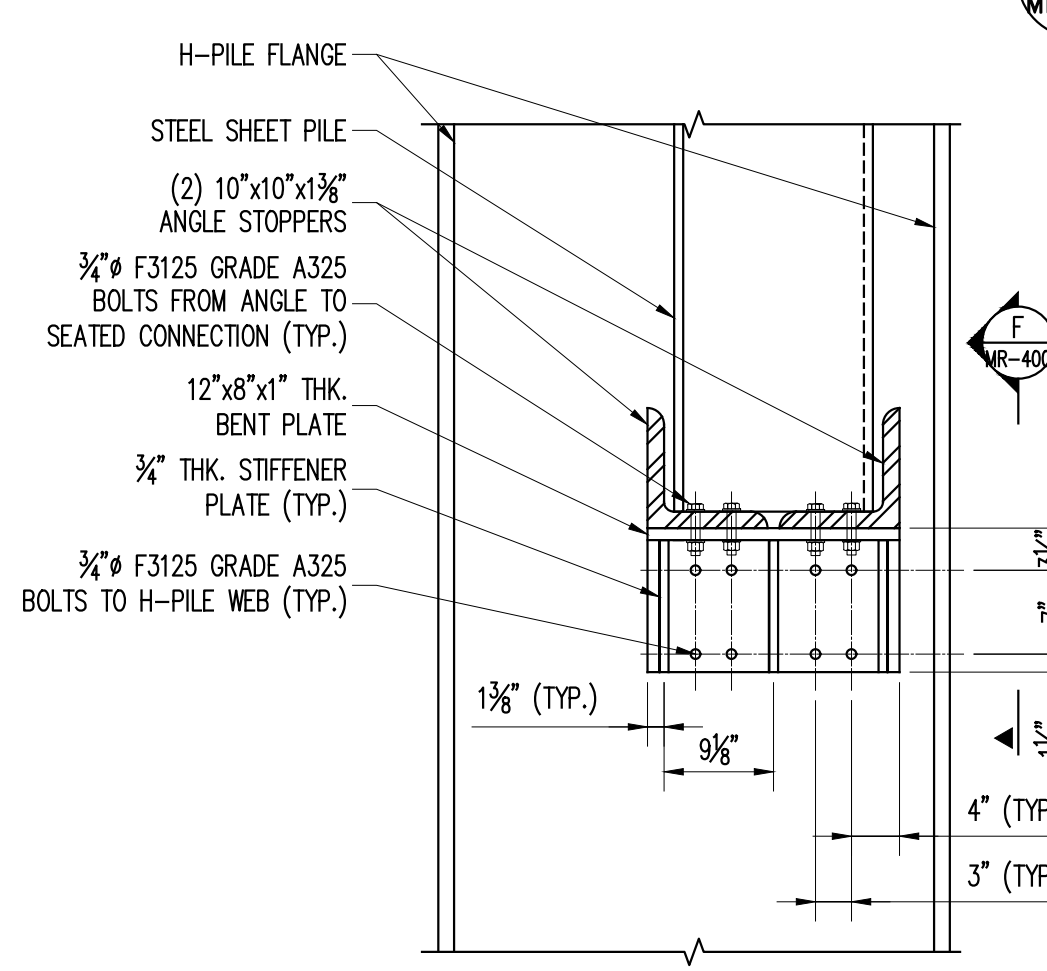
STEEL SHEET PILE WITH DEADMAN SYSTEM AT STEAMBOAT
3/8" = 1'-0"



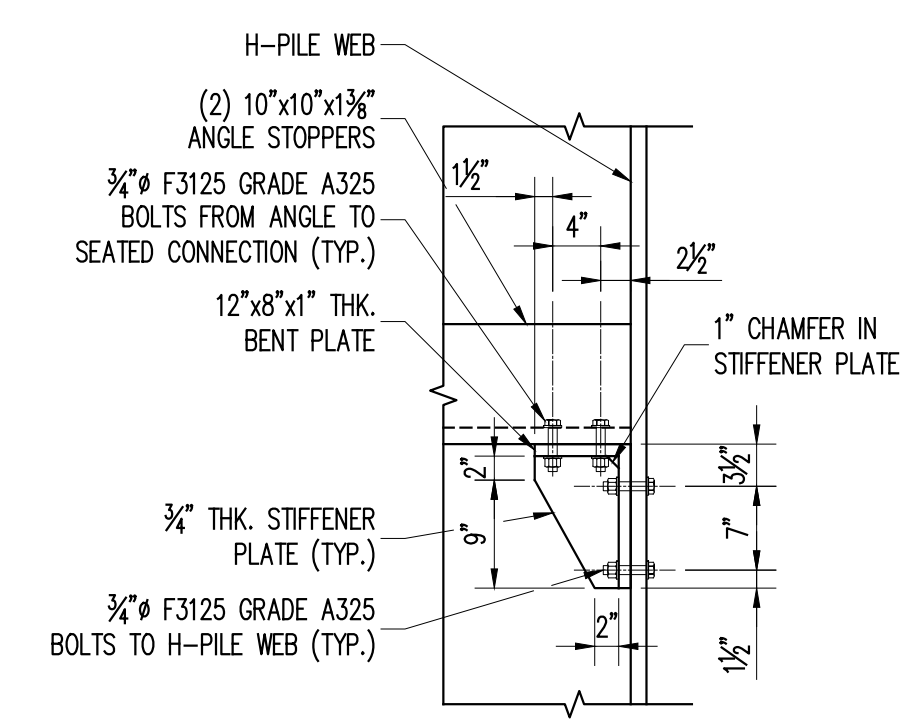
BULKHEAD WALL WITH UTILITIES BELOW MUDLINE
3/8" = 1'-0"



SECTION D
3/8" = 1'-0"



SECTION E
3/4" = 1'-0"

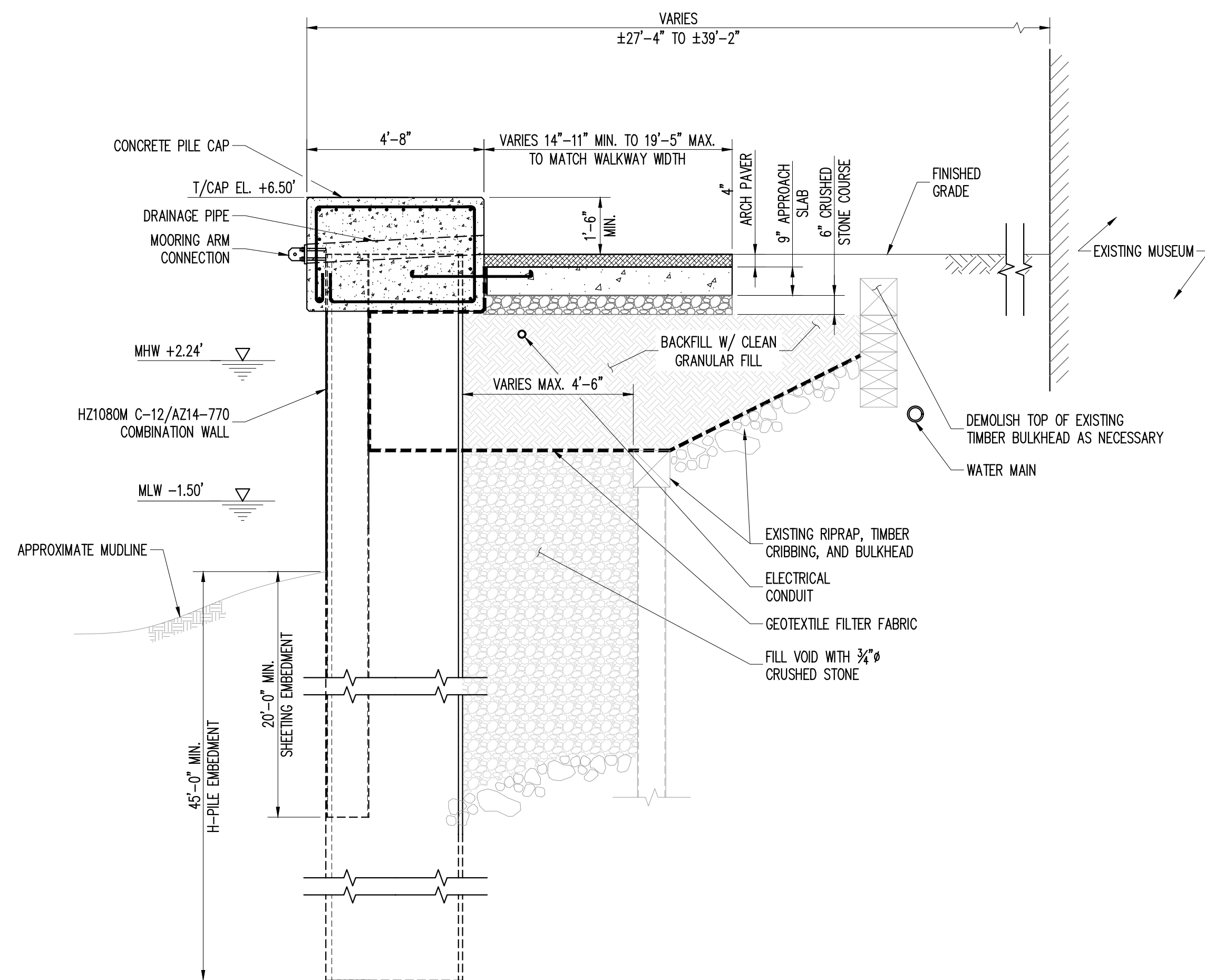


SECTION F
3/4" = 1'-0"

FINAL DESIGN
APRIL 17, 2020

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McLaren ENGINEERING GROUP		PROJECT	
BY	REVISION	KINGSTON WATERFRONT RESILIENCY DESIGN	
DATE		KINGSTON, NEW YORK	
NO.		PROJECT NO. 160851	
M. G. McLAREN, P.E.		SCALE AS NOTED	
The Paterson Building, 6 Clinton Square, Albany, NY 12207		DATE 04/17/2018	
T: 518.982.4630 www.mclaren.com		DRAWN BY EHC	
		CHECKED BY KAA	
		DRAWING NO. MR-400.00	
		47 OF 56 SHTS	

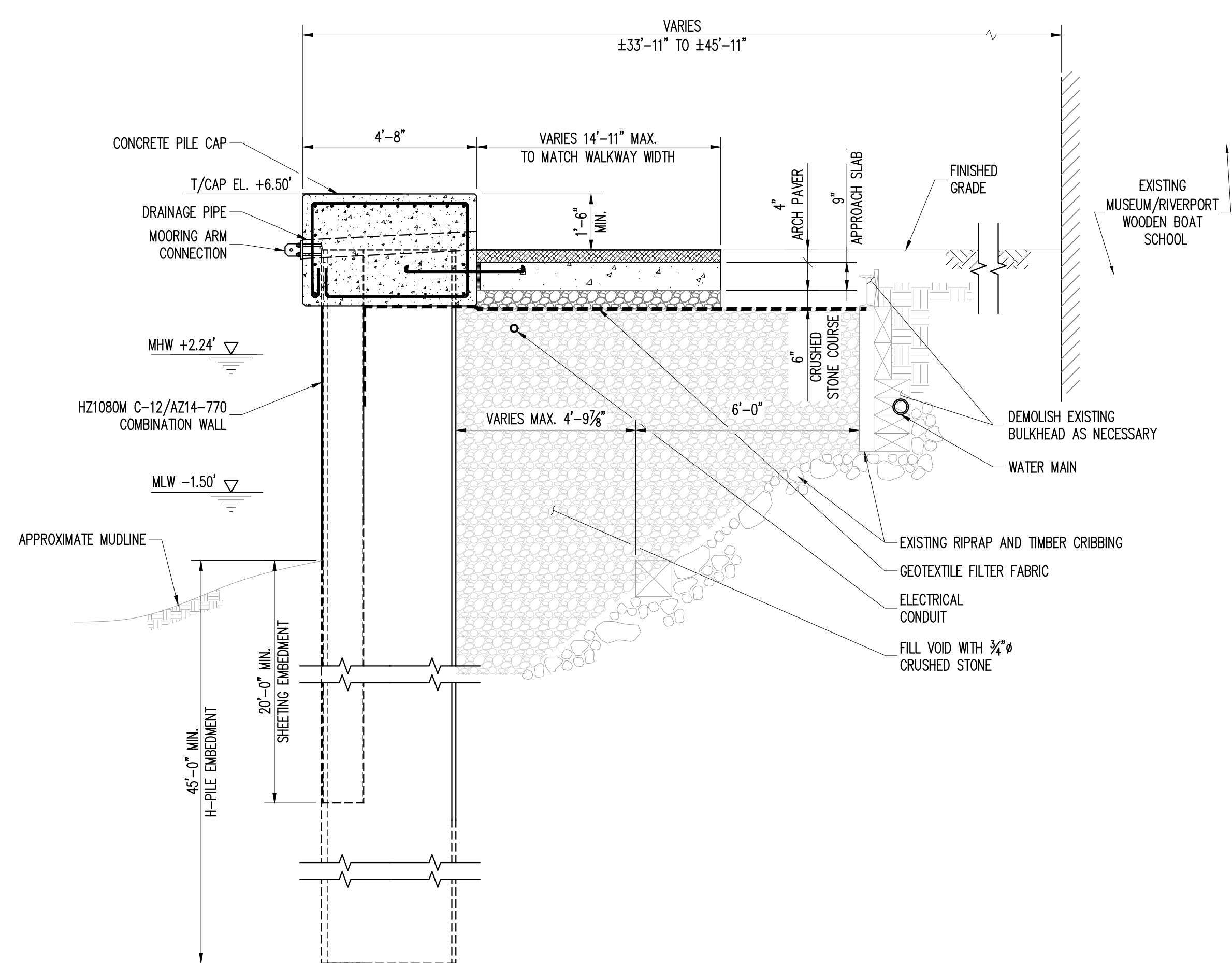


TYPICAL COMBINATION WALL SECTION

A

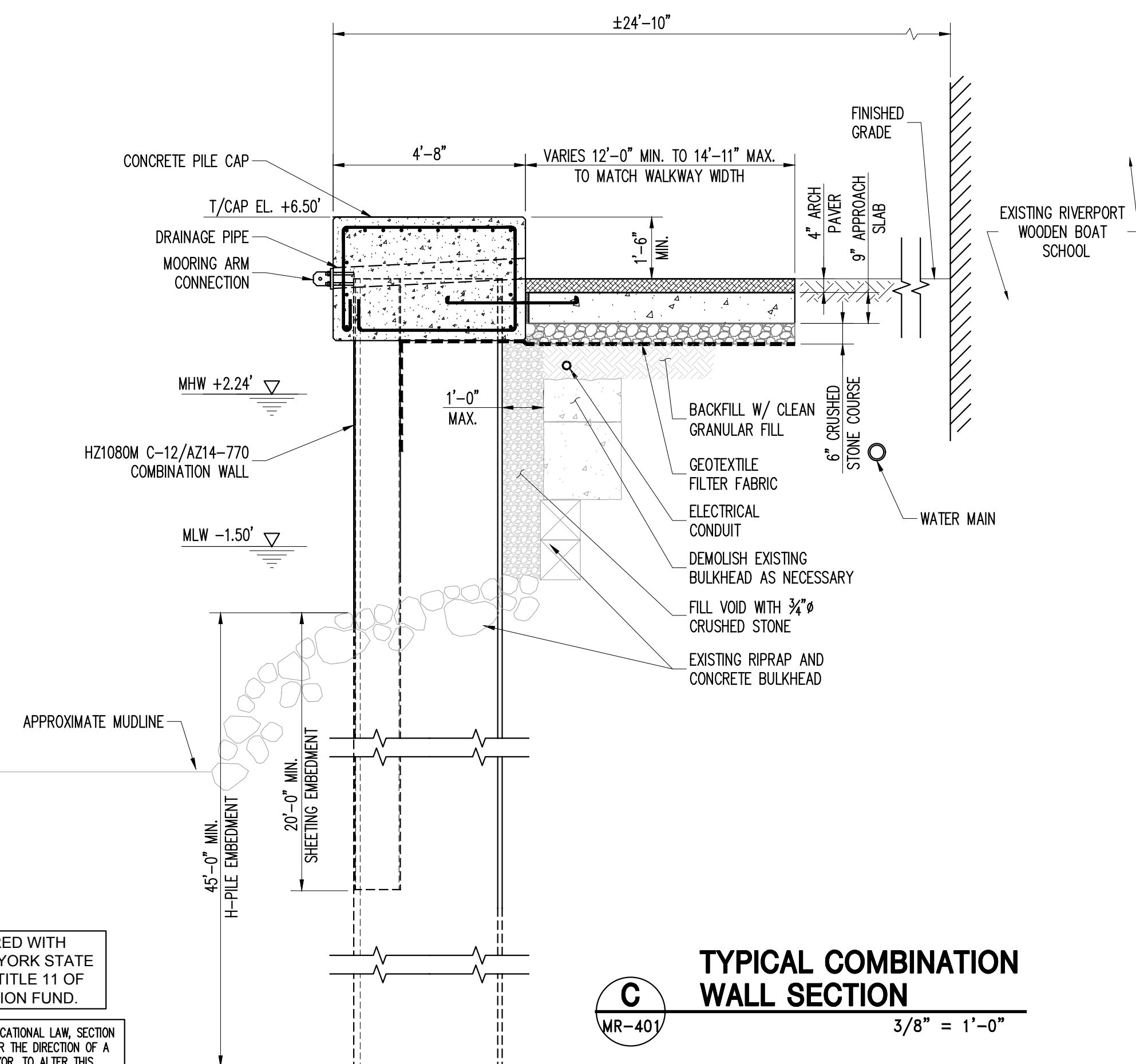
MR-401

$3/8" = 1'-0"$



**TYPICAL COMBINATION
WALL SECTION**

B
MR-401 $3/8" = 1'-0"$



**TYPICAL COMBINATION
WALL SECTION**

C
MR-401 $3/8" = 1'-0"$

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THE ENVIRONMENTAL PROTECTION FUND.

