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PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
Fremont COUNTY
Bridge - Unspecified
W Nishnabotna River Overflow
1.8 mi W of Co Rd L68

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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



DESIGN DATA RURAL			
2027	AADT	2100	V.P.D.
2047	AADT	2300	V.P.D.
2047	DHV	230	V.P.H.
TRUCKS		10	%
Total			
Design ESALs		--	

REVISIONS

TOTAL
--
PROJECT IDENTIFICATION NUMBER
23-36-002-030
PROJECT NUMBER
BRF-002-1(150)--38-36
R.O.W. PROJECT NUMBER
STPN-002-1(157)--2J-36

PRELIMINARY PLANS

Subject to change by final design.

D3 PLAN - Date: 12/19/2025



Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: BT-2, L-2
Transverse joints: C at 17' spacing

2_P_FullPCC_04-20-21		
STATION TO STATION		(P) Feet
128+81.00	130+11.51	8
138+83.50	140+96.50	8

Paved Shoulder at Guardrail

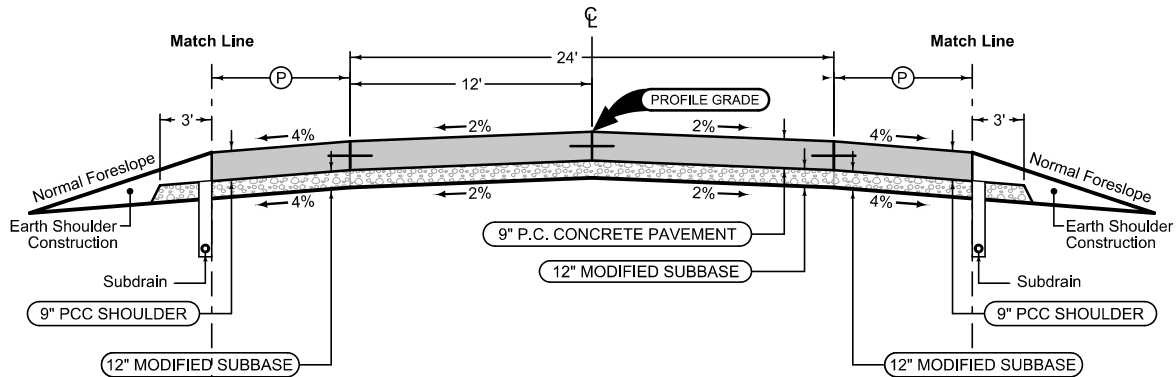
PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5
Transverse joints: C at mainline spacing
HMA Shoulder Jointing:
Longitudinal joint: B

2_P_Guard_04-21-20		
STATION TO STATION		
130+11.51	130+73.50	
137+96.50	138+83.50	

Full Depth PCC Combination Shoulder

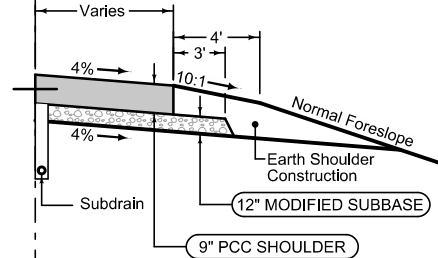
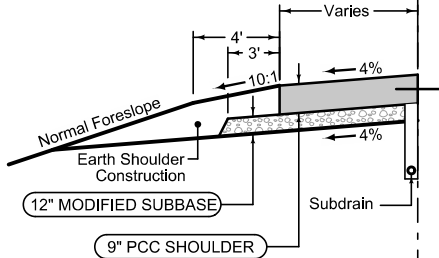
Shoulder Jointing:
Longitudinal joint: BT-2, or L-2
Transverse joints: C at 17' spacing

2_C_FullPCC_04-15-25			
STATION TO STATION		(P) Feet	(G) Feet
140+96.50	143+39.45	4	4



Mainline Jointing:
Transverse joints: CD at 17' spacing
Longitudinal joint: L-2

2P_04-21-20	
STATION TO STATION	
128+81.00	130+73.50
137+96.50	143+39.45



Full Depth PCC Shoulder

Shoulder Jointing:
Longitudinal joint: BT-2, L-2
Transverse joints: C at 17' spacing

2_P_FullPCC_04-20-21		
STATION TO STATION		(P) Feet
128+81.00	129+86.51	8
138+70.98	140+96.50	8

Paved Shoulder at Guardrail

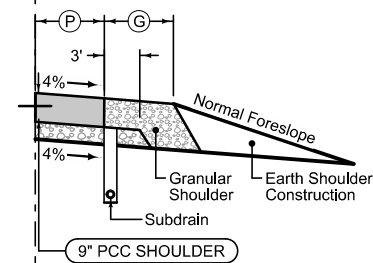
PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5
Transverse joints: C at mainline spacing
HMA Shoulder Jointing:
Longitudinal joint: B

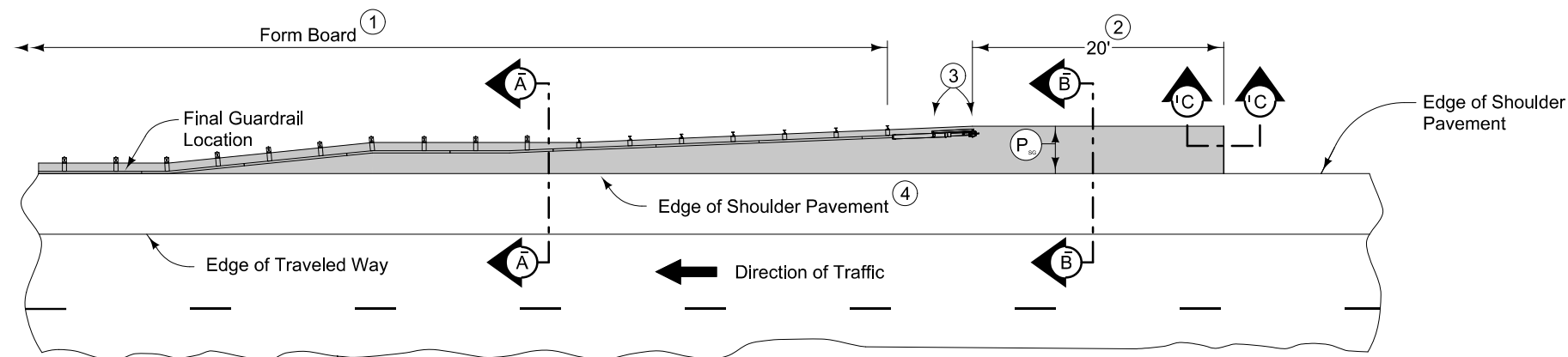
2_P_Guard_04-21-20		
STATION TO STATION		
129+86.51	130+73.50	
137+96.50	138+70.98	

Full Depth PCC Combination Shoulder

Shoulder Jointing:
Longitudinal joint: BT-2, or L-2
Transverse joints: C at 17' spacing

2_C_FullPCC_04-15-25			
STATION TO STATION		(P) Feet	(G) Feet
140+96.50	143+39.45	4	4





PLAN VIEW

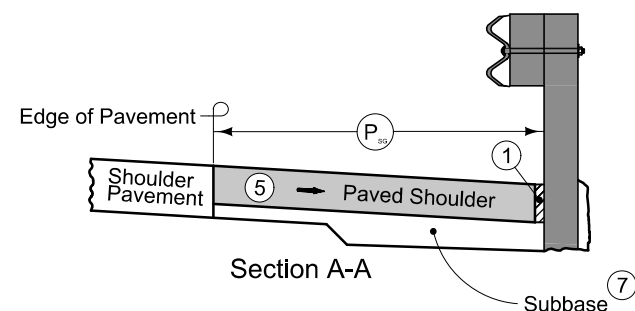
9" PCC Paved Shoulder at guardrail should use the following jointing layout.

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

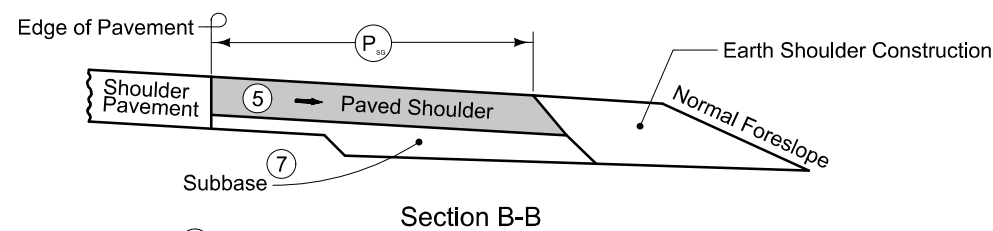
Compaction of HMA is required to face of guardrail post. Hand compaction will be allowed under guardrail. Removal and reinstallation of guardrail will be allowed with no additional payment.

Refer to Tabulation 112-9 for shoulder quantities.

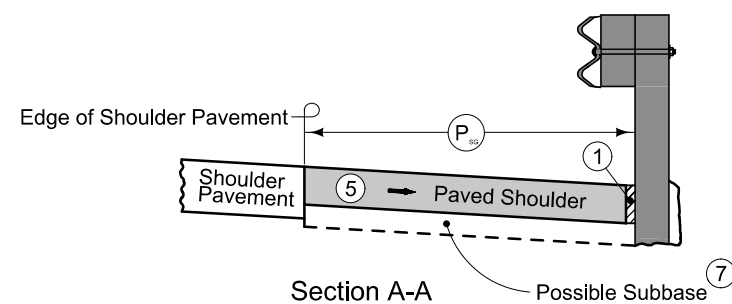
- ① PCC option only: When guardrail posts are installed prior to construction of PCC paved shoulder, fasten form board to the face of guardrail posts for the length shown.
- ② Continue paved shoulder 20 feet beyond the center of the first post.
- ③ Shoulder may be notched for first 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.
- ④ 'KT' (per PV-101) joint for PCC shoulder. 'B' (per PV-101) joint for HMA shoulder.
- ⑤ Match shoulder slope.
- ⑥ The Contractor has the option to pave the paved shoulder at guardrail and the full width paved shoulder as one operation.
- ⑦ Refer to other details in the plan.



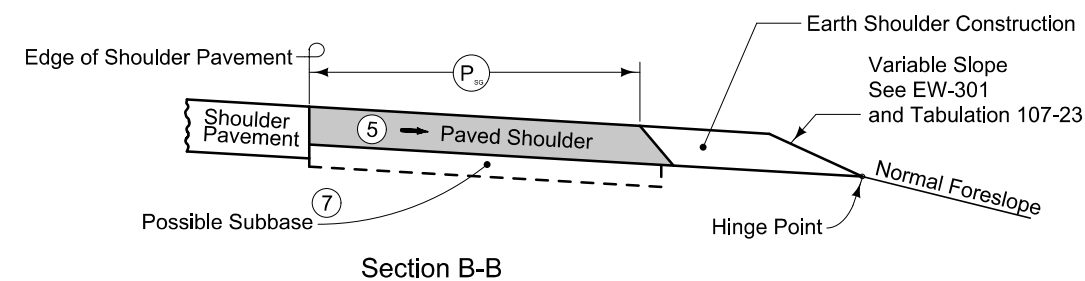
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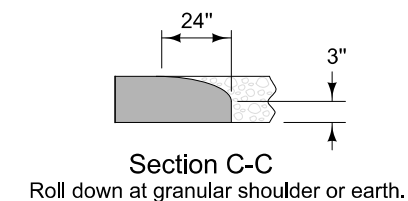
Section B-B



EXISTING SHOULDER



Section B-B

PAVED SHOULDER AT GUARDRAIL
(ADJACENT TO FULL WIDTH PAVED SHOULDER)

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)		

UTILITY LEGEND

	Windstream Communications Fiber Distribution Mark Hussman, Construction Manager - CLEC 9850 M ST Omaha, IA 68127 Mark.Hussman@windstream.com ph: (402) 827-6355 cell: (402) 677-5874
	Iowa Communications Network Fiber Transmission Michael Dalen, OSP Engineer 400 East 14th Street Des Moines, IA 50319 mike.dalen@iowa.gov ph: (515) 725-4707 cell: (515) 499-1642
	MidAmerican Energy Company Electric Distribution Scott Behrens, Lead, Electric Distribution Engineering SW Iowa 3003 S. 11th St Council Bluffs, IA 51501 scott.behrens@midamerican.com ph: (712) 366-5636 cell: (402) 657-1059

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

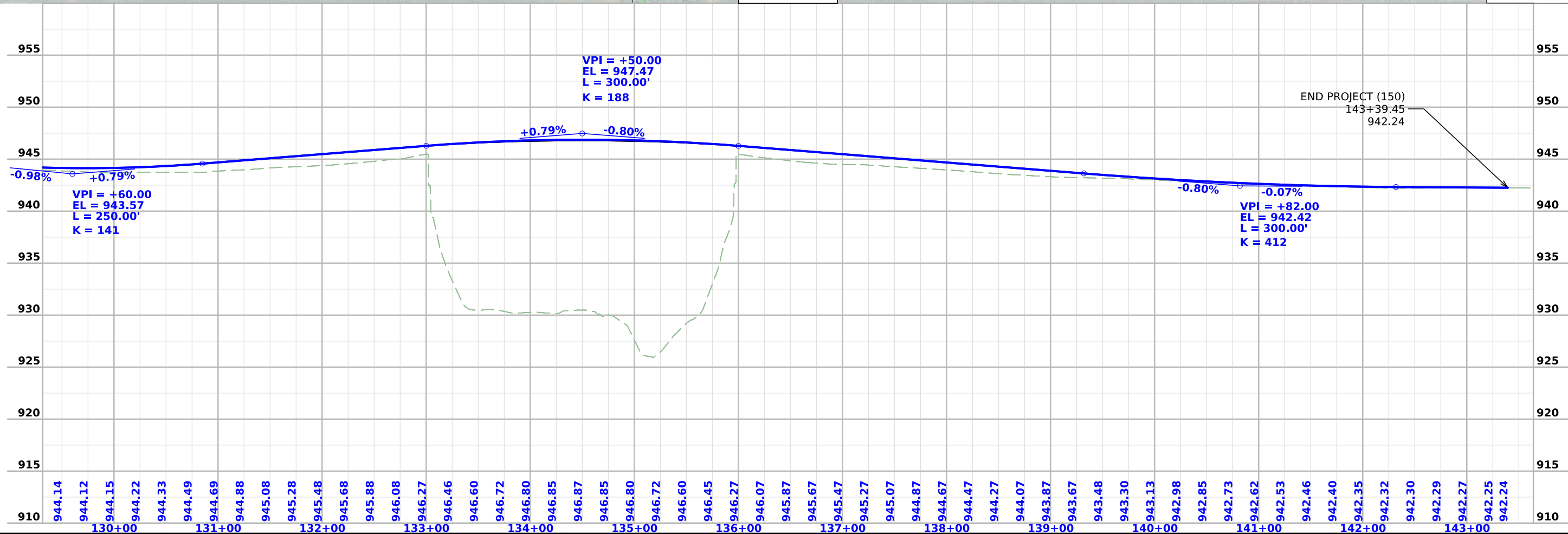
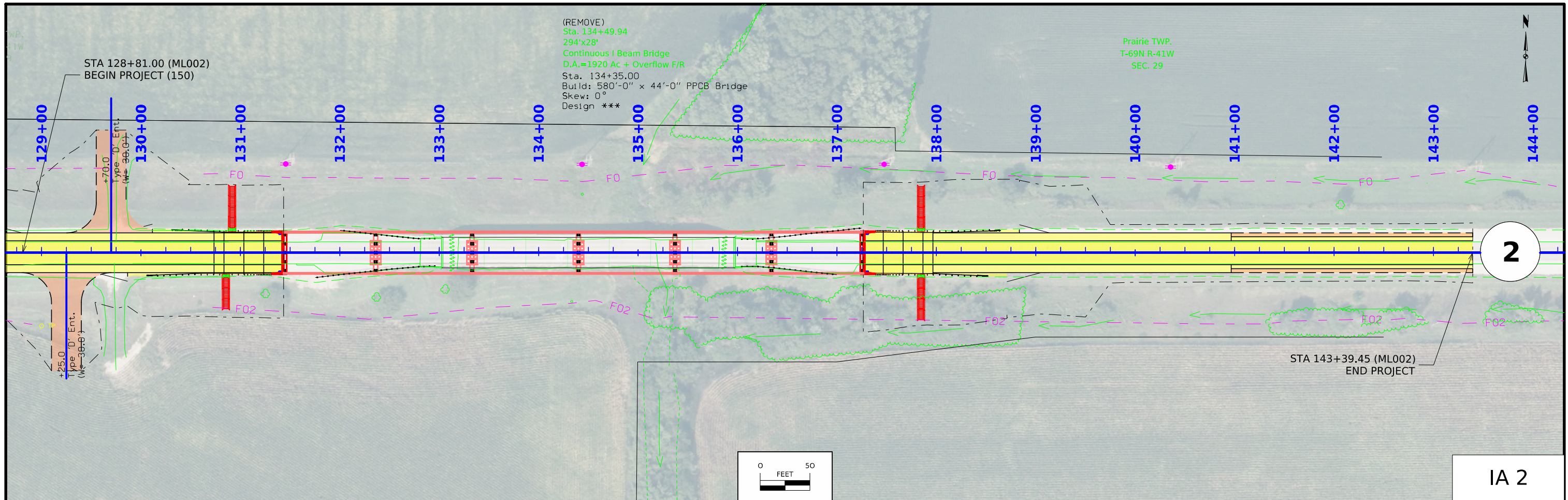
	Reference Point		
	Station		Survey Line
	Section Corner		Ground Line Intercept
	Saw Cut		Guardrail
	Trench Drain		HighTension Cable Guardrail
	Sheet Pile		Pavement Removal
	Clearing & Grubbing Area		

RIGHT-OF-WAY LEGEND

	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: Fremont
PIN: 23-36-002-030
Project Number: BRF-002-1(150)--38-36
Location: 1.8 miles west of secondary road L-68
Type of Work: Overflow Bridge Replacement
Project Directory: 3600203023

Survey Personnel

Paul Harry – Survey Party Chief
Bob Fredrickson – Assistant Survey Party Chief

Date(s) of Survey

Begin Date 06/12/2025
End Date 07/03/2025

General Information

This survey is for Hwy 2 overflow bridge replacement east of the West Nishnabotna river. This project is a Full Field DTM survey.

