ITEM SPECIAL - COMPOSITE FIBER WRAP SYSTEM (SEISMIC RETROFIT)

THIS ITEM SHALL INCLUDE PLACEMENT OF A COMPOSITE FIBER WRAP SYSTEM AS DIRECTED IN PROPOSAL NOTE 519 ON THE COLUMNS OF PIERS 18BE, 20BE, 21BE, 24BE, AND 26BE. THE SYSTEM SHALL PROVIDE A COLUMN CONFINING STRESS OF 0.150 KIPS PER SQUARE INCH. SEE SHEETS 26|59 , 28|59 , AND 30|59 FOR LIMITS OF COMPOSITE FIBER WRAP SYSTEM.

ITEM SPECIAL - COMPOSITE FIBER WRAP SYSTEM (PIER REPAIRS)

THIS ITEM SHALL INCLUDE PLACEMENT OF A COMPOSITE FIBER WRAP SYSTEM AS DIRECTED IN PROPOSAL NOTE 519. SEE SHEETS 19|59 TO 24|59 FOR WRAPPING LOCATIONS AND DETAILS. AT THE PIER 13 LOWER CAP, DESIGN THE COMPOSITE FIBER WRAP SYSTEM TO PROVIDE A FACTORED SHEAR CAPACITY INCREASE OF 25 KIPS AS SHOWN ON SHEET 22|59 .

ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN A

THIS ITEM CONSISTS OF PATCHING CONCRETE BRIDGE DECK PARTIAL DEPTH IN ACCORDANCE WITH C&MS 519 WITH GALVANIC ANODE PROTECTION IN ACCORDANCE WITH SS 844. CONCRETE MATERIAL SHALL MEET THE REQUIREMENTS OF TYPE B (AS REQUIRED FOR ITEM 519 - PATCHING CONCRETE BRIDGE DECK, TYPE B) AND THE RESISTIVITY REQUIREMENTS OF SS 844. THE INSTALLATION OF ANODES WILL BE NON-PERFORMED IF EXISTING REINFORCING STEEL IS NOT ENCOUNTERED IN THE REPAIR.

THE EXISTING DECK CONSISTS OF A 1¾" SUPERPLASTICIZED DENSE CONCRETE OVERLAY PLACED ON A 8¾" REINFORCED CONCRETE DECK. SEE SHEET 12|59 FOR ADDITIONAL DETAILS.

PAYMENT FOR COMPLETED AND ACCEPTED QUANTITIES AS MEASURED IN ACCORDANCE WITH C&MS 519 WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN A.

A QUANTITY OF 450 SQ. FT. OF PATCHING HAS BEEN CARRIED TO THE ESTIMATED QUANTITIES.

ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN B

THIS ITEM CONSISTS OF PATCHING CONCRETE BRIDGE DECK FULL DEPTH IN ACCORDANCE WITH C&MS 519 WITH GALVANIC ANODE PROTECTION IN ACCORDANCE WITH SS 844. CONCRETE MATERIAL SHALL MEET THE REQUIREMENTS OF TYPE B (AS REQUIRED FOR ITEM 519 - PATCHING CONCRETE BRIDGE DECK, TYPE B) AND THE RESISTIVITY REQUIREMENTS OF SS 844.

THE EXISTING DECK CONSISTS OF A 1¾" SUPERPLASTICIZED DENSE CONCRETE OVERLAY PLACED ON A 8¾" REINFORCED CONCRETE DECK. SEE SHEET 12|59 FOR ADDITIONAL DETAILS.

PAYMENT FOR COMPLETED AND ACCEPTED QUANTITIES AS MEASURED IN ACCORDANCE WITH C&MS 519 WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN B.

A QUANTITY OF 90 SQ. FT. OF PATCHING HAS BEEN CARRIED TO THE ESTIMATED QUANTITIES.

ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN C

THIS ITEM CONSISTS OF PATCHING CONCRETE BRIDGE DECK OVERLAY AND BRIDGE DECK PARTIAL DEPTH WITH MICRO-SILICA MODIFIED CONCRETE IN ACCORDANCE WITH SS 847 WITH GALVANIC ANODE PROTECTION IN ACCORDANCE WITH SS 844. MICRO-SILICA MODIFIED CONCRETE MATERIAL SHALL MEET THE REQUIREMENTS OF SS 847 AND THE RESISTIVITY REQUIREMENTS OF SS 844. THE INSTALLATION OF ANODES WILL BE NON-PERFORMED IF EXISTING REINFORCING STEEL IS NOT ENCOUNTERED IN THE REPAIR.

