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PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
STORY COUNTY
PCC Pavement - Grade and New

IA 210 Intersection

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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



Preliminary Earthwork:

Cut = 11,500 CY
Fill + 30% shrink = 15,000 CY

US 69 DESIGN DATA RURAL			
2028	AADT	5,440	V.P.D.
2048	AADT	6,887	V.P.D.
2048	DHV	711	V.P.H.
TRUCKS		2	%
Total Design ESALs		-	

INDEX OF SEALS			
SHEET NO.	NAME	TYPE	BID QUANTITY SHEETS
A.1	Angela K. Johnson	Primary Signature Block	

PRELIMINARY PLANS

Subject to change by final design.

D2 PLAN - Date: 10/2/2025

FINAL PROJECT CONCEPT STATEMENT
U.S. 69 and IA 210 intersection in Story County

HSIPX-069-5(132)--3L-85
PIN: 25-85-069-010

Donna Matulac, PE
District 1 Office
November 4, 2024

I. STUDY AREA

- A. Project Description

The intersection of US 69 and IA 210 is a 4-way stop controlled intersection with a single through lane from each direction. Northbound and southbound US 69 also have dedicated right turn lanes. All four approaches to this intersection are currently posted with a 55 mph speed limit.
- B. Need for Project

This project has been identified as a safety improvement project for this intersection. The current 4-way stop intersection has some operational concerns based on the traffic volumes in this area. The attached document represents the current access points within the US 69 corridor from Ankeny to Huxley which includes this project and is the start of a corridor access management plan for the corridor.



Figure 1: Project Location

- C. Traffic Estimates

2023 ADT as follows:

1.US 69 north leg – 7800 ADT with 2.28% trucks

2.US 69 south leg – 5100 ADT with 2.02% trucks

3.IA 210 west leg – 4920 ADT with 2.91% trucks

4.IA 210 east leg – 5500 ADT with 6.16% trucks
- D. Access Control

Access rights may be acquired with this project.
- E. Crash History

During the five-year study period from 2019 through 2024, to date, there were 15 crashes within the project area. 4 of the 15 crashes were ran stop sign crashes and 4 were failed to yield the ROW.

The following is the Potential for Crash Reduction (PCR) information from 2016-2020:

Category: All Way Stop Control

PCR Level Severe Crashes: Negligible PCR – near zero

Category Ranking All Way Stop Control: 50 out of 5,616

Statewide Ranking Category: 3,191 out of 115,309

II. PROJECT CONCEPT

- A. Feasible Alternative

1. It is proposed to construct a new roundabout at the US 69 and IA 210 intersection. The roundabout will need to be offset slightly to the west to avoid impacts to the cemetery in the NE quadrant of the intersection. Traffic will be maintained during construction on US 69 and potential detour for IA 210.

Estimated Project Cost

PCC Pavement	\$ 800,000
Granular Subbase	\$ 260,000
Paved Shoulder, PCC, 8"	\$ 16,000
Special Backfill	\$ 12,000
Earth Shoulder Construction	\$ 11,000
Excavation, Class 10, Roadway and Borrow	\$ 60,000

Story County		HSIPX-069-5(132)--3L-85	25-85-069-010	Story County		HSIPX-069-5(132)--3L-85	25-85-069-010																																																																																																									
Drainage\$ 250,000 Topsoil, Strip Salvage and Spread\$ 260,000 Traffic Control\$ 30,000 Mobilization\$ 120,000 Contingency – 20%\$410,000 Right-of-Way\$200,000 Total Estimated Project Costs\$2,254,000				G. Project Schedule - Proposed: <table><tr><th>Task Name</th><th>Description</th><th>Finish</th></tr><tr><td>D00</td><td>Pre-Design Concept</td><td>11/01/2024</td></tr><tr><td>TE0</td><td>Desktop Review</td><td>12/06/2024</td></tr><tr><td>U00</td><td>Preliminary Utility Review</td><td>12/06/2024</td></tr><tr><td>W00</td><td>Preliminary Wetland Review</td><td>12/06/2024</td></tr><tr><td>D01</td><td>Survey Plan and Photogrammetry (DTM)</td><td>03/07/2025</td></tr><tr><td>T01</td><td>Existing ROW, Property and Sections Lines in CADD</td><td>04/18/2025</td></tr><tr><td>D02</td><td>Design Field Exam</td><td>06/06/2025</td></tr><tr><td>H00</td><td>Cultural Resources Assessment</td><td>07/11/2025</td></tr><tr><td>H06</td><td>SHPO-State Historic Preservation Officer</td><td>07/11/2025</td></tr><tr><td>D03</td><td>Plans for Preliminary Bridge</td><td>07/18/2025</td></tr><tr><td>NE10</td><td>PCE</td><td>07/25/2025</td></tr><tr><td>U02</td><td>Project Notification to Utilities</td><td>10/03/2025</td></tr><tr><td>B02</td><td>Drainage Design and Miscellaneous Layout to Office of Design</td><td>10/17/2025</td></tr><tr><td>D05</td><td>Plans to Right Of Way</td><td>11/21/2025</td></tr><tr><td>F03</td><td>Final Regulated Materials Review</td><td>12/19/2025</td></tr><tr><td>R01</td><td>Right Of Way Layout</td><td>02/20/2026</td></tr><tr><td>R00</td><td>Plot Plans and Summary Sheets to District</td><td>02/20/2026</td></tr><tr><td>P09</td><td>Public Information Meeting (PIM)</td><td>04/22/2026</td></tr><tr><td>T02</td><td>Acquisition Plats and Legal Descriptions</td><td>06/19/2026</td></tr><tr><td>U03</td><td>1st Plan Submittal to Utilities</td><td>06/19/2026</td></tr><tr><td>R02</td><td>Right Of Way Appraisal</td><td>09/18/2026</td></tr><tr><td>R03</td><td>Right Of Way Negotiation</td><td>12/18/2026</td></tr><tr><td>S03</td><td>Soils Design Complete</td><td>03/05/2027</td></tr><tr><td>U04</td><td>2nd Plan Submittal to Utilities</td><td>04/08/2027</td></tr><tr><td>A01</td><td>Approval of DOT Commission - Inclusion in 5-Year Program</td><td>06/08/2027</td></tr><tr><td>R04</td><td>Right of Way Acquisition</td><td>06/18/2027</td></tr><tr><td>R10</td><td>ROW Clearance</td><td>06/18/2027</td></tr><tr><td>U06</td><td>Notice to Proceed Utilities</td><td>07/07/2027</td></tr><tr><td>DM5</td><td>Design Methods Turn-In</td><td>08/31/2027</td></tr><tr><td>U07</td><td>Utility Bid Attachment</td><td>10/05/2027</td></tr><tr><td>U10</td><td>Utility Clearance</td><td>10/05/2027</td></tr><tr><td>D08</td><td>Final Grade and Pave Plans</td><td>10/05/2027</td></tr><tr><td>L03</td><td>Letting-Combination Grade and Pave</td><td>12/21/2027</td></tr><tr><td>C02</td><td>Construction Period (Field Work)</td><td>11/19/2028</td></tr></table>				Task Name	Description	Finish	D00	Pre-Design Concept	11/01/2024	TE0	Desktop Review	12/06/2024	U00	Preliminary Utility Review	12/06/2024	W00	Preliminary Wetland Review	12/06/2024	D01	Survey Plan and Photogrammetry (DTM)	03/07/2025	T01	Existing ROW, Property and Sections Lines in CADD	04/18/2025	D02	Design Field Exam	06/06/2025	H00	Cultural Resources Assessment	07/11/2025	H06	SHPO-State Historic Preservation Officer	07/11/2025	D03	Plans for Preliminary Bridge	07/18/2025	NE10	PCE	07/25/2025	U02	Project Notification to Utilities	10/03/2025	B02	Drainage Design and Miscellaneous Layout to Office of Design	10/17/2025	D05	Plans to Right Of Way	11/21/2025	F03	Final Regulated Materials Review	12/19/2025	R01	Right Of Way Layout	02/20/2026	R00	Plot Plans and Summary Sheets to District	02/20/2026	P09	Public Information Meeting (PIM)	04/22/2026	T02	Acquisition Plats and Legal Descriptions	06/19/2026	U03	1st Plan Submittal to Utilities	06/19/2026	R02	Right Of Way Appraisal	09/18/2026	R03	Right Of Way Negotiation	12/18/2026	S03	Soils Design Complete	03/05/2027	U04	2nd Plan Submittal to Utilities	04/08/2027	A01	Approval of DOT Commission - Inclusion in 5-Year Program	06/08/2027	R04	Right of Way Acquisition	06/18/2027	R10	ROW Clearance	06/18/2027	U06	Notice to Proceed Utilities	07/07/2027	DM5	Design Methods Turn-In	08/31/2027	U07	Utility Bid Attachment	10/05/2027	U10	Utility Clearance	10/05/2027	D08	Final Grade and Pave Plans	10/05/2027	L03	Letting-Combination Grade and Pave	12/21/2027	C02	Construction Period (Field Work)	11/19/2028
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B. Detour Analysis A minimum of one lane of US 69 will always remain open to traffic. IA 210 may be detoured during construction dependent upon how the staging is designed.																																																																																																																
C. Construction Sequence It is anticipated that all work on this project will be awarded to one prime contractor.																																																																																																																
D. ADA Accommodations There are no ADA facilities within the limits of this projects, and no new facilities will be added with this project.																																																																																																																
E. Special Considerations This will be a traffic critical project. No railroads exist within the limits of this project. Right of Way will be required for this project.																																																																																																																
F. Program Status The cost of the proposed improvements is estimated at \$2,540,000. It is proposed to fund the cost of the project with District 1 HSIP funds in FY 2028. This project will need right of way.				Cc: T. Gustafson K. D. Nicholson M. Carlson K. Brink J. W. Laaser-Webb E. C. Wright J. Harris B. D. Hofer S. Anderson J. Ellis A. Martin C. Purcell M. Dell M. A. Swenson D. L. Newell W. A. Sorenson M. E. Ross C. C. Poole D. Stokes K. Patel C. Brakke J. Bartholomew M. J. Kennerly J. S. Nelson T. Cogdill K. Olson D. E. Sprengeler A. A. Welch B. E. Azeltine H. Naraghi R. Harris T. Nicholson N. Cuva																																																																																																												
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Roadway	US 69 & IA 210			
PIN Number	25-85-069-010		Submittal Date	
Project Number	HSIPX-069-5(132)--3L-85			
District	District 1	Assistant District Engineer		Jeremy Vortherms
County	STORY	or		
Route	69	Office Director		Kent Nicholson
Location	IA 210 Intersection			
Work Type	PCC Pavement - Grade and New			
Segment Manager	Paul Flattery			
Designer	Angela Johnson			