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. Post processing is constrained to nearby Iowa Real Time Network reference stations. For additional details of the control survey, contact the Preliminary Survey department.

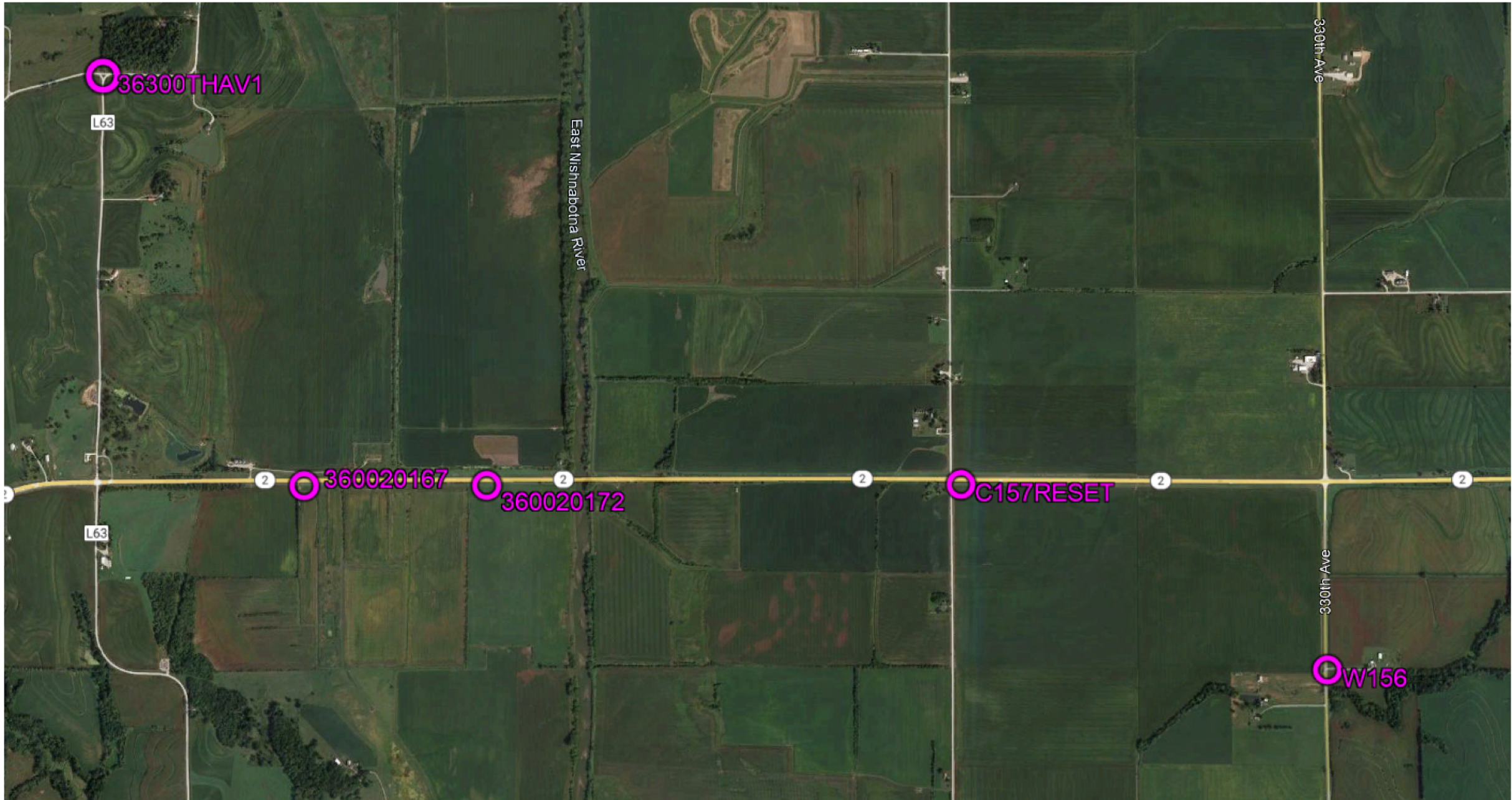
PROJECT DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 ADJUSTMENT)
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 06
(U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2018u2

Alignment Information

The horizontal alignment for Hwy 2 this survey was provided by the District 4 ROW Office.

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 06 (U.S. Survey Foot)

VERT. DATUM: NAVD88 - Geoid Model: 2018u2

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

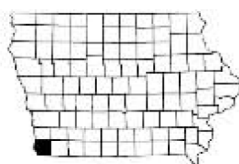
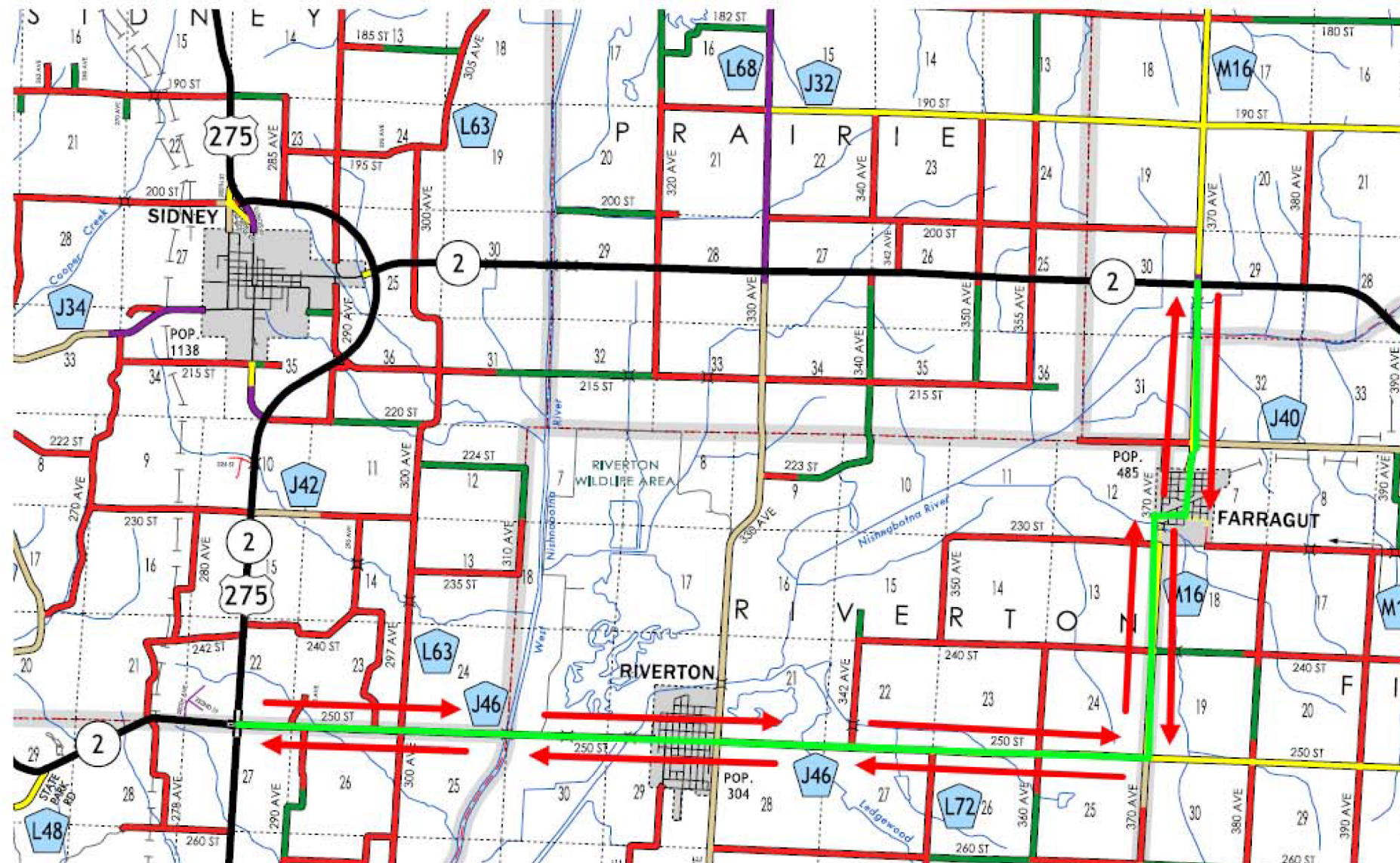
HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING
HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment)
Ia. Regional Coordinate System Zone 06 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: 2018u2

Point Name	Northing	Easting	Elevation	Feature Definition-Description
36300THAV1	6788029.61	16531764.67	1081.29	CP SET FENO MON IN CENTER ISLAND AT INTERSECTION OF 300TH AVE AND 195TH ST
360020167	6782278.32	16534635.17	930.69	CP SET FENO MON 0.9 MILES EAST OF HWY 275 ALONG HWY 2 NEAR FIELD INT
360020172	6782275.30	16537199.23	931.52	CP SET FENO MON 1.4MILES EAST OF HWY 275 ALONG HWY 2 NEAR FIELD INT
C157RESET	6782309.95	16543865.00	942.62	CP FND NGS 3RD ORDER VERTICAL MARK AS DESCRIBED
W156	6779713.72	16549056.54	964.08	CP FND NGS 2ND ORDER CLASS 0 VERTICAL MARK AS DESCRIBED

108-23A
08-01-08

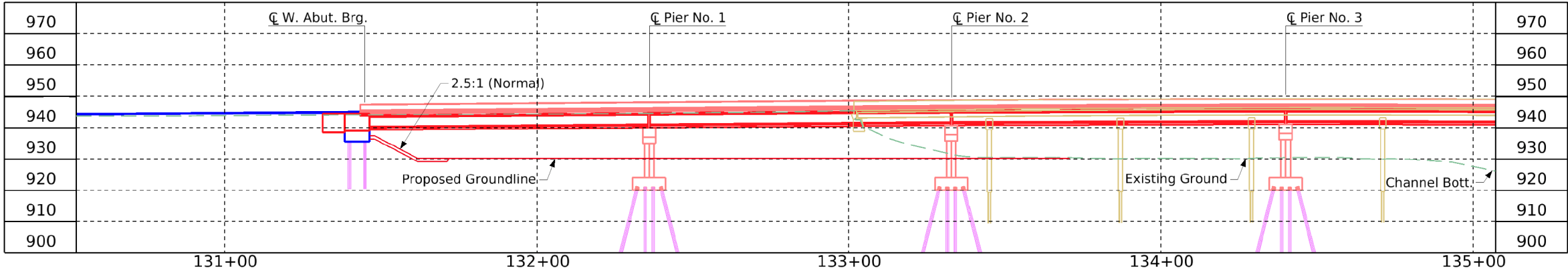
TRAFFIC CONTROL PLAN

Traffic on IA 2 will be maintained at all times via an off-site detour. Refer to sheet J.2 for detour route.

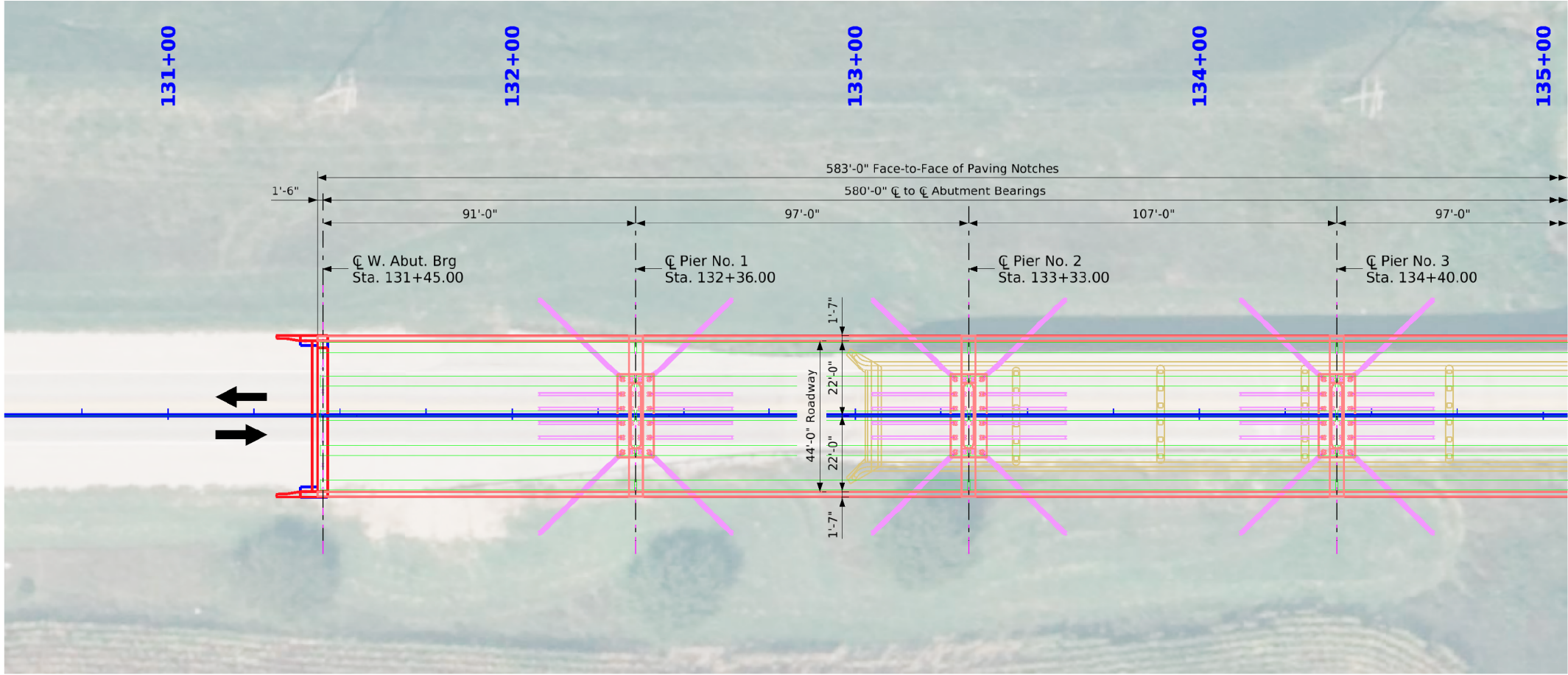


Fremont County West Nishnabotna River 1.7 mi E of E Jct US 275 BRF-002-1(143)--38-36 PIN: 21-36-002-010