THE EXISTING DECK CONSISTS OF A 1¾" SUPERPLASTICIZED DENSE CONCRETE OVERLAY PLACED ON A 8¾" REINFORCED CONCRETE DECK. SEE SHEET 12|59 FOR ADDITIONAL DETAILS.

PAYMENT FOR COMPLETED AND ACCEPTED QUANTITIES AS MEASURED IN ACCORDANCE WITH SS 847 WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN C.

A QUANTITY OF 1350 SQ. FT. OF PATCHING HAS BEEN CARRIED TO THE ESTIMATED QUANTITIES.

ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN D

THIS ITEM CONSISTS OF PATCHING CONCRETE BRIDGE DECK OVERLAY AND BRIDGE DECK FULL DEPTH WITH MICRO-SILICA MODIFIED CONCRETE IN ACCORDANCE WITH SS 847 WITH GALVANIC ANODE PROTECTION IN ACCORDANCE WITH SS 844. MICRO-SILICA MODIFIED CONCRETE MATERIAL SHALL MEET THE REQUIREMENTS OF SS 847 AND THE RESISTIVITY REQUIREMENTS OF SS 844.

THE EXISTING DECK CONSISTS OF A 1¾" SUPERPLASTICIZED DENSE CONCRETE OVERLAY PLACED ON A 8¾" REINFORCED CONCRETE DECK. SEE SHEET 12|59 FOR ADDITIONAL DETAILS.

PAYMENT FOR COMPLETED AND ACCEPTED QUANTITIES AS MEASURED IN ACCORDANCE WITH SS 847 WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN D.

A QUANTITY OF 135 SQ. FT. OF PATCHING HAS BEEN CARRIED TO THE ESTIMATED QUANTITIES.

ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION

IN REFERENCE TO SUPPLEMENTAL SPECIFICATION 844.04.A, THE FOLLOWING MAXIMUM SPACING OF THE GALVANIC ANODES SHALL BE USED IN THE PIER PATCHING:

PIER COLUMNS - 12 INCHES

PIER CAP SIDE FACES - 24 INCHES

PIER CAP TOP AND BOTTOM FACES - 18 INCHES

PLAN ABBREVIATIONS

ABUT.	*ABUTMENT*
BRG.	*BEARING*
C/C	*CENTER TO CENTER*
CLR.	*CLEAR COVER*
CONST.	*CONSTRUCTION*
E.F.	*EACH FACE*
ELEV.	*ELEVATION*
EXIST.	*EXISTING*
F.F.	*FAR FACE*
FWD.	*FORWARD*
GFRP	*GLASS FIBER REINFORCED POLYMER*
LF	*LINEAR FEET*
N.F.	*NEAR FACE*
N.P.C.P.P.	*NON-PERFORATED CORRUGATED PLASTIC PIPE*
O/O	*OUT TO OUT*
P.C.P.P.	*PERFORATED CORRUGATED PLASTIC PIPE*
PEJF	*PREFORMED EXPANSION JOINT FILLER*
SF	*SQUARE FEET*
SPA.	*SPACES/SPACED*
T/T	*TOE TO TOE*
(TYP.)	*TYPICAL*

GENERAL NOTES (3 OF 3)
BRIDGE NO. CUY-00176-13.340
RAMP J-14 FROM NORTHBOUND S.R. 176

SFN 1805436

DESIGN AGENCY
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JPR	TES

REVIEWER
MLJ 11/21/23

PROJECT ID
115750

SUBSET	TOTAL
10	59

SHEET	TOTAL
P.61	110

CUY-176-13.34

MODEL: GENERAL NOTES SHEET 3 OF 3 PAPERSIZE: 34x22 (in.) DATE: 11/12/2024 TIME: 12:43:07 PM USER: vincent-d
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ESTIMATED QUANTITIES