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APRIL 17, 2020

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PROJECT

KINGSTON WATERFRONT
RESILIENCY DESIGN

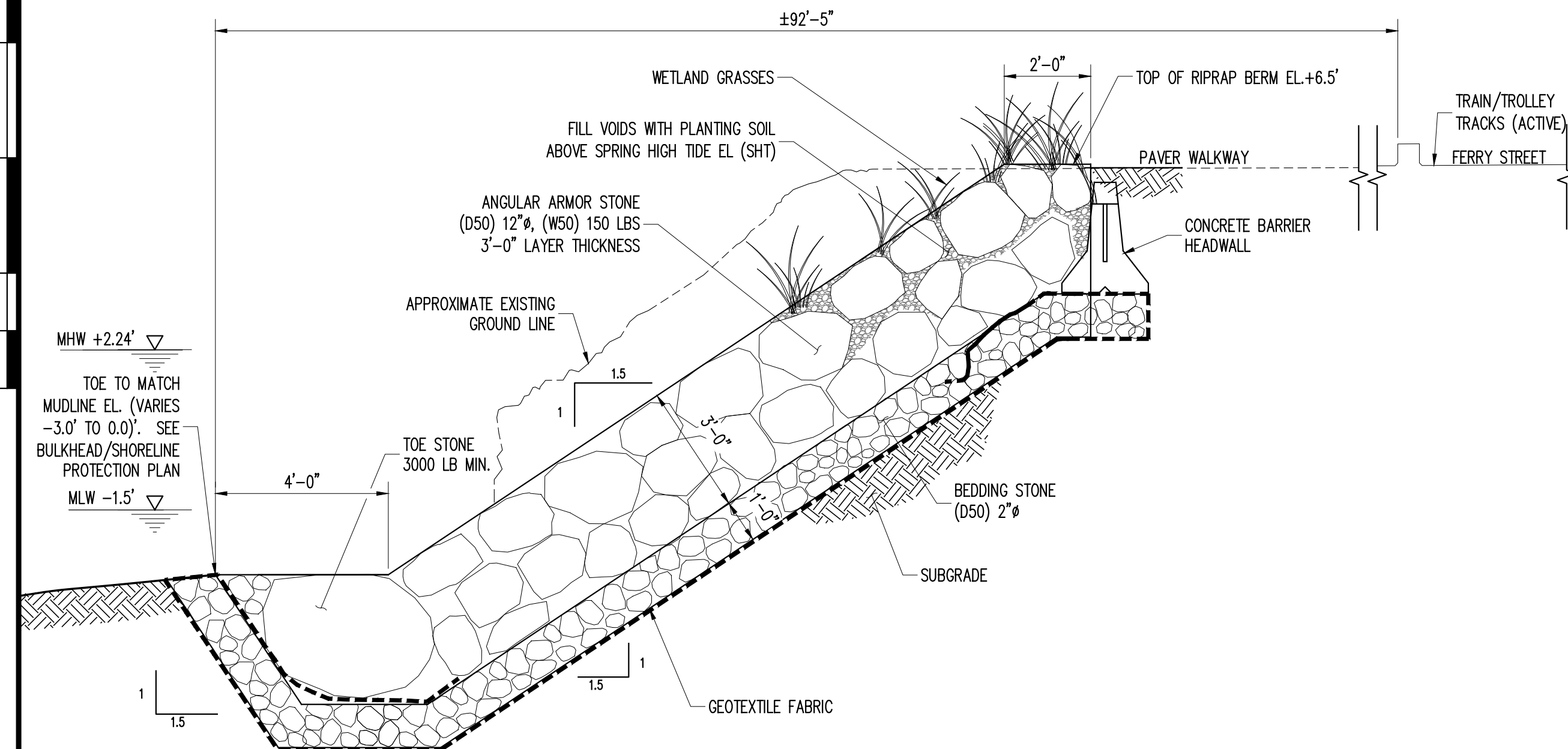
KINGSTON, NEW YORK

SHEET TITLE

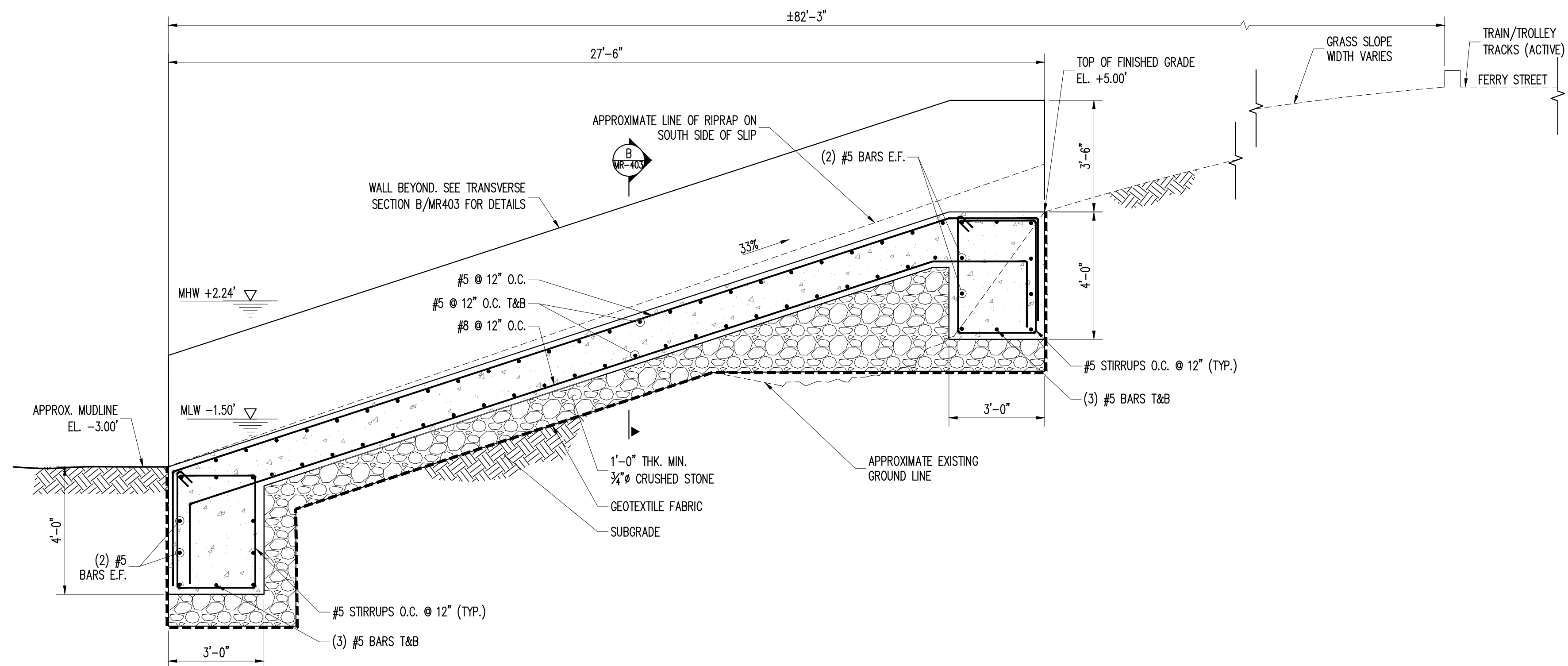
BULKHEAD/ShORE
PROTECTION DETAILS - 2

PROJECT NO.	160851
SCALE	AS NOTED
DATE	04/17/2018
DRAWN BY	EHC
CHECKED BY	KAA

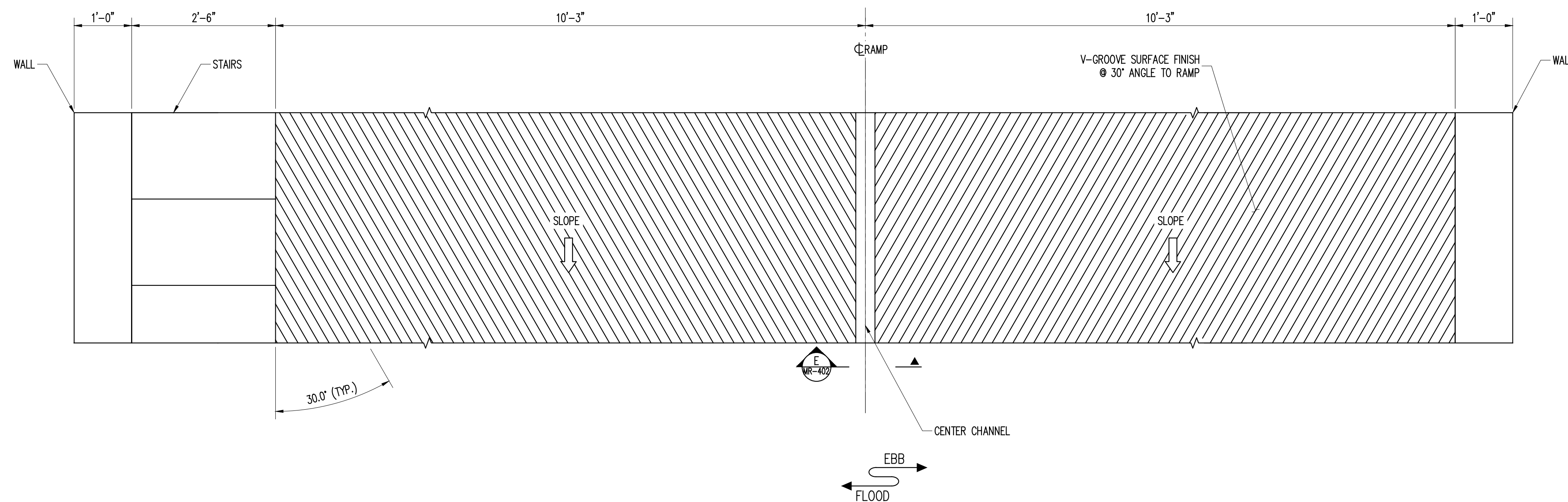
MR-401.00



A TYPICAL RIPRAP SECTION
MR-402 $3/8" = 1'-0"$

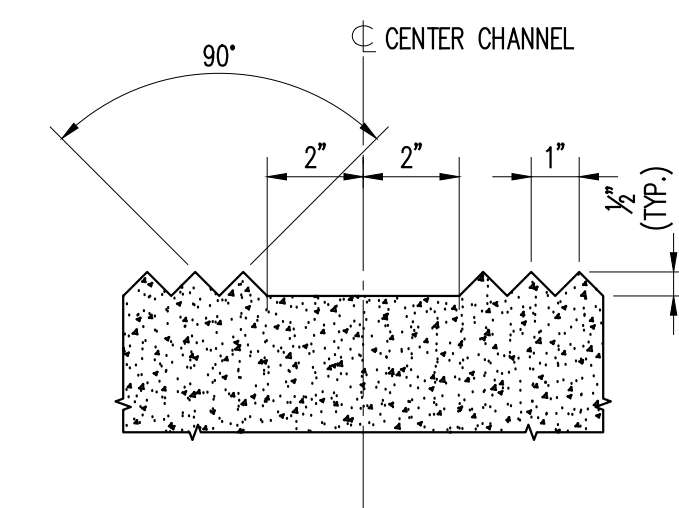


KAYAK LAUNCH
SLAB SECTION



D V-GROOVE PART PLAN

NOTE(S):
1. V-GROOVE DETAIL TO BE USED FOR KAYAK RAMP



E V-GROOVE FINISH DETAIL
MR-402 3" = 1'-0"