Rural Two-Lane Highways (Rural Arterials)				
Design Manual Section 1C-1 Last Updated: 04-29-19				
Design speed (mph)	Design Element	Preferred	Acceptable	Project Values
		60	50	50 Approaching 25 @ Roundabout
Maximum superelevation rate (Refer to Section 2A-2)		6%	8%	6
Design lane width (ft)		12	12	12'
Full depth paved width (ft)		12	12	12'
Right turn lane (ft)		12	10	N/A
Climbing Lane (ft)		12	12	N/A
Left turn lane (ft)		12	10	N/A
Pavement cross-slope (on tangent sections)	Through lanes Auxiliary and turn lanes Crown break at centerline	2% 3% 4%	1.5% minimum, 2% maximum 3% maximum 4% maximum	2% N/A 4%
Shoulder cross-slope (on tangent sections)		4%	Shoulder cross-slope cannot be less than the adjacent lane, 6% max for paved or granular shoulders, 8% max for earth shoulders	4%
Curb type (Refer to Section 3C-2)	Design speed = 50 or 55 mph Design speed ≥ 60 mph	6-inch sloped 4-inch sloped	6-inch standard 6-inch sloped	6" Standard
Foreslope (For fill areas greater than 40 ft, contact the Soils Design Section for assistance)	Adjacent to shoulder Beyond standard ditch depth and design clear zone Curbed roadways	10:1 for 4' then 6:1 3.5:1 2%	3:1 3:1 not steeper than 3:1	4:1 4:1 4:1
Backslope (For cut areas greater than 25 feet, contact the Soils Design Section for assistance with backslope benches.)		3:1	2.5:1	3:1
Transverse Slopes	w/ drainage structures w/o drainage structures	8:1 10:1	6:1 6:1	8:1 10:1
Ditches (Refer to Section 3G-1)	Outside ditch (depth x width) (ft)	5 x 10	--	5 x 10
Bridge width—new*	design lane widths + effective shoulder widths design lane widths + effective shoulder widths design lane widths + no less than 2 ft left and right		design lane widths + effective shoulder widths design lane width + 4' right and left of the design lane widths design lane widths + 2 ft. offset left and right	N/A N/A N/A
Bridge width—existing*				
Vertical clearance (ft) (above lanes, shoulders and 25 feet left and right of the center of railroad tracks)	Over primary Over non-primary Over railroad Sign trusses and pedestrian bridges	16.5 23.3 17.5	16 14 23.3 17	N/A N/A N/A N/A
Structural Capacity	Contact Office of Bridges and Structures		Contact Office of Bridges and Structures	N/A
Level of Service	B		B	
*FHWA notification via email is required if acceptable criteria is not met on the NHS system (No formal design exception is required)				

Roadway Design Speed (mph) = 50													
Design Manual Section 1C-1 Last Updated: 04-29-19													
Design Element		Design Criteria for High Speed Roadways											
		Preferred Criteria					Acceptable Criteria						
		Design Speed, mph					Design Speed, mph						
Stopping sight distance (ft) (Refer to Section 6D-1)		50	55	60	65	70	75	50	55	60	65	70	75
		425	495	570	645	730	820	425	495	570	645	730	820
Minimum horizontal curve radius (ft)		833	1060	1330	1660	2040	2500	833	1060	1330	1660	2040	2500
Minimum vertical curve length (ft) (Refer to Sections 2A-2 and 2A-3)		--	--	--	--	--	--	758	960	1200	1480	1810	2210
Minimum rate of vertical curvature (K)		150	165	180	195	210	225	150	165	180	195	210	225
(Refer to Section 2B-1)		84	114	151	193	247	312	84	114	151	193	247	312
		96	115	136	157	181	206	96	115	136	157	181	206
Minimum gradient (%)		96	115	136	157	181	206	54	66	78	91	106	121
Maximum gradient (%)		0.5					0.3% with a curb, 0.0% without a curb						
Clear zone		4		3			See "Acceptable Clear Zone" table in Section 8A-2						
Urban roadways							7 6 6 -- --						
Rural roadways							5 5 4 4 4 4 4						
Interstates							5 5 4 4 4 4 4						
Project Values		See "Acceptable Clear Zone" table in Section 8A-2											