Longitudinal Section Along CL Prop IA 2

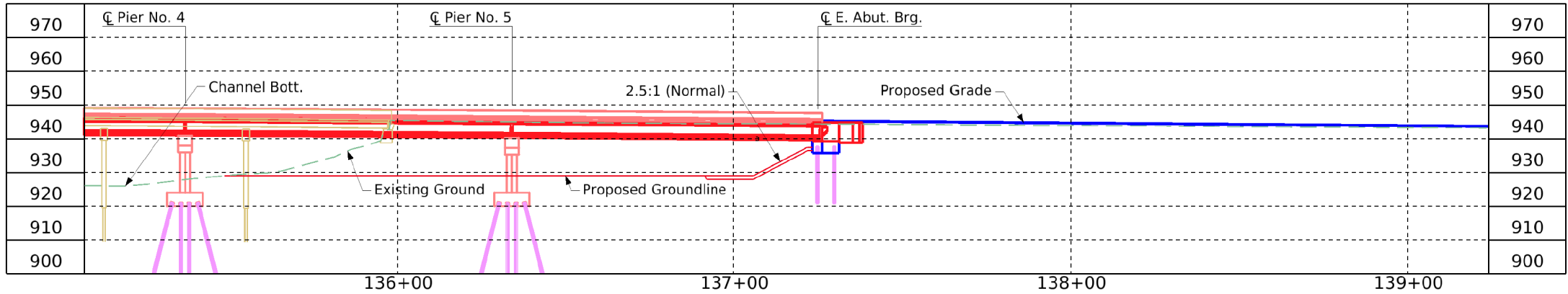


Situation Plan

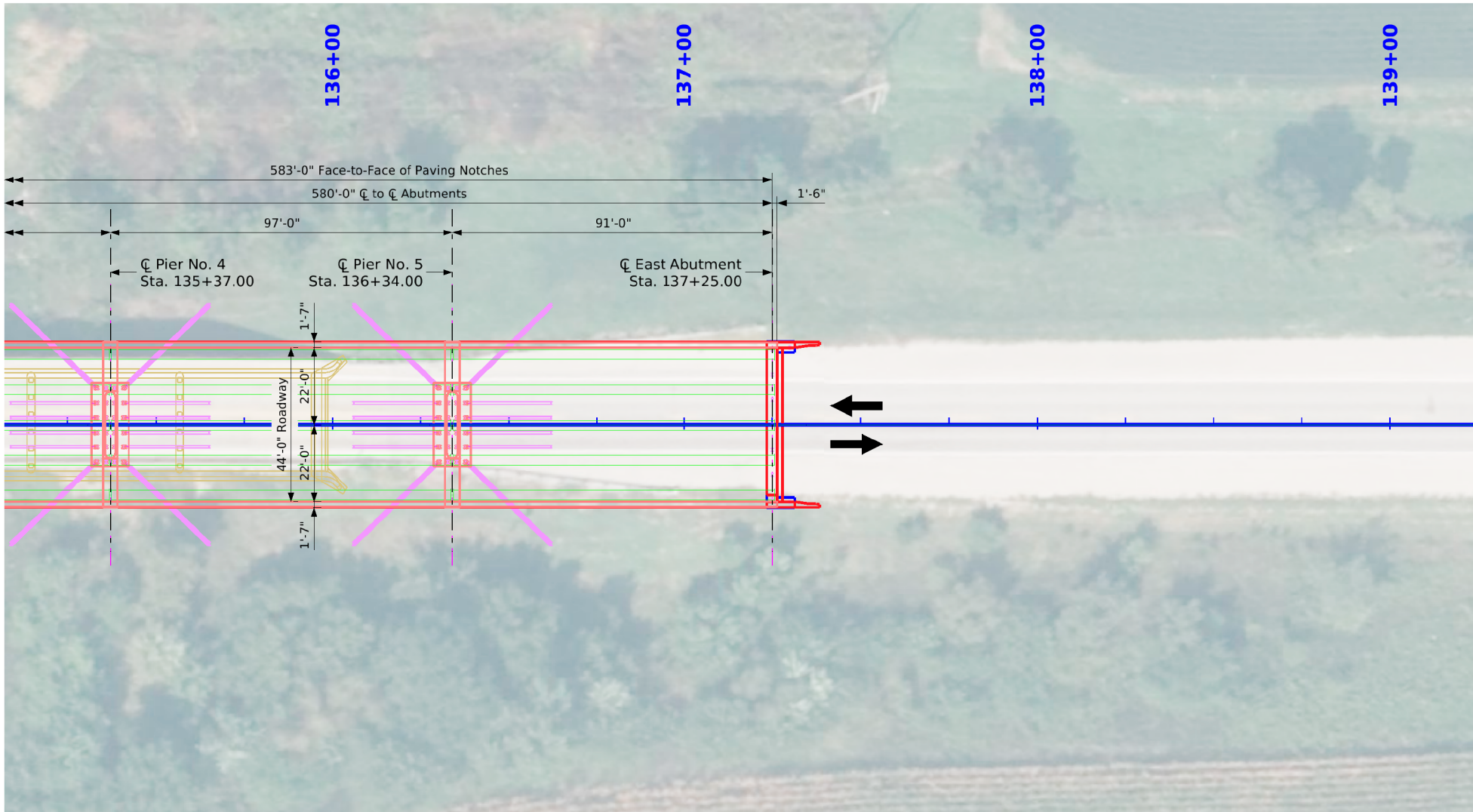


0 20
Scale in Feet

Design For 0° Skew
**580'-0" x 44'-0" Pretensioned
Prestressed Conc. Beam Bridge**
91'-0" End Spans 97', 107', 97', 97" Interior Spans
Situation Plan
STA. 134+35.00 (IA 2) Turn-in Date: Oct 2025
Fremont County
IOWA DEPARTMENT OF TRANSPORTATION
Design No. XXXX Design Sheet No. 1 of 2 FHWA No. XXXX



Longitudinal Section Along CL Prop IA 2



Situation Plan



0 20
Scale in Feet

Design For 0° Skew
**580'-0" x 44'-0" Prestensioned
Prestressed Conc. Beam Bridge**
91'-0" End Spans 97', 107', 97', 97' Interior Spans
Situation Plan
STA. 134+35.00 (IA 2) Turn-in Date: Oct 2025
Fremont County
IOWA DEPARTMENT OF TRANSPORTATION
Design No. XXXX Design Sheet No. 2 of 2 FHWA No. XXXXX

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

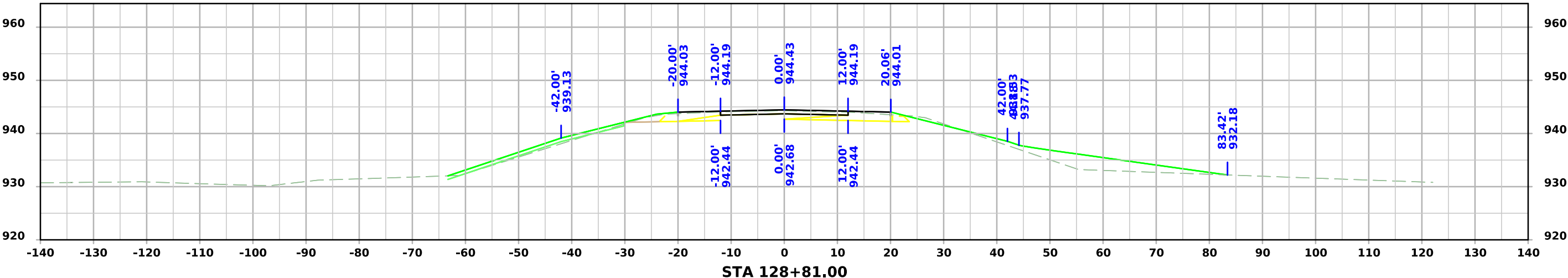
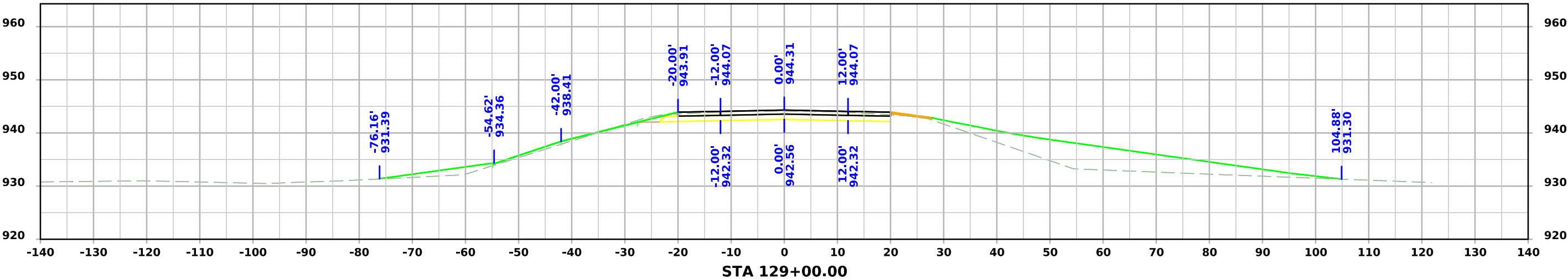
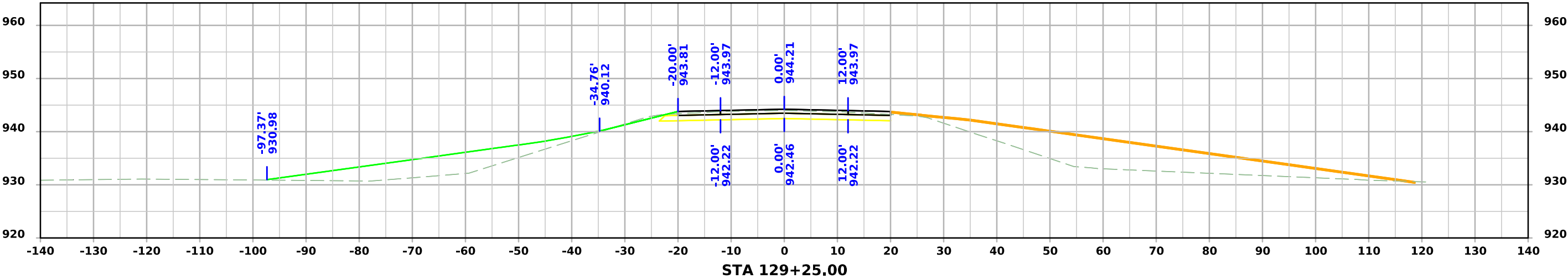
NOTES:

Text

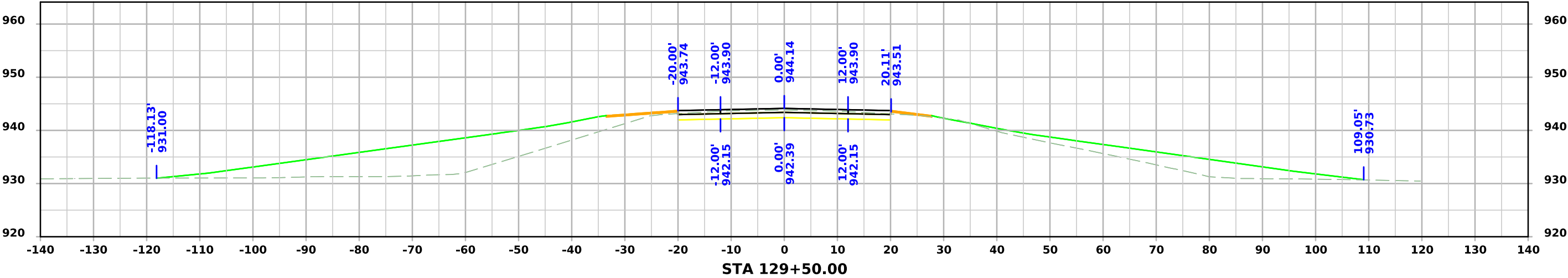
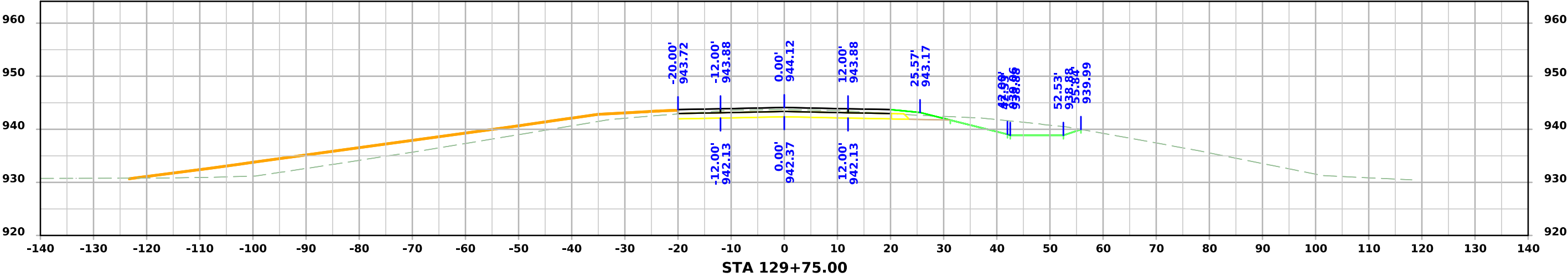
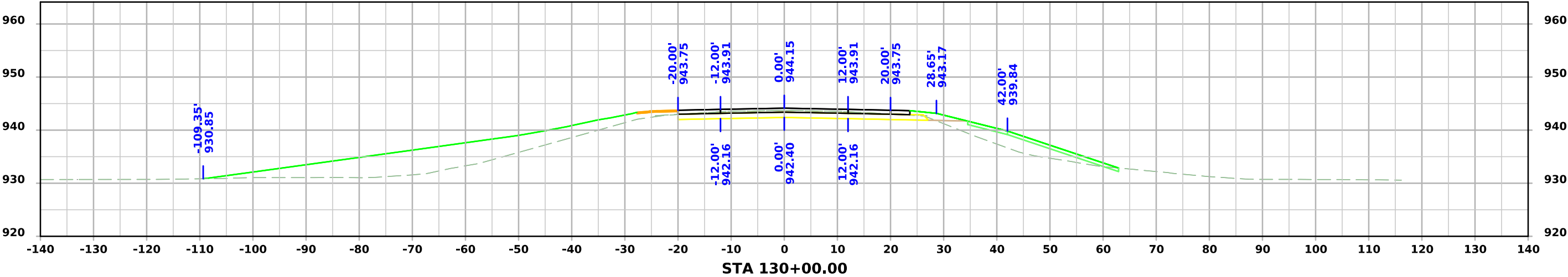
CROSS SECTIONS
LEGEND AND INFORMATION SHEET

