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PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
LINN COUNTY
HMA PAVED SHOULDERS - NEW
IA 922 to US 151

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.14 of the Specifications.



REVISIONS

	TOTAL
	92
PROJECT IDENTIFICATION NUMBER	
27-57-100-030	
PROJECT NUMBER	
HSIPX-100-1(129)--3L-57	
R.O.W. PROJECT NUMBER	

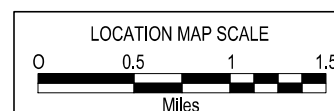
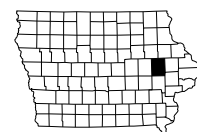
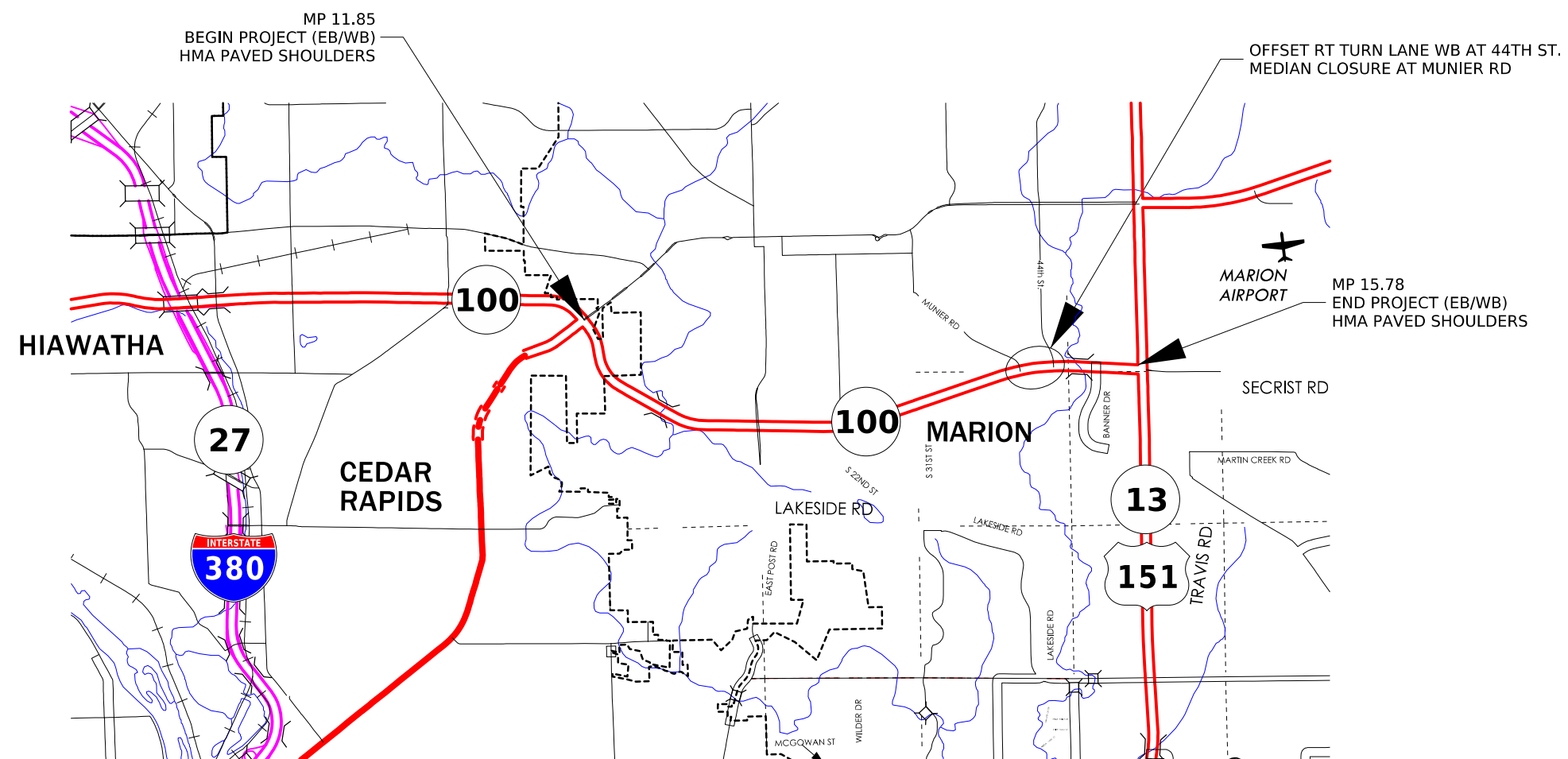
ROADWAY DESIGN

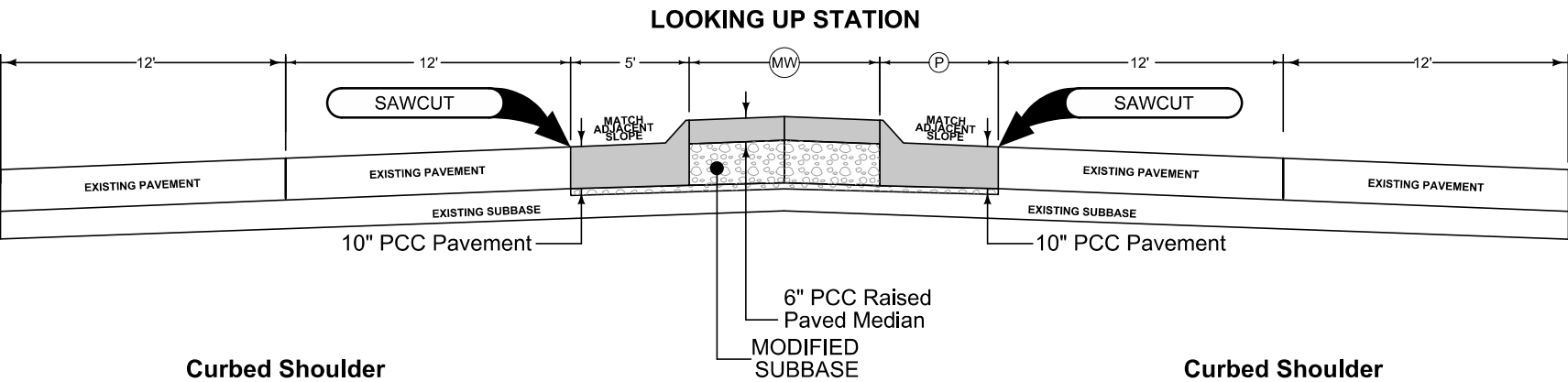


I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

 8/12/26
Signature Date
Printed or Typed Name Seth M. Kjormoe
My license renewal date is December 31, 2026

Pages or sheets covered by this seal: ALL





Curbed Shoulder

Shoulder jointing:
Longitudinal joint not required when distance from back of
curb to nearest joint is less than 16':

Transverse: C at 15' spacing
Single pour: L-2
Staged : BT-2

1L_Curb 04-15-25			
BEGIN STATION	END STATION	(P) Feet	Curb Type See PV-102
278+08.78	281+88.78	5	4" Sloped

PCC Median Cap

PCC Median Cap Jointing:
Transverse joints: C
Longitudinal Joints: E

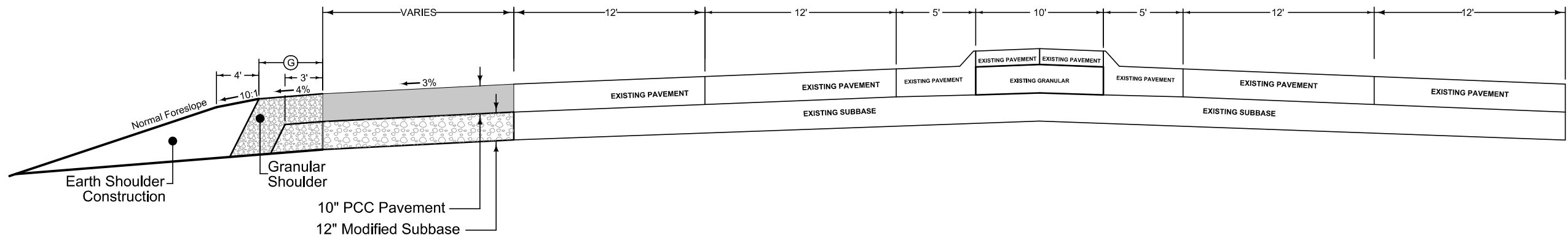
4DP_PCC MEDIAN CAP 04-15-25		
STATION TO STATION	(MW) FEET	
278+08.82	281+88.78	10

Curbed Shoulder

Shoulder jointing:
Longitudinal joint not required when distance from back of
curb to nearest joint is less than 16':

Transverse: C at 15' spacing
Single pour: L-2
Staged : BT-2

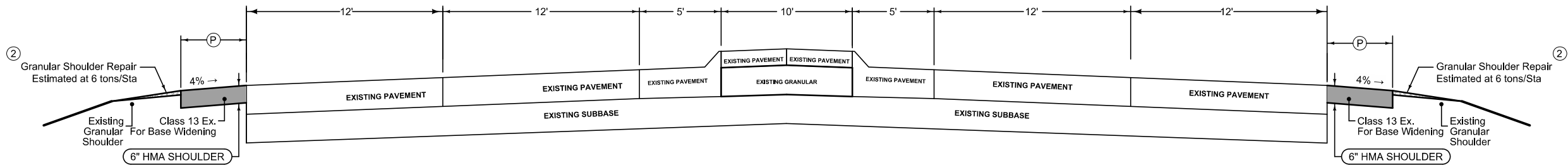
1L_Curb 04-15-25			
BEGIN STATION	END STATION	(P) Feet	Curb Type See PV-102
278+08.86	281+88.86	5	4" Sloped



**Auxiliary Lane
With Granular Shoulder**
Longitudinal joint: L or BT
Transverse joint: CD - Match Mainline Spacing

2_AuxLane_PCC_G MODIFIED			
STATION TO STATION		(AL) Feet	(G) Feet
292+48.28	302+04.83	26-4	6
302+04.83	302+24.83	4	6

- ① Stationing is approximate and may be adjusted in the field.
② See Typical Detail 7145



HMA Shoulder

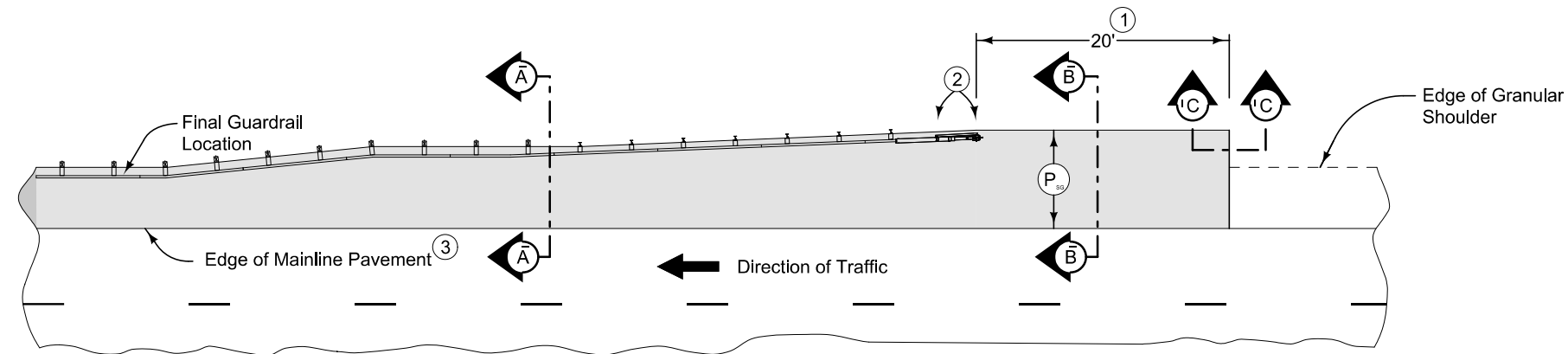
Shoulder Jointing:
Longitudinal joint: B

3R_Shldr_Paved_04-19-11		
STATION TO STATION		① ② Feet
136+90.00	150+30.00	4
155+75.00	162+00.00	4
176+50.00	185+50.00	4
192+90.00	203+00.00	4
216+30.00	242+50.00	4
247+75.00	278+05.00	4
278+05.00	278+17.00	4 - 10
278+17.00	279+17.00	10
281+67.00	282+67.00	10
282+67.00	282+79.00	10 - 4
282+79.00	290+17.00	4
290+17.00	290+29.00	4 - 10
290+29.00	291+39.00	10
302+25.00	322+50.00	4

HMA Shoulder

Shoulder Jointing:
Longitudinal joint: B

3R_Shldr_Paved_04-19-11		
STATION TO STATION		① ② Feet
116+65.00	131+00.00	4
134+75.00	144+50.00	4
147+50.00	150+25.00	4
155+70.00	160+00.00	4
163+00.00	170+75.00	4
174+00.00	180+00.00	4
188+65.00	215+00.00	4
216+40.00	242+00.00	4
243+00.00	306+22.00	4
308+00.00	322+50.00	4



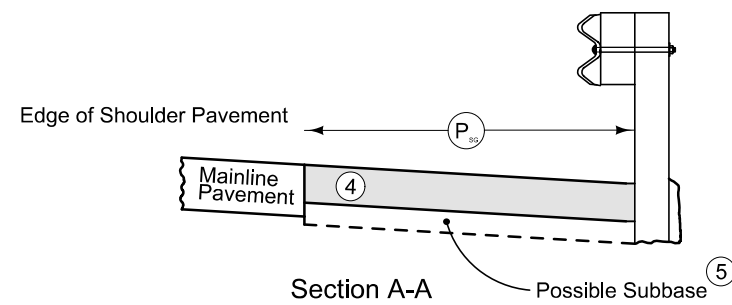
PLAN VIEW

9" HMA Paved Shoulder at guardrail.

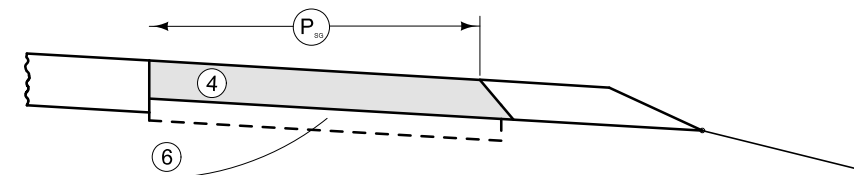
Compaction of HMA is required to face of guardrail post. Hand compaction will be allowed under guardrail. Removal and reinstallation of guardrail will be allowed with no additional payment.

Refer to Tabulation 112-9 for shoulder quantities and dimensions.

- 1 Continue paved shoulder 20 feet beyond the center of the first post (Typ). See D Sheets and Tab 112-9 for more details.
- 2 Shoulder may be notched for first 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.
- 3 'B' (per PV-101) joint for HMA shoulder.
- 4 Match shoulder slope.
- 5 The Contractor has the option to pave the paved shoulder at guardrail and the partial width paved shoulder as one operation.
- 6 Refer to other details in the plan.

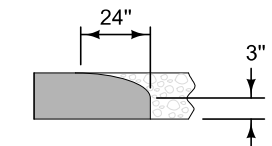


Section A-A



Section B-B

EXISTING SHOULDER



Section C-C

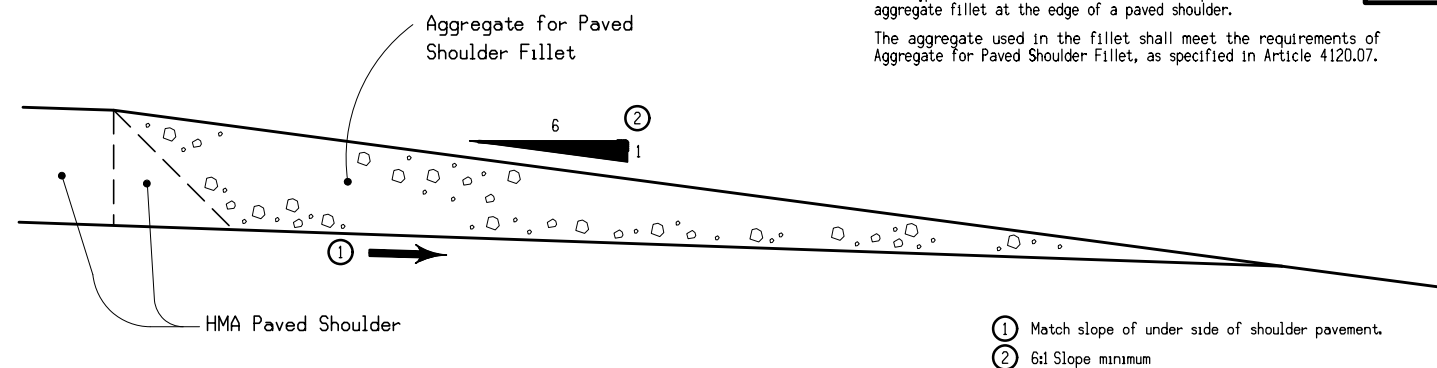
Roll down at granular shoulder or earth.

PAVED SHOULDER AT GUARDRAIL
(GRANULAR SHOULDER ADJACENT TO MAINLINE)

Notes:

This typical illustrates the construction requirements for an aggregate fillet at the edge of a paved shoulder.

The aggregate used in the fillet shall meet the requirements of Aggregate for Paved Shoulder Fillet, as specified in Article 4120.07.



- 1 Match slope of under side of shoulder pavement.
- 2 6:1 Slope minimum

AGGREGATE
FOR PAVED
SHOULDER FILLET

ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Division 1 : Iowa DOT HSIPX - Participating
Division 2 : City of Marion TSF

Item no.	Item Code	Item	Unit	Quantities			Estimate Reference Notes
				Estimated			
				Division 1	Division 2	Total	
1	2101-0850001	CLEARING AND GRUBBING	ACRE	0.5		0.5	Refer to Sheet U.1. All material generated as a result of Clearing and Grubbing shall become the property of the contractor and must be disposed off site. All wood material must be disposed of according to Iowa Department of Agriculture and Land Stewardship Emerald Ash Borer Quarantine Order. For more information see www.iowatreepests.com.
2	2102-2625000	EMBANKMENT-IN-PLACE	CY		4,585	4,585	Provide borrow material according to Section 2102 of the Standard Specifications. Refer to Tabulation(s) 107-23 (and 107-24). Material shall be provided by the Contractor
3	2102-2710070	EXCAVATION, CLASS 10, ROADWAY AND BORROW	CY		852	852	Includes 852 cu. yds. of suitable material to be used in the roadway fill. Dispose of excess material according to Article 1106.07 of the current specifications.
4	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD	CY		2,147	2,147	Refer to Tab. 103-10 and the T Sheets. Quantity will be computed on the basis of a uniform 12 inch depth of cut. Sufficient field measurements will be taken to assure reasonable conformity with the required depth of cut.
5	2107-0875100	COMPACTION WITH MOISTURE CONTROL	CY		4,181	4,181	Refer to Tab. 103-6 on Sheet CS.01 Cubic yards shown on the contract documents as determined by the template fill volume. Shrinkage will not be included in the moisture control quantity.
6	2115-0100000	MODIFIED SUBBASE	CY	140	629	769	Refer to Typical on Sheet B.2 Refer to Typicals on Sheet B.1-3
7	2121-7425020	GRANULAR SHOULDERS, TYPE B	TON	3,194	593	3,787	Refer to Typical 7110 and Tabulation 112-9. Requires XXX cu. yds. of earth shoulder fill, available within the ROW from Sta. XXX+XX to Sta. XXX+XX OR to be provided by the Contractor, which shall be considered incidental to this bid item.

Item no.	Item Code	Item	Unit	Quantities			Estimate Reference Notes
				Estimated			
				Division 1	Division 2	Total	
8	2122-5500090	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 9 IN.	SY	276		276	
9	2213-2713300	EXCAVATION, CLASS 13, FOR WIDENING	CY	2,398		2,398	Refer to Tab. 106-05 on Sheet C.19 - 20 and the typical section on Sheet B.3.
10	2213-8200000	BASE WIDENING, HOT MIX ASPHALT MIXTURE	TON	4,995		4,995	
11	2301-1033100	STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C, CLASS 3 DURABILITY, 10 IN.	SY	732	1,887	2,619	
12	2301-4875006	MEDIAN, P.C. CONCRETE, 6 IN.	SY	487		487	
13	2303-1033504	HOT MIX ASPHALT STANDARD TRAFFIC, SURFACE COURSE, 1/2 IN. MIX, FRICTION L-4	TON	1,444		1,444	
14	2303-1258283	ASPHALT BINDER, PG 58-28S, STANDARD TRAFFIC	TON	300		300	
15	2303-7000610	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA MIXTURE LABORATORY VOIDS (FORMULA - BY PAY FACTOR)	EACH	5,635		5,635	
16	2303-7000620	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA MIXTURE FIELD VOIDS (FORMULA - BY PAY FACTOR)	EACH	5,635		5,635	
17	2401-6745910	REMOVAL OF SIGN	EACH	2		2	Refer to Tabulation 190-62 for location and details. Measurement: The Engineer will count the number of sign assemblies removed. Payment: The Contractor will be paid the contract unit price for each sign assembly removed.
18	2502-8212404	SUBDRAIN, STANDARD, NON-PERFORATED, 4 IN., AS PER PLAN	LF		30	30	Item is for extending existing subdrain outlets to new foreslope. See D.02 and Tab 104-09A
19	2502-8221306	SUBDRAIN OUTLET, DR-306	EACH		1	1	
20	2505-4008120	REMOVAL OF STEEL BEAM GUARDRAIL	LF	240		240	
21	2505-4008300	STEEL BEAM GUARDRAIL	LF	31.2		31.2	
22	2505-4008410	STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION, BA-201	EACH	1		1	
23	2505-4008420	STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION, BA-221	EACH	1		1	
24	2505-4021010	STEEL BEAM GUARDRAIL END ANCHOR, BOLTED	EACH	2		2	
25	2505-4021720	STEEL BEAM GUARDRAIL TANGENT END TERMINAL, BA-205	EACH	1		1	

Item no.	Item Code	Item	Unit	Quantities			Estimate Reference Notes
				Estimated			
				Division 1	Division 2	Total	
26	2505-4021722	STEEL BEAM GUARDRAIL TANGENT END TERMINAL, BA-225	EACH	1		1	
27	2510-6745850	REMOVAL OF PAVEMENT	SY	1,194	245	1,439	Refer to Tabs.110-1 on Sheet C.13
28	2520-3350015	FIELD OFFICE	EACH	0.7	0.3	1	
29	2524-6765010	REMOVE AND REINSTALL SIGN AS PER PLAN	EACH	1	3	4	Refer to Tabulations 190-50 and 190-62. The Contractor shall remove each sign and the hardware used to secure the sign to another sign, posts, or sign support structure. For signs mounted directly to posts, removal of the sign shall include removal of the posts. Posts may be either wood posts or steel breakaway sign posts. The removal of concrete footings for steel breakaway sign posts will be measured and paid for separately. Holes remaining from the removal of wood posts shall be backfilled with suitable earth to the original level or to the natural ground surface in accordance with Article 2402.09 of the Standard Specifications. All steel posts removed shall become the property of the Contractor. Unless otherwise noted, wood posts removed shall remain the property of DOT. The Contractor shall deliver the wood posts to a DOT storage area within 50 miles, as designated by the Engineer. **The existing sign shall be removed and stored. The Contractor shall remove the sign and transport it to a DOT storage area within 50 miles, as designated by the Engineer. The Contractor shall transport the sign back to the job site when ready for reinstallation. The Contractor shall furnish all necessary hardware to install the signs. When the new installation is similar to the original installation, unless otherwise noted, the existing hardware may be used to reinstall the sign. Signs damaged by the Contractor's activities shall be replaced at the Contractor's expense. Replacement materials shall be new. The DOT will furnish all details necessary for fabrication of the replacement materials. METHOD OF MEASUREMENT: The Engineer will count each sign removed and reinstalled. BASIS OF PAYMENT: For each sign removed and reinstalled, the Contractor shall be paid the contract unit price.

Item no.	Item Code	Item	Unit	Quantities			Estimate Reference Notes
				Estimated			
				Division 1	Division 2	Total	
30	2524-6765210	REMOVAL OF TYPE A SIGN ASSEMBLY	EACH	9		9	Refer to Tabulation 190-62 for location and details. This item for the removal of Type A Sign Assemblies, including the sign panels, sign brackets, supporting structures and hardware. Contractor shall carefully dismantle each sign assembly. Sign posts, brackets and hardware shall become property of the Contractor. Sign panels shall become property of the DOT and shall be delivered to the nearest DOT maintenance facility. All holes resulting from removal of post shall be filled level with the adjacent grade with backfill material conforming to the Standard Specifications. Measurement: The Engineer will count the number of sign assemblies removed. Payment: The Contractor will be paid the contract unit price for each sign assembly removed.
31	2524-9276010	PERFORATED SQUARE STEEL TUBE POSTS	LF	96		96	Refer to Tabulation(s) 190-50 and/or 190-51 for locations and details.
32	2524-9276027	PERFORATED SQUARE STEEL TUBE POST ANCHOR, TRIANGULAR SLIP BASE ASSEMBLY	EACH	8		8	
33	2524-9290009	SIGN MOUNTING BRACKETS, SPECIAL	EACH	5		5	Refer to Tabulation 190-51 for locations and details. Measurement: Each. Payment: The Contractor will be paid the contract unit price for each sign mounting bracket furnished and installed.
34	2524-9325001	TYPE A SIGNS, SHEET ALUMINUM	SF	113.2		113.2	Refer to Tabulation 190-51 and 190-66 for locations and details.
35	2526-8285020	CONSTRUCTION SURVEY, CONTROL POINT SURVEY	LS	0.7	0.3	1	
36	2526-8285040	CONSTRUCTION SURVEY, LOCATION SURVEY	LS	0.7	0.3	1	
37	2527-9263209	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED	STA	17	41	58	
38	2527-9270112	GROOVES CUT FOR PAVEMENT MARKINGS	STA	17	41	58	
39	2528-2518000	SAFETY CLOSURE	EACH	4	4	8	
40	2528-8445110	TRAFFIC CONTROL	LS	0.7	0.3	1	Refer to Traffic Control Plan on Sheet J.1. Refer to Traffic Control Plan on Sheet J.1
41	2528-9290050	PORTABLE DYNAMIC MESSAGE SIGN (PDMS)	CDAY	0	0	0	See Proposal for quantity.
42	2533-4980005	MOBILIZATION	LS	0.7	0.3	1	
43	2548-0000110	ASPHALT EMULSION FOR FOG SEAL (SHOULDER RUMBLE STRIPS)	GAL	388		388	

Item no.	Item Code	Item	Unit	Quantities			Estimate Reference Notes
				Estimated			
				Division 1	Division 2	Total	
44	2548-0000170	MILLED SHOULDER SINUSOIDAL RUMBLE STRIPS, HMA SURFACE	STA	359		359	
45	2548-0000260	DIAMOND GROUND SHOULDER SINUSOIDAL RUMBLE STRIPS, PCC SURFACE	STA	27		27	
46	2601-2634100	MULCHING	ACRE	1	4	5	Perform mulching according to Article 2601.03, E, 2, of the Standard Specifications. Anchor mulch into the soil using mulch anchoring equipment with a minimum of two passes. Item is included for areas requiring reshaping and seedbed preparation. Use mulch that is Certified Noxious Weed Seed Free Mulch as certified by the Iowa Crop Improvement Association or adjacent states Crop Improvement Association. Mulch Rate: 1 1/2 tons of dry cereal straw or native grass straw per acre. Division 2 Quantity is for the area of the offset-right turn lane at 44th St. Perform mulching according to Article 2601.03, E, 2, of the Standard Specifications. Anchor mulch into the soil using mulch anchoring equipment with a minimum of two passes. Item is included for areas requiring reshaping and seedbed preparation. Use mulch that is Certified Noxious Weed Seed Free Mulch as certified by the Iowa Crop Improvement Association or adjacent states Crop Improvement Association. Mulch Rate: 1 1/2 tons of dry cereal straw or native grass straw per acre. Division 1 Quantity is for the Clear+Grubbing Area as needed
47	2601-2636043	SEEDING AND FERTILIZING (RURAL)	ACRE	0.5	2	2.5	Seed and fertilize all areas 8 foot adjacent to the shoulder mainline, medians, and side according to Article 2601.03, C, 3, of the Standard Specifications. Division 1 quantity is for the Clear+Grubbing area as needed. Division 2 Quantity is for the area of the offset-right turn lane at 44th St.

Item no.	Item Code	Item	Unit	Quantities			Estimate Reference Notes
				Estimated			
				Division 1	Division 2	Total	
48	2601-2642100	STABILIZING CROP - SEEDING AND FERTILIZING	ACRE	0.5	2	2.5	Division 1 quantity is for the Clear+Grubbing area as needed. Seed and fertilize all disturbed areas according to Article 2601.03, C, 1, of the Standard Specifications.

