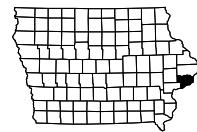


SCOTT GO.
PCC PAVEMENT - GRADE AND REPLACE
IMX-280-8(144)2--02-82
 LETTING DATE
11/18/2014



No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2 - 3	Location Map Sheets
B Sheets	Typical Cross Sections and Details
B.1 - 5	Typical Cross Sections and Details
B.6 - 7	As-Built Typical (For Info Only)
C Sheets	Quantities and General Information
C.1	Project Description
C.1	Estimated Project Quantities
C.2 - 4	Estimate Reference Information
C.5	Standard Road Plans
C.5	Index of Tabulations
C.6	Pollution Prevention Plan
C.7	General Notes
C.8 - 23	Tabulations
CS Sheets	Soils Tabulations
CS.1 - CS.6	Soils Tabulations
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 15	Southbound I-280 Plan and Profile Sheets
G Sheets	Survey Sheets
G.1	As-Built Superelevation Curve Data Tabulation
G.2	Survey Info/Vertical Control
G.3	Horizontal Control Tab.
G.4	Reference Ties and Bench Marks
G.5 - 6	Alignment and Curve Data
J Sheets	Traffic Control and Staging Sheets
* J.1	Traffic Control Plan
* J.1	Staging Notes Stage
* J.1	Coordinated Operations
* J.1	Special Events Tab.
* J.2	Traffic Control & Staging Legend & Symbol Info. Sheet
* J.3 - 7	Staging and Traffic Control Sheets Stage 1
* J.8 - 12	Staging and Traffic Control Sheets Stage 2
K Sheets	Interchange Sheets
* K.1	IA 22 Ramp Detail Sheets
* K.2	US 61 Ramp Detail Sheets
* K.3	Locust Street Ramp Detail Sheets
K.4 - 8	Existing Interchange Layout Sheets (For Info Only)
U Sheets	500 Series, Mod.Stds. and Detail Sheets
U.1	Details of Barricade at Crossover (540-13)
U.2	Details of Median Crossover at IA 22 Ramp D
U.3	Details of Median Crossover at US 61 Ramp B
U.4	Details of Median Crossover at US 61 Ramp D
U.5	Details of Median Crossover at Locust St Ramp B
U.6	Details of Median Crossover at Locust St Ramp D
U.7	Detail of Ramp D Crossover IA 22
U.8	Detail of Ramp B Crossover U.S. 61
U.9	Detail of Ramp D Crossover U.S. 61
U.10	Detail of Ramp B Crossover Locust St
U.11	Detail of Ramp D Crossover Locust St
U.12	High Tension Cable Guardrail Special Anchor Section
U.13	High Tension Cable Guardrail End Anchor
U.14 - 18	Interim Standard Road Plan - TC-61
V Sheets	Bridge and Culvert Situation Plans
V.1 - 4	Bridge and Culvert Situation Plans
	* Color Plan Sheets



Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

INTERSTATE ROAD SYSTEM

SCOTT COUNTY

PCC PAVEMENT - GRADE AND REPLACE

I-280 In Davenport From 0.8 Mile South of US 6
South To Mississippi River (WBL)

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.15 of the Specifications.



REVISIONS

TOTAL	102
PROJECT IDENTIFICATION NUMBER	08-82-280-010
PROJECT NUMBER	IMX-280-8(144)2--02-82
R.O.W. PROJECT NUMBER	N/A

101-5 04-30-02			
DESIGN DATA URBAN			
2013 AADT	24,100	V.P.D.	
2033 AADT	37,700	V.P.D.	
20 DHV		V.P.H.	
TRUCKS	24	%	
Total			
Design ESALs			

INDEX OF SEALS		
SHEET NO.	NAME	TYPE
A.1	Paul W. Flattery	Primary Signature Block
CS.1	Robert L. Stanley	Geotechnical Design
V.1	James S. Nelson	Structural Design

ROADWAY DESIGN	
	I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa. <i>Paul W. Flattery</i> Signature _____ Date 07-29-2014 Paul W. Flattery Printed or Typed Name My license renewal date is December 31, 2015
	Pages or sheets covered by this seal: A.1-A.3, B.1-B.7, C.1-C.23, D.1-D.15, G.1-G.6, J.1-J.12, K.1-K.8, and U.1-U.18.

I-280 WB over U.S. 61 MP 6.67
 Sta. 247+39.96
 Maint. No. 8206.6R/L280
 FHWA 600730 & 600740
 Exist. 159'8" x 39' Pretension
 Prestressed Concrete Beam
 Design No. 1766

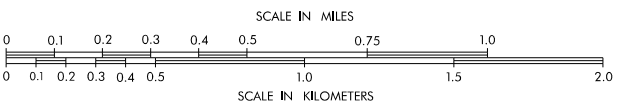
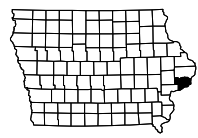
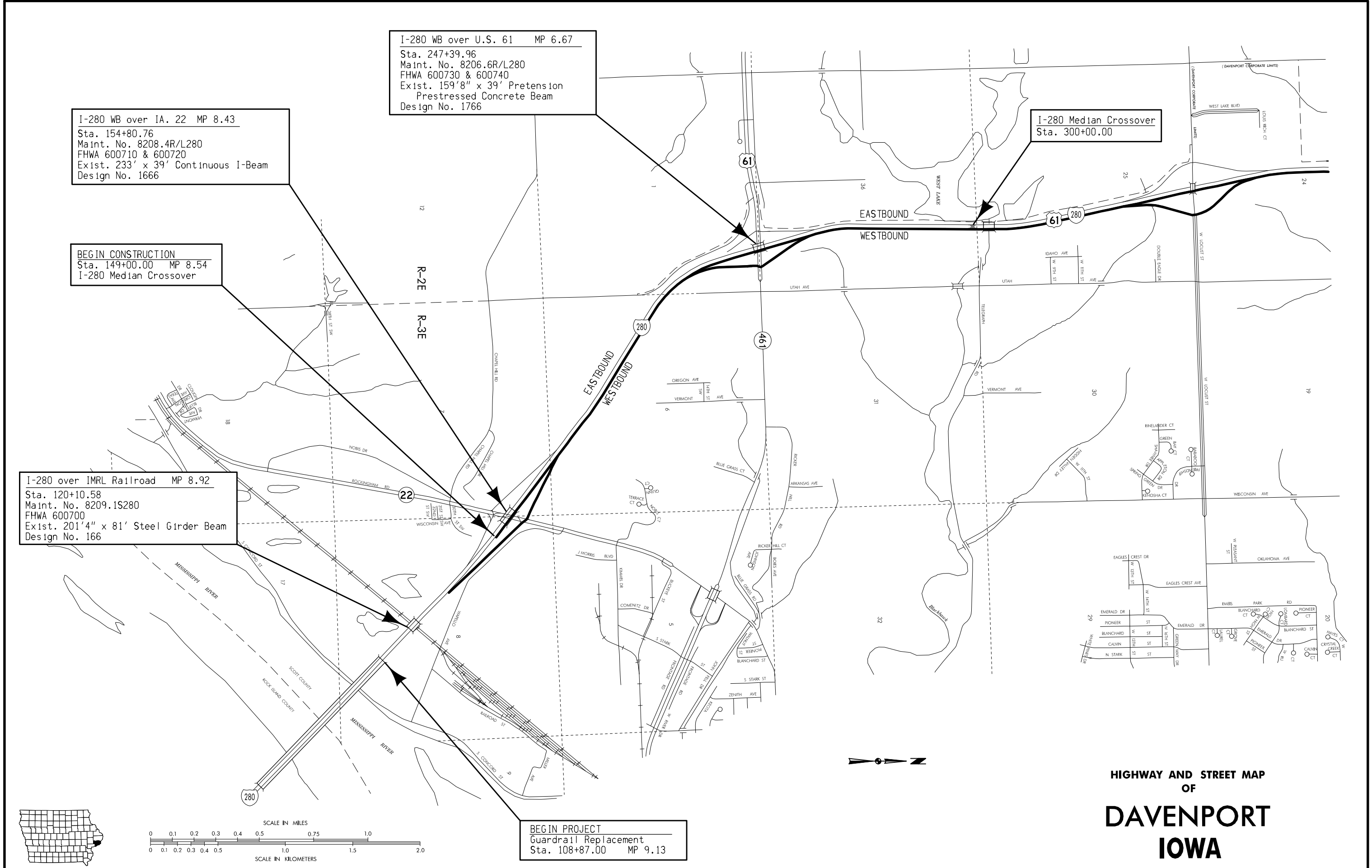
I-280 WB over IA. 22 MP 8.43
 Sta. 154+80.76
 Maint. No. 8208.4R/L280
 FHWA 600710 & 600720
 Exist. 233' x 39' Continuous I-Beam
 Design No. 1666

I-280 Median Crossover
 Sta. 300+00.00

BEGIN CONSTRUCTION
 Sta. 149+00.00 MP 8.54
 I-280 Median Crossover

I-280 over IMRL Railroad MP 8.92
 Sta. 120+10.58
 Maint. No. 8209.1S280
 FHWA 600700
 Exist. 201'4" x 81' Steel Girder Beam
 Design No. 166

BEGIN PROJECT
 Guardrail Replacement
 Sta. 108+87.00 MP 9.13



HIGHWAY AND STREET MAP
 OF
DAVENPORT
IOWA

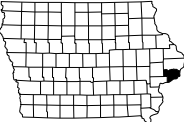
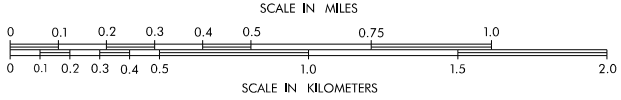
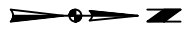
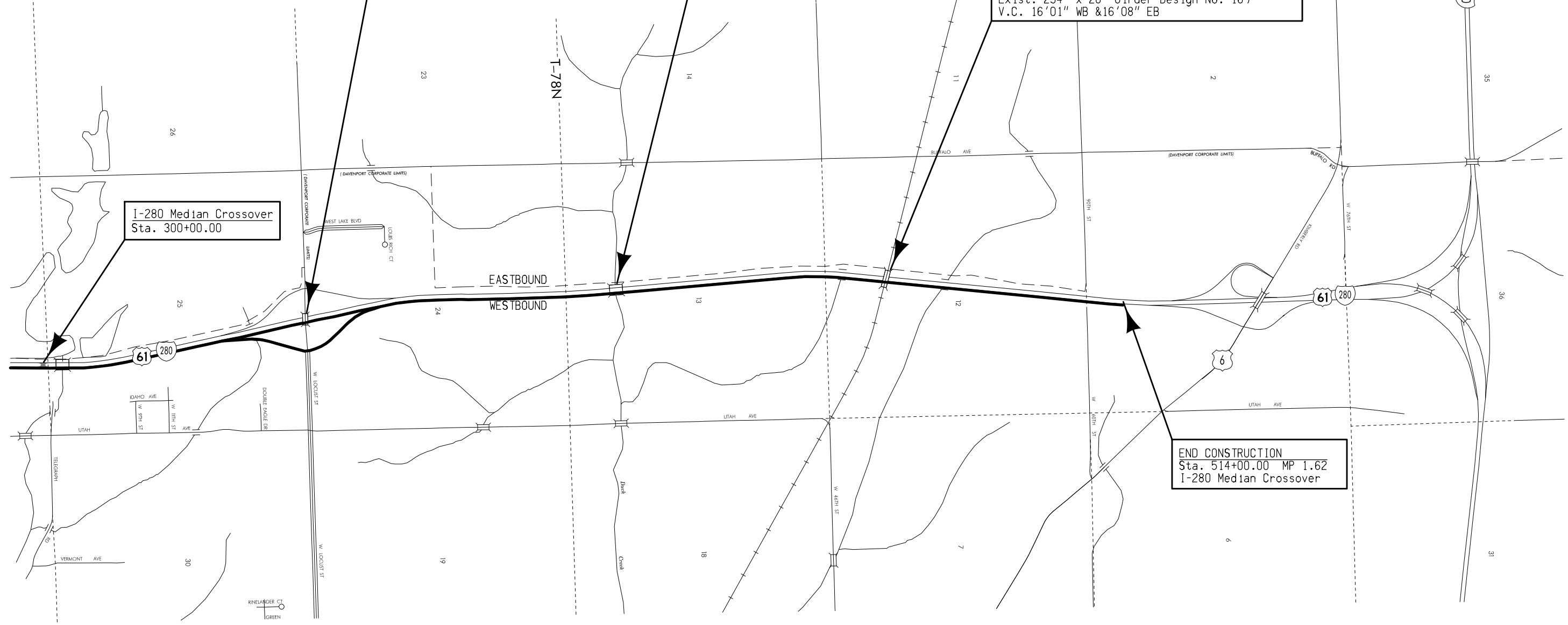
W. Locust St. over I-280 WB MP 4.64
 Sta. 354+62.65
 Maint. No. 8204.60280
 FHWA 302225
 Exist. 264'6" x 44' Pretension
 Prestressed Concrete Beam
 Design No. 369
 V.C. 16'06" WB & 16'05" EB

I-280 WB over Duck Creek MP 3.44
 Sta. 418+24.00
 Maint. No. 8203.4R/L280
 FHWA 600650 & 600680
 Exist. 125' x 39' Continuous
 Concrete Slab
 Design No. 469

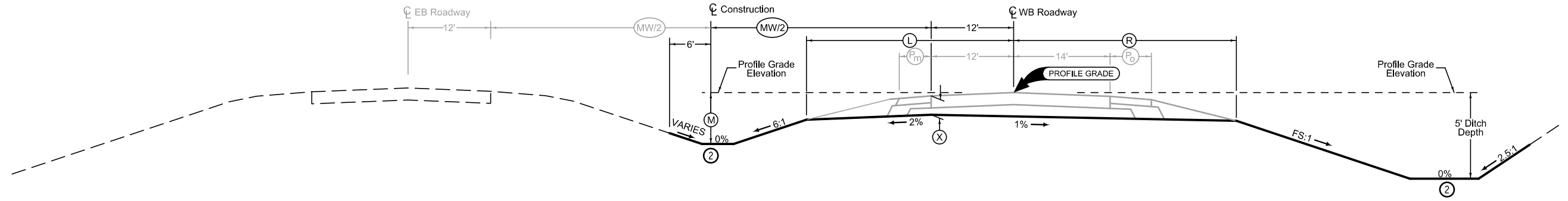
IAIS Railroad over I-280 WB MP 2.386
 Sta. 473+70.28
 Maint. No. 8202.4X280
 FHWA 600660
 Exist. 234' x 28' Girder Design No. 169
 V.C. 16'01" WB & 16'08" EB

I-280 Median Crossover
 Sta. 300+00.00

END CONSTRUCTION
 Sta. 514+00.00 MP 1.62
 I-280 Median Crossover



HIGHWAY AND STREET MAP
 OF
DAVENPORT
IOWA



ROAD IDENTIFICATION	LOCATION		DIMENSIONS ①						FS
	STATION TO STATION		L Feet	R Feet	X Inches	MW Feet	M Feet		
I-280 WB	149+00.00	153+51.93	25.3	29.2	17	60	UAC	UAC	
	Bridge Approaches and Bridge								
I-280 WB	157+38.16	184+50.00	28.1	31.9	17	60	UAC	UAC	
I-280 WB	184+50.00	191+50.00	28.1	31.9	17	60	3.5	UAC	
I-280 WB	191+50.00	245+73.67	28.1	31.9	17	60	UAC	UAC	
	Bridge Approaches and Bridge								
I-280 WB	248+76.13	304+00.00	28.1	31.9	17	60	UAC	UAC	
I-280 WB	304+00.00	310+00.00	26.8	41.5	17	60	D.G.	UAC	
I-280 WB	310+00.00	319+00.00	28.1	31.9	17	60	UAC	UAC	
I-280 WB	319+00.00	329+25.00	28.1	31.9	17	60	3.5	6	
I-280 WB	329+25.00	333+50.00	26.8	43.5	17	60	3.5	UAC	
I-280 WB	333+50.00	375+87.80	28.1	31.9	17	60	UAC	UAC	
I-280 WB	375+87.80	391+00.00	28.1	31.9	17	60	UAC	UAC	
I-280 WB	391+00.00	398+00.00	26.8	36.8	17	60	3.5	UAC	
I-280 WB	398+00.00	416+84.00	28.1	31.9	17	60	UAC	UAC	
	Bridge Approaches and Bridge								
I-280 WB	419+64.00	453+65.00	28.1	31.9	17	60	UAC	UAC	
I-280 WB	453+65.00	455+00.00	28.1	31.9	17	60	3.5	UAC	
I-280 WB	455+00.00	461+00.00	28.1	31.9	17	60	3.5	6	
I-280 WB	461+00.00	464+35.00	26.8	30.9	17	60	3.5	UAC	
I-280 WB	464+35.00	495+00.00	28.1	31.9	17	60	UAC	UAC	
I-280 WB	495+00.00	514+00.00	25.3	29.2	17	60	UAC	UAC	

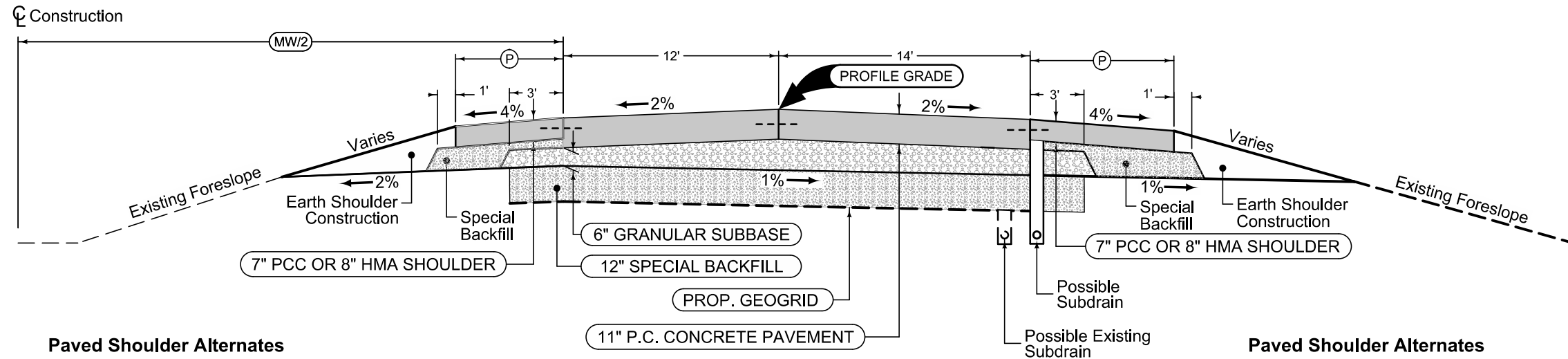
Normal section shown may be modified appropriately in areas of super-elevated curves or other locations specifically designated by the Engineer.

See Plan & Profile sheets for additional details of ditches and backslopes.

Section shown in the direction of WB traffic.

- ① The L and R dimensions are approximate, and may vary according to actual conditions encountered in the field.
- ② Ditch bottom width varies and will be "V" ditch in some areas.
- ③ M controlled by ditch grade station 304+00.00 to 310+00.00. See Plan and Profile sheets.

WB I-280 GRADING



Paved Shoulder Alternates

PCC Shoulder Jointing:
 Longitudinal joint: BT-1 or BT-5
 Transverse joints: C at 20' spacing
 HMA Shoulder Jointing:
 Longitudinal joint: B

Direction of Travel	BEGIN STATION	END STATION	(P) Feet
WB	151+12.38	153+61.93	6
	Bridge Approaches and Bridge		
WB	156+88.16	246+23.67	6
	Bridge Approaches and Bridge		
WB	248+46.13	296+75.72	6
	Median Crossover		
WB	303+24.28	417+40.00	6
	Bridge Approaches and Bridge		
WB	419+28.00	510+75.72	6
	Median Crossover		

Section shown in the direction of EB traffic.

Mainline Jointing:
 Transverse joints: CD at 20' spacing
 Longitudinal joint: L-2

Direction of Travel	BEGIN STATION	END STATION	(MW) Feet
WB	149+00.00	153+51.93	60
	Bridge Approaches and Bridge		
WB	157+38.16	245+73.67	60
	Bridge Approaches and Bridge		
WB	248+76.13	416+84.00	60
	Bridge Approaches and Bridge		
WB	419+64.00	514+00.00	60

Paved Shoulder Alternates

PCC Shoulder Jointing:
 Longitudinal joint: BT-1 or BT-5
 Transverse joints: C at 20' spacing
 HMA Shoulder Jointing:
 Longitudinal joint: B

Direction of Travel	BEGIN STATION	END STATION	(P) Feet
WB	117+91.40	118+85.54	8
WB	149+00.00	153+81.93	8
	Bridge Approaches and Bridge		
WB	156+88.16	246+23.67	8
	Bridge Approaches and Bridge		
WB	248+46.13	417+40.00	8
	Bridge Approaches and Bridge		
WB	419+28.00	514+00.00	8

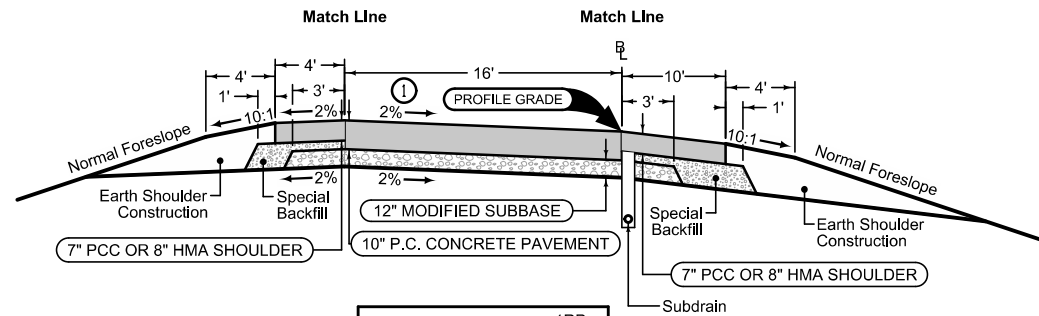
See Tab 100-24 for pavement quantities.
 See Tab 112-9 for shoulder quantities.

WB I-280 P.C.C. INLAY

Paved Shoulder Alternates

PCC Shoulder Jointing:
 Longitudinal joint: BT-1 or BT-5
 Transverse joints: C at 20' spacing
 HMA Shoulder Jointing:
 Longitudinal joint: B

1L_P_ALT_10-19-10	
BEGIN STATION	END STATION
2555+29.33	2542+12.86



1RP_10-19-10	
BEGIN STATION	END STATION
2555+29.33	2556+67.45

Paved Shoulder Alternates

PCC Shoulder Jointing:
 Longitudinal joint: BT-1 or BT-5
 Transverse joints: C at 20' spacing
 HMA Shoulder Jointing:
 Longitudinal joint: B

1L_P_ALT_10-19-10	
BEGIN STATION	END STATION
2555+29.33	2556+32.16

Section shown in the direction of traffic.

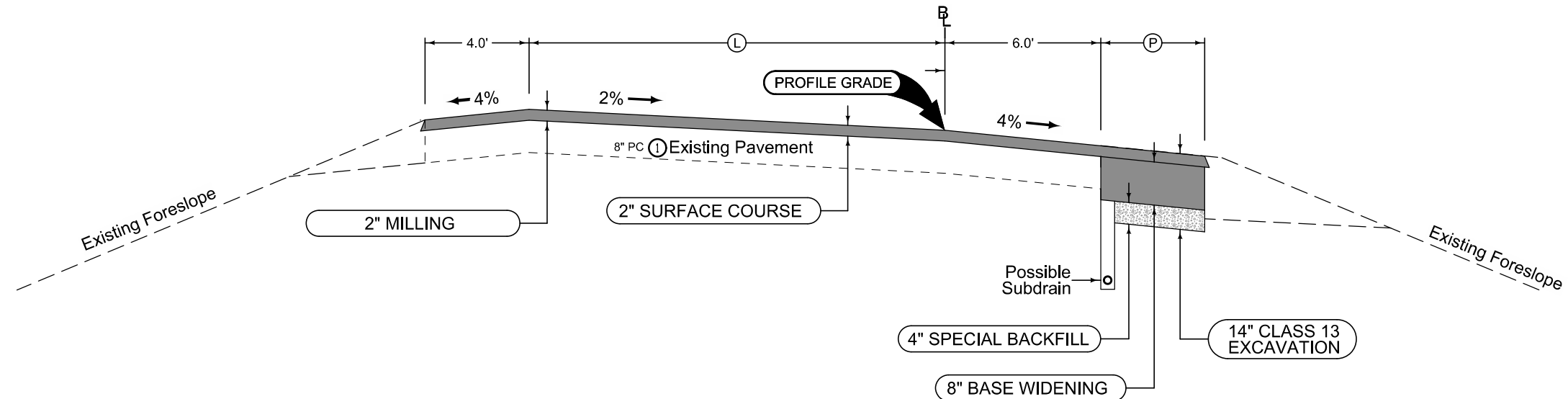
Ramp Jointing:
 Transverse joints: CD at 20' spacing.

① Cross slopes vary at intersection. Refer to K sheets.

See Tab 100-24 for pavement quantities.
 See Tab 112-9 for shoulder quantities.

IA 22 / RAMP B TERMINAL

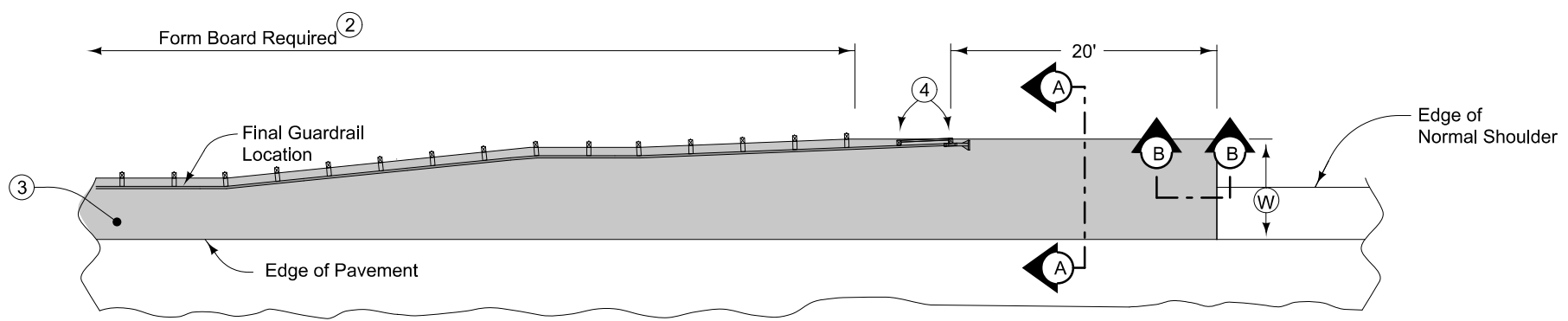
ROADWAY	BEGIN STATION	END STATION	(L) Feet	(P) Feet
IA. 22				
RAMP B	2535+50.00	2541+52.86	16	0
RAMP B	2541+52.86	2542+12.86	16	0 - 4
RAMP B	2542+12.86	2555+29.33	16	4
IA. 22				
RAMP D	4557+23.62	4564+38.16	16	4
RAMP D	4564+38.16	4564+98.16	16	4 - 0
RAMP D	4564+98.16	4571+46.94	16	0
U.S. 61				
RAMP B	2530+51.16	2538+95.63	16	0
RAMP B	2538+95.63	2339+55.63	16	0 - 4
RAMP B	2339+55.63	2546+14.30	16	4
U.S. 61				
RAMP D	4546+13.00	4552+56.60	16	4
RAMP D	4552+56.60	4553+16.60	16	4 - 0
RAMP D	4553+16.60	4556+67.94	16	0
LOCUST ST.				
RAMP B	2540+08.05	2547+35.03	16	0
RAMP B	2547+35.03	2547+95.03	16	0 - 4
RAMP B	2547+95.03	2554+50.35	16	4
LOCUST ST.				
RAMP D	4552+19.60	4558+84.00	16	4
RAMP D	4558+84.00	4559+44.00	16	4 - 0
RAMP D	4559+44.00	4565+52.69	16	0



① Mill 2 inches off of existing pavement prior to resurfacing.

Section shown in the direction of traffic.

HMA RESURFACING ON RAMPS WITH HMA BASE WIDENING



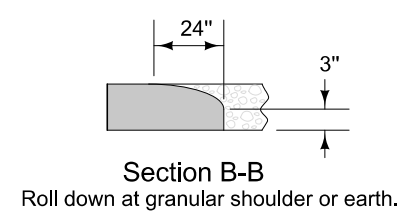
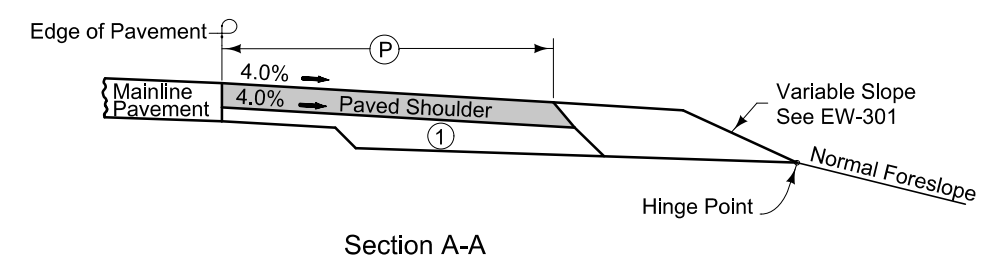
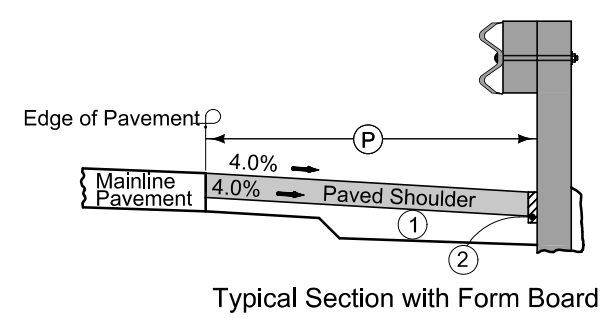
8" HMA Paved Shoulder at guardrail. 7" PCC may be substituted with the following jointing layout:

Match mainline pavement joint spacing. When mainline pavement is 8" or greater in thickness, place additional transverse joints in shoulder at mid-panel of the mainline pavement. Place longitudinal joint at W/2 from edge of mainline pavement when W is greater than 10' wide. Terminate longitudinal joint at transverse joint less than 10' in length.

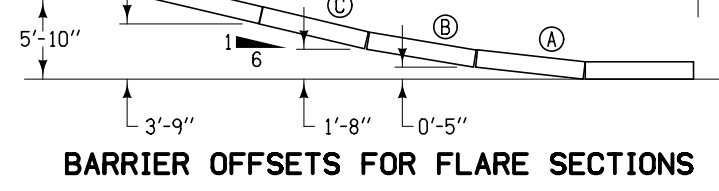
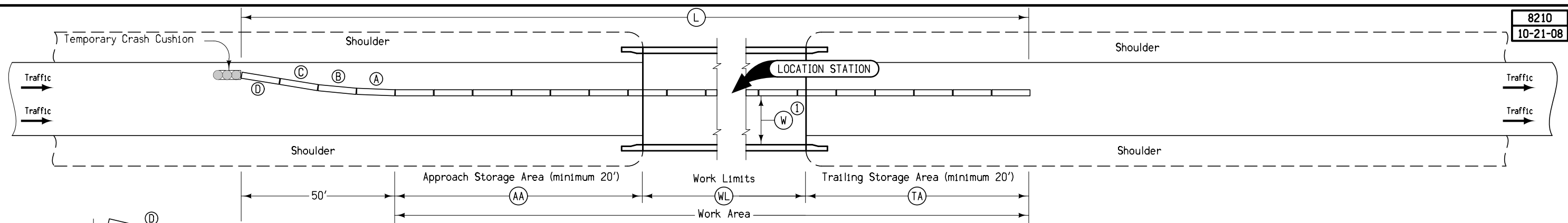
Compaction of HMA is required to face of guardrail post. Hand compaction will be allowed under guardrail. Removal & reinstallation of guardrail will be allowed with no additional payment.

Refer to Shoulder tabulation (112-9) for quantities.

- ① 6" subgrade treatment.
- ② When guardrail posts are installed prior to construction of paved shoulder, nail 1" x 6" untreated form boards along the face of guardrail posts for the length shown. This board is to prevent shoulder material from contacting the sides of the posts and altering the function of the guardrail. Form board not required for final 2 posts.
- ③ Continue paved shoulder to existing paved shoulder or 20' beyond the end of guardrail.
- ④ Shoulder may be notched for final 2 posts or post sleeves may be installed through pavement.



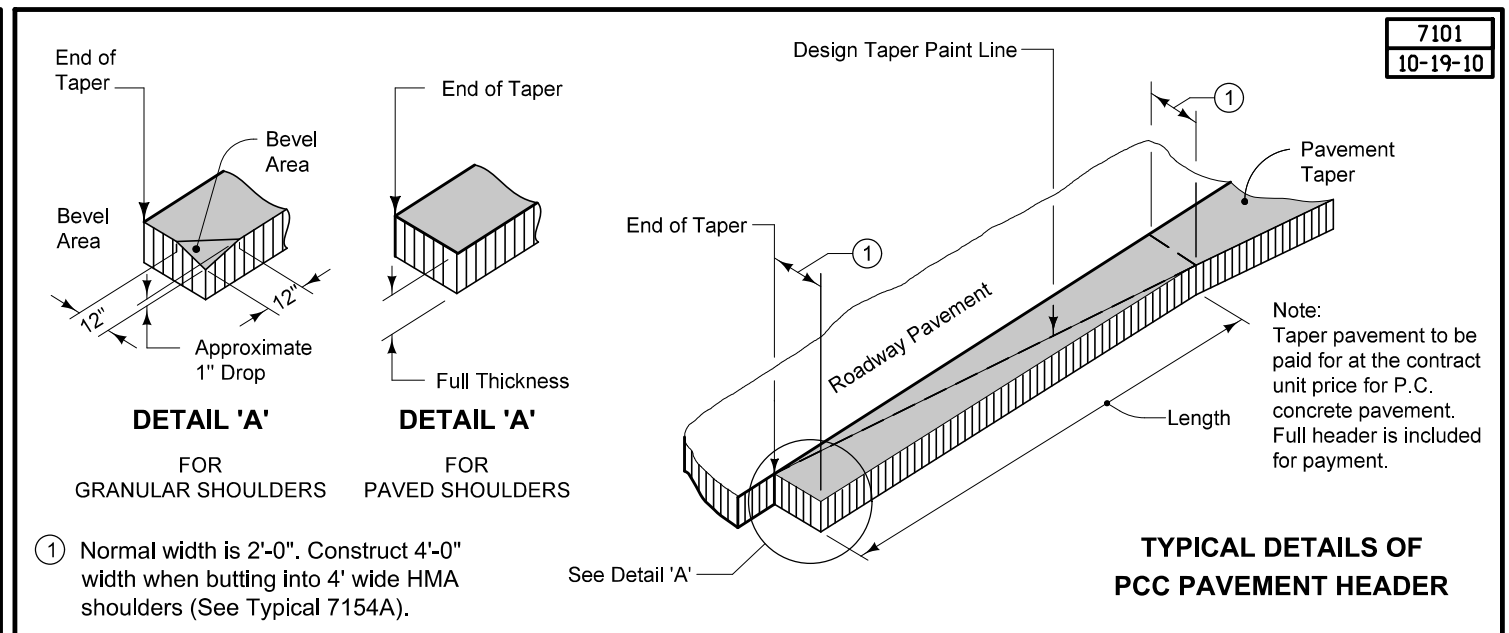
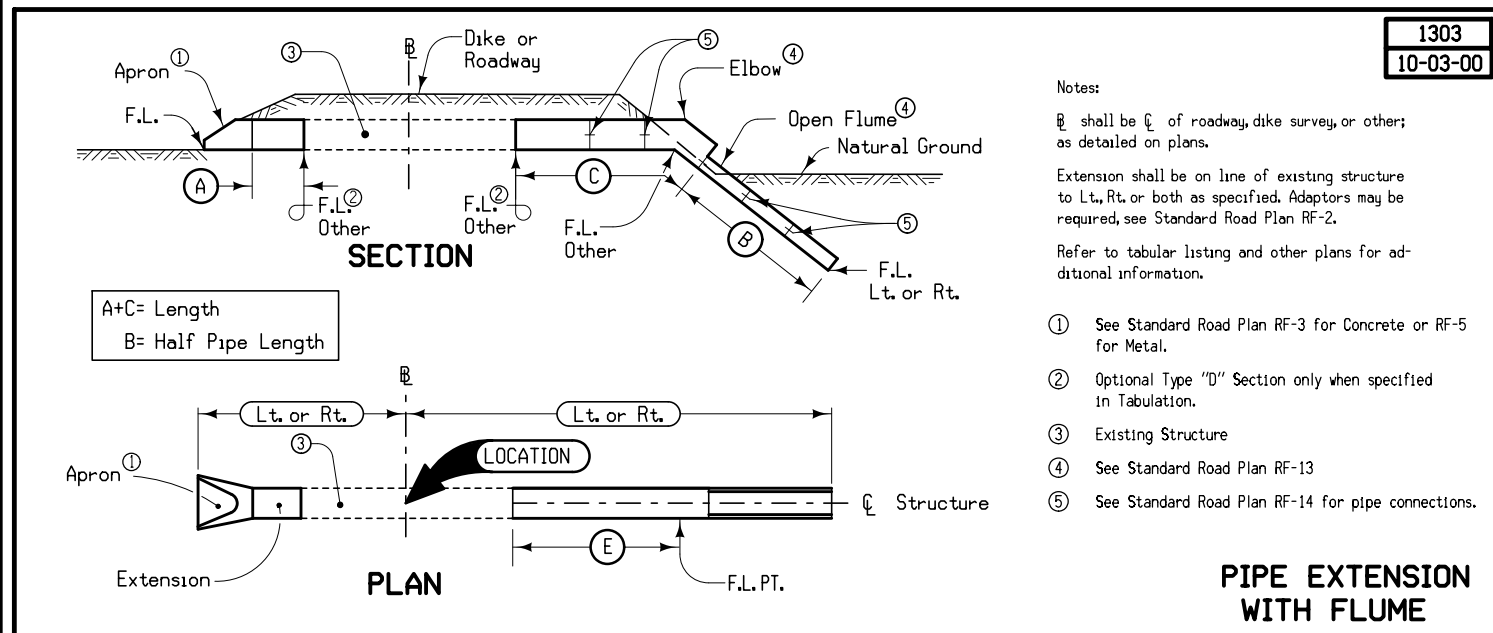
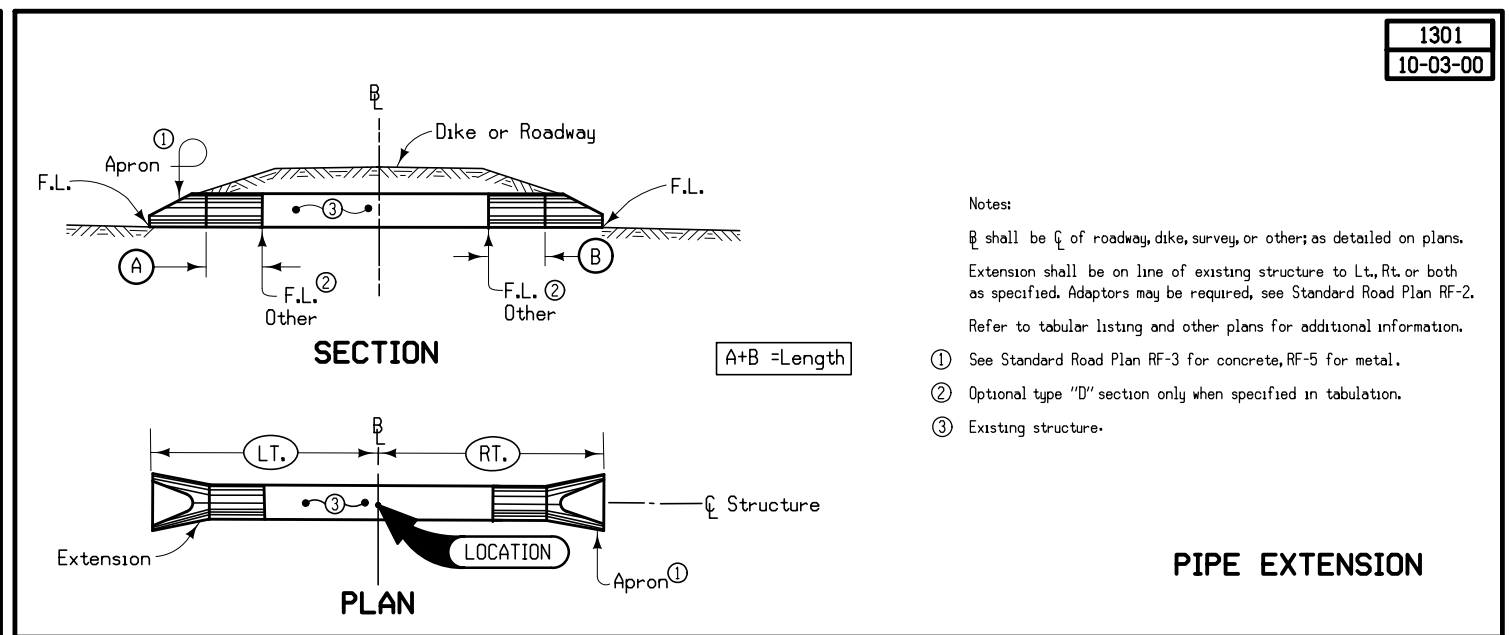
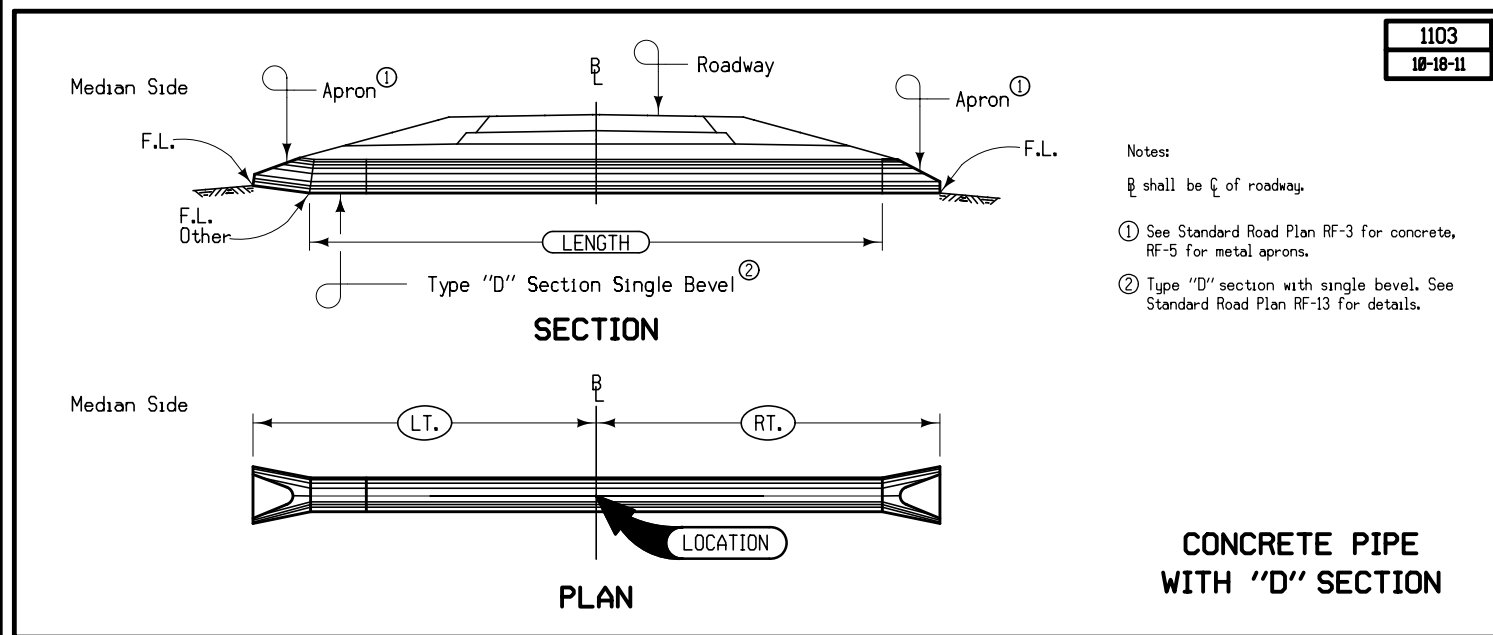
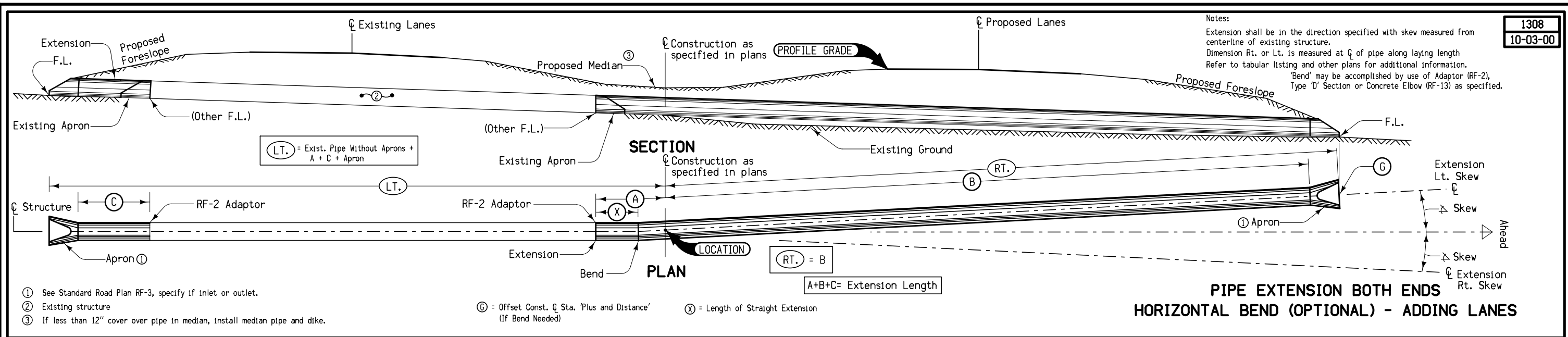
PAVED SHOULDER AT GUARDRAIL

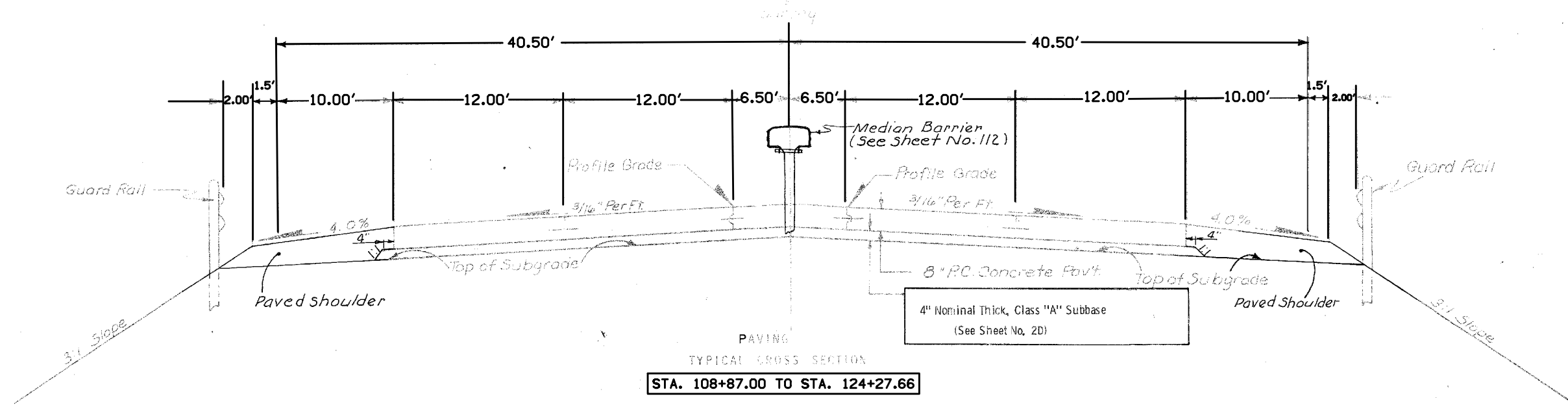


Station	Side	AA	WL	TA	L	Anchored	W ^①	Remarks
		Feet	Feet	Feet	Feet		X	
120+10	WB	50	475	50	625	X	14' 6"	Traffic in median lane
120+10	WB	50	300	50	450	--	18' 0"	Traffic in outside lane

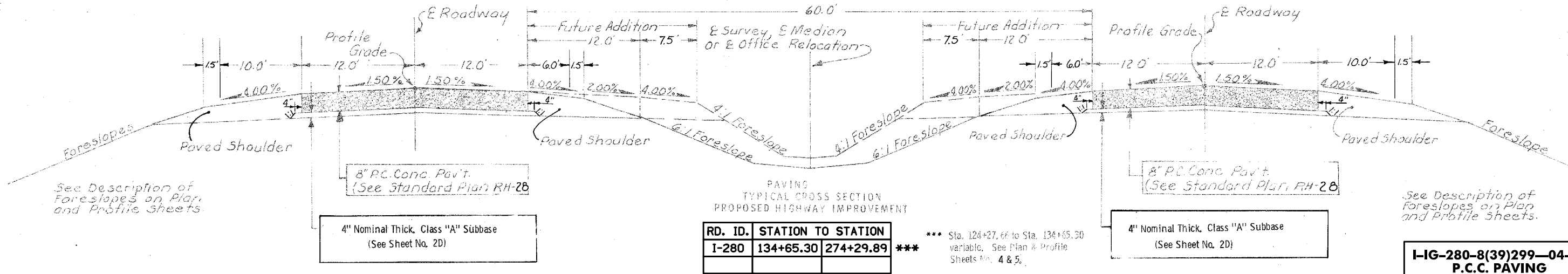
① Where W = 14'-6" or less, install restricted width signing as per Standard Road Plan TC-81.

TEMPORARY CONCRETE BARRIER LAYOUT
for One-Way Traffic





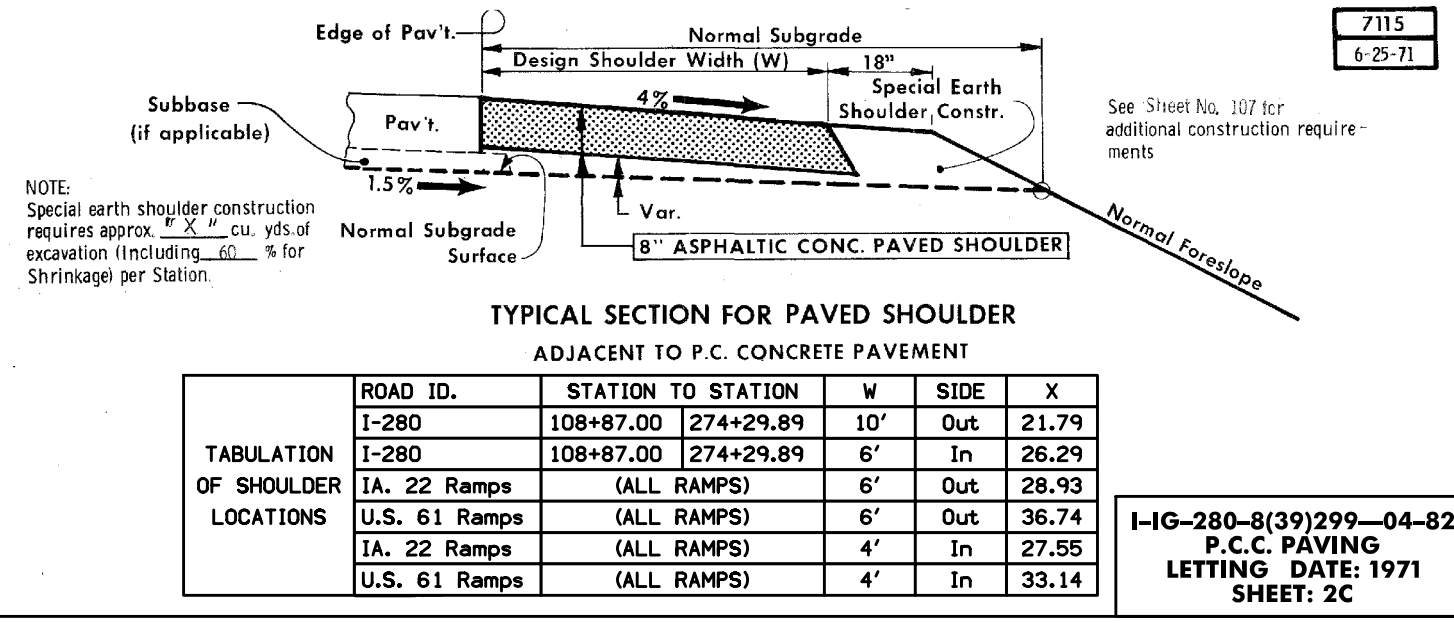
STA. 108+87.00 TO STA. 124+27.66



RD. ID.	STATION TO STATION
I-280	134+65.30 274+29.89 ***

*** Sta. 124+27.66 to Sta. 134+65.30 variable. See Plan & Profile Sheets No. 4 & 5.

I-IG-280-8(39)299-04-82
P.C.C. PAVING
LETTING DATE: 1971
SHEET: 2A

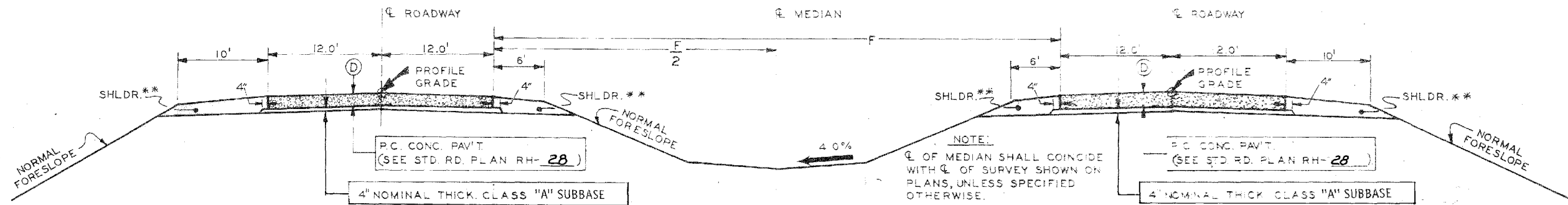


7115
6-25-71

TABULATION OF SHOULDER LOCATIONS	ROAD ID.	STATION TO STATION	W	SIDE	X
	I-280	108+87.00 274+29.89	10'	Out	21.79
	I-280	108+87.00 274+29.89	6'	In	26.29
	IA. 22 Ramps	(ALL RAMPS)	6'	Out	28.93
	U.S. 61 Ramps	(ALL RAMPS)	6'	Out	36.74
	IA. 22 Ramps	(ALL RAMPS)	4'	In	27.55
	U.S. 61 Ramps	(ALL RAMPS)	4'	In	33.14

I-IG-280-8(39)299-04-82
P.C.C. PAVING
LETTING DATE: 1971
SHEET: 2C

NOT TO SCALE - FOR INFORMATION ONLY



NOTE:
FOR MODIFICATION OF ROADWAY CROSS SECTION THROUGH SUPERELEVATED CURVES, REFER TO TABULATION OF SUPERELEVATED CURVES, AND APPROPRIATE STANDARD ROAD PLANS.

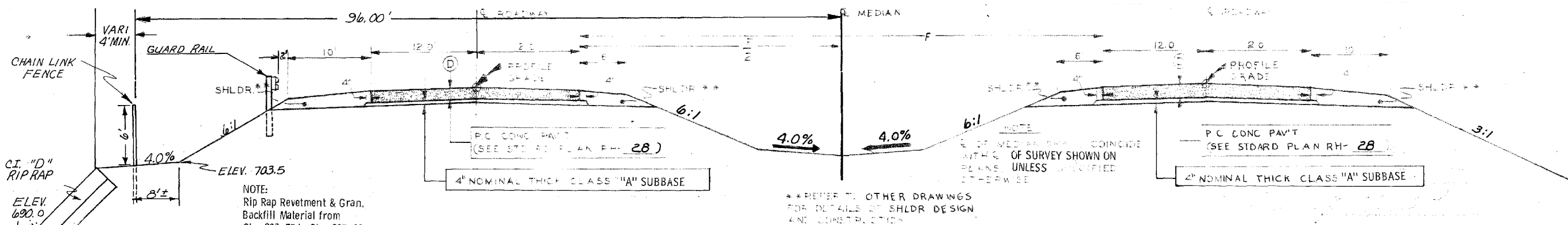
LOCATION	D	F
STATION TO STATION	IN.	FT.
274+29.89 292+25	8	60
314+50 514+00	8	60
514+00 * 3604+25.81	8	60

* Station Equation

TYPICAL CROSS SECTION FOR PAVING

**REFER TO OTHER DRAWINGS FOR DETAILS OF SHLDR. DESIGN AND CONSTRUCTION.

* - Sta. 3590+47.88 to End of Project; See Plan and Profile Sheets 14 & 15 for Details.



NOTE:
FOR MODIFICATION OF ROADWAY CROSS SECTION THROUGH SUPERELEVATED CURVES, REFER TO TABULATION OF SUPERELEVATED CURVES, AND APPROPRIATE STANDARD ROAD PLANS.

LOCATION	D	F
STATION TO STATION	IN.	FT.
292+25 314+50	8	60

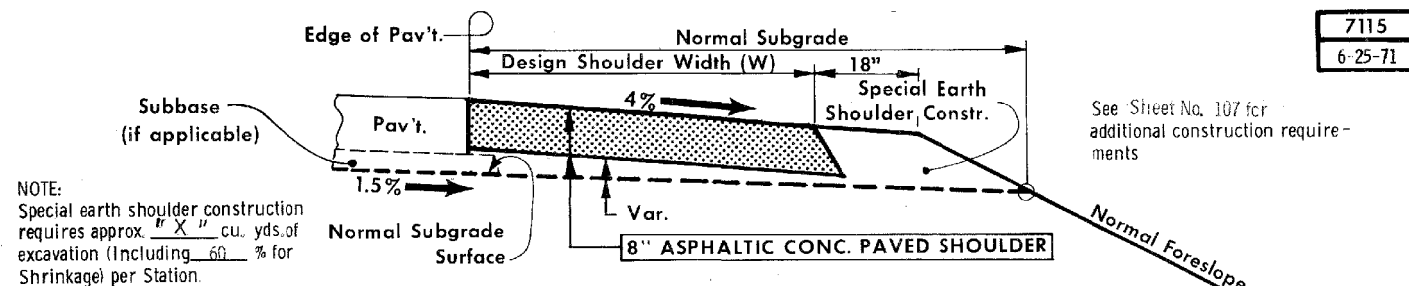
TYPICAL CROSS SECTION FOR PAVING

**REFER TO OTHER DRAWINGS FOR DETAILS OF SHLDR. DESIGN AND CONSTRUCTION.

I-IG-280-8(40)294-04-82
P.C.C. PAVING
LETTING DATE: 1971
SHEET: 2C

TABULATION OF SHOULDER LOCATIONS					
ROAD ID.	STATION TO STATION	W	SIDE	X	
I-280	274+29.89 514+00.00	10'	Out	26	
I-280	274+29.89 514+00.00	6'	In	26	
* I-280	514+00.00 3604+25.81	10'	Out	26	
* I-280	514+00.00 3604+25.81	6'	In	26	
** Co. Rd. "C"	Interchange Ramps	4'	In	12	
** Co. Rd. "C"	Interchange Ramps	6'	Out	12	
U.S. 61 Ramps	Interchange Ramps	4'	In	33	
U.S. 61 Ramps	Interchange Ramps	6'	Out	35	

* Station Equation
** County Road "C" = W. Locust St. (at I-280 Sta. 354+62.65)



NOTE:
Special earth shoulder construction requires approx. "X" cu. yds. of excavation (including 60% for Shrinkage) per Station.

TYPICAL SECTION FOR PAVED SHOULDER ADJACENT TO P.C. CONCRETE PAVEMENT

See Sheet No. 107 for additional construction requirements

I-IG-280-8(40)294-04-82
P.C.C. PAVING
LETTING DATE: 1971
SHEET: 2E

NOT TO SCALE - FOR INFORMATION ONLY

PROJECT DESCRIPTION

This project involves removing and replacing the existing Westbound pavement from Sta. 149+00 to Sta. 514+00.
 The new pavement will consist of 26 ft. wide pavement with 6 ft. and 8ft paved shoulders.
 The profile grade of the new pavement will be lowered approximately 5", with exceptions at existing mainline crossovers and ramp crossovers.
 The entrance and exit ramps on the westbound side of I-280 at the IA 22, U.S. 61 and Locust St. Interchanges will have shoulder strengthening for 600' from the EB Ramp terminals to extend the outside shoulder to 10 ft.
 The ramps will also be resurfaced with 2" of HMA over the ramp and 4 and 6 ft shoulders. Delineators will be placed at the edge of the outside shoulder.
 The existing mainline crossover pavement shall be milled 3" and then resurfaced with 3" of HMA.
 The bridge over the IMRL railroad, Sta. 120+10, will be updated with new pavement notches and guardrail.