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

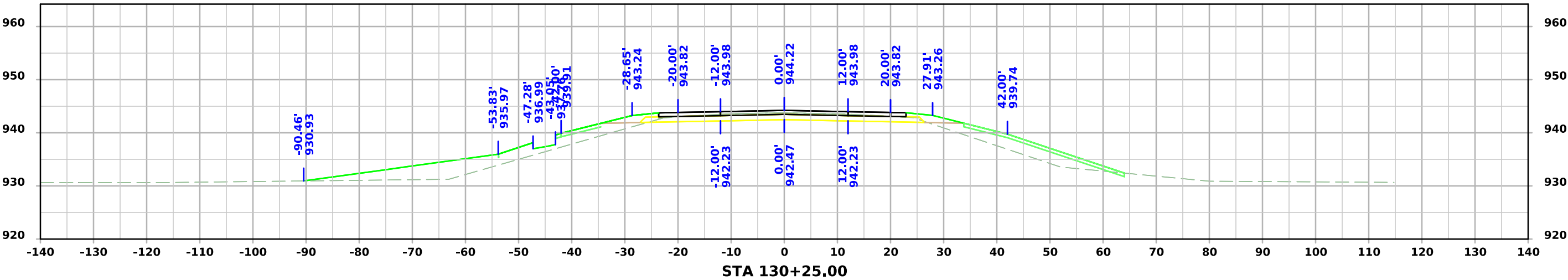
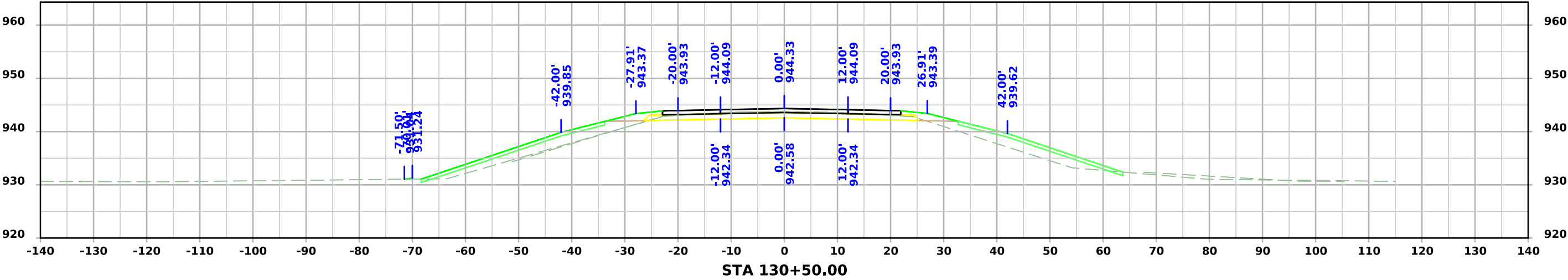
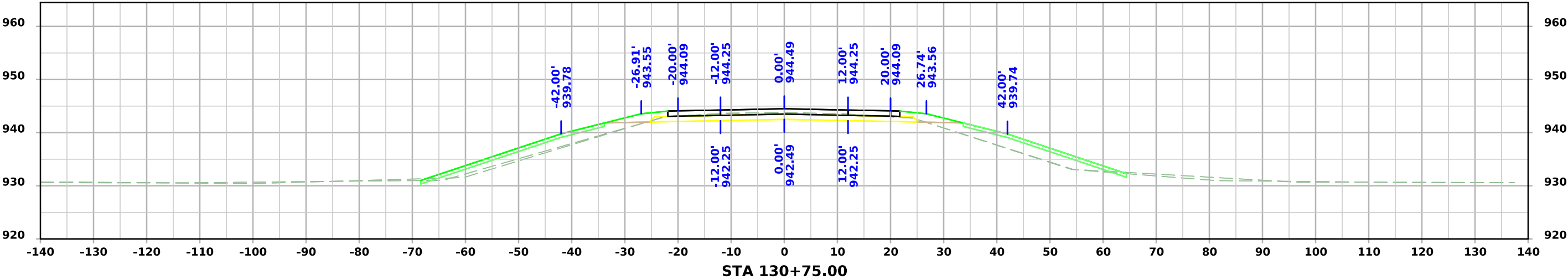
ML - IA 2



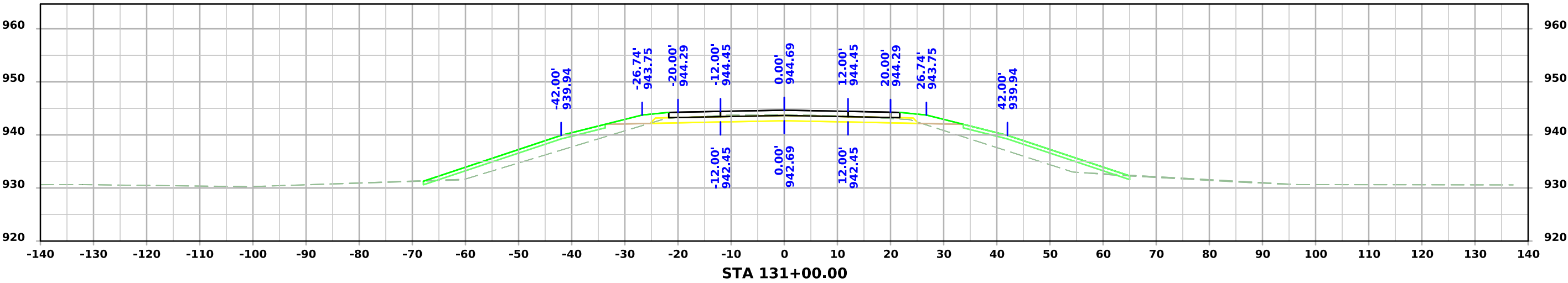
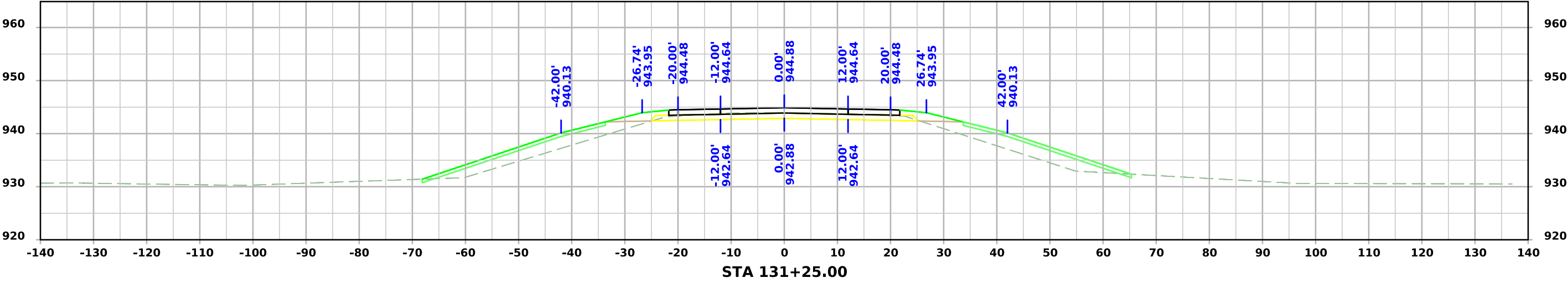
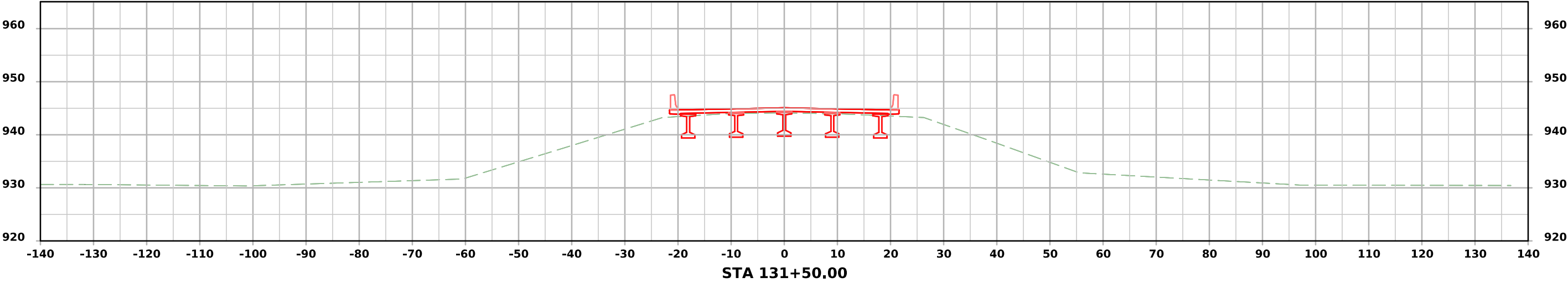
ML - IA 2



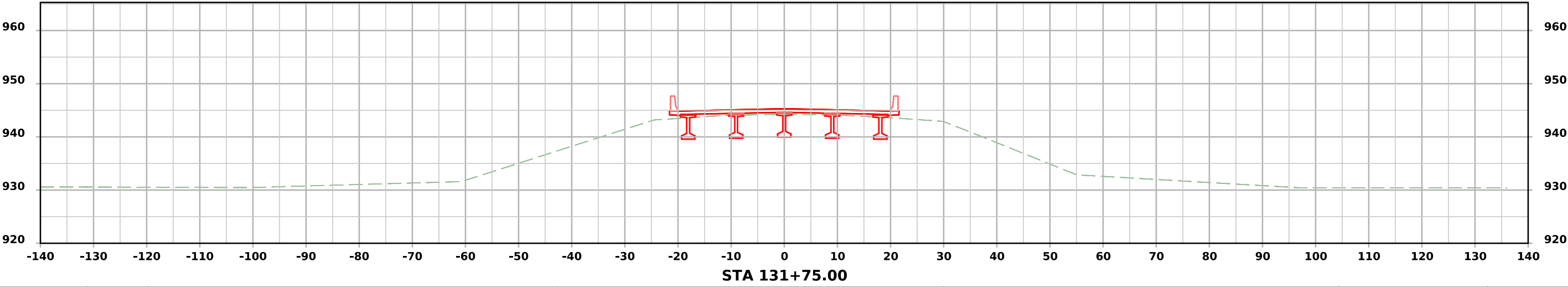
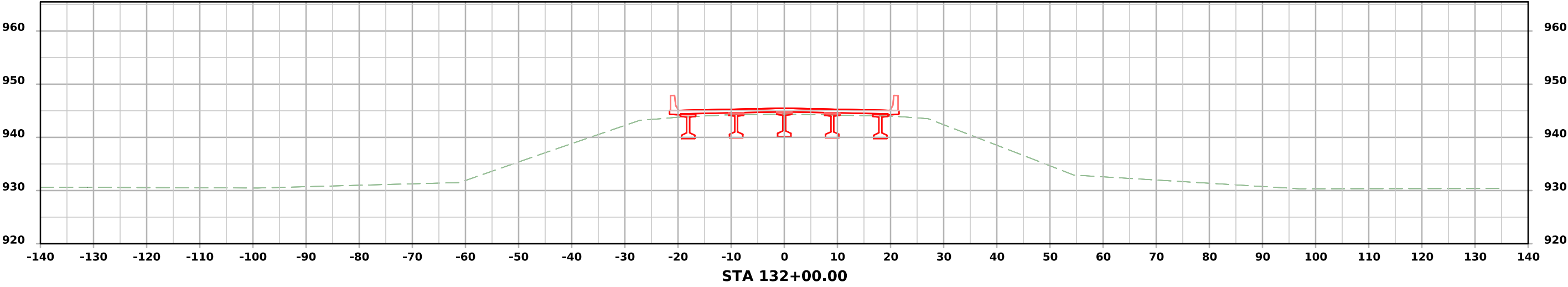
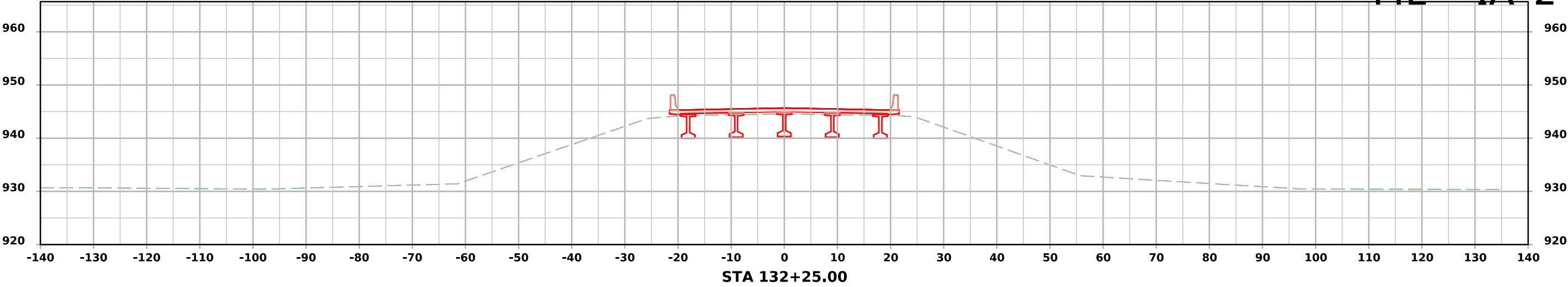
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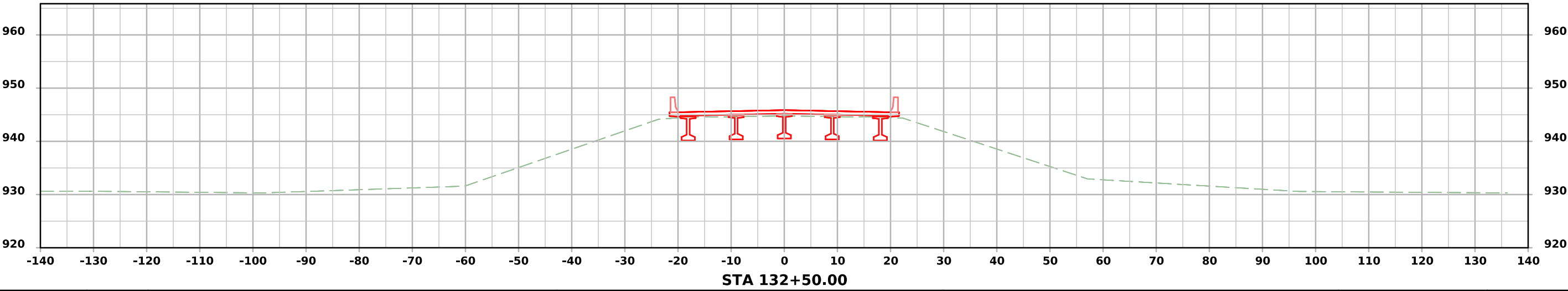
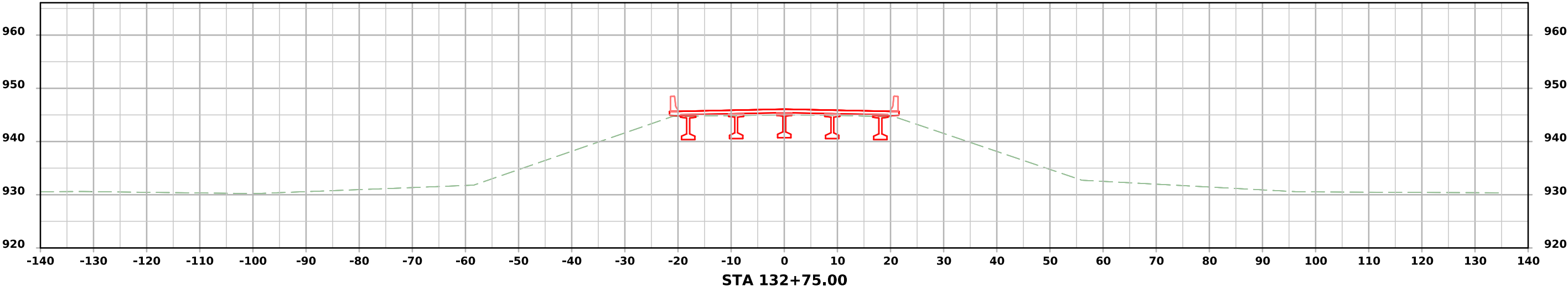
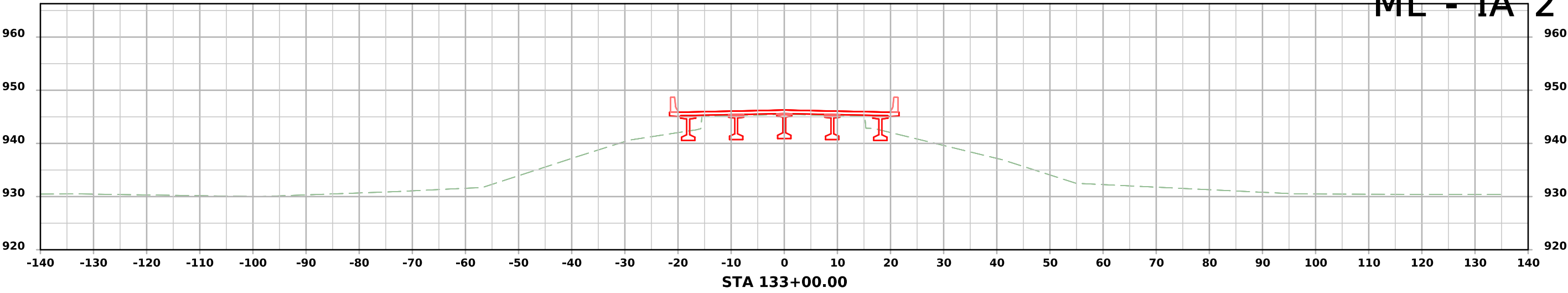