Item no.	Item Code	Item	Unit	Quantities			Estimate Reference Notes
				Estimated			
				Division 1	Division 2	Total	
53	2602-0000320	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 20 IN. DIA.	LF	1,375	1,560	2,935	Division 2 Quantity is for the area of the offset-right turn lane at 44th St. Refer to Tab. 100-19. The tabulation includes estimated locations for placement of "Perimeter and Slope Sediment Control Device, 20 in. dia." to address erosion to be encountered during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 25% additional quantity for field adjustments and replacements. Refer to Tab. 100-19. The tabulation includes estimated locations for placement of "Perimeter and Slope Sediment Control Device, 20 in. dia." to address erosion to be encountered during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 25% additional quantity for field adjustments and replacements.
54	2602-0000351	REMOVAL OF PERIMETER AND SLOPE OR DITCH CHECK SEDIMENT CONTROL DEVICE	LF	1,375	1,560	2,935	Division 2 Quantity is for the area of the offset-right turn lane at 44th St.
55	2602-0010010	MOBILIZATIONS, EROSION CONTROL	EACH	1	1	2	
56	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	1	1	2	

100_01D
8/15/22

PROJECT DESCRIPTION

This project is located on Iowa 100 in Linn County, from IA 922 to US 151

This work includes:
HMA Paved Shoulders
HMA Base Widening
Milled Shoulder Sinusoidal Rumble Strips
Median PCC Pavement
Class 10 Excavation
Offset-Right PCC Pavement
Pavement Markings
Replacement of Guardrail

Division 1 consists of work using Iowa DOT HSIPX Funding
Division 2 consists of work using City of Marion TSIP Funding

262_06
9/28/22

UTILITIES (NOT A POINT 25 PROJECT)

This is NOT a POINT 25 project and is not subject to the provisions of IAC 761-115.25.

111_25 10/20/26			
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6.0	103_10	TOPSOIL STRIPPING AND PLACEMENT	CS.3
7.0	104_09A	LONGITUDINAL SUBDRAIN SHOULDER	CS.4
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34.0			
35.0			
36.0			
37.0			
38.0			
39.0			
40.0			

105_04 10/20/26 STANDARDS The following Standards apply to construction work on this project.		
Number	Date	Title
BA-200	10-20-26	Steel Beam Guardrail Components
BA-201	10-18-22	Steel Beam Guardrail Barrier Transition Section (MASH TL-3)
BA-205	10-17-23	Steel Beam Guardrail Tangent End Terminal (MASH TL-3)
BA-221	10-18-22	Steel Beam Guardrail Barrier Transition Section (MASH TL-2)
BA-225	10-17-23	Steel Beam Guardrail Tangent End Terminal (MASH TL-2)
BA-250	10-20-26	Steel Beam Guardrail Installation at Concrete Barrier or Bridge End Post (MASH TL-3)
BA-260	10-20-26	Steel Beam Guardrail Installation at Concrete Barrier or Bridge End Post (MASH TL-2)
DR-306	10-17-23	Precast Concrete Headwall for Subdrain Outlets
EC-201	04-20-21	Silt Fence
EC-204	10-19-21	Perimeter, Slope and Ditch Check Sediment Control Devices
EW-101	10-17-17	Embankment and Rebuilding Embankments
EW-503	10-20-15	Side Road Grading
PM-110	10-15-24	Line Types
PM-115	10-20-26	Grooving for Line Types
PM-120	10-15-24	Stop Lines and Islands
PM-561	10-15-24	Divided Multi-Lane Roadway with Right Turn Lanes
PM-760	10-15-24	Divided Multi-Lane Roadway Median
PV-101	10-20-26	Joints
PV-105	10-21-14	PCC Pavement Widening
PV-203	04-21-20	HMA Base Widening
SI-101	04-19-16	Locations - Type 'A' Signs
SI-131	10-18-16	Installation - Type 'A' Signs
SI-133	10-17-17	Installation - Type 'A' Sign Shim
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-402	04-18-23	Work Within 15 ft of Traveled Way
TC-418	04-18-23	Lane Closure on Divided Highway
TC-252	10-20-26	Routes Closed to Traffic

111_26 4/15/25			
UTILITIES			
Company	Contact	Phone	Email
Alliant Electric Transmission	Breanna Vandemark		BreannaVandemark@alliantenergy.com
Lumen Centurylink Fiber Distribution	Austin Freeseaman	319-215-0190	austin.freeseaman@lumen.com
Alliant Energy Fiber Distribution	Breanna Vandemark		BreannaVandemark@alliantenergy.com
Iowa Communications Network Fiber Distribution	David Augspurger	515-229-2013	david.augspurger@icn.state.ia.us
IMON Communications Fiber Distribution	Lennox Marner		lenniem@imon.net
ITC Midwest LLC Electric Transmission	Chad Levi	319-899-9969	clevi@itctransco.com
City of Marion Public Works		319-377-6367	public-works@cityofmarion.org

110_17 1/27/25																							
CLEARING AND GRUBBING																							
Line No.	Station From	Station To	Direction of Traffic	Work and Material Type	>3"-6"	>6"-9"	>9"-12"	>12"-15"	>15"-18"	>18"-24"	>24"-30"	>30"-36"	>36"-42"	>42"-48"	>48"-60"	>60"-72"	>72"	Other Materials Length (FT)	Other Materials Width (FT)	Estimated Units	Estimated Area (Acres)	Estimated Herbicide Application (EA)	Remarks
1.0																							
2.0	285+26.00	288+88.00	WB	Trees - Clearing and Grubbing																	0.500		(A)

Notes:
(A) Division 1 - Iowa DOT HSIPX Funding

Bid Item Quantities:
Division 1 - Iowa DOT HSIPX Funding
Clearing and Grubbing - 0.50 AC

110_01
4/5/24

REMOVAL OF PAVEMENT

Refer to Tabulation 102-5.

* Not a bid item.

Line No.	Station From	Station To	Side	Pavement Type	Area (SY)	Saw Cut* (LF)	Remarks
1.0							
2.0	278+08.82	281+88.82	Center	PCC	844.0	800.0	(A)
3.0							
4.0	4281+04.02	4281+64.60	Both	PCC	350.0	320.0	(A) Munier Rd
5.0							
6.0	292+42.32	293+26.00	WB	PCC	245.0	185.0	(B) IA100 at 44th St
7.0							
8.0							

Notes:
(A) Division 1 - Iowa DOT HSIPX Funding
(B) Division 2 - City of Marion TSIP Funding

Bid Item Quantities:
Division 1 - Iowa DOT HSIPX Funding
Removal of Pavement - 1,194 SY

Bid Item Quantities:
Division 2 - City of Marion TSIP Funding
Removal of Pavement - 245 SY

REMOVAL OF STEEL BEAM GUARDRAIL

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

Line No.	No.	Direction of Traffic (1)	Station From	Station To	Side	Removal of Guardrail (2) (LF)
1.0						
2.0		EB	150+13.00		Right	60.0
3.0		WB	150+13.00		Right	60.0
4.0		EB	155+87.00		Right	60.0
5.0		WB	155+87.00		Right	60.0
6.0						
Total						240

Bid Item Quantities:
Division 1 - Iowa DOT HSIPX Funding
Removal of Steel Beam Guardrail - 240 LF

107_23
8/15/22

GRADING FOR GUARDRAIL INSTALLATIONS

Refer to EW-301.

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

Line No.	Direction of Traffic (1)	Station	Side	Foreslope at Guardrail	X1 (FT)	Y1 (FT)	X2 (FT)	Y2 (FT)	X3 (FT)	Y3 (FT)	X4 (FT)	Y4 (FT)	Z (FT)	Excavation Class 10 (CY)	Embankment-in-Place (CY)	Remarks
1.0																
2.0	EB	150+13.00	Right	4:1	30.0	15.0	39.0	18.0					40.0	0.0	250.0	(A)(B)
3.0																
4.0	WB	155+87.00	Left	4:1	50.0	15.0	48.0	18.0					46.0	0.0	250.0	(A)(B)
5.0																

Notes:
(A) Division 1 - Iowa DOT HSIPX Funding
(B) Top 6 inches of embankment material shall be topsoil meeting the requirements of 2105.02

Bid Item Quantities:
Division 1 - Iowa DOT HSIPX Funding
Embankment-In-Place - 500 CY

108_08A
4/25/25

STEEL BEAM GUARDRAIL AT CONCRETE BARRIER OR BRIDGE RAIL END SECTION

Possible Standards: BA-200, BA-201, BA-202, BA-205, BA-206, BA-209, BA-210, BA-211, BA-221, BA-225, BA-250, BA-260, LS-625, LS-626, LS-630, LS-635, SI-172, SI-173 and SI-211.

(1) Lane(s) to which the obstacle is adjacent.
(2) Not a bid item. Incidental to guardrail installation.

Direction of Travel (1)	Side	Station	Offset (FT)	Barrier Transition Section	Barrier Transition Section (EA)	End Terminal	End Terminal Count (EA)	VT1 (LF)	VF (LF)	VT2 (LF)	ET (LF)	BA-211 Station	BA-211 (Type)	SI-211 (Type) (2)	Delineator SI-172 Type 1 (EA) (2)	Object Marker Type 2 (EA) (2)	Object Marker Type 3 Lt (EA)(2)	Object Marker Type 3 Rt (EA)(2)	Bolted End Anchor BA-202 (Type)	Bolted End Anchor BA-202 (EA)	Post Adapter BA-210 (EA)	Steel Beam Guardrail BA-200 (LF)	Remarks
EB	Outside	150+13.00	44.0	BA-221	1	BA-225	1	37.500			35.20							1	C	1		15.6	
WB	Outside	155+87.00	44.0	BA-201	1	BA-205	1	53.125			47.70							1	C	1		15.6	
Total					2		2											2		2		31.2	

Notes:
(A) Division 1 - Iowa DOT HSIPX Funding

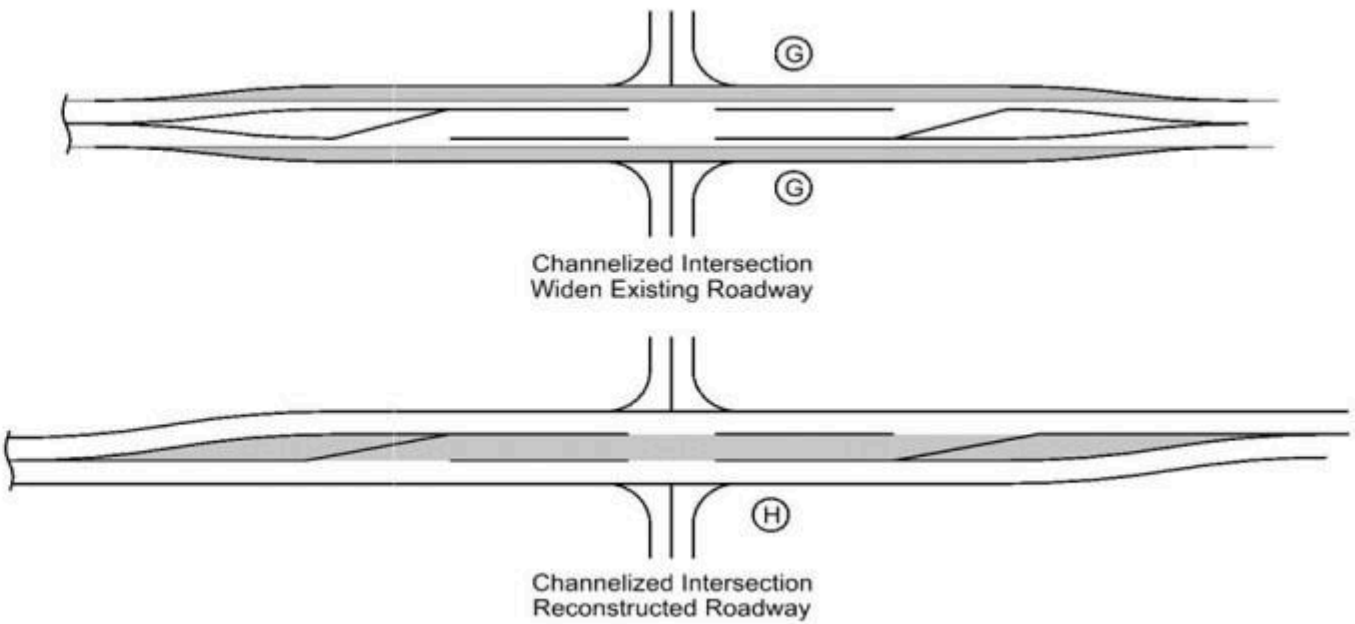
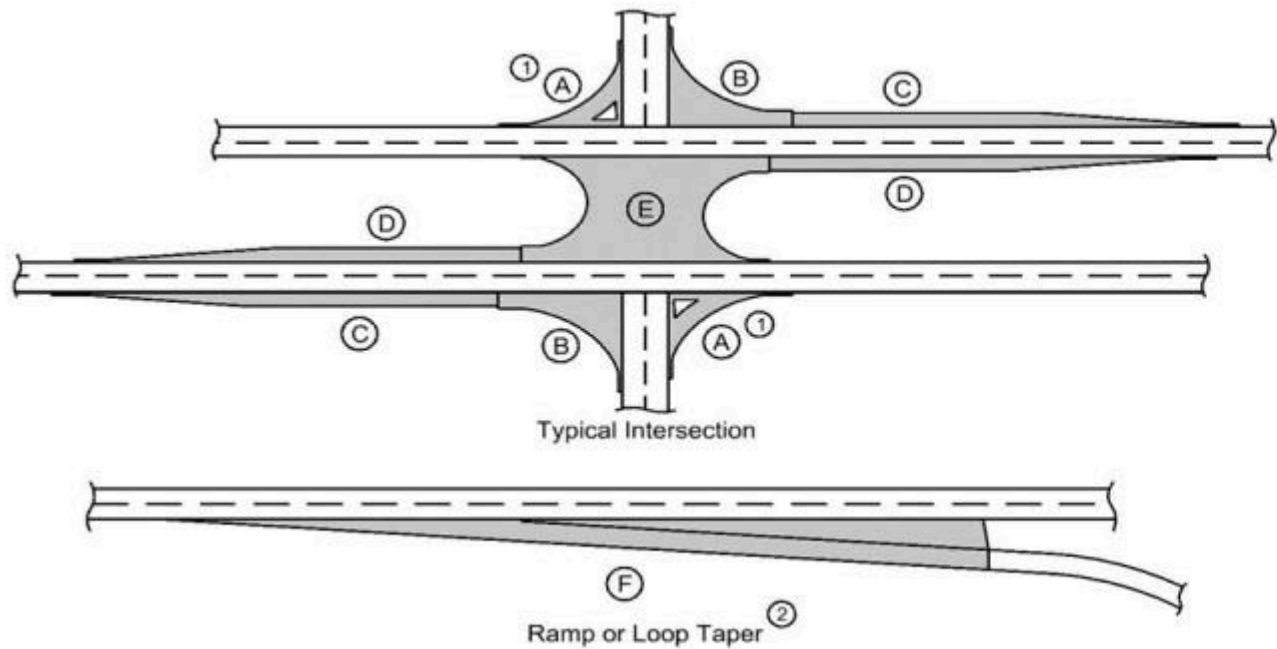
Bid Item Quantities:
Division 1 - Iowa DOT HSIPX Funding
Division 1 - Iowa DOT HSIPX Funding
Steel Beam, Guardrail - 31.2 LF
Steel Beam Guardrail, BTS BA-201 - 1 EA
Steel Beam Guardrail, BTS BA-211 - 1 EA
Steel Beam Guardrail, Bolted End Anchor - 2 EA
Steel Beam Guardrail Tangent End Terminal, BA-205 - 1 EA
Steel Beam Guardrail Tangent End Terminal, BA-225 - 1 EA

							112_05 8/15/22
CONCRETE MEDIANS							
* Bid item							
Line No.	Station From	Station To	Type	Area* (SY)	Modified Subbase (CY)	Special Backfill (CY)	Remarks
1.0							
2.0	278+08.82	281+88.78	Median PCC 6"	422.0	140.00		(A)(B)
3.0							
4.0	4281+17.00	4281+53.51	Median PCC 6"	65.0	21.00		(A)(C)
5.0							
6.0							

Notes:
(A) Division 1 - Iowa DOT HSIPX Funding
(B) ML IA 100 Raised Median
(C) Munier Rd Raised Splitter Island

Division 1 - Iowa DOT HSIPX Funding
Median, P.C. Concrete, 6 IN. - 487 SY

PCC PAVEMENT



(1) Does not include raised 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.

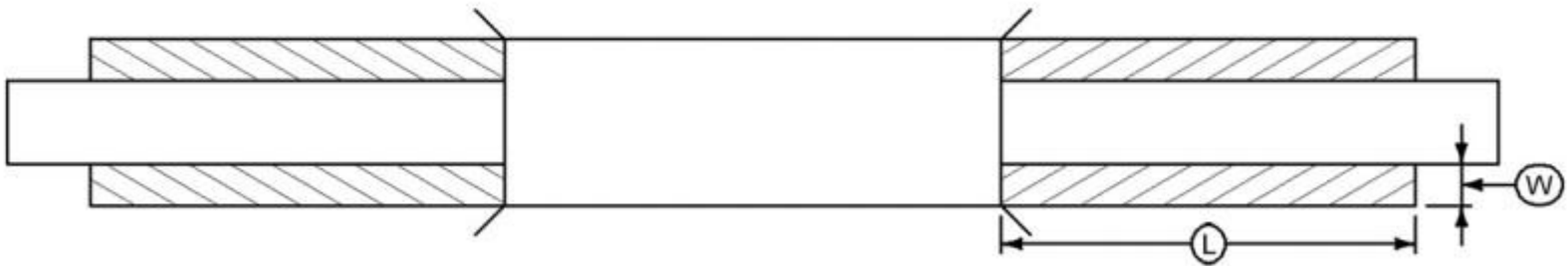
Line No.	Road Identification	Direction of Travel	Station From	Station To	Width (FT)	Length (FT)	Area (SY)	Area A(1) (SY)(3)	Area B (SY)(3)	Area C (SY)(3)	Area D (SY)(3)	Area E (SY)(3)	Area F(2) (SY)(3)	Area G (SY)(3)	Area H (SY)(3)	Area by Thickness - Thickness(IN)	Area by Thickness - Area (SY)	Polymer Grid (SY)	Special Backfill (TON)	Modified Subbase (CY)	Granular Subbase (SY)	Remarks
1.0																						
2.0	IA 100																					
3.0	IA 100	EB	278+08.78	281+88.78	5.0	380.00	211.00									10.0	211.0			70.00		(A)
4.0	IA 100	WB	278+08.86	281+88.86	5.0	380.00	211.00									10.0	211.0			70.00		(A)
5.0																						
6.0	IA 100	WB	292+48.28	302+24.83		976.55			1197.00				690.00			10.0	1887.0			629.00		(B)
7.0																						
8.0	Munier Rd	Both	4281+04.02	4281+64.60		60.58	286.00									10.0	286.0			95.00		(A)
9.0																						
10.0																						

Notes:
(A) Division 1 - Iowa DOT HSIPX Funding
(B) Division 2 - City of Marion TSIP Funding

Bid Item Quantities:
Division 1 - Iowa DOT HSIPX Funding
Modified Subbase - 235 CY
STD or S-F PCC Pavement, CL C, CL 3 Durability, 10 IN - 708 SY

Division 2 - City of Marion TSIP Funding
Modified Subbase - 629 CY
STD or S-F PCC Pavement, CL C, CL 3 Durability, 10 IN - 1,887 SY

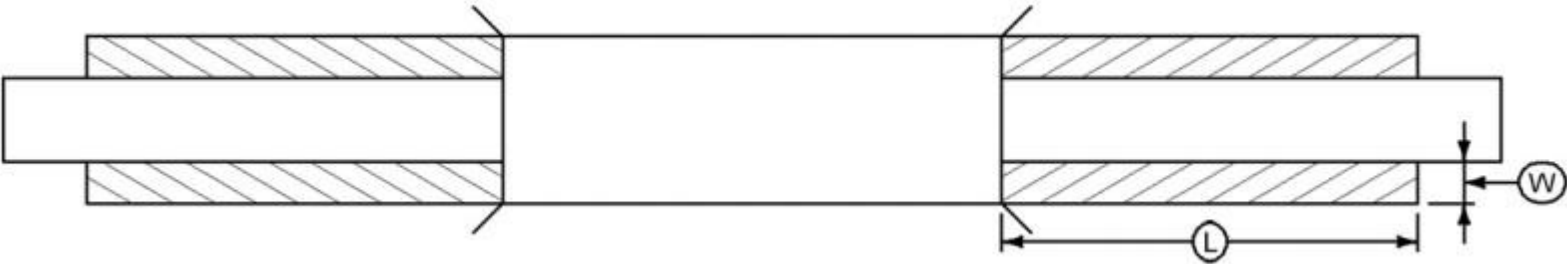
AREAS FOR PAVEMENT OR BASE WIDENING



(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.

Station From	Station To	Side	Pavement Type	Length (LF)	Width (LF)	Thickness (IN)	HMA Unit Wt. (lbs/cf)	HMA Base Widening (1) (TONS)	HMA Base Widening (1) (SY)	PCC Base Widening (1) (SY)	PCC Pavement Widening (1) (SY)	Tack Coat Unit Wt. (gal/sy)	Tack Coat Lifts (GAL)	Tack Coat Vertical Edge (GAL)	Tack Coat (2) (GAL)	Asphalt Binder (1) (TON)	Class 13 Excavation Widening (1) (CY)	Special Backfill Unit Weight (lbs-cf)	Special Backfill (1) (TONS)	Remarks
136+90.00	150+30.00	Left	HMA	1340.00	4.0	6.0	150	202.000				0.05	60.00	8.00	68.00	12.000	99.0			(A)(E)
155+75.00	162+00.00	Left	HMA	625.00	4.0	6.0	150	94.000				0.05	28.00	4.00	32.00	6.000	46.0			(A)(E)
176+50.00	185+50.00	Left	HMA	900.00	4.0	6.0	150	136.000				0.05	40.00	5.00	45.00	8.000	67.0			(A)(E)
192+90.00	203+00.00	Left	HMA	1010.00	4.0	6.0	150	152.000				0.05	45.00	6.00	51.00	9.000	75.0			(A)(E)
216+30.00	242+50.00	Left	HMA	2620.00	4.0	6.0	150	394.000				0.05	117.00	15.00	132.00	24.000	194.0			(A)(E)
247+75.00	278+05.00	Left	HMA	3030.00	4.0	6.0	150	455.000				0.05	135.00	17.00	152.00	27.000	224.0			(A)(E)
278+05.00	278+17.00	Left	HMA	12.00	7.0	9.0	150	5.000				0.05	1.00	1.00	2.00	1.000	2.0			(A)(B)(E)
278+17.00	279+17.00	Left	HMA	100.00	10.0	9.0	150	57.000				0.05	12.00	1.00	13.00	3.000	28.0			(A)(B)(E)
281+67.00	282+67.00	Left	HMA	100.00	10.0	9.0	150	57.000				0.05	12.00	1.00	13.00	3.000	28.0			(A)(B)(E)
282+67.00	282+79.00	Left	HMA	12.00	7.0	9.0	150	5.000				0.05	1.00	1.00	2.00	1.000	2.0			(A)(B)(E)
282+79.00	290+17.00	Left	HMA	738.00	4.0	6.0	150	111.000				0.05	33.00	5.00	38.00	7.000	55.0			(A)(E)
290+17.00	290+29.00	Left	HMA	12.00	7.0	9.0	150	5.000				0.05	1.00	1.00	2.00	1.000	2.0			(A)(B)(E)
290+29.00	291+39.00	Left	HMA	110.00	10.0	9.0	150	62.000				0.05	13.00	1.00	14.00	4.000	31.0			(A)(B)(E)
302+25.00	322+50.00	Left	HMA	2025.00	4.0	6.0	150	304.000				0.05	90.00	12.00	102.00	18.000	150.0			(A)(E)
116+65.00	131+00.00	Right	HMA	1435.00	4.0	6.0	150	216.000				0.05	64.00	8.00	72.00	13.000	106.0			(A)(E)
134+75.00	144+50.00	Right	HMA	975.00	4.0	6.0	150	147.000				0.05	44.00	6.00	50.00	9.000	72.0			(A)(E)
147+50.00	150+25.00	Right	HMA	275.00	4.0	6.0	150	42.000				0.05	13.00	2.00	15.00	3.000	20.0			(A)(E)
155+70.00	160+00.00	Right	HMA	430.00	4.0	6.0	150	65.000				0.05	20.00	3.00	23.00	4.000	32.0			(A)(E)
163+00.00	170+75.00	Right	HMA	775.00	4.0	6.0	150	117.000				0.05	35.00	5.00	40.00	7.000	57.0			(A)(E)
174+00.00	180+00.00	Right	HMA	600.00	4.0	6.0	150	91.000				0.05	27.00	4.00	31.00	5.000	44.0			(A)(E)
188+65.00	215+00.00	Right	HMA	2635.00	4.0	6.0	150	396.000				0.05	118.00	15.00	133.00	24.000	195.0			(A)(E)
216+40.00	242+00.00	Right	HMA	2560.00	4.0	6.0	150	385.000				0.05	114.00	15.00	129.00	23.000	190.0			(A)(E)
243+00.00	306+22.00	Right	HMA	6322.00	4.0	6.0	150	949.000				0.05	281.00	36.00	317.00	57.000	468.0			(A)(E)
308+00.00	322+50.00	Right	HMA	1450.00	4.0	6.0	150	218.000				0.05	65.00	9.00	74.00	13.000	107.0			(A)(E)
4280+85.00	4282+50.00	Left	HMA	165.00	4.0	9.0	150	38.000				0.05	8.00	2.00	10.00	2.000	18.0			(B)(C)(E)
4281+13.00	4282+75.00	Right	HMA	162.00	4.0	9.0	150	37.000				0.05	8.00	2.00	10.00	2.000	18.0			(B)(C)(E)

AREAS FOR PAVEMENT OR BASE WIDENING



- (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.

Station From	Station To	Side	Pavement Type	Length (LF)	Width (LF)	Thickness (IN)	HMA Unit Wt. (lbs/cf)	HMA Base Widening (1) (TONS)	HMA Base Widening (1) (SY)	PCC Base Widening (1) (SY)	PCC Pavement Widening (1) (SY)	Tack Coat Unit Wt. (gal/sy)	Tack Coat Lifts (GAL)	Tack Coat Vertical Edge (GAL)	Tack Coat (2) (GAL)	Asphalt Binder (1) (TON)	Class 13 Excavation Widening (1) (CY)	Special Backfill Unit Weight (lbs-cf)	Special Backfill (1) (TONS)	Remarks
3000+40.00	3001+10.00	Left	HMA	70.00	5.0	9.0	150	20.000				0.05	4.00	1.00	5.00	1.000	10.0			(B)(D)(E)
Total								4760.000								287.000	2340.0			

Notes:
(A) Division 1 - Iowa DOT HSIPX Funding
(B) Full-Depth Base Widening
(C) Munier Rd
(D) 44th St
(E) 5% quantity has been added to the HMA Base Widening (TON) and Asphalt Binder items to account for irregularities and field variances.

Bid Item Quantities:
Division 1 - Iowa DOT HSIPX Funding
Class 13 Ex., For Base Widening - 2,340 CY
Base Widening, HMA Mixture - 4,995 TONS
Asphalt Binder, PG 58-28S, Standard Traffic - 300 TONS

112_09
4/21/26

SHOULDERS

(1) Lane(s) to which the shoulder is adjacent.
(2) See Typ. 7156, 7157, or 7158.
(3) Bid Item.
(4) Applies only for Paved Shoulders constructed on project with existing granular shoulders.
(5) Bid Item. Typ. 7156, 7157, or 7158.
(6) Does not include shrink.
(7) Paved shoulder thickness specified in Remarks.
(8) Subbase type specified in Remarks.

