

SHEET NUM.											PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
5		13		22	23		\$0040CS Q001		OFFICE CALCS	01/STR/B R		EXT	TOTAL				
ROADWAY																	
LS		613								LS	201	11000	LS		CLEARING AND GRUBBING		
		625								613	202	23000	613	SY	PAVEMENT REMOVED		
										625	202	38000	625	FT	GUARDRAIL REMOVED		
				363						363	203	10000	363	CY	EXCAVATION		
				175						175	203	20000	175	CY	EMBANKMENT		
									1,442	1,442	204	10000	1,442	SY	SUBGRADE COMPACTION		
		125								125	606	15050	125	FT	GUARDRAIL, TYPE MGS		
		4								4	606	26150	4	EACH	ANCHOR ASSEMBLY, MGS TYPE E		
		4								4	606	35002	4	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1		
EROSION CONTROL																	
		2								2	601	21050	2	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT		
		270								270	601	32104	270	CY	ROCK CHANNEL PROTECTION, TYPE B WITH GEOTEXTILE FABRIC		
1,122										1,122	659	10000	1,122	SY	SEEDING AND MULCHING		
56										56	659	14000	56	SY	REPAIR SEEDING AND MULCHING		
0.15										0.15	659	20000	0.15	TON	COMMERCIAL FERTILIZER		
0.23										0.23	659	31000	0.23	ACRE	LIME		
6										6	659	35000	6	MGAL	WATER		
										2,000	832	30000	2,000	EACH	EROSION CONTROL		
DRAINAGE																	
		266								266	605	05100	266	FT	4" SHALLOW PIPE UNDERDRAINS		
		966								966	605	06000	966	FT	4" BASE PIPE UNDERDRAINS		
		141								141	611	00410	141	FT	4" CONDUIT, TYPE F FOR UNDERDRAIN OUTLET		
		1								1	611	99710	1	EACH	PRECAST REINFORCED CONCRETE OUTLET		
PAVEMENT																	
									817	817	254	01000	817	SY	PAVEMENT PLANING, ASPHALT CONCRETE (1.5")		
									213	213	301	46000	213	CY	ASPHALT CONCRETE BASE, PG64-22		
									215	215	304	20000	215	CY	AGGREGATE BASE		
									266	266	407	10000	266	GAL	TACK COAT		
									7	7	411	10000	7	CY	STABILIZED CRUSHED AGGREGATE		
									120	120	441	50000	120	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22		
TRAFFIC CONTROL																	
				26						26	621	00100	26	EACH	RPM		
				26						26	621	54000	26	EACH	RAISED PAVEMENT MARKER REMOVED		
				8						8	626	00112	8	EACH	BARRIER REFLECTOR, TYPE 3, BI-DIRECTIONAL		
				0.38						0.38	642	00104	0.38	MILE	EDGE LINE, 6", TYPE 1		
				0.38						0.38	642	00300	0.38	MILE	CENTER LINE, TYPE 1		
STRUCTURE OVER 20 FOOT SPAN (HIG-041-0040)																	
							LS			LS	202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	26	
							123			123	202	22900	123	SY	APPROACH SLAB REMOVED		
							432			432	202	23500	432	SY	WEARING COURSE REMOVED		
							LS			LS	503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	33	
							190			190	503	21101	190	CY	UNCLASSIFIED EXCAVATION, AS PER PLAN	28	
							31,950			31,950	509	10000	31,950	LB	EPOXY COATED REINFORCING STEEL		
							2			2	511	33500	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE		
							91			91	511	34444	91	CY	CLASS QC2 CONCRETE, BRIDGE DECK		
							74			74	511	43510	74	CY	CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING		
							46			46	511	46210	46	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL INCLUDING FOOTING		
							85			85	512	10100	85	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		
							136			136	512	33001	136	SY	TYPE 2 WATERPROOFING, AS PER PLAN	35, 36	
							54,710			54,710	513	10261	54,710	LB	STRUCTURAL STEEL MEMBERS, LEVEL 3, AS PER PLAN	26	
							990			990	513	20000	990	EACH	WELDED STUD SHEAR CONNECTORS		
							3			3	516	13600	3	SF	1" PREFORMED EXPANSION JOINT FILLER		
							42			42	516	13900	42	SF	2" PREFORMED EXPANSION JOINT FILLER		
							128			128	516	14020	128	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL		