ESTIMATED PROJECT QUANTITIES

Item No.	Item Code	Item	Unit	Total	As Built Qty.
1	2102-0425070	SPECIAL BACKFILL	TON	94170.7	
2	2102-2713070	EXCAVATION, CLASS 13, ROADWAY AND BORROW	CY	166,998.0	
3	2105-8425005	TOPSOIL, FURNISH AND SPREAD	CY	3,215.7	
4	2111-8174100	GRANULAR SUBBASE	SY	126,333.6	
5	2113-0001100	SUBGRADE STABILIZATION MATERIAL, POLYMER GRID	SY	114,489.8	
6	2115-0100000	MODIFIED SUBBASE	CY	48.2	
7	2122-5190501	PAVED SHOULDER, PORTLAND CEMENT CONCRETE (PAVED SHOULDER PANEL FOR BRIDGE END DRAIN)	SY	120.0	
8	2122-5191005	REINFORCED PAVED SHOULDER FOR CONCRETE BARRIER	SY	8.9	
9	2123-7450000	SHOULDER CONSTRUCTION, EARTH	STA	707.00	
10	2212-0475095	CLEANING AND PREPARATION OF BASE	MILE	2.0	
11	2213-2713300	EXCAVATION, CLASS 13, FOR WIDENING	CY	780.0	
12	2213-8201080	BASE WIDENING, 8 IN. HOT MIX ASPHALT MIXTURE	SY	2,005.7	
13	2214-5145150	PAVEMENT SCARIFICATION	SY	3,802.3	
14	2301-0690200	BRIDGE APPROACH, RK-20	SY	1,741.6	
15	2301-1004110	STANDARD OR SLIP-FORM PORTLAND CEMENT CONCRETE PAVEMENT, QM-C, CLASS 3I DURABILITY, 11 IN.	SY	109,611.7	
16	2301-1033100	STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C, CLASS 3 DURABILITY, 10 IN.	SY	433.9	
17	2301-6911722	PORTLAND CEMENT CONCRETE PAVEMENT SAMPLES	LS	1.00	
18	2303-0043503	HOT MIX ASPHALT MIXTURE (3,000,000 ESAL), SURFACE COURSE, 1/2 IN. MIX, FRICTION L-3	TON	5,844.2	
19	2303-0246422	ASPHALT BINDER, PG 64-22	TON	386.4	
20	2303-6911000	HOT MIX ASPHALT PAVEMENT SAMPLES	LS	1.00	
21	2304-0100000	DETOUR PAVEMENT	SY	13,943.6	
22	2401-6750001	REMOVALS, AS PER PLAN	LS	1.00	
23	2402-0425040	FLOODED BACKFILL	CY	207.0	
24	2402-2720100	EXCAVATION, CLASS 20, FOR ROADWAY PIPE CULVERT	CY	2,872.3	
25	2412-0000100	LONGITUDINAL GROOVING IN CONCRETE	SY	2,363.7	
26	2416-0100018	APRONS, CONCRETE, 18 IN. DIA.	EACH	2	
27	2416-0100024	APRONS, CONCRETE, 24 IN. DIA.	EACH	34	
28	2416-0100036	APRONS, CONCRETE, 36 IN. DIA.	EACH	5	
29	2416-1180018	CULVERT, CONCRETE ROADWAY PIPE, 18 IN. DIA.	LF	24	
30	2416-1180024	CULVERT, CONCRETE ROADWAY PIPE, 24 IN. DIA.	LF	329	
31	2416-1180030	CULVERT, CONCRETE ROADWAY PIPE, 30 IN. DIA.	LF	24	
32	2416-1180036	CULVERT, CONCRETE ROADWAY PIPE, 36 IN. DIA.	LF	176	
33	2417-0225024	APRONS, METAL, 24 IN. DIA.	EACH	3	
34	2417-1007000	CORRUGATED PIPE CULVERT, 15 INCH	LF	1490	
35	2417-1060024	CULVERT, CORRUGATED METAL ROADWAY PIPE, 24 IN. DIA.	LF	60	
36	2417-5895015	BEVELED PIPE AND GUARD, 15 INCH	EACH	6	
37	2422-0360024	APRONS, UNCLASSIFIED, 24 IN. DIA.	EACH	3	
38	2502-8212034	SUBDRAIN, LONGITUDINAL, (SHOULDER) 4 IN. DIA.	LF	47,756.7	
39	2502-8215106	SUBDRAIN, CORRUGATED METAL PIPE, 6 IN. DIA.	LF	340	
40	2502-8220196	SUBDRAIN OUTLET, RF-19E	EACH	194	
41	2503-0500400	BRIDGE END DRAIN, RF-40	EACH	8	
42	2505-4008120	REMOVAL OF STEEL BEAM GUARDRAIL	LF	3,703.0	
43	2505-4008130	REMOVAL OF CABLE GUARDRAIL	LF	230.0	
44	2505-4008300	STEEL BEAM GUARDRAIL	LF	1,875.0	
45	2505-4008400	STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION	EACH	9	
46	2505-4020580	GUARDRAIL, SPECIAL ANCHOR SECTION	EACH	1	
47	2505-4021010	STEEL BEAM GUARDRAIL END ANCHOR, BOLTED	EACH	9	
48	2505-4021700	STEEL BEAM GUARDRAIL END TERMINAL	EACH	8	
49	2505-4021701	STEEL BEAM GUARDRAIL FLARED END TERMINAL	EACH	1	
50	2505-6000111	HIGH TENSION CABLE GUARDRAIL	LF	1,981.0	
51	2505-6000121	HIGH TENSION CABLE GUARDRAIL, END ANCHOR	EACH	12	
52	2505-6000131	HIGH TENSION CABLE GUARDRAIL, SPARE PARTS KIT	EACH	1	
53	2506-4984000	FLOWABLE MORTAR	CY	12.4	
54	2510-6745850	REMOVAL OF PAVEMENT	SY	195,820.8	
55	2518-6765001	REMOVE AND REINSTALL CROSSOVER BARRICADES	EACH	3	

ESTIMATED PROJECT QUANTITIES

Item No.	Item Code	Item	Unit	Total	As Built Qty.
56	2518-6910000	SAFETY CLOSURE	EACH	12	
57	2520-3350015	FIELD OFFICE	EACH	1	
58	2526-8285000	CONSTRUCTION SURVEY	LS	1.00	
59	2527-9263109	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	STA	3,959.32	
60	2527-9263131	WET RETROREFLECTIVE REMOVABLE TAPE MARKINGS	STA	270.34	
61	2527-9263137	PAINTED SYMBOLS AND LEGENDS, WATERBORNE OR SOLVENT-BASED	EACH	16	
62	2527-9263180	PAVEMENT MARKINGS REMOVED	STA	1,640.67	
63	2527-9263190	SYMBOLS AND LEGENDS REMOVED	EACH	16	
64	2528-4983200	MONITORING WITH INCIDENT RESPONSE	CDAY	See Proposal	
65	2528-8400048	TEMPORARY BARRIER RAIL, CONCRETE	LF	1,225.0	
66	2528-8400157	TEMPORARY FLOODLIGHTING LUMINAIRE	EACH	14	
67	2528-8445110	TRAFFIC CONTROL	LS	1.00	
68	2528-9109020	TEMPORARY LANE SEPARATOR SYSTEM	LF	6,860.0	
69	2529-2242304	CD JOINT ASSEMBLY	EACH	12	
70	2529-2242320	CT JOINT	EACH	3	
71	2529-5070110	PATCHES, FULL-DEPTH FINISH, BY AREA	SY	1,362.1	
72	2529-5070120	PATCHES, FULL-DEPTH FINISH, BY COUNT	EACH	96	
73	2529-8174010	SUBBASE (PATCHES)	SY	100.7	
74	2529-8174050	PATCH SUBDRAIN	EACH	4	
75	2529-8201000	JOINT ASSEMBLY, EF	EACH	2	
76	2533-4980005	MOBILIZATION	LS	1.00	
77	2548-0000200	MILLED SHOULDER RUMBLE STRIPS, PCC SURFACE	STA	315.7	
78	2551-0000110	TEMP CRASH CUSHION	EACH	3	
79	2601-2633100	MOWING	ACRE	4.0	
80	2601-2634100	MULCHING	ACRE	16.0	
81	2601-2636015	NATIVE GRASS SEEDING	ACRE	2.0	
82	2601-2636043	SEEDING AND FERTILIZING (RURAL)	ACRE	14.0	
83	2601-2642100	STABILIZING CROP - SEEDING AND FERTILIZING	ACRE	16.0	
84	2602-0000020	SILT FENCE	LF	74,300.0	
85	2602-0000030	SILT FENCE FOR DITCH CHECKS	LF	18,575.0	
86	2602-0000071	REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS	LF	9,288.0	
87	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECK	LF	9,288.0	
88	2602-0000312	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.	LF	500.0	
89	2602-0000320	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 20 IN. DIA.	LF	500.0	
90	2602-0000350	REMOVAL OF PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE	LF	1,000.0	
91	2602-0010010	MOBILIZATIONS, EROSION CONTROL	EACH	1	
92	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	1	
		ALTERNATIVE 'AA' OPTION 1			
93	2102-0425070	SPECIAL BACKFILL	TON	20,136.6	
94	2122-5500080	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 8 IN.	SY	55,121.0	
95	2548-0000100	MILLED SHOULDER RUMBLE STRIPS, HMA SURFACE	STA	344.6	
96	2548-0000110	ASPHALT EMULSION FOR FOG SEAL (SHOULDER RUMBLE STRIPS)	GAL	746.6	
		ALTERNATIVE 'AA' OPTION 2			
97	2102-0425070	SPECIAL BACKFILL	TON	23,113.1	
98	2122-5190007	PAVED SHOULDER, P.C. CONCRETE, 7 IN.	SY	55121	
99	2548-0000200	MILLED SHOULDER RUMBLE STRIPS, PCC SURFACE	STA	344.6	

SEE V SHEETS FOR ADDITIONAL BID ITEMS AND QUANTITIES

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
1	2102-0425070	SPECIAL BACKFILL Refer to Typical ML-1, Typical RAMP-1 and Typical RAMP-2 in the B sheets and details in the U sheets. Also refer to Tab. 100-24, Tab. 106-5, Tab. 112-9 and Tab. 112-8 for locations and details. 83,100.9 Tons for Mainline 631.8 Tons for Ramp shoulder widening 10,413.2 Tons for Detour crossovers 24.8 Tons for Reinforced Concrete Shoulder ----- Existing HMA and PCC from Pavement removal may be used on the project as special backfill.
2	2102-2713070	EXCAVATION, CLASS 13, ROADWAY AND BORROW Refer to Tabs. 112-8 for locations and details. 2039.3 cu yds for crossover construction. 164,958.7 cu yds Class 13 cut for mainline lowering of roadway.
3	2105-8425005	TOPSOIL, FURNISH AND SPREAD Refer to Tab. 103-4.
4	2111-8174100	GRANULAR SUBBASE Refer to Typical ML-1 and Tab. 100-24 for locations and details.
5	2113-0001100	SUBGRADE STABILIZATION MATERIAL, POLYMER GRID Refer to Tab. 100-24 and Typical ML-1 for locations and details.
6	2115-0100000	MODIFIED SUBBASE Refer to Typical RAMP-1 in the B sheets and Tab. 100-24 in the C sheets for locations and details.
7	2122-5190501	PAVED SHOULDER, PORTLAND CEMENT CONCRETE (PAVED SHOULDER PANEL FOR BRIDGE END DRAIN) Refer to Tab. 104-8A for locations and details.
8	2122-5191005	REINFORCED PAVED SHOULDER FOR CONCRETE BARRIER Refer to Tab. 112-9 for locations and details.
9	2123-7450000	SHOULDER CONSTRUCTION, EARTH Refer to Tab. 112-9 and Typical ML-1 and Typical RAMP-1 for locations and details. Requires 6,416.8 cu. yds. of Class 10 for Earth Shoulder Fill including 4 inches of topsoil. Does not include shrink. Class 13 waste may be used for earth shoulder fill below the 4 inches of topsoil.
10	2212-0475095	CLEANING AND PREPARATION OF BASE Refer to Typical RAMP-2 in the B sheets for locations and details. Item is for preparation of existing surfaces prior to HMA resurfacing.
11	2213-2713300	EXCAVATION, CLASS 13, FOR WIDENING Refer to Tab. 112-9, Tab. 106-5 and Typical RAMP-2 for locations and details.
12	2213-8201080	BASE WIDENING, 8 IN. HOT MIX ASPHALT MIXTURE Refer to Tab. 106-5 and Typical RAMP-2 for locations and details
13	2214-5145150	PAVEMENT SCARIFICATION Refer to Typical RAMP-2 and Tabs. 100-25 and 102-16 for locations and details. Quantity includes 5% for irregularities.
14	2301-0690200	BRIDGE APPROACH, RK-20 Refer to Tab. 112-6 for locations and details.
15	2301-1004110	STANDARD OR SLIP-FORM PORTLAND CEMENT CONCRETE PAVEMENT, QM-C, CLASS 3I DURABILITY, 11 IN. Refer to Tab. 100-24 and Typical ML-1 for locations and details.
16	2301-1033100	STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C, CLASS 3 DURABILITY, 10 IN. Refer to Tab. 100-24 and Typical RAMP-1 for locations and details.
17	2301-6911722	PORTLAND CEMENT CONCRETE PAVEMENT SAMPLES
18	2303-0043503	HOT MIX ASPHALT MIXTURE (3,000,000 ESAL), SURFACE COURSE, 1/2 IN. MIX, FRICTION L-3 Refer to Typical RAMP-2 and Tabs. 100-25 and 102-16 for locations and details. Quantity includes 5% for irregularities.
19	2303-0246422	ASPHALT BINDER, PG 64-22 Refer to Tab. 100-25 and Tab. 106-5 for locations and details.

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
20	2303-6911000	HOT MIX ASPHALT PAVEMENT SAMPLES
21	2304-0100000	DETOUR PAVEMENT Refer to Tab. 112-8. ----- Refer to Modified 531-2(1) through 531-2(5) and Crossover #1 through Crossover #5 on the on the U sheets for locations and details.
22	2401-6750001	REMOVALS, AS PER PLAN Refer to Tab. 110-2 in the C sheets for locations and details.
23	2402-0425040	FLOODED BACKFILL Refer to Tab. 104-3 for locations and details.
24	2402-2720100	EXCAVATION, CLASS 20, FOR ROADWAY PIPE CULVERT Refer to Tab. 104-3 for locations and details.
25	2412-0000100	LONGITUDINAL GROOVING IN CONCRETE Refer to Tab. 100-28 for location and details.
26	2416-0100018	APRONS, CONCRETE, 18 IN. DIA.
27	2416-0100024	APRONS, CONCRETE, 24 IN. DIA.
28	2416-0100036	APRONS, CONCRETE, 36 IN. DIA.
29	2416-1180018	CULVERT, CONCRETE ROADWAY PIPE, 18 IN. DIA.
30	2416-1180024	CULVERT, CONCRETE ROADWAY PIPE, 24 IN. DIA.
31	2416-1180030	CULVERT, CONCRETE ROADWAY PIPE, 30 IN. DIA.
32	2416-1180036	CULVERT, CONCRETE ROADWAY PIPE, 36 IN. DIA.
33	2417-0225024	APRONS, METAL, 24 IN. DIA. Refer to Tab. 104-3 for locations and details.
34	2417-1007000	CORRUGATED PIPE CULVERT, 15 INCH Item is for ramp crossovers. Refer to Tab. 112-8 and the U sheets for locations and details. Method of Measurement: The quantity of corrugated pipe culvert, in feet, will be the measured length of culvert installed, excluding aprons, to the nearest foot. The quantity of pipe will be determined along the axis. Basis of Payment: The contractor will be paid the contract unit price for corrugated pipe culvert of the type and size specified per linear foot. This shall be considered full compensation for furnishing all materials and work necessary to install the corrugated pipe culvert according to Section 2417 of the Standard Specifications.
35	2417-1060024	CULVERT, CORRUGATED METAL ROADWAY PIPE, 24 IN. DIA. Refer to Tab. 104-3 for locations and details.
36	2417-5895015	BEVELED PIPE AND GUARD, 15 INCH Refer to Tab. 112-8 and U sheets for locations and details.
37	2422-0360024	APRONS, UNCLASSIFIED, 24 IN. DIA. Refer to Tab. 104-3 for locations and details.
38	2502-8212034	SUBDRAIN, LONGITUDINAL, (SHOULDER) 4 IN. DIA. Refer to Tab. 104-9 in the CS sheets for locations and details.
39	2502-8215106	SUBDRAIN, CORRUGATED METAL PIPE, 6 IN. DIA. Refer to Tab. 112-8 and U sheets for locations and details.
40	2502-8220196	SUBDRAIN OUTLET, RF-19E Refer to Tab. 104-9 in the CS sheets for locations and details.
41	2503-0500400	BRIDGE END DRAIN, RF-40 Refer to Tab. 104-8A in the C sheets for locations and details.
42	2505-4008120	REMOVAL OF STEEL BEAM GUARDRAIL Refer to Tab. 110-7A for locations and details.
43	2505-4008130	REMOVAL OF CABLE GUARDRAIL Refer to Tab. 110-7B for locations and details.
44	2505-4008300	STEEL BEAM GUARDRAIL
45	2505-4008400	STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION Refer to Tab. 108-8A in the C sheets for locations and details.

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
-	-	-
46	2505-4020580	GUARDRAIL, SPECIAL ANCHOR SECTION Refer to Tab. 108-8A and U sheets for locations and details. This item covers the permanent attachment of high tension cable to steel beam guardrail at the locations shown in the contract documents. Provide a connection meeting the high tension cable guardrail manufacturers specifications. This item includes the following: 50 feet of high tension cable guardrail, any additional lengths of cable required, attachment hardware, special steel beam guardrail sections, modifications to any existing steel beam guardrail sections, and any labor, equipment, or materials necessary to provide for a complete connection assembly. The engineer will count the number of "Guardrail, Special Anchor Sections". For each "Guardrail, Special Anchor Sections" properly installed, the Contractor will be paid the contract unit price.
-	-	-
47	2505-4021010	STEEL BEAM GUARDRAIL END ANCHOR, BOLTED
48	2505-4021700	STEEL BEAM GUARDRAIL END TERMINAL
49	2505-4021701	STEEL BEAM GUARDRAIL FLARED END TERMINAL Refer to Tab. 108-8A in the C sheets for locations and details.
-	-	-
50	2505-6000111	HIGH TENSION CABLE GUARDRAIL
51	2505-6000121	HIGH TENSION CABLE GUARDRAIL, END ANCHOR
52	2505-6000131	HIGH TENSION CABLE GUARDRAIL, SPARE PARTS KIT Refer to Tab. 108-9A and U sheets for locations and details.
-	-	-
53	2506-4984000	FLOWABLE MORTAR Refer to Tab. 104-3 for locations and details.
-	-	-
54	2510-6745850	REMOVAL OF PAVEMENT Refer to Tab.110-1, Tab. 112-8 and Tab. 102-5 for locations and details. Pavement Removal includes: 167,152.4 - Mainline and Ramp Taper 24,589.9 - Removal of Detour pavement 4,078.5 - Pavement removal to build median crossovers Existing HMA and PCC from pavement removal may be recycled and used on the project as special backfill. Existing PCC from pavement removal may be crushed and used as granular subbase.
-	-	-
55	2518-6765001	REMOVE AND REINSTALL CROSSOVER BARRICADES Item is for Removal of 3 existing crossover barricades and reinstallation upon project completion. Method of Measurement: The engineer will count the number of crossover barricades removed and reinstalled. Basis of Payment: The contractor will be paid the contract unit price for the number of crossover barricades removed and reinstalled. Price bid to include the following work: The contractor shall carefully remove and stockpile bid items for later installation. Any damaged items as determined by the engineer shall be replaced by the contractor at no cost to the State. The crossover barricades shall be cleaned as directed by the engineer before installation. The contractor shall restore any area disturbed by the removal operation to an acceptable condition.
-	-	-
56	2518-6910000	SAFETY CLOSURE Refer to Tab. 108-13A for locations and details.
-	-	-
57	2520-3350015	FIELD OFFICE
-	-	-
58	2526-8285000	CONSTRUCTION SURVEY
-	-	-
59	2527-9263109	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED
60	2527-9263131	WET RETROREFLECTIVE REMOVABLE TAPE MARKINGS Refer to Tab. 108-22 in the C sheets for locations and details.
-	-	-
61	2527-9263137	PAINTED SYMBOLS AND LEGENDS, WATERBORNE OR SOLVENT-BASED Refer to Tab. 108-29 in the C sheets for locations and details.
-	-	-
62	2527-9263180	PAVEMENT MARKINGS REMOVED Refer to Tab. 108-22 in the C sheets for locations and details.
-	-	-
63	2527-9263190	SYMBOLS AND LEGENDS REMOVED Refer to Tab. 108-29 in the C sheets for locations and details.
-	-	-
64	2528-4983200	MONITORING WITH INCIDENT RESPONSE
-	-	-

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
65	2528-8400048	TEMPORARY BARRIER RAIL, CONCRETE Refer to Tab. 108-33 in the C sheets and Typical 8210 in the B sheets for locations and details. Refer to Tab. 108-33 on C sheets and Typical 8210 and B Sheets for locations and details.
-	-	-
66	2528-8400157	TEMPORARY FLOODLIGHTING LUMINAIRE Refer to Tab. 108-27 in the C sheets for locations and details.
-	-	-
67	2528-8445110	TRAFFIC CONTROL Refer to the J sheets.
-	-	-
68	2528-9109020	TEMPORARY LANE SEPARATOR SYSTEM Refer to Tab. 108-35 in the C sheets for locations and details.
-	-	-
69	2529-2242304	CD JOINT ASSEMBLY
70	2529-2242320	CT JOINT
71	2529-5070110	PATCHES, FULL-DEPTH FINISH, BY AREA
72	2529-5070120	PATCHES, FULL-DEPTH FINISH, BY COUNT
73	2529-8174010	SUBBASE (PATCHES)
74	2529-8174050	PATCH SUBDRAIN
75	2529-8201000	JOINT ASSEMBLY, EF Refer to Tab. 102-6C in the C sheets for locations and details.
-	-	-
	2529-5070110	PATCHES, FULL-DEPTH FINISH, BY AREA 398.7 - With Dowels. See Standard Road Plan PR-103 963.4 - C R C. See Standard Road Plan PR-104
-	-	-
	2529-8174010	SUBBASE (PATCHES) Refer to Tab. 102-6C for locations and details.
-	-	-
76	2533-4980005	MOBILIZATION
-	-	-
77	2548-0000200	MILLED SHOULDER RUMBLE STRIPS, PCC SURFACE Refer to Tab. 112-10 for locations and details.
-	-	-
78	2551-0000110	TEMP CRASH CUSHION Refer to Tab. 108-33 in the C sheets and Typical 8210 in the B sheets for locations and details.
-	-	-
79	2601-2633100	MOWING Estimate based on two mowings of all native grass seeded areas. Areas inaccessible to field equipment shall be cut with appropriate hand equipment and kept current with the mowing of adjacent areas. Mowings shall take place when the vegetation is between 12 and 18 inches tall and mowed between four and eight inches in height.
-	-	-
80	2601-2634100	MULCHING Mulching per Article 2601.03, E, 2. Anchor mulch into the soil using mulch anchoring equipment with a minimum of two passes. Included for areas requiring reshaping and seedbed preparation. Mulch shall be Certified Noxious Weed Seed Free Mulch as certified by the Iowa Crop Improvement Association or adjacent states Crop Improvement Associations. Mulch Rate: 1 1/2 tons of dry cereal straw or native grass straw per acre.
-	-	-
81	2601-2636015	NATIVE GRASS SEEDING All areas outside eight feet adjacent to shoulder shall be seeded with "Native Grass Seeding". All seed for "Native Grass Seeding" will be supplied and mixed by the contractor according to Article 2601.03, B, 4, c and installed according to Article 2601.03, C, 5. All forb seed will be applied through the native grass drill wildflower or small seed box. Forb seed will not be allowed to be mixed and applied with the native grass seed. Cover crop will be required to be applied through the cool season or cover crop seed box. The cover crop seed will not be allowed to be mixed and applied with the native grass seed. Drill shall be calibrated prior to operation at the project site to the specified seeding rate for the project and witnessed by the contracting authority. The Engineer will review the limits prior to seeding with the Contractor.
-	-	-
82	2601-2636043	SEEDING AND FERTILIZING (RURAL) All areas 8 foot adjacent to the shoulder mainline and side roads shall be seeded and fertilizer per Article 2601.03, C, 3. All seed and fertilizer for shall be applied with ground driven equipment.

STANDARD ROAD PLANS

The following Standard Road Plans apply to construction work on this project.

Number	Date	Title
BA-200	10-18-11	Steel Beam Guardrail Components
BA-201	10-19-10	Steel Beam Guardrail Barrier Transition Section
BA-202	10-21-14	Steel Beam Guardrail Bolted End Anchor
BA-203	10-18-11	Steel Beam Guardrail W-Beam End Anchor
BA-205	10-18-11	Steel Beam Guardrail End Terminal
BA-206	10-18-11	Steel Beam Guardrail Flared End Terminal For Cable Connection
BA-250	10-21-14	Steel Beam Guardrail Installation at Concrete Barrier or Bridge End Post
BA-351	04-20-10	High Tension Cable Guardrail
BA-401	04-16-13	Temporary Barrier Rail (Precast Concrete)
BA-500	04-20-10	Temporary Crash Cushions Sand Barrel
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POLLUTION PREVENTION PLAN

This Base Pollution Prevention Plan (PPP) includes information on Roles and Responsibilities, Project Site Description, Controls, Maintenance Procedures, Inspection Requirements, Non-Storm Water Controls, Potential Sources of Off Right-of-Way Pollution, and Definitions. This plan references other documents rather than repeating the information contained in the documents. A copy of this Base Pollution Prevention Plan, amended as needed per plan revisions or by contract modification, will be readily available for review.

All contractors shall conduct their operations in a manner that controls pollutants, minimizes erosion, and prevents sediments from entering waters of the state and leaving the highway right-of-way. The prime contractor shall be responsible for compliance and implementation of the PPP for their entire contract. This responsibility shall be further shared with subcontractors whose work is a source of potential pollution as defined in this PPP.

I. ROLES AND RESPONSIBILITIES

- A. Designer:
 1. Prepares Base PPP included in the project plan.
 2. Prepares Notice of Intent (NOI) submitted to Iowa DNR.
 3. Signature authority on the Base PPP and NOI.
- B. Contractor/Subcontractor:
 1. Affected contractors/subcontractors are co-permittees with the IDOT and will sign a certification statement adhering to the requirements of the NPDES permit and this PPP plan. All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.
 2. Submit a detailed schedule according to Article 2602 of the Specifications and any additional plan notes.
 3. Install and maintain appropriate controls.
 4. Supervise and implement good housekeeping practices.
 5. Conduct joint required inspections of the site with inspection staff.
 6. Signature authority on Co-Permittee Certification Statements and storm water inspection reports.
- C. RCE/Inspector:
 1. Update PPP whenever there is a change in design, construction, operation or maintenance, which has a significant effect on the discharge of pollutants from the project.
 2. Maintain an up-to-date list that identifies contractors and subcontractors as co-permittees.
 3. Make these plans available to the DNR upon their request.
 4. Conduct joint required inspections of the site with the contractor/subcontractor.
 5. Complete an inspection report after each inspection.
 6. Signature authority on storm water inspection reports and Notice of Discontinuation (NOD).

II. PROJECT SITE DESCRIPTION

- A. This Pollution Prevention Plan (PPP) is for the construction of I-280 in Davenport from 0.8 Mile South of US 6 South to Mississippi River (EBL) and (WBL).
- B. This PPP covers approximately 400 acres with an estimated 120 acres being disturbed. The portion of the PPP covered by this contract has 60 acres disturbed.
- C. The PPP is located in an area of one soil association (Tama-Muscatine-Downs). The estimated average SCS runoff curve number for this PPP after completion will be 81.
- D. Storm Water Site Map - Multiple sources of information comprise the base storm water site map including:
 1. Drainage patterns - Plan and Profile sheets and Situation plans.
 2. Proposed Slopes - Cross Sections.
 3. Areas of Soil Disturbance - construction limits shown on Plan and Profile sheets.
 4. Location of Structural Controls - Tabulations on C sheets.
 5. Locations of Non-structural Controls - Tabulations on C sheets.
 6. Locations of Stabilization Practices - generally within construction limits shown on Plan and Profile sheets.
 7. Surface Waters (including wetlands) - Plan and Profile sheets.
 8. Locations where storm water is discharged - Plan and Profile sheets.
- E. The base site map is amended by contract modifications and progress payments of completed erosion control work.
- F. Runoff from this work will flow into the Mississippi River.

III. CONTROLS

- A. The contractor's work plan and sequence of operations specified in Article 2602.03 for accomplishment of storm water controls should clearly describe the intended sequence of major activities and for each activity define the control measure and the timing during the construction process that the measure will be implemented.
- B. Preserve vegetation in areas not needed for construction.
- C. Section 2601 and 2602 of the Standard Specifications define requirements to implement erosion and sediment control measures. Actual quantities used may vary from the Base PPP and amendment of the plan will be documented via fieldbook entries or by contract modification. Additional erosion and sediment control items may be required as determined by the inspector and/or contractor during storm water monitoring inspections. If the work involved is not applicable to any contract items, the work will be paid for according to Article 1109.03 paragraph B.
 1. EROSION AND SEDIMENT CONTROLS
 - a. Stabilization Practices
 - 1) Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized.
 - 2) Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased.
 - 3) Temporary stabilizing seeding shall be completed as the disturbed areas are constructed. If construction activity is not planned to occur in a disturbed area for at least 21 days, the area shall be stabilized by temporary seeding or mulching within 14 days. Other stabilizing methods shall be used outside the seeding time period.
 - 4) Stabilization measures to be used for this project are located in the Estimated Project Quantities (100-1A) and Estimate Reference Information (100-4A) located on the C sheets of the plan. Additional items may be found in the Inspector's Daily Reports (IDR) or Contract Modifications.
 - b. Structural Practices
 - 1) Structural practices will be implemented to divert flows from exposed soils and detain or otherwise limit runoff and the discharge of pollutants from exposed areas of the site.
 - 2) Structural items to be used for this project are located in the Estimated Project Quantities (100-1A) and Estimate Reference Information (100-4A) located on the C sheets of the plan, as well as all other item specific Tabulations. Typical drawings detailing construction of the devices to be used on this project can be found on the B sheets of the plan or are referenced in the Standard Road Plans Tabulation.
 - c. Storm Water Management
 - 1) Measures shall be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404

POLLUTION PREVENTION PLAN

of the Clean Water Act.

- 2. OTHER CONTROLS
 - a. Contractor disposal of unused construction materials and construction material wastes shall comply with applicable state and local waste disposal, sanitary sewer, or septic system regulations. In the event of a conflict with other governmental laws, rules and regulations, the more restrictive laws, rules or regulations shall apply.
 - 1) Vehicle Entrances and Exits - Construct and maintain entrances and exits to prevent tracking of sediments onto roadways.
 - 2) Material Delivery, Storage and Use - Implement practices to prevent discharge of construction materials during delivery, storage, and use.
 - 3) Stockpile Management - Install controls to reduce or eliminate pollution of storm water from stockpiles of soil and paving.
 - 4) Waste Disposal - Do not discharge any materials, including building materials, into waters of the state, except as authorized by a Section 404 permit.
 - 5) Spill Prevention and Control - Implement procedures to contain and clean-up spills and prevent material discharges to the storm drain system and waters of the state.
 - 6) Concrete Residuals and Washout Wastes - Designate temporary concrete washout facilities for rinsing out concrete trucks. Provide directions to truck drivers where designated washout facilities are located.
 - 7) Vehicle and Equipment Cleaning - Employ washing practices that prevent contamination of surface and ground water from wash water.
 - 8) Vehicle and Equipment Fueling and Maintenance - Perform on site fueling and maintenance in accordance with all environment laws such as proper storage of onsite fuels and proper disposal of used engine oil or other fluids on site.
 - 9) Litter Management - Ensure employees properly dispose of litter.
- 3. APPROVED STATE OR LOCAL PLANS

During the course of this construction, it is possible that situations will arise where unknown materials will be encountered. When such situations are encountered, they will be handled according to all federal, state, and local regulations in effect at the time.

IV. MAINTENANCE PROCEDURES

The contractor is required to maintain all temporary erosion and sediment control measures in proper working order, including cleaning, repairing, or replacing them throughout the contract period. This shall begin when the features have lost 50% of their capacity.

V. INSPECTION REQUIREMENTS

- A. Inspections shall be made jointly by the contractor and the contracting authority at least once every seven calendar days. Storm water monitoring inspections will include:
 1. Date of the inspection.
 2. Summary of the scope of the inspection.
 3. Name and qualifications of the personnel making the inspection.
 4. Rainfall amount.
 5. Review erosion and sediment control measures within disturbed areas for the effectiveness in preventing impacts to receiving waters.
 6. Major observations related to the implementation of the PPP.
 7. Identify corrective actions required to maintain or modify erosion and sediment control measures.
- B. Include storm water monitoring inspection reports in the Amended PPP. Incorporate any additional erosion and sediment control measures determined as a result of the inspection. Immediately begin corrective actions on all deficiencies found and complete all actions within 3 calendar days of the inspection.

VI. NON-STORM WATER DISCHARGES

This includes subsurface drains (i.e. longitudinal and standard subdrains) and slope drains. The velocity of the discharge from these features may be controlled by the use of patio blocks, Class A stone, erosion stone or other appropriate materials.

VII. POTENTIAL SOURCES OF OFF RIGHT-OF-WAY (ROW) POLLUTION

Silts, sediment, and other forms of pollution may be transported onto highway right-of-way (ROW) as a result of a storm event. Potential sources of pollution located outside highway ROW are beyond the control of this PPP. Pollution within highway ROW will be conveyed and controlled per this PPP.

VIII. DEFINITIONS

- A. Base PPP - Initial Pollution Prevention Plan.
- B. Amended PPP - May include Plan Revisions or Contract Modifications for new items and fieldbook entries made by the inspector.
- C. IDR - Inspector's Daily Report - this contains the inspector's daily diary and item postings.
- D. Controls - Methods, practices, or measures to minimize or prevent erosion, control sedimentation, control storm water, or minimize contaminants from other types of waste or materials.
- E. Signature Authority - Representative from Designer, Contractor/Subcontractor, or RCE/Inspector authorized to sign various storm water documents.

282-1
10-19-10

RESTRICTED STREAM ACCESS

A low water crossing for the Contractor's convenience is not allowed on this project. Stream bank disturbance and access to Duck Creek is not allowed unless specifically designated in the plans. No other access will be allowed.

253-1
10-18-11

MEDIAN CROSSOVER

The Contractor is prohibited from using any established or other type median crossover on this project unless specifically designated for the Contractor's use by this plan.

252-1
10-16-12

TEMPORARY CROSSINGS AND DETOURS

Blading, shaping, and other work in preparation for maintaining temporary crossings or detours is incidental to other work. Furnish and spread additional granular surfacing needed for temporary crossings or detours during construction at the contract price.

232-10
10-21-14

EMERALD ASH BORER

Dispose of all wood material generated as a result of clearing and/or grubbing according to the Iowa Department of Agriculture and Land Stewardship's Emerald Ash Borer (EAB) Quarantine Order. For more information refer to http://www.iowatrepests.com/eab_regulations.html.

232-9
Modified

THREATENED/ENDANGERED BATS

Cut down all trees included in Clearing and Grubbing after September 30 and before April 1. These trees may be inhabited by State and Federal listed threatened/endangered bat species. Removing a tree between April 1 and September 30 being used by a listed bat constitutes a "taking" of a protected species, which is punishable by law.

232-4
10-18-11

**EROSION CONTROL
(SELECTIVE CLEARING)**

Selective clearing will be required on this project.

Do not remove any trees outside of the construction limits without the Engineer's approval. This includes areas in divided medians and inside interchanges.

Clearing along the right-of-way line will be necessary to permit installation of fence. This clearing should be done as soon as possible with trees cut off at the ground line.

Do not disturb native grass areas outside the construction limits.

232-3A
04-15-14

**EROSION CONTROL
(RURAL SEEDING)**

Following the completion of work in a disturbed area, place seed, fertilizer, and mulch on the disturbed area lying 8 feet adjacent to shoulder and median as follows:

Use seed mix and fertilizer meeting the requirements of Section 2601.03,C,3 of the Standard Specifications.

Use mulch meeting the requirements of Sections 2601.03,E,2,a and 4169.07,A of the Standard Specifications.

Preparing the seedbed and furnishing and applying seed, fertilizer, and mulch is incidental to mobilization and will not be paid for separately.

213-3
04-15-14

SUBSOIL TILLAGE

All stockpile areas, haul roads, and areas used for equipment on this project require subsoil tillage to an average depth of 16 to 20 inches prior to placement of topsoil and/or stabilizing crop seeding. Complete this tillage at 3 foot maximum centers and at right angles to the finished slope.

Use tillage equipment equipped with an arrowhead type shoe that will provide lateral displacement and limit the movement of the subsoil to the surface. Obtain the Engineer's approval for the equipment. This work is incidental to other work on the project.

Following the subsoil tillage, the area is to remain in a "loosened" condition. Additional compaction or the operation of heavy equipment, other than required for topsoil placement and shaping, will not be allowed on areas which have received subsoil tillage.

254-1
10-02-01

INCIDENT MANAGEMENT

An incident management plan, provided by the District Office, will be discussed at the pre-construction conference.

232-3D
10-16-12

**EROSION CONTROL
(WETLAND GRASS SEEDING/404 PERMIT)**

Following the completion of work in a disturbed area, place seed, fertilizer, and mulch on the disturbed area consisting of wetlands lying 15 feet or more beyond the shoulder as follows:

SEEDING MIXTURE:
Refer to Table 2601.03-4 in Section 2601 of the Standard Specifications.

FERTILIZER:
5 lbs. of 13-13-13 (or equivalent) commercial fertilizer per 1000 sq. ft.

MULCH:
70 lbs. of dry cereal straw per 1000 sq. ft. For areas disturbed, but not seeded by September 30th, scarify to a 3 inch depth and mulch. Consolidate all mulch into the soil with a mulch stabilizer.

Use Certified Noxious Weed Seed Free Mulch as determined by the Iowa Crop Improvement Association or adjacent state's Crop Improvement Association.

Preparing the seedbed and furnishing and applying seed, fertilizer, and mulch is incidental to mobilization and will not be paid for separately.

EXISTING PAVEMENT

No.	Location					Year	Type	Project Number	Surface		Base		Subbase		Removal		Coarse Aggregate			Reinforcement	Remarks
	County	Route	Dir. of Travel	Begin Milepost	End Milepost				Type	Depth	Type	Depth	Type	Depth	Type	Depth	Source	Type	Durability Class		
1	82	I-280	WBL	6.3	8.53	1989		IR-280-9(97)303	PCC	5							Linwood	C.LST.	3		T. SHLDR
2						1973		I-IG-280-8(39)299--04-82	PCC	8	ATB		4				Danatt	DOLOM.	3		CRC

PAVEMENT SMOOTHNESS + PCC TEXTURE

100-27
10-20-09

Road Identification	Begin Station	End Station	Proposed Posted Speed			Remarks
			35 or less	40 - 45	over 45	
I-280 WB	149+00.00	514+00.00			X	

REMOVAL OF PAVEMENT

110-1
04-16-13

* Not a Bid Item
Refer to Tabulation 102-5

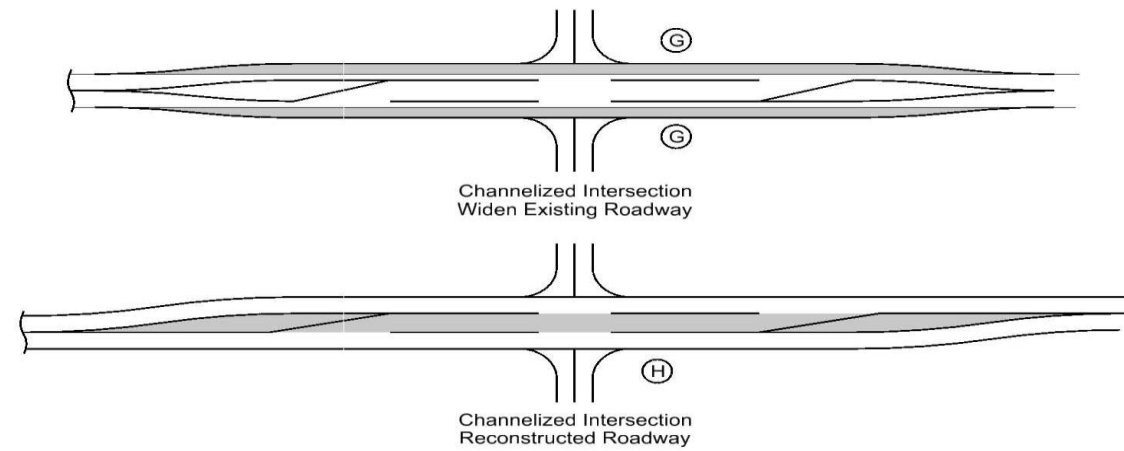
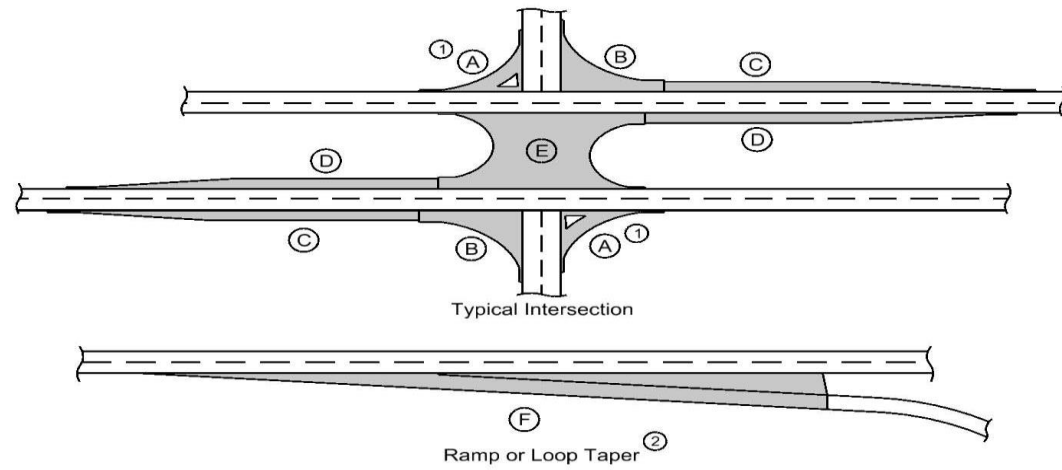
Begin Station	End Station	Side	Pavement Type	Area	Saw Cut*	Remarks
				SY	LF	
149+00.00	154+25.00	WBL	PCC	2333.3	40.0	
156+63.49	246+44.02	WBL	PCC	39913.5		Ia 22 Bridge
248+06.78	416+90.00	WBL	PCC	75036.5		US 63 Bridge
419+58.00	514+00.00	WBL	PCC	41964.4	40.0	
2555+29.33	2556+51.41	Ramp B	PCC	433.9	26.0	Removal of pavement at Ramp B Terminal
171+45.61	185+05.60	WBL/Ramp D	PCC	1617.8	26.0	IA 22 Ramp D Taper
225+32.60	230+50.80	WBL/Ramp B	PCC	1081.2	26.0	US 63 Ramp B Taper
256+71.30	268+19.80	WBL/Ramp D	PCC	1681.2	26.0	US 63 Ramp D Taper
333+52.00	340+10.00	WBL/Ramp B	PCC	1469.4	26.0	Locust St. Ramp B Taper
365+58.50	376+75.30	WBL/Ramp D	PCC	1621.1	26.0	Locust St. Ramp D Taper
171+00.00	181+00.00	Median xover	PCC	4728.8		Median Crossover Detour Pavement
222+08.00	232+25.00	Median xover	PCC	4006.9		Median Crossover Detour Pavement
256+50.00	268+24.60	Median xover	PCC	3764.4		Median Crossover Detour Pavement
330+65.00	343+91.00	Median xover	PCC	5303.4		Median Crossover Detour Pavement
365+50.00	378+06.26	Median xover	PCC	5773.9		Median Crossover Detour Pavement
Ia22/Ramp D	171+07.41	WB	PCC	259.4		Ramp Crossover Detour Pavement
US61/Ramp B	232+33.11	WB	PCC	138.1		Ramp Crossover Detour Pavement
US61/Ramp D	256+54.41	WB	PCC	247.4		Ramp Crossover Detour Pavement
Locust/Ramp B	340+85.74	WB	PCC	160.4		Ramp Crossover Detour Pavement
Locust/Ramp D	365+48.50	WB	PCC	207.1		Ramp Crossover Detour Pavement
				Mainline Totals	167152.4	
				Detour Pavement Totals	24589.9	
				Grand Total	191742.3	

REMOVAL OF EXISTING STRUCTURES

110-2
04-16-13

Location	Description	Remarks
418+24 (Lt)	Bridge End Drain	West Bound Lane, West end
418+24 (Rt)	Bridge End Drain	West Bound Lane, West end
418+24 (Lt)	Bridge End Drain	West Bound Lane, East end
418+24 (Rt)	Bridge End Drain	West Bound Lane, East end
120+10.58 (Rt)	Bridge End Drain	West Bound Lane, East end
120+10.58 (Rt)	Bridge End Drain	West Bound Lane, West end
154+80.76 (Rt)	Bridge End Drain	West Bound Lane, East end
154+80.76 (Rt)	Bridge End Drain	West Bound Lane, West end
247+39.96 (Rt)	Bridge End Drain	West Bound Lane, East end
247+39.96 (Rt)	Bridge End Drain	West Bound Lane, West end

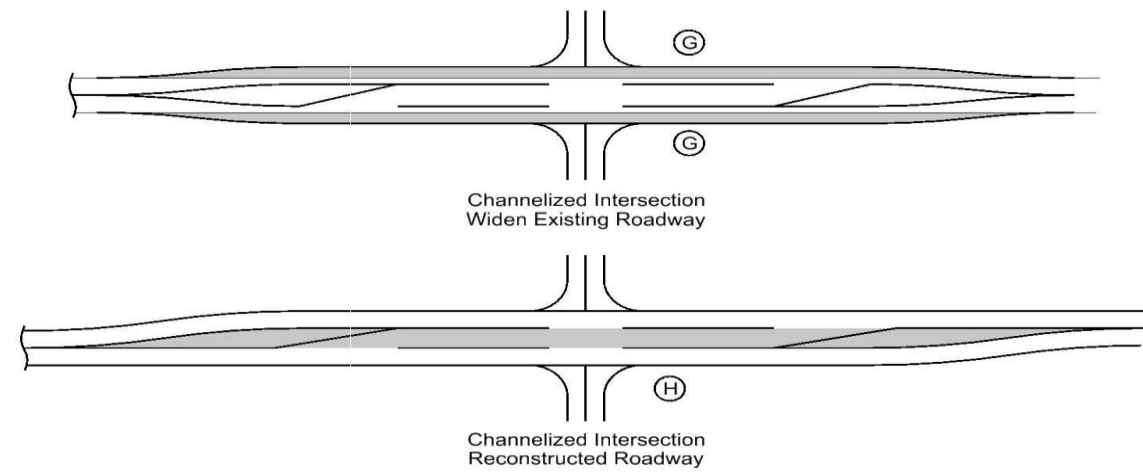
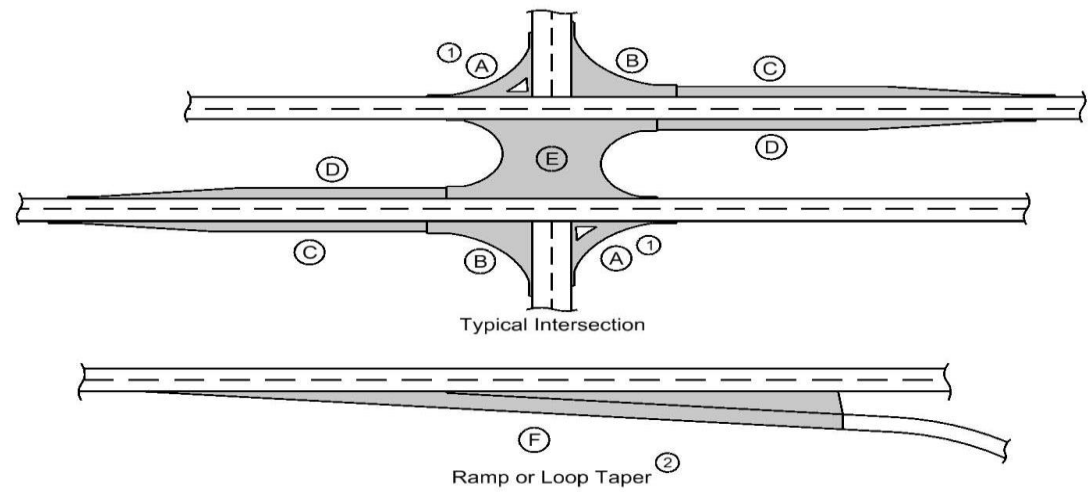
PCC PAVEMENT



- ① Does not include island area or curb. Refer to tabulation 112-4 for quantities.
- ② Refer to PV-410, PV-411, PV-412, and PV-414.
- ③ Quantity includes Pavement Header.

Road Identification	Location		Mainline			Area ③							Total Area By Pavement Thickness		Geogrid	Special Backfill	Modified Subbase	Granular Subbase	Remarks
	Direction of Travel	Station to Station	Width	Length	Area	A ②	B	C	D	E	F	G	SY						
													10 IN	11 IN					
I-280 -Mainline	WB	149+00.00	153+51.93	26.0	451.9	1305.6								1305.6	1456.2	1012.3	1606.9		
I-280 -Mainline	WB	157+38.16	183+13.51	26.0	2575.4	7439.9				1617.6				9057.5	8298.4	6578.3	9156.8	Includes Ia22 Ramp D Taper	
I-280 -Mainline	WB	183+13.50	230+50.84	26.0	4737.3	13685.6				744.4				14430.1	15264.8	10980.1	16843.9	Includes US61 Ramp B Taper	
I-280 -Mainline	WB	230+50.84	245+73.67	26.0	1522.8	4399.3								4399.3	4906.9	3411.1	5414.5		
I-280 -Mainline	WB	248+76.13	268+19.87	26.0	1943.7	5615.2				1559.6				7174.8	6263.2	5094.9	6911.1	Includes US61 Ramp D Taper	
I-280 -Mainline	WB	268+19.87	340+11.07	26.0	7191.2	20774.6				1469.4				22244.0	23171.6	16906.9	25568.7	Includes Locust St. Ramp B Taper	
I-280 -Mainline	WB	340+11.07	376+75.32	26.0	3664.3	10585.6				1574.7				12160.3	11807.0	9001.2	13028.4	Includes Locust St. Ramp D Taper	
I-280 -Mainline	WB	376+75.32	416+84.00	26.0	4008.7	11580.6								11580.6	12916.9	8979.4	14253.1		
I-280 -Mainline	WB	419+64.00	514+00.00	26.0	9436.0	27259.6								27259.6	30404.9	21136.6	33550.2		
Ia 22 Ramp B Terminal	WB	2555+29.33	2556+67.45	16-48	138.1	433.9								433.9			48.2		IA22 / Ramp B Terminal Area
Totals													433.9	109611.7	114489.8	83100.9	48.2	126333.6	

HMA PAVEMENT



- ① Does not include island area or curb. Refer to tabulation 112-4 for quantities.
- ② Refer to PV-410, PV-411, PV-412, and PV-414.

Calculations assume a surface course unit weight (lbs/cf) of 147, an intermediate course unit weight (lbs/cf) of 145, a base course unit weight (lbs/cf) of 140, and a special backfill unit weight (lbs/cf) of 140.

Road Identification	Direction of Travel	Location		Mainline			Area								Hot Mix Asphalt Pavement						Bid Items					Remarks																
		Station to Station		Width	Length	Area	A ^①	B	C	D	E	F	G	H	Surface		Intermediate		Base		Surface	Binder		Special Backfill	Modified Subbase		Granular Subbase	Pavement Scarification														
		FT	FT	FT	FT	SY	SY	SY	SY	SY	SY	SY	SY	SY	TONS	SY	TONS	SY	TONS	SY	TONS	TONS	TONS	TONS	CY		SY	SY														
Ia 22 Ramp B	WB	2535+50.00	2541+52.86	26.0	602.9	1741.6									192.0	1741.6					11.5																					
		2541+52.86	2542+12.86	28.0	60.0	186.7									20.6	186.7					1.2																					
		2542+12.86	2555+29.33	30.0	1316.5	4388.2									483.8	4388.2					29.0																					
Ia 22 Ramp D	WB	4557+23.62	4558+38.16												759.0	6884.5					45.5																					
		4558+38.16	4564+87.00	30.0	648.8	2162.8		6884.5							238.4	2162.8					14.3																					
		4564+87.00	4565+47.00	28.0	60.0	186.7									20.6	186.7					1.2																					
		4565+47.00	4571+46.94	26.0	599.9	1733.2									191.1	1733.2					11.5																					
US61 Ramp B	WB	2530+51.16	2536+54.30	26.0	603.1	1742.4									192.1	1742.4					11.5																					
		2536+54.30	2537+14.30	28.0	60.0	186.7									20.6	186.7					1.2																					
		2537+14.30	2543+81.90	30.0	667.6	2225.3									245.3	2225.3					14.7																					
		2543+81.90	2544+61.84	34.0	79.9	302.0									33.3	302.0					2.0																					
		2544+61.84	2545+55.60	38.0	93.8	395.9									43.6	395.9					2.6																					
US61 Ramp D	WB	4546+13.00	4548+00.00												773.0	7011.0					46.4																					
		4548+00.00	4550+07.78	30.0	207.8	692.6		7011.0							76.4	692.6					4.6																					
		4550+07.78	4550+67.78	28.0	60.0	186.7									20.6	186.7					1.2																					
		4550+67.78	4556+67.90	26.0	600.1	1733.7									191.1	1733.7					11.5																					
Locust-Ramp B	WB	2540+08.05	2546+10.27	26.0	602.2	1739.7									191.8	1739.7					11.5																					
		2546+10.27	2546+70.27	28.0	60.0	186.7									20.6	186.7					1.2																					
		2546+70.27	2553+95.03	30.0	724.8	2415.9									266.3	2415.9					16.0																					
		2553+95.03	2554+62.14												437.9	3972.0					26.3																					
Locust-Ramp D	WB	4552+19.60	4552+84.00												388.6	3525.0					23.3																					
		4552+84.00	4558+91.00	30.0	607.0	2023.3		3525.0							223.1	2023.3					13.4																					
		4558+91.00	4559+51.00	28.0	60.0	186.7									20.6	186.7					1.2																					
		4559+51.00	4565+52.69	26.0	601.7	1738.2									191.6	1738.2					11.5																					
Total														5565.9	50484.3								334.0																			
5% for irregularities														278.3																												
Grand Total														5844.2																												

SHOULDERS

- ① Lane(s) to which the shoulder is adjacent.
- ② Bid Item
- ③ Applies only for Paved Shoulders constructed on project with existing granular shoulders.
- ④ Does not include shrink.

Calculations assume a HMA unit weight (lbs/cf) of 145, a Special Backfill unit weight (lbs/cf) of 140, and a Granular Shoulder unit weight (lbs/cf) of 140.

Road Identification	Direction Of Traffic	Location			P Width FT	G Width FT	L Length FT	Class 13 Excavation CY	Quantities												Remarks							
		Station to Station	Side	Hot Mix Asphalt					Binder TONS	Paved Shoulder SY	Reinforced Paved Shoulder SY	Special Backfill				Modified Subbase CY	Granular Shoulder		Earth Shoulder Construction Alternates									
				TON								TON/STA	TON	TON/STA	HMA Alternate		PCC Alternate		TON	TON/STA		CY	TON	TON/STA	STA	HMA CY	PCC CY	
															TON		TON/STA	TON										TON/STA
Shoulder Alternate Totals								23987.1	2504.1	1439.2	55055.9			19780.9	22817.1													
Rein, PCC Shldr.		473+17.85	473+24.85	Out.	11.5		7.0							8.9		3.0	42.7			0.1	0.5	Reinf. PCC Shldr						
		473+24.85	473+75.85	Out.	11.5		51.0	28.4	55.6	1.7	65.2					21.8	42.7			0.5	4.0							
Reinforced, PCC Shoulder Totals								28.4	55.6	1.7	65.2	8.9		24.8														
Ia22 -Ramp B	WB	2555+29.33	2542+12.86	Lt	4.0		1316.5	254.6	19.3	15.3	585.1			311.5	23.7	257.1	19.5			13.2	87.8	73.1	Ramp B Terminal Ramp B Terminal					
		2555+29.33	2556+32.16	Rt	10.0		102.8	49.7	48.4	3.0	114.3			44.3	43.1	38.9	37.8			1.0	6.9	5.7						
Ramp Shoulder Totals								304.4	67.7	18.3	699.4	8.9		296.0	57.3													
Grand Totals:								24291.5	2571.8	1457.5	55121.0			20136.6	23113.1									Earth Shoulder Const. Totals	6416.8	6274.1		
Binder is calculated at 6% HMA quantity																												
															Note 1: Refer to Typcial 7156 for details. Refer to Tab. 103-4 for topsoil													

MILLED RUMBLE STRIPS

See PV-12 and PV-13.

* Calculated at 18" width for Shoulder.

Road Identification	Location		Length		Type (Centerline, Rt or Lt Shoulder)	Fog Seal* (Milled Rumble Strip) Shoulder GAL	Effective Shoulder Width			Remarks			
	Station to Station	STA	PCC STA	HMA STA			PCC Paved FT	HMA Paved FT	Granular/ Earth FT				
I-280	149+00.00	153+82.00	4.82		Right Shoulder	0.0	10.0						
	156+88.00	172+40.00	15.52		Right Shoulder	0.0	10.0						
	182+14.00	225+70.00	43.56		Right Shoulder	0.0	10.0						
	230+50.00	246+24.00	15.74		Right Shoulder	0.0	10.0						
	248+46.00	257+66.00	9.20		Right Shoulder	0.0	10.0						
	269+72.00	334+11.00	64.39		Right Shoulder	0.0	10.0						
	340+11.00	366+53.00	26.42		Right Shoulder	0.0	10.0						
	375+84.00	417+50.00	41.66		Right Shoulder	0.0	10.0						
	419+58.00	473+17.80	53.60		Right Shoulder	0.0	10.0						
	473+17.80	473+75.80	0.58		Right Shoulder	0.0	10.0		Reinforced Paved Shoulder				
	473+75.80	514+00.00	40.24		Right Shoulder	0.0	10.0						
	I-280 Alternate 'AA' Option 1	156+88.00	246+24.00		89.36	Left Shoulder	193.6		6.0	HMA Paved Shoulder Alternate			
	HMA Paved Shoulder	248+46.00	297+51.00		49.05	Left Shoulder	106.3		6.0	HMA Paved Shoulder Alternate			
		302+48.00	417+50.00		115.02	Left Shoulder	249.2		6.0	HMA Paved Shoulder Alternate			
	419+58.00	510+75.00		91.17	Left Shoulder	197.5		6.0	HMA Paved Shoulder Alternate				
I-280 Alternate 'AA' Option 2	156+88.00	246+24.00		89.36	Left Shoulder	0.0			PCC Paved Shoulder Alternate				
PCC Paved Shoulder	248+46.00	297+51.00		49.05	Left Shoulder	0.0			PCC Paved Shoulder Alternate				
	302+48.00	417+50.00		115.02	Left Shoulder	0.0			PCC Paved Shoulder Alternate				
	419+58.00	510+75.00		91.17	Left Shoulder	0.0			PCC Paved Shoulder Alternate				
ML Right Shoulder HMA Alternate 1 Totals				315.73									
PCC Alternate 2 Totals				344.60		746.6							

MEDIAN CROSSOVERS

Refer to U Sheets.

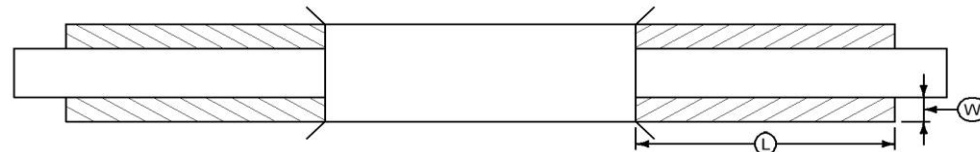
* Not a bid item

Road Ident.	Location Station	Standard Road Plan No.	Detour Pavement SY	Special Backfill TON	Granular Shoulder TON	Embankment in Place CY	Class 10 Excavation CY	Class 13 Excavation CY	Removal of Pavement SY	Saw Cut* LF	15" CMP Roadway Culvert	6" CMP Subdrain	Beveled Pipe and Guard No.	Remarks
											LF	LF		
I-280	174+20.00		1544.1	1748.0				335.3	670.6	1157.0	90.0		1	Refer to Detail 531-2(1) on U Sheets, Note 1
I-280	229+62.50		4006.9	2682.1				421.0	842.0	1267.0	560.0		2	Refer to Detail 531-2(2) on U Sheets
I-280	260+93.00		2085.1	1605.9				317.5	634.9	940.0	230.0		1	Refer to Detail 531-2(3) on U Sheets, Note 1
I-280	341+80.00		2583.3	2034.9				392.0	784.0	2066.0	270.0		1	Refer to Detail 531-2(4) on U Sheets, Note 1
I-280	371+13.00		2711.6	1950.8				375.5	751.0	1124.0	340.0		1	Refer to Detail 531-2(5) on U Sheets, Note 1
Ia22/Ramp D	171+07.41		259.4	90.4				47.3	94.6	120.0		60.0		Refer to Detail Crossover #1 on U Sheets.
US61/Ramp B	232+33.11		138.1	41.7				42.8	85.5	120.0		75.0		Refer to Detail Crossover #2 on U Sheets.
US61/Ramp D	256+54.41		247.4	96.4				36.1	72.2	120.0		70.0		Refer to Detail Crossover #3 on U Sheets.
Locust/Ramp B	340+85.74		160.4	70.2				37.2	74.3	120.0		75.0		Refer to Detail Crossover #4 on U Sheets.
Locust/Ramp D	365+48.50		207.1	92.8				34.7	69.4	120.0		60.0		Refer to Detail Crossover #5 on U Sheets.
Totals			13943.6	10413.2				2039.3	4078.5	7154.0	1490.0	340.0	6	

Note 1:
Metal Roadway pipe is for extension of existing pipe. See RF-2 for connections.