Roadway Identification	Direction of Travel (1)	Station From	Station To	Side	P Width (FT)	P SG Width (2) (FT)	G Width (FT)	L Length (FT)	Class 13 Excavation (CY)(3)(4)	HMA (TON)	HMA (TON/ STA)	Binder (TONS)	Paved Shoulder (3) (SY)	Paved Shoulder at Grdrail (5)(7) (SY)	Granular Shoulder Unit Weight (lbs-cf)	Granular Shoulder (3) (TON)	Granular Shoulder (TON/STA)	Remarks
IA 100	WB	136+90.00	149+35.80	Left			6	1245.80							140	131.000	10.500	(A)
IA 100	WB	155+75.00	156+19.00	Left		11.4		44.00	7.0	33.000	74.300	2.000		56.0				
IA 100	WB	156+19.00	156+73.00	Left		12.4		54.00	12.0	38.000	69.800	3.000		74.0				
IA 100	WB	156+73.00	156+93.00	Left		13.2		20.00	10.0	13.000	64.500	1.000		29.0				
IA 100	WB	155+75.00	162+00.00	Left			6	625.00							140	66.000	10.500	(A)
IA 100	WB	176+50.00	185+50.00	Left			6	900.00							140	95.000	10.500	(A)
IA 100	WB	192+90.00	203+00.00	Left			6	1010.00							140	107.000	10.500	(A)
IA 100	WB	216+30.00	242+50.00	Left			6	2620.00							140	276.000	10.500	(A)
IA 100	WB	247+75.00	278+05.00	Left			6	3030.00							140	319.000	10.500	(A)
IA 100	WB	278+05.00	278+17.00	Left			6	12.00							140	2.000	10.500	(A)
IA 100	WB	278+17.00	279+17.00	Left			6	100.00							140	11.000	10.500	(A)
IA 100	WB	281+67.00	282+67.00	Left			6	100.00							140	11.000	10.500	(A)
IA 100	WB	282+67.00	282+79.00	Left			6	12.00							140	2.000	10.500	(A)
IA 100	WB	282+79.00	290+17.00	Left			6	738.00							140	78.000	10.500	(A)
IA 100	WB	290+17.00	290+29.00	Left			6	12.00							140	2.000	10.500	(A)
IA 100	WB	292+40.00	302+25.00	Left			6	985.00							140	593.000	60.200	(B)
IA 100	WB	302+25.00	322+50.00	Left			6	2025.00							140	213.000	10.500	(A)
IA 100	EB	116+65.00	131+00.00	Right			6	1435.00							140	151.000	10.500	(A)
IA 100	EB	134+75.00	144+50.00	Right			6	975.00							140	103.000	10.500	(A)
IA 100	EB	147+50.00	150+25.00	Right			6	275.00							140	29.000	10.500	(A)
IA 100	EB	149+35.80	149+55.80	Right		13.2		20.00	7.0	15.000	74.300	1.000		29.0				
IA 100	EB	149+55.80	149+91.60	Right		12.4		35.80	12.0	25.000	69.800	2.000		49.0				
IA 100	EB	149+91.60	150+22.00	Right		11.4		30.40	10.0	20.000	64.500	2.000		39.0				
IA 100	EB	155+70.00	160+00.00	Right			6	430.00							140	46.000	10.500	(A)
IA 100	EB	163+00.00	170+75.00	Right			6	775.00							140	82.000	10.500	(A)
IA 100	EB	174+00.00	180+00.00	Right			6	600.00							140	63.000	10.500	(A)
IA 100	EB	188+65.00	215+00.00	Right			6	2635.00							140	277.000	10.500	(A)
IA 100	EB	216+40.00	242+00.00	Right			6	2560.00							140	269.000	10.500	(A)
IA 100	EB	243+00.00	306+22.00	Right			6	6322.00							140	664.000	10.500	(A)
IA 100	EB	308+00.00	322+50.00	Right			6	1450.00							140	153.000	10.500	(A)
															140		10.500	(A)
															140		10.500	(A)
Munier Rd	SB	4280+85.00	4282+50.00	Left			2	165.00							140	18.000	10.500	(A)
Munier Rd	NB	4281+13.00	4282+75.00	Right			2	162.00							140	18.000	10.500	(A)

112_09

4/21/26

SHOULDERS

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

(2) See Typ. 7156, 7157, or 7158.

(3) Bid Item.

(4) Applies only for Paved Shoulders constructed on project with existing granular shoulders.

(5) Bid Item. Typ. 7156, 7157, or 7158.

(6) Does not include shrink.

(7) Paved shoulder thickness specified in Remarks.

(8) Subbase type specified in Remarks.

Roadway Identification	Direction of Travel (1)	Station From	Station To	Side	P Width (FT)	P SG Width (2) (FT)	G Width (FT)	L Length (FT)	Class 13 Excavation (CY)(3)(4)	HMA (TON)	HMA (TON/STA)	Binder (TONS)	Paved Shoulder (3) (SY)	Paved Shoulder at Grd rail (5)(7) (SY)	Granular Shoulder Unit Weight (lbs-cf)	Granular Shoulder (3) (TON)	Granular Shoulder (TON/STA)	Remarks	
44th St.	SB	3000+40.00	3001+10.00	Left			2	70.00							140	8.000	10.500	(A)	
Total										58						276.0	3787.000		

Notes:
(A) Division 1 - Iowa DOT HSIPX Funding
(B) Division 2 - City of Marion TSIP Funding

Bid Item Quantities:
Division 1 - Iowa DOT HSIPX Funding
Class 13 Ex., For Widening - 58 CY
Granular Shoulder, Type B - 3,194 Tons
Paved Shoulder, HMA, 9 IN. - 276 SY

Bid Item Quantities:
Division 2 - City of Marion TSIP Funding
Granular Shoulder, Type B - 593 Tons

112_10 10/20/26															
RUMBLE STRIPS															
* Calculated at 18" width for Shoulder. ** For use with penetrating Engineered Fog Seal. Calculated at 2" wider than rumble strips.															
Road Identification	Station From	Station To	Surface Type	Rumble Strip Lane	Rumble Strip Type	Fog Seal Type	L (IN)	PCC Length (STA)	HMA Length (STA)	Fog Seal* Shoulder (GAL)	Fog Seal (SY)**	Effective Shoulder Width PCC (FT)	Effective Shoulder Width HMA (FT)	Effective Shoulder Width Granular\Earth (FT)	Remarks
IA 100	118+00.00	133+00.00	PCC	Left Shoulder	Diamond Ground Sinusoidal Shoulder Rumble Strips		12"	15.00							
IA 100	136+90.00	185+50.00	HMA	Left Shoulder	Milled Sinusoidal Shoulder Rumble Strips (HMA Only)	Asphalt Emulsion	12"		49.00	53.0	810.0				
IA 100	192+90.00	203+00.00	HMA	Left Shoulder	Milled Sinusoidal Shoulder Rumble Strips (HMA Only)	Asphalt Emulsion	12"		10.00	11.0	168.0				
IA 100	203+00.00	214+65.00	PCC	Left Shoulder	Diamond Ground Sinusoidal Shoulder Rumble Strips		12"	12.00							
IA 100	216+30.00	291+35.00	HMA	Left Shoulder	Milled Sinusoidal Shoulder Rumble Strips (HMA Only)	Asphalt Emulsion	12"		75.00	81.0	1251.0				
IA 100	302+25.00	322+00.00	HMA	Left Shoulder	Milled Sinusoidal Shoulder Rumble Strips (HMA Only)	Asphalt Emulsion	12"		20.00	21.0	329.0				
IA 100	116+65.00	322+00.00	HMA	Right Shoulder	Milled Sinusoidal Shoulder Rumble Strips (HMA Only)	Asphalt Emulsion	12"		205.00	222.0	3423.0				
IA 100															
Total								27.00	359.00	388.0					

Notes:
(A) Division 1 - Iowa DOT HSIPX Funding

Bid Item Quantities:
Division 1 - Iowa DOT HSIPX Funding
Asphalt Emulsion for Fog Seal (Shoulder Rumble Strips) - 388 GAL
Milled Sinusoidal Shoulder Rumble Strips, HMA Surface - 359 STA
Diamond Ground Sinusoidal Shoulder Rumble Strips, PCC Surface - 27 STA

PAVEMENT MARKING LINE TYPES

Line factors based on 6-inch wide continuous line.
*BCY4 - Place on the same side of the roadway to match existing markings near the project.
**NPY4 - Estimating purposes only. No Passing Zone Lines will be located in the field.
***MNY6 - Factor of 1.00 includes number of 6-inch passes to cover median nose area.
BCY4: Broken Centerline (Yellow) @ 0.17 BCY6: Broken Centerline (Yellow) @ 0.25 BLC6: Broken Line Contrast (White/Black) @ 0.50
CBW6: Crosswalk Bar (White) @ 10.00 CHW8: Channelizing Line (White) @ 1.33 CHW10: Channelizing Line (White) @ 1.67
CLW6: Crosswalk Line (White) @ 2.00 DCY4: Double Centerline (Yellow) @ 1.34 DCY6: Double Centerline (Yellow) @ 2.00
DLW4: Dotted Line (White) @ 0.22 DLW6: Dotted Line (White) @ 0.33 DLY4: Dotted Line (Yellow) @ 0.22
ELW6: Edge Line Right (White) @ 1.00 ELY4: Edge Line Left (Yellow) @ 0.67 ELY6: Edge Line Left (Yellow) @ 1.00
MNY6: Median Nose (Yellow) @ 1.00 NPY4: No Passing Zone Line (Yellow) @ 0.84 NPY6: No Passing Zone Line (Yellow) @ 1.25
RLY4: Ramp Edge Line Left (Yellow) @ 0.67 RLY6: Ramp Edge Line Left (Yellow) @ 1.00 SLW2: Stop Line (White) @ 4.00
SPW4: Sloped Curb 4" (White) @ 2.16 SPW6: Sloped Curb 6" (White) @ 2.28 SPY4: Sloped Curb 4" (Yellow) @ 2.16
STY6: Standard Curb 6" (Yellow) @ 2.03 YLW2: Yield Line (White) @ 1.15

BLW4: Broken Lane Line (White) @ 0.17 BLW6: Broken Lane Line (White) @ 0.25
CHY8: Channelizing Line (Yellow) @ 1.33 CHY10: Channelizing Line (Yellow) @ 1.67
DDY4: Double Dotted Line (Yellow) @ 0.44 DDY6: Double Dotted Line (Yellow) @ 0.67
DLY6: Dotted Line (Yellow) @ 0.33 ELW4: Edge Line Right (White) @ 0.67
LDW8: Lane Drop (White) @ 0.33 LDW10: Lane Drop (White) @ 0.42
RLW4: Ramp Edge Line Right (White) @ 0.67 RLW6: Ramp Edge Line Right (White) @ 1.00
SLW4: Solid Lane Line (White) @ 0.67 SLW6: Solid Lane Line (White) @ 1.00
SPY6: Sloped Curb 6" (Yellow) @ 2.28 STW6: Standard Curb 6" (Yellow) @ 2.03

Line No.	Road ID	Station From	Station To	Lane	Marking Type	Left	Center	Right	Groove Marking Needed?	Groove Qty. (STA)	BCY4* Factored (STA)	BLW4 Factored (STA)	CHW10 Factored (STA)	DCY6 Factored (STA)	DLW6 Factored (STA)	ELW6 Factored (STA)	ELY6 Factored (STA)	SLW2 Factored (STA)	Remarks
1.0																			
2.0	IA 100	292+41.00	302+74.00	Aux.	Waterborne/Solvent Paint			X	Yes	12.00						12.00			(B)
3.0	IA 100	298+45.00	302+25.00	WB	Waterborne/Solvent Paint			X	Yes	1.00					1.00				(B)
4.0	IA 100	292+50.00	298+45.00	Aux.	Waterborne/Solvent Paint	X			Yes	27.00			27.00						(B)
5.0																			
6.0	44th St	3000+55.00	3002+82.00	NB	Waterborne/Solvent Paint			X	Yes	1.00					1.00				(B)
7.0																			
8.0	Munier Rd	4281+12.00	4282+50.00	Both	Waterborne/Solvent Paint	X		X	Yes	4.00						4.00			(A)
9.0	Munier Rd	4281+55.00	4282+50.00	Both	Waterborne/Solvent Paint	X			Yes	2.00				2.00					(A)
10.0	Munier Rd	4281+11.00	4281+11.00	SB	Waterborne/Solvent Paint	X	X	X	Yes	2.00								2.00	(A)
11.0																			
12.0	IA 100	279+12.00	281+67.00	WB	Waterborne/Solvent Paint			X	Yes	1.00					1.00				(A)
13.0	IA 100	278+07.00	281+90.00	WB	Waterborne/Solvent Paint	X			Yes	4.00							4.00		(A)
14.0	IA 100	278+07.00	281+90.00	EB	Waterborne/Solvent Paint	X			Yes	4.00							4.00		(A)
15.0																			
16.0																			
17.0																			
18.0																			
19.0																			
20.0																			
Total										58.00			27.00	2.00	3.00	16.00	8.00	2.00	

Notes:
(A) Division 1 - Iowa DOT HSIPX Funding
(B) Division 2 - City of Marion TSIP

Bid Item Quantities:
Division 1 - Iowa DOT HSIPX Funding
Painted Pavement Markings, Waterborne OR Solvent-Based - 17 STA
Grooves Cut for Pavement Markings - 17 STA

Bid Item Quantities:
Division 2 - City of Marion TSIP Funding
Painted Pavement Markings, Waterborne OR Solvent-Based - 41 STA
Grooves Cut for Pavement Markings - 41 STA

108_13A 3/27/25			
SAFETY CLOSURES			
Station	Road Closure Qty.	Hazard Closure Qty.	Remarks
4281+00.00	1		(A) Munier Rd
4282+70.00	1		(A) Munier Rd
280+75.00	1		(A) Munier Rd/IA 100 Median
280+75.00	1		(A) Munier Rd/IA 100 Median
292+40.00	1		(B) 44th St/IA 100 Median
292+40.00	1		(B) 44th St/IA 100 Median
3000+35.00	1		(B) 44th St
3004+50.00	1		(B) 44th St

Notes:
(A) Division 1 - Iowa DOT HSIPX Funding
(B) Division 2 - City of Marion TSIP Funding

Bid Item Quantities:
Division 1 - Iowa DOT HSIPX Funding
Safety Closure - 4 EA

Bid Item Quantities:
Division 2 - City of Marion TSIP Funding
Safety Closure - 4 EA

103_06
8/15/22

EMBANKMENT WITH MOISTURE CONTROL

Moisture Control is required for all Class 10 fill placed in all locations and depths. Stability berms placed outside the normal foreslope template and topsoil will not require Moisture Control.

103_07
8/15/22

SHRINKAGE DATA

Material	%	Remarks
Topsoil	40.0	
Ex. CL 10	30.0	

103_10 4/30/25							
TOPSOIL STRIPPING AND PLACEMENT							
Line No.	Road Identification	Dir. of Traffic	Station From	Station To	Topsoil Stripping Thickness (IN)	Topsoil Placement Thickness (IN)	Remarks
1.0	IA 100	WB	291+00.00	302+50.00	12.0	10.0	

LONGITUDINAL SUBDRAIN SHOULDER											104_09A 5/6/24
* Not a bid item.											
Line No.	Road or Lane Identification	Station From	Station To	Side	Depth (IN) (D)	Subdrain Size (IN)	Length (FT)	Outlet Station	Outlet Type	Porous Backfill* (CY)	Remarks
1.0	IA 100	294+00.00	294+00.00	Left	36.0	4.0	30.0	294+00.00	DR-306	2.3	
Total							30.0			2.3	

SURVEY SYMBOLS

	Interstate Highway Symbol		Septic Tank
	U.S. Highway Symbol		Cistern
	Iowa Highway Symbol		L.P. Gas Tank (No Footing)
	County Road Highway Symbol		Underground Storage Tank
	Evergreen Tree		Latrine
	Deciduous Tree		Satellite TV Dish
	Fruit Tree		Water Hook Up
	Shrub (Bushes)		Radio Tower
	Timber		Tower Anchor
	Hedge		Guardrail (Beam or Cable)
	Stump		Guard Post (one or two)
	Swamp		Guard Post (over two)
	Rock Outcrop		Filler Pipe
	Broken Concrete		Gas Valve
	Revetment (Rip Rap)		Water Valve
	Cemetery		Speed Limit Sign
	Grave		Mile Marker Post
	Cave		Sign
	Sink Hole		Traffic Signal Control Box
	Board Fence		Rail Road Signal Control Box
	Chain Link or Security Fence		Telephone Switch Box
	Wire Fence		Electric Box
	Terrace		
	Earth Dam or Dike (Existing)		
	Tile Outlet		
	Edge of Water		
	Existing Drainage		
	Right of Way Rail or Lot Corner		
	Concrete Monument		
	Well		
	Windmill		
	Beehive Intake		
	Existing Intake		
	Existing Utility Access (Manhole)		
	Fire Hydrant		
	Water Hydrant (Rural)		

SURVEYED UTILITY OWNER SYMBOLS

Sub-Surface Utility Mapping Quality Level is in accordance with CI/ASCE 38-02 Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data.

Remark Abbreviations		
QLA	Quality Level A Highest guideline quality level	
QLD	Quality Level D Lowest guideline quality level	
— E1 —	EL1D, Alliant Energy Underground Electric - Quality D	
— F0 —	FO1D, Lumen Tech. (CenturyLink) Fiber - Quality D	
— F02 —	FO2D, Alliant Energy Fiber Optic - Quality D	
— F03 —	FO3D, Iowa Communications Network (ICN) Fiber - Quality D	
— F04 —	FO4D, IMON Communications LLC Fiber - Quality D	
— F05 —	FO5D, International Transimission Company (ITC) Fiber - Quality D	
— SAN. —	SA1D, City of Marion Sanitary Sewer - Quality D	
	PPA, Power Pole International Transmission Company (ITC)	
	PPB, Power Pole Alliant Energy	

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.	Transparency
Pink, Dark	(13)		Temporary Pavement Shading
Yellow	(4)		Proposed Pavement Shading
Orange	(6)		Proposed Granular Shading
Orange	(70)		Proposed Shoulder Granular Shading
Yellow	(68)		Proposed Shoulder Paved Full Depth Shading
Yellow	(132)		Proposed Shoulder Paved Partial Depth Shading
Brown, Light	(236)		Grading Shading
Orange, Light	(134)		Proposed Granular Entrance Shading
Yellow	(220)		Proposed Paved Entrance Shading
Tan	(8)		Proposed Sidewalk Shading
Blue, Light	(230)		Proposed Sidewalk Landing Shading
Pink	(11)		Proposed Sidewalk Ramp Shading
Red	(3)		Proposed Structure Shading
Red	(3)		Delineates Restricted Areas

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

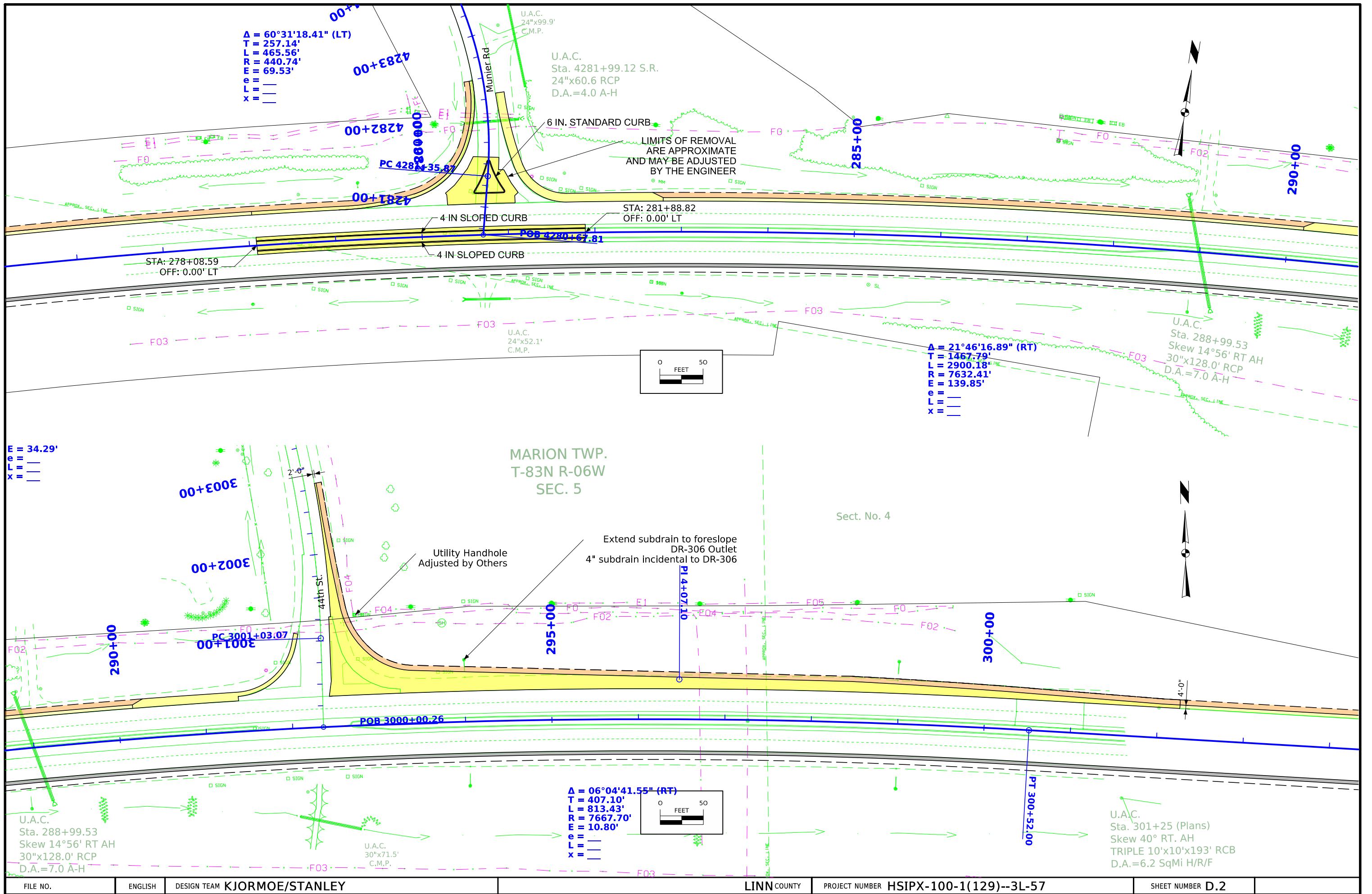
LINEWORK		Design Color No.	
Green	(10)		Existing Ground Line Profile
Blue	(1)		Proposed Profile and Annotation
Magenta	(5)		Existing Utilities
Blue, Light	(230)		Proposed Ditch Grades, Left
Black	(0)		Proposed Ditch Grades, Median
Rust	(14)		Proposed Ditch Grades, Right

Reference Point		Survey Line	
Station		Section Corner	
Ground Line Intercept		Saw Cut	
Guardrail		Trench Drain	
HighTension Cable Guardrail		Sheet Pile	
Pavement Removal		Clearing & Grubbing Area	

		Proposed Right-of-Way Symbol
		Proposed Right-of-Way Line
		Existing Right of Way
		Existing and Proposed Right-of-Way
		Easement and Existing Right-of-Way
		Easement (Temporary) Symbol
		Easement (Temporary) Line
		Easement
		C/A Access Control
		Property Line Symbol
		Property Line

PLAN AND PROFILE
LEGEND AND SYMBOL
INFORMATION SHEET

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



Survey Information

SURVEY INDEX

County: Linn
PIN: 25-57-100-030
Project Number: HSIPX-100-1(128)-3L-57
Location: At 44th St Intersection in Marion
Type of Work: Extending the left turn lane for EB to NB traffic
Project Directory: 5710003025

Survey Personnel

Geoff Tinker – Survey Party Chief (Sr. Land Surveyor)
Kokou Allade – Assistant Survey Party Chief

Date(s) of Survey

Begin Date 07/14/2025
End Date 08/11/2025

General Information

This project is a Full DTM Field Survey along IA100 4-Lane Divided Highway from about 400ft. West of Munier Road Intersection to about 900ft. East of 44th. Street Intersection, to include about 500ft. North of IA100 along 44th. Street located in Marion.

Utility Information

For logging data and other utility details see Utility Survey and Ownership Report in the Utility folder of the PrelimSurvey project directory.

Project Control

Coordinates were determined for primary project control points by conducting concurrent six-hour static observations, comprised of One (1) Static Session. Post processing was constrained to Iowa Real Time Network reference station “Marion” (IAMN) and checked upon station “Newhall” (IANW). For additional details of the control survey, contact the Preliminary Survey department.

PROJECT DATUM: NAD83(2011) for EPOCH 2010.00 (laRTN 2019 ADJUSTMENT)
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 10
(U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2018u3

Alignment Information

The Horizontal Alignment for Mainline (ML) **IA100** and Sideroad (SR) of **Munier Road** in this survey is a retracement of As-Built Grading Plans NHS-100-1(18)--19-57 (Doc. ID# 161199), and As-Built Paving Plans NHS-100-1(23)--19-57 (Doc. ID# 691284) G-Sheet Ties, together with Found Geometric points as denoted.
ML IA100 Survey Stationing was equated from plan PT at Sta. 300+52.00 and carried back and ahead without equation throughout the survey.
SR Munier Road Survey Stationing was equated from plan POST at Sta. 4281+24.52 SR Holding Plan 102°59’58” TAN-to-TAN Angle from ML IA100 and carried back and ahead without equation.

Survey stationing relates to as-built plan stationing as follows:

Survey POT Sta. 251+51.82 (CALC. Only) at 2000ft. BK. of Fount PC Sta. 271+51.82

PC Sta. 271+51.66 (O.R. Ahd.) per As-Built Grading Plans (Doc. ID# 161199)
Survey PC Sta. 271+51.82 at FOUND CUT-X in PCC MEDIAN

POC Sta. 280+70.43 (ML-OR) per As-Built Grading Plans (Doc. ID# 161199)
Survey POC Sta. 280+70.77 at FOUND CUT-X in PCC Pvm. loc. 0.15ft. RT. of CL HC.

PI Sta. 286+19.50 (O.R.) per As-Built Grading Plans (Doc. ID# 161199)
Survey PI Sta. 286+19.61 Calculated (COGO) from Curve definition Holding Found Horiz. Curve points at **PC, PT, and Tangent Ahead (S85°49’48”E)** to Found
POT Sta. 307+18.74 with Record (Plan) Curve Data as follows:
Delta (Right) = 21°46’15.6” (Plan Delta = 21°45’09”)
D = 0°45’ (Plan D. = 0°45’)
R = 7632.415ft (Plan R. = 7639.44ft)
L = 2900.178ft (Plan L. = 2900.33ft)
T = 1467.793ft (Plan T. = 1467.84ft)

Survey POC Sta. 292+35.71 = PI 299+99.76 S.R. (44th. Street to North) at Calculated Intersection

PT Sta. 300+52.00 (O.R.) per As-Built Grading Plans (Doc. ID# 161199)
Survey PT Sta. 300+52.00 (HELD) at FOUND CUT-X in PCC MEDIAN

POT Sta. 307+18.55 (ML-OR) per As-Built Grading Plans (Doc. ID# 161199) at S.R. PI
Survey POT Sta. 307+18.74 at FOUND CUT-X in PCC Pvm. aligned with Park Entrance to South

Munier Road (Sideroad / S.R.):
ML POC Sta. 280+70.43 (ML-OR) per As-Built Paving Plans (Doc. ID# 691284)
= PI Sta. 4280+67.89 SR
Survey PI Sta. 4280+67.81 (Calculated Intersection Point) from FOUND CUT-X in PCC Pvm. loc. 0.15ft. RT. of ML CL (POC Sta. 280+70.77)

Survey Information (Cont.)

POT Sta. 4281+24.52 SR = P.O.S.T. 538.55ft Back of PI Sta. 286+19.50 with ML Tang-to-SR Tang Angle of 102°59'58" per As-Built Paving Plans (Doc. ID# 691284)
Survey POT Sta. 4281+24.52 (HELD) at Calculated POST location of 538.31ft Back of ML PI Sta. 286+19.61, and 56.71ft. Ahead (56.63ft. Plan) of ML CL POC Sta. 280+70.77 from Holding 102°59'58" TAN-to-TAN Angle off ML IA100 Tangent

PC Sta. 4281+35.87 SR per As-Built Paving Plans (Doc. ID# 691284)
Survey PC Sta. 4281+35.87 (Calculated) per Plan distance from POT Back (ML POST)

PI Sta. 4283+93.01 SR per As-Built Paving Plans (Doc. ID# 691284) Sheet E.06
Survey PI Sta. 4283+93.01 (Calculated) per Plan Tangent from PC Back
Delta (Left) = **60°31'18"** (Plan Delta = 60°31'18" LT.)
D = 13°00' (Plan D. = 13°00')
R = 440.74ft (Plan R. = 440.74ft)
L = 465.56ft (Plan L. = 465.55ft)
T = 257.14ft (Plan T. = 257.14ft)

PT Sta. 4286+01.42 SR per As-Built Paving Plans (Doc. ID# 691284) Sheet E.06
Survey PT Sta. 4286+01.42 (Calculated) per Plan Deflection Angle and Tangent dist.

Survey POT Sta. 4287+00.00 (Calculated) per EOP for Paving Plans outlined above.

44th. Street (Sideroad / S.R.):
The Horizontal Alignment for Sideroad (**SR**) **44th Street** included in this survey is defined from As-Built Grading and Paving Plan Set (dated 1/15/2001) for City of Marion Project # RMX-4775(11)--9E-57. Plan Coordinate values (outlined in SPC IA. North Zone and transformed to IaRCS Zone 10 UsFt) were NOT Held for Plan PI Geometry as detailed, with best-fit to Existing Pavement at 1.50ft East (N 88°02'12" E) of Plan Coordinate values. **44th Street** Survey Stationing was equated from HELD PI Sta. (300)3+85.98 at location outlined (N=8068574.264 E=20528556.842 vs. Plan Coordinates) and carried back and ahead without equation.

BOP Sta. (300)0+00 SR per As-Built plans denoted.
Survey PI Sta. 3000+00.263 (Computed N=8068188.597 E=20528563.020) from PI Stations Ahead held for Geom. CL and Intersecting ML POC Sta. 292+35.71

PC Sta. (300)0+90.77 SR per Plan Sheet D1 as outlined.
Survey PC Sta. 3001+03.075 (Computed) per T=282.905ft from PI Ahead (vs. 226.40ft Plans)

PI Sta. (300)3+85.98 SR (N=8068574.264 E=20528556.842) at adjusted location per Plan Curve Data as denoted. Deflection Angle agreed with PI Ahead (30)11+49.81 adjusted location, yet the Plan Curve Data does NOT calculate to Plan Radius if Record Tangent distances were held, nor Plan Coordinate values fit the Existing CL of 44th. St. as Constructed. Plan Stationing further reflects T=295.21ft. and L=578.92 compared to the Curve Data denoted on Plans, which agrees with Deflection and computes to a

Radius of 1200.0ft. Holding Deflection Angle that agrees with Plan PI Coordinate Values "and" Plan Radius (R = 1150.00ft.) of Curve best fit Existing CL Constructed at 1.50ft East (N 88°02'12" E) of Plan Coordinate values as denoted above.