GENERAL SUMMARY

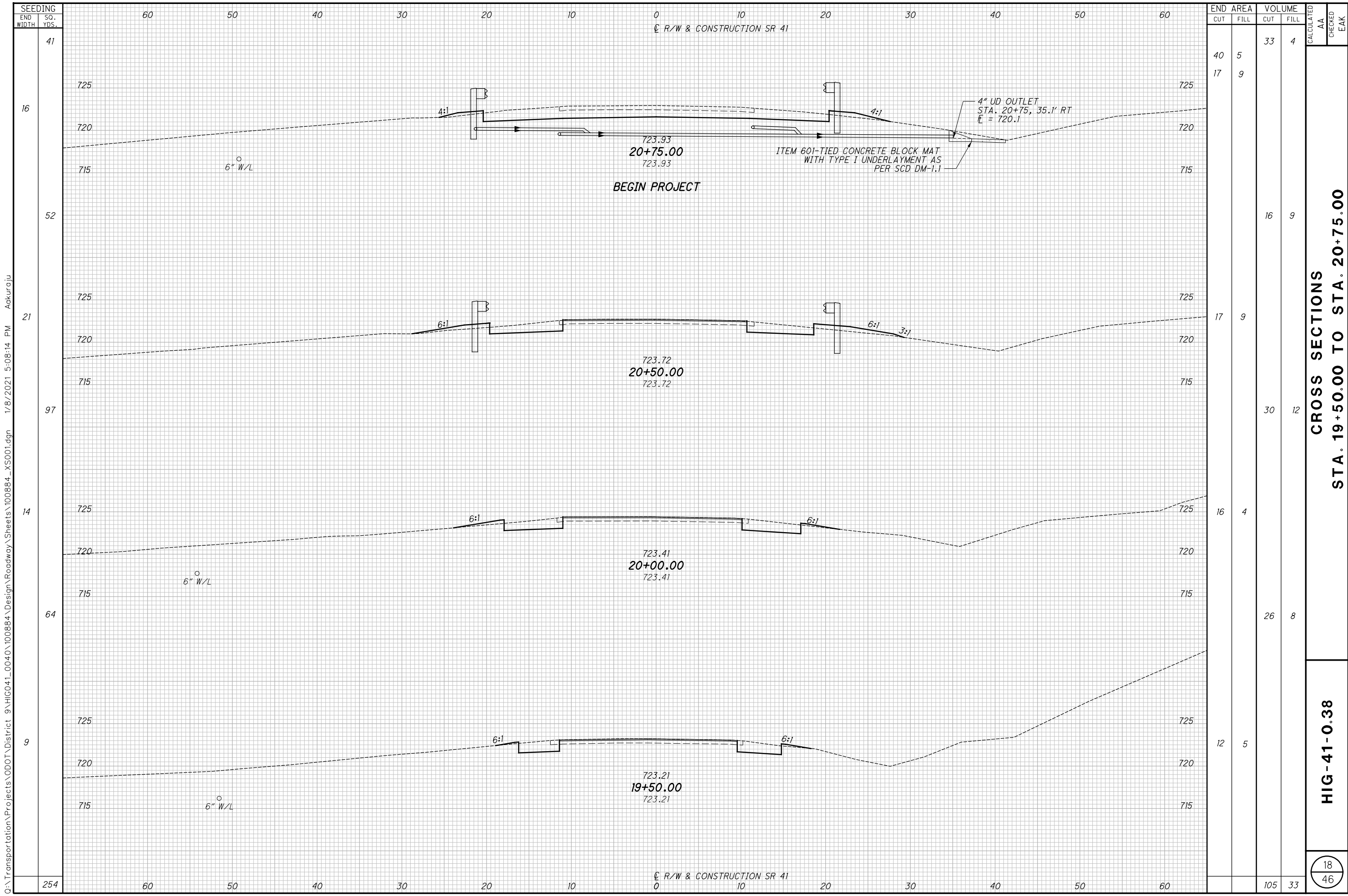
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REF. NO.	SHEET NO.	STATION		SIDE	202		601		601		606			605		611		BENDS & BRANCHES							
					PAVEMENT REMOVED	GUARDRAIL REMOVED	TIED CONCRETE BLOCK MAT WITH TYPE I UNDERLAYMENT	ROCK CHANNEL PROTECTION, TYPE B WITH AGGREGATE FILTER	GUARDRAIL, TYPE MGS	ANCHOR ASSEMBLY, MGS TYPE E	MGS BRIDGE TERMINAL ASSEMBLY, TYPE I	4" SHALLOW PIPE UNDERDRAINS	4" BASE PIPE UNDERDRAINS	4" CONDUIT, TYPE F FOR UNDERDRAIN OUL TLETS	PRECAST REINFORCED CONCRETE OUTLET	FOR INFORMATION ONLY									
																SQ YD	FT	SQ YD	CU YD	FT	EA	EA	FT	FT	FT
E-1	15	21+64.84	21+82.77	LT/RT																					
E-2	15	21+97.15	22+15.15	LT/RT																					
GR-1	15	20+46.83	21+71.88	RT					50.00	1	1														
GR-2	15	20+61.70	21+49.20	LT					12.50	1	1														
GR-3	15	22+30.79	23+18.29	RT					12.50	1	1														
GR-4	15	22+08.16	23+33.16	LT					50.00	1	1														
R-1	15	19+82.76	21+45.55	LT		163																			
R-2	15	20+10.84	21+66.58	RT		156																			
R-3	15	22+12.14	23+68.21	LT		156																			
R-4	15	22+50.33	23+75.00	RT		150																			
R-5	14 - 15	19+00.00	21+36.84	LT/RT	278																				
R-6	15 - 16	22+43.15	25+00.00	LT/RT	335																				
DRAINAGE																									
UD-1	14 - 15	19+00.00	21+19.14	LT									220	14							1	1	1		
UD-2	15	20+75.00	21+24.04	LT			2					50		47	1								1		
UD-3	15	20+75.00	21+37.23	RT								63		5									1		
UD-4	14 - 15	19+00.00	21+42.13	RT									243									1	1	1	
UD-5	15 - 16	22+37.86	25+00.00	LT									263	15								1	1	1	
UD-6	15	22+42.76	23+25.00	LT								83		55										1	
UD-7	15	22+55.95	23+25.00	RT								70		5										1	
UD-8	15 - 16	22+60.85	25+00.00	RT									240									1	1	1	
TOTALS CARRIED TO GENERAL SUMMARY					613	625	2	270		125.00	4	4		266	966	141	1				X	X	X		