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PROJECT

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RESILIENCY DESIGN

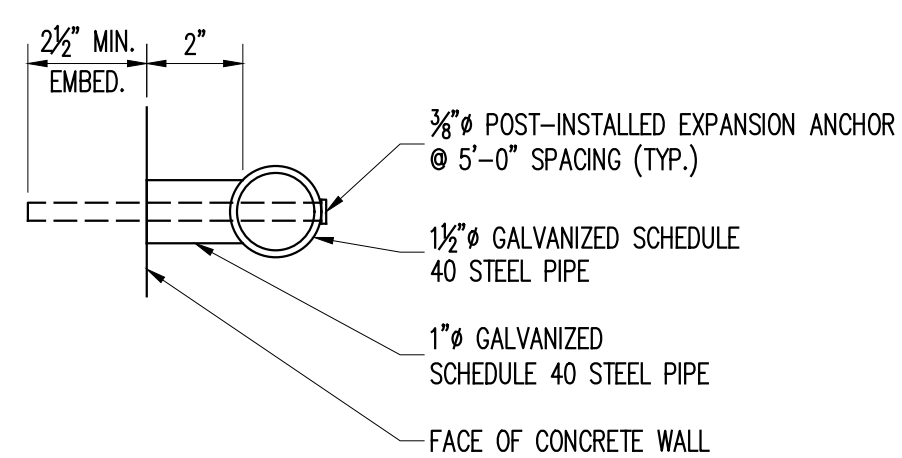
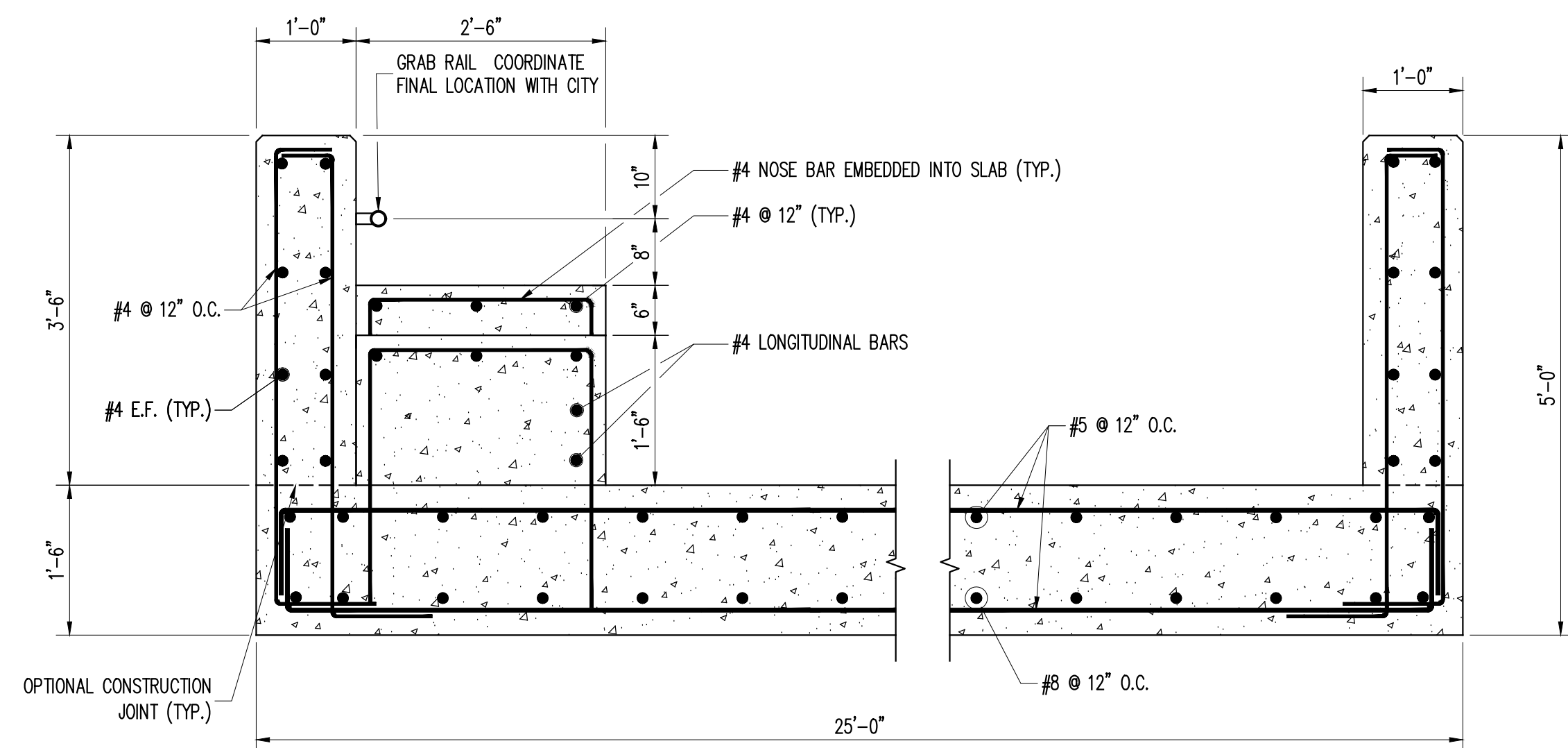
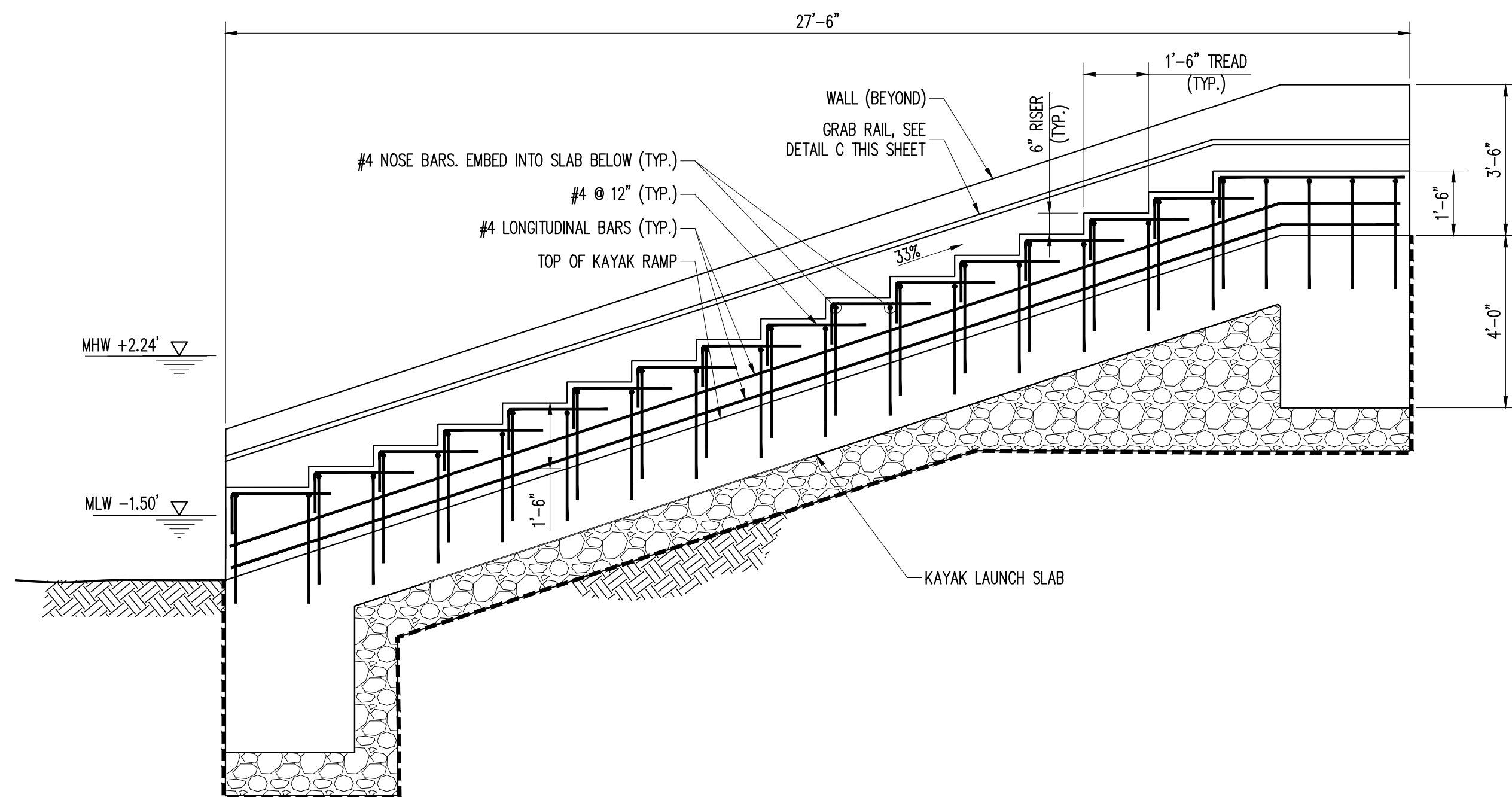
KINGSTON, NEW YORK

SHEET TITLE

BULKHEAD/Shore
Protection Details - 3

PROJECT NO.	160851
SCALE	AS NOTED
DATE	04/17/2018
DRAWN BY	EHC
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MR-402.00



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PROJECT

KINGSTON WATERFRONT
RESILIENCY DESIGN

KINGSTON, NEW YORK

**BULKHEAD/SHORE
PROTECTION DETAILS - 4**

PROJECT NO.	160851
SCALE	AS NOTED
DATE	04/17/2018
DRAWN BY	EHC
CHECKED BY	KAA

DRAWING NO.

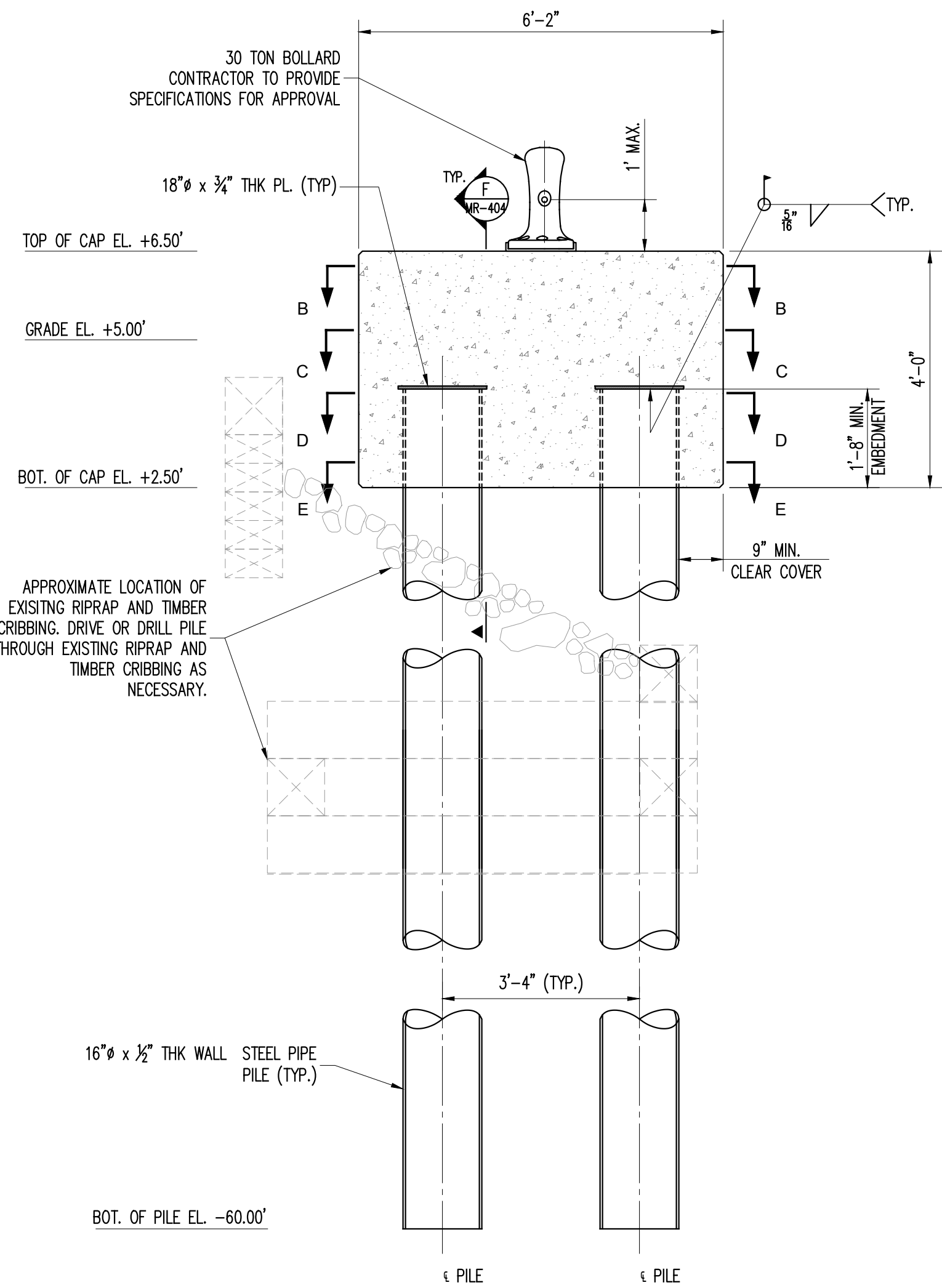
MR-403.00

50 OF 56 SHTS

FILE NAME: \\prod001\Projects\Proj160\160851\0_Dwgs\CADD\WR-403 Mooring Dolphin Details.dwg PLOT TIME: Wed, 17 Jun 2020 - 10:13am LAST SAVE: Wed, 08 Apr 2020 - 11:05am BY: CRowe

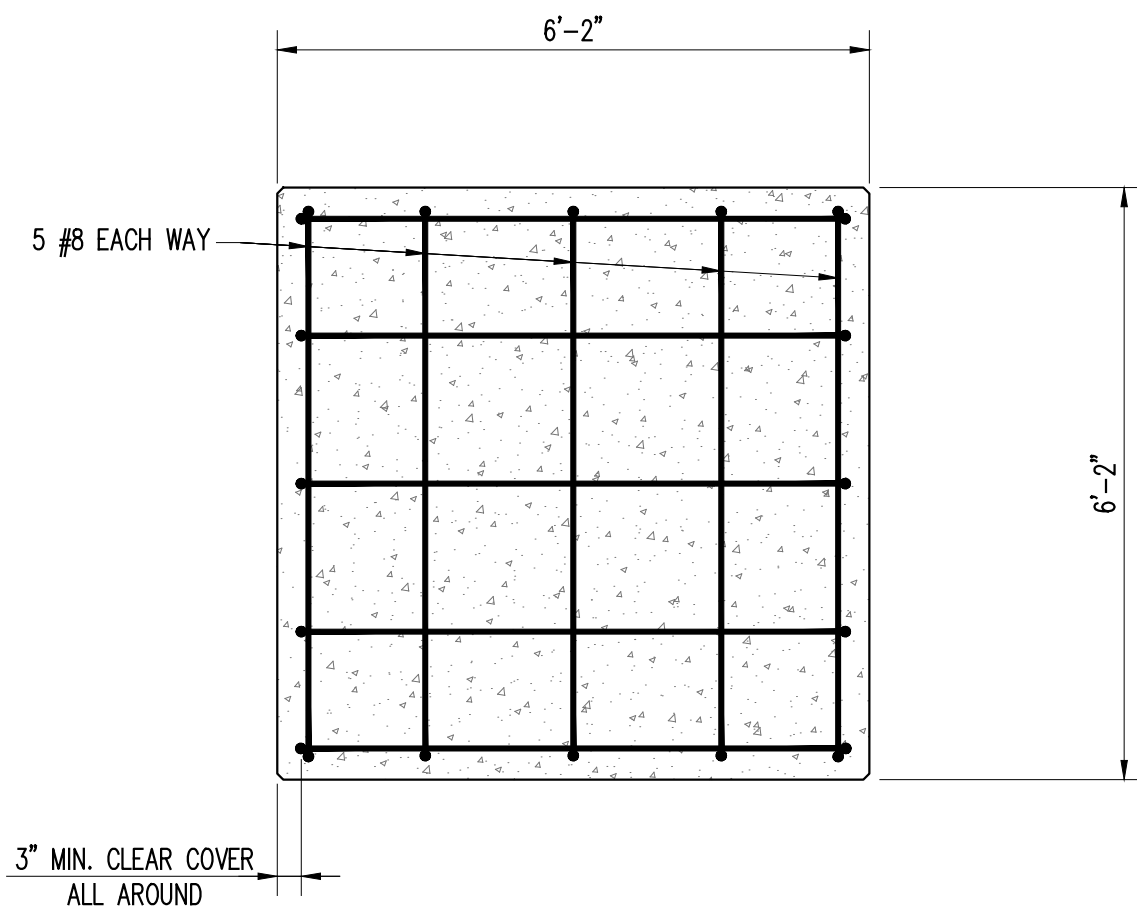
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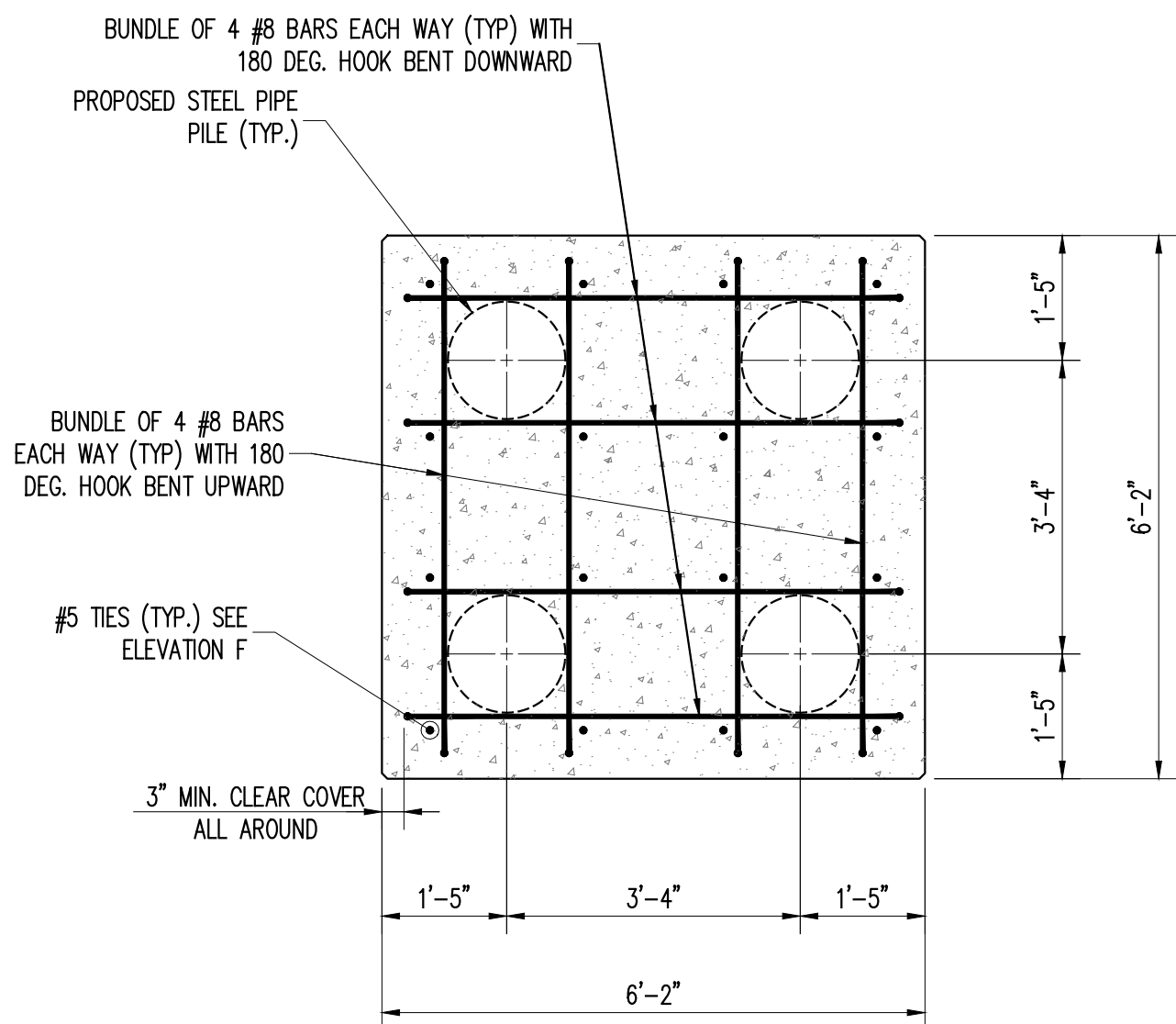