CALCULATED: AJL DATE: 7/15/24 | CHECKED: RJB DATE: 7/15/24

ITEM	ITEM EXT.	TOTAL PLAN SPLIT	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GENERAL	SHEET
202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					8 / 59
202	22900	115	SY	APPROACH SLAB REMOVED				115	
202	23500	115	SY	WEARING COURSE REMOVED				115	
503	11100	LS		COFFERDAMS AND EXCAVATION BRACING					
503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN					9 / 59
509	10000	248,138	LB	EPOXY COATED REINFORCING STEEL			248,138		
509	25000	15,358	LB	UNCOATED REINFORCING STEEL	4,492	10,866			
509	30020	26,083	FT	NO. 4 DEFORMED GFRP REINFORCEMENT			26,083		
510	10001	512	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	117	395			9 / 59
511	34446	719	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			719		
511	34450	261	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)			261		
511	40512	136	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS		136			
511	42513	41	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER CAP, AS PER PLAN		41			26-30 / 59
511	45712	28	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT	28				
512	10100	2,392	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	53	335	2,004		
512	10600	9	FT	CONCRETE REPAIR BY EPOXY INJECTION		9			
512	33000	20	SY	TYPE 2 WATERPROOFING	20				
SPECIAL	51271500	576	SY	URETHANE TOP COAT SEALER		576			9 / 59
512	74000	4	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	4				
513	10201	321	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN			321		9 / 59
513	20000	12,390	EACH	WELDED STUD SHEAR CONNECTORS			12,390		
513	90000	538	LB	STRUCTURAL STEEL, MISC.: LATERAL RESTRAINT BLOCKS			538		34-35 / 59
513	95030	8	EACH	STRUCTURAL STEEL, MISC.: CABLE RESTRAINERS			8		34-35 / 59
514	00050	2,032	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			2,032		
514	00056	2,032	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT			2,032		
514	00060	2,373	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			2,373		
514	00066	2,373	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			2,373		9 / 59
516	11210	43	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL				43	
516	11211	60	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN				60	53-54 / 59
516	13900	38	SF	2" PREFORMED EXPANSION JOINT FILLER	38				
516	44301	5	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (15" x 15" x 4.69" WITH 17" x 16" x 1.5" BEVELED LOAD PLATE AND 24" x 16" x 1.5" MASONRY PLATE)	5				39 / 59
516	44401	33	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (16" x 18" x 5.05" WITH 17" x VARYING WIDTH x 1.5" BEVELED LOAD PLATE)		33			37-38 / 59
516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN					9 / 59
518	12200	6	EACH	SCUPPERS, INCLUDING SUPPORTS			6		
518	21200	36	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	36				
518	40000	81	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	81				
518	40010	60	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	60				
518	51300	3	EACH	DOWNSPOUT MODIFICATION, 10"				3	36 / 59
518	62200	3	EACH	STRUCTURE DRAINAGE, MISC.: PLUGGING EXISTING WEEPHOLES	3				17 / 59
518	62200	3	EACH	STRUCTURE DRAINAGE, MISC.: REMOVE AND REMOUNT EXISTING DOWNSPOUTS				3	36 / 59
518	63300	LS		STRUCTURE DRAINAGE, MISC.: CLEANING EXISTING DOWNSPOUTS					9 / 59
SPECIAL	51900100	5,258	SF	COMPOSITE FIBER WRAP SYSTEM (SEISMIC RETROFITS)		5,258			10 / 59
SPECIAL	51900100	843	SF	COMPOSITE FIBER WRAP SYSTEM (PIER REPAIRS)		843			10 / 59
526	25011	124	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15"), AS PER PLAN				124	56 / 59
601	21050	27	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT				27	
844	10000	1,299	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION		1,299			10 / 59
844	10001	450	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN A			450		10 / 59
844	10001	90	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN B			90		10 / 59
844	10001	1,350	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN C			1,350		10 / 59
844	10001	135	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN D			135		10 / 59

ESTIMATED QUANTITIES
BRIDGE NO. CUY-00176-13.340
RAMP J-14 FROM NORTHBOUND S.R. 176

SFN 1805436

DESIGN AGENCY
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3745 MEDINA RD.
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DESIGNER	CHECKER
AJL	RJB