ROADWAY & DRAINAGE SUBSUMMARY	CALCULATED AA CHECKED EAK
HIG - 41 - 0.38	
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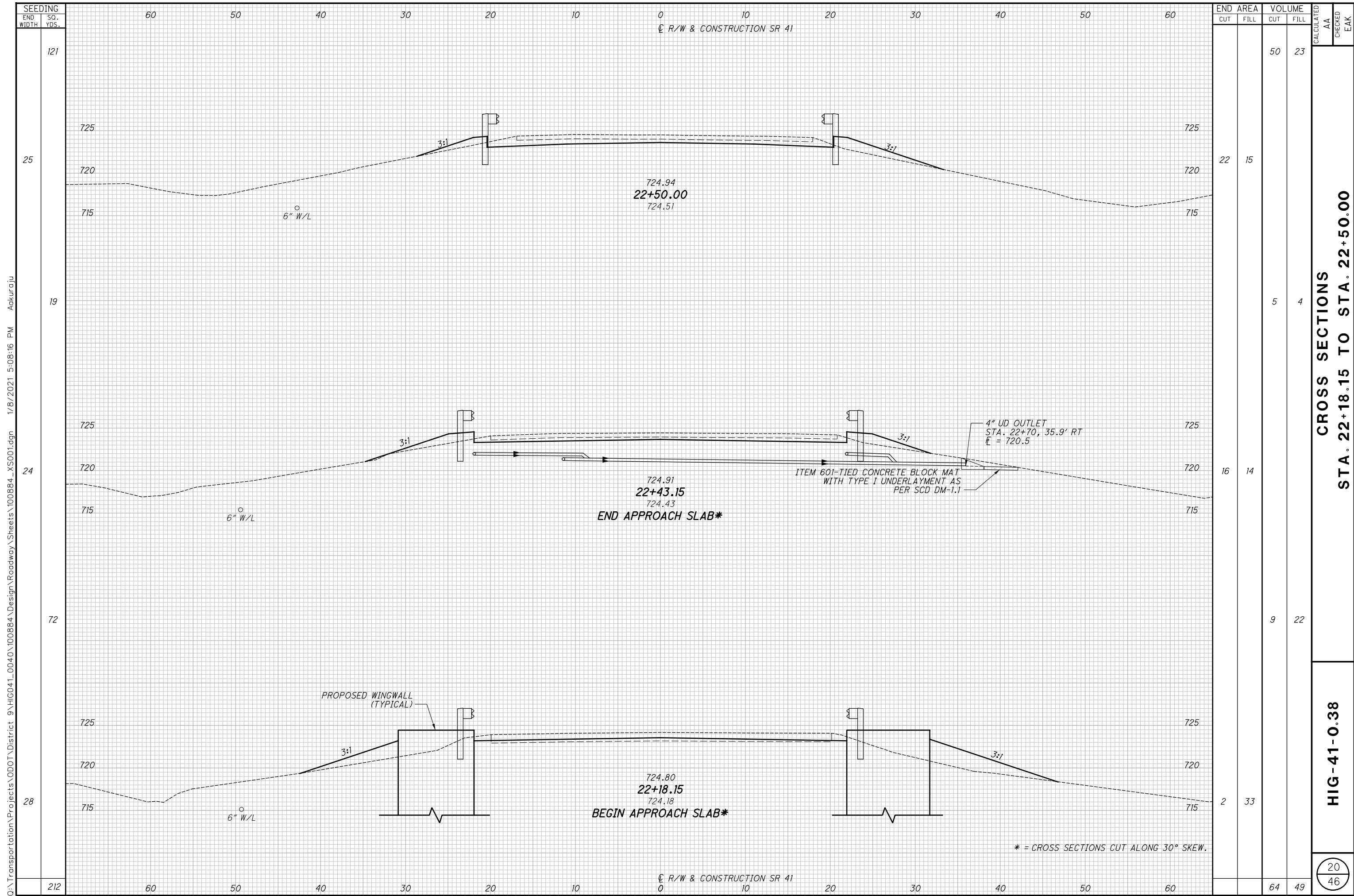
SEEDING	END AREA		VOLUME		CALCULATED	CHECKED
	END WIDTH	SO. YDS.	CUT	FILL		
41	60	50	40	5	33	4
16	60	50	17	9	16	9
52	60	50	17	9	30	12
21	60	50	16	4	26	8
97	60	50	16	4	12	5
14	60	50	12	5	105	33
64	60	50	12	5		
9	60	50	12	5		
254	60	50	12	5		

