

**COUNTY OF WESTCHESTER  
NEW YORK**

**DIVISION OF ENGINEERING**

**ADDENDUM NO. 4**

**CONTRACT NO. 20-517**

**REHABILITATION OF GLEN ISLAND APPROACH BRIDGE  
OVER NEW ROCHELLE HARBOR (BIN 3348880)  
NEW ROCHELLE, NEW YORK**

The attention of the bidder is directed to the following changes, additions, and/or substitutions affecting the above referenced contract.

**I. RE: THE PLANS**

**REMOVE** Drawing G-04 (Sheet No. 4 of 212) and **REPLACE** with the attached Drawing G-04 (Sheet No. 4 of 212) labelled Revision No. 2.

**REMOVE** Drawing MST-01 (Sheet No. 29 of 212) and **REPLACE** with the attached Drawing MST-01 (Sheet No. 29 of 212) labelled Revision No. 1.

**REMOVE** Drawing SEC-05 (Sheet No. 36 of 212) and **REPLACE** with the attached Drawing SEC-05 (Sheet No. 36 of 212) labelled Revision No. 1.

**REMOVE** Drawing S-02 (Sheet No. 43 of 212) and **REPLACE** with the attached Drawing S-02 (Sheet No. 43 of 212) labelled Revision No. 1.

**REMOVE** Drawing S-65 (Sheet No. 106 of 212) and **REPLACE** with the attached Drawing S-65 (Sheet No. 106 of 212) labelled Revision No. 1.

**II. RE: THE SPECIFICATIONS**

**REMOVE** Proposal – Page 6 (1 of 23) through Proposal – Page 6 (22 of 23) and **REPLACE** with the attached Proposal – Page 6 (1 of 23) through Proposal – Page 6 (23 of 23) labelled Addendum No. 5.

**III. RE: REQUESTS FOR INFORMATION**

See the attached summary of comments.

ALL PROVISIONS OF THE CONTRACT NOT AFFECTED BY THE FOREGOING SHALL  
REMAIN IN FULL FORCE AND EFFECT.

COUNTY OF WESTCHESTER  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION

By: Hugh J. Greechan Jr., P.E.  
Commissioner

Dated: Tuesday, April 16, 2024  
WHITE PLAINS, NEW YORK

ITEM NO.	ITEM DESCRIPTION	QTY	UNIT
201.06	CLEARING AND GRUBBING	1	LS
202.19	REMOVAL OF SUBSTRUCTURES	36	CY
202.2202	REMOVAL OF STEEL SUPPORTED STRUCTURAL SLABS (WITH SHEARCONNECTORS) - TYPE B	1069	SF
202.2302	REMOVAL OF STEEL SUPPORTED STRUCTURAL SLABS (WITHOUT SHEARCONNECTORS) - TYPE B	9615	SF
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	1589	CY
203.03	EMBANKMENT IN PLACE	1590	CY
204.01	CONTROLLED LOW STRENGTH MATERIAL (CLSM)	76	CY
205.97200011	COUNTERWEIGHT PIT CLEANUP & DISPOSAL	1	LS
206.0201	TRENCH AND CULVERT EXCAVATION	150	CY
207.22	GEOTEXTILE DRAINAGE	363	SY
209.100101	MULCH - TEMPORARY	2420	SY
209.1003	SEED AND MULCH - TEMPORARY	2420	SY
209.13	SILT FENCE-TEMPORARY	147	LF
209.1501	TURBIDITY CURTAIN - TEMPORARY	1919	LF
209.1703	DRAINAGE STRUCTURE INLET PROTECTION, PREFABRICATED-TEMPORARY	80	LF
209.20120009	BIODEGRADABLE BIO-FIBER ROLLS 12 INCHES	483	LF
209.22	CONSTRUCTION ENTRANCE	299	SY
304.10119917	SUBBASE COURSE, TYPE 1011-2	119	CY
404.098101	9.5 F1 Top Course HMA, 80 Series Compaction	346	TON
404.198901	19 F9 BINDER COURSE ASPHALT, 80 SERIES COMPACTION	4	TON
404.378901	37.5 F9 Base Course HMA, 80 Series Compaction	69	TON
404.418901	9.5 F9 TEMPORARY TOP COURSE ASPHALT, 80 SERIES COMPACTION	138	TON
404.438901	19 F9 Temporary Binder Course HMA, 80 Series Compaction	276	TON
407.0102	DILUTED TACK COAT	339	GAL
490.30	MISCELLANEOUS COLD MILLING OF BITUMINOUS CONCRETE	3073	SY
502.9310	SEALING LONGITUDINAL JOINTS - HIGHWAY JOINT SEALER	1209	LF
520.09000010	SAW CUTTING ASPHALT CONCRETE	1291	LF
552.13	TEMPORARY STEEL SHEETING	2788	SF
555.0105	CONCRETE FOR STRUCTURES, CLASS A	19	CY
555.80020001	CRACK REPAIR BY EPOXY INJECTION (RESTORATION)	145	LF
555.81980011	CRACK REPAIR (125 IN WIDER) BY INJECTION OF PORTLAND CEMENT GROUT	503	LF
556.0202	EPOXY-COATED BAR REINFORCEMENT FOR STRUCTURES	49025	LB
557.0109	SUPERSTRUCTURE SLAB WITH INTEGRAL WEARING SURFACE - BOTTOM FORMWORK REQUIRED - TYPE 9 FRICTION	625	SY
557.30	SIDEWALKS AND SAFETY WALKS	612	SY
557.32000018	LIGHTWEIGHT HIGH-PERFORMANCE CONCRETE FOR THIN STRUCTURAL APPLICATIONS	692	SF
560.09	TUCK POINTING	11298	SF
560.10070008	CLEANING OF STONE MASONRY AND CONCRETE SURFACES	11298	SF
560.11200007	CONSTRUCT DRY STONE WALL	40	LF
560.13200007	REMOVE AND RESET STONE WALL	100	LF
560.40000008	REPAIR STONE MASONRY	2967	SF
564.510001	STRUCTURAL STEEL	392816	LB
565.1521	TYPE M.R. EXPANSION BEARING (0 TO 225 KIPS)	2	EA
565.1522	TYPE M.R. EXPANSION BEARING (226 TO 450 KIPS)	4	EA
565.1721	TYPE M.R. FIXED BEARING (0 TO 225 KIPS)	2	EA
565.1722	TYPE M.R. FIXED BEARING (226 TO 450 KIPS)	2	EA
567.60	ARMORLESS BRIDGE JOINT SYSTEM	70	LF
568.53	STEEL BRIDGE RAILING (TWO RAIL) WITH HANDRAIL	623	LF
568.70	TRANSITION BRIDGE RAILING	100	LF
570.01	LEAD EXPOSURE CONTROL PLAN	1	LS
570.02	MEDICAL TESTING	6825	DC
570.03	PERSONAL EXPOSURE MONITORING SAMPLE ANALYSIS	6510	DC
570.04	DECONTAMINATION FACILITIES	26	CW
570.150001	CLASS A CONTAINMENT FOR PAINT REMOVAL	1	LS
571.03	DISPOSAL OF HAZARDOUS PAINT WASTE CONTAINING LEAD	993	LB
571.04	DISPOSAL OF NON-HAZARDOUS INDUSTRIAL SOLID PAINT WASTE	53	LB
572.010001	STRUCTURAL STEEL PAINT SYSTEM: SHOP APPLIED	33574	SF
573.010001	STRUCTURAL STEEL PAINTING FIELD APPLIED, TOTAL REMOVAL	1	LS
576.01	SCUPPERS (TYPE A)	4	EA
581.01	REMOVAL OF BITUMINOUS CONCRETE OVERLAY (BRIDGE)	11285	SF
581.02	REMOVAL OF CEMENT CONCRETE OVERLAY (BRIDGE)	3537	SF
582.05	REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASS A CONCRETE	26	CY
582.06	REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASS D CONCRETE	104	SF
582.07	REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH VERTICAL AND OVERHEAD PATCHING MATERIAL	50	SF
584.310908	OVERLAY CONCRETE - CLASS DP - TYPE 9 FRICTION	236	SY
585.01	STRUCTURAL LIFTING OPERATIONS - TYPE A	10	EA
586.05	REMOVAL OF RIVETS - REPLACEMENT WITH HIGH STRENGTH BOLTS	4372	EA
586.10	FIELD DRILL HOLES IN EXISTING STRUCTURAL STEEL	589	EA
589.010001	REMOVAL OF EXISTING STEEL	267020	LB
589.520001	REMOVAL OF EXISTING STEEL	10	EA
594.11000010	FIBERGLASS REINFORCED PLASTIC (FRP) COMPOSITE LUMBER FOR BRIDGE FENDER	133	LF
595.98200018	SPRAY-APPLIED, WATERPROOFING MEMBRANE	16592	SF
596.01	OPEN STEEL FLOOR	103	SF
596.122010WE	STEEL GRID DECK	1586	SF
599.061001WE	REHABILITATE BUILDING INTERIOR	1	LS
599.061201WE	REHABILITATE SPAN DRIVE MACHINERY	1	LS
599.061202WE	REFURBISH TRUNIONS	1	LS
599.061203WE	MACHINERY FIELD PAINTING	1	LS
599.061204WE	SERVICE REDUCERS	1	LS
599.061205WE	REPLACE SPAN LOCKS AND MISCELLANEOUS REPAIRS	1	LS
599.061206WE	PERMANENT BRIDGE OPERATION AND MAINTENANCE	28	MONTHS
599.061301WE	BRIDGE BALANCE	1	LS
599.061701WE	CONTROL HOUSE HVAC	1	LS
599.061801WE	CONTROL HOUSE PLUMBING	1	LS
599.061802WE	COUNTERWEIGHT PIT DEWATERING	1	LS

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ITEM NO.	ITEM DESCRIPTION	QTY	UNIT
599.063000WE	BRIDGE ELECTRICAL AND CONTROL SYSTEM	1	LS
599.064000WE	MOVABLE BRIDGE ELECTRICAL TESTING	1	LS
599.142500WE	MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS	1	LS
599.142600WE	MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS INSTALLATION	1	LS
599.20200010	REMOVAL OF EXISTING WARNING GATES AND BIKEWAY GATES	1	LS
604.07210110	RESETTING EXISTING DRAINAGE FRAMES ON EXISTING DRAINAGE STRUCTURES	8	EA
605.16010008	NON-PERFORATED PVC PIPE, 4" DIAMETER PIPE	93	LF
607.0512	VINYL COATED STEEL CHAIN-LINK FENCE ON PLASTIC COATED FRAME WITH TOP RAIL 6 FEET HIGH	190	LF
607.99870011	REMOVE EXISTING CHAIN-LINK FENCE	190	LF
608.0101	CONCRETE SIDEWALKS AND DRIVEWAYS	7	CY
608.01050109	CURB RAMP CONFIGURATION TYPE 1	1	EA
608.01050209	CURB RAMP CONFIGURATION TYPE 2	2	EA
608.01050309	CURB RAMP CONFIGURATION TYPE 3	5	EA
608.01051409	CURB RAMP CONFIGURATION TYPE 14	1	EA
608.020102	ASPHALT SIDEWALKS, DRIVEWAYS AND BICYCLE PATHS AND VEGETATION CONTROL STRIPS	216	TON
609.0401	CAST-IN-PLACE CONCRETE CURB TYPE VF6	735	LF
609.06000008	CURB REMOVAL	1419	LF
609.40000015	REINFORCED PRECAST CONCRETE PARKING BLOCKS	20	EA
610.1402	TOPSOIL - ROADSIDE	318	CY
610.1601	TURF ESTABLISHMENT - ROADSIDE	242	SY
610.1602	TURF ESTABLISHMENT - LAWNS	2377	SY
610.18	SODDING	2377	SY
611.0161	PLANTING - MAJOR DECIDUOUS TREES - 2 1/2 INCH CALIPER BALL & BURLAP, FIELD POTTED OR FIELD BOXED	3	EA
611.0171	PLANTING - MAJOR DECIDUOUS TREES - 3 INCH CALIPER BALL & BURLAP, FIELD POTTED OR FIELD BOXED	3	EA
619.01	BASIC WORK ZONE TRAFFIC CONTROL	1	LS
619.04	TYPE III CONSTRUCTION BARRICADE	6	EA
619.0501	TEMPORARY STRUCTURES AND APPROACHES NO 1	1	LS
619.07010001	PLASTIC CONSTRUCTION DRUMS (EACH)	20	EA
619.0901	TEMPORARY PAVEMENT MARKINGS STRIPES (TRAFFIC PAINT)	3400	LF
619.110722	(PVMS) LARGE SIZE - FULL MATRIX (LED) RADAR, CELLULAR COMMUNICATIONS	2	EA
619.1714	Temporary Positive Barrier - Category 4 (Pinning Permitted)	100	LF
619.1716	Temporary Positive Barrier - Category 6 (Pinning Required)	400	LF
620.05	STONE FILLING (HEAVY)	242	CY
620.0801	BEDDING MATERIAL, TYPE 1	120	CY
621.04	CLEANING DRAINAGE STRUCTURES	8	EA
623.11	CRUSHED GRAVEL (IN-PLACE MEASURE)	311	CY
634.80210001	REFURBISH ORNAMENTAL RAILING SYSTEM	654	LF
634.99020017	VIBRATION MONITORING (NONBLASTING)	1	LS
639.22010011	CPM PROGRESS SCHEDULE - TYPE 2A	1	LS
645.52020110	Ground-Mount Sign Panel 30 SF or Less High Vis Sh Non-Retroreflect Sheet, Powder Coat Stiffener, Bracket, Misc Hrdware	39	SF
645.81	TYPE A SIGN POSTS	8	EA
647.51	REMOVE AND DISPOSE SIGN PANEL, SIGN PANEL ASSEMBLY SIZE I (UNDER 30 SQUARE FEET)	7	EA
648.06	DRILL HOLE, 4 INCH DIAMETER 0 TO 50 FOOT DEPTH RANGE	497	LF
648.15	ROCK CORE DRILLING NX	199	LF
648.17	FURNISHING EQUIPMENT FOR MAKING BORINGS	3	EA
648.19	FURNISHING EQUIPMENT FOR MAKING BORINGS ON WATER USING STATIONARY PLATFORM	6	EA
655.05020008	WATERTIGHT SANITARY MANHOLE FRAMES AND COVERS (CASTINGS)	1	EA
660.93000008	FURNISH AND INSTALL SANITARY SEWER LATERALS	2	EA
660.97020011	SANITARY SEWER CLEANOUTS	1	LS
660.97100010	PRECAST SANITARY SEWER MANHOLE	1	LF
663.0604	COPPER WATER SERVICE PIPE 1"	10	LF
663.2504	WATER SERVICE CONNECTION, 1"	1	EA
663.2604	CURB STOP & CURB BOX, 1"	1	EA
663.53000004	REPLACE EXISTING WATER VALVE BOX TOP SECTION	1	EA
664.01060004	DUCTILE IRON SEWER PIPE & FITTINGS, 6"	322	LF
664.40480006	PRECAST SANITARY SEWER MANHOLE (48 INCH DIA.)	10	LF
670.60	PHOTOELECTRIC CONTROLS	1	EA
670.81	REMOVE AND DISPOSE OF LAMPPOST ASSEMBLY	20	EA
680.01040015	TRAFFIC SIGNAL SYSTEM	1	LS
680.10000007	INSTALL TRAFFIC SIGNAL POLE ALL SIZES	3	EA
680.621630	TRAFFIC SIGNAL POLE, MAST ARM, 16 FEET MOUNTING HEIGHT, 30 FEET ARM LENGTH	1	EA
680.6712	TRAFFIC SIGNAL POLE-POST TOP MOUNT 12 FEET MOUNTING HEIGHT	2	EA
680.7930001	REMOVE TRAFFIC SIGNAL HEAD OR PEDESTRIAN SIGNAL HEAD	4	EA
680.810101	TRAFFIC SIGNAL MODULE - 12 INCH, RED BALL, LED	4	EA
680.810103	TRAFFIC SIGNAL MODULE - 12 INCH, YELLOW BALL, LED	4	EA
680.810105	TRAFFIC SIGNAL MODULE - 12 INCH, GREEN BALL, LED	4	EA
680.810107	TRAFFIC SIGNAL SECTION - TYPE I, 12 INCH	4	EA
680.810308	INSTALL BALL/ARROW LED TRAFFIC SIGNAL MODULE	4	EA
680.8111	TRAFFIC SIGNAL BRACKET ASSEMBLY - 1 WAY	2	EA
680.8220	FLASHING BEACON SIGN ASSEMBLY	2	EA
680.82250301	REMOVE STEEL EMBEDDED TRAFFIC SIGNAL POLE	4	EA
683.090700WE	MOVABLE BRIDGE STANDBY GENERATOR	1	LS
685.07200110	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MILS (WET NIGHT VISIBILITY SPHERES)	1207	LF
685.07200410	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES (CROSS HATCHING) 20 MILS THICK (WET NIGHT VISIBILITY SPHERES)	322	LF



CONSULTANT SEAL  
CONSULTANT INFORMATION



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION
1	3/30/24	NMH	DD	PAY ITEM ADDED
2	4/12/24	NMH	DD	ADDENDUM #4 REVISIONS

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR: \_\_\_\_\_ PROJECT COORDINATOR: \_\_\_\_\_

NAME: \_\_\_\_\_ NAME: \_\_\_\_\_  
 SIGNATURE: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_  
 TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

GENERAL

**DETAILED ESTIMATE SHEET**

CONTRACT NUMBER: 20-517 SHEET NUMBER: G-04  
 SHEET NO. 4 OF 212  
 SCALE: AS SHOWN DATE: 03/08/2024  
 DPW FILE NO. 5-04-G-439-0 REV. NO. 2

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	DEPTH (FT)	GEOTEXTILE DRAINAGE 207.22 (SY)	MULCH - TEMP 209.100101 (SY)	SEED & MULCH - TEMP 209.1003 (SY)	CONSTRUCTION ENTRANCE 209.22 (SY)	SILT FENCE 209.13 (LF)	INLET PROTECTION 209.1703 (LF)	(LF) BIO-FIBER ROLLS 12" 209.20120009	(LF) TURBIDITY CURTAIN 209.1501	STONE FILL (HEAVY) 620.05 (CY)
STA. 11+14.00	STA. 12+68.00	VARIES LEFT	112.0	24.0					298.7					
STA. 16+73.50		44' LEFT	5.0	5.0						20.0				
STA. 16+73.50		44' RIGHT	5.0	5.0						20.0				
STA. 17+51.00		30' LEFT	5.0	5.0						20.0				
STA. 17+51.00		30' RIGHT	5.0	5.0						20.0				
STA. 16+28.50	STA. 17+58.00	VARIES LEFT	2200.0		2.0	244.5								163.0
STA. 16+24.50	STA. 16+71.00	VARIES RIGHT	1065.0		2.0	118.4								78.9
STA. 12+50.00	STA. 12+68.50	60' TO 25' LEFT	40.0	N/A										
STA. 12+50.00	STA. 12+68.50	37' TO 60' RIGHT TO LEFT	120.0	N/A							40.0			
STA. 10+02.50	STA. 10+64.00	48' to 82' RIGHT	85.0	N/A							85.0			
STA. 10+48.00	STA. 11+22.00	52' TO 62' RIGHT	80.0	N/A							80.0			
STA. 11+24.00	STA. 12+01.00	50' TO 62' RIGHT	85.0	N/A							85.0			
STA. 11+75.00	STA. 12+21.50	105' TO 49' LEFT	73.0	N/A							73.0			
STA. 13+79.50		34' TO 26' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 14+59.50		34' TO 26' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 15+29.50		34' TO 26' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 15+99.50		34' TO 26' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 16+75.00		34' TO 26' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 13+69.50		28' TO 32' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 14+38.50		28' TO 32' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 15+04.50		28' TO 32' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 15+68.50		28' TO 32' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 11+97.50	STA. 13+11.00	140' TO 27' LEFT	168.0	N/A								168.0		
STA. 11+22.50	STA. 13+11.50	140' TO 24' RIGHT	264.0	N/A								264.0		
STA. 16+12.00	STA. 17+30.00	30' TO 138' LEFT	159.0	N/A								159.0		
STA. 16+13.00	STA. 16+49.00	30' TO 138' RIGHT	122.0	N/A								122.0		
STA. 10+87.00	STA. 11+31.00	30' LEFT	30.0	N/A						30.0				
STA. 11+64.00	STA. 12+68.00	32' LEFT	117.0	N/A						117.0				

\*NOTE: SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO LIMIT(S) OF EROSION CONTROL FEATURE(S).

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	DEPTH (FT)	EXCAVATION 203.02 (CY)	EMBANKMENT IN PLACE 203.03 (CY)	12" SUBBASE 304.10119917 (CY)	6" BASE COURSE *404.378901 (T)	TACK COAT 407.0102 (GAL)	JOINT SEALER 502.9310 (LF)	SAWCUT ASPHALT 520.09000010 (LF)	4" HOT MIX ASPHALT 608.020102 (T)
STA. 09+45.00	STA. 12+55.00	15' RIGHT	310.0	4.0	1.0	46.0		46.0	46.6	13.8	628	628	
STA. 10+45.00	STA. 10+75.00	19' TO 60' LEFT	41.0	24.0	0.8	30.4	36.5	36.5		11		82	24.7
STA. 09+47.00	STA. 10+47.00	18' LEFT	145.0	1.0	1.0	5.4	901.00	9.0	5.5	1.7	147.0	147.0	
TEMPORARY BRIDGE APPROACH		NORTH	190.0	32.0	4.0	901.00	901.00						
TEMPORARY BRIDGE APPROACH		SOUTH	110.0	32.0	4.0	522.00	522.00						
STA. 10+71.00	STA. 12+18.50	18' TO 29' LEFT	185.0	1.0	1.0	6.9		11.5	7.0	2.1	187.0	187.0	
STA. 09+73.50	STA. 12+18.50	18' TO 29' RIGHT	245.0	1.0	1.0	9.1		15.2	9.2	2.8	247.0	247.0	
NEPTUNE ISLAND - RESTORE LOT													138

\*NOTES:

1. SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO PAVEMENT REPAIR LIMIT(S).

2. SEE 'MILLING' TABLE FOR ITEMIZED TOP COURSE QUANTITY.

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	STRIPE TYPE	PAYMENT FACTOR	WHITE STRIPES 685.07200110 (LF)	YELLOW STRIPES 685.07200610 (LF)	CROSS HATCHING 685.07200410 (LF)	SPECIAL MARKINGS 685.07200510 (LF)
STA. 09+00.00	STA. 16+75.00	0.0 CL (LESS HL INT)	729.0	SOLID DOUBLE Y	2		1458.0		
STA. 09+16.00	STA. 09+26.00	18' (20' SKEWED) LEFT TO RIGHT	10.0	CROSSWALK TYPE LS	11 (X-HATCH) 2 (OUTLINE)			110.0	80.0
HARBOR LANE	INTERSECTION	11' LEFT	11.0	STOP BAR	6	66			
		LEFT, RIGHT	8.0	CROSSWALK TYPE LS	6 (X-HATCH) 2 (OUTLINE)			48.0	52.0
STA. 09+51.50	STA. 09+61.50	18' (20' SKEWED) LEFT TO RIGHT	10.0	CROSSWALK TYPE LS	11 (X-HATCH) 2 (OUTLINE)			110.0	80.0
STA. 10+45.00	STA. 10+75.00	26' LEFT	9.0	CROSSWALK TYPE LS	6 (X-HATCH) 2 (OUTLINE)			54.0	60.0
STA. 12+63.00	STA. 16+31.00	10' LEFT	368.0	SOLID SINGLE W	1	368.0			
STA. 12+63.00	STA. 16+31.00	10' RIGHT	368.0	SOLID SINGLE W	1	368.0			
STA. 16+75.00	STA. 17+05.00	0.0 CL AND RIGHT	110.0	SOLID DOUBLE Y	2		220.0		
STA. 16+31.00	MILLING LIMITS	10' & VARIES LEFT	285.0	SOLID SINGLE W	1	285.0			
STA. 16+31.00	MILLING LIMITS	10' & VARIES RIGHT	120.0	SOLID SINGLE W	1	120.0			
40' BACK FROM TRAFFIC SIGNAL		APPROACH SIDE	18.0	STOP BAR	6	108			
40' BACK FROM TRAFFIC SIGNAL		PLAZA SIDE	12.0	STOP BAR	6	72			

\*NOTE: SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO PAVEMENT MARKING LIMIT(S).

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	UNCLASSIFIED EXCAVATION 203.02 (CY)	5" CONCRETE SIDEWALK 608.0101 (CY)	5" ASPHALT SIDEWALK 608.020102 (T)	CONCRETE CURB TYPE VF6 609.0401 (LF)	BEDDING MATERIAL 620.0801 (CY)	EMBANKMENT IN PLACE 203.03 (CY)
STA. 12+56.00	STA. 12+82.00	~20' TO CNTRL HOUSE CONN	33.0	12.0	15	6.2	2.8	50.0	8.8	
STA. 09+73.50	STA. 12+18.50	18' TO 29' RIGHT	245.0	N/A				245.0		
STA. 09+47.00	STA. 10+47.00	18' LEFT	145.0	5.5	20.9			12.4	145.0	20.9
STA. 10+71.00	STA. 12+18.50	18' TO 29' LEFT	185.0	5.5	26.6			15.8	185.0	26.6
STA. T 16+95.00	STA. T 18+05.00	100' LT RESTORE SW QUADRANT @ PLAZA	110.0	8.0	5			7.8		
STA. T 16+95.00	STA. T 18+05.00							13.6	110.0	130.4

\*NOTE: SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO CURB AND SIDEWALK LOCATION(S).

*START STATION	*END STATION	OFFSET SIDE	DESCRIPTION	TYPE 1 RAMP - 608.01050109 (EA)	TYPE 2 RAMP - 608.01050209 (EA)	TYPE 3 RAMP - 608.01050309 (EA)	TYPE 14 RAMP - 608.01051409 (EA)
STA. 09+08.00		27' LEFT	PROPOSED			1	
STA. 09+28.50		28' RIGHT	PROPOSED			1	
STA. 09+50.00		27' LEFT	PROPOSED			1	
STA. 09+70.00		28' RIGHT	PROPOSED			1	
STA. 10+45.00		27' LEFT	PROPOSED	1			
STA. 10+75.00		27' LEFT	PROPOSED			1	
STA. 16+77.00		77' RIGHT	PROPOSED				1
STA. T 11+20.00		17' LEFT	TEMPORARY		1		
STA. T 10+85.00		17' LEFT	TEMPORARY		1		

\*NOTE: SEE GNP FOR REFERENCED BL STATIONING CORRESPONDING TO CURB RAMP LIMIT(S).

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	DEPTH (IN)	TACK COAT 407.0102 (GAL)	MISC MILLING 490.30 (SY)	2" TOP COURSE 404.098101 (T)
STA. 09+00.00	STA. 11+50.00	18' BOTH	250.0	36.0	2.0	100.00	1000.00	112.6
STA. 11+50.00	STA. 12+18.50	29' BOTH	68.5	58.0	2.0	44.20	442.00	49.7
STA. 16+31.00	STA. 17+62.50	-50' TO 115' LEFT TO RIGHT	131.5	VARIES	2.0	142.80	1428.00	160.7
HARBOR LANE INTERSECTION		-43' TO 35' LEFT TO RIGHT	42.0	22.0	2.0	10.30	103.00	11.6
PROJECT CONTINGENCY		MISC. A.O.B.E.	50.0	36.0	2.0	20.00	200.00	22.6

\*NOTE: SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO RESURFACING LIMIT(S).

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	WATER SERVICE CONNECTION 663.2504 (EA)	REPLACE EXISTING WATER VALVE BOX TOP SECTION 663.53000004 (EA)	CURB STOP & CURB BOX, 1" 663.2604 (EA)	COPPER WATER SERVICE PIPE 1" 663.0604 (LF)
STA. 12+90.00		36' TO 46' RIGHT	N/A	N/A	1.0	1.0	1.0	10.0

\*NOTES:

1. SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO WATER UTILITY LIMIT(S).

2. SEE MECHANICAL DRAWINGS FOR DETAILED BREAKDOWN OF CONTROL HOUSE PLUMBING SCOPE.

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	CLEARING AND GRUBBING 201.06 (LS)
STA. T11+00	STA. T12+37	LEFT	137.0	36.0	1.0

\*NOTE: COSTS FOR TREE REMOVAL SHALL BE INCLUDED UNDER ITEM 201.06.

IN CHARGE OF C. JENNE, PE  
 CHECKED BY K. HO, PE  
 MADE BY E. MOHLER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION
1	4/12/24	JD	KH	201.06 ADDED, 203.02 REVISED

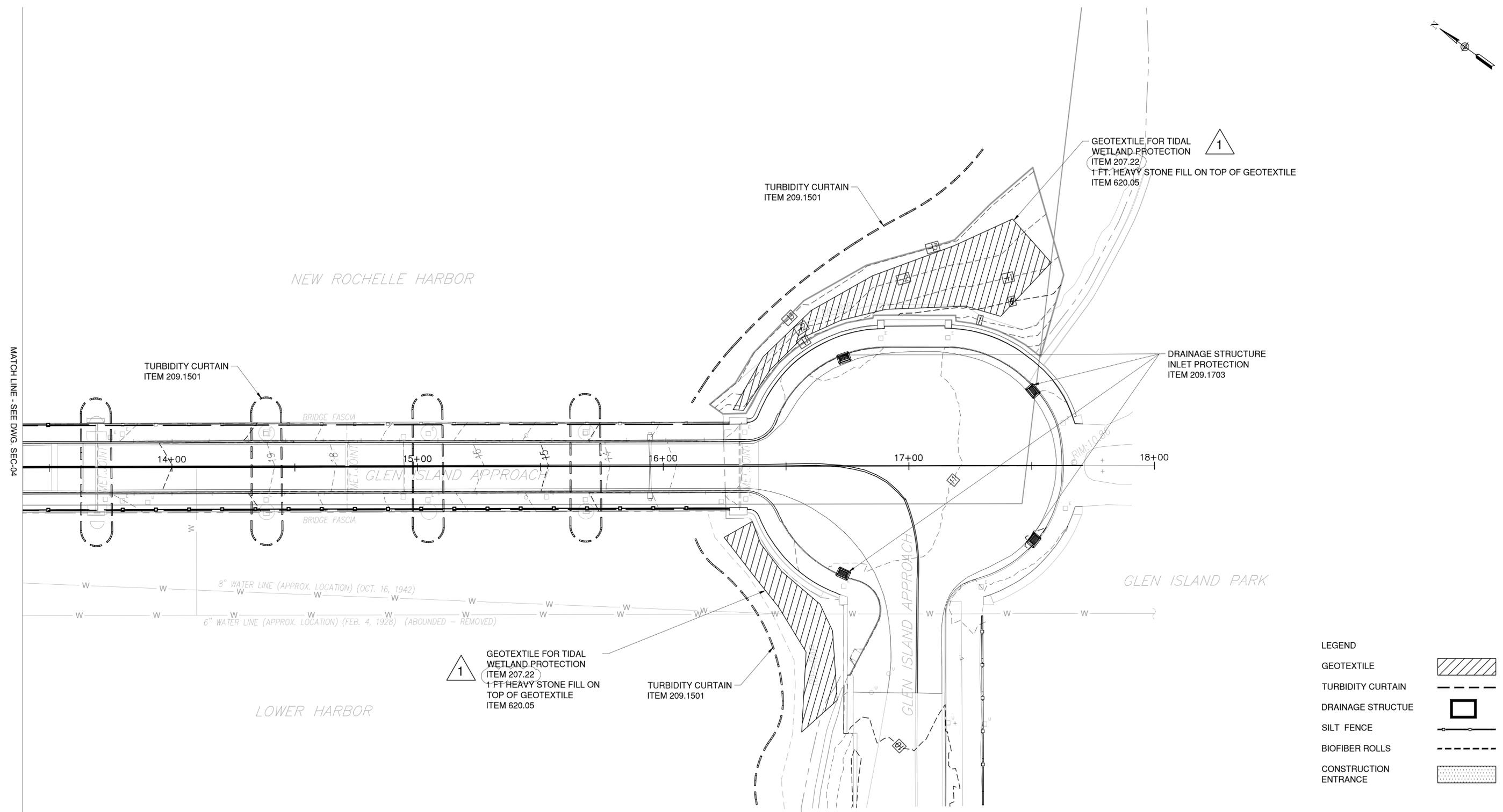
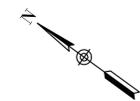
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____

CONSULTANT SEAL  
 STATE OF NEW YORK  
 DAVID DELUCA  
 LICENSED PROFESSIONAL ENGINEER  
 NO. 024871

CONSULTANT INFORMATION

**H&H**  
 1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER MST-01
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 29 OF 212	SCALE: AS SHOWN DATE: 03/08/2024
CIVIL		DPW FILE NO.	REV. NO.
MISCELLANEOUS TABLES - 1 OF 2		5-04-R-464-0	1



MATCH LINE - SEE DWG. SEC-04

**LEGEND**

GEOTEXTILE	
TURBIDITY CURTAIN	
DRAINAGE STRUCTURE	
SILT FENCE	
BIOFIBER ROLLS	
CONSTRUCTION ENTRANCE	



**HVEA ENGINEERS**  
 560 Route 52  
 Suite 201  
 Beacon, New York 12508

IN CHARGE OF L. SCHILLING, PE  
 CHECKED BY L. SCHILLING, PE  
 MADE BY I. WHITTAKER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION
1	4/11/24	LS	IW	GEOTEXTILE ITEM NUMBER

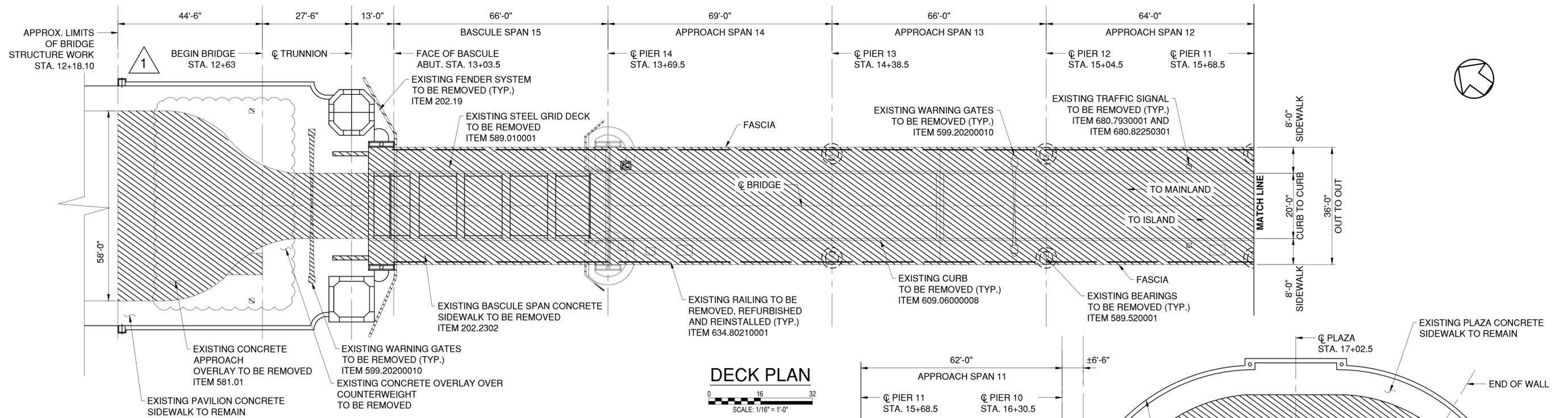
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 AS BUILT - NO CHANGES

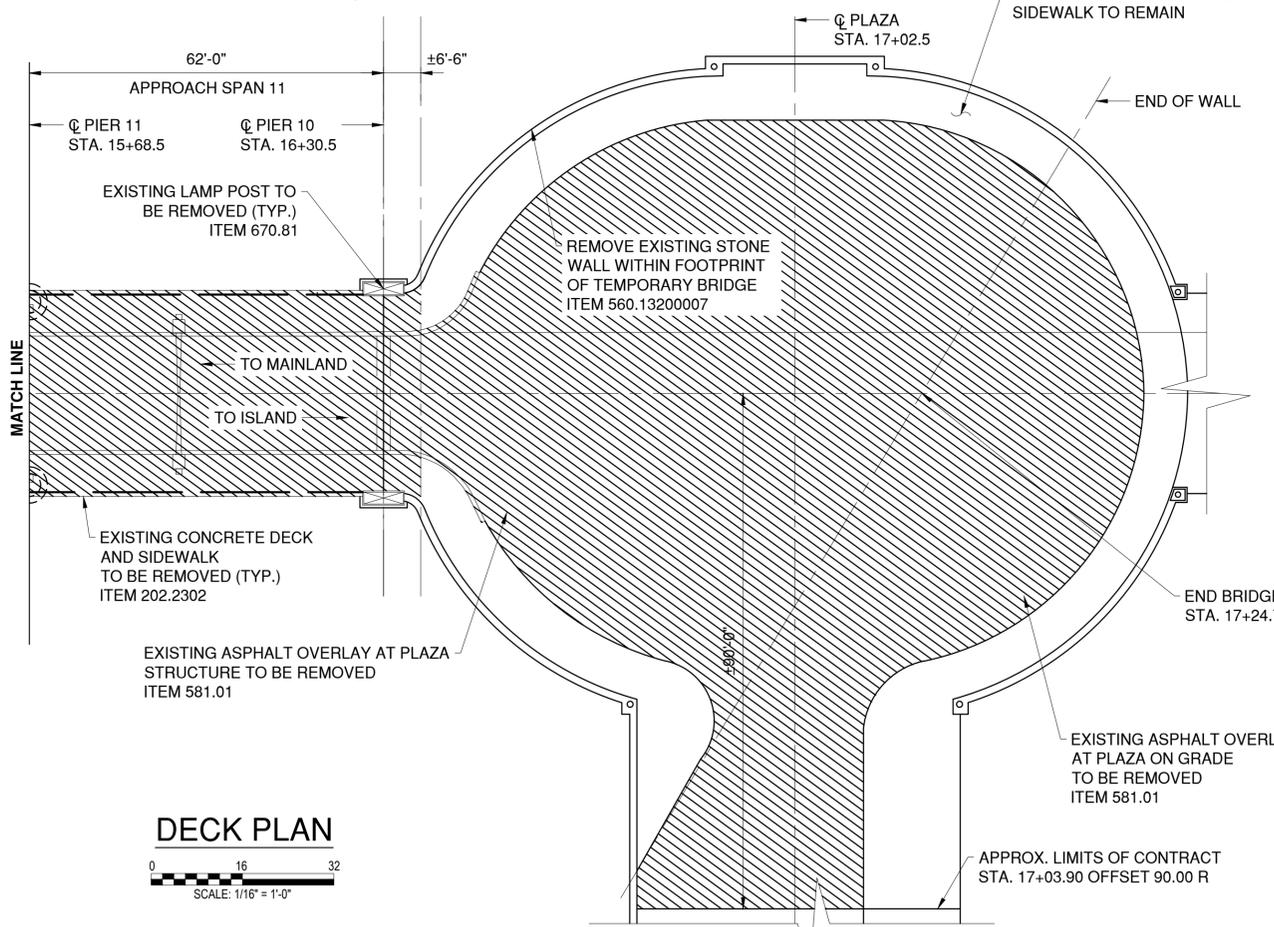
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 CIVIL

CONTRACT NUMBER 20-517	SHEET NUMBER SEC-05
SHEET NO. 36 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-R-471-0	REV. NO. 1



**DECK PLAN**  
SCALE: 1/16" = 1'-0"



**DECK PLAN**  
SCALE: 1/16" = 1'-0"

**DEMOLITION NOTES:**

1. THE INFORMATION PRESENTED ON THE DEMOLITION PLANS IS FOR INFORMATION PURPOSES. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING BIDS TO ASCERTAIN THE EXTENT OF WORK.
2. LOCATION OF ALL EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY DEMOLITION WORK. EXISTING UTILITIES TO BE RELOCATED SHALL BE DONE PRIOR TO ANY REMOVAL ACTIVITY. ALL PRECAUTIONS SHALL BE TAKEN TO PROTECT ALL UTILITIES TO REMAIN IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY OWNERS.
3. ALL REMOVED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE LEGALLY DISPOSED OF OFF-SITE.
4. EXTREME CARE SHALL BE TAKEN DURING REMOVAL OR OTHER DEMOLITION OPERATIONS AS TO NOT DAMAGE ANY OF THE EXISTING STRUCTURE WHICH IS TO REMAIN. DAMAGES, IF ANY, SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE COUNTY.
5. ANY AND ALL TEMPORARY DISTURBANCES TO THE EXISTING SITE CONDITIONS REQUIRED IN ORDER TO PERFORM DEMOLITION ACTIVITIES SHALL BE RESTORED TO ORIGINAL CONDITION AS DIRECTED BY AND TO THE SATISFACTION OF THE ENGINEER.
6. CLEAN AND PUMP OUT ALL DEBRIS, SLUDGE, WATER, AND WASTE IN THE COUNTERWEIGHT PIT. REFER TO PLUMBING DRAWINGS AND SPECIFICATIONS.

APPROXIMATE DEMOLITION QUANTITIES			
REMOVAL ITEM	UNIT	QUANTITY	
ITEM 202.2202: APPROACH SPAN CONCRETE DECK, SIDEWALKS	SF	1069	
ITEM 202.2302: APPROACH SPAN CONCRETE DECK, SIDEWALKS	SF	9615	
ITEM 205.97200011: COUNTERWEIGHT PIT CLEANUP & DISPOSAL	LS	1	
ITEM 560.13200007: STONE MASONRY WALL	LF	100	
ITEM 581.01: PLAZA AND APPROACH OVERLAY	SF	11285	
ITEM 589.010001: STEEL GRID DECK, FLOOR BEAMS, STRINGERS	LB	267020	
ITEM 589.520001: GIRDER BEARINGS	EA	10	
ITEM 599.20200010: WARNING GATES	LS	1	
ITEM 609.06000008: CURB REMOVAL	LF	1419	
ITEM 634.80210001: PEDESTRIAN RAILING	LF	654	
ITEM 680.7930001: SIGNAL HEAD REMOVAL	EA	4	
ITEM 680.82250301: SIGNAL POLE REMOVAL	EA	4	
ITEM 670.81: LAMP POST REMOVAL	EA	20	

**LEGEND**

DENOTES REMOVAL

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION
1	4/12/24	NH	DD	SIDEWALK DEMO FOR SEWER

**RECORD DRAWING CERTIFICATION**

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

CONSULTANT SEAL:

CONSULTANT INFORMATION:

1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

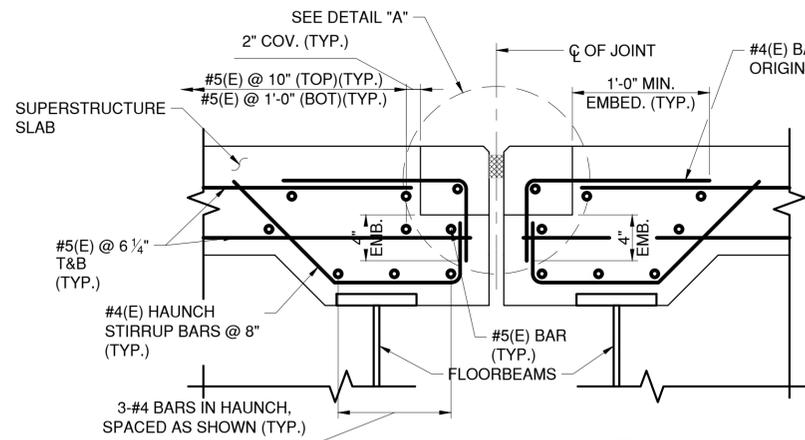
**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

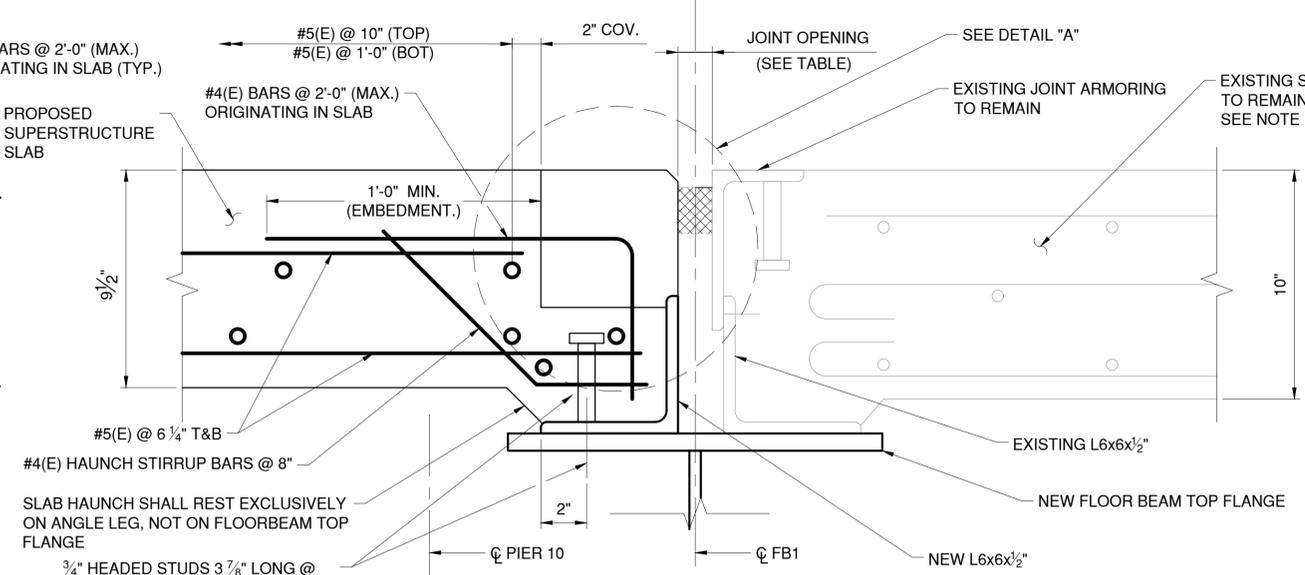
STRUCTURAL

**DEMOLITION PLAN - BRIDGE**

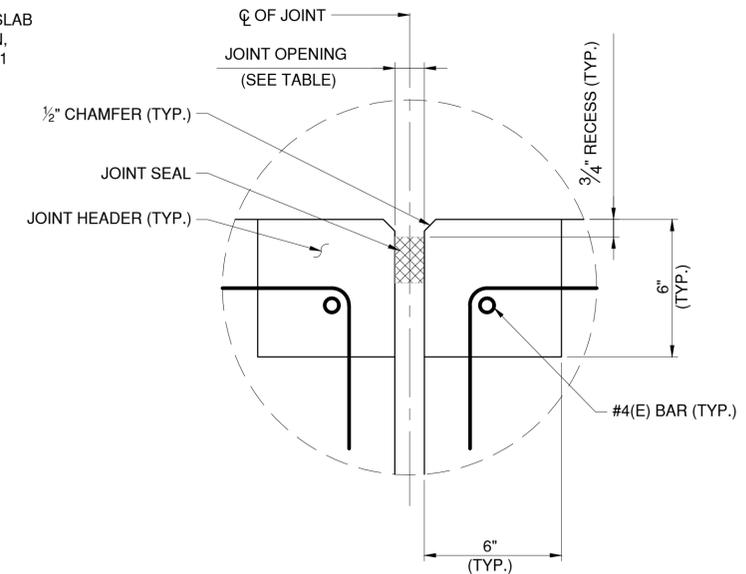
CONTRACT NUMBER 20-517	SHEET NUMBER S-02
SHEET NO. 43 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-R-478-0	1



**SECTION A**  
SPAN 13 DECK JOINT S-62  
NOT TO SCALE

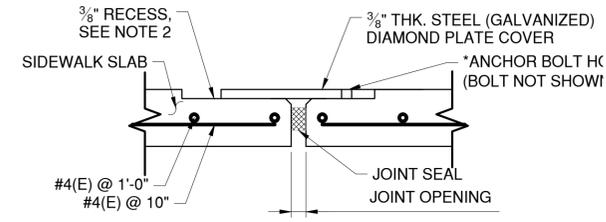


**SECTION B**  
PIER 10 DECK JOINT S-63  
NOT TO SCALE

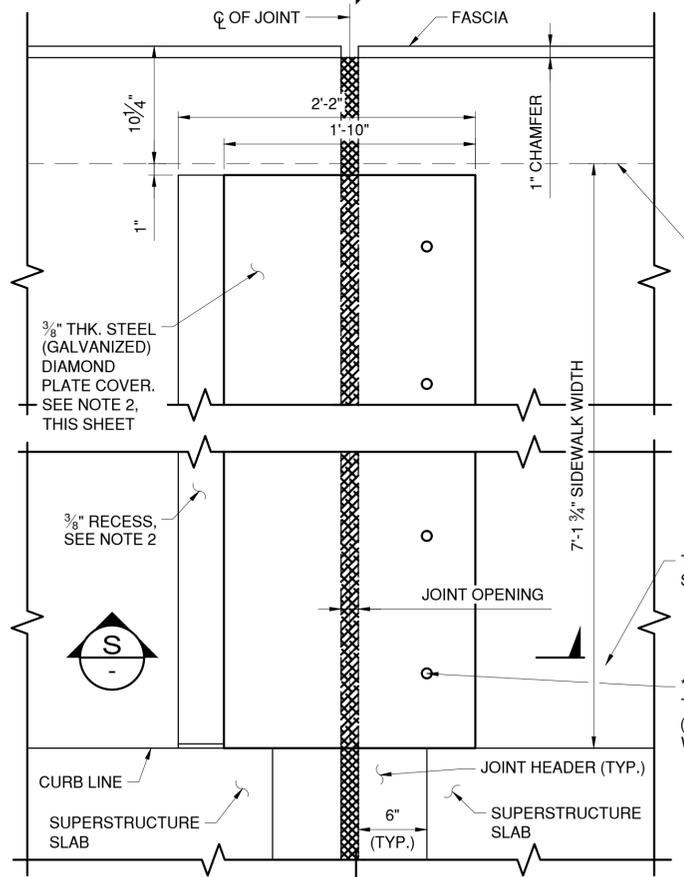


**DETAIL A**  
NOT TO SCALE

EXPANSION JOINT OPENING TABLE			
SPAN 13 MIDSPAN		PIER 10	
SUPERSTRUCTURE TEMPERATURE (°F)	JOINT OPENING (IN.)	SUPERSTRUCTURE TEMPERATURE (°F)	JOINT OPENING (IN.)
30	2.09	30	1.68
35	2.01	35	1.66
40	1.93	40	1.63
45	1.85	45	1.61
50	1.78	50	1.59
55	1.70	55	1.56
60	1.62	60	1.54
65	1.55	65	1.51
70	1.47	70	1.49
75	1.39	75	1.47
80	1.32	80	1.44
85	1.24	85	1.42
90	1.16	90	1.39
95	1.08	95	1.37
100	1.01	100	1.35
105	0.93	105	1.32
110	0.85	110	1.30

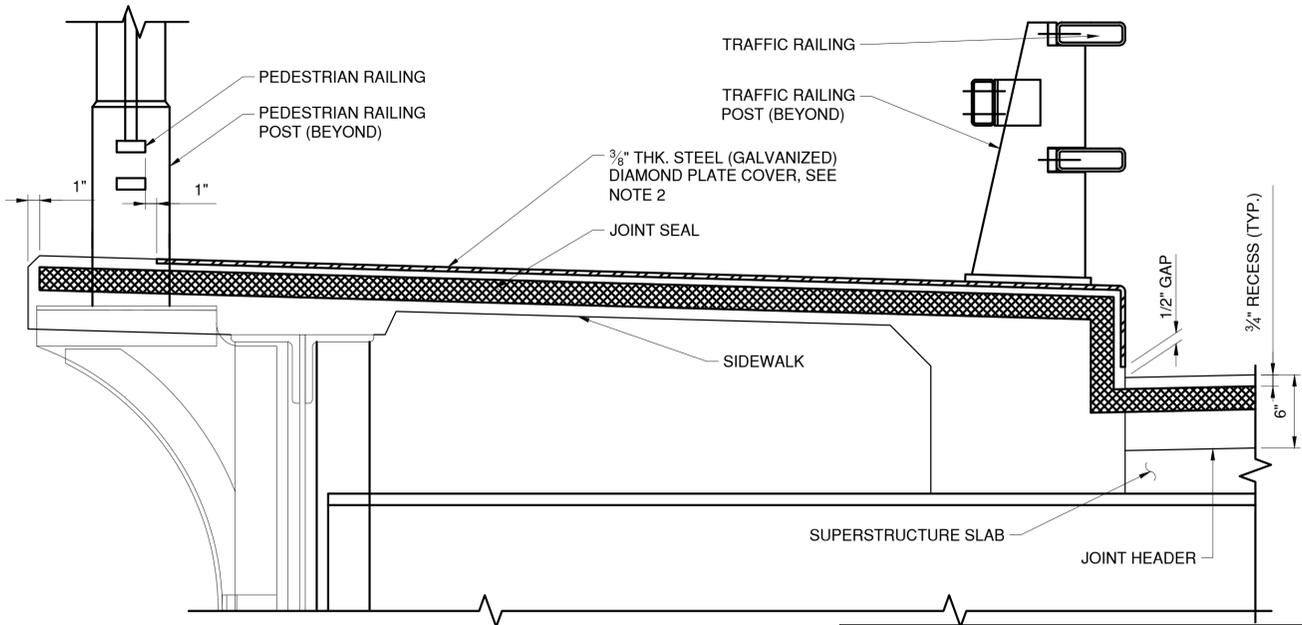


**SECTION S**  
NOT TO SCALE



**PARTIAL PLAN SPAN 13 DECK JOINT**  
(PIER 10 JOINT SIMILAR)  
NOT TO SCALE

- NOTES:**
- PLAZA SLAB AT PIER 10 SHALL BE TEMPORARILY SUPPORTED WHILE THE NEW FLOOR BEAM IS INSTALLED. CARE SHALL BE TAKEN NOT TO DAMAGE THE EXISTING SLAB, REINFORCEMENT OR JOINT ARMORING.
  - AT THE PIER 10 DECK JOINT, OMIT RECESS FOR THE COVER PLATE. ANCHOR BOLTS FOR COVER PLATE SHALL BE LOCATED ON THE SPAN 11 SIDE OF THE JOINT. BEVEL EDGES OF THE 3/8" PLATE AT A 4H:1V SLOPE DOWN TO A 1/8" MINIMUM THICKNESS.
  - THE "JOINT OPENING" SHALL BE DETERMINED AT THE TIME OF PLACEMENT, USING THE TABLE PROVIDED ON THIS DRAWING.
  - THE CONTRACTOR SHALL SUPPLY A JOINT SEAL WITH AN UNCOMPRESSED WIDTH EQUAL TO OR GREATER THAN THE DIMENSION NOTED AS "MIN. SEAL WIDTH" IN THE TABLE PROVIDED ON THIS DRAWING. THE SEAL SUPPLIED SHALL NOT EXCEED THE MANUFACTURER'S COMPRESSION LIMITS AT THE "MINIMUM" OPENING NOTED IN THE TABLE.
  - THE SUPERSTRUCTURE TEMPERATURE USED TO DETERMINE THE JOINT OPENING SHALL BE THE AVERAGE OF THE BOTTOM OF THE GIRDER TOP FLANGES. A MINIMUM OF TWO TEMPERATURE READINGS PER SPAN SHALL BE USED TO CALCULATE THE AVERAGE SUPERSTRUCTURE TEMPERATURE.
  - DECK JOINTS IN SPAN 13, AT PIER 10 AND THE DECK OVER COUNTERWEIGHT JOINT SHALL BE PAID FOR UNDER ITEM 567.60. COVER PLATES AND HEADERS, AS REQUIRED HEREIN, ARE INCLUDED IN ITEM 567.60.
  - THE BASCULE SPAN TOE AND HEEL JOINTS SHALL BE PAID FOR UNDER ITEM 564.5100010 STRUCTURAL STEEL.



**SECTION R**  
NOT TO SCALE

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY F. SIEH, PE  
 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION
1	4/12/24	NMH	DD	JOINT WORK PAY ITEM ADDED

**RECORD DRAWING CERTIFICATION**

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR: \_\_\_\_\_ PROJECT COORDINATOR: \_\_\_\_\_

NAME: \_\_\_\_\_ NAME: \_\_\_\_\_  
 SIGNATURE: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_  
 TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_



**CONSULTANT INFORMATION**

**H&H** 1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

STRUCTURAL

**DECK JOINT DETAILS - 1**

CONTRACT NUMBER: 20-517 SHEET NUMBER: S-65  
 SHEET NO. 106 OF 212  
 SCALE: AS SHOWN DATE: 03/08/2024  
 DPW FILE NO. 5-04-S-541-0 REV. NO. 1

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
201.06	NEC	LS	CLEARING AND GRUBBING	LS		\$ _____	_____
202.19	36	CY	REMOVAL OF SUBSTRUCTURES	\$ _____	_____	\$ _____	_____
202.2202	1069	SF	REMOVAL OF STEEL SUPPORTED STRUCTURAL SLABS (WITH SHEARCONNECTORS) - TYPE B	\$ _____	_____	\$ _____	_____
202.2302	9615	SF	REMOVAL OF STEEL SUPPORTED STRUCTURAL SLABS (WITHOUT SHEARCONNECTORS) - TYPE B	\$ _____	_____	\$ _____	_____
203.02	1589	CY	UNCLASSIFIED EXCAVATION AND DISPOSAL	\$ _____	_____	\$ _____	_____
203.03	1590	CY	EMBANKMENT IN PLACE	\$ _____	_____	\$ _____	_____
204.01	76	CY	CONTROLLED LOW STRENGTH MATERIAL	\$ _____	_____	\$ _____	_____

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
205.97200011	NEC	LS	TESTING, HANDLING AND DISPOSAL OF CONTAMINATED DEWATERING FLUIDS	LS		\$ _____	_____
206.0201	150	CY	TRENCH AND CULVERT EXCAVATION	\$ _____	_____	\$ _____	_____
207.22	363	SY	GEOTEXTILE DRAINAGE	\$ _____	_____	\$ _____	_____
209.100101	2420	SY	MULCH - TEMPORARY	\$ _____	_____	\$ _____	_____
209.1003	2420	SY	SEED AND MULCH - TEMPORARY	\$ _____	_____	\$ _____	_____
209.13	147	LF	SILT FENCE-TEMPORARY	\$ _____	_____	\$ _____	_____
209.1501	1919	LF	TURBIDITY CURTAIN - TEMPORARY	\$ _____	_____	\$ _____	_____
209.1703	80	LF	DRAINAGE STRUCTURE INLET PROTECTION, PREFABRICATED-TEMPORARY	\$ _____	_____	\$ _____	_____

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
209.20120009	483	LF	Biodegradable Bio-Fiber Rolls 12 Inches	\$ _____	_____	\$ _____	_____
209.22	299	SY	CONSTRUCTION ENTRANCE	\$ _____	_____	\$ _____	_____
304.10119917	119	CY	SUBBASE COURSE, TYPE 1011-2	\$ _____	_____	\$ _____	_____
404.098101	346	TON	9.5 F1 TOP COURSE ASPHALT, 80 SERIES COMPACTION	\$ _____	_____	\$ _____	_____
404.198901	4	TON	19 F9 BINDER COURSE ASPHALT, 80 SERIES COMPACTION	\$ _____	_____	\$ _____	_____
404.378901	69	TON	37.5 F9 BASE COURSE ASPHALT, 80 SERIES COMPACTION	\$ _____	_____	\$ _____	_____
404.418901	138	TON	9.5 F9 TEMPORARY TOP COURSE ASPHALT, 80 SERIES COMPACTION	\$ _____	_____	\$ _____	_____

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
404.438901	276	TON	19 F9 TEMPORARY BINDER COURSE ASPHALT, 80 SERIES COMPACTION	\$ _____	_____	\$ _____	_____
407.0102	339	GAL	DILUTED TACK COAT	\$ _____	_____	\$ _____	_____
490.30	3073	SY	MISCELLANEOUS COLD MILLING OF BITUMINOUS CONCRETE	\$ _____	_____	\$ _____	_____
502.9310	1209	LF	Sealing Longitudinal Joints - Highway Joint Sealer	\$ _____	_____	\$ _____	_____
520.09000010	1291	LF	SAW CUTTING ASPHALT CONCRETE	\$ _____	_____	\$ _____	_____
552.13	2788	SF	TEMPORARY STEEL SHEETING	\$ _____	_____	\$ _____	_____
555.0105	19	CY	CONCRETE FOR STRUCTURES, CLASS A	\$ _____	_____	\$ _____	_____
555.80020001	145	LF	CRACK REPAIR BY EPOXY INJECTION (RESTORATION)	\$ _____	_____	\$ _____	_____

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
555.81980011	503	LF	CRACK REPAIR (.125 IN/WIDER) BY INJECTION OF PORTLAND CEMENTGROUT	\$ _____	_____	\$ _____	_____
556.0202	49025	LB	EPOXY-COATED BAR REINFORCEMENT FOR STRUCTURES	\$ _____	_____	\$ _____	_____
557.0109	625	SY	SUPERSTRUCTURE SLAB WITH INTEGRAL WEARING SURFACE - BOTTOMFORMWORK REQUIRED - TYPE 9 FRICTION	\$ _____	_____	\$ _____	_____
557.30	612	SY	SIDEWALKS AND SAFETY WALKS	\$ _____	_____	\$ _____	_____
557.32000018	692	SF	LIGHTWEIGHT HIGH-PERFORMANCE CONCRETE FOR THIN STRUCTURAL APPLICATIONS	\$ _____	_____	\$ _____	_____
560.09	11298	SF	TUCK POINTING	\$ _____	_____	\$ _____	_____
560.10070008	11298	SF	CLEANING OF STONE MASONRY AND CONCRETE SURFACES	\$ _____	_____	\$ _____	_____

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
560.11200007	40	LF	CONSTRUCT DRY STONE WALL	\$ _____	_____	\$ _____	_____
560.13200007	100	LF	REMOVE AND RESET STONE WALL	\$ _____	_____	\$ _____	_____
560.40000008	2967	SF	REPAIR STONE MASONRY	\$ _____	_____	\$ _____	_____
564.510001	392816	LB	STRUCTURAL STEEL	\$ _____	_____	\$ _____	_____
565.1521	2	EACH	TYPE M.R. EXPANSION BEARING (0 TO 225 KIPS)	\$ _____	_____	\$ _____	_____
565.1522	4	EACH	TYPE M.R. EXPANSION BEARING (226 TO 450 KIPS)	\$ _____	_____	\$ _____	_____
565.1721	2	EACH	TYPE M.R. FIXED BEARING (0 TO 225 KIPS)	\$ _____	_____	\$ _____	_____
565.1722	2	EACH	TYPE M.R. FIXED BEARING (226 TO 450 KIPS)	\$ _____	_____	\$ _____	_____

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
567.60	70	LF	ARMORLESS BRIDGE JOINT SYSTEM	\$ _____	_____	\$ _____	_____
568.53	623	LF	STEEL BRIDGE RAILING (TWO RAIL) WITH HANDRAIL	\$ _____	_____	\$ _____	_____
568.70	100	LF	TRANSITION BRIDGE RAILING	\$ _____	_____	\$ _____	_____
570.01	NEC	LS	LEAD EXPOSURE CONTROL PLAN	LS		\$ _____	_____
570.02	6825	DC	MEDICAL TESTING	DC		\$ <u>6,510</u>	<u>00</u>
570.03	6510	DC	PERSONAL EXPOSURE MONITORING SAMPLE ANALYSIS	DC		\$ <u>10,400</u>	<u>00</u>
570.04	26	CW	DECONTAMINATION FACILITIES	\$ _____	_____	\$ _____	_____
570.150001	NEC	LS	CLASS A CONTAINMENT FOR PAINT REMOVAL	LS		\$ _____	_____

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
571.03	993	LB	DISPOSAL OF HAZARDOUS PAINT WASTE CONTAINING LEAD	\$ _____	_____	\$ _____	_____
571.04	53	LB	DISPOSAL OF NON-HAZARDOUS INDUSTRIAL SOLID PAINT WASTE	\$ _____	_____	\$ _____	_____
572.010001	33574	SF	STRUCTURAL STEEL PAINT SYSTEM: SHOP APPLIED	\$ _____	_____	\$ _____	_____
573.010001	NEC	LS	STRUCTURAL STEEL PAINTING FIELD APPLIED, TOTAL REMOVAL	LS		\$ _____	_____
576.01	4	EACH	SCUPPERS (TYPE A)	\$ _____	_____	\$ _____	_____
581.01	11285	SF	REMOVAL OF BITUMINOUS CONCRETE OVERLAY (BRIDGE)	\$ _____	_____	\$ _____	_____
581.02	3537	SF	REMOVAL OF CEMENT CONCRETE OVERLAY (BRIDGE)	\$ _____	_____	\$ _____	_____

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
582.05	26	CY	REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH CLASS A CONCRETE	\$ _____	_____	\$ _____	_____
582.06	104	SF	REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASS D CONCRETE	\$ _____	_____	\$ _____	_____
582.07	50	SF	REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH VERTICAL AND OVERHEAD PATCHING MATERIAL	\$ _____	_____	\$ _____	_____
584.310908	236	SY	OVERLAY CONCRETE - CLASS DP - TYPE 9 FRICTION	\$ _____	_____	\$ _____	_____
585.01	10	EACH	STRUCTURAL LIFTING OPERATIONS - TYPE A	\$ _____	_____	\$ _____	_____
586.05	4372	EACH	REMOVAL OF RIVETS - REPLACEMENT WITH HIGH STRENGTH BOLTS	\$ _____	_____	\$ _____	_____
586.10	589	EACH	FIELD DRILL HOLES IN EXISTING STRUCTURAL STEEL	\$ _____	_____	\$ _____	_____

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
589.010001	267020	LB	REMOVAL OF EXISTING STEEL	\$ _____	_____	\$ _____	_____
589.520001	10	EACH	REMOVAL OF EXISTING STEEL	\$ _____	_____	\$ _____	_____
594.11000010	133	LF	FIBERGLASS REINFORCED PLASTIC (FRP) COMPOSITE LUMBERFOR BRIDGE FENDER	\$ _____	_____	\$ _____	_____
595.98200018	16592	SF	SPRAY-APPLIED, WATERPROOFING MEMBRANE	\$ _____	_____	\$ _____	_____
596.01	103	SF	OPEN STEEL FLOOR	\$ _____	_____	\$ _____	_____
596.122010WE	1586	SF	STEEL GRID DECK	\$ _____	_____	\$ _____	_____
599.061001WE	NEC	LS	REHABILITATE BUILDING INTERIOR	LS		\$ _____	_____
599.061201WE	NEC	LS	REHABILITATE SPAN DRIVE MANCHINERY	LS		\$ _____	_____

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
599.061202WE	NEC	LS	REFURBISH TRUNIONS	LS		\$ _____	_____
599.061203WE	NEC	LS	MACHINERY FIELD PAINTING	LS		\$ _____	_____
599.061204WE	NEC	LS	SERVICE REDUCERS	LS		\$ _____	_____
599.061205WE	NEC	LS	REPLACE SPAN LOCKS AND MISCELLANEOUS REPAIRS	LS		\$ _____	_____
599.061206WE	28	MO	PERMANENT BRIDGE OPERATION AND MAINTENANCE	\$ _____	_____	\$ _____	_____
599.061301WE	NEC	LS	BRIDGE BALANCE	LS		\$ _____	_____
599.061701WE	NEC	LS	CONTROL HOUSE HVAC	LS		\$ _____	_____
599.061801WE	NEC	LS	CONTROL HOUSE PLUMBING	LS		\$ _____	_____

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
599.061802WE	NEC	LS	COUNTERWEIGHT PIT DEWATERING	LS		\$ _____	_____
599.063000WE	NEC	LS	BRIDGE ELECTRICAL AND CONTROL SYSTEM	LS		\$ _____	_____
599.064000WE	NEC	LS	MOVABLE BRIDGE ELECTRICAL TESTING	LS		\$ _____	_____
599.142500WE	NEC	LS	MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS	LS		\$ _____	_____
599.142600WE	NEC	LS	MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS INSTALLATION	LS		\$ _____	_____
599.20200010	NEC	LS	REMOVAL OF EXISTING WARNING GATES AND BIKEWAY GATES	LS		\$ _____	_____
604.07210110	8	EACH	RESETTING EXISTING DRAINAGE FRAMES ON EXISTING DRAINAGE STRUCTURES	\$ _____	_____	\$ _____	_____
605.16010008	93	LF	NON-PERFORATED PVC PIPE, 4" DIAMETER PIPE	\$ _____	_____	\$ _____	_____

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
607.0512	190	LF	VINYL COATED STEEL CHAIN-LINK FENCE ON PLASTIC COATED FRAMEWITH TOP RAIL 6 FEET HIGH	\$ _____	_____	\$ _____	_____
607.99870011	190	LF	REMOVE EXISTING CHAIN-LINK FENCE	\$ _____	_____	\$ _____	_____
608.0101	7	CY	CONCRETE SIDEWALKS AND DRIVEWAYS	\$ _____	_____	\$ _____	_____
608.01050109	1	EACH	CURB RAMP CONFIGURATION TYPE 1	\$ _____	_____	\$ _____	_____
608.01050209	2	EACH	CURB RAMP CONFIGURATION TYPE 2	\$ _____	_____	\$ _____	_____
608.01050309	5	EACH	CURB RAMP CONFIGURATION TYPE 3	\$ _____	_____	\$ _____	_____
608.01051409	1	EACH	CURB RAMP CONFIGURATION TYPE 14	\$ _____	_____	\$ _____	_____

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
608.020102	216	TON	ASPHALT SIDEWALKS, DRIVEWAYS AND BICYCLE PATHS,AND VEGETATION CONTROL STRIPS	\$ _____	_____	\$ _____	_____
609.0401	735	LF	CAST-IN-PLACE CONCRETE CURB TYPE VF6	\$ _____	_____	\$ _____	_____
609.06000008	1419	LF	CURB REMOVAL	\$ _____	_____	\$ _____	_____
609.40000015	20	EACH	REINFORCED PRECAST CONCRETE PARKING BLOCKS	\$ _____	_____	\$ _____	_____
610.1402	318	CY	TOPSOIL - ROADSIDE	\$ _____	_____	\$ _____	_____
610.1601	242	SY	TURF ESTABLISHMENT - ROADSIDE	\$ _____	_____	\$ _____	_____
610.1602	2377	SY	TURF ESTABLISHMENT - LAWNS	\$ _____	_____	\$ _____	_____
610.18	2377	SY	SODDING	\$ _____	_____	\$ _____	_____

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
611.0161	3	EACH	PLANTING - MAJOR DECIDUOUS TREES - 2 1/2 INCH CALIPER BALL& BURLAP, FIELD POTTED OR FIELD BOXED	\$ _____	_____	\$ _____	_____
611.0171	3	EACH	PLANTING - MAJOR DECIDUOUS TREES - 3 INCH CALIPER BALL& BURLAP, FIELD POTTED OR FIELD BOXED	\$ _____	_____	\$ _____	_____
619.01	NEC	LS	BASIC WORK ZONE TRAFFIC CONTROL	LS		\$ _____	_____
619.04	6	EACH	TYPE III CONSTRUCTION BARRICADE	\$ _____	_____	\$ _____	_____
619.0501	NEC	LS	TEMPORARY STRUCTURES AND APPROACHES NO 1	LS		\$ _____	_____
619.07010001	20	EACH	PLASTIC CONSTRUCTION DRUMS (EACH)	\$ _____	_____	\$ _____	_____
619.0901	3400	LF	TEMPORARY PAVEMENT MARKINGS STRIPES (TRAFFIC PAINT)	\$ _____	_____	\$ _____	_____

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
619.110722	2	EACH	(PVMS) LARGE SIZE - FULL MATRIX (LED) RADAR, CELLULAR COMMUNICATIONS	\$ _____	_____	\$ _____	_____
619.1714	100	LF	Temporary Positive Barrier - Category 4 (Pinning Permitted)	\$ _____	_____	\$ _____	_____
619.1716	400	LF	Temporary Positive Barrier - Category 6 (Pinning Required)	\$ _____	_____	\$ _____	_____
620.05	242	CY	STONE FILLING (HEAVY)	\$ _____	_____	\$ _____	_____
620.0801	120	CY	BEDDING MATERIAL, TYPE 1	\$ _____	_____	\$ _____	_____
621.04	8	EACH	CLEANING DRAINAGE STRUCTURES	\$ _____	_____	\$ _____	_____
623.11	311	CY	CRUSHED GRAVEL (IN-PLACE MEASURE)	\$ _____	_____	\$ _____	_____
634.80210001	654	LF	REFURBISH ORNAMENTAL RAILING SYSTEM	\$ _____	_____	\$ _____	_____

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
634.99020017	NEC	LS	VIBRATION MONITORING (NONBLASTING)	LS		\$ _____	_____
639.22010011	NEC	LS	CPM PROGRESS SCHEDULE - TYPE 2B	LS		\$ _____	_____
645.52020110	39	SF	Ground-Mount Sign Panel 30 SF or Less High Visb Sh Non-Retroreflect Sheet, Powder Coat Stiffener, Bracket, Misc Hrdware	\$ _____	_____	\$ _____	_____
645.81	8	EACH	TYPE A SIGN POSTS	\$ _____	_____	\$ _____	_____
647.51	7	EACH	REMOVE AND DISPOSE SIGN PANEL, SIGN PANEL ASSEMBLY SIZE I(UNDER 30 SQUARE FEET)	\$ _____	_____	\$ _____	_____
648.06	497	LF	DRILL HOLE, 4 INCH DIAMETER 0 TO 50 FOOT DEPTH RANGE	\$ _____	_____	\$ _____	_____
648.15	199	LF	ROCK CORE DRILLING NX	\$ _____	_____	\$ _____	_____

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
648.17	3	EACH	FURNISHING EQUIPMENT FOR MAKING BORINGS	\$ _____	_____	\$ _____	_____
648.19	6	EACH	FURNISHING EQUIPMENT FOR MAKING BORINGS ON WATER USING STATIONARY PLATFORM	\$ _____	_____	\$ _____	_____
655.05020008	1	EACH	WATERTIGHT SANITARY MANHOLE FRAMES AND COVERS (CASTINGS)	\$ _____	_____	\$ _____	_____
660.93000008	2	EACH	FURNISH AND INSTALL SANITARY SEWER LATERALS	\$ _____	_____	\$ _____	_____
660.97020011	NEC	LS	SANITARY SEWER CLEANOUTS	LS		\$ _____	_____
660.97100010	1	LF	PRECAST SANITARY SEWER MANHOLE	\$ _____	_____	\$ _____	_____
663.0604	10	LF	COPPER WATER SERVICE PIPE 1"	\$ _____	_____	\$ _____	_____

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
663.2504	1	EACH	WATER SERVICE CONNECTION, 1"	\$ _____	_____	\$ _____	_____
663.2604	1	EACH	CURB STOP & CURB BOX, 1"	\$ _____	_____	\$ _____	_____
663.51000004	1	EACH	FURNISH AND INSTALL NEW WATER VALVE BOX	\$ _____	_____	\$ _____	_____
664.01060004	322	LF	DUCTILE IRON SEWER PIPE & FITTINGS, 6"	\$ _____	_____	\$ _____	_____
664.40480006	10	LF	PRECAST SANITARY SEWER MANHOLE (48 INCH DIA.)	\$ _____	_____	\$ _____	_____
670.60	1	EACH	PHOTOELECTRIC CONTROLS	\$ _____	_____	\$ _____	_____
670.81	20	EACH	REMOVE AND DISPOSE OF LAMPPPOST	\$ _____	_____	\$ _____	_____
680.01040015	NEC	LS	TRAFFIC SIGNAL SYSTEM	LS		\$ _____	_____

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
680.1000007	3	EACH	INSTALL TRAFFIC SIGNAL POLE ALL SIZES	\$ _____	_____	\$ _____	_____
680.621630	1	EACH	TRAFFIC SIGNAL POLE, MAST ARM, 16 FEET MOUNTING HEIGHT, 30 FEET ARM LENGTH	\$ _____	_____	\$ _____	_____
680.6712	2	EACH	TRAFFIC SIGNAL POLE-POST TOP MOUNT 12 FEET MOUNTING HEIGHT	\$ _____	_____	\$ _____	_____
680.79300010	4	EACH	REMOVE TRAFFIC SIGNAL HEAD OR PEDESTRIAN SIGNAL HEAD	\$ _____	_____	\$ _____	_____
680.810101	4	EACH	TRAFFIC SIGNAL MODULE - 12 INCH, RED BALL, LED	\$ _____	_____	\$ _____	_____
680.810103	4	EACH	TRAFFIC SIGNAL MODULE - 12 INCH, YELLOW BALL, LED	\$ _____	_____	\$ _____	_____
680.810105	4	EACH	TRAFFIC SIGNAL MODULE - 12 INCH, GREEN BALL, LED	\$ _____	_____	\$ _____	_____

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
680.810107	4	EACH	TRAFFIC SIGNAL SECTION - TYPE I, 12 INCH	\$ _____	_____	\$ _____	_____
680.810308	4	EACH	INSTALL BALL/ARROW LED TRAFFIC SIGNAL MODULE	\$ _____	_____	\$ _____	_____
680.8111	2	EACH	TRAFFIC SIGNAL BRACKET ASSEMBLY - 1 WAY	\$ _____	_____	\$ _____	_____
680.8220	2	EACH	FLASHING BEACON SIGN ASSEMBLY	\$ _____	_____	\$ _____	_____
680.82250301	4	EACH	REMOVE STEEL EMBEDDED TRAFFIC SIGNAL POLE	\$ _____	_____	\$ _____	_____
683.090700WE	NEC	LS	MOVABLE BRIDGE STANDBY GENERATOR	LS		\$ _____	_____
685.07200110	1207	LF	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MILS(WET NIGHT VISIBILITY SPHERES)	\$ _____	_____	\$ _____	_____

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
685.07200410	322	LF	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES (CROSS HATCHING)20 MILS THICK (WET NIGHT VISIBILITY SPHERES)	\$ _____	_____	\$ _____	_____
685.07200510	272	LF	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES (SPECIAL MARKINGS) 20 MILS THICK (WET NIGHT VISIBILITY SPHERES)	\$ _____	_____	\$ _____	_____
685.07200610	1678	LF	YELLOW EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MILS(WET NIGHT VISIBILITY SPHERES)	\$ _____	_____	\$ _____	_____
<b>Subtotal of All Items Above:</b>						\$ _____	_____
699.020001WE	NEC	LS	MOBILIZATION (Must not exceed 2.00% of Subtotal Shown Above)	\$ _____	_____	\$ _____	_____
699.040002WE	NEC	LS	CONTRACT BONDS AND INSURANCE (Must not exceed 3.00% of Subtotal Shown Above)	\$ _____	_____	\$ _____	_____
800.000000WE	8000000	DC	MISCELLANEOUS ADDITIONAL WORK	\$ <u>8,000,000</u>		\$ <u>8,000,000</u>	<u>00</u>

CONTRACT NO. 20-517

**ITEMIZED PROPOSAL**

ITEM NO.	APPROXIMATE QUANTITIES	PAY UNIT	ITEM DESCRIPTION	UNIT BID PRICE		AMOUNT BID	
				DOLLARS	CTS.	DOLLARS	CTS.
851.000000WE	250000	DC	TESTING OF MATERIALS AND FIELD TESTING EQUIPMENT	\$	250,000		00

Gross Sum of Total Bid Written in Figures:	DOLLARS	CTS.
	\$ _____	_____

CONTRACTOR: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

SIGNED BY AND DATE: \_\_\_\_\_

## SUMMARY OF COMMENTS

Question #	RFI #	Contractor	Question	Response
044	006	RCC	How is tree removal + clearing and grubbing being paid for under this contract? Specifically in the areas of the temp bridge footprint Station 11+00 to 12+00. It is not called out on the contract drawings nor is there a pay item in the specifications for these two items.	Clearing and grubbing Item 201.06 to be added. See Addendum #4.
045	006	RCC	Please confirm that Stay In Place (SIP) forms will be permitted to use on this project.	SIP forms may be used.
046	006	RCC	Dwg: S-02 (sheet 43) "Deck Plan" depicts the existing Concrete approach overlay to be removed under Item 581.01. Dwg: S-83 (sheet 124) "Deck over Counterweight Plan and Note #2" shows the same concrete approach section being removed under Item 581.02. Please clarify which item the overlay will be removed under.	Item 581.01 covers overlay removal at grade (STA 12+18.10 to STA 12+63). Item 581.02 covers overlay removal on the deck-over-counterweight structure (STA 12+63 to STA 12+90.50).
047	006	RCC	Dwg: SEC-05 shows "Geotextile for Tidal Wetland Protection" under Item 209.22. Please confirm that is the correct bid item.	Item should be 207.22. See Addendum #4 for revised drawings.
048	006	RCC	Please confirm drilling and grouting anchor bolts for bearings will be paid under the corresponding bearing items.	Drilling/grouting of anchor bolts is only anticipated to be required at Pier 14. At this location, drilling and grouting will be paid for under the corresponding bearing item. At all other piers, the height of the pier top rebuild is tall enough to accommodate casting the anchor bolts into the new concrete and drilling/grouting will not be required.
049	006	RCC	Please confirm drilling and grouting epoxy coated rebar will be paid under 556.0202	Confirmed.
050	006	RCC	Refer to sheet GP-01, the proposed crosswalk line striping is called out as "PROPOSED CROSSWALK, TYPE LS (TYP) ITEM 685.070200410, ITEM 685.07200510", however those items are not shown to have LS units within the Itemized Proposal, rather they are shown to have LF units. Please clarify, and amend if necessary, if the proposed crosswalk is to be paid for as a Lump Sum or per LF.	Proposed crosswalk shall be paid for per linear foot (LF) as correctly shown on our drawings. The 'LS' refers to the Type of Crosswalk (combined standard ladder bar) based on NYSDOT Standard Sheet 685-01 Pavement Marking Details (Sheet 2 of 9)
051	006	RCC	Refer to sheet WZTCN-01, note 22 states "VMS SHALL BE INCLUDED UNDER 619.110722", however this bid item was not included within the Itemized Proposal. Please add item 619.110722 to the itemized proposal.	Sheet G-04 and Itemized Proposal will be revised to reflect item 619.110722 and quantity 2. See Addendum #4.
052	006	RCC	Typical Section # 3 on Sheet # 8 indicates new 5" Concrete sidewalk on both sides of the street, Sheet # 29 indicates 6.2 CY of 5" concrete sidewalks will be replaced on only the side behind the Control House, and Sheet 43 notes that the existing pavilion concrete to remain. We believe there will be a small section of exiting concrete sidewalk behind the control house will need to be removed & replaced for underground work, but can you please show required removal section on the demo plans and confirm it is only behind the control house side.	Concrete sidewalk shall be removed and replaced as necessary to install the sewer main. Sheet 43 (S-02) will be revised to show anticipated sidewalk demolition for sanitary sewer line. See Addendum #4.
053	006	RCC	Item No 584.310908 is referred to on sheet 107 Note 3 and it indicates this is the replacement concrete for what is removed by hydro blasting, however the unit of SY and/or the quantity provided on the bid item does not seem correct. Please advise.	Item 584.310908 is for the entire overlay on the deck-over-counterweight, including at the joint. Removal of the overlay on the entire deck-over-counterweight structure, including hydroblasting of the infill near the joint shall be paid for under Item 581.02. Quantities for these two items reflect work for the entire deck-over-counterweight.

## SUMMARY OF COMMENTS

Question #	RFI #	Contractor	Question	Response
054	006	RCC	<p>Please advise on the following Sanitary Sewer Scope:</p> <p>a. Is the proposed precast 48" Sanitary Manhole shown on sheet 13 a "Dog House" Style structure?</p> <p>b. Please advise what the existing sanitary main size is.</p> <p>c. Please provide the grate elevation of the 48" manhole.</p> <p>d. On sheet 30 the table with the 48" San Sewer Manhole indicates that there are 2 ea structures both at 5', however we cannot locate the structure between station 12+56 &amp; 12+82, it may be marked as a sanitary sewer cleanout, please advise &amp; provide detail of both structures.</p>	<p>a. Yes</p> <p>b. 8" asbestos cement pipe based on what we received from New Rochelle via FOIL. See FOIL #2022-06-1824 in Addendum #4.</p> <p>c. Topographic survey performed during design did not extend to the manhole. The intent is to set the grate flush with with existing top of pavement.</p> <p>d. The structure between station 12+56 &amp; 12.82 is marked as a Forced Relief Cleanout on Sheet 13 and plumbing Sheet 148. It has two inverts, one for the forced drain from restroom pump and other invert for gravity drain.</p>
055	007	American Bridge	There are numerous quantity differences between the Itemized Proposal in ITB Volume 1 and the quantities shown on Sheet G-04. Please clarify.	The quantities in the Itemized Proposal in ITB Volume 1 are rounded up.
056	007	American Bridge	<p>Please clarify in water work definition with regards to environmental restriction from January 16th through October 31st.</p> <p>a. What activities can and cannot take place during this period?</p> <p>b. Will borings be able to take place during the environmental restriction?</p> <p>c. Is all in-water work activities prohibited during the restrictive window or only sediment disturbing activities?</p>	As stated in Permits Note 3 on Sheet G-07, all activities involving benthic disturbance shall be performed between October 1st and January 15th. Additional clarifications may be obtained from the NYS DEC.
057	007	American Bridge	Based on the as-builts (Contract Number 4031, Drawing No. 5-04-S-266), a similar bearing replacement scheme has already been used. Were the temporary piles used for that operation completely removed, or just cut-off at some depth?	The available as-builts do not indicate whether these temporary piles were removed. No additional information regarding these temporary piles is available at this time.
058	007	American Bridge	What pay item will the removal of embankment for temporary bridge approaches be paid under?	Quantity for Item 203.02 has been revised. See Addendum #4.
059	007	American Bridge	How will the pay limits be measured for unit driven pay items that are tied to or affected by the contractor designed temporary bridge such as embankment for example.	The structural components of the temporary bridge (abutment to abutment inclusive, wingwalls, retaining walls, etc.) are to be included in the Item 619.0501 lump sum. Civil components of the temporary bridge including embankment, pavement and striping have respective pay items as shown on G-04, MST-01 and MST-02.
060	007	American Bridge	Please provide all applicable draft permits submitted to the various agencies for contractor review.	See Addendum #3.
061	007	American Bridge	Please provide Westchester County's approved schedule for alternating traffic/single lane closures applicable for this project as specified on Note 3 DWG WZTCN-01.	The Contractor shall coordinate their work schedule with the County and the Harbor Club.

## SUMMARY OF COMMENTS

Question #	RFI #	Contractor	Question	Response
062	007	American Bridge	<p>There are several floating docks located adjacent to the bridge.</p> <p>a. Can these docks be temporarily removed to facilitate construction access?</p> <p>b. Who's responsibility is it to move/relocate the docks? If it is the Contractor's responsibility please confirm/provide pay item on where this work should be classified under.</p> <p>c. If the docks can be temporarily removed, can details of how they are secured be provided?</p>	<p>The floating docks adjacent to the Project Site are owned by Huguenot Yacht Club and any movement/relocation shall be coordinated with the Huguenot Commodore. Any cost associated with conflicts between the temporary bridge and the floating docks to the east of the permanent bridge shall be paid for under Item 619.0501. No additional payment will be made for dock relocation associated with Contractor means and methods.</p>
063	007	American Bridge	<p>Please confirm/provide durations the contractor shall assume for the following key milestones to better define the schedule:</p> <p>a. Calendar days from bid date to notice of award</p> <p>b. Calendar days from notice of award to notice to proceed</p>	<p>For both Items a &amp; b, the duration can be 2-3 months, but they can be expedited at the County's discretion and with the Contractor's cooperation.</p>
064	007	American Bridge	<p>Under the Basis of Payment for Pay Item 634.80210001 "Refurbish Ornamental Railing System", it states the unit price is to include the cost of replacing unsalvageable portions of the existing railing. As we are not able to determine all portions that may be unsalvageable at bid time, we request that an allowance pay item be added to deal with this issue.</p>	<p>The extent of deterioration and unsalvageable portions of the railing shall be inspected and verified by the Contractor to the satisfaction of the Engineer. Extensive deterioration would be considered Extra Work and is subject to negotiation.</p>
065	007	American Bridge	<p>Will any other laydown locations owned and operated by the county, city, and/or parks department be available to the contractor for temporary laydown?</p>	<p>Staging may be done on the roadway approaches to the bridge (STA 11+50 to STA 12+50) once the temporary bridge is operational. Additional staging areas may be requested by the Contractor after notice of award.</p>
066	007	American Bridge	<p>Please clarify what Pay Item(s) the Deck Joint work (shown on Sheets S-65 to S-68) is classified under. This includes: (a) joint seal, (b) diamond cover plate, and (c) steel items shown on sheets S-66 and S-67.</p>	<p>Steel items are included in the 564.510001 Structural Steel pay item for bascule toe and heel joint work. Armorless Bridge Joint Item 567.60 has been added and shall be used to pay for the bridge joint work in Span 13, Pier 10 and the deck over counterweight joint. See revised drawings G-04 and S-65 in Addendum #4.</p>
067	008	RCC	<p>Refer to sheet G-06, Structural Scope of Work note 3.2 states "REMOVE AND REPLACE EXISTING DECK EXPANSION JOINTS". What bid item does the deck expansion joint replacement get paid under?</p>	<p>See response to Question 066 above.</p>
068	008	RCC	<p>Are there any Buy American or Buy America clauses in this contract, if yes please advise for what material.</p>	<p>There are no Buy America(n) clauses in the contract.</p>
069	008	RCC	<p>Specifications Volume # 1, permit pending sections indicates that the County is waiting on receipt of the outstanding permits and they will incorporate them into the specifications via an addendum, please advise on when the bidders will receive these permits for review.</p>	<p>See response to Question 005 above.</p>
070	008	RCC	<p>Please advise if the required temp bridge foundation borings listed in the geotechnical notes on sheet 128 will have to be performed outside of the "no in-water" work restriction period.</p>	<p>See response to Question 056 above.</p>

## SUMMARY OF COMMENTS

Question #	RFI #	Contractor	Question	Response
071	008	RCC	The temporary bridge drawings on sheets 128-132 do not mention or show temporary lighting. The existing bridge has lighting and the temp bridge notes on drawing E-03 line 19 mention roadway lighting; what are the requirements if needed?	Note 19 requires the Contractor to provide a fully furnished and accessorized bridge that will meet or exceed the facilities of the existing bridge. Since the existing bridge has roadway lighting, the temporary bridge should also feature roadway lighting. The Roadway lighting requirements for the temporary bridge shall meet the requirements for Roadway lighting for a similar roadway as outline in ANSI RP-8.



Hardesty & Hanover  
Kenneth Ho  
1501 Broadway  
New York, NY 10036

**FREEDOM OF INFORMATION - REQUEST FILLED**  
**FOIL #2022-06-1824: Glen Island Bridge**

07/27/2022

Dear Kenneth Ho,

The Freedom of Information records request that you submitted to the City of New Rochelle, New York as referenced above has been filled with the following remarks:

**The Department of Public Works has provided the following response:**

**"Attached is a GIS map of the Sewer & Storm. What is shown, is approximate, not an as-built of actual field conditions and should be confirmed in the field. The water system is privately owned by Veolia Water. The City does not own/have any records of the water system."**

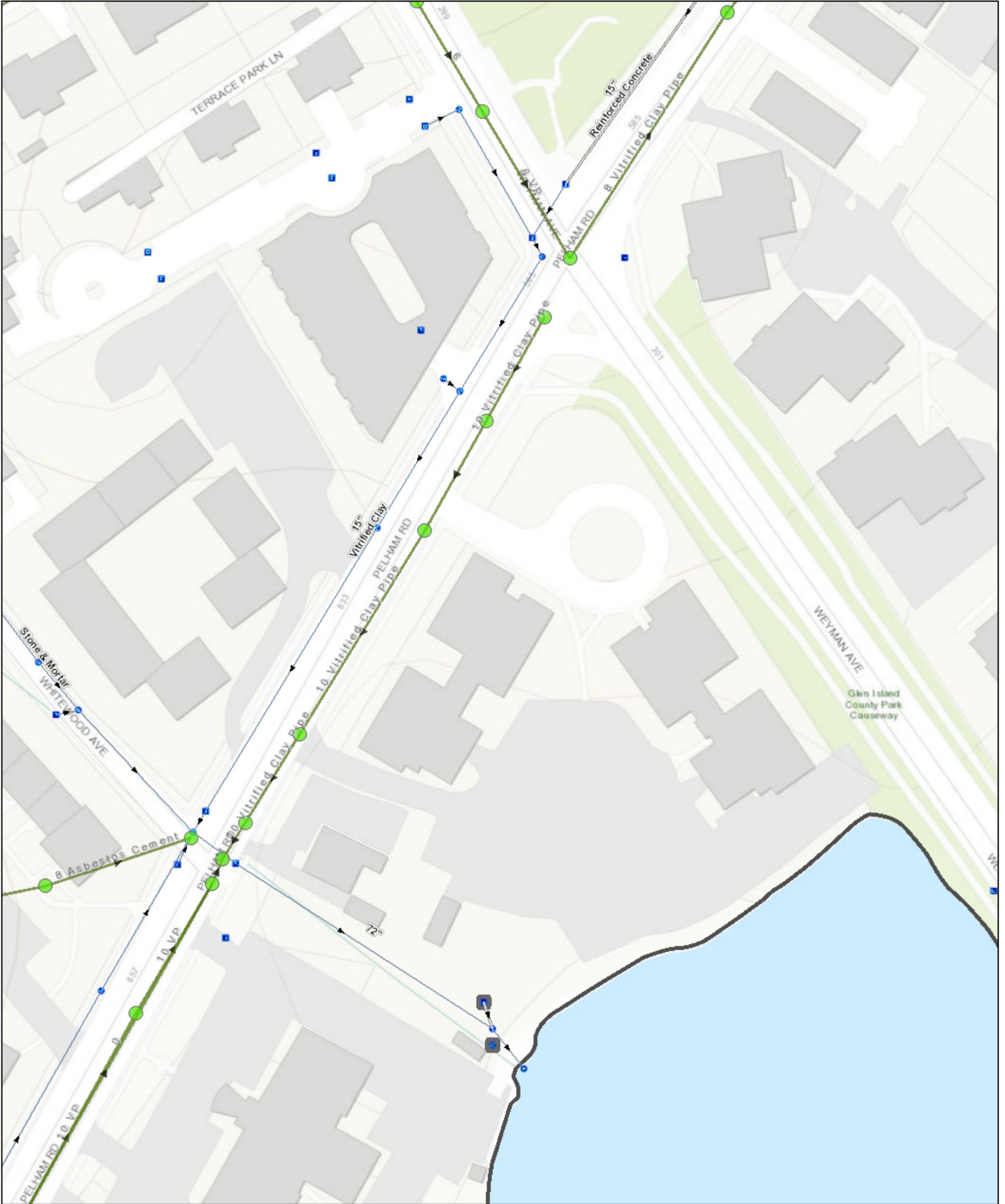
Sincerely,

Michelle Oliveros

Michelle Oliveros  
Records Access Officer  
City of New Rochelle, New York

cc: Law Department

# New Rochelle Sewer Data Viewer



7/26/2022, 4:11:53 PM

**Drainage\_Structures**

- Other
- Area Drain
- Catchbasin
- Catchbasin - Review
- Drywell
- ) Headwall
- ⤵ Headwall - Review
- Interconnect
- Interconnect - Review
- Manhole
- Manhole - Review
- Outfall
- Outfall - Review
- Structural BMP

**Drainage\_Pipes**

- Open, Review
- ⋯ Open
- Closed - Review
- Closed
- Sewer Lines
- <all other values>
- 0

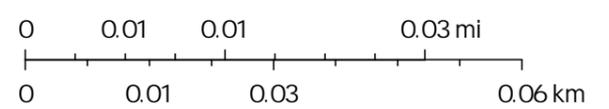
**Manholes**

- <all other values>
- Combined Waste Water
- Potable Water
- Raw Water
- Reclaimed Water
- Salt Water

**Sewage**

- Storm Runoff
- Treated Water
- Waste Water Effluent
- Pump Station

1:1,128



NYC OpenData, County of Westchester, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, EPA, USDA

# New Rochelle Sewer Data Viewer



7/26/2022, 4:18:34 PM

**Drainage\_Structures**

- Other
- Area Drain
- Catchbasin
- Catchbasin - Review
- Drywell
- ) Headwall
- ⌋ Headwall - Review
- Interconnect
- Interconnect - Review
- Manhole
- Manhole - Review
- Outfall
- Outfall - Review
- Structural BMP

**Drainage\_Pipes**

- Open, Review
- ... Open
- Closed - Review
- Closed
- Sewer Lines
- <all other values>
- 0

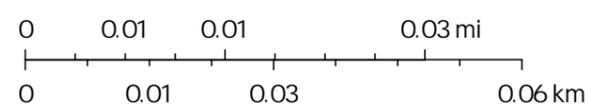
**Manholes**

- <all other values>
- Combined Waste Water
- Potable Water
- Raw Water
- Reclaimed Water
- Salt Water

**Sewage**

- Storm Runoff
- Treated Water
- Waste Water Effluent
- Pump Station

1:1,128



NYC OpenData, County of Westchester, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, EPA, USDA

# New Rochelle Sewer Data Viewer



7/26/2022, 4:23:17 PM

**Drainage\_Structures**

- Other
- Area Drain
- Catchbasin
- Catchbasin - Review
- Drywell
- ) Headwall
- ⌋ Headwall - Review
- Interconnect
- Interconnect - Review
- Manhole
- Manhole - Review
- Outfall
- Outfall - Review
- Structural BMP

**Drainage\_Pipes**

- Open, Review
- ⋯ Open
- Closed - Review
- Closed
- Sewer Lines
- <all other values>
- 0

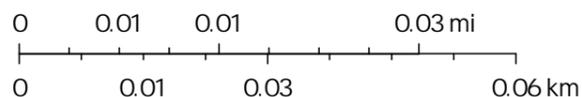
**Manholes**

- <all other values>
- Combined Waste Water
- Potable Water
- Raw Water
- Reclaimed Water
- Salt Water

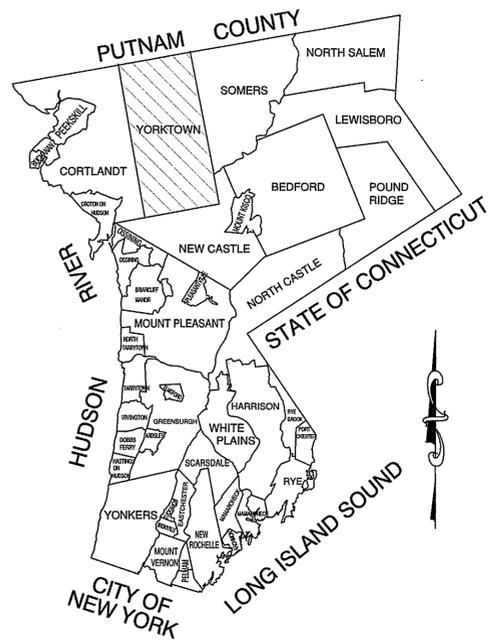
**Sewage**

- Sewage
- Storm Runoff
- Treated Water
- Waste Water Effluent
- Pump Station

1:1,128



NYC OpenData, County of Westchester, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, EPA, USDA



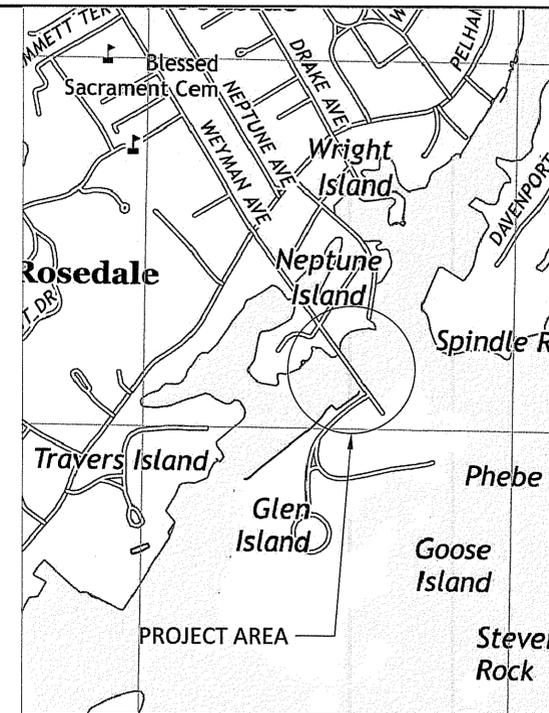
WESTCHESTER COUNTY

# Westchester County

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

CONTRACT No. 20-517

## REHABILITATION OF GLEN ISLAND APPROACH BRIDGE OVER NEW ROCHELLE HARBOR (BIN 3348880) CITY OF NEW ROCHELLE, NY



LOCATION MAP  
 SCALE: N.T.S.

CONSULTANT SEAL 	CONSULTANT INFORMATION 
	1501 BROADWAY, SUITE 601 NEW YORK, NY 10036 (212) 944-1150

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION
RECORD DRAWING CERTIFICATION				
<input type="checkbox"/> AS BUILT - CHANGES AS NOTED <input type="checkbox"/> AS BUILT - NO CHANGES				
CONTRACTOR			PROJECT COORDINATOR	
NAME	SIGNATURE	DATE	NAME	SIGNATURE
TITLE	TITLE	DATE	TITLE	DATE

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY N. HYSOON, PE

<u>Angelo Sgobbo</u> 2/15/24 RECOMMENDED FOR CONSTRUCTION DATE ANGELO SGOBBO, P.E. DIRECTOR OF DESIGN COORDINATION DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION	<u>Gayle M. Katzman</u> 2-15-2024 RECOMMENDED FOR CONSTRUCTION DATE GAYLE M. KATZMAN, P.E. FIRST DEPUTY COMMISSIONER DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION	<u>Kathleen O'Connor</u> 2/15/24 APPROVED FOR CONSTRUCTION DATE KATHLEEN O'CONNOR COMMISSIONER DEPARTMENT OF PARKS, RECREATION AND CONSERVATION	<u>Hugh J. Greechan, Jr.</u> 2/15/24 APPROVED FOR CONSTRUCTION DATE HUGH J. GREECHAN, JR. P.E. COMMISSIONER DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
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WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER G-01
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor City of New Rochelle		SHEET NO. 1 OF 212 SCALE: AS SHOWN DATE: 3/8/2024 DPW FILE NO.	REV. NO. 0
<b>TITLE SHEET</b>		5-04-T-436-0	



SHEET NO.	DRAWING NO.	DPW FILE NO.	DRAWING TITLE
			ELECTRICAL
163	E-01	5-04-E-598-0	ELECTRICAL GENERAL NOTES 1
164	E-02	5-04-E-599-0	ELECTRICAL GENERAL NOTES 2
165	E-03	5-04-E-600-0	ELECTRICAL GENERAL NOTES 3
166	E-04	5-04-E-601-0	ELECTRICAL LEGEND & ABBREVIATIONS
167	E-05	5-04-E-602-0	ELECTRICAL GENERAL PLAN & ELEVATION
168	E-06	5-04-E-603-0	EXISTING PARTIAL ONE LINE DIAGRAM
169	E-07	5-04-E-604-0	EQUIPMENT LAYOUT - DEMOLITION PLAN
170	E-08	5-04-E-605-0	GENERATOR PLATFORM EQUIP'T LAYOUT - DEMO PL
171	E-09	5-04-E-606-0	PROPOSED PARTIAL ONE LINE DIAGRAM 1
172	E-10	5-04-E-607-0	PROPOSED PARTIAL ONE LINE DIAGRAM 2
173	E-11	5-04-E-608-0	PROPOSED EQUIPMENT LAYOUT - PLAN 1
174	E-12	5-04-E-609-0	PROPOSED EQUIPMENT LAYOUT - PLAN 2
175	E-13	5-04-E-610-0	PROP'D GENERATOR PLATFORM EQUIP LAYOUT
176	E-14	5-04-E-611-0	PROPOSED CONTROL DESK - LAYOUT
177	E-15	5-04-E-612-0	PROPOSED CONTROL DESK - ELEVATION
178	E-16	5-04-E-613-0	PROPOSED MOTOR CONTROL CENTER LAYOUT
179	E-17	5-04-E-614-0	PROPOSED MODIFICATIONS TO LP2
180	E-18	5-04-E-615-0	PROPOSED PARTIAL THREE LINE DIAGRAM 1
181	E-19	5-04-E-616-0	PROPOSED PARTIAL THREE LINE DIAGRAM 2
182	E-20	5-04-E-617-0	PROPOSED PARTIAL THREE LINE DIAGRAM 3
183	E-21	5-04-E-618-0	PROPOSED CONTROL DESK PLC I/O 1
184	E-22	5-04-E-619-0	PROPOSED CONTROL DESK PLC I/O 2
185	E-23	5-04-E-620-0	PROPOSED CONTROL DESK PLC I/O 3
186	E-24	5-04-E-621-0	PROPOSED PLC CABINET I/O 1
187	E-25	5-04-E-622-0	PROPOSED PLC CABINET I/O 2
188	E-26	5-04-E-623-0	PROPOSED PLC ARCHITECTURE
189	E-27	5-04-E-624-0	PROPOSED WIRING DIAGRAM - CONTROL POWER
190	E-28	5-04-E-625-0	PROPOSED WIRING DIAGRAM - GATES SPAN LOCKS
191	E-29	5-04-E-626-0	PROP'D WIRING DIAG - GATE LIGHTS AND NAV LIGHTS
192	E-30	5-04-E-627-0	PROP'D WRG DIAGR - TRAF SIGNAL MOTOR HTR'S
193	E-31	5-04-E-628-0	PROP'D WIRING DIAGRAM - AUX MOTOR & BRAKES
194	E-32	5-04-E-629-0	PROPOSED LIMIT SWITCH DEVELOPMENT 1
195	E-33	5-04-E-630-0	PROPOSED LIMIT SWITCH DEVELOPMENT 2
196	E-34	5-04-E-631-0	PROPOSED CONDUIT BLOCK DIAGRAM 1
197	E-35	5-04-E-632-0	PROPOSED CONDUIT BLOCK DIAGRAM 2
198	E-36	5-04-E-633-0	PROPOSED CONDUIT AND CABLE SCHEDULE 1
199	E-37	5-04-E-634-0	PROPOSED CONDUIT AND CABLE SCHEDULE 2
200	E-38	5-04-E-635-0	PROP'D ROADWAY LIGHTING LAYOUT AND CONTROL
201	E-39	5-04-E-636-0	PROPOSED ROADWAY CONDUIT LAYOUT
202	E-40	5-04-E-637-0	PROPOSED BARRIER GATE DIMENSIONS
203	E-41	5-04-E-638-0	PROPOSED WARNING GATE DIMENSIONS
204	E-42	5-04-E-639-0	CONDUIT MOUNTING DETAILS 1
205	E-43	5-04-E-640-0	CONDUIT MOUNTING DETAILS 2
206	E-44	5-04-E-641-0	PROPOSED SUBMARINE CABLE AND TRENCH DET'S
207	E-45	5-04-E-642-0	PROPOSED SUBMARINE CABLE CABINET LAYOUT
208	E-46	5-04-E-643-0	PROPOSED CABINET LAYOUT
209	E-47	5-04-E-644-0	PROPOSED DRIVE CABINET LAYOUT
210	E-48	5-04-E-645-0	PROPOSED CCTV LAYOUT
211	E-49	5-04-E-646-0	PARTIAL GROUNDING RISER
212	E-50	5-04-E-647-0	PROP'D ADMIN BLDG FIBER OPTIC CABLE ROUTE



CONSULTANT INFORMATION



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT – CHANGES AS NOTED  
 AS BUILT – NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____ DATE _____			

**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

GENERAL

**DRAWING INDEX - 2**

CONTRACT NUMBER 20-517	SHEET NUMBER G-03
SHEET NO. 3 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-G-438-0	REV. NO. 0

ITEM NO.	ITEM DESCRIPTION	QTY	UNIT
201.06	CLEARING AND GRUBBING	1	LS
202.19	REMOVAL OF SUBSTRUCTURES	36	CY
202.2202	REMOVAL OF STEEL SUPPORTED STRUCTURAL SLABS (WITH SHEARCONNECTORS) - TYPE B	1069	SF
202.2302	REMOVAL OF STEEL SUPPORTED STRUCTURAL SLABS (WITHOUT SHEARCONNECTORS) - TYPE B	9615	SF
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	1589	CY
203.03	EMBANKMENT IN PLACE	1590	CY
204.01	CONTROLLED LOW STRENGTH MATERIAL (CLSM)	76	CY
205.97200011	COUNTERWEIGHT PIT CLEANUP & DISPOSAL	1	LS
206.0201	TRENCH AND CULVERT EXCAVATION	150	CY
207.22	GEOTEXTILE DRAINAGE	363	SY
209.100101	MULCH - TEMPORARY	2420	SY
209.1003	SEED AND MULCH - TEMPORARY	2420	SY
209.13	SILT FENCE-TEMPORARY	147	LF
209.1501	TURBIDITY CURTAIN - TEMPORARY	1919	LF
209.1703	DRAINAGE STRUCTURE INLET PROTECTION, PREFABRICATED-TEMPORARY	80	LF
209.20120009	BIODEGRADABLE BIO-FIBER ROLLS 12 INCHES	483	LF
209.22	CONSTRUCTION ENTRANCE	299	SY
304.10119917	SUBBASE COURSE, TYPE 1011-2	119	CY
404.098101	9.5 F1 Top Course HMA, 80 Series Compaction	346	TON
404.198901	19 F9 BINDER COURSE ASPHALT, 80 SERIES COMPACTION	4	TON
404.378901	37.5 F9 Base Course HMA, 80 Series Compaction	69	TON
404.418901	9.5 F9 TEMPORARY TOP COURSE ASPHALT, 80 SERIES COMPACTION	138	TON
404.438901	19 F9 Temporary Binder Course HMA, 80 Series Compaction	276	TON
407.0102	DILUTED TACK COAT	339	GAL
490.30	MISCELLANEOUS COLD MILLING OF BITUMINOUS CONCRETE	3073	SY
502.9310	SEALING LONGITUDINAL JOINTS - HIGHWAY JOINT SEALER	1209	LF
520.09000010	SAW CUTTING ASPHALT CONCRETE	1291	LF
552.13	TEMPORARY STEEL SHEETING	2788	SF
555.0105	CONCRETE FOR STRUCTURES, CLASS A	19	CY
555.80020001	CRACK REPAIR BY EPOXY INJECTION (RESTORATION)	145	LF
555.81980011	CRACK REPAIR (.125 IN WIDER) BY INJECTION OF PORTLAND CEMENTGROUT	503	LF
556.0202	EPOXY-COATED BAR REINFORCEMENT FOR STRUCTURES	49025	LB
557.0109	SUPERSTRUCTURE SLAB WITH INTEGRAL WEARING SURFACE - BOTTOMFORMWORK REQUIRED - TYPE 9 FRICTION	625	SY
557.30	SIDEWALKS AND SAFETY WALKS	612	SY
557.32000018	LIGHTWEIGHT HIGH-PERFORMANCE CONCRETEFOR THINSTRUCTURAL APPLICATIONS	692	SF
560.09	TUCK POINTING	11298	SF
560.10070008	CLEANING OF STONE MASONRY AND CONCRETE SURFACES	11298	SF
560.11200007	CONSTRUCT DRY STONE WALL	40	LF
560.13200007	REMOVE AND RESET STONE WALL	100	LF
560.40000008	REPAIR STONE MASONRY	2967	SF
564.510001	STRUCTURAL STEEL	392816	LB
565.1521	TYPE M.R. EXPANSION BEARING (0 TO 225 KIPS)	2	EA
565.1522	TYPE M.R. EXPANSION BEARING (226 TO 450 KIPS)	4	EA
565.1721	TYPE M.R. FIXED BEARING (0 TO 225 KIPS)	2	EA
565.1722	TYPE M.R. FIXED BEARING (226 TO 450 KIPS)	2	EA
567.60	ARMORLESS BRIDGE JOINT SYSTEM	70	LF
568.53	STEEL BRIDGE RAILING (TWO RAIL) WITH HANDRAIL	623	LF
568.70	TRANSITION BRIDGE RAILING	100	LF
570.01	LEAD EXPOSURE CONTROL PLAN	1	LS
570.02	MEDICAL TESTING	6825	DC
570.03	PERSONAL EXPOSURE MONITORING SAMPLE ANALYSIS	6510	DC
570.04	DECONTAMINATION FACILITIES	26	CW
570.150001	CLASS A CONTAINMENT FOR PAINT REMOVAL	1	LS
571.03	DISPOSAL OF HAZARDOUS PAINT WASTE CONTAINING LEAD	993	LB
571.04	DISPOSAL OF NON-HAZARDOUS INDUSTRIAL SOLID PAINT WASTE	53	LB
572.010001	STRUCTURAL STEEL PAINT SYSTEM: SHOP APPLIED	33574	SF
573.010001	STRUCTURAL STEEL PAINTING FIELD APPLIED, TOTAL REMOVAL	1	LS
576.01	SCUPPERS (TYPE A)	4	EA
581.01	REMOVAL OF BITUMINOUS CONCRETE OVERLAY (BRIDGE)	11285	SF
581.02	REMOVAL OF CEMENT CONCRETE OVERLAY (BRIDGE)	3537	SF
582.05	REMOVAL OF STRUCTURAL CONCRETE- REPLACEMENT WITH CLASS ACONCRETE	26	CY
582.06	REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASSD CONCRETE	104	SF
582.07	REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH VERTICALAND OVERHEAD PATCHING MATERIAL	50	SF
584.310908	OVERLAY CONCRETE - CLASS DP - TYPE 9 FRICTION	236	SY
585.01	STRUCTURAL LIFTING OPERATIONS - TYPE A	10	EA
586.05	REMOVAL OF RIVETS - REPLACEMENT WITH HIGH STRENGTH BOLTS	4372	EA
586.10	FIELD DRILL HOLES IN EXISTING STRUCTURAL STEEL	589	EA
589.010001	REMOVAL OF EXISTING STEEL	267020	LB
589.520001	REMOVAL OF EXISTING STEEL	10	EA
594.11000010	FIBERGLASS REINFORCED PLASTIC (FRP) COMPOSITE LUMBERFOR BRIDGE FENDER	133	LF
595.98200018	SPRAY-APPLIED, WATERPROOFING MEMBRANE	16592	SF
596.01	OPEN STEEL FLOOR	103	SF
596.122010WE	STEEL GRID DECK	1586	SF
599.061001WE	REHABILITATE BUILDING INTERIOR	1	LS
599.061201WE	REHABILITATE SPAN DRIVE MANCHINERY	1	LS
599.061202WE	REFURBISH TRUINONS	1	LS
599.061203WE	MACHINERY FIELD PAINTING	1	LS
599.061204WE	SERVICE REDUCERS	1	LS
599.061205WE	REPLACE SPAN LOCKS AND MISCELLANEOUS REPAIRS	1	LS
599.061206WE	PERMANENT BRIDGE OPERATION AND MAINTENANCE	28	MONTHS
599.061301WE	BRIDGE BALANCE	1	LS
599.061701WE	CONTROL HOUSE HVAC	1	LS
599.061801WE	CONTROL HOUSE PLUMBING	1	LS
599.061802WE	COUNTERWEIGHT PIT DEWATERING	1	LS

2

2

2

1

ITEM NO.	ITEM DESCRIPTION	QTY	UNIT
599.063000WE	BRIDGE ELECTRICAL AND CONTROL SYSTEM	1	LS
599.064000WE	MOVABLE BRIDGE ELECTRICAL TESTING	1	LS
599.142500WE	MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS	1	LS
599.142600WE	MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS INSTALLATION	1	LS
599.20200010	REMOVAL OF EXISTING WARNING GATES AND BIKEWAY GATES	1	LS
604.07210110	RESETTING EXISTING DRAINAGE FRAMES ON EXISTING DRAINAGESTRUCTURES	8	EA
605.16010008	NON-PERFORATED PVC PIPE, 4" DIAMETER PIPE	93	LF
607.0512	VINYL COATED STEEL CHAIN-LINK FENCE ON PLASTIC COATED FRAMEWITH TOP RAIL 6 FEET HIGH	190	LF
607.99870011	REMOVE EXISTING CHAIN-LINK FENCE	190	LF
608.0101	CONCRETE SIDEWALKS AND DRIVEWAYS	7	CY
608.01050109	CURB RAMP CONFIGURATION TYPE 1	1	EA
608.01050209	CURB RAMP CONFIGURATION TYPE 2	2	EA
608.01050309	CURB RAMP CONFIGURATION TYPE 3	5	EA
608.01051409	CURB RAMP CONFIGURATION TYPE 14	1	EA
608.020102	ASPHALT SIDEWALKS, DRIVEWAYS AND BICYCLE PATHS,AND VEGETATION CONTROL STRIPS	216	TON
609.0401	CAST-IN-PLACE CONCRETE CURB TYPE VF6	735	LF
609.06000008	CURB REMOVAL	1419	LF
609.40000015	REINFORCED PRECAST CONCRETE PARKING BLOCKS	20	EA
610.1402	TOPSOIL - ROADSIDE	318	CY
610.1601	TURF ESTABLISHMENT - ROADSIDE	242	SY
610.1602	TURF ESTABLISHMENT - LAWNS	2377	SY
610.18	SODDING	2377	SY
611.0161	PLANTING - MAJOR DECIDUOUS TREES - 2 1/2 INCH CALIPER BALL& BURLAP, FIELD POTTED OR FIELD BOXED	3	EA
611.0171	PLANTING - MAJOR DECIDUOUS TREES - 3 INCH CALIPER BALL& BURLAP, FIELD POTTED OR FIELD BOXED	3	EA
619.01	BASIC WORK ZONE TRAFFIC CONTROL	1	LS
619.04	TYPE III CONSTRUCTION BARRICADE	6	EA
619.0501	TEMPORARY STRUCTURES AND APPROACHES NO 1	1	LS
619.07010001	PLASTIC CONSTRUCTION DRUMS (EACH)	20	EA
619.0901	TEMPORARY PAVEMENT MARKINGS STRIPES (TRAFFIC PAINT)	3400	LF
619.110722	(PVMS) LARGE SIZE - FULL MATRIX (LED) RADAR, CELLULARCOMMUNICATIONS	2	EA
619.1714	Temporary Positive Barrier - Category 4 (Pinning Permitted)	100	LF
619.1716	Temporary Positive Barrier - Category 6 (Pinning Required)	400	LF
620.05	STONE FILLING (HEAVY)	242	CY
620.0801	BEDDING MATERIAL, TYPE 1	120	CY
621.04	CLEANING DRAINAGE STRUCTURES	8	EA
623.11	CRUSHED GRAVEL (IN-PLACE MEASURE)	311	CY
634.80210001	REFURBISH ORNAMENTAL RAILING SYSTEM	654	LF
634.99020017	VIBRATION MONITORING (NONBLASTING)	1	LS
639.22010011	CPM PROGRESS SCHEDULE - TYPE 2A	1	LS
645.52020110	Ground-Mount Sign Panel 30 SF or Less High Visb Sh Non-Retroreflect Sheet, Powder Coat Stiffener, Bracket, Misc Hrdware	39	SF
645.81	TYPE A SIGN POSTS	8	EA
647.51	REMOVE AND DISPOSE SIGN PANEL, SIGN PANEL ASSEMBLY SIZE I(UNDER 30 SQUARE FEET)	7	EA
648.06	DRILL HOLE, 4 INCH DIAMETER 0 TO 50 FOOT DEPTH RANGE	497	LF
648.15	ROCK CORE DRILLING NX	199	LF
648.17	FURNISHING EQUIPMENT FOR MAKING BORINGS	3	EA
648.19	FURNISHING EQUIPMENT FOR MAKING BORINGS ON WATER USINGSTATIONARY PLATFORM	6	EA
655.05020008	WATERTIGHT SANITARY MANHOLE FRAMES AND COVERS (CASTINGS)	1	EA
660.93000008	FURNISH AND INSTALL SANITARY SEWER LATERALS	2	EA
660.97020011	SANITARY SEWER CLEANOUTS	1	LS
660.97100010	PRECAST SANITARY SEWER MANHOLE	1	LF
663.0604	COPPER WATER SERVICE PIPE 1"	10	LF
663.2504	WATER SERVICE CONNECTION, 1"	1	EA
663.2604	CURB STOP & CURB BOX, 1"	1	EA
663.53000004	REPLACE EXISTING WATER VALVE BOX TOP SECTION	1	EA
664.01060004	DUCTILE IRON SEWER PIPE & FITTINGS, 6"	322	LF
664.40480006	PRECAST SANITARY SEWER MANHOLE (48 INCH DIA.)	10	LF
670.60	PHOTOELECTRIC CONTROLS	1	EA
670.81	REMOVE AND DISPOSE OF LAMPOST ASSEMBLY	20	EA
680.01040015	TRAFFIC SIGNAL SYSTEM	1	LS
680.10000007	INSTALL TRAFFIC SIGNAL POLE ALL SIZES	3	EA
680.621630	TRAFFIC SIGNAL POLE, MAST ARM, 16 FEET MOUNTING HEIGHT,30 FEET ARM LENGTH	1	EA
680.6712	TRAFFIC SIGNAL POLE-POST TOP MOUNT 12 FEET MOUNTING HEIGHT	2	EA
680.7930001	REMOVE TRAFFIC SIGNAL HEAD OR PEDESTRIAN SIGNAL HEAD	4	EA
680.810101	TRAFFIC SIGNAL MODULE - 12 INCH, RED BALL, LED	4	EA
680.810103	TRAFFIC SIGNAL MODULE - 12 INCH, YELLOW BALL, LED	4	EA
680.810105	TRAFFIC SIGNAL MODULE - 12 INCH, GREEN BALL, LED	4	EA
680.810107	TRAFFIC SIGNAL SECTION - TYPE I, 12 INCH	4	EA
680.810308	INSTALL BALL/ARROW LED TRAFFIC SIGNAL MODULE	4	EA
680.8111	TRAFFIC SIGNAL BRACKET ASSEMBLY - 1 WAY	2	EA
680.8220	FLASHING BEACON SIGN ASSEMBLY	2	EA
680.82250301	REMOVE STEEL EMBEDDED TRAFFIC SIGNAL POLE	4	EA
683.090700WE	MOVABLE BRIDGE STANDBY GENERATOR	1	LS
685.07200110	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MILS(WET NIGHT VISIBILITY SPHERES)	1207	LF
685.07200410	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES (CROSS HATCHING)20 MILS THICK (WET NIGHT VISIBILITY SPHERES)	322	LF



CONSULTANT SEAL  
CONSULTANT INFORMATION



IN CHARGE OF D. DELUCA, PE  
CHECKED BY J. WARNCKE, PE  
MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION
1	3/30/24	NMH	DD	PAY ITEM ADDED
2	4/12/24	NMH	DD	ADDENDUM #4 REVISIONS

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR PROJECT COORDINATOR

NAME \_\_\_\_\_ NAME \_\_\_\_\_  
SIGNATURE \_\_\_\_\_ SIGNATURE \_\_\_\_\_  
TITLE \_\_\_\_\_ DATE \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle

GENERAL  
**DETAILED ESTIMATE SHEET**

CONTRACT NUMBER 20-517 SHEET NUMBER G-04  
SHEET NO. 4 OF 212  
SCALE: AS SHOWN DATE: 03/08/2024  
DPW FILE NO. 5-04-G-439-0 REV. NO. 2

ITEM NO.	ITEM DESCRIPTION	QTY	UNIT
202.19	REMOVAL OF SUBSTRUCTURES	36	CY
202.2202	REMOVAL OF STEEL SUPPORTED STRUCTURAL SLABS (WITH SHEARCONNECTORS) - TYPE B	1069	SF
202.2302	REMOVAL OF STEEL SUPPORTED STRUCTURAL SLABS (WITHOUT SHEARCONNECTORS) - TYPE B	9615	SF
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	166	CY
203.02	EMBANKMENT IN PLACE	1590	CY
204.01	CONTROLLED LOW STRENGTH MATERIAL (CLSM)	76	CY
205.972000	COUNTERWEIGHT PIT CLEANUP & DISPOSAL	1	LS
206.0201	TRENCH AND CULVERT EXCAVATION	150	CY
207.22	PERMEABLE DRAINAGE	363	SY
209.100101	MULCH - TEMPORARY	2420	SY
209.1003	SEED AND MULCH - TEMPORARY	2420	SY
209.13	SILT FENCE-TEMPORARY	147	LF
209.1501	TURBIDITY CURTAIN - TEMPORARY	1919	LF
209.1703	DRAINAGE STRUCTURE INLET PROTECTION, PREFABRICATED-TEMPORARY	80	LF
209.20120009	BIODEGRADABLE BIO-FIBER ROLL - 12 INCHES	483	LF
209.22	CONSTRUCTION ENTRANCE	299	SY
304.10119917	SUBBASE COURSE, TYPE 1011-2	119	CY
404.098101	9.5 F1 Top Course HMA, 80 Series Compaction	346	TON
404.198901	19 F9 BINDER COURSE ASPHALT, 80 SERIES COMPACTION	4	TON
404.378901	37.5 F9 Base Course HMA, 80 Series Compaction	69	TON
404.418901	9.5 F9 TEMPORARY TOP COURSE ASPHALT, 80 SERIES COMPACTION	138	TON
404.438901	19 F9 Temporary Binder Course HMA, 80 Series Compaction	276	TON
407.0102	DILUTED TACK COAT	339	GAL
490.30	MISCELLANEOUS COLD MILLING OF BITUMINOUS CONCRETE	3073	SY
502.9310	SEALING LONGITUDINAL JOINTS - HIGHWAY JOINT SEALER	1209	LF
520.09000010	SAW CUTTING ASPHALT CONCRETE	1291	LF
552.13	TEMPORARY STEEL SHEETING	2788	SF
555.0105	CONCRETE FOR STRUCTURES, CLASS A	19	CY
555.80020001	CRACK REPAIR BY EPOXY INJECTION (RESTORATION)	145	LF
555.81980011	CRACK REPAIR (.125 IN WIDER) BY INJECTION OF PORTLAND CEMENTGROUT	503	LF
556.0202	EPOXY-COATED BAR REINFORCEMENT FOR STRUCTURES	49025	LB
557.0109	SUPERSTRUCTURE SLAB WITH INTEGRAL WEARING SURFACE - BOTTOMFORMWORK REQUIRED - TYPE 9 FRICTION	625	SY
557.30	SIDEWALKS AND SAFETY WALKS	61	SY
557.32000018	LIGHTWEIGHT HIGH-PERFORMANCE CONCRETEFOR THINSTRUCTURAL APPLICATIONS	692	SF
560.09	TUCK POINTING	11298	SF
560.10070008	CLEANING OF STONE MASONRY AND CONCRETE SURFACES	11298	SF
560.11200007	CONSTRUCT DRY STONE WALL	40	LF
560.13200007	REMOVE AND RESET STONE WALL	100	LF
560.40000008	REPAIR STONE MASONRY	2967	SF
564.510001	STRUCTURAL STEEL	392816	LB
565.1521	TYPE M.R. EXPANSION BEARING (0 TO 225 KIPS)	2	EA
565.1522	TYPE M.R. EXPANSION BEARING (226 TO 450 KIPS)	4	EA
565.1721	TYPE M.R. FIXED BEARING (0 TO 225 KIPS)	2	EA
565.1722	TYPE M.R. FIXED BEARING (226 TO 450 KIPS)	2	EA
568.53	STEEL BRIDGE RAILING (TWO RAIL) WITH HANDRAIL	623	LF
568.70	TRANSITION BRIDGE RAILING	100	LF
570.01	LEAD EXPOSURE CONTROL PLAN	1	LS
570.02	MEDICAL TESTING	6825	DC
570.03	PERSONAL EXPOSURE MONITORING SAMPLE ANALYSIS	6510	DC
570.04	DECONTAMINATION FACILITIES	26	CW
570.150001	CLASS A CONTAINMENT FOR PAINT REMOVAL	1	LS
571.03	DISPOSAL OF HAZARDOUS PAINT WASTE CONTAINING LEAD	993	LB
571.04	DISPOSAL OF NON-HAZARDOUS INDUSTRIAL SOLID PAINT WASTE	53	LB
572.010001	STRUCTURAL STEEL PAINT SYSTEM: SHOP APPLIED	33574	SF
573.010001	STRUCTURAL STEEL PAINTING FIELD APPLIED, TOTAL REMOVAL	1	LS
576.01	SCUPPERS (TYPE A)	4	EA
581.01	REMOVAL OF BITUMINOUS CONCRETE OVERLAY (BRIDGE)	11285	SF
581.02	REMOVAL OF CEMENT CONCRETE OVERLAY (BRIDGE)	3537	SF
582.05	REMOVAL OF STRUCTURAL CONCRETE- REPLACEMENT WITH CLASS ACONCRETE	26	CY
582.06	REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASSD CONCRETE	104	SF
582.07	REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH VERTICALAND OVERHEAD PATCHING MATERIAL	50	SF
584.310908	OVERLAY CONCRETE - CLASS DP - TYPE 9 FRICTION	236	SY
585.01	STRUCTURAL LIFTING OPERATIONS - TYPE A	10	EA
586.05	REMOVAL OF RIVETS - REPLACEMENT WITH HIGH STRENGTH BOLTS	4372	EA
586.10	FIELD DRILL HOLES IN EXISTING STRUCTURAL STEEL	589	EA
589.010001	REMOVAL OF EXISTING STEEL	267020	LB
589.520001	REMOVAL OF EXISTING STEEL	10	EA
594.11000010	FIBERGLASS REINFORCED PLASTIC (FRP) COMPOSITE LUMBERFOR BRIDGE FENDER	133	LF
595.98200018	SPRAY-APPLIED, WATERPROOFING MEMBRANE	16592	SF
596.01	OPEN STEEL FLOOR	103	SF
596.122010WE	STEEL GRID DECK	1586	SF
599.061001WE	REHABILITATE BUILDING INTERIOR	1	LS
599.061201WE	REHABILITATE SPAN DRIVE MANCHINERY	1	LS
599.061202WE	REFURBISH TRUIONS	1	LS
599.061203WE	MACHINERY FIELD PAINTING	1	LS
599.061204WE	SERVICE REDUCERS	1	LS
599.061205WE	REPLACE SPAN LOCKS AND MISCELLANEOUS REPAIRS	1	LS
599.061206WE	PERMANENT BRIDGE OPERATION AND MAINTENANCE	28	MONTHS
599.061301WE	BRIDGE BALANCE	1	LS
599.061701WE	CONTROL HOUSE HVAC	1	LS
599.061801WE	CONTROL HOUSE PLUMBING	1	LS
599.061802WE	COUNTERWEIGHT PIT DEWATERING	1	LS
599.063000WE	BRIDGE ELECTRICAL AND CONTROL SYSTEM	1	LS
599.064000WE	MOVABLE BRIDGE ELECTRICAL TESTING	1	LS

ITEM NO.	ITEM DESCRIPTION	QTY	UNIT
599.142500WE	MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS	1	LS
599.142600WE	MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS INSTALLATION	1	LS
599.20200010	REMOVAL OF EXISTING WARNING GATES AND BIKEWAY GATES	1	LS
604.07210110	RESETTING EXISTING DRAINAGE FRAMES ON EXISTING DRAINAGESTRUCTURES	8	EA
605.16010008	NON-PERFORATED PVC PIPE, 4" DIAMETER PIPE	93	LF
607.0512	VINYL COATED STEEL CHAIN-LINK FENCE ON PLASTIC COATED FRAMEWITH TOP RAIL 6 FEET HIGH	190	LF
607.99870011	REMOVE EXISTING CHAIN-LINK FENCE	190	LF
608.0101	CONCRETE SIDEWALKS AND DRIVEWAYS	7	CY
608.01050109	CURB RAMP CONFIGURATION TYPE 1	1	EA
608.01050209	CURB RAMP CONFIGURATION TYPE 2	2	EA
608.01050309	CURB RAMP CONFIGURATION TYPE 3	5	EA
608.01051409	CURB RAMP CONFIGURATION TYPE 14	1	EA
608.020102	ASPHALT SIDEWALKS, DRIVEWAYS AND BICYCLE PATHS,AND VEGETATION CONTROL STRIPS	216	TON
609.0401	CAST-IN-PLACE CONCRETE CURB TYPE VF6	735	LF
609.06000008	CURB REMOVAL	1419	LF
609.40000015	REINFORCED PRECAST CONCRETE PARKING BLOCKS	20	EA
610.1402	TOPSOIL - ROADSIDE	318	CY
610.1601	TURF ESTABLISHMENT - ROADSIDE	242	SY
610.1602	TURF ESTABLISHMENT - LAWNS	2377	SY
610.18	SODDING	2377	SY
611.0161	PLANTING - MAJOR DECIDUOUS TREES - 2 1/2 INCH CALIPER BALL& BURLAP, FIELD POTTED OR FIELD BOXED	3	EA
611.0171	PLANTING - MAJOR DECIDUOUS TREES - 3 INCH CALIPER BALL& BURLAP, FIELD POTTED OR FIELD BOXED	3	EA
619.01	BASIC WORK ZONE TRAFFIC CONTROL	1	LS
619.04	TYPE III CONSTRUCTION BARRICADE	6	EA
619.0501	TEMPORARY STRUCTURES AND APPROACHES NO 1	1	LS
619.07010001	PLASTIC CONSTRUCTION DRUMS (EACH)	20	EA
619.0901	TEMPORARY PAVEMENT MARKINGS STRIPES (TRAFFIC PAINT)	3400	LF
619.1714	Temporary Positive Barrier - Category 4 (Pinning Permitted)	100	LF
619.1716	Temporary Positive Barrier - Category 6 (Pinning Required)	400	LF
620.05	STONE FILLING (HEAVY)	242	CY
620.0801	BEDDING MATERIAL, TYPE 1	120	CY
621.04	CLEANING DRAINAGE STRUCTURES	8	EA
623.11	CRUSHED GRAVEL (IN-PLACE MEASURE)	311	CY
634.80210001	REFURBISH ORNAMENTAL RAILING SYSTEM	654	LF
634.99020017	VIBRATION MONITORING (NONBLASTING)	1	LS
639.22010011	CPM PROGRESS SCHEDULE - TYPE 2A	1	LS
645.52020110	Ground-Mount Sign Panel 30 SF or Less High Visb Sh Non-Retroreflect Sheet, Powder Coat Stiffener, Bracket, Misc Hrdware	39	SF
645.81	TYPE A SIGN POSTS	8	EA
647.51	REMOVE AND DISPOSE SIGN PANEL, SIGN PANEL ASSEMBLY SIZE I(UNDER 30 SQUARE FEET)	7	EA
648.06	DRILL HOLE, 4 INCH DIAMETER 0 TO 50 FOOT DEPTH RANGE	497	LF
648.15	ROCK CORE DRILLING NX	199	LF
648.17	FURNISHING EQUIPMENT FOR MAKING BORINGS	3	EA
648.19	FURNISHING EQUIPMENT FOR MAKING BORINGS ON WATER USINGSTATIONARY PLATFORM	6	EA
655.05020008	WATER TIGHT SANITARY MANHOLE FRAMES AND COVERS (CASTINGS)	1	EA
660.93000008	FURNISH AND INSTALL SANITARY SEWER LATERALS	2	EA
660.97020011	SANITARY SEWER CLEANOUTS	1	LS
660.97100010	PRECAST SANITARY SEWER MANHOLE	1	LF
663.0604	COPPER WATER SERVICE PIPE 1"	10	LF
663.2504	WATER SERVICE CONNECTION 1"	1	EA
663.2604	CURB STOP & CURB BOX, 1"	1	EA
663.53000004	REPLACE EXISTING WATER VALVE BOX TOP SECTION	1	EA
664.01060004	DUCTILE IRON SEWER PIPE & FITTINGS, 6"	322	LF
664.40480006	PRECAST SANITARY SEWER MANHOLE (48 INCH DIA)	10	LF
670.60	PHOTOELECTRIC CONTROLS	1	EA
670.81	REMOVE AND DISPOSE OF LAMPPOST ASSEMBLY	20	EA
680.01040015	TRAFFIC SIGNAL SYSTEM	1	LS
680.10000007	INSTALL TRAFFIC SIGNAL POLE ALL SIZES	3	EA
680.621630	TRAFFIC SIGNAL POLE, MAST ARM, 16 FEET MOUNTING HEIGHT,30 FEET ARM LENGTH	1	EA
680.6712	TRAFFIC SIGNAL POLE-POST TOP MOUNT 12 FEET MOUNTING HEIGHT	2	EA
680.7930001	REMOVE TRAFFIC SIGNAL HEAD OR PEDESTRIAN SIGNAL HEAD	4	EA
680.810101	TRAFFIC SIGNAL MODULE - 12 INCH, RED BALL, LED	4	EA
680.810103	TRAFFIC SIGNAL MODULE - 12 INCH, YELLOW BALL, LED	4	EA
680.810105	TRAFFIC SIGNAL MODULE - 12 INCH, GREEN BALL, LED	4	EA
680.810107	TRAFFIC SIGNAL SECTION - TYPE I, 12 INCH	4	EA
680.810308	INSTALL BALL/ARROW LED TRAFFIC SIGNAL MODULE	4	EA
680.8111	TRAFFIC SIGNAL BRACKET ASSEMBLY - 1 WAY	2	EA
680.8220	FLASHING BEACON SIGN ASSEMBLY	2	EA
680.82250301	REMOVE STEEL EMBEDDED TRAFFIC SIGNAL POLE	4	EA
683.090700WE	MOVABLE BRIDGE STANDBY GENERATOR	1	LS
685.07200110	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MILS(WET NIGHT VISIBILITY SPHERES)	1207	LF
685.07200410	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES (CROSS HATCHING)20 MILS THICK (WET NIGHT VISIBILITY SPHERES)	322	LF
685.07200510	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES (SPECIAL MARKINGS) 20 MILS THICK (WET NIGHT VISIBILITY SPHERES)	272	LF
685.07200610	YELLOW EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MILS(WET NIGHT VISIBILITY SPHERES)	1678	LF

1

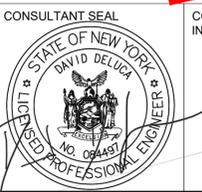
IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION
1	3/30/24	NMH	DD	PAY ITEM ADDED

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____



CONSULTANT SEAL  
DAVID DELUCA  
NO. 06481  
REGISTERED PROFESSIONAL ENGINEER



1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

GENERAL

**DETAILED ESTIMATE SHEET**

CONTRACT NUMBER 20-517	SHEET NUMBER G-04
SHEET NO. 4 OF 212	SCALE: AS SHOWN
DATE: 03/08/2024	DPW FILE NO. _____
5-04-G-439-0	REV. 1

ITEM NO.	ITEM DESCRIPTION	QTY	UNIT
202.19	REMOVAL OF SUBSTRUCTURES	36	CY
202.2202	REMOVAL OF STEEL SUPPORTED STRUCTURAL SLABS (WITH SHEARCONNECTORS) - TYPE B	1069	SF
202.2302	REMOVAL OF STEEL SUPPORTED STRUCTURAL SLABS (WITHOUT SHEARCONNECTORS) - TYPE B	9615	SF
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	166	CY
203.03	EMBANKMENT IN PLACE	1590	CY
203.04	CONTROLLED LOW STRENGTH MATERIAL (CLSM)	76	CY
205.9720001	COUNTERWEIGHT PIT CLEANUP & DISPOSAL	1	LS
206.0201	TRENCH AND CULVERT EXCAVATION	150	CY
207.22	GEOTEXTILE DRAINAGE	363	SY
209.100101	MULCH - TEMPORARY	2420	SY
209.1003	SEED AND MULCH - TEMPORARY	2420	SY
209.13	SILT FENCE - TEMPORARY	147	LF
209.1501	TURBIDITY CURTAIN - TEMPORARY	1919	LF
209.1703	DRAINAGE STRUCTURE - PROTECTION, PREFABRICATED-TEMPORARY	80	LF
209.20120009	BIODEGRADABLE BIO-FIBER ROLLS 12 INCHES	483	LF
209.22	CONSTRUCTION ENTRANCE	299	SY
304.10119917	SUBBASE COURSE, TYPE 1011-2	119	CY
404.098101	9.5 F1 Top Course HMA, 80 Series Compaction	346	TON
404.198901	19 F9 BINDER COURSE ASPHALT, 80 SERIES COMPACTON	4	TON
404.378901	37.5 F9 Base Course HMA, 80 Series Compaction	69	TON
404.418901	9.5 F9 TEMPORARY TOP COURSE ASPHALT, 80 SERIES COMPACTON	138	TON
404.438901	19 F9 Temporary Binder Course HMA, 80 Series Compaction	276	TON
407.0102	DILUTED TACK COAT	339	GAL
490.30	MISCELLANEOUS COLD MILLING OF BITUMINOUS CONCRETE	3073	SY
502.9310	SEALING LONGITUDINAL JOINTS - HIGHWAY JOINT SEALER	1209	LF
520.09000010	SAW CUTTING ASPHALT CONCRETE	1291	LF
552.13	TEMPORARY STEEL SHEETING	2788	SF
555.0105	CONCRETE FOR STRUCTURES, CLASS A	19	CY
555.80020001	CRACK REPAIR BY EPOXY INJECTION (RESTORATION)	145	LF
555.81980011	CRACK REPAIR (.125 IN WIDER) BY INJECTION OF PORTLAND CEMENTGROUT	503	LF
556.0202	EPOXY-COATED BAR REINFORCEMENT FOR STRUCTURES	49025	LB
557.0109	SUPERSTRUCTURE SLAB WITH INTEGRAL WEARING SURFACE - BOTTOMFORMWORK REQUIRED - TYPE 9 FRICTION	625	SY
557.30	SIDEWALKS AND SAFETY WALKS	674	SY
557.32000018	LIGHTWEIGHT HIGH-PERFORMANCE CONCRETEFOR THINSTRUCTURAL APPLICATIONS	692	SF
560.09	TUCK POINTING	11298	SF
560.10070008	CLEANING OF STONE MASONRY AND CONCRETE SURFACES	11298	SF
560.11200007	CONSTRUCT DRY STONE WALL	40	LF
560.13200007	REMOVE AND RESET STONE WALL	100	LF
560.40000008	REPAIR STONE MASONRY	2967	SF
564.510001	STRUCTURAL STEEL	392816	LB
565.1521	TYPE M.R. EXPANSION BEARING (0 TO 225 KIPS)	2	EA
565.1522	TYPE M.R. EXPANSION BEARING (226 TO 450 KIPS)	4	EA
565.1721	TYPE M.R. FIXED BEARING (0 TO 225 KIPS)	2	EA
565.1722	TYPE M.R. FIXED BEARING (226 TO 450 KIPS)	2	EA
568.53	STEEL BRIDGE RAILING (TWO RAIL) WITH HANDRAIL	623	LF
568.70	TRANSITION BRIDGE RAILING	100	LF
570.01	LEAD EXPOSURE CONTROL PLAN	1	LS
570.02	MEDICAL TESTING	6825	DC
570.03	PERSONAL EXPOSURE MONITORING SAMPLE ANALYSIS	6510	DC
570.04	DECONTAMINATION FACILITIES	26	CW
570.150001	CLASS A CONTAINMENT FOR PAINT REMOVAL	1	LS
571.03	DISPOSAL OF HAZARDOUS PAINT WASTE CONTAINING LEAD	993	LB
571.04	DISPOSAL OF NON-HAZARDOUS INDUSTRIAL SOLID PAINT WASTE	53	LB
572.010001	STRUCTURAL STEEL PAINT SYSTEM: SHOP APPLIED	33574	SF
573.010001	STRUCTURAL STEEL PAINTING FIELD APPLIED, TOTAL REMOVAL	1	LS
576.01	SCUPPERS (TYPE A)	4	EA
581.01	REMOVAL OF BITUMINOUS CONCRETE OVERLAY (BRIDGE)	11285	SF
581.02	REMOVAL OF CEMENT CONCRETE OVERLAY (BRIDGE)	3537	SF
582.05	REMOVAL OF STRUCTURAL CONCRETE- REPLACEMENT WITH CLASS ACONCRETE	26	CY
582.06	REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASSD CONCRETE	104	SF
582.07	REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH VERTICALAND OVERHEAD PATCHING MATERIAL	50	SF
584.310908	OVERLAY CONCRETE - CLASS DP - TYPE 9 FRICTION	236	SY
585.01	STRUCTURAL LIFTING OPERATIONS - TYPE A	10	EA
586.05	REMOVAL OF RIVETS - REPLACEMENT WITH HIGH STRENGTH BOLTS	4372	EA
586.10	FIELD DRILL HOLES IN EXISTING STRUCTURAL STEEL	589	EA
589.010001	REMOVAL OF EXISTING STEEL	267020	LB
589.520001	REMOVAL OF EXISTING STEEL	10	EA
594.11000010	FIBERGLASS REINFORCED PLASTIC (FRP) COMPOSITE LUMBERFOR BRIDGE FENDER	133	LF
595.98200018	SPRAY-APPLIED, WATERPROOFING MEMBRANE	16592	SF
596.01	OPEN STEEL FLOOR	103	SF
596.122010WE	STEEL GRID DECK	1586	SF
599.061001WE	REHABILITATE BUILDING INTERIOR	1	LS
599.061201WE	REHABILITATE SPAN DRIVE MANCHINERY	1	LS
599.061202WE	REFURBISH TRUIONS	1	LS
599.061203WE	MACHINERY FIELD PAINTING	1	LS
599.061204WE	SERVICE REDUCERS	1	LS
599.061205WE	REPLACE SPAN LOCKS AND MISCELLANEOUS REPAIRS	1	LS
599.061301WE	BRIDGE BALANCE	1	LS
599.061701WE	CONTROL HOUSE HVAC	1	LS
599.061801WE	CONTROL HOUSE PLUMBING	1	LS
599.061802WE	COUNTERWEIGHT PIT DEWATERING	1	LS
599.063000WE	BRIDGE ELECTRICAL AND CONTROL SYSTEM	1	LS
599.064000WE	MOVABLE BRIDGE ELECTRICAL TESTING	1	LS
599.142500WE	MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS	1	LS

ITEM NO.	ITEM DESCRIPTION	QTY	UNIT
599.142600WE	MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS INSTALLATION	1	LS
599.20200010	REMOVAL OF EXISTING WARNING GATES AND BIKEWAY GATES	1	LS
604.07210110	RESETING EXISTING DRAINAGE FRAMES ON EXISTING DRAINAGESTRUCTURES	8	EA
605.16010008	NON-PERFORATED PVC PIPE, 4" DIAMETER PIPE	93	LF
607.0512	VINYL COATED STEEL CHAIN-LINK FENCE ON PLASTIC COATED FRAMEWITH TOP RAIL 6 FEET HIGH	190	LF
607.99870011	REMOVE EXISTING CHAIN-LINK FENCE	190	LF
608.0101	CONCRETE SIDEWALKS AND DRIVEWAYS	7	CY
608.01050109	CURB RAMP CONFIGURATION TYPE 1	1	EA
608.01050209	CURB RAMP CONFIGURATION TYPE 2	2	EA
608.01050309	CURB RAMP CONFIGURATION TYPE 3	5	EA
608.01051409	CURB RAMP CONFIGURATION TYPE 14	1	EA
608.020102	ASPHALT SIDEWALKS, DRIVEWAYS AND BICYCLE PATHS,AND VEGETATION CONTROL STRIPS	216	TON
609.0401	CAST-IN-PLACE CONCRETE CURB TYPE V6s	735	LF
609.06000008	CURB REMOVAL	1419	LF
609.40000015	REINFORCED PRECAST CONCRETE PARKING BLOCKS	20	EA
610.1402	TOPSOIL - ROADSIDE	318	CY
610.1601	TURF ESTABLISHMENT - ROADSIDE	242	SY
610.1602	TURF ESTABLISHMENT - LAWNS	2377	SY
610.18	SODDING	2377	SY
611.0161	PLANTING - MAJOR DECIDUOUS TREES - 2 1/2 INCH CALIPER BALL& BURLAP, FIELD POTTED OR FIELD BOXED	3	EA
611.0171	PLANTING - MAJOR DECIDUOUS TREES - 3 INCH CALIPER BALL& BURLAP, FIELD POTTED OR FIELD BOXED	3	EA
619.01	BASIC WORK ZONE TRAFFIC CONTROL	1	LS
619.04	TYPE III CONSTRUCTION BARRICADE	6	EA
619.0501	TEMPORARY STRUCTURES AND APPROACHES NO 1	1	LS
619.07010001	PLASTIC CONSTRUCTION DRUMS (EACH)	20	EA
619.0901	TEMPORARY PAVEMENT MARKINGS STRIPES (TRAFFIC PAINT)	3400	LF
619.1714	Temporary Positive Barrier - Category 4 (Pinning Permitted)	100	LF
619.1716	Temporary Positive Barrier - Category 6 (Pinning Required)	400	LF
620.05	STONE FILLING (HEAVY)	242	CY
620.0801	BEDDING MATERIAL, TYPE 1	120	CY
621.04	CLEANING DRAINAGE STRUCTURES	8	EA
623.11	CRUSHED GRAVEL (IN-PLACE MEASURE)	311	CY
634.80210001	REFURBISH ORNAMENTAL RAILING SYSTEM	654	LF
634.99020017	VIBRATION MONITORING (NONBLASTING)	1	LS
639.22010011	CPM PROGRESS SCHEDULE - TYPE 2A	1	LS
645.52020110	Ground-Mount Sign Panel 30 SF or Less High Visb Sh Non-Retroreflect Sheet, Powder Coat Stiffener, Bracket, Misc Hrdware	39	SF
645.81	TYPE A SIGN POSTS	8	EA
647.51	REMOVE AND DISPOSE SIGN PANEL, SIGN PANEL ASSEMBLY SIZE I(UNDER 30 SQUARE FEET)	7	EA
648.06	DRILL HOLE, 4 INCH DIAMETER 0 TO 50 FOOT DEPTH RANGE	497	LF
648.15	ROCK CORE DRILLING NX	199	LF
648.17	FURNISHING EQUIPMENT FOR MAKING BORINGS	3	EA
648.19	FURNISHING EQUIPMENT FOR MAKING BORINGS ON WATER USINGSTATIONARY PLATFORM	6	EA
655.05020008	WATERTIGHT SANITARY MANHOLE FRAMES AND COVERS (CASTINGS)	1	EA
660.93000008	FLUSH AND INSTALL SANITARY SEWER LATERALS	2	EA
660.97020011	SANITARY SEWER CLEANOUTS	1	LS
660.97100010	PRECAST SANITARY SEWER MANHOLE	1	LF
663.0604	COPPER WATER SERVICE PIPE 1"	10	LF
663.2504	WATER SERVICE CONNECTION, 1"	1	EA
663.2604	CURB STOP & CURB BOX, 1"	1	EA
663.53000004	REPLACE EXISTING WATER VALVE BOX, TOP SECTION	1	EA
664.01060004	DUCTILE IRON SEWER PIPE & FITTINGS 6"	322	LF
664.40480006	PRECAST SANITARY SEWER MANHOLE (6 INCH DIA.)	10	LF
670.60	PHOTOELECTRIC CONTROLS	1	EA
670.81	REMOVE AND DISPOSE OF LAMPOST ASSEMBLY	20	EA
680.01040015	TRAFFIC SIGNAL SYSTEM	1	LS
680.10000007	INSTALL TRAFFIC SIGNAL POLE ALL SIZES	3	EA
680.621630	TRAFFIC SIGNAL POLE, MAST ARM, 16 FEET MOUNTING HEIGHT,30 FEET ARM LENGTH	1	EA
680.6712	TRAFFIC SIGNAL POLE-POST TOP MOUNT 12 FEET MOUNTING HEIGHT	2	EA
680.79300001	REMOVE TRAFFIC SIGNAL HEAD OR PEDESTRIAN SIGNAL HEAD	4	EA
680.810101	TRAFFIC SIGNAL MODULE - 12 INCH, RED BALL, LED	4	EA
680.810103	TRAFFIC SIGNAL MODULE - 12 INCH, YELLOW BALL, LED	4	EA
680.810105	TRAFFIC SIGNAL MODULE - 12 INCH, GREEN BALL, LED	4	EA
680.810107	TRAFFIC SIGNAL SECTION - TYPE I, 12 INCH	4	EA
680.810308	INSTALL BALL/ARROW LED TRAFFIC SIGNAL MODULE	4	EA
680.8111	TRAFFIC SIGNAL BRACKET ASSEMBLY - 1 WAY	2	EA
680.8220	FLASHING BEACON SIGN ASSEMBLY	2	EA
680.82250301	REMOVE STEEL EMBEDDED TRAFFIC SIGNAL POLE	4	EA
683.090700WE	MOVABLE BRIDGE STANDBY GENERATOR	1	LS
685.07200110	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MILS(WET NIGHT VISIBILITY SPHERES)	1207	LF
685.07200410	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES (CROSS HATCHING)20 MILS THICK (WET NIGHT VISIBILITY SPHERES)	322	LF
685.07200510	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES (SPECIAL MARKINGS) 20 MILS THICK (WET NIGHT VISIBILITY SPHERES)	272	LF
685.07200610	YELLOW EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MILS(WET NIGHT VISIBILITY SPHERES)	1678	LF



CONSULTANT INFORMATION



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IN CHARGE OF D. DELUCA, PE  
CHECKED BY J. WARNCKE, PE  
MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle

GENERAL

**DETAILED ESTIMATE SHEET**

CONTRACT NUMBER 20-517	SHEET NUMBER G-04
SHEET NO. 4 OF 212	SCALE: AS SHOWN
DATE: 03/18/2021	DPW FILE NO.
5-04-G-439-0	REV. NO.

## GENERAL NOTES:

- THE CONTRACTOR IS RESPONSIBLE FOR EXAMINING THE AREAS OF PROPOSED WORK AS TO THE ACTUAL CONDITIONS AND REQUIREMENTS OF WORK PRIOR TO SUBMITTING A BID. HE SHALL CHECK AND VERIFY ALL CONDITIONS AND DIMENSIONS, AND ANY DISCREPANCIES BETWEEN THE DRAWINGS AND FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING PRIOR TO COMMENCEMENT OF WORK.
- ALL WORK SHALL BE DONE AND INSTALLED IN COMPLIANCE WITH ALL LAWS, RULES AND REGULATIONS OF THE LOCAL MUNICIPALITY AND SHALL COMPLY WITH THE LATEST EDITION OF THE NEW YORK STATE FIRE PREVENTION AND BUILDING CODE, INCLUDING ALL REFERENCE STANDARDS. ALL MATERIAL AND EQUIPMENT USED IN THE PROJECT SHALL CONFORM TO AND HAVE APPROVALS IN ACCORDANCE WITH ANY OTHER PUBLIC AUTHORITIES OR AGENCIES HAVING JURISDICTION OVER THE PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING STAGING AREAS. STAGING AREAS AND/OR HAUL ROADS WITHIN PROJECT LIMITS OR ANYWHERE ON COUNTY PROPERTY MUST BE APPROVED BY THE CONSTRUCTION ADMINISTRATOR. THE CONTRACTOR SHALL INSTALL SILT FENCE AND/OR OTHER EROSION AND SEDIMENTATION CONTROL MEASURES NECESSARY TO PROTECT ANY NEARBY WATERWAYS FROM SOIL DISTURBANCE ASSOCIATED WITH CONSTRUCTION STAGING AND/OR HAUL ROADS. ALL STAGING AREAS AND HAUL ROADS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AFTER THE PROJECT IS COMPLETED. THE COST FOR RESTORATION SHALL BE DEEMED INCLUDED IN THE VARIOUS ITEMS OF THE CONTRACT UNLESS SEPARATE PAYMENT IS OTHERWISE SPECIFIED IN THE CONTRACT.
- THE CONTRACTOR MUST REMAIN WITHIN THE CONTRACT LIMITS SPECIFIED ON THE DRAWINGS. THE CONTRACTOR MUST CONDUCT WORK IN A MANNER THAT DOES NOT DISRUPT OR IMPACT THE ACTIVE OPERATIONS OF THE ADJACENT ROADWAYS OR ANY OTHER ADJACENT PROPERTIES.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL NECESSARY BARRICADES, DANGER SIGNALS AND OTHER SAFE GUARDS, ETC., TO ADEQUATELY PROTECT ALL WORKERS, COUNTY EMPLOYEES AND PUBLIC FROM POSSIBLE INJURY. IF NECESSARY, TEMPORARY PROTECTION SUCH AS CHAIN LINK OR SNOW FENCE BOUNDARY AND CONSTRUCTION SIGNS SHALL BE INSTALLED TO PREVENT UNAUTHORIZED ACCESS TO THE PROJECT SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ACCIDENTS OR DAMAGES TO PERSONS OR PROPERTY (INCLUDING ANY VANDALISM) RESULTING FROM UNAUTHORIZED ACTIVITY FOR THE DURATION OF THE PROJECT. UNLESS OTHERWISE SPECIFIED IN THE CONTRACT, COST OF SUCH PROTECTION SHALL BE DEEMED INCLUDED IN THE VARIOUS ITEMS OF THE CONTRACT.
- ACCESS TO ALL ADJOINING FACILITIES SHALL BE MAINTAINED AT ALL TIMES WHERE REASONABLY POSSIBLE. THE CONSTRUCTION ADMINISTRATOR MUST BE NOTIFIED IN ADVANCE OF ANY TEMPORARY DRIVEWAY CLOSURES. DURING ANY OPERATIONS THAT REQUIRES AN EXTENDED CLOSURE, CONTRACTOR SHALL PROVIDE MEANS OF INGRESS AND EGRESS, SUCH AS TEMPORARY PAVEMENT. ANY CONSTRUCTION MUST BE CLEARED OFF AND REMOVED FROM THE ROADWAY AT THE END OF EACH WORK DAY.
- THE CONTRACTOR SHALL PROTECT ALL EXISTING VEGETATION INTENDED TO REMAIN INCLUDING BUT NOT LIMITED TO TREES, SHRUBS, GROUND COVER, TURF, ETC. EVERY ATTEMPT SHALL BE MADE TO PROTECT AND SAVE THE VEGETATION THAT IS NEAR AND, IN THE OPINION OF THE CONSTRUCTION ADMINISTRATOR, AT NO EXPENSE TO THE COUNTY.

## DESIGN AND SPECIFICATIONS:

- NYS DOT STANDARD SPECIFICATIONS: CONSTRUCTION AND MATERIALS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, OFFICE OF ENGINEERING, DATED JAN 1, 2023.
  - ALL CONCRETE MATERIALS AND CONSTRUCTION DETAILS SHALL BE IN ACCORDANCE WITH SECTION 555. REINFORCED CONCRETE FOR BRIDGE DECKS SHALL BE CLASS HPIC, 3000 PSI. REINFORCED CONCRETE FOR SUBSTRUCTURES SHALL BE CLASS A, 3000 PSI.
  - REINFORCEMENT SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI AND CONFORM TO ASTM A615, GRADE 60. ALL REINFORCEMENT SHALL BE EPOXY COATED.
- NYS DOT LRFD BRIDGE DESIGN SPECIFICATIONS WITH ALL PROVISIONS IN EFFECT AS OF DATE OF LETTING.
- LIVE LOAD: AASHTO HL-93.
- NYS DOT BRIDGE MANUAL 6TH EDITION 2021 WITH CURRENT ADDENDUMS.
- NYS DOT STEEL CONSTRUCTION MANUAL 4TH EDITION 2018 WITH CURRENT ADDENDUMS.
- AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, CUSTOMARY U.S. UNITS, 9TH EDITION 2021 WITH ALL INTERIMS IN EFFECT AT TIME OF LETTING.
- AASHTO LRFD MOVABLE BRIDGE DESIGN SPECIFICATIONS, 2ND EDITION WITH 2018 INTERIM REVISIONS
- AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS 4TH EDITION 2017 WITH CURRENT ADDENDUMS AS OF DATE OF LETTING.
- AWS D1.5 BRIDGE WELDING CODE, 8TH EDITION, 2020.
- SEE TEMPORARY BRIDGE DRAWINGS FOR DESIGN AND SPECIFICATION SPECIFIC TO THE TEMPORARY BRIDGE.
- THIS BRIDGE SHALL BE MAINTAINED IN ACCORDANCE WITH THE GUIDELINES CONTAINED IN THE CURRENT EDITION AS OF DATE OF LETTING OF THE AASHTO MAINTENANCE MANUAL FOR ROADWAYS AND BRIDGES.
- THIS STRUCTURE CONTAINS FRACTURE-CRITICAL MEMBERS. THESE MEMBERS ARE IDENTIFIED IN THE PLANS. IF REPAIRS TO THESE MEMBERS OR ADJACENT MEMBERS ARE REQUIRED, THE CONTRACTOR SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF SECTION 9 OF THE NEW YORK STATE STEEL CONSTRUCTION MANUAL (SCM).

## REMOVAL:

- EXISTING SUPERSTRUCTURE SHALL BE REMOVED UNDER ITEM 589.010001 AND ITEM 589.520001.
- EXISTING STRUCTURAL SLABS SHALL BE REMOVED UNDER ITEM 202.2202, REMOVAL OF STEEL SUPPORTED STRUCTURAL SLABS WITH SHEAR CONNECTORS - TYPE B, AND ITEM 202.2302, REMOVAL OF STEEL SUPPORTED STRUCTURAL SLABS WITHOUT SHEAR CONNECTORS - TYPE B.
- ACCORDING TO THE REQUIREMENTS OF 202-3.01 GENERAL SAFETY REQUIREMENTS. A REMOVAL PLAN, SIGNED BY A LICENSED AND REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NEW YORK, SHALL BE SUBMITTED TO THE ENGINEER THIRTY (30) DAYS PRIOR TO BEGINNING THE DEMOLITION.

## RECONSTRUCTION:

- DUE TO THE NATURE OF RECONSTRUCTION PROJECTS, THE EXACT EXTENT OF RECONSTRUCTION WORK CANNOT BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THESE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION AND OTHER INFORMATION AVAILABLE AT THE TIME. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO CONSTRUCTION DETAILS AND WORK QUANTITIES. THE CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH FIELD CONDITIONS.
- THE CONTRACTOR SHALL VERIFY DIMENSIONS NECESSARY FOR THE PROPER FIT OF STEEL PIECES PRIOR TO THE FABRICATION OF THE STEEL. THE COST OF FIELD VERIFYING DIMENSIONS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR STRUCTURAL STEEL ITEMS.
- THE CONTRACTOR SHALL PERFORM ALL WORK WITH CARE SO THAT ANY MATERIAL WHICH ARE TO REMAIN IN PLACE, OR WHICH ARE TO REMAIN IN PROPERTY OF THE COUNTY, WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY MATERIALS WHICH ARE TO REMAIN IN PLACE OR WHICH ARE TO REMAIN IN PROPERTY OF THE COUNTY, THE DAMAGED MATERIALS SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.
- WHENEVER ITEMS IN THE CONTRACT REQUIRE MATERIALS TO BE REMOVED AND DISPOSED OF, THE COST OF SUPPLYING A DISPOSAL AREA AND TRANSPORTATION TO THAT AREA SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THOSE ITEMS.
- DURING REMOVAL OPERATIONS, THE CONTRACTOR SHALL NOT DROP WASTE CONCRETE, DEBRIS, AND OTHER MATERIAL TO THE AREA BELOW THE BRIDGE EXCEPT WHERE THE PLANS SPECIFICALLY PERMIT THE DROPPING OF MATERIAL. PLATFORMS, NETS, SCREENS OR OTHER PROTECTIVE DEVICES SHALL BE USED TO CATCH THE MATERIAL. IF ADEQUATE PROTECTIVE DEVICES ARE NOT TO BEING EMPLOYED, THE WORK WILL BE STOPPED UNTIL ADEQUATE PROTECTION IS PROVIDED.
- ALL MATERIAL FALLING ON THE AREA BELOW AND ADJACENT TO THE BRIDGE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO COST TO THE COUNTY.
- THE COST OF FURNISHING, INSTALLING, MAINTAINING, REMOVING AND DISPOSING OF ALL PLATFORMS, NETS, SCREENS OR OTHER PROTECTIVE DEVICES SHALL BE INCLUDED IN THE PRICES BID FOR THE APPROPRIATE ITEMS OF THE CONTRACT.
- THERE ARE EXISTING SIGNS WITHIN THE WORK LIMITS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EITHER PROTECT DURING CONSTRUCTION OR REMOVE AND REINSTALL AFTER CONSTRUCTION IS COMPLETE, TO THE SATISFACTION OF THE ENGINEER AND AT NO ADDITIONAL COST TO THE COUNTY.
- THE STRUCTURE HAS A BRIDGE IDENTIFICATION NUMBER (B.I.N.) PLATE ATTACHED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT IT DURING CONSTRUCTION OR REMOVE IT AND REMOUNT IT AFTER CONSTRUCTION IS COMPLETED.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE TOP OF PEDESTAL ELEVATIONS PRIOR TO CASTING NEW PEDESTALS AND INSTALLING THE NEW BEARINGS.

## UTILITIES:

- EXISTING UTILITIES SHOWN ON THESE DRAWINGS HAVE BEEN DETERMINED BY STANDARD SURVEYING METHODS AND AVAILABLE RECORDS. UTILITY INFORMATION PROVIDED ON THE CONTRACT DRAWINGS MAY NOT BE COMPLETE AND IS NOT GUARANTEED TO BE CORRECT. LOCATIONS OF EXISTING UTILITIES, AS SHOWN ON THE PLANS, ARE BASED ON INFORMATION AVAILABLE WHEN THESE PLANS WERE PREPARED AND SHOULD BE CONSIDERED APPROXIMATE. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD AND ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS AND REGULATIONS INCLUDING THE REQUIREMENTS OF THE NEW YORK STATE INDUSTRIAL CODE RULE 53 (16 NYCRR PART 753). THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXCAVATION SUPPORT SYSTEMS, INCLUDING BUT NOT LIMITED TO, EXCAVATIONS OF ADJACENT UTILITIES TO REMAIN AND/OR TO BE REMOVED.
- THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES INVOLVED IF ANY OF THEIR UTILITIES ARE EXPOSED AND/OR UNDERMINED DURING THE COURSE OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE REQUIRED TO SUPPORT, PROTECT, AND MAINTAIN EXISTING UTILITIES IN PLACE DURING CONSTRUCTION. UTILITIES SHALL BE ACTIVE AT ALL TIMES UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL MONITOR UNDERWATER SANITARY/WATER PIPES DURING INSTALLATION OF BRIDGE PILES. COST FOR THIS WORK SHALL BE PAID FOR UNDER VIBRATION MONITORING, ITEM 634.99020017.
- COORDINATE WITH ALL UTILITY OWNERS FOR ALL REMOVAL AND DISCONNECTION WORK, INCLUDING RELOCATION OF EXISTING UTILITIES AND ASSOCIATED OVERHEAD UTILITY LINES. THIS WORK SHALL BE COMPLETED PRIOR TO COMMENCEMENT OF ANY DEMOLITION WORK. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH AND OBTAIN ALL NECESSARY PERMITS OR APPROVALS FROM THE APPROPRIATE UTILITY COMPANIES OR GOVERNMENT AGENCIES.
- IF ANY UTILITY IS DAMAGED DUE TO THE CONTRACTOR'S OPERATION AND SERVICE IS TEMPORARILY DISCONTINUED, THE CONTRACTOR SHALL COMPENSATE FOR ALL DAMAGES AND LOSSES TO THE UTILITY COMPANY AND/OR AGENCY OF THE UTILITIES THAT HAVE BEEN AFFECTED.

## CONCRETE NOTES:

- THE CONCRETE REPAIR QUANTITIES SHOWN ON THE DETAILED ESTIMATE SHEET (G-04) ARE APPROXIMATE.
- THE CONTRACTOR SHALL CHECK ALL CONCRETE SURFACES FOR HOLLOW AREAS. THE CONTRACTOR SHALL THEN REMOVE ALL DETERIORATED CONCRETE USING A CHIPPING HAMMER UNTIL SOUND CONCRETE SURFACES ARE REACHED AND MAKE REPAIRS, SUBJECT TO THE APPROVAL OF THE ENGINEER. PAYMENT SHALL BE INCLUDED IN THE VARIOUS CONCRETE ITEMS IN THE CONTACT.
- AREAS OF CONCRETE DETERIORATION THAT HAVE AN AVERAGE REMOVAL DEPTH BETWEEN ONE AND ONE HALF INCHES AND FIVE INCHES SHALL BE REPAIRED WITH ITEM 582.06, "REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASS 'D' CONCRETE". FOR AVERAGE REMOVAL DEPTHS GREATER THAN FIVE INCHES, THE REPAIR SHALL BE ITEM 582.05, "REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASS 'A' CONCRETE".
- OVERHEAD AND VERTICAL AREAS OF CONCRETE DETERIORATION SHALL BE REPAIRED BY ITEM 582.07, "REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH VERTICAL AND OVERHEAD PATCHING MATERIAL". DETERIORATED AREAS THAT HAVE AN AVERAGE REMOVAL DEPTH BETWEEN ONE AND ONE HALF INCHES AND FIVE INCHES SHALL BE REPAIRED USING CLASS D CONCRETE. DETERIORATED AREAS THAT HAVE AN AVERAGE REMOVAL DEPTH GREATER THAN FIVE INCHES SHALL BE REPAIRED USING CLASS A CONCRETE.
- ALL CONCRETE SURFACES RECEIVING NEW CONCRETE SHALL BE SANDBLASTED. JUST PRIOR TO THE APPLICATION OF NEW CONCRETE, THE SURFACES SHALL BE AIR CLEANED, WET DOWN AND COATED WITH A THIN COATING OF 1:1 MORTAR OR NEAT CEMENT PASTE THOROUGHLY BRUSHED INTO THE SURFACE. IT WILL NOT BE NECESSARY TO BRUSH THE MORTAR INTO SURFACES MADE INACCESSIBLE BY MESH OR CLOSELY SPACED REINFORCEMENT WHEN SO DETERMINED BY THE ENGINEER. THERE WILL BE NO SEPARATE PAYMENT FOR THIS WORK. THE COST SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE VARIOUS CONCRETE ITEMS IN THE CONTRACT.
- AREAS SHOWING EXPOSED CORRODED STEEL BARS MUST BE CLEANED OF ALL CORRODED MATERIAL, OIL, OR DIRT BY SANDBLASTING. IF SANDBLASTING DOES NOT CLEAN THE SURFACE, WIRE BRUSHING SHOULD BE USED. CONCRETE SHALL BE REMOVED TO EXPOSE SOUND STEEL OF LENGTH REQUIRED FOR LAP WITH NEW STEEL AND TO A DEPTH OF NOT LESS THAN ONE AND ONE HALF INCH BEHIND THE REINFORCING STEEL.
- AREAS EXPOSING NON-CORRODED STEEL BARS SHALL BE CLEANED AND CONCRETE SHALL BE KEYED BY REMOVAL OF CONCRETE A MINIMUM OF ONE AND ONE HALF INCH BEHIND THE BARS TO INSURE THE BOND BETWEEN THE NEW CONCRETE AND THE REINFORCING BARS.

## CONCRETE, MORTAR AND MASONRY SEALERS:

- CONTRACTOR SHALL APPLY PENETRATING SEALER FOR CONCRETE TO THE EXISTING CONCRETE BRIDGE SIDEWALKS TO REMAIN AND TO ALL EXPOSED CONCRETE SURFACES TO REMAIN (INCLUDING PLAZA AREA CONCRETE, DECK OVER COUNTERWEIGHT, PAVILION AREA CONCRETE, SUBSTRUCTURE CONCRETE, ETC). COST SHALL BE INCLUDED UNDER ITEM 595.98200018.
- THE CONTRACTOR SHALL POWERWASH (600 PSI (MAX); 500 PSI (MIN); NO SOAP) ALL STONE MASONRY FOLLOWING REPOINTING. POWERWASHING IS INTENDED TO REMOVE EFFLORESCENCE, MOSS, SOOT, LOOSE MORTAR, DIRE, BIRD DROPPINGS, ETC, COST SHALL BE INCLUDED UNDER ITEM 560.10070008.

## STRUCTURAL STEEL:

- AASHTO M 270, GRADE 50 (ASTM A709, GRADE 50) WITH SUPPLEMENTARY REQUIREMENTS FOR NOTCH TOUGHNESS FOR ALL MEMBER COMPONENTS MARKED (T) AND/OR (FCM). FOR STEEL IN TENSION ZONES, ENSURE THAT THE STEEL CONFORMS TO ZONE 2 IMPACT TESTING REQUIREMENTS.
- SEE STRUCTURAL STEEL PLANS FOR ANY MEMBER OR MEMBER COMPONENTS DESIGNATED AS FRACTURE CRITICAL (FCM). ALL WELDS TO STEEL DESIGNATED AS FRACTURE CRITICAL (FCM) SHALL BE DESIGNATED FRACTURE CRITICAL WELDS. MEMBER OR MEMBER COMPONENTS AND WELDS DESIGNATED AS FRACTURE CRITICAL SHALL BE SUBJECT TO THE PROVISIONS OF THE MOST CURRENT EDITION OF THE AASHTO/AWS D1.5 BRIDGE WELDING CODE, SECTION 12 - FRACTURE CONTROL PLAN.

## HIGH STRENGTH BOLTS AND ANCHOR BOLTS:

- ALL BOLTS SHALL BE ASTM F3125, GRADE A325 (GALVANIZED ACCORDING TO ASTM A153).
- ALL BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE NEW YORK STATE STEEL CONSTRUCTION MANUAL.
- ALL BOLTS SHALL BE 7/8" DIAMETER IN 1 1/8" DIAMETER HOLES UNLESS OTHERWISE NOTED.
- ANCHOR BOLTS SHALL BE ASTM F1554, GRADE105 (GALVANIZED ACCORDING TO ASTM A153) UNLESS OTHERWISE NOTED.
- ALL FIELD DRILLED HOLES IN EXISTING STRUCTURAL STEEL SHALL BE PAID FOR UNDER ITEM 586.10.



CONSULTANT SEAL  
CONSULTANT INFORMATION



IN CHARGE OF D. DELUCA, PE  
CHECKED BY J. WARNCKE, PE  
MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

### RECORD DRAWING CERTIFICATION

- AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle  
GENERAL  
**GENERAL NOTES 1**

CONTRACT NUMBER	SHEET NUMBER
20-517	G-05
SHEET NO. 5 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-G-440-0	0

## RIVET REPLACEMENT

1. THE CONTRACTOR SHALL REPLACE EXISTING RIVETS THAT ARE DEEMED DEFICIENT WITH HIGH STRENGTH BOLTS IN ACCORDANCE WITH THE 'RIVET REPLACEMENT CRITERIA' ON THIS SHEET AND AT LOCATIONS DESIGNATED BY THE ENGINEER. REPLACEMENT SHALL BE PAID FOR UNDER ITEM 586.05.
2. DEFICIENT RIVETS SHALL BE CATEGORIZED INTO ONE OF THREE CONNECTION CATEGORIES BASED ON THE LOAD THE RIVET IS DESIGNED TO RESIST (SHEAR ONLY, TENSION ONLY, OR COMBINED SHEAR AND TENSION). THEY SHALL THEN BE EVALUATED USING THE DIAGRAMS SHOWN IN THE RIVET REPLACEMENT CRITERIA ON THIS SHEET.
3. REPLACEMENT OF THE STEEL RIVETS SHALL BE STAGED SO EITHER A MAXIMUM OF TWO RIVETS OR 10% OF THE RIVETS IN A CONNECTION OR ELEMENT ARE IN THE PROCESS OF BEING REPLACED AT THE SAME TIME. A HIGHER LIMIT OF 30% OF THE RIVETS IN A CONNECTION OR ELEMENT IS ALLOWED IF THE DECK IS FULLY REMOVED. ADJACENT RIVETS REQUIRING REPLACEMENT MAY NOT BE IN THE PROCESS OF BEING REPLACED AT THE SAME TIME. THE PROCESS OF BEING REPLACED SHALL BE DEFINED AS FROM THE BEGINNING OF RIVET STRUCTURAL MATERIAL REMOVAL TO FULLY TENSIONING THE REPLACEMENT BOLT.

## MATERIALS STOCKPILING

1. THE CONTRACTOR SHALL CAREFULLY PLAN HIS WORK AND DELIVERY OF MATERIALS DURING WORK SHIFTS TO MINIMIZE STOCKPILING OF MATERIALS ON THE BRIDGE OR ON WORK PLATFORMS. THE MAXIMUM LOAD OF ANY STOCKPILED MATERIAL AT ANY POINT ON THE BRIDGE SHALL NOT EXCEED 10 KIPS WITHIN A 12-FOOT RADIUS. EXISTING LOAD RATING COMPUTATIONS ARE INCLUDED IN THE CONTRACT DOCUMENTS FOR REFERENCE.
2. THE CONTRACTOR SHALL ONLY BE PERMITTED TO STOCKPILE MATERIALS IN LOCATIONS APPROVED BY THE ENGINEER. STOCKPILE AREAS, IF SUPPORTED BY THE STRUCTURE, SHALL NOT BE SIMULTANEOUSLY USED FOR ANY OTHER PURPOSE.
3. CONSTRUCTION VEHICLES OR EQUIPMENT SHALL NOT PASS WITHIN 6 FEET OF ANY STOCKPILED MATERIALS THAT APPROACH THE 10 KIPS.

## CONSTRUCTION EQUIPMENT:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE TYPE, SIZE, AND THE WEIGHT OF ALL EQUIPMENT AND VEHICLES THAT CAN BE USED ON THE EXISTING BRIDGE DURING CONSTRUCTION BASED ON THE CONDITION OF THE EXISTING STRUCTURE. THIS DETERMINATION SHALL BE MADE BY CONTRACTOR'S ENGINEER WHO IS A NEW YORK STATE PROFESSIONAL ENGINEER PRIOR TO USE OF ANY EQUIPMENT ON THE BRIDGE. EXISTING LOAD RATING COMPUTATIONS ARE INCLUDED IN THE CONTRACT DOCUMENTS FOR REFERENCE.
2. EXISTING INSPECTION REPORTS FOR THE BRIDGE ARE INCLUDED IN APPENDICES OF THE TECHNICAL PROVISIONS AS INFORMATION ONLY. THE CONTRACTOR SHALL VERIFY ANY INFORMATION USED FROM THESE REPORTS BY PERFORMING INSPECTIONS AND ENGINEERING ANALYSIS BY THE CONTRACTOR'S ENGINEER.
3. IN THE EVENT THAT THE CONTRACTOR/SUBCONTRACTOR FAILS TO COMPLY WITH THE INSTRUCTIONS OF THE PROFESSIONAL ENGINEER FOR THE USE OF ANY VEHICLE, THE WORK WILL IMMEDIATELY BE SUSPENDED UNTIL CORRECTIVE PROCEDURES SATISFACTORY TO THE PROFESSIONAL ENGINEER AND COUNTY ARE EMPLOYED.
4. COSTS OF ALL DAMAGE, DIRECT OR INDIRECT SHALL BE BORNE AND SUSTAINED BY THE CONTRACTOR.

## HISTORIC SIGNIFICANCE:

1. THE GLEN ISLAND BRIDGE HAS BEEN DETERMINED TO BE ELIGIBLE FOR LISTING ON THE NATIONAL REGISTER OF HISTORIC PLACES. THEREFORE, ALL WORK MUST BE CARRIED OUT IN STRICT ACCORDANCE WITH THE SECRETARY OF THE INTERIOR'S STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES.

## PAINTING:

1. PAINT FOR STRUCTURAL STEEL SHALL HAVE A COLOR MATCHING THE EXISTING PAINT COLOR. SAMPLES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. PAINTING OF NEW STEEL SHALL BE IN ACCORDANCE WITH NYS STANDARD SPECIFICATION 572 AND PAID FOR UNDER ITEM 572.010001. PAINTING OF EXISTING STEEL TO REMAIN SHALL BE IN ACCORDANCE WITH NYS STANDARD SPECIFICATION 573 AND PAID FOR UNDER ITEM 573.010001.
2. PRIOR TO COMMENCING CLEANING AND BLASTING OF EXISTING STRUCTURAL STEEL TO REMAIN, THE CONTRACTOR SHALL PREPARE A LEAD EXPOSURE CONTROL PLAN, MEDICAL TESTING, PERSONAL EXPOSURE MONITORING SAMPLE ANALYSIS AND DECONTAMINATION FACILITIES, TO BE PAID FOR UNDER ITEMS 570.01, 570.02, 570.03 AND 570.04, RESPECTIVELY.
3. THE CONTRACTOR SHALL ESTABLISH CLASS A CONTAINMENT FACILITIES FOR PAINT REMOVAL AND PAINTING OPERATIONS IN ACCORDANCE WITH NYS STANDARD SPECIFICATION 570. CONTAINMENT SHALL BE PAID FOR UNDER ITEM 570.150001.
4. REMOVED PAINT AND BLASTING WASTE SHALL BE TESTED AND DISPOSED OF IN ACCORDANCE WITH NYS STANDARD SPECIFICATION 571. DISPOSAL OF PAINT WASTE CONTAINING LEAD SHALL BE PAID FOR UNDER 571.03 AND DISPOSAL OF NON-HAZARDOUS PAINT WASTE SHALL BE PAID FOR UNDER 571.04.

## MAINTENANCE AND PROTECTION OF TRAFFIC:

1. SEE WZTC DRAWINGS FOR WZTC SCOPE OF WORK AND GENERAL NOTES.

## MEASUREMENTS AND UNITS:

1. THIS CONTRACT IS IN ENGLISH UNITS. ALL CORRESPONDENCE AND SUBMITTALS REQUIRED BY THIS CONTRACT WILL BE PREPARED AND SUBMITTED IN THE ENGLISH LANGUAGE AND UNITS. ALL UNITS OF MEASURE AND DIMENSIONS SHOWN ON THE CONTRACT DRAWINGS SHALL BE IN THE U.S. NATIONAL BUREAU OF STANDARD INCH-POUND-SECOND SYSTEM AND ITS COMMONLY DERIVED UNITS.

## CIVIL SCOPE OF WORK:

1. SEE CIVIL DRAWINGS FOR CIVIL SCOPE OF WORK.

## MECHANICAL SCOPE OF WORK:

1. SEE MECHANICAL DRAWINGS FOR MECHANICAL SCOPE OF WORK.

## ELECTRICAL SCOPE OF WORK

1. SEE ELECTRICAL GENERAL NOTES FOR ELECTRICAL SCOPE OF WORK.

## STRUCTURAL SCOPE OF WORK

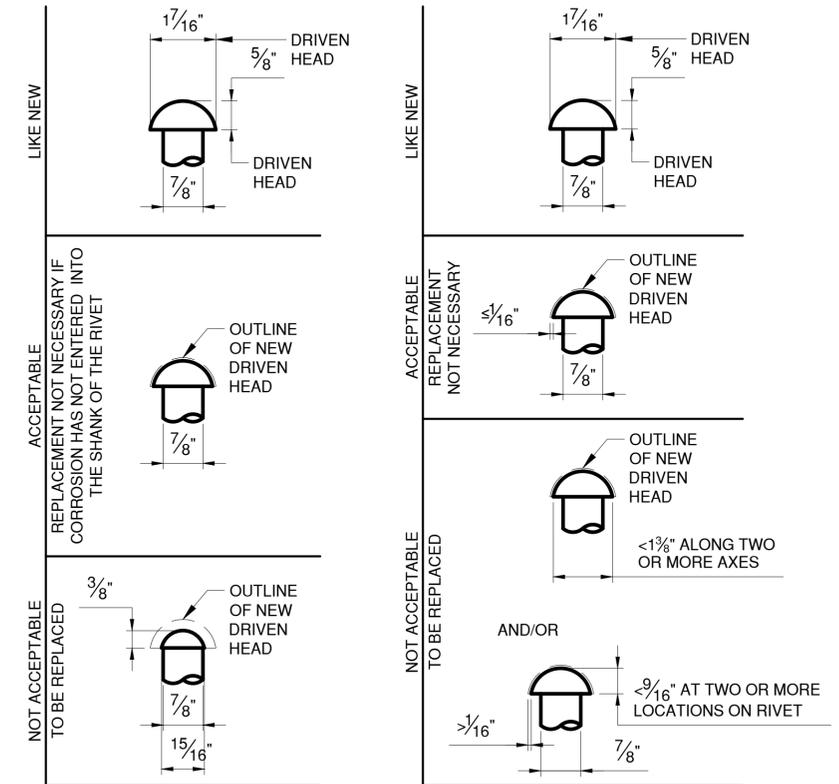
1. PROVIDE TEMPORARY BRIDGE AS SHOWN ON THE STRUCTURAL DRAWINGS. TEMPORARY BRIDGE SHALL INCLUDE A MOVABLE SPAN THAT WILL PROVIDE UNLIMITED VERTICAL CLEARANCE OVER THE NAVIGATION CHANNEL. CONTRACTOR IS RESPONSIBLE FOR OPERATING AND MAINTAINING THE TEMPORARY BRIDGE THROUGHOUT CONSTRUCTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR OPERATING THE EXISTING BASCULE SPAN THROUGHOUT CONSTRUCTION. ONCE VEHICULAR TRAFFIC IS MAINTAINED ON THE TEMPORARY BRIDGE, THE CONTRACTOR MAY PIN THE EXISTING BASCULE SPAN IN THE OPEN POSITION SO AS TO PROVIDE UNLIMITED VERTICAL CLEARANCE OVER THE NAVIGATION CHANNEL. CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE TEMPORARY SUPPORTS. DESIGN SHALL BE PREPARED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK AND SUBMITTED TO THE ENGINEER FOR APPROVAL.
3. APPROACH SPAN SUPERSTRUCTURE
  - 3.1. REMOVE AND REPLACE EXISTING REINFORCED CONCRETE DECKS AND SIDEWALKS.
  - 3.2. REMOVE AND REPLACE EXISTING DECK EXPANSION JOINTS.
  - 3.3. REMOVE EXISTING STEEL CURB. PROVIDE A NEW STEEL BRIDGE RAILING MOUNTED AT CURB LINE. PROVIDE TRANSITION BETWEEN STEEL BRIDGE RAILING AND SPAN LOCKS AT TOE OF BASCULE SPAN (SEE MECHANICAL DRAWINGS FOR SPAN LOCK DETAILS). PROVIDE WYOMING BRIDGE RAILING TERMINATIONS AT PLAZA AREA AND AT HEEL OF BASCULE SPAN.
  - 3.4. REMOVE, REFURBISH AND REINSTALL EXISTING HISTORIC FASCIA RAILINGS.
  - 3.5. PERFORM LOCALIZED STEEL REPAIRS TO GIRDERS. STEEL REPAIRS SHALL MINIMIZE CHANGES TO APPEARANCE OF HISTORICALLY SIGNIFICANT GIRDERS.
  - 3.6. REMOVE AND REPLACE EXISTING FLOOR BEAMS AND CROSS FRAMES.
  - 3.7. REPAIR EXISTING SPAN LOCK PLATFORMS. SPAN LOCK PLATFORMS WILL BE UTILIZED TO SUPPORT SUBMARINE CABLE TERMINAL CABINETS. NOTE THAT SPAN LOCKS WILL BE RELOCATED TO SIDEWALK LEVEL TO FACILITATE FUTURE MAINTENANCE. SEE MECHANICAL DRAWINGS FOR DETAILS.
  - 3.8. REMOVE AND REPLACE EXISTING GIRDER BEARINGS WITH HLMR BEARINGS.
  - 3.9. BLAST CLEAN AND PAINT ALL STRUCTURAL STEEL TO REMAIN.
4. PLAZA SPANS
  - 4.1. REMOVE EXISTING ASPHALT OVERLAY. SOUND EXPOSED CONCRETE DECK AND REMOVE DETERIORATED, UNSOUND CONCRETE. CLEAN EXPOSED REINFORCEMENT AND APPLY EPOXY COATING. PERFORM CONCRETE PATCHING AND PROVIDE WATERPROOFING TO TOP OF DECK AND PROVIDE NEW ASPHALT OVERLAY.
  - 4.2. REMOVE AND REPLACE ASPHALT OVERLAY ON PLAZA APPROACH ROADWAY ON GRADE.
  - 4.3. POWER WASH AND APPLY CONCRETE SEALER TO PLAZA SIDEWALKS.
  - 4.4. PERFORM LOCALIZED STRUCTURAL STEEL REPAIRS.
5. DECK OVER COUNTERWEIGHT
  - 5.1. REMOVE EXISTING CONCRETE OVERLAY. SOUND EXPOSED CONCRETE DECK AND REMOVE DETERIORATED, UNSOUND CONCRETE. CLEAN EXPOSED REINFORCEMENT AND APPLY EPOXY COATING. PROVIDE WATERPROOFING TO TOP OF DECK AND PROVIDE NEW ASPHALT OVERLAY.
  - 5.2. PERFORM LOCALIZED STRUCTURAL STEEL REPAIRS.
  - 5.3. PERFORM LOCALIZED HAND/POWER TOOL CLEANING AND PAINTING OF STRUCTURAL STEEL.
  - 5.4. POWER WASH AND APPLY CONCRETE SEALER TO PLAZA SIDEWALKS.
6. BASCULE SPAN SUPERSTRUCTURE
  - 6.1. REMOVE EXISTING OPEN STEEL GRATING AND REPLACE WITH 5 INCH - 4 WAY OPEN STEEL GRATING.
  - 6.2. REMOVE AND REPLACE EXISTING REINFORCED CONCRETE SIDEWALKS.
  - 6.3. REMOVE EXISTING STEEL CURB. PROVIDE A NEW STEEL BRIDGE RAILING MOUNTED AT CURB LINE. REMOVE, REFURBISH AND REINSTALL EXISTING HISTORIC FASCIA RAILINGS.
  - 6.4. REMOVE AND REPLACE EXISTING STEEL TOE AND HEEL JOINTS AND STRUCTURAL SUPPORTS.
  - 6.5. REMOVE AND REPLACE STEEL STRINGERS.
  - 6.6. REMOVE AND REPLACE STEEL FLOOR BEAMS 3 AND 4.
  - 6.7. PERFORM LOCALIZED STRUCTURAL STEEL REPAIRS TO BASCULE GIRDERS. STRUCTURAL STEEL REPAIRS SHALL MINIMIZE CHANGES TO HISTORICALLY SIGNIFICANT GIRDERS.
  - 6.8. BLAST CLEAN AND PAINT ALL STRUCTURAL STEEL TO REMAIN.
  - 6.9. CONTRACTOR SHALL CHECK THE BALANCE OF THE BASCULE SPAN IN ACCORDANCE WITH SPECIFICATION 599.06130108 AND THE WORK SHALL BE PAID FOR UNDER ITEM 599.06130108.

## STRUCTURAL SCOPE OF WORK CONT'D

1. SUBSTRUCTURE
  - 1.1. PERFORM MASONRY AND CONCRETE REPAIRS TO ALL BRIDGE PIERS, ABUTMENTS AND RETAINING WALLS IN THE APPROACH, BASCULE, AND PLAZA SPANS. RESET OR REPLACE DISLODGED MASONRY STONES. REPOINT DETERIORATED GROUT BETWEEN MASONRY STONES. REMOVE DETERIORATED AND UNSOUND CONCRETE AND PERFORM CONCRETE REPAIRS.
  - 1.2. PROVIDE REINFORCED CONCRETE PEDESTALS FOR NEW BEARINGS.
2. FENDER SYSTEM
  - 2.1. REPLACE EXISTING TIMBER FENDER SYSTEM WITH FIBER REINFORCED POLYMER COMPOSITE FENDER SYSTEM. PIER MOUNT PROPOSED FENDER SYSTEM TO BASCULE AND REST PIERS IN A SIMILAR TO CONFIGURATION AS EXISTING.

## PROGRESS SCHEDULE:

1. THE CONTRACTOR SHALL PREPARE, MAINTAIN AND SUBMIT A CRITICAL PATH METHOD PROGRESS SCHEDULE IN ACCORDANCE WITH SPECIFICATION 639.22010011 AND THE WORK SHALL BE PAID FOR UNDER ITEM 639.22010011.



### SHEAR-ONLY CONNECTIONS

### TENSION-ONLY AND COMBINED SHEAR AND TENSION CONNECTIONS

## RIVET REPLACEMENT CRITERIA

N.T.S.

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IN CHARGE OF <u>D. DELUCA, PE</u> CHECKED BY <u>J. WARNCKE, PE</u> MADE BY <u>N. HYSON, PE</u>					RECORD DRAWING CERTIFICATION <input type="checkbox"/> AS BUILT - CHANGES AS NOTED <input type="checkbox"/> AS BUILT - NO CHANGES					WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER G-06
REVISION NUMBER    DATE    MADE BY    APP'D BY    REVISION					CONTRACTOR NAME _____ SIGNATURE _____ TITLE _____		PROJECT COORDINATOR NAME _____ SIGNATURE _____ TITLE _____		SHEET NO. 6 OF 212 SCALE: AS SHOWN DATE: 03/08/2024 DPW FILE NO. _____ GENERAL NOTES - 2		REV. NO. 0		

## FENDER SYSTEM

1. U.S. COAST GUARD NOTIFICATION: NOTIFY THE LOCAL OFFICE OF THE U.S. COAST GUARD AT LEAST 30 DAYS PRIOR TO BEGINNING OF CONSTRUCTION OF THE FENDER SYSTEM.
2. WALES: PROVIDE REINFORCED THERMOPLASTIC STRUCTURAL SHAPES FOR WALES. PROVIDE CONTINUOUS WALES WITH SPLICES ONLY AT LOCATIONS SHOWN ON THE PLANS.
3. FRP DECKING FOR CATWALKS: PROVIDE 2" X 12" (NOMINAL) THERMOPLASTIC STRUCTURAL SHAPES FOR DECKING FOR CATWALKS IN ACCORDANCE WITH SPECIAL SPECIFICATIONS ITEM# 594.11000010. INSTALL DECKING ACCORDING TO MANUFACTURER'S RECOMMENDATIONS USING STAINLESS STEEL #10 X 3" (MINIMUM) DECK SCREWS.
4. FRP HANDRAILS: PROVIDE THERMOPLASTIC STRUCTURAL SHAPES FOR HANDRAILS IN ACCORDANCE WITH SPECIAL SPECIFICATIONS ITEM# 594.11000010.
5. BOLTS, THREADED BARS, NUTS, SCREWS AND WASHERS: FURNISH STAINLESS STEEL BOLTS IN ACCORDANCE WITH ASTM F593 TYPE 316. FURNISH STAINLESS STEEL THREADED BARS IN ACCORDANCE WITH ASTM A193 GRADE B8M. FURNISH STAINLESS STEEL NUTS IN ACCORDANCE WITH ASTM F594 TYPE 316. FURNISH STAINLESS STEEL SCREWS IN ACCORDANCE WITH ASTM F593 TYPE 305. FURNISH STAINLESS STEEL WASHERS COMPATIBLE WITH BOLTS, THREADED RODS AND NUTS UNDER HEADS AND NUTS. TORQUE NUTS ON 1" DIAMETER BOLTS AND THREADED BARS TO 150 LB-FT. KEEP THE THREADS ON BOLTS, THREADED BARS AND NUTS FREE FROM DIRT, COARSE GRIME AND SAND TO PREVENT GALLING AND SEIZING DURING TIGHTENING. RECESS HARDWARE A MINIMUM OF 1/8" FROM FRONT FACE OF WALES.
6. WALE SPLICE PLATES: PROVIDE FRP OR STAINLESS STEEL WALE SPLICE PLATES. STAINLESS STEEL WALE SPLICE PLATES SHALL BE IN ACCORDANCE WITH ASTM A240 TYPE 316. FRP WALE SPLICE PLATES SHALL BE IN ACCORDANCE WITH SPECIAL SPECIFICATIONS ITEM 594.11000010.

## PERMITS

1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY AND ALL APPLICABLE PERMITS REQUIRED FOR THE WORK INCLUDED IN THIS PROJECT. THE DEC/ACOE JOINT APPLICATION, USCG BRIDGE PERMIT AND SHPO APPROVAL DOCUMENTS HAVE BEEN PREPARED AND FURNISHED AS SUPPLEMENTARY CONTRACT DOCUMENTS. UNDER NO CIRCUMSTANCE SHALL THE CONTRACTOR DEVIATE FROM THE PARAMETERS OF THE PERMITS WITHOUT PRIOR WRITTEN APPROVAL FROM THE RESPECTIVE PERMITTING AUTHORITY.
2. NO FILL, EMBANKMENT OR EXCAVATION MATERIAL IS PERMITTED TO BE PLACED OR STORED BELOW THE MEAN HIGH WATER (MHW) LINE.
3. ALL ACTIVITIES INVOLVING BENTHIC DISTURBANCE INCLUDING BUT NOT LIMITED TO PILE DRIVING, CAISSON CONSTRUCTION, SUBMARINE CABLE REPLACEMENT AND ANCHORING TO THE HARBOR FLOOR ARE SUBJECT TO A TIME OF YEAR RESTRICTION FOR SUMMER AND WINTER FLOUNDER. THESE ACTIVITIES SHALL BE PERFORMED BETWEEN OCTOBER 1ST AND JANUARY 15TH. SEE DEC PERMIT FOR MORE INFORMATION.
4. NO MORE THAN 150CY SHALL BE EXCAVATED FROM THE FLOOR OF THE NEW ROCHELLE HARBOR. SEE DEC PERMIT FOR ADDITIONAL INFORMATION.

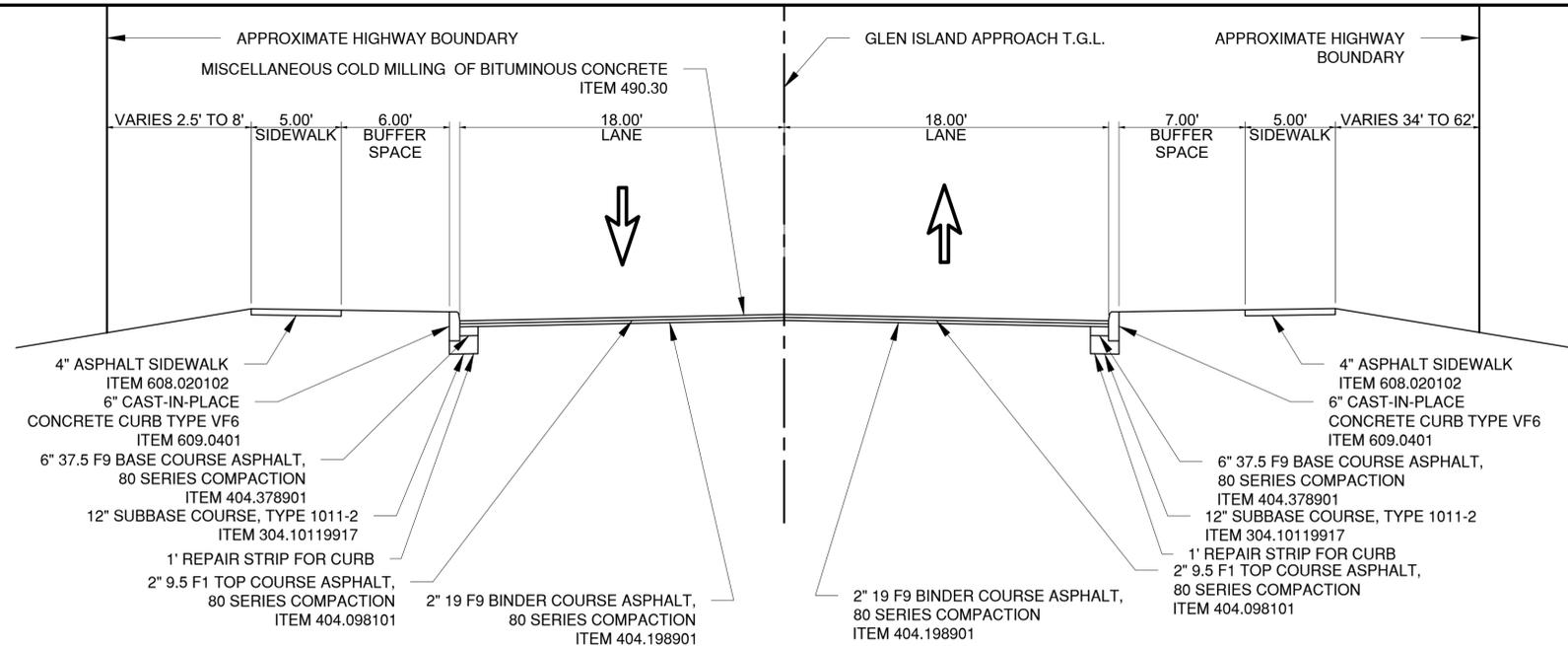
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IN CHARGE OF           D. DELUCA, PE            
 CHECKED BY           J. WARNCKE, PE            
 MADE BY           N. HYSON, PE          

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

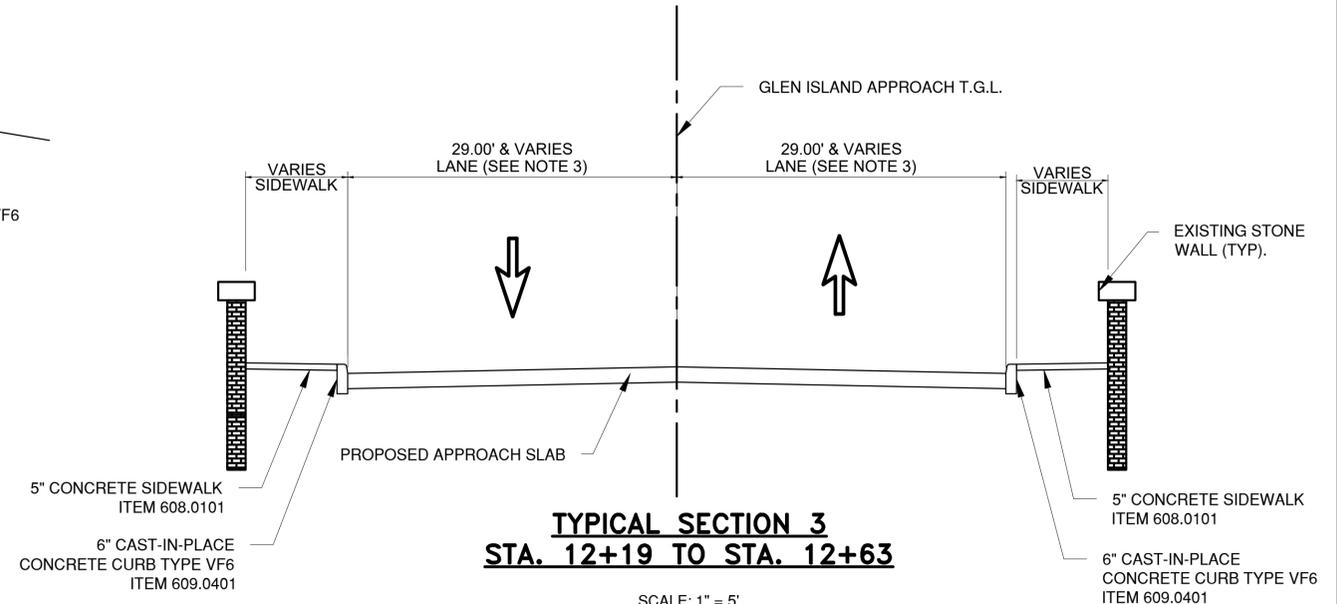
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PROJECT COORDINATOR NAME _____ SIGNATURE _____ TITLE _____ DATE _____		GENERAL NOTES - 3	

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER G-07
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 7 OF 212 SCALE: AS SHOWN DATE: 03/08/2024	
GENERAL		DPW FILE NO. 5-04-G-442-0	REV. NO. 0



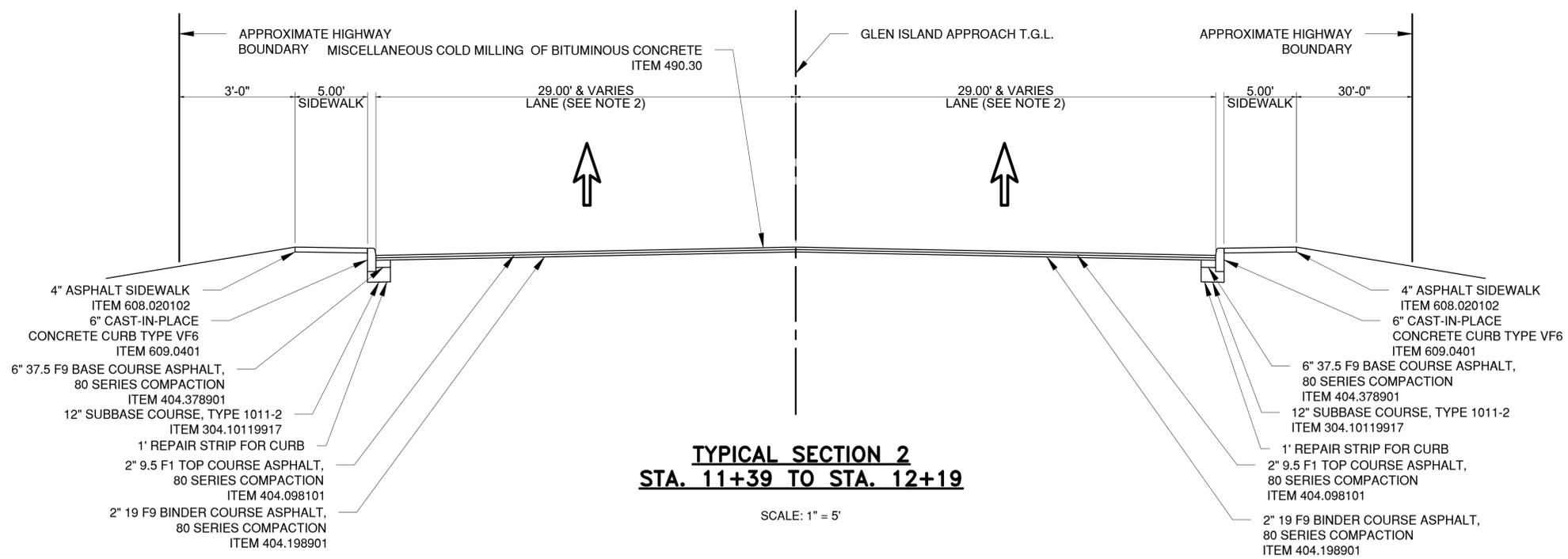
**TYPICAL SECTION 1**  
**STA. 9+00 TO STA. 11+39**

SCALE: 1" = 5'



**TYPICAL SECTION 3**  
**STA. 12+19 TO STA. 12+63**

SCALE: 1" = 5'



**TYPICAL SECTION 2**  
**STA. 11+39 TO STA. 12+19**

SCALE: 1" = 5'

**NOTES:**

- FULL DEPTH PAVEMENT REPAIR ONLY AT SANITARY SEWER TRENCH. SEE DWG. NO. MSD-1 FOR TRENCH DETAIL.
- LANE WIDTH VARIES BETWEEN 18' AT STA. 11+39 AND 29' AT STA. 11+68.
- LANE WIDTH VARIES BETWEEN 29' AT STA. 12+30 AND 10' AT STA. 12+63.
- CONTRACTOR SHALL MATCH PROFILE AND CROSS SLOPES OF EXISTING ROADWAY. ANY ADDITIONAL ASPHALT NECESSARY TO SMOOTH OUT GRADING OF PAVEMENT SHALL BE PAID FOR UNDER ITEM 404.198901

IN CHARGE OF C. JENNE, PE  
 CHECKED BY K. HO, PE  
 MADE BY S. TANG

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

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SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

CONSULTANT SEAL

CONSULTANT INFORMATION

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**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

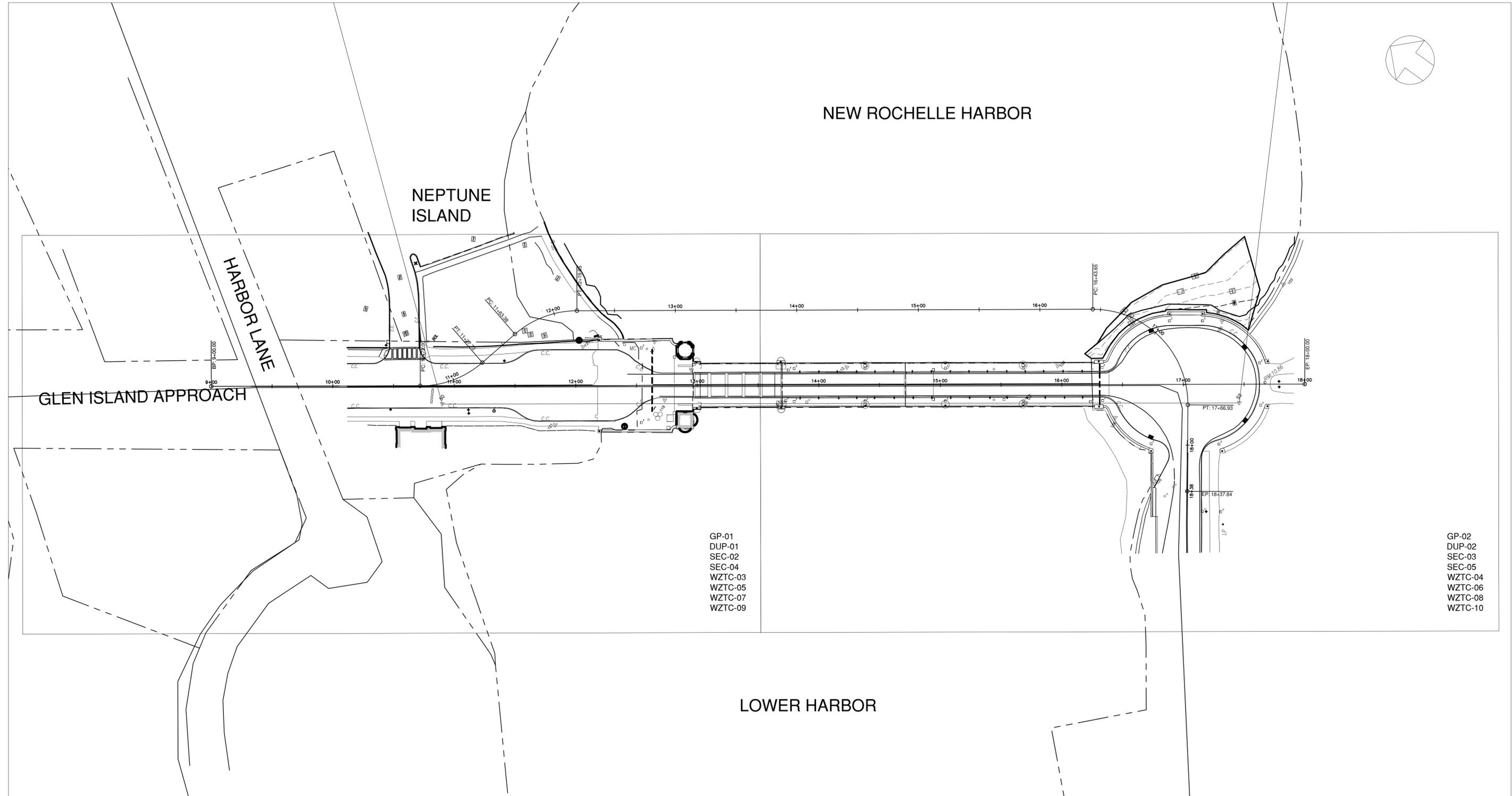
CIVIL

**TYPICAL SECTIONS**

CONTRACT NUMBER 20-517	SHEET NUMBER TS-01
SHEET NO. 8	OF 212
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-G-443-0	0



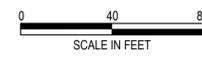
# NEW ROCHELLE HARBOR



- GP-01
- DUP-01
- SEC-02
- SEC-04
- WZTC-03
- WZTC-05
- WZTC-07
- WZTC-09

- GP-02
- DUP-02
- SEC-03
- SEC-05
- WZTC-04
- WZTC-06
- WZTC-08
- WZTC-10

## LOWER HARBOR



CONSULTANT INFORMATION



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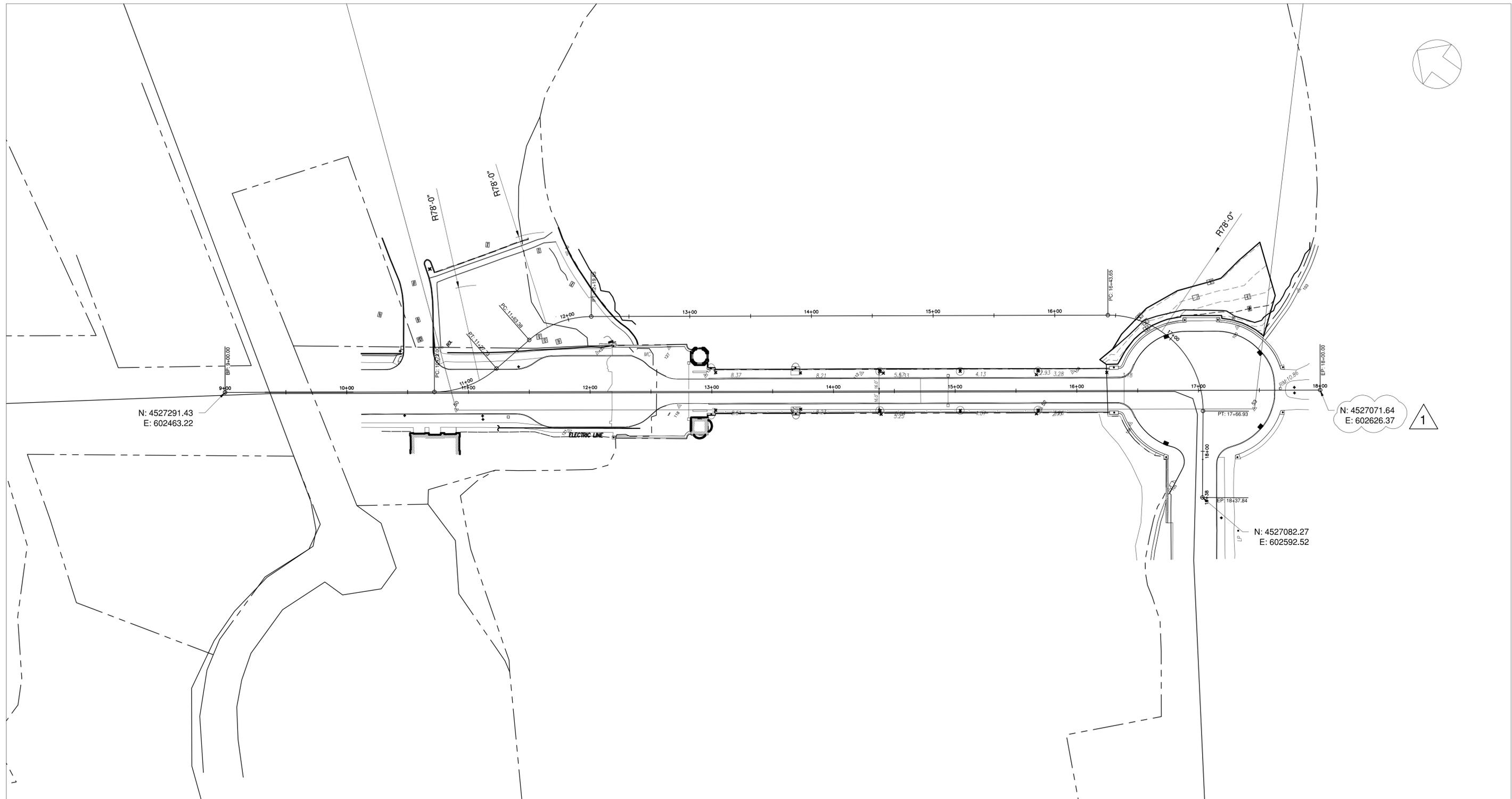
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TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

CIVIL  
**CIVIL KEY PLAN**

CONTRACT NUMBER 20-517	SHEET NUMBER KP-01
SHEET NO. 9 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-G-444-0	REV. NO. 0



NOTES:  
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 MADE BY S. TANG

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION
1	3/29/24	JJD	NH	UPDATED NORTHING AT 18+00.00

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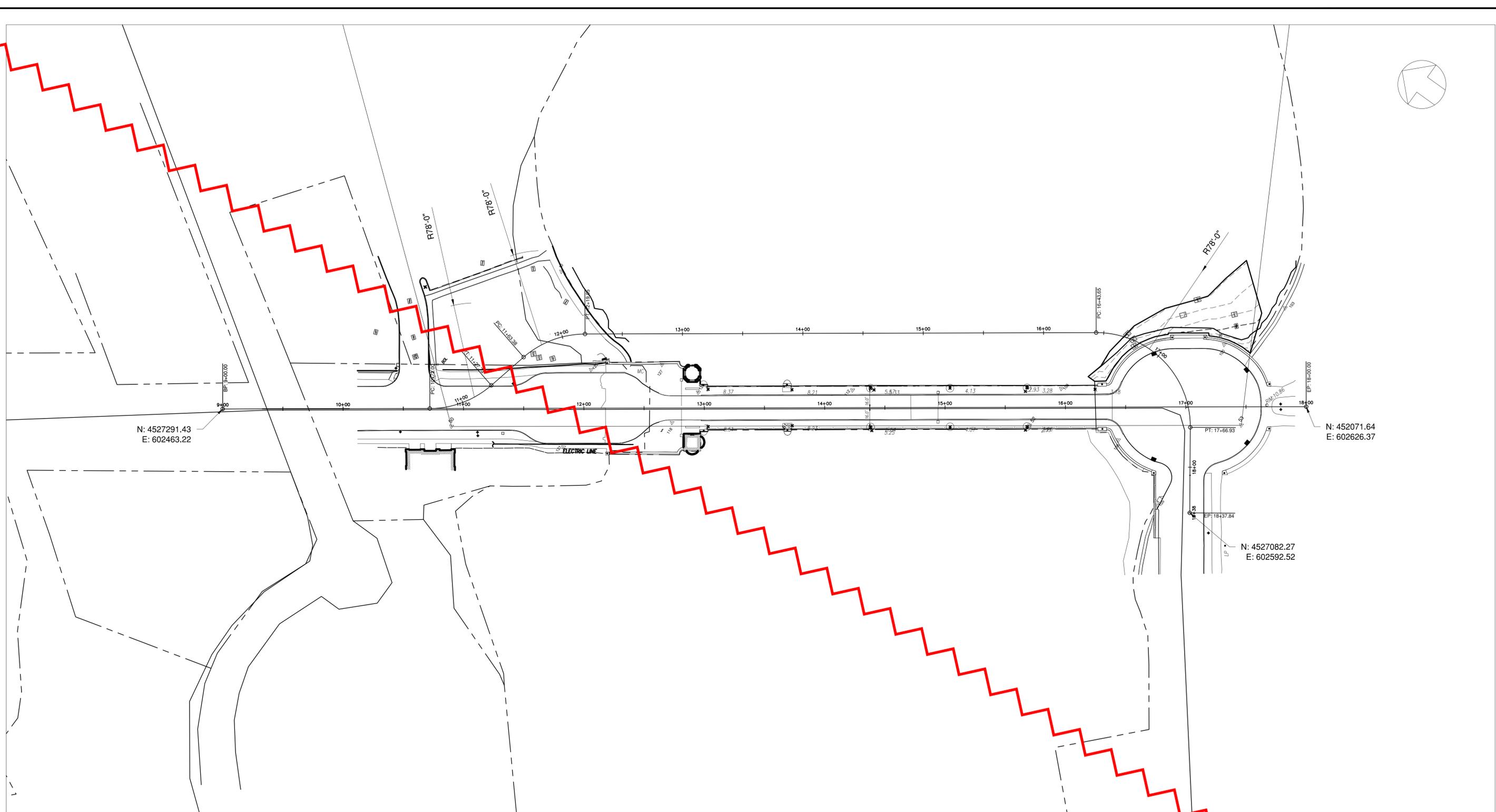
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PROJECT COORDINATOR: NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 CIVIL  
**BASELINE REFERENCE PLAN**

CONTRACT NUMBER: 20-517  
 SHEET NUMBER: BRP-01  
 SHEET NO. 10 OF 212  
 SCALE: AS SHOWN  
 DATE: 03/08/2024  
 DPW FILE NO.: 5-04-G-445-0  
 REV. NO.: 1



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MADE BY S. TANG

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

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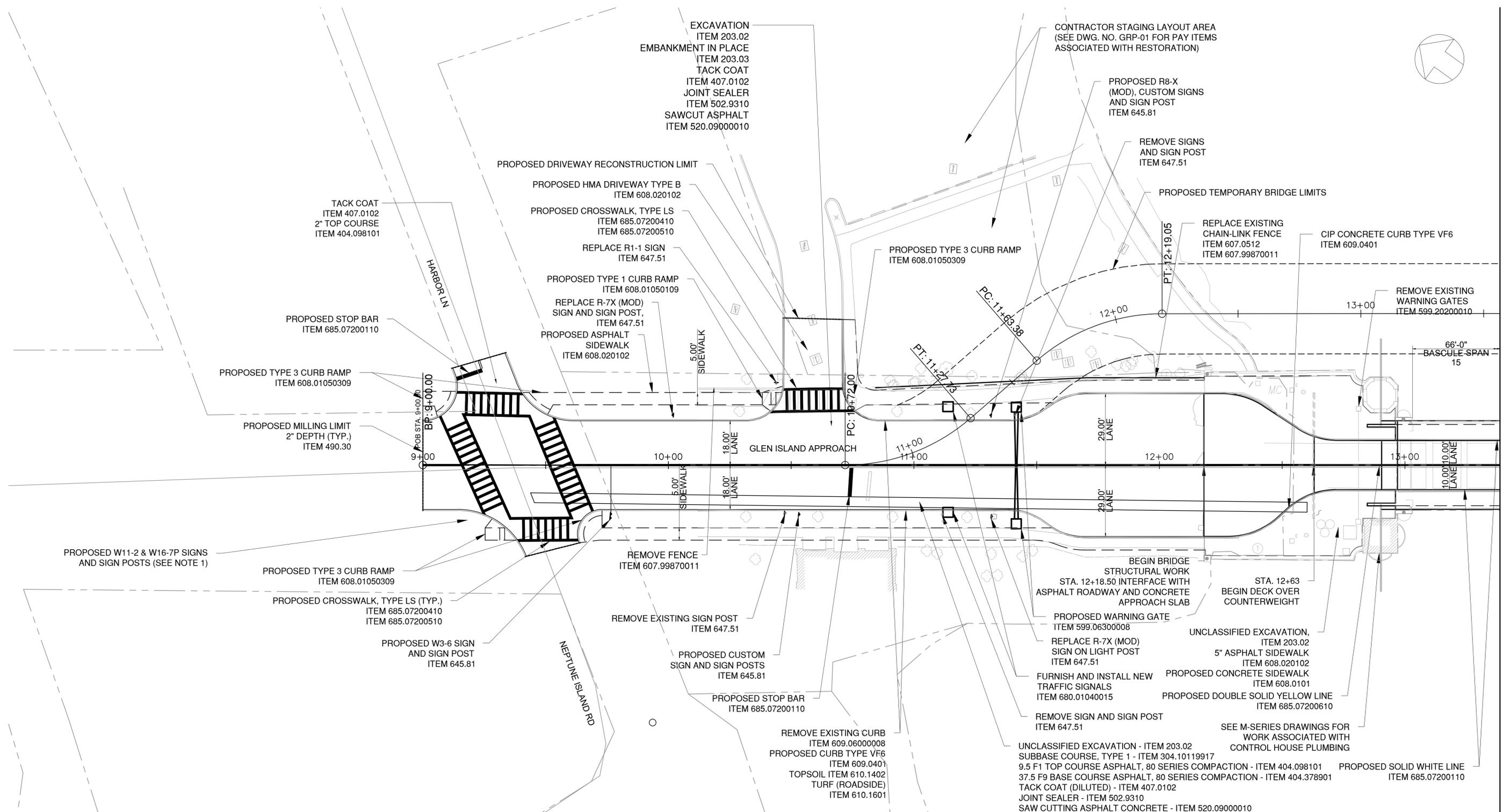
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TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING

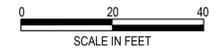
Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle

CIVIL  
**BASELINE REFERENCE PLAN**

CONTRACT NUMBER 20-517	SHEET NUMBER BRP-01
SHEET No. 10 of 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-G-445-0	REV. NO. 0



- NOTES:
- SEE DWG. NO. SDS-01 FOR ADDITIONAL INFORMATION REGARDING SIGN PANELS AND CORRESPONDING PAY ITEMS.



CONSULTANT INFORMATION

**H&H**

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IN CHARGE OF C. JENNE, PE  
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 MADE BY E. MOHLER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

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CONTRACTOR		PROJECT COORDINATOR	
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DATE _____	DATE _____	DATE _____	DATE _____

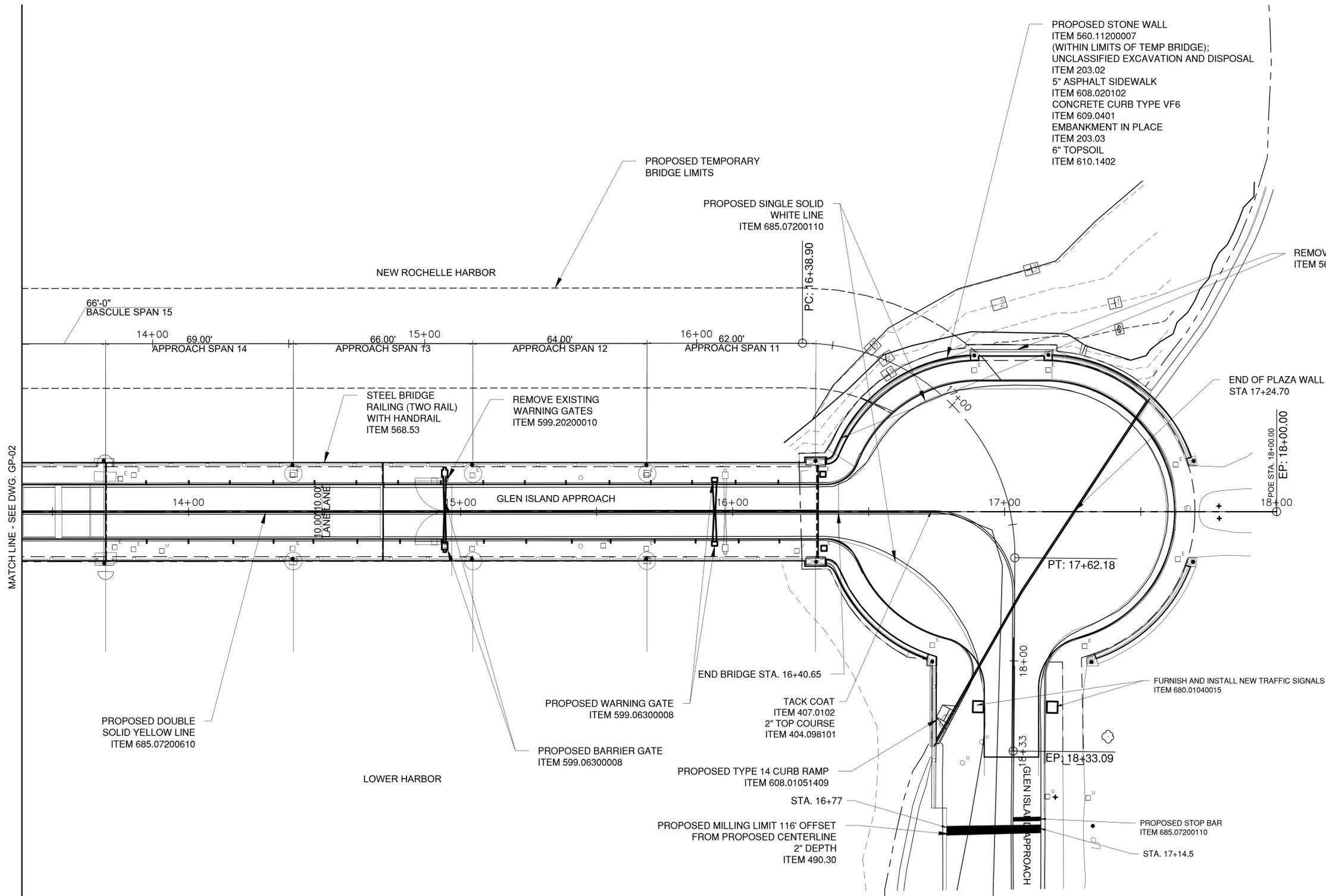
WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

CIVIL

**GENERAL PLAN (1 OF 2)**

CONTRACT NUMBER 20-517	SHEET NUMBER GP-01
SHEET NO. 11 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-G-446-0	REV. NO. 0



REMOVE AND RESET STONE WALL  
ITEM 560.13200007 (IN-KIND)

PROPOSED STONE WALL  
ITEM 560.11200007  
(WITHIN LIMITS OF TEMP BRIDGE);  
UNCLASSIFIED EXCAVATION AND DISPOSAL  
ITEM 203.02  
5" ASPHALT SIDEWALK  
ITEM 608.020102  
CONCRETE CURB TYPE VF6  
ITEM 609.0401  
EMBANKMENT IN PLACE  
ITEM 203.03  
6" TOPSOIL  
ITEM 610.1402

PROPOSED SINGLE SOLID  
WHITE LINE  
ITEM 685.07200110

PROPOSED TEMPORARY  
BRIDGE LIMITS

NEW ROCHELLE HARBOR

END OF PLAZA WALL  
STA 17+24.70

STEEL BRIDGE  
RAILING (TWO RAIL)  
WITH HANDRAIL  
ITEM 568.53

REMOVE EXISTING  
WARNING GATES  
ITEM 599.20200010

66'-0" BASCULE SPAN 15  
14+00 69.00' APPROACH SPAN 14

66.00' 15+00 APPROACH SPAN 13

64.00' APPROACH SPAN 12

16+00 62.00' APPROACH SPAN 11

10.00' 10.00' LANE LANE

5+00 16+00 GLEN ISLAND APPROACH

PT: 17+62.18

18+00.00  
EP: 18+00.00  
POE STA: 18+00.00

END BRIDGE STA. 16+40.65

FURNISH AND INSTALL NEW TRAFFIC SIGNALS  
ITEM 680.01040015

PROPOSED DOUBLE  
SOLID YELLOW LINE  
ITEM 685.07200610

PROPOSED WARNING GATE  
ITEM 599.06300008

TACK COAT  
ITEM 407.0102  
2" TOP COURSE  
ITEM 404.098101

LOWER HARBOR

PROPOSED BARRIER GATE  
ITEM 599.06300008

PROPOSED TYPE 14 CURB RAMP  
ITEM 608.01051409  
STA. 16+77

EP: 18+33.09

PROPOSED MILLING LIMIT 116' OFFSET  
FROM PROPOSED CENTERLINE  
2" DEPTH  
ITEM 490.30

PROPOSED STOP BAR  
ITEM 685.07200110

STA. 17+14.5



CONSULTANT  
INFORMATION



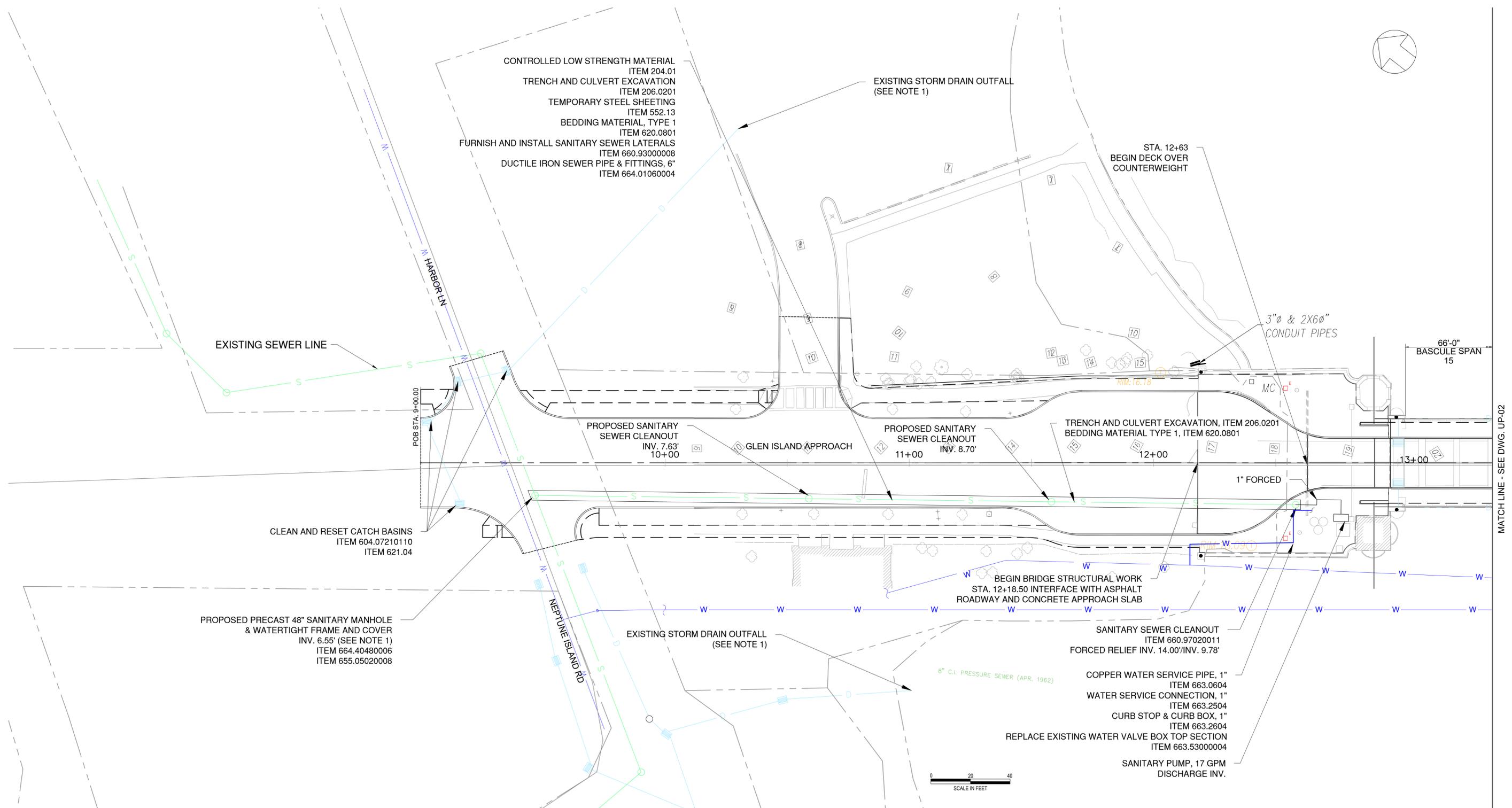
IN CHARGE OF C. JENNE, PE  
CHECKED BY K. HO, PE  
MADE BY E. MOHLER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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<input type="checkbox"/>	AS BUILT - NO CHANGES		
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____		
DATE _____	DATE _____		

WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING  
Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle  
CIVIL  
**GENERAL PLAN (2 OF 2)**

CONTRACT NUMBER 20-517	SHEET NUMBER GP-02
SHEET NO. 12 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-G-447-0	0



- NOTES:
1. LOCATION OF EXISTING UTILITIES APPROXIMATED FROM GIS DATA. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING FEATURES AS THEY RELATE TO PROPOSED SCOPE AND NOTIFY THE ENGINEER PRIOR TO PERFORMING WORK.
  2. SEE P-SERIES DRAWINGS FOR WORK ASSOCIATED WITH CONTROL HOUSE PLUMBING.

IN CHARGE OF C. JENNE, PE  
 CHECKED BY K. HO, PE  
 MADE BY E. MOHLER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

CONSULTANT SEAL

CONSULTANT INFORMATION  
  
 1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

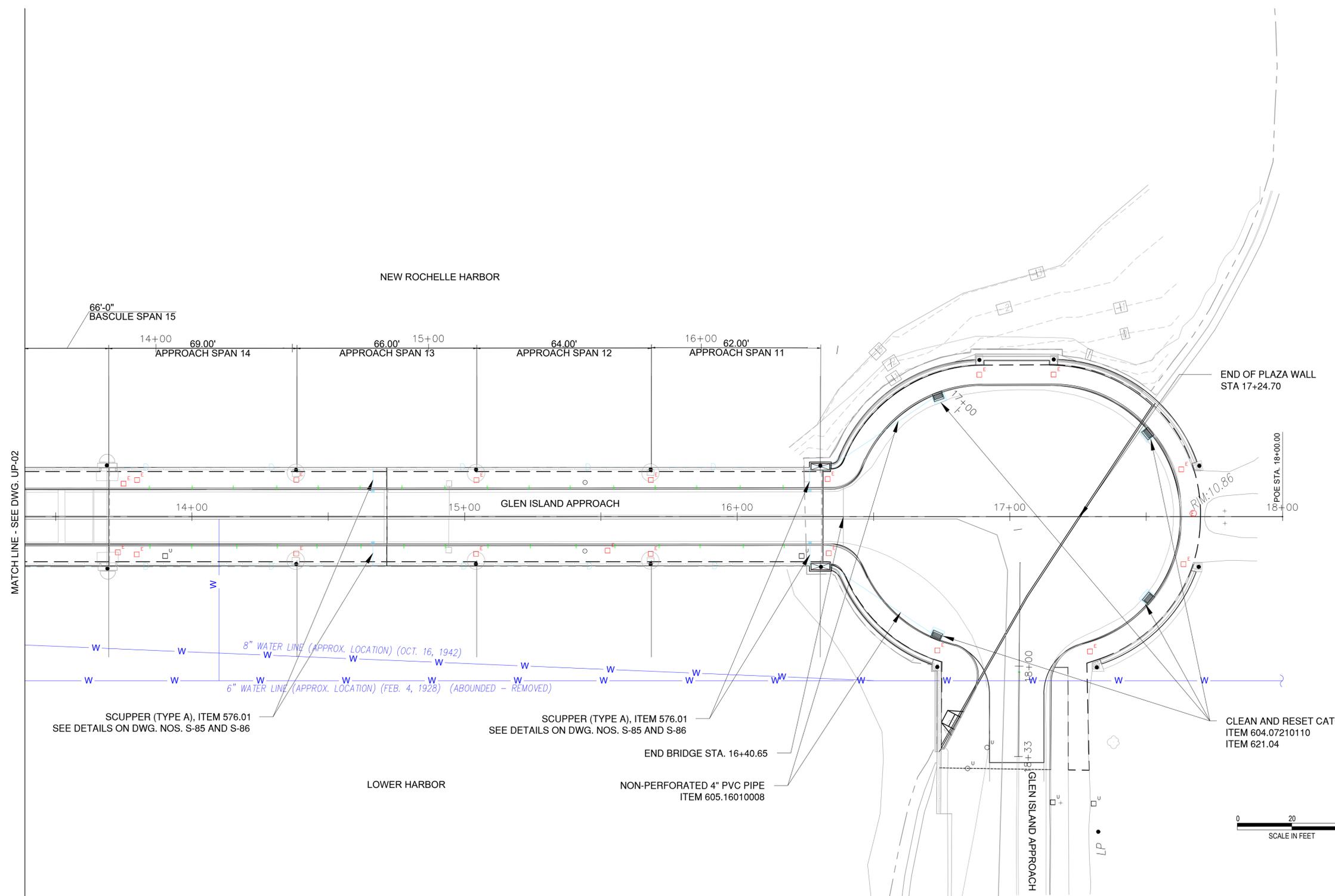
Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

CIVIL

**DRAINAGE AND UTILITY PLAN (1 OF 2)**

CONTRACT NUMBER 20-517	SHEET NUMBER DUP-01
SHEET NO. 13 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-R-448-0	0

MATCH LINE - SEE DWG. UP-02



MATCH LINE - SEE DWG. UP-02

NOTES:  
 1. LOCATION OF EXISTING UTILITIES APPROXIMATED FROM GIS DATA. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING FEATURES AS THEY RELATE TO PROPOSED SCOPE AND NOTIFY THE ENGINEER PRIOR TO PERFORMING WORK.

IN CHARGE OF C. JENNE, PE  
 CHECKED BY K. HO, PE  
 MADE BY E. MOHLER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

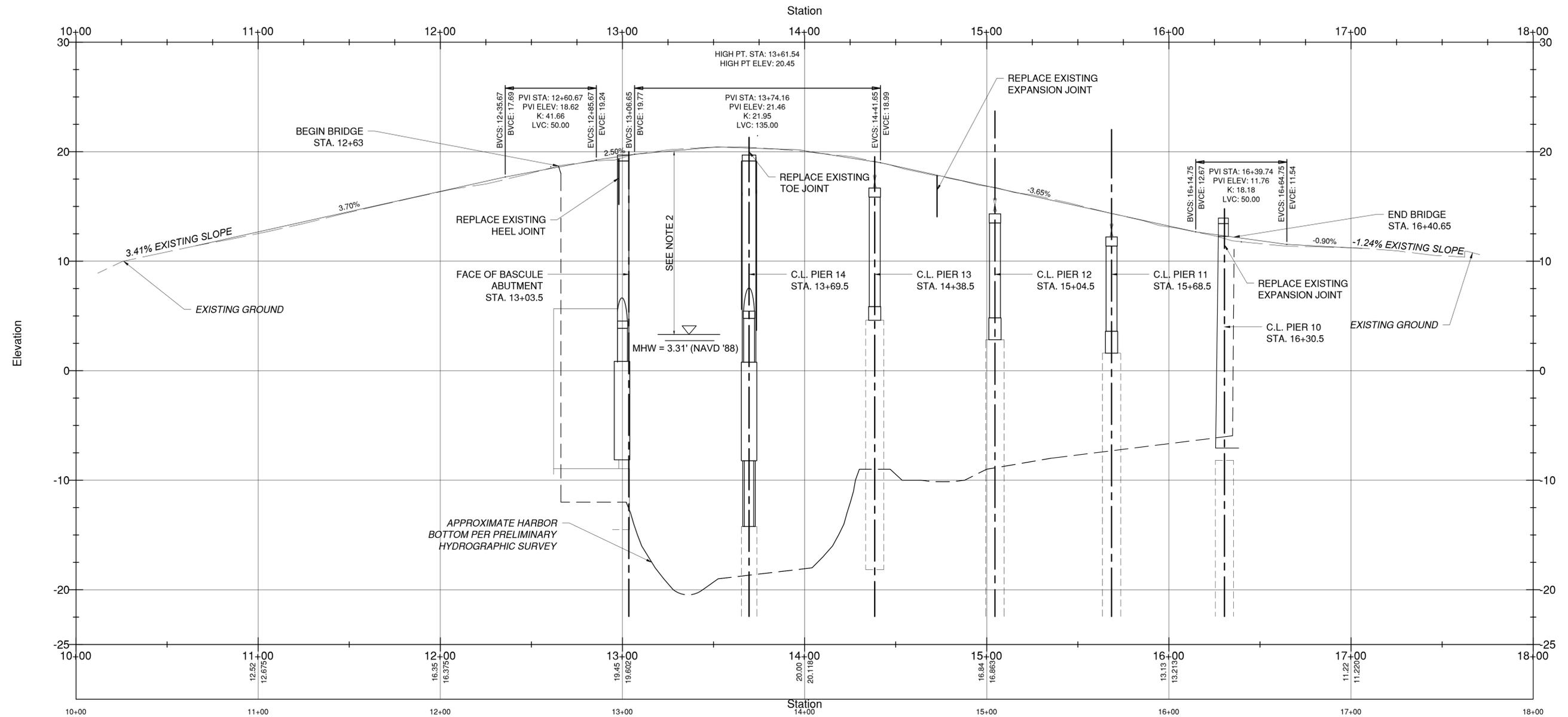
CONSULTANT SEAL

CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

<b>WESTCHESTER COUNTY, NEW YORK</b> <b>DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION</b> DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER DUP-02
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 14 OF 212 SCALE: AS SHOWN DATE: 03/08/2024	
CIVIL <b>DRAINAGE AND UTILITY (2 OF 2)</b>		DPW FILE NO. 5-04-R-449-0	REV. NO. 0

# Glen Island Approach Bridge - Proposed Profile



**NOTES:**

1. SEE STRUCTURAL DWG. SERIES FOR DETAILED SUPERSTRUCTURE CONFIGURATION.
2. IN THE CLOSED POSITION, GLEN ISLAND BRIDGE SHALL MAINTAIN A 13' MINIMUM VERTICAL CLEARANCE AT MEAN HIGH WATER (MHW) AND A 20' MINIMUM VERTICAL CLEARANCE AT MEAN LOW WATER (MLW).

IN CHARGE OF C. JENNE, PE  
 CHECKED BY K. HO, PE  
 MADE BY E. MOHLER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

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CONTRACTOR		PROJECT COORDINATOR	
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TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

CONSULTANT SEAL  


CONSULTANT INFORMATION  
  
 1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

CIVIL

**PROPOSED PROFILE**

CONTRACT NUMBER 20-517	SHEET NUMBER PRO-01
SHEET NO. 15 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-R-450-0	0

**SIGNAGE NOTES:**

- SIGN LOCATIONS AS SHOWN ON PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL INSTALL NEW SIGNS AND RELOCATE EXISTING SIGNS IN ACCORDANCE WITH THE MUTCD AND NYS SUPPLEMENT.
- THE AREA AND PAYMENT AREA FOR SIGNS ARE FROM THE APPLICABLE STANDARD SHEETS, UNLESS OTHERWISE SPECIFIED.

TEXT NUMBER	*LOCATION NUMBER	ITEM NUMBER	PAYMENT FACTOR	TOTAL QUANTITY	TEXT WxH (in)	MUTCD NUMBER	MOUNT	COLOR
1	STA. 10+45 (NEPTUNE ISLAND DRIVEWAY)	645.52020110	6.25	6.25		R1-1	GROUND	WHITE / RED
		645.81	1	1	30" x 30"			
2	STA. 9+77, RT	645.52020110	9.00	9.00		W3-6	GROUND	BLACK / YELLOW
		645.81	1	1	36" x 36"			
3	AT HARBOR LANE / GLEN ISLAND APP. INTERSECTION  (CONTRACTOR TO USE A.O.B.E. ALONG PLAZA SIDE FOR PAR DURING WZTC)	645.52020110	6.25	6.25		W11-2	GROUND	BLACK / YELLOW
		645.81	1	2	30" x 30"			
4	AT HARBOR LANE / GLEN ISLAND APP. INTERSECTION  (CONTRACTOR TO USE A.O.B.E. ALONG PLAZA SIDE FOR PAR DURING WZTC)	645.52020110	2.00	2.00		W16-7P	GROUND	BLACK / YELLOW
		645.81	1	2	24" x 12"			
5	STA. 11+31, LT	645.52020110	1.50	1.50		& CUSTOM	GROUND	RED / WHITE
		645.81	1	1	12" X 18"			
6	STA. 10+05, LT STA. 11+32, RT	645.52020110	3.00	3.00		R7-X (MOD)	GROUND	RED / WHITE
		645.81	2	2	12" X 18"			
7	STA. 10+55, RT	645.52020110	9	9		CUSTOM	GROUND	WHITE / GREEN
		645.81	1	1	36" X 36"			
8	STA. 11+31, LT	645.52020110	2	2		CUSTOM	GROUND	WHITE / BROWN
		645.81	1	1	12" X 24"			

\*NOTE: SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO SIGN LOCATION(S).