AREAS FOR PAVEMENT OR BASE WIDENING

Refer to Standard Road Plans PV-105 or PV-203



① Bid Item

② Estimated for two applications to achieve lifts and one application of 0.10 Gal/SY adjacent to existing pavement. Priming of subgrade or finished base is not required. Calculations assume a HMA unit weight (lbs/cf) of 145, a Special Backfill unit weight (lbs/cf) of 140, and a Tack Coat unit weight (gal/sy) of 0.05.

Station to Station	Side	Pavement Type	L Length FT	W Width FT	T Thickness IN	HMA Base Widening ① TONS	HMA Base Widening ① SY	PCC Base Widening ① SY	PCC Pavement Widening ① SY	Tack Coat			Asphalt Binder ① TONS	Class 13 Excavation, Widening ① CY	Special Backfill ① TONS	Remarks
										Lifts	Vertical Edge	Tack Coat				
										GAL	GAL	GAL				
2542+12.86	2555+52.64	Rt	HMA	1339.78	4.0	8.0	595.5			59.55	9.92	69.47		231.6	187.569	IA 22 Ramp B
4558+38.16	4564+87.00	Rt	HMA	648.84	4.0	8.0	288.4			28.84	4.81	33.64		112.1	90.838	IA 22 Ramp D
2537+14.30	2545+55.63	Rt	HMA	841.33	4.0	8.0	373.9			37.39	6.23	43.62		145.4	117.786	US 61 Ramp B
4546+56.60	4550+07.78	Rt	HMA	351.18	4.0	8.0	156.1			15.61	2.60	18.21		60.7	49.165	US 61 Ramp D
2546+70.27	2553+95.03	Rt	HMA	724.76	4.0	8.0	322.1			32.21	5.37	37.58		125.3	101.466	Locust St Ramp B
4552+84.00	4558+91.00	Rt	HMA	607.00	4.0	8.0	269.8			26.98	4.50	31.47		104.9	84.980	Locust St Ramp D
Totals							2005.7					234.00	0.000	780.0	631.805	

BRIDGE APPROACH SECTION

Refer to the RK-Series.

112-6
04-16-13

* Not a bid item

Location		Approach Pavement							Subdrain							Remarks	
Bridge Station	End	Skew Ahead		Thickness (T) Inches	Pay Length FT	Non-Reinf. Pavement Area SY	Single- Reinf. Pavement Area SY	Double- Reinf. Pavement Area SY	Fixed or Movable Abutment F or M	Perforated Subdrain 4" LF	Subdrain Outlet		Porous Backfill CY	Class 'A' Backfill CY	Modified Subbase TON		Polymer Grid SY
		Degrees									STA	Side					
		LEFT	RIGHT														
120+10.58		-4	4	12.0	90.0	100.0	66.7	175.2	M	64.0 68.0	118+85.34 121+72.67	Rt Rt	11.0 11.0	1.9 1.9	351.290	381.0	Rt. Skew Bridge
154+80.76		-24	24	12.0	147.8	160.0	106.7	220.0	F	68.0 62.0	153+60.58 157+29.80	Rt Rt	11.0 10.0	1.9 1.9	519.480	554.1	Rt. Skew Bridge
247+39.96		13.58	13.58	12.0	140.3	160.0	106.7	185.0	M	62.0 68.0	245+82.21 248+65.28	Rt Rt	10.0 11.0	1.9 1.9	481.210	515.8	Lt Skew Bridge
418+24.00		0	0	12.0	140.0	166.7	111.1	183.6	M	62.0 68.0	416+94.00 419+54.00	Rt Rt	10.0 11.0	1.9 1.9	525.840	564.9	
Totals					518.1	586.7	391.1	763.8		522.0			85.0	15.2	1877.820	2015.9	
Grand Totals							1741.6										

LONGITUDINAL GROOVING

100-28
10-19-10

Location	Total SY	Remarks
120+10.58	84.1	Bridge Approach
		UAC IA22 Bridge
	257.8	Bridge Approach / UAC Bridge
154+80.76	243.3	Bridge Approach
		UAC US61 Bridge
	243.3	Bridge Approach
247+39.96	224.3	Bridge Approach
		UAC Locust St. Bridge
	227.4	Bridge Approach
418+24.00	236.2	Bridge Approach
	622.2	Bridge over Duck Creek
	225.1	Bridge Approach
Total	2363.7	

SCOUR PROTECTION OR ROCK FLUME FOR BRIDGE END DRAIN

Refer to Standard Road Plan RF-39 or RF-40

104-8A
04-20-10
① Not a Bid Item

Location			Shoulder				Rock Flume RF-40			Scour Protection RF-39		Remarks	
Bridge Station	Bridge Corner	Distance DI-1 or DI-2	Panels Required		PCC Sq.Yds.	Polymer Grid Sq.Yds.	Modified Subbase Tons	Macadam Stone Base Material Tons	Engineering Fabric Sq.Yds.	Erosion Stone Tons	Outlet or Channel Scour Protection Sq. Feet		Turf Reinforced Mat (TRM) Squares
			A	B									
120+10.58	NE	24.0	B		24.4	24.4	23.100	1.400	8.8	9.400			
154+80.76	SW	39.0	C, B		31.1	31.1	25.820	1.400	8.8	9.400			
154+80.76	SE	39.0	A		24.4	24.4	22.730	1.400	8.8	9.400			
247+39.96	NE	24.0	A		24.4	24.4	23.100	1.400	8.8	9.400			
247+39.96	NW	35.0	B		15.6	15.6	14.700	1.400	8.8	9.400			
418+24.00	NE	24.0	A		15.6	15.6	14.700	1.400	8.8	9.400			
418+24.00	NW	24.0	B		24.4	24.4	24.400	1.400	8.8	9.400			
418+24.00	NW	24.0	B		0.0	0.0	0.000	1.400	8.8	9.400		Rock Flume only. Median side EBL	
Totals					120.0	120.0	109.450	5.600	35.2	37.600			

107-24
10-15-13

GRADING FOR HIGH TENSION CABLE GUARDRAIL INSTALLATIONS

Refer to Standard Road Plan EW-302

① Lane(s) to which the installation is adjacent.

No.	Location			Dimensions			Protection Length (C _A +C _O +C _T)	Earthwork: CY	Remarks
	Direction of ① Traffic	Station	Side	C _A	C _O	C _T			
				FT	FT	FT	FT		
		109+57.00	Out.	0.0	867.0	0.0	867.0	224.8	Tie to bridge post and guardrail.
	WB	352+95.65	Med.	147.0	40.0	0.0	187.0	158.7	
	EB	356+29.63	Med.	147.0	40.0	0.0	187.0	158.7	
		387+70.81	Med.	223.0	11.0	0.0	234.0	179.6	
		471+31.75	Med.	226.0	27.0	0.0	253.0	188.0	
		476+09.81	Med.	226.0	27.0	0.0	253.0	188.0	
	TOTAL:							1097.7	

108-9A
04-20-10

HIGH TENSION CABLE GUARDRAIL

Refer to BA-351.

① Lane(s) to which the installation is adjacent.

No.	Location			Dimensions				Bid Items		Remarks
	Direction of ① Traffic	Station	Side	Offset D ₀	Approach C _A	Obstacle C _O	Trailing C _T	Protection Length (C _A +C _O +C _T)	End Anchor	
									No.	
	WB	109+57.00	Rt		867.0		0.0	867.0	2	See Sheets U.12 and U.13 for details
	WB	352+95.65	Med.	18.8	147.0	40.0	0.0	187.0	2	
	EB	356+29.63	Med.	18.8	147.0	40.0	0.0	187.0	2	
	WB	387+70.81	Med.	12.0	223.0	11.0	0.0	234.0	2	
	WB	471+31.75	Med.	12.0	226.0	27.0	0.0	253.0	2	
	EB	476+09.81	Med.	12.0	226.0	27.0	0.0	253.0	2	
								Totals	12	

110-7B
10-19-10

REMOVAL OF CABLE GUARDRAIL

* Not a bid item

① Lane(s) to which the installation is adjacent.

No.	Direction of Traffic	Location			Type (High/Low Tension)	Cable	Post * Footings, Concrete	End Terminal*	Remarks
		Station to Station	Side	Remove					
		390+00.00	Med.	High Tension	230.0	Yes	2		

102-16
10-21-14

NOTCHES AND RUNOUTS FOR RESURFACING

Refer to PR-201 and PR-202.

① Bid item. Applies only to Types 'N1' and 'N3' on PR-202. Refer to 100-25 for remaining values.

Location Station	Type of Notch or Runout	S	I	DI	L	M	Pavement ① Scarification SY	Remarks
		IN	IN	IN	FT	IN		
2536+50.00	Type 'N1'	2.0			100.0	2.0	288.9	IA 22 Ramp B
2554+79.00	Type 'N1'	2.0			50.0	2.0	166.7	IA 22 Ramp B - to Ramp Terminal
4557+72.80	Type 'N1'	2.0			50.0	2.0	517.0	IA 22 Ramp D - Ramp Terminal
4570+44.60	Type 'N1'	2.0			100.0	2.0	288.9	IA 22 Ramp D
2531+51.16	Type 'N1'	2.0			100.0	2.0	288.9	US 61 Ramp B
2545+62.89	Type 'N1'	2.0			50.0	2.0	289.7	US 61 Ramp B - Ramp Terminal
4546+63.10	Type 'N1'	2.0			50.0	2.0	292.7	US 61 Ramp D - Ramp Terminal
4555+67.94	Type 'N1'	2.0			100.0	2.0	288.9	US 61 Ramp D
2541+08.05	Type 'N1'	2.0			100.0	2.0	288.9	Locust St. Ramp B
2553+99.60	Type 'N1'	2.0			50.0	2.0	402.7	Locust St. Ramp B - Ramp Terminal
4552+82.39	Type 'N1'	2.0			50.0	2.0	400.2	Locust St. Ramp D - Ramp Terminal
4564+52.69	Type 'N1'	2.0			100.0	2.0	288.9	Locust St. Ramp D
	Total						3802.3	

108-8A
10-19-10

STEEL BEAM GUARDRAIL AT CONCRETE BARRIER OR BRIDGE END POST

Refer to BA-200, BA-201, BA-202, BA-205, BA-250, SI-172, SI-173 and SI-211. ① See Standards for list of materials.

Location Station			Layout Lengths				Delineators and Object Markers				Bid Items ①					Remarks		
			VT1	VF	VT2	ET	Type	Delineator		Object Marker		End Anchor Bolted	Barrier Transition Section	Steel Beam Guardrail	End Terminal		Adapter	
								Type 1	Type 2	Type 3	Standard				Flared for Cable Connection			
								White No.	No.	OM-3L No.								OM-3R No.
No.	Station	Offset	LF	LF	LF	Terminal LF												
	119+01.40	41.2 Rt	28.125	12.50		37.5				1	A	1	12.5		1			
	121+19.00	40.8 Rt	28.125	0.00	750.00	50.0				1	A	1	750.0	1				
	154+27.76	63.9 Rt	53.125	37.50	62.50	50.0				1	A	1	125.0	1				
	154+09.93	23.3 Rt	53.125	25.00	150.00	50.0			1		A	1	200.0	1		Median		
	246+31.67	64.3 Rt	28.125	25.00	112.50	50.0				1	A	1	137.5	1				
	246+41.37	23.7 Rt	28.125	25.00	187.50	50.0			1		A	1	212.5	1				
	417+53.00	64.2 Rt	28.125	25.00	100.00	50.0				1	A	1	125.0	1				
	417+53.00	23.8 Rt	28.125	25.00	150.00	50.0			1		A	1	175.0	1				
	473+17.85	66.8 Rt	165.625			50.0				1	A	1	137.5	1		Tie to BA 107		
			Totals								9	9	1875.0	8	1			

110-7A
04-17-12

REMOVAL OF STEEL BEAM GUARDRAIL

① Lane(s) to which the installation is adjacent.
② Includes length of End Terminals and End Anchors.

Location					Removal of Guardrail
No.	Direction of Traffic	Station to Station	Side	LF	
1	WB	109+44.00	119+20.00	Rt	976.0
2	WB	121+23.00	129+40.00	Rt	817.0
3	WB	155+00.00		RT	59.0
4	WB	155+00.00		*Med.	284.0
5	WB	246+10.00		Rt	59.0
6	WB	246+10.00		*Med.	250.0
7	WB	354+50.00		*Med.	320.0
8	WB	390+00.00		Rt	113.0
9	WB	417+39.00		Rt	65.0
10	WB	417+39.00		*Med.	200.0
11	WB	473+25.00		*Med.	300.0
12	WB	472+70.00		Med.	125.0
13	WB	472+70.00		Rt	135.0
Totals					3703.0
*Med = Bullnose Guardrail					

107-23
10-18-11

GRADING FOR GUARDRAIL INSTALLATIONS

① Lane(s) to which the installation is adjacent. Refer to EW-301

Location				Foreslope at Guardrail	Dimensions (Feet)							Earthwork		Remarks		
No.	Direction of Traffic	Station	Side		X1	Y1	X2	Y2	X3	Y3	X4	Y4	Z		Excavation Class 10	Embankment In Place
					CY	CY										
WB		119+01.40	Out.	27.3	3.8					80.5	9.3	53.1		*		
WB		154+10.53	Med.	53.1	5.0	77.7	7.7	228.0	7.7	277.8	9.7	35.1		* Tie to existing median crossover		
WB		154+28.36	Out.	53.1	5.0	90.4	8.2	152.8	8.2	204.6	10.2	86.5		*		
WB		246+41.98	Med.	27.8	4.8	52.7	7.3	219.2	7.3	253.0	8.8	88.1		*		
WB		246+32.28	Out.	27.8	4.8	52.7	7.3	165.4	7.3	203.0	8.8	95.4		*		
WB		417+50.20	Med.	27.8	4.5	52.7	7.0	203.0	7.0	240.5	8.5	85.1		*		
WB		417+50.20	Out.	27.8	5.0	52.1	7.5	152.3	7.5	189.9	9.0	97.3		*		
WB		473+18.45	Out.	165.5	7.3					203.1	8.8	97.4		*		
* Earthwork included in Tabs 112-9 and 103-4.																

108-30
04-16-13

CRASH CUSHIONS

* Bid Item
 ① Lane(s) to which the installation is adjacent.
 ② Complete this section when using the Temporary Crash Cushion bid item and Earthwork is needed for Sand Barrel placement. Refer to BA-500

No.	Direction of Traffic	Location Station	Side	Obstacle Width FT	Crash Cushion (Select One)*					Sand Barrel Details ②					Earthwork*		Spare Parts Kit (Select One)*		Obstacle Description	Remarks
					Temporary	Temporary Reductive	Temporary Severe Use	Permanent	Permanent Severe Use	V	W	X	Y	Z	Excavation Class 10 CY	Embankment in Place CY	Permanent EACH	Permanent Severe Use EACH		
										Length FT	Length FT	Length FT	Length FT	Length FT						
EB		513+75.00		2.00	1															
WB		117+06.00	RT	2.00	1														Remove & Replace bridge approach	See TC-421
WB		117+06.00	LT	2.00	1														Remove & Replace bridge approach	See TC-421
Totals					3															

108-27
10-16-12

TEMPORARY FLOODLIGHTING LUMINAIRES

No.	Location Station	Offset	Number Lumin.	Remarks
	148+15.00	Rt 84	1	Mainline Crossover
	194+84.00	Lt 86	1	Mainline Crossover
	171+00.00	0	1	IA 22 Ramp D Crossover
	171+09.00	Rt 153	1	IA 22 Ramp D Crossover
	232+25.00	Rt 127	1	U.S. 61 Ramp B Crossover
	232+25.00	Lt 97	1	U.S. 61 Ramp B Crossover
	256+60.00	Rt 156	1	U.S. 61 Ramp D Crossover
	560+50.00	0	1	U.S. 61 Ramp D Crossover
	341+30.00	Rt 147	1	Locust St Ramp B Crossover
	341+30.00	Lt 106	1	Locust St Ramp B Crossover
	365+50.00	Rt 158	1	Locust St Ramp D Crossover
	365+50.00	0	1	Locust St Ramp D Crossover
	513+15.00	Rt 86	1	Mainline Crossover
	514+85.00	Lt 86	1	Mainline Crossover
Total			14	

108-33
04-16-13

TEMPORARY BARRIER RAIL

Refer to BA-400 and BA-401

* Not a bid item. Anchorage requirements are based on TBR locations shown in the plans. TBR alignments that vary from what is shown in the plans may result in additional TBR sections requiring anchorage.

No.	Station to Station	Length LF	(Select One)		Anchored* (Y/N)	Remarks
			Steel BA-400	Concrete BA-401		
			513+75.00	515+00.00		
120+10.00		625.0		50	Yes	Refer to Typical 8210 on B sheets
120+10.00		450.0		36	Yes	Refer to Typical 8210 on B sheets
Totals		1225.0				

108-35
04-17-12

TEMPORARY LANE SEPARATOR SYSTEM

Refer to TC-61

Station to Station	Length LF	Remarks
171+16.00	184+76.00	1360
222+00.00	237+40.00	1540
257+60.00	268+00.00	1040
330+60.00	342+60.00	1200
366+00.00	378+00.00	1200
Totals		6860

108-13A
08-01-08

SAFETY CLOSURES

Refer to Section 2518 of the Standard Specifications

Station	Closure Type		Remarks
	Road Qty.	Hazard Qty.	
149+00.00	1		
170+50.00	1		
172+40.00	1		
230+50.00	1		
233+00.00	1		
256+00.00	1		
257+66.00	1		
340+11.00	1		
341+50.00	1		
365+00.00	1		
366+53.00	1		
514+00.00	1		
Total		12	

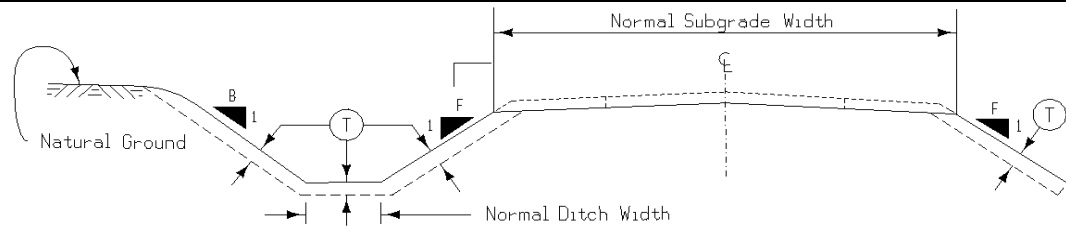
108-29
04-15-14

PAVEMENT MARKING SYMBOLS AND LEGENDS

Refer to PM-111

Road Identification	Location		STAW	RTAW	LTAW	CSRW	CSLW	CSTW	CRLW	FERW	LLRW	RLRW	X RR	BLSW	WCSW	WPSB	SCLW	XNGW	STPW	AHDW	ONLW	BIKW	LANW	XITW	Groove Cuts EACH	Remarks
	Station	Side																								
ML280																										
WB LT lane	78+46.00	WB									2															See TC-421
WB LT lane	88+46.00	WB									2															See TC-421
WB Rt Lane	78+46.00	WB										2														See TC-421
WB Rt Lane	88+46.00	WB										2														See TC-421
	110+00.00	WB										2														
	120+00.00	WB										2														
	544+30.00	EB										2														
	554+30.00	EB										2														
Totals											8	8														

TABULATION OF SPREADING TOPSOIL



Perform this work according to Section 2105. Prior to placing topsoil on any cohesive soil, scarify the area to be covered to a minimum depth of 3 inches.

Appropriate adjustments have been made in the template quantities to reflect the placement of topsoil on foreslope, backslope and ditch bottom as detailed hereon.

Placement Description						Topsoil Excavation Available From		Remarks
Area	Quantity	Location		Side	Slope	T	Station to Station	
No.	CY	Station to Station		L. or R.	B. or F.			
	3.5	117+66.00	117+91.00	R	F			
	8.1	117+91.00	118+20.00	R	F			
	9.2	118+20.00	118+74.00	R	F			
	1.7	118+74.00	119+01.00	R	F			
	5.3	151+67.00	152+05.00	R	F			Ia 22 Bridge Guardrail blister - Outside
	18.1	152+05.00	152+75.00	R	F			Ia 22 Bridge Guardrail blister - Outside
	15.2	152+75.00	153+38.00	R	F			Ia 22 Bridge Guardrail blister - Outside
	5.6	153+38.00	153+75.00	R	F			Ia 22 Bridge Guardrail blister - Outside
	3.3	153+75.00	154+28.00	R	F			Ia 22 Bridge Guardrail blister - Outside
	8.7	151+12.00	151+32.00	Med.	F			Ia 22 Bridge Guardrail blister - Median
	18.5	151+32.00	151+82.00	Med.	F			Ia 22 Bridge Guardrail blister - Median
	45.6	151+82.00	153+32.00	Med.	F			Ia 22 Bridge Guardrail blister - Median
	5.4	153+32.00	153+57.00	Med.	F			Ia 22 Bridge Guardrail blister - Median
	6.9	153+57.00	154+10.00	Med.	F			Ia 22 Bridge Guardrail blister - Median
	7.2	243+23.00	243+56.00	Med.	F			US 61 Bridge Guardrail blister - Median
	14.4	243+56.00	243+89.00	Med.	F			US 61 Bridge Guardrail blister - Median
	13.0	243+89.00	244+24.00	Med.	F			US 61 Bridge Guardrail blister - Median
	50.1	244+24.00	245+89.00	Med.	F			US 61 Bridge Guardrail blister - Median
	5.4	245+89.00	246+14.00	Med.	F			US 61 Bridge Guardrail blister - Median
	3.5	246+14.00	246+41.00	Med.	F			US 61 Bridge Guardrail blister - Median
	4.7	243+63.00	243+97.00	R	F			US 61 Bridge Guardrail blister - Outside
	8.9	243+97.00	244+29.00	R	F			US 61 Bridge Guardrail blister - Outside
	9.9	244+29.00	244+67.00	R	F			US 61 Bridge Guardrail blister - Outside
	27.2	244+67.00	245+80.00	R	F			US 61 Bridge Guardrail blister - Outside
	3.6	245+80.00	246+04.00	R	F			US 61 Bridge Guardrail blister - Outside
	1.8	246+04.00	246+32.00	R	F			US 61 Bridge Guardrail blister - Outside
	6.8	414+50.00	414+81.00	R	F			Duck Creek Bridge Guardrail blister - Median
	14.0	414+81.00	415+13.00	R	F			Duck Creek Bridge Guardrail blister - Median
	13.7	415+13.00	415+50.00	R	F			Duck Creek Bridge Guardrail blister - Median
	45.6	415+50.00	417+00.00	R	F			Duck Creek Bridge Guardrail blister - Median
	5.6	417+00.00	417+26.00	R	F			Duck Creek Bridge Guardrail blister - Median
	3.6	417+26.00	417+54.00	R	F			Duck Creek Bridge Guardrail blister - Median
	4.7	414+97.00	415+31.00	Med.	F			Duck Creek Bridge Guardrail blister - Outside
	8.9	415+31.00	415+63.00	Med.	F			Duck Creek Bridge Guardrail blister - Outside
	9.9	415+63.00	416+01.00	Med.	F			Duck Creek Bridge Guardrail blister - Outside
	24.1	416+01.00	417+01.00	Med.	F			Duck Creek Bridge Guardrail blister - Outside
	8.4	417+01.00	417+56.00	Med.	F			Duck Creek Bridge Guardrail blister - Outside
	1.8	417+56.00	417+54.00	Med.	F			Duck Creek Bridge Guardrail blister - Outside
	492.7	171+00.00	176+60.00	Med.	F			Ramp Crossovers/includes gore area
	467.0	227+00.00	232+25.00	Med.	F			Ramp Crossovers/includes gore area
	573.3	256+50.00	263+20.00	Med.	F			Ramp Crossovers/includes gore area
	566.0	337+25.00	343+85.00	Med.	F			Ramp Crossovers/includes gore area
	665.0	365+50.00	373+45.00	Med.	F			Ramp Crossovers/includes gore area
Total	3215.7							

FULL-DEPTH PATCHES

Refer to Standard Roads Plans PR-101, PR-102, PR-103, PR-104 and PR-140.

Count	Location		Dimension			PCC Patches			HMA Patches SY	Composite HMA TON	Subbase Patches SY	Subbase Patch w/ 'EF' Joint SY	Patch Subdrain No.	'CD' Joints No.	'CT' Joints No.	'EF' Joints No.	Anchor Lugs Removal No.	Remarks
	Station or Milepost	Lane	Length	Width	Patch Thickness	With Dowels	Without Dowels	C R C										
	L, R, or B	FT	FT	IN	PR-103 SY	PR-102 SY	PR-104 SY											
	280 Spring																	
1	+08.60	R	8.0	12.0	15.0			10.7										EB
1	+08.62	R	8.0	12.0	15.0			10.7										EB
1	+08.70	R	8.0	40.0	15.0			35.6										EB Shoulder
1	+08.80	R	8.0	12.0	15.0			10.7										EB
2	+08.85	R	8.0	40.0	15.0			35.6										EB Shoulder
1	+08.90	R	8.0	12.0	15.0			10.7										EB
1	+08.60	R	8.0	12.0	15.0			10.7										EB
1	+08.60	L	8.0	12.0	15.0			10.7										EB
1	+08.60	L	8.0	12.0	15.0			10.7										EB
1	+08.60	L	8.0	12.0	15.0			10.7										EB
1	+08.70	L	8.0	12.0	15.0			10.7										EB
1	+09.10	L	10.0	12.0	15.0			13.3									1	EB
1	+09.10	R	8.0	12.0	15.0			10.7									1	WB
1	+09.00	R	8.0	20.0	15.0			17.8										WB Shoulder
1	+08.83	R	8.0	12.0	15.0			10.7										WB
1	+08.83	L	8.0	12.0	15.0			10.7										WB
2	+08.80	R	8.0	40.0	15.0			35.6										WB Shoulder
1	+08.78	R	8.0	12.0	15.0			10.7										WB
1	+08.72	R	8.0	12.0	15.0			10.7										WB
1	+08.70	R	8.0	12.0	15.0			10.7										WB
1	+08.65	L	8.0	12.0	15.0			10.7										WB
2	+08.65	R	8.0	30.0	15.0			26.7										WB Shoulder
1	+08.60	L	8.0	12.0	15.0			10.7										WB
1	+08.56	R	8.0	12.0	15.0			10.7										WB
1	+08.35	L	8.0	12.0	15.0			10.7										WB
1	+08.30	R	8.0	12.0	15.0			10.7										WB
1	+08.20	R	8.0	12.0	15.0			10.7										WB
1	+07.80	R	20.0	12.0	15.0			26.7										WB
1	+07.40	R	8.0	12.0	15.0			10.7										WB
1	+07.10	R	8.0	12.0	15.0			10.7										WB
2	+06.90	R	40.0	12.0	15.0			53.3										WB
1	+06.50	R	8.0	12.0	15.0			10.7										WB
1	+06.45	R	8.0	12.0	15.0			10.7										WB
2	+06.40	R	55.0	12.0	15.0			73.3										WB
1	+05.90	L	8.0	12.0	15.0			10.7										WB
1	+05.90	R	8.0	12.0	15.0			10.7										WB
2	+05.35	R	30.0	12.0	15.0			40.0										WB
1	+05.00	R	8.0	12.0	15.0			10.7										WB
1	+04.90	L	8.0	12.0	15.0			10.7										WB
1	+04.00	R	12.0	12.0	15.0			16.0										WB
1	+03.80	L	8.0	12.0	15.0			10.7										WB
1	+03.80	R	8.0	12.0	15.0			10.7										WB
1	+03.30	R	20.0	12.0	15.0			26.7										WB
1	+03.10	R	8.0	12.0	15.0			10.7										WB
1	+02.90	R	8.0	12.0	15.0			10.7										WB
1	+02.50	L	8.0	12.0	15.0			10.7										WB
1	+02.00	R	8.0	12.0	15.0			10.7										WB
1	+02.00	L	8.0	12.0	15.0			10.7										WB
1	+01.90	R	8.0	12.0	15.0			10.7										WB
1	2545+00	L	6.0	10.0	12.0	6.7												IA 22 Off Ramp WB
1	2545+00	R	6.0	10.0	12.0	6.7												IA 22 Off Ramp WB
1	2546+00	L	6.0	10.0	12.0	6.7												IA 22 Off Ramp WB
1	2546+00	R	6.0	10.0	12.0	6.7												IA 22 Off Ramp WB
1	2550+00	L	6.0	10.0	12.0	6.7												IA 22 Off Ramp WB
1	2550+00	R	6.0	10.0	12.0	6.7												IA 22 Off Ramp WB
1	4560+00	R	6.0	8.0	12.0	5.3										1		IA 22 On Ramp WB
1	4560+00	L	6.0	8.0	12.0	5.3												IA 22 On Ramp WB
1	4561+00	R	6.0	8.0	12.0	5.3												IA 22 On Ramp WB
1	4562+00	R	6.0	8.0	12.0	5.3										1		IA 22 On Ramp WB
1	4565+00	R	6.0	8.0	12.0	5.3												IA 22 On Ramp WB
1	2540+00	L	10.0	10.0	12.0	11.1									1			US 61 Off Ramp WB
1	2540+00	R	10.0	10.0	12.0	11.1												US 61 Off Ramp WB
1	2542+00	L	10.0	10.0	12.0	11.1									1			US 61 Off Ramp WB
1	2542+00	R	10.0	10.0	12.0	11.1									1			US 61 Off Ramp WB
1	2545+00	R	6.0	10.0	12.0	6.7												US 61 Off Ramp WB
1	4550+00	L	20.0	8.0	12.0	17.8				17.8					1	1		US 61 On Ramp WB
1	4550+00	R	20.0	8.0	12.0	17.8									1	1		US 61 On Ramp WB
1	4552+00	L	20.0	8.0	12.0	17.8									1			US 61 On Ramp WB
1	4552+00	R	20.0	8.0	12.0	17.8				17.8					1	1	1	US 61 On Ramp WB
1	2540+00	R	10.0	10.0	12.0	11.1												Locust St.Off Ramp WB
1	2542+00	L	10.0	10.0	12.0	11.1												Locust St.Off Ramp WB
1	2542+00	R	10.0	10.0	12.0	11.1												Locust St.Off Ramp WB
1	2545+00	R	10.0	10.0	12.0	11.1												Locust St.Off Ramp WB
1	4560+00	R	6.0	8.0	12.0	5.3												Locust St. On Ramp WB
1	4560+00	L	6.0	8.0	12.0	5.3												Locust St. On Ramp WB
1	4561+00	R	6.0	8.0	12.0	5.3												Locust St. On Ramp WB
1	4562+00	R	6.0	8.0	12.0	5.3												Locust St. On Ramp WB

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FULL-DEPTH PATCHES

Refer to Standard Roads Plans PR-101, PR-102, PR-103, PR-104 and PR-140.

Count	Location		Dimension			PCC Patches			HMA Patches SY	Composite HMA TON	Subbase Patches SY	Subbase Patch w/ 'EF' Joint SY	Patch Subdrain No.	'CD' Joints No.	'CT' Joints No.	'EF' Joints No.	Anchor Lugs Removal No.	Remarks
	Station or Milepost	Lane	Length	Width	Patch Thickness	With Dowels	Without Dowels	C R C										
	L, R, or B	FT	FT	IN	PR-103 SY	PR-102 SY	PR-104 SY											
1	1067+00	R	6.0	12.0	12.0	8.0												US 61 NB
1	1068+00	R	20.0	12.0	12.0	26.7				26.7				1				US 61 SB
1	1441+00	L	6.0	12.0	12.0	8.0												IA 22 EB
1	1442+00	R	6.0	12.0	12.0	8.0								1				IA 22 EB
1	1442+50	R	6.0	12.0	12.0	8.0												IA 22 WB
1	1443+00	L	6.0	12.0	12.0	8.0								1				IA 22 WB
89		Subtotals		80 Spring)		321.3				62.2			4	9	3			
				+15% Discretionary		48.2				9.3			0	1	0			
		280 Fall																
1	1440+00	Median	8.0	12.0	15.0													IA 22 Median X-over
1	1441+00	R	8.0	12.0	15.0													IA 22
1	1442+00	R	8.0	12.0	15.0													IA 22
1	1445+00	L	8.0	12.0	15.0													IA 22
1	1446+00	Median	6.0	12.0	12.0	8.0				8.0								IA 22 Median X-over
1	1066+00	R	6.0	14.0	12.0	9.3				9.3				1				US 61
1	1072+00	L	6.0	12.0	12.0	8.0				8.0				1				US 61
7		Subtotals		(280 Fall)		25.3				25.3			0	2	0			
				+15% Discretionary		3.8				3.8			0	0	0			
96		TOTALS				398.7				100.7			4	12	3	2		

LONGITUDINAL SUBDRAIN SHOULDER AND BACKSLOPE

Refer to Soils Sheets

① Refer to EW-203, EW-204, or EW-211.
*Not a bid item

SPECIAL ATTENTION-SLIVER FILL

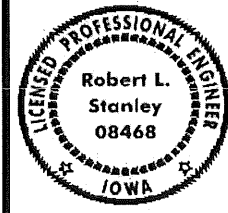
Special attention should be given to Article 2107.03.C, Standard Specification Series of 2012, on this project.

SHRINKAGE DATA

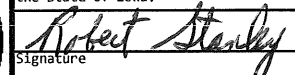
Material	%	Remarks
TOPSOIL	40%	
REMAINDER PROJECT CUT	30%	
		BOULDERS 10 Cu Yds.

Line No.	Road or Lane Ident.	Location Station to Station		Side	Longitudinal Subdrain (RF-19C)						Subdrain Outlet			Porous* Backfill CY	Class "A" Crushed Stone CY	Remarks		
					Shoulder		Backslope		Bridge Berm ①		RF-19C, RF-19E, or RF-19F							
					Depth D	Size IN	Length FT	Size IN	Length FT	Size IN	Type	Length FT	Station				Size IN	Standard Road Plan and Type
1	NBL	148+99.00	148+99.00	RT	42.0	4.0	40.0						148+99.00	6.0	RF-19E	3.7	0.2	new outlet on existing drain
2	NBL	149+00.00	153+25.00	RT	42.0	4.0	465.0						149+00.00	6.0	RF-19E	43.1	0.2	
3	NBL	157+00.00	162+00.00	RT	42.0	4.0	540.0						157+00.00	6.0	RF-19E	50.0	0.2	
4	NBL	162+00.00	167+00.00	RT	42.0	4.0	540.0						162+00.00	6.0	RF-19E	50.0	0.2	
5	NBL	167+00.00	169+74.00	RT	42.0	4.0	314.0						167+00.00	6.0	RF-19E	29.1	0.2	
6	NBL	169+77.00	172+00.00	RT	24.0	4.0	263.0						169+77.00	6.0	RF-19E	12.2	0.2	
7	NBL	171+75.00	175+00.00	RT	42.0	4.0	365.0						171+75.00	6.0	RF-19E	33.8	0.2	place on ramp taper
8	NBL	175+00.00	180+00.00	RT	42.0	4.0	540.0						175+00.00	6.0	RF-19E	50.0	0.2	
9	NBL	180+00.00	185+00.00	RT	42.0	4.0	540.0						180+00.00	6.0	RF-19E	50.0	0.2	
10	NBL	185+00.00	191+48.00	RT	42.0	4.0	688.0						185+00.00	6.0	RF-19E	63.7	0.2	
11	NBL	191+52.00	196+00.00	RT	42.0	4.0	488.0						191+52.00	6.0	RF-19E	45.2	0.2	
12	NBL	196+00.00	201+00.00	RT	42.0	4.0	540.0						196+00.00	6.0	RF-19E	50.0	0.2	
13	NBL	201+00.00	206+00.00	RT	42.0	4.0	540.0						201+00.00	6.0	RF-19E	50.0	0.2	
14	NBL	206+00.00	211+00.00	RT	42.0	4.0	540.0						206+00.00	6.0	RF-19E	50.0	0.2	
15	NBL	211+00.00	215+00.00	RT	42.0	4.0	440.0						211+00.00	6.0	RF-19E	40.7	0.2	
16	NBL	215+00.00	216+97.00	RT	42.0	4.0	237.0						215+00.00	6.0	RF-19E	21.9	0.2	
17	NBL	217+02.00	222+00.00	RT	42.0	4.0	538.0						217+02.00	6.0	RF-19E	49.8	0.2	
18	NBL	222+00.00	228+00.00	RT	42.0	4.0	640.0						222+00.00	6.0	RF-19E	59.3	0.2	
19	NBL	228+00.00	233+00.00	RT	42.0	4.0	540.0						228+00.00	6.0	RF-19E	50.0	0.2	
20	NBL	233+00.00	238+00.00	RT	42.0	4.0	540.0						233+00.00	6.0	RF-19E	50.0	0.2	
21	NBL	238+00.00	242+00.00	RT	42.0	4.0	440.0						238+00.00	6.0	RF-19E	40.7	0.2	
22	NBL	242+00.00	245+75.00	RT	42.0	4.0	415.0						242+00.00	6.0	RF-19E	38.4	0.2	
23	NBL	249+00.00	254+00.00	RT	42.0	4.0	540.0						249+00.00	6.0	RF-19E	50.0	0.2	
24	NBL	254+00.00	257+00.00	RT	42.0	4.0	340.0						254+00.00	6.0	RF-19E	31.5	0.2	
25	NBL	257+00.00	262+00.00	RT	42.0	4.0	540.0						257+00.00	6.0	RF-19E	50.0	0.2	place on ramp taper
26	NBL	262+00.00	267+00.00	RT	42.0	4.0	540.0						262+00.00	6.0	RF-19E	50.0	0.2	
27	NBL	267+00.00	271+00.00	RT	42.0	4.0	440.0						267+00.00	6.0	RF-19E	40.7	0.2	
28	NBL	271+00.00	273+98.00	RT	42.0	4.0	338.0						271+00.00	6.0	RF-19E	31.3	0.2	
29	NBL	274+02.00	279+00.00	RT	42.0	4.0	538.0						274+02.00	6.0	RF-19E	49.8	0.2	
30	NBL	279+00.00	283+98.00	RT	42.0	4.0	538.0						279+00.00	6.0	RF-19E	49.8	0.2	
31	NBL	284+02.00	288+00.00	RT	42.0	4.0	438.0						284+02.00	6.0	RF-19E	40.6	0.2	
32	NBL	288+00.00	291+73.00	RT	42.0	4.0	413.0						288+00.00	6.0	RF-19E	38.2	0.2	
33	NBL	291+77.00	296+00.00	RT	42.0	4.0	463.0						291+77.00	6.0	RF-19E	42.9	0.2	
34	NBL	296+00.00	300+50.00	RT	42.0	4.0	490.0						296+00.00	6.0	RF-19E	45.4	0.2	
35	NBL	300+50.00	302+48.00	RT	42.0	4.0	238.0						300+50.00	6.0	RF-19E	22.0	0.2	
36	NBL	302+52.00	307+00.00	RT	42.0	4.0	488.0						302+52.00	6.0	RF-19E	45.2	0.2	
37	NBL	307+00.00	312+00.00	RT	42.0	4.0	540.0						307+00.00	6.0	RF-19E	50.0	0.2	
38	NBL	312+00.00	315+48.00	RT	42.0	4.0	388.0						312+00.00	6.0	RF-19E	35.9	0.2	
39	NBL	315+52.00	320+00.00	RT	42.0	4.0	488.0						315+52.00	6.0	RF-19E	45.2	0.2	

GEOTECHNICAL DESIGN



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.


8-19-14
 Date

Robert L. Stanley
Printed or Typed Name

My license renewal date is December 31, 2014

Pages or sheets covered by this seal: CS-1-6

LONGITUDINAL SUBDRAIN SHOULDER AND BACKSLOPE

Refer to Soils Sheets

① Refer to EW-203, EW-204, or EW-211.
*Not a bid item

Line No.	Road or Lane Ident.	Location			Longitudinal Subdrain (RF-19C)								Subdrain Outlet			Porous* Backfill	Class "A"* Crushed Stone	Remarks
					Station to Station	Side	Shoulder		Backslope		Bridge Berm ①			RF-19C, RF-19E, or RF-19F				
		Depth	Size	Length			Size	Length	Size	Type	Length	Station	Size	Standard Road Plan and Type				
		IN	IN	FT			IN	FT	IN	FT	IN	IN	IN	IN				
40	NBL	320+00.00	325+00.00	RT	42.0	4.0	540.0						320+00.00	6.0	RF-19E	50.0	0.2	
41	NBL	325+00.00	330+00.00	RT	42.0	4.0	540.0						320+00.00	6.0	RF-19E			
42	NBL	330+00.00	335+00.00	RT	42.0	4.0	540.0						325+00.00	6.0	RF-19E	50.0	0.2	
43	NBL	335+00.00	340+00.00	RT	42.0	4.0	540.0						330+00.00	6.0	RF-19E	50.0	0.2	
44	NBL	340+00.00	343+68.00	RT	42.0	4.0	388.0						335+00.00	6.0	RF-19E	50.0	0.2	
45	NBL	344+02.00	349+00.00	RT	42.0	4.0	538.0						340+00.00	6.0	RF-19E	50.0	0.2	place on ramp taper
46	NBL	349+00.00	354+00.00	RT	42.0	4.0	540.0						343+68.00	6.0	RF-19E	35.9	0.2	
47	NBL	354+00.00	356+48.00	RT	42.0	4.0	288.0						344+02.00	6.0	RF-19E	49.8	0.2	
48	NBL	356+52.00	361+00.00	RT	42.0	4.0	488.0						349+00.00	6.0	RF-19E	50.0	0.2	
49	NBL	361+00.00	366+00.00	RT	24.0	4.0	540.0						349+00.00	6.0	RF-19E	50.0	0.2	
50	NBL	366+00.00	371+00.00	RT	42.0	4.0	540.0						354+00.00	6.0	RF-19E	26.7	0.2	
51	NBL	371+00.00	375+00.00	RT	42.0	4.0	440.0						356+48.00	6.0	RF-19E	45.2	0.2	
52	NBL	375+00.00	378+73.00	RT	42.0	4.0	413.0						356+52.00	6.0	RF-19E	45.2	0.2	
53	NBL	378+77.00	384+00.00	RT	42.0	4.0	563.0						361+00.00	6.0	RF-19E	25.0	0.2	
54	NBL	384+00.00	388+73.00	RT	42.0	4.0	513.0						366+00.00	6.0	RF-19E	25.0	0.2	
55	NBL	389+27.00	394+00.00	RT	42.0	4.0	513.0						366+00.00	6.0	RF-19E	50.0	0.2	place on ramp taper
56	NBL	394+00.00	397+98.00	RT	42.0	4.0	438.0						371+00.00	6.0	RF-19E	50.0	0.2	place on ramp taper
57	NBL	398+02.00	403+00.00	RT	42.0	4.0	538.0						371+00.00	6.0	RF-19E	40.7	0.2	
58	NBL	403+00.00	406+98.00	RT	42.0	4.0	438.0						375+00.00	6.0	RF-19E	38.2	0.2	
59	NBL	407+60.00	411+00.00	RT	42.0	4.0	380.0						375+00.00	6.0	RF-19E	38.2	0.2	
60	NBL	411+00.00	416+80.00	RT	42.0	4.0	620.0						378+73.00	6.0	RF-19E	52.1	0.2	
61	NBL	419+65.00	425+00.00	RT	42.0	4.0	575.0						384+00.00	6.0	RF-19E	47.5	0.2	
62	NBL	425+00.00	430+00.00	RT	42.0	4.0	540.0						384+00.00	6.0	RF-19E	47.5	0.2	
63	NBL	430+00.00	435+00.00	RT	42.0	4.0	540.0						388+73.00	6.0	RF-19E	47.5	0.2	
64	NBL	435+00.00	440+00.00	RT	42.0	4.0	540.0						394+00.00	6.0	RF-19E	40.6	0.2	
65	NBL	440+00.00	445+00.00	RT	42.0	4.0	540.0						394+00.00	6.0	RF-19E	40.6	0.2	
66	NBL	445+00.00	450+00.00	RT	42.0	4.0	540.0						397+98.00	6.0	RF-19E	40.6	0.2	
67	NBL	450+00.00	455+00.00	RT	42.0	4.0	540.0						398+02.00	6.0	RF-19E	49.8	0.2	
68	NBL	455+00.00	460+00.00	RT	42.0	4.0	540.0						403+00.00	6.0	RF-19E	40.6	0.2	
69	NBL	460+00.00	465+00.00	RT	42.0	4.0	540.0						403+00.00	6.0	RF-19E	40.6	0.2	
70	NBL	465+00.00	469+00.00	RT	42.0	4.0	440.0						406+98.00	6.0	RF-19E	35.2	0.2	
71	NBL	469+00.00	472+23.00	RT	42.0	4.0	363.0						407+60.00	6.0	RF-19E	35.2	0.2	
72	NBL	474+00.00	477+98.00	RT	42.0	4.0	438.0						411+00.00	6.0	RF-19E	57.4	0.2	
73	NBL	478+02.00	483+00.00	RT	42.0	4.0	538.0						411+00.00	6.0	RF-19E	57.4	0.2	
74	NBL	483+00.00	487+00.00	RT	42.0	4.0	440.0						416+80.00	6.0	RF-19E	53.2	0.2	
75	NBL	487+00.00	490+98.00	RT	42.0	4.0	438.0						419+65.00	6.0	RF-19E	53.2	0.2	
76	NBL	491+02.00	496+00.00	RT	42.0	4.0	538.0						425+00.00	6.0	RF-19E	50.0	0.2	
77	NBL	496+00.00	500+98.00	RT	42.0	4.0	538.0						425+00.00	6.0	RF-19E	50.0	0.2	
78	NBL	501+02.00	505+00.00	RT	42.0	4.0	438.0						430+00.00	6.0	RF-19E	50.0	0.2	

LONGITUDINAL SUBDRAIN SHOULDER AND BACKSLOPE

Refer to Soils Sheets

① Refer to EW-203, EW-204, or EW-211.
*Not a bid item

Line No.	Location				Longitudinal Subdrain (RF-19C)							Subdrain Outlet			Porous* Backfill	Class "A"* Crushed Stone	Remarks		
	Road or Lane Ident.	Station to Station	Side	Depth (D)	Shoulder		Backslope		Bridge Berm ①			RF-19C, RF-19E, or RF-19F							
					Size	Length	Size	Length	Size	Type	Length	Station	Size	Standard Road Plan and Type					
					IN	FT	IN	FT	IN	FT	IN								
79	NBL	505+00.00	510+00.00	RT	42.0	4.0	540.0						505+00.00	6.0	RF-19E	50.0	0.2		
80	NBL	510+00.00	514+00.00	RT	42.0	4.0	440.0						505+00.00	6.0	RF-19E				
													510+00.00	6.0	RF-19E				
													510+00.00	6.0	RF-19E	40.7	0.2		
81	NBL	2535+50.00	2540+00.00	RT	42.0	4.0	490.0						514+00.00	6.0	RF-19E				
													2535+50.00	6.0	RF-19E	45.4	0.2	IA 22 Ramp B	
													2540+00.00	6.0	RF-19E				
82	NBL	2540+00.00	2545+00.00	RT	42.0	4.0	540.0						2540+00.00	6.0	RF-19E	50.0	0.2	IA 22 Ramp B	
													2545+00.00	6.0	RF-19E				
83	NBL	2545+00.00	2550+00.00	RT	42.0	4.0	540.0						2545+00.00	6.0	RF-19E	50.0	0.2	IA 22 Ramp B	
													2550+00.00	6.0	RF-19E				
84	NBL	2550+00.00	2556+00.00	RT	42.0	4.0	640.0						2550+00.00	6.0	RF-19E	59.3	0.2	IA 22 Ramp B	
													2556+00.00	6.0	RF-19E				
85	NBL	4558+00.00	4563+00.00	RT	42.0	4.0	540.0						4558+00.00	6.0	RF-19E	50.0	0.2	IA 22 Ramp D	
													4563+00.00	6.0	RF-19E				
86	NBL	4563+00.00	4568+00.00	RT	42.0	4.0	540.0						4563+00.00	6.0	RF-19E	50.0	0.2	IA 22 Ramp D	
													4568+00.00	6.0	RF-19E				
87	NBL	4568+00.00	4571+46.00	RT	42.0	4.0	386.0						4568+00.00	6.0	RF-19E	35.7	0.2	IA 22 Ramp D	
													4571+46.00	6.0	RF-19E				
88	NBL	2530+51.16	2536+00.00	RT	42.0	4.0	588.8						2530+51.16	6.0	RF-19E	54.5	0.2	US 61 Ramp B	
													2536+00.00	6.0	RF-19E				
89	NBL	2536+00.00	2541+00.00	RT	42.0	4.0	540.0						2536+00.00	6.0	RF-19E	50.0	0.2	US 61 Ramp B	
													2541+00.00	6.0	RF-19E				
90	NBL	2541+00.00	2546+00.00	RT	42.0	4.0	540.0						2541+00.00	6.0	RF-19E	50.0	0.2	US 61 Ramp B	
													2546+00.00	6.0	RF-19E				
91	NBL	4546+25.00	4551+00.00	RT	42.0	4.0	515.0						4546+25.00	6.0	RF-19E	47.7	0.2	US 61 Ramp D	
													4551+00.00	6.0	RF-19E				
92	NBL	4551+00.00	4556+67.94	RT	42.0	4.0	607.9						4551+00.00	6.0	RF-19E	56.3	0.2	US 61 Ramp D	
													4556+67.94	6.0	RF-19E				
93	NBL	2540+08.05	2545+00.00	RT	42.0	4.0	532.0						2540+08.05	6.0	RF-19E	49.3	0.2	Locust St Ramp B	
													2545+00.00	6.0	RF-19E				
94	NBL	2545+00.00	2550+00.00	RT	42.0	4.0	540.0						2545+00.00	6.0	RF-19E	50.0	0.2	Locust St Ramp B	
													2550+00.00	6.0	RF-19E				
95	NBL	2550+00.00	2554+10.00	RT	42.0	4.0	450.0						2550+00.00	6.0	RF-19E	41.7	0.2	Locust St Ramp B	
													2554+10.00	6.0	RF-19E				
96	NBL	4552+40.00	4557+00.00	RT	42.0	4.0	500.0						4552+40.00	6.0	RF-19E	46.3	0.2	Locust St Ramp D	
													4557+00.00	6.0	RF-19E				
97	NBL	4557+00.00	4561+00.00	RT	42.0	4.0	440.0						4557+00.00	6.0	RF-19E	40.7	0.2	Locust St Ramp D	
													4561+00.00	6.0	RF-19E				
98	NBL	4561+00.00	4565+50.00	RT	42.0	4.0	490.0						4561+00.00	6.0	RF-19E	45.4	0.2	Locust St Ramp D	
													4565+50.00	6.0	RF-19E				
Totals							47756.7		0.0							194	4384.7	19.6	

NOTE: ALL LONGITUDINAL SUBDRAINS ARE TYPE 7 WITH PCC OR TYPE 8 WITH HMA (ACC) UNLESS OTHERWISE NOTED IN REMARKS COLUMN.

NOTE: RECORDS INDICATE THAT LONGITUDINAL SUBDRAINS AND OUTLETS EXIST WITHIN THE PAVEMENT RECONSTRUCTION AREA (SEE CS.4-6). THE DESIGN INTENT IS THAT THE UNAFFECTED LOWER/DEEPER PORTIONS OF EXISTING SUBDRAINS, PLUS THEIR OUTLETS, ARE TO REMAIN IN PLACE SO THAT THEY CONTINUE TO FUNCTION AT ALL TIMES, AND OUTLETS ARE TO BE INSTALLED AROUND AND BETWEEN THE EXISTING SUBDRAINS AND/OR OUTLETS. IF THE LOWER PORTION OF ANY EXISTING LONGITUDINAL SUBDRAINS AND/OR OUTLETS ARE DAMAGED, THE EXISTING SUBDRAIN AND OUTLET SHALL BE REHABILITATED AS NEEDED TO REMAIN FUNCTIONAL, INCLUDING EXTENDING EXISTING OUTLETS AS NECESSARY. EXTENSION OF EXISTING OUTLETS AS DETERMINED NECESSARY BY THE ENGINEER WILL BE PAID FOR BY EXTRA WORK ORDER.

SUB DRAINS

Interstate 280										
DIR	SD	CO	LOCATION		OUTLET LOCATION		OUTLET CHECK			REMARKS
			STA TO STA	STATION	STATION	DATE	INT	STATUS		
WB	RT	82	109+00	119+00	119+00	121+00	3-15-04	MZ	O-M	
WB	RT	82	121+20	134+00	134+00		3-15-04	MZ	F-M	Along Taper
WB	RT	82	138+00	150+00	139+00		3-15-04	MZ	P-M	138 PLUGGED BACK HOE ^{LOADER} 147 CANT FIND POST HERE
WB	RT	82	150+00	154+00	150+00		3-15-04	MZ	P-C-M	154 MOWER DAMAGE 4FT WIRE CRUSHED END THERE
WB	RT	82	156+75	169+75	156+75		3-15-04	MZ	G-M	156+75 NO OUTLET.
WB	RT	82	169+80	174+00	169+80		3-15-04	MZ	O-M	
WB	RT	82	173+00	185+00	173+00		3-15-04	MZ	P-M	Along Taper BACK HOE
WB	RT	82	185+00	194+00	185+00	191+50	3-15-04	MZ	O-M	
WB	RT	82	195+00	202+00	195+00		3-15-04	MZ	G	195- GONE - BACK HOE - NO MARKER
WB	RT	82	202+00	212+00	202+00	208+00	3-15-04	MZ	O-M	
WB	RT	82	212+00	216+00	212+00	216+00	3-16-04	MZ	G-M	
WB	RT	82	217+00	225+00	217+00	225+00	3-16-04	MZ	G-M	225- GONE
WB	RT	82	225+00	243+00	234+00	243+00	11-11	MZ		Ramp B US 61 234 GONE
WB	RT	82	234+00	246+25	234+00		11-11	MZ	G-	234- GONE BACK HOE
WB	RT	82	248+20	256+00	256+00	248.20	11-11	MZ	O-M	
WB	RT	82	258+00	272+00	272+00		11-11	V M	G	272 GONE - HYDRA SCOOP SET TO CLOSE
WB	RT	82	272+00	283+90	283+90		11-11	MZ	O-M	
WB	RT	82	284+35	291+75	291+75		11-11	MZ	O-M	
WB	RT	82	292+00	302+00	302+00		11-11	MZ	O-M	
WB	RT	82	307+00	318+00	308+00	315+50	11-11	MZ	G-	GONE - 308 - BACK HOE (315-O-M)
WB	RT	82	318+00	340+10	340+10		11-11	MZ	G-M	
WB	RT	82	2540+10	2543+00	2543+00		11-11	MZ	O-M	Ramp B
WB	RT	82	337+75	343+50	343+50		11-11	MZ	O-M	
WB	RT	82	343+50	351+00	343+50 351+00		11-11	MZ	O-M	
WB	RT	82	353+00	364+00	356+50		11-11	MZ	O-M	
WB	RT	82	362+00	365+00	365+00		11-11	MZ	G-M	364.70
WB	RT	82	369+00	375+00	375+00		11-11	MZ	O-M	
WB	RT	82	375+00	378+00	378+00		11-11	MZ	O-M	
WB	RT	82	379+00	400+00	388+70	400+00	11-11	MZ	O-M	
					395+00	398+00	11-11	MZ	O-M	
WB	RT	82	400+00	407+00	407+00		11-11	MZ	O-M	
WB	RT	82	407+40	414+00	414+00		11-11	MZ	O-M	

O = Open
 P = Plugged
 C = Crushed
 F = Functioning
 M = Marked
 W = Washed Out

FOR INFORMATION ONLY

SUB DRAINS

Interstate 280										
DIR	SD	CO	LOCATION		OUTLET LOCATION	OUTLET CHECK		STATUS	REMARKS	
			STA TO STA	STATION	STATION	DATE	INT			
WB	RT	82	414+00	417+20	417+20		3-15-04	MZ	OM	
WB	RT	82	419+10	425+00	419+10		3-15-04	MZ	OM	
WB	RT	82	436+00	425+00	429+00	425+00	" " "	MZ	OM	
WB	RT	82	436+00	448+00	439+25		" " "	MZ	OM	
WB	RT	82	448+00	521+00	448+00	466+00	" " "	MZ	OM	
WB	RT	82	448+00	521+00	472+00		" " "	MZ	OM	
WB	RT	82	448+00	521+00	478+50	485+00	3-17-04	MZ	OM	478+50 ^{OUT MARKED} CONE 485+00 OPEN
WB	RT	82	448+00	521+00	491+50	501+10	3-17-04	MZ	OM	
WB	RT	82	448+00	521+00	515+00	499+50	3-17-04	MZ	OM	
WB	RT	82	520+00	530+00	520+00		3-17-04	MZ	OM	
WB	RT	82	532+75	541+00	541+00		" " "	MZ	OM	
WB	RT	82	541+05	548+00	548+00		" " "	MZ	OM	
WB	RT	82	548+05	554+87			" " "	MZ	OM	
WB	RT	82	3590+48	3594+00	3594+00	3595+00	" " "	MZ	OM	3594 OM 3595+00 PLUGGED, UNDER WATER
WB	RT	82	3597+60	3600+00	3597+60		" " "	MZ	OM	
EB	RT	82	545+75	534+75	545+75		" " "	MZ	OM	
EB	RT	82	533+50	530+10	530+10		" " "	MZ	OM	
EB	RT	82	465+00	529+00	515+05		" " "	MZ	OM	
EB	RT	82	465+00	529+00	487+00	500+00	" " "	MZ	OM	
EB	RT	82	465+00	529+00	478+40		3-19-04	MZ	OM	Backhoe to clean outlet
EB	RT	82	465+00	529+00	472+50		" " "	MZ	OM	
EB	RT	82	465+00	453+00	465+00	453+00	" " "	MZ	OM	
EB	RT	82	453+00	447+00	447+00		" " "	MZ	OM	
EB	RT	82	446+10	440+05	440+05		" " "	MZ	OM	
EB	RT	82	440+00	438+45	438+45		" " "	MZ	OM	
EB	RT	82	438+40	429+50	429+50		" " "	MZ	OM	
EB	RT	82	428+80	425+00	425+00		" " "	MZ	OM	
EB	RT	82	419+10	425+00	419+10		" " "	MZ	OM	unable to locate
EB	RT	82	414+00	417+20	417+20		" " "	MZ	OM	
EB	RT	82	414+00	404+00	414+00		" " "	MZ	OM	
EB	RT	82	404+00	393+00	404+00		" " "	MZ	OM	
EB	RT	82	387+50	393+00	393+00		" " "	MZ	OM	

O = Open
P = Plugged
C = Crushed
F = Functioning
M = Marked
W = Washed Out

FOR INFORMATION ONLY

TABULATION OF LONGITUDINAL SUBDRAIN Shoulder and Backslope												104-9 4/1/86	
LOCATION			LONGITUDINAL SUBDRAIN				C M P SUBDRAIN OUTLET		Porous Backfill		Class "A" Crushed Stone		REMARKS
Line No.	Road or Lane	Station to Station	Depth (D)	SHOULDER	BACKSLOPE	Station	Size	Cu. Yds.	Cu. Yds.	Size	Cu. Yds.		
No.	Ident.		inches	Refer to RF-19C Size Lin. Ft.	Refer to Soils Sheets Size Lin. Ft.								
1	1-280	SR											
1	1-280	585+75	530+20	65	48"	4"	1163						
1	1-280	Road	SR										
2	1-280	750+00	7533+50		48"	4"	670					Equation	
3	1-280	533+50	530+10		48"	4"	362						
4	1-280	465+00	453+00		48"	4"	1271						
5	1-280	453+00	447+00		48"	4"	629						
6	1-280	446+00	440+05		48"	4"	639						
7	1-280	440+00	438+95		48"	4"	167						
8	1-280	438+60	429+50		48"	4"	930						
9	1-280	428+80	425+00		48"	4"	419						
10	1-280	414+00	404+00		48"	4"	1034						
11	1-280	404+00	393+00		48"	4"	1131						
12	1-280	366+00	362+00		48"	4"	610						
13	1-280	350+75	354+00		48"	4"	701						
14	1-280	354+00	354+25		48"	4"	379					Equation	
15	1-280	343+20	355+00		48"	4"	537						
16	1-280	335+00	328+00		48"	4"	721						
17	1-280	315+10	308+00		48"	4"	691					Into present drain at 328+00	
18	1-280	308+00	298+00		48"	4"	1044					Outlet into Line 18	
19	1-280	298+00	292+00		48"	4"	653					HD 302-298	
20	1-280	291+75	280+00		48"	4"	1156					HD 298-295	
21	1-280	280+00	267+00		48"	4"	1369						
22	1-280	258+00	253+00		48"	4"	522						
23	1-280	226+00	216+00		48"	4"	1058						
24	1-280	216+00	206+00		48"	4"	1116						
25	1-280	206+00	196+00		48"	4"	929						
26	1-280	196+00	190+00		48"	4"	650						
27	1-280	150+00	154+00		48"	4"	429					3 lugs	
28	1-280	168+80	174+00		48"	4"	456						
29	1-280	185+00	194+00		48"	4"	985						
30	1-280	202+00	212+00		48"	4"	1064					outlet at 207+93 check grade	
31	1-280	212+00	215+00		48"	4"	460						
32	1-280	217+00	225+00		48"	4"	816						
33	1-280	284+35	281+75		48"	4"	761						
34	1-280	292+26	302+80		48"	4"	1077					HD - 298-302	
35	1-280	302+80	302+80		48"	4"	559					HD - 302-308	
36	1-280	308+00	318+00		48"	4"	1072					outlet 315+82 pipe	
37	1-280	318+00	340+10		48"	4"	2246					Equation	
38	1-280	254+10	254+10		48"	4"	317					Road B	
39	1-280	338+00	343+50		48"	4"	523						
40	1-280	343+50	351+00		48"	4"	750						
41	1-280	362+00	366+00		48"	4"	309						
42	1-280	375+00	371+00		48"	4"	312					Into present at 362+00	
43	1-280	400+00	402+00		48"	4"	727						
44	1-280	407+00	414+00		48"	4"	694						
45	1-280	425+00	438+00		48"	4"	1388					outlet at 428+77	
46	1-280	438+00	448+00		48"	4"	1006						
47	1-280	520+00	530+00		48"	4"	1042						
48	1-280	532+75	540+00		48"	4"	850						
49	1-280	547+05	548+00		48"	4"	731						
50	1-280	548+05	558+50		48"	4"	1077					Equation	
51	1-280	3590+00	3594+00		48"	4"	418						
52	1-280	3594+00	3600+00		48"	4"	617						

GEOTECHNICAL DESIGN

I hereby certify that this plan was prepared under my supervision and that geotechnical decisions with regard to the design were made by me or by other duly Qualified Professional Geologists under the laws of the State of Iowa.