Survey PI Sta. 3003+85.98 (N=8068574.264 E=20528556.842) with no magnetic sounding per field review, and Not Set per Curve details as follows:

Delta (Left) = 27°38'28"	(Plan 27°38'30" Deflection to PI 11+49.81)
Da = 4°58'55"	(Plan Da = 4°58'56")
R = 1150.00ft	(HELD Plan R=1150.00ft)
L = 554.793ft	(Plan L = 447.08ft)
T = 282.905ft	(Plan T = 226.40ft)
Ch = 549.429ft	(Plan Ch = 444.27ft)

PT Sta. (300)6+69.69 SR per Plan Sheet D2 as outlined.
Survey PT Sta. 3006+57.87 (Computed) per T=282.905ft from PI 3003+85.98 Back

PC Sta. (300)7+95.09 SR per Plan Sheet D2 as outlined.
Survey PC Sta. "NOT DEFINED" (Spiral-Curve Ahead)

PI Sta. (30)11+49.81 SR (N=8069255.270 E=20528186.179) adjusted location per above from As-Built plans as follows:
Delta (Right) = 28°30'08" Spiral-Curve design
Survey PI Sta. 3011+50.31 (Computed) to define SR Alignment per Plan Coord.'s with No field review at location, and Not Set.

CONTROL POINT VICINITY MAP

This map is a guide to the vicinity of the primary project control points. Primary control is for use with RTK base stations and for RTN validation. Future surveys will use primary project control to establish temporary control as needed for construction or other surveying applications.



HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment) - Iowa RCS Zone 10 (U.S. Survey Foot)

VERT. DATUM: NAVD88 - Geoid Model: 2018u3

Coordinate listing from next sheet will be used with IaRTN for monument recovery. No other reference ties are given.

HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING
HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment)
Ia. Regional Coordinate System Zone 10 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: 2018u3

PointName	Northing	Easting	Elevation	Code-Description
571000151	8068848.14	20528444.41	788.57	FENO SET 1m. L. FENO Monument w/2in. Bronze Cap -4in. Dp. located about 655ft. North of IA100 Intersection along 44th. Street at 32.1ft. East/NE of CL 44th. Street; and 22.7ft. South/SE of 40mph. Speed Limit Sign; and 13.3ft. Northwest (NW.) of Cntr. Steel Gate Post (North Post); and 25.6ft. North/NW. of CL Field Entrance
570130066	8067885.32	20532559.17	832.23	FENO SET 1m. L. FENO Monument w/2in. Bronze Cap -3in. Dp. located about 900ft. East of Hwy. 13 (aka US151) and IA100 Intersection along Secrist Road at 25.7ft. South of CL Secrist Rd.; and 94.0ft. South (and Aligned with) of Cntr. Power Pole at North side of Road; and 69.4ft. Southwest (SW.) of Southeast (SE) Corner PCC Pmnt. at PCC/ACC Paving Joint; and 63.5ft. East of CL Field Entrance; and 125.7ft. SE of Cntr. Metal Signal Pole (Yellow Warning Signal)
MCP-A5_1	8068628.75	20526927.35	851.80	Southeast Corner Munier Rd. Intersection with Deer Valley Drive at 21.8ft. East of CL Deer Valley Dr. (PCC Jnt.); and 31.8ft. North/NE of CL Munier Rd. ACC Jnt.; and 34.3ft. South of Cntr. Fire Hydrant; and 13.1ft. South of Cntr. Light Pole; and 3.3ft. East/SE of Back-of-Curb Corner at North side of PCC Intake Cover
MCP-C4	8067843.07	20534896.14	858.84	CP FND. City of Marion GPS Network Control Monument (MCP) at 6in. Dia. PCC Cast Monument w/Disk Stamped [C4] located about 0.62mi. East of Hwy. 13 (aka US151) and IA100 Intersection along Secrist Road at 41.0ft. South of CL Secrist Rd.; and 68.5ft. SE of Cntr. SQ. Steel Mailbox Post (#1777); and 36.4ft. East of Cntr. Wood Gate Post (at South ROW Fence to West); and 25.1ft. East of CL Field Entrance; and 3.1ft. NE of Wood Gate Post

Name	Location	Point on Tangent Station	Point on Tangent Y Northing	Point on Tangent X Easting	Begin Spiral Station	Begin Spiral Y Northing	Begin Spiral X Easting	Begin Curve Station	Begin Curve Y Northing	Begin Curve X Easting	Simple Curve PI or Master PI Station	Simple Curve PI or Master PI Y Northing	Simple Curve PI or Master PI X Easting	End Curve Station	End Curve Y Northing	End Curve X Easting	End Spiral Station	End Spiral Y Northing	End Spiral X Easting
IA 100	alignments- SURMLA100	251+51.82	8067230.952	20524609.42															
IA 100	alignments- SURMLA100							271+51.82	8067835.733	20526515.79	286+19.61	8068279.58	20527914.87	300+52.00	8068172.845	20529378.77			
IA 100	alignments- SURMLA100	307+18.74	8068124.361	20530043.75															
MUNIER RD	alignments- SURSRMUNIER	4280+67.81	8068060.275	20527406.31															
MUNIER RD	alignments- SURSRMUNIER	4281+24.52	8068116.799	20527401.76															
MUNIER RD	alignments- SURSRMUNIER							4281+35.87	8068128.109	20527400.85	4283+93.01	8068384.424	20527380.21	4286+01.42	8068492.595	20527146.93			
MUNIER RD	alignments- SURSRMUNIER	4287+00.00	8068534.062	20527057.5															
44TH ST	alignments- SURSR44th	3000+00.26	8068188.597	20528563.02															
44TH ST	alignments- SURSR44th							3001+03.07	8068291.395	20528561.37	3003+85.98	8068574.264	20528556.84	3006+57.87	8068822.747	20528421.6			
44TH ST	alignments- SURSR44th	3011+50.31	8069255.27	20528186.18															

101_17 1/17/24																
SPIRAL OR CIRCULAR CURVE DATA																
Name	Location	SCS	S	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	C	T	L	R	E	Remarks
C1	alignments-SURMLA100										21.771	1467.793	2900.178	7632.412	139.855	
C1	alignments-SURSRMUNIER										60.522	257.144	465.556	440.74	69.529	
C1	alignments-SURSR44th										27.641	282.905	554.794	1150	34.287	

TRAFFIC CONTROL PLAN

Thru traffic on IA 100 shall be maintained at all times.

Munier Rd shall remain open to traffic during pavement removal, and construction of the raised median along IA 100.

Munier Rd is allowed to be closed completely during pavement removal, paving and construction of the splitter island on the sideroad.

44th St is allowed to be closed completely during construction of the offset-right turn lane along IA 100.

Lane closures for construction of the offset-right turn lane at 44th St, Munier Rd median removal and construction, and pavement removal and splitter island construction at Munier Rd are allowed to remain in-place until completion of each stage. Completion shall include all pavement construction, granular shouldering, embankment grading, signing installation, and pavement markings.

Lane closures for base widening, and rumble strip placement operations are not permitted during the following times below, and shall also be removed if work is not actively occurring in the work zone.

IA 100 EB:
Sunday: No Restrictions
Monday: 3 PM - 6 PM
Tuesday: 3 PM - 6 PM
Wednesday: 3 PM - 6 PM
Thursday: 3 PM - 6 PM
Friday: 3 PM - 6 PM
Saturday: No Restrictions

IA 100 WB:
Sunday: No Restrictions
Monday: 6 AM - 9 AM
Tuesday: 6 AM - 9 AM
Wednesday: 6 AM - 9 AM
Thursday: 6 AM - 9 AM
Friday: 6 AM - 9 AM
Saturday: No Restrictions

STAGING NOTES

Stage 1: Closure of 44th St
An outside lane closure along IA 100 WB at 44th St is allowed continuously until completion between STA 290+00 - 322+00. The IA 100 EB left turn lane and median crossing at 44th St shall be closed during stage 1.

Work shall consist of:
-Pavement and signing removal
-Embankment grading
-Subbase and pavement placement for the offset-right turn lane
-Granular shouldering
-Earth Shoulder Construction
-Installation of signing
-Pavement marking grooving and placement

Stage 2: Median Closure at Munier Rd
Inside lane closures along IA 100 at Munier are allowed until completion between STA 275+00 - 306+00. 44th St shall remain open during this stage.

Work shall consist of:
-Pavement and signing removal
-Subbase and pavement placement for the raised median.
-Installation of signing
-Pavement marking grooving and placement

Stage 3: Closure of Munier Rd
An outside lane closure along WB IA 100 at Munier is allowed until completion between STA 275+00 - 306+00. 44th St shall remain open during this stage

Work shall consist of:
-Pavement and signing removal
-Subbase and pavement placement for the Munier Rd intersection and raised splitter island construction.
-Installation of signing
-Pavement marking grooving and placement

Stage 4: Outside shoulder safety improvements
Lane closures shall be removed during the times listed in Tab 108-23A Traffic Control Plan and shall be removed during non-working hours. Work on Stage 4 will be allowed prior to Stage 1 but work in Stage 4 will not be allowed concurrently with work in Stages 1, 2, or 3.

Work shall consist of:
-Class 13 Ex for base widening
-Base widening placement
-Sinusoidal shoulder rumble strip placement
-Fog sealing of HMA shoulders

TRAFFIC CONTROL CLOSURE TABLE(S)

* This is to only be used in conjunction with Tabulation 108-23A.
"X" area indicates times that lane closures are not allowed.

Roadway Name	Day																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
		12:00 AM	12:30	1:00	1:30	2:00	2:30	3:00	3:30	4:00	4:30	5:00	5:30	6:00	6:30	7:00	7:30	8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00 PM	12:30	1:00	1:30	2:00	2:30	3:00	3:30	4:00	4:30	5:00	5:30	6:00	6:30	7:00	7:30	8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
IA 100 EB - Stage 4	Sunday																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															</

111_01
10/14/22

COORDINATED OPERATIONS

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
MP-151-6(747)30--76-57	PCC Patching



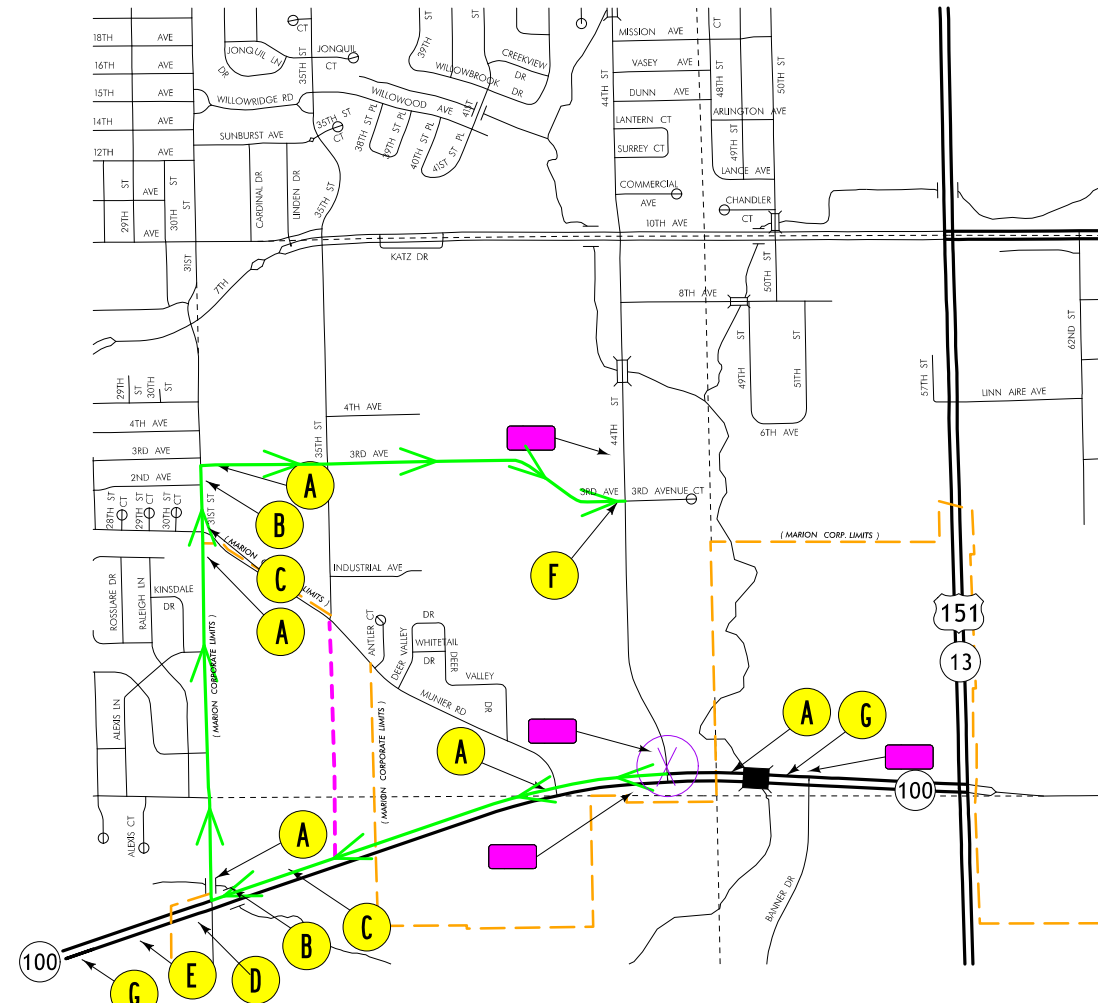
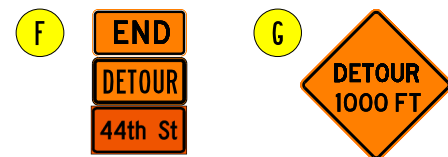
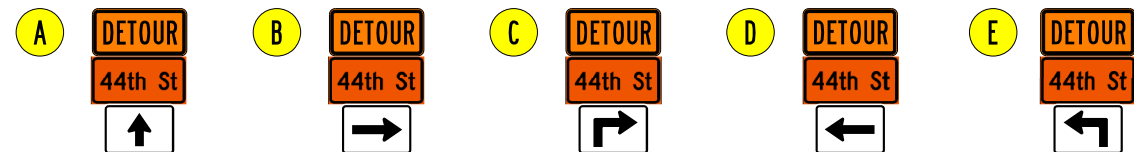
ROAD DETOUR

44th St. Detour Route

HSIPX-100-1(129)--3I-57
Linn County

Northbound 44th St.

- * NOTE 1: The contractor is responsible for furnishing, installing, maintaining, and removing all detour signing.
- * NOTE 2: The quantity of detour signs and the locations provided are for guidance. If field conditions (i.e. grade, existing signs, etc.) require a modification, additional signs, or safety concerns arise, please contact the project inspector and the appropriate accommodations will be made.
- * NOTE 3: PDMS's placed 7 calendar days prior to implementation of detour.



- = Project Location
- = Detour Route
- = Suggested PDMS location

TABULATION OF DETOUR SIGNS				TABULATION OF DETOUR SIGNS			
SIGN TYPE	MUTCD #	STOCK #	SIZE	SIGN TYPE	MUTCD #	STOCK #	SIZE
	M4-8bP	N/A	36X18		M6-3P	N/A	21X15
	M4-8P	N/A	36X18		M6-1P LEFT/RIGHT	N/A	21X15
	W20-2	N/A	48X48		M5-1P LEFT	N/A	21X15
	N/A	N/A	36X18		M5-1P RIGHT	N/A	21X15



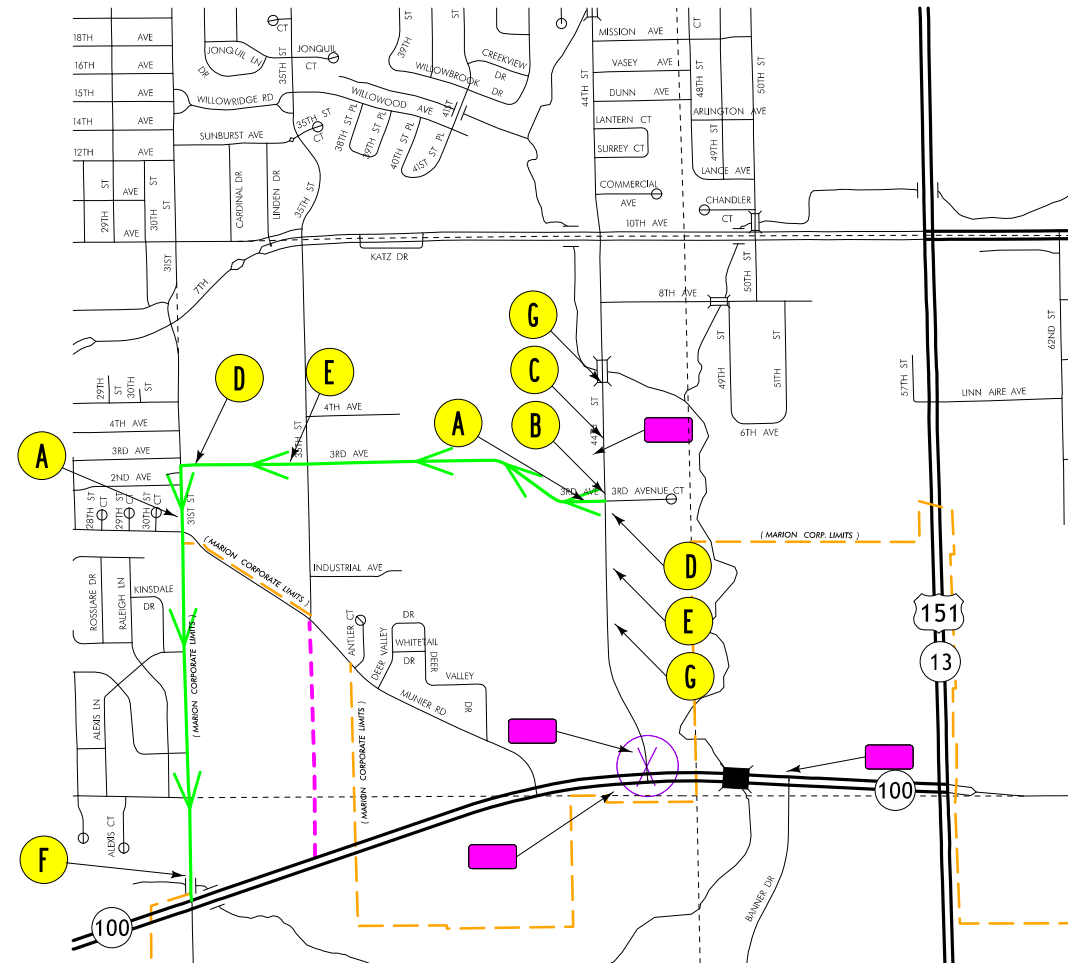
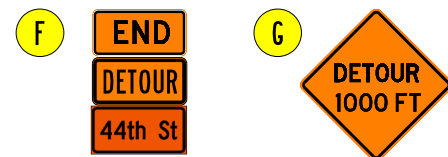
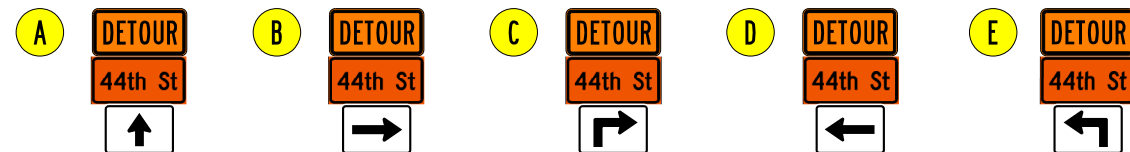
ROAD DETOUR

44th St. Detour Route

HSIPX-100-1(129)--3I-57
Linn County

Southbound 44th St.

- * NOTE 1: The contractor is responsible for furnishing, installing, maintaining, and removing all detour signing.
- * NOTE 2: The quantity of detour signs and the locations provided are for guidance. If field conditions (i.e. grade, existing signs, etc.) require a modification, additional signs, or safety concerns arise, please contact the project inspector and the appropriate accommodations will be made.
- * NOTE 3: PDMS's placed 7 calendar days prior to implementation of detour.



- = Project Location
- = Detour Route
- = Suggested PDMS location

TABULATION OF DETOUR SIGNS				TABULATION OF DETOUR SIGNS			
SIGN TYPE	MUTCD #	STOCK #	SIZE	SIGN TYPE	MUTCD #	STOCK #	SIZE
	M4-8bP	N/A	36X18		M6-3P	N/A	21X15
	M4-8P	N/A	36X18		M6-1P LEFT/RIGHT	N/A	21X15
	W20-2	N/A	48X48		M5-1P LEFT	N/A	21X15
	N/A	N/A	36X18		M5-1P RIGHT	N/A	21X15



2.00" Radius, 0.75" Border, 0.50" Indent, Black on Orange;
"44th St", C 2K;

PLAN VIEW COLOR LEGEND OF JOINTING SHEETS		
Design Color No.		Feature
(1)		Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
(55)		B Joint
(71)		C Joint
(77)		CD Joint
(76)		CT Joint
(76)		DW Joint
(76)		HT Joint
(77)		RD Joint
(76)		RT Joint
(130)		CF-1 Joint
(130)		CF-2 Joint
(130)		CF-3 Joint
(130)		CF-4 Joint
(72)		E Joint
(142)		ED Joint
(142)		EE Joint
(142)		EFJoint
(72)		ES Joint
(64)		BT-1 Joint
(64)		BT-2 Joint
(128)		BT-3 Joint
(128)		BT-4 Joint
(128)		BT-5 Joint
(128)		BT-6 Joint
(79)		K Joint
(70)		KS-1 Joint
(70)		KS-2 Joint
(143)		KT-1 Joint
(143)		KT-2 Joint
(143)		KT-3 Joint
(138)		L-1 Joint
(138)		L-2 Joint
(138)		L-3 Joint

JOINTING NOTES:

All longitudinal joints shall be either BT-2 or L-2 unless indicated otherwise.

All transverse joints shall be CD joints with a maximum 17' spacing unless indicated otherwise,

If a joint length is 2', a C joint shall be used instead of a CD joint.

Refer to Typical 7101 for details of paved header.

Refer to Typicals 7154A and 7154B for paved shoulder details.

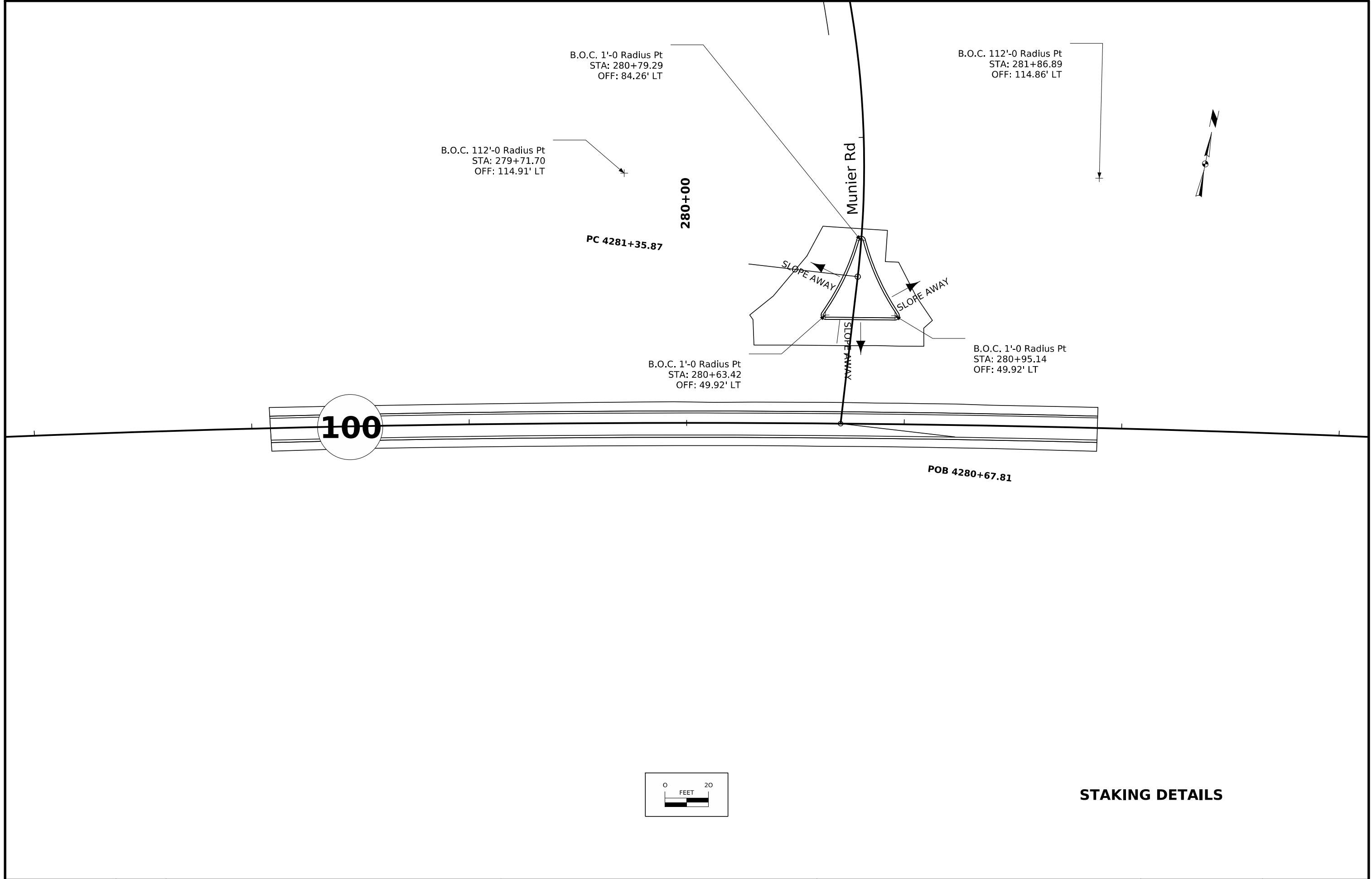
GEOMETRICS AND STAKING NOTES:

Refer to Appropriate Standard Road Plans for Additional Information.

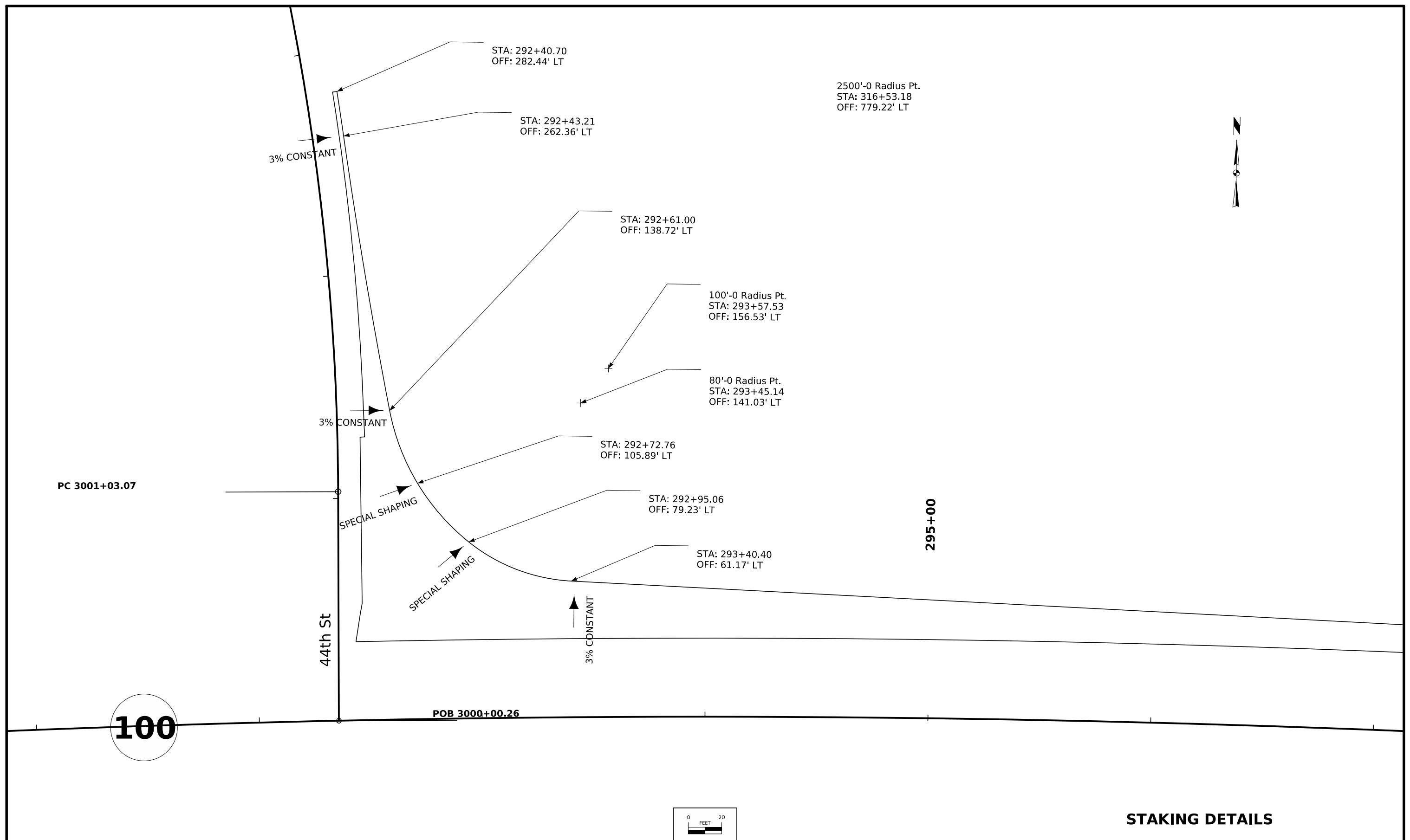
Refer to G Sheets for Horizontal Alignment Information.