	CONSULTANT SEAL	CONSULTANT INFORMATION
		
1501 BROADWAY, SUITE 601 NEW YORK, NY 10036 (212) 944-1150		

IN CHARGE OF C. JENNE, PE  
 CHECKED BY K. HO, PE  
 MADE BY E. MOHLER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER SDS-01
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle			
CIVIL			
SCALE: AS SHOWN		DATE: 03/08/2024	DPW FILE NO.
SIGN DATA SHEET		5-04-R-451-0	REV. NO. 0

**MAINTENANCE AND PROTECTION OF TRAFFIC:**

1. THE WORK ZONE TRAFFIC CONTROL (WZTC) PLANS ILLUSTRATE THE TRAFFIC CONFIGURATION TO BE MAINTAINED ALONG THE GLEN ISLAND APPROACH DURING THE FOUR (4) CONSTRUCTION STAGES IDENTIFIED FOR THE PROJECT. CONSTRUCTION SHALL OCCUR WHILE MAINTAINING TRAFFIC AS INDICATED ON THESE WZTC DRAWINGS.
2. CONTRACTOR SHALL SUBMIT PROCEDURE AND SCHEDULE FOR MPT TO THE COUNTY FOR REVIEW AND APPROVAL AT LEAST 21 DAYS PRIOR TO COMMENCEMENT OF FIELD CONSTRUCTION.
3. FULL BRIDGE CLOSURE IS ONLY PERMITTED IN STAGE 4 FOR FINAL APPROACH, MILL AND OVERLAY OPERATIONS. CLOSURE MUST BE COORDINATED WITH GLEN ISLAND HARBOUR CLUB TO ENSURE CONSTRUCTION DOES NOT COINCIDE WITH ANY WEDDING EVENTS. AT ALL OTHER TIMES, BRIDGE (EXISTING, TEMPORARY, AND PROPOSED) SHALL REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION. ALTERNATING TRAFFIC / SINGLE LANE CLOSURE IS PERMITTED AS PER COUNTY'S APPROVED SCHEDULE.
4. CONTRACTOR ACCESS:
  - 4.1. ALL BARGES MUST BE EQUIPPED WITH SAFETY RAILINGS, LINES, ETC, AS REQUIRED BY OSHA. ALL WORK AND THE SAFETY PLAN MUST CONFORM TO OSHA STANDARDS.
  - 4.2. THE CONTRACTOR SHALL SUBMIT MEANS AND METHODS TO THE ENGINEER FOR APPROVAL PRIOR TO STARTING THE WORK.
5. SIGN LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL INSTALL SIGNS IN ACCORDANCE WITH THE CODES, RULES AND REGULATIONS OF THE NATIONAL MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AND THE NEW YORK STATE SUPPLEMENTS.
6. ALL BASIC WORK ZONE TRAFFIC CONTROL WORK SHALL CONFORM TO SECTION 619 OF THE NYSDOT STANDARD SPECIFICATIONS AND TO THE CODES, RULES, AND REGULATIONS OF THE NATIONAL MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS & HIGHWAYS. LATEST EDITION WITH NEW YORK STATE SUPPLEMENTS, EXCEPT AS MODIFIED BY THE PLANS AND PROPOSAL AND A.O.B.E.
7. THE WORK ZONE OPERATING SPEED SHALL BE 15 MPH WITHIN THE CONSTRUCTION LIMITS OF THE PROJECT.
8. IF AT ANY TIME IN THE OPINION OF THE ENGINEER, CONDITIONS SHALL WARRANT MODIFICATIONS TO THE SCHEMES SHOWN ON THIS OR ANY OTHER WORK ZONE TRAFFIC CONTROL DRAWINGS, THE CONTRACTOR SHALL PERFORM THE MODIFICATIONS INCLUDING RE-OPENING OF ANY LANE CLOSURE(S) ON AN EMERGENCY BASIS A.O.B.E.
9. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, WESTCHESTER COUNTY POLICE, CITY OF NEW ROCHELLE POLICE AND FIRE DEPARTMENT, GLEN ISLAND PARK (WESTCHESTER COUNTY PARKS DEPARTMENT), LOCAL HOSPITALS, AMBULANCE AND OTHER EMERGENCY SERVICES AT LEAST TWO (2) WEEKS IN ADVANCE OF BEGINNING WORK ON A TRAVEL LANE / SHOULDER OR ANY WORK THAT MIGHT AFFECT THEIR MOBILITY OR ACCESS. NOTIFICATION SHALL BE IN WRITING AFTER RECEIPT OF CONCURRENCE OF THE ENGINEER.
10. ALL TEMPORARY SIGNS SHALL BE PAID FOR UNDER ITEM 619.01 BASIC WORK ZONE TRAFFIC CONTROL. ALL WARNING SIGNS SHALL BE MOUNTED WITH TYPE B FLASHING WARNING LIGHTS.
11. ALL CONSTRUCTION SIGNS SHALL BE REFLECTORIZED AND HAVE A FLUORESCENT ORANGE BACKGROUND AND BLACK LETTERS AND BORDERS.
12. TEMPORARY SIGNS SHALL NOT BE PLACED AT ANY LOCATION WHERE THEY ARE OBSCURED BY TEMPORARY OR PERMANENT OBJECTS.
13. ALL SIGNS ARE TO BE IN GOOD CONDITION. FADED AND DETERIORATED PANELS AND NON-STANDARD LEGENDS ARE NOT ACCEPTABLE.
14. THE CONTRACTOR SHALL PROVIDE FLAGGERS WITH APPROPRIATE SIGNING WHENEVER OPERATIONS INTERFERE WITH TRAFFIC. EXAMPLES INCLUDE, BUT ARE NOT LIMITED TO, DELIVERY/REMOVAL OF MATERIALS, LIFTING OPERATIONS, AND OTHER ACTIVITIES A.O.B.E. COST INCLUDED IN ITEM 619.01 FLAGGING PROCEDURE WILL BE ENFORCED.
15. THE SOLE DUTY OF THE FLAGGERS SHALL BE TO DIRECT TRAFFIC PROPERLY AT ALL TIMES. THE FLAGGERS SHALL NOT BE USED TO MOVE TEMPORARY SIGNS OR ASSIST IN OTHER WORK AND SHALL BE POSITIONED APPROPRIATELY IN ADVANCE OF THE WORK.
16. FLAGGER SIGNS ARE TO BE USED ONLY WHEN A FLAGGER IS ACTUALLY PRESENT AND VISIBLE TO THE MOTORIST. THEY SHALL BE COVERED OR REMOVED AT ALL OTHER TIMES.
17. WORK ZONES SHOULD BE LIMITED TO ONE SIDE OF THE TRAVELED WAY AT A TIME UNLESS APPROVED BY THE E.I.C., WORK ZONES ON OPPOSITE SIDES OF THE ROAD SHALL NOT OVERLAP. WORK ZONE IS DEFINED AS THAT AREA IN WHICH TRAFFIC IS RESTRICTED BECAUSE OF CONSTRUCTION ACTIVITIES OR THAT AREA THAT INVOLVES A DROP-OFF NEXT TO THE PAVEMENT.
18. ALL CHANNELIZING DEVICES MUST BE IN GOOD PHYSICAL CONDITION AND BE PROPERLY PLACED AT THE OUTER LIMITS OF THE ROADWAY AVAILABLE FOR USE BY VEHICLES.
19. DURING THE VARIOUS MPT CONFIGURATIONS, TEMPORARY PAVEMENT MARKING STRIPES SHALL BE APPLIED ON EXISTING PAVEMENT TO BE REMOVED AND ON NEW BINDER COURSE, AND PAID FOR UNDER ITEM 619.0901. BOTH WHITE AND YELLOW EPOXY REFLECTORIZED PAVEMENT STRIPES SHALL BE APPLIED TO EXISTING PAVEMENT TO REMAIN OR ANY NEW TOP COURSE TO REMAIN, AND PAID FOR UNDER ITEMS 685.07200110 AND 685.07200610, RESPECTIVELY.
20. THE CONTRACTOR SHALL INSTALL WARNING BEACONS (TYPE C STEADY BURN LIGHTS) ON ALTERNATING PLASTIC DRUMS. PAYMENT FOR WARNING BEACONS SHALL BE INCLUDED IN ITEM 619.01.
21. WESTCHESTER COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION TRAFFIC ENGINEER (MR. ROGER GRIFFITH 914-995-2556) SHALL BE CONTACTED 72 HOURS IN ADVANCE OF REQUESTED CLOSURES.
22. VARIABLE MESSAGE SIGNS (VMS) ARE REQUIRED TO BE IN PLACE AND OPERATIONAL 48 HOURS IN ADVANCE OF CLOSURES. ALL VMS SHALL BE CAPABLE OF BEING PROGRAMMED REMOTELY. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING VMS AS INDICATED HEREIN AND/OR AS DIRECTED BY THE ENGINEER. VMS SHALL BE INCLUDED UNDER 619.110722. CONTRACTOR TO COORDINATE DISPLAY MESSAGES WITH THE WESTCHESTER COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION TRAFFIC ENGINEERING DIVISION.

**SUGGESTED CONSTRUCTION STAGING:**

- STAGE 1A:
- IMPLEMENT STAGE 1 WORK ZONE TRAFFIC CONTROL.
  - INSTALL EROSION AND SEDIMENT CONTROL DEVICES.
  - CONSTRUCT TEMPORARY STRUCTURE OFF-LINE.
- STAGE 1B (NB APPROACH - LAND SIDE):
- CONSTRUCT TEMPORARY APPROACH TIE-IN PER APPROVED STANDARD LANE CLOSURES
- STAGE 1C (SB APPROACH - PLAZA SIDE):
- BUILD TEMPORARY ABUTMENT ADJACENT TO EXISTING STONE WALL
  - PLACE EMBANKMENT BETWEEN TEMP BRIDGE ABUTMENT AND POINT AT WHICH VERTICAL PROFILE TIES DOWN TO PLAZA AT-GRADE
  - CONSTRUCT TEMPORARY APPROACH TIE-IN PER APPROVED STANDARD LANE CLOSURES
  - REPAIR CONCRETE WITHIN THE LIMITS OF WORK ZONE THIS STAGE
- STAGE 2:
- IMPLEMENT STAGE 2 WORK ZONE TRAFFIC CONTROL AND DIVERT ALL TRAFFIC TO TEMPORARY STRUCTURE.
  - CONSTRUCT PERMANENT STRUCTURE AND APPURTENANCES WITHIN WORK ZONE LIMITS
  - CONSTRUCT WATER AND SANITARY SEWER UTILITY CONNECTIONS
  - CONSTRUCT PERMANENT APPROACH TIE-INS AND FINALIZE INTERSECTION WATER / SEWER UTILITY WORK IN ACCORDANCE WITH APPROVED STANDARD LANE CLOSURES AND FLAGGING OPERATIONS.
  - REPAIR CONCRETE WITHIN THE LIMITS OF WORK ZONE THIS STAGE
  - \* PERMANENT APPROACHES SHALL BE SUBSTANTIALLY COMPLETED SO AS TO FACILITATE SAFE MOVEMENT OF TRAFFIC IN SUBSEQUENT CONSTRUCTION STAGE(S).
- STAGE 3:
- DIVERT ALL TRAFFIC TO PERMANENT STRUCTURE.
  - DEMOLISH TEMPORARY STRUCTURE.
  - RESTORE PAVEMENT AT APPROACH TIE-INS TO PRE-CONSTRUCTION CONDITIONS.
  - REPAIR CONCRETE WITHIN THE LIMITS OF WORK ZONE THIS STAGE
- STAGE 4:
- IMPLEMENT PHASED CONSTRUCTION TO REMOVE TEMPORARY APPROACH TIE-IN POINTS AND FINALIZE ANY REMAINING CONSTRUCTION ASSOCIATED WITH THE BRIDGE, ROADWAY AND APPURTENANCES.
  - MILL, RESURFACE AND RE-STRIPE PAVEMENT IMPACTED BY CONSTRUCTION IN ACCORDANCE WITH APPROVED STANDARD LANE CLOSURES AND OVERNIGHT BRIDGE CLOSURE RESTRICTIONS, UTILIZING FLAGGERS AS NEEDED.
  - FINALIZE LANDSCAPE RESTORATION OF TEMPORARY BRIDGE AND CONTRACTOR STAGING LAYOUT AREAS.

IN CHARGE OF C. JENNE, PE  
 CHECKED BY K. HO, PE  
 MADE BY J. ALTMAN/S. TANG

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT – CHANGES AS NOTED  
 AS BUILT – NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____



CONSULTANT INFORMATION



**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

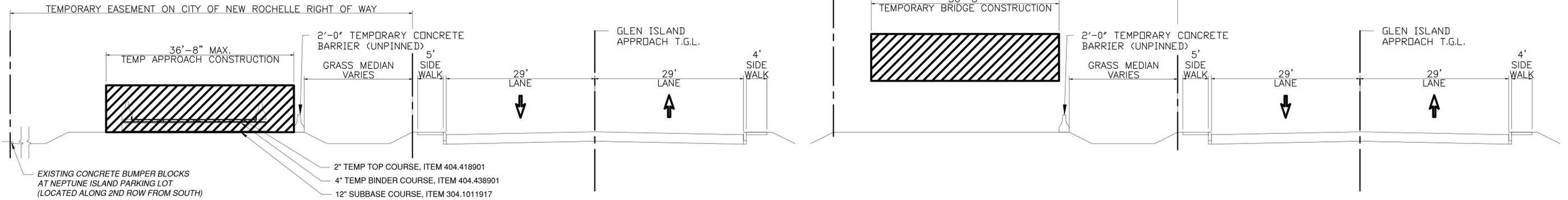
CIVIL

**WORK ZONE TRAFFIC CONTROL NOTES**

CONTRACT NUMBER 20-517	SHEET NUMBER WZTCN-01
SHEET NO. 17 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-R-452-0	0

**STAGE 1**

SCALE: 1"=10'



**NORTHWEST SECTION A-A**

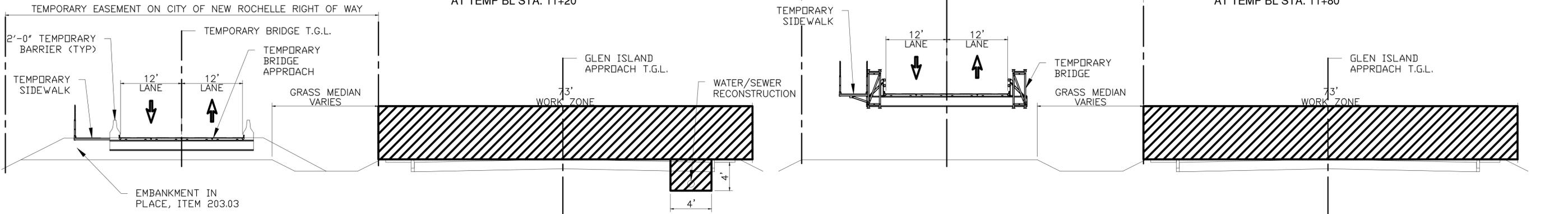
AT TEMP BL STA. 11+20

**NORTHWEST SECTION B-B**

AT TEMP BL STA. 11+80

**STAGE 2**

SCALE: 1"=10'



**NORTHWEST SECTION A-A**

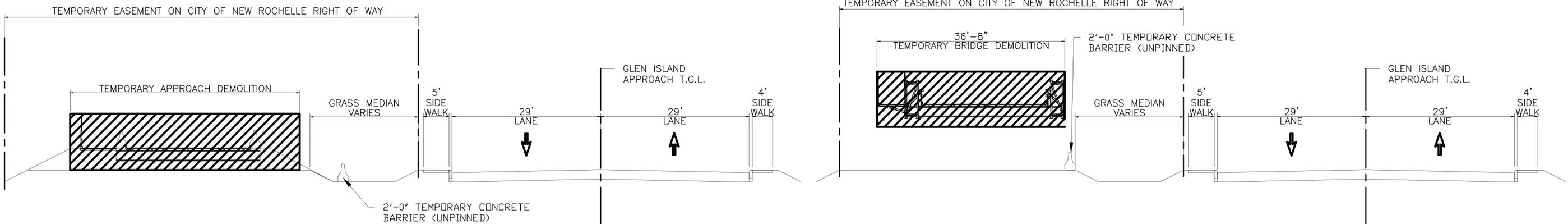
AT TEMP BL STA. 11+20

**NORTHWEST SECTION B-B**

AT TEMP BL STA. 11+80

**STAGE 3**

SCALE: 1"=10'



**NORTHWEST SECTION A-A**

AT TEMP BL STA. 11+20

**NORTHWEST SECTION B-B**

AT TEMP BL STA. 11+80

**NOTES:**

- SEE DRAWING NOS. WZTC-09 & WZTC-10 FOR STAGE 4 WORK. FOR REMAINDER OF LAND SIDE WORK, CONTRACTOR SHALL UTILIZE PHASED CONSTRUCTION IN ACCORDANCE WITH LANE CLOSURE PARAMETERS. FOR PLAZA SIDE FINAL CONSTRUCTION, CONTRACTOR SHALL UTILIZE FULL BRIDGE CLOSURE.

IN CHARGE OF C. JENNE, PE  
 CHECKED BY K. HO, PE  
 MADE BY S. TANG

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
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SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

CONSULTANT SEAL  
DAVID DELUCA  
NO. 048477  
REGISTERED PROFESSIONAL ENGINEER

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

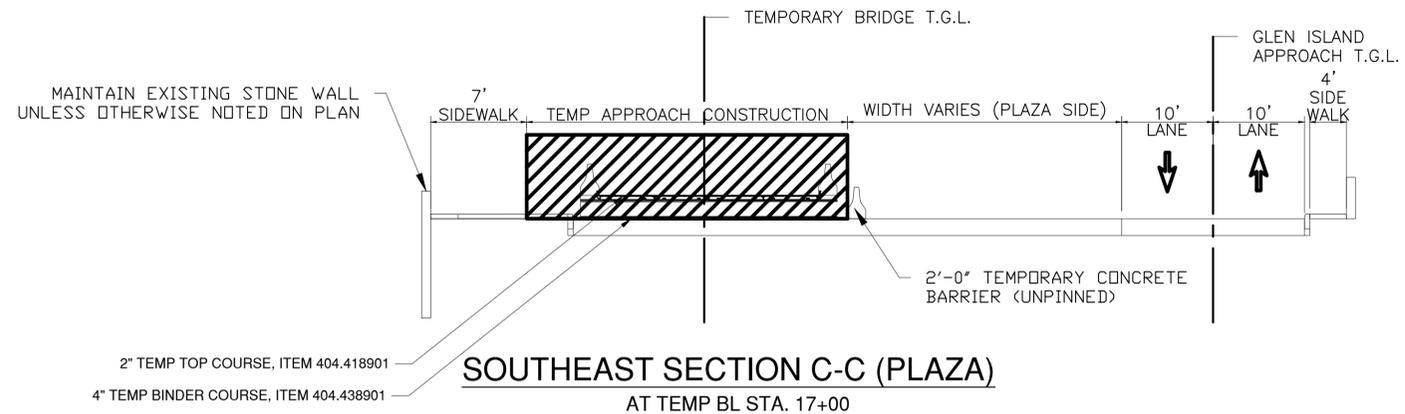
CIVIL

CONTRACT NUMBER 20-517  
 SHEET NUMBER WZTC-01  
 SHEET NO. 18 OF 212  
 SCALE: AS SHOWN  
 DATE: 03/08/2024  
 DPW FILE NO. \_\_\_\_\_  
 REV. NO. 0

**WORK ZONE TRAFFIC CONTROL SECTIONS (1 OF 2)**

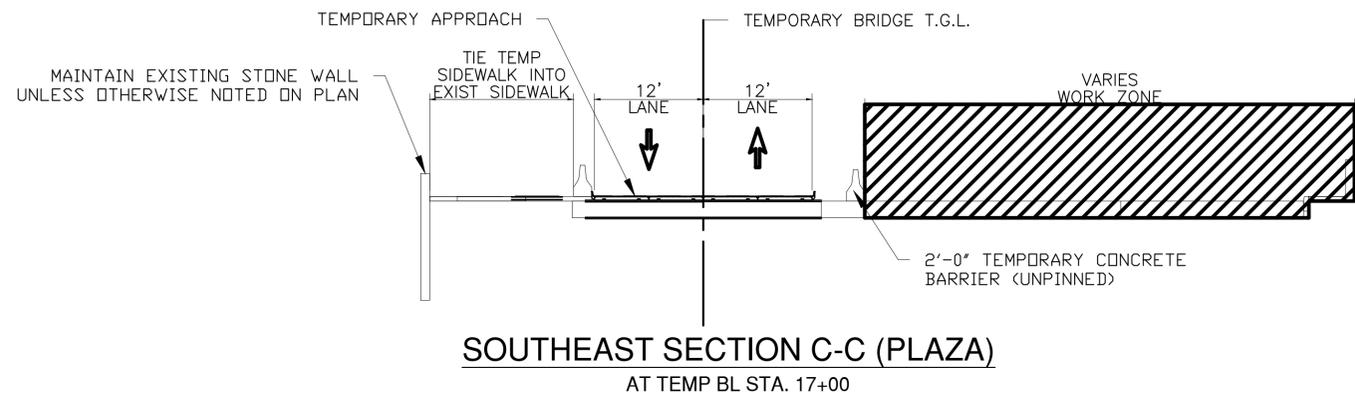
**STAGE 1**

SCALE: 1"=10'



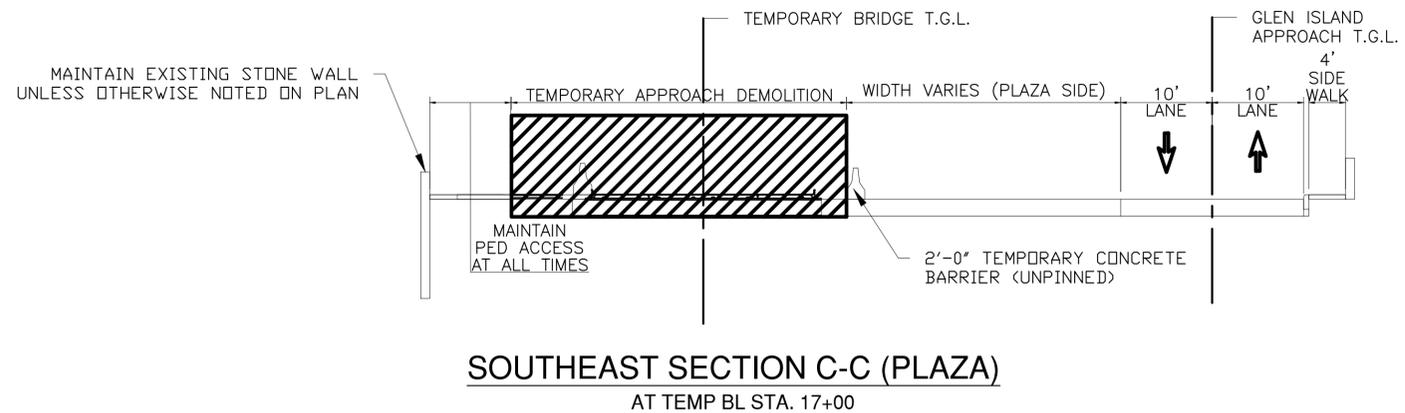
**STAGE 2**

SCALE: 1"=10'



**STAGE 3**

SCALE: 1"=10'



**NOTES:**

- SEE DRAWING NOS. WZTC-09 & WZTC-10 FOR STAGE 4 WORK. FOR REMAINDER OF LAND SIDE WORK, CONTRACTOR SHALL UTILIZE PHASED CONSTRUCTION IN ACCORDANCE WITH LANE CLOSURE PARAMETERS. FOR PLAZA SIDE FINAL CONSTRUCTION, CONTRACTOR SHALL UTILIZE FULL BRIDGE CLOSURE.

IN CHARGE OF C. JENNE, PE  
 CHECKED BY K. HO, PE  
 MADE BY S. TANG

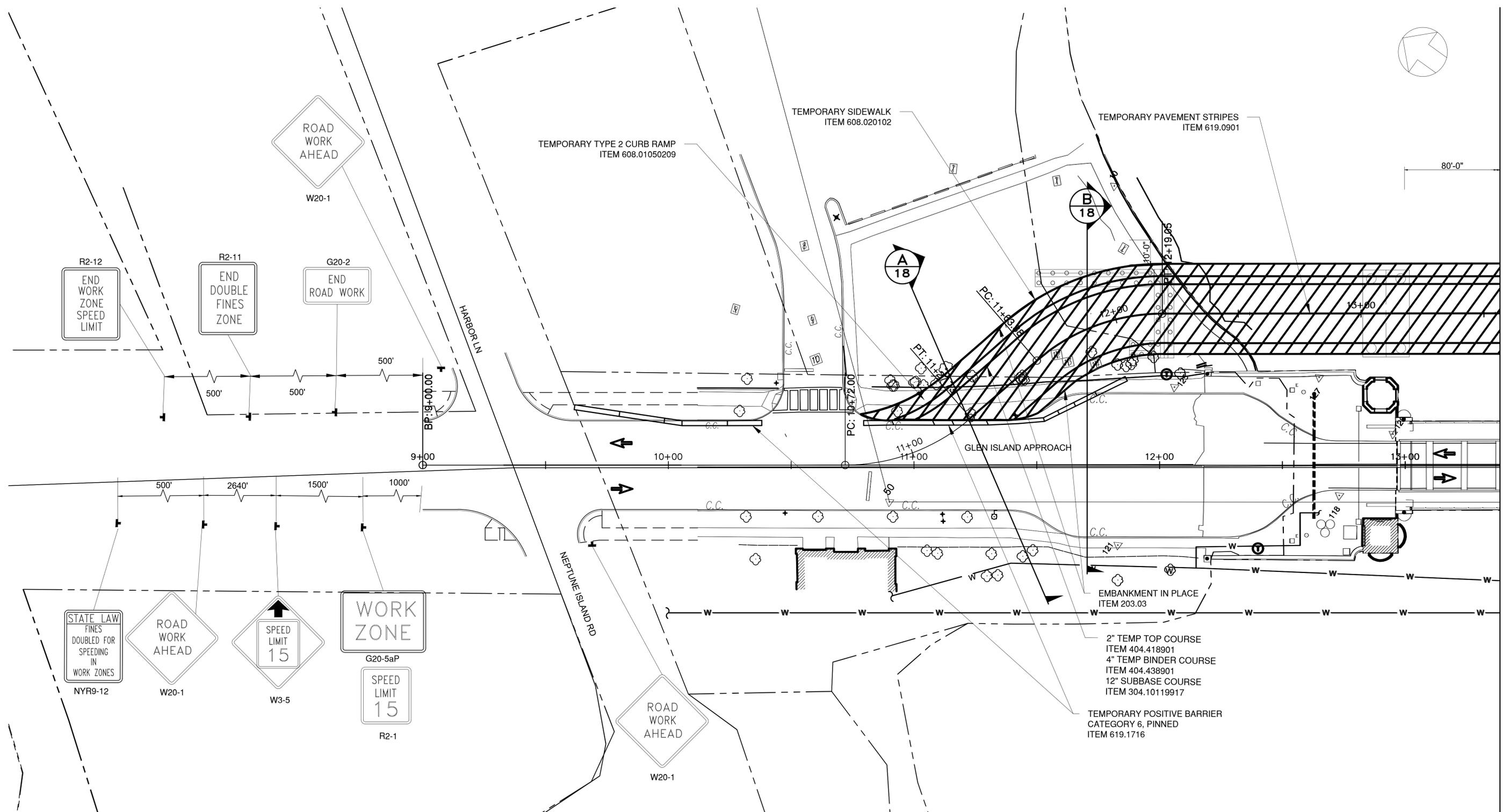
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TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

	CONSULTANT INFORMATION	<p>1501 BROADWAY, SUITE 601 NEW YORK, NY 10036 (212) 944-1150</p>
	WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle CIVIL	
CONTRACT NUMBER 20-517 SHEET NUMBER WZTC-02 SHEET NO. 19 OF 212 SCALE: AS SHOWN DATE: 03/08/2024 DPW FILE NO. _____ REV. NO. 0		WORK ZONE TRAFFIC CONTROL SECTIONS (2 OF 2)



MATCH LINE - SEE DWG. WZTC-03

LEGEND:  
WORK ZONE AREA

IN CHARGE OF C. JENNE, PE  
CHECKED BY K. HO, PE  
MADE BY E. MOHLER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/>	AS BUILT - CHANGES AS NOTED	<input type="checkbox"/>	AS BUILT - NO CHANGES
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

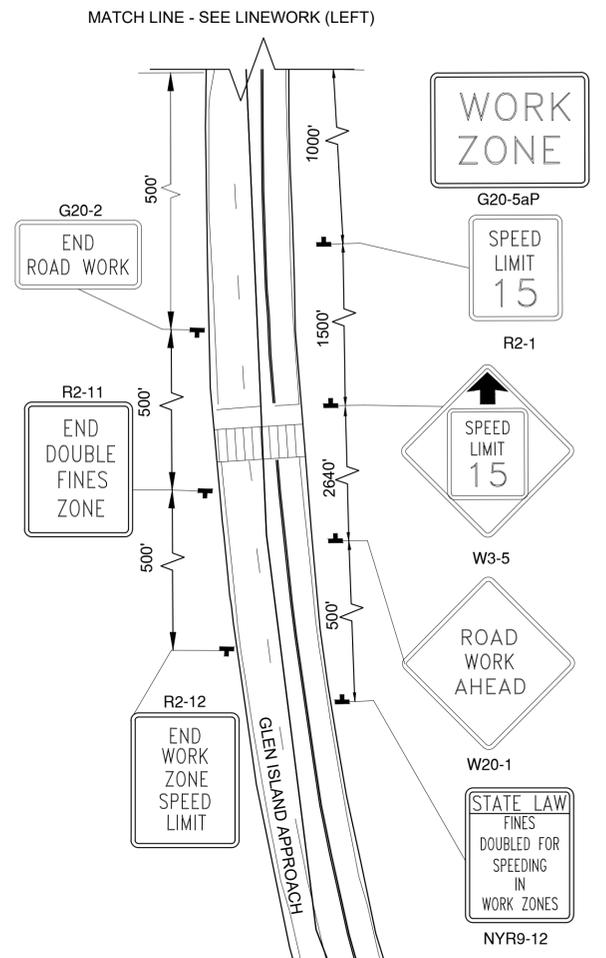
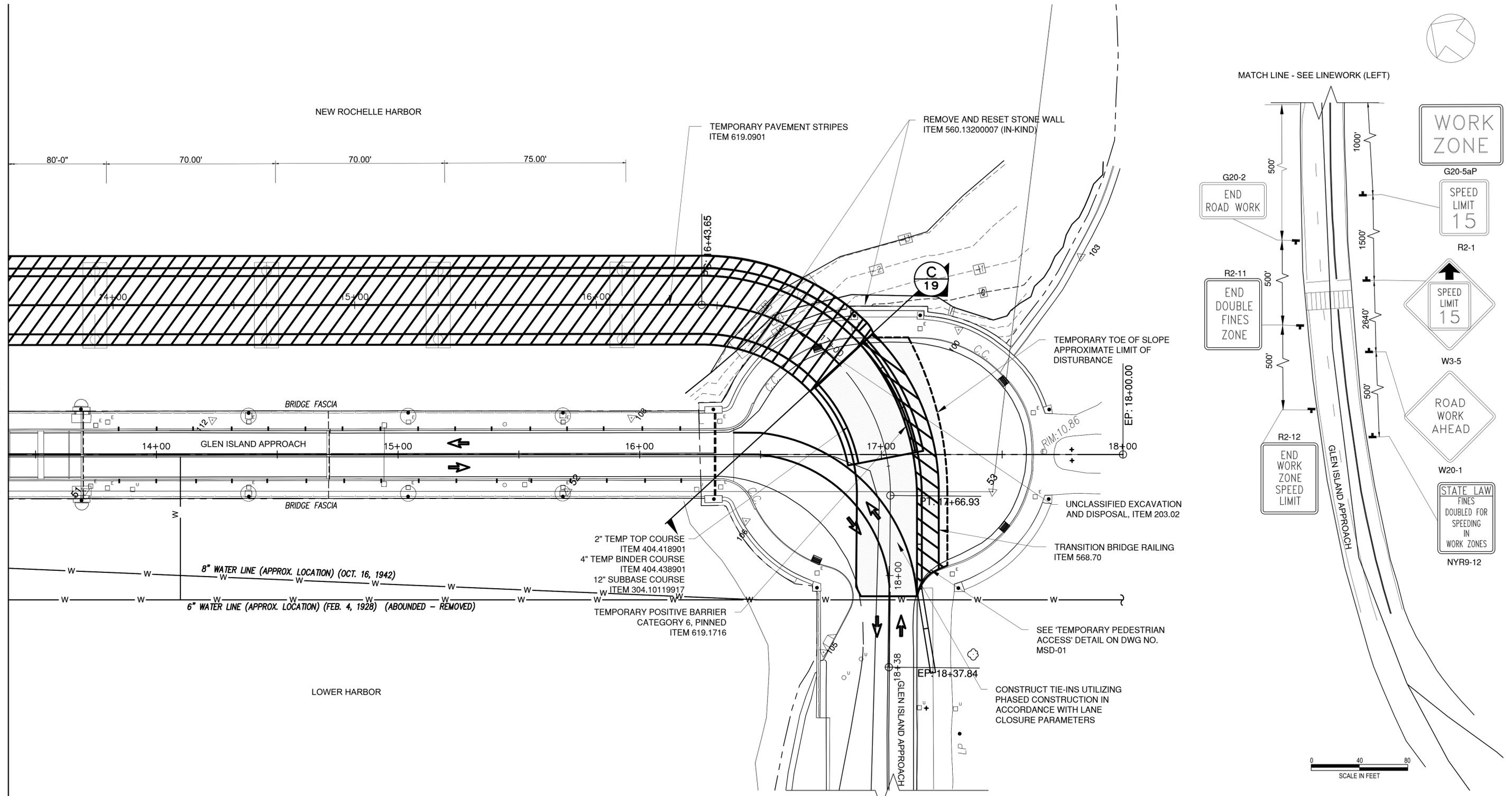
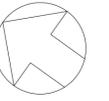


CONSULTANT INFORMATION



WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING  
Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle  
CIVIL  
**WZTC PLAN STAGE 1 (1 OF 2)**

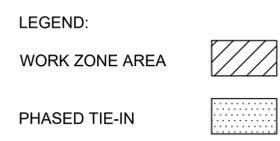
CONTRACT NUMBER 20-517	SHEET NUMBER WZTC-03
SHEET NO. 20 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-R-455-0	0



MATCH LINE - SEE DWG. WZTC-02

MATCH LINE - SEE LINEWORK (LEFT)

MATCH LINE - SEE INSET (RIGHT)



IN CHARGE OF C. JENNE, PE  
CHECKED BY K. HO, PE  
MADE BY E. MOHLER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/>	AS BUILT - CHANGES AS NOTED		
<input type="checkbox"/>	AS BUILT - NO CHANGES		
CONTRACTOR		PROJECT COORDINATOR	
NAME		NAME	
SIGNATURE		SIGNATURE	
TITLE		TITLE	
	DATE		DATE

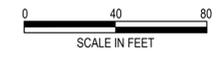


CONSULTANT INFORMATION



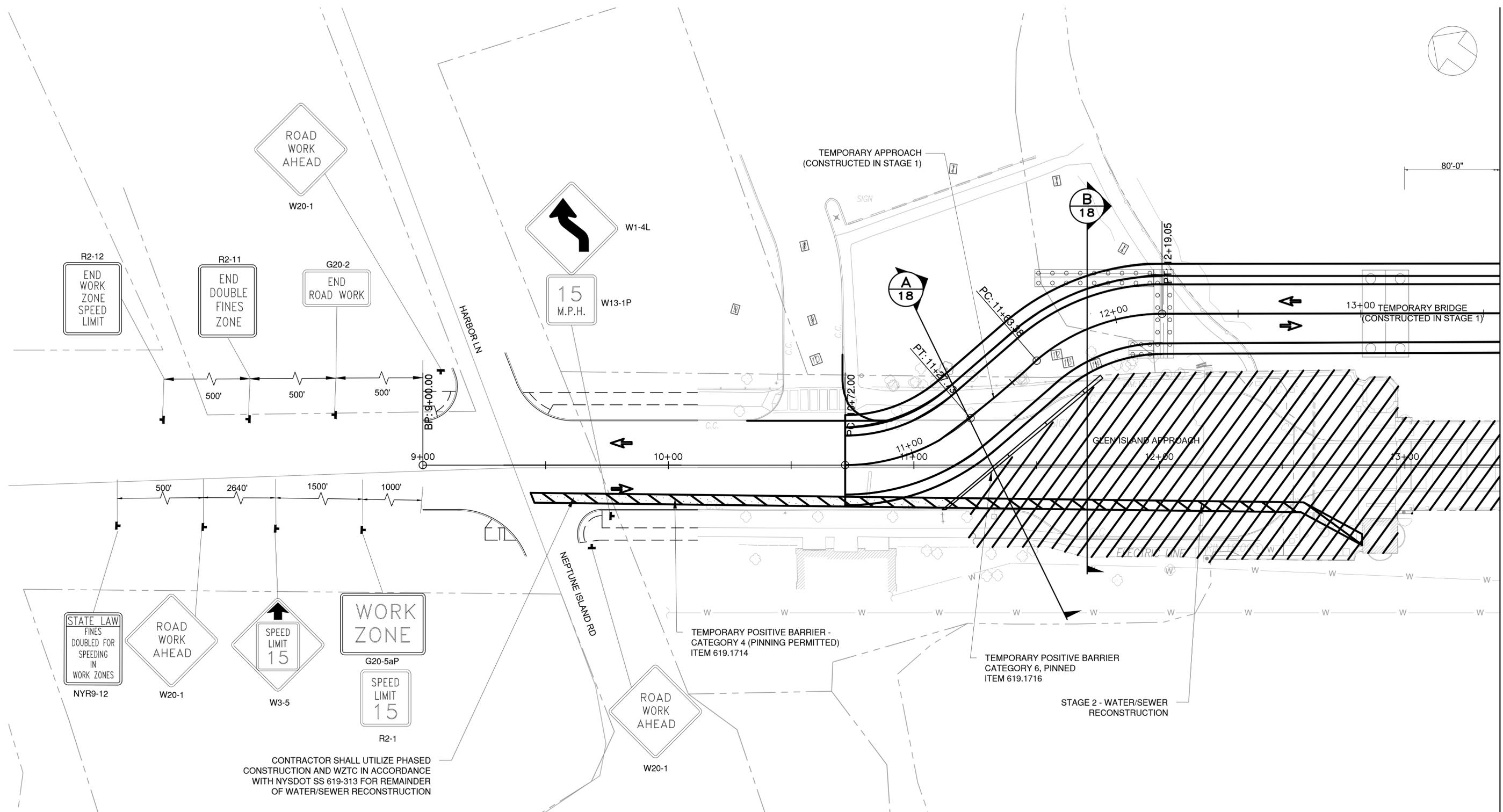
WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING  
Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle  
CIVIL  
WZTC PLAN STAGE 1 (2 OF 2)

CONTRACT NUMBER 20-517	SHEET NUMBER WZTC-04
SHEET NO. 21 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-R-456-0	0





80'-0"



MATCH LINE - SEE DWG. WZTC-03

R2-12  
END WORK ZONE SPEED LIMIT

R2-11  
END DOUBLE FINES ZONE

G20-2  
END ROAD WORK

15  
M.P.H.

B  
18

A  
18

13+00 TEMPORARY BRIDGE  
(CONSTRUCTED IN STAGE 1)

WORK ZONE

SPEED LIMIT 15

STATE LAW FINES DOUBLED FOR SPEEDING IN WORK ZONES  
NYR9-12

ROAD WORK AHEAD

SPEED LIMIT 15

G20-5aP

R2-1

ROAD WORK AHEAD

TEMPORARY POSITIVE BARRIER - CATEGORY 4 (PINNING PERMITTED)  
ITEM 619.1714

TEMPORARY POSITIVE BARRIER CATEGORY 6, PINNED  
ITEM 619.1716

STAGE 2 - WATER/SEWER RECONSTRUCTION

CONTRACTOR SHALL UTILIZE PHASED CONSTRUCTION AND WZTC IN ACCORDANCE WITH NYS DOT SS 619-313 FOR REMAINDER OF WATER/SEWER RECONSTRUCTION



LEGEND:  
WORK ZONE AREA   
PHASED TIE-IN

IN CHARGE OF C. JENNE, PE  
CHECKED BY K. HO, PE  
MADE BY E. MOHLER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____



CONSULTANT INFORMATION



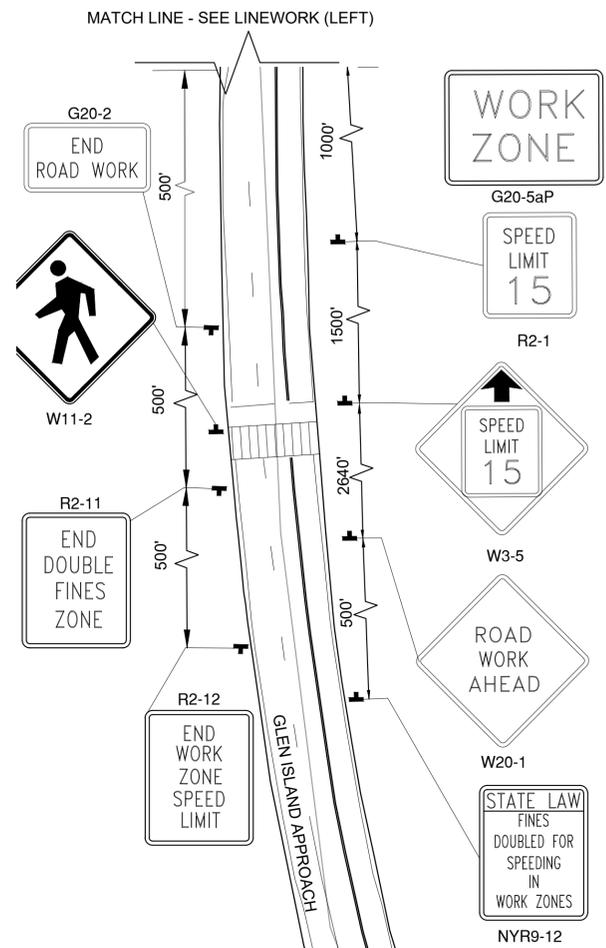
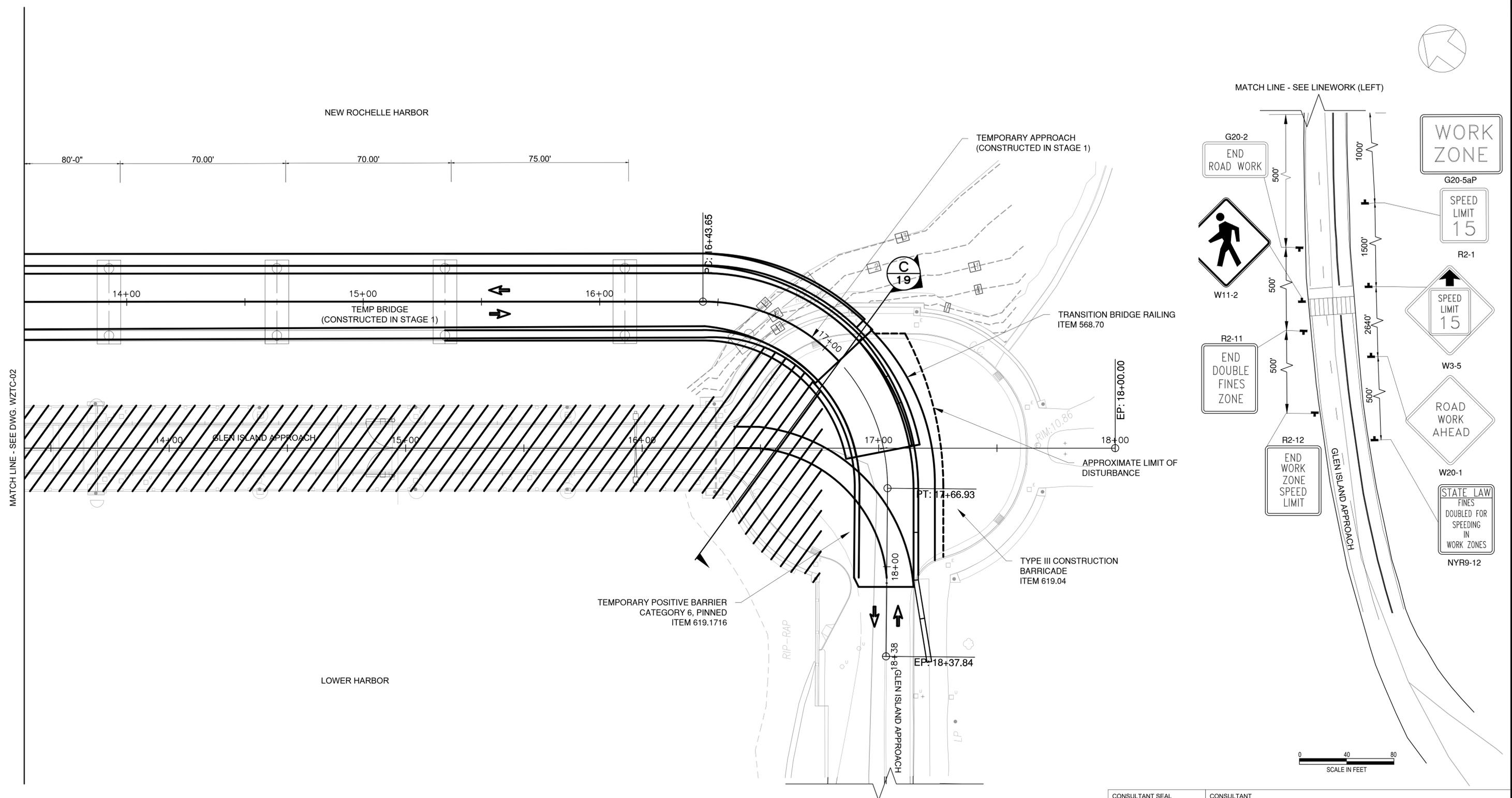
WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle

CIVIL

**WZTC PLAN STAGE 2 (1 OF 2)**

CONTRACT NUMBER 20-517  
SHEET NUMBER WZTC-05  
SHEET NO. 22 OF 212  
SCALE: AS SHOWN  
DATE: 03/08/2024  
DPW FILE NO. 5-04-R-457-0  
REV. NO. 0



MATCH LINE - SEE DWG. WZTC-02

MATCH LINE - SEE LINEWORK (LEFT)

MATCH LINE - SEE INSET (RIGHT)

LEGEND:  
WORK ZONE AREA



IN CHARGE OF C. JENNE, PE  
CHECKED BY K. HO, PE  
MADE BY E. MOHLER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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<input type="checkbox"/>	AS BUILT - NO CHANGES		
CONTRACTOR		PROJECT COORDINATOR	
NAME		NAME	
SIGNATURE		SIGNATURE	
TITLE		TITLE	
	DATE		DATE

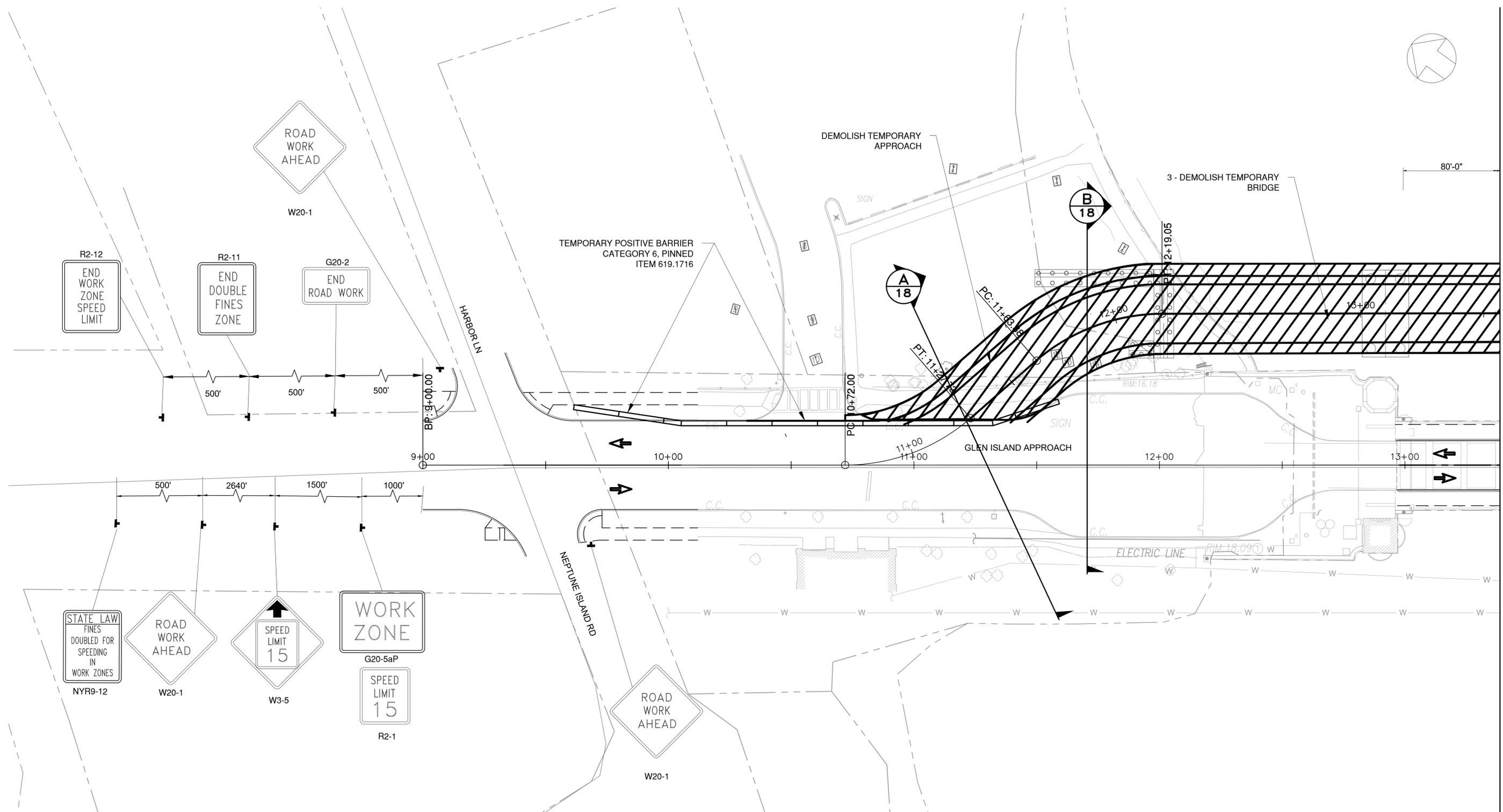


CONSULTANT INFORMATION



WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING  
Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle  
CIVIL  
**WZTC PLAN STAGE 2 (2 OF 2)**

CONTRACT NUMBER 20-517	SHEET NUMBER WZTC-06
SHEET NO. 23 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-R-458-0	REV. NO. 0



MATCH LINE - SEE DWG. WZTC-03

NOTES:  
1. CONTRACTOR SHALL STAGE CONSTRUCTION SO THAT 2-12' MINIMUM LANES OF TRAFFIC IS OPEN AT ALL TIMES.

LEGEND:  
WORK ZONE AREA STAGE 3



	CONSULTANT SEAL	CONSULTANT INFORMATION
1501 BROADWAY, SUITE 601 NEW YORK, NY 10036 (212) 944-1150		

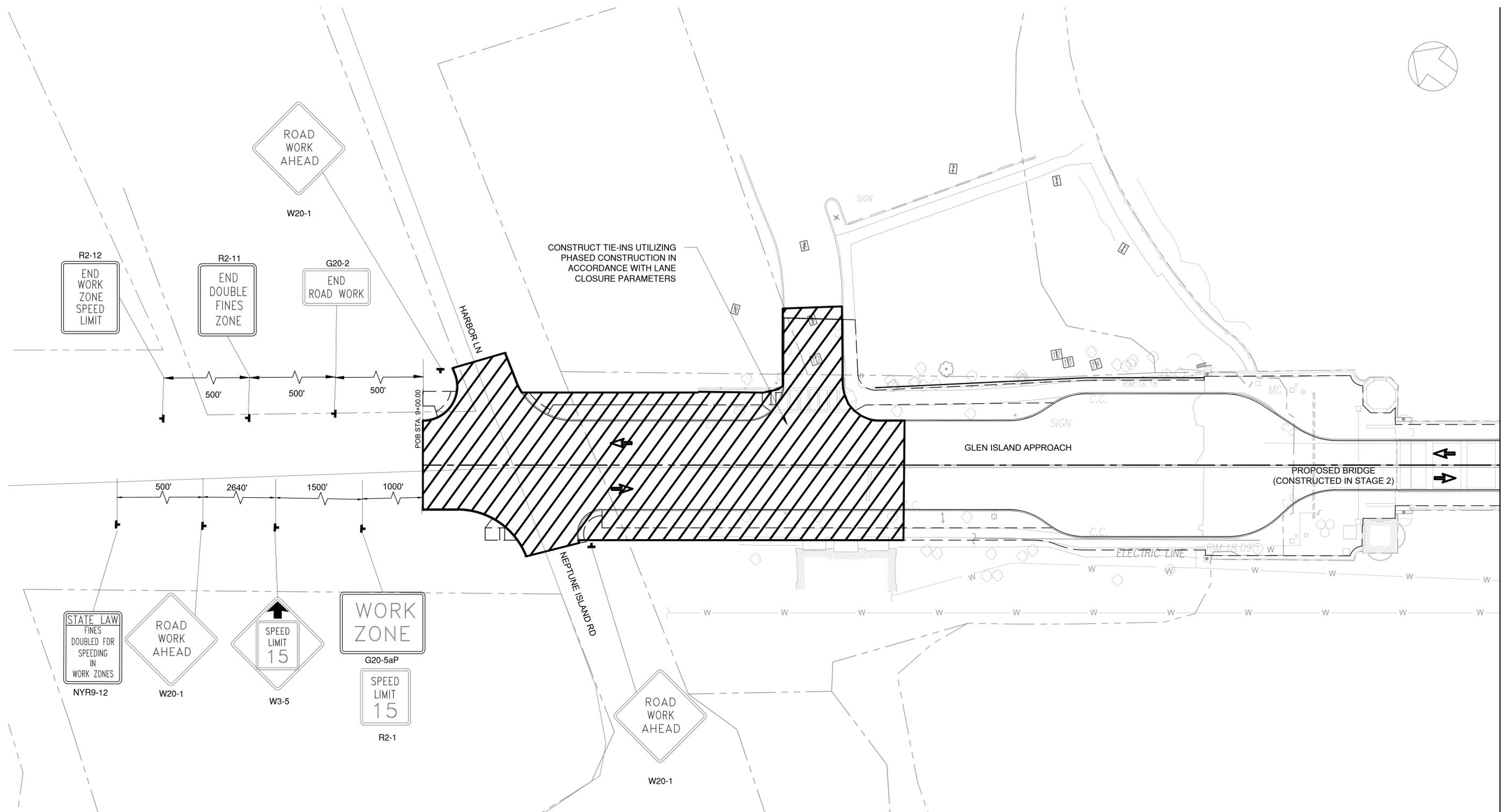
IN CHARGE OF C. JENNE, PE  
CHECKED BY K. HO, PE  
MADE BY E. MOHLER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/>	AS BUILT - CHANGES AS NOTED	<input type="checkbox"/>	AS BUILT - NO CHANGES
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

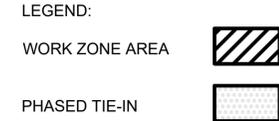
WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER WZTC-07
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 24 OF 212 SCALE: AS SHOWN DATE: 03/08/2024 DPW FILE NO.	
CIVIL <b>WZTC PLAN STAGE 3 (1 OF 2)</b>		5-04-R-459-0	REV. NO. 0





MATCH LINE - SEE DWG. WZTC-03

- NOTES:
- ACCESS TO LOCAL ROADS AND DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES.
  - IT IS ASSUMED FINAL RESURFACING ALONG GLEN ISLAND APPROACH SHALL BE PHASED UTILIZING NYS DOT SS 619-407 (TWO-LANE TWO-WAY ROADWAY LANE CLOSURE WITH FLAGGERS)



IN CHARGE OF C. JENNE, PE  
 CHECKED BY K. HO, PE  
 MADE BY E. MOHLER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____



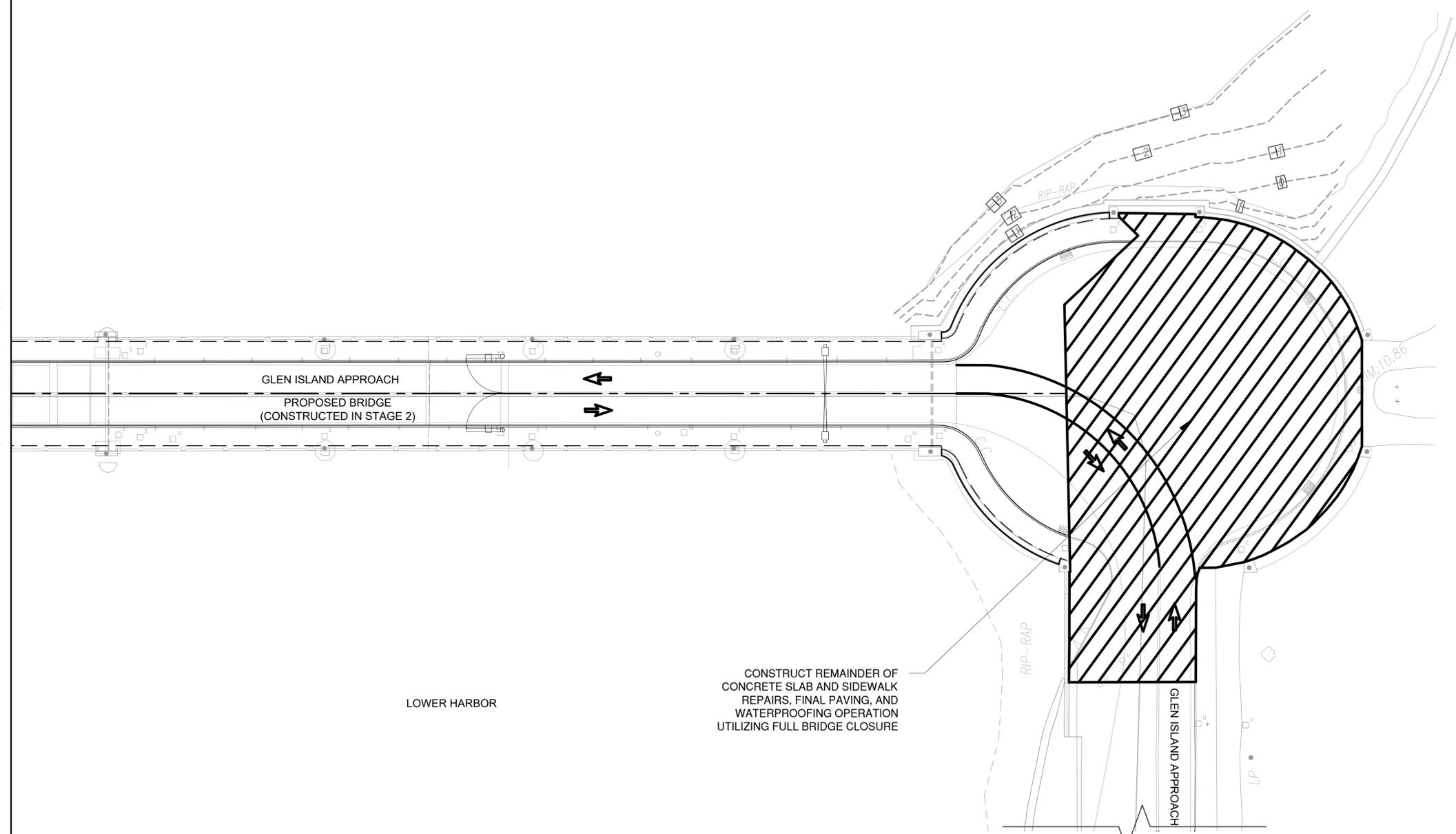
	CONSULTANT INFORMATION	<p>1501 BROADWAY, SUITE 601          NEW YORK, NY 10036          (212) 944-1150</p>
	<p>WESTCHESTER COUNTY, NEW YORK          DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION          DIVISION OF ENGINEERING</p> <p>Rehabilitation of Glen Island Approach Bridge          over New Rochelle Harbor, City of New Rochelle</p> <p>CIVIL</p> <p><b>WZTC PLAN STAGE 4 (1 OF 2)</b></p>	
CONTRACT NUMBER 20-517	SHEET NUMBER WZTC-09	SHEET NO. 26 OF 212
SCALE: AS SHOWN	DATE: 03/08/2024	DPW FILE NO.
5-04-R-461-0	REV. NO. 0	



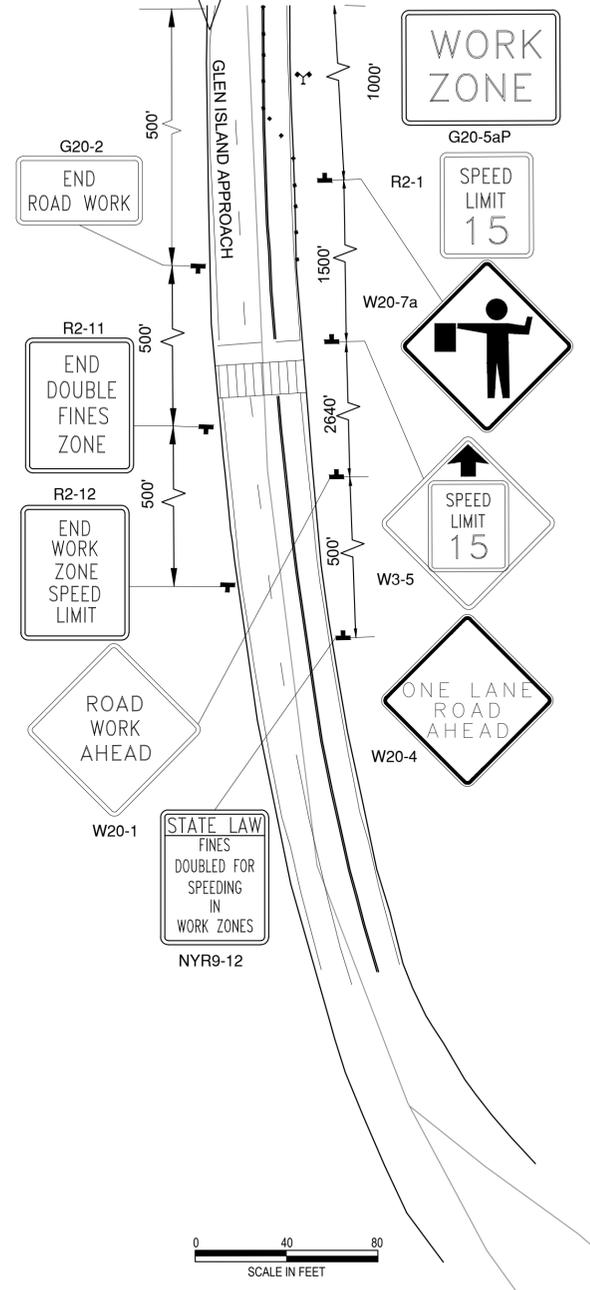
NEW ROCHELLE HARBOR

LOWER HARBOR

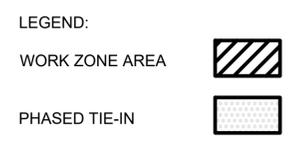
MATCH LINE - SEE DWG. WZTC-02



MATCH LINE - SEE LINEWORK (LEFT)



- NOTES:
- ACCESS TO LOCAL ROADS AND DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES.
  - IT IS ASSUMED FINAL RESURFACING ALONG GLEN ISLAND APPROACH SHALL BE PHASED UTILIZING NYSDOT SS19.60 (FLAGGING OPERATION 2-LANE 2-WAY ROADWAY).



IN CHARGE OF C. JENNE, PE  
 CHECKED BY K. HO, PE  
 MADE BY E. MOHLER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/>	AS BUILT - CHANGES AS NOTED	<input type="checkbox"/>	AS BUILT - NO CHANGES
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

CONSULTANT SEAL

CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

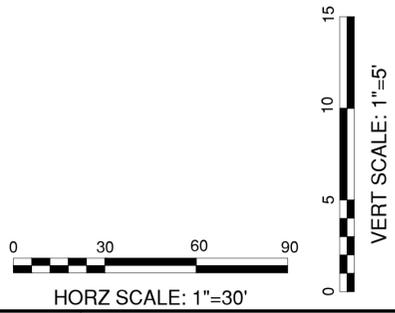
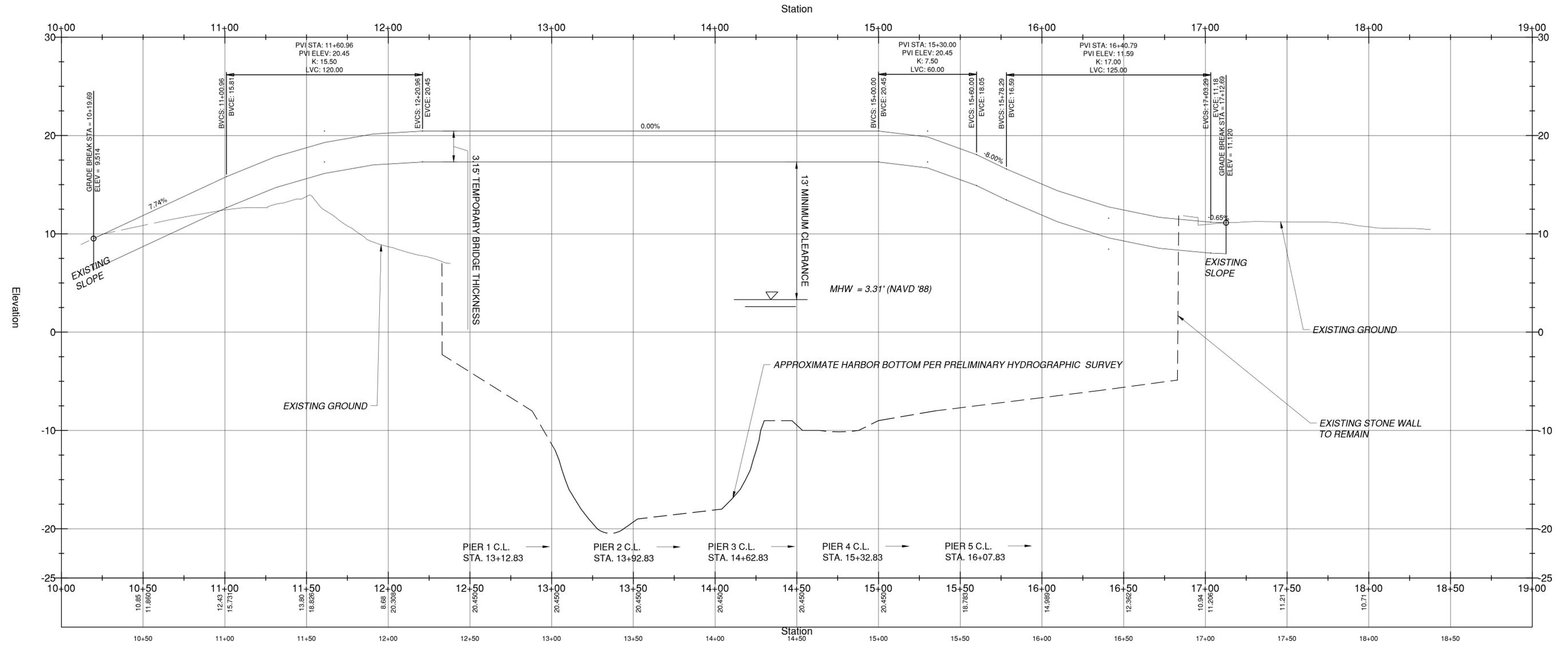
CIVIL

**WZTC PLAN STAGE 4 (2 OF 2)**

CONTRACT NUMBER 20-517	SHEET NUMBER WZTC-10
SHEET NO. 27 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-R-462-0	0



# Glen Island Approach Bridge - Temporary Profile



CONSULTANT SEAL

CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

IN CHARGE OF C. JENNE, PE  
 CHECKED BY K. HO, PE  
 MADE BY E. MOHLER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

CIVIL

**WORK ZONE TRAFFIC CONTROL PROFILE**

CONTRACT NUMBER 20-517	SHEET NUMBER WZTC-11
SHEET NO. 28 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-R-463-0	REV. NO. 0

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	DEPTH (FT)	GEOTEXTILE DRAINAGE 207.22 (SY)	MULCH - TEMP 209.100101 (SY)	SEED & MULCH - TEMP 209.1003 (SY)	CONSTRUCTION ENTRANCE 209.22 (SY)	SILT FENCE 209.13 (LF)	INLET PROTECTION 209.1703 (LF)	(LF) BIO-FIBER ROLLS 12" 209.20120009	(LF) TURBIDITY CURTAIN 209.1501	STONE FILL (HEAVY) 620.05 (CY)
STA. 11+14.00	STA. 12+68.00	VARIES LEFT	112.0	24.0					298.7					
STA. 16+73.50		44' LEFT	5.0	5.0						20.0				
STA. 16+73.50		44' RIGHT	5.0	5.0						20.0				
STA. 17+51.00		30' LEFT	5.0	5.0						20.0				
STA. 17+51.00		30' RIGHT	5.0	5.0						20.0				
STA. 16+28.50	STA. 17+58.00	VARIES LEFT	2200.0		2.0	244.5								163.0
STA. 16+24.50	STA. 16+71.00	VARIES RIGHT	1065.0		2.0	118.4								78.9
STA. 12+50.00	STA. 12+68.50	60' TO 25' LEFT	40.0	N/A										
STA. 12+50.00	STA. 12+68.50	37' TO 60' RIGHT TO LEFT	120.0	N/A							120.0			
STA. 10+02.50	STA. 10+64.00	48' to 82' RIGHT	85.0	N/A							85.0			
STA. 10+48.00	STA. 11+22.00	52' TO 62' RIGHT	80.0	N/A							80.0			
STA. 11+24.00	STA. 12+01.00	50' TO 62' RIGHT	85.0	N/A							85.0			
STA. 11+75.00	STA. 12+21.50	105' TO 49' LEFT	73.0	N/A							73.0			
STA. 13+79.50		34' TO 26' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 14+59.50		34' TO 26' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 15+29.50		34' TO 26' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 15+99.50		34' TO 26' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 16+75.00		34' TO 26' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 13+69.50		28' TO 32' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 14+38.50		28' TO 32' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 15+04.50		28' TO 32' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 15+68.50		28' TO 32' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 11+97.50	STA. 13+11.00	140' TO 27' LEFT	168.0	N/A								168.0		
STA. 11+22.50	STA. 13+11.50	140' TO 24' RIGHT	264.0	N/A								264.0		
STA. 16+12.00	STA. 17+30.00	30' TO 138' LEFT	159.0	N/A								159.0		
STA. 16+13.00	STA. 16+49.00	30' TO 138' RIGHT	122.0	N/A								122.0		
STA. 10+87.00	STA. 11+31.00	30' LEFT	30.0	N/A						30.0				
STA. 11+64.00	STA. 12+68.00	32' LEFT	117.0	N/A						117.0				

\*NOTE: SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO LIMIT(S) OF EROSION CONTROL FEATURE(S).

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	DEPTH (FT)	EXCAVATION 203.02 (CY)	EMBANKMENT IN PLACE 203.03 (CY)	12" SUBBASE 304.10119917 (CY)	6" BASE COURSE *404.378901 (T)	TACK COAT 407.0102 (GAL)	JOINT SEALER 502.9310 (LF)	SAWCUT ASPHALT 520.09000010 (LF)	4" HOT MIX ASPHALT 608.020102 (T)
STA. 09+45.00	STA. 12+55.00	15' RIGHT	310.0	4.0	1.0	46.0		46.0	46.6	13.8	628	628	
STA. 10+45.00	STA. 10+75.00	19' TO 60' LEFT	41.0	24.0	0.8	30.4	36.5	36.5		11		82	24.7
STA. 09+47.00	STA. 10+47.00	18' LEFT	145.0	1.0	1.0	5.4	901.00	9.0	5.5	1.7	147.0	147.0	
TEMPORARY BRIDGE APPROACH		NORTH	190.0	32.0	4.0	901.00	901.00						
TEMPORARY BRIDGE APPROACH		SOUTH	110.0	32.0	4.0	522.00	522.00						
STA. 10+71.00	STA. 12+18.50	18' TO 29' LEFT	185.0	1.0	1.0	6.9		11.5	7.0	2.1	187.0	187.0	
STA. 09+73.50	STA. 12+18.50	18' TO 29' RIGHT	245.0	1.0	1.0	9.1		15.2	9.2	2.8	247.0	247.0	
NEPTUNE ISLAND - RESTORE LOT													138

\*NOTES:

1. SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO PAVEMENT REPAIR LIMIT(S).

2. SEE 'MILLING' TABLE FOR ITEMIZED TOP COURSE QUANTITY.

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	STRIPE TYPE	PAYMENT FACTOR	WHITE STRIPES 685.07200110 (LF)	YELLOW STRIPES 685.07200610 (LF)	CROSS HATCHING 685.07200410 (LF)	SPECIAL MARKINGS 685.07200510 (LF)
STA. 09+00.00	STA. 16+75.00	0.0 CL (LESS HL INT)	729.0	SOLID DOUBLE Y	2		1458.0		
STA. 09+16.00	STA. 09+26.00	18' (20' SKEWED) LEFT TO RIGHT	10.0	CROSSWALK TYPE LS	11 (X-HATCH) 2 (OUTLINE)			110.0	80.0
HARBOR LANE	INTERSECTION	11' LEFT	11.0	STOP BAR	6	66			
		LEFT, RIGHT	8.0	CROSSWALK TYPE LS	6 (X-HATCH) 2 (OUTLINE)			48.0	52.0
STA. 09+51.50	STA. 09+61.50	18' (20' SKEWED) LEFT TO RIGHT	10.0	CROSSWALK TYPE LS	11 (X-HATCH) 2 (OUTLINE)			110.0	80.0
STA. 10+45.00	STA. 10+75.00	26' LEFT	9.0	CROSSWALK TYPE LS	6 (X-HATCH) 2 (OUTLINE)			54.0	60.0
STA. 12+63.00	STA. 16+31.00	10' LEFT	368.0	SOLID SINGLE W	1	368.0			
STA. 12+63.00	STA. 16+31.00	10' RIGHT	368.0	SOLID SINGLE W	1	368.0			
STA. 16+75.00	STA. 17+05.00	0.0 CL AND RIGHT	110.0	SOLID DOUBLE Y	2		220.0		
STA. 16+31.00	MILLING LIMITS	10' & VARIES LEFT	285.0	SOLID SINGLE W	1	285.0			
STA. 16+31.00	MILLING LIMITS	10' & VARIES RIGHT	120.0	SOLID SINGLE W	1	120.0			
40' BACK FROM TRAFFIC SIGNAL		APPROACH SIDE	18.0	STOP BAR	6	108			
40' BACK FROM TRAFFIC SIGNAL		PLAZA SIDE	12.0	STOP BAR	6	72			

\*NOTE: SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO PAVEMENT MARKING LIMIT(S).

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	UNCLASSIFIED EXCAVATION 203.02 (CY)	5" CONCRETE SIDEWALK 608.0101 (CY)	5" ASPHALT SIDEWALK 608.020102 (T)	CONCRETE CURB TYPE VF6 609.0401 (LF)	BEDDING MATERIAL 620.0801 (CY)	EMBANKMENT IN PLACE 203.03 (CY)
STA. 12+56.00	STA. 12+82.00	~20' TO CNTRL HOUSE CONN	33.0	12.0	15	6.2	2.8	50.0	8.8	
STA. 09+73.50	STA. 12+18.50	18' TO 29' RIGHT	245.0	N/A				245.0		
STA. 09+47.00	STA. 10+47.00	18' LEFT	145.0	5.5	20.9		12.4	145.0	20.9	
STA. 10+71.00	STA. 12+18.50	18' TO 29' LEFT	185.0	5.5	26.6		15.8	185.0	26.6	
STA. T 16+95.00	STA. T 18+05.00	100' LT RESTORE SW QUADRANT @ PLAZA	110.0	8.0	5		7.8			130.4

\*NOTE: SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO CURB AND SIDEWALK LOCATION(S).

*START STATION	*END STATION	OFFSET SIDE	DESCRIPTION	TYPE 1 RAMP - 608.01050109 (EA)	TYPE 2 RAMP - 608.01050209 (EA)	TYPE 3 RAMP - 608.01050309 (EA)	TYPE 14 RAMP - 608.01051409 (EA)
STA. 09+08.00		27' LEFT	PROPOSED			1	
STA. 09+28.50		28' RIGHT	PROPOSED			1	
STA. 09+50.00		27' LEFT	PROPOSED			1	
STA. 09+70.00		28' RIGHT	PROPOSED			1	
STA. 10+45.00		27' LEFT	PROPOSED	1			
STA. 10+75.00		27' LEFT	PROPOSED			1	
STA. 16+77.00		77' RIGHT	PROPOSED				1
STA. T 11+20.00		17' LEFT	TEMPORARY		1		
STA. T 10+85.00		17' LEFT	TEMPORARY		1		

\*NOTE: SEE GNP FOR REFERENCED BL STATIONING CORRESPONDING TO CURB RAMP LIMIT(S).

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	DEPTH (IN)	TACK COAT 407.0102 (GAL)	MISC MILLING 490.30 (SY)	2" TOP COURSE 404.098101 (T)
STA. 09+00.00	STA. 11+50.00	18' BOTH	250.0	36.0	2.0	100.00	1000.00	112.6
STA. 11+50.00	STA. 12+18.50	29' BOTH	68.5	58.0	2.0	44.20	442.00	49.7
STA. 16+31.00	STA. 17+62.50	-50' TO 115' LEFT TO RIGHT	131.5	VARIES	2.0	142.80	1428.00	160.7
HARBOR LANE INTERSECTION		-43' TO 35' LEFT TO RIGHT	42.0	22.0	2.0	10.30	103.00	11.6
PROJECT CONTINGENCY		MISC. A.O.B.E.	50.0	36.0	2.0	20.00	200.00	22.6

\*NOTE: SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO RESURFACING LIMIT(S).

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	WATER SERVICE CONNECTION 663.2504 (EA)	REPLACE EXISTING WATER VALVE BOX TOP SECTION 663.53000004 (EA)	CURB STOP & CURB BOX, 1" 663.2604 (EA)	COPPER WATER SERVICE PIPE 1" 663.0604 (LF)
STA. 12+90.00		36' TO 46' RIGHT	N/A	N/A	1.0	1.0	1.0	10.0

\*NOTES:

1. SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO WATER UTILITY LIMIT(S).

2. SEE MECHANICAL DRAWINGS FOR DETAILED BREAKDOWN OF CONTROL HOUSE PLUMBING SCOPE.

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	CLEARING AND GRUBBING 201.06 (LS)
STA. T11+00	STA. T12+37	LEFT	137.0	36.0	1.0

\*NOTE: COSTS FOR TREE REMOVAL SHALL BE INCLUDED UNDER ITEM 201.06.

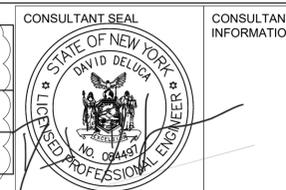
IN CHARGE OF C. JENNE, PE  
 CHECKED BY K. HO, PE  
 MADE BY E. MOHLER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION
1	4/12/24	JD	KH	201.06 ADDED, 203.02 REVISED

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____



WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 CIVIL

MISCELLANEOUS TABLES - 1 OF 2

CONTRACT NUMBER	SHEET NUMBER
20-517	MST-01
SHEET NO. 29 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-R-464-0	1

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	DEPTH (FT)	GEOTEXTILE DRAINAGE 207.22 (SY)	MULCH - TEMP 209.100101 (SY)	SEED & MULCH - TEMP 209.1003 (SY)	CONSTRUCTION ENTRANCE 209.22 (SY)	SILT FENCE 209.13 (LF)	INLET PROTECTION 209.1703 (LF)	(LF) BIO-FIBER ROLLS 12" 209.20120009	(LF) TURBIDITY CURTAIN 209.1501	STONE FILL (HEAVY) 620.05 (CY)
STA. 11+14.00	STA. 12+68.00	VARIABLE LEFT	112.0	24.0					298.7					
STA. 16+73.50	STA. 16+73.50	44' LEFT	5.0	5.0						20.0				
STA. 16+73.50	STA. 16+73.50	44' RIGHT	5.0	5.0						20.0				
STA. 17+51.00	STA. 17+51.00	30' LEFT	5.0	5.0						20.0				
STA. 17+51.00	STA. 17+51.00	30' RIGHT	5.0	5.0						20.0				
STA. 16+28.50	STA. 17+58.00	VARIABLE LEFT	2200.0		2.0	244.5								163.0
STA. 16+24.50	STA. 16+71.00	VARIABLE RIGHT	1065.0		2.0	118.4								78.9
STA. 12+50.00	STA. 12+68.50	37' TO 40' LEFT	40.0	N/A										
STA. 12+50.00	STA. 12+68.50	37' TO 40' RIGHT TO LEFT	120.0	N/A										
STA. 10+02.50	STA. 10+64.00	48' TO 82' RIGHT	85.0	N/A								40.0		
STA. 10+48.00	STA. 11+22.00	52' TO 62' RIGHT	80.0	N/A								120.0		
STA. 11+24.00	STA. 12+01.00	50' TO 62' RIGHT	85.0	N/A								85.0		
STA. 11+75.00	STA. 12+21.50	105' TO 49' LEFT	73.0	N/A								85.0		
STA. 13+79.50	STA. 13+79.50	34' TO 26' LEFT TO RIGHT	60.0	7.0								73.0		
STA. 14+59.50	STA. 14+59.50	34' TO 26' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 15+29.50	STA. 15+29.50	34' TO 26' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 15+99.50	STA. 15+99.50	34' TO 26' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 16+75.00	STA. 16+75.00	34' TO 26' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 13+69.50	STA. 13+69.50	28' TO 32' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 14+38.50	STA. 14+38.50	28' TO 32' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 15+04.50	STA. 15+04.50	28' TO 32' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 15+68.50	STA. 15+68.50	28' TO 32' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 11+97.50	STA. 13+11.00	140' TO 27' LEFT	168.0	N/A								168.0		
STA. 11+22.50	STA. 13+11.50	140' TO 24' RIGHT	264.0	N/A								264.0		
STA. 16+12.00	STA. 17+30.00	30' TO 138' LEFT	159.0	N/A								159.0		
STA. 16+13.00	STA. 16+49.00	30' TO 138' RIGHT	122.0	N/A								122.0		
STA. 10+87.00	STA. 11+31.00	30' LEFT	30.0	N/A								30.0		
STA. 11+64.00	STA. 12+68.00	32' LEFT	117.0	N/A								117.0		

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	DEPTH (FT)	EXCAVATION 203.02 (CY)	EMBANKMENT IN PLACE 203.03 (CY)	12" SUBBASE 304.10119917 (CY)	6" BASE COURSE *404.378901 (T)	TACK COAT 407.0102 (GAL)	JOINT SEALER 502.9310 (LF)	SAWCUT ASPHALT 520.09000010 (LF)	4" HOT MIX ASPHALT 608.020102 (T)
STA. 09+45.00	STA. 12+55.00	15' RIGHT	310.0	4.0	1.0	46.0		46.0	46.6	13.8	628	628	
STA. 10+45.00	STA. 10+75.00	19' TO 60' LEFT	41.0	24.0	0.8	30.4	36.5	36.5		11		82	24.7
STA. 09+47.00	STA. 10+47.00	18' LEFT	145.0	1.0	1.0	5.4		9.0	5.5	1.7	147.0	147.0	
TEMPORARY BRIDGE APPROACH		NORTH	190.0	32.0	4.0		901.00						
TEMPORARY BRIDGE APPROACH		SOUTH	110.0	32.0	4.0		522.00						
STA. 10+71.00	STA. 12+18.50	18' TO 29' LEFT	185.0	1.0	1.0	6.9		11.5	7.0	2.1	187.0	187.0	
STA. 09+73.50	STA. 12+18.50	18' TO 29' RIGHT	245.0	1.0	1.0	9.1		15.2	9.2	2.8	247.0	247.0	
NEPTUNE ISLAND - RESTORE LOT													138

**\*NOTES:**  
1. SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO PAVEMENT REPAIR LIMIT(S).  
2. SEE 'MILLING' TABLE FOR ITEMIZED TOP COURSE QUANTITY.

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	STRIPE TYPE	PAYMENT FACTOR	WHITE STRIPES 685.07200110 (LF)	YELLOW STRIPES 685.07200610 (LF)	CROSS HATCHING 685.07200410 (LF)	SPECIAL MARKINGS 685.07200510 (LF)
STA. 09+00.00	STA. 16+75.00	0.0 CL (LESS HL INT)	729.0	SOLID DOUBLE Y	2		1458.0		
STA. 09+16.00	STA. 09+26.00	18' (20' SKEWED) LEFT TO RIGHT	10.0	CROSSWALK TYPE LS	11 (X-HATCH) 2 (OUTLINE)			110.0	80.0
HARBOR LANE	INTERSECTION	11' LEFT LEFT, RIGHT 26' AVG. LENGTH	11.0	STOP BAR	6	66			
STA. 09+51.50	STA. 09+61.50	18' (20' SKEWED) LEFT TO RIGHT	10.0	CROSSWALK TYPE LS	11 (X-HATCH) 2 (OUTLINE)			110.0	80.0
STA. 10+45.00	STA. 10+75.00	26' LEFT	9.0	CROSSWALK TYPE LS	6 (X-HATCH) 2 (OUTLINE)			54.0	60.0
STA. 12+63.00	STA. 16+31.00	10' LEFT	368.0	SOLID SINGLE W	1	368.0			
STA. 12+63.00	STA. 16+31.00	10' RIGHT	368.0	SOLID SINGLE W	1	368.0			
STA. 16+75.00	STA. 17+05.00	0.0 CL AND RIGHT	110.0	SOLID DOUBLE Y	2		220.0		
STA. 16+31.00	MILLING LIMITS	10' & VARIES LEFT	285.0	SOLID SINGLE W	1	285.0			
STA. 16+31.00	MILLING LIMITS	10' & VARIES RIGHT	120.0	SOLID SINGLE W	1	120.0			
40' BACK FROM TRAFFIC SIGNAL		APPROACH SIDE	18.0	STOP BAR	6	108			
40' BACK FROM TRAFFIC SIGNAL		PLAZA SIDE	12.0	STOP BAR	6	72			

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	UNCLASSIFIED EXCAVATION 203.02 (CY)	5" CONCRETE SIDEWALK 608.0101 (CY)	5" ASPHALT SIDEWALK 608.020102 (T)	CONCRETE CURB TYPE VF6 609.0401 (LF)	BEDDING MATERIAL 620.0801 (CY)	EMBANKMENT IN PLACE 203.03 (CY)
STA. 12+56.00	STA. 12+82.00	~20' TO CNTRL HOUSE CONN	33.0	12.0	15	6.2	2.8	50.0	8.8	
STA. 09+73.50	STA. 12+18.50	18' TO 29' RIGHT	245.0	N/A				245.0		
STA. 09+47.00	STA. 10+47.00	18' LEFT	145.0	5.5	20.9		12.4	145.0	20.9	
STA. 10+71.00	STA. 12+18.50	18' TO 29' LEFT	18.0	5.5	26.6		15.8	185.0	26.6	
STA. T 16+95.00	STA. T 18+05.00	100' LT RESTORE SW QUADRANT @ PLAZA	100.0	5.0			7.8			
STA. T 16+95.00	STA. T 18+05.00	110.0	8.0	5		13.6	110.0		130.4	

**\*NOTE:** SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO CURB AND SIDEWALK LOCATION(S).

*START STATION	*END STATION	OFFSET SIDE	DESCRIPTION	TYPE 1 RAMP - 608.01050109 (EA)	TYPE 2 RAMP - 608.01050209 (EA)	TYPE 3 RAMP - 608.01050309 (EA)	TYPE 14 RAMP - 608.01051409 (EA)
STA. 09+08.00	STA. 09+08.00	27' LEFT	PROPOSED			1	
STA. 09+28.50	STA. 09+28.50	28' RIGHT	PROPOSED			1	
STA. 09+50.00	STA. 09+50.00	27' LEFT	PROPOSED			1	
STA. 09+70.00	STA. 09+70.00	28' RIGHT	PROPOSED			1	
STA. 10+45.00	STA. 10+45.00	27' LEFT	PROPOSED	1			
STA. 10+75.00	STA. 10+75.00	27' LEFT	PROPOSED			1	
STA. 16+77.00	STA. 16+77.00	77' RIGHT	PROPOSED				1
STA. T 11+20.00	STA. T 11+20.00	17' LEFT	TEMPORARY		1		
STA. T 10+85.00	STA. T 10+85.00	17' LEFT	TEMPORARY		1		

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	DEPTH (IN)	TACK COAT 407.0102 (GAL)	MISC MILLING 490.30 (SY)	2" TOP COURSE 404.093101 (T)
STA. 09+00.00	STA. 11+50.00	18' BOTH	250.0	36.0	2.0	100.00	1000.00	112.6
STA. 11+50.00	STA. 12+18.50	29' BOTH	68.5	58.0	2.0	44.20	442.00	49.7
STA. 16+31.00	STA. 17+62.50	-50' TO 115' LEFT TO RIGHT	131.5	VARIES	2.0	142.80	1428.00	160.7
HARBOR LANE INTERSECTION		-43' TO 35' LEFT TO RIGHT	42.0	22.0	2.0	10.30	103.00	11.6
PROJECT CONTINGENCY		MISC. A.O.B.E.	50.0	36.0	2.0	20.00	200.00	22.6

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	WATER SERVICE CONNECTION 663.2504 (EA)	REPLACE EXISTING WATER VALVE BOX TOP SECTION 663.53000004 (EA)	CURB STOP & CURB BOX, 1" 663.2604 (EA)	COPPER WATER SERVICE PIPE 1" 663.0604 (LF)
STA. 12+90.00	STA. 12+90.00	36' TO 46' RIGHT	N/A	N/A	1.0	1.0	1.0	10.0

**\*NOTES:**  
1. SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO WATER UTILITY LIMIT(S).  
2. SEE MECHANICAL DRAWINGS FOR DETAILED BREAKDOWN OF CONTROL HOUSE PLUMBING SCOPE.

**\*NOTE:** SEE GNP FOR REFERENCED BL STATIONING CORRESPONDING TO CURB RAMP LIMIT(S).

IN CHARGE OF C. JENNE, PE  
CHECKED BY K. HO, PE  
MADE BY E. MOHLER

CONSULTANT SEAL  
DAVID DELUCA  
REGISTERED PROFESSIONAL ENGINEER  
NO. 08487

CONSULTANT INFORMATION  
H&H  
1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR: \_\_\_\_\_ PROJECT COORDINATOR: \_\_\_\_\_

NAME: \_\_\_\_\_ NAME: \_\_\_\_\_  
SIGNATURE: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_  
TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle  
CIVIL

CONTRACT NUMBER: 20-517 SHEET NUMBER: MST-01  
SHEET NO. 29 OF 212  
SCALE: AS SHOWN DATE: 03/08/24  
DPW FILE NO. 5-04-R-464-0 REV. NO. 6

MISCELLANEOUS TABLES - 1 OF 2

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	REMOVE GATES 599.20200010 (LS)	CURB REMOVAL 609.06000008 (LF)	REMOVE FENCE 607.99870011 (LF)	REMOVE AND RESET WALL 560.13200007 (LF)
STA. 10+30.00	STA. 10+45.00	32' LEFT	15.0			15.0	
STA. 10+83.00	STA. 12+18.00	32' LEFT	135.0			135.0	
STA. 16+30.00	STA. 17+15.00	10' TO 56' LEFT	100.0				100.0
STA. 12+77.50		-26' TO 21' LEFT TO RIGHT	47.0	1.0			
STA. 14+94.00		-16' TO 15' LEFT TO RIGHT	31.0				
HARBOR LANE	TEMP ACCESS	NEPTUNE ISLAND	40.0			40.0	
NW PROJECT LIMITS	SE PROJECT LIMITS	18' TO 29' BOTH SIDES	735.0		735.0		

\*NOTE: SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO LIMIT(S) OF REMOVAL(S).

*START STATION	*END STATION	STAGE # BRIDGE SIDE	LENGTH	TRANSITION BRIDGE RAILING 568.70 (LF)	TYPE III BARRICADE 619.04 (EA)	TEMPORARY PAVEMENT STRIPES 619.0901 (LF)	DRUMS 619.07010001 (EA)	TEMPORARY BARRIER CAT 6 (PIN REQUIRED) 619.1716 (LF)	TEMPORARY BARRIER CAT 4 (PIN PERMITTED) 619.1714 (LF)	2" TEMP TOP COURSE 404.418901 (T)	4" TEMP BINDER COURSE 404.438901 (T)
STA. T 17+00.00	STA. T 18+00.00	1, 2, 3 NORTH	100.0	100.0							
STA. T 09+50.00	STA. T 11+50.00	1, 2, 3 NORTH	200.0					200.0		71.0	142.0
STA. T 16+50.00	STA. T 18+50.00	1, 2, 3 SOUTH	200.0					200.0		67.0	134.0
OPTIONAL	A.O.B.E.	2 NORTH	50.0						50.0		
OPTIONAL	A.O.B.E.	2 SOUTH	50.0						50.0		
STA. T 11+00.00		2 APPROACH SIDE	N/A		3.0						
STA. T 18+00.00		2 PLAZA SIDE	N/A		3.0						
STA. T 09+00.00	STA. T 12+75.00	2 NORTH	375.0								
STA. T 10+00.00	STA. T 18+50.00	2 PROJECT LIMITS	850.0					3400.0			

\*NOTES:  
1. SEE WZTC PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO TRAFFIC CONTROL DEVICE(S).  
2. ALL COSTS SHALL BE PAID FOR UNDER ITEM '619.01 - BASIC WORK ZONE TRAFFIC CONTROL', UNLESS OTHERWISE NOTED IN THE TABLE ABOVE.

*START STATION	*END STATION	OFFSET SIDE	DESCRIPTION	6" TOPSOIL 610.1402 (CY)	TURF (ROADSIDE) 610.1601 (SY)	TURF (LAWNS) 610.1602 (SY)	SODDING 610.18 (SY)	PLATANUS x ACERIFOLIA / LONDON PLANETREE 611.0161 (EA)	LIQUIDAMBAR STYRACIFLUA / AMERICAN SWEETGUM 611.0171 (EA)	QUERCUS COCCINEA / SCARLET OAK 611.0171 (EA)	CRUSHED GRAVEL 6" 623.11 (CY)
SEE TR-01 FOR ADDITIONAL INFO		PA	2 1/2" CALIPER B&B, 28" DIA.					3			
SEE TR-01 FOR ADDITIONAL INFO		LS	3" CALIPER B&B, 32" DIA.						3		
SEE TR-01 FOR ADDITIONAL INFO		QC	3" CALIPER B&B, 32" DIA.							3	
STA. 09+47.00	STA. 11+60.00	VARIES LEFT	ROADSIDE TURF RESTORATION	5.9	105.6						
STA. 09+73.50	STA. 11+60.00	VARIES RIGHT	ROADSIDE TURF RESTORATION	7.6	135.6						
STA. 10+12.00	STA. 12+36.00	VARIES LEFT	NEPTUNE ISLAND LAWN RESTORATION	62.9		1131.2	1131.2				
STA. 10+12.00	HARBOR LANE	TEMP PARKING / TEMP ACCESS	HARBOR LANE / NEW ROCHELLE	129.0 / 79.0		773.0 / 472.0	773.0 / 472.0				129 / 79
STA. T 16+95.00	STA. T 18+05.00	SW QUADRANT @ PLAZA	TEMP SWLK @ GI PLAZA CONN.	33.0							

\*NOTES:  
1. SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO LANDSCAPING FEATURE(S).  
2. CONTRACTOR SHALL FIELD VERIFY ACTUAL LOCATION OF EXISTING TREES PRIOR TO BEGINNING WORK. ARBORIST SHALL BE CONSULTED IF NEEDED.

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	DEPTH (FT)	T&C EXCAVATION 206.0201 (CY)	BEDDING MATERIAL 620.0801 (CY)	CLSM 204.01 (CY)	TEMPORARY STEEL SHEETING 552.13 (SF)	WATERTIGHT SANITARY MANHOLE FRAME AND COVER 655.05202008 (EA)	SAN SEWER LATERALS 660.93000008 (EA)	48" SAN SEWER MANHOLE 664.40480006 (LF)	SAN SEWER CLEANOUTS 660.97020011 (LS)	6" DIP & FITTINGS 664.01060004 (LF)
STA. 09+60.00		13' RIGHT	5.0	5.0	10.0	9.3			200	1.0	1.0	5.0		
STA. 12+56.00		18' RIGHT	1.0	1.0	2.0	0.1			8		1.0		1.0	
STA. 09+60.00	STA. 12+56.00	10' RIGHT	296.0	4.0	4.0	131.6	58.5	73.1	2400				2.0	296.0
STA. 12+56.00	STA. 12+82.00	~20' TO CNTRL HOUSE CONN	26.0	4.0	3.0	8.1	5.2	2.9	180			5.0		26.0

\*NOTES:  
1. SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO SEWER UTILITY LIMIT(S).  
2. CONTRACTOR SHALL FIELD VERIFY ACTUAL LOCATION OF EXISTING UTILITIES PRIOR TO BEGINNING WORK.  
3. SEE 'CURB AND SIDEWALK' AND 'PAVEMENT REPAIRS' TABLE FOR RESTORATION ITEMS.

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	SCUPPER TYPE A 576.01 (EA)	PROPOSED BARRIER GATE 599.06300008 (LS)	PROPOSED WARNING GATE 599.06300008 (LS)	6' CHAIN-LINK FENCING 607.0512 (LF)	RESET EXISTING DRAINAGE FRAMES 604.07210110 (EA)	TRAFFIC SIGNALS 680.01040015 (LS)	CLEAN DRAINAGE STRUCTURES 621.04 (EA)	NON-PERFORATED PVC PIPE, 4" 605.16010008 (LF)
STA. 09+02.50		17' LEFT	N/A					1.0		1.0	
STA. 09+15.50		33' LEFT	N/A					1.0		1.0	
STA. 09+16.00		16.5' RIGHT	N/A					1.0		1.0	
STA. 09+35.50		37.5' LEFT	N/A					1.0		1.0	
STA. 11+14.00		24' LT & RT	N/A						1.0		
STA. 11+42.00		24' LT & RT	N/A			1.0					
STA. 14+68.00		10' LEFT	N/A	1.0							
STA. 14+68.00		10' RIGHT	N/A	1.0							
STA. 14+94.00		13' LEFT AND RIGHT	N/A		1.0						
STA. 15+93.50		12' LEFT AND RIGHT	N/A			1.0					
STA. 16+27.00		10' LEFT	N/A	1.0							
STA. 16+27.00		10' RIGHT	N/A	1.0							
STA. 16+74.50		44' LEFT	N/A					1.0		1.0	
STA. 16+74.50		44' RIGHT	N/A					1.0		1.0	
STA. 17+50.00		30' LEFT	N/A					1.0		1.0	
STA. 17+50.00		30' RIGHT	N/A					1.0		1.0	
STA. 16+27.00	STA. 16+73.50	10' TO 44' LEFT	46.5								46.5
STA. 16+27.00	STA. 16+73.50	10' TO 44' RIGHT	46.5								46.5
STA. 10+30.00	STA. 10+45.00	32' LEFT	15.0				15.0				
STA. 10+83.00	STA. 12+18.00	32' LEFT	135.0				135.0				
HARBOR LANE	TEMP ACCESS	NEPTUNE ISLAND	40.0				40.0				

\*NOTE: SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO LIMIT(S) OF LINEAR FEATURE(S).

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	PROPOSED STONE WALL - ITEM 560.11200007 (LF)	REINFORCED PRECAST CONCRETE PARKING BLOCKS - ITEM 609.40000015 (EA)
16+50	16+90	40' - 60' LEFT	40'	40'	
NEPTUNE LOT RESTORATION		LEFT			20

\*NOTE: SEE GENERAL PLANS AND GRADING PLAN FOR REFERENCED BASELINE STATIONING CORRESPONDING TO LIMITS OF WALL AND PARKING LOT.



CONSULTANT SEAL  
DAVID DELUCA  
NO. 09481  
REGISTERED PROFESSIONAL ENGINEER

CONSULTANT INFORMATION



1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/> AS BUILT - CHANGES AS NOTED <input type="checkbox"/> AS BUILT - NO CHANGES			
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____

WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING

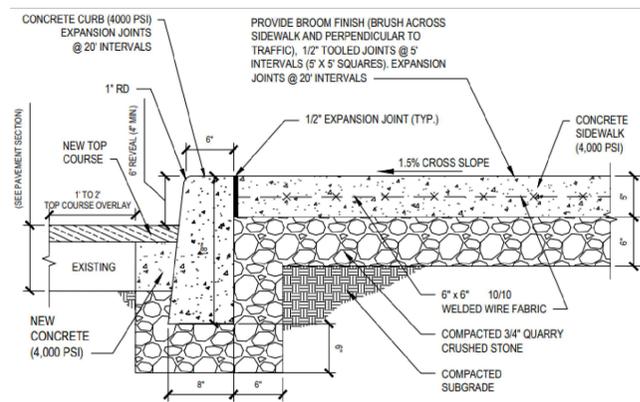
Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle

CIVIL

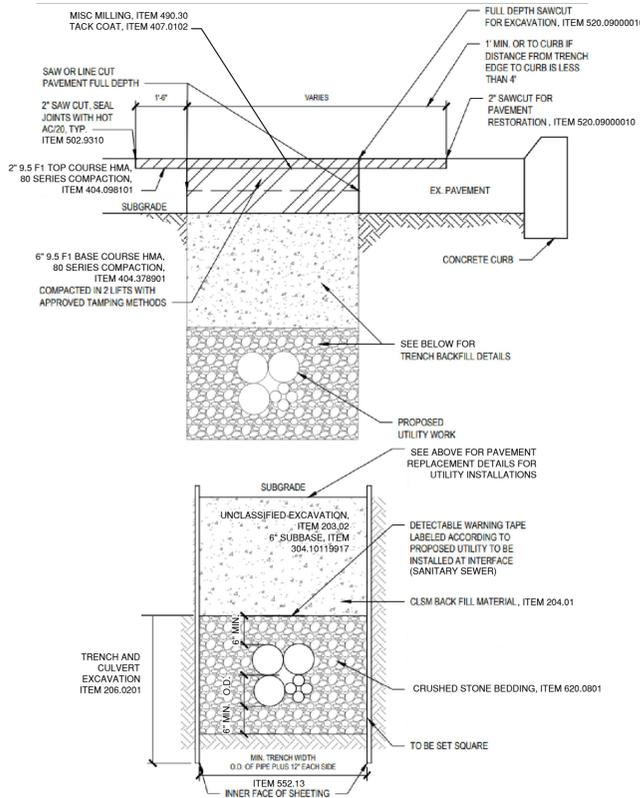
**MISCELLANEOUS TABLES - 2 OF 2**

CONTRACT NUMBER 20-517	SHEET NUMBER MST-02
SHEET NO. 30 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-R-465-0	0

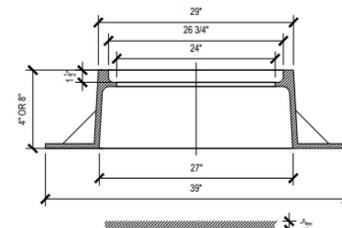
IN CHARGE OF C. JENNE, PE  
CHECKED BY K. HO, PE  
MADE BY E. MOHLER



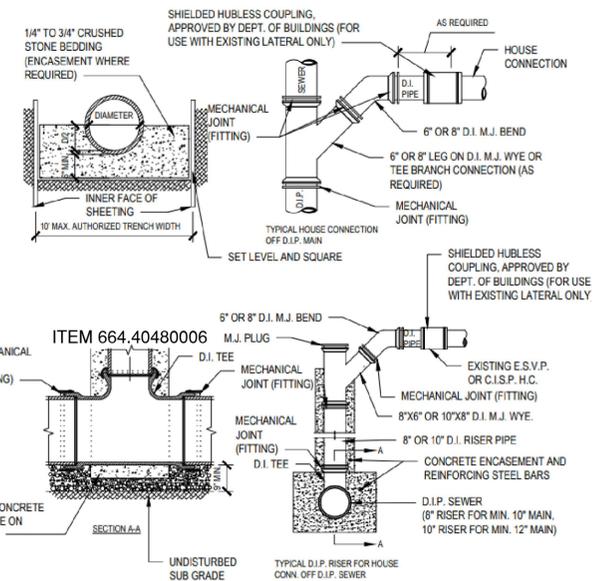
**CURB AND SIDEWALK RECONSTRUCTION DETAIL**  
NOT TO SCALE



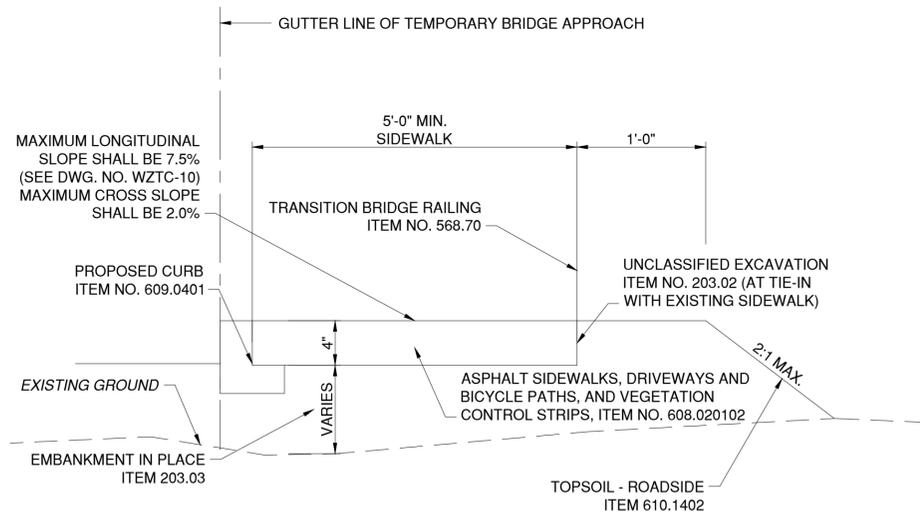
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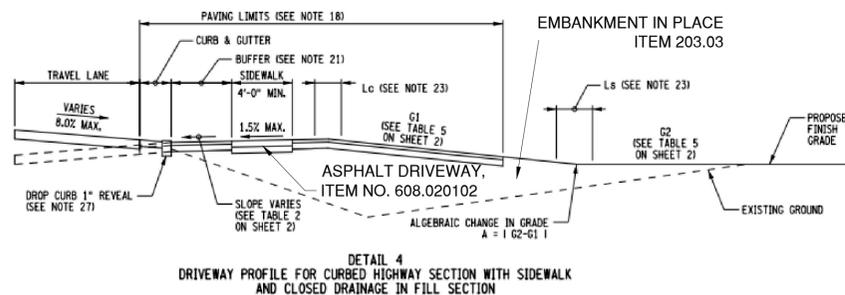
ITEM 655.05020008



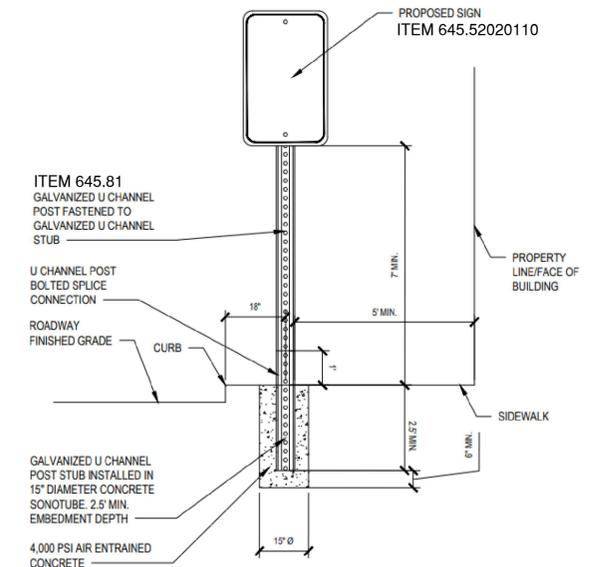
**SANITARY SEWER CONNECTION DETAILS**  
NOT TO SCALE



**TEMPORARY PEDESTRIAN ACCESS DETAIL**  
NOT TO SCALE



**DRIVEWAY RECONSTRUCTION DETAIL**  
NOT TO SCALE



**STREET SIGN DETAIL**  
NOT TO SCALE

- NOTES:
- SEE NYSDOT STANDARD SHEETS 608-01 FOR ADDITIONAL INFORMATION REGARDING CURB RAMPS.
  - PAY ITEMS FOUND THROUGHOUT THE DRAWINGS SET GOVERN. THE DETAILS SHOWN ON THIS DRAWING ARE MEANT TO DELINEATE PAY ITEM LIMITS.
  - SEE MECHANICAL DRAWINGS FOR DETAILED BREAKDOWN OF CONTROL HOUSE PLUMBING SCOPE.
  - SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION REGARDING BRIDGE DRAINAGE.

IN CHARGE OF C. JENNE, PE  
 CHECKED BY K. HO, PE  
 MADE BY E. MOHLER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/> AS BUILT - CHANGES AS NOTED <input type="checkbox"/> AS BUILT - NO CHANGES		CONTRACTOR PROJECT COORDINATOR	
NAME _____	NAME _____	PROJECT COORDINATOR	
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____		
DATE _____	DATE _____		



CONSULTANT INFORMATION



WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 CIVIL  
**MISCELLANEOUS DETAILS**

CONTRACT NUMBER 20-517	SHEET NUMBER MSD-01
SHEET NO. 31 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-R-466-0	REV. NO. 0

GENERAL NOTES FOR SOIL EROSION PREVENTION AND SEDIMENT CONTROL

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT THROUGHOUT THE DURATION OF THE CONTRACT IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL AREAS POTENTIALLY SUBJECT TO SEDIMENT LADEN RUNOFF FROM WATER BORNE SEDIMENT OR POLLUTANTS ORIGINATING FROM ANY WORK DONE, ON, OR IN SUPPORT OF THIS PROJECT. THE GENERAL NOTES FOR SOIL EROSION PREVENTION AND SEDIMENT CONTROL AND DETAILS SHOWN IN THESE DRAWINGS AND THOSE PROVIDED IN THE RESPECTIVE NYS DOT STANDARD SHEETS ARE NOT INTENDED TO BE ALL INCLUSIVE BUT TO SERVE AS A GUIDELINE FOR THE DEVELOPMENT OF THE CONTRACTOR'S EROSION CONTROL SCHEME REQUIRED UNDER SECTION 107-12 OF THE STANDARD SPECIFICATIONS.

THE PURPOSE OF SECTION 209 IS TO PROTECT ABUTTING PROPERTY, WATER COURSES, PONDS, DITCHES, WETLANDS, ETC., FROM THE DETRIMENTAL EFFECTS OF SOIL EROSION AND/OR SEDIMENT ORIGINATING FROM WITHIN THE WORK LIMITS AND/OR FROM AREAS SPECIFICALLY DESIGNATED FOR CONTRACTUAL OPERATIONS BY THE COUNTY. PAYMENT WILL BE MADE UNDER APPLICABLE 209 ITEMS FOR TEMPORARY CONTROL WORK DONE BY THE CONTRACTOR IN ACCORDANCE WITH THE PRE-APPROVED SCHEME, OR A.O.B.E., TO PROTECT PRIVATE PROPERTY, WATER COURSES, PONDS, DITCHES, ETC. IT REMAINS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT HIS/HER OWN WORK AT NO ADDITIONAL COST TO THE COUNTY, IN ACCORDANCE WITH THE PROVISIONS OF SECTIONS 107, 203, 206, AND/OR 209 OF THE STANDARD SPECIFICATIONS.

- THE CONTRACTOR SHALL COMPLY WITH ALL THE PROVISIONS OF THE APPLICABLE PERMITS OF THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) MANUAL TITLED THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (AKA THE BLUE BOOK).
- ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO PREVENT CONTAMINATION OF STREAMS BY SILT, SEDIMENT, FUELS, SOLVENTS, LUBRICANTS, EPOXY COATINGS, CONCRETE LEACHATE OR ANY OTHER POLLUTANT ASSOCIATED WITH CONSTRUCTION AND CONSTRUCTION PROCEDURE.
- INSPECTION OF SOIL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE APPROVED SWPPP. AT A MINIMUM, INSPECTIONS SHALL BE PERFORMED BY THE CONTRACTOR ON A WEEKLY BASIS AND AFTER EVERY STORM EVENT OF 0.5 INCHES OR A.O.B.E.. REPAIRS SHALL BE MADE AS NEEDED AND SEDIMENT SHALL BE REMOVED WHEN THE STORAGE VOLUME OF AN EROSION CONTROL MEASURE IS APPROACHING ONE HALF OF ITS INTENDED CAPACITY OR A.O.B.E.. THE COST OF CLEANING AND REMOVING TEMPORARY SOIL EROSION AND WATER POLLUTION DEVICES SHALL BE INCLUDED IN THE BID PRICE FOR THE INSTALLATION OF THAT ITEM. THE COUNTY IS ALSO RESPONSIBLE TO HAVE A QUALIFIED INSPECTOR CONDUCT SITE INSPECTIONS IN ACCORDANCE WITH THE GENERAL PERMIT AT LEAST EVERY SEVEN CALENDAR DAYS. THE QUALIFIED INSPECTOR IS TO PREPARE AN INSPECTION REPORT (NYS DOT MURK 6) AND NOTIFY THE OWNER AND CONTRACTOR OF ANY CORRECTIVE ACTIONS THAT NEED TO BE TAKEN. THE CONTRACTOR SHALL BEGIN IMPLEMENTING CORRECTIVE ACTIONS WITHIN ONE BUSINESS DAY AND SHALL COMPLETE CORRECTIVE ACTIONS IN A REASONABLE TIME FRAME.
- ALL DEBRIS OR EXCESS MATERIALS FROM CONSTRUCTION OF THIS PROJECT SHALL BE IMMEDIATELY AND COMPLETELY REMOVED FROM THE BED AND BANKS OF ALL WATER AREAS TO AN APPROPRIATE UPLAND AREA FOR DISPOSAL.
- ALL DREDGED AND EXCAVATED MATERIAL WITH THE EXCEPTION OF MATERIAL USED TO REPLACE SUBMARINE CABLE SHALL BE DISPOSED OF ON AN UPLAND SITE AND BE SUITABLY STABILIZED SO THAT IT CANNOT RE-ENTER ANY WATER BODY OR WETLAND AREA.
- THE CONTRACTOR SHALL NOT RETURN DIRECTLY TO A WATER BODY. ANY WATER WHICH HAS BEEN USED FOR WASH PURPOSES OR OTHER SIMILAR OPERATIONS WHICH CAUSES THIS WATER TO BECOME POLLUTED WITH SAND, SILT, CEMENT, OIL OR OTHER IMPURITIES. IF THE CONTRACTOR USES WATER FROM STREAMS, THE CONTRACTOR SHALL CONSTRUCT AN INTAKE OR TEMPORARY DAM TO PROTECT AND MAINTAIN STREAM WATER QUALITY. ALL STREAM CHANNEL WORK SHALL BE LIMITED TO WITHIN THE DESIGNATED ROW.
- DURING CONSTRUCTION, NO WET OR FRESH CONCRETE OR LEACHATE SHALL BE ALLOWED TO ESCAPE INTO THE WATER OF THE UNITED STATES.
- ANY SCHEME PROPOSED BY THE CONTRACTOR TO ACCOMPLISH EROSION PREVENTION AND SEDIMENT CONTROL SHALL BE SUBJECT TO THE APPROVAL BY THE E.I.C..
- IN THE EVENT GRAVEL BAG CHECK DAMS ARE USED INSTEAD OF TEMPORARY STONE CHECK DAMS, GRAVEL BAGS SHALL BE AS DESCRIBED IN SECTION 209-2.09 OF THE NYS DOT STANDARDS AND SPECIFICATIONS EXCEPT THAT ONLY GRAVEL FILL IS ACCEPTABLE. GRAVEL FILL SHALL BE FREE OF SILT AND GRAVEL BAGS WILL BE REMOVED IN THEIR ENTIRETY AT THE COMPLETION OF THE PROJECT. NO SAND BAGS WILL BE ALLOWED IN PLACE OF GRAVEL BAGS.
- THE PROPOSED WORK WILL REQUIRE THAT THE TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL BE PLACED OVER THE COURSE OF THE PROJECT AND BE MAINTAINED OVER THE COURSE OF THE PROJECT AND NOT TO BE REMOVED UNTIL PERMANENT STABILIZATION IS ACHIEVED AS DEFINED BY THE SPDES GENERAL PERMIT.
- THE SYMBOLS SHOWN ON THE DRAINAGE AND UTILITY PLAN REPRESENT THE EROSION CONTROL ITEMS TO BE USED IN CONJUNCTION WITH THE PROPOSED WORK OR A.O.B.E.. THE INSTALLATION METHODS INCLUDING APPLICABLE PLACEMENT INTERVALS ARE SHOWN ON THE RESPECTIVE NYS DOT STANDARD SHEETS AND ALSO IN THE BLUE BOOK.

- GEOTEXTILES SHALL SATISFY THE REQUIREMENTS OF SECTION 207-02 OF THE STANDARD SPECIFICATIONS. SILT FENCE, ITEM 209.13 WILL ONLY BE PAID FOR AT LOCATIONS SHOWN IN THE PLANS AND/OR TABLES, AND A.O.B.E.. SILT FENCE MAY BE SUBSTITUTED WITH TRIANGULAR FOAM BARRIERS AS APPROVED IN WRITING BY THE ENGINEER IN CHARGE. IN ACCORDANCE WITH NYS DOT STANDARD SHEET 209-01, SILT FENCE SHOULD BE PLACED A MINIMUM OF 10' FROM THE TOE OF SLOPE (WHERE RIGHT OF WAY ALLOWS) TO PROVIDE ADEQUATE AREA FOR SEDIMENT STORAGE AND FACILITATE MAINTENANCE OF THE SEDIMENT CONTAINMENT AREA.
- SOIL EROSION CONTROL DEVICES, SHALL BE INSTALLED PRIOR TO STARTING CLEARING AND GRUBBING OPERATION AND EARTHWORK CONSTRUCTION. ALL APPROPRIATE DEVICES SHALL REMAIN IN PLACE UNTIL NEW SLOPES AND EXPOSED EARTHEN SURFACES ARE STABILIZED, AND/OR A.O.B.E.. TEMPORARY SOIL EROSION DEVICES MAY BE LEFT IN PLACE AT THE COMPLETION OF THIS CONTRACT WITH WRITTEN PERMISSION OF THE ENGINEER IN CHARGE. ALL OTHER DEVICES SHALL BE REMOVED AND THE DISTURBED AREA RESTORED SECTION 107-10 OF THE STANDARDS AND SPECIFICATIONS, UNLESS SHOWN OTHERWISE ON THE PLANS.
- ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES OR WATERCOURSES.
- IN THE EVENT DEWATERING OPERATIONS BECOME NECESSARY, A SETTLING BASIN WILL BE REQUIRED UNLESS THE PUMP DISCHARGE IS AS FREE AND CLEAR OF SEDIMENT AS THE FLOWING STREAM. THE LOCATION AND DESIGN OF THE SETTLING BASIN SHALL BE APPROVED BY THE ENGINEER. PUMPING TO A "SUITABLE" UPLAND AREA IS ALSO ACCEPTABLE IN LIEU OF CONSTRUCTING A SETTLING BASIN AS APPROVED BY THE ENGINEER. DEWATERING DIRECTLY INTO A WETLAND WILL NOT BE ALLOWED. THE COST FOR DEWATERING OPERATIONS SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION ACTIVITY TAKING PLACE THAT REQUIRES DEWATERING. NO ADDITIONAL PAYMENT WILL BE MADE.
- IN ADDITION TO THE DETAILS AND SPECIFICATIONS SHOWN IN THESE PLANS FOR TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL DEVICES, THE CONTRACTOR SHALL REFER TO THE BLUE BOOK FOR ADDITIONAL INFORMATION REGARDING THE INTENDED PURPOSE, DESIGN CRITERIA AND MATERIAL SPECIFICATIONS FOR CONTROL DEVICES. THE MORE STRINGENT SPECIFICATIONS SHALL APPLY.
- THE CONTRACTOR WILL BE REQUIRED TO PERFORM ALL CONSTRUCTION OPERATIONS USING ANY AND ALL METHODS AT HIS DISPOSAL TO ENSURE EROSION AND SEDIMENTATION CONTROL IS PROTECTED ON SITE. THE BEST WAY TO CONTROL SOIL EROSION IS TO LIMIT THE AMOUNT OF UNPROTECTED EARTH AT ANY ONE TIME.
- IT IS THE CONTRACTORS AND SUB CONTRACTORS RESPONSIBILITY TO UNDERSTAND THE EROSION CONTROL PLAN AND SIGN THE CERTIFICATION STATEMENT REQUIRED BY THE SPDES GENERAL PERMIT.
- ALL EXISTING GRASSED DITCHES SHALL BE MAINTAINED IN ITS EXISTING STABILIZED CONDITION UNTIL WORK IS SCHEDULED TO BEGIN IN A PARTICULAR SEGMENT.
- ITEM 209.22, CONSTRUCTION ENTRANCE IS INCLUDED IN THE CONTRACT. THE ITEM IS NOT CALLED OUT ON THE PLANS AND SHOULD BE USED A.O.B.E..

TEMPORARY STABILIZATION MEASURES

- WHEN LAND DISTURBANCES IN A PARTICULAR AREA ARE NECESSARY AND WORK WILL BE ONGOING, TEMPORARY MULCHING AND SEEDING MUST BE PERFORMED ON AREAS WHICH WILL BE EXPOSED FOR MORE THAN 14 DAYS. TEMPORARY MULCH MUST BE PERFORMED ON AREAS WHICH WILL BE EXPOSED FOR MORE THAN 7 DAYS AND LESS THAN 14 DAYS. SEE EXPOSED SOIL CRITERIA TABLE THIS SHEET. TEMPORARY MULCHING WILL BE PAID UNDER ITEM 209.100101. TEMPORARY SEED AND MULCH WILL BE PAID UNDER ITEM 209.1003.
- TEMPORARY SEEDINGS MAY BE NECESSARY ON DISTURBED AREAS WHERE FINAL GRADING IS COMPLETE, WHEN PREPARING FOR A TEMPORARY SHUTDOWN, OR TO PROVIDE COVER WHEN PERMANENT SEEDING ARE LIKELY TO FAIL DUE TO MID-SUMMER HEAT AND DROUGHT. THE INTENT IS TO PROVIDE TEMPORARY PROTECTIVE COVER DURING TEMPORARY SHUTDOWN OF CONSTRUCTION AND/OR WHILE WAITING FOR OPTIMAL PLANTING TIME.
- THE CONTRACTOR SHOULD BE MINDFUL OF ANTICIPATED STORM EVENTS. DISTURBED AREAS THAT WILL BE EXPOSED LESS THAN 14 DAYS SHOULD RECEIVE TEMPORARY MULCHING TO DISTURBED AREAS SUSCEPTIBLE TO EROSION AND MOVEMENT OF SEDIMENT FROM THE SITE PRIOR TO RAIN EVENT.
- TEMPORARY STOCKPILE AREAS SHALL BE RINGED WITH SILT FENCE. STOCKPILES SHOULD BE SEEDED AND MULCHED IN ACCORDANCE WITH NOTE 1 ABOVE.
- ALL TEMPORARY STABILIZATION TIMEFRAMES SHALL BE IN ACCORDANCE WITH THE SPDES GENERAL PERMIT AND AS SPECIFIED IN THE NYSDEC NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
- TEMPORARY STRAW MULCH WILL BE APPLIED AT 2 TONS/ACRE (2-3 BALES PER 1000 SQFT) APPLICATION RATE.

PERMANENT STABILIZATION MEASURES

- PERMANENT STABILIZATION MEASURES SHOULD BE PERFORMED AS SOON AS POSSIBLE AFTER COMPLETION OF GRADING. WAITING UNTIL ALL DISTURBED AREAS ARE READY FOR PERMANENT STABILIZATION IS UNACCEPTABLE.
- EXPOSED DISTURBED AREAS ADJACENT TO A CONVEYANCE THAT PROVIDE RAPID DISCHARGE FROM SITE SHALL BE COVERED WITH PLASTIC OR GEOTEXTILE TO PREVENT SOIL LOSS UNTIL IT CAN BE STABILIZED (THIS WORK TO BE INCLUDED IN THE BID PRICE FOR VARIOUS 209 ITEMS. NO ADDITIONAL PAYMENT WILL BE MADE TO PROTECT UNSTABILIZED SURFACES FROM EROSION SUSCEPTIBLE TO RAPID DISCHARGE FROM SITE.)
- PERMANENT SEEDING SHOULD OPTIMALLY BE UNDERTAKEN IN THE SPRING FROM MARCH THROUGH MAY, AND IN LATE SUMMER AND EARLY FALL FROM SEPTEMBER TO OCTOBER 15, WHEN SEEDING IS IMPRACTICABLE, AN APPROPRIATE TEMPORARY MULCH SHALL BE APPLIED. PERMANENT SEEDING MAY BE UNDERTAKEN DURING THE SUMMER IF ADEQUATE WATERING WILL BE PROVIDED. PAYMENT FOR WATERING WILL BE MADE UNDER TURF ESTABLISHMENT ITEM.
- ALL SLOPES STEEPER THAN A 1 ON 3 AND REGRADED DITCHES WILL REQUIRE ROLLED EROSION CONTROL PRODUCTS (RECP) UNLESS OTHERWISE NOTED ON DETAILS AND IN PLANS. INSTALLATION OF RECP WILL IMMEDIATELY FOLLOW FINISHED GRADING.
- SEEDBED MUST BE SEEDED WITHIN 24 HOURS OF DISTURBANCE OR SCARIFICATION WILL BE NECESSARY PRIOR TO SEEDING.
- ANY SEEDING METHOD MAY BE USED THAT WILL PROVIDE UNIFORM APPLICATION OF SEED TO THE AREA AND RESULT IN A RELATIVELY GOOD SEED TO SOIL CONTACT. SEE SECTION 610-2.03 AND 610-3.03 FOR SEEDING APPLICATION RATES/TYPES.

REPORTING OF SPILLS, DISCHARGES AND/OR CONTAMINATED SOILS

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING ANY FINDINGS OF SPILLS, LEAKS OR PETROLEUM PRODUCTS, CONTAMINATED SOILS, BURIED DRUMS OF UNKNOWN SUBSTANCES, OR ANY POTENTIALLY HAZARDOUS MATERIALS TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC). WITHIN TWO (2) HOURS OF THE DISCOVERY. NOTIFICATION MUST BE MADE BY CALLING THE NYSDEC SPILLS HOTLINE -(800) 457-7362.
- THE CONTRACTOR SHALL ALSO IMMEDIATELY ALERT THE ENGINEER OF ANY SPILLS OR LEAKS. THE ENGINEER WILL DETERMINE THE NEED TO NOTIFY LOCAL EMERGENCY RESPONSE AND THE DEPARTMENT OF PUBLIC WORKS.

EXPOSED SOIL CRITERIA (FOR TEMPORARILY EXPOSED SOIL AREAS)	
CRITERIA	REQUIRED ACTION
PRIOR TO ANY ANTICIPATED PRECIPITATION OR AOB	TEMPORARY MULCH (ITEM 209.100101)
NO WORK ON EXPOSED SOIL AREA(S) FOR 7 OR MORE CONSECUTIVE DAYS	TEMPORARY MULCH (ITEM 209.100101)
NO WORK ON EXPOSED SOIL AREA(S) FOR 14 OR MORE CONSECUTIVE DAYS	TEMPORARY SEED AND MULCH (ITEM 209.1003), OR PLACEMENT OF TOPSOIL (ITEM 610.1403) AS SPECIFIED, AND TURF ESTABLISHMENT (ITEM 610.16010020) AND 209 ITEMS

NOTES
1. ALL AREAS SHALL BE BROUGHT TO FINAL GRADE AND TRIMMED AS SOON AS POSSIBLE.
2. MAINTENANCE OF MULCHED AREAS SHALL INCLUDE RE-MULCHING OF AREAS IN WHICH SOIL BECOMES EXPOSED TO VIEW. ANY AREAS THAT BECOME SETTLED OR GULLIED DURING MULCHING OPERATIONS SHALL BE RE-GRADED.
3. MAINTENANCE OF TEMPORARY SEEDED AREAS SHALL INCLUDE RE-SEEDING AS NEEDED TO ESTABLISH A SATISFACTORY STAND OF GRASS. THERE SHALL BE NO ADDITIONAL PAYMENT FOR RESEEDING.
4. THE USE OF TEMPORARY SEED AND MULCH (ITEM 209.1003), AS AN EFFECTIVE EROSION CONTROL METHOD MUST BE APPLIED PRIOR TO OCTOBER 15 AND AFTER MARCH 31.
5. DEPENDING ON WEATHER CONDITIONS, WATERING MAY BE NEEDED TO ESTABLISH TEMPORARY SEED. THE UNIT PRICE BID FOR THIS ITEM SHALL INCLUDE WATER IN ACCORDANCE WITH SUB-SECTION 209-5.03 OF THE NYS DOT STANDARD SPECIFICATIONS. WATERING IS TO BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 610.1601, TURF ESTABLISHMENT. WATERING SHALL BE APPLIED IN ACCORDANCE WITH SECTIONS 610-3.03 OF THE NYS DOT STANDARD SPECIFICATIONS (SEE SECTION 610-3.10A FOR RATE OF APPLICATION).
6. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE LIFE OF THE CONTRACT. THERE SHALL BE NO ADDITIONAL PAYMENT FOR MAINTENANCE OF EROSION CONTROL MEASURES.

POLLUTION PREVENTION MEASURES

PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A PROJECT SPECIFIC SAFETY AND HEALTH PLAN IN ACCORDANCE WITH SECTION 107-05, SAFETY AND HEALTH REQUIREMENTS. THE SAFETY AND HEALTH PLAN SHALL SPECIFICALLY ADDRESS SPILL PREVENTION AND A RESPONSE PLAN. THE PLAN SHALL DETAIL THE STEPS NEEDED TO BE FOLLOWED IN THE EVENT OF AN ACCIDENTAL SPILL AND SHALL IDENTIFY CONTACT NAMES AND PHONE NUMBERS OF PEOPLE AND AGENCIES THAT MUST BE NOTIFIED.

THE PLAN SHALL INCLUDE SAFETY DATA SHEETS (MSDS) FOR MATERIAL TO BE STORED ON SITE. ALL WORKERS ON-SITE WILL BE REQUIRED TO BE TRAINED ON SAFE HANDLING AND SPILL PREVENTION PROCEDURES FOR ALL MATERIALS USED DURING CONSTRUCTION. REGULAR TAILGATE SAFETY MEETINGS SHALL BE HELD AND ALL WORKERS THAT ARE EXPECTED ON THE SITE DURING THE WEEK SHALL BE REQUIRED TO ATTEND. AGENDA, TOPICS AND SIGN-IN SHEETS SHALL BE PROVIDED TO THE E.I.C..

ALL POLLUTANTS, INCLUDING WASTE MATERIALS AND DEMOLITION DEBRIS, THAT OCCUR ON-SITE SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT CONFORMS TO ALL APPLICABLE FEDERAL AND STATE REGULATIONS THAT DOES NOT CAUSE A CONTAMINATION OF STORMWATER. GOOD HOUSEKEEPING AND PREVENTATIVE MEASURES WILL BE TAKEN TO ENSURE THAT THE SITE WILL BE DEPT CLEAN, WELL ORGANIZED, AND FREE OF DEBRIS.

- ALL VEHICLES, EQUIPMENT, AND PETROLEUM PRODUCT STORAGE/DISPENSING AREA WILL BE OBSERVED REGULARLY DURING SITE INSPECTIONS TO DETECT ANY LEAKS OR SPILLS, AND TO IDENTIFY MAINTENANCE NEEDS TO PREVENT LEAKS AND SPILLS. ON-SITE FUELING TANKS AND PETROLEUM PRODUCT STORAGE CONTAINERS SHALL CONTAIN SECONDARY CONTAINMENT. SPILL PREVENTION MEASURES, SUCH AS DRIP PANS, WILL BE USED WHEN CONDUCTING MAINTENANCE AND REPAIR OF VEHICLES AND EQUIPMENT. IN ORDER TO PERFORM EMERGENCY REPAIRS ON SITE, TEMPORARY PLASTIC WILL BE PLACED BENEATH AND, IF RAINING, OVER THE VEHICLE. CONTAINMENT SURFACES SHALL BE CLEANED IMMEDIATELY FOLLOWING AN DISCHARGES OR SPILL INCIDENT. CONTAMINATED SOIL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ALL CURRENT FEDERAL AND STATE REGULATIONS. THE COUNTY WILL BE NOTIFIED IF ANY SPILLS OVER THE REPORTABLE LIMIT OCCUR.
- ANY CHEMICALS STORED IN THE CONSTRUCTION AREAS WILL CONFORM TO THE APPROPRIATE MANUFACTURERS RECOMMENDATIONS AND OR THE APPROPRIATE FEDERAL/STATE REGULATIONS. ALL CHEMICALS SHALL HAVE COVER, CONTAINMENT, AND PROTECTION PROVIDED ON-SITE, PER ALL FEDERAL AND NEW YORK STATE DEC REGULATIONS. APPLICATION OF AGRICULTURAL CHEMICALS, INCLUDING FERTILIZERS AND PESTICIDES, SHALL BE CONDUCTED IN A MANNER AND AT APPLICATION RATES THAT WILL NOT RESULT IN LOSS OF CHEMICAL TO STORMWATER RUNOFF. MANUFACTURER'S RECOMMENDATION FOR APPLICATION RATES AND PROCEDURES SHALL BE FOLLOWED.
- ALL DEWATERING FROM OPEN CUT EXCAVATIONS SHALL BE DISCHARGED INTO A CONTROLLED CONVEYANCE SYSTEM. CHANNELS AND DISCHARGE POINTS SHALL BE STABILIZED PRIOR TO USE FOR DISCHARGE.
- DUST RELEASED FROM ON-SITE GRADING OPERATIONS WILL BE CONTROLLED USING STANDARDS AND SPECIFICATIONS FOR DUST CONTROL FROM THE BLUE BOOK (ALSO CONTAINED IN THE PROJECT SPECIFIC SWPPP).
- PROCESS WATER AND SLURRY RESULTING FROM CONCRETE WORK WILL BE PREVENTED FROM ENTERING SURFACE WATERS, JURISDICTIONAL WETLANDS, AND ANY CLOSED DRAINAGE FACILITY.
- PORATBLE SANITARY FACILITIES WILL BE FIRMLY SECURED, REGULARLY MAINTAINED, AND EMPTIED WHEN NECESSARY.
- LITTER AND TRASH SHALL BE CLEANED AND DISPOSED OF IN SECURE CLEARLY MARKED DUMPSTERS OR TRASH RECEPTACLES. SITE IS TO BE CLEANED DAILY OF DEBRIS AND DISPOSED OF ON A DAILY BASIS.

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5. ALL DREDGED AND EXCAVATED MATERIAL WITH THE EXCEPTION OF MATERIAL USED TO REPLACE SUBMARINE CABLE SHALL BE DISPOSED OF ON AN UPLAND SITE AND BE SUITABLY STABILIZED SO THAT IT CANNOT RE-ENTER ANY WATER BODY OR WETLAND AREA.

- THE CONTRACTOR SHALL NOT RETURN DIRECTLY TO A WATER BODY. ANY WATER WHICH HAS BEEN USED FOR WASH PURPOSES OR OTHER SIMILAR OPERATIONS WHICH CAUSES THIS WATER TO BECOME POLLUTED WITH SAND, SILT, CEMENT, OIL OR OTHER IMPURITIES. IF THE CONTRACTOR USES WATER FROM STREAMS, THE CONTRACTOR SHALL CONSTRUCT AN INTAKE OR TEMPORARY DAM TO PROTECT AND MAINTAIN STREAM WATER QUALITY. ALL STREAM CHANNEL WORK SHALL BE LIMITED TO WITHIN THE DESIGNATED ROW.
- DURING CONSTRUCTION, NO WET OR FRESH CONCRETE OR LEACHATE SHALL BE ALLOWED TO ESCAPE INTO THE WATER OF THE UNITED STATES.
- ANY SCHEME PROPOSED BY THE CONTRACTOR TO ACCOMPLISH EROSION PREVENTION AND SEDIMENT CONTROL SHALL BE SUBJECT TO THE APPROVAL BY THE E.I.C..
- IN THE EVENT GRAVEL BAG CHECK DAMS ARE USED INSTEAD OF TEMPORARY STONE CHECK DAMS, GRAVEL BAGS SHALL BE AS DESCRIBED IN SECTION 209-2.09 OF THE NYS DOT STANDARDS AND SPECIFICATIONS EXCEPT THAT ONLY GRAVEL FILL IS ACCEPTABLE. GRAVEL FILL SHALL BE FREE OF SILT AND GRAVEL BAGS WILL BE REMOVED IN THEIR ENTIRETY AT THE COMPLETION OF THE PROJECT. NO SAND BAGS WILL BE ALLOWED IN PLACE OF GRAVEL BAGS.
- THE PROPOSED WORK WILL REQUIRE THAT THE TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL BE PLACED OVER THE COURSE OF THE PROJECT AND BE MAINTAINED OVER THE COURSE OF THE PROJECT AND NOT TO BE REMOVED UNTIL PERMANENT STABILIZATION IS ACHIEVED AS DEFINED BY THE SPDES GENERAL PERMIT.
- THE SYMBOLS SHOWN ON THE DRAINAGE AND UTILITY PLAN REPRESENT THE EROSION CONTROL ITEMS TO BE USED IN CONJUNCTION WITH THE PROPOSED WORK OR A.O.B.E.. THE INSTALLATION METHODS INCLUDING APPLICABLE PLACEMENT INTERVALS ARE SHOWN ON THE RESPECTIVE NYS DOT STANDARD SHEETS AND ALSO IN THE BLUE BOOK.

IN CHARGE OF L. SCHILLING, PE  
 CHECKED BY L. SCHILLING, PE  
 MADE BY I. WHITTAKER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION
1	3/30/24	LS	IW	SUBMARINE CABLE

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

CONSULTANT SEAL 	CONSULTANT INFORMATION  560 Route 52 Suite 201 Beacon, New York 12508
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WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER SEC-01
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 32 OF 212	
CIVIL		SCALE: AS SHOWN DATE: 03/08/2024	
EROSION CONTROL NOTES		DPW FILE NO. 5-04-R-467-0	REV. NO. 1

GENERAL NOTES FOR SOIL EROSION PREVENTION AND SEDIMENT CONTROL

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT THROUGHOUT THE DURATION OF THE CONTRACT IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL AREAS POTENTIALLY SUBJECT TO SEDIMENT LADEN RUNOFF FROM WATER BORNE SEDIMENT OR POLLUTANTS ORIGINATING FROM ANY WORK DONE, ON, OR IN SUPPORT OF THIS PROJECT. THE GENERAL NOTES FOR SOIL EROSION PREVENTION AND SEDIMENT CONTROL AND DETAILS SHOWN IN THESE DRAWINGS AND THOSE PROVIDED IN THE RESPECTIVE NYS DOT STANDARD SHEETS ARE NOT INTENDED TO BE ALL INCLUSIVE BUT TO SERVE AS A GUIDELINE FOR THE DEVELOPMENT OF THE CONTRACTOR'S EROSION CONTROL SCHEME REQUIRED UNDER SECTION 107-12 OF THE STANDARD SPECIFICATIONS.

THE PURPOSE OF SECTION 209 IS TO PROTECT ABUTTING PROPERTY, WATER COURSES, PONDS, DITCHES, WETLANDS, ETC., FROM THE DEleterious EFFECTS OF SOIL EROSION AND/OR SEDIMENT ORIGINATING FROM WITHIN THE WORK LIMITS AND/OR FROM AREAS SPECIFICALLY DESIGNATED FOR CONTRACTUAL OPERATIONS BY THE COUNTY. PAYMENT WILL BE MADE UNDER APPLICABLE 209 ITEMS FOR TEMPORARY CONTROL WORK DONE BY THE CONTRACTOR IN ACCORDANCE WITH THE PRE-APPROVED SCHEME, OR A.O.B.E., TO PROTECT PRIVATE PROPERTY, WATER COURSES, PONDS, DITCHES, ETC. IT REMAINS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT HIS/HER OWN WORK AT NO ADDITIONAL COST TO THE COUNTY, IN ACCORDANCE WITH THE PROVISIONS OF SECTIONS 107, 203, 206, AND/OR 209 OF THE STANDARD SPECIFICATIONS.

- THE CONTRACTOR SHALL COMPLY WITH ALL THE PROVISIONS OF THE APPLICABLE PERMITS OF THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) MANUAL TITLED THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (AKA THE BLUE BOOK).
- ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO PREVENT CONTAMINATION OF STREAMS BY SILT, SEDIMENT, FUELS, SOLVENTS, LUBRICANTS, EPOXY COATINGS, CONCRETE LEACHATE OR ANY OTHER POLLUTANT ASSOCIATED WITH CONSTRUCTION AND CONSTRUCTION PROCEDURE.
- INSPECTION OF SOIL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE APPROVED SWPPP. AT A MINIMUM, INSPECTIONS SHALL BE PERFORMED BY THE CONTRACTOR ON A WEEKLY BASIS AND AFTER EVERY STORM EVENT OF 0.5 INCHES OR A.O.B.E.. REPAIRS SHALL BE MADE AS NEEDED AND SEDIMENT SHALL BE REMOVED WHEN THE STORAGE VOLUME OF AN EROSION CONTROL MEASURE IS APPROACHING ONE HALF OF ITS INTENDED CAPACITY OR A.O.B.E.. THE COST OF CLEANING AND REMOVING TEMPORARY SOIL EROSION AND WATER POLLUTION DEVICES SHALL BE INCLUDED IN THE BID PRICE FOR THE INSTALLATION OF THAT ITEM. THE COUNTY IS ALSO RESPONSIBLE TO HAVE A QUALIFIED INSPECTOR CONDUCT SITE INSPECTIONS IN ACCORDANCE WITH THE GENERAL PERMIT AT LEAST EVERY SEVEN CALENDAR DAYS. THE QUALIFIED INSPECTOR IS TO PREPARE AN INSPECTION REPORT (NYS DOT MURK 6) AND NOTIFY THE OWNER AND CONTRACTOR OF ANY CORRECTIVE ACTIONS THAT NEED TO BE TAKEN. THE CONTRACTOR SHALL BEGIN IMPLEMENTING CORRECTIVE ACTIONS WITHIN ONE BUSINESS DAY AND SHALL COMPLETE CORRECTIVE ACTIONS IN A REASONABLE TIME FRAME.
- ANY DEBRIS OR EXCESS MATERIALS FROM CONSTRUCTION OF THIS PROJECT SHALL BE IMMEDIATELY AND COMPLETELY REMOVED FROM THE BED AND BANKS OF ALL WATER AREAS TO AN APPROPRIATE UPLAND AREA FOR DISPOSAL.
- ALL DREDGED AND EXCAVATED MATERIAL SHALL BE DISPOSED OF ON AN UPLAND SITE AND BE SUITABLY STABILIZED SO THAT IT CANNOT RE-ENTER ANY WATER BODY OR WETLAND AREA.
- THE CONTRACTOR SHALL NOT RETURN DIRECTLY TO A WATER BODY. ANY WATER WHICH HAS BEEN USED FOR WASH PURPOSES OR OTHER SIMILAR OPERATIONS WHICH CAUSES THIS WATER TO BECOME POLLUTED WITH SAND, SILT, CEMENT, OIL OR OTHER IMPURITIES. IF THE CONTRACTOR USES WATER FROM STREAMS, THE CONTRACTOR SHALL CONSTRUCT AN INTAKE OR TEMPORARY DAM TO PROTECT AND MAINTAIN STREAM WATER QUALITY. ALL STREAM CHANNEL WORK SHALL BE LIMITED TO WITHIN THE DESIGNATED ROW.
- DURING CONSTRUCTION, NO WET OR FRESH CONCRETE OR LEACHATE SHALL BE ALLOWED TO ESCAPE INTO THE WATER OF THE UNITED STATES.
- ANY SCHEME PROPOSED BY THE CONTRACTOR TO ACCOMPLISH EROSION PREVENTION AND SEDIMENT CONTROL SHALL BE SUBJECT TO THE APPROVAL BY THE E.I.C..
- IN THE EVENT GRAVEL BAG CHECK DAMS ARE USED INSTEAD OF TEMPORARY STONE CHECK DAMS, GRAVEL BAGS SHALL BE AS DESCRIBED IN SECTION 209-2.09 OF THE NYS DOT STANDARDS AND SPECIFICATIONS EXCEPT THAT ONLY GRAVEL FILL IS ACCEPTABLE. GRAVEL FILL SHALL BE FREE OF SILT AND GRAVEL BAGS WILL BE REMOVED IN THEIR ENTIRETY AT THE COMPLETION OF THE PROJECT. NO SAND BAGS WILL BE ALLOWED IN PLACE OF GRAVEL BAGS.
- THE PROPOSED WORK WILL REQUIRE THAT THE TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL BE PLACED OVER THE COURSE OF THE PROJECT AND BE MAINTAINED OVER THE COURSE OF THE PROJECT AND NOT TO BE REMOVED UNTIL PERMANENT STABILIZATION IS ACHIEVED AS DEFINED BY THE SPDES GENERAL PERMIT.
- THE SYMBOLS SHOWN ON THE DRAINAGE AND UTILITY PLAN REPRESENT THE EROSION CONTROL ITEMS TO BE USED IN CONJUNCTION WITH THE PROPOSED WORK OR A.O.B.E.. THE INSTALLATION METHODS INCLUDING APPLICABLE PLACEMENT INTERVALS ARE SHOWN ON THE RESPECTIVE NYS DOT STANDARD SHEETS AND ALSO IN THE BLUE BOOK.

- GEOTEXTILES SHALL SATISFY THE REQUIREMENTS OF SECTION 207-02 OF THE STANDARD SPECIFICATIONS. SILT FENCE, ITEM 209.13 WILL ONLY BE PAID FOR AT LOCATIONS SHOWN IN THE PLANS AND/OR TABLES, AND A.O.B.E.. SILT FENCE MAY BE SUBSTITUTED WITH TRIANGULAR FOAM BARRIERS AS APPROVED IN WRITING BY THE ENGINEER IN CHARGE. IN ACCORDANCE WITH NYS DOT STANDARD SHEET 209-01, SILT FENCE SHOULD BE PLACED A MINIMUM OF 10' FROM THE TOE OF SLOPE (WHERE RIGHT OF WAY ALLOWS) TO PROVIDE ADEQUATE AREA FOR SEDIMENT STORAGE AND FACILITATE MAINTENANCE OF THE SEDIMENT CONTAINMENT AREA.
- SOIL EROSION CONTROL DEVICES, SHALL BE INSTALLED PRIOR TO STARTING CLEARING AND GRUBBING OPERATION AND EARTHWORK CONSTRUCTION. ALL APPROPRIATE DEVICES SHALL REMAIN IN PLACE UNTIL NEW SLOPES AND EXPOSED EARTHEN SURFACES ARE STABILIZED, AND/OR A.O.B.E.. TEMPORARY SOIL EROSION DEVICES MAY BE LEFT IN PLACE AT THE COMPLETION OF THIS CONTRACT WITH WRITTEN PERMISSION OF THE ENGINEER IN CHARGE. ALL OTHER DEVICES SHALL BE REMOVED AND THE DISTURBED AREA RESTORED SECTION 107-10 OF THE STANDARDS AND SPECIFICATIONS, UNLESS SHOWN OTHERWISE ON THE PLANS.
- ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES OR WATERCOURSES.
- IN THE EVENT DEWATERING OPERATIONS BECOME NECESSARY, A SETTLING BASIN WILL BE REQUIRED UNLESS THE PUMP DISCHARGE IS AS FREE AND CLEAR OF SEDIMENT AS THE FLOWING STREAM. THE LOCATION AND DESIGN OF THE SETTLING BASIN SHALL BE APPROVED BY THE ENGINEER. PUMPING TO A "SUITABLE" UPLAND AREA IS ALSO ACCEPTABLE IN LIEU OF CONSTRUCTING A SETTLING BASIN AS APPROVED BY THE ENGINEER. DEWATERING DIRECTLY INTO A WETLAND WILL NOT BE ALLOWED. THE COST FOR DEWATERING OPERATIONS SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION ACTIVITY TAKING PLACE THAT REQUIRES DEWATERING. NO ADDITIONAL PAYMENT WILL BE MADE.
- IN ADDITION TO THE DETAILS AND SPECIFICATIONS SHOWN IN THESE PLANS FOR TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL DEVICES, THE CONTRACTOR SHALL REFER TO THE BLUE BOOK FOR ADDITIONAL INFORMATION REGARDING THE INTENDED PURPOSE, DESIGN CRITERIA AND MATERIAL SPECIFICATIONS FOR CONTROL DEVICES. THE MORE STRINGENT SPECIFICATIONS SHALL APPLY.
- THE CONTRACTOR WILL BE REQUIRED TO PERFORM ALL CONSTRUCTION OPERATIONS USING ANY AND ALL METHODS AT HIS DISPOSAL TO ENSURE EROSION AND SEDIMENTATION CONTROL IS PROTECTED ON SITE. THE BEST WAY TO CONTROL SOIL EROSION IS TO LIMIT THE AMOUNT OF UNPROTECTED EARTH AT ANY ONE TIME.
- IT IS THE CONTRACTORS AND SUB CONTRACTORS RESPONSIBILITY TO UNDERSTAND THE EROSION CONTROL PLAN AND SIGN THE CERTIFICATION STATEMENT REQUIRED BY THE SPDES GENERAL PERMIT.
- ALL EXISTING GRASSED DITCHES SHALL BE MAINTAINED IN ITS EXISTING STABILIZED CONDITION UNTIL WORK IS SCHEDULED TO BEGIN IN A PARTICULAR SEGMENT.
- ITEM 209.22, CONSTRUCTION ENTRANCE IS INCLUDED IN THE CONTRACT. THE ITEM IS NOT CALLED OUT ON THE PLANS AND SHOULD BE USED A.O.B.E..

TEMPORARY STABILIZATION MEASURES

- WHEN LAND DISTURBANCES IN A PARTICULAR AREA ARE NECESSARY AND WORK WILL BE ONGOING, TEMPORARY MULCHING AND SEEDING MUST BE PERFORMED ON AREAS WHICH WILL BE EXPOSED FOR MORE THAN 14 DAYS. TEMPORARY MULCH MUST BE PERFORMED ON AREAS WHICH WILL BE EXPOSED FOR MORE THAN 7 DAYS AND LESS THAN 14 DAYS. SEE EXPOSED SOIL CRITERIA TABLE THIS SHEET. TEMPORARY MULCHING WILL BE PAID UNDER ITEM 209.100101. TEMPORARY SEED AND MULCH WILL BE PAID UNDER ITEM 209.1003.
- TEMPORARY SEEDINGS MAY BE NECESSARY ON DISTURBED AREAS WHERE FINAL GRADING IS COMPLETE, WHEN PREPARING FOR A TEMPORARY SHUTDOWN, OR TO PROVIDE COVER WHEN PERMANENT SEEDING ARE LIKELY TO FAIL DUE TO MID-SUMMER HEAT AND DROUGHT. THE INTENT IS TO PROVIDE TEMPORARY PROTECTIVE COVER DURING TEMPORARY SHUTDOWN OF CONSTRUCTION AND/OR WHILE WAITING FOR OPTIMAL PLANTING TIME.
- THE CONTRACTOR SHOULD BE MINDFUL OF ANTICIPATED STORM EVENTS. DISTURBED AREAS THAT WILL BE EXPOSED LESS THAN 14 DAYS SHOULD RECEIVE TEMPORARY MULCHING TO DISTURBED AREAS SUSCEPTIBLE TO EROSION AND MOVEMENT OF SEDIMENT FROM THE SITE PRIOR TO RAIN EVENT.
- TEMPORARY STOCKPILE AREAS SHALL BE RINGED WITH SILT FENCE. STOCKPILES SHOULD BE SEEDDED AND MULCHED IN ACCORDANCE WITH NOTE 1 ABOVE.
- ALL TEMPORARY STABILIZATION TIMEFRAMES SHALL BE IN ACCORDANCE WITH THE SPDES GENERAL PERMIT AND AS SPECIFIED IN THE NYSDEC NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
- TEMPORARY STRAW MULCH WILL BE APPLIED AT 2 TONS/ACRE (2-3 BALES PER 1000 SQFT) APPLICATION RATE.

PERMANENT STABILIZATION MEASURES

- PERMANENT STABILIZATION MEASURES SHOULD BE PERFORMED AS SOON AS POSSIBLE AFTER COMPLETION OF GRADING. WAITING UNTIL ALL DISTURBED AREAS ARE READY FOR PERMANENT STABILIZATION IS UNACCEPTABLE.
- EXPOSED DISTURBED AREAS ADJACENT TO A CONVEYANCE THAT PROVIDE RAPID DISCHARGE FROM SITE SHALL BE COVERED WITH PLASTIC OR GEOTEXTILE TO PREVENT SOIL LOSS UNTIL IT CAN BE STABILIZED (THIS WORK TO BE INCLUDED IN THE BID PRICE FOR VARIOUS 209 ITEMS. NO ADDITIONAL PAYMENT WILL BE MADE TO PROTECT UNSTABILIZED SURFACES FROM EROSION SUSCEPTIBLE TO RAPID DISCHARGE FROM SITE.)
- PERMANENT SEEDING SHOULD OPTIMALLY BE UNDERTAKEN IN THE SPRING FROM MARCH THROUGH MAY, AND IN LATE SUMMER AND EARLY FALL FROM SEPTEMBER TO OCTOBER 15, WHEN SEEDING IS IMPRACTICABLE, AN APPROPRIATE TEMPORARY MULCH SHALL BE APPLIED. PERMANENT SEEDING MAY BE UNDERTAKEN DURING THE SUMMER IF ADEQUATE WATERING WILL BE PROVIDED. PAYMENT FOR WATERING WILL BE MADE UNDER TURF ESTABLISHMENT ITEM.
- ALL SLOPES STEEPER THAN A 1 ON 3 AND REGRADED DITCHES WILL REQUIRE ROLLED EROSION CONTROL PRODUCTS (RECP) UNLESS OTHERWISE NOTED ON DETAILS AND IN PLANS. INSTALLATION OF RECP WILL IMMEDIATELY FOLLOW FINISHED GRADING.
- SEEDBED MUST BE SEEDDED WITHIN 24 HOURS OF DISTURBANCE OR SCARIFICATION WILL BE NECESSARY PRIOR TO SEEDING.
- ANY SEEDING METHOD MAY BE USED THAT WILL PROVIDE UNIFORM APPLICATION OF SEED TO THE AREA AND RESULT IN A RELATIVELY GOOD SEED TO SOIL CONTACT. SEE SECTION 610-2.03 AND 610-3.03 FOR SEEDING APPLICATION RATES/TYPES.

REPORTING OF SPILLS, DISCHARGES AND/OR CONTAMINATED SOILS

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING ANY FINDINGS OF SPILLS, LEAKS OR PETROLEUM PRODUCTS, CONTAMINATED SOILS, BURIED DRUMS OF UNKNOWN SUBSTANCES, OR ANY POTENTIALLY HAZARDOUS MATERIALS TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC). WITHIN TWO (2) HOURS OF THE DISCOVERY. NOTIFICATION MUST BE MADE BY CALLING THE NYSDEC SPILLS HOTLINE -(800) 457-7362.
- THE CONTRACTOR SHALL ALSO IMMEDIATELY ALERT THE ENGINEER OF ANY SPILLS OR LEAKS. THE ENGINEER WILL DETERMINE THE NEED TO NOTIFY LOCAL EMERGENCY RESPONSE AND THE DEPARTMENT OF PUBLIC WORKS.

EXPOSED SOIL CRITERIA (FOR TEMPORARILY EXPOSED SOIL AREAS)	
CRITERIA	REQUIRED ACTION
PRIOR TO ANY ANTICIPATED PRECIPITATION OR A.O.B.E.	TEMPORARY MULCH (ITEM 209.100101)
NO WORK ON EXPOSED SOIL AREA(S) FOR 7 OR MORE CONSECUTIVE DAYS	TEMPORARY MULCH (ITEM 209.100101)
NO WORK ON EXPOSED SOIL AREA(S) FOR 14 OR MORE CONSECUTIVE DAYS	TEMPORARY SEED AND MULCH (ITEM 209.1003), OR PLACEMENT OF TOPSOIL (ITEM 610.1403) AS SPECIFIED, AND TURF ESTABLISHMENT (ITEM 610.16010020) AND 209 ITEMS

NOTES
1. ALL AREAS SHALL BE BROUGHT TO FINAL GRADE AND TRIMMED AS SOON AS POSSIBLE.
2. MAINTENANCE OF MULCHED AREAS SHALL INCLUDE RE-MULCHING OF AREAS IN WHICH SOIL BECOMES EXPOSED TO VIEW. ANY AREAS THAT BECOME SETTLED OR GULLIED DURING MULCHING OPERATIONS SHALL BE RE-GRADED.
3. MAINTENANCE OF TEMPORARY SEEDDED AREAS SHALL INCLUDE RE-SEEDING AS NEEDED TO ESTABLISH A SATISFACTORY STAND OF GRASS. THERE SHALL BE NO ADDITIONAL PAYMENT FOR RESEEDING.
4. THE USE OF TEMPORARY SEED AND MULCH (ITEM 209.1003), AS AN EFFECTIVE EROSION CONTROL METHOD MUST BE APPLIED PRIOR TO OCTOBER 15 AND AFTER MARCH 31.
5. DEPENDING ON WEATHER CONDITIONS, WATERING MAY BE NEEDED TO ESTABLISH TEMPORARY SEED. THE UNIT PRICE BID FOR THIS ITEM SHALL INCLUDE WATER IN ACCORDANCE WITH SUB-SECTION 209-5.03 OF THE NYS DOT STANDARD SPECIFICATIONS. WATERING IS TO BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 610.1601, TURF ESTABLISHMENT. WATERING SHALL BE APPLIED IN ACCORDANCE WITH SECTIONS 610-3.03 OF THE NYS DOT STANDARD SPECIFICATIONS (SEE SECTION 610-3.10A FOR RATE OF APPLICATION).
6. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE LIFE OF THE CONTRACT. THERE SHALL BE NO ADDITIONAL PAYMENT FOR MAINTENANCE OF EROSION CONTROL MEASURES.

POLLUTION PREVENTION MEASURES

PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A PROJECT SPECIFIC SAFETY AND HEALTH PLAN IN ACCORDANCE WITH SECTION 107-05, SAFETY AND HEALTH REQUIREMENTS. THE SAFETY AND HEALTH PLAN SHALL SPECIFICALLY ADDRESS SPILL PREVENTION AND A RESPONSE PLAN. THE PLAN SHALL DETAIL THE STEPS NEEDED TO BE FOLLOWED IN THE EVENT OF AN ACCIDENTAL SPILL AND SHALL IDENTIFY CONTACT NAMES AND PHONE NUMBERS OF PEOPLE AND AGENCIES THAT MUST BE NOTIFIED.

THE PLAN SHALL INCLUDE SAFETY DATA SHEETS (MSDS) FOR MATERIAL TO BE STORED ON SITE. ALL WORKERS ON-SITE WILL BE REQUIRED TO BE TRAINED ON SAFE HANDLING AND SPILL PREVENTION PROCEDURES FOR ALL MATERIALS USED DURING CONSTRUCTION. REGULAR TAILGATE SAFETY MEETINGS SHALL BE HELD AND ALL WORKERS THAT ARE EXPECTED ON THE SITE DURING THE WEEK SHALL BE REQUIRED TO ATTEND. AGENDA, TOPICS AND SIGN-IN SHEETS SHALL BE PROVIDED TO THE E.I.C..

ALL POLLUTANTS, INCLUDING WASTE MATERIALS AND DEMOLITION DEBRIS, THAT OCCUR ON-SITE SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT CONFORMS TO ALL APPLICABLE FEDERAL AND STATE REGULATIONS THAT DOES NOT CAUSE A CONTAMINATION OF STORMWATER. GOOD HOUSEKEEPING AND PREVENTATIVE MEASURES WILL BE TAKEN TO ENSURE THAT THE SITE WILL BE DEPT CLEAN, WELL ORGANIZED, AND FREE OF DEBRIS.

- ALL VEHICLES, EQUIPMENT, AND PETROLEUM PRODUCT STORAGE/DISPENSING AREA WILL BE OBSERVED REGULARLY DURING SITE INSPECTIONS TO DETECT ANY LEAKS OR SPILLS, AND TO IDENTIFY MAINTENANCE NEEDS TO PREVENT LEAKS AND SPILLS. ON-SITE FUELING TANKS AND PETROLEUM PRODUCT STORAGE CONTAINERS SHALL CONTAIN SECONDARY CONTAINMENT. SPILL PREVENTION MEASURES, SUCH AS DRIP PANS, WILL BE USED WHEN CONDUCTING MAINTENANCE AND REPAIR OF VEHICLES AND EQUIPMENT. IN ORDER TO PERFORM EMERGENCY REPAIRS ON SITE, TEMPORARY PLASTIC WILL BE PLACED BENEATH AND, IF RAINING, OVER THE VEHICLE. CONTAINMENT SURFACES SHALL BE CLEANED IMMEDIATELY FOLLOWING AN DISCHARGES OR SPILL INCIDENT. CONTAMINATED SOIL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ALL CURRENT FEDERAL AND STATE REGULATIONS. THE COUNTY WILL BE NOTIFIED IF ANY SPILLS OVER THE REPORTABLE LIMIT OCCUR.
- ANY CHEMICALS STORED IN THE CONSTRUCTION AREAS WILL CONFORM TO THE APPROPRIATE MANUFACTURERS RECOMMENDATIONS AND OR THE APPROPRIATE FEDERAL/STATE REGULATIONS. ALL CHEMICALS SHALL HAVE COVER, CONTAINMENT, AND PROTECTION PROVIDED ON-SITE, PER ALL FEDERAL AND NEW YORK STATE DEC REGULATIONS. APPLICATION OF AGRICULTURAL CHEMICALS, INCLUDING FERTILIZERS AND PESTICIDES, SHALL BE CONDUCTED IN A MANNER AND AT APPLICATION RATES THAT WILL NOT RESULT IN LOSS OF CHEMICAL TO STORMWATER RUNOFF. MANUFACTURERER'S RECOMMENDATION FOR APPLICATION RATES AND PROCEDURES SHALL BE FOLLOWED.
- ALL DEWATERING FROM OPEN CUT EXCAVATIONS SHALL BE DISCHARGED INTO A CONTROLLED CONVEYANCE SYSTEM. CHANNELS AND DISCHARGE POINTS SHALL BE STABILIZED PRIOR TO USE FOR DISCHARGE.
- DUST RELEASED FROM ON-SITE GRADING OPERATIONS WILL BE CONTROLLED USING STANDARDS AND SPECIFICATIONS FOR DUST CONTROL FROM THE BLUE BOOK (ALSO CONTAINED IN THE PROJECT SPECIFIC SWPPP).
- PROCESS WATER AND SLURRY RESULTING FROM CONCRETE WORK WILL BE PREVENTED FROM ENTERING SURFACE WATERS, JURISDICTIONAL WETLANDS, AND ANY CLOSED DRAINAGE FACILITY.
- PORATBLE SANITARY FACILITIES WILL BE FIRMLY SECURED, REGULARLY MAINTAINED, AND EMPTIED WHEN NECESSARY.
- LITTER AND TRASH SHALL BE CLEANED AND DISPOSED OF IN SECURE CLEARLY MARKED DUMPSTERS OR TRASH RECEPTACLES. SITE IS TO BE CLEANED DAILY OF DEBRIS AND DISPOSED OF ON A DAILY BASIS.



CONSULTANT INFORMATION



560 Route 52  
Suite 201  
Beacon, New York 12508

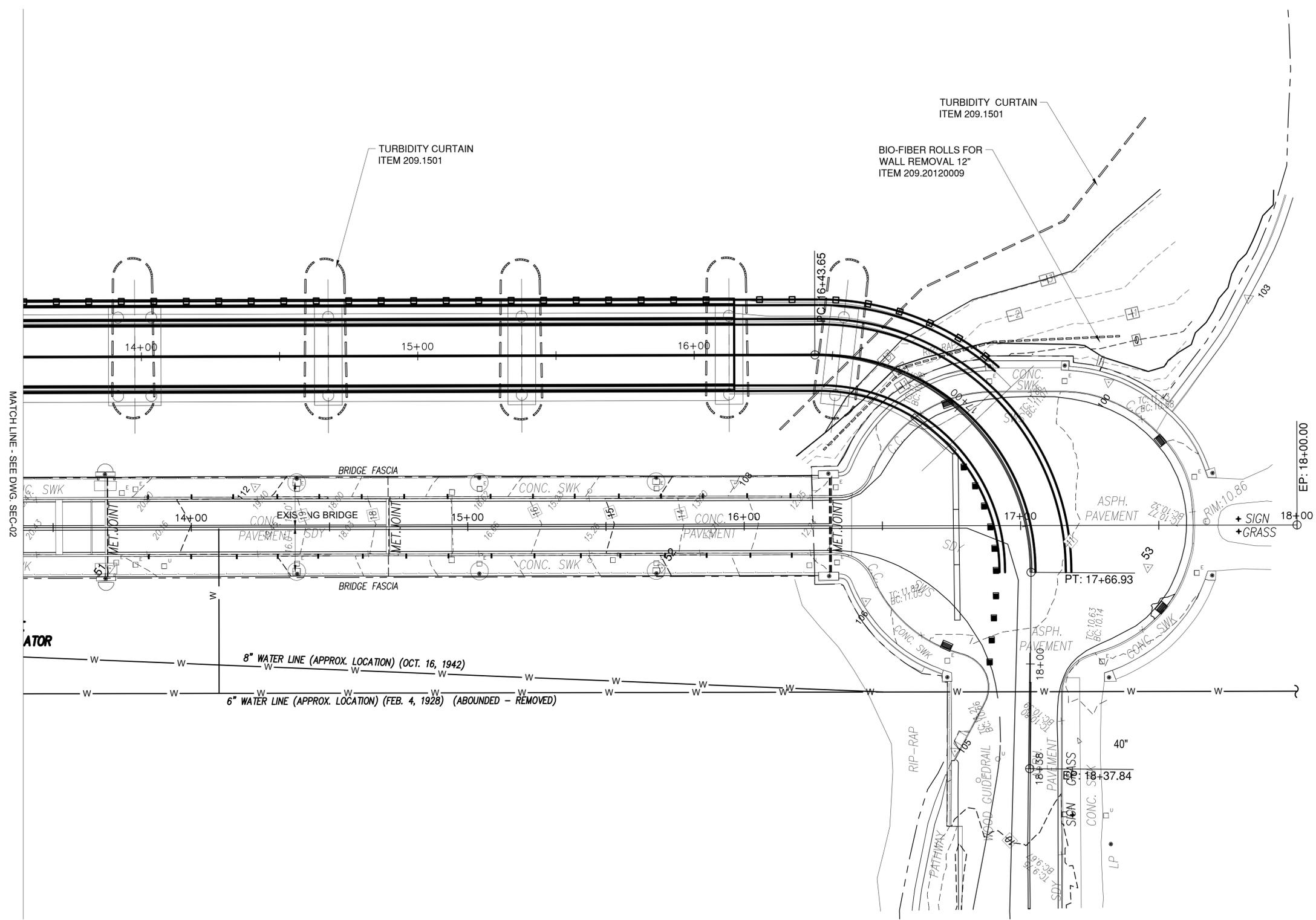
IN CHARGE OF L. SCHILLING, PE  
CHECKED BY L. SCHILLING, PE  
MADE BY I. WHITTAKER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/> AS BUILT - CHANGES AS NOTED		<input type="checkbox"/> AS BUILT - NO CHANGES	
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER SEC-01
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 32 OF 212	
CIVIL		SCALE: AS SHOWN DATE: 06/07/2024	
EROSION CONTROL NOTES		DPW FILE NO. 5-04-R-467-0	REV. NO. 0





MATCH LINE - SEE DWG. SEC-02

ATOR

LEGEND	
GEOTEXTILE	
TURBIDITY CURTAIN	
DRAINAGE STRUCTURE	
SILT FENCE	
BIOFIBER ROLLS	
CONSTRUCTION ENTRANCE	



CONSULTANT INFORMATION

**HVEA** ENGINEERS  
 560 Route 52  
 Suite 201  
 Beacon, New York 12508

IN CHARGE OF L. SCHILLING, PE  
 CHECKED BY L. SCHILLING, PE  
 MADE BY I. WHITTAKER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/> AS BUILT - CHANGES AS NOTED		<input type="checkbox"/> AS BUILT - NO CHANGES	
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

CIVIL

**TEMP. EROSION & SEDIMENT CONTROL - 2 OF 2**

CONTRACT NUMBER 20-517	SHEET NUMBER SEC-03
SHEET NO. 34 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-R-469-0	0

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	DEPTH (FT)	GEOTEXTILE DRAINAGE 207.22 (SY)	MULCH - TEMP 209.100101 (SY)	SEED & MULCH - TEMP 209.1003 (SY)	CONSTRUCTION ENTRANCE 209.22 (SY)	SILT FENCE 209.13 (LF)	INLET PROTECTION 209.1703 (LF)	(LF) BIO-FIBER ROLLS 12" 209.20120009	(LF) TURBIDITY CURTAIN 209.1501	STONE FILL (HEAVY) 620.05 (CY)
STA. 11+14.00	STA. 12+68.00	VARIES LEFT	112.0	24.0					298.7					
STA. 16+73.50		44' LEFT	5.0	5.0						20.0				
STA. 16+73.50		44' RIGHT	5.0	5.0						20.0				
STA. 17+51.00		30' LEFT	5.0	5.0						20.0				
STA. 17+51.00		30' RIGHT	5.0	5.0						20.0				
STA. 16+28.50	STA. 17+58.00	VARIES LEFT	2200.0		2.0	244.5								163.0
STA. 16+24.50	STA. 16+71.00	VARIES RIGHT	1065.0		2.0	118.4								78.9
STA. 12+50.00	STA. 12+68.50	60' TO 25' LEFT	40.0	N/A										
STA. 12+50.00	STA. 12+68.50	37' TO 60' RIGHT TO LEFT	120.0	N/A							40.0			
STA. 10+02.50	STA. 10+64.00	48' to 82' RIGHT	85.0	N/A							85.0			
STA. 10+48.00	STA. 11+22.00	52' TO 62' RIGHT	80.0	N/A							80.0			
STA. 11+24.00	STA. 12+01.00	50' TO 62' RIGHT	85.0	N/A							85.0			
STA. 11+75.00	STA. 12+21.50	105' TO 49' LEFT	73.0	N/A							73.0			
STA. 13+79.50		34' TO 26' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 14+59.50		34' TO 26' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 15+29.50		34' TO 26' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 15+99.50		34' TO 26' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 16+75.00		34' TO 26' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 13+69.50		28' TO 32' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 14+38.50		28' TO 32' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 15+04.50		28' TO 32' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 15+68.50		28' TO 32' LEFT TO RIGHT	60.0	7.0								134.0		
STA. 11+97.50	STA. 13+11.00	140' TO 27' LEFT	168.0	N/A								168.0		
STA. 11+22.50	STA. 13+11.50	140' TO 24' RIGHT	264.0	N/A								264.0		
STA. 16+12.00	STA. 17+30.00	30' TO 138' LEFT	159.0	N/A								159.0		
STA. 16+13.00	STA. 16+49.00	30' TO 138' RIGHT	122.0	N/A								122.0		
STA. 10+87.00	STA. 11+31.00	30' LEFT	30.0	N/A						30.0				
STA. 11+64.00	STA. 12+68.00	32' LEFT	117.0	N/A						117.0				

\*NOTE: SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO LIMIT(S) OF EROSION CONTROL FEATURE(S).

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	DEPTH (FT)	EXCAVATION 203.02 (CY)	EMBANKMENT IN PLACE 203.03 (CY)	12" SUBBASE 304.10119917 (CY)	6" BASE COURSE *404.378901 (T)	TACK COAT 407.0102 (GAL)	JOINT SEALER 502.9310 (LF)	SAWCUT ASPHALT 520.09000010 (LF)	4" HOT MIX ASPHALT 608.020102 (T)
STA. 09+45.00	STA. 12+55.00	15' RIGHT	310.0	4.0	1.0	46.0		46.0	46.6	13.8	628	628	
STA. 10+45.00	STA. 10+75.00	19' TO 60' LEFT	41.0	24.0	0.8	30.4	36.5	36.5		11		82	24.7
STA. 09+47.00	STA. 10+47.00	18' LEFT	145.0	1.0	1.0	5.4	901.00	9.0	5.5	1.7	147.0	147.0	
TEMPORARY BRIDGE APPROACH		NORTH	190.0	32.0	4.0	901.00	901.00						
TEMPORARY BRIDGE APPROACH		SOUTH	110.0	32.0	4.0	522.00	522.00						
STA. 10+71.00	STA. 12+18.50	18' TO 29' LEFT	185.0	1.0	1.0	6.9		11.5	7.0	2.1	187.0	187.0	
STA. 09+73.50	STA. 12+18.50	18' TO 29' RIGHT	245.0	1.0	1.0	9.1		15.2	9.2	2.8	247.0	247.0	
NEPTUNE ISLAND - RESTORE LOT													138

\*NOTES:

1. SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO PAVEMENT REPAIR LIMIT(S).

2. SEE 'MILLING' TABLE FOR ITEMIZED TOP COURSE QUANTITY.

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	STRIPE TYPE	PAYMENT FACTOR	WHITE STRIPES 685.07200110 (LF)	YELLOW STRIPES 685.07200610 (LF)	CROSS HATCHING 685.07200410 (LF)	SPECIAL MARKINGS 685.07200510 (LF)
STA. 09+00.00	STA. 16+75.00	0.0 CL (LESS HL INT)	729.0	SOLID DOUBLE Y	2		1458.0		
STA. 09+16.00	STA. 09+26.00	18' (20' SKEWED) LEFT TO RIGHT	10.0	CROSSWALK TYPE LS	11 (X-HATCH) 2 (OUTLINE)			110.0	80.0
HARBOR LANE	INTERSECTION	11' LEFT	11.0	STOP BAR	6	66			
		LEFT, RIGHT 26' AVG. LENGTH	8.0	CROSSWALK TYPE LS	6 (X-HATCH) 2 (OUTLINE)			48.0	52.0
STA. 09+51.50	STA. 09+61.50	18' (20' SKEWED) LEFT TO RIGHT	10.0	CROSSWALK TYPE LS	11 (X-HATCH) 2 (OUTLINE)			110.0	80.0
STA. 10+45.00	STA. 10+75.00	26' LEFT	9.0	CROSSWALK TYPE LS	6 (X-HATCH) 2 (OUTLINE)			54.0	60.0
STA. 12+63.00	STA. 16+31.00	10' LEFT	368.0	SOLID SINGLE W	1	368.0			
STA. 12+63.00	STA. 16+31.00	10' RIGHT	368.0	SOLID SINGLE W	1	368.0			
STA. 16+75.00	STA. 17+05.00	0.0 CL AND RIGHT	110.0	SOLID DOUBLE Y	2		220.0		
STA. 16+31.00	MILLING LIMITS	10' & VARIES LEFT	285.0	SOLID SINGLE W	1	285.0			
STA. 16+31.00	MILLING LIMITS	10' & VARIES RIGHT	120.0	SOLID SINGLE W	1	120.0			
40' BACK FROM TRAFFIC SIGNAL		APPROACH SIDE	18.0	STOP BAR	6	108			
40' BACK FROM TRAFFIC SIGNAL		PLAZA SIDE	12.0	STOP BAR	6	72			

\*NOTE: SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO PAVEMENT MARKING LIMIT(S).

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	UNCLASSIFIED EXCAVATION 203.02 (CY)	5" CONCRETE SIDEWALK 608.0101 (CY)	5" ASPHALT SIDEWALK 608.020102 (T)	CONCRETE CURB TYPE VF6 609.0401 (LF)	BEDDING MATERIAL 620.0801 (CY)	EMBANKMENT IN PLACE 203.03 (CY)
STA. 12+56.00	STA. 12+82.00	~20' TO CNTRL HOUSE CONN	33.0	12.0	15	6.2	2.8	50.0	8.8	
STA. 09+73.50	STA. 12+18.50	18' TO 29' RIGHT	245.0	N/A				245.0		
STA. 09+47.00	STA. 10+47.00	18' LEFT	145.0	5.5	20.9		12.4	145.0	20.9	
STA. 10+71.00	STA. 12+18.50	18' TO 29' LEFT	185.0	5.5	26.6		15.8	185.0	26.6	
STA. T 16+95.00	STA. T 18+05.00	100' LT RESTORE SW QUADRANT @ PLAZA	110.0	8.0	5		7.8			130.4

\*NOTE: SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO CURB AND SIDEWALK LOCATION(S).

*START STATION	*END STATION	OFFSET SIDE	DESCRIPTION	TYPE 1 RAMP - 608.01050109 (EA)	TYPE 2 RAMP - 608.01050209 (EA)	TYPE 3 RAMP - 608.01050309 (EA)	TYPE 14 RAMP - 608.01051409 (EA)
STA. 09+08.00		27' LEFT	PROPOSED			1	
STA. 09+28.50		28' RIGHT	PROPOSED			1	
STA. 09+50.00		27' LEFT	PROPOSED			1	
STA. 09+70.00		28' RIGHT	PROPOSED			1	
STA. 10+45.00		27' LEFT	PROPOSED	1			
STA. 10+75.00		27' LEFT	PROPOSED			1	
STA. 16+77.00		77' RIGHT	PROPOSED				1
STA. T 11+20.00		17' LEFT	TEMPORARY		1		
STA. T 10+85.00		17' LEFT	TEMPORARY		1		

\*NOTE: SEE GNP FOR REFERENCED BL STATIONING CORRESPONDING TO CURB RAMP LIMIT(S).

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	DEPTH (IN)	TACK COAT 407.0102 (GAL)	MISC MILLING 490.30 (SY)	2" TOP COURSE 404.098101 (T)
STA. 09+00.00	STA. 11+50.00	18' BOTH	250.0	36.0	2.0	100.00	1000.00	112.6
STA. 11+50.00	STA. 12+18.50	29' BOTH	68.5	58.0	2.0	44.20	442.00	49.7
STA. 16+31.00	STA. 17+62.50	-50' TO 115' LEFT TO RIGHT	131.5	VARIES	2.0	142.80	1428.00	160.7
HARBOR LANE INTERSECTION		-43' TO 35' LEFT TO RIGHT	42.0	22.0	2.0	10.30	103.00	11.6
PROJECT CONTINGENCY		MISC. A.O.B.E.	50.0	36.0	2.0	20.00	200.00	22.6

\*NOTE: SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO RESURFACING LIMIT(S).

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	WATER SERVICE CONNECTION 663.2504 (EA)	REPLACE EXISTING WATER VALVE BOX TOP SECTION 663.53000004 (EA)	CURB STOP & CURB BOX, 1" 663.2604 (EA)	COPPER WATER SERVICE PIPE 1" 663.0604 (LF)
STA. 12+90.00		36' TO 46' RIGHT	N/A	N/A	1.0	1.0	1.0	10.0

\*NOTES:

1. SEE GENERAL PLANS FOR REFERENCED BASELINE STATIONING CORRESPONDING TO WATER UTILITY LIMIT(S).

2. SEE MECHANICAL DRAWINGS FOR DETAILED BREAKDOWN OF CONTROL HOUSE PLUMBING SCOPE.

*START STATION	*END STATION	OFFSET SIDE	LENGTH (FT)	WIDTH (FT)	CLEARING AND GRUBBING 201.06 (LS)
STA. T11+00	STA. T12+37	LEFT	137.0	36.0	1.0

\*NOTE: COSTS FOR TREE REMOVAL SHALL BE INCLUDED UNDER ITEM 201.06.

IN CHARGE OF C. JENNE, PE  
 CHECKED BY K. HO, PE  
 MADE BY E. MOHLER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION
1	4/12/24	JD	KH	201.06 ADDED, 203.02 REVISED

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR: \_\_\_\_\_ PROJECT COORDINATOR: \_\_\_\_\_

NAME: \_\_\_\_\_ NAME: \_\_\_\_\_  
 SIGNATURE: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_  
 TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

CONSULTANT SEAL: DAVID DELUCA, LICENSED PROFESSIONAL ENGINEER, STATE OF NEW YORK, NO. 024871

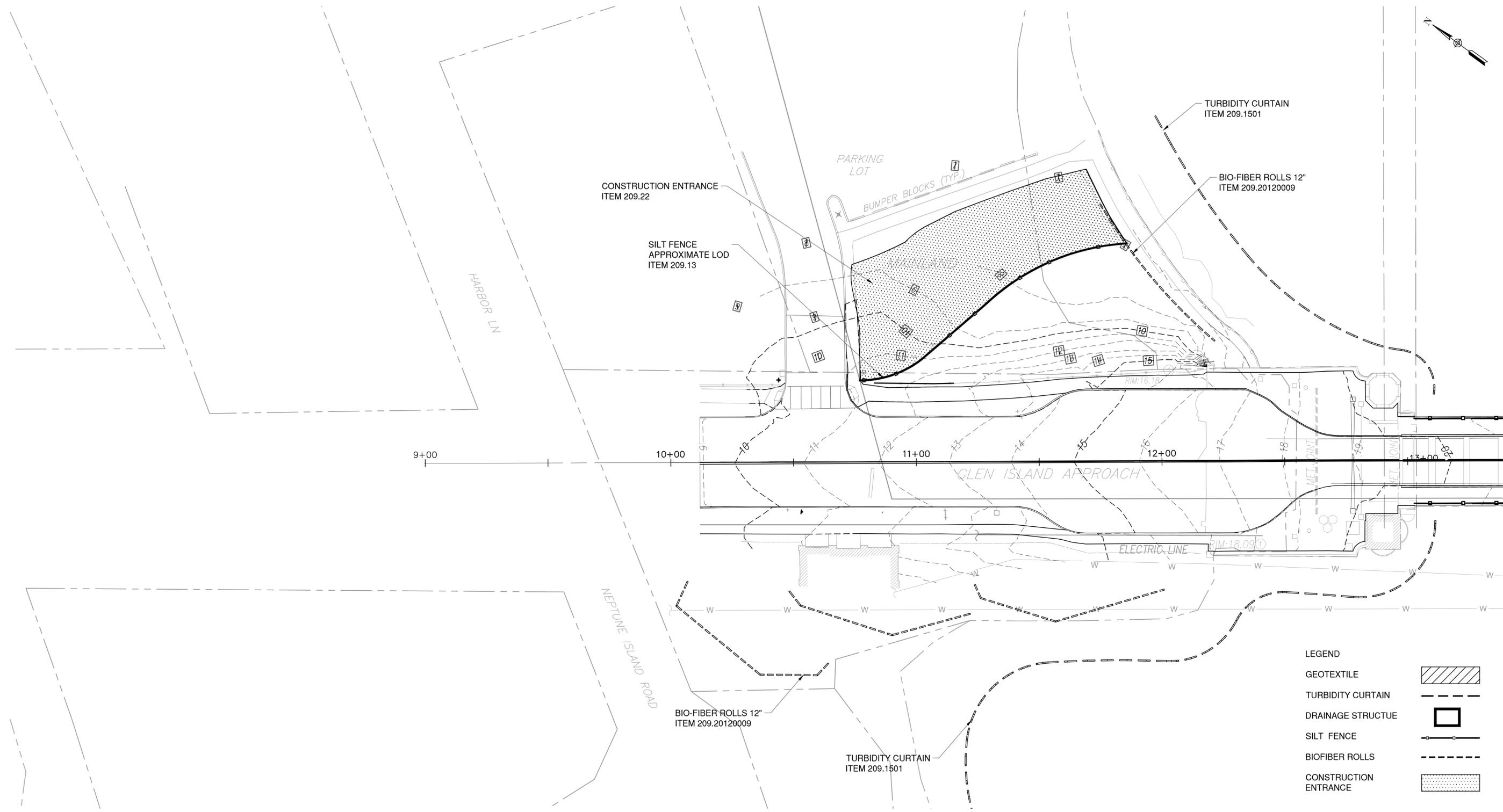
CONSULTANT INFORMATION: H&H, 1501 BROADWAY, SUITE 601, NEW YORK, NY 10036, (212) 944-1150

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 CIVIL

CONTRACT NUMBER: 20-517 SHEET NUMBER: MST-01  
 SHEET NO. 29 OF 212  
 SCALE: AS SHOWN DATE: 03/08/2024  
 DPW FILE NO. 5-04-R-464-0 REV. NO. 1

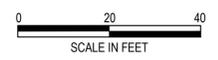
MISCELLANEOUS TABLES - 1 OF 2



MATCH LINE - SEE DWG. SEC-05

**LEGEND**

GEOTEXTILE	
TURBIDITY CURTAIN	
DRAINAGE STRUCTURE	
SILT FENCE	
BIOFIBER ROLLS	
CONSTRUCTION ENTRANCE	



CONSULTANT INFORMATION

**HVEA ENGINEERS**

560 Route 52  
Suite 201  
Beacon, New York 12508

IN CHARGE OF L. SCHILLING, PE  
 CHECKED BY L. SCHILLING, PE  
 MADE BY I. WHITTAKER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

**RECORD DRAWING CERTIFICATION**

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME	SIGNATURE	NAME	SIGNATURE
TITLE	DATE	TITLE	DATE

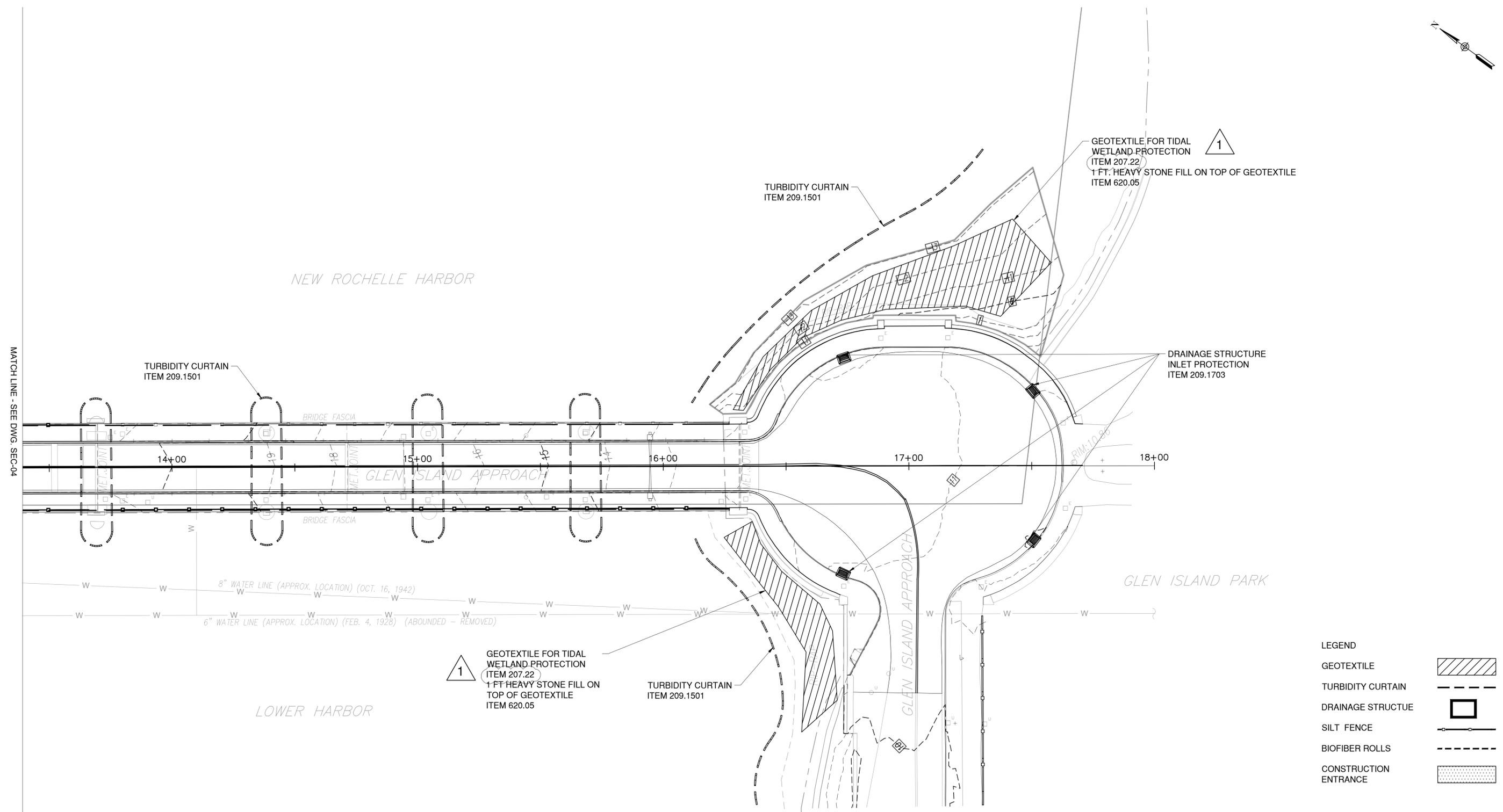
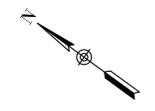
**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

CIVIL

**EROSION & SEDIMENT CONTROL PLAN - 1 OF 2**

CONTRACT NUMBER 20-517	SHEET NUMBER SEC-04
SHEET NO. 35 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-R-470-0	0



**LEGEND**

GEOTEXTILE	
TURBIDITY CURTAIN	
DRAINAGE STRUCTURE	
SILT FENCE	
BIOFIBER ROLLS	
CONSTRUCTION ENTRANCE	



**HVEA ENGINEERS**  
 560 Route 52  
 Suite 201  
 Beacon, New York 12508

IN CHARGE OF L. SCHILLING, PE  
 CHECKED BY L. SCHILLING, PE  
 MADE BY I. WHITTAKER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION
1	4/11/24	LS	IW	GEOTEXTILE ITEM NUMBER

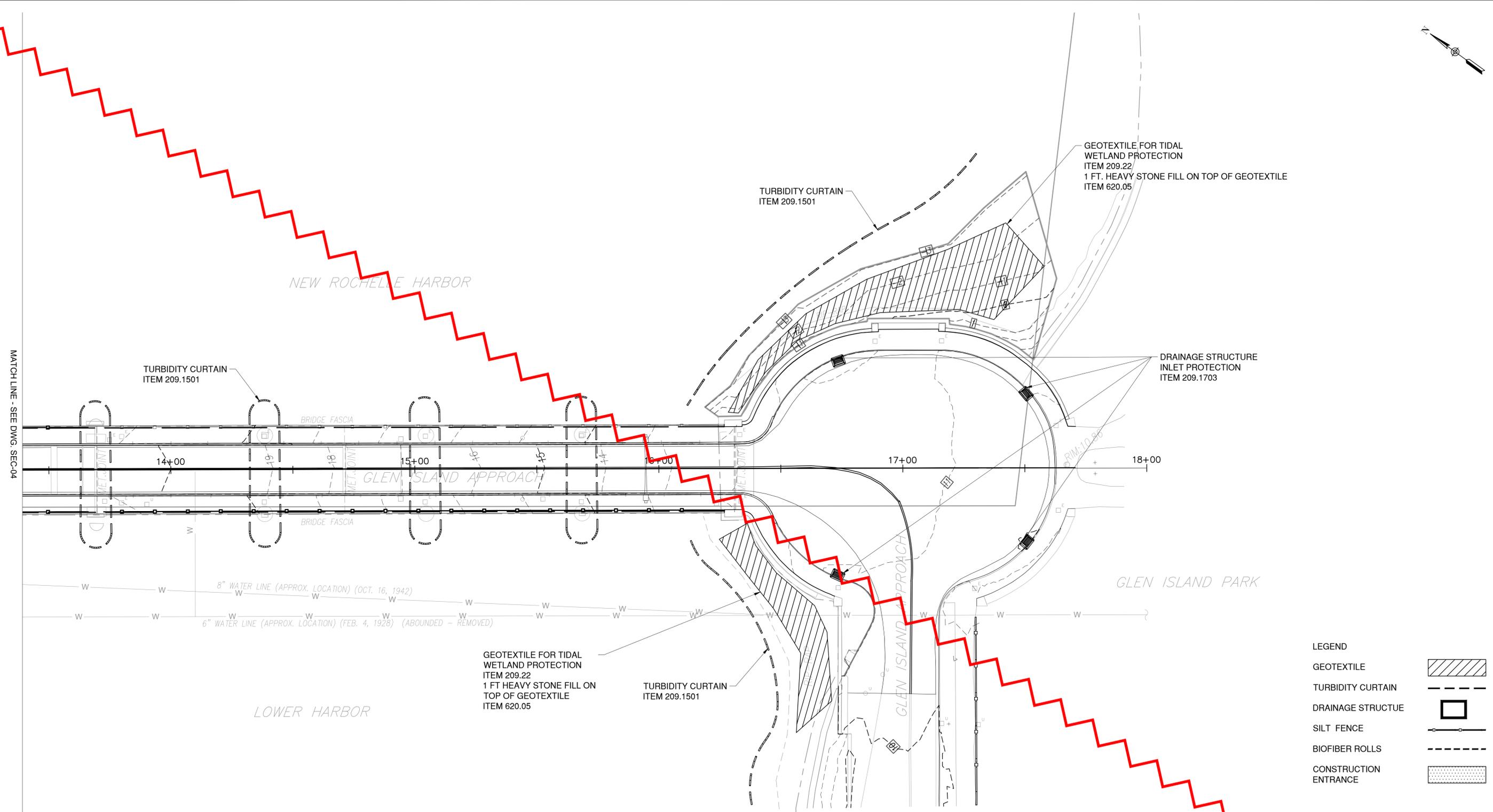
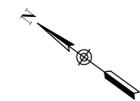
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CONTRACTOR		PROJECT COORDINATOR	
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SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
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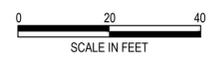
CONTRACT NUMBER 20-517	SHEET NUMBER SEC-05
SHEET NO. 36 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-R-471-0	REV. NO. 1



MATCH LINE - SEE DWG. SEC-04

**LEGEND**

GEOTEXTILE	
TURBIDITY CURTAIN	
DRAINAGE STRUCTURE	
SILT FENCE	
BIOFIBER ROLLS	
CONSTRUCTION ENTRANCE	



**HVEA ENGINEERS**  
 560 Route 52  
 Suite 201  
 Beacon, New York 12508

IN CHARGE OF L. SCHILLING, PE  
 CHECKED BY L. SCHILLING, PE  
 MADE BY I. WHITTAKER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

**WESTCHESTER COUNTY, NEW YORK**  
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CONTRACT NUMBER 20-517	SHEET NUMBER SEC-05
SCALE: AS SHOWN	
DATE: 03/06/2024	
DPW FILE NO. 5-04-R-471-0	REV. NO. 0

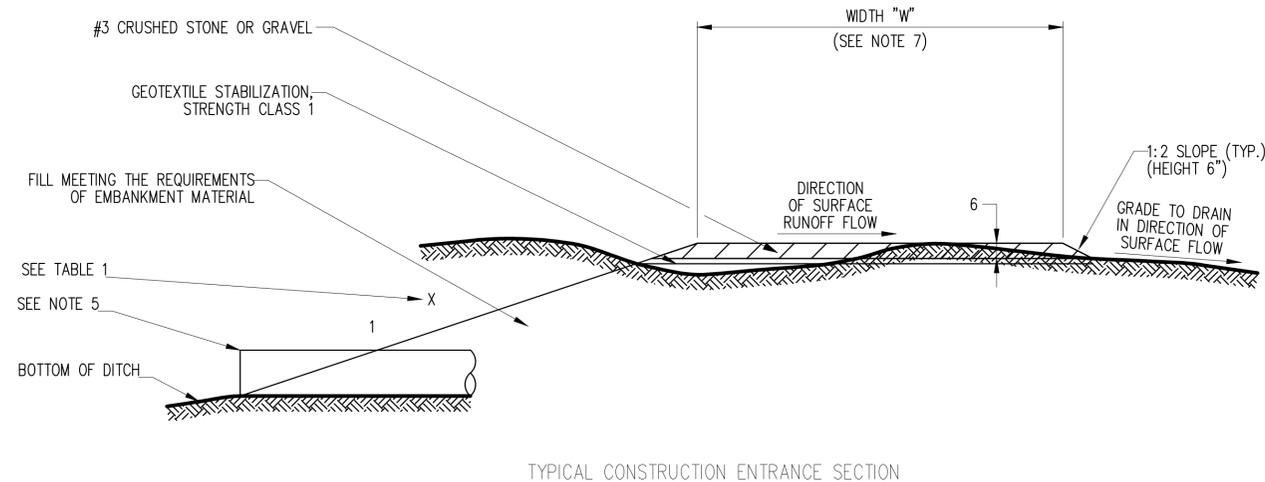
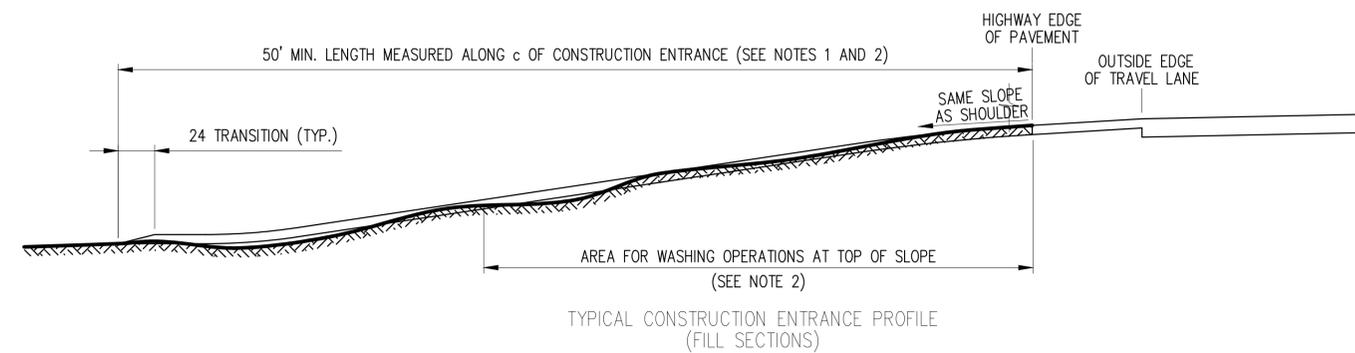
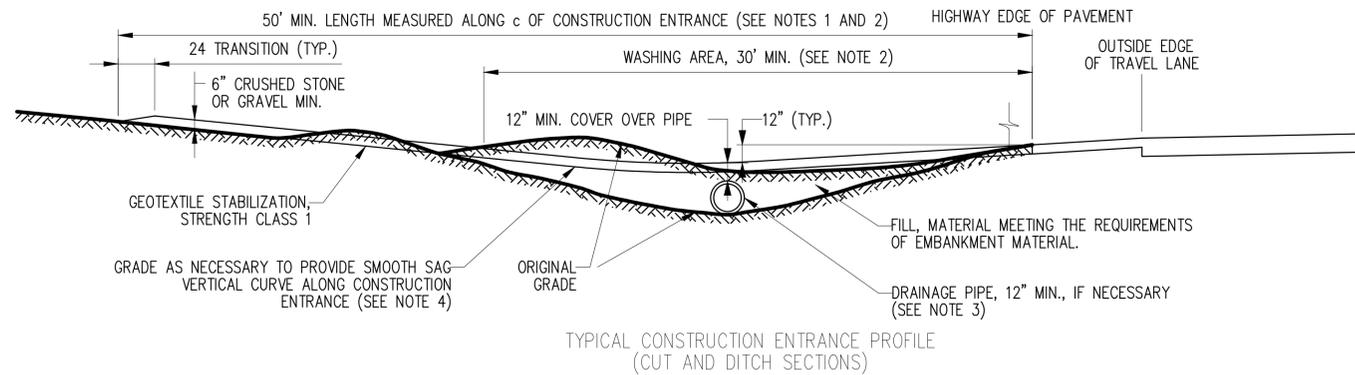
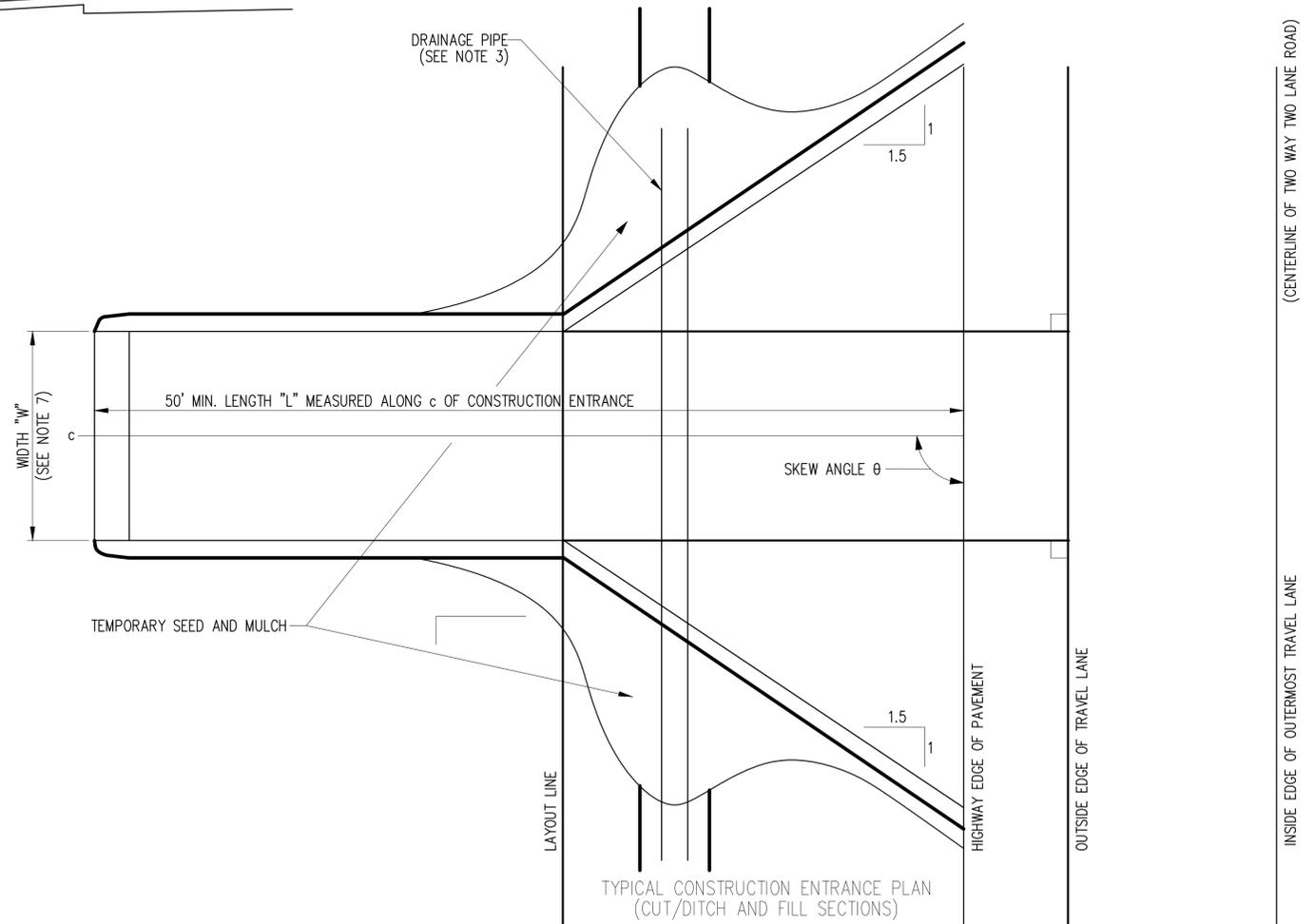


TABLE 1	
X	HIGHWAY SPEED CONDITION
2	ALL SPEEDS - PROTECTED BY BARRIER
3	< 50 MPH
6	w 50 MPH



APPLICATION NOTES:

- A. THE PURPOSE OF A STABILIZED CONSTRUCTION ENTRANCE IS TO REDUCE OR ELIMINATE THE TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY OR STREETS.
- NOTES:
1. MODIFICATIONS MAY BE REQUIRED TO MATCH FIELD CONDITIONS.
  2. A 30' WASH AREA SHALL BE PROVIDED, ADDITIONAL GRADING MAY BE REQUIRED TO PROVIDE WASHING AREAS.
  3. PROPOSED DRAINAGE PIPES SHALL BE SIZED WITH SUFFICIENT CAPACITY TO CARRY DITCH FLOWS (12" MIN.). ALTERNATIVE WAYS OF TRANSPORTING DITCH DRAINAGE ACROSS CONSTRUCTION ENTRANCES MAY BE PROPOSED BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER.
  4. THE CONTRACTOR SHALL GRADE TO PREPARE AND SMOOTH ORIGINAL GROUND FOR PLACEMENT OF 6" OF #3 CRUSHED STONE OR GRAVEL ENTRANCE MATERIAL UP TO THE EDGE OF PAVEMENT.
  5. DRAINAGE PIPES OVER 20" DIA. THAT ARE NOT BEHIND ROADSIDE BARRIER SHALL INCLUDE SAFETY END SECTIONS OR GRATING TO ENSURE TRAVERSABILITY.
  6. LAYOUT DRIVEWAY OPENING PER TAPER METHOD OF LAYOUT FOR A MINOR COMMERCIAL DRIVEWAY ON STANDARD SHEET TITLED "DRIVEWAY ENTRANCE LAYOUT".
  7. DETERMINE DRIVEWAY WIDTH "W" FROM THE MINOR COMMERCIAL DRIVEWAY CLASSIFICATION OF TABLE 1 ON STANDARD SHEET TITLED "DRIVEWAY DESIGN GUIDELINES".
  8. PERIODIC MAINTENANCE MAY BE REQUIRED AND COST OF THIS MAINTENANCE WILL BE INCLUDED IN THE UNIT PRICE BID.

CONSULTANT SEAL



CONSULTANT INFORMATION



560 Route 52  
Suite 201  
Beacon, New York 12508

IN CHARGE OF L. SCHILLING, PE  
CHECKED BY L. SCHILLING, PE  
MADE BY I. WHITTAKER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING  
Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle  
CIVIL

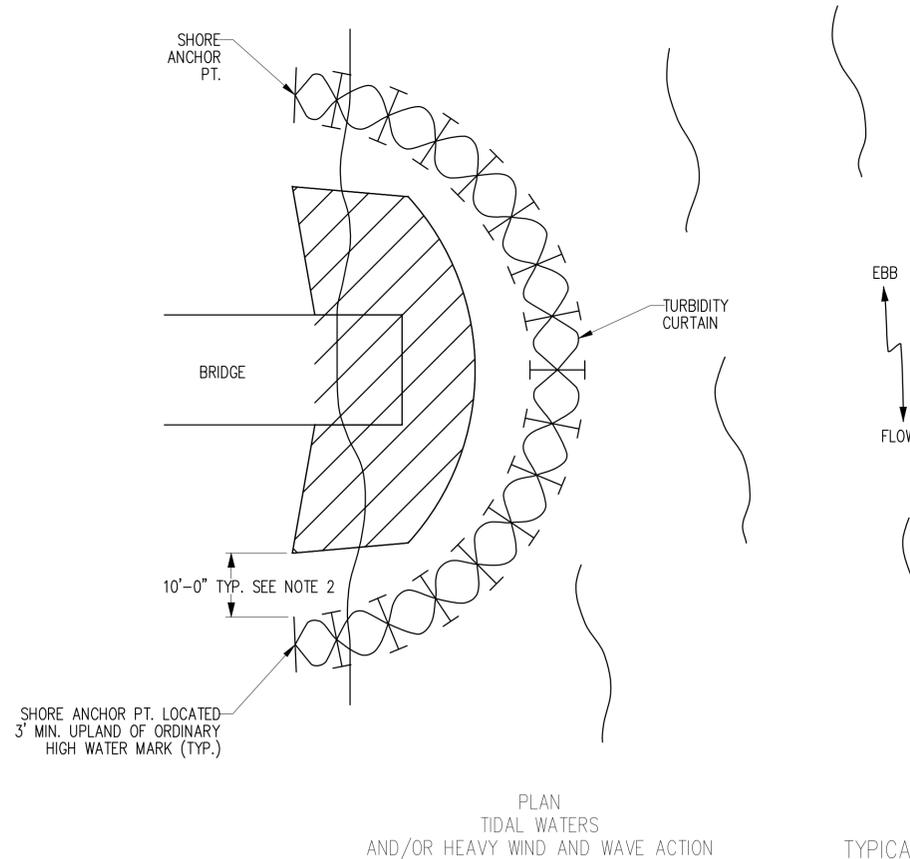
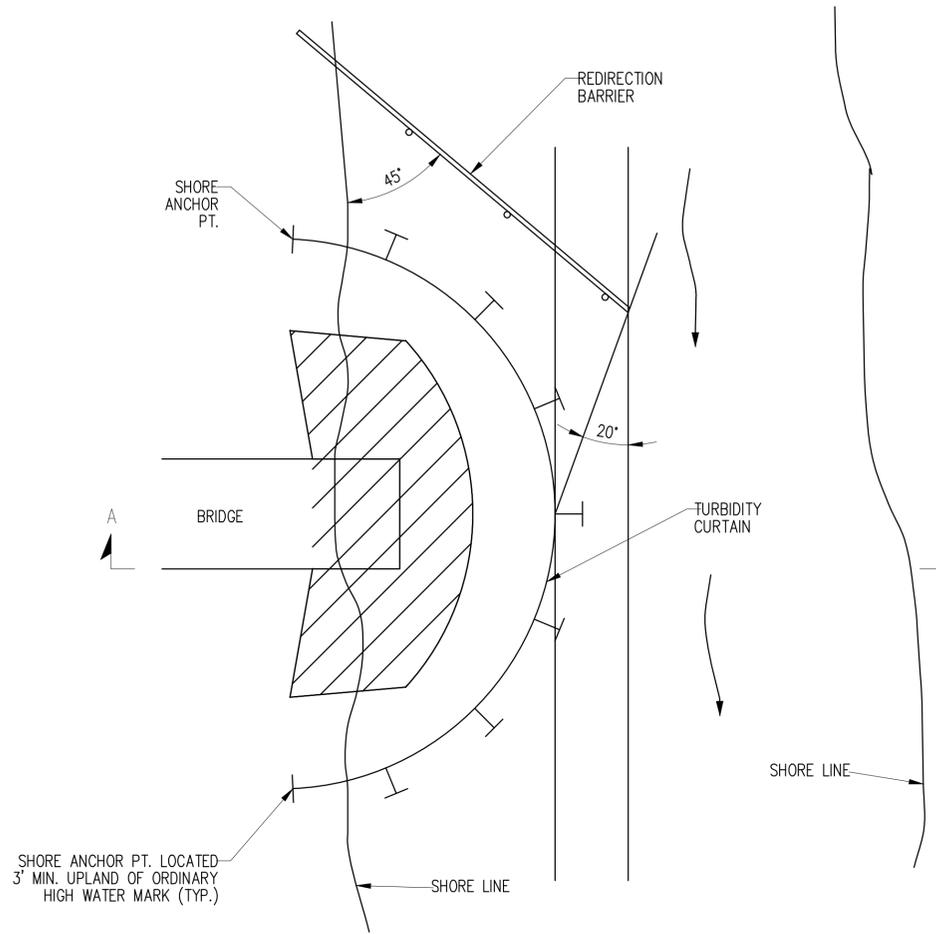
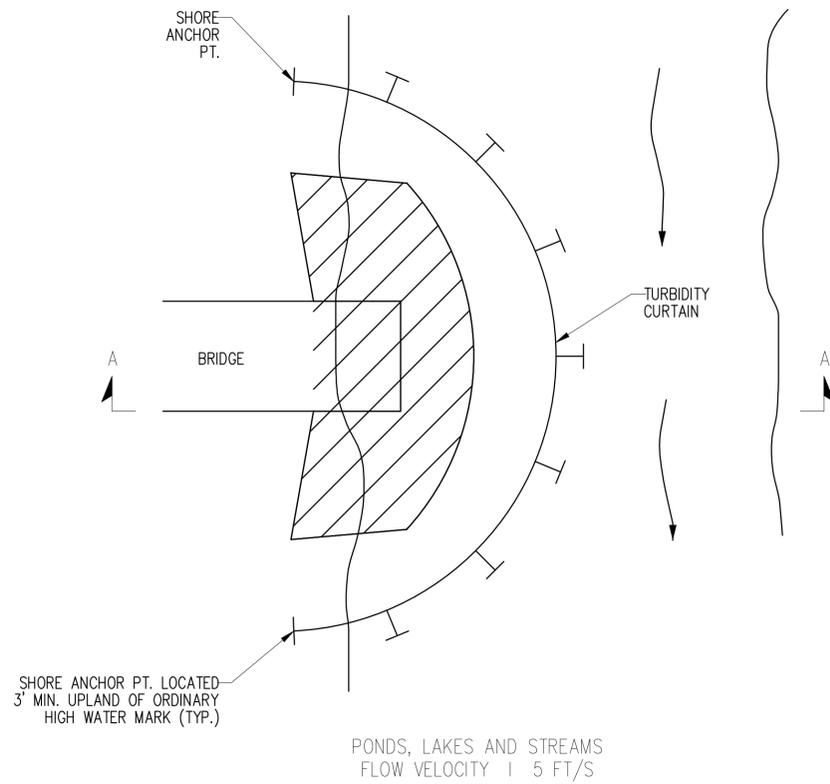
CONTRACT NUMBER 20-517	SHEET NUMBER SEC-06
SHEET NO. 37 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-R-472-0	0

APPLICATION NOTES:

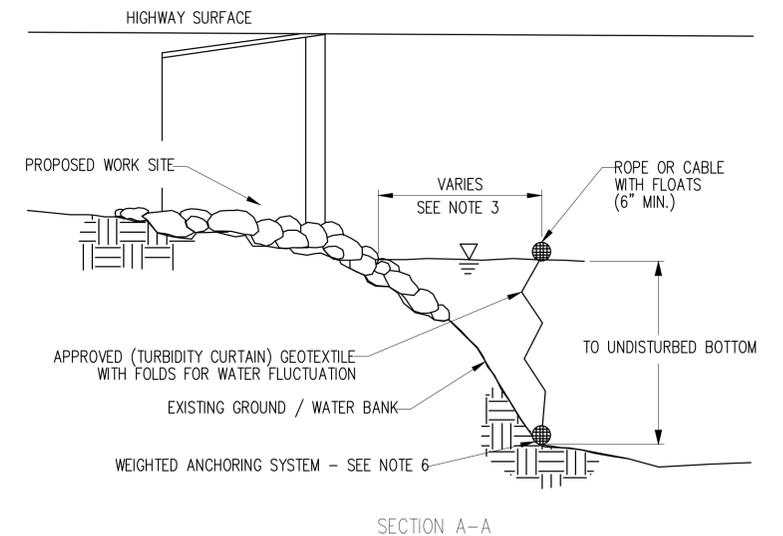
- A. THE PURPOSE OF A TURBIDITY CURTAIN IS TO SEPARATE WORK AREAS IN OR ADJACENT TO WATERWAYS, TO PREVENT TURBIDITY FROM ENTERING THE WATERWAY.
- B. TURBIDITY CURTAIN SHALL NOT BE PLACED ACROSS A FLOWING WATERWAY.
- C. CONCENTRATED FLOW OUTLETS SUCH AS CULVERT OUTLETS, DITCHES, ETC. SHALL NOT BE LOCATED BEHIND TURBIDITY CURTAIN.

GENERAL NOTES:

- 1. THE DETAIL DEPICTS WORK AT A BRIDGE LOCATION, BUT TURBIDITY CURTAIN MAY BE APPLIED AT OTHER LOCATIONS.
- 2. TURBIDITY CURTAIN SHALL BE A MAXIMUM OF 100' LONG FOR EACH SECTION OF CURTAIN REQUIRED. END SECTIONS SHALL TERMINATE 10' BEYOND THE LIMIT OF DISTURBANCE.
- 3. THE TURBIDITY CURTAIN SHALL BE PLACED AS CLOSE TO THE WORK AS POSSIBLE WITHOUT INTERFERING WITH CONSTRUCTION OPERATIONS.
- 4. THE CONTRACTOR SHALL CONTINUALLY MONITOR THE INSTALLATION, TAKING INTO ACCOUNT WEATHER PATTERNS AND PREVAILING WIND DIRECTIONS THAT MAY AFFECT WATER LEVELS, VELOCITY AND MOVEMENT OF THE TURBIDITY CURTAIN.
- 5. THE TURBIDITY CURTAIN SHALL BE REMOVED BY PULLING TOWARD THE SHORE TO MINIMIZE ESCAPE OF SEDIMENTS INTO THE WATERWAY.
- 6. THE WEIGHTED ANCHOR SYSTEM SHALL BE A TYPE THAT ALLOWS THE CURTAIN TO CONFORM TO THE CONTOUR OF THE BOTTOM ON THE WATERWAY.
- 7. FOR FLOW VELOCITIES > 5 FT/SEC, USE A REDIRECTION BARRIER SUCH THAT FLOW EXPANDING AT 20<sup>n</sup> FROM THE BARRIER WILL REACH THE CURTAIN AT A POINT WHERE THE CURTAIN IS ESSENTIALLY PARALLEL TO STREAM FLOW.
- 8. THE REDIRECTION BARRIER MAY CONSIST OF CONCRETE BARRIER, PLANKING OR OTHER MATERIAL SUCH THAT IT CAN BE QUICKLY REMOVED OR WASHED OUT IN THE EVENT OF HIGH FLOWS. IT SHOULD NOT BE SUCH THAT IT WILL REMAIN IN PLACE AND BE OVERTOPPED.



- WORK AREA
- ANCHOR POINTS EVERY 100 FT. MAX.
- BARRIER MOVEMENT DUE TO TIDAL CHANGE
- STAKE OR ANCHOR EVERY 100 FT. MAX.



CONSULTANT SEAL  
CONSULTANT INFORMATION

**HVEA**  
ENGINEERS

560 Route 52  
Suite 201  
Beacon, New York 12508

IN CHARGE OF L. SCHILLING, PE  
CHECKED BY L. SCHILLING, PE  
MADE BY I. WHITTAKER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/>	AS BUILT - CHANGES AS NOTED		
<input type="checkbox"/>	AS BUILT - NO CHANGES		
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____		
DATE _____	DATE _____		

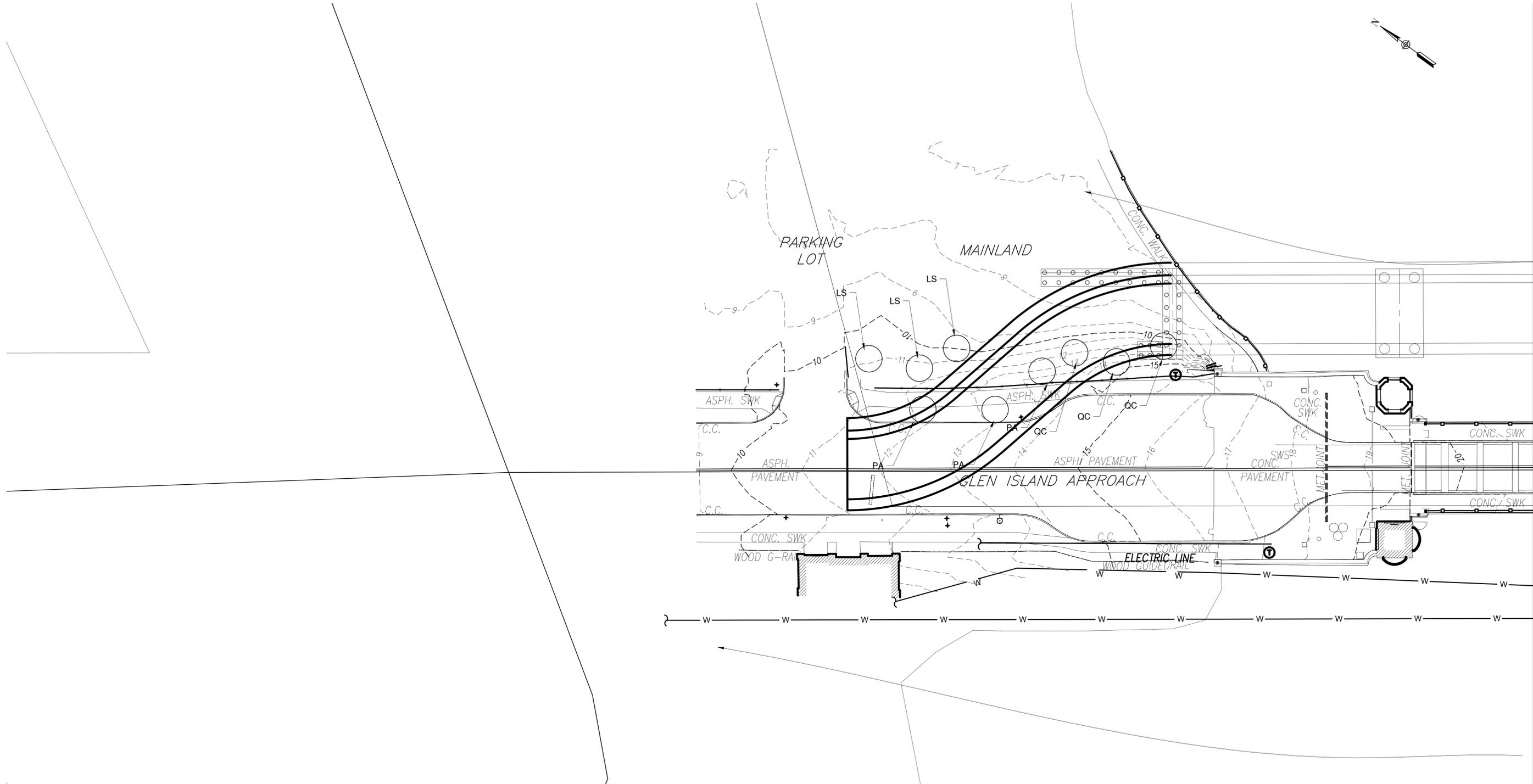
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle

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**EROSION CONTROL DETAILS - 2 OF 2**

CONTRACT NUMBER 20-517	SHEET NUMBER SEC-07
SHEET NO. 38 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-R-473-0	0



MATCH LINE - SEE DWG. TRP-02

PLANT LIST							
ITEM	QNTY.	SYMBOL	PLANT NAME	SIZE (MIN.)	ROOT	BALL DIA. (MIN)	NOTES
611.0161	3	PA	PLANTANUS x ACERIFOLIA / LONDON PLANETREE	2 1/2" CAL.	B&B	28"	PLANT APPROX. 25' O.C.
611.0171	3	LS	LIQUIDAMBAR STYRACIFLUA / AMERICAN SWEETGUM	3" CAL.	B&B	32"	PLANT APPROX. 20' O.C.
611.0171	3	QC	QUERCUS COCCINEA / SCARLET OAK	3" CAL.	B&B	32"	PLANT APPROX. 20' O.C.



CONSULTANT INFORMATION  
**HVEA** ENGINEERS  
 560 Route 52 Suite 201  
 Beacon, New York 12508

IN CHARGE OF L. SCHILLING, PE  
 CHECKED BY L. SCHILLING, PE  
 MADE BY I. WHITTAKER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

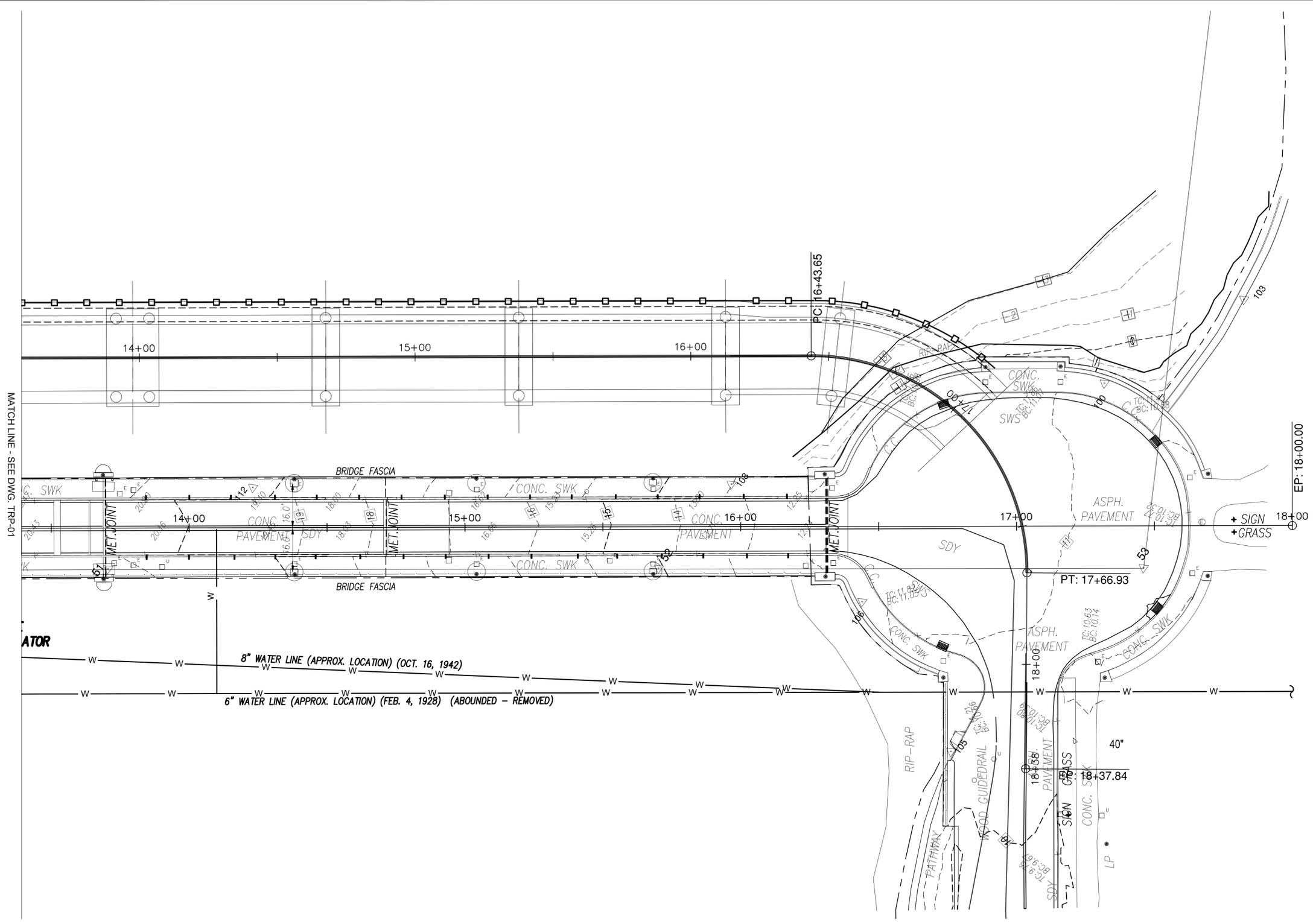
RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 CIVIL  
**LANDSCAPE PLAN 1 OF 2**

CONTRACT NUMBER 20-517	SHEET NUMBER TRP-01
SHEET NO. 39 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-R-474-0	REV. NO. 0



CONSULTANT INFORMATION

**HVEA**  
ENGINEERS

560 Route 52  
Suite 201  
Beacon, New York 12508

IN CHARGE OF L. SCHILLING, PE  
 CHECKED BY L. SCHILLING, PE  
 MADE BY I. WHITTAKER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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NAME _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____		
DATE _____	DATE _____		

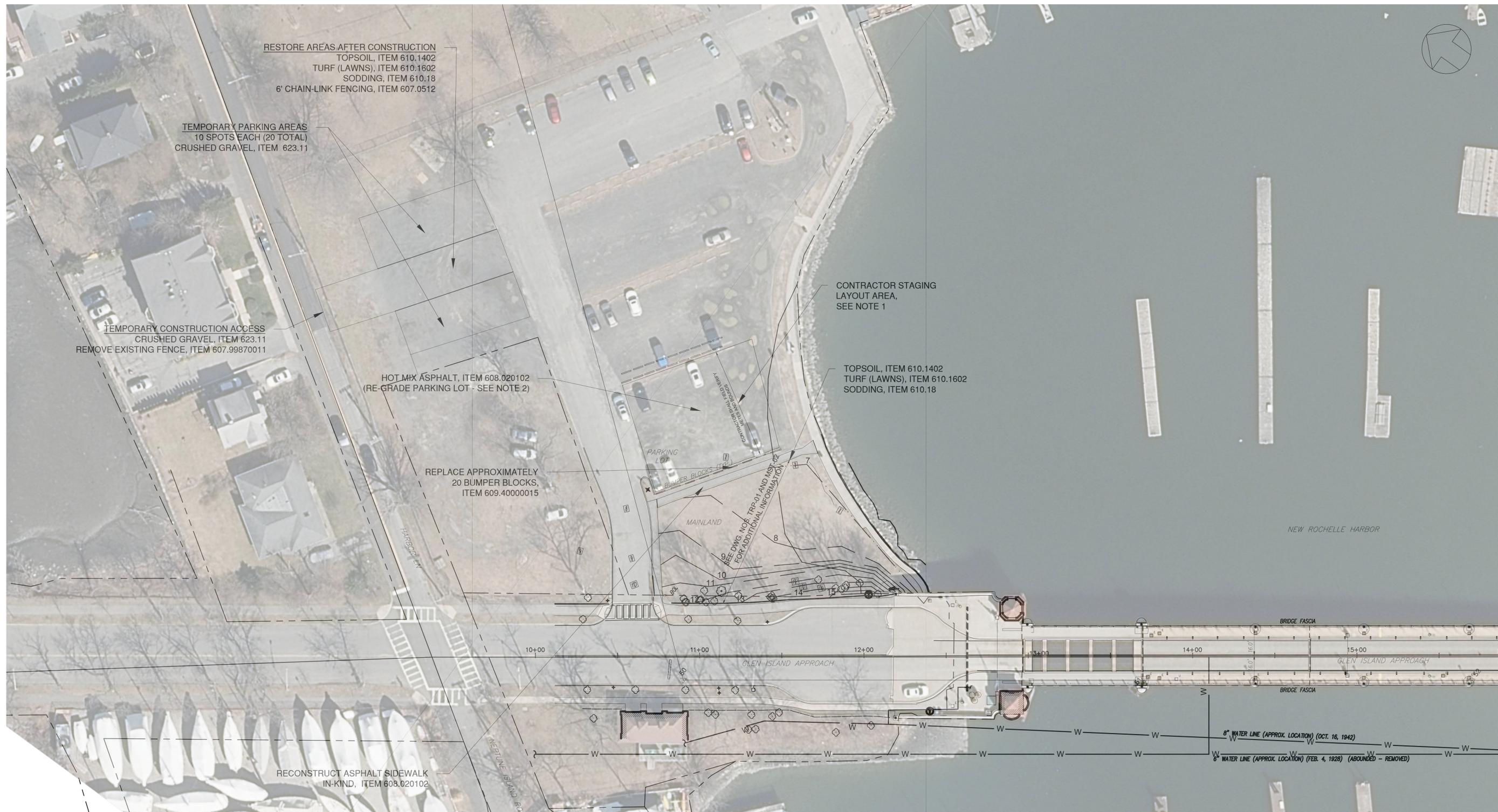
WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

CIVIL

**LANDSCAPE PLAN 2 OF 2**

CONTRACT NUMBER 20-517	SHEET NUMBER TRP-02
SHEET NO. 40 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-R-475-0	0



**NOTES:**

- TEMPORARY BARRIER AS SHOWN DELINEATES LIMITS OF CONTRACTOR STAGING AREA AS COORDINATED AND AGREED UPON BETWEEN WCDPW AND NEW ROCHELLE AS A TEMPORARY EASEMENT ENCOMPASSING APPROXIMATELY 18 PARKING SPACES DURING CONSTRUCTION.
- LIMITS OF NEPTUNE ISLAND PARKING LOT HAVE BEEN TRACED OVER AERIAL IMAGERY IN LIEU OF ACTUAL TOPOGRAPHIC SURVEY. CONTRACTOR SHALL RE-GRADE AREA TO MATCH EXISTING GRADE.



IN CHARGE OF C. JENNE, PE  
 CHECKED BY K. HO, PE  
 MADE BY E. MOHLER

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
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TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

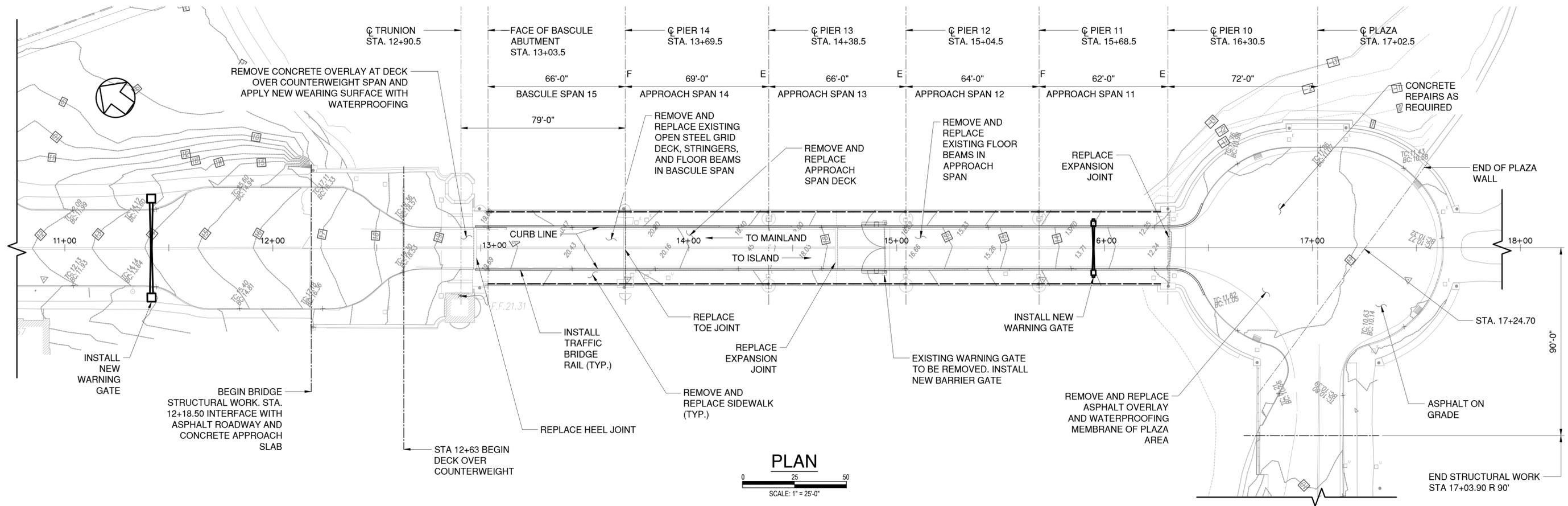


CONSULTANT INFORMATION



**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 CIVIL

CONTRACT NUMBER 20-517	SHEET NUMBER GRP-01
SHEET NO. 41	OF 212
SCALE: AS SHOWN	DATE: 03/08/2024
DPW FILE NO.	REV. NO. 0
<b>TEMP. CONSTRUCTION ACCESS &amp; GRADING PLAN</b>	

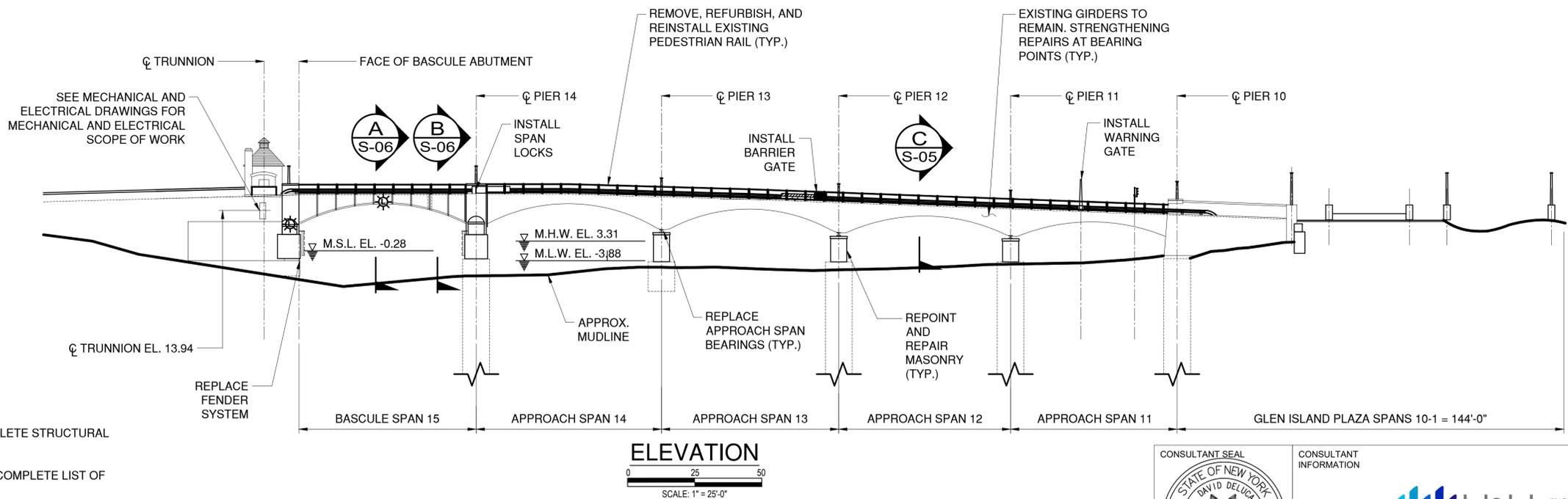


HYDRAULIC DATA	
MEAN LOWER LOW WATER (M.L.L.W.)	-4.13 FT
MEAN LOW WATER (M.L.W.)	-3.88 FT
MEAN SEA LEVEL (M.S.L.)	-0.28 FT
MEAN HIGH WATER (M.H.W.)	3.31 FT
MEAN HIGHER HIGH WATER (M.H.H.W.)	3.68 FT

HYDRAULIC DATA PROVIDED IS FROM THE HYDROGRAPHIC SURVEY. WATER ELEVATIONS ARE SHOWN PER THE DATUM NAVD '88. WATER LINES SHOWN ARE BASED ON EXISTING SURVEY DATA, CONTRACTOR TO FIELD VERIFY.

- LEGEND:**
- E - EXPANSION BEARING
  - F - FIXED BEARING
  - NAVIGATION LIGHT

- NOTES:**
- SEE GENERAL NOTES ON SHEETS G-05 THRU G-07 FOR COMPLETE STRUCTURAL SCOPE OF WORK.
  - SEE DEMOLITION DRAWINGS ON SHEETS S-02 AND S-03 FOR COMPLETE LIST OF BRIDGE DEMOLITION ITEMS.
  - SEE MECHANICAL DRAWINGS ON SHEETS M-01 THRU M-13 AND ELECTRICAL DRAWINGS ON E-01 THRU E-50 FOR COMPLETE MECHANICAL AND ELECTRICAL SCOPE OF WORK.
  - WATER ELEVATIONS SHOWN ARE PER THE NAVD '88 DATUM.



CONSULTANT INFORMATION

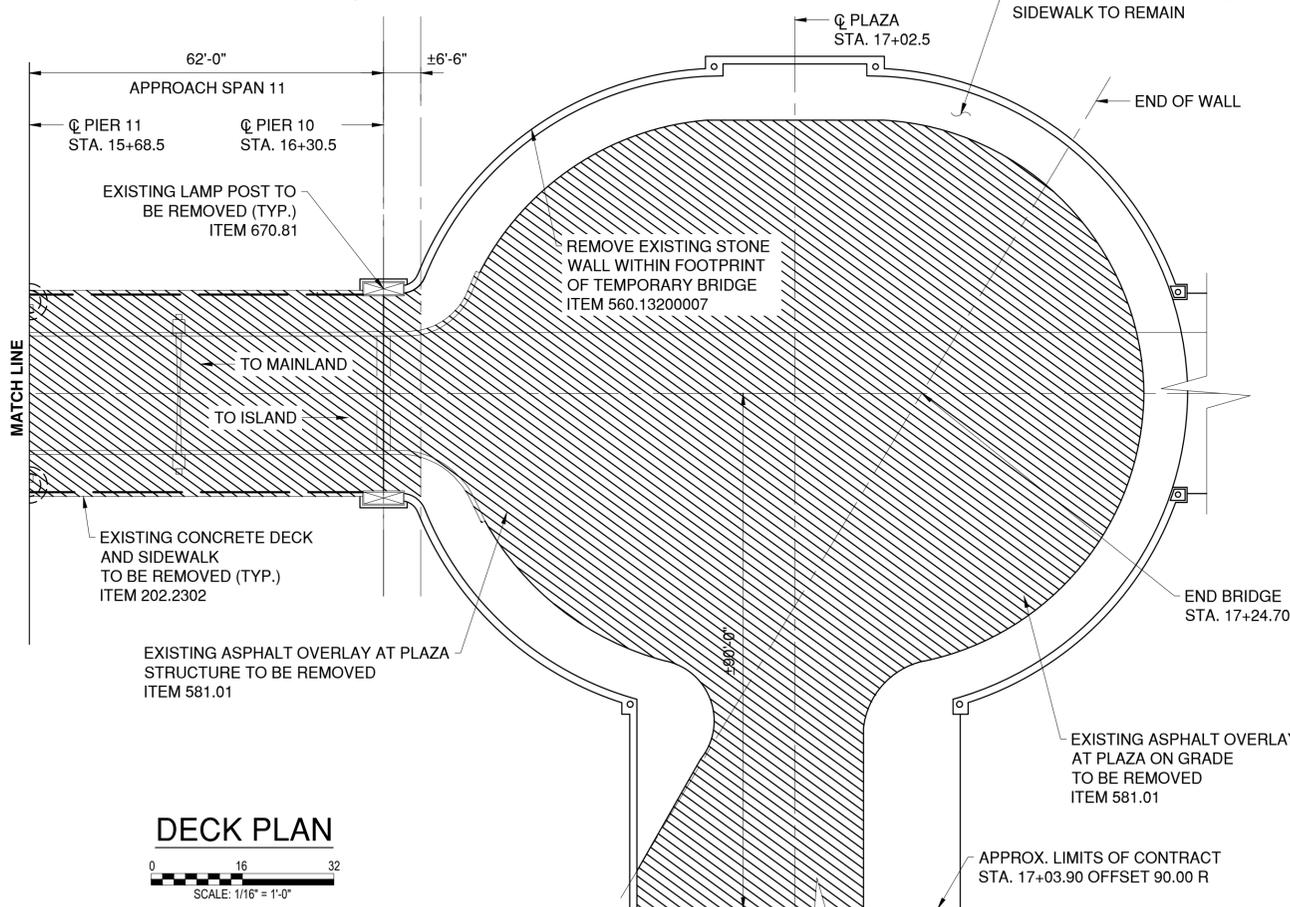
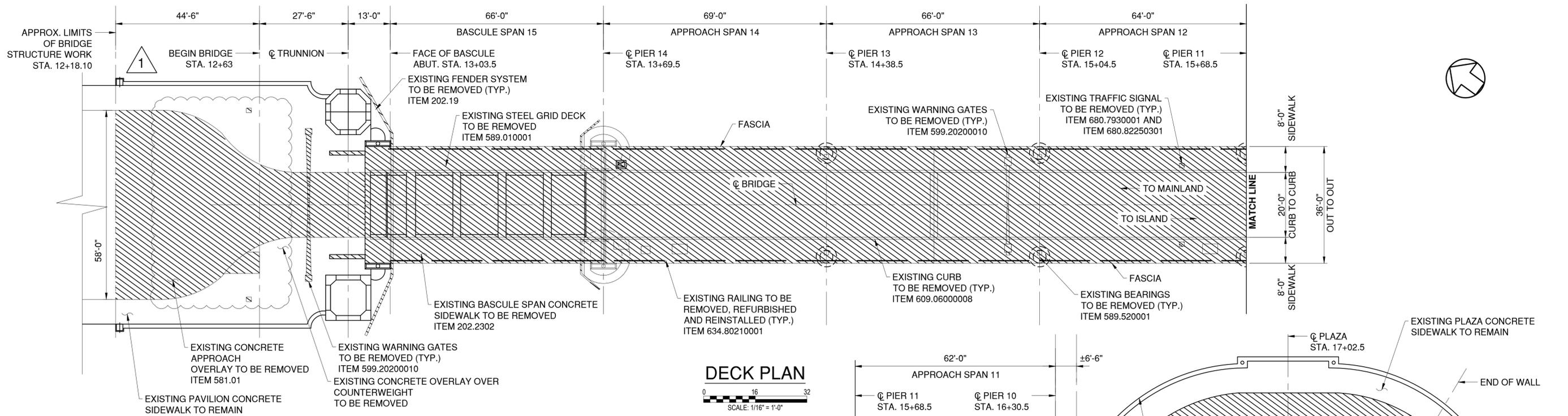


IN CHARGE OF D. DELUCA, PE  
 CHECKED BY D. BERGER, PE  
 MADE BY A. AMARONE, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/> AS BUILT - CHANGES AS NOTED <input type="checkbox"/> AS BUILT - NO CHANGES		CONTRACTOR: _____ PROJECT COORDINATOR: _____	
NAME: _____	NAME: _____	SIGNATURE: _____	SIGNATURE: _____
TITLE: _____	TITLE: _____	DATE: _____	DATE: _____

<b>WESTCHESTER COUNTY, NEW YORK</b> DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER S-01
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 42 OF 122 SCALE: AS SHOWN DATE: 03/08/2024 DPW FILE NO.	
<b>GENERAL PLAN &amp; ELEVATION</b>		5-04-R-477-0	REV. NO. 0



**DEMOLITION NOTES:**

1. THE INFORMATION PRESENTED ON THE DEMOLITION PLANS IS FOR INFORMATION PURPOSES. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING BIDS TO ASCERTAIN THE EXTENT OF WORK.
2. LOCATION OF ALL EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY DEMOLITION WORK. EXISTING UTILITIES TO BE RELOCATED SHALL BE DONE PRIOR TO ANY REMOVAL ACTIVITY. ALL PRECAUTIONS SHALL BE TAKEN TO PROTECT ALL UTILITIES TO REMAIN IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY OWNERS.
3. ALL REMOVED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE LEGALLY DISPOSED OF OFF-SITE.
4. EXTREME CARE SHALL BE TAKEN DURING REMOVAL OR OTHER DEMOLITION OPERATIONS AS TO NOT DAMAGE ANY OF THE EXISTING STRUCTURE WHICH IS TO REMAIN. DAMAGES, IF ANY, SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE COUNTY.
5. ANY AND ALL TEMPORARY DISTURBANCES TO THE EXISTING SITE CONDITIONS REQUIRED IN ORDER TO PERFORM DEMOLITION ACTIVITIES SHALL BE RESTORED TO ORIGINAL CONDITION AS DIRECTED BY AND TO THE SATISFACTION OF THE ENGINEER.
6. CLEAN AND PUMP OUT ALL DEBRIS, SLUDGE, WATER, AND WASTE IN THE COUNTERWEIGHT PIT. REFER TO PLUMBING DRAWINGS AND SPECIFICATIONS.