Name: James P. O'Neil Date: 7/13/81

SCOTT COUNTY PROJECT NUMBER 1R-280-8(92)294--(2-82) STATE IOWA COUNTY YEAR SHEET TOTAL 30 3

FOR INFORMATION ONLY

SURVEY SYMBOLS

- x — FW Wire Fence
- • • • • GPR Guard Post (4 or More Posts)
- → → → → GDL Guard Rail Steel
- OUT Tile Outlet
- ⊕ TDC Tree Deciduous
- Tile TIL Tile Line
- ⊗ SHR Shrub
- SIGN SI Sign
- D Centerline Draw or Stream (Down)
- ← DU Centerline Draw or Stream (Up)
- · · · · · EW Edge of Water
- BD Bridge Deck
- WC Wild Card (Misc. Field Shot)
- SOP Size of Pipe or Culvert
- BCL Bridge Centerline
- TW Top of Water
- SBR Size of Bridge

UTILITY LEGEND

This is a POINT 25 Project and is subject to the provisions of IAC 761-115.25.

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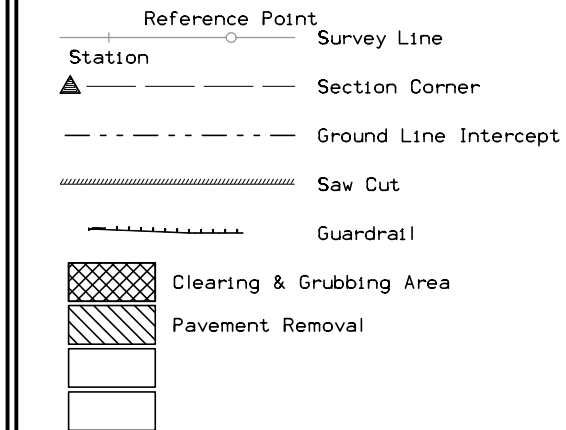
PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)	Existing Utilities
SHADING	Design Color No.	
Yellow	(4)	Highlight for Critical Notes or Features
Red	(3)	Delineates Restricted Areas
Lavender	(9)	Temporary Pavement Shading
Gray, Light	(48)	Proposed Pavement Shading
Gray, Med	(80)	Proposed Granular Shading
Gray, Dark	(112)	Proposed Grade and Pave Shading
Brown, Light	(236)	Grading Shading
Tan	(8)	Proposed Sidewalk Shading
Blue, Light	(230)	Proposed Sidewalk Landing Shading
Pink	(11)	Proposed Sidewalk Ramp Shading

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Ground Line Profile
Blue	(1)	Proposed Profile and Annotation
Magenta	(5)	Existing Utilities
Blue, Light	(230)	Proposed Ditch Grades, Left
Black	(0)	Proposed Ditch Grades, Median
Rust	(14)	Proposed Ditch Grades, Right

CONVENTIONAL SIGNS



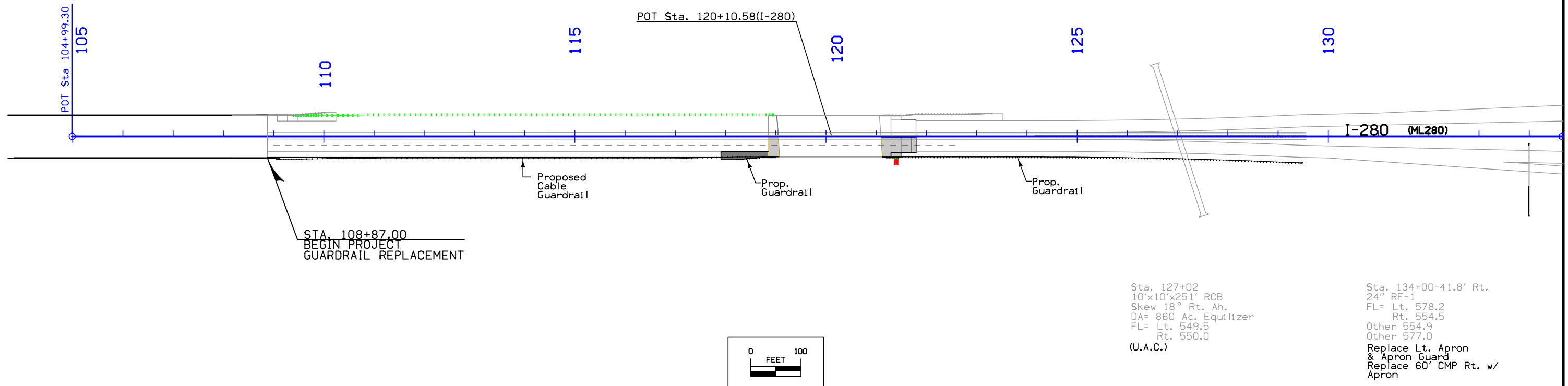
RIGHT-OF-WAY LEGEND

- ▲ Proposed Right-of-Way
- ▲ Existing and Proposed Right-of-Way
- ▲ Easement and Existing Right-of-Way
- Borrow
- Easement (Temporary)
- ⊗ Easement
- X Excess
- A/C Access Control

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

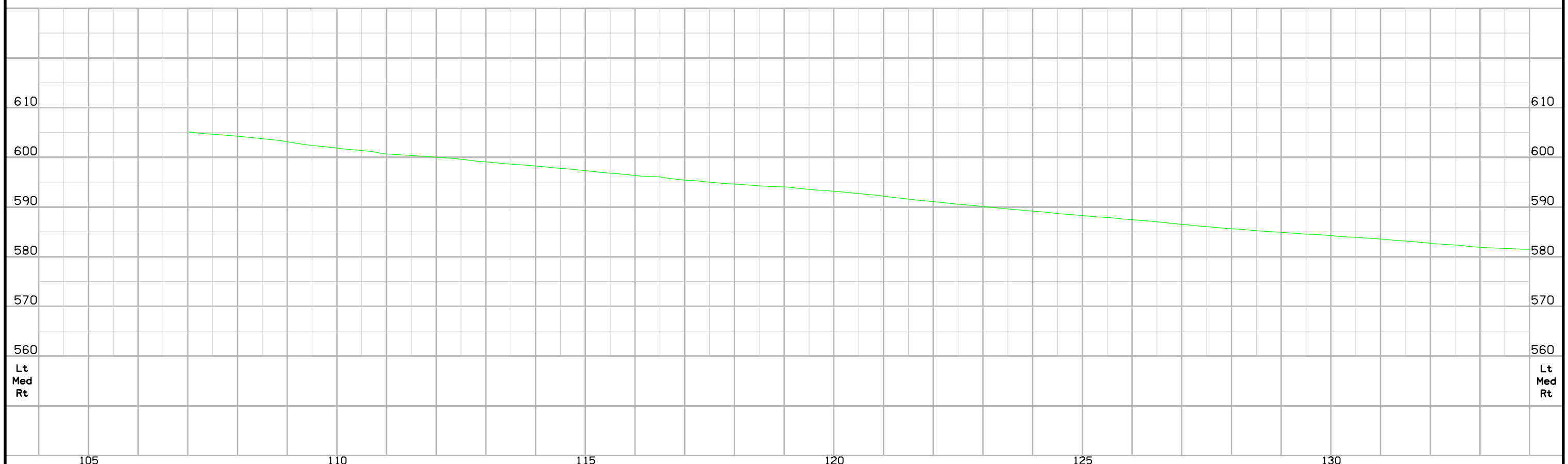
(COVERS SHEET SERIES D, E, F, & K)

ROCKINGHAM TWP.
T-77N R-3E
SEC. 8



Sta. 127+02
10'x10'x251' RCB
Skew 18° Rt. Ah.
DA= 860 Ac. Equalizer
FL= Lt. 549.5
Rt. 550.0
(U.A.C.)

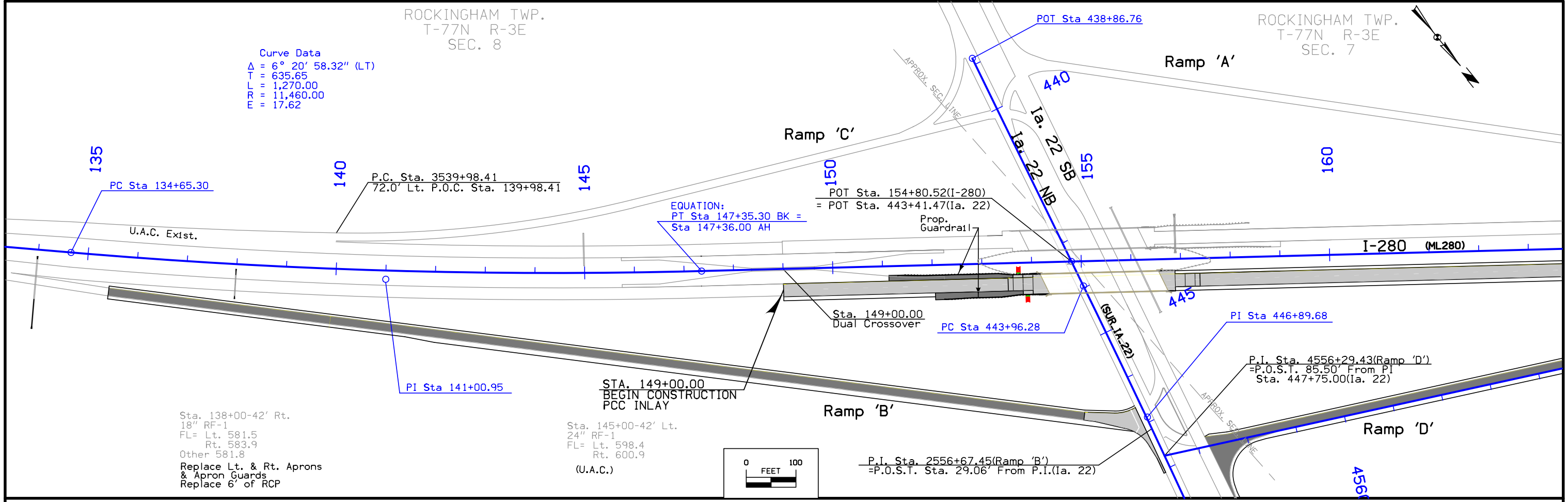
Sta. 134+00-41.8' Rt.
24" RF-1
FL= Lt. 578.2
Rt. 554.5
Other 554.9
Other 577.0
Replace Lt. Apron
& Apron Guard
Replace 60' CMP Rt. w/
Apron



ROCKINGHAM TWP.
T-77N R-3E
SEC. 8

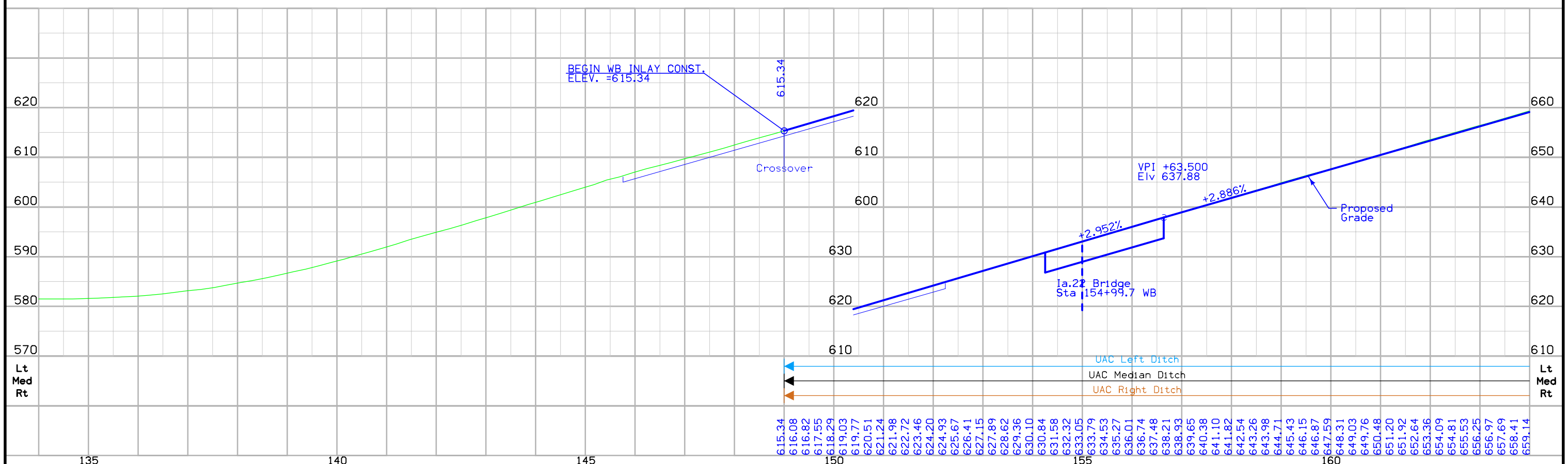
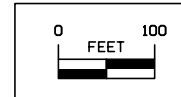
ROCKINGHAM TWP.
T-77N R-3E
SEC. 7

Curve Data
 $\Delta = 6^\circ 20' 58.32''$ (LT)
 $T = 635.65$
 $L = 1,270.00$
 $R = 11,460.00$
 $E = 17.62$



Sta. 138+00-42' Rt.
 18" RF-1
 FL= Lt. 581.5
 Rt. 583.9
 Other 581.8
 Replace Lt. & Rt. Aprons
 & Apron Guards
 Replace 6" of RCP

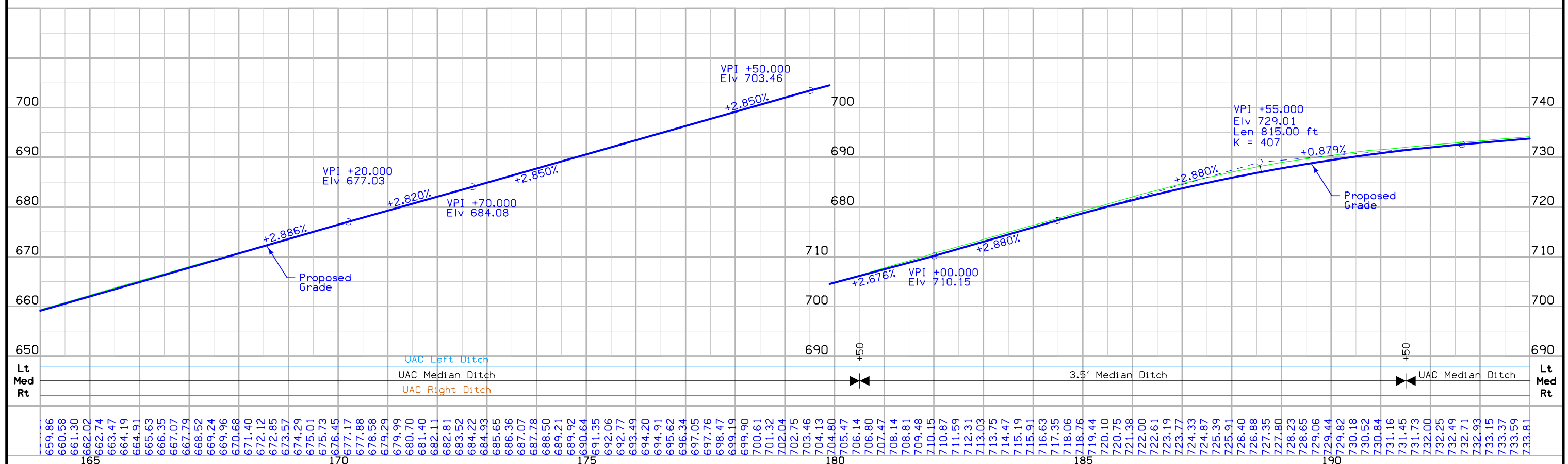
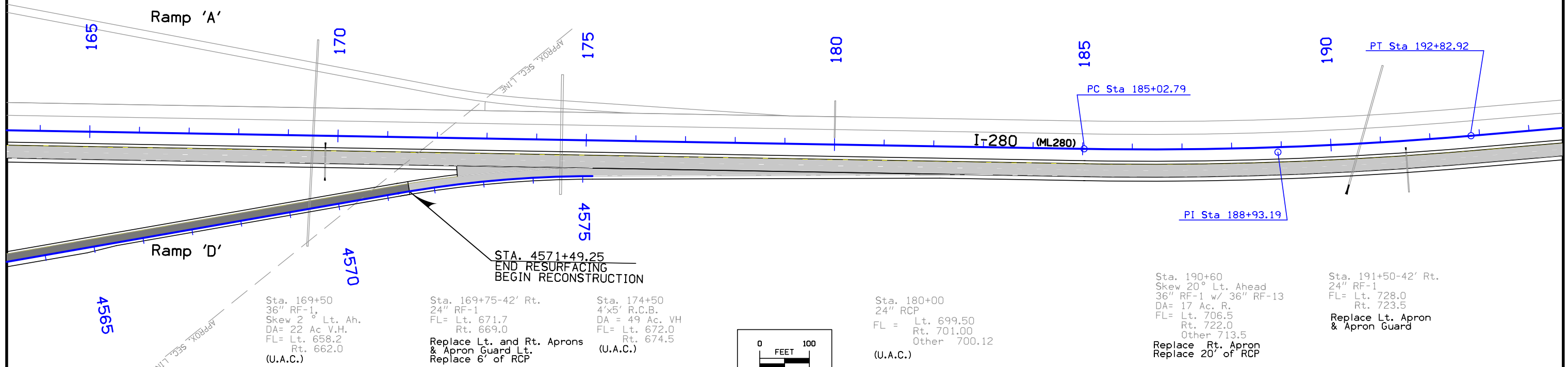
Sta. 145+00-42' Lt.
 24" RF-1
 FL= Lt. 598.4
 Rt. 600.9
 (U.A.C.)



ROCKINGHAM TWP.
T-77N R-3E
SEC. 7

ROCKINGHAM TWP.
T-77N R-3E
SEC. 6

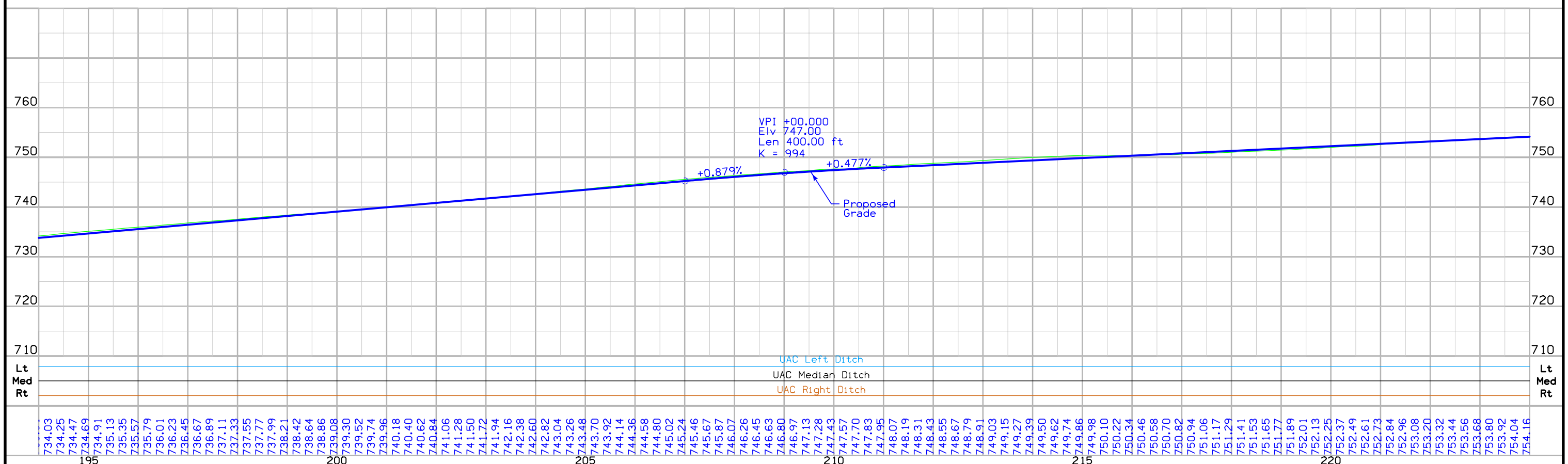
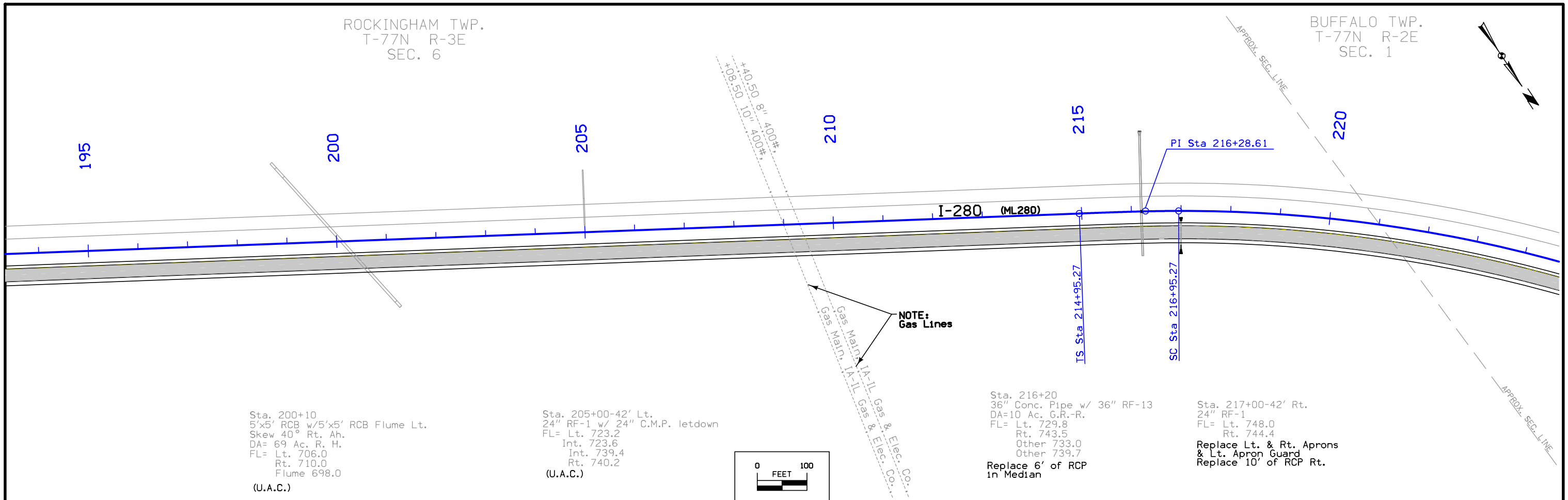
Curve Data
 $\Delta = 5^\circ 49' 57.40''$ (LT)
 $T = 390.40$
 $L = 780.13$
 $R = 7,663.45$
 $E = 9.94$

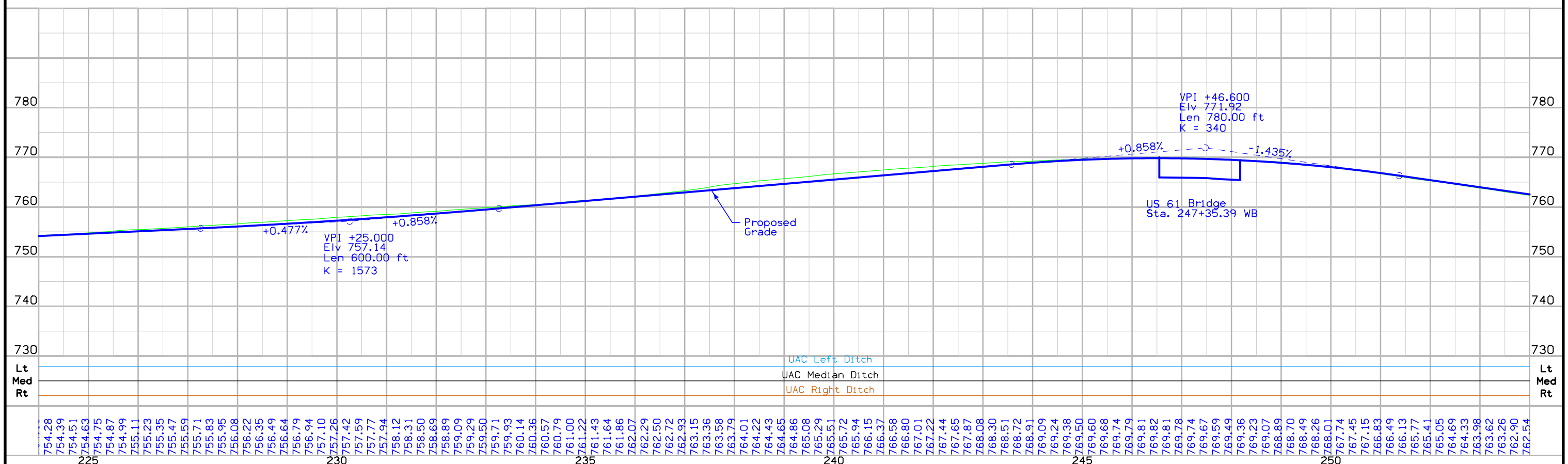
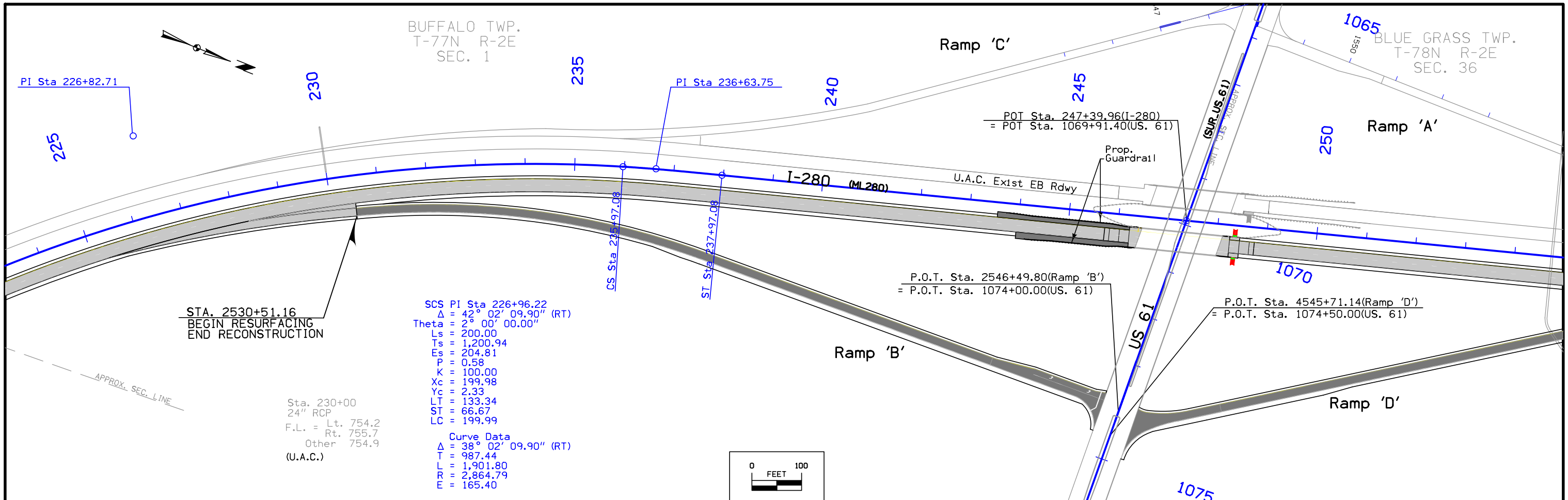


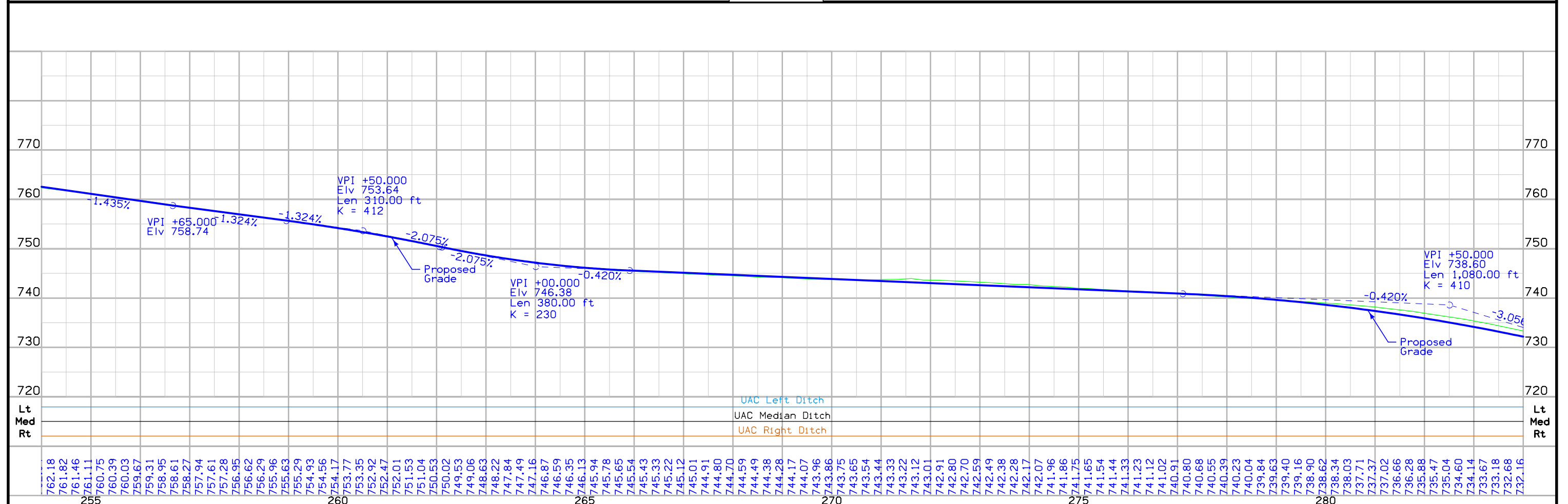
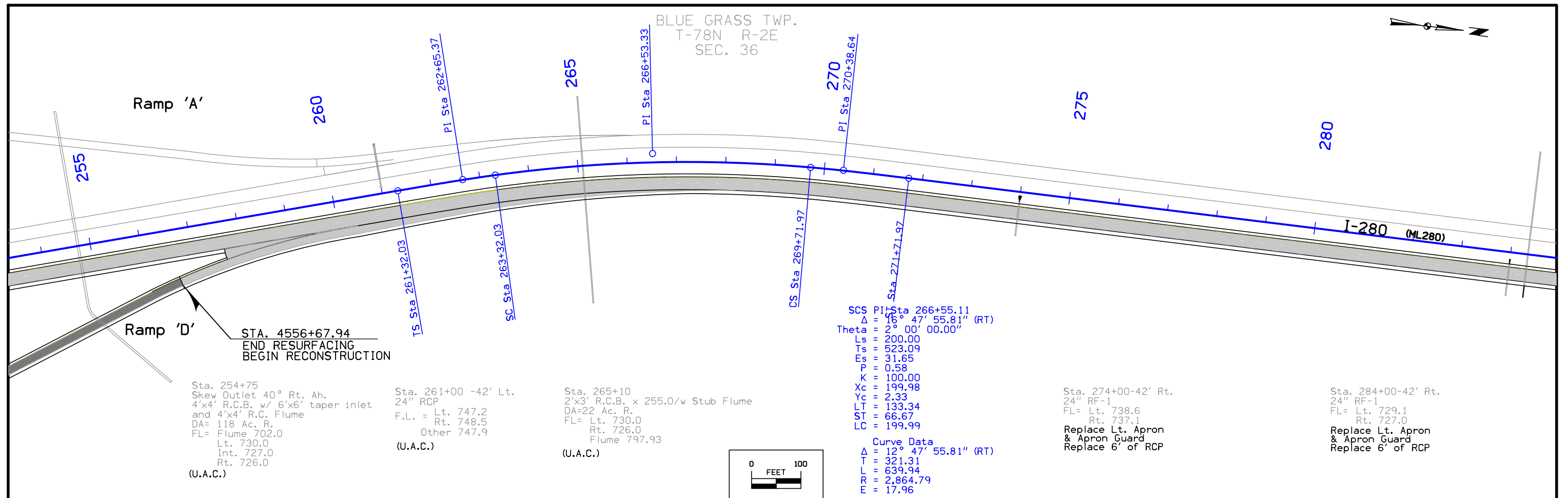
FILE NO.	ENGLISH	DESIGN TEAM	SCOTT COUNTY	PROJECT NUMBER	SHEET NUMBER
		Flattery\Bell\Ringgenberg		IMX-280-8(144)2--02-82	D.4

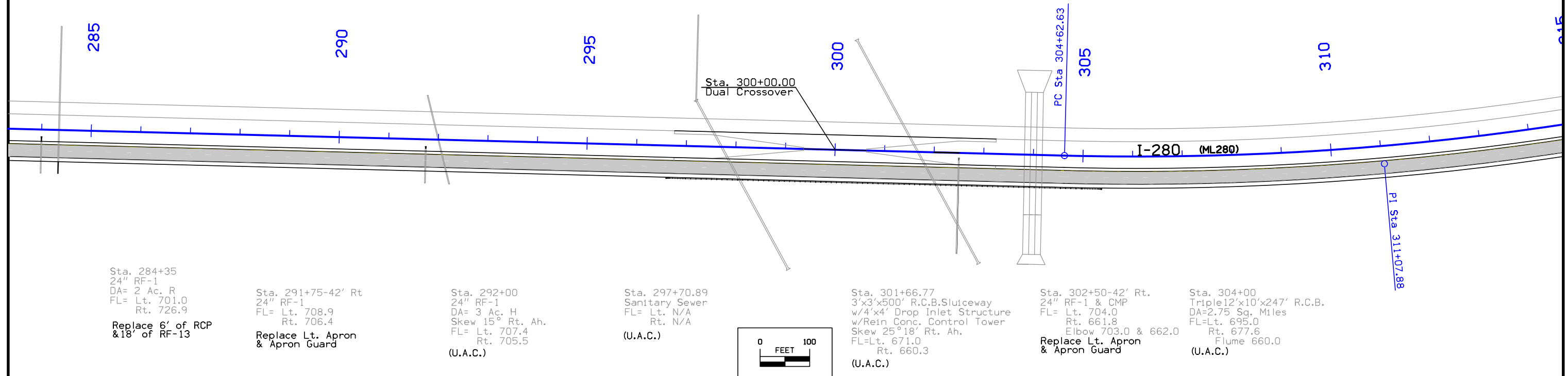
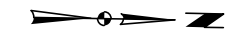
ROCKINGHAM TWP.
T-77N R-3E
SEC. 6

BUFFALO TWP.
T-77N R-2E
SEC. 1









Sta. 284+35
24" RF-1
DA= 2 Ac. R
FL= Lt. 701.0
Rt. 726.9

Replace 6' of RCP
& 18' of RF-13

Sta. 291+75-42' Rt
24" RF-1
FL= Lt. 708.9
Rt. 706.4

Replace Lt. Apron
& Apron Guard

Sta. 292+00
24" RF-1
DA= 3 Ac. H
Skew 15° Rt. Ah.
FL= Lt. 707.4
Rt. 705.5

(U.A.C.)

Sta. 297+70.89
Sanitary Sewer
FL= Lt. N/A
Rt. N/A

(U.A.C.)

Sta. 301+66.77
3'x3'x500' R.C.B. Sluiceway
w/4'x4' Drop Inlet Structure
w/Rein Conc. Control Tower
Skew 25° 18' Rt. Ah.
FL= Lt. 671.0
Rt. 660.3

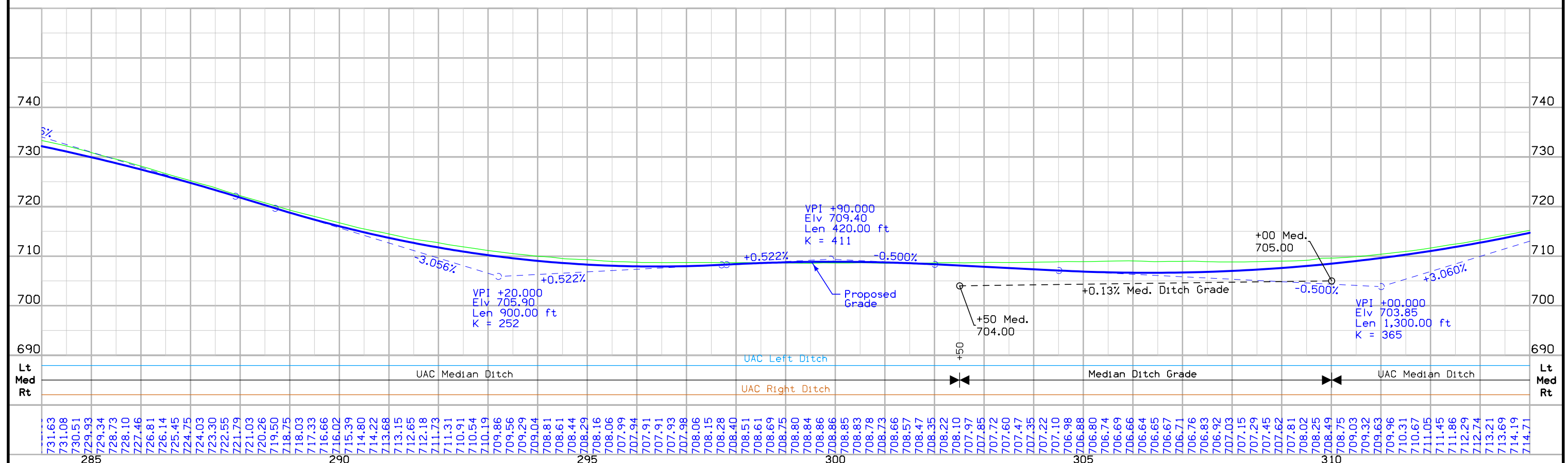
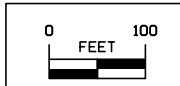
(U.A.C.)

Sta. 302+50-42' Rt.
24" RF-1 & CMP
FL= Lt. 704.0
Rt. 661.8
Elbow 703.0 & 662.0

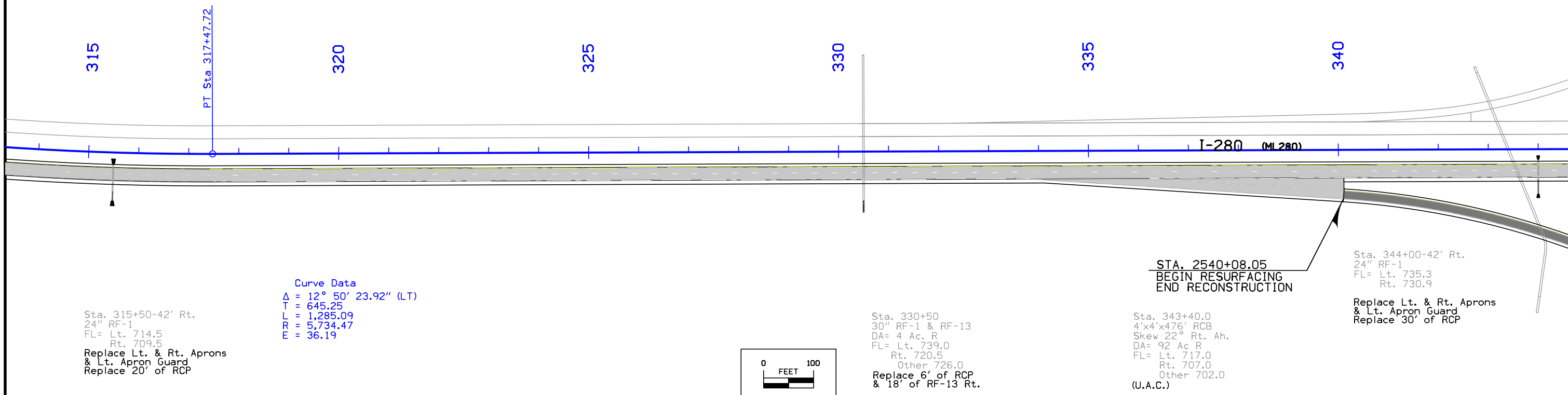
Replace Lt. Apron
& Apron Guard

Sta. 304+00
Triple 12'x10'x247' R.C.B.
DA=2.75 Sg. Miles
FL= Lt. 695.0
Rt. 677.6
Flume 660.0

(U.A.C.)



FILE NO.	ENGLISH	DESIGN TEAM	SCOTT COUNTY	PROJECT NUMBER	SHEET NUMBER
		Flattery\Bell\Ringgenberg		IMX-280-8(144)2--02-82	D.8



Sta. 315+50-42' Rt.
24" RF-1
FL= Lt. 714.5
Rt. 709.5
Replace Lt. & Rt. Aprons
& Lt. Apron Guard
Replace 20' of RCP

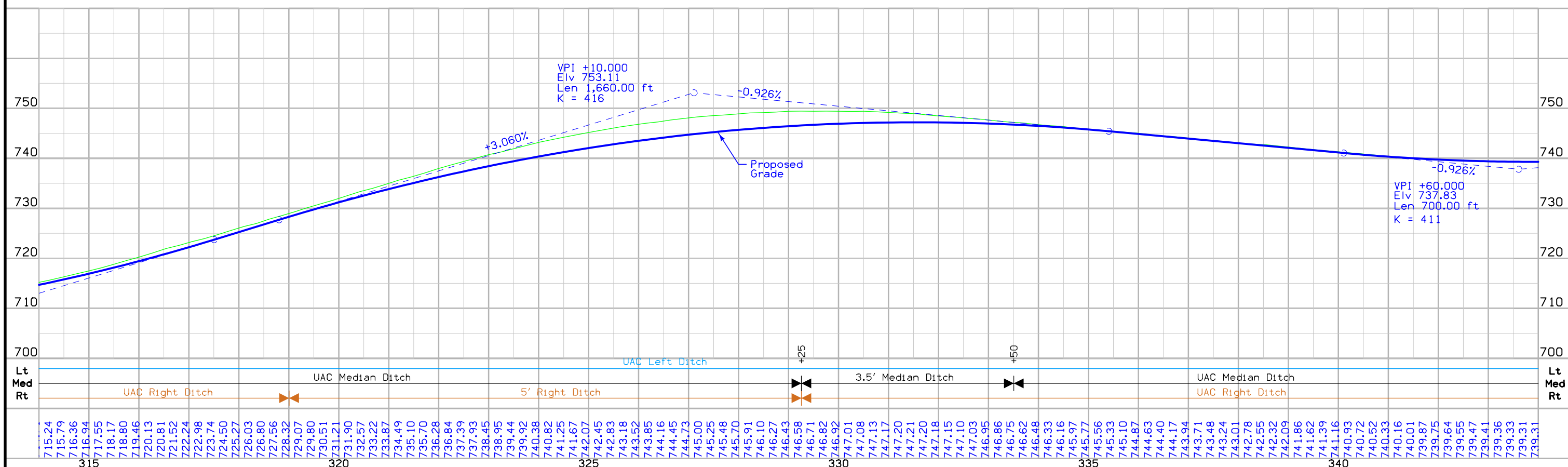
Curve Data
Δ = 12° 50' 23.92" (LT)
T = 645.25
L = 1,285.09
R = 5,734.47
E = 36.19

Sta. 330+50
30" RF-1 & RF-13
DA= 4 Ac. R
FL= Lt. 739.0
Rt. 720.5
Other 726.0
Replace 6' of RCP
& 18' of RF-13 Rt.

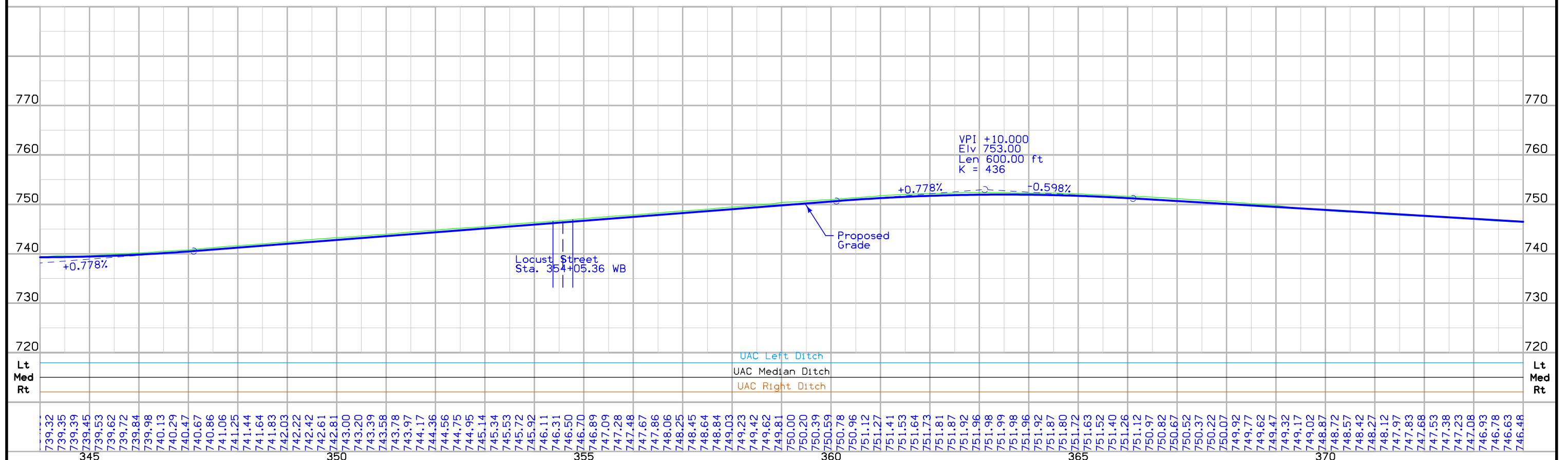
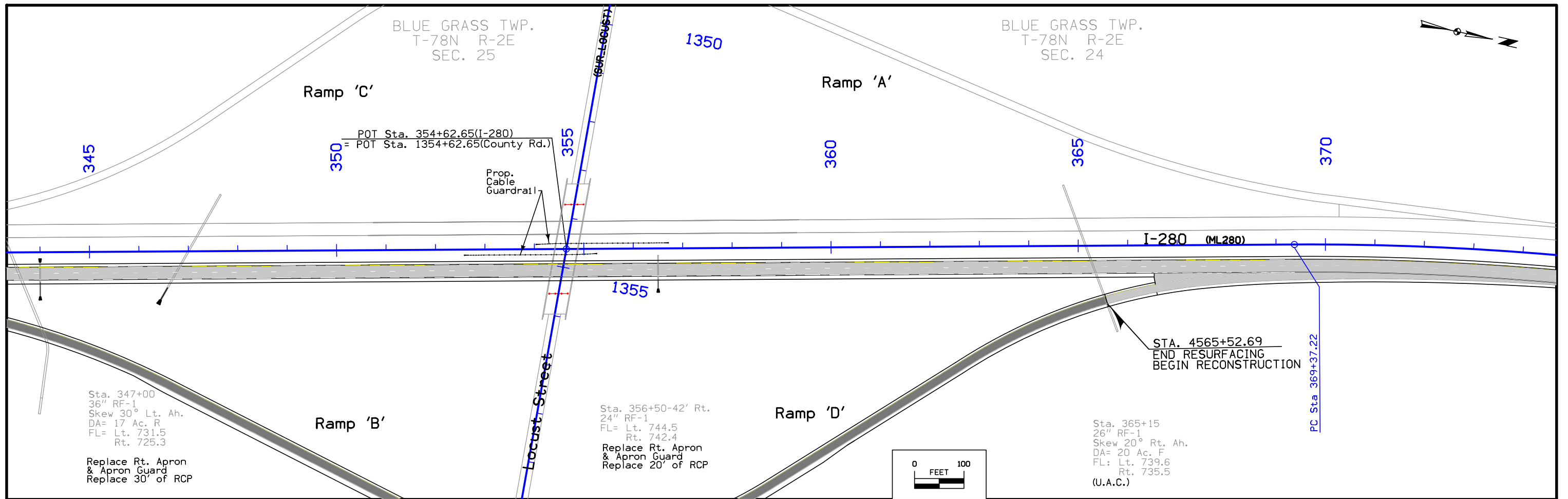
Sta. 2540+08.05
BEGIN RESURFACING
END RECONSTRUCTION

Sta. 343+40.0
4'x4'x476' RCB
Skew 22° Rt. Ah.
DA= 92 Ac R
FL= Lt. 717.0
Rt. 707.0
Other 702.0
(U.A.C.)

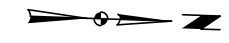
Sta. 344+00-42' Rt.
24" RF-1
FL= Lt. 735.3
Rt. 730.9
Replace Lt. & Rt. Aprons
& Lt. Apron Guard
Replace 30' of RCP



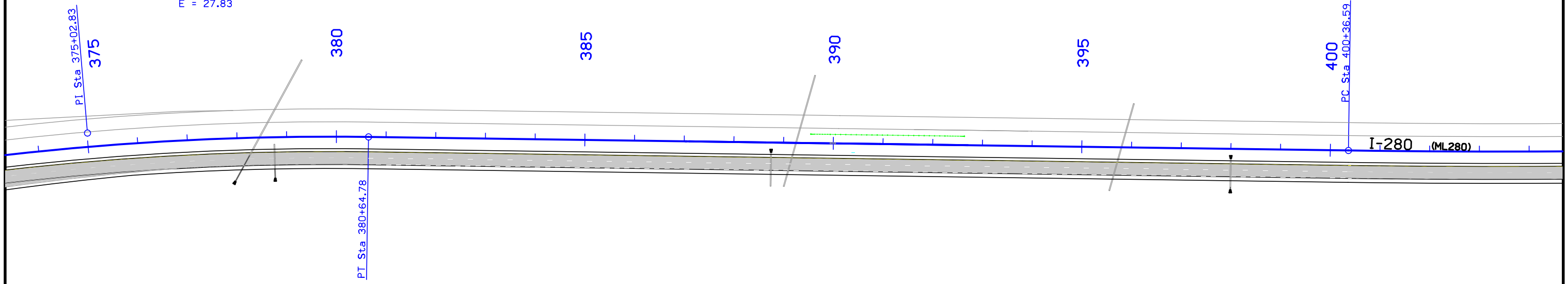
FILE NO.	ENGLISH	DESIGN TEAM	SCOTT COUNTY	PROJECT NUMBER	SHEET NUMBER
		Flattery\Bell\Ringgenberg		IMX-280-8(144)2--02-82	D.9



BLUE GRASS TWP.
T-78N R-2E
SEC. 24



Curve Data
 $\Delta = 11^\circ 15' 57.57''$ (RT)
 $T = 565.60$
 $L = 1,127.56$
 $R = 5,734.48$
 $E = 27.83$



Sta. 378+45
 24" RF-1
 Skew 30° Lt. Ah.
 DA= 10 Ac. R
 FL= Lt. 729.0
 Rt. 736.5
 Replace Lt. & Rt. Aprons
 & Lt. Apron Guard
 Replace 60' of RCP

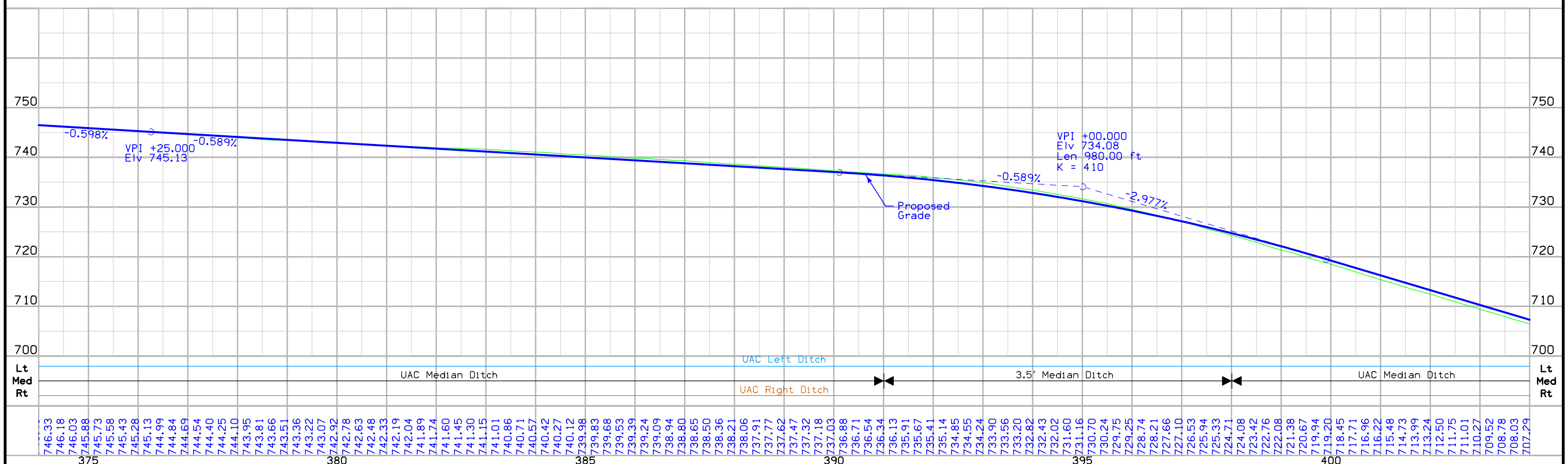
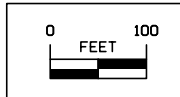
Sta. 378+75-42' Rt.
 24" RF-1
 FL= Lt. 740.2
 Rt. 737.0
 Replace Lt.& Rt. Aprons
 & Lt. Apron Guard
 Replace 20' of RCP

Sta. 388+75-42' Rt.
 24" RF-1
 FL= Lt. 734.3
 Rt. 732.7
 Replace Lt. Apron
 & Apron Guard

Sta. 389+25
 24" RF-1
 Skew 15° Lt. Ah.
 DA= 3 Ac. R
 FL= Lt. 723.0
 Rt. 732.6
 (U.A.C.)

Sta. 395+80
 24" RF-1
 Skew 15° Lt. Ah.
 DA= 2 Ac. R
 FL= Lt. 712.0
 Rt. 725.8
 (U.A.C.)

Sta. 398+00-42' Rt.
 24" RF-1
 FL= Lt. 720.4
 Rt. 718.9
 Replace Lt.& Rt. Aprons
 & Lt. Apron Guard
 Replace 6' of RCP

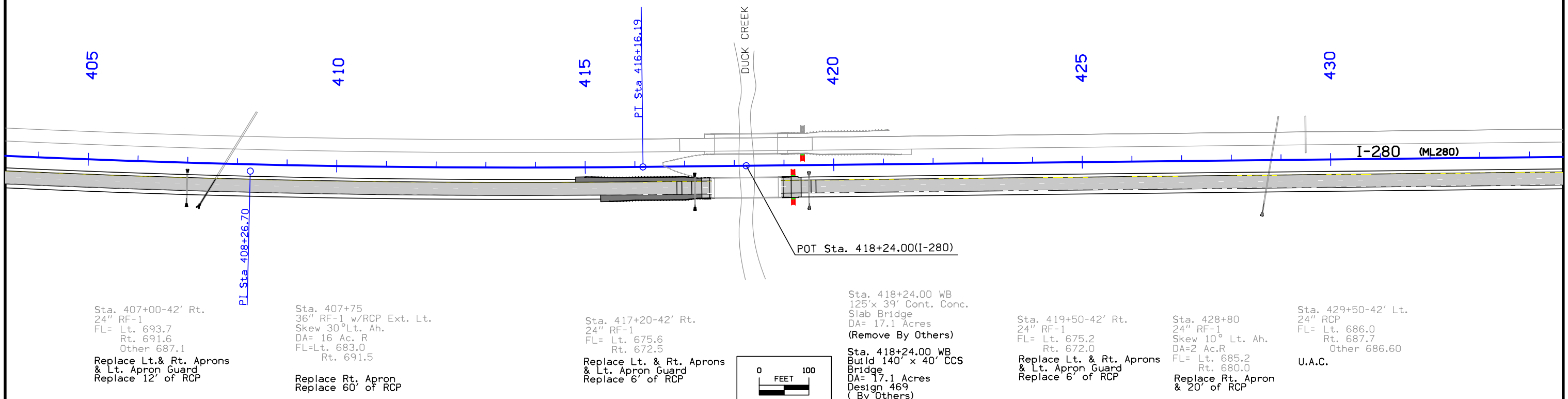
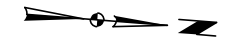


FILE NO.	ENGLISH	DESIGN TEAM	SCOTT COUNTY	PROJECT NUMBER	SHEET NUMBER
		Flattery\Bell\Ringgenberg		IMX-280-8(144)2--02-82	D.11

BLUE GRASS TWP.
T-78N R-2E
SEC. 24

Curve Data
 $\Delta = 3^\circ 56' 55.36''$ (LT)
 $T = 790.11$
 $L = 1,579.60$
 $R = 22,920.00$
 $E = 13.61$

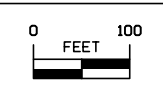
BLUE GRASS TWP.
T-78N R-2E
SEC. 13



Sta. 407+00-42' Rt.
24" RF-1
FL= Lt. 693.7
Rt. 691.6
Other 687.1
Replace Lt. & Rt. Aprons
& Lt. Apron Guard
Replace 12' of RCP

Sta. 407+75
36" RF-1 w/RCP Ext. Lt.
Skew 30° Lt. Ah.
DA= 16 Ac. R
FL=Lt. 683.0
Rt. 691.5
Replace Rt. Apron
Replace 60' of RCP

Sta. 417+20-42' Rt.
24" RF-1
FL= Lt. 675.6
Rt. 672.5
Replace Lt. & Rt. Aprons
& Lt. Apron Guard
Replace 6' of RCP

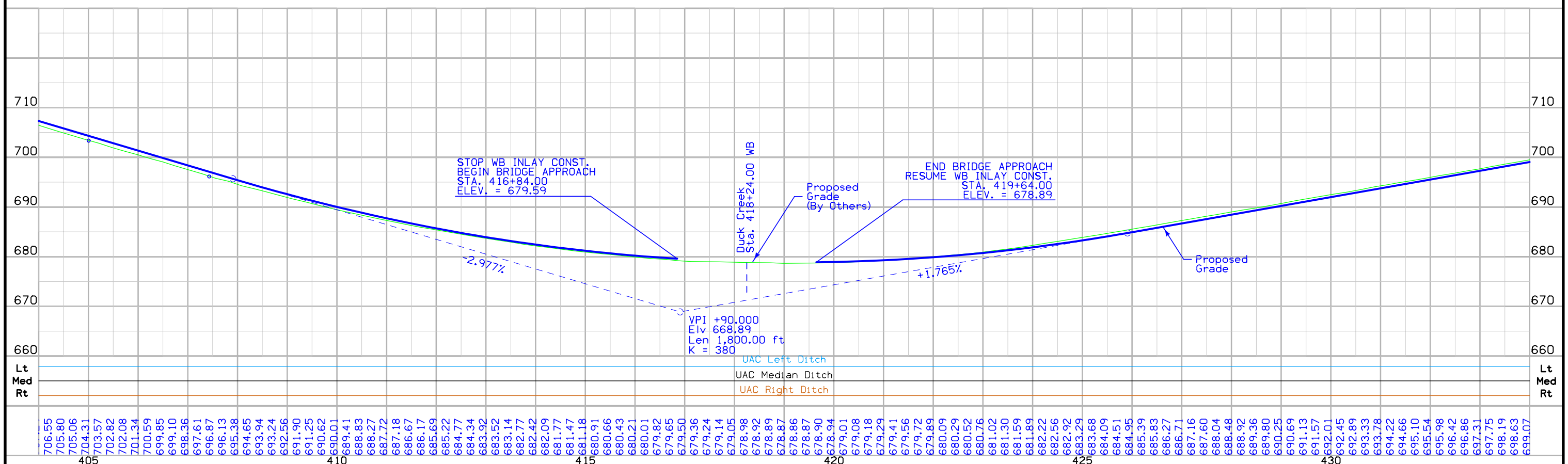


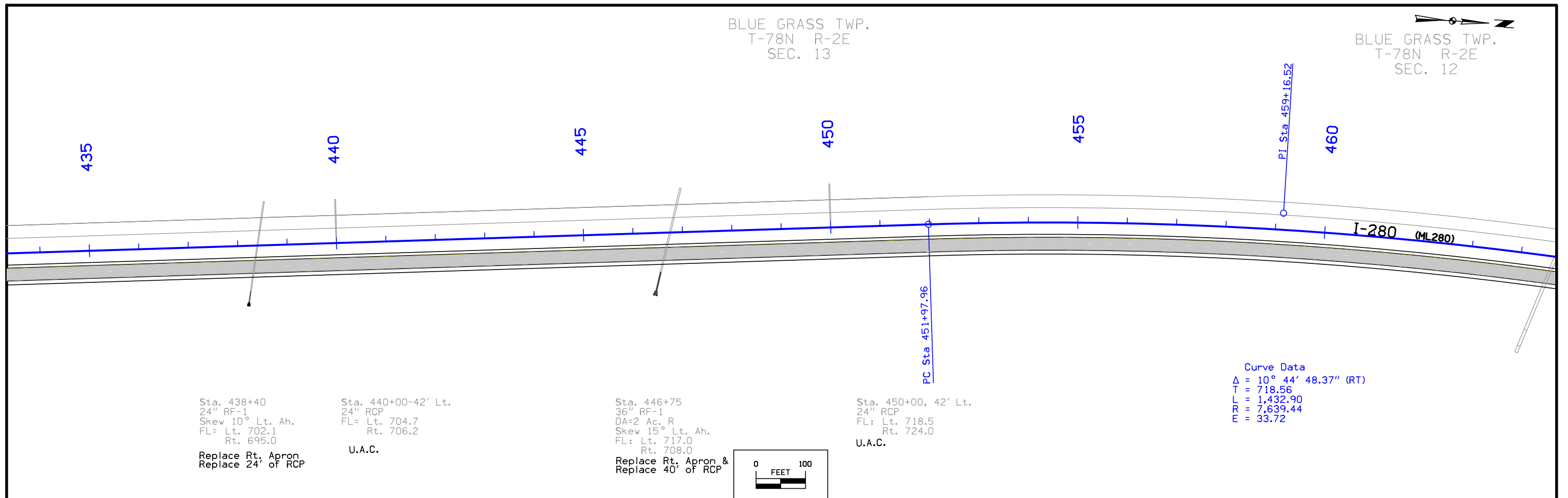
Sta. 418+24.00 WB
125' x 39' Cont. Conc.
Slab Bridge
DA= 17.1 Acres
(Remove By Others)
Sta. 418+24.00 WB
Build 140' x 40' CCS
Bridge
DA= 17.1 Acres
Design 469
(By Others)

Sta. 419+50-42' Rt.
24" RF-1
FL= Lt. 675.2
Rt. 672.0
Replace Lt. & Rt. Aprons
& Lt. Apron Guard
Replace 6' of RCP

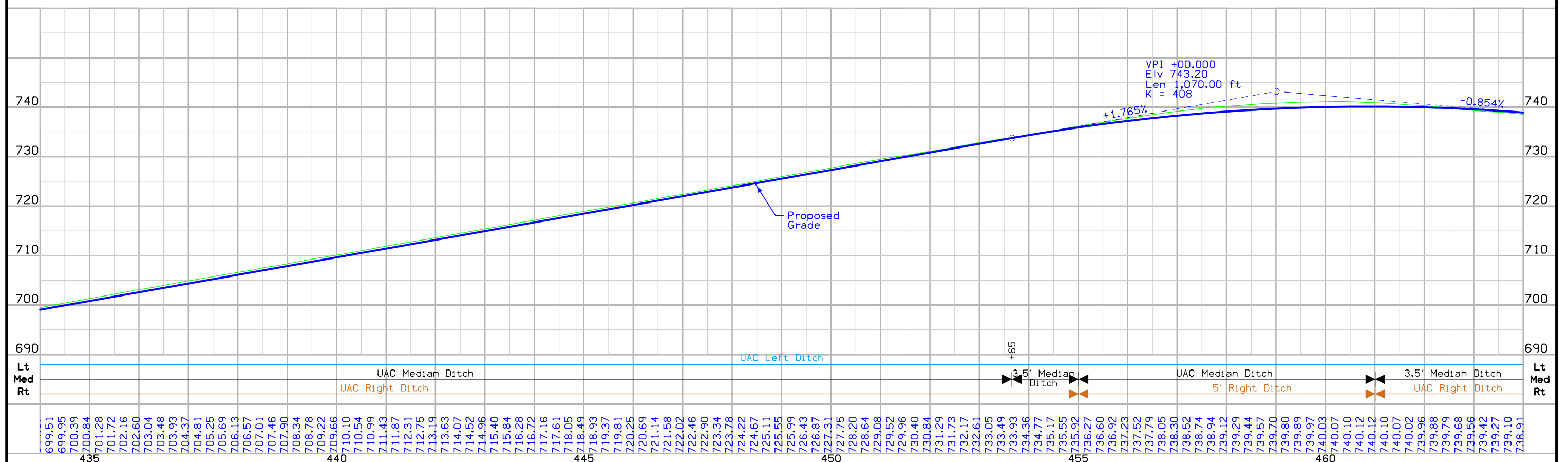
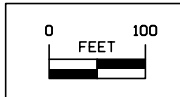
Sta. 428+80
24" RF-1
Skew 10° Lt. Ah.
DA=2 Ac.R
FL= Lt. 685.2
Rt. 680.0
Replace Rt. Apron
& 20' of RCP

Sta. 429+50-42' Lt.
24" RCP
FL= Lt. 686.0
Rt. 687.7
Other 686.60
U.A.C.