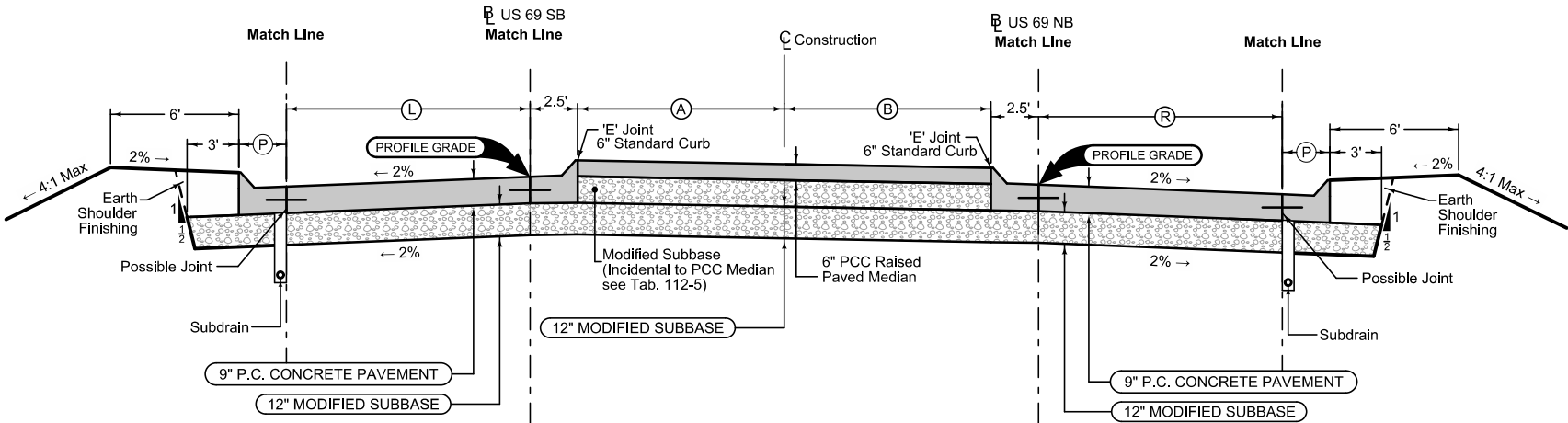
Roadway Design Speed (mph) =		20						
Design Manual Section 1C-1 Last Updated: 04-29-19								
Design Element		Preferred Criteria			Acceptable Criteria			Project Values
		Design Speed, mph			Design Speed, mph			
		25	30	35	40	45	50	
Stopping sight distance (ft) (Refer to Section 6D-1)		144	231	340	485	643	833	1050
Minimum horizontal curve radius (ft) and superelevation rate (Refer to Sections 2A-2 and 2A-3)		--	--	--	--	--	--	833
Minimum vertical curve length (ft) (Refer to Section 2B-1)		75	90	105	120	135	150	175
Minimum rate of vertical curvature (K)		12	19	29	44	61	83	110
(Refer to Section 2B-1)		roadways without fixed-source lighting		roadways with fixed-source lighting		roadways with fixed-source lighting		26
		roadways without fixed-source lighting		roadways with fixed-source lighting		roadways with fixed-source lighting		26
Minimum gradient (%) (Refer to Section 2B-1)		0.5			0.3% with a curb, 0.0% without a curb			0.5
Maximum gradient (%) (Refer to Section 2B-1)		5			8			5
Clear zone		See "Preferred Clear Zone" table in Section 8A-2			See "Acceptable Clear Zone" table in Section 8A-2			28'

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of
curb to nearest joint is less than 15':

Single pour: L-2
Staged : KT-2
Transverse: CD refer to L sheets for spacing

2_Curb_04-21-20				
CHAIN NAME	STATION TO STATION		(P) Feet	Curb Type See PV-102
ML069SB_S	251+01.98	251+98.00	2.5	6" Standard
Roundabout Circle				
ML069SB_N	253+34.58	254+21.06	2.5	6" Standard
ML069SB_N	254+21.06	254+95.82	2.5-10	6" Standard



Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of
curb to nearest joint is less than 15':

Single pour: L-2
Staged : KT-2
Transverse: CD refer to L sheets for spacing

2_Curb_04-21-20				
CHAIN NAME	STATION TO STATION		(P) Feet	Curb Type See PV-102
ML069NB_S	150+42.91	151+17.72	10-2.5	6" Standard
ML069NB_S	151+17.72	151+94.14	2.5	6" Standard
Roundabout Circle				
ML069NB_N	153+29.26	154+25.82	2.5	6" Standard

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

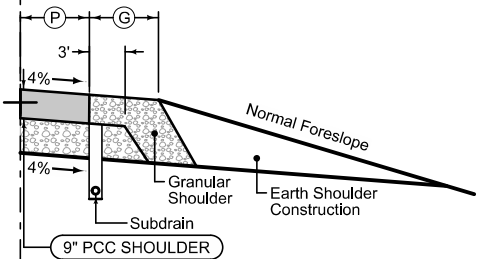
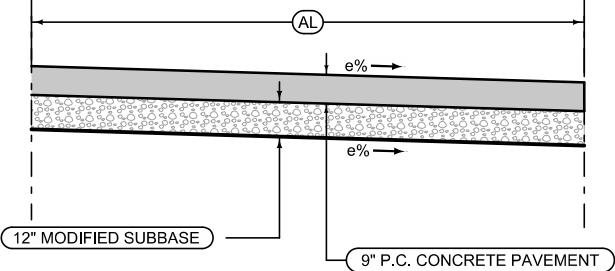
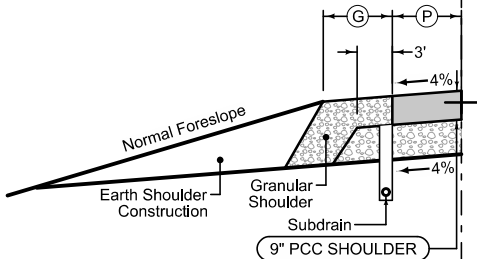
CHAIN NAME	BEGIN STATION	END STATION	(L) Feet
ML069SB_S	246+85.79	251+01.98	12
ML069SB_S	251+01.98	251+98.00	12-19.7
Roundabout Circle			
ML069SB_N	253+34.58	254+21.06	19.5-12
ML069SB_N	254+21.06	258+37.66	12

Median

4DP_Raised_Out_04-21-20				
CHAIN NAME	BEGIN STATION	END STATION	(A) Feet	(B) Feet
ML069	48+88.17	51+87.40	Vari.	Vari.
Roundabout Circle				
ML069	53+38.35	56+56.25	Vari.	Vari.