CROSS SECTIONS
STA. 19+50.00 TO STA. 20+75.00

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18
 46

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STATION	END AREA		VOLUME		CALCULATED AA	CHECKED EAK
	CUT	FILL	CUT	FILL		
121			50	23		
25	22	15				
19			5	4		
24	16	14				
72			9	22		
28	2	33				
212			64	49		

**CROSS SECTIONS
 STA. 22+18.15 TO STA. 22+50.00**

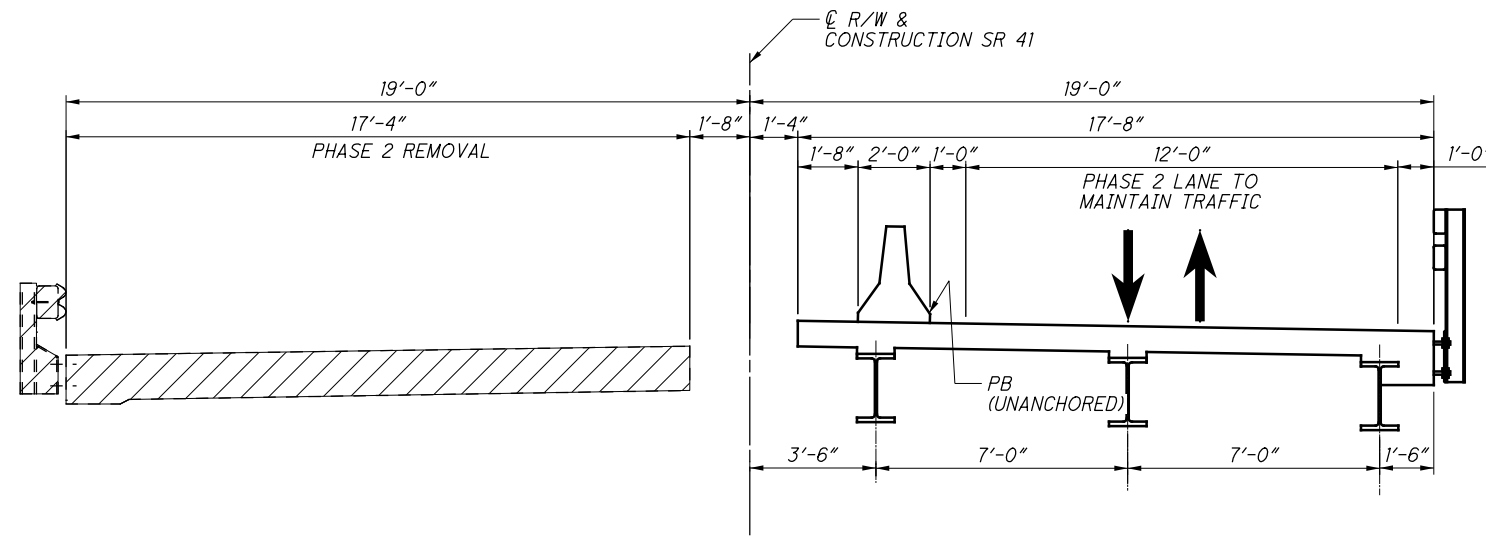
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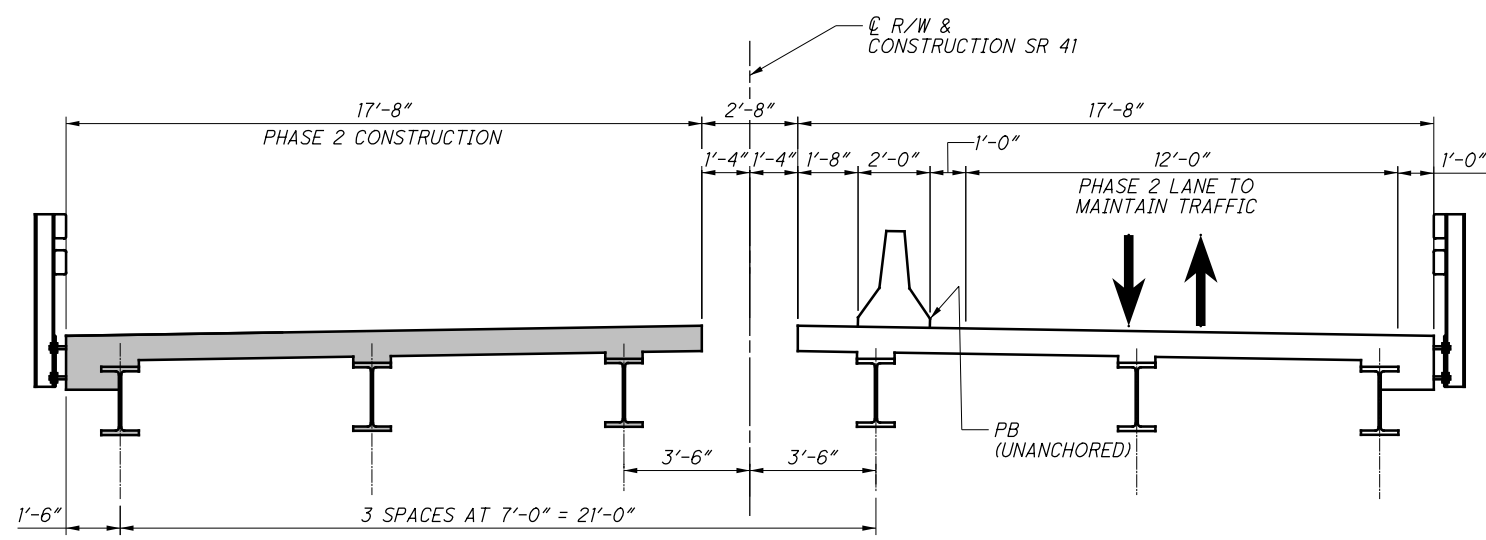
* = CROSS SECTIONS CUT ALONG 30° SKEW.