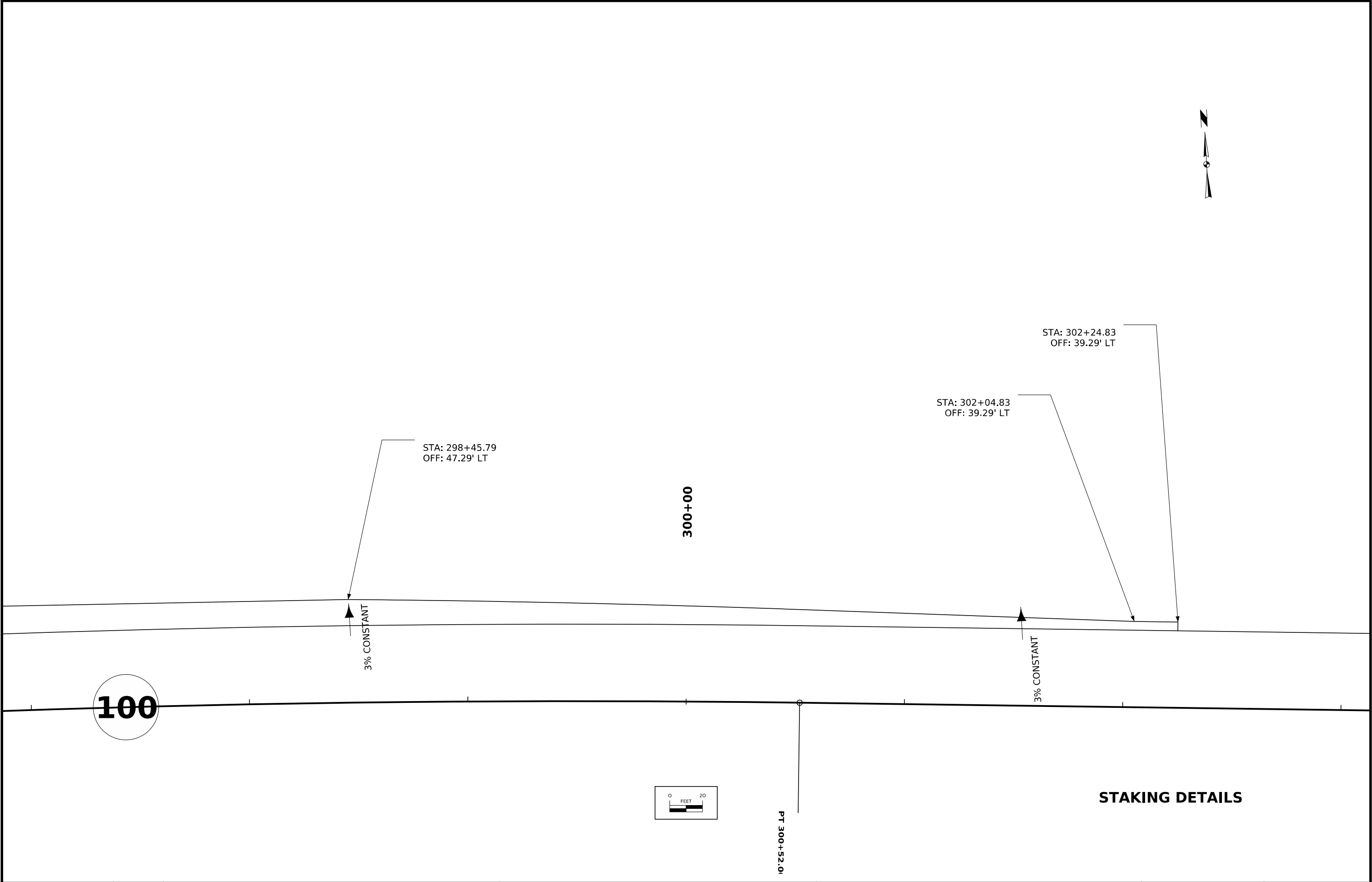
JOINTING AND GEOMETRICS
LEGEND AND INFORMATION SHEET

(COVERS SHEET SERIES L)



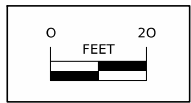
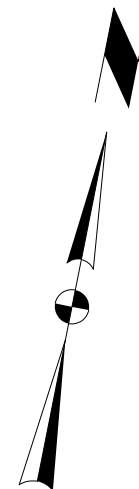
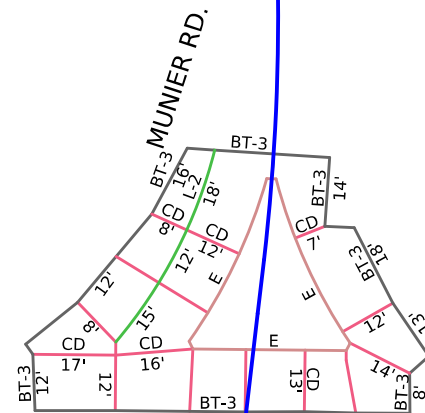
STAKING DETAILS



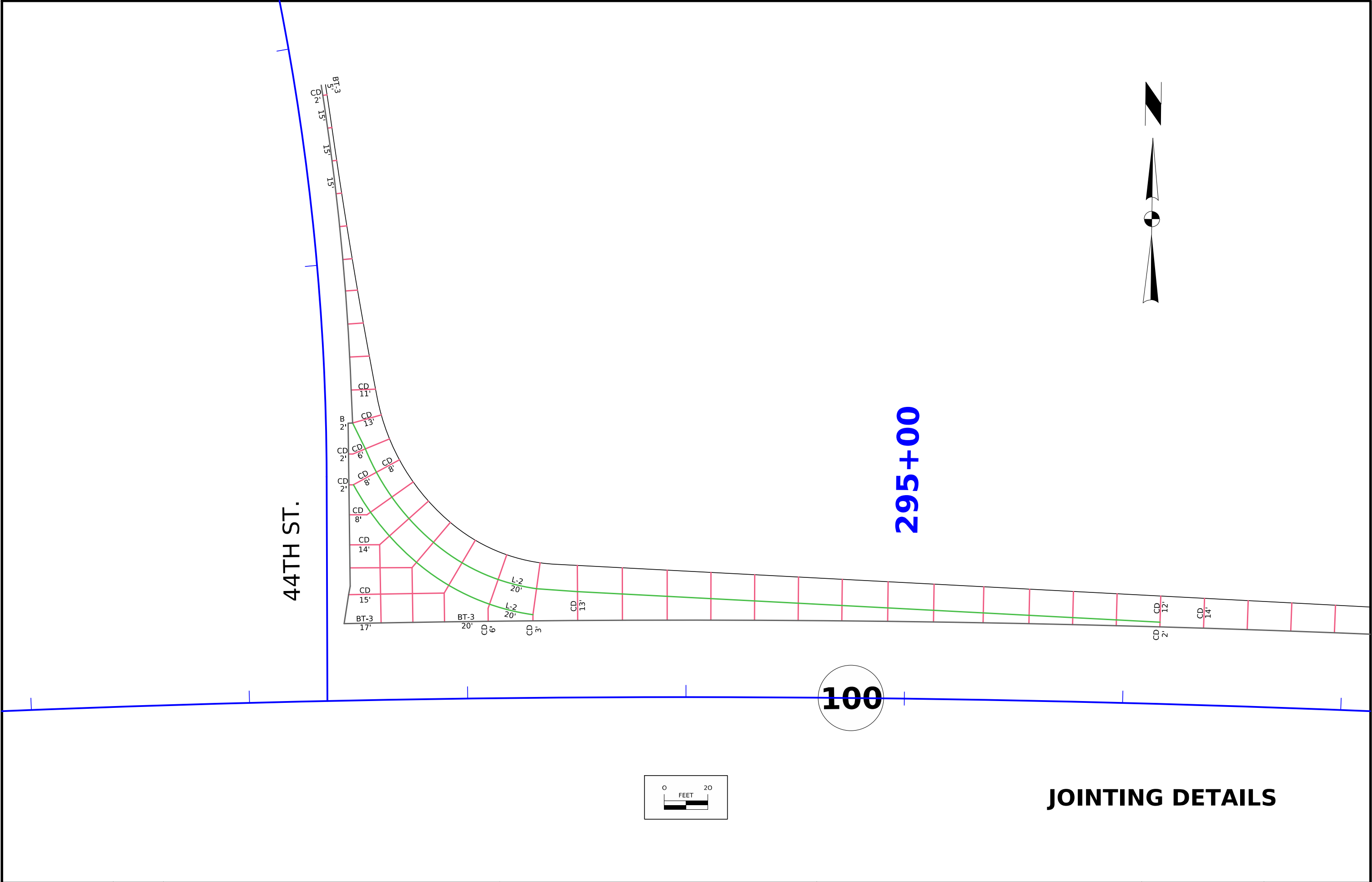


FILE NO.	ENGLISH	DESIGN TEAM KJORMOE/STANLEY	LINN COUNTY	PROJECT NUMBER HSIPX-100-1(129)--3L-57	SHEET NUMBER L.4
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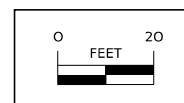
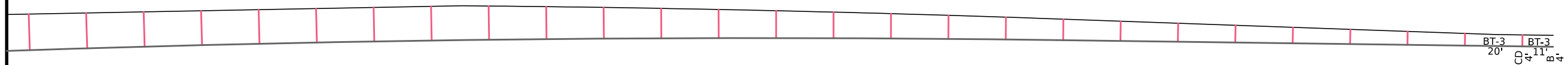
100



JOINTING DETAILS



300+00



JOINTING DETAILS

259_01 10/15/25 SIGNING NOTES		259_01 10/15/25 SIGNING NOTES		259_01 10/15/25 SIGNING NOTES		259_01 10/15/25 SIGNING NOTES										
The following tolerances will be allowed on all signs: Accumulation error of not greater than +/-0.50" per line of copy, not greater than +/-0.50" for spacing between lines of copy, and the margin between lines of copy and the inside edge of the sign border. The following tolerances will be allowed on each letter or numeral: <table><tr><td>nominal height</td><td>variation in height</td><td>variation in width</td></tr><tr><td>4" thru 12"</td><td>-1/8" to +3/8"</td><td>-1/4" to +1/4"</td></tr><tr><td>over 12"</td><td>-1/8" to +3/8"</td><td>-3/8" to +3/8"</td></tr></table> ----- Type B signs can be separated into two categories: - Major Guide Signs. - Minor Guide Signs. Major Guide Signs include the advance and exit direction guide signs for an interchange or intersection. Minor Guide Signs include all other guide signs such as NEXT EXIT signs, supplemental guide signs, logo signs, exit gore signs, post-interchange mileage signs, ramp destination signs, and ramp logo signs for an interchange, as well as destination signs along sideroads. Type A signs are not separated into categories, but special consideration should be given to regulatory signs. Do not remove Type B signs until replacement signs have been installed. If construction activities require the removal of a sign, the existing sign may be relocated to temporary posts, or a temporary plywood sign may be installed to replace the existing sign. Existing non-regulatory Type A signs are NOT required to remain in place until installation of replacement signs. Existing regulatory Type A signs, particularly Stop signs, should not be removed until replacement signs are installed. Where a staged traffic control plan is contrary to this guidance, follow the direction of the traffic control plan. Apply the following during the replacement or modification of signs: - No more than one of the major guide signs for each direction of travel at an interchange out of service at any one time. - No major guide sign out of service for more than 8 hours. - No minor guide out of service for more than 24 hours. Remove existing signs and posts within 24 hours following the installation of a new replacement sign. In any case where the plans call for a new sign and posts to be installed at the same station location and offset as an existing sign, install the new posts at a minimum of either 5 ft ahead or behind the existing sign installation. Signs shall not be installed more than 25 ft ahead or behind the existing sign installation. Whenever posts for a replacement sign are erected directly in front of an existing sign, install the new replacement sign and remove the existing sign installation within 24 hours of the time that the new posts are erected. Where signs are located behind guardrail, locate the near edge of the sign a minimum of 3 ft behind the guardrail posts.		nominal height	variation in height	variation in width	4" thru 12"	-1/8" to +3/8"	-1/4" to +1/4"	over 12"	-1/8" to +3/8"	-3/8" to +3/8"	Unless noted otherwise, leave auxiliary panels, such as exit number panels, in place or reattach to the sign using the existing mounting hardware. Also, when replacing an existing logo sign with a new logo sign, remove the business logo panel(s) from the existing sign and attach to the new sign as directed by the Engineer. Do not damage the auxiliary or logo panels when removing and reattaching them. This work is incidental to other work and no separate payment will be made. The following notes apply to the corresponding sign installations shown on the plan sheets and listed in the tabulations. IB INSTALL NEW TYPE B SIGN IA INSTALL NEW TYPE A SIGN Install new signs at the location identified in the plans. For installation of new signs on an existing sign support structure, refer to note (L). For installation of new signs on existing posts: - if the new sign is taller than the existing sign, furnish the necessary hardware to extend the sign above the posts. Refer to Standard Road Plan SI-132. - if the new sign is shorter than the existing sign: - for wood posts and perforated square tube posts, install the sign at the proper height and cut off the excess post length. - for MASSH-400 and steel breakaway posts, install the sign at the top of the posts. For plywood signs, no vertical splices are allowed in signs less than or equal to 10 ft wide. No horizontal splices are allowed in signs less than or equal to 4 ft tall. Each new sign installed shall have a sticker applied to the back of the sign that shows the date the sign was installed. The Contractor shall supply the sticker for all contractor supplied signs. The DOT will supply date stickers on any signs supplied by the department. Payment for installing Type A signs or Type B signs includes furnishing hardware for mounting, extending signs above existing posts, and cutting posts to length. MS MODIFICATION OF EXISTING SIGNS For removal and/or installation of logo panels, and other sign modifications. Refer to the project plans and typical details for additional information. SC SIGN COVER For the installation or removal of temporary sign covers for the purposes of temporary traffic control. Sign covers shall completely cover the existing Sign. Care should be taken so that covers, fasteners, and installation practices do not damage the existing sign. Tape of any type shall not be applied to the sheeted face of the existing sign under any circumstances. Repair of damage to the existing sign caused by sign covers will be the responsibility of the Contractor. SO OVERLAY TYPE B GUIDE SIGNS MB INSTALL SPECIAL MOUNTING BRACKET Install special mounting brackets at the locations identified in the plans. Refer to Tabulations 190-51 and/or 190-65.		PB INSTALL NEW BREAKAWAY STEEL POSTS AND FOOTING PP INSTALL NEW PERFORATED SQUARE TUBE POSTS AND ANCHORS PM INSTALL NEW MASSH-400 POSTS AND ANCHORS Install new breakaway steel posts and footings, perforated square tube posts and anchors, or MASSH-400 posts and anchors at the locations identified in the plans. Refer to the Standard Road Plans, Typicals, and Tabulations 190-51 and 190-50 for post size and footing information. New posts shall be installed in undisturbed soil. The new posts shall not be placed in the hole of removed posts. Remove excess soil from footing hole. Do not spread soil on adjacent seeded or vegetated areas. If note (RR) accompanies (PB), (PP), or (PM), install an existing sign on the new posts. RR REMOVE AND REINSTALL SIGN AS PER PLAN Do not remove existing major Type B guide signs on posts until the new posts are installed. Promptly remove sign and install at the new location. Existing major Type B guide signs on overhead support structures, minor Type B guide signs, plywood signs, and Type A signs may be removed and stored. Transport the signs to a DOT storage area as designated by the Engineer. Transport the signs back to the job site when ready for installation at the new location. Signs to be reinstalled shall not be stored for any length of time with the sheeted face in contact with the ground. Replace signs damaged by the Contractor's activities at no additional cost to the Contracting Authority. Payment for Remove and Reinstall Sign includes sign removal, delivery to and from the DOT storage area (if applicable), and reinstallation, including any hardware required for reinstallation. When noted in the plans, payment for delivery and stockpile of existing signs will be separate from the payment for Remove and Reinstall Sign. RA REMOVAL OF TYPE A SIGN ASSEMBLY RB REMOVAL OF TYPE B SIGN ASSEMBLY Type A Sign Assembly consists of one or more signs installed on one or more posts, either directly mounted to the post or mounted to the post with special sign mounting brackets. Type B Sign Assembly consists of the main sign, all auxiliary signs and brackets, and posts. Unless stated otherwise in the plans, remove all posts with the signs and brackets. Remove each sign assembly identified in the plans. Sign posts removed become the property of the Contractor. All other materials removed remain the property of the DOT. For each sign assembly removed, disassemble each assembly before delivering to the DOT. * For Type A sign assemblies, unbolt all signs,		special mounting brackets, and posts from each other. * For Type B assemblies, unbolt all extruded aluminum panels, brackets, and posts from each other. Do not damage the disassembled materials. When the plans call for the removal of posts, the entire existing post shall be removed. The post shall not be broken off or cut off at the ground line. Place backfill in holes remaining from the removal of posts and restore to the surrounding conditions. Deliver the removed signs, special sign mounting brackets, and extruded aluminum panels to a DOT storage area, as designated by the Engineer. The concrete footings for steel posts are not considered part of the sign assembly. Refer to note RF for concrete footing removal. Payment for Removal of Type A Sign Assembly or Removal of Type B Sign Assembly includes sign assembly removal and disassembly, post removal (if applicable), delivery to the DOT storage area, placing backfill in holes, and restoration of the surrounding conditions. RF REMOVE EXISTING CONCRETE FOOTING FOR STEEL POST Remove existing concrete footings to a depth of at least 1 ft below the natural groundline. Place backfill in holes remaining from removal and restore to the normal surrounding conditions. This work is incidental to other work and no separate payment will be made. RS REMOVE EXISTING TYPE B SIGN SUPPORT STRUCTURE The following are considered Type B Sign Support Structures: - Overhead sign trusses and foundations - Cantilever sign trusses and foundations - Bridge-mounted brackets Unless stated otherwise in the plans, existing overhead trusses, cantilever trusses, and bridge brackets which are removed become the property of the Contractor. If stated in the plans, deliver overhead trusses, cantilever trusses, and bridge brackets to a DOT storage area, as designated by the Engineer. Payment for Removal of Sign Support Structure and Foundation includes sign support structure removal, delivery to the DOT storage area (if applicable), and restoration of the surrounding conditions. Removal of the foundation includes removal of the stem to a minimum of 1 ft below the natural groundline. L MODIFY SIGN SUPPORT ANGLES NEEDED TO INSTALL SIGNS ON EXISTING SIGN SUPPORT STRUCTURES Refer to the sign support structure details for information on the required angle brackets. Provided all specifications are met, the existing sign support angles may be reused. Install existing sign support angles to be reused only on the sign support structure from which they were removed. Sign support angles removed and not reused become the property of the Contractor.	
nominal height	variation in height	variation in width														
4" thru 12"	-1/8" to +3/8"	-1/4" to +1/4"														
over 12"	-1/8" to +3/8"	-3/8" to +3/8"														
FILE NO.	ENGLISH	DESIGN TEAM	KJORMOE/STANLEY	LINN COUNTY	PROJECT NUMBER	HSIPX-100-1(129)--3L-57	SHEET NUMBER	N.1								

SIGNING NOTES

When reusing the existing sign support angles with a shorter replacement sign, the sign support angles may need to be trimmed. Refer to the sign support details to determine if and where to trim the sign support angles.

Do not use existing fasteners. Use new U-Bolts, stainless steel bolts and nuts to install the existing or new sign support angles to the sign support structure.

Removal of existing sign support angles is incidental to removal of the sign.

Reinstalling and/or modifying existing sign support angles; furnishing and installing new sign support angles (if required); and furnishing and installing new fasteners is incidental to work associated with Type B signs.

SIGN INSTALLATION QUALITY CONTROL NOTES

Post lengths have been derived from the proposed grading cross sections. Verify post lengths in the field prior to ordering or fabrication.

Slight differences between the design template and the actual conditions should be expected. These variations should be resolved by doing some localized shaping and grading. Obtain material needed to meet the site requirements of SI-112 from the excavation and/or the area immediately adjacent to the work. Ensure reshaping work does not substantially change foreslopes or the drainage in the vicinity of the sign.

Significant differences between the plan design and the actual field conditions shall be resolved in this manner:

Survey the location and draw the actual template on the cross section. Recalculate each post length and compare to the maximum allowable leg length. If all of the maximum leg lengths are less than or equal to the maximum allowable leg length, then the proposed post design will be sufficient. If any leg is greater than the maximum allowable leg length, then submit the cross section with the actual template drawn (including offsets and elevation from the survey shown) to the Engineer. The Engineer may forward this information to the Engineer of Record in order to complete a new post design.

Install the footings, stub posts, and posts according to the tolerances shown on the applicable SI Series Standard Road Plans.

Footing construction is the controlling activity that substantially affects the quality of the site installation. Verify the elevation difference between the stubs is exactly the same as the elevation difference between the post lengths. If the Engineer requests, submit documentation detailing the site cross section in order to verify site installation.

190_62 2/13/23										
EXISTING SIGNS TO BE REMOVED										
Sign Number or Description	Location Station	Direction of Travel	Type 'A' Sign Assembly (RA) (EA)	Type 'B' Sign Assembly (RB) (EA)	Type 'A' Remove and Reinstall (RR) (EA)	Type 'B' Remove and Reinstall (RR) (EA)	Concrete Foundation (RF) (EA)	Support Structure & Foundation (RS) (EA)	Applicable Signing Notes	Remarks
M6-6A, STRAIGHT/LEFT ARROW	278+71.00	EB	1							(A)
R5-1, DO NOT ENTER	279+64.00	EB	1							
R6-1, ONE WAY LEFT ARROW	280+31.00	EB	1							
R6-1, ONE WAY LEFT ARROW	281+21.00	EB	1							
OM1-2 TYPE 2 OBJECT MARKER	281+20.00	EB	1							
OM1-2 TYPE 2 OBJECT MARKER	281+26.00	WB	1							
R1-1, STOP SIGN ASSEMBLY	280+23.00	WB	1							
R1-1, STOP SIGN ASSEMBLY	280+58.00	WB	1							
STREET NAME SIGN	292+79.00	WB			1					
R5-1, DO NOT ENTER	293+70.00	WB	1							
Total										
0901000										

Notes:
(A) Remove M6-6A Straight and 90 degree left sign only

Bid Item Quantities:
Division 1 - Iowa DOT HSIPX Funding
Remove and Reinstall Sign as Per Plan - 1 EA
Removal of Type A Sign Assembly - 9 EA

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EXISTING SIGNS TO BE REINSTALLED

Line No.	Sign Description	Direction of Travel	Location Station	Number of Posts	Square Tube Steel Posts	Wood Posts 4"x4" (LF)	Wood Posts 4"x6" (LF)	Installation Type	Installation Dim 'X'	See Signing Notes
1.0	Street Name Sign	WB	+.00	1				1	14.0	RR

Notes:
(A) See Tab 190-51, 190-62 and N sheet installation details.

190_51
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MATERIALS FOR TYPE 'A' SIGNS

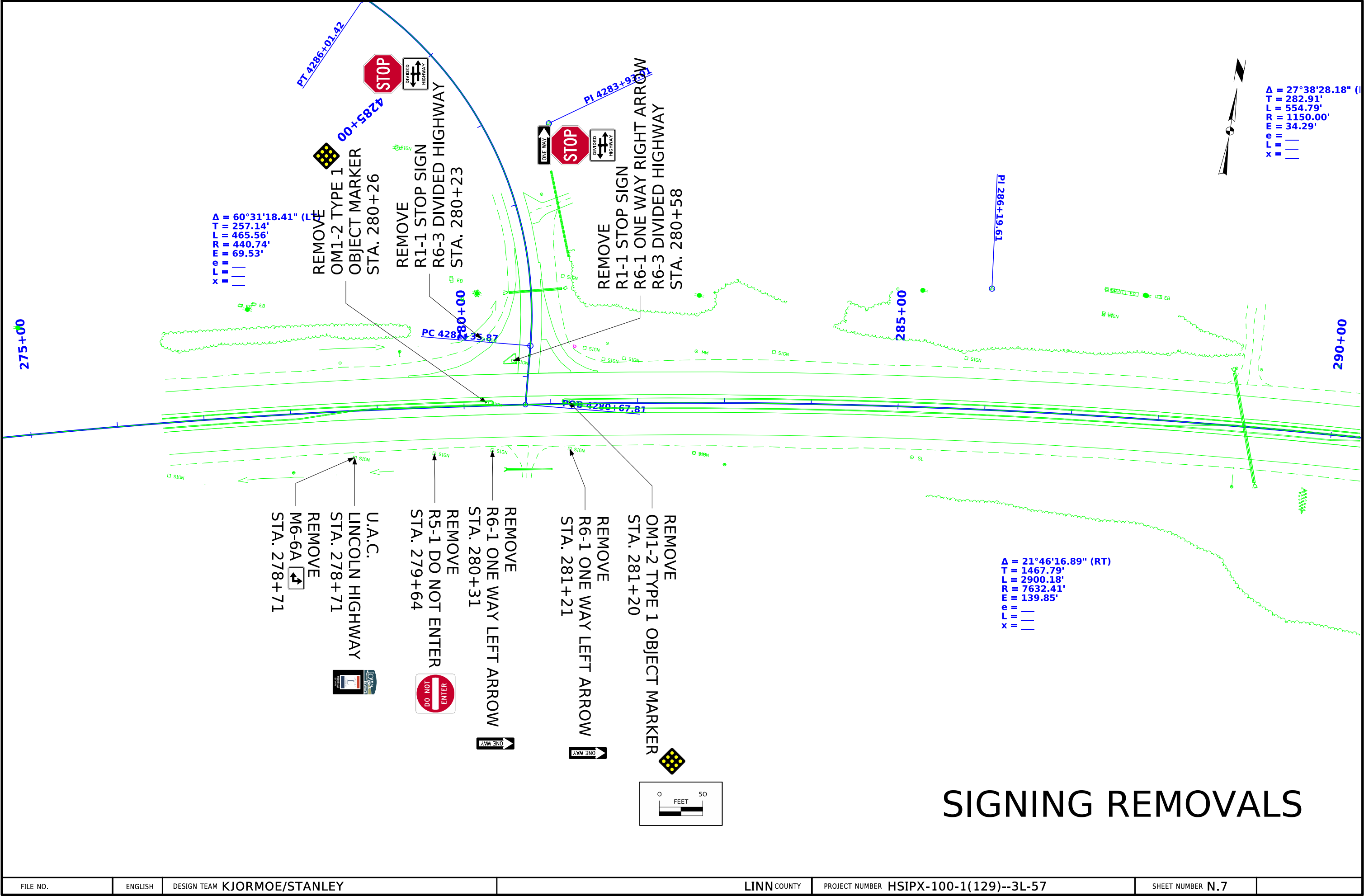
Refer to SI-101, SI-111, SI-119 and N Sheets.