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

CHAIN NAME	BEGIN STATION	END STATION	(R) Feet
ML069NB_S	146+85.79	151+17.72	12
ML069NB_S	151+17.72	151+94.14	12-19.4
Roundabout Circle			
ML069NB_N	153+29.26	154+25.82	21.9-12
ML069NB_N	154+25.82	158+37.66	12



Full Depth PCC Combination Shoulder

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

2_C_FullPCC_04-20-21				
CHAIN NAME	STATION TO STATION		(P) Feet	(G) Feet
ML069SB_S	246+85.79	251+01.98	6	4
ML069SB_N	254+95.82	255+05.71	10	0
ML069SB_N	255+05.71	255+20.54	10-6	0-4
ML069SB_N	255+20.54	258+37.66	6	4
ML069	58+37.66	60+28.33	6	4
ML069	60+28.33	60+53.33	0	4-8.3

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

CHAIN NAME	STATION TO STATION		(AL) Feet
ML069	46+85.79	47+10.79	0
ML069	47+10.79	48+88.17	0-8.8
ML069	56+56.25	58+37.66	8.8-0

Full Depth PCC Combination Shoulder

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

2_C_FullIPCC_04-20-21				
CHAIN NAME	STATION TO STATION		(P) Feet	(G) Feet
ML069NB_S	146+85.79	150+18.19	6	4
ML069NB_S	150+18.19	150+33.03	6-10	4-0
ML069NB_S	150+33.03	150+42.91	10	0
ML069NB_N	154+25.82	158+37.66	6	4

See Tab 100-24 or 100-25 for pavement quantities.
See Tab 112-9 for shoulder quantities.

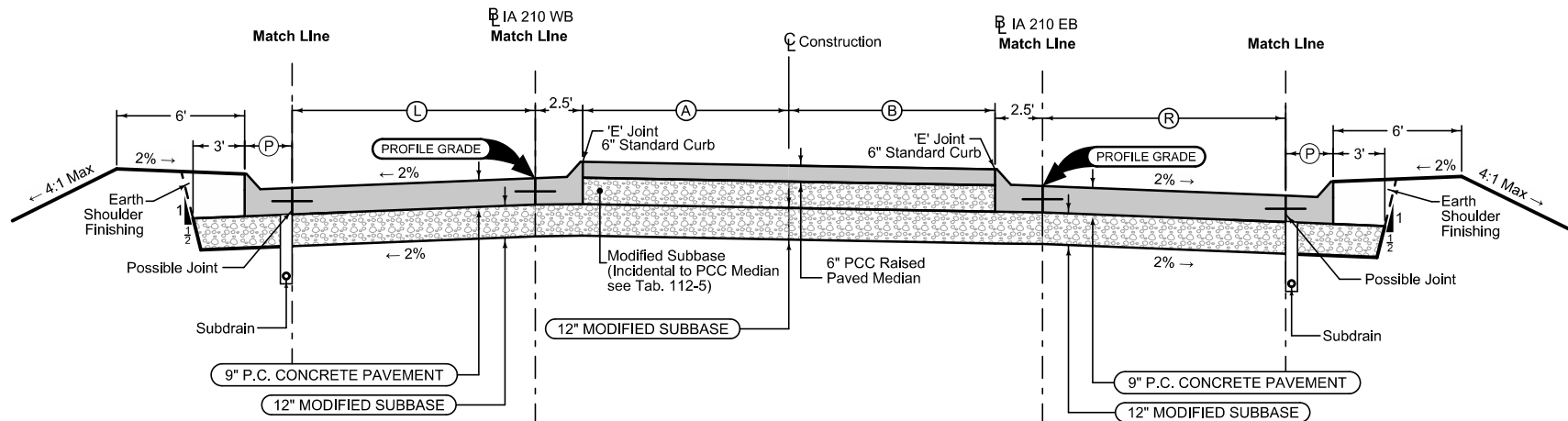
US 69

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of
curb to nearest joint is less than 15':

Single pour: L-2
Staged : KT-2
Transverse: CD refer to L sheets for spacing

2_Curb_04-21-20				
CHAIN NAME	STATION TO STATION		(P) Feet	Curb Type See PV-102
SR210WB_W	2310+81.45	2311+64.85	2.5	6" Standard
Roundabout Circle				
SR210WB_E	2312+99.97	2313+82.14	2.5	6" Standard
SR210WB_E	2313+82.14	2314+56.90	2.5-10	6" Standard



Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of
curb to nearest joint is less than 15':

Single pour: L-2
Staged : KT-2
Transverse: CD refer to L sheets for spacing

2_Curb_04-21-20				
CHAIN NAME	STATION TO STATION		(P) Feet	Curb Type See PV-102
SR210EB_W	1309+88.42	1310+63.06	10-2.5	6" Standard
SR210EB_W	1310+63.06	1311+60.10	2.5	6" Standard
Roundabout Circle				
SR210EB_E	1312+96.26	1314+03.49	2.5	6" Standard

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

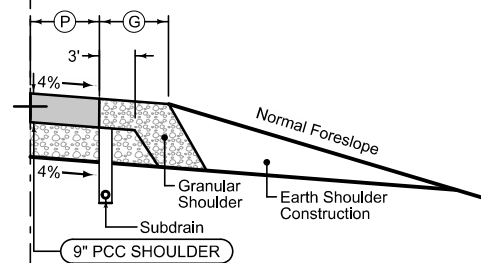
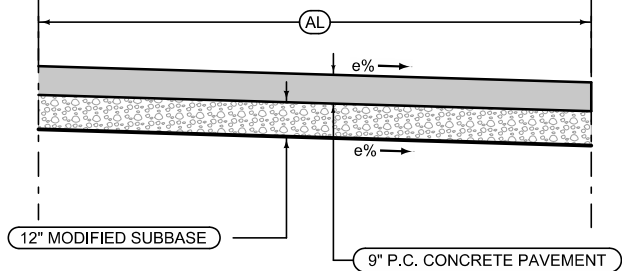
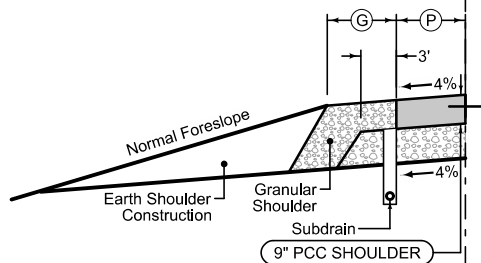
CHAIN NAME	BEGIN STATION	END STATION	(L) Feet
SR210WB_W	2306+06.62	2310+81.45	12
SR210WB_W	2310+81.45	2311+64.85	12-19
Roundabout Circle			
SR210WB_E	2312+99.97	2313+82.14	24-12
SR210WB_E	2312+82.14	2318+74.07	12

Median

4DP_Raised_Out_04-21-20				
CHAIN NAME	BEGIN STATION	END STATION	(A) Feet	(B) Feet
SR210	308+40.69	311+55.85	Vari.	Vari.
Roundabout Circle				
SR210	313+07.30	316+26.07	Vari.	Vari.

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

CHAIN NAME	BEGIN STATION	END STATION	(R) Feet
SR210EB_W	1306+06.62	1310+63.06	12
SR210EB_W	1310+63.06	1311+60.10	12-22.2
Roundabout Circle			
SR210EB_E	1312+96.26	1314+03.49	20.1-12
SR210EB_E	1314+03.49	1318+74.07	12



Full Depth PCC Combination Shoulder

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

2_C_FullPCC_04-20-21				
CHAIN NAME	STATION TO STATION		(P) Feet	(G) Feet
SR210	305+81.59	306+06.62	0	0-4
SR210WB_W	2306+06.62	2310+81.45	6	4
SR210WB_E	2314+56.90	2314+68.79	10	0
SR210WB_E	2314+66.79	2314+81.62	10-6	0-4
SR210WB_E	2314+81.62	2318+74.07	6	4
SR210	318+74.07	318+99.08	0	4-0

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

CHAIN NAME	STATION TO STATION		(AL) Feet
SR210	306+06.62	306+31.59	0
SR210	306+31.59	308+40.69	0-8.8
SR210	316+26.07	317+88.40	8.8-0
SR210	317+88.40	318+74.07	0