A TYPICAL MOORING SECTION
1/2" = 1'-0"

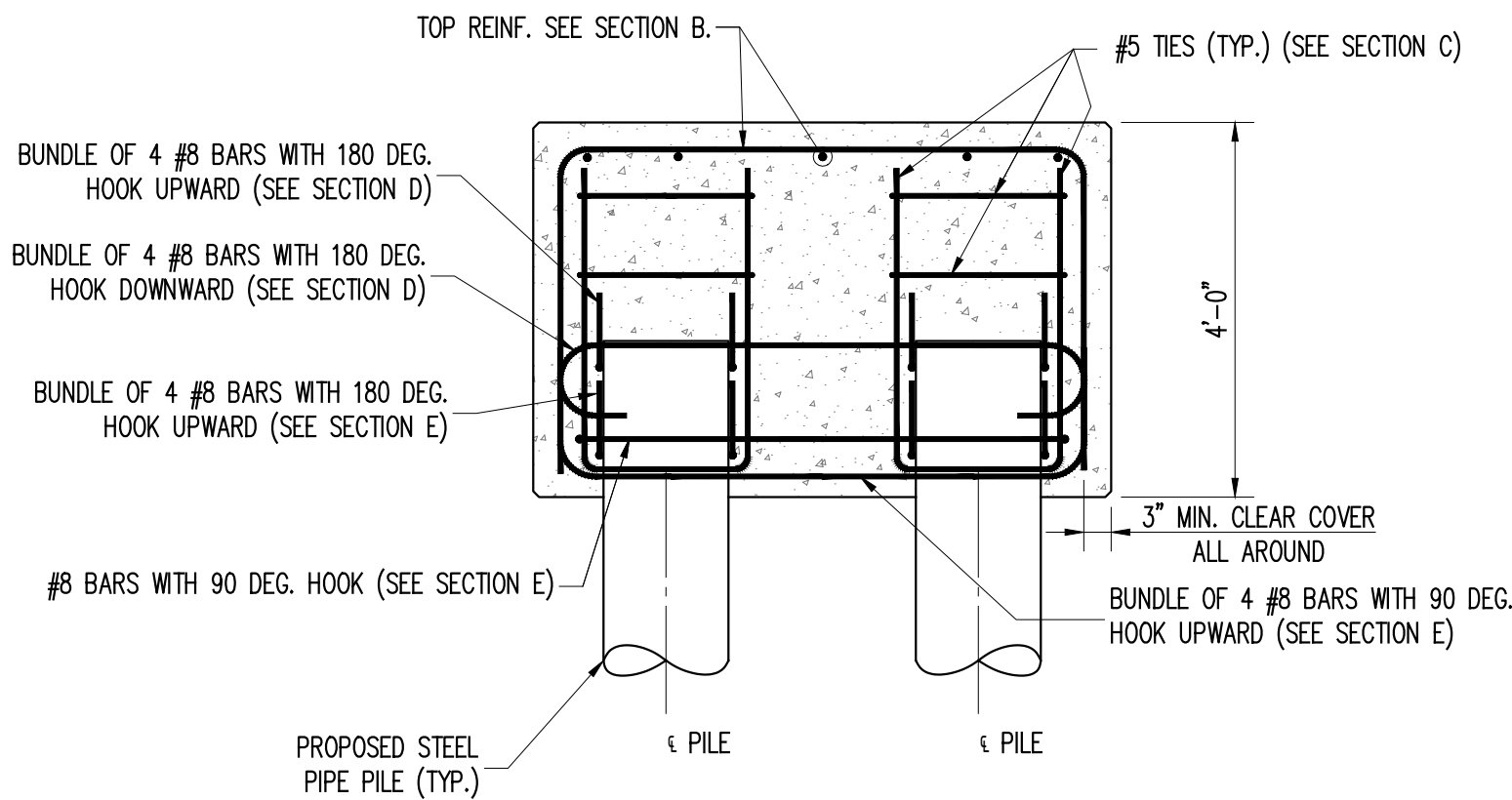
- NOTE(S):
- PILES SHALL HAVE A 30 TON COMPRESSION CAPACITY (ALLOWABLE, FOS=2.0)
 - PILES SHALL HAVE A 18 TON TENSION CAPACITY (ALLOWABLE, FOS=4.0)



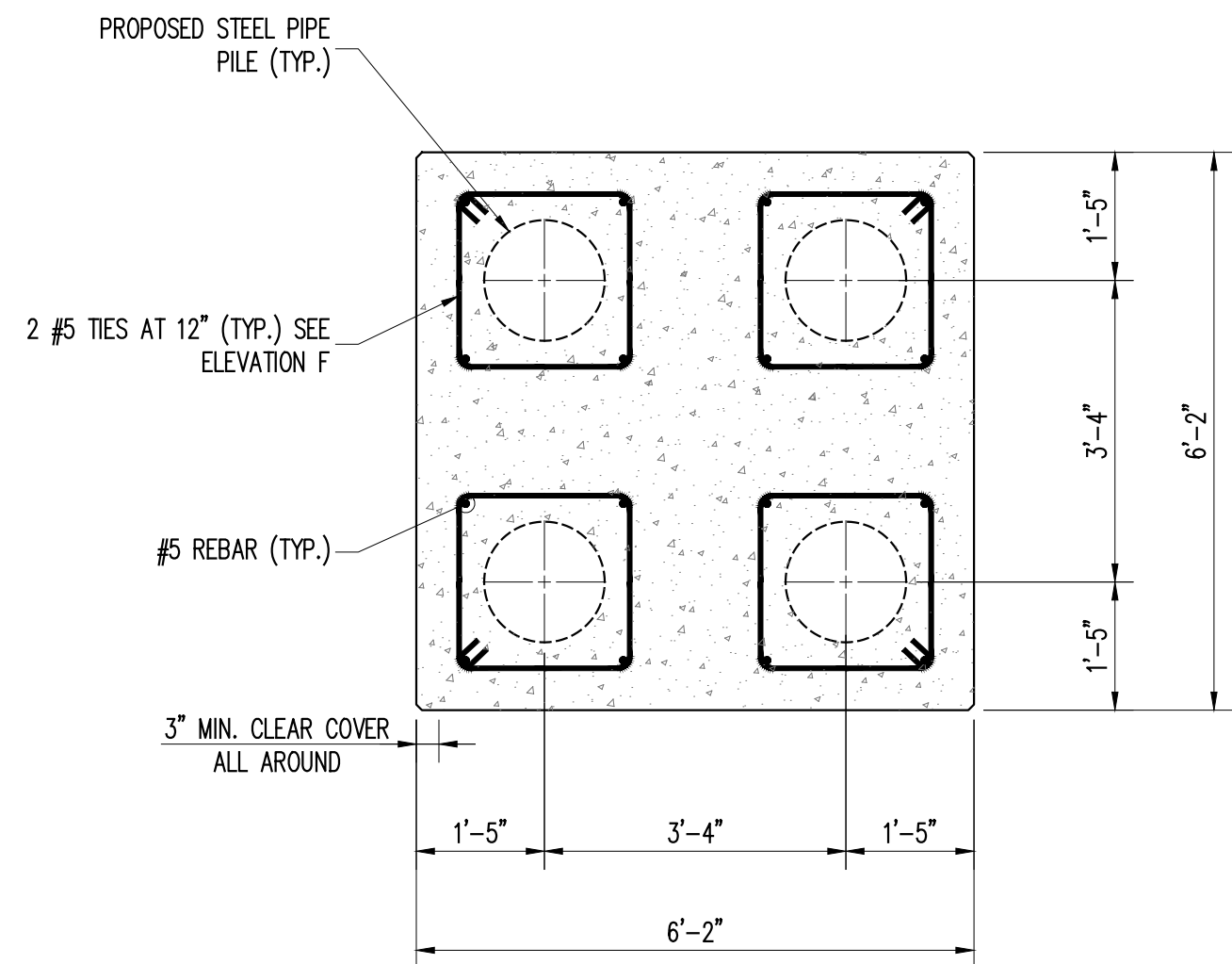
B SECTION
1/2" = 1'-0"



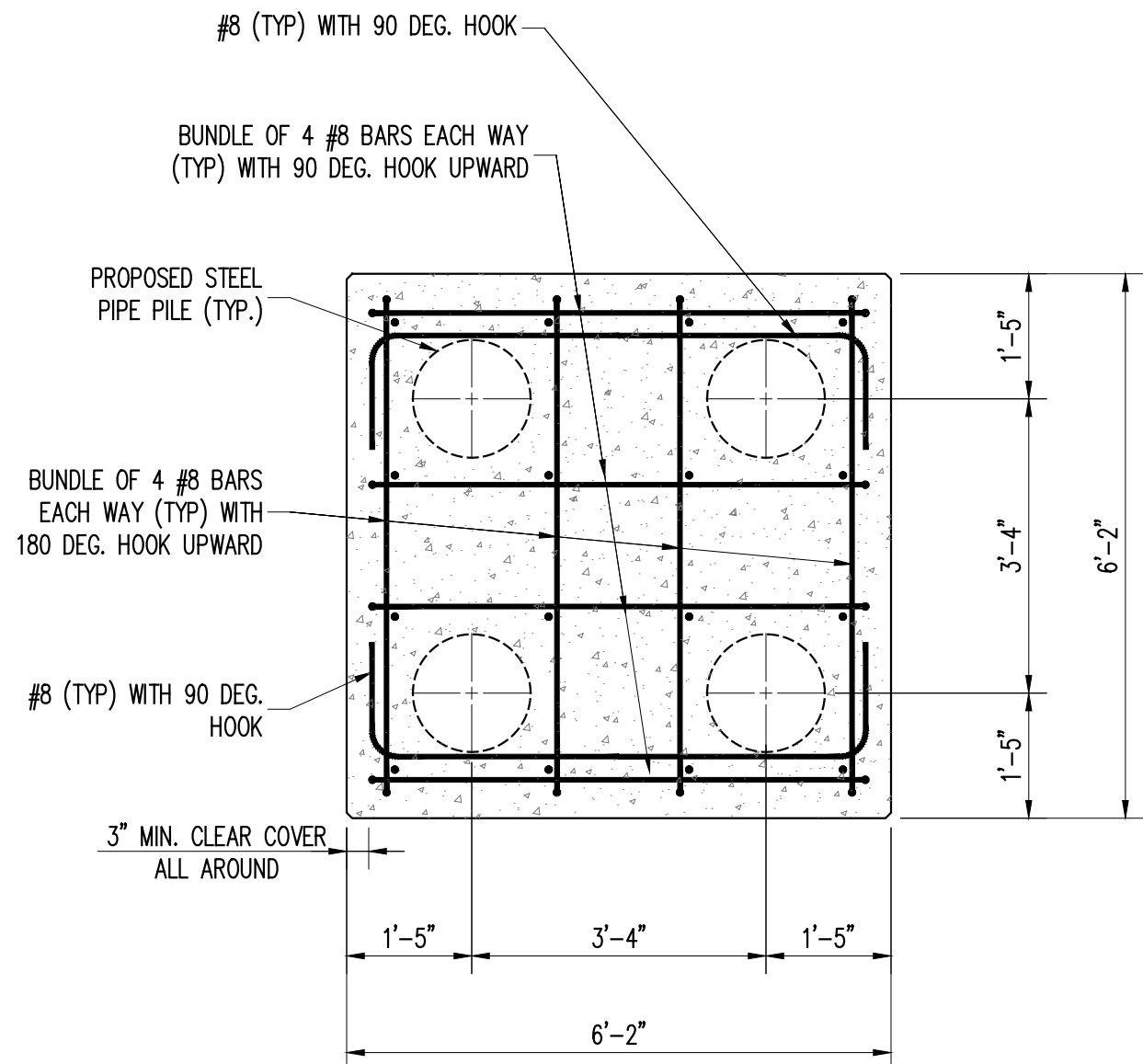
D SECTION
1/2" = 1'-0"



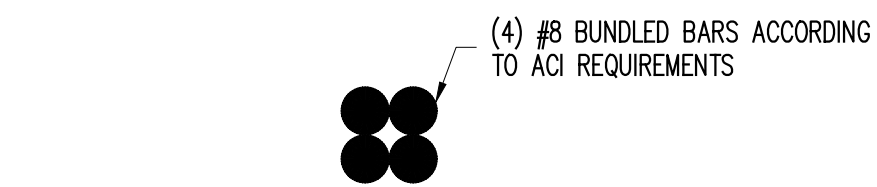
F ELEVATION
1/2" = 1'-0"



C SECTION
1/2" = 1'-0"



E SECTION
1/2" = 1'-0"



G TYPICAL REBAR BUNDLE
3" = 1'-0"