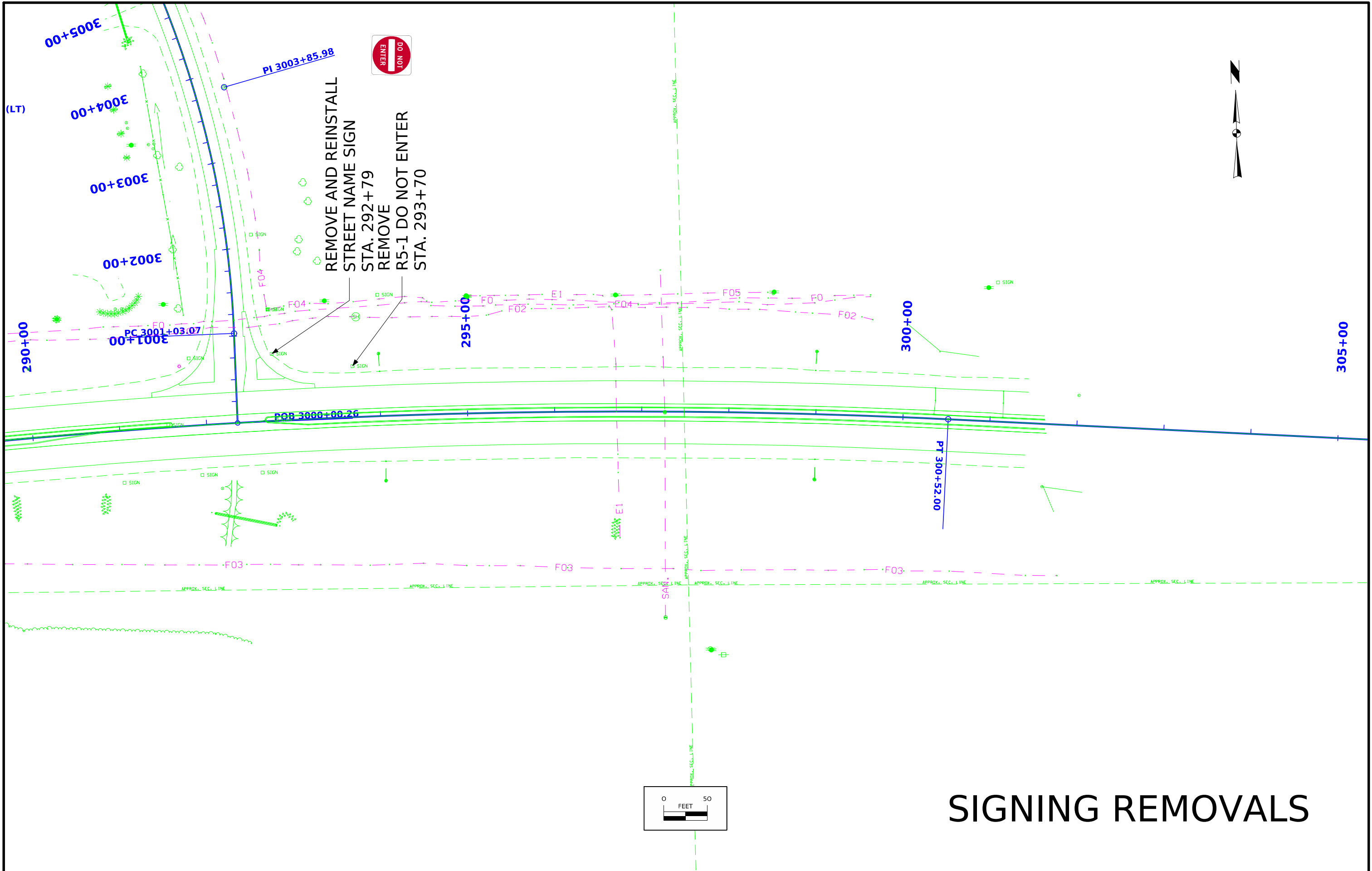
Type A Signing Typicals	Sign Number	Dir. of Travel	Sign Location Station	Wood Posts (No.)	4 x 6 Leg 1 (FT)	4 x 6 Leg 2 (FT)	Perf. Sq. Steel Leg 1 (FT)	Perf. Sq. Steel Leg 2 (FT)	Perf. Sq. Steel Leg 3 (FT)	Perf. Sq. Anchor Type	Anchor Quantity (EA)	Steel Rect. Tube (No)	Steel Rect. Tube (FT)	Steel Rect. Tube Anchors (EA)	Type A Bracket One Post	Type A Bracket Two Post	Type A Bracket Auxiliary	Type A Bracket (H)	Type A Bracket (F)	Type A Bracket (F1)	Install. Type	Install. Dim X (FT)	Install. Signing Notes	Remarks
		SB	280+22.00				12.0			Soil	1						1			1	1	14.0	IA, PP	
		EB	280+25.00				10.0			Concrete	1						1				3		IA, PP	
		SB	280+79.00				12.0			Concrete	1						1			1	3		IA, PP	
		WB	281+85.00				11.5			Concrete	1										1	16.0	IA, PP	
		WB	281+85.00				13.5			Soil	1										3		IA, PP	
		WB	293+10.00				12.0			Soil	1										1	8.5	IA, PP	
		WB	293+70.00				12.0			Soil	1										1	8.5	IA, PP	
		WB	293+70.00				13.0			Concrete	1										3		IA, PP	
Total							96.0				8						3			2				

Bid Item Quantities:
Division 1 - Iowa DOT HSIPX Funding
PSST Posts - 96 LF
PSST Triangular Slipbase Anchor - 8 EA
Sign Mounting Brackets, Special - 5 EA

190_66 9/29/23 SUMMARY OF TYPE 'A' SIGNS				
Sign Number	Non-Standard Sign Number or Name	Quantity (EA)	Size (IN)	Total Sign Area (SF)
M6-3	Straigh Ahead Arrow	1	21 X 15	2.2
R6-2	One-Way Right Arrow	3	54 X 18	15.0
R1-1B	Stop Sign	2	48 X 48	32.0
R5-1B	Do Not Enter	4	48 X 48	64.0
Total				113.2

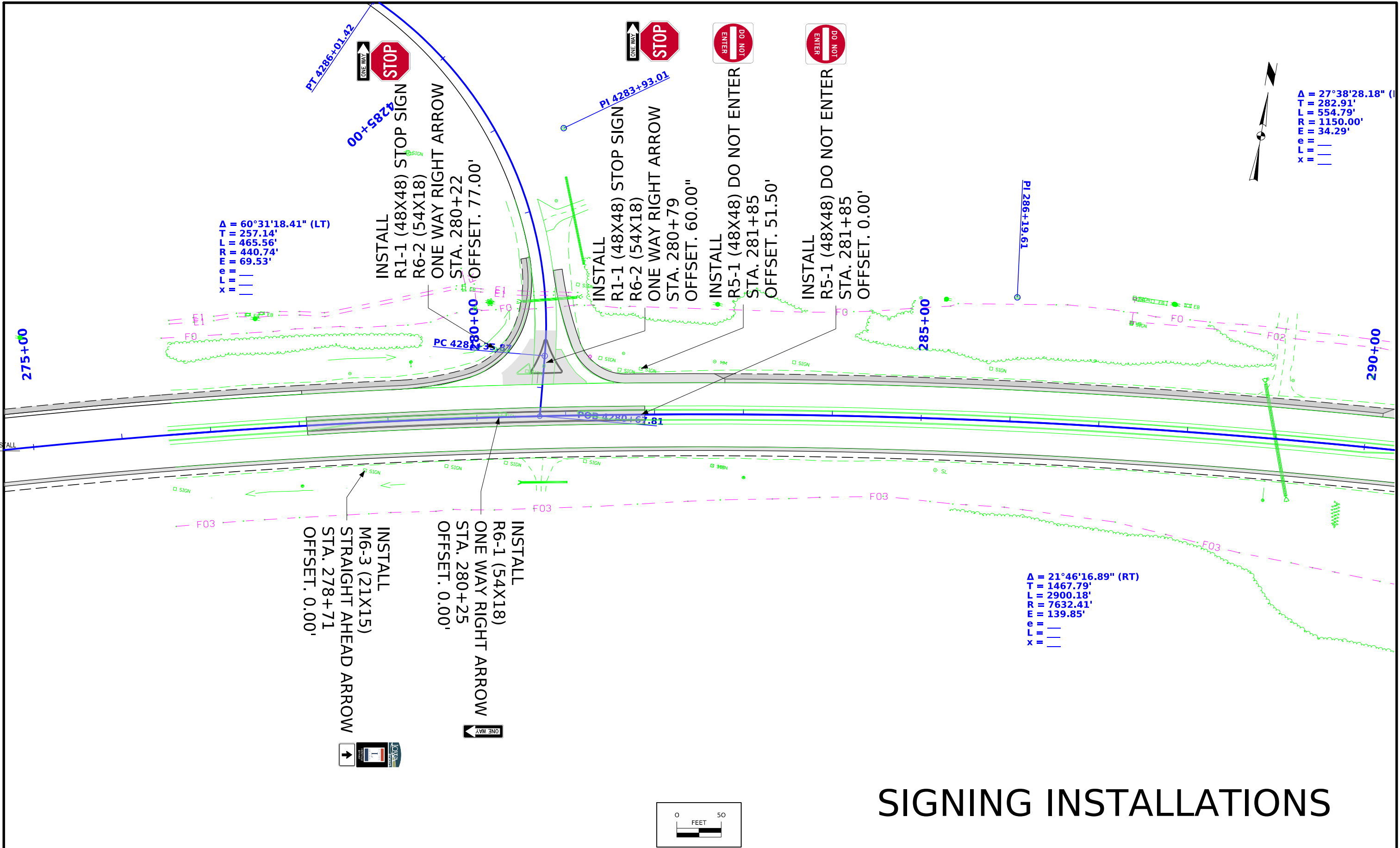
Bid Item Quantities:
Division 1 - Iowa DOT HSIPX Funding
Type A Signs, Sheet Aluminum - 113.2 SF



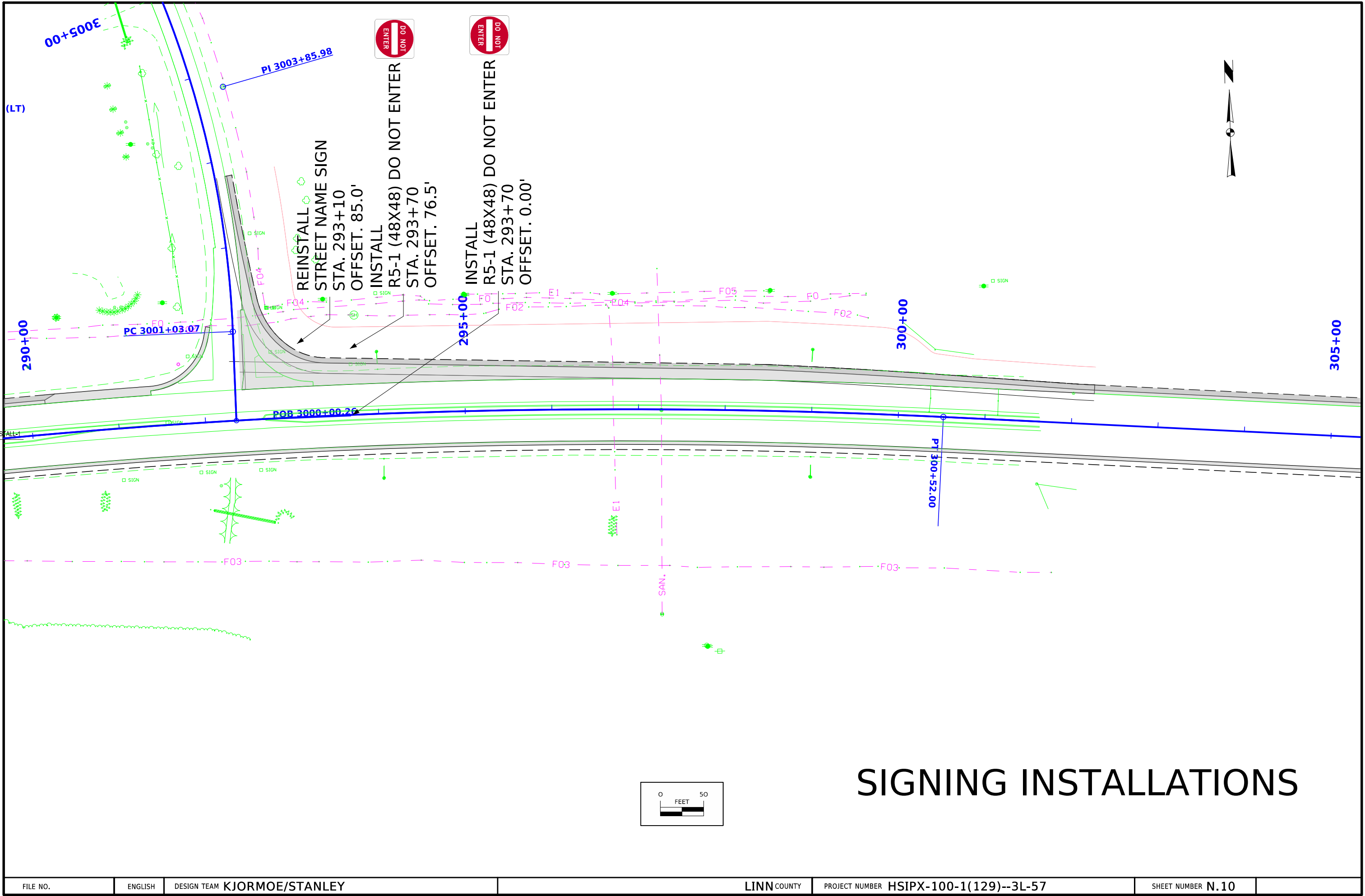


SIGNING REMOVALS

ML100_SIGNING INSTALL



SIGNING INSTALLATIONS



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1/13/23

POLLUTION PREVENTION PLAN

This project is regulated by the requirements of the Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) General Permit No. 2 OR an Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) individual storm water permit. The Contractor shall carry out the terms and conditions of this permit and the Pollution Prevention Plan (PPP). This Base 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 during construction, 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 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. Is signature authority on the Base PPP. If consultant designed, signature from Contracting Authority is also required.

B. Contractor:

1. Signs a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP. 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. Designates a Water Pollution Control Manager (WPCM), who has the duties and responsibilities as defined in Section 2602 of the Standard Specifications.
3. Submits an Erosion Control Implementation Plan (ECIP) and ECIP updates according to Section 2602 of the Standard Specifications.
4. Installs and maintains appropriate controls. This work may be subcontracted as documented through Subcontractor Request Forms (Form 830231).
5. Supervises and implements good housekeeping practices according to Paragraph III, C, 2.
6. Conducts joint required inspections of the site with inspection staff. When Contractor is not mobilized on site, Contractor may delegate this responsibility to a trained or certified subcontractor. Contracting Authority also may waive joint inspection requirement during winter shutdown. In both circumstances, WPCM (or trained or certified delegate from the Contractor) is still responsible to review and sign inspection reports.
7. Complies with training and certification requirements of Section 2602 of the Standard Specifications.
8. Submits amended PPP site map according to Section 2602 of the Standard Specifications.

C. Subcontractors:

1. Sign a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP if: responsible for sediment or erosion controls; involved in land disturbing activities; or performing work that is a source of potential pollution as defined in this PPP. Subcontracted work items are identified in Subcontractor Request Forms (Form 830231). 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. Implement good housekeeping practices according to Paragraph III, C, 2.

D. RCE/Project Engineer:

1. Is Project Storm Water Manager.
2. On projects where DOT is the Contracting Authority, is current with erosion control training or certification.
3. Takes actions necessary to ensure compliance with storm water requirements including, where appropriate, issuing stop work orders, and directing additional inspections at construction project sites that are experiencing problems with achieving permit compliance.
4. Orders the taking of measures to cease, correct, prevent, or minimize the consequences of non-compliance with the storm water requirements of the Applicable Permit.
5. Supervises all work necessary to meet storm water requirements at the Project, including work performed by contractors and subcontractors.
6. Requires employees, contractors, and subcontractors to take appropriate responsive action to comply with storm water requirements, including requiring any such person to cease or correct a violation of storm water requirements, and to order or recommend such other actions as necessary to meet storm water requirements.
7. Is familiar with the Project PPP and storm water site map.
8. On projects where DOT is Contracting Authority, is responsible for periodically monitoring inspection reports to determine whether deficiencies identified in inspection reports were adequately and timely addressed, and if not, has the authority and responsibility to direct immediate actions to correct the deficiencies.
9. Is the point of contact for the Project for regulatory officials, Inspector, contractors, and subcontractors regarding storm water requirements.
10. Is signature authority on Notice of Discontinuation.
11. Maintains an up-to-date record of contractors, subcontractors, and subcontracted work items through Subcontractor Request Forms (Form 830231).
12. Makes information to determine permit compliance available to the DNR upon their request.

E. Inspector:

1. Updates PPP through fieldbook entries and storm water site inspection reports if there is a change in design, construction, operation, or maintenance which has a significant effect on the discharge of pollutants from the project.
2. Makes information to determine permit compliance available to the DNR upon their request.
3. Conducts joint required inspections of the site with the contractor/subcontractor.
4. Completes an inspection report after each inspection.
5. Is signature authority on storm water inspection reports.

II. PROJECT SITE DESCRIPTION

A. This Pollution Prevention Plan (PPP) is for the construction of HMA Paved Shoulders and an offset-right turn lane.

B. This PPP covers approximately 142 acres with an estimated 3.0 acres being disturbed. The portion of the PPP covered by this contract has 3.0 acres disturbed.

C. The PPP is located in an area of one soil association, Dinsdale-Klinger. The estimated weighted average runoff coefficient number for this PPP after completion will be 0.43.

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1/13/23

POLLUTION PREVENTION PLAN

D. Storm Water Site Map is located in the R sheets. Proposed slopes are shown in cross sections, details, or standard road plans. Supplemental information is located in the Tabulations in the C or CE sheets.

E. The base storm water site map is amended by contract modifications and progress payments (fieldbook entries) of completed erosion control work. Also, due to project phasing, erosion and sediment controls shown on project plans may not be installed until needed, based on site conditions. For example, silt fence ditch checks will typically not be installed until the ditch has been installed. Installed locations may also be modified from tabulation locations by field staff. Installed locations will be documented by fieldbook entries and amended PPP site map.

F. Runoff from this work will flow into Cedar River.

III. CONTROLS

A. The Contractor's ECIP specified in Article 2602.03 of the Standard Specifications 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. Sections 2601 and 2602 of the Standard Specifications define requirements to implement erosion and sediment control measures. Actual quantities used and installed locations may vary from the Base PPP and amendment of the plan will be documented via fieldbook entries, amended PPP site map, or by contract modification. Additional erosion and sediment control items may be required as determined by the inspector and/or contractor during storm water site 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 of the Standard Specifications.

1. EROSION AND SEDIMENT CONTROLS

a. Stabilization Practices

- 1) Site plans will ensure that existing vegetation or natural buffers are preserved where attainable and disturbed portions of the site will be stabilized.
- 2) Initialize stabilization of disturbed areas immediately after clearing, grading, excavating, or other earth disturbing activities have:
 - a) Permanently ceased on any portion of the site, or
 - b) Temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days.
- 3) Staged permanent and/or temporary stabilizing seeding and mulching shall be completed as the disturbed areas are completed. Incomplete areas shall be stabilized according to paragraph III, C, 1, a, 2, b above.
- 4) Permanent and Temporary Stabilization practices to be used for this project are located in the storm water site map, Estimated Project Quantities (100-0A, 100-1A, or 100-1C), and Estimate Reference Information (100-4A) located in the C or R sheets. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation (105-4) in the C or R sheets.
- 5) Preservation of existing vegetation within right-of-way or easements will act as vegetative buffer strips.
- 6) Preservation of topsoil: Bid items to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C or R sheets. Additional information may be found in the Tabulations in the C or T Tabulation sheets, or is referenced in Section 2105 of the Standard Specifications.

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. Additionally, structural practices may include: silt basins that provide 3600 cubic feet of storage per acre drained or equivalent sediment controls, outlet structures that withdraw water from surface when discharging basins, and controls to direct storm water to vegetated areas.
- 2) Structural practices to be used for this project are located in the storm water site map, Estimated Project Quantities (100-0A, 100-1A, or 100-1C), and Estimate Reference Information (100-4A) located in the C or R sheets, 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 or R sheets or are referenced in the Standard Road Plans Tabulation (105-4) located in the C or R sheets.

c. Storm Water Management

Measures shall be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. This may include velocity dissipation devices at discharge locations and along length of outfall channel as necessary to provide a non-erosion velocity flow from structure to water course. If included with this project, these items are located in the storm water site map and Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C or R sheets, as well as all other item specific Tabulations. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation. The installation of these devices may be subject to Section 404 of the Clean Water Act.

2. OTHER CONTROLS

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.

- a. Vehicle Entrances and Exits - Construct and maintain entrances and exits to prevent tracking of sediments onto roadways.
- b. Material Delivery, Storage and Use - Implement practices to prevent discharge of construction materials during delivery, storage, and use.
- c. Stockpile Management - Install controls to reduce or eliminate pollution of storm water from stockpiles of soil and paving.
- d. Waste Disposal - Do not discharge any materials, including building materials, into waters of the state, except as authorized by a Section 404 permit.
- e. Spill Prevention and Control - Implement chemical spill and leak prevention and response procedures to contain and clean up spills and prevent material discharges to the storm drain system and waters of the state.
- f. Concrete Residuals and Washout Wastes - Waste shall not be discharged to a surface water and is not allowed to adversely affect a water of the state. Designate temporary concrete washout facilities for rinsing out concrete trucks. Provide directions to truck drivers where designated washout facilities are located. Designated washout areas should be located at least 50 feet away from storm drains, streams or other water bodies. Care should be taken to ensure these facilities do not overflow during storm events.
- g. Concrete Grooving/Grinding Slurry - Do not discharge slurry to a waterbody or storm drain. Slurry may be applied on foreslopes or removed from the project.
- h. Vehicle and Equipment Storage and Maintenance Areas - 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.

POLLUTION PREVENTION PLAN

Employ washing practices that prevent contamination of surface and ground water from wash water. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge.

i. Litter Management - Ensure employees properly dispose of litter. Minimize exposure of trash if exposure to precipitation or storm water would result in a discharge of pollutants.

j. Dewatering - Properly treat water to remove suspended sediment before it re-enters a waterbody or discharges off-site. Measures are also to be taken to prevent scour erosion at dewatering discharge point.

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's inspector at least once every seven calendar days. Storm water site 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.

5. Review of 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. Identification of corrective actions required to maintain or modify erosion and sediment control measures.

B. Include storm water site 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 within 3 calendar days of the inspection and complete within 7 calendar days following the inspection. If it is determined that making the corrections less than 72 hours after the inspection is impracticable, it should be documented why it is impracticable and indicate an estimated date by which the corrections will be made.

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 headwalls or blocks, Class A stone, erosion stone or other appropriate materials. This also includes uncontaminated groundwater from dewatering operations, which will be controlled as discussed in Section III of the PPP.

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 - Base PPP amended during construction. May include Plan Revisions or Contract Modifications for new items, storm water site inspection reports, fieldbook entries made by the inspector, amended PPP site map by the Contractor, ECIP, NOI, co-permittee certifications, and Subcontractor Request Forms. Items amending the PPP are stored electronically and are readily available upon request.

C. Fieldbook Entries - This contains the inspector's daily diary and bid 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. Also called Best Management Practices (BMPs).

E. Signature Authority - Representative authorized to sign various storm water documents.

CERTIFICATION STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Seth Kjormoe, P.E.
Printed or Typed Name



Signature

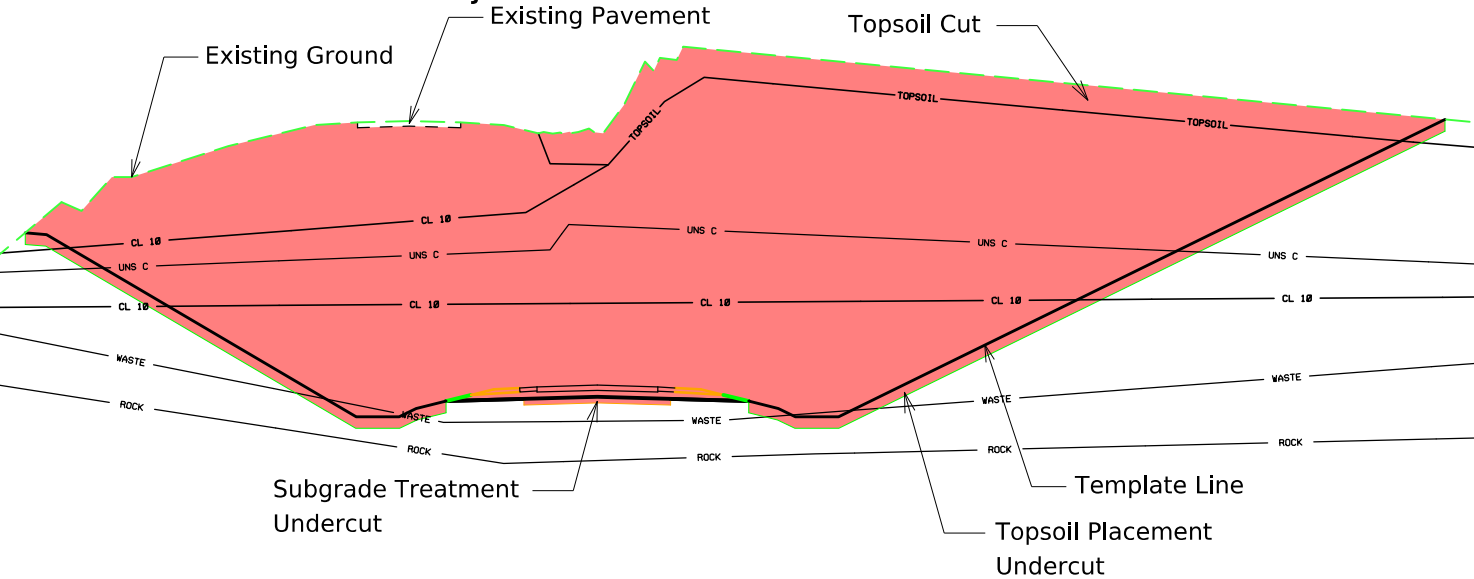
Seth Kjormoe
Printed or Typed Name

100_19 10/15/24 PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE Possible Standards: EC-204							
Line No.	Station From	Station To	Side	Sediment Control Device Type	Diameter Size	Length (LF)	Remarks
2.0	292+00.00	303+00.00	Left	Perimeter and Slope	20 inch	1100.00	(B)
2.0	292+00.00	303+00.00	Left	Perimeter and Slope	20 inch	1100.00	(B)
4.0	284+26.00	287+88.00	Left	Perimeter and Slope	20 inch	1250.00	(A)(C)

Notes:
(A) Division 1- Iowa DOT HSIPX Funding
(B) Division 2 - City of Marion Funding
(C) Quantity calculated around perimeter length of Clear+Grubbing area.

Bid Item Quantities:
Division 1 - Iowa DOT HSIPX Funding
Perimeter and Slope Sediment Control Device, 20 IN. DIA. - 1,375 LF
Removal of Perimeter and Slope or Ditch Check Sediment Control Device - 1,375 LF

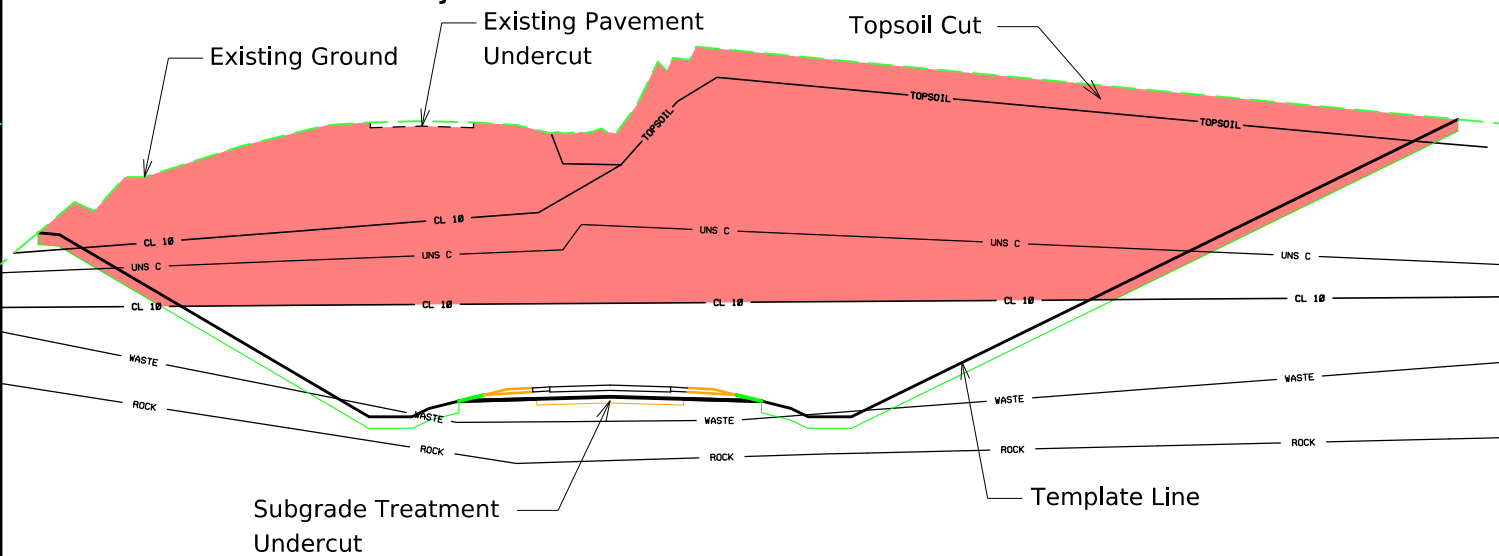
Bid Item Quantities:
Division 2 - City of Marion TSIP Funding
Perimeter and Slope Sediment Control Device, 20 IN. DIA. - 1,560 LF
Removal of Perimeter and Slope or Ditch Check Sediment Control Device - 1,560 LF

CUT SIDE Total Cut Unadjusted RURAL

Notes:

1. "Total Cut Unadjusted" Column includes all cut values in the Station Range based on Typical, Topsoil and Subgrade Treatment needs.
2. "Total Cut Unadjusted" does not include and Existing Pavement values inside or outside the cut template as shown on cross sections.
3. Tabulated Plowing and Shaping operations are included in the "Total Cut Unadjusted" values.