Full Depth PCC Combination Shoulder

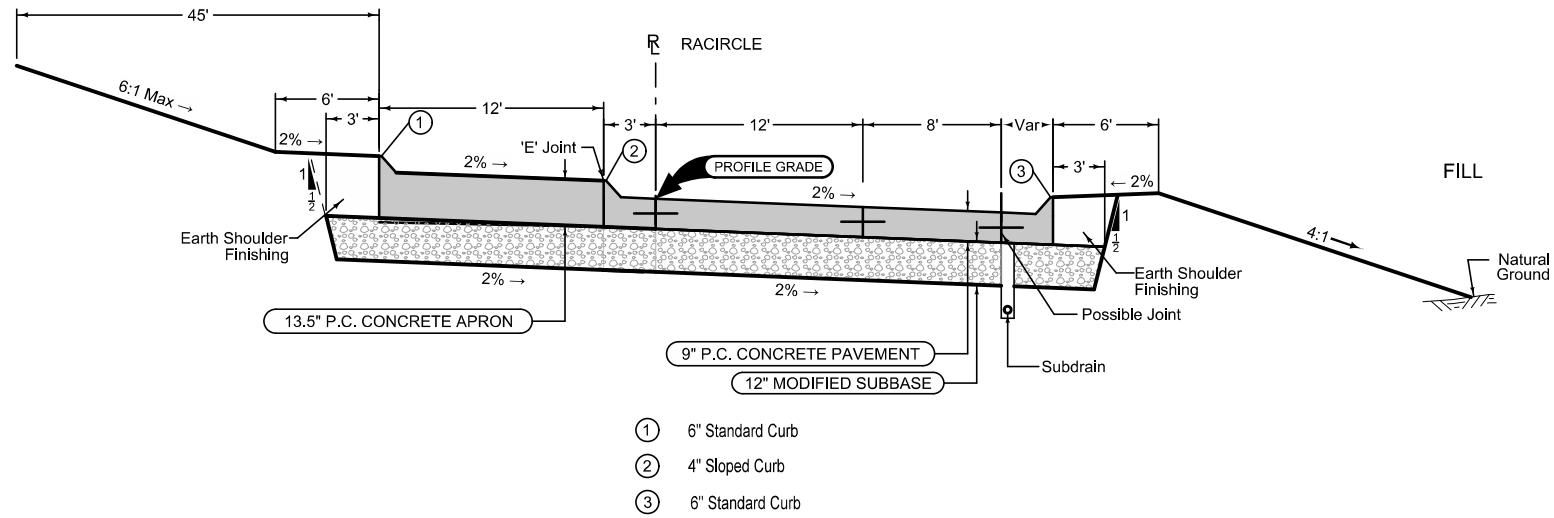
Shoulder Jointing:
Longitudinal joint: BT-2, L-2 or KT-2
Transverse joints: C at 17' spacing

2_C_FullPCC_04-20-21				
CHAIN NAME	STATION TO STATION		(P) Feet	(G) Feet
SR210	305+81.59	306+06.62	0	0-4
SR210EB_W	1306+06.62	1309+63.70	6	4
SR210EB_W	1309+63.70	1309+78.53	6-10	4-0
SR210EB_W	1309+78.53	1309+88.42	10	0
SR210EB_E	1314+03.49	1318+74.07	6	4
SR210	318+74.07	318+99.08	0	4-0

See Tab 100-24 or 100-25 for pavement quantities.

See Tab 112-9 for shoulder quantities.

IA 210

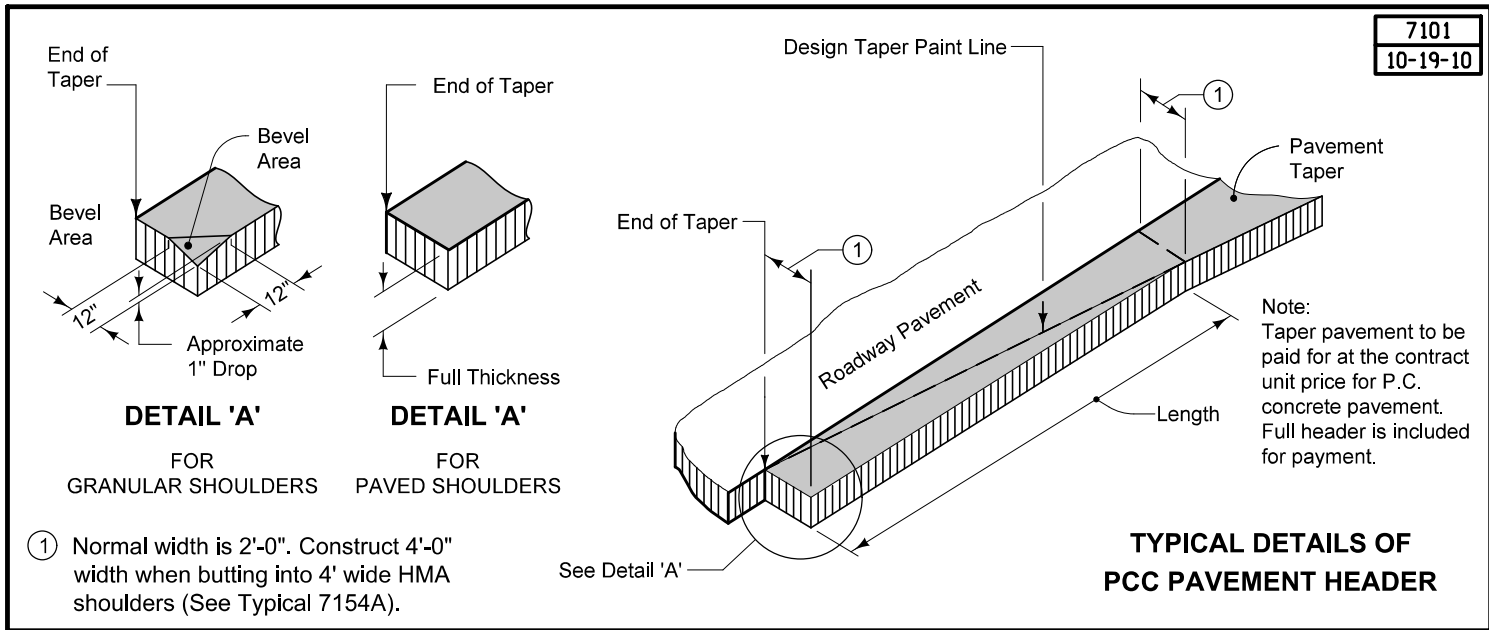
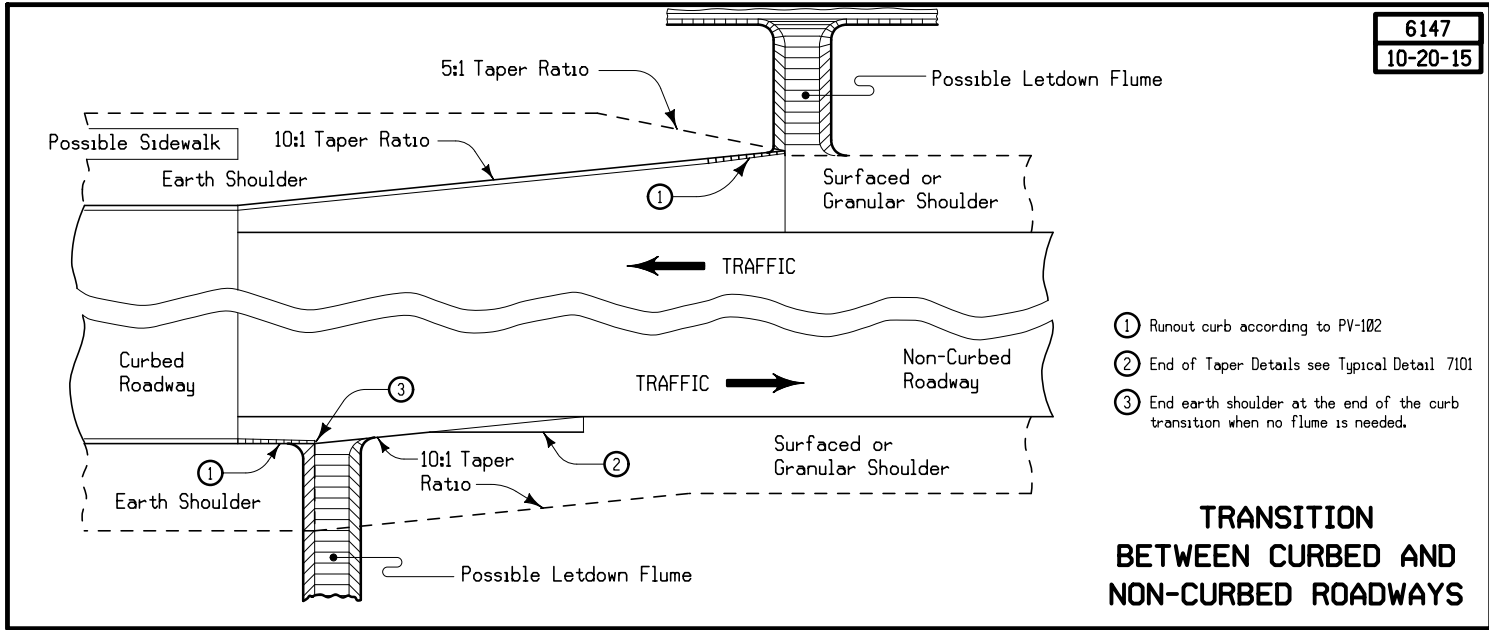