FINAL DESIGN
APRIL 17, 2020

PROJECT NO.	160851
SCALE	AS NOTED
DATE	04/17/2018
DRAWN BY	NGD
CHECKED BY	KAA
DRAWING NO.	MR-404.00

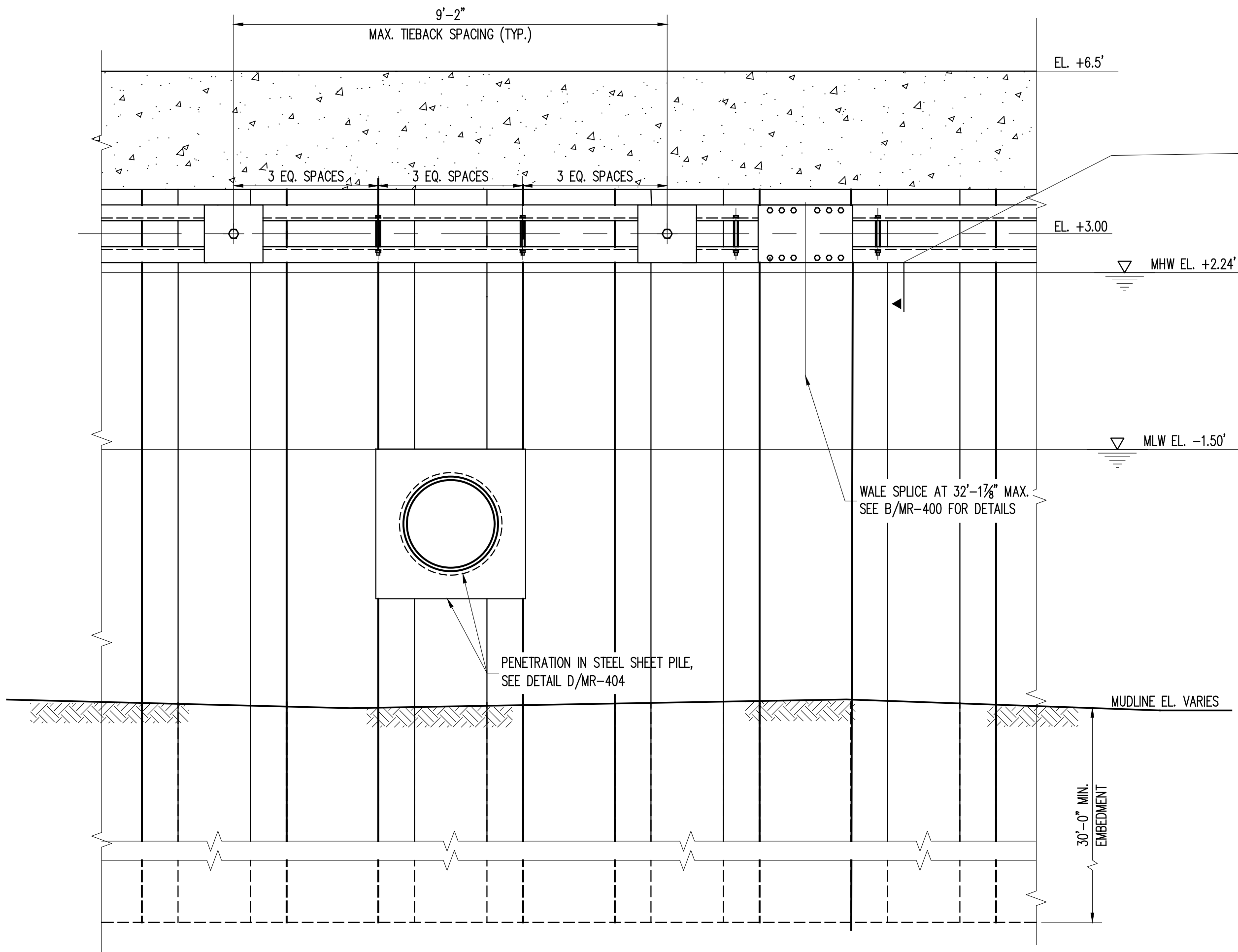
51 OF 56 SHTS

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KINGSTON WATERFRONT
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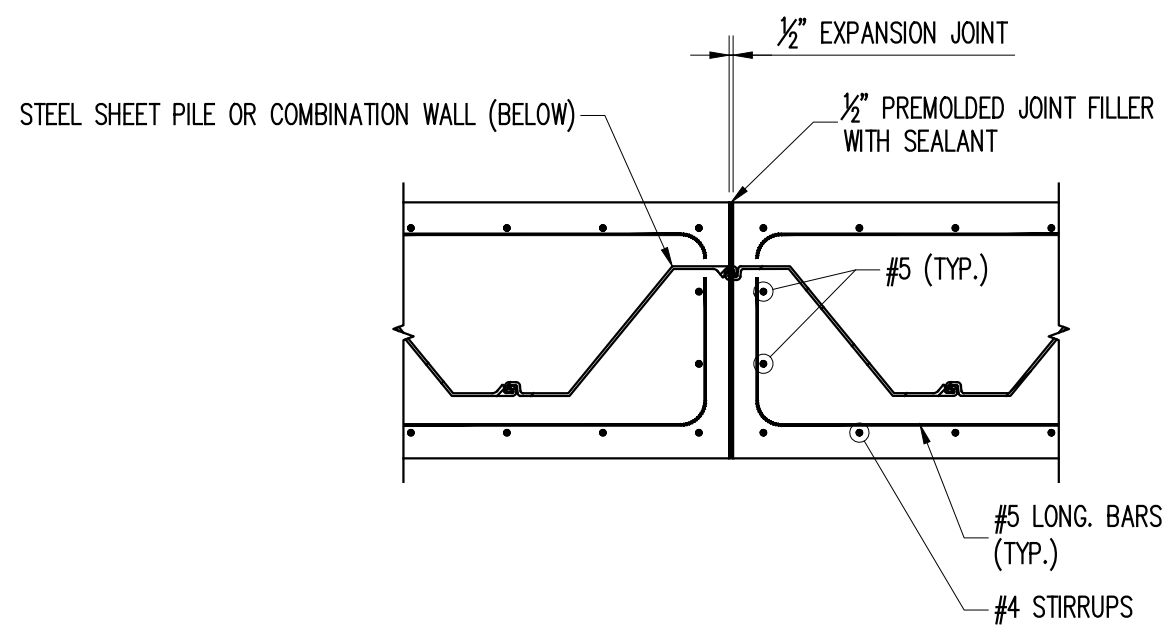
MOORING DOLPHIN
DETAILS

FILE NAME: \\prodtdat01\Projects\Proj60\160851\0.Dwg\CAD\WR-404 & 405 Miscellaneous Details 1-2.dwg PLOT TIME: Wed, 17 Jun 2020 - 10:14am LAST SAVE: Wed, 15 Apr 2020 - 2:30pm BY: CRowe

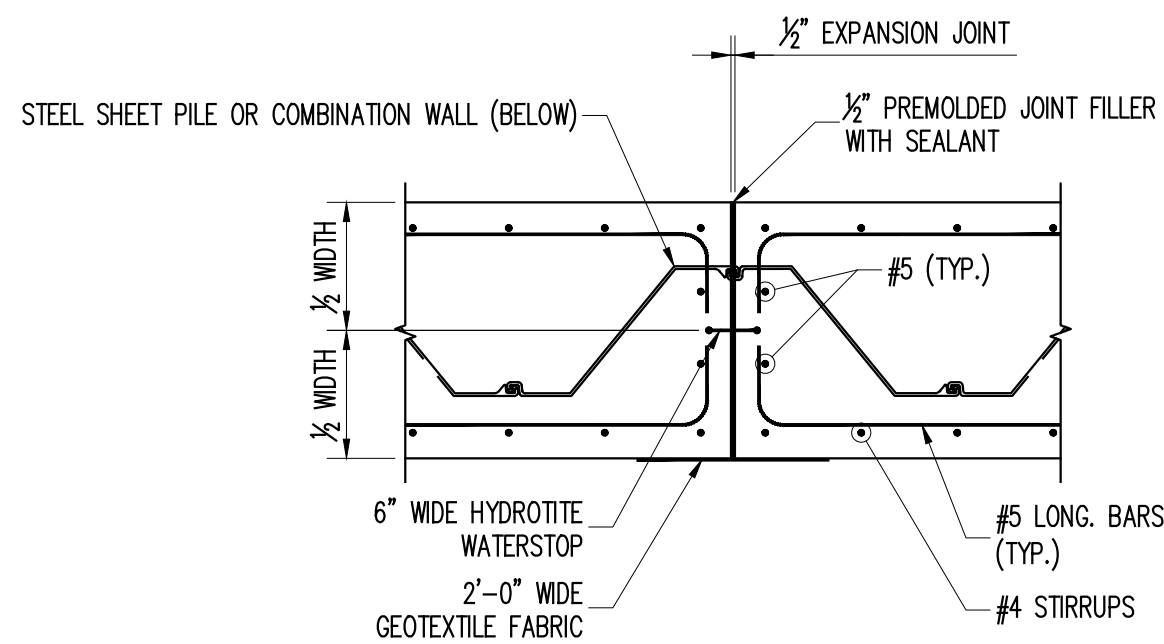


A TYPICAL SHEET PILE ELEVATION
1/2"=1'-0"

- NOTE(S):
- EXISTING FILL TO BE REMOVED AS NECESSARY FOR TIE BACK INSTALLATION. AREA TO BE BACKFILLED WITH UNCONTAMINATED, INORGANIC, GRANULAR MATERIAL.
 - CONTRACTOR SHALL INDICATE WALE SPLICE LOCATIONS ON SHOP DRAWINGS PRIOR TO MATERIAL FABRICATION. WALE SPLICES SHALL BE LOCATED AT INNER (SHOREWARD) STEEL SHEET PILE FLANGE LOCATIONS.
 - ALL TIEBACKS SHALL BE LOCATED AT THE OUTER (OFFSHORE) STEEL SHEET PILE FLANGE
 - CONTRACTOR SHALL SUBMIT PLAN FOR REMOVAL OF MATERIAL DOWN TO EL. -5.00 TO ENGINEER FOR APPROVAL.
 - UTILITY LOCATIONS ARE APPROXIMATE PER DRAWINGS CONTRACT NO. CK-031 RONDOUT INTERCEPTOR, INVERTED SIPHON PROJECT BY BRINNIE & LARIOS ENGINEERS AND LAND SURVEYORS, P.C. DATED JANUARY 2003. UTILITIES MUST BE LOCATED, SURVEYED, MARKED OUT, AND COORDINATED WITH THE CITY ENGINEER PRIOR TO CONSTRUCTION.

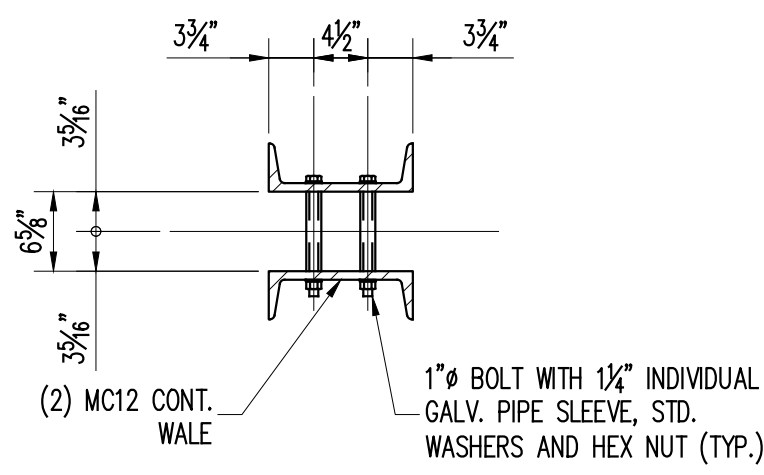


D EXPANSION JOINT AT STEEL SHEET PILE
1/2"=1'-0"



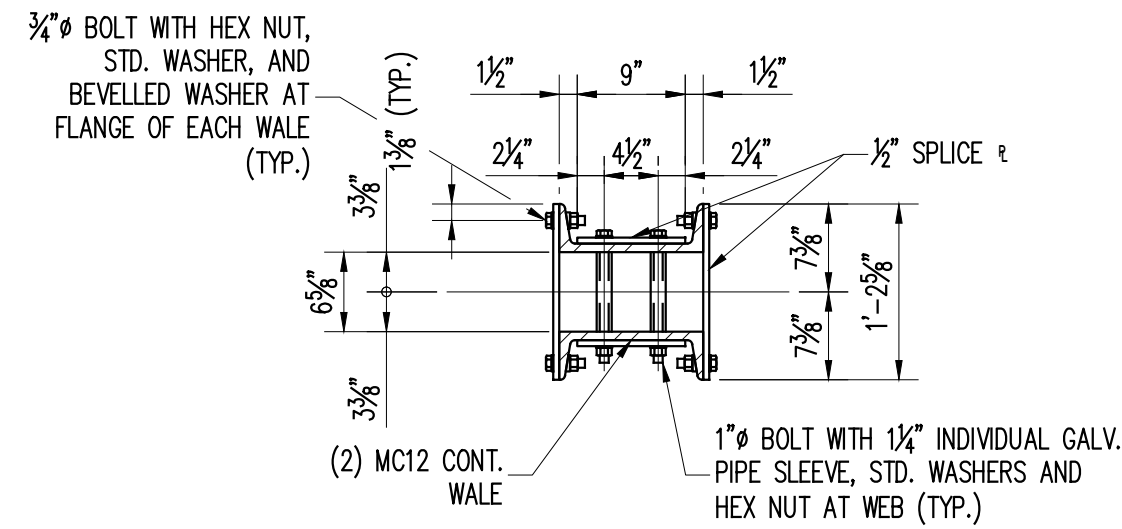
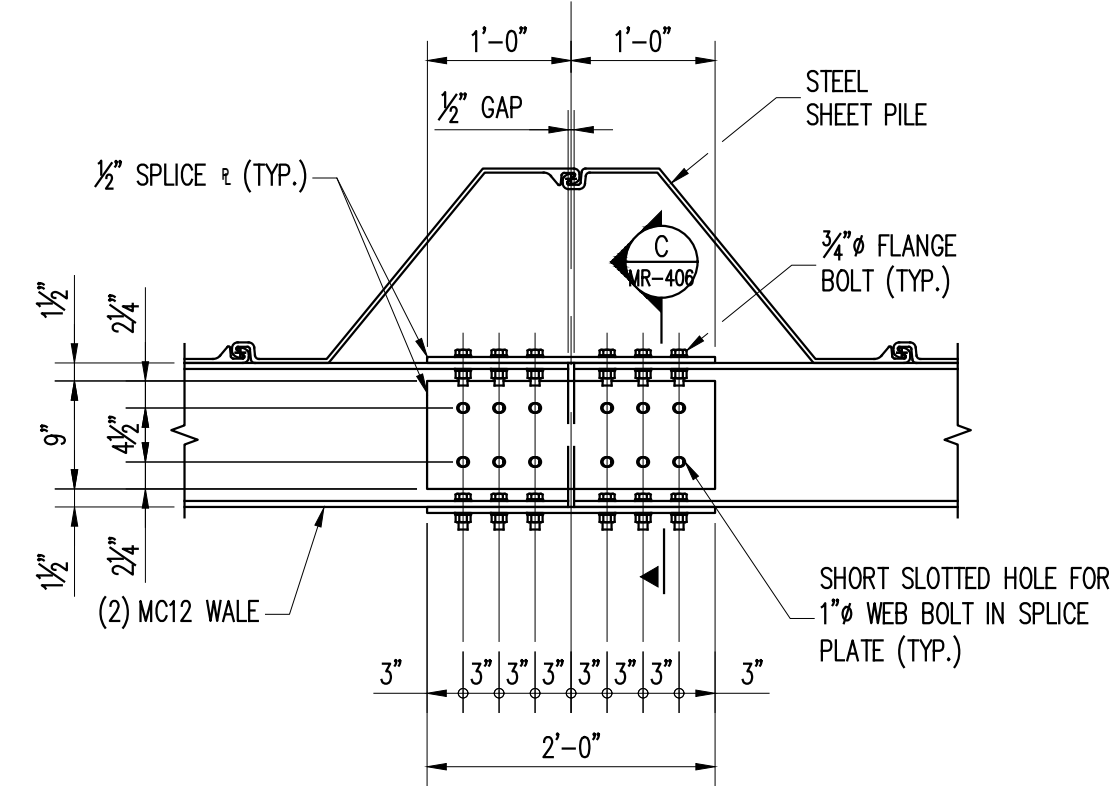
E EXPANSION JOINT ABOVE STEEL SHEET PILE
1/2"=1'-0"

- NOTES:
- PROVIDE EXPANSION JOINTS AT ALL CORNERS AND AT A MAXIMUM OF 90'-0" O.C.
 - TYPICAL CAP SHOWN - EXPANSION JOINT SHALL BE FULL SECTION OF NEW CAST-IN-PLACE CONCRETE IN ALL LOCATIONS.