REVIEWER: MLJ 11/21/23

PROJECT ID: 115750

SUBSET	TOTAL
11	59

SHEET	TOTAL
P.62	110

CUY-176-13.34

MODEL: ESTIMATED QUANTITIES PAPERSIZE: 34x22 (in.) DATE: 11/12/2024 TIME: 12:57:00 PM USER: vincent-d
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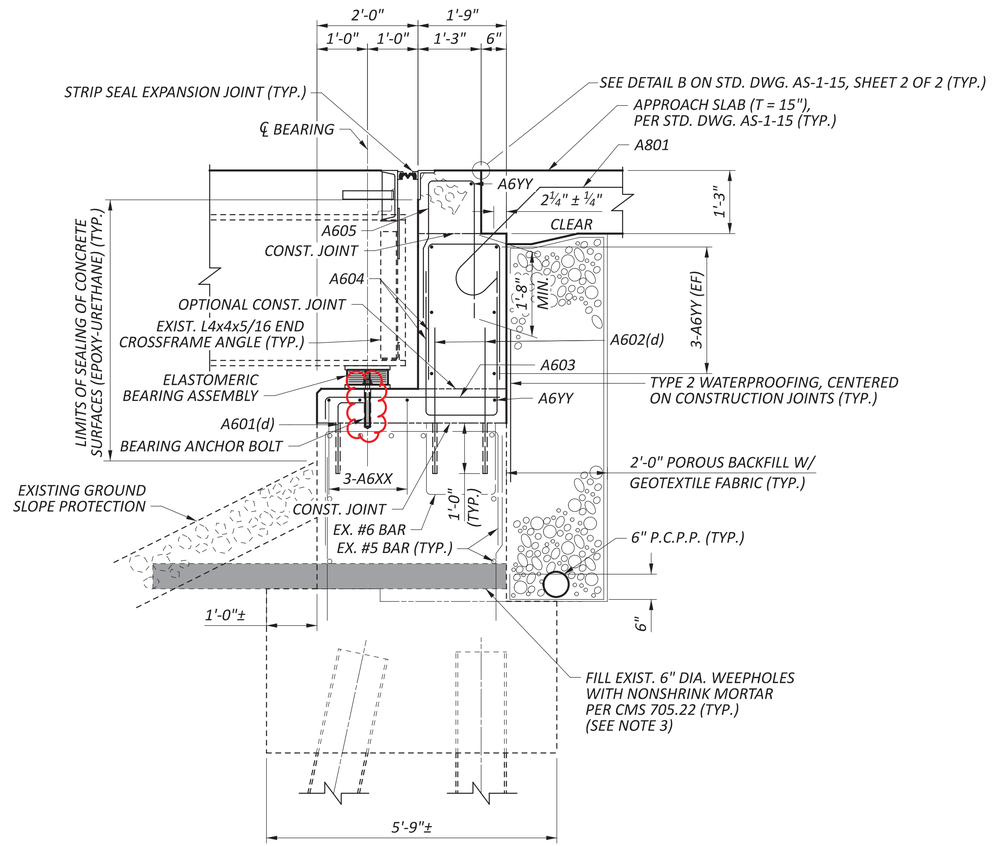
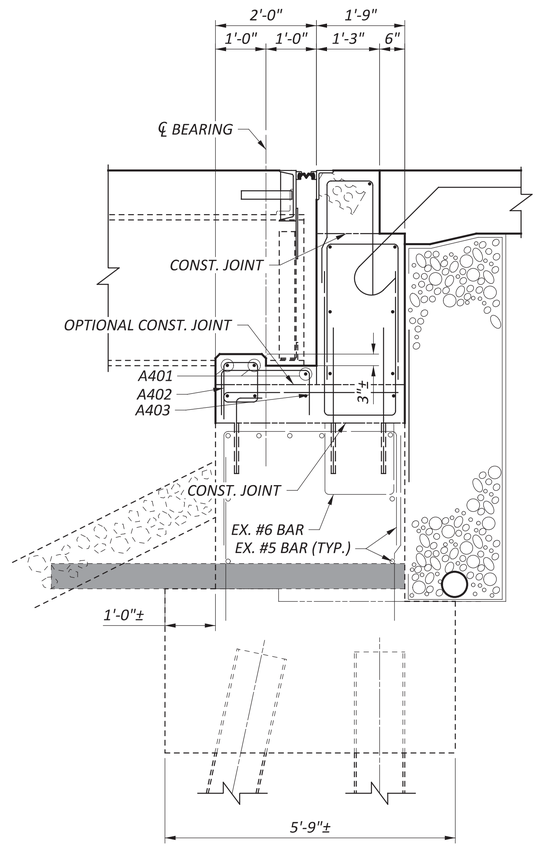


SECTION A-A



SECTION B-B

(ALL REINFORCING BARS SAME AS SECTION A-A EXCEPT AS NOTED)

LEGEND

A6XX	- A606 OR A607
A6YY	- A606 OR A617
(d) or (dt)	- INDICATES DOWEL BAR PLACED WITH ITEM 510 - DOWEL HOLE WITH NON-SHRINK, NON-METALLIC GROUT, AS PER PLAN