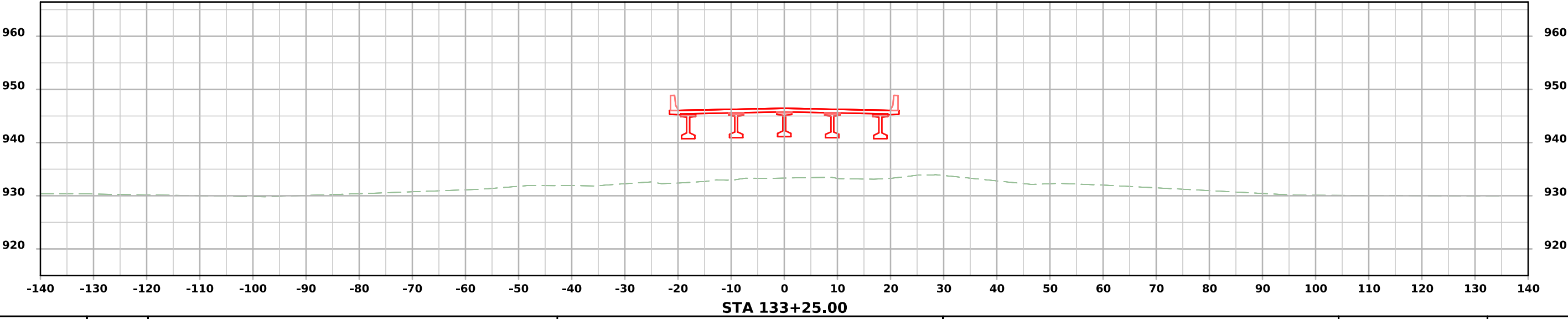
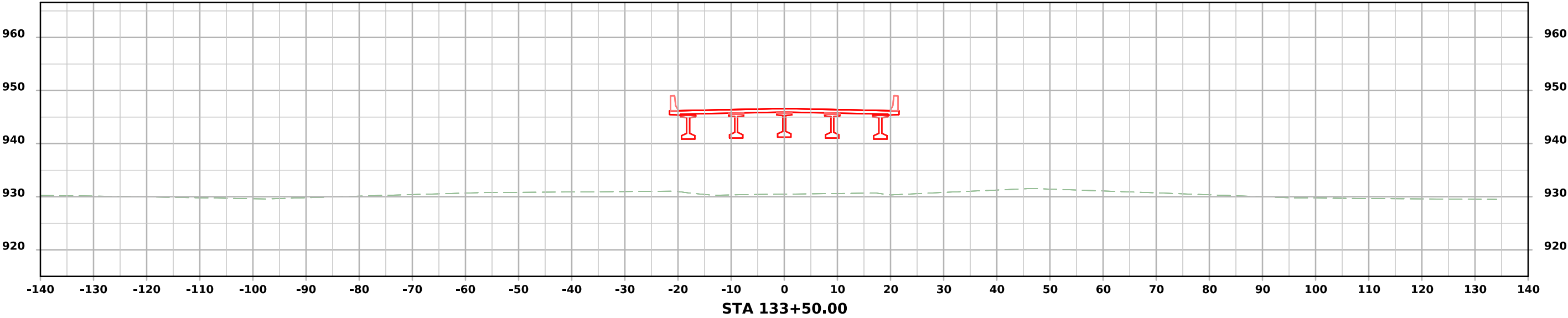
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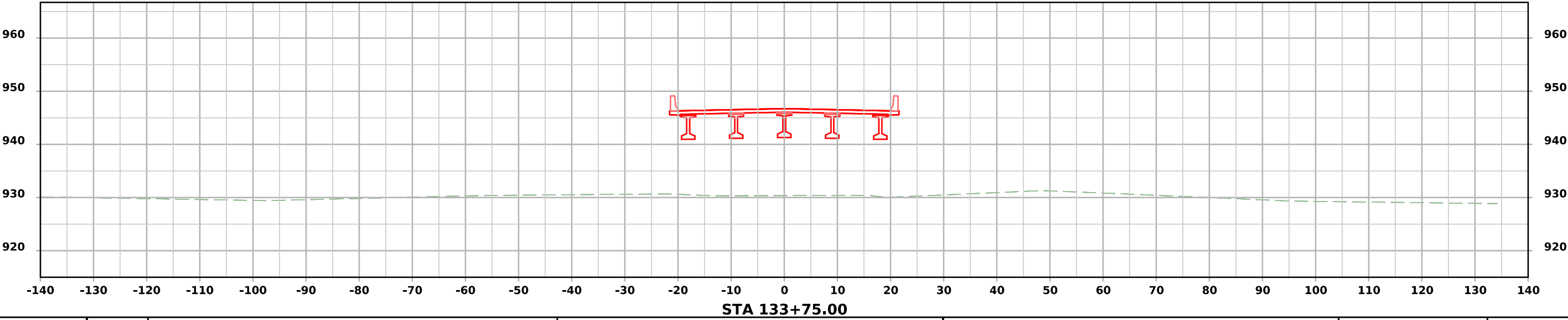
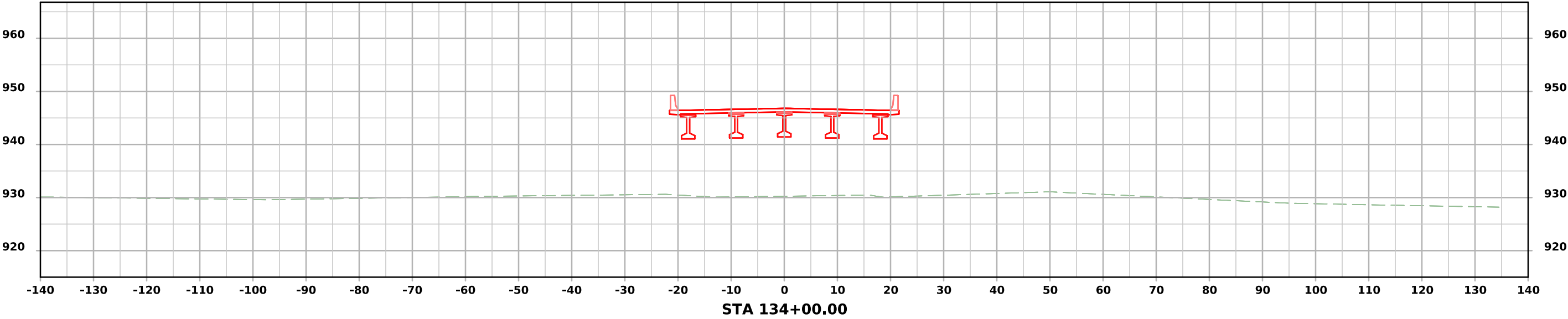
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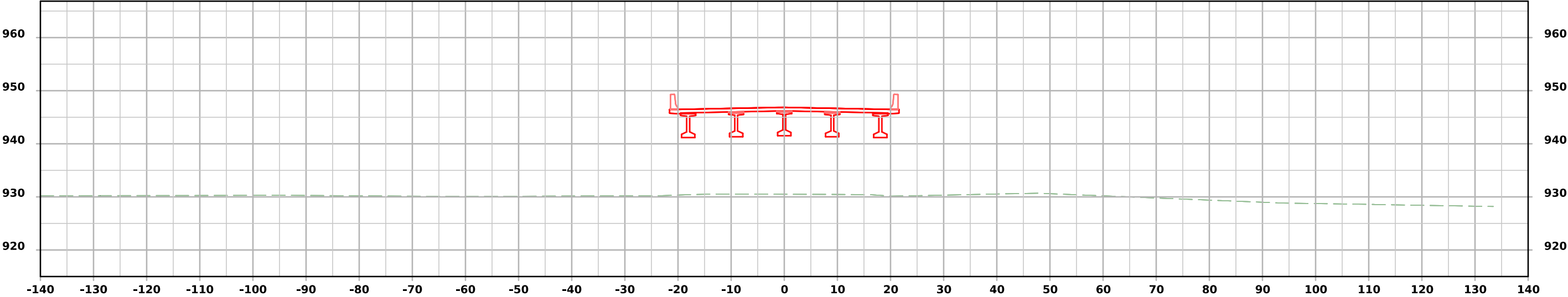




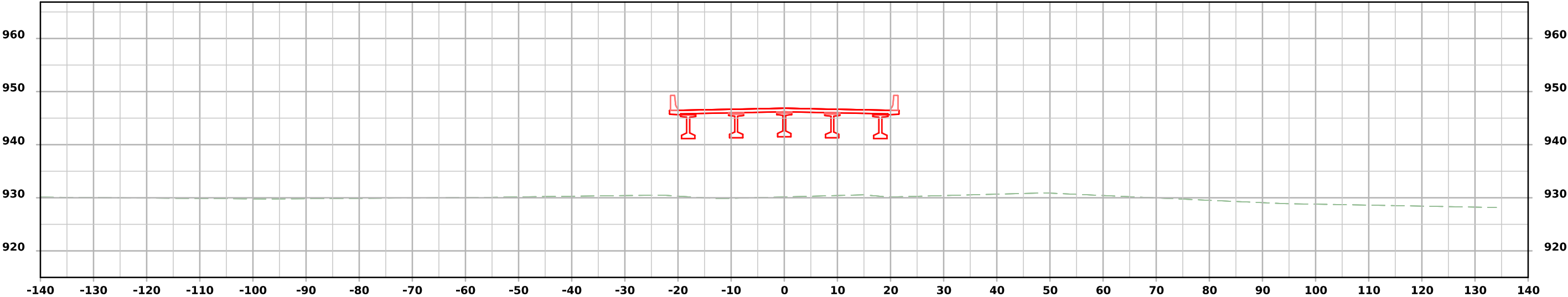
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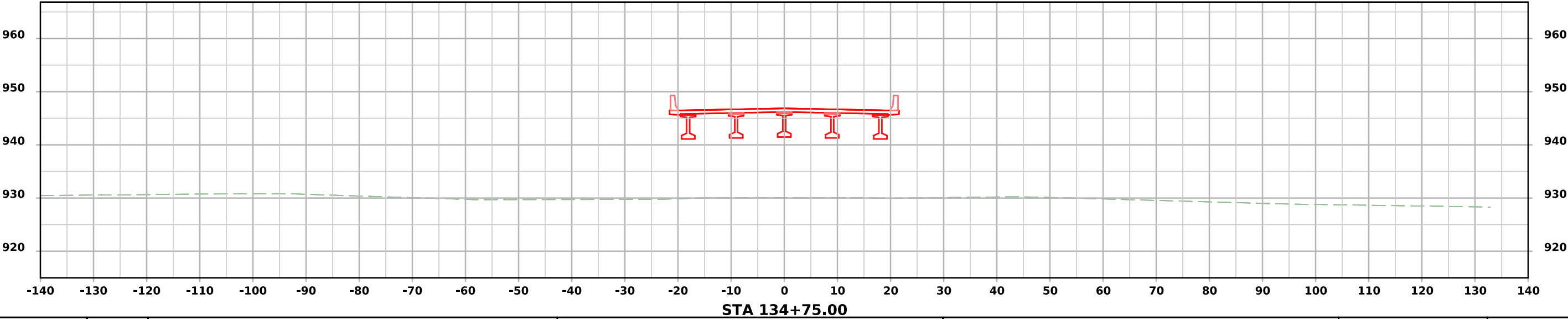
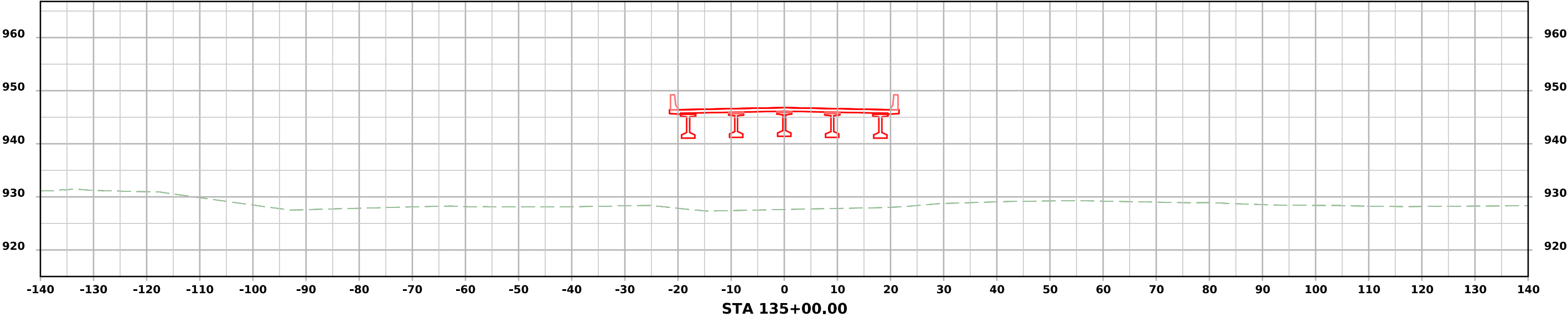


STA 134+50.00

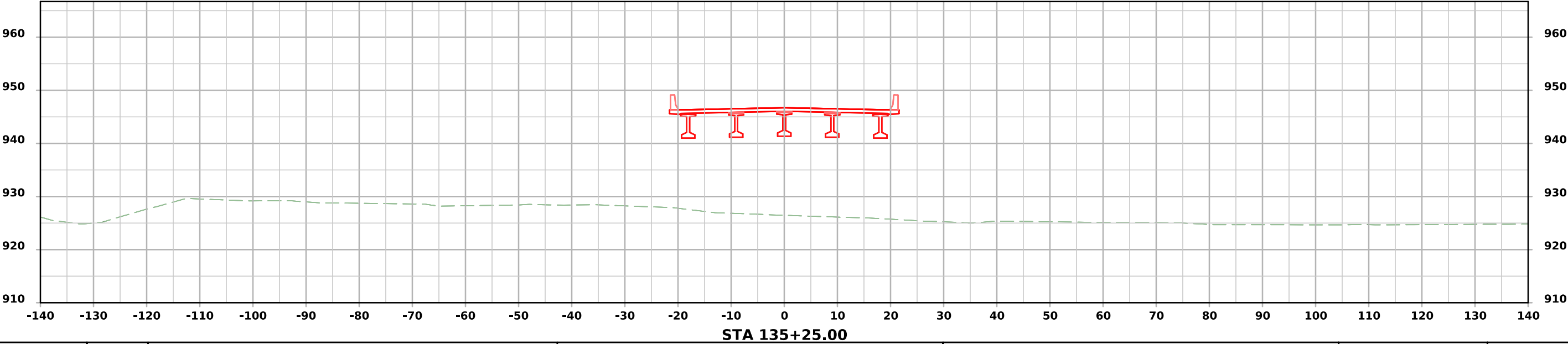
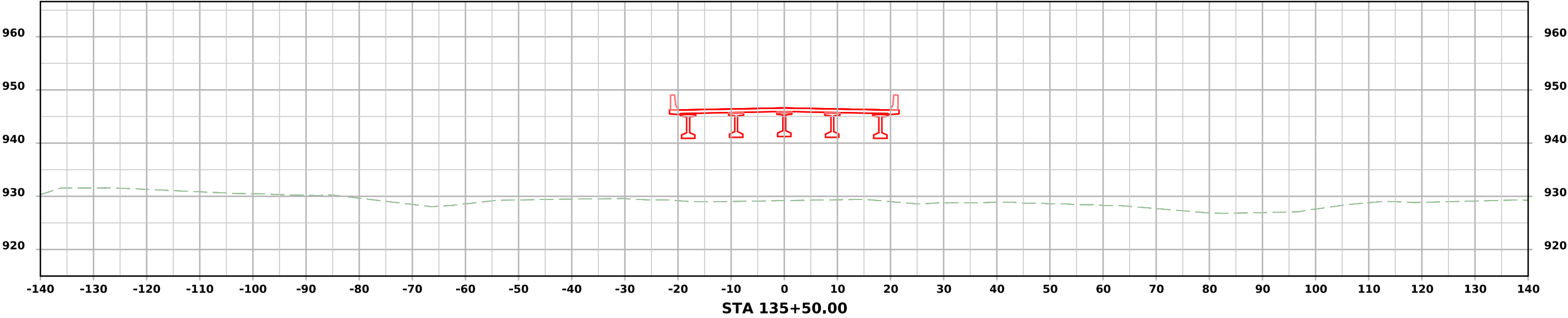