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PHASE 2 REMOVAL



PHASE 2 CONSTRUCTION

PHASE 2 REMOVAL:

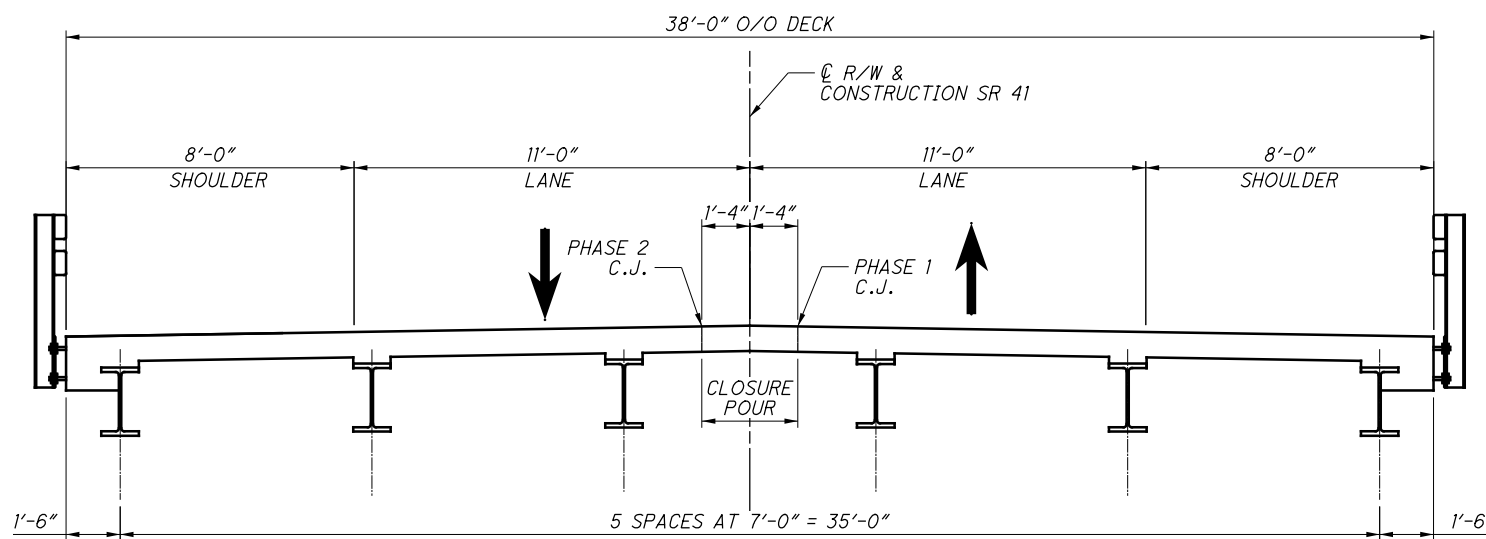
1. INSTALL PORTABLE BARRIER ON PROPOSED STRUCTURE IN THE LOCATION SHOWN.
2. SHIFT TRAFFIC TO THE RIGHT SIDE OF THE BRIDGE AND MAINTAIN ONE-LANE, TWO-WAY TRAFFIC.
3. REMOVE THE LEFT PORTION OF THE EXISTING SUPERSTRUCTURE AND APPROACH SLABS TO THE LIMITS SHOWN.
4. REMOVE THE LEFT PORTION OF THE EXISTING SUBSTRUCTURES AS SHOWN IN THE PLANS.