LOCATION		
ROAD IDENTIFICATION	STATION TO STATION	
RACIRCLE	0+00.00	3+45.58

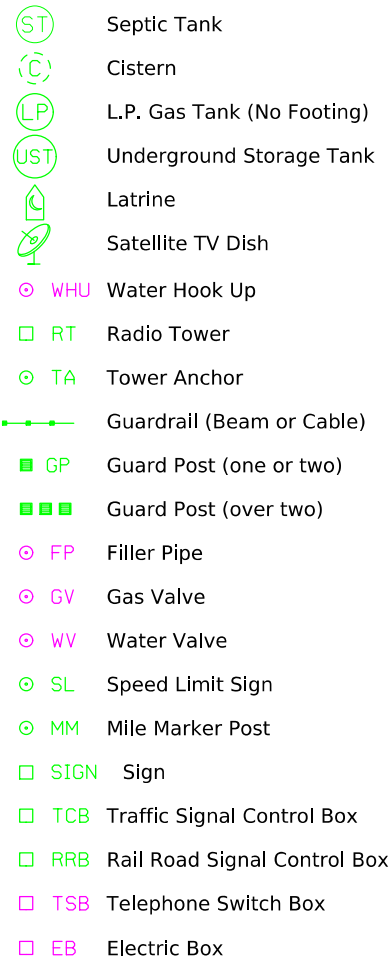
Note: See 'L' Sheets for Jointing Layout

See Tab 100-24 or 100-25 for pavement quantities.
See Tab 112-9 for shoulder quantities.

Roundabout



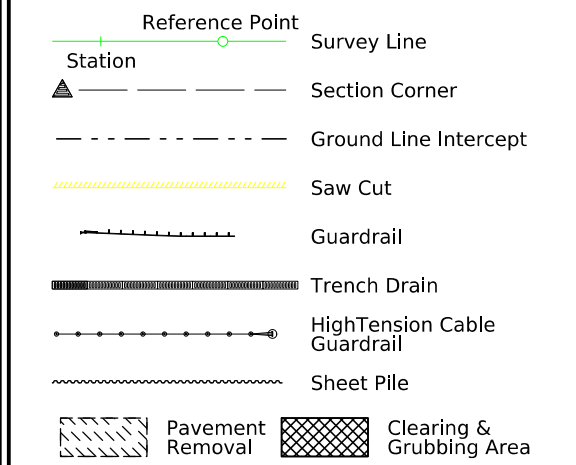
	Interstate Highway Symbol
	U.S. Highway Symbol
	Iowa Highway Symbol
	County Road Highway Symbol
	Evergreen Tree
	Deciduous Tree
	Fruit Tree
	Shrub (Bushes)
	Timber
	Hedge
	Stump
	Swamp
	Rock Outcrop
	Broken Concrete
	Revetment (Rip Rap)
	Cemetery
	Grave
	Cave
	Sink Hole
	Board Fence
	Chain Link or Security Fence
	Wire Fence
	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)



W	WL1D, Xenia Rural Water - Quality D
FO	FO1D, Huxley Communications - Quality D
	PPA, Alliant Energy
E1	EL1D, Iowa Department of Transportation - Quality D
G	GL1D, Alliant Energy - Quality D
E2	EL2D, Alliant Energy - Quality D