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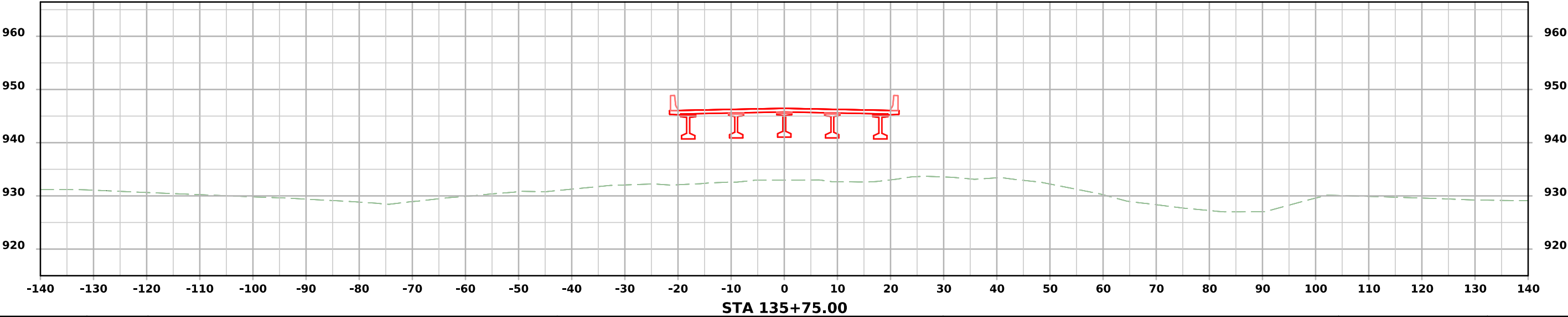
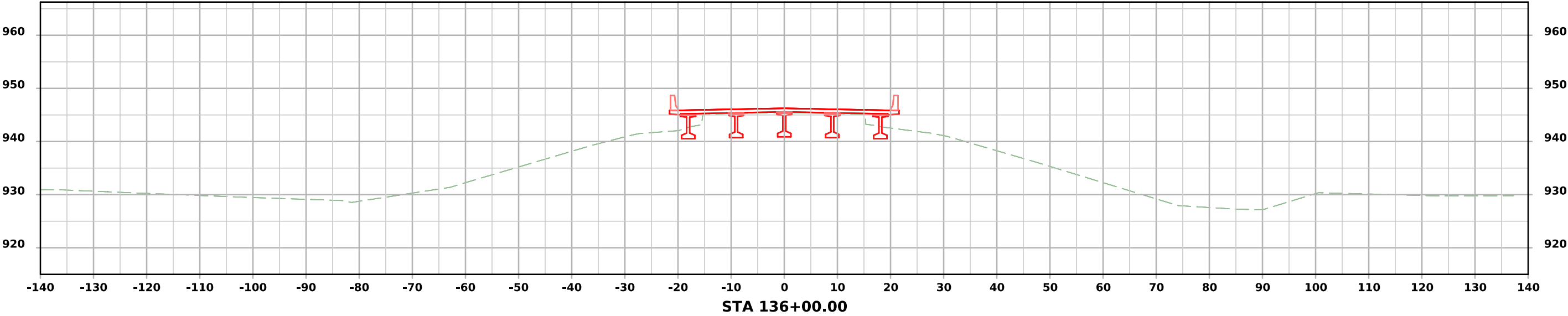
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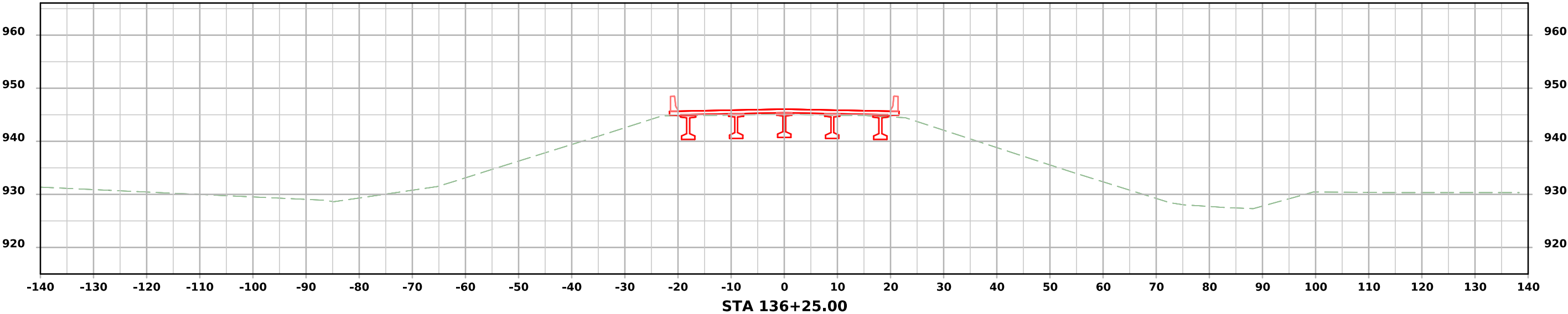
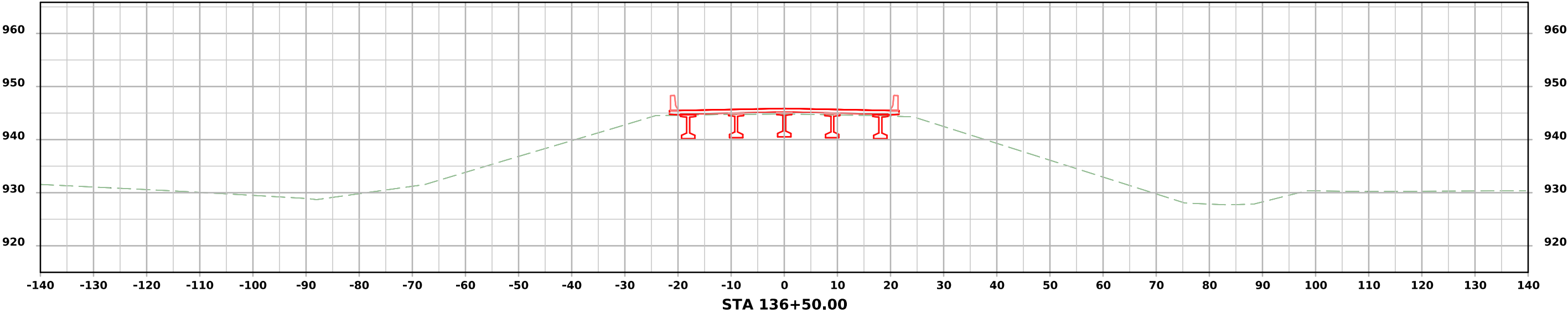
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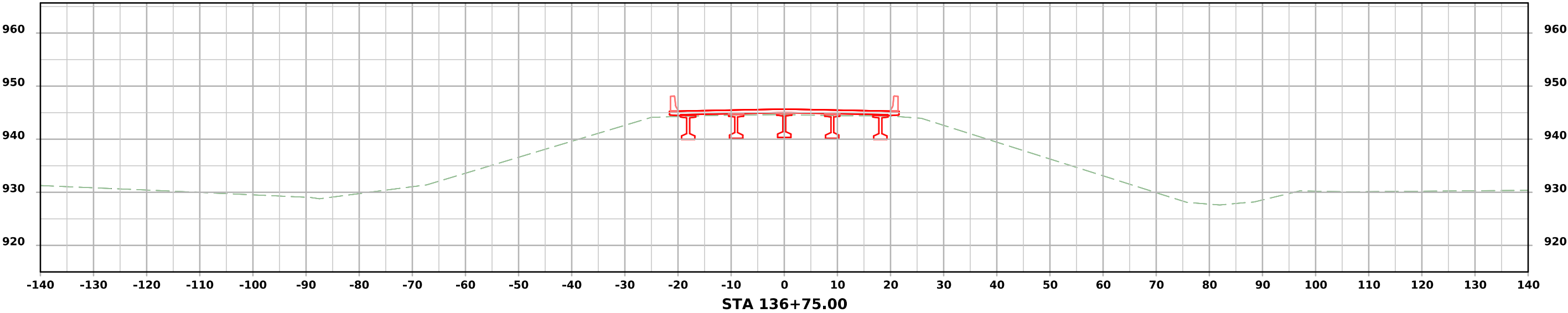
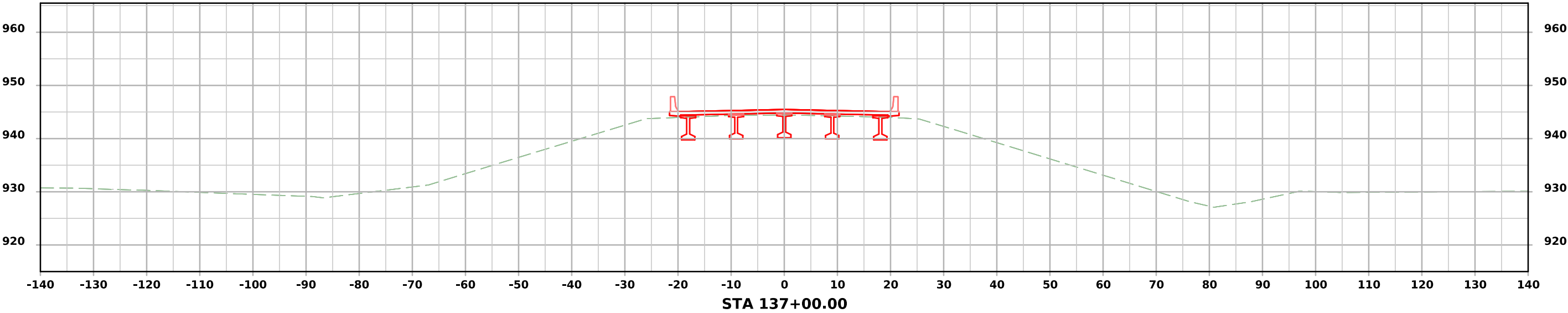
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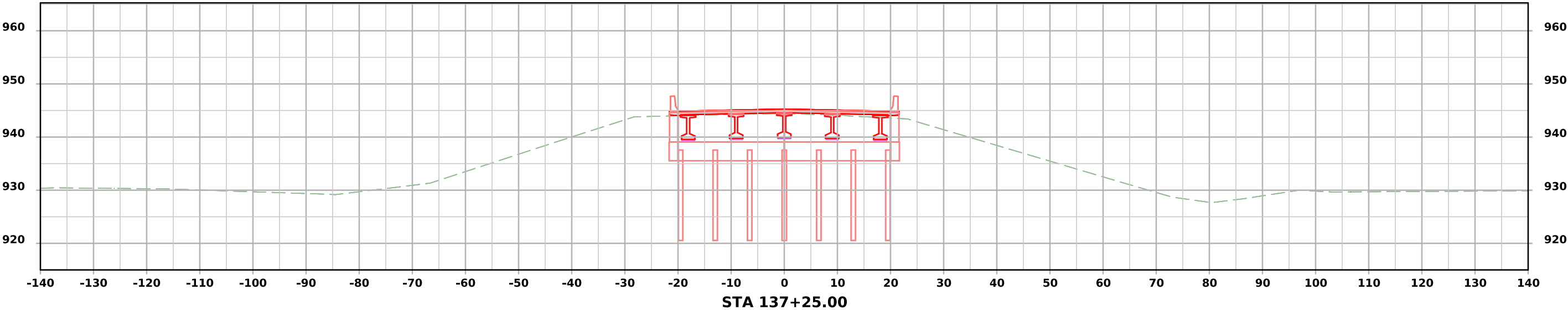
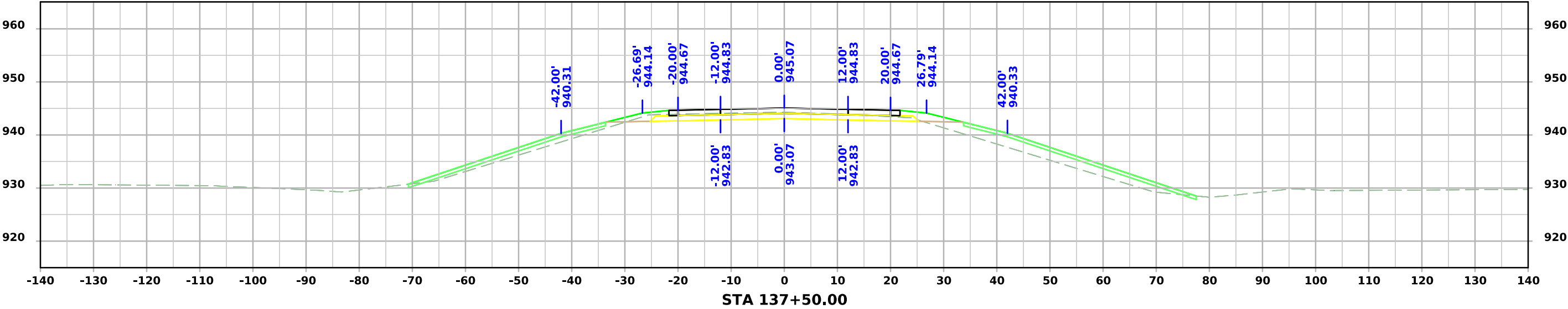


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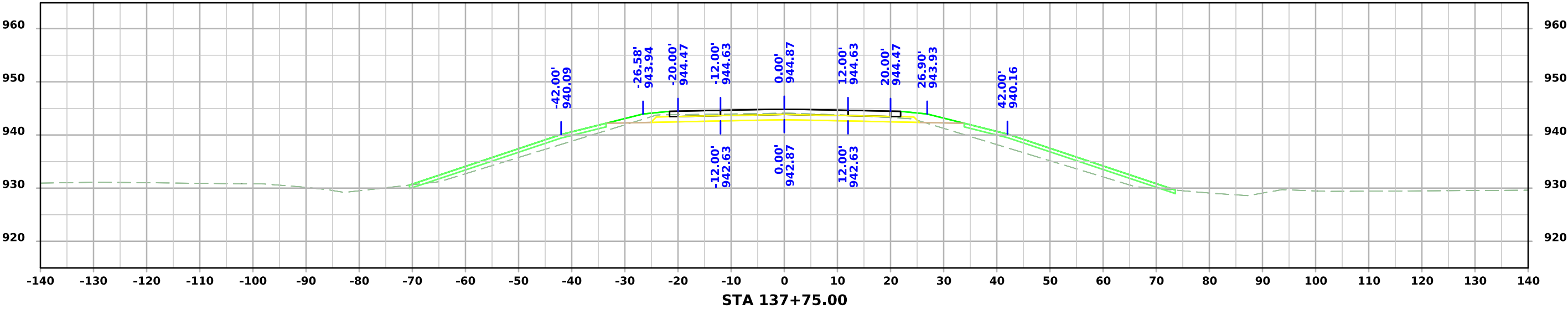
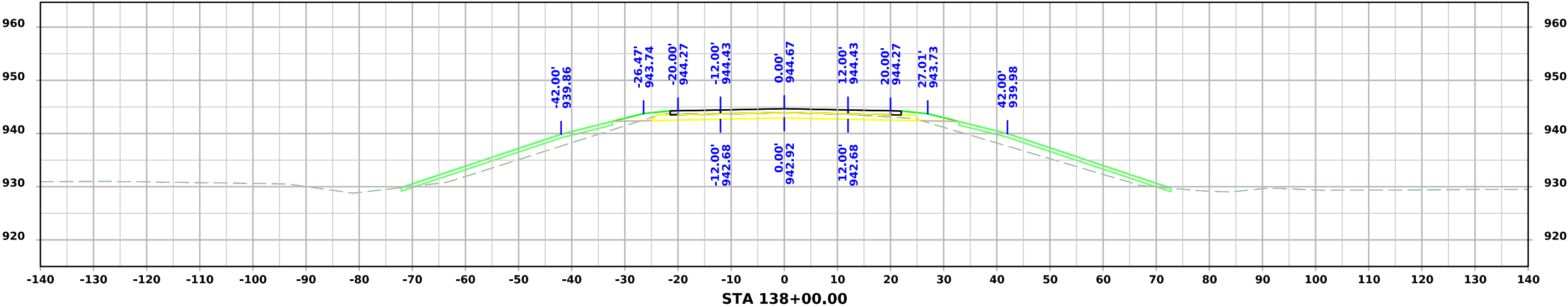