NOTES

1. SEE SHEET 16 | 59 FOR SECTION LOCATIONS.
2. SEE SHEET 55 | 59 FOR EXPANSION JOINT DETAILS.
3. PAYMENT FOR FILLING EXISTING 6" DIA. WEEPHOLES WITH NON-SHRINK MORTAR SHALL BE INCLUDED WITH ITEM 518 - STRUCTURE DRAINAGE, MISC.: PLUGGING EXISTING WEEPHOLES.
4. SEE SHEET 39 | 59 FOR BEARING ASSEMBLY AND ANCHOR BOLT DETAILS.
5. CONSTRUCTION OF THE ABUTMENT SEAT CAP WILL REQUIRE TEMPORARY SUPPORT OF THE SUPERSTRUCTURE. PAYMENT FOR ALL LABOR AND MATERIALS REQUIRED FOR TEMPORARY SUPPORT SHALL BE INCLUDED FOR PAYMENT WITH ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

NORTH ABUTMENT BE SECTION DETAILS
BRIDGE NO. CUY-00176-13.340
RAMP J-14 FROM NORTHBOUND S.R. 176

SFN 1805436

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JPR	SS/AL

REVIEWER MLJ 11/21/23

PROJECT ID 115750

SUBSET	TOTAL
17	59

SHEET	TOTAL
P.68	110

CUY-176-13.34

MODEL: Sheet - Abut Sections PAPERSIZE: 34x22 (in.) DATE: 11/12/2024 TIME: 10:14:08 AM USER: vincent-d
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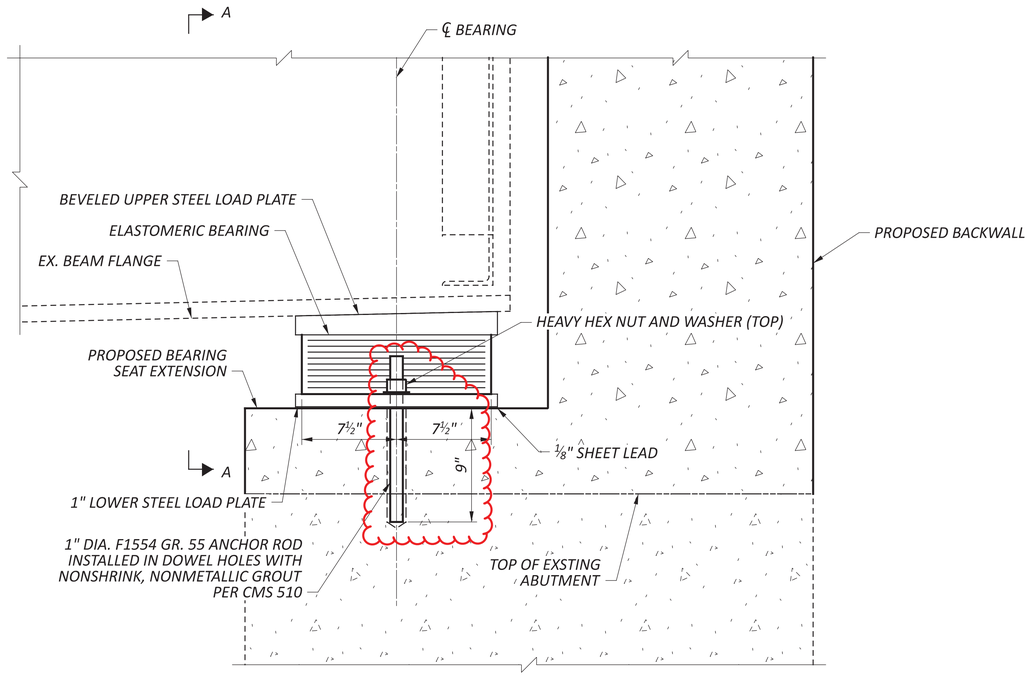
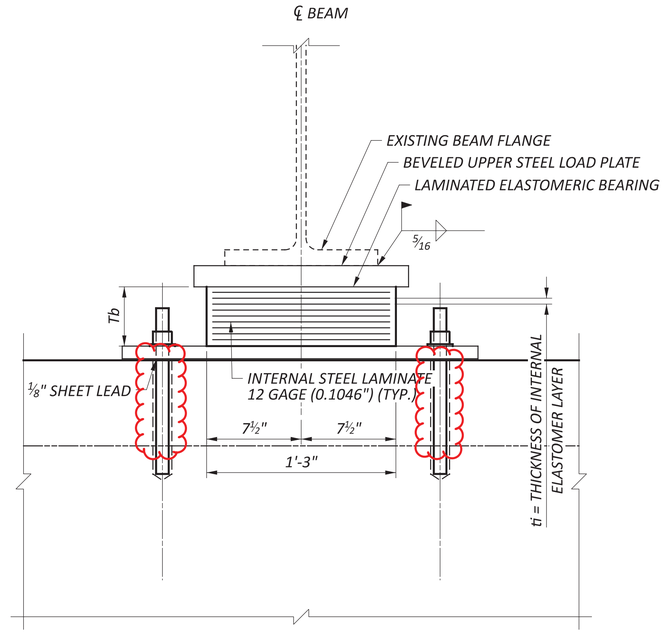
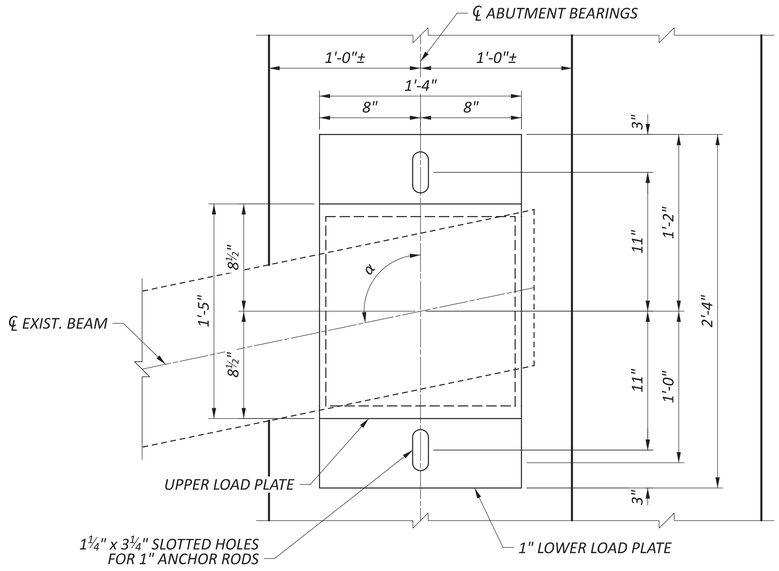