PHASE 2 CONSTRUCTION:

1. MAINTAIN ONE-LANE, TWO-WAY TRAFFIC ON THE RIGHT SIDE OF THE BRIDGE AS SHOWN.
2. CONSTRUCT THE LEFT PORTIONS OF THE SUBSTRUCTURES TO THE LIMITS SHOWN IN THE PLANS.
3. CONSTRUCT THE REMAINDER OF THE SUPERSTRUCTURE, EXCEPT FOR THE DIAPHRAGMS BETWEEN BEAMS 3 AND 4 (CLOSURE POUR LOCATION). POUR THE PHASE 2 PORTION OF THE SUPERSTRUCTURE AND APPROACH SLABS. INSTALL DIAPHRAGMS BETWEEN BEAMS 3 AND 4 AND COMPLETE CLOSURE POUR.
4. REMOVE PB.

NOTES:

1. PAYMENT FOR PORTABLE CONCRETE BARRIER (PB) INCLUDED IN ROADWAY GENERAL SUMMARY.
2. FOR ADDITIONAL PORTABLE CONCRETE BARRIER DETAILS, SEE STANDARD DRAWING PCB-91 OR RM-4.2.



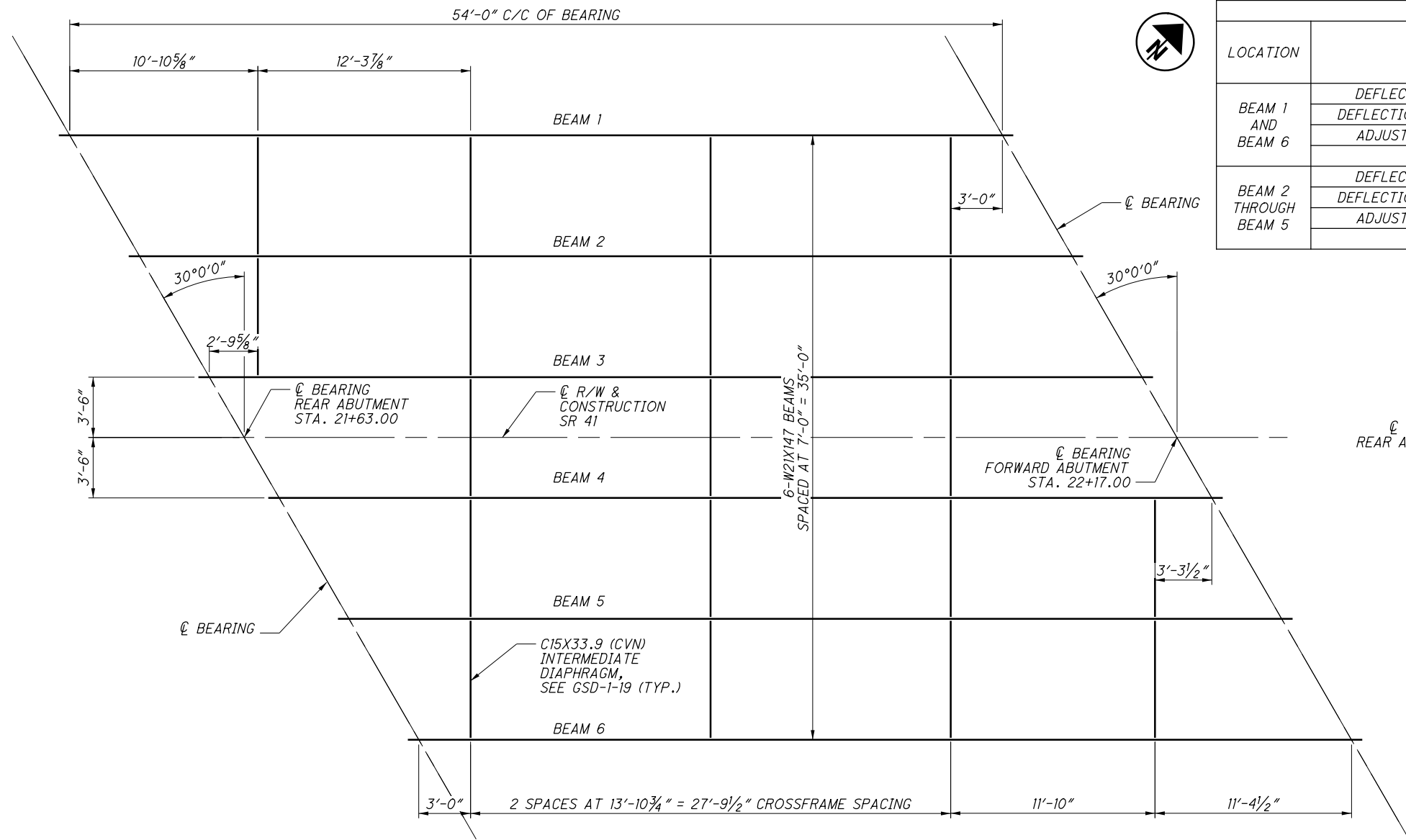
FINAL TRANSVERSE SECTION

LEGEND:

- = LIMITS OF REMOVAL
- = NEW CONSTRUCTION

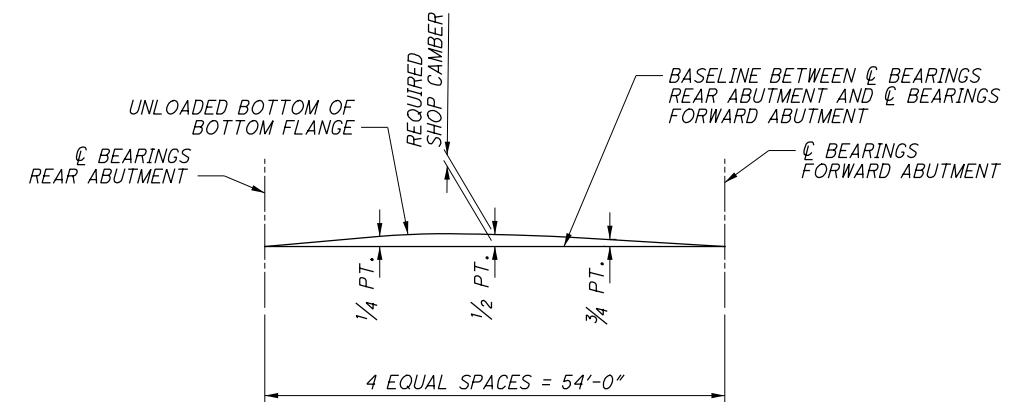
	DESIGN AGENCY PRIMEV 8415 Pulaski Place, Suite 300 Columbus, Ohio 43240	REVIEWED CCJ 7/15/2020 STRUCTURE FILE NUMBER 3600460	PHASE 2 BRIDGE NO. HIG-41-0040 SR 41 OVER STRAIGHT CREEK