APPROXIMATE DEMOLITION QUANTITIES			
REMOVAL ITEM	UNIT	QUANTITY	
ITEM 202.2202: APPROACH SPAN CONCRETE DECK, SIDEWALKS	SF	1069	
ITEM 202.2302: APPROACH SPAN CONCRETE DECK, SIDEWALKS	SF	9615	
ITEM 205.97200011: COUNTERWEIGHT PIT CLEANUP & DISPOSAL	LS	1	
ITEM 560.13200007: STONE MASONRY WALL	LF	100	
ITEM 581.01: PLAZA AND APPROACH OVERLAY	SF	11285	
ITEM 589.010001: STEEL GRID DECK, FLOOR BEAMS, STRINGERS	LB	267020	
ITEM 589.520001: GIRDER BEARINGS	EA	10	
ITEM 599.20200010: WARNING GATES	LS	1	
ITEM 609.06000008: CURB REMOVAL	LF	1419	
ITEM 634.80210001: PEDESTRIAN RAILING	LF	654	
ITEM 680.7930001: SIGNAL HEAD REMOVAL	EA	4	
ITEM 680.82250301: SIGNAL POLE REMOVAL	EA	4	
ITEM 670.81: LAMP POST REMOVAL	EA	20	

**LEGEND**

DENOTES REMOVAL

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION
1	4/12/24	NH	DD	SIDEWALK DEMO FOR SEWER

**RECORD DRAWING CERTIFICATION**

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

CONSULTANT SEAL  
DAVID DELUCA  
NO. 09481  
REGISTERED PROFESSIONAL ENGINEER

CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

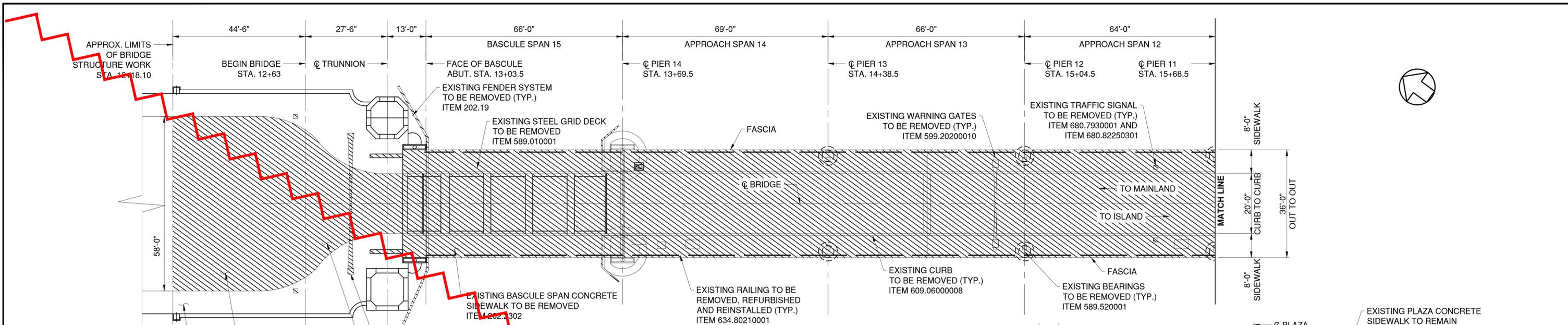
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

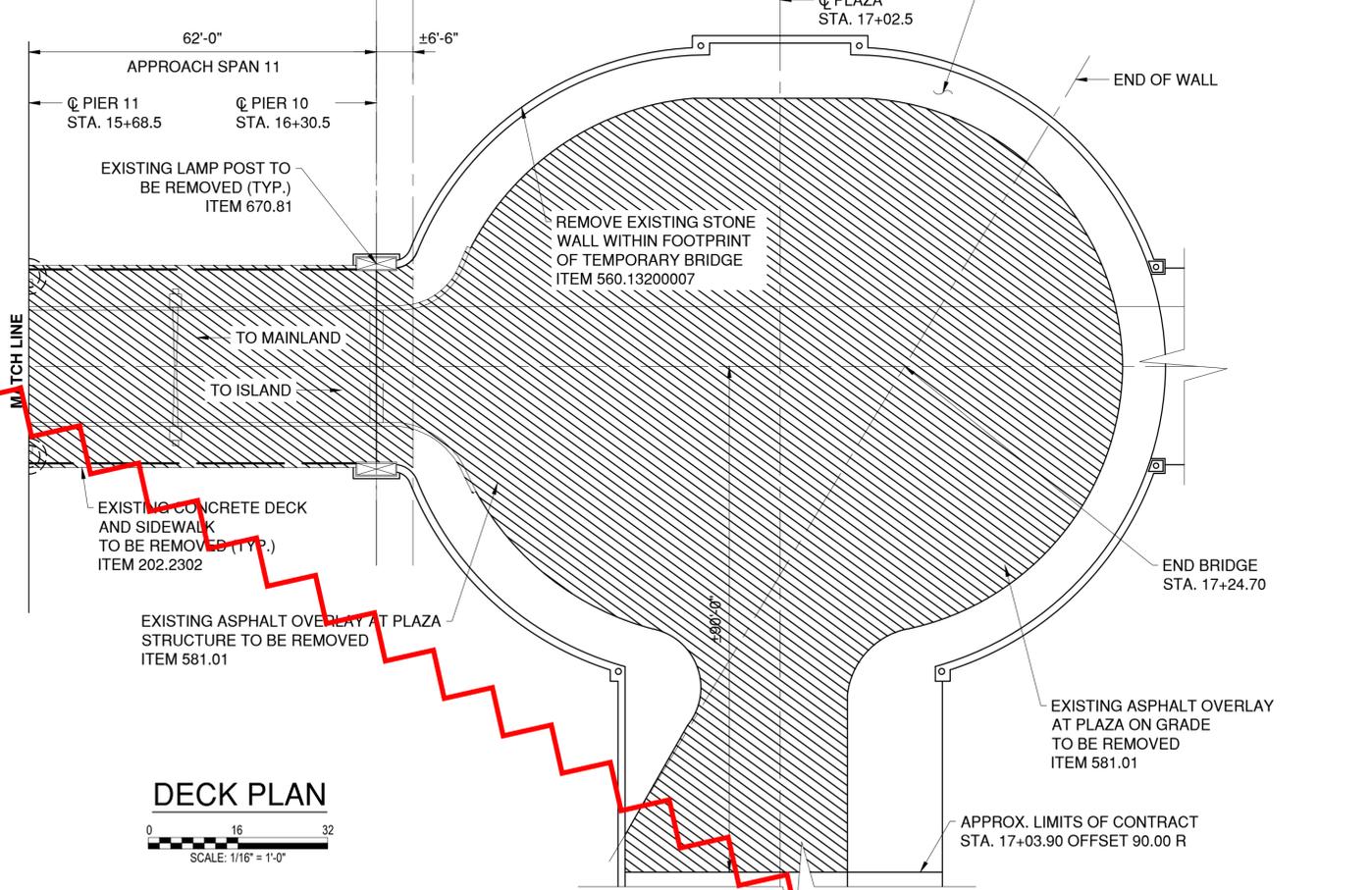
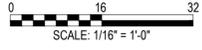
STRUCTURAL

**DEMOLITION PLAN - BRIDGE**

CONTRACT NUMBER 20-517	SHEET NUMBER S-02
SHEET NO. 43 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-R-478-0	1



**DECK PLAN**



**DECK PLAN**



**DEMOLITION NOTES:**

1. THE INFORMATION PRESENTED ON THE DEMOLITION PLANS IS FOR INFORMATION PURPOSES. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING BIDS TO ASCERTAIN THE EXTENT OF WORK.
2. LOCATION OF ALL EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY DEMOLITION WORK. EXISTING UTILITIES TO BE RELOCATED SHALL BE DONE PRIOR TO ANY REMOVAL ACTIVITY. ALL PRECAUTIONS SHALL BE TAKEN TO PROTECT ALL UTILITIES TO REMAIN IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY OWNERS.
3. ALL REMOVED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE LEGALLY DISPOSED OF OFF-SITE.
4. EXTREME CARE SHALL BE TAKEN DURING REMOVAL OR OTHER DEMOLITION OPERATIONS AS TO NOT DAMAGE ANY OF THE EXISTING STRUCTURE WHICH IS TO REMAIN. DAMAGES, IF ANY, SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE COUNTY.
5. ANY AND ALL TEMPORARY DISTURBANCES TO THE EXISTING SITE CONDITIONS REQUIRED IN ORDER TO PERFORM DEMOLITION ACTIVITIES SHALL BE RESTORED TO ORIGINAL CONDITION AS DIRECTED BY AND TO THE SATISFACTION OF THE ENGINEER.
6. CLEAN AND PUMP OUT ALL DEBRIS, SLUDGE, WATER, AND WASTE IN THE COUNTERWEIGHT PIT. REFER TO PLUMBING DRAWINGS AND SPECIFICATIONS.

APPROXIMATE DEMOLITION QUANTITIES		
REMOVAL ITEM	UNIT	QUANTITY
ITEM 202.2202: APPROACH SPAN CONCRETE DECK, SIDEWALKS	SF	1069
ITEM 202.2302: APPROACH SPAN CONCRETE DECK, SIDEWALKS	SF	9615
ITEM 205.97200011: COUNTERWEIGHT PIT CLEANUP & DISPOSAL	LS	1
ITEM 560.13200007: STONE MASONRY WALL	LF	100
ITEM 581.01: PLAZA AND APPROACH OVERLAY	SF	11285
ITEM 589.010001: STEEL GRID DECK, FLOOR BEAMS, STRINGERS	LB	267020
ITEM 589.520001: GIRDER BEARINGS	EA	10
ITEM 599.20200010: WARNING GATES	LS	1
ITEM 609.06000008: CURB REMOVAL	LF	1419
ITEM 634.80210001: PEDESTRIAN RAILING	LF	654
ITEM 680.7930001: SIGNAL HEAD REMOVAL	EA	4
ITEM 680.82250301: SIGNAL POLE REMOVAL	EA	4
ITEM 670.81: LAMP POST REMOVAL	EA	20

**LEGEND**

DENOTES REMOVAL

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

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 AS BUILT - NO CHANGES

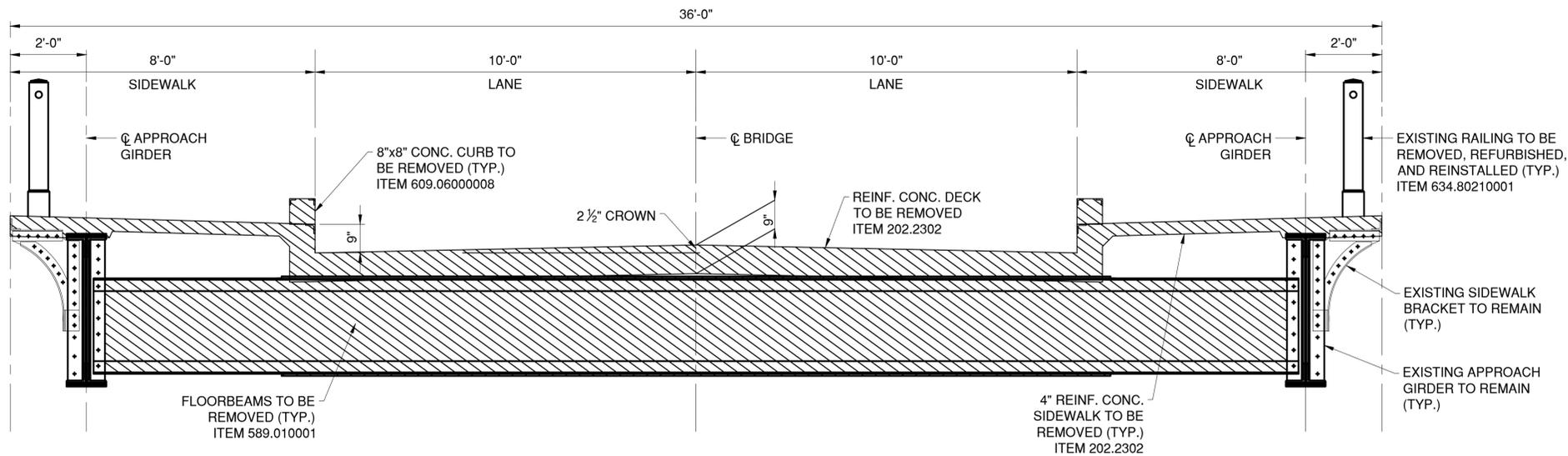
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

CONSULTANT SEAL

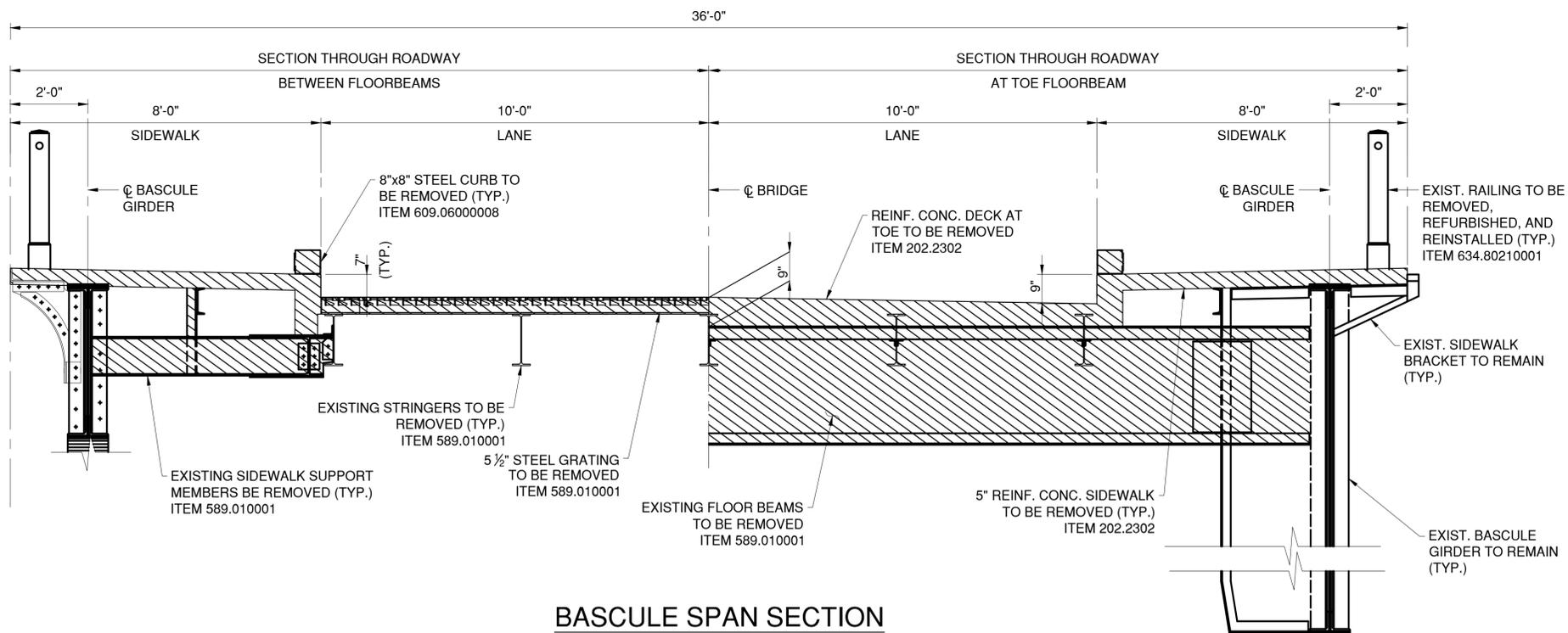
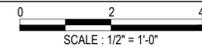
CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

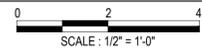
<b>WESTCHESTER COUNTY, NEW YORK</b> DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER S-02
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle STRUCTURAL		SCALE: AS SHOWN DATE: 03/12/2024 DPW FILE NO.	SHEET NO. 43 OF 212 REV. NO.
<b>DEMOLITION PLAN - BRIDGE</b>		5-04-R-478-0	0



**APPROACH SPAN SECTION**



**BASCULE SPAN SECTION**

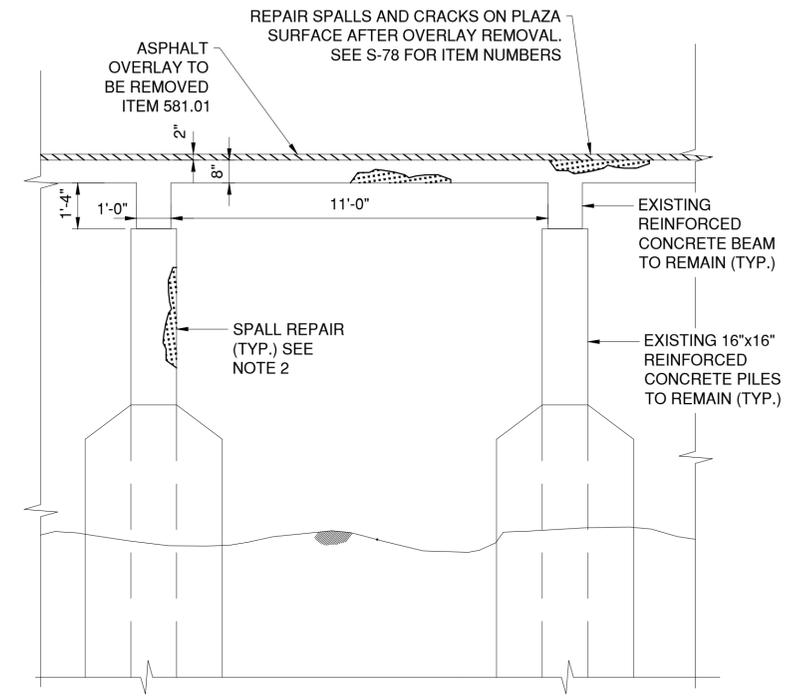


**DEMOLITION NOTES:**

- FOR DEMOLITION NOTES SEE DWG S-02.
- PLAZA SECTION AND SPALL SHOWN ARE NOT TYPICAL AND THE DETERIORATIONS MAY VARY SIGNIFICANTLY THROUGHOUT THE PLAZA STRUCTURE. SEE SHEET S-78 FOR DETAILED PLAZA REPAIR MAP.

**LEGEND**

- DENOTES REMOVAL
- DENOTES SPALL REPAIR



**SECTION AT PLAZA**



CONSULTANT INFORMATION

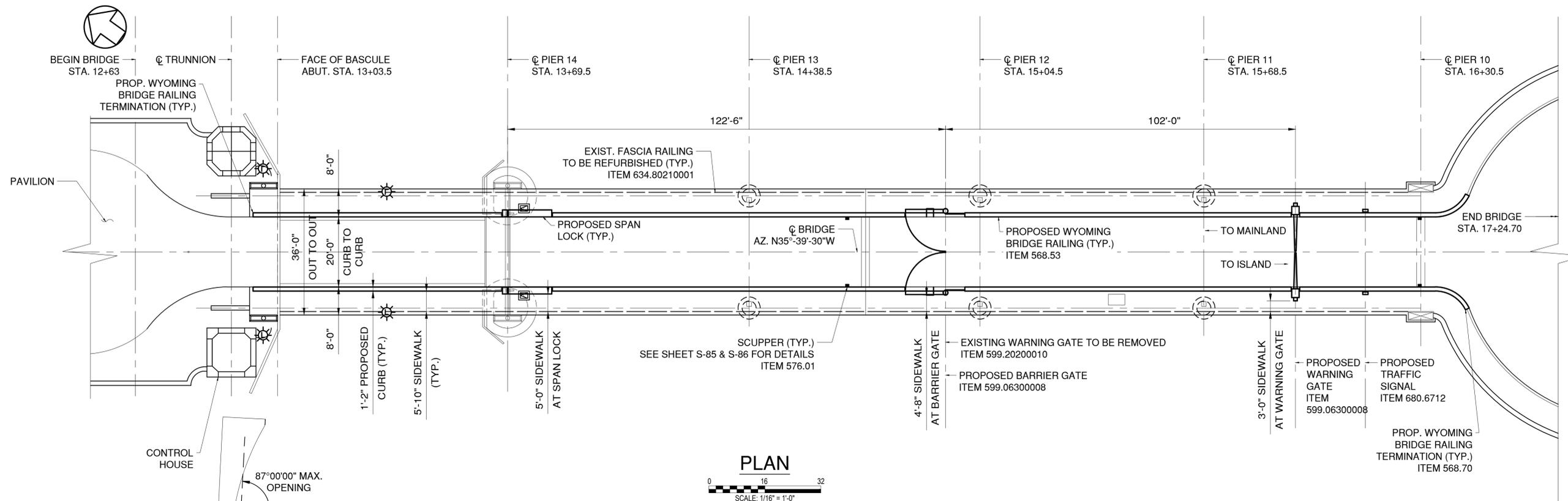


IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY N. HYSOY, PE

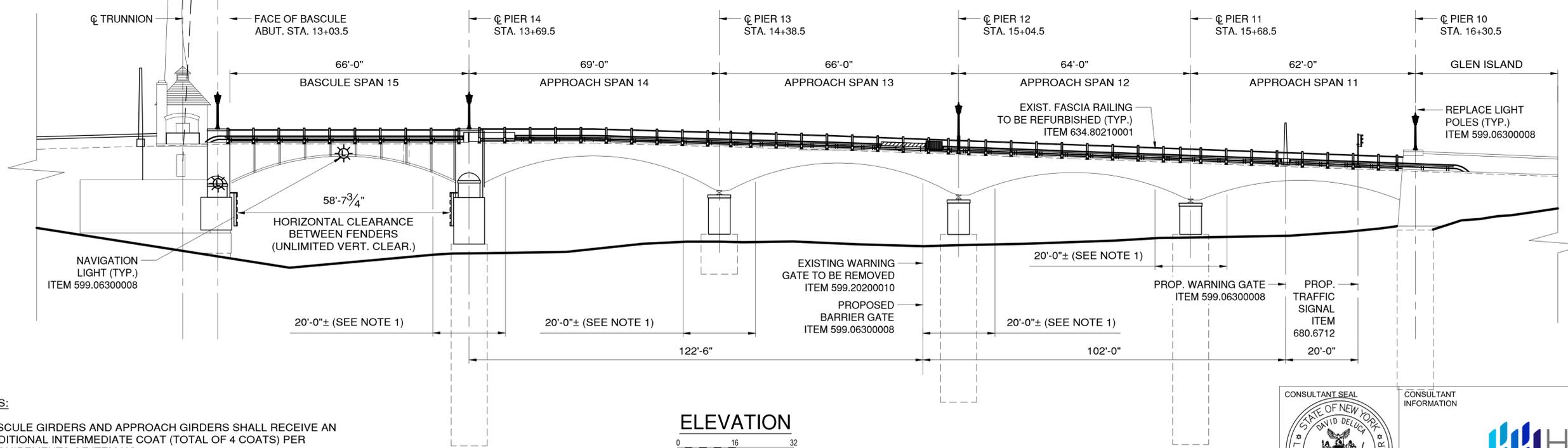
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____		
DATE _____	DATE _____		

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER S-03
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 44 OF 212	
STRUCTURAL		SCALE: AS SHOWN DATE: 03/08/2024	REV. NO. 0
DEMOLITION SECTIONS - APPROACH SPANS		DPW FILE NO. 5-04-R-479-0	

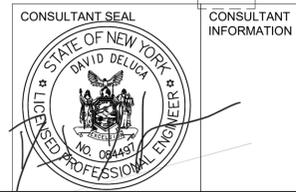


**PLAN**  
SCALE: 1/16" = 1'-0"



**ELEVATION**  
SCALE: 1/16" = 1'-0"

- NOTES:**
- BASCULE GIRDERS AND APPROACH GIRDERS SHALL RECEIVE AN ADDITIONAL INTERMEDIATE COAT (TOTAL OF 4 COATS) PER REQUIREMENTS OF ITEM NO. 573.0100001.
  - ANCHOR SPAN IN OPEN POSITION DURING MACHINERY AND ELECTRICAL WORK.



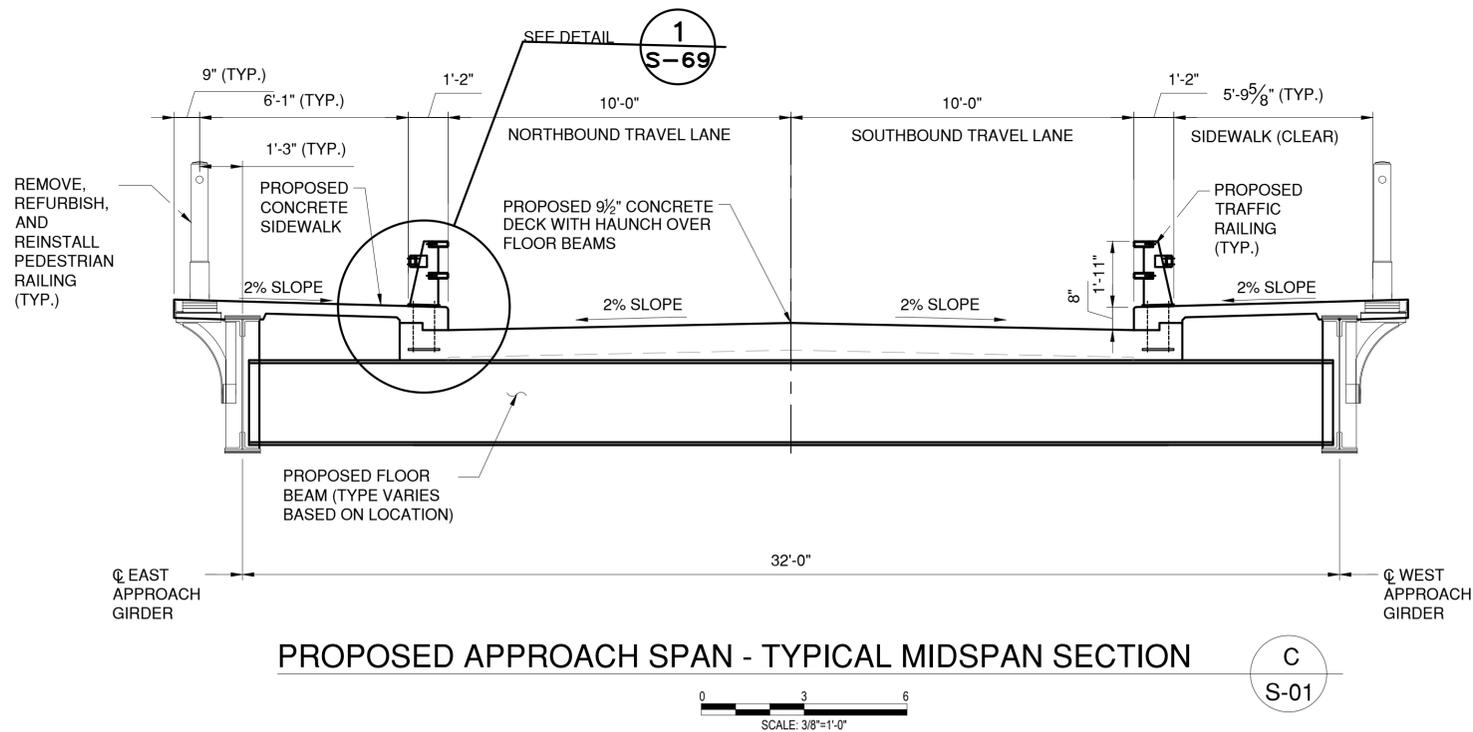
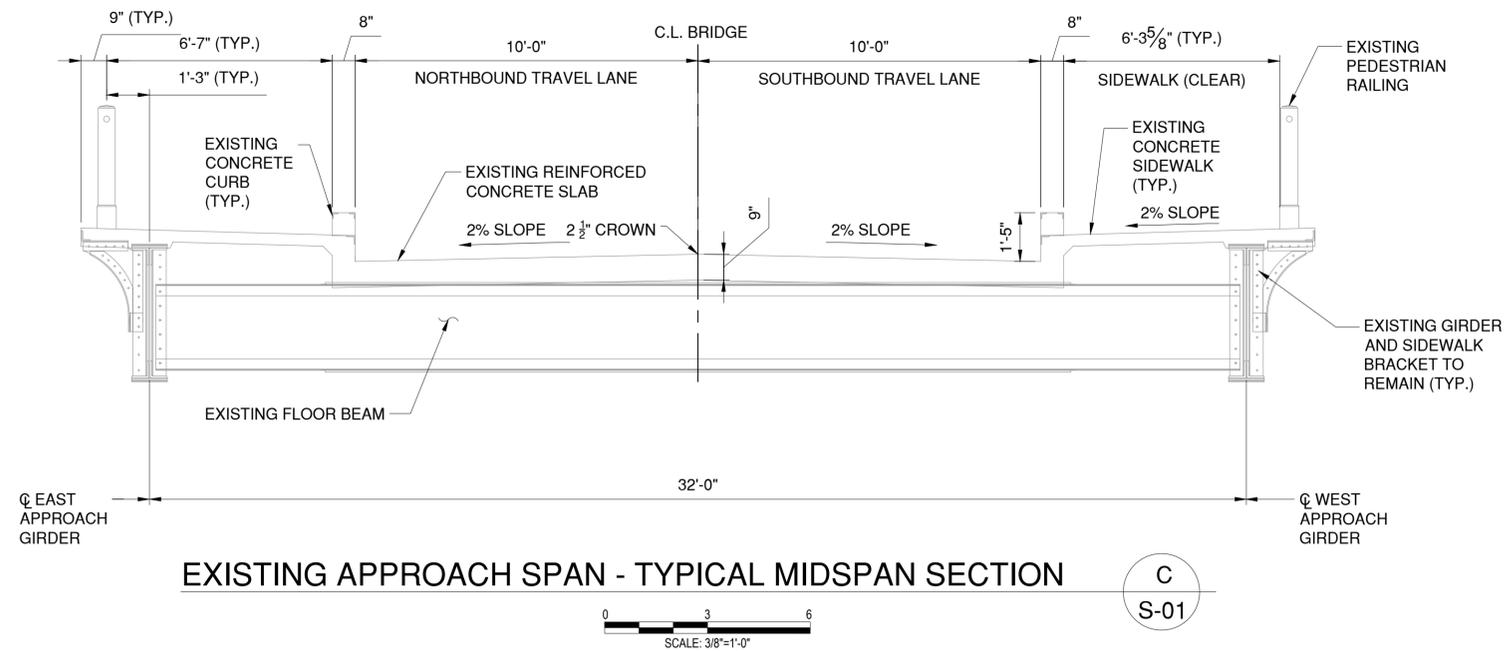
IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY S. VERA-FOX, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL  
**PROPOSED BRIDGE PLAN & ELEVATION**

CONTRACT NUMBER 20-517	SHEET NUMBER S-04
SHEET NO. 45 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-R-480-0	0



CONSULTANT INFORMATION

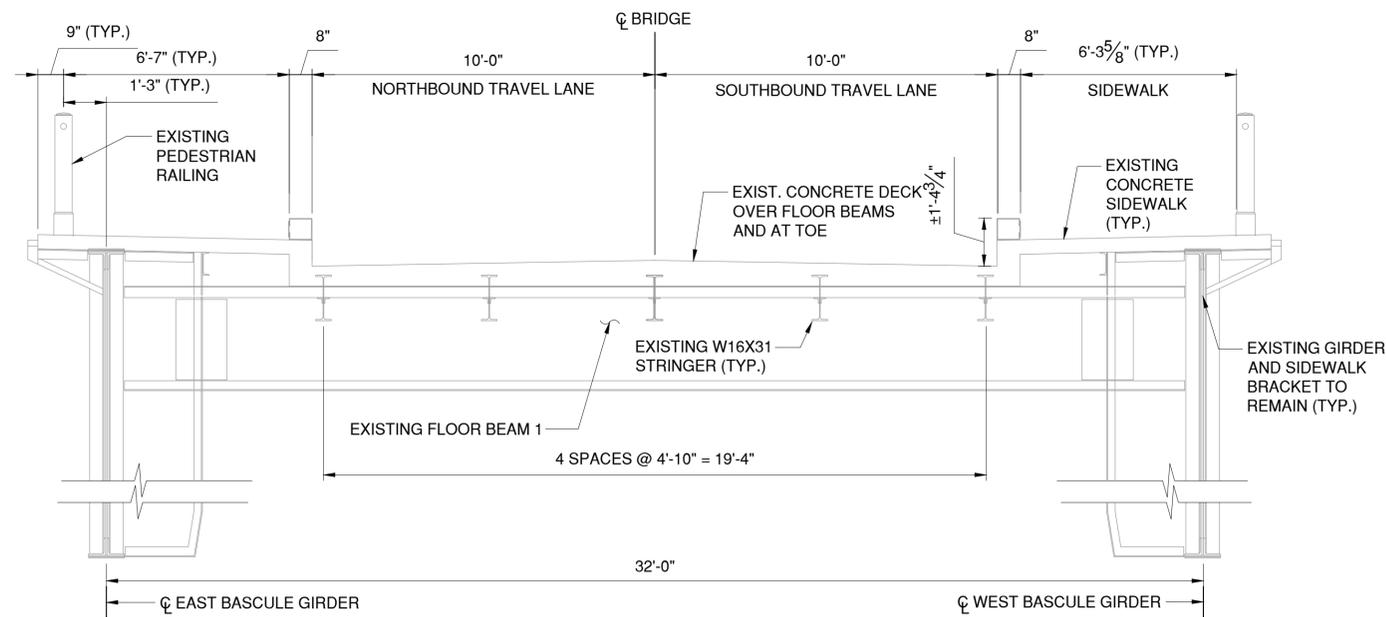


IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY A. AMARONE, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

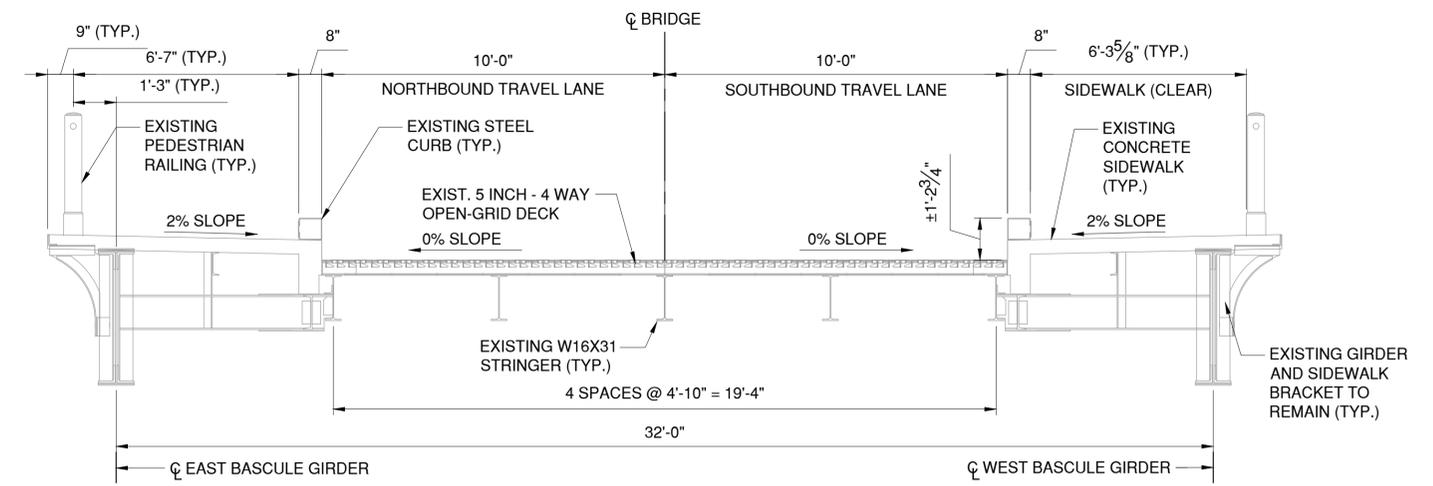
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER S-05
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 46 OF 212 SCALE: AS SHOWN DATE: 03/08/2024	
STRUCTURAL <b>APPROACH SPAN TYPICAL SECTIONS</b>		DPW FILE NO. 5-04-S-481-0	REV. NO. 0



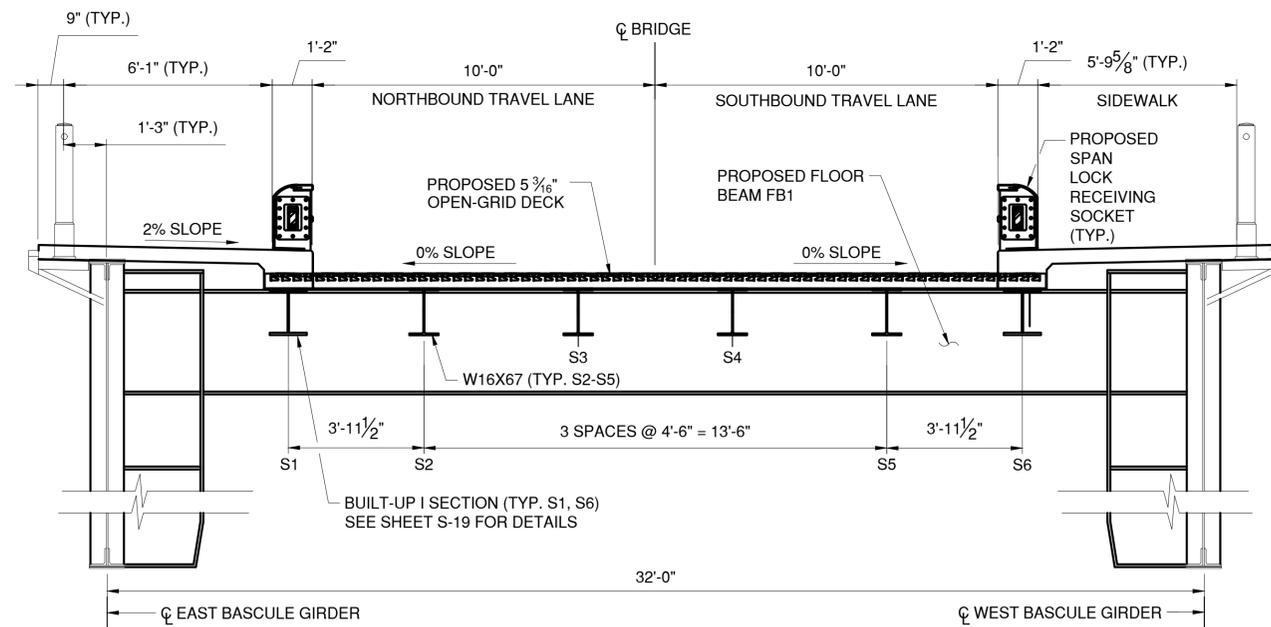
EXISTING BASCULE SPAN AT TOE - TYPICAL SECTION

B  
S-01



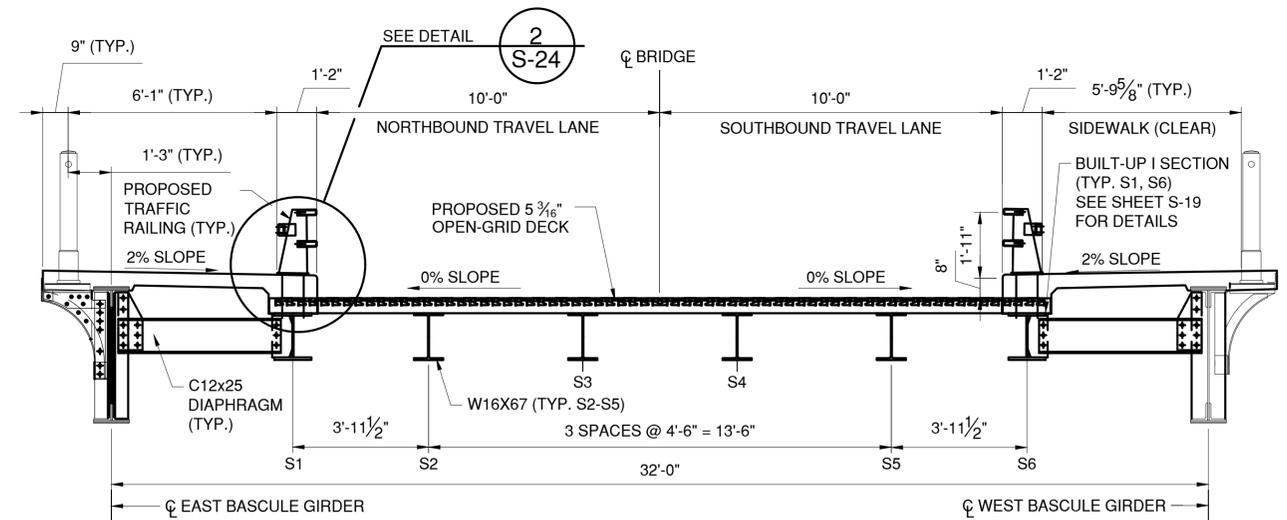
EXISTING BASCULE SPAN AT CENTER SPAN - TYPICAL SECTION

A  
S-01



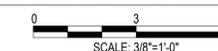
PROPOSED BASCULE SPAN AT TOE - TYPICAL SECTION

B  
S-01



PROPOSED BASCULE SPAN CENTER SPAN - TYPICAL SECTION

A  
S-01



CONSULTANT SEAL: DAVID DELUCA, LICENSED PROFESSIONAL ENGINEER, STATE OF NEW YORK, NO. 04851

CONSULTANT INFORMATION: H&H, 1501 BROADWAY, SUITE 601, NEW YORK, NY 10036, (212) 944-1150

IN CHARGE OF: D. DELUCA, PE  
 CHECKED BY: J. WARNCKE, PE  
 MADE BY: A. AMARONE, PE

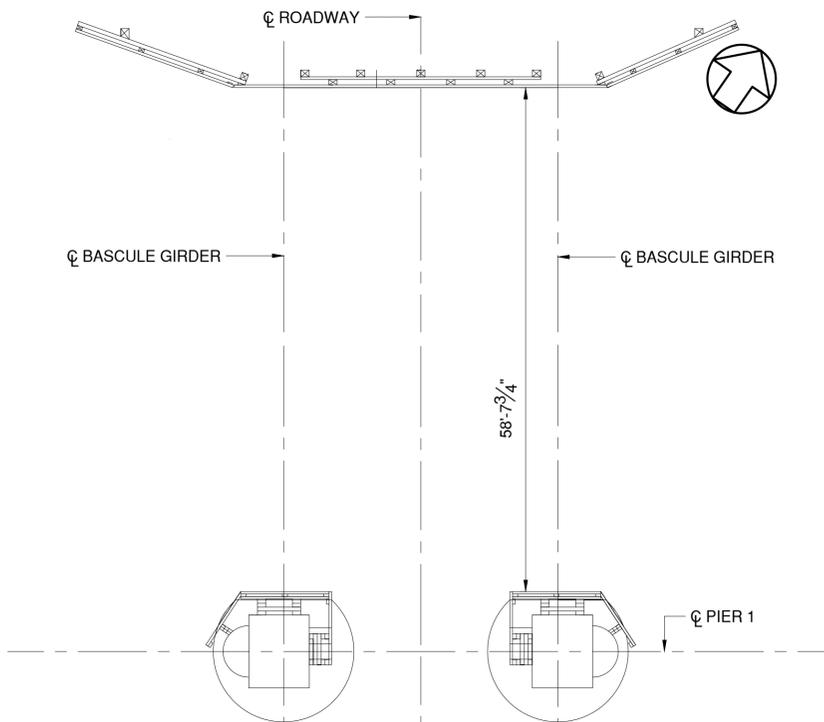
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
AS BUILT - CHANGES AS NOTED		AS BUILT - NO CHANGES	
CONTRACTOR		PROJECT COORDINATOR	
NAME	SIGNATURE	NAME	SIGNATURE
TITLE	DATE	TITLE	DATE

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL

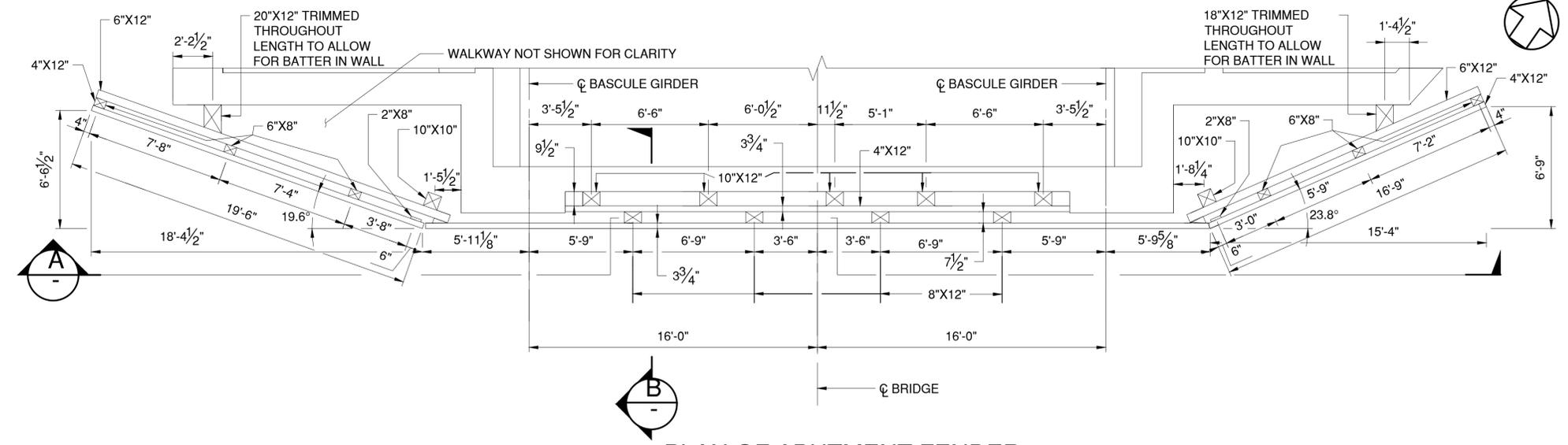
CONTRACT NUMBER: 20-517  
 SHEET NUMBER: S-06  
 SHEET NO. 47 OF 212  
 SCALE: AS SHOWN  
 DATE: 03/08/2024  
 DPW FILE NO.: 5-04-S-482-0  
 REV. NO.: 0



**GENERAL PLAN VIEW**

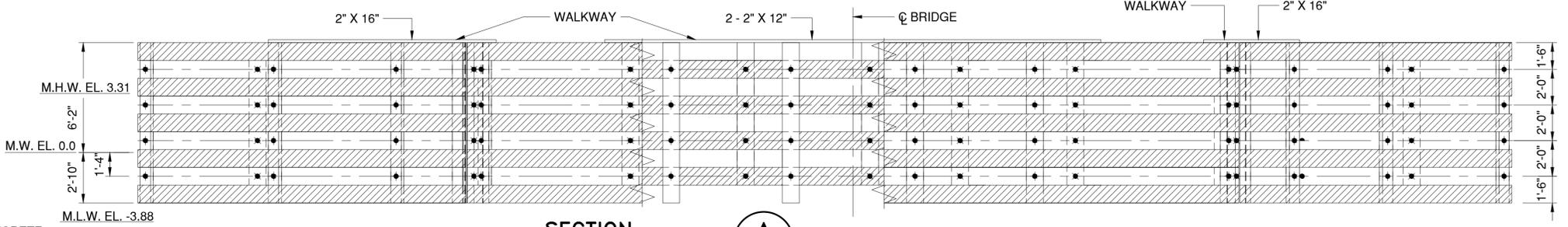
SCALE: 3/32" = 1'-0"

- NOTES:**
- PIER FENDER ANCHORS ARE 7/8" DIA. AND MUST HAVE A 2'-0" MIN. EMBEDMENT INTO CONCRETE.
  - SEE GENERAL NOTES ON SHEET G-07 FOR DETAILS OF ANCHOR TYPE AND MATERIAL.
  - ABUTMENT FENDER ANCHORS ARE 7/8" DIA. AND MUST HAVE A 1'-10" MIN. EMBEDMENT INTO CONCRETE.
  - FIBERGLASS REINFORCED PLASTIC (FRP) COMPOSITE LUMBER INCLUDING ANCHORS AND ASSOCIATED HARDWARE SHALL BE PAID UNDER ITEM 594.11000010.



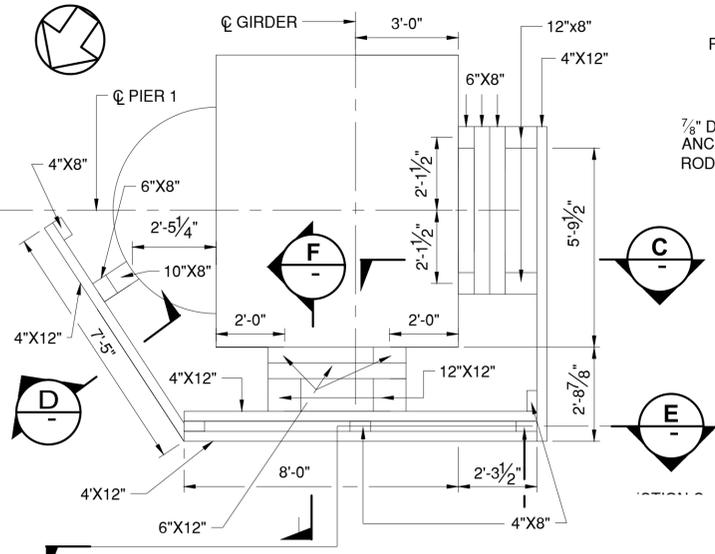
**PLAN OF ABUTMENT FENDER**

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



**SECTION A**

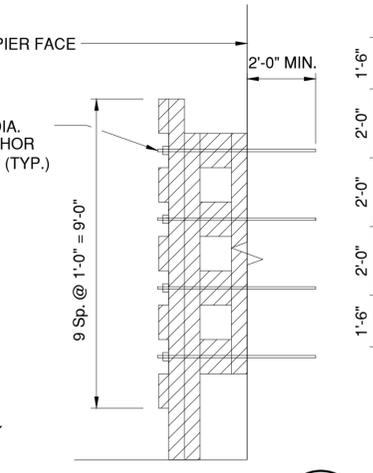
SCALE: 1/4" = 1'-0"



**PLAN OF EAST PIER FENDER**

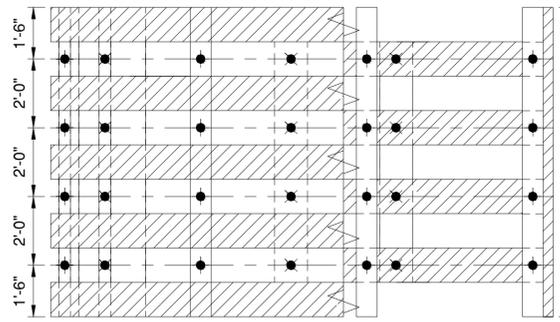
SCALE: 3/8" = 1'-0"

(FENDER PLANS ARE THE SAME FOR EAST AND WEST PIERS)



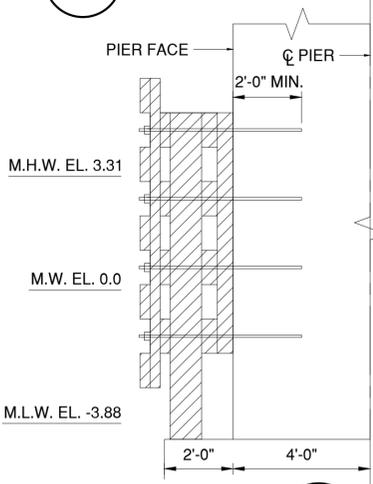
**SECTION C**

SCALE: 3/8" = 1'-0"



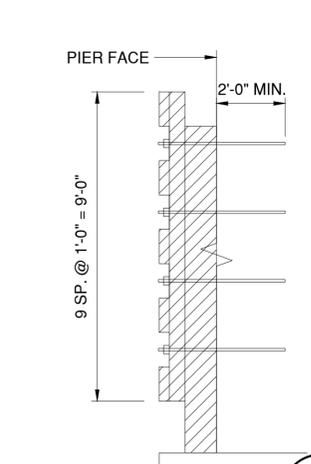
**SECTION E**

SCALE: 3/8" = 1'-0"



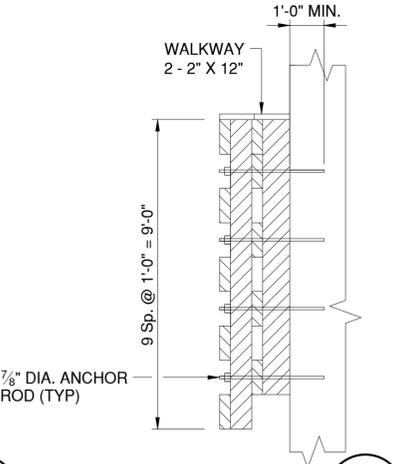
**SECTION F**

SCALE: 3/8" = 1'-0"



**SECTION D**

SCALE: 3/8" = 1'-0"



**SECTION B**

SCALE: 3/8" = 1'-0"

**LEGEND:**

- NEW BOLT IN NEW HOLE
- NEW ANCHOR IN NEW HOLE

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY S. POROBIJA

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
AS BUILT - CHANGES AS NOTED		AS BUILT - NO CHANGES	
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

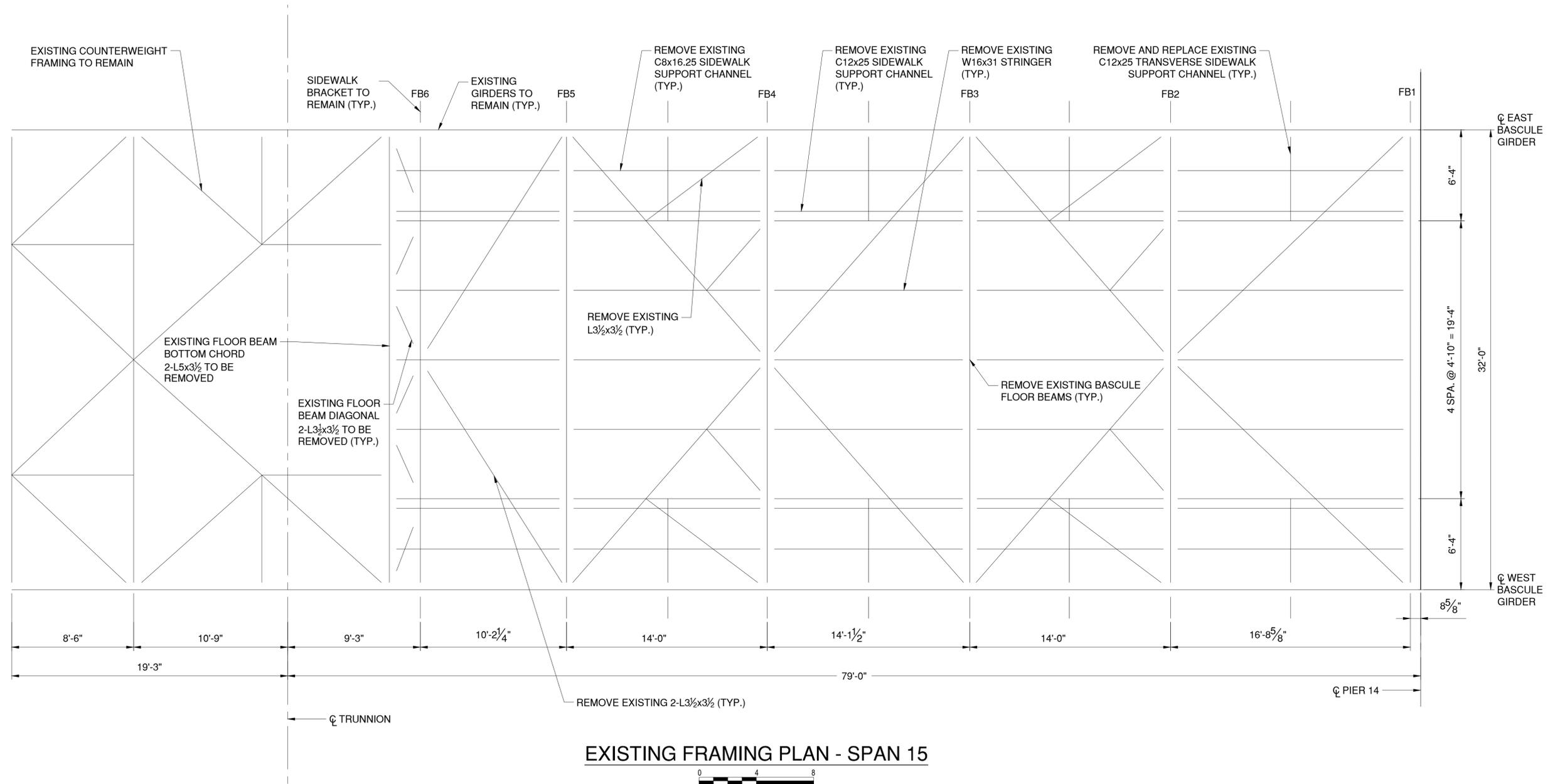


CONSULTANT SEAL  
CONSULTANT INFORMATION



**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL  
**FRP FENDER SYSTEM**

CONTRACT NUMBER 20-517	SHEET NUMBER S-07
SHEET NO. 48 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-S-483-0	REV. NO. 0



**EXISTING FRAMING PLAN - SPAN 15**

**NOTES:**

- 1. REMOVAL OF EXISTING STEEL TO BE PAID FOR UNDER ITEM 589.010001.



CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

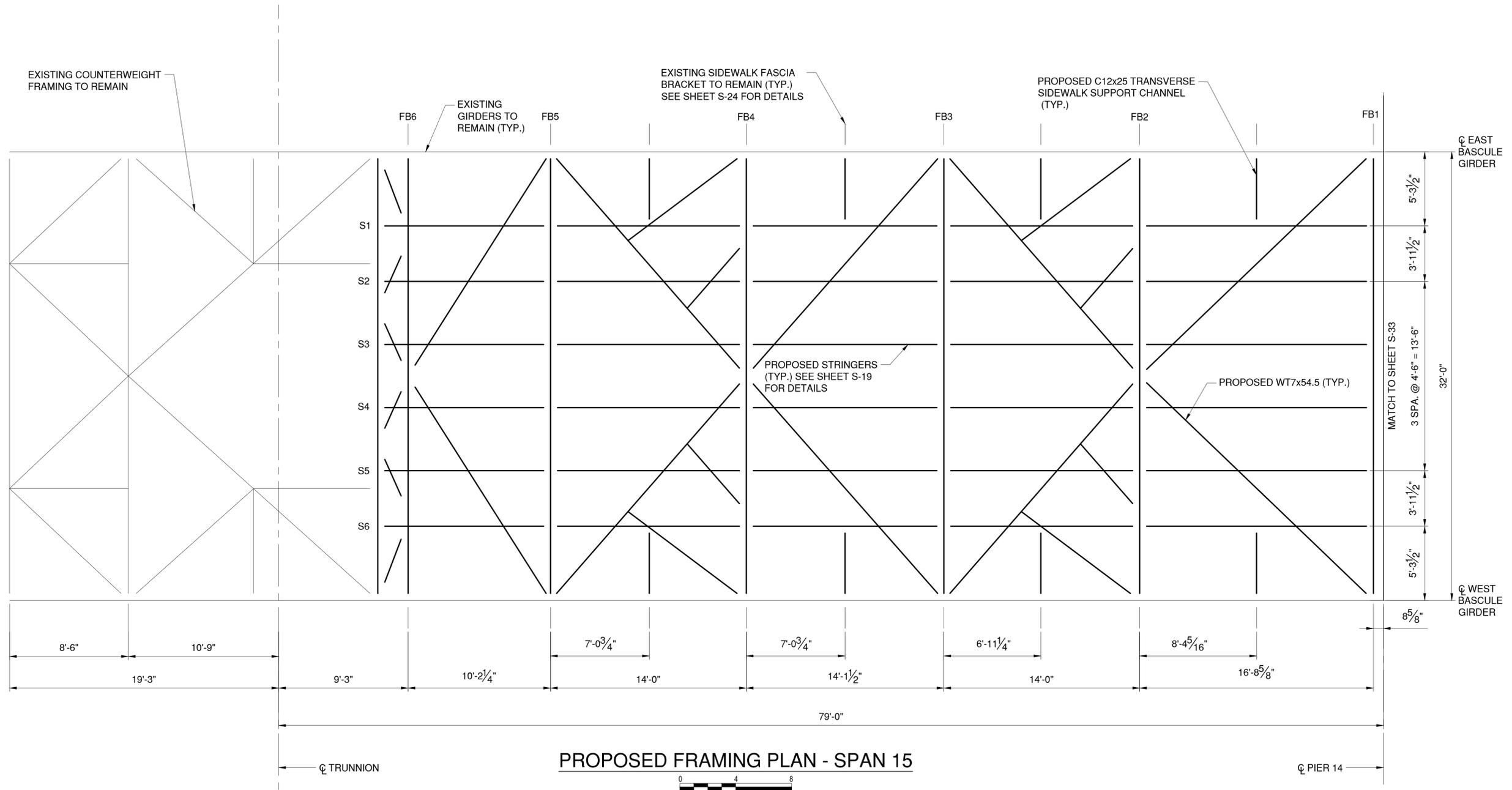
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

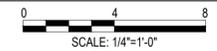
STRUCTURAL

**BASCULE SPAN EXISTING FRAMING PLAN**

CONTRACT NUMBER 20-517	SHEET NUMBER S-08
SHEET NO. 49 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-484-0	0



**PROPOSED FRAMING PLAN - SPAN 15**



**NOTES:**

- FOR ADDITIONAL STRUCTURAL STEEL NOTES, SEE SHEET G-05.
- ALL STRUCTURAL STEEL AND CONNECTIONS SHALL BE INCLUDED IN AND MEET THE REQUIREMENTS OF ITEM 564.510001.
- REMOVAL OF EXISTING STEEL TO BE PAID FOR UNDER ITEM 589.010001.
- ALL FLOOR BEAM CONNECTIONS TO EXISTING BASCULE GIRDERS SHALL UTILIZE THE EXISTING HOLE PATTERNS ON THE BASCULE GIRDERS.
- CONNECTIONS TO BASCULE GIRDERS VARY BY LOCATION. CONTRACTOR TO FIELD VERIFY EXISTING RIVET SPACING AT LOCATIONS OF NEW BOLTS IN EXISTING HOLES WITH RIVETS. CONTRACTOR TO FIELD VERIFY HEIGHTS OF CONNECTION ANGLES AND CONNECTION FILL PLATES.
- AT LOCATIONS OF BASCULE GIRDER SPLICE PLATES, DRIFT PINS SHALL BE USED WHEN REPLACING FLOOR BEAM CONNECTION ANGLES AND SIDEWALK BRACKET CONNECTION ANGLES. REPLACE RIVETS ONE-FOR-ONE WITH DRIFT PINS DURING REMOVAL OF EXISTING CONNECTION ANGLES. REPLACE RIVETS WITH H.S. BOLTS DURING INSTALLATION OF PROPOSED ANGLES. ANGLES SHALL BE REMOVED AND INSTALLED AT A TIME PER FLOOR BEAM LOCATION.
- NUMBER OF BOLTS REQUIRED PER WEB MEMBER VARIES BY FLOOR BEAM. SEE SHEETS S-10 THRU S-17, FOR REQUIRED NUMBER OF BOLTS. FABRICATOR MAY UTILIZE MORE BOLTS THAN THE REQUIRED MINIMUMS TO MEET SEALING AND EDGE DISTANCE REQUIREMENTS.
- TO ALLOW VESSELS TO NAVIGATE THE CHANNEL UNIMPEDED, THE BASCULE SPAN SHALL BE PINNED IN THE OPEN POSITION FOR THE DURATION OF CONSTRUCTION UNLESS A CLOSURE IS REQUIRED FOR STRUCTURAL REPAIRS. BASCULE SPAN CLOSURES SHALL BE APPROVED 30 CALENDAR DAYS PRIOR IN WRITING BY THE EOR AND SHALL COMPLY WITH THE US COAST GUARD BRIDGE PERMIT.
- NATURAL CAMBER ON FLOOR BEAMS TO BE PLACED UP.

	CONSULTANT SEAL	CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

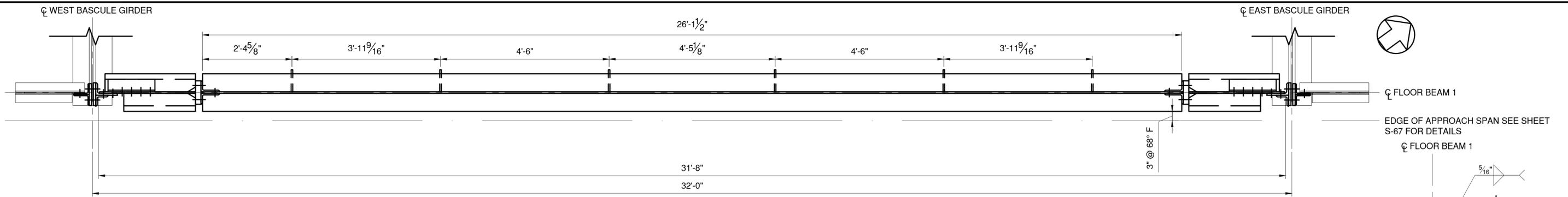
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

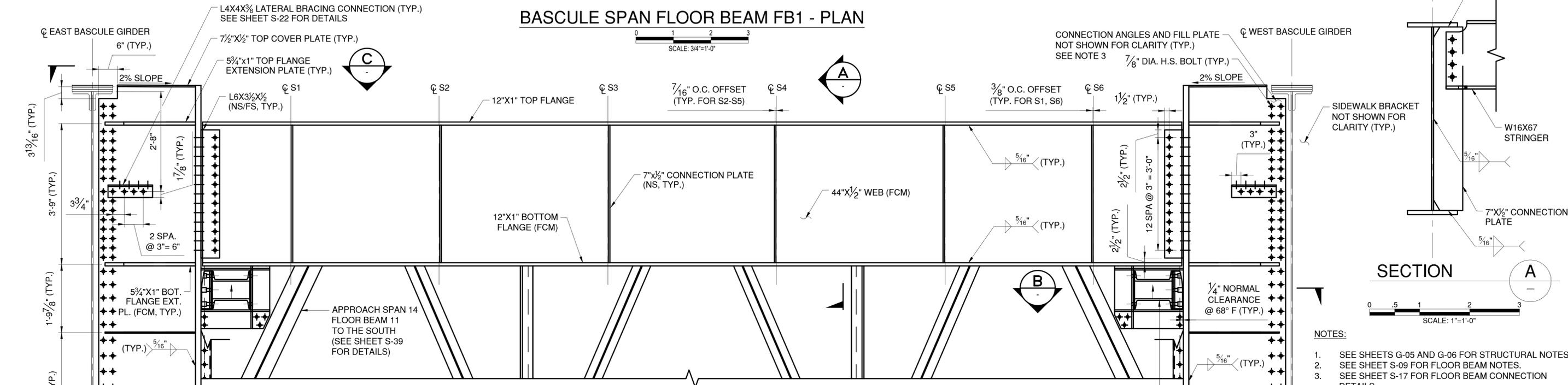
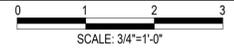
STRUCTURAL

**BASCULE SPAN PROPOSED FRAMING PLAN**

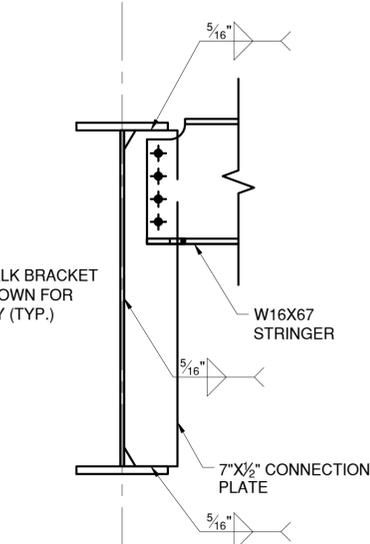
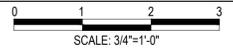
CONTRACT NUMBER 20-517	SHEET NUMBER S-09
SHEET NO. 50 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-485-0	0



**BASCULE SPAN FLOOR BEAM FB1 - PLAN**

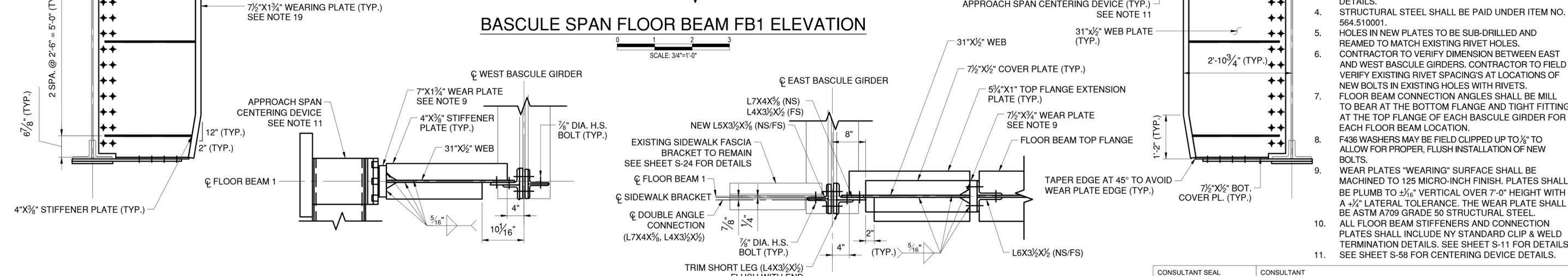


**BASCULE SPAN FLOOR BEAM FB1 ELEVATION**



**SECTION A**  
SCALE: 1"=1'-0"

- NOTES:**
- SEE SHEETS G-05 AND G-06 FOR STRUCTURAL NOTES.
  - SEE SHEET S-09 FOR FLOOR BEAM NOTES.
  - SEE SHEET S-17 FOR FLOOR BEAM CONNECTION DETAILS.
  - STRUCTURAL STEEL SHALL BE PAID UNDER ITEM NO. 564.510001.
  - HOLES IN NEW PLATES TO BE SUB-DRILLED AND REAMED TO MATCH EXISTING RIVET HOLES. CONTRACTOR TO VERIFY DIMENSION BETWEEN EAST AND WEST BASCULE GIRDERS. CONTRACTOR TO FIELD VERIFY EXISTING RIVET SPACING'S AT LOCATIONS OF NEW BOLTS IN EXISTING HOLES WITH RIVETS.
  - FLOOR BEAM CONNECTION ANGLES SHALL BE MILL TO BEAR AT THE BOTTOM FLANGE AND TIGHT FITTING AT THE TOP FLANGE OF EACH BASCULE GIRDER FOR EACH FLOOR BEAM LOCATION.
  - F436 WASHERS MAY BE FIELD CLIPPED UP TO 1/8" TO ALLOW FOR PROPER, FLUSH INSTALLATION OF NEW BOLTS.
  - WEAR PLATES "WEARING" SURFACE SHALL BE MACHINED TO 125 MICRO-INCH FINISH. PLATES SHALL BE PLUMB TO ±1/16" VERTICAL OVER 7'-0" HEIGHT WITH A +1/4" LATERAL TOLERANCE. THE WEAR PLATE SHALL BE ASTM A709 GRADE 50 STRUCTURAL STEEL.
  - ALL FLOOR BEAM STIFFENERS AND CONNECTION PLATES SHALL INCLUDE NY STANDARD CLIP & WELD TERMINATION DETAILS. SEE SHEET S-11 FOR DETAILS.
  - SEE SHEET S-58 FOR CENTERING DEVICE DETAILS.



**SECTION B**  
SCALE: 1"=1'-0"



**SECTION C**  
SCALE: 1"=1'-0"

- LEGEND:**
- EXISTING RIVET TO REMAIN
  - ◆ NEW BOLT IN NEW HOLE
  - ◆ NEW BOLT IN EXISTING RIVET HOLE

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY S. VERA-FOX, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

CONSULTANT SEAL

CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

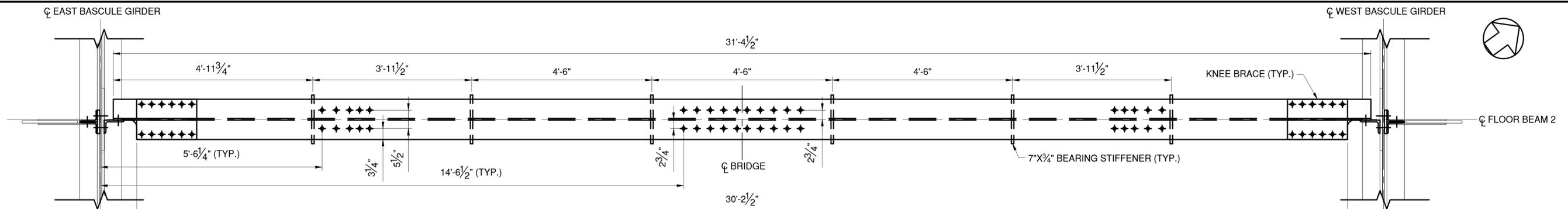
**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

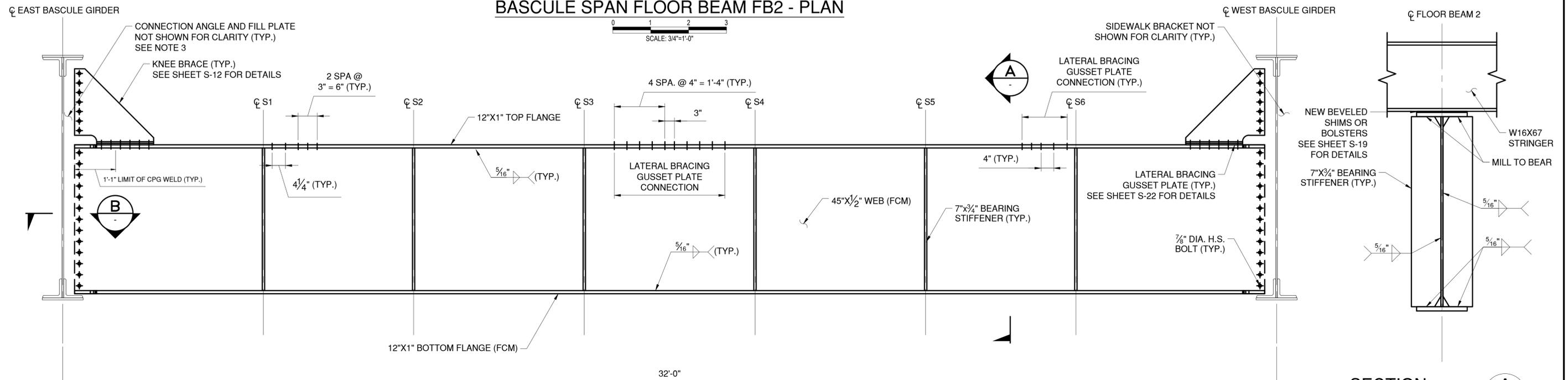
STRUCTURAL

**BASCULE SPAN FLOOR BEAM DETAILS - 1**

CONTRACT NUMBER 20-517	SHEET NUMBER S-10
SHEET No. 51 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-486-0	0

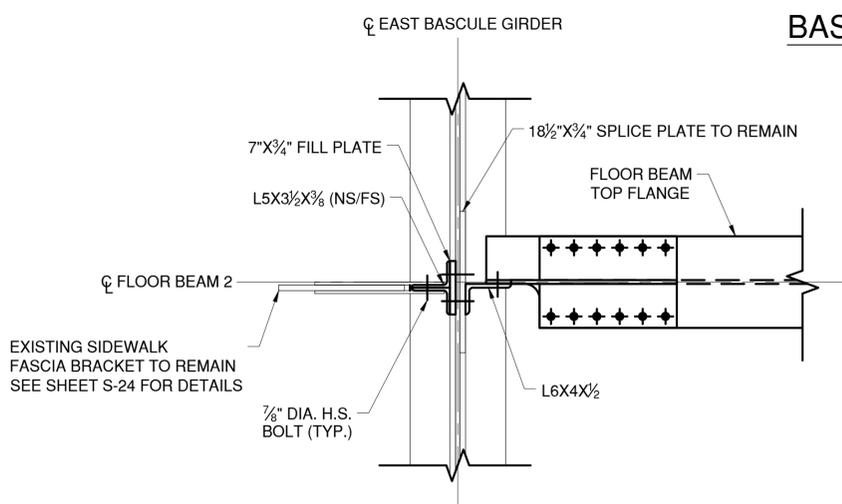


**BASCULE SPAN FLOOR BEAM FB2 - PLAN**

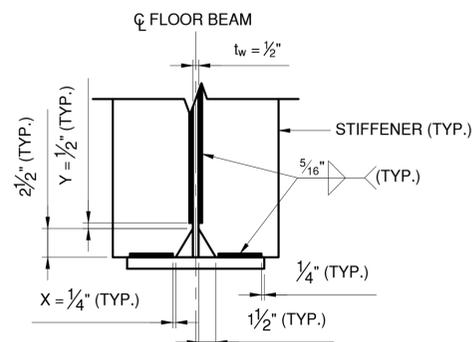


**BASCULE SPAN FLOOR BEAM FB2 - ELEVATION**

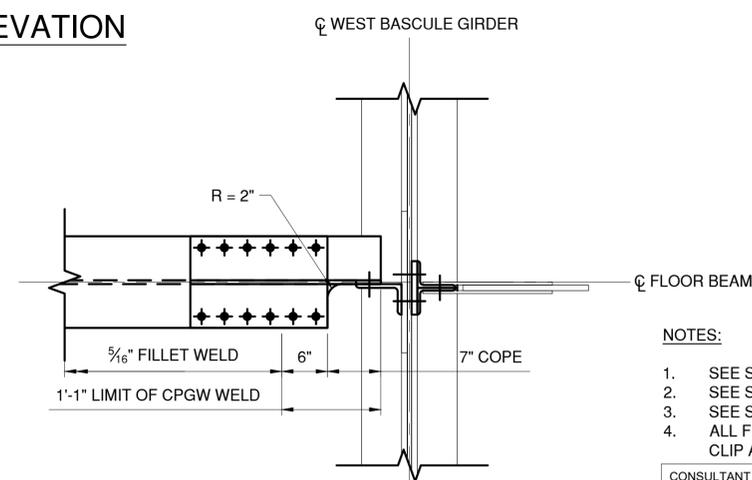
**SECTION A**



**SECTION B**



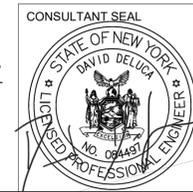
**STANDARD CLIP & WELD TERMINATION DETAIL**



**BASCULE SPAN FLOOR BEAM - TYPICAL COPE DETAIL**

- LEGEND:**
- EXISTING RIVET TO REMAIN
  - ◆ NEW BOLT IN NEW HOLE
  - ⊕ NEW BOLT IN EXISTING RIVET HOLE

- NOTES:**
1. SEE SHEETS G-05 AND G-06 FOR STRUCTURAL NOTES.
  2. SEE SHEETS S-09 AND S-10 FOR ADDITIONAL FLOOR BEAM NOTES.
  3. SEE SHEET S-17 FOR FLOOR BEAM CONNECTION DETAILS.
  4. ALL FLOOR BEAM STIFFENERS AND CONNECTION PLATES SHALL INCLUDE NY STANDARD CLIP AND WELD TERMINATION DETAILS AS SHOWN.



CONSULTANT INFORMATION

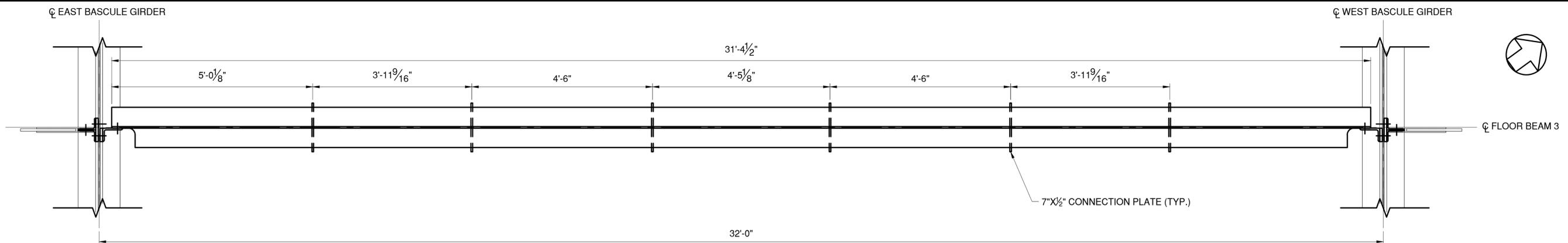


IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY S. VERA-FOX, PE

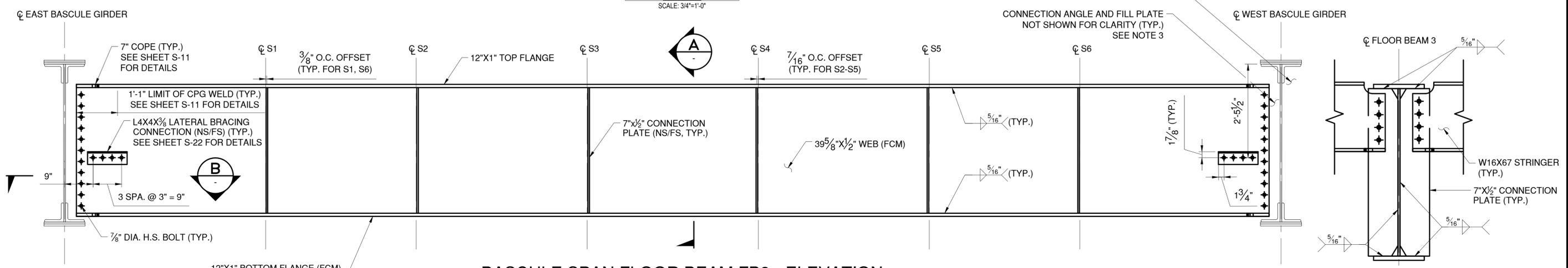
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

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<input type="checkbox"/> AS BUILT - NO CHANGES			
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____		
DATE _____	DATE _____		

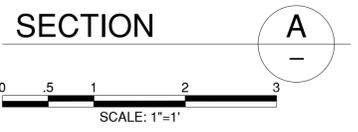
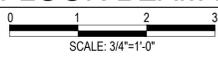
WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER S-11
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 52 OF 212	
STRUCTURAL		SCALE: AS SHOWN	DATE: 03/08/2024
<b>BASCULE SPAN FLOOR BEAM DETAIL - 2</b>		DPW FILE NO. 5-04-S-487-0	REV. NO. 0



**BASCULE SPAN FLOOR BEAM FB3 - PLAN**



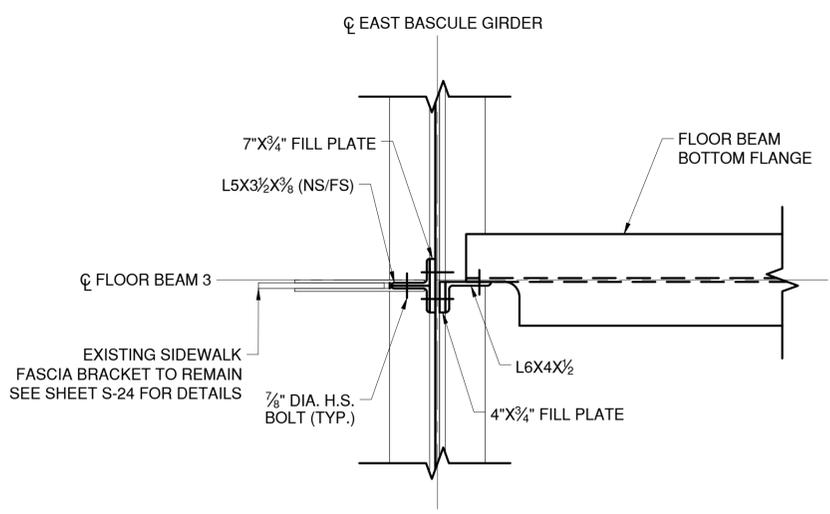
**BASCULE SPAN FLOOR BEAM FB3 - ELEVATION**



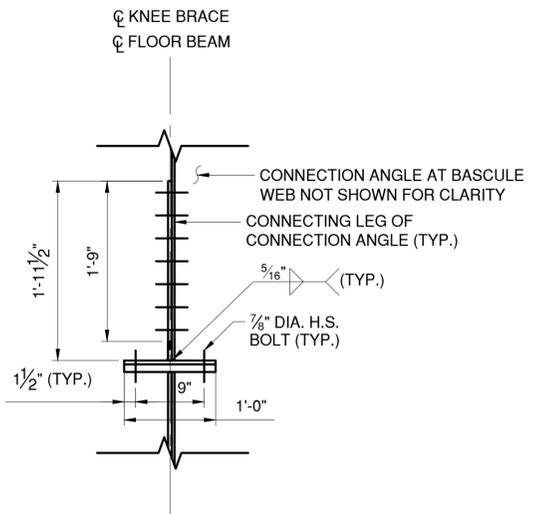
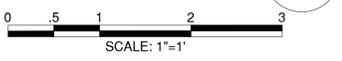
**LEGEND:**

- EXISTING RIVET TO REMAIN
- ◆ NEW BOLT IN NEW HOLE
- ◆ NEW BOLT IN EXISTING RIVET HOLE

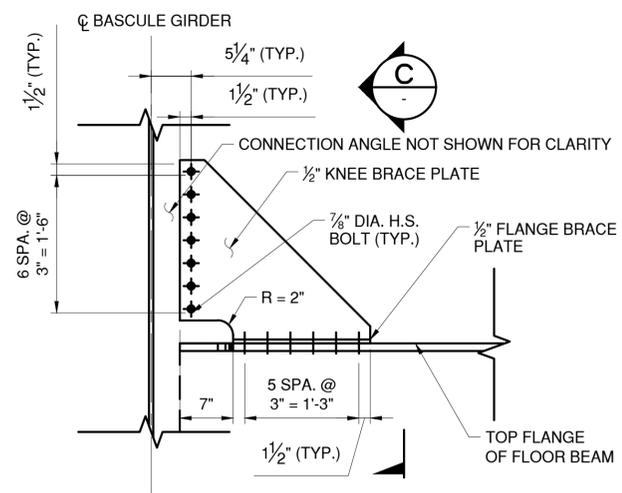
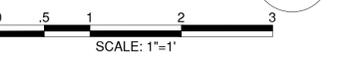
- NOTES:**
1. SEE SHEETS G-05 AND G-06 FOR STRUCTURAL NOTES.
  2. SEE SHEETS S-09 AND S-10 FOR ADDITIONAL FLOOR BEAM NOTES.
  3. SEE SHEET S-17 FOR FLOOR BEAM CONNECTION DETAILS.
  4. ALL FLOOR BEAM STIFFENERS AND CONNECTION PLATES SHALL INCLUDE NY STANDARD CLIP AND WELD TERMINATIONS. SEE SHEET S-11 FOR DETAILS.



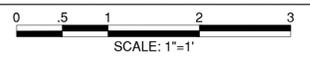
**SECTION B**



**SECTION C**



**BASCULE SPAN FLOOR BEAM - TYPICAL KNEE BRACE DETAIL**



CONSULTANT SEAL: DAVID DELUCA, LICENSED PROFESSIONAL ENGINEER, STATE OF NEW YORK, NO. 04841

CONSULTANT INFORMATION: H&H, 1501 BROADWAY, SUITE 601, NEW YORK, NY 10036, (212) 944-1150

IN CHARGE OF: D. DELUCA, PE  
 CHECKED BY: J. WARNCKE, PE  
 MADE BY: S. VERA-FOX, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
AS BUILT - CHANGES AS NOTED		AS BUILT - NO CHANGES	
CONTRACTOR		PROJECT COORDINATOR	
NAME		NAME	
SIGNATURE		SIGNATURE	
TITLE		TITLE	
	DATE		DATE

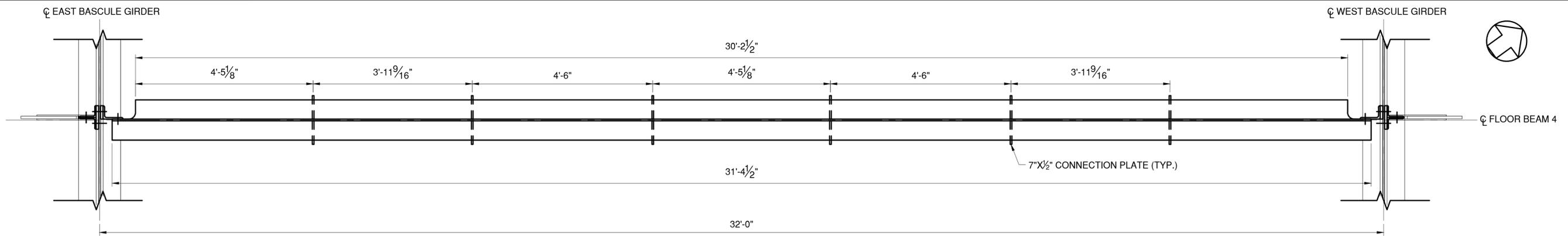
WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

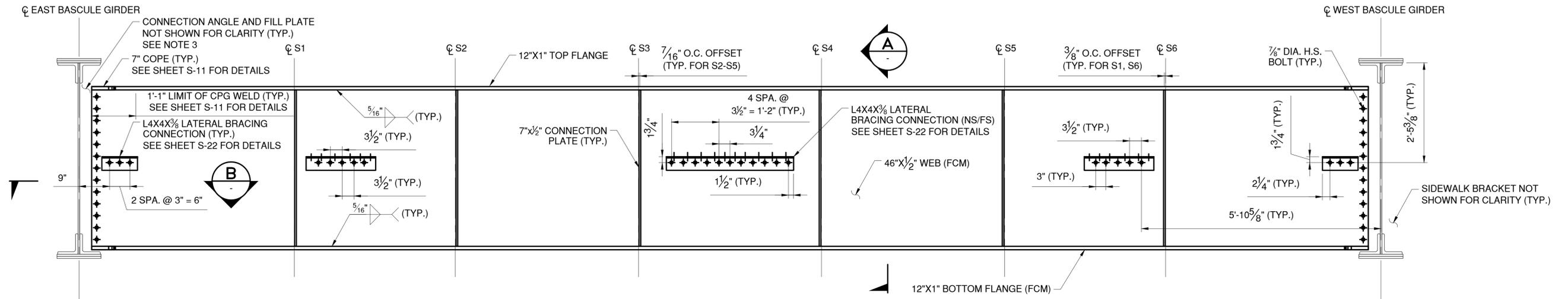
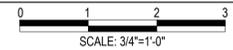
STRUCTURAL

**BASCULE SPAN FLOOR BEAM DETAILS - 3**

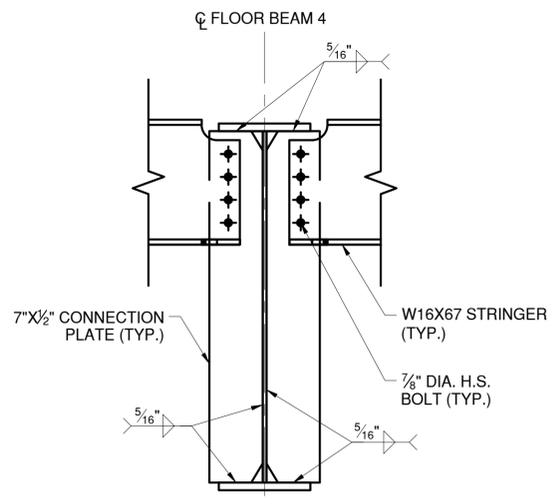
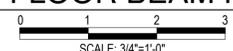
CONTRACT NUMBER: 20-517	SHEET NUMBER: S-12
SHEET NO. 53 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-T-488-0	0



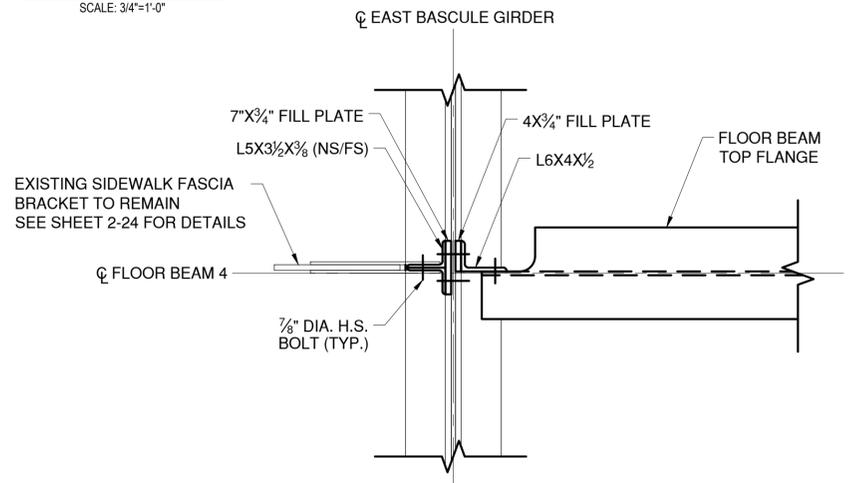
**BASCULE SPAN FLOOR BEAM FB4 - PLAN**



**BASCULE SPAN FLOOR BEAM FB4 - ELEVATION**



**SECTION A**  
SCALE: 1"=1'



**SECTION B**  
SCALE: 1"=1'

- LEGEND:**
- EXISTING RIVET TO REMAIN
  - ◆ NEW BOLT IN NEW HOLE
  - ⊕ NEW BOLT IN EXISTING RIVET HOLE

- NOTES:**
1. SEE SHEETS G-05 AND G-07 FOR STRUCTURAL NOTES.
  2. SEE SHEETS S-09 AND S-10 FOR ADDITIONAL FLOOR BEAM NOTES.
  3. SEE SHEETS S-18 FOR ADDITIONAL FLOOR BEAM CONNECTION DETAILS.
  4. ALL FLOOR BEAM STIFFENERS AND CONNECTION PLATES SHALL INCLUDE NY STANDARD CLIP AND WELD TERMINATIONS. SEE SHEET S-11 FOR DETAILS.

CONSULTANT SEAL

CONSULTANT INFORMATION

**H&H**

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY S. VERA-FOX, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

**RECORD DRAWING CERTIFICATION**

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

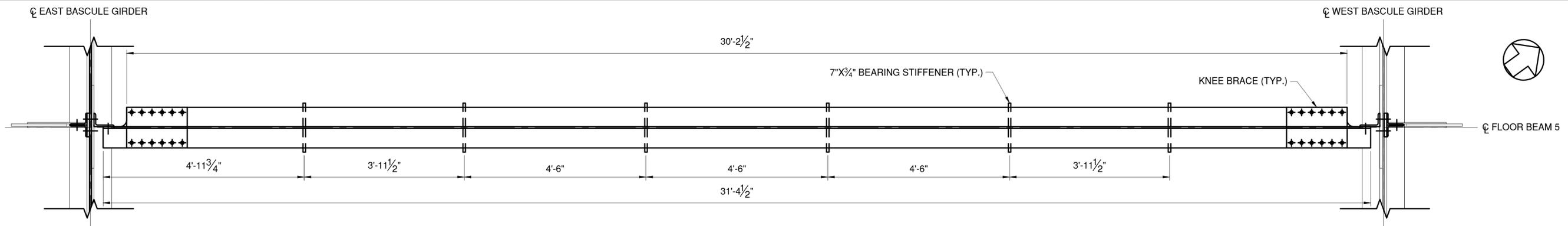
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

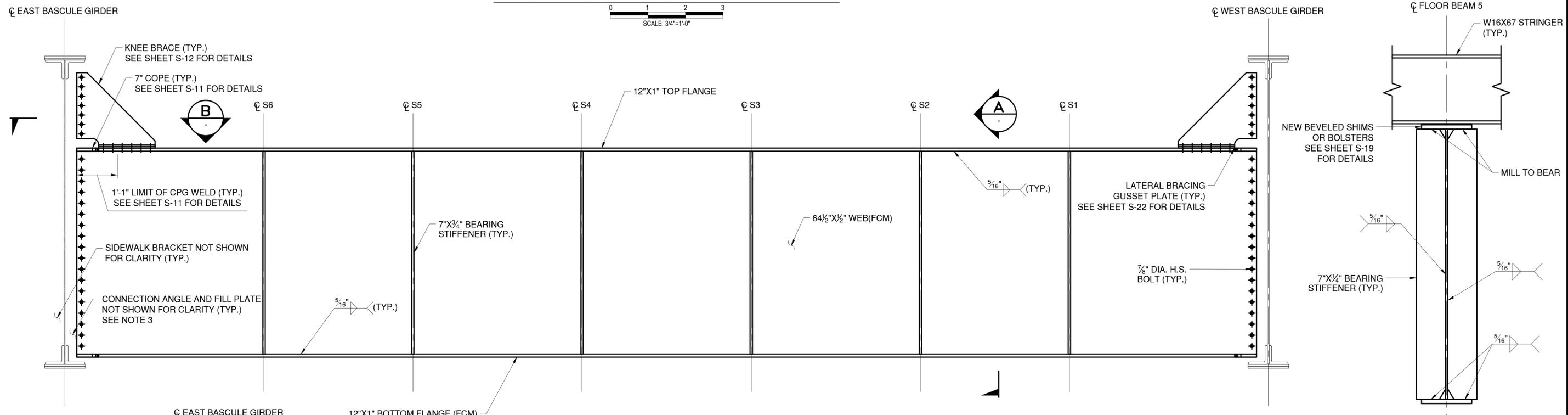
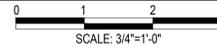
STRUCTURAL

**BASCULE SPAN FLOOR BEAM DETAILS - 4**

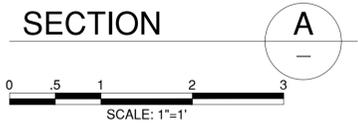
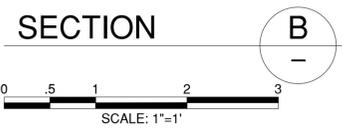
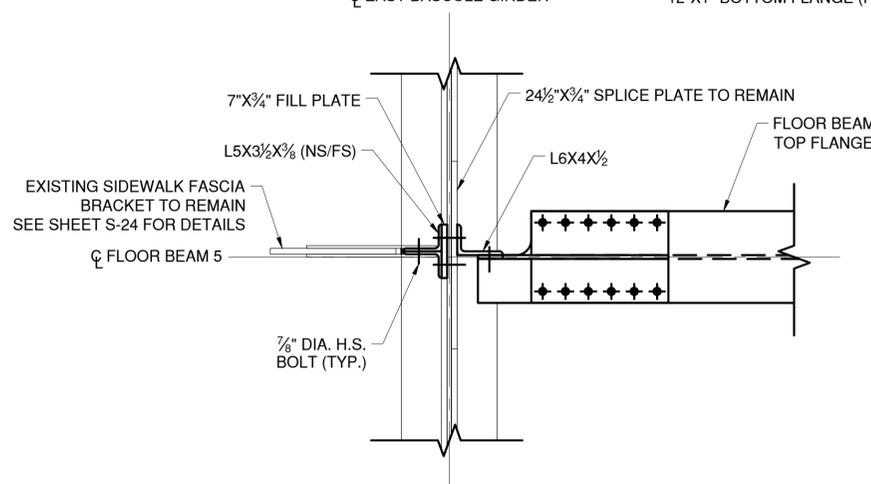
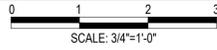
CONTRACT NUMBER 20-517	SHEET NUMBER S-13
SHEET NO. 54 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-489-0	0



**BASCULE SPAN FLOOR BEAM FB5 - PLAN**



**BASCULE SPAN FLOOR BEAM FB5 - ELEVATION**



- LEGEND:**
- EXISTING RIVET TO REMAIN
  - ◆ NEW BOLT IN NEW HOLE
  - ◆ NEW BOLT IN EXISTING RIVET HOLE

- NOTES:**
1. SEE SHEETS G-05 AND G-06 FOR STRUCTURAL NOTES.
  2. SEE SHEETS S-09 AND S-10 FOR ADDITIONAL FLOOR BEAM NOTES.
  3. SEE SHEET S-18 FOR FLOOR BEAM CONNECTION DETAILS.
  4. ALL FLOOR BEAM STIFFENERS AND CONNECTION PLATES SHALL INCLUDE NY STANDARD CLIP AND WELD TERMINATION DETAILS AS SHOWN ON SHEET S-11.



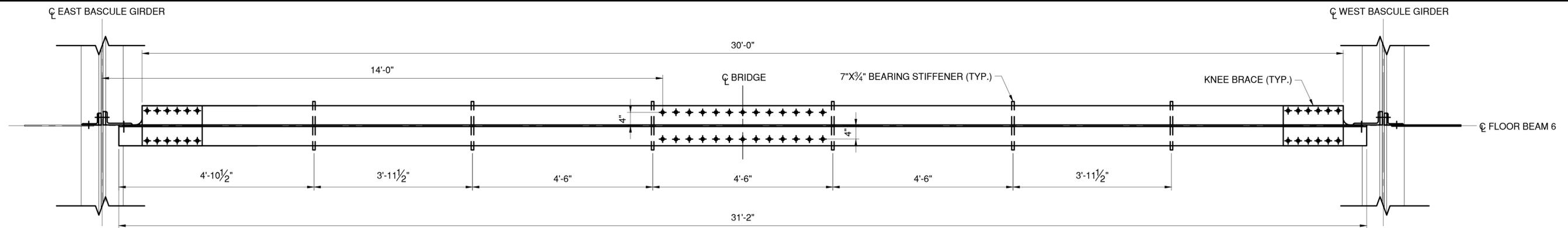
CONSULTANT INFORMATION  
**H&H** 1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY N. HYSON, PE

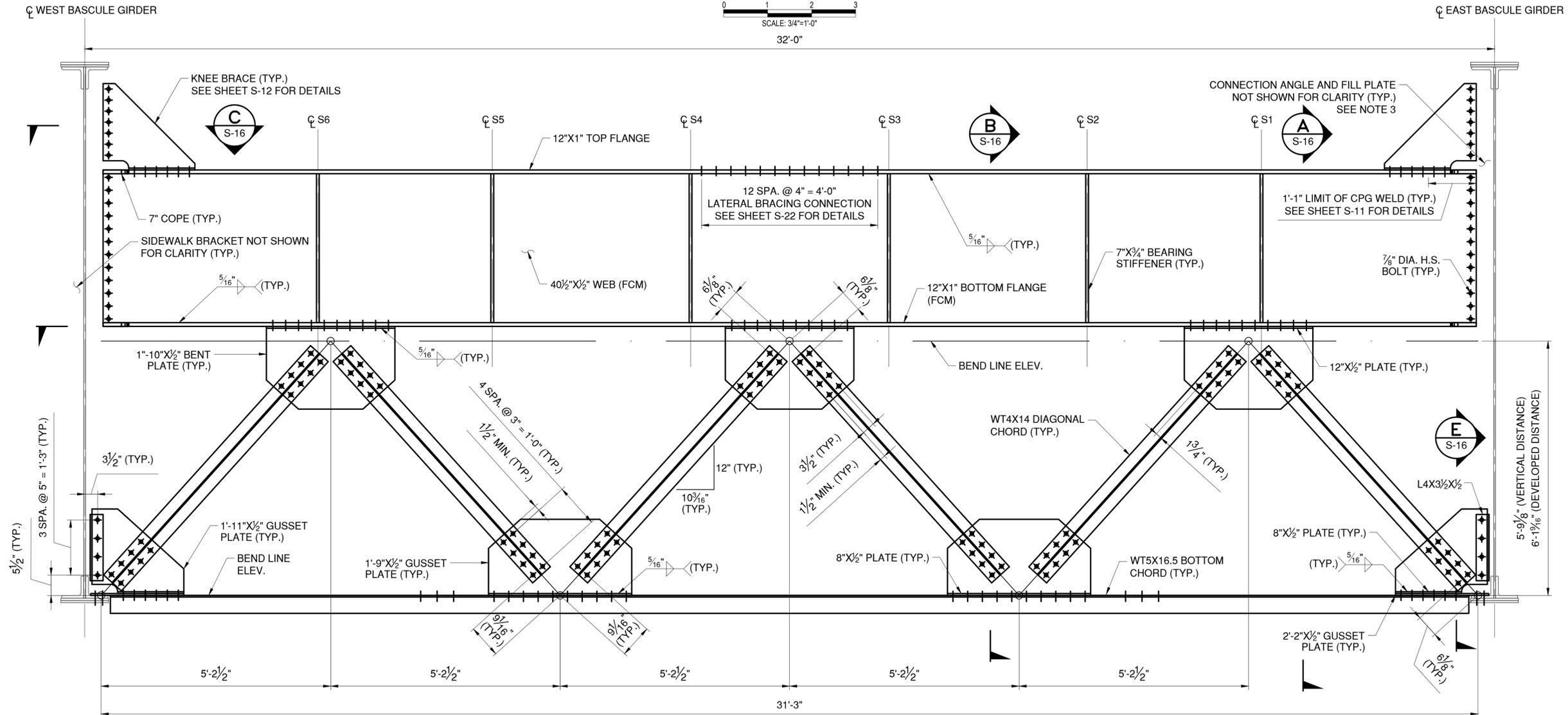
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____		
DATE _____	DATE _____		

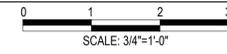
<b>WESTCHESTER COUNTY, NEW YORK</b> DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER S-14
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 55 OF 212	
STRUCTURAL		SCALE: AS SHOWN DATE: 03/08/2024	REV. NO. 0
<b>BASCULE SPAN FLOOR BEAM DETAILS - 5</b>		DPW FILE NO. 5-04-T-490-0	



**BASCULE SPAN FLOOR BEAM FB6 - PLAN**



**BASCULE SPAN FLOOR BEAM FB6 - ELEVATION**



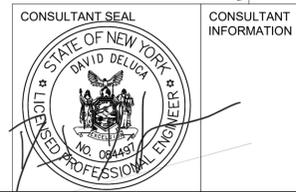
- NOTES:**
- SEE SHEETS G-05 AND G-06 FOR STRUCTURAL NOTES.
  - SEE SHEETS S-09 AND S-10 FOR ADDITIONAL FLOOR BEAM NOTES.
  - SEE SHEET S-18 FOR FLOOR BEAM CONNECTION DETAILS
  - ALL FLOOR BEAM STIFFENERS AND CONNECTION PLATES SHALL INCLUDE NY STANDARD CLIP AND WELD TERMINATION DETAILS. SEE SHEET S-11 FOR DETAILS.
  - CONTRACTOR TO FIELD VERIFY ELEVATIONS AND LOCATIONS OF EXISTING HOLES IN THE BASCULE GIRDERS REQUIRED FOR NEW BOLTS.

- LEGEND:**
- EXISTING RIVET TO REMAIN
  - ◆ NEW BOLT IN NEW HOLE
  - ◆ NEW BOLT IN EXISTING RIVET HOLE

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY S. VERA-FOX, PE

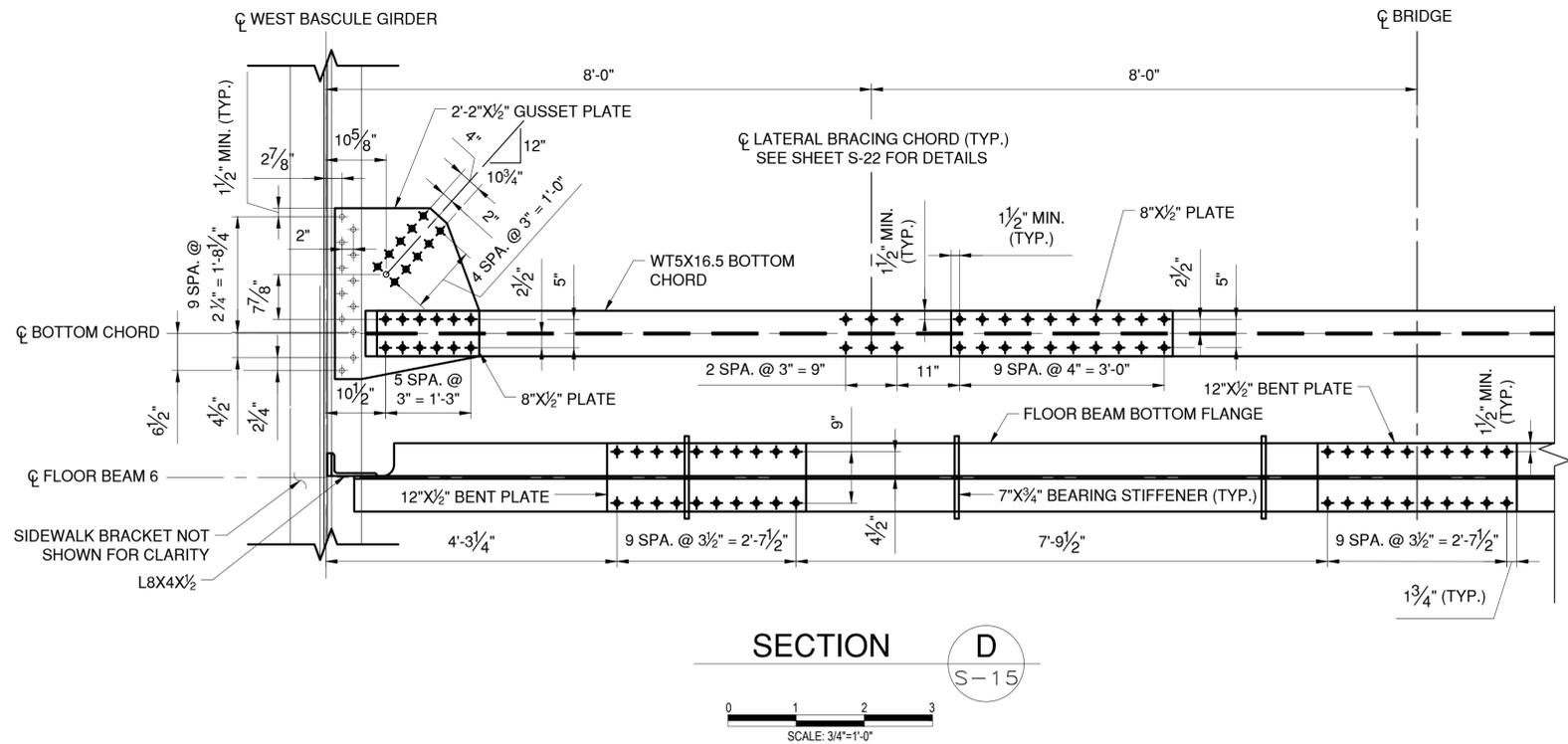
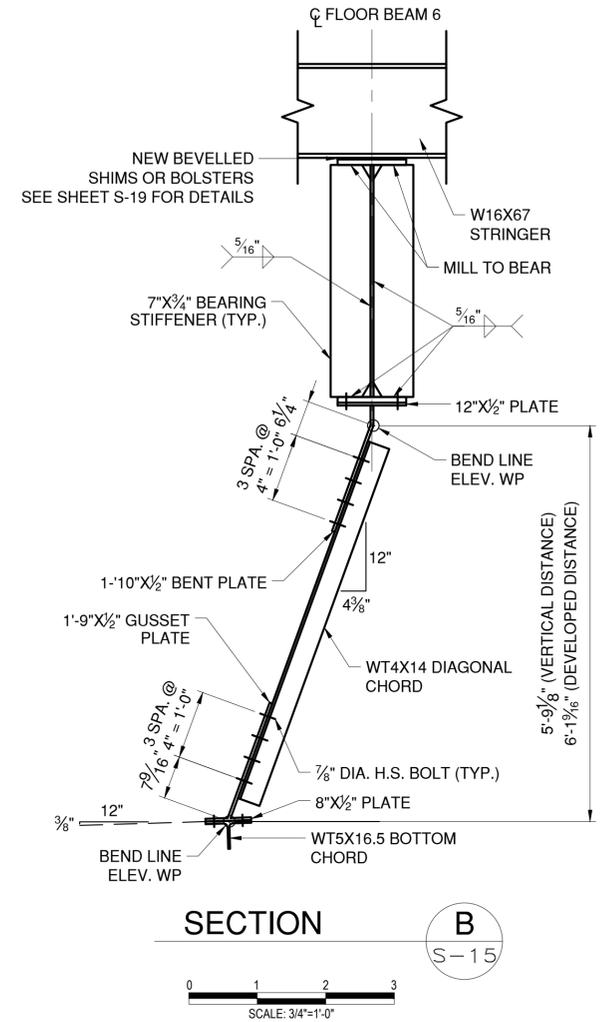
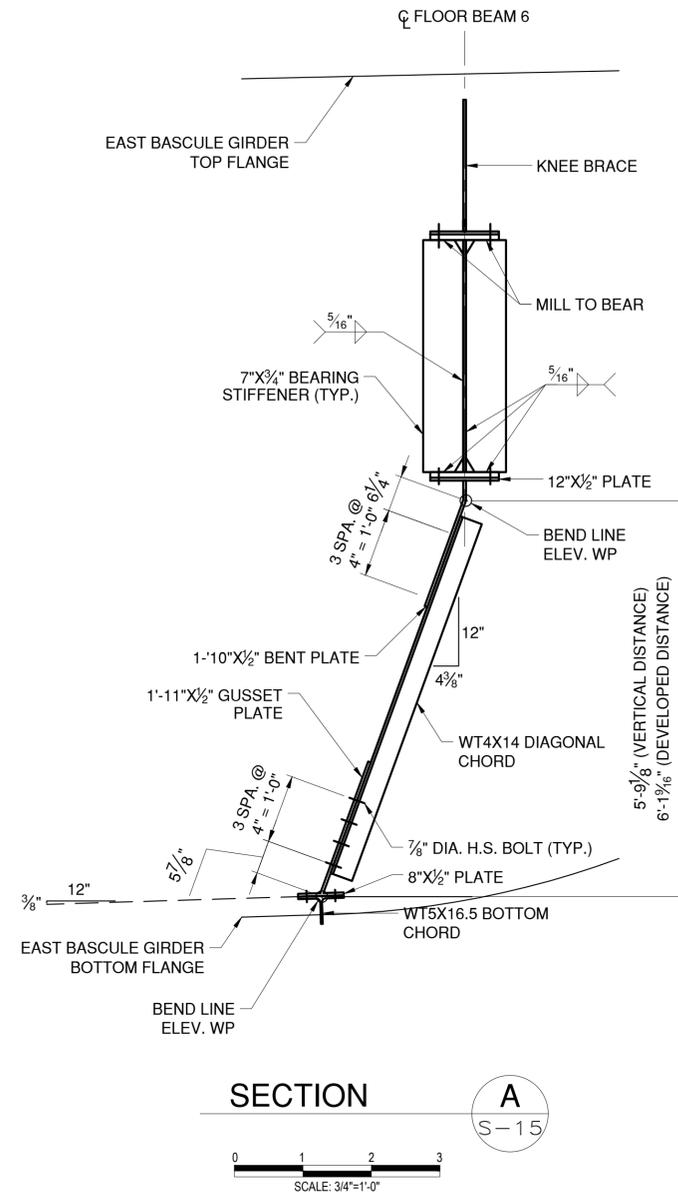
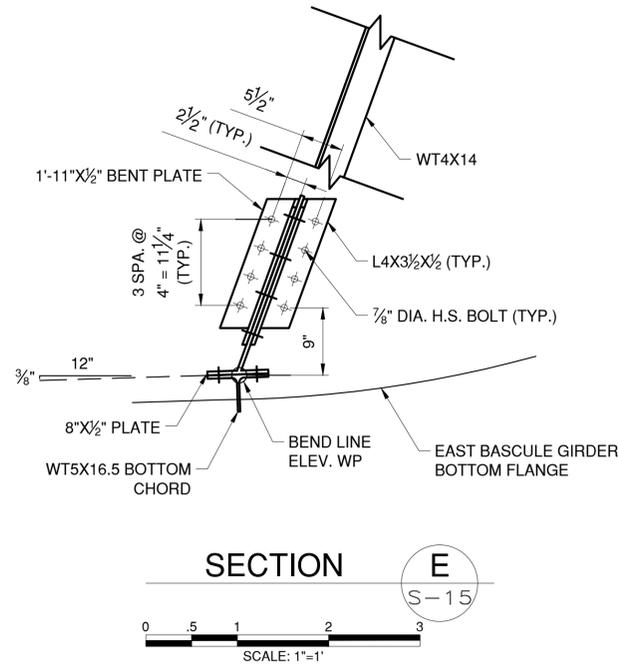
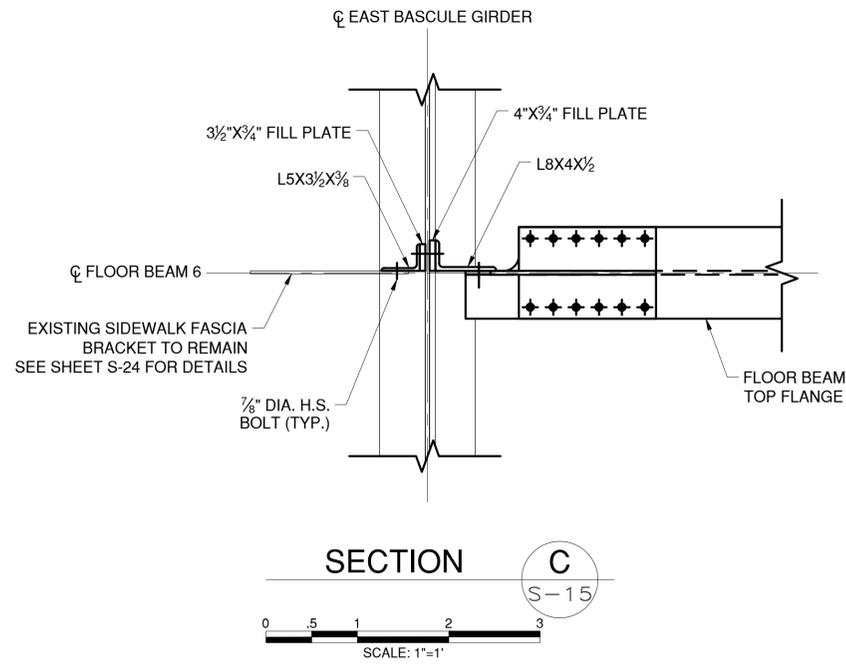
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
AS BUILT - CHANGES AS NOTED		AS BUILT - NO CHANGES	
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____



**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL  
**BASCULE SPAN FLOOR BEAM DETAILS - 6**

CONTRACT NUMBER 20-517	SHEET NUMBER S-15
SHEET NO. 56 OF 122	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-491-0	0



- NOTES:**
- SEE SHEETS G-05 AND G-06 FOR STRUCTURAL NOTES.
  - SEE SHEETS S-09 AND S-10 FOR ADDITIONAL FLOOR BEAM NOTES.
  - SEE SHEET S-18 FOR FLOOR BEAM CONNECTION DETAILS
  - ALL FLOOR BEAM STIFFENERS AND CONNECTION PLATES SHALL INCLUDE NY STANDARD CLIP AND WELD TERMINATION DETAILS. SEE SHEET S-11 FOR DETAILS.
  - CONTRACTOR TO FIELD VERIFY ELEVATIONS AND LOCATIONS OF EXISTING HOLES IN THE BASCULE GIRDERS REQUIRED FOR NEW BOLTS.
  - CONTRACTOR TO FIELD VERIFY BEND LINE ELEVATIONS AND LOCATIONS TO MATCH EXISTING CONDITIONS.

- LEGEND:**
- EXISTING RIVET TO REMAIN
  - ◆ NEW BOLT IN NEW HOLE
  - ⊕ NEW BOLT IN EXISTING RIVET HOLE



CONSULTANT INFORMATION



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY D. DERKS

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
AS BUILT - CHANGES AS NOTED		AS BUILT - NO CHANGES	
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

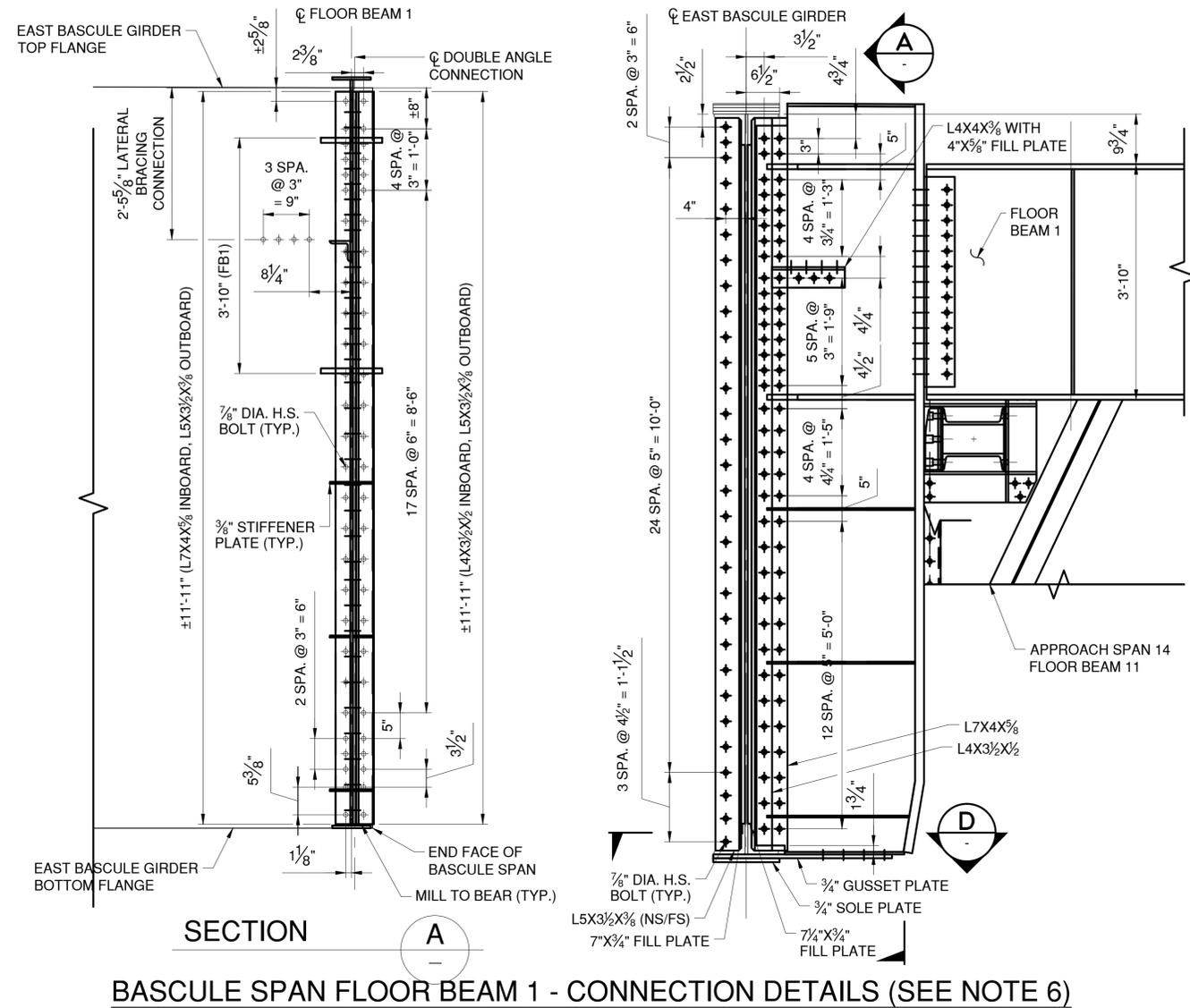
WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

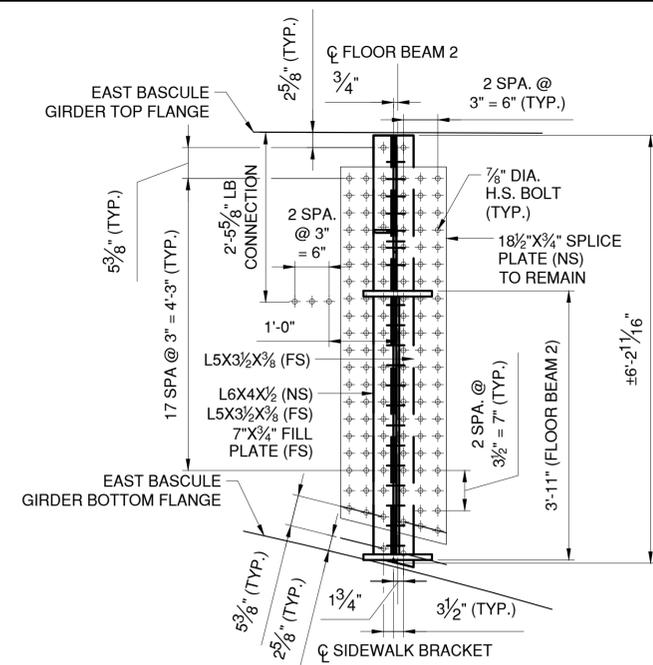
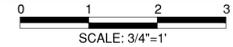
STRUCTURAL

**BASCULE SPAN FLOOR BEAM DETAILS - 7**

CONTRACT NUMBER 20-517	SHEET NUMBER S-16
SHEET NO. 57 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-492-0	0

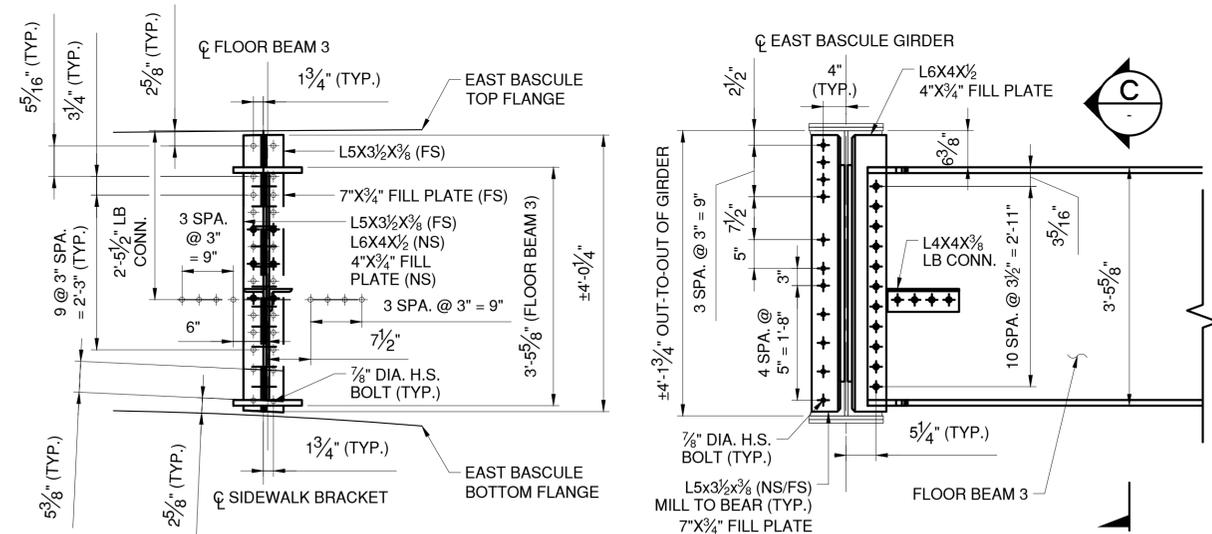


**BASCULE SPAN FLOOR BEAM 1 - CONNECTION DETAILS (SEE NOTE 6)**



**SECTION B**

**BASCULE SPAN FLOOR BEAM 2 - CONNECTION DETAILS (SEE NOTE 6)**



**SECTION C**

**BASCULE SPAN FLOOR BEAM 3 - CONNECTION DETAILS (SEE NOTE 6)**



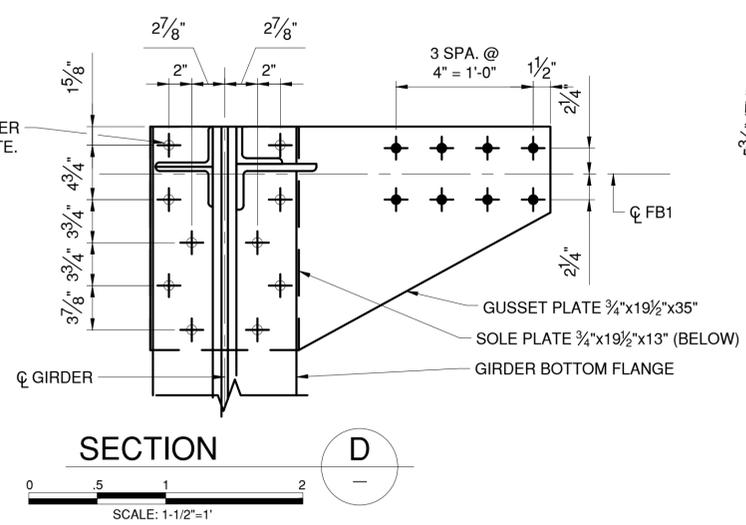
**NOTES:**

- SEE SHEETS G-05 AND G-06 FOR STRUCTURAL NOTES.
- SEE SHEETS S-09 AND S-10 FOR ADDITIONAL FLOOR BEAM NOTES.
- SEE SHEETS S-10 THRU S-12 FOR FLOOR BEAM DETAILS.
- EXISTING RIVET HOLES TO BE SUBDRILLED AND REAMED AS NECESSARY.
- STRUCTURAL STEEL SHALL BE PAID UNDER ITEM NO. 564.510001.
- CONTRACTOR TO FIELD VERIFY EXISTING RIVET SPACING AT LOCATIONS OF NEW BOLTS IN EXISTING HOLES WITH RIVETS. CONTRACTOR TO FIELD VERIFY HEIGHTS OF CONNECTION ANGLES AND CONNECTION FILL PLATES.
- F436 WASHERS MAY BE FIELD CLIPPED UP TO 1/8" TO ALLOW FOR PROPER, FLUSH INSTALLATION OF NEW BOLTS.
- ALL CONNECTION ANGLES SHALL BE MILL TO BEAR AGAINST THE BOTTOM FLANGE OF THE BASCULE GIRDERS, UNLESS OTHERWISE SPECIFIED.
- BASCULE WEB SPLICE PLATES AT FLOOR BEAM 2 TO REMAIN DURING CONSTRUCTION. NEW BOLTS IN EXISTING HOLES SHALL BE REPLACED SEQUENTIALLY TO AVOID STRUCTURAL DISRUPTION.

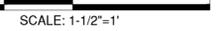
**LEGEND:**

- EXISTING RIVET TO REMAIN
- ◆ NEW BOLT IN NEW HOLE
- ⊕ NEW BOLT IN EXISTING RIVET HOLE

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY S. VERA-FOX, PE



**SECTION D**



USE EXISTING HOLES IN GIRDER BOTTOM FLANGE AS TEMPLATE. COUNTERSINK BOLTS INTO UNDERSIDE OF SOLE PLATE

REVISION					CONTRACTOR			PROJECT COORDINATOR		
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION	NAME	SIGNATURE	TITLE	NAME	SIGNATURE	TITLE

RECORD DRAWING CERTIFICATION  
 AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES



CONSULTANT INFORMATION

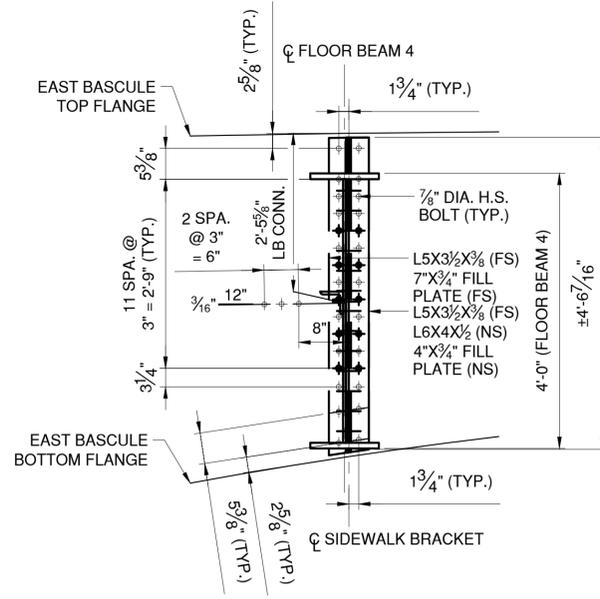


WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

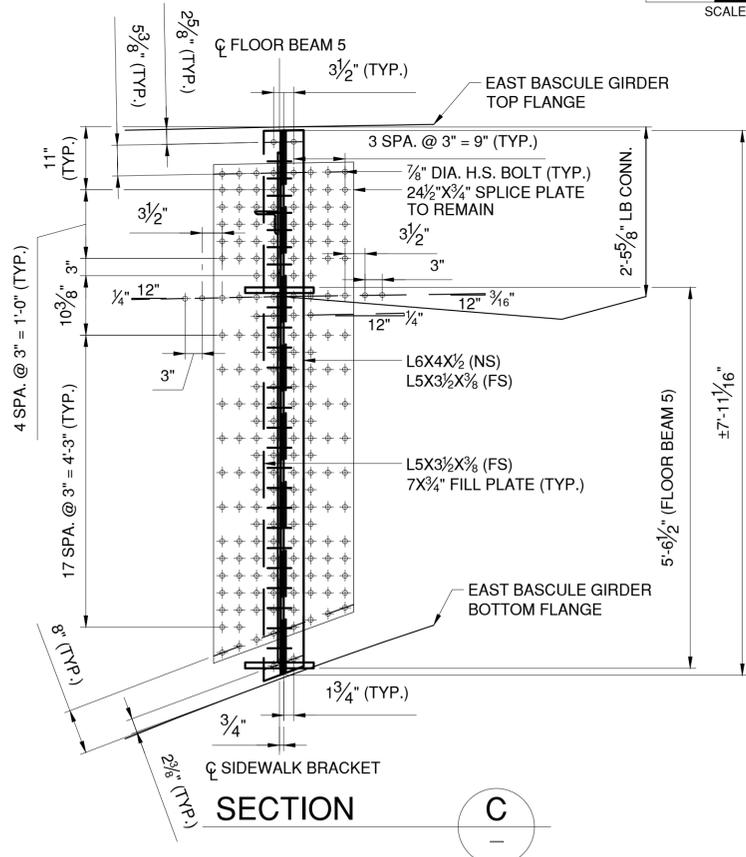
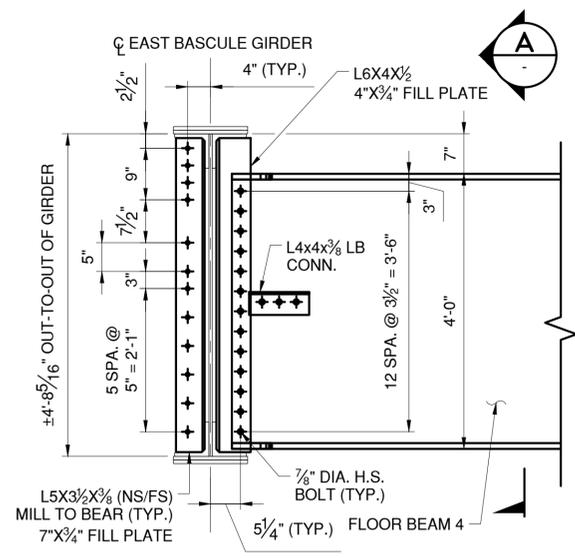
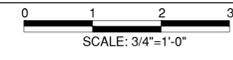
**BASCULE SPAN FLOOR BEAM CONNECTIONS - 1**

CONTRACT NUMBER 20-517	SHEET NUMBER S-17
SHEET NO. 58 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	REV. NO. 0
DPW FILE NO.	5-04-S-493-0



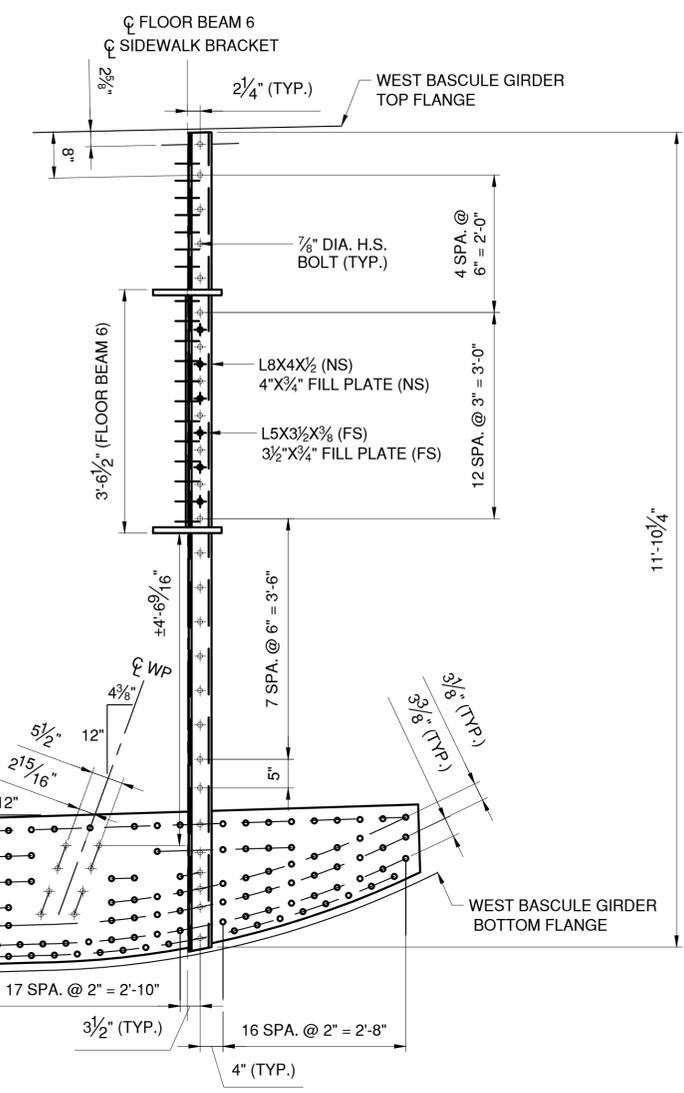
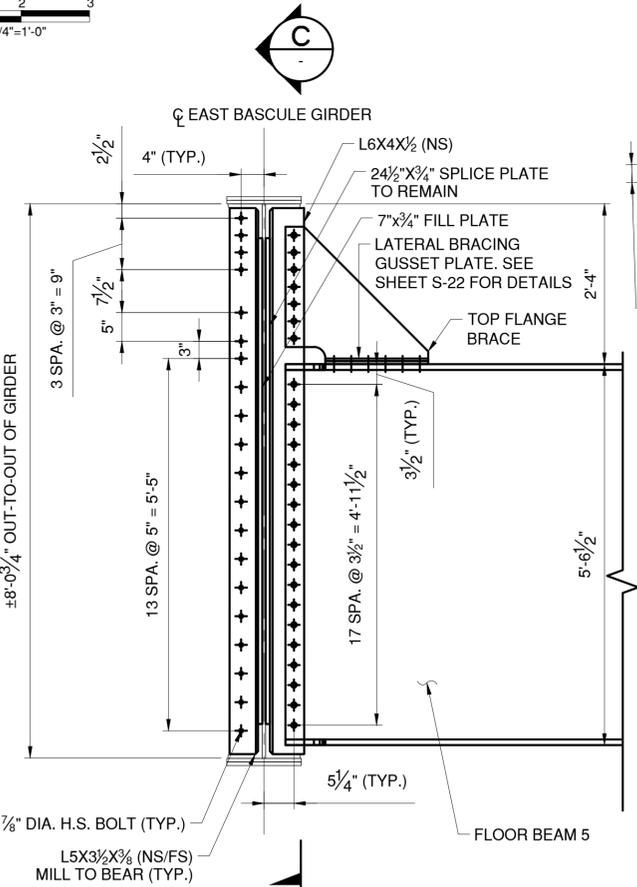
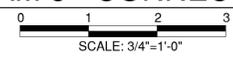
SECTION A

BASCULE SPAN FLOOR BEAM 4 - CONNECTION DETAILS (SEE NOTE 6)



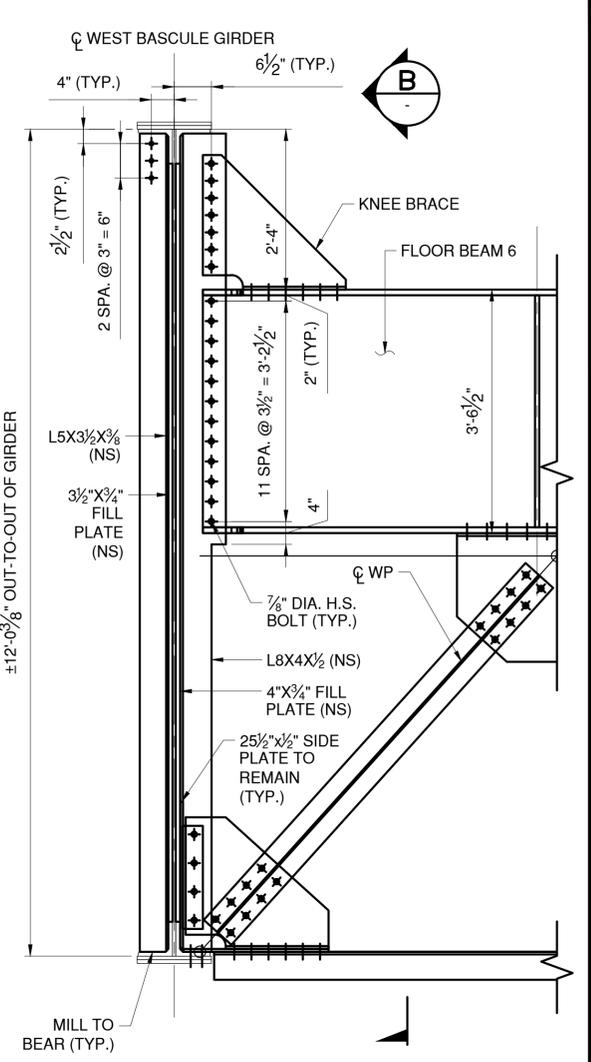
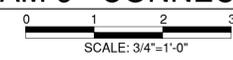
SECTION C

BASCULE SPAN FLOOR BEAM 5 - CONNECTION DETAILS (SEE NOTE 6)



SECTION B

BASCULE SPAN FLOOR BEAM 6 - CONNECTION DETAILS (SEE NOTE 6)



NOTES:

- SEE SHEETS G-05 AND G-06 FOR STRUCTURAL NOTES.
- SEE SHEETS S-09 AND S-10 FOR ADDITIONAL FLOOR BEAM NOTES.
- SEE SHEETS S-13 THRU S-15 FOR FLOOR BEAM DETAILS.
- HOLES IN NEW PLATES TO BE SUB-DRILLED AND REAMED TO MATCH EXISTING RIVET HOLES.
- STRUCTURAL STEEL SHALL BE PAID UNDER ITEM NO. 564.510001.
- CONTRACTOR TO FIELD VERIFY EXISTING RIVET SPACING AT LOCATIONS OF NEW BOLTS IN EXISTING HOLES WITH RIVETS. CONTRACTOR TO FIELD VERIFY HEIGHTS OF CONNECTION ANGLES AND CONNECTION FILL PLATES.
- F436 WASHERS MAY BE FIELD CLIPPED UP TO 1/8" TO ALLOW FOR PROPER, FLUSH INSTALLATION OF NEW BOLTS.
- ALL CONNECTION ANGLES AND SHALL BE MILL TO BEAR AGAINST THE BOTTOM FLANGE OF THE BASCULE GIRDERS, UNLESS OTHERWISE SPECIFIED.
- THE BASCULE SPLICE PLATES AT FLOOR BEAM 5 ARE TO REMAIN IN EFFECT DURING CONSTRUCTION. NEW BOLTS IN EXISTING HOLES ARE TO BE REPLACED SEQUENTIALLY TO AVOID STRUCTURAL DISRUPTION IN THE SPLICE.

LEGEND:

- EXISTING RIVET TO REMAIN
- ◆ NEW BOLT IN NEW HOLE
- ◆ NEW BOLT IN EXISTING RIVET HOLE



CONSULTANT INFORMATION



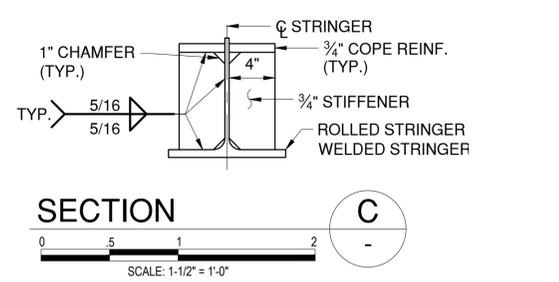
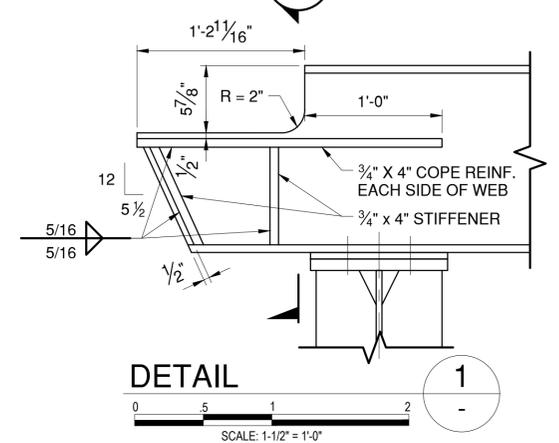
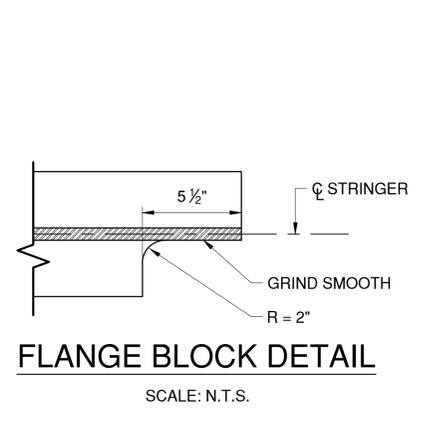
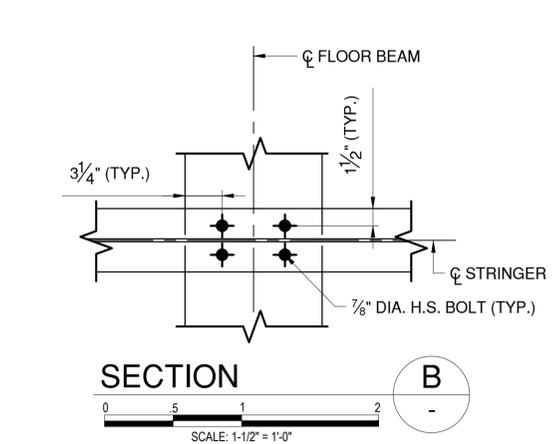
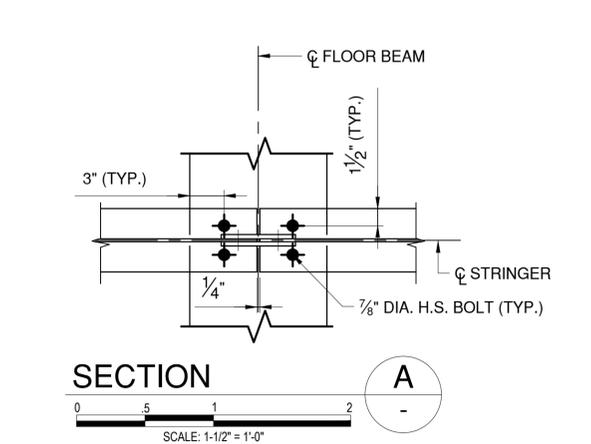
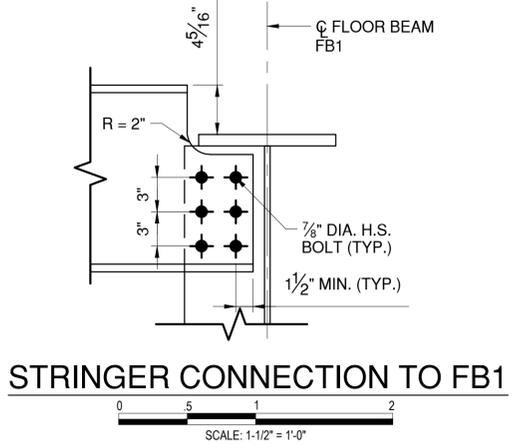
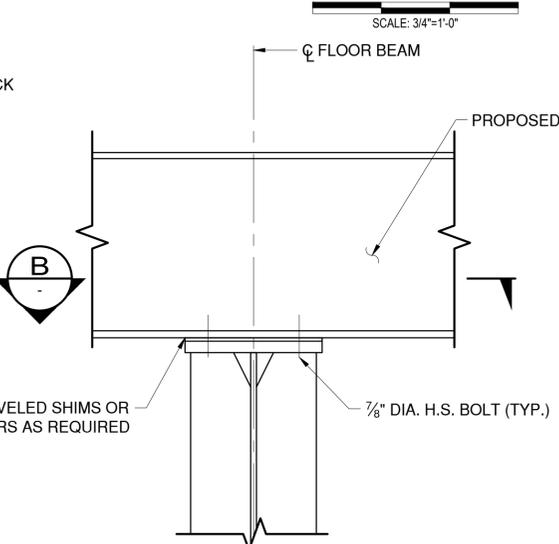
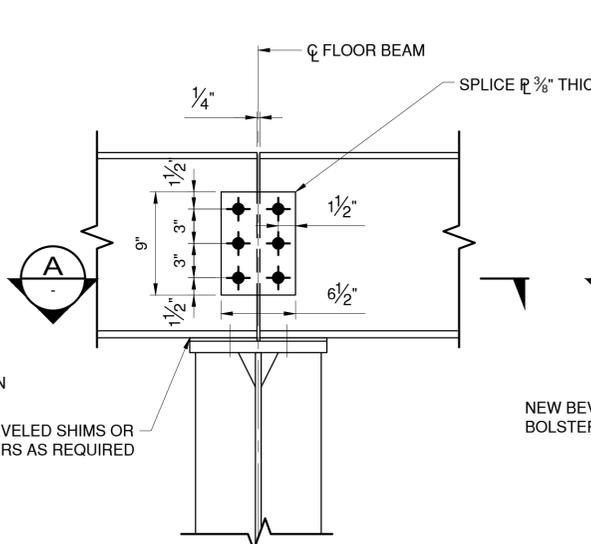
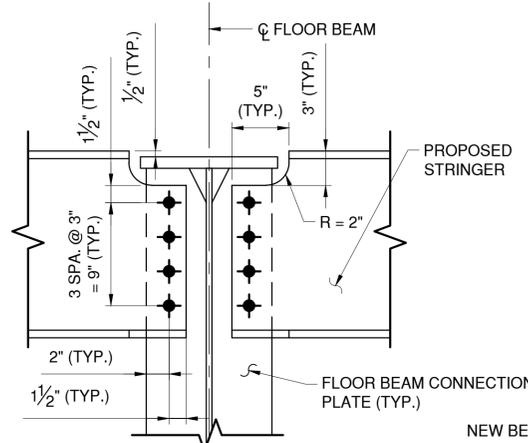
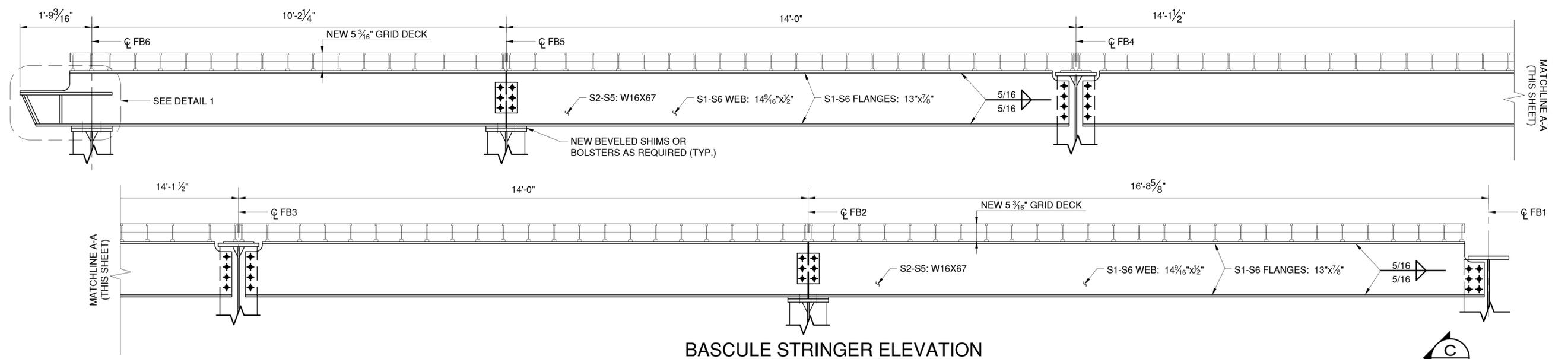
IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY S. VERA-FOX, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
AS BUILT - CHANGES AS NOTED		AS BUILT - NO CHANGES	
CONTRACTOR		PROJECT COORDINATOR	
NAME		NAME	
SIGNATURE		SIGNATURE	
TITLE		TITLE	
	DATE		DATE

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL

CONTRACT NUMBER 20-517	SHEET NUMBER S-18
SHEET NO. 59 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-494-0	0



- NOTES:**
- STRINGER PROFILE NOT SHOWN.
  - FOR DECK JOINT DETAILS AND STRINGER END DETAILS AT FLOOR BEAM 1 AND FLOOR BEAM 6, SEE SHEETS S-65 TRHU S-67.
  - GRID DECK IS SHOWN HERE FOR ILLUSTRATIVE PURPOSES ONLY. FOR GRID DECK DETAILS, SEE SHEET S-20 AND S-21.
- LEGEND:**
- EXISTING RIVET TO REMAIN
  - NEW BOLT IN NEW HOLE
  - ⊕ NEW BOLT IN EXISTING RIVET HOLE

CONSULTANT SEAL: STATE OF NEW YORK, DAVID DELUCA, REGISTERED PROFESSIONAL ENGINEER

CONSULTANT INFORMATION: H&H, 1501 BROADWAY, SUITE 601, NEW YORK, NY 10036, (212) 944-1150

IN CHARGE OF: D. DELUCA, PE  
 CHECKED BY: J. WARNCKE, PE  
 MADE BY: N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR: \_\_\_\_\_ PROJECT COORDINATOR: \_\_\_\_\_

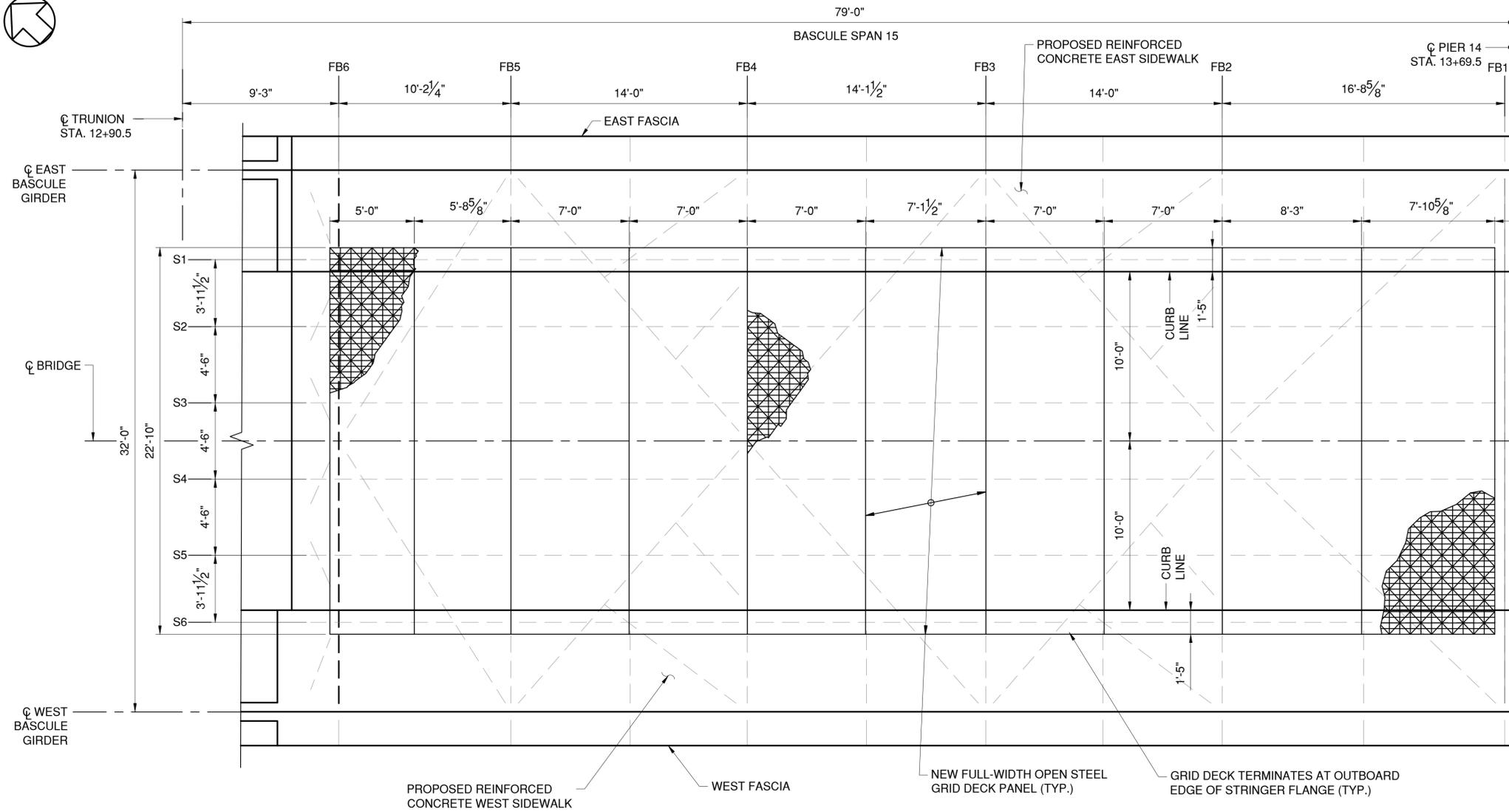
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WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

STRUCTURAL  
**BASCULE SPAN PROPOSED STRINGERS**

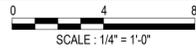
CONTRACT NUMBER: 20-517 SHEET NUMBER: S-19  
 SHEET NO. 60 OF 212  
 SCALE: AS SHOWN DATE: 03/08/2024  
 DPW FILE NO. 5-04-S-495-0 REV. NO. 0



GRID DECK WIDTHS  
TAKEN TO CENTER OF  
1/2" SPLICE BTW. PANELS

- NOTES:**
1. CONTRACTOR SHALL SUBMIT TO ENGINEER DETAILED SHOP DRAWINGS AND CALCULATIONS PREPARED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF NEW YORK. THE CONTRACTOR SHALL DEVELOP THE DETAILED SEQUENCE OF WORK, TASKS TO BE PERFORMED, FORM WORK, LIFTING, HANDLING, AND LEVELING OF GRID-DECK PANELS. CALCULATIONS SHALL BE SUBMITTED FOR APPROVAL.
  2. A GENERIC GRID SYSTEM IS SHOWN ON THE DRAWINGS. MINOR DEVIATIONS MANUFACTURED BY INDIVIDUAL SUPPLIERS WILL BE CONSIDERED FOR APPROVAL IN THE SHOP DRAWINGS. DETAILS SUGGESTED BY THE MANUFACTURER TO BE SUBMITTED FOR APPROVAL.
  3. GRID-DECK PANELS ARE DIMENSIONED TO THE ANTICIPATED LIMITS OF THE PANEL SPLICE JOINTS OR DECK JOINTS. THE CONTRACTOR MAY PROPOSE FABRICATING LARGER PANELS THAN WHAT IS SHOWN IN THESE PLANS. SUBMIT TO ENGINEER ALL DETAILS OF PROPOSED OPERATION FOR APPROVAL, INCLUDING SHIPPING METHOD. THE USE OF LARGER PANELS IS CONTINGENT UPON APPROVAL. MINIMUM SPACING OF STEEL GRID AND REINFORCEMENT STEEL SHOWN SHALL BE MAINTAINED.
  4. THE DIMENSIONAL TOLERANCES FOR EACH STEEL GRID PANEL SHALL BE IN ACCORDANCE WITH THE CURRENT PUBLISHED STANDARDS OF THE BRIDGE GRID FLOORING MANUFACTURERS ASSOCIATION.
  5. AN INDEPENDENT PREFIT SHALL BE REQUIRED AT THE PLANT.
  6. A MANUFACTURER'S REPRESENTATIVE SHALL BE PRESENT DURING PANEL INSTALLATION AS DETERMINED BY THE ENGINEER.
  7. STEEL GRID DECK SHALL BE PAID FOR UNDER ITEM 596.122010WE.

**GRID-DECK PLAN**



**CONSULTANT INFORMATION**

**H&H**  
1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

IN CHARGE OF D. DELUCA, PE  
CHECKED BY J. WARNCKE, PE  
MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

**RECORD DRAWING CERTIFICATION**

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

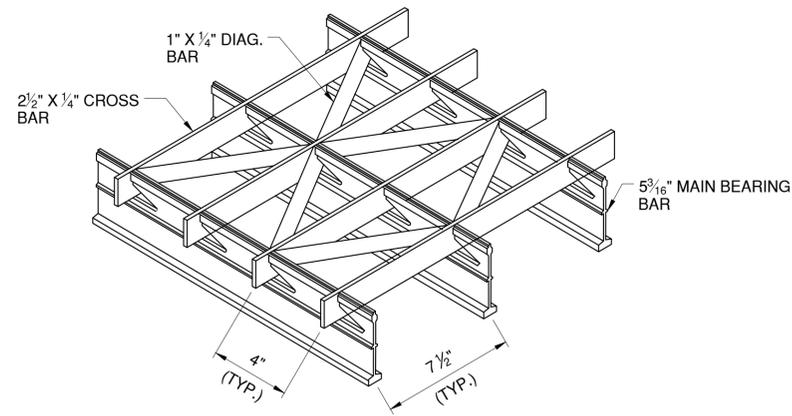
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle

**STRUCTURAL**

**BASCULE SPAN PROPOSED GRID DECK PLAN**

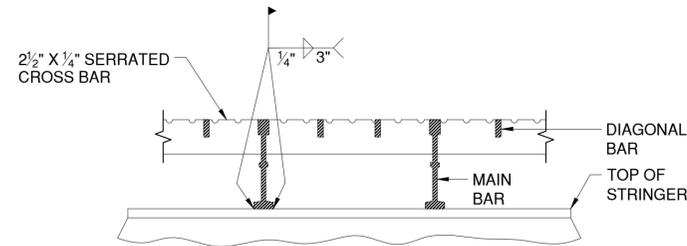
CONTRACT NUMBER 20-517	SHEET NUMBER S-20
SHEET NO. 61 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	REV. NO. 0
DPW FILE NO.	5-04-S-496-0



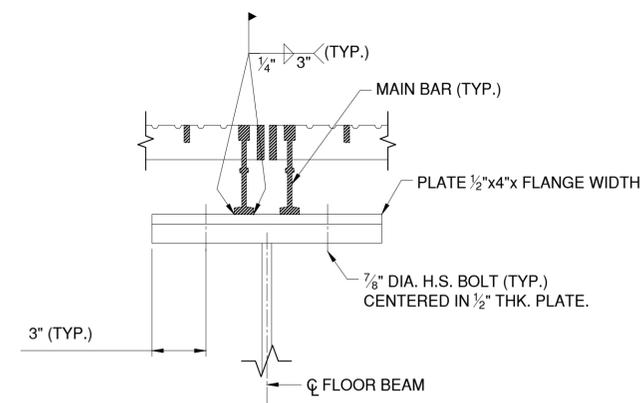
**NEW STEEL GRID DECK**  
(ISOMETRIC VIEW)  
N.T.S.

GRATING CHARACTERISTICS	
DEPTH OF MAIN BAR	5 <sup>3</sup> / <sub>16</sub> "
SPACING OF MAIN BARS	7 1/2"
ELASTIC SECTION MODULUS PER FOOT - TOP	4.038 IN <sup>3</sup> /FT
ELASTIC SECTION MODULUS PER FOOT - BOTTOM	4.321 IN <sup>3</sup> /FT
APPROXIMATE WEIGHT	18.5 PSF*

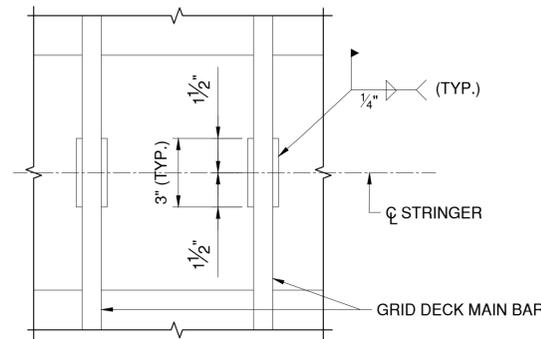
\*DOES NOT INCLUDE TRIM BARS



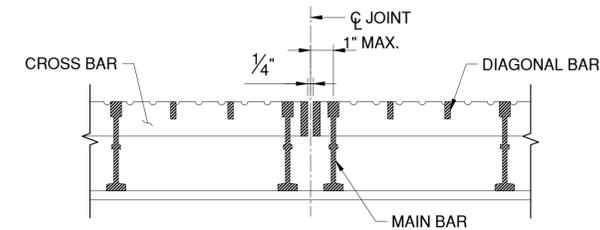
**CONN. DETAIL BETWEEN MAIN BARS AT STRINGERS**  
N.T.S.



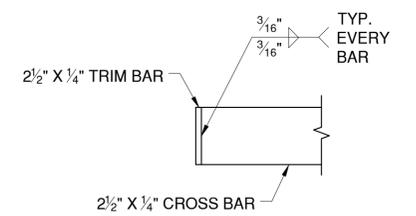
**TYPICAL CONNECTION DETAIL BETWEEN MAIN BARS AT FLOOR BEAMS**  
N.T.S.



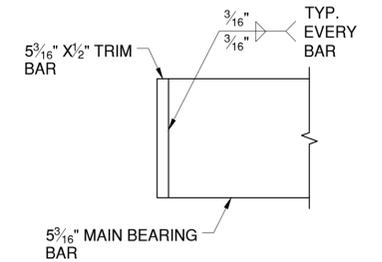
**MAIN BAR TO STRINGER WELD DETAIL**  
N.T.S.



**TYPICAL OPEN DECK PANEL SPLICE**  
N.T.S.

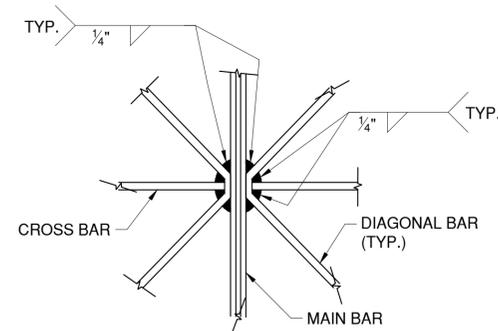


**(AT TOE)**

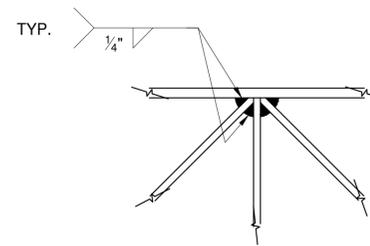


**(AT CURB)**

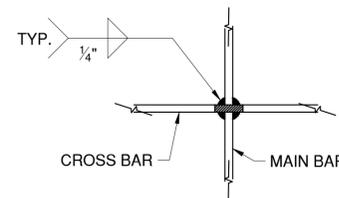
**GRID DECK TRIM BAR DETAIL**  
SCALE: 3" = 1'-0"



**MAIN BAR/ CROSS BAR/DIAGONAL BARS**



**TRIM BAR/MAIN BAR/DIAGONAL BAR**



**MAIN/CROSS BAR**

**WELDMENT DETAILS**  
N.T.S.

**NOTES:**

1. THE CONTRACTOR TO BE AWARE THAT THE TOLERANCES FOR FITTING OF THE DECK PANELS WILL BE STRICTLY ENFORCED DURING FINAL INSTALLATION OF THE DECK. THE CONTRACTOR IS REQUIRED TO SET AND ALIGN THE PANELS ON SITE PRIOR TO FINAL ATTACHMENT. NO DAMAGE TO THE DECK PANELS WILL BE PERMITTED DURING THESE OPERATIONS. IF THE PANELS ARE DAMAGED, THEY SHALL BE REPAIRED OR REPLACED AT THE DISCRETION OF THE ENGINEER AND AT NO ADDITIONAL COST TO THE COUNTY.
2. GRID DECK SECTION PROPERTIES BASED ON INDUSTRY-TYPICAL 5-IN 4-WAY MODIFIED OPEN GRID. CONTRACTOR TO CONFIRM SECTION PROPERTIES FROM FABRICATOR.
3. STEEL GRID UNIT WEIGHT SHALL NOT VARY MORE THAN ± 5% FROM THE TABULATED VALUE SHOWN.



CONSULTANT INFORMATION



IN CHARGE OF D. DELUCA, PE  
CHECKED BY J. WARNCKE, PE  
MADE BY L. BELGRAVE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
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SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

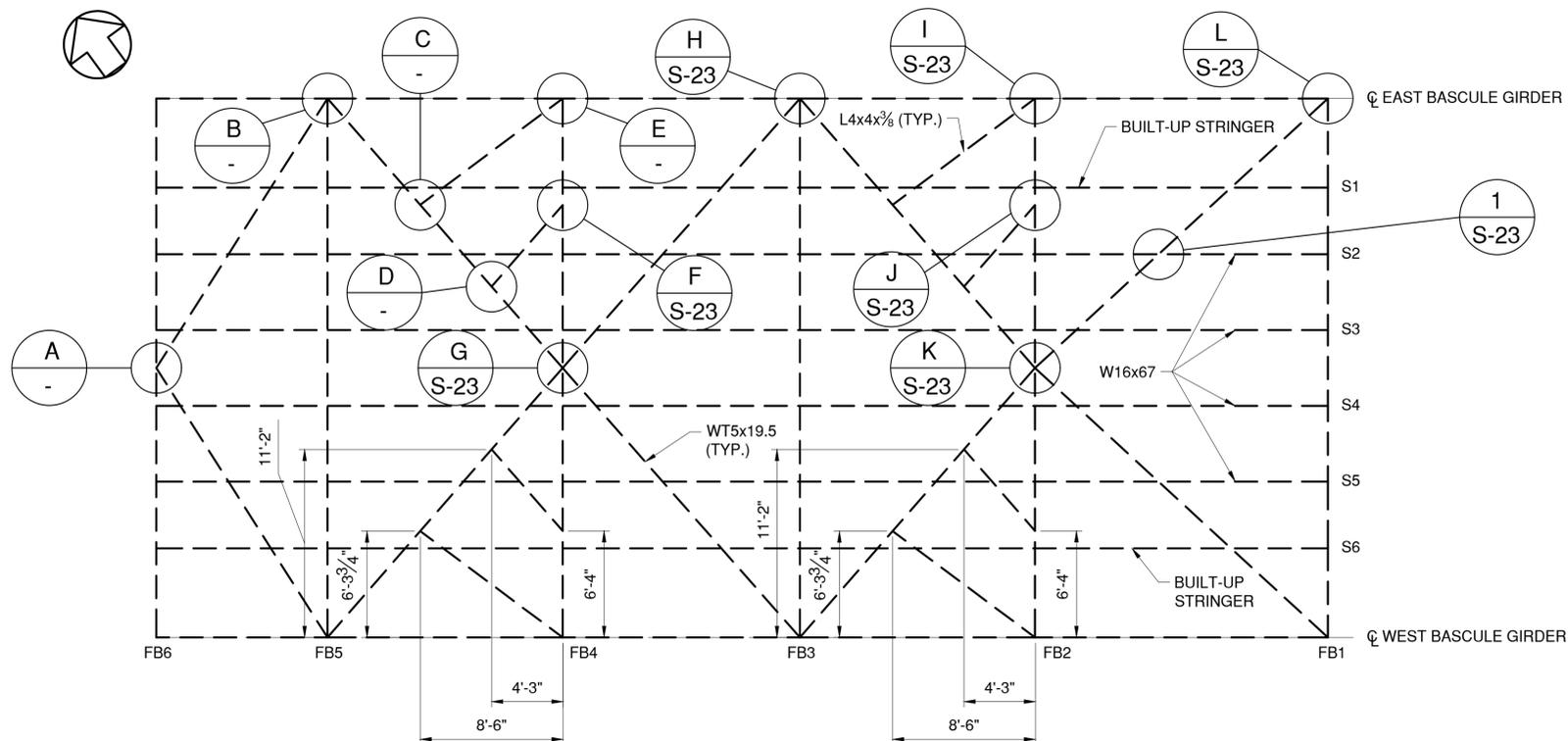
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle

STRUCTURAL

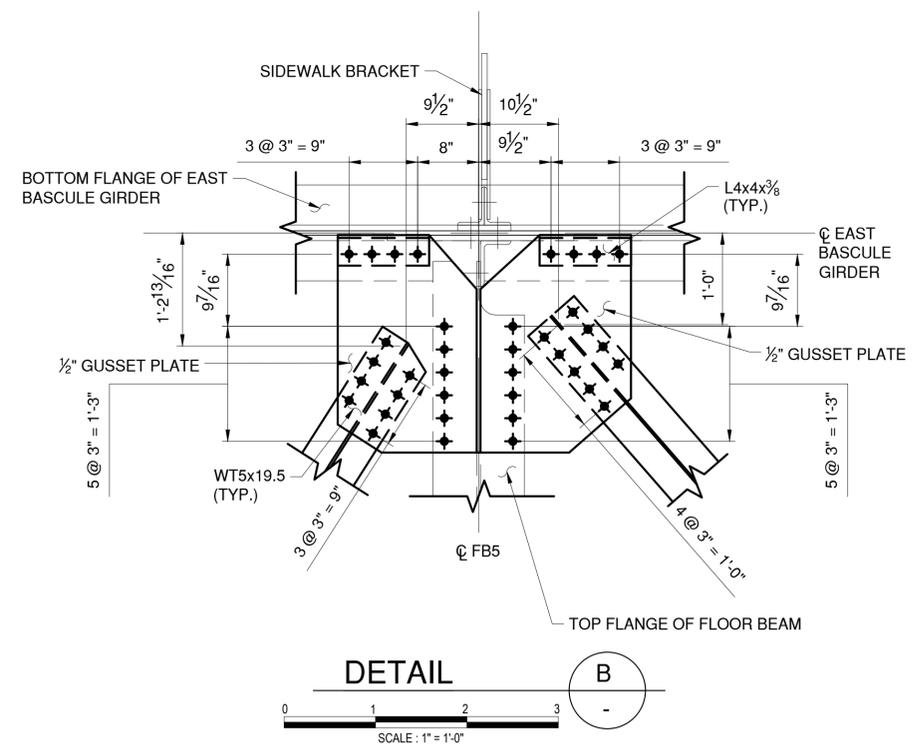
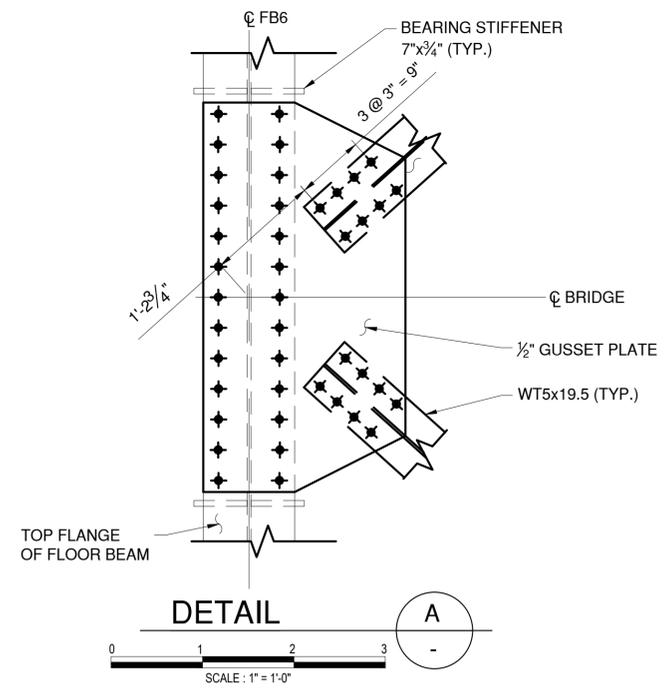
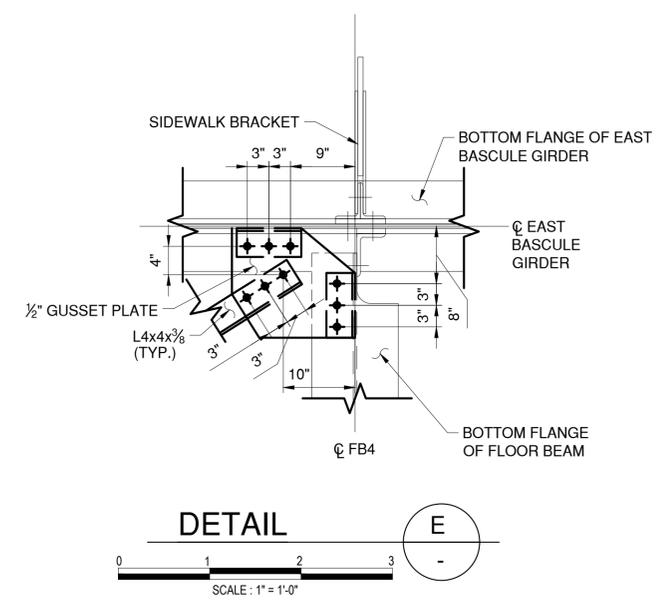
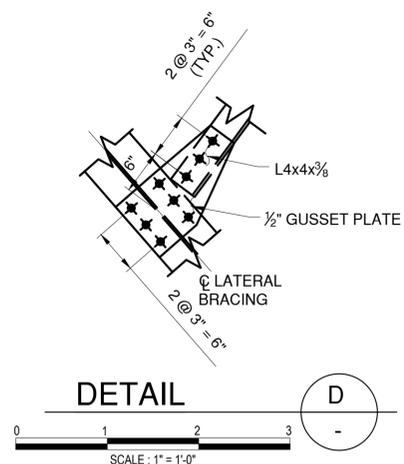
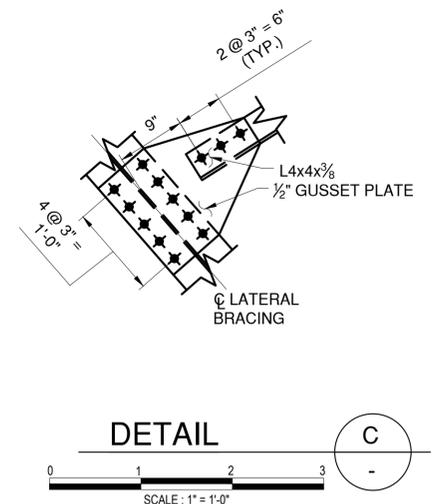
**BASCULE SPAN PROPOSED GRID DECK DETAILS**

CONTRACT NUMBER 20-517	SHEET NUMBER S-21
SHEET NO. 62 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-497-0	0



**BASCULE SPAN LATERAL BRACING**

SCALE: N.T.S.



**NOTES:**

- FOR STRINGER CONNECTIONS, SEE SHEET S-19.
- FOR BASCULE FLOOR BEAM DETAILS AND LATERAL BRACING CONNECTIONS TO FLOOR BEAMS, SEE SHEETS S-10 TO S-18.
- CONTRACTOR TO FIELD VERIFY ALL LATERAL BRACING NEW BOLTED CONNECTIONS TO BASCULE GIRDER WEB IN EXISTING RIVET HOLES. SEE SHEETS S-17 AND S-18 FOR DETAILS.
- DETAIL 1 APPLIES AT ALL INTERSECTIONS OF STRINGERS AND WT LATERAL BRACE.

**LEGEND:**

- EXISTING RIVET TO REMAIN
- ◆ NEW BOLT IN NEW HOLE
- ◆ NEW BOLT IN EXISTING RIVET HOLE

CONSULTANT SEAL

CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. AMARONE, PE  
 MADE BY C. TRIMBLE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

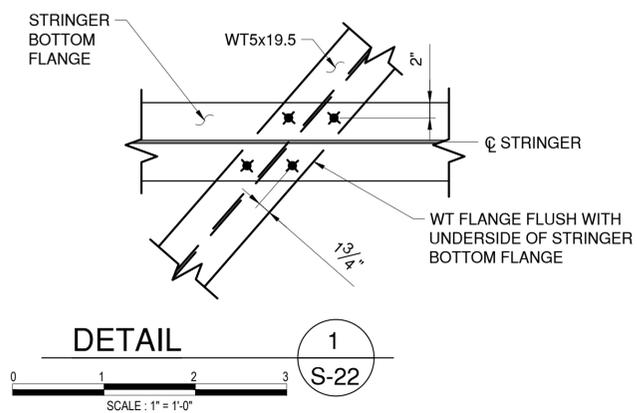
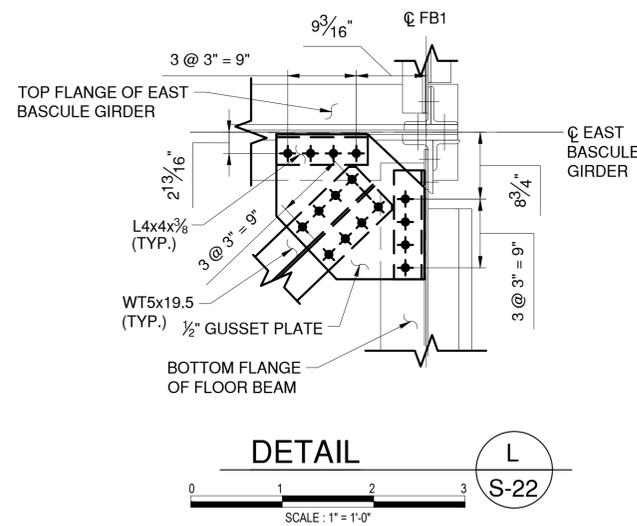
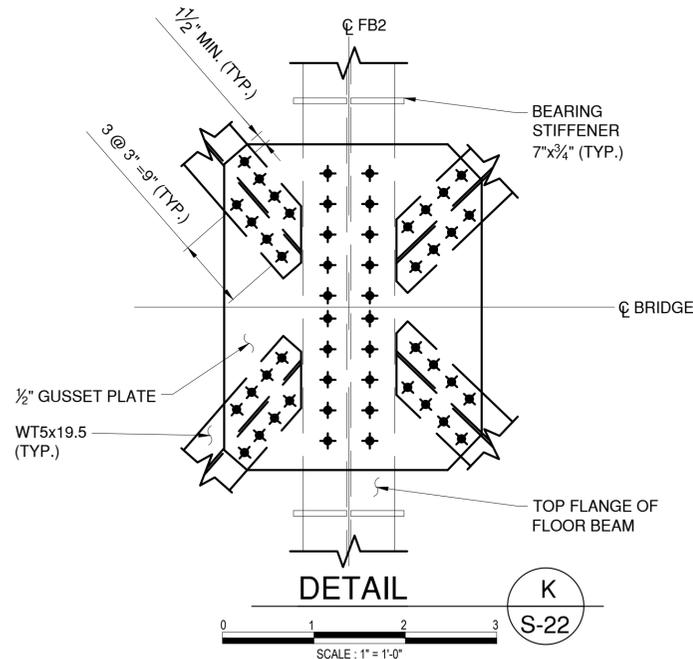
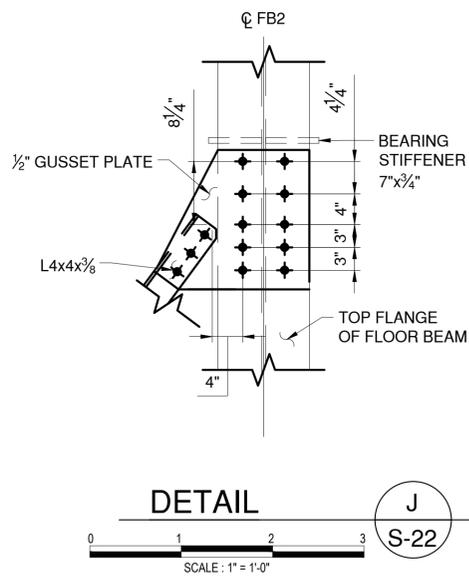
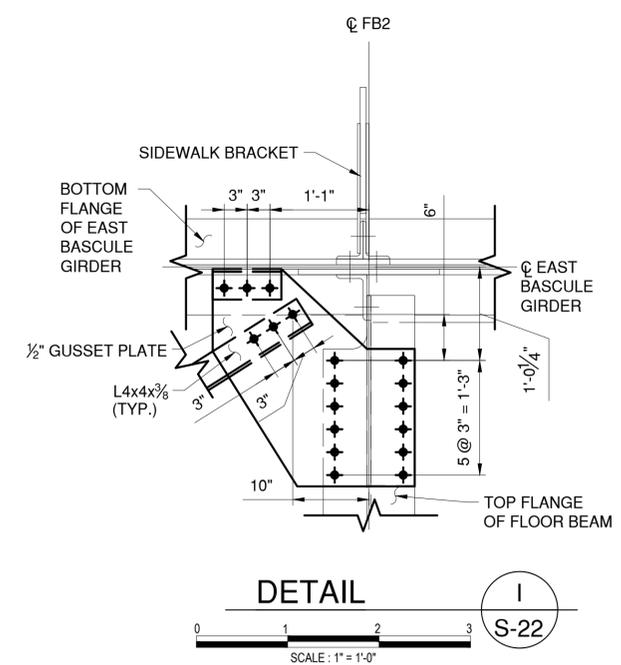
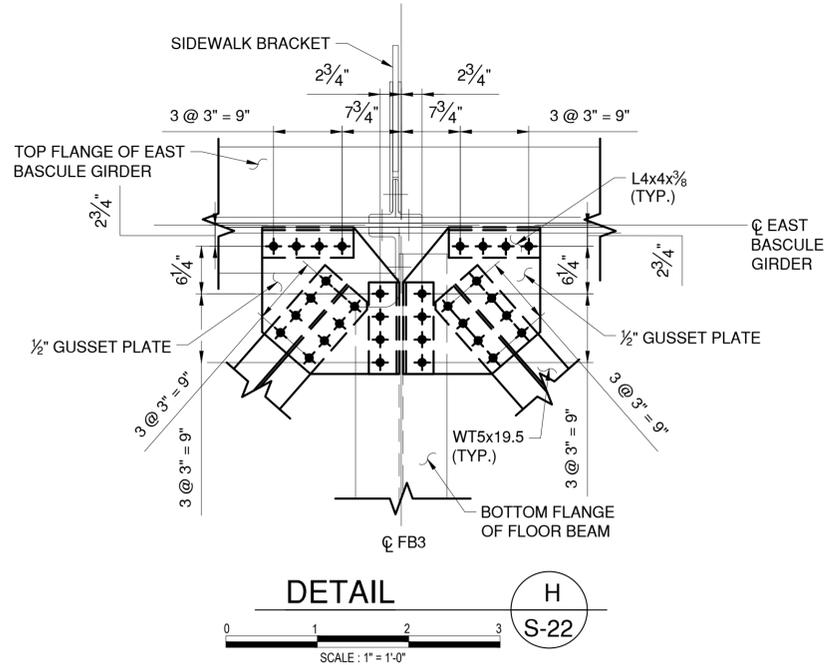
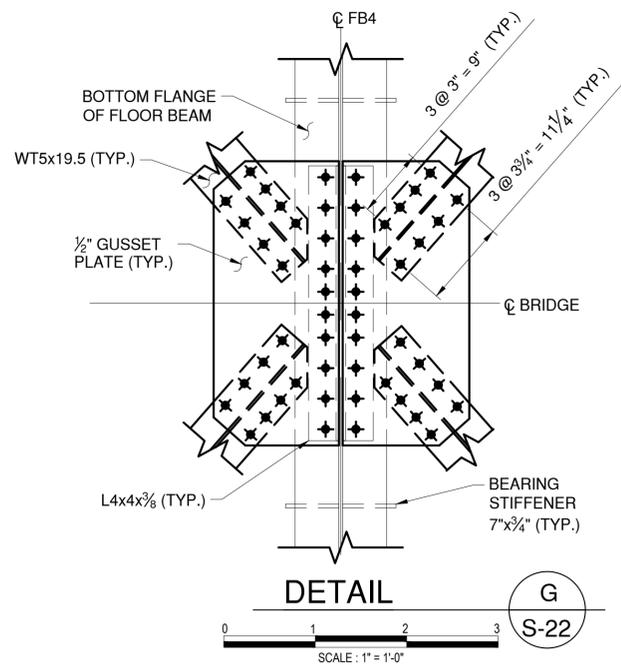
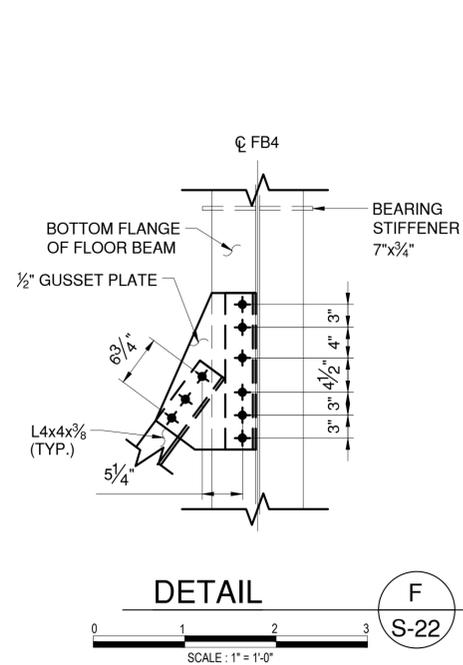
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

STRUCTURAL

**BASCULE SPAN LATERAL BRACING DETAILS - 1**

CONTRACT NUMBER 20-517	SHEET NUMBER S-22
SHEET NO. 63 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-498-0	0



- NOTES:**
- FOR STRINGER CONNECTIONS, SEE SHEET S-19.
  - FOR BASCULE FLOOR BEAM DETAILS AND LATERAL BRACING CONNECTIONS TO FLOOR BEAMS, SEE SHEETS S-10 TO S-18.
  - CONTRACTOR TO FIELD VERIFY ALL LATERAL BRACING NEW BOLTED CONNECTIONS TO BASCULE GIRDER WEB IN EXISTING RIVET HOLES. SEE SHEETS S-17 AND S-18 FOR DETAILS.

- LEGEND:**
- EXISTING RIVET TO REMAIN
  - ◆ NEW BOLT IN NEW HOLE
  - ◆ NEW BOLT IN EXISTING RIVET HOLE



CONSULTANT INFORMATION

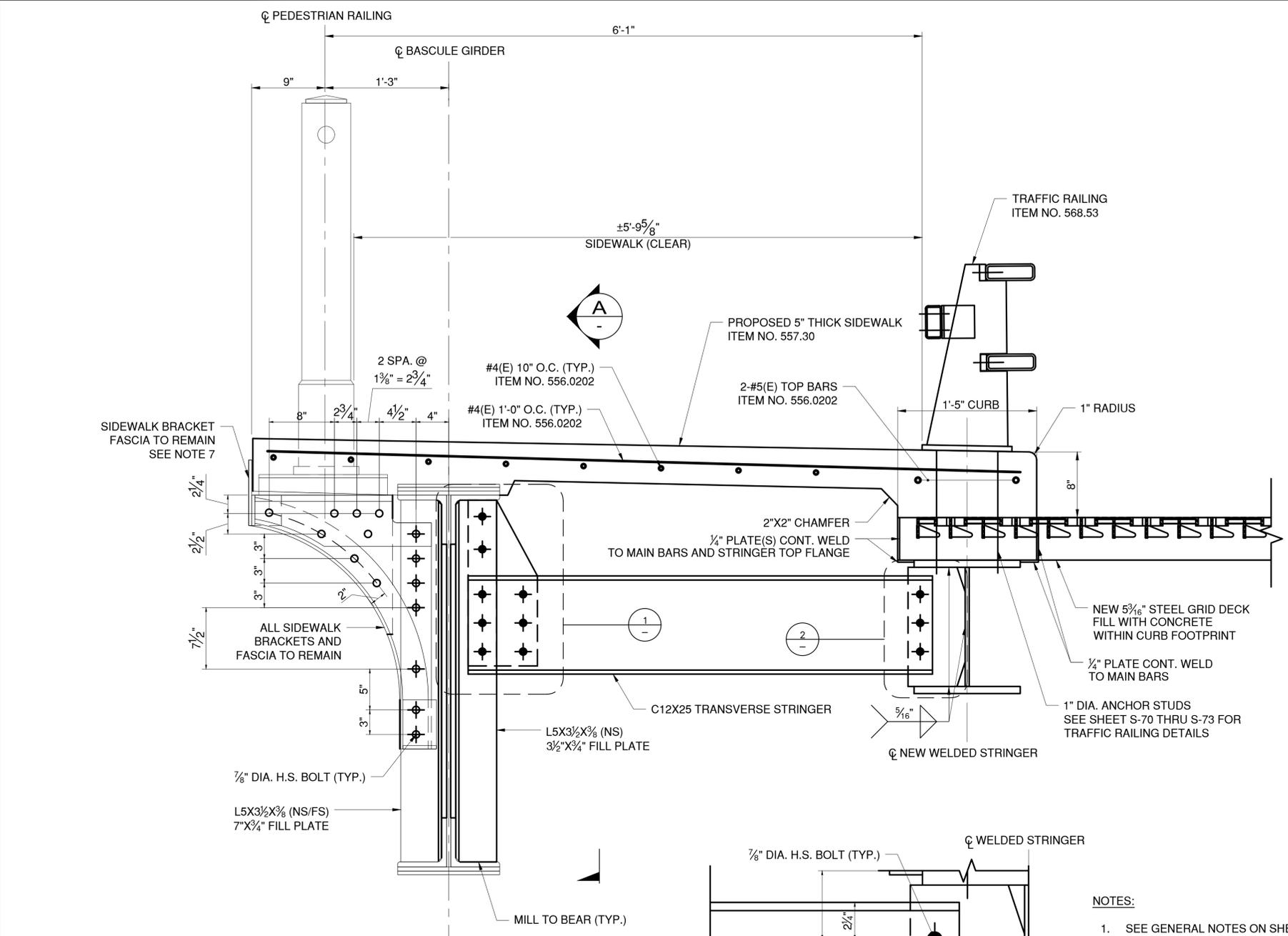


IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. AMARONE, PE  
 MADE BY C. TRIMBLE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____		
DATE _____	DATE _____		

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER S-23
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 64 OF 212	
STRUCTURAL		SCALE: AS SHOWN DATE: 03/08/2024	REV. NO. 0
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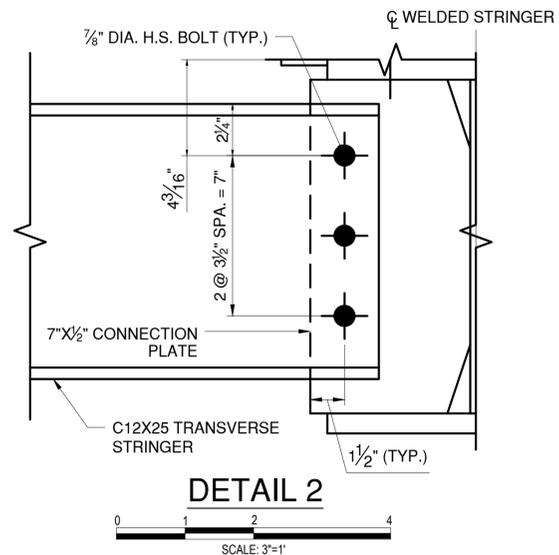


**SIDEWALK AND CURB DETAIL  
AT BASCULE SPAN - CENTER SPAN**

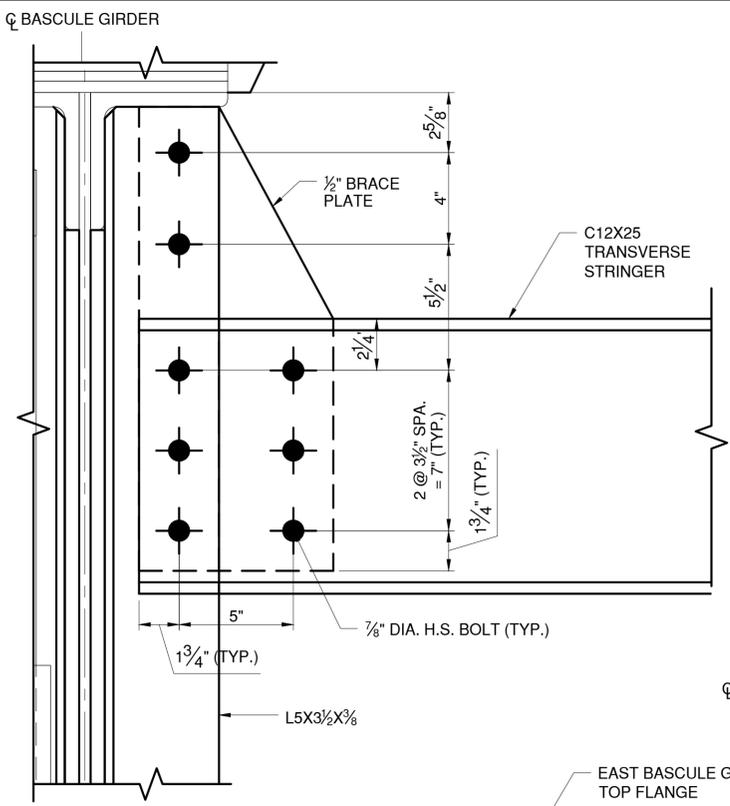
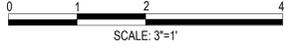


- LEGEND:**
- EXISTING RIVET TO REMAIN
  - NEW BOLT IN NEW HOLE
  - NEW BOLT IN EXISTING RIVET HOLE

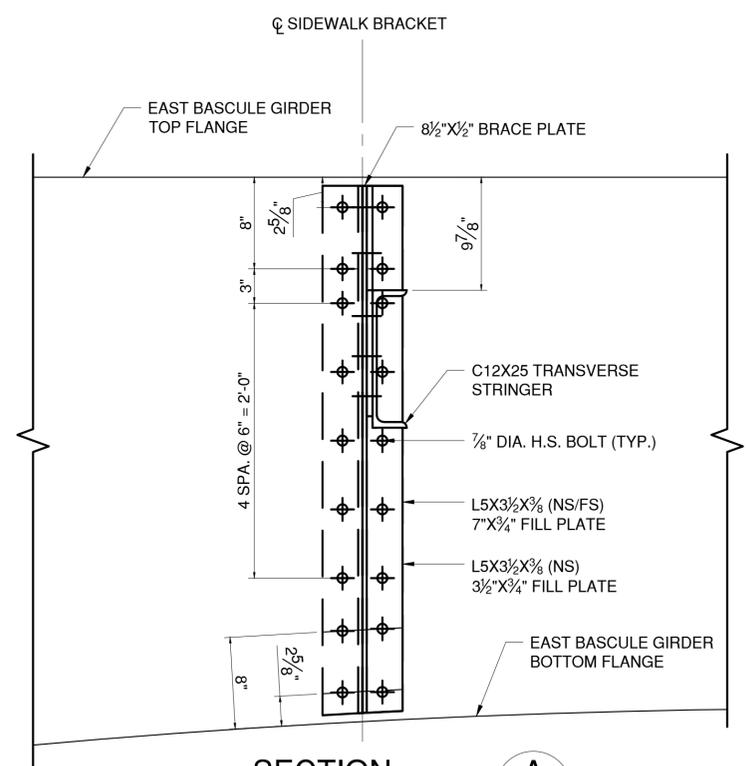
IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY D. DERKS



**DETAIL 2**



**DETAIL 1**



**SECTION A**



**NOTES:**

1. SEE GENERAL NOTES ON SHEETS G-05 THRU G-07 FOR COMPLETE STRUCTURAL SCOPE OF WORK.
2. PEDESTRIAN RAILING TO BE REFURBISHED UNDER ITEM NO. 634.80210001.
3. STRUCTURAL STEEL SHALL BE PAID UNDER ITEM NO. 564.510001.
4. CONNECTION PLATES SHALL INCLUDE NY STANDARD CLIP AND WELD TERMINATION DETAILS. SEE SHEET S-11 FOR DETAILS.
5. SIDEWALK BRACKETS AND FASCIA VARY ACROSS BASCULE SPAN. SPECIFIED DESIGNS ARE TYPICAL AND ARE TO BE APPLIED IN A SIMILAR MANNER FOR ALL.
6. ALL SIDEWALK BRACKET CONNECTION ANGLES SHALL BE MILL TO BEAR AGAINST THE BOTTOM FLANGE AND TIGHT FITTING TO THE TOP FLANGE OF THE BASCULE GIRDERS, UNLESS OTHERWISE SPECIFIED.
7. SIDEWALK BRACKET FASCIA TO BE REMOVED INTACT FROM THE CONNECTION ANGLES TO THE BASCULE GIRDERS AND SHALL BE RE-INSTALLED SIMILARLY TO THE NEW BRACKET BASCULE GIRDER CONNECTION ANGLES WITH NEW BOLTS IN THE EXISTING HOLES. ANY RIVETS FOUND TO BE IN POOR CONDITION WITHIN THE FASCIA BRACKETS SHALL BE REPLACED IN-KIND WITH NEW H.S. BOLTS.



CONSULTANT INFORMATION



REVISION						RECORD DRAWING CERTIFICATION	
						<input type="checkbox"/> AS BUILT - CHANGES AS NOTED <input type="checkbox"/> AS BUILT - NO CHANGES	CONTRACTOR: _____ PROJECT COORDINATOR: _____
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION	NAME	NAME	DATE
					SIGNATURE	SIGNATURE	
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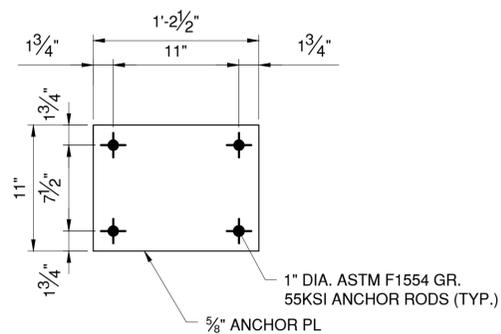
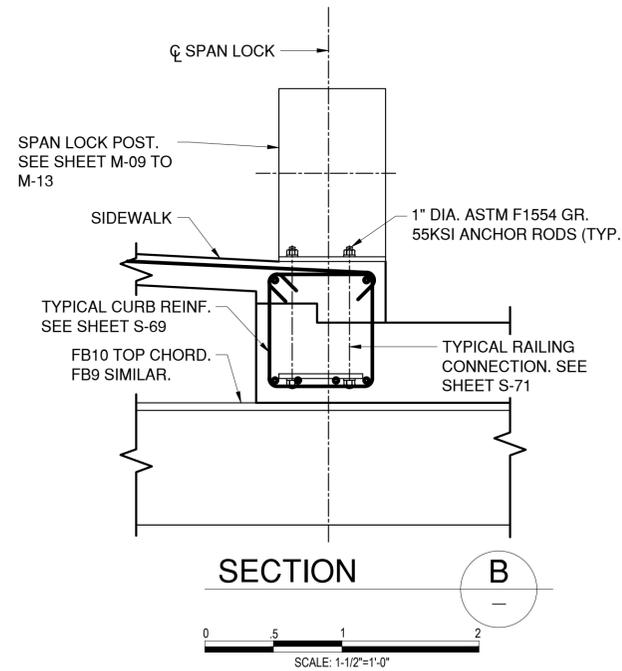
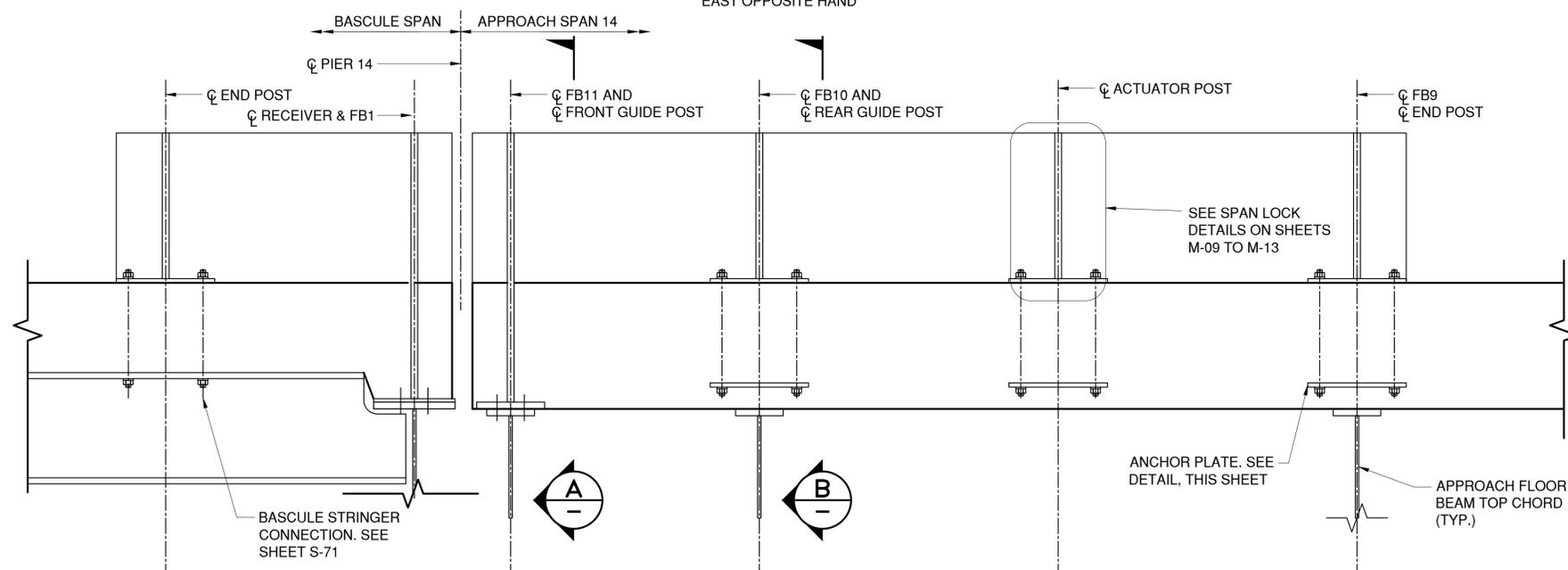
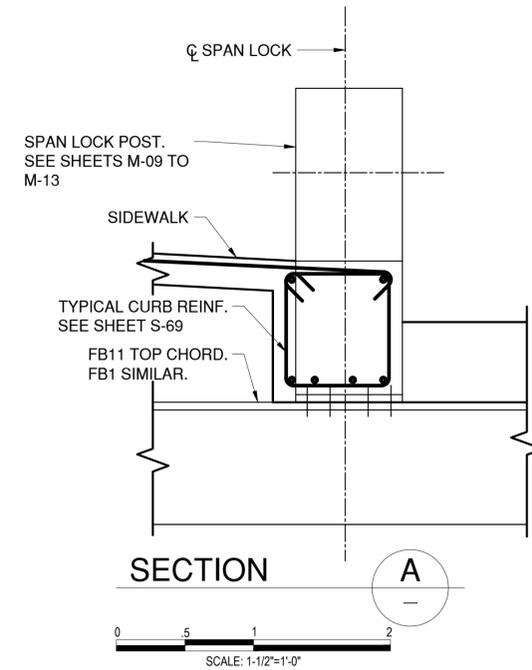
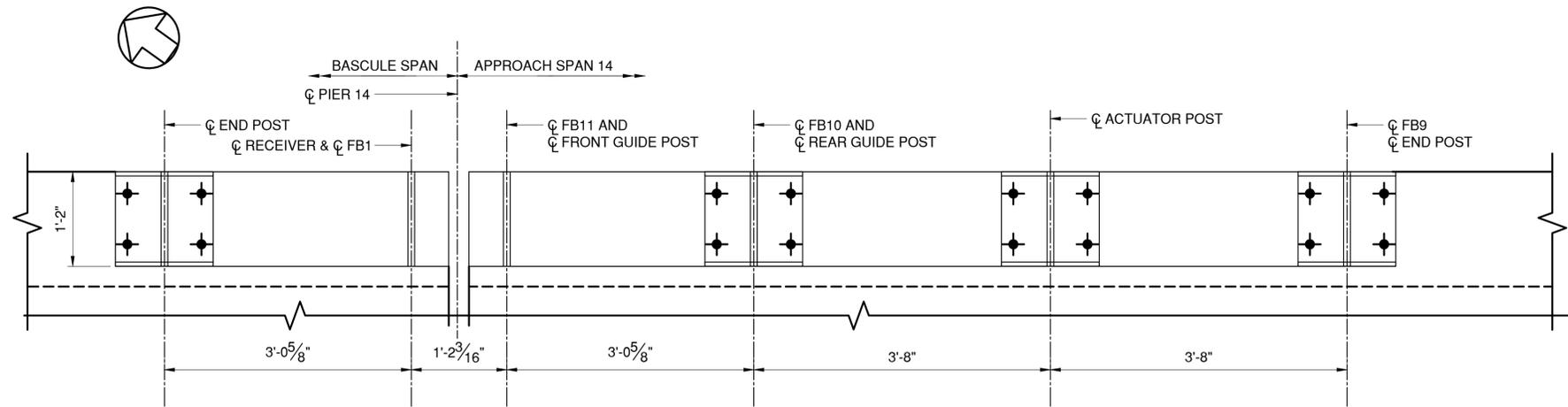
**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

STRUCTURAL

**PROP'D SIDEWALK AND CURB AT BASCULE SPAN**

CONTRACT NUMBER 20-517	SHEET NUMBER S-24
SHEET NO. 65 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-500-0	0



- NOTES:
- ANCHOR PLATE AND ANCHOR RODS TO BE PAID FOR UNDER ITEM NO. 564.510001.
  - REMOVAL AND REPLACEMENT OF SPAN LOCK SHALL BE PAID UNDER 599.06120508.

- LEGEND
- EXISTING RIVET TO REMAIN
  - NEW BOLT IN NEW HOLE
  - ⊕ NEW BOLT IN EXISTING RIVET HOLE



CONSULTANT INFORMATION



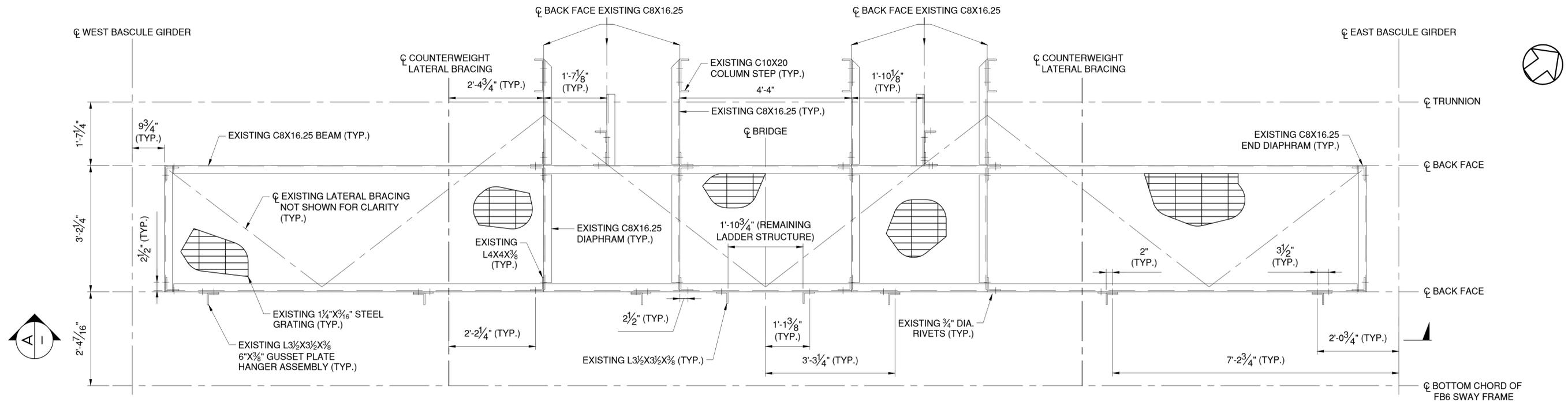
IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

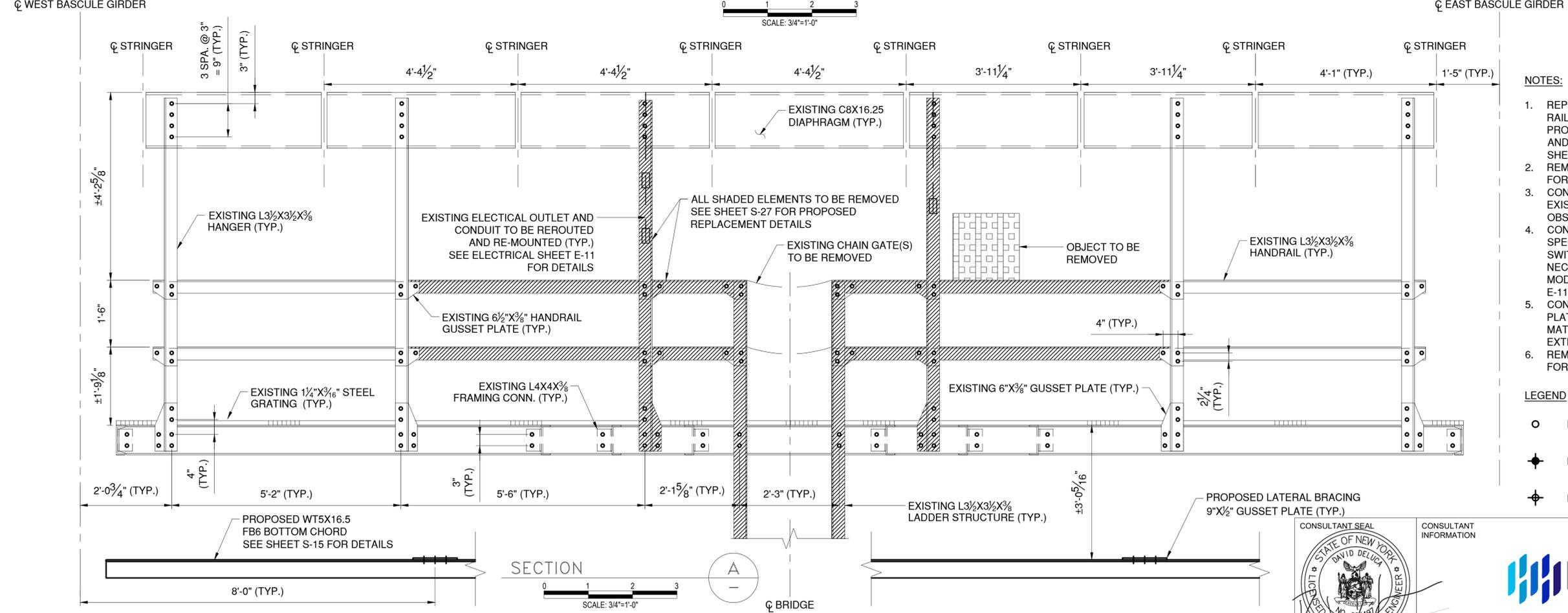
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL  
**SPAN LOCK CONNECTION DETAILS**

CONTRACT NUMBER 20-517	SHEET NUMBER S-25
SHEET NO. 66 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-501-0	0



**EXISTING BASCULE CATWALK PLATFORM - PLAN**



- NOTES:**
1. REPLACE SPECIFIED EXISTING CATWALK RAILING AND HANGER ELEMENTS WITH PROPOSED CATWALK RAILING, HANGER, AND PLATFORM EXTENSION ELEMENTS. SEE SHEET NO. S-28 FOR DETAILS.
  2. REMOVAL OF EXISTING STEEL TO BE PAID FOR UNDER ITEM 589.010001.
  3. CONTRACTOR TO FIELD VERIFY ALL EXISTING RIVET HOLES AND SURROUNDING OBSTRUCTIONS.
  4. CONTRACTOR TO REROUTE AND REMOUNT SPECIFIED ELECTRICAL CONDUIT, SWITCHES, AND RECEPTACLES AS NECESSARY TO FACILITATE PLATFORM MODIFICATIONS. SEE ELECTRICAL SHEET E-11 FOR DETAILS.
  5. CONTRACTOR TO FIELD VERIFY EXISTING PLATFORM GRATING TO CONFIRM GRATING MATCH FOR THE PROPOSED PLATFORM EXTENSION.
  6. REMOVAL OF EXISTING STEEL TO BE PAID FOR UNDER ITEM 589.010001.

- LEGEND**
- EXISTING RIVET TO REMAIN
  - ◆ NEW BOLT IN NEW HOLE
  - ◆ NEW BOLT IN EXISTING RIVET HOLE

CONSULTANT SEAL  
 STATE OF NEW YORK  
 DAVID DELUCA  
 LICENSED PROFESSIONAL ENGINEER  
 NO. 04841

CONSULTANT INFORMATION  
**H&H**  
 1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY N. HYSON, PE  
 MADE BY D. DERKS

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

**RECORD DRAWING CERTIFICATION**

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 AS BUILT - NO CHANGES

CONTRACTOR: \_\_\_\_\_ PROJECT COORDINATOR: \_\_\_\_\_

NAME: \_\_\_\_\_ NAME: \_\_\_\_\_  
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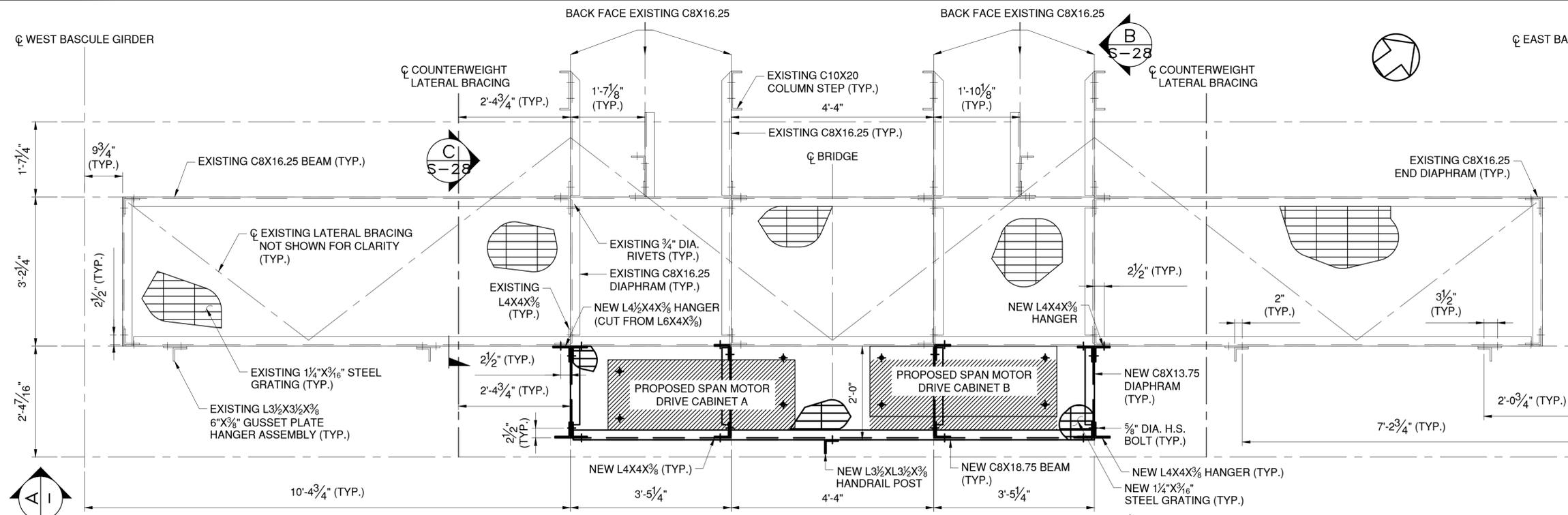
**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

STRUCTURAL

**EXISTING BASCULE CATWALK PLAN & ELEVATION**

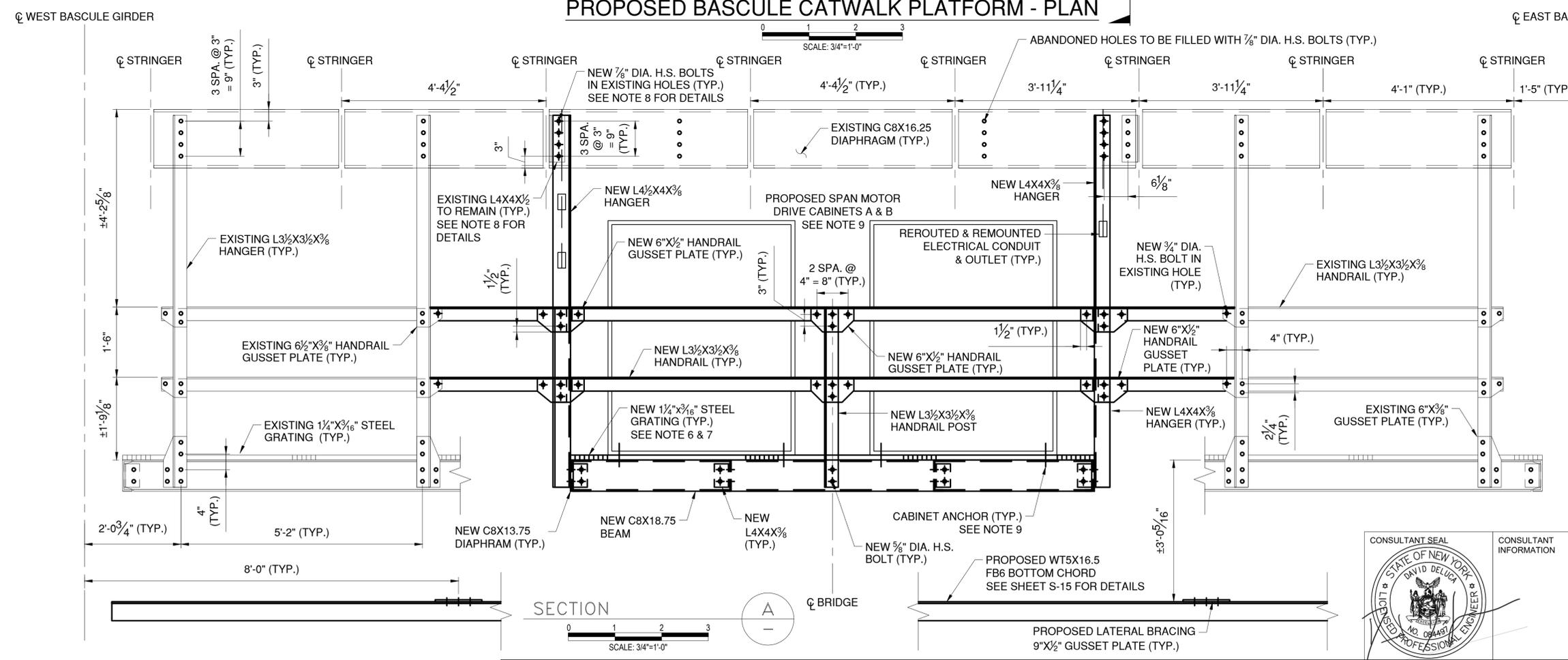
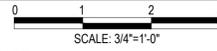
CONTRACT NUMBER: 20-517 SHEET NUMBER: S-26  
 SHEET NO. 67 OF 122  
 SCALE: AS SHOWN  
 DATE: 03/08/2024  
 DPW FILE NO. 5-04-S-502-0 REV. NO. 0



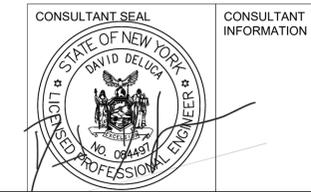
- LEGEND**
- EXISTING RIVET TO REMAIN
  - ◆ NEW BOLT IN NEW HOLE
  - ◊ NEW BOLT IN EXISTING RIVET HOLE

- NOTES (CONT'D):**
10. NEW STEEL TO BE PAID FOR UNDER ITEM 564.510001.
  11. ALL PLATFORM RAILING GUSSET PLATES SHALL ADHERE TO THE TYPICAL MINIMUM SPACING REQUIREMENTS SHOWN IN SECTION A AND BE DETAILED ACCORDING TO THE GUSSET PLATE...
  12. CONTRACTOR TO FIELD VERIFY CONNECTION ALIGNMENTS TO EXISTING RAILINGS ADJACENT TO THE PROPOSED RAILING.

**PROPOSED BASCULE CATWALK PLATFORM - PLAN**



- NOTES:**
1. SPECIFIC EXISTING CATWALK RAILING AND HANGER ELEMENTS TO BE REPLACED WITH PROPOSED CATWALK RAILING, HANGER, AND PLATFORM EXTENSION ELEMENTS. SEE SHEET NO. S-26 FOR REMOVAL OF EXISTING DETAILS.
  2. CONTRACTOR TO FIELD VERIFY ALL EXISTING RIVET HOLES PROPOSED FOR REUSE.
  3. CONTRACTOR TO REROUTE AND REMOUNT SPECIFIED ELECTRICAL CONDUIT, SWITCHES, AND RECEPTACLES AS NECESSARY TO FACILITATE PLATFORM MODIFICATIONS. SEE ELECTRICAL SHEET E-11 FOR DETAILS.
  6. PLATFORM EXTENSION GRATING SHALL BE STANDARD-DUTY WELDED, GW-100 RECTANGULAR BAR AT 19-W-4 SPACING AND SHALL BE HOT-DIPPED GALVANIZED STEEL. 1/4\"/>
  - 7. CONTRACTOR TO FIELD VERIFY EXISTING PLATFORM GRATING TO MATCH CONFIRM THE GRATING FOR THE PROPOSED PLATFORM EXTENSION.
  - 8. PROPOSED HANGER ELEMENTS FASTENED TO DIAPHRAGM-STRINGER CONNECTIONS SHALL BE INSTALLED USING A SEQUENTIAL BOLT REPLACEMENT METHOD TO AVOID UNINTENDED DEAD LOAD RE-DISTRIBUTION.
  - 9. CABINETS SHALL BE FASTENED TO THE PLATFORM EXTENSION GRATING WITH GALVANIZED STEEL MOUNTING KITS. MOUNTING PLATES SHALL BE MINIMUM 4\"/>



REVISION					CONTRACTOR		PROJECT COORDINATOR	

**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

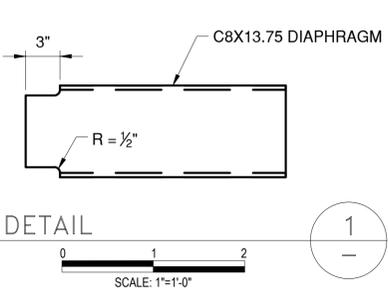
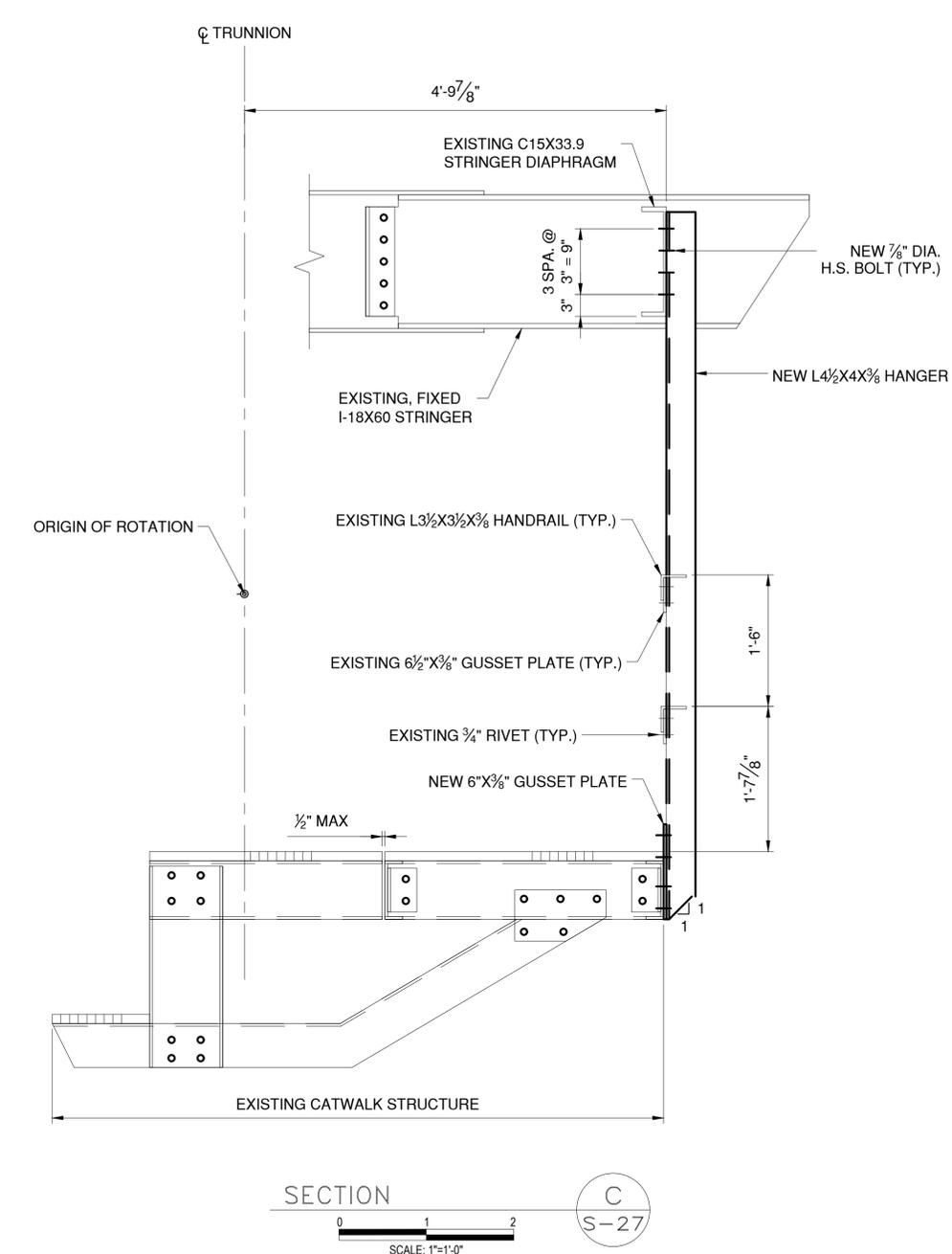
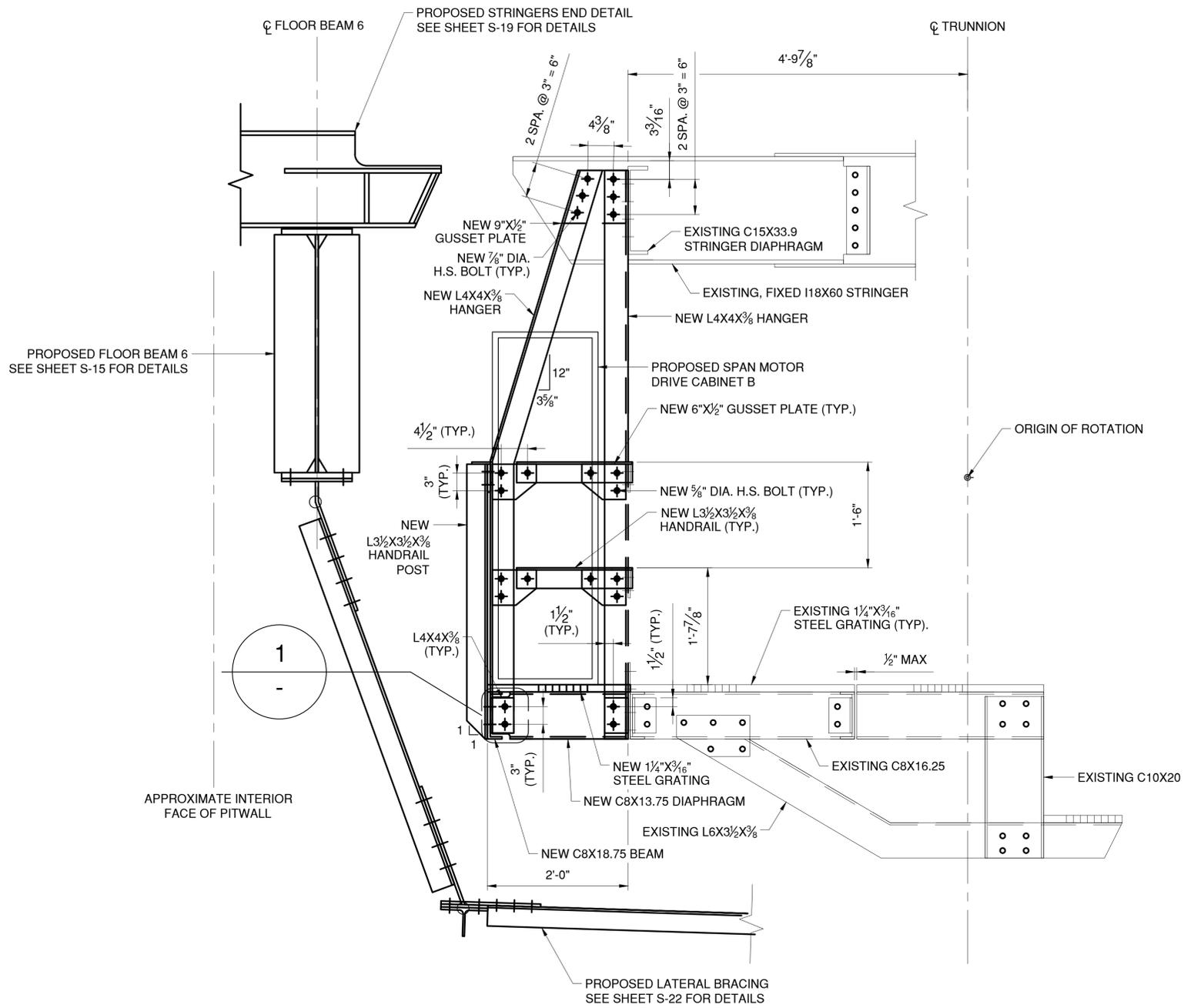
STRUCTURAL

**PROP'D BASCULE CATWALK PLAN & ELEVATION**

CONTRACT NUMBER 20-517	SHEET NUMBER S-27
SHEET NO. 68 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-503-0	0

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY N. HYSON, PE  
 MADE BY D. DERKS

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES



**NOTES:**

- SPECIFIC EXISTING CATWALK RAILING AND HANGER ELEMENTS TO BE REPLACED WITH PROPOSED CATWALK RAILING, HANGER, AND PLATFORM EXTENSION ELEMENTS. SEE SHEET NO. S-26 FOR REMOVAL OF EXISTING DETAILS.
- CONTRACTOR TO FIELD VERIFY ALL EXISTING RIVET HOLES PROPOSED FOR REUSE.
- PLATFORM EXTENSION GRATING SHALL BE STANDARD-DUTY WELDED, GW-100 RECTANGULAR BAR AT 19-W-4 SPACING AND SHALL BE HOT-DIPPED GALVANIZED STEEL. 1/4"X3/16" RECTANGULAR BARS SHALL BE SPACED 1 3/8" O.C. WITH CROSS BARS SPACED 4" O.C. SURFACE SHALL BE SLIP RESISTANT. GRATING FOR PLATFORM EXTENSION SHALL BE PAID FOR UNDER ITEM 596.01.
- CONTRACTOR TO FIELD VERIFY EXISTING PLATFORM GRATING TO MATCH CONFIRM THE GRATING FOR THE PROPOSED PLATFORM EXTENSION.
- SPECIFIC PROPOSED HANGER ELEMENTS (SEE SECTION C-C ORIGIN ON SHEET S-27) ARE FASTENED TO THE DIAPHRAGM-STRINGER CONNECTION. THE RIVETS IN THIS CONNECTION SHALL BE REPLACED WITH NEW H.S. BOLTS ONE-AT-A-TIME TO AVOID ANY UNINTENDED LOAD RE-DISTRIBUTION IN THE CONNECTING ELEMENTS.
- CABINETS SHALL BE FASTENED TO THE PLATFORM EXTENSION GRATING WITH GALVANIZED STEEL MOUNTING KITS. MOUNTING PLATES SHALL BE MINIMUM 4"X4"X1/2". MOUNTING HARDWARE SHALL BE MINIMUM 5/8" DIA. SEE ELECTRICAL SHEET E-11 FOR CABINET DETAILS.

- LEGEND**
- EXISTING RIVET TO REMAIN
  - ◆ NEW BOLT IN NEW HOLE
  - ⊕ NEW BOLT IN EXISTING RIVET HOLE



CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY N. HYSON, PE  
 MADE BY D. DERKS

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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<input type="checkbox"/> AS BUILT - NO CHANGES			
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____		
DATE _____	DATE _____		

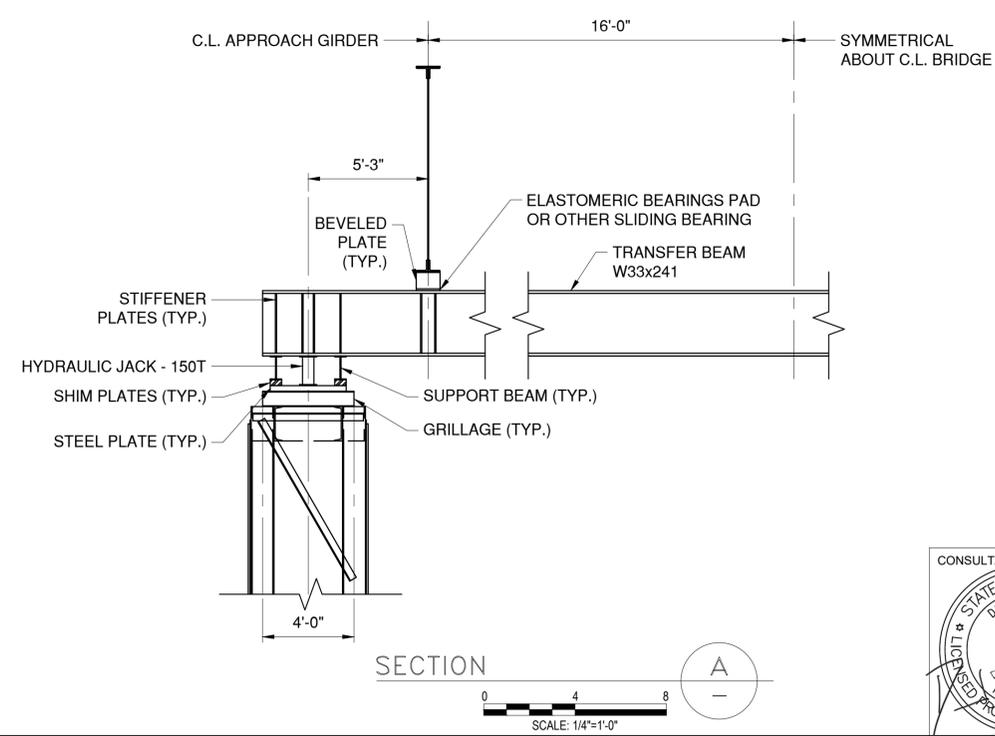
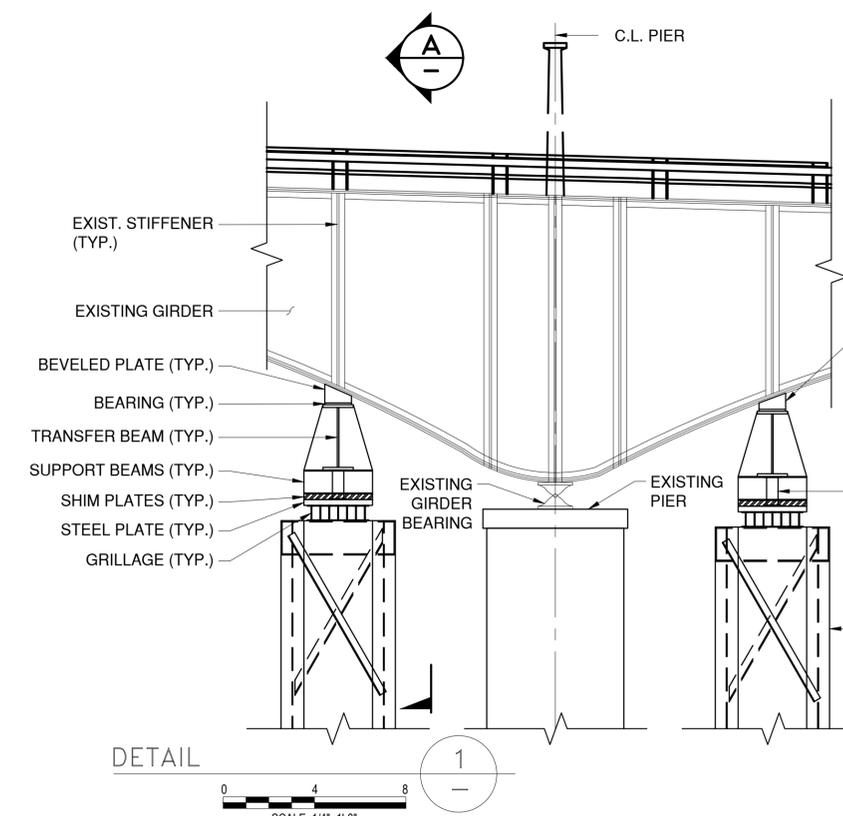
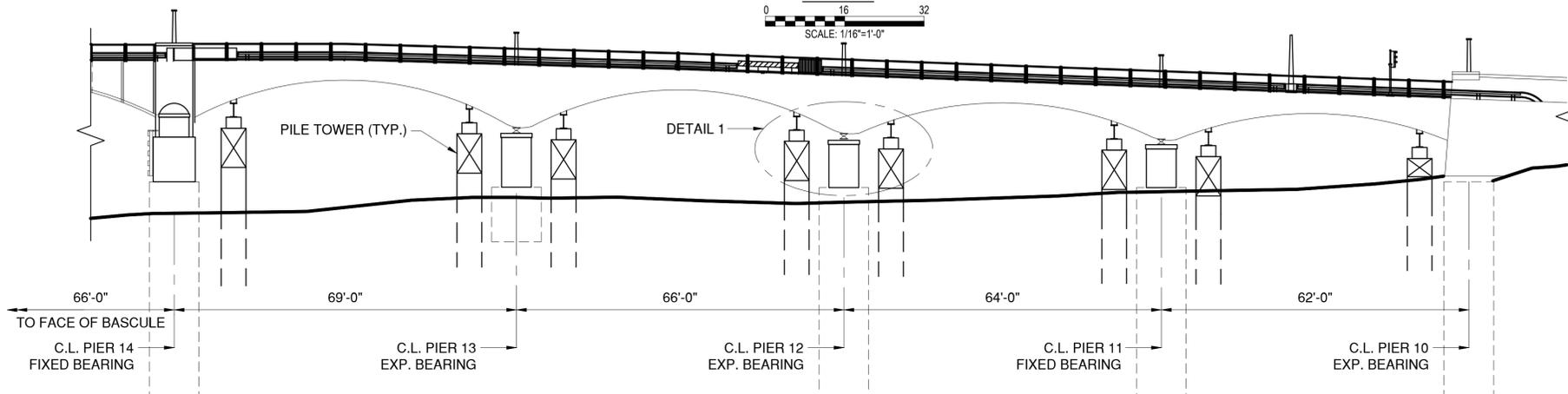
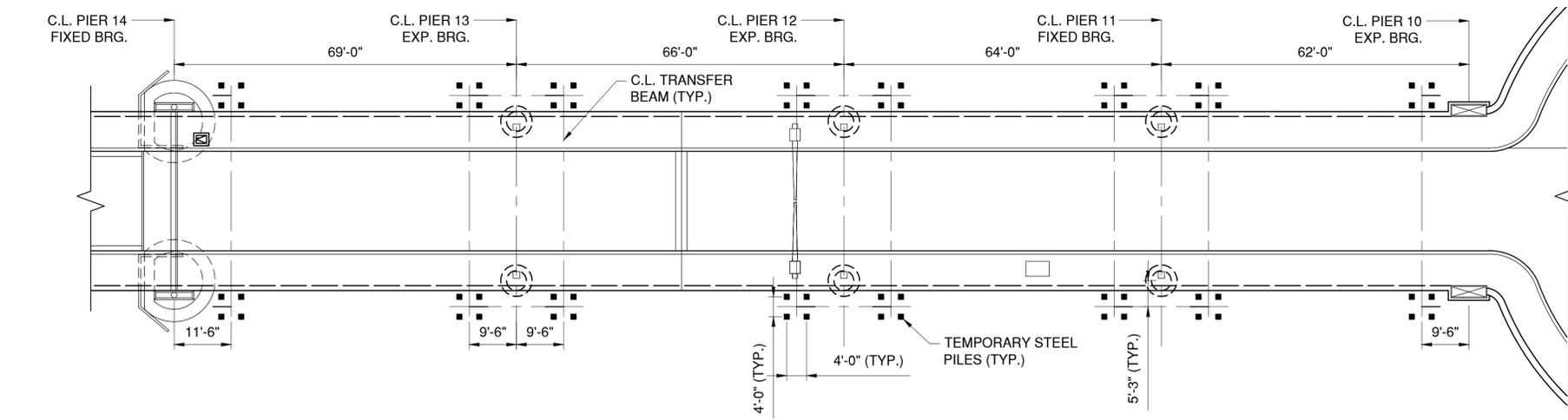
WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

STRUCTURAL

**PROPOSED BASCULE CATWALK DETAILS**

CONTRACT NUMBER 20-517	SHEET NUMBER S-28
SHEET NO. 69 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-504-0	0



**NOTES:**

1. ALL TEMPORARY STRUCTURES AND THE PROCEDURES USED FOR JACKING THE BRIDGE GIRDERS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN NEW YORK STATE. THE DETAILED DESIGN AND PROCEDURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO ERECTION OF THE TEMPORARY SUPPORTS AND COMMENCEMENT OF JACKING OPERATIONS.
2. THE JACKING SYSTEM SHALL BE CONTROLLED BY A SYNCHRONOUS LIFTING AND LOWERING CONSOLE THAT WILL MAINTAIN SIMULTANEOUS, EQUAL VERTICAL MOVEMENT. THE MAXIMUM LIFT AT ANY BEARING POINT SHALL NOT EXCEED 1/4 INCH.
3. ALL TEMPORARY JACKING WORK SHALL BE PAID FOR UNDER ITEM 585.01.
4. CONTRACTOR SHALL PERFORM A MINIMUM OF 1 SOIL BORING PER PIER PRIOR TO DESIGNING AND CONSTRUCTING THE TEMPORARY STRUCTURES. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE PAY ITEM FOR TEMPORARY JACKING WORK.