ABUTMENT BEARING ELEVATION



SECTION A-A



ABUTMENT BEARING PLAN

FORWARD ABUTMENT BEARING ANGLE, α		
BEAM	G	101°45'12"
	H	97°28'59"
	J	93°07'39"
	K	92°23'57"
	L	91°40'12"

BEVELED LOAD PLATE DIMENSIONS (IN.)		
LOCATION	NORTH ABUT. BE	
	Tr	Tf
BEAMS G & H	1 ½	1 13/16
BEAMS J, K, & L	1 ½	1 ⅞

NOTES

1. ANCHOR RODS, HARDWARE, AND LOWER LOAD PLATE SHALL BE GALVANIZED PER CMS 711.02.
2. THE UPPER LOAD PLATE SHALL BE PAINTED PER CMS 514.
3. SEE SHEET 37|59 FOR ABUTMENT BEARING DATA TABLE AND ADDITIONAL NOTES.
4. NON-DESTRUCTIVE TESTING (SUCH AS GROUND PENETRATING RADAR OR A PACHOMETER) SHALL BE USED TO LOCATE THE EXISTING REBAR IN THE ABUTMENT. THE LOCATION OF THE BEARING ANCHOR RODS SHALL BE ADJUSTED TO CLEAR THE EXISTING TRANSVERSE AND LONGITUDINAL REINFORCING. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 510 - DOWEL HOLE WITH NON-SHRINK, NON-METALLIC GROUT, AS PER PLAN.
5. PROVIDE SHEET LEAD ACCORDING TO CMS 711.19.
6. PAYMENT FOR ALL LABOR, MATERIALS, AND INCIDENTALS TO FURNISH AND INSTALL THE ELASTOMERIC BEARINGS, STEEL LOAD PLATES, ANCHOR RODS (INCLUDING HARDWARE), AND SHEET LEAD AT THE ABUTMENT SHALL BE INCLUDED FOR PAYMENT WITH ITEM 516 - ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (15" X 15" X 4.69" WITH 17" X 16" X 1.5" BEVELED LOAD PLATE AND 24" X 16" X 1.5" MASONRY PLATE).

ABUTMENT BEARING DETAILS
BRIDGE NO. CUY-00176-13.340
RAMP J-14 FROM NORTHBOUND S.R. 176

SFN 1805436

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TES	SAS

REVIEWER MLJ 11/21/23

PROJECT ID 115750

SUBSET	TOTAL
39	59

SHEET	TOTAL
P.90	110

CUY-176-13.34