DRAWN EDW REVISED	DESIGNED EDW CHECKED AMT	PART WIDTH CONSTRUCTION DETAILS - PHASE 2 HIG-41-0.38 PID No. 100884	
8 / 23		31 46	

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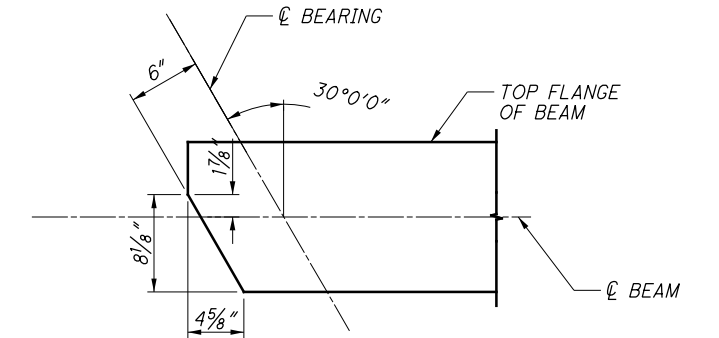
FRAMING PLAN

DEFLECTION AND CAMBER TABLE (INCHES)						
LOCATION	SPAN 1					
	CL BRG. REAR ABUT.	1/4 PT.	1/2 PT.	3/4 PT.	CL BRG. FWD. ABUT.	
BEAM 1 AND BEAM 6	DEFLECTION DUE TO WEIGHT OF STEEL	0	3/16	5/16	3/16	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	15/16	1 1/16	15/16	0
	ADJUSTMENT DUE TO VERTICAL CURVE	0	1/16	1/16	1/16	0
	REQUIRED SHOP CAMBER	0	1 3/16	1 1/16	1 3/16	0
BEAM 2 THROUGH BEAM 5	DEFLECTION DUE TO WEIGHT OF STEEL	0	3/16	5/16	3/16	0
	DEFLECTION DUE TO REMAINING DEAD LOAD	0	1	1 1/16	1	0
	ADJUSTMENT DUE TO VERTICAL CURVE	0	1/16	1/16	1/16	0
	REQUIRED SHOP CAMBER	0	1 1/4	1 3/16	1 1/4	0