**SUGGESTED GENERAL PROCEDURE FOR TEMPORARY SUPPORT OF GIRDERS:**

1. TRANSFER LOAD FROM ONE GIRDER BEARING TO THE ADJACENT PILE TOWERS BY JACKING THE GIRDER AT THE LOCATIONS INDICATED ON THE DRAWING.  
  
BOTH JACKS ADJACENT TO THE GIRDER BEARING SHALL BE PRESSURIZED SIMULTANEOUSLY.  
  
INSTALL SUPPORT BEAMS ON BOTH SIDES OF THE HYDRAULIC JACKS.  
  
RELIEVE PRESSURE ON JACKS UNTIL THE TRANSFER BEAM BEARS ON THE SUPPORT BEAMS.
2. REPEAT THE PROCEDURE AT THE OTHER GIRDER BEARING.
3. TRANSFER LOAD BACK TO GIRDER BEARINGS BY PRESSURIZING BOTH JACKS ADJACENT TO THE GIRDER BEARING SIMULTANEOUSLY. REMOVE SUPPORT BEAMS. RELEASE JACKS AND PROCEED TO THE NEXT WORK LOCATION.

CONSULTANT SEAL  
DAVID DELUCA  
NO. 05481  
REGISTERED PROFESSIONAL ENGINEER

CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

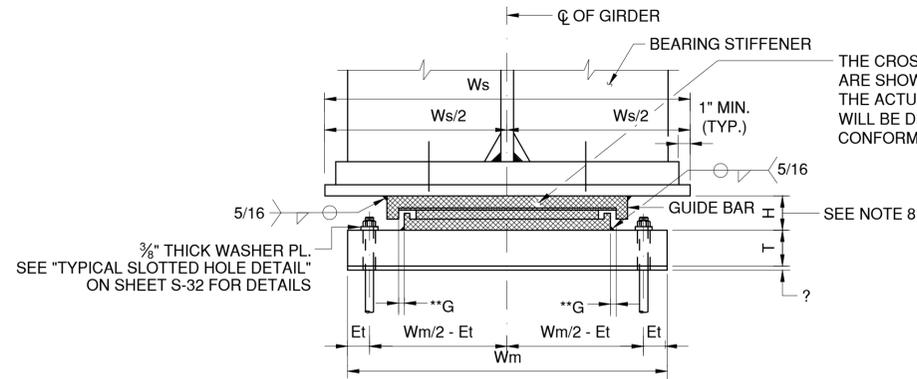
Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

STRUCTURAL

**APPROACH SPAN TEMPORARY JACKING PLAN**

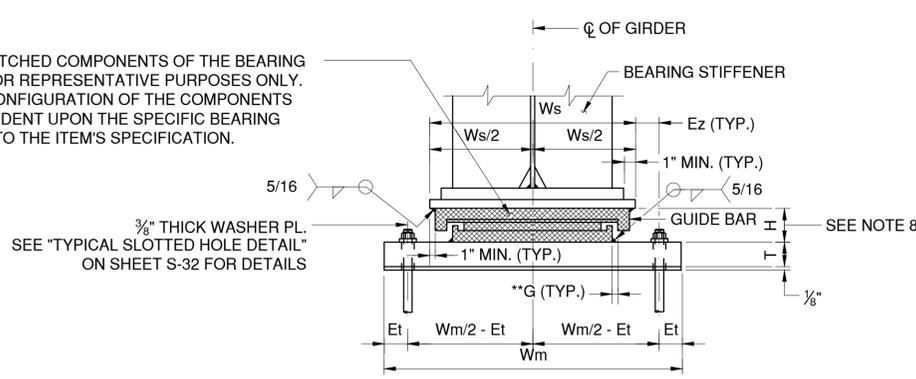
CONTRACT NUMBER 20-517	SHEET NUMBER S-29
SHEET NO. 70 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-505-0	0





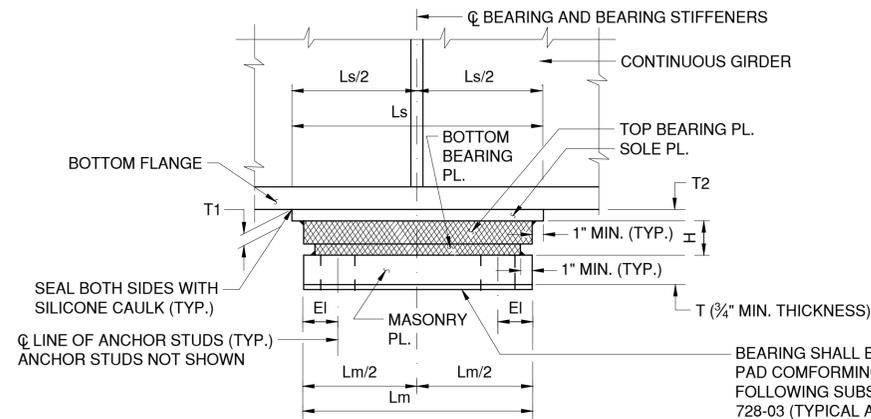
**FRONT VIEW WITH ANCHOR BOLTS  
UNDER SOLE PLATES**

SCALE: N.T.S.



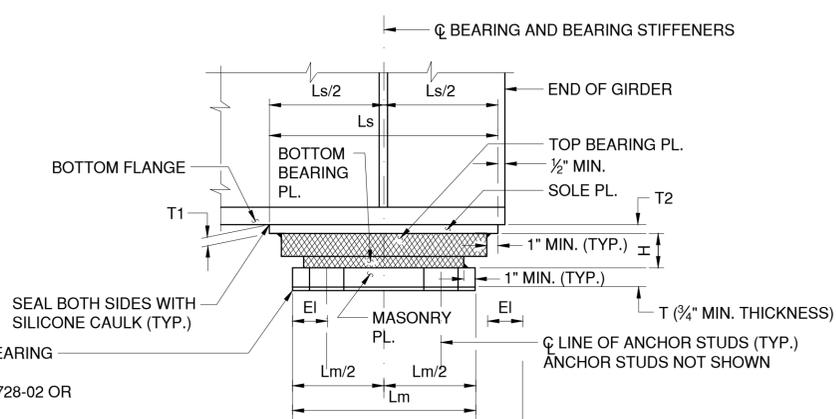
**FRONT VIEW WITH ANCHOR BOLTS  
OUTSIDE OF SOLE PLATES**

SCALE: N.T.S.



**SIDE VIEW AT  
INTERIOR SUPPORT**

SCALE: N.T.S.



**SIDE VIEW AT END  
SUPPORT**

SCALE: N.T.S.

**NOTES:**

- THE CONTRACTOR SHALL SUPPLY MULTI-ROTATIONAL STRUCTURAL BRIDGE BEARINGS CONFORMING TO THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 565 AND SUBJECT TO THE FOLLOWING CONDITIONS:
  - THE BEARING DEVICES SUPPLIED SHALL BE CAPABLE OF TRANSMITTING THE LOADS AND MOVEMENT SHOWN ON THESE PLANS.
  - THE DIMENSION "H" IN THE BEARING TABLE REPRESENTS THE ASSUMED TOTAL HEIGHT OF BEARING MECHANISM BETWEEN THE SOLE PLATE AND MASONRY PLATE USED BY THE DESIGNER TO ESTABLISH THE PEDESTAL ELEVATIONS. THE MINIMUM PEDESTAL HEIGHT SHALL NOT BE CHANGED WITHOUT WRITTEN APPROVAL OF THE DEPUTY CHIEF ENGINEER (STRUCTURES).
  - ALL BEARING COMPONENTS SHALL BE STAINLESS STEEL. BEARINGS SHALL BE PAINTED WITH THE SAME PAINT SYSTEM AS THE GIRDERS. MASK OFF ALL SLIDING SURFACES PRIOR TO PAINTING.
  - ALL STEEL FABRICATION SHALL CONFORM TO THE PROVISIONS OF THE LATEST EDITION OF THE NEW YORK STATE STEEL CONSTRUCTION MANUAL.
  - ALL METAL COMPONENTS OF THE BEARING SYSTEM WHICH ARE LIABLE TO COME INTO CONTACT DURING TRANSLATION SHALL HAVE A TEFLON SLIDING SURFACE FINISH.
  - ALL EXPANSION BEARINGS SHALL HAVE A MAXIMUM FRICTION COEFFICIENT OF 3%.
  - THE BEARING DEVICE, MASONRY PLATE, SOLE PLATE, ANCHOR BOLTS, NUTS, WASHER PLATES, AND BEARING PAD SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARING ITEMS.
  - IF THE ANCHOR BOLTS ARE SET UNDER THE SOLE PLATE, A MINIMUM CLEARANCE EQUAL TO TWO TIMES THE THICKNESS OF ANCHOR NUT PLUS 1" SHALL BE MAINTAINED BETWEEN THE TOP OF MASONRY PLATE AND BOTTOM OF THE SOLE PLATE.
  - FOR BEARINGS OF CAPACITY GREATER THAN OR EQUAL TO 500 KIPS, USE 3/16" MINIMUM BEARING PAD IN LIEU OF 1/8".
  - WHEN THE THICKNESS OF THE MASONRY PLATE OR ANY OTHER PLATE BEING WELDED EXCEEDS 1 1/2", THE PLATES SHALL BE PREHEATED IN ACCORDANCE WITH THE NEW YORK STATE STEEL CONSTRUCTION MANUAL.
- WHENEVER JACKING OF THE SUPERSTRUCTURE IS NEEDED TO RESET THE BEARINGS, THE CONTRACTOR SHALL SUBMIT A JACKING SEQUENCE TO THE E.I.C. FOR APPROVAL.
- CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING PIER REINFORCEMENT AND EXISTING PIER STONE MASONRY.
- THE EXISTING ANCHOR STUDS SHALL BE CUT FLUSH WITH THE CONCRETE SURFACE AFTER CONCRETE DEMOLITION.
- LIMITS OF THE PIER 10 BEARING SEAT SHALL BE VERIFIED IN THE FIELD PRIOR TO DEMOLITION AND CONSTRUCTION. DO NOT SCALE PIER 10 MEASUREMENTS FROM THIS DRAWING. ENSURE 8" MIN. FROM C.L. ANCHOR STUDS TO ANY EXPOSED VERTICAL FACE OF THE PEDESTAL/BEARING SEAT.
- DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.
- CONNECTION BETWEEN EXISTING GIRDER BOTTOM FLANGE AND PROPOSED BEARING SOLE PLATE SHALL BE MADE WITH BOLTS OR STUDS DRILLED AND TAPPED INTO THE SOLE PLATE USING THE EXISTING HOLES IN THE BOTTOM FLANGE AS A TEMPLATE. SEE SHEET NO. S-32 FOR BOLT AND STUD CONNECTION DETAILS. SEE SHEET NOS. S-35 AND S-36 FOR CONFIGURATION OF BOLT GROUP IN BOTTOM FLANGE. THE COST THEREOF SHALL BE PAID FOR UNDER THE RESPECTIVE BEARING PAY ITEMS.

**BEARING TABLE**

LOCATION	FIX./EXP.	ITEM NO.	QTY REQ'D	DESIGN LOADS									* ONE WAY LONG. MOVEMENT	** (G) GUIDE CLEARANCE	MASONRY PLATE										WASHER PLATE		SOLE PLATE		LOAD PLATE		BRG. H	ANCHOR STUDS	
				VERTICAL (SERVICE)			STRENGTH			EXTREME EVENT					Lm	Wm	T	Et	El	Ez	Am	Bm	AWp	BWp	Ls	Ws	T1	T2	A	B		DIA.	STUDS/BRG.
				DC	DW	LL+IM	VERT.	HORIZ.	ROTATION (RAD)***	HORIZ. TRANS.	HORIZ. LONG.																						
PIER 10	EXP	565.1521	2	42.6	3.1	76.9	201.9	14.5	0.0082	88.3	2.1	1.395	0.125	10.00	16.00	1.00	2.000	3.250	n/a	2.500	1.375	3.500	2.375	12.00	16.00	1.50	1.50	7.50	7.50	3.265	1.00	4	
PIER 11	FIX	565.1722	2	230.2	17.0	196.8	658.7	15.3	0.0065	39.9	179.1	0.000	0.125	18.50	22.00	1.25	2.438	3.688	0.563	2.750	1.625	3.750	2.625	15.00	16.00	1.50	1.50	13.00	13.00	3.875	1.25	4	
PIER 12	EXP	565.1522	2	159.1	11.7	163.0	508.8	19.5	0.0021	127.9	3.1	1.407	0.125	17.50	24.00	1.375	2.438	3.688	1.063	2.750	1.625	3.750	2.625	16.50	17.00	1.50	1.50	12.50	12.50	4.195	1.25	4	
PIER 13	EXP	565.1522	2	203.2	15.0	186.5	612.0	25.5	0.0017	187.3	4.2	1.439	0.125	17.50	24.00	1.50	2.656	3.906	0.875	2.875	1.750	3.875	2.750	16.50	17.00	1.50	1.50	12.50	12.50	4.195	1.375	4	
PIER 14	FIX	565.1721	2	76.5	5.2	104.2	291.7	10.9	0.0066	45.8	120.2	0.000	0.125	18.00	12.00	1.125	2.000	3.250	n/a	2.500	1.375	3.500	2.375	15.50	16.00	1.50	1.50	9.00	9.00	3.375	1.00	4	

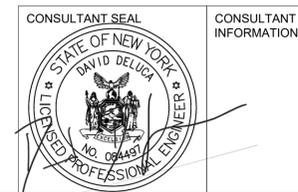
TABLE DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

T2 IS UPSTATION OF T1.

\*ONE WAY LONGITUDINAL MOVEMENT IS THE MAXIMUM ONE WAY MOVEMENT (EXPANSION OR CONTRACTION) OF THE SUPERSTRUCTURE WHEN BEARINGS ARE SET @ 68°F PLUS 1 INCH OF TOLERANCE.

\*\*ON WIDE STRUCTURES AND ON CURVED STRUCTURES PROVISIONS SHALL BE MADE FOR LIMITED LATERAL MOVEMENT.

\*\*\*MAXIMUM (ABSOLUTE) DUE TO LL+I ONLY. BEVELED SOLE PLATES ACCOUNT FOR GRADE & DL EFFECTS. BEARING DESIGN SHOULD ACCOUNT FOR GRADE EFFECTS WHEN SOLE PLATES ARE NOT BEVELED.



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR: NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT COORDINATOR: NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

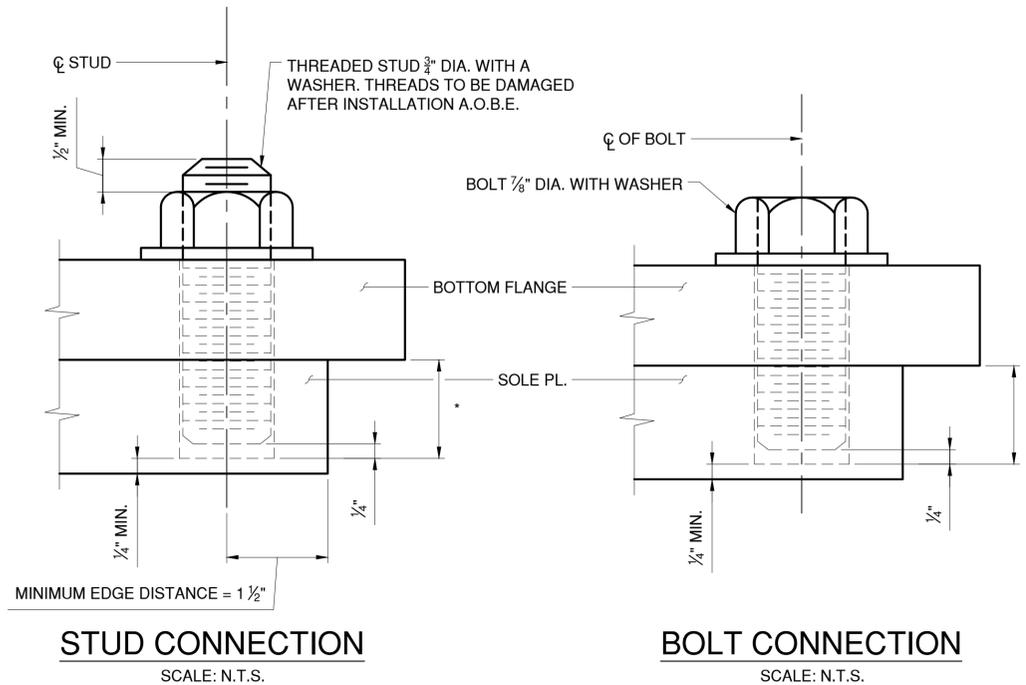
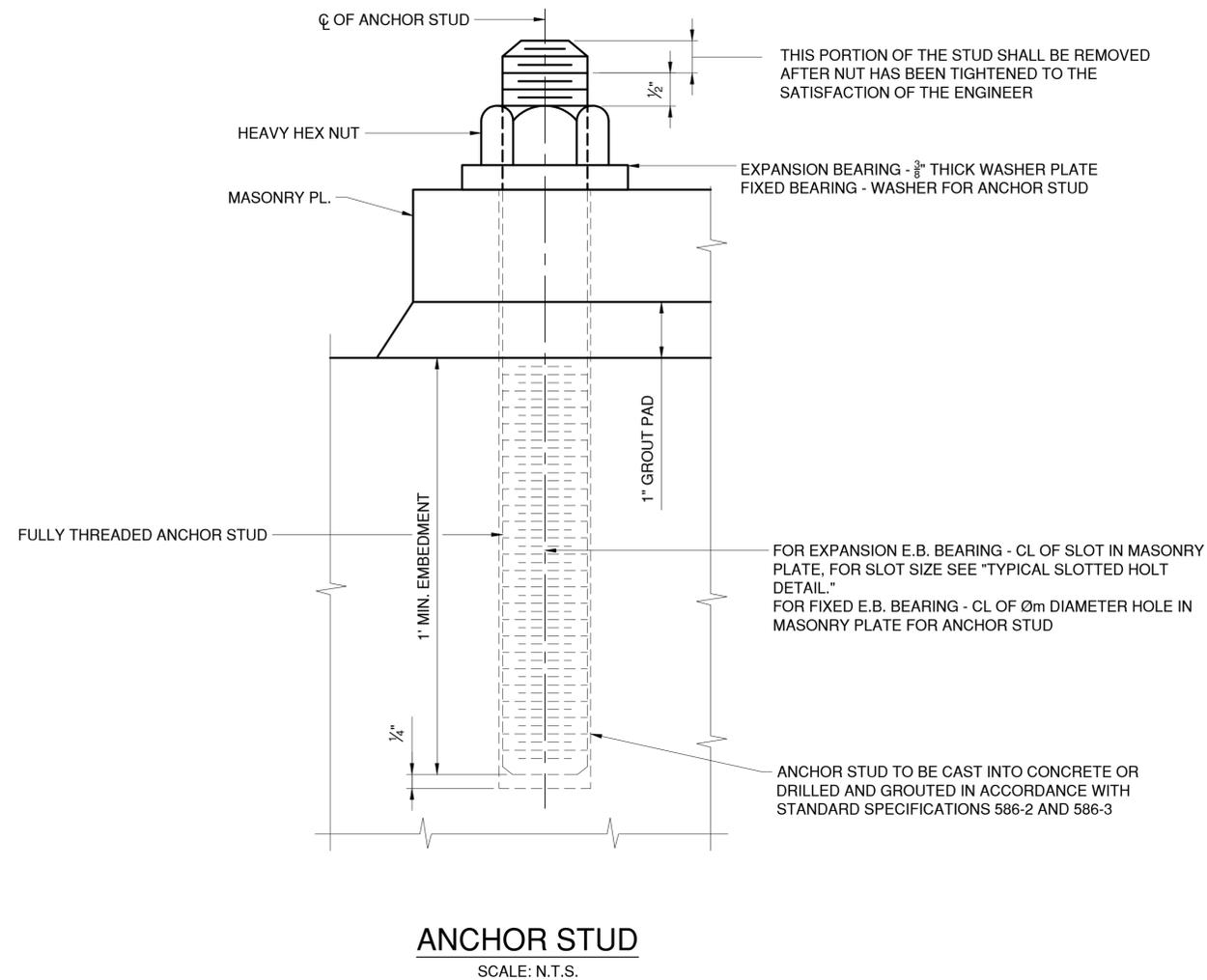
WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

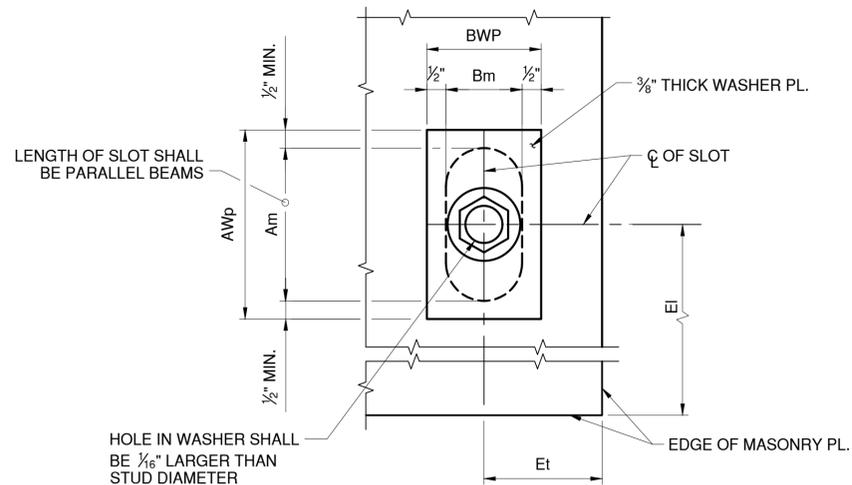
STRUCTURAL

**APPROACH SPAN MR BEARINGS**

CONTRACT NUMBER: 20-517  
 SHEET NUMBER: S-31  
 SHEET NO. 72 OF 122  
 SCALE: AS SHOWN  
 DATE: 03/08/2024  
 DPW FILE NO. 5-04-S-507-0  
 REV. NO. 0



\* DRILL A STANDARD HOLE THROUGH THE BOTTOM FLANGE, THEN DRILL AND TAP A HOLE INTO THE SOLE PL. A DISTANCE EQUAL TO THE BOLT DIAMETER PLUS  $\frac{1}{4}$ " (MIN.), DRILLING TO BE DONE AFTER ALL BEARING ADJUSTMENTS HAVE BEEN MADE.



**NOTES:**

- ANCHOR STUDS, WASHERS, WASHER PLATES, ANCHOR PLATES, AND NUTS SHALL MEET THE REQUIREMENTS OF SUBSECTION 723-60. THEY SHALL BE GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF MATERIAL SUBSECTION 719-01, "GALVANIZED COATINGS AND REPAIR METHODS." THE COST, INCLUDING GALVANIZING, SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE BEARING ITEM.



CONSULTANT INFORMATION



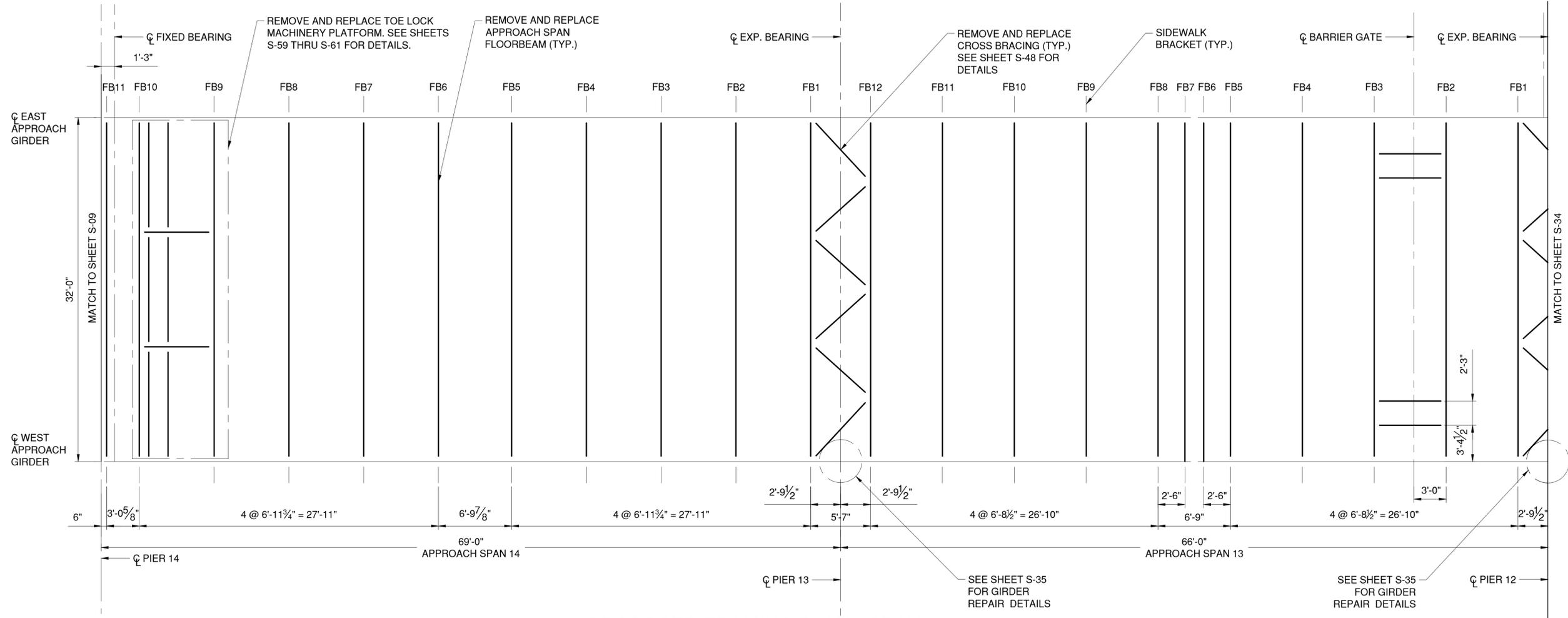
IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

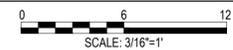
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NAME		PROJECT COORDINATOR	
SIGNATURE		SIGNATURE	
TITLE		TITLE	
DATE		DATE	

**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL  
**APPROACH SPAN BEARING DETAILS**

CONTRACT NUMBER 20-517	SHEET NUMBER S-32
SHEET NO. 73 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-S-508-0	REV. NO. 0



**PROPOSED FRAMING PLAN - SPAN 13 & 14**



**NOTES:**

- SEE SHEETS S-37 TO S-57 FOR APPROACH SPAN FLOOR BEAM DETAILS AND CONNECTIONS.



CONSULTANT INFORMATION



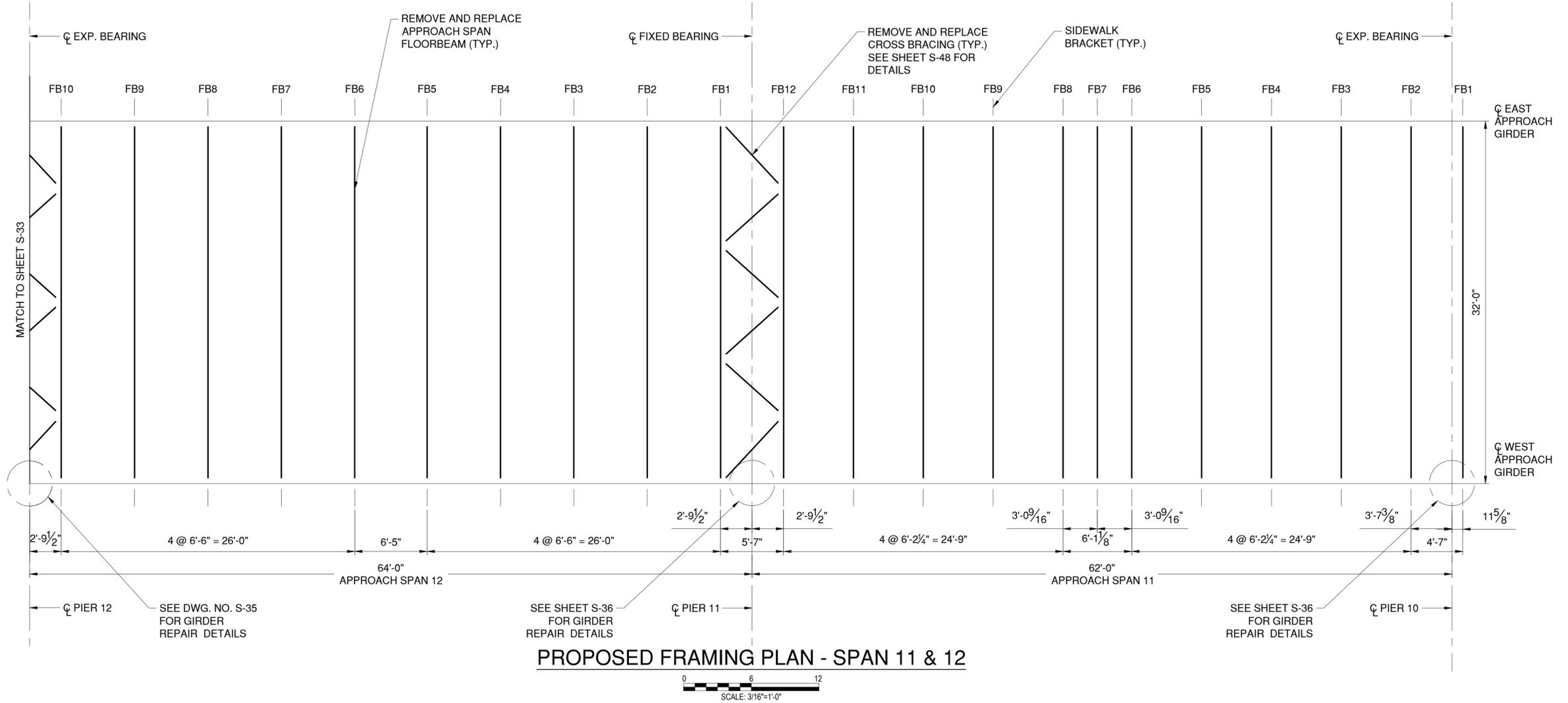
IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY B. SEITZ

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL  
**APPROACH SPAN PROPOSED FRAMING PLAN - 1**

CONTRACT NUMBER 20-517	SHEET NUMBER S-33
SHEET NO. 74 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-509-0	0



**PROPOSED FRAMING PLAN - SPAN 11 & 12**



**NOTES:**

- SEE SHEETS S-37 TO S-57 FOR APPROACH SPAN FLOOR BEAM DETAILS AND CONNECTIONS.

CONSULTANT SEAL



CONSULTANT INFORMATION



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY B. SEITZ

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

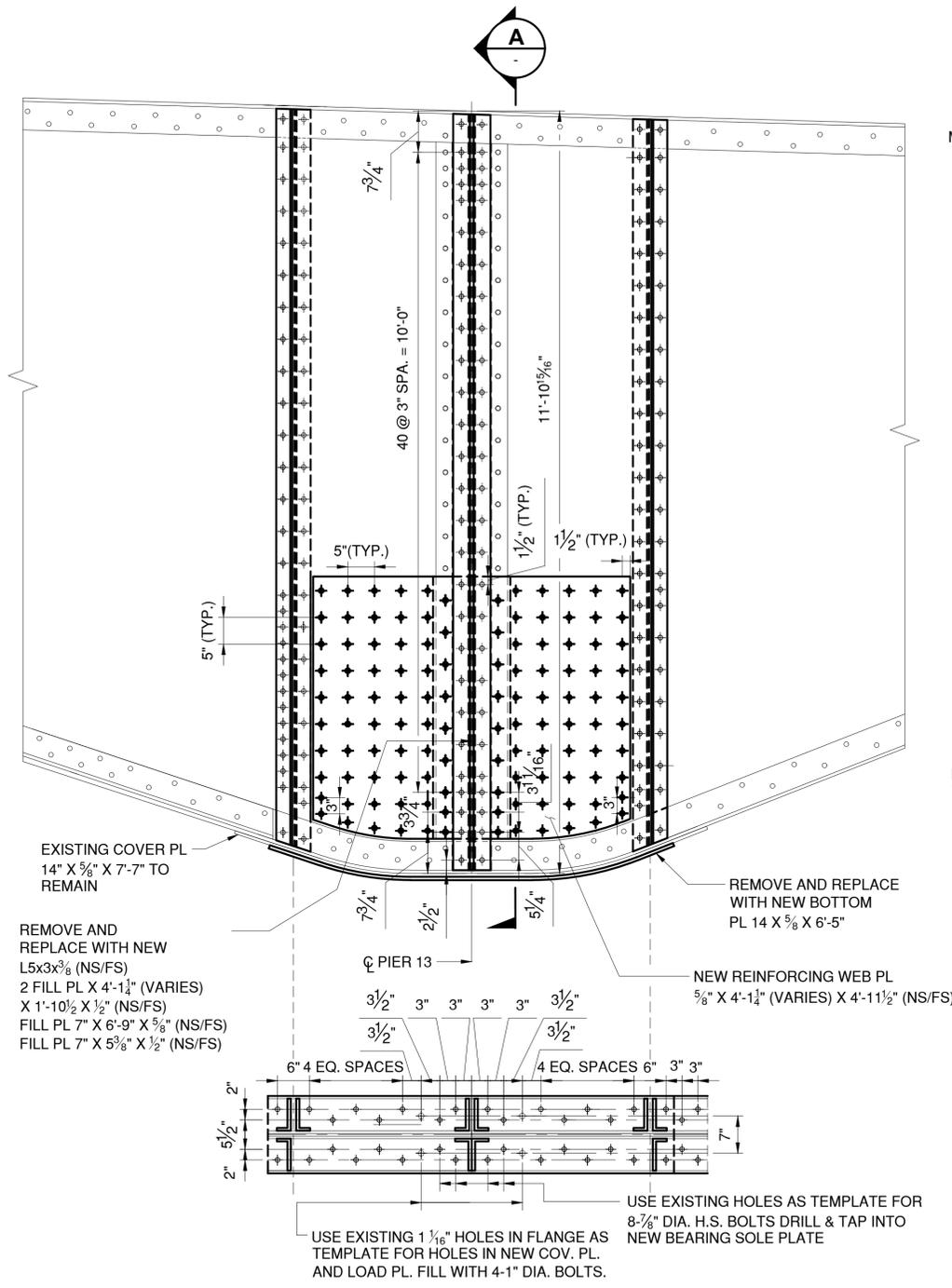
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____		
DATE _____	DATE _____		

**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL

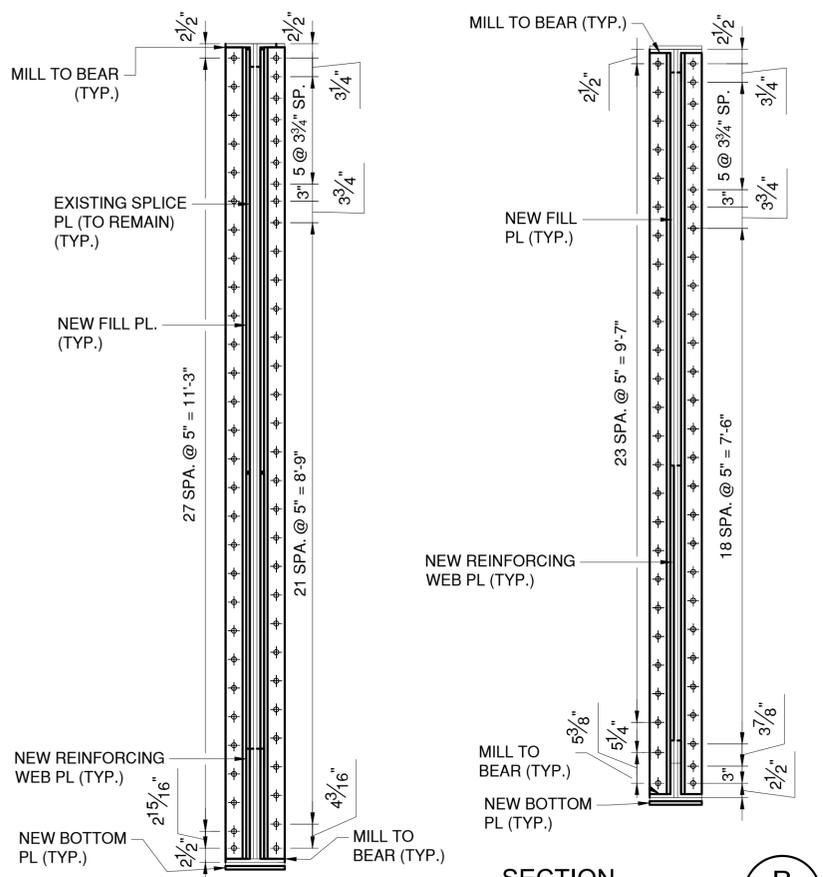
**APPROACH SPAN PROPOSED FRAMING PLAN - 2**

CONTRACT NUMBER 20-517	SHEET NUMBER S-34
SHEET NO. 75 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-S-510-0	REV. NO. 0



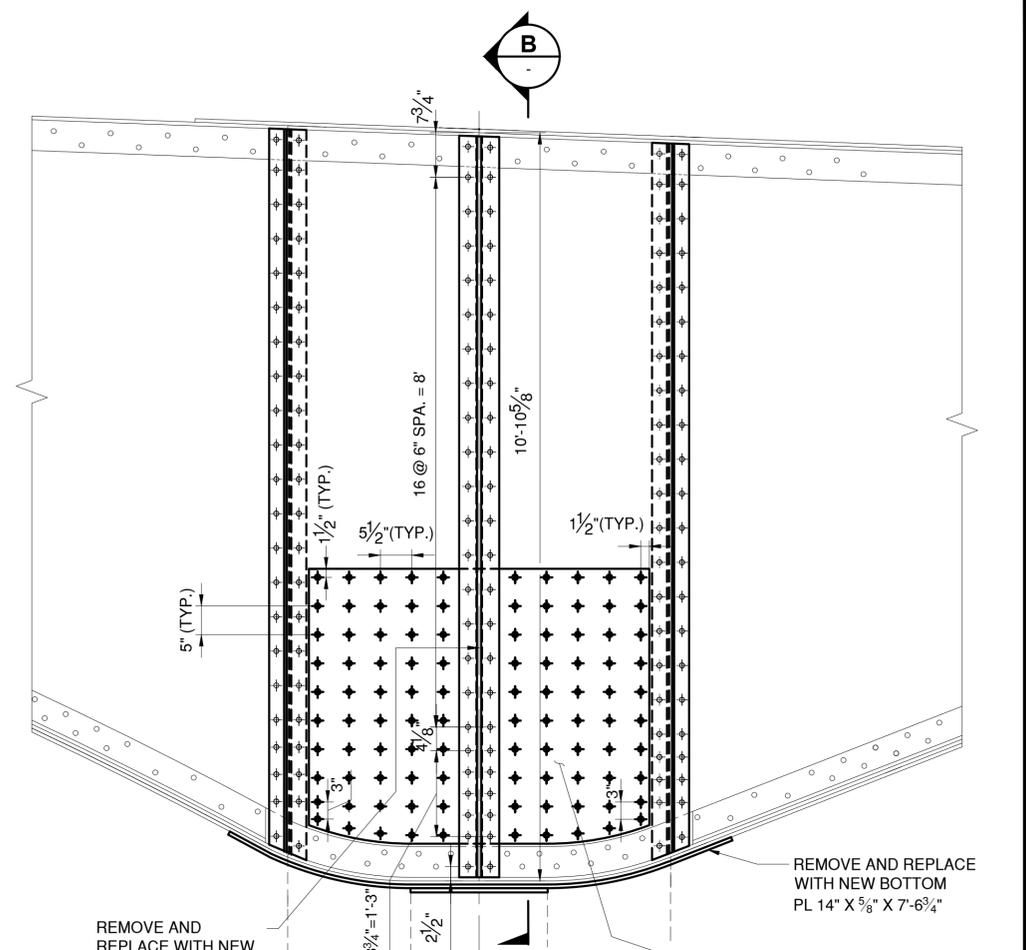
**PROPOSED PIER 13  
WEST GIRDER - INTERIOR**

(SEE NOTE 3)  
SCALE: 3/4" = 1'-0"



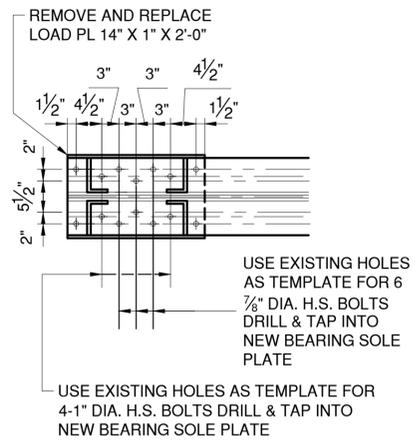
**SECTION A**  
SCALE: 3/4" = 1'-0"

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



**PROPOSED PIER 12  
WEST GIRDER - INTERIOR**

(SEE NOTE 3)  
SCALE: 3/4" = 1'-0"



**PROPOSED PIER 14**

(SEE NOTE 3)  
SCALE: 3/4" = 1'-0"

- NOTES:**
- SUB-DRILL AND REAM EXISTING BOLT HOLES FOR NEW BOLTS IN EXISTING RIVET HOLES.
  - ALL NEW BOLTS SHALL BE 7/8" DIA.
  - CONTRACTOR SHALL VERIFY IN FIELD ALL DIMENSIONS SHOWN ON THIS PLAN.
  - REMOVAL OF EXISTING STEEL TO BE PAID FOR UNDER ITEM 589.010001.
  - NEW STEEL TO BE PAID FOR UNDER ITEM 564.510001.
  - SEE SHEET S-43 AND S-44 FOR BOLT CONFIGURATION DETAILS ON SECTION B AND SECTION D.

- LEGEND:**
- EXISTING RIVET TO REMAIN
  - ◆ NEW BOLT IN NEW HOLE
  - ⊕ NEW BOLT IN EXISTING RIVET HOLE

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY S. POROBIJA

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____



**CONSULTANT INFORMATION**

1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

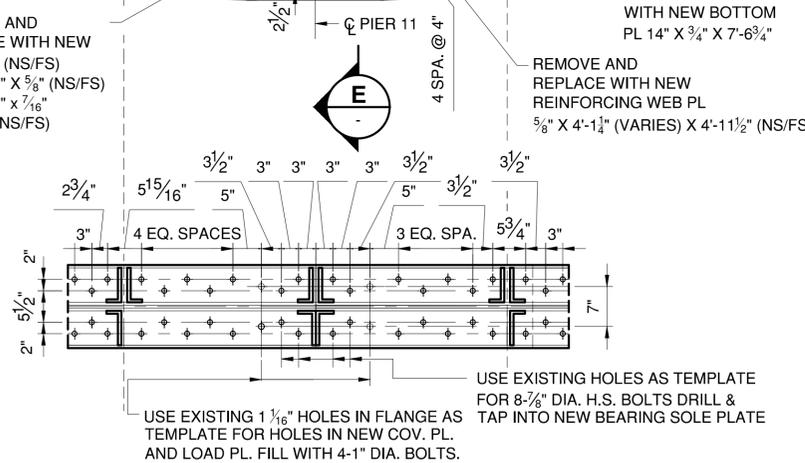
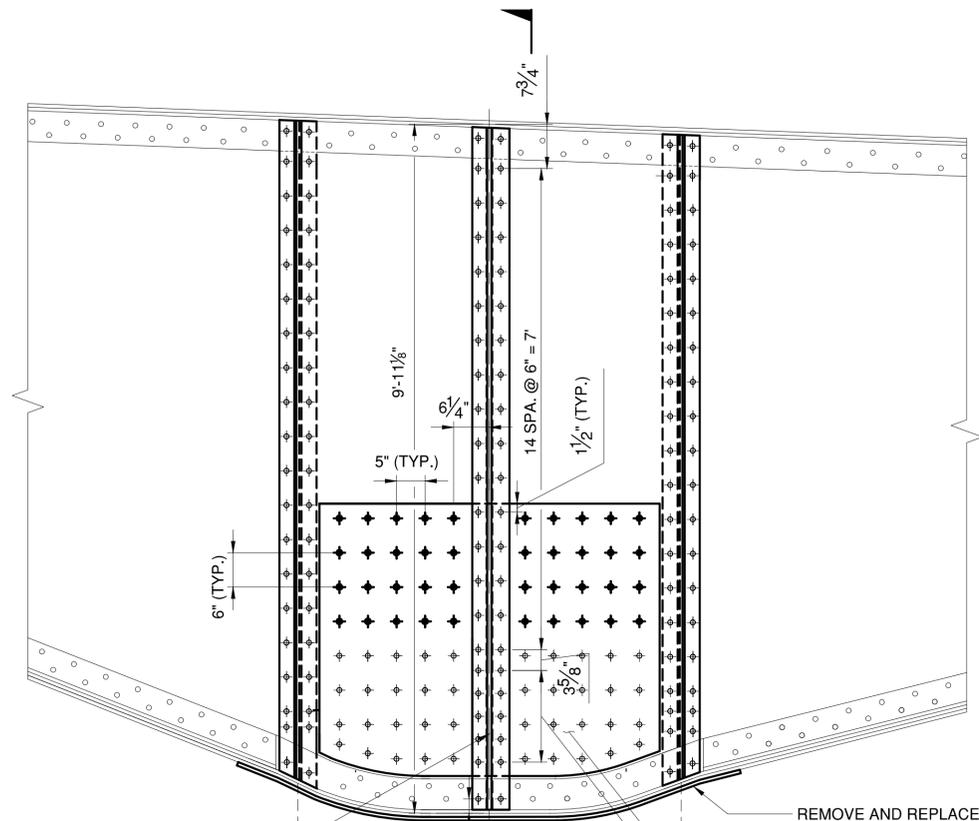
**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

**STRUCTURAL**

**GIRDER REPAIR DETAILS OVER PIERS 12-14**

CONTRACT NUMBER 20-517	SHEET NUMBER S-35
SHEET NO. 76 OF 1212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-511-0	0



**PROPOSED PIER 11  
WEST GIRDER - INTERIOR**

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

**LEGEND:**

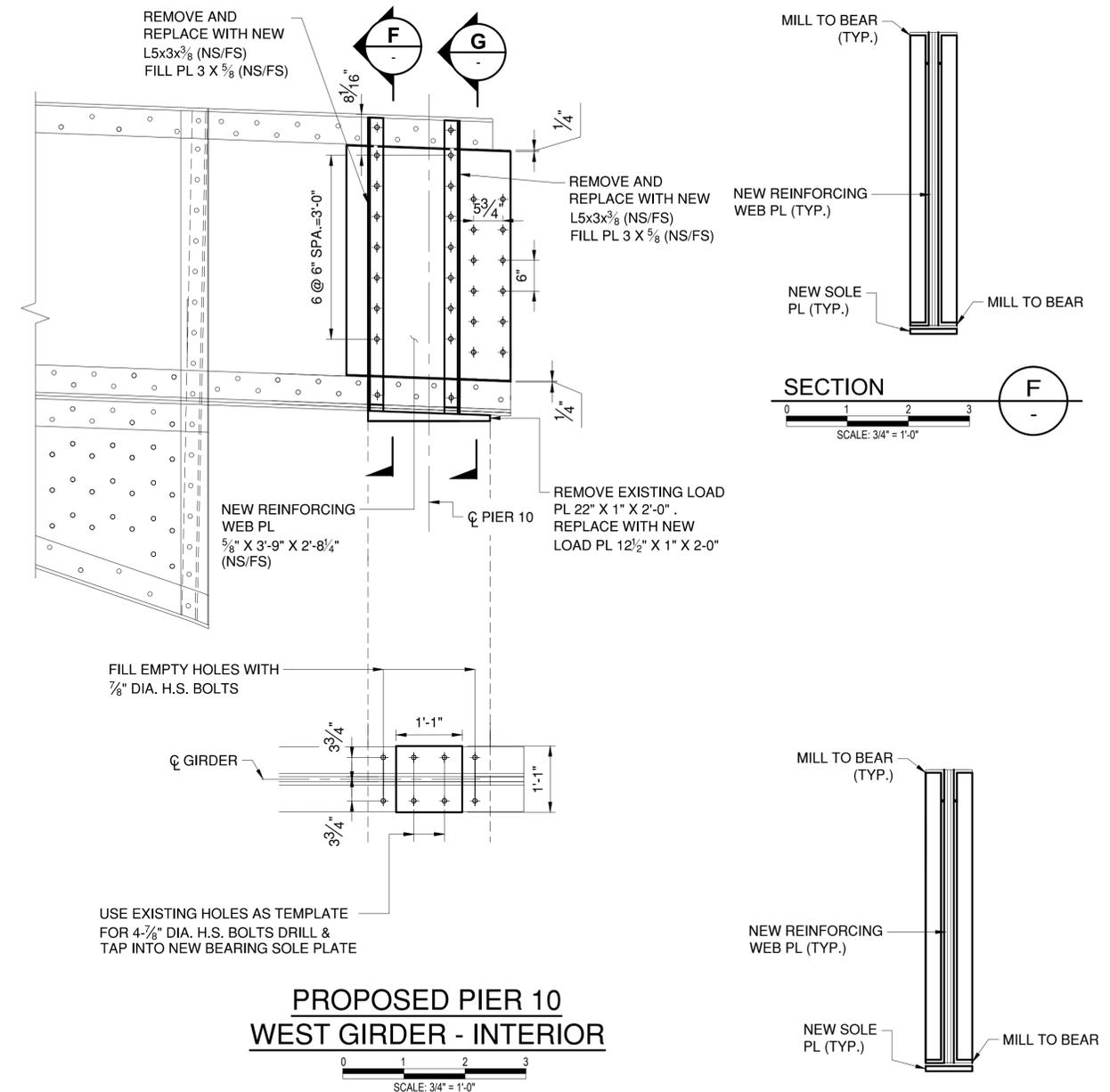
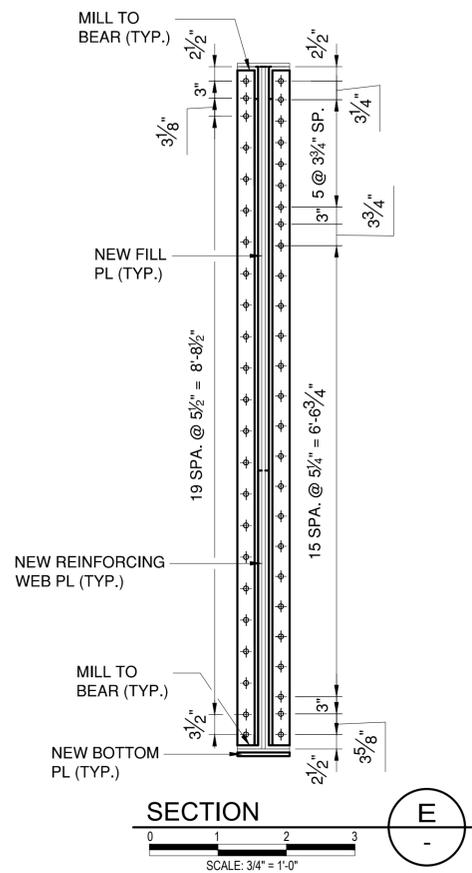
- EXISTING RIVET TO REMAIN
- ◆ NEW BOLT IN NEW HOLE
- ⊕ NEW BOLT IN EXISTING RIVET HOLE

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY S. POROBIJA

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

**NOTES:**

- SUB-DRILL AND REAM EXISTING BOLT HOLES FOR NEW BOLTS IN EXISTING RIVET HOLES.
- ALL NEW BOLTS SHALL BE 7/8" DIA.
- CONTRACTOR SHALL VERIFY IN FIELD ALL DIMENSIONS SHOWN ON THIS PLAN.
- REMOVAL OF EXISTING STEEL TO BE PAID FOR UNDER ITEM 589.010001.
- NEW STEEL TO BE PAID FOR UNDER ITEM 564.510001.
- SEE SHEET S-43 AND S-44 FOR BOLT CONFIGURATION DETAILS ON SECTION G AND SECTION F.



CONSULTANT INFORMATION

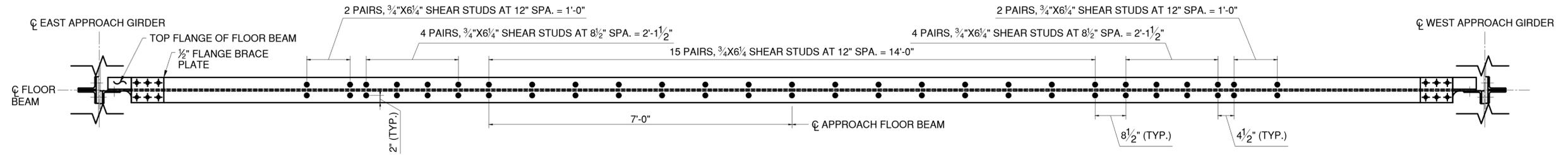


WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

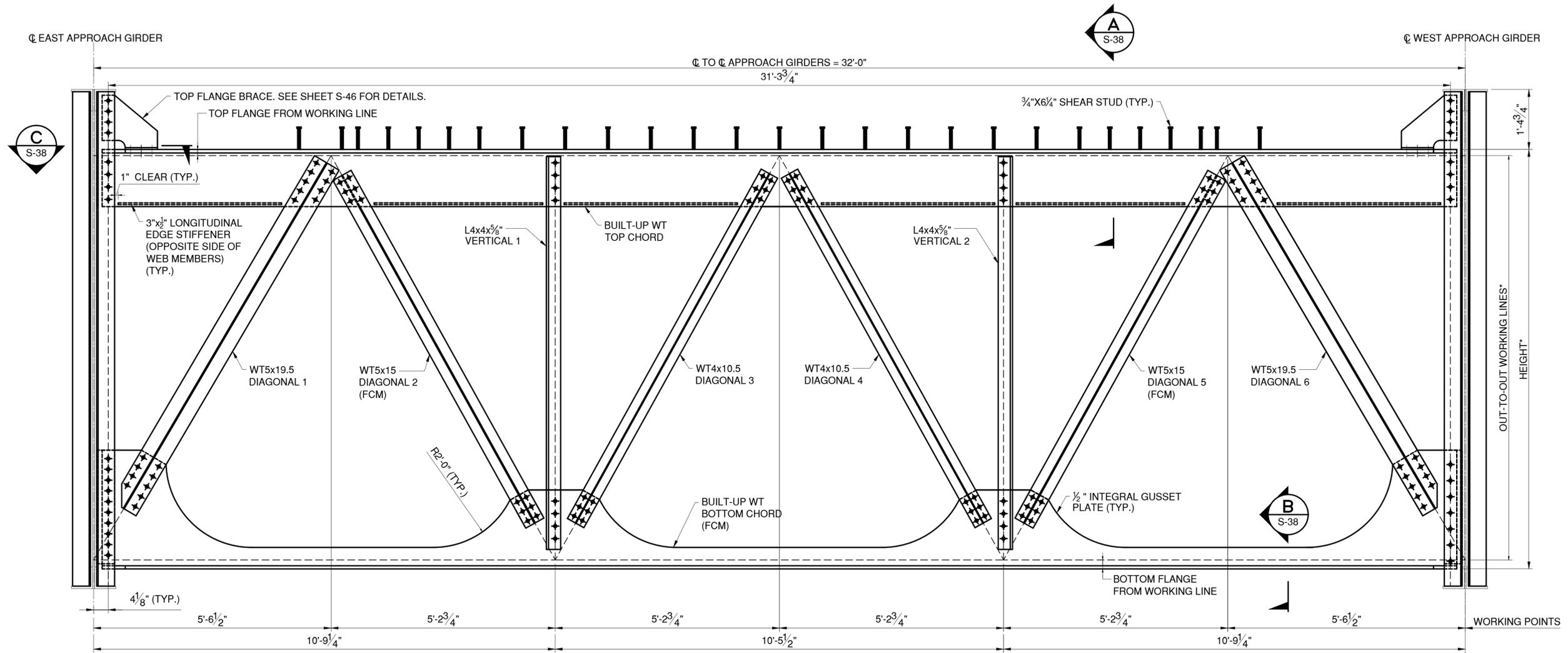
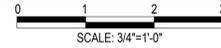
Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

STRUCTURAL  
**GIRDER REPAIR DETAILS OVER PIERS 10-11**

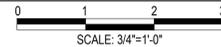
CONTRACT NUMBER 20-517	SHEET NUMBER S-36
SHEET NO. 77 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-512-0	0



TYPICAL APPROACH SPAN TRUSS FLOOR BEAM - PLAN



TYPICAL APPROACH SPAN TRUSS FLOOR BEAM - ELEVATION



- LEGEND:**
- EXISTING RIVET TO REMAIN
  - ◆ NEW BOLT IN NEW HOLE
  - ⊕ NEW BOLT IN EXISTING RIVET HOLE

- NOTES:**
- SEE SHEET S-38 FOR FLOOR BEAM NOTES.

\*NOTE: FB1 - SPAN 14 SHOWN, SEE APPROACH SPAN TRUSS FLOOR BEAM GEOMETRY TABLE ON DRAWING S-38 FOR VARIABLE DIMENSIONS. NUMBER OF BOLTS REQUIRED PER TRUSS MEMBER AND GUSSET PLATE DIMENSIONS VARY. SEE CONNECTION DETAILS ON DRAWINGS S-42 THRU S-47.

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY A. AMARONE, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____



CONSULTANT INFORMATION



WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL

CONTRACT NUMBER 20-517	SHEET NUMBER S-37
SHEET NO. 78 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-513-0	0

APPROACH SPAN TRUSS FLOOR BEAM GEOMETRY														
FLOOR BEAM	SPAN	OUT-TO-OUT OF WORKING LINES	TOP FLANGE FROM WORKING LINE	BOTTOM FLANGE FROM WORKING LINE	HEIGHT*	MINIMUM REQUIRED BOLTS AT CONNECTIONS OF TRUSS FLOOR BEAM WEB ELEMENTS**								
						DIAGONAL 1***	DIAGONAL 2	DIAGONAL 3	DIAGONAL 4	DIAGONAL 5	DIAGONAL 6***	VERTICAL 1	VERTICAL 2	
FB11	14	SEE DRAWING	SEE DRAWING	SEE DRAWING	SEE DRAWING	10	6****	6	6	6	6****	10	4	4
FB10	14	SEE DRAWING	SEE DRAWING	SEE DRAWING	SEE DRAWING	10	6	6	6	6	10	4	4	
FB9	14	SEE DRAWING	SEE DRAWING	SEE DRAWING	SEE DRAWING	11	8	6	6	8	11	4	4	
FB8	14	3'-11.5"	1.75"	3"	4'-4.25"	13	10	8	8	10	13	4	4	
FB3	14	3'-11.5"	1.75"	3"	4'-4.25"	13	10	8	8	10	13	4	4	
FB2	14	6'-3.5"	1.75"	1.75"	6'-7"	11	8	8	8	8	11	4	4	
FB1	14	9'-5"	1.75"	2.5"	9'-9.25"	9	6	6	6	6	9	4	4	
FB12	13	9'-2.8125"	1.75"	2.625"	9'-7.1875"	9	6	6	6	6	9	4	4	
FB11	13	6'-3.5"	1.75"	1.75"	6'-7"	11	8	8	8	8	11	4	4	
FB10	13	3'-11.5"	1.75"	3"	4'-4.25"	13	10	8	8	10	13	4	4	
FB3	13	3'-7.25"	1.75"	3"	4'-0"	13	10	10	10	10	13	4	4	
FB2	13	5'-8.25"	1.75"	1.75"	5'-11.75"	11	8	8	8	8	11	4	4	
FB1	13	8'-5.25"	1.75"	2.5"	8'-9.5"	9	6	6	6	6	9	4	4	
FB10	12	8'-2.75"	1.75"	2.5"	8'-7"	9	6	6	6	6	9	4	4	
FB9	12	5'-8.25"	1.75"	1.75"	5'-11.75"	11	8	8	8	8	11	4	4	
FB8	12	3'-10.75"	1.75"	3"	4'-3.5"	13	10	8	8	10	13	4	4	
FB3	12	3'-4.75"	1.75"	3"	3'-9.5"	14	10	10	10	10	14	4	4	
FB2	12	5'-0.75"	1.75"	1.75"	5'-4.25"	10	8	8	8	8	10	4	4	
FB1	12	7'-6.5"	1.75"	2.5"	7'-10.75"	9	6	6	6	6	9	4	4	
FB12	11	7'-4"	1.75"	2.5"	7'-8.25"	9	6	6	6	6	9	4	4	
FB11	11	5'-0.75"	1.75"	1.75"	5'-4.25"	10	8	8	8	8	10	4	4	
FB10	11	3'-7.25"	1.75"	3"	4'-0"	13	10	10	10	10	13	4	4	
FB4	11	3'-0.25"	1.75"	3"	3'-5"	14	10	10	10	10	14	4	4	
FB3	11	4'-5.25"	1.75"	3"	4'-10"	11	8	8	8	8	11	4	4	
FB2	11	6'-3.75"	1.75"	2.5"	6'-8"	9	6	6	6	6	9	4	4	

\* HEIGHT IS DEFINED AS OUT-TO-OUT OF TOP AND BOTTOM FLANGES.  
 \*\* SEE NOTE 7, THIS SHEET.  
 \*\*\*DIAGONAL 1 AND DIAGONAL 6 SHALL BE 1" DIA. H.S. BOLTS  
 \*\*\*\*NUMBER OF BOLTS SHOWN APPLY TO L2-D2. SEE DETAIL ON S-46 FOR BOLTS AT U2-D2.

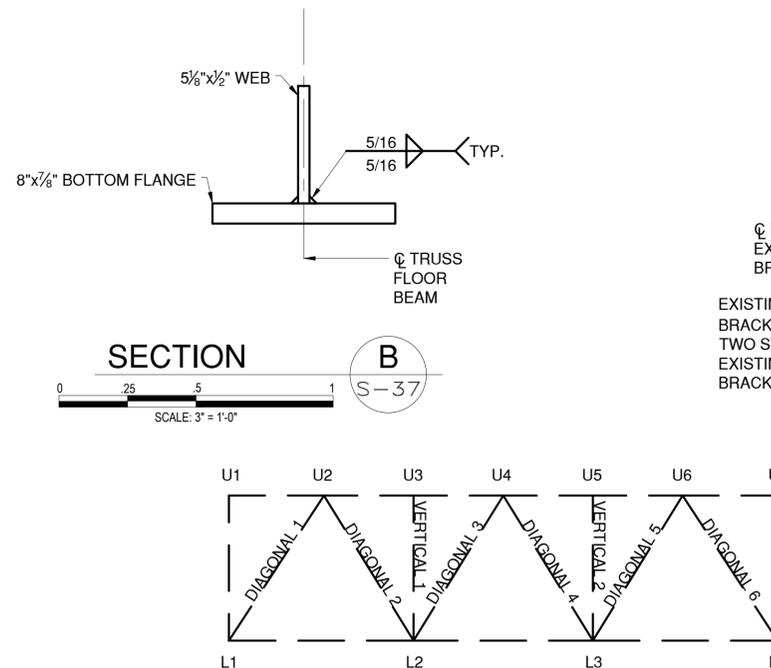
ANGLE CONNECTION TO FLOOR BEAM BOTTOM CHORD AT NODE L1 AND L4*		
FLOOR BEAM	SPAN	NO. OF BOLTS
FB9	14	6
FB8	14	8
FB3	14	6
FB2	14	8
FB1	14	10
FB12	13	10
FB11	13	8
FB10	13	8
FB3	13	7
FB2	13	8
FB1	13	9
FB10	12	9
FB9	12	8
FB8	12	7
FB3	12	7
FB2	12	7
FB1	12	9
FB12	11	9
FB11	11	7
FB10	11	7
FB4	11	6
FB3	11	7
FB2	11	8

\* SEE DRAWING S-45 FOR TYPICAL APPROACH SPAN TRUSS FLOOR BEAM NODE L1 AND L4 CONNECTION TO APPROACH GIRDER CONNECTION ANGLES. SEE S-46 FOR FB9, SPAN 14, L1 AND L4 CONNECTION DETAILS.

- LEGEND:
- EXISTING RIVET TO REMAIN
  - NEW BOLT IN NEW HOLE
  - ⊕ NEW BOLT IN EXISTING RIVET HOLE

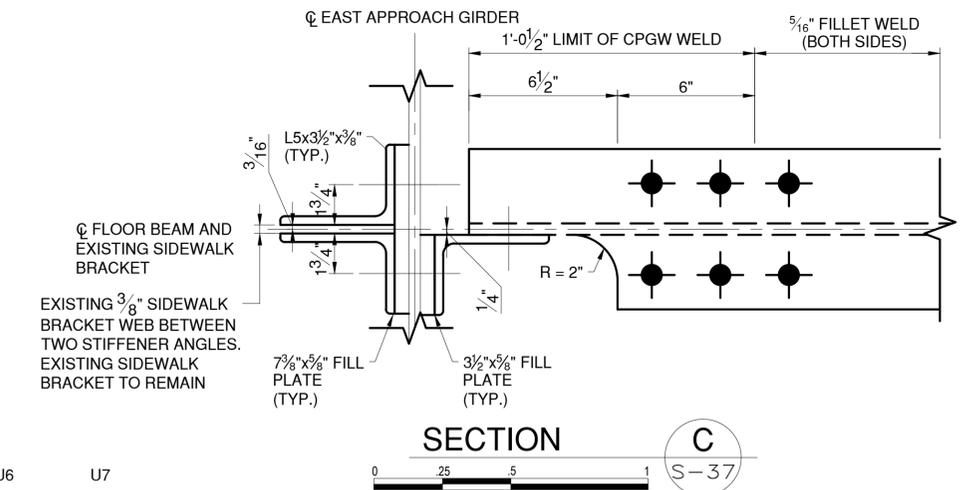
IN CHARGE OF A. AMARONE, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY N. HYSOON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION



NOTES:

- SEE SHEET G-05 FOR STRUCTURAL STEEL NOTES AND HIGH STRENGTH BOLTS NOTES IN GENERAL NOTES.
- ALL FLOOR BEAM CONNECTIONS TO EXISTING APPROACH GIRDERS SHALL UTILIZE THE EXISTING HOLE PATTERNS ON THE APPROACH GIRDERS.
- THE BOTTOM AND TOP STEEL MEMBERS ARE CONTINUOUS ACROSS THE TRUSS FLOOR BEAMS THROUGH THE TRUSS NODES.
- CONNECTIONS TO APPROACH GIRDERS VARY BY LOCATION. CONTRACTOR TO FIELD VERIFY EXISTING RIVET SPACING AT LOCATIONS OF NEW BOLTS IN EXISTING HOLES WITH RIVETS. CONTRACTOR TO FIELD VERIFY HEIGHTS OF CONNECTION ANGLES AND CONNECTION FILL PLATES.
- FLOOR BEAM TO APPROACH GIRDER CONNECTION ANGLES AND CONNECTION FILL PLATES SHALL BEAR AT THE TOP FLANGE AND BE CLIPPED AT THE BOTTOM TO ALLOW A SMALL CLEARANCE (1/4" MAX.) BETWEEN THE APPROACH GIRDER BOTTOM FLANGE AND THE CONNECTION ANGLE UNLESS OTHERWISE NOTED. FILL PLATES AND ANGLES SHALL BE MILL TO BEAR AT THE BOTTOM AT THE FOLLOWING LOCATIONS: FB11 - SPAN 14, FB10 - SPAN 14, FB1 - SPAN 14, FB12 - SPAN 13, FB7 - SPAN 13, FB6 - SPAN 13, FB10 - SPAN 12, FB1 - SPAN 12, FB12 - SPAN 11.
- AT LOCATIONS OF APPROACH GIRDER SPLICE PLATES, DRIFT PINS SHALL BE USED WHEN REPLACING FLOOR BEAM CONNECTION ANGLES AND SIDEWALK BRACKET CONNECTION ANGLES. REPLACE RIVETS ONE-FOR-ONE WITH DRIFT PINS DURING REMOVAL OF EXISTING CONNECTION ANGLES. REPLACE RIVETS WITH H.S. BOLTS DURING INSTALLATION OF PROPOSED ANGLES. ANGLES SHALL BE REMOVED AND INSTALLED ONE AT A TIME PER FLOOR BEAM LOCATION.
- NUMBER OF BOLTS REQUIRED PER WEB MEMBER VARIES BY FLOOR BEAM. SEE TABLE, THIS SHEET, FOR REQUIRED NUMBER OF BOLTS. GUSSET PLATE SIZE TO BE MODIFIED TO ACCOMMODATE REQUIRED BOLT MINIMUMS AND TO MEET SPACING AND SEALING REQUIREMENTS. FABRICATOR MAY UTILIZE MORE BOLTS THAN THE REQUIRED MINIMUMS TO MEET SEALING AND EDGE DISTANCE REQUIREMENTS.
- F436 WASHER MAY BE FIELD CLIPPED UP TO 1/8" TO ALLOW FOR PROPER, FLUSH INSTALLATION OF NEW BOLTS
- EXISTING APPROACH GIRDER AND SIDEWALK BRACKETS TO REMAIN.
- COORDINATE FLOOR BEAM CONNECTION REPLACEMENT WITH WITH FIELD CLEANING AND PAINTING OF EXISTING APPROACH GIRDERS. REMOVAL OF PAINT AND PAINTING OF STEEL PAID UNDER ITEM 573.010001.
- LONGITUDINAL EDGE STIFFENERS ARE REQUIRED AT THE BOTTOM OF THE TOP CHORD TEE STEM BETWEEN NODES. LENGTH OF THE EDGE STIFFENERS VARY BY FLOOR BEAM. PROVIDE 1" MIN. CLEAR BETWEEN THE END OF EDGE STIFFENERS AND WEB MEMBERS (DIAGONALS AND VERTICALS). STIFFENERS TO BE LOCATED ON THE OPPOSITE SIDE OF THE STEM THAN THE WEB MEMBERS. SEE DRAWING S-57 FOR LONGITUDINAL EDGE STIFFENER TERMINATION DETAIL.
- NATURAL CAMBER ON PLATE GIRDER FLOOR BEAMS TO BE PLACED UP.
- REMOVAL OF EXISTING STEEL TO BE PAID FOR UNDER ITEM 589.010001.
- NEW STEEL TO BE PAID FOR UNDER ITEM 564.510001.



NOTE: CONNECTION ANGLE LEG ORIENTATION TO APPROACH GIRDER VARIES BY LOCATION.

CONSULTANT SEAL  
DAVID DELUCA  
NO. 04881  
REGISTERED PROFESSIONAL ENGINEER

CONSULTANT INFORMATION

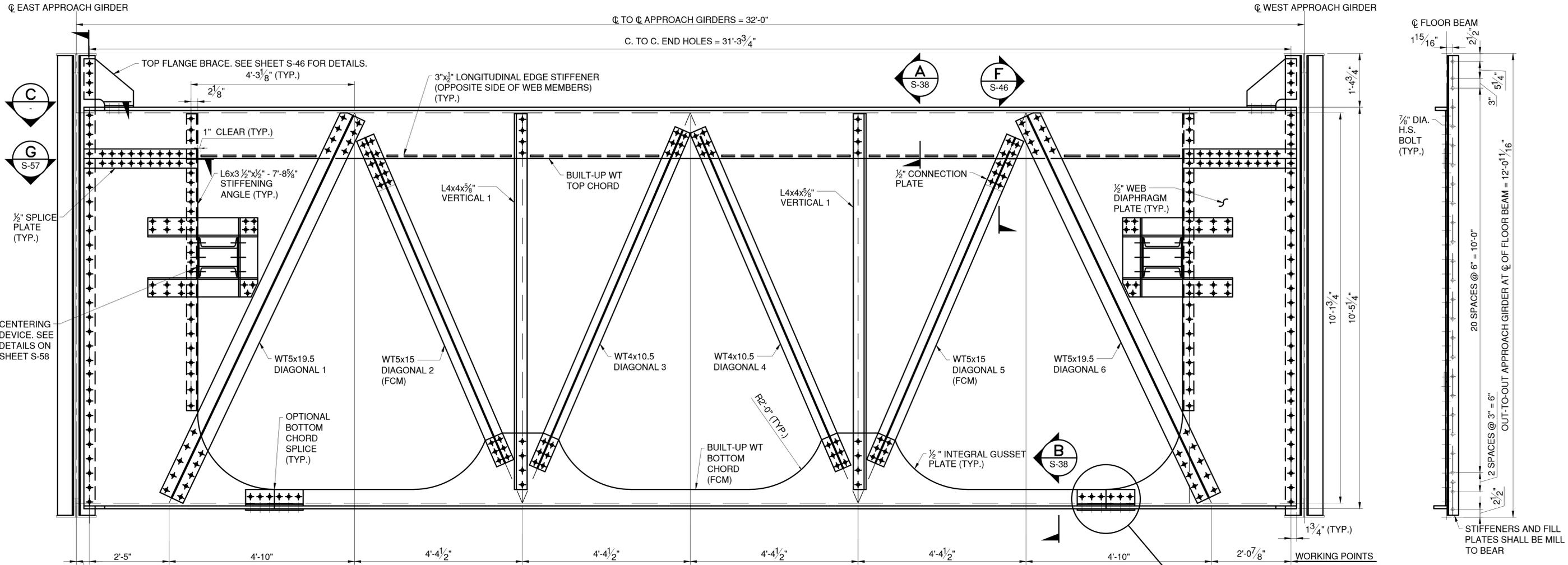
1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER S-38
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 79 OF 122	
STRUCTURAL		SCALE: AS SHOWN DATE: 03/08/2024	DPW FILE NO.
<b>APPROACH SPAN TRUSS FLOOR BEAM DETAILS - 2</b>		5-04-S-514-0	REV. NO. 0

N.T.S.  
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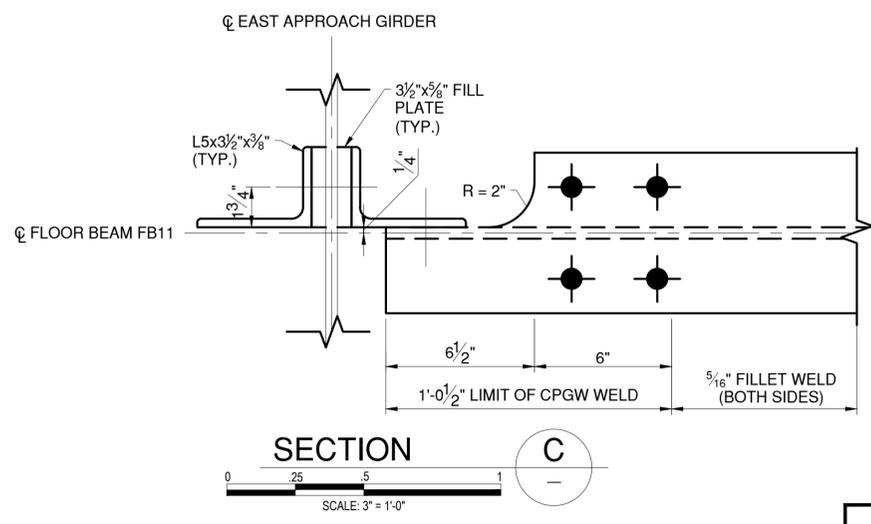
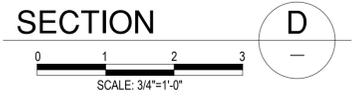
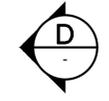
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CONTRACTOR		PROJECT COORDINATOR	
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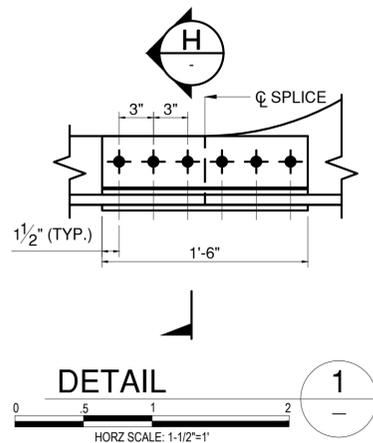


**FB11, SPAN 14 - APPROACH SPAN TRUSS  
FLOOR BEAM - NORTH ELEVATION**

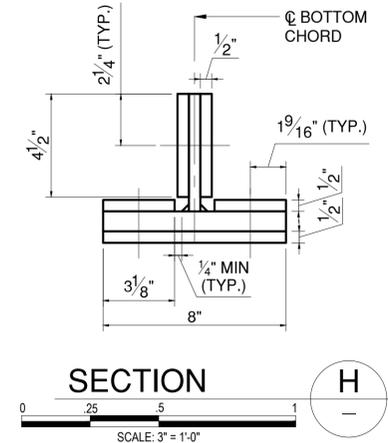
SCALE: 3/4"=1'-0"



**SECTION C**  
SCALE: 3"=1'-0"



**DETAIL 1**  
HORZ SCALE: 1-1/2"=1"



**SECTION H**  
SCALE: 3"=1'-0"

- LEGEND:**
- EXISTING RIVET TO REMAIN
  - ◆ NEW BOLT IN NEW HOLE
  - ⊕ NEW BOLT IN EXISTING RIVET HOLE
- NOTES:**
1. SEE SHEET S-38 FOR FLOOR BEAM NOTES.



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY A. AMARONE, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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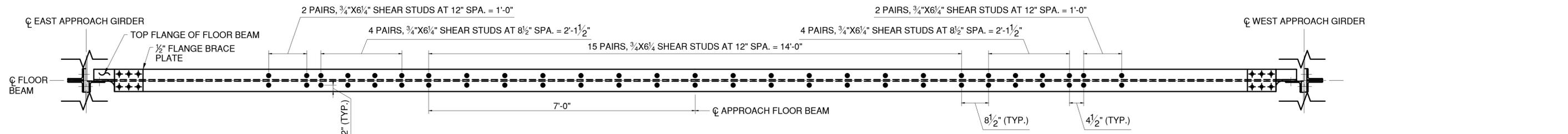
**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

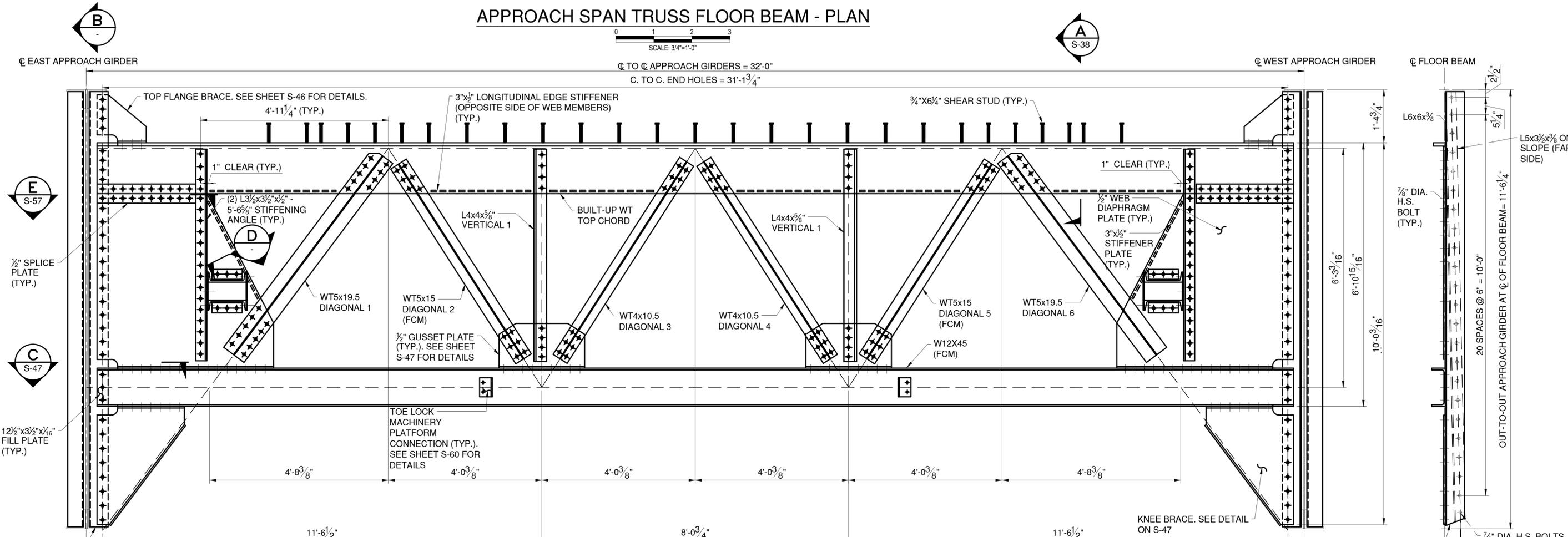
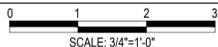
STRUCTURAL

**APPROACH SPAN TRUSS FLOOR BEAM DETAILS - 3**

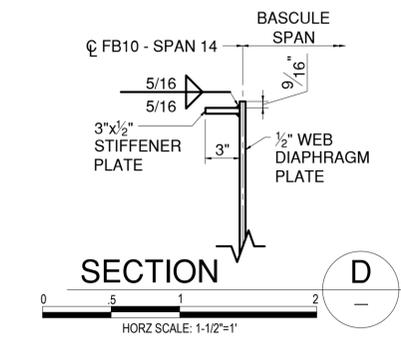
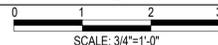
CONTRACT NUMBER 20-517	SHEET NUMBER S-39
SHEET NO. 80 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO. 0
5-04-S-515-0	



**APPROACH SPAN TRUSS FLOOR BEAM - PLAN**



**FB10, SPAN 14 - APPROACH SPAN TRUSS FLOOR BEAM - NORTH ELEVATION**



NOTES:

- SEE SHEET S-38 FOR FLOOR BEAM NOTES.

- LEGEND:**
- EXISTING RIVET TO REMAIN
  - ◆ NEW BOLT IN NEW HOLE
  - ◆ NEW BOLT IN EXISTING RIVET HOLE



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. AMARONE, PE  
 MADE BY D. DERKS

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

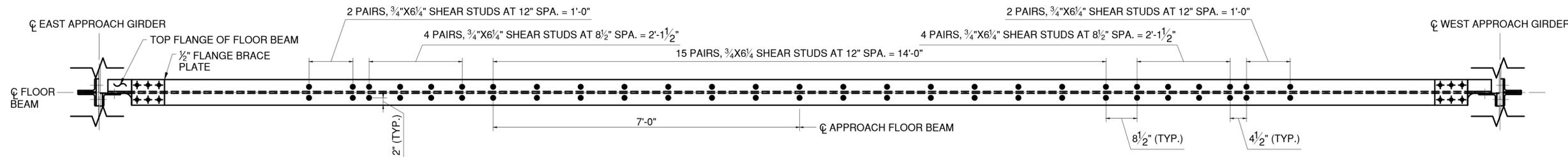
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		TITLE	TITLE
		DATE	DATE

**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

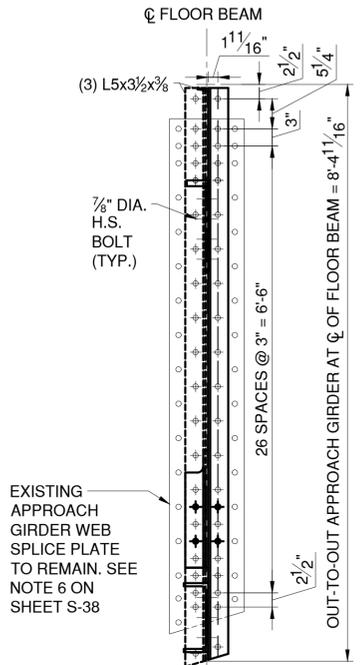
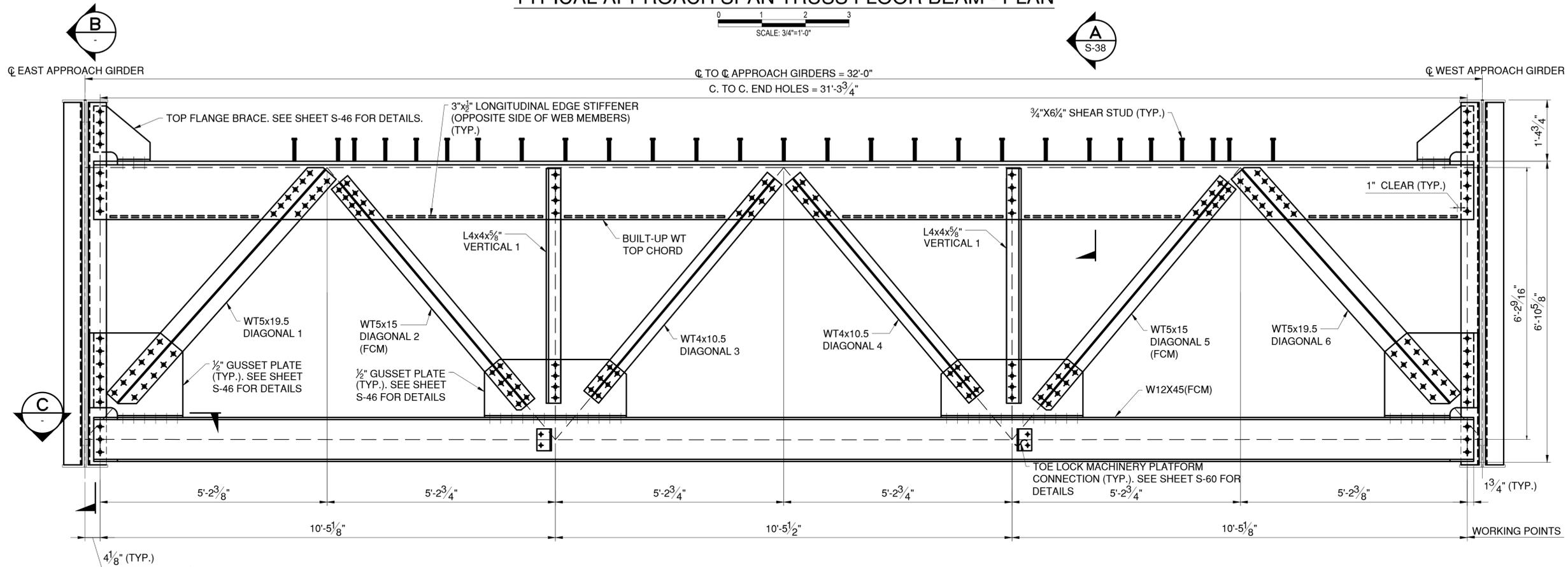
Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

STRUCTURAL

CONTRACT NUMBER 20-517	SHEET NUMBER S-40
SHEET NO. 81 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-516-0	0



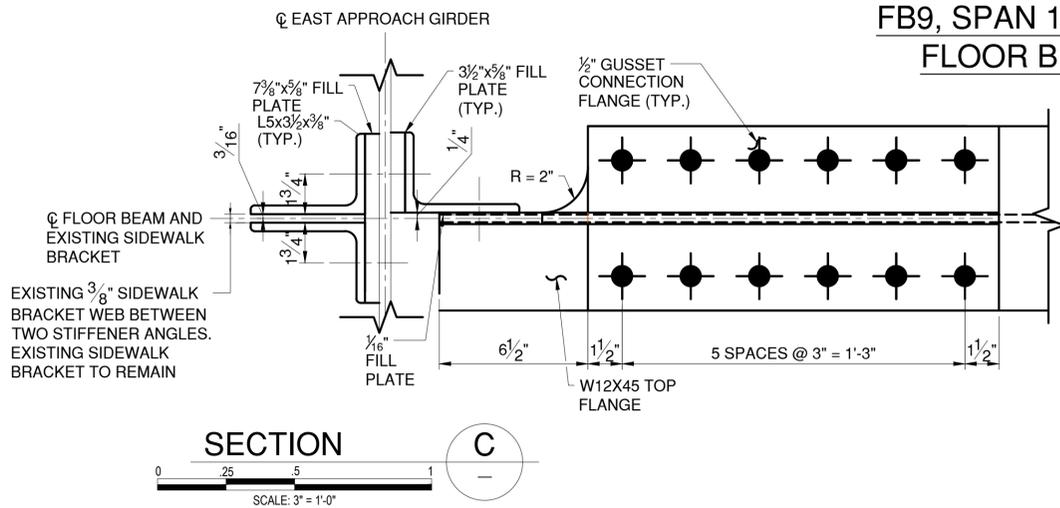
TYPICAL APPROACH SPAN TRUSS FLOOR BEAM - PLAN



SECTION B  
SCALE: 3/4\"/>

NOTE: APPROACH GIRDER FLANGES AND WEB NOT SHOWN FOR CLARITY

FB9, SPAN 14 - APPROACH SPAN TRUSS FLOOR BEAM - NORTH ELEVATION



SECTION C  
SCALE: 3\"/>

LEGEND:

- EXISTING RIVET TO REMAIN
- NEW BOLT IN NEW HOLE
- ⊕ NEW BOLT IN EXISTING RIVET HOLE

NOTES:

1. SEE SHEET S-38 FOR FLOOR BEAM NOTES.



CONSULTANT INFORMATION



RECORD DRAWING CERTIFICATION

- AS BUILT - CHANGES AS NOTED
- AS BUILT - NO CHANGES

CONTRACTOR

PROJECT COORDINATOR

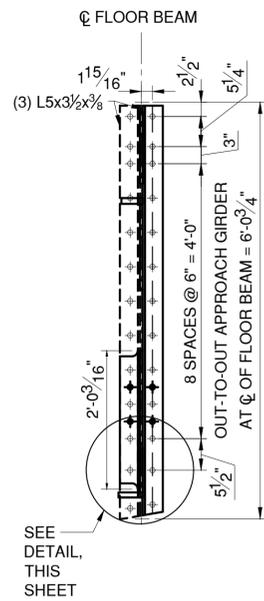
NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY A. AMARONE, PE

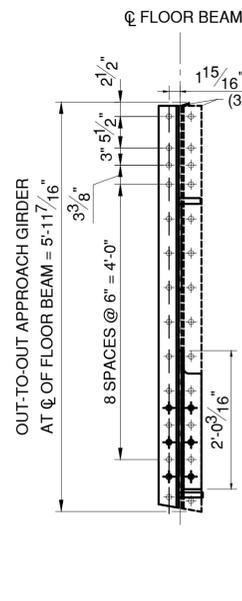
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL

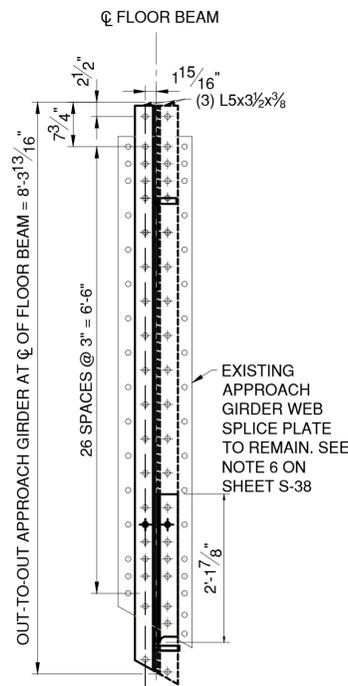
CONTRACT NUMBER 20-517	SHEET NUMBER S-41
SHEET NO. 82 OF 122	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO. 0
5-04-S-517-0	



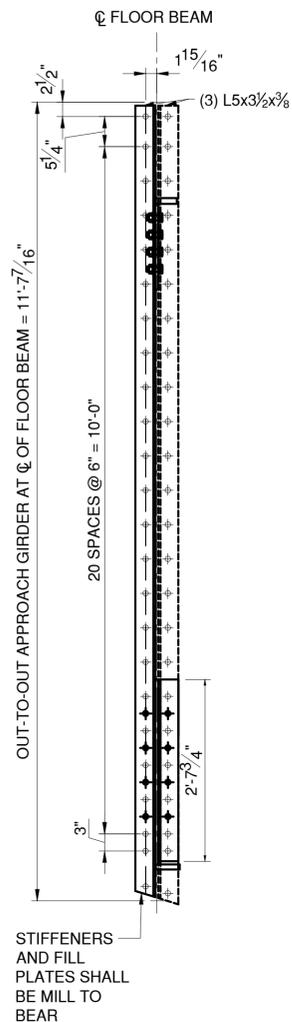
FB8 - SPAN 14



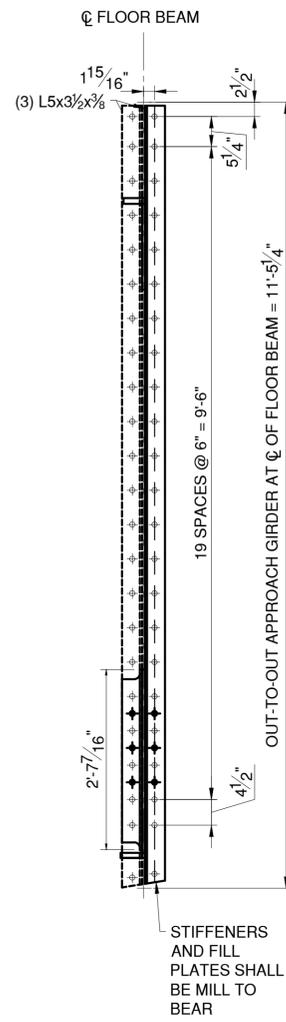
FB3 - SPAN 14



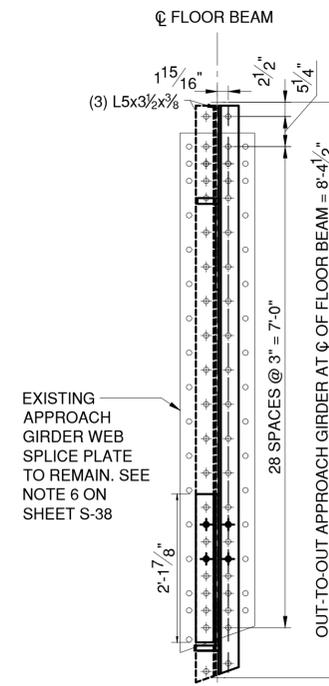
FB2 - SPAN 14



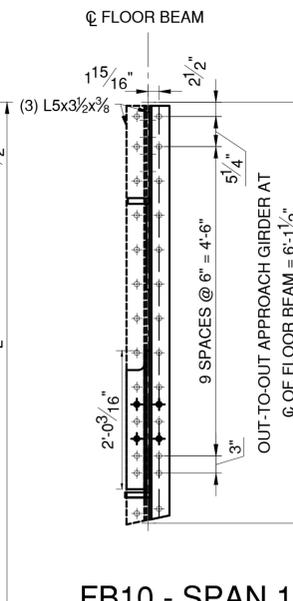
FB1 - SPAN 14



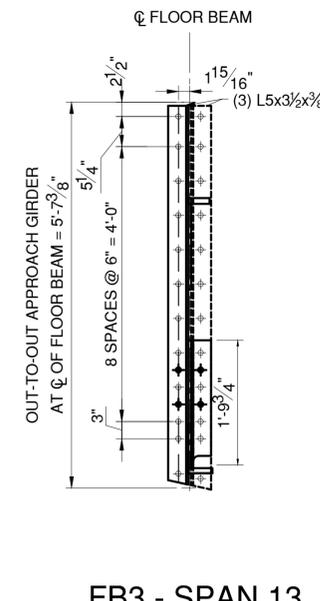
FB12 - SPAN 13



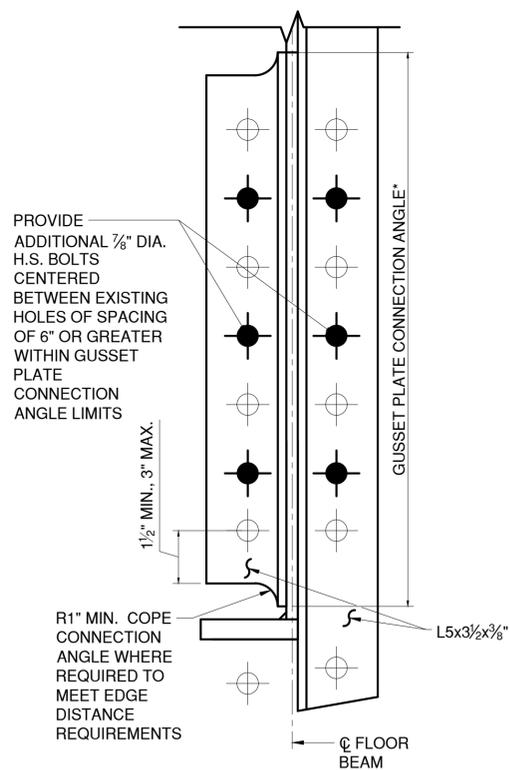
FB11 - SPAN 13



FB10 - SPAN 13



FB3 - SPAN 13



TYPICAL CONNECTION ANGLE COPE  
DETAIL AT NODES L1 AND L4

N.T.S.

\*NOTE: FB8 - SPAN 14, SHOWN. OTHER FLOOR BEAM CONNECTION GEOMETRIES VARY BASED ON EXISTING RIVET PATTERNS. CONTRACTOR TO FIELD VERIFY EXISTING BOLT PATTERNS AND PROVIDE COPED CONNECTION ANGLES WHERE REQUIRED TO MEET EDGE DISTANCE REQUIREMENTS.

APPROACH SPAN TRUSS FLOOR BEAM CONNECTION  
DETAILS - AT EAST APPROACH GIRDER



NOTE: WEST APPROACH GIRDER CONNECTIONS SIMILAR, SYMMETRICAL ABOUT  $\phi$  OF ROADWAY

LEGEND:

- EXISTING RIVET TO REMAIN
- ◆ NEW BOLT IN NEW HOLE
- ◆ NEW BOLT IN EXISTING RIVET HOLE

NOTES:

1. SEE SHEET S-38 FOR FLOOR BEAM NOTES.
2. APPROACH GIRDER FLANGES AND WEB NOT SHOWN FOR CLARITY.



CONSULTANT SEAL  
CONSULTANT INFORMATION



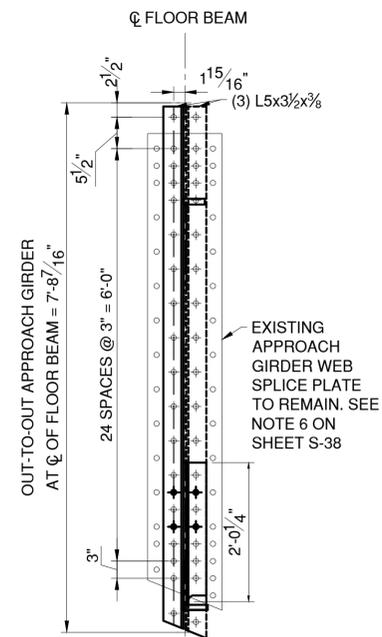
IN CHARGE OF D. DELUCA, PE  
CHECKED BY J. WARNCKE, PE  
MADE BY A. AMARONE, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

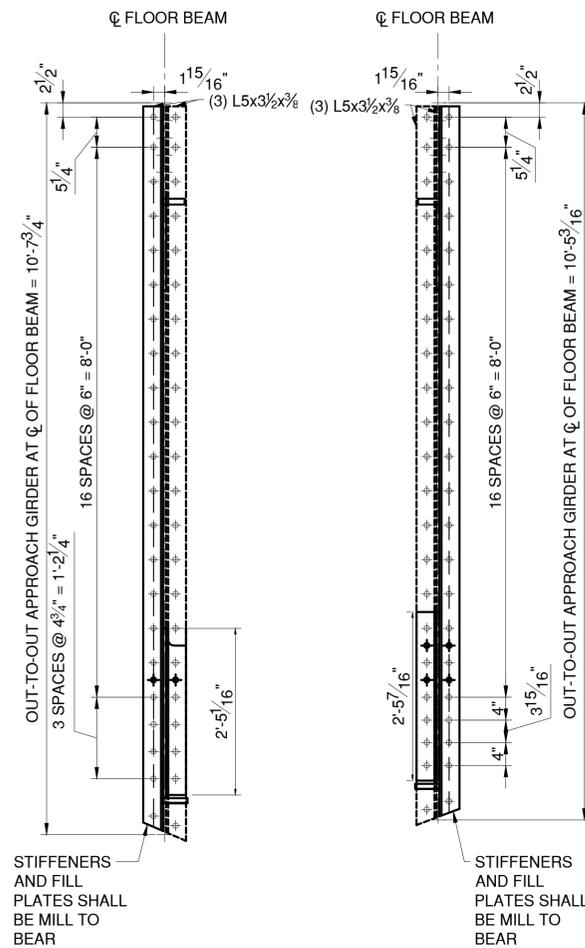
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AS BUILT - CHANGES AS NOTED		AS BUILT - NO CHANGES	
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING  
Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle  
STRUCTURAL

CONTRACT NUMBER 20-517	SHEET NUMBER S-42
SHEET NO. 83 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-518-0	0

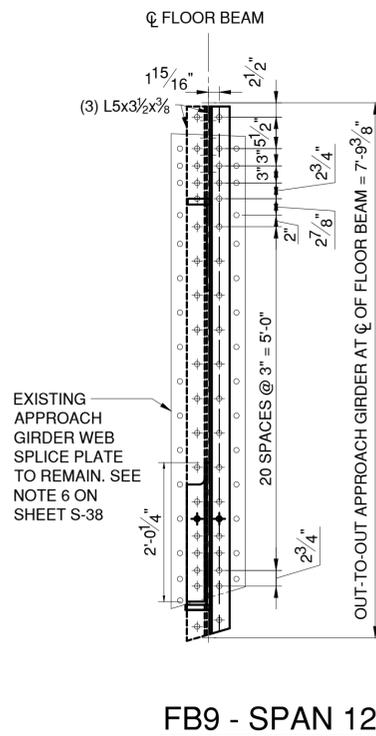


FB2 - SPAN 13

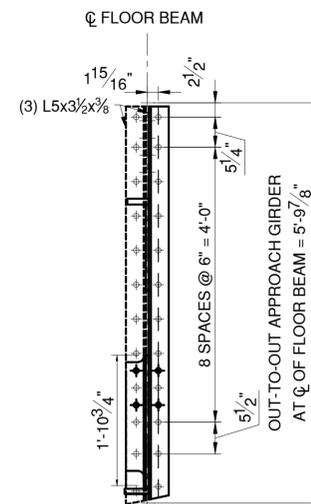


FB1 - SPAN 13

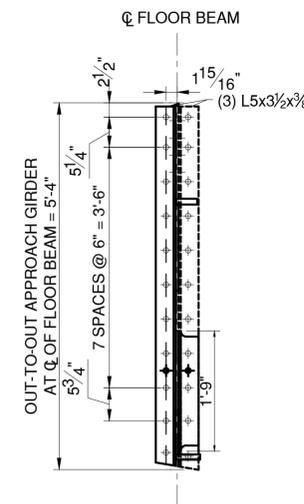
FB10 - SPAN 12



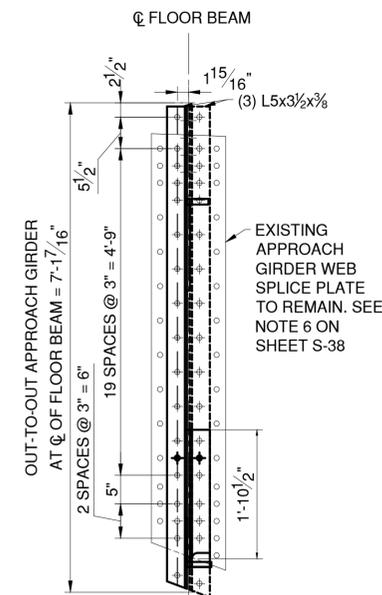
FB9 - SPAN 12



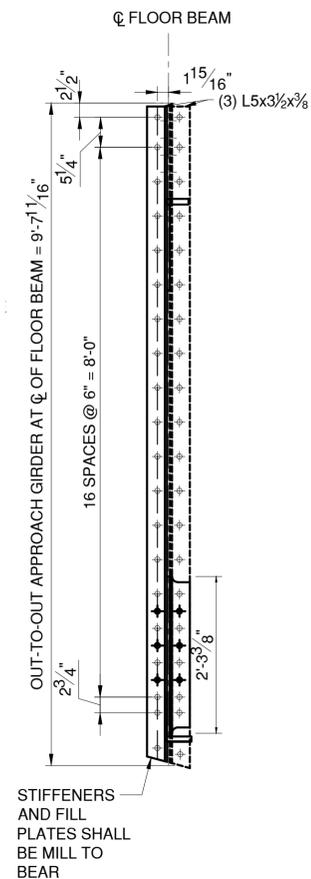
FB8 - SPAN 12



FB3 - SPAN 12



FB2 - SPAN 12



FB1 - SPAN 12

APPROACH SPAN TRUSS FLOOR BEAM CONNECTION  
DETAILS - AT EAST APPROACH GIRDER



NOTE: WEST APPROACH GIRDER CONNECTIONS SIMILAR, SYMMETRICAL ABOUT  $\phi$  OF ROADWAY

NOTES:

- SEE SHEET S-38 FOR FLOOR BEAM NOTES.
- APPROACH GIRDER FLANGES AND WEB NOT SHOWN FOR CLARITY.
- SEE "TYPICAL CONNECTION ANGLE COPE DETAIL AT NODES L1 AND L4" ON SHEET S-42 FOR GUSSET PLATE CONNECTION ANGLE DETAILS.

LEGEND:

- EXISTING RIVET TO REMAIN
- NEW BOLT IN NEW HOLE
- NEW BOLT IN EXISTING RIVET HOLE



CONSULTANT INFORMATION

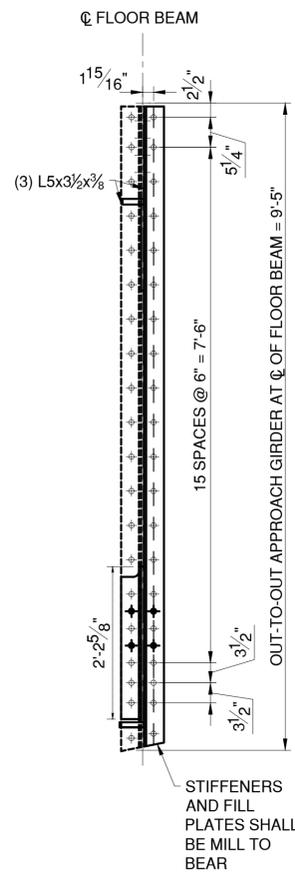


IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY A. AMARONE, PE

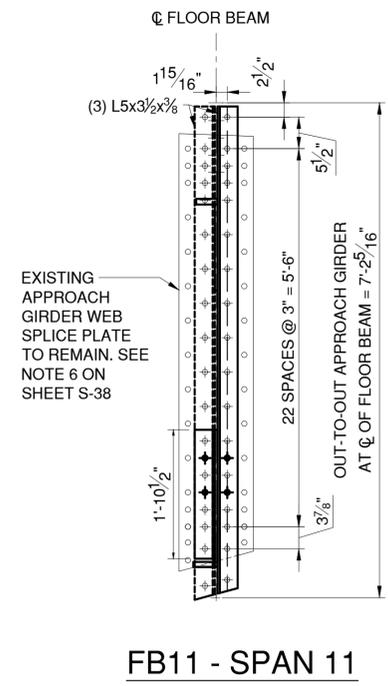
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

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CONTRACTOR		PROJECT COORDINATOR	
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DATE _____	DATE _____	DATE _____	DATE _____

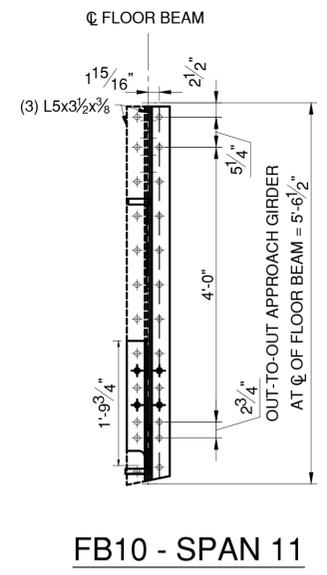
WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER S-43
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 84 OF 212	
STRUCTURAL		SCALE: AS SHOWN DATE: 03/08/2024	REV. NO. 0
APP. SPAN TRUSS FLOOR BEAM CONNECTIONS - 2		DPW FILE NO.	5-04-S-519-0



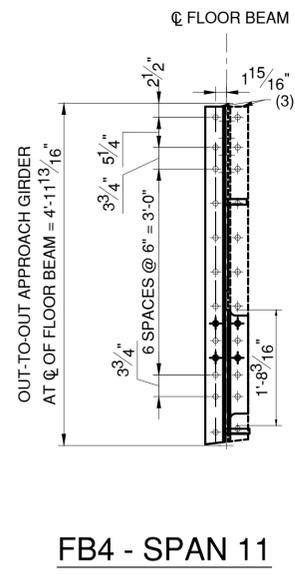
FB12 - SPAN 11



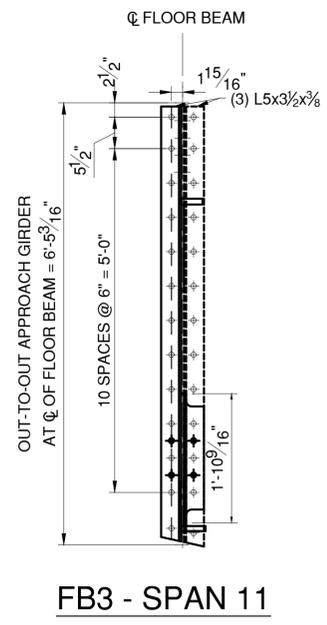
FB11 - SPAN 11



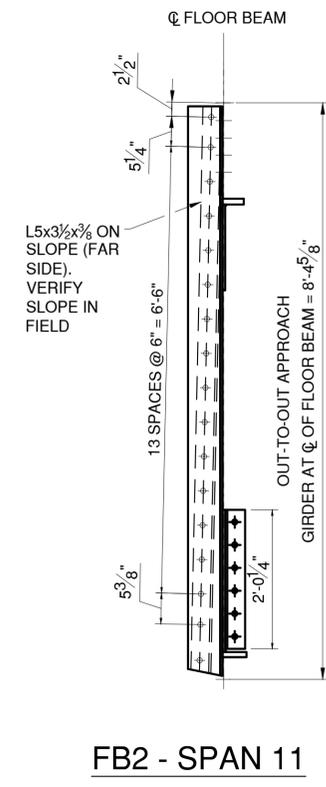
FB10 - SPAN 11



FB4 - SPAN 11

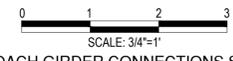


FB3 - SPAN 11



FB2 - SPAN 11

APPROACH SPAN TRUSS FLOOR BEAM CONNECTION  
DETAILS - AT EAST APPROACH GIRDER



NOTE: WEST APPROACH GIRDER CONNECTIONS SIMILAR, SYMMETRICAL ABOUT  $\phi$  OF ROADWAY

NOTES:

- SEE SHEET S-38 FOR FLOOR BEAM NOTES.
- APPROACH GIRDER FLANGES AND WEB NOT SHOWN FOR CLARITY.
- SEE "TYPICAL CONNECTION ANGLE COPE DETAIL AT NODES L1 AND L4" ON SHEET S-42 FOR GUSSET PLATE CONNECTION ANGLE DETAILS.

LEGEND:

- EXISTING RIVET TO REMAIN
- ⊕ NEW BOLT IN NEW HOLE
- ⊕ NEW BOLT IN EXISTING RIVET HOLE



CONSULTANT INFORMATION



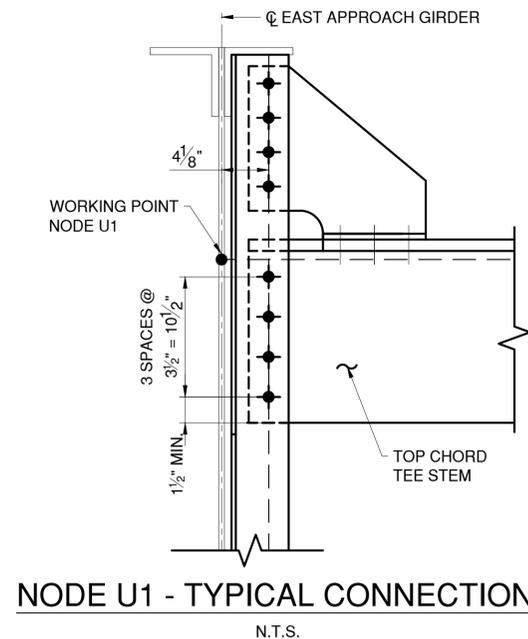
IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY A. AMARONE, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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		TITLE _____	SIGNATURE _____
			TITLE _____
			DATE _____

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL

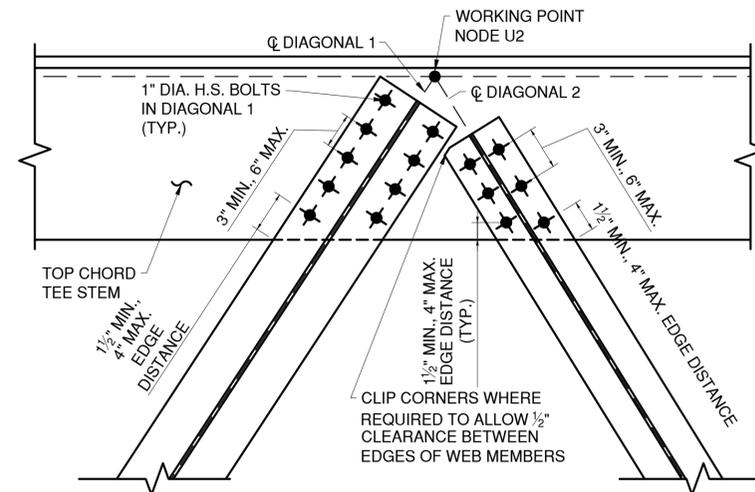
CONTRACT NUMBER 20-517	SHEET NUMBER S-44
SHEET NO. 85 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-520-0	0



**NODE U1 - TYPICAL CONNECTION**

N.T.S.

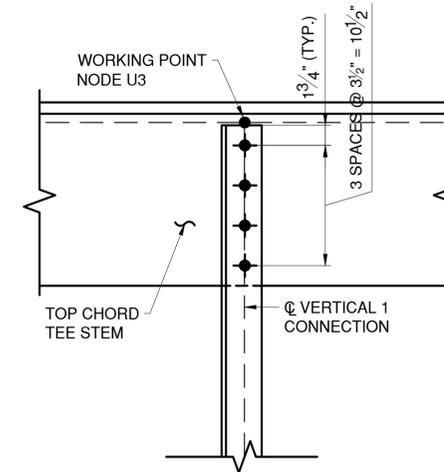
NOTE: FLOOR BEAM 1, SPAN 13 TOP CHORD AT NODE U1 SHOWN. TOP CHORD AT NODE U7 SIMILAR, OPPOSITE HAND. FOR TRUSS FLOOR BEAM GEOMETRY SEE SHEET S-38.



**NODE U2 - TYPICAL CONNECTION**

N.T.S.

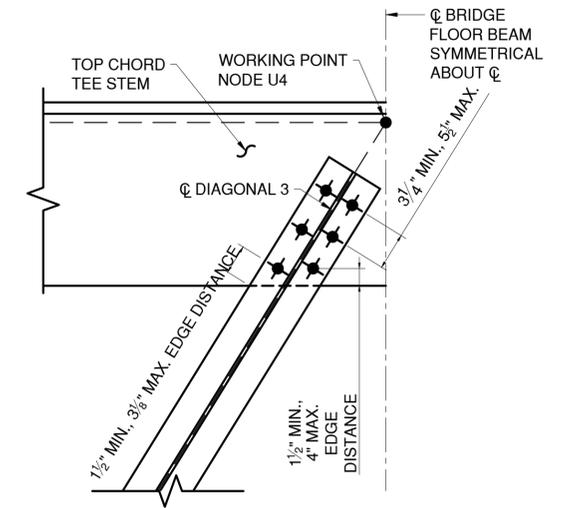
NOTE: FLOOR BEAM 1, SPAN 13 NODE U2 SHOWN. NODE U6 SIMILAR, OPPOSITE HAND. CONNECTIONS AT U2 AND U6 VARY BY FLOOR BEAM. FOR REQUIRED NUMBER OF BOLTS AND TRUSS FLOOR BEAM GEOMETRY SEE SHEET S-38.



**NODE U3 - TYPICAL CONNECTION**

N.T.S.

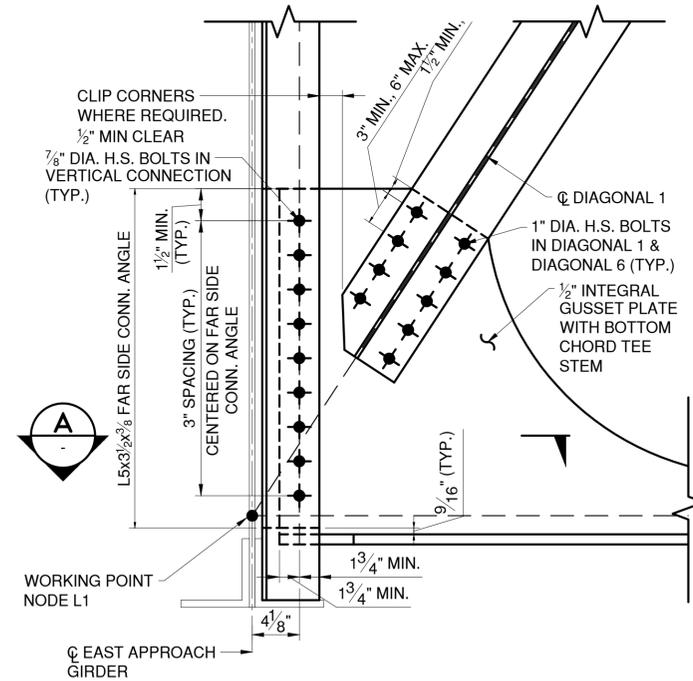
NOTE: FLOOR BEAM 1, SPAN 13 VERTICAL 1 AT NODE U3 SHOWN. VERTICAL 2 AT NODE U5 SIMILAR, OPPOSITE HAND. FOR TRUSS FLOOR BEAM GEOMETRY SEE SHEET S-38.



**NODE U4 - TYPICAL CONNECTION**

N.T.S.

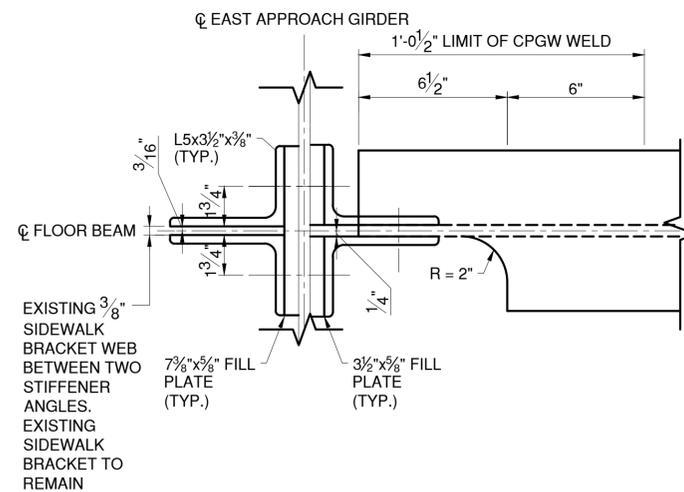
NOTE: FLOOR BEAM 1, SPAN 13 DIAGONAL 3 AT NODE U4 SHOWN. DIAGONAL 4 AT NODE U4 SIMILAR, OPPOSITE HAND. CONNECTIONS AT U4 VARY BY FLOOR BEAM. FOR REQUIRED NUMBER OF BOLTS AND TRUSS FLOOR BEAM GEOMETRY SEE SHEET S-38.



**NODE L1 - TYPICAL CONNECTION**

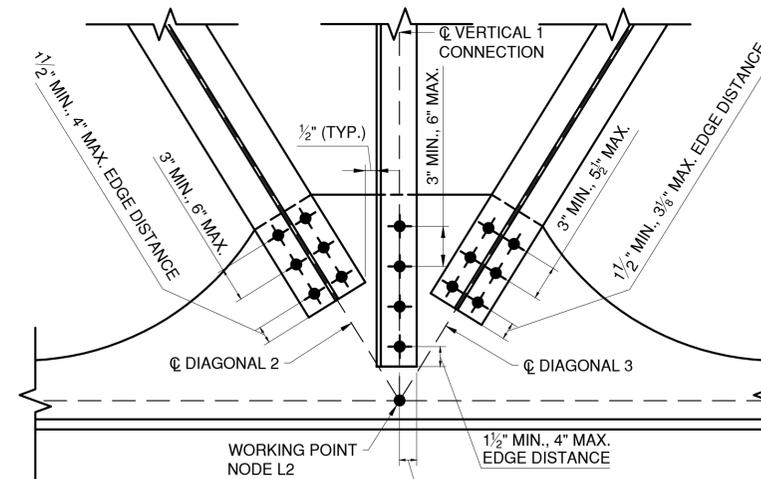
N.T.S.

NOTE: FLOOR BEAM 1, SPAN 13 NODE L1 SHOWN. NODE L4 SIMILAR, OPPOSITE HAND. CONNECTIONS AT L1 AND L4 VARY BY FLOOR BEAM. FOR REQUIRED NUMBER OF BOLTS AND TRUSS FLOOR BEAM GEOMETRY SEE SHEET S-38.



**SECTION A**

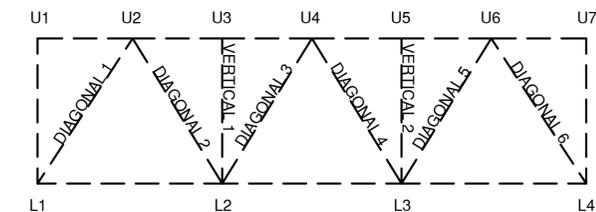
N.T.S.



**NODE L2 - TYPICAL CONNECTION**

N.T.S.

NOTE: FLOOR BEAM 1, SPAN 13 NODE L2 SHOWN. NODE L3 SIMILAR, OPPOSITE HAND. CONNECTIONS AT L2 AND L3 VARY BY FLOOR BEAM. FOR REQUIRED NUMBER OF BOLTS AND TRUSS FLOOR BEAM GEOMETRY SEE SHEET S-38.



**APPROACH SPAN TRUSS FLOOR BEAM NODE LEGEND**

N.T.S.

**NOTES:**

- SEE SHEET S-38 FOR FLOOR BEAM NOTES.
- FOR NODES L1-L4 CONNECTION DETAILS FOR FLOOR BEAMS FB9, SPAN 14 AND FB10, SPAN 14 SEE SHEETS S-46 AND S-47, RESPECTIVELY.

**LEGEND:**

- EXISTING RIVET TO REMAIN
- ◆ NEW BOLT IN NEW HOLE
- ⊕ NEW BOLT IN EXISTING RIVET HOLE

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY A. AMARONE, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/> AS BUILT - CHANGES AS NOTED <input type="checkbox"/> AS BUILT - NO CHANGES		CONTRACTOR _____ PROJECT COORDINATOR _____ NAME _____ NAME _____ SIGNATURE _____ SIGNATURE _____ TITLE _____ DATE _____ TITLE _____ DATE _____	



CONSULTANT INFORMATION

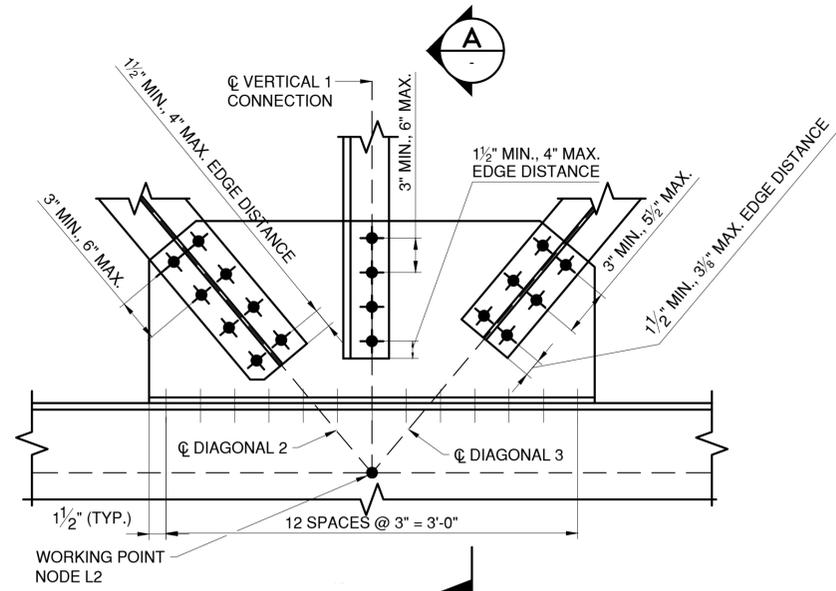


WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL

**APP. SPAN TRUSS FLOOR BEAM CONNECTIONS - 4**

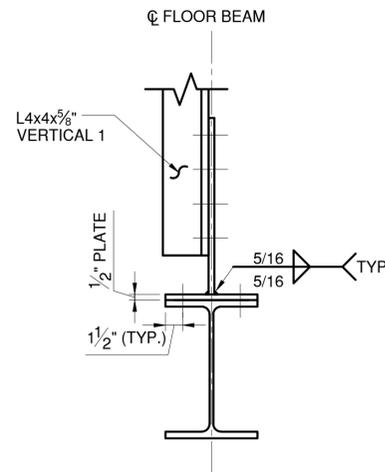
CONTRACT NUMBER 20-517	SHEET NUMBER S-45
SHEET NO. 86 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO. 0
5-04-S-521-0	



**FB9 - SPAN 14 - NODE L2**

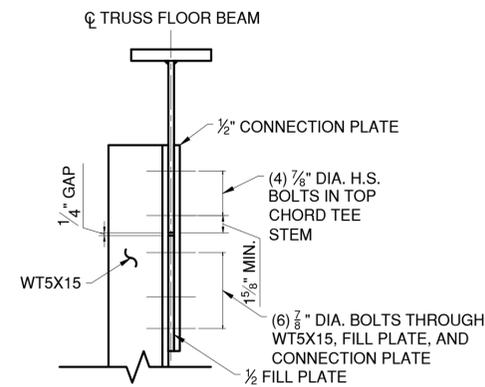
N.T.S.

NOTE: NODE L3 SIMILAR, OPPOSITE HAND. FOR TRUSS GEOMETRY SEE SHEET S-41. FOR MINIMUM NUMBER OF BOLTS IN THE CONNECTION SEE SHEET S-38.



**SECTION A**

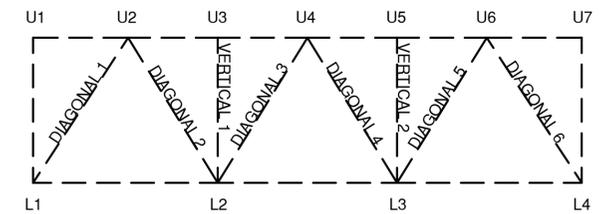
N.T.S.



**SECTION F**

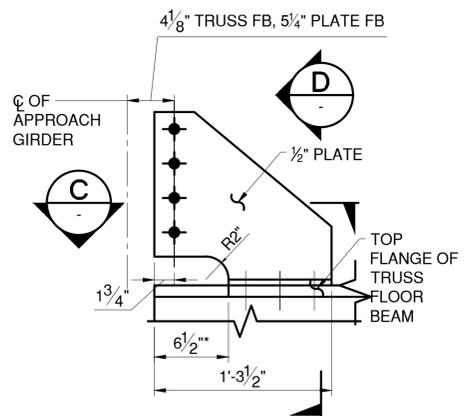
SCALE: 1 1/2" = 1'-0"

NOTE: ADDITIONAL FILL PLATE AND CONNECTION PLATE REQUIRED ONLY AT FLOOR BEAM FB11 - SPAN 14, DIAGONAL 2 & 5 TO ACHIEVE THE REQUIRED MINIMUM BOLTS IN THE CONNECTION.



**APPROACH SPAN TRUSS FLOOR BEAM NODE LEGEND**

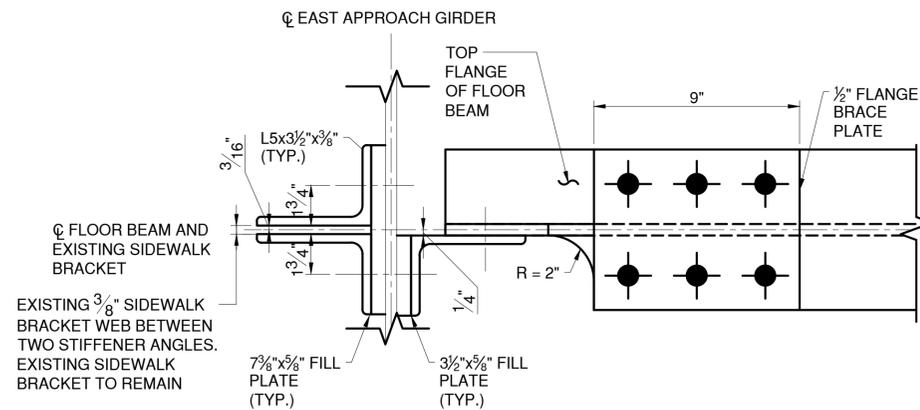
N.T.S.



**TOP FLANGE BRACE DETAIL**

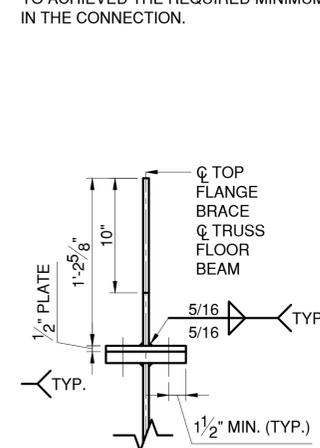
SCALE: 1 1/2" = 1'-0"

\*NOTE: KNEE BRACE AT APPROACH SPAN TRUSS FLOOR BEAM SHOWN, APPROACH SPAN PLATE FLOOR BEAM LOCATIONS SIMILAR. COPE SIZE VARIES BY FLOOR BEAM LOCATION. BOLTS TO FLOOR BEAM CONNECTION ANGLE TO LINE UP VERTICALLY WITH FLOOR BEAM WEB CONNECTIONS.



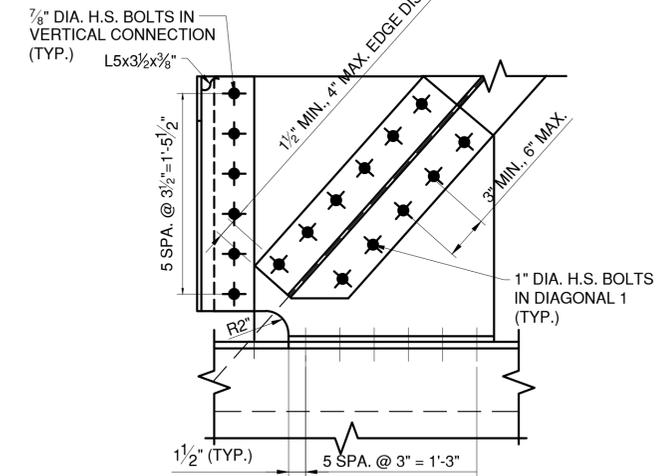
**SECTION C**

SCALE: 3" = 1'



**SECTION D**

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



**FB9 - SPAN 14 - NODE L1**

N.T.S.

NOTE: NODE L4 SIMILAR, OPPOSITE HAND. FOR TRUSS GEOMETRY SEE SHEET S-41. FOR MINIMUM NUMBER OF BOLTS IN THE CONNECTION SEE SHEET S-38.

**NOTES:**

- SEE SHEET S-38 FOR FLOOR BEAM NOTES.

**LEGEND:**

- EXISTING RIVET TO REMAIN
- ◆ NEW BOLT IN NEW HOLE
- ◆ NEW BOLT IN EXISTING RIVET HOLE

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY A. AMARONE, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/> AS BUILT - CHANGES AS NOTED			
<input type="checkbox"/> AS BUILT - NO CHANGES			
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____		
DATE _____	DATE _____		



CONSULTANT INFORMATION

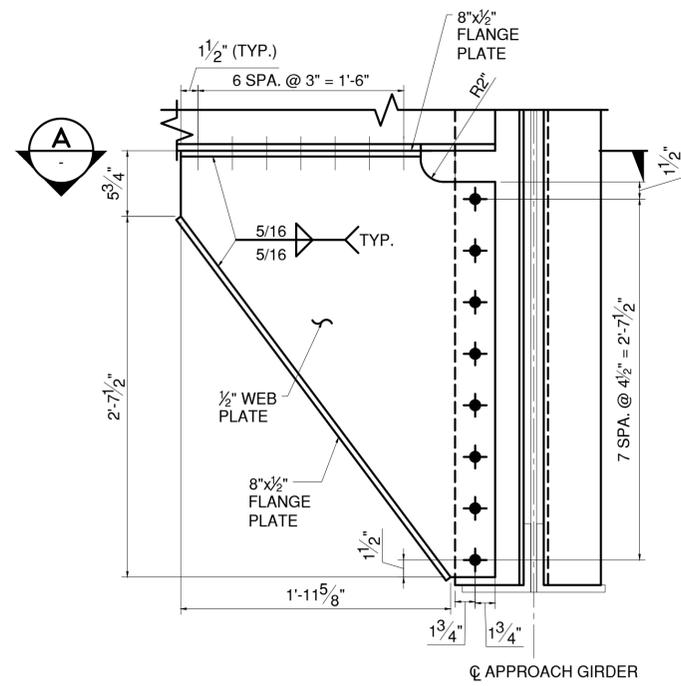


WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

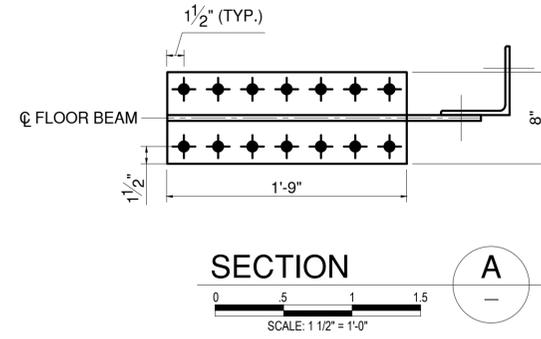
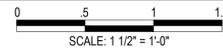
Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL

**APP. SPAN TRUSS FLOOR BEAM CONNECTIONS - 5**

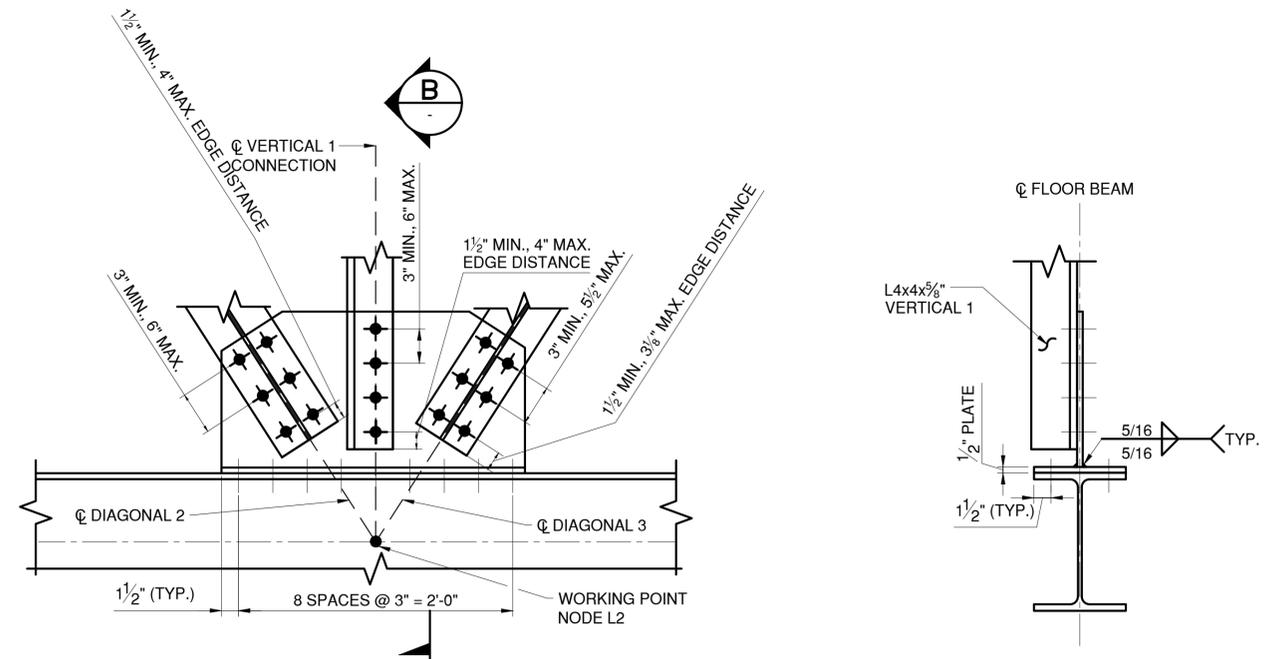
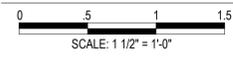
CONTRACT NUMBER 20-517	SHEET NUMBER S-46
SHEET NO. 87 OF 122	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-522-0	0



**BOTTOM FLANGE BRACE DETAIL**



**SECTION A**

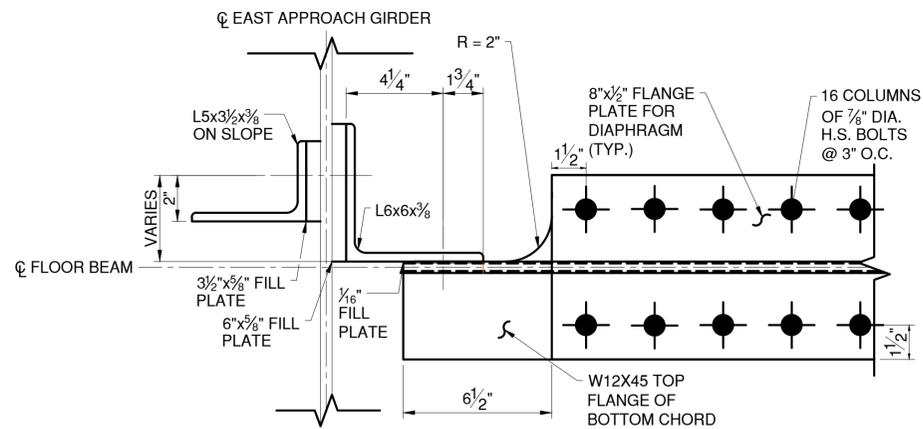


**FB10 - SPAN 14 - NODE L2**

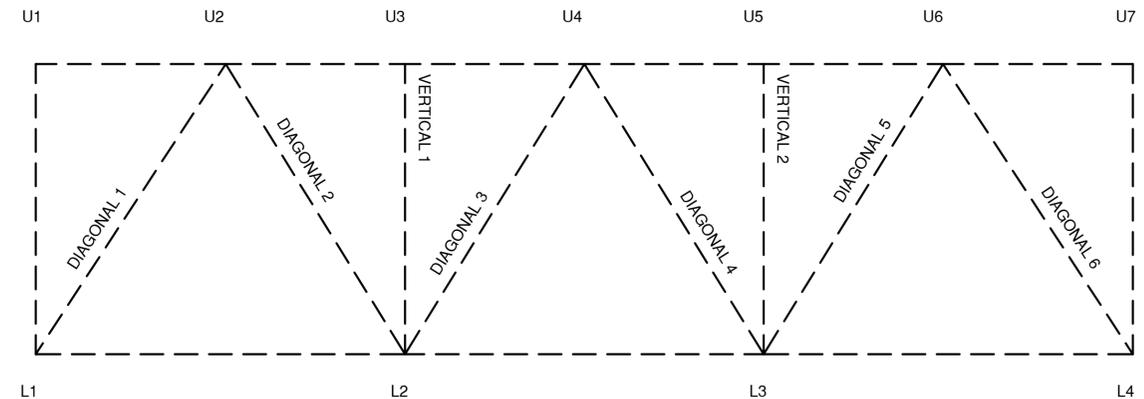
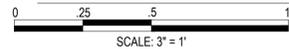
NOTE: NODE L3 SIMILAR, OPPOSITE HAND. FOR TRUSS GEOMETRY SEE SHEET S-40. FOR MINIMUM NUMBER OF BOLTS IN THE CONNECTION SEE SHEET S-38.

**SECTION B**

N.T.S.



**SECTION C**



**APPROACH SPAN TRUSS FLOOR BEAM NODE LEGEND**

N.T.S.

**LEGEND:**

- EXISTING RIVET TO REMAIN
- ◆ NEW BOLT IN NEW HOLE
- ◆ NEW BOLT IN EXISTING RIVET HOLE

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY A. AMARONE, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

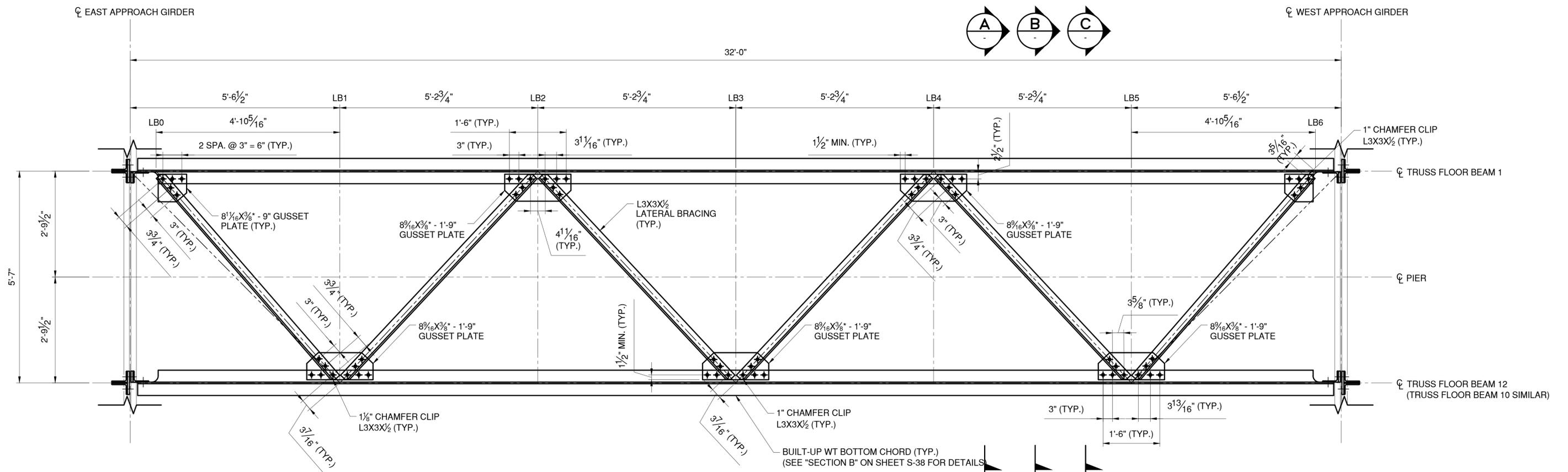
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**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL  
**APP. SPAN TRUSS FLOOR BEAM CONNECTIONS - 6**

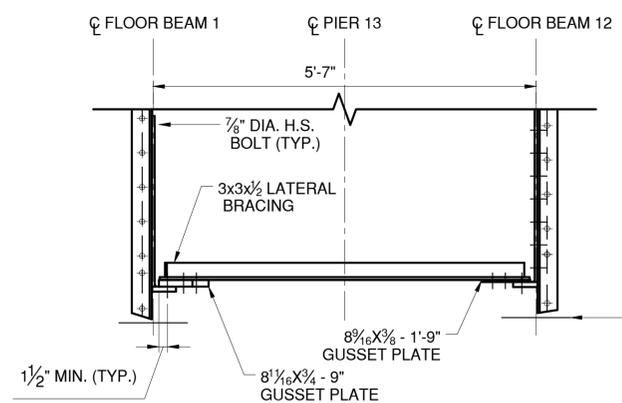
CONTRACT NUMBER 20-517	SHEET NUMBER S-47
SHEET NO. 88 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-523-0	0

- NOTES:**
- SEE SHEET S-38 FOR FLOOR BEAM NOTES.

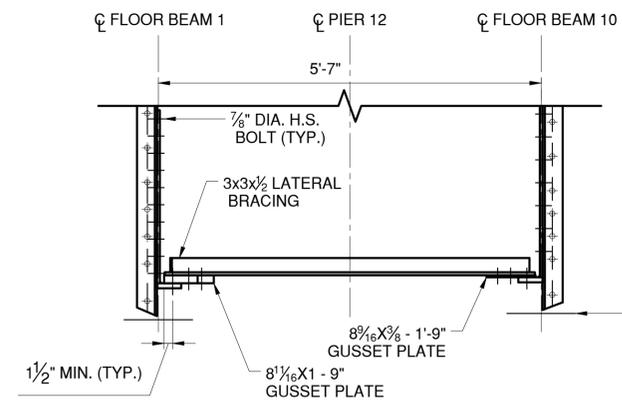


PIER 11, 12, AND 13 TYPICAL LATERAL BRACING - PLAN

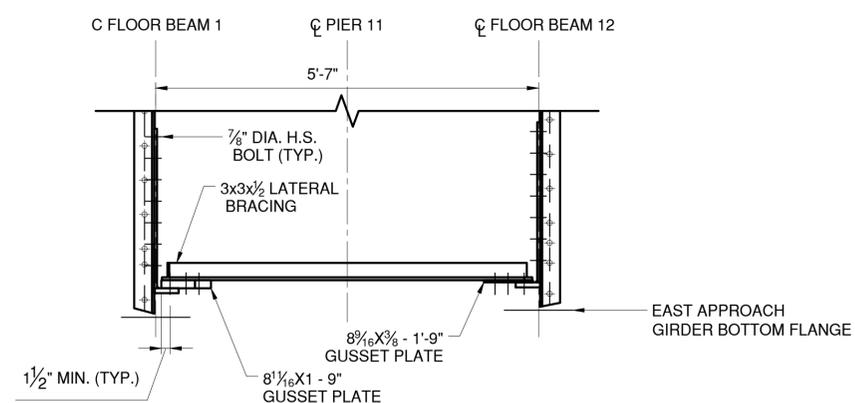
SCALE: 3/4"=1'-0"  
\*SEE NOTE 5, THIS SHEET



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



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



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

- NOTES:
- SEE SHEET S-38 FOR FLOOR BEAM NOTES.
  - LATERAL BRACING CONNECTIONS L0 AND L6 SIMILAR.
  - LATERAL BRACING CONNECTIONS L1 AND L5 SIMILAR.
  - LATERAL BRACING CONNECTIONS L2, L3, AND L4 SIMILAR.
  - CONTRACTOR TO FIELD VERIFY GUSSET PLATE THICKNESS WITH A SPECIFIED MINIMUM THICKNESS OF 3/8".

- LEGEND
- EXISTING RIVET TO REMAIN
  - ⊕ NEW BOLT IN NEW HOLE
  - ⊕ NEW BOLT IN EXISTING RIVET HOLE



IN CHARGE OF D. DELUCA, PE  
CHECKED BY A. AMARONE, PE  
MADE BY D. DERKS

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

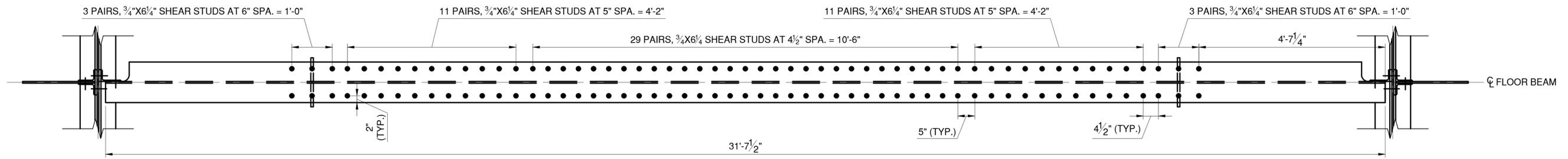
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING

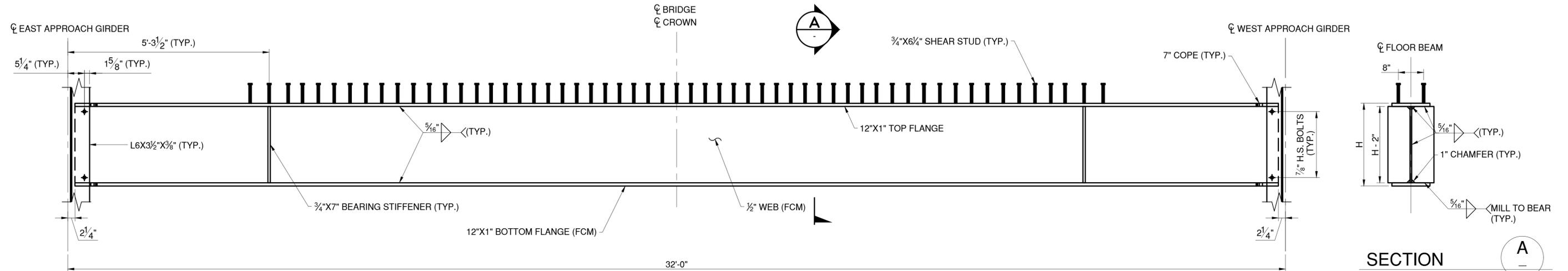
Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle

STRUCTURAL

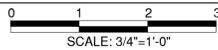
CONTRACT NUMBER 20-517 SHEET NUMBER S-48  
SHEET NO. 89 OF 212  
SCALE: AS SHOWN DATE: 03/08/2024  
DPW FILE NO. 5-04-S-524-0 REV. NO. 0



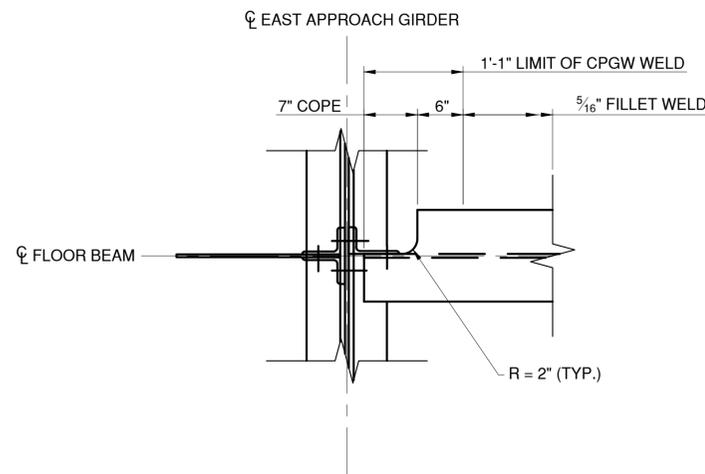
APPROACH SPAN PLATE FLOOR BEAM - PLAN



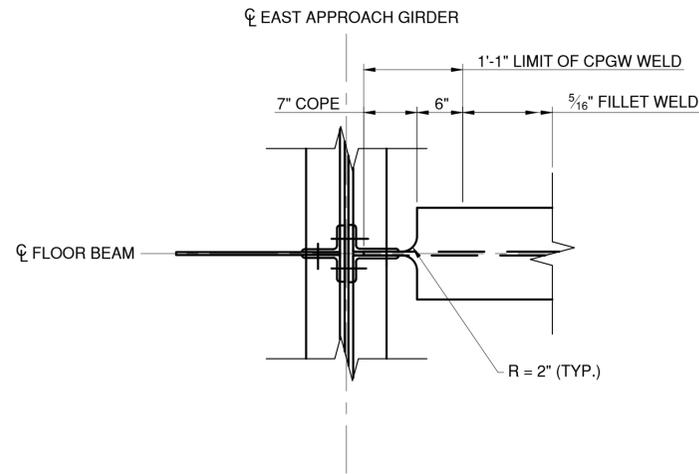
APPROACH SPAN PLATE FLOOR BEAM - ELEVATION



APPROACH SPAN FLOOR BEAM ELEMENTS		
FLOOR BEAM	SPAN	H (IN)
FB7	14	35
FB6	14	26
FB5	14	26
FB4	14	35
FB9	13	35
FB8	13	26
FB7	13	26
FB6	13	26
FB5	13	26
FB4	13	32.5
FB7	12	35
FB6	12	26
FB5	12	26
FB4	12	32.5
FB9	11	34.5
FB8	11	26
FB7	11	26.5
FB6	11	26
FB5	11	30.25
FB1	11	32



APPROACH SPAN PLATE FLOOR BEAM - TYPICAL SINGLE CONNECTION COPE DETAIL



APPROACH SPAN PLATE FLOOR BEAM - TYPICAL DOUBLE CONNECTION COPE DETAIL



NOTES:

- REFER TO NOTES ON DRAWING "STRUCTURAL NOTES".
- SEE SHEET S-38 FOR FLOOR BEAM NOTES.
- SEE SHEETS S-50 TO S-56 FOR FLOOR BEAM CONNECTION AND MISCELLANEOUS DETAILS.
- REMOVAL OF EXISTING STEEL TO BE PAID FOR UNDER ITEM 589.010001.
- NEW STEEL TO BE PAID FOR UNDER ITEM 564.510001.
- ALL STIFFENERS, CONNECTION ANGLES, AND FILL PLATES SHALL BE MILL TO BEAR AGAINST THE BOTTOM FLANGE OF THE APPROACH GIRDERS.

LEGEND:

- EXISTING RIVET TO REMAIN
- ◆ NEW BOLT IN NEW HOLE
- ⊕ NEW BOLT IN EXISTING RIVET HOLE



CONSULTANT INFORMATION



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. AMARONE, PE  
 MADE BY D. DERKS

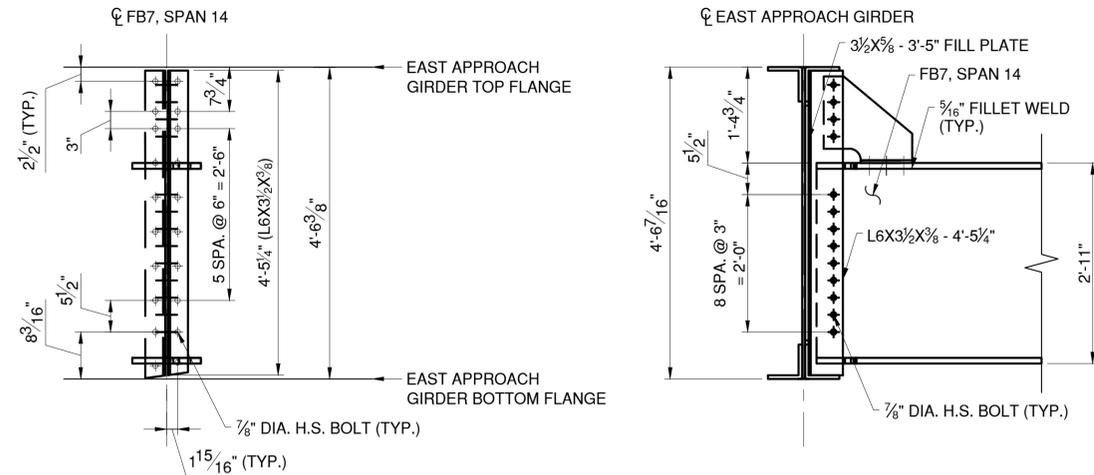
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

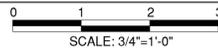
AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

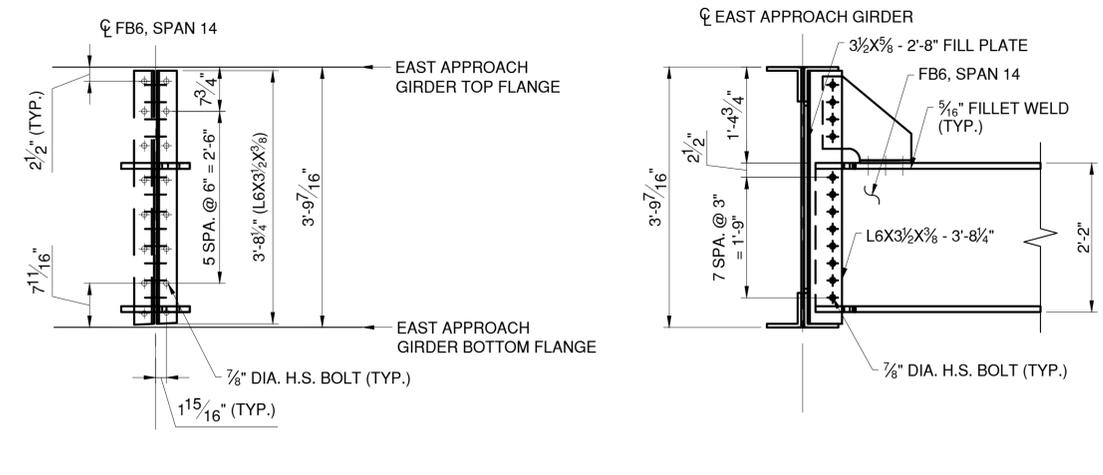
WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER S-49
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 90 OF 212	
STRUCTURAL		SCALE: AS SHOWN DATE: 03/08/2024	REV. NO. 0
APPROACH SPAN PLATE FLOOR BEAM DETAILS - 1		DPW FILE NO. 5-04-S-525-0	



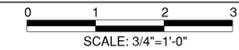
**APPROACH SPAN 14 FLOOR BEAM 7 - CONNECTION DETAILS**



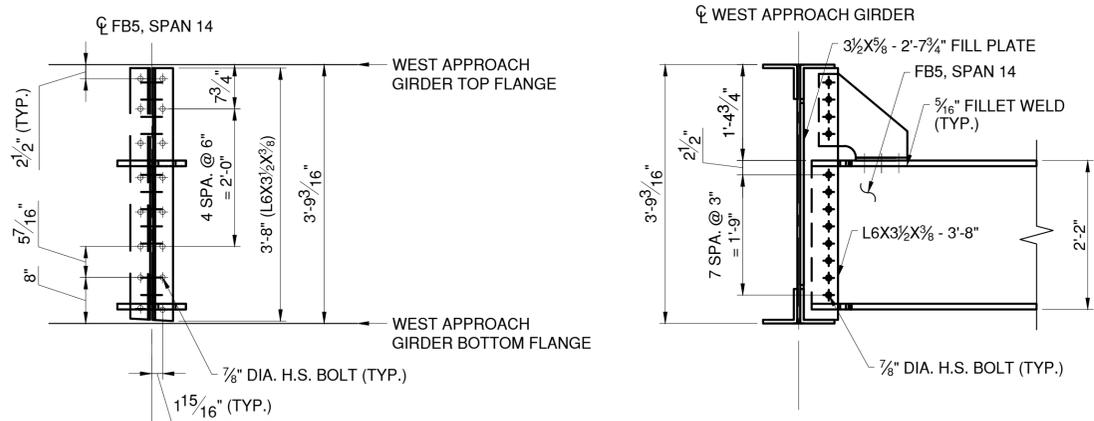
NOTE: WEST APPROACH GIRDER CONNECTIONS SIMILAR, SYMMETRICAL ABOUT  $\phi$  OF ROADWAY



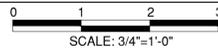
**APPROACH SPAN 14 FLOOR BEAM 6 - CONNECTION DETAILS**



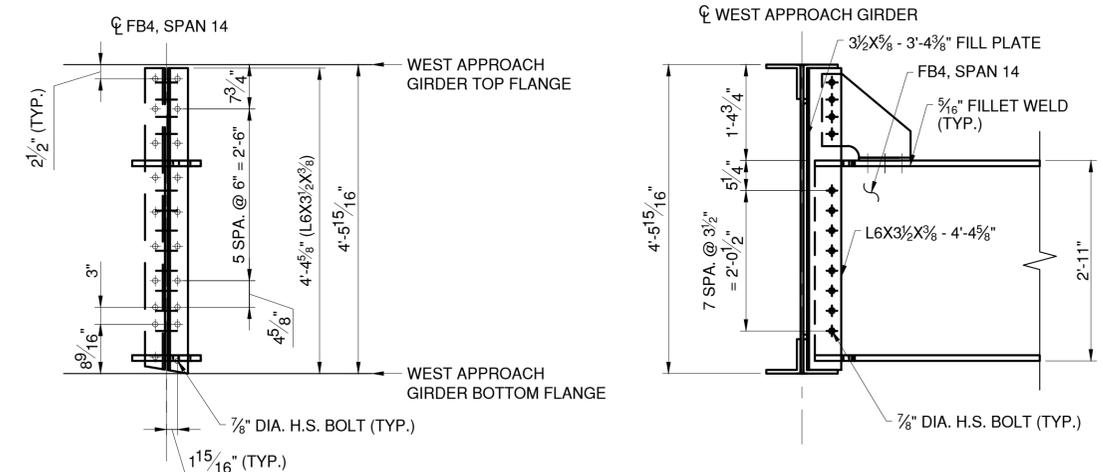
NOTE: WEST APPROACH GIRDER CONNECTIONS SIMILAR, SYMMETRICAL ABOUT  $\phi$  OF ROADWAY



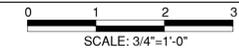
**APPROACH SPAN 14 FLOOR BEAM 5 - CONNECTION DETAILS**



NOTE: WEST APPROACH GIRDER CONNECTIONS SIMILAR, SYMMETRICAL ABOUT  $\phi$  OF ROADWAY



**APPROACH SPAN 14 FLOOR BEAM 4 - CONNECTION DETAILS**



NOTE: WEST APPROACH GIRDER CONNECTIONS SIMILAR, SYMMETRICAL ABOUT  $\phi$  OF ROADWAY

- NOTES:
- SEE SHEET S-49 FOR PLATE FLOOR BEAM NOTES.
  - SEE SHEET S-56 FOR TYPICAL CONNECTION DETAILS.
  - SEE SHEET S-46 FOR TYPICAL TOP FLANGE KNEE BRACE DETAILS

- LEGEND:
- EXISTING RIVET TO REMAIN
  - NEW BOLT IN NEW HOLE
  - NEW BOLT IN EXISTING RIVET HOLE

CONSULTANT SEAL  
DAVID DELUCA  
REGISTERED PROFESSIONAL ENGINEER

CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY D. DERKS

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
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TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

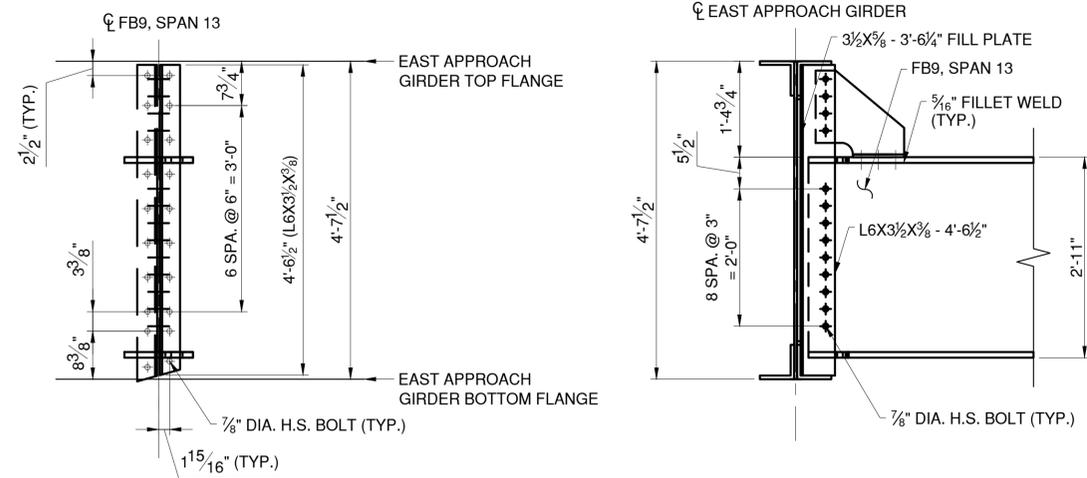
**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

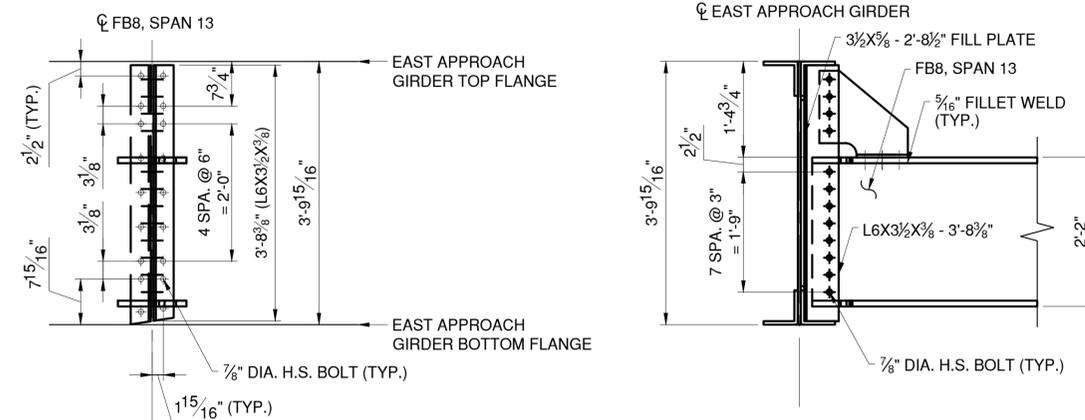
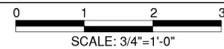
STRUCTURAL

**APP. SPAN PLATE FLOOR BEAM CONNECTIONS - 1**

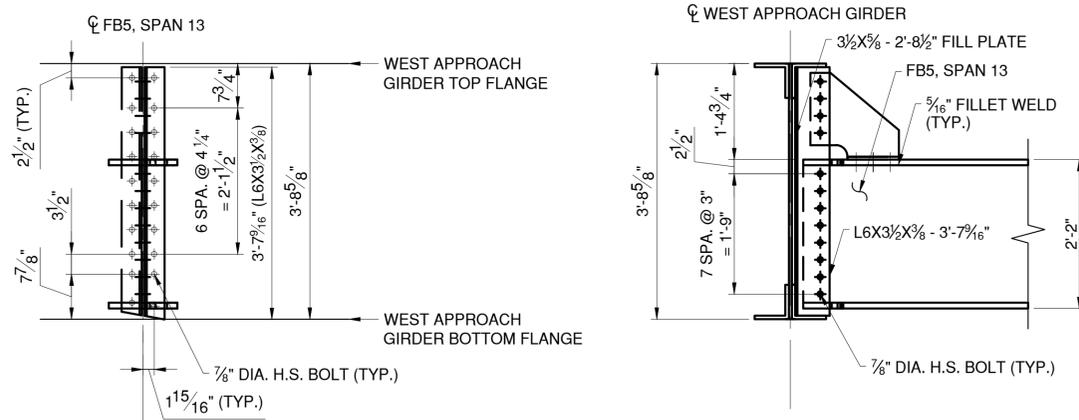
CONTRACT NUMBER 20-517	SHEET NUMBER S-50
SHEET NO. 91 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-526-0	0



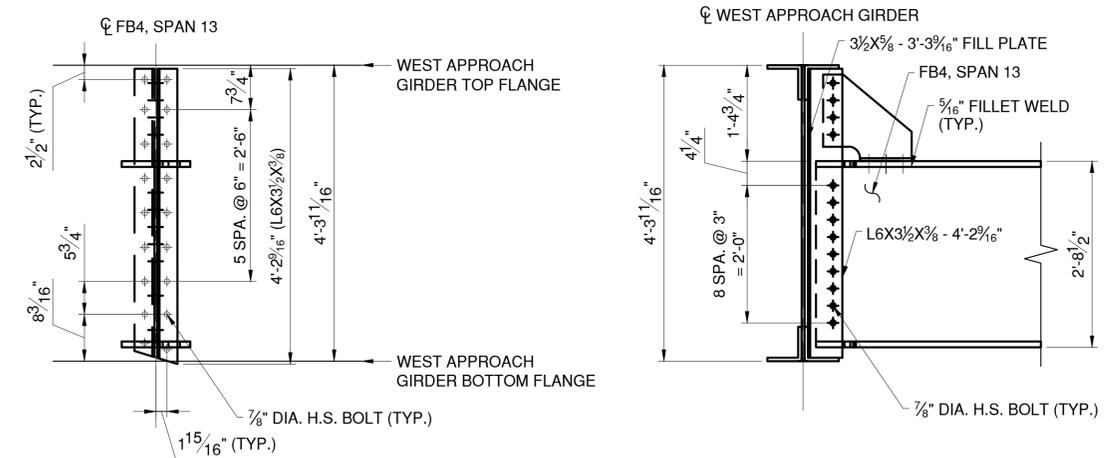
APPROACH SPAN 13 FLOOR BEAM 9 - CONNECTION DETAILS



APPROACH SPAN 13 FLOOR BEAM 8 - CONNECTION DETAILS



APPROACH SPAN 13 FLOOR BEAM 5 - CONNECTION DETAILS



APPROACH SPAN 13 FLOOR BEAM 4 - CONNECTION DETAILS



NOTES:

- SEE SHEET S-49 FOR PLATE FLOOR BEAM NOTES.
- SEE SHEET S-56 FOR TYPICAL CONNECTION DETAILS.
- SEE SHEET S-46 FOR TYPICAL TOP FLANGE KNEE BRACE DETAILS.

LEGEND:

- EXISTING RIVET TO REMAIN
- ◆ NEW BOLT IN NEW HOLE
- ⊕ NEW BOLT IN EXISTING RIVET HOLE



CONSULTANT SEAL  
CONSULTANT INFORMATION

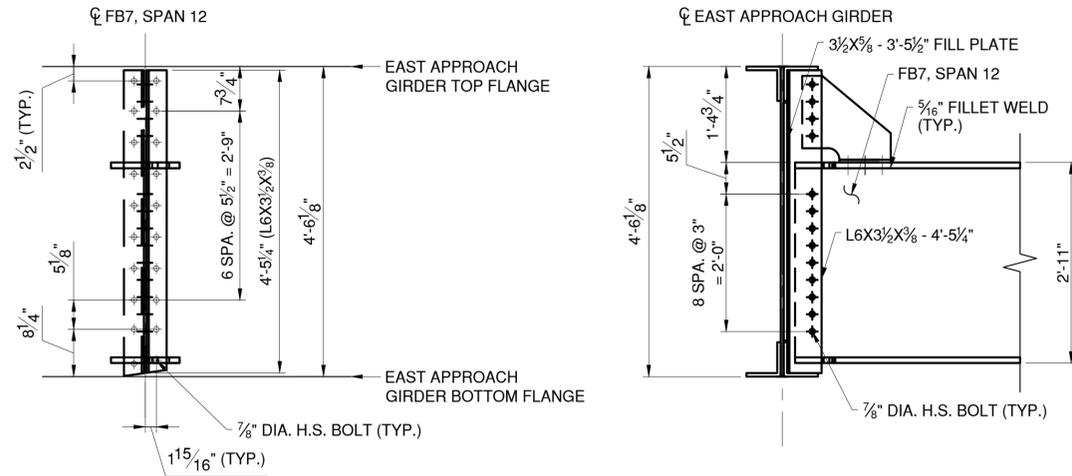


IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY D. DERKS

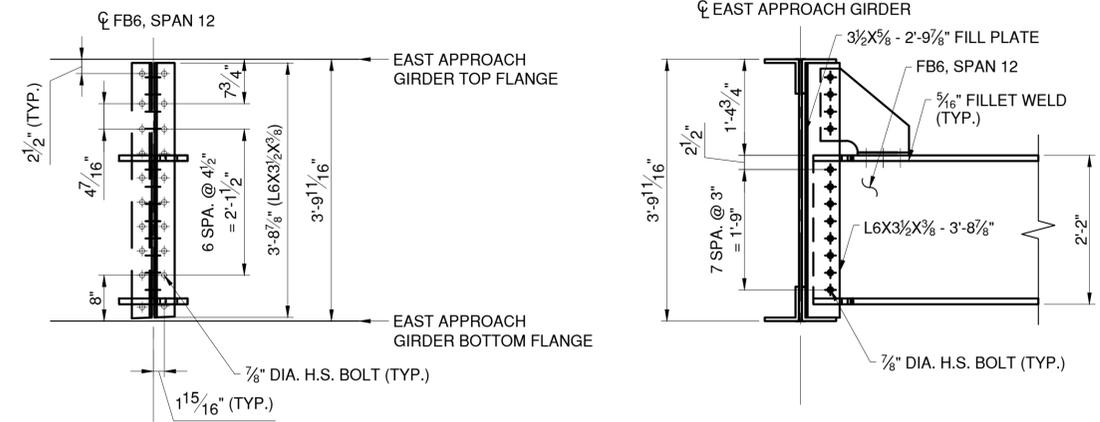
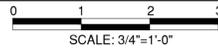
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

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NAME _____	NAME _____	NAME _____	NAME _____
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TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

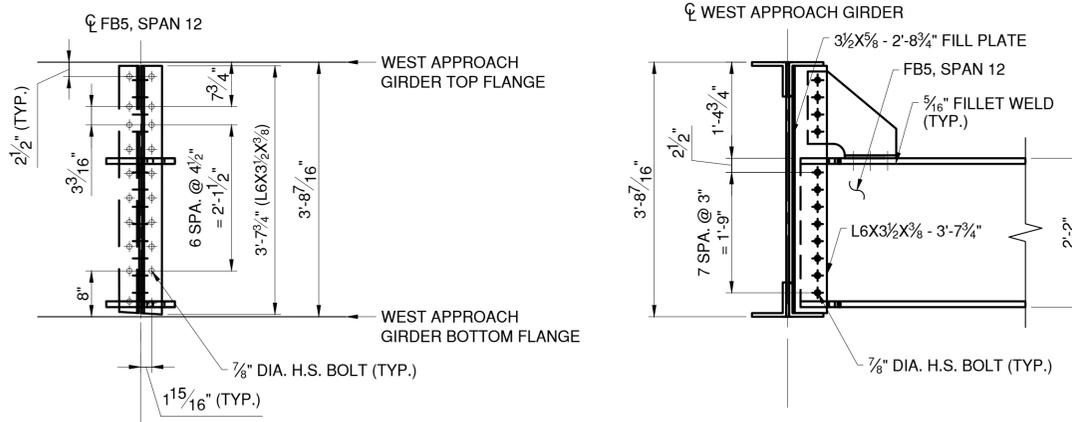
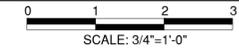
WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER S-51
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 92 OF 212	
STRUCTURAL		SCALE: AS SHOWN DATE: 03/08/2024	REV. NO. 0
APP. SPAN PLATE FLOOR BEAM CONNECTIONS - 2		DPW FILE NO. 5-04-S-527-0	



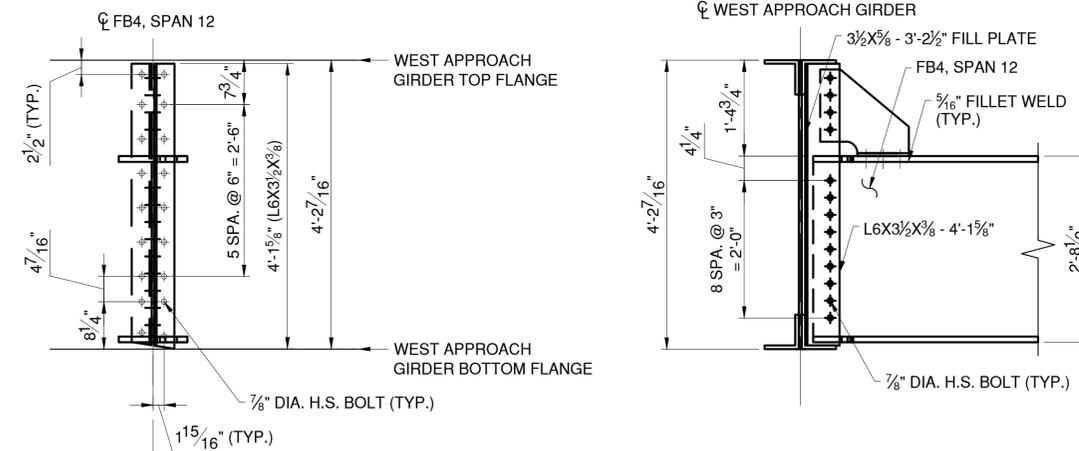
APPROACH SPAN 12 FLOOR BEAM 7 - CONNECTION DETAILS



APPROACH SPAN 12 FLOOR BEAM 6 - CONNECTION DETAILS



APPROACH SPAN 12 FLOOR BEAM 5 - CONNECTION DETAILS



APPROACH SPAN 12 FLOOR BEAM 4 - CONNECTION DETAILS



NOTES:

- SEE SHEET S-49 FOR PLATE FLOOR BEAM NOTES.
- SEE SHEET S-56 FOR TYPICAL CONNECTION DETAILS.
- SEE SHEET S-46 FOR TYPICAL TOP FLANGE KNEE BRACE DETAILS.

LEGEND:

- EXISTING RIVET TO REMAIN
- ◆ NEW BOLT IN NEW HOLE
- ◆ NEW BOLT IN EXISTING RIVET HOLE



CONSULTANT INFORMATION



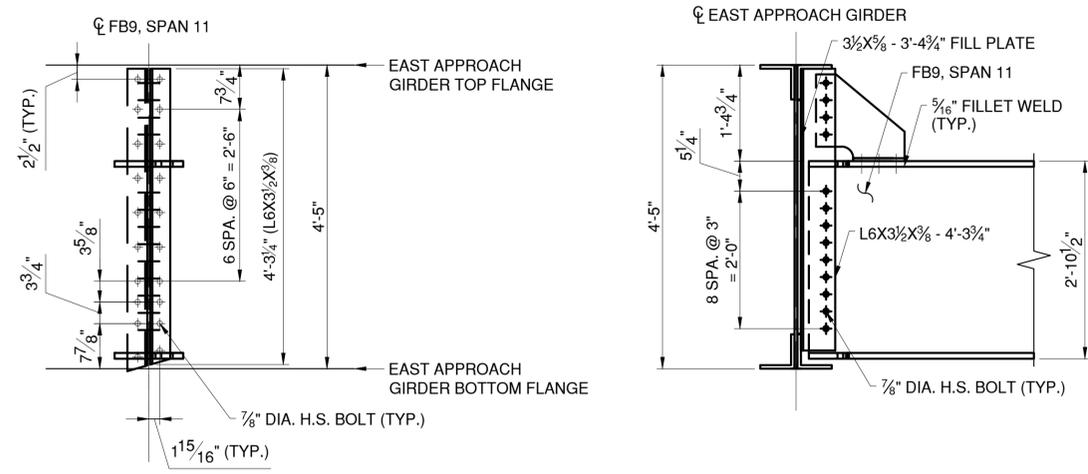
IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY D. DERKS

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

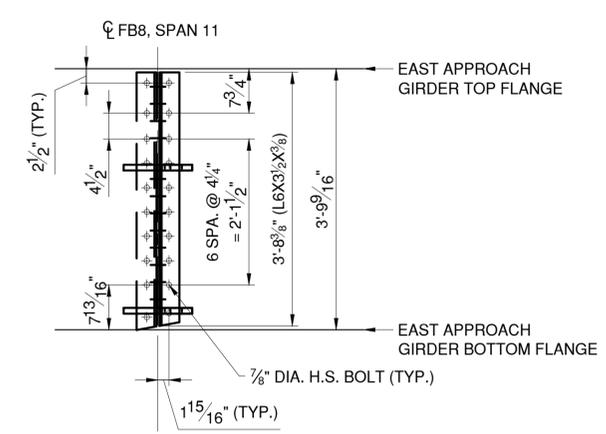
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____		
DATE _____	DATE _____		

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL

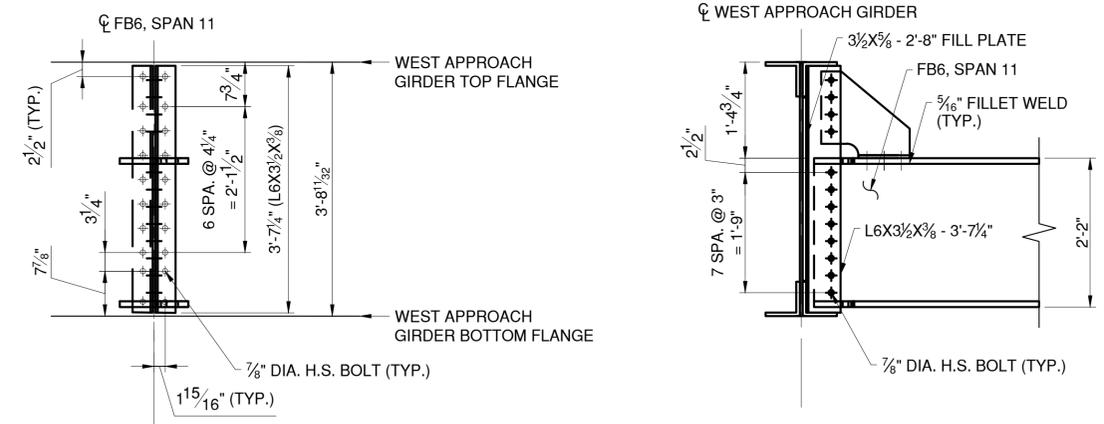
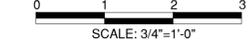
CONTRACT NUMBER 20-517	SHEET NUMBER S-52
SHEET NO. 93 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-528-0	0



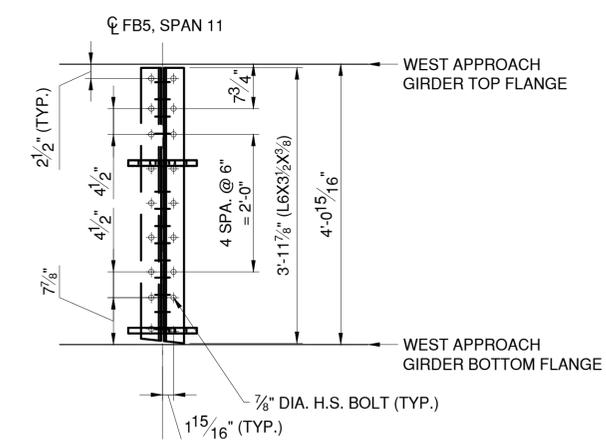
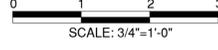
APPROACH SPAN 11 FLOOR BEAM 9 - CONNECTION DETAILS



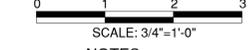
APPROACH SPAN 11 FLOOR BEAM 8 - CONNECTION DETAILS



APPROACH SPAN 11 FLOOR BEAM 6 - CONNECTION DETAILS



APPROACH SPAN 11 FLOOR BEAM 5 - CONNECTION DETAILS



- NOTES:
- SEE SHEET S-49 FOR PLATE FLOOR BEAM NOTES.
  - SEE SHEET S-56 FOR TYPICAL CONNECTION DETAILS.
  - SEE SHEET S-46 FOR TYPICAL TOP FLANGE KNEE BRACE DETAILS.

- LEGEND:
- EXISTING RIVET TO REMAIN
  - ◆ NEW BOLT IN NEW HOLE
  - ⊕ NEW BOLT IN EXISTING RIVET HOLE

CONSULTANT SEAL  
  
 CONSULTANT INFORMATION  
  
 1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

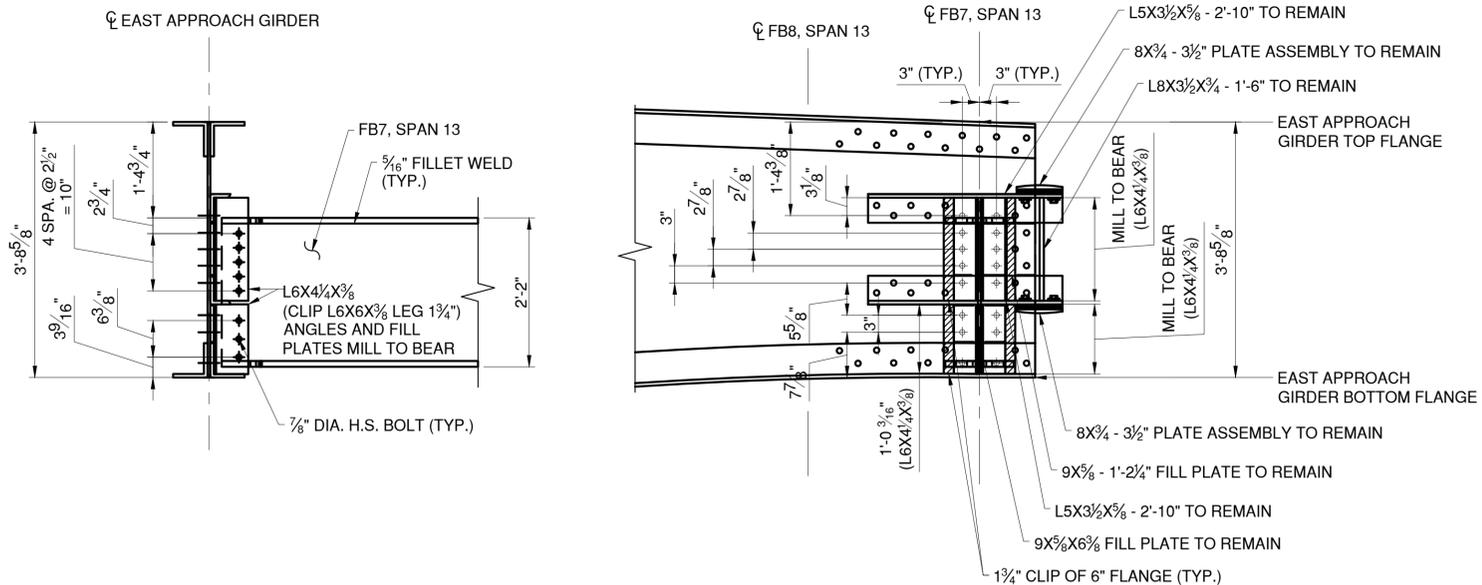
IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY D. DERKS

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

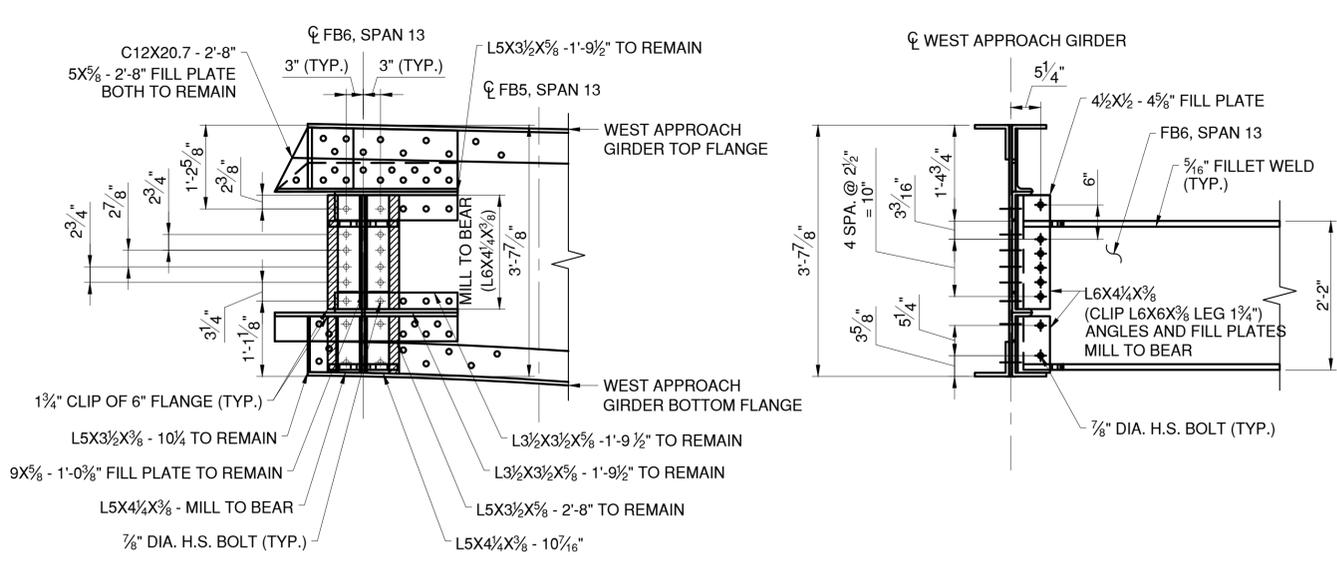
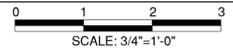
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NAME _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL

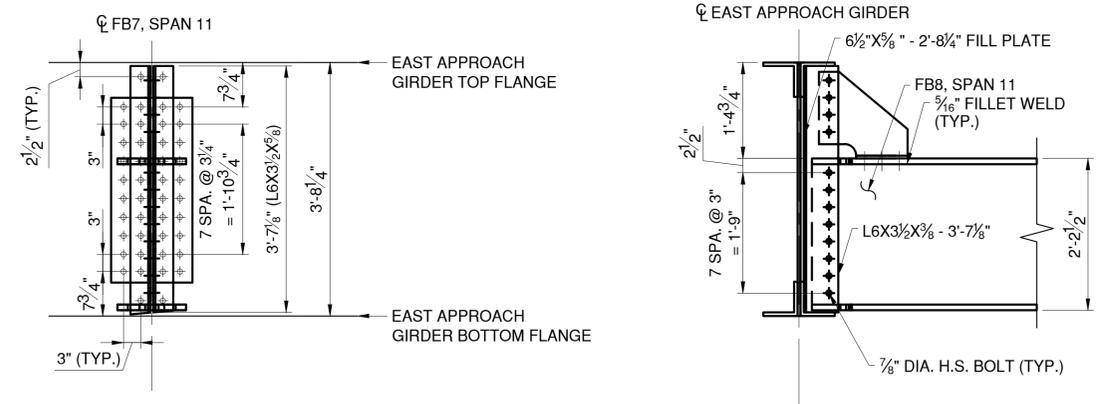
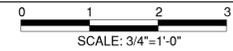
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 SHEET NO. 94 OF 212  
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 DATE: 03/08/2024  
 DPW FILE NO. APP. SPAN PLATE FLOOR BEAM CONNECTIONS - 4  
 REV. NO. 0



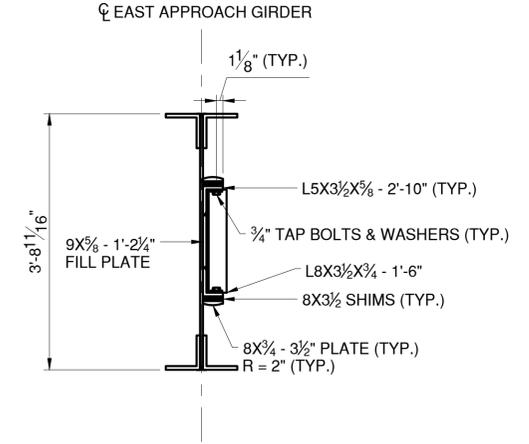
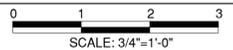
APPROACH SPAN 13 FLOOR BEAM 7 - CONNECTION DETAILS



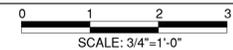
APPROACH SPAN 13 FLOOR BEAM 6 - CONNECTION DETAILS



APPROACH SPAN 11 FLOOR BEAM 7 - CONNECTION DETAILS



APPROACH SPAN 13 - MIDSPAN CONNECTION DETAILS



- NOTES:**
- SEE SHEET S-49 FOR PLATE FLOOR BEAM NOTES.
  - SEE SHEET S-56 FOR TYPICAL CONNECTION DETAILS.
  - SEE SHEET S-46 FOR TYPICAL TOP FLANGE KNEE BRACE DETAILS.
  - AT LOCATIONS OF APPROACH GIRDER SPLICE PLATES, DRIFT PINS SHALL BE USED WHEN REPLACING FLOOR BEAM CONNECTION ANGLES AND SIDEWALK BRACKET CONNECTION ANGLES. REPLACE RIVETS ONE-FOR-ONE WITH DRIFT PINS DURING REMOVAL OF EXISTING CONNECTION ANGLES. REPLACE RIVETS WITH H.S. BOLTS DURING INSTALLATION OF PROPOSED ANGLES. ANGLES SHALL BE REMOVED AND INSTALLED ONE AT A TIME PER FLOOR BEAM LOCATION.
  - ALL MIDSPAN CONNECTION ELEMENTS TO REMAIN.

- LEGEND:**
- EXISTING RIVET TO REMAIN
  - ◆ NEW BOLT IN NEW HOLE
  - ⊕ NEW BOLT IN EXISTING RIVET HOLE

CONSULTANT SEAL: DAVID DELUCA, LICENSED PROFESSIONAL ENGINEER, STATE OF NEW YORK, NO. 00481

CONSULTANT INFORMATION: H&H, 1501 BROADWAY, SUITE 601, NEW YORK, NY 10036, (212) 944-1150

IN CHARGE OF: D. DELUCA, PE  
 CHECKED BY: A. AMARONE, PE  
 MADE BY: D. DERKS

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR: \_\_\_\_\_ PROJECT COORDINATOR: \_\_\_\_\_

NAME: \_\_\_\_\_ NAME: \_\_\_\_\_  
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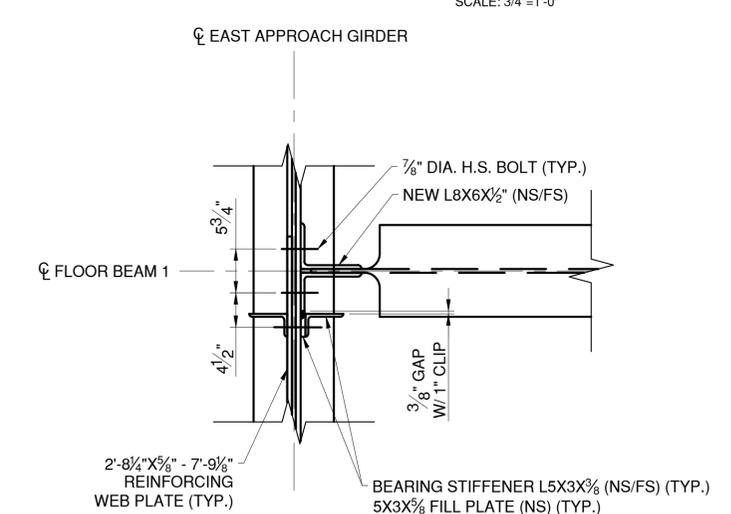
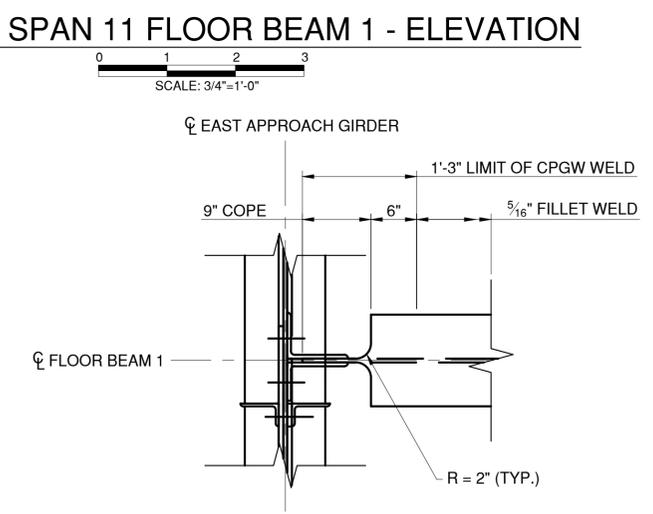
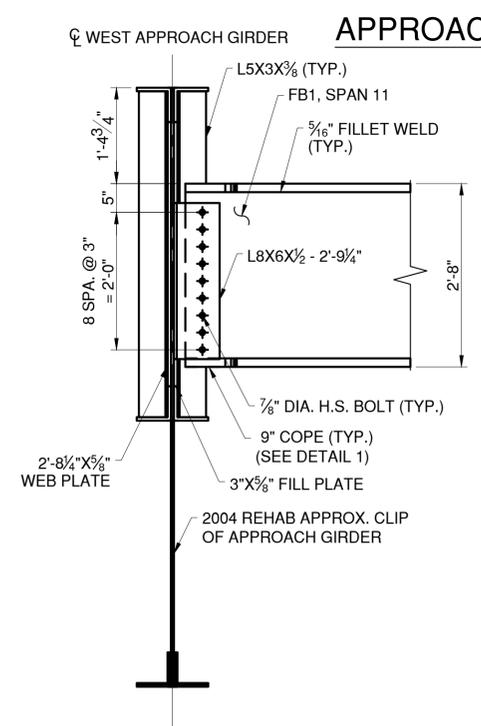
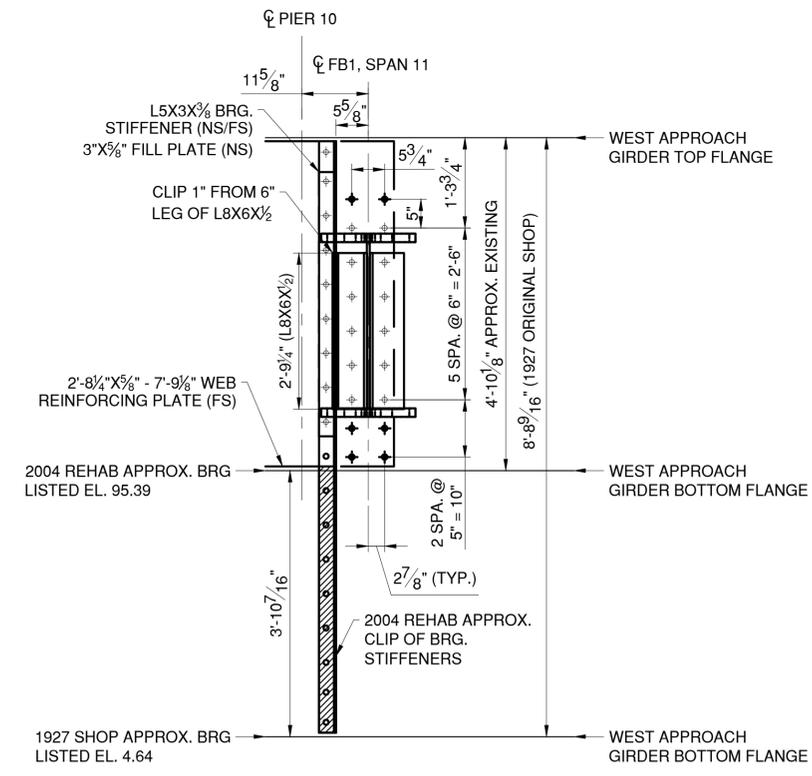
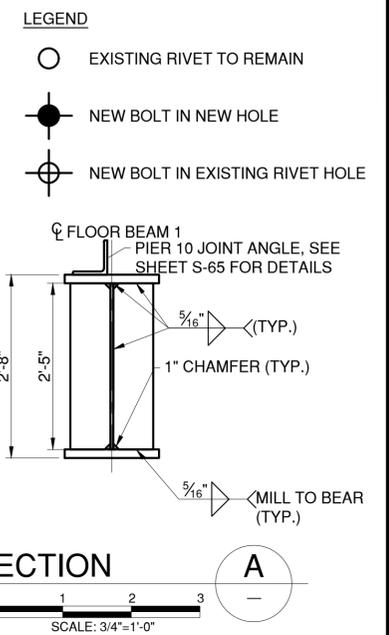
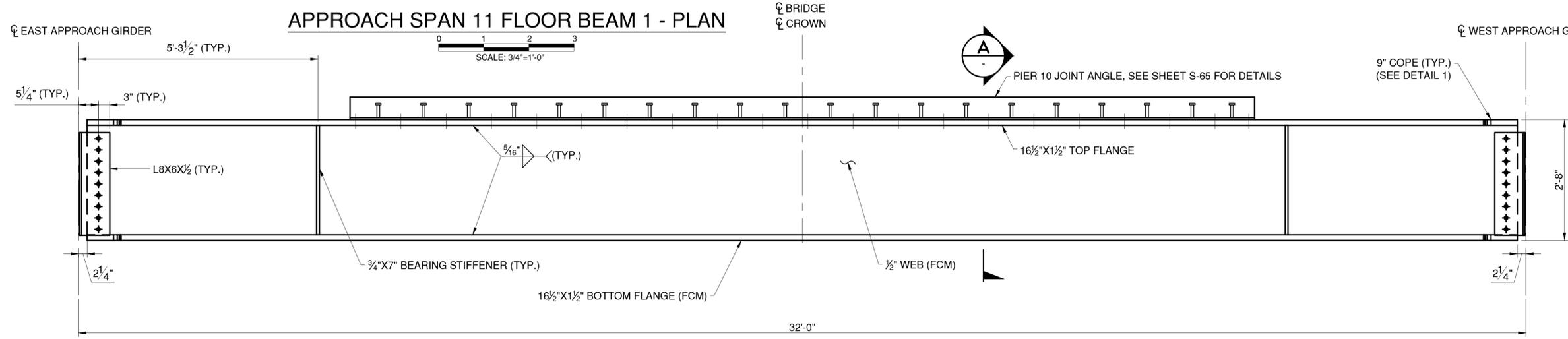
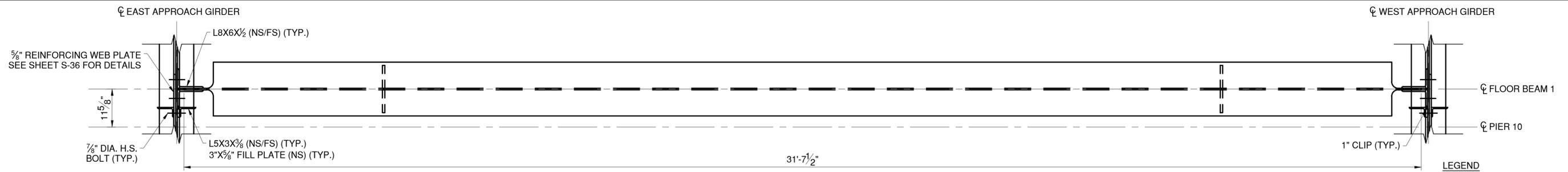
WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

STRUCTURAL

APP. SPAN PLATE FLOOR BEAM CONNECTIONS - 5

CONTRACT NUMBER: 20-517 SHEET NUMBER: S-54  
 SHEET NO. 95 OF 212  
 SCALE: AS SHOWN DATE: 03/08/2024  
 DPW FILE NO. 5-04-S-530-0 REV. NO. 0



APPROACH SPAN 11 FLOOR BEAM 1 - CONNECTION DETAILS

APPROACH SPAN 11 FLOOR BEAM 1 - TYPICAL COPE DETAIL

APPROACH SPAN 11 FLOOR BEAM 1 - TYPICAL CONNECTION DETAIL

- NOTES:
- SEE SHEET S-49 FOR PLATE FLOOR BEAM NOTES.
  - ALL DETAILS SHOWN ARE SYMMETRIC AND TYPICAL FOR EAST AND WEST APPROACH GIRDERS. ONLY THE WEB REINFORCING PLATE IS SPECIFIC TO THE EXTERIOR FACE OF THE WEST APPROACH GIRDER.
  - CONTRACTOR TO FIELD VERIFY ALL EXISTING BOLT HOLES IN THE APPROACH GIRDERS AND THE EXACT LOCATION OF THE BOTTOM FLANGE OF THE APPROACH GIRDERS AT PIER 10.

CONSULTANT SEAL: DAVID DELUCA, STATE OF NEW YORK REGISTERED PROFESSIONAL ENGINEER

CONSULTANT INFORMATION: H&H, 1501 BROADWAY, SUITE 601, NEW YORK, NY 10036, (212) 944-1150

IN CHARGE OF: D. DELUCA, PE  
 CHECKED BY: A. AMARONE, PE  
 MADE BY: D. DERKS

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME		NAME	
SIGNATURE		SIGNATURE	
TITLE		TITLE	
DATE		DATE	

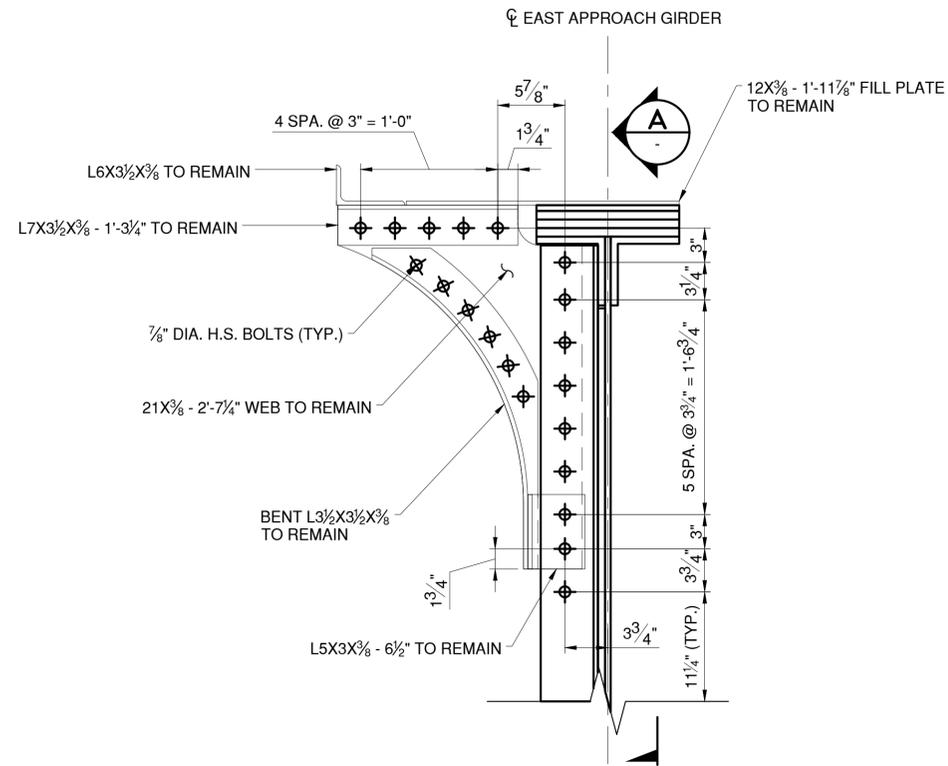
WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

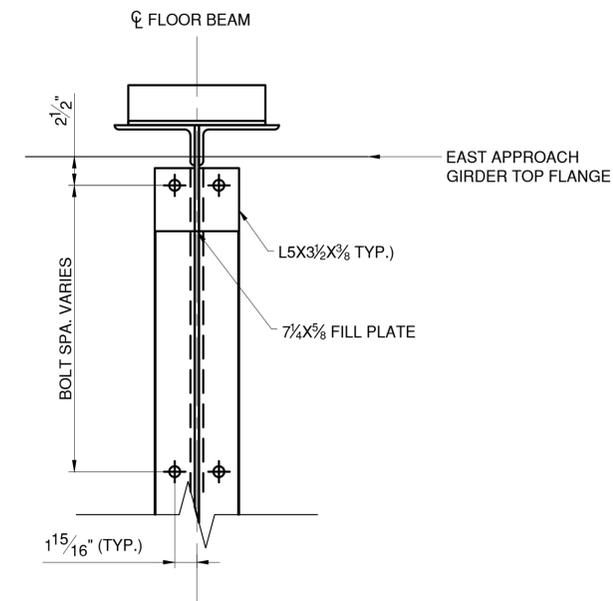
STRUCTURAL

APP. SPAN PLATE FLOOR BEAM CONNECTIONS - 6

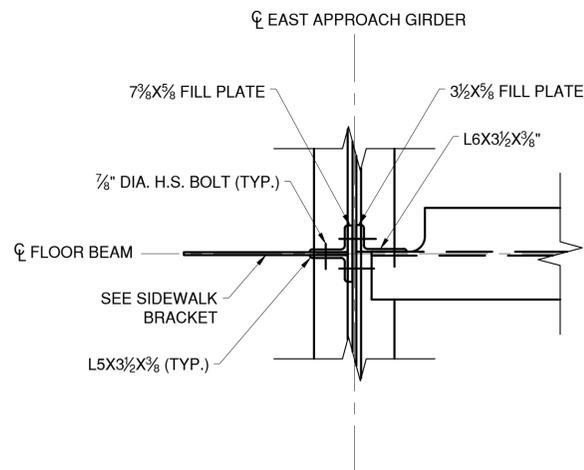
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 SHEET NUMBER: S-55  
 SHEET NO. 96 OF 122  
 SCALE: AS SHOWN  
 DATE: 03/08/2024  
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 REV. NO.: 0



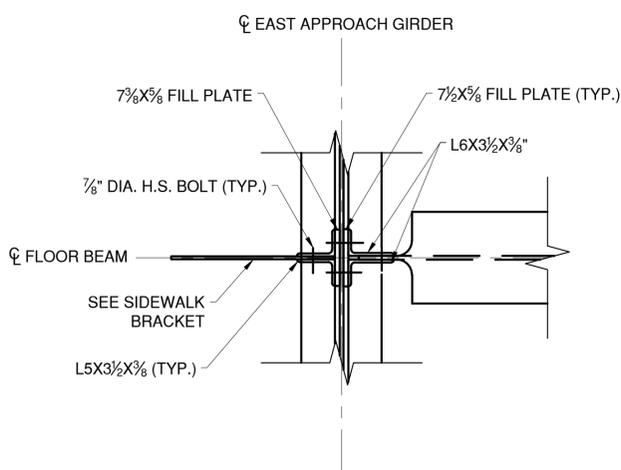
TYPICAL APPROACH SPAN SIDEWALK BRACKET - CONNECTION DETAILS



SECTION A



APPROACH SPAN PLATE FLOOR BEAM - TYPICAL SINGLE ANGLE CONNECTION DETAIL



APPROACH SPAN PLATE FLOOR BEAM - TYPICAL DOUBLE ANGLE CONNECTION DETAIL



NOTES:

- REFER TO NOTES ON SHEETS G-05 AND G-06.
- SEE SHEET S-38 FOR FLOOR BEAM NOTES.
- THE DOUBLE ANGLE CONNECTION DETAIL IS SPECIFIC TO FB6 & FB7 WITHIN SPAN 13, AND FB7 WITHIN SPAN 11. ALL OTHER FLOOR BEAM CONNECTIONS ADHERE TO THE SINGLE ANGLE CONNECTION DETAIL, UNLESS OTHERWISE SPECIFIED.
- SIDEWALK BRACKETS AND FASCIA VARY ACROSS THE BASCULE SPAN. SPECIFIED DESIGNS ARE TYPICAL AND ARE TO BE APPLIED IN A SIMILAR MANNER FOR ALL.
- REMOVAL OF EXISTING STEEL TO BE PAID FOR UNDER ITEM 589.010001.
- NEW STEEL TO BE PAID FOR UNDER ITEM 564.510001.

LEGEND:

- EXISTING RIVET TO REMAIN
- NEW BOLT IN NEW HOLE
- NEW BOLT IN EXISTING RIVET HOLE



CONSULTANT INFORMATION

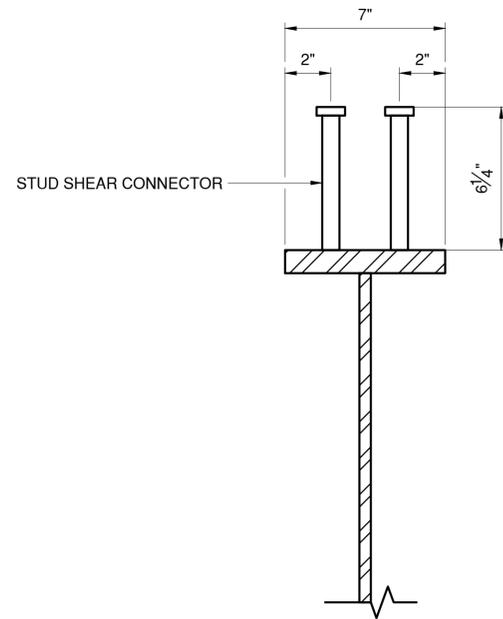


IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY D. DERKS

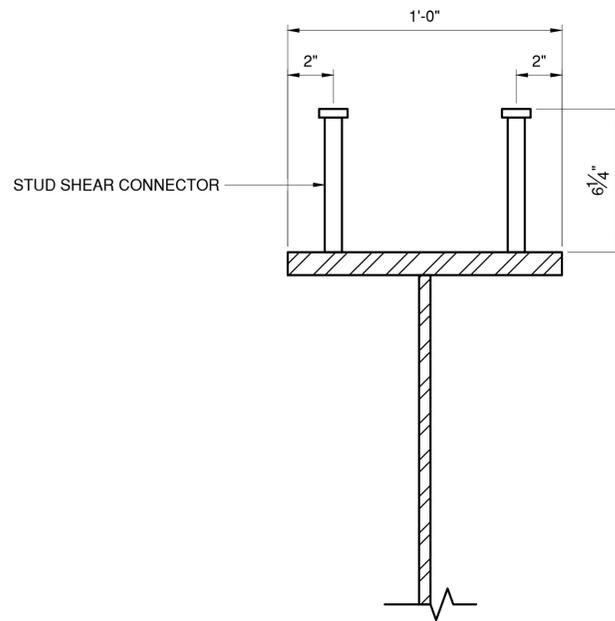
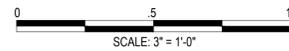
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DATE _____	DATE _____	DATE _____	DATE _____

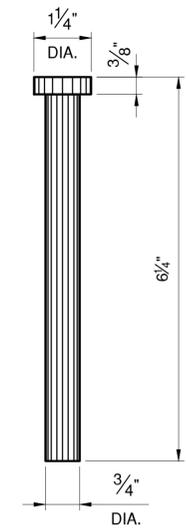
WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER S-56
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 97 OF 212	
STRUCTURAL		SCALE: AS SHOWN	DATE: 03/08/2024
APP. SPAN PLATE FLOOR BEAM CONNECTIONS - 7		DPW FILE NO.	REV. NO. 0
		5-04-S-532-0	



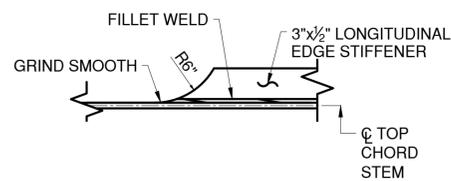
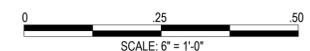
APPROACH TRUSS FLOOR BEAM



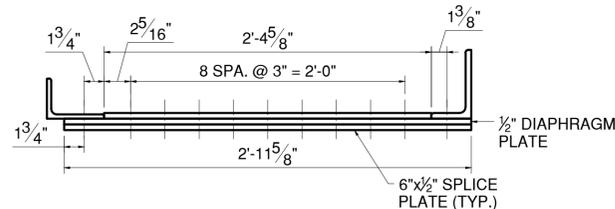
APPROACH PLATE FLOOR BEAM



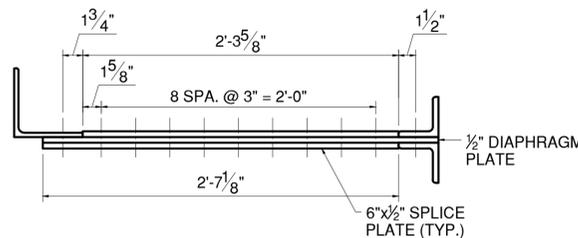
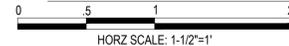
STUD DETAIL



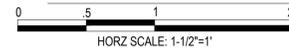
LONGITUDINAL EDGE STIFFENER  
TERMINATION DETAIL



SECTION G



SECTION E



CONSULTANT  
INFORMATION



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY N. HYSON, PE  
 MADE BY L. BELGRAVE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
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DATE _____	DATE _____	DATE _____	DATE _____

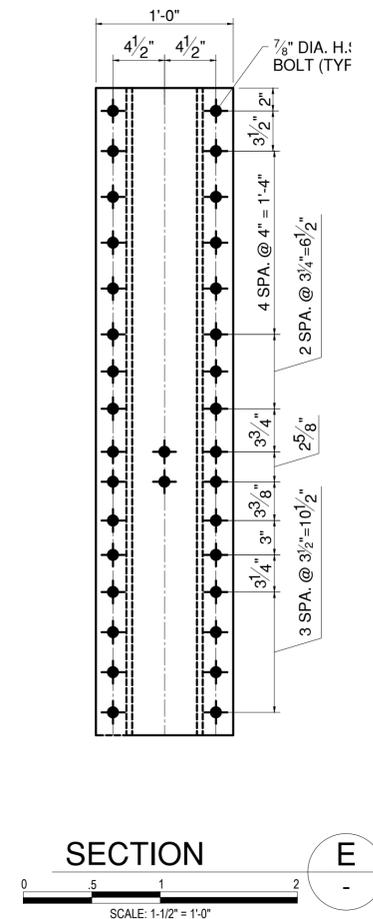
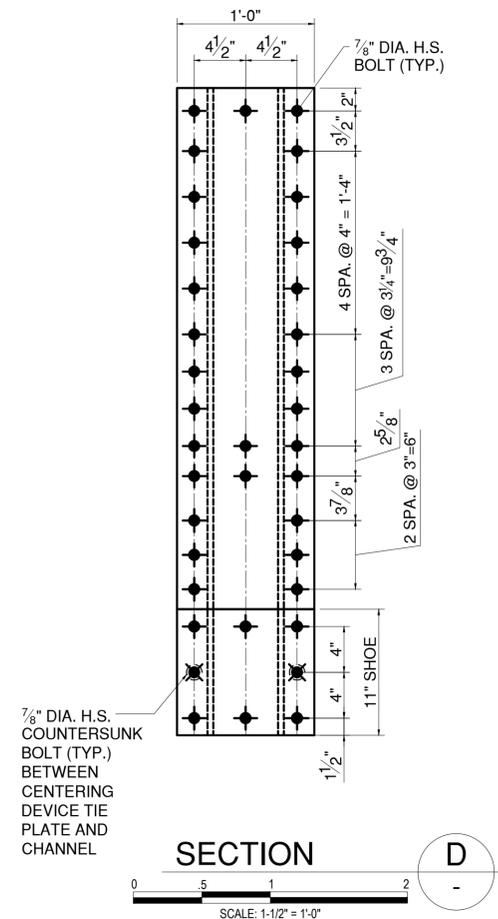
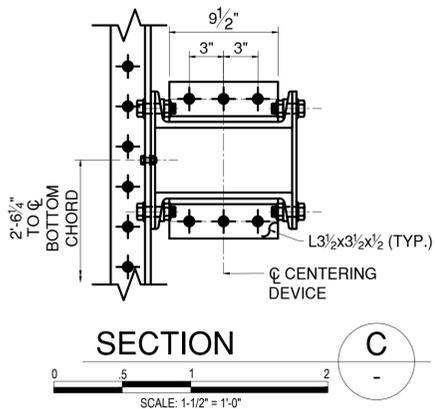
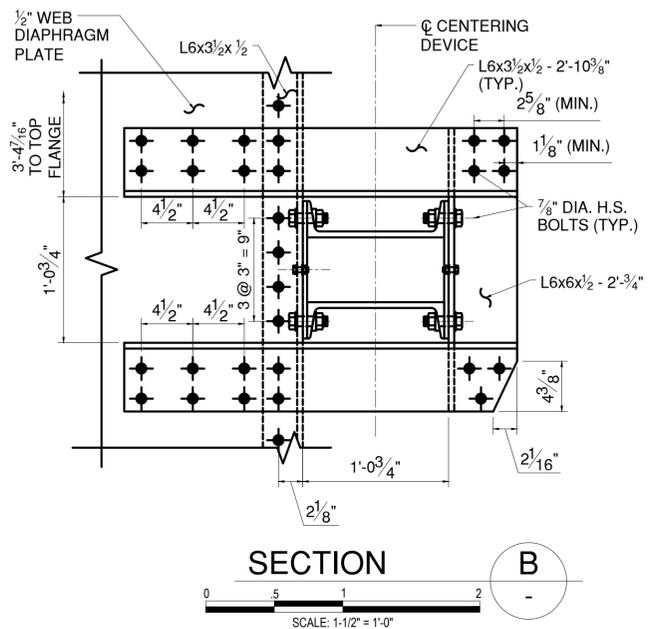
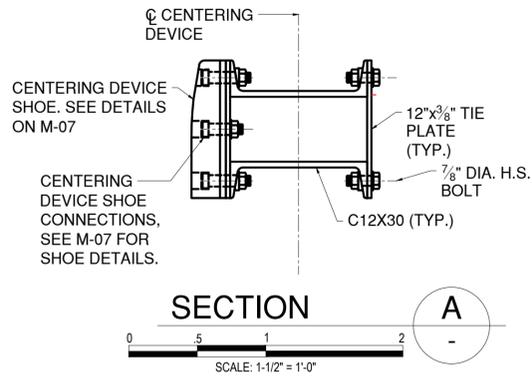
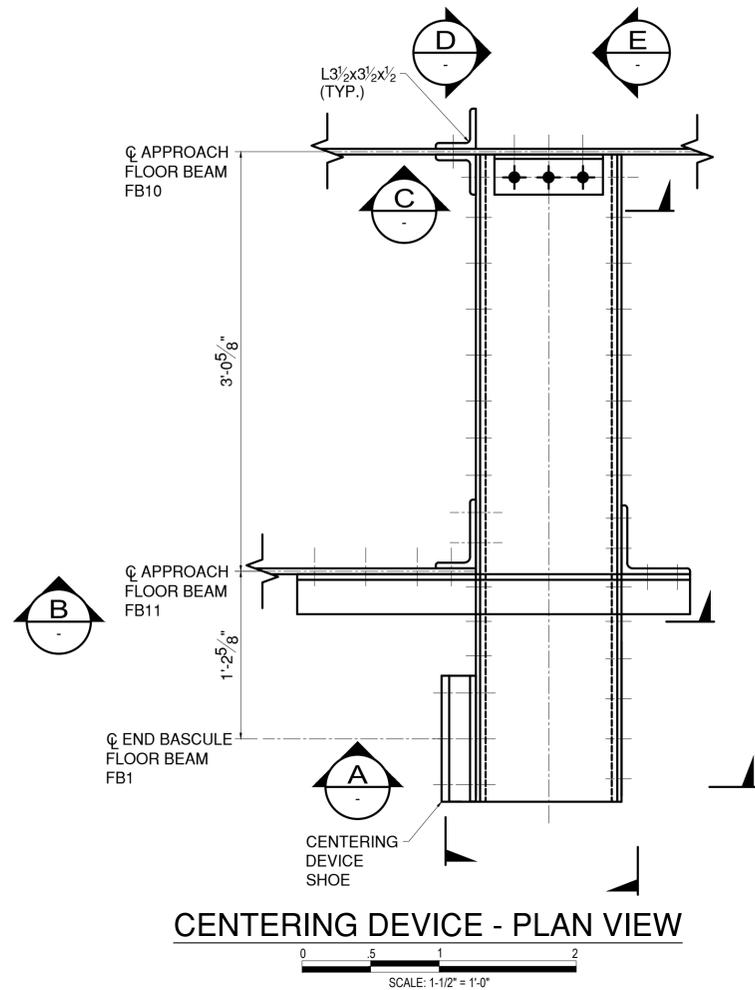
**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

STRUCTURAL

**MISCELLANEOUS STEEL DETAILS**

CONTRACT NUMBER 20-517	SHEET NUMBER S-57
SHEET NO. 98 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-533-0	0



- LEGEND:**
- EXISTING RIVET TO REMAIN
  - ◆ NEW BOLT IN NEW HOLE
  - ⊕ NEW BOLT IN EXISTING RIVET HOLE
  - ⊗ NEW COUNTERSUNK BOLT

- NOTES:**
- SEE SHEET MECHANICAL SUBSET SHEET M-07 FOR CENTERING DEVICE SHOE DETAILS. SHOE BOLTS, SHIMS, AND SHOE, INCLUDING INSTALLATION, SHALL BE PAID FOR UNDER ITEM NO. 599.06120508. SEE G-04 AND G-05 FOR STRUCTURAL STEEL NOTES.
  - CONTRACTOR TO VERIFY CENTERING DEVICE IS INSTALLED LEVEL BETWEEN FLOOR BEAMS FB11 - SPAN 14 AND FB10 - SPAN 14.



CONSULTANT INFORMATION

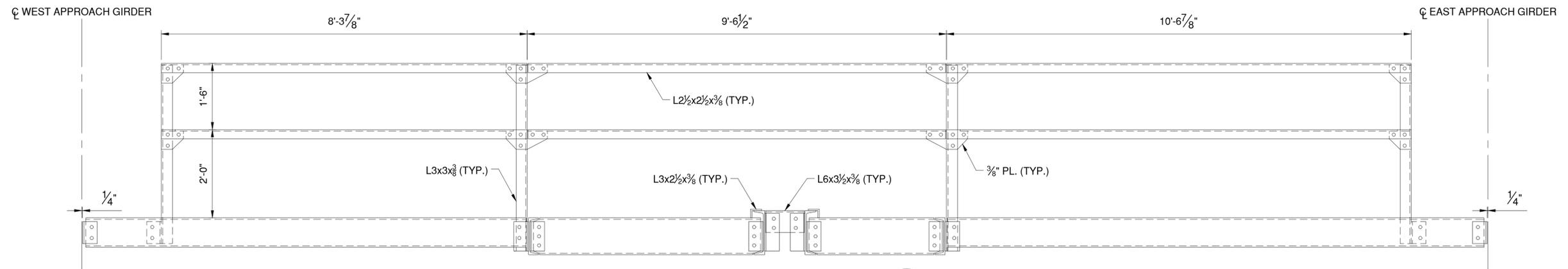


IN CHARGE OF D. DELUCA, PE  
 CHECKED BY N. HYSON, PE  
 MADE BY A. AMARONE, PE

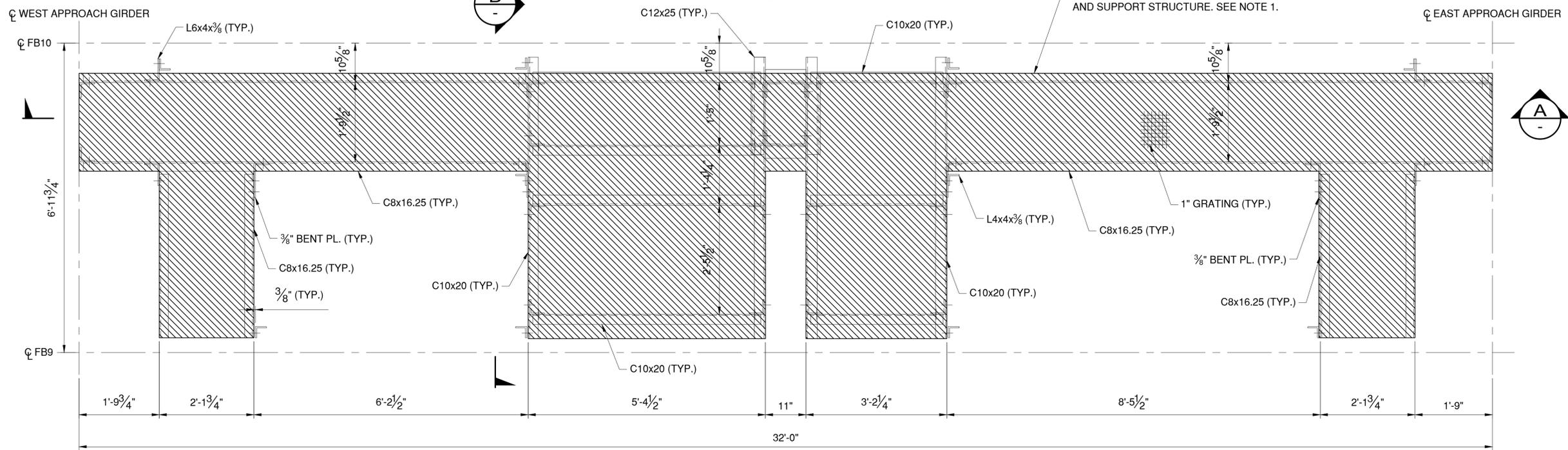
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

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NAME _____	NAME _____	NAME _____	NAME _____
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TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER S-58
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 99 OF 212	SCALE: AS SHOWN
STRUCTURAL		DATE: 03/08/2024	DPW FILE NO.
CENTERING DEVICE DETAILS		5-04-S-534-0	REV. NO. 0

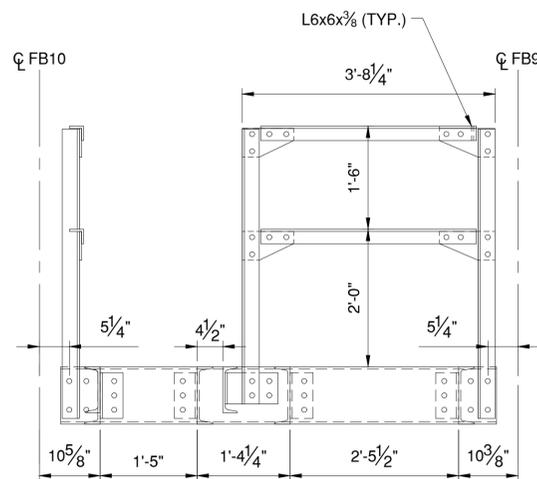


SECTION A  
SCALE: 3/4"=1'-0"



EXISTING TOE LOCK MACHINERY PLATFORM - PLAN

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



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

NOTES:

1. REPLACE ALL EXISTING SPAN LOCK MACHINERY PLATFORM, RAILING, AND SUPPORT STRUCTURE WITH PROPOSED SPAN LOCK MACHINERY PLATFORM, RAILING, AND SUPPORT STRUCTURE. SEE DWG. NO. S-60 FOR DETAILS.
2. REMOVAL OF EXISTING STEEL TO BE PAID FOR UNDER ITEM 589.010001.

LEGEND

- EXISTING RIVET TO REMAIN
- ◆ NEW BOLT IN NEW HOLE
- ⊕ NEW BOLT IN EXISTING RIVET HOLE



CONSULTANT INFORMATION

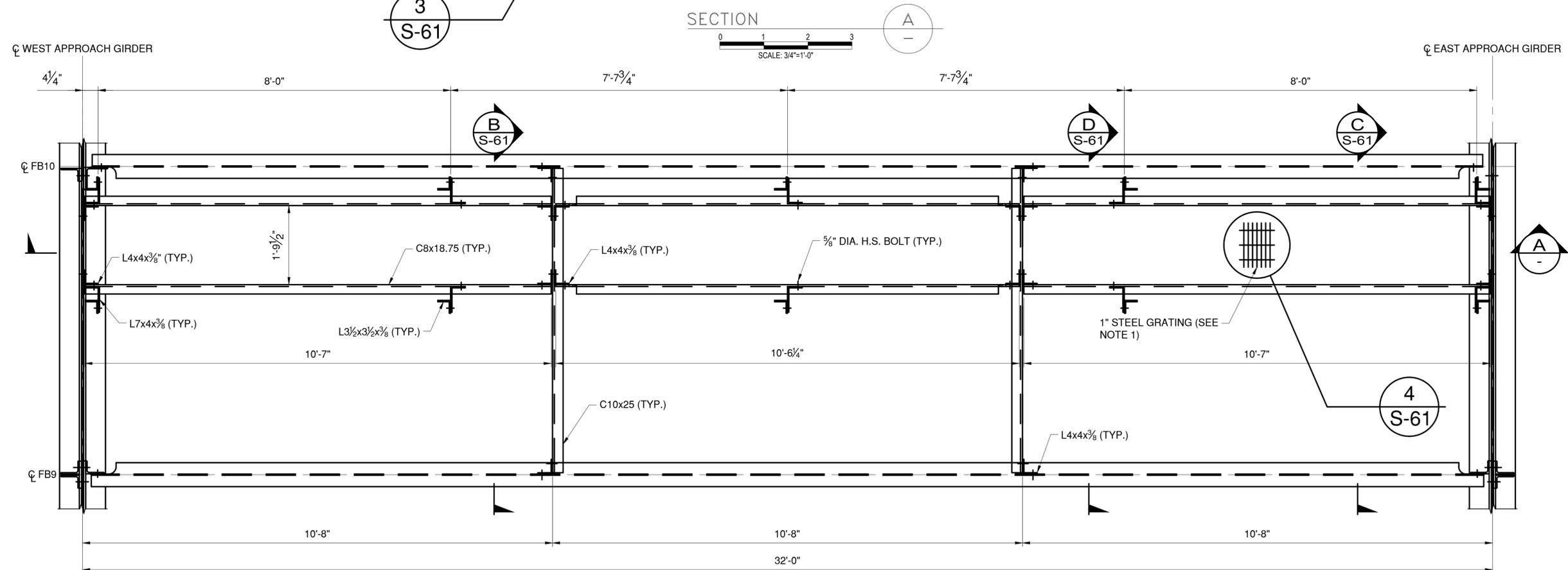
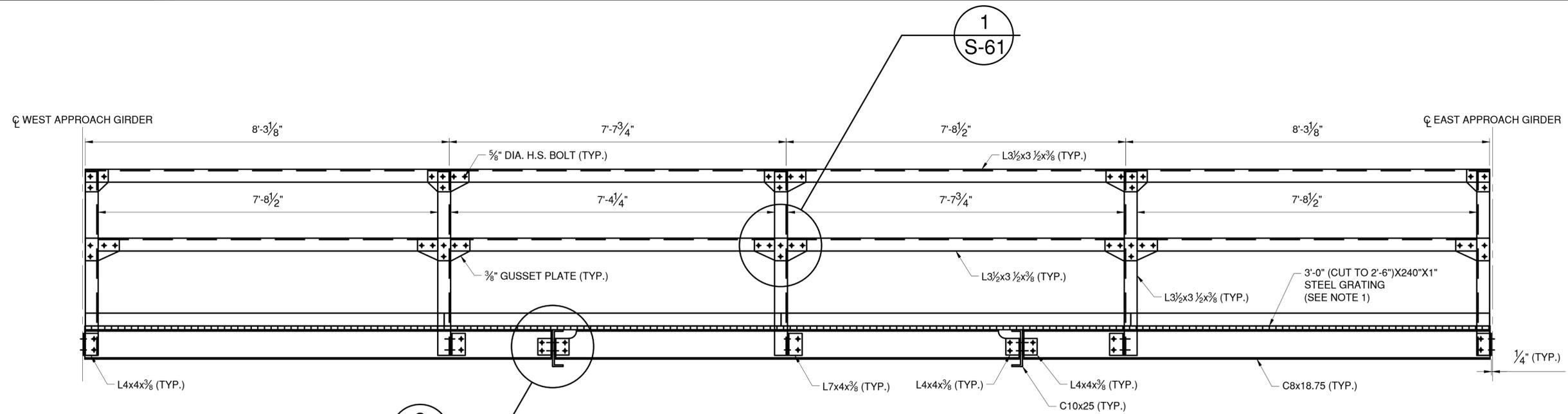


IN CHARGE OF D. DELUCA, PE  
 CHECKED BY N. HYSON, PE  
 MADE BY D. DERKS

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

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CONTRACTOR		PROJECT COORDINATOR	
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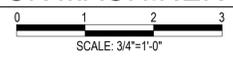
WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER S-59
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle STRUCTURAL		SHEET NO. 100 OF 212	
EXISTING SPAN LOCK MACHINERY PLATFORM		SCALE: AS SHOWN	DATE: 03/08/2024
		DPW FILE NO.	REV. NO.
		5-04-S-535-0	0



- NOTES:**
- GRATING SHALL BE STANDARD-DUTY WELDED, GW-100 RECTANGULAR BAR AT 19-W-4 SPACING AND SHALL BE HOT-DIPPED GALVANIZED STEEL. 1" x 3/16" RECTANGULAR BARS SHALL BE SPACED 1 3/16" O.C. WITH CROSS BARS SPACED 4" O.C. SURFACE SHALL BE SLIP RESISTANT. GRATING FOR PLATFORM SHALL BE PAID FOR UNDER ITEM 596.01.
  - GRATING WIDTH SHALL BE CUT TO THE MAXIMUM GRATE WIDTH OF 2'-6" WHERE EDGE OF GRATING IS 1" FROM CENTER OF OUTER CROSS BARS. WELDS SHALL BE 3/16" FILLET WELDS, 3/4" IN LENGTH.
  - STEEL GRATING WELD CONNECTIONS TO SUPPORT MEMBERS AND TOEBOARDS TO BE COORDINATED WITH GRATE MANUFACTURER AND FIELD VERIFIED BY CONTRACTOR.
  - ALL BOLTS SHALL BE 5/8" DIA. UNLESS NOTED OTHERWISE.
  - SEE SHEET S-40, S-41, AND S-61 FOR BOLT LOCATIONS OF PLATFORM CONNECTIONS TO FLOOR BEAMS.
  - CONTRACTOR TO FIELD VERIFY LOCATIONS OF EXISTING HOLES IN APPROACH GIRDERS FOR ATTACHMENT OF PLATFORM CONNECTIONS.
  - NEW STEEL TO BE PAID FOR UNDER ITEM 564.510001.

- LEGEND**
- EXISTING RIVET TO REMAIN
  - ◆ NEW BOLT IN NEW HOLE
  - ⊕ NEW BOLT IN EXISTING RIVET HOLE

**PROPOSED TOE LOCK MACHINERY PLATFORM - PLAN**



CONSULTANT INFORMATION



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY N. HYSON, PE  
 MADE BY D. DERKS

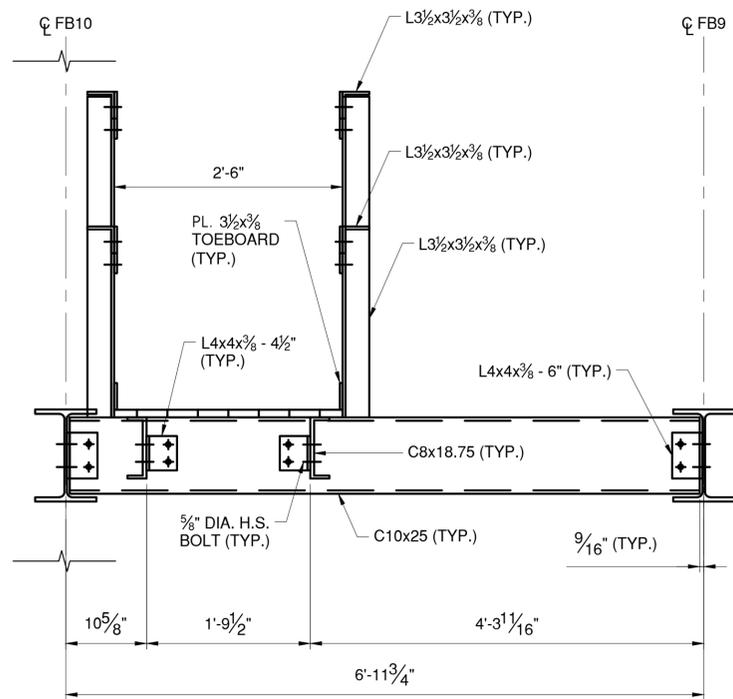
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CONTRACTOR		PROJECT COORDINATOR	
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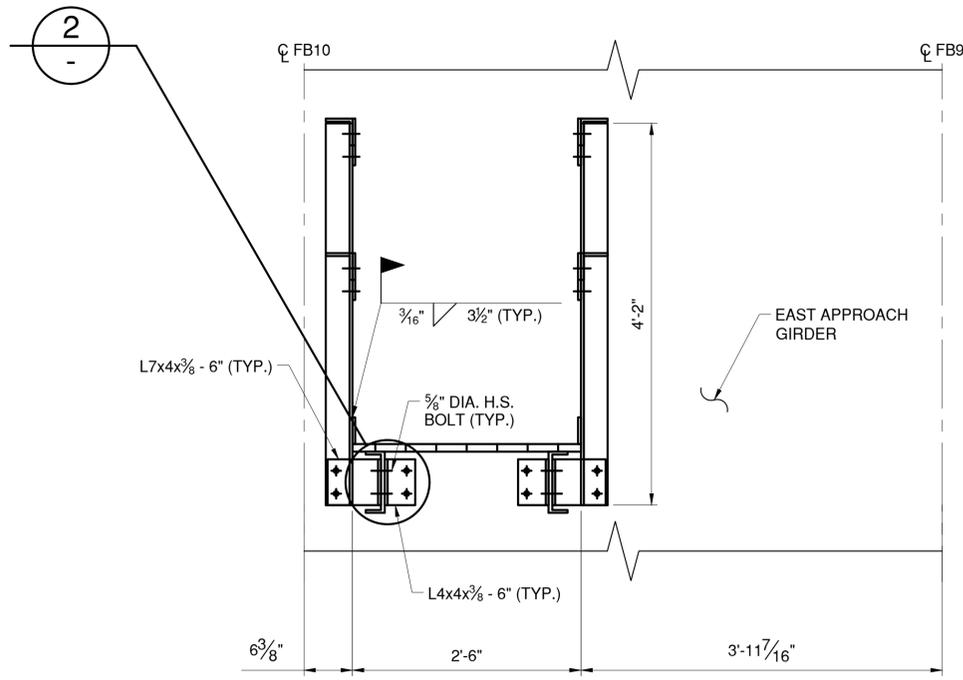
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL

CONTRACT NUMBER 20-517	SHEET NUMBER S-60
SHEET NO. 101 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-536-0	0

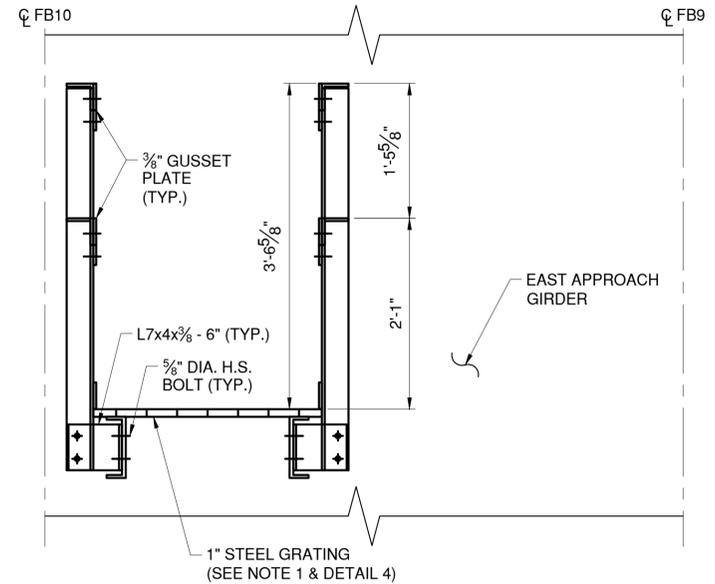
**PROPOSED SPAN LOCK MACHINERY PLATFORM**



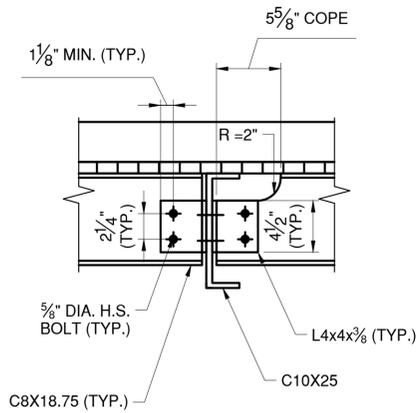
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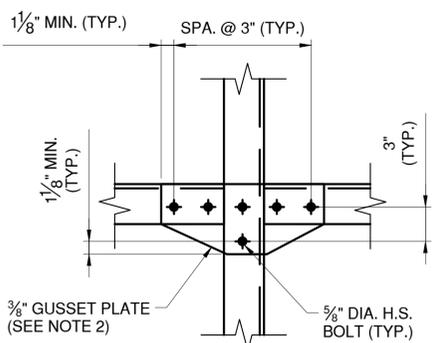
SECTION C  
SCALE: 1"=1'-0"



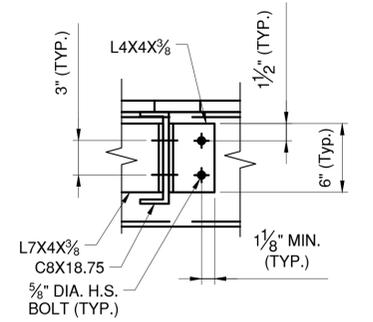
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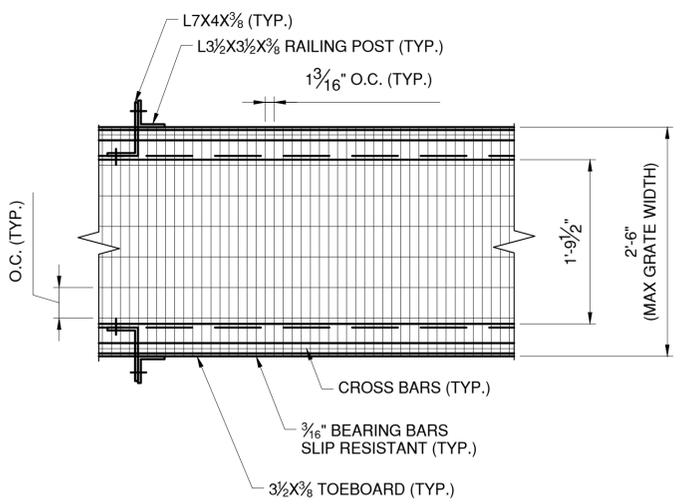
DETAIL 1  
SCALE: 1-1/2"=1'-0"



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



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



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

- NOTES:**
- SEE SHEET S-60 FOR PROPOSED SPAN LOCK MACHINERY PLATFORM NOTES.
  - ALL PLATFORM RAILING GUSSET PLATES SHALL ADHERE TO THE TYPICAL MINIMUM SPACING REQUIREMENTS SHOWN IN DETAIL 2 AND BE DETAILED ACCORDING TO THE GUSSET PLATE BOLT REQUIREMENTS SHOWN IN "SECTION A" ON SHEET S-60. CONTRACTOR TO FIELD VERIFY CONNECTIONS TO RAILING.
  - STEEL GRID DECK SHALL BE PAID FOR UNDER ITEM 596.01

- LEGEND**
- EXISTING RIVET TO REMAIN
  - ◆ NEW BOLT IN NEW HOLE
  - ⊕ NEW BOLT IN EXISTING RIVET HOLE



**CONSULTANT INFORMATION**  
**H&H**  
 1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

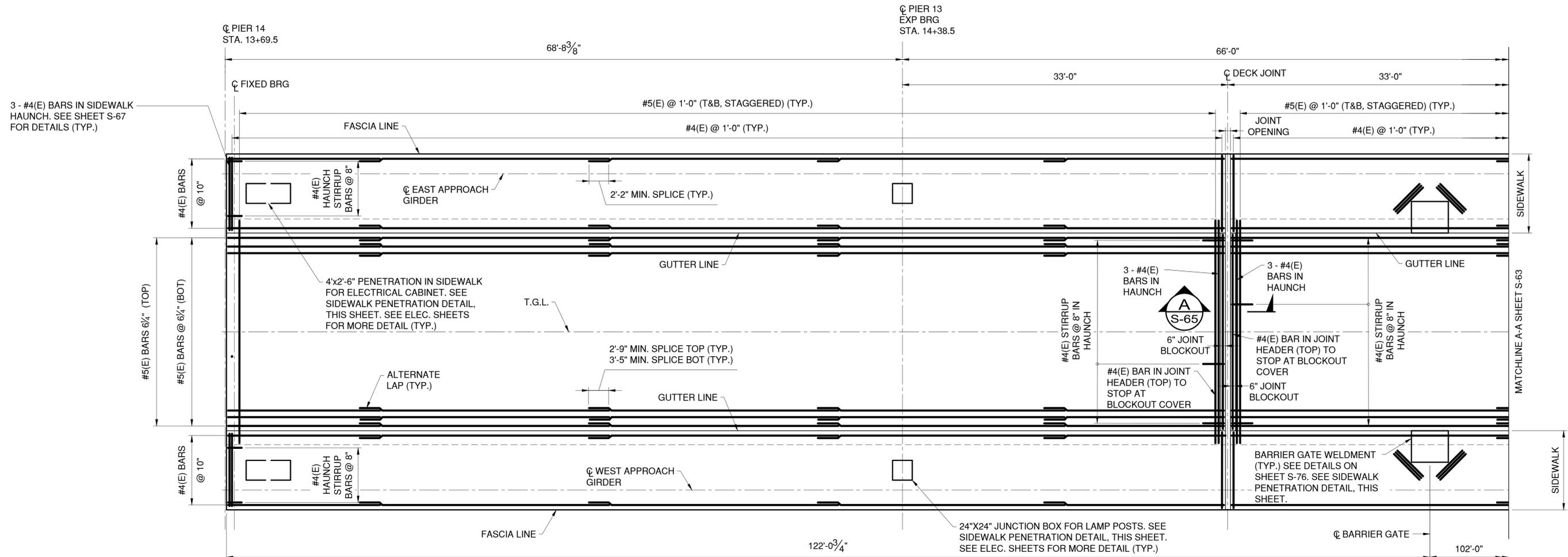
IN CHARGE OF D. DELUCA, PE  
 CHECKED BY N. HYSOON, PE  
 MADE BY D. DERKS

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

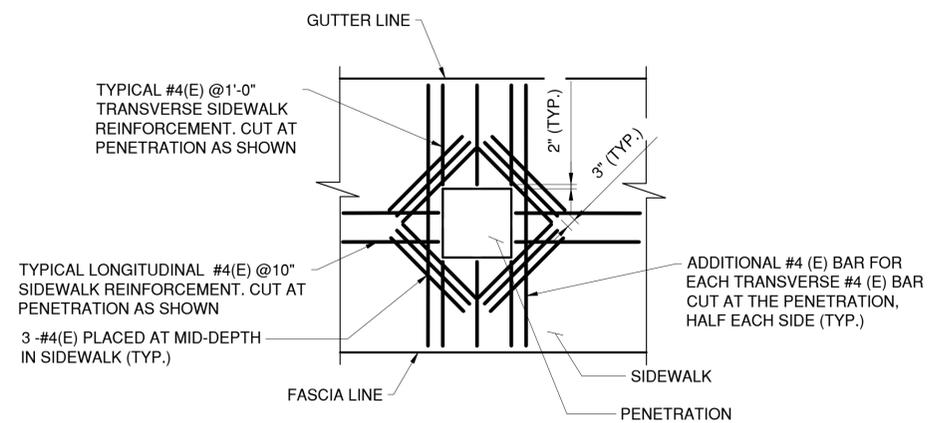
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____		
DATE _____	DATE _____		

**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL  
**PROPOSED SPAN LOCK PLATFORM DETAILS**

CONTRACT NUMBER 20-517	SHEET NUMBER S-61
SHEET NO. 102 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-537-0	0



**APPROACH SPAN DECK REINFORCEMENT PLAN 1**



**SIDEWALK PENETRATION DETAIL**

NOT TO SCALE

**NOTES:**

1. SIDEWALKS SHALL BE PAID UNDER ITEM NO. 557.30
2. ROADWAY DECK SHALL BE PAID UNDER ITEM NO. 557.0109
3. DECK REINFORCEMENT SHALL BE PAID UNDER ITEM NO. 556.0202
4. SIDEWALK PENETRATION AND JUNCTION BOX LOCATIONS SHALL BE COORDINATED WITH THE ELECTRICAL SHEETS. SUBMIT LOCATIONS AND DIMENSIONS TO THE ENGINEER FOR REVIEW.