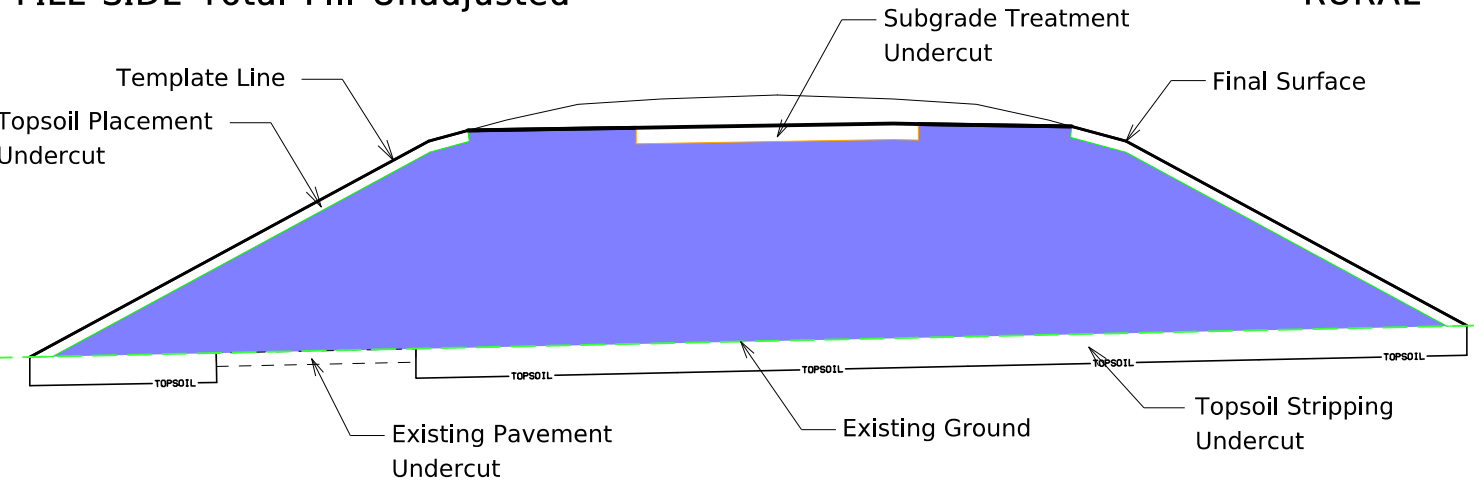
CUT SIDE Total Cut Adjusted



Notes:

1. "Total Cut Adjusted" Column includes all cut values usable as Class 10 material.
2. "Total Cut Adjusted" does not include and Existing Pavement , Existing Topsoil, or material to be wasted.

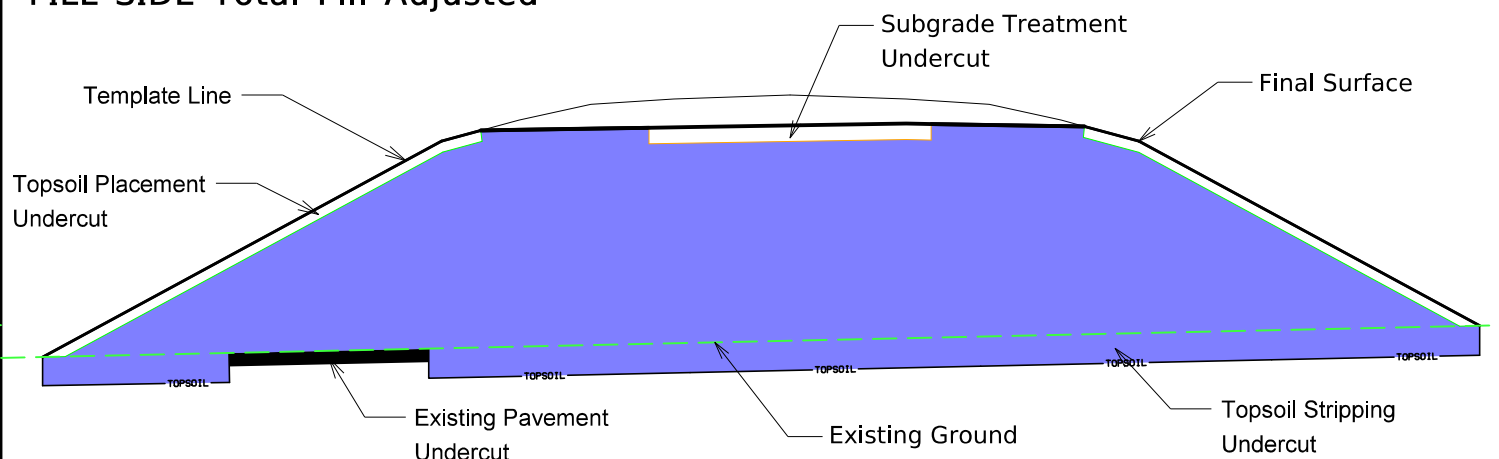
FILL SIDE Total Fill Unadjusted		Subgrade Treatment	RURAL
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50	51	52
53	54	55	56
57	58	59	60
61	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
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85	86	87	88
89	90	91	92
93	94	95	96
97	98	99	100



Notes:

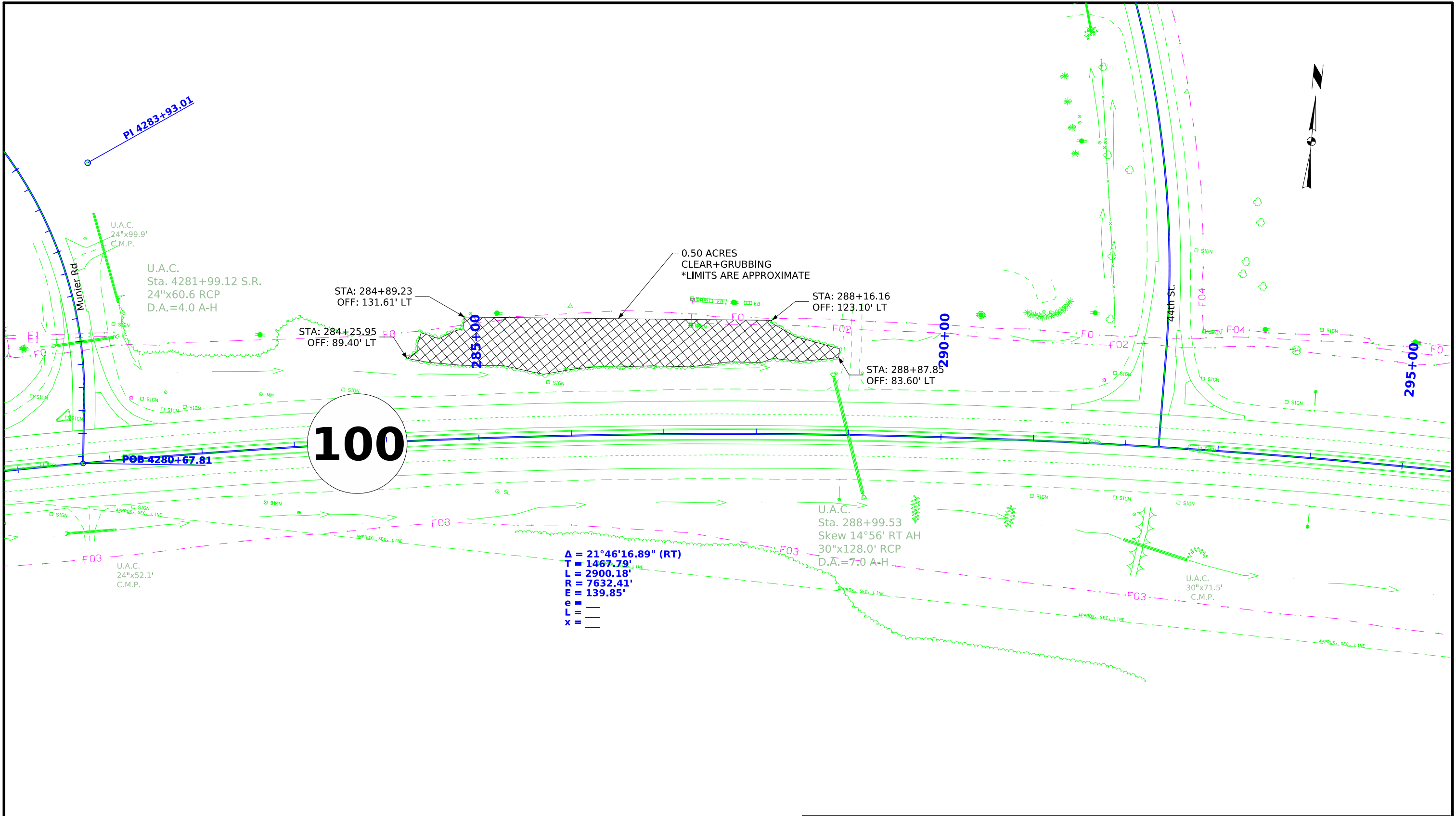
1. "Total Fill Unadjusted" Column includes all Class 10, 12, and 13 fill. This excludes the topsoil, subgrade treatment, subbase, new pavement, and shoulder fill needs in that station range.
2. "Total Fill Unadjusted" Column does not include adjustments for additional fill from cuts such as existing pavement removed, plowing and shaping operations, entrances, dikes, or topsoil stripping.

FILL SIDE Total Fill Adjusted		Submerged Total	
1	100	100	100
2	100	100	100
3	100	100	100
4	100	100	100
5	100	100	100
6	100	100	100
7	100	100	100
8	100	100	100
9	100	100	100
10	100	100	100
11	100	100	100
12	100	100	100
13	100	100	100
14	100	100	100
15	100	100	100
16	100	100	100
17	100	100	100
18	100	100	100
19	100	100	100
20	100	100	100
21	100	100	100
22	100	100	100
23	100	100	100
24	100	100	100
25	100	100	100
26	100	100	100
27	100	100	100
28	100	100	100
29	100	100	100
30	100	100	100
31	100	100	100
32	100	100	100
33	100	100	100
34	100	100	100
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97	100		

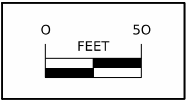


Notes:

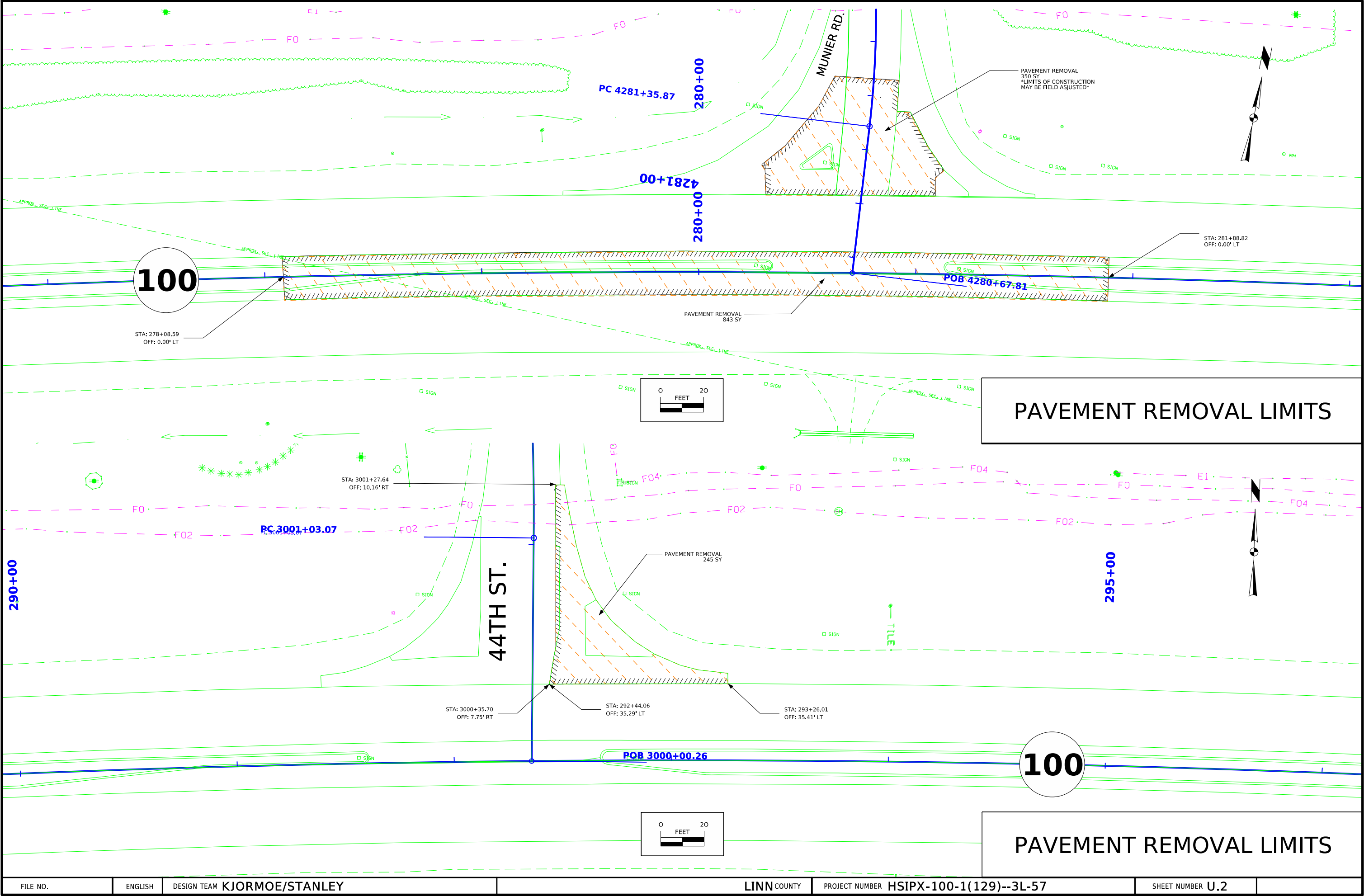
1. "Total Fill Adjusted" Column includes all Class 10, 12, and 13 fill and adjustments for additional fill from cuts such as existing pavement, plowing and shaping operations, entrances, dikes, and topsoil stripping.
2. The available area to place unsuitable materials in the T Sheet tabulation does not include the undercut values from the topsoil stripping, existing pavement, or plowing and shaping



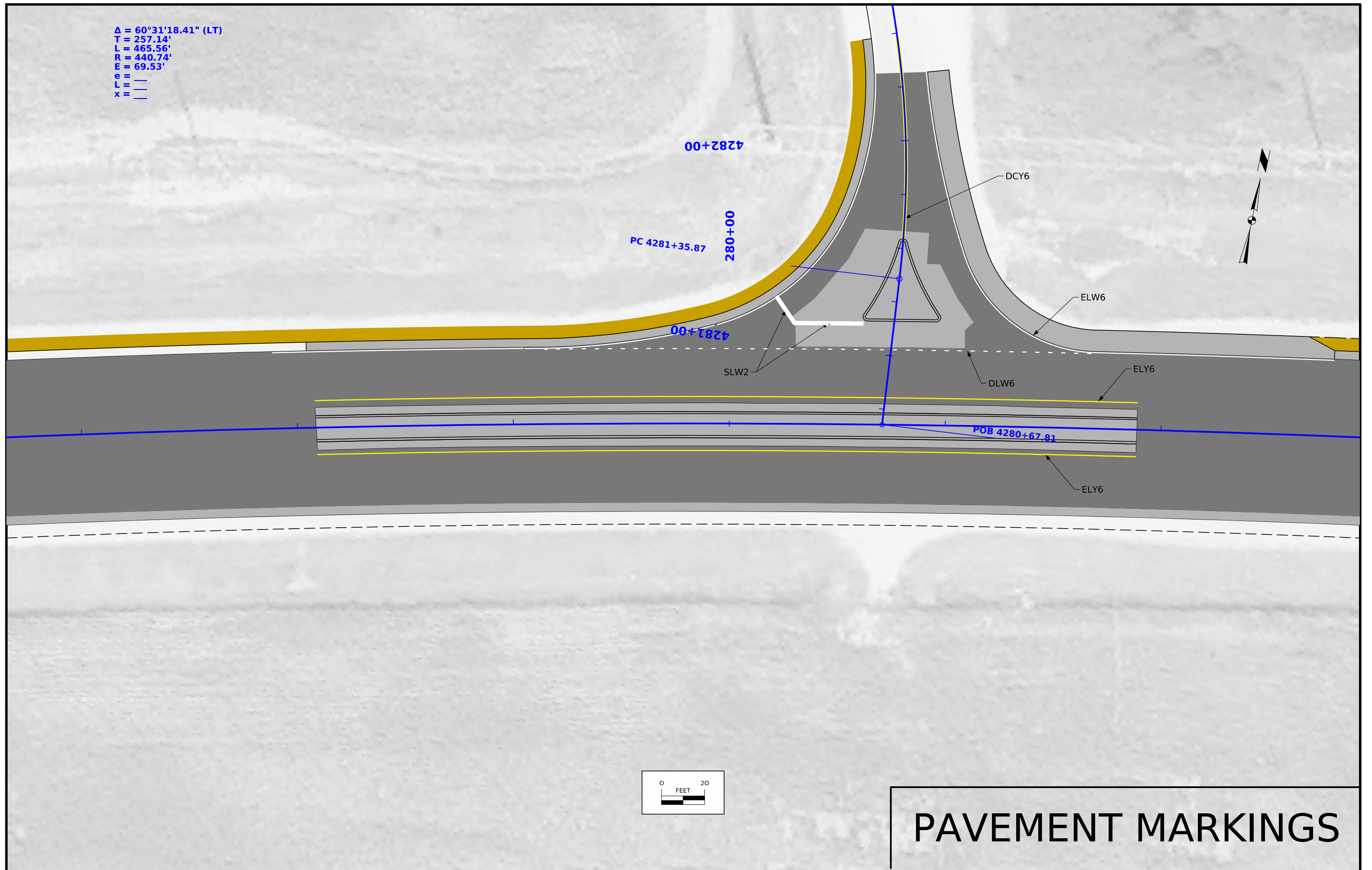
$\Delta = 21^{\circ}46'16.89''$ (RT)
 $T = 1467.79'$
 $L = 2900.18'$
 $R = 7632.41'$
 $E = 139.85'$
 $e =$
 $L =$
 $x =$

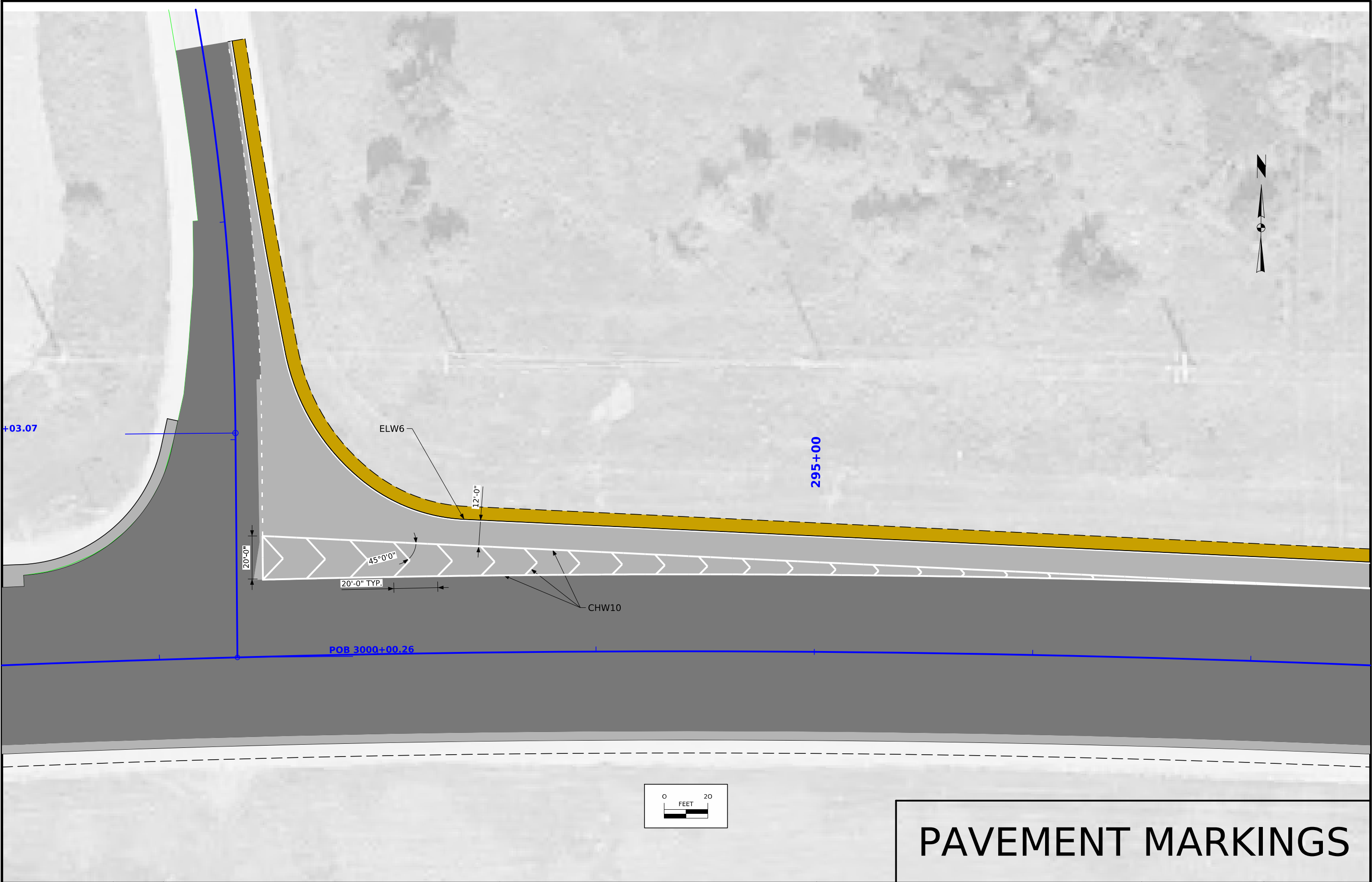


CLEARING+GRUBBING LIMITS



$\Delta = 60^\circ 31' 18.41''$ (LT)
T = 257.14'
L = 465.56'
R = 440.74'
E = 69.53'
e = ___
L = ___
x = ___







FILE NO.	ENGLISH	DESIGN TEAM KJORMOE/STANLEY	LINN COUNTY	PROJECT NUMBER HSIPX-100-1(129)--3L-57	SHEET NUMBER U.5
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CROSS SECTION VIEW COLOR LEGEND			
Design Color No.	Feature	Design Color No.	Feature
Aggregate		Grading	
(64)	Choke Stone	(8)	Behind Curb Cut
(42)	Engineering Fabric	(6)	Granular
(8)	Flooded Backfill	(13)	Granular Back Fill
(92)	Macadam Stone	(48)	Rock Undercut
(20)	Modified	(8)	Shoulder Earth Fill
(12)	Plowing Shaping	(2)	Side Slopes
(14)	Porous Backfill	(226)	Side Slopes Dressing
(8)	Revetment Class A	Substrata	
(6)	Revetment Class B	(128)	Boulder
(62)	Revetment Class C	(209)	Boulder Removed
(188)	Revetment Class D	(48)	Broken Weathered
(28)	Revetment Class E	(210)	Broken Weathered Removed
(12)	Shoulder Special Backfill	(3)	Core Out
(12)	Special Backfill	(115)	Core Out Remove Only
(20)	Subbase	(195)	Core Out Remove and Replace
(20)	Subbase Lower	(203)	Existing Pavement
(20)	Subbase Upper	(184)	Existing Pavement Remove Only
(118)	Subgrade Treatment	(200)	Existing Pavement Remove and Replace
Asphalt		(6)	Loam
(207)	HMA Base Course	(211)	Loam Removed
(207)	HMA Interim Course	(80)	Rock
(207)	HMA Surface Course	(212)	Rock Removed
Bridge		(4)	Select Sand
(0)	Bridge	(214)	Select Sand Removed
Concrete		(3)	Shale
(0)	Barrier Concrete	(215)	Shale Removed
(0)	Barrier Concrete Footing	(10)	Topsoil
(0)	Curb Gutter	(2)	Topsoil Remove Only
(48)	Flowable Mortar	(4)	Topsoil Remove and Replace
(0)	Median Concrete	Unsuitable / Waste	
(0)	PCC Pavement	(3)	Unsuitable Type A
(0)	Sidewalk	(216)	Unsuitable Type A Removed
Existing		(13)	Unsuitable Type B
(0)	Existing Pavement	(217)	Unsuitable Type B Removed
Shoulder		(11)	Unsuitable Type C
(209)	Shoulder HMA	(218)	Unsuitable Type C Removed
(0)	Shoulder PCC	(3)	Waste
(6)	Shoulder Granular	(219)	Waste Removed
Structural			
(112)	Noise Wall		
(112)	Noise Wall Footing		
(112)	Retaining Wall Back		
(112)	Retaining Wall Back Excavate		
(112)	Retaining Wall Face		
(112)	Retaining Wall Front Excavate		
(112)	Retaining Wall Front Footing		
(112)	Retaining Wall MSE Gutter		
(112)	Retaining Wall Reinforced Earth		

NOTES:

Text

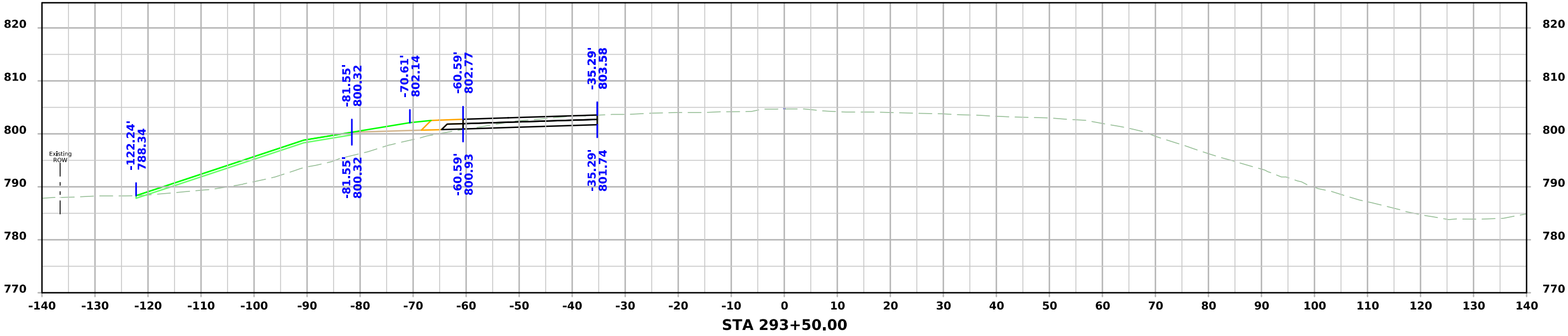
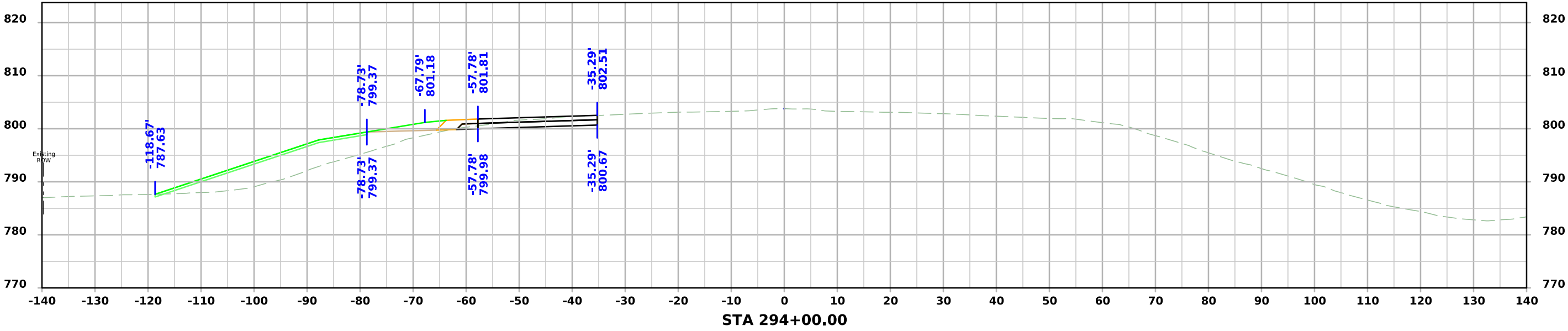
NOTES:

Text

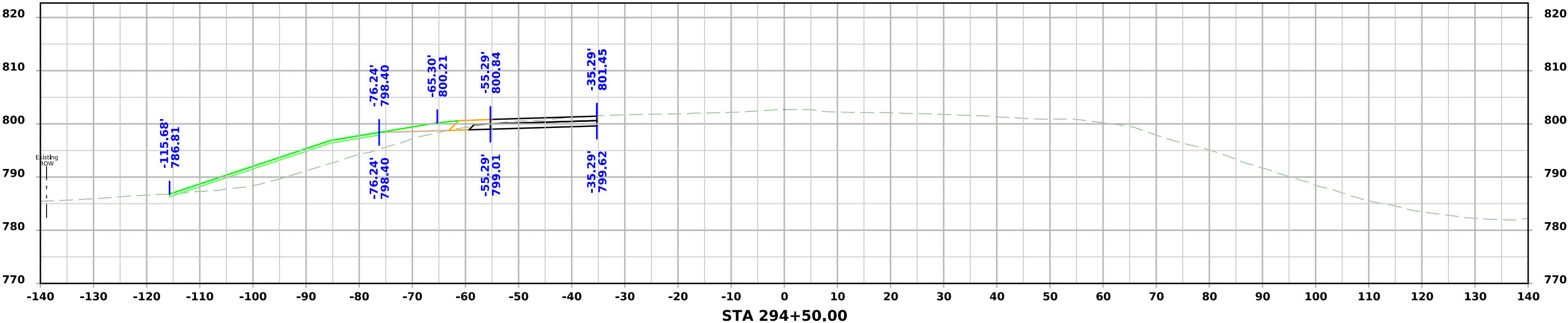
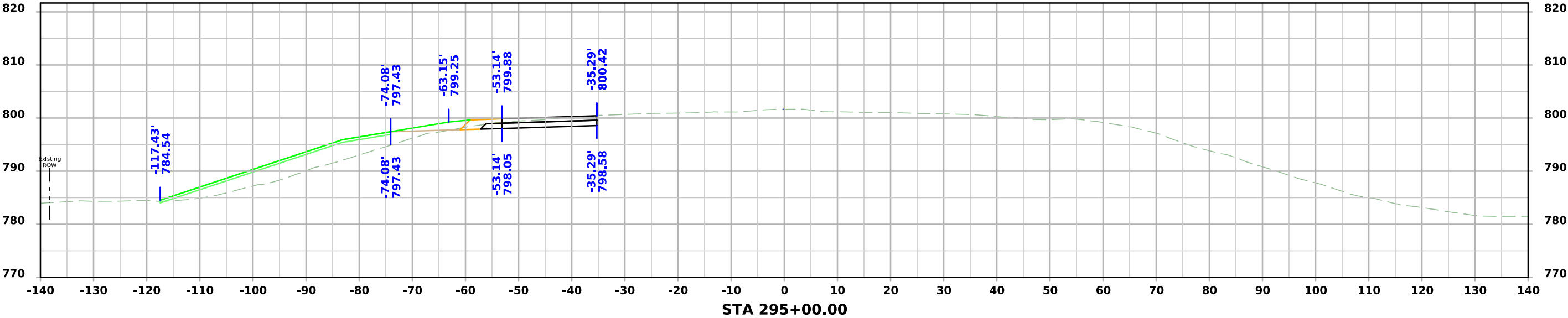
CROSS SECTIONS
LEGEND AND INFORMATION SHEET