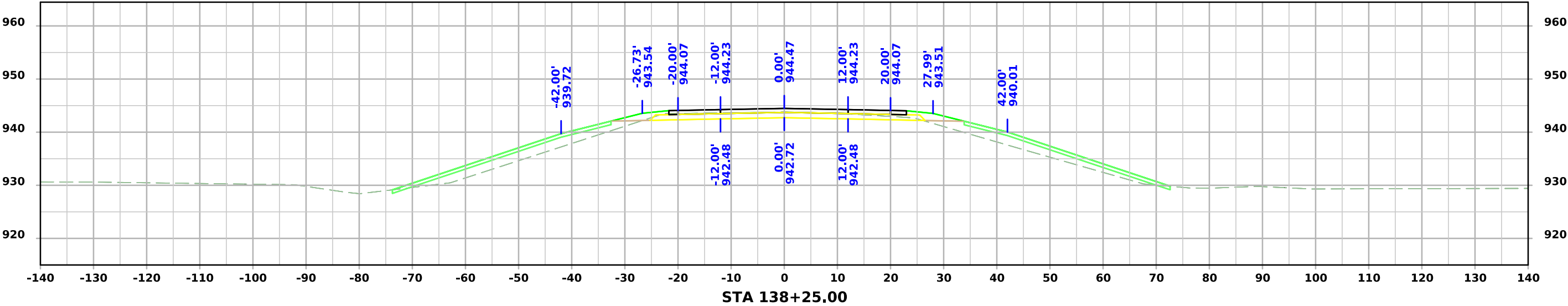
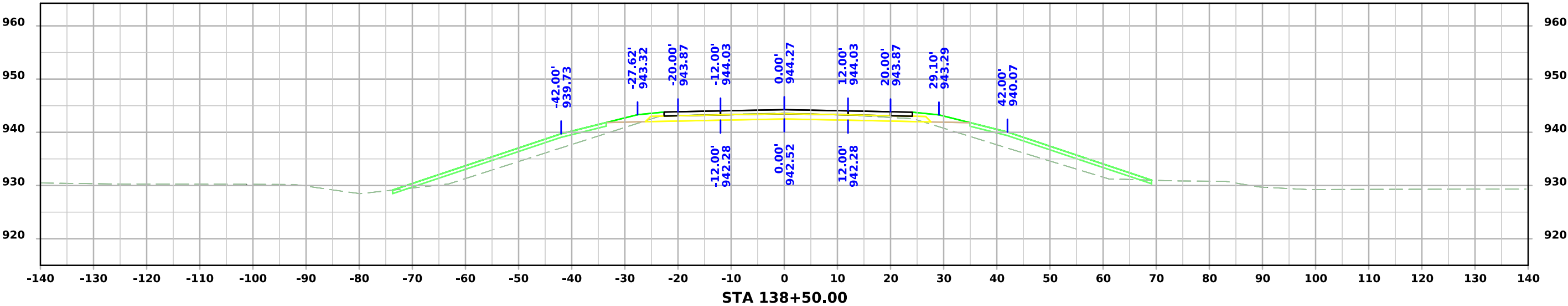
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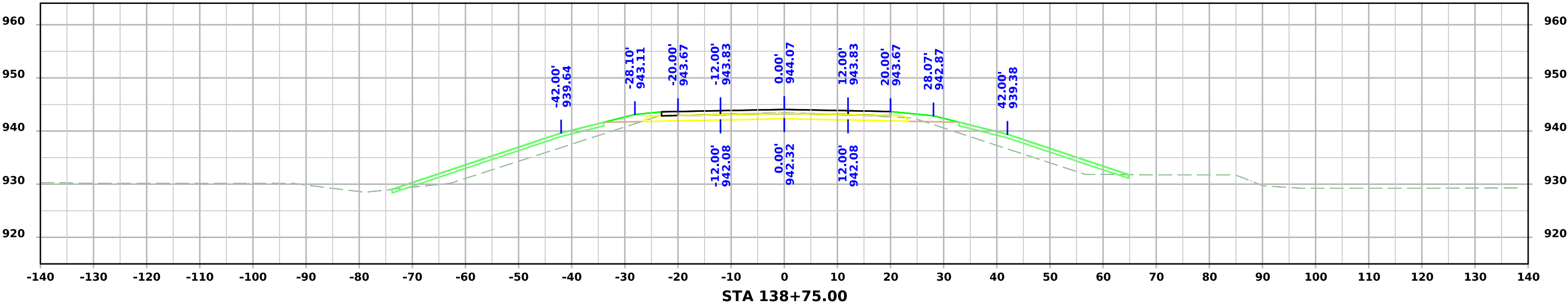
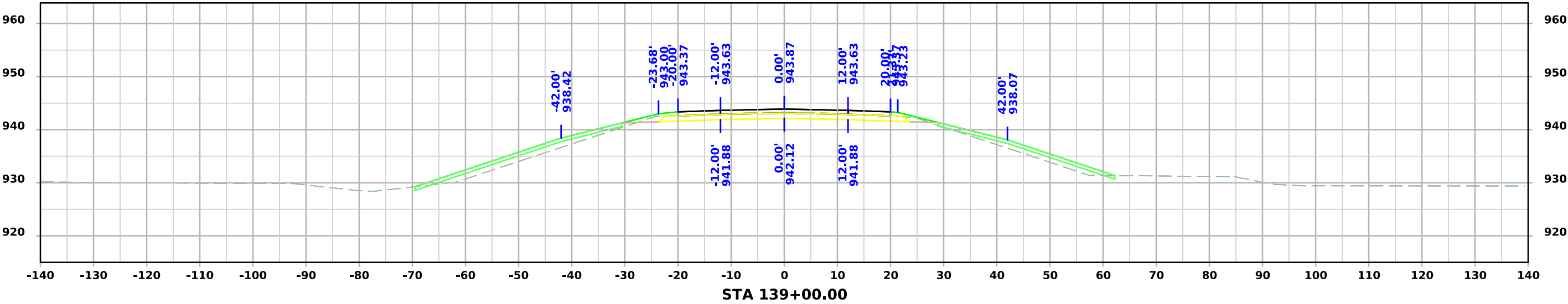


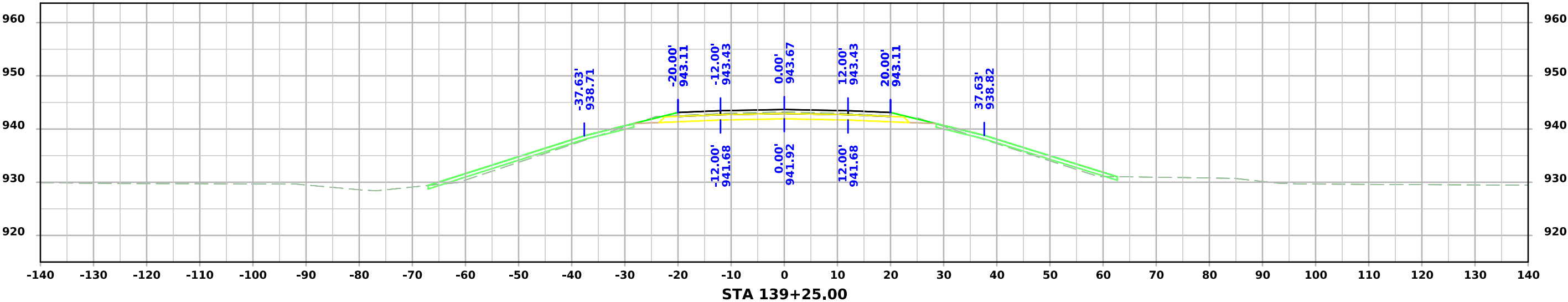
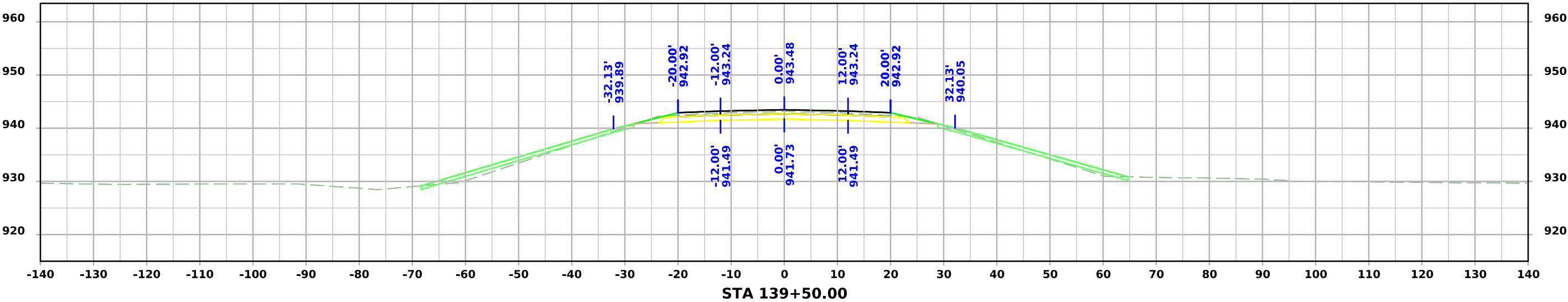


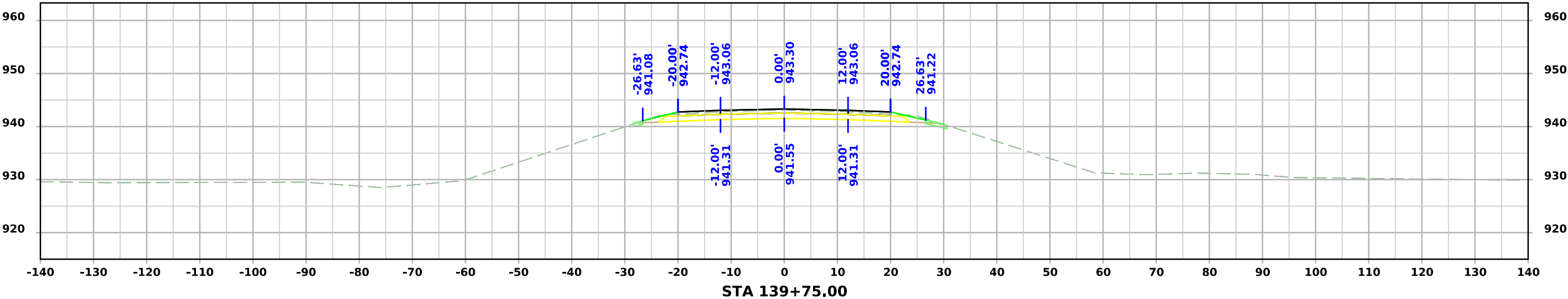
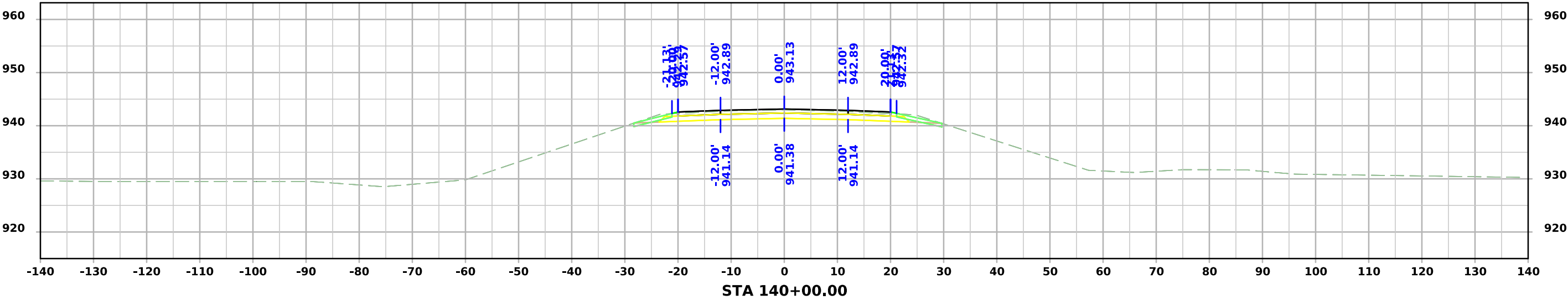
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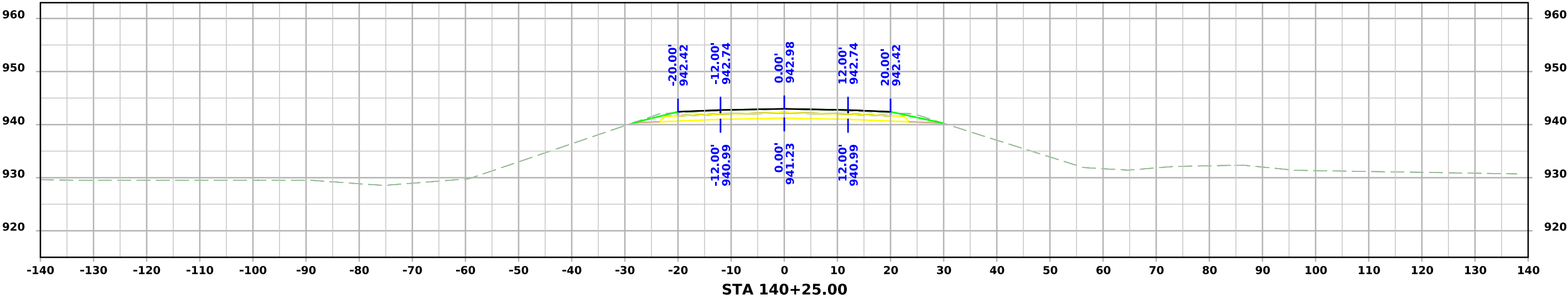
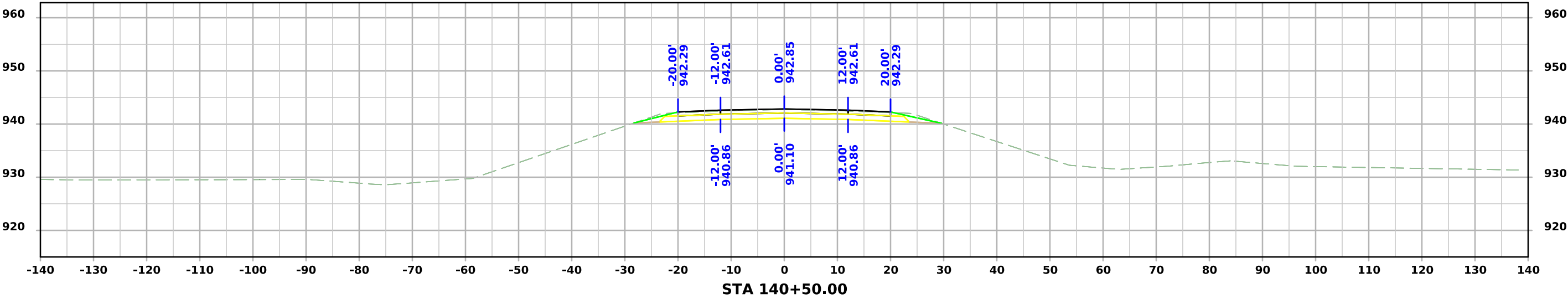