CONSULTANT INFORMATION



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY S. VERA-FOX, PE

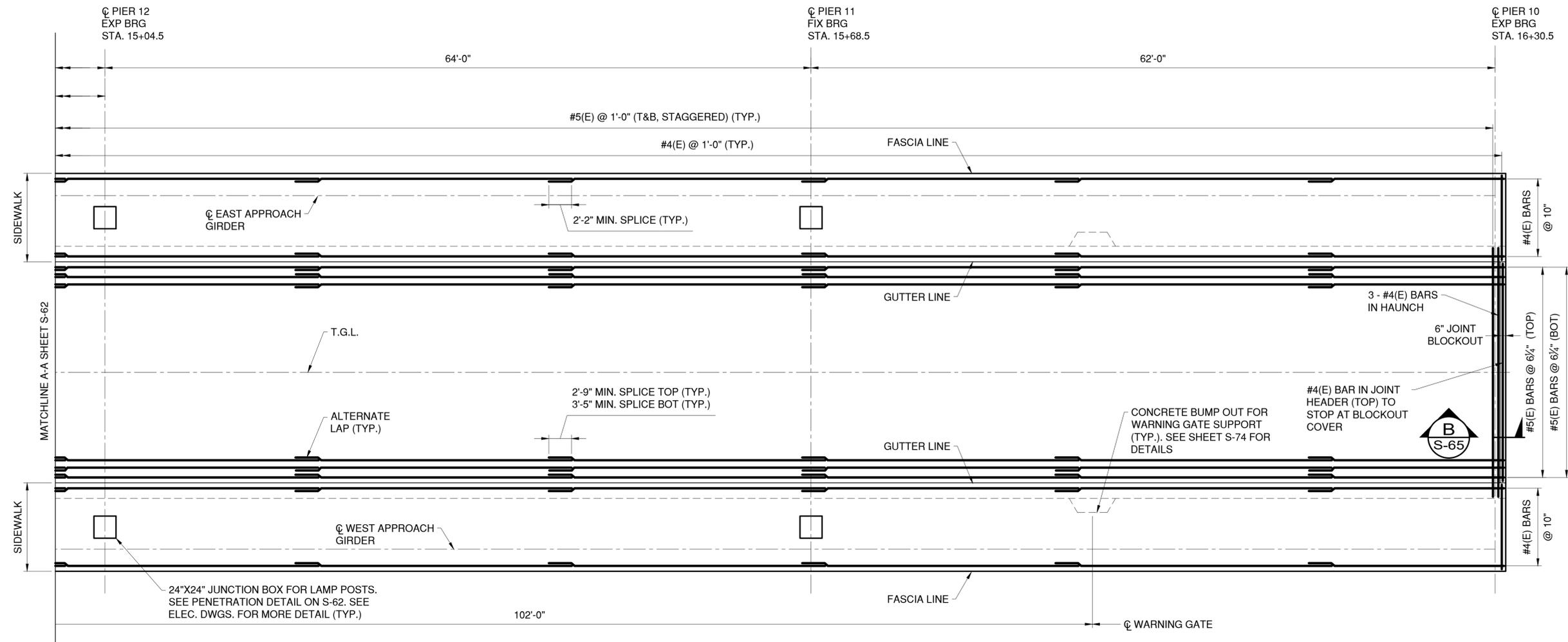
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL

CONTRACT NUMBER 20-517	SHEET NUMBER S-62
SHEET NO. 103 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-538-0	0

**APPROACH SPAN DECK REINFORCEMENT PLAN-1**



**APPROACH SPAN DECK REINFORCEMENT PLAN- 2**



**NOTES:**

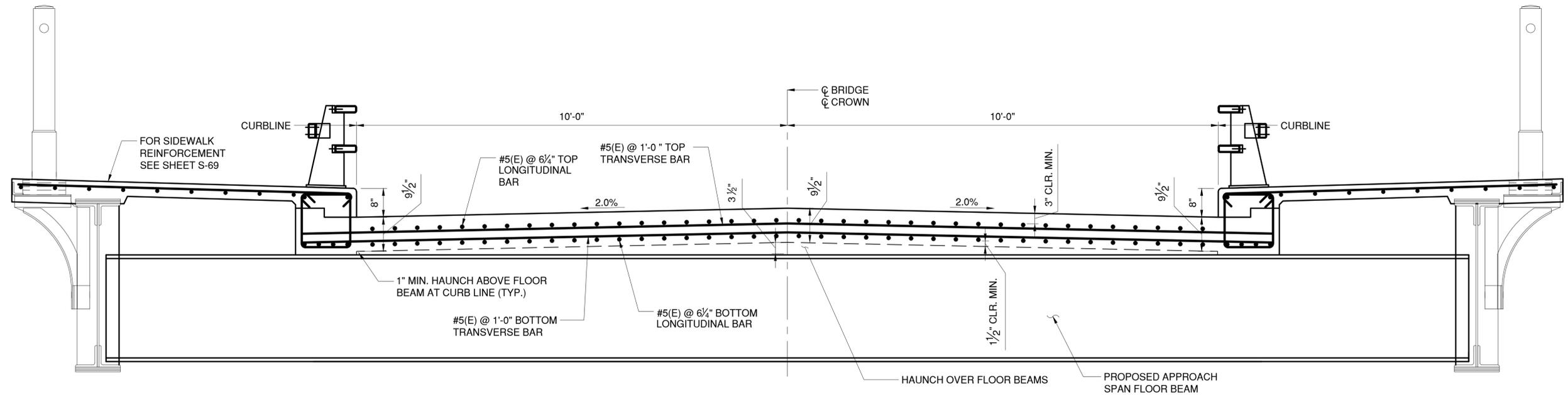
1. SIDEWALKS SHALL BE PAID UNDER ITEM NO. 557.30
2. ROADWAY DECK SHALL BE PAID UNDER ITEM NO. 557.0109
3. DECK REINFORCEMENT SHALL BE PAID UNDER ITEM NO. 556.0202
4. SIDEWALK PENETRATION AND JUNCTION BOX LOCATIONS SHALL BE COORDINATED WITH THE ELECTRICAL SHEETS. SUBMIT LOCATIONS AND DIMENSIONS TO THE ENGINEER FOR REVIEW.

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY S. VERA-FOX, PE

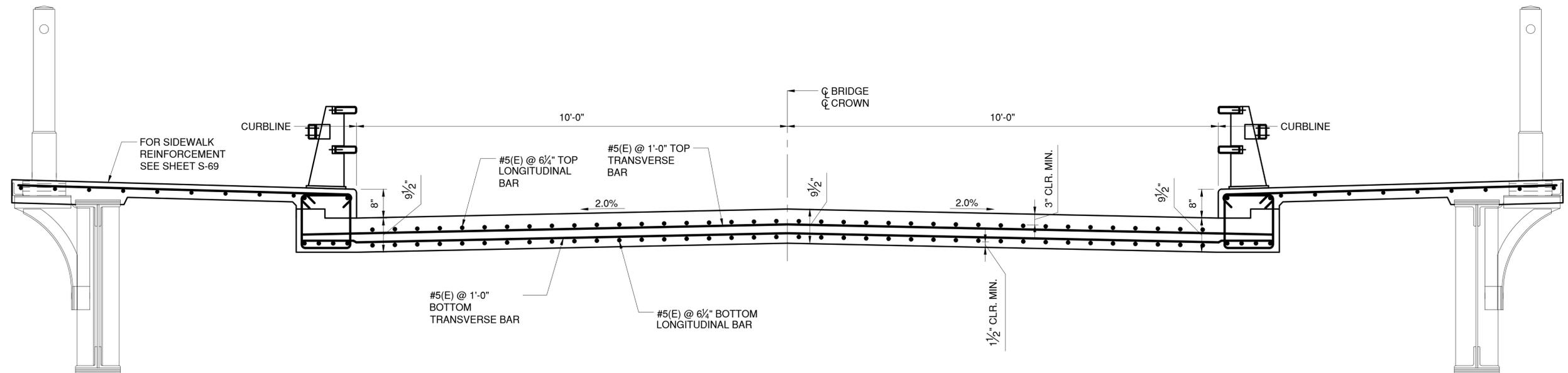
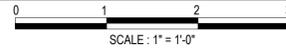
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

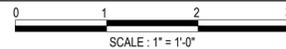
	CONSULTANT INFORMATION	 1501 BROADWAY, SUITE 601 NEW YORK, NY 10036 (212) 944-1150
	WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle STRUCTURAL	
CONTRACT NUMBER 20-517 SHEET NUMBER S-63 SHEET NO. 104 OF 212 SCALE: AS SHOWN DATE: 03/08/2024 DPW FILE NO. 5-04-S-539-0 REV. NO. 0		



APPROACH SPAN DECK SECTION AT FLOOR BEAM



APPROACH SPAN DECK SECTION BETWEEN FLOOR BEAMS



NOTES:

- ROADWAY DECK SHALL BE PAID UNDER ITEM NO. 557.0109
- DECK REINFORCEMENT SHALL BE PAID UNDER ITEM NO. 556.0202



CONSULTANT INFORMATION

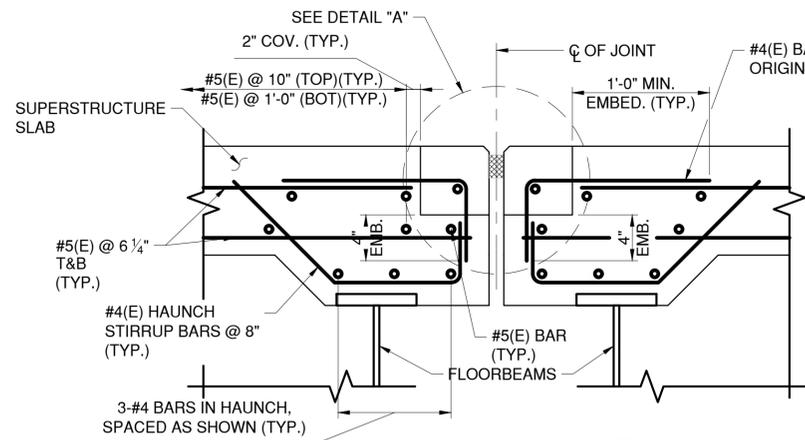


IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY S. VERA-FOX, PE

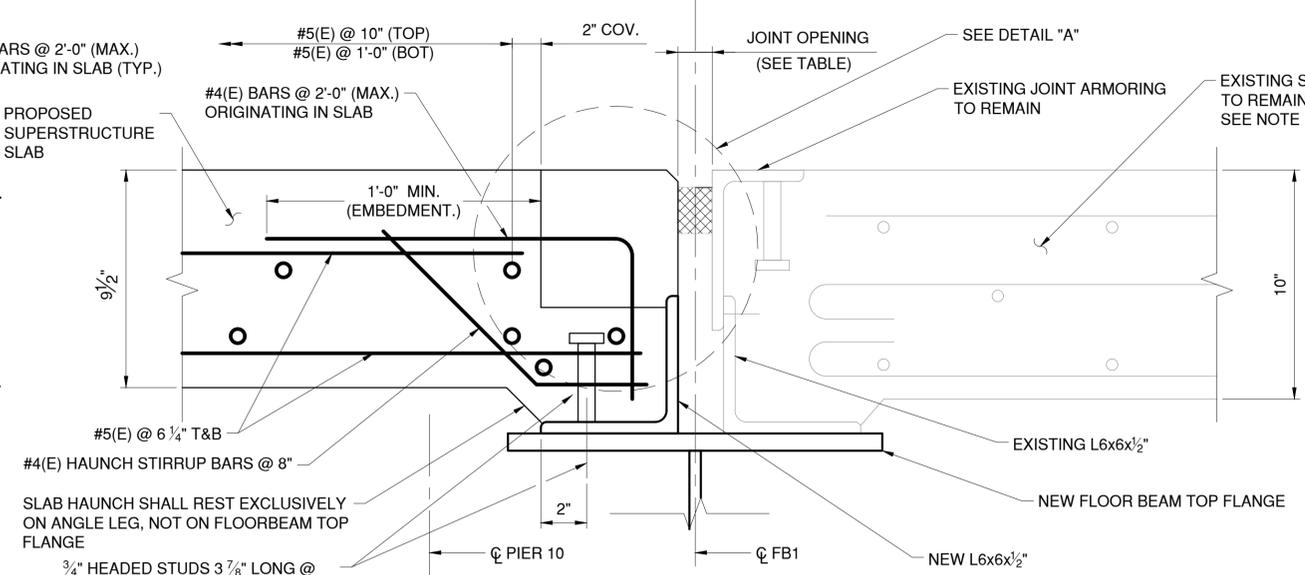
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

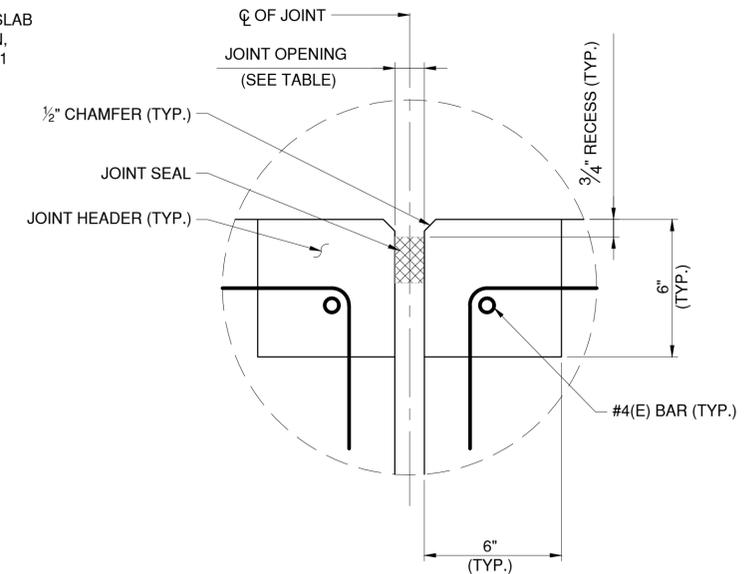
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Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 105 OF 212	
STRUCTURAL		SCALE: AS SHOWN DATE: 03/08/2024	REV. NO. 0
APPROACH SPAN DECK SECTIONS		DPW FILE NO. 5-04-S-540-0	



**SECTION A**  
SPAN 13 DECK JOINT S-62  
NOT TO SCALE

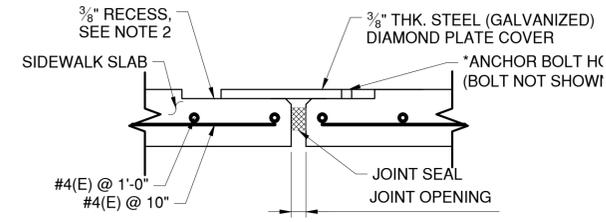


**SECTION B**  
PIER 10 DECK JOINT S-63  
NOT TO SCALE

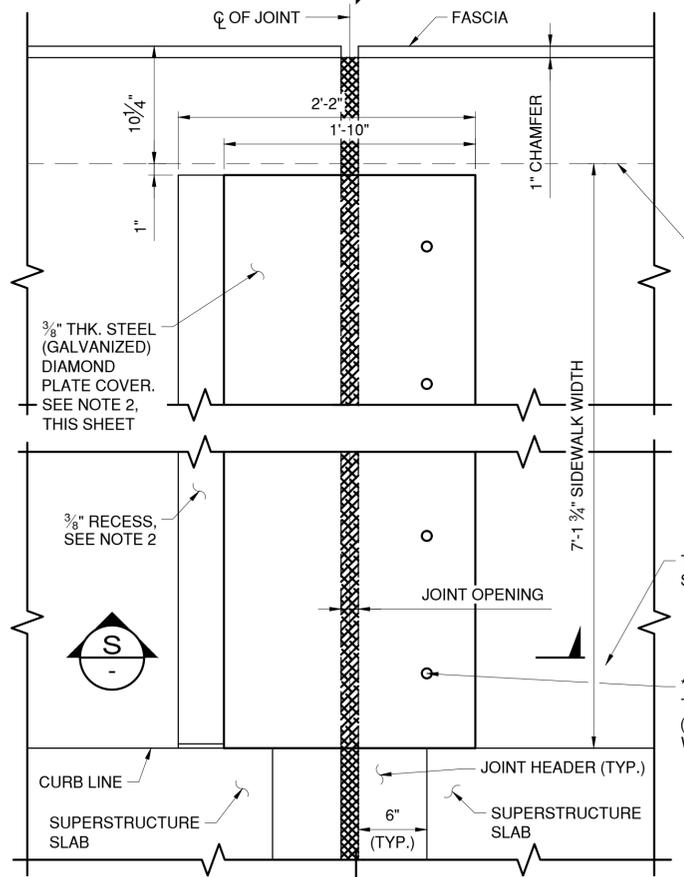


**DETAIL A**  
NOT TO SCALE

SPAN 13 MIDSPAN		PIER 10	
SUPERSTRUCTURE TEMPERATURE (°F)	JOINT OPENING (IN.)	SUPERSTRUCTURE TEMPERATURE (°F)	JOINT OPENING (IN.)
30	2.09	30	1.68
35	2.01	35	1.66
40	1.93	40	1.63
45	1.85	45	1.61
50	1.78	50	1.59
55	1.70	55	1.56
60	1.62	60	1.54
65	1.55	65	1.51
70	1.47	70	1.49
75	1.39	75	1.47
80	1.32	80	1.44
85	1.24	85	1.42
90	1.16	90	1.39
95	1.08	95	1.37
100	1.01	100	1.35
105	0.93	105	1.32
110	0.85	110	1.30

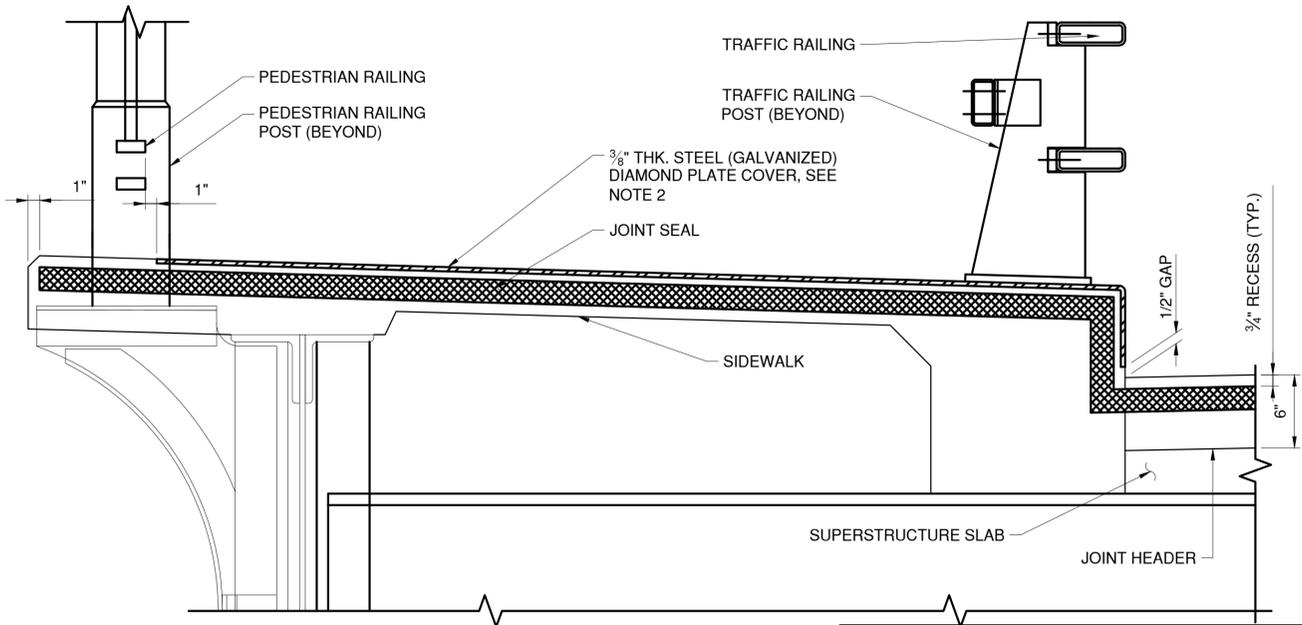


**SECTION S**  
NOT TO SCALE



**PARTIAL PLAN SPAN 13 DECK JOINT**  
(PIER 10 JOINT SIMILAR)  
NOT TO SCALE

- NOTES:**
- PLAZA SLAB AT PIER 10 SHALL BE TEMPORARILY SUPPORTED WHILE THE NEW FLOOR BEAM IS INSTALLED. CARE SHALL BE TAKEN NOT TO DAMAGE THE EXISTING SLAB, REINFORCEMENT OR JOINT ARMORING.
  - AT THE PIER 10 DECK JOINT, OMIT RECESS FOR THE COVER PLATE. ANCHOR BOLTS FOR COVER PLATE SHALL BE LOCATED ON THE SPAN 11 SIDE OF THE JOINT. BEVEL EDGES OF THE 3/8" PLATE AT A 4H:1V SLOPE DOWN TO A 1/8" MINIMUM THICKNESS.
  - THE "JOINT OPENING" SHALL BE DETERMINED AT THE TIME OF PLACEMENT, USING THE TABLE PROVIDED ON THIS DRAWING.
  - THE CONTRACTOR SHALL SUPPLY A JOINT SEAL WITH AN UNCOMPRESSED WIDTH EQUAL TO OR GREATER THAN THE DIMENSION NOTED AS "MIN. SEAL WIDTH" IN THE TABLE PROVIDED ON THIS DRAWING. THE SEAL SUPPLIED SHALL NOT EXCEED THE MANUFACTURER'S COMPRESSION LIMITS AT THE "MINIMUM" OPENING NOTED IN THE TABLE.
  - THE SUPERSTRUCTURE TEMPERATURE USED TO DETERMINE THE JOINT OPENING SHALL BE THE AVERAGE OF THE BOTTOM OF THE GIRDER TOP FLANGES. A MINIMUM OF TWO TEMPERATURE READINGS PER SPAN SHALL BE USED TO CALCULATE THE AVERAGE SUPERSTRUCTURE TEMPERATURE.
  - DECK JOINTS IN SPAN 13, AT PIER 10 AND THE DECK OVER COUNTERWEIGHT JOINT SHALL BE PAID FOR UNDER ITEM 567.60. COVER PLATES AND HEADERS, AS REQUIRED HEREIN, ARE INCLUDED IN ITEM 567.60.
  - THE BASCULE SPAN TOE AND HEEL JOINTS SHALL BE PAID FOR UNDER ITEM 564.5100010 STRUCTURAL STEEL.



**SECTION R**  
NOT TO SCALE

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY F. SIEH, PE  
 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION
1	4/12/24	NMH	DD	JOINT WORK PAY ITEM ADDED

**RECORD DRAWING CERTIFICATION**

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR: \_\_\_\_\_ PROJECT COORDINATOR: \_\_\_\_\_

NAME: \_\_\_\_\_ NAME: \_\_\_\_\_  
 SIGNATURE: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_  
 TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_



CONSULTANT INFORMATION

**H&H** 1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

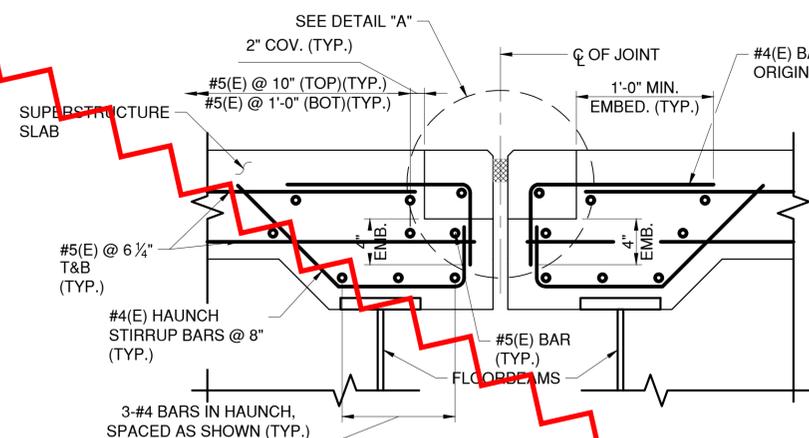
**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

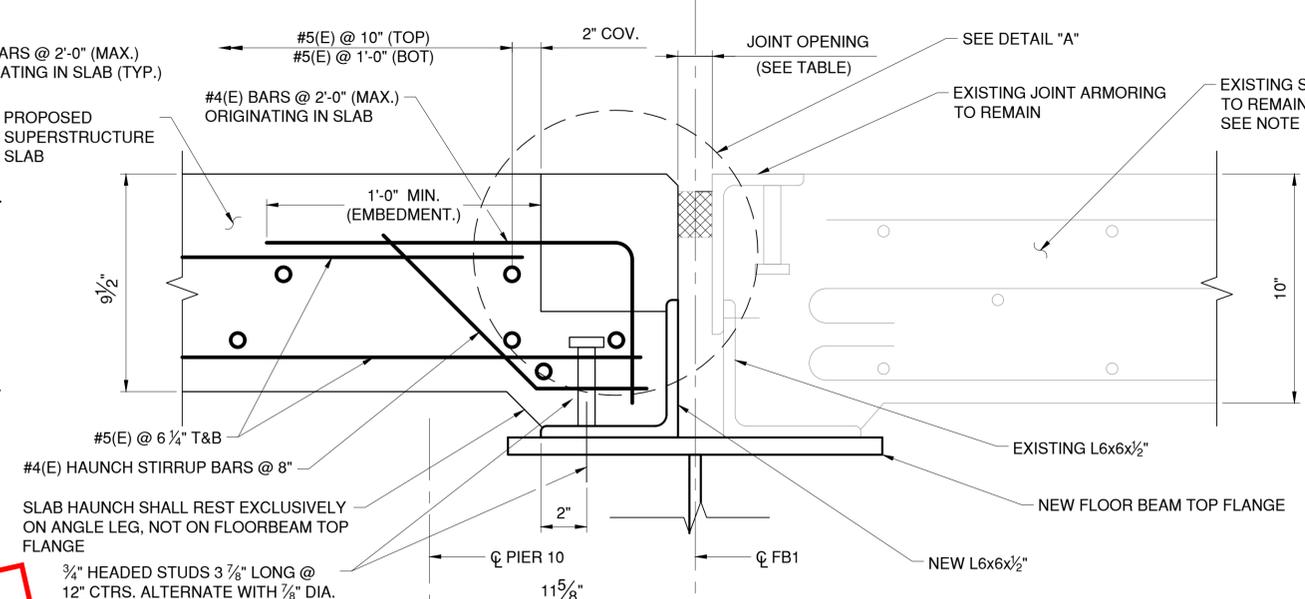
STRUCTURAL

**DECK JOINT DETAILS - 1**

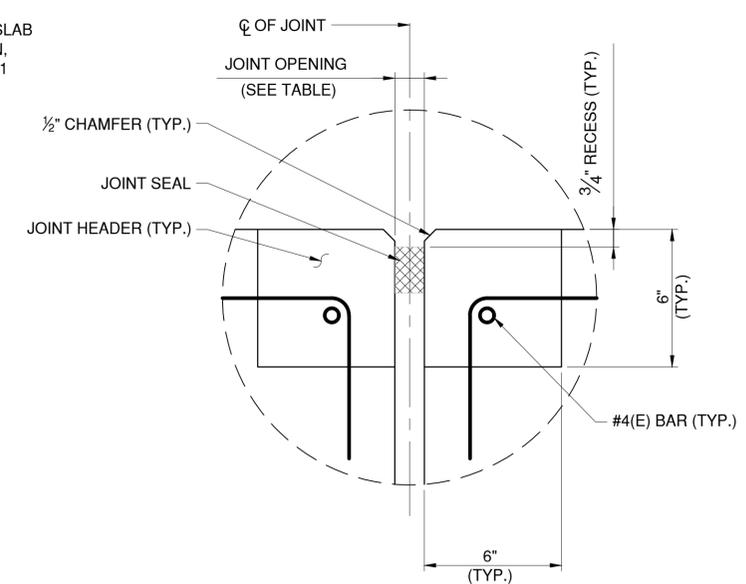
CONTRACT NUMBER: 20-517 SHEET NUMBER: S-65  
 SHEET NO. 106 OF 212  
 SCALE: AS SHOWN DATE: 03/08/2024  
 DPW FILE NO. 5-04-S-541-0 REV. NO. 1



**SECTION A**  
SPAN 13 DECK JOINT S-62  
NOT TO SCALE

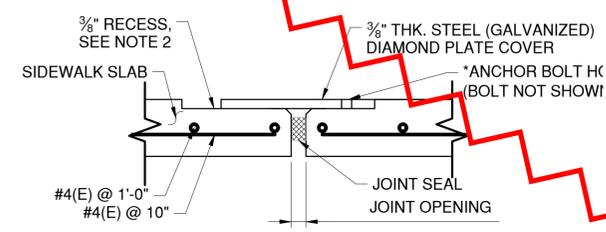


**SECTION B**  
PIER 10 DECK JOINT S-63  
NOT TO SCALE

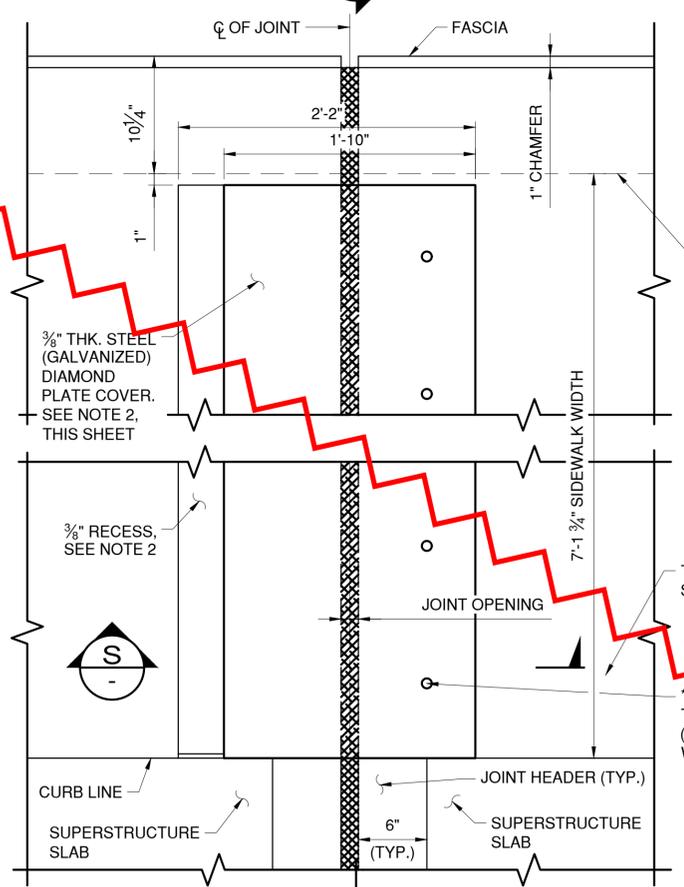


**DETAIL A**  
NOT TO SCALE

SPAN 13 MIDSPAN		PIER 10	
SUPERSTRUCTURE TEMPERATURE (°F)	JOINT OPENING (IN.)	SUPERSTRUCTURE TEMPERATURE (°F)	JOINT OPENING (IN.)
30	2.09	30	1.68
35	2.01	35	1.66
40	1.93	40	1.63
45	1.85	45	1.61
50	1.78	50	1.59
55	1.70	55	1.56
60	1.62	60	1.54
65	1.55	65	1.51
70	1.47	70	1.49
75	1.39	75	1.47
80	1.32	80	1.44
85	1.24	85	1.42
90	1.16	90	1.39
95	1.08	95	1.37
100	1.01	100	1.35
105	0.93	105	1.32
110	0.85	110	1.30

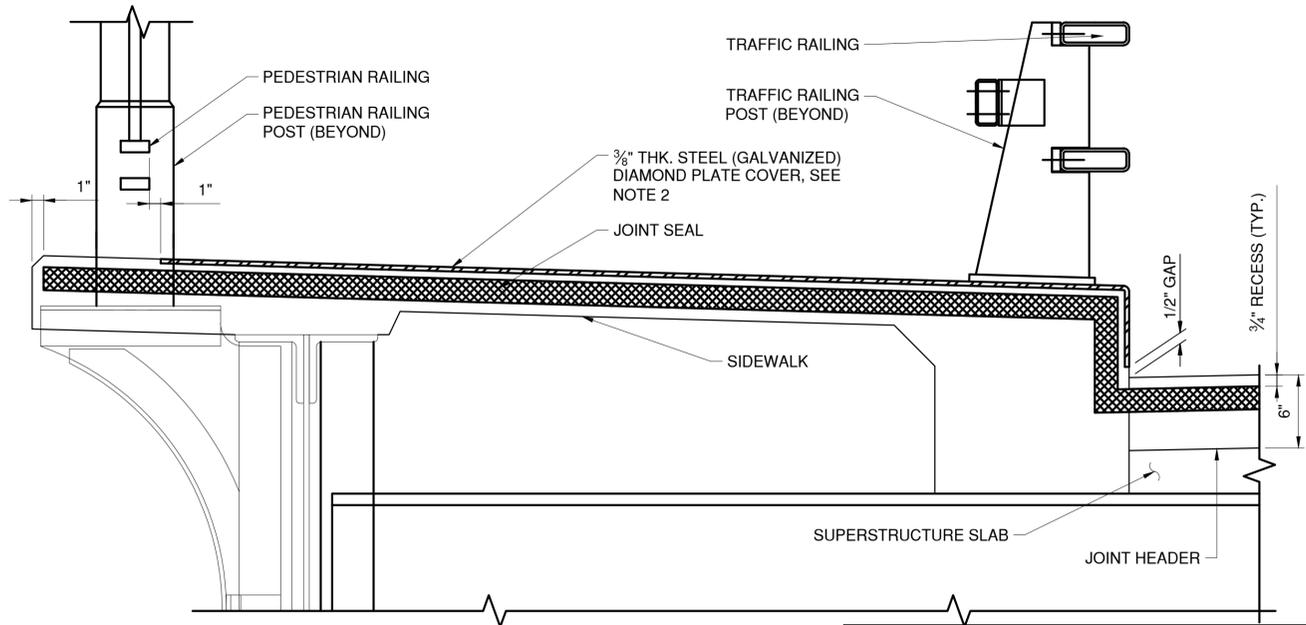


**SECTION S**  
NOT TO SCALE



**PARTIAL PLAN SPAN 13 DECK JOINT**  
(PIER 10 JOINT SIMILAR)  
NOT TO SCALE

- NOTES:**
1. PLAZA SLAB AT PIER 10 SHALL BE TEMPORARILY SUPPORTED WHILE THE NEW FLOOR BEAM IS INSTALLED. CARE SHALL BE TAKEN NOT TO DAMAGE THE EXISTING SLAB, REINFORCEMENT OR JOINT ARMORING.
  2. AT THE PIER 10 DECK JOINT, OMIT RECESS FOR THE COVER PLATE. ANCHOR BOLTS FOR COVER PLATE SHALL BE LOCATED ON THE SPAN 11 SIDE OF THE JOINT. BEVEL EDGES OF THE 3/8" PLATE AT A 4H:1V SLOPE DOWN TO A 1/8" MINIMUM THICKNESS.
  3. THE "JOINT OPENING" SHALL BE DETERMINED AT THE TIME OF PLACEMENT, USING THE TABLE PROVIDED ON THIS DRAWING.
  4. THE CONTRACTOR SHALL SUPPLY A JOINT SEAL WITH AN UNCOMPRESSED WIDTH EQUAL TO OR GREATER THAN THE DIMENSION NOTED AS "MIN. SEAL WIDTH" IN THE TABLE PROVIDED ON THIS DRAWING. THE SEAL SUPPLIED SHALL NOT EXCEED THE MANUFACTURER'S COMPRESSION LIMITS AT THE "MINIMUM" OPENING NOTED IN THE TABLE.
  5. THE SUPERSTRUCTURE TEMPERATURE USED TO DETERMINE THE JOINT OPENING SHALL BE THE AVERAGE OF THE BOTTOM OF THE GIRDER TOP FLANGES. A MINIMUM OF TWO TEMPERATURE READINGS PER SPAN SHALL BE USED TO CALCULATE THE AVERAGE SUPERSTRUCTURE TEMPERATURE.



**SECTION R**  
NOT TO SCALE

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY F. SIEH, PE  
 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

**RECORD DRAWING CERTIFICATION**

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR: \_\_\_\_\_ PROJECT COORDINATOR: \_\_\_\_\_

NAME: \_\_\_\_\_ NAME: \_\_\_\_\_  
 SIGNATURE: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_  
 TITLE: \_\_\_\_\_ TITLE: \_\_\_\_\_  
 DATE: \_\_\_\_\_ DATE: \_\_\_\_\_



**CONSULTANT INFORMATION**

**H&H**

1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

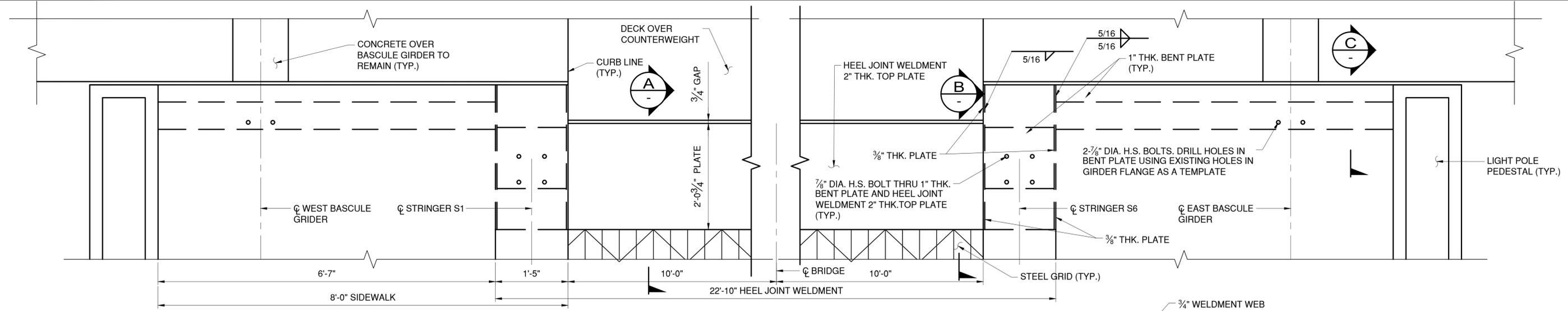
**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

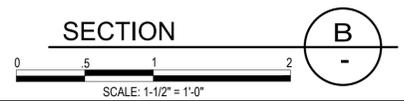
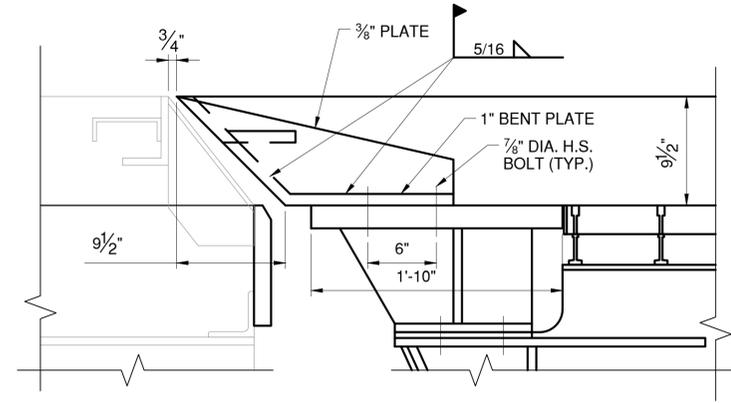
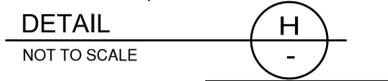
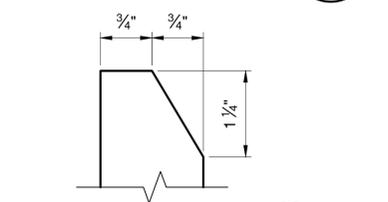
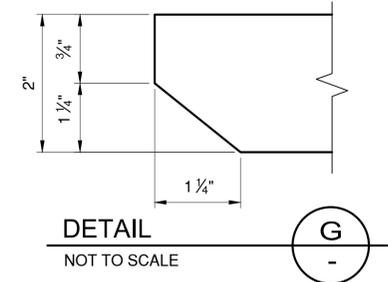
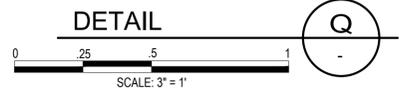
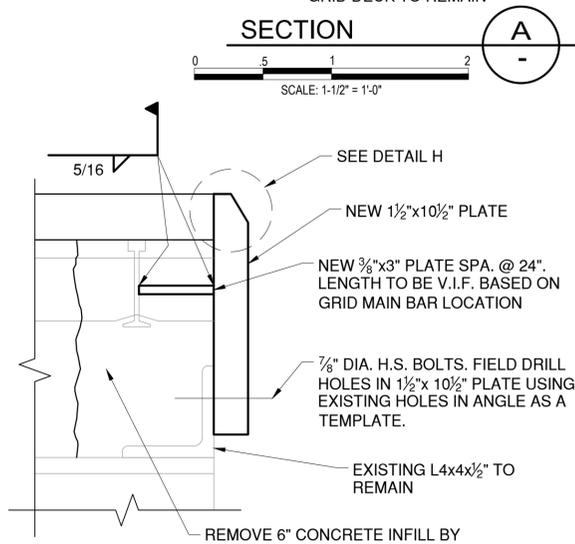
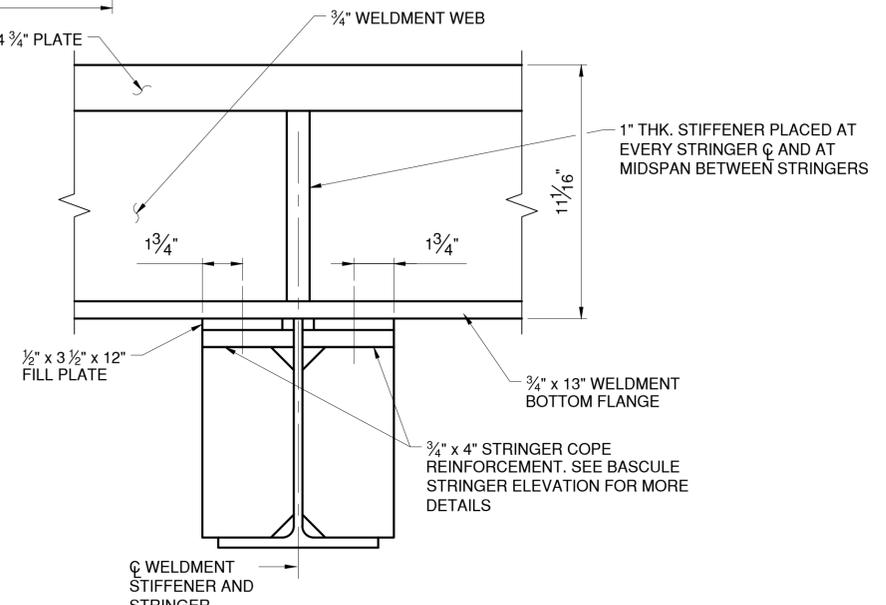
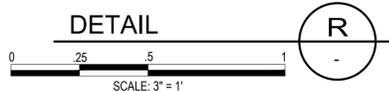
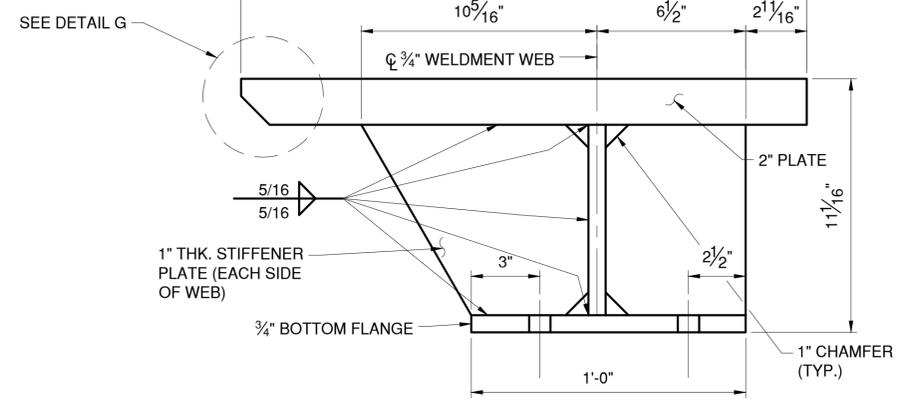
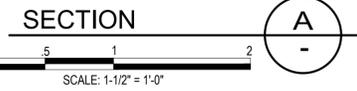
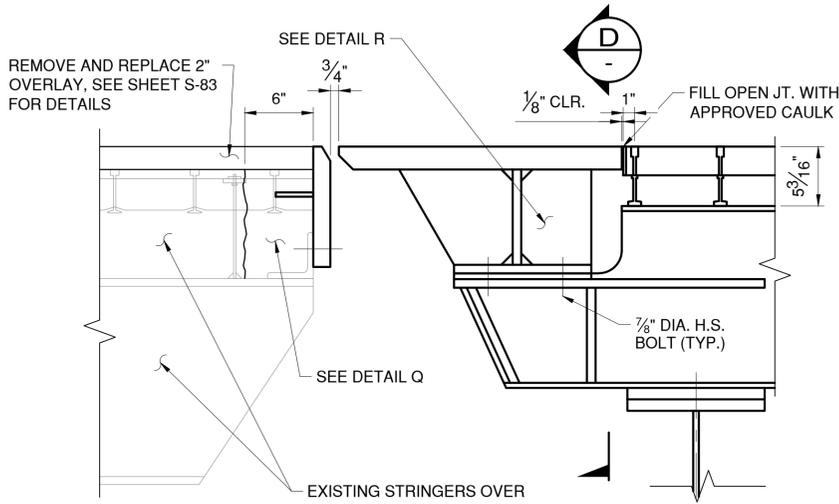
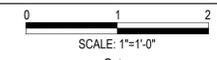
STRUCTURAL

**DECK JOINT DETAILS - 1**

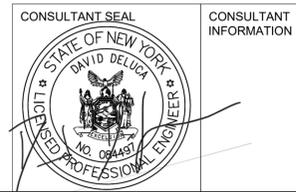
CONTRACT NUMBER: 20-517 SHEET NUMBER: S-65  
 SHEET NO. 106 OF 212  
 SCALE: AS SHOWN  
 DATE: 03/09/2024  
 DPW FILE NO. 5-04-S-541-0 REV. NO. 0



**PROPOSED BASCULE HEEL JOINT PLAN**



- NOTES:**
- SEE NOTES ON SHEET NO. S-65.
  - ALL DIMENSIONS SHALL BE VERIFIED IN THE FIELD TO AVOID POOR FIT UP OR FOULING DURING BASCULE SPAN OPENING/CLOSING.
  - CONCRETE INFILL WITHIN EXISTING GRID DECK SHALL BE REMOVED VIA HYDROBLASTING. CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING GRID DECK AND STRUCTURAL STEEL TO REMAIN. FILL VOID IN JOINT WITH CONCRETE AFTER NEW 1 1/2"x10 1/2" PLATE HAS BEEN INSTALLED. CONCRETE REMOVAL AND CONCRETE PLACEMENT SHALL BE PAID FOR UNDER ITEM 581.02 AND 584.310908, RESPECTIVELY.



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY F. SIEH, PE  
 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

**RECORD DRAWING CERTIFICATION**

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR: \_\_\_\_\_ PROJECT COORDINATOR: \_\_\_\_\_

NAME: \_\_\_\_\_ NAME: \_\_\_\_\_  
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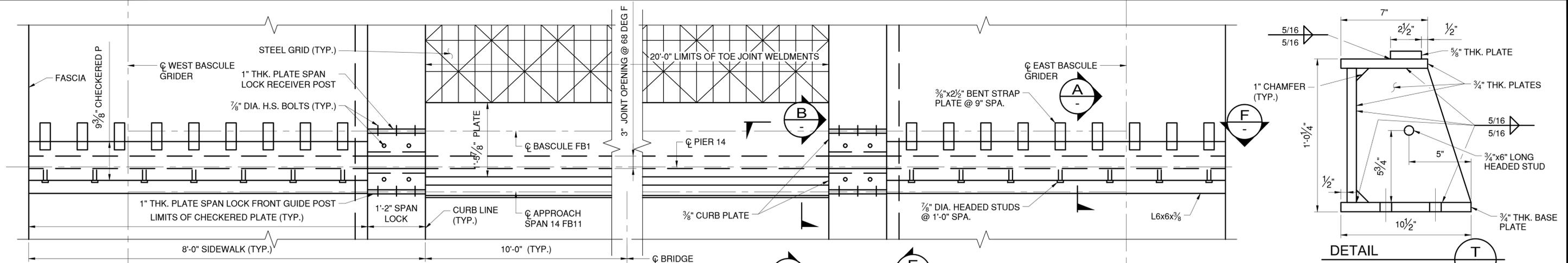
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

STRUCTURAL

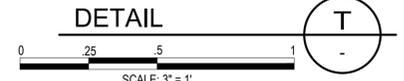
**DECK JOINT DETAILS - 2**

CONTRACT NUMBER: 20-517 SHEET NUMBER: S-66  
 SHEET NO. 107 OF 212  
 SCALE: AS SHOWN DATE: 03/08/2024  
 DPW FILE NO. 5-04-S-542-0 REV. NO. 0



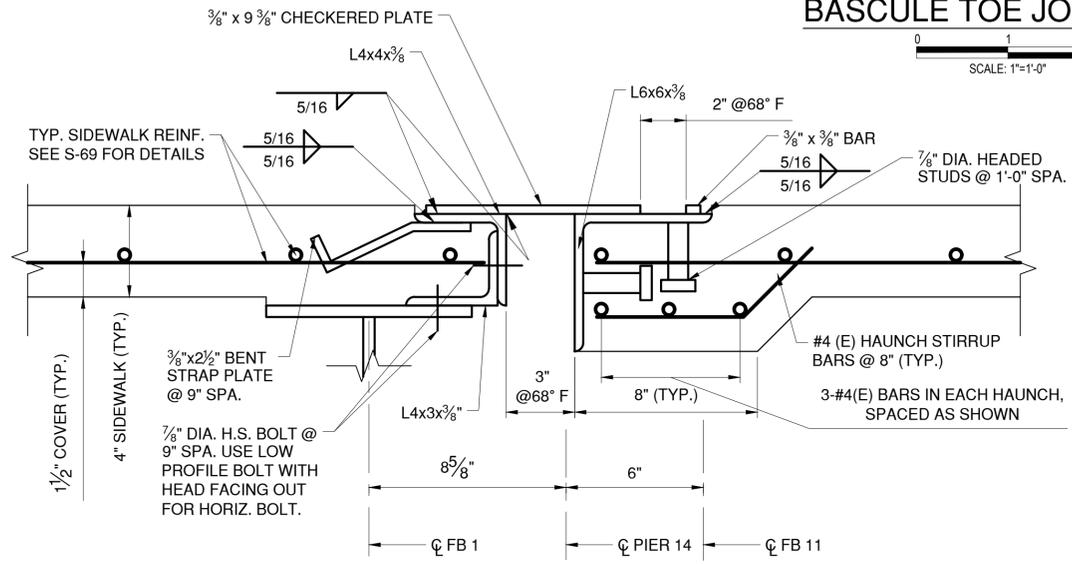
**BASCULE TOE JOINT PLAN**

SCALE: 1"=1'-0"



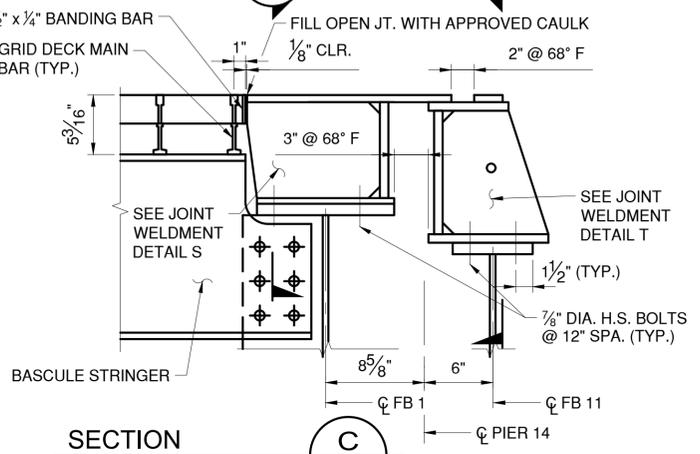
**DETAIL T**

SCALE: 3"=1"



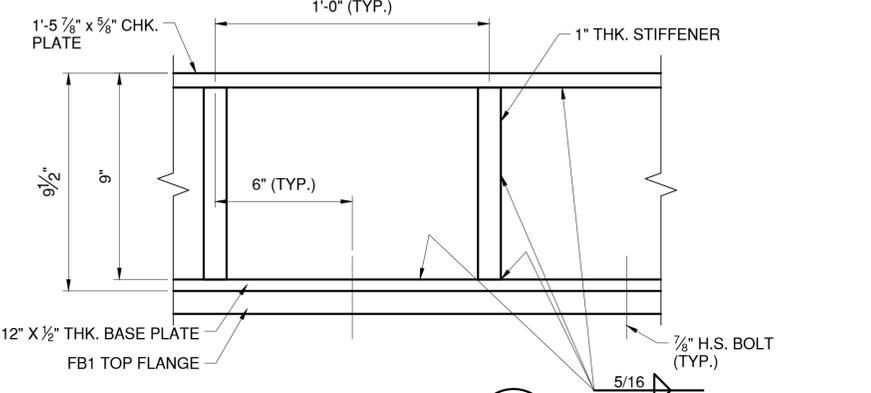
**SECTION A**

SCALE: 3"=1"



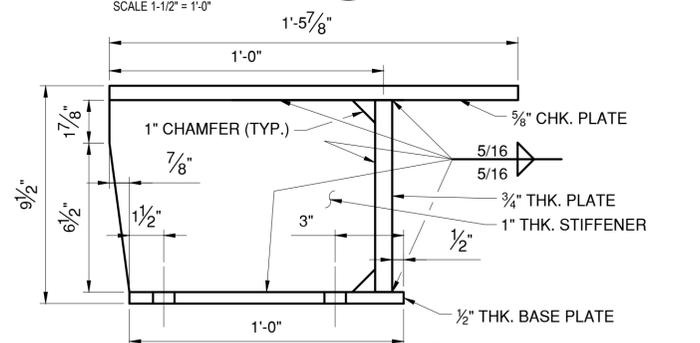
**SECTION C**

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



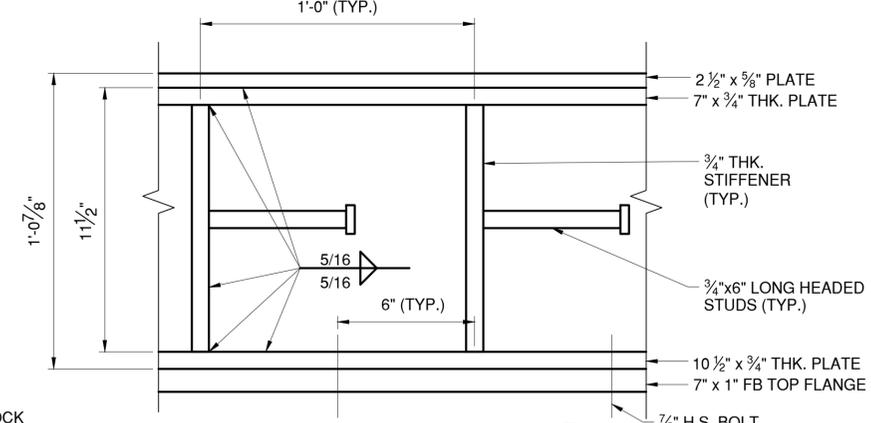
**WELDMENT SECTION D**

SCALE: 3"=1"



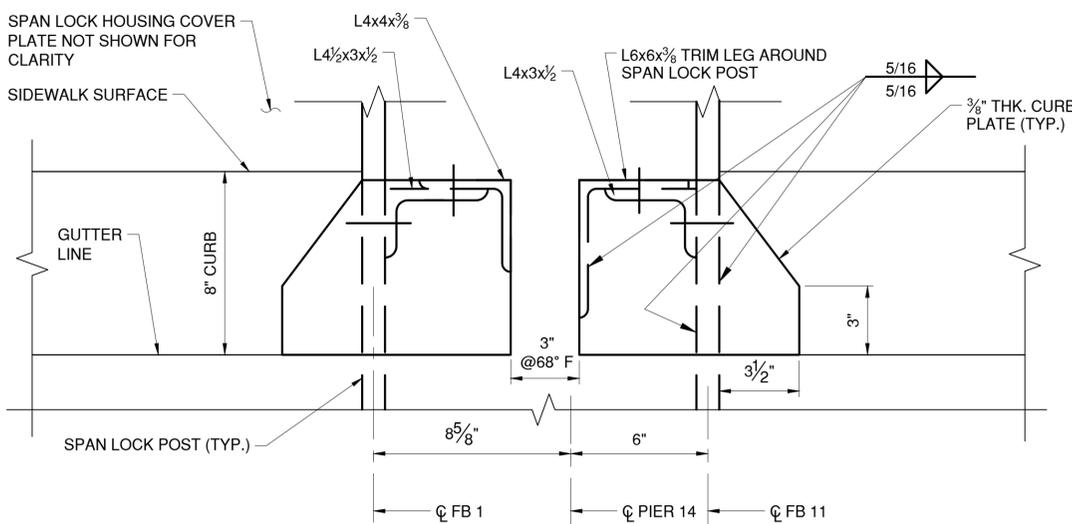
**DETAIL S**

SCALE: 3"=1"



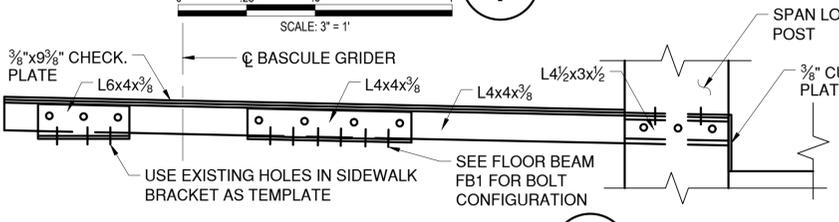
**WELDMENT SECTION E**

SCALE: 3"=1"



**SECTION B**

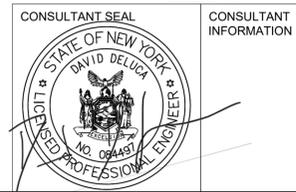
SCALE: 3"=1"



**SECTION F**

SCALE: 1"=1'-0"

NOTES:  
1. SEE NOTES ON SHEETS NOS. S-65 AND S-66.



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY F. SIEH, PE  
 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
AS BUILT - CHANGES AS NOTED		AS BUILT - NO CHANGES	
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

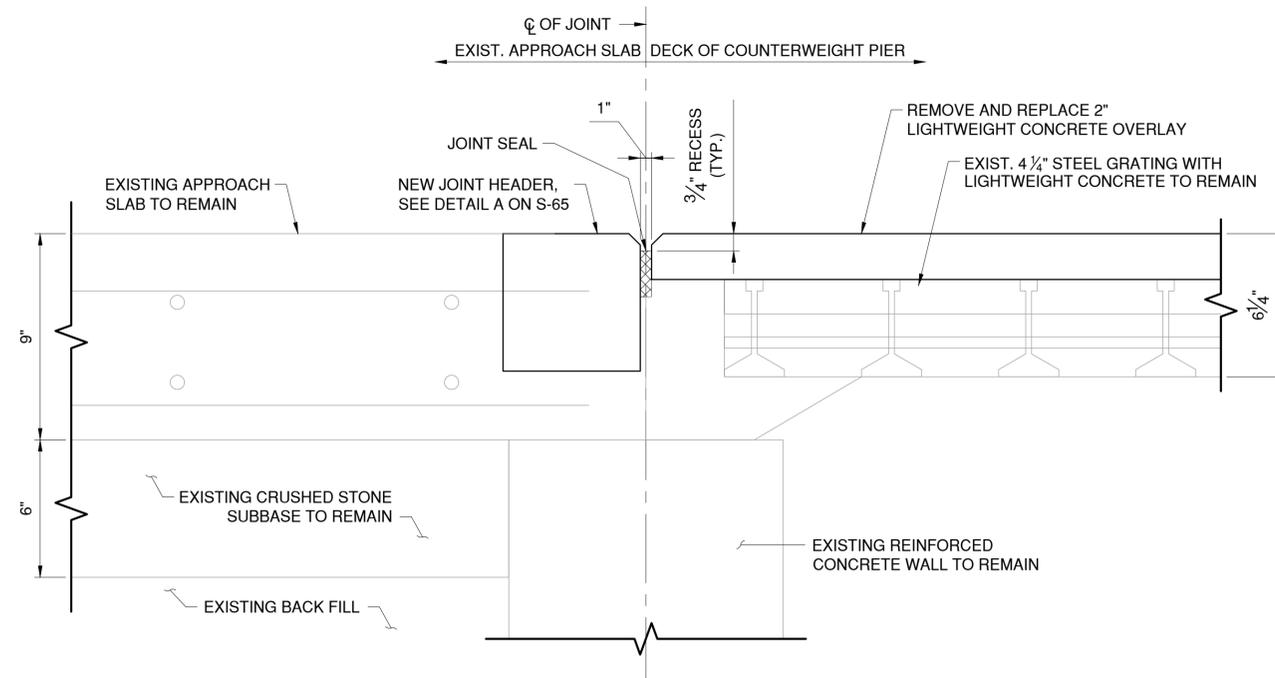
**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

STRUCTURAL

**DECK JOINT DETAILS - 3**

CONTRACT NUMBER 20-517	SHEET NUMBER S-67
SHEET NO. 108 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	REV. NO. 0
DPW FILE NO.	5-04-S-543-0



SECTION  
 JOINT AT DECK OVER  
 COUNTERWEIGHT

C  
 S-83

0 2.5 5 1  
 SCALE: 3" = 1'

**NOTES:**

1. SEE NOTES ON SHEET NO. S-65.
2. CARE SHALL BE TAKEN NOT TO DAMAGE THE EXISTING APPROACH SLAB AND GRID DECK.



CONSULTANT  
 INFORMATION

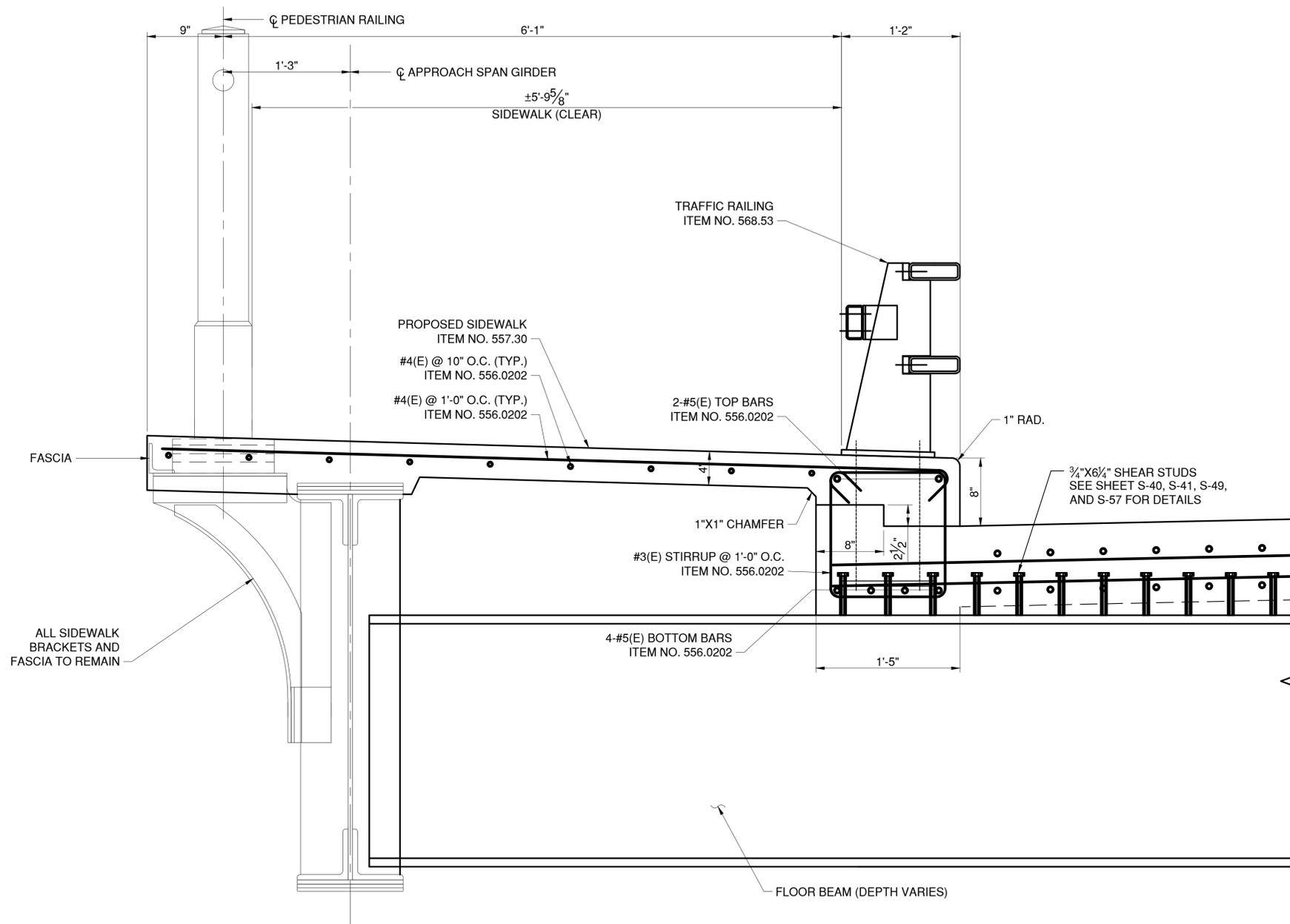


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 CHECKED BY F. SIEH, PE  
 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

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NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

<b>WESTCHESTER COUNTY, NEW YORK</b> DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER S-68
		SHEET NO. 109 OF 212	
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle			
STRUCTURAL		SCALE: AS SHOWN	DATE: 03/08/2024
<b>DECK JOINT DETAILS - 4</b>		DPW FILE NO. 5-04-S-544-0	REV. NO. 0



**NOTES:**

1. SEE G-05 AND G-06 FOR COMPLETE STRUCTURAL SCOPE OF WORK
2. PEDESTRIAN RAILING TO BE REFURBISHED, ITEM NO. 634.80210001
3. STRUCTURAL STEEL SHALL BE PAID UNDER ITEM NO. 564.510001

**SIDEWALK AND CURB DETAIL AT  
APPROACH SPANS**



CONSULTANT INFORMATION



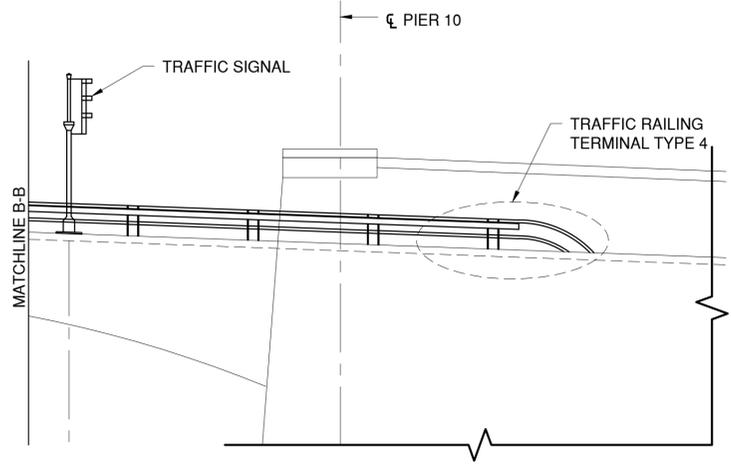
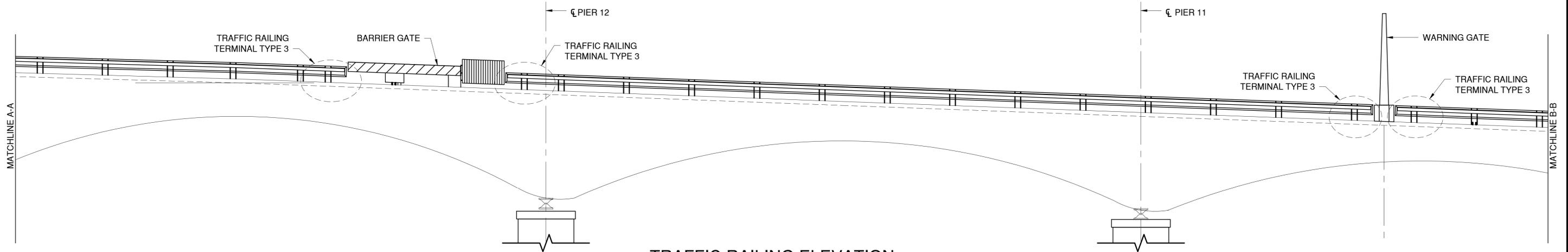
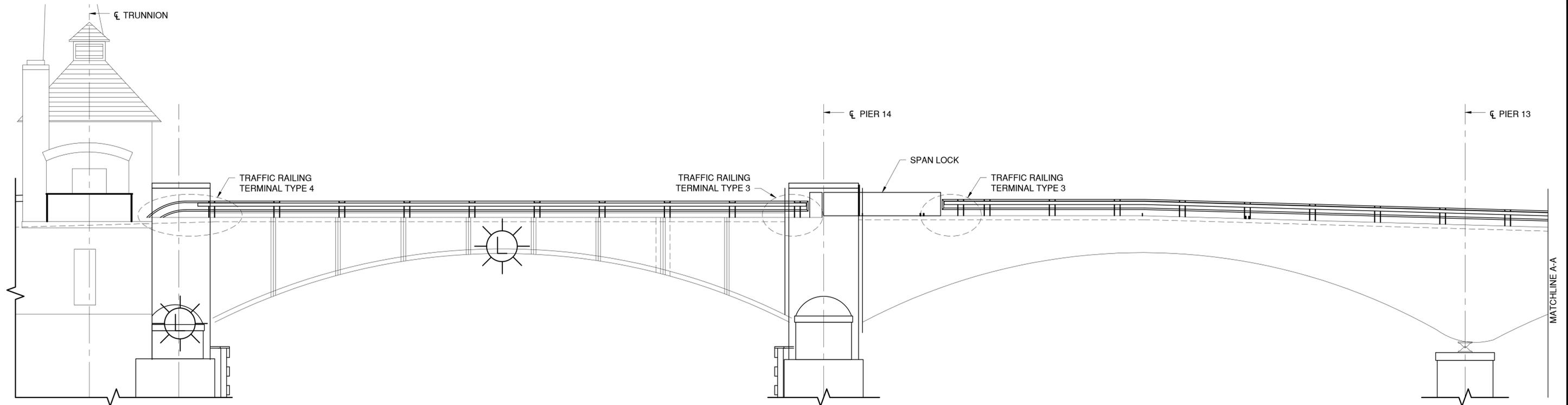
IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY S. VERA-FOX, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL  
**PROPOSED SIDEWALK & CURB AT APP. SPANS**

CONTRACT NUMBER 20-517	SHEET NUMBER S-69
SHEET NO. 110 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-S-545-0	REV. NO. 0



**TRAFFIC RAILING ELEVATION**



**NOTES:**

1. REFER TO DRAWING NO. S-71 THROUGH S-73 FOR TRAFFIC RAILING DETAILS.
2. REFER TO S-72 FOR TRAFFIC RAILING TERMINAL TYPE 3.
3. REFER TO S-73 FOR TRAFFIC RAILING TERMINAL TYPE 4.
4. REFER TO S-71 THROUGH S-73 FOR RAILING SPLICES.
5. ALL DIMENSIONS AND EXISTING CONDITIONS TO BE VERIFIED IN FIELD PRIOR TO CONSTRUCTION.
6. INSTALLMENT OF STEEL BRIDGE RAILING WILL CORRESPOND WITH ITEM 568.53.
7. INSTALLMENT OF STRUCTURAL STEEL WILL CORRESPOND WITH ITEM 564.510001.



CONSULTANT INFORMATION

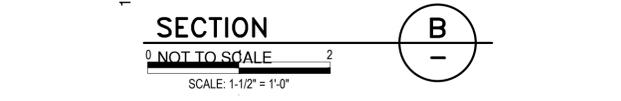
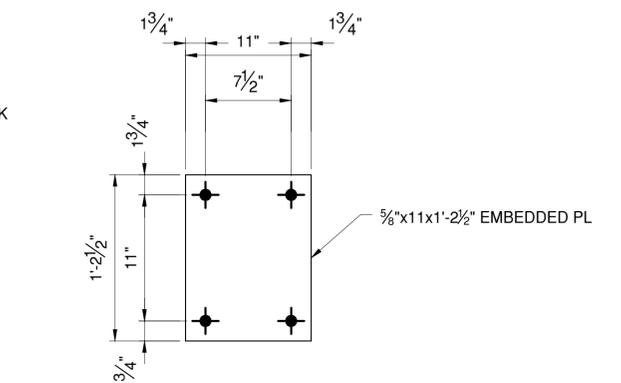
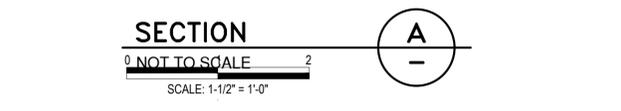
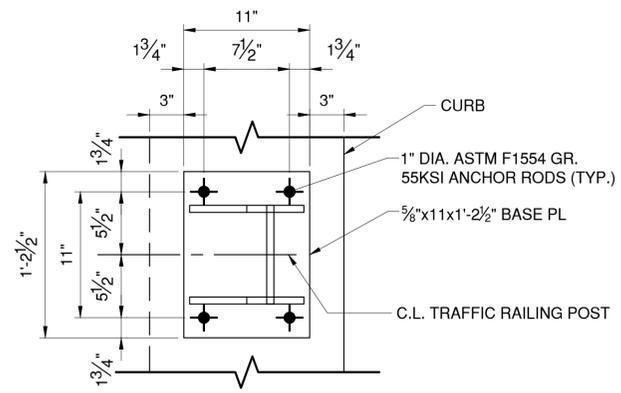
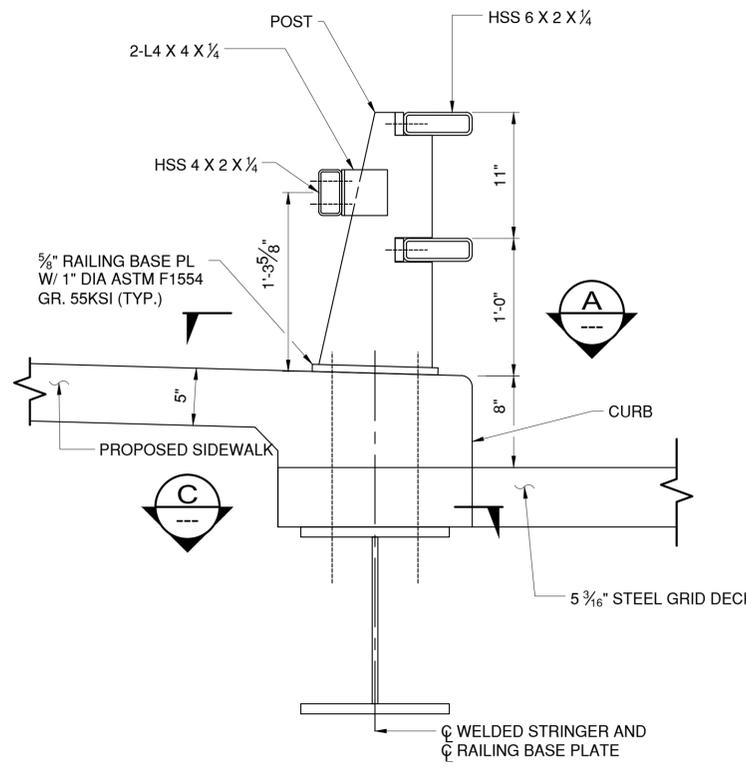
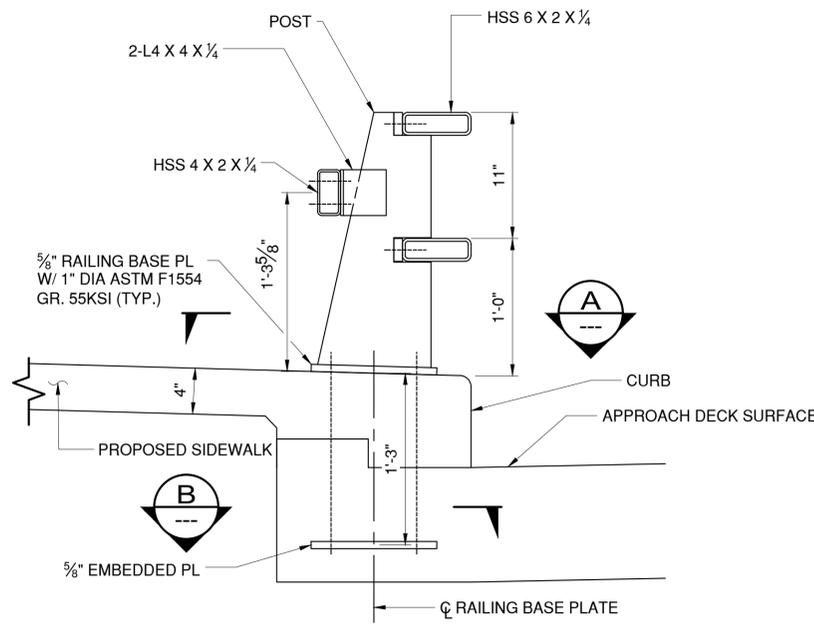


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 CHECKED BY J. WARNCKE, PE  
 MADE BY S. VERA-FOX, PE

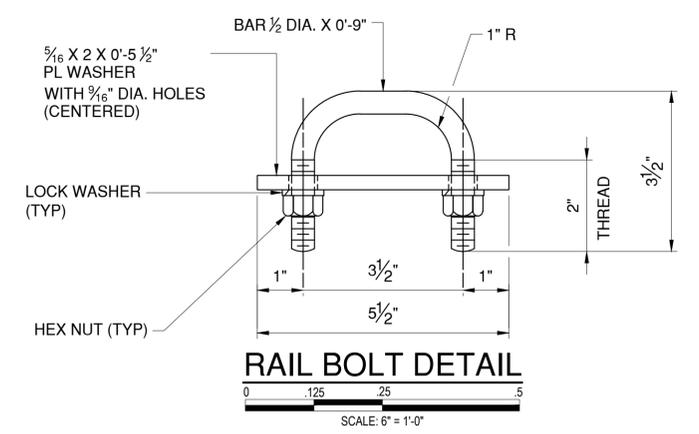
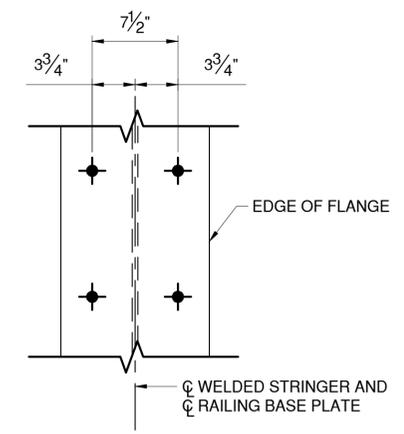
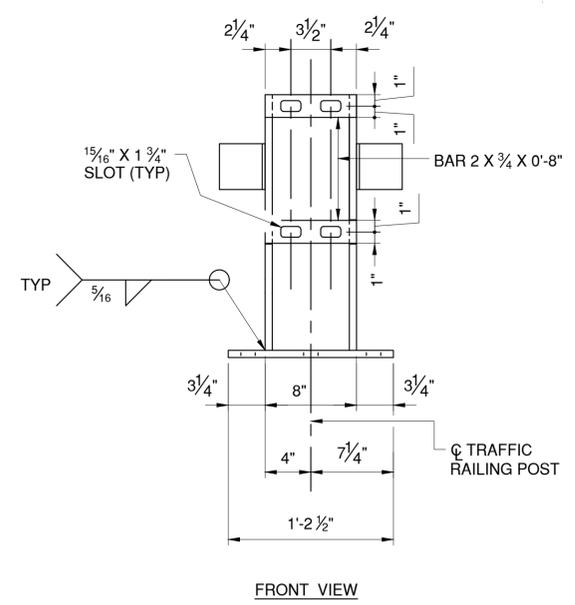
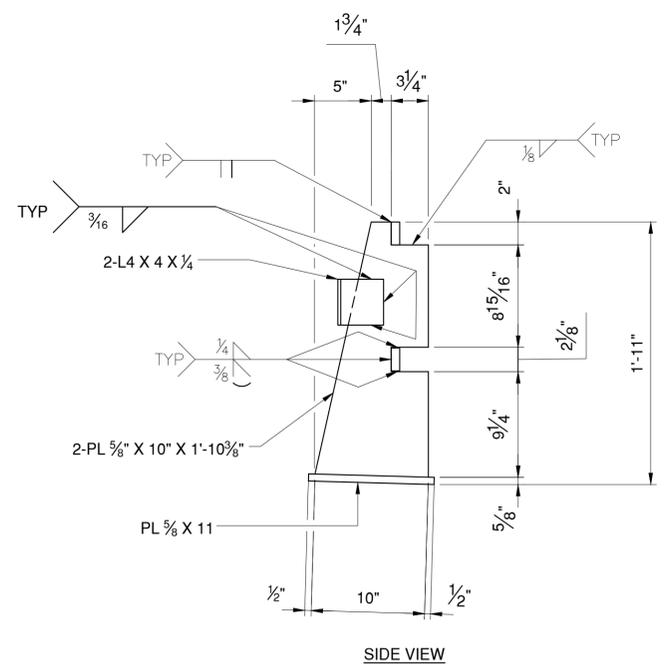
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER S-70
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle			
STRUCTURAL			
SCALE: AS SHOWN DATE: 03/08/2024 DPW FILE NO.			SHEET NO. 111 OF 212 REV. NO. 0
<b>TRAFFIC RAILING ELEVATION</b>			5-04-S-546-0



- NOTES:
- ENSURE THE EXPANSION SPLICE IS LOCATED IN THE RAILING PANEL WHICH PASSES OVER THE BRIDGE EXPANSION JOINT AS INDICATED ON THE PLAN.
  - SLOTS MAY BE OMITTED IN STANDARD SLEEVES WHERE BOLTS ARE REQUIRED ON ONE SIDE OF SPLICE ONLY.
  - ANCHOR BOLTS MAY BE TACK WELDED TO ANCHORAGE (SHOP OR FIELD).
  - AT POST LOCATIONS, DRILL TWO 1 1/8" DIA. HOLES IN THE RAILS TO RECEIVE RAIL BOLTS (SHOP OR FIELD). SEE POST DETAILS FOR HOLE SPACING.
  - BEFORE INSTALLING RAILS, PAINT CUT, DRILLED, OR OTHERWISE DAMAGED SURFACE AREAS OF THE RAILING COMPONENTS WITH TWO COATS OF ZINC RICH PAINT CONFORMING TO THE REQUIREMENTS OF ASTM A780.
  - AFTER INSTALLING THE RAILS, PAINT EXPOSED BOLT THREADS WITH TWO COATS OF ZINC RICH PAINT CONFORMING TO THE REQUIREMENTS OF ASTM A780.
  - INSTALLMENT OF STEEL BRIDGE RAILING WILL CORRESPOND WITH ITEM 568.53.
  - INSTALLMENT OF STRUCTURAL STEEL WILL CORRESPOND WITH ITEM 564.510001.
  - EPOXY-COATED BAR REINFORCEMENT FOR STRUCTURES CORRESPONDS WITH ITEM 556.0202.
  - POST DETAILS:
    - MAXIMUM POST SPACING: 9'-3"
    - MINIMUM POST SPACING: 7'-0"
    - MINIMUM CONCRETE COVER AT END OF SLAB AND APPROACH SLAB, COLD JOINTS, AND EXPANSION JOINTS: 6"
    - THE ANCHOR BOLT LENGTH SHALL BE IN 1" INCREMENTS



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY S. POROBIJA

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

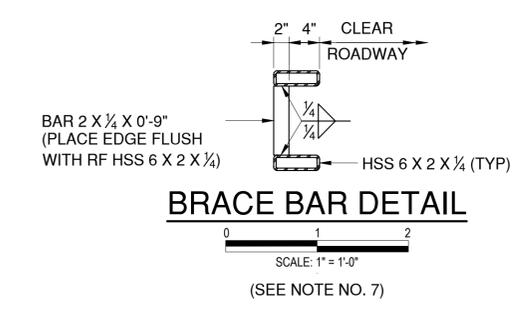
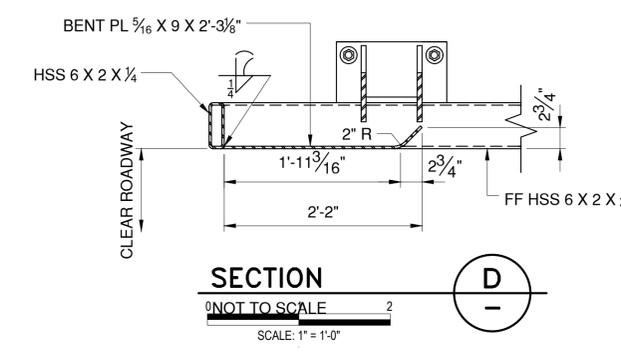
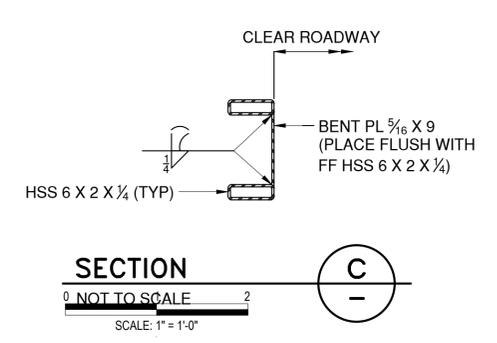
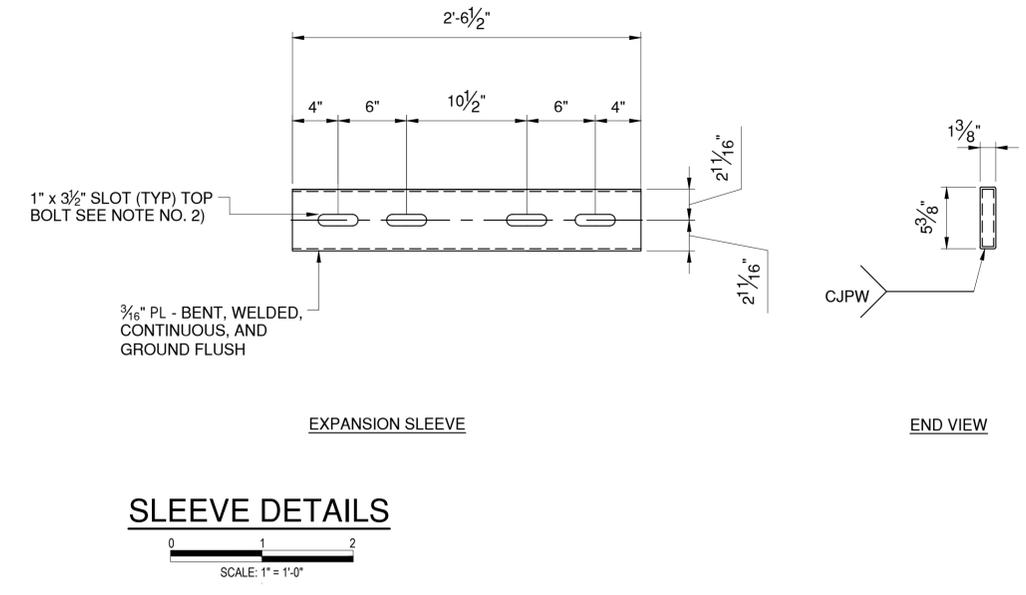
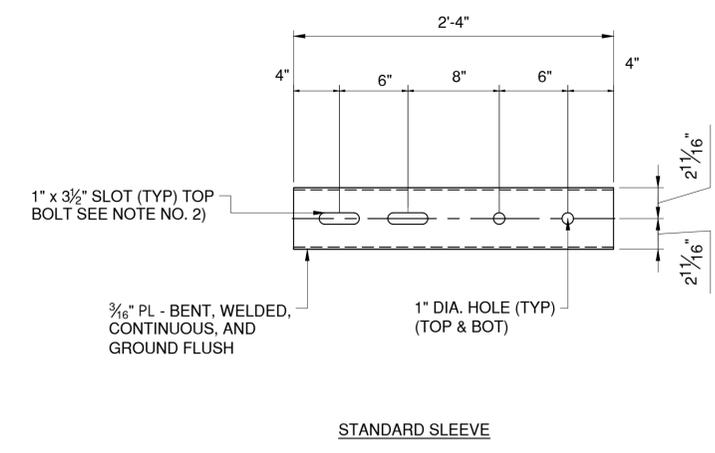
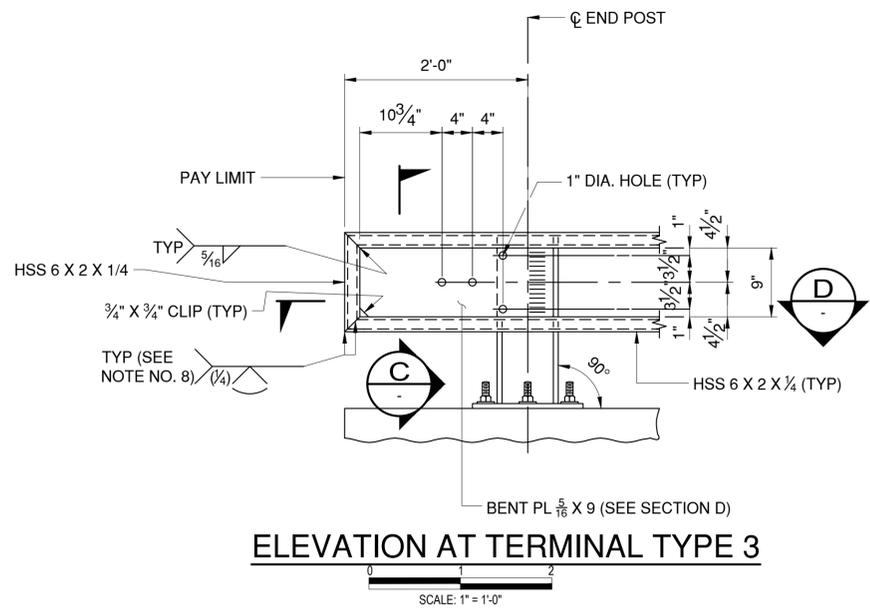
**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

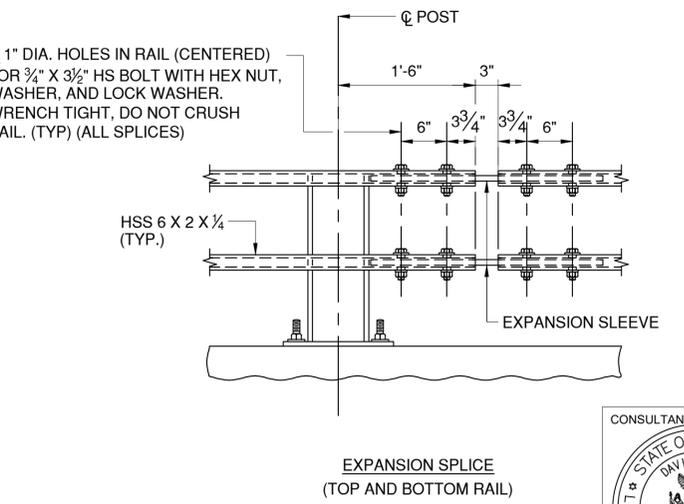
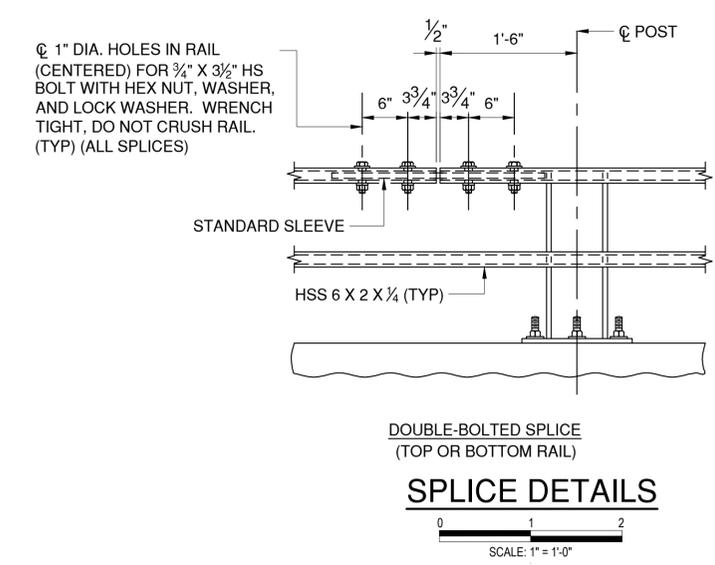
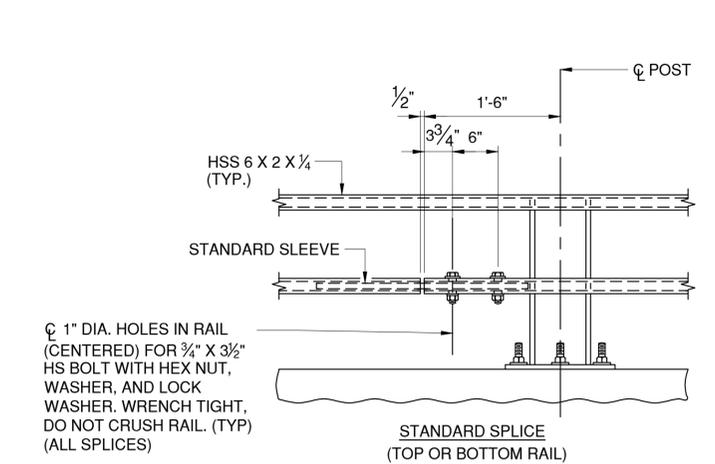
STRUCTURAL

**TRAFFIC RAILING DETAILS - 1**

CONTRACT NUMBER 20-517	SHEET NUMBER S-71
SHEET NO. 112 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-547-0	0



- NOTES:**
- EITHER TOP OR BOTTOM RAIL IN TERMINAL SECTION MAY BE THE LONGER RAIL.
  - ENSURE EACH RAIL LENGTH IS CONTINUOUS OVER A MINIMUM OF TWO POSTS. RAILING THAT IS PART OF A TYPE 3 TERMINAL IS CONTINUOUS IF EITHER THE TOP OR BOTTOM RAIL IN THE TERMINAL IS CONTINUOUS OVER A MINIMUM OF TWO POSTS.
  - IN REHABILITATION WORK, ENSURE RAILING THAT CANNOT FEASIBLY BE MADE CONTINUOUS OVER A MINIMUM OF TWO POSTS HAS A DOUBLE-BOLTED SPLICE.
  - SPLICES MAY BE LOCATED ON EITHER SIDE OF POST.
  - NOT MORE THAN ONE SPLICE IS PERMITTED PER SIDE OF POST, EXCEPT AT EXPANSION SPLICES.
  - DO NOT SHOP SPLICE RAILS.
  - ENSURE A BRACE BAR IS PLACED 2'-0" FROM THE SPLICE END OF THE SHORTER TUBE AT TYPE 3 TERMINALS.
  - ENSURE THE FABRICATOR PREPARES A SAMPLE OF THE INDICATED JOINT AND IT IS MACROETCHED TO DEMONSTRATE THE THE REQUIRED EFFECTIVE THROAT IS ACHIEVED.
  - INSTALLMENT OF STEEL BRIDGE RAILING WILL CORRESPOND WITH ITEM 568.53.
  - INSTALLMENT OF STRUCTURAL STEEL WILL CORRESPOND WITH ITEM 564.510001.
  - EPOXY-COATED BAR REINFORCEMENT FOR STRUCTURES CORRESPONDS WITH ITEM 556.0202.



CONSULTANT SEAL: DAVID DELUCA, LICENSED PROFESSIONAL ENGINEER, STATE OF NEW YORK, NO. 04881

CONSULTANT INFORMATION: H&H, 1501 BROADWAY, SUITE 601, NEW YORK, NY 10036, (212) 944-1150

REVISION						RECORD DRAWING CERTIFICATION					
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WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING

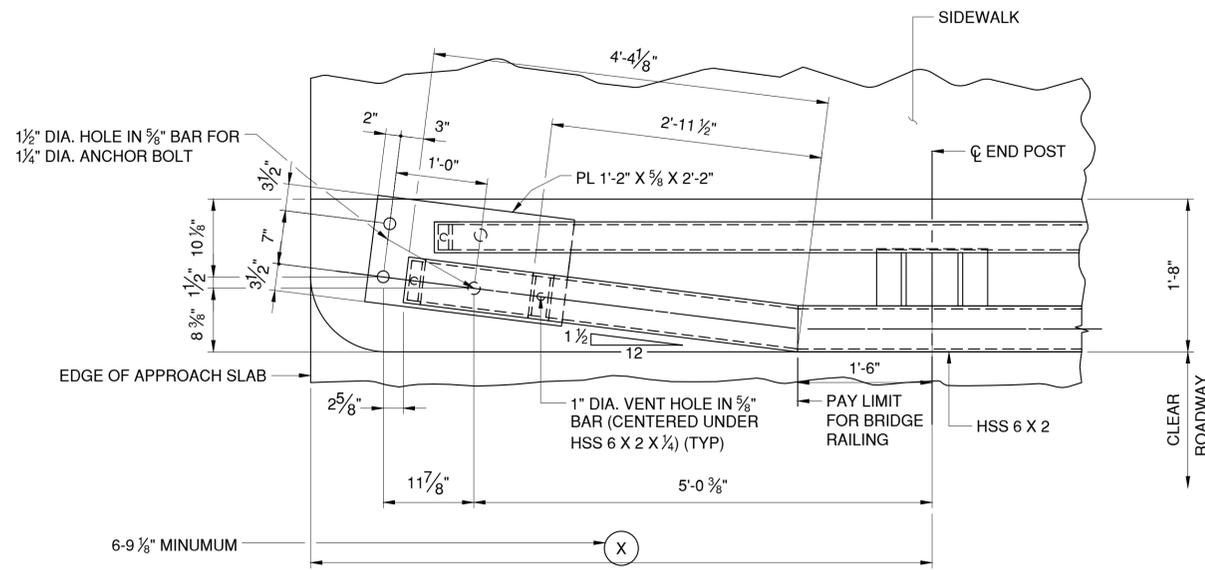
Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle

STRUCTURAL

**TRAFFIC RAILING DETAILS - 2**

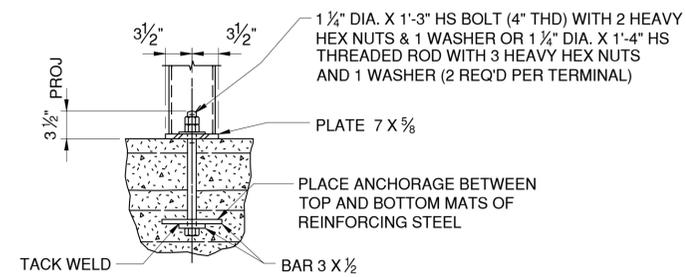
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SHEET NUMBER: S-72  
SHEET NO. 113 OF 212  
SCALE: AS SHOWN  
DATE: 03/08/2024  
DPW FILE NO.: 5-04-S-548-0  
REV. NO.: 0

IN CHARGE OF: D. DELUCA, PE  
CHECKED BY: J. WARNCKE, PE  
MADE BY: S. POROBIJA



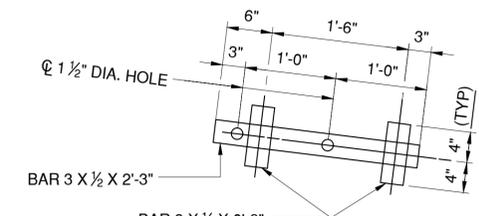
**PLAN AT TERMINAL TYPE 4**

SCALE: 1" = 1'-0"  
(BOLTS NOT SHOWN)



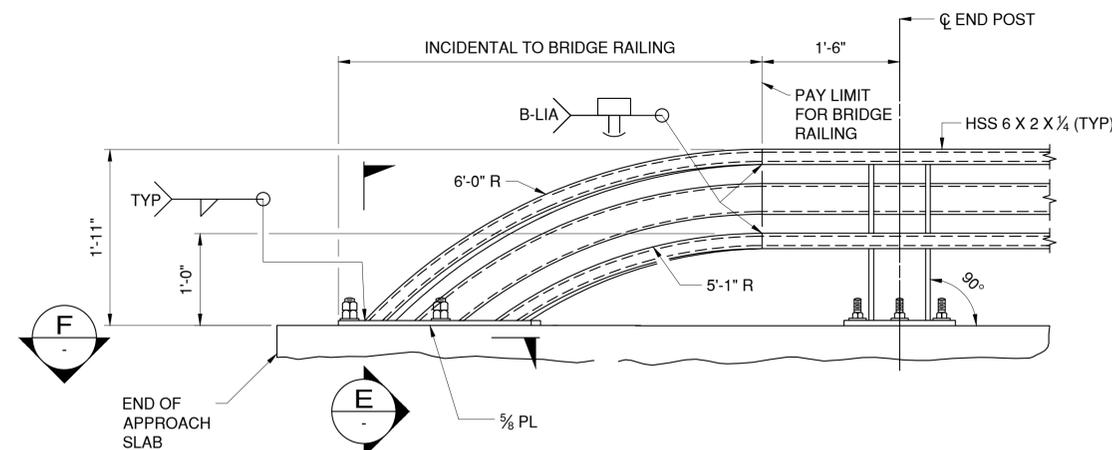
**SECTION E**

SCALE: 1" = 1'-0"



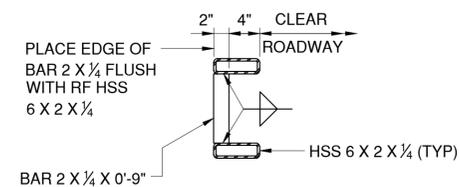
**SECTION F**

SCALE: 1" = 1'-0"  
(SHOWING ANCHOR BARS)



**ELEVATION AT TERMINAL TYPE 4**

SCALE: 1" = 1'-0"



**BRACE BAR DETAIL**

SCALE: 1" = 1'-0"  
(SEE NOTE NO. 7)

**NOTES:**

1. EITHER TOP OR BOTTOM RAIL IN TERMINAL SECTION MAY BE THE LONGER RAIL.
2. ENSURE EACH RAIL LENGTH IS CONTINUOUS OVER A MINIMUM OF TWO POSTS. RAILING THAT IS PART OF A TYPE 4 TERMINAL IS CONTINUOUS IF EITHER THE TOP OR BOTTOM RAIL IN THE TERMINAL IS CONTINUOUS OVER A MINIMUM OF TWO POSTS.
3. IN REHABILITATION WORK, ENSURE RAILING THAT CANNOT FEASIBLY BE MADE CONTINUOUS OVER A MINIMUM OF TWO POSTS HAS A DOUBLE-BOLTED SPLICE.
4. SPLICES MAY BE LOCATED ON EITHER SIDE OF POST.
5. NOT MORE THAN ONE SPLICE IS PERMITTED PER SIDE OF POST, EXCEPT AT EXPANSION SPLICES.
6. DO NOT SHOP SPLICE RAILS.
7. ENSURE A BRACE BAR IS PLACED 2'-0" FROM THE SPLICE END OF THE SHORTER TUBE AT TYPE 4 TERMINALS.
8. INSTALLMENT OF STEEL BRIDGE RAILING WILL CORRESPOND WITH ITEM 568.53.
9. INSTALLMENT OF STRUCTURAL STEEL WILL CORRESPOND WITH ITEM 564.510001.
10. EPOXY-COATED BAR REINFORCEMENT FOR STRUCTURES CORRESPONDS WITH ITEM 556.0202.



CONSULTANT INFORMATION



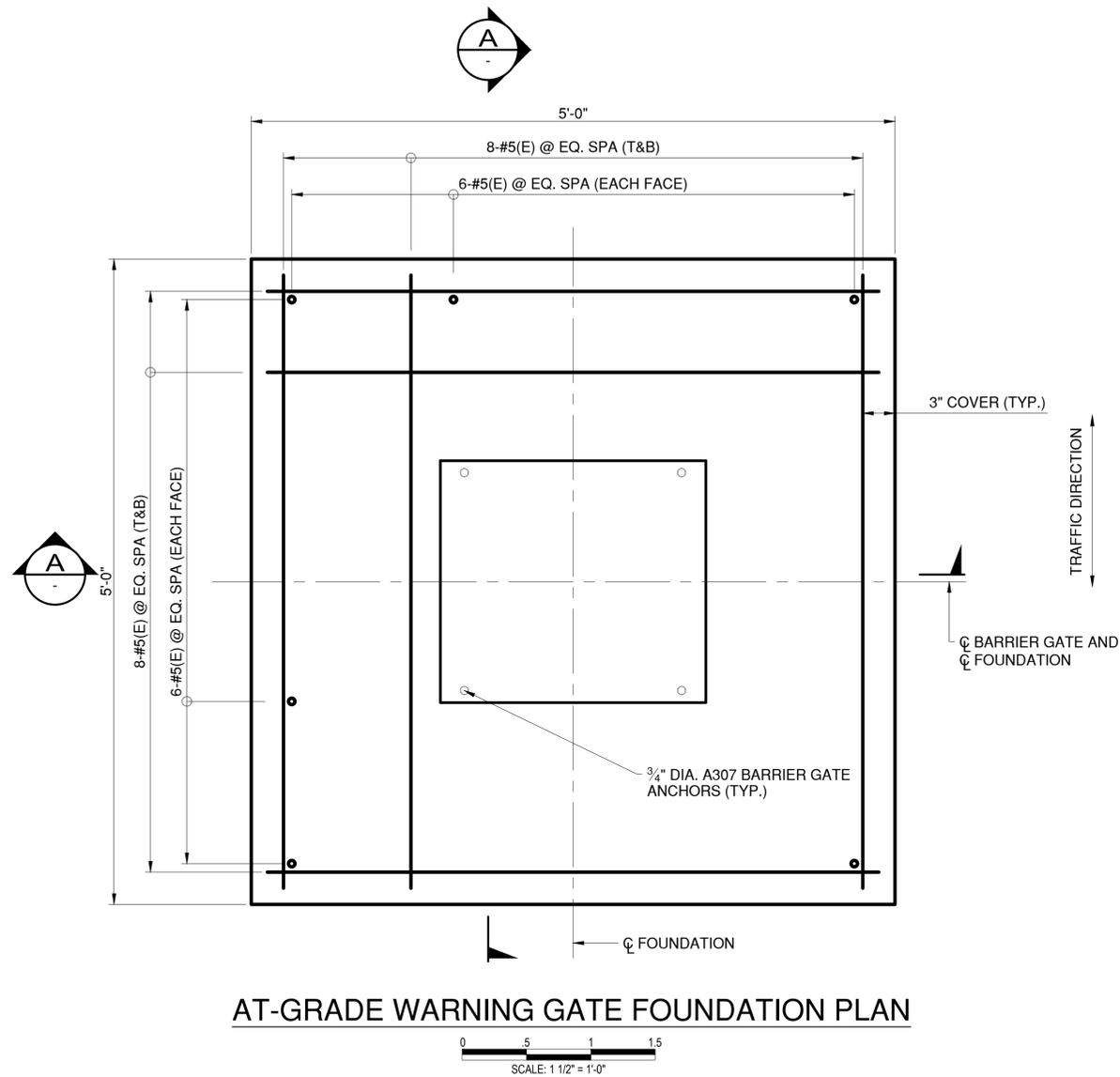
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 CHECKED BY J. WARNCKE, PE  
 MADE BY S. POROBIJA

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

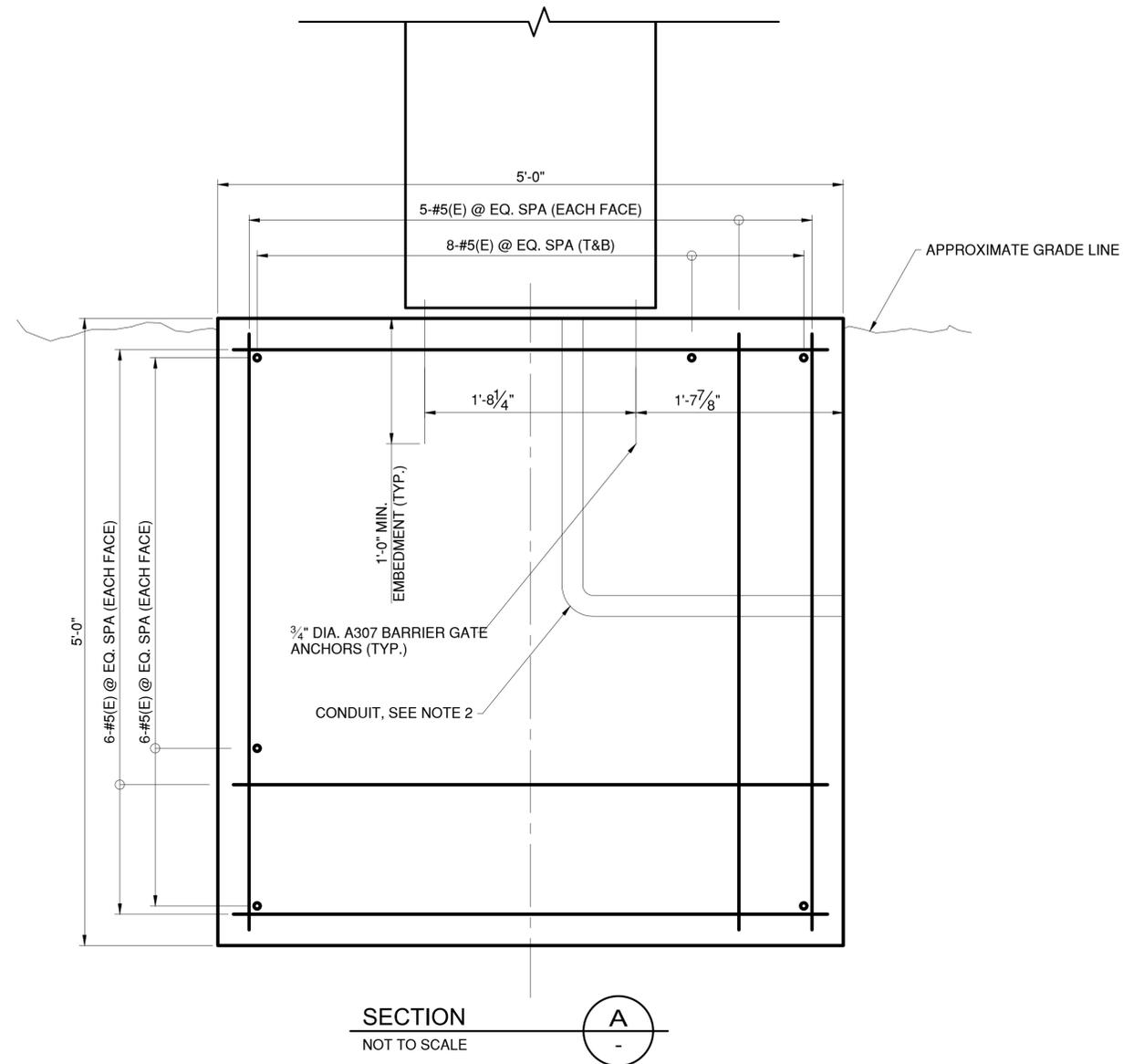
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NAME _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____		

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER S-73
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 114 OF 212	
STRUCTURAL		SCALE: AS SHOWN DATE: 03/08/2024	REV. NO. 0
TRAFFIC RAILING DETAILS - 3		DPW FILE NO. 5-04-S-549-0	





AT-GRADE WARNING GATE FOUNDATION PLAN



SECTION A  
NOT TO SCALE

NOTES:

1. GATE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS.
2. WARNING GATE SUBSTRUCTURE CONCRETE SHALL BE PAID FOR UNDER ITEM 555.0105. REINFORCEMENT SHALL BE EPOXY COATED AND PAID FOR UNDER ITEM 556.0202.
3. FOR ADDITIONAL BARRIER GATE DETAILS, INCLUDING ELECTRICAL DETAILS, SEE SHEETS E-28 AND E-41.



CONSULTANT INFORMATION



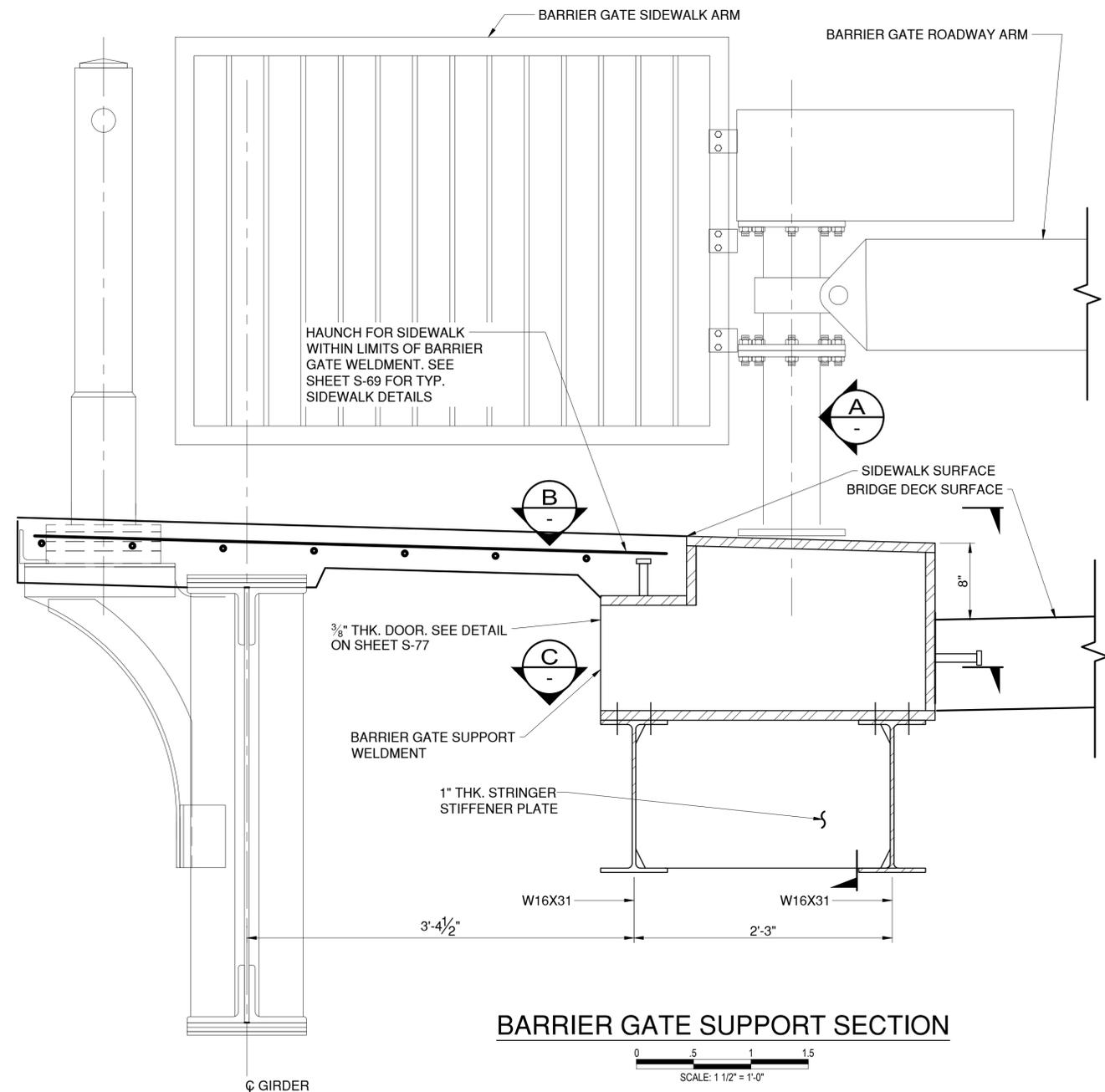
IN CHARGE OF D. DELUCA, PE  
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 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

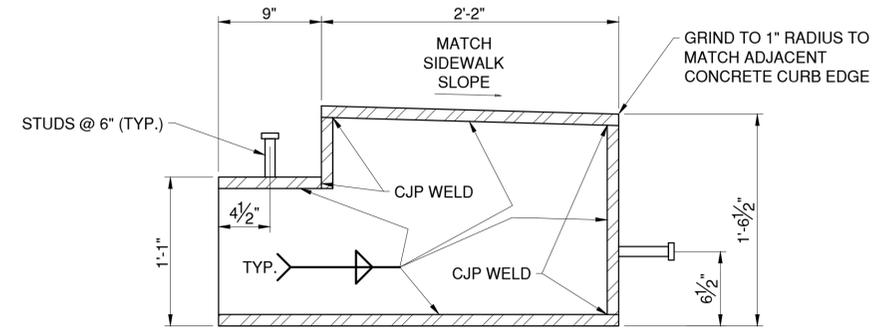
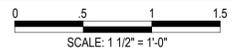
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL  
**PERMANENT WARNING GATE - AT GRADE**

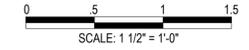
CONTRACT NUMBER 20-517	SHEET NUMBER S-75
SHEET NO. 116 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-S-551-0	REV. NO. 0



**BARRIER GATE SUPPORT SECTION**



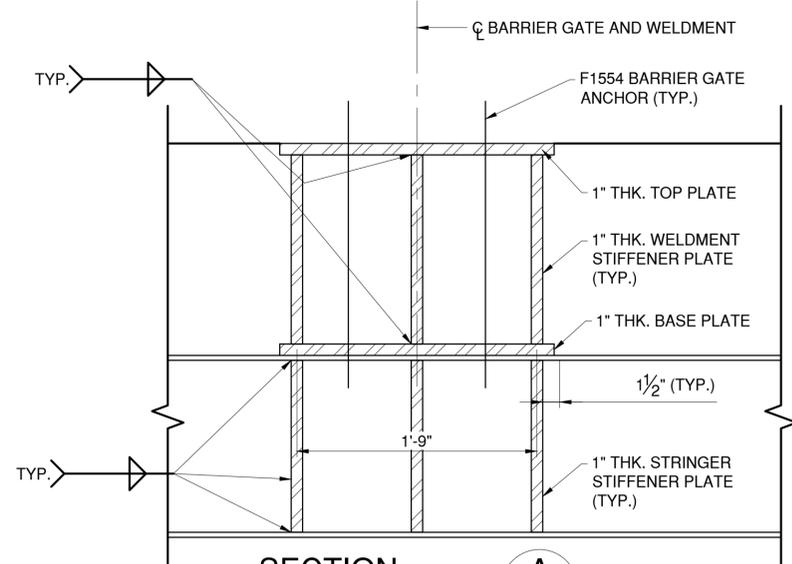
**WELDMENT DETAIL**



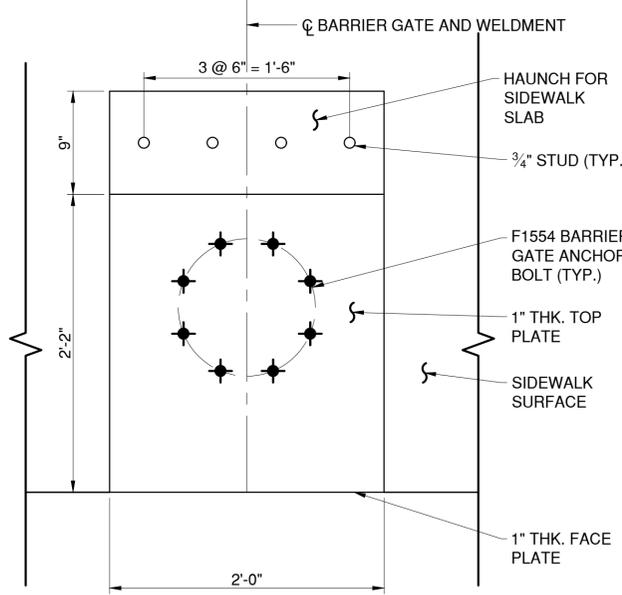
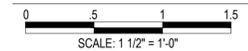
IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY N. HYSOON, PE

**NOTES:**

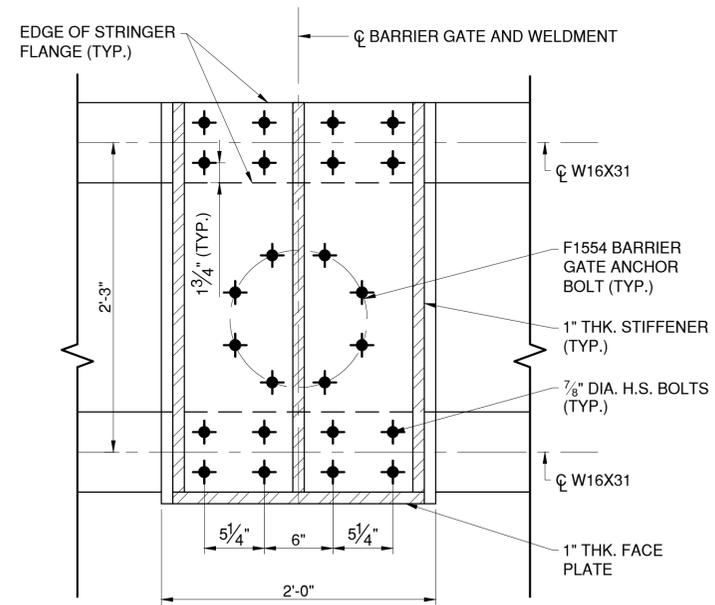
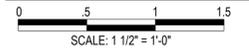
- BARRIER GATE SHALL BE FURNISHED BY THE CONTRACTOR AS COMPLETE UNITS WITH OPERATING MOTORS AND LIMIT SWITCHES. GATE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS.
- CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW AND APPROVAL DRAWINGS AND DESIGN LOADS FROM THE MANUFACTURER OF THE BARRIER GATE SELECTED BY THE CONTRACTOR. DETAILS OF THE SUPPORT SYSTEM ARE SUBJECT TO CHANGE BASED ON THE BARRIER GATE PRODUCT SELECTED.
- SUPPORT STEEL FOR BARRIER GATE, INCLUDING WELDMENT, SHALL BE PAID FOR UNDER ITEM 564.510001.
- FOR ADDITIONAL BARRIER GATE DETAILS, INCLUDING ELECTRICAL DETAILS, SEE SHEETS E-28 AND E-40.
- FOR LOCATION OF BARRIER GATE, SEE FRAMING PLAN ON SHEET S-33.



**SECTION A**



**SECTION B**



**SECTION C**



**LEGEND:**

- EXISTING RIVET TO REMAIN
- ◆ NEW BOLT IN NEW HOLE
- ⊕ NEW BOLT IN EXISTING RIVET HOLE



CONSULTANT INFORMATION



REVISION					CONTRACTOR		PROJECT COORDINATOR	
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION	NAME	NAME	DATE	

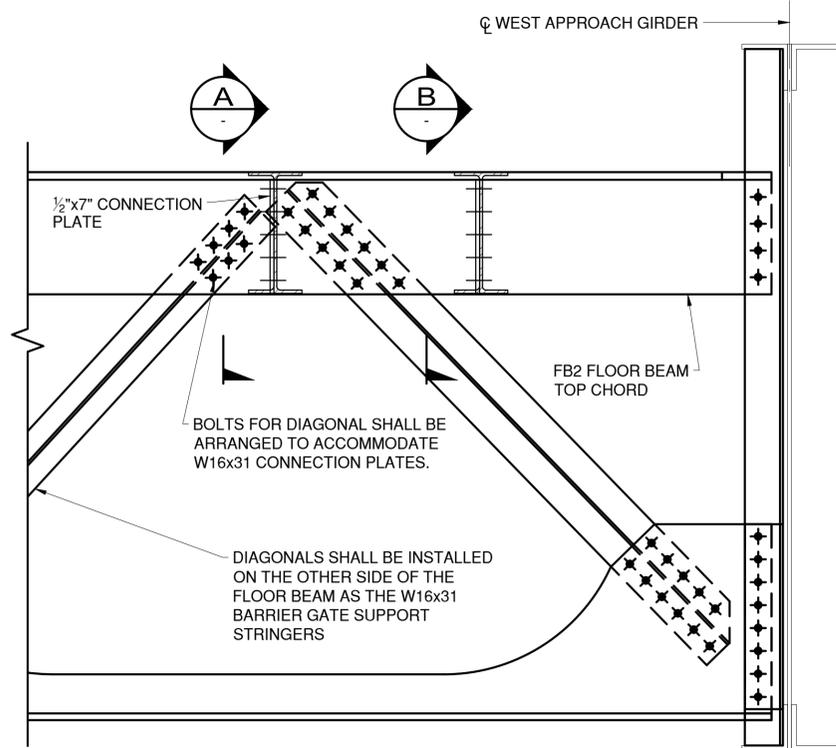
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

STRUCTURAL

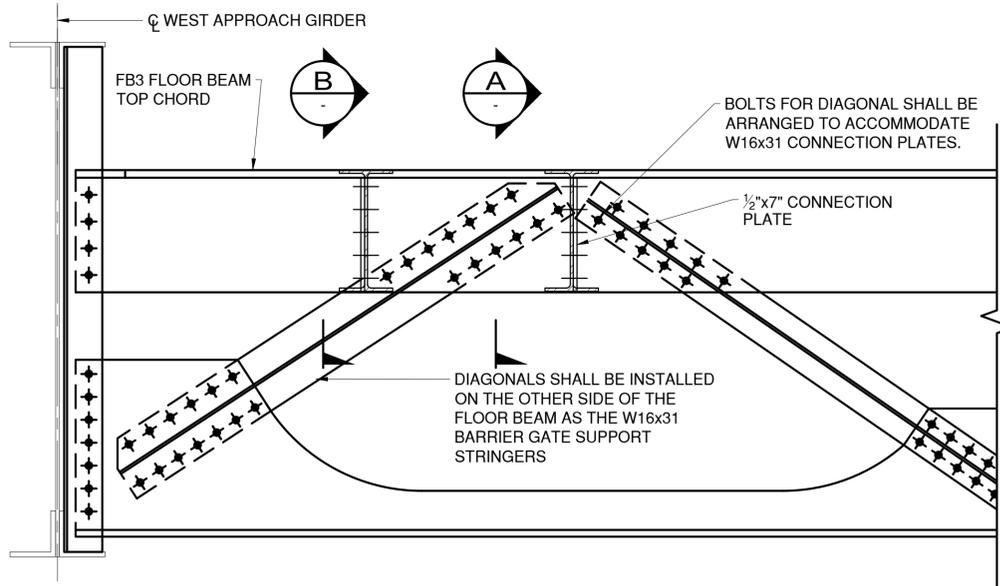
**PERMANENT BARRIER GATE DETAILS - 1**

CONTRACT NUMBER 20-517	SHEET NUMBER S-76
SHEET NO. 117 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-552-0	0



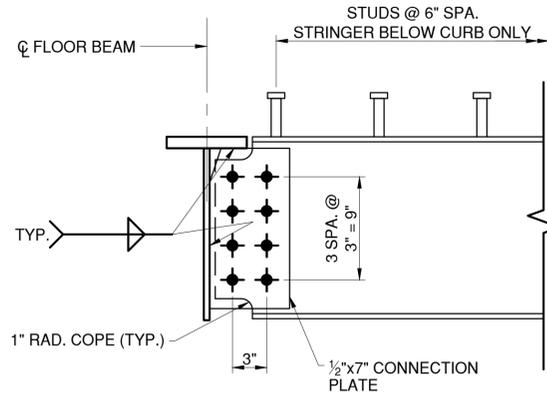
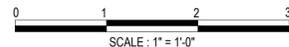
**SPAN 13 FB2 PARTIAL ELEVATION**

(LOOKING UPSTATION)  
(WEST FB END SHOWN, EAST END SIMILAR)

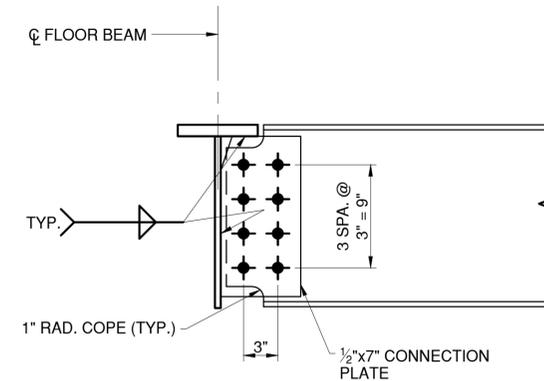
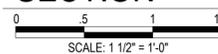


**SPAN 13 FB3 PARTIAL ELEVATION**

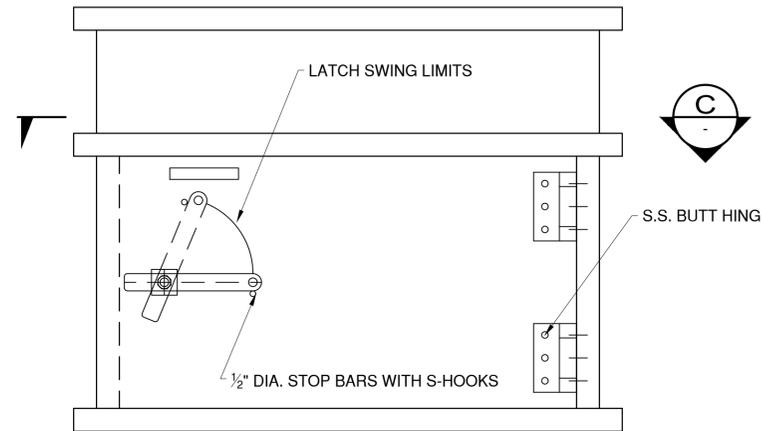
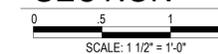
(LOOKING DOWNSTATION)  
(WEST FB END SHOWN, EAST END SIMILAR)



**SECTION A**



**SECTION B**



**WELDMENT DOOR DETAIL**

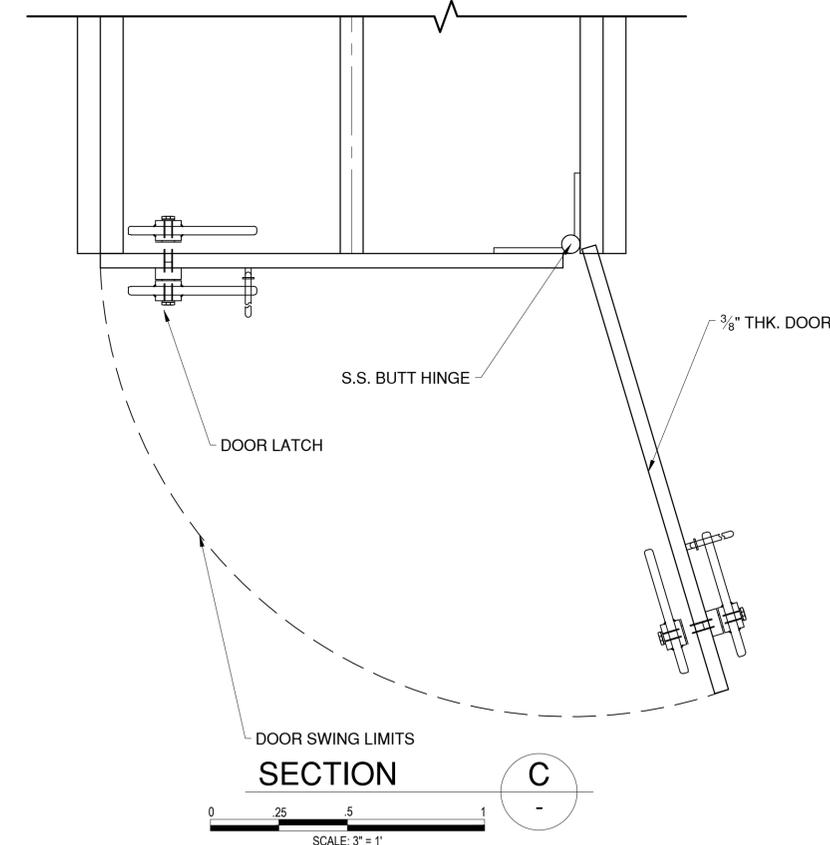


**NOTES:**

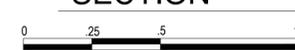
- FLOOR BEAMS SHOWN SCHEMATICALLY FOR CONTEXT ONLY. SEE SHEETS S-37 TO S-47 FOR FLOOR BEAM GEOMETRY AND REQUIRED BOLT QUANTITIES.

**LEGEND:**

- EXISTING RIVET TO REMAIN
- ◆ NEW BOLT IN NEW HOLE
- ⊕ NEW BOLT IN EXISTING RIVET HOLE



**SECTION C**



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY N. HYSOY, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/> AS BUILT - CHANGES AS NOTED			
<input type="checkbox"/> AS BUILT - NO CHANGES			
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____



CONSULTANT INFORMATION

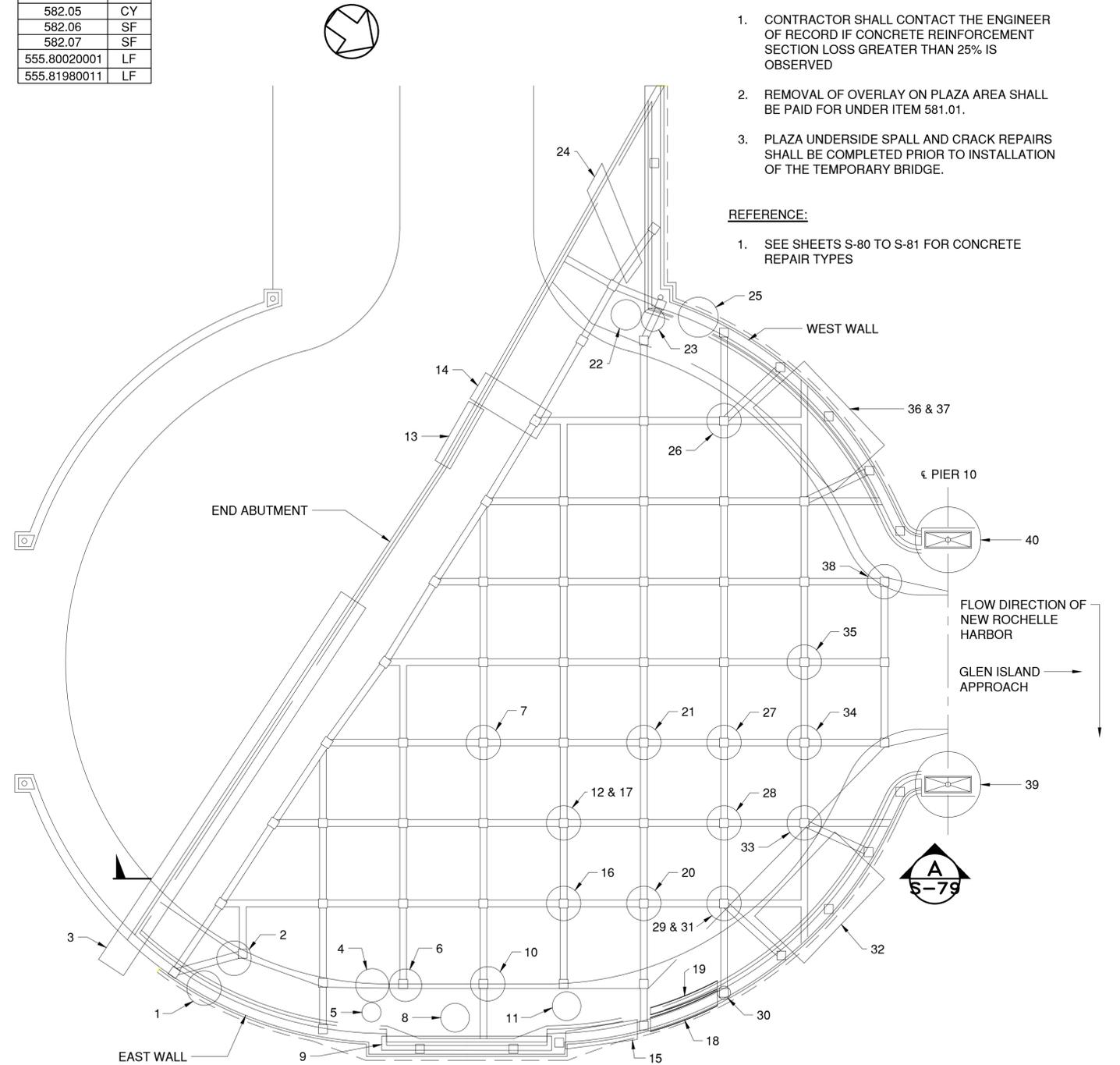


**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL  
**PERMANENT BARRIER GATE DETAILS - 2**

CONTRACT NUMBER 20-517	SHEET NUMBER S-77
SHEET NO. 118 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-S-553-0	REV. NO. 0

LOCATION NO.	REPAIR TYPE	ITEM NO.	AVERAGE REPAIR DEPTH (SPALLS)	AVERAGE REPAIR WIDTH (CRACKS)	DESCRIPTION
1	5	555.81980011	-	≥ 1/8"	CRACKING AND EFFLORESCENCE WITH WATER PRESENT AT EAST WALL
2	5	555.81980011	-	≥ 1/8"	CRACKING ON CONCRETE STRUT AND COLUMN
3	5	555.81980011	-	≥ 1/8"	CRACKING FACING END ABUTMENT FROM EAST WALL
4	4	555.80020001	-	< .0007" UP TO 1/8"	CRACKING WITH LEAKS AND EFFLORESCENCE FROM UNDERSIDE OF DECK
5	1 FOR SPALL 5 FOR CRACKS	582.05 OR 582.06 & 555.81980011	≥ 1 1/2"	≥ 1/8"	SPALL AND CRACKS ON UNDERSIDE OF DECK AND CORROSION OF REBAR AT JUNCTION BOX
6	2	582.05 OR 582.06	≥ 1 1/2"	-	TWO SPALLS ON COLUMN (BOTH 3'-2" X 10")
7	5	555.81980011	-	≥ 1/8"	CRACK ON TOP OF PILE FROM BASE OF COLUMN
8	5	555.81980011	-	≥ 1/8"	CRACKS WITH LEAK AND EFFLORESCENCE ON UNDERSIDE OF CEILING
9	5	555.81980011	-	≥ 1/8"	CRACKS WITH LEAK AND EFFLORESCENCE AT EAST WALL
10	2	582.05 OR 582.06	≥ 1 1/2"	-	SPALL AT BASE OF COLUMN (11" X 11")
11	1	582.05 OR 582.06	≥ 1 1/2"	-	SPALL (2'-6" X 1'-6") AT UNDERSIDE OF DECK AND EXPOSED AND CORRODED REBAR
12	3	582.07	< 1 1/2"	-	SPALL IN COLUMN (29" X 4")
13	5	555.81980011	-	≥ 1/8"	CRACKING IN END ABUTMENT WALL
14	5	555.81980011	-	≥ 1/8"	CRACKS WITH EFFLORESCENCE AND LEAK IN CEILING BETWEEN END ABUTMENT AND COLUMN
15	5	555.81980011	-	≥ 1/8"	CRACKS WITH EFFLORESCENCE ON EAST WALL
16	4	555.80020001	-	< .0007" UP TO 1/8"	VERTICAL CRACK IN COLUMN (21" X 1/16")
17	5 FOR ALL CRACKS	555.81980011	-	≥ 1/8"	VERTICAL CRACK IN COLUMN (3' LONG), VERTICAL CRACK AT BASE OF COLUMN WITH RUST STAINS (15' LONG), AND CRACK EXTENDS 27" INTO CONCRETE PILE, CRACKS OCCUR IN 3 DIFFERENT FACES OF THE COLUMN
18	5	555.81980011	-	≥ 1/8"	CRACKS AND EFFLORESCENCE WITH WATER PRESENT ON EAST WALL
19	5	555.81980011	-	≥ 1/8"	CRACKS WITH EFFLORESCENCE ON UNDERSIDE OF DECK
20	4 FOR ALL CRACKS	555.80020001	-	< .0007" UP TO 1/8"	TWO VERTICAL CRACKS IN FACE OF COLUMN (2' X 1/16" AND 1' X 1/16") AND ONE VERTICAL CRACK ON DIFFERENT FACE OF COLUMN (1'-8" X 1/16")
21	4	555.80020001	-	< .0007" UP TO 1/8"	VERTICAL CRACK IN FACE OF COLUMN (2'-6" X 1/16")
22	5	555.81980011	-	≥ 1/8"	CRACKING WITH EFFLORESCENCE UNDERSIDE OF DECK AT WEST WALL
23	1	582.05 OR 582.06	≥ 1 1/2"	-	SPALL AT UNDERSIDE OF DECK AT JUNCTION BOX WITH TEMPORARY WOOD SUPPORT
24	5	555.81980011	-	≥ 1/8"	CRACKING WITH EFFLORESCENCE UNDERSIDE OF DECK BETWEEN END ABUTMENT AND WEST WALL
25	5	555.81980011	-	≥ 1/8"	CRACKING AND EFFLORESCENCE WITH WATER PRESENT AT WEST WALL
26	5 FOR CRACK 2 FOR SPALL	582.05 OR 582.06 & 555.81980011	≥ 1 1/2"	≥ 1/8"	VERTICAL CRACK IN COLUMN (2'-6" X 1/16"). SPALL (HOLLOW AREA OBSERVED, REMOVE UNSOUND CONCRETE AND FOLLOW WITH REPAIR TYPE 1) 1' X 4" ON FACE OF COLUMN AT TOP
27	1	582.05 OR 582.06	≥ 1 1/2"	-	CONCRETE DEGRADATION AT BASE OF PILE (40" X 30" X 6")
28	2	582.05 OR 582.06	≥ 1 1/2"	-	SPALL IN COLUMN (30" X 4") WITH RUST STAINS
29	2	582.05 OR 582.06	≥ 1 1/2"	-	CONCRETE DEGRADATION ON PILE (35" X 25" X 2")
30	5	555.81980011	-	≥ 1/8"	CRACKING WITH EFFLORESCENCE ON EAST WALL
31	5	555.81980011	-	≥ 1/8"	CRACKING WITH EFFLORESCENCE ON CEILING
32	5	555.81980011	-	≥ 1/8"	CRACKING WITH EFFLORESCENCE ON EAST WALL AND ON CEILING
33	1 FOR BOTH SIDES	582.05 OR 582.06	≥ 1 1/2"	-	SPALL WITH SECTION LOSS AT BASE OF STRUT EXPOSING REBAR AT TWO SIDES (30" X 12" X 4" AND 7" X 4" X 2")
34	4 FOR CRACK 2 FOR SPALL	582.05 OR 582.06 & 555.80020001	≥ 1 1/2"	< .0007" UP TO 1/8"	SPALL ON COLUMN (2'-4" X 6") AND VERTICAL CRACK (2' X 1/16") AT BASE OF COLUMN
35	4 FOR VERTICAL CRACK 3 FOR SPALL ON COLUMN 2 FOR DEGRADATION	555.80020001, 582.05 OR 582.06, & 582.07	≥ 1 1/2" FOR REPAIR 2 < 1 1/2" FOR REPAIR 3	< .0007" UP TO 1/8"	SPALL ON COLUMN (2'-6" X 8"), VERTICAL CRACK (2' X 1/16"), AND CONCRETE DEGRADATION AT BASE OF PILE (2' X 4" X 2")
36	5	555.81980011	-	≥ 1/8"	CRACKING WITH EFFLORESCENCE AT WEST WALL
37	5	555.81980011	-	≥ 1/8"	CRACKING WITH EFFLORESCENCE IN CEILING AT WEST WALL
38	5 FOR CRACK 2 FOR BOTH SPALLS	582.05 OR 582.06 & 555.81980011	≥ 1 1/2"	≥ 1/8"	TWO SPALLS AT BASE OF COLUMN (2'-6" X 8" EACH) AND VERTICAL CRACK ON COLUMN
39	1	582.05 OR 582.06	≥ 1 1/2"	-	SPALL AT JUNCTION BOX WITH EXPOSED REBAR IN UNDERSIDE OF DECK BEHIND GIRDER (2'-6" X 1'-6")
40	1	582.05 OR 582.06	≥ 1 1/2"	-	SPALL IN UNDERSIDE OF DECK BEHIND GIRDER (2'-6" X 2")

ITEM NO.	UNIT
582.05	CY
582.06	SF
582.07	SF
555.80020001	LF
555.81980011	LF



**LOCATION OF CONCRETE REPAIRS ON PLAZA**

0 12 24  
SCALE: 3/32" = 1'-0"

**NOTES:**

- CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD IF CONCRETE REINFORCEMENT SECTION LOSS GREATER THAN 25% IS OBSERVED
- REMOVAL OF OVERLAY ON PLAZA AREA SHALL BE PAID FOR UNDER ITEM 581.01.
- PLAZA UNDERSIDE SPALL AND CRACK REPAIRS SHALL BE COMPLETED PRIOR TO INSTALLATION OF THE TEMPORARY BRIDGE.

**REFERENCE:**

- SEE SHEETS S-80 TO S-81 FOR CONCRETE REPAIR TYPES



CONSULTANT INFORMATION



**RECORD DRAWING CERTIFICATION**

- AS BUILT - CHANGES AS NOTED
- AS BUILT - NO CHANGES

CONTRACTOR

PROJECT COORDINATOR

NAME \_\_\_\_\_  
SIGNATURE \_\_\_\_\_  
TITLE \_\_\_\_\_ DATE \_\_\_\_\_

NAME \_\_\_\_\_  
SIGNATURE \_\_\_\_\_  
TITLE \_\_\_\_\_ DATE \_\_\_\_\_

IN CHARGE OF D. DELUCA, PE  
CHECKED BY J. WARNCKE, PE  
MADE BY S. POROBIJA

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

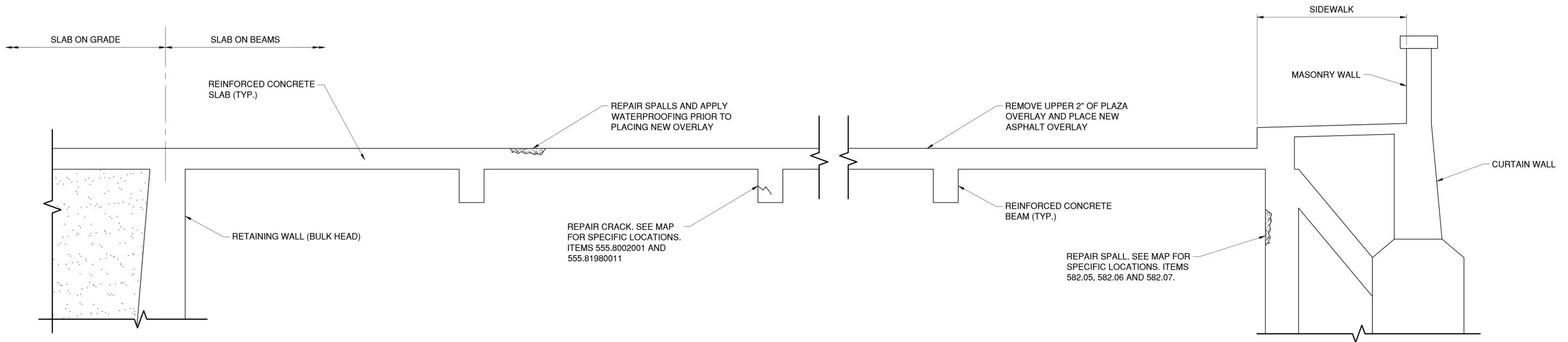
WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle

STRUCTURAL

**PLAZA CONCRETE REPAIR MAP**

CONTRACT NUMBER	SHEET NUMBER
20-517	S-78
SHEET NO. 119 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-554-0	0



**SECTION**  
 0 2 4  
 SCALE: 1/2" = 1'-0"  
 A  
 S-78

**REFERENCES:**

1. SEE SHEETS S-80 TO S-81 FOR CONCRETE REPAIR TYPES.
2. SEE SHEET S-78 FOR REPAIR MAP AND NOTES.



CONSULTANT INFORMATION

**H&H**  
 1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

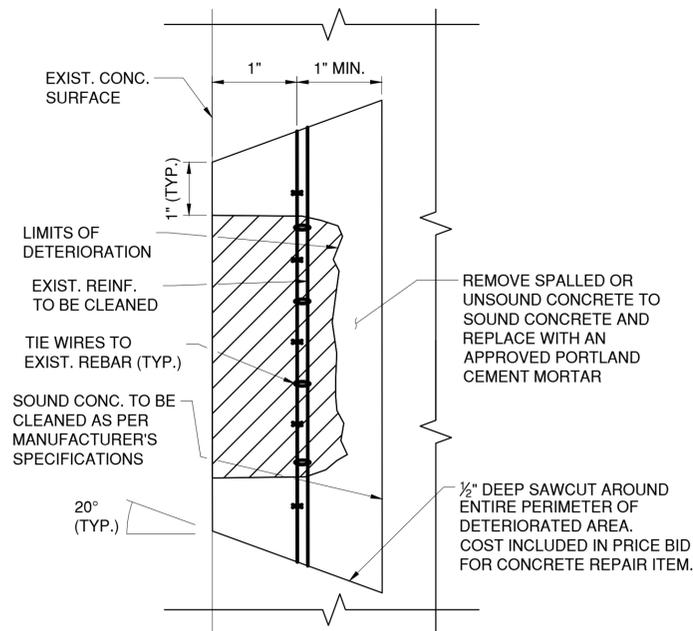
IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL  
**PLAZA SECTION**

CONTRACT NUMBER 20-517	SHEET NUMBER S-79
SHEET NO. 120 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	REV. NO. 0
DPW FILE NO. 5-04-S-555-0	



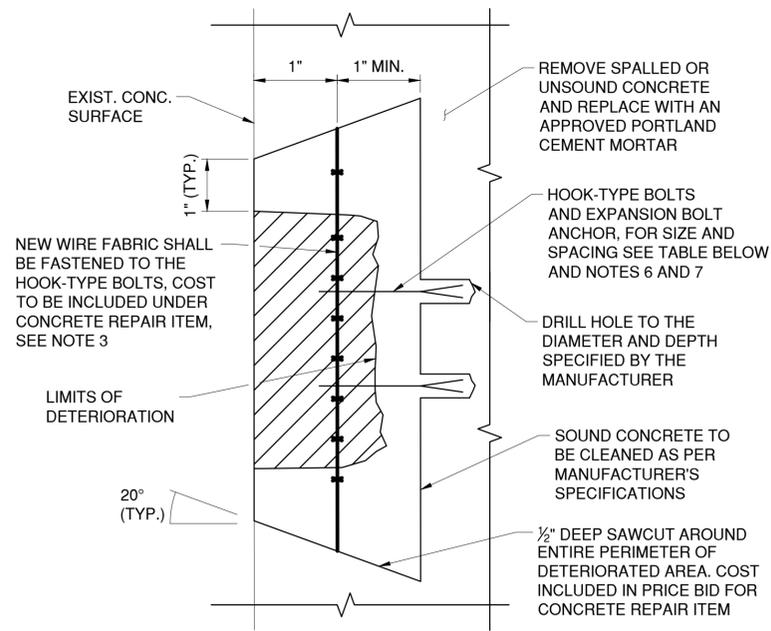
**REPAIR TYPE 1**

SCALE: N.T.S.

REPAIR OF SPALLED OR DELAMINATED CONCRETE WITH REINFORCING BARS EXPOSED ITEM 582.05 OR 582.06 (SEE NOTE 2)

**PROCEDURE**

1. REMOVE ALL UNSOUND AND LOOSE CONCRETE TO SOUND CONCRETE. CLEAN EXPOSED SURFACE IN ACCORDANCE WITH NYS STANDARD SPECIFICATION SECTION 582.
2. SAWCUT PERIMETER OF REPAIR AREA 1" MIN. BEYOND THE UNSOUND AND LOOSE CONCRETE REMOVAL AREA AND A MIN. OF 1/2" DEEP. REMOVE THE SOUND CONCRETE BETWEEN THE SAWCUT LINE AND THE EXISTING SPALL.
3. REMOVE ALL LOOSE SPALLED AND UNSOUND CONCRETE TO A MINIMUM OF 1 1/2" BEYOND THE REINFORCEMENT. CLEAN THE EXPOSED CONCRETE SURFACE AS PER MANUFACTURER'S SPECIFICATIONS.
4. CLEAN ALL EXISTING EXPOSED REINFORCEMENT, COAT THE EXPOSED CONCRETE SURFACE AND FASTEN WIRE FABRIC. IF THE AVERAGE REPAIR DEPTH IS LESS THAN 1 1/2", WIRE MESH AND HOOK TYPE EXPANSION BOLTS MAY NOT BE REQUIRED. IF THE AVERAGE REPAIR DEPTH EXCEEDS 5", WIRE MESH SHALL BE PLACED IN LAYERS 4" APART. NO SEPARATE PAYMENT SHALL BE MADE FOR ANY OF THIS WORK. ALL COST FOR THIS SHALL BE PAID FOR UNDER THE CONCRETE REPAIR ITEM.
5. REPAIR ANY EXPOSED REINFORCEMENT WHICH IS DAMAGED OR HAS A 25% (OR GREATER) LOSS OF SECTION. IT SHALL BE SPLICED ON EACH SIDE OF THE DAMAGED AREA WITH A NEW REINFORCING BAR OF THE SAME DIAMETER. THE REPAIR SHALL EXTEND A SUFFICIENT LENGTH TO ACCOMMODATE THE REQUIRED SPLICE LENGTH OF THE NEW REINFORCING BAR.
6. REPAIR WITH CLASS A OR CLASS D CONCRETE.
7. REPAIRED AREA SHALL BE FINISHED TO PROVIDE A SMOOTH SURFACE.



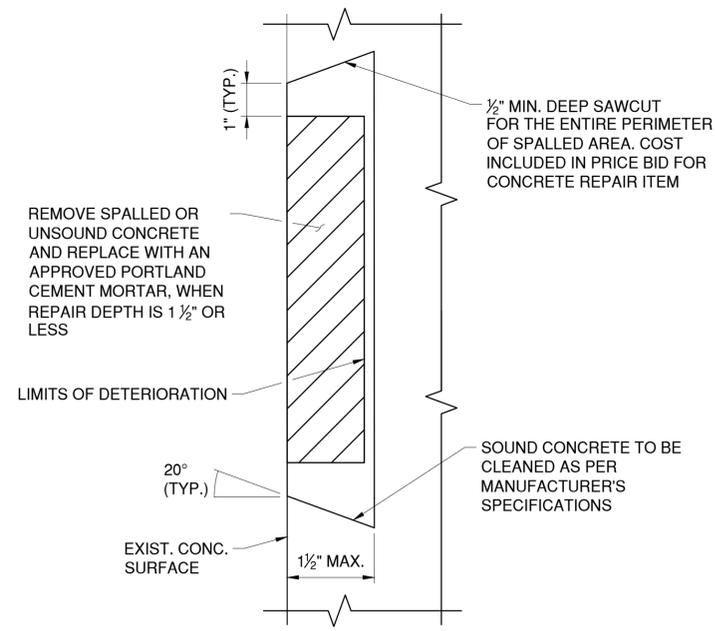
**REPAIR TYPE 2**

SCALE: N.T.S.

REPAIR OF SPALLED OR DELAMINATED CONCRETE WITH NO REINFORCING BARS EXPOSED ITEM 582.05 OR 582.06 (SEE NOTE 2)

**PROCEDURE:**

1. REMOVE ALL UNSOUND AND LOOSE CONCRETE TO SOUND CONCRETE. CLEAN EXPOSED SURFACE IN ACCORDANCE WITH NYS STANDARD SPECIFICATION SECTION 582.
2. SAWCUT PERIMETER OF REPAIR AREA 1" MIN. BEYOND THE UNSOUND AND LOOSE CONCRETE REMOVAL AREA AND A MIN. OF 1/2" DEEP. REMOVE THE SOUND CONCRETE BETWEEN THE SAWCUT LINE AND THE EXISTING SPALL.
3. CLEAN EXPOSED SOUND CONCRETE SURFACE AS PER THE MANUFACTURER'S SPECIFICATIONS.
4. DRILL HOLES TO THE DEPTH AND DIAMETER SPECIFIED BY THE MANUFACTURER AND TO THE SPACING LISTED IN THE TABLE BELOW.
5. INSERT EXPANSION ANCHORS AND THREAD HOOK-TYPE BOLTS TO THE PROPER DEPTH.
6. COAT THE EXPOSED CONCRETE SURFACE WITH AN APPROVED EPOXY BONDING AGENT AND REPAIR WITH CLASS A OR CLASS D CONCRETE.
7. INSERT WIRE FABRIC AND FASTEN TO THE HOOK-TYPE BOLTS.
8. REPAIR WITH CLASS A OR CLASS D CONCRETE.
9. REPAIRED AREA SHALL BE FINISHED TO PROVIDE A SMOOTH SURFACE.



**REPAIR TYPE 3**

SCALE: N.T.S.

REPAIR OF SPALLED OR DELAMINATED CONCRETE WITH NO REINFORCING BARS EXPOSED (SHALLOW) ITEM 582.07 (SEE NOTE 2)

**PROCEDURE:**

1. REMOVE ALL UNSOUND AND LOOSE CONCRETE TO SOUND CONCRETE. CLEAN EXPOSED SURFACE IN ACCORDANCE WITH NYS STANDARD SPECIFICATION SECTION 582.
2. SAWCUT PERIMETER OF REPAIR AREA 1" MIN. BEYOND THE UNSOUND AND LOOSE CONCRETE REMOVAL AREA AND A MIN. OF 1/2" DEEP. REMOVE THE SOUND CONCRETE BETWEEN THE SAWCUT LINE AND THE EXISTING SPALL.
3. CLEAN EXPOSED SOUND CONCRETE SURFACE AS PER THE MANUFACTURER'S SPECIFICATIONS.
4. COAT THE EXPOSED SOUND CONCRETE SURFACE WITH AN APPROVED EPOXY BONDING AGENT AND REPAIR WITH A PNEUMATICALLY APPLIED POLYMER-MODIFIED PORTLAND CEMENT MORTAR/CONCRETE.
5. REPAIRED AREA SHALL BE FINISHED TO PROVIDE A SMOOTH SURFACE.
6. MAXIMUM REPAIR DEPTH IS 1 1/2".

**NOTES:**

1. THE CONTRACTOR SHALL VERIFY IN THE FIELD THE EXTENT OF ALL SPALLED AND CRACKED AREAS. ALL SPALLED AREAS NOT INDICATED ON THESE DRAWINGS SHALL BE REPAIRED AS DIRECTED AND APPROVED BY THE ENGINEER.
2. REPAIR TYPES SHOWN APPLY TO OVERHEAD (UNDERSIDE) OR VERTICAL SURFACES.
3. WIRE FABRIC SHALL BE FABRICATED FROM NO. 12 WIRE AT 2" IN EACH DIRECTION OR NO. 10 WIRE AT 3" IN EACH DIRECTION. ALL WIRE SHALL HAVE A MINIMUM YIELD STRENGTH OF 35 KSI.
4. WIRE FABRIC SHALL MEET THE REQUIREMENTS OF SUBSECTION 709-02 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A641 REGULAR COATING
5. EXISTING EXPOSED REINFORCEMENT SHALL BE CLEANED AS PER SPECIFICATIONS. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK. ALL COST FOR CLEANING EXISTING STEEL BARS SHALL BE INCLUDED IN THE CONCRETE REPAIR ITEMS.
6. EXPANSION BOLT ANCHORS SHALL BE FABRICATED FROM STEEL MEETING U.S. GOVERNMENT G.S.A. SPECIFICATION NO. FF-S-325, GROUP III, TYPE I, OR GROUP VIII, TYPE I.
7. HOOK-TYPE BOLTS INSERTED IN EXPANSION BOLT ANCHORS SHALL CONFORM TO THE REQUIREMENTS OF ASTM 1307 GRADE A.
8. ALL WORK IS TO CONFORM TO SECTION 582 OF THE NYS DOT STANDARD SPECIFICATIONS AND AS MODIFIED HEREIN.
9. SPALL REPAIR MATERIAL SHALL BE SIKACQUICK 2500 OR AN APPROVED EQUAL RAPID HARDENING MATERIAL. REPAIRS SHALL BE COORDINATED WITH THE TIDE SUCH THAT IT IS ADEQUATELY SET BEFORE EXPOSURE TO WATER. MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS.

**REFERENCE:**

1. SEE SHEET S-78 FOR CONCRETE REPAIR LOCATIONS.
2. SEE SHEET G-05 FOR ADDITIONAL CONCRETE REPAIR NOTES.

TABLE FOR SIZE AND SPACING OF HOOK-TYPE BOLTS

THICK. OF PLACEMENT	UNDERSIDE AND VERTICAL SURFACES NOMINAL SIZE AND SPACING
2"	1/4" DIA. AT 18" CTRS
4"	3/8" DIA. AT 24" CTRS
5"	3/8" DIA. AT 21" CTRS
6"	3/8" DIA. AT 20" CTRS
7"	3/8" DIA. AT 18" CTRS
8"	1/2" DIA. AT 23" CTRS

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY S. POROBIJA

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

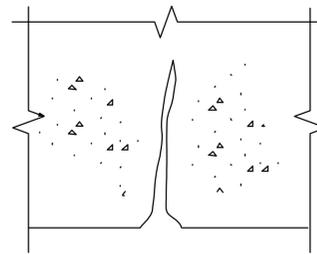


CONSULTANT INFORMATION

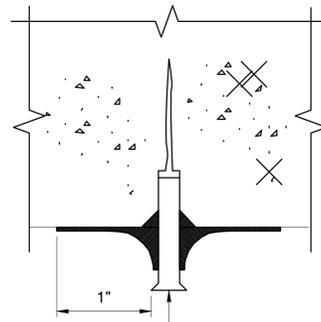


**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL  
**PLAZA CONCRETE SPALL REPAIR DETAILS**

CONTRACT NUMBER 20-517	SHEET NUMBER S-80
SHEET NO. 121 OF 212	
SCALE: AS SHOWN DATE: 03/08/2024	
DPW FILE NO. 5-04-S-556-0	REV. NO. 0

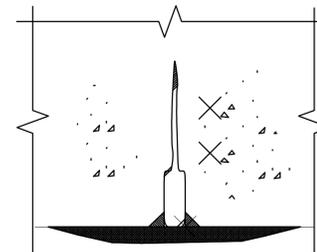


**STEP A**  
 CRACKS SHALL BE "VEED" OUT TO AT LEAST  $\frac{3}{8}$ " DEEP PRIOR TO DRILLING. CLEAN OUT CRACK WITH HAND TOOLS. HIGH PRESSURE AIR BLAST OR VACUUM CLEAN SURFACE.

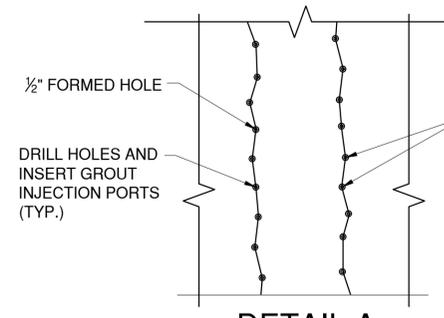


**STEP B**  
 DRILL HOLES FOR PORTS TO A WIDTH AND DEPTH SUFFICIENT TO ASSURE A SNUG FIT OF THE PORT. CLEAN OUT DEBRIS WITH A HIGH PRESSURE AIR BLASTING. INSERT PORTS AND SEAL SURFACE OF CRACK WITH CRACK SEALANT. SEAL SHALL EXTEND ABOVE CONCRETE SURFACE A MIN. OF  $\frac{1}{8}$ " AND EXTEND A MIN. OF 1" TO EITHER SIDE OF THE CRACK. ALLOW A MIN. OF 6 HOURS CURING TIME BEFORE INITIATING INJECTION PROCESS.

$\frac{1}{4}$ " O.D. STEEL OR COPPER TUBING WITH FLARE EXPOSED END FOR SPACING OF PORTS. SEE DETAIL A.



**STEP C**  
 INJECT EPOXY. ALLOW A MIN. OF 6 HOURS CURING TIME. REMOVE PORTS AND SURFACE SEAL AFTER GROUT HAS FULLY CURED. FILL HOLES WITH EPOXY REPAIR PASTE AND GRIND SURFACE SMOOTH TO REMOVE A MIN. AMOUNT OF EPOXY PASTE TO THE SATISFACTION OF THE ENGINEER.



$\frac{1}{2}$ " FORMED HOLE  
 DRILL HOLES AND INSERT GROUT INJECTION PORTS (TYP.)

SPACING OF PORTS SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIAL. EPOXY INJECTION SHALL START AT LOWER END OF VERTICAL CRACK OR AT ONE END ON A HORIZONTAL CRACK. THE END MOST PORTS SHALL BE LOCATED NEAR EITHER END OF THE CRACK.

**DETAIL A**  
 SCALE: N.T.S.

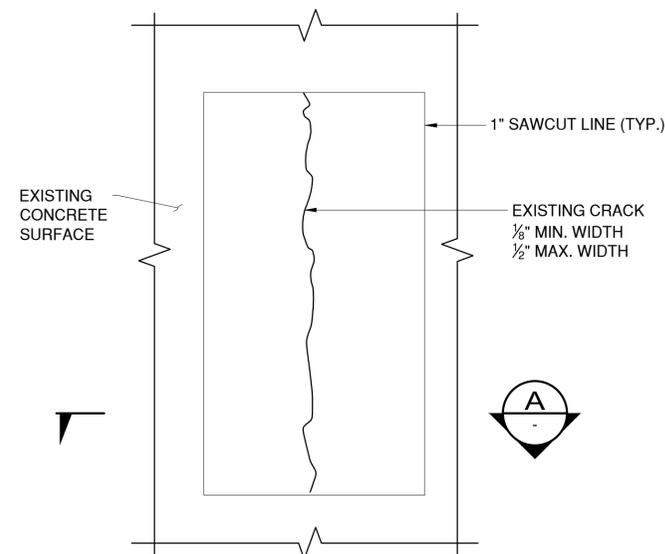
**REPAIR TYPE 4**

SCALE: N.T.S.

TYPICAL CONCRETE CRACK REPAIR (GREATER THAN 0.007" UP TO  $\frac{1}{8}$ ") - CRACK REPAIR BY EPOXY INJECTION  
 ITEM 555.80020001

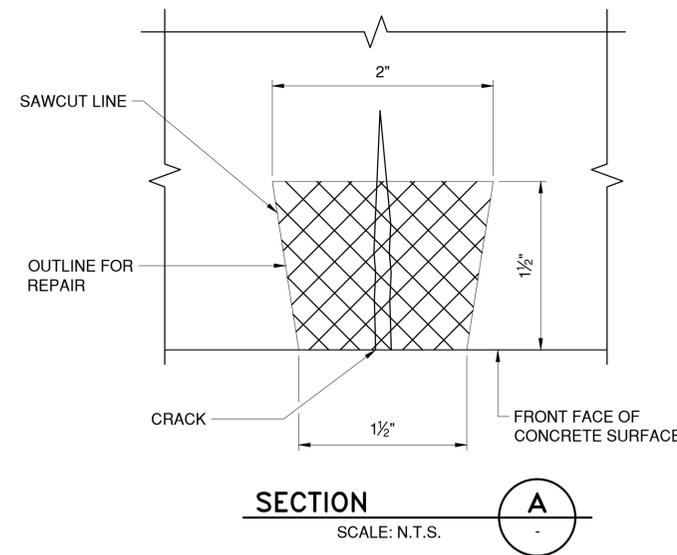
**REFERENCE:**

- SEE SHEET S-78 FOR CONCRETE REPAIR LOCATIONS.



EXISTING CONCRETE SURFACE

1" SAWCUT LINE (TYP.)  
 EXISTING CRACK  
 $\frac{1}{8}$ " MIN. WIDTH  
 $\frac{1}{2}$ " MAX. WIDTH



SAWCUT LINE  
 OUTLINE FOR REPAIR  
 CRACK

FRONT FACE OF CONCRETE SURFACE

**SECTION**

SCALE: N.T.S.



**REPAIR TYPE 5**

SCALE: N.T.S.

TYPICAL CONCRETE CRACK REPAIR ( $\frac{1}{8}$ " OR GREATER)  
 (CHASED AREA SHALL BE CLEANED BY SANDBLASTING BEFORE APPLYING APPROVED PATCHING MATERIAL)  
 ITEM 555.81980011



CONSULTANT INFORMATION



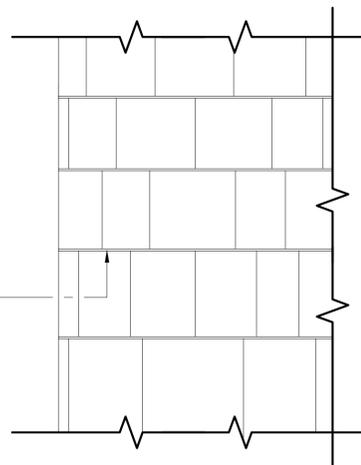
IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY S. POROBIJA

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

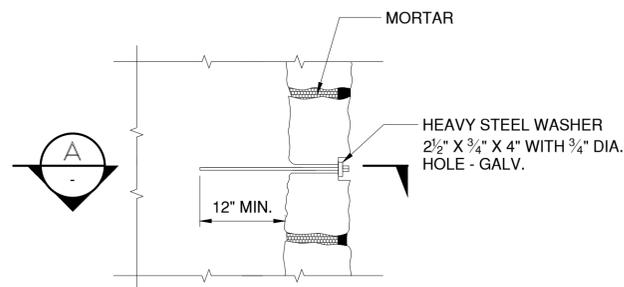
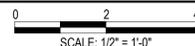
RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____		
DATE _____	DATE _____		

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER S-81
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 122 OF 212	
STRUCTURAL		SCALE: AS SHOWN DATE: 03/08/2024	DPW FILE NO.
<b>PLAZA CONCRETE CRACK REPAIR DETAILS</b>		5-04-S-557-0	REV. NO. 0

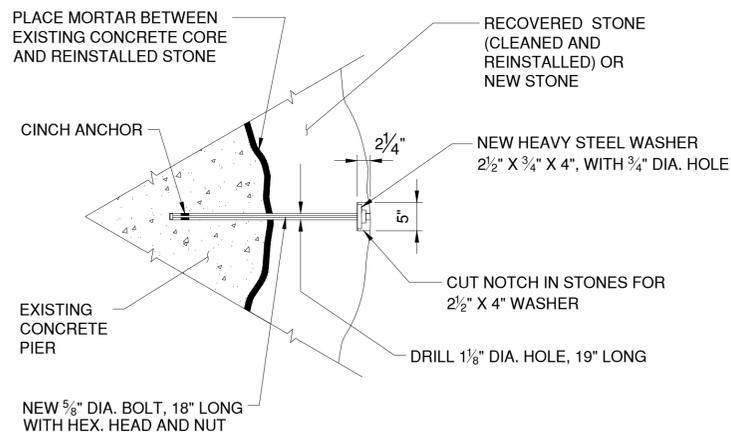
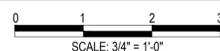
REPAIR DAMAGED MASONRY  
GROUT, PAID FOR UNDER  
ITEM TUCK POINTING 560.09



**GROUT REPAIR DETAIL**



**MISSING STONE REPAIR DETAIL**



**SECTION**



**NOTES:**

1. THE CONTRACTOR SHALL PREPARE AND SUBMIT SHOP DRAWINGS FOR THE INSTALLATION OF STORED OR NEW STONE MASONRY FOR THE ENGINEER'S APPROVAL PRIOR TO THE COMMENCEMENT OF WORK.
2. ALL MORTAR ON BASCULE ABUTMENT, PIERS, AND PLAZA AREA SHALL BE REPOINTED (TUCK POINTING). MORTAR COLOR SHALL MATCH EXISTING AND MORTAR JOINTS SHALL BE 1/2" IN WIDTH. WORK SHALL BE PAID FOR UNDER ITEM 560.09. MORTAR SHALL BE IN ACCORDANCE WITH NYS STANDARD SPECIFICATION 705-21.
3. PRIOR TO SETTING THE STONE ON THE CONCRETE PEDESTAL OR THE CONCRETE FOOTING, THE CONCRETE SURFACE SHALL BE CLEANED AND A LAYER OF MORTAR APPLIED TO IT.
4. ALL WORK FOR INSTALLATION OF NEW OR STORED GRANITE STONE MASONRY SHALL BE PAID FOR UNDER ITEM 560.40000008.
5. ADDITIONAL MASONRY DAMAGE MAY BE ENCOUNTERED DURING CONSTRUCTION. CONTRACTOR SHALL DOCUMENT ALL LOCATIONS OF COMPROMISED MORTAR AND STONE, AND SUBMIT TO THE ENGINEER OF RECORD WITH A PROPOSAL FOR REPAIR.
6. CARE SHALL BE TAKEN NOT TO DAMAGE THE PIER CONCRETE CORE OR EXISTING PIER INTERNAL REINFORCEMENT DURING THE MASONRY REPAIR OPERATIONS.

MASONRY DAMAGE LOCATION TABLE			
PIER/ABUTMENT	FACE	LOCATION	SIZE
BASCULE ABUTMENT, NORTH RETAINING WALL	EAST	BELOW WATERLINE, ABOUT 5' NEXT TO VERTICAL EXPANSION JOINT BEHIND FENDER	2' X 1'-6" X 6"
BASCULE ABUTMENT, NORTH RETAINING WALL	EAST	BELOW WATERLINE, ABOUT 10' NEXT TO VERTICAL EXPANSION JOINT BEHIND FENDER	2' X 1'-6" X 6"
BASCULE ABUTMENT, NORTH RETAINING WALL	NORTHEAST	THROUGHOUT RETAINING WALL	VARIES THROUGHOUT
BASCULE ABUTMENT	EAST	EASTERN FRONT CORNER OF ABUTMENT	VARIES THROUGHOUT
BASCULE ABUTMENT, EAST OPERATING HOUSE	SOUTH	AT EDGE OF OPERATING HOUSE, BEHIND FENDER BRACE	1'-6" X 6" X 4"
PIER 14 EAST COLUMN	SOUTHEAST	AT WATERLINE	1'-10" X 1'-6" X 6"
PIER 14 EAST COLUMN	SOUTHEAST	AT WATERLINE	1' X 10" X 2"
PIER 14 EAST COLUMN	EAST	ON FACE OF COLUMN	VARIES THROUGHOUT FACE
PIER 14 WEST COLUMN	SOUTHEAST	FROM MHW DOWN 3'	7" X 1'-10" X 8"
PLAZA	WEST	NORTH RETAINING WALL INTERIOR OF LAMPOST PEDESTAL	6" X 6" X 3"



CONSULTANT INFORMATION



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY S. POROBIJA

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

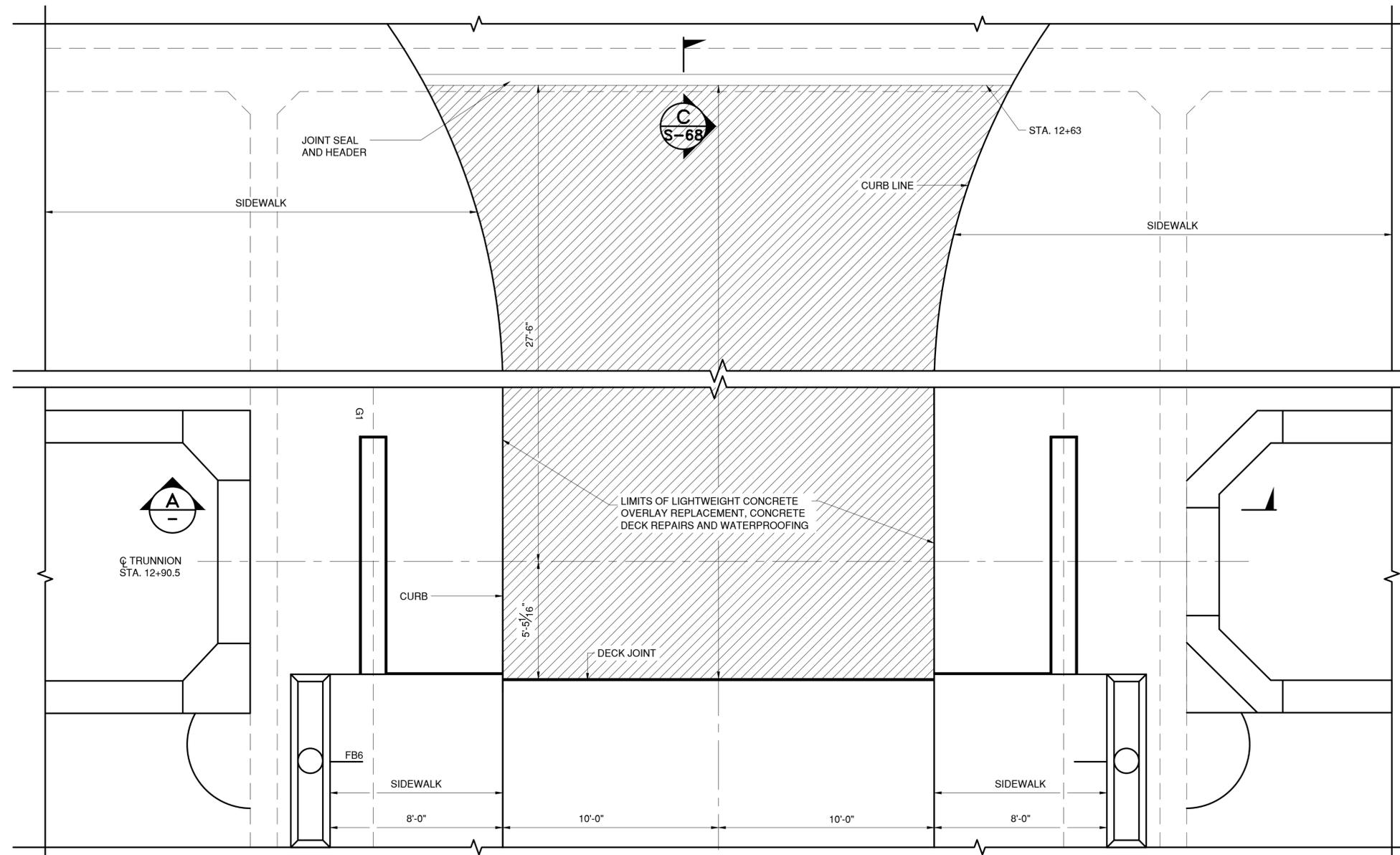
**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

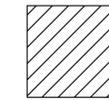
STRUCTURAL

**TYPICAL MASONRY REPAIR DETAILS**

CONTRACT NUMBER 20-517	SHEET NUMBER S-82
SHEET NO. 123 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-S-558-0	REV. NO. 0

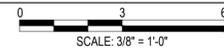


LEGEND:



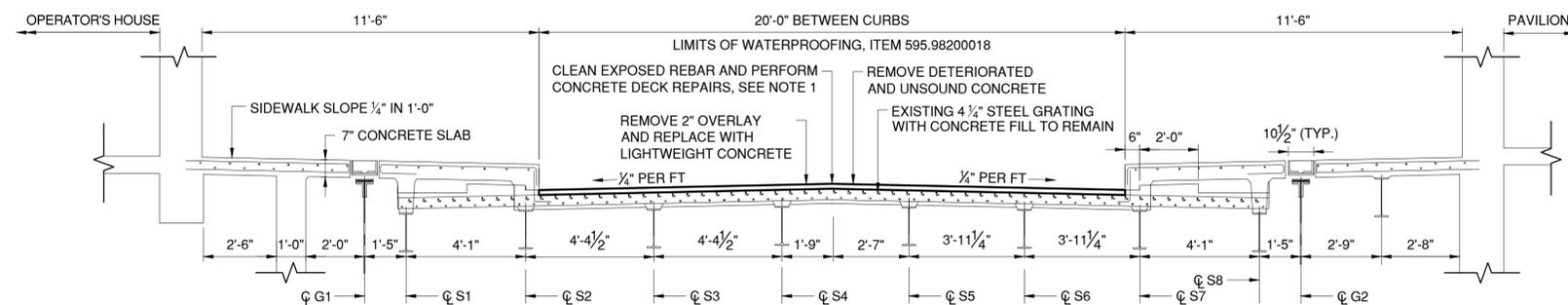
= OVERLAY REMOVAL AND REPLACEMENT WITH LIGHTWEIGHT CONCRETE

DECK OVER COUNTERWEIGHT PLAN

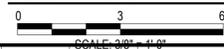


NOTES:

1. AFTER REMOVAL OF OVERLAY, UNSOUND AND DETERIORATED CONCRETE SHALL BE REMOVED. EXPOSED REINFORCEMENT AND STEEL GRATING SHALL BE CLEANED AND DECK REPAIRS SHALL BE PERFORMED PRIOR TO THE OVERLAY BEING REPLACED.
2. OVERLAY REMOVAL SHALL BE PAID FOR UNDER ITEM 581.02. LIGHTWEIGHT CONCRETE OVERLAY REPLACEMENT SHALL BE PAID FOR UNDER ITEM 557.32000018. WATERPROOFING SHALL BE PAID FOR UNDER ITEM 595.98200018.



SECTION A



CONSULTANT INFORMATION



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 MADE BY S. POROBIJA

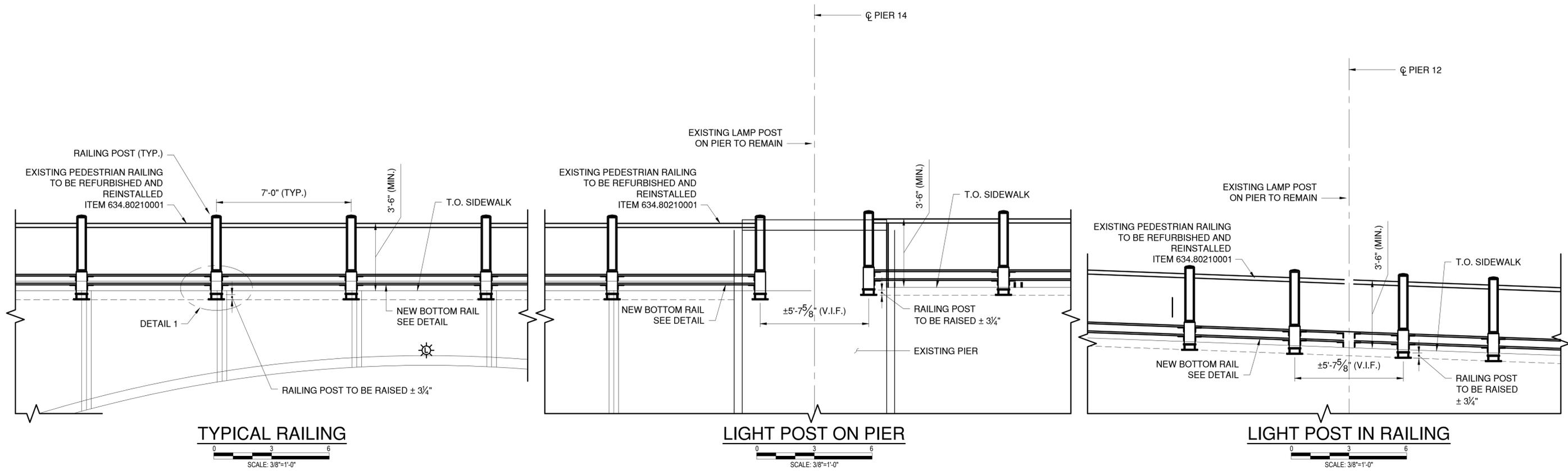
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

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CONTRACTOR	
NAME _____	PROJECT COORDINATOR
SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____
DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL  
**DECK OVER COUNTERWEIGHT REPAIRS**

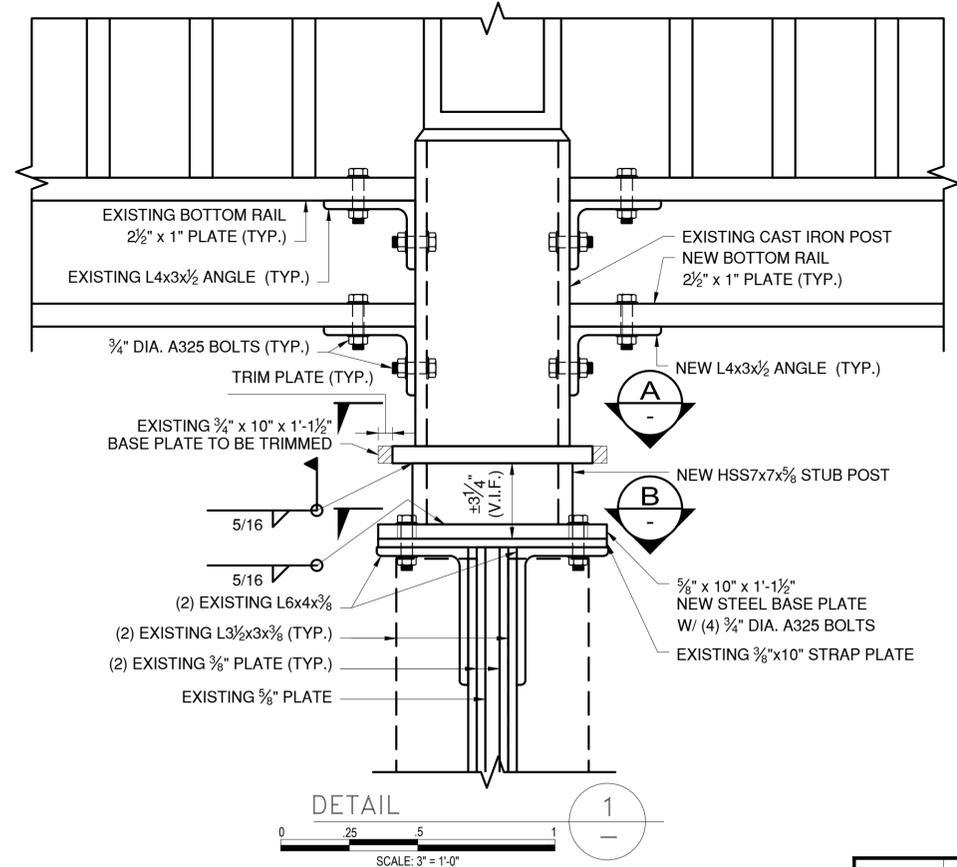
CONTRACT NUMBER 20-517	SHEET NUMBER S-83
SHEET NO. 124 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-S-559-0	REV. NO. 0



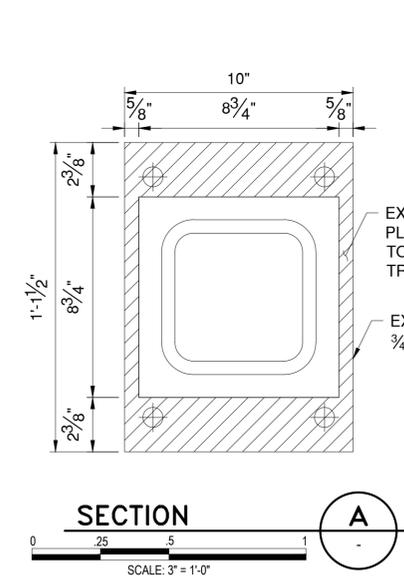
**TYPICAL RAILING**

**LIGHT POST ON PIER**

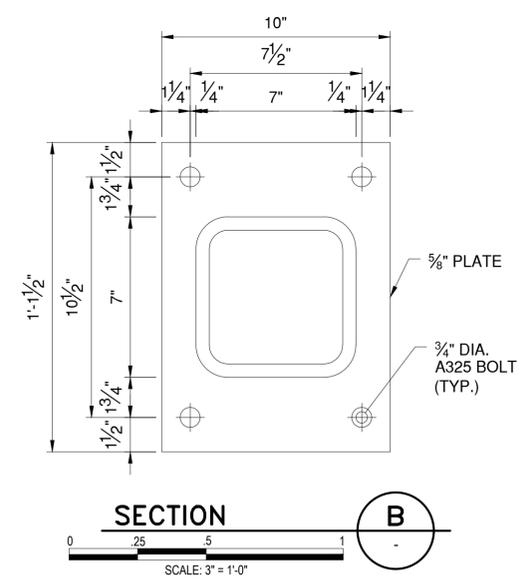
**LIGHT POST IN RAILING**



**DETAIL 1**



**SECTION A**



**SECTION B**

**NOTES:**

1. NEW RAILING PAINT COLOR SHALL MATCH EXISTING RAILING PAINT COLOR. SAMPLES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. PEDESTRIAN RAIL TO BE REFURBISHED AND REINSTALLED UNDER PAY ITEM 634.80210001.
2. PEDESTRIAN RAIL TO BE RAISED ±0.25' TO ACHIEVE A 3'-6" TOP OF RAIL HEIGHT.
3. CONTRACTOR TO VERIFY DIMENSIONS AND EXISTING RAILING CONDITIONS IN FIELD PRIOR TO RAILING REMOVAL AND MODIFICATIONS.
4. DO NOT SHOP SPLICE RAILS.
5. NEW STEEL SHALL BE ASTM A36 (Fy = 36,000 PSI) UNLESS NOTED OTHERWISE.
6. NEW BOLTS SHALL BE ASTM A325 UNLESS NOTED OTHERWISE.



CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY S. VERA-FOX, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
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DATE _____	DATE _____	DATE _____	DATE _____

**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

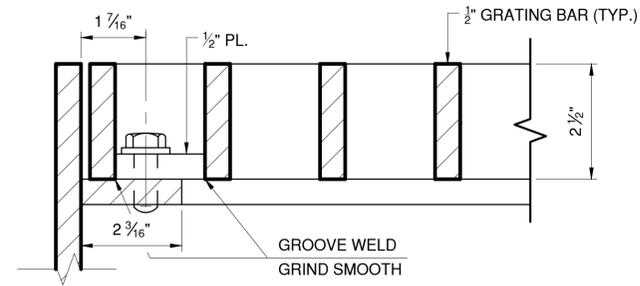
Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

STRUCTURAL

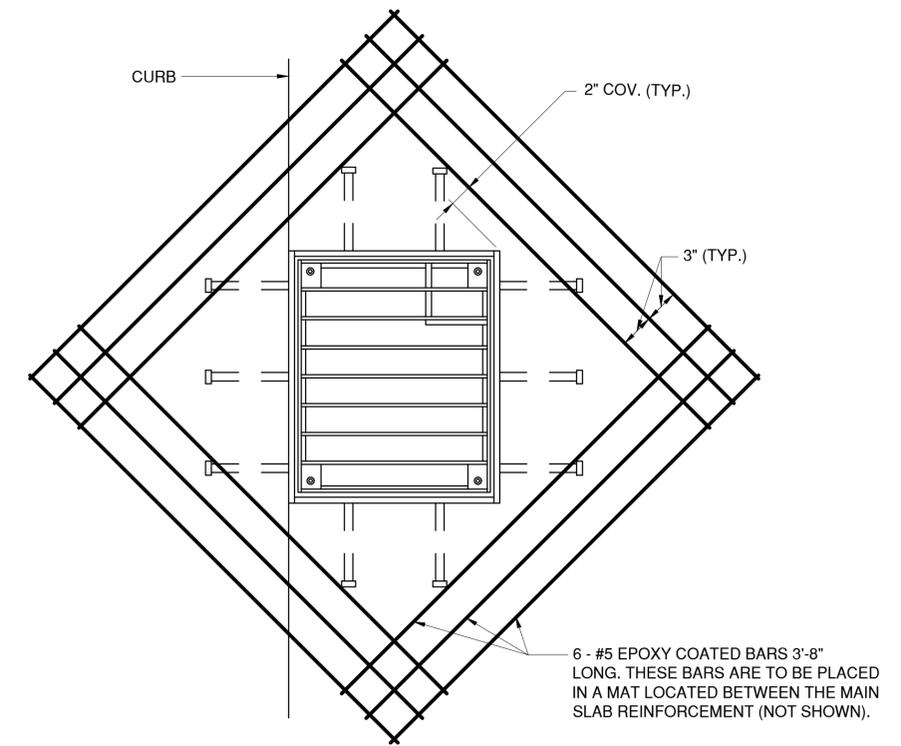
**PEDESTRIAN RAILING DETAILS**

CONTRACT NUMBER 20-517	SHEET NUMBER S-84
SHEET NO. 125 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	REV. NO. 0
DPW FILE NO.	5-04-S-560-0



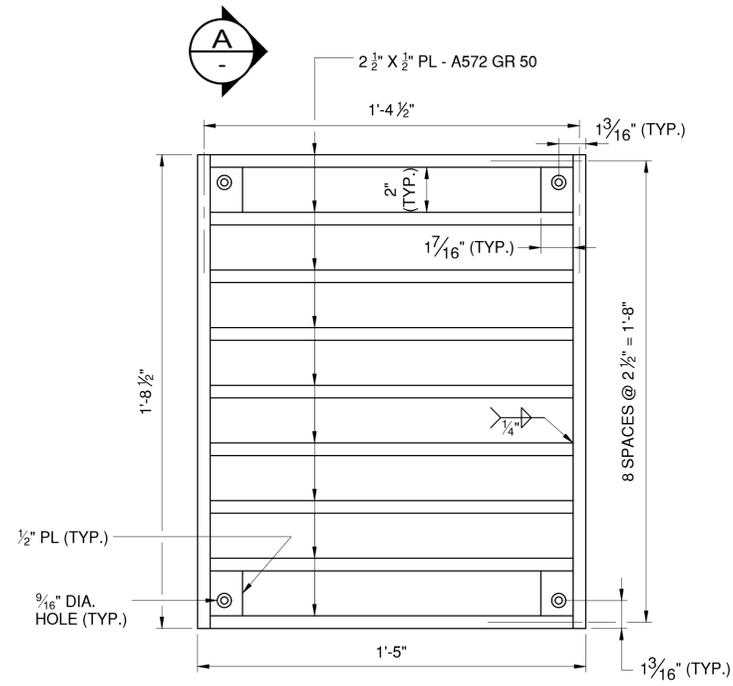


**SECTION A**  
SCALE N.T.S.  
**FABRICATED SCUPPER & GRATE**

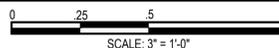


**REINFORCEMENT PLAN AT SCUPPERS**  
**TYPES "B1" & "B2"**

SCALE N.T.S.



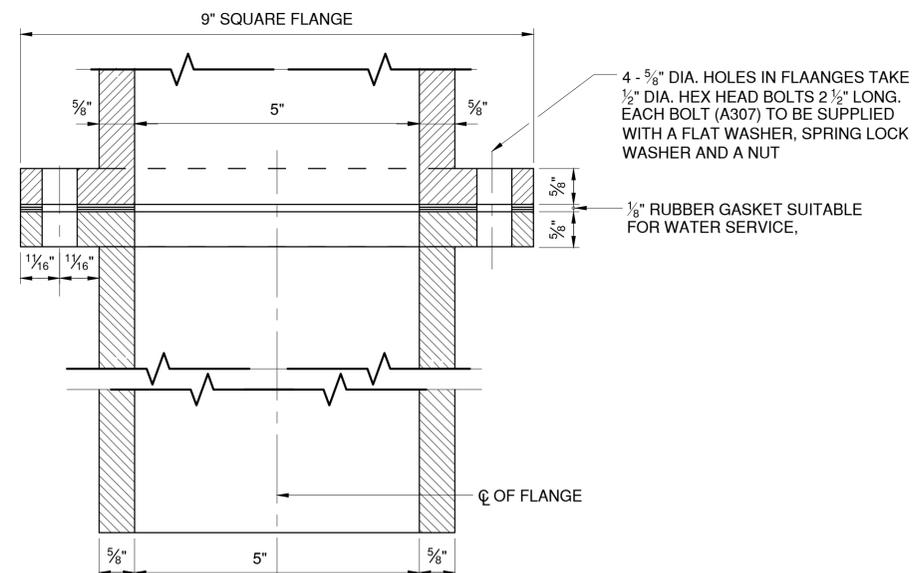
**PLAN**  
**SCUPPER GRATING (FOR TYPES "B1" & "B2")**



**NOTES:**

GRATING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE SCUPPER ITEM.

ALL MATERIAL SHALL BE GALVANIZED IN ACCORDANCE WITH N.Y.S. STANDARD SPECIFICATIONS MATERIAL SPECIFICATION 719-01.



**FLANGED CONNECTIONS FOR OUTLET**  
**OF TYPE "B1" SCUPPER**

SCALE N.T.S.

**NOTES:**

FLANGES AND OUTLET SHALL BE DUCTILE IRON AND GALVANIZED, P.V.C., OR FIBERGLASS

FLANGED CONNECTIONS IS TO BE INCLUDED IN THE UNIT PRICE BIT FOR THE SCUPPER.

**SCUPPER LOCATIONS**

STATION	EAST OR WEST CURB
14+66.54	EAST
14+66.54	WEST
16+29.97	EAST
16+29.97	WEST

**NOTES:**

1. DETAILS ON THE DRAWINGS LABELED AS "N.T.S." ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND FULLY DIMENSIONED.
2. SCUPPER DOWNSPOUTS TO BE EXTENDED 1'-0" BEYOND ADJACENT FLOOR BEAM BOTTOM FLANGE. PRICE TO BE INCLUDED IN THE PRICE BID FOR THE SCUPPER ITEM.



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MADE BY S. POROJIBA

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RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
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CONTRACTOR		PROJECT COORDINATOR	
NAME	SIGNATURE	NAME	SIGNATURE
TITLE	DATE	TITLE	DATE

WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING  
Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle  
STRUCTURAL  
**SCUPPER DETAILS - 2**

CONTRACT NUMBER 20-517	SHEET NUMBER S-86
SHEET NO. 127 OF 212	
SCALE: AS SHOWN DATE: 03/08/2024	
DPW FILE NO. 5-04-S-562-0	REV. NO. 0

# TEMPORARY STRUCTURE NOTES

## GENERAL NOTES:

- ALL DEMOLITION OF EXISTING SUPERSTRUCTURES SHALL BE INCLUDED UNDER ITEMS 202.2202, 202.2302, 589.010001, AND 589.520001. DEMOLITION OF EXISTING SUBSTRUCTURE SHALL BE INCLUDED UNDER ITEM 202.19. FOR DEMOLITION LIMITS DURING EACH STAGE SEE SHEET S-02.
- ALL WORK FOR THE TEMPORARY STRUCTURES AND BRIDGES SHOWN, INCLUDING BUT NOT LIMITED TO ALL SUPERSTRUCTURE AND SUBSTRUCTURE ELEMENTS, MACHINERY, ELECTRICAL, CONTROL SYSTEMS, OPERATION AND MAINTENANCE SHALL BE INCLUDED UNDER ITEM 619.0501 ON A LUMP SUM BASIS.
- ALL WORK FOR TEMPORARY STRUCTURES SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS FOR CONSTRUCTION STAGING AND WZTC FOR THE PROJECT.
- THE TEMPORARY STRUCTURES SHALL BE DESIGNED IN ACCORDANCE WITH THE THE STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES (17TH EDITION) FOR A DESIGN LOAD OF HS-20, IN COMBINATION WITH AASHTO STANDARD SPECIFICATIONS FOR MOVABLE HIGHWAY BRIDGES (1988). ALTERNATELY, THE TEMPORARY STRUCTURE MAY BE DESIGNED IN CONFORMANCE WITH THE CURRENT NYSDOT LOAD AND RESISTANCE FACTOR DESIGN (LRFD) BRIDGE DESIGN SPECIFICATIONS FOR A DESIGN LIVE LOAD OF HL-93. THE CONTRACTOR SHALL ALSO DESIGN FOR ANY ANTICIPATED CONSTRUCTION LOADINGS.
- FABRICATION OF THE TEMPORARY BRIDGE, INCLUDING ANY FRACTURE CRITICAL MEMBERS, SHALL BE IN ACCORDANCE WITH THE NYSDOT STEEL CONSTRUCTION MANUAL (4TH EDITION, 2018).
- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING THE PERMANENT BRIDGE DURING CONSTRUCTION AND DEMOLITION OF TEMPORARY STRUCTURES. ANY DAMAGE TO THE PERMANENT STRUCTURES IS TO BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE COUNTY.
- ALL TEMPORARY STRUCTURES AND BRIDGES SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK RETAINED BY THE CONTRACTOR AND THE DESIGN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. THE COST OF THE DESIGN SHALL BE PAID FOR UNDER ITEM 619.0501.
- TEMPORARY FENDERS SHALL BE INSTALLED TO PROTECT THE TEMPORARY BRIDGE FROM VESSEL IMPACT. THE FENDERS SHALL BE INDEPENDENT OF THE PIVOT AND REST PIERS. THE FENDERS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK AND SHALL BE PAID FOR UNDER ITEM 619.0501.
- FENDERS AND NAVIGATION LIGHTS FOR THE TEMPORARY BRIDGE SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE USCG.
- ALL BARRIERS AND RAILINGS USED ON THE TEMPORARY STRUCTURES SHALL HAVE A MINIMUM SERVICE LEVEL OF TL-2.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES AND ABANDONED FOUNDATIONS IN OR NEAR THE NEW ROCHELLE HARBOR THAT MAY INTERFERE WITH THE LOCATION OF TEMPORARY FOUNDATIONS PRIOR TO COMMENCING WORK AND CONSTRUCTION OPERATIONS. SPECIAL CARE SHALL BE TAKEN TO AVOID ANY DAMAGE TO EXISTING UTILITIES. REMOVAL OF ANY EXISTING STRUCTURE FOUNDATIONS OR UTILITY RELOCATION REQUIRED TO ACCOMMODATE THE CONTRACTOR'S PROPOSED TEMPORARY STRUCTURES SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER AND SHALL BE INCLUDED IN THE COST OF THE CORRESPONDING TEMPORARY STRUCTURE ITEMS.
- THE CONTRACTOR SHALL MONITOR ALL TEMPORARY STRUCTURES AND FOUNDATIONS FOR SETTLEMENT TO ENSURE THE TEMPORARY STRUCTURE'S STABILITY UNDER SERVICE CONDITIONS. PROVISIONS SHALL BE MADE TO ALLOW FOR ADJUSTMENT OF THE TEMPORARY ROADWAY ELEVATION.
- THE TEMPORARY FILL TYPE RETAINING WALLS USED ALONG THE TEMPORARY EMBANKMENT STRUCTURES SHALL BE DESIGNED SO THAT THE LATERAL LOAD IS NOT TRANSFERRED TO THE TEMPORARY ABUTMENT WALL DURING THE SERVICE PERIOD OF THE TEMPORARY STRUCTURE UNDER THE SERVICE LIMIT STATE. FOR THIS PURPOSE, WIRE MESH MECHANICALLY STABILIZED EARTH SYSTEMS ARE RECOMMENDED.
- THE MAXIMUM LONGITUDINAL GRADE FOR ALL TEMPORARY PEDESTRIAN SIDEWALKS SHALL NOT EXCEED 7% AND THE CROSS SLOPE SHALL NOT EXCEED 1.5%. THE SIDEWALK SURFACES SHALL BE IN ACCORDANCE WITH CHAPTER 18 OF THE NYSDOT HIGHWAY DESIGN MANUAL.
- CONTRACTOR SHALL SUBMIT DETAILS OF THE TEMPORARY SUBSTRUCTURES TO THE NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION FOR REVIEW.

## TEMPORARY BRIDGE NOTES (DWGS. S-88 THRU S-91):

THE NOTES BELOW ARE IN ADDITION TO THE TEMPORARY STRUCTURE GENERAL NOTES AND APPLY TO TEMPORARY BRIDGES IN-SERVICE DURING CONSTRUCTION.

- THE TEMPORARY BRIDGES SHALL PROVIDE FOR SAFE ACCOMMODATION OF THE NUMBER OF TRAFFIC LANES SHOWN ON THE PLANS BY USE OF A CONTINUOUS ROADWAY. LANE STRIPING IS INCLUDED UNDER ITEM 619.0501.
- THE BARRIERS OR RAILING ON THE TEMPORARY BRIDGES SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE TEMPORARY BRIDGE AND SHALL BE PINNED OR ANCHORED TO THE TEMPORARY STRUCTURE.
- THE TEMPORARY BRIDGE VERTICAL CLEARANCE OVER THE NAVIGATION CHANNEL, NEW ROCHELLE HARBOR, SHALL MEET THE MINIMUM SHOWN IN THE PLANS.
- SEE THE USCG PERMIT FOR ADDITIONAL NAVIGATION REQUIREMENTS.
- THE PIER LOCATIONS AND STRUCTURE TYPES FOR THE TEMPORARY BRIDGES SHALL MEET THE PROJECT LOAD CARRYING CRITERIA, GEOMETRIC REQUIREMENTS AND ACCOMMODATE THE CONTRACTOR'S CONSTRUCTION MEANS AND METHOD.
- SEE SHEET E-03 FOR ADDITIONAL TEMPORARY MOVABLE BRIDGE ELECTRICAL REQUIREMENTS.

## TEMPORARY BRIDGE OPERATION NOTES:

- TEMPORARY BRIDGE SHALL BE MANNED BY A QUALIFIED OPERATOR EMPLOYED BY THE CONTRACTOR FOR THE DURATION THAT THE TEMPORARY BRIDGE IS IN SERVICE. OPENINGS SHALL BE AS PRESCRIBED BY THE USCG. SEE USCG PERMIT FOR MORE INFORMATION. THE COST OF OPERATION SHALL BE INCLUDED IN ITEM 619.0501.
- FOR ANY TEMPORARY CHANGE TO THE OPERATING SCHEDULE OF A DRAWBRIDGE, LASTING LESS THAN OR EQUAL TO 180 DAYS, THE REQUEST SHOULD BE SUBMITTED TO THE USCG DISTRICT 1 BRIDGE DEPARTMENT AS EARLY AS POSSIBLE, PREFERABLY 90 DAYS BEFORE THE START DATE OF THE ACTION. THE REQUEST SHOULD INCLUDE SCOPE OF WORK, MAP SHOWING LOCATION OF THE BRIDGE, SCHEDULE, DRAWINGS SHOWING ANY EQUIPMENT IN THE WATERWAY, AND LIST OF MARINERS THAT HAVE BEEN NOTIFIED OF THIS DEVIATION.
- THE CONTRACTOR SHALL SUBMIT AN OPERATION & MAINTENANCE MANUAL FOR THE TEMPORARY BRIDGE. THE MANUAL SHALL ADDRESS THE ITEMS LISTED BELOW:
 

OPERATION:

  - OPERATING TIME - PROVIDE SCHEDULE AND STAFFING PLAN THAT CLEARLY ILLUSTRATES THAT THE BRIDGE OPENING OPERATION WILL ADHERE TO THE 'GREEN TO GREEN' REQUIREMENTS NOTED ON SHEET E-03.
  - PROVISIONS FOR BRIDGE POWER
  - COMPLETE STEP BY STEP PROTOCOL TO BE FOLLOWED FOR EACH OPENING. (IF THERE ARE SCENARIOS WHERE THE EXISTING BRIDGE NEEDS TO BE OPENED, THAT SHOULD BE DESCRIBED AS WELL)
  - NAVIGATION LIGHT PROTOCOL FOR EACH STAGE CONSIDERING EXISTING BRIDGE AND TEMPORARY BRIDGE SIMULTANEOUS OPERATION AND COORDINATION BETWEEN EXISTING BRIDGE AND TEMPORARY BRIDGE NAVIGATION LIGHTS.
  - PERSONNEL REQUIREMENTS FOR OPENING
  - COMMUNICATIONS - AIR HORN AND MARINE RADIO FOR COMMUNICATION WITH MARINE VESSELS ARE REQUIRED AT A MINIMUM
  - OPERATIONAL LIMITS - NOTE ANY OPERATIONAL LIMITS DUE TO EXTREME TEMPERATURES OR PRESENCE OF ICE ANYWHERE IN THE SYSTEM (HYDRAULIC FLUID FLOW, MOVEMENT RESTRICTION, ETC)
  - ALTERNATE METHOD OF OPERATION - IN THE EVENT OF PRIMARY DRIVE SYSTEM FAILURE
  - KEY PERSONNEL CONTACT LIST - NOTE WHO WILL CONTACT USCG AND CONTROL CENTER FOR EACH MARINE OPENING

MAINTENANCE:

  - LUBRICATION SCHEDULE FOR KEY COMPONENTS
  - INSPECTION SCHEDULE FOR KEY COMPONENTS
  - TROUBLESHOOTING GUIDE
  - SPILL PREVENTION AND CONTAINMENT PLAN

## GEOTECHNICAL NOTES:

- CONTRACTOR PRIOR TO INSTALLATION OF ANY DEEP FOUNDATION ELEMENT, SHALL PERFORM 1 GEOTECHNICAL BORING PER PROPOSED SUBSTRUCTURE TO ILLUSTRATE SUBSURFACE CONDITIONS AND CONFIRM THEIR DESIGN ASSUMPTIONS. IN LINE WITH NYSDOT GDM STANDARDS, EACH BORING SHALL BE TERMINATED UPON THE CONTRACTOR RETRIEVING 20FT OF NX ROCK CORES WITH A RECOVERY IN EXCESS OF 85%. OVERBURDEN DRILLING SHALL BE PAID UNDER ITEM NO. 648.06 AND ROCK CORE DRILLING PAID UNDER 648.15. MOBILIZATION FOR BORINGS ON LAND SHALL BE PAID UNDER ITEM NO. 648.17, AND MOBILIZATION FOR WATER BORINGS UNDER ITEM NO. 648.19.
- ALL TEMPORARY FOUNDATIONS SHALL BE REMOVED TO A MINIMUM 2 (TWO) FEET BELOW FINISHED GRADE/MUDLINE OR DEEPER AS STIPULATED IN THE PROJECT PERMITS.

## GEOTECHNICAL INSTRUMENTATION AND CONSTRUCTION MONITORING:

THE CONTRACTOR SHALL DEVELOP, IMPLEMENT, AND MAINTAIN A GEOTECHNICAL INSTRUMENTATION AND CONSTRUCTION MONITORING PLAN TO MONITOR VIBRATIONS, ACCELERATIONS, VERTICAL SETTLEMENT, AND LATERAL MOVEMENT OF TEMPORARY SUPPORT STRUCTURES AND ADJACENT GROUND, AND EXISTING STRUCTURES AND INFRASTRUCTURE DURING CONSTRUCTION, INCLUDING ANCILLARY STRUCTURES AND INFRASTRUCTURE WITHIN THE ZONE OF INFLUENCE OF CONSTRUCTION.

THE GEOTECHNICAL INSTRUMENTATION AND CONSTRUCTION MONITORING PLAN SHALL ALSO INCLUDE, WHEN NECESSARY, DETAILS OF DESIGN VERIFICATION GEOTECHNICAL INSTRUMENTATION SUCH AS SETTLEMENT MONITORING FOR EMBANKMENT CONSTRUCTION, GROUNDWATER MONITORING FOR DEWATERING OPERATIONS, AND MONITORING OF OTHER GEOTECHNICAL OPERATIONS PROPOSED BY THE CONTRACTOR.

WHEREVER VIBRATION-PRODUCING ACTIVITIES ARE LOCATED WITHIN 100 FEET OF A STRUCTURE, BUILDING, OR UTILITY, THE CONTRACTOR SHALL PERFORM VIBRATION MONITORING IN ACCORDANCE WITH NYSDOT SPECIAL SPECIFICATION 634.99020017 TO ADDRESS THE POTENTIAL IMPACTS TO NEARBY RECEPTORS DUE TO CONSTRUCTION OR DEMOLITION ACTIVITIES ASSOCIATED WITH THIS PROJECT. THE TERM " RECEPTOR" INCLUDES BUILDINGS, UTILITIES, NEWLY CONSTRUCTED ELEMENTS, AND EXISTING STRUCTURES, FOR WHICH CONSTRUCTION IMPACTS OR WORK ABOVE RECOMMENDED LIMITS MAY BE DETRIMENTAL.

THE CONTRACTOR SHALL PROVIDE WEEKLY CONSTRUCTION INSTRUMENTATION MONITORING REPORTS TO THE EOR. MONITORING REPORTS SHALL BE INTERPRETIVE IN NATURE, AND SHALL ENUMERATE ANY CORRECTIONS APPLIED TO THE DATA INCLUDING, BUT NOT LIMITED TO ANY NOTIFICATION MEASURES TAKEN REGARDING DATA. THE WEEKLY REPORTS SHALL INCLUDE CLEAR AND EXPLICIT STATEMENTS OF READINGS EXCEEDING ANY PRE-DETERMINED THRESHOLD VALUES. THE CONTRACTOR SHALL MAINTAIN THE INSTRUMENTATION AND MONITOR THE MEASUREMENTS DURING AND AFTER CONSTRUCTION UP TO FINAL ACCEPTANCE.

## GEOTECHNICAL INSTRUMENTATION AND CONSTRUCTION MONITORING (CONTINUED):

THE GEOTECHNICAL INSTRUMENTATION AND CONSTRUCTION MONITORING PLAN SHALL BE SIGNED AND STAMPED BY THE LEAD GEOTECHNICAL ENGINEER, AND AS A MINIMUM SHALL INCLUDE:

- IDENTIFICATION OF RECEPTORS, INCLUDING STRUCTURES AND/OR UTILITIES LOCATED WITHIN 100 FEET OF VIBRATION-PRODUCING ACTIVITIES THAT REQUIRE VIBRATION MONITORING;
- THE TYPES AND QUANTITIES OF INSTRUMENTS TO BE USED FOR MONITORING, AND THE PROPOSED LOCATION OF THE INSTRUMENTS;
- ALERT AND ACTION LEVEL VIBRATION LIMITS FOR MONITORED STRUCTURES AND/OR UTILITIES, AND NOTIFICATION PROTOCOL FOR INSTANCES WHERE THE LIMITS ARE EXCEEDED;
- THE FREQUENCY AND DURATION OF INSTRUMENT READINGS; AND
- WHEN NECESSARY, GEOTECHNICAL INSTRUMENTATION FOR DESIGN VERIFICATION INCLUDING THE TYPES, QUANTITIES, LOCATIONS, AND FREQUENCY OF READINGS FOR PROPOSED INSTRUMENTATION.

THE CONTRACTOR SHALL INSTALL AND TAKE READINGS ON VIBRATION MONITORING INSTRUMENTS AT LEAST TWO WEEKS PRIOR TO CONSTRUCTION ACTIVITIES WITHIN THE 100-FOOT ZONE OF INFLUENCE TO ESTABLISH BASELINE READINGS.

THE GEOTECHNICAL INSTRUMENTATION SHALL BE USED TO DEMONSTRATE AT PROJECT ACCEPTANCE THAT MEASURED GEOTECHNICAL PERFORMANCE IS IN LINE WITH PREDICTED PERFORMANCE.

THE GEOTECHNICAL INSTRUMENTATION AND CONSTRUCTION MONITORING PLAN SHALL BE SUBMITTED TO THE EOR NO LATER THAN 30 DAYS BEFORE THE START OF CONSTRUCTION THAT INITIATES THE NEED FOR MONITORING.



CONSULTANT INFORMATION

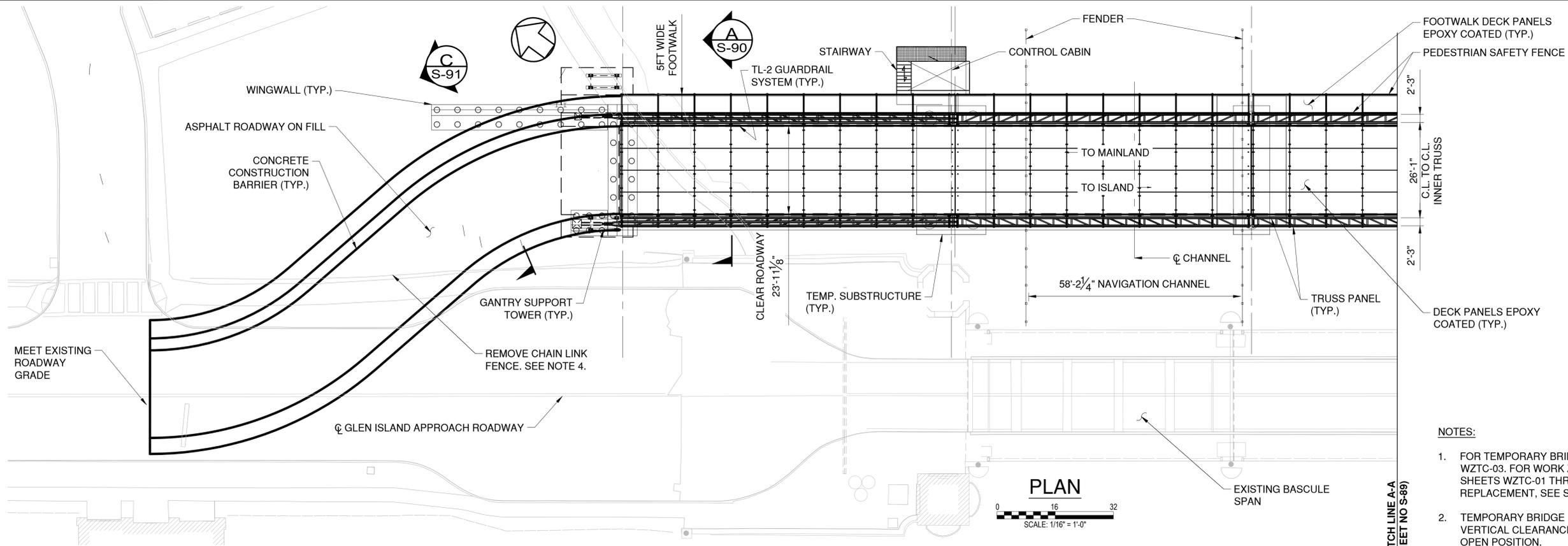


IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

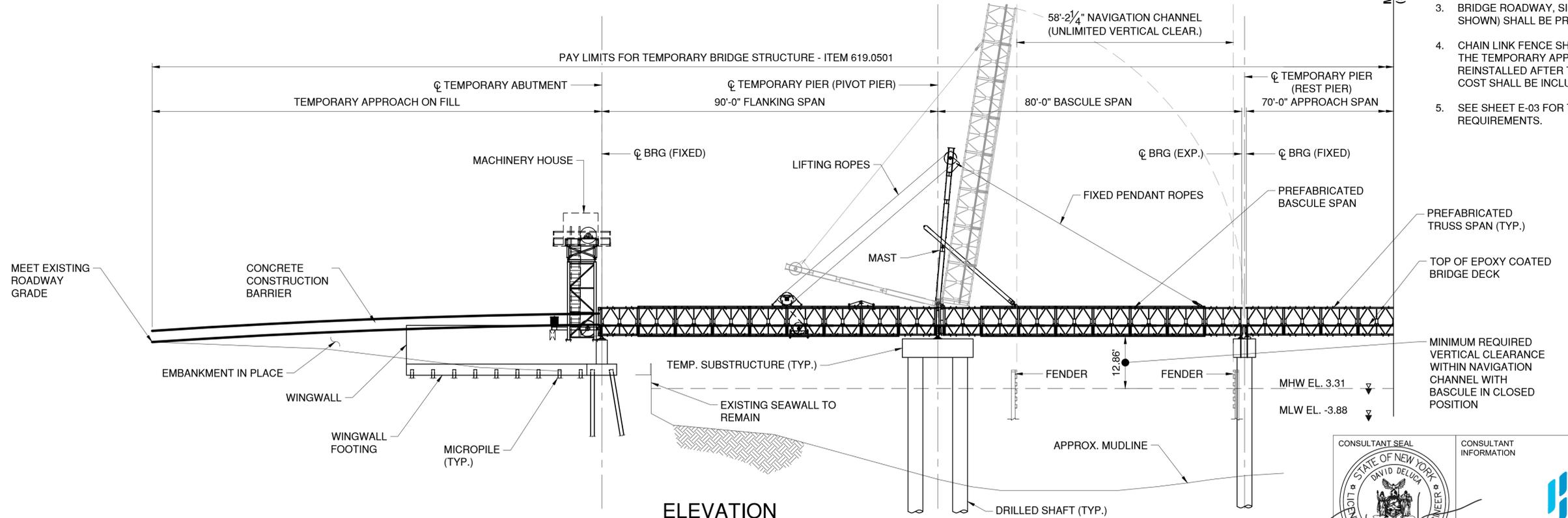
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER S-87
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 128 OF 212	
STRUCTURAL		SCALE: AS SHOWN DATE: 03/08/2024	
TEMPORARY BRIDGE NOTES		DPW FILE NO. 5-04-S-563-0	REV. NO. 0



**PLAN**  
 0 16 32  
 SCALE: 1/16" = 1'-0"

- NOTES:**
- FOR TEMPORARY BRIDGE ALIGNMENT, SEE SHEETS WZTC-02 AND WZTC-03. FOR WORK ZONE TRAFFIC CONTROL DRAWINGS, SEE SHEETS WZTC-01 THROUGH WZTC-11. FOR TREE REMOVAL AND REPLACEMENT, SEE SHEETS TRP-01 AND TRP-02.
  - TEMPORARY BRIDGE BASCULE SPAN WILL PROVIDE UNLIMITED VERTICAL CLEARANCE FOR NAVIGATION CHANNEL IN THE FULLY OPEN POSITION.
  - BRIDGE ROADWAY, SIDEWALK, AND NAVIGATION LIGHTING (NOT SHOWN) SHALL BE PROVIDED FOR TEMPORARY BRIDGE.
  - CHAIN LINK FENCE SHALL BE REMOVED WITHIN THE FOOTPRINT OF THE TEMPORARY APPROACH STRUCTURE. FENCE SHALL BE REINSTALLED AFTER THE TEMPORARY BRIDGE IS DECONSTRUCTED. COST SHALL BE INCLUDED UNDER ITEM 619.0501.
  - SEE SHEET E-03 FOR TEMPORARY MOVABLE BRIDGE REQUIREMENTS.



**ELEVATION**  
 0 16 32  
 SCALE: 1/16" = 1'-0"

CONSULTANT SEAL  
 STATE OF NEW YORK  
 DAVID DELUCA  
 NO. 04881  
 REGISTERED PROFESSIONAL ENGINEER

CONSULTANT INFORMATION  
**H&H**  
 1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY J. WARNCKE, PE  
 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

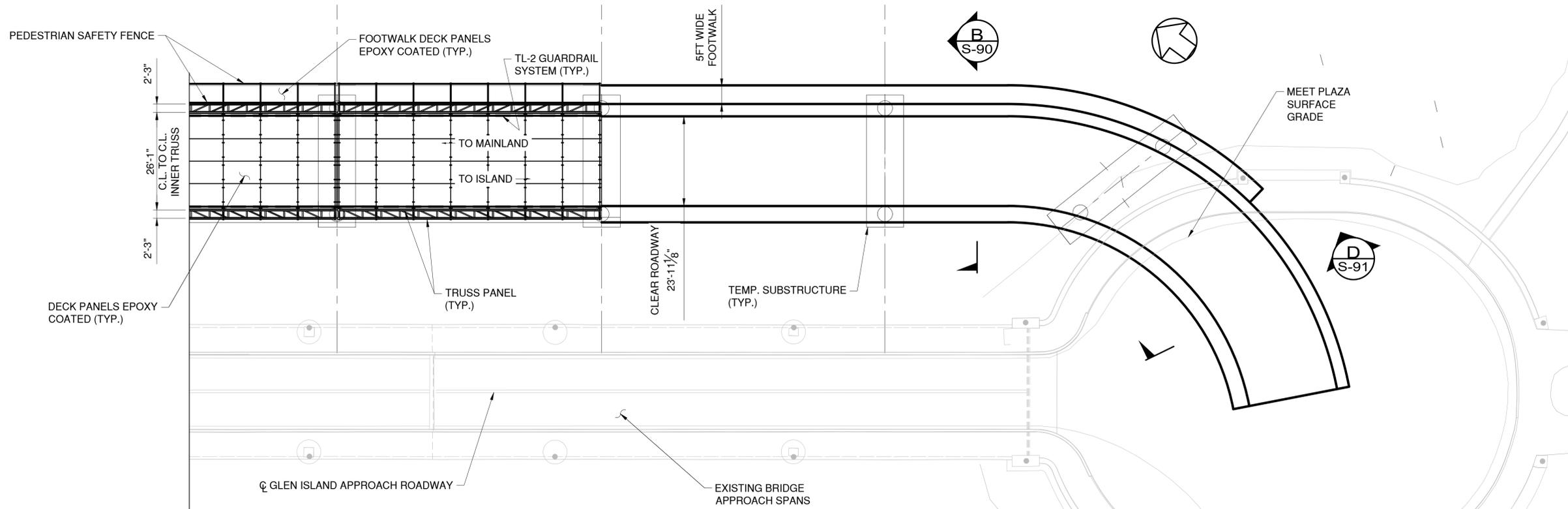
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NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

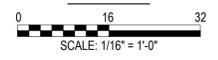
Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

STRUCTURAL  
**TEMPORARY BRIDGE GP&E - 1**

CONTRACT NUMBER 20-517	SHEET NUMBER S-88
SHEET NO. 129 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-S-564-0	0

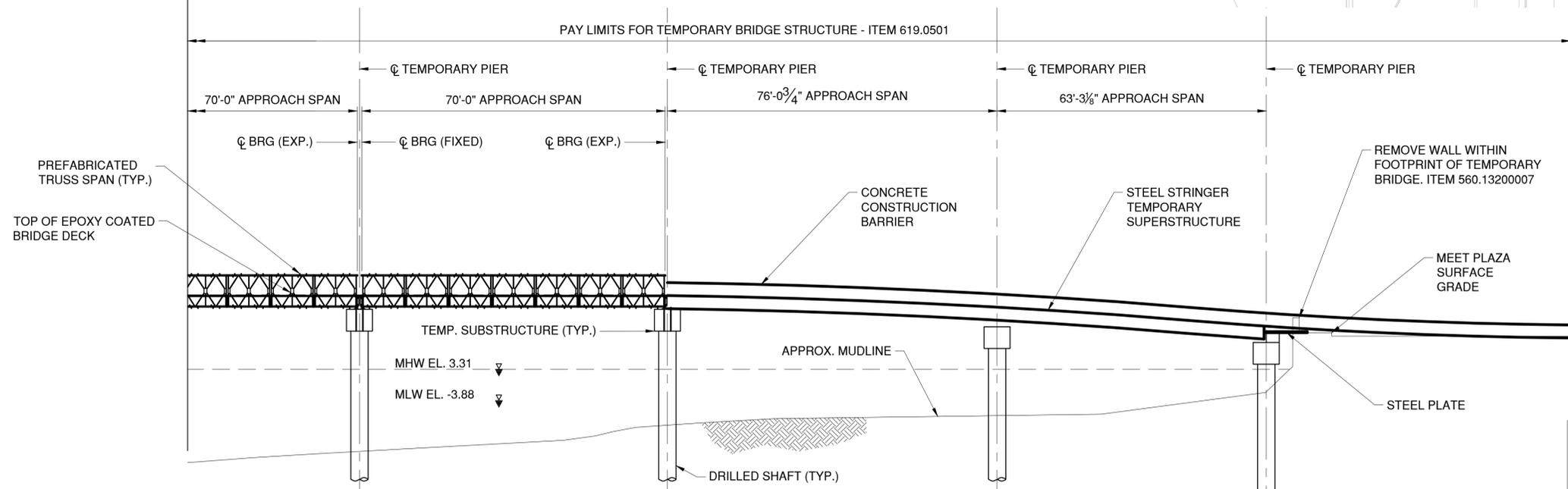


**PLAN**

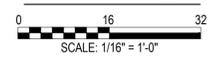


**NOTES:**

1. FOR TEMPORARY BRIDGE ALIGNMENT, SEE SHEETS WZTC-02 AND WZTC-03. FOR WORK ZONE TRAFFIC CONTROL DRAWINGS, SEE SHEETS WZTC-01 THROUGH WZTC-11. FOR TREE REMOVAL AND REPLACEMENT, SEE SHEETS TRP-01 AND TRP-02.
2. TEMPORARY BRIDGE BASCULE SPAN WILL PROVIDE UNLIMITED VERTICAL CLEARANCE FOR NAVIGATION CHANNEL IN THE FULLY OPEN POSITION.
3. BRIDGE ROADWAY, SIDEWALK, AND NAVIGATION LIGHTING (NOT SHOWN) SHALL BE PROVIDED FOR TEMPORARY BRIDGE.



**ELEVATION**



CONSULTANT SEAL

CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

IN CHARGE OF D. DELUCA, PE  
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 MADE BY C. TRIMBLE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

**RECORD DRAWING CERTIFICATION**

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 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
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TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

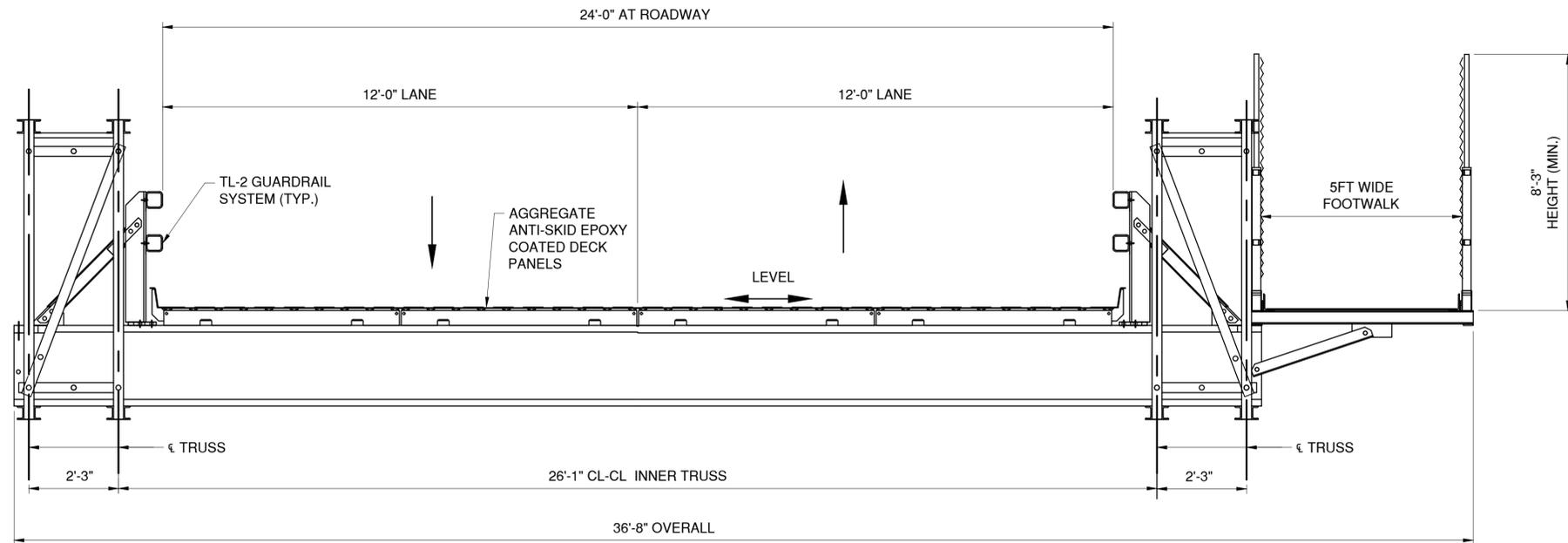
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

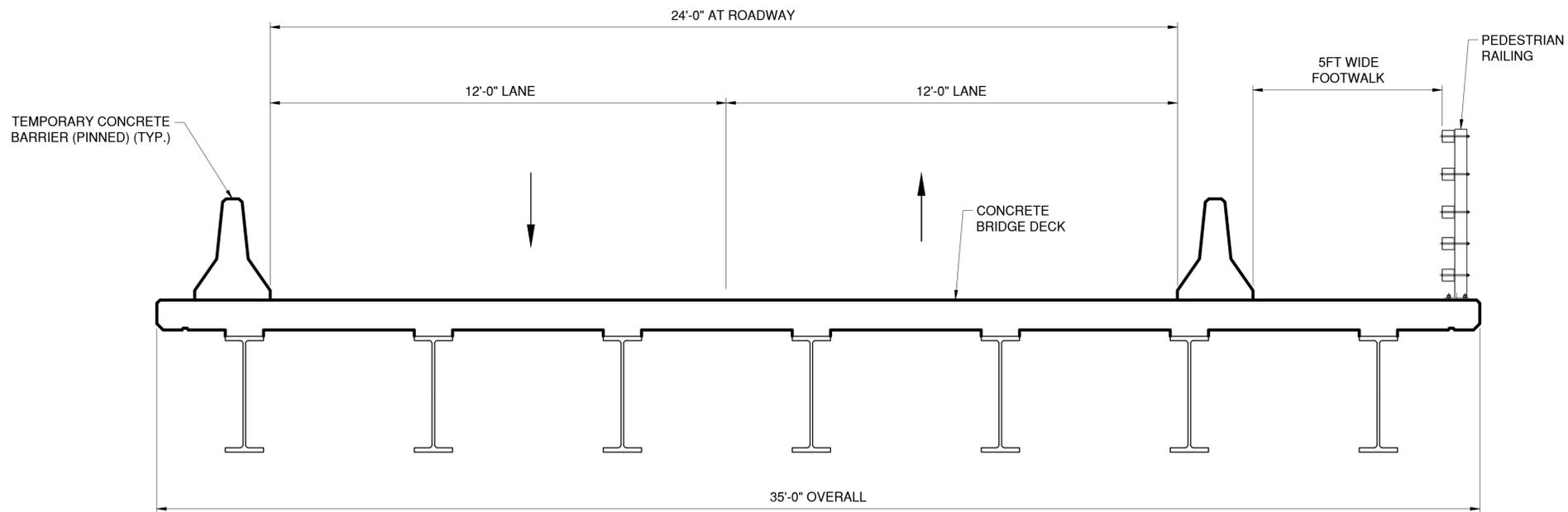
STRUCTURAL

**TEMPORARY BRIDGE GP&E - 2**

CONTRACT NUMBER 20-517	SHEET NUMBER S-89
SHEET NO. 130 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-S-565-0	REV. NO. 0



SECTION A  
S-88  
SCALE: 1/2" = 1'-0"



SECTION B  
S-89  
SCALE: 1/2" = 1'-0"



CONSULTANT INFORMATION

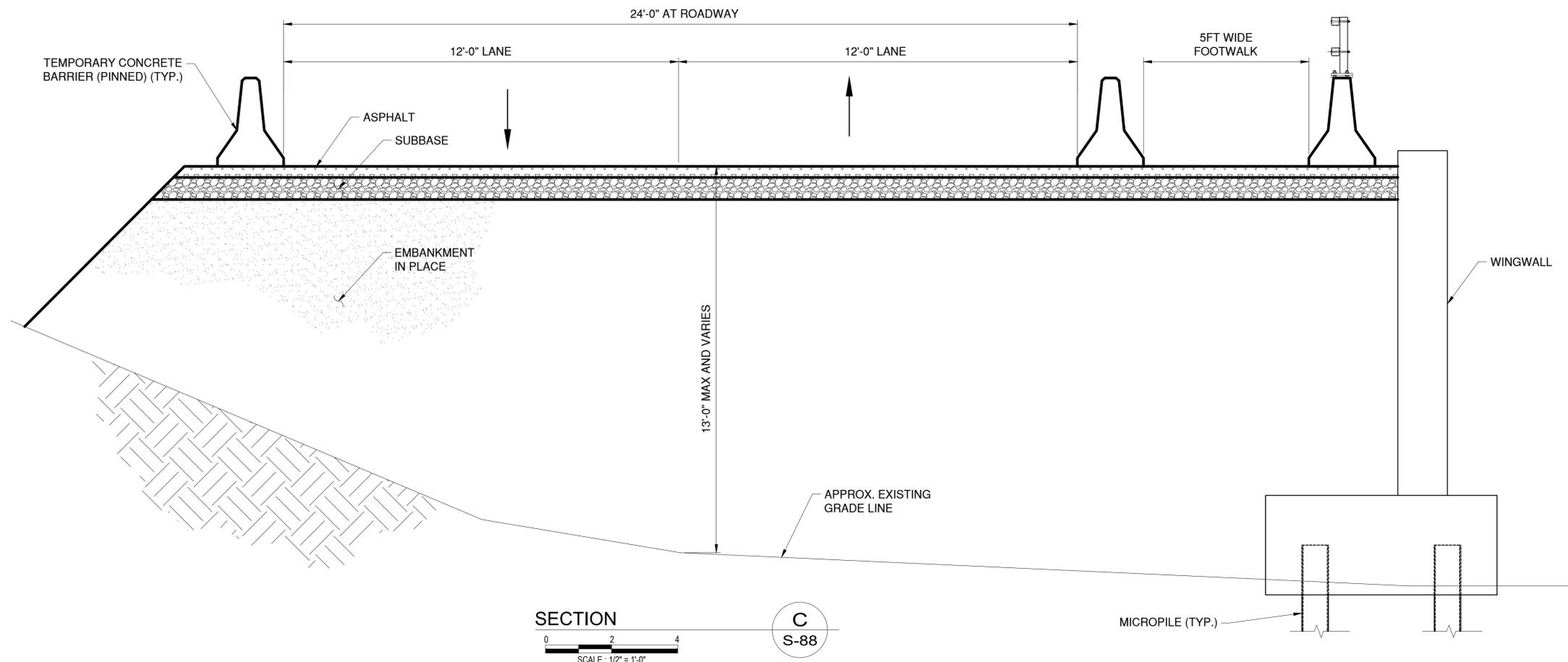


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 MADE BY C. TRIMBLE

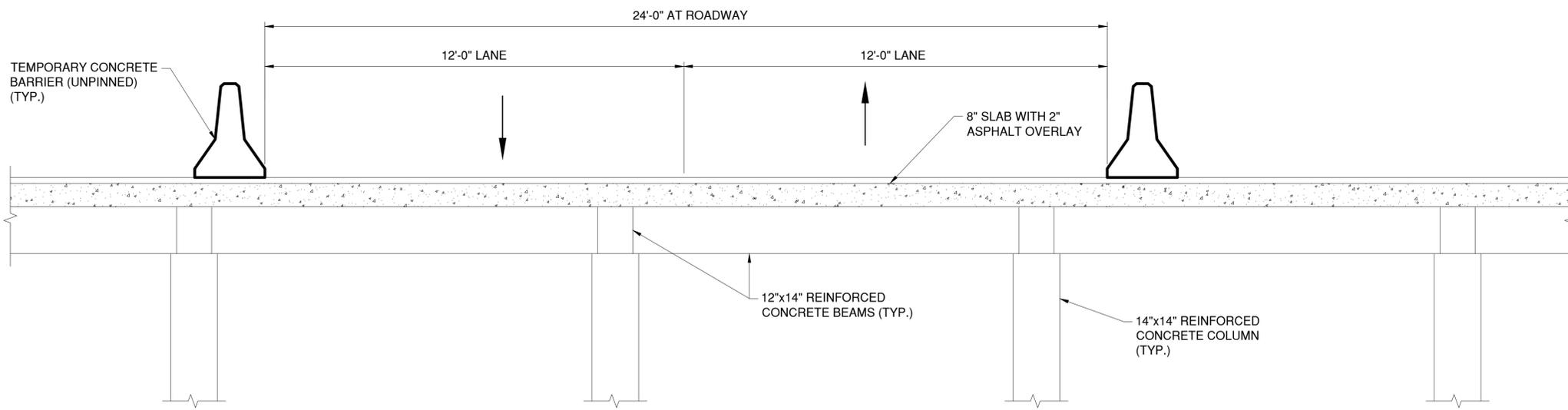
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER S-90
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle			
STRUCTURAL			
<b>TEMPORARY BRIDGE SECTIONS</b>			SHEET NO. 131 OF 212 SCALE: AS SHOWN DATE: 03/08/2024 DPW FILE NO. 5-04-S-566-0
REV. NO. 0			REV. NO. 0



SECTION C  
SCALE: 1/2" = 1'-0"  
S-88



SECTION D  
SCALE: 1/2" = 1'-0"  
S-89



CONSULTANT INFORMATION



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 MADE BY N. HYSON, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____		
DATE _____	DATE _____		

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 STRUCTURAL  
**TEMPORARY BRIDGE APPROACH SECTIONS**

CONTRACT NUMBER 20-517	SHEET NUMBER S-91
SHEET NO. 132 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-S-567-0	REV. NO. 0

# ARCHITECTURAL SCOPE:

## WORK COVERED BY CONTRACT DOCUMENTS

- A. THE WORK OF THIS PROJECT IS DEFINED BY THE CONTRACT DOCUMENTS AND CONSISTS OF THE FOLLOWING:
1. GENERAL BUILDING REHABILITATION (A GENERAL DESCRIPTION OF THE PRIMARY WORK ELEMENTS IS LISTED BELOW FOR REFERENCE - CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL THE DRAWINGS AND SPECIFICATIONS TO OBTAIN A COMPLETE UNDERSTANDING OF THE ENTIRE WORK SCOPE):
    - 1.A. DEMOLISH EXISTING RESTROOM PARTITIONS AND FIXTURES AT CONTROL HOUSE LOWER LEVEL AND AND CONSTRUCT NEW RESTROOM FACILITY AT LOWER LEVEL.
    - 1.B. DEMOLISH AND FURNISH NEW KITCHENETTE AT LOWER LEVEL.
    - 1.C. PERFORM ASSOCIATED STRUCTURAL, ELECTRICAL, HVAC, PLUMBING, AND CIVIL WORK AS RELATED TO ARCHITECTURAL WORK NOTED IN THE CONTRACT DOCUMENTS.
    - 1.D. DEMOLITION AND PATCHING OF ALL WORK NOTED ON DRAWINGS OR NECESSARY TO COMPLETE INTENT OF SCOPE OUTLINED. INCLUDE REMOVALS, AND PROTECTION OF EXISTING ITEMS TO BE RE-USED OR INSTALLED.
    - 1.E. PREPARATION OF EXISTING SURFACES TO RECEIVE NEW WORK.
    - 1.F. TEMPORARY BARRICADES, PARTITIONS, FENCES, ETC. AS NECESSARY TO ENCLOSE AND PROTECT WORK AND LIMIT ACCESS TO AUTHORIZED PERSONNEL TO THE WORK AREAS DURING CONSTRUCTION, AND PROTECT BUILDING STAFF AND THE GENERAL PUBLIC.
    - 1.G. SHOP DRAWINGS AND TESTING (AS REQUIRED).
    - 1.H. CLEAN UP AND PROTECT ANY REQUIRED RESTORATION OF NEW AND EXISTING SURFACES.
    - 1.I. CONTRACTOR WILL BE RESPONSIBLE FOR FILING AND COORDINATION OF ALL CONSTRUCTION PERMITS AS REQUIRED FOR COMPLETION OF ALL WORK.
    - 1.J. CLOSURE OF PERMITS WITH ALL REGULATORY AGENCIES.
    - 1.K. PROTECTION OF ELECTRICAL AND MECHANICAL EQUIPMENT DURING DEMOLITION.