(COVERS SHEET SERIES W, X, Y, & Z)

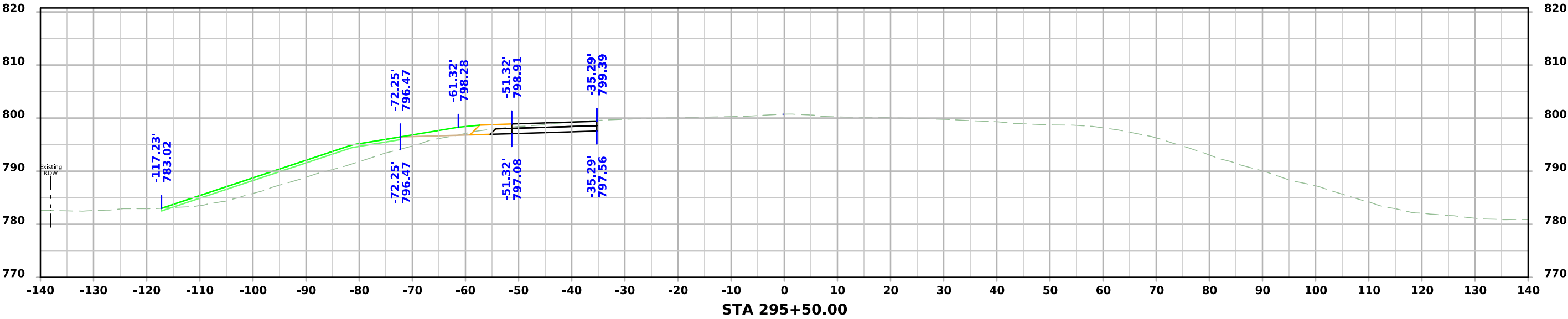
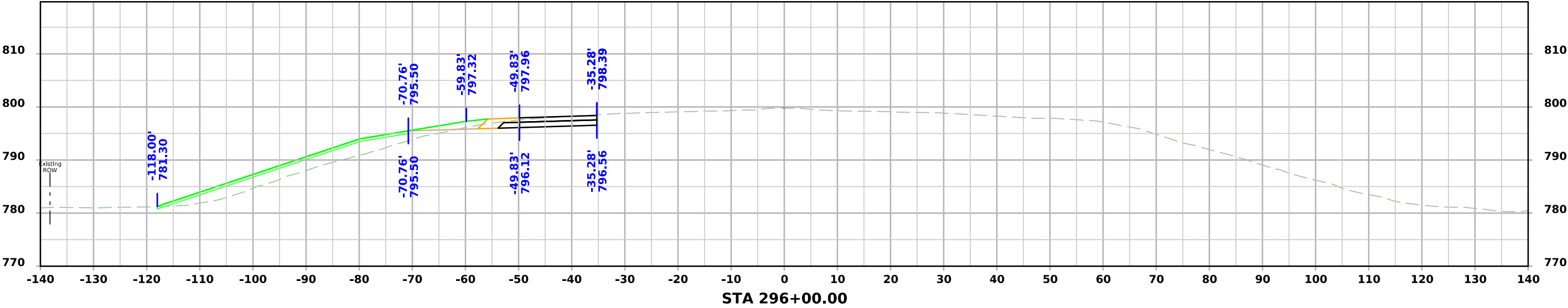
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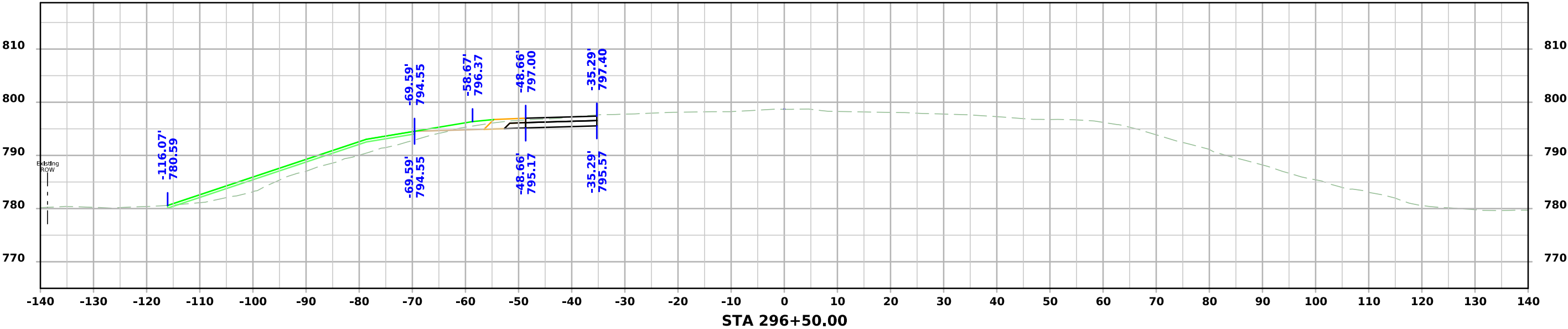
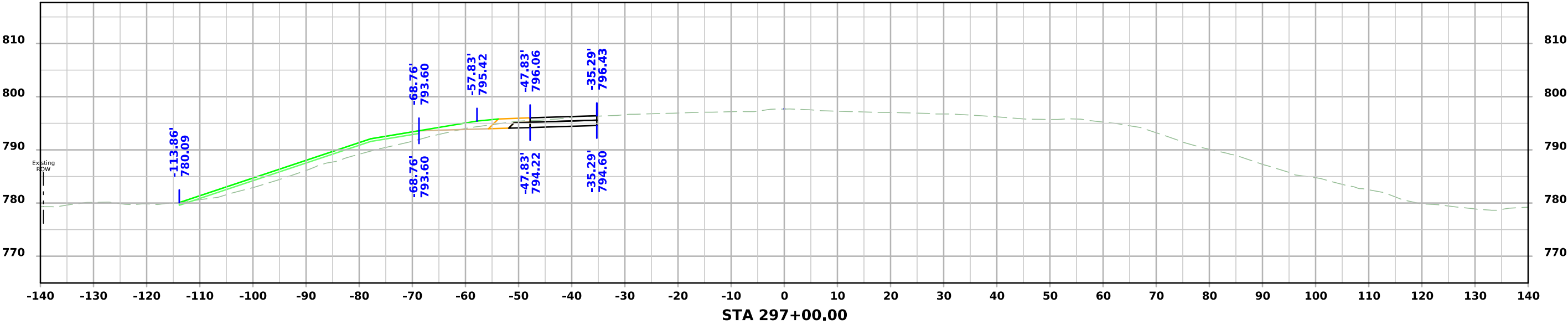
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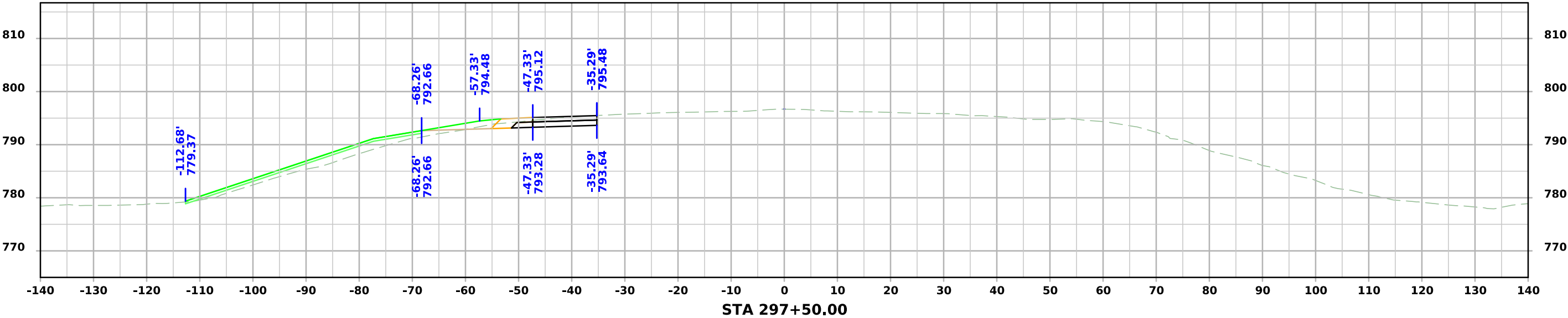
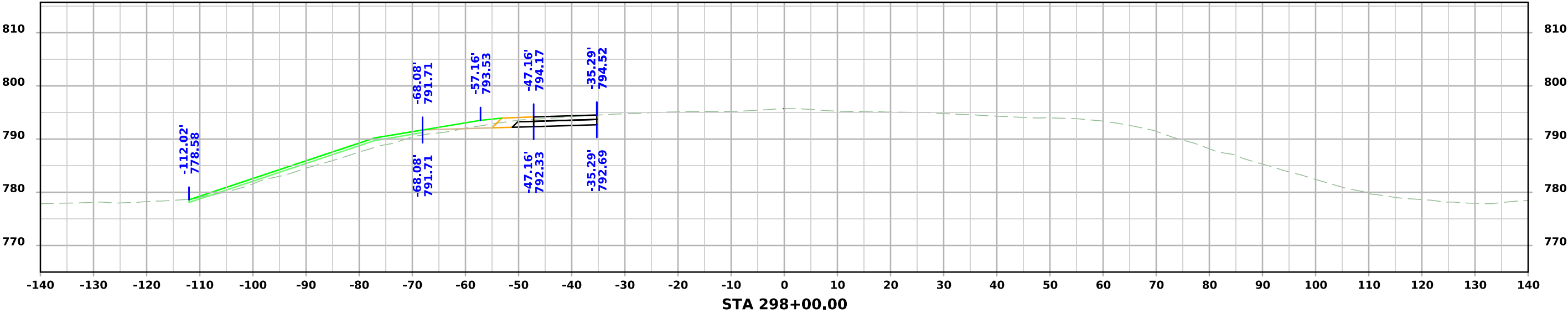
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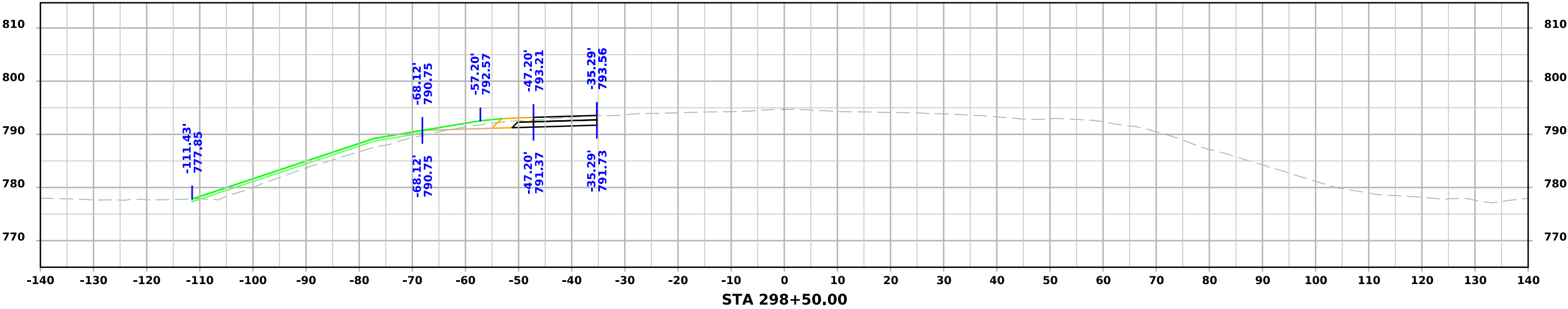
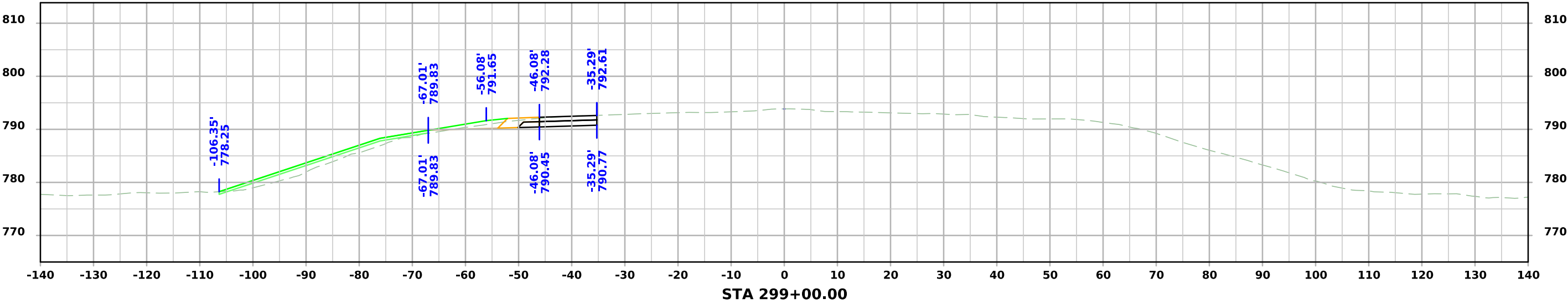
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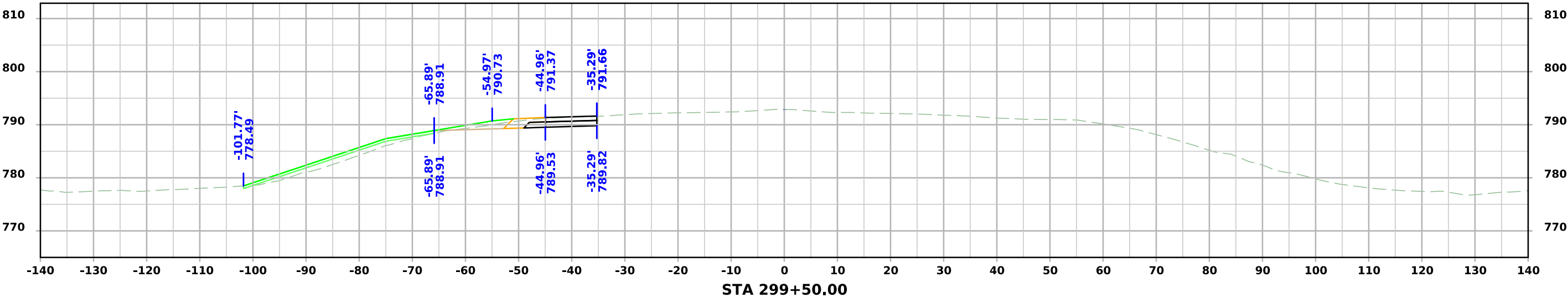
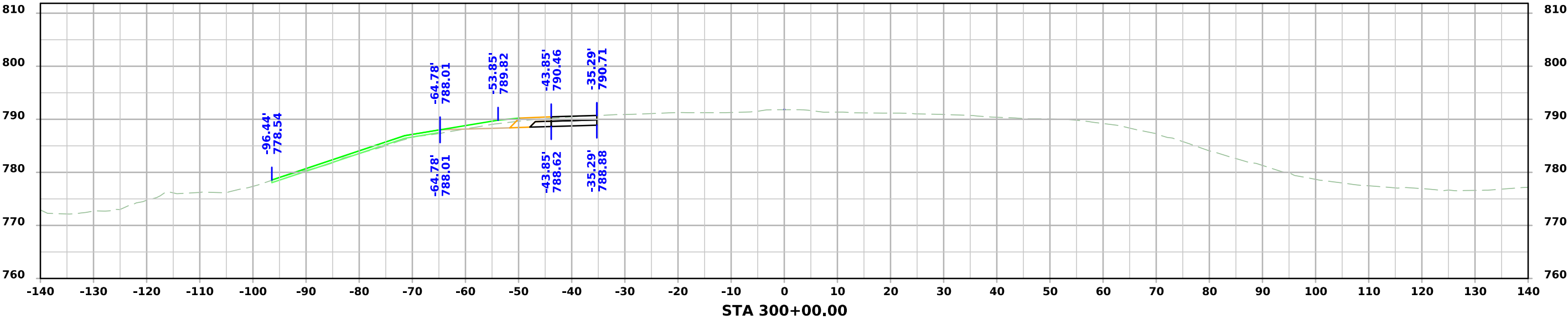
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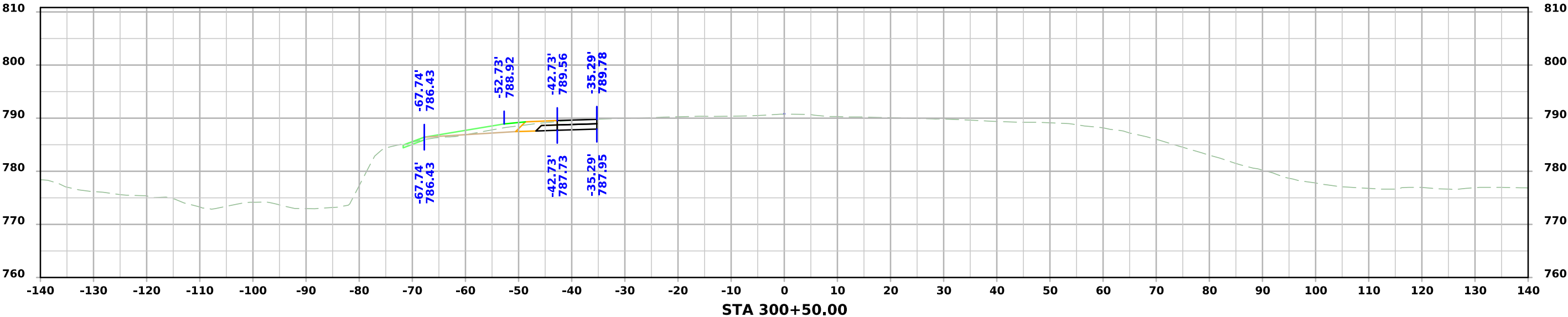
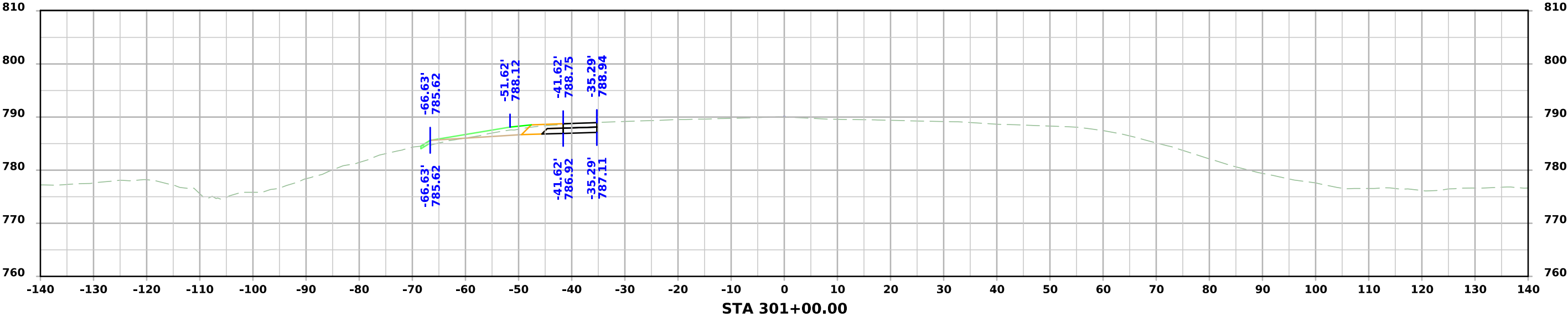
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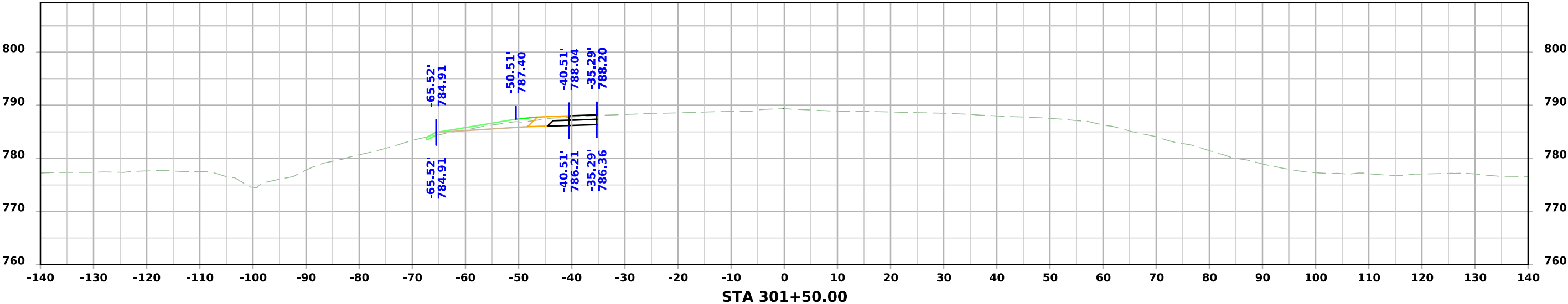
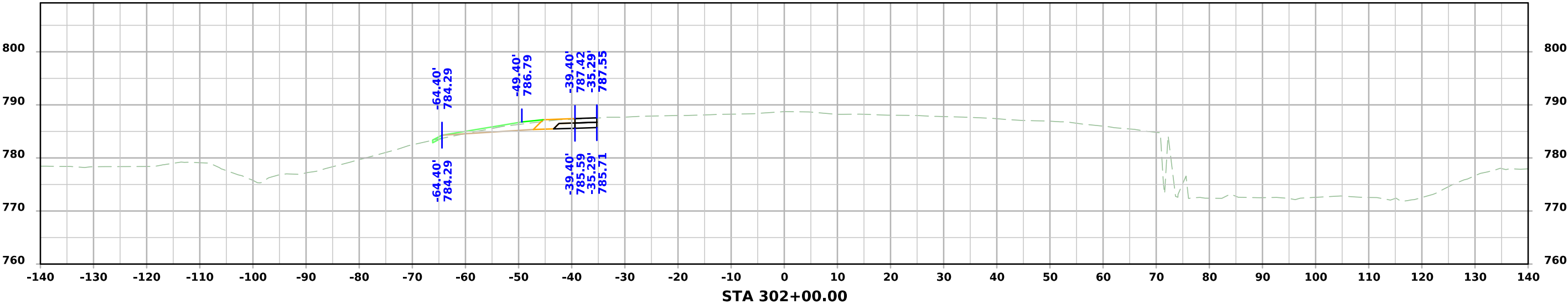
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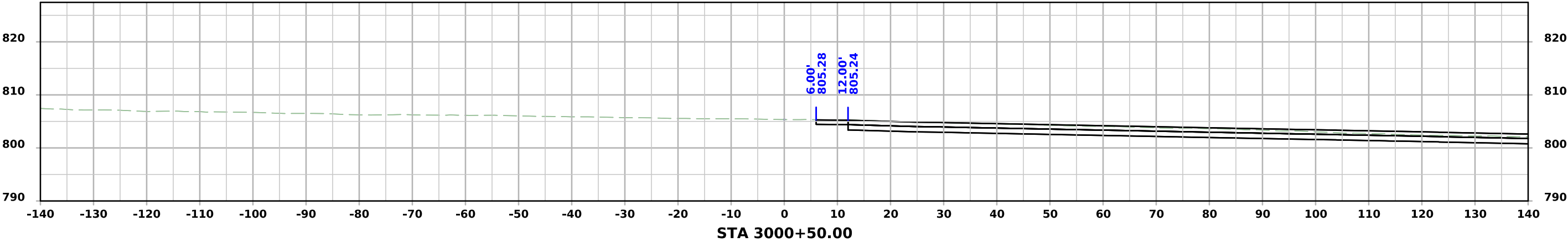
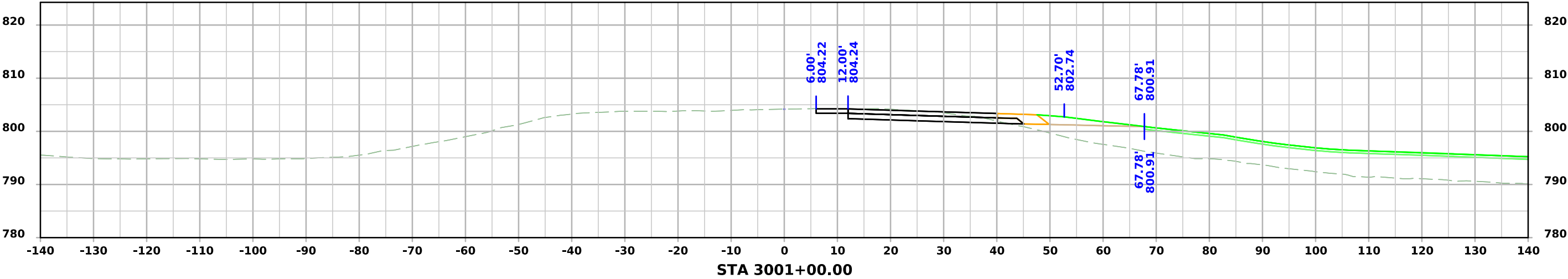
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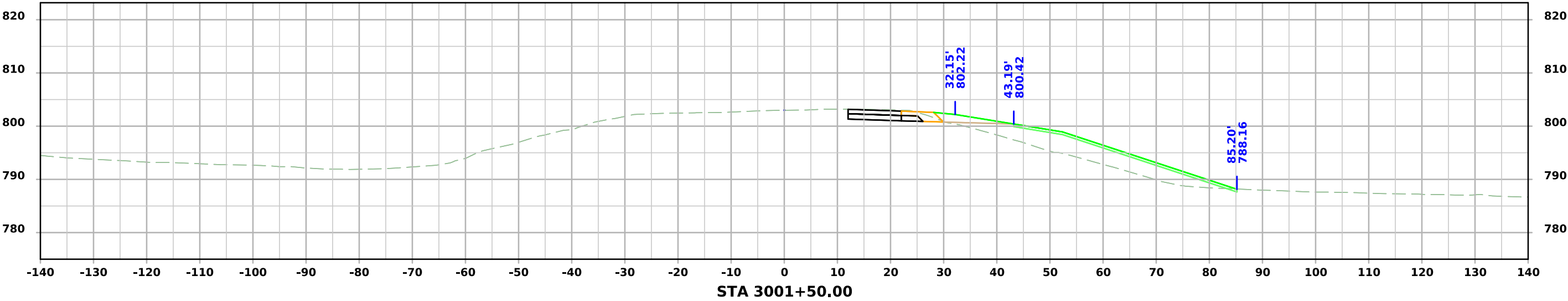
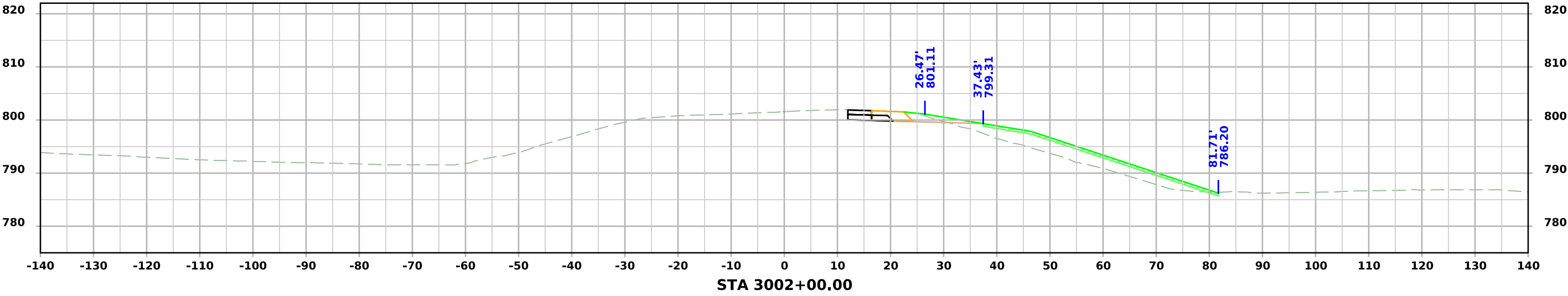
ML - IA 100



SR - 44th St



SR - 44th St



SR - 44th St