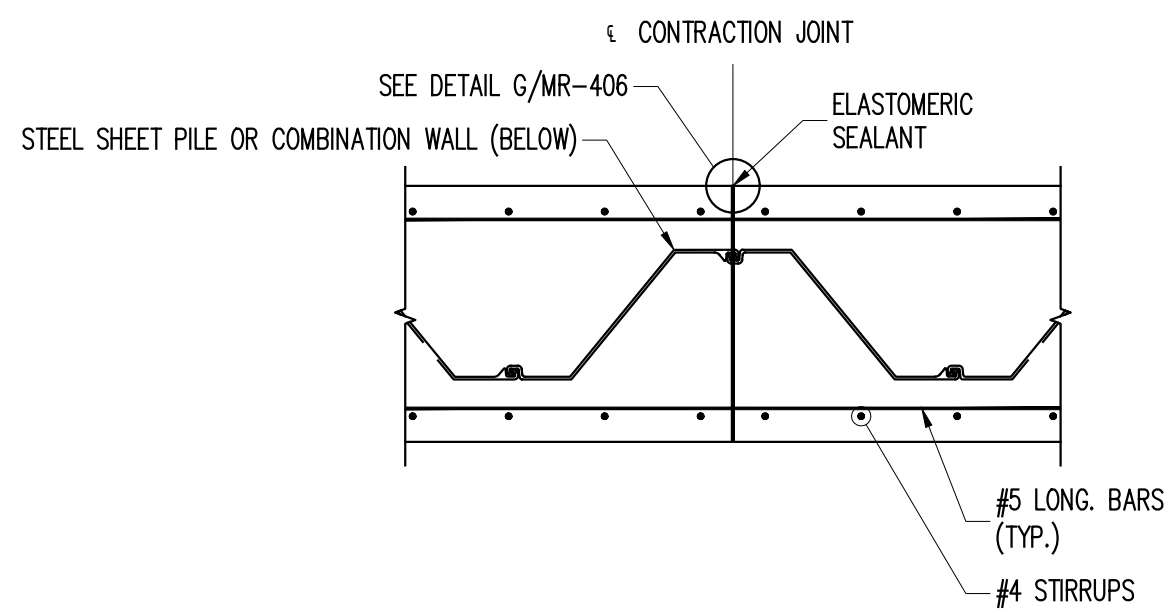


B BULKHEAD WALE SPLICE DETAIL
3/4"=1'-0"

- NOTES:
- CONTRACTOR SHALL INDICATE WALE SPLICE LOCATIONS ON SHOP DRAWINGS PRIOR TO MATERIAL FABRICATION. WALE SPLICES SHALL BE LOCATED AT INNER (SHOREWARD) STEEL SHEET PILE FLANGE LOCATIONS.

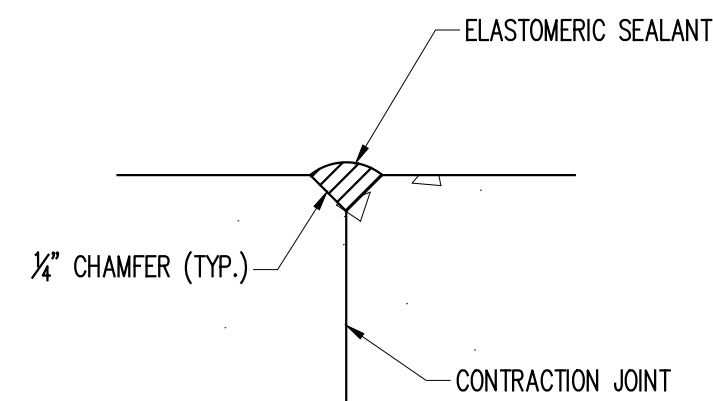


C SECTION C
3/4"=1'-0"



F TYPICAL CONTRACTION JOINT
1/2"=1'-0"

- NOTES:
- PROVIDE CONTRACTION JOINTS AT A MAXIMUM OF 30'-0" O.C.



G CONTRACTION JOINT DETAIL
3"=1'-0"

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APRIL 17, 2020

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PROJECT NO.	160851
SCALE	AS NOTED
DATE	04/17/2018
DRAWN BY	EHC
CHECKED BY	KAA
DRAWING NO.	MR-406.00

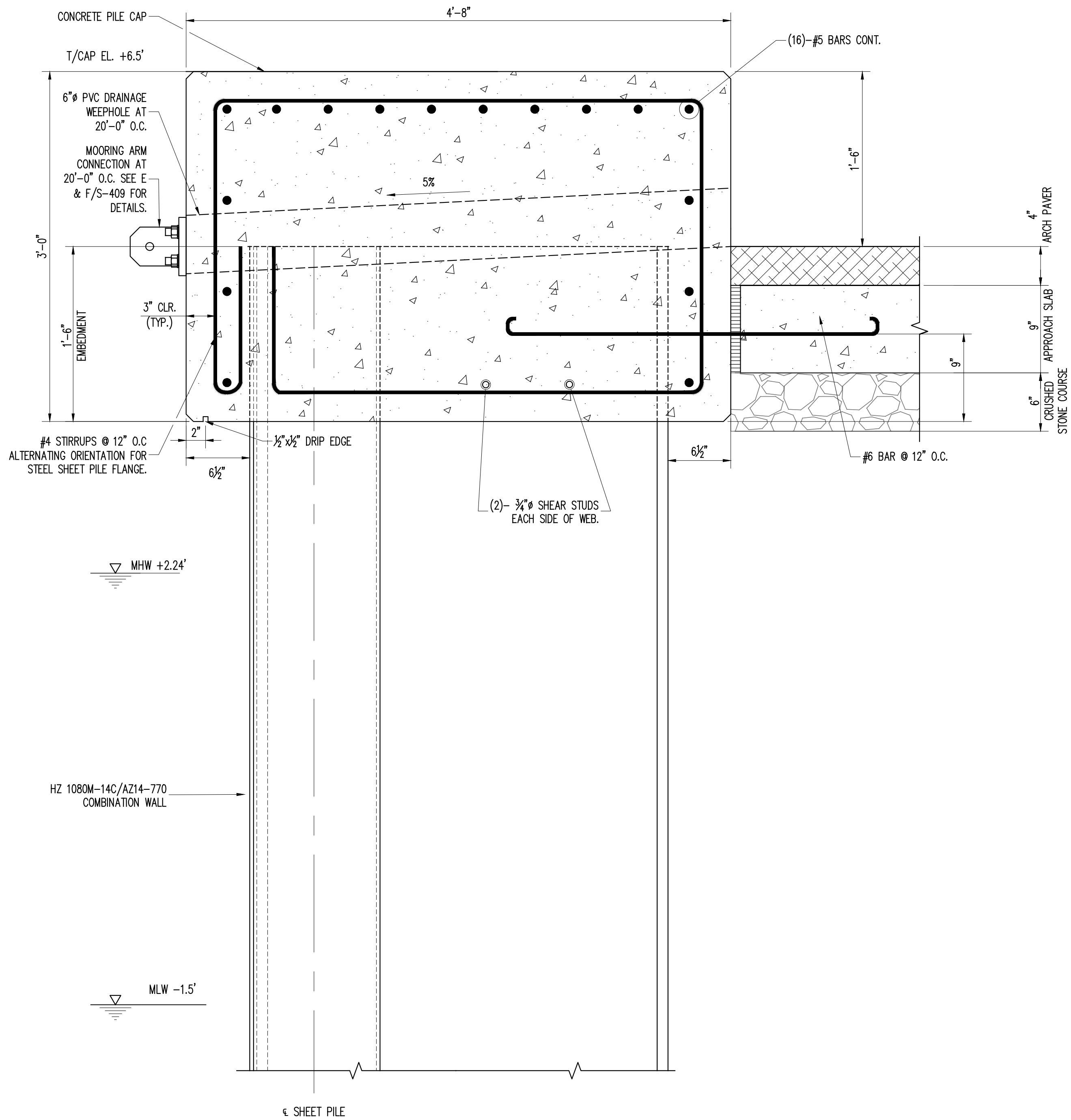
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The Patron Building, 6 Clinton Square, Albany, NY 12207
T: 518.992.4630 www.mclaren.com

PROJECT
**KINGSTON WATERFRONT
RESILIENCY DESIGN**
KINGSTON, NEW YORK

SHEET TITLE
**MISCELLANEOUS
DETAILS - 2**

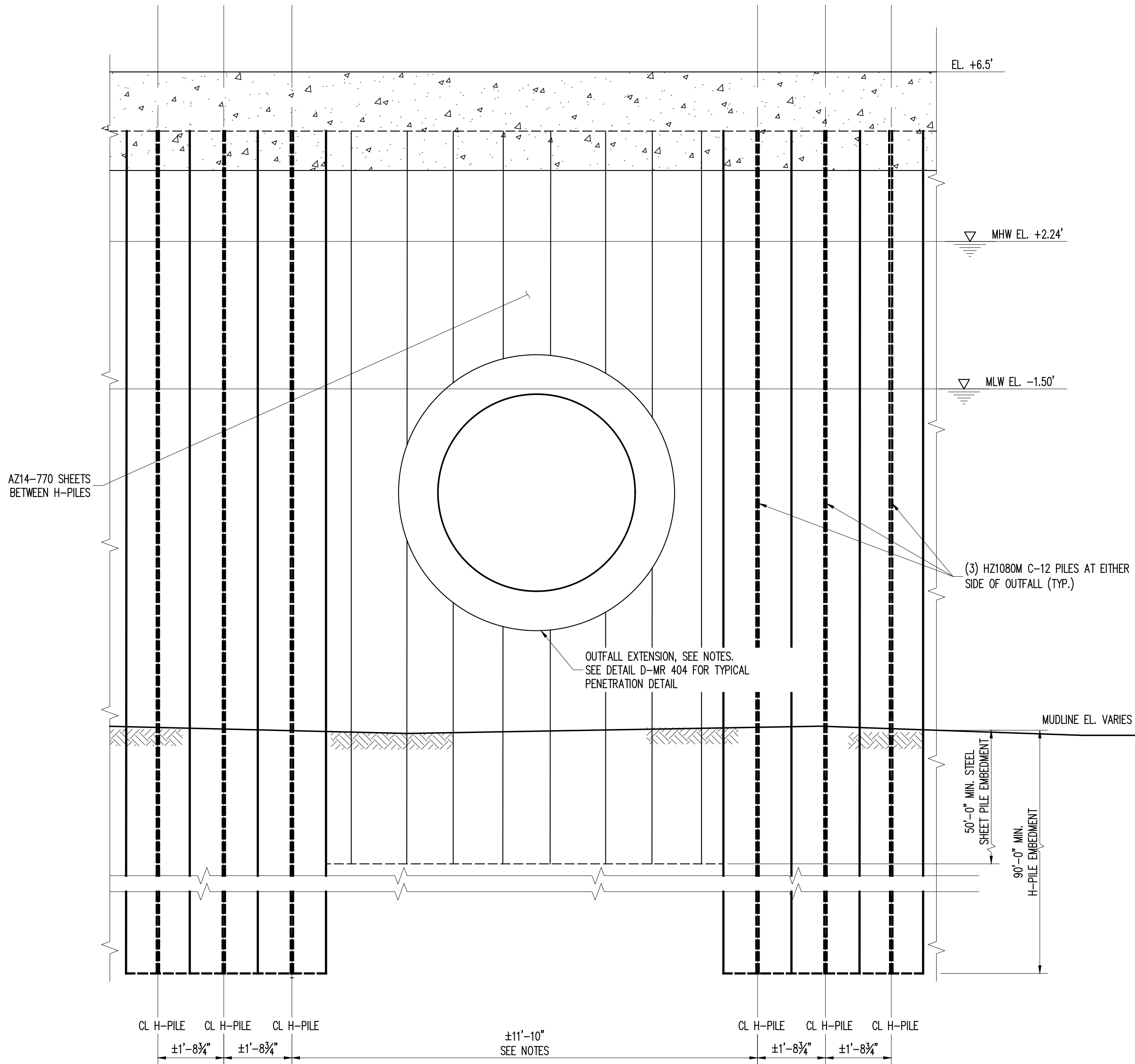
PROJECT NO. 160851
SCALE AS NOTED
DATE 04/17/2018
DRAWN BY EHC
CHECKED BY KAA
DRAWING NO. MR-406.00
53 OF 56 SHTS

FILE NAME: \\prod001\Projects\Proj60\160851\0_Dwg\CAD\DWG\405 Miscellaneous Details 1-2.dwg PLOT TIME: Wed, 17 Jun 2020 - 10:14am LAST SAVE: Wed, 15 Apr 2020 - 2:30pm BY: Orwe



A COMBINATION WALL DETAIL
1"=1'-0"

- NOTES:
1. COAT STEEL SHEET PILES AS PER SPECIFICATION AND GENERAL NOTES.
 2. HOT DIP GALVANIZE ANY/ALL METAL PARTS THAT ARE NOT COATED.
 3. HAND RAIL IS NOT SHOWN FOR CLARITY.



B BULKHEAD WALL AT OUTFALL
1/2"=1'-0"

- NOTE(S):
1. LOCATION, RIGHT-OF-WAY, AND DEPTH OF OUTFALL TO BE VERIFIED IN FIELD AND COORDINATED WITH THE CITY ENGINEER PRIOR TO CONSTRUCTION OF BULKHEAD WALL.
 2. LOCATION AND LAYOUT OF STEEL SHEET PILE WALL AND H-PILES MAY BE REVISED WITH APPROVAL FROM THE ENGINEER TO ACCOMMODATE SURVEYED LOCATION OF OUTFALL.
 3. EXISTING OUTFALL TO BE PROTECTED AND MAINTAINED BY CONTRACTOR DURING CONSTRUCTION.
 4. REFER TO CIVIL DRAWINGS OUTFALL EXTENSION DETAILS AND INFORMATION.
 5. UTILITY LOCATIONS ARE APPROXIMATE PER DRAWINGS CONTRACT NO. OK-031 RONDOUT INTERCEPTOR, INVERTED SIPHON PROJECT BY BRINNER & LARIOS ENGINEERS AND LAND SURVEYORS, P.C. DATED JANUARY 2003.