## GENERAL NOTES:

1. THE FOLLOWING NOTES SHALL APPLY THROUGHOUT. EXCEPTIONS ARE SPECIFICALLY NOTED.
2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE 2020 EXISTING BUILDING CODE OF NEW YORK STATE INCLUDING ALL APPLICABLE REFERENCE STANDARDS.
3. UNLESS OTHERWISE NOTED, THE CONTRACTOR WILL APPLY FOR AND SECURE AND THE OWNER WILL PAY FOR ALL PERMITS, INSPECTIONS, TESTING AND APPROVALS REQUIRED BY LOCAL, STATE, AND FEDERAL AGENCIES HAVING JURISDICTIONS.
4. PRIOR TO BEGINNING OF ANY WORK, THE CONTRACTOR SHALL SET UP A SCHEDULE WITH THE OWNER COORDINATING ALL WORK REQUIRED. THE OWNER MUST APPROVE THIS SCHEDULE.
5. BEFORE COMMENCING WORK, THE CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND CONDITION SHOWN ON DRAWINGS AT THE JOB SITE, AND WILL NOTIFY THE ENGINEER OF ANY DISCREPANCIES, OMISSIONS AND/OR CONFLICTS BEFORE PROCEEDING WITH THE WORK.
6. CLOSELY COORDINATE THE WORK WITH REGARD TO ANCHORS AND OTHER ITEMS BUILT INTO SUPPORTING SURFACES. INSTALL ALL WORK IN A PLUMB LEVEL, SECURE MANNER IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS.
7. DO NOT SCALE DRAWINGS, WRITTEN DIMENSIONS SHALL GOVERN. LARGER SCALE DETAILS GOVERN OVER SMALLER SCALE.
8. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION BETWEEN THE TRADES.
9. ANY ITEM OF LABOR OR EQUIPMENT NOT SPECIFIED IN DETAIL BY THE SPECIFICATIONS OR INDICATED ON THE DRAWINGS BUT WHICH IS INCIDENTAL TO OR NECESSARY TO COMPLETE THE SCOPE OF WORK DESCRIBED HEREIN OR REASONABLY IMPLIED SHALL BE FURNISHED AS IF CALLED FOR IN DETAIL.
10. PROVIDE BARRICADES AROUND WORK AREAS AS REQUIRED TO PREVENT UNAUTHORIZED PERSONS FROM ENTERING THEREIN.
11. THE CONTRACTOR(S) SHALL BE RESPONSIBLE FOR ADEQUATELY BRACING AND PROTECTING ALL WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGE COLLAPSE, DISTORTIONS, AND OFF ALIGNMENTS, ACCORDING TO CODES AND STANDARDS OF GOOD PRACTICES.
12. CONTRACTORS SHALL HAVE SHOP DRAWINGS AND MATERIALS REVIEWED BY THE ENGINEER OF RECORD BEFORE PROCEEDING WITH ANY FABRICATION OR ERECTION OF THE WORK INDICATED ON THE SHOP DRAWINGS.
13. DURING CONSTRUCTION, THE CONTRACTOR(S) SHALL PROVIDE TEMPORARY PARTITIONS TO SEAL OPENINGS TO PREVENT DUST AND DIRT FROM ENTERING ROOMS AND EQUIPMENT
14. THE CONTRACTOR(S) SHALL KEEP THE WORK SITE FREE OF DEBRIS AND ACCUMULATED REFUSE AND SHALL HAVE SOLE RESPONSIBILITY FOR PROTECTING DANGEROUS AREAS FROM ENTRY BY UNAUTHORIZED PARTIES. THE SITE WILL BE LEFT BROOM CLEAN AT THE END OF EACH WORKING DAY.
15. THE CONTRACTOR(S) SHALL BE RESPONSIBLE TO RESTORE THE SITE TO THE SAME CONDITION AS BEFORE COMMENCEMENT OF THE WORK.
16. ALL MATERIALS AND EQUIPMENT NECESSARY FOR THE WORK SHALL BE SAFELY AND SECURELY STORED IN LOCATIONS APPROVED BY THE OWNER AND/OR ENGINEER.
17. 18. THE CONTRACTOR(S) SHALL PERFORM ALL CUTTING AND PATCHING REQUIRED TO COMPLETE THE WORK OR TO MAKE ITS PARTS FIT TOGETHER PROPERLY WITHOUT COMPROMISING THE QUALITY OF WORK.
18. THE CONTRACTOR(S) SHALL PATCH AND REPAIR ALL FLOORS, WALL, CEILING, ETC. DAMAGED OR EXPOSED DUE TO WORK OR REMOVALS AND FINISH TO MATCH ADJOURNING SURFACES.

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY D. TARANTINO, RA  
 MADE BY E. BREDAHL

19. WHERE MANUFACTURER'S NAMES AND PRODUCT NUMBERS ARE INDICATED ON THE DRAWINGS, IT SHALL BE CONSTRUED TO MEAN THE ESTABLISHING QUALITY AND PERFORMANCE OF SUCH ITEMS. ALL OTHER PRODUCTS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE THEY SHALL BE DEEMED EQUAL.
20. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND LOCATE ALL EXISTING UTILITIES AND CONDITIONS AT THE SITE PRIOR TO ANY WORK. ALL EXISTING UTILITIES AND EQUIPMENT SHALL BE TEMPORARILY PROTECTED AND SUPPORTED. IF ANY UTILITIES OR SERVICES ARE INTERRUPTED DURING THE EXECUTION OF THE CONTRACT, IT IS THE RESPONSIBILITY OF THE CONTRACTOR(S) TO REROUTE AND/OR PROVIDE TEMPORARY SERVICE SO AS NOT TO DISRUPT ANY SERVICE TO THE BUILDING.
21. THE CONTRACTOR(S) SHALL BE RESPONSIBLE FOR ALL METHODS AND MEANS OF CONSTRUCTION AND PROVIDE ALL SAFE GUARDS TO ENSURE SAFETY TO THE PUBLIC FOR THE DURATION OF THIS RENOVATION PROJECT.
22. ALL NEW WORK SHALL MEET EXISTING CONDITIONS NEATLY AND SMOOTHLY.
23. INSTALL FIRE-STOPPING AT NEW PENETRATIONS MADE IN ANY WALLS OR FLOORS WHICH SEPARATE THE ALTERED SPACES FROM OTHER AREAS OF THE BUILDING AS INDICATED IN SPECIFICATIONS.
24. NO CHANGES SHALL BE MADE TO THE DESIGN OR LAYOUT OF THE PROJECT WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.
25. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING SCHEDULING OF WORK AND SITE/BUILDING ACCESS WITH THE DESIGNATED REPRESENTATIVE OF THE WCDPW.
26. THE ARCHITECT SHALL HAVE NO RESPONSIBILITY FOR THE DISCOVERY, PRESENCE, HANDLING, REMOVAL OR DISPOSAL OF HAZARDOUS MATERIALS IN ANY FORM AT THE PROJECT SITE, INCLUDING, BUT NOT LIMITED TO ASBESTOS-CONTAINING MATERIALS, POLYCHLORINATED BIPHENYL (PCB), LEAD-CONTAINING PAINTS, OR OTHER TOXIC SUBSTANCES. ALL MATERIALS SHALL BE DISPOSED OF IN THE APPROPRIATE MANNER AS DESCRIBED BY LAW AND COMMON PRACTICE AS RECOMMENDED BY THE ENVIRONMENTAL PROTECTION AGENCY OR OTHER JURISDICTIONAL AGENCIES.

## BUILDING DATA:

THE PROJECT IS DESIGNED TO COMPLY WITH THE LATEST EDITION OF THE 2020 EXISTING BUILDING CODE OF NEW YORK STATE AND ALL APPLICABLE SUB-CODES. PROVIDE ALL WORK TO CONFORM TO EXISTING BUILDING CODE.

DESCRIPTION OF WORK:  
 WORK IS AN "ALTERATION - LEVEL 2" PROJECT (PER SECTION 603 OF THE EXISTING BUILDING CODE)

WORK IS LESS THAN 50 PERCENT OF THE BUILDING AREA.  
 LOWER LEVEL NET FLOOR AREA: 431 SF  
 LOWER LEVEL NET AREA OF WORK: 93 SF  
 431 SF / 2 = 215.5 SF > 93 SF

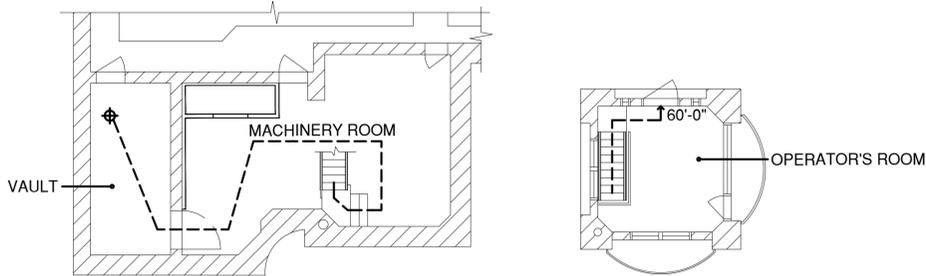
THERE ARE NO CHANGES TO THE BUILDING AREA, OR BUILDING VOLUME OF THE STRUCTURE.  
 THERE ARE NO CHANGES TO THE BUILDING USE OR EGRESS  
 EXISTING VERTICAL OPENINGS MEET SECTION 802.2.1 EXCEPTION 5.1

OCCUPANCY CLASSIFICATION: GROUP B BUSINESS

OCCUPANCY LOAD CALCULATIONS:  
 OPERATOR'S LEVEL: 119 SF (GROSS) / 300 = 1 (1 OPERATOR MAY BE PRESENT)  
 LOWER LEVEL: 431 SF (GROSS) / 300 = 2

LIFE SAFETY NOTES AND SYMBOLS:  
 : MEANS OF EGRESS GREATEST PATH OF TRAVEL W/ OCCUPANT LOAD AT EXIT

MAX. ALLOWABLE TRAVEL DISTANCE: 75 FEET  
 MAX. ACTUAL TRAVEL DISTANCE: 60 FEET



LOWER LEVEL EL. +10.19                      OPERATOR'S LEVEL EL. +21.29

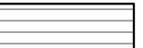
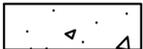
## CONTROL HOUSE EGRESS PLANS

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

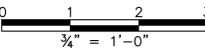
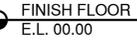
## ABBREVIATIONS:

@ APPROX.	AT APPROXIMATELY	MIN. N.T.S	MINIMUM NOT TO SCALE
C.L. CONT.	CENTERLINE CONTINUOUS	O.C. REQ'D	ON CENTER REQUIRED
DIA. E.L.	DIAMETER ELEVATION	S.S. STRUCT.	STAINLESS STEEL STRUCTURAL
EXIST. GA	EXISTING GALVANIZED	TYP. V.I.F.	TYPICAL VERIFY IN FIELD
HR MAX.	HOUR MAXIMUM	W/	WITH

## MATERIALS:

EXISTING WALL TO REMAIN		GYPSUM BOARD	
CONCRETE		CEMENT WALLBOARD	
CONCRETE REMOVAL LIMITS		STEEL	

## LEGEND:

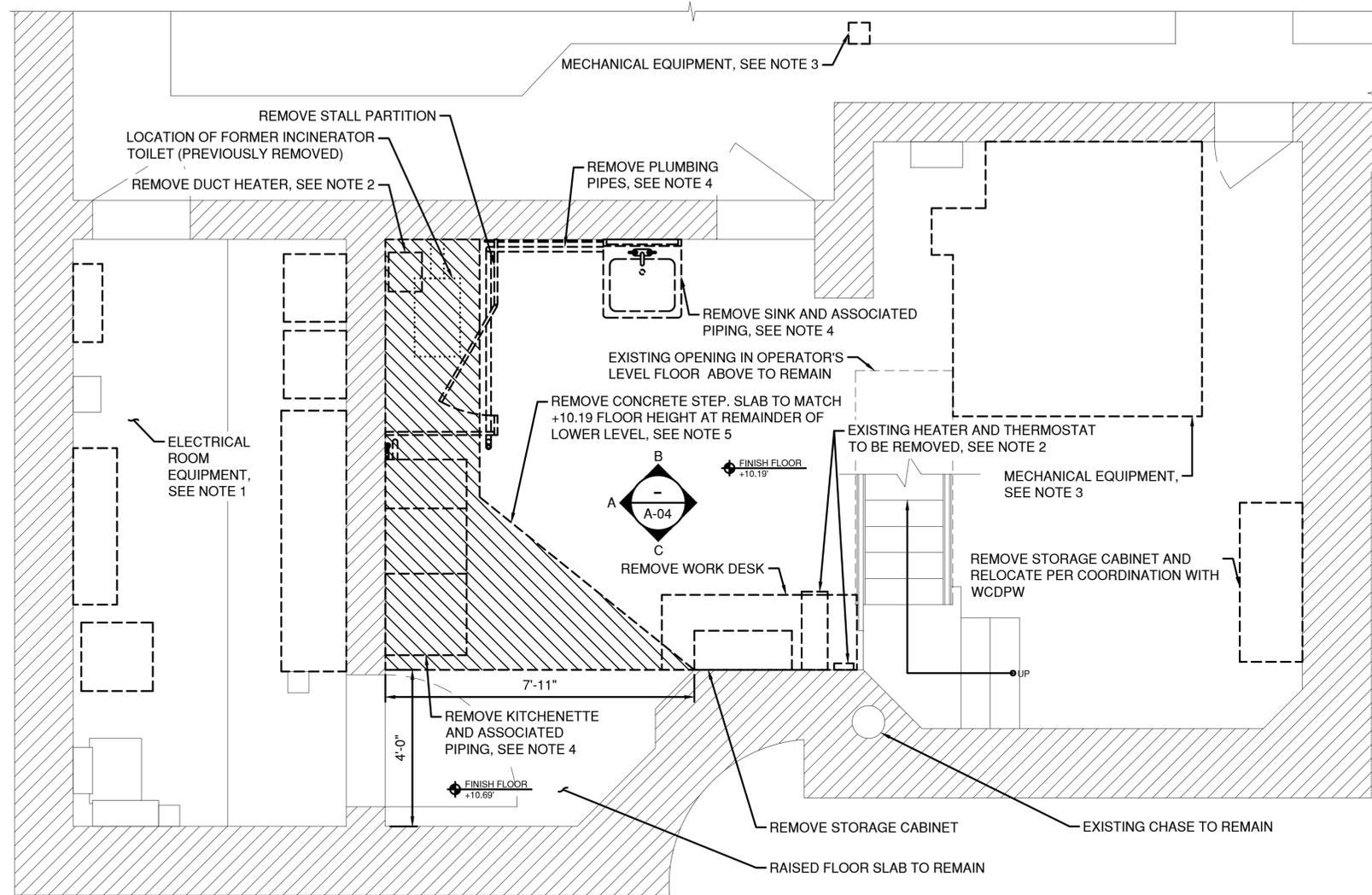
CENTERLINE		EXISTING TO REMAIN	
NORTH ARROW		REMOVE	
SECTION CALLOUT		DOOR TAG	
ELEVATION CALLOUT		RESTROOM ACCESSORY TAG	
DETAIL CALLOUT		GRAPHIC SCALE	
BREAK LINE		ELEVATION	
		PARTITION TAG	

## SYMBOLS:

EMERGENCY LIGHTING	
EXIT SIGN WITH EMERGENCY LIGHTING	
HARDWIRED INTERCONNECTED COMBINATION SMOKE AND CARBON MONOXIDE DETECTORS	

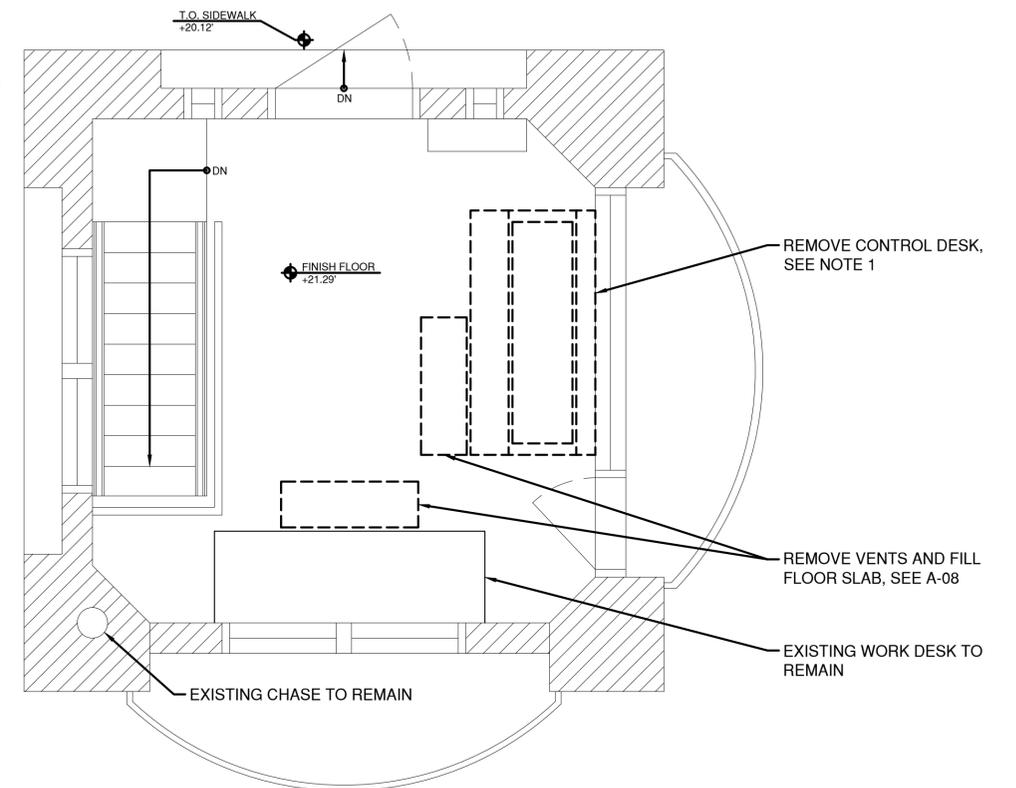
	CONSULTANT INFORMATION 	1501 BROADWAY, SUITE 601 NEW YORK, NY 10036 (212) 944-1150
---	---	--

RECORD DRAWING CERTIFICATION					WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER A-01
<input type="checkbox"/> AS BUILT - CHANGES AS NOTED <input type="checkbox"/> AS BUILT - NO CHANGES					Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 133 OF 212 SCALE: AS SHOWN DATE: 03/08/2024	
CONTRACTOR			PROJECT COORDINATOR			ARCHITECTURAL		REV. NO. 0
NAME _____	NAME _____	ARCHITECTURAL		ARCHITECTURAL		5-04-A-568-0		
SIGNATURE _____	SIGNATURE _____	ARCHITECTURAL		ARCHITECTURAL		ARCHIT'L GENERAL NOTES, LEGEND & ABBR'S		
TITLE _____	TITLE _____	ARCHITECTURAL		ARCHITECTURAL		ARCHITECTURAL		
DATE _____	DATE _____	ARCHITECTURAL		ARCHITECTURAL		ARCHITECTURAL		
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION				



DEMOLITION PLAN - LOWER LEVEL EL. +10.19

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



DEMOLITION PLAN - OPERATOR'S LEVEL +21.29

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

**NOTES:**

1. SEE DRAWINGS E-07 TO E-29 FOR ELECTRICAL EQUIPMENT REMOVAL.
2. SEE DRAWINGS H-01 TO H-03 FOR HVAC REMOVAL.
3. SEE DRAWINGS M-01 TO M-13 FOR MACHINERY REMOVAL.
4. SEE DRAWINGS P-01 TO P-04 FOR PLUMBING REMOVAL.
5. USE EXTREME CARE DURING SELECTIVE DEMOLITION OF RAISED SLAB. SAWCUT PERIMETER OF STEP TO A DEPTH OF 6 INCHES AND PROVIDE NUMEROUS RELIEF CUTS TO SECTIONALIZE THE WORK. DO NOT UNDERMINE DEPTH OF EXISTING STRUCTURAL FLOOR SLAB. FOLLOW SPECIFICATION 024113, SELECTIVE DEMOLITION, LIMITING SIZE AND WEIGHT OF TOOLS.

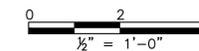
IN CHARGE OF D. DELUCA, PE  
 CHECKED BY D. TARANTINO, RA  
 MADE BY E. BREDAHL

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

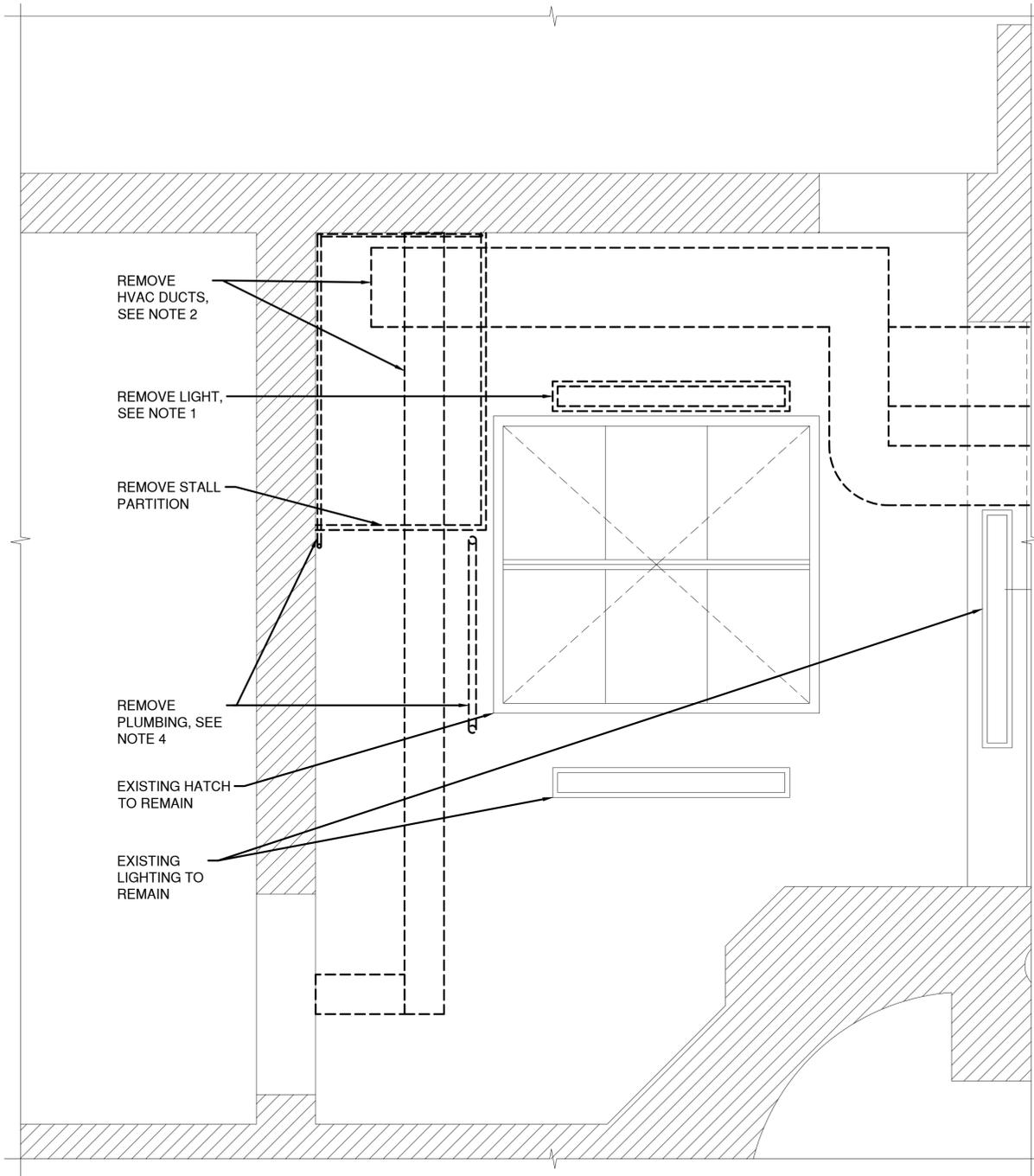


CONSULTANT INFORMATION



WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 ARCHITECTURAL  
**CONTROL HOUSE DEMOLITION FLOOR PLAN**

CONTRACT NUMBER 20-517	SHEET NUMBER A-02
SHEET NO. 134 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-A-569-0	REV. NO. 0



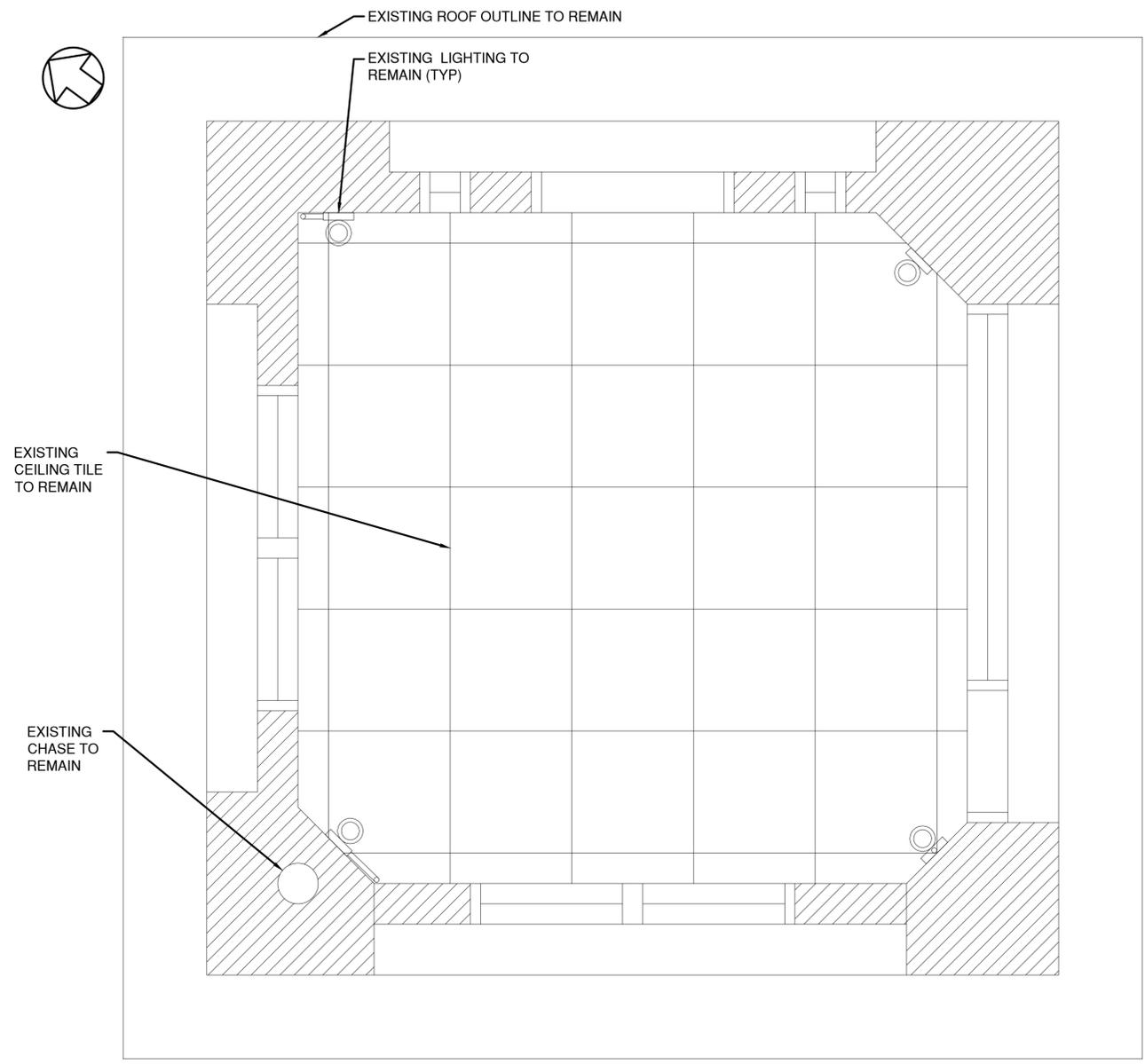
DEMOLITION REFLECTED CEILING PLAN - LOWER LEVEL EL. +10.19

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

- NOTES:**
1. ELECTRICAL CONDUITS NOT SHOWN. SEE DRAWINGS E-07 TO E-29 FOR ELECTRICAL EQUIPMENT REMOVAL.
  2. DUCTWORK AND EQUIPMENT LOCATIONS SHALL BE FIELD VERIFIED AND COORDINATED WITH HVAC DRAWINGS. SEE H-01 TO H-03 FOR HVAC REMOVAL.
  3. SEE DRAWINGS M-01 TO M-13 FOR MACHINERY REMOVAL.
  4. SEE DRAWINGS P-01 TO P-04 FOR PLUMBING REMOVAL.

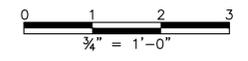
IN CHARGE OF D. DELUCA, PE  
 CHECKED BY D. TARANTINO, RA  
 MADE BY E. BREDAHL

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

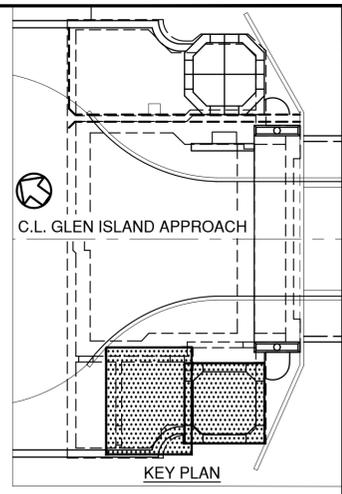


DEMOLITION REFLECTED CEILING PLAN - OPERATOR'S LEVEL +21.29

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



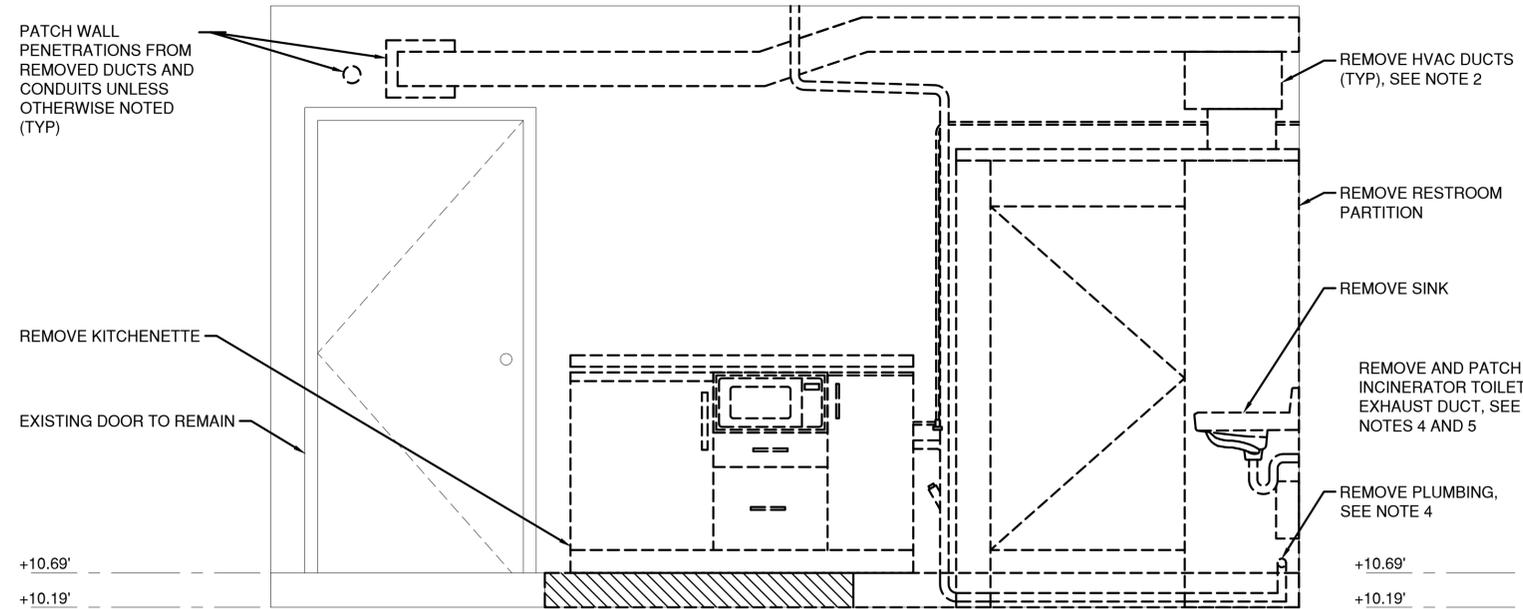
CONSULTANT INFORMATION



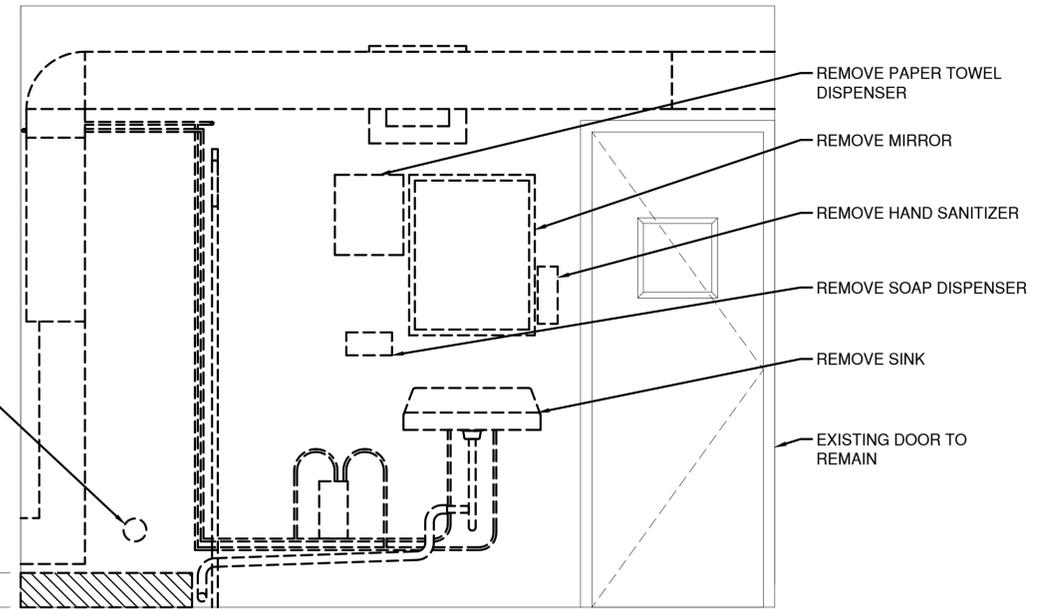
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 ARCHITECTURAL  
**CONTROL HOUSE DEMO REFLECTED CLG PLAN**

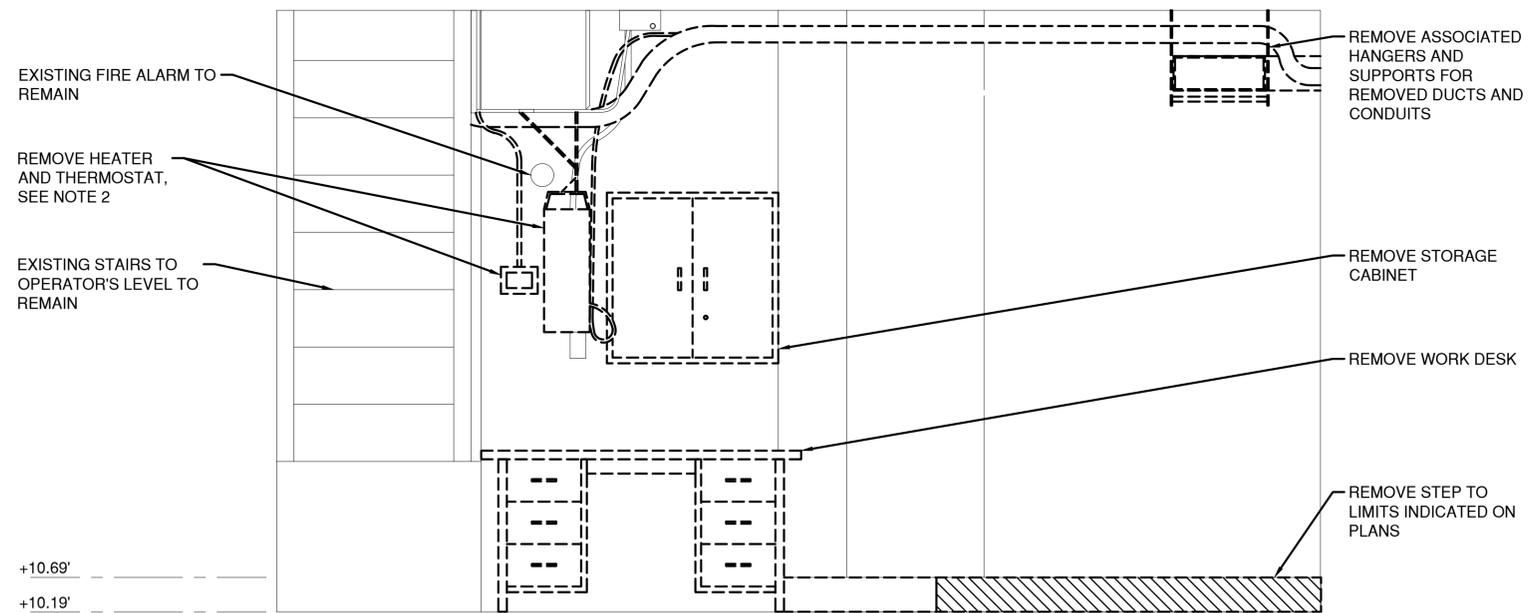
CONTRACT NUMBER 20-517	SHEET NUMBER A-03
SHEET NO. 135 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-A-570-0	REV. NO. 0



INTERIOR ELEVATION **A**  
A-02



INTERIOR ELEVATION **B**  
A-02



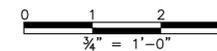
INTERIOR ELEVATION **C**  
A-02

**DEMOLITION LOWER LEVEL INTERIOR ELEVATIONS**

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

**NOTES:**

- ELECTRICAL CONDUITS NOT SHOWN. SEE DRAWINGS E-07 TO E-29 FOR ELECTRICAL EQUIPMENT REMOVAL.
- SEE DRAWINGS H-01 TO H-03 FOR HVAC REMOVAL.
- SEE DRAWINGS M-01 TO M-13 FOR MACHINERY REMOVAL.
- SEE DRAWINGS P-01 TO P-04 FOR PLUMBING REMOVAL.



CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

IN CHARGE OF D. DELUCA, PE  
CHECKED BY D. TARANTINO, RA  
MADE BY E. BREDAHL

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
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DATE _____	DATE _____	DATE _____	DATE _____

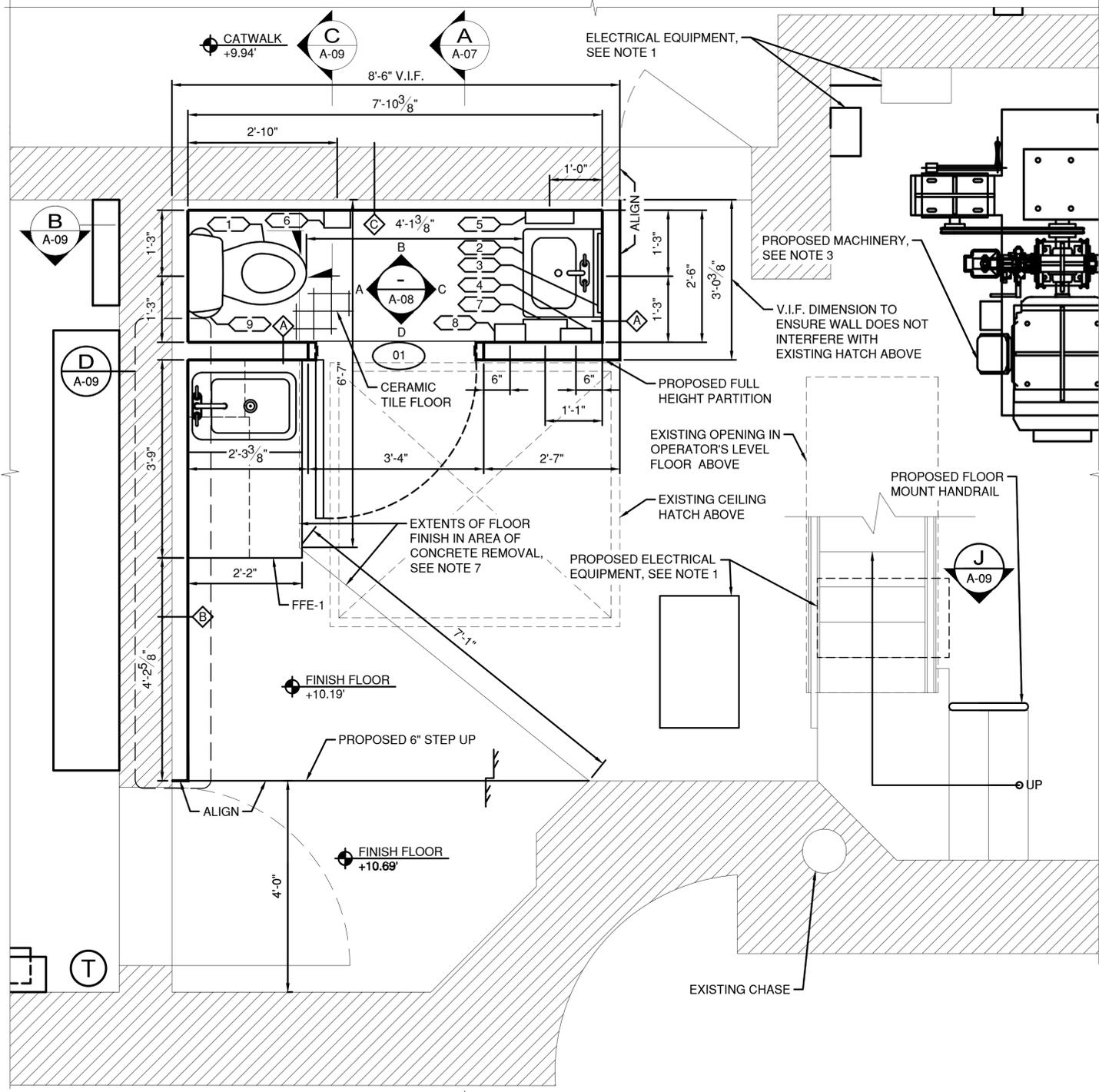
WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle

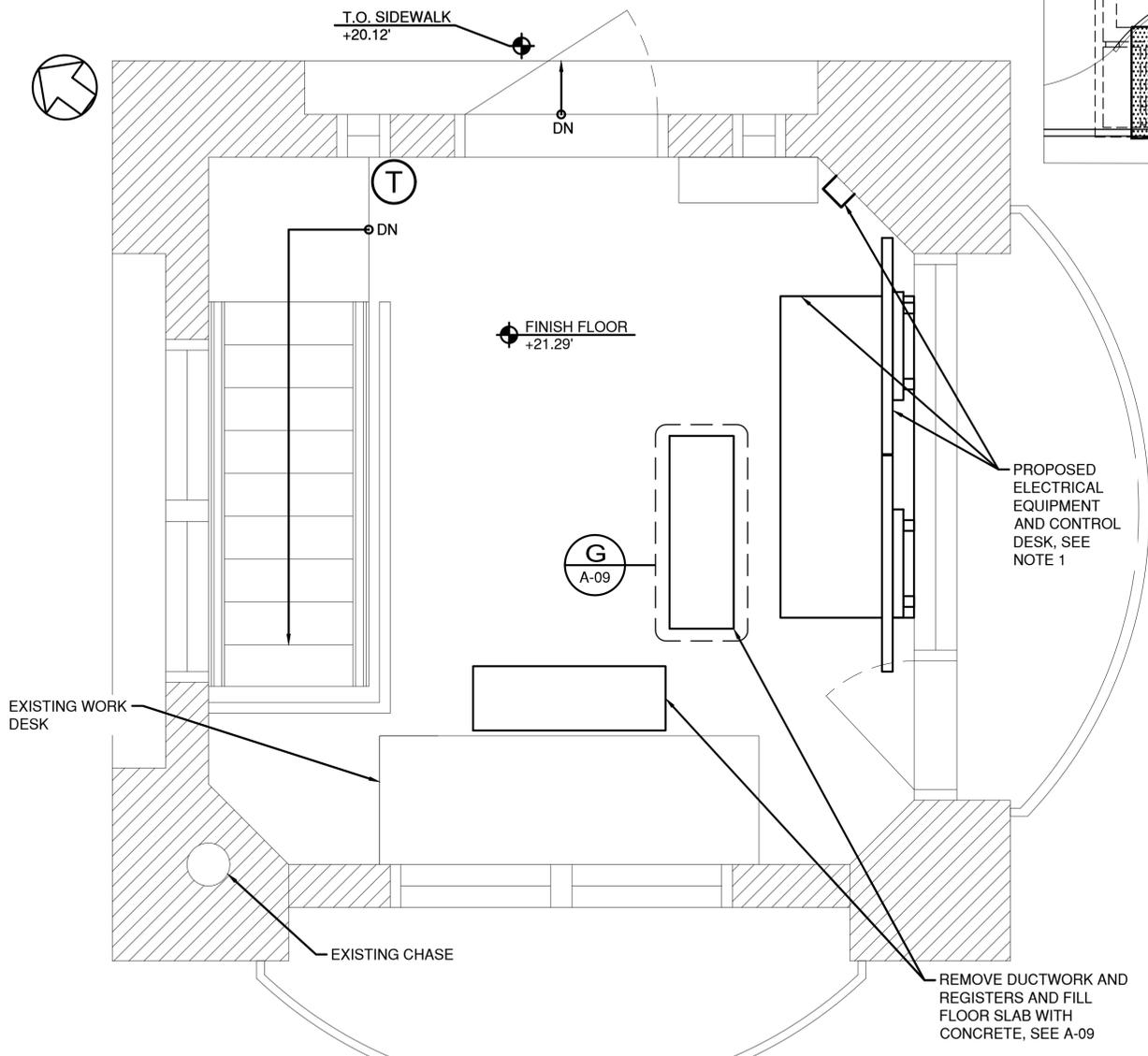
ARCHITECTURAL

**CONTROL HOUSE DEMO LOWER LVL INT ELEV'S**

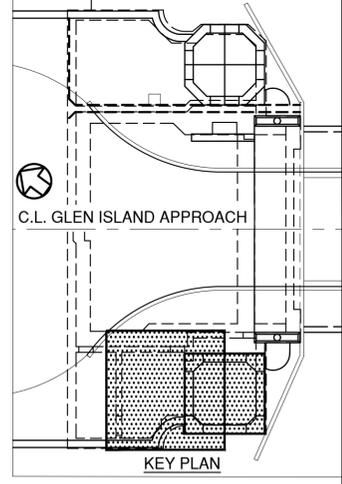
CONTRACT NUMBER 20-517	SHEET NUMBER A-04
SHEET NO. 136 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-A-571-0	0



ENLARGED PLAN - LOWER LEVEL EL. +10.19  
SCALE: 3/4"=1'-0"



ENLARGED PLAN - OPERATOR'S LEVEL EL. +21.29  
SCALE: 3/4"=1'-0"



- NOTES:
- SEE DRAWINGS E-07 TO E-29 FOR PROPOSED ELECTRICAL EQUIPMENT.
  - SEE DRAWINGS H-01 TO H-03 FOR PROPOSED HVAC.
  - SEE DRAWINGS M-01 TO M-13 FOR PROPOSED MACHINERY.
  - SEE DRAWINGS P-01 TO P-04 FOR PROPOSED PLUMBING.
  - SEE A-10 FOR RESTROOM ACCESSORIES AND ARCHITECTURAL FURNITURE, FIXTURE AND EQUIPMENT SCHEDULE.
  - SEE A-09 FOR PARTITION TYPES.
  - FINISH VICINITY OF CONCRETE SLAB REMOVAL WITH DIAMOND GRINDER TO A SMOOTH AND FLUSH SURFACE TO MATCH ELEVATION OF ADJOINING SLAB TO REMAIN. PROVIDE CONCRETE SOLIDIFYING AGENT TO SEAL AND TREAT EXCAVATED SURFACE PRIOR TO AND AFTER FINAL GRINDING.

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY D. TARANTINO, RA  
 MADE BY E. BREDAHL

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/> AS BUILT - CHANGES AS NOTED <input type="checkbox"/> AS BUILT - NO CHANGES		CONTRACTOR	
NAME _____	NAME _____	PROJECT COORDINATOR	
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____	DATE _____	DATE _____

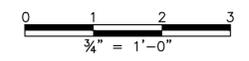


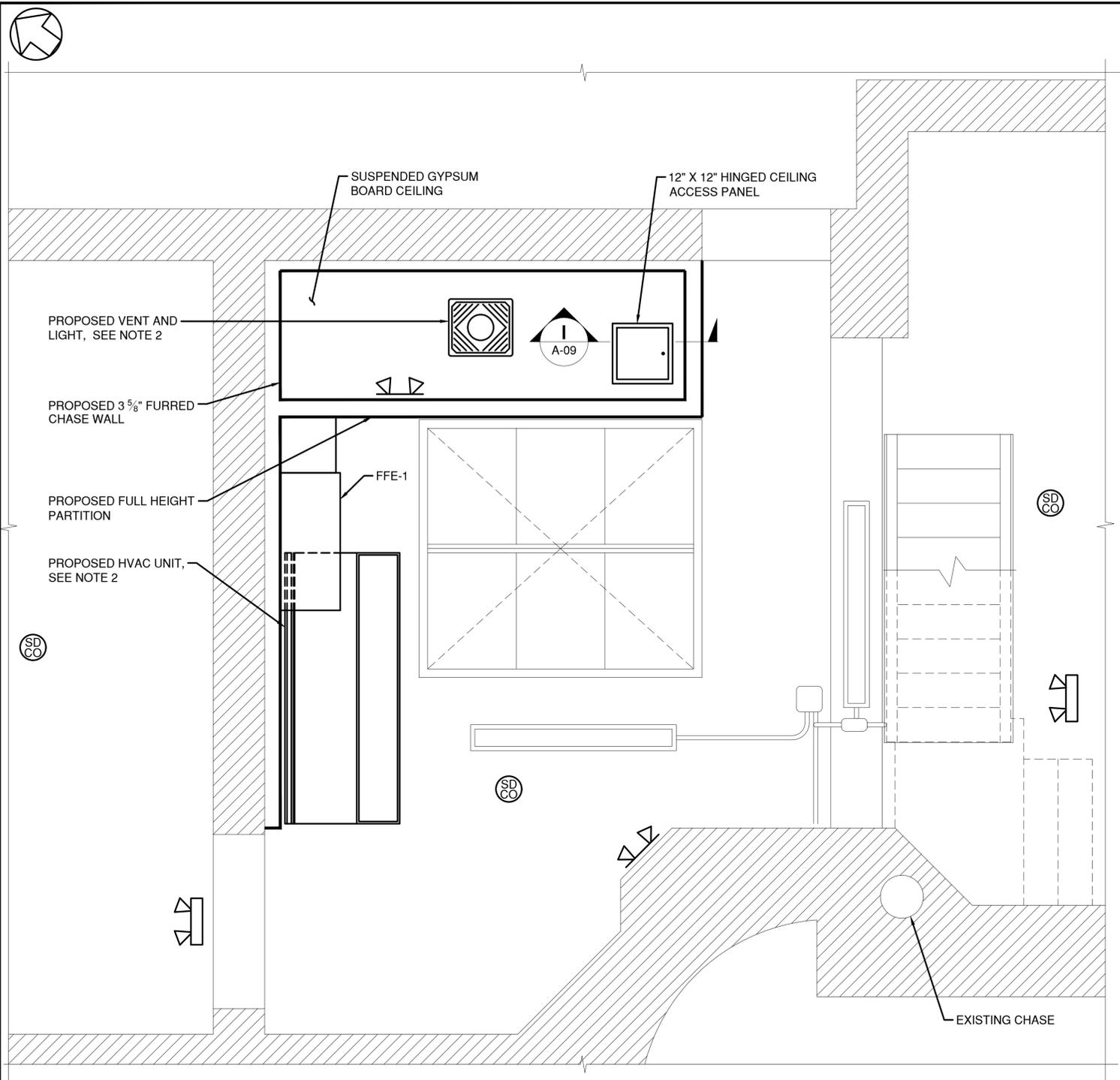
CONSULTANT INFORMATION



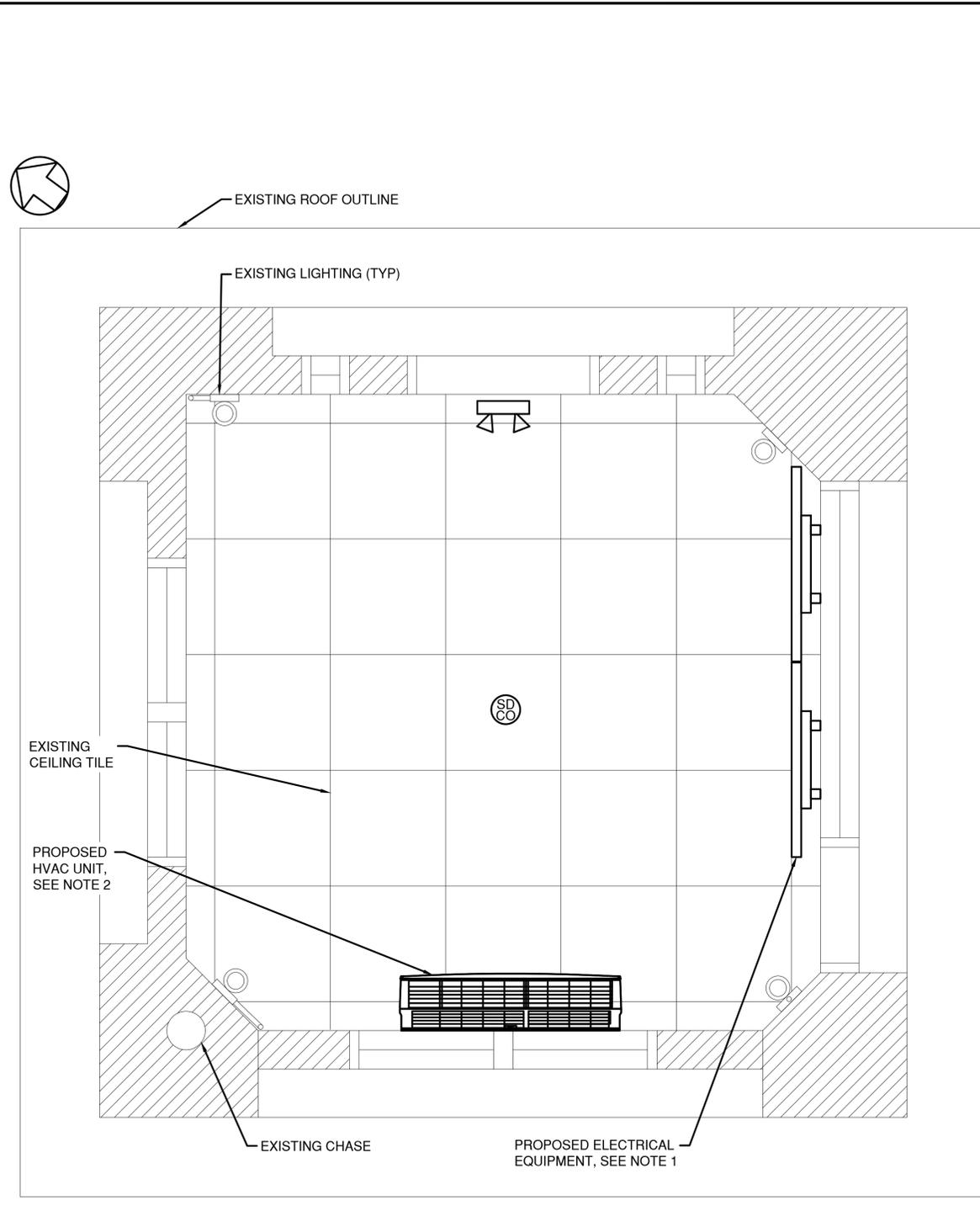
WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 ARCHITECTURAL  
**CONTROL HOUSE PROP'D ENLARGED FL PLANS**

CONTRACT NUMBER 20-517	SHEET NUMBER A-05
SHEET NO. 137 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-A-572-0	0

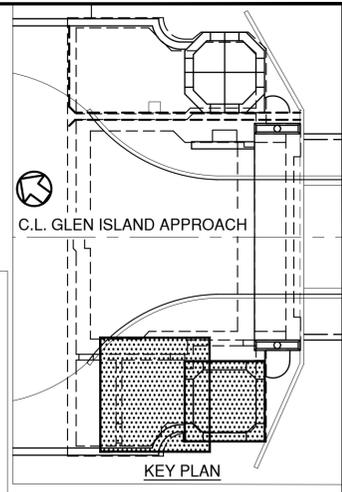




PROPOSED REFLECTED CEILING PLAN - LOWER LEVEL EL. +10.19



PROPOSED REFLECTED CEILING PLAN - OPERATOR'S LEVEL EL. +21.29



- NOTES:
- SEE DRAWINGS E-07 TO E-29 FOR PROPOSED ELECTRICAL EQUIPMENT.
  - SEE DRAWINGS H-01 TO H-03 FOR PROPOSED HVAC.
  - SEE DRAWINGS M-01 TO M-13 FOR PROPOSED MACHINERY.
  - SEE DRAWINGS P-01 TO P-04 FOR PROPOSED PLUMBING.
  - SEE A-10 FOR LIFE SAFETY EQUIPMENT SCHEDULE AND MOUNTING HEIGHTS.

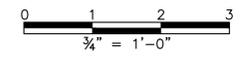
SCALE: 3/4"=1'-0"

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

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY D. TARANTINO, RA  
 MADE BY E. BREDAHL

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/>	AS BUILT - CHANGES AS NOTED		
<input type="checkbox"/>	AS BUILT - NO CHANGES		
CONTRACTOR		PROJECT COORDINATOR	
NAME		NAME	
SIGNATURE		SIGNATURE	
TITLE		TITLE	
	DATE		DATE



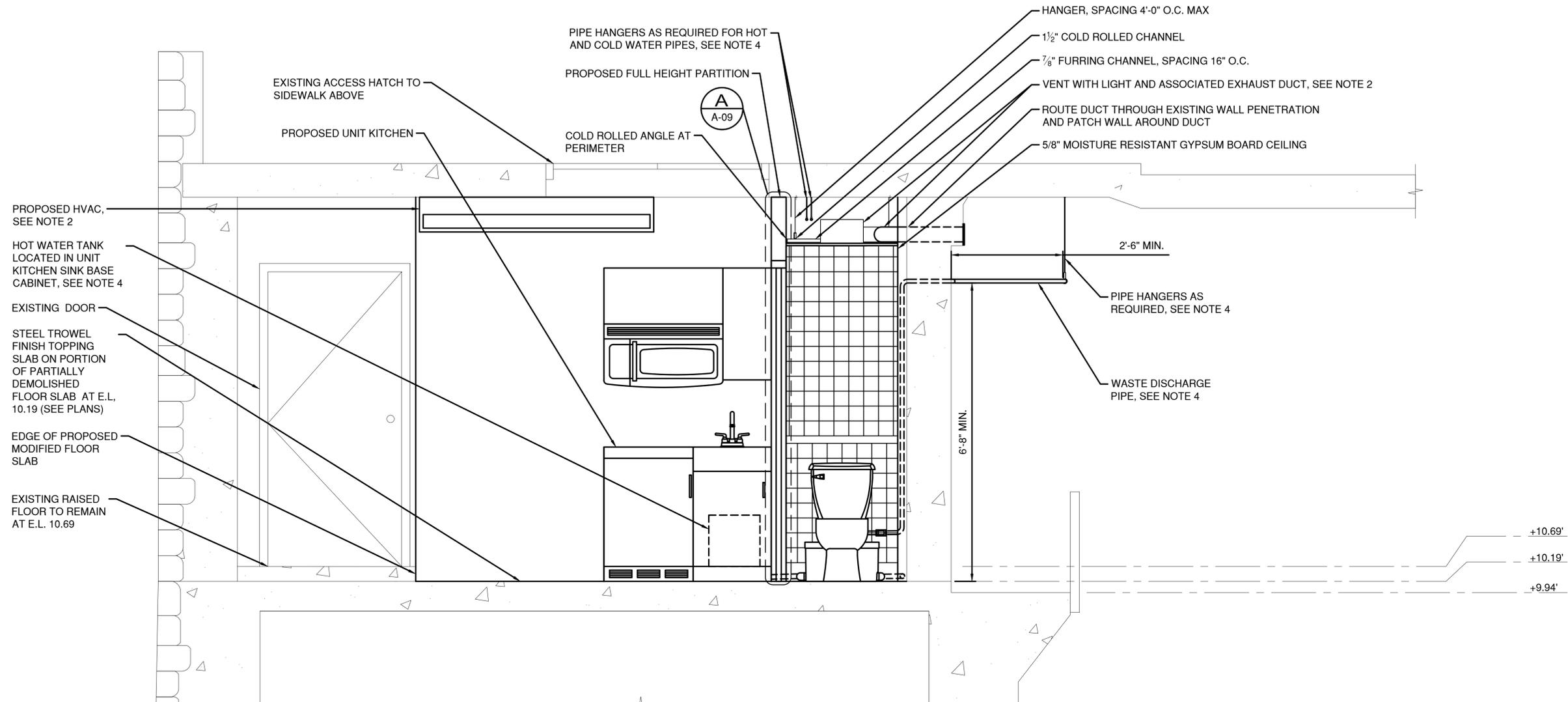
CONSULTANT INFORMATION



WESTCHESTER COUNTY, NEW YORK  
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 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 ARCHITECTURAL

CONTRACT NUMBER 20-517	SHEET NUMBER A-06
SHEET NO. 138 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-A-573-0	REV. NO. 0

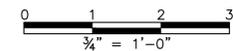
CONTROL HOUSE PROP'D REFLECTED CLG PLANS



PROPOSED LOWER LEVEL SECTION

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

- NOTES:
1. SEE DRAWINGS E-07 TO E-29 FOR PROPOSED ELECTRICAL EQUIPMENT.
  2. SEE DRAWINGS H-01 TO H-03 FOR PROPOSED HVAC.
  3. SEE DRAWINGS M-01 TO M-13 FOR PROPOSED MACHINERY.
  4. SEE DRAWINGS P-01 TO P-04 FOR PROPOSED PLUMBING.
  5. EXISTING TO REMAIN PIPES AND CONDUITS NOT SHOWN IN SECTIONS, SEE NOTES 1 THROUGH 4.



CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY D. TARANTINO, RA  
 MADE BY E. BREDAHL

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/> AS BUILT - CHANGES AS NOTED		<input type="checkbox"/> AS BUILT - NO CHANGES	
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
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DATE _____	DATE _____	DATE _____	DATE _____

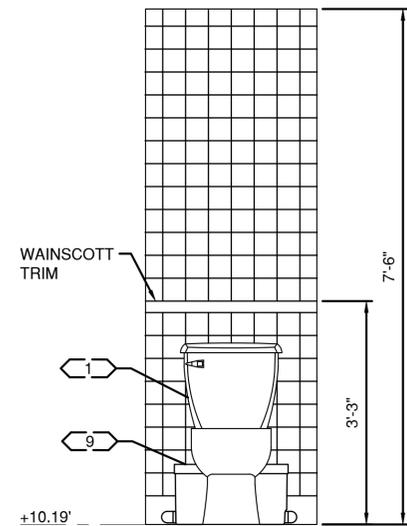
WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

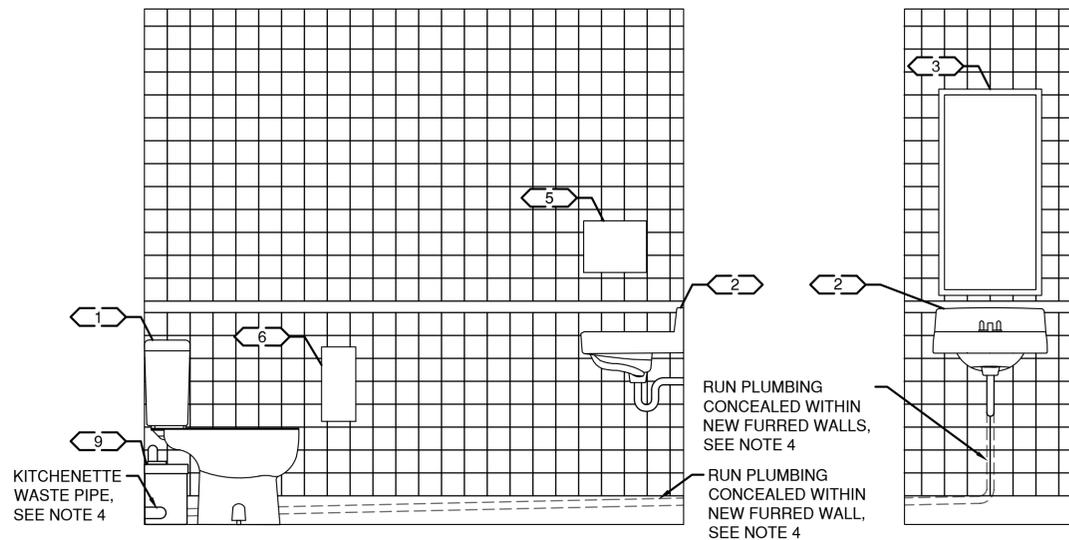
ARCHITECTURAL

**CONTROL HOUSE PROPOSED SECTIONS**

CONTRACT NUMBER 20-517	SHEET NUMBER A-07
SHEET NO. 139 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-A-574-0	REV. NO. 0

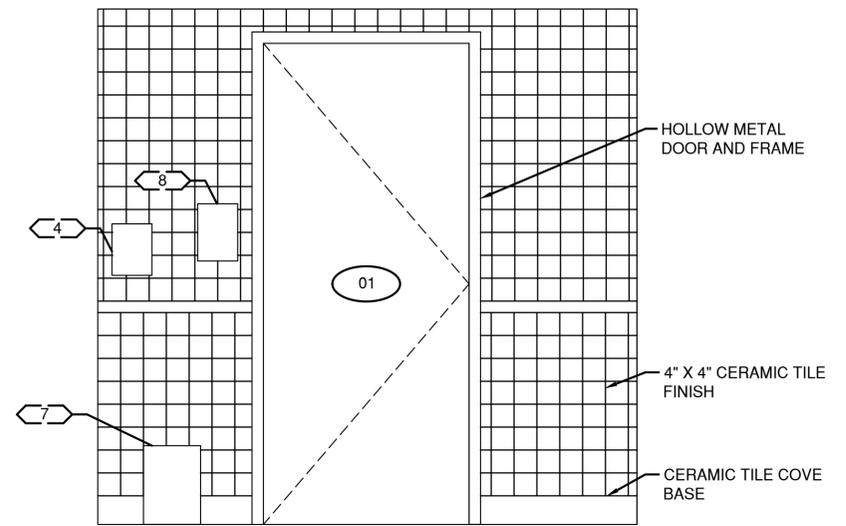


INTERIOR ELEVATION **A**  
A-05



INTERIOR ELEVATION **B**  
A-05

INTERIOR ELEVATION **C**  
A-05

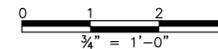


INTERIOR ELEVATION **D**  
A-05

PROPOSED RESTROOM INTERIOR ELEVATIONS  
SCALE: 3/4"=1'-0"

NOTES:

- SEE DRAWINGS E-07 TO E-29 FOR PROPOSED ELECTRICAL EQUIPMENT.
- SEE DRAWINGS H-01 TO H-03 FOR PROPOSED HVAC.
- SEE DRAWINGS M-01 TO M-13 FOR PROPOSED MACHINERY.
- SEE DRAWINGS P-01 TO P-04 FOR PROPOSED PLUMBING.
- SEE A-10 FOR ARCHITECTURAL ACCESSORIES SCHEDULE AND MOUNTING HEIGHTS.



CONSULTANT INFORMATION



IN CHARGE OF D. DELUCA, PE  
CHECKED BY D. TARANTINO, RA  
MADE BY E. BREDAHL

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

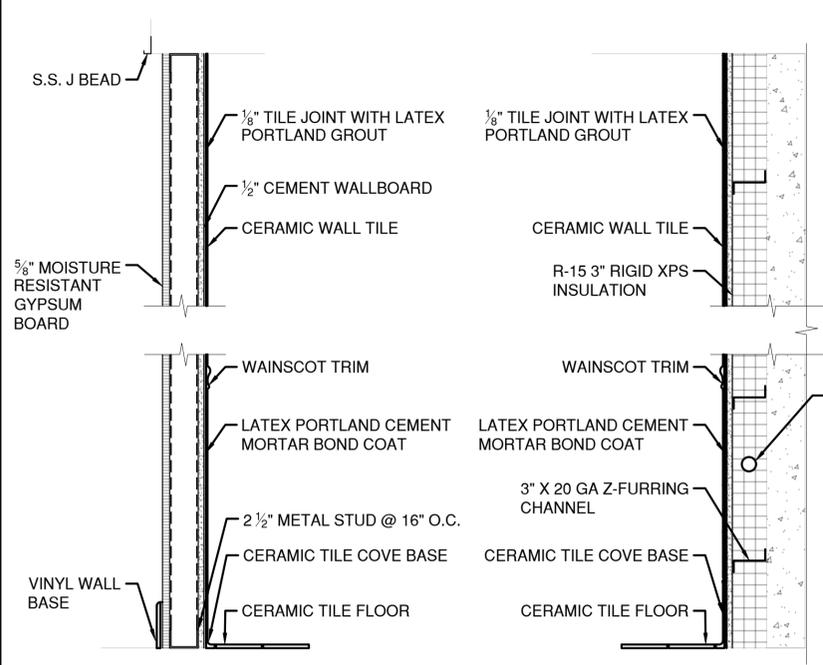
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DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING

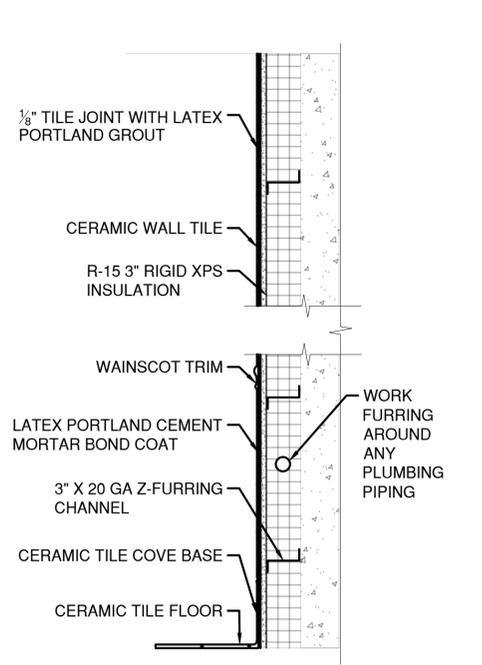
Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle  
ARCHITECTURAL

**CONTROL HOUSE PROP'D RESTROOM INT. ELEV'S**

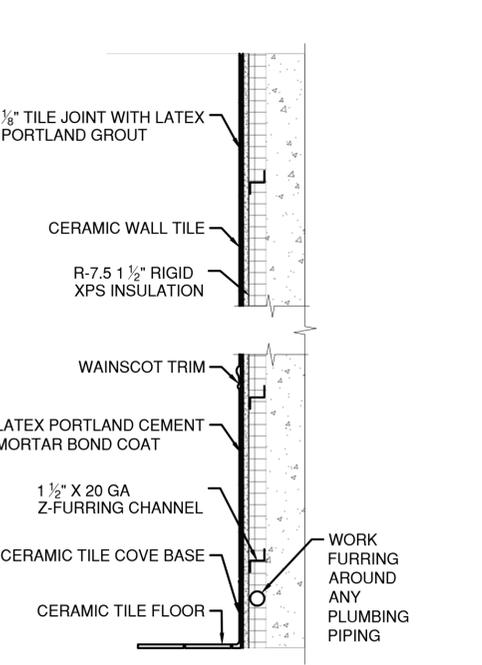
CONTRACT NUMBER 20-517	SHEET NUMBER A-08
SHEET NO. 140 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-A-575-0	0



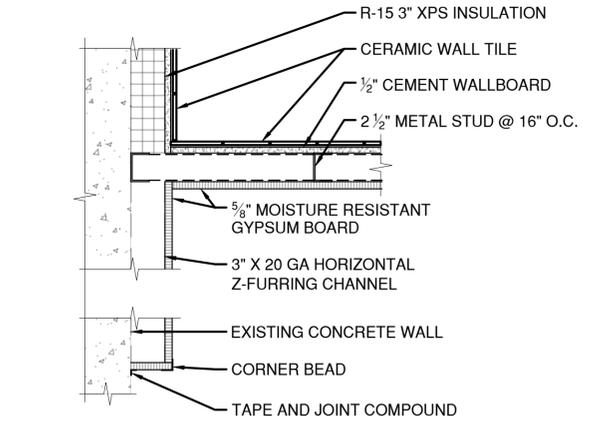
**PARTITION WALL SECTION A**  
SCALE: 1 1/2" = 1'-0"



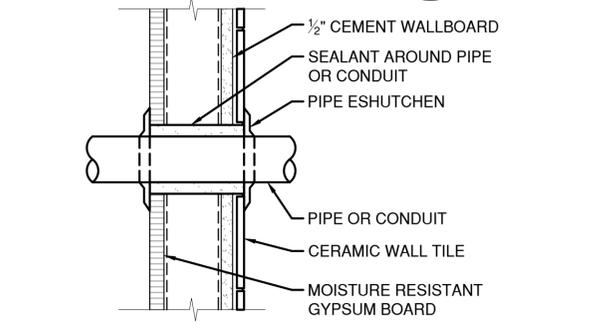
**EXISTING WALL SECTION 1 B**  
SCALE: 1 1/2" = 1'-0"



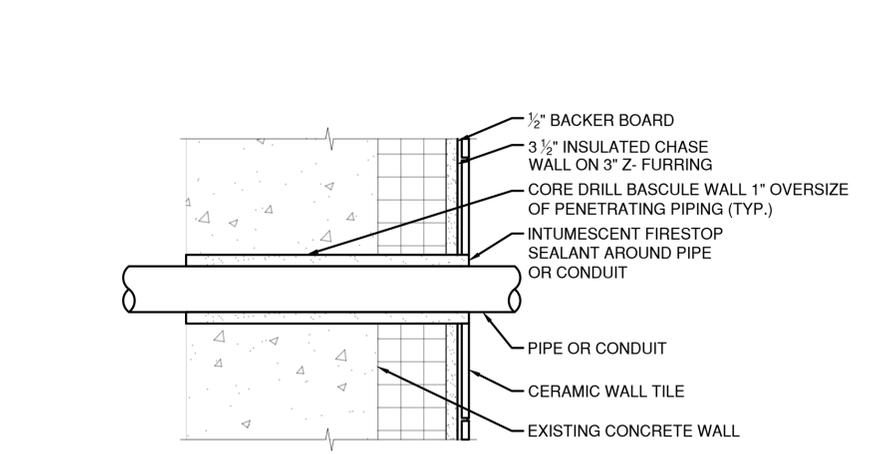
**EXISTING WALL SECTION 2 C**  
SCALE: 1 1/2" = 1'-0"



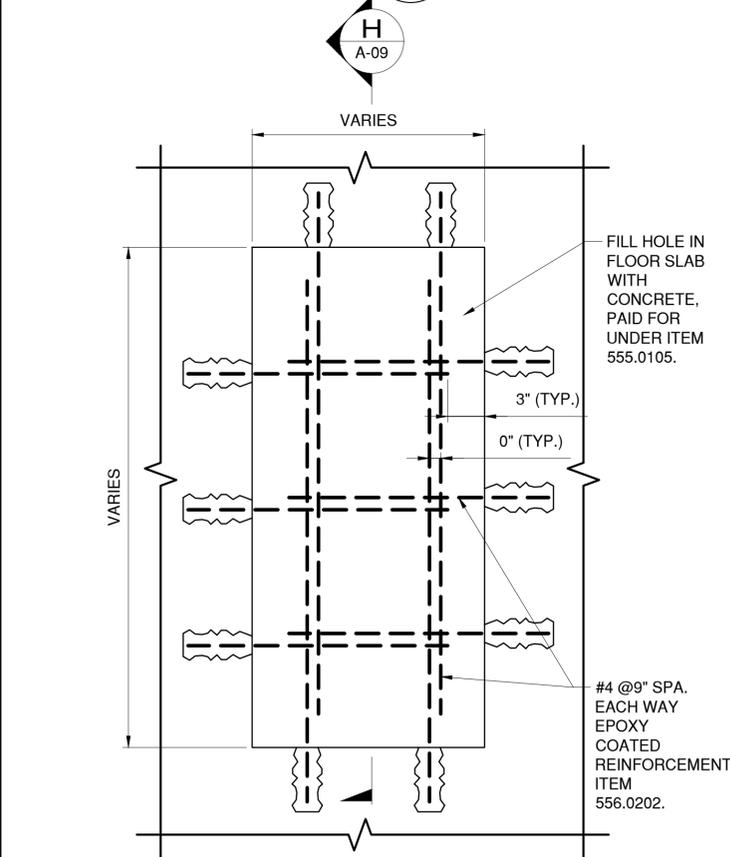
**WALL JUNCTION DETAIL D**  
SCALE: 1 1/2" = 1'-0"



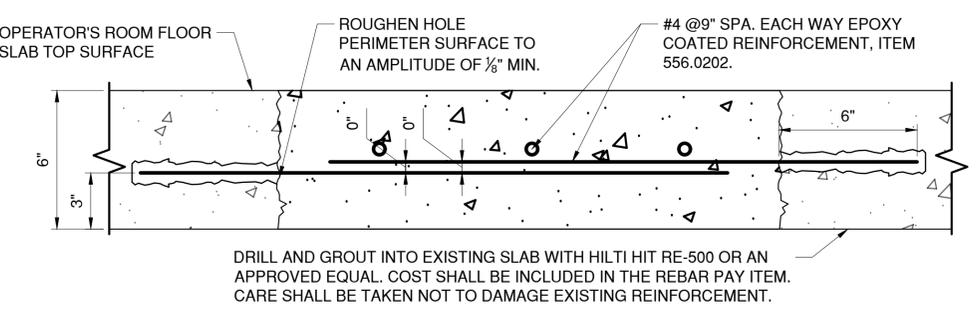
**0-HR RATED WALL PENETRATION DETAIL 1 E**  
SCALE: 3" = 1'-0"



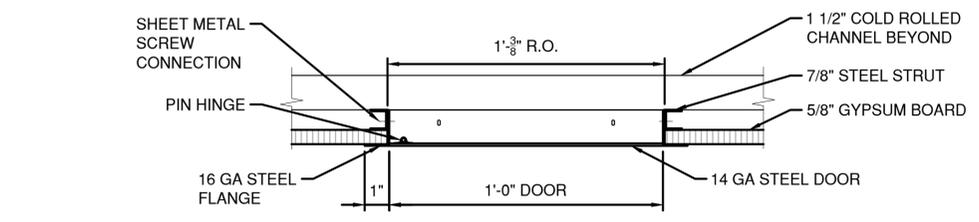
**2-HR RATED WALL PENETRATION DETAIL 2 F**  
SCALE: 3" = 1'-0"



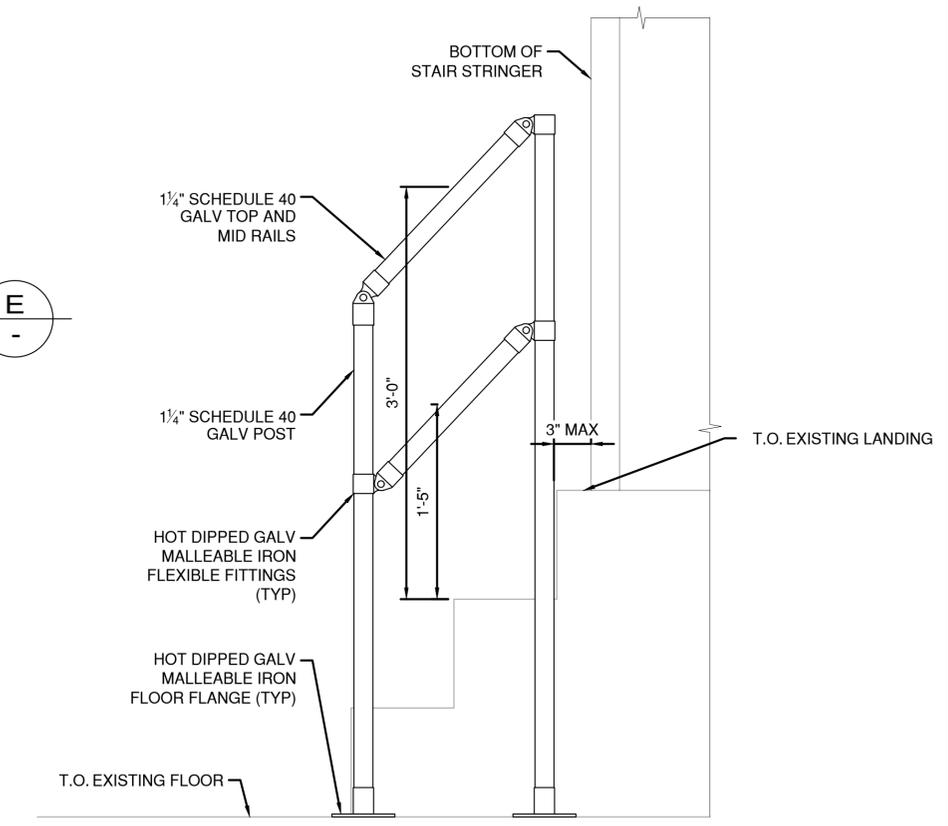
**OPERATOR'S LEVEL FLOOR SLAB PENETRATION PLAN G**  
SCALE: 1/2" = 1'-0"



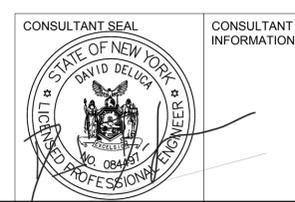
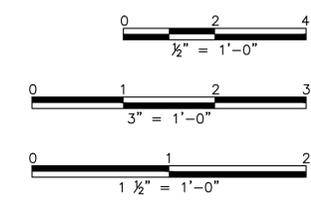
**OPERATOR'S LEVEL FLOOR SLAB PENETRATION SECTION H**  
SCALE: 1/2" = 1'-0"



**CEILING ACCESS PANEL SECTION I**  
SCALE: 3" = 1'-0"



**FLOOR MOUNTED HANDRAIL ELEVATION J**  
SCALE: 1 1/2" = 1'-0"



IN CHARGE OF D. DELUCA, PE  
CHECKED BY D. TARANTINO, RA  
MADE BY E. BREDAHL

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/>	AS BUILT - CHANGES AS NOTED	<input type="checkbox"/>	AS BUILT - NO CHANGES
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER A-09
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 141 OF 212	SCALE: AS SHOWN
ARCHITECTURAL		DATE: 03/08/2024	DPW FILE NO.
<b>CONTROL HOUSE DETAILS</b>		5-04-A-576-0	REV. NO. 0

DOOR SCHEDULE													
MARK	LOCATION	DOOR			FRAME					FIRE LABEL	HARDWARE SET	MATERIAL	REMARKS
		WIDTH	HEIGHT	THICKNESS	WIDTH	HEIGHT	HEAD	SILL	JAMB				
1	RESTROOM	3'-0"	7'-0"	1 3/4"	3'-4"	7'-2"	A	B	C	-	1	HOLLOW METAL	GRAY

NOTE: SEE DETAILS ON THIS SHEET FOR FRAME DETAILS.

RESTROOM ACCESSORIES			
MARK	QUANTITY	DESCRIPTION	MOUNTING HEIGHT (FROM FINISH FLOOR)
1	1	TOILET	1'-4 3/4" TO TOP OF SEAT
2	1	LAVATORY	2'-10" TO TOP OF LAVATORY
3	1	WALL MOUNTED MIRROR	5'-10" TO TOP OF MIRROR
4	1	SOAP DISPENSER	4'-0" MAX TO C.L. OF SOAP DISPENSER
5	1	PAPER TOWEL DISPENSER	4'-5" TO TOP OF DISPENSER
6	1	TOILET TISSUE DISPENSER	2'-7" TO TOP OF DISPENSER
7	1	WASTE BASKET	FLOOR
8	1	HAND SANITIZER DISPENSER	4'-5" TO TOP OF DISPENSER
9	1	WASTE PUMP	FLOOR

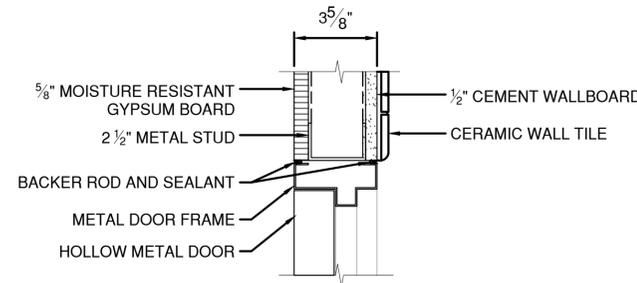
LIFE SAFETY EQUIPMENT SCHEDULE					
SYMBOL	DESCRIPTION	QUANTITY	MANUFACTURERS/MODEL NUMBERS*	MOUNTING HEIGHT (FROM FINISH FLOOR)	REMARKS
	EMERGENCY LIGHTING	2	1. DUAL LITE - DYNAMO DYN NEMA 4X / C1D2 / C2D1 INDUSTRIAL LED EMERGENCY LIGHT 2. LITHONIA LIGHTING - EXTL INDUSTRIAL EMERGENCY LIGHT 3. WESTGATE - ELN4X EMERGENCY LIGHT	WALL MOUNTED, 7'-5" TO TOP OF EQUIPMENT	90 MINUTE BATTERY BACKUP
	EXIT SIGN WITH EMERGENCY LIGHTING	3	1. LITHONIA LIGHTING - LHQM LED QUANTUM EXIT/UNIT COMBO 2. LITHONIA LIGHTING - WLTC EMERGENCY LIGHT COMBO 2. NICOR - ECL5 LED EXIT SIGN COMBO	WALL MOUNTED, 7'-0" TO BOTTOM OF EQUIPMENT, OR CEILING MOUNTED	90 MINUTE BATTERY BACKUP LETTER COLOR: GREEN
	HARDWIRED INTERCONNECTED COMBINATION SMOKE AND CARBON MONOXIDE DETECTOR	4	1. KIDDE - i12010SCO WORRY-FREE AC WIRE-IN COMBINATION SMOKE AND CO ALARM SEALED LITHIUM BATTERY BACKUP 2. BRK - 120V HARDWIRED SMOKE AND CARBON MONOXIDE ALARM SC9120B	CEILING MOUNTED	SEALED BATTERY

\*OR APPROVED EQUAL

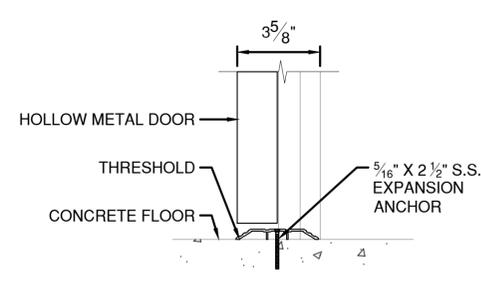
ARCHITECTURAL FURNITURE, FIXTURE AND EQUIPMENT SCHEDULE		
MARK	DESCRIPTION	REMARKS
FFE-1	UNIT KITCHEN	DWYER

INTERIOR FINISH SCHEDULE			
LOCATION	WALL	BASE	FLOOR
RESTROOM	CERAMIC WALL TILE (BASE: DESERT GRAY, TOP: WHITE)	CERAMIC COVE BASE (DESERT GRAY)	CERAMIC FLOOR TILE (CHALKBOARD)
LOWER LEVEL PARTITION WALL	PAINTED GYPSUM BOARD (WHITE, SEMI-GLOSS)	VINYL WALL BASE	N/A

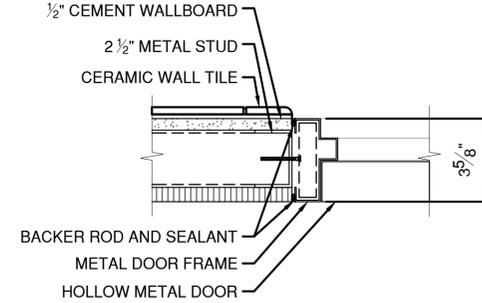
NOTE: SEE NOTE 1 AND 2.



DOOR HEADER (A)  
SCALE: 3" = 1'-0"



DOOR SILL (B)  
SCALE: 3" = 1'-0"



DOOR JAMB (C)  
SCALE: 3" = 1'-0"

- NOTES:
- SEE ITEM NO. 599.061001WE FOR ALL BUILDING RENOVATION SPECIFICATION SECTIONS.
  - PARENTHESIS WITHIN INTERIOR FINISH SCHEDULE DENOTE COLOR OF FINISH.

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY D. TARANTINO, RA  
 MADE BY E. BREDAHL

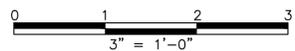
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONSULTANT SEAL

CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150



WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER A-10
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 142 OF 212	
ARCHITECTURAL		SCALE: AS SHOWN DATE: 03/08/2024	REV. NO. 0
CONTROL HOUSE SCHEDULES		DPW FILE NO. 5-04-A-577-0	REV. NO. 0

GENERAL NOTES

IN GENERAL, PLANS AND DIAGRAMS OF PIPING RUNS ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED. CONTRACTOR TO TAKE RESPONSIBILITY TO COORDINATE AT SITE ALL PLUMBING, HVAC AND ELECTRICAL WORK SO AS NOT TO CONFLICT IN LOCATION WITH OTHER WORK UNDER THE CONTRACT.

WHERE THE CONTRACTOR PROPOSES TO USE AN APPROVED SUBSTITUTION ITEM OTHER THAN THAT SPECIFIED OR DETAILED ON THE DRAWINGS WHICH REQUIRES ANY REDESIGN OF THE STRUCTURE, PARTITIONS, FOUNDATIONS, PIPING, WIRING OR ANY OTHER PART OF THE MECHANICAL, ELECTRICAL, OR ARCHITECTURAL LAYOUT, ALL SUCH REDESIGN AND CONSTRUCTION COSTS AND ALL NEW DRAWINGS AND DETAILING REQUIRED SHALL BE PREPARED AND INSTALLED BY THE CONTRACTOR AT HIS OWN EXPENSE. PRIOR APPROVAL FOR THIS WORK MUST BE SUBMITTED TO THE ENGINEER.

MECHANICAL AND ELECTRICAL EQUIPMENT HAVE BEEN LOCATED TO ACHIEVE REQUIRED SERVICE CLEARANCES AND MAY NOT BE CHANGED WITHOUT THE CONSENT OF THE ENGINEER.

ALL WIRING, CONDUIT, AND RELATED DEVICES SHALL COMPLY WITH THE REQUIREMENTS OF ITEM 599.06300008 BRIDGE ELECTRICAL CONTROL SYSTEM. ELECTRICAL WORK IS PAID AS INCIDENTAL TO HVAC WORK.

CONTRACTOR TO TAKE RESPONSIBILITY FOR AND IMPLEMENT ALL PRECAUTIONS TO PROTECT THE CONDENSER, EVAPORATOR AND DEHUMIDIFIER COILS FROM DUST AND DAMAGE. A COMPLETE CHANGE OF FILTERS WILL BE REQUIRED PRIOR TO TESTING AND BALANCING THE SYSTEM.

CONTRACTOR SHALL TAKE RESPONSIBILITY FOR COORDINATING HOLE PENETRATION LOCATIONS FOR EQUIPMENT PIPING THROUGH WALLS. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

ALL BUILDING ENVELOPE PENETRATIONS ARE TO BE SEALED TO REDUCE INFILTRATION OF OUTSIDE AIR INTO CONDITIONED SPACE.

PROVIDE ENGRAVED EQUIPMENT NAMEPLATES.

SUBMITTALS

- A. ALL SUBMITTALS SHALL BE IN ACCORDANCE WITH INYS DOT STANDARD SPECIFICATION SECTION 105 CONTROL OF WORK.
- B. CERTIFIED PRODUCT DRAWINGS AND CATALOG CUTS: EQUIPMENT DIMENSIONS AND RATED CAPACITIES OF SELECTED PRODUCTS, FURNISHED SPECIALTIES, AND ACCESSORIES.
- C. SHOP DRAWINGS; PIPING, POWER, SIGNAL, AND CONTROL WIRING.
- D. OPERATION AND MAINTENANCE DATA: FOR EQUIPMENT TO INCLUDE IN OPERATION, AND MAINTENANCE MANUALS.

QUALITY ASSURANCE

- A. ELECTRICAL COMPONENTS, DEVICES AND ACCESSORIES: LISTED AND LABELED AS DEFINED IN NFPA 70.
- B. FABRICATE AND LABEL REFRIGERATION SYSTEM TO COMPLY WITH ASHRAE 15.
- C. UNIT CABINET SHALL BE CAPABLE OF WITHSTANDING FEDERAL TEST STANDARD NO. 141 (ASTM B117) 500-HOUR SALT SPRAY TEST.
- D. CONTRACTOR INSTALLATION WARRANTY: NOT LESS THAN TWO YEARS FROM DATE OF FINAL ACCEPTANCE.
- E. EQUIPMENT WARRANTY: NOT LESS THAN FIVE YEARS FOR THE SYSTEM AND SEVEN YEARS FOR THE COMPRESSOR FROM DATE OF DELIVERY.

PRODUCTS - HEAT PUMPS INDOOR/OUTDOOR UNITS

- A. MANUFACTURERS:
  - 1. MITSUBISHI CORPORATION
  - 2. CARRIER
  - 3. DAIKIN
  - 4. ENGINEER APPROVED EQUAL.
- B. FURNISH AND INSTALL A COMPLETE MULTI-ZONE SPLIT UNIT AIR CONDITIONING SYSTEM FOR THE CONTROL HOUSE AND COMPLETELY SEPARATE SPLIT UNIT AIR CONDITIONING SYSTEM DEDICATED EXCLUSIVELY TO THE ELECTRICAL ROOM. REFRIGERANT: LATEST EPA APPROVED. SYSTEM IS TO BE CAPABLE OF SEASONAL YEAR-ROUND OPERATION. UNITS INCLUDE PLUMBING CONNECTIONS, ELECTRICAL AND OPERATING CONTROLS. UNITS ARE INTERFACED WITH THE CONTROL HOUSE PANEL AS SHOWN IN THE ELECTRICAL PLANS AND INSTALLED FOR COMPLETE OPERATION.
- C. 22.0 MIN. SEER COOLING EFFICIENCY AND 4.0 MIN. COP AT 17°F. EFFICIENCY SHALL BE PUBLISHED IN ACCORDANCE WITH AHRI.
- D. OUTDOORS UNIT:
  - 1. COMPLETELY FACTORY ASSEMBLED, PIPED AND WIRED.
  - 2. RUN TESTED AT THE FACTORY.
  - 3. ACCUMULATOR WITH HIGH PRESSURE SAFETY SWITCH.
  - 4. RATED PERFORMANCE FOR HEAT OPERATION AT -13°F AMBIENT TEMPERATURE.
  - 5. THE CASING SHALL BE FABRICATED OF GALVANIZED STEEL AND FINISHED WITH A CORROSION RESISTANT PHOSPHATE COATING AND BAKED ENAMEL COATING. EPOXY RESIN COAT ASSEMBLY SUPPORTS.
  - 6. FAN UNIT SHALL BE FURNISHED WITH PERMANENTLY LUBRICATED BEARINGS. THE FAN BLADES SHALL BE DESIGNED FOR QUIET OPERATION. THE FAN SHALL BE FURNISHED WITH A GUARD. EPOXY RESIN COATED FAN MOTOR SUPPORT.
  - 7. THE OUTDOOR COIL SHALL BE OF NONFERROUS CONSTRUCTION WITH LANCED OR CORRUGATED FINS ON COPPER TUBING. THE COIL FINS WILL HAVE A FACTORY APPLIED CORROSION RESISTANT BLUE-FIN FINISH FOR SALT SPRAY ENVIRONMENT. COIL IS TO HAVE A GUARD CAGE TO PROTECT AGAINST FIN DAMAGE.
  - 8. THE COMPRESSOR SHALL BE A HIGH PERFORMANCE, INVERTER DRIVEN, MODULATING CAPACITY COMPRESSOR. THE COMPRESSOR SHALL BE EQUIPPED WITH AN INTERNAL THERMAL OVERLOAD. A MINIMAL AMOUNT OF CURRENT SHALL BE AUTOMATICALLY, INTERMITTENTLY APPLIED TO THE COMPRESSOR MOTOR WINDINGS TO MAINTAIN SUFFICIENT HEAT TO VAPORIZE ANY REFRIGERANT. THE COMPRESSOR SHALL BE MOUNTED TO AVOID THE TRANSMISSION OF VIBRATION.

INDOOR UNITS:

- 1. FACTORY ASSEMBLED, WIRED AND TESTED.
- 2. THE UNIT, IN CONJUNCTION WITH THE REMOTE CONTROLLER, SHALL HAVE A SELF-DIAGNOSTIC FUNCTION, 3-MINUTE TIME DELAY MECHANISM, AN AUTO RESTART FUNCTION, AND A TEST RUN SWITCH. INDOOR UNIT AND REFRIGERANT PIPES SHALL BE PURGED WITH DRY AIR BEFORE SHIPMENT FROM THE FACTORY.
- 3. THE CASING FINISH COLOR SHALL MATCH THE INTERIOR WALL FINISH.
- 4. INCLUDE MOUNTING BRACKET OF SUFFICIENT STRENGTH TO SUPPORT MORE THAN THE FULL WEIGHT OF INDOOR UNIT.
- 5. FAN SHALL BE AN ASSEMBLY WITH SIROCCO FANS (OR ENGINEER APPROVED EQUAL) DIRECT DRIVEN BY A SINGLE MOTOR, AND DYNAMICALLY BALANCED WITH PERMANENTLY LUBRICATED BEARINGS.
- 6. RETURN AIR SHALL BE FILTERED BY MEANS OF AN EASILY REMOVABLE WASHABLE FILTER.
- 7. THE COIL SHALL BE OF NONFERROUS CONSTRUCTION WITH PRE-COATED ALUMINUM STRAKE FINS ON COPPER TUBING. THE MULTI-ANGLED HEAT EXCHANGER SHALL HAVE A MODIFIED FIN SHAPE THAT REDUCES AIR RESISTANCE FOR A SMOOTHER, QUIETER AIRFLOW. THE COILS SHALL BE PRESSURE TESTED AT THE FACTORY. A CONDENSATE PAN AND DRAIN SHALL BE PROVIDED UNDER THE COIL WITH A LEVEL SWITCH TO PREVENT OVERFLOW.
- 8. THE UNIT ELECTRICAL POWER SHALL BE 208 VOLTS, 1-PHASE, 60 HERTZ.
- 9. SOUND RATING NO HIGHER THAN 50 DB(A).
- 10. THE CONTROL SYSTEM SHALL CONSIST OF A MINIMUM OF TWO (2) MICROPROCESSORS, ONE ON EACH INDOOR AND OUTDOOR UNIT, INTERCONNECTED BY A SINGLE NON-POLAR TWO-WIRE CABLE. THE SYSTEM SHALL BE CAPABLE OF AUTOMATIC RESTART WHEN POWER IS RESTORED AFTER POWER INTERRUPTION. INCLUDE A WALL MOUNTED THERMOSTAT/CONTROLLER WIRED TO THE INDOOR UNIT WITH DISPLAY FOR CONTROLLING THE UNIT. CONTROLLER TO HAVE WIRELESS RECEIVER CONNECTED TO THE INTERNET ENABLING CONTROL OF THE UNIT OVER A SECURE NETWORK.
- 11. CONDENSATE LIFT PUMP: PROVIDE A CONDENSATE LIFT PUMP COMPATIBLE WITH THE INDOOR UNITS. 120V POWER PUMP, 1 FT SUCTION HEAD, 10 FT DISCHARGE HEAD AT 2 GPH.
- 12. PROVIDE URETHANE POWDER COATED 5052 ALUMINUM COVER 16 GAGE OVER CONNECTIONS AND PUMP. MATCH COLOR TO CEILING TILE.
- 13. SPARE PARTS, PROVIDE:
  - 1. (2) AIR FILTERS FOR EACH SIZE INDOOR UNIT IN SEALED PACKAGING.
  - 2. (2) SPARE HANDHELD WIRELESS REMOTE CONTROLLERS.

PRODUCTS - ELECTRIC UNIT HEATERS

- A. MANUFACTURERS:
  - 1. INDEECO
  - 2. HEATEX
  - 3. ENGINEER APPROVED EQUAL
- B. FAN, HOUSING, AND FINISHED PANEL:
  - 1. DIRECT DRIVE ALUMINUM FAN. QUIET OPERATION.
  - 2. TOTALLY ENCLOSED FAN MOTOR
  - 3. PERMANENTLY LUBRICATED SEALED BALL BEARINGS
  - 4. GALVANIZED STEEL HOUSING, RECESSED MOUNTED
  - 5. AUTOMATIC RESET THERMAL OVERLOAD PROTECTION
  - 6. UL LISTED CONTROL PANEL
  - 7. ELECTRONIC THERMOSTAT
- C. COORDINATE POWER AND CONTROL CONNECTIONS WITH ELECTRICAL WORK.

PRODUCTS - BATHROOM EXHAUST FAN

- A. MANUFACTURERS:
  - 1. GREENHECK
  - 2. PANASONIC
  - 3. ENGINEER APPROVED EQUAL
- B. FAN, LIGHT, AND HOUSING:
  - 1. AIRTIGHT GALVANIZED STEEL HOUSING.
  - 2. BACKWARD CURVED IMPELLER. QUIET OPERATION.
  - 3. PERMANENTLY LUBRICATED SEALED BALL BEARINGS
  - 4. AUTOMATIC RESET THERMAL OVERLOAD PROTECTION.
- C. ACCESSORIES:
  - 1. METAL EXHAUST GRILL WITH LED LIGHT PANEL
  - 2. BACKDRAFT DAMPER
  - 3. EXHAUST LOUVER
- D. MOUNTING HANGERS AND HARDWARE: STAINLESS STEEL.
- E. DUCTWORK: STAINLESS STEEL ROUND DUCTWORK SHALL BE TYPE 316L STEEL SHEET PER ASTM A480 AND ASTM A240. INCLUDE STAINLESS STEEL FUSIBLE FIRE DAMPER AND INSECT SCREEN AT DUCT TERMINATION.
- F. COORDINATE POWER AND CONTROL CONNECTIONS WITH ELECTRICAL WORK.

INSTALLATION

- A. COORDINATE THE WORK WITH ALL OTHER TRADES ESPECIALLY ARCHITECTURAL, PLUMBING, AND ELECTRICAL WORK. FIELD VERIFY DIMENSIONS PRIOR TO INSTALLATION OF EQUIPMENT, ROUTING OF PIPING AND ALL OTHER CONNECTIONS.
- B. INSTALL UNITS LEVEL AND PLUMB, MAINTAINING MANUFACTURERS RECOMMENDED CLEARANCES.
- C. UNIT SUPPORT; INSTALL UNITS ON STRUCTURAL FRAMING WITH VIBRATION ISOLATOR PADS. COORDINATE WALL PENETRATIONS, INSULATION, AND FLASHING WITH WALL CONSTRUCTION. SECURE UNITS TO STRUCTURAL SUPPORT WITH STAINLESS STEEL ANCHOR BOLTS.
- D. INSTALL UNITS WITH SPACE TO ALLOW FOR MAINTENANCE ACCESS.
- E. SEAL ALL WALL PENETRATIONS IN ACCORDANCE WITH SPECIFICATION SECTION 078400 "FIRESTOPPING" USING FIRESTOP CAULKING.

CONNECTIONS

- A. ELECTRICAL CONNECTIONS: COMPLY WITH APPLICABLE REQUIREMENTS IN ELECTRICAL SPECIAL PROVISIONS FOR WIRING, GROUNDING, SWITCHES, AND CONTROLS. CONNECT OUTDOOR UNIT WITH A SAFETY DISCONNECT SWITCH.
- B. REFRIGERANT PIPING: COPPER SEAMLESS ACR TUBING MEETING ASTM B280, CLEANED AND CAPPED. BRAZED JOINTS. BOTH REFRIGERANT LINES FROM THE OUTDOOR UNIT TO INDOOR UNITS SHALL BE INDIVIDUALLY INSULATED WITH EPDM RUBBER, 2-R VALUE, INCLUDE A PROTECTIVE JACKET, AND MEET ASTM C518.
- C. CONDENSATE PIPING: PVC SCHEDULE 40, UV RESISTANT AND MEETING ASTM D1784 AND D1785. CONNECT TO UNIT DRAIN PORT WITH HOSE AND STAINLESS-STEEL TYPE 316 HOSE CLAMP. CONNECT TO SANITARY VENT WITH P-TRAP AND AUTO PRIMER VALVE TO PREVENT DRY OUT.
- D. SUPPORT PIPING WITH HANGERS OR CLAMPS EQUAL SPACED ACCORDING TO PIPE SIZE. USE DIELECTRIC MATERIAL AGAINST THE PIPE. SUPPORT IS TO ALLOW FOR THERMAL EXPANSION/CONTRACTION.

FIELD QUALITY CONTROL

- A. PERFORM THE FOLLOWING FIELD QUALITY-CONTROL TESTS AND INSPECTIONS AND PREPARE TEST REPORTS; AFTER INSTALLING AIR CONDITIONERS AND AFTER ELECTRICAL CIRCUITRY HAS BEEN ENERGIZED, TEST UNITS FOR COMPLIANCE WITH REQUIREMENTS.
  - 1. CLEAN AND TEST PIPING SYSTEM FOR LEAKS AFTER MAKING ALL CONNECTIONS PRIOR TO CHARGING WITH REFRIGERANT. USE AN INERT DRIED GAS FOR TESTING. RECORD TEST PRESSURE AND SUBMIT CERTIFICATE OF TEST.
  - 2. OPERATIONAL TEST: AFTER ELECTRICAL CIRCUITRY HAS BEEN ENERGIZED, START UNITS TO CONFIRM PROPER MOTOR ROTATION AND UNIT OPERATION.
  - 3. TEST AND ADJUST CONTROLS AND SAFETIES. REPLACE DAMAGED AND MALFUNCTIONING CONTROLS AND EQUIPMENT. REFER TO ASHRAE STANDARD 111-2008 AND ASHRAE HANDBOOK 2019 HVAC&R APPLICATIONS CHAPTER 39.
- B. REMOVE MALFUNCTIONING UNITS, REPLACE WITH NEW UNITS, AND RETEST AS SPECIFIED ABOVE.

START-UP SERVICE

COMPLETE INSTALLATION AND START-UP CHECKS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AND THE FOLLOWING:

- 1. VERIFY THAT CONTROLS ARE CONNECTED AND OPERABLE.
- 2. VERIFY THAT FILTERS ARE INSTALLED.
- 3. CLEAN OUTSIDE COIL AND INSPECT FOR CONSTRUCTION DEBRIS.
- 4. ADJUST VIBRATION ISOLATORS.
- 5. START UNIT ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
- 6. OPERATE AND ADJUST UNIT FOR AN INITIAL PERIOD ONE WEEK PRIOR TO FINAL ACCEPTANCE. RECORD AND SUBMIT OPERATING PARAMETERS.
- 7. ADJUST AND INSPECT HIGH-TEMPERATURE LIMITS.
- 8. MEASURE AND RECORD THE FOLLOWING:
  - COIL LEAVING-AIR: DRY- AND WET-BULB TEMPERATURES.
  - COIL ENTERING-AIR: DRY AND WET-BULB TEMPERATURES.
  - SUPPLY-AIR VOLUME

HVAC ABBREVIATIONS

AC	AIR CONDITIONING	GSR	GAS REFRIGERANT
AH	AIR HANDLER	HVAC	HEATING, VENTILATION & COOLING
BTU	BRITISH THERMAL UNIT	HP	HEAT PUMP
BTUH	BTU PER HOUR	IL	INTAKE LOUVER
CD	CONDENSATE DRAIN	LQR	LIQUID REFRIGERANT
CFM	CUBIC FEET PER MINUTE	MBH	1,000 BTU PER HOUR
CLG	COOLING	OA	OUTSIDE AIR
CP	CONDENSATE PUMP	RA	RETURN AIR
CTRL	CONTROL WIRING	RL	REFRIGERANT LINES
EC	EVAPORATOR COIL	RM	ROOM
EF	EXHAUST AIR FAN	SA	SUPPLY AIR
EL	ELEVATION	SS	STAINLESS STEEL
ELEC	ELECTRICAL	T	THERMOSTAT
EXH	EXHAUST	TYP	TYPICAL
FC	FLEXIBLE CONNECTION	UH	UNIT HEATER
FSD	FIRE/SMOKE DAMPER	WG	WATER GAGE
GALV	GALVANIZED		

HVAC PAY ITEMS:

ITEM 599.061701WE CONTROL HOUSE HVAC



CONSULTANT INFORMATION

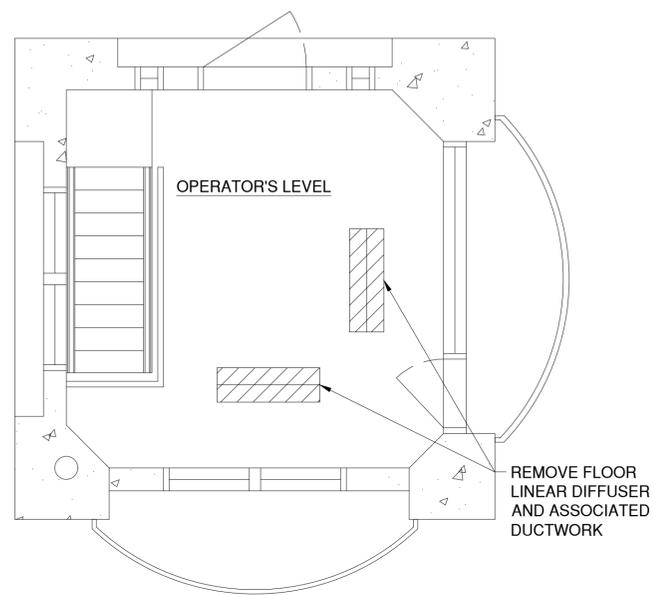


IN CHARGE OF M. GAGLIANO, PE  
 CHECKED BY M. GAGLIANO, PE  
 MADE BY C. SIDORSKI, PE

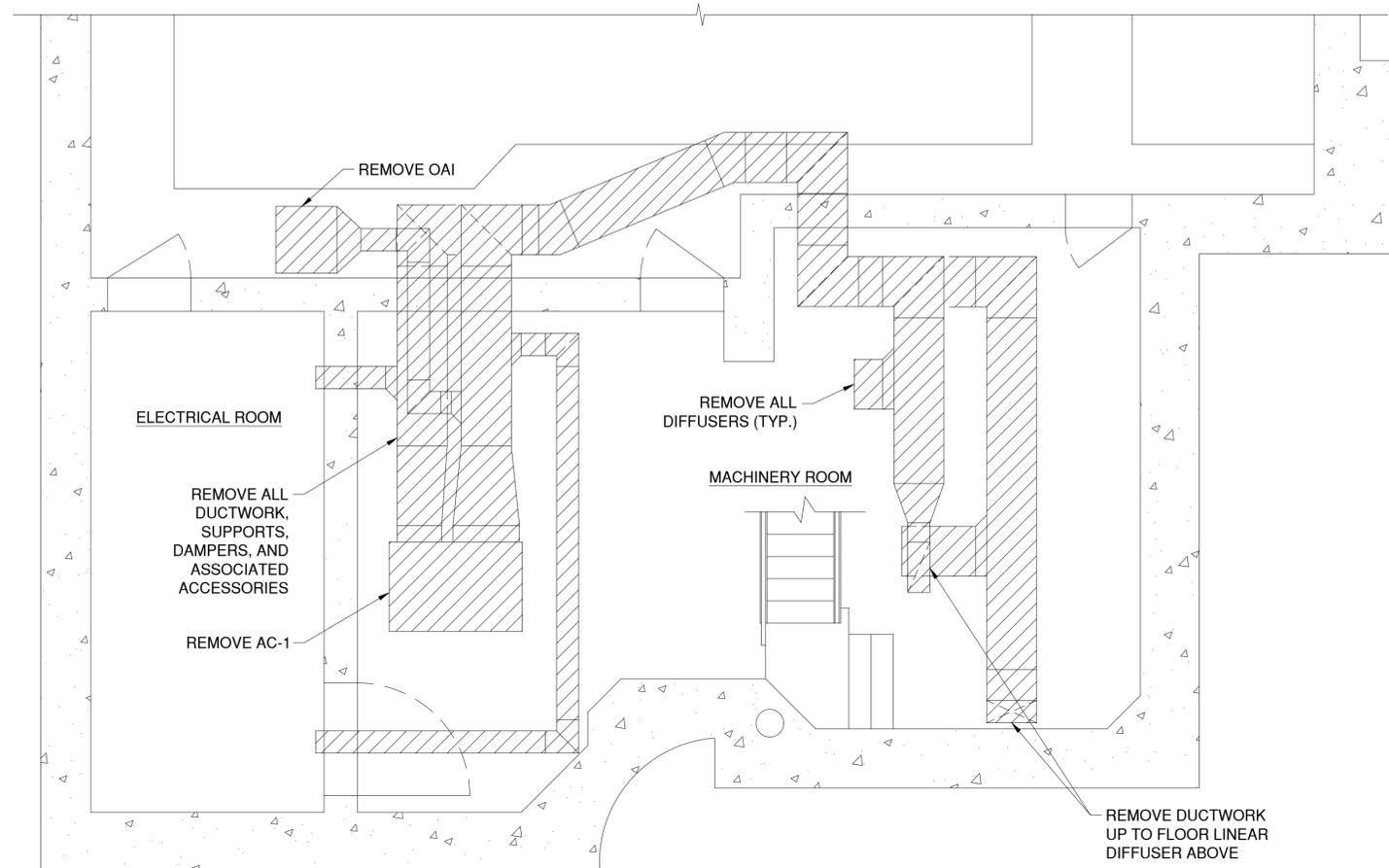
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
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TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER H-01
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 143 OF 212	
MECHANICAL		SCALE: AS SHOWN DATE: 03/08/2024	REV. NO. 0
<b>HVAC GENERAL NOTES AND ABBREVIATIONS</b>		DPW FILE NO. 5-04-HV-578-0	REV. NO. 0



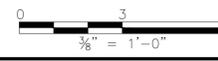
**OPERATOR'S LEVEL DEMOLITION PLAN**  
SCALE: 3/8" = 1'-0"



**LOWER LEVEL DEMOLITION PLAN**  
SCALE: 3/8" = 1'-0"

**NOTES:**

1. EXISTING DUCTWORK AND EQUIPMENT SHOWN TO BE REMOVED IS BASED ON 2004 REHABILITATION DRAWINGS, "REHABILITATION OF GLEN ISLAND BASCULE BRIDGE ELECTRICAL AND MECHANICAL SYSTEMS". ARRANGEMENT OF SYSTEM MAY VARY FROM WHAT IS SHOWN. CONTRACTOR IS RESPONSIBLE FOR ALL REMOVAL WORK AS OUTLINED BY THE DRAWINGS AND SPECIFICATIONS.
2. DISPOSE OF REMOVED EQUIPMENT AND MATERIALS IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL AGENCIES HAVING JURISDICTION.
3. REFER TO ARCHITECTURAL AND STRUCTURAL WORK FOR PATCHING AND REPAIR OF OPERATOR FLOOR.



CONSULTANT INFORMATION



IN CHARGE OF M. GAGLIANO, PE  
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RECORD DRAWING CERTIFICATION

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DATE _____	DATE _____	DATE _____	DATE _____

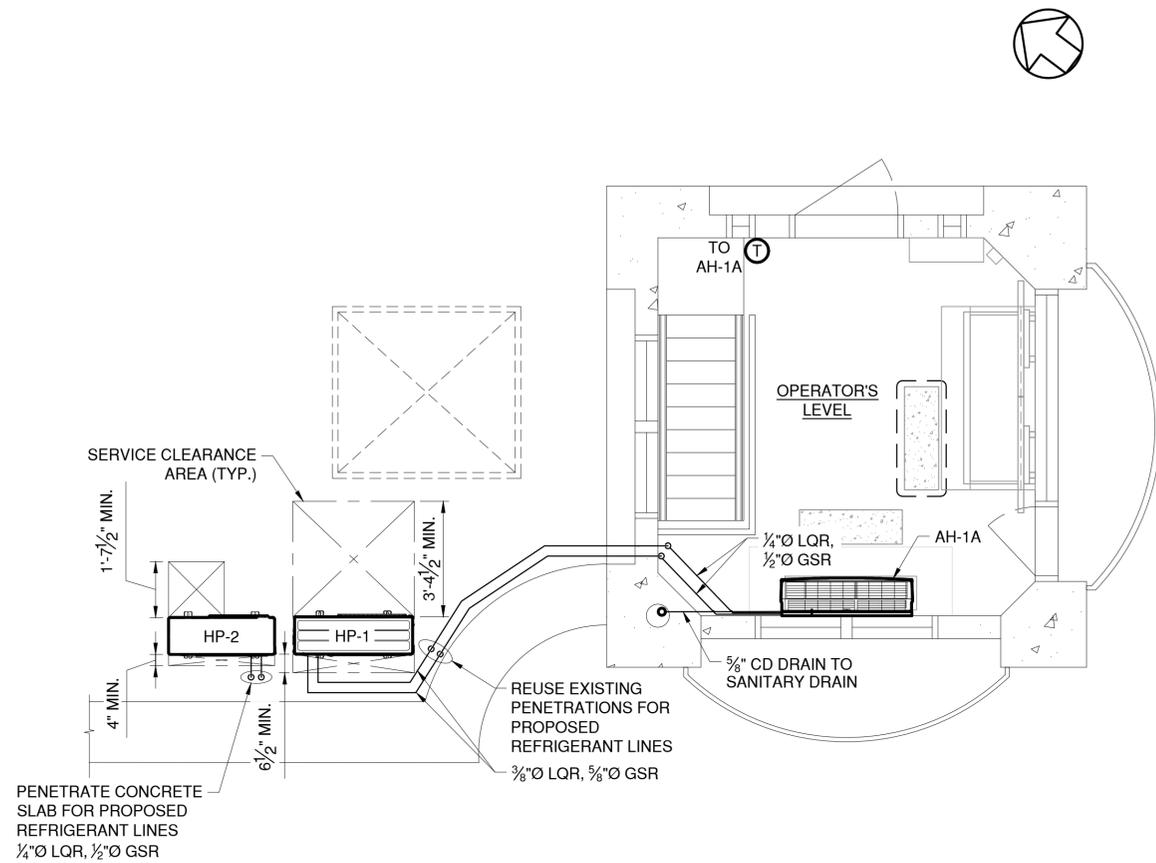
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle

MECHANICAL

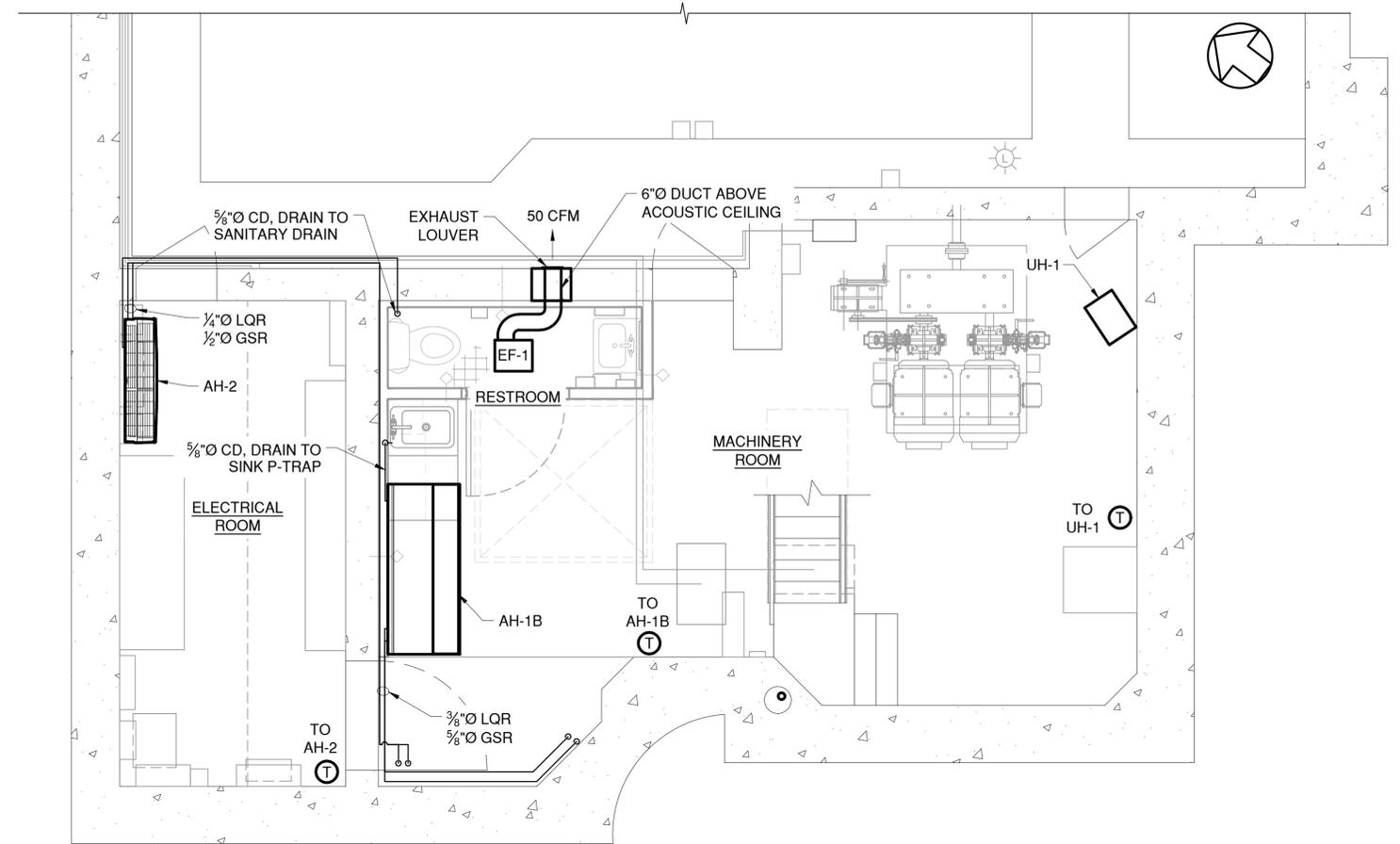
**CONTROL HOUSE HVAC DEMOLITION PLANS**

CONTRACT NUMBER 20-517	SHEET NUMBER H-02
SHEET NO. 144 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-HV-579-0	REV. NO. 0



OPERATOR'S LEVEL LAYOUT PLAN

SCALE: 3/8" = 1'-0"



LOWER LEVEL LAYOUT PLAN

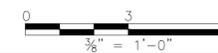
SCALE: 3/8" = 1'-0"

HVAC EQUIPMENT SCHEDULE							
EQUIPMENT I.D.	LOCATION	QUANTITY	MFG./MODEL NO.*	COOLING (MBH)	HEATING (MBH)	AIRFLOW (CFM)	POWER
HP-1	OUTSIDE NW WALL	1	DAIKIN/PUZ-A18NKA7	18	20	438	208/1/60
HP-2	OUTSIDE NW WALL	1	DAIKIN/PUZ-A18NKA7	18	20	438	208/1/60
AH-1A	OPERATOR LEVEL	1	DAIKIN/PKFY-P18NLMU-E	18	20	438	208/1/60
AH-1B	MACHINERY ROOM	1	DAIKIN/PCFY-P30NKMU-ER1.TH	24	27	636	208/1/60
AH-2	ELECTRICAL ROOM	1	DAIKIN/PA-A18LA	18	22	455	208/1/60
EF-1	RESTROOM	1	GREENHECK/SP-LP0511L-1	-	-	50	115/1/60
UH-1	MACHINERY ROOM	1	INDEECO/926U10000UA	-	34.1	700	480/3/60

\* OR APPROVED EQUAL. MODEL NUMBERS CURRENT AT TIME OF DESIGN.



CONSULTANT INFORMATION



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 MADE BY C. SIDORSKI, PE

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RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
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WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

MECHANICAL

**CONTROL HOUSE HVAC FLOOR PLANS**

CONTRACT NUMBER 20-517	SHEET NUMBER H-03
SHEET NO. 145 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-HV-580-0	0

**REQUIRED SPECIFICATIONS AND CODES**

REFER TO SPECIFICATION ITEMS 599.06180108 AND 599.06180208  
 ALL WORK, MATERIALS AND METHODS ARE TO CONFORM TO THE FOLLOWING CODES:  
 A. 2020 PLUMBING CODE OF NEW YORK STATE (PCNYS).  
 B. INTERNATIONAL PLUMBING CODE 2021 (IBC).

**SUBMITTALS**

- A. CERTIFIED PRODUCT DRAWINGS AND CATALOG CUTS: EQUIPMENT DIMENSIONS AND RATED CAPACITIES OF SELECTED PRODUCTS, FURNISHED SPECIALTIES, AND ACCESSORIES. INCLUDE PUMP PERFORMANCE CURVES.
- B. SHOP AND WORKING DRAWINGS; PIPING DETAILS AND SCHEMATICS, POWER, SIGNAL, AND CONTROL WIRING.
- C. OPERATION AND MAINTENANCE DATA: EQUIPMENT INSTALLATION AND MAINTENANCE LITERATURE SHALL BE INCLUDE IN MANUALS.

**QUALITY ASSURANCE**

- A. ELECTRICAL COMPONENTS, DEVICES AND ACCESSORIES: LISTED AND LABELED AS DEFINED IN NFPA 70.
- B. COMPLY WITH NSF 61 FOR ALL COMPONENTS THAT WILL BE IN CONTACT WITH POTABLE WATER.
- C. CONTRACTOR INSTALLATION WARRANTY: NOT LESS THAN TWO YEARS FROM DATE OF FINAL ACCEPTANCE.
- D. EQUIPMENT WARRANTY: NOT LESS THAN FIVE YEARS FROM DATE OF DELIVERY.

**PRODUCTS - PUMPS**

- A. REFER TO SPECIFICATIONS

**PRODUCTS - PIPING AND FITTINGS**

- A. WATER AND SANITARY PIPING AND FITTINGS ROUTED BELOW GRADE TO THE CONTROL HOUSE:
  - 1. WATER PIPING: POLYETHYLENE SDR 9.
  - 2. SEWER PIPING: POLYETHYLENE SCHEDULE 80 OR DR11.
- B. WATER, SANITARY AND VENT PIPING AND FITTINGS INSIDE THE CONTROL HOUSE:
  - 1. WATER PIPING: COPPER TUBE, SEAMLESS, TYPE L.
  - 2. SANITARY AND VENT PIPING: DUCTILE CAST IRON. ORGANIC ZINC RICH EPOXY PRIMER AND FINAL PAINT COAT OF POLYURETHANE COMPATIBLE WITH PRIMER.
  - 3. FITTINGS: SPLIT COUPLINGS FOR PIPE PER SECTION NSPC.
    - HOUSING COATING; ENAMEL
    - BOLTS: ASTM A449
    - HEAVY HEX NUTS: ASTM A563 GRADE B
    - BOLTS AND NUTS GALVANIZED ACCORDING TO ASTM A153

**PRODUCTS - VALVES**

- A. SHUTOFF VALVES: BRONZE ASTM B584, FULL PORT CHROME PLATED BALL VALVE, BRASS ASTM B16 STEM, PTFE SEALS, STAINLESS STEEL HANDLE AND NUT. CERTIFIED TO NSF/ANSI 372.
- B. TRAP PRIMER: BRONZE, COMPLY WITH ASNSI/ASSE STANDARD 1018, PISTON AUTOMATIC OPERATION.
- C. HOSE BIBB: BRASS NPT PIPE CONNECTION, NPSH THREAD MALE OUTLET. FROST PROOF DRAIN WHEN SHUT OFF. TAMPER PROOF VACUUM BREAKER.

**PRODUCTS - POINT-OF-USE ELECTRIC WATER HEATERS**

- A. MANUFACTURERS:
  - 1. ECCOTEMP
  - 2. STIEBEL ELTRON
  - 3. BOSCH
- B. 98% THERMAL EFFICIENCY.
- C. THE HEATER(S) SHALL BE CAPABLE OF MAINTAINING THE SET TEMPERATURE WITHIN +/- 4 DEG. F OF THE ADJUSTABLE THERMOSTAT AND UP TO 140 DEG. WATER TEMPERATURE.
- D. COPPER SHEATHED IMMERSION HEATER ELEMENT. TANK SHALL BE GLASS-LINED AND INSULATED. TANK SHALL BE RATED FOR MAXIMUM WORKING PRESSURE NOT LESS THAN 150 PSIG. WATER HEATER SHALL BE EQUIPPED WITH AN ASME RATED PRESSURE RELIEF VALVE AND AN ANODE ROD FOR PROTECTION AGAINST TANK CORROSION.
- E. UNITS SHALL BE COMPLETELY SELF-CONTAINED AND REQUIRE HOOK-UP ONLY TO ELECTRIC AND WATER. WIRE WITH FLEXIBLE CONDUIT DIRECTLY TO A SAFETY DISCONNECT SWITCH INSTEAD OF PLUGGING INTO A WALL RECEPTACLE.
- F. TANK TO HAVE A DRAIN VALVE AND AUTOMATIC SHUTOFF FOR LOW WATER LEVEL.

**PRODUCTS - PIPE INSULATION**

PIPE INSULATION: CLOSED CELL POLYURETHANE.  
 - DENSITY: 2.0 PCF (ASTM D1621).  
 - 90% TO 95% CLOSED CELL.  
 - JACKET: HDPE GRADE 4710.

**PRODUCTS - PIPE SUPPORTS AND ANCHORS**

- A. ALLOW FOR THERMAL EXPANSION OVER A RANGE OF 120 DEGREES FAHRENHEIT.
- B. SPACE SUPPORTS AT MAXIMUM 4 FEET FOR HORIZONTAL RUNS AND MAXIMUM 10 FEET FOR VERTICAL RUNS UNLESS NOTED OTHERWISE ON PLANS.
- C. SUPPORT IN ALL DIRECTIONS THE WEIGHT OF THE PIPE AND THREE TIMES ITS WATER VOLUME WEIGHT.
- D. U-BOLTS, WASHERS AND NUTS ARE STAINLESS STEEL TYPE 316. INSTALL A DIELECTRIC SLEEVE BETWEEN THE U-BOLT AND PIPE.
- E. INSTALL AN ELASTOMERIC PAD (MEDIUM-SOFT) BETWEEN THE PIPE/ INSULATION AND ITS SUPPORT ANGLE OR BRACKET. PAD IS TO BE UV-RESISTANT. AT PENETRATIONS AND WHERE REQUIRED PROTECT INSULATION WITH AISI 316 STAINLESS-STEEL 16 GAGE BAND.
- F. PIPE SUPPORT CONCRETE ANCHORS ARE A MINIMUM OF 3/8" DIAMETER. USE EITHER EPOXY 3-1/2" MINIMUM EMBEDMENT OR MECHANICAL DOUBLE EXPANSION WEDGE ANCHORS. USE STAINLESS STEEL ANCHOR ROD MEETING ASTM F593 (AISI 316) CONDITION CW, AND STAINLESS-STEEL NUTS MEETING ASTM F594 (AISI 316) CONDITION CW. WASHERS TO MEET ASME B18.22.1 TYPE A PLAIN AND STAINLESS-STEEL MATERIAL AISI 316.
- G. USE SPLIT COLLAR STAINLESS-STEEL AISI 316 PIPE FLANGES OR PIPE HOLE COVER AT PENETRATIONS. MISCELLANEOUS FASTENERS TO BE STAINLESS-STEEL AISI 316.

**INSTALLATION**

- A. COORDINATE THE PLUMBING WORK WITH ALL OTHER TRADES INCLUDING ARCHITECTURAL, MECHANICAL AND ELECTRICAL WORK. FIELD VERIFY DIMENSIONS PRIOR TO INSTALLATION OF EQUIPMENT, ROUTING OF PIPING AND ALL OTHER CONNECTIONS.
- B. WORK TO INCLUDE ALL LICENSE, PERMIT, INSPECTION AND OTHER FEES REQUIRED BY UTILITY COMPANIES OR AUTHORITIES HAVING JURISDICTION REQUIRED FOR COMPLETION OF WORK.
- C. INSTALL PUMPS ACCORDING TO APPLICABLE REQUIREMENTS IN STANDARD ANSI/HI 1.4.
- D. INSTALL WASTE PUMP IN A BASIN AND ARRANGE TO PROVIDE ACCESS FOR MAINTENANCE INCLUDING REMOVAL OF MOTORS, IMPELLERS, COUPLINGS, AND ACCESSORIES.
- E. USE DIELECTRIC FLEXIBLE COUPLINGS TO MAKE CONNECTIONS.
- F. SUPPORT PIPING SO WEIGHT OF PIPING IS NOT SUPPORTED BY PUMP.
- G. INSTALL PIPING ADJACENT TO PUMP TO ALLOW SERVICE AND MAINTENANCE.
  - 1. INSTALL UNIONS ON PUMPS HAVING THREADED PIPE CONNECTIONS. INSTALL VALVES SAME SIZE AS CONNECTED PIPING.
- H. WATER HEATERS SHALL BE INSTALLED WITH WATER SHUTOFF VALVES FOR SERVICE AND MAINTENANCE.

**STARTUP SERVICE**

- A. ENGAGE A FACTORY-AUTHORIZED SERVICE REPRESENTATIVE TO PERFORM STARTUP SERVICE AND TO TRAIN OWNER'S MAINTENANCE PERSONNEL TO ADJUST, OPERATE, AND MAINTAIN CONTROLS AND PUMPS
  - 1. COMPLETE INSTALLATION AND STARTUP CHECKS ACCORDING TO MANUFACTURERS' WRITTEN INSTRUCTIONS.
  - 2. CLEAN OUT SAND AND DEBRIS IN THE SUMP.
  - 3. VERIFY BEARING LUBRICATION.
  - 4. ADJUST FLOAT SWITCH HEIGHTS TO ENSURE SUMP LEVEL IS MAINTAINED ABOVE THE PUMP CASING.
- B. TEST AND ADJUST CONTROLS AND SAFETIES.
- C. REMOVE AND REPLACE DAMAGED AND MALFUNCTIONING COMPONENTS.
  - 1. PUMP CONTROLS: SET PUMP CONTROLS FOR AUTOMATIC START, STOP, AND ALARM OPERATION AS REQUIRED FOR SYSTEM APPLICATION.
  - 2. SET FIELD-ADJUSTABLE SWITCHES AND CIRCUIT-BREAKER TRIP RANGES AS INDICATED, OR IF NOT INDICATED, FOR NORMAL OPERATION.

**EXECUTION**

- A. INSTALL PIPING ADJACENT TO WATER HEATERS TO ALLOW SERVICE AND MAINTENANCE. ARRANGE PIPING FOR SIMPLIFIED ACCESS AND EASY REMOVAL OF WATER HEATERS.
- B. GROUND EQUIPMENT ACCORDING TO ELECTRICAL SPECIFICATIONS.
- C. CONNECT WIRING ACCORDING TO ELECTRICAL SPECIFICATIONS.

**FIELD QUALITY CONTROL**

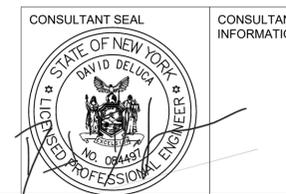
- A. PERFORM THE FOLLOWING FIELD TESTS AND INSPECTIONS AND PREPARE TEST REPORTS:
  - 1. LEAK AND PRESSURE TESTS: AFTER INSTALLATION IS COMPLETE, TEST WATER AND SEWER FOR LEAKS. FOR WATER SERVICE LINE UTILIZE A WATER LEAK DETECTOR INSTALLED IN-LINE ON THE WATER PIPE AT THE UTILITY WATER METER. FOR THE SEWER LINE MEASURE INLET AND OUTLET INTO EXISTING SEWER MAIN CONNECTION. TESTING IS TO BE PERFORMED BY A CERTIFIED TECHNICIAN SPECIALIZED IN WATER LEAK DETECTION. REPAIR ALL LEAKS AND RETEST UNTIL NO LEAKS EXIST.
  - 2. OPERATIONAL TEST: AFTER ELECTRICAL CIRCUITRY HAS BEEN ENERGIZED, CONFIRM PROPER OPERATION.
  - 3. REPLACE DAMAGED AND MALFUNCTIONING CONTROLS AND EQUIPMENT.
  - 4. SANITIZE PIPE FOR POTABLE WATER SYSTEMS PER PCNYS CHAPTER 3 AND 6, TESTING AND SAFETY PRIOR TO TURNOVER TO THE DEPARTMENT.

PIPING KEY	
WATER	_____
SANITARY	-----
VENT	-----

PLUMBING ABBREVIATIONS			
AFF	ABOVE FINISHED FLOOR	KS	KITCHENETTE SINK
CO	CLEANOUT	LAV	LAVATORY
DCW	DOMESTIC COLD WATER	SAN	SANITARY SEWER
DHW	DOMESTIC HOT WATER	SF	SEWER FORCED FLOW
DIA	DIAMETER	SG	SEWER GRAVITY FLOW
DN	DOWN	SS	STAINLESS STEEL
DW	DEWATERING PIPE	VT	VENT
EL	ELEVATION	VTR	VENT THROUGH ROOF
EXP	EXPANSION	WC	WATER CLOSET
HB	HOSE BIBB	WH	WATER HEATER
HT	HEAT TRACE	WR	WATER
HW	HOT WATER	YH	YARD HYDRANT
INS	INSULATION		

PLUMBING SYMBOLS					
	PIPE CAPPED		PRESSURE REDUCING VALVE		PRESSURE SWITCH
	PIPE UNION		VACUUM BREAKER		CLEAN OUT
	PIPE ANCHOR		PLUG VALVE		WALL CLEAN OUT
	PIPE GUIDES OR SLEEVES		DRAIN VALVE WITH THREADED HOSE CONNECTION		FLOOR CLEAN OUT
	FLEXIBLE PIPE CONNECTION		REDUCED PRESSURE ZONE BACKFLOW PREVENTER		GRADE CLEAN OUT
	GENERAL SERVICE VALVE		PRESSURE GAUGE WITH STOPCOCK		AREA DRAIN
	CHECK VALVE (ARROW INDICATES DIRECTION OF FLOW)		STRAINER WITH BLOW DOWN VALVE		FLOOR DRAIN
	THERMOMETER		AUTOMATIC AIR VENT		OVERFLOW ROOF DRAIN
	YARD HYDRANT		MANUAL AIR VENT		ROOF DRAIN
	FLOW METER		WATER FLOW SWITCH		HOSE BIBB
	METER		PITCH DOWN IN THE DIRECTION OF ARROW		WALL HYDRANT

PLUMBING EQUIPMENT SCHEDULE						
MARK	QTY.	TYPE	CAPACITY	HEAD/ PRESSURE	OUTLET	POWER (VOLT/PH/Hz)
EJ-1	1	MACERATING 2" IMPELLER SOLIDS 2" MAX.	17 GPM	15 FT.	1" NPT	120/1/60
EW-1	1	4 GAL. TANK 1.4 KW 140" F OUTLET TEMP.	6.8 GPH RECOVERY	150 PSI	1/2" NPT	120/1/60
CP-1	1	CONDENSATE PUMP HVAC ITEM	2 GPH	10 FT.	1/2" NPT	120/1/60
SP-1	1	SUBMERSIBLE, DEWATERING	250 GPM	35 FT.	4" FLANGE	480/3/60
SP-2	1	SUBMERSIBLE, DEWATERING BACKUP	425 GPM	40 FT.	4" FLANGE	480/3/60



IN CHARGE OF M. GAGLIANO, PE  
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REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

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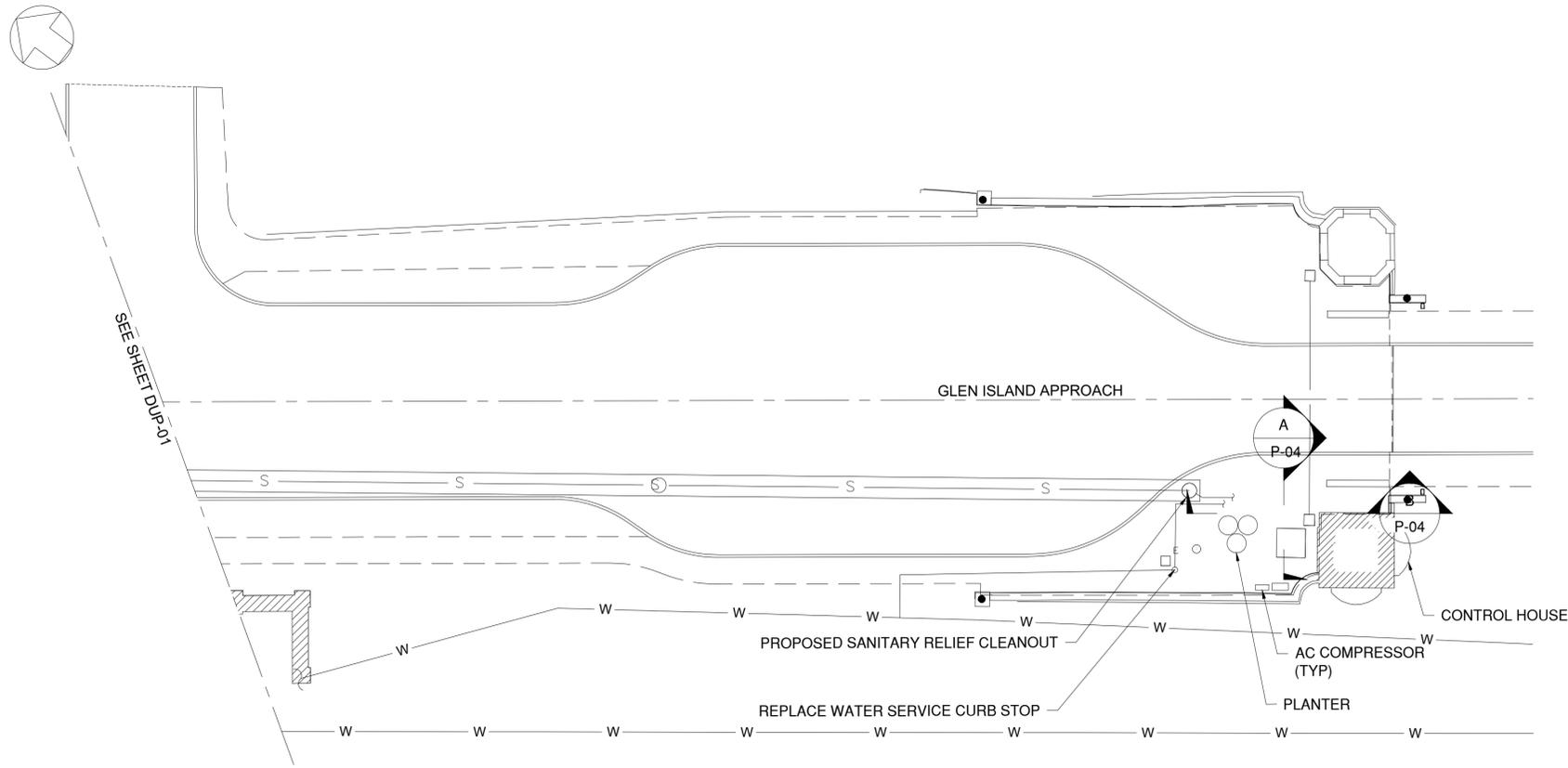
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
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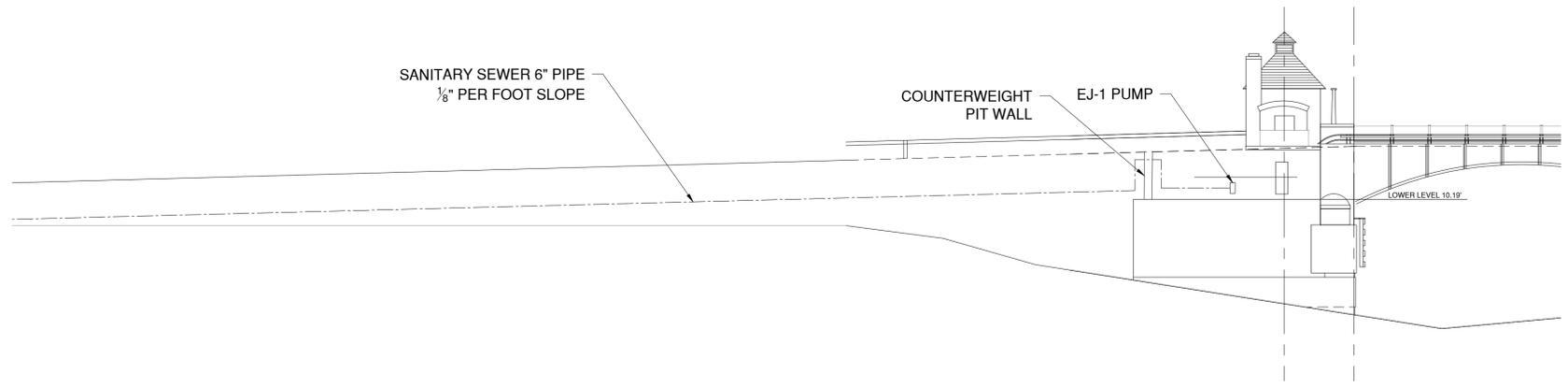
PLUMBING

**GENERAL NOTES AND ABBREVIATIONS**

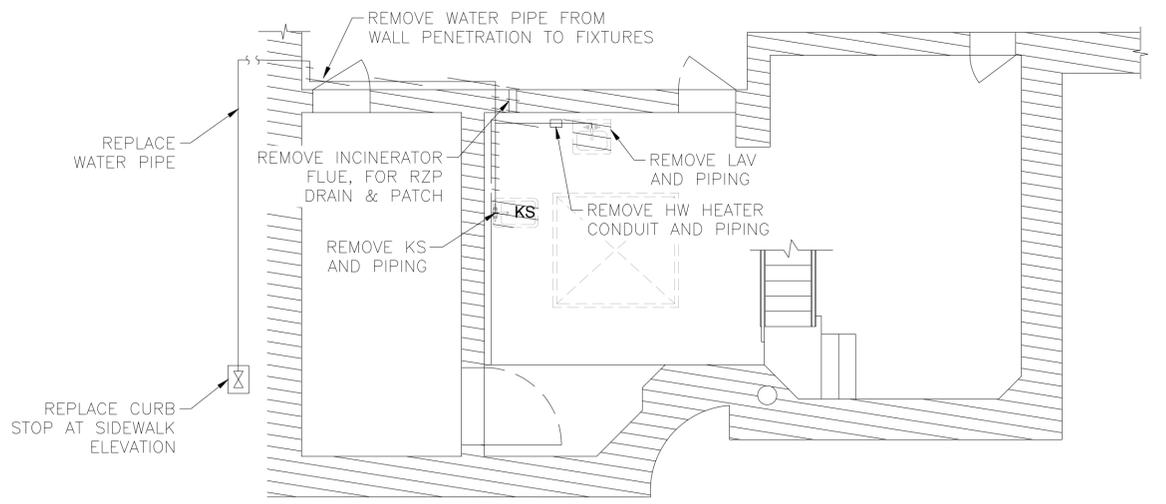
CONTRACT NUMBER 20-517	SHEET NUMBER P-01
SHEET NO. 146 OF 212	
SCALE: AS SHOWN DATE: 03/08/2024	
DPW FILE NO. 5-04-P-581-0	REV. NO. 0



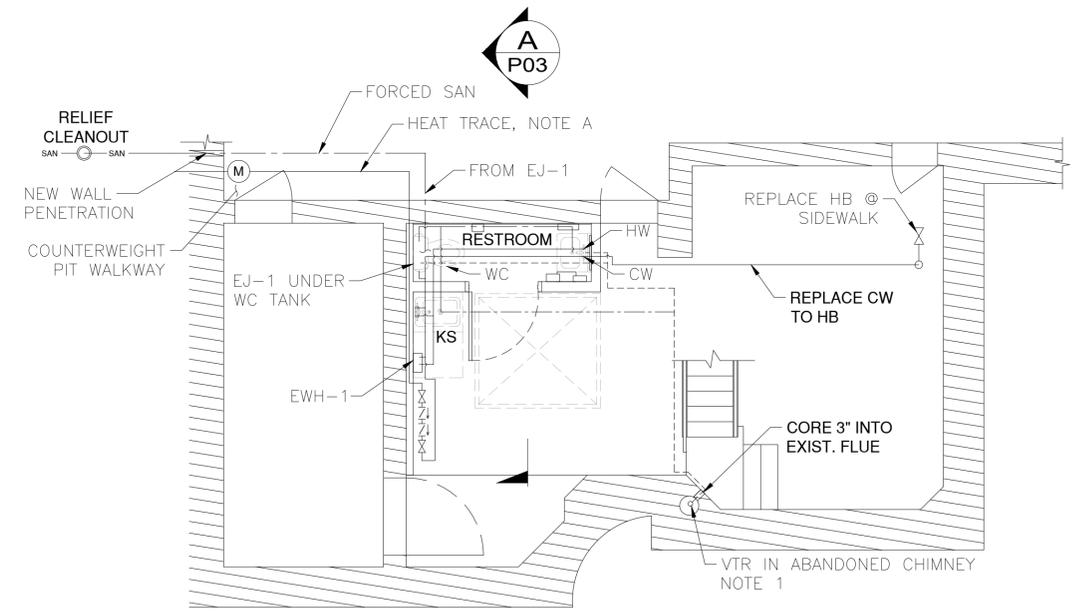
**PLUMBING SITE PLAN**  
SCALE: 1/16" = 1'-0"



**PLUMBING SITE ELEVATION**  
SCALE: 1/16" = 1'-0"



**LOWER LEVEL PLUMBING DEMOLITION PLAN**  
SCALE: 1/4" = 1'-0"



**LOWER LEVEL PLUMBING PLAN**  
SCALE: 1/4" = 1'-0"

**PLUMBING PAY ITEMS:**

- ITEM 205.97200011 TESTING, HANDLING AND DISPOSAL OF CONTAMINATED DEWATERING FLUIDS
- ITEM 555.80020001 CRACK REPAIR BY EPOXY INJECTION (RESTORATION)
- ITEM 582.05 REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASS A CONCRETE
- ITEM 599.061801WE CONTROL HOUSE PLUMBING
- ITEM 599.061802WE COUNTERWEIGHT PIT DEWATERING
- ITEM 655.05020008 WATERTIGHT SANITARY MANHOLE FRAMES AND COVERS (CASTINGS)
- ITEM 660.93000008 FURNISH AND INSTALL SANITARY SEWER LATERALS
- ITEM 660.9702011 SANITARY SEWER CLEANOUT

- ITEM 660.97100010 PRECAST SANITARY SEWER MANHOLE
- ITEM 663.0604 COPPER WATER SERVICE PIPE, 1"
- ITEM 663.2504 WATER SERVICE CONNECTION, 1"
- ITEM 663.2604 CURB STOP & CURB BOX, 1"
- ITEM 663.51000004 REPLACE EXISTING WATER VALVE BOX TOP SECTION
- ITEM 664.01060004 DUCTILE IRON SEWER PIPE & FITTINGS, 6"
- ITEM 664.40480006 PRECAST SANITARY SEWER MANHOLE (48 INCH DIA.)

**BACKFLOW PREVENTION DEVICE APPLICATION SHEET 1 OF 2**

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANYWAY IF AN ITEM BEARING THE SEAL OF AN ENGINEER OR LAND SURVEYOR IS ALTERED. THE ALTERING ENGINEER OR LAND SURVEYOR SHALL AFFIX TO THE ITEM HIS SEAL AND NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

CONSULTANT SEAL

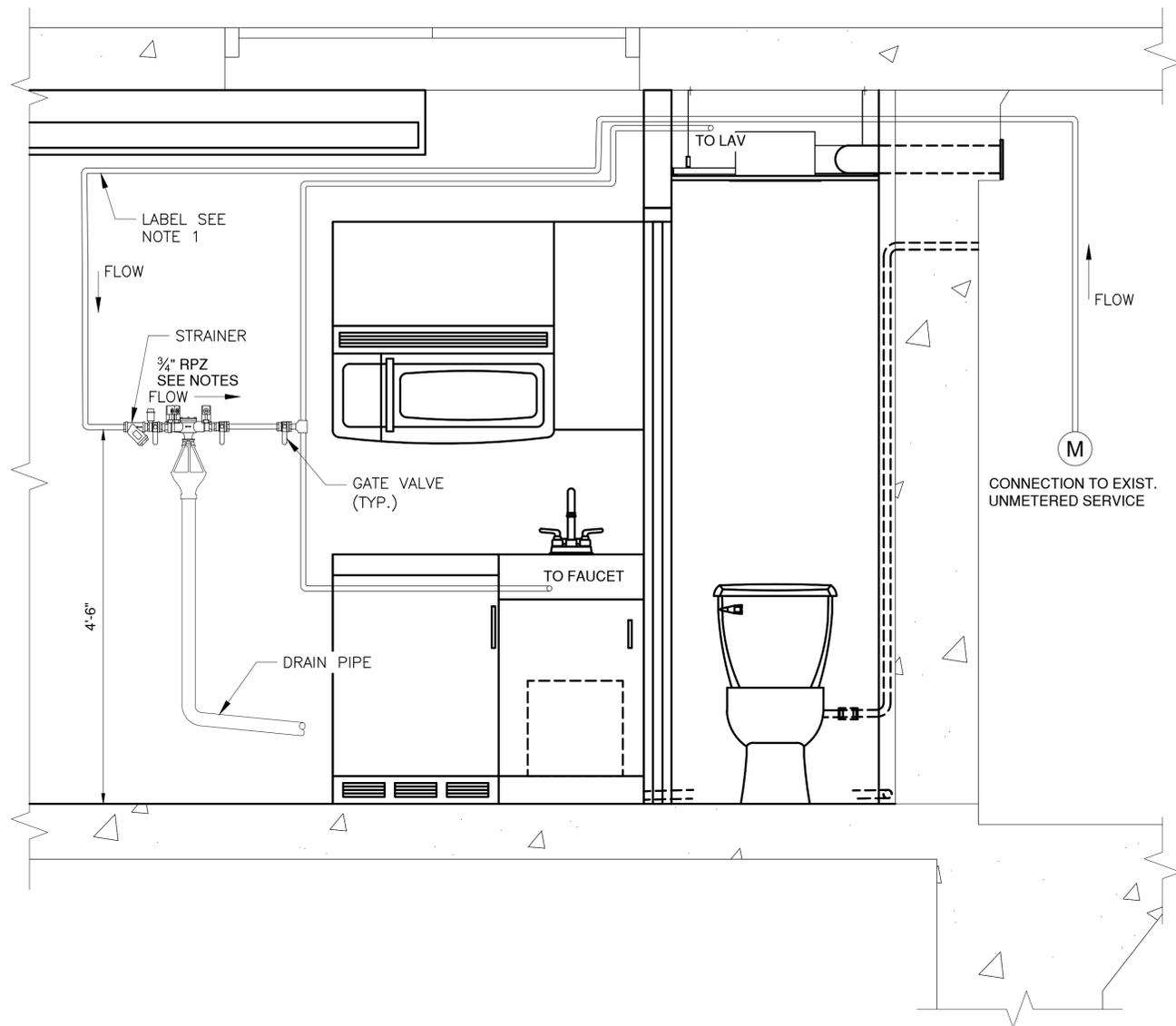
CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

RECORD DRAWING CERTIFICATION					WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER <b>20-517</b>	SHEET NUMBER <b>P-02</b>
<input type="checkbox"/> AS BUILT - CHANGES AS NOTED <input type="checkbox"/> AS BUILT - NO CHANGES					REhabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. <b>147</b> OF <b>212</b> SCALE: AS SHOWN DATE: <b>03/08/2024</b>	
CONTRACTOR					PROJECT COORDINATOR		PLUMBING	
NAME _____					NAME _____		SITE AND CONTROL HOUSE FLOOR PLANS	
SIGNATURE _____					SIGNATURE _____		DPW FILE NO. <b>5-04-P-582-0</b>	
TITLE _____					TITLE _____		REV. NO. <b>0</b>	
DATE _____					DATE _____			

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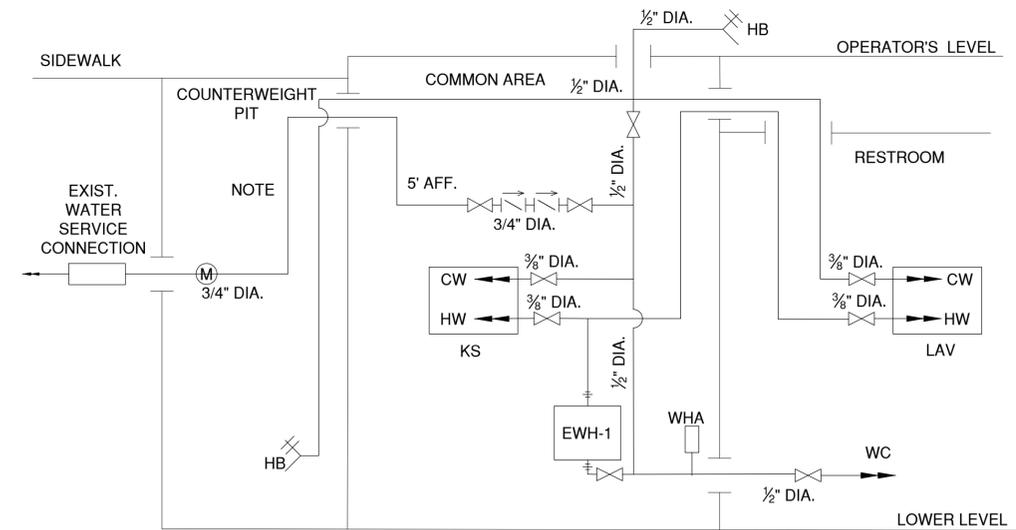
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION



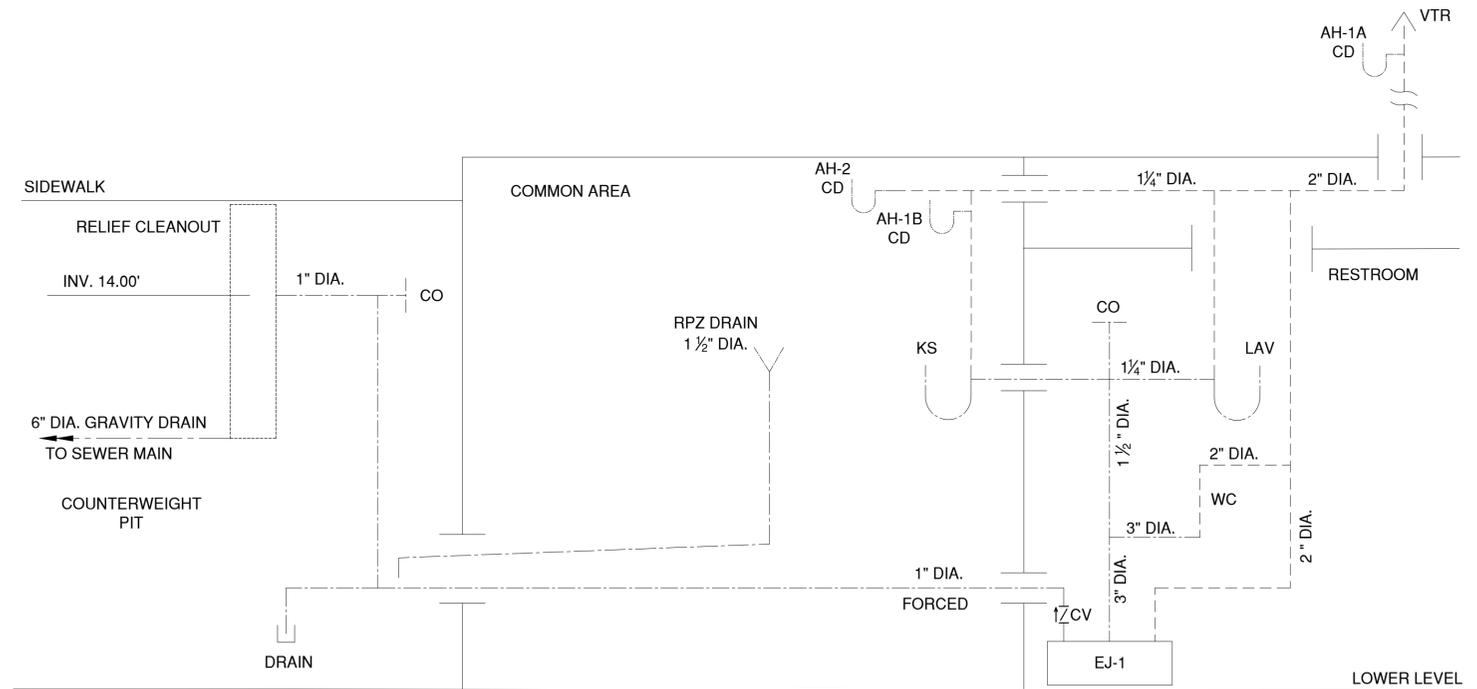
VIEW A  
SCALE: 1" = 1'-0"  
P02

BACKFLOW PREVENTION DEVICE APPLICATION SHEET 2 OF 2

- PIPE RUN FROM THE WATER METER TO THE BACKFLOW PREVENTOR SHALL BE CONTINUOUS PIPE WITHOUT ANY TAPS. AT 5 FOOT INTERVALS STENCIL IN BLACK PAINT "FEED LINE TO BACKFLOW PREVENTER - DO NOT TAP".
- COORDINATE WITH THE ENGINEER FOR FILING APPLICATION FOR REQUEST TO INSTALL A BACKFLOW PREVENTION DEVICE WITH THE WESTCHESTER COUNTY DEPARTMENT OF HEALTH. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF NEW WATER METER WITH THE UTILITY COMPANY.
- A MINIMUM OF 8 INCHES OF CLEAR SPACE IS REQUIRED BEHIND THE BACKFLOW PREVENTER TO THE WALL.
- IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANYWAY IF AN ITEM BEARING THE SEAL OF AN ENGINEER OR LAND SURVEYOR IS ALTERED. THE ALTERING ENGINEER OR LAND SURVEYOR SHALL AFFIX TO THE ITEM HIS SEAL AND NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



WATER DISTRIBUTION  
NOT TO SCALE



SEWER AND VENT  
NOT TO SCALE

IN CHARGE OF M. GAGLIANO, PE  
CHECKED BY M. GAGLIANO, PE  
MADE BY C. SIDORSKI, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

CONSULTANT SEAL  
DAVID DELUCA  
NO. 09481  
LICENSED PROFESSIONAL ENGINEER

CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

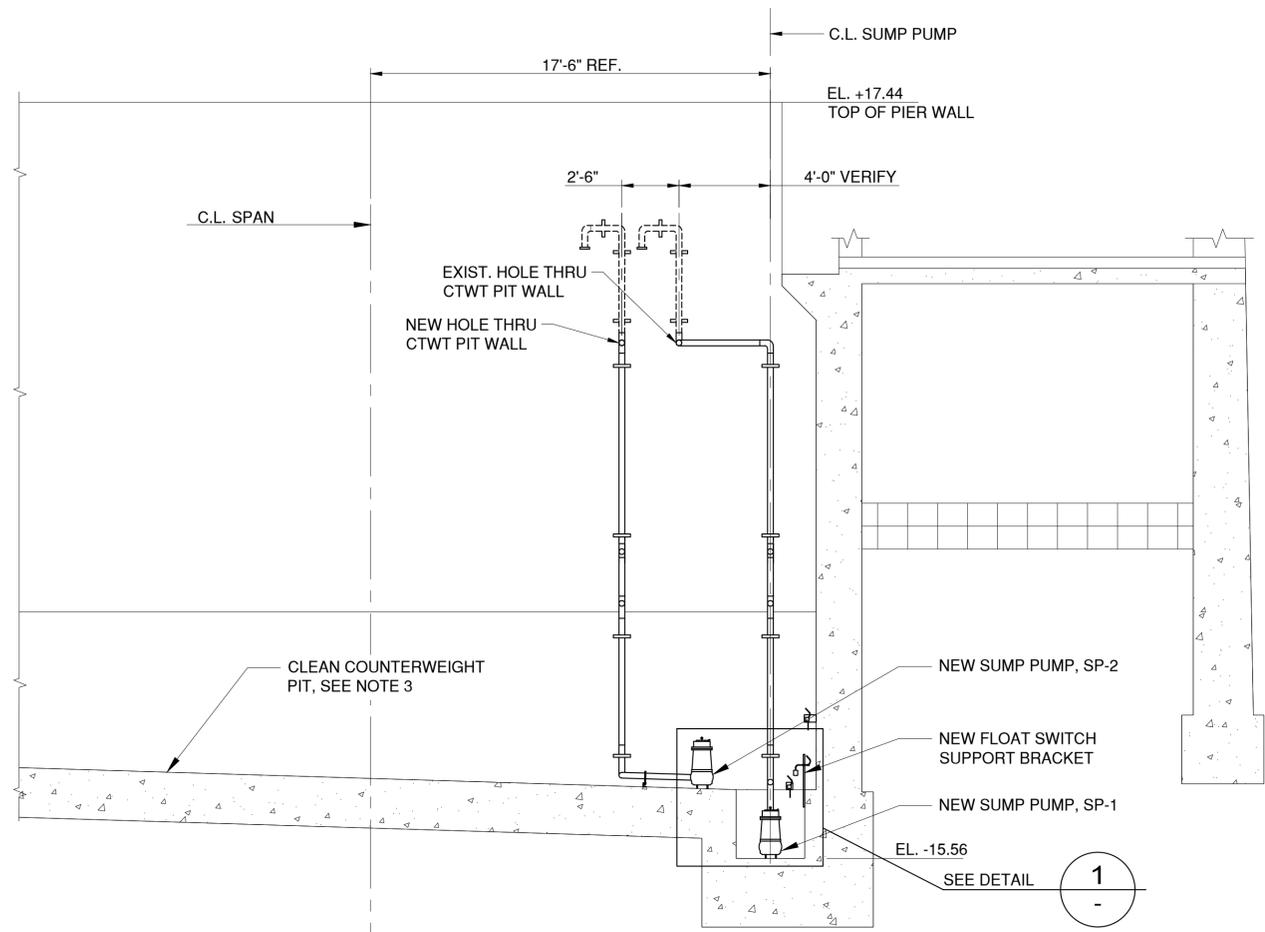
WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle

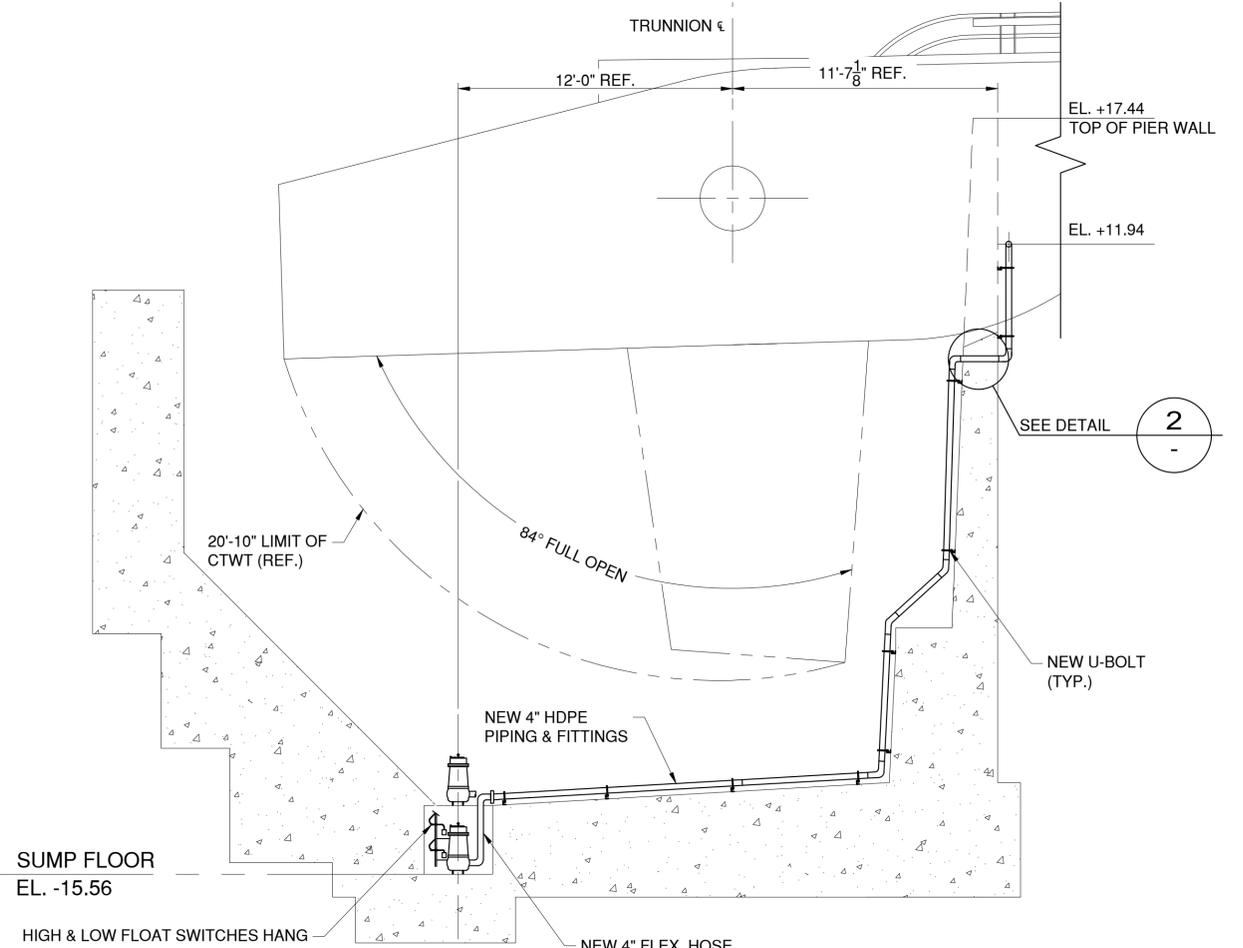
PLUMBING

**BACKFLOW PREVENTER AND RISER DIAGRAMS**

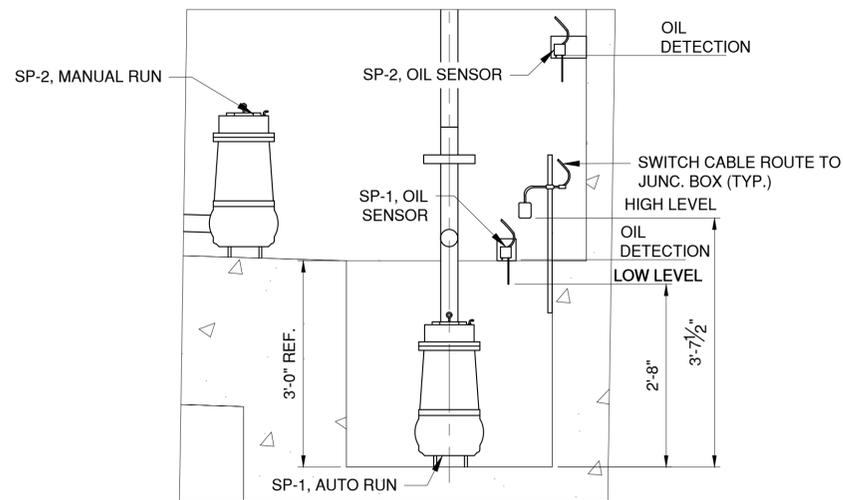
CONTRACT NUMBER 20-517	SHEET NUMBER P-03
SHEET NO. 148 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-P-583-0	0



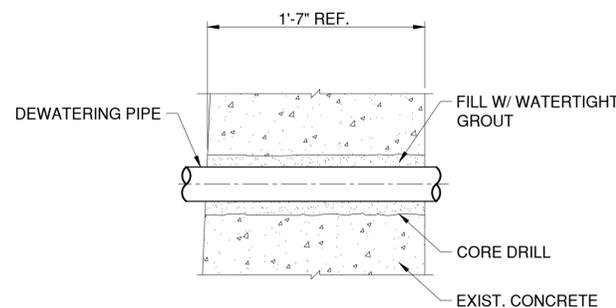
**SECTION A**  
SCALE: 3/16" = 1'-0"  
P-02



**SECTION B**  
SCALE: 1/4" = 1'-0"  
P-02



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



**DETAIL 2**  
SCALE: 1 1/2" = 1'-0"

**PIT DEWATERING NOTES:**

1. CONTRACTOR SHALL REMOVE AND DISPOSE ALL EXISTING SUMP PUMPS, DISCHARGE HOSES, PIPES, AND SUPPORTS, REMOVE AND DISPOSE IN ACCORDANCE WITH FEDERAL, LOCAL, AND ANY APPLICABLE REGULATIONS.
2. THOROUGHLY CLEAN OUT SUMP WELL FOR PUMPS AND THE ENTIRE COUNTERWEIGHT PIT. PUMP OUT WASTE WATER AND SLUDGE. USE HIGH PRESSURE STEAM TO BLAST ALL SURFACES CLEAN. COLLECT PUMPED OUT EFFLUENT AND CLEANING WASTE AND DISPOSE. SEAL CONCRETE INSIDE THE SUMP. CLEAN UP COUNTERWEIGHT PIT AS PER ITEM 205.97200011-TESTING, HANDLING AND DISPOSAL OF CONTAMINATED DEWATERING FLUID.
3. REPAIR COUNTERWEIGHT PIT CONCRETE CRACKS AS PER ITEM 555.80020001 - CRACK REPAIR BY EPOXY INJECTION (RESTORATION)
4. REPAIR COUNTERWEIGHT PIT CONCRETE SPALLS AS PER ITEM 582 - REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASS A CONCRETE.
5. INCLUDE ALL NEW PIPING, VALVES, FITTINGS AND ACCESSORIES.



CONSULTANT INFORMATION

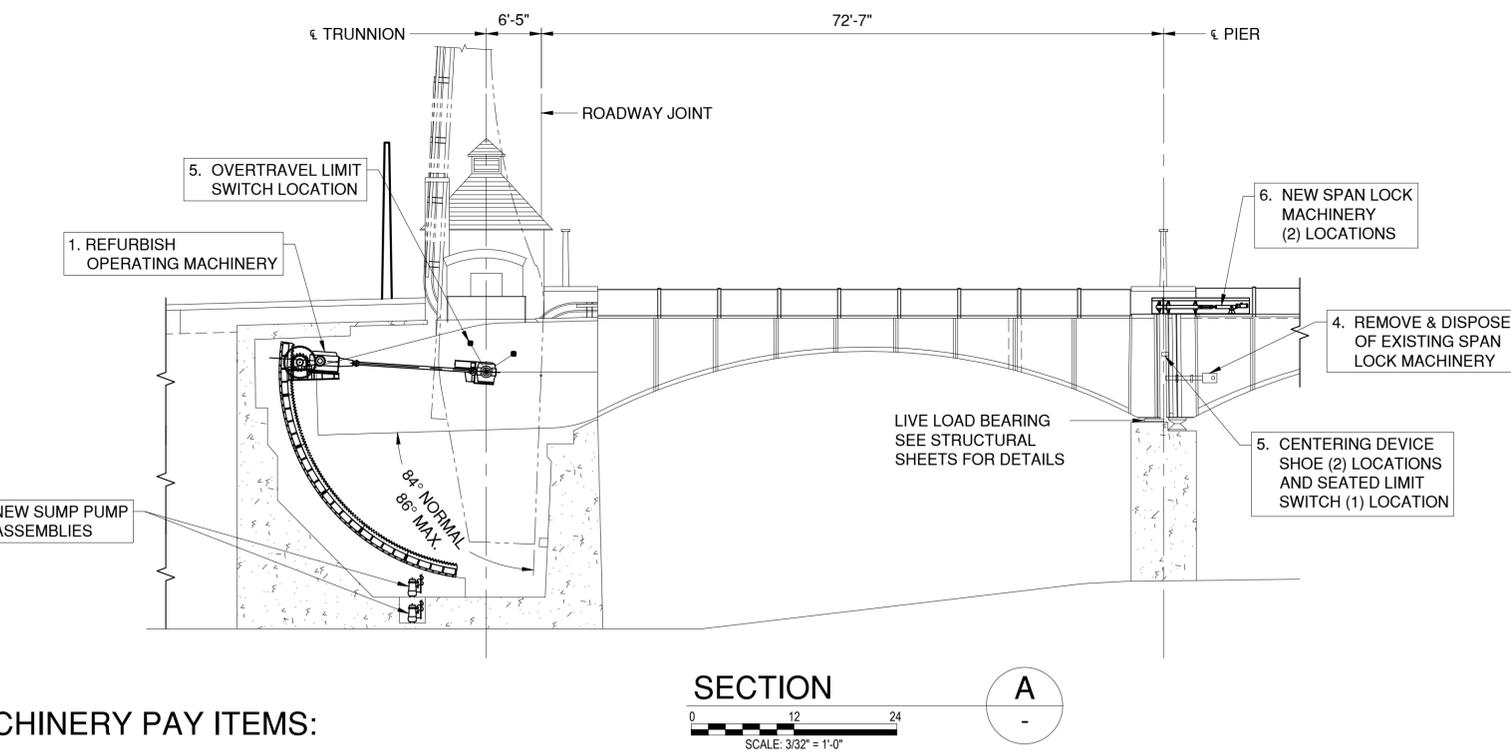
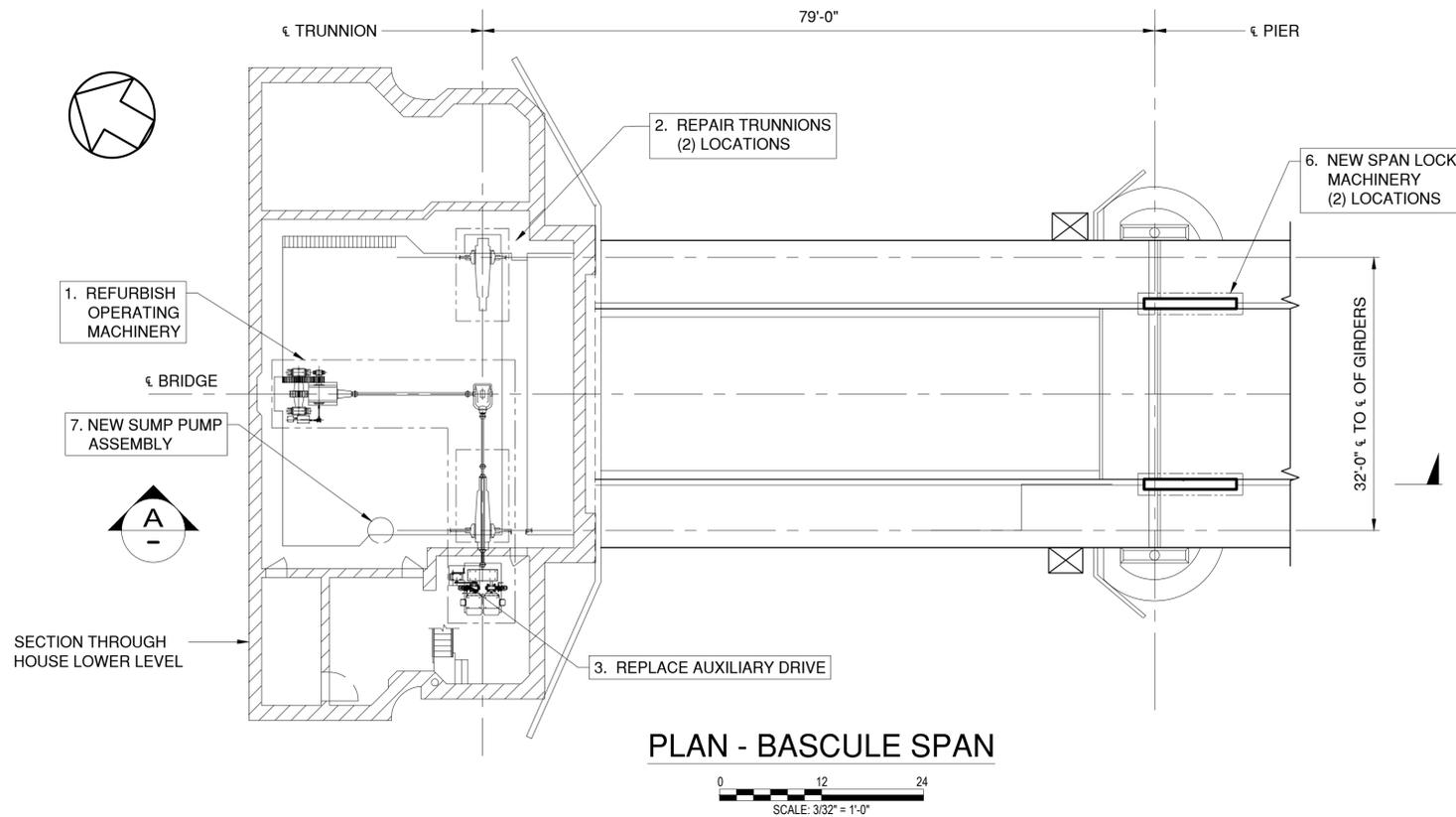


IN CHARGE OF M. GAGLIANO, PE  
CHECKED BY M. GAGLIANO, PE  
MADE BY W. STICKLE, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/> AS BUILT - CHANGES AS NOTED <input type="checkbox"/> AS BUILT - NO CHANGES			
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

<b>WESTCHESTER COUNTY, NEW YORK</b> <b>DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION</b> DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER P-04
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 149 OF 212 SCALE: AS SHOWN DATE: 03/08/2024 DPW FILE NO. _____	
<b>COUNTERWEIGHT PIT DEWATERING SECTIONS</b>		PLUMBING	REV. NO. 0



**SCOPE OF WORK:**

1. REFURBISH OPERATING MACHINERY. SEE SHEET M-02
2. REPAIR TRUNNIONS AND PURGE BEARING GREASE. SEE SHEET M-03
3. REPLACE AUXILIARY DRIVE MACHINERY. SEE SHEET M-05
4. REMOVE AND DISPOSE OF EXISTING SPAN LOCK MACHINERY. SEE SHEET M-06.
5. FURNISH AND INSTALL NEW CENTERING DEVICE SHOES. REPLACE SPAN SEATED LIMIT SWITCH AND SPAN OVERTRAVEL LIMIT SWITCH. SEE SHEET M-07.
6. SEE SHEETS M-08 TO M-11 FOR NEW SPAN LOCKS. REFER TO STRUCTURAL WORK FOR CENTERING DEVICE ASSEMBLY AND SUPPORT.
7. NEW SUMP PUMP DEWATERING SYSTEM. SEE PLUMBING WORK AND SHEET P-04.

**GENERAL MACHINERY NOTES:**

COORDINATE SPAN OPERATION FOR CHANNEL NAVIGATION WITH THE WORK.

1. ALL MACHINERY EQUIPMENT TO BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE NEW YORK STATE STEEL CONSTRUCTION MANUAL, 4TH EDITION AND LATEST SUPPLEMENTAL SPECIFICATIONS, SPECIAL PROVISIONS, AND AASHTO LRFD MOVABLE BRIDGE DESIGN SPECIFICATIONS SECOND ED. 2007 WITH LATEST REVISIONS.
2. WHERE REFERENCED HEREIN AND IN SPECIAL PROVISIONS, "DEPARTMENT" REFERS TO THE WESTCHESTER COUNTY DEPARTMENT OF PUBLIC WORKS OR THEIR REPRESENTATIVES.
3. THE DESIGN INTENT IS FOR THE CONTRACTOR TO USE ACCEPTED INDUSTRY METHODS TO ACHIEVE PROPER OPERATION OF A REPEATABLE OPERATING SYSTEM, INCLUDING COORDINATING ALL MECHANICAL, ELECTRICAL AND STRUCTURAL INTERFACE POINTS. ALL RIGGING, SCAFFOLDING, MEASUREMENTS, ALIGNMENT AND INSTALLATION TOOLS REQUIRED FOR THE JOB ARE CONSIDERED PART OF THE WORK.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPILING ALL CERTIFICATIONS AND TEST DATA, WHICH SHALL VERIFY AND DOCUMENT THAT ALL MACHINERY MEETS THE CONTRACT REQUIREMENTS. MATERIAL CERTIFICATIONS AND TEST REPORTS SHALL BE SUBMITTED TO THE DEPARTMENT FOR APPROVAL PRIOR TO SHIPMENT.
5. ALL DETAILED AND SPECIFIED COMPONENTS AND MATERIALS ARE TO BE NEW, UNLESS DEFINED HEREIN AS EXISTING OR REFURBISH.
6. THE CONTRACTOR SHALL FIELD VERIFY ALL INTERFACING DIMENSIONS WITH EXISTING SURFACES PRIOR TO SUBMITTING SHOP DRAWINGS.
7. SHOP DRAWINGS ARE TO DETAIL THE INTERFACING MACHINERY SUPPORTS FOR COORDINATION AND FIT-UP.
8. DIMENSIONS SHOWN ON PLANS ARE AFTER ALL REQUIRED FABRICATION AND ASSEMBLY OPERATIONS.
9. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, CATALOG CUTS, AND ASSEMBLY DRAWINGS BASED ON THE CONTRACT DRAWINGS AND SPECIFICATIONS TO THE DEPARTMENT.
10. REFER TO THE TECHNICAL SPECIAL PROVISIONS FOR EACH PAY ITEM FOR SPECIFIED MATERIALS, CONSTRUCTION METHODS, AND REQUIREMENTS. MATERIALS TO CONFORM TO ASTM STANDARDS WHERE APPLICABLE.
11. MODEL NUMBERS AND DETAILS OF STANDARD COMPONENTS ARE BASED ON MANUFACTURERS' CATALOG DATA CURRENT AT THE TIME THE PLANS WERE PREPARED. EQUIVALENT MODELS FROM OTHER MANUFACTURERS MAY BE SUBSTITUTED AT THE OPTION OF THE CONTRACTOR AND WITH THE APPROVAL OF THE DEPARTMENT. ALL RELATED STRUCTURAL, ELECTRICAL AND MECHANICAL DETAILS SHALL BE REVISED BY THE CONTRACTOR TO SUIT THE CERTIFIED DIMENSIONS OF THE COMPONENTS ACTUALLY FURNISHED.
12. ALL REQUIRED MACHINING, RIGGING, ASSEMBLY, SPECIAL SHIMMING (INCLUDING FEATHERING OR TAPERED SHIMS), PAINTING, LUBRICATING AND TESTING SHALL BE CONSIDERED PART OF THE WORK.
13. SUBMIT FIELD WORK PROCEDURES TO THE DEPARTMENT. NOTIFY THE DEPARTMENT TEN DAYS PRIOR TO THE SITE VERIFICATION, FINAL ALIGNMENT MEASUREMENTS, AND TESTING.
14. ALL DIMENSIONS FOR MACHINE FINISHED SURFACES SHALL BE HELD TO +/- 0.010", EXCEPT AS OTHERWISE REQUIRED BY THE PLANS.
15. UNLESS OTHERWISE INDICATED FITS AND FINISHES FOR MACHINERY SHALL BE AS FOLLOWS:

SURFACE	FIT	FINISH (µin)
MACHINERY BASE ON CONCRETE	-	500
MACHINERY BASE ON STEEL	-	250
MACHINERY PARTS IN FIXED CONTACT	-	125
SHAFT JOURNAL	RC6	8
JOURNAL BUSHINGS	RC6	16
SPLIT BUSHING IN BASE OR CAP	LC1	125
SOLID BUSHING IN BASE (OVER 1/4" WALL)	FN2	63
TURNED BOLTS	LC6	63
HUBS ON SHAFTS	FN2	63
TEETH OF OPEN SPUR GEARS	-	63

THE ABOVE FITS FOR CYLINDRICAL PARTS SHALL ALSO APPLY TO THE MAJOR DIMENSIONS OF NON-CYLINDRICAL PARTS

16. PROVIDE ASTM A193 GR. B7 TURNED BOLTS TO CONNECT MACHINERY TO STRUCTURAL STEEL. SPECIFIED TURNED BOLT DIAMETER REFERS TO THE THREAD DIAMETER.
17. SPARE PARTS ARE TO BE DELIVERED TO THE DEPARTMENT MAINTENANCE FACILITY AT 198 LAKE ST, WHITE PLAINS, NY.

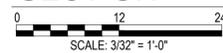
**MACHINERY PAY ITEMS:**

- ITEM 599.061201WE REHABILITATE SPAN DRIVE MACHINERY
- ITEM 599.061202WE REFURBISH TRUNNIONS
- ITEM 599.061203WE MACHINERY FIELD PAINTING
- ITEM 599.061204WE SERVICE REDUCERS
- ITEM 599.061205WE REPLACE SPAN LOCKS AND MISCELLANEOUS REPAIRS
- ITEM 599.061206WE BRIDGE OPERATION AND MAINTENANCE



IN CHARGE OF M. GAGLIANO, PE  
 CHECKED BY M. GAGLIANO, PE  
 MADE BY W. STICKLE, PE

**SECTION**

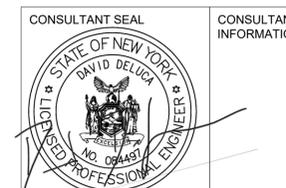


REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION
1	3/30/24	NMH	MG	ADDED PAY ITEM

RECORD DRAWING CERTIFICATION

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 AS BUILT - NO CHANGES

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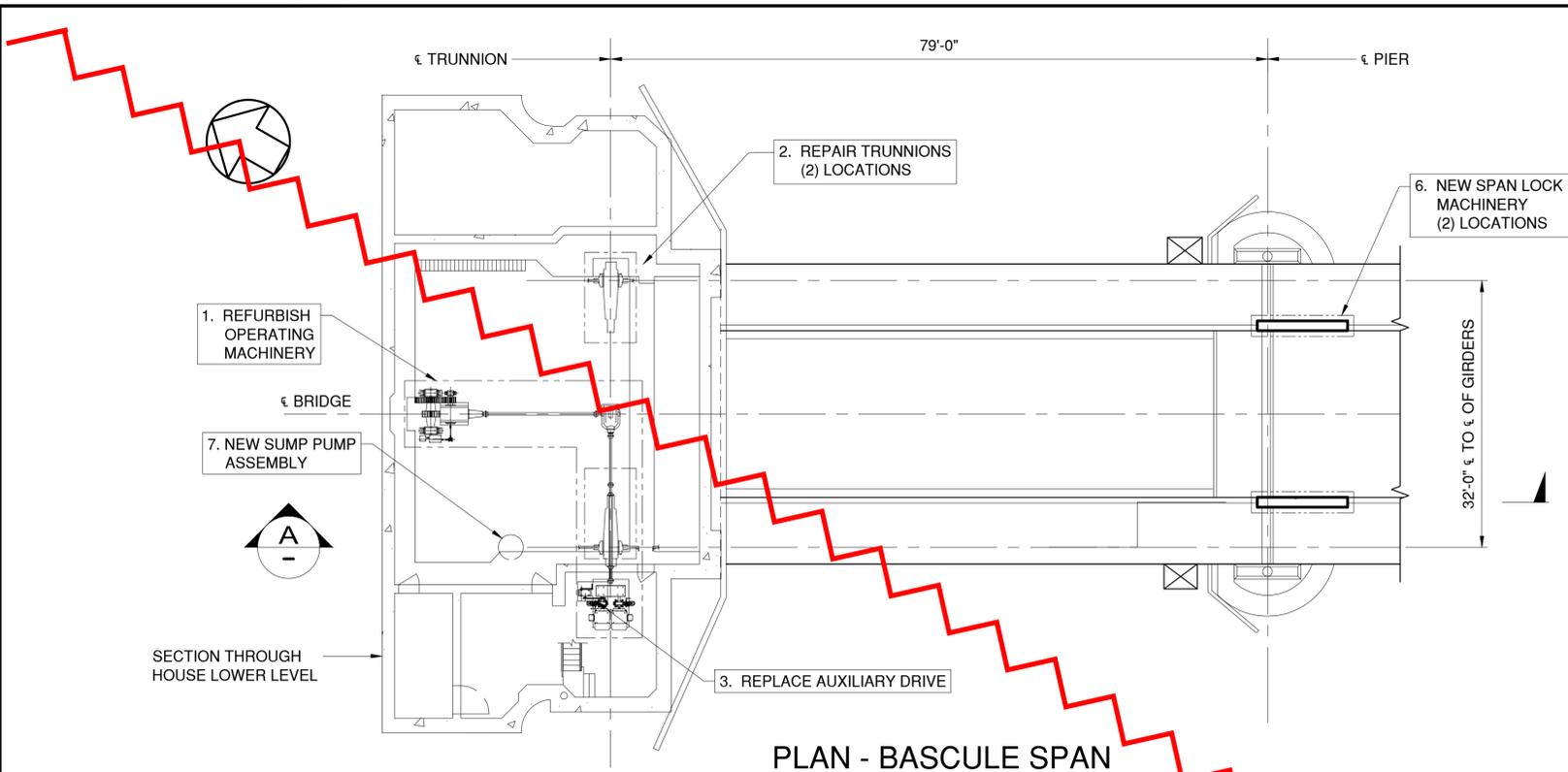
WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

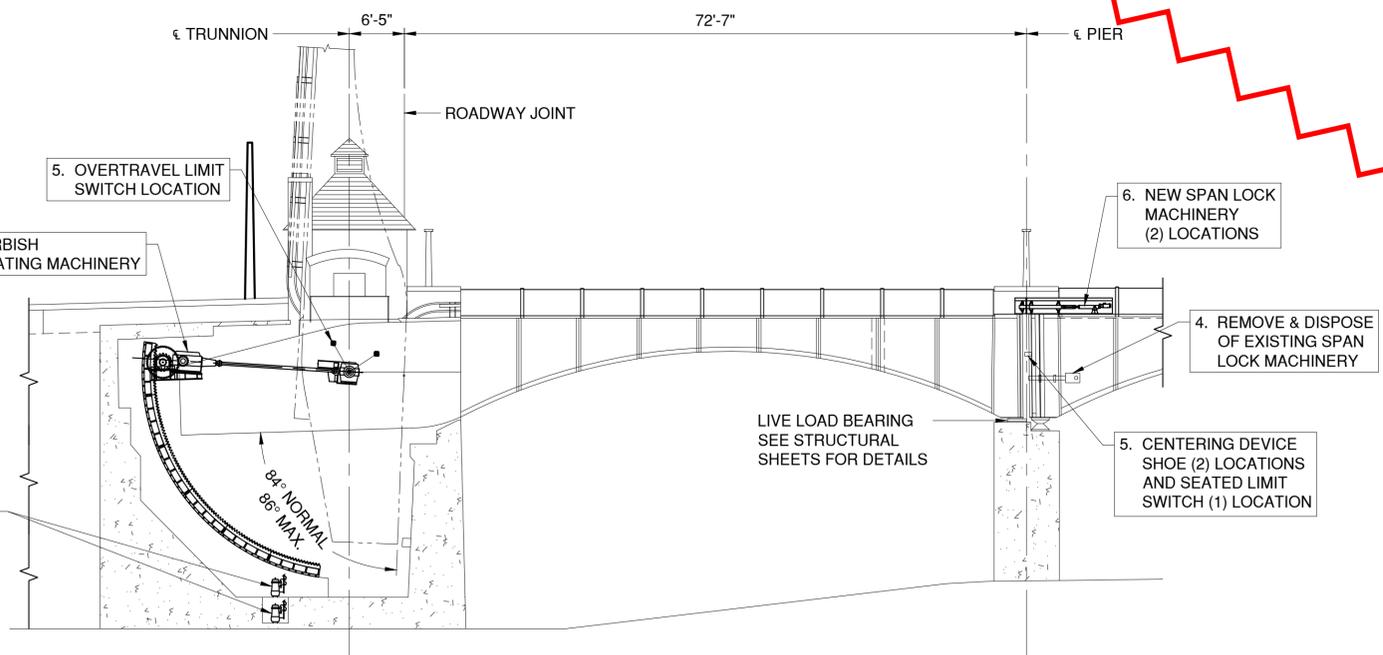
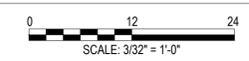
MECHANICAL

**MACHINERY GENERAL PLAN AND ELEVATION**

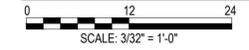
CONTRACT NUMBER 20-517	SHEET NUMBER M-01
SHEET NO. 150 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-M-585-0	1



PLAN - BASCULE SPAN



SECTION



**MACHINERY PAY ITEMS:**

- ITEM 599.061201WE REHABILITATE SPAN DRIVE MACHINERY
- ITEM 599.061202WE REFURBISH TRUNNIONS
- ITEM 599.061203WE MACHINERY FIELD PAINTING
- ITEM 599.061204WE SERVICE REDUCERS
- ITEM 599.061205WE REPLACE SPAN LOCKS AND MISCELLANEOUS REPAIRS

IN CHARGE OF M. GAGLIANO, PE  
 CHECKED BY M. GAGLIANO, PE  
 MADE BY W. STICKLE, PE

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CONSULTANT SEAL  
DAVID DELUCA  
NEW YORK, NY 10036  
(212) 944-1150

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

**SCOPE OF WORK:**

1. REFURBISH OPERATING MACHINERY. SEE SHEET M-02
2. REPAIR TRUNNIONS AND PURGE BEARING GREASE. SEE SHEET M-03
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7. NEW SUMP PUMP DEWATERING SYSTEM. SEE PLUMBING WORK AND SHEET P-04.

**GENERAL MACHINERY NOTES:**

- COORDINATE SPAN OPERATION FOR CHANNEL NAVIGATION WITH THE WORK.
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MACHINERY BASE ON STEEL	-	250
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JOURNAL BUSHINGS	RC6	16
SPLIT BUSHING IN BASE ON CAST	LC1	125
SOLID BUSHING IN BASE (OVER 1/4" WALL)	FN2	63
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WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 MECHANICAL

**MACHINERY GENERAL PLAN AND ELEVATION**

CONTRACT NUMBER 20-517	SHEET NUMBER M-01
SHEET NO. 150 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
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5-04-M-585-0	

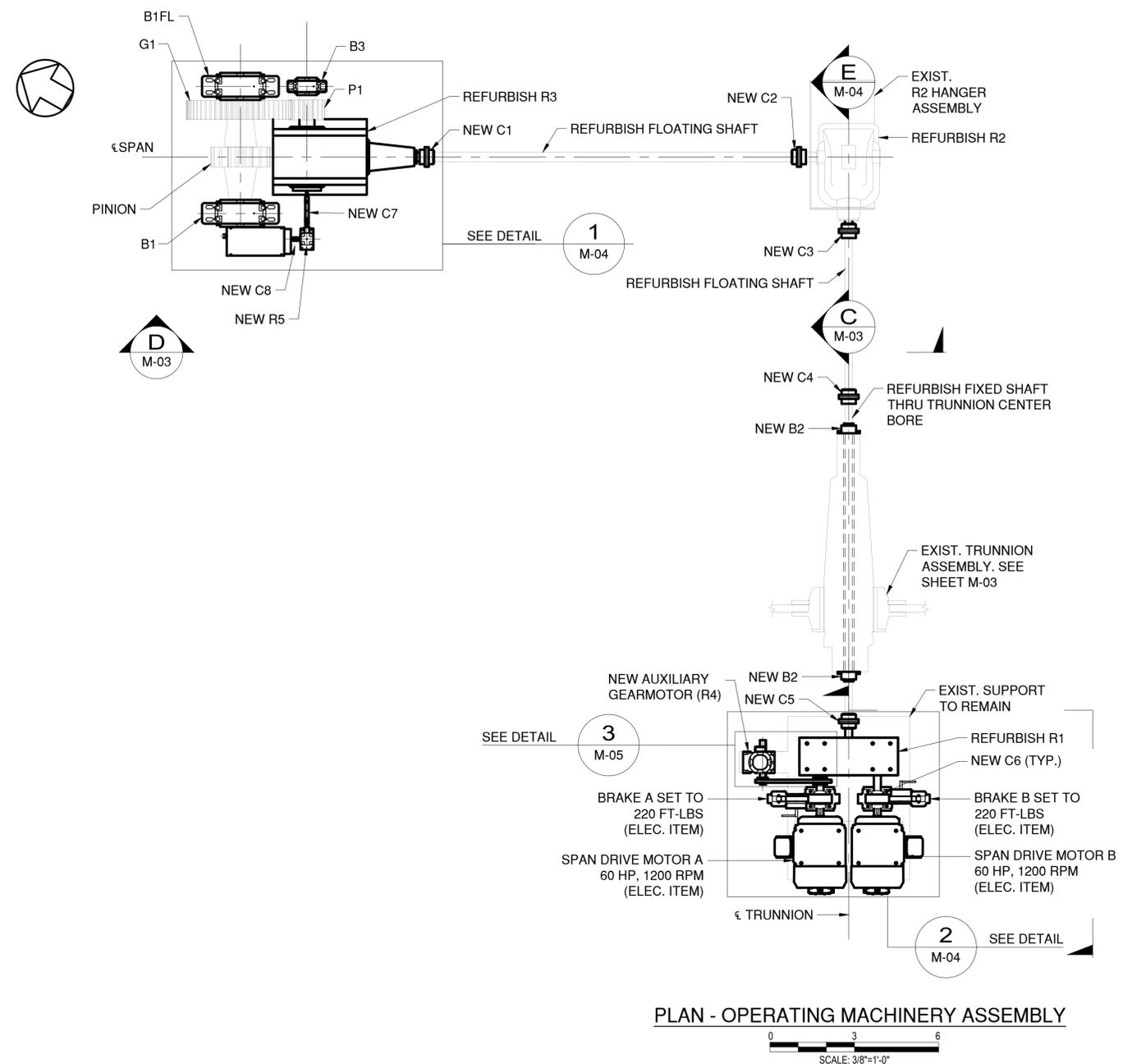
TABLE OF OPERATING MACHINERY GEAR REDUCERS						
MARK	RATIO	QTY.	DESCRIPTION	HP	INPUT RPM	OUTPUT TORQUE
R1	3.765	1	SHOP REFURBISH EXISTING PRAGER LS1221-S REDUCER PARALLEL SHAFT DUAL INPUT, SINGLE OUTPUT	95	1170	19.3 KIP-IN
R2	3.357	1	SHOP REFURBISH EXISTING PRAGER LSRA4200-S REDUCER SPIRAL BEVEL, SINGLE INPUT, SINGLE OUTPUT	92	310.8	62.6 KIP-IN
R3	5.370	1	SHOP REFURBISH EXISTING PRAGER LDRA5200-S REDUCER SPIRAL BEVEL, SINGLE INPUT, DUAL OUTPUT	92	92.6	336 KIP-IN
R4	7.28	1	NEW AUXILIARY GEARMOTOR RIGHT ANGLE BEVEL OUTPUT SHAFT CLUTCH SPROCKET HUB, 4.8 KIP-IN SET TORQUE	7.5	1750	3.83 KIP-IN
R5	3.00	1	NEW RIGHT ANGLE SPIRAL BEVEL REDUCER CAST IRON HOUSING, 1" INPUT OUTPUT SHAFTS	-	17.2	605 LB-IN

TABLE OF OPERATING MACHINERY BEARINGS					
MARK	QTY.	DESCRIPTION	DYNAMIC LOAD	SHAFT DIA.	PART NO.
B1	1	RACK PINION SHAFT BEARING (FIXED) NEW SPHERICAL ROLLER BEARING & SEALS IN EXISTING STEEL PILLOW BLOCK ASSEMBLY	415 KIP	8.66"	22244 BRASS CAGE
B1FL	1	RACK PINION SHAFT BEARING (FLOATING) NEW SPHERICAL ROLLER BEARING & SEALS IN EXISTING STEEL PILLOW BLOCK ASSEMBLY	415 KIP	8.66"	22244 BRASS CAGE
B2	4	TRUNNION CENTER BORE BEARING NEW SPHERICAL ROLLER BEARING ASSEMBLY	57.8 KIP	3.00"	REXNORD ZB2300
B3	1	P1 BULL PINION BEARING (FLOATING) NEW SPHERICAL ROLLER BEARING & SEALS IN EXISTING STEEL PILLOW BLOCK ASSEMBLY	145 KIP	4.72"	22224 BRASS CAGE

TABLE OF OPERATING MACHINERY COUPLINGS			
MARK	QTY.	DESCRIPTION	MANUFACTURER
C1	1	NEW R3 INPUT COUPLING - SINGLE ENGAGEMENT GEAR TYPE. RATED 94,500 LB-IN AT 93 RPM.	FALK TYPE G51 SIZE 1030
C2	1	NEW R2 OUTPUT COUPLING - SINGLE ENGAGEMENT GEAR TYPE. RATED 94,500 LB-IN AT 93 RPM.	FALK TYPE G51 SIZE 1030
C3	1	NEW R2 INPUT COUPLING - SINGLE ENGAGEMENT GEAR TYPE. RATED 56,700 LB-IN AT 311 RPM.	FALK TYPE G51 SIZE 1025
C4	1	NEW FIXED TO FLOATING SHAFT COUPLING SINGLE ENGAGEMENT GEAR TYPE. RATED 56,700 LB-IN AT 311 RPM	FALK TYPE G51 SIZE 1025
C5	1	NEW R1 OUTPUT COUPLING - DOUBLE ENGAGEMENT GEAR TYPE. RATED 56,700 LB-IN AT 311 RPM.	FALK TYPE G10 SIZE 1025
C6	2	NEW BRAKEWHEEL COUPLING - STEEL GRID TYPE. 10" DIA. WITH 3/4" FACE BRAKEWHEEL. RATED 3,300 LB-IN AT 1170 RPM. BRAKEWHEEL HUB MOUNTED TO R1.	FALK 10BW
C7	1	NEW LIMIT SWITCH DRIVE UNIVERSAL JOINT	LOVEJOY
C8	2	NEW LIMIT SWITCH DRIVE JAW COUPLING, BUNA-N INSERT	LOVEJOY

TABLE OF OPERATING MACHINERY OPEN GEARING								
MARK	RATIO	QTY.	D.P. [1/IN]	NO. OF TEETH	DESCRIPTION	CHORDAL ADDENDUM	CHORDAL THICKNESS	BACKLASH
RACK	24.09	6	0.75	102 (409.455 RING)	FIELD REFURBISH	1.335 IN	2.094 IN	0.220*
PINION		1		17	SHOP REFURBISH	1.382 IN	2.091 IN	
P1	3.18	1	1.25	17	SHOP REFURBISH	0.829 IN	1.255 IN	0.060*
G1		1		54	SHOP REFURBISH	0.809 IN	1.256 IN	

\* NOTE: BACKLASH IS BASED ON AGMA 390.03 FOR REFERENCE.



PLAN - OPERATING MACHINERY ASSEMBLY

1.0 OPERATING MACHINERY SCOPE OF WORK:

- PRIOR TO START OF WORK FIELD MEASURE AND RECORD EXISTING MACHINERY PARAMETERS DEFINED IN THE SPECIAL PROVISIONS FOR USE AS A REFERENCE DURING CONSTRUCTION. FIELD MEASURE OPEN GEARING BACKLASH ON EACH SIDE OF MESH FOR EACH GEARSET AT SPAN SEATED, 20°, 40°, AND FULL OPEN. THIS IS A TOTAL OF 16 MEASUREMENTS.
- FIELD VERIFY DIMENSIONS TO INTERFACES FOR NEW MACHINERY PRIOR TO SUBMITTING SHOP DRAWINGS.
- REFURBISH IN MACHINE SHOP R1, R2, AND R3 GEAR REDUCERS. REPLACE BEARINGS AND SEALS. FILL WITH NEW OIL AND REPLACE HYGROSCOPIC BREATHERS.
- IN MACHINE SHOP REFURBISH ALL SHAFTS, PINION, G1, AND P1. POLISH DIAMETERS AND KEYSEATS FOR FIT WITH NEW BEARINGS AND COUPLING HUBS INSTALLED WITH NEW KEYS. CLEAN AND POLISH GEAR TEETH. INSPECT TEETH USING NON DESTRUCTIVE TESTING METHODS.
- IN MACHINE SHOP REFURBISH ALL BEARINGS. DISASSEMBLE AND REPLACE THE ROLLER BEARINGS, SEALS, AND ALL HARDWARE WITH NEW PARTS IN KIND.
- FURNISH AND INSTALL NEW COUPLINGS.
- FURNISH AND INSTALL NEW TURNED BOLTS IN-KIND FOR ALL GEAR REDUCERS, BEARINGS, MOTORS AND BRAKES. FOR THE MOTORS REAM HOLES IN EXISTING SUPPORTS 1/32 INCH LARGER FOR AN ANSI LC6 FIT. SEE MOTOR TURNED BOLT DETAIL 4.
- CLEAN AND PAINT ALL MACHINERY, ASSOCIATED SUPPORTS, AND FASTENERS.
- CLEAN AND PAINT REDUCER SUPPORTS WHILE GEAR REDUCERS ARE REMOVED.
- REFER TO THE TECHNICAL SPECIAL PROVISIONS FOR ADDITIONAL MACHINERY REFURBISHING REQUIREMENTS.

IN CHARGE OF M. GAGLIANO, PE  
 CHECKED BY M. GAGLIANO, PE  
 MADE BY W. STICKLE, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION
1	3/30/24	NMH	MG	RACK REMOVED FROM NOTE

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR: \_\_\_\_\_ PROJECT COORDINATOR: \_\_\_\_\_

NAME: \_\_\_\_\_ NAME: \_\_\_\_\_  
 SIGNATURE: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_  
 TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

CONSULTANT SEAL: DAVID DELUCA, LICENSED PROFESSIONAL ENGINEER, STATE OF NEW YORK, NO. 09481

CONSULTANT INFORMATION: H&H, 1501 BROADWAY, SUITE 601, NEW YORK, NY 10036, (212) 944-1150

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle

MECHANICAL  
**OPERATING MACHINERY ASSEMBLY**

CONTRACT NUMBER: 20-517 SHEET NUMBER: M-02  
 SHEET NO. 151 OF 212  
 SCALE: AS SHOWN  
 DATE: 03/08/2024  
 DPW FILE NO.: 5-04-M-586-0 REV. NO.: 1

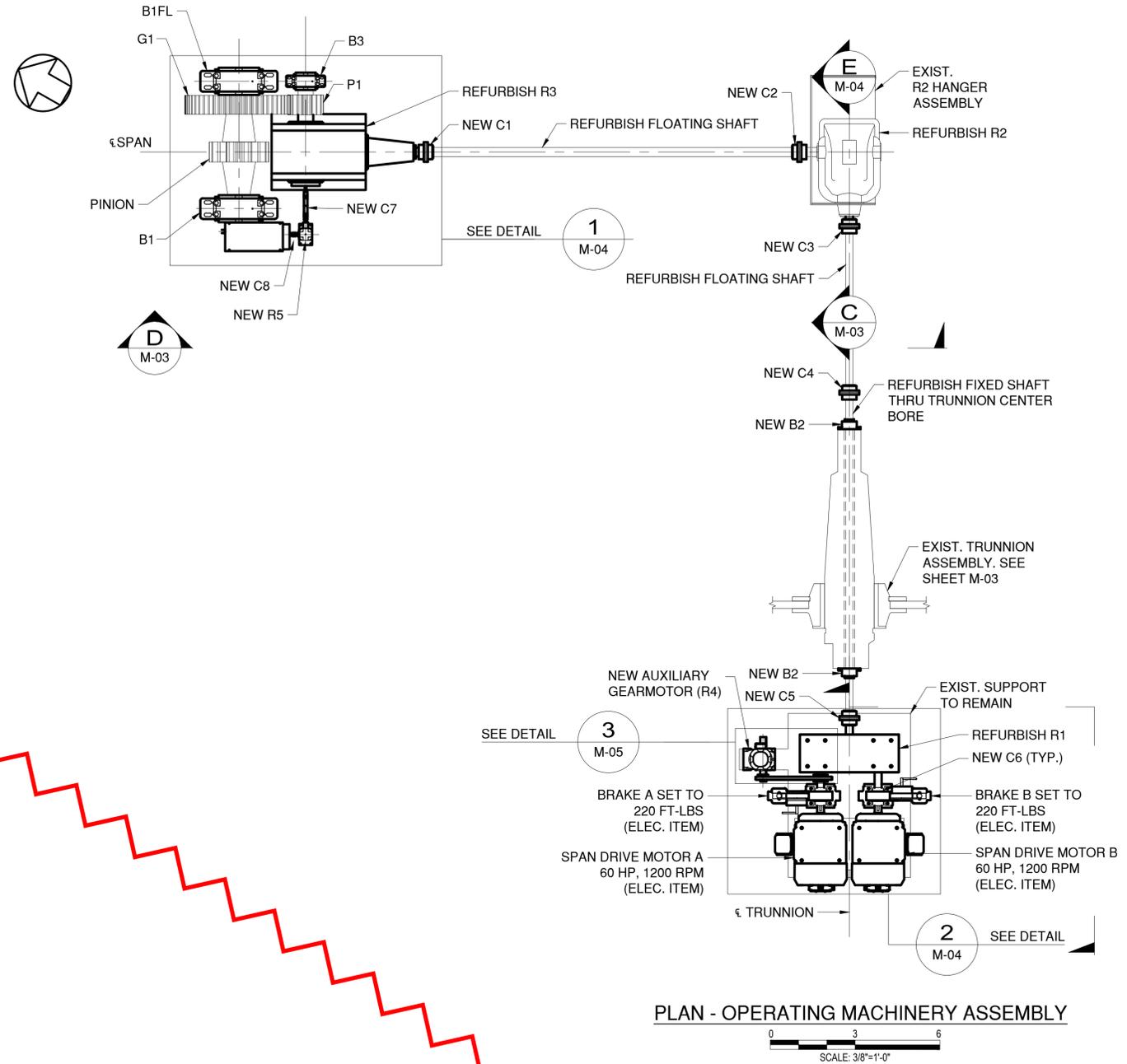
TABLE OF OPERATING MACHINERY GEAR REDUCERS							
MARK	RATIO	QTY.	DESCRIPTION	HP	INPUT RPM	SERVICE FACTOR	OUTPUT TORQUE
R1	0.765	1	SHOP REFURBISH EXISTING PRAGER LS1221-S REDUCER PARALLEL SHAFT DUAL INPUT, SINGLE OUTPUT	95	1170	-	19.3 KIP-IN
R2	3.357	1	SHOP REFURBISH EXISTING PRAGER LSRA4200-S REDUCER SPIRAL BEVEL, SINGLE INPUT, SINGLE OUTPUT	92	310.8	-	62.6 KIP-IN
R3	5.370	1	SHOP REFURBISH EXISTING PRAGER LDRA5200-S REDUCER SPIRAL BEVEL, SINGLE INPUT, DUAL OUTPUT	92	92.6	-	336 KIP-IN
R4	7.28	1	NEW AUXILIARY GEARMOTOR RIGHT ANGLE BEVEL OUTPUT SHAFT CLUTCH SPROCKET HUB, 4.8 KIP-IN SET TORQUE	7.5	1750	1.95	3.83 KIP-IN
R5	3.00	1	NEW RIGHT ANGLE SPIRAL BEVEL REDUCER CAST IRON HOUSING, 1" INPUT OUTPUT SHAFTS	-	17.2	1.0	605 LB-IN

TABLE OF OPERATING MACHINERY BEARINGS					
MARK	QTY.	DESCRIPTION	DYNAMIC LOAD	SHAFT DIA.	PART NO.
B1	1	RACK PINION SHAFT BEARING (FIXED) NEW SPHERICAL ROLLER BEARING & SEALS IN EXISTING STEEL PILLOW BLOCK ASSEMBLY	415 KIP	8.66"	22244 BRASS CAGE
B1FL	1	RACK PINION SHAFT BEARING (FLOATING) NEW SPHERICAL ROLLER BEARING & SEALS IN EXISTING STEEL PILLOW BLOCK ASSEMBLY	415 KIP	8.66"	22244 BRASS CAGE
B2	4	TRUNNION CENTER BORE BEARING NEW SPHERICAL ROLLER BEARING ASSEMBLY	57.8 KIP	3.00"	REXNORD ZB2300
B3	1	P1 BULL PINION BEARING (FLOATING) NEW SPHERICAL ROLLER BEARING & SEALS IN EXISTING STEEL PILLOW BLOCK ASSEMBLY	145 KIP	4.72"	22224 BRASS CAGE

TABLE OF OPERATING MACHINERY COUPLINGS			MANUFACTURER
MARK	QTY.	DESCRIPTION	
C1	1	NEW R3 INPUT COUPLING - SINGLE ENGAGEMENT GEAR TYPE. RATED 94,500 LB-IN AT 93 RPM.	FALK TYPE G51 SIZE 1030
C2	1	NEW R2 OUTPUT COUPLING - SINGLE ENGAGEMENT GEAR TYPE. RATED 94,500 LB-IN AT 93 RPM.	FALK TYPE G51 SIZE 1030
C3	1	NEW R2 INPUT COUPLING - SINGLE ENGAGEMENT GEAR TYPE. RATED 56,700 LB-IN AT 311 RPM.	FALK TYPE G51 SIZE 1025
C4	1	NEW FIXED TO FLOATING SHAFT COUPLING SINGLE ENGAGEMENT GEAR TYPE. RATED 56,700 LB-IN AT 311 RPM	FALK TYPE G51 SIZE 1025
C5	1	NEW R1 OUTPUT COUPLING - DOUBLE ENGAGEMENT GEAR TYPE. RATED 56,700 LB-IN AT 311 RPM.	FALK TYPE G10 SIZE 1025
C6	2	NEW BRAKEWHEEL COUPLING - STEEL GRID TYPE. 10" DIA. WITH 3/4" FACE BRAKEWHEEL. RATED 3,300 LB-IN AT 1170 RPM. BRAKEWHEEL HUB MOUNTED TO R1.	FALK 10BW
C7	1	NEW LIMIT SWITCH DRIVE UNIVERSAL JOINT	LOVEJOY
C8	2	NEW LIMIT SWITCH DRIVE JAW COUPLING, BUNA-N INSERT	LOVEJOY

TABLE OF OPERATING MACHINERY OPEN GEARING								
MARK	RATIO	QTY.	D.P. [1/IN]	NO. OF TEETH	DESCRIPTION	CHORDAL ADDENDUM	CHORDAL THICKNESS	BACKLASH
RACK	24.09	6 SGMTS.	0.75	102 (409.455 RING)	FIELD REFURBISH	1.335 IN	2.094 IN	0.220*
PINION		1		17	SHOP REFURBISH	1.382 IN	2.091 IN	
P1	3.18	1	1.25	17	SHOP REFURBISH	0.829 IN	1.255 IN	0.060*
G1		1		54	SHOP REFURBISH	0.809 IN	1.255 IN	

\* NOTE: BACKLASH IS BASED ON AGMA 390.03 FOR REFERENCE.



PLAN - OPERATING MACHINERY ASSEMBLY  
SCALE: 3/8"=1'-0"

### 1.0 OPERATING MACHINERY SCOPE OF WORK:

- PRIOR TO START OF WORK FIELD MEASURE AND RECORD EXISTING MACHINERY PARAMETERS DEFINED IN THE SPECIAL PROVISIONS FOR USE AS A REFERENCE DURING CONSTRUCTION. FIELD MEASURE OPEN GEARING BACKLASH ON EACH SIDE OF MESH FOR EACH GEARSET AT SPAN SEATED, 20°, 40°, AND FULL OPEN. THIS IS A TOTAL OF 16 MEASUREMENTS.
- FIELD VERIFY DIMENSIONS TO INTERFACES FOR NEW MACHINERY PRIOR TO SUBMITTING SHOP DRAWINGS.
- REFURBISH IN MACHINE SHOP R1, R2, AND R3 GEAR REDUCERS. REPLACE BEARINGS AND SEALS. FILL WITH NEW OIL AND REPLACE HYGROSCOPIC BREATHERS.
- IN MACHINE SHOP REFURBISH ALL SHAFTS, RACK, PINION, G1, AND P1. POLISH DIAMETERS AND KEYSEATS FOR FIT WITH NEW BEARINGS AND COUPLING HUBS INSTALLED WITH NEW KEYS. CLEAN AND POLISH GEAR TEETH. INSPECT TEETH USING NON DESTRUCTIVE TESTING METHODS.
- IN MACHINE SHOP REFURBISH ALL BEARINGS. DISASSEMBLE AND REPLACE THE ROLLER BEARINGS, SEALS, AND ALL HARDWARE WITH NEW PARTS IN KIND.
- FURNISH AND INSTALL NEW COUPLINGS.
- FURNISH AND INSTALL NEW TURNED BOLTS IN-KIND FOR ALL GEAR REDUCERS, BEARINGS, MOTORS AND BRAKES. FOR THE MOTOR BEAM HOLES IN EXISTING SUPPORTS 1/32 INCH LARGER FOR AN ANSI LC6 FIT. SEE MOTOR TURNED BOLT DETAIL 4.
- CLEAN AND PAINT ALL MACHINERY, ASSOCIATED SUPPORTS, AND FASTENERS.
- CLEAN AND PAINT REDUCER SUPPORTS WHILE GEAR REDUCERS ARE REMOVED.
- REFER TO THE TECHNICAL SPECIAL PROVISIONS FOR ADDITIONAL MACHINERY REFURBISHING REQUIREMENTS.

CONSULTANT SEAL  
CONSULTANT INFORMATION

WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle

MECHANICAL  
**OPERATING MACHINERY ASSEMBLY**

CONTRACT NUMBER 20-517  
SHEET NUMBER M-02

SHEET NO. 151 OF 212  
SCALE: AS SHOWN  
DATE: 03/08/2024  
DPW FILE NO. 5-04-M-586-0  
REV. NO. 0

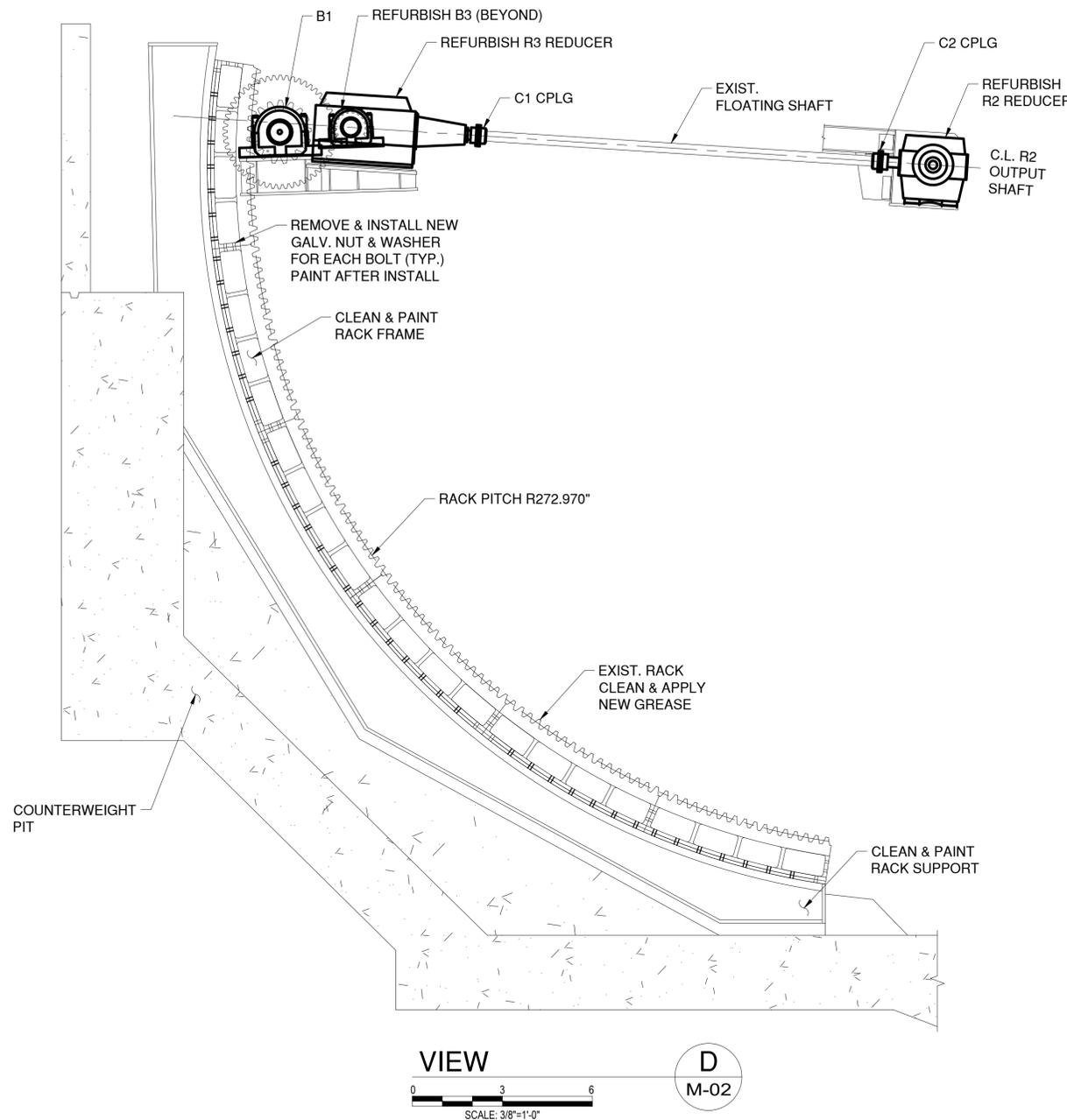
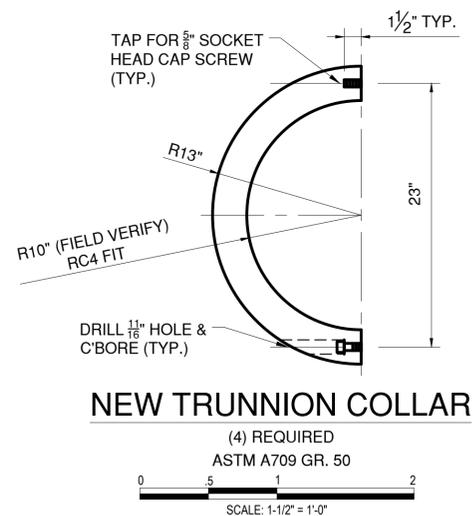
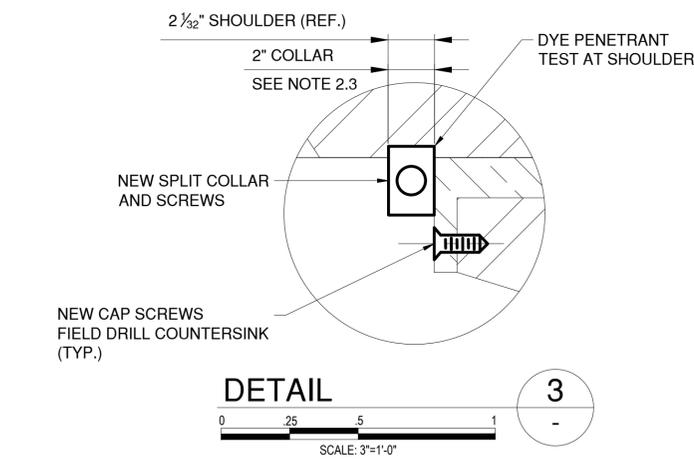
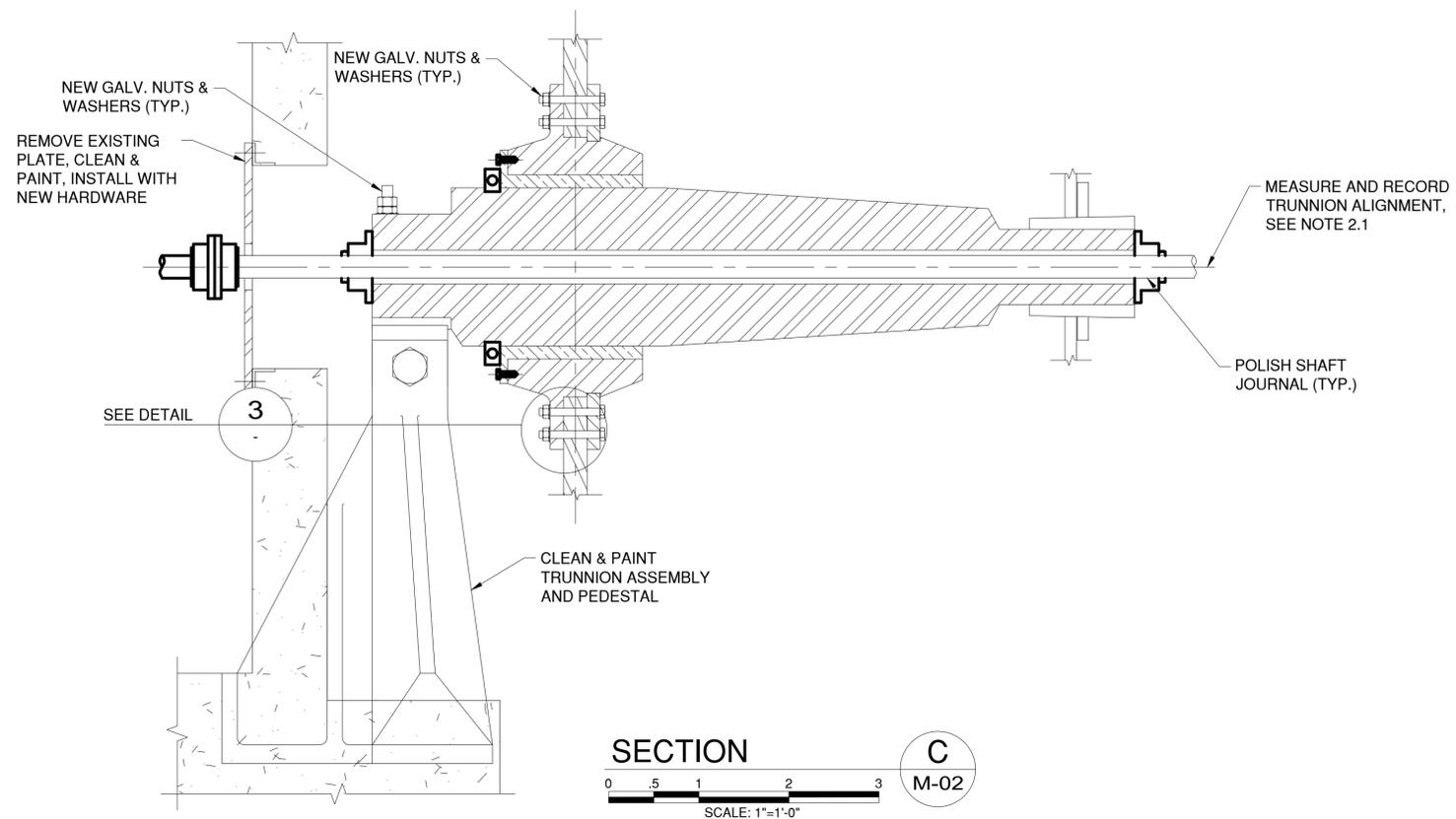
IN CHARGE OF M. GAGLIANO, PE  
CHECKED BY M. GAGLIANO, PE  
MADE BY W. STICKLE, PE

REVISION					CONTRACTOR		PROJECT COORDINATOR	
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION	NAME	NAME	NAME	

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_



**2.0 TRUNNION PURGING & REPAIR NOTES:**

- 2.1 WHILE THE SHAFT THROUGH THE TRUNNION IS REMOVED, MEASURE AND RECORD PARALLEL ALIGNMENT FOR EACH TRUNNION RELATIVE TO TRUE HORIZONTAL AND RELATIVE TO EACH OTHER.
- 2.2 REMOVE AND INSTALL NEW GREASE FITTINGS AT EACH TRUNNION BEARING. DURING LEAF OPERATION COMPLETELY PURGE OUT GREASE PORTS AND GROOVES UNTIL NEW GREASE FLOWS THROUGHOUT BEARING.
- 2.3 REMOVE EXISTING COLLAR TO ALLOW FOR FULL PURGING OF GREASE. REPLACE WITH NEW IN-KIND COLLAR. THE COLLAR HOLDS THE BASCULE SPAN TRANSVERSE ALIGNMENT AND HAS POTENTIAL PRE-LOAD. PROVIDE FOR HORIZONTAL JACKING OFF TRUNNION OR PEDESTAL TO SHIFT HUB AXIALLY ON TRUNNION JOURNAL. COORDINATE COLLAR WORK WITH ALIGNMENTS FOR THE NEW ROADWAY JOINTS. VERIFY COLLAR THICKNESS FOR CORRECTION OF TRANSVERSE ALIGNMENT.
- 2.4 DYE-PENETRANT TEST GROOVE AT COLLAR IN PRESENCE OF ENGINEER. TEST ALONG BOTTOM AND UP 45° EACH SIDE.
- 2.5 REMOVE AND INSTALL NEW BUSHING CAP SCREWS, NEW NUTS AND WASHERS ON TRUNNION PEDESTAL ANCHOR BOLTS, GIRDER HUB, AND AS REQUIRED AND DESCRIBED IN THE SPECIFICATIONS
- 2.6 CLEAN AND PAINT THE TRUNNION ASSEMBLY, INCLUDING PEDESTAL.
- 2.7 REFER TO TECHNICAL SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.

IN CHARGE OF M. GAGLIANO, PE  
 CHECKED BY M. GAGLIANO, PE  
 MADE BY W. STICKLE, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

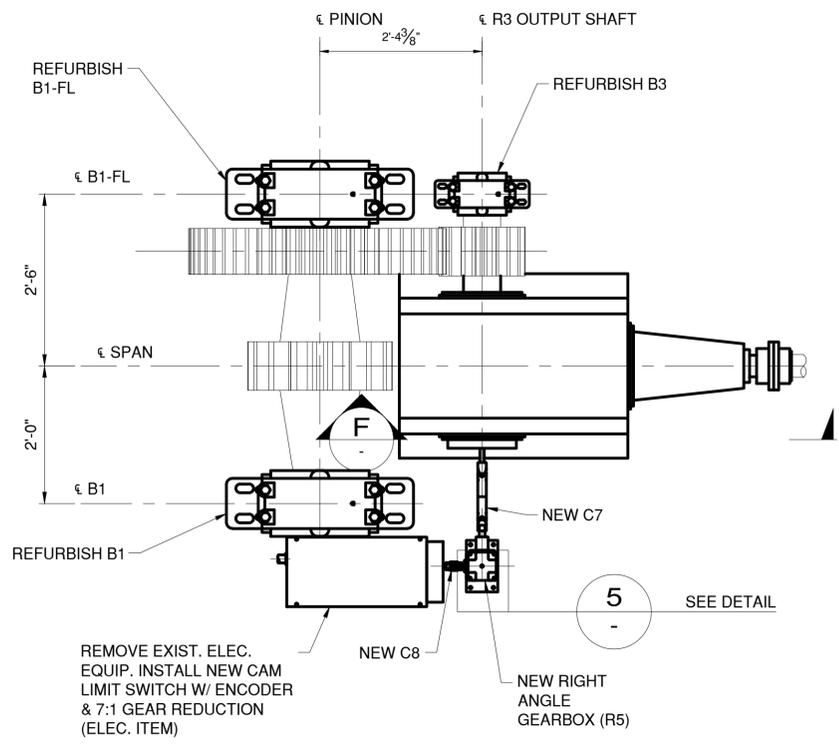
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NAME _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____	DATE _____	DATE _____



CONSULTANT INFORMATION

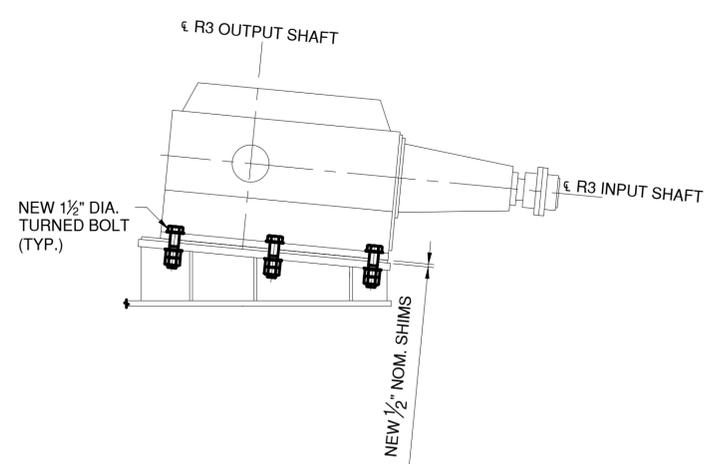
1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER M-03
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 152 OF 212	
MECHANICAL		SCALE: AS SHOWN DATE: 03/08/2024	
<b>TRUNNION &amp; OPERATING MACHINERY DETAILS 1</b>		DPW FILE NO. 5-04-M-587-0	REV. NO. 0

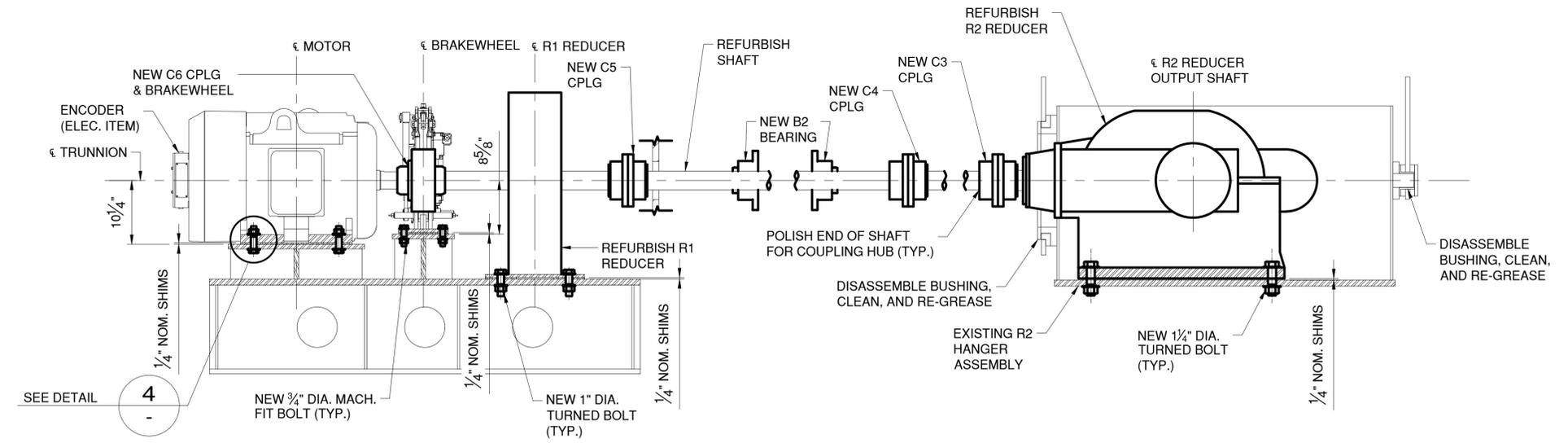


REMOVE EXIST. ELEC. EQUIP. INSTALL NEW CAM LIMIT SWITCH W/ ENCODER & 7:1 GEAR REDUCTION (ELEC. ITEM)

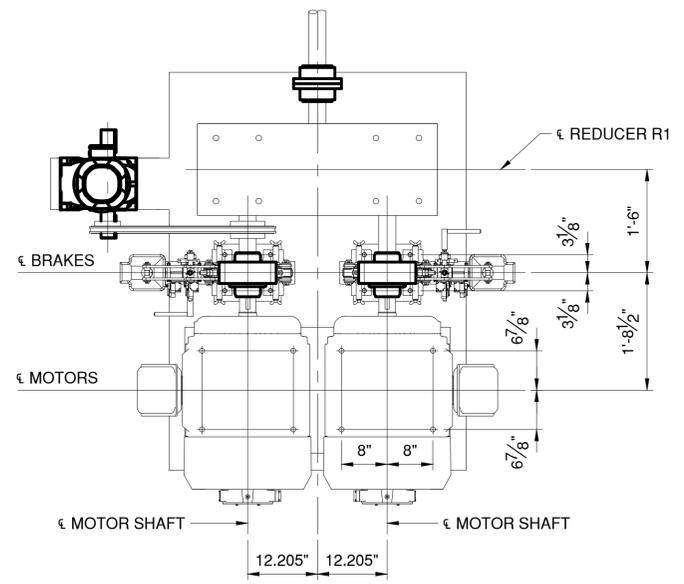
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SCALE: 3/4"=1'-0"  
1  
M-02



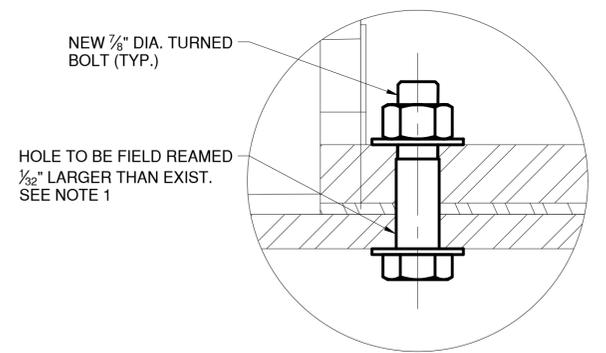
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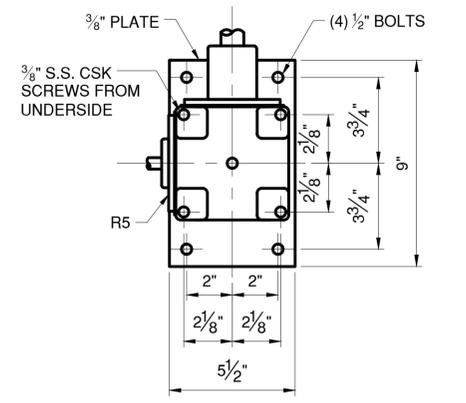
**SECTION**  
SCALE: 1"=1'-0"  
E  
M-02



**DETAIL**  
SCALE: 3/4"=1'-0"  
2  
M-02



**DETAIL**  
SCALE: NTS  
4



**DETAIL**  
SCALE: 3/4"=1'-0"  
5

**NOTE:**  
1. CONTRACTOR SHALL REMOVE AND FIELD VERIFY EXISTING TURNED BOLT SHANKS AND PROCURE 1/32" LARGER. REAM TO FIT IN FIELD.