CAMBER DIAGRAM

(TYPICAL ALL BEAMS)
(DIAGRAM NOT TO SCALE)
SEE DEFLECTION AND CAMBER TABLE

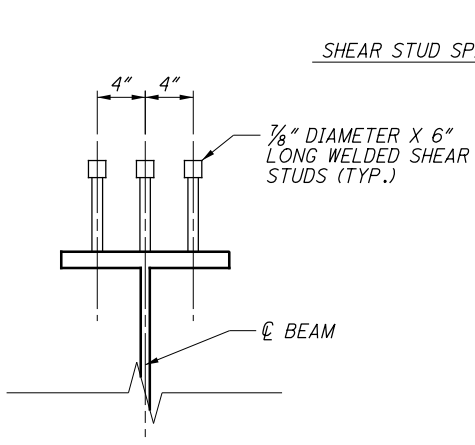


TOP FLANGE CLIP DETAIL

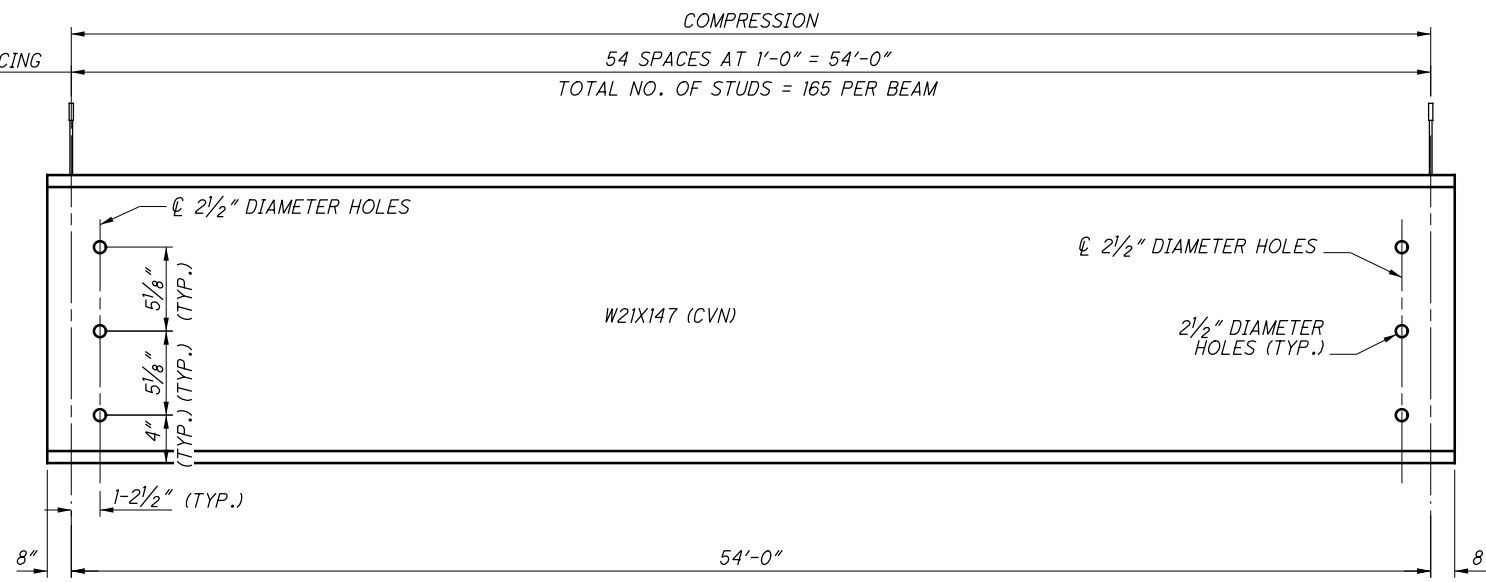
REAR ABUTMENT SHOWN, FORWARD ABUTMENT SIMILAR

NOTES:

- WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE NO MORE THAN 2" LONG, AND BE AT LEAST 1/4" FOR THICKNESSES UP TO 3/4" OR 5/16" FOR GREATER THE 3/4" THICK.
- ALL STRUCTURAL STEEL SHALL BE ASTM A709, GRADE 50, GALVANIZED, UNLESS NOTED.
- WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN CMS 711.01.
- FOR ADDITIONAL INFORMATION NOT SHOWN, SEE STANDARD DRAWINGS GSD-1-19.
- SHEAR STUD CONNECTORS SHALL BE WELDED PER CMS 513.22.



SHEAR STUD DETAIL



BEAM ELEVATION

INTERMEDIATE DIAPHRAGM CONNECTION PLATES NOT SHOWN