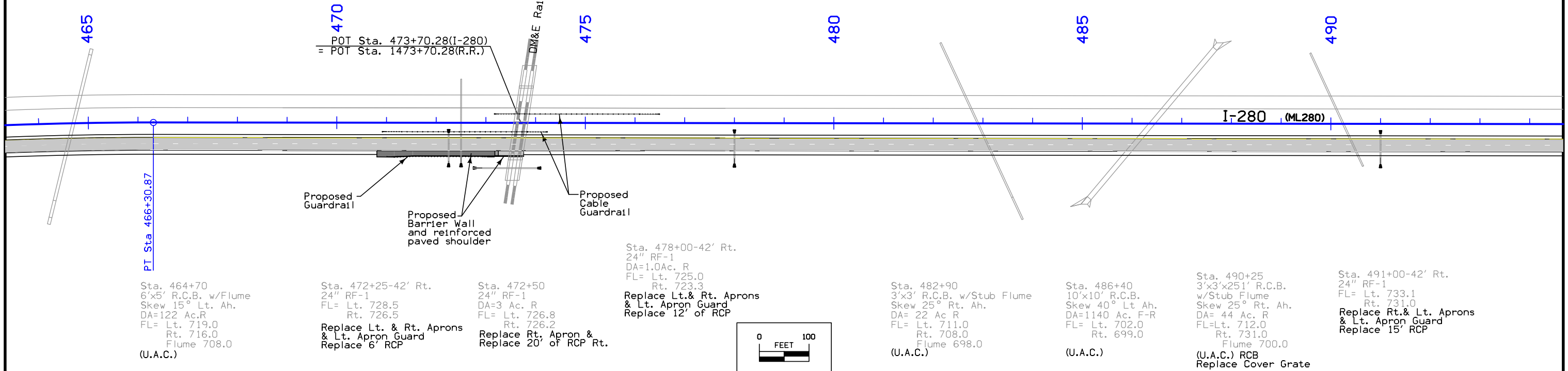
Curve Data
 $\Delta = 10^\circ 44' 48.37''$ (RT)
 $T = 718.56$
 $L = 1,432.90$
 $R = 7,639.44$
 $E = 33.72$



BLUE GRASS TWP.
T-78N R-2E
SEC. 12



Sta. 473+50-90' Rt.
RR Berm Pipe
24" x160' RF-1
FL= N 725.2
S 726.2
Replace Aprons
& Relay 12' of RCP
w/separations

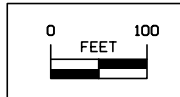


Sta. 464+70
6'x5' R.C.B. w/Flume
Skew 15° Lt. Ah.
DA=122 Ac.R
FL= Lt. 719.0
Rt. 716.0
Flume 708.0
(U.A.C.)

Sta. 472+25-42' Rt.
24" RF-1
FL= Lt. 728.5
Rt. 726.5
Replace Lt. & Rt. Aprons
& Lt. Apron Guard
Replace 6' RCP

Sta. 472+50
24" RF-1
DA=3 Ac. R
FL= Lt. 726.8
Rt. 726.2
Replace Rt. Apron &
Replace 20' of RCP Rt.

Sta. 478+00-42' Rt.
24" RF-1
DA=1.0Ac. R
FL= Lt. 725.0
Rt. 723.3
Replace Lt. & Rt. Aprons
& Lt. Apron Guard
Replace 12' of RCP

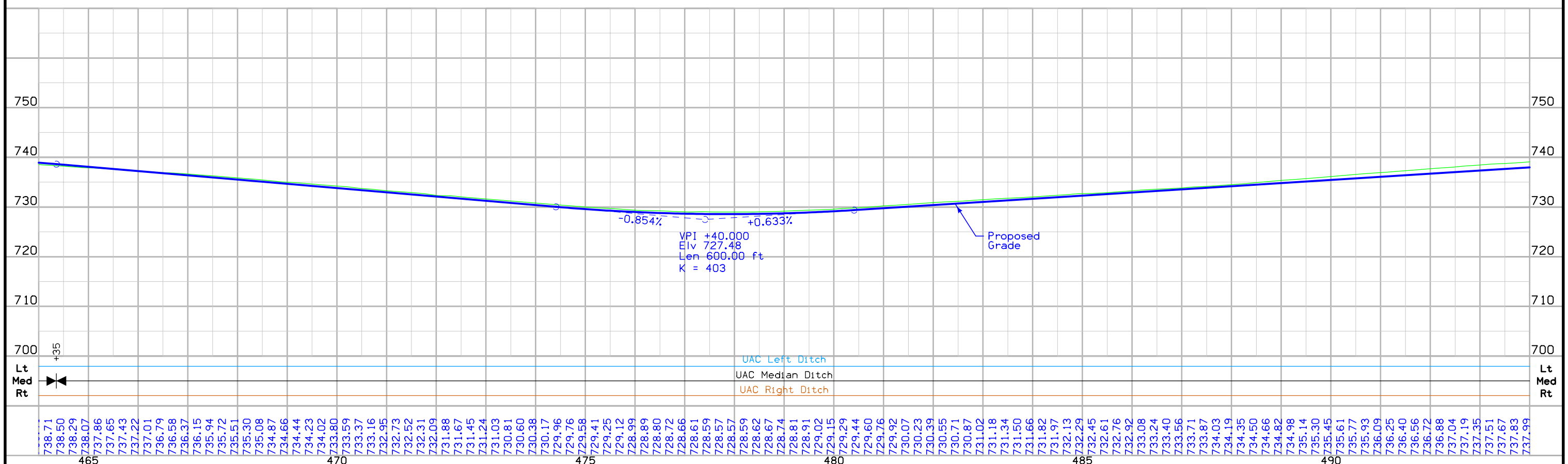


Sta. 482+90
3'x3' R.C.B. w/Stub Flume
Skew 25° Rt. Ah.
DA= 22 Ac R
FL= Lt. 711.0
Rt. 708.0
Flume 698.0
(U.A.C.)

Sta. 486+40
10'x10' R.C.B.
Skew 40° Lt Ah.
DA=1140 Ac. F-R
FL= Lt. 702.0
Rt. 699.0
(U.A.C.)

Sta. 490+25
3'x3'x251' R.C.B.
w/Stub Flume
Skew 25° Rt. Ah.
DA= 44 Ac. R
FL=Lt. 712.0
Rt. 731.0
Flume 700.0
(U.A.C.) RCB
Replace Cover Gate

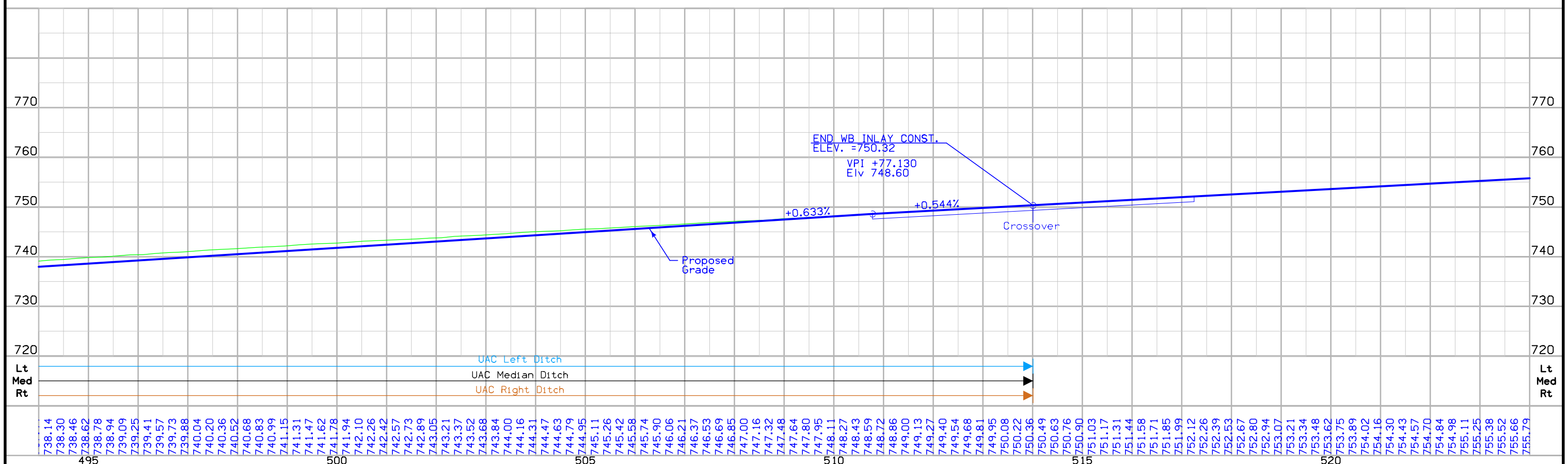
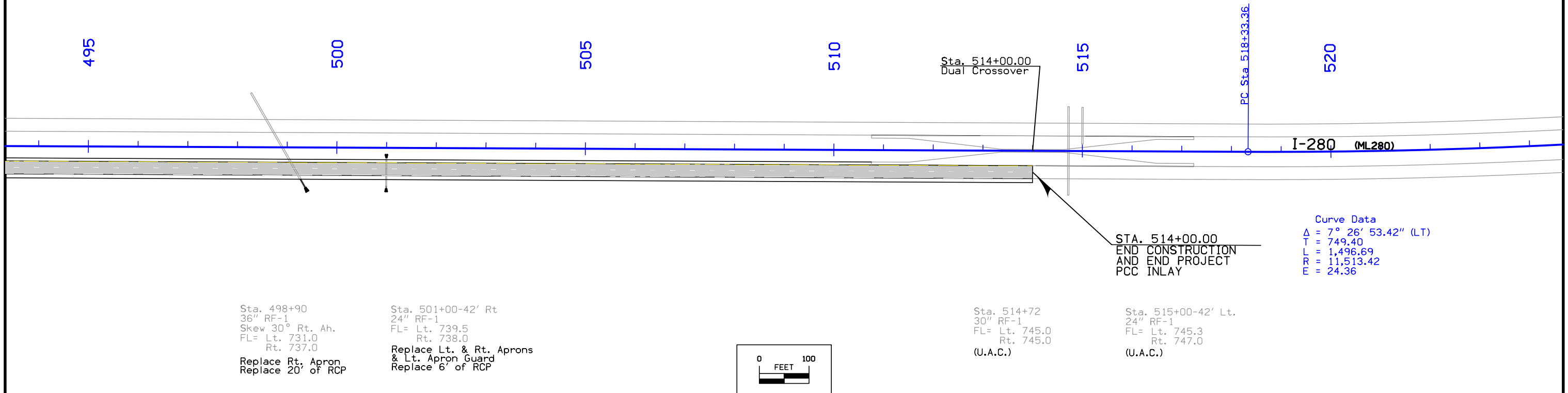
Sta. 491+00-42' Rt.
24" RF-1
FL= Lt. 733.1
Rt. 731.0
Replace Rt. & Lt. Aprons
& Lt. Apron Guard
Replace 15' RCP



FILE NO.	ENGLISH	DESIGN TEAM	SCOTT COUNTY	PROJECT NUMBER	SHEET NUMBER
		Flattery\Bell\Ringgenberg		IMX-280-8(144)2--02-82	D.14

BLUE GRASS TWP.
T-78N R-2E
SEC. 12

BLUE GRASS TWP.
T-78N R-2E
SEC. 1



FILE NO.	ENGLISH	DESIGN TEAM	SCOTT COUNTY	PROJECT NUMBER	SHEET NUMBER
		Flattery\Bell\Ringgenberg		IMX-280-8(144)2--02-82	D.15

SUPERELEVATION DATA

See PV-300 Series

Road Id	Circular Curve or Spiral Curve Name	Radius FT	Superelevation Data			Standard Road Plan	Section A-A	Section B-B	Section C-C	Section D-D	Section E-E	Section F-F	Case A	Case B	Case C	Case S	Case T	Case U	Remarks
			e	L	x														
			%	FT	FT														
I-280	C2	7663.45	2.1	153	45	PV-302	183+50.69 194+35.02	183+95.69 193+90.02	184+40.69 193+45.02	185+48.69 192+37.02									As Built (39) - Sta. 188+96.3
I-280	C3	2864.79	5.6	200	45	PV-302	214+50.27 238+42.08	214+95.27 237+97.08	215+40.27 237+52.08	216+95.27 235+97.08		216+95.27 235+97.08			216+38.13 236+54.22	216+38.13 236+54.22			As Built (39) - Sta. 227+01.25
I-280	C4	2864.79	5.6	200	45	PV-302	260+87.03 272+16.97	261+32.03 271+71.97	261+77.03 271+26.97	263+32.03 269+71.97		263+32.03 269+71.97			262+74.89 270+29.11	262+74.89 270+29.11			As Built (39) - Sta. 266+61.57
I-280	C5	5734.47	3.8	165	45	PV-302	303+02.13 319+08.22	303+47.13 318+63.22	303+92.13 318+18.22	305+12.13 316+98.22		304+62.63 317+47.72							As Built (40) - Sta. 311+14.90
I-280	C6	5734.48	3.8	165	45	PV-302	367+76.72 382+25.28	368+21.72 381+80.28	368+66.72 381+35.28	369+86.72 380+15.28		369+37.22 380+64.78							As Built (40) - Sta. 375+01.43
I-280	C7	22920	NC	-	-	PV-302						400+36.59 416+16.19							As Built (40) - Sta. 408+26.95
I-280	C8	7639.44	2.9	165	72	PV-302	450+10.48 468+18.37	450+82.48 467+46.37	451+54.48 466+74.37	452+47.48 465+81.37		451+97.98 466+30.87							As Built (40) - Sta. 459+19.92

STAGING NOTES

108-26A
08-01-08

3 STAGE 1: Traffic

Traffic will operate two lane - two way on the EB I-280 roadway between Sta. 149+00 and Sta. 300+00, and between Sta. 300+00 and Sta. 514+00 utilizing the three existing median crossovers.

All interchanges are to remain open during construction.

The westbound I-280 entrance and exit ramps will remain open to traffic at all times during the reconstruction of the gore areas.

Existing ramp crossovers built with (143) EB PCC inlay will be utilized to maintain all movements.

STAGE 1: Construction

Construct PCC inlay on the WB I-280 roadway between Sta. 149+00 and Sta. 514+00

Mill, widen, and resurface ramp pavements.

STAGE 2: Traffic

Move traffic on I-280 EB and WB to normal traffic movements and open the newly constructed WB PCC inlay pavement.

STAGE 2: Construction

Remove ramp entrance and exit crossovers.

COORDINATED OPERATIONS

111-01
04-17-12

Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

Project	Type of Work
IMX-280-8(146)2--02-82	PCC-Grade and Replace
IMX-280-8(143)2--02-82	PCC-Grade and Replace
STPN-22-5(33)--2J-82	Pavement Planing/Grooving

TRAFFIC CONTROL PLAN

108-23A
08-01-08

I-280:
-Maintain at least one lane of traffic in each direction.

I-280 Ramps:
- Maintain traffic for ramps.

Sideroads Ia 22, US 61, and Locust Street.
- Traffic will be maintained within the project limits.

TABULATION OF SPECIAL EVENTS










102-15
08-01-08

Event	Location	Date
Quad City Air Show		June 2015
John Deere Classic PGA Tournament ???		July 2015
Bix 7 Run and Jazz Festival		July 2015
Mississippi Valley Fair		August 2015

**CROSS SECTION VIEW COLOR LEGEND
OF TRAFFIC CONTROL AND STAGING SHEETS**

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Med	(237)	Future Proposed Pavement Shading

**CROSS SECTION VIEW PATTERN AND SYMBOL LEGEND
OF TRAFFIC CONTROL AND STAGING SHEETS**



	Pavement Removal		Proposed Granular Shoulder
	Proposed Granular Subbase		Temporary Shoulder
	Proposed Special Backfill		Existing Shoulder Strengthening
	Temporary Barrier Rail		Permanent Barrier Rail
			Channelizing Device

PLAN VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Magenta	(5)	Pavement Marking Call Outs
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Yellow	(4)	Pavement Markings, Yellow
Off White	(254)	Pavement Markings, White

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Light	(236)	Proposed Grading Limits Shading
Pink, Dark	(13)	Proposed MSE or CIP Wall Shading
Red	(3)	Proposed Bridge Shading and Sign Trusses
Black w/Gray, Light Fill	(0,48)	Previously Constructed Structure

**PLAN VIEW PATTERN AND SYMBOL LEGEND
OF TRAFFIC CONTROL AND STAGING SHEETS**

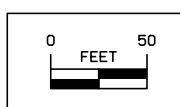
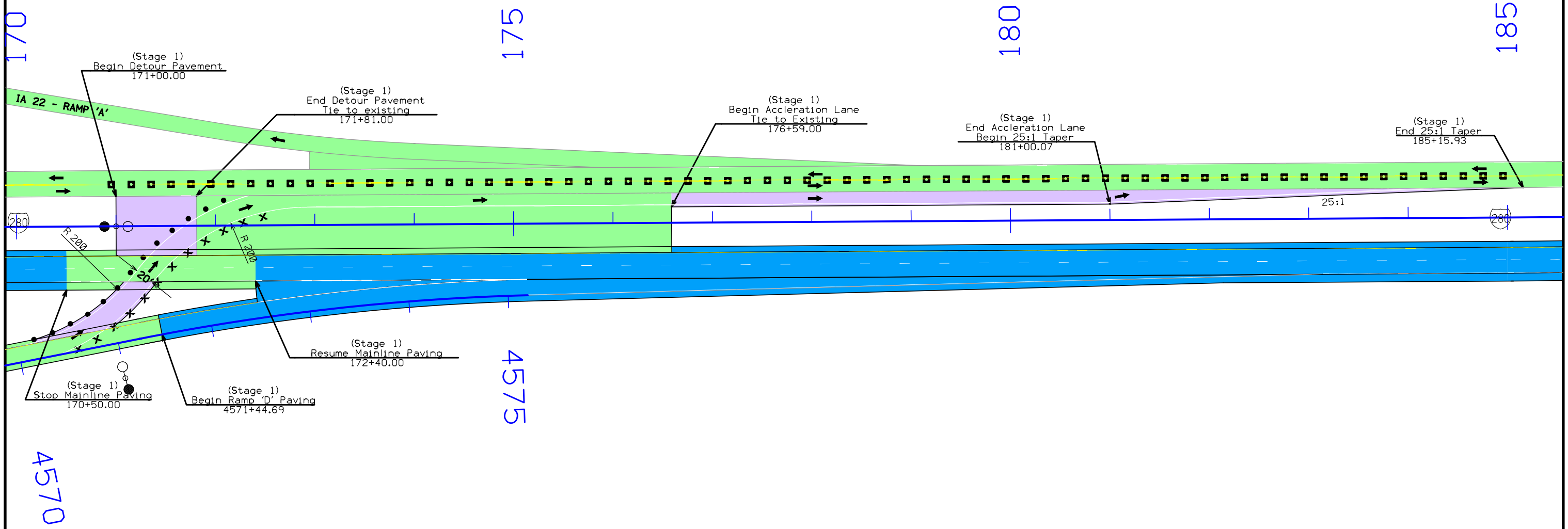
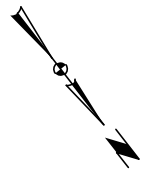
●	Channelizing Device	■	Crash Cushion
✕	Drum	○→	Traffic Signal
■	Temporary Lane Separator	♯	Flagger
◆	Tubular Marker	○●	Temporary Floodlighting
♦	Channelizer Marker	†	Traffic Sign
△	Concrete Barrier Marker	⋮	Type III Barricade
◁	Delineator	☀	Type A Warning Light
≡	Temporary Barrier Rail	←	Direction of Traffic
	Pavement Removal		Safety Closure

NOTE: Device spacing according to Standard Road Plans unless specifically dimensioned.

**TRAFFIC CONTROL
AND
STAGING
LEGEND AND SYMBOL
INFORMATION SHEET**

(COVERS SHEET SERIES J)

ROCKINGHAM TWP.
T-77N R-3E
SEC. 7



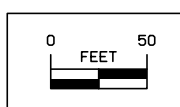
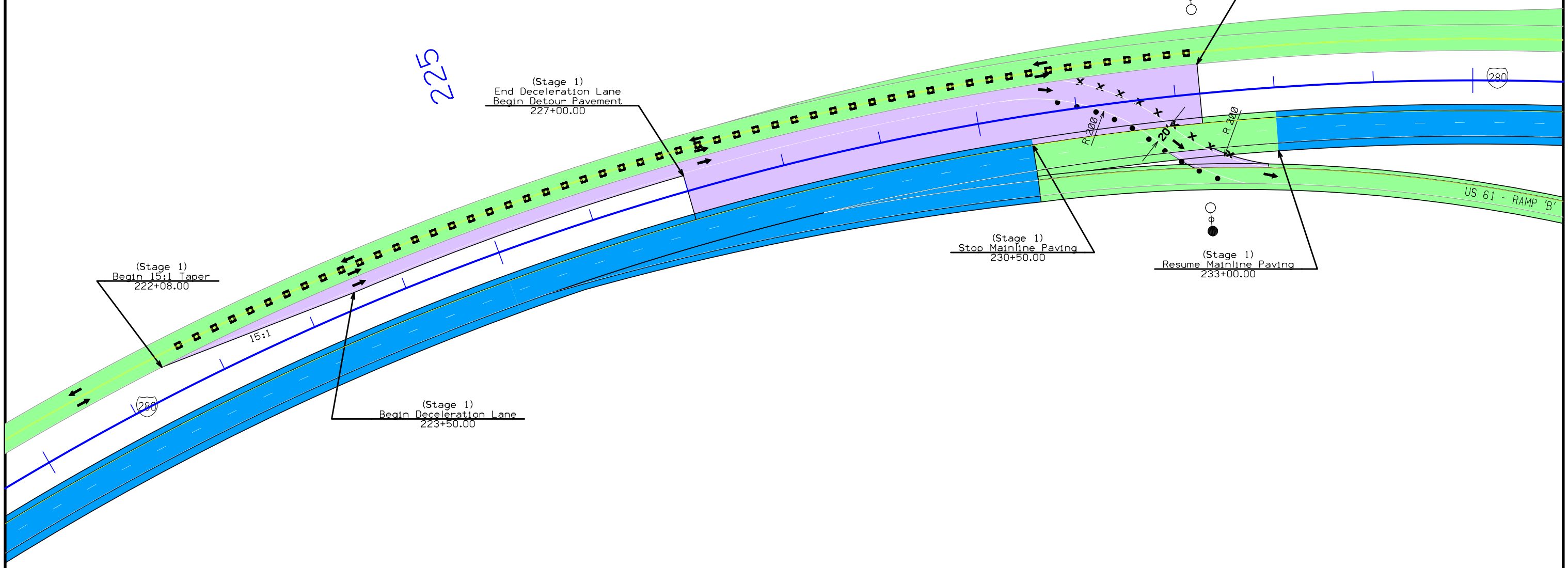
STAGE 1
ENTRANCE RAMP D
IA 22 / I-280

FILE NO.	ENGLISH	DESIGN TEAM Flattery\Bell\Ringgenberg	SCOTT COUNTY	PROJECT NUMBER IMX-280-8(144)2--02-82	SHEET NUMBER J.3
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BUFFALO TWP.
T-77N R-2E
SEC. 1



225
230
235



STAGE 1
EXIT RAMP B
US 61 / I-280

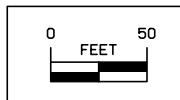
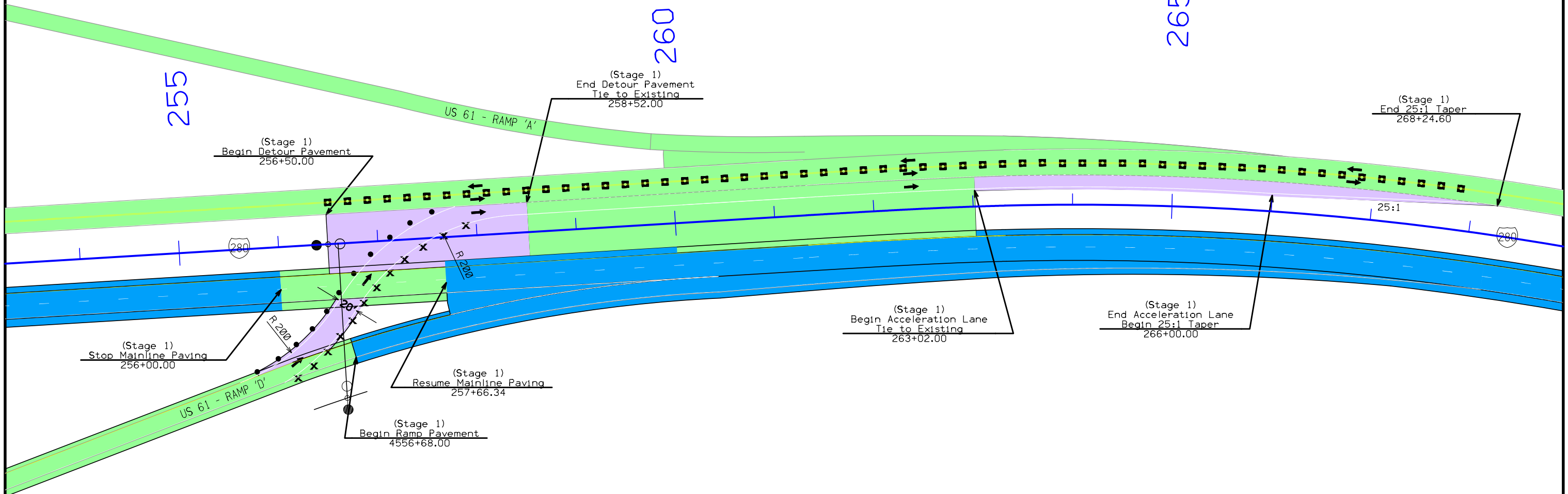
BLUE GRASS TWP.
T-78N R-2E
SEC. 36



255

260

265



STAGE 1
ENTRANCE RAMP D
US 61 / I-280

FILE NO.	ENGLISH	DESIGN TEAM Flattery\Bell\Ringgenberg	SCOTT COUNTY	PROJECT NUMBER IMX-280-8(144)2--02-82	SHEET NUMBER J.5
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BLUE GRASS TWP.
T-78N R-2E
SEC. 25



330

335

340

(Stage 1)
Begin 15:1 Taper
330+65.01

(Stage 1)
Begin Deceleration Lane
332+75.00

(Stage 1)
End Deceleration Lane
Begin Detour Pavement
337+25.01

(Stage 1)
End Detour Pavement
339+83.00

(Stage 1)
Stop Mainline Paving
340+11.07

(Stage 1)
Resume Mainline Paving
341+50.00

LOCUST ST - RAMP 'C'

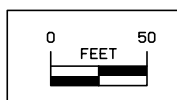
LOCUST ST - RAMP 'B'



15:1

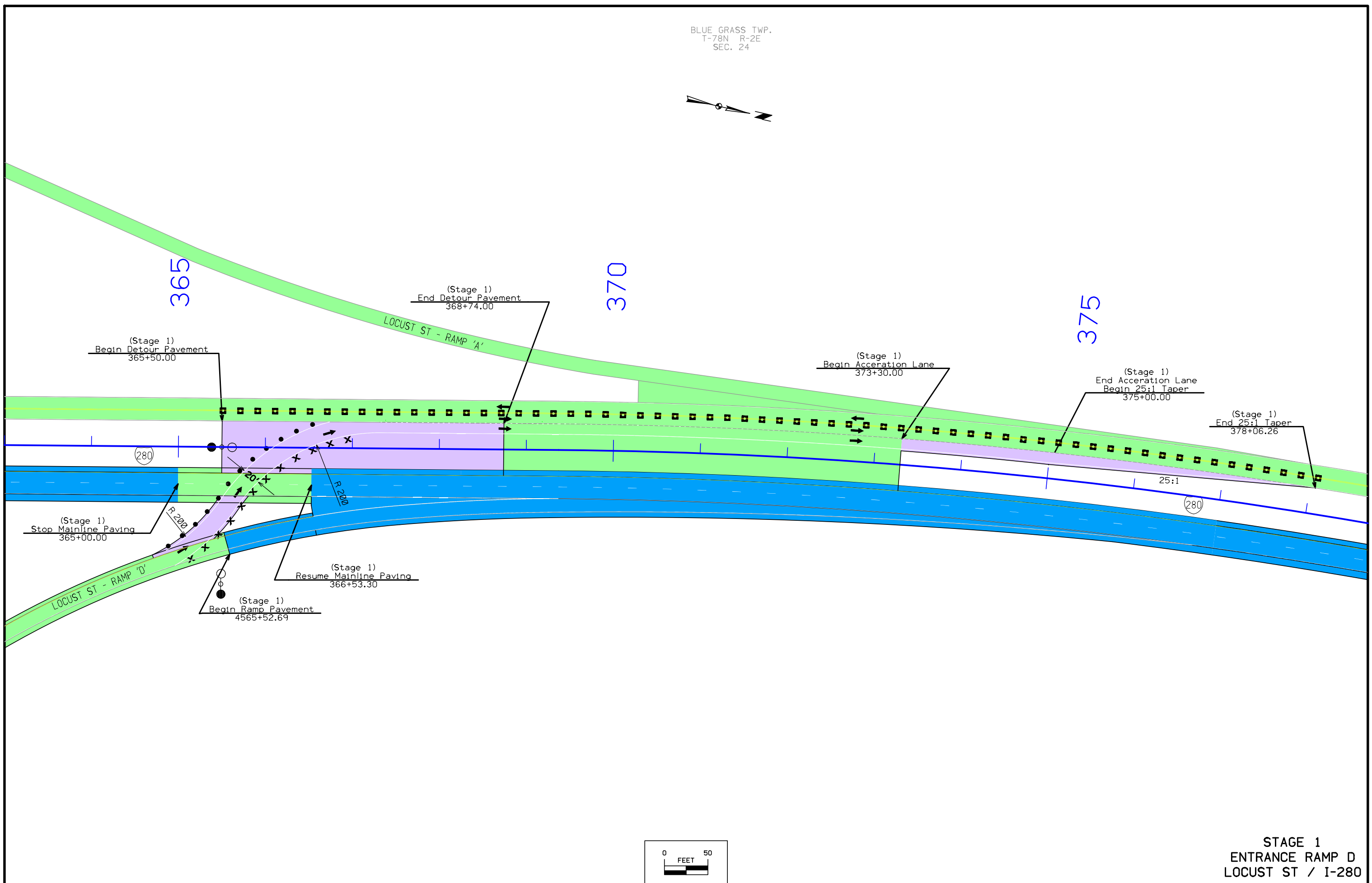
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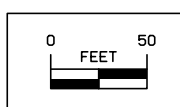


STAGE 1
EXIT RAMP B
LOCUST ST / I-280

BLUE GRASS TWP.
T-78N R-2E
SEC. 24



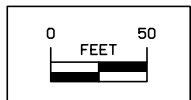
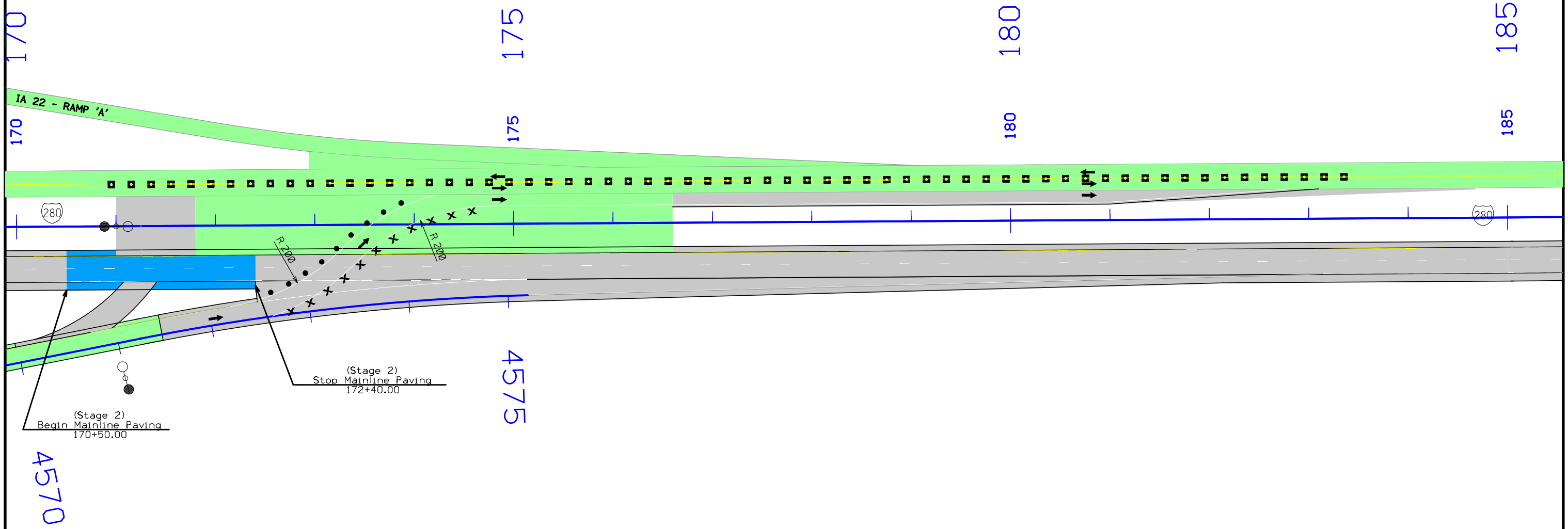
STAGE 1
ENTRANCE RAMP D
LOCUST ST / I-280



FILE NO.	ENGLISH	DESIGN TEAM Flattery\Bell\Ringgenberg	SCOTT COUNTY	PROJECT NUMBER IMX-280-8(144)2--02-82	SHEET NUMBER J.7
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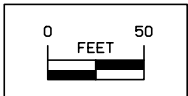
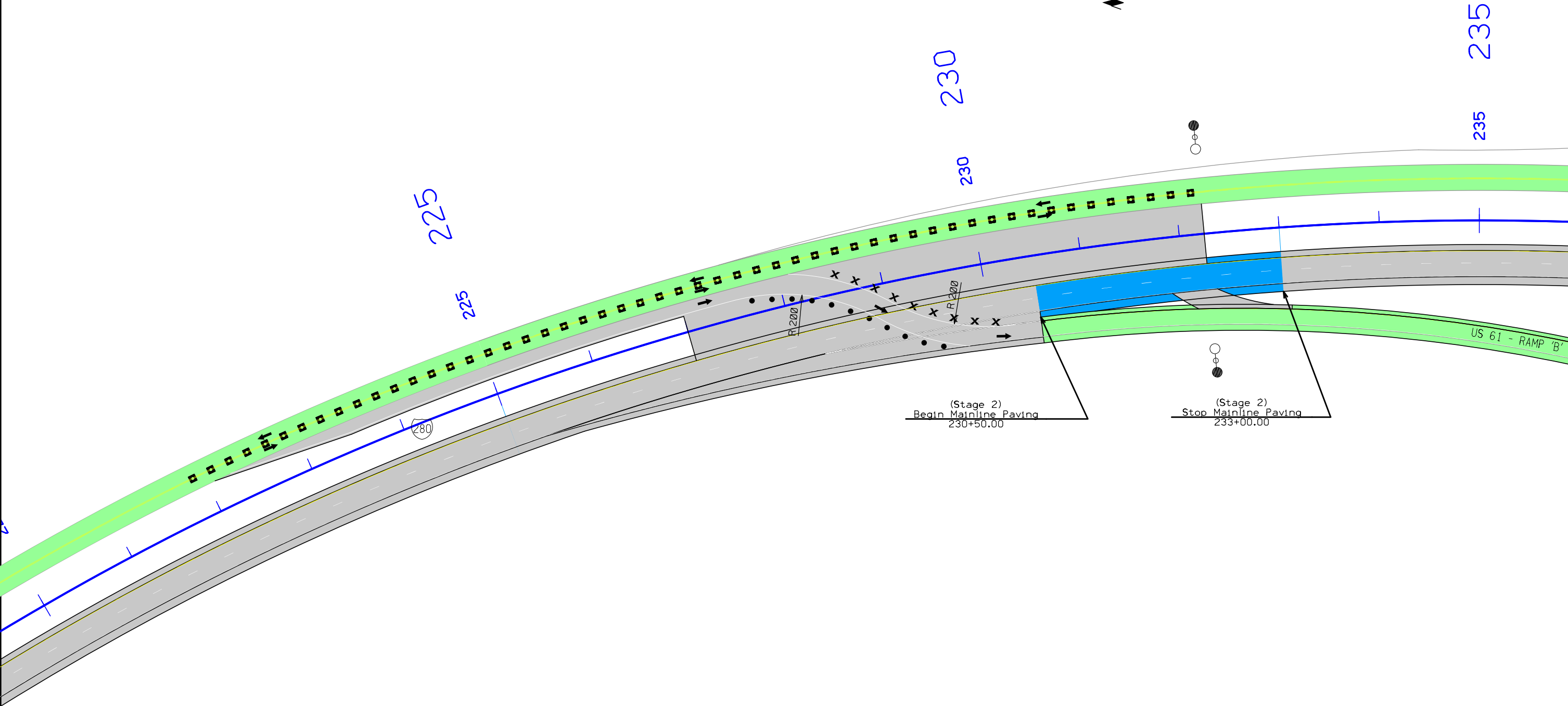
ROCKINGHAM TWP.
T-77N R-3E
SEC. 7



STAGE 2
ENTRANCE RAMP D
IA 22 / I-280

FILE NO.	ENGLISH	DESIGN TEAM Flattery\Bell\Ringgenberg	SCOTT COUNTY	PROJECT NUMBER IMX-280-8(144)2--02-82	SHEET NUMBER J.8
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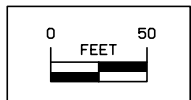
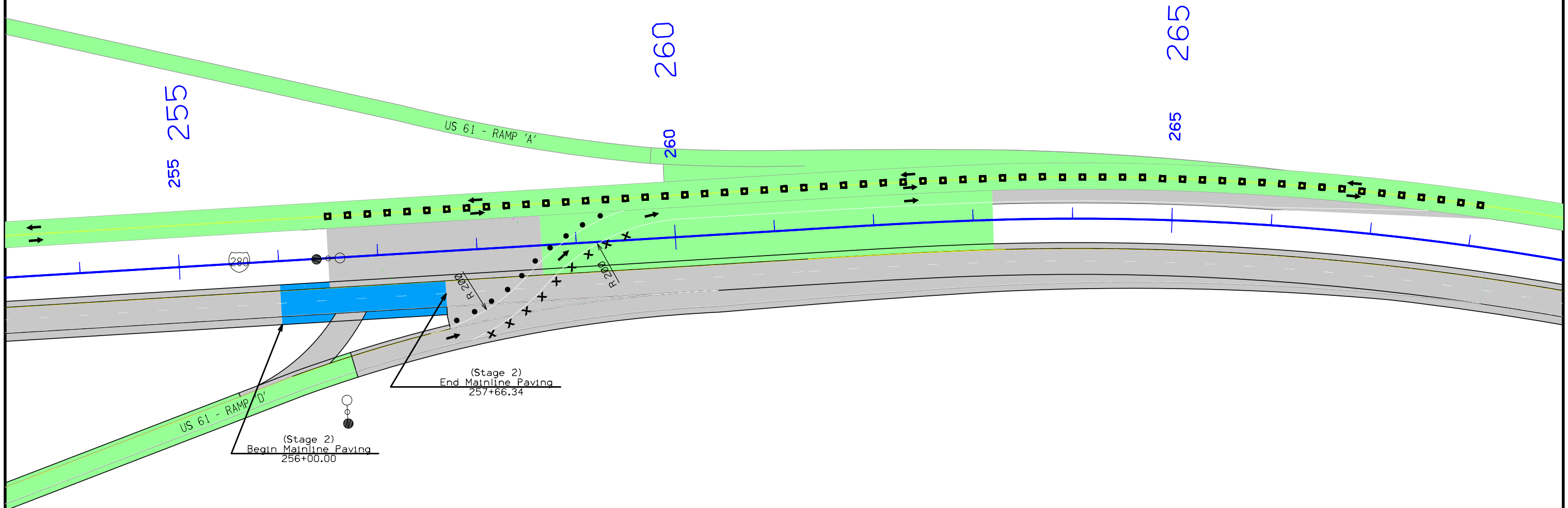
BUFFALO TWP.
T-77N R-2E
SEC. 1



STAGE 2
EXIT RAMP B
US 61 / I-280

FILE NO.	ENGLISH	DESIGN TEAM Flattery\Bell\Ringgenberg	SCOTT COUNTY	PROJECT NUMBER IMX-280-8(144)2--02-82	SHEET NUMBER J.9
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BLUE GRASS TWP.
T-78N R-2E
SEC. 36



STAGE 2
ENTRANCE RAMP D
US 61 / I-280

FILE NO.	ENGLISH	DESIGN TEAM Flattery\Bell\Ringgenberg	SCOTT COUNTY	PROJECT NUMBER IMX-280-8(144)2--02-82	SHEET NUMBER J.10
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BLUE GRASS TWP.
T-78N R-2E
SEC. 25



330

330

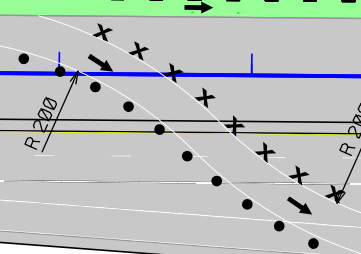
335

335

340

340

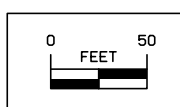
LOCUST ST - RAMP 'C'



(Stage 2)
End Mainline Paving
341+50.00

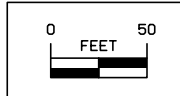
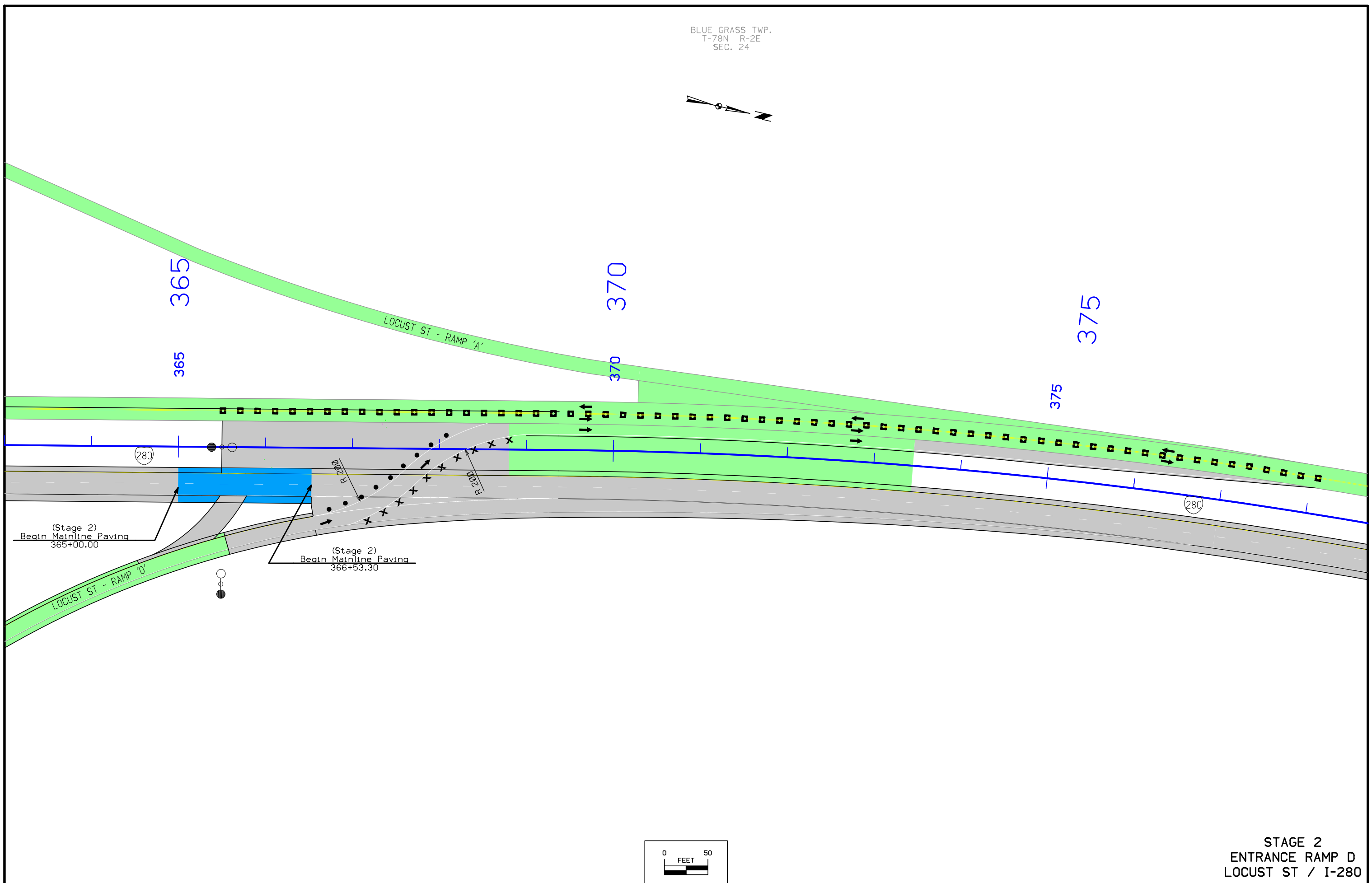
LOCUST ST - RAMP 'B'

(Stage 2)
Begin Mainline Paving
340+11.07



STAGE 2
EXIT RAMP B
LOCUST ST / I-280

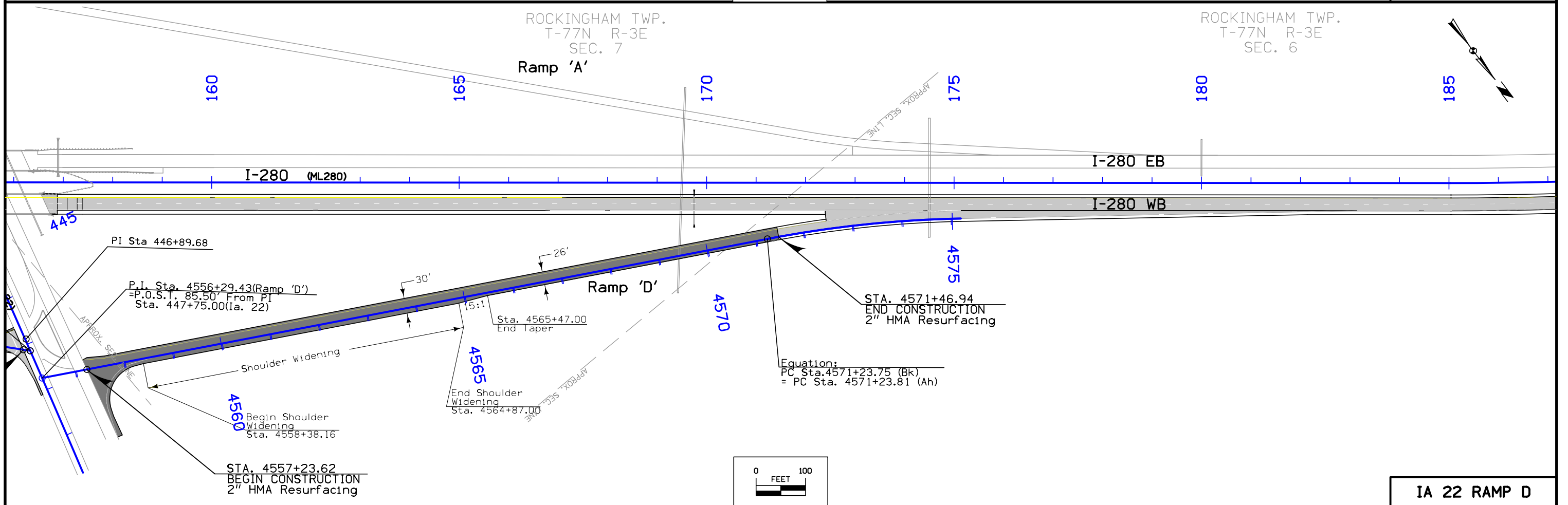
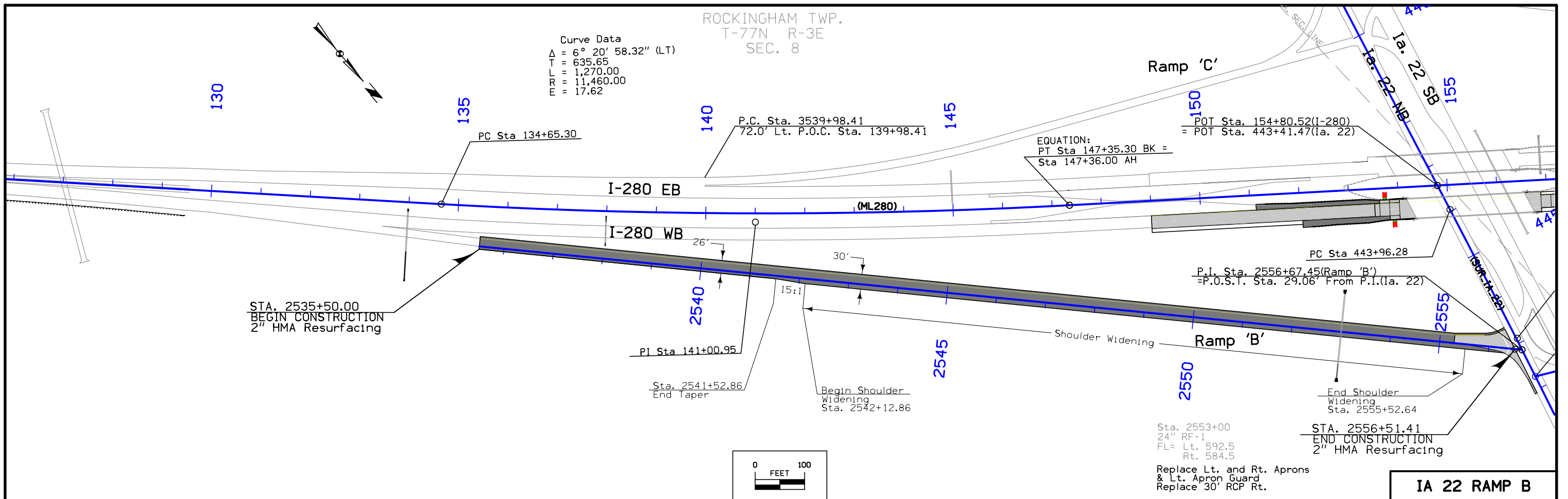
BLUE GRASS TWP.
T-78N R-2E
SEC. 24

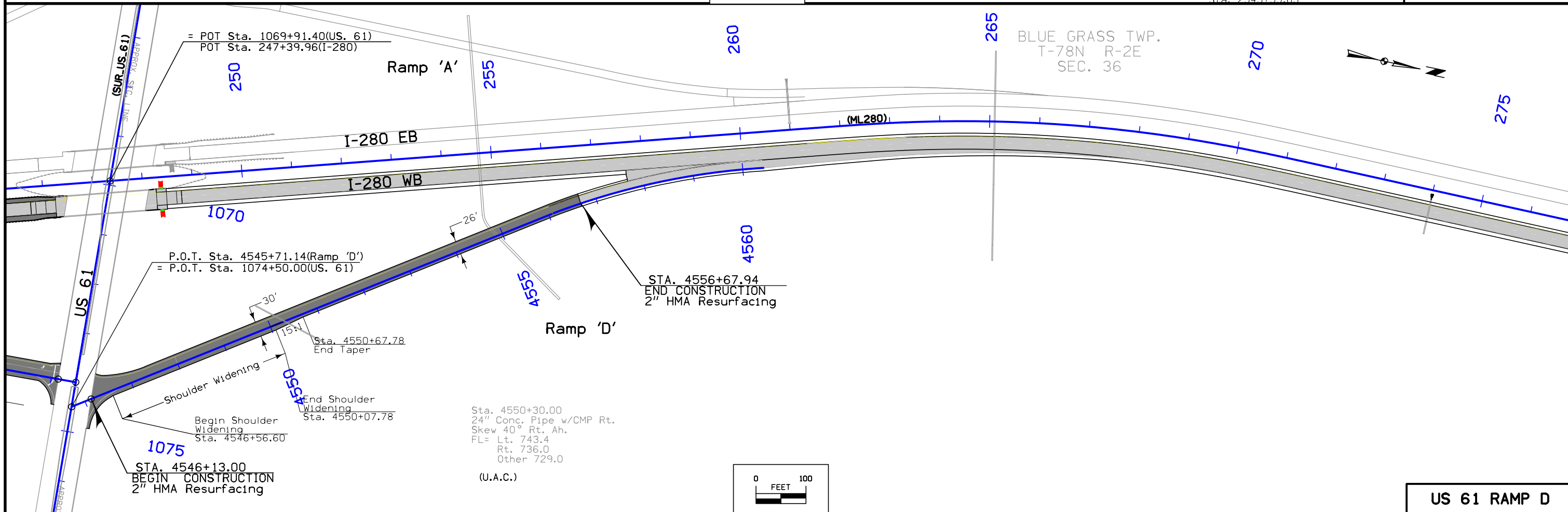
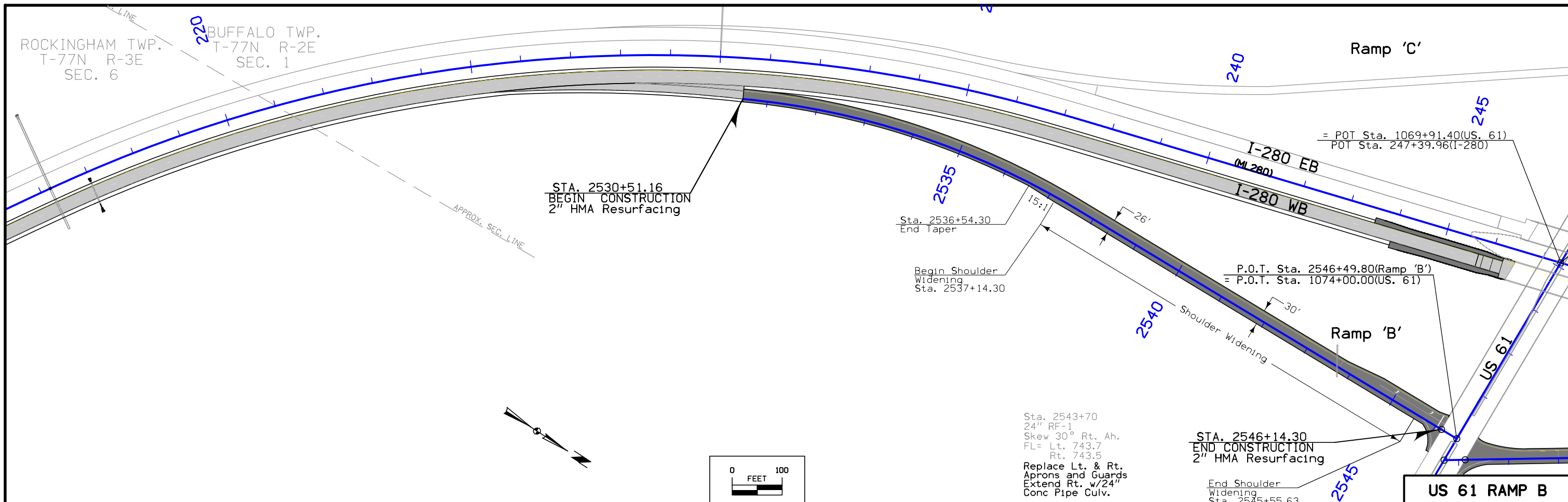


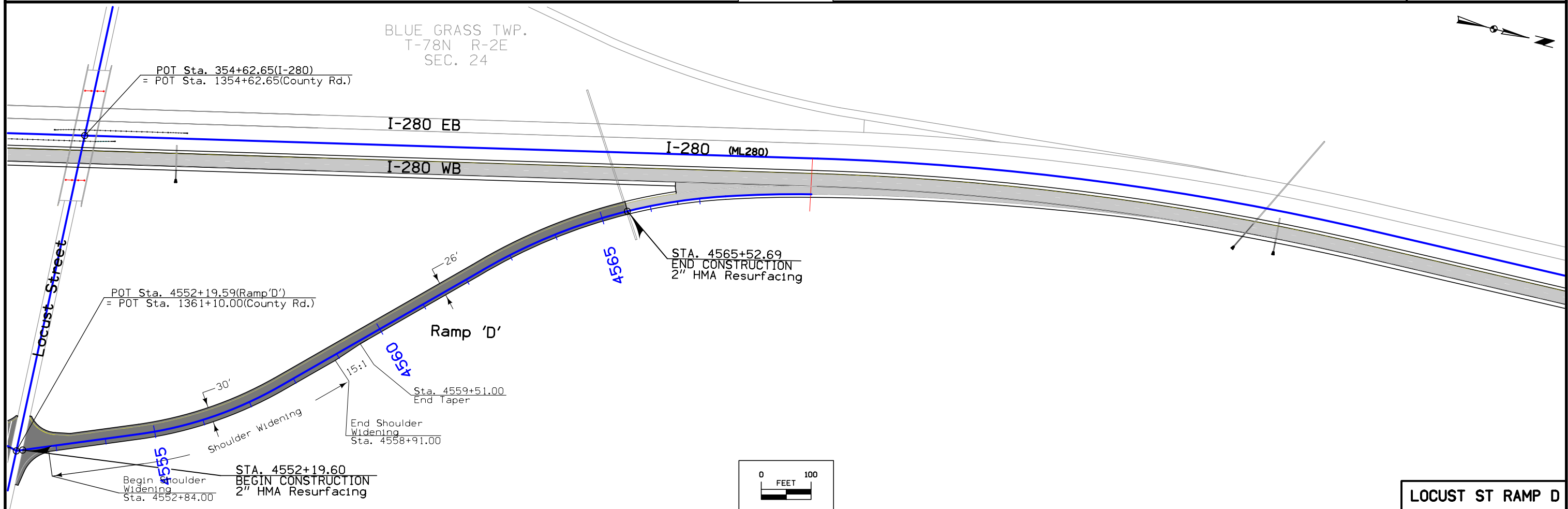
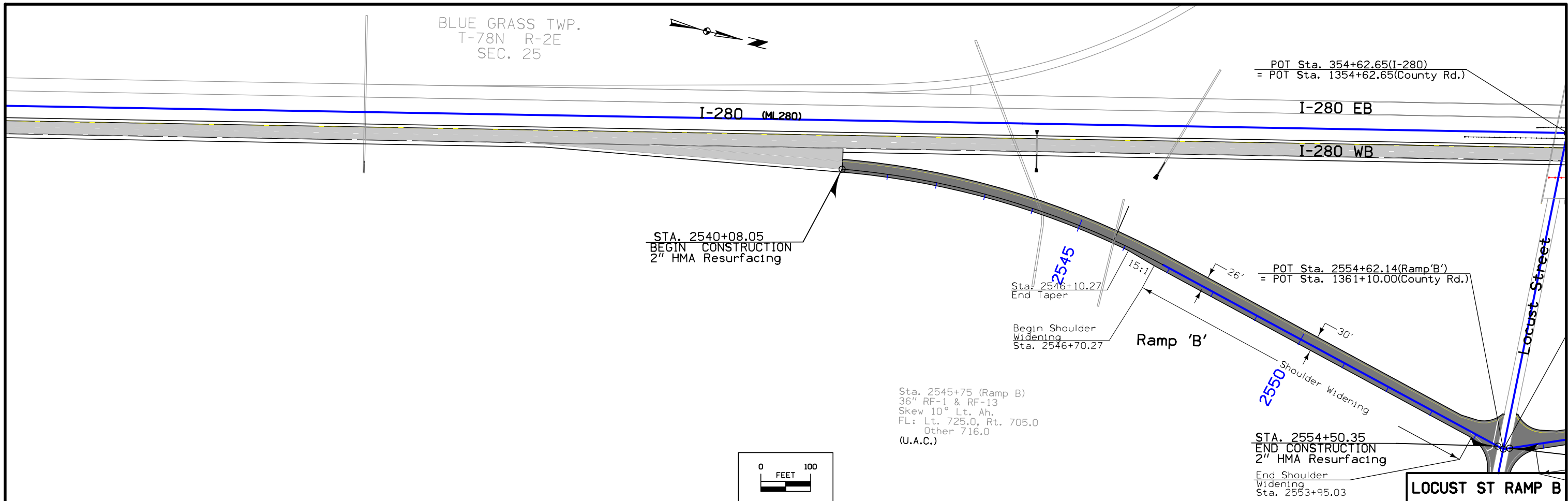
STAGE 2
ENTRANCE RAMP D
LOCUST ST / I-280