IN CHARGE OF M. GAGLIANO, PE  
CHECKED BY M. GAGLIANO, PE  
MADE BY W. STICKLE, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/> AS BUILT - CHANGES AS NOTED <input type="checkbox"/> AS BUILT - NO CHANGES			
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____



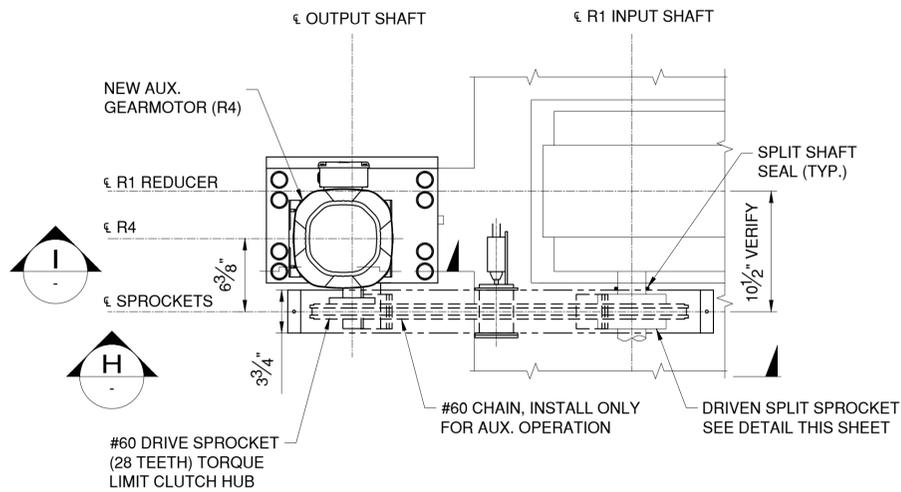
CONSULTANT SEAL



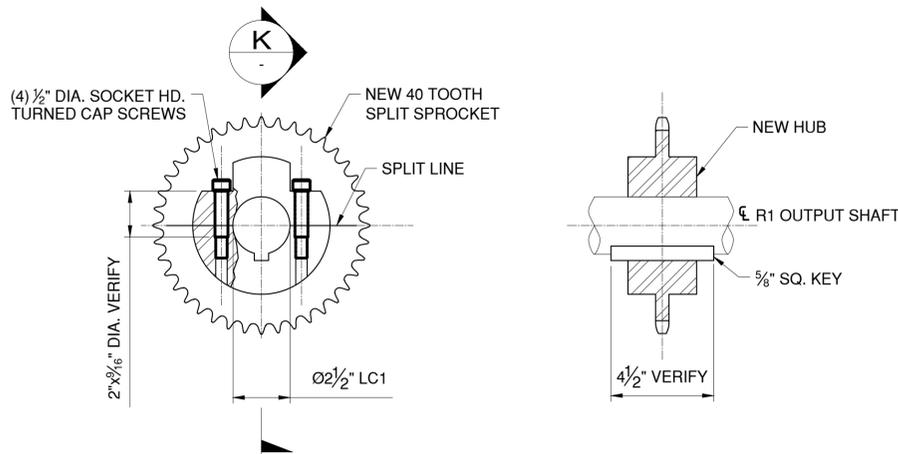
CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

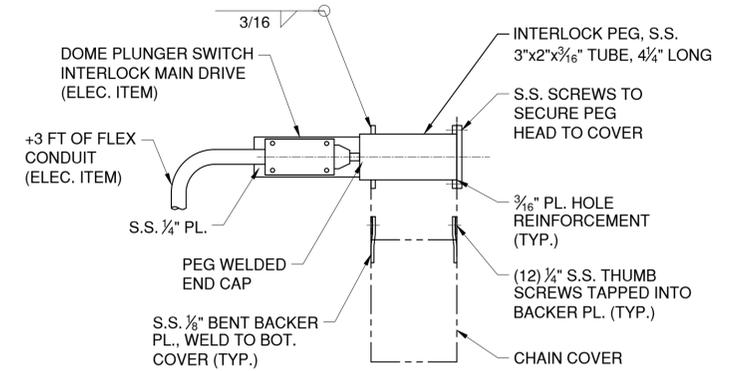
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DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION		SHEET NO. 153 OF 212	
DIVISION OF ENGINEERING		SCALE: AS SHOWN	
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		DATE: 03/08/2024	
MECHANICAL		DPW FILE NO.	REV. NO.
<b>OPERATING MACHINERY DETAILS 2</b>		5-04-M-588-0	0



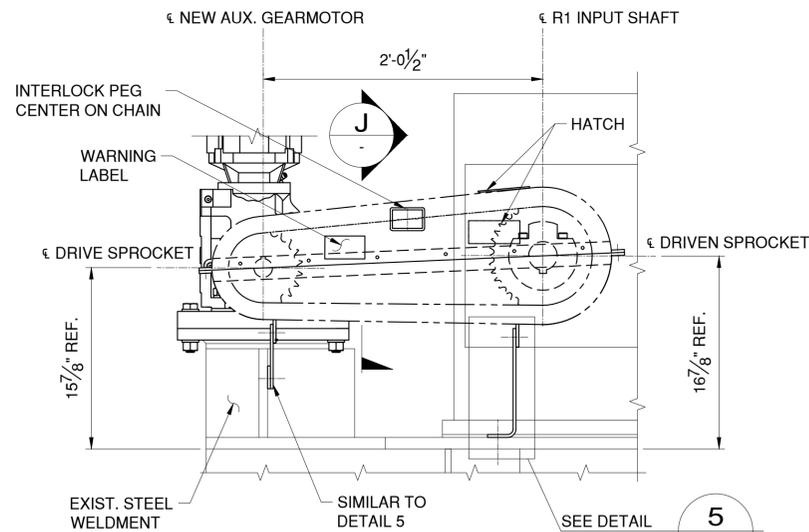
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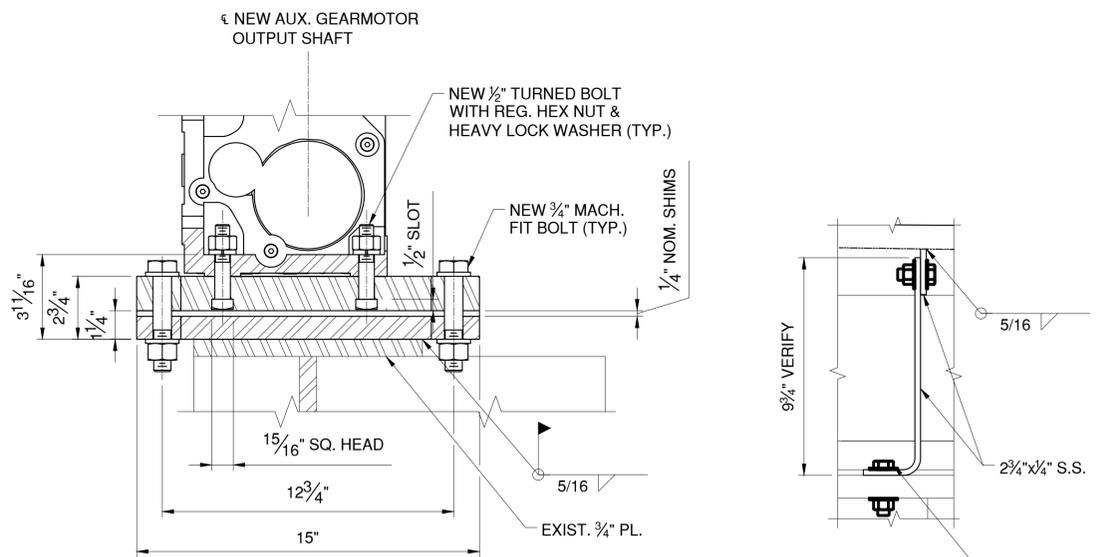
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SCALE: 3" = 1'-0"



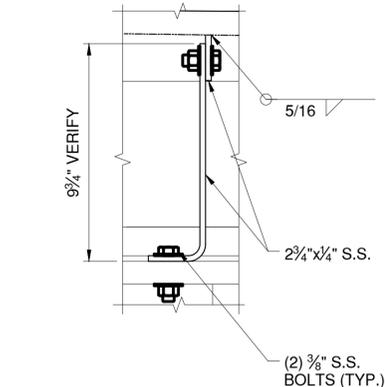
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**VIEW** **H**  
SCALE: 1-1/2" = 1'-0"



**SECTION** **I**  
SCALE: 3" = 1'-0"



**DETAIL** **5**  
SCALE: 1-1/2" = 1'-0"

**3.0 AUXILIARY DRIVE NOTES:**

- 3.1 DURING NORMAL OPERATION, THE ROLLER CHAIN SHALL NOT BE ON ITS SPROCKETS. SPROCKETS ARE TO ALWAYS REMAIN COVERED WITH THE GUARD.
- 3.2 THE INTERLOCK LIMIT SWITCH AND PEG PREVENTS NORMAL OPERATION IF THE CHAIN IS INSTALLED OR THE COVER IS REMOVED.

**AUXILIARY DRIVE PROCEDURE:**

NOTE: EMERGENCY OPERATION REQUIRES A MINIMUM OF (3) PERSONNEL TO OPERATE; (1) AT EACH BRAKE AND (1) AT THE GEARMOTOR.

1. DE-ENERGIZE THE MAIN MOTORS AT THE MOTOR DISCONNECTS AND REMOVE THE SAFETY LOCK INTERLOCK PEG FROM THE SPROCKET COVER. THIS CAUSES THE PLUNGER SWITCH TO OPEN AND LOCKOUT THE MAIN DRIVE.
2. REMOVE THE MASTER LINK FROM THE CHAIN AND MOUNT THE CHAIN OVER THE DRIVEN SPROCKET. RECONNECT THE MASTER LINK. MANUALLY DISENGAGE BRAKES. FILL OIL RESERVOIR IN BOTTOM COVER WITH OIL TO INDICATED LINE.
3. REINSTALL SAFETY GUARD TOP COVER.
4. WITHDRAW SPAN LOCK BARS USING MOTOR SHAFT EXT.
5. MANUALLY RELEASE BRAKE B. TURN ON THE AUXILIARY MOTOR SWITCH AND IMMEDIATELY RELEASE BRAKE A TO START ROTATION.
6. TO STOP THE SPAN SET BRAKE A, TURN OFF THE AUXILIARY MOTOR AND SET BRAKE B.



CONSULTANT INFORMATION



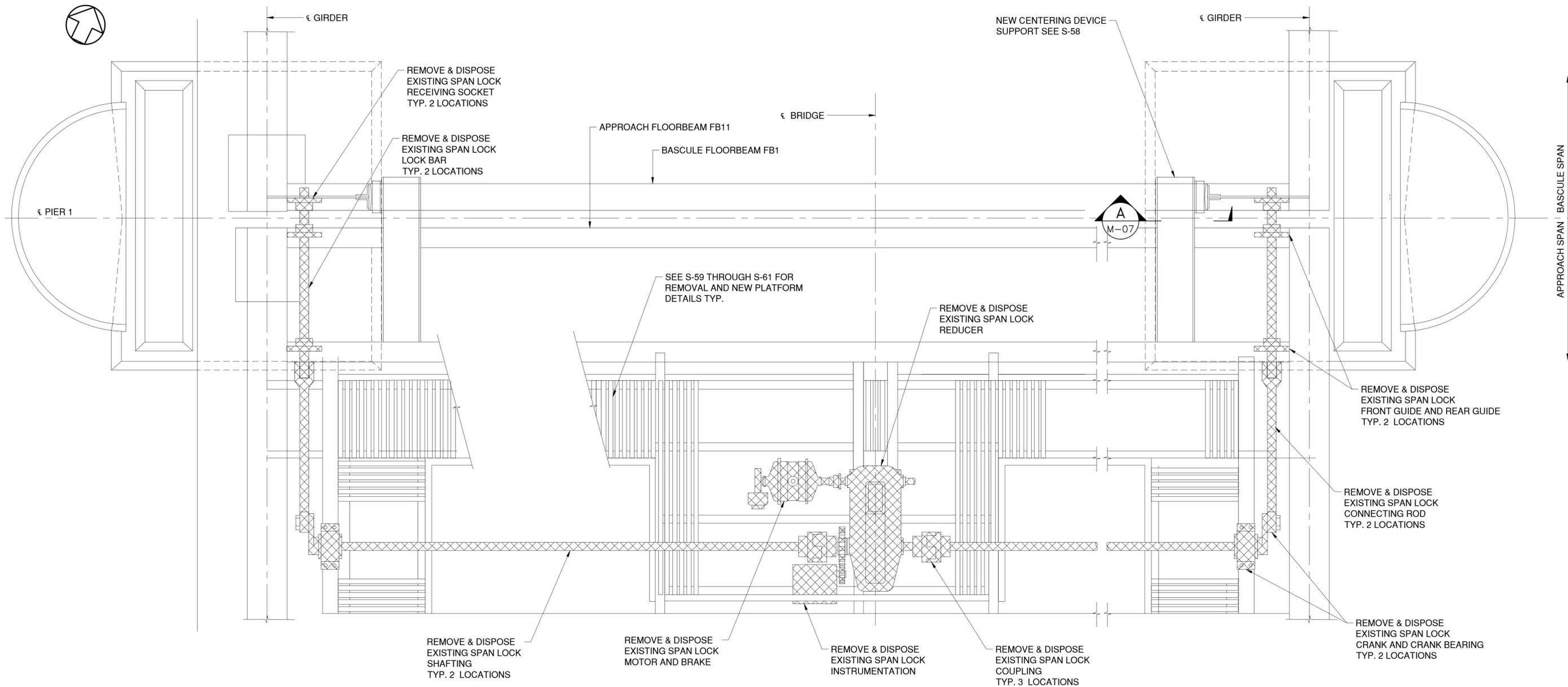
IN CHARGE OF M. GAGLIANO, PE  
CHECKED BY M. GAGLIANO, PE  
MADE BY W. STICKLE, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/> AS BUILT - CHANGES AS NOTED <input type="checkbox"/> AS BUILT - NO CHANGES			
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____

WESTCHESTER COUNTY, NEW YORK  
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
DIVISION OF ENGINEERING  
Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle  
MECHANICAL  
**AUXILIARY DRIVE ASSEMBLY AND DETAILS**

CONTRACT NUMBER 20-517	SHEET NUMBER M-05
SHEET NO. 154 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-M-589-0	REV. NO. 0



PLAN - APPROACH SPAN BELOW DECK



4.0 SPAN LOCK REMOVAL NOTES

- 4.1 REMOVE AND DISPOSE OF ALL SPAN LOCK MACHINERY AND ELECTRICAL EQUIPMENT. REFER TO STRUCTURAL SHEETS FOR REMOVAL OF MACHINERY SUPPORTS AND PLATFORM, AND DETAILS OF NEW PLATFORM
- 4.2 DISPOSE OF PARTS IN ACCORDANCE WITH ALL STATE AND LOCAL CODES HAVING JURISDICTION.

MACHINERY, ELECTRICAL AND OTHER EQUIPMENT TO BE REMOVED AND DISPOSED.



IN CHARGE OF M. GAGLIANO, PE  
 CHECKED BY M. GAGLIANO, PE  
 MADE BY J. GENTILE, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/> AS BUILT - CHANGES AS NOTED		<input type="checkbox"/> AS BUILT - NO CHANGES	
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

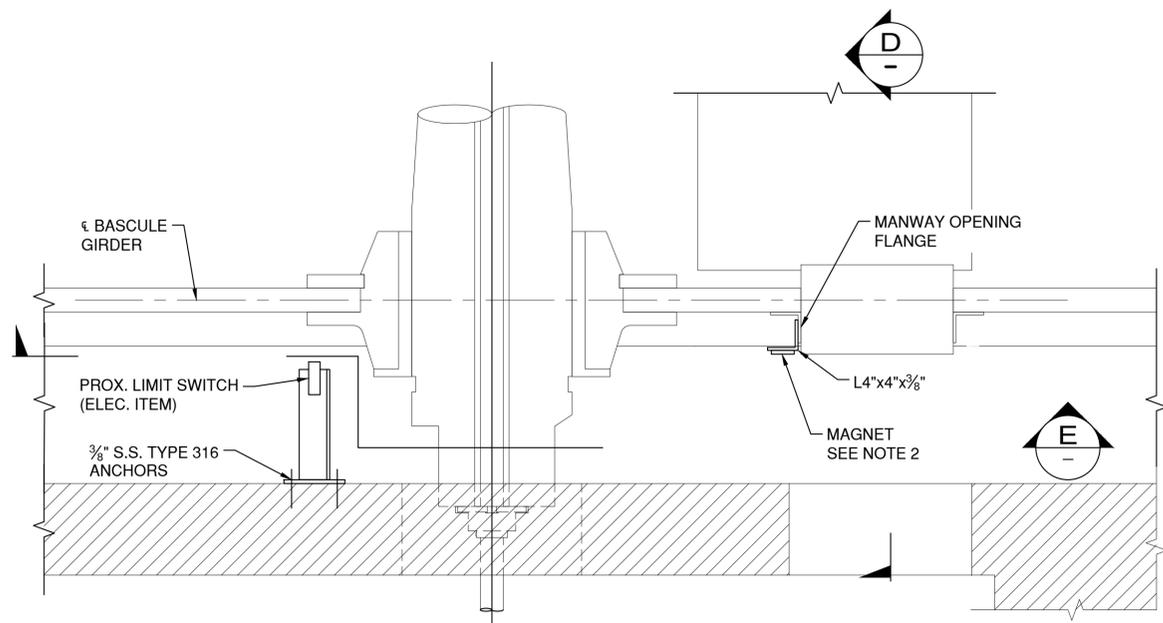


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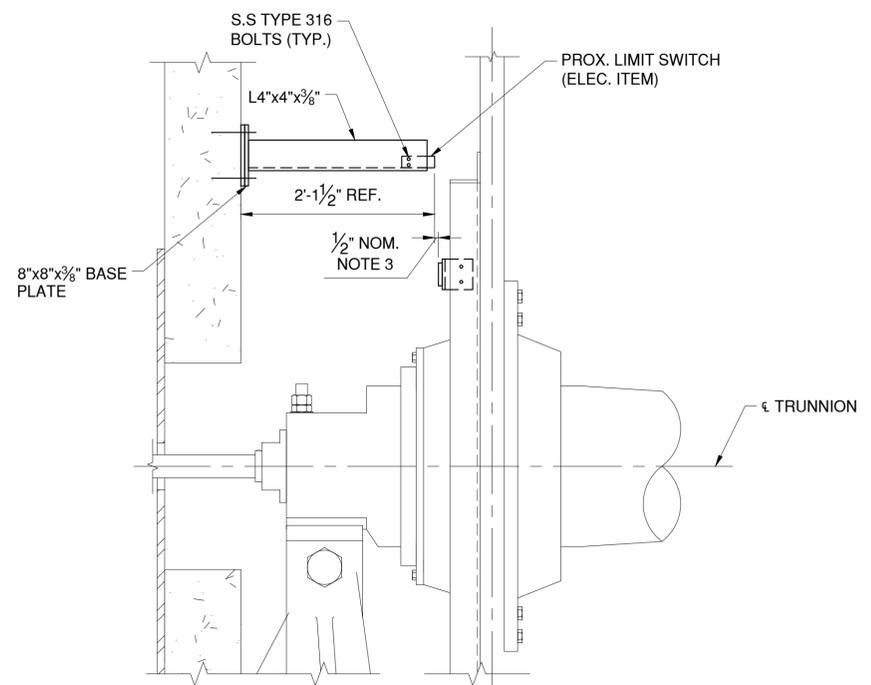


WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 MECHANICAL  
**EXISTING SPAN LOCK REMOVAL**

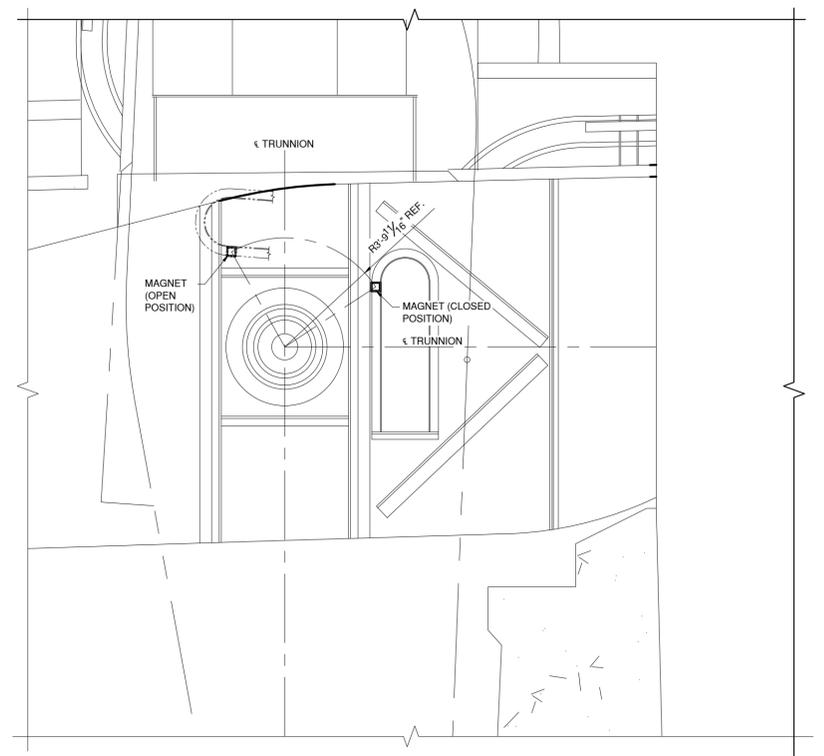
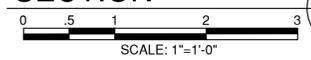
CONTRACT NUMBER 20-517	SHEET NUMBER M-06
SHEET NO. 155 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-M-590-0	REV. NO. 0



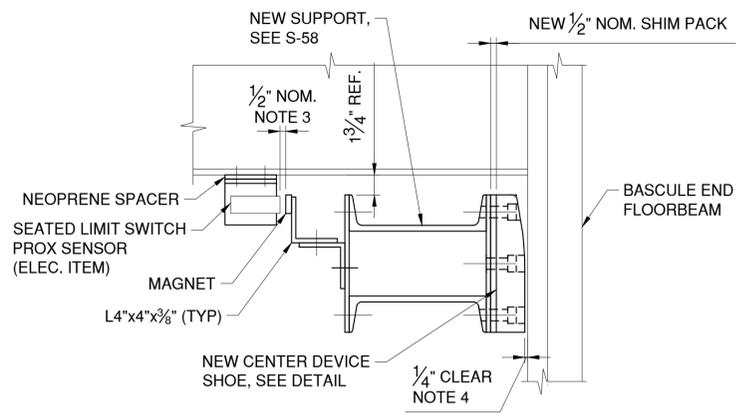
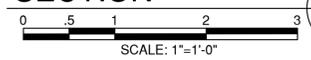
**PLAN - SPAN OPEN LIMIT SWITCH**



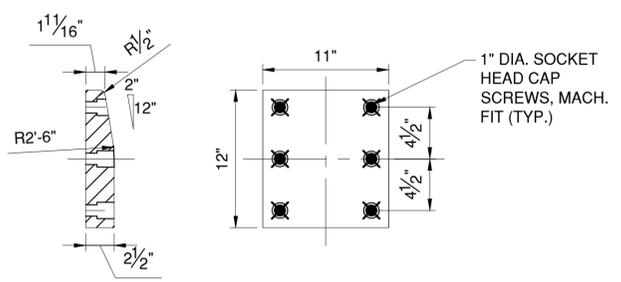
**SECTION D**



**SECTION E**

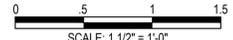


**SECTION A**



**CENTER DEVICE SHOE DETAIL**

MATERIAL: ASTM B505 UNS C91000 BRONZE



**5.0 CENTERING DEVICE & LIMIT SWITCH NOTES:**

- 5.1 BRIDGE IS SHOWN IN THE CLOSED POSITION. OVERTRAVEL LIMIT SWITCH AND ASSOCIATED TARGET PLATE SHALL BE MOUNTED IN A LOCATION SUCH THAT WHEN THE BRIDGE IS AT ITS MAXIMUM OPENING ANGLE, THE TARGET PLATE TRIGGERS THE PROXIMITY SENSOR.
- 5.2 TARGET PLATE MAGNET SHALL BE MOUNTED TO THE OUTER EDGE OF THE GIRDER MANHOLE OPENING FLANGE.
- 5.3 SET THE SENSING DISTANCE FOR THE SWITCH GREATER THAN THE TRUNNION BEARINGS THRUST FACE CLEARANCE AND 1/4 INCH LESS THAN THE PROX. SWITCH AND MAGNET MAXIMUM SENSING DISTANCE.
- 5.4 NOMINAL CLEARANCE BETWEEN CENTERING DEVICE AND EACH SIDE OF BASCULE SPAN END FLOOR BEAM. COORDINATE CENTERING DEVICE SHIMS FIELD ADJUSTMENT WITH NEW TRUNNION COLLARS AND ROADWAY JOINTS ALIGNMENT.

IN CHARGE OF M. GAGLIANO, PE  
 CHECKED BY M. GAGLIANO, PE  
 MADE BY C. SIDORSKI, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

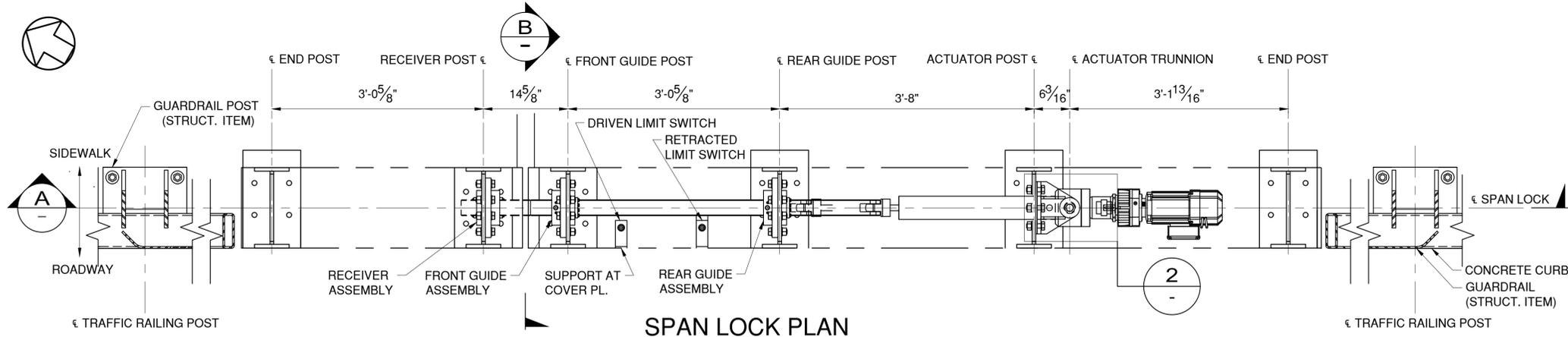
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____

CONSULTANT SEAL

CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

<b>WESTCHESTER COUNTY, NEW YORK</b> <b>DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION</b> DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER M-07
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle			
MECHANICAL			
<b>CENTERING DEVICE &amp; LIMIT SWITCH DETAILS</b>		SHEET NO. 156 OF 212 SCALE: AS SHOWN DATE: 03/08/2024 DPW FILE NO.	REV. NO. 0

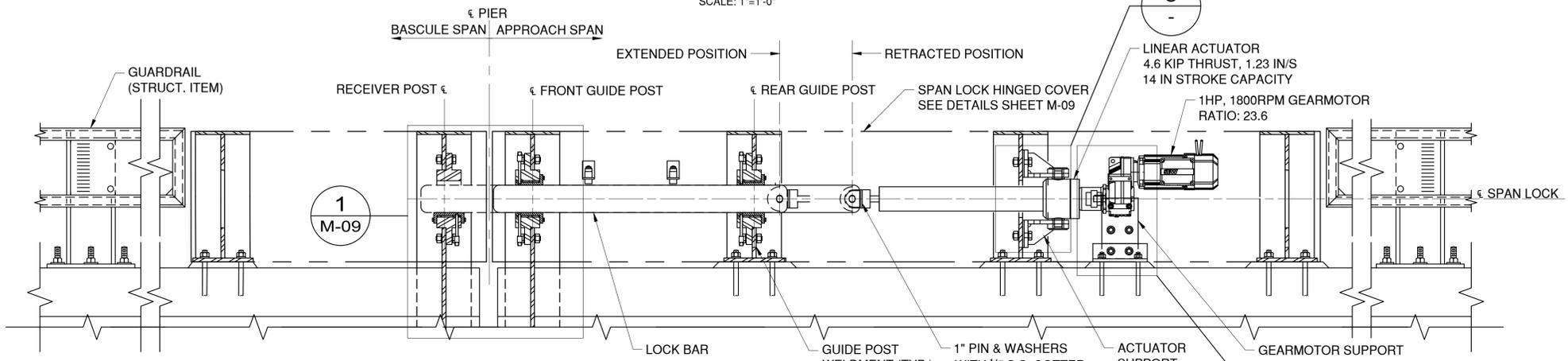


**SPAN LOCK PLAN**

WEST ASSEMBLY SHOWN, EAST OPPOSITE HAND  
SCALE: 1"=1'-0"

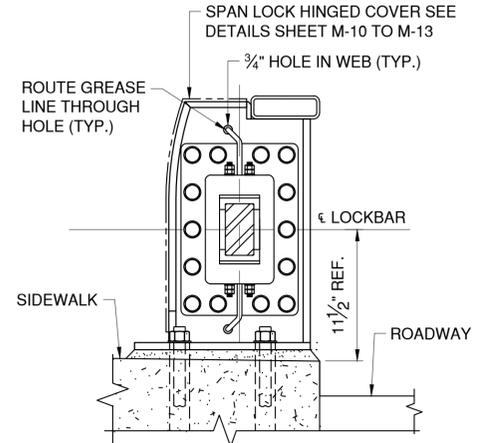
**6.0 NEW SPAN LOCK NOTES:**

- 6.1 SPAN LOCK TO BE MOUNTED AT ROADWAY LEVEL, IN LINE WITH NEW GUARDRAIL.
- 6.2 THE SPAN LOCK ENCLOSURE SHALL INCLUDE HINGED PANELS ON THE SIDEWALK SIDE TO ALLOW ACCESS FOR MAINTENANCE AND INSPECTION.
- 6.3 THE NEW LOCK BAR SHALL BE ALIGNED AND INSTALLED SUCH THAT THE END OF THE BASCULE SPAN IS EVEN AND LEVEL WITH THE APPROACH SPAN AND THE TOE LIVE LOAD BEARING IS IN FIRM CONTACT WITH ITS SEAT. COORDINATE THE SPAN LOCK WORK AND ALIGNMENT WITH THE WORK BEING DONE AT THE TOE LIVE LOAD BEARING.
- 6.4 SEE S-23 & M-09 FOR SPAN LOCK POST STRUCTURAL CONNECTIONS.



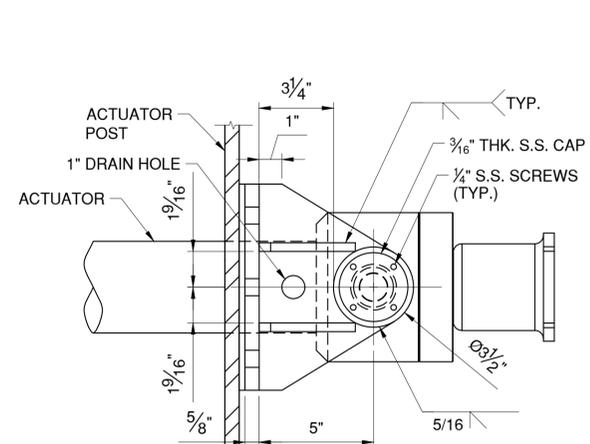
**SECTION A**

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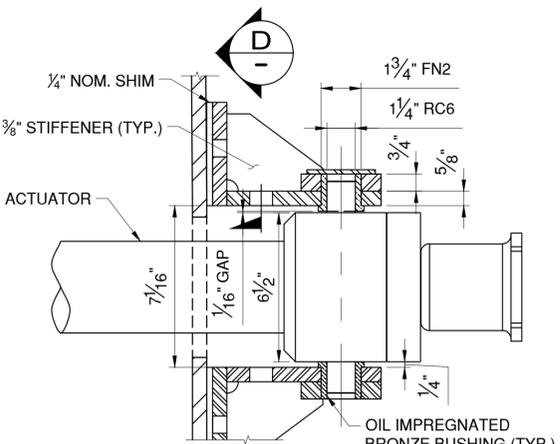
**SECTION B**

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



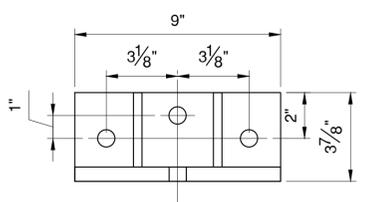
**DETAIL 2**

SCALE: 3"=1'-0"



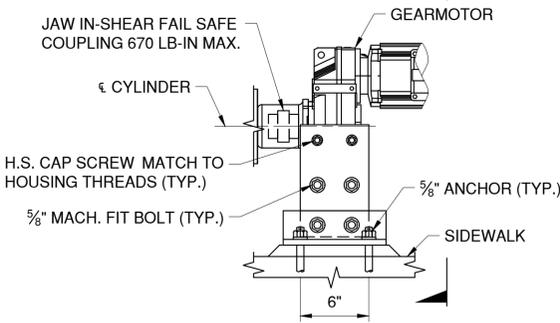
**DETAIL 3**

SCALE: 3"=1'-0"



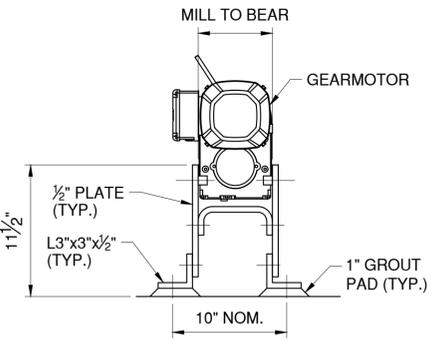
**SECTION D**

SCALE: 3"=1'-0"



**DETAIL 4**

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



**SECTION E**

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

IN CHARGE OF M. GAGLIANO, PE  
CHECKED BY M. GAGLIANO, PE  
MADE BY C. SIDORSKI, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

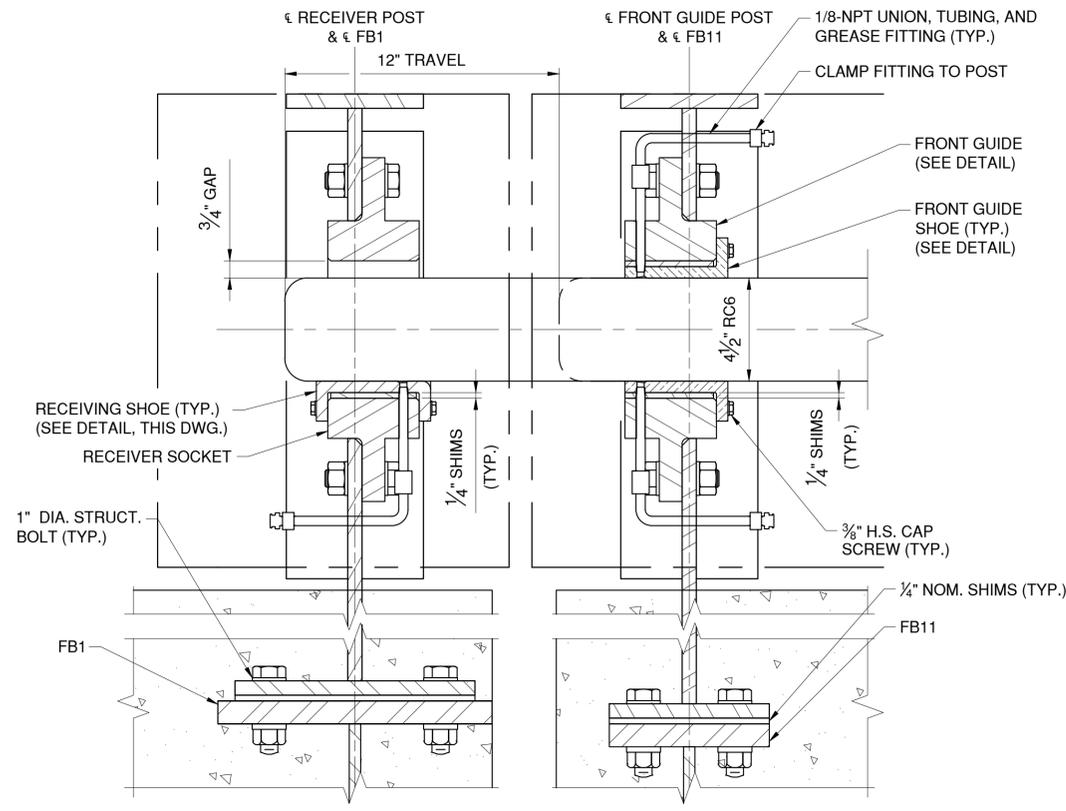
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

CONSULTANT SEAL

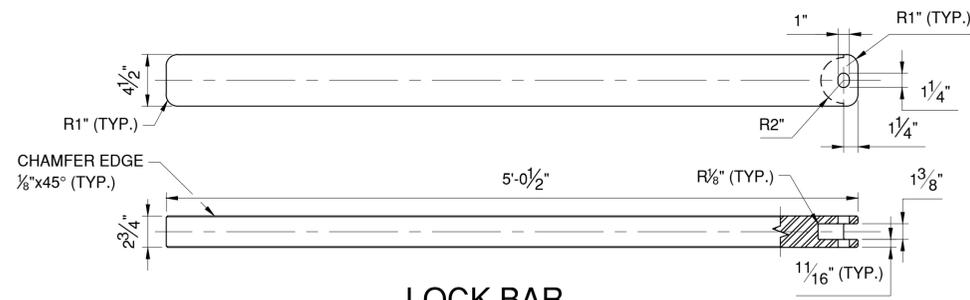
CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER M-08
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 157 OF 212	
MECHANICAL		SCALE: AS SHOWN DATE: 03/08/2024	
<b>SPAN LOCK ASSEMBLY DETAILS</b>		DPW FILE NO. 5-04-M-592-0	REV. NO. 0



**DETAIL 1**  
SCALE: 3"=1'-0"  
M-08



**LOCK BAR**

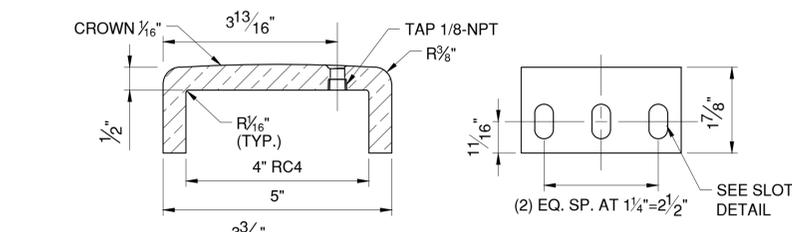
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**SLOT DETAIL**

SCALE: FULL

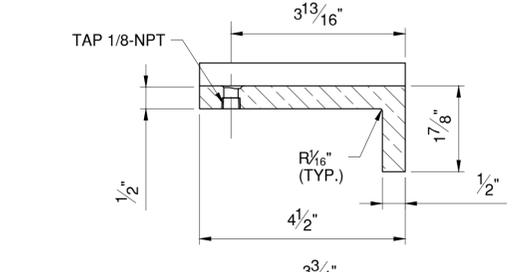
**GROOVE DETAIL**

SCALE: FULL



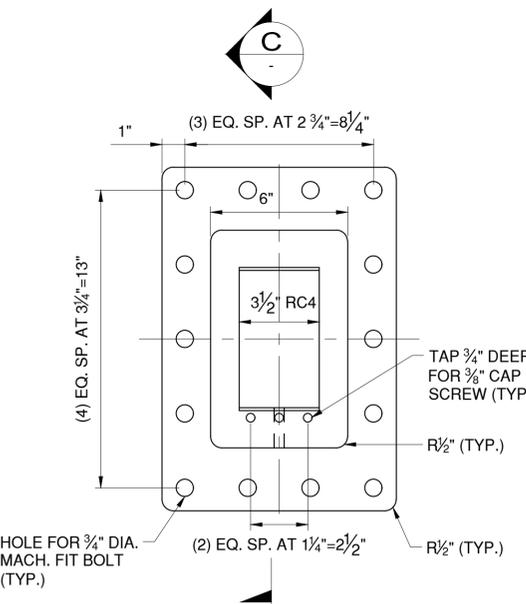
**RECEIVER SHOE**

SCALE: 3"=1'-0"



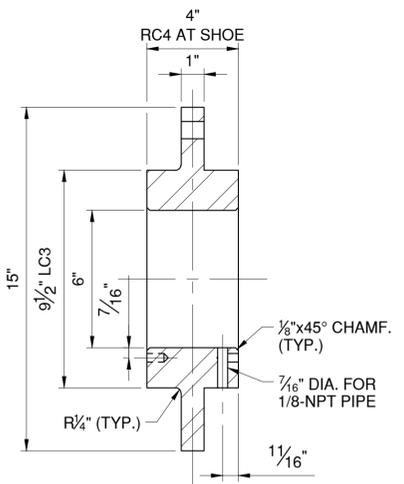
**FRONT/REAR GUIDE SHOE**

SCALE: 3"=1'-0"



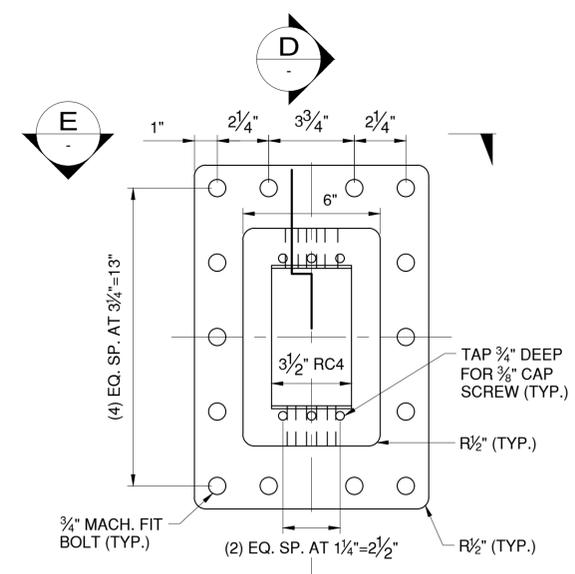
**RECEIVER SOCKET**

SCALE: 3"=1'-0"



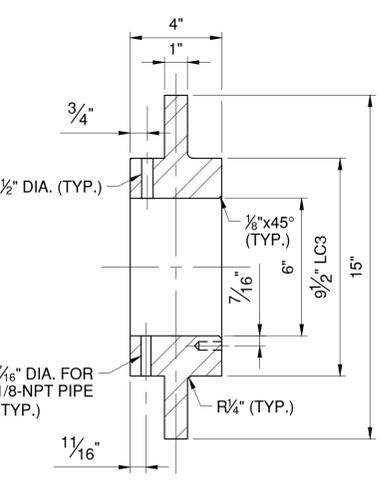
**SECTION C**

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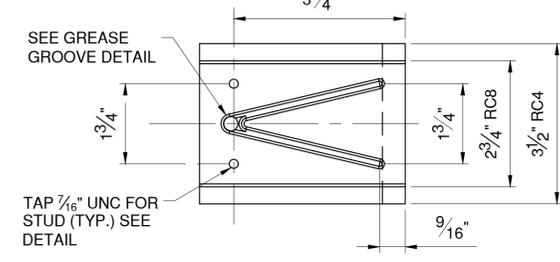
**FRONT AND REAR GUIDE**

SCALE: 3"=1'-0"



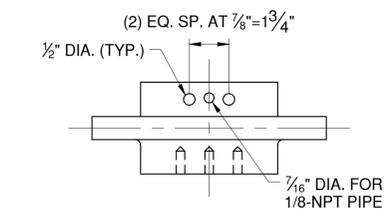
**SECTION D**

SCALE: 3"=1'-0"



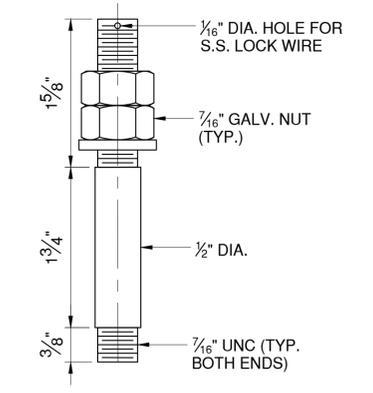
**FRONT/REAR GUIDE SHOE**

SCALE: 3"=1'-0"



**VIEW**

SCALE: 3"=1'-0"



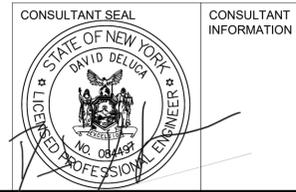
**SHOE STUD DETAIL**

SCALE: FULL

IN CHARGE OF M. GAGLIANO, PE  
CHECKED BY M. GAGLIANO, PE  
MADE BY C. SIDORSKI, PE

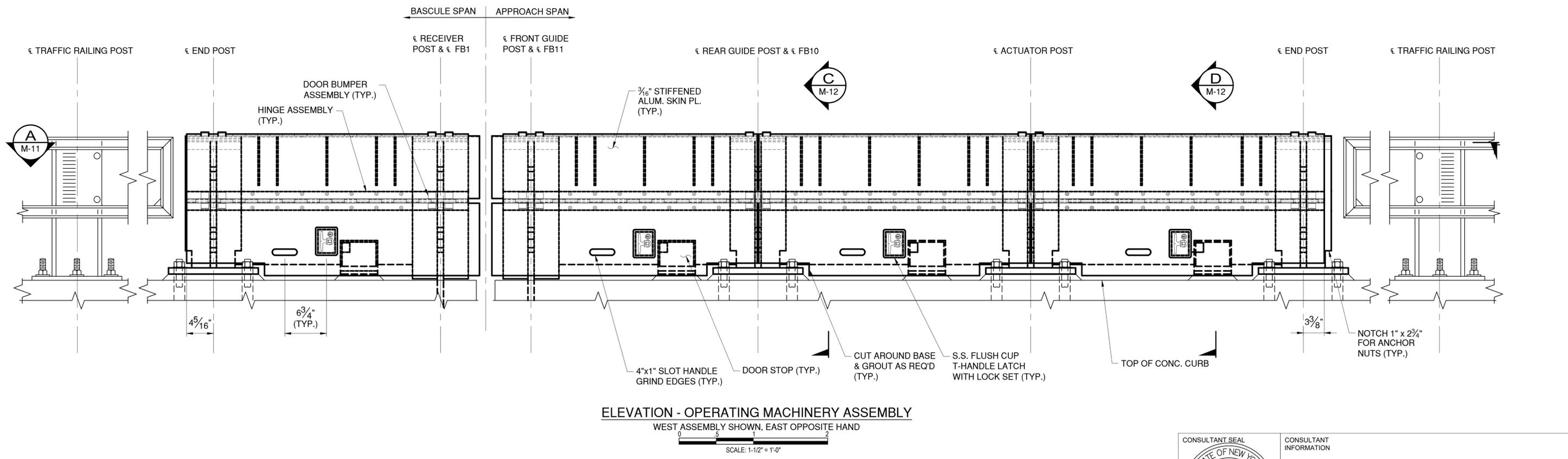
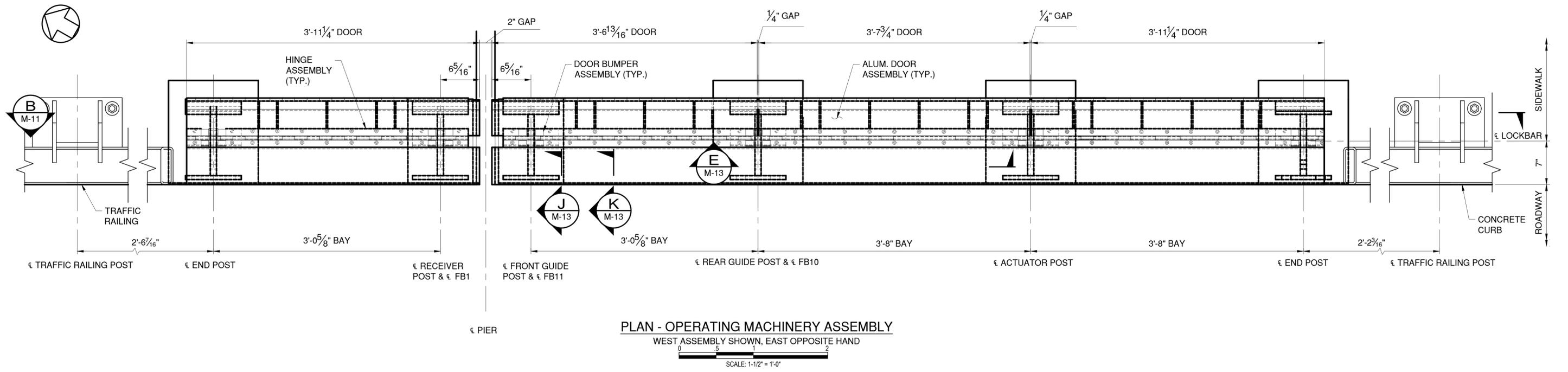
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME		NAME	
SIGNATURE		SIGNATURE	
TITLE		TITLE	
DATE		DATE	

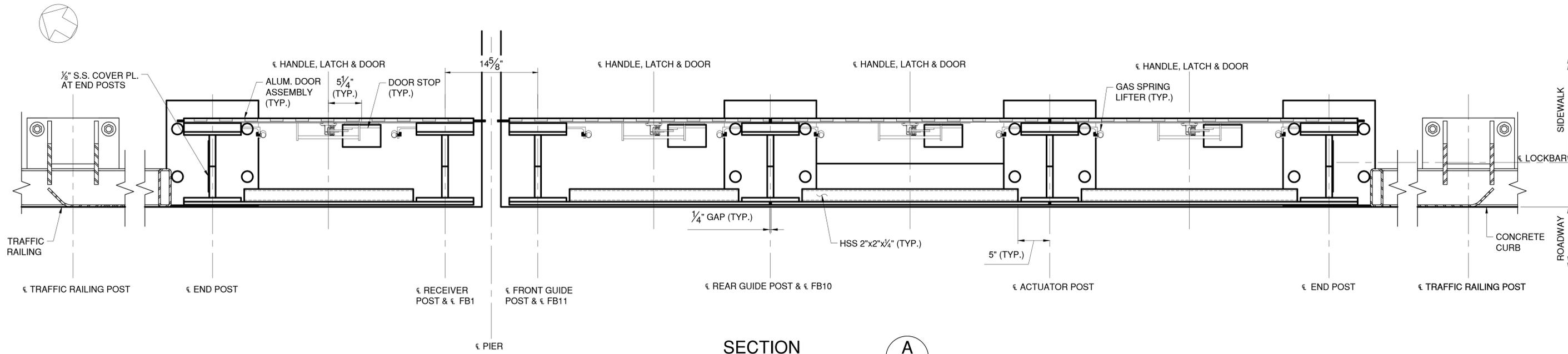


**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
DIVISION OF ENGINEERING  
Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle  
MECHANICAL  
**SPAN LOCK RECEIVER, GUIDES & BAR DETAILS**

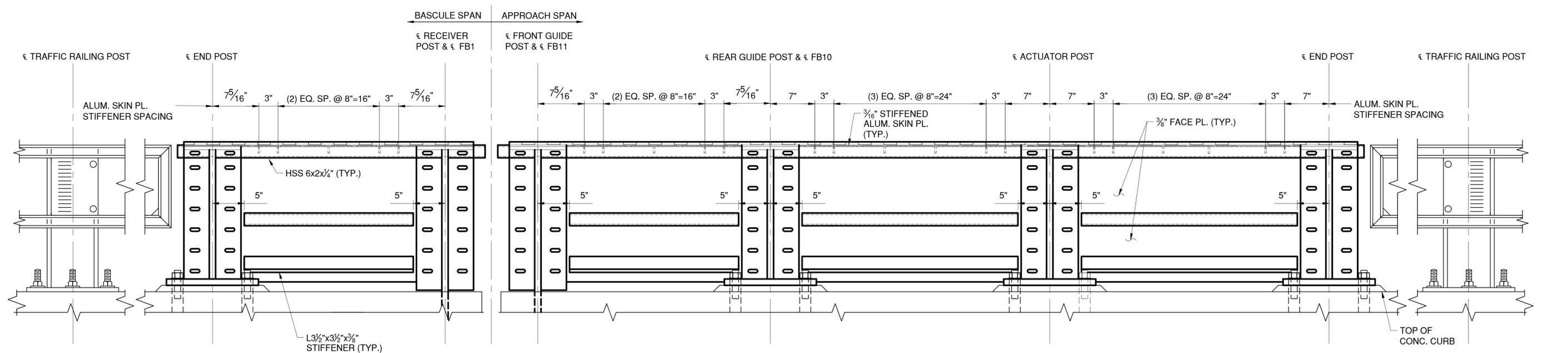
CONTRACT NUMBER 20-517	SHEET NUMBER M-09
SHEET NO. 158 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-M-593-0	



	CONSULTANT INFORMATION			1501 BROADWAY, SUITE 601 NEW YORK, NY 10036 (212) 944-1150										
	WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING				CONTRACT NUMBER: 20-517 SHEET NUMBER: M-10									
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REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION										
IN CHARGE OF: M. GAGLIANO, PE CHECKED BY: M. GAGLIANO, PE MADE BY: B. STICKLE			RECORD DRAWING CERTIFICATION <input type="checkbox"/> AS BUILT - CHANGES AS NOTED <input type="checkbox"/> AS BUILT - NO CHANGES CONTRACTOR: _____ PROJECT COORDINATOR: _____ NAME: _____ NAME: _____ SIGNATURE: _____ SIGNATURE: _____ TITLE: _____ DATE: _____ TITLE: _____ DATE: _____											
<b>SPAN LOCK COVER ASSEMBLY</b>			Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle MECHANICAL											



**SECTION A**  
 SCALE: 1-1/2" = 1'-0"  
 M-10



**SECTION B**  
 SCALE: 1-1/2" = 1'-0"  
 M-10

IN CHARGE OF M. GAGLIANO, PE  
 CHECKED BY M. GAGLIANO, PE  
 MADE BY B. STICKLE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

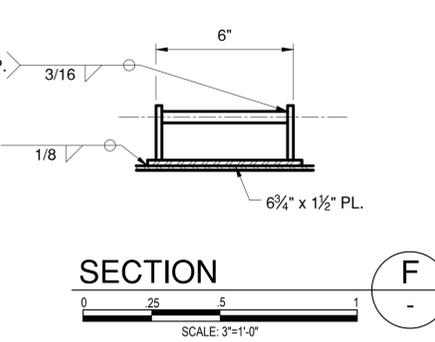
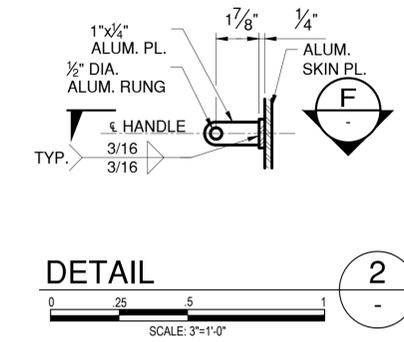
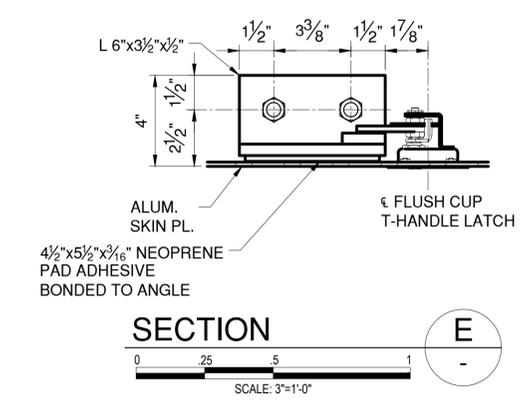
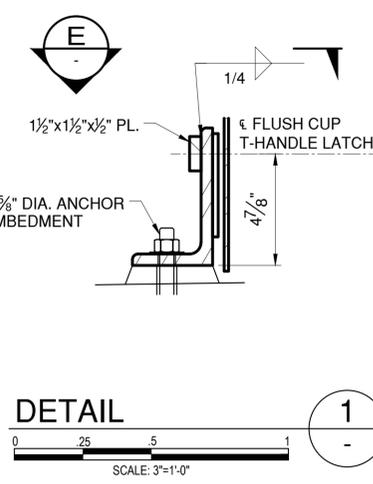
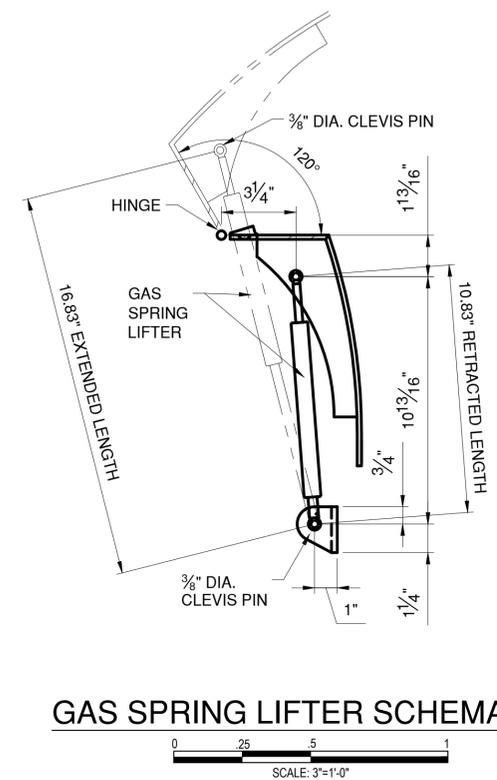
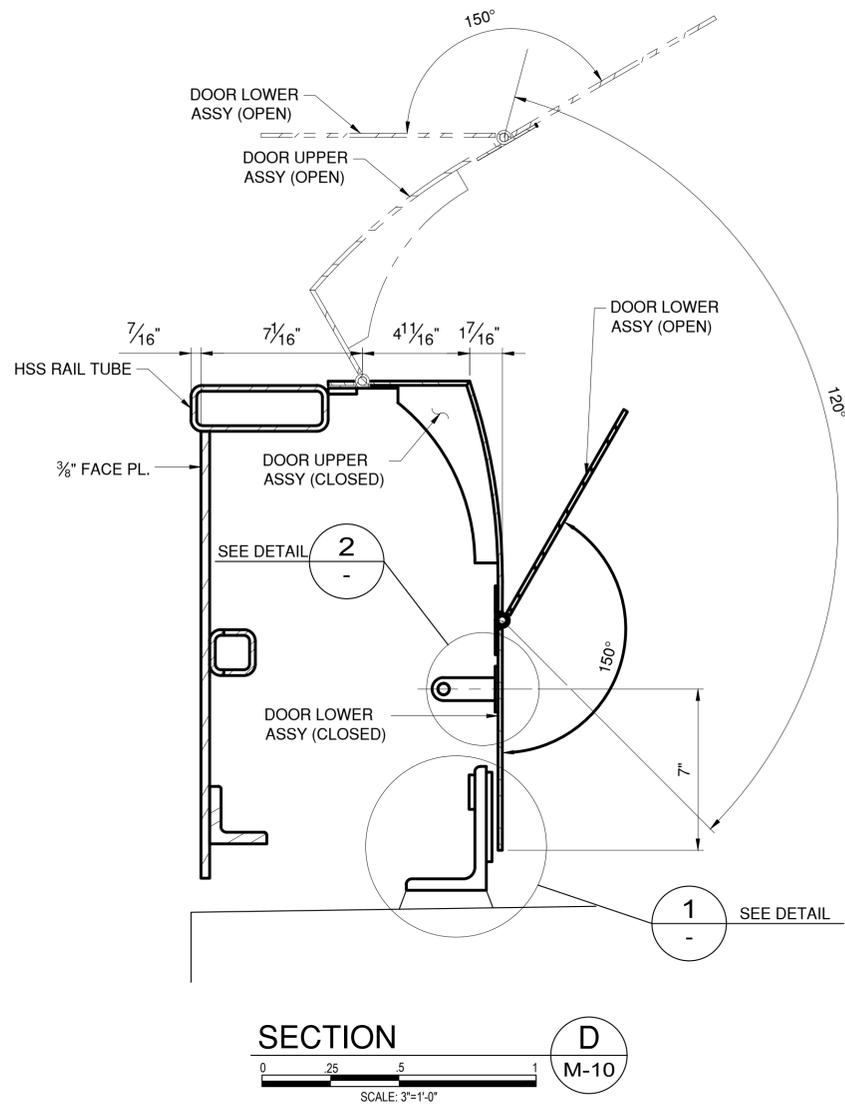
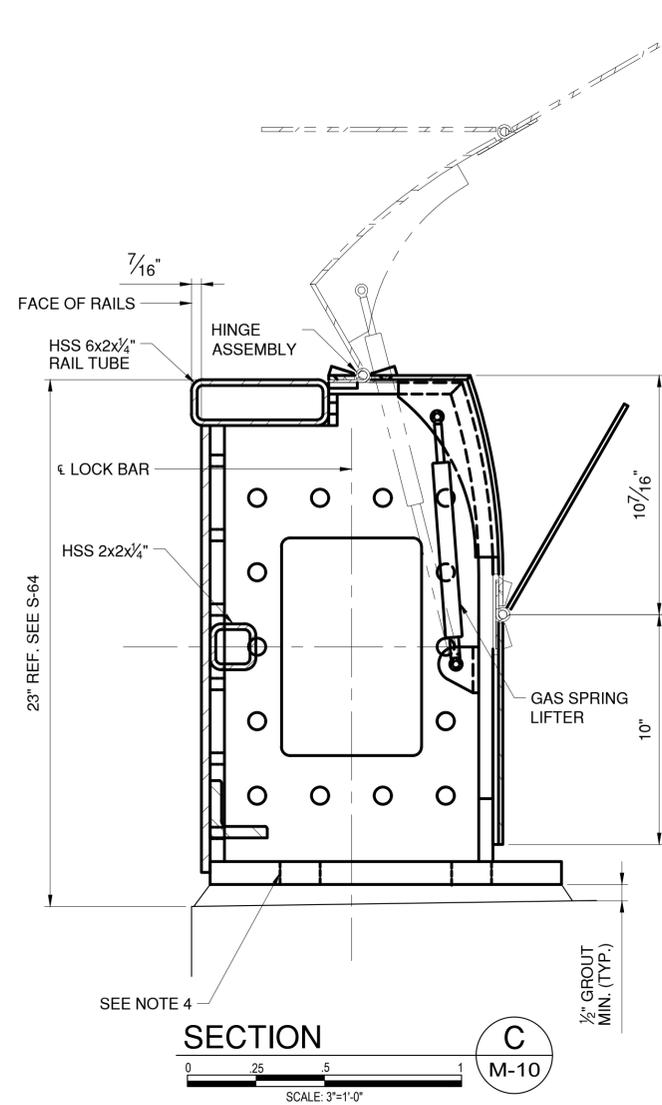
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____		
DATE _____	DATE _____		

CONSULTANT INFORMATION

**H&H**

1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

<b>WESTCHESTER COUNTY, NEW YORK</b>		CONTRACT NUMBER	SHEET NUMBER
<b>DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION</b>		20-517	M-11
DIVISION OF ENGINEERING		SHEET NO. 160 OF 212	
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle			
MECHANICAL			
<b>SPAN LOCK COVER ASSEMBLY SECTIONS</b>			
SCALE: AS SHOWN		DATE: 03/08/2024	REV. NO.
DPW FILE NO.		5-04-M-595-0	



- NOTES:**
- PROVIDE PRESSURIZED NITROGEN GAS SPRING LIFTERS WITH:
    - STAINLESS STEEL (TYPE 316L) ROD AND CYLINDER.
    - 20 LBS FORCE: 2 REQ'D PER DOOR
    - S.S. (TYPE 304) THREADED ROD END WITH BALL-SOCKET STUDS.
    - FLUROELASTOMER ROD SEAL.
  - SPAN LOCK EQUIPMENT NOT SHOWN FOR CLARITY.
  - ALL STEEL POSTS, STRUCTURAL MEMBERS, ANGLES, AND PLATES TO BE HOT DIPPED GALVANIZED AS PER ASTM A123.
  - GUIDE POST ANCHORS AND ANCHOR PLATES TO BE PAID FOR UNDER ITEM NO. 564.510001. REFERENCE SHEET S-25.

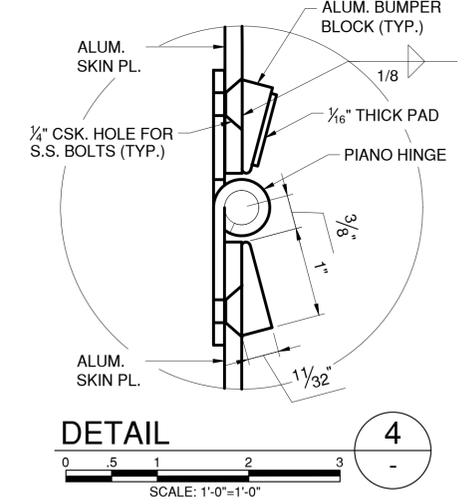
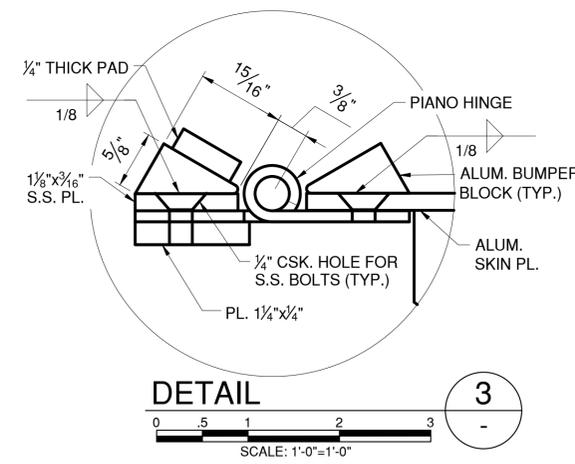
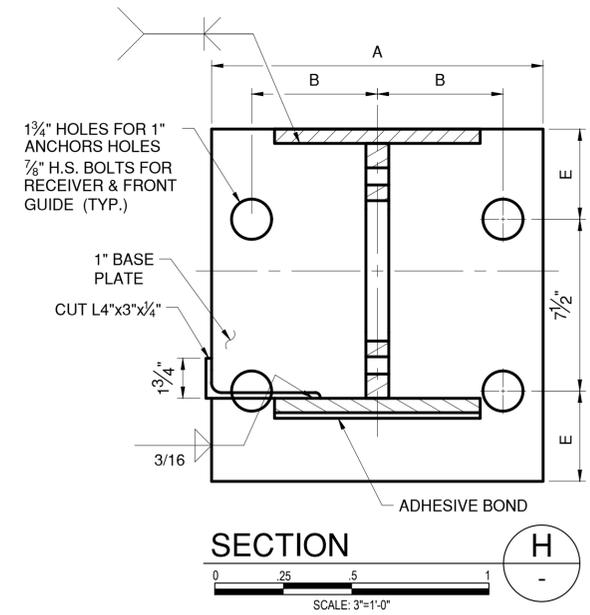
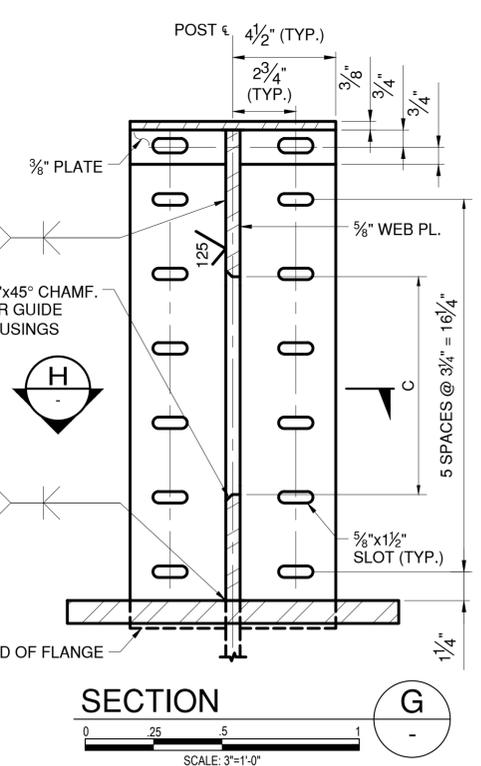
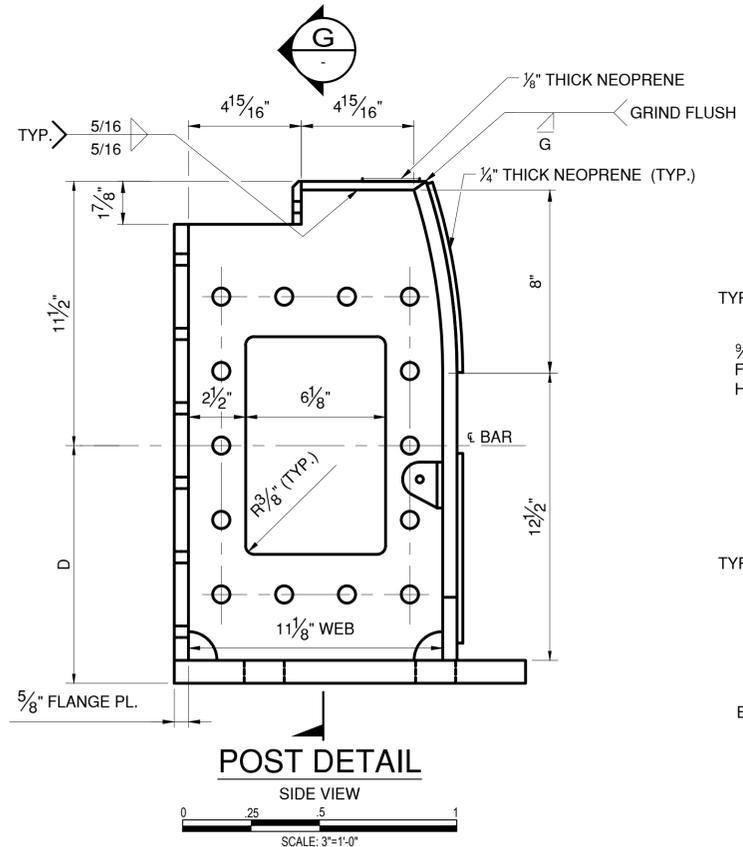
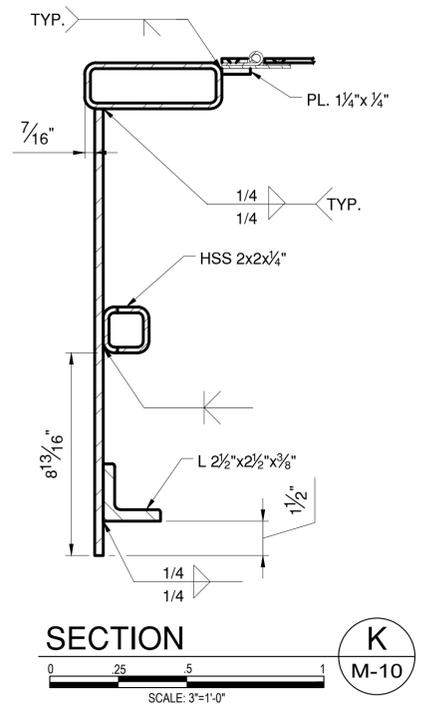
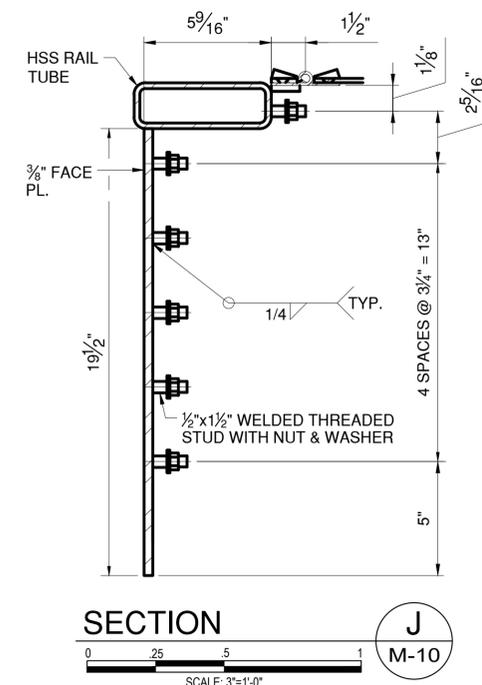
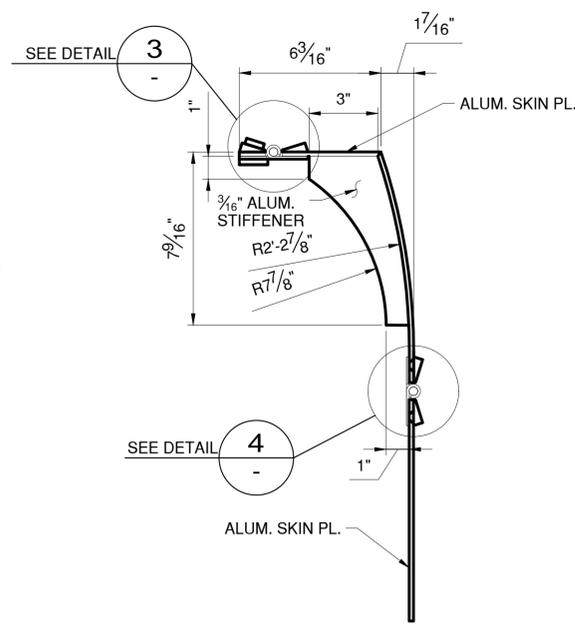
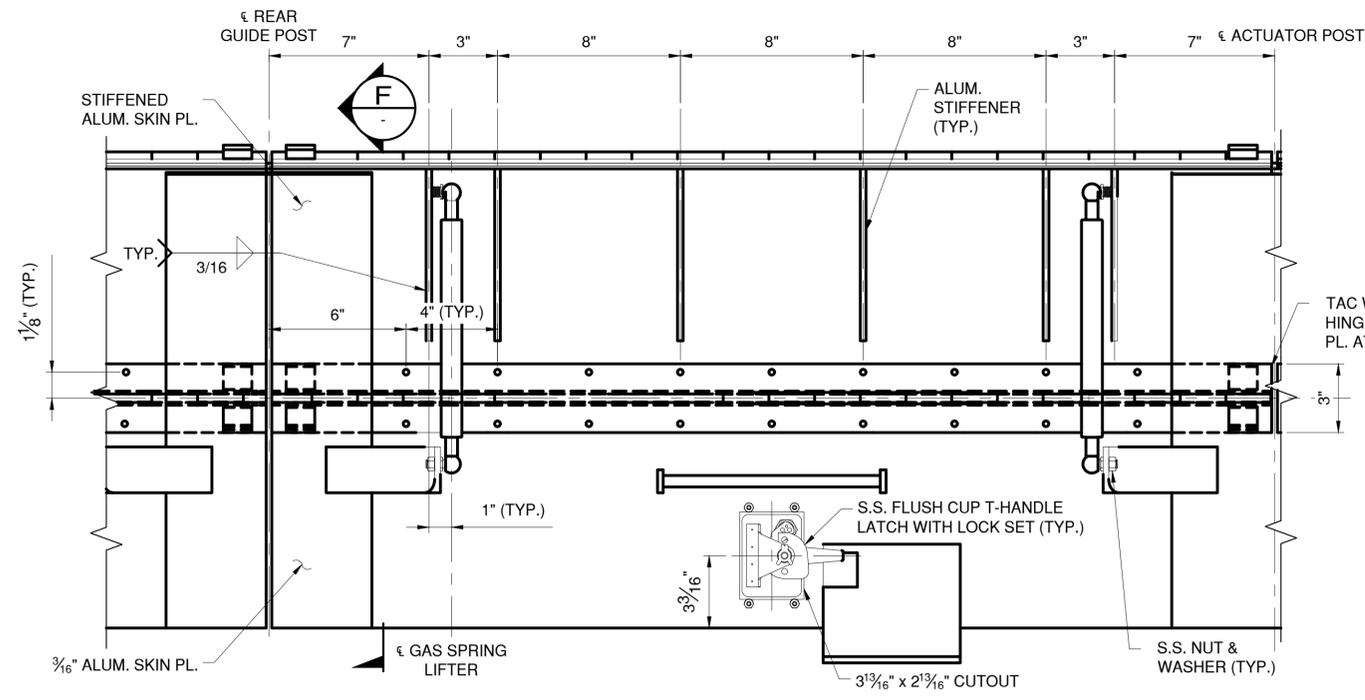
	CONSULTANT INFORMATION		1501 BROADWAY, SUITE 601 NEW YORK, NY 10036 (212) 944-1150
	WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		

IN CHARGE OF M. GAGLIANO, PE  
 CHECKED BY M. GAGLIANO, PE  
 MADE BY B. STICKLE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____		
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TITLE _____	TITLE _____	DATE _____	DATE _____

CONTRACT NUMBER 20-517		SHEET NUMBER M-12	
SHEET NO. 161 OF 212			
SCALE: AS SHOWN DATE: 03/08/2024			
DPW FILE NO.		REV. NO.	
5-04-M-596-0		MECHANICAL <b>SPAN LOCK COVER DETAILS 1</b>	



	A	B	C	D	E
REAR GUIDE POST, AND END POST	14 1/2"	5 1/2"	9 1/2" (LC3 REAR GUIDE)	10 3/8"	3 1 5/16"
RECEIVER POST	10 1/2"	3 3/4"	9 1/2" LC3	2'-4 1/4"	2 1/4"
FRONT GUIDE POST	7"	2"	9 1/2" LC3	2'-5 1/4"	2 1/4"
ACTUATOR POST	14 1/2"	5 1/2"	6 1/8"	10 3/8"	3 1 5/16"

IN CHARGE OF M. GAGLIANO, PE  
 CHECKED BY M. GAGLIANO, PE  
 MADE BY C. SIDORSKI, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR PROJECT COORDINATOR

NAME \_\_\_\_\_ NAME \_\_\_\_\_  
 SIGNATURE \_\_\_\_\_ SIGNATURE \_\_\_\_\_  
 TITLE \_\_\_\_\_ DATE \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_



CONSULTANT INFORMATION



WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 MECHANICAL  
**SPAN LOCK COVER DETAILS 2**

CONTRACT NUMBER 20-517	SHEET NUMBER M-13
SHEET NO. 162 OF 124	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-M-597-0	REV. NO.

## GENERAL ELECTRICAL NOTES

- ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYS DOT) STANDARD SPECIFICATIONS, THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC), THE REGULATIONS OF UNDERWRITER'S LABORATORIES (UL), AND THE ELECTRICAL REQUIREMENTS OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) STANDARD SPECIFICATIONS.
- ALL ELECTRICAL WORK SHALL BE COORDINATED WITH THE WORK OF OTHER TRADES AND SHALL BE SCHEDULED CONSISTENT WITH THE OVERALL CONSTRUCTION STAGING SEQUENCE.
- ALL ELECTRICAL COMPONENTS AND MATERIAL SHOWN ON THE CONTRACT DRAWINGS ARE NEW UNLESS OTHERWISE NOTED (UON).
- ALL NEW CONDUIT AND FITTINGS SHALL BE 3/4" MINIMUM POLYVINYL CHLORIDE (PVC) COATED HOT DIPPED RIGID GALVANIZED STEEL (RGS), UON, AND SHALL MEET ALL THE ADDITIONAL REQUIREMENTS FOR MATERIAL, CONSTRUCTION, AND INSTALLATION CONTAINED IN THE SPECIFICATIONS.
- ALL CONDUITS AND FITTINGS USED IN ONE CONTINUOUS RUN SHALL BE THE PRODUCT OF A SINGLE MANUFACTURER. ALL ABOVE GROUND OUTDOOR CONDUITS SHALL BE PVC-RGS, UON. ALL UNDERGROUND OR EMBEDDED IN BARRIERS/CONCRETE CONDUITS SHALL BE PVC-SCHEDULE 80, UON.
- WIREWAYS, WHERE SHOWN IN THE PLANS SHALL BE NEMA 4X TYPE 316 STAINLESS STEEL WITH CONTINUOUS HINGES AND LATCHES. SIZES AS REQUIRED TO MEET NEC.
- THE CONTRACTOR SHALL FURNISH AND INSTALL ALL REQUIRED BOXES, CONDUIT FITTINGS, ELBOWS, AND HARDWARE FOR A COMPLETE INSTALLATION, WHETHER OR NOT THEY ARE EXPLICITLY SHOWN OR INDICATED ON THE CONTRACT DRAWINGS.
- NEW ELECTRICAL CONDUCTORS SHALL BE MINIMUM SIZE NO. 12 AWG TYPE XHHW-2, EXCEPT FOR INTERNAL WIRING IN CONTROL CABINETS AND CONTROL DESK IN WHICH NO. 12 AWG MAY NOT FIT. IN THE CASE OF CONTROL CABINETS AND CONTROL DESK WIRING, THE MINIMUM SIZE SHALL BE MINIMUM SIZE NO. 14 AWG SWITCHBOARD WIRE (TYPE SIS). ALL WIRES AND CABLES SHALL MEET ALL THE ADDITIONAL REQUIREMENTS FOR MATERIAL, CONSTRUCTION AND INSTALLATION CONTAINED IN THE RELEVANT SPECIFICATIONS.
- ALL SWITCHES, RELAYS, CONTACTORS AND STARTERS ARE SHOWN ON THE DRAWINGS AS DE-ENERGIZED, WITH THE SPAN FULLY CLOSED, LOCKS DRIVEN AND OPEN FOR TRAFFIC.
- ALL NEW CONDUCTORS INSTALLED IN CONDUIT SHALL BE INSTALLED WITH GROUND CONDUCTORS. GROUND CONDUCTORS SHALL BE PROVIDED IN ALL NEW FLEXIBLE CABLES. MINIMUM SIZE GROUND CONDUCTOR SHALL BE NO. 12 AWG. ALL CABINETS, TERMINAL AND JUNCTION BOXES SHALL BE GROUNDED IN ACCORDANCE WITH THE NEC.
- ALL CONDUCTORS SHALL BE CONNECTED TO TERMINAL BLOCKS OR DEVICES. SPLICES SHALL NOT BE PERMITTED WITHIN EQUIPMENT ENCLOSURES, BOXES (OTHER THAN TERMINAL BOXES), OR CONDUIT FITTINGS.
- CONTRACTOR SHALL PERFORM ALL WORK WITH DUE RESPECT FOR LIFE AND PROPERTY IN THE VICINITY OF THE WORK AREA. CONTRACTOR ALONE SHALL BE RESPONSIBLE FOR PROTECTION OF SAME FROM ANY HARM OR DAMAGE DURING THE ENTIRE CONSTRUCTION PERIOD. ANY HARM OR DAMAGE SHALL BE RECTIFIED TO THE ENTIRE SATISFACTION OF THE COUNTY OF WESTCHESTER AT NO ADDITIONAL COST.
- THE ELECTRICAL EQUIPMENT AND RACEWAY LAYOUTS SHOWN IN THE CONTRACT DOCUMENTS ARE DIAGRAMMATIC IN NATURE AND INTENDED TO SHOW A CONCEPTUAL LAYOUT. CONTRACTOR TO ADJUST AS MAY BE REQUIRED. SCALES ARE APPROXIMATE. ACTUAL CONDITIONS SHALL BE VERIFIED IN THE FIELD. WHILE MAJOR EQUIPMENT IS SHOWN, NOT EVERY DETAIL OR EXACT LOCATION OF ALL EQUIPMENT AND/OR CONDUIT MAY BE SHOWN. SIZES OF EQUIPMENT MAY VARY, DEPENDING ON THE MANUFACTURER SELECTED. THE CONTRACTOR SHALL FOLLOW THESE LAYOUTS AS CLOSELY AS POSSIBLE, REALIZING THAT ACTUAL INSTALLATIONS MAY VARY SLIGHTLY DUE TO THE FIELD CONDITIONS AND STRUCTURAL/MECHANICAL COORDINATION. THE CONTRACTOR SHALL VERIFY ALL THE DIMENSIONS RELATED TO ELECTRICAL EQUIPMENT INSTALLATION PRIOR TO PERFORMING THE ACTUAL INSTALLATION. ANY DEVIATIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL ANY DEVIATIONS IN PROPOSED CABLE AND CONDUIT ROUTINGS.
- THESE PLANS AND SPECIFICATIONS DO NOT NECESSARILY SHOW ALL ASPECTS OF THE REQUIRED INSTALLATION. PERFORM ALL WORK NECESSARY, TO PROVIDE FULLY OPERATIONAL SYSTEMS THAT ARE IN COMPLIANCE WITH ALL STATED CONTRACT REQUIREMENTS, WHETHER SHOWN ON THE PLANS OR NOT. PRESENTATION OF INCOMPLETE INFORMATION OR OMISSIONS OF DETAILS FOR ITEMS WHICH ARE NECESSARY TO CARRY OUT THE INTENT OF THE DRAWINGS AND SPECIFICATIONS, OR WHICH ARE CUSTOMARILY PERFORMED, SHALL NOT RELIEVE THE CONTRACTOR FROM PERFORMING SUCH OMISSIONS AND DETAILS OF WORK, AT NO EXTRA COST.
- ANY APPARATUS, DEVICE, CIRCUIT, APPLIANCE, MATERIAL, OR LABOR NOT HEREIN SPECIFICALLY MENTIONED OR INCLUDED, BUT THAT MAY BE FOUND NECESSARY TO COMPLETE OR PERFECT THE INSTALLATION AND EQUIPMENT IN A MANNER ACCEPTABLE TO THE ENGINEER, SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AS IF SPECIFICALLY INCLUDED IN THESE DRAWINGS.
- ALL TEMPORARY WORKS AND SUPPORTS REQUIRED TO COMPLETE WORK SHALL BE PROVIDED BY THE CONTRACTOR AND SHALL BE CONSIDERED INCIDENTAL TO THE OTHER WORK ITEMS.
- THE CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING AS REQUIRED FOR THE REMOVAL AND INSTALLATION OF ELECTRICAL COMPONENTS, HANGERS, SUPPORTS, ETC. ALL PATCHING SHALL BE DONE SO AS TO LEAVE THE AREA IN ITS ORIGINAL CONDITION AS A MINIMUM OR AS OTHERWISE REQUIRED BY THE ENGINEER.
- CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL CONSTRUCTION DEBRIS IN THE VICINITY OF THE WORK. THE CONTRACTOR SHALL CONTROL CLEANING TO PREVENT DIRT OR DUST FROM LEAVING THE JOB SITE AND INFILTRATING AREAS NOT INVOLVED IN THE PROJECT. AT THE COMPLETION OF THE WORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LEAVING THE SITE IN A CLEAN, ORDERLY STATE.

## GENERAL ELECTRICAL NOTES (CONT'D)

- EXISTING ELECTRICAL CABLE, WIRES, CONDUITS HANGERS, SUPPORTS, CLAMPS, ETC., THAT ARE BEING REPLACED SHALL NOT BE REUSED. ALL SUCH PARTS SHALL BE PROPERLY DISPOSED OF.
- THE CONTRACTOR SHALL REMOVE AND RE-EXECUTE ALL UNSATISFACTORY WORK AT NO ADDITIONAL COST TO THE COUNTY OF WESTCHESTER.
- ALL STRUCTURAL, MECHANICAL AND ARCHITECTURAL BACKGROUND INFORMATION SHOWN IN THE ELECTRICAL PLANS IS FOR REFERENCE ONLY.
- CONDUIT PENETRATIONS THROUGH WALLS AND FLOORS OF BUILDINGS SHALL BE SEALED WITH AN APPROVED FIRE-STOP SEALANT.
- THE CONTRACTOR SHALL FURNISH AND INSTALL ENGRAVED BRASS TAGS AT BOTH ENDS OF ALL RACEWAY RUNS IDENTIFYING THEM WITH FINAL CONDUIT DESIGNATIONS WHICH SHALL COINCIDE WITH THOSE IN THE CONTRACTOR'S FINAL AS-BUILT DRAWINGS. PAYMENT FOR THESE TAGS SHALL BE UNDER THE VARIOUS PAY ITEMS TO WHICH THE RACEWAYS PERTAIN.
- ENCLOSURES WHERE SHOWN IN THE PLANS SHALL BE NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA) 4X TYPE 316 STAINLESS STEEL WITH CONTINUOUS HINGES AND LATCHES, UON.
- PRIOR TO THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR SHALL SUBMIT A COMPREHENSIVE STAGING PLAN IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS WHICH SHALL CLEARLY DEFINE SPECIFIC MILESTONE DATES TO THE CONSTRUCTION MANAGER FOR APPROVAL. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER FOR ALL OTHER CONSTRUCTION THAT MAY AFFECT OPERATIONS OR SCHEDULE.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS RELATING TO ELECTRICAL EQUIPMENT INSTALLATIONS PRIOR TO PERFORMING ACTUAL INSTALLATIONS. ANY DEVIATIONS NOTED AS PART OF THE FIELD VERIFICATION OR CONSTRUCTION DEVIATIONS REGARDING THE STRUCTURE, SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
- UPON COMPLETION OF THE ELECTRICAL INSTALLATION, THE CONTRACTOR SHALL TEST THE COMPLETE ELECTRICAL SYSTEM FOR ACCEPTANCE. PRIOR TO TESTING, THE CONTRACTOR SHALL SUBMIT A COMPLETE TESTING PROCEDURE FOR APPROVAL. THE SYSTEM SHALL BE TESTED STEP BY STEP FOR SHORT CIRCUITS, GROUNDS, PROPER OPERATION AND INTERLOCKS IN THE PRESENCE OF THE ENGINEER. ALL FINDINGS SHALL BE RECORDED AND DEFICIENCIES CORRECTED. SEE SPECIFICATIONS FOR ADDITIONAL TESTING REQUIREMENTS.
- IN ANY CASE OF DISCREPANCIES IN NOTED DETAILS, CATALOG NUMBERS, AND DESCRIPTIONS, OR WHERE MULTIPLE INTERPRETATIONS OF THE PLANS MAY BE REASONABLY MADE, SUBMIT A WRITTEN INQUIRY TO THE ENGINEER, WHO WILL MAKE DETERMINATION IN WRITING. ANY DEVIATION FROM THE PLANS AND SPECIFICATIONS OR INTERPRETATIONS MADE BY THE CONTRACTOR WITHOUT WRITTEN APPROVAL BY THE ENGINEER SHALL BE AT THE CONTRACTOR'S OWN RISK AND EXPENSE. IN THE CASE OF DISCREPANCY BETWEEN SPECIFICATIONS AND PLANS, THE MORE STRINGENT SHALL GOVERN.
- EXISTING DIMENSIONS AND DETAILS SHOWN IN THE PLANS ARE BASED ON INFORMATION TAKEN FROM EXISTING PLANS, FIELD MEASUREMENTS, AND FIELD INSPECTIONS. ALL EXISTING DIMENSIONS AND DETAILS THAT AFFECT THE WORK CALLED FOR IN THE PLANS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO START OF WORK. IN THE EVENT THAT EXISTING CONDITIONS OR DETAILS VARY FROM THOSE SHOWN ON THESE DRAWINGS, THE CONTRACTOR MUST MAKE THE NECESSARY DRAWINGS SHOWING THE EXISTING CONDITIONS AND SUBMIT TO THE WCDPW FOR REVIEW AND RESOLUTION.
- FIELD VERIFY ALL DIMENSIONS RELATING TO ELECTRICAL EQUIPMENT INSTALLATIONS PRIOR TO PERFORMING THE ACTUAL INSTALLATION AS THE CONSTRUCTION PROGRESSES. IMMEDIATELY REPORT ANY DISCREPANCIES OR DEVIATIONS NOTED AS PART OF THE FIELD VERIFICATION TO THE ENGINEER. AFTER HAVING NOTED AND REPORTED THE DISCREPANCIES/DEVIATIONS, WORK ON ITEMS THAT MAY BE AFFECTED BY THE DISCREPANCIES WILL BE AT THE CONTRACTOR'S RISK AND EXPENSE UNTIL DIRECTION IS PROVIDED BY THE ENGINEER.
- THE CONTRACTOR SHALL COMPLY WITH THE COUNTY OF WESTCHESTER'S REQUIREMENTS FOR SECURITY AND ACCESS. BUILDING ACCESS AND STORAGE AREAS FOR NECESSARY CONSTRUCTION MATERIALS AND EQUIPMENT SHALL BE COORDINATED WITH THE WCDPW.
- ALL EQUIPMENT NOTED AS PROPOSED SHALL BE FURNISHED BY THE CONTRACTOR.

## JUNCTION BOX, PULL BOX, CABINET AND FITTING NOTES

- FURNISH AND INSTALL JUNCTION AND PULL BOXES, REDUCERS, AND OTHER FITTINGS AS REQUIRED BY THESE SPECIFICATIONS OR WHERE REQUIRED BY THE NEC, OR WHERE REQUIRED TO FACILITATE PULLING, WHETHER SHOWN ON PLANS OR NOT. IF FIELD CONDITIONS DO NOT ALLOW DUE TO SPACE RESTRICTION FOR A JUNCTION BOX OR PULL BOX, SEEK ENGINEER'S PERMISSION TO USE CONDULET FOR SPlicing. DO NOT USE CONDULET WITHOUT ENGINEER'S PRIOR APPROVAL.
- CONDUIT TOP ENTRY IS NOT PERMITTED FOR OUTDOOR CABINETS THAT CONTAIN ELECTRICAL EQUIPMENT. ALL WET AND OUTDOOR LOCATION CONDUIT FITTINGS AND HUBS SHALL BE WATERTIGHT TYPE.

## MOUNTING METHOD NOTES

- WHERE MOUNTING ITEMS SUCH THAT DISSIMILAR METALS MAY BE IN CONTACT WITH EACH OTHER, PROVIDE NEOPRENE SPACERS OR GASKETS TO PREVENT CONTACT. THIS REQUIREMENT WILL NOT BE REQUIRED SPECIFICALLY FOR THE CASE OF CONTACT BETWEEN CARBON STEEL AND STAINLESS STEEL.

## ELECTRICAL SCOPE OF WORK

- FINAL TESTING OF THE ELECTRICAL EQUIPMENT IN THE SHOP (PRIOR TO DELIVERY) SHALL BE DONE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
- DURING SHIPMENT OF ALL MATERIALS TO THE WORK SITE, SUPPORTS AND PROTECTIVE MEASURES NECESSARY TO ENSURE SHIPMENT WITHOUT DAMAGE TO THE ELECTRICAL EQUIPMENT SHALL BE INCLUDED WITH THIS WORK. DAMAGE TO ELECTRICAL EQUIPMENT DURING SHIPPING AND HANDLING SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST. COMPONENTS DAMAGED BEYOND REPAIR, TO THE COUNTY OF WESTCHESTER SATISFACTION, SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST.
- SITE ACCEPTANCE TESTING SHALL BE CONDUCTED AFTER COMPLETE INSTALLATION OF ALL WORK INCLUDING SPAN BALANCE. THE CONTRACTOR SHALL PROVIDE WRITTEN VERIFICATION THAT THEY HAVE PERFORMED THIS FINAL INSPECTION AND INDICATE TESTING RESULTS.
- DETAILED PROGRESS REPORTS AND PROJECTED DELIVERY SCHEDULES SHALL BE PROVIDED THROUGHOUT THE PROJECT. UPDATED SCHEDULES SHALL BE PROVIDED TO THE COUNTY OF WESTCHESTER NO LESS FREQUENTLY THAN BI-WEEKLY.
- ACCOMMODATION AND PROVISION OF ACCESS TO THE SHOP WORK BY THE COUNTY OF WESTCHESTER STAFF AND INSPECTORS SHALL BE GRANTED AT THE REQUEST OF THE COUNTY OF WESTCHESTER.
- THE CONTRACTOR SHALL MAINTAIN A COMPLETE AND FUNCTIONAL CHANNEL NAVIGATION LIGHTING SYSTEM THROUGHOUT THE DURATION OF THE CONSTRUCTION PERIOD.
- REMOVE AND DISPOSE OF EXISTING EQUIPMENT AS SHOWN ON PLANS.
- PROVIDE TEMPORARY NAVIGATION LIGHTING AS REQUIRED.
- FURNISH AND INSTALL NEW PLC CABINET.
- FURNISH AND INSTALL (2) NEW FLUX VECTOR DRIVE MAIN MOTORS, (2) NEW DYNAMIC BREAKING RESISTORS, AND (1) NEMA D ACROSS THE LINE STARTED AUX MOTOR AND AUX MOTOR CHAIN DRIVE INTERLOCK LIMIT SWITCHES.
- FURNISH AND INSTALL AUXILIARY DRIVE HAND CRANK LIMIT SWITCHES.
- FURNISH AND INSTALL NEW MOTOR CONTROL CENTER (MCC).
- FURNISH AND INSTALL NEW MAIN DISTRIBUTION PANEL (MDP).
- FURNISH AND INSTALL NEW CONTROL DESK.
- FURNISH AND INSTALL NEW CCTV SYSTEM.
- FURNISH AND INSTALL NEW GENERATOR WITH RADIATOR MOUNTED LOAD BANK.
- FURNISH AND INSTALL NEW GENERATOR TAP BOX WITH INTEGRATED MTS.
- FURNISH AND INSTALL NEW MOVABLE/FIXED DROOP CABLE CABINET AND DROOP CABLE, MATCH EXISTING CABINET, DROOP CABLE, AND CABLE SUPPORT.
- FURNISH AND INSTALL NEW ROTARY CAM LIMIT SWITCH WITH DIGITAL ENCODER.
- FURNISH AND INSTALL PROXIMITY SWITCHES FOR OVER-TRAVEL, FULLY SEATED, AND (2) SPAN LOCK PULLED (ONE FOR EACH SPAN LOCK), AND (2) SPAN LOCK DRIVEN (ONE FOR EACH SPAN LOCK).
- FURNISH AND INSTALL (2) NEW SPAN LOCKS.
- FURNISH AND INSTALL NEW LAMP POSTS ALONG BRIDGE STRUCTURE AND IN PLAZA, AND NEW ASSOCIATED ROADWAY LIGHTING PANEL.
- FURNISH AND INSTALL NEW WARNING GATES.
- FURNISH AND INSTALL NEW BARRIER GATES ON FAR SIDE.
- FURNISH AND INSTALL NEW SUBMARINE CABLE TERMINATIONS CABINETS AND SUBMARINE CABLE IN HDPE DUCT.
- FURNISH AND INSTALL NEW NAVIGATION LIGHTING.
- FURNISH AND INSTALL (4) TRAFFIC SIGNALS.
- FURNISH AND INSTALL NEW BASCULE PIT SUMP PUMPS, AND CONTROLLER.
- FURNISH AND INSTALL SINGLE-MODE FIBER OPTIC CABLE BETWEEN THE FARSIDE SUBMARINE CABLE TERMINAL CABINET AND THE ADMINISTRATION BUILDING.
- FURNISH AND INSTALL NEW LIGHTING AS SHOWN IN THE DRAWINGS.
- MODIFY EXISTING POWER DISTRIBUTION SYSTEM TO ACCOMMODATE NEW MISC. EQUIPMENT (e.g. HVAC, COUNTER RECEP., EXHAUST FAN, ETC.)



CONSULTANT INFORMATION



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/> AS BUILT - CHANGES AS NOTED <input type="checkbox"/> AS BUILT - NO CHANGES			
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	DATE _____	TITLE _____	DATE _____

<b>WESTCHESTER COUNTY, NEW YORK</b> <b>DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION</b> DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER E-01
		SHEET NO. 163 OF 212	
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SCALE: AS SHOWN DATE: 03/08/2024	
ELECTRICAL		DPW FILE NO.	REV. NO.
<b>GENERAL NOTES 1</b>		5-04-E-598-0	0

## CONDUITS, CABLE, AND WIRING NOTES

- WHERE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IS NOT SHOWN ON DRAWINGS, PROVIDE AN ADDITIONAL EQUIPMENT GROUNDING CONDUCTOR, SIZED IN ACCORDANCE WITH THE NEC.
- QUANTITY OF CONTROL SYSTEM CABLES/WIRES SHOWN ON THE DRAWINGS MAY NOT REFLECT THE ACTUAL NUMBER REQUIRED TO PROVIDE THE STATED SYSTEM OPERATION. THE CONTRACTOR SHALL INSTALL THE QUANTITY OF CABLES/WIRES AS ARE NECESSARY FOR THE INITIAL INSTALLATION, PLUS A MINIMUM OF 10% SPARES.
- LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT (LFMC) SHALL BE USED ONLY FOR APPLICATIONS THAT REQUIRE A HIGH DEGREE OF FLEXIBILITY OR TO ACCOMMODATE MOVING OR VIBRATING PARTS. SUBSTITUTION OF OTHER CONDUIT TYPES WITH LFMC SHALL NOT BE MADE SOLELY BASED ON CONVENIENCE OF INSTALLATION. USE LFMC FOR FINAL CONNECTIONS TO MOTOR AND LIMIT SWITCHES. MAXIMUM LENGTH EIGHTEEN (18) INCHES. DO NOT ATTACH CONDUIT TO MOTOR FOUNDATION.
- SUPPORT CONDUIT EVERY FIVE (5) FEET. MAXIMUM SPACING FOR CONDUIT SUPPORTS DUE TO FIELD CONDITIONS MAY BE EXTENDED UP TO SIX (6) FEET UPON ENGINEER'S APPROVAL. DEVIATION FROM THIS REQUIREMENT SHALL BE AT THE SOLE DISCRETION OF THE ENGINEER. DO NOT SUPPORT BOXES OR CABINETS FROM CONDUIT. INSTALL ALL CONDUIT PER THE NEC AND AASHTO STANDARDS. LIMIT TOTAL ANGULAR CONDUIT BENDS BETWEEN PULL BOXES TO 270° OR 360° WITH APPROVAL OF ENGINEER. RADIUS OF CONDUIT BEND SHALL BE PER THE NEC.
- WHERE MULTIPLE CIRCUIT CONDUCTORS ARE INSTALLED WITHIN THE SAME CONDUIT, VERIFY THAT ALL CONDUCTORS ARE SIZED IN ACCORDANCE WITH NEC DERATING REQUIREMENTS. INSTALL UPSIZED CABLES/LARGER CONDUIT AT NO ADDITIONAL COST TO ACCOMMODATE THE INCREASED WIRING SIZE IF NECESSARY TO COMPLY WITH THIS PROVISION.
- ALL CONDUIT PROVIDED SHALL BE SUNLIGHT AND ULTRAVIOLET (UV) RESISTANT, AND SHALL BE RATED FOR SUCH INSTALLATION, WHETHER INSTALLED IN EXTERIOR LOCATIONS OR NOT.
- EXACT CONDUIT STUB-UP LOCATIONS ARE TO BE DETERMINED BY THE CONTRACTOR BASED ON CERTIFIED MANUFACTURER'S DRAWINGS OF THE RESPECTIVE EQUIPMENT. INSTALL CONDUIT COMPATIBLE WITH EQUIPMENT FURNISHED.
- FURNISH AND INSTALL EXPANSION FITTINGS OF THE APPROVED TYPE WHEREVER CONDUITS PASS THROUGH OR CROSS STRUCTURAL EXPANSION JOINTS. EXPANSION/DEFLECTION FITTINGS NOT SHOWN ON THE PLANS SHALL BE FURNISHED AND INSTALLED AS NECESSARY AT NO ADDITIONAL COST.
- ALL CONDUITS SHALL BE INSTALLED USING THE MANUFACTURER'S RECOMMENDED INSTALLATION METHODS, TOOLS AND MATERIALS. ALL FIELD THREADS SHALL BE COATED USING CONDUIT MANUFACTURER'S RECOMMENDED COATING.
- MINOR DAMAGE TO CONDUIT DURING INSTALLATION SHALL BE REPAIRED, WHILE ANY CONDUIT WITH SEVERE DAMAGE SHALL BE REPLACED. THE DETERMINATION OF LEVEL OF DAMAGE, MINOR OR SEVERE, SHALL BE MADE BY THE OWNER.
- CONTRACTOR SHALL ENSURE ALL ELECTRICAL EQUIPMENT AND APPARATUS HAVE A CORROSION-RESISTING METAL NAMEPLATE WHICH DETAILS THE MANUFACTURER, RATING/CAPACITY OF THE EQUIPMENT OR APPARATUS, MODEL AND SERIAL NUMBER, AND ALL OTHER RELEVANT INFORMATION. CONTRACTOR SHALL ALSO CREATE AN IDENTIFICATION SYSTEM THAT WILL PERMANENTLY AND CLEARLY IDENTIFY ALL ELECTRICAL MATERIALS, EQUIPMENT AND INSTALLATIONS. IDENTIFYING SYSTEM SHALL MATCH DESIGNATIONS PRESENTED ON CONTRACT PLANS. CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL ANY DEVIATIONS FROM DESIGNATIONS PRESENTED ON CONTRACT PLANS. IDENTIFYING SYSTEM SHALL BE IN VARIOUS FORMS INCLUDING, BUT NOT LIMITED TO:
  - PHENOLIC NAME PLATES FOR CABINET, JUNCTION BOX, TERMINAL BOX, ETC. INSTALLATIONS.
  - BRASS TAGS AT BOTH ENDS FOR CONDUIT RUNS.
  - VINYL WRAPAROUND MARKERS AT BOTH ENDS FOR CONDUCTORS TO IDENTIFY BEGINNING AND ENDING OF THE CABLE.
  - MARKINGS ON TERMINAL BLOCKS TO IDENTIFY DESIGNATION.
- ALL GROUND CONDUCTORS IN CONDUITS SHALL BE THE SIZE OF THE LARGEST CONDUCTOR CABLE GAUGE UNLESS NOTED OTHERWISE.
- ALL CONDUCTORS SHALL HAVE 90°C RATED XHHW-2 INSULATION UNLESS NOTED OTHERWISE.

## AS-BUILT PLANS

- PROVIDE AS-BUILT PLANS SHOWING THE FINAL LOCATIONS, DETAILS, AND METHODS FOR ALL ELECTRICAL INSTALLATIONS. AS-BUILT PLANS SHALL BE DEVELOPED USING THIS PLAN SET AND ALL CHANGES OF PLAN AS A BASIS. USE EITHER A "RED-LINE" METHOD THAT SHOWS REVISIONS, OR A COMPUTERIZED METHOD WHICH REVISES THE ELECTRONIC FILES. MATCH THE LEVEL OF DETAIL SHOWN ON THESE PLANS. SUBSTITUTE DETAILS SHALL BE PROVIDED WHERE THE DETAILS ON THIS DRAWING ARE MODIFIED OR ALTERNATE DETAILS ARE APPROVED BY THE ENGINEER. IT WILL NOT BE PERMISSIBLE TO "X" OUT DETAILS WITHOUT PROVIDING NEW VERSIONS.
- IN ADDITION TO PROVIDING AS-BUILT PLANS FOR THE PLANS INCLUDED HEREIN, PROVIDE AS-BUILT PLANS FOR THE FOLLOWING:
  - CONTROL SYSTEM SCHEMATICS.
  - RACEWAY SCHEDULES NOTING SIZE, TYPE, CIRCUITS.
  - WIRE NUMBERS.
  - WIRING TERMINATION DESIGNATIONS.
  - NEW PANELBOARD.

## MEASUREMENTS AND VERIFICATION

- DIMENSIONS INDICATED ON THE PLANS ARE NOMINAL AND ARE INTENDED FOR GUIDANCE ONLY. ALL VARIATIONS FROM THE NOMINAL DIMENSIONS ON THE PLANS SHALL BE NOTED ON THE SHOP DRAWINGS.

## ELECTRICAL MACHINERY AND EQUIPMENT NOTES

- COORDINATE, VERIFY, AND INCORPORATE PROPER CLEARANCES BETWEEN ELECTRICAL ENCLOSURES TO ALLOW FOR INSTALLATION OF EQUIPMENT AS SHOWN ON THE PLANS. SEE MACHINERY/MECHANICAL PLANS FOR ADDITIONAL REQUIREMENTS.
- PLANS MAY NOT SHOW DETAILED CONSTRUCTION METHODS OR DIMENSIONS FOR EQUIPMENT MOUNTING SUPPORTS. WHERE NOT SHOWN, CONTRACTOR SHALL DEVELOP SCALED SHOP DRAWINGS SHOWING CONSTRUCTION OF THE MOUNTING, AND ALL ATTACHED EQUIPMENT FOR REVIEW AND APPROVAL. INTERCONNECTED EQUIPMENT SHALL BE SUBMITTED AS A COMPLETE SHOP DRAWING SUBMISSION.
- MODEL NUMBERS SHOWN ON PLANS ARE PROVIDED FOR REFERENCE ONLY. MODEL NUMBERS MAY NOT BE COMPLETE. IN CASE OF DISCREPANCY BETWEEN MODEL NUMBERS AND STATED SPECIFICATIONS, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL MODEL NUMBERS AND PROVIDING COMPLETE MODEL INFORMATION FOR ALL EQUIPMENT THROUGH THE SHOP DRAWING PROCESS.
- ALL CONTROL PANELS, TEMPORARY AND PERMANENT SHALL BE CONSTRUCTED FOLLOWING NFPA 70, NEC ARTICLE 409 - INDUSTRIAL CONTROL PANELS.
- ALL CIRCUIT BREAKERS (CB) (EXCEPT FOR BRANCH CB IN LIGHTING PANELS) , MOTOR CIRCUIT PROTECTORS, CONTACTORS, AND OVERLOADS SHALL BE PROVIDED WITH A MINIMUM OF ONE (1) NORMALLY OPEN (N.O.) AND ONE (1) NORMALLY CLOSED (N.C.) AUXILIARY CONTACTS, UON.
- ALL ELECTRICAL PARTS SHALL BE COMPLETELY PROTECTED FROM WEATHER, DIRT, AND ALL OTHER INJURIOUS CONDITIONS DURING MANUFACTURE AND SHIPMENT.
- COVERS FOR ALL EQUIPMENT SHALL BE EASILY REMOVABLE AND REPLACEABLE WITHOUT DISASSEMBLY OF ANY COMPONENT EXCEPT THE ONE REQUIRING ACCESS. CLEARANCES BETWEEN EQUIPMENT SHALL BE INCREASED TO MEET THIS REQUIREMENT.
- THE CONTRACTOR SHALL PROVIDE IN-SIGHT (LOCAL) DISCONNECT SWITCH, EITHER SINGLE POLE, DOUBLE POLE OR THREE POLE AS REQUIRED FOR EACH ELECTRICAL APPLIANCE SUCH AS ELECTRICAL WATER HEATER, AIR CONDITIONER, VENTILATION FAN ETC., WHETHER SHOWN OR NOT ON THE CONTRACT PLANS.

## DELIVERY

- PROTECTION FOR SHIPMENT: NEW PARTS AND COMPONENTS SHALL BE CLEANED OF DIRT, CHIPS, GRIT, AND ALL OTHER INJURIOUS MATERIALS PRIOR TO SHIPPING AND SHALL BE GIVEN A COAT OF CORROSION-INHIBITING PRESERVATIVE.
- FINISHED METAL SURFACES AND UNPAINTED METAL SURFACES THAT WOULD BE DAMAGED BY CORROSION SHALL BE COATED AS SOON AS PRACTICABLE AFTER FINISHING WITH A RUST-INHIBITING PRESERVATIVE.
- MACHINERY AND ELECTRICAL PARTS SHALL BE COMPLETELY PROTECTED FROM WEATHER, DIRT, AND ALL OTHER INJURIOUS CONDITIONS DURING MANUFACTURE AND SHIPMENT.
- ASSEMBLED UNITS SHALL BE MOUNTED ON SKIDS OR OTHERWISE CRATED FOR PROTECTION DURING HANDLING AND SHIPMENT.
- PROJECT MATERIALS SHALL BE SHIPPED TO A LOCATION AS COORDINATED WITH THE COUNTY OF WESTCHESTER.
- GUARANTEE AND WARRANTIES: MANUFACTURER'S WARRANTIES OR GUARANTEES ON EQUIPMENT, MATERIALS OR PRODUCTS PURCHASED FOR USE ON THE CONTRACT WHICH ARE CONSISTENT WITH THOSE PROVIDED AS CUSTOMARY TRADE PRACTICE, SHALL BE OBTAINED BY THE FABRICATOR AND, UPON ACCEPTANCE OF THE CONTRACT, THE FABRICATOR SHALL ASSIGN TO THE COUNTY OF WESTCHESTER, ALL MANUFACTURER'S WARRANTIES AND GUARANTEES ON ALL SUCH EQUIPMENT, MATERIALS OR PRODUCTS FURNISHED AS PART OF THE WORK. THE FABRICATOR SHALL WARRANT THE SATISFACTORY IN-SERVICE OPERATION OF THE NEW EQUIPMENT, MATERIAL, PRODUCTS AND RELATED COMPONENTS. THIS WARRANTY SHALL EXTEND FOR A PERIOD OF ONE YEAR FOLLOWING THE DATE OF COMPLETION AND FINAL ACCEPTANCE.

## QUALITY ASSURANCE / STANDARD PRODUCTS

- MATERIALS AND EQUIPMENT SHALL BE THE STANDARD CATALOGUED PRODUCTS OF MANUFACTURERS REGULARLY ENGAGED IN PRODUCTION OF SUCH MATERIALS OR EQUIPMENT AND SHALL BE MANUFACTURER'S LATEST STANDARD DESIGN THAT COMPLIES WITH THE CONTRACT DOCUMENTS. MATERIALS AND EQUIPMENT SHALL ESSENTIALLY DUPLICATE ITEMS THAT HAVE BEEN IN SATISFACTORY COMMERCIAL OR INDUSTRIAL USE FOR AT LEAST TWO YEARS.

## DEFECTIVE MATERIALS AND WORKMANSHIP

- ALL NEW PARTS AND COMPONENTS REJECTED DURING INSPECTION AND TESTING THAT ARE NOT MADE ACCEPTABLE SHALL BE REPLACED WITHOUT ADDITIONAL COST.
- DELAYS RESULTING FROM THE REJECTION OF MATERIAL, EQUIPMENT OR WORK SHALL NOT BE THE BASIS OF ANY CLAIM.
- ALL DEFECTS FOUND DURING THE GUARANTEE PERIOD RESULTING FROM FAULTY MATERIAL, COMPONENTS OR WORKMANSHIP SHALL BE CORRECTED BY THE FABRICATOR WITHOUT COST. IN THE EVENT THAT THE FABRICATOR DOES NOT MAKE THE CORRECTIONS IN A TIMELY MANNER, THE COUNTY OF WESTCHESTER RESERVES THE RIGHT TO MAKE NECESSARY CORRECTIONS WITH ITS OWN FORCES AND CHARGE THE RESULTING COSTS TO THE FABRICATOR.

## SHOP DRAWINGS

- SHOP DRAWINGS SHALL SHOW ALL NEW PARTS AND COMPONENTS COMPLETELY DETAILED AND DIMENSIONED.
- SHOP DRAWINGS SHALL SHOW ALL EXTERNAL DIMENSIONS AND CLEARANCES NECESSARY FOR INSTALLATION. FOR ALL ITEMS SHOWN ON THE CONTRACT PLANS OR LISTED HEREIN, THE FABRICATOR SHALL FURNISH COMPLETE ASSEMBLY DIAGRAMS SHOWING EACH PART CONTAINED WITHIN THE ITEM AND THE MANUFACTURER'S PART NUMBER ASSIGNED TO EACH PART.
- COMPLETE SHOP BILL OF MATERIALS SHALL BE MADE FOR ALL NEW PARTS AND COMPONENTS. THE MATERIAL AND MATERIAL SPECIFICATIONS SHALL BE STATED FOR EACH PART. WHERE NEMA, UL, AMERICAN SOCIETY FOR TESTING AND MATERIALS SPECIFICATIONS (ASTM), OR ANY OTHER STANDARD SPECIFICATIONS ARE USED, THE DESIGNATED NUMBERS OF SUCH SPECIFICATIONS SHALL BE GIVEN. ABBREVIATIONS WILL BE USED TO DESIGNATE STANDARD SPECIFICATIONS FOR MATERIALS AND WORKMANSHIP AS STATED HEREIN, QUALITY ASSURANCE, CODES AND STANDARDS.
- COMPLETE PANEL LAYOUT DRAWINGS SHALL BE FURNISHED. THESE DRAWINGS SHALL GIVE IDENTIFYING MARKS AS NOTED HEREIN.
- EACH SHOP DRAWING SHALL BE GIVEN A SUITABLE TITLE COORDINATED WITH THESE CONTRACT PLANS AND THE EXISTING RECORD DRAWINGS TO DESCRIBE THE PARTS DETAILED THEREON AND SHALL STATE BY WHOM SHOP INSPECTION WILL BE MADE.
- THE FABRICATOR SHALL SUBMIT THE REQUIRED SHOP DRAWINGS TO THE ENGINEER FOR REVIEW WITHIN 30 DAYS AFTER THE DATE OF AWARD OF CONTRACT. FABRICATOR TO BE PROVIDED WITH ALL AVAILABLE EXISTING SHOP DRAWINGS FOR THEIR USE SUBSEQUENT TO CONTRACT AWARD.
- THE FABRICATOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL OF ALL SHOP DRAWINGS. IN CASE OF CORRECTION OR REJECTION, THE FABRICATOR SHALL RESUBMIT UNTIL DRAWINGS ARE APPROVED. AFTER APPROVAL OF THE SHOP DRAWINGS, THE FABRICATOR SHALL SUPPLY THE ENGINEER WITH COPIES OF THE APPROVED SHOP DRAWINGS.
- SHOP DRAWINGS SHALL SHOW FINAL AS TESTED PLC PROGRAM.

## SUBSTITUTIONS

- THE TERMS "APPROVED EQUAL", "OF EQUAL QUALITY", AND "OR EQUIVALENT" WHICH APPEAR ON THE CONTRACT PLANS ARE INTENDED TO ALLOW THE FABRICATOR TO SUBSTITUTE OTHER MANUFACTURERS AND MODEL NUMBERS OF PRODUCTS OF EQUAL QUALITY AND RATING FOR THOSE SPECIFIED.
- PRIOR TO THE FABRICATOR'S ORDERING OF ANY SUBSTITUTE PRODUCT, THE ENGINEER'S APPROVAL OF THE EQUIVALENCE OF THE SUBSTITUTE PRODUCT SHALL BE OBTAINED IN WRITING. THE ACCEPTANCE OF THE SUBSTITUTE PRODUCTS IS AT THE SOLE DISCRETION OF THE ENGINEER WHO WILL ESTABLISH THE BASIS FOR EQUIVALENCE AND WILL REVIEW THE QUALITY OF THE MATERIALS AND PRODUCTS DESCRIBED IN DETAIL ON THE SUBMITTED SHOP DRAWINGS AND PRODUCT DATA.
- THE ENGINEER WILL "APPROVE," "APPROVE AS NOTED," OR "REVISE AND RESUBMIT" SUBSTITUTE MATERIAL. UPON RETURN OF A SHOP DRAWING SHOWING REJECTION, THE FABRICATOR SHALL RESUBMIT THE SHOP DRAWING SHOWING THE SPECIFIED PRODUCT. REJECTION SHALL NOT IN ANY WAY RESULT IN ANY EXTRA COST.
- APPROVAL BY THE ENGINEER OF ANY SUBSTITUTE PRODUCTS SUBMITTED BY THE FABRICATOR SHALL NOT RELIEVE THE FABRICATOR OF RESPONSIBILITY FOR THE PROPER OPERATION, PERFORMANCE, OR FUNCTIONING OF THAT PRODUCT.
- WHERE A MANUFACTURER'S NAME AND CATALOG PART NUMBER SPECIFIES A PARTICULAR PRODUCT IT IS SO SPECIFIED TO ESTABLISH QUALITY, CONFIGURATION, AND ARRANGEMENT OF PARTS. AN EQUIVALENT PRODUCT MADE BY ANOTHER MANUFACTURER MAY BE SUBSTITUTED FOR THE SPECIFIED PRODUCT SUBJECT TO THE APPROVAL OF THE ENGINEER; HOWEVER, ALL NECESSARY CHANGES REQUIRED BY THE SUBSTITUTION SHALL BE MADE BY THE FABRICATOR AT NO ADDITIONAL COST.
- IF ANY DEPARTURES ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND THE REASONS THEREFORE SHALL BE SUBMITTED AS SOON AS PRACTICABLE FOR APPROVAL. NO SUCH DEPARTURES SHALL BE MADE WITHOUT APPROVAL BY THE ENGINEER.

## RULES, REGULATIONS AND ORDINANCES

- WORK SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL RULES, REGULATIONS, AND ORDINANCES.
- IN THE EVENT OF A CONFLICT BETWEEN THESE SPECIFICATIONS AND THE ABOVE MENTIONED CODES, STANDARDS, RULES, REGULATIONS, AND ORDINANCES, THE MOST STRINGENT REQUIREMENT SHALL APPLY.

## MANUFACTURERS RECOMMENDATIONS

- WHERE INSTALLATION PROCEDURES OR ANY PART THEREOF ARE REQUIRED TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIAL BEING INSTALLED, PRINTED COPIES OF THESE RECOMMENDATIONS SHALL BE FURNISHED TO THE ENGINEER PRIOR TO INSTALLATION. INSTALLATION OF THE ITEM WILL NOT BE ALLOWED TO PROCEED UNTIL THE RECOMMENDATIONS ARE RECEIVED. FAILURE TO FURNISH THESE RECOMMENDATIONS CAN BE CAUSE FOR REJECTION OF THE MATERIAL. THE FABRICATOR SHALL PROVIDE AS PART OF THE WORK ALL SPECIAL MACHINING AND INSTALLATION REQUIRED BY THE COMPONENT MANUFACTURER.



CONSULTANT SEAL  
CONSULTANT INFORMATION



					RECORD DRAWING CERTIFICATION		<b>WESTCHESTER COUNTY, NEW YORK</b> <b>DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION</b> DIVISION OF ENGINEERING Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle ELECTRICAL <b>GENERAL NOTES 2</b>		CONTRACT NUMBER 20-517	SHEET NUMBER E-02
					<input type="checkbox"/> AS BUILT – CHANGES AS NOTED <input type="checkbox"/> AS BUILT – NO CHANGES				SHEET NO. 164 OF 212	
					CONTRACTOR		PROJECT COORDINATOR		SCALE: AS SHOWN DATE: 03/08/2024	
					NAME _____		NAME _____		DPW FILE NO.	
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					TITLE _____ DATE _____		TITLE _____ DATE _____		5-04-E-599-0	
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION						

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

## SUBMITTALS

1. MANUFACTURERS DATA AND/OR SHOP DRAWING DATA SHALL BE SUBMITTED FOR ALL MANUFACTURED AND PURCHASED ITEMS OF NEW PARTS AND COMPONENTS.
2. SUBMITTALS FOR EACH MANUFACTURED ITEM SHALL BE MANUFACTURER'S DESCRIPTIVE LITERATURE, DRAWINGS, DIAGRAMS, PERFORMANCE AND CHARACTERISTIC CURVES, CATALOG CUTS AND SHALL INCLUDE THE MANUFACTURER'S NAME, TRADENAME, CATALOG MODEL OR NUMBER, NAMEPLATE DATA, SIZE, CERTIFIED LAYOUT DIMENSIONS, CAPACITY, SPECIFICATION REFERENCE AND ALL OTHER INFORMATION NECESSARY TO ESTABLISH CONTRACT COMPLIANCE.
3. FULLY DETAILED SHOP DRAWINGS AND ASSEMBLY DRAWINGS SHALL BE PROVIDED. THESE DRAWINGS SHALL BE SUBMITTED TO THE COUNTY OF WESTCHESTER FOR REVIEW AND APPROVAL. COMMENCEMENT OF WORK IN THE ABSENCE OF APPROVED SHOP DRAWINGS SHALL BE AT THE CONTRACTOR'S RISK.

## QUALIFICATIONS, PERSONNEL AND FACILITIES

1. FOR THE FABRICATION, INSTALLATION, ALIGNING, CLEANING, TESTING AND ALL OTHER WORK REQUIRED BY THE SCOPE OF WORK, THE FABRICATOR SHALL USE ADEQUATE NUMBERS OF SKILLED, TRAINED AND EXPERIENCED ELECTRICIANS AND SERVICE PERSONNEL WHO ARE THOROUGHLY FAMILIAR WITH THE REQUIREMENTS AND METHODS SPECIFIED FOR THE PROPER EXECUTION OF WORK.
2. ELECTRICIANS AND SERVICE PERSONNEL SHALL BE PROPERLY EQUIPPED WITH ALL NECESSARY INSTRUMENTS TO ASSURE THAT RELATED COMPONENTS HAVE BEEN PROVIDED WITHIN ACCEPTABLE TOLERANCES AND TO MAKE ALL NECESSARY ADJUSTMENTS FOR ATTAINING THE SPECIFIED RATINGS.

## CODES AND STANDARDS

1. WORK UNDER NEW ITEMS SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE LATEST EDITION OF CODES AND STANDARDS ISSUED BY, BUT NOT LIMITED TO, THE FOLLOWING ORGANIZATIONS AND PUBLICATIONS WHOSE ABBREVIATIONS SHALL BE AS SHOWN:
  - 1.1. AMERICAN INSTITUTE OF STEEL CONSTRUCTION - AISC
  - 1.2. AMERICAN IRON AND STEEL INSTITUTE - AISI
  - 1.3. ASSOCIATION FOR IRON AND STEEL TECHNOLOGY - AIST
  - 1.4. AMERICAN WELDING SOCIETY - AWS
  - 1.5. ILLUMINATING ENGINEERING SOCIETY - IES
  - 1.6. AMERICAN NATIONAL STANDARDS INSTITUTE - ANSI
  - 1.7. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS - AASHTO
  - 1.8. AMERICAN SOCIETY FOR TESTING AND MATERIALS - ASTM
  - 1.9. INTERNATIONAL BUILDING CODE - IBC
  - 1.10. INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS - IEEE
  - 1.11. INSULATED CABLE ENGINEERS ASSOCIATION - ICEA
  - 1.12. INSULATED POWER CABLE ENGINEERS ASSOCIATION - IPCEA
  - 1.13. NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION - NECA
  - 1.14. NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION - NEMA
  - 1.15. INTERNATIONAL ELECTRICAL TESTING ASSOCIATION - NETA
  - 1.16. NATIONAL FIRE PROTECTION ASSOCIATION - NFPA
    - 1.16.1. NFPA 70: NATIONAL ELECTRICAL CODE - NEC
    - 1.16.2. NFPA 70E: STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE
    - 1.16.3. NFPA 79: ELECTRICAL STANDARD FOR INDUSTRIAL MACHINERY
    - 1.16.4. NFPA 101: LIFE SAFETY CODE
    - 1.16.5. NFPA 780: STANDARD FOR INSTALLATION OF LIGHTNING PROTECTION SYSTEMS
  - 1.17. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION - OSHA
  - 1.18. UNDERWRITER'S LABORATORY - UL
  - 1.19. ALL OTHER APPLICABLE LOCAL RULES AND ORDINANCES
2. THE WORK SHALL MEET THE REQUIREMENTS OF ALL OTHER CODES AND STANDARDS AS SPECIFIED IN THE CONTRACT DOCUMENTS. WHERE CODES AND STANDARDS ARE MENTIONED FOR ANY ITEM, IT IS INTENDED TO CALL PARTICULAR ATTENTION TO THEM, IT IS NOT INTENDED THAT ANY OTHER CODES AND STANDARDS BE OMITTED IF NOT MENTIONED.
3. THE FOLLOWING IS A LIST OF THE CONTRACT DOCUMENT SPECIFICATIONS:
  - 3.1. 599.063000WE MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM
  - 3.2. 683.090700WE MOVABLE BRIDGE STANDBY GENERATOR
  - 3.3. 599.142500WE MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS
  - 3.4. 599.142600WE MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS INSTALLATION
  - 3.5. 599.064000WE MOVABLE BRIDGE ELECTRICAL TESTING
  - 3.6. 680.79300001 REMOVE TRAFFIC SIGNAL HEAD OR PEDESTRIAN SIGNAL HEAD
  - 3.7. 680.82250301 REMOVE STEEL EMBEDDED TRAFFIC SIGNAL POLE
  - 3.8. 670.60 PHOTOELECTRIC CONTROLS
  - 3.9. 670.81 REMOVE AND DISPOSE OF LAMPPOST ASSEMBLY
  - 3.10. 680.621630 TRAFFIC SIGNAL POLE - MAST ARM
  - 3.11. 680.6712 TRAFFIC SIGNAL POLE - POST TOP MOUNT
  - 3.12. 680.810101 TRAFFIC SIGNAL MODULE - 12 INCH RED BALL, LED
  - 3.13. 680.810103 TRAFFIC SIGNAL MODULE - 12 INCH YELLOW BALL, LED
  - 3.14. 680.810105 TRAFFIC SIGNAL MODULE - 12 INCH GREEN BALL, LED
  - 3.15. 680.810107 TRAFFIC SIGNAL SECTION - TYPE I, 12 INCH
  - 3.16. 680.810308 INSTALL BALL LED TRAFFIC SIGNAL MODULE
  - 3.17. 680.8111 TRAFFIC SIGNAL BRACKET ASSEMBLY
  - 3.18. 680.8220 FLASHING BEACON SIGN ASSEMBLY
  - 3.19. 680.10000007 INSTALL TRAFFIC SIGNAL POLE, ALL SIZES

## MOVABLE BRIDGE PROJECT COORDINATOR

1. ALL OF THE FOLLOWING MOVABLE BRIDGE PROJECT COORDINATOR REQUIREMENTS SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND BE PAID FOR UNDER VARIOUS PAY ITEMS LISTED IN PARAGRAPH 8 BELOW, AS IS RELEVANT.
2. THE CONTRACTOR SHALL SUPPLY A SINGLE PERSON RESPONSIBLE FOR ALL DUTIES DEFINED BELOW, WHO SHALL BE DESIGNATED AS THE MOVABLE BRIDGE PROJECT COORDINATOR.
3. THE CONTRACTOR SHALL HIRE A MOVABLE BRIDGE PROJECT COORDINATOR (MBPC) WHO SHALL BE A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER. A RESUME OF THE INDIVIDUAL'S EXPERIENCE AND WRITTEN EVIDENCE OF COMMITMENT TO THE CONTRACT SHALL BE SUBMITTED PRIOR TO AWARD OF CONTRACT. THE MBPC SHALL HAVE PRIOR PROFESSIONAL EXPERIENCE IN COORDINATING A MINIMUM OF TWO RECENT STRUCTURAL-MECHANICAL-ELECTRICAL PROJECTS FOR MOVABLE BRIDGES. THE PROJECT SIZE SHALL BE MAJOR REHABILITATION OF STRUCTURAL ELEMENTS AND COMPLETE REPLACEMENT OF DRIVE MACHINERY AND ELECTRICAL CONTROL SYSTEMS, WITH A CONSTRUCTION COST OF AT LEAST \$8 MILLION FOR EACH QUALIFYING PROJECT. SHOULD AN ACCEPTABLE INDIVIDUAL NOT BE FOUND WITHIN THE CONTRACTOR'S PERMANENT STAFF, CONSIDERATION WILL BE GIVEN TO AN INDIVIDUAL HIRED ESPECIALLY FOR THIS POSITION. UNDER ALL CIRCUMSTANCES, PRIOR MOVABLE EXPERIENCE IS MANDATORY, AS DESCRIBED ABOVE. WRITTEN EVIDENCE OF THE WILLINGNESS OF THE MBPC TO COMMIT FULLY THROUGHOUT THE DURATION OF THE PROJECT SHALL BE OFFERED TO THE ENGINEER AS PART OF THE QUALIFICATION FOR THE INDIVIDUAL. THE MBPC SHALL NOT BE CHANGED WITHOUT PRIOR APPROVAL OF THE ENGINEER AND UNTIL A SUCCESSOR HAS BEEN APPROVED BY THE ENGINEER.
4. THE MBPC SHALL HAVE THE RESPONSIBILITY OF COORDINATING ALL CONSTRUCTION WORK ON THE MOVABLE BRIDGE PORTIONS OF THE PROJECT, FROM SHOP DRAWING PREPARATION AND REVIEW THROUGH FIELD WORK AND FINAL ACCEPTANCE. THE MBPC SHALL BE TASKED WITH MAINTAINING THE SCHEDULE OF THE MOVABLE BRIDGE WORK BY ENSURING THE CONTRACTOR AND ALL SUBCONTRACTORS PERFORM THEIR WORK IN A TIMELY AND ORGANIZED MANNER, AND AT ALL TIMES ARE WORKING TOWARD THE COMMON GOAL OF FINISHING THE PROJECT IN A WORKMANLIKE MANNER AND IN ACCORDANCE WITH THE APPROVED SCHEDULE AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS.
5. THE MBPC SHALL PARTICIPATE IN THE DEVELOPMENT OF THE CRITICAL PATH METHOD (CPM) SCHEDULING, TO ASSURE ADEQUATE PLANNING AND EXECUTION OF THE MOVABLE BRIDGE WORK. THE SCHEDULE SHALL ALLOW ADEQUATE TIME TO REVIEW THE INDIVIDUAL SUBMITTALS.
6. THE MBPC SHALL ALSO REVIEW AND CONFIRM ACCURATE INFORMATION TO BE USED FOR OPERATING AND MAINTENANCE MANUAL CONTENT AS WELL AS INFORMATION FOR OPERATING AND MAINTENANCE TRAINING.
7. THE MBPC SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL STRUCTURAL, MECHANICAL, AND ELECTRICAL CONSTRUCTION WORK ON THE TEMPORARY MOVABLE BRIDGE PORTIONS OF THE PROJECT, FROM SHOP DRAWING PREPARATION AND REVIEW THROUGH FIELD WORK, ACCEPTANCE, OPERATION, AND DECOMMISSIONING. THE MBPC SHALL BE TASKED WITH MAINTAINING THE SCHEDULE OF THE TEMPORARY MOVABLE BRIDGE WORK BY ENSURING THE CONTRACTOR AND ALL SUBCONTRACTORS PERFORM THEIR WORK IN A TIMELY AND ORGANIZED MANNER, AND AT ALL TIMES ARE WORKING IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE APPROVED SCHEDULE AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS.
8. THE MBPC SHALL BE RESPONSIBLE FOR COORDINATION OF ALL WORK INCLUDED IN BUT NOT LIMITED TO THE FOLLOWING PAY ITEMS, AS WELL AS ANY STRUCTURAL WORK PERFORMED ON THE MOVABLE BRIDGE:
 

PAY ITEM	PAY ITEM DESCRIPTION
8.1. 599.061201WE	REHABILITATE SPAN DRIVE MACHINERY
8.2. 599.061202WE	REFURBISH TRUNNION
8.3. 599.061205WE	REPLACE SPAN LOCKS AND MISCELLANEOUS REPAIRS
8.4. 599.061301WE	BRIDGE BALANCE
8.5. 599.063000WE	MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM
8.6. 599.064000WE	MOVABLE BRIDGE ELECTRICAL TESTING
8.7. 619.0501	TEMPORARY STRUCTURES AND APPROACHES NO 1
8.8. 683.090700WE	MOVABLE BRIDGE STANDBY GENERATOR
8.9. 599.13990010	REMOVE SUBMARINE CABLE
8.10. 599.142600WE	MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCT INSTALLATION
8.11. 670.81	REMOVE AND DISPOSE OF LAMPPOST ASSEMBLY
8.12. 680.10000007	INSTALL TRAFFIC SIGNAL POLE, ALL SIZES
9. THE COORDINATION FUNCTIONS AND RESPONSIBILITIES OF THE MBPC SHALL INCLUDE BUT NOT BE LIMITED TO:
  - 9.1. COORDINATION OF SHOP DRAWINGS AS REQUIRED FROM ALL SUPPLIERS, FABRICATORS AND SUBCONTRACTORS.
  - 9.2. EXCHANGE OF NECESSARY DATA RELATED TO THE MOVABLE BRIDGE PORTION OF THE PROJECT BETWEEN SUBCONTRACTORS.
  - 9.3. SUBSTITUTION OF ALTERNATE BRANDS OF COMPONENTS, SUBSTANTIATION OF EQUIVALENCY, AND COORDINATION OF APPROVALS TO ALL REVISIONS NECESSITATED BY THE SUBSTITUTION.
  - 9.4. SUBMITTALS OF SHOP DRAWINGS, CATALOG CUTS, MANUFACTURER'S LITERATURE, AND ALL OPERATING AND MAINTENANCE MANUAL CONTENT IN A TIMELY MANNER.
  - 9.5. CERTIFYING THAT ALL MATERIALS, CONSTRUCTION METHODS AND PERFORMANCE OF WORK ARE IN CONFORMANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
  - 9.6. EXPEDITING DELIVERIES AND SHOP TESTING OF TIME CRITICAL MATERIALS AND EQUIPMENT.
  - 9.7. COORDINATING ALL STRUCTURAL, MECHANICAL, AND ELECTRICAL FIELD WORK, INCLUDING TEMPORARY MOVABLE BRIDGE, TEMPORARY CHANNEL CLOSURES, TEMPORARY SUPPORTS, BRACINGS, JACKING, INSTALLATIONS, AND REMOVALS.
10. THE MBPC SHALL ATTEND ALL MEETINGS INVOLVING THE MOVABLE BRIDGE CONSTRUCTION PROJECT AND ATTENDED BY ANY COMBINATION OF CONTRACTOR, SUBCONTRACTOR, MATERIAL SUPPLIERS, AND THE ENGINEER. THE MBPC SHALL BE THE INDIVIDUAL TO WHOM ALL QUESTIONS RELATING TO THE CONSTRUCTION OF THE MOVABLE BRIDGE SHALL BE ADDRESSED.

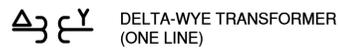
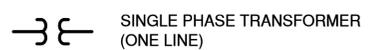
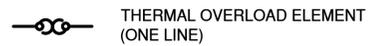
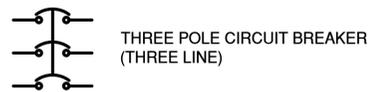
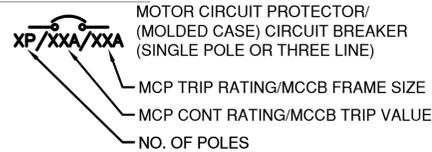
## TEMPORARY BRIDGE REQUIREMENTS

1. ALL OF THE FOLLOWING TEMPORARY BRIDGE REQUIREMENTS SHALL BE PAID FOR UNDER PAY ITEM 619.0501.
2. DESIGN, CONSTRUCT, COMMISSION, OPERATE, INSPECT AND MAINTAIN THE TEMPORARY MOVABLE SPAN IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATION FOR MOVABLE HIGHWAY BRIDGES 1988 AND AASHTO MOVABLE BRIDGE INSPECTION, EVALUATION AND MAINTENANCE MANUAL. SPAN LOCKS ARE NOT REQUIRED FOR NON-COUNTERWEIGHTED TEMPORARY MOVABLE SPAN. TRAFFIC GATES ARE REQUIRED ON BOTH SIDES OF THE MOVABLE SPAN AND BARRIER GATE(S) ARE REQUIRED UNLESS THE SPAN OR OTHER LARGE MASS ELEMENT OBSTRUCTS A VEHICLE FROM DRIVING OFF THE APPROACH SPAN.
3. MOVABLE BRIDGE PROJECT COORDINATOR PROVIDED UNDER THE ELECTRICAL SPEC AND PAY ITEM SHALL BE REQUIRED TO COORDINATE THE REQUIREMENTS OF THE TEMPORARY BRIDGE AND ITS OPERATION AND MAINTENANCE.
4. AASHTO MOVABLE BRIDGE INSPECTION, EVALUATION AND MAINTENANCE MANUAL SHALL APPLY TO THE OPERATION, INSPECTION, AND MAINTENANCE OF THE TEMPORARY MOVABLE SPAN. IN PARTICULAR THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFE OPERATION DEFINED IN PART 1 AND MAINTENANCE DEFINED IN PART 4 OF THIS MANUAL. SPECIAL ATTENTION SHALL BE GIVEN TO COMPLETE INSPECTION OF THE OPERATING ROPES. AT 5 YEARS OF SERVICE A THOROUGH INSPECTION OF THE COMPLETE LENGTHS OF OPERATING ROPES SHALL BE PERFORMED. THE ENGINEER WILL INSPECT THE MOVABLE SPAN ONCE PER YEAR IN ACCORDANCE WITH PARTS 2 AND 3 AND PROVIDE MAINTENANCE AND REPAIR RECOMMENDATIONS TO THE CONTRACTOR TO BE IMPLEMENTED WITHIN THE STATED TIME PERIOD.
5. THE TEMPORARY BRIDGE CONTROL SYSTEM SHALL HAVE FULL INTERLOCKING AS DESCRIBED BY AASHTO.
6. SUBMIT THE TEMPORARY MOVABLE SPAN OPERATION AND MAINTENANCE MANUAL FOR REVIEW BY THE ENGINEER.
7. SUBMIT PURPOSED START-UP PROCEDURE/CHECKLIST FOR REVIEW BY THE ENGINEER.
8. COMMISSIONING OF THE TEMPORARY BRIDGE FOR OPERATION SHALL ONLY BE ACCEPTED AFTER DEMONSTRATING 10 CONSECUTIVE DAYS WITH A MINIMUM OF 5 OPENING PER DAY, WITHOUT ANY FAILURES OR WARNINGS/ALARMS. THE 10 DAY PERIOD SHALL START OVER AFTER ISSUES CAUSING FAILURES/ALARMS ARE ADDRESSED.
9. BARGE MOUNTED CRANE FOR EMERGENCY OPERATION NOT PERMITTED UNLESS UNDER SPECIAL REQUEST DUE TO A MAJOR FAILURE SUCH AS A BROKEN OPERATING ROPE.
10. THE TEMPORARY MOVABLE SPAN WHEN OPEN FOR MARINE VESSELS NAVIGATION SHALL PROVIDE AN OPEN CHANNEL OF 59'-4" WIDE AND UNLIMITED VERTICAL CLEARANCE.
11. MAXIMUM OF 17 MINUTES FOR NORMAL COMPLETE CYCLE OF OPERATION, AND 45-MINUTES FOR EMERGENCY COMPLETE CYCLE OF OPERATION, ROADWAY TRAFFIC INTERRUPTION TIME WITHOUT PASSAGE OF MARINE VESSEL THROUGH OPEN CHANNEL. NORMAL COMPLETE CYCLE OF OPERATION IS DEFINED AS THE TIME FROM TRAFFIC LIGHTS TURNING FROM GREEN TO RED AND BACK TO GREEN. OPERATION INCLUDES; LOWERING GATES, OPEN AND CLOSE THE MOVABLE SPAN TO AND FROM ITS FULL OPEN POSITION FOR AN OPEN CHANNEL AND BACK TO SEATED, RAISING THE GATES, AND OTHER ANCILLARY EQUIPMENT OPERATION. EMERGENCY OPERATION IS THE SAME AS NORMAL OPERATION EXCEPT PERFORMED IF A NORMAL DRIVE FAILURE OCCURS.
12. THE SERVICE LIFE OF THE TEMPORARY MOVABLE SPAN SHALL BE A MINIMUM OF 5 YEARS. PROVIDE; ONE SPARE SET OF BRAKE SHOES AND LINERS FOR EACH SIZE BRAKE, ONE SPARE TRAFFIC GATE ARM, GEAR REDUCER OIL OF EQUAL VOLUME TO ITS RESERVOIR CAPACITY. AFTER 5 YEARS OF SERVICE ONE SET OF OPERATING ROPES.
13. THE MAX OPERATING WIND SPEED AS DEFINED BY AASHTO, 10 PSF WIND LOAD ON THE MOVABLE SPAN AND 20 PSF WIND ON THE OPEN SPAN WHILE STATIONARY.
14. THE USE OF A TEMPORARY SUBMARINE CABLE OR AERIAL CABLE IS PROHIBITED, FOR BOTH POWER AND CONTROL. THE TEMPORARY SYSTEM SHOULD DETAIL TEMPORARY POWER ARRANGEMENT FROM THE EXISTING SWITCHGEAR HOUSE AND THE POWER HOUSE ACROSS THE CHANNEL.
15. A WIRELESS COMMUNICATION SYSTEM SHALL BE USED TO CONTROL AND RECEIVE FEEDBACK FROM THE FAR DEVICES FOR THE TEMPORARY BRIDGE SUCH AS THE FAR BARRIER GATES, WARNING GATES, AND TRAFFIC SIGNALS.
16. DROOP CABLE SYSTEMS AND NAVIGATION LIGHTING SYSTEMS WILL ALSO NEED TO BE DETAILED BY THE CONTRACTOR NYS LICENSED ELECTRICAL ENGINEER REPRESENTATIVE.
17. THE EXISTING 150KVA SERVICE ALLOWS ONLY ONE BRIDGE TO OPERATE AT TIME. COORDINATION BETWEEN OPERATION OF EXISTING BRIDGE AND TEMPORARY BRIDGE IS REQUIRED UNLESS AN ALTERNATE TEMPORARY UTILITY SERVICE IS OBTAINED THROUGH CONEDISON.
18. THE CONTRACTOR SHALL HIRE A NYS LICENSED ELECTRICAL ENGINEER TO DEVELOP AND SIGN AND SEAL THE TEMPORARY BRIDGE OPERATING SYSTEM.
19. A TEMPORARY BRIDGE FROM A TEMPORARY BRIDGE VENDOR MAY ONLY COME WITH A CONTROL DESK AND AN MCC. CONTRACTOR SHALL HAVE TO FURNISH AND INSTALL, INCLUDING BUT NOT LIMITED TO; ALL STARTERS, ALL WIRING, NAVIGATION LIGHTING, ROADWAY LIGHTING, EMERGENCY GENERATOR HOOKUP, WIRELESS COMMUNICATION SYSTEM FOR CONTROL BETWEEN NEAR AND FAR SIDES, DROOP CABLING, ALL CONDUIT AND TERMINAL BOXES, ETC.

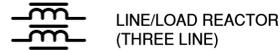
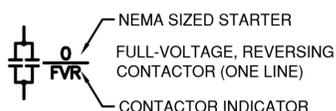
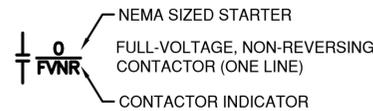


					RECORD DRAWING CERTIFICATION		WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER E-03
					<input type="checkbox"/> AS BUILT - CHANGES AS NOTED <input type="checkbox"/> AS BUILT - NO CHANGES		Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 165 OF 212	
					CONTRACTOR		PROJECT COORDINATOR		SCALE: AS SHOWN DATE: 03/08/2024	
					NAME _____		NAME _____		DPW FILE NO.	
					SIGNATURE _____		SIGNATURE _____		REV. NO.	
					TITLE _____ DATE _____		TITLE _____ DATE _____		5-04-E-600-0	
					REVISION NUMBER		REVISION		<b>GENERAL NOTES 3</b>	
					IN CHARGE OF <u>D. DELUCA, PE</u>					
					CHECKED BY <u>A. NOBLE, PE</u>					
					MADE BY <u>J. AMBROS, PE</u>					

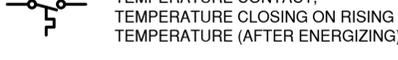
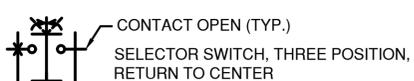
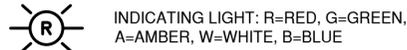
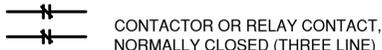
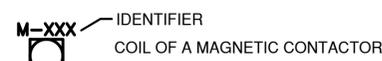
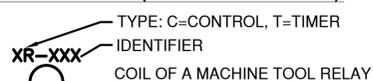
**SYMBOLS**



**SYMBOLS (CONTINUED)**



**SYMBOLS (CONTINUED)**



**ABBREVIATIONS**

A/AMP	AMPERE
AC	ALTERNATING CURRENT/AIR CONDITIONING
ACM	ASBESTOS CONTAINING MATERIAL
ADMIN	ADMINISTRATION
AF	AMPERE FRAME
AFF	ABOVE FINISHED FLOOR
ALT	ALTERNATE
AM	AMMETER
APPROX	APPROXIMATE
AT	AMP TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
C	CONDUIT/CELSIUS
CAB	CABINET
CAT	CATALOG
CB	CIRCUIT BREAKER
CCTV	CLOSED-CIRCUIT TELEVISION
CD	CONTROL DESK
CFPM	CUBIC FEET PER MINUTE
CH	CONTROL HOUSE
CKT	CIRCUIT
COMM	COMMUNICATIONS
CONC	CONCRETE
CONN	CONNECT, CONNECTION
CONT	CONTINUATION
CL	CENTERLINE
CLS	CLASS
CPU	CENTRAL PROCESSING UNIT
CT	CURRENT TRANSFORMER
CTRL	CONTROL
CU	COPPER
DBR	DYNAMIC BRAKING RESISTOR
DC	DIRECT CURRENT
DCTC	DROOP CABLE TERMINAL CABINET
DIA	DIAMETER
DIAG	DIAGRAM
DIM	DIMENSION
DISC/DS	DISCONNECT
DIST	DISTRIBUTION/DISTANCE
DN	DOWN
DP	DISTRIBUTION PANELBOARD
DRV	DRIVE
DS	DISCONNECT SWITCH
DWG	DRAWING
E	EAST
EA	EACH
EF	EXHAUST FAN
EFF	EFFICIENCY
ELEC	ELECTRICAL
ELEV	ELEVATION
EM	EMERG, EMERGENCY
EO	ELECTRICALLY OPERATED
EOT	END-OF-TRAVEL
EPR	ETHYLENE PROPYLENE RUBBER
EQUIP	EQUIPMENT
ETC	ETCETERA
EXH	EXHAUST
EXIST	EXISTING
E-STOP	EMERGENCY STOP
FB	FLOORBEAM
FD	FIRE DEPARTMENT
FDR	FEEDER
FF	FORCE FIT
FL	FLOOD LIGHT
FLEX	FLEXIBLE
FT	FOOT, FEET
FU	FUSE
FUT	FUTURE
FVNR	FULL-VOLTAGE NON-REVERSING
FVR	FULL-VOLTAGE REVERSING

**ABBREVIATIONS (CONTINUED)**

GRD/GND	GROUND
GALV	GALVANIZED
GEN	GENERATOR
GEN-SW	GENERATOR SWITCH
GFR	GROUND FAULT RELAY
GPM	GALLONS PER MINUTE
GND	GROUND
GR	GRADE
GRN	GREEN
HEX	HEXAGONAL
HMI	HUMAN-MACHINE INTERFACE
HOA	HAND OFF AUTO
HOR	HORIZONTAL
HP	HORSEPOWER
HS	HIGH STRENGTH
HTR	HEATER
HV	HIGH VOLTAGE
HW	HARDWIRED
HZ	HERTZ
ID	INNER DIAMETER
IWRC	INDEPENDENT WIRE ROPE CORE
I/O	INPUT/OUTPUT
JB	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT-AMPERE
KW	KILOWATT
LBS	POUNDS
LCF	LOCATIONAL CLEARANCE FIT
LF	LINEAR FEET
LFMC	LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT LIGHTING PANEL
LP	LIGHTING PANEL
LS	LIMIT SWITCH
LTF	LOCATIONAL TRANSITION FIT LIGHTING
LTG	LIGHTING
LV	LOW VOLTAGE
LVL	LEVEL
LVPGB	LOW VOLTAGE POWER CIRCUIT BREAKER
MAINT	MAINTENANCE
MANUF	MANUFACTURER
MAX	MAXIMUM
MB	MOTOR BRAKE
MCC	MOTOR CONTROL CENTER
MCCB	MOLDED CASE CIRCUIT BREAKER
MCP	MOTOR CIRCUIT PROTECTOR
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MH	MANHOLE
MIN	MINIMUM
MINCH	MILLI-INCHES
MIT	MITIGATION
MMB	MAIN MOTOR BRAKE
MO	MANUALLY OPERATED
MPZ	MINI-POWER ZONE
MR	MACHINERY ROOM
MS	MAIN SWITCH
MTD	MOUNTED
MTR	MOTOR
MTS	MANUAL TRANSFER SWITCH
MV	MEDIUM VOLTAGE
MYB	MACHINERY BRAKE

**ABBREVIATIONS (CONTINUED)**

N	NORTH
NA	NOT AVAILABLE
NATS	NON-AUTOMATIC TRANSFER SWITCH
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE (LATEST EDITION)
NECA	NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NESC	NATIONAL ELECTRICAL SAFETY CODE
NETA	NATIONAL ELECTRIC TESTING ASSOCIATION
NEUT	NEUTRAL
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NOM	NOMINAL
NO.	NUMBER
NPS	NATIONAL PIPE STRAIGHT
NPT	NATIONAL PIPE THREAD
NTS	NOT TO SCALE
OAE	OR APPROVED EQUAL
OC	ON CENTER
OCPD	OVER CURRENT PROTECTION DEVICE
ODIA	OUTER DIAMETER
OEM	ORIGINAL EQUIPMENT MANUFACTURER
OF	OPTICAL FIBER
OL	OVERLOAD
OP	OPERATOR
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
P	POLE
PB	PULLBOX
PFR	PHASE FAILURE RELAY
PH	PHASE
PL	PLATE
PM	POWER/PHASE MONITOR
PNL	PANEL
PRH	PRECIPITATION HARDENED
PRI	PRIMARY
PSI	POUNDS PER SQUARE INCH
PT	POINT
PTT	PUSH TO TEST
PWR	POWER
QTY	QUANTITY
RECPT	RECEPTACLE
RC	REMOTE CONTROL
RCC	REMOTE CONTROL CABINET
RCP	REMOTE CONTROL PANEL
RCS	REMOTE CONTROL SWITCH
REF	REFERENCE
REM	REMOTE
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RMC	RIGID METAL CONDUIT
RPM	REVOLUTIONS PER MINUTE
RSR	REMOTE SELECTOR SWITCH
RSF	RUNNING AND SLIDING FIT
RST	RESET

**ABBREVIATIONS (CONTINUED)**

S	SOUTH
SC	SUBMARINE CABLE
SCHED	SCHEDULE
SCTC	SUBMARINE CABLE TERMINAL CABINET
SD	SLOWDOWN
SEC	SECONDARY
SECT	SECTION
SHLD	SHIELDED
SIH	SIGNAL INSTRUMENT HOUSE
SL	SPAN LOCK
SM	SINGLE MODE
SP	SPARE, SUMP PUMP
SPD	SURGE PROTECTIVE DEVICE
SS	STAINLESS STEEL
STDBY	STAND-BY
STD	STANDARD
STN	STATION
STRUC	STRUCTURE
SUSP	SUSPENDED
SVC	SERVICE
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SYM	SYMMETRICAL
S/G	SOLID GROUND
S/N	SOLID NEUTRAL
TB	TERMINAL BOX
TEFC	TOTALLY ENCLOSED FAN COOLED
TEL	TELEPHONE
TEMP	TEMPERATURE, TEMPORARY
TENV	TOTALLY ENCLOSED NON VENTILATED
TERM	TERMINAL
TOR	TOP OF RAIL
TRANSF	TRANSFORMER
TRNS	TRANSFER
TRK	TRACK
TS	TRANSFER SWITCH
TTB	TELEPHONE TERMINAL BOX
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
TW	TWISTED
TWR	TOWER
TYP	TYPICAL
UINCH	MICROINCHES
UL	UNDERWRITERS LABORATORY
UNK	UNKNOWN
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTED POWER SUPPLY
UTIL	UTILITY
V	VOLT OR VOLTAGE
VA	VOLT-AMPERE
VAC	AC VOLTAGE
VDC	DC VOLTAGE
VERT	VERTICAL
VS	VOLTMETER SWITCH
VM	VOLTMETER
W	WIRE, WIDTH, WEST, WATTS
WP	WEATHER-PROOF
XHHW	CROSS-LINKED HIGH HEAT WATER RESISTANT INSULATED WIRE

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
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DATE _____	DATE _____	DATE _____	DATE _____



CONSULTANT INFORMATION



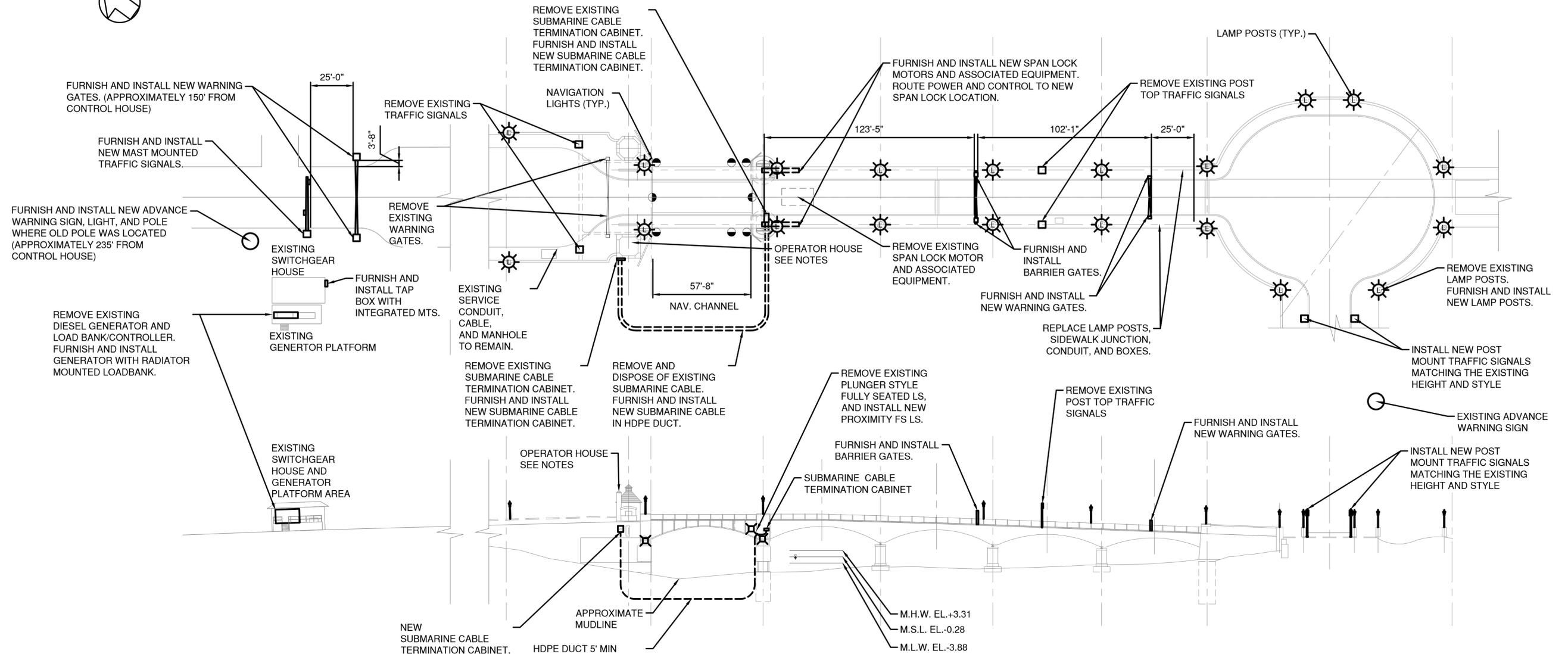
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

ELECTRICAL

**LEGEND & ABBREVIATIONS**

CONTRACT NUMBER 20-517	SHEET NUMBER E-04
SHEET NO. 166 OF 212	
SCALE: AS SHOWN	
DPW FILE NO.	REV. NO.
5-04-E-601-0	0



**NOTES:**

- OPERATOR HOUSE - CONTROL ROOM LEVEL:  
 REMOVE EXISTING CONTROL DESK (SEE DRAWING E-07 FOR DETAILS).  
 FURNISH AND INSTALL NEW CONTROL DESK, MARINE RADIO, AND CCTV MONITORS (SEE DRAWING E-11 FOR DETAILS).
- OPERATOR HOUSE - ELECTRICAL ROOM AND MACHINERY ROOM:  
 REMOVE EXISTING RELAY CABINET, MOTOR CONTROL CENTER (MCC), SURGE PROTECTOR, SUMP PUMP CONTROL PANEL, SPAN MOTOR DRIVES (2) AND BRAKING RESISTORS (2), SPAN MOTORS (2), MACHINERY BRAKES (2), AUXILIARY CHAIN DRIVE LIMIT SWITCHES (SEE DRAWING E-07 FOR DETAILS).  
 FURNISH AND INSTALL NEW PLC CABINET WITH PLC AND RELAYS, MOTOR CONTROL CENTER (MCC) AND SPD, SUMP PUMP CONTROL PANEL, MAIN DISTRIBUTION PANEL (MDP), ROADWAY LIGHTING PANEL, FLUX VECTOR DRIVE CABINETS AND ASSOCIATED INTERNAL EQUIPMENT, DYNAMIC BRAKING RESISTORS (2), SPAN MOTORS (2) AND ASSOCIATED EQUIPMENT, MACHINERY BRAKES (2), AUXILIARY MOTOR AND CHAIN DRIVE INTERLOCK LIMIT SWITCHES, AUXILIARY MOTOR (SEE DRAWING E-12 FOR DETAILS).
- OPERATOR HOUSE - MACHINERY AREA AND PIT:  
 REMOVE EXISTING ROTARY CAM LIMIT SWITCHES AND SELSYN, DROOP CABLE AND ASSOCIATED TERMINAL CABINETS (2), SUMP PUMPS (2), OVER-TRAVEL LIMIT SWITCH (SEE DRAWING E-07 FOR DETAILS).  
 FURNISH AND INSTALL NEW ROTARY CAM LIMIT SWITCH AND DIGITAL ENCODER, PROXIMITY STYLE OVER-TRAVEL LIMIT SWITCH, MOVABLE/FIXED DROOP CABLE CABINETS (MATCH EXISTING SIZE), DROOP CABLE AND CABLE SUPPORTS (MATCH EXISTING), SUMP PUMPS (1-5HP, 1-7.5HP) AND ASSOCIATED FLOAT SWITCHES, SERVICE LIGHTS (3) (SEE DRAWING E-11 FOR DETAILS).

**GENERAL PLAN AND ELEVATION**

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



CONSULTANT INFORMATION



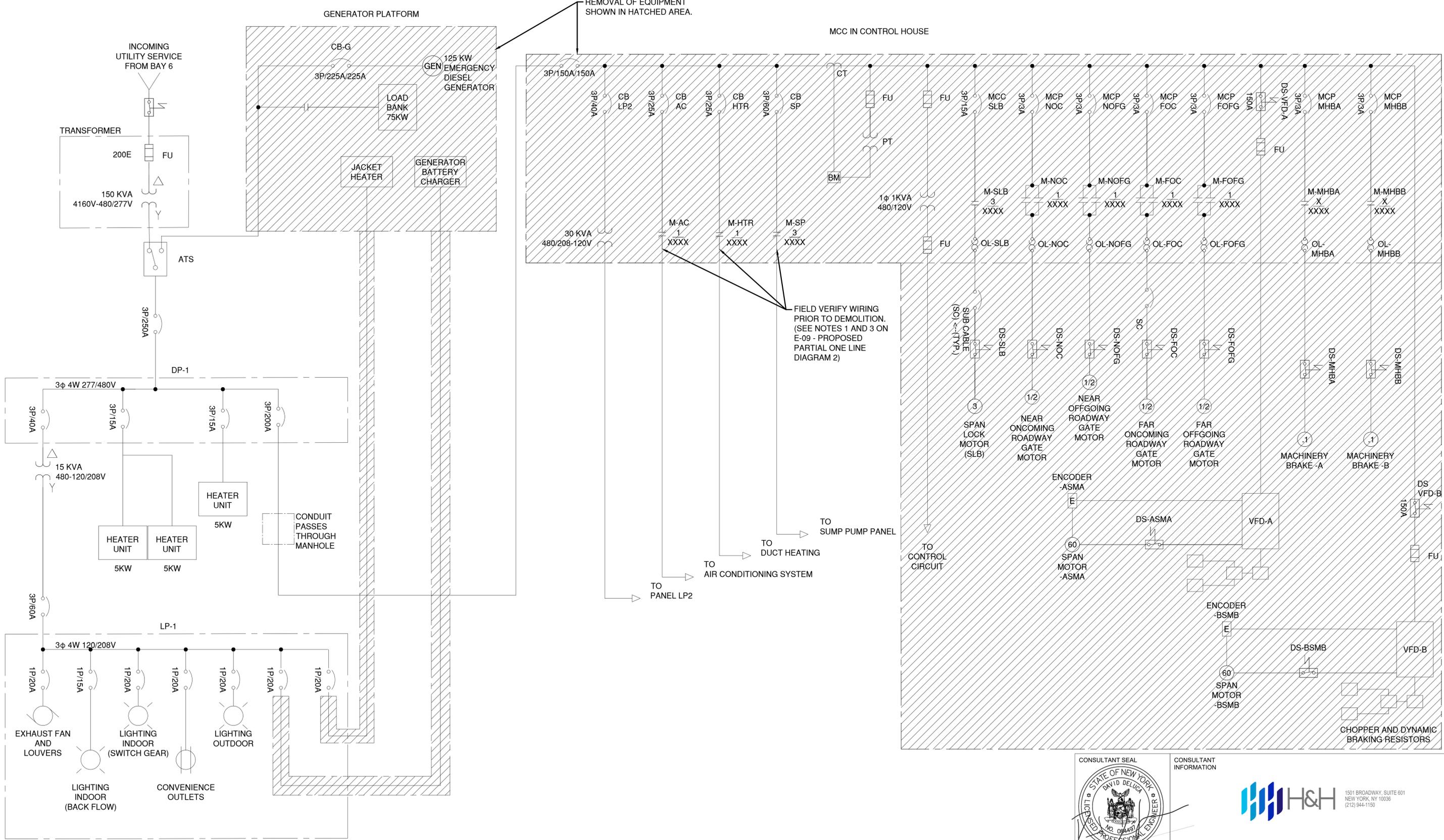
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 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
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DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER E-05
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 167 OF 212	
ELECTRICAL		SCALE: AS SHOWN	
GENERAL PLAN AND ELEVATION		DATE: 03/08/2024	REV. NO. 0
		DPW FILE NO. 5-04-E-602-0	

REMOVAL OF EQUIPMENT SHOWN IN HATCHED AREA.



CONSULTANT INFORMATION



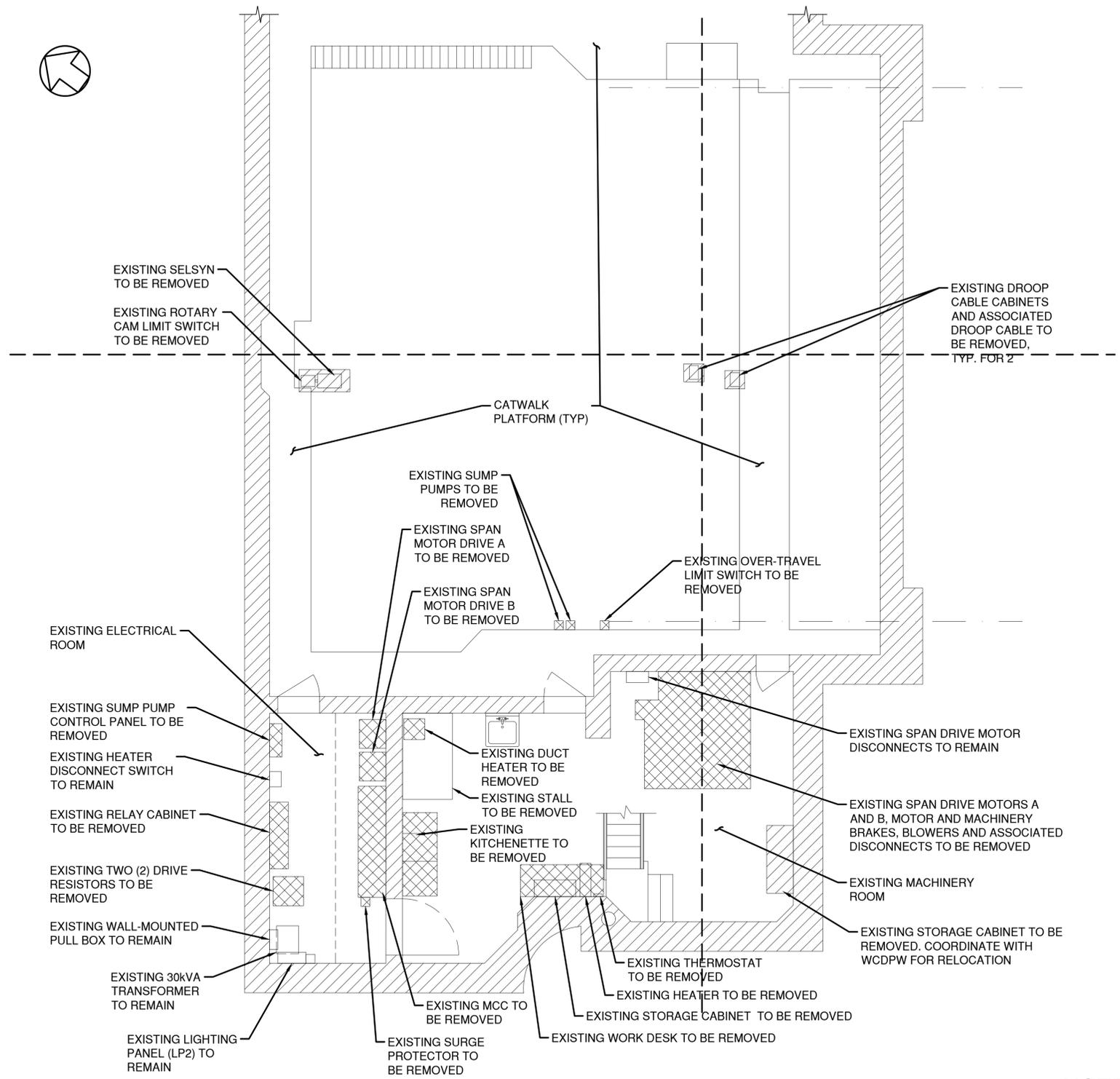
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 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

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DATE _____	DATE _____	DATE _____	DATE _____

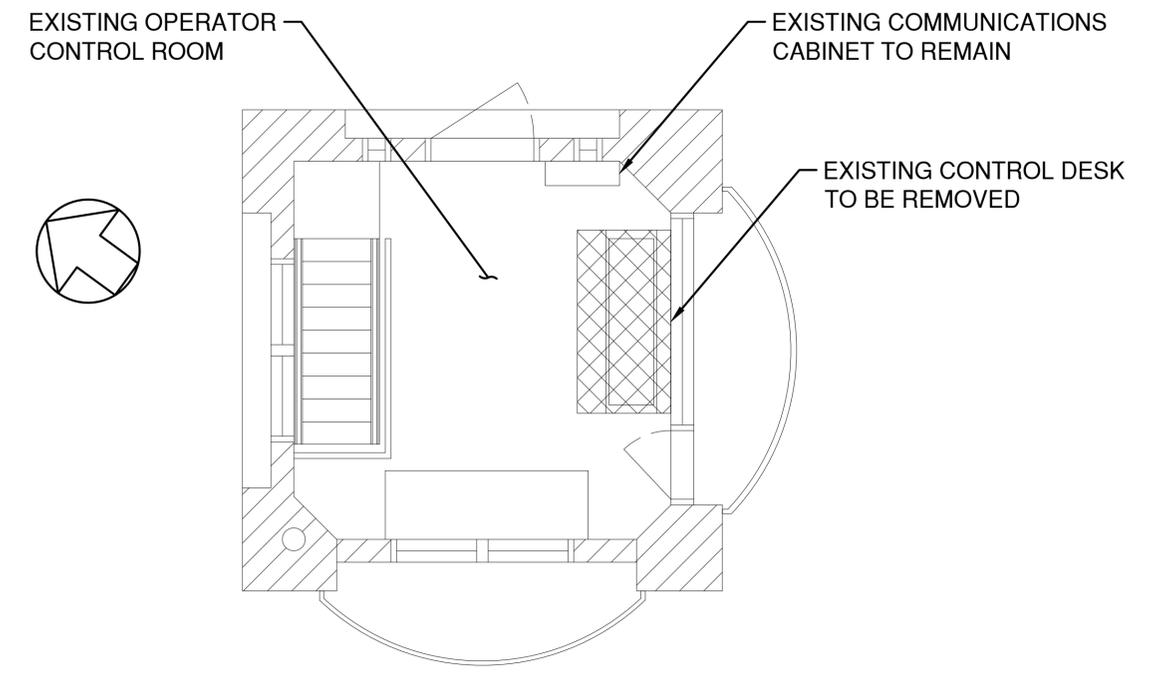
WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 ELECTRICAL  
**EXISTING PARTIAL ONE LINE DIAGRAM**

CONTRACT NUMBER 20-517	SHEET NUMBER E-06
SHEET No. 168 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-E-603-0	0



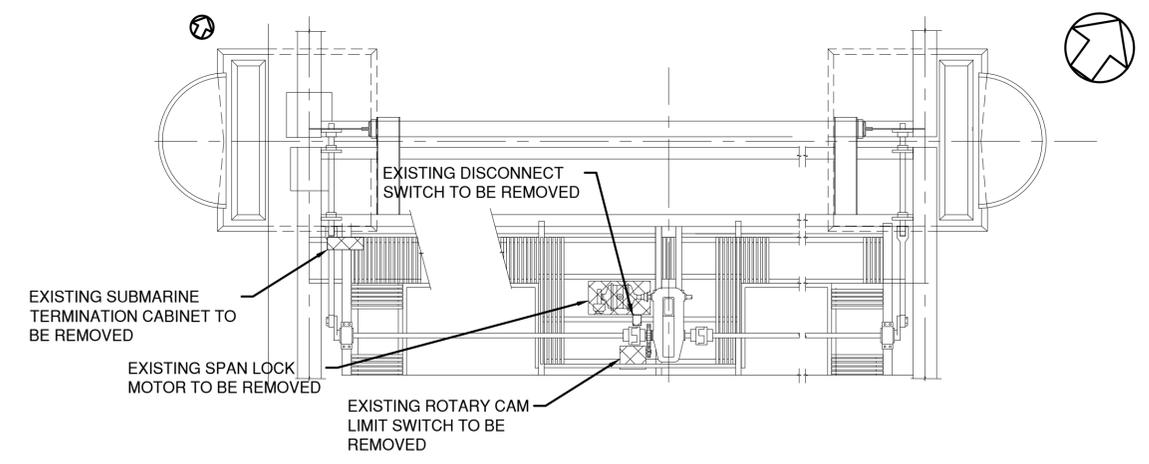
**CONTROL HOUSE LOWER LEVEL EQUIPMENT LAYOUT DEMOLITION PLAN**

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



**OPERATOR CONTROL ROOM DEMOLITION PLAN**

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

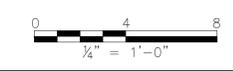


**EXISTING SPAN LOCK PLATFORM DEMOLITION PLAN**

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

**NOTES**

1. WORK ON THIS SHEET TO BE PAID UNDER ITEM 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM



CONSULTANT INFORMATION



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

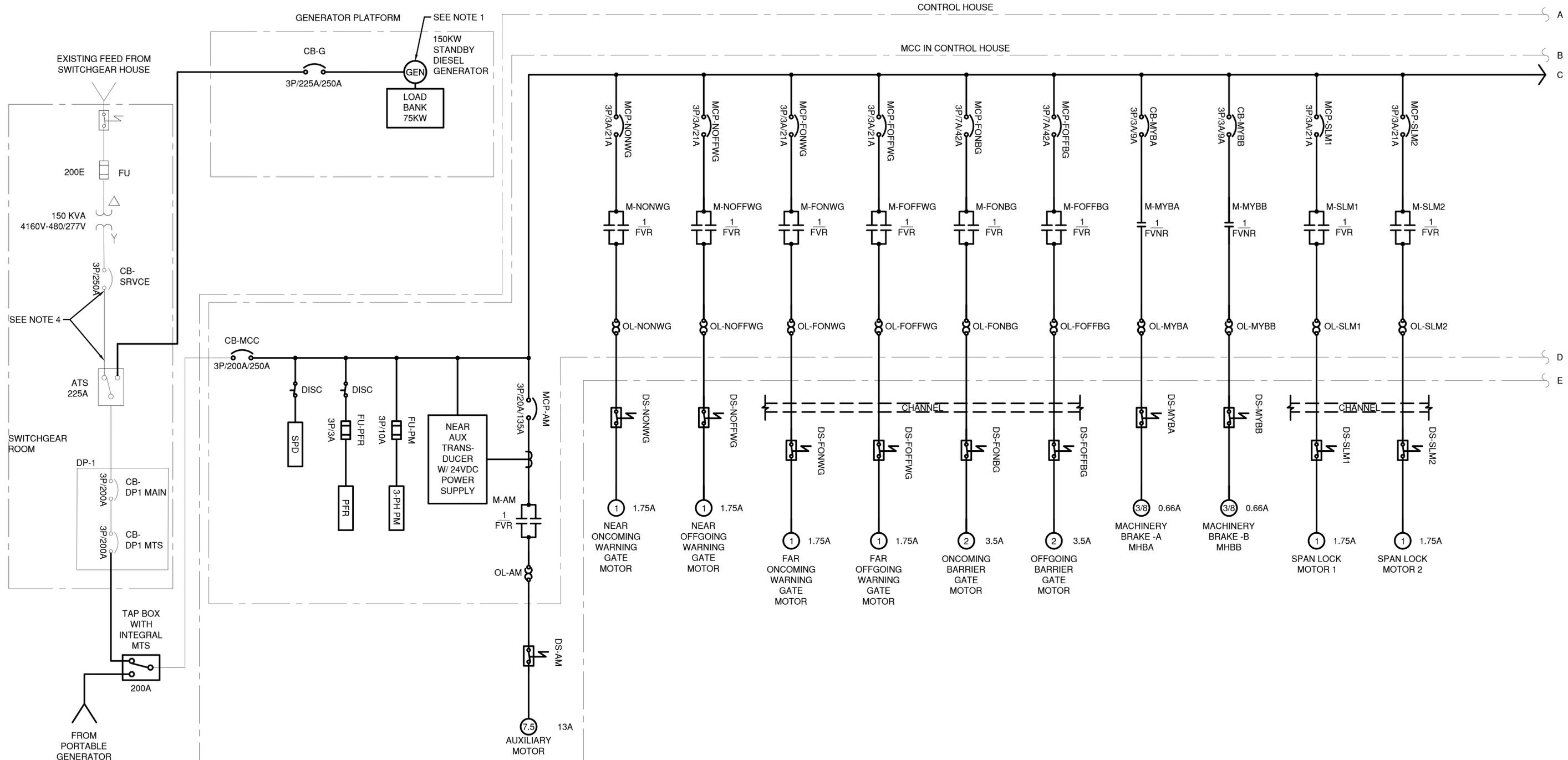
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CONTRACTOR		PROJECT COORDINATOR	
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TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 ELECTRICAL  
**EQUIPMENT LAYOUT - DEMOLITION PLAN**

CONTRACT NUMBER 20-517	SHEET NUMBER E-07
SHEET NO. 169 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-E-604-0	0





**NOTES:**

1. RECONNECT TO EXISTING LP1 PANELBOARD FOR ALL GENERATOR AUXILIARY POWER NEEDS INCLUDING BUT NOT LIMITED TO: JACKET HEATER, CONTROL PANEL POWER, BATTERY CHARGER, ETC.
2. MOTOR CIRCUIT PROTECTION (MCP) SETTINGS SHOWN ARE MAXIMUM NEC PERMISSIBLE SHORT CIRCUIT PROTECTION VALUES SUCH TO ALLOW FOR MOTOR STARTING BASED ON THE PARTICULAR MOTOR FLA AND THE MCP USED FOR DESIGN. CONTRACTOR SHALL FOLLOW MCP MANUFACTURER INSTALLATION INSTRUCTIONS AND SUCCESSIVELY LOWER THE SETTING TO SELECT THE LOWEST SETTING POSSIBLE.
3. ALL NECESSARY CARDS REQUIRED TO CONNECT DEVICE TO PLC SHALL BE PROVIDED WHETHER SPECIFICALLY SHOWN ON PLANS OR NOT, AT NO ADDITIONAL COST.
4. CONTRACTOR SHALL ADJUST CB-SERVICE CIRCUIT BREAKER TRIP SETTING TO 225A. IF UNABLE TO ADJUST THE CIRCUIT BREAKER, THEN THE CONTRACTOR SHALL REPLACE THE EXISTING CIRCUIT BREAKER WITH A CIRCUIT BREAKER THAT CAN BE SET TO 225A.

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____

CONSULTANT SEAL  
DAVID DELUCA  
NO. 04841  
REGISTERED PROFESSIONAL ENGINEER

CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

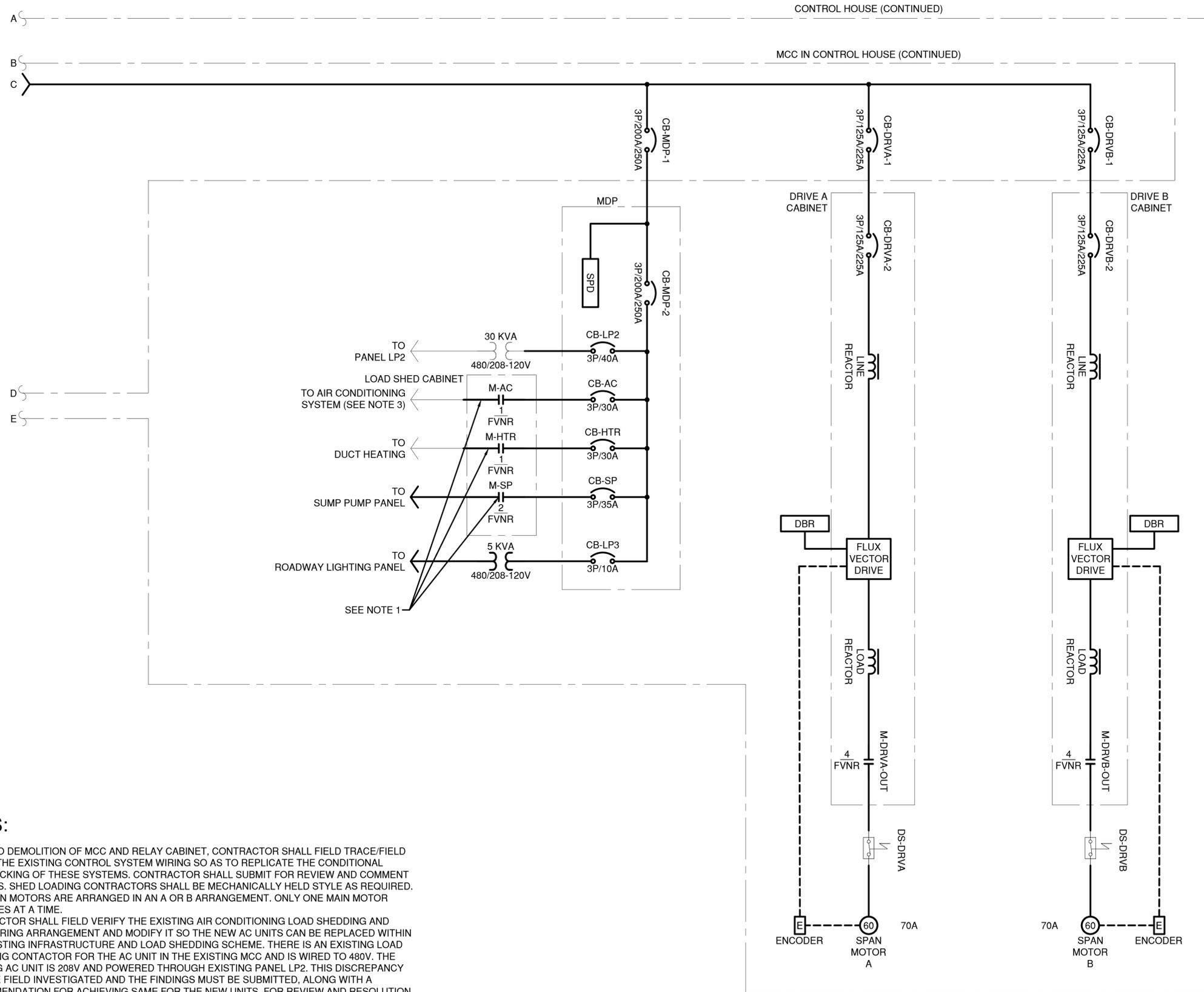
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

ELECTRICAL

**PROPOSED PARTIAL ONE LINE DIAGRAM 1**

CONTRACT NUMBER 20-517	SHEET NUMBER E-09
SHEET NO. 171 OF 212	
SCALE: AS SHOWN DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-E-606-0	0



**NOTES:**

1. PRIOR TO DEMOLITION OF MCC AND RELAY CABINET, CONTRACTOR SHALL FIELD TRACE/FIELD VERIFY THE EXISTING CONTROL SYSTEM WIRING SO AS TO REPLICATE THE CONDITIONAL INTERLOCKING OF THESE SYSTEMS. CONTRACTOR SHALL SUBMIT FOR REVIEW AND COMMENT FINDINGS. SHED LOADING CONTRACTORS SHALL BE MECHANICALLY HELD STYLE AS REQUIRED.
2. THE SPAN MOTORS ARE ARRANGED IN AN A OR B ARRANGEMENT. ONLY ONE MAIN MOTOR OPERATES AT A TIME.
3. CONTRACTOR SHALL FIELD VERIFY THE EXISTING AIR CONDITIONING LOAD SHEDDING AND FIELD WIRING ARRANGEMENT AND MODIFY IT SO THE NEW AC UNITS CAN BE REPLACED WITHIN THE EXISTING INFRASTRUCTURE AND LOAD SHEDDING SCHEME. THERE IS AN EXISTING LOAD SHEDDING CONTACTOR FOR THE AC UNIT IN THE EXISTING MCC AND IS WIRED TO 480V. THE EXISTING AC UNIT IS 208V AND POWERED THROUGH EXISTING PANEL LP2. THIS DISCREPANCY MUST BE FIELD INVESTIGATED AND THE FINDINGS MUST BE SUBMITTED, ALONG WITH A RECOMMENDATION FOR ACHIEVING SAME FOR THE NEW UNITS, FOR REVIEW AND RESOLUTION TO THE ENGINEER. THE CONTRACTOR SHALL ULTIMATELY BE REQUIRED TO ARRANGE THE NEW AC UNITS TO LOAD SHED UPON BRIDGE OPERATION SIMILAR TO HOW THE EXISTING INTERLOCKING OPERATES AND SHALL INCLUDE ALL COSTS TO DO SO (INCLUDING BUT NOT LIMITED TO FIELD INVESTIGATION) WITHIN THEIR BID PRICE.

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____



CONSULTANT INFORMATION

**H&H** 1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

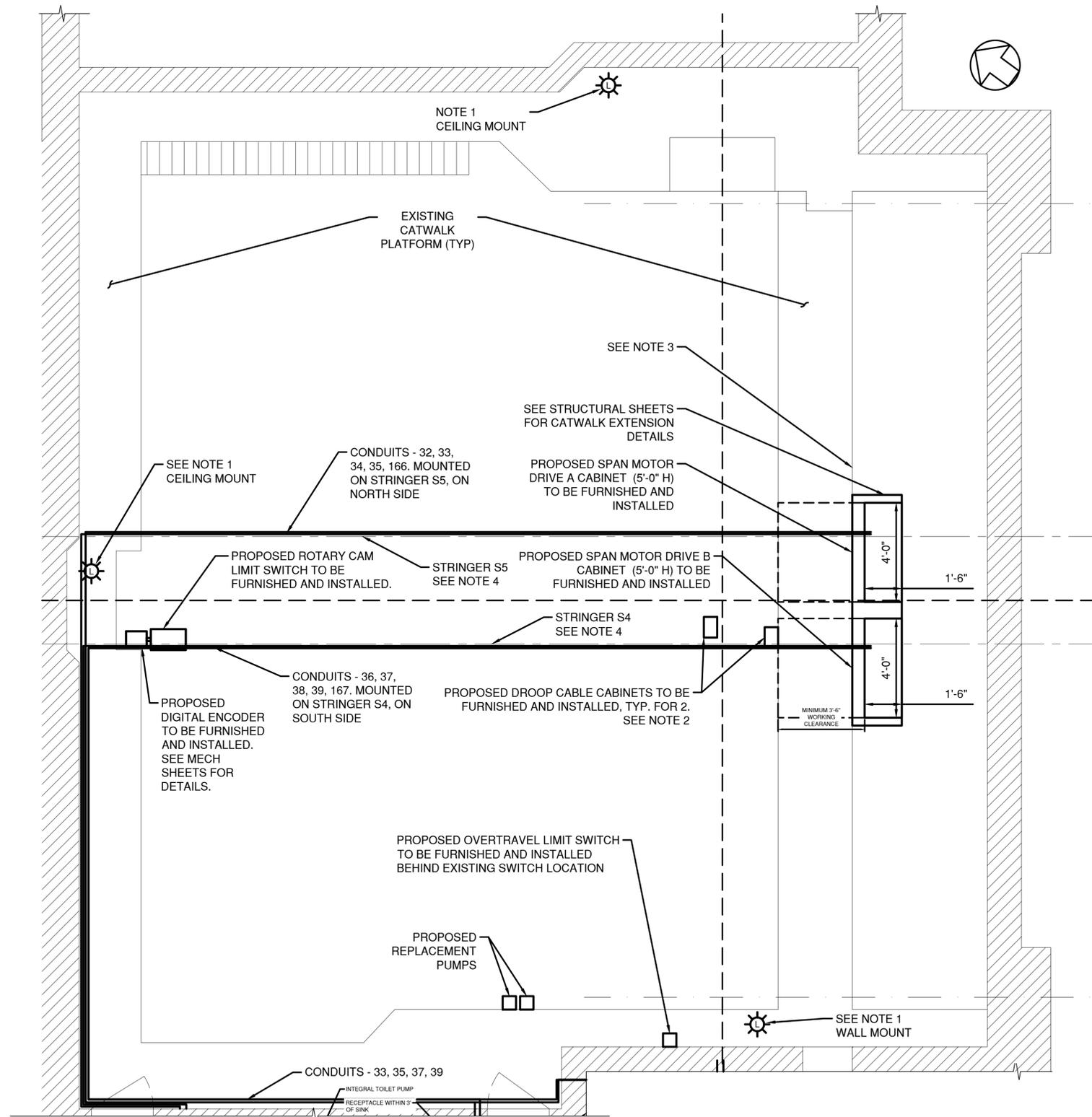
**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

ELECTRICAL

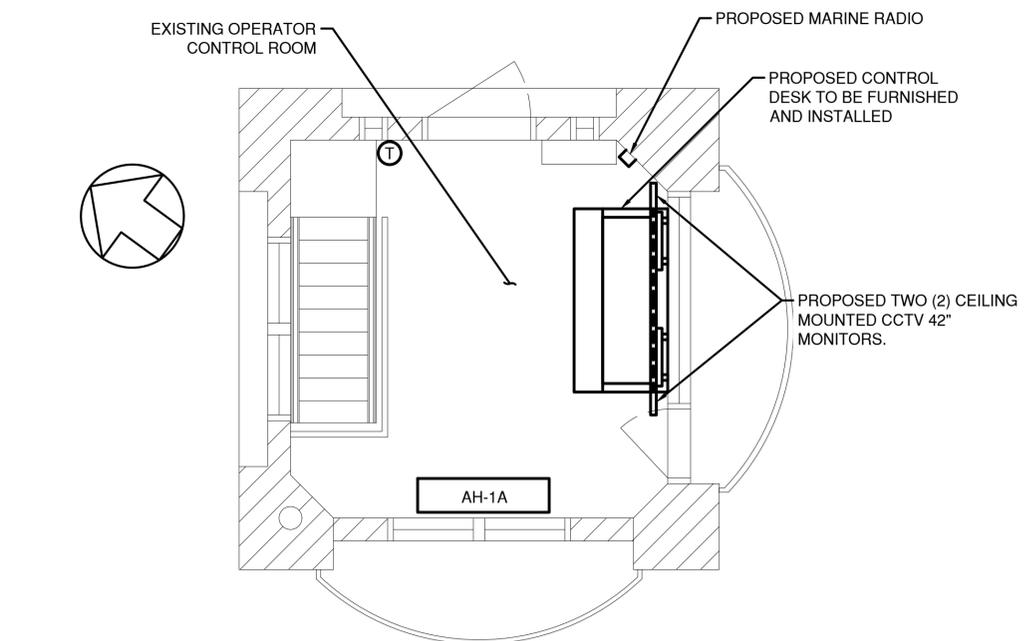
**PROPOSED PARTIAL ONE LINE DIAGRAM 2**

CONTRACT NUMBER 20-517	SHEET NUMBER E-10
SHEET NO. 172 OF 212	
SCALE: AS SHOWN DATE: 03/08/2024	
DPW FILE NO. 5-04-E-607-0	REV. NO. 0



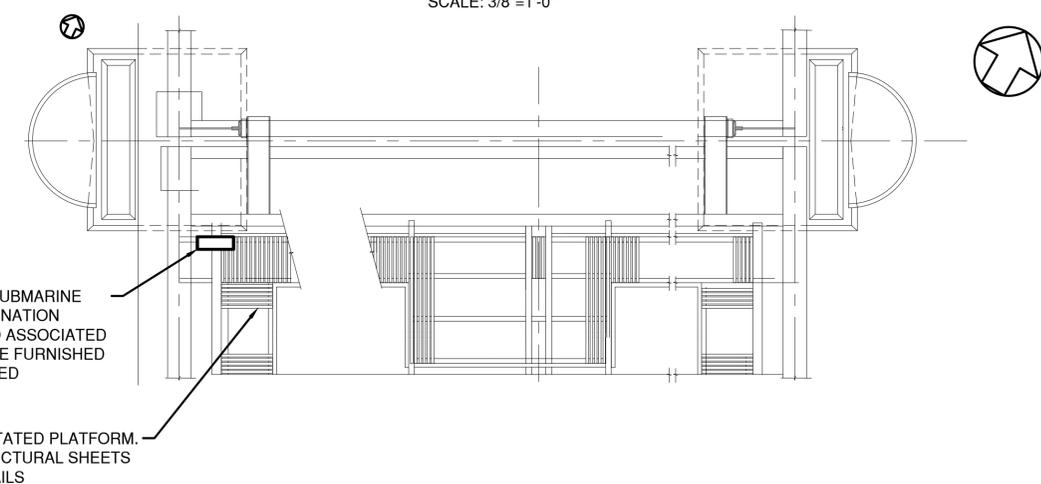
**PROPOSED CATWALK PLATFORM EQUIPMENT LAYOUT PLAN**

SCALE: 3/8"=1'-0"



**PROPOSED OPERATOR CONTROL ROOM PLAN**

SCALE: 3/8"=1'-0"



**PROPOSED SPAN LOCK PLATFORM POSITION PLAN**

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

**NOTES**

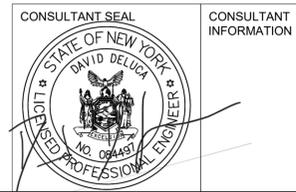
- FURNISH AND INSTALL A VAPORTITE GLOBE LED SERVICE LIGHT WHERE INDICATED. FURNISH AND INSTALL CONDUIT AND WIRING TO CONNECT NEW FIXTURE TO NEAREST LIGHTING CIRCUIT.
- FURNISH AND INSTALL MULTI-CONDUCTOR FLEXIBLE DROOP CABLES WITH STRAIN RELIEF SUPPORT GRIPS AND EYE BOLTS SIMILAR TO EXISTING. DROOP CABLES SHALL ENTER TERMINAL CABINETS THROUGH OZ GEDNEY TYPE GPE FITTINGS. DROOP CABLES SHALL BE MANUFACTURED BY DRAKA OR SIMILAR APPROVED BY ENGINEER. TERMINAL CABINETS SHALL BE NEMA 4X 316 SS AND SIZED TO MATCH EXISTING. CONTRACTOR TO SUBMIT MOUNTING FOR REVIEW AND APPROVAL.
- CONTRACTOR TO REROUTE AND MOUNT SWITCHES AND RECEPTACLES IN THE AREA OF THE PLATFORM MODIFICATION AS NECESSARY TO FACILITATE THE PLATFORM MODIFICATION
- SEE DRAWINGS S-27 FOR DRIVE CABINET PLATFORM DETAILS AND S-66 FOR DECK OVER COUNTER WEIGHT STRINGERS DETAILS.
- WIRE HVAC POWER WITH DS. AND CONTROL WIRING BETWEEN UNITS, PANEL, AND ITS THERMOSTAT (TSTAT). REFER TO HVAC DRAWINGS FOR COORDINATION AND REQUIREMENTS.
- SEE DRAWINGS:  
H-03 FOR PROPOSED HVAC.  
M-01 TO M-08 FOR PROPOSED MACHINERY.

- P-01 TO P-04 FOR PROPOSED PLUMBING.
- A-05 TO A-8 FOR PROPOSED ARCHITECTURAL DETAILS
- WORK ON THIS SHEET TO BE PAID UNDER ITEMS 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM, 599.142500WE - MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS, 599.142600WE - MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS INSTALLATION, 599.064000WE - MOVABLE BRIDGE ELECTRICAL TESTING
- REQUIRED CONDUIT FOR INDOOR LIGHTING, EMERGENCY LIGHTING, FIRE ALARM SYSTEM, AND HVAC NOT SHOWN.

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

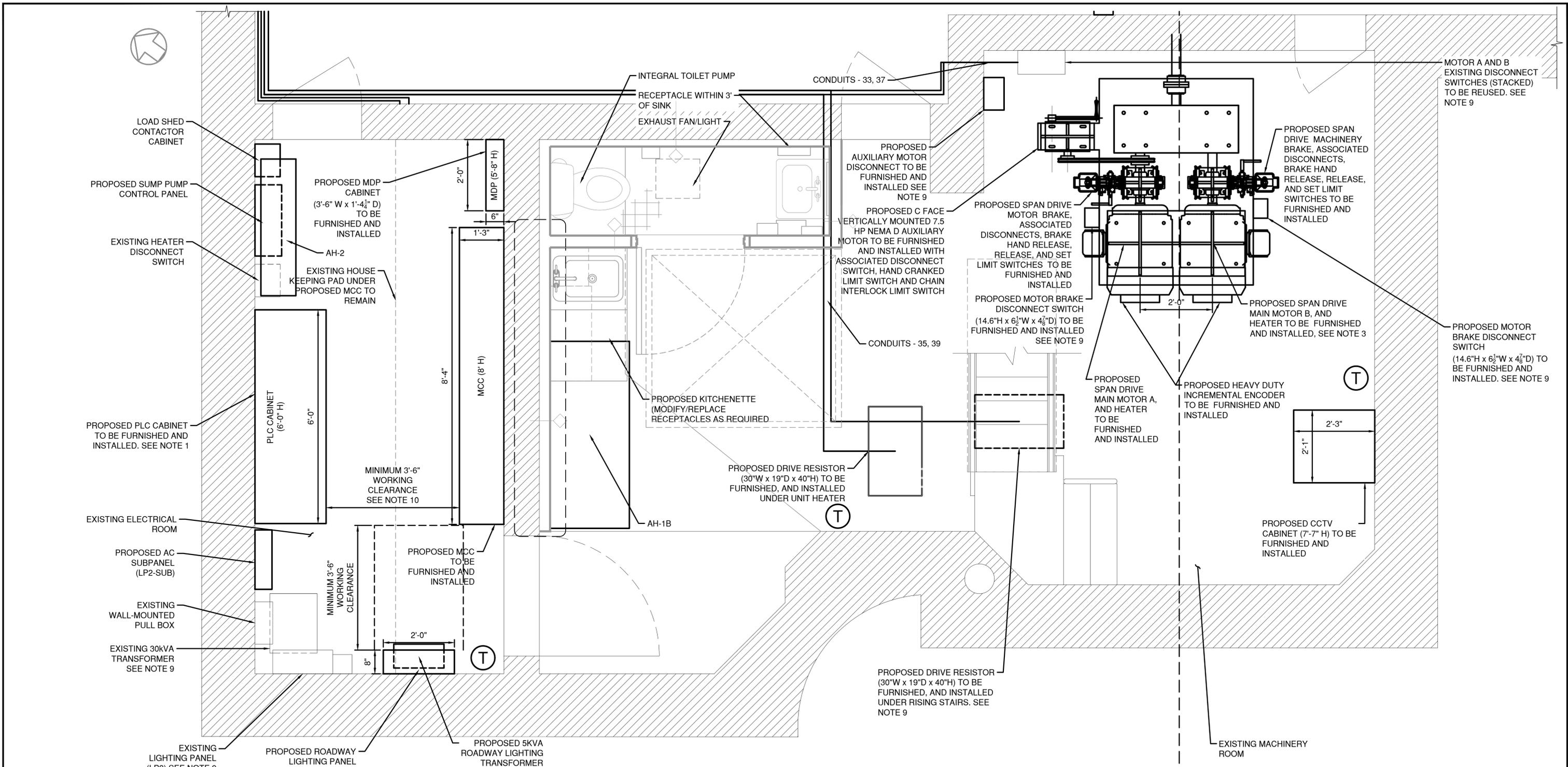
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____



**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 ELECTRICAL  
**PROPOSED EQUIPMENT LAYOUT PLAN 1**

CONTRACT NUMBER 20-517	SHEET NUMBER E-11
SHEET NO. 173 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-E-608-0	0



**CONTROL HOUSE LOWER LEVEL EQUIPMENT LAYOUT PROPOSED PLAN**

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

**NOTES**

1. CONTRACTOR SHALL REMOVE ANY DEBRIS/PIPING/ETC. FROM THE WALL THAT INHIBITS THE PLACEMENT OF THE PLC CABINET. CONTRACTOR SHALL MODIFY ANY CONDUIT ROUTING NECESSARY TO MAKE SPACE FOR THE PLC CABINET AS NECESSARY.
2. CONTRACTOR SHALL ALTER CONCRETE HOUSE KEEPING PAD AS REQUIRED.
3. MOTOR FRAME SIZE SHALL FIT WITHIN THIS DIMENSION FOR MOTORS MOUNTED IN PARALLEL. FIELD VERIFY MOTORS GEOMETRY FOR MOUNTING ON EXISTING SUPPORTS USING THE SAME MOUNTING HOLES.
4. FIELD VERIFY BRAKES GEOMETRY FOR MOUNTING ON EXISTING SUPPORTS USING THE SAME MOUNTING HOLES.
5. REFER TO MACHINERY DRAWING FOR MOTORS AND BRAKES COORDINATION WITH COUPLING AND MOUNTING REQUIREMENTS.
6. WIRE HVAC POWER WITH DS. AND CONTROL WIRING BETWEEN UNITS, PANEL, AND ITS THERMOSTAT (TSTAT). REFER TO HVAC DRAWINGS FOR COORDINATION AND REQUIREMENTS. SEE DRAWING H-03 FOR PROPOSED HVAC.
7. SEE DRAWINGS M-01 TO M-08 FOR PROPOSED MACHINERY.

8. SEE DRAWINGS P-01 TO P-04 FOR PROPOSED PLUMBING.
9. SEE DRAWINGS A-05 TO A-8 FOR PROPOSED ARCHITECTURAL DETAILS.
10. WORK ON THIS SHEET TO BE PAID UNDER ITEMS 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM, 599.064000WE - MOVABLE BRIDGE ELECTRICAL TESTING.
11. NOT TO BE SERVICED WHILE ENERGIZED DUE TO WORKING CLEARANCE.
12. WORKING CLEARANCE AS PER NEC 110.26(A)(1)(c).
13. REQUIRED CONDUIT FOR INDOOR LIGHTING, EMERGENCY LIGHTING, FIRE ALARM SYSTEM, HVAC, TOILET PUMP, RESTROOM EXHAUST FAN/LIGHT, AND RECEPTACLES NOT SHOWN.

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____



CONSULTANT INFORMATION



**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 ELECTRICAL  
**PROPOSED EQUIPMENT LAYOUT PLAN 2**

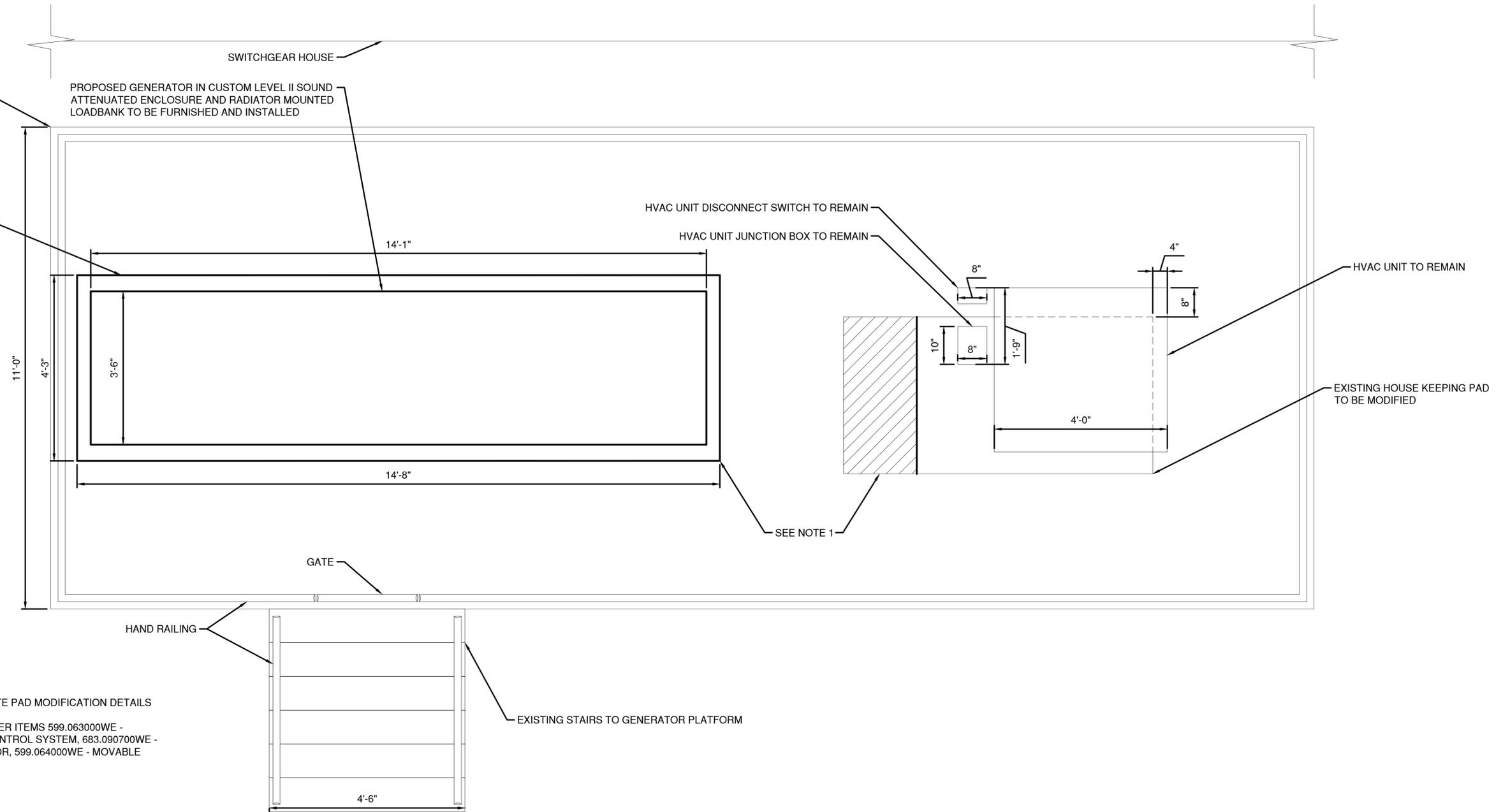
CONTRACT NUMBER 20-517	SHEET NUMBER E-12
SHEET NO. 174 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-E-609-0	0



EXISTING GENERATOR PLATFORM IS RAISED 53 3/4" FROM GROUND LEVEL.

PROPOSED GENERATOR IN CUSTOM LEVEL II SOUND ATTENUATED ENCLOSURE AND RADIATOR MOUNTED LOADBANK TO BE FURNISHED AND INSTALLED

EXISTING HOUSE KEEPING PAD TO BE MODIFIED TO ACCOMMODATE THE NEW GENERATOR

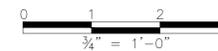


**NOTES**

1. CONTRACTOR SHALL SUBMIT CONCRETE PAD MODIFICATION DETAILS FOR REVIEW AND APPROVAL.
2. WORK ON THIS SHEET TO BE PAID UNDER ITEMS 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM, 683.090700WE - MOVABLE BRIDGE STANDBY GENERATOR, 599.064000WE - MOVABLE BRIDGE ELECTRICAL TESTING

**GENERATOR PLATFORM EQUIPMENT LAYOUT PROPOSED PLAN**

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



CONSULTANT INFORMATION

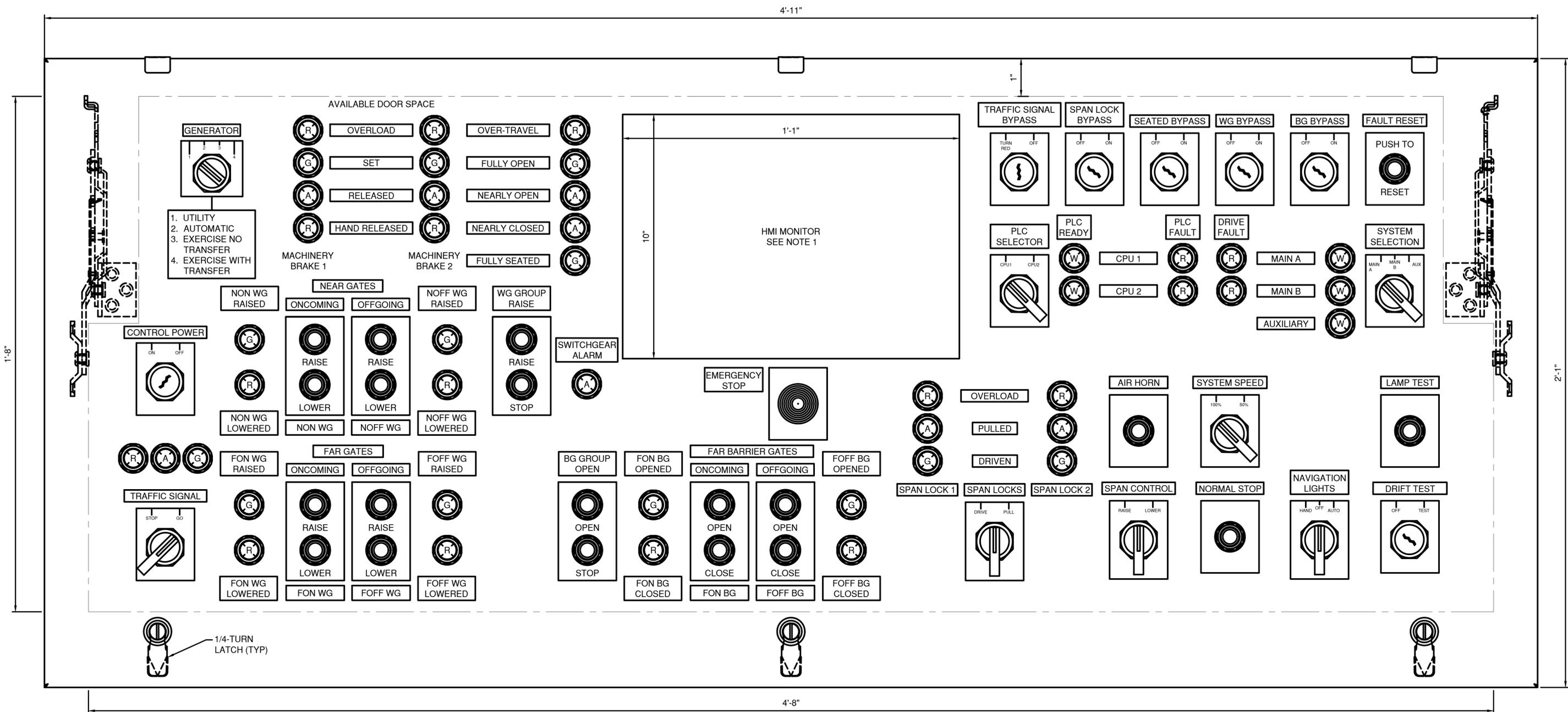


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 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

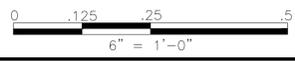
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER E-13
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle ELECTRICAL		SHEET NO. 175 OF 212	
PROP'D GENERATOR PLATFORM EQUIP LAYOUT		SCALE: AS SHOWN DATE: 03/08/2024	REV. NO. 0
		DPW FILE NO. 5-04-E-610-0	



- NOTES:
1. ALL POSITION DISPLAY, POWER, MOTOR CURRENTS, VOLTAGE METERING, ETC. SHALL BE DISPLAYED ON HMI.
  2. WORK ON THIS SHEET TO BE PAID UNDER ITEMS 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM, 683.090700WE - MOVABLE BRIDGE STANDBY GENERATOR, 599.064000WE - MOVABLE BRIDGE ELECTRICAL TESTING

**CONTROL DESK SLOPE DOOR DETAIL**  
SCALE: 6"=1'-0"



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

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PROJECT COORDINATOR		CONTRACTOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

CONSULTANT SEAL

CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

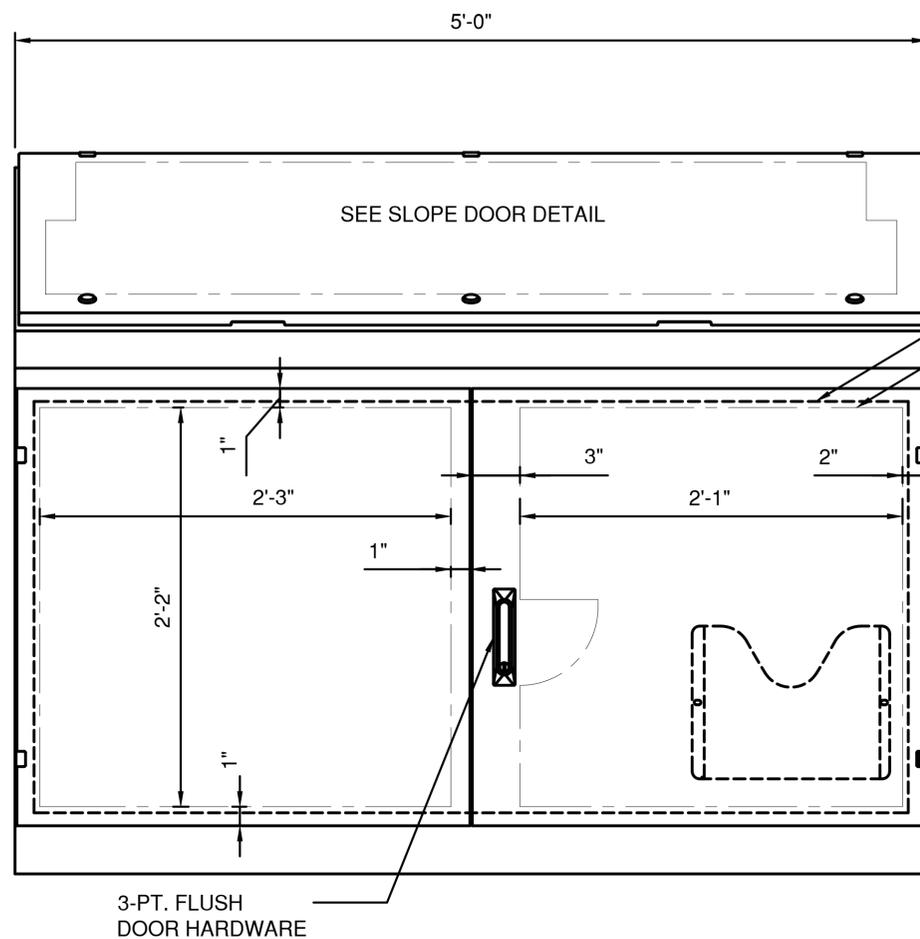
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

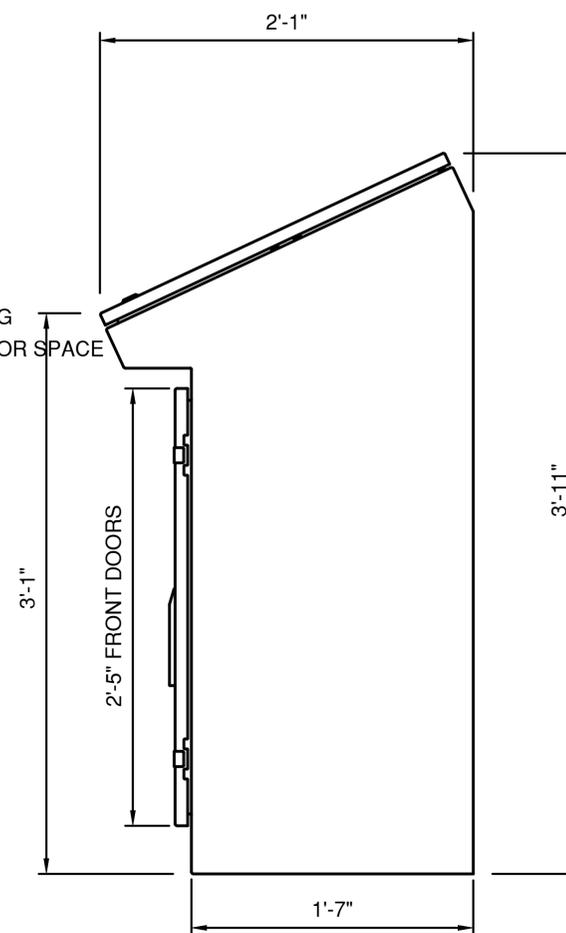
ELECTRICAL

**PROPOSED CONTROL DESK - LAYOUT**

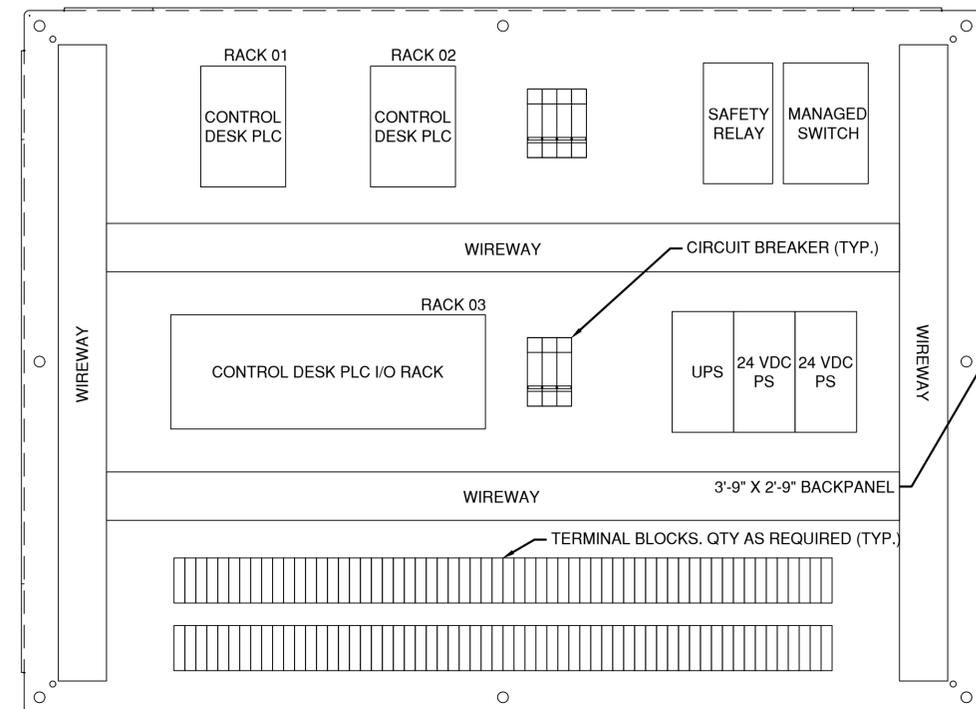
CONTRACT NUMBER 20-517	SHEET NUMBER E-14
SHEET NO. 176 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-E-611-0	0



FRONT VIEW  
SCALE: 3/8"=1'-0"



RIGHT SIDE VIEW  
SCALE: 3/8"=1'-0"



CONTROL DESK BACKPANEL



CONSULTANT INFORMATION

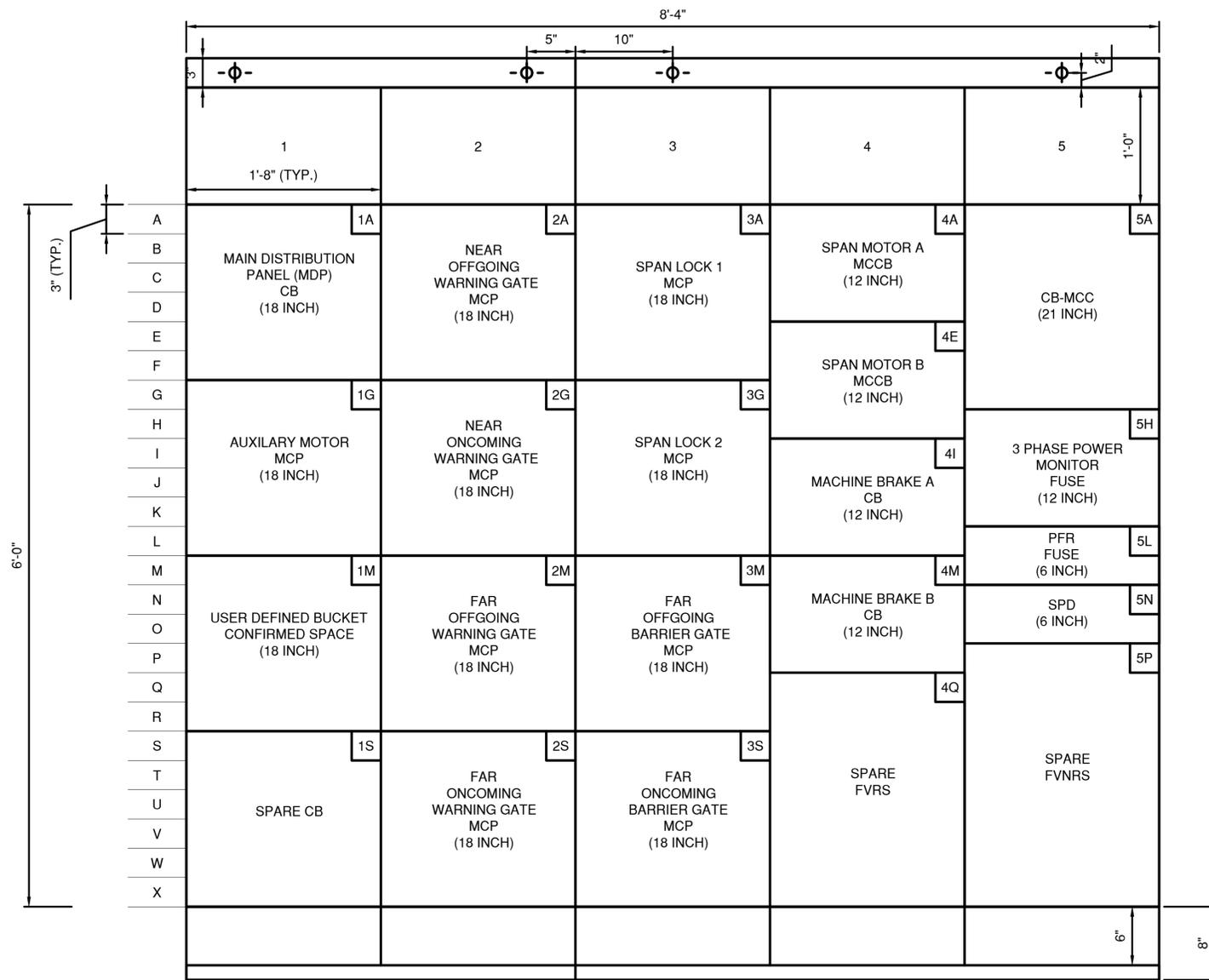


IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
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REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

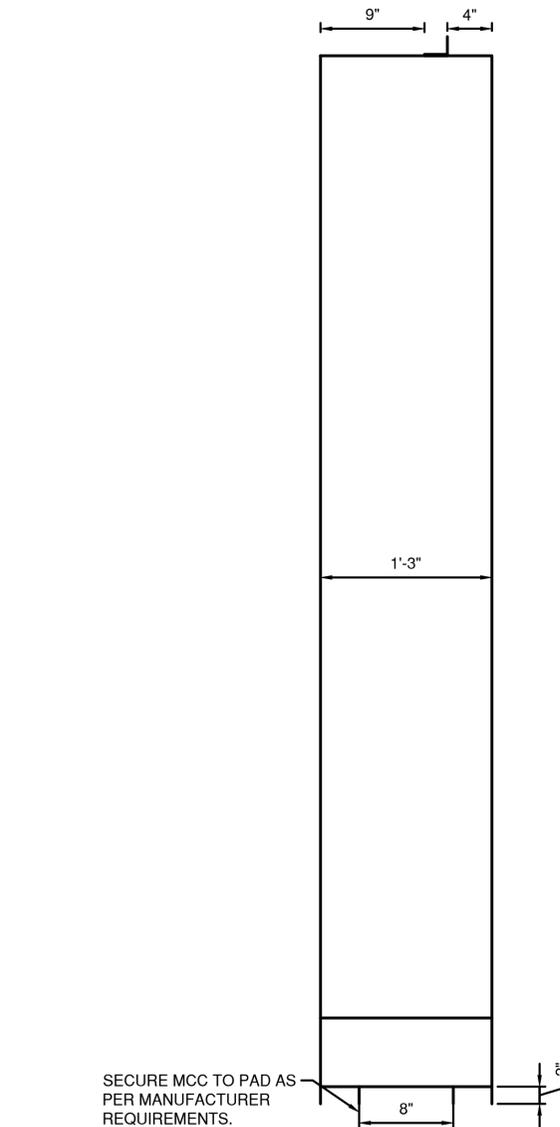
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER E-15
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 177 OF 212	
ELECTRICAL		SCALE: AS SHOWN DATE: 03/08/2024	
PROPOSED CONTROL DESK - ELEVATION		DPW FILE NO. 5-04-E-612-0	REV. NO. 0



PROPOSED MOTOR CONTROL CENTER - FRONT VIEW

(SCALE: 1'-1/2" = 1'-0")

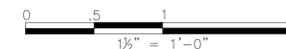


PROPOSED MOTOR CONTROL CENTER - SIDE VIEW

(SCALE: 1'-1/2" = 1'-0")

NOTES:

- MCC TO BE INSTALLED AND ANCHORED ON EXISTING HOUSE KEEPING PAD. HOUSE KEEPING PAD TO BE MODIFIED AS REQUIRED. CONTRACTOR TO SUBMIT MODIFICATION FOR REVIEW AND APPROVAL.
- AUXILIARY MOTOR, GATE MOTORS, SPAN LOCK MOTORS, AND BRAKES SHALL HAVE DOOR MOUNTED MANUAL CONTROLS
- ALL WIRING INTERNAL TO THE MCC SHALL BE SIS TYPE SWITCHBOARD WIRE.
- MCC SHALL HAVE NAMEPLATES ON EACH BUCKET IDENTIFYING THE DEVICE BEING CONTROLLED AS WELL AS THE VARIOUS CONTROL DEVICES ON EACH MCC BUCKET. ALL NAMEPLATES SHALL BE WHITE WITH BLACK LETTERING UNLESS OTHERWISE SPECIFIED.
- WORK ON THIS SHEET TO BE PAID UNDER ITEMS 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM, 599.064000WE - MOVABLE BRIDGE ELECTRICAL TESTING



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____	DATE _____	DATE _____



CONSULTANT INFORMATION



WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 ELECTRICAL  
**PROPOSED MOTOR CONTROL CENTER LAYOUT**

CONTRACT NUMBER 20-517	SHEET NUMBER E-16
SHEET NO. 178 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-E-613-0	REV. NO. 0

**LIGHTING AND POWER PANELS LP-2 208/120V SCHEDULE  
LOCATION: CONTROL HOUSE MACHINERY LEVEL  
100 AMP MAIN**

CKT	SERVICE	AMPS	MAIN	A	B	C	AMPS	SERVICE	CKT
1	MAIN	80	[Diagram]	A	B	C	15	MARINE HORN	2
3							15	EQUIPMENT HEATERS	4
5							15	BASCULE LIGHTS	6
7							20	WARNING GATES GONG, LIGHTS	8
9							20	TRAFFIC SIGNALS	10
11	20	PIER NAVIGATION LIGHTS	15	CONSOLE LIGHTS	12				
13	15	BASCULE & MACHINE ROOM LIGHTS	20	SWITCH GEAR ALARMS	14				
15	20	ELECTRIC ROOM LIGHTS	20	BASCULE & MACHINE ROOM RECEPTACLES	16				
17	15	TOILET	20	PANEL RECEPTACLES	18				
19	40	WEYMAN AVE ROAD LIGHTS	20	HEAT TRACE	20				
21	15	WEYMAN AVE SIDEWALK LIGHTS	50	DRYER & REFRIGERATOR	22				
23					24				
25	30	A/C	30	WATER HEATER	26				
27					28				
29					20	CONTROL ROOM LIGHTS	30		

**SERVICE CHARACTERISTICS**  
208/120 VOLT, 3 PHASE, 4 WIRE, SPLIT BUS  
ALL CIRCUIT BREAKERS ARE 1 POLE 15 AMPERES UNLESS OTHERWISE NOTED

**LIGHTING AND POWER PANELS LP-2 208/120V SCHEDULE  
LOCATION: CONTROL HOUSE MACHINERY LEVEL  
100 AMP MAIN**

CKT	SERVICE	AMPS	MAIN	A	B	C	AMPS	SERVICE	CKT
1	MAIN	80	[Diagram]	A	B	C	15	MARINE HORN	2
3							15	EQUIPMENT HEATERS	4
5							15	BASCULE LIGHTS	6
7							20	WARNING GATES GONG, LIGHTS	8
9							20	TRAFFIC SIGNALS	10
11	20	PIER NAVIGATION LIGHTS	15	CONTROL DESK LIGHTS, RECEPTACLE, HEATER	12				
13	15	BASCULE & MACHINE ROOM LIGHTS	20	MCC LIGHTS, RECEPTACLE	14				
15	20	ELECTRIC ROOM LIGHTS	20	BASCULE & MACHINE ROOM RECEPTACLES	16				
17	15	TOILET	20	PLC CABINET LIGHTS, RECEPTACLE, HEATER	18				
19	20	RESTROOM FAN/LIGHT, RECEPTACLE	20	HEAT TRACE	20				
21	15	FIRE ALARM SYSTEM	50	DRYER & REFRIGERATOR	22				
23	15	GATE HEATERS			24				
25	60	AC SUB PANEL (SEE NOTES 3 AND 4)	30	WATER HEATER	26				
27					28				
29					20	CONTROL ROOM LIGHTS	30		

**SERVICE CHARACTERISTICS**  
208/120 VOLT, 3 PHASE, 4 WIRE, SPLIT BUS  
ALL CIRCUIT BREAKERS ARE 1 POLE 15 AMPERES UNLESS OTHERWISE NOTED

**EXISTING LP2**

**MODIFICATIONS TO EXISTING LP2**

**NOTES:**

- INFORMATION, SCHEMATICS, AND LAYOUTS SHOWN ON THIS DRAWING WERE OBTAINED IN PART OR WHOLE FROM THE EXISTING DOCUMENTS. THE INFORMATION SHOWN IS APPROXIMATE. EQUIPMENT, CONDUIT, CONTROL SYSTEM MODIFICATIONS, AND WIRING REPLACEMENT WORK SHOWN IS INTENDED TO BE USED TO SHOW LEVEL OF EFFORT FOR ELECTRICAL WORK AND FOR CONTRACTORS USE IN DETERMINING MEANS AND METHODS TO PERFORM THE WORK. CONTACTOR SHALL FIELD VERIFY ALL EXISTING AND NEW WORK SHOWN.
- WORK ON THIS SHEET TO BE PAID UNDER ITEMS 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM, 599.064000WE - MOVABLE BRIDGE ELECTRICAL TESTING
- AC SUBPANEL SHALL HAVE A 2 POLE 30A CIRCUIT BREAKER FOR THE OUTDOOR 3 TON AC UNIT, A 2 POLE 15A CIRCUIT BREAKER FOR THE TWO INDOOR AIR HANDLERS CONNECTED TO THE 3 TON UNIT, A 2 POLE 15A CIRCUIT BREAKER FOR THE 1.5 TON AC UNIT, AND A SINGLE POLE 15A CIRCUIT BREAKER FOR THE CONDENSATE PUMP.
- CONTRACTOR SHALL FIELD VERIFY THE EXISTING AIR CONDITIONING LOAD SHEDDING AND FIELD WIRING

ARRANGEMENT AND MODIFY IT SO THE NEW AC UNITS CAN BE REPLACED WITHIN THE EXISTING INFRASTRUCTURE AND LOAD SHEDDING SCHEME. THERE IS AN EXISTING LOAD SHEDDING CONTACTOR FOR THE AC UNIT IN THE EXISTING MCC AND IS WIRED TO 480V. THE EXISTING AC UNIT IS 208V AND POWERED THROUGH EXISTING PANEL LP2. THIS DISCREPANCY MUST BE FIELD INVESTIGATED AND THE FINDINGS MUST BE SUBMITTED, ALONG WITH A RECOMMENDATION FOR ACHIEVING SAME FOR THE NEW UNITS, FOR REVIEW AND RESOLUTION TO THE ENGINEER. THE CONTRACTOR SHALL ULTIMATELY BE REQUIRED TO ARRANGE THE NEW AC UNITS TO LOAD SHED UPON BRIDGE OPERATION SIMILAR TO HOW THE EXISTING INTERLOCKING OPERATES AND SHALL INCLUDE ALL COSTS TO DO SO (INCLUDING BUT NOT LIMITED TO FIELD INVESTIGATION) WITHIN THEIR BID PRICE.



IN CHARGE OF D. DELUCA, PE  
CHECKED BY A. NOBLE, PE  
MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

**RECORD DRAWING CERTIFICATION**

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____

CONSULTANT SEAL  
CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

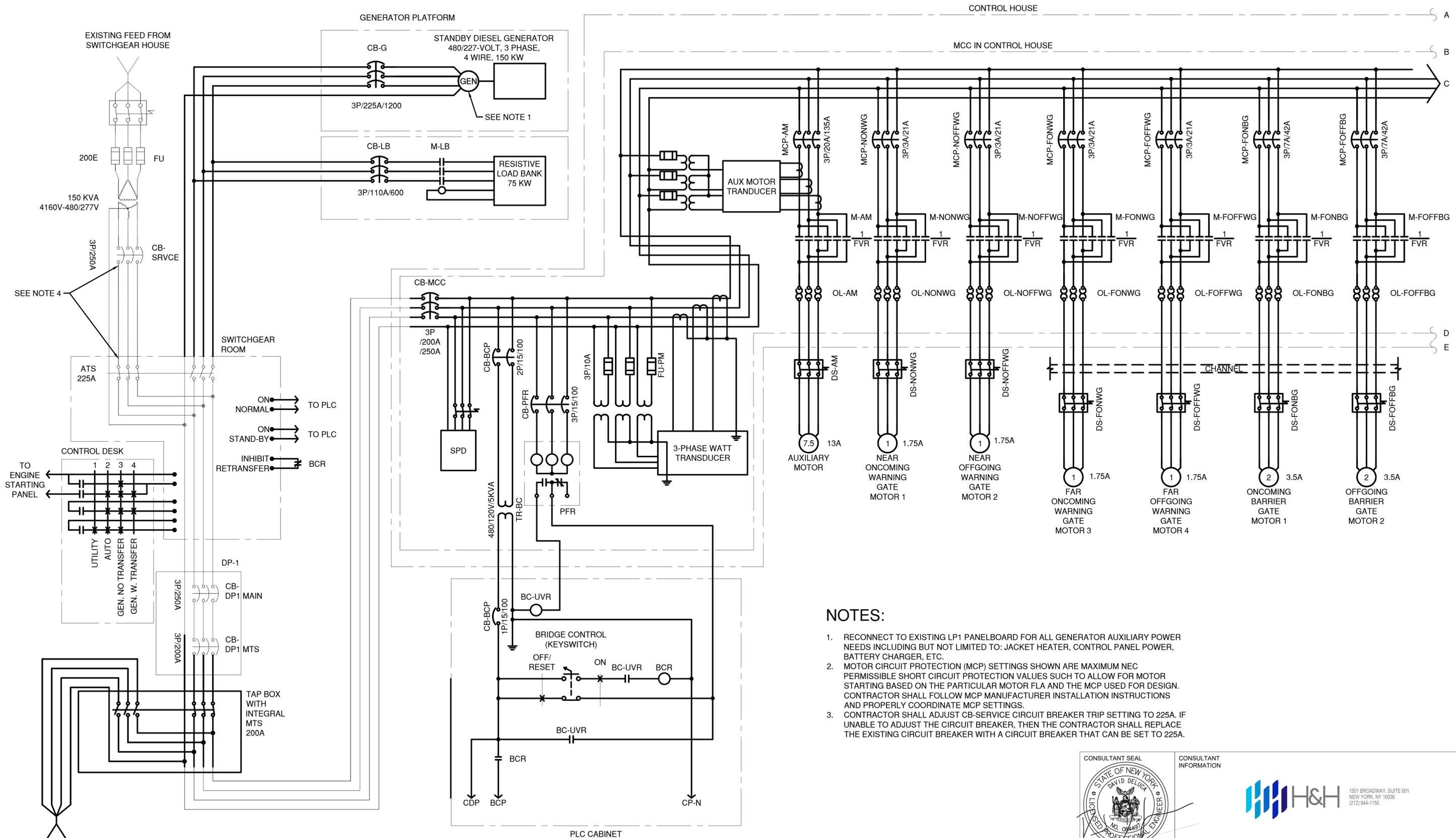
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle

**ELECTRICAL**

**PROPOSED MODIFICATIONS TO LP2**

CONTRACT NUMBER 20-517	SHEET NUMBER E-17
SHEET NO. 179 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-E-614-0	0



**NOTES:**

1. RECONNECT TO EXISTING LP1 PANELBOARD FOR ALL GENERATOR AUXILIARY POWER NEEDS INCLUDING BUT NOT LIMITED TO: JACKET HEATER, CONTROL PANEL POWER, BATTERY CHARGER, ETC.
2. MOTOR CIRCUIT PROTECTION (MCP) SETTINGS SHOWN ARE MAXIMUM NEC PERMISSIBLE SHORT CIRCUIT PROTECTION VALUES SUCH AS TO ALLOW FOR MOTOR STARTING BASED ON THE PARTICULAR MOTOR FLA AND THE MCP USED FOR DESIGN. CONTRACTOR SHALL FOLLOW MCP MANUFACTURER INSTALLATION INSTRUCTIONS AND PROPERLY COORDINATE MCP SETTINGS.
3. CONTRACTOR SHALL ADJUST CB-SERVICE CIRCUIT BREAKER TRIP SETTING TO 225A. IF UNABLE TO ADJUST THE CIRCUIT BREAKER, THEN THE CONTRACTOR SHALL REPLACE THE EXISTING CIRCUIT BREAKER WITH A CIRCUIT BREAKER THAT CAN BE SET TO 225A.



CONSULTANT INFORMATION



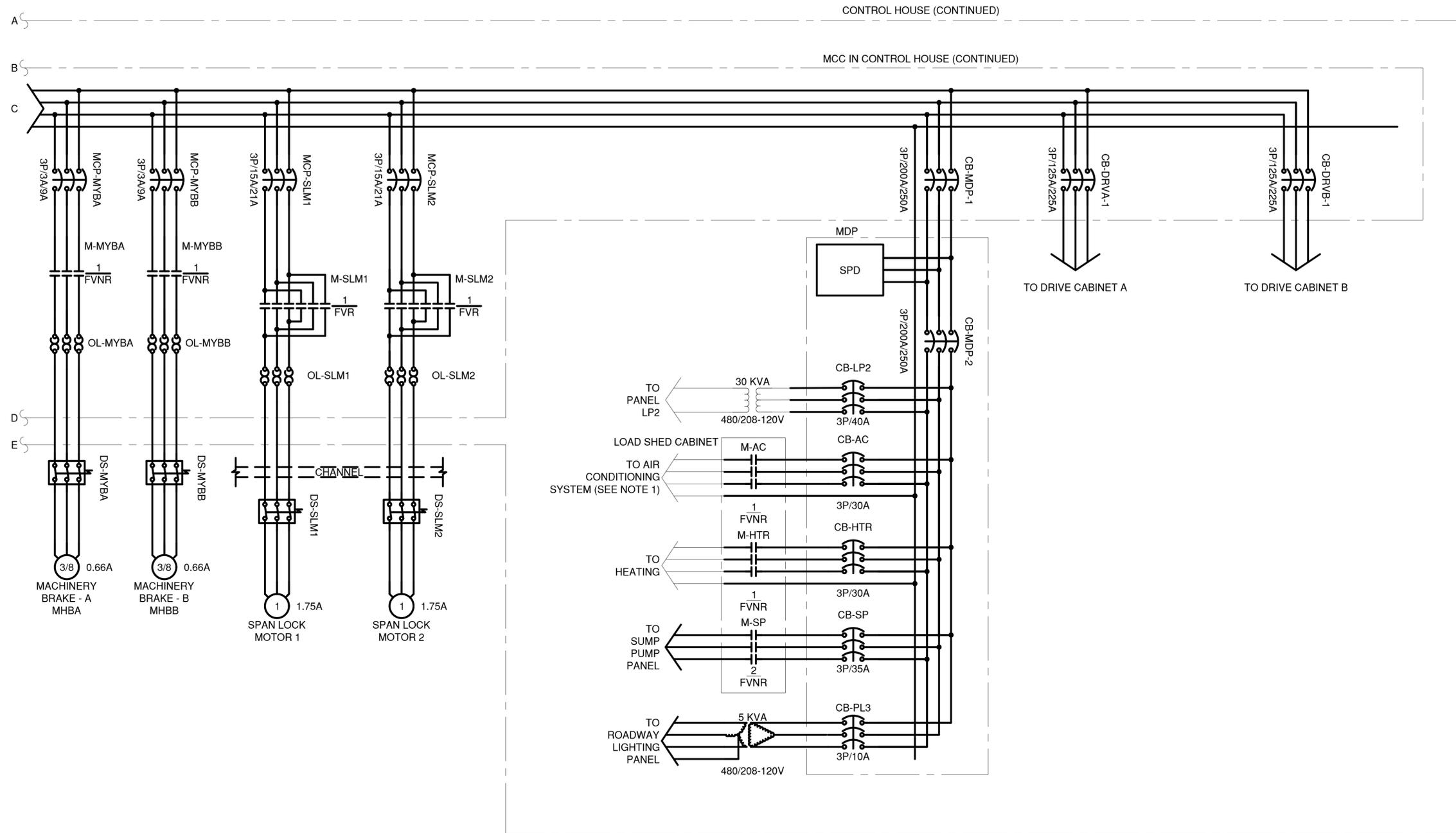
IN CHARGE OF D. DELUCA, PE  
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REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

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CONTRACTOR		PROJECT COORDINATOR	
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SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 ELECTRICAL  
**PROPOSED PARTIAL THREE LINE DIAGRAM 1**

CONTRACT NUMBER 20-517	SHEET NUMBER E-18
SHEET NO. 180 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-E-615-0	0



**NOTES:**

- CONTRACTOR SHALL FIELD VERIFY THE EXISTING AIR CONDITIONING LOAD SHEDDING AND FIELD WIRING ARRANGEMENT AND MODIFY IT SO THE NEW AC UNITS CAN BE REPLACED WITHIN THE EXISTING INFRASTRUCTURE AND LOAD SHEDDING SCHEME. THERE IS AN EXISTING LOAD SHEDDING CONTACTOR FOR THE AC UNIT IN THE EXISTING MCC AND IS WIRED TO 480V. THE EXISTING AC UNIT IS 208V AND POWERED THROUGH EXISTING PANEL LP2. THIS DISCREPANCY MUST BE FIELD INVESTIGATED AND THE FINDINGS MUST BE SUBMITTED, ALONG WITH A RECOMMENDATION FOR ACHIEVING SAME FOR THE NEW UNITS, FOR REVIEW AND RESOLUTION TO THE ENGINEER. THE CONTRACTOR SHALL ULTIMATELY BE REQUIRED TO ARRANGE THE NEW AC UNITS TO LOAD SHED UPON BRIDGE OPERATION SIMILAR TO HOW THE EXISTING INTERLOCKING OPERATES AND SHALL INCLUDE ALL COSTS TO DO SO (INCLUDING BUT NOT LIMITED TO FIELD INVESTIGATION) WITHIN THEIR BID PRICE.