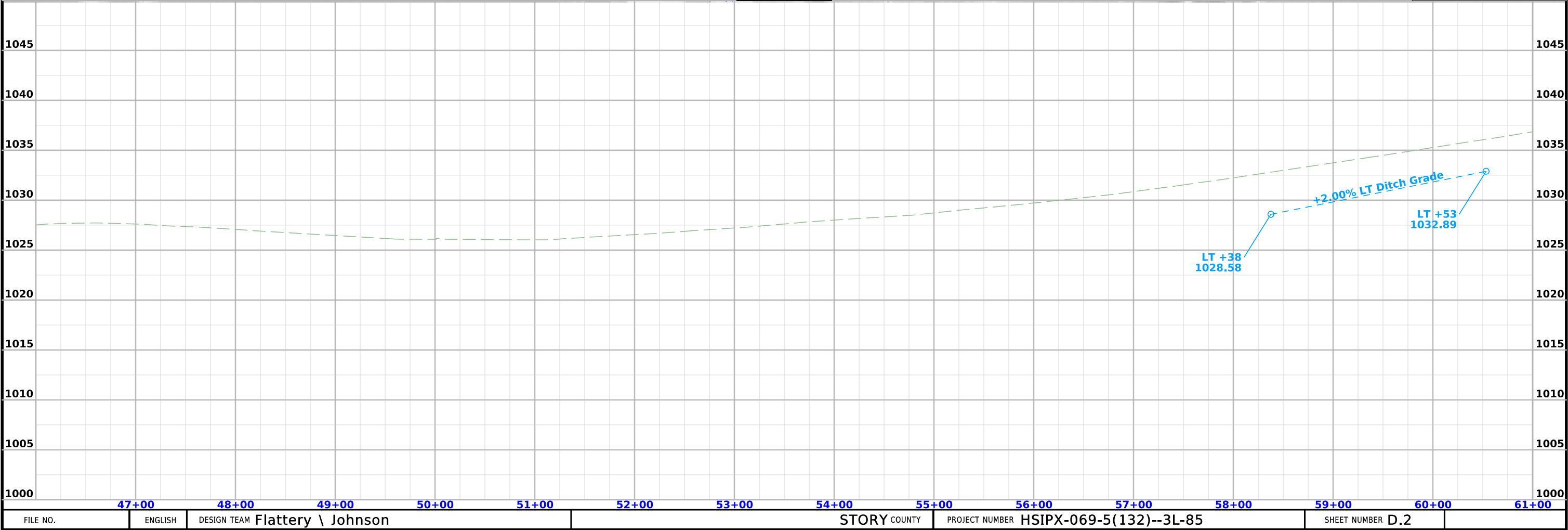
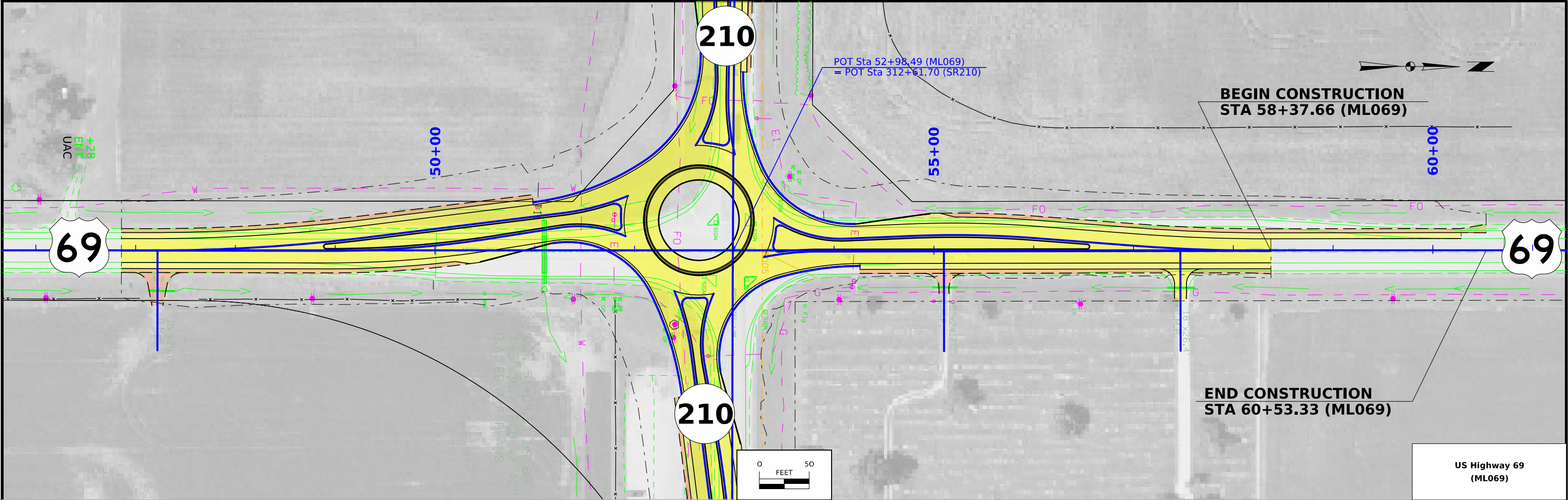
LINEWORK		Design Color No.		
Green	(2)		Existing Topographic Features and Labels	
Blue	(1)		Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation	
Magenta	(5)		Existing Utilities	
SHADING		Design Color No.		Transparency
Pink, Dark	(13)		Temporary Pavement Shading	50%
Yellow	(4)		Proposed Pavement Shading	50%
Orange	(6)		Proposed Granular Shading	50%
Orange	(70)		Proposed Shoulder Granular Shading	50%
Yellow	(68)		Proposed Shoulder Paved Full Depth Shading	50%
Yellow	(132)		Proposed Shoulder Paved Partial Depth Shading	50%
Brown, Light	(236)		Grading Shading	50%
Orange, Light	(134)		Proposed Granular Entrance Shading	50%
Yellow	(220)		Proposed Paved Entrance Shading	50%
Tan	(8)		Proposed Sidewalk Shading	50%
Blue, Light	(230)		Proposed Sidewalk Landing Shading	50%
Pink	(11)		Proposed Sidewalk Ramp Shading	50%
Red	(3)		Proposed Structure Shading	50%
Red	(3)		Delineates Restricted Areas	0%

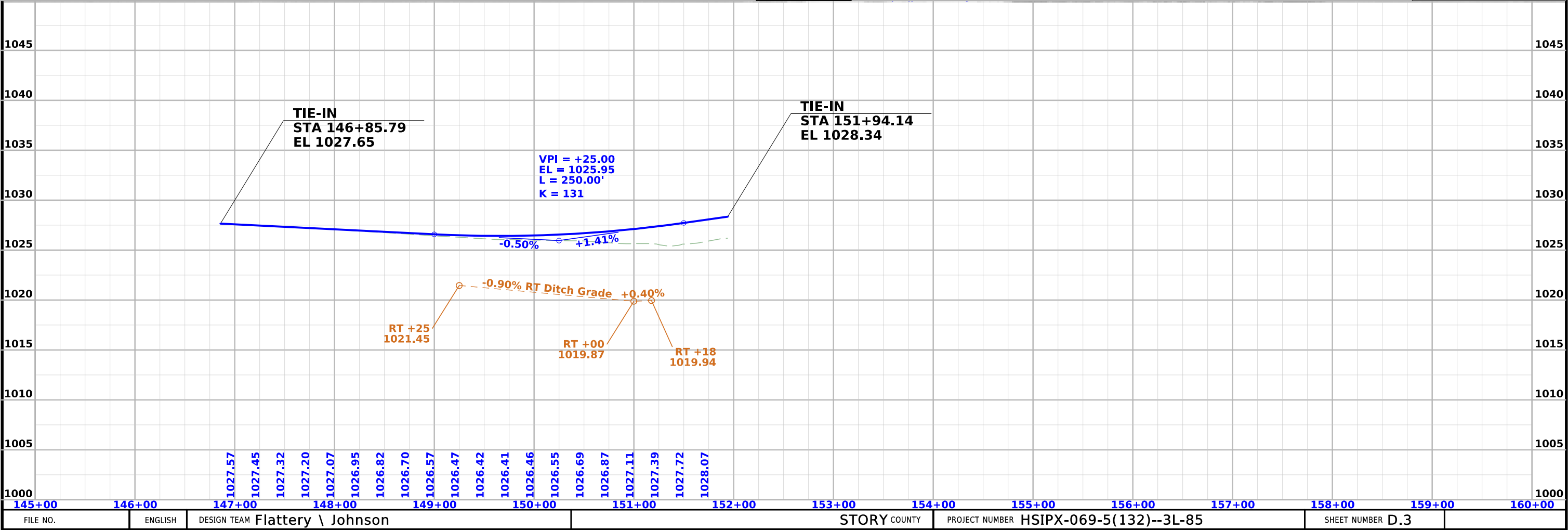
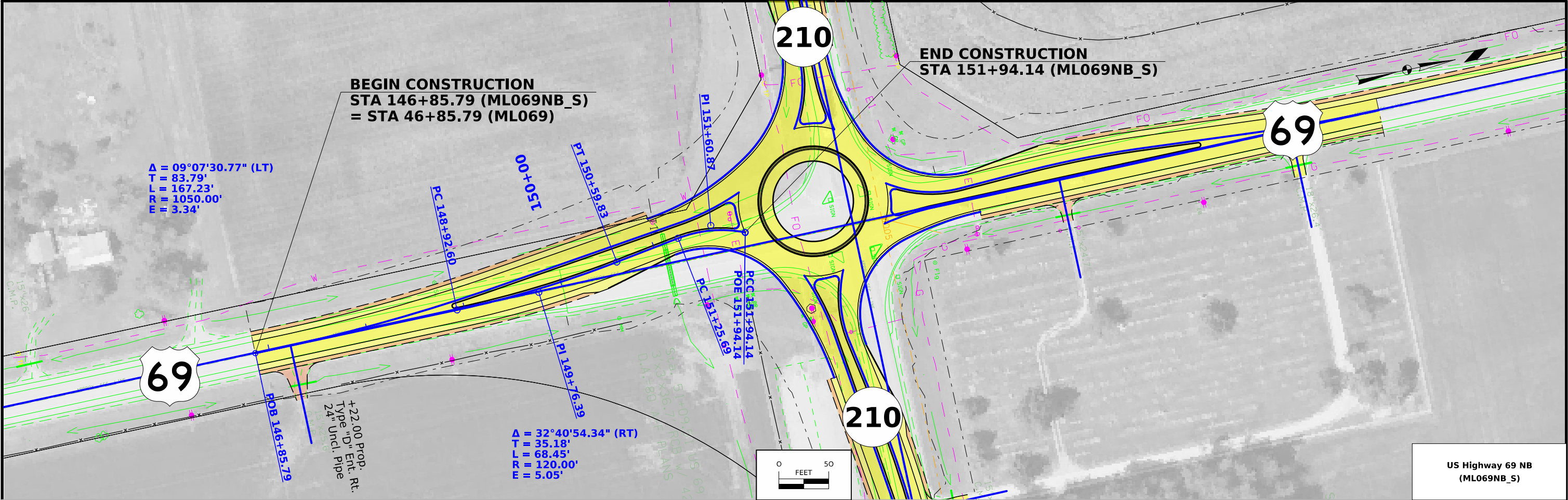
LINEWORK	Design Color No.	
Green	(10)	Existing Ground Line Profile
Blue	(1)	Proposed Profile and Annotation
Magenta	(5)	Existing Utilities
Blue, Light	(230)	Proposed Ditch Grades, Left
Black	(0)	Proposed Ditch Grades, Median
Rust	(14)	Proposed Ditch Grades, Right