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APRIL 17, 2020

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PROJECT NO. 160851	
SCALE AS NOTED	
DATE 04/17/2018	
DRAWN BY EHC	
CHECKED BY KAA	
DRAWING NO. MR-407.00	
SHEET 54 OF 56 SHTS	

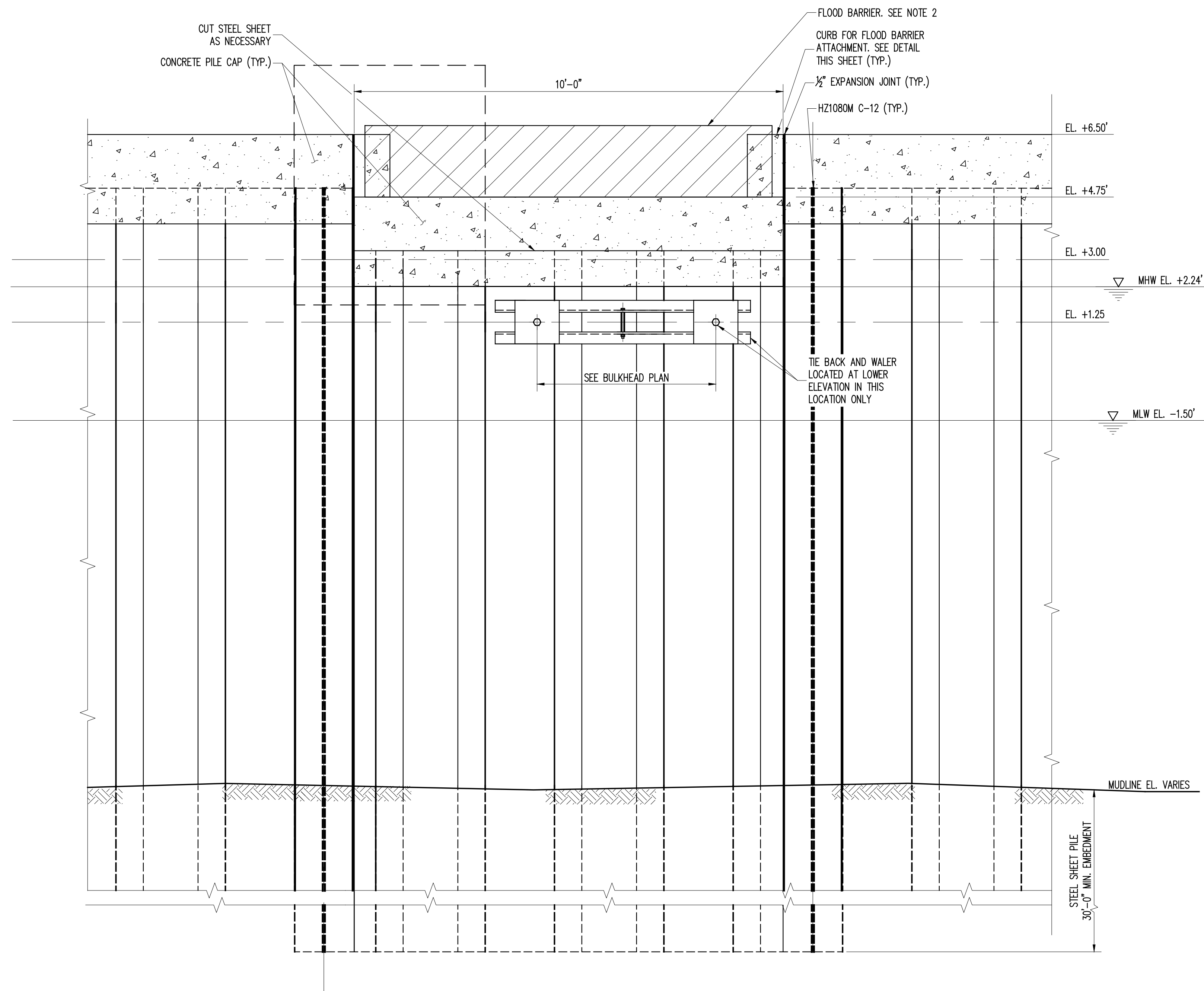
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PROJECT KINGSTON WATERFRONT RESILIENCY DESIGN KINGSTON, NEW YORK

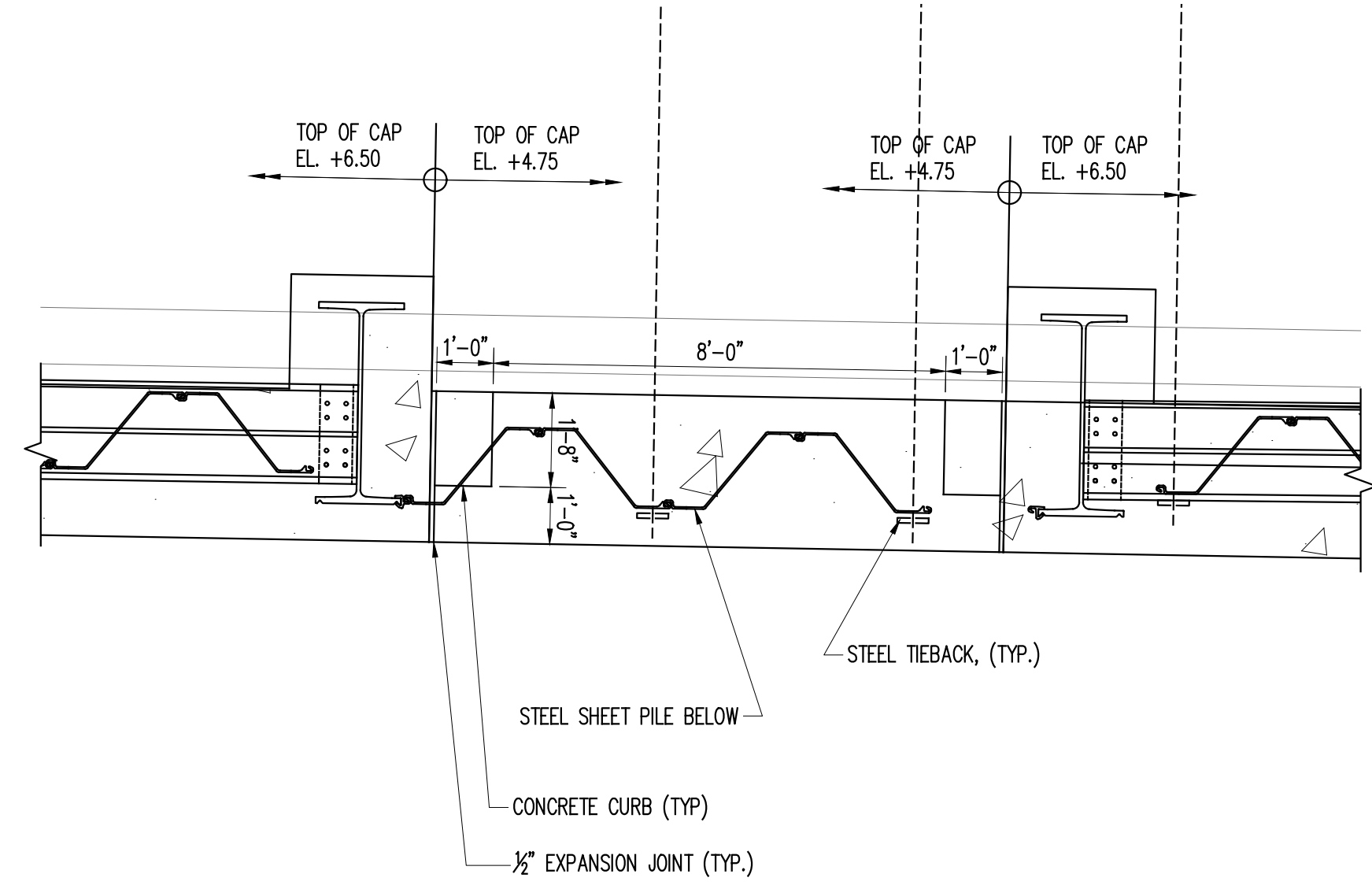
SHEET TITLE MISCELLANEOUS DETAILS - 3



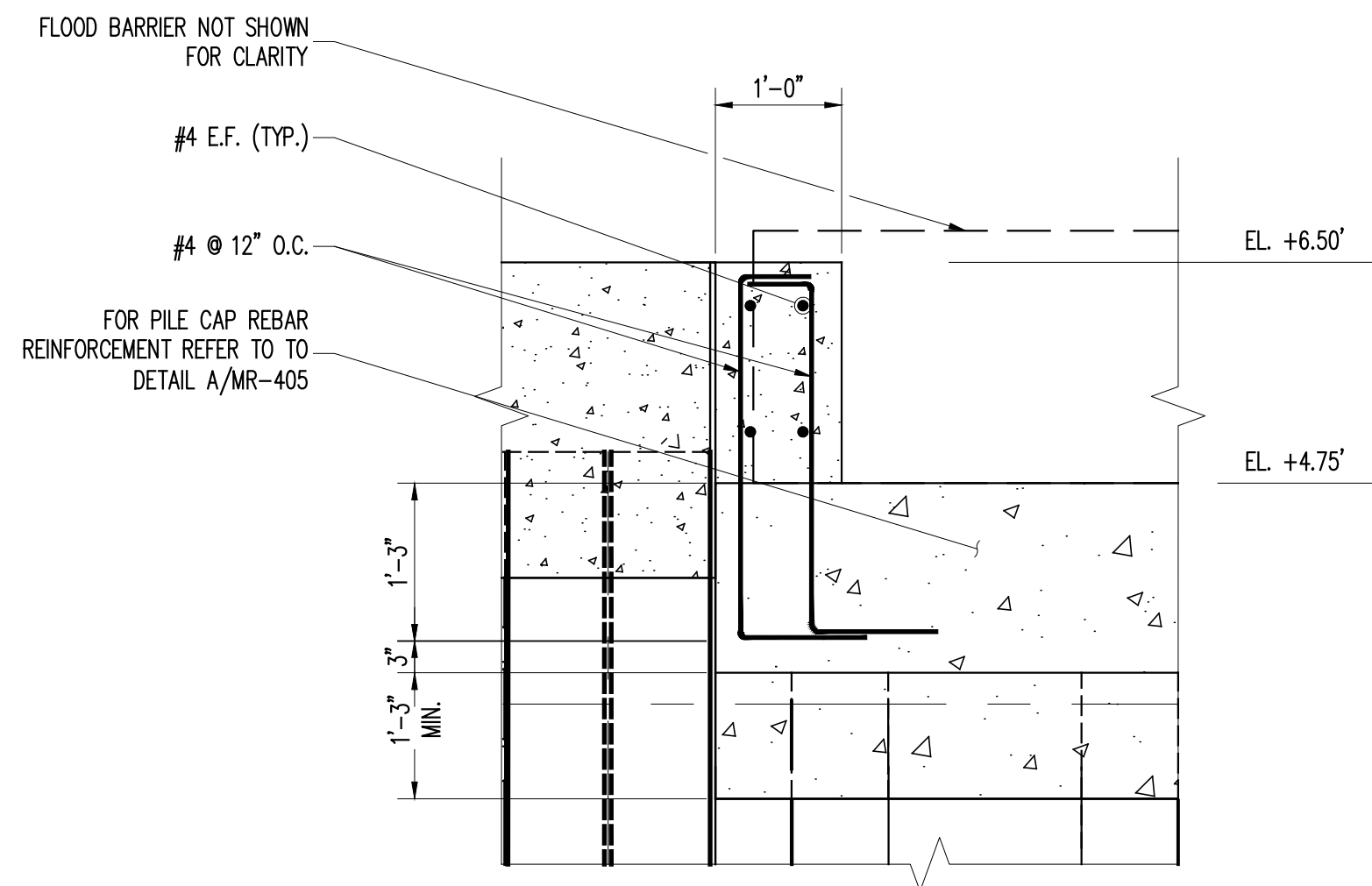
A **SHEET PILE AT CREW DOCK**
MR-408 1/2"=1'-0"

NOTE(S):

1. SEE STEEL SHEET PILE NOTES ON A/MR-406.
2. INSTALLATION OF FLOOD BARRIER TO BE DETERMINED IN FIELD BY CONTRACTOR.
3. ADJACENT BULKHEAD WALLS WITH EXISTING UTILITIES NOT SHOWN FOR CLARITY. SEE BULKHEAD/SHORLINE PROTECTION PLANS FOR LOCATIONS AND SEE DETAIL C/MR400 FOR DETAILS.



PILE CAP AT CREW DOCK
PARTIAL PLAN VIEW



C CONCRETE CURB AT CREW DOCK

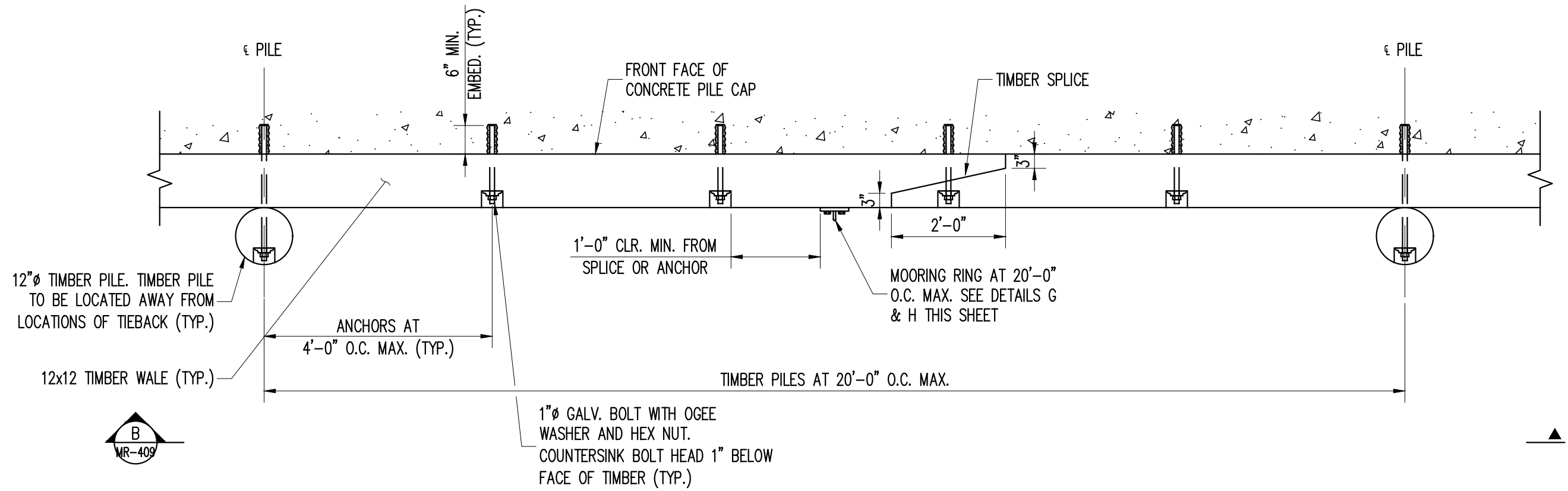
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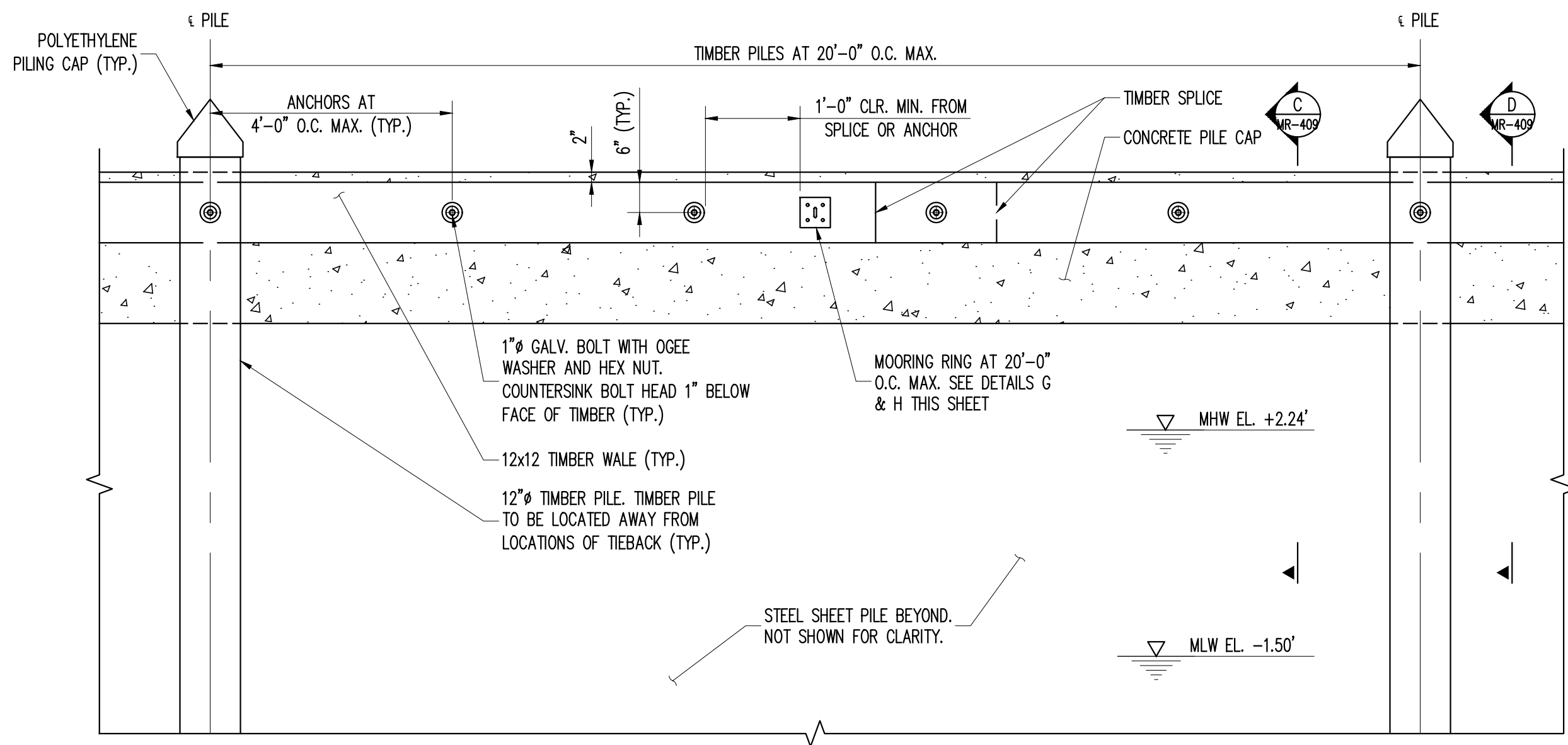
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PROJECT		KINGSTON WATERFRONT RESILIENCY DESIGN		KINGSTON, NEW YORK	
SHEET TITLE		MISCELLANEOUS DETAILS - 4			
PROJECT NO.		160851			
SCALE		AS NOTED			
DATE		04/17/2018			
DRAWN BY		EHC			
CHECKED BY		KAA			
DRAWING NO.		MR-408.00			