FILE NO.	ENGLISH	DESIGN TEAM Flattery\Bell\Ringgenberg	SCOTT COUNTY	PROJECT NUMBER IMX-280-8(144)2--02-82	SHEET NUMBER J.12
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4:05:40 PM 8/18/2014 rringge pw:\projectwise.dot.int.lan:PWMain\Documents\Projects\8228001008\Design\144.PCC_Grade_and_Replace\82280144J1.sht







FILE NO.	ENGLISH	DESIGN TEAM	Flattery\Bell\Ringgenberg	SCOTT COUNTY	PROJECT NUMBER	IMX-280-8(144)2--02-82	SHEET NUMBER	K.3
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For Details of Ramp Terminal Intersection Geometrics, Refer to Sheets No. 51 & 52

For Details of Ramp Taper Geometrics, Refer to Sheet No. 48

$\Delta = 6^{\circ}21'Lt.$
 $D = 0^{\circ}30'$
 $T = 635.70'$
 $L = 1270.00'$
 $E = 17.62'$
 $R = 11460.0'$

$\Delta = 15^{\circ}0'21.84''$
 $D = 2^{\circ}30'$
 $T = 301.85'$
 $L = 600.24'$
 $E = 19.80'$
 $R = 2291.83'$

Equation:
 P.O.T. Sta. 3546+55.13 (Back)
 = P.O.T. Sta. 3546+53.86 (Ahead)

Equation:
 P.T. Sta. 147+35.30 (Off Reloc.)
 = P.O.T. Sta. 147+36.0 (Survey)

For Details of Ramp Taper Geometrics, Refer to Sheet No. 47

RW \nearrow Note: Tangent to curve at P.O.T. Sta. 2535+50.00 at angle $2^{\circ}51'44.7''$ to P.O.C. Sta. 135+50.00

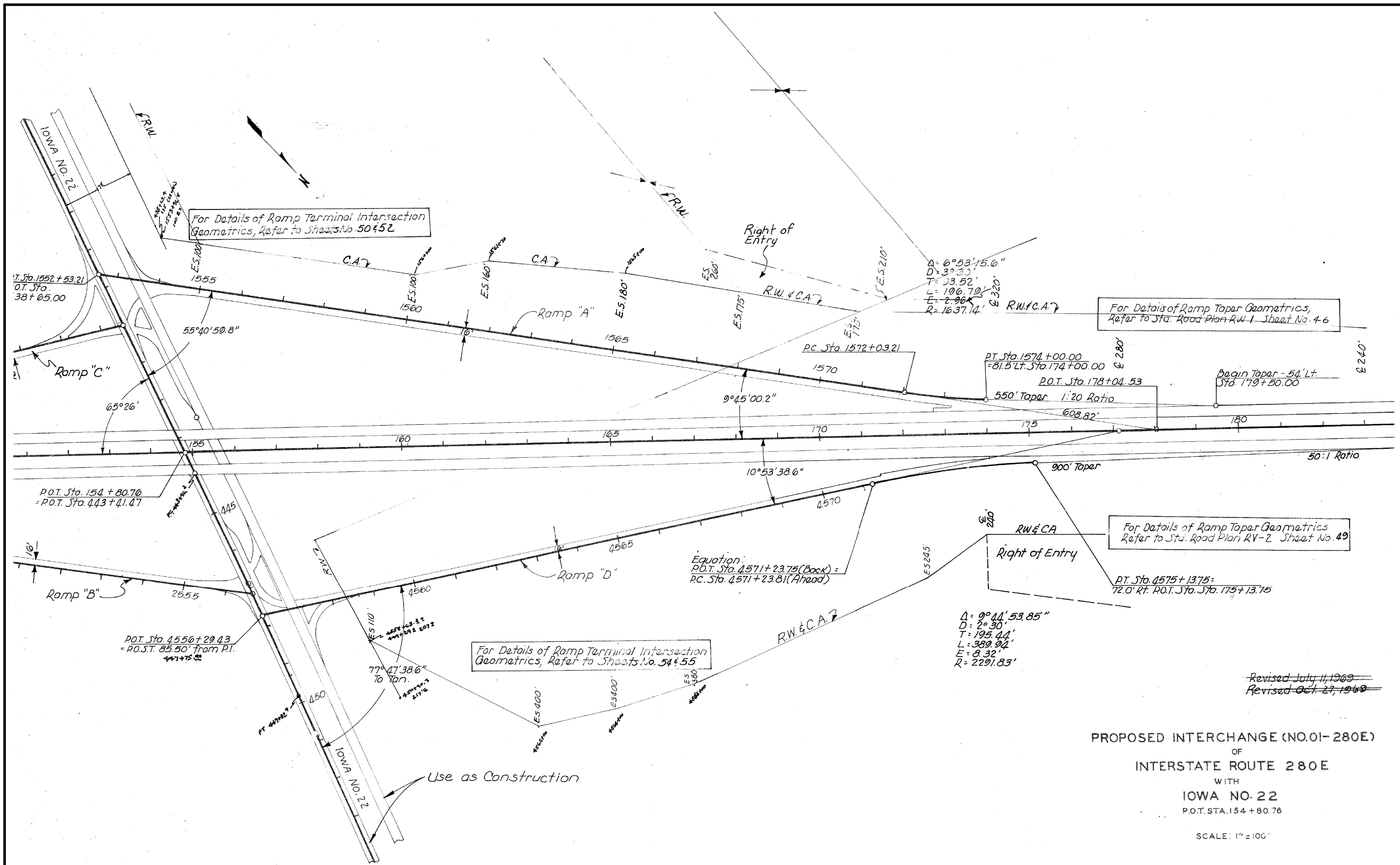
For ROW Along Ramp "B" See Sheet No. 16

For Details of Ramp Terminal Intersection Geometrics, Refer to Sheets No. 53 & 55

DETAILS OF IOWA NO. 22 INTERCHANGE		SHEETS NO.
Geometrics - Interchange		17-18
Drainage - Interchange		19-20
Plan and Profile - Iowa No. 22		11-12
Wapello School Road		13
NE Wapello Ave.		16
SW Wapello Ave.		14-15
Ramp A		21-22
Ramp B		24-25
Ramp C		22-23
Ramp D		25-26
I-280 Geometric Terminal Details - Ramp "A" (Exit)		46
Ramp "B" (Exit)		47
Ramp "C" (Ent.)		48
Ramp "D" (Ent.)		49
Iowa #22 Stake-out and Geometrics - Ramp A		50
Ramp C		51
Ramp A-C Crossover		52
Ramp B		53
Ramp D		54
Ramp B-D Crossover		55
Stake-out Line Profiles - Ramp A		56
Ramp C		57
Ramp A-C Crossover		58
Ramp B		59
Ramp D		60
Ramp B-D Crossover		61

PROPOSED INTERCHANGE (NO. 01-280E) OF INTERSTATE ROUTE 280 E WITH IOWA NO. 22
 P.O.T. STA. 154+60.76
 SCALE: 1" = 100'

For Information Only - Not To Scale



For Details of Ramp Terminal Intersection Geometrics, Refer to Sheets No. 50 & 52

For Details of Ramp Taper Geometrics, Refer to Sta. Road Plan RW-1 Sheet No. 4-6

For Details of Ramp Taper Geometrics Refer to Sta. Road Plan RV-2 Sheet No. 4-9

For Details of Ramp Terminal Intersection Geometrics, Refer to Sheets No. 54 & 55

Equation:
 $P.O.T. Sta. 4571 + 23.75 (Back) =$
 $P.C. Sta. 4571 + 23.81 (Ahead)$

$\Delta = 6^{\circ}53'15.6''$
 $D = 3^{\circ}30'$
 $T = 38.52'$
 $L = 196.79'$
 $E = 2.96'$
 $R = 1637.14'$

$\Delta = 9^{\circ}41'53.85''$
 $D = 2^{\circ}30'$
 $T = 195.44'$
 $L = 389.92'$
 $E = 8.32'$
 $R = 2291.83'$

Revised July 11, 1969
 Revised Oct. 27, 1969

PROPOSED INTERCHANGE (NO.01-280E)
 OF
 INTERSTATE ROUTE 280E
 WITH
 IOWA NO. 22
 P.O.T. STA. 154 + 80.76
 SCALE: 1" = 100'

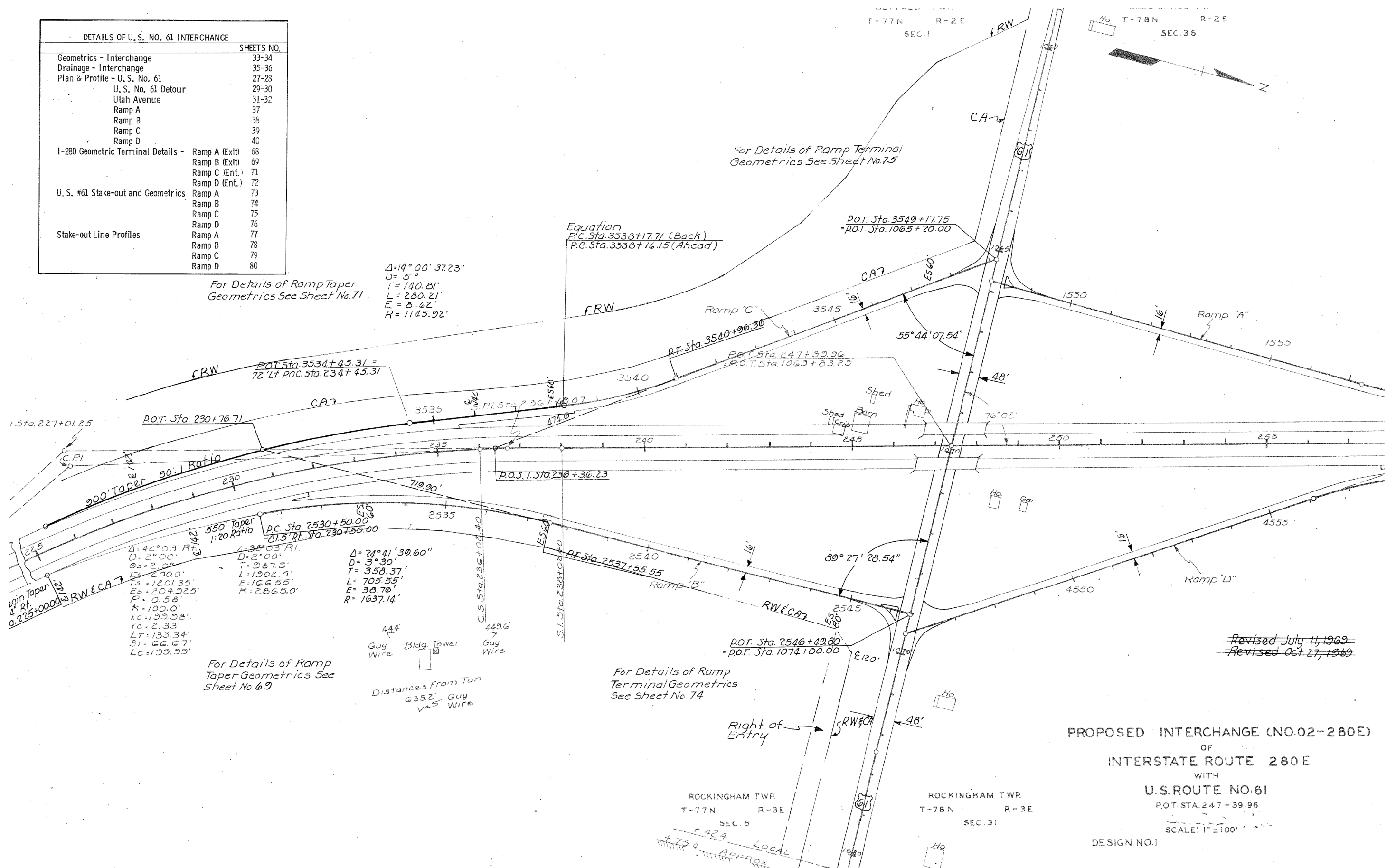
For Information Only - Not To Scale

DETAILS OF U. S. NO. 61 INTERCHANGE		SHEETS NO.
Geometrics - Interchange		33-34
Drainage - Interchange		35-36
Plan & Profile - U. S. No. 61		27-28
U. S. No. 61 Detour		29-30
Utah Avenue		31-32
Ramp A		37
Ramp B		38
Ramp C		39
Ramp D		40
I-280 Geometric Terminal Details -		
Ramp A (Exit)	68	
Ramp B (Exit)	69	
Ramp C (Ent.)	71	
Ramp D (Ent.)	72	
U. S. #61 Stake-out and Geometrics		
Ramp A	73	
Ramp B	74	
Ramp C	75	
Ramp D	76	
Stake-out Line Profiles		
Ramp A	77	
Ramp B	78	
Ramp C	79	
Ramp D	80	

For Details of Ramp Taper Geometrics See Sheet No. 71.

$\Delta = 14^{\circ} 00' 37.23"$
 $D = 5'$
 $T = 140.81'$
 $L = 280.21'$
 $E = 8.62'$
 $R = 1145.92'$

Equation
 $P.C. Sta. 3538+17.71$ (Back)
 $P.C. Sta. 3538+16.15$ (Ahead)



For Details of Ramp Taper Geometrics See Sheet No. 69

For Details of Ramp Terminal Geometrics See Sheet No. 74

Revised July 11, 1969
 Revised Oct. 27, 1969

PROPOSED INTERCHANGE (NO.02-280E)
 OF
 INTERSTATE ROUTE 280 E
 WITH
 U.S. ROUTE NO.61
 P.O.T. STA. 247+39.96
 SCALE: 1"=100'
 DESIGN NO.1

For Information Only - Not To Scale

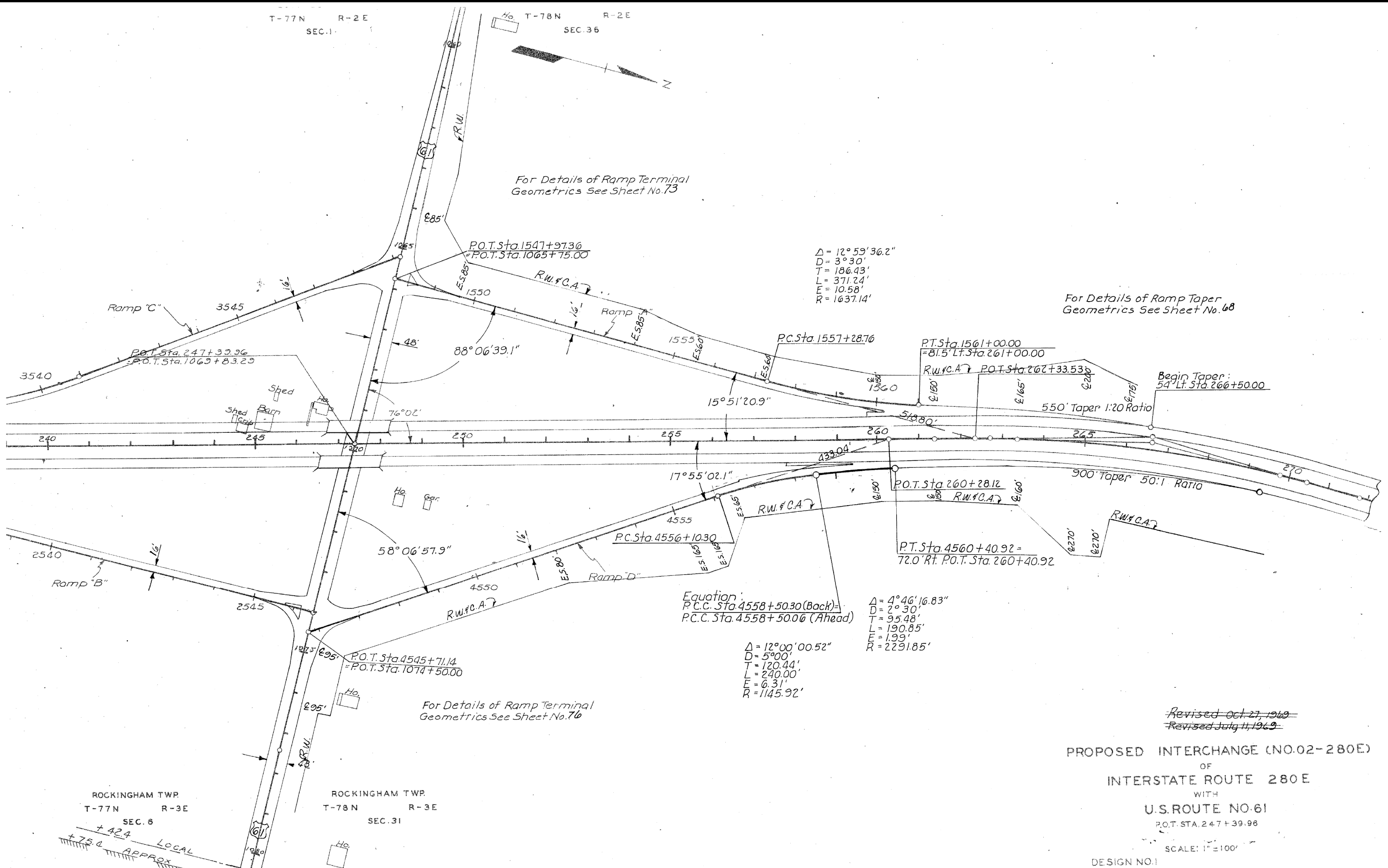
T-77N R-2E
SEC. 1

T-78N R-2E
SEC. 36

For Details of Ramp Terminal
Geometrics See Sheet No. 73

$\Delta = 12^{\circ}59'36.2''$
 $D = 3^{\circ}30'$
 $T = 186.43'$
 $L = 371.24'$
 $E = 10.58'$
 $R = 1637.14'$

For Details of Ramp Taper
Geometrics See Sheet No. 68



Equation:
P.C.C. Sta. 4558+50.30 (Back)=
P.C.C. Sta. 4558+50.06 (Ahead)

$\Delta = 12^{\circ}00'00.52''$
 $D = 5^{\circ}00'$
 $T = 120.44'$
 $L = 240.00'$
 $E = 6.31'$
 $R = 1145.92'$

$\Delta = 4^{\circ}46'16.83''$
 $D = 2^{\circ}30'$
 $T = 95.48'$
 $L = 190.85'$
 $E = 1.99'$
 $R = 2291.85'$

For Details of Ramp Terminal
Geometrics See Sheet No. 76

~~Revised Oct 27, 1969~~
~~Revised July 11, 1969~~

PROPOSED INTERCHANGE (NO.02-280E)
OF
INTERSTATE ROUTE 280 E
WITH
U.S.ROUTE NO.61
P.O.T. STA. 247+39.96

SCALE: 1"=100'
DESIGN NO.1

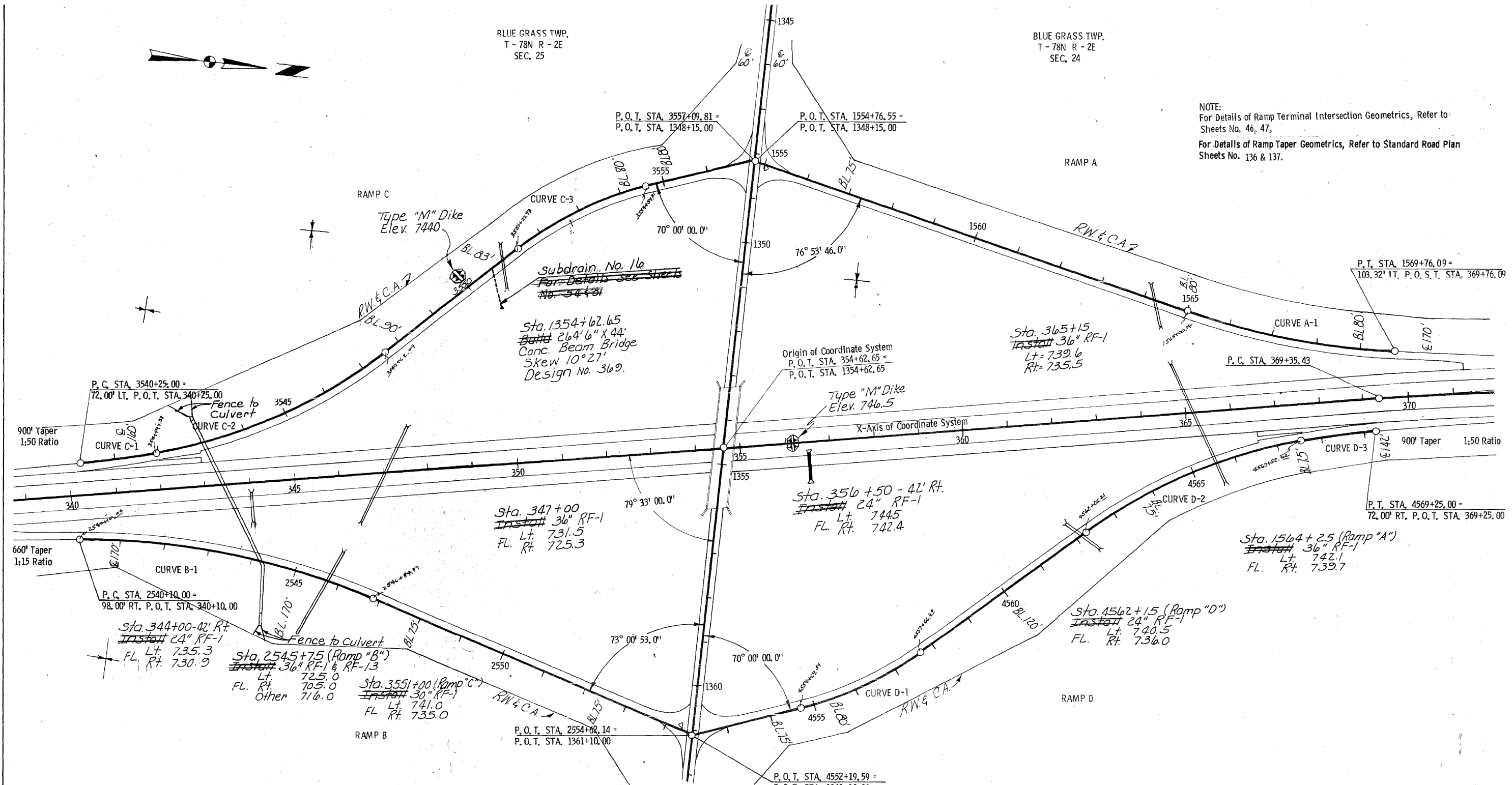
For Information Only - Not To Scale



BLUE GRASS TWP.
T - 78N R - 2E
SEC. 25

BLUE GRASS TWP.
T - 78N R - 2E
SEC. 24

NOTE:
For Details of Ramp Terminal Intersection Geometrics, Refer to
Sheets No. 46, 47,
For Details of Ramp Taper Geometrics, Refer to Standard Road Plan
Sheets No. 136 & 137.



CIRCULAR CURVE SYSTEM

101-10

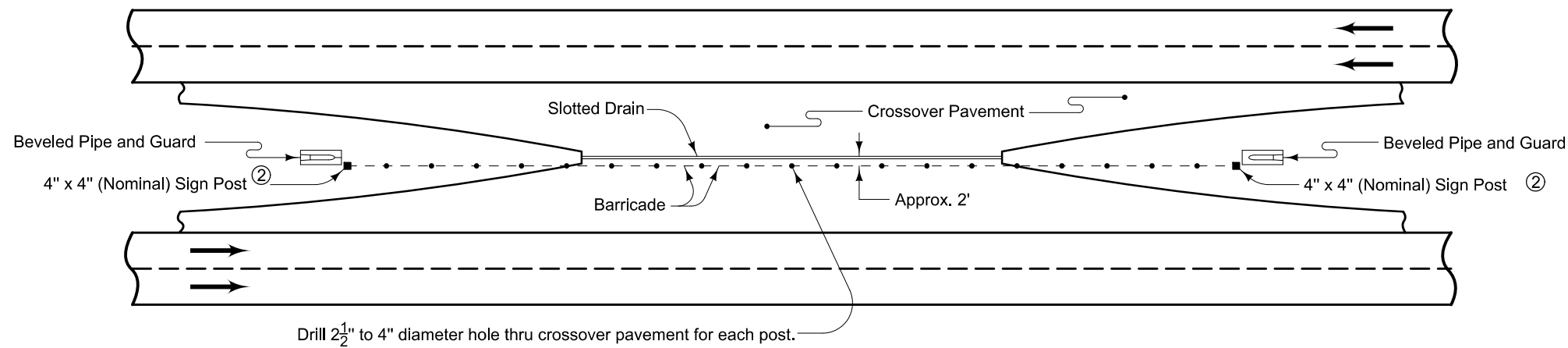
NO.	STATION	P. C.		P. I.		P. T.		Δ	D	T	L	E	R		
		COORDINATES	STATION	COORDINATES	STATION	COORDINATES	COORDINATES								
A-1	1505+00.14	+1055.77	+227.87	1567+39.82	+1275.49	+132.09	1569+76.09	+1513.44	+103.32	16° 39' 29.5"	3° 30'	239.68	475.95	17.45	1637.14
B-1	2540+10.00	-1452.65	-98.00	2543+52.33	-1111.08	-120.77	2546+84.89	-807.24	-278.50	23° 37' 16.3"	3° 30'	342.33	674.89	35.41	1637.14
C-1	3540+25.00	-1437.65	+72.00	3541+11.24	-1351.43	+73.73	3541+97.38	-1265.58	+81.92	4° 18' 34.2"	2° 30'	86.24	172.38	1.62	2292.00
C-2	3541+97.38	-1265.58	+81.92	3544+85.62	-978.65	+109.33	3547+62.09	-738.83	+269.21	28° 14' 08.6"	5° 00'	288.24	564.71	35.69	1146.00
C-3	3551+37.93	-426.11	+477.70	3553+01.32	-290.18	+568.33	3554+59.81	-129.07	+595.43	24° 08' 27.6"	7° 30'	163.38	321.88	17.27	764.00
D-1	4554+69.59	+129.12	-595.14	4556+20.00	+277.45	-570.18	4557+66.60	+405.25	-490.86	22° 16' 31.9"	7° 30'	150.41	297.01	14.67	764.00
D-2	4562+25.21	+794.91	-249.03	4564+93.69	+1023.02	-107.48	4567+52.62	+1290.28	-81.92	26° 22' 12.9"	5° 00'	268.48	527.41	31.03	1146.00
D-3	4567+52.62	+1290.28	-81.92	4568+38.86	+1376.13	-73.73	4569+25.00	+1462.35	-72.00	4° 18' 34.2"	2° 30'	86.24	172.38	1.62	2292.00
		X	Y	X	Y	X	Y	X	Y						

DRAINAGE LAYOUT
PROPOSED INTERCHANGE
OF
INTERSTATE ROUTE NO. 280
WITH
COUNTY TRUNK ROAD "C"

For Information Only - Not To Scale

Locust Street Interchange

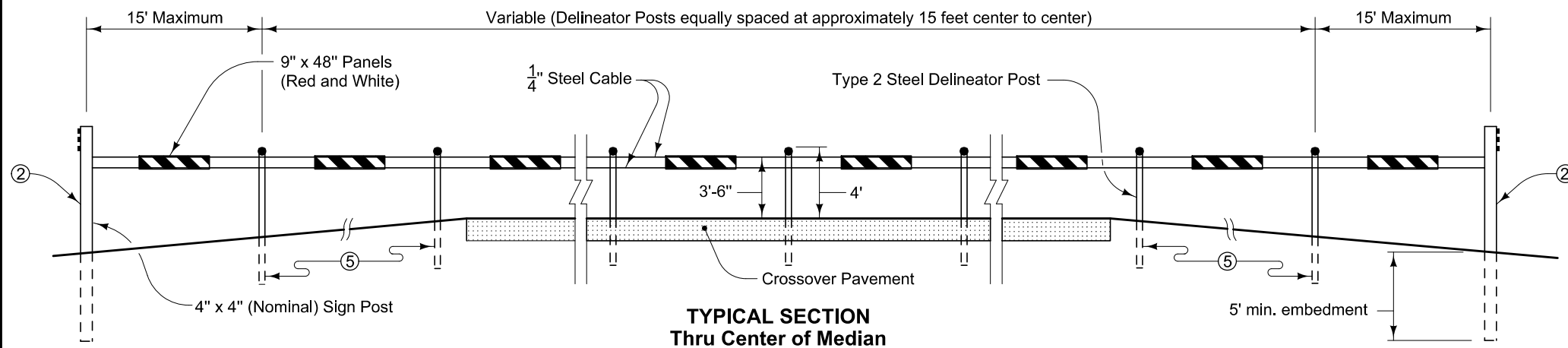
The price bid for "Crossover Barricade", each, is considered full compensation for furnishing all materials and work necessary to construct the barricade as detailed hereon.



Drill 2 1/2" to 4" diameter hole thru crossover pavement for each post.

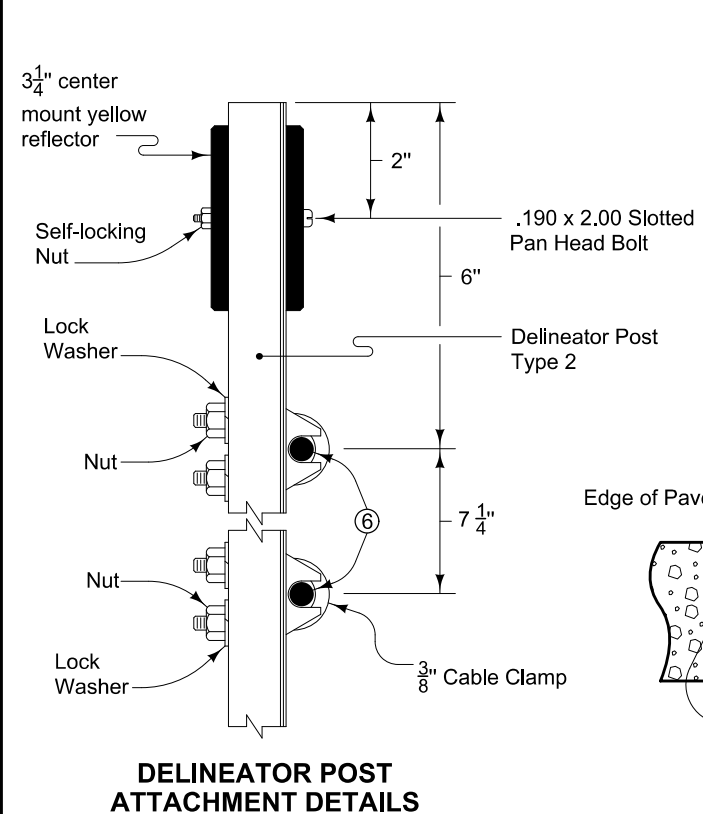
PLAN VIEW

- ① 3 1/4" center mount yellow reflector, attached to sign post with 0.190 x 1.25 slotted pan head screws.
- ② Extend the barricade to within 2 feet from the top end of the concrete collar.
- ③ 0.125 inch aluminum panel with Type III or IV retroreflective sheeting on both sides.
- ④ ReflectORIZED red stripes on both sides shall slope from upper left to lower right of panel.
- ⑤ Embed all delineator posts a minimum of 2'-6".
- ⑥ 1/4" inch diameter steel cable.

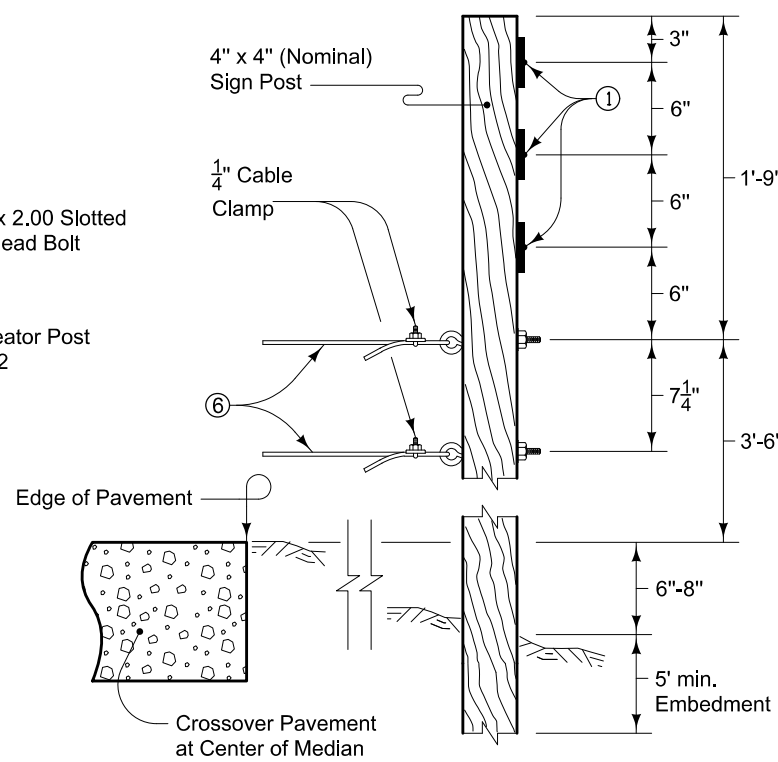


TYPICAL SECTION Thru Center of Median

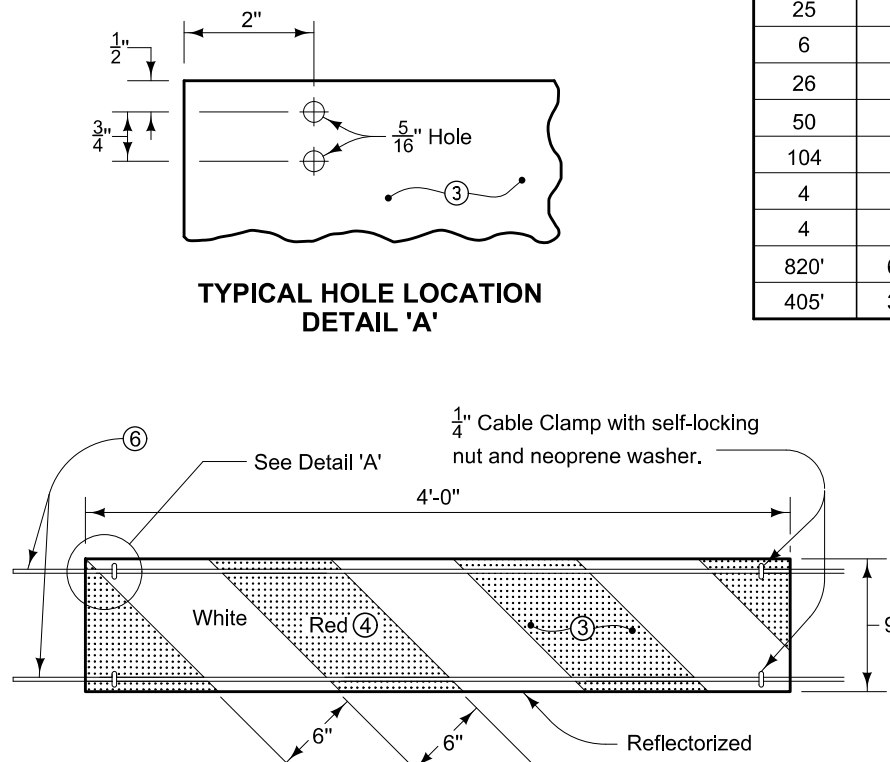
Quantities for Standard Road Plans			Items
PV-500	PV-503	PV-506	
25	19	18	Type 2 Steel Delineator Posts
2	2	2	4" x 4" (Nominal) Sign Post
56	44	42	3 1/4" Yellow Reflectors, center mounted
25	19	18	0.190 x 2.00 slotted pan head bolts and self-locking nuts
6	6	6	0.190 x 1.25 slotted pan head screws
26	20	19	9" x 48" Aluminum panels (red on white)
50	38	36	3/8" Cable clamps, lock washers and nuts
104	80	76	1/4" Cable clamps, neoprene washers and self-locking nuts
4	4	4	3/8" x 6" Eye bolts, washers and nuts
4	4	4	1/4" Cable clamps
820'	640'	610'	Approximate length of 1/4" diameter Steel Cable
405'	315'	300'	Distance from Sign Post to Sign Post based on Note ②



DELINEATOR POST ATTACHMENT DETAILS



SIGN POST ATTACHMENT DETAILS



PANEL ATTACHMENT DETAILS

IOWADOT

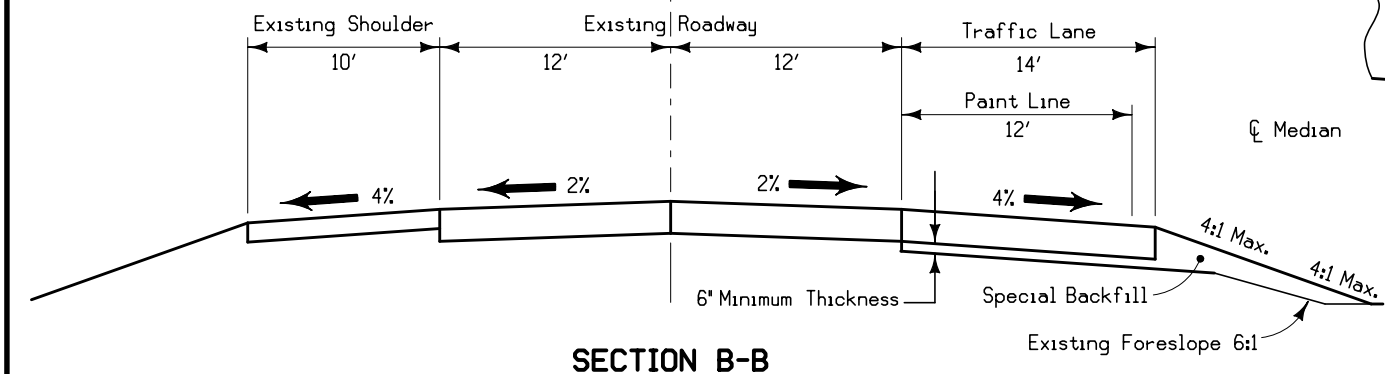
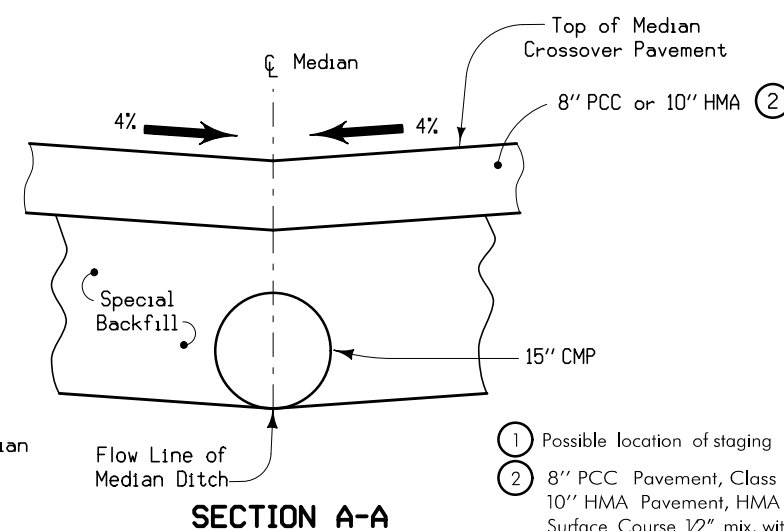
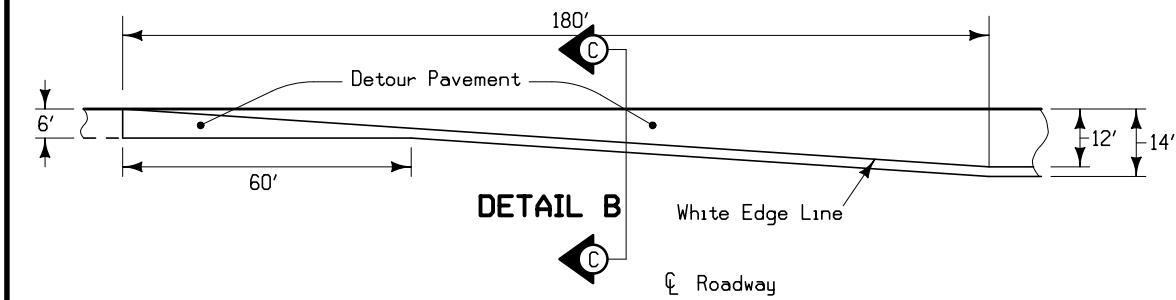
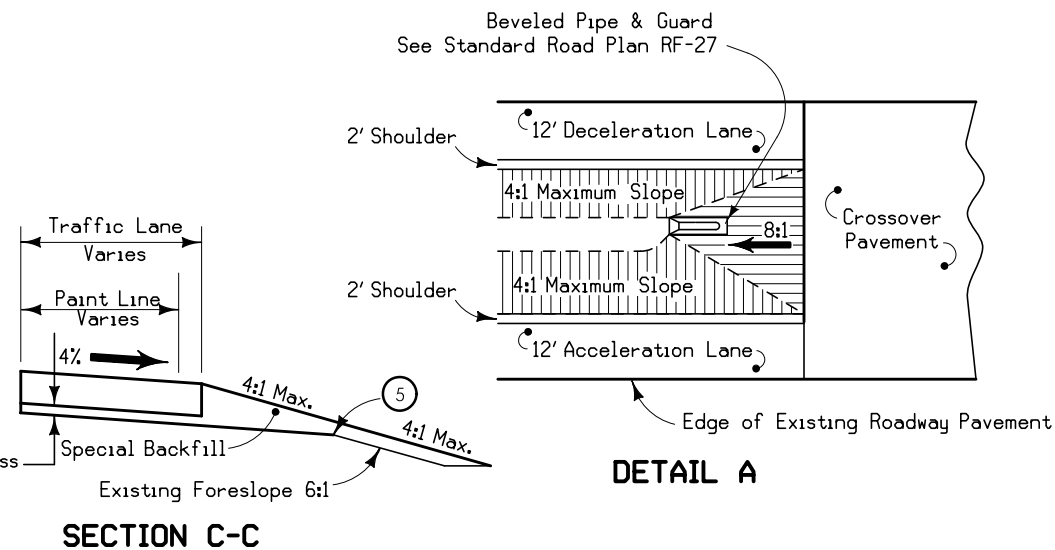
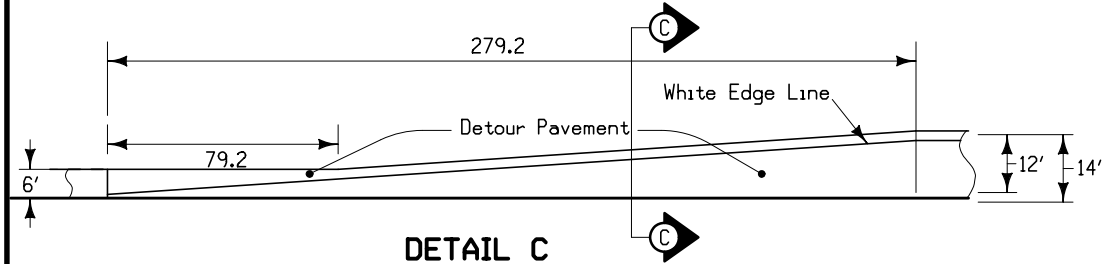
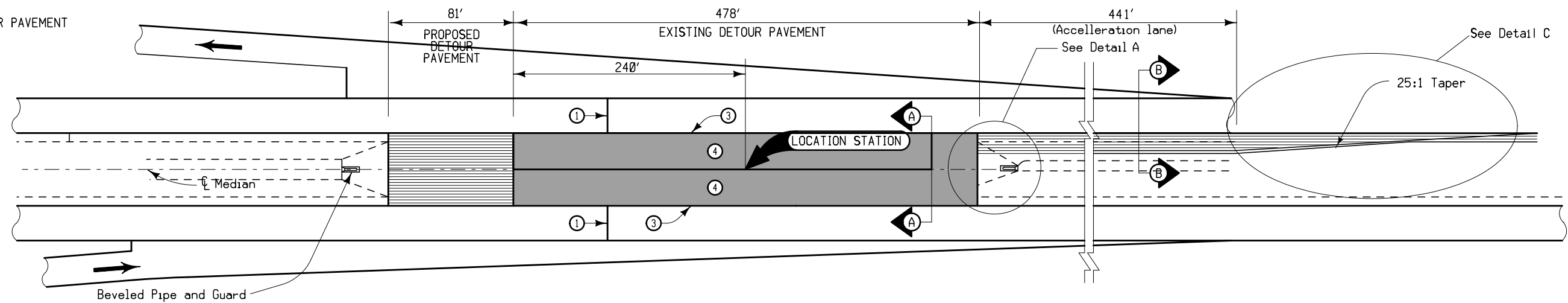
DETAIL SHEET 540-13

REVISION: Changed RV designations to PV.	REVISION NO. 9	REVISION DATE 10-19-10
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DETAILS OF BARRICADE AT CROSSOVER

EXISTING DETOUR PAVEMENT

 PROPOSED DETOUR PAVEMENT



GENERAL NOTES:

The intent of this plan is to show the construction requirements for a median crossover where the median width is 60' and located adjacent to ramp tapers.

The Engineer will determine the header location to accommodate the required staging activities.

Price bid for contract items shall be considered full compensation for furnishing all necessary materials and labor to construct the median crossover as detailed herein.

Contract bid items: Refer to Tab. 112-8

* The removal of subbase material is considered incidental to the removal of pavement.

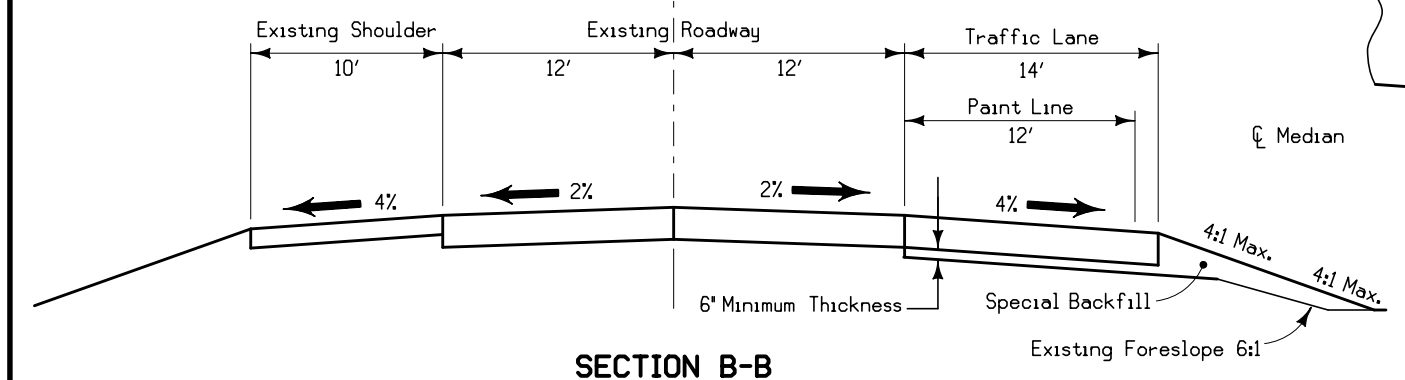
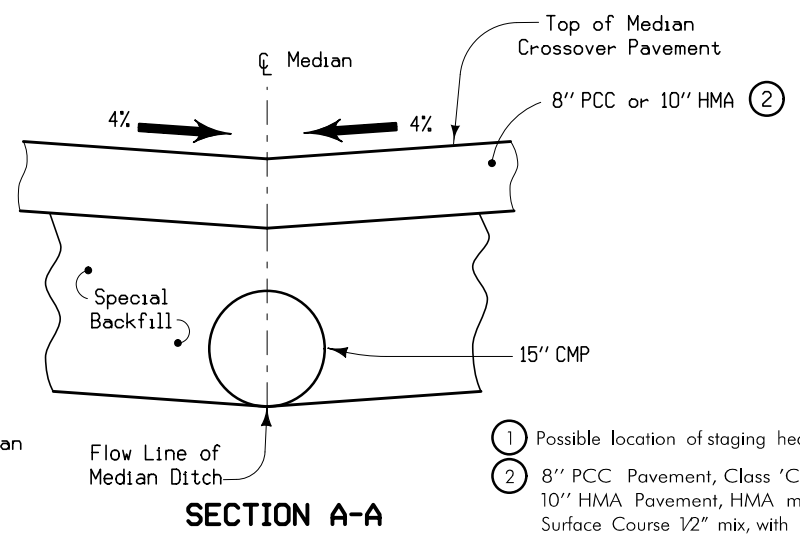
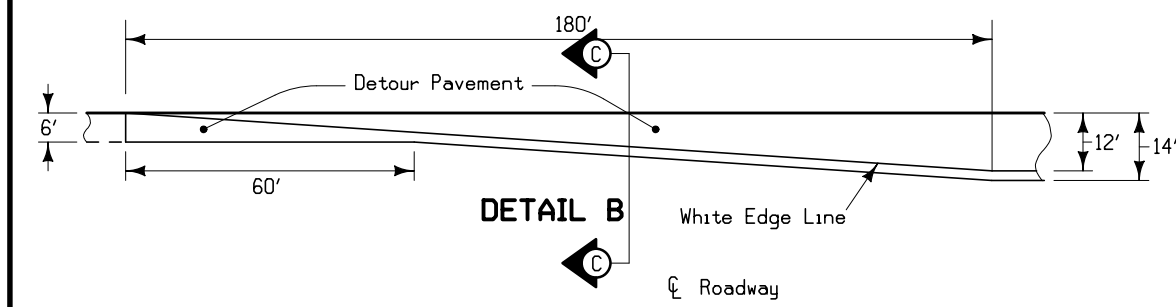
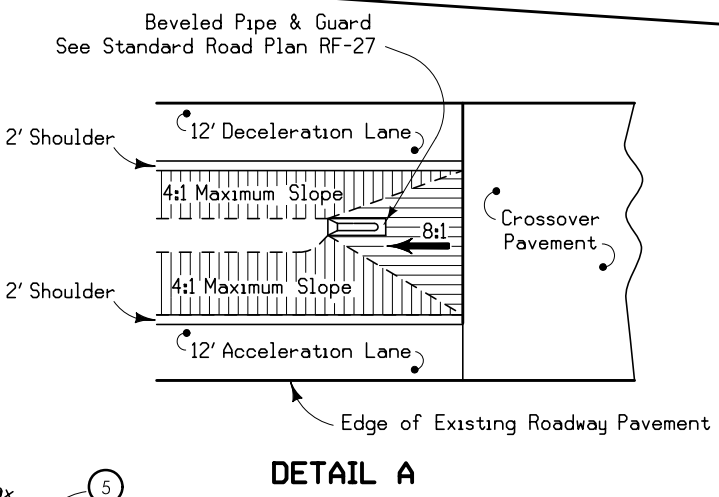
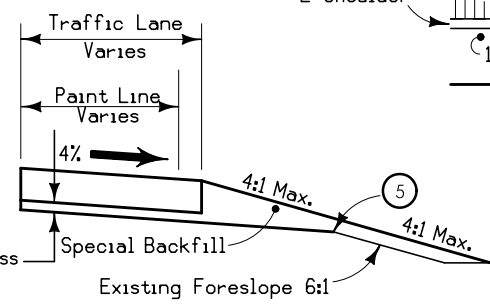
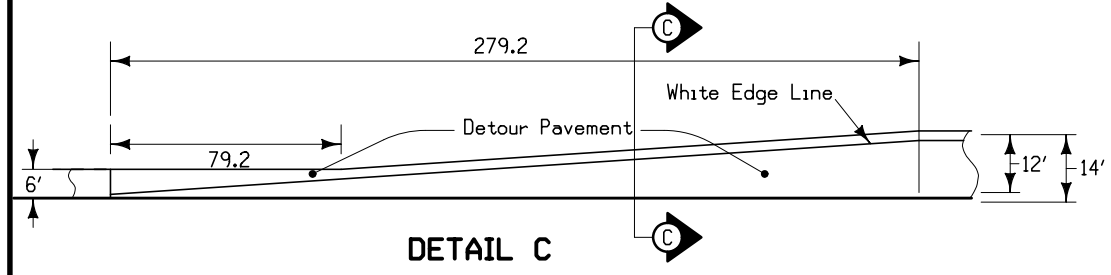
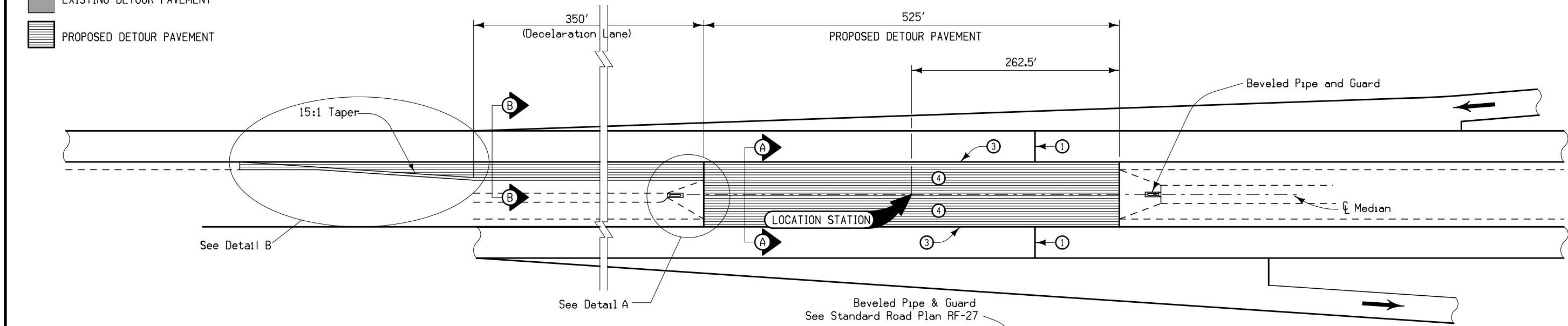
** Quantities are based on the as-build median ditch profile with varying depth to a max of 4' and foreslopes are 6:1.

**MODIFIED 531-2(1)
ROAD DESIGN DETAIL**

**DETAILS OF MEDIAN CROSSOVER
at IA 22 Ramp 'D'
(60' MEDIAN)**

- ① Possible location of staging header
- ② 8" PCC Pavement, Class 'C', with required joints, or 10" HMA Pavement, HMA mixture (10,000,000 ESAL) Surface Course 1/2" mix, with PG64-22 binder and Class 1B compaction. The surface lift requires L-4 friction.
- ③ 'B' Joint required
- ④ Transverse joints not required.
- ⑤ Fill to this point minimum

EXISTING DETOUR PAVEMENT
 PROPOSED DETOUR PAVEMENT



GENERAL NOTES:

The intent of this plan is to show the construction requirements for a median crossover where the median width is 60' and located adjacent to ramp tapers.

The Engineer will determine the header location to accommodate the required staging activities.

Price bid for contract items shall be considered full compensation for furnishing all necessary materials and labor to construct the median crossover as detailed herein.

Contract bid items: Refer to Tab. 112-8

* The removal of subbase material is considered incidental to the removal of pavement.