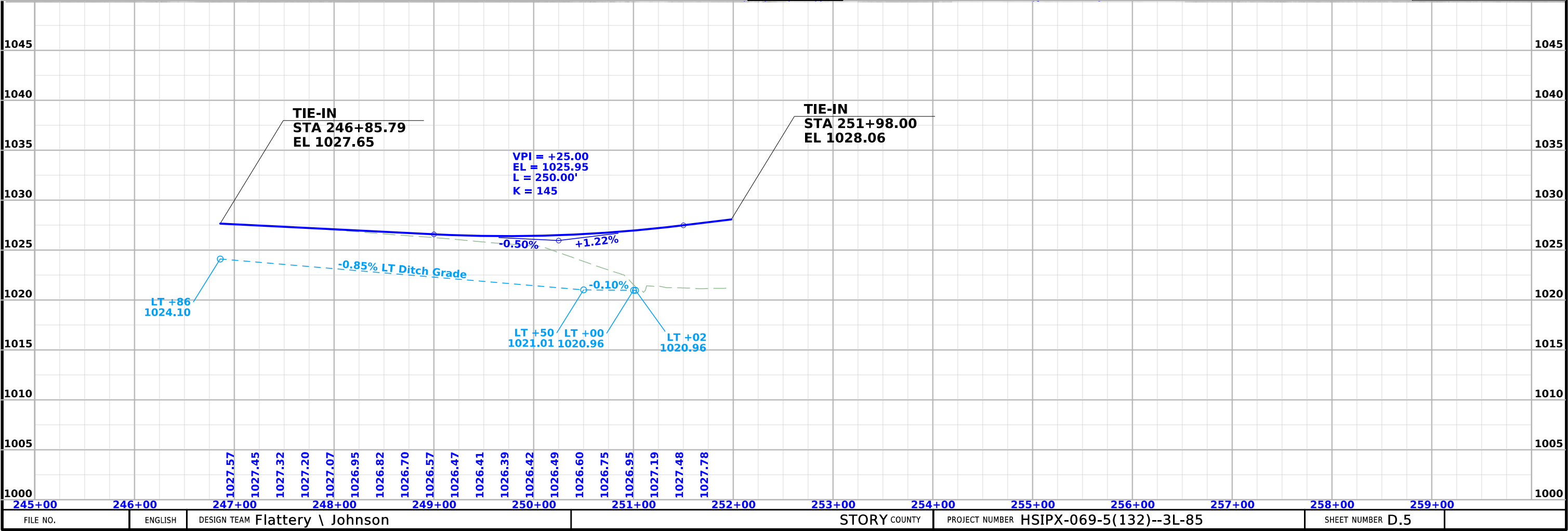
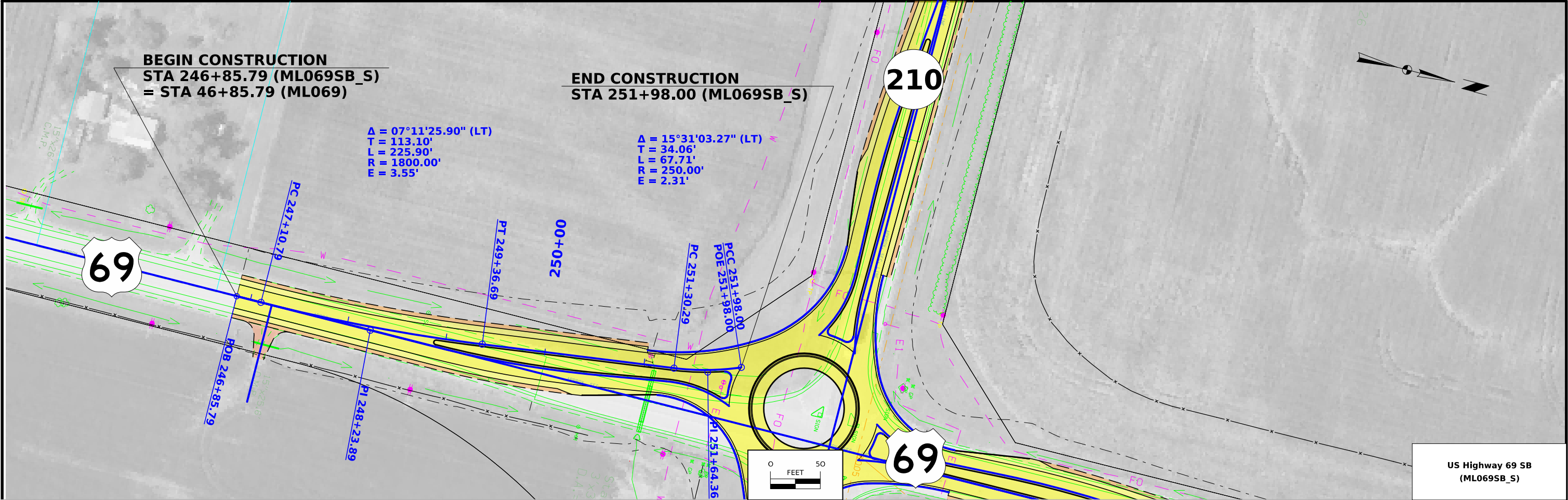