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
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DATE _____	DATE _____	DATE _____	DATE _____



CONSULTANT INFORMATION



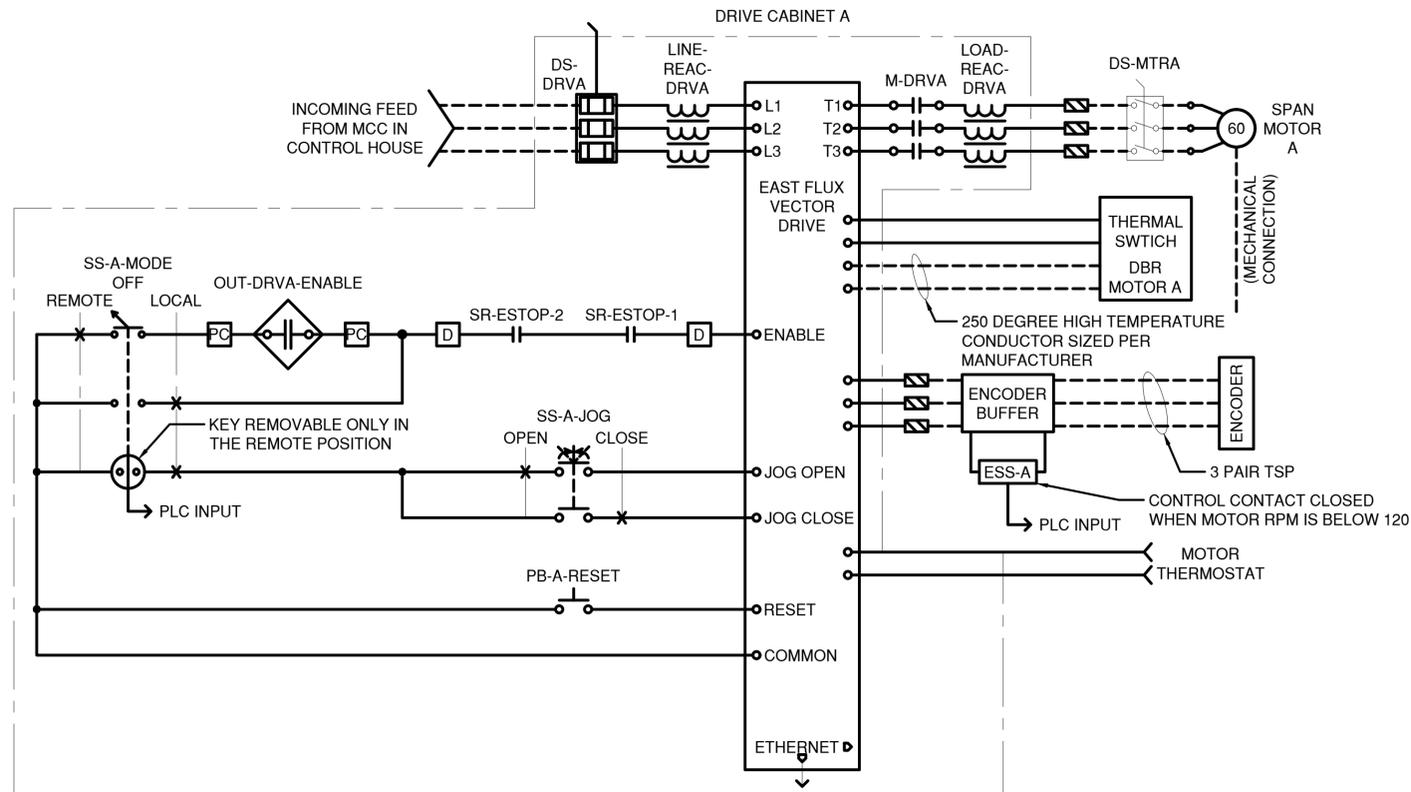
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

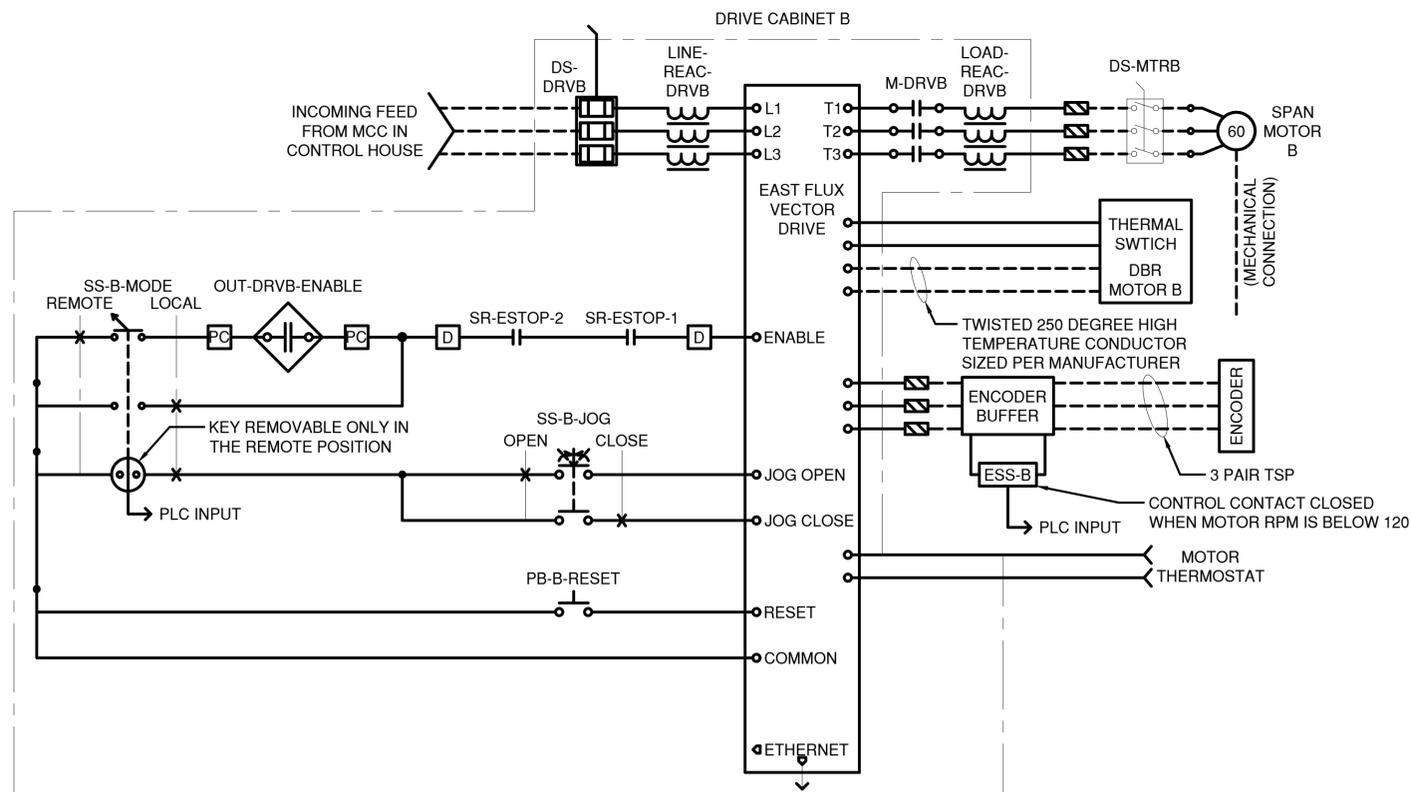
ELECTRICAL

**PROPOSED PARTIAL THREE LINE DIAGRAM 2**

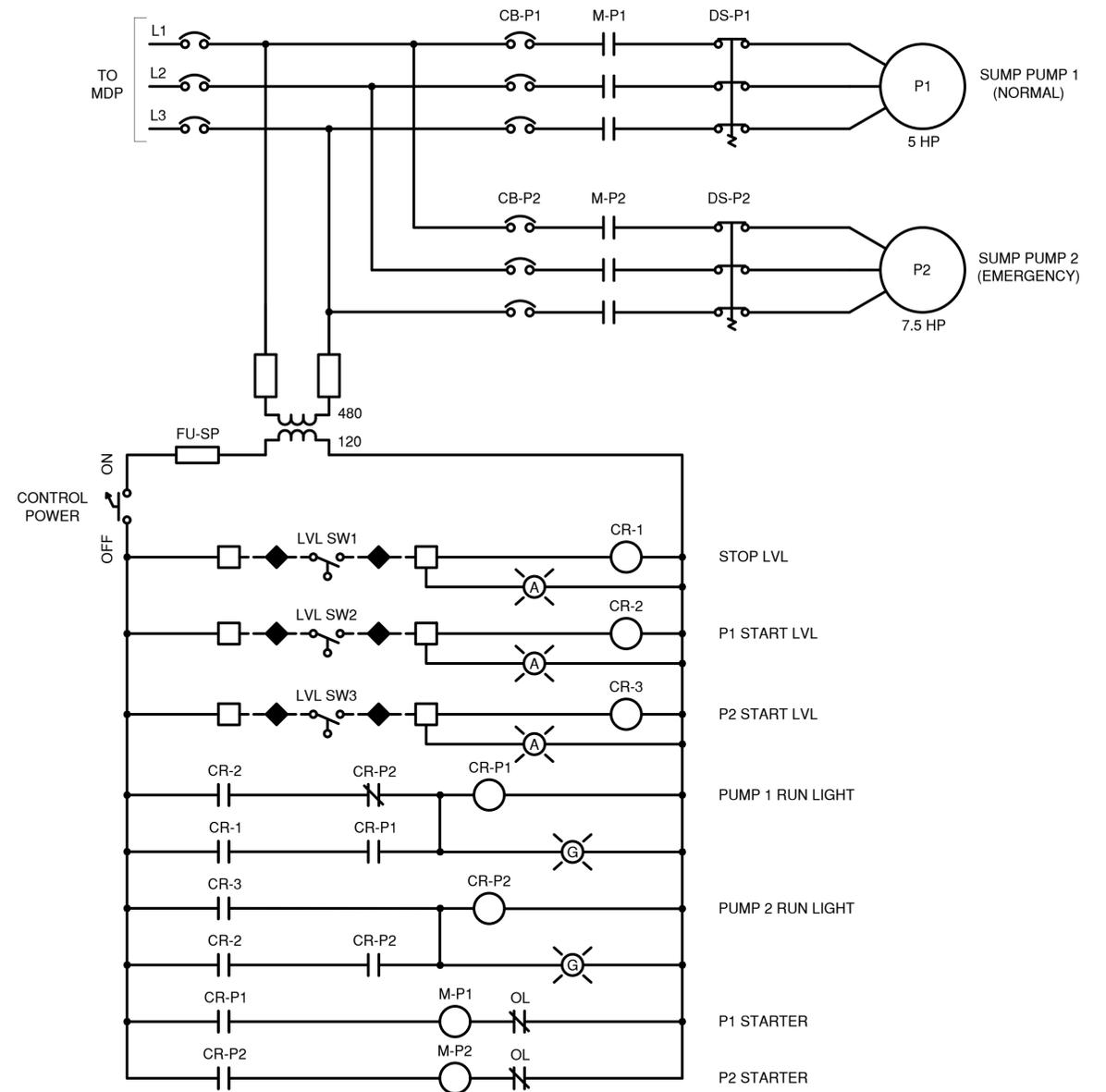
CONTRACT NUMBER 20-517	SHEET NUMBER E-19
SHEET NO. 181 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-E-616-0	0



DRIVE SCHEMATIC A



DRIVE SCHEMATIC B



PUMP PANEL

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

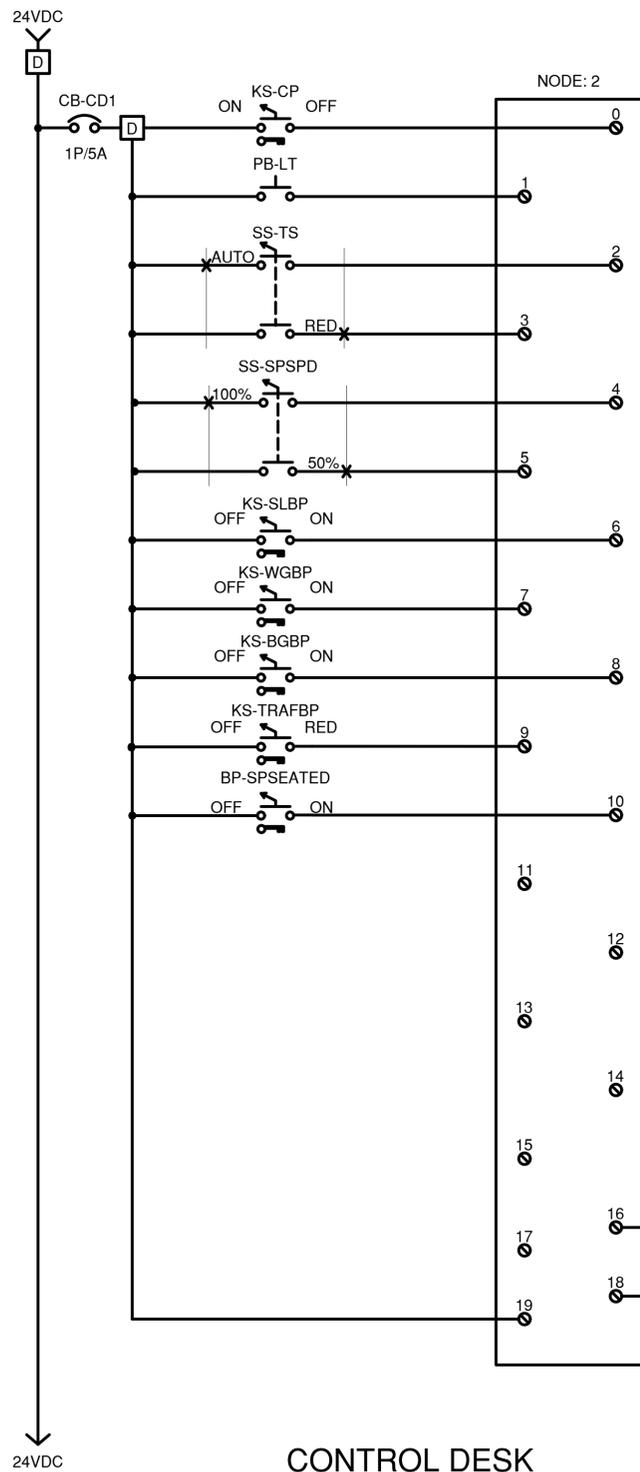


CONSULTANT INFORMATION

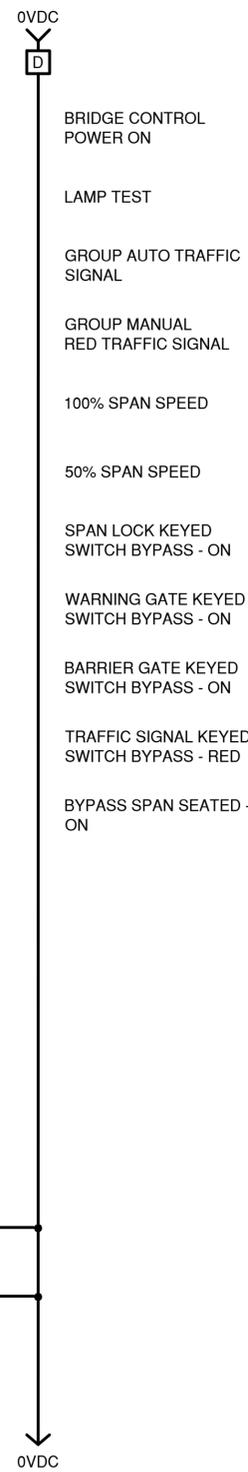


WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 ELECTRICAL  
**PROPOSED PARTIAL THREE LINE DIAGRAM 3**

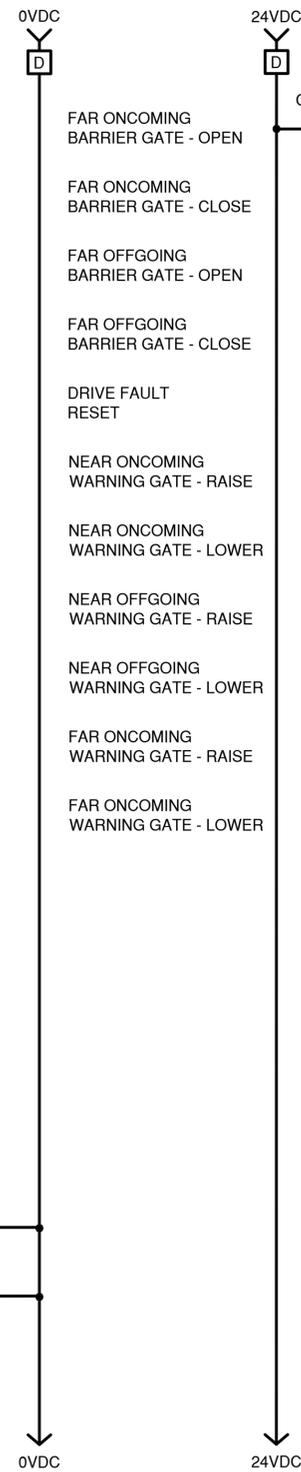
CONTRACT NUMBER 20-517	SHEET NUMBER E-20
SHEET NO. 182 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-E-617-0	0



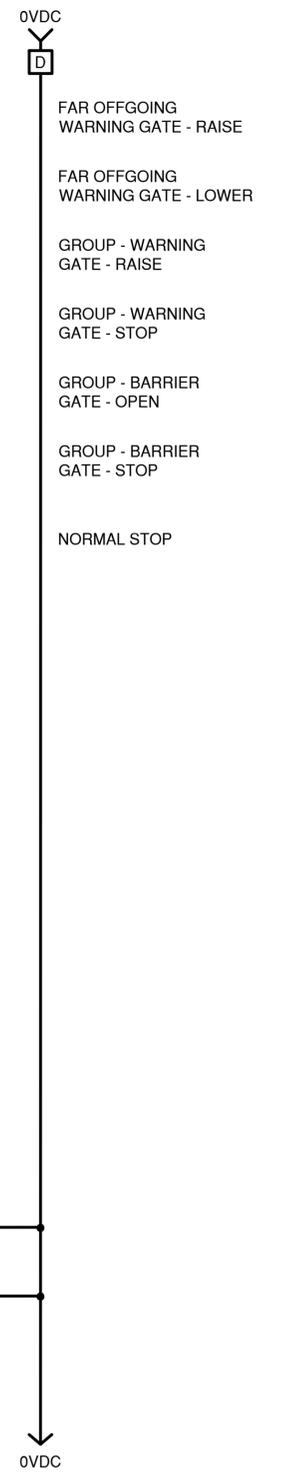
CONTROL DESK  
PLC INPUT



CONTROL DESK  
PLC INPUT



CONTROL DESK  
PLC INPUT

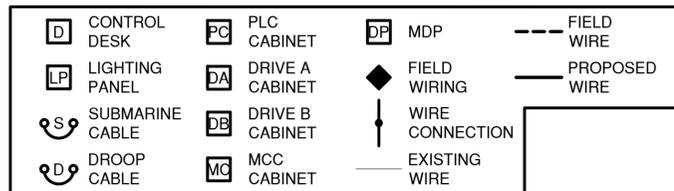


CONTROL DESK  
PLC INPUT

**NOTES:**

1. THE PLC INPUTS FOR MCC CIRCUIT BREAKER AND OVERLOAD STATUS NOT SHOWN, BUT IS REQUIRED. PLC INPUT CARDS AND WORK TO BE PROVIDED AT NO ADDITIONAL COST TO THE COUNTY.
2. THE PLC CONTROL SYSTEM SHALL BE CAPABLE OF FULL DIAGNOSTICS AND MONITORING. IT SHALL BE ABLE TO ASSIST IN TROUBLESHOOTING AND INDICATE FAILURES AND ALARMS. ALL ASPECTS OF THE CONTROL SYSTEM/ELECTRICAL INFRASTRUCTURE SHALL BE MONITORED. ITEMS TO BE INCLUDED BUT NOT BE LIMITED TO ARE COMMUNICATIONS PROTOCOLS, CIRCUIT BREAKERS, FUSES, DISCONNECT SWITCH POSITIONS, OVERLOADS, STARTERS, LIMIT SWITCHES, DRIVES, MISC. FAULTS, OPERATIONAL TIME OUTS, INTERLOCKING, ERROR STATES, CONTRADICTION CONDITIONS, PUSHBUTTONS, SELECTOR SWITCHES, PILOT LIGHTS, TIMERS, RELAYS, CONTACTORS, ETC. THE CONTRACTOR SHALL PROVIDE FOR THE DIAGNOSTIC AND TROUBLESHOOTING FUNCTIONALITY OF THE SYSTEM AND ANY ADDITIONAL WIRING/CONDUIT/LOGIC THAT MAY BE NECESSARY WHETHER SHOWN EXPLICITLY ON THE CONTRACT DOCUMENTS OR NOT. THE TROUBLESHOOTING FEATURE SHALL INDICATE TO THE USER THE POSSIBLE SOURCE OF THE FAULT/ERROR AND GUIDE THEM TO RECTIFYING THE ISSUE.

**TERMINAL BLOCK LEGEND**



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

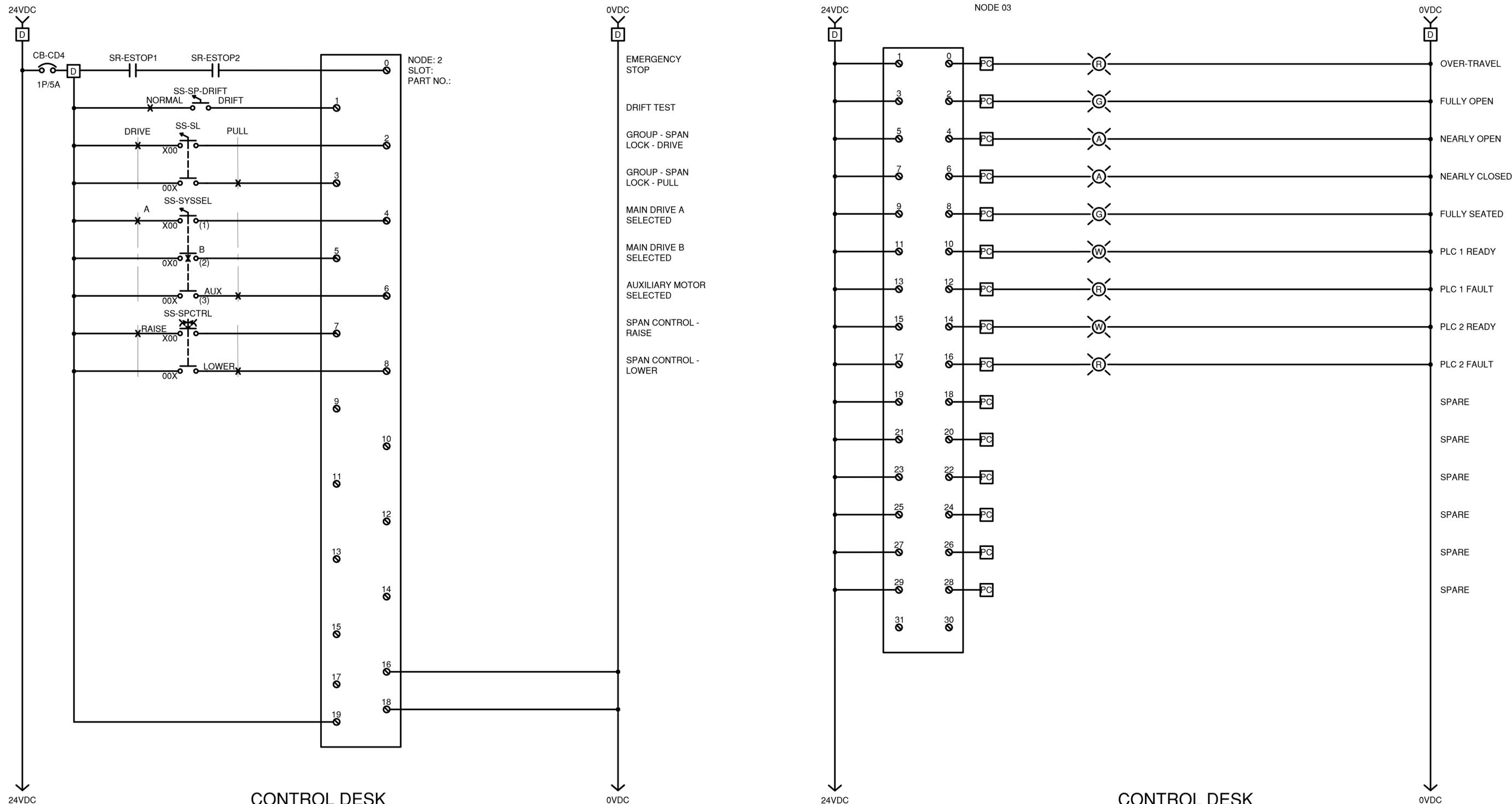


CONSULTANT INFORMATION



WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 ELECTRICAL  
**PROPOSED CONTROL DESK PLCI/O1**

CONTRACT NUMBER 20-517	SHEET NUMBER E-21
SHEET NO. 183 OF 212	
SCALE: AS SHOWN DATE: 03/08/2024	
DPW FILE NO. 5-04-E-618-0	REV. NO. 0



**CONTROL DESK  
PLC INPUT**

**CONTROL DESK  
OUTPUT**

**TERMINAL BLOCK LEGEND**

	CONTROL DESK		PLC CABINET		MDP		FIELD WIRE
	LIGHTING PANEL		DRIVE A CABINET		FIELD WIRING		PROPOSED WIRE
	SUBMARINE CABLE		DRIVE B CABINET		WIRE CONNECTION		EXISTING WIRE
	DROOP CABLE		MCC CABINET				

**NOTES:**

1. THE PLC INPUTS FOR MCC CIRCUIT BREAKER AND OVERLOAD STATUS NOT SHOWN, BUT IS REQUIRED. PLC INPUT CARDS AND WORK TO BE PROVIDED AT NO ADDITIONAL COST TO THE COUNTY.
2. THE PLC CONTROL SYSTEM SHALL BE CAPABLE OF FULL DIAGNOSTICS AND MONITORING. IT SHALL BE ABLE TO ASSIST IN TROUBLESHOOTING AND INDICATE FAILURES AND ALARMS. ALL ASPECTS OF THE CONTROL SYSTEM/ELECTRICAL INFRASTRUCTURE SHALL BE MONITORED. ITEMS TO BE INCLUDED BUT NOT BE LIMITED TO ARE COMMUNICATIONS PROTOCOLS, CIRCUIT BREAKERS, FUSES, DISCONNECT SWITCH POSITIONS, OVERLOADS, STARTERS, LIMIT SWITCHES, DRIVES, MISC. FAULTS, OPERATIONAL TIME OUTS, INTERLOCKING, ERROR STATES, CONTRADICTION CONDITIONS, PUSHBUTTONS, SELECTOR SWITCHES, PILOT LIGHTS, TIMERS, RELAYS, CONTACTORS, ETC. THE CONTRACTOR SHALL PROVIDE FOR THE DIAGNOSTIC AND TROUBLESHOOTING FUNCTIONALITY OF THE SYSTEM AND ANY ADDITIONAL WIRING/CONDUIT/LOGIC THAT MAY BE NECESSARY WHETHER SHOWN EXPLICITLY ON THE CONTRACT DOCUMENTS OR NOT. THE TROUBLESHOOTING FEATURE SHALL INDICATE TO THE USER THE POSSIBLE SOURCE OF THE FAULT/ERROR AND GUIDE THEM TO RECTIFYING THE ISSUE.

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____

CONSULTANT SEAL

CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

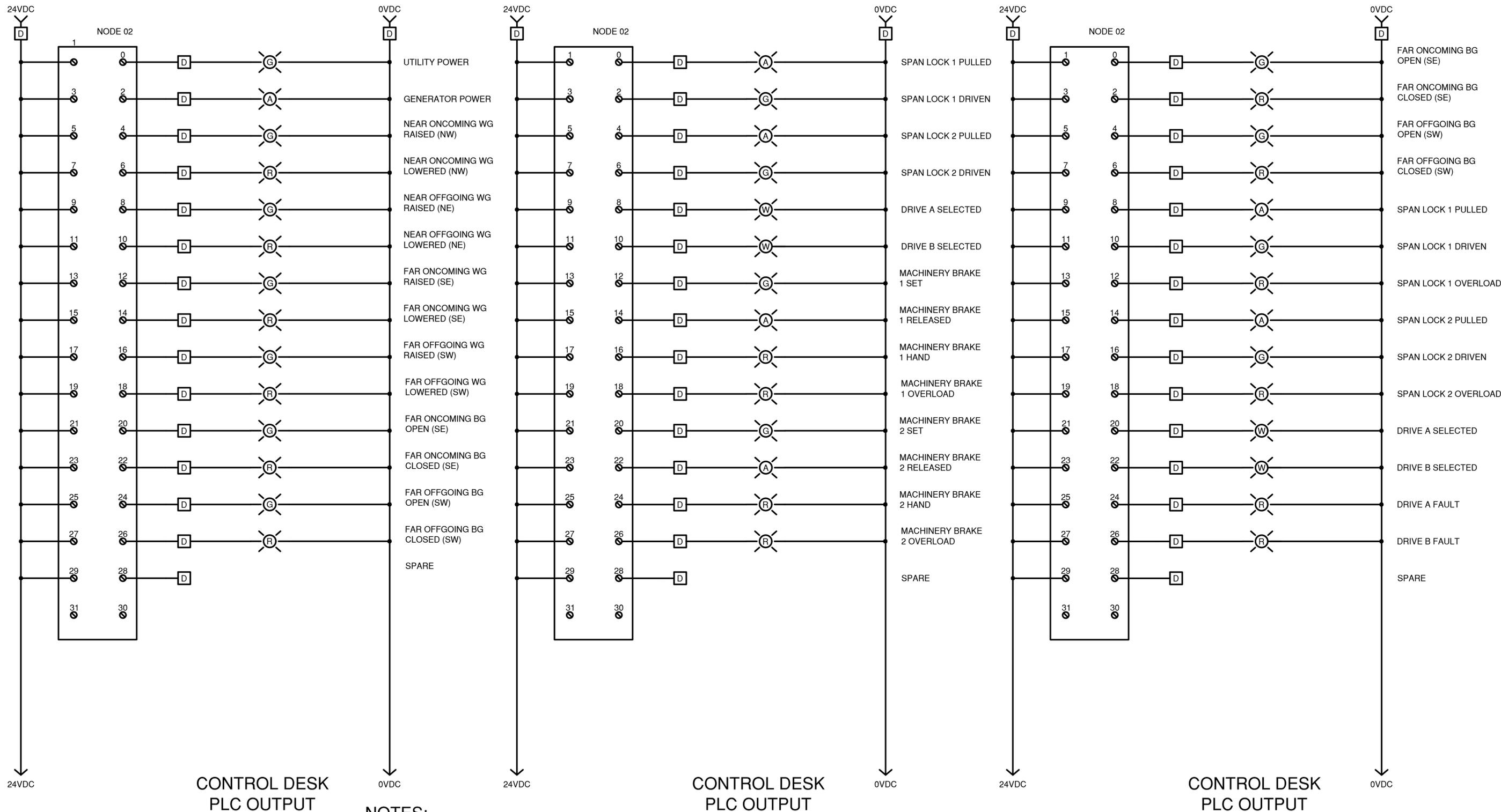
**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

ELECTRICAL

**PROPOSED CONTROL DESK PLCI/O2**

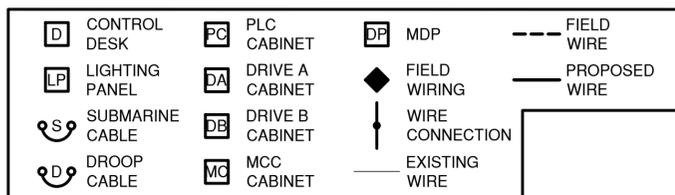
CONTRACT NUMBER 20-517	SHEET NUMBER E-22
SHEET NO. 184 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-E-619-0	0



**NOTES:**

1. THE PLC INPUTS FOR MCC CIRCUIT BREAKER AND OVERLOAD STATUS NOT SHOWN, BUT IS REQUIRED. PLC INPUT CARDS AND WORK TO BE PROVIDED AT NO ADDITIONAL COST TO THE COUNTY.
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**TERMINAL BLOCK LEGEND**



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

CONSULTANT SEAL

CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

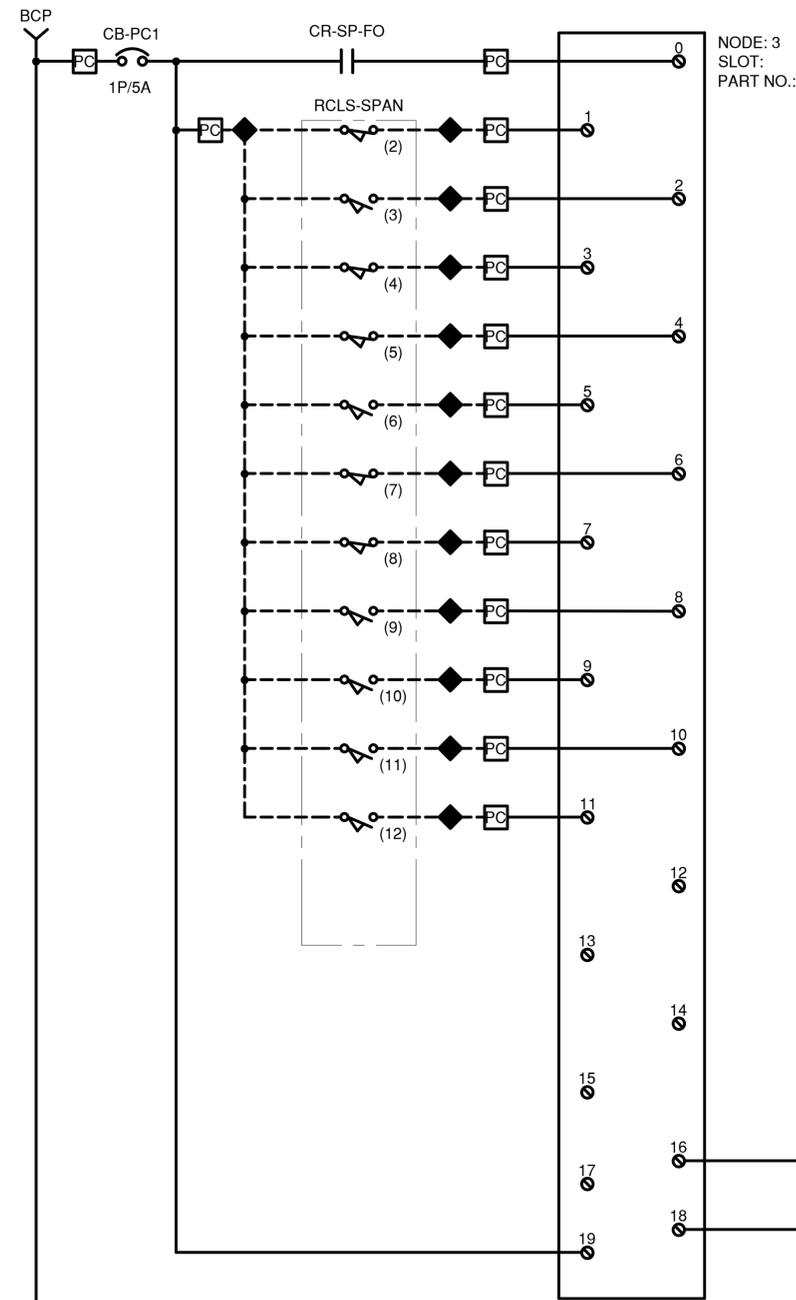
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

ELECTRICAL

**PROPOSED CONTROL DESK PLCI/O3**

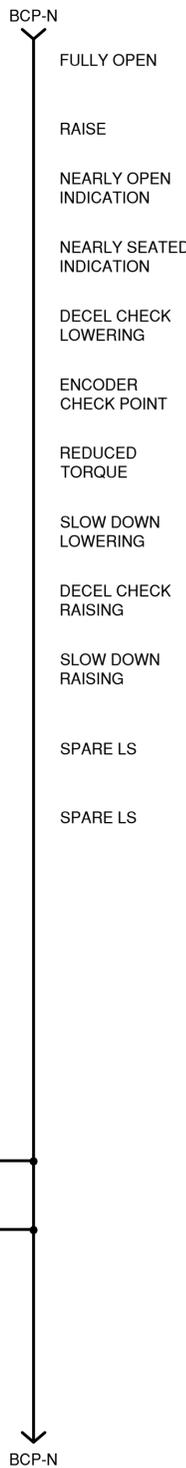
CONTRACT NUMBER 20-517	SHEET NUMBER E-23
SHEET NO. 185 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-E-620-0	REV. NO. 0



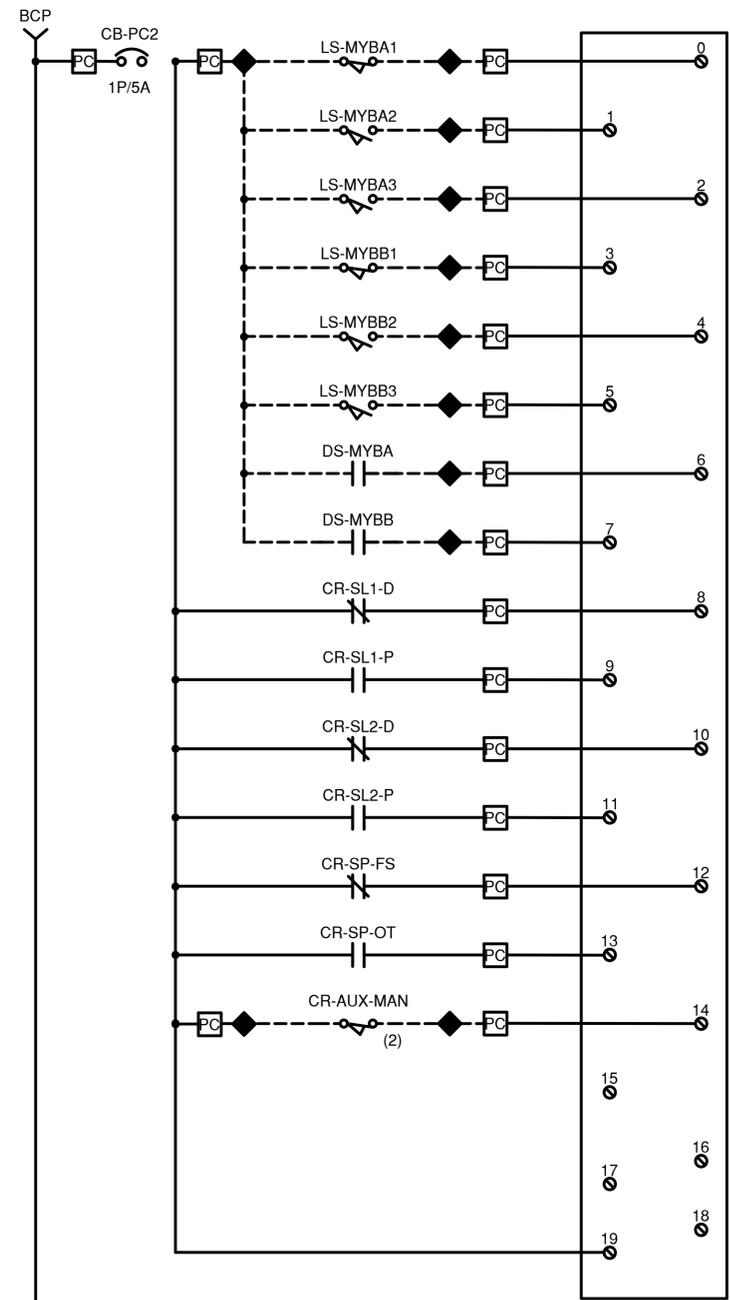
**PLC CABINET INPUTS**

**NOTES:**

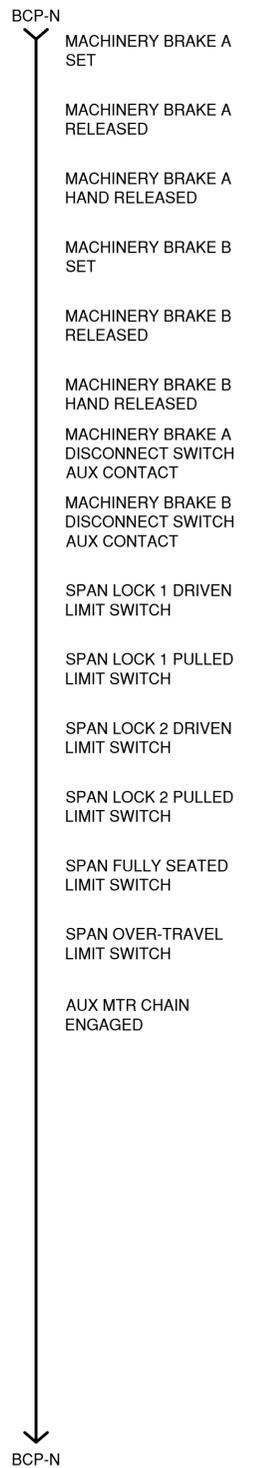
1. THE PLC INPUTS FOR MCC CIRCUIT BREAKER AND OVERLOAD STATUS NOT SHOWN, BUT IS REQUIRED. PLC INPUT CARDS AND WORK TO BE PROVIDED AT NO ADDITIONAL COST TO THE COUNTY.
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**PLC CABINET INPUTS**

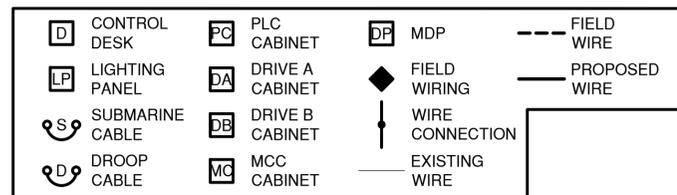


NODE: 3  
SLOT:  
PART NO.:



NODE: 3  
SLOT:  
PART NO.:

**TERMINAL BLOCK LEGEND**



IN CHARGE OF D. DELUCA, PE  
CHECKED BY A. NOBLE, PE  
MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

CONSULTANT SEAL  
CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

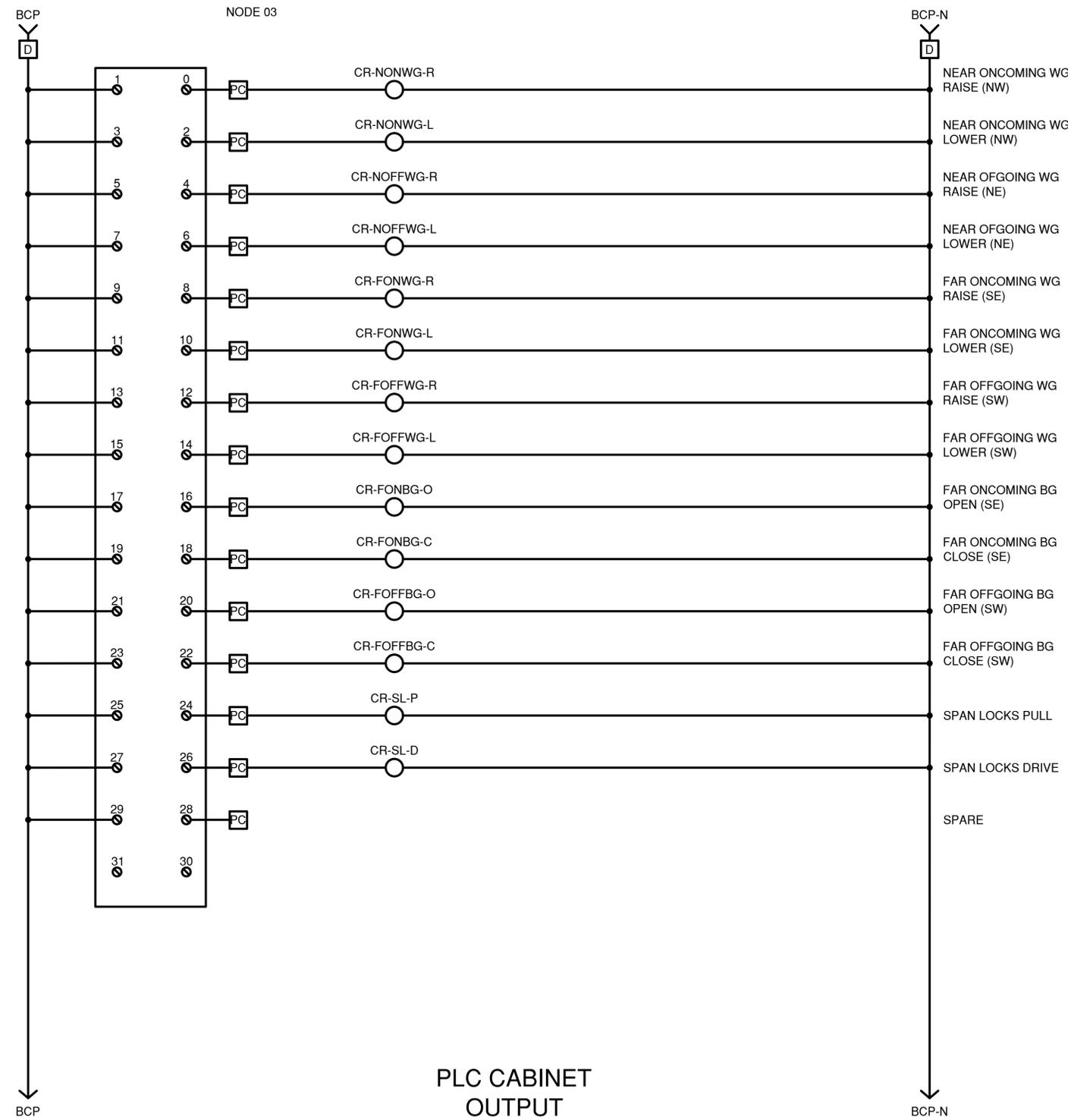
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
over New Rochelle Harbor, City of New Rochelle

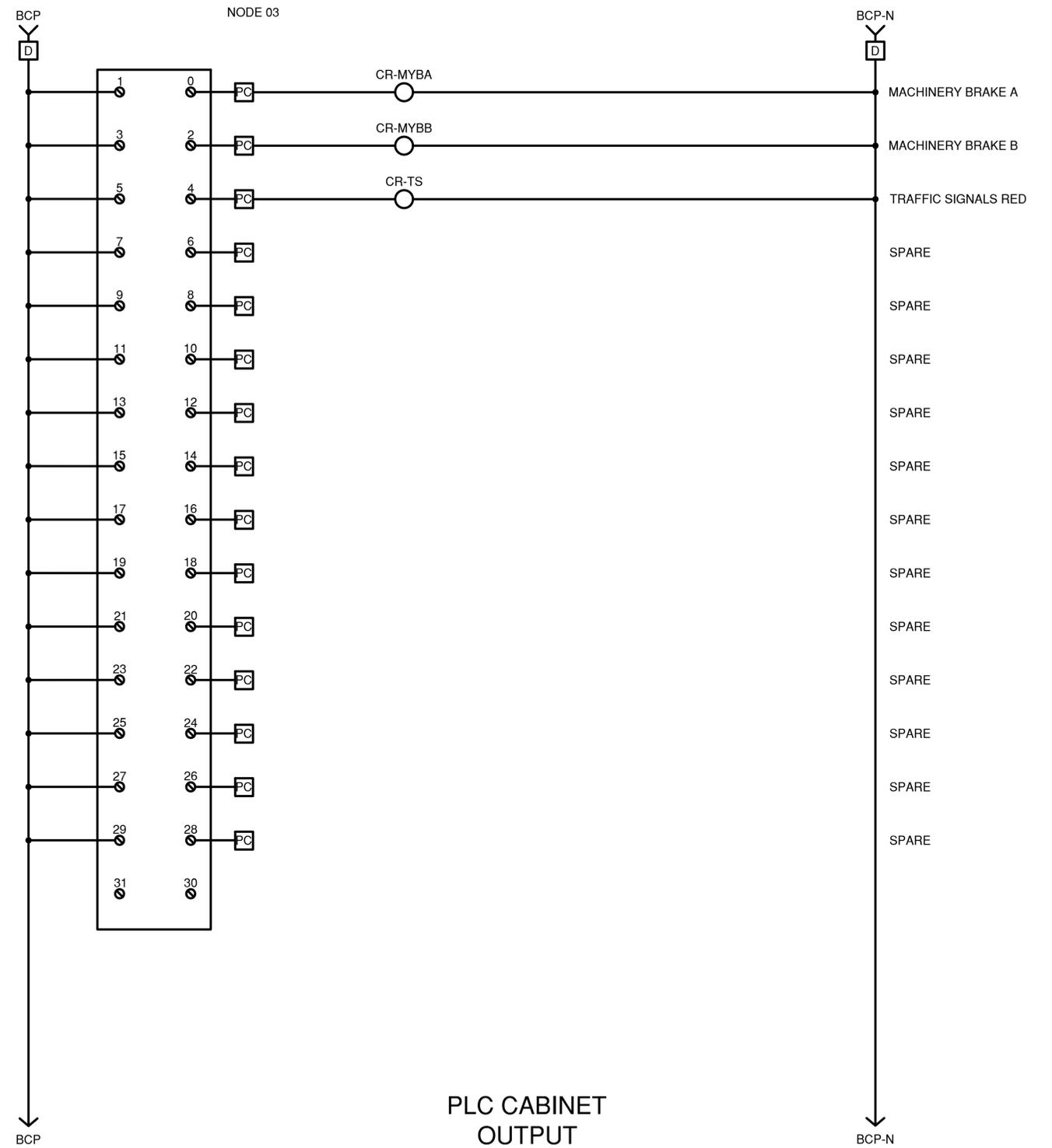
ELECTRICAL

**PROPOSED PLC CABINET I/O 1**

CONTRACT NUMBER 20-517	SHEET NUMBER E-24
SHEET NO. 186 OF 212	
SCALE: AS SHOWN DATE: 03/08/2024	
DPW FILE NO. 5-04-E-621-0	REV. NO. 0



PLC CABINET OUTPUT



PLC CABINET OUTPUT

**NOTES:**

1. THE PLC INPUTS FOR MCC CIRCUIT BREAKER AND OVERLOAD STATUS NOT SHOWN, BUT IS REQUIRED. PLC INPUT CARDS AND WORK TO BE PROVIDED AT NO ADDITIONAL COST TO THE COUNTY.
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**TERMINAL BLOCK LEGEND**

	CONTROL DESK		PLC CABINET		MDP		FIELD WIRE
	LIGHTING PANEL		DRIVE A CABINET		FIELD WIRING		PROPOSED WIRE
	SUBMARINE CABLE		DRIVE B CABINET		WIRE CONNECTION		EXISTING WIRE
	DROOP CABLE		MCC CABINET				

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____



CONSULTANT INFORMATION



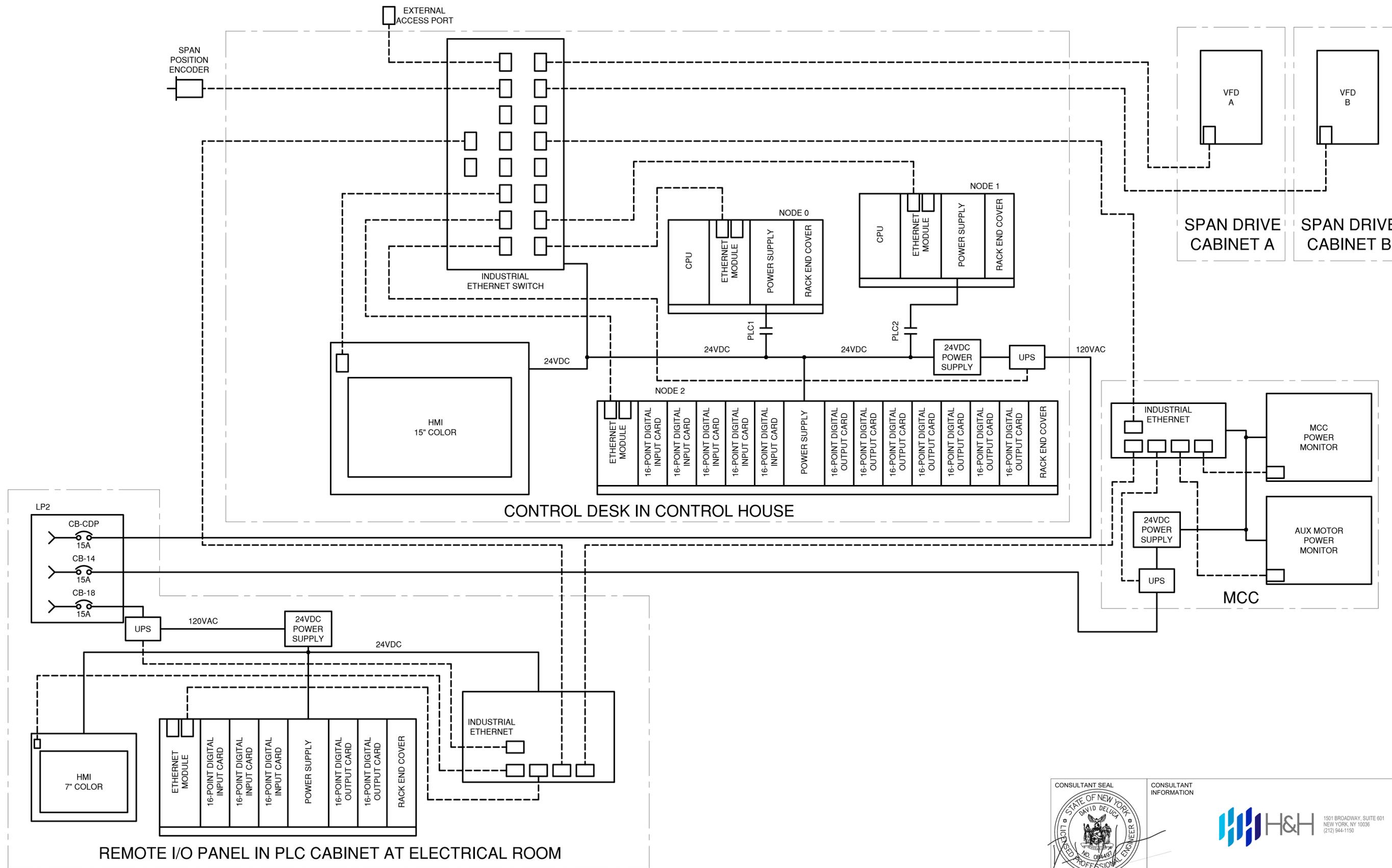
WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

ELECTRICAL

**PROPOSED PLC CABINET I/O 2**

CONTRACT NUMBER 20-517	SHEET NUMBER E-25
SHEET NO. 187 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-E-622-0	0



CONSULTANT INFORMATION



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

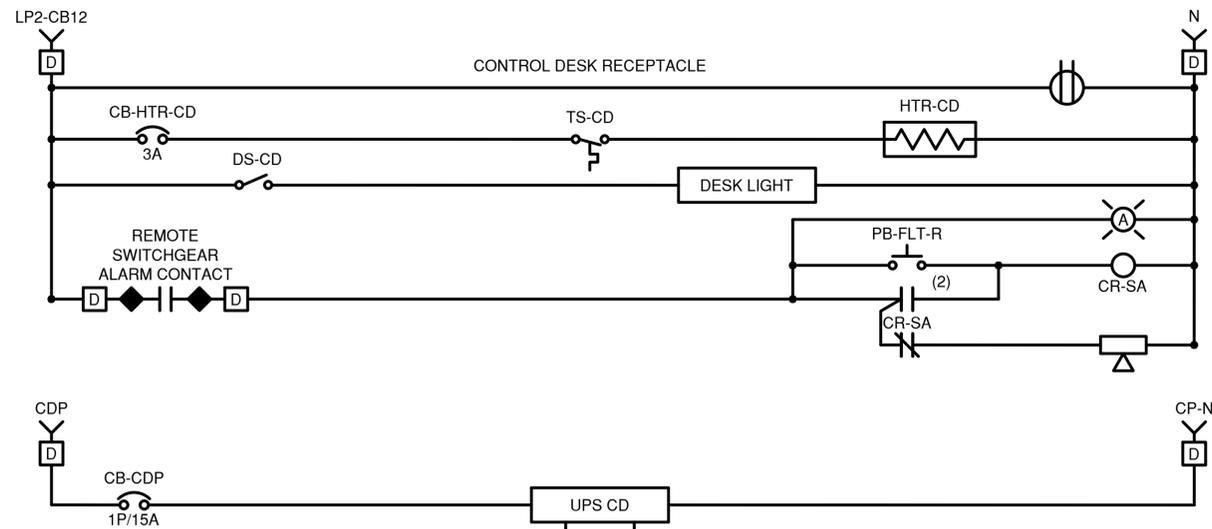
RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
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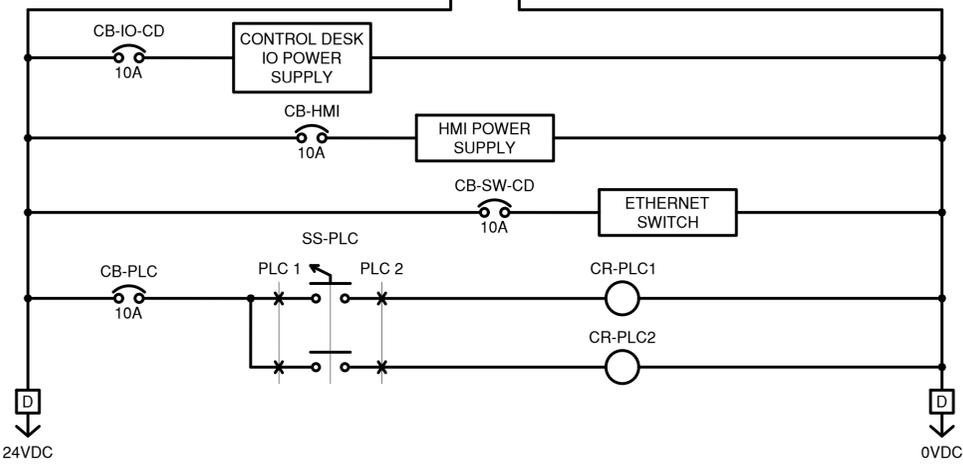
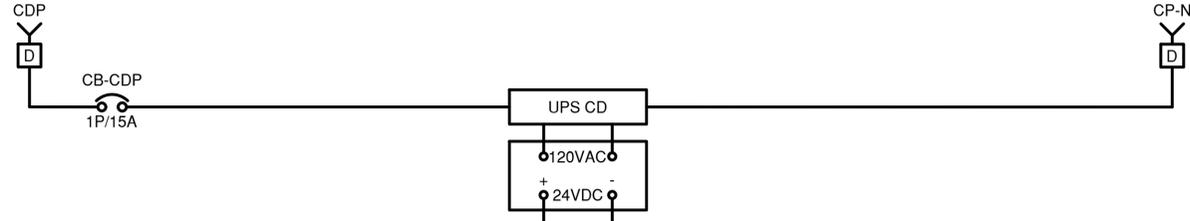
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 ELECTRICAL  
**PROPOSED PLC ARCHITECTURE**

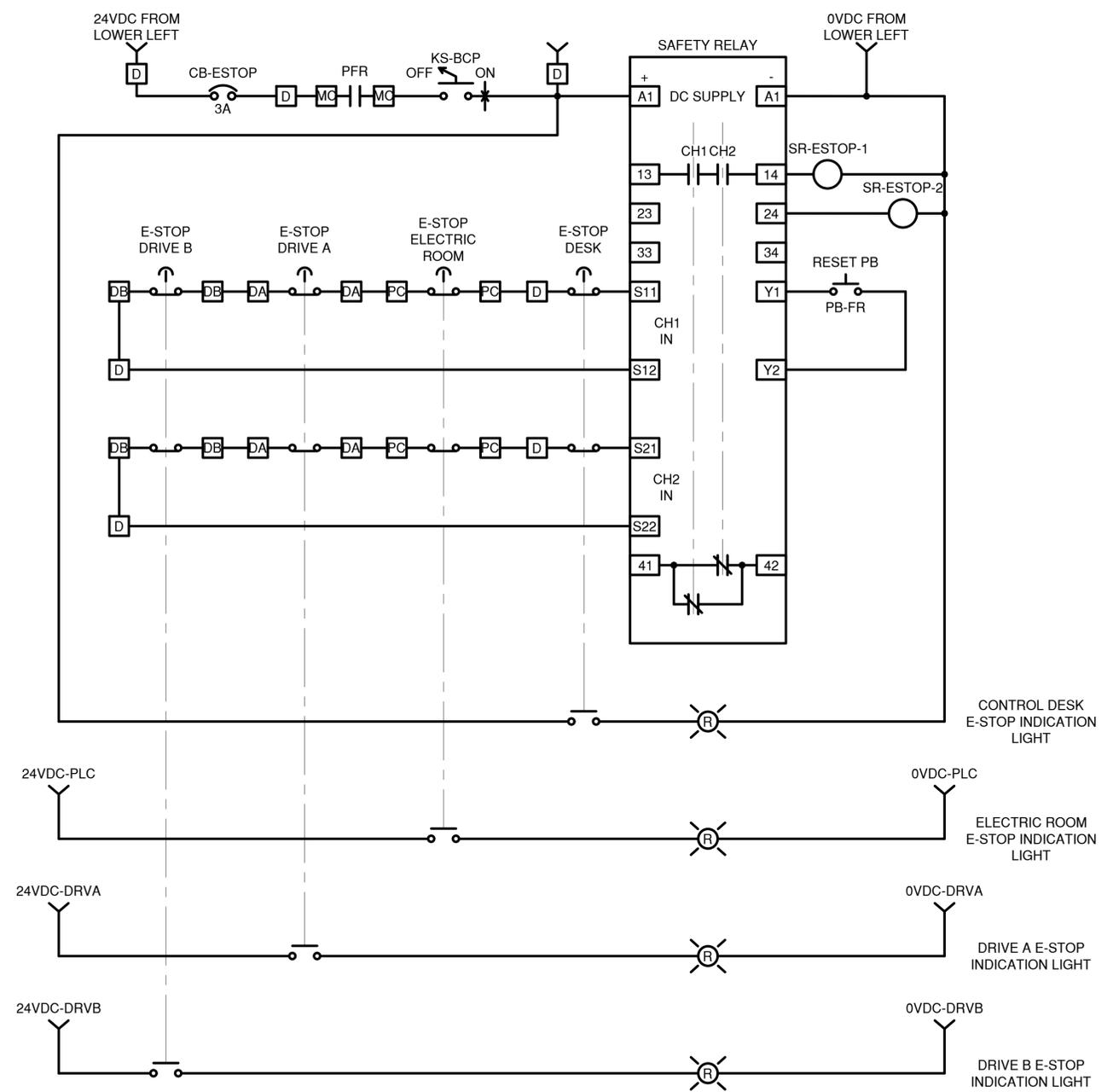
CONTRACT NUMBER 20-517	SHEET NUMBER E-26
SHEET NO. 188 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-E-623-0	REV. NO. 0



SWITCHGEAR ALARM  
RESET RELAY  
SWITCHGEAR ALARM  
RESET RELAY  
SWITCHGEAR  
ALARM HORN



CONTROL DESK



TERMINAL BLOCK LEGEND

	CONTROL DESK		PLC CABINET		MDP		FIELD WIRE
	LIGHTING PANEL		DRIVE A CABINET		FIELD WIRING		PROPOSED WIRE
	SUBMARINE CABLE		DRIVE B CABINET		WIRE CONNECTION		EXISTING WIRE
	DROOP CABLE		MCC CABINET				

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/>	AS BUILT - CHANGES AS NOTED	<input type="checkbox"/>	AS BUILT - NO CHANGES
NAME	CONTRACTOR	NAME	PROJECT COORDINATOR
SIGNATURE		SIGNATURE	
TITLE		TITLE	

CONSULTANT SEAL

CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

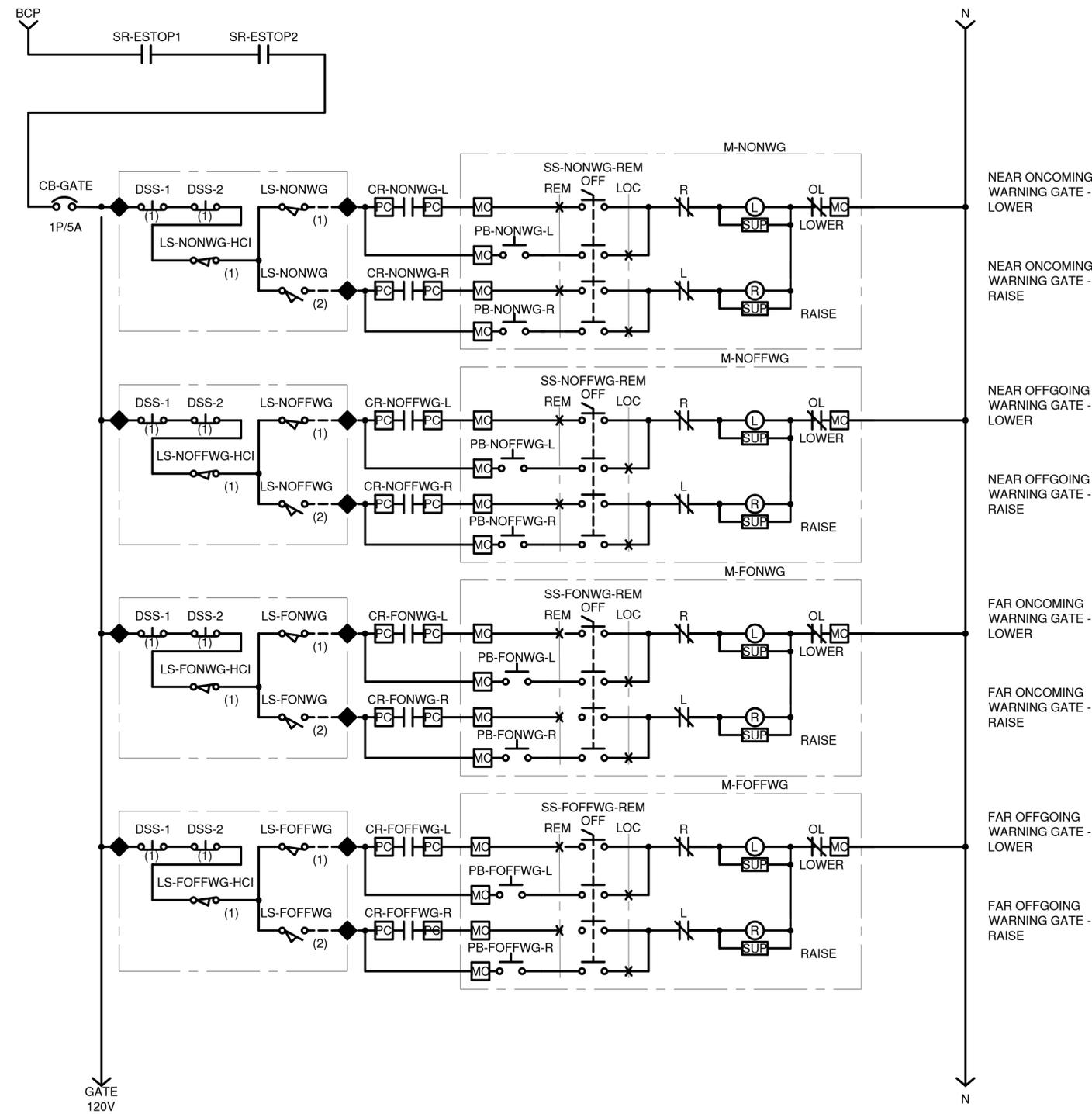
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

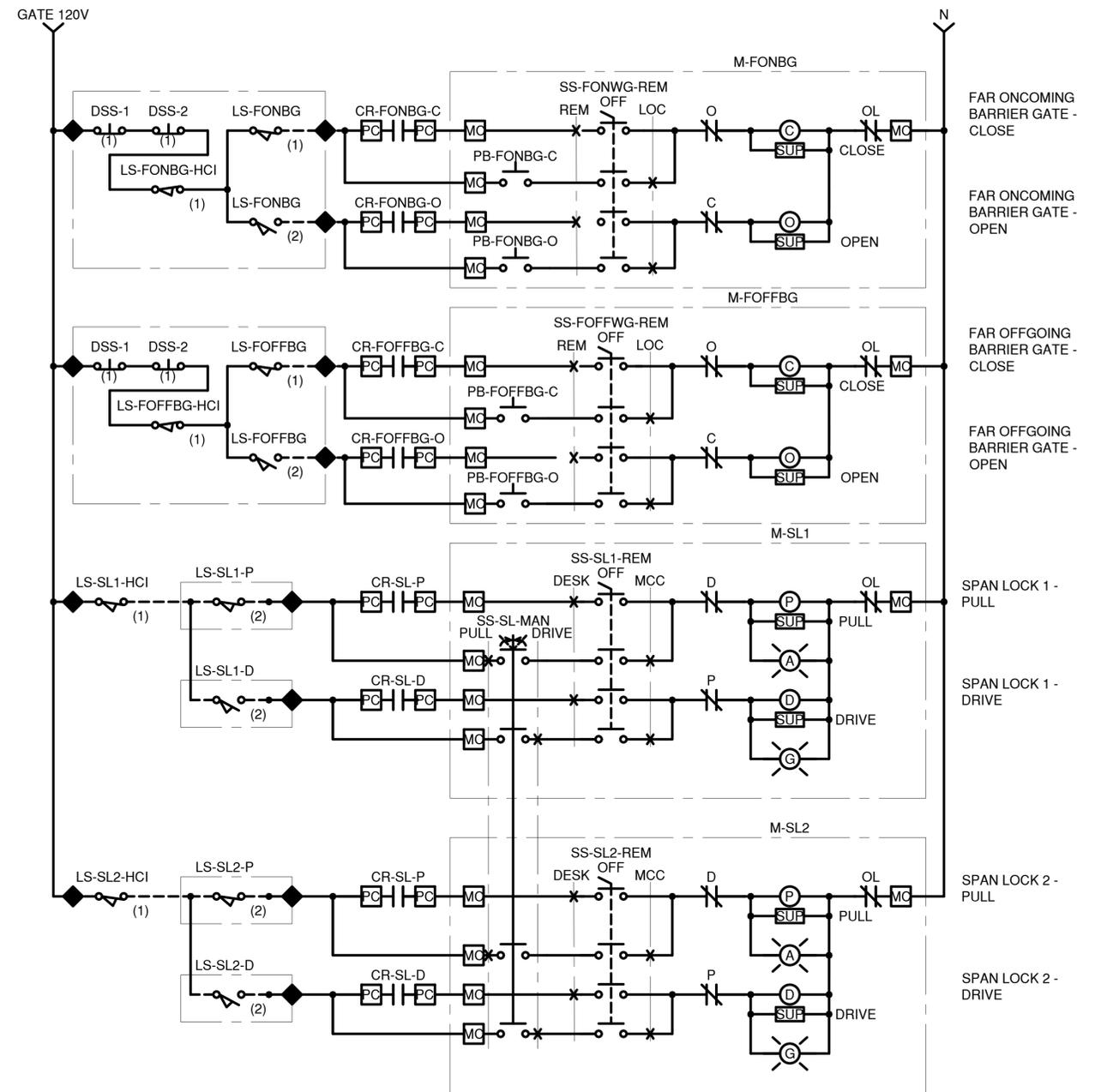
ELECTRICAL

**PROPOSED WIRING DIAGRAM - CONTROL POWER**

CONTRACT NUMBER 20-517	SHEET NUMBER E-27
SHEET NO. 189 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-E-624-0	0



WARNING GATE CONTROL LOGIC



BARRIER GATE AND SPAN LOCK CONTROL LOGIC

TERMINAL BLOCK LEGEND


IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

CONSULTANT SEAL  
DAVID DELUCA  
REGISTERED PROFESSIONAL ENGINEER

CONSULTANT INFORMATION  
1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
(212) 944-1150

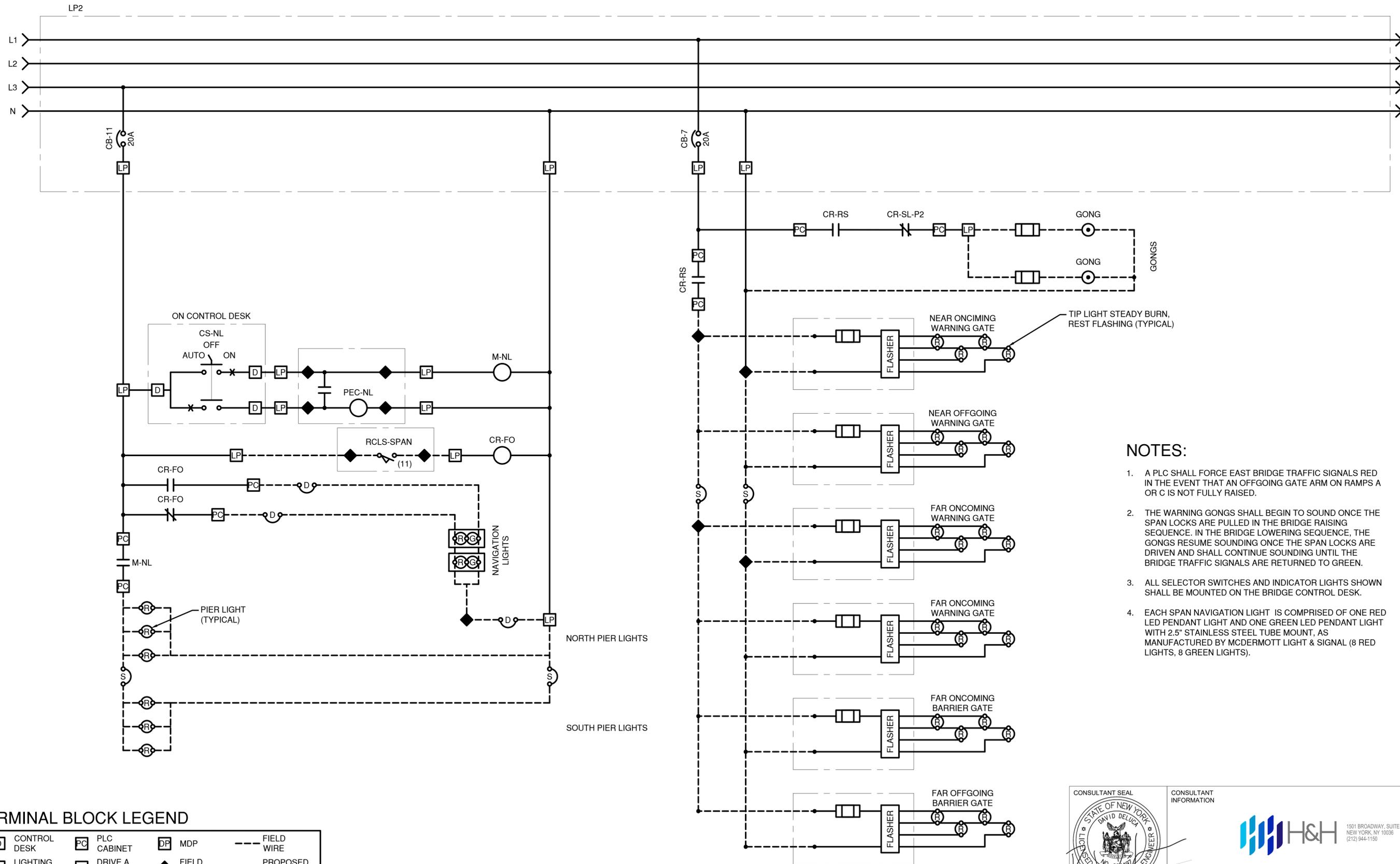
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

ELECTRICAL

**PROPOSED WIRING DIAGRAM-GATES SPAN LOCKS**

CONTRACT NUMBER 20-517	SHEET NUMBER E-28
SHEET NO. 190 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-E-625-0	0



**NOTES:**

1. A PLC SHALL FORCE EAST BRIDGE TRAFFIC SIGNALS RED IN THE EVENT THAT AN OFFGOING GATE ARM ON RAMPS A OR C IS NOT FULLY RAISED.
2. THE WARNING GONGS SHALL BEGIN TO SOUND ONCE THE SPAN LOCKS ARE PULLED IN THE BRIDGE RAISING SEQUENCE. IN THE BRIDGE LOWERING SEQUENCE, THE GONGS RESUME SOUNDING ONCE THE SPAN LOCKS ARE DRIVEN AND SHALL CONTINUE SOUNDING UNTIL THE BRIDGE TRAFFIC SIGNALS ARE RETURNED TO GREEN.
3. ALL SELECTOR SWITCHES AND INDICATOR LIGHTS SHOWN SHALL BE MOUNTED ON THE BRIDGE CONTROL DESK.
4. EACH SPAN NAVIGATION LIGHT IS COMPRISED OF ONE RED LED PENDANT LIGHT AND ONE GREEN LED PENDANT LIGHT WITH 2.5" STAINLESS STEEL TUBE MOUNT, AS MANUFACTURED BY MCDERMOTT LIGHT & SIGNAL (8 RED LIGHTS, 8 GREEN LIGHTS).

**TERMINAL BLOCK LEGEND**

	CONTROL DESK		PLC CABINET		MDP		FIELD WIRE
	LIGHTING PANEL		DRIVE A CABINET		FIELD WIRING		PROPOSED WIRE
	SUBMARINE CABLE		DRIVE B CABINET		WIRE CONNECTION		EXISTING WIRE
	DROOP CABLE		MCC CABINET				

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

CONSULTANT SEAL

CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

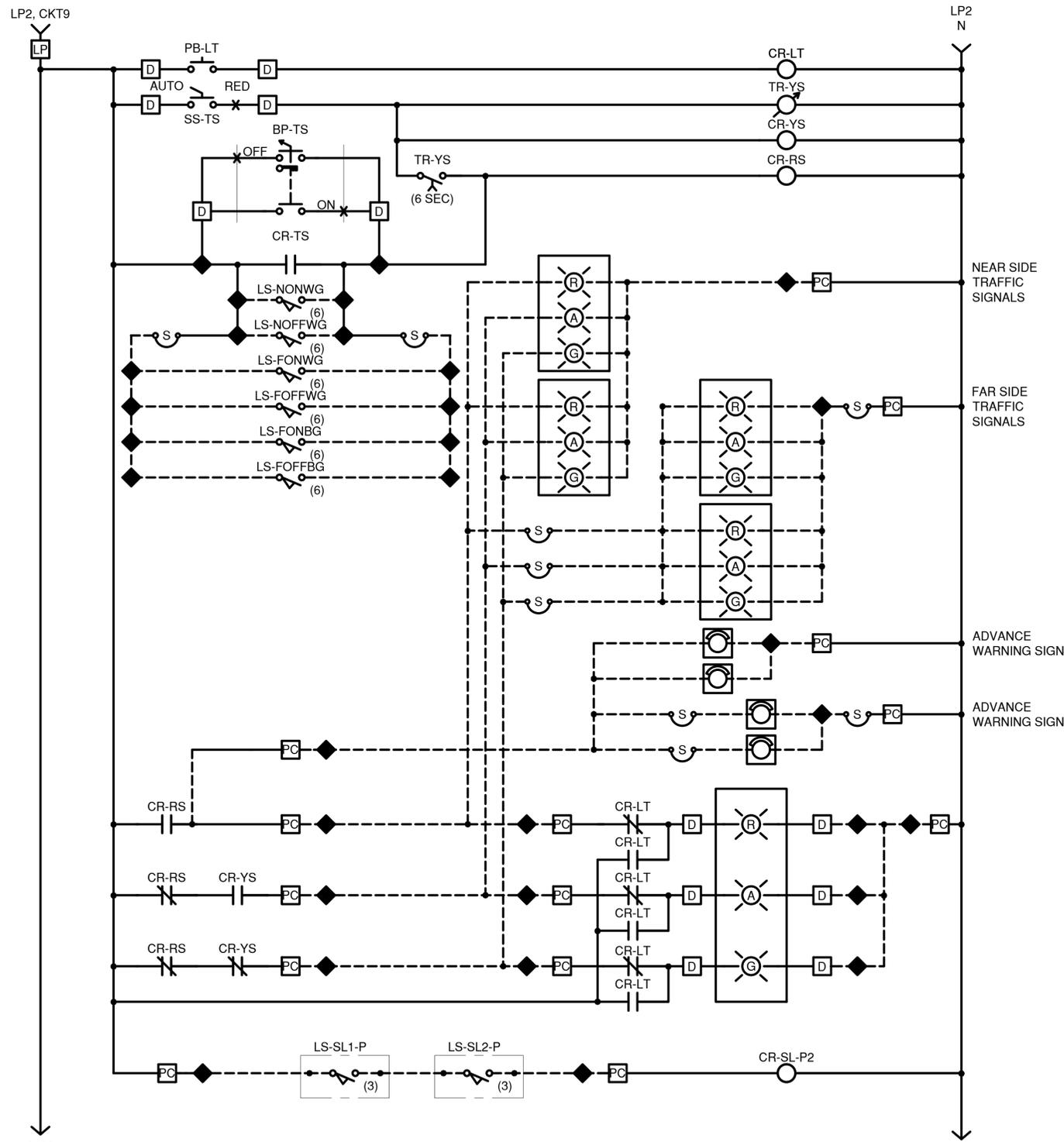
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

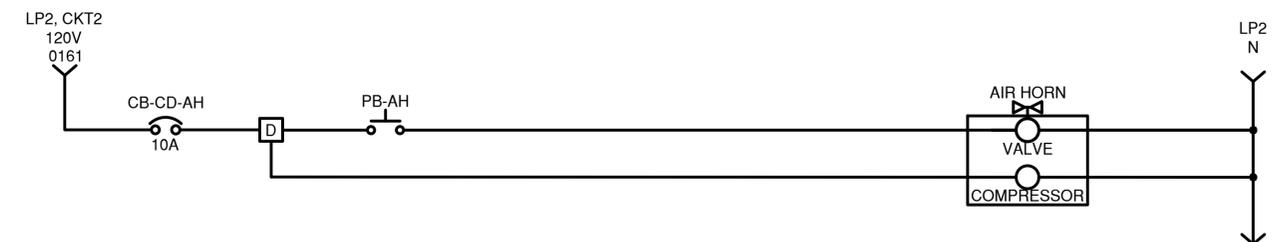
ELECTRICAL

**PROP'D WIRING DIAG-GATE LIGHTS & NAV LIGHTS**

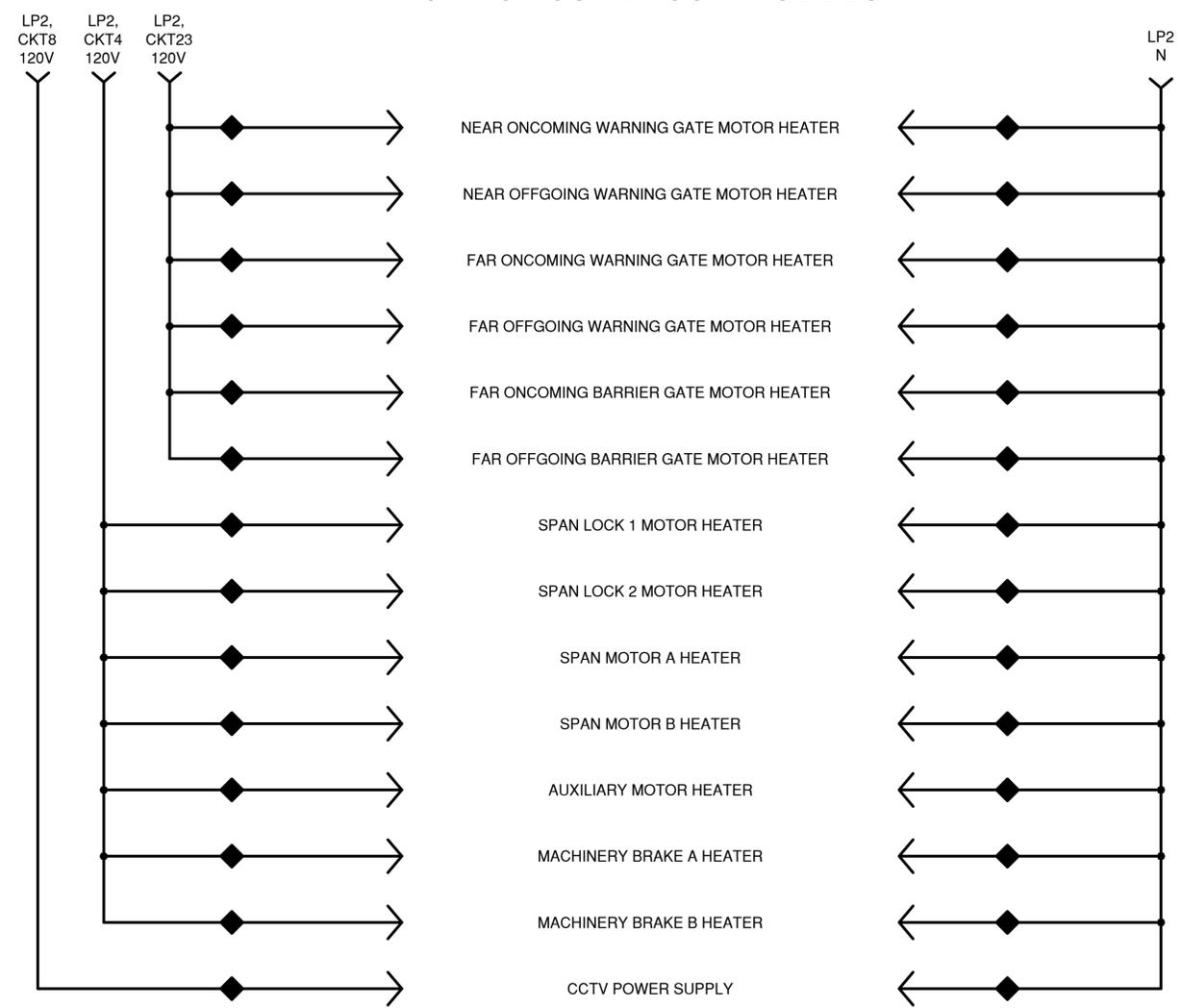
CONTRACT NUMBER 20-517	SHEET NUMBER E-29
SHEET NO. 191 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-E-626-0	0



TRAFFIC SIGNAL LOGIC IN PLC PANEL



HORN CIRCUIT IN CONTROL DESK



TERMINAL BLOCK LEGEND


IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME		NAME	
SIGNATURE		SIGNATURE	
TITLE		TITLE	
	DATE		DATE

CONSULTANT SEAL

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1501 BROADWAY, SUITE 601  
NEW YORK, NY 10036  
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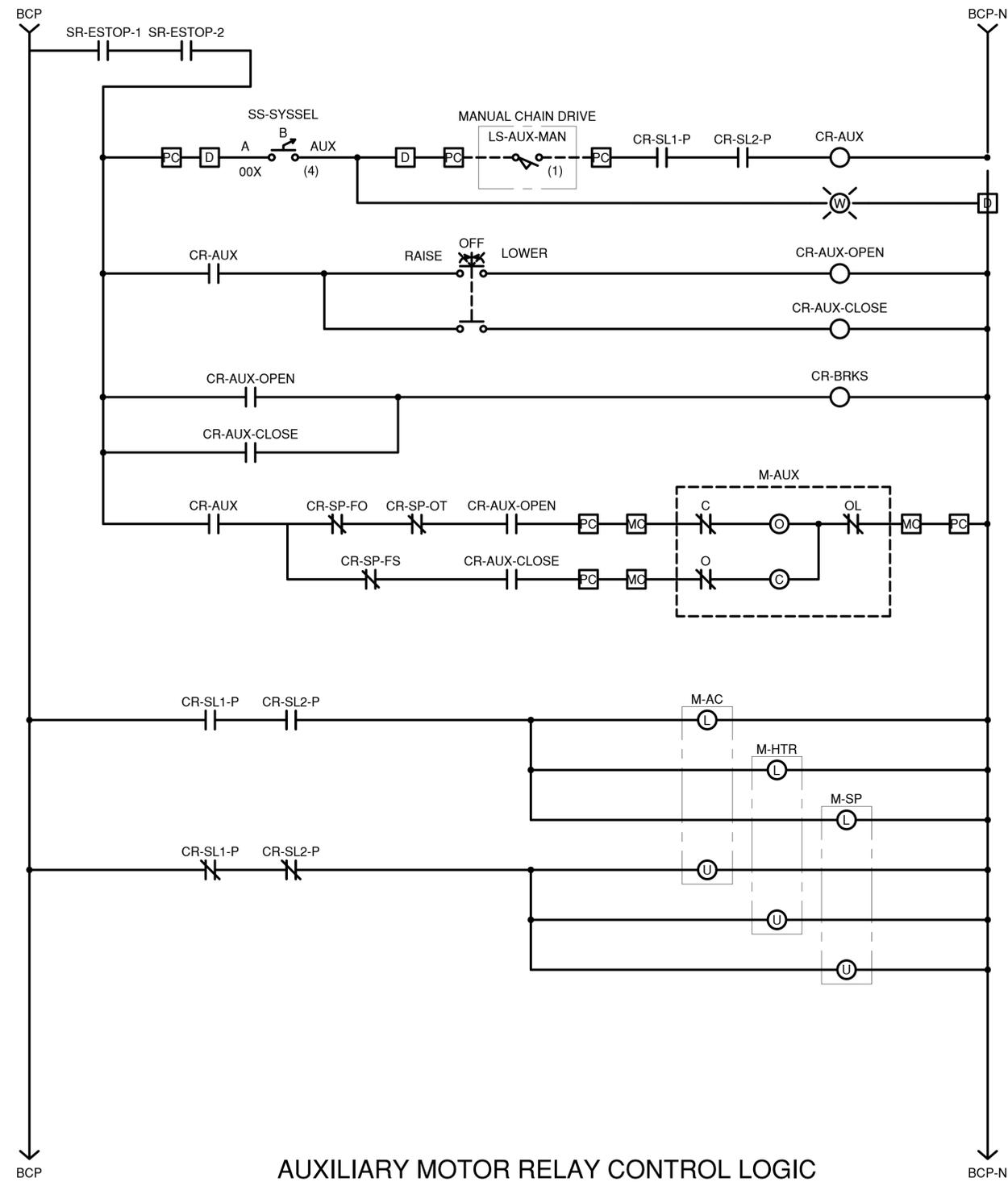
**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

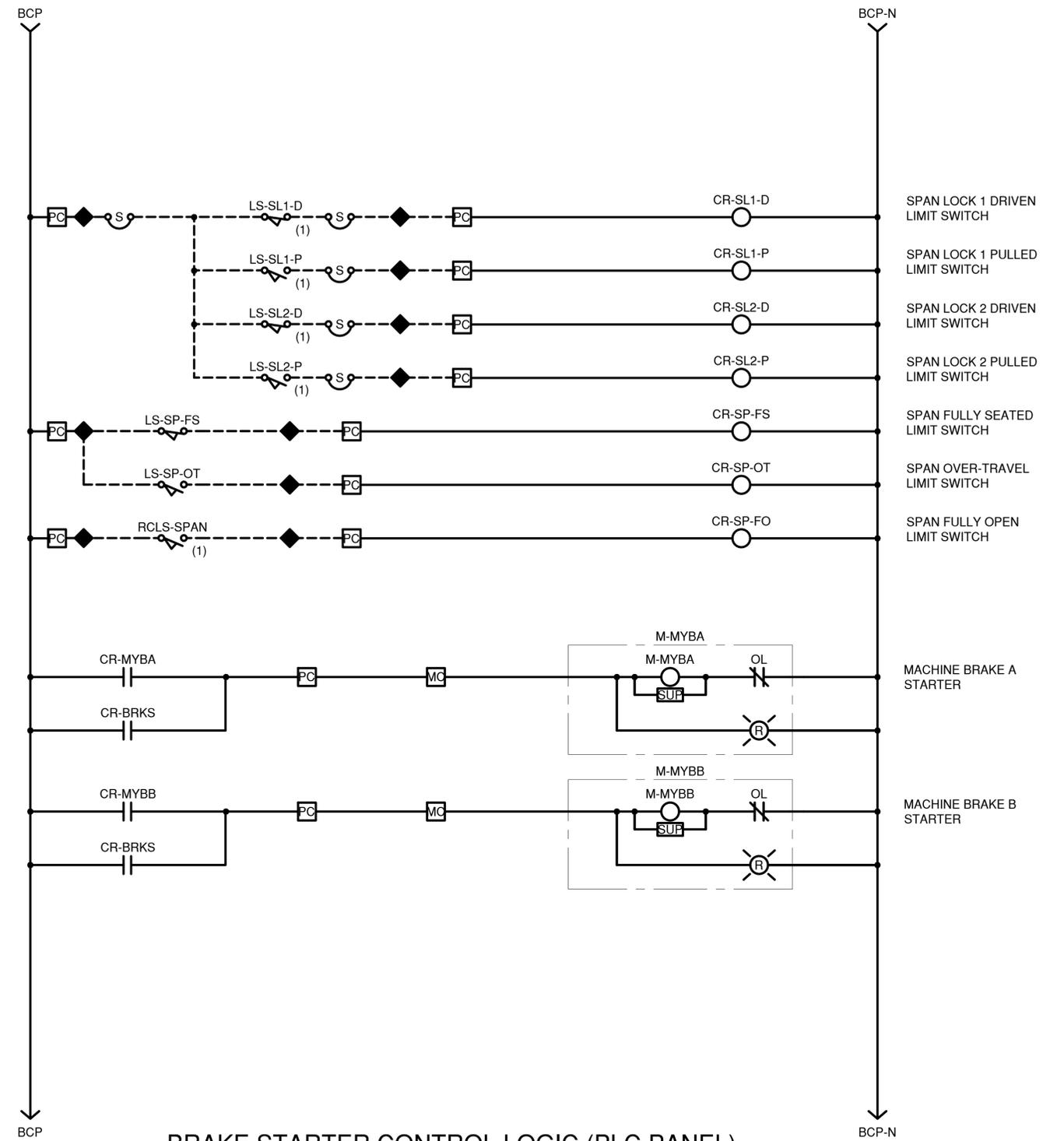
ELECTRICAL

**PROP'D WRG DIAGR-TRAF SIGNAL MOTOR HTR'S**

CONTRACT NUMBER 20-517	SHEET NUMBER E-30
SHEET NO. 192 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-E-627-0	0



**AUXILIARY MOTOR RELAY CONTROL LOGIC AND LOAD SHEDDING LOGIC (PLC PANEL)**



**BRAKE STARTER CONTROL LOGIC (PLC PANEL)**

**TERMINAL BLOCK LEGEND**


IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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NAME	CONTRACTOR	NAME	PROJECT COORDINATOR
SIGNATURE	DATE	SIGNATURE	DATE
TITLE	DATE	TITLE	DATE



CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

ELECTRICAL

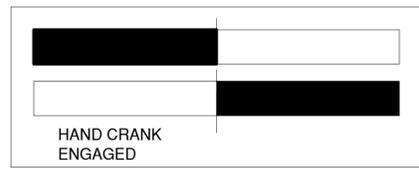
**PROP'D WIRING DIAGRAM-AUX MOTOR & BRAKES**

CONTRACT NUMBER 20-517	SHEET NUMBER E-31
SHEET NO. 193 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-E-628-0	0



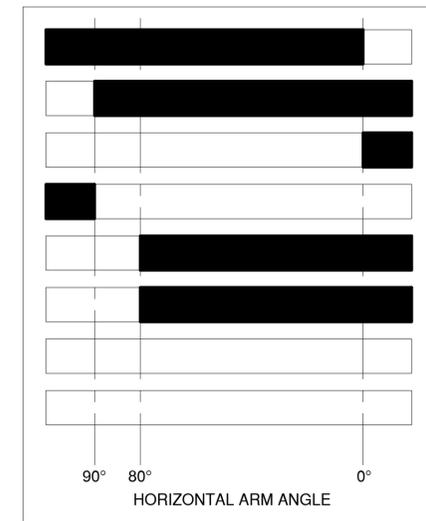
BRAKE SET LIMIT SWITCH DEVELOPMENT  
(LS-MYBA1, LS-MYBB1)

- (1) SET
- (2) SPARE



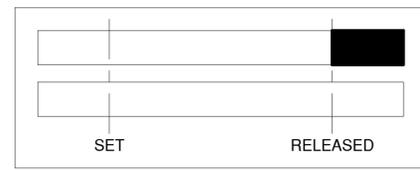
GATE HAND CRANK INTERLOCK LIMIT SWITCH DEVELOPMENT  
(LS-NONWG-HCI, LS-NOFFWG-HCI, LS-FONWG-HCI,  
LS-FOFFWG-HCI, LS-FONBG-HCI, LS-FOFFBG-HCI)

- (1) CONTROL PERMISSIVE (HARDWIRED)
- (2) HCI PLC INPUT



BARRIER GATE LIMIT SWITCH DEVELOPMENT  
(LS-FONBG, LS-FOFFBG)

- (1) CLOSE (HARDWIRED)
- (2) OPEN (HARDWIRED)
- (3) GATE CLOSE INDICATION
- (4) GATE OPEN INDICATION
- (5) TRAFFIC SIGNALS - PLC
- (6) TRAFFIC SIGNALS (HARDWIRED)
- (7) SPARE
- (8) SPARE



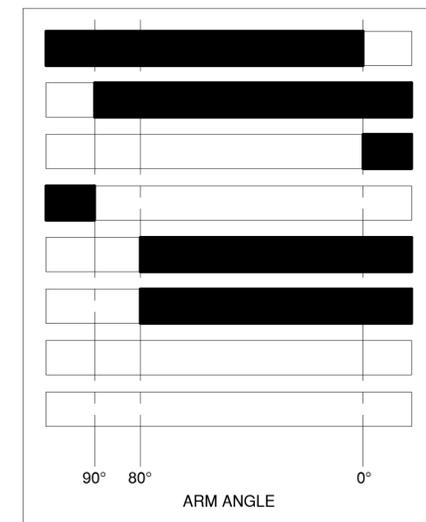
BRAKE RELEASED LIMIT SWITCH DEVELOPMENT  
(LS-MYBA2, LS-MYBB2)

- (1) RELEASED
- (2) SPARE



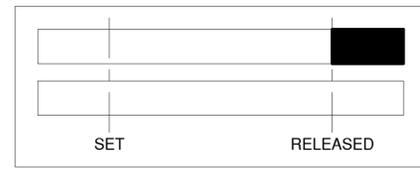
BARRIER GATE CLOSED/LOCKED PROXIMITY SENSOR LIMIT SWITCH DEVELOPMENT  
( )

- (1) GATE ARM CLOSED/LOCKED
- (2) SPARE



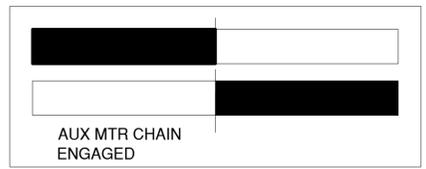
WARNING GATE LIMIT SWITCH DEVELOPMENT  
(LS-NONWG, LS-NOFFWG, LS-FONWG,  
LS-FOFFWG)

- (1) LOWER (HARDWIRED)
- (2) RAISE (HARDWIRED)
- (3) GATE DOWN INDICATION
- (4) GATE UP INDICATION
- (5) TRAFFIC SIGNALS - PLC
- (6) TRAFFIC SIGNALS (HARDWIRED)
- (7) SPARE
- (8) SPARE



BRAKE HAND-RELEASED LIMIT SWITCH DEVELOPMENT  
(LS-MYBA3, LS-MYBB3)

- (1) HAND RELEASED
- (2) SPARE



AUXILIARY CHAIN DRIVE INTERLOCK LIMIT SWITCH DEVELOPMENT  
(LS-AUX-MAN)

- (1) CONTROL PERMISSIVE (HARDWIRED)
- (2) HCI PLC INPUT

**NOTES:**

1. ROTARY CAM DEVELOPMENT IS AN APPROXIMATION IN NEED OF FIELD ADJUSTMENTS AS REQUIRED



CONSULTANT INFORMATION

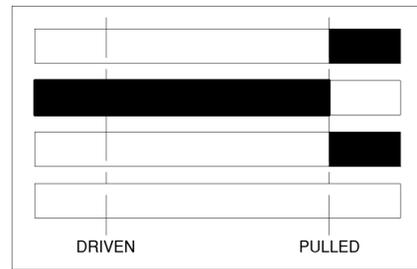


IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

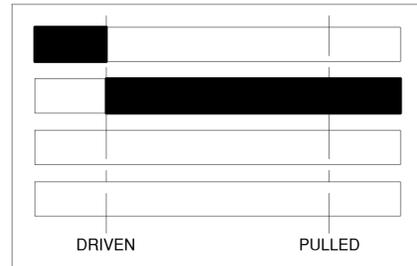
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
<input type="checkbox"/> AS BUILT - CHANGES AS NOTED <input type="checkbox"/> AS BUILT - NO CHANGES		CONTRACTOR: _____ PROJECT COORDINATOR: _____	
NAME _____	NAME _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	DATE _____	DATE _____

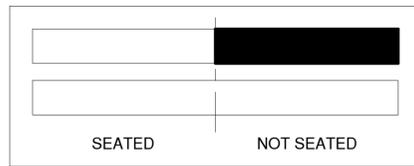
<b>WESTCHESTER COUNTY, NEW YORK</b> <b>DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION</b> DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER E-32
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 194 OF 212 SCALE: AS SHOWN DATE: 03/08/2024	
ELECTRICAL <b>PROPOSED LIMIT SWITCH DEVELOPMENT 1</b>		DPW FILE NO. 5-04-E-629-0	REV. NO. 0



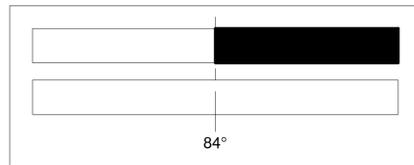
SPAN LOCK BAR PULLED PROXIMITY LIMIT SWITCH DEVELOPMENT (LS-SL1-P, LS-SL2-P)



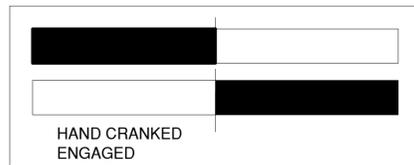
SPAN LOCK BAR DRIVEN PROXIMITY LIMIT SWITCH DEVELOPMENT (LS-SL1-D, LS-SL2-D)



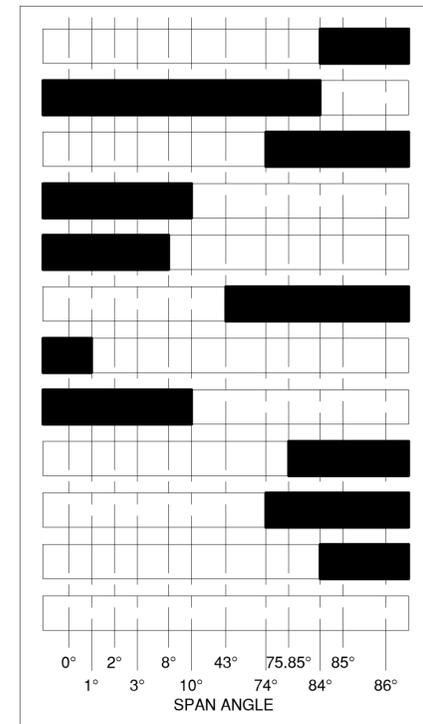
FULLY SEATED PROXIMITY SENSOR LIMIT SWITCH DEVELOPMENT (LS-SP-FS)



OVER-TRAVEL PROXIMITY SENSOR LIMIT SWITCH DEVELOPMENT (LS-SP-OT)



SPAN LOCK HAND CRANK INTERLOCK LIMIT SWITCH DEVELOPMENT (LS-SL1-HCI, LS-SL2-HCI)



SPAN ROTARY CAM LIMIT SWITCH DEVELOPMENT (RCLS-SPAN)

**NOTES:**

1. ROTARY CAM DEVELOPMENT IS AN APPROXIMATION IN NEED OF FIELD ADJUSTMENTS AS REQUIRED

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

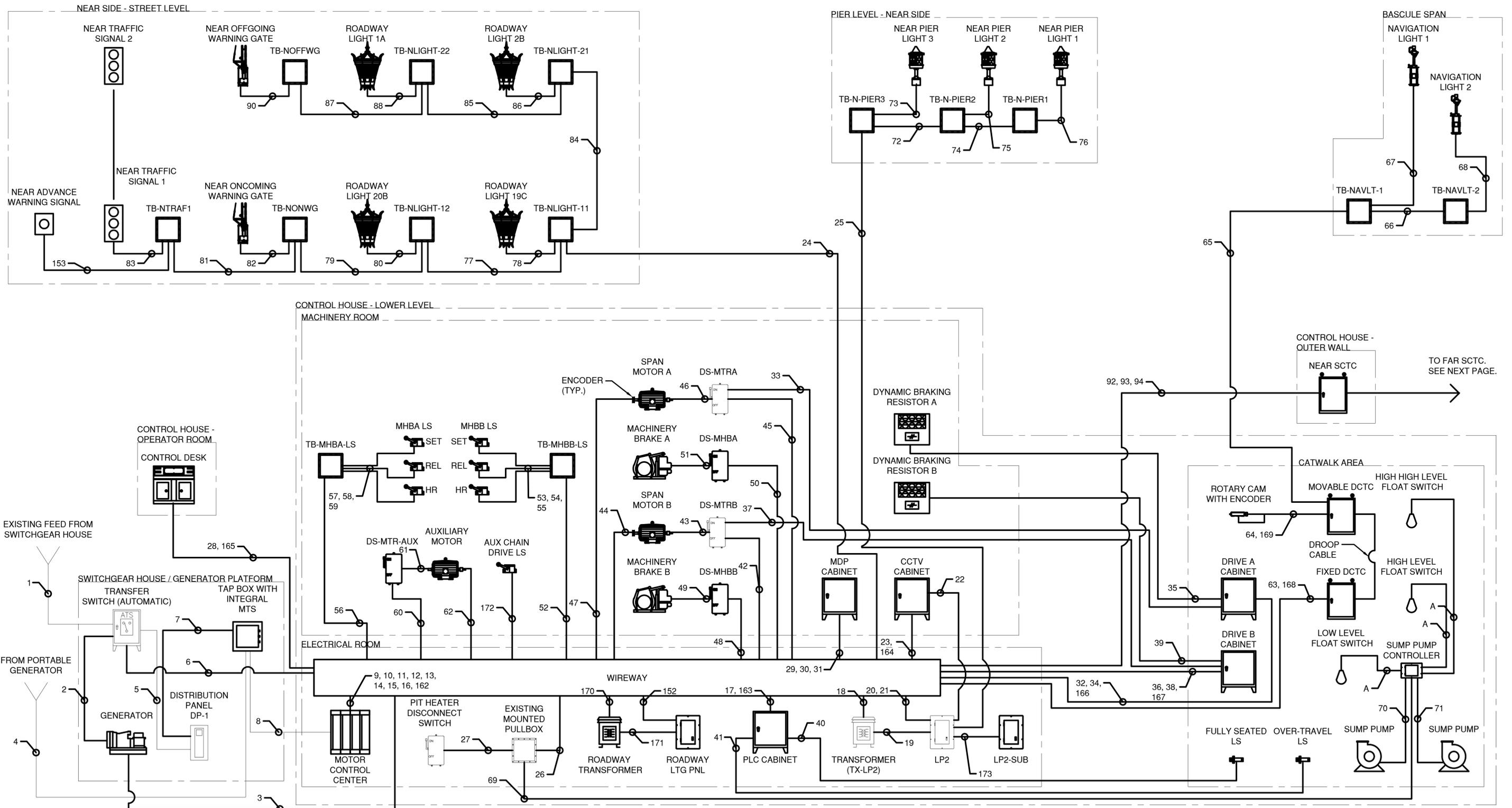
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____



CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER E-33
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 195 OF 212	
ELECTRICAL		SCALE: AS SHOWN DATE: 03/08/2024	REV. NO. 0
PROPOSED LIOMIT SWITCH DEVELOPMENT 2		DPW FILE NO. 5-04-E-630-0	REV. NO. 0



**NOTES:**

- THE BRIDGE HOUSE LIGHTING/RECEPTACLES, INTERCOM, AND CCTV ARE NOT SHOWN ON THIS SCHEMATIC. THE CONTRACTOR SHALL PROVIDE ALL ADDITIONAL CONDUIT AND CONDUCTORS OF SUFFICIENT NUMBER AND SIZE, INCLUDING TWENTY PERCENT SPARE CONTROL WIRING, AS MAY BE REQUIRED FOR THE INSTALLATION IN ACCORDANCE WITH THE FINAL WIRING DIAGRAMS ON THEIR APPROVED SHOP DRAWINGS.
- THE SCHEMATIC CONDUIT DIAGRAMS DO NOT PURPORT TO SHOW ALL PULL AND TERMINAL BOXES THAT MAY BE REQUIRED. THE CONTRACTOR SHALL FURNISH AND INSTALL ANY ADDITIONAL BOXES REQUIRED TO CONFORM WITH THE SPECIFIED NEC REQUIREMENTS GOVERNING THE ALLOWABLE NUMBER OF CONDUIT BETWEEN BOXES AND CABINETS. ALL PULL AND TERMINAL BOXES SHALL BE SIZED PER NEC SECTION 314.28. CONTRACTOR SHALL SUBMIT SIZING CALCULATIONS FOR REVIEW PRIOR TO INSTALLATION. ALL EXTERIOR BOXES LOCATED OUTSIDE OF THE BRIDGE HOUSE OR MACHINERY AREAS SHALL HAVE A UNIVERSAL BREATHER/DRAIN FITTING INSTALLED.
- WORK ON THIS SHEET TO BE PAID UNDER ITEMS 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM, 683.090700WE - MOVABLE BRIDGE STANDBY GENERATOR, 599.142500WE - MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS, 599.142600WE - MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS INSTALLATION, 599.064000WE - MOVABLE BRIDGE ELECTRICAL TESTING, 680.79300001 - REMOVE TRAFFIC SIGNAL HEAD OR PEDESTRIAN SIGNAL HEAD, 680.82250301 - REMOVE STEEL EMBEDDED TRAFFIC SIGNAL POLE, 670.60 -

- PHOTOELECTRIC CONTROLS, 670.81 - REMOVE AND DISPOSE OF LAMPOST ASSEMBLY, 680.621630 - TRAFFIC SIGNAL POLE - MAST ARM, 680.6712 - TRAFFIC SIGNAL POLE - POST TOP MOUNT, 680.810105 - TRAFFIC SIGNAL MODULE - 12 INCH RED BALL, LED, 680.810103 - TRAFFIC SIGNAL MODULE - 12 INCH YELLOW BALL, LED, 680.810107 - TRAFFIC SIGNAL MODULE - 12 INCH GREEN BALL, LED, 680.810107 - TRAFFIC SIGNAL SECTION - TYPE I, 12 INCH, 680.810308 - INSTALL BALL LED TRAFFIC SIGNAL MODULE, 680.8111 - TRAFFIC SIGNAL BRACKET ASSEMBLY, 680.8220 - FLASHING BEACON SIGN ASSEMBLY, 680.10000007 - INSTALL TRAFFIC SIGNAL POLE, ALL SIZES
- REQUIRED CABLE AND CONDUIT FOR INDOOR LIGHTING, EMERGENCY LIGHTING, EXIT SIGNS, FIRE ALARM SYSTEM, HVAC, TOILET PUMP, CONDENSATE PUMP, RESTROOM EXHAUST FAN/LIGHT, HOT WATER HEATER, AND RECEPTACLES NOT SHOWN. CONTRACTOR SHALL SUPPLY AT NO ADDITIONAL COST. THE CONTRACTOR SHALL MODIFY THE EXISTING POWER DISTRIBUTION AS REQUIRED TO SERVICE THESE LOADS.

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
CONTRACTOR		PROJECT COORDINATOR	
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SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

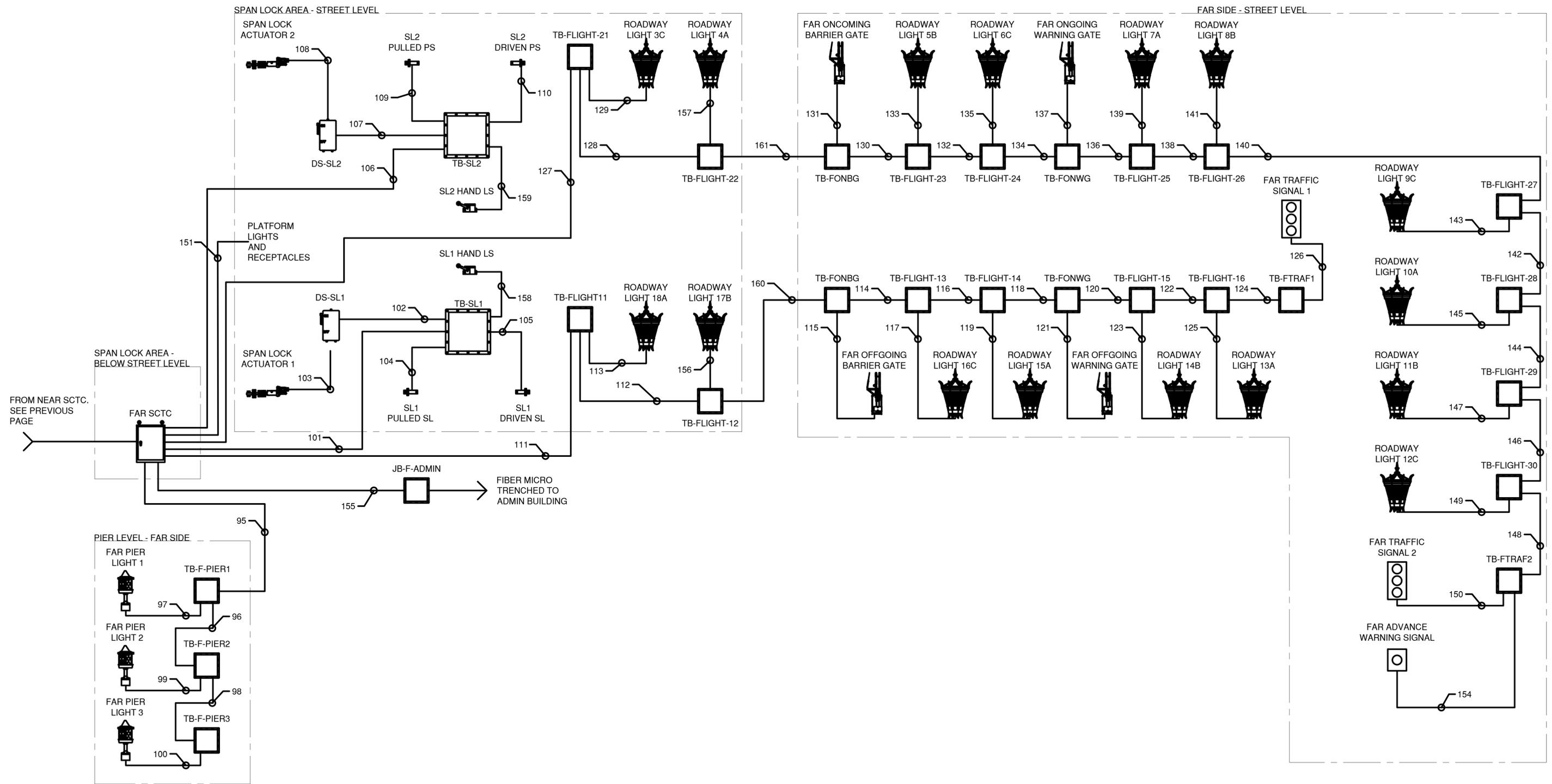


CONSULTANT INFORMATION



**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 ELECTRICAL  
**PROPOSED CONDUIT BLOCK DIAGRAM 1**

CONTRACT NUMBER 20-517	SHEET NUMBER E-34
SHEET NO. 196 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-E-631-0	0



**NOTES:**

- THE BRIDGE HOUSE LIGHTING/RECEPTACLES, INTERCOM, AND CCTV ARE NOT SHOWN ON THIS SCHEMATIC. THE CONTRACTOR SHALL PROVIDE ALL ADDITIONAL CONDUIT AND CONDUCTORS OF SUFFICIENT NUMBER AND SIZE, INCLUDING TWENTY PERCENT SPARE CONTROL WIRING, AS MAY BE REQUIRED FOR THE INSTALLATION IN ACCORDANCE WITH THE FINAL WIRING DIAGRAMS ON THEIR APPROVED SHOP DRAWINGS.
- THE SCHEMATIC CONDUIT DIAGRAMS DO NOT PURPORT TO SHOW ALL PULL AND TERMINAL BOXES THAT MAY BE REQUIRED. THE CONTRACTOR SHALL FURNISH AND INSTALL ANY ADDITIONAL BOXES REQUIRED TO CONFORM WITH THE SPECIFIED NEC REQUIREMENTS GOVERNING THE ALLOWABLE NUMBER OF CONDUIT BETWEEN BOXES AND CABINETS. ALL PULL AND TERMINAL BOXES SHALL BE SIZED PER NEC SECTION 314.28. CONTRACTOR SHALL SUBMIT SIZING CALCULATIONS FOR REVIEW PRIOR TO INSTALLATION. ALL EXTERIOR BOXES LOCATED OUTSIDE OF THE BRIDGE HOUSE OR MACHINERY AREAS SHALL HAVE A UNIVERSAL BREATHER/DRAIN FITTING INSTALLED.
- WORK ON THIS SHEET TO BE PAID UNDER ITEMS 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM, 683.090700WE - MOVABLE BRIDGE STANDBY GENERATOR, 599.142500WE - MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS, 599.142600WE - MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS INSTALLATION, 599.064000WE - MOVABLE BRIDGE ELECTRICAL TESTING, 680.79300001 - REMOVE TRAFFIC SIGNAL HEAD OR PEDESTRIAN SIGNAL HEAD, 680.82250301 - REMOVE STEEL EMBEDDED TRAFFIC SIGNAL POLE, 670.60 -

- PHOTOELECTRIC CONTROLS, 670.81 - REMOVE AND DISPOSE OF LAMPPOST ASSEMBLY, 680.621630 - TRAFFIC SIGNAL POLE - MAST ARM, 680.6712 - TRAFFIC SIGNAL POLE - POST TOP MOUNT, 680.810101 - TRAFFIC SIGNAL MODULE - 12 INCH RED BALL, LED, 680.810103 - TRAFFIC SIGNAL MODULE - 12 INCH YELLOW BALL, LED, 680.810105 - TRAFFIC SIGNAL MODULE - 12 INCH GREEN BALL, LED, 680.810107 - TRAFFIC SIGNAL SECTION - TYPE I, 12 INCH, 680.810308 - INSTALL BALL LED TRAFFIC SIGNAL MODULE, 680.8111 - TRAFFIC SIGNAL BRACKET ASSEMBLY, 680.8220 - FLASHING BEACON SIGN ASSEMBLY, 680.10000007 - INSTALL TRAFFIC SIGNAL POLE, ALL SIZES
- REQUIRED CABLE AND CONDUIT FOR INDOOR LIGHTING, EMERGENCY LIGHTING, EXIT SIGNS, FIRE ALARM SYSTEM, HVAC, TOILET PUMP, CONDENSATE PUMP, RESTROOM EXHAUST FAN/LIGHT, HOT WATER HEATER, AND RECEPTACLES NOT SHOWN. CONTRACTOR SHALL SUPPLY AT NO ADDITIONAL COST. THE CONTRACTOR SHALL MODIFY THE EXISTING POWER DISTRIBUTION AS REQUIRED TO SERVICE THESE LOADS.

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____



CONSULTANT INFORMATION



**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 ELECTRICAL  
**PROPOSED CONDUIT BLOCK DIAGRAM 2**

CONTRACT NUMBER 20-517	SHEET NUMBER E-35
SHEET NO. 197 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-E-632-0	0

COND NO	FROM EQUIPMENT	TO EQUIPMENT	COND SIZE	NO. AND SIZE OF CONDUCTORS	GND	SPARE
1	SERVICE DISCONNECT SWITCH	AUTOMATIC TRASNFER SWITCH (ATS)	EXISTING			
2	GENERATOR	AUTOMATIC TRASNFER SWITCH (ATS)	2-1/2"	4#4/0	#2	-
3	GENERATOR	ELECTRICAL ROOM WIREWAY	3/4"	2#12	#12	2#12
4	PORTABLE GENERATOR HOOK UP	TAPBOX WITH INTEGRAL MANUAL TRANSFER SWITCH (MTS)	CABLES FROM PORTABLE GENERATOR			
5	AUTOMATIC TRASNFER SWITCH (ATS)	DISTRIBUTION PANEL DP-1	EXISTING			
6	AUTOMATIC TRASNFER SWITCH (ATS)	ELECTRICAL ROOM WIREWAY	1"	13#12	#12	2#12
7	DISTRIBUTION PANEL DP-1	MANUAL TRANSFER SWITCH (MTS)	2-1/2"	4#4/0	#2	-
8	MANUAL TRANSFER SWITCH (MTS)	MOTOR CONTROL CENTER (MCC)	EXISTING	4#4/0	#2	-
9	MOTOR CONTROL CENTER (MCC)	ELECTRICAL ROOM WIREWAY	2"	4#3/0	#4	-
10	MOTOR CONTROL CENTER (MCC)	ELECTRICAL ROOM WIREWAY	1"	3#4	#10	-
11	MOTOR CONTROL CENTER (MCC)	ELECTRICAL ROOM WIREWAY	1"	3#4	#10	-
12	MOTOR CONTROL CENTER (MCC)	ELECTRICAL ROOM WIREWAY	3/4"	9#12	#12	-
13	MOTOR CONTROL CENTER (MCC)	ELECTRICAL ROOM WIREWAY	3/4"	9#12	#12	-
14	MOTOR CONTROL CENTER (MCC)	ELECTRICAL ROOM WIREWAY	3/4"	9#12	#12	-
15	MOTOR CONTROL CENTER (MCC)	ELECTRICAL ROOM WIREWAY	3/4"	6#12	#12	-
16	MOTOR CONTROL CENTER (MCC)	ELECTRICAL ROOM WIREWAY	2"	53#12	#12	6#12
17	PLC CABINET	ELECTRICAL ROOM WIREWAY	3"	121#12	#12	12#12
18	TRANSFORMER TX-LP2	ELECTRICAL ROOM WIREWAY	3/4"	4#10	#12	-
19	TRANSFORMER TX-LP2	PANTBOARD LP2	1-1/2"	4#1	#6	-
20	PANTBOARD LP2	ELECTRICAL ROOM WIREWAY	1"	12#12	#12	-
21	PANTBOARD LP2	ELECTRICAL ROOM WIREWAY	1"	14#12	#12	-
22	PANTBOARD LP2	CCTV CABINET	3/4"	2#12	#12	-
23	CCTV CABINET	ELECTRICAL ROOM WIREWAY	3/4"	2#12	#12	-
24	NEAR SIDE ROADWAY LIGHT TERMINAL BOX 11 (TB-NLIGHT-11)	ELECTRICAL ROOM WIREWAY	2"	46#12	#12	4#12
25	PANTBOARD LP2	NEAR SIDE PIER LIGHT TERMINAL BOX 3 (TB-N-PIER3)	3/4"	2#12	#12	-
26	EXISTING MOUNTED PULLBOX IN ELECTRICAL ROOM	ELECTRICAL ROOM WIREWAY	EXISTING	4#12, 3#8	#10	-
27	EXISTING MOUNTED PULLBOX IN ELECTRICAL ROOM	PIT HEATER DISCONNECT SWITCH	3/4"	4#12	#12	-
28	CONTROL DESK	ELECTRICAL ROOM WIREWAY	1-1/2"	39#12	#12	4#12
29	MAIN DISTRIBUTION PANEL (MDP)	ELECTRICAL ROOM WIREWAY	2"	4#3/0	#4	-
30	MAIN DISTRIBUTION PANEL (MDP)	ELECTRICAL ROOM WIREWAY	1"	11#10	#10	-
31	MAIN DISTRIBUTION PANEL (MDP)	ELECTRICAL ROOM WIREWAY	3/4"	6#12, 3#10	#10	-
32	DRIVE CABINET A	ELECTRICAL ROOM WIREWAY	1"	3#4	#8	-
33	DRIVE CABINET A	ELECTRICAL ROOM WIREWAY	1"	3#4	#8	-
34	DRIVE CABINET A	ELECTRICAL ROOM WIREWAY	1"	12#12	#12	2#12
35	DRIVE CABINET A	DYNAMIC BRAKING RESISTOR A	HIGH TEMP SIZED PER MANUFACTURER, 2#12			
36	DRIVE CABINET B	ELECTRICAL ROOM WIREWAY	1"	3#4	#8	-
37	DRIVE CABINET B	ELECTRICAL ROOM WIREWAY	1"	3#4	#8	-
38	DRIVE CABINET B	ELECTRICAL ROOM WIREWAY	1"	12#12	#12	2#12
39	DRIVE CABINET B	DYNAMIC BRAKING RESISTOR B	HIGH TEMP SIZED PER MANUFACTURER, 2#12			
40	PLC CABINET	FULLY SEATED LIMIT SWITCH (LS-SP-FS)	3/4"	4#12	#12	2#12
41	PLC CABINET	OVER-TRAVEL LIMIT SWITCH (LS-SP-OT)	3/4"	4#12	#12	2#12
42	SPAN MOTOR B DISCONNECT SWITCH (DS-MTRB)	ELECTRICAL ROOM WIREWAY	1"	6#12	#8	2#12
43	SPAN MOTOR B DISCONNECT SWITCH (DS-MTRB)	SPAN MOTOR B	1-1/2"	3#4, 4#12	#8	2#12
44	SPAN MOTOR B ENCODER	ELECTRICAL ROOM WIREWAY	1"	3#16TSP	#12	-
45	SPAN MOTOR A DISCONNECT SWITCH (DS-MTRA)	ELECTRICAL ROOM WIREWAY	1"	6#12	#8	2#12
46	SPAN MOTOR A DISCONNECT SWITCH (DS-MTRA)	SPAN MOTOR A	1-1/2"	3#4, 4#12	#8	2#12
47	SPAN MOTOR A ENCODER	ELECTRICAL ROOM WIREWAY	1"	3#16TSP	#12	-
48	MACHINERY BRAKE B DISCONNECT SWITCH (DS-MHBB)	ELECTRICAL ROOM WIREWAY	3/4"	7#12	#12	2#12
49	MACHINERY BRAKE B	MACHINERY BRAKE B DISCONNECT SWITCH (DS-MHBB)	3/4"	5#12	#12	2#12
50	MACHINERY BRAKE A DISCONNECT SWITCH (DS-MHBA)	ELECTRICAL ROOM WIREWAY	3/4"	7#12	#12	2#12
51	MACHINERY BRAKE A	MACHINERY BRAKE A DISCONNECT SWITCH (DS-MHBA)	3/4"	5#12	#12	2#12
52	MACHINERY BRAKE B LIMIT SWITCH TERMINAL BOX (TB-MHBB-LS)	ELECTRICAL ROOM WIREWAY	3/4"	4#12	#12	2#12
53	MACHINERY BRAKE B LIMIT SWITCH TERMINAL BOX (TB-MHBB-LS)	MACHINERY BRAKE A SET LIMIT SWITCH (LS-MYBA1)	3/4"	4#12	#12	-
54	MACHINERY BRAKE B LIMIT SWITCH TERMINAL BOX (TB-MHBB-LS)	MACHINERY BRAKE A HAND RELEASE LIMIT SWITCH (LS-MYBA3)	3/4"	4#12	#12	-

COND NO	FROM EQUIPMENT	TO EQUIPMENT	COND SIZE	NO. AND SIZE OF CONDUCTORS	GND	SPARE
55	MACHINERY BRAKE B LIMIT SWITCH TERMINAL BOX (TB-MHBB-LS)	MACHINERY BRAKE A RELEASE LIMIT SWITCH (LS-MYBA2)	3/4"	4#12	#12	-
56	MACHINERY BRAKE A LIMIT SWITCH TERMINAL BOX (TB-MHBA-LS)	ELECTRICAL ROOM WIREWAY	3/4"	4#12	#12	2#12
57	MACHINERY BRAKE A LIMIT SWITCH TERMINAL BOX (TB-MHBA-LS)	MACHINERY BRAKE B SET LIMIT SWITCH (LS-MYBB1)	3/4"	4#12	#12	-
58	MACHINERY BRAKE A LIMIT SWITCH TERMINAL BOX (TB-MHBA-LS)	MACHINERY BRAKE B HAND RELEASE LIMIT SWITCH (LS-MYBB3)	3/4"	4#12	#12	-
59	MACHINERY BRAKE A LIMIT SWITCH TERMINAL BOX (TB-MHBA-LS)	MACHINERY BRAKE B RELEASE LIMIT SWITCH (LS-MYBB2)	3/4"	4#12	#12	-
60	AUXILIARY MOTOR DISCONNECT SWITCH (DS-MTR-AUX)	ELECTRICAL ROOM WIREWAY	3/4"	9#12	#12	2#12
61	AUXILIARY MOTOR DISCONNECT SWITCH (DS-MTR-AUX)	AUXILIARY MOTOR	3/4"	7#12	#12	2#12
62	AUXILIARY MOTOR	ELECTRICAL ROOM WIREWAY	3/4"	4#12	#12	2#12
63	FIXED DROOP CABLE TERMINAL CABINET	ELECTRICAL ROOM WIREWAY	1"	13#12	#12	2#12
64	MOVABLE DROOP CABLE TERMINAL CABINET	SPAN ROTARY CAM LIMIT SWITCH W/ENCODER	1"	10#12	#12	2#12
65	MOVABLE DROOP CABLE TERMINAL CABINET	NAVIGATION LIGHT TERMINAL BOX 1 (TB-NAVLT-1)	3/4"	3#12	#12	2#12
66	NAVIGATION LIGHT TERMINAL BOX 1 (TB-NAVLT-1)	NAVIGATION LIGHT TERMINAL BOX 2 (TB-NAVLT-2)	3/4"	3#12	#12	2#12
67	NAVIGATION LIGHT TERMINAL BOX 1 (TB-NAVLT-1)	NAVIGATION LIGHT 1	3/4"	3#12	#12	-
68	NAVIGATION LIGHT TERMINAL BOX 2 (TB-NAVLT-2)	NAVIGATION LIGHT 2	3/4"	3#12	#12	-
69	EXISTING MOUNTED PULLBOX IN ELECTRICAL ROOM	SUMP PUMP CONTROL PANEL	3/4"	3#8	#10	-
70	SUMP PUMP CONTROL PANEL	SUMP PUMP 1	3/4"	3#12	#12	-
71	SUMP PUMP CONTROL PANEL	SUMP PUMP 2	3/4"	3#12	#12	-
72	NEAR SIDE PIER LIGHT TERMINAL BOX 3 (TB-N-PIER3)	NEAR SIDE PIER LIGHT TERMINAL BOX 2 (TB-N-PIER2)	3/4"	2#12	#12	2#12
73	NEAR SIDE PIER LIGHT TERMINAL BOX 3 (TB-N-PIER3)	NEAR SIDE PIER LIGHT 3	3/4"	2#12	#12	-
74	NEAR SIDE PIER LIGHT TERMINAL BOX 2 (TB-N-PIER2)	NEAR SIDE PIER LIGHT TERMINAL BOX 1 (TB-N-PIER1)	3/4"	2#12	#12	2#12
75	NEAR SIDE PIER LIGHT TERMINAL BOX 2 (TB-N-PIER2)	NEAR SIDE PIER LIGHT 2	3/4"	2#12	#12	-
76	NEAR SIDE PIER LIGHT TERMINAL BOX 1 (TB-N-PIER1)	NEAR SIDE PIER LIGHT 1	3/4"	2#12	#12	-
77	NEAR SIDE ROADWAY LIGHT TERMINAL BOX 11 (TB-NLIGHT-11)	NEAR SIDE ROADWAY LIGHT TERMINAL BOX 12 (TB-NLIGHT-12)	2"	30#12	#12	3#12
78	NEAR SIDE ROADWAY LIGHT TERMINAL BOX 11 (TB-NLIGHT-11)	NEAR SIDE ROADWAY LIGHT 19C	3/4"	2#12	#12	-
79	NEAR SIDE ROADWAY LIGHT TERMINAL BOX 12 (TB-NLIGHT-12)	NEAR SIDE ONCOMING WARNING GATE TERMINAL BOX (TB-NONWG)	2"	24#12	#12	3#12
80	NEAR SIDE ROADWAY LIGHT TERMINAL BOX 12 (TB-NLIGHT-12)	NEAR SIDE ROADWAY LIGHT 20B	3/4"	2#12	#12	-
81	NEAR SIDE ONCOMING WARNING GATE TERMINAL BOX (TB-NONWG)	NEAR SIDE TRAFFIC SIGNAL 1 TERMINAL BOX (TB-NTRAF1)	2"	6#12	#12	2#12
82	NEAR SIDE ONCOMING WARNING GATE TERMINAL BOX (TB-NONWG)	NEAR SIDE ONCOMING WARNING GATE	1-1/2"	18#12	#12	2#12
83	NEAR SIDE TRAFFIC SIGNAL 1 TERMINAL BOX (TB-NTRAF1)	NEAR SIDE TRAFFIC SIGNAL 1	3/4"	4#12	#12	2#12
84	NEAR SIDE ROADWAY LIGHT TERMINAL BOX 11 (TB-NLIGHT-11)	NEAR SIDE ROADWAY LIGHT TERMINAL BOX 21 (TB-NLIGHT-21)	2"	28#12	#12	3#12
85	NEAR SIDE ROADWAY LIGHT TERMINAL BOX 21 (TB-NLIGHT-21)	NEAR SIDE ROADWAY LIGHT TERMINAL BOX 22 (TB-NLIGHT-22)	2"	28#12	#12	3#12
86	NEAR SIDE ROADWAY LIGHT TERMINAL BOX 21 (TB-NLIGHT-21)	NEAR SIDE ROADWAY LIGHT 2B	3/4"	2#12	#12	-
87	NEAR SIDE ROADWAY LIGHT TERMINAL BOX 22 (TB-NLIGHT-22)	NEAR SIDE OFFGOING WARNING GATE TERMINAL BOX (TB-NOFFWG)	2"	22#12	#12	3#12
88	NEAR SIDE ROADWAY LIGHT TERMINAL BOX 22 (TB-NLIGHT-22)	NEAR SIDE ROADWAY LIGHT 1A	3/4"	2#12	#12	-
89	NEAR SIDE OFFGOING WARNING GATE TERMINAL BOX (TB-NOFFWG)	NEAR SIDE TRAFFIC SIGNAL 2 TERMINAL BOX (TB-NTRAF2)	3/4"	4#12	#12	2#12
90	NEAR SIDE OFFGOING WARNING GATE TERMINAL BOX (TB-NOFFWG)	NEAR SIDE OFFGOING WARNING GATE	1-1/2"	18#12	#12	2#12
91	NEAR SIDE TRAFFIC SIGNAL 2 TERMINAL BOX (TB-NTRAF2)	NEAR SIDE TRAFFIC SIGNAL 2	3/4"	4#12	#12	2#12
92	NEAR SUBMARINE CABLE TERMINAL CABINET	ELECTRICAL ROOM WIREWAY	2"	64#12	#12	7#12
93	NEAR SUBMARINE CABLE TERMINAL CABINET	ELECTRICAL ROOM WIREWAY	2"	64#12	#12	7#12
94	NEAR SUBMARINE CABLE TERMINAL CABINET	ELECTRICAL ROOM WIREWAY	3/4"	4#12, 2 FIBER	#12	2#12
95	FAR SUBMARINE CABLE TERMINAL CABINET	FAR SIDE PIER LIGHT TERMINAL BOX 1 (TB-F-PIER1)	3/4"	2#12	#12	2#12
96	FAR SIDE PIER LIGHT TERMINAL BOX 1 (TB-F-PIER1)	FAR SIDE PIER LIGHT 1	3/4"	2#12	#12	-

**NOTES:**

- PLEASE NOTE THAT THE CONTRACTOR IS BIDDING ON A LUMP SUM BID ITEM FOR ALL CONDUIT AND CABLE FOR A MOVABLE BRIDGE. THE CONTRACTOR IS REQUIRED TO SUPPLY ALL CABLE AND CONDUIT FOR A COMPLETE SYSTEM WHETHER SHOWN ON THE CONTRACT DRAWINGS OR NOT. THE CABLE AND CONDUIT SHOWN ON THESE SET OF PLANS IS TO SUPPLY AN ORDER OF MAGNITUDE OF THE TOTAL REQUIRED. CONTRACTOR SHALL BE REQUIRED TO INCLUDE IN THEIR BID THE COST FOR ALL CABLE AND CONDUIT FOR THE SYSTEM. NO CHANGE ORDERS SHALL BE ALLOWED FOR ADDITIONAL CABLE AND CONDUIT, WHICH IS FOR THE THE ORIGINAL SYSTEM INTENT SHOWN ON THESE DRAWINGS.
- REQUIRED CABLE AND CONDUIT FOR INDOOR LIGHTING, EMERGENCY LIGHTING, EXIT SIGNS, FIRE ALARM SYSTEM, HVAC, TOILET PUMP, CONDENSATE PUMP, RESTROOM EXHAUST FAN/LIGHT, HOT WATER HEATER, AND RECEPTACLES NOT SHOWN. CONTRACTOR SHALL SUPPLY AT NO ADDITIONAL COST. THE CONTRACTOR SHALL MODIFY THE EXISTING POWER DISTRIBUTION AS REQUIRED TO SERVICE THESE LOADS.

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

**RECORD DRAWING CERTIFICATION**

- AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

**CONTRACTOR**

NAME \_\_\_\_\_  
 SIGNATURE \_\_\_\_\_  
 TITLE \_\_\_\_\_ DATE \_\_\_\_\_

**PROJECT COORDINATOR**

NAME \_\_\_\_\_  
 SIGNATURE \_\_\_\_\_  
 TITLE \_\_\_\_\_ DATE \_\_\_\_\_



CONSULTANT INFORMATION



**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

ELECTRICAL

**PROPOSED CONDUIT AND CABLE SCHEDULE 1**

CONTRACT NUMBER 20-517	SHEET NUMBER E-36
SHEET NO. 198 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-E-633-0	REV. NO. 0

COND NO	FROM EQUIPMENT	TO EQUIPMENT	COND SIZE	NO. AND SIZE OF CONDUCTORS	GND	SPARE
97	FAR SIDE PIER LIGHT TERMINAL BOX 2 (TB-F-PIER2)	FAR SIDE PIER LIGHT TERMINAL BOX 1 (TB-F-PIER1)	3/4"	2#12	#12	2#12
98	FAR SIDE PIER LIGHT TERMINAL BOX 2 (TB-F-PIER2)	FAR SIDE PIER LIGHT 2	3/4"	2#12	#12	-
99	FAR SIDE PIER LIGHT TERMINAL BOX 3 (TB-F-PIER3)	FAR SIDE PIER LIGHT TERMINAL BOX 2 (TB-F-PIER2)	3/4"	2#12	#12	2#12
100	FAR SIDE PIER LIGHT TERMINAL BOX 3 (TB-F-PIER3)	FAR SIDE PIER LIGHT 3	3/4"	2#12	#12	-
101	FAR SUBMARINE CABLE TERMINAL CABINET	SPAN LOCK 1 TERMINAL BOX (TB-SL1)	1"	15#12	#12	2#12
102	SPAN LOCK 1 TERMINAL BOX (TB-SL1)	SPAN LOCK 1 DISCONNECT SWITCH (DS-SL1)	1"	9#12	#12	2#12
103	SPAN LOCK 1 DISCONNECT SWITCH (DS-SL1)	SPAN LOCK 1	2"	7#12	#12	2#12
104	SPAN LOCK 1 TERMINAL BOX (TB-SL1)	SPAN LOCK 1 PULLED LIMIT SWITCH (LS-SL1-P)	3/4"	2#12	#12	-
105	SPAN LOCK 1 TERMINAL BOX (TB-SL1)	SPAN LOCK 1 DRIVEN LIMIT SWITCH (LS-SL1-D)	3/4"	2#12	#12	-
106	FAR SUBMARINE CABLE TERMINAL CABINET	SPAN LOCK 2 TERMINAL BOX (TB-SL2)	1"	15#12	#12	2#12
107	SPAN LOCK 2 TERMINAL BOX (TB-SL2)	SPAN LOCK 2 DISCONNECT SWITCH (DS-SL2)	1"	9#12	#12	2#12
108	SPAN LOCK 2 DISCONNECT SWITCH (DS-SL2)	SPAN LOCK 2	3/4"	7#12	#12	2#12
109	SPAN LOCK 2 TERMINAL BOX (TB-SL2)	SPAN LOCK 2 PULLED LIMIT SWITCH (LS-SL2-P)	3/4"	2#12	#12	-
110	SPAN LOCK 2 TERMINAL BOX (TB-SL2)	SPAN LOCK 2 DRIVEN LIMIT SWITCH (LS-SL2-D)	3/4"	2#12	#12	-
111	FAR SUBMARINE CABLE TERMINAL CABINET	FAR SIDE ROADWAY LIGHT TERMINAL BOX 11 (TB-FLIGHT-11)	2"	46#12	#10	5#12
112	FAR SIDE ROADWAY LIGHT TERMINAL BOX 11 (TB-FLIGHT-11)	FAR SIDE OFFGOING BARRIER GATE TERINAL BOX (TB-FOFFBG)	2"	46#12	#10	5#12
113	FAR SIDE ROADWAY LIGHT TERMINAL BOX 11 (TB-FLIGHT-11)	FAR SIDE ROADWAY LIGHT 18A	3/4"	2#12	#12	-
114	FAR SIDE OFFGOING BARRIER GATE TERINAL BOX (TB-FOFFBG)	FAR SIDE ROADWAY LIGHT TERMINAL BOX 13 (TB-FLIGHT-13)	2"	26#12	#10	3#12
115	FAR SIDE OFFGOING BARRIER GATE TERINAL BOX (TB-FOFFBG)	FAR SIDE OFFGOING BARRIER GATE	1-1/2"	20#12	#10	2#12
116	FAR SIDE ROADWAY LIGHT TERMINAL BOX 13 (TB-FLIGHT-13)	FAR SIDE ROADWAY LIGHT TERMINAL BOX 14 (TB-FLIGHT-14)	2"	26#12	#10	3#12
117	FAR SIDE ROADWAY LIGHT TERMINAL BOX 13 (TB-FLIGHT-13)	FAR SIDE ROADWAY LIGHT 16C	3/4"	2#12	#12	-
118	FAR SIDE ROADWAY LIGHT TERMINAL BOX 14 (TB-FLIGHT-14)	FAR SIDE OFFGOING WARNING GATE TERINAL BOX (TB-FOFFWG)	2"	26#12	#10	3#12
119	FAR SIDE ROADWAY LIGHT TERMINAL BOX 14 (TB-FLIGHT-14)	FAR SIDE ROADWAY LIGHT 15A	3/4"	2#12	#12	-
120	FAR SIDE OFFGOING WARNING GATE TERINAL BOX (TB-FOFFWG)	FAR SIDE ROADWAY LIGHT TERMINAL BOX 15 (TB-FLIGHT-15)	2"	8#12	#12	2#12
121	FAR SIDE OFFGOING WARNING GATE TERINAL BOX (TB-FOFFWG)	FAR SIDE OFFGOING WARNING GATE	1-1/2"	18#12	#10	2#12
122	FAR SIDE ROADWAY LIGHT TERMINAL BOX 15 (TB-FLIGHT-15)	FAR SIDE ROADWAY LIGHT TERMINAL BOX 16 (TB-FLIGHT-16)	2"	8#12	#12	2#12
123	FAR SIDE ROADWAY LIGHT TERMINAL BOX 15 (TB-FLIGHT-15)	FAR SIDE ROADWAY LIGHT 14B	3/4"	2#12	#12	-
124	FAR SIDE ROADWAY LIGHT TERMINAL BOX 16 (TB-FLIGHT-16)	FAR SIDE TRAFFIC SIGNAL 1 TERMINAL BOX (TB-FTRAF1)	3/4"	4#12	#12	2#12
125	FAR SIDE ROADWAY LIGHT TERMINAL BOX 16 (TB-FLIGHT-16)	FAR SIDE ROADWAY LIGHT 13A	3/4"	2#12	#12	-
126	FAR SIDE TRAFFIC SIGNAL 1 TERMINAL BOX (TB-FTRAF1)	FAR SIDE TRAFFIC SIGNAL 1	3/4"	4#12	#12	2#12
127	FAR SUBMARINE CABLE TERMINAL CABINET	FAR SIDE ROADWAY LIGHT TERMINAL BOX 21 (TB-FLIGHT-21)	2"	48#12	#10	5#12
128	FAR SIDE ROADWAY LIGHT TERMINAL BOX 21 (TB-FLIGHT-21)	FAR SIDE ONCOMING BARRIER GATE TERINAL BOX (TB-FONBG)	2"	48#12	#10	5#12
129	FAR SIDE ROADWAY LIGHT TERMINAL BOX 21 (TB-FLIGHT-21)	FAR SIDE ROADWAY LIGHT 3C	3/4"	2#12	#12	-
130	FAR SIDE ONCOMING BARRIER GATE TERINAL BOX (TB-FONBG)	FAR SIDE ROADWAY LIGHT TERMINAL BOX 23 (TB-FLIGHT-23)	2"	28#12	#10	3#12
131	FAR SIDE ONCOMING BARRIER GATE TERINAL BOX (TB-FONBG)	FAR SIDE ONCOMING BARRIER GATE	1-1/2"	20#12	#10	2#12
132	FAR SIDE ROADWAY LIGHT TERMINAL BOX 23 (TB-FLIGHT-23)	FAR SIDE ROADWAY LIGHT TERMINAL BOX 24 (TB-FLIGHT-24)	2"	28#12	#10	3#12
133	FAR SIDE ROADWAY LIGHT TERMINAL BOX 23 (TB-FLIGHT-23)	FAR SIDE ROADWAY LIGHT 5B	3/4"	2#12	#12	-
134	FAR SIDE ROADWAY LIGHT TERMINAL BOX 24 (TB-FLIGHT-24)	FAR SIDE ONCOMING WARNING GATE TERINAL BOX (TB-FONWG)	2"	28#12	#10	3#12

COND NO	FROM EQUIPMENT	TO EQUIPMENT	COND SIZE	NO. AND SIZE OF CONDUCTORS	GND	SPARE
135	FAR SIDE ROADWAY LIGHT TERMINAL BOX 24 (TB-FLIGHT-24)	FAR SIDE ROADWAY LIGHT 6C	3/4"	2#12	#12	-
136	FAR SIDE ONCOMING WARNING GATE TERINAL BOX (TB-FONWG)	FAR SIDE ROADWAY LIGHT TERMINAL BOX 25 (TB-FLIGHT-25)	2"	10#12	#12	2#12
137	FAR SIDE ONCOMING WARNING GATE TERINAL BOX (TB-FONWG)	FAR SIDE ONCOMING WARNING GATE	1-1/2"	18#12	#10	2#12
138	FAR SIDE ROADWAY LIGHT TERMINAL BOX 25 (TB-FLIGHT-25)	FAR SIDE ROADWAY LIGHT TERMINAL BOX 26 (TB-FLIGHT-26)	2"	10#12	#12	2#12
139	FAR SIDE ROADWAY LIGHT TERMINAL BOX 25 (TB-FLIGHT-25)	FAR SIDE ROADWAY LIGHT 7A	3/4"	2#12	#12	-
140	FAR SIDE ROADWAY LIGHT TERMINAL BOX 26 (TB-FLIGHT-26)	FAR SIDE ROADWAY LIGHT TERMINAL BOX 27 (TB-FLIGHT-27)	2"	10#12	#12	2#12
141	FAR SIDE ROADWAY LIGHT TERMINAL BOX 26 (TB-FLIGHT-26)	FAR SIDE ROADWAY LIGHT 8B	3/4"	2#12	#12	-
142	FAR SIDE ROADWAY LIGHT TERMINAL BOX 27 (TB-FLIGHT-27)	FAR SIDE ROADWAY LIGHT TERMINAL BOX 28 (TB-FLIGHT-28)	2"	10#12	#12	2#12
143	FAR SIDE ROADWAY LIGHT TERMINAL BOX 27 (TB-FLIGHT-27)	FAR SIDE ROADWAY LIGHT 9C	3/4"	2#12	#12	-
144	FAR SIDE ROADWAY LIGHT TERMINAL BOX 28 (TB-FLIGHT-28)	FAR SIDE ROADWAY LIGHT TERMINAL BOX 29 (TB-FLIGHT-29)	2"	10#12	#12	2#12
145	FAR SIDE ROADWAY LIGHT TERMINAL BOX 28 (TB-FLIGHT-28)	FAR SIDE ROADWAY LIGHT 10A	3/4"	2#12	#12	-
146	FAR SIDE ROADWAY LIGHT TERMINAL BOX 29 (TB-FLIGHT-29)	FAR SIDE ROADWAY LIGHT TERMINAL BOX 30 (TB-FLIGHT-30)	2"	10#12	#12	2#12
147	FAR SIDE ROADWAY LIGHT TERMINAL BOX 29 (TB-FLIGHT-29)	FAR SIDE ROADWAY LIGHT 11B	3/4"	2#12	#12	-
148	FAR SIDE ROADWAY LIGHT TERMINAL BOX 30 (TB-FLIGHT-30)	FAR SIDE TRAFFIC SIGNAL 2 TERMINAL BOX (TB-FTRAF2)	2"	6#12	#12	2#12
149	FAR SIDE ROADWAY LIGHT TERMINAL BOX 309 (TB-FLIGHT-30)	FAR SIDE ROADWAY LIGHT 12C	3/4"	2#12	#12	-
150	FAR SIDE TRAFFIC SIGNAL 2 TERMINAL BOX (TB-FTRAF2)	FAR SIDE TRAFFIC SIGNAL 2	3/4"	4#12	#12	2#12
151	FAR SUBMARINE CABLE TERMINAL CABINET	SPAN LOCK PLATFORM LIGHTS AND RECEPTACLE	3/4"	2#12	#12	-
152	ROADWAY LIGHTING PANEL	ELECTRICAL ROOM WIREWAY	3/4"	9#12	#12	-
153	NEAR SIDE TRAFFIC SIGNAL 1 TERMINAL BOX (TB-NTRAF1)	NEAR SIDE ADVANCE WARNING SIGNAL	2"	2#12	#12	-
154	FAR SIDE ROADWAY LIGHT TERMINAL BOX 30 (TB-FLIGHT-30)	FAR SIDE ADVANCE WARNING SIGNAL	2"	2#12	#12	-
155	FAR SUBMARINE CABLE TERMINAL CABINET	ADMIN BULDING FIBER JUNCTION BOX (JB-F-ADMIN)	3/4"	1 FIBER	-	-
156	FAR SIDE ROADWAY LIGHT TERMINAL BOX 12 (TB-FLIGHT-12)	FAR SIDE ROADWAY LIGHT 17B	3/4"	2#12	#12	-
157	FAR SIDE ROADWAY LIGHT TERMINAL BOX 22 (TB-FLIGHT-22)	FAR SIDE ROADWAY LIGHT 4A	3/4"	2#12	#12	-
158	SPAN LOCK 1 TERMINAL BOX (TB-SL1)	SPAN LOCK 1 HAND CRANK LIMIT SWITCH (LS-SL1-HCI)	3/4"	2#12	#12	-
159	SPAN LOCK 2 TERMINAL BOX (TB-SL2)	SPAN LOCK 2 HAND CRANK LIMIT SWITCH (LS-SL2-HCI)	3/4"	2#12	#12	-
160	FAR SIDE ROADWAY LIGHT TERMINAL BOX 12 (TB-FLIGHT-12)	FAR SIDE OFFGOING BARRIER GATE TERINAL BOX (TB-FOFFBG)	2"	46#12	#12	3#12
161	FAR SIDE ROADWAY LIGHT TERMINAL BOX 22 (TB-FLIGHT-22)	FAR SIDE ONCOMING BARRIER GATE TERINAL BOX (TB-FONBG)	2"	48#12	#12	5#12
162	MOTOR CONTROL CENTER (MCC)	ELECTRICAL ROOM WIREWAY	1"	1#16TSP, 1 CAT6E	#12	-
163	PLC CABINET	ELECTRICAL ROOM WIREWAY	1"	1#16TSP, 1 CAT6E	#12	-
164	CCTV CABINET	ELECTRICAL ROOM WIREWAY	1-1/2"	9 CAT6E, 1 FIBER	#12	-
165	CONTROL DESK	ELECTRICAL ROOM WIREWAY	1-1/2"	6 CAT6E	#12	-
166	DRIVE CABINET A	ELECTRICAL ROOM WIREWAY	2"	3#16TSP, 2 CAT6E	#12	-
167	DRIVE CABINET B	ELECTRICAL ROOM WIREWAY	2"	3#16TSP, 2 CAT6E	#12	-
168	FIXED DROOP CABLE TERMINAL CABINET	ELECTRICAL ROOM WIREWAY	3/4"	1 CAT6E	#12	-
169	MOVABLE DROOP CABLE TERMINAL CABINET	SPAN ROTARY CAM LIMIT SWITCH W/RESOLVER	3/4"	1 CAT6E	#12	-
170	ROADWAY LIGHTING TRASNFORMER	ELECTRICAL ROOM WIREWAY	3/4"	4#12	#12	-
171	ROADWAY LIGHTING TRASNFORMER	ROADWAY LIGHTING PANEL	3/4"	4#12	#12	-
172	AUX MOTOR CHAIN DRIVE ENGAGED LIMIT SWITCH	ELECTRICAL ROOM WIREWAY	3/4"	2#12	#12	-
173	PANELBOARD LP2	AC SUBPANEL	3/4"	3#6	#10	-
A	SUMP PUMP CONTROL PANEL	FLOAT SWITCH (X3)				MANUFACTURER'S FLEXIBLE CABLE

**NOTES:**

- PLEASE NOTE THAT THE CONTRACTOR IS BIDDING ON A LUMP SUM BID ITEM FOR ALL CONDUIT AND CABLE FOR A MOVABLE BRIDGE. THE CONTRACTOR IS REQUIRED TO SUPPLY ALL CABLE AND CONDUIT FOR A COMPLETE SYSTEM WHETHER SHOWN ON THE CONTRACT DRAWINGS OR NOT. THE CABLE AND CONDUIT SHOWN ON THESE SET OF PLANS IS TO SUPPLY AN ORDER OF MAGNITUDE OF THE TOTAL REQUIRED. CONTRACTOR SHALL BE REQUIRED TO INCLUDE IN THEIR BID THE COST FOR ALL CABLE AND CONDUIT FOR THE SYSTEM. NO CHANGE ORDERS SHALL BE ALLOWED FOR ADDITIONAL CABLE AND CONDUIT, WHICH IS FOR THE THE ORIGINAL SYSTEM INTENT SHOWN ON THESE DRAWINGS.
- REQUIRED CABLE AND CONDUIT FOR INDOOR LIGHTING, EMERGENCY LIGHTING, EXIT SIGNS, FIRE ALARM SYSTEM, HVAC, TOILET PUMP, CONDENSATE PUMP, RESTROOM EXHAUST FAN/LIGHT, HOT WATER HEATER, AND RECEPTACLES NOT SHOWN. CONTRACTOR SHALL SUPPLY AT NO ADDITIONAL COST. THE CONTRACTOR SHALL MODIFY THE EXISTING POWER DISTRIBUTION AS REQUIRED TO SERVICE THESE LOADS.

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

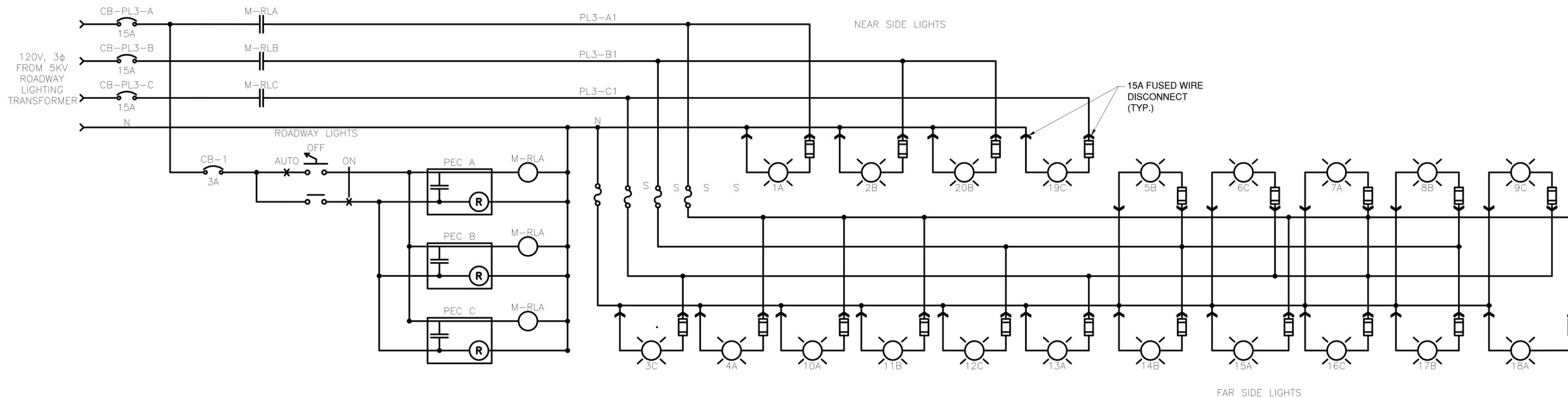


CONSULTANT INFORMATION

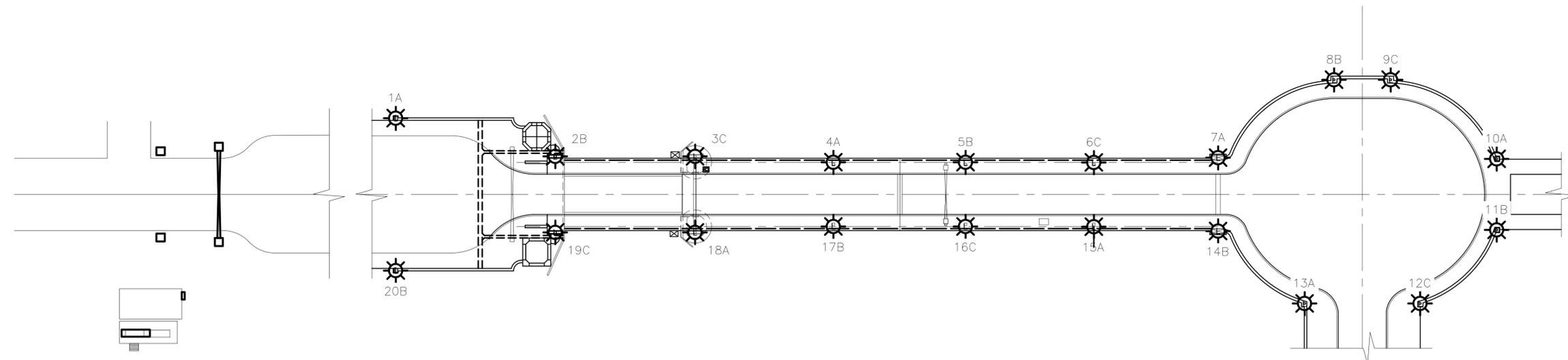


WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 ELECTRICAL  
**PROPOSED CONDUIT AND CABLE SCHEDULE 2**

CONTRACT NUMBER 20-517	SHEET NUMBER E-37
SHEET NO. 199 OF 212	
SCALE: AS SHOWN DATE: 03/08/2024	
DPW FILE NO. 5-04-E-634-0	REV. NO. 0



**ROADWAY LIGHTING PANEL**  
N.T.S.



**ROADWAY LIGHTING PLAN**  
N.T.S.

**NOTES:**  
 1. WORK ON THIS SHEET TO BE PAID UNDER ITEMS 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM, 599.142500WE - MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS, 599.142600WE - MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS INSTALLATION, 599.064000WE - MOVABLE BRIDGE ELECTRICAL TESTING, 680.793000U1 - REMOVE TRAFFIC SIGNAL HEAD OR PEDESTRIAN SIGNAL HEAD, 680.82250301 - REMOVE STEEL EMBEDDED TRAFFIC SIGNAL POLE, 670.60 - PHOTOELECTRIC CONTROLS, 670.81 - REMOVE AND DISPOSE OF LAMPPOST ASSEMBLY, 680.621630 - TRAFFIC SIGNAL POLE - MAST ARM, 680.6712 - TRAFFIC SIGNAL POLE - POST TOP MOUNT, 680.810101 - TRAFFIC SIGNAL MODULE - 12 INCH RED BALL, LED, 680.810103 - TRAFFIC SIGNAL MODULE - 12 INCH YELLOW BALL, LED, 680.810105 - TRAFFIC SIGNAL MODULE - 12 INCH GREEN BALL, LED, 680.810107 - TRAFFIC SIGNAL SECTION - TYPE I, 12 INCH, 680.810308 - INSTALL BALL LED TRAFFIC SIGNAL MODULE, 680.8111 - TRAFFIC SIGNAL BRACKET ASSEMBLY, 680.8220 - FLASHING BEACON SIGN ASSEMBLY, 680.10000007 - INSTALL TRAFFIC SIGNAL POLE, ALL SIZES

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

**RECORD DRAWING CERTIFICATION**

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

CONSULTANT SEAL

CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

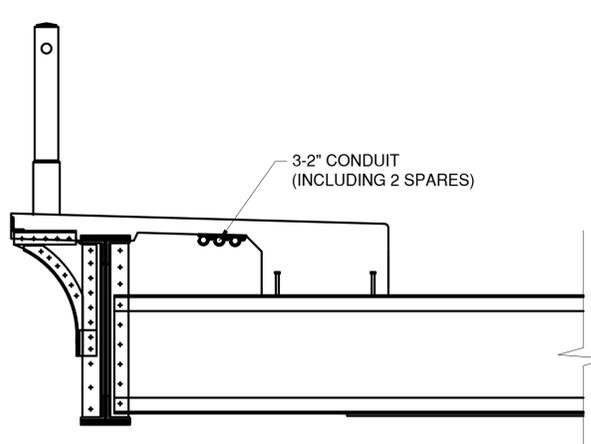
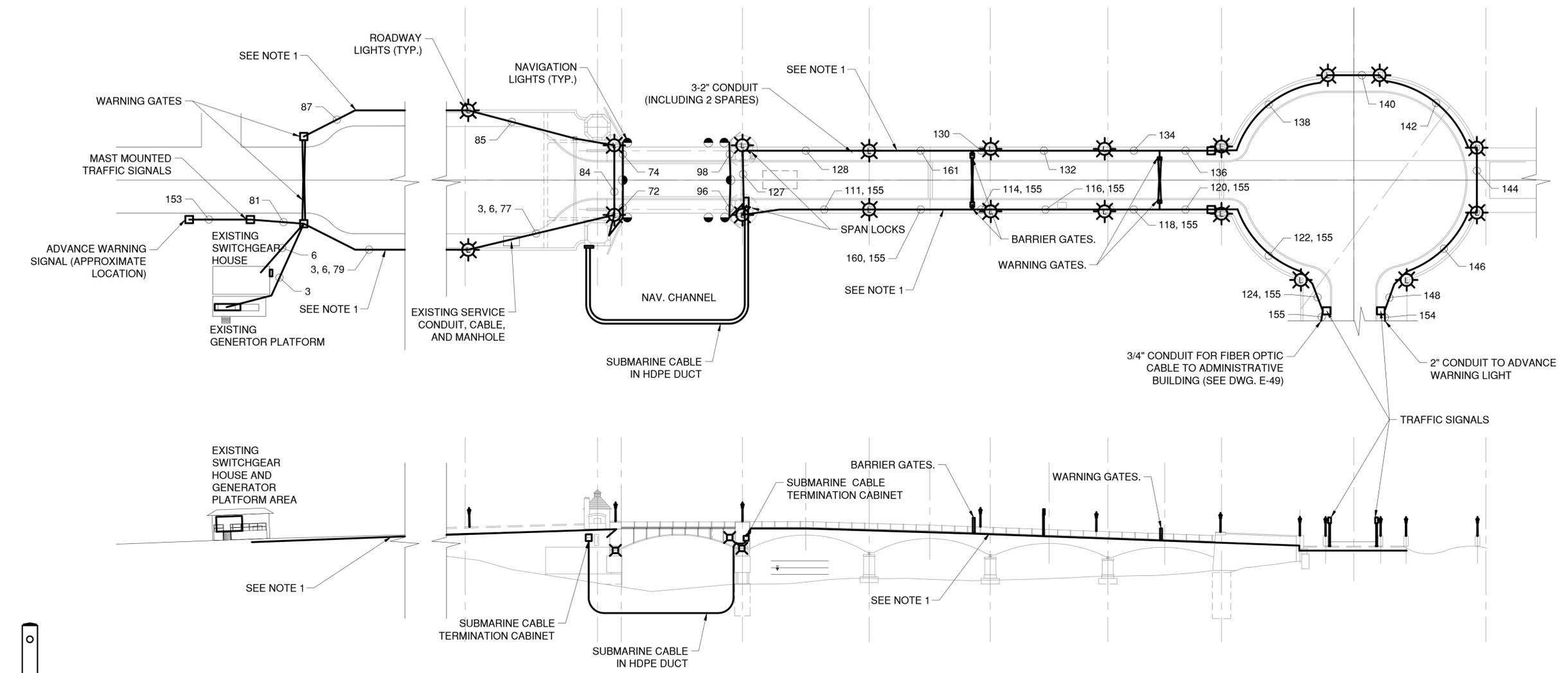
**WESTCHESTER COUNTY, NEW YORK**  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

**ELECTRICAL**

**PROP'D ROADWAY LIGHTING LAYOUT & CONTROL**

CONTRACT NUMBER 20-517	SHEET NUMBER E-38
SHEET NO. 200 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-E-635-0	0



**NOTES:**

- CONTRACTOR SHALL FURNISH AND INSTALL WITHIN THE SIDEWALK, 24"X24"X18" NEMA 4X HOT-DIP GALVANIZED CAST IRON TYPE ER (FLUSH MOUNT) JUNCTION BOX EVERY 200 FEET OR AS REQUIRED TO FACILITATE THE PULLING TO THE VARIOUS DEVICES AND BE COMPLIANT WITH THE NEC.
- WORK ON THIS SHEET TO BE PAID UNDER ITEMS 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM, 683.090700WE - MOVABLE BRIDGE STANDBY GENERATOR, 599.142500WE - MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS, 599.142600WE - MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS INSTALLATION, 599.064000WE - MOVABLE BRIDGE ELECTRICAL TESTING, 680.79300001 - REMOVE TRAFFIC SIGNAL HEAD OR PEDESTRIAN SIGNAL HEAD, 680.82250301 - REMOVE STEEL EMBEDDED TRAFFIC SIGNAL POLE, 670.60 - PHOTOELECTRIC CONTROLS, 670.81 - REMOVE AND DISPOSE OF LAMPPOST ASSEMBLY, 680.621630 - TRAFFIC SIGNAL POLE - MAST ARM, 680.6712 - TRAFFIC SIGNAL POLE - POST TOP MOUNT, 680.810101 - TRAFFIC SIGNAL MODULE - 12 INCH RED BALL, LED, 680.810103 - TRAFFIC SIGNAL MODULE - 12 INCH YELLOW BALL, LED, 680.810105 - TRAFFIC SIGNAL MODULE - 12 INCH GREEN BALL, LED, 680.810107 - TRAFFIC SIGNAL SECTION - TYPE I, 12 INCH, 680.810308 - INSTALL BALL LED TRAFFIC SIGNAL MODULE, 680.8111 - TRAFFIC SIGNAL BRACKET ASSEMBLY, 680.8220 - FLASHING BEACON SIGN ASSEMBLY, 680.10000007 - INSTALL TRAFFIC SIGNAL POLE, ALL SIZES

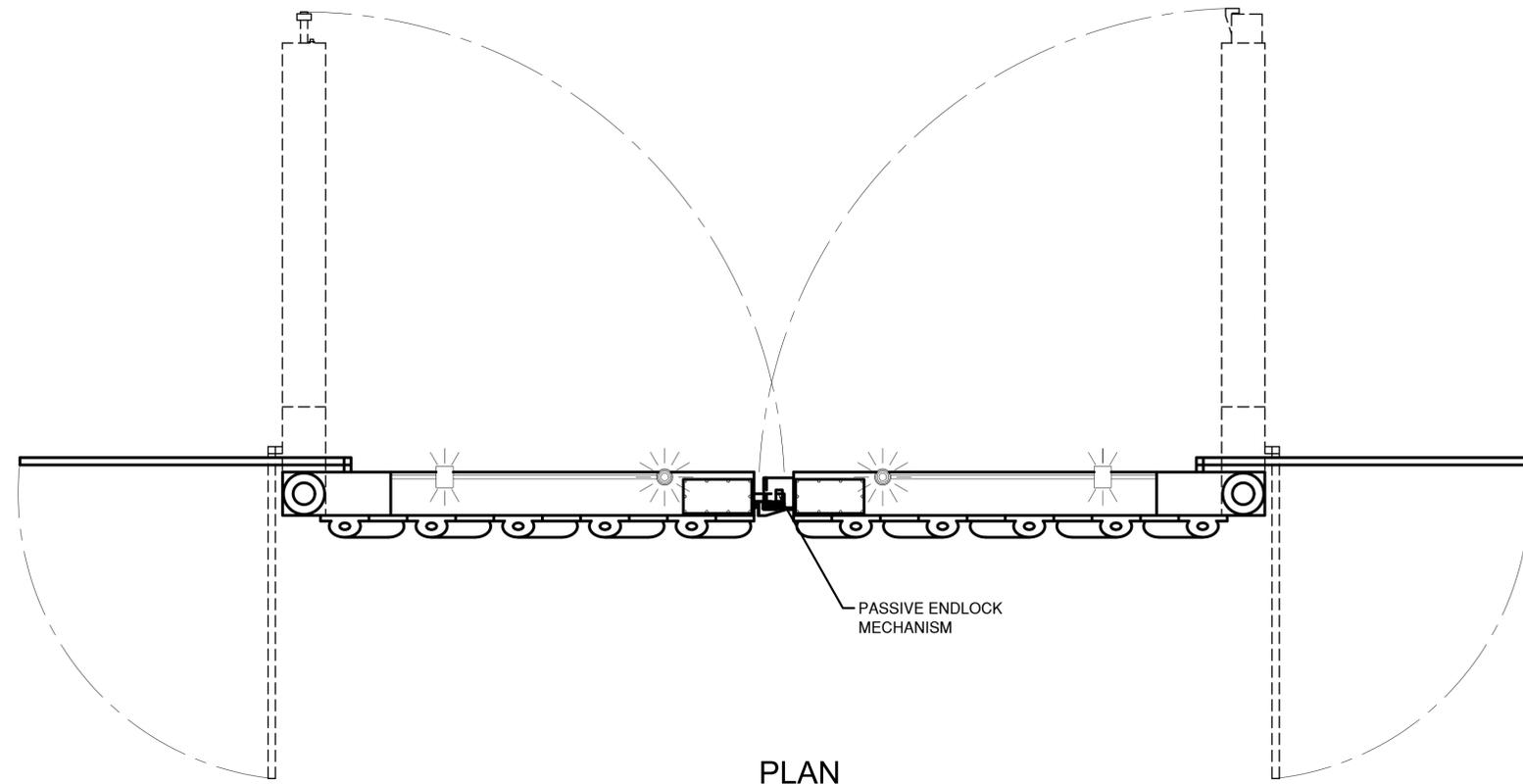


IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

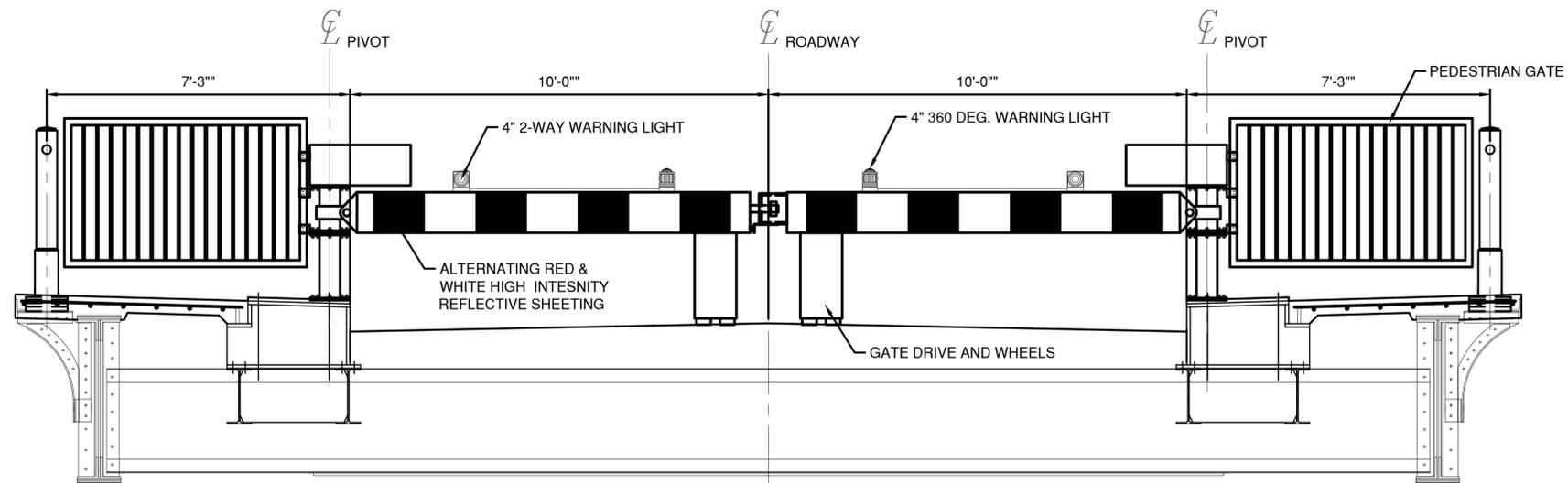
REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER E-39
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 201 OF 212	
ELECTRICAL		SCALE: AS SHOWN	
PROPOSED ROADWAY CONDUIT LAYOUT		DATE: 03/08/2024	REV. NO. 0
		DPW FILE NO. 5-04-E-636-0	



**PLAN**  
SCALE: NTS



**BARRIER GATE ELEVATION**  
SCALE: NTS

**NOTES:**

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, PAYING CLOSE ATTENTION TO BOXED DIMENSIONS.
2. GATE HOUSING, SIDE ARM CHANNELS, AND CROSS MEMBER SHALL BE HOT DIP GALVANIZED STEEL.
3. GATES SHALL HAVE REMOVABLE LOCKABLE DOORS KEYED ALIKE WITH PADLOCK STRAPS. PADLOCKS BY OTHERS.
4. MANUFACTURER SHALL FURNISH TEMPLATE. ANCHOR BOLTS BY OTHERS.
5. REFER TO DRAWINGS E-28 AND E-29 FOR ELECTRICAL WIRING DIAGRAM. REFER TO DRAWINGS S-68 AND S-69 FOR FOUNDATION DETAILS.
6. WORK ON THIS SHEET TO BE PAID UNDER ITEMS 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM, 599.064000WE - MOVABLE BRIDGE ELECTRICAL TESTING



CONSULTANT INFORMATION

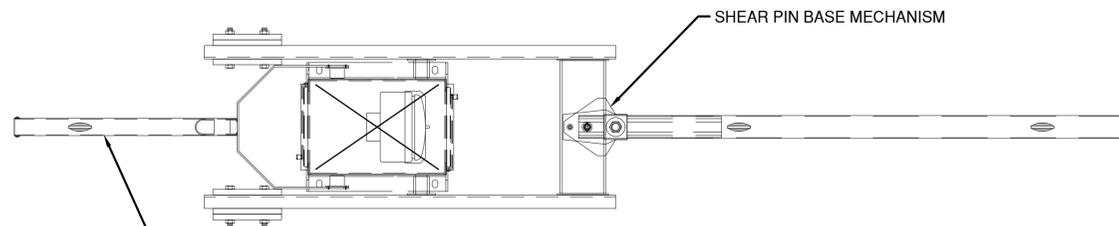


IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

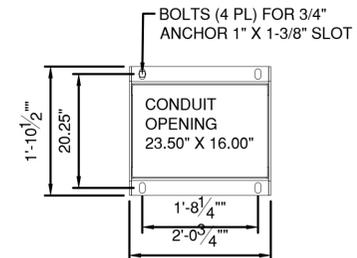
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CONTRACTOR		PROJECT COORDINATOR	
TITLE _____	DATE _____	TITLE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER E-40
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 202 OF 212	
ELECTRICAL		SCALE: AS SHOWN	
<b>PROPOSED BARRIER GATE DIMENSIONS</b>		DATE: 03/08/2024	REV. NO. 0
		DPW FILE NO. 5-04-E-637-0	



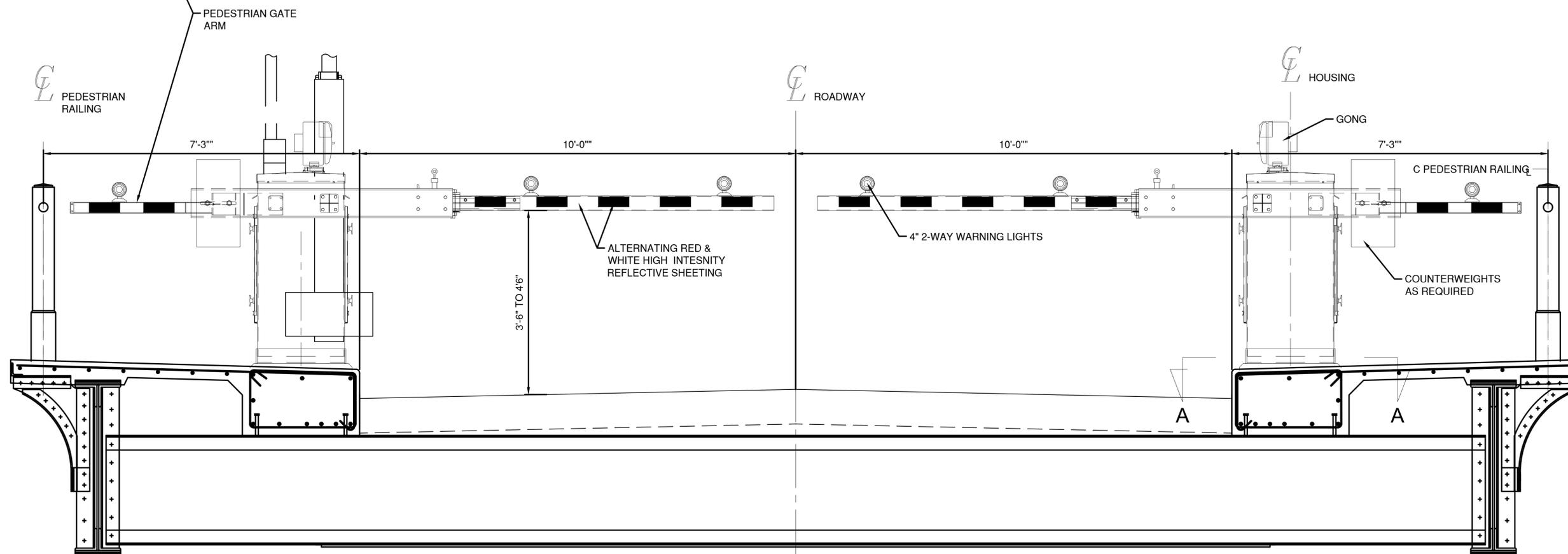
**PLAN**

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



**SECTION A-A**

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



**WARNING GATE ELEVATION**

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

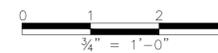
**NOTES:**

- CONTRACTOR SHALL VERIFY ALL DIMENSIONS, PAYING CLOSE ATTENTION TO BOXED DIMENSIONS. FACTORY CANNOT ASSUME ALTERATION COSTS AFTER FINAL SUBMITTAL DRAWINGS HAVE BEEN APPROVED.
- GATE HOUSING, SIDE ARM CHANNELS, CROSS MEMBER AND COUNTER WEIGHTS SHALL BE HOT DIP GALVANIZED STEEL.
- GATES SHALL HAVE REMOVABLE LOCKABLE DOORS KEYED ALIKE WITH PADLOCK STRAPS. PADLOCKS BY OTHERS.
- MANUFACTURER SHALL FURNISH TEMPLATE. ANCHOR BOLTS BY OTHERS.
- REFER TO DRAWINGS E-28 AND E-29 FOR ELECTRICAL WIRING DIAGRAM. REFER TO DRAWINGS S-67 AND S-68 FOR FOUNDATION DETAILS.
- GATE INTERIOR SHALL BE DESIGNED FOR REAR ACCESS ONLY.
- WORK ON THIS SHEET TO BE PAID UNDER ITEMS 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM, 599.064000WE - MOVABLE BRIDGE ELECTRICAL TESTING

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

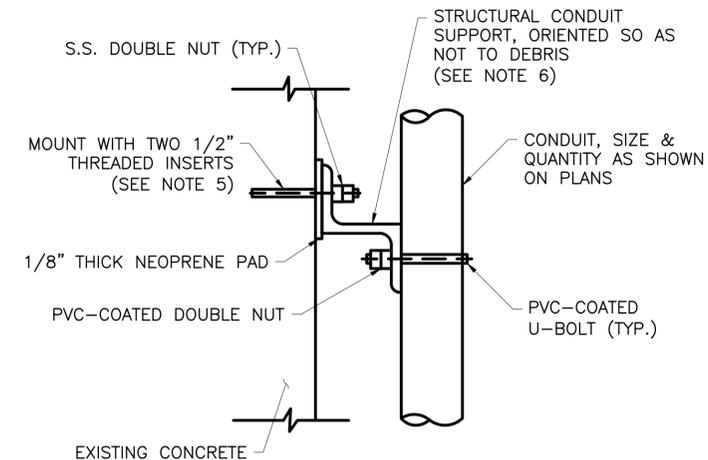
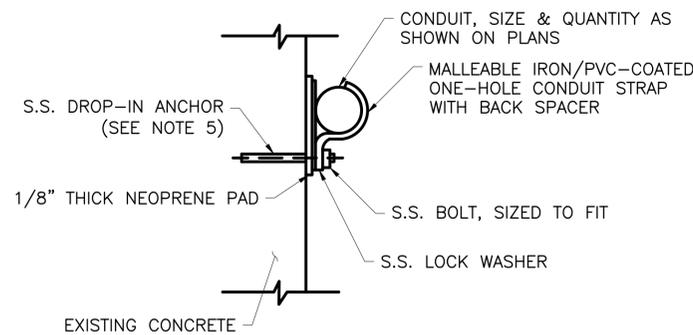
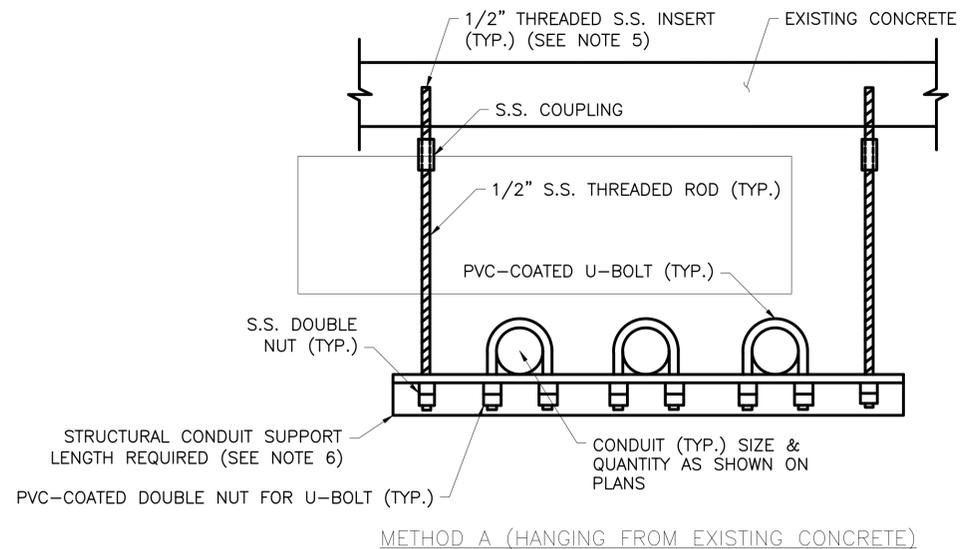


CONSULTANT INFORMATION



**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 ELECTRICAL  
**PROPOSED WARNING GATE DIMENSIONS**

CONTRACT NUMBER 20-517	SHEET NUMBER E-41
SHEET NO. 203 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-E-638-0	REV. NO. 0



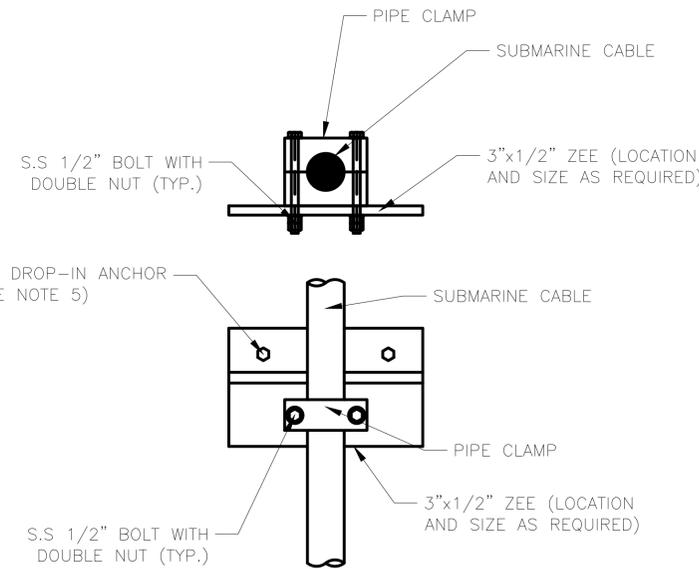
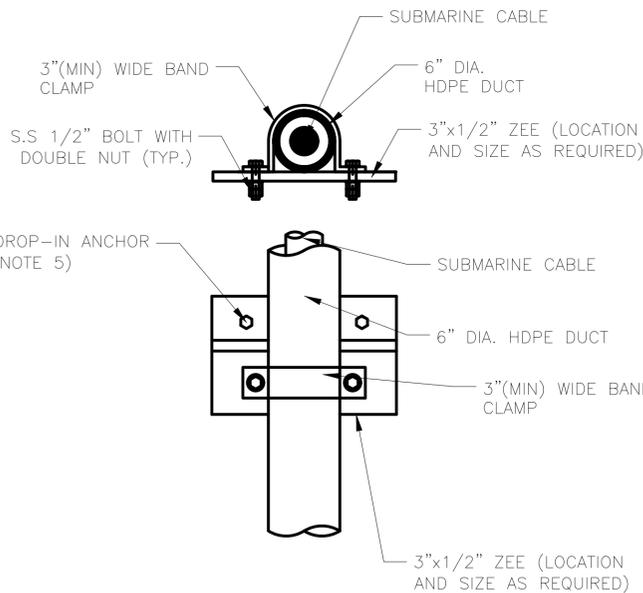
CONDUIT NOMINAL SIZE	U-BOLT THICKNESS (A) MINIMUM
3/4" - 2"	3/8"
2 1/2" - 4"	1/2"
5" - 6"	5/8"

U-BOLT DIMENSIONS

NOTES:

- CONDUIT MOUNTING METHODS SHOWN ARE INTENDED TO GIVE OVERVIEW OF ACCEPTABLE STANDARD OF QUALITY. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ACTUAL CONDUIT MOUNTING AND/OR SUPPORTING METHODS TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- CONDUIT MOUNTING METHODS SHOWN ARE BASED ON RGS AND PVC RGS CONDUIT. ADAPT DETAILS AS REQUIRED TO ACCOMMODATE OTHER TYPES OF CONDUITS, SUCH AS RECOMMENDED BY CONDUIT MANUFACTURER(S).
- PROVIDE SHOP DRAWINGS FOR ALL MATERIALS AND METHODS USED FOR CONDUIT MOUNTING, INCLUDING DRILLING OF STRUCTURAL STEEL. CONTRACTOR MAY PROPOSE ALTERNATE METHODS OF CONDUIT MOUNTING PROVIDED THEY MEET THE SAME STANDARD OF QUALITY SHOWN. THE ENGINEER SHALL HAVE THE RIGHT TO REVIEW/APPROVE ALTERNATE METHODS.
- UNLESS OTHERWISE NOTED, ALL STAINLESS STEEL PROVIDED SHALL BE TYPE 316 OR BETTER.
- THREADED INSERT/DROP-IN ANCHORS SHALL BE TYPE A4 STAINLESS STEEL OR BETTER, ANCHORED TO THE CONCRETE USING AN EPOXY SYSTEM. THE ASSEMBLY SHALL BE PROVIDED BY A SINGLE MANUFACTURER RATED FOR OVERHEAD USE IN CRACKED CONCRETE UNDER SEISMIC CONDITIONS, IN DAMP CONDITIONS/HEAVY CONDENSATION. ANCHORS SHALL BE INSTALLED AS PER MANUFACTURER'S REQUIREMENTS, AND SHALL HAVE A PULL OUT STRENGTH GREATER THAN 2000 POUNDS.
- STRUCTURAL CONDUIT SUPPORTS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123. STRUCTURAL CONDUIT SUPPORTS SHALL CONSIST OF 3/8" THICK ANGLES, ZEES, AND PLATES, CONFIGURED AS REQUIRED TO MEET FIELD CONDITIONS. ANGLES AND PLATES SHALL BE 2" x 2" MINIMUM. HOLES SHALL BE DRILLED FOR U-BOLTS AND ATTACHMENTS AS REQUIRED.
- NOT ALL CONDUITS ARE SHOWN. CONTRACTOR TO REFER TO RISER DIAGRAMS AND DETERMINE TOTAL ACTUAL NUMBER OF CONDUITS AND SIZE AS REQUIRED TO PROVIDE A FULLY COMPLETE AND FUNCTIONING SYSTEM.
- CONTRACTOR SHALL PROVIDE A NEOPRENE PAD BETWEEN STRUCTURAL STEEL AND PVC-RGS CONDUIT. CONTRACTOR SHALL PROVIDE DIELECTRIC GREASE TO ALL GALVANIZED AND STAINLESS STEEL CONTACT POINTS.
- WORK ON THIS SHEET TO BE PAID UNDER ITEMS 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM, 599.142500WE - MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS, 599.142600WE - MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS INSTALLATION

CONDUIT ATTACHMENT METHODS TO CONCRETE  
N.T.S.



HDPE DUCT MOUNTING TO EXISTING CONCRETE  
N.T.S.

SUBMARINE CABLE MOUNTING TO EXISTING CONCRETE  
N.T.S.

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY A. MORFIN-CHAVEZ

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

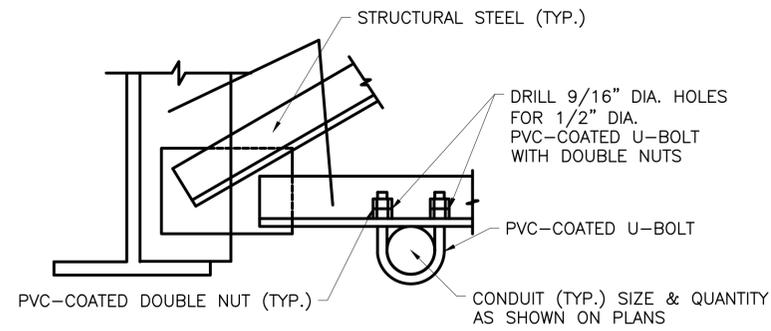


CONSULTANT INFORMATION

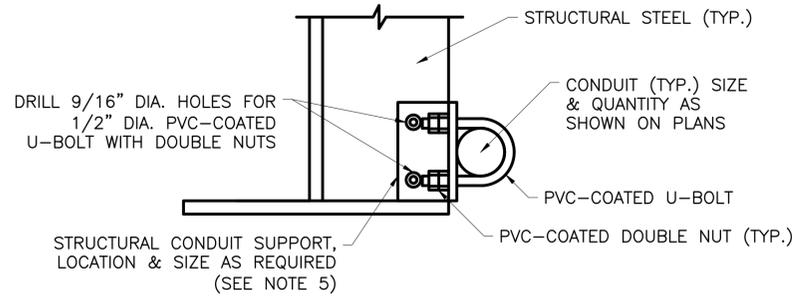


WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 ELECTRICAL  
**CONDUIT MOUNTING DETAILS 1**

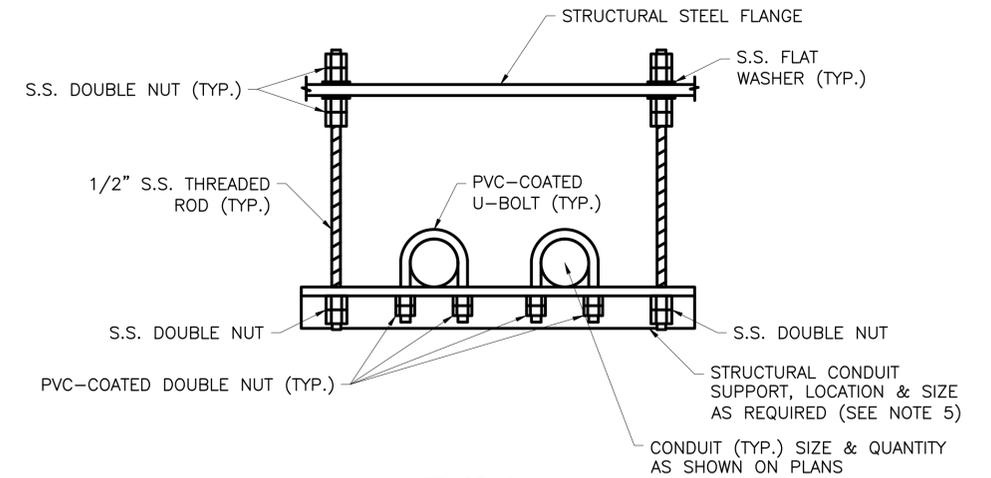
CONTRACT NUMBER 20-517	SHEET NUMBER E-42
SHEET NO. 204 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-T-639-0	REV. NO. 0



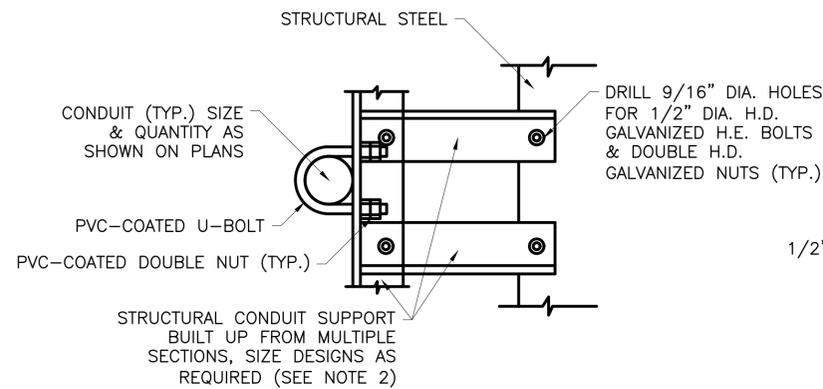
METHOD A  
(USE OF STEEL FOR DIRECT CONDUIT MOUNTING)



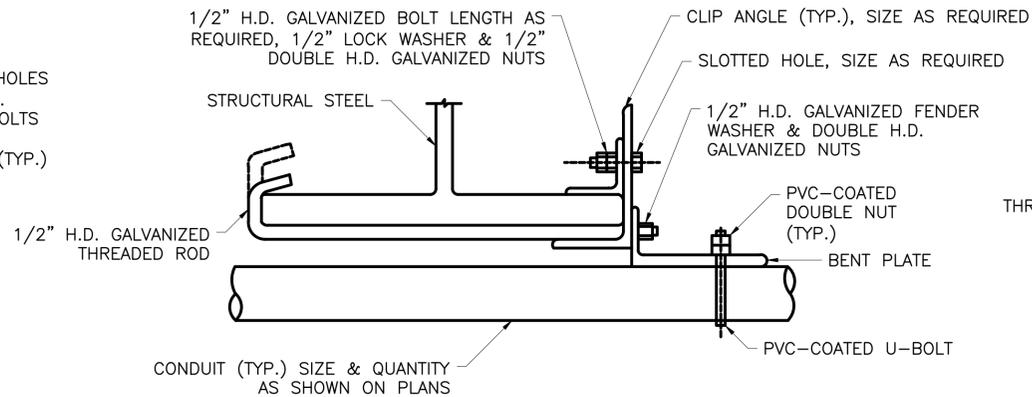
METHOD B  
(CONDUIT ATTACHMENT TO STRUCTURAL STEEL)



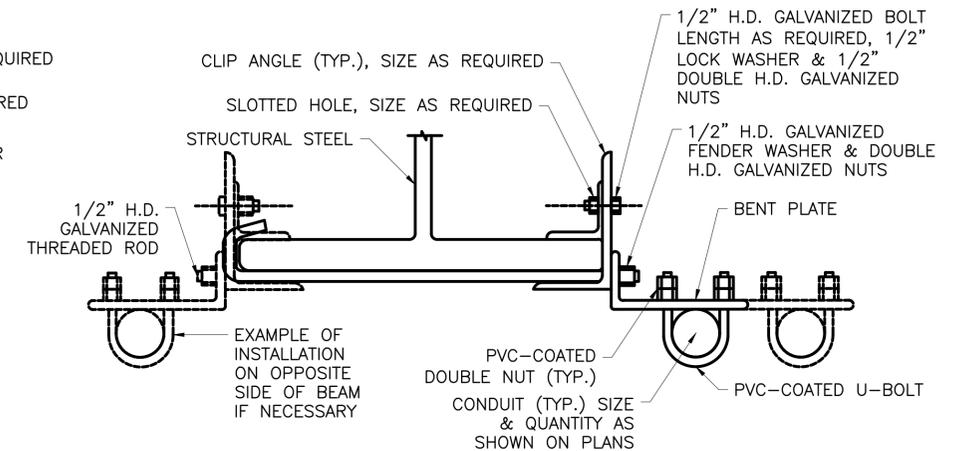
METHOD C  
(HANGING FROM STRUCTURAL STEEL)



METHOD C  
(BUILT-UP STRUCTURAL CONDUIT SUPPORT)



METHOD D  
(HANGING FROM STRUCTURAL STEEL - PERPENDICULAR)



METHOD E  
(HANGING FROM STRUCTURAL STEEL - PARALLEL)

CONDUIT ATTACHMENT METHODS TO STRUCTURAL STEEL  
N.T.S.

NOTES:

1. CONDUIT MOUNTING METHODS SHOWN ARE INTENDED TO GIVE OVERVIEW OF ACCEPTABLE STANDARD OF QUALITY. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ACTUAL CONDUIT MOUNTING AND/OR SUPPORTING METHODS TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
2. CONDUIT MOUNTING METHODS SHOWN ARE BASED ON RGS AND PVC-RGS CONDUIT. ADAPT DETAILS AS REQUIRED TO ACCOMMODATE OTHER TYPES OF CONDUITS, SUCH AS RECOMMENDED BY CONDUIT MANUFACTURER(S).
3. PROVIDE SHOP DRAWINGS FOR ALL MATERIALS AND METHODS USED FOR CONDUIT MOUNTING, INCLUDING DRILLING OF STRUCTURAL STEEL. CONTRACTOR MAY PROPOSE ALTERNATE METHODS OF CONDUIT MOUNTING PROVIDED THEY MEET THE SAME STANDARD OF QUALITY SHOWN. THE ENGINEER SHALL HAVE THE RIGHT TO REVIEW/APPROVE ALTERNATE METHODS.
4. UNLESS OTHERWISE NOTED, ALL STAINLESS STEEL PROVIDED SHALL BE TYPE 316 OR BETTER.
5. STRUCTURAL CONDUIT SUPPORTS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123. STRUCTURAL CONDUIT SUPPORTS SHALL CONSIST OF 3/8" THICK ANGLES, ZEES, AND PLATES, CONFIGURED AS REQUIRED TO MEET FIELD CONDITIONS. ANGLES AND PLATES SHALL BE 2" x 2" MINIMUM. HOLES SHALL BE DRILLED FOR U-BOLTS AND ATTACHMENTS AS REQUIRED.
6. NOT ALL CONDUITS ARE SHOWN. CONTRACTOR TO REFER TO RISER DIAGRAMS AND DETERMINE TOTAL ACTUAL NUMBER OF CONDUITS AND SIZE AS REQUIRED TO PROVIDE A FULLY COMPLETE AND FUNCTIONING SYSTEM.
7. WELDING TO STRUCTURAL STEEL FOR CONDUIT OR ELECTRICAL MOUNTING SHALL NOT BE PERMITTED UNLESS SPECIFICALLY SHOWN ON THESE PLANS.
8. CONTRACTOR SHALL PROVIDE A NEOPRENE PAD BETWEEN STRUCTURAL STEEL AND PVC-RGS CONDUIT. CONTRACTOR SHALL PROVIDE DIELECTRIC GREASE TO ALL GALVANIZED AND STAINLESS STEEL CONTACT POINTS.
9. WORK ON THIS SHEET TO BE PAID UNDER ITEMS 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM



CONSULTANT INFORMATION

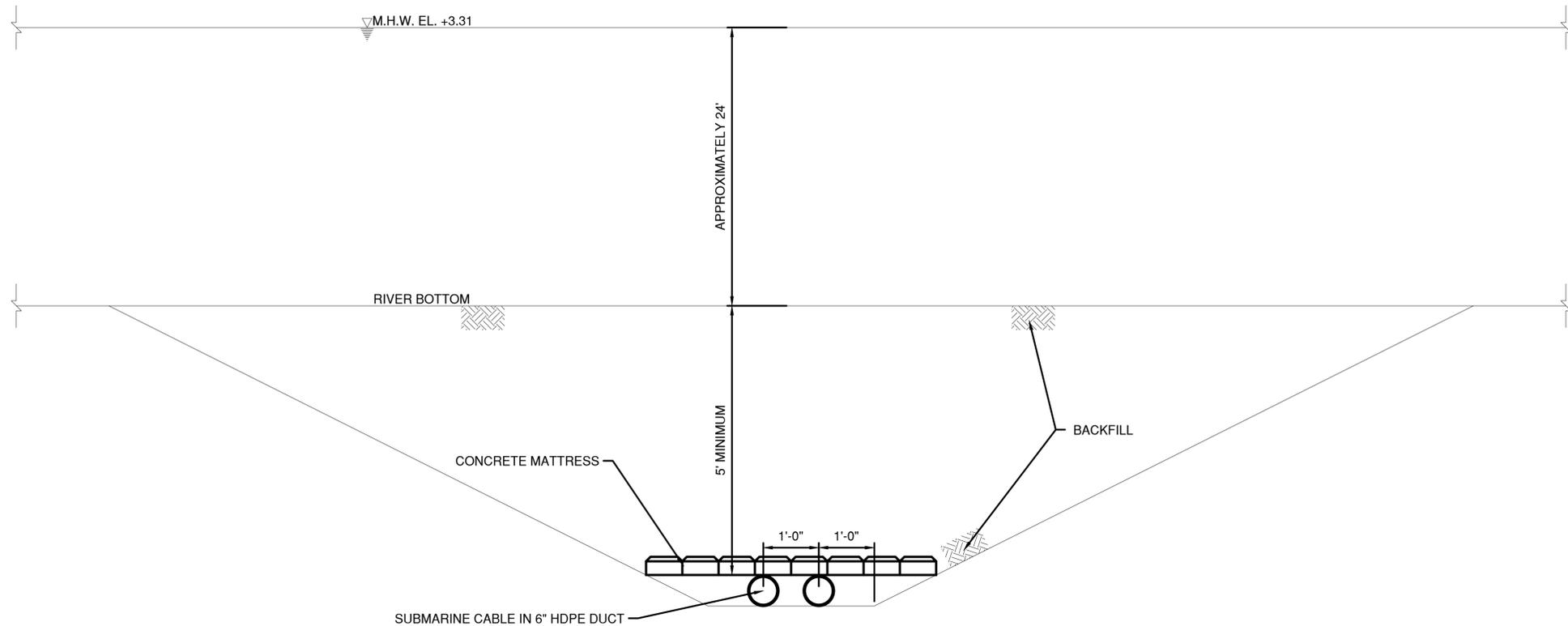


IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY A. MORFIN/CHAVEZ

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

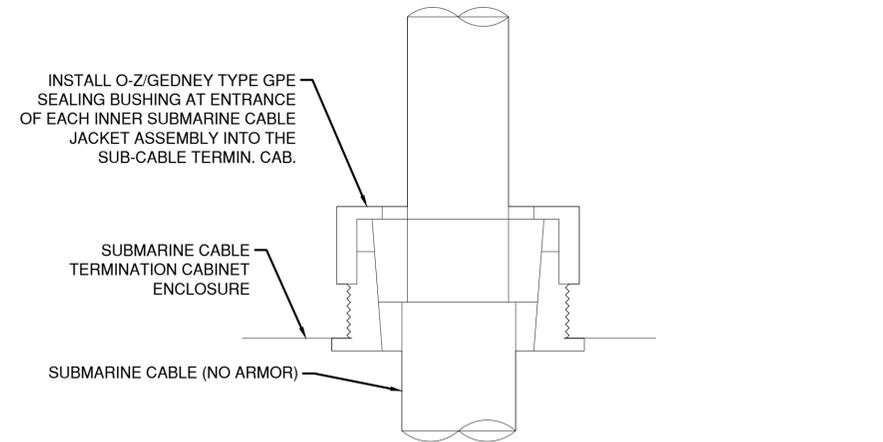
RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER E-43
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		SHEET NO. 205 OF 212	
ELECTRICAL		SCALE: AS SHOWN DATE: 03/08/2024	
CONDUIT MOUNTING DETAILS 2		DPW FILE NO. 5-04-E-640-0	REV. NO. 0



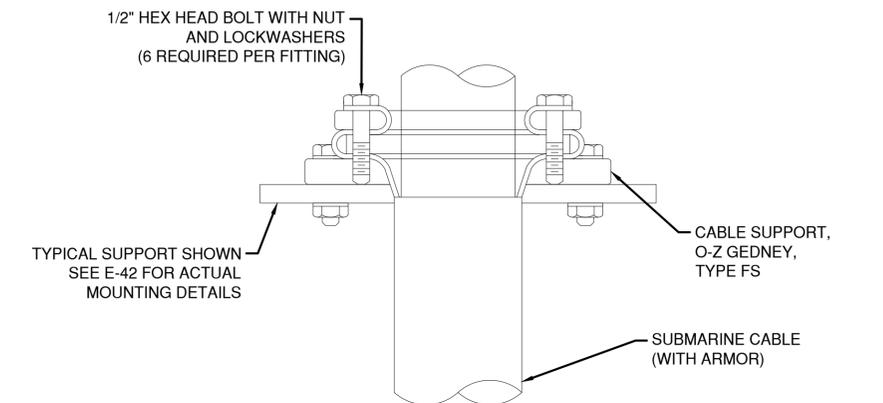
**SUBMARINE CABLE TRENCH**

N.T.S.



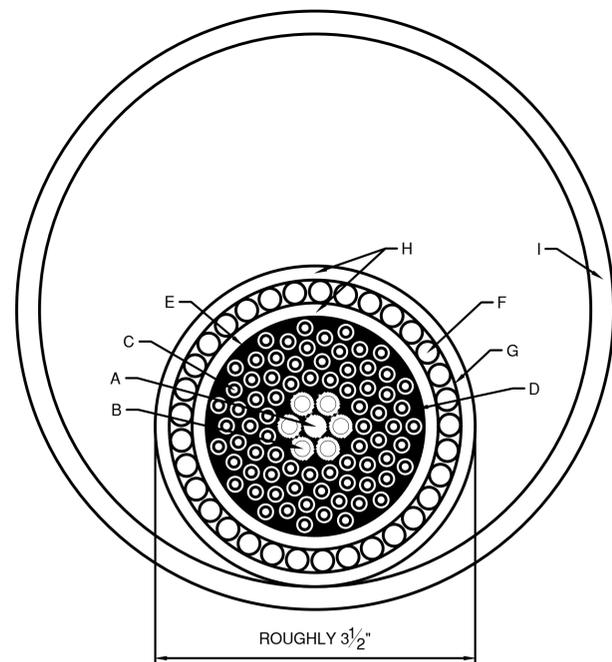
**SUBMARINE CABLE ENTRY AT TERMINAL CABINET**

N.T.S.



**SUBMARINE CABLE ENTRY DETAILS**

N.T.S.



**SUBMARINE CABLE**

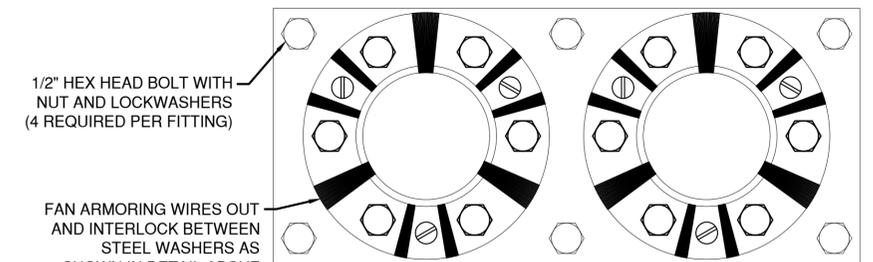
(QTY: 2)

**LEGEND:**

- A. FIBER OPTIC CABLE, 12 STRAND SINGLE-MODE, 12 STRAND MULTI-MODE (QTY 1)
- B. #6 AWG XLP INSULATION - 2KV (QTY 6)
- C. #12 AWG XLP INSULATION - 2KV (QTY 70)
- D. NON-HYGROSCOPIC FILLERS, AS NECESSARY
- E. RUBBER/FABRIC TAPE
- F. #4 BWG (.238") GALVANIZED STEEL WIRES COVERED WITH HDPE
- G. .002" CORRUGATED POLYESTER TAPE
- H. .140 WALL SUNLIGHT AND WEATHER RESISTANT BLACK HDPE JACKET
- I. 6" HDPE DUCT

**NOTES:**

1. MINIMUM 6" HDPE DUCT SHALL BE USED FOR ROUTING EACH SUBMARINE CABLE UNDER THE CHANNEL BOTTOM.
2. THE EXCAVATED MATERIAL FROM THE SUBMARINE CABLE TRENCH CAN BE CAST ASIDE. THE CAST ASIDE MATERIAL SHALL BE USED AS BACKFILL INTO THE TRENCH AS REQUIRED.
3. A MINIMUM OF 5' OF COVER ABOVE THE HDPE DUCTS IS REQUIRED.
4. A CONCRETE MATTRESS SHALL BE PLACED ON TOP OF THE HDPE DUCTS AS SHOWN. CONCRETE MATTRESSES SHALL BE SUCH THAT THEY NEGATE THE BUOYANCY FORCE OF THE AIR FILLED HDPE DUCTS. CONTRACTOR SHALL SUBMIT CALCULATIONS FOR REVIEW AND APPROVAL BASED ON CONTRACTOR FINAL CONCRETE MATTRESS DESIGN.
5. WORK ON THIS SHEET TO BE PAID UNDER ITEMS 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM, 599.142500WE - MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS, 599.142600WE - MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS INSTALLATION



**SUBMARINE CABLE PARTIAL PLAN SECTION A-A**

N.T.S.

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

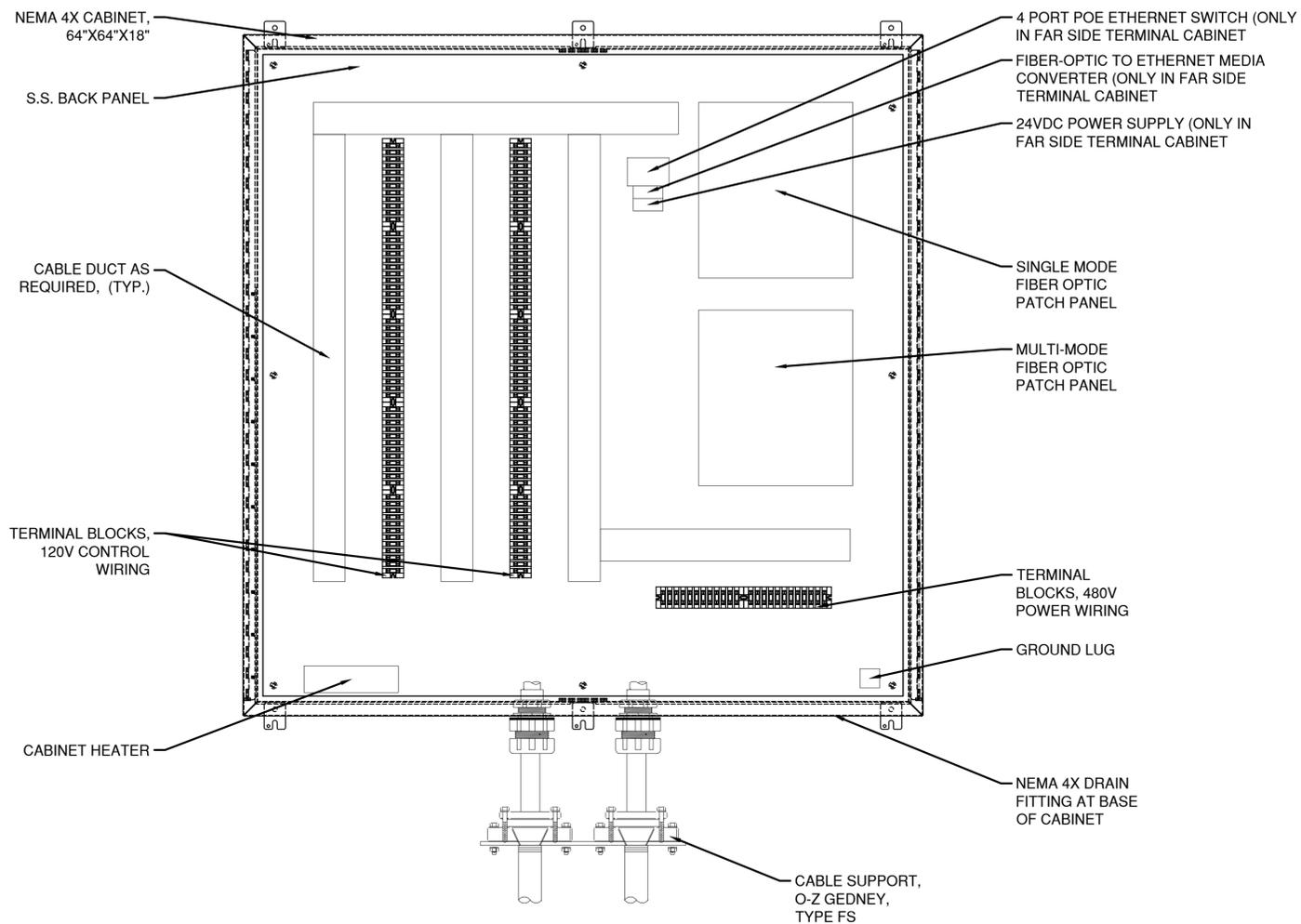
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____	DATE _____	DATE _____

CONSULTANT SEAL

CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150

<b>WESTCHESTER COUNTY, NEW YORK</b>		CONTRACT NUMBER 20-517	SHEET NUMBER E-44
<b>DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION</b>		SHEET NO. 206 OF 212	
DIVISION OF ENGINEERING		SCALE: AS SHOWN	
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		DATE: 03/08/2024	
ELECTRICAL		DPW FILE NO.	REV. NO.
<b>PROPOSED SUBMARINE CABLE &amp; TRENCH DET'S</b>		5-04-E-641-0	0



**SUBMARINE CABLE TERMINAL CABINET LAYOUT**  
N.T.S.

**NOTES:**

1. THE CONTRACTOR SHALL FURNISH AND INSTALL SUBMARINE CABLES AND TERMINAL CABINETS AS SPECIFIED AND SHOWN ON DRAWINGS E-05 AND E-11
2. THE CONTRACTOR IS RESPONSIBLE TO FURNISH AND INSTALL SUBMARINE CABLES AND TERMINAL CABINETS AS REQUIRED OF SUFFICIENT SIZE AND QUANTITY TO PROPERLY ROUTE CONDUCTORS ACROSS THE CHANNEL.
3. ALL FIBER OPTIC CABLE ENTERING THE ENCLOSURE SHALL IMMEDIATELY ENTER FLEXIBLE NON-METALLIC INNER DUCT CONDUIT.
4. WORK ON THIS SHEET TO BE PAID UNDER ITEMS 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM, 599.142500WE - MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS, 599.142600WE - MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS INSTALLATION



CONSULTANT INFORMATION

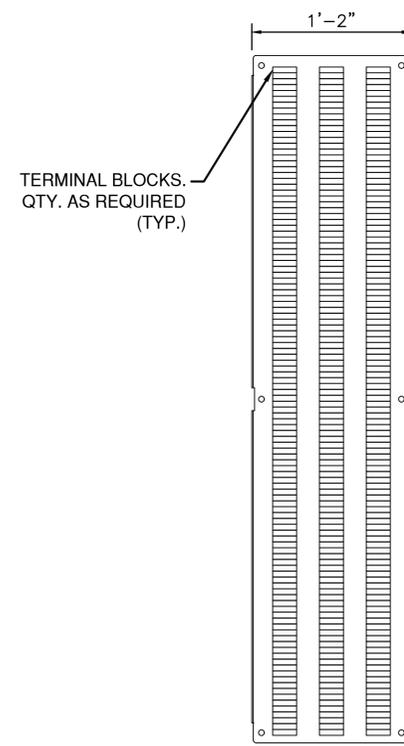
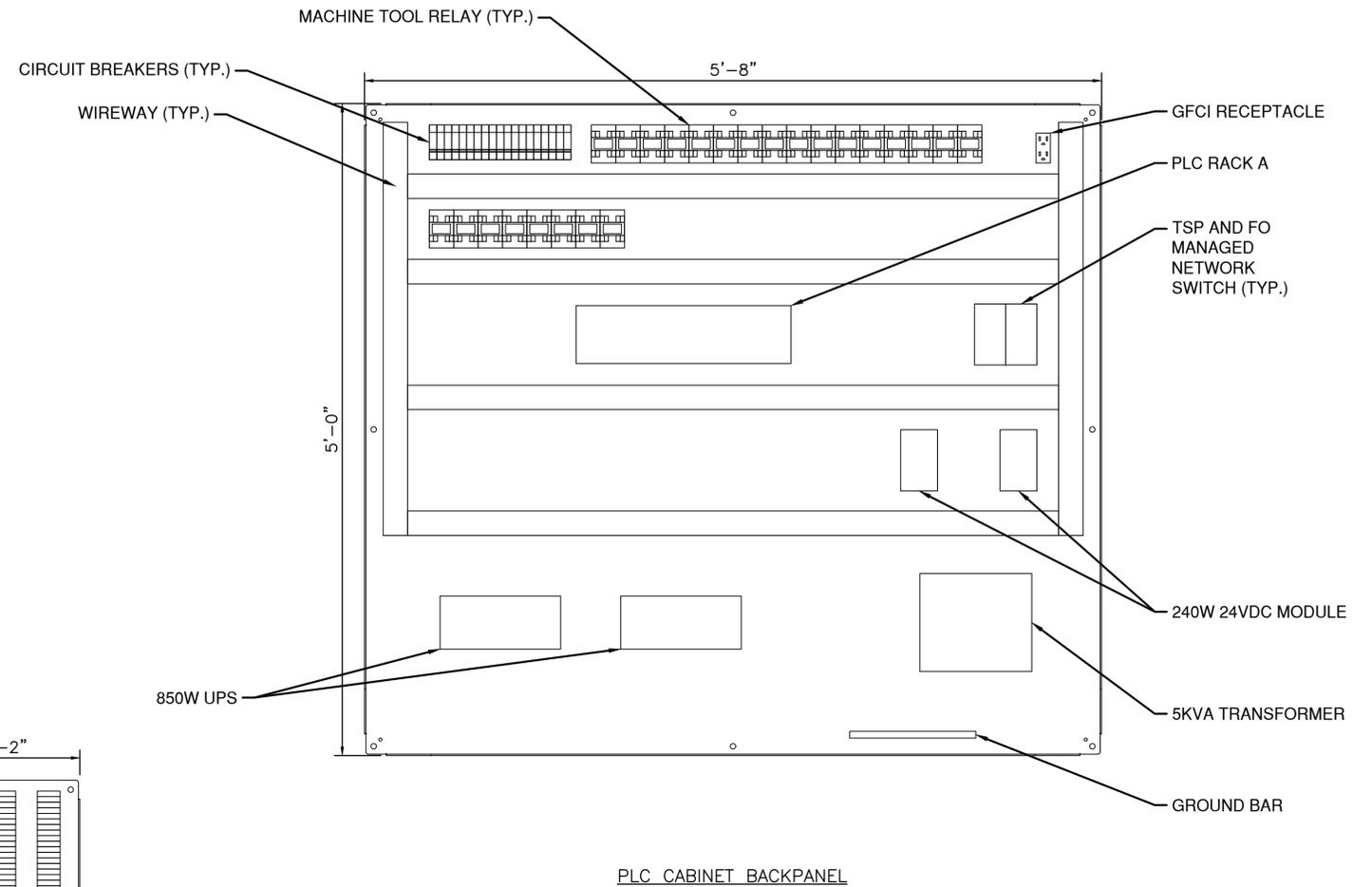
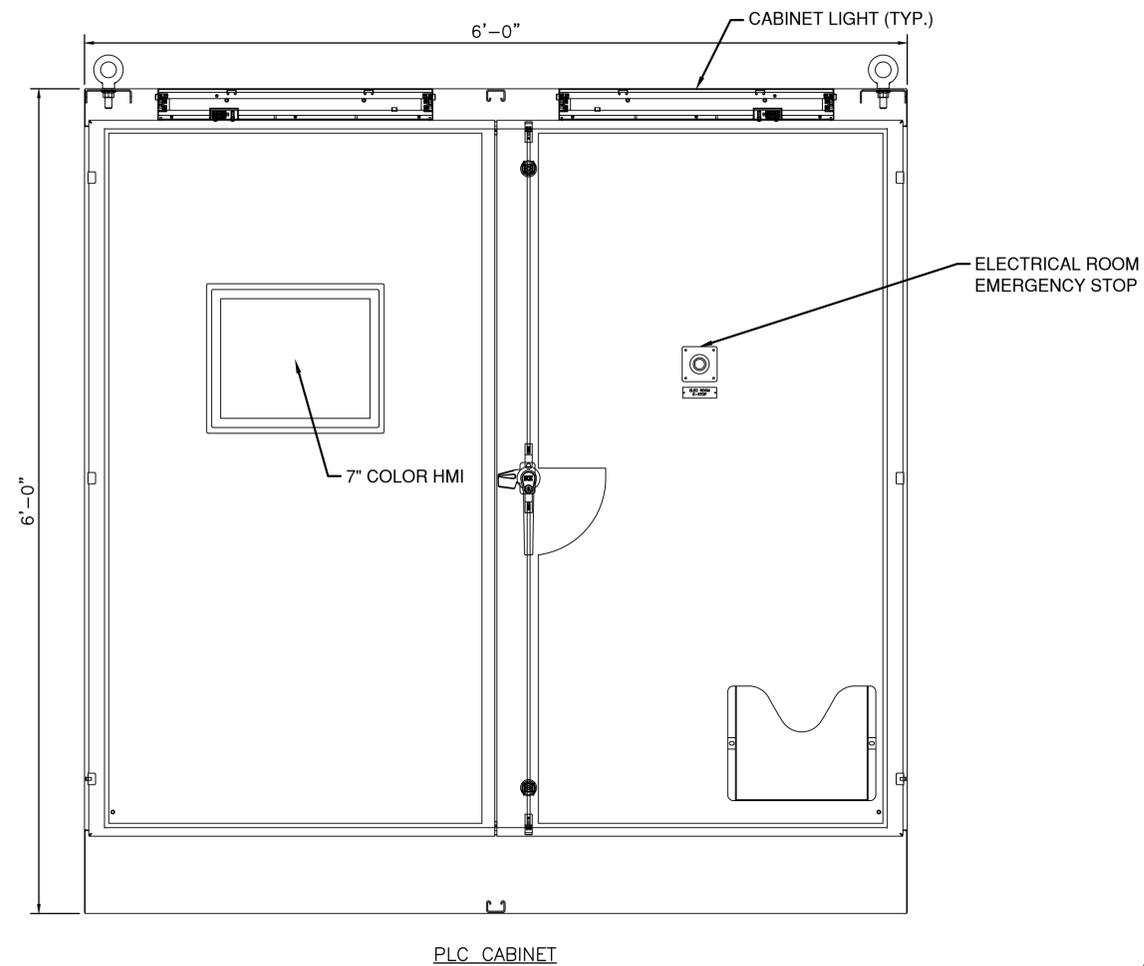


IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

<b>WESTCHESTER COUNTY, NEW YORK</b>		CONTRACT NUMBER 20-517	SHEET NUMBER E-45
<b>DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION</b>		SHEET NO. 207 OF 212	
DIVISION OF ENGINEERING		SCALE: AS SHOWN	
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle		DATE: 03/08/2024	
ELECTRICAL		DPW FILE NO.	REV. NO.
<b>PROPOSED SUBMARINE CABLE CABINET LAYOUT</b>		5-04-E-642-0	0

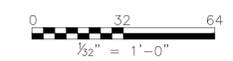


NOTES:  
 1. WORK ON THIS SHEET TO BE PAID UNDER ITEMS 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM, 599.064000WE - MOVABLE BRIDGE ELECTRICAL TESTING

CONSULTANT SEAL

CONSULTANT INFORMATION

1501 BROADWAY, SUITE 601  
 NEW YORK, NY 10036  
 (212) 944-1150



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY A. MORFIN/CHAVEZ

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED  
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
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TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

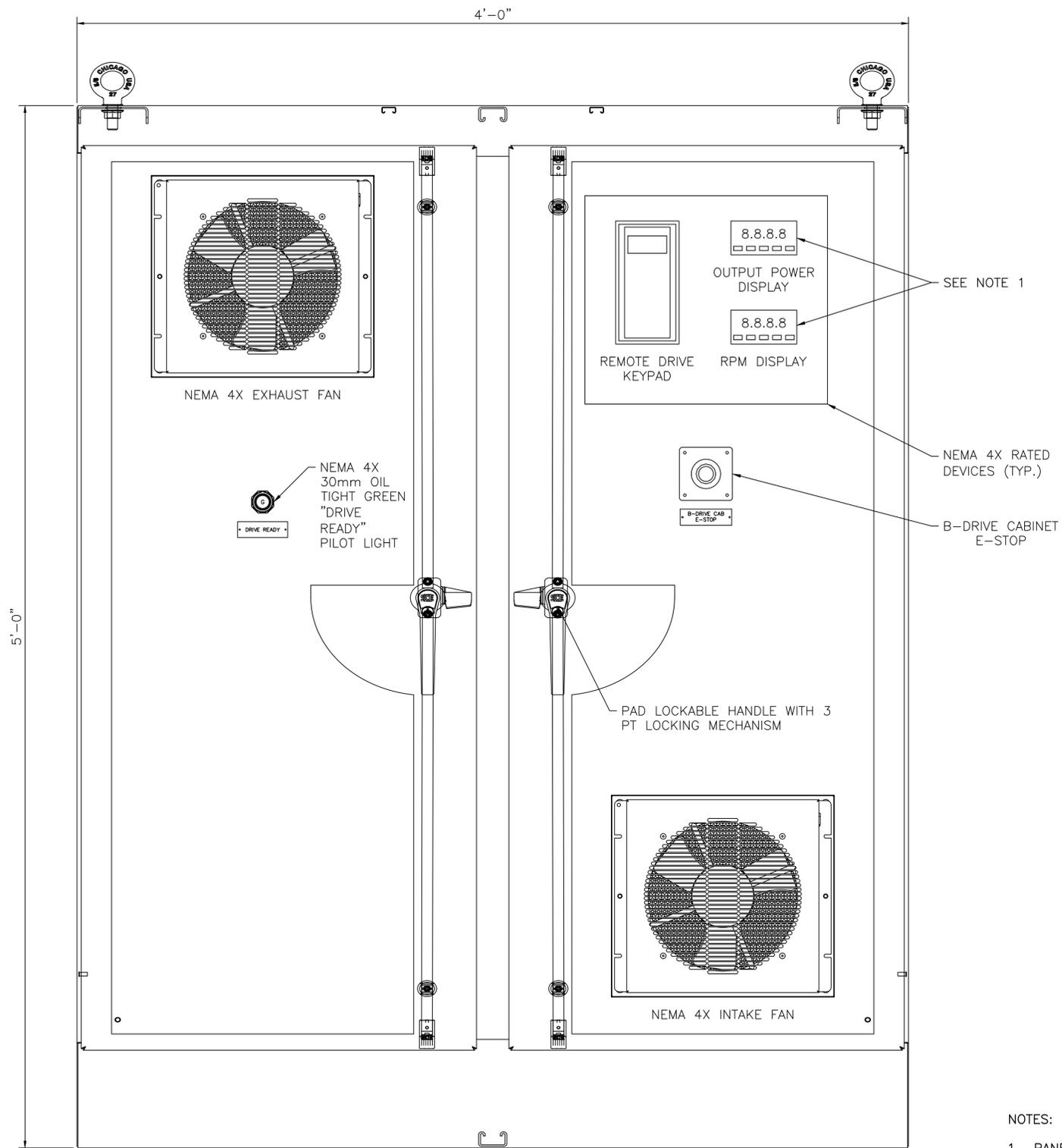
WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

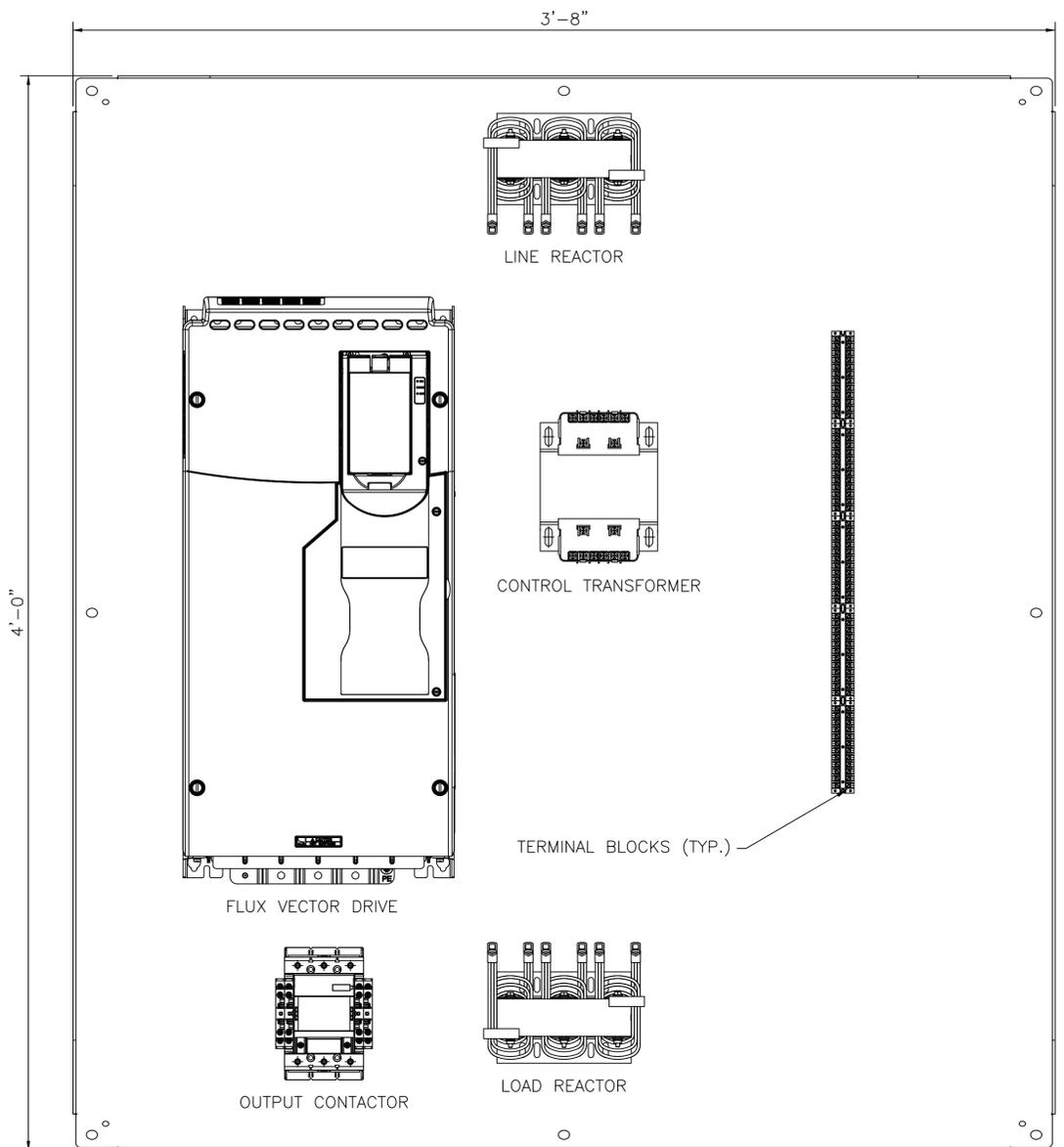
ELECTRICAL

**PROPOSED CABINET LAYOUT**

CONTRACT NUMBER 20-517	SHEET NUMBER E-46
SHEET NO. 208 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-E-643-0	REV. NO. 0



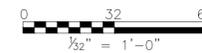
SPAN DRIVE CABINET  
SCALE: 3" = 1'-0"



SPAN DRIVE CABINET BACKPANEL  
SCALE: 3" = 1'-0"

NOTES:

- PANEL DISPLAY METERS WILL BE PROVIDED WITH ALL SCALING AND ACCESSORIES/PROGRAMMING AS REQUIRED.
- WORK ON THIS SHEET TO BE PAID UNDER ITEMS 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM, 599.064000WE - MOVABLE BRIDGE ELECTRICAL TESTING



IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY A. MORFIN/CHAVEZ

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____		
SIGNATURE _____	SIGNATURE _____		
TITLE _____	TITLE _____	DATE _____	DATE _____

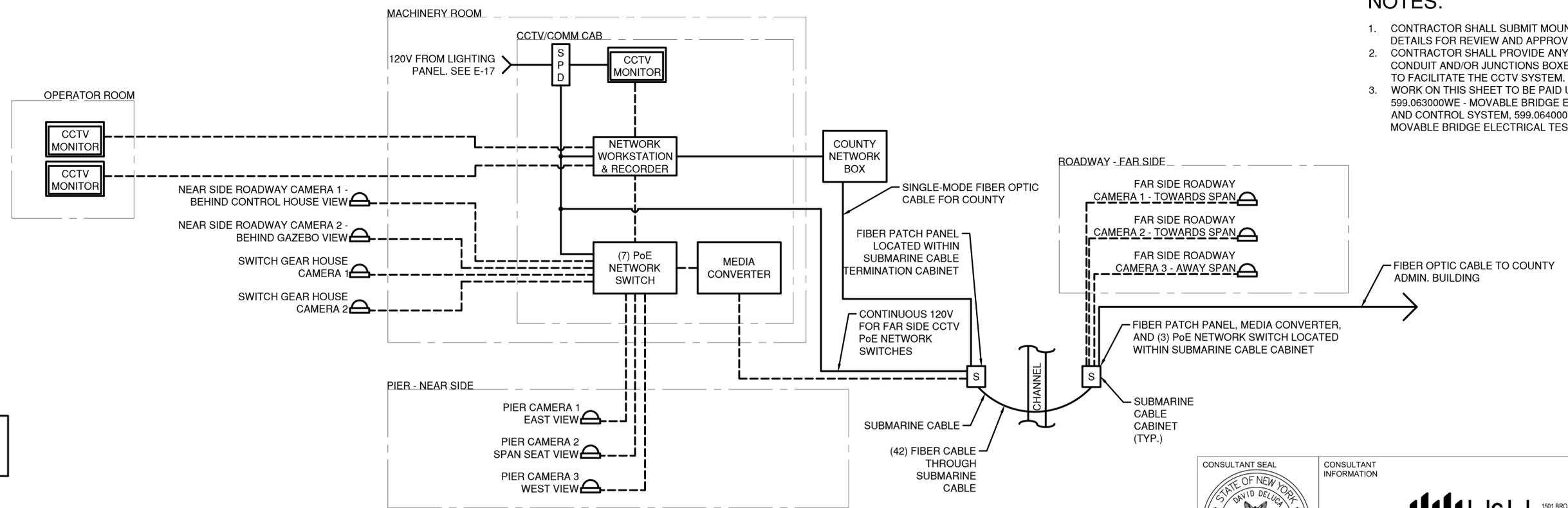
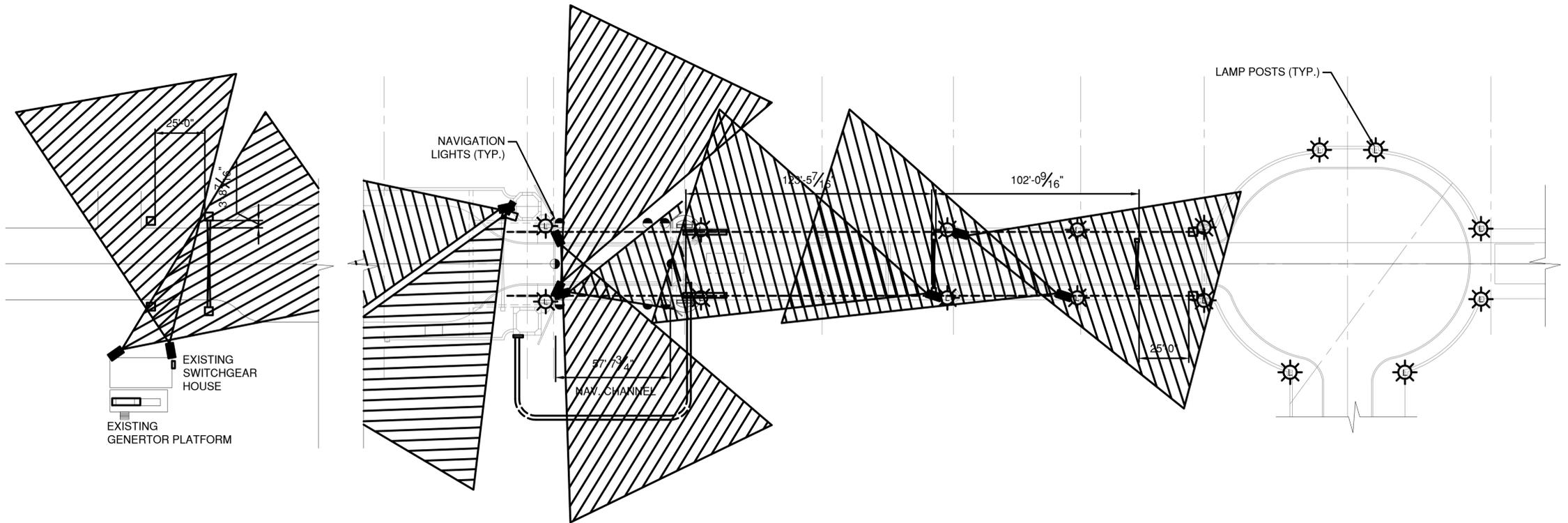


CONSULTANT INFORMATION



WESTCHESTER COUNTY, NEW YORK  
 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 ELECTRICAL  
**PROPOSED DRIVE CABINET LAYOUT**

CONTRACT NUMBER 20-517	SHEET NUMBER E-47
SHEET NO. 209 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-E-644-0	REV. NO. 0



**NOTES:**

1. CONTRACTOR SHALL SUBMIT MOUNTING DETAILS FOR REVIEW AND APPROVAL.
2. CONTRACTOR SHALL PROVIDE ANY ADDITIONAL CONDUIT AND/OR JUNCTIONS BOXES REQUIRED TO FACILITATE THE CCTV SYSTEM.
3. WORK ON THIS SHEET TO BE PAID UNDER ITEMS 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM, 599.064000WE - MOVABLE BRIDGE ELECTRICAL TESTING

**LEGEND:**

—	120 VAC
- - -	CAT6e/PROFINET

**CCTV LAYOUT**

SCALE: NTS



CONSULTANT INFORMATION



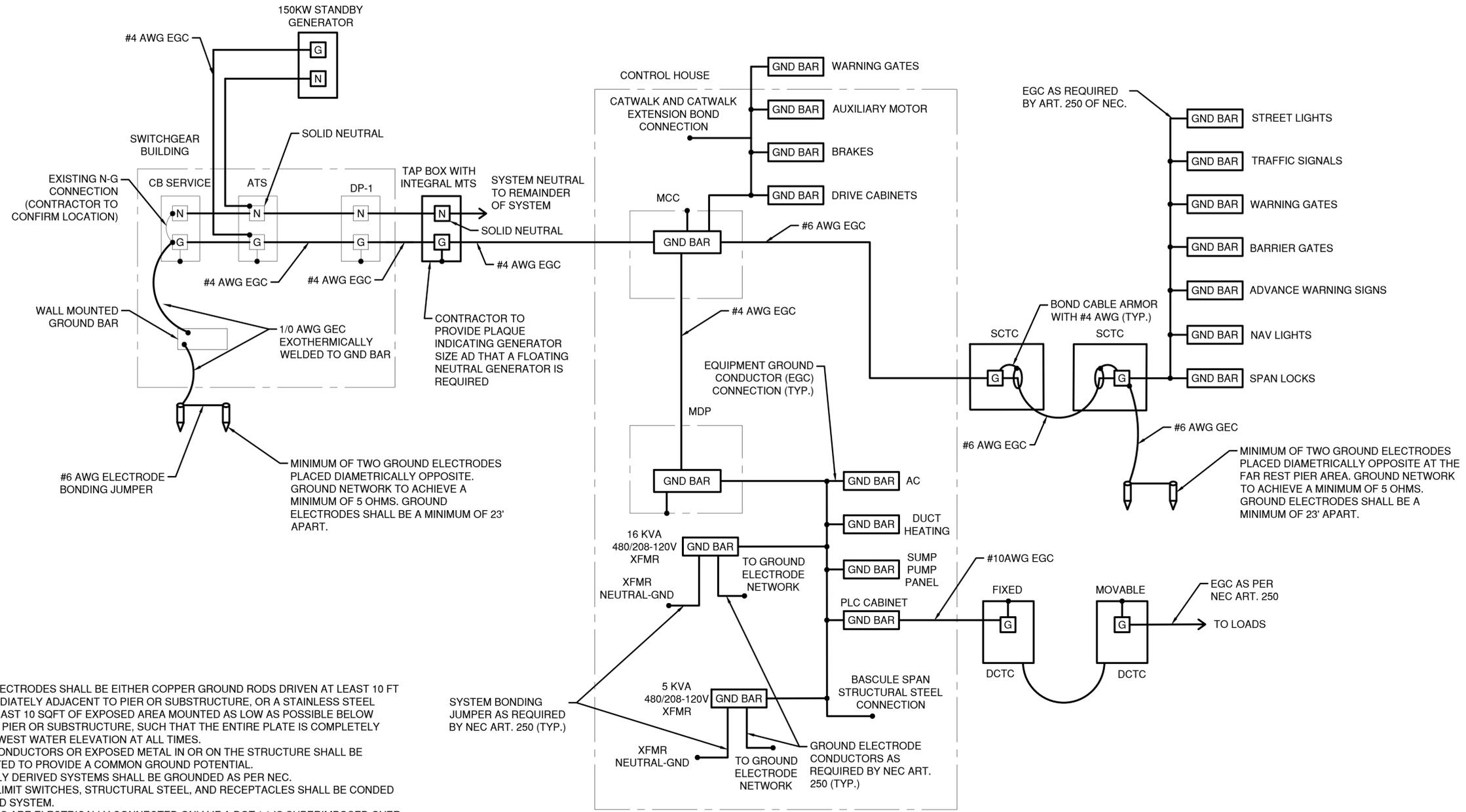
IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS, PE

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
AS BUILT - CHANGES AS NOTED		AS BUILT - NO CHANGES	
CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING  
 Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle  
 ELECTRICAL  
**PROPOSED CCTV LAYOUT**

CONTRACT NUMBER 20-517	SHEET NUMBER E-48
SHEET NO. 210 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO. 5-04-E-645-0	REV. NO. 0



- NOTES**
- GROUNDING ELECTRODES SHALL BE EITHER COPPER GROUND RODS DRIVEN AT LEAST 10 FT INTO MUD IMMEDIATELY ADJACENT TO PIER OR SUBSTRUCTURE, OR A STAINLESS STEEL PLATE OF AT LEAST 10 SQFT OF EXPOSED AREA MOUNTED AS LOW AS POSSIBLE BELOW WATER ON THE PIER OR SUBSTRUCTURE, SUCH THAT THE ENTIRE PLATE IS COMPLETELY BELOW THE LOWEST WATER ELEVATION AT ALL TIMES.
  - ALL GROUND CONDUCTORS OR EXPOSED METAL IN OR ON THE STRUCTURE SHALL BE INTERCONNECTED TO PROVIDE A COMMON GROUND POTENTIAL.
  - ALL SEPARATELY DERIVED SYSTEMS SHALL BE GROUNDED AS PER NEC.
  - ALL LIGHTING, LIMIT SWITCHES, STRUCTURAL STEEL, AND RECEPTACLES SHALL BE CONDED TO THE GROUND SYSTEM.
  - CROSSING LINES ARE ELECTRICALLY CONNECTED ONLY IF A DOT (●) IS SUPERIMPOSED OVER THE INTERSECTION OF THE LINES.
  - THE "Y" IN TRANSFORMER SYMBOLS REFERS TO THE "Y" SECONDARY WINDING.
  - ALL GROUNDING MATERIAL IS COPPER, UNLESS OTHERWISE NOTED.
  - ALL AVAILABLE ELECTRODES SHALL BE BONDED.
  - WORK ON THIS SHEET TO BE PAID UNDER ITEMS 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM, 683.090700WE - MOVABLE BRIDGE STANDBY GENERATOR, 599.142500WE - MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS, 599.142600WE - MOVABLE BRIDGE SUBMARINE CABLE AND HDPE DUCTS INSTALLATION, 599.064000WE - MOVABLE BRIDGE ELECTRICAL TESTING

**GLEN ISLAND PARTIAL GROUNDING RISER**  
N.T.S.

	CONSULTANT INFORMATION 
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IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY C. AUBERT

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

**WESTCHESTER COUNTY, NEW YORK**  
**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION**  
 DIVISION OF ENGINEERING

Rehabilitation of Glen Island Approach Bridge  
 over New Rochelle Harbor, City of New Rochelle

ELECTRICAL

**PARTIAL GROUNDING RISER**

CONTRACT NUMBER 20-517	SHEET NUMBER E-49
SHEET NO. 211 OF 212	
SCALE: AS SHOWN	
DATE: 03/08/2024	
DPW FILE NO.	REV. NO.
5-04-E-646-0	0



**NOTES:**

1. FIBER OPTIC CABLE SHALL BE SINGLE-MODE, EITHER TYPE MC IDENTIFIED FOR DIRECT BURIAL, AND UTILIZE MICROTRENCHING WITH HDPE DUCTS INSTALLATION. MICROTRENCHING AS DESCRIBED HERE IS A "SAW CUT" WHICH CAN BE ANYWHERE FROM 1/2" TO 3" WIDE, AND UP TO 24" IN DEPTH. THIS MICRO TRENCH WOULD ACCEPT REDUCED DIAMETER MICRODUCT PATHWAYS. ALL INSTALLED FIBER DUCTS SHALL BE LOCATABLE.
2. CONTRACTOR SHALL PROVIDE PULL BOXES AS NECESSARY.
3. COORDINATE WITH WESTCHESTER COUNTY FOR THE FIBER ROUTE BETWEEN THE FAR SIDE SUBMARINE CABLE TERMINAL CABINET AND THE ADMINISTRATION BUILDING.
4. CONTRACTOR SHALL MARK-OUT AND COORDINATE WITH ANY UTILITIES IN THE AREA.
5. CONTRACTOR SHALL RESTORE THE TRENCHED AREA TO PRE-EXISTING CONDITION UPON COMPLETION.
6. WORK ON THIS SHEET TO BE PAID UNDER ITEMS 599.063000WE - MOVABLE BRIDGE ELECTRICAL AND CONTROL SYSTEM, 599.064000WE - MOVABLE BRIDGE ELECTRICAL TESTING

	CONSULTANT INFORMATION  <small>1501 BROADWAY, SUITE 601 NEW YORK, NY 10036 (212) 944-1150</small>
---	--

IN CHARGE OF D. DELUCA, PE  
 CHECKED BY A. NOBLE, PE  
 MADE BY J. AMBROS

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION			
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CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

<b>WESTCHESTER COUNTY, NEW YORK</b> <b>DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION</b> DIVISION OF ENGINEERING		CONTRACT NUMBER 20-517	SHEET NUMBER E-50
Rehabilitation of Glen Island Approach Bridge over New Rochelle Harbor, City of New Rochelle ELECTRICAL		SHEET NO. 212 OF 212 SCALE: AS SHOWN DATE: 03/08/2024	REV. NO. 0
<b>PROP'D ADMIN BLDG FIBER OPTIC CABLE ROUTE</b>		DPW FILE NO. 5-04-E-647-0	