** Quantities are based on the as-build median ditch profile with varying depth to a max of 4' and foreslopes are 6:1.

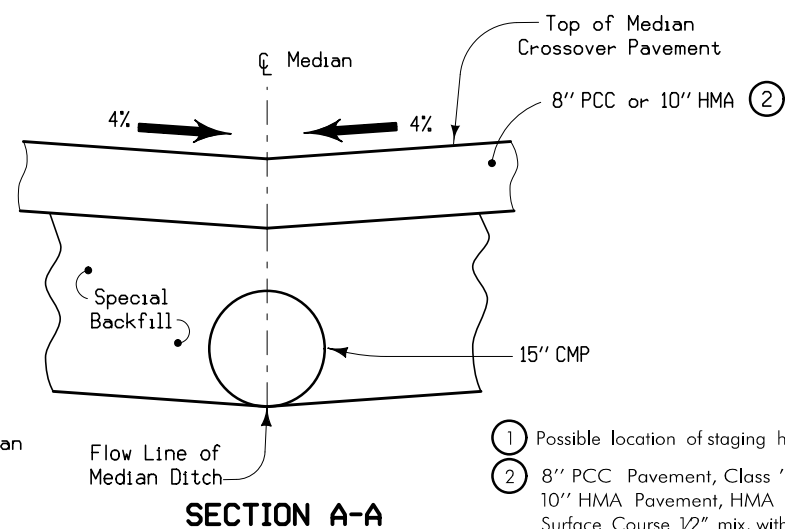
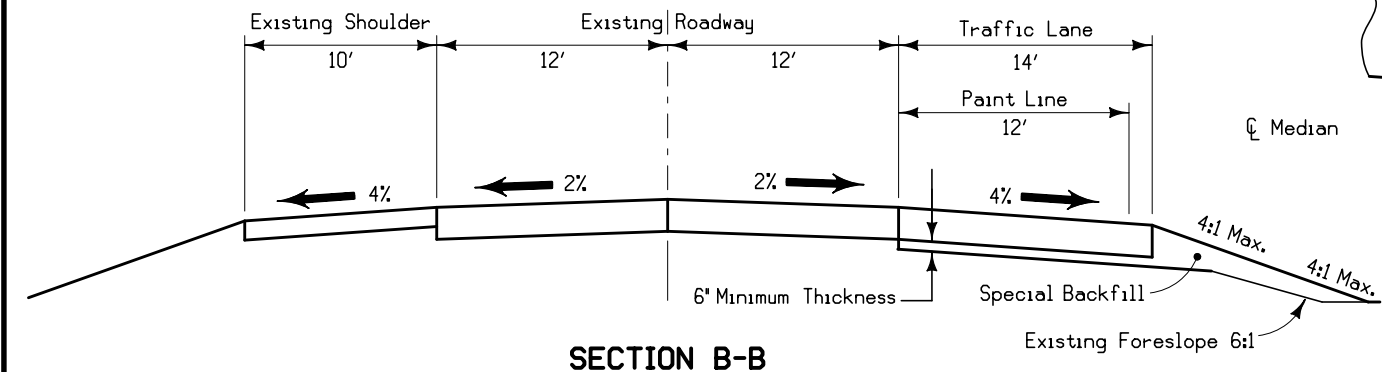
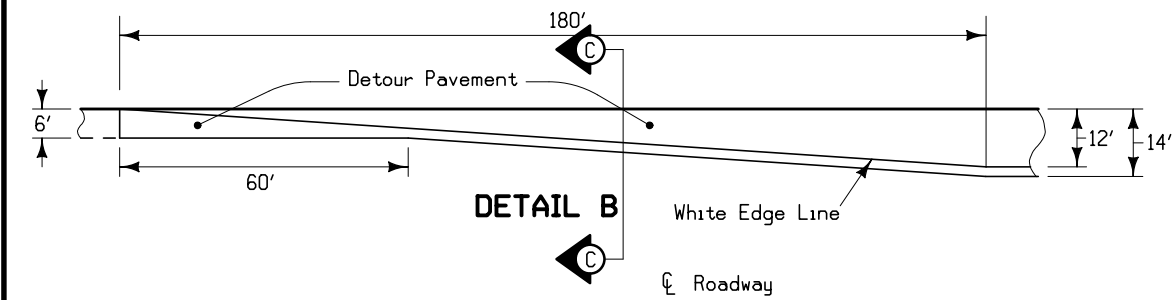
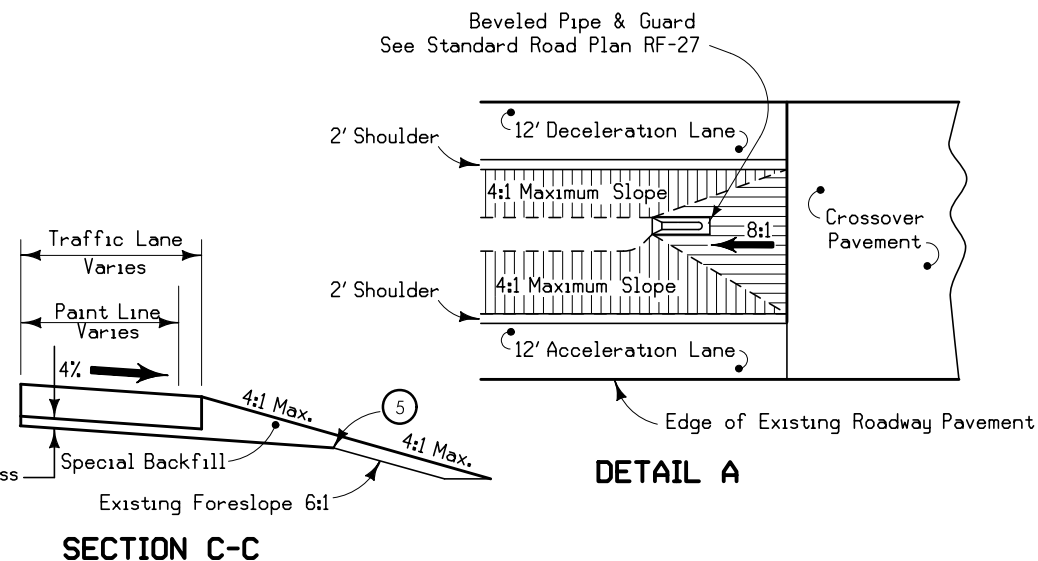
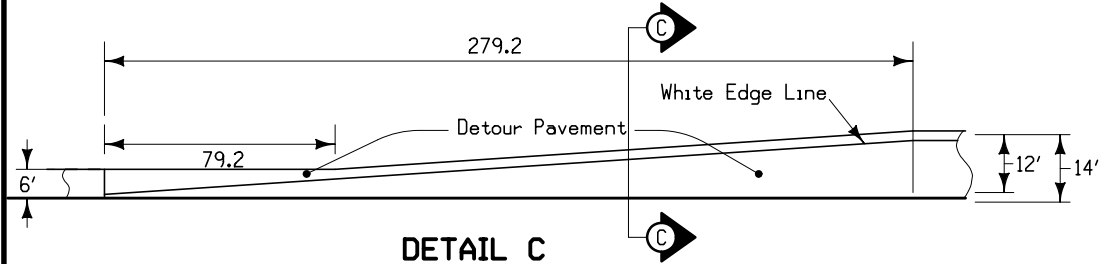
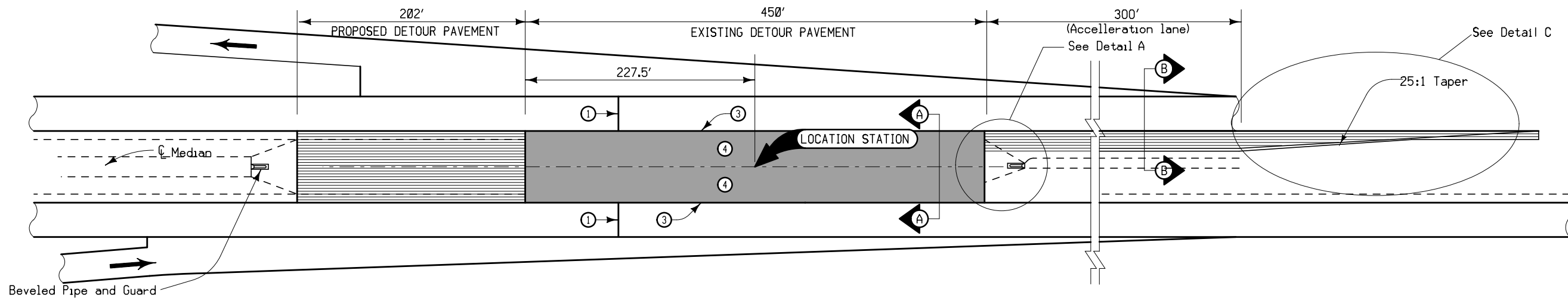
MODIFIED 531-2(2)
ROAD DESIGN DETAIL

DETAILS OF MEDIAN CROSSOVER
at US 61 Ramp 'B'
(60' MEDIAN)

- ① Possible location of staging header
- ② 8" PCC Pavement, Class 'C', with required joints, or 10" HMA Pavement, HMA mixture (10,000,000 ESAL) Surface Course 1/2" mix, with PG64-22 binder and Class 1B compaction. The surface lift requires L-4 friction.
- ③ 'B' Joint required
- ④ Transverse joints not required.
- ⑤ Fill to this point minimum

EXISTING DETOUR PAVEMENT

 PROPOSED DETOUR PAVEMENT



GENERAL NOTES:

The intent of this plan is to show the construction requirements for a median crossover where the median width is 60' and located adjacent to ramp tapers.

The Engineer will determine the header location to accommodate the required staging activities.

Price bid for contract items shall be considered full compensation for furnishing all necessary materials and labor to construct the median crossover as detailed herein.

Contract bid items: Refer to Tab. 112-8

* The removal of subbase material is considered incidental to the removal of pavement.

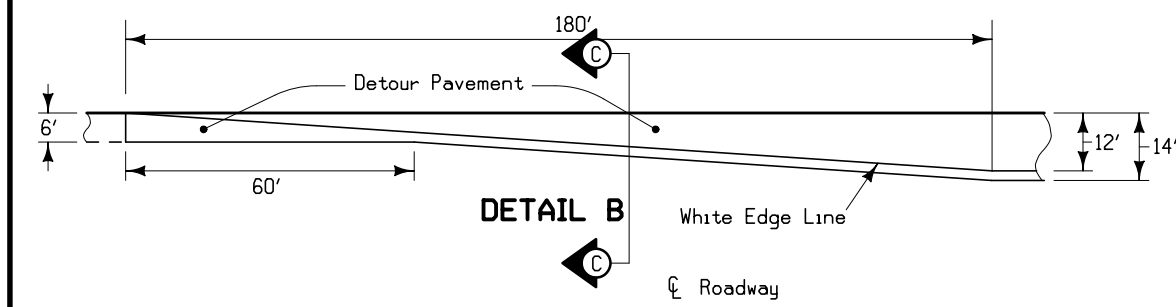
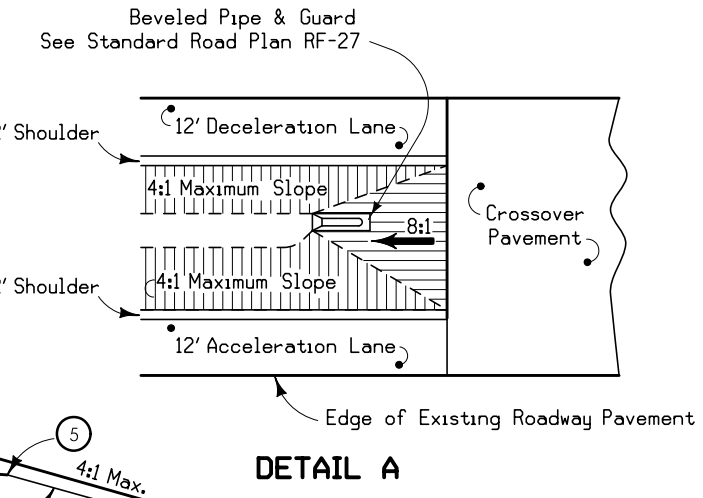
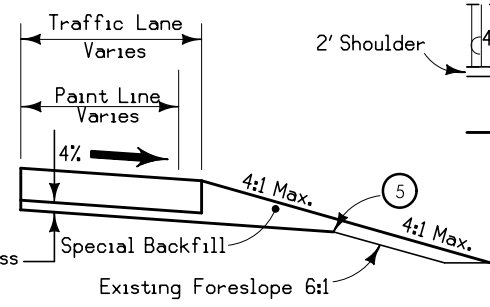
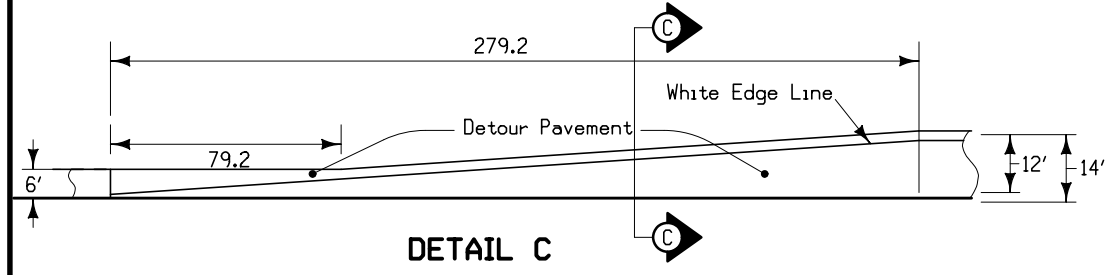
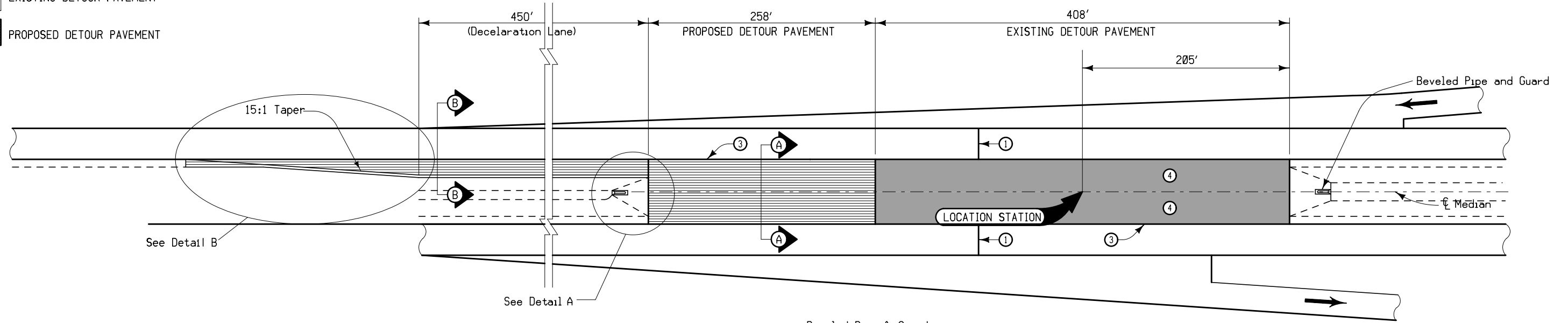
** Quantities are based on the as-build median ditch profile with varying depth to a max of 4' and foreslopes are 6:1.

- ① Possible location of staging header
- ② 8" PCC Pavement, Class 'C', with required joints, or 10" HMA Pavement, HMA mixture (10,000,000 ESAL) Surface Course 1/2" mix, with PG64-22 binder and Class 1B compaction. The surface lift requires L-4 friction.
- ③ 'B' Joint required
- ④ Transverse joints not required.
- ⑤ Fill to this point minimum

**MODIFIED 531-2(3)
ROAD DESIGN DETAIL**

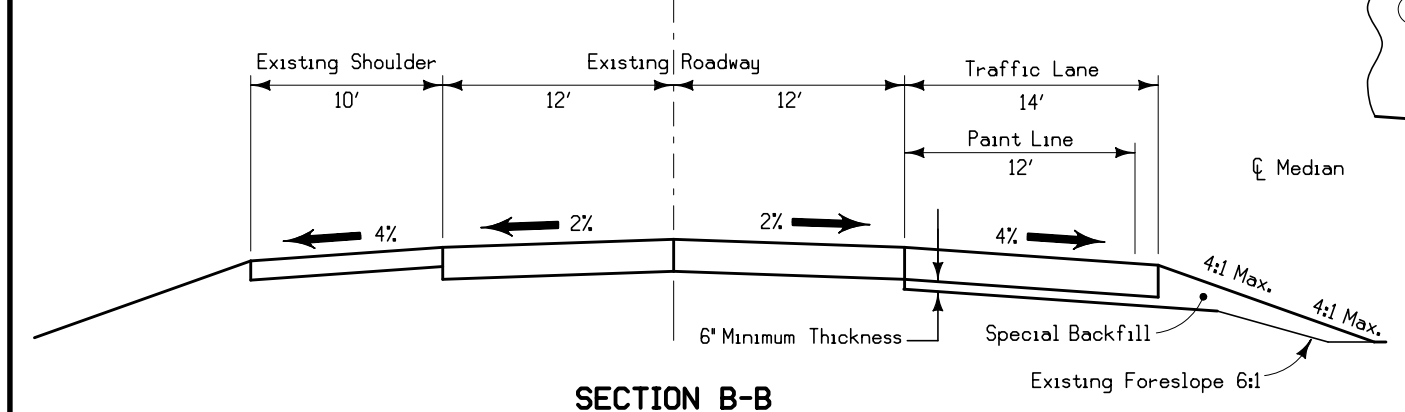
**DETAILS OF MEDIAN CROSSOVER
at US 61 Ramp 'D'
(60' MEDIAN)**

EXISTING DETOUR PAVEMENT
 PROPOSED DETOUR PAVEMENT

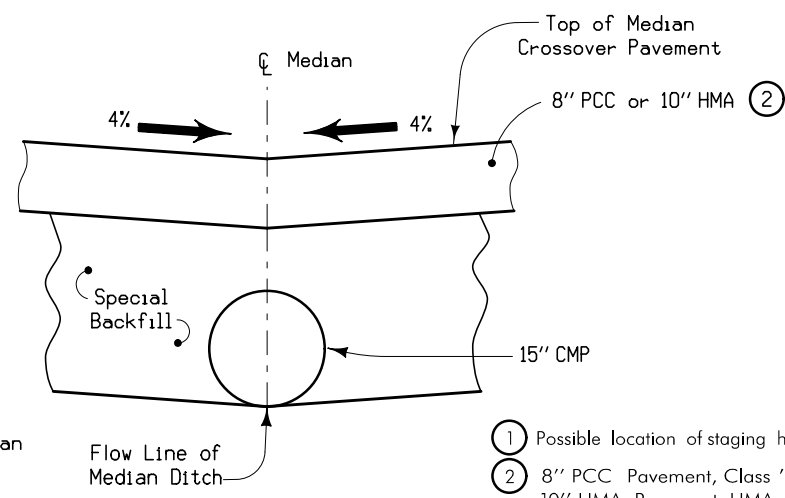


SECTION C-C

DETAIL A



SECTION B-B



SECTION A-A

GENERAL NOTES:

The intent of this plan is to show the construction requirements for a median crossover where the median width is 60' and located adjacent to ramp tapers.

The Engineer will determine the header location to accommodate the required staging activities.

Price bid for contract items shall be considered full compensation for furnishing all necessary materials and labor to construct the median crossover as detailed herein.

Contract bid items: Refer to Tab. 112-8

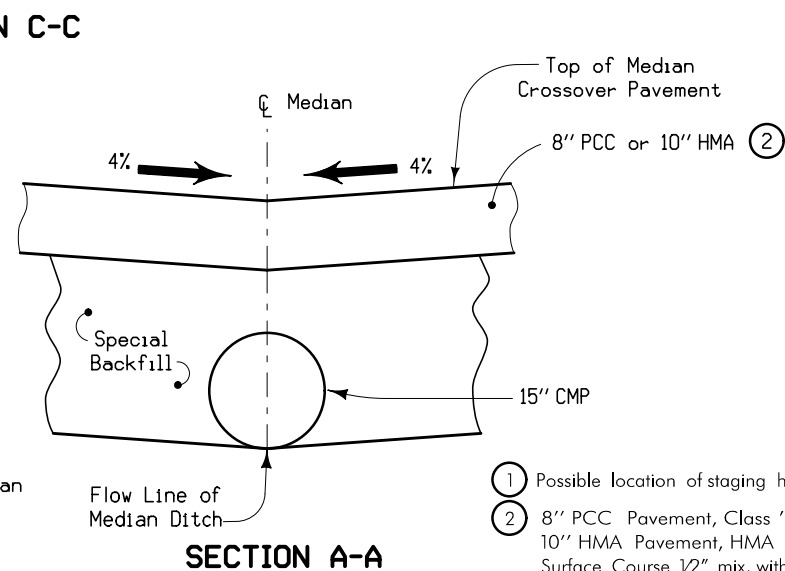
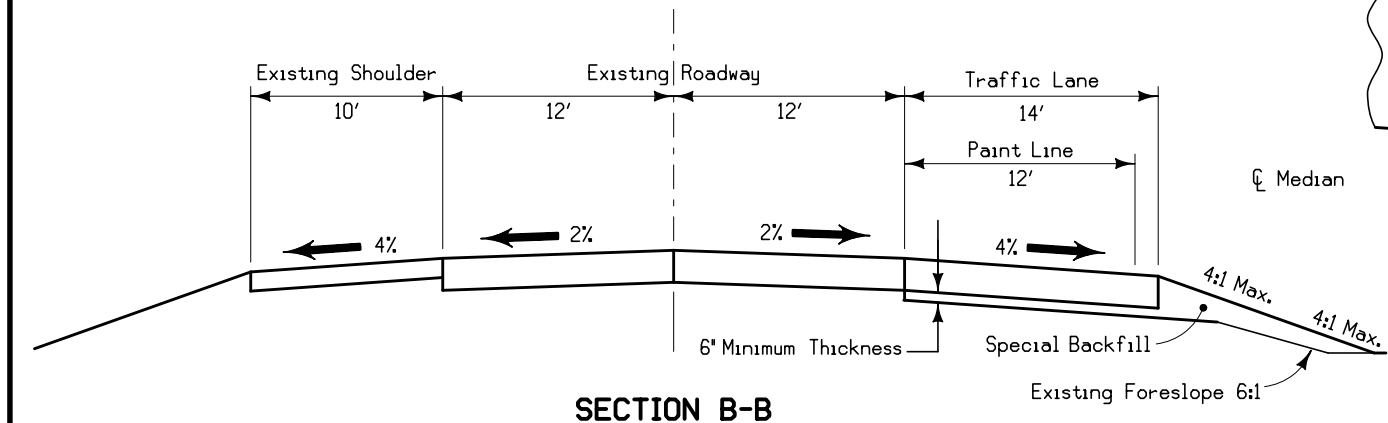
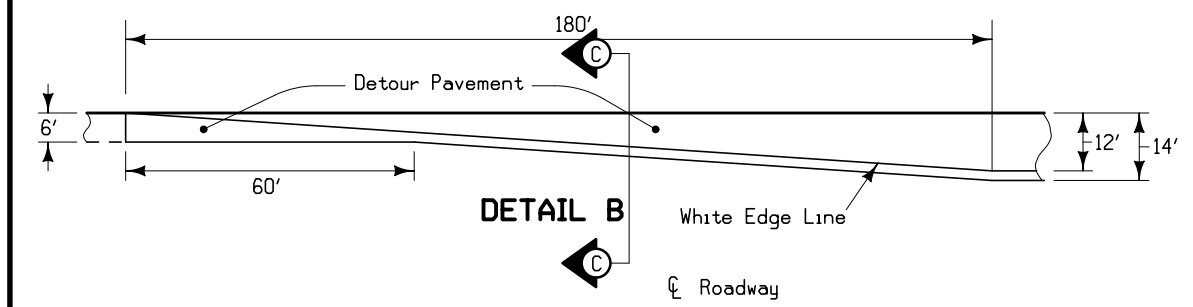
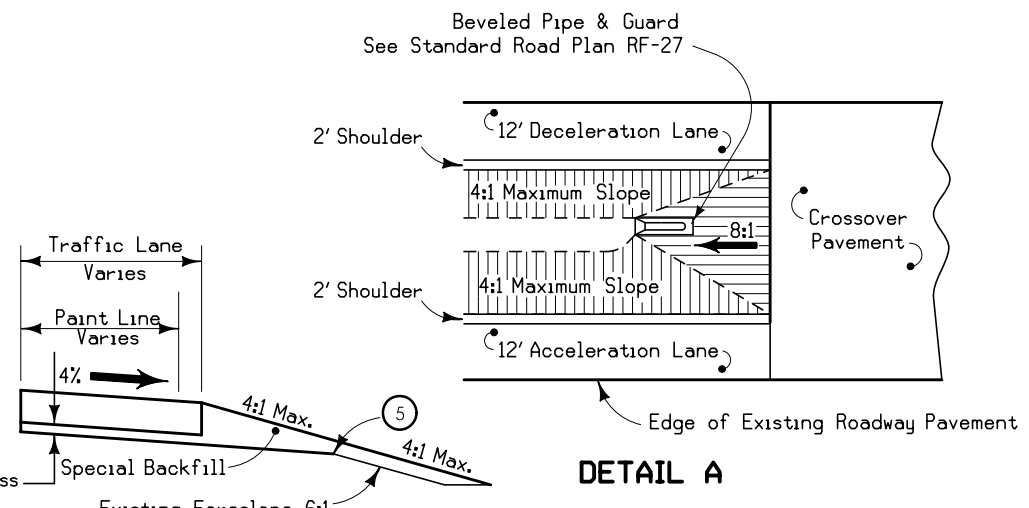
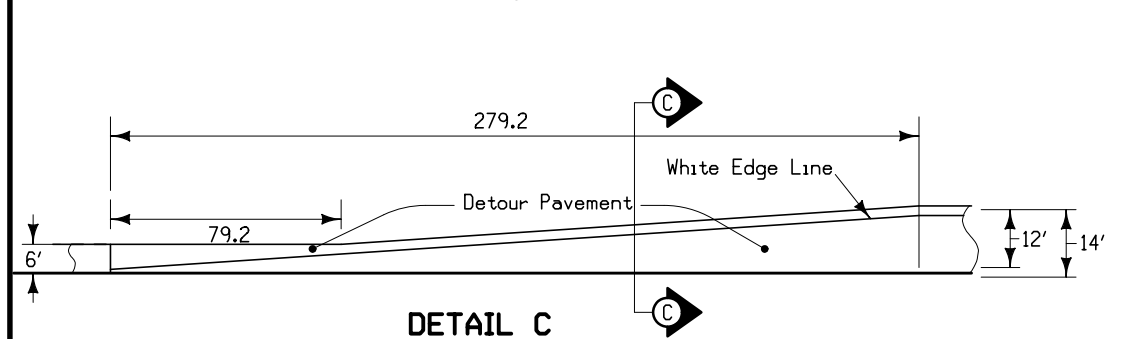
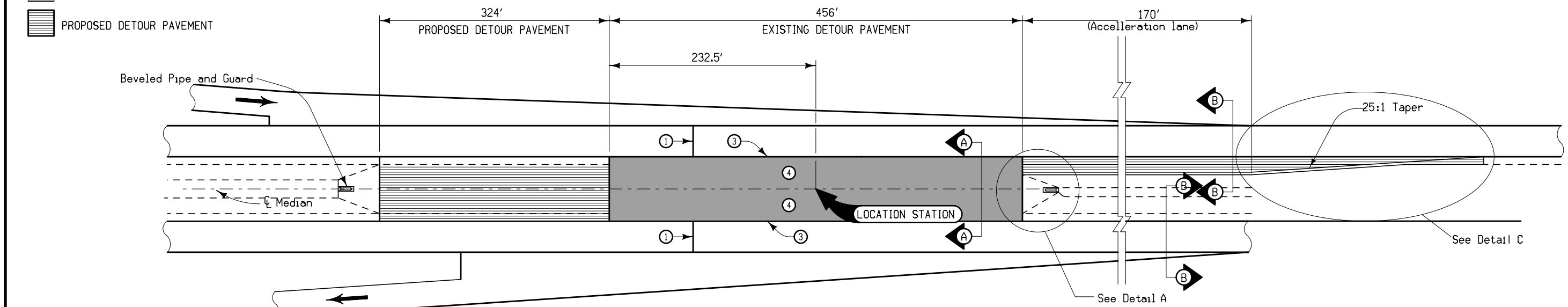
- * The removal of subbase material is considered incidental to the removal of pavement.
- ** Quantities are based on the as-build median ditch profile with varying depth to a max of 4' and foreslopes are 6:1.

- ① Possible location of staging header
- ② 8" PCC Pavement, Class 'C', with required joints, or 10" HMA Pavement, HMA mixture (10,000,000 ESAL) Surface Course 1/2" mix, with PG64-22 binder and Class 1B compaction. The surface lift requires L-4 friction.
- ③ 'B' Joint required
- ④ Transverse joints not required.
- ⑤ Fill to this point minimum

MODIFIED 531-2(4)
ROAD DESIGN DETAIL

DETAILS OF MEDIAN CROSSOVER
at Locust St. Ramps 'B'
(60' MEDIAN)

EXISTING DETOUR PAVEMENT
 PROPOSED DETOUR PAVEMENT



GENERAL NOTES:

The intent of this plan is to show the construction requirements for a median crossover where the median width is 60' and located adjacent to ramp tapers.

The Engineer will determine the header location to accommodate the required staging activities.

Price bid for contract items shall be considered full compensation for furnishing all necessary materials and labor to construct the median crossover as detailed hereon.

Contract bid items: Refer to Tab. 112-8

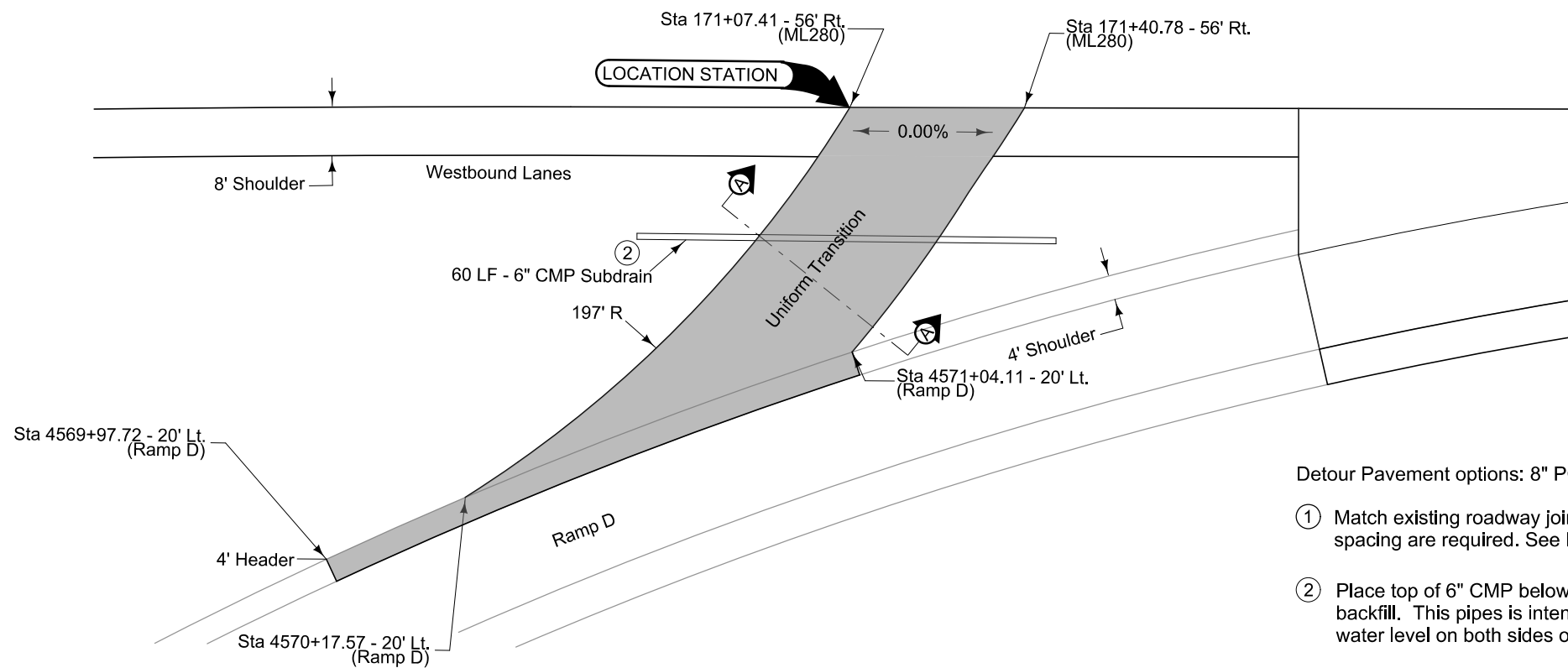
* The removal of subbase material is considered incidental to the removal of pavement.

** Quantities are based on the as-built median ditch profile with varying depth to a max of 4' and foreslopes are 6:1.

**MODIFIED 531-2(5)
 ROAD DESIGN DETAIL**

**DETAILS OF MEDIAN CROSSOVER
 at Locust St. Ramp 'D'
 (60' MEDIAN)**

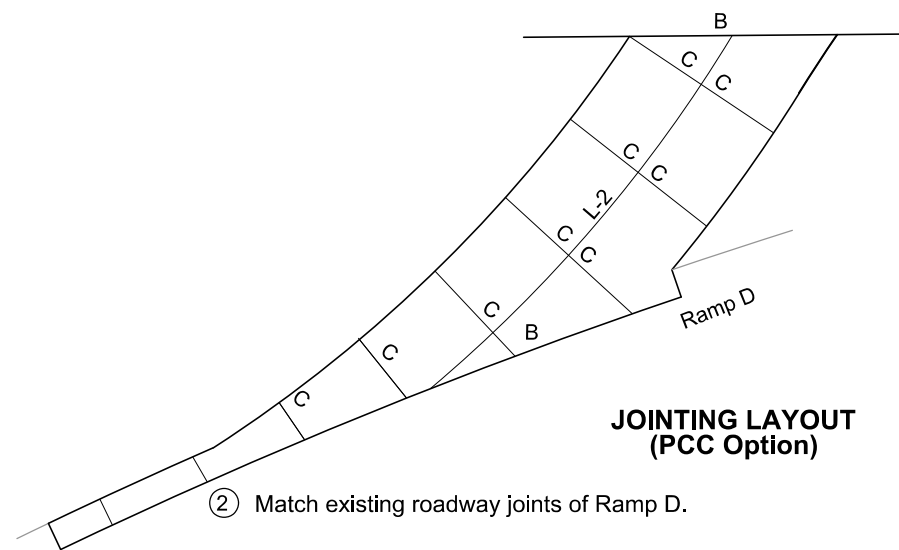
- ① Possible location of staging header
- ② 8" PCC Pavement, Class 'C', with required joints, or 10" HMA Pavement, HMA mixture (10,000,000 ESAL) Surface Course 1/2" mix, with PG64-22 binder and Class 1B compaction. The surface lift requires L-4 friction.
- ③ 'B' Joint required
- ④ Transverse joints not required.
- ⑤ Fill to this point minimum



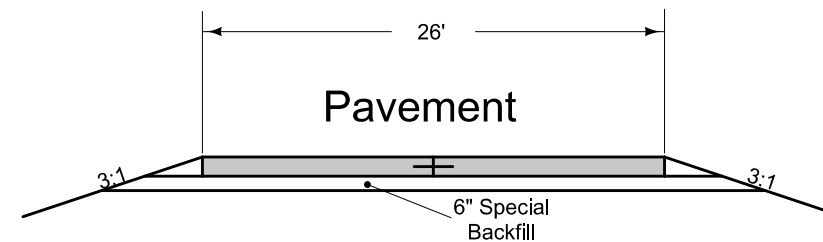
Detour Pavement options: 8" PCC or 10" HMA

- ① Match existing roadway joints. 'C' joints at 15' max. spacing are required. See PV-101.
- ② Place top of 6" CMP below bottom of special backfill. This pipes is intended to equalize water level on both sides of the crossover.

PLAN



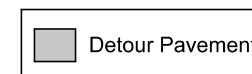
**JOINTING LAYOUT
(PCC Option)**



SECTION A-A

Transverse: 'K' Joint 15' Max Spacing

Longitudinal: 'L-2' Joint

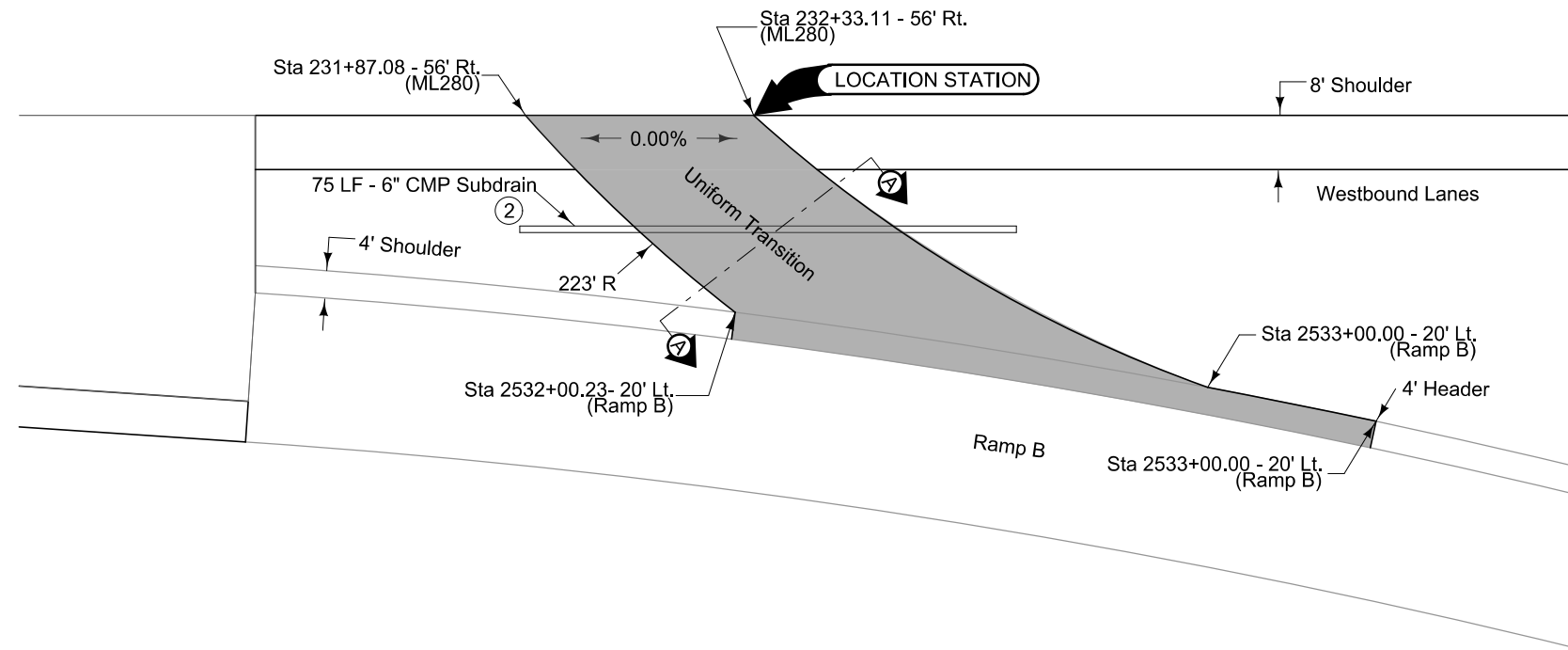


- Possible Contract Items:
- Detour Pavement
 - Embankment In Place
 - Excavation, Class 10, Roadway and Borrow
 - Excavation, Class 13, Roadway and Borrow
 - Granular Shoulders, Type A
 - Removal of Pavement
 - Special Backfill

Possible Tabulation:
112-8

**CROSSOVER #1
RAMP D CROSSOVER
IA 22 INTERCHANGE**

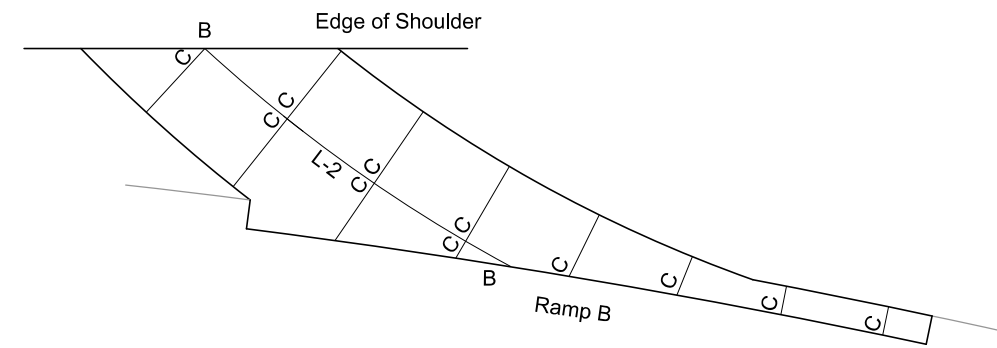
PLAN



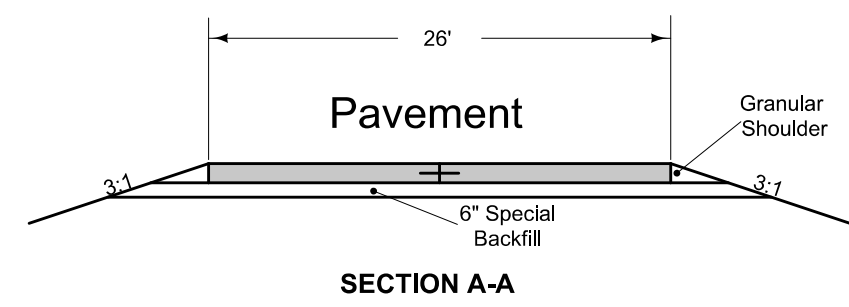
- Detour Pavement options: 8" PCC or 10" HMA
- ① Match existing roadway joints. 'C' joints at 15' max. spacing are required. See PV-101.
 - ② Place top of 6" CMP below bottom of special backfill. This pipes is intended to equalize water level on both sides of the crossover.



① Match existing roadway joints of Ramp D.



**JOINTING LAYOUT
(PCC Option)**

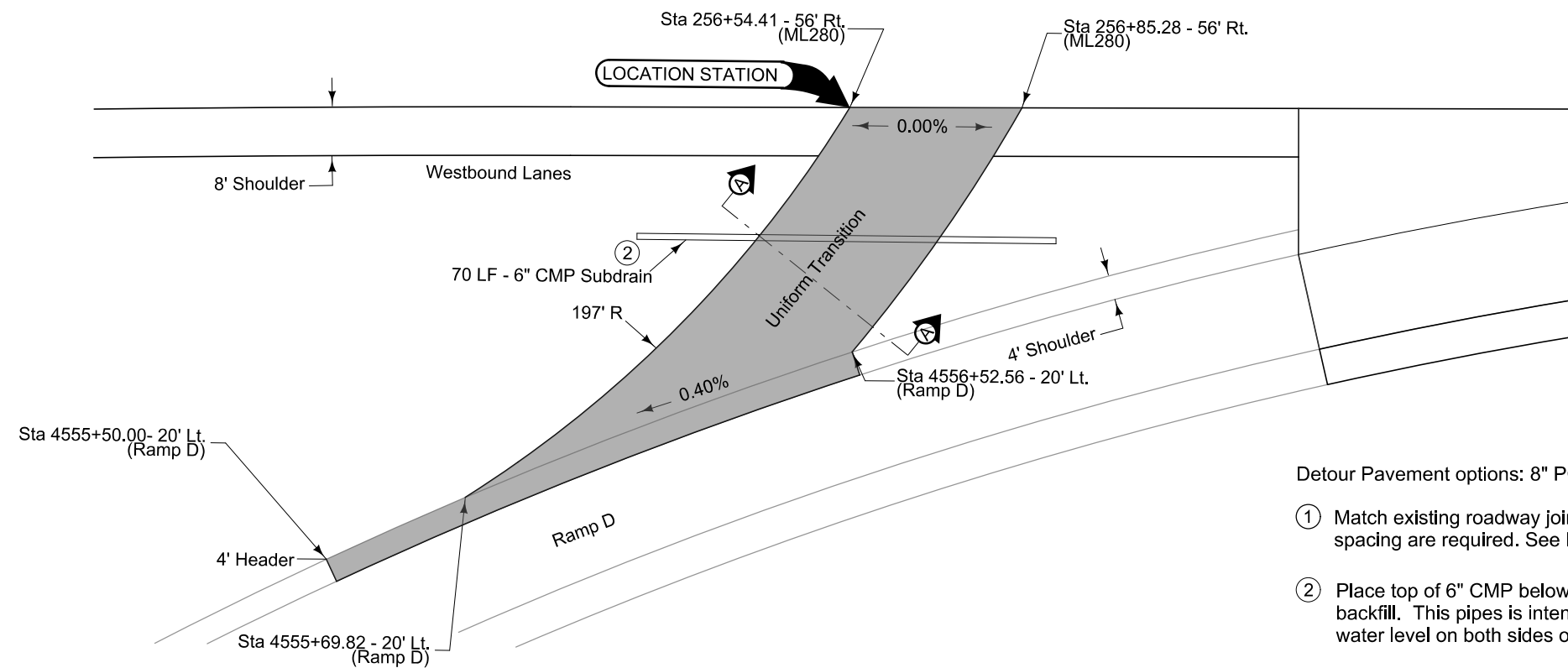


Transverse: 'K' Joint 15' Max Spacing
Longitudinal: 'L-2' Joint

- Possible Contract Items:
- Detour Pavement
 - Embankment In Place
 - Excavation, Class 10, Roadway and Borrow
 - Excavation, Class 13, Roadway and Borrow
 - Granular Shoulders, Type A
 - Removal of Pavement
 - Special Backfill

Possible Tabulation:
112-8

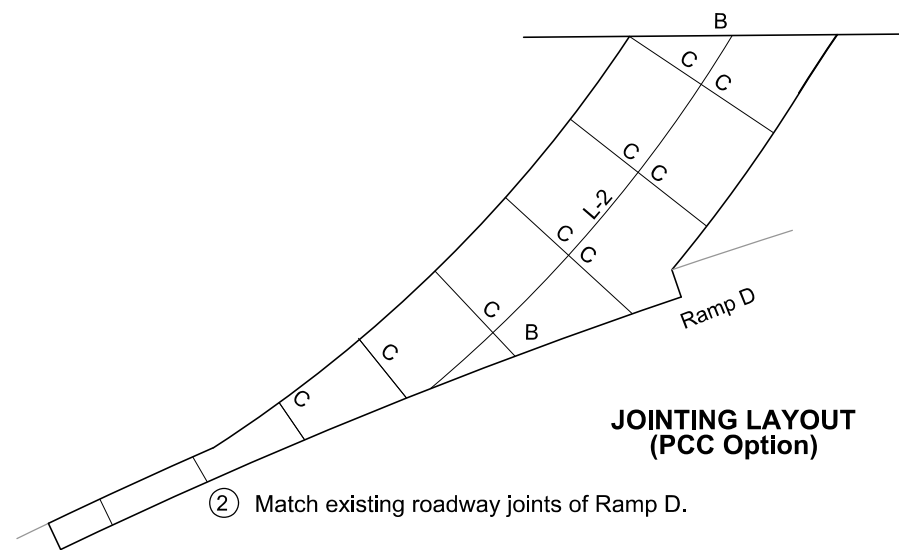
**CROSSOVER #2
RAMP B CROSSOVER
US 61 INTERCHANGE**



Detour Pavement options: 8" PCC or 10" HMA

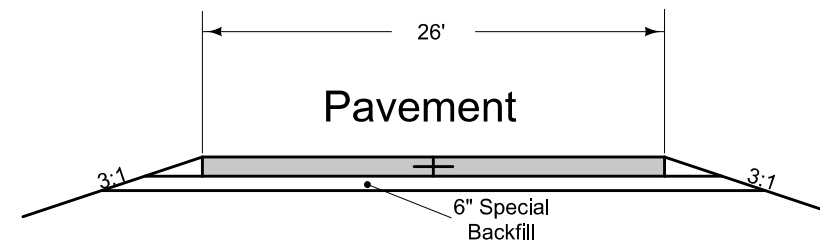
- ① Match existing roadway joints. 'C' joints at 15' max. spacing are required. See PV-101.
- ② Place top of 6" CMP below bottom of special backfill. This pipes is intended to equalize water level on both sides of the crossover.

PLAN



**JOINTING LAYOUT
(PCC Option)**

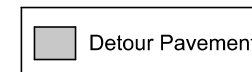
② Match existing roadway joints of Ramp D.



SECTION A-A

Transverse: 'K' Joint 15' Max Spacing

Longitudinal: 'L-2' Joint

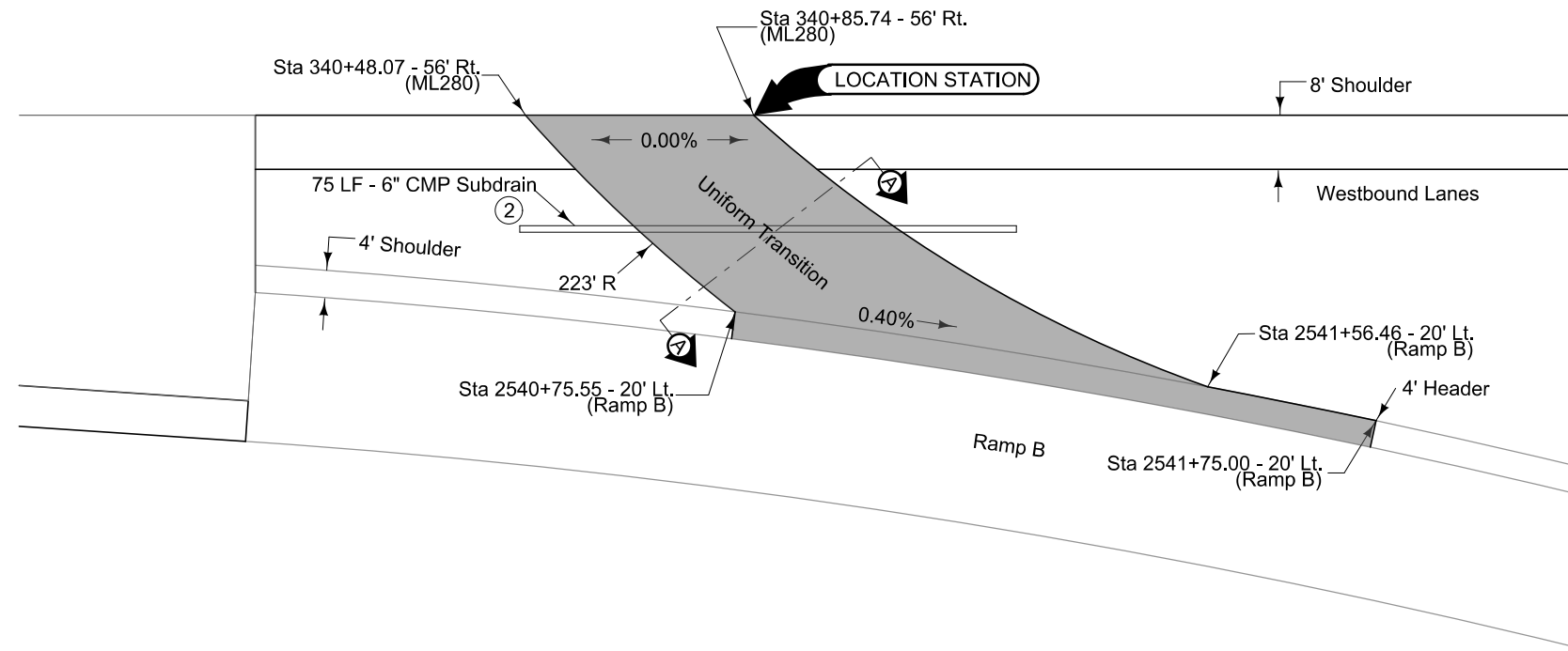


- Possible Contract Items:
- Detour Pavement
 - Embankment In Place
 - Excavation, Class 10, Roadway and Borrow
 - Excavation, Class 13, Roadway and Borrow
 - Granular Shoulders, Type A
 - Removal of Pavement
 - Special Backfill

Possible Tabulation:
112-8

**CROSSOVER #3
RAMP D CROSSOVER
US 61 INTERCHANGE**

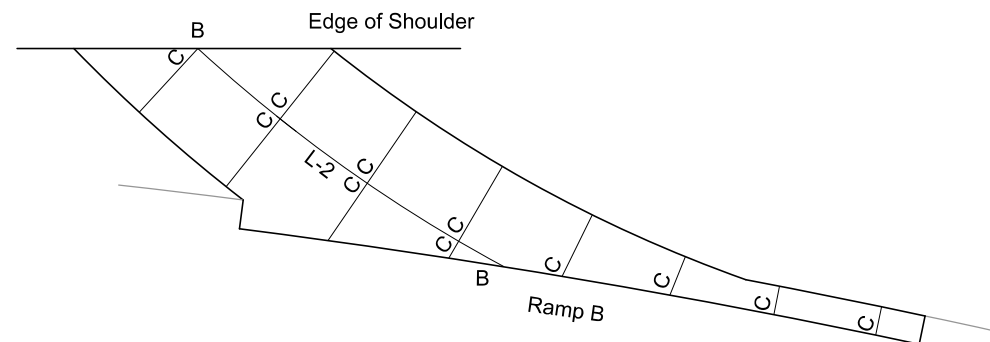
PLAN



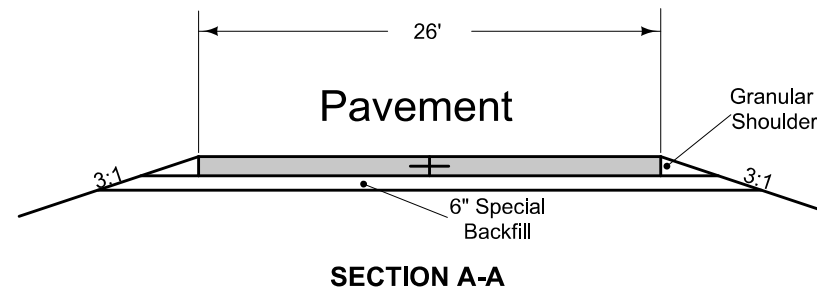
- Detour Pavement options: 8" PCC or 10" HMA
- ① Match existing roadway joints. 'C' joints at 15' max. spacing are required. See PV-101.
 - ② Place top of 6" CMP below bottom of special backfill. This pipes is intended to equalize water level on both sides of the crossover.



- ① Match existing roadway joints of Ramp D.



**JOINTING LAYOUT
(PCC Option)**

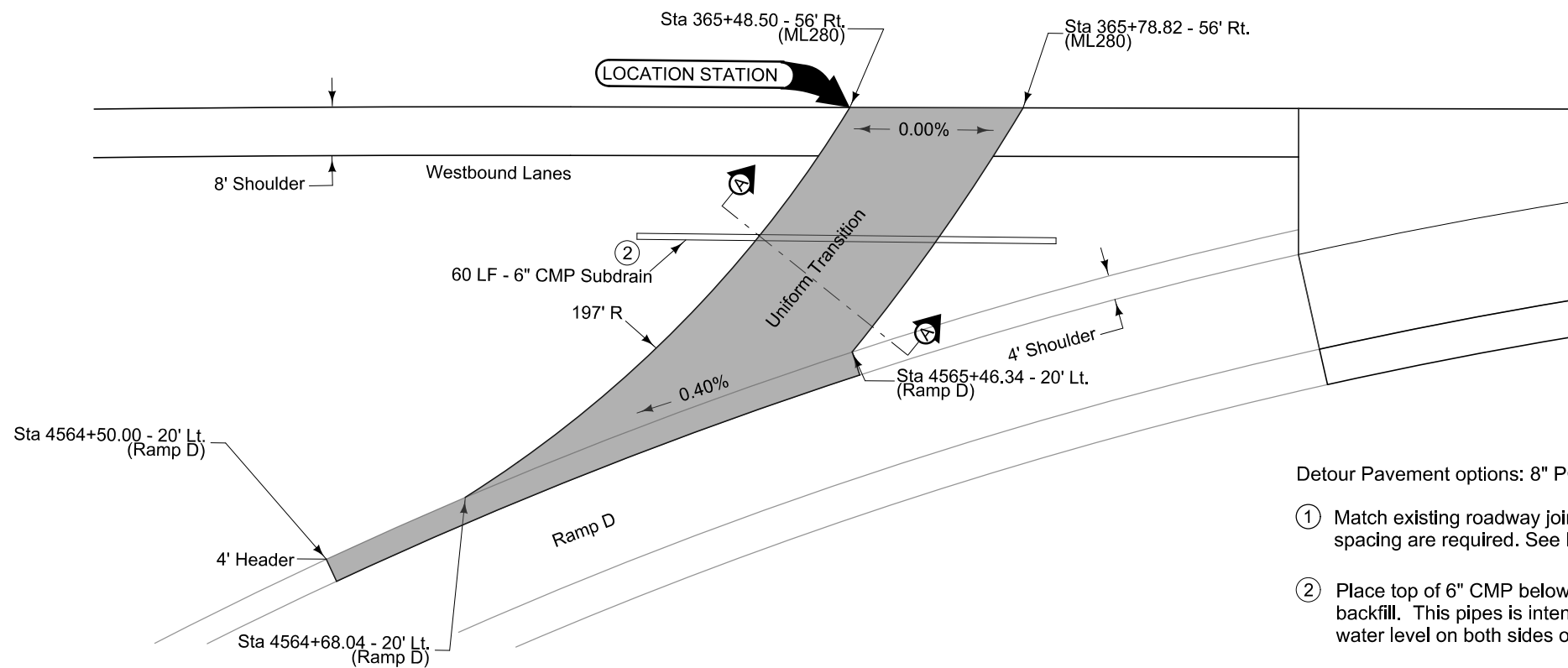


Transverse: 'K' Joint 15' Max Spacing
Longitudinal: 'L-2' Joint

- Possible Contract Items:
- Detour Pavement
 - Embankment In Place
 - Excavation, Class 10, Roadway and Borrow
 - Excavation, Class 13, Roadway and Borrow
 - Granular Shoulders, Type A
 - Removal of Pavement
 - Special Backfill

Possible Tabulation:
112-8

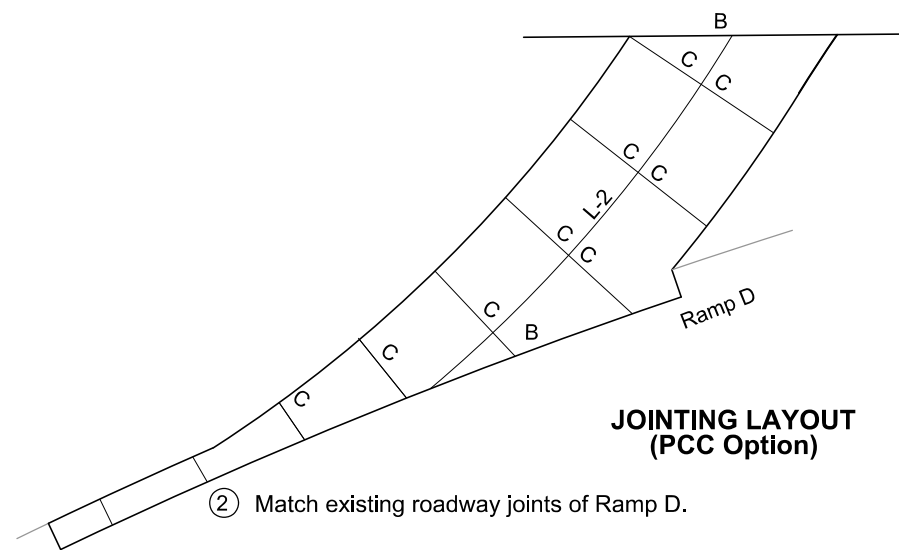
**CROSSOVER #4
RAMP B CROSSOVER
LOCUST ST INTERCHANGE**



Detour Pavement options: 8" PCC or 10" HMA

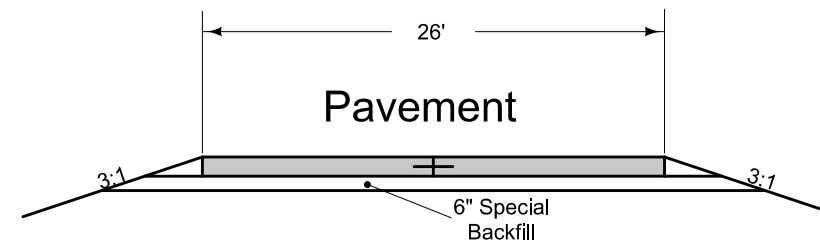
- ① Match existing roadway joints. 'C' joints at 15' max. spacing are required. See PV-101.
- ② Place top of 6" CMP below bottom of special backfill. This pipes is intended to equalize water level on both sides of the crossover.

PLAN



**JOINTING LAYOUT
(PCC Option)**

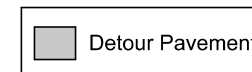
② Match existing roadway joints of Ramp D.



SECTION A-A

Transverse: 'K' Joint 15' Max Spacing

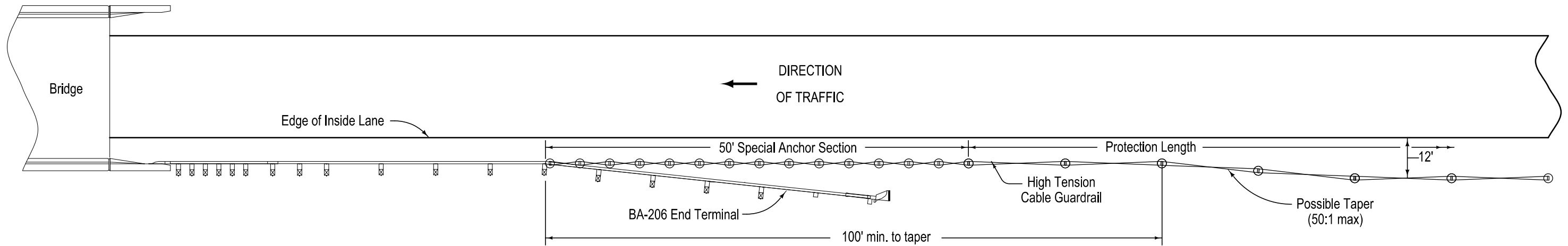
Longitudinal: 'L-2' Joint



- Possible Contract Items:
- Detour Pavement
 - Embankment In Place
 - Excavation, Class 10, Roadway and Borrow
 - Excavation, Class 13, Roadway and Borrow
 - Granular Shoulders, Type A
 - Removal of Pavement
 - Special Backfill

Possible Tabulation:
112-8

**CROSSOVER #5
RAMP D CROSSOVER
LOCUST ST INTERCHANGE**

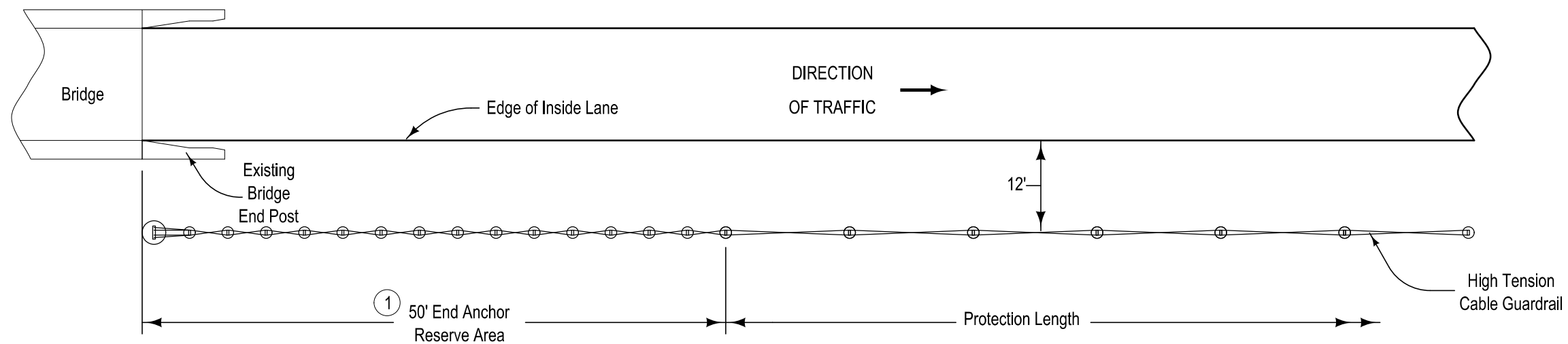


Case 1
 (Variable Tangent Layout at Bridge End)

Refer to Tabulation 108-9A in project plans.

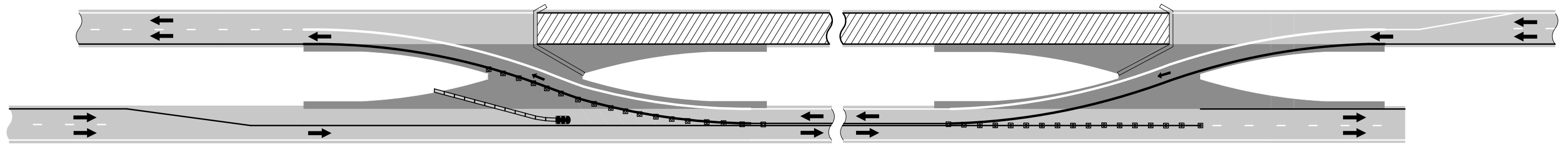
Contract Items:
 Guardrail, Special Anchor Section

**HIGH TENSION CABLE GUARDRAIL
 SPECIAL ANCHOR SECTION**



① Where supplied end anchor is less than 50 feet, increase protection length in order to align end anchor with bridge end post as shown.

**HIGH TENSION CABLE GUARDRAIL,
END ANCHOR
(Behind Bridge End)**



See Sheets 2 and 4 for Details

See Sheets 3 and 4 for Details

OVERVIEW OF CROSSOVER

Place Two-Way Traffic symbol and DO NOT PASS signs alternately on both sides of the roadway at a maximum of one-half mile intervals for both directions of travel. Always have signs in sight of motorists.

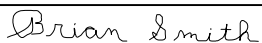
When the Average Daily Traffic (ADT) exceeds 20,000 vehicles per day or when a traffic queue extends beyond the advanced signing, place RIGHT/LEFT LANE CLOSED 4 MILES and RIGHT/LEFT LANE CLOSED 2 MILES signs (W20-5) on both sides of the roadway 4 miles and 2 miles in advance of the lane closure, respectively, as appropriate.