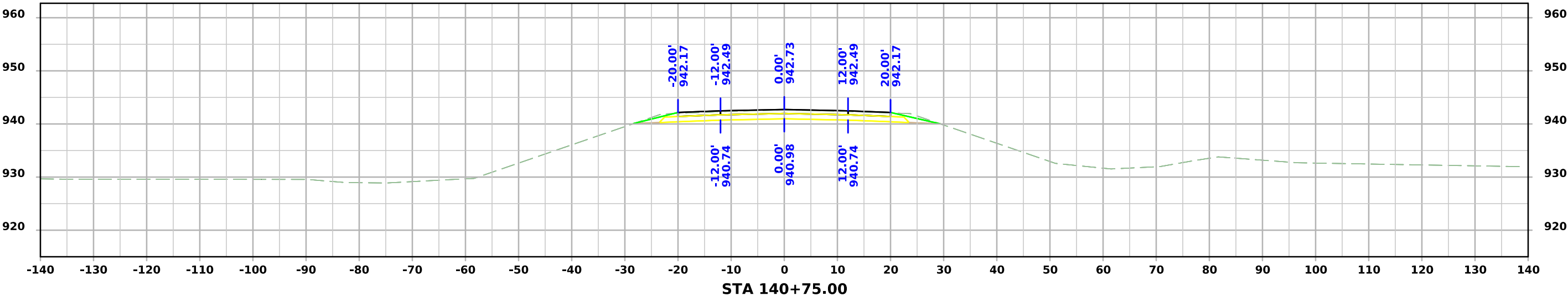
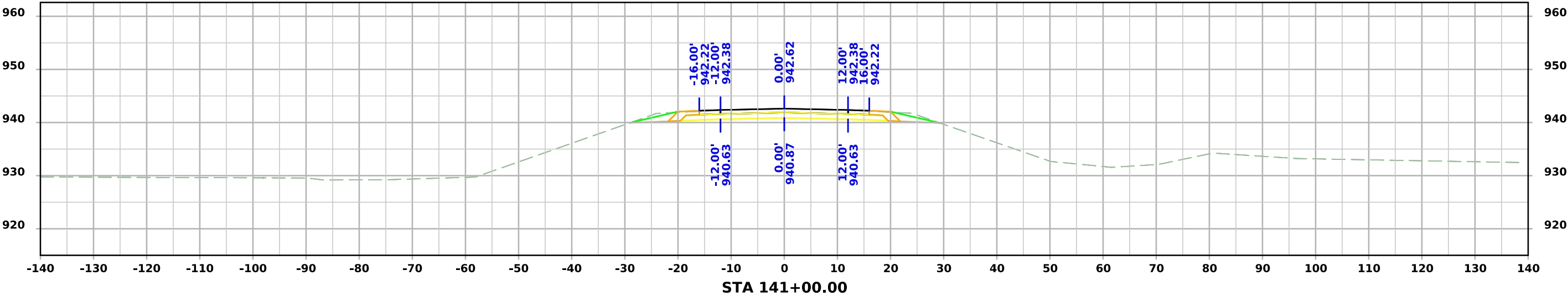




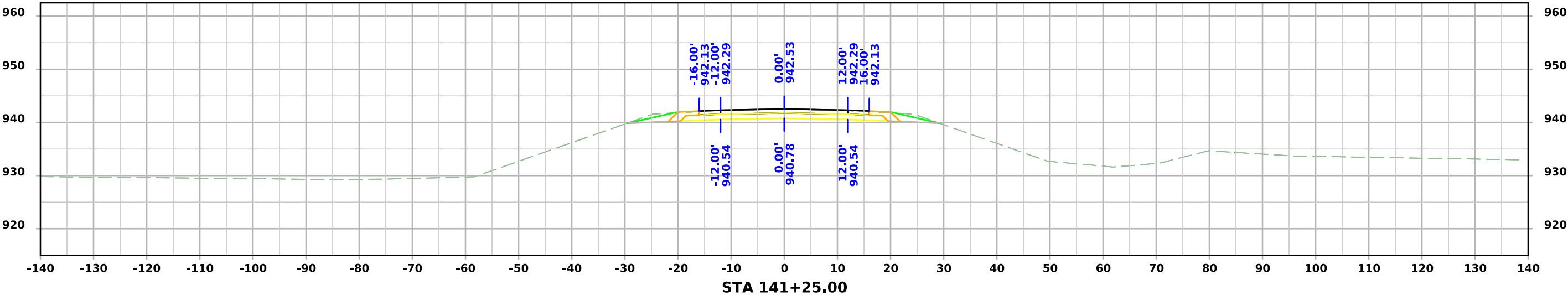
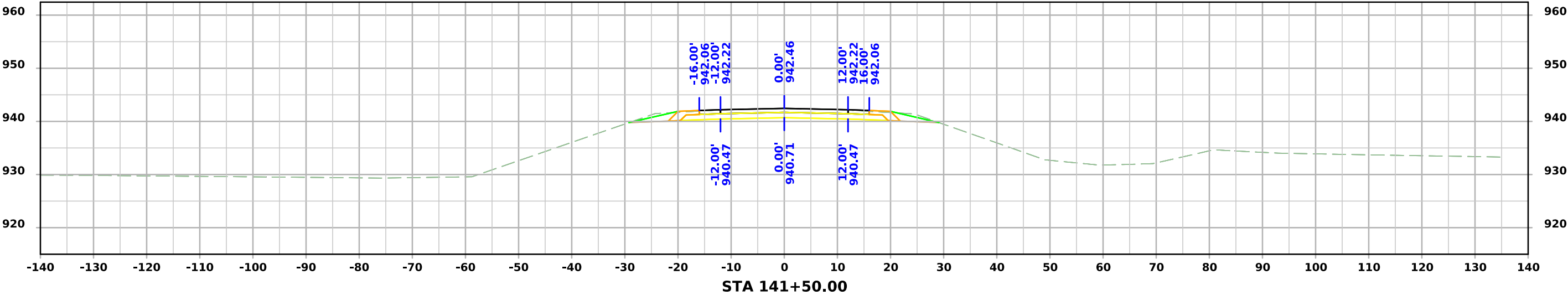
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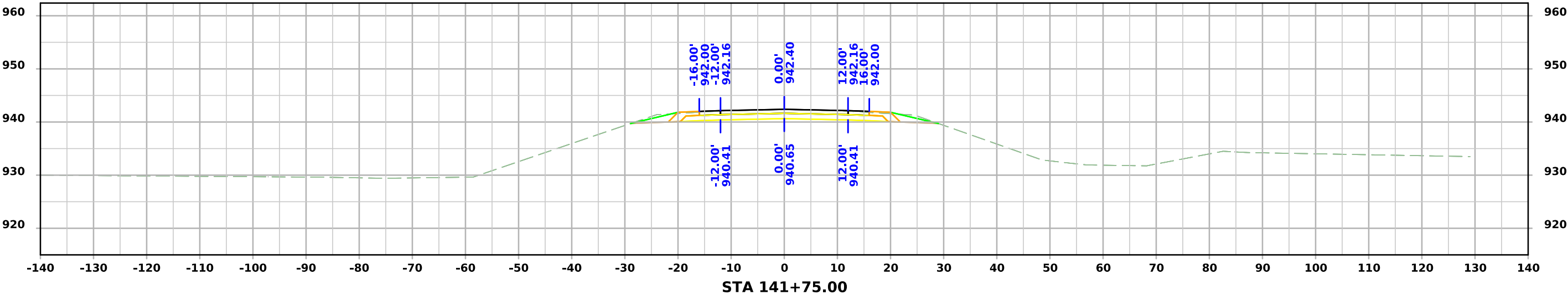
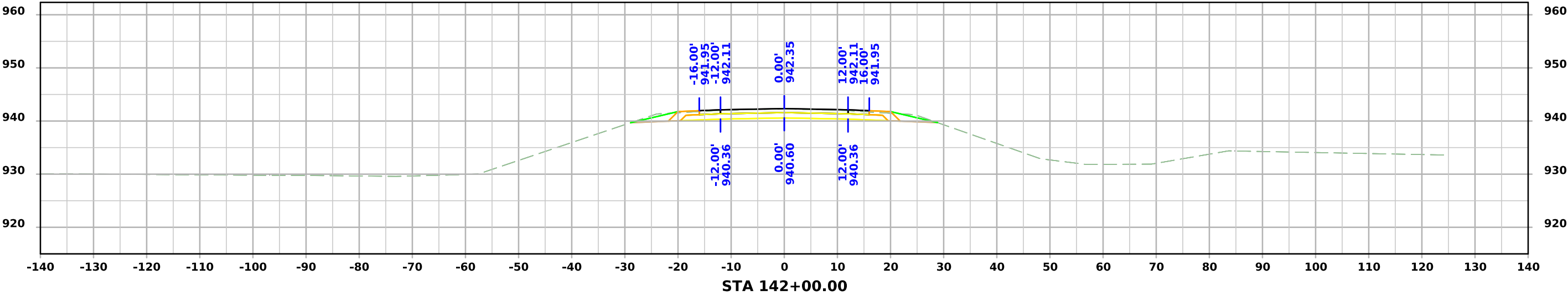
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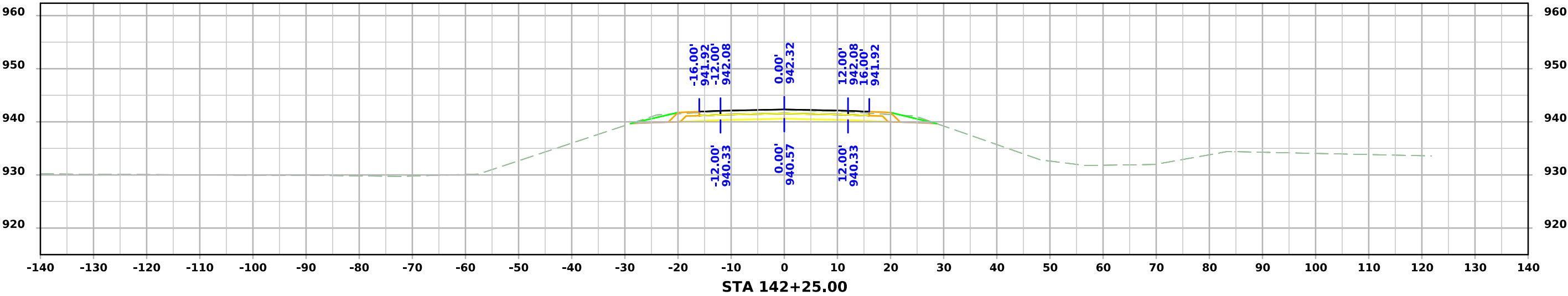
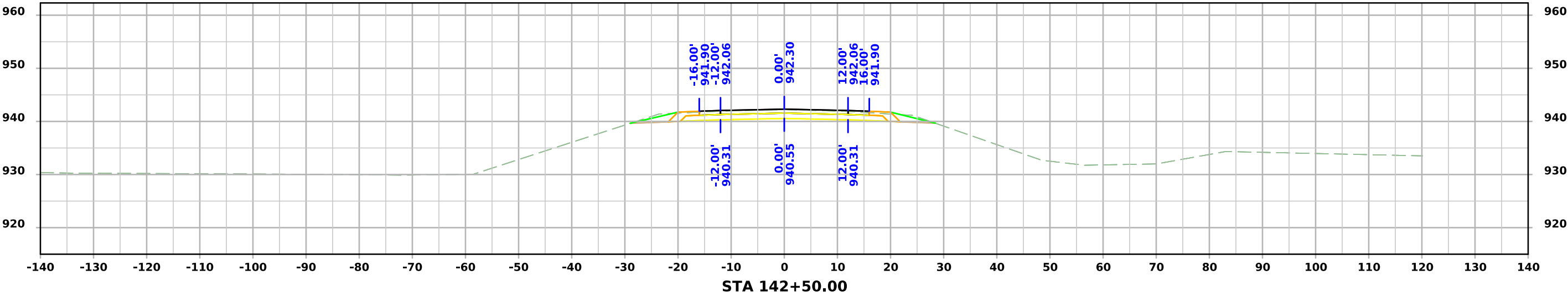
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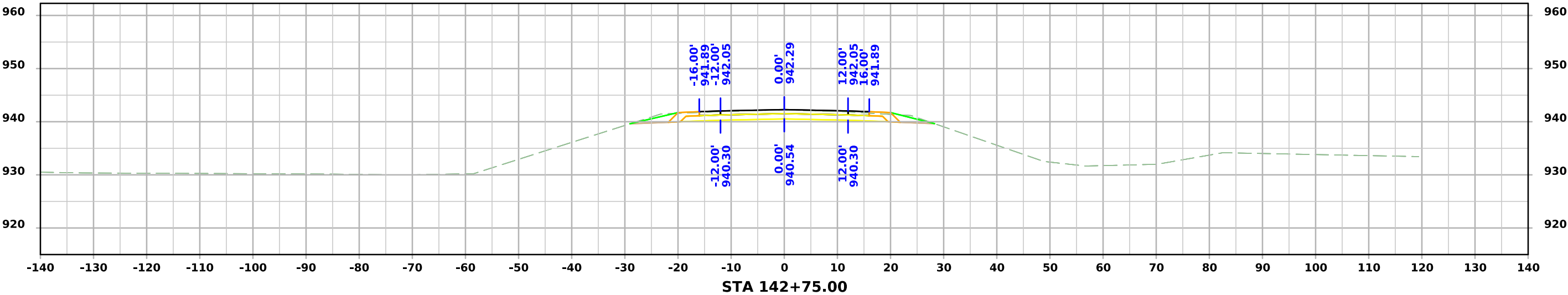
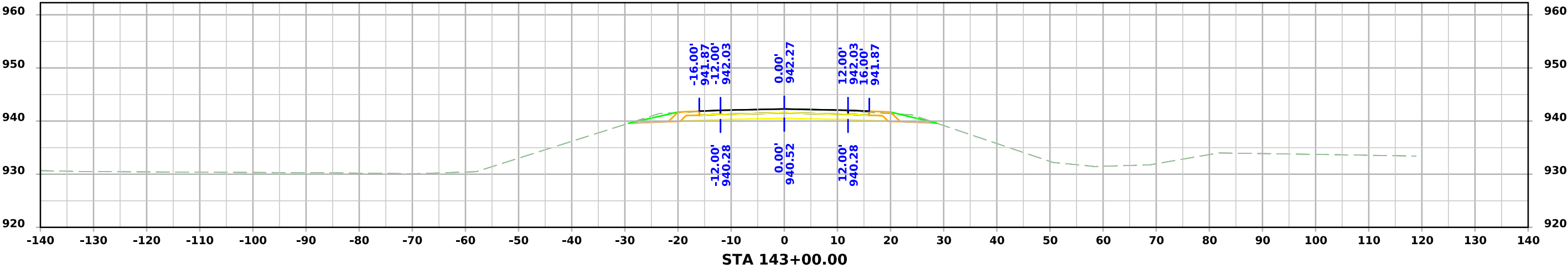
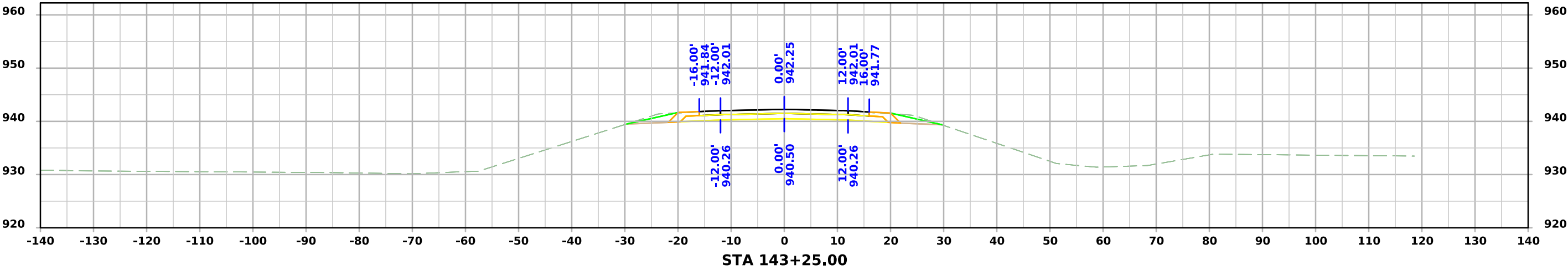
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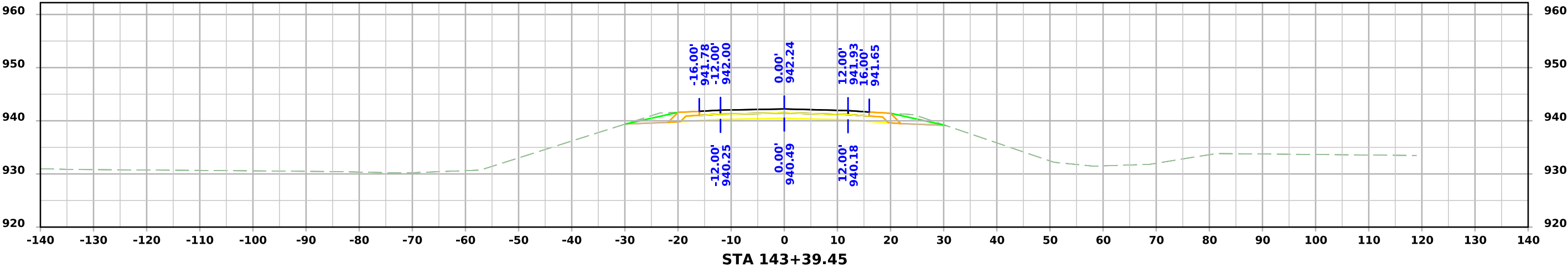
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ML - IA 2



ML - IA 2



ML - ENT