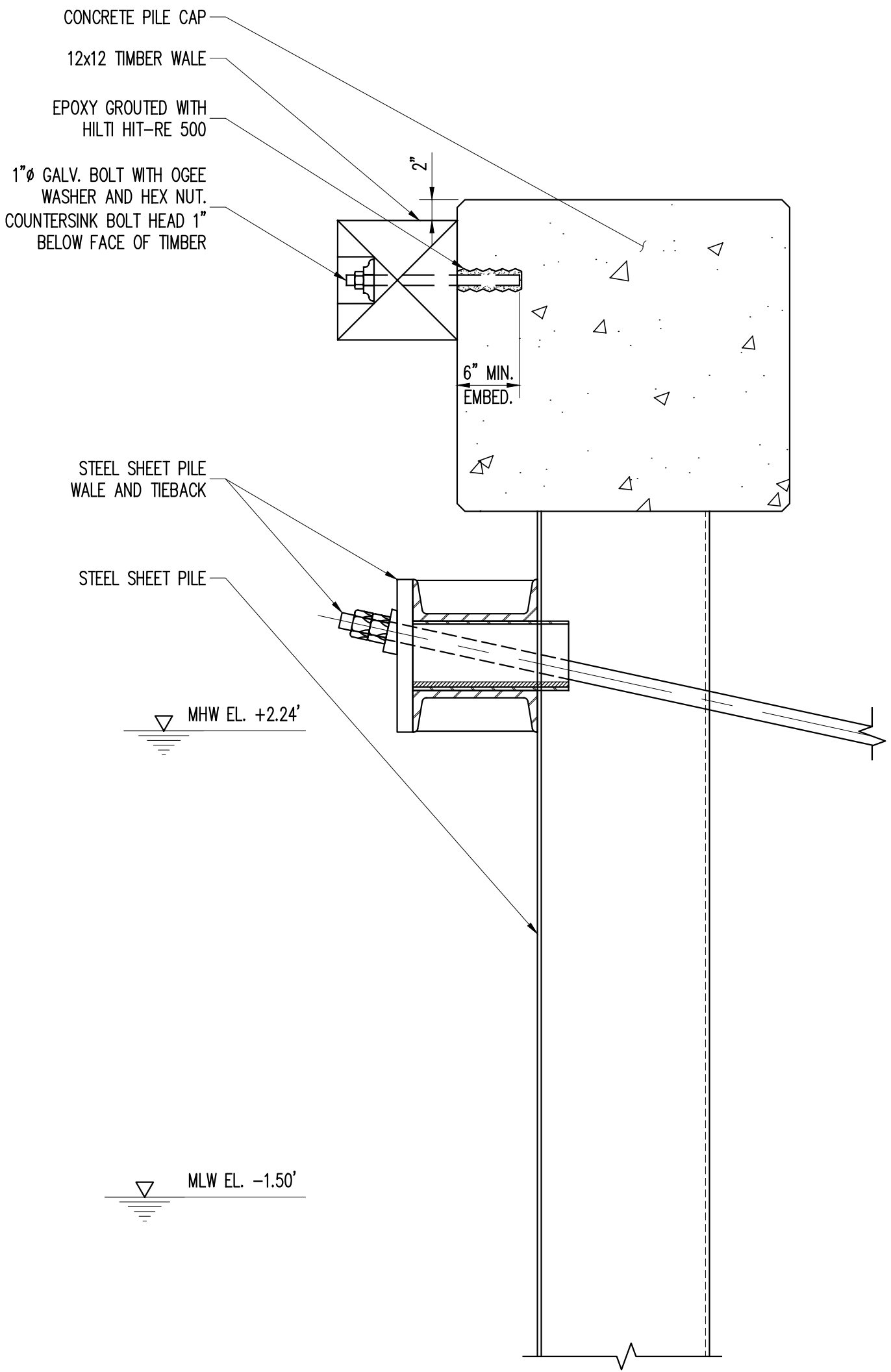
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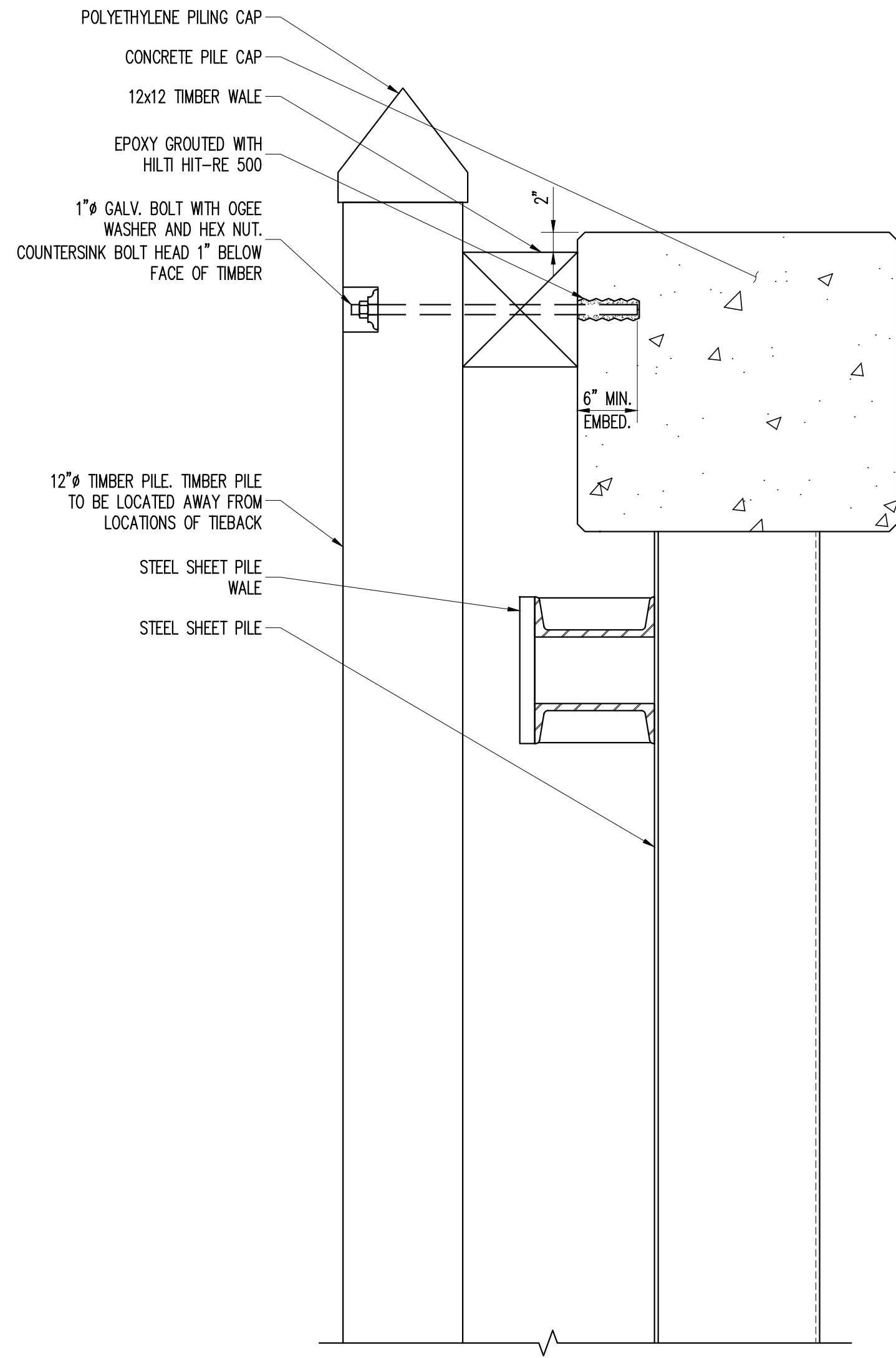
A DOCKS FENDER PLAN
WR-409
1/2"=1'-0"



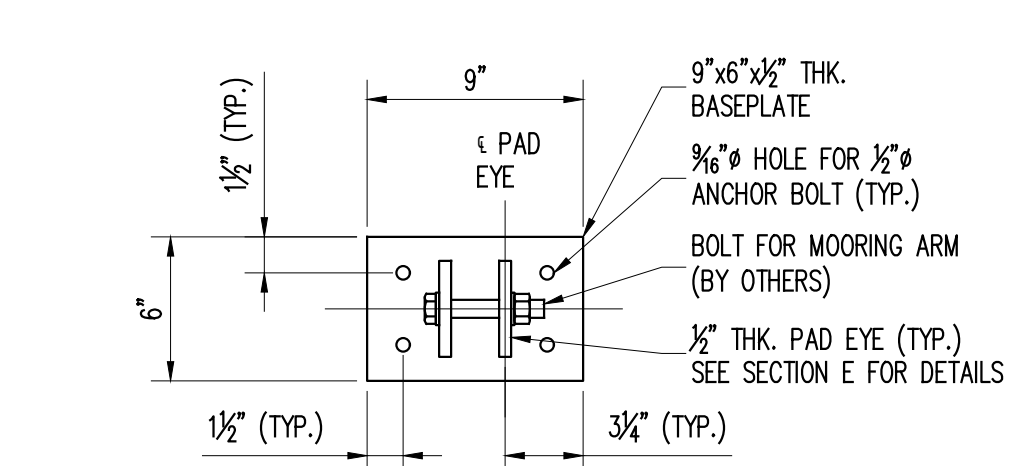
A DOCKS FENDER ELEVATION
WR-409
1/2"=1'-0"



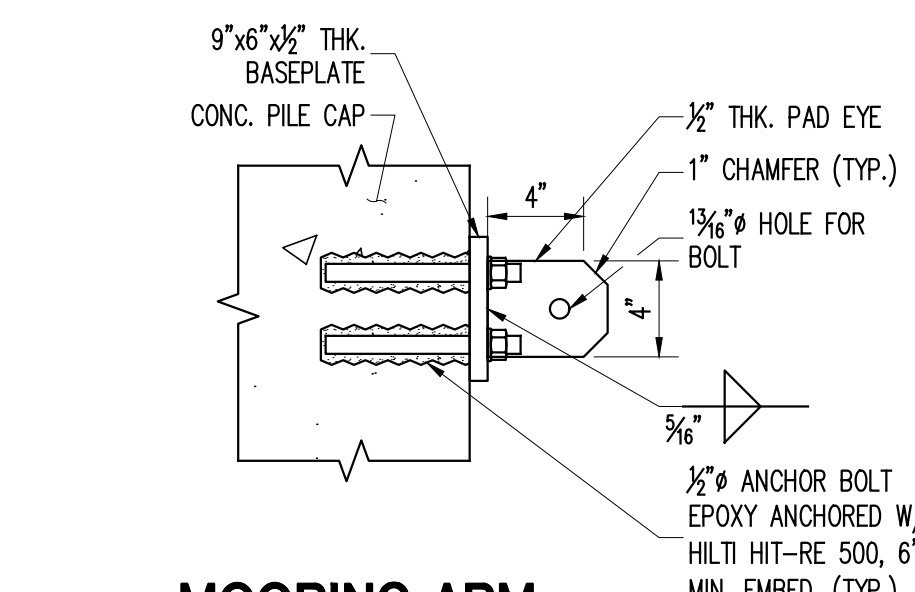
A DOCKS FENDER SECTION
WR-409
1"=1'-0"



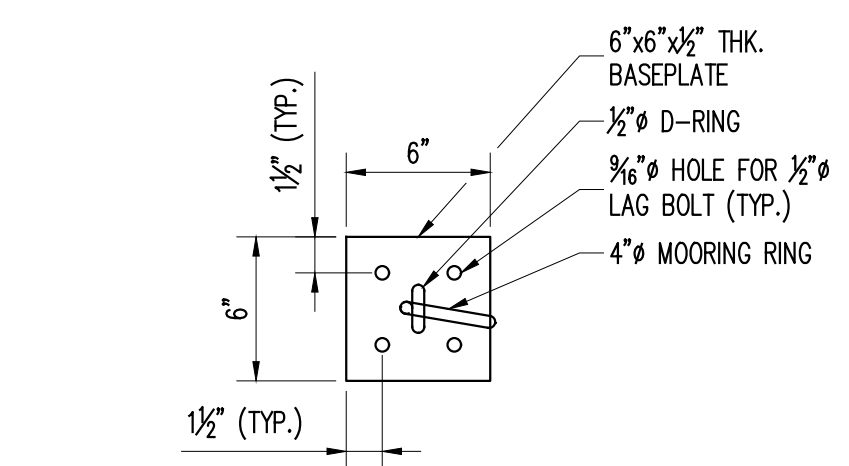
A DOCKS FENDER SECTION AT PILE
WR-409
1"=1'-0"



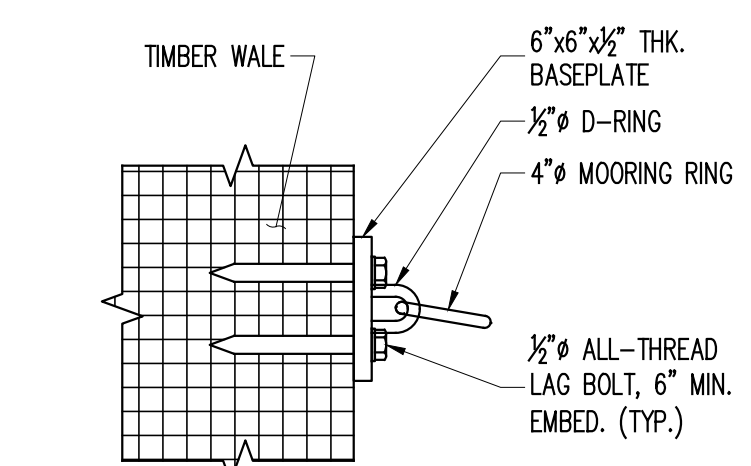
MOORING ARM CONNECTION
WR-409
1-1/2"=1'-0"



MOORING ARM CONNECTION SECTION
WR-409
1-1/2"=1'-0"



MOORING RING CONNECTION
WR-409
1-1/2"=1'-0"



MOORING RING CONNECTION SECTION
WR-409
1-1/2"=1'-0"

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APRIL 17, 2020

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PROJECT NO.		160851	
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DATE		04/17/2018	
DRAWN BY		EHC	
CHECKED BY		KAA	
DRAWING NO.		MR-409.00	
SHEET NO.		56 OF 56 SHTS	

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**KINGSTON WATERFRONT
RESILIENCY DESIGN**

KINGSTON, NEW YORK

**MISCELLANEOUS
DETAILS - 5**