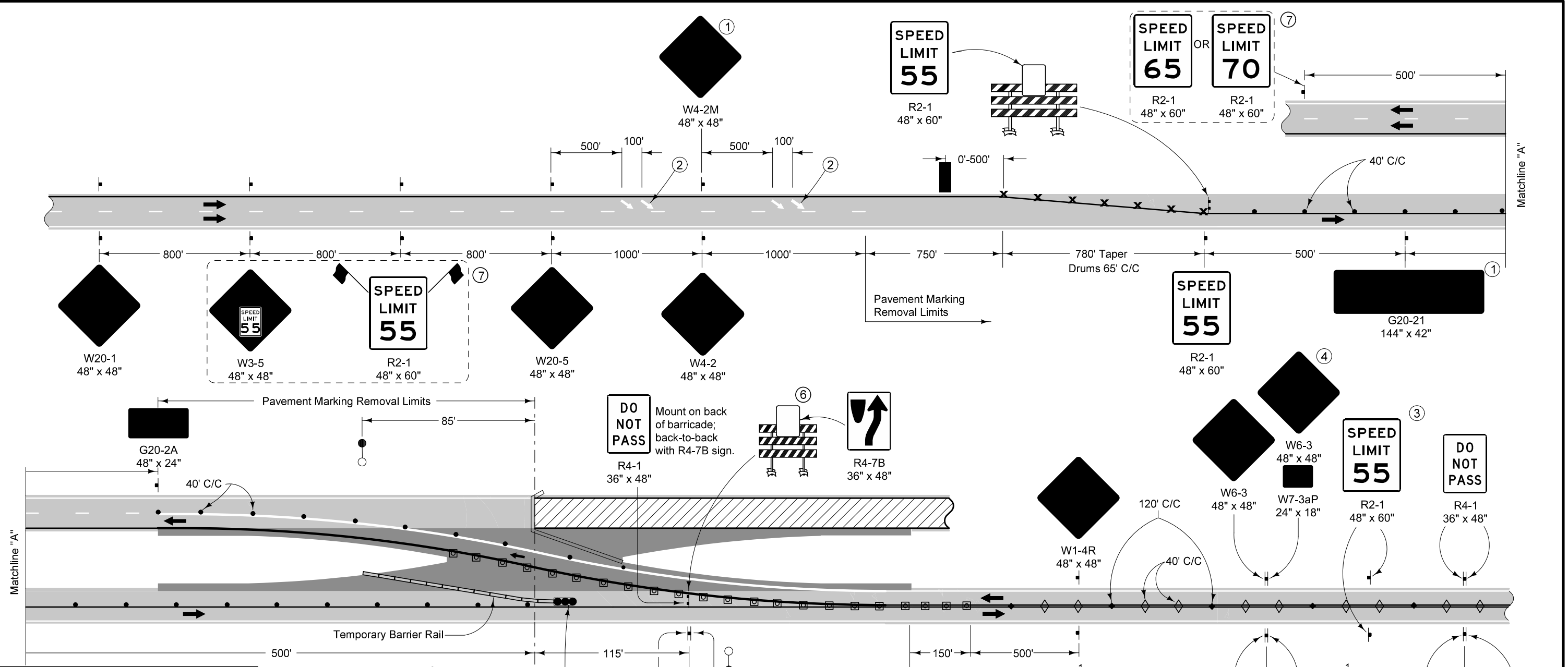
Possible Contract Items:

- | | |
|-----------------------------|---------------------------------|
| Painted Symbols and Legends | Temporary Barrier Rail |
| Pavement Marking Items | Temporary Crash Cushions |
| Pavement Marking Removed | Temporary Floodlighting |
| Safety Closures | Temporary Lane Separator System |
| | Traffic Control |

Possible Tabulations:

108-13A, 108-22, 108-27, 108-29, 108-30, 108-33, 108-35

INTERIM	REVISION	
	10	05-16-14
STANDARD ROAD PLAN		TC-61
		SHEET 1 of 5
REVISIONS: Removed 20' C/C spacing of TLSS on page 2.		
 APPROVED BY DESIGN METHODS ENGINEER		
TWO-LANE, TWO-WAY OPERATION		



LEGEND

- Crash Cushion
- Traffic Sign
- Drum
- 42" Channelizer
- Channelizer Marker
- Tubular Marker
- Type III Barricade
- Arrow Board
- Safety Closure (Refer to TC-252)
- Temporary Floodlighting
- Work Area
- Direction of Traffic
- Detour Pavement
- Temporary Lane Separator System

See sheet 4 for supplemental drawings.

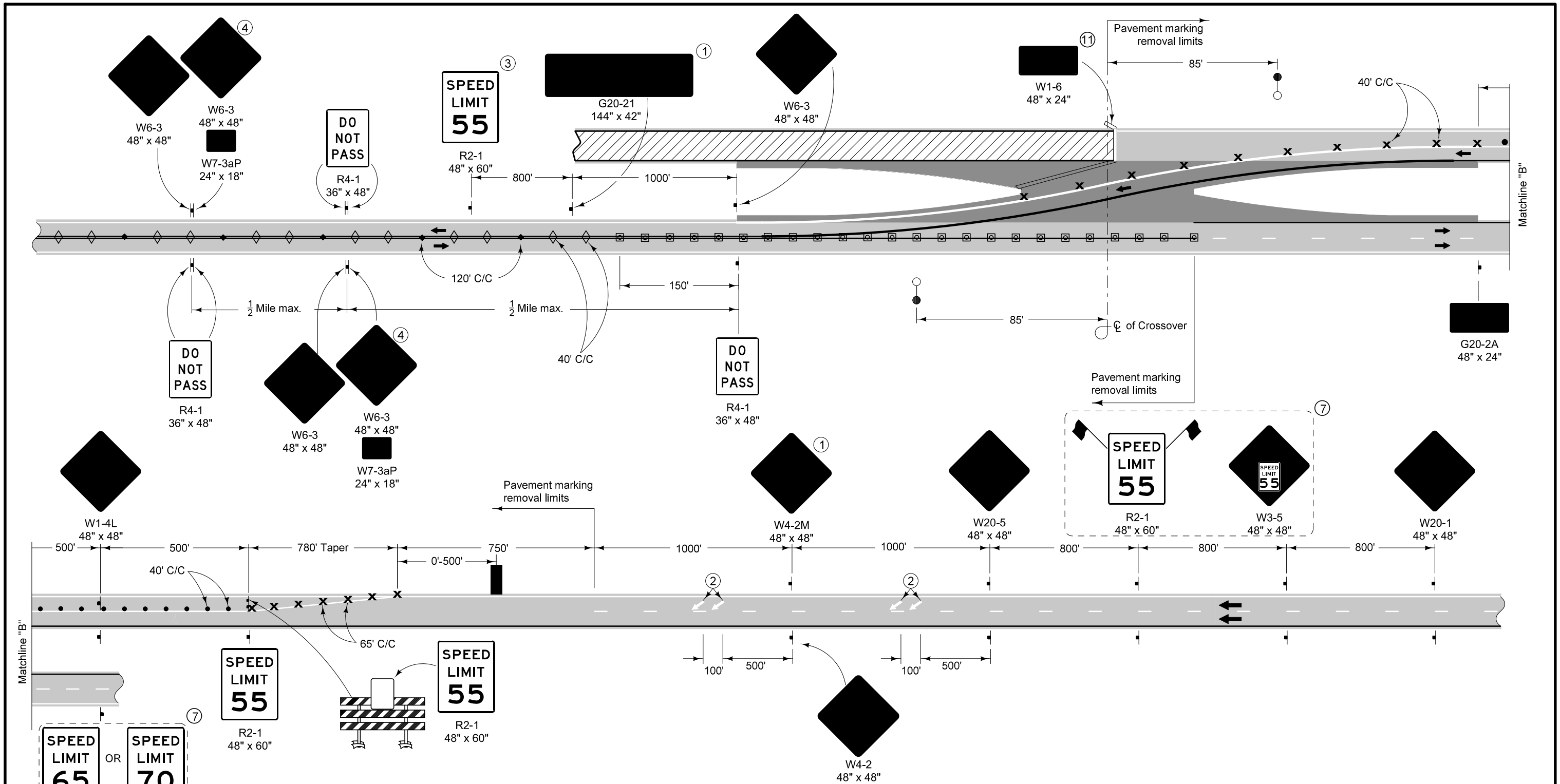
- ① Refer to SI-881 for sign details.
- ② Refer to PM-111 for arrow details.
- ③ Space Speed Limit signs at one-mile intervals.
- ④ Install an additional supplemental plaque with the message NEXT X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length of two-lane traffic. Round X to the nearest whole-mile increment.
- ⑤ Temporary Crash Cushion. Refer to BA-500 for approved sand barrel layouts.

- ⑥ Use a 4 foot wide Type III Barricade.
- ⑦ For roadways with a posted speed limit of 60 mph or greater before road work:

Place SPEED LIMIT AHEAD sign and SPEED LIMIT 55 sign prior to the lane closure as shown. Place SPEED LIMIT 65 or 70 beyond the work area as shown.

Remove or cover all existing signs that conflict with 55 mph speed limit while 55 mph speed limit is in effect.

INTERIM	REVISION
	10 05-16-14
STANDARD ROAD PLAN	TC-61
SHEET 2 of 5	
REVISIONS: Removed 20' C/C spacing of TLSS on page 2.	
APPROVED BY DESIGN METHODS ENGINEER	
TWO-LANE, TWO-WAY OPERATION	



LEGEND

— Traffic Sign	▬ Arrow Board
× Drum	▬ Safety Closure (Refer to TC-252)
• 42" Channelizer	○ Temporary Floodlighting
◇ Channelizer Marker	▨ Work Area
◆ Tubular Marker	← Direction of Traffic
--- Type III Barricade	▬ Detour Pavement
⊙ Temporary Lane Separator System	

See sheet 4 for supplemental drawings.

- ① Refer to SI-881 for sign details.
- ② Refer to PM-111 for arrow details.
- ③ Space Speed Limit signs at one-mile intervals.
- ④ Install an additional supplemental plaque with the message NEXT X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length of two-lane traffic. Round X to the nearest whole-mile increment.

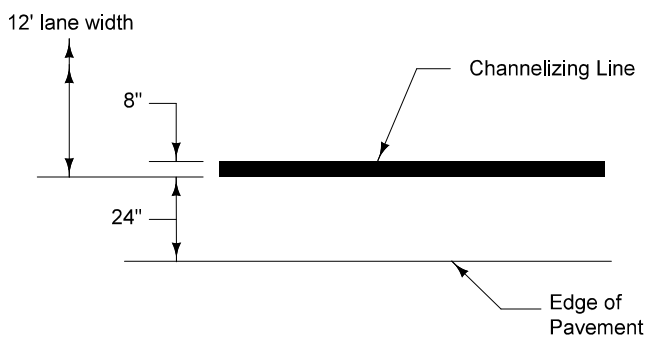
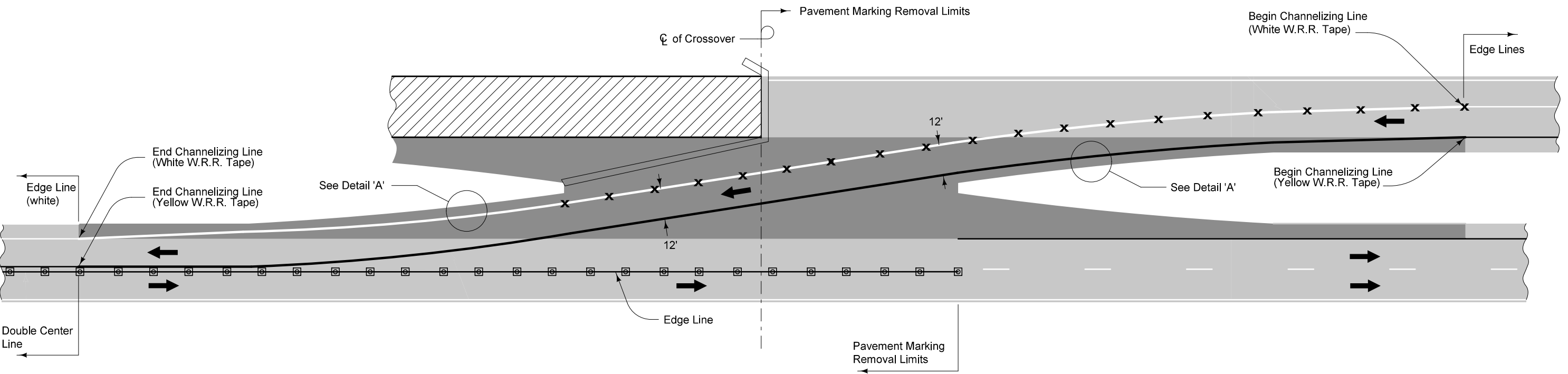
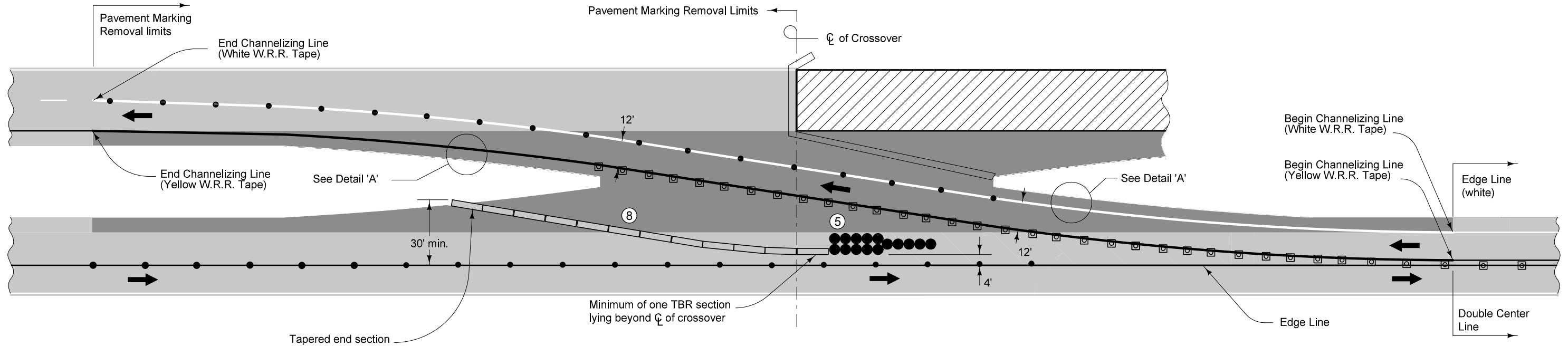
- ⑦ For roadways with a posted speed limit of 60 mph or greater before road work:

Place SPEED LIMIT AHEAD sign and SPEED LIMIT 55 sign prior to the lane closure as shown. Place SPEED LIMIT 65 or 70 beyond the work area as shown.

Remove or cover all existing signs that conflict with 55 mph speed limit while 55 mph speed limit is in effect.

- ⑪ Add below R11-2 already included in Safety Closure.

INTERIM	REVISION
	10 05-16-14
STANDARD ROAD PLAN	TC-61
REVISIONS: Removed 20' C/C spacing of TLSS on page 2.	
<small>APPROVED BY DESIGN METHODS ENGINEER</small>	
TWO-LANE, TWO-WAY OPERATION	



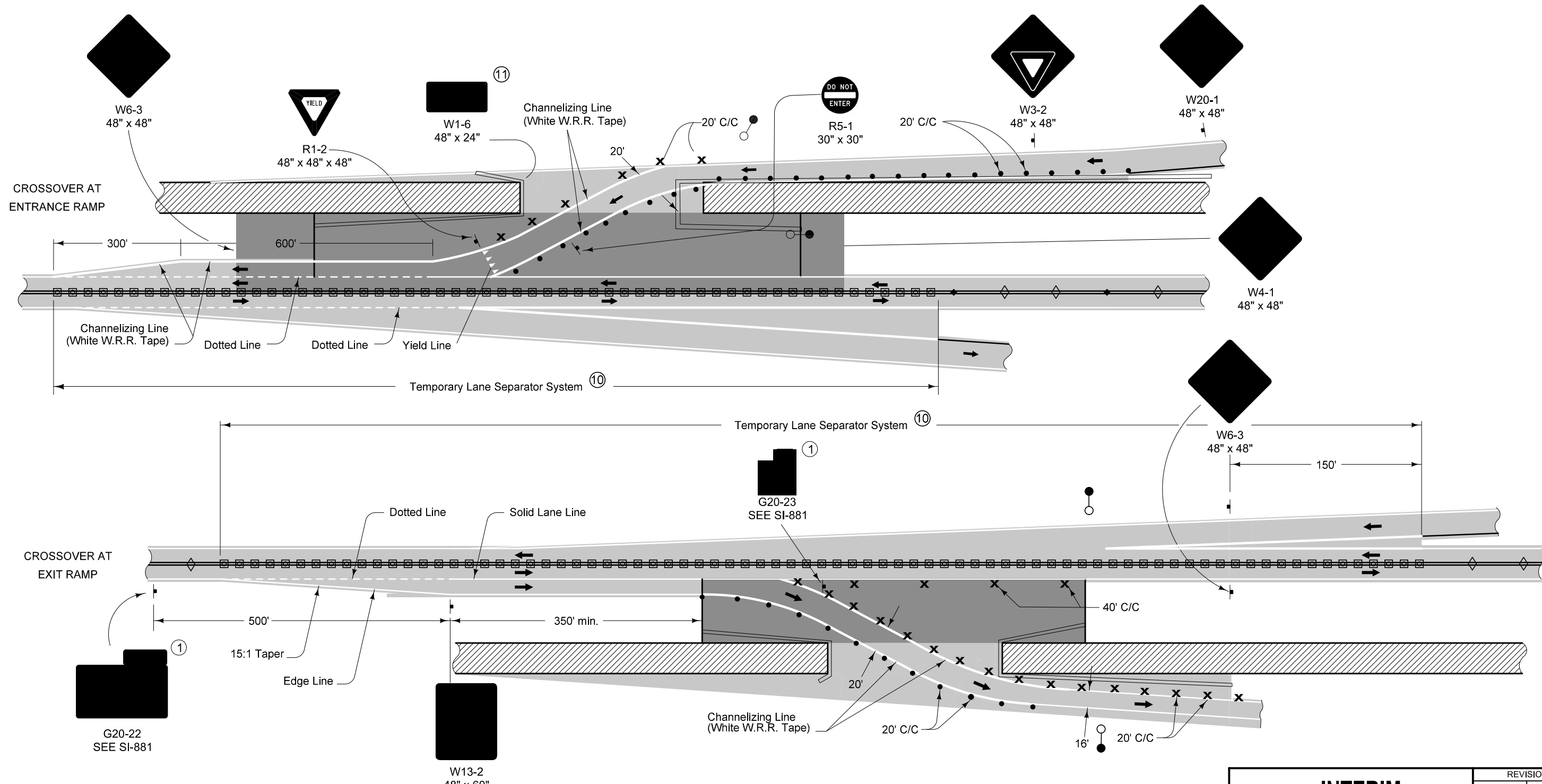
LEGEND

- Drum
- 42" Channelizer
- Crash Cushion
- Work Area
- Direction of Traffic
- Detour Pavement
- Safety Closure (Refer to TC-252)
- Temporary Lane Separator System

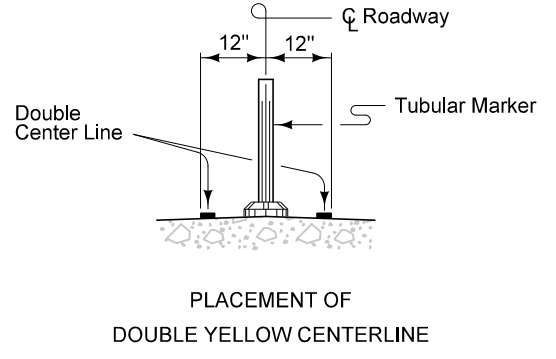
- ⑤ Temporary Crash Cushion. Refer to BA-500 for approved sand barrel layouts.
- ⑧ Number of TBR sections varies based on dimensions of Detour Pavement. Refer to BA-401 and 108-33 for TBR information.
- ⑨ Details shown hereon are intended to provide additional information to the requirements shown on sheets 2 and 3.

INTERIM	REVISION	
	10	05-16-14
STANDARD ROAD PLAN		TC-61
REVISIONS: Removed 20' C/C spacing of TLSS on page 2.		SHEET 4 of 5
<small>APPROVED BY DESIGN METHODS ENGINEER</small>		
TWO-LANE, TWO-WAY OPERATION		

RAMP LOCATIONS



LEGEND	
	Traffic Sign
	42" Channelizer
	Drum
	Channelizer Marker
	Tubular Marker
	Temporary Floodlighting
	Temporary Lane Separator System
	Work Area
	Detour Pavement
	Direction of Traffic
	Safety Closure (Refer to TC-252)



- ① Refer to SI-881 for sign details.
- ⑩ Place TLSS from start of ramp gore or start of full width decel lane to end of temporary ramp crossover pavement or end of ramp gore.
- ⑪ Add below R11-2 already included in Safety Closure.

<h1>INTERIM</h1> <h2>STANDARD ROAD PLAN</h2>	REVISION 10 05-16-14
	<h1>TC-61</h1> SHEET 5 of 5
REVISIONS: Removed 20' C/C spacing of TLSS on page 2.	
APPROVED BY DESIGN METHODS ENGINEER	
<h3>TWO-LANE, TWO-WAY OPERATION</h3>	

ESTIMATED BRIDGE REPAIR QUANTITIES

Table with 6 columns: ITEM NO., ITEM CODE, ITEM, UNIT, TOTAL, AS BUILT QUAN. Rows include Removals, Structural Concrete, Reinforcing Steel, and Paving Notch Replacement.

ESTIMATE REFERENCE INFORMATION

Table with 3 columns: ITEM NO., ITEM CODE, DESCRIPTION. Provides detailed descriptions for items 1 through 4, including material specifications and quantities.

RETROFIT BARRIER RAILING NOTES:

IT IS THE INTENT OF THIS DESIGN TO CONSTRUCT 2 RETROFIT END SECTIONS AND REPLACE THE PAVING NOTCHES OF THE EXISTING 201'-4 x 81'-0, 4° 00' SKEW (RIGHT AHEAD), PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE (W.B./N.B.) OVER D.M.E RAILROAD ON I-280 AT STATION 120+10.58.

THE TOP AND INTERIOR FACES OF THE EXISTING CONCRETE RAILING ARE TO BE CLEANED AND SEALED IN ACCORDANCE WITH ARTICLE 2403.03, P, OF THE STANDARD SPECIFICATIONS. IF NEW SECTIONS OF RAIL ARE CONSTRUCTED, THE NEW SECTIONS SHALL NOT BE SEALED.

COPIES OF ORIGINAL DESIGN PLANS WILL BE MADE AVAILABLE TO THE CONTRACTOR. CONTACT THE OFFICE OF CONTRACTS - HIGHWAY DIVISION - IOWA D.O.T. - AMES. DIMENSIONS SHOWN ON THESE PLANS ARE BASED ON DESIGN PLANS (ORIGINAL DESIGN NO. 166; DESIGN NO. 1185, RETROFIT RAILS AND OVERLAY; DESIGN NO. 1487, MEDIAN RETROFIT RAIL AND DECK REPAIR, DESIGN NO. 310 END SECTIONS AND PAVING NOTCHES (E.B./S.B.)).

ALL DIMENSIONS AND DETAILS SHOWN ON THESE PLANS PERTINENT TO NEW CONSTRUCTION SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR BEFORE STARTING CONSTRUCTION.

FAINT LINES ON PLANS INDICATE THE EXISTING STRUCTURE.

UTILITY COMPANIES AND MUNICIPALITIES WHOSE FACILITIES ARE SHOWN ON THE PLANS OR KNOWN TO BE WITHIN THE CONSTRUCTION LIMITS SHALL BE NOTIFIED BY THE CONTRACTOR OF THE CONSTRUCTION STARTING DATE.

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.

ALL REINFORCING STEEL IS TO BE GRADE 60 AND EPOXY COATED.

ALL EXPOSED CORNERS 90° OR SHARPER ARE TO BE FILLETED WITH A 3/4" DRESSED AND BEVELED STRIP.

THE BRIDGE CONTRACTOR SHALL WORK IN SUCH A MANNER THAT EQUIPMENT AND MATERIALS SHALL NOT BE ALLOWED TO INTERFERE WITH TRAIN TRAFFIC OR BE ALLOWED TO FALL ON THE RAILROAD TRACKS. INTERFERENCE ABOVE THE RAILROAD TRACK AREA SHALL BE COORDINATED WITH THE RAILROAD.

ALL REINFORCING BARS AND BARS NOTED AS DOWELS SUPPLIED FOR THIS STRUCTURE SHALL BE DEFORMED REINFORCEMENT UNLESS OTHERWISE NOTED OR SHOWN.

THESE BRIDGE PLANS LABEL ALL REINFORCING STEEL WITH ENGLISH NOTATION (5d IS 5/8 INCH DIAMETER BAR). ENGLISH REINFORCING STEEL RECEIVED IN THE FIELD MAY DISPLAY THE FOLLOWING "BAR DESIGNATION". THE "BAR DESIGNATION" IS THE STAMPED IMPRESSION ON THE REINFORCING BARS, AND IS EQUIVALENT TO THE BAR DIAMETER IN MILLIMETERS.

Table mapping English size to bar designation. Columns: ENGLISH SIZE, 3, 4, 5, 6, 7, 8, 9, 10, 11. Rows: BAR DESIGNATION, 10, 13, 16, 19, 22, 25, 29, 32, 36.

REMOVAL NOTES:

THE PRICE BID FOR "REMOVALS AS PER PLAN" SHALL INCLUDE ALL COSTS ASSOCIATED WITH REMOVING THE EXISTING CONCRETE END SECTIONS (2). THE REMOVED CONCRETE SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE SITE BY THE CONTRACTOR.

REMOVALS SHALL BE IN ACCORDANCE WITH SECTION 2401 OF THE STANDARD SPECIFICATIONS. ANY DAMAGE TO OTHER PORTIONS OF THE EXISTING STRUCTURE NOT NOTED FOR REMOVAL SHALL BE THE RESPONSIBILITY OF THE BRIDGE CONTRACTOR AND SHALL BE REPAIRED AT NO EXTRA COST TO THE STATE.

EXISTING BRIDGE RAIL END IS NOT TO BE REMOVED UNTIL AUTHORIZED BY THE ENGINEER.

DOWEL SETTING NOTE:

THE 6c1 BARS SHALL BE SET AS DOWELS IN DRILLED HOLES. HOLES ARE TO BE 10" DEEP. THE DOWELS SHALL BE INSTALLED IN ACCORDANCE WITH THE GROUT MANUFACTURER'S RECOMMENDATIONS. EITHER OF THE FOLLOWING SYSTEMS MAY BE USED AS A BONDING AGENT FOR VERTICAL DOWELS, BUT ONLY SYSTEM "A" MAY BE USED FOR HORIZONTAL DOWELS:

- A. POLYMER GROUT SYSTEM IN ACCORDANCE WITH ARTICLE 2301.03, E, OF THE STANDARD SPECIFICATIONS.
B. HYDRAULIC CEMENT GROUT SYSTEMS. DRILLED HOLES ARE TO BE 2 1/2 TIMES THE DOWEL DIAMETER AND ARE TO BE BLOWN CLEAN WITH COMPRESSED AIR IMMEDIATELY PRIOR TO PLACING GROUT.

THE PRICE BID FOR "STRUCTURAL CONCRETE" SHALL INCLUDE THE COSTS OF SETTING BARS AS DOWELS IN THE RETROFIT END SECTIONS.

DESIGN HISTORY AT THIS SITE

Table with 2 columns: DES. NO., TYPE OF WORK. Lists design numbers and corresponding work types such as Original Design, Retrofit Rails, and Deck Repair.

TRAFFIC CONTROL PLAN

NOTE: THE ROADWAY WILL BE OPEN TO THRU TRAFFIC. REFER TO THE TRAFFIC CONTROL PLAN ON THE ROAD PLAN IN THESE PLANS.

NOTE: ROADWAY QUANTITIES SHOWN ELSEWHERE IN THESE PLANS.

SPECIFICATIONS:

DESIGN: AASHTO SERIES OF 2002. CONSTRUCTION: IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SERIES 2012, PLUS APPLICABLE GENERAL SUPPLEMENTAL SPECIFICATIONS, DEVELOPMENTAL SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS SHALL APPLY TO CONSTRUCTION WORK ON THIS PROJECT.

DESIGN STRESSES:

DESIGN STRESSES FOR THE FOLLOWING MATERIALS ARE IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SERIES OF 2002. REINFORCING STEEL IN ACCORDANCE WITH SECTION 8, GRADE 60. CONCRETE IN ACCORDANCE WITH SECTION 8, f'c = 3,500 PSI.

STRUCTURAL DESIGN



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature: James S. Nelson, Date: 2/4/2014

Printed or Typed Name: James S. Nelson

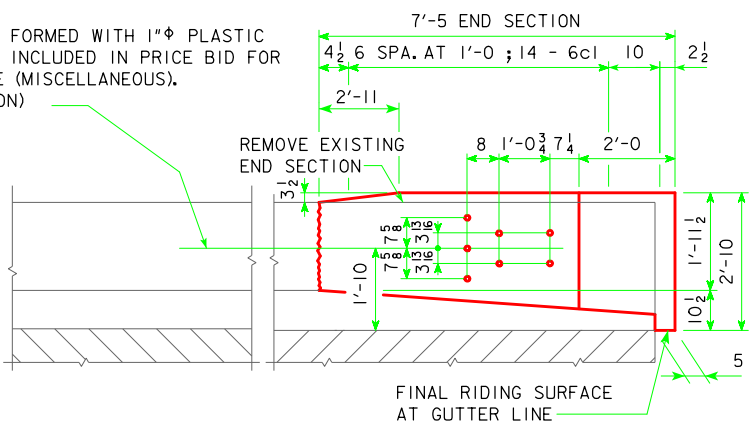
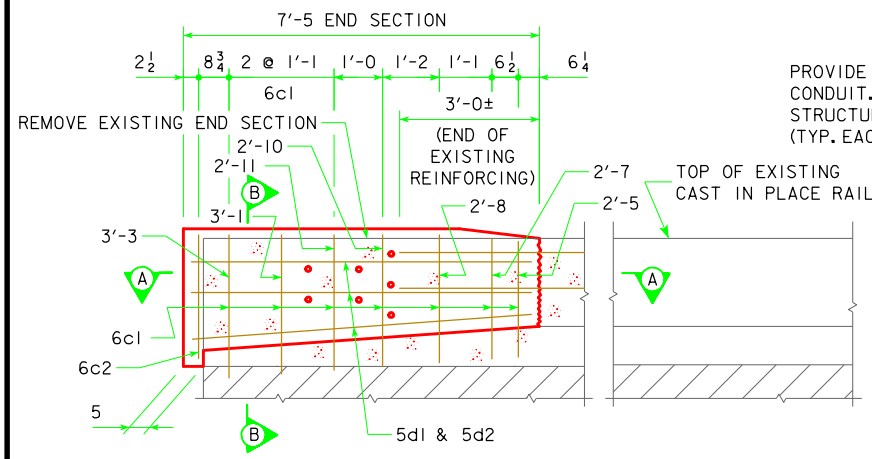
My license renewal date is December 31, 2015

Pages or sheets covered by this seal: V.1 - V.4

LOCATION:

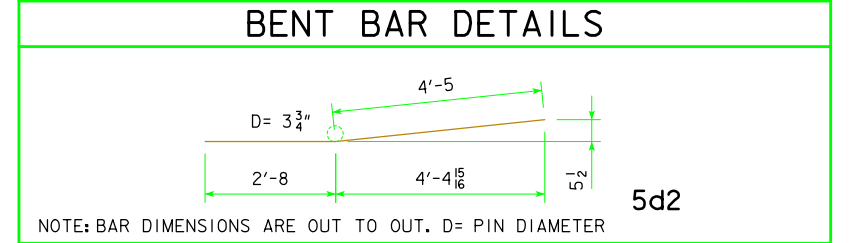
I-280 (W.B./N.B.) OVER D.M.E. R.R. T-77N R-3E SECTION 8 ROCKINGHAM TOWNSHIP SCOTT COUNTY CITY OF DAVENPORT MAINTENANCE NO. 8209.IS280 FHWA NO. 600700

DESIGN FOR REPAIRS TO A 4° (R.A.) SKEW 201'-4 x 81'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE 68'-3 & 59'-11 END SPANS 73'-2 INTERIOR SPAN GENERAL NOTES AND QUANTITIES STA. 120+10.58 (C SURVEY & I-280), FEBRUARY, 2014 IOWA CROSSING #12929 SCOTT COUNTY IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION DESIGN SHEET NO. 1 OF 3 FILE NO. 30510 DESIGN NO. 114

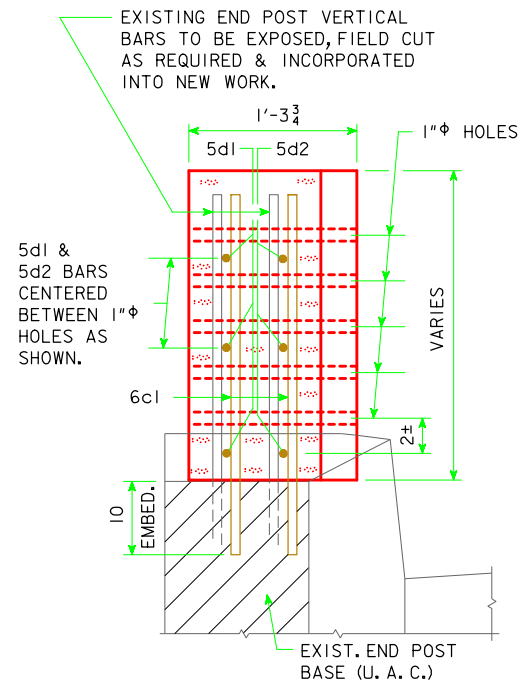


ELEVATION OF RETROFIT BARRIER RAIL

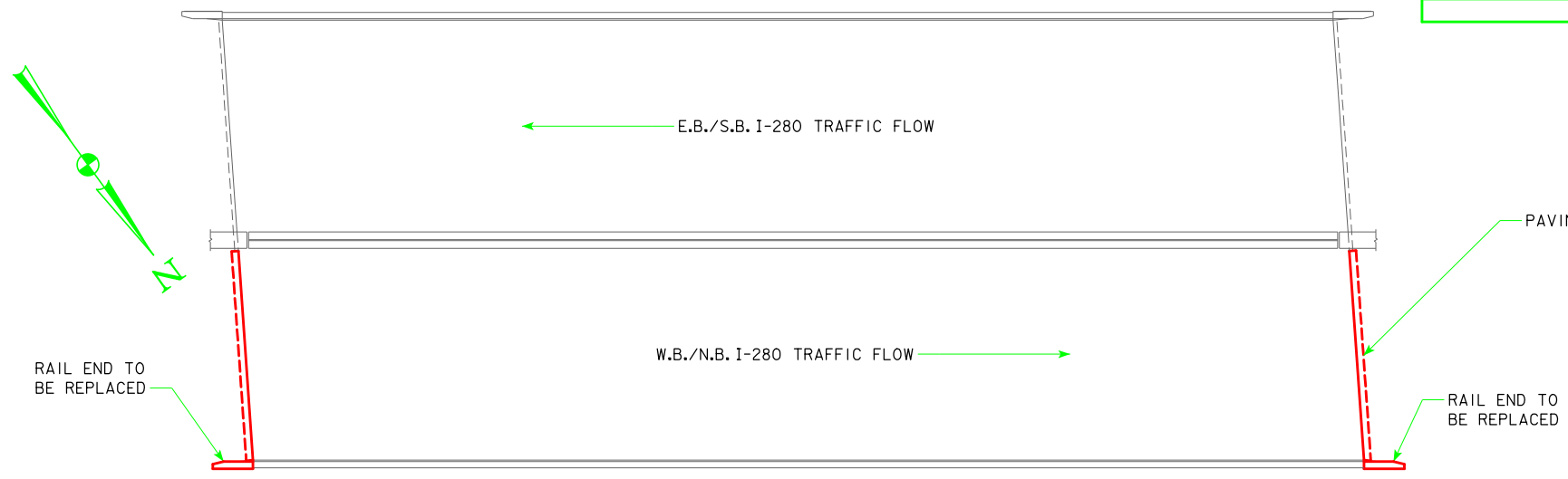
EPOXY REINFORCING STEEL - 2 END SECTIONS					
BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
6c1	END SECTION VERTICAL		28	SHOWN	119
6c2	END SECTION VERTICAL		4	2'-6"	15
5d1	END SECTION LONGITUDINAL		6	7'-1"	44
5d2	END SECTION LONGITUDINAL		6	7'-1"	44
TOTAL (LBS.)					222



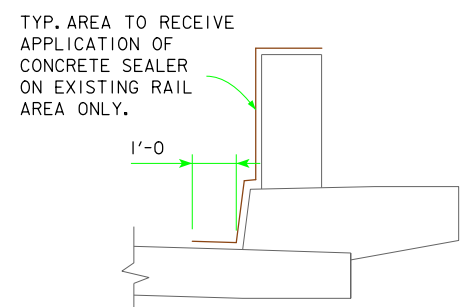
CONCRETE PLACEMENT SUMMARY		
SECTION		TOTAL
END SECTIONS	2 AT 0.80 CU. YDS. PER SECTION	1.6
TOTAL (CU. YDS.)		1.6



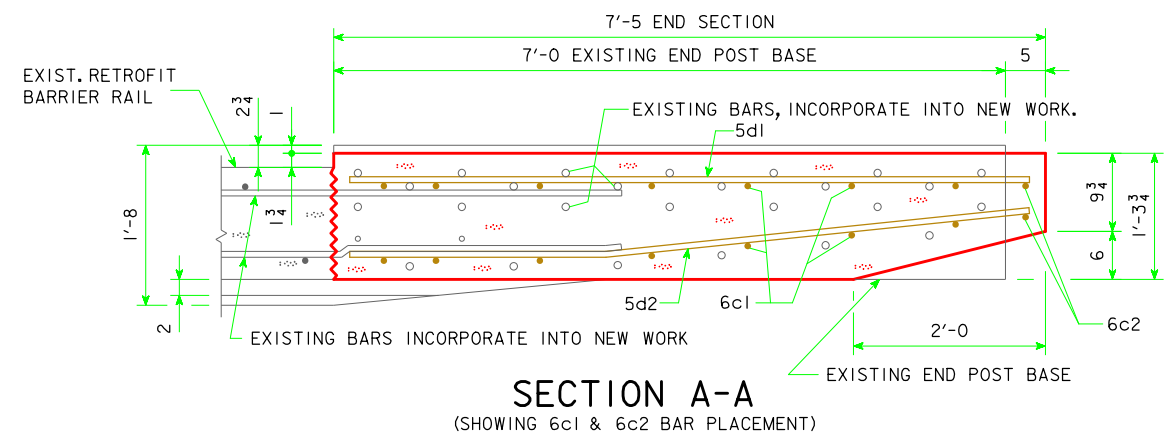
SECTION B-B



SITUATION PLAN



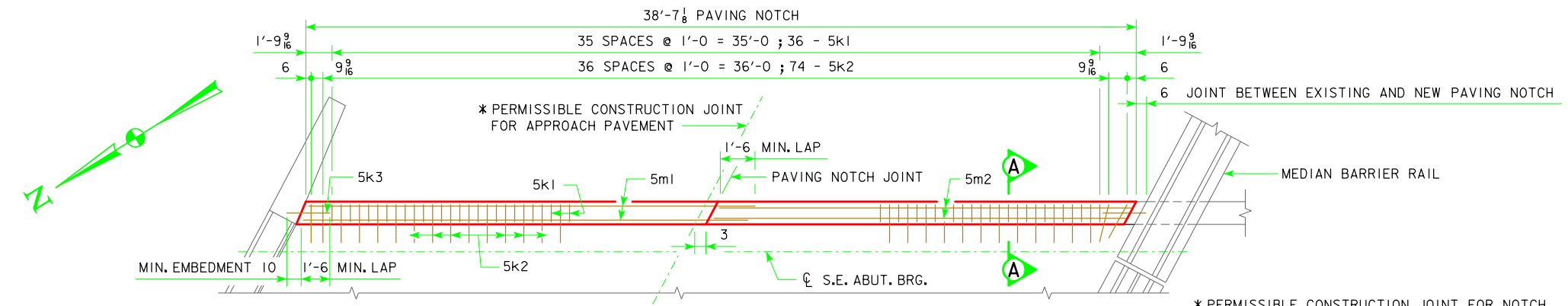
DETAIL OF CONCRETE SEALER AREA



SECTION A-A
(SHOWING 6c1 & 6c2 BAR PLACEMENT)

DESIGN FOR REPAIRS TO A 4° (R.A.) SKEW
201'-4 x 81'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE
 68'-3 & 59'-11 END SPANS 73'-2 INTERIOR SPAN
RETROFIT END SECTION DETAILS
 STA. 120+10.58 (C SURVEY & I-280), FEBRUARY, 2014
 IOWA CROSSING #12929
SCOTT COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 2 OF 3 FILE NO. 30510 DESIGN NO. 114

CORRECTION 10-10 - ARTICLE 2301.12 CHANGED TO 2301.03, E. ENGLISH MISCELLANEOUS BRIDGES.DGN - 1068 - THIS SHEET ISSUED 04-09.



PART PLAN VIEW AT ABUTMENT

(TYPICAL FOR BOTH ENDS OF W.B./N.B. BRIDGE)

NOTE: 5k3 BARS SHALL BE SET AS DOWELS EMBEDDED 10 INCHES MINIMUM INTO THE EXISTING BRIDGE WINGWALL AND EXISTING PAVING NOTCH AND EXTENDING A MINIMUM OF 1'-6 INTO THE NEW PAVING NOTCH.

NOTE: NEW PAVING NOTCH REPLACEMENT SHOULD EXTEND FROM BRIDGE WINGWALL TO ORIGINAL PAVING NOTCH.

* PERMISSIBLE CONSTRUCTION JOINT FOR NOTCH REPAIR TO EXTEND A MINIMUM OF 3 INCHES PAST CONSTRUCTION JOINT FOR PAVEMENT. PROVIDE 1'-6 MINIMUM LAP FOR REINFORCEMENT

DOWEL SETTING NOTE:

THE DEFORMED 5k2 & 5k3 BARS SHALL BE SET AS DOWELS IN DRILLED HOLES. HOLES ARE TO BE 10" DEEP. A POLYMER GROUT SYSTEM SHALL BE USED TO INSTALL THE DEFORMED DOWEL BARS IN ACCORDANCE WITH ARTICLE 2301.03, E, OF THE STANDARD SPECIFICATIONS, AND THE GROUT MANUFACTURER'S RECOMMENDATIONS.

NOTE: USE RK-20 APPROACH PAVEMENT STANDARD FOR MOVEABLE ABUTMENT.

PAVING NOTCH REPLACEMENT NOTES:

THE PAVING NOTCH REPLACEMENT IS TO BE CLASS "C" STRUCTURAL CONCRETE.

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.

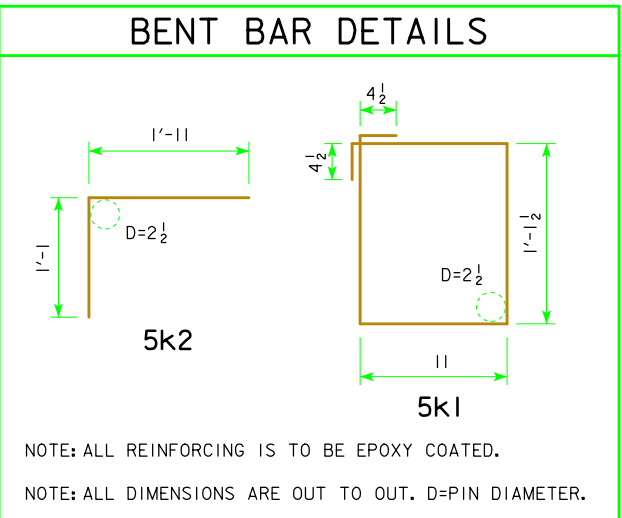
THE BID ITEM "PAVING NOTCH REPLACEMENT" LINEAR FEET, SHALL INCLUDE ALL COSTS OF LABOR AND MATERIALS ASSOCIATED WITH EXCAVATION, REMOVING AND DISPOSING OF THE EXISTING PAVING NOTCH AND INSTALLING THE NEW NOTCH. THIS WORK SHALL INCLUDE, CUTTING OF EXISTING #4 BARS, PAINTING THE ENDS OF THE #4 BARS, REMOVING THE CONCRETE FOR THE SHEAR KEYWAYS, DRILLING THE HOLES FOR THE DEFORMED DOWELS AND CONSTRUCTING THE NEW NOTCH TO THE DIMENSIONS SHOWN. THE NEW NOTCH IS ESTIMATED AT 0.07 CUBIC YARDS PER FOOT OF STRUCTURAL CONCRETE AND 16.0 POUNDS OF EPOXY COATED REINFORCING STEEL PER FOOT.

REMOVALS SHALL BE IN ACCORDANCE WITH SECTION 2401, OF THE STANDARD SPECIFICATIONS.

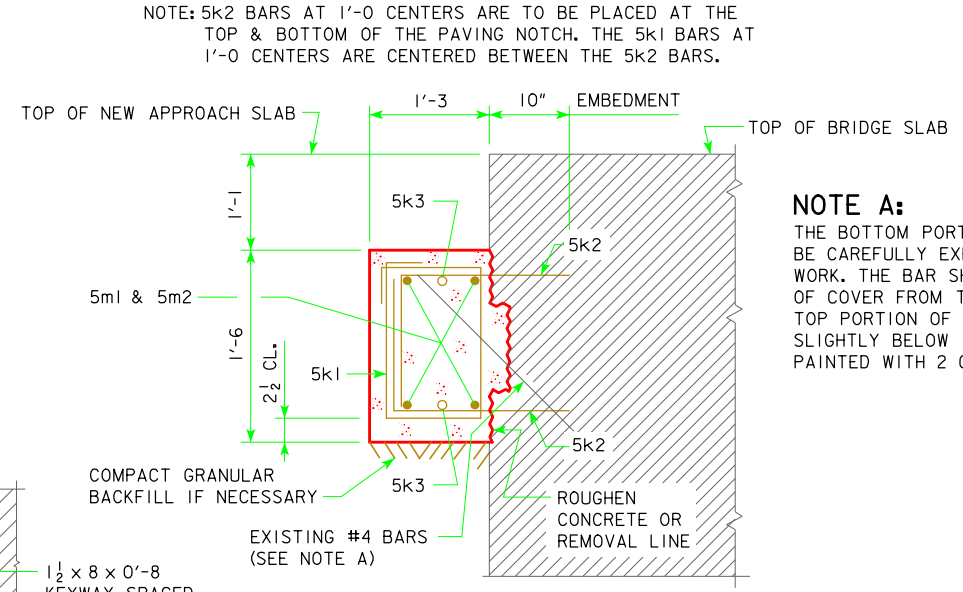
THESE BRIDGE PLANS LABEL ALL REINFORCING STEEL WITH ENGLISH NOTATION (5k1 IS 5/8 INCH DIAMETER BAR). ENGLISH REINFORCING STEEL RECEIVED IN THE FIELD MAY DISPLAY THE FOLLOWING "BAR DESIGNATION". THE "BAR DESIGNATION" IS THE STAMPED IMPRESSION ON THE REINFORCING BARS, AND IS EQUIVALENT TO THE BAR DIAMETER IN MILLIMETERS.

ENGLISH SIZE	3	4	5	6	7	8	9	10	11
BAR DESIGNATION	10	13	16	19	22	25	29	32	36

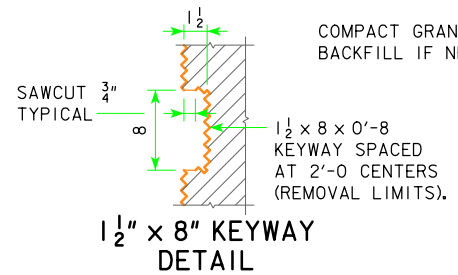
REMOVAL OF THE EXISTING PAVING NOTCH NEAR THE MEDIAN BARRIER RAIL SHALL BE 6" FROM OUTSIDE OF MEDIAN BARRIER RAIL. CUT OFF THE EXISTING #5 BAR FLUSH AT THE REMOVAL LINE AND LEAVE A NEAT NON-SPALLED BREAK LINE. PAINT THE ENDS OF THE EXISTING #5 BAR AT THE REMOVAL LINE WITH TWO COATS OF ZINC RICH PAINT.



NOTE: ALL REINFORCING IS TO BE EPOXY COATED.
NOTE: ALL DIMENSIONS ARE OUT TO OUT. D=PIN DIAMETER.



NOTE A:
THE BOTTOM PORTION OF THE EXISTING #4 BARS SHALL BE CAREFULLY EXPOSED AND INCORPORATED INTO NEW WORK. THE BAR SHALL BE CUT OFF TO PROVIDE 2 INCHES OF COVER FROM THE TOP OF THE NEW PAVING NOTCH. THE TOP PORTION OF THE BAR SHALL BE CUT OFF FLUSH OR SLIGHTLY BELOW THE CONCRETE SURFACE AND THE ENDS PAINTED WITH 2 COATS OF ZINC RICH PAINT.



PART SECTION A-A
NOTE: DOWELS SHALL BE PLACED TO MISS ANY EXISTING REINFORCING STEEL EXPOSED DURING REMOVALS.

DESIGN FOR REPAIRS TO A 4° (R.A.) SKEW
201'-4 x 81'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE
 68'-3 & 59'-11 END SPANS 73'-2 INTERIOR SPAN
PAVING NOTCH REPLACEMENT DETAILS
 STA. 120+10.58 (C SURVEY & 1-280), FEBRUARY, 2014
 IOWA CROSSING #12929
SCOTT COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 3 OF 3 FILE NO. 30510 DESIGN NO. 114

ESTIMATED BRIDGE REPAIR QUANTITIES

ITEM NO.	ITEM CODE	ITEM	UNIT	TOTAL	AS BUILT QUAN.
1	2499-0800000	PAVING NOTCH REPLACEMENT	LF	80.4	

ESTIMATE REFERENCE INFORMATION

ITEM NO.	ITEM CODE	DESCRIPTION
1	2499-0800000	PAVING NOTCH REPLACEMENT INCLUDES 5.6 CY OF STRUCTURAL CONCRETE CLASS "C", 1286 LBS OF EPOXY-COATED REINFORCING STEEL, EXCAVATION, REMOVING AND DISPOSING OF THE EXISTING PAVING NOTCH AND CONCRETE REMOVED TO FORM THE SHEAR KEYWAYS, DRILLING HOLES FOR DOWEL BARS, AND POLYMER GROUT MATERIAL.

NOTE:
USE RK-20 APPROACH PAVEMENT STANDARD FOR MOVEABLE ABUTMENT.

LOCATION

I-280 (W.B./N.B.) OVER U.S. 61
T-78N/77N R-2E
SECTION 36/1
BLUE GRASS/BUFFALO TOWNSHIP
SCOTT COUNTY
CITY OF DAVENPORT
BRIDGE MAINT. NO. 8206.6L280
FHWA #600730

TRAFFIC CONTROL PLAN

NOTE: THE ROADWAY WILL BE OPEN TO THRU TRAFFIC. REFER TO THE TRAFFIC CONTROL PLAN ON THE ROAD PLAN IN THESE PLANS.

NOTE:
ROADWAY QUANTITIES SHOWN ELSEWHERE IN THESE PLANS.

* PERMISSIBLE CONSTRUCTION JOINT FOR NOTCH REPAIR TO EXTEND A MINIMUM OF 3 INCHES PAST CONSTRUCTION JOINT FOR PAVEMENT. PROVIDE 1'-6" MINIMUM LAP FOR REINFORCEMENT

PAVING NOTCH REPLACEMENT NOTES:

THE PAVING NOTCH REPLACEMENT IS TO BE CLASS "C" STRUCTURAL CONCRETE.

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.

THE BID ITEM "PAVING NOTCH REPLACEMENT" LINEAR FEET, SHALL INCLUDE ALL COSTS OF LABOR AND MATERIALS ASSOCIATED WITH EXCAVATION, REMOVING AND DISPOSING OF THE EXISTING PAVING NOTCH AND INSTALLING THE NEW NOTCH. THIS WORK SHALL INCLUDE, CUTTING OF EXISTING #4 BARS, PAINTING THE ENDS OF THE #4 BARS, REMOVING THE CONCRETE FOR THE SHEAR KEYWAYS, DRILLING THE HOLES FOR THE DEFORMED DOWELS AND CONSTRUCTING THE NEW NOTCH TO THE DIMENSIONS SHOWN. THE NEW NOTCH IS ESTIMATED AT 0.07 CUBIC YARDS PER FOOT OF STRUCTURAL CONCRETE AND 16.0 POUNDS OF EPOXY COATED REINFORCING STEEL PER FOOT.

REMOVALS SHALL BE IN ACCORDANCE WITH SECTION 2401, OF THE STANDARD SPECIFICATIONS.

THESE BRIDGE PLANS LABEL ALL REINFORCING STEEL WITH ENGLISH NOTATION (501 IS $\frac{5}{8}$ INCH DIAMETER BAR). ENGLISH REINFORCING STEEL RECEIVED IN THE FIELD MAY DISPLAY THE FOLLOWING "BAR DESIGNATION". THE "BAR DESIGNATION" IS THE STAMPED IMPRESSION ON THE REINFORCING BARS, AND IS EQUIVALENT TO THE BAR DIAMETER IN MILLIMETERS.

ENGLISH SIZE	3	4	5	6	7	8	9	10	11
BAR DESIGNATION	10	13	16	19	22	25	29	32	36

ALL REINFORCING BARS AND BARS NOTED AS DOWELS SUPPLIED FOR THIS STRUCTURE SHALL BE DEFORMED REINFORCEMENT UNLESS OTHERWISE NOTED OR SHOWN.

SPECIFICATIONS:

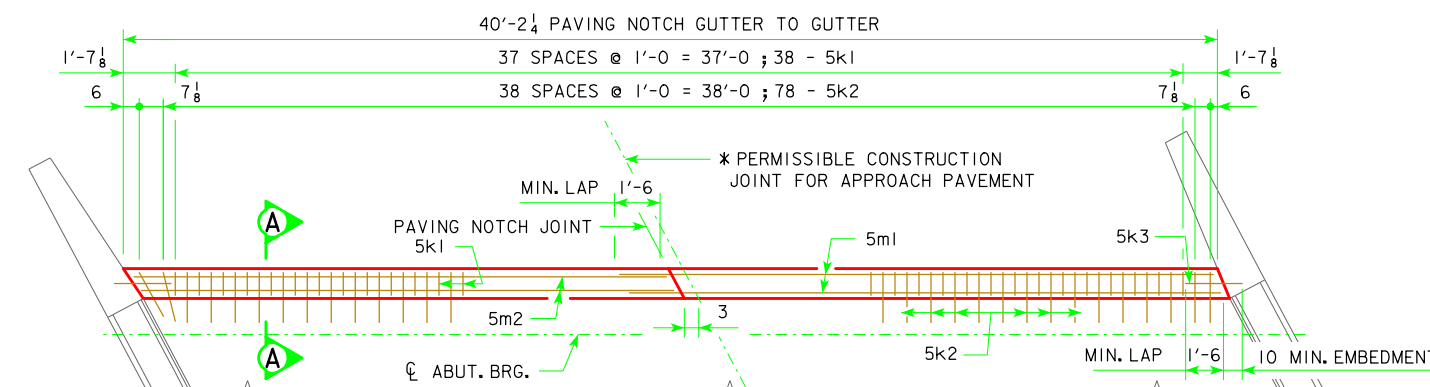
DESIGN: AASHTO SERIES OF 2002.
CONSTRUCTION: IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SERIES 2012, PLUS APPLICABLE GENERAL SUPPLEMENTAL SPECIFICATIONS, DEVELOPMENTAL SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS SHALL APPLY TO CONSTRUCTION WORK ON THIS PROJECT.

DESIGN STRESSES:

DESIGN STRESSES FOR THE FOLLOWING MATERIALS ARE IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SERIES OF 2002. REINFORCING STEEL IN ACCORDANCE WITH SECTION 8, GRADE 60. CONCRETE IN ACCORDANCE WITH SECTION 8, $f'c = 3,500$ PSI.

DOWEL SETTING NOTE:

THE DEFORMED 5k2 & 5k3 BARS SHALL BE SET AS DOWELS IN DRILLED HOLES. HOLES ARE TO BE 10" DEEP. A POLYMER GROUT SYSTEM SHALL BE USED TO INSTALL THE DEFORMED DOWEL BARS IN ACCORDANCE WITH ARTICLE 2301.03, E, OF THE STANDARD SPECIFICATIONS, AND THE GROUT MANUFACTURER'S RECOMMENDATIONS.



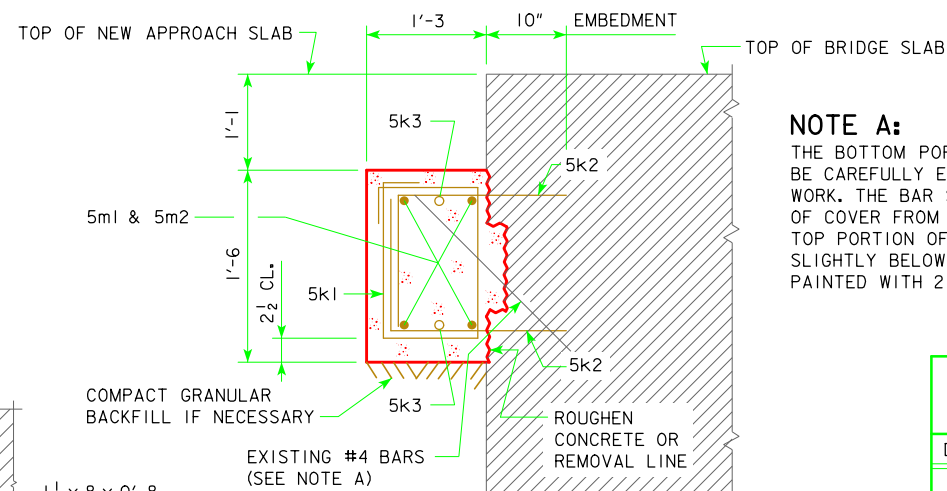
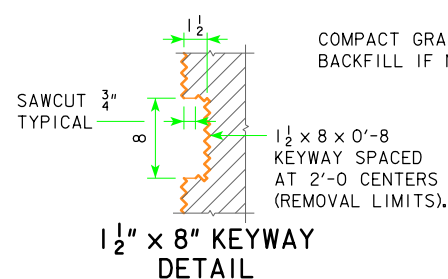
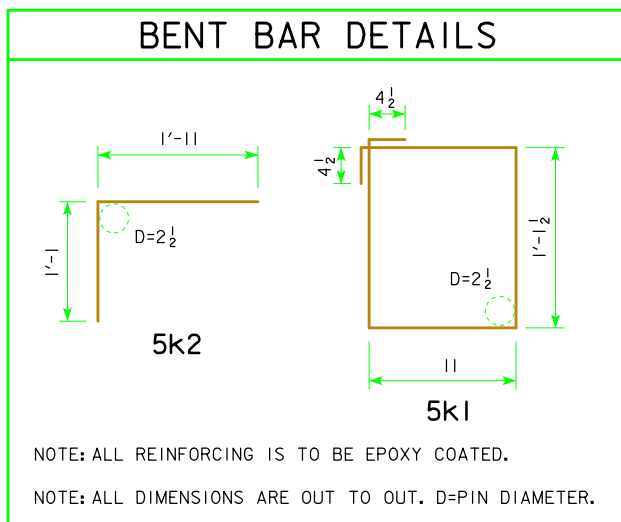
NOTE: 5k3 BARS SHALL BE SET AS DOWELS EMBEDDED 10 INCHES MINIMUM INTO THE EXISTING BRIDGE WINGWALLS AND EXTENDING A MINIMUM OF 1'-6 INTO THE NEW PAVING NOTCH REPLACEMENT.

PART PLAN VIEW AT ABUTMENT

(TYPICAL FOR BOTH ENDS OF W.B./N.B. BRIDGE)

NOTE:
NEW PAVING NOTCH REPLACEMENT SHOULD EXTEND FROM BRIDGE WINGWALL TO BRIDGE WINGWALL.

NOTE: 5k2 BARS AT 1'-0 CENTERS ARE TO BE PLACED AT THE TOP & BOTTOM OF THE PAVING NOTCH. THE 5k1 BARS AT 1'-0 CENTERS ARE CENTERED BETWEEN THE 5k2 BARS.



NOTE A:

THE BOTTOM PORTION OF THE EXISTING #4 BARS SHALL BE CAREFULLY EXPOSED AND INCORPORATED INTO NEW WORK. THE BAR SHALL BE CUT OFF TO PROVIDE 2 INCHES OF COVER FROM THE TOP OF THE NEW PAVING NOTCH. THE TOP PORTION OF THE BAR SHALL BE CUT OFF FLUSH OR SLIGHTLY BELOW THE CONCRETE SURFACE AND THE ENDS PAINTED WITH 2 COATS OF ZINC RICH PAINT.

DESIGN HISTORY AT THIS SITE

DES. NO.	TYPE OF WORK
1766	ORIGINAL DESIGN
590	RETROFIT RAILS
192	BRIDGE REPAIRS AND OVERLAY
1294	REINFORCED CONCRETE BARRIER WALLS
214	PAVING NOTCH REPLACEMENT

DESIGN FOR REPAIRS TO A 13° 58' (L.A.) SKEW

159'-8 x 39'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

39'-1 END SPANS 81'-6 INTERIOR SPAN

PAVING NOTCH REPLACEMENT DETAILS

STA. 247+39.96 (CL SURVEY & I-280) FEBRUARY, 2014
STA. 247+29.51 (CL W.B./N.B. BRIDGE)

SCOTT COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. 1 OF 1 FILE NO. 30510 DESIGN NO. 214

CORRECTION 10-10 - ARTICLE 2301.12 CHANGED TO 2301.03, E. ENGLISH MISCELLANEOUS BRIDGES.DGN - 1068 - THIS SHEET ISSUED 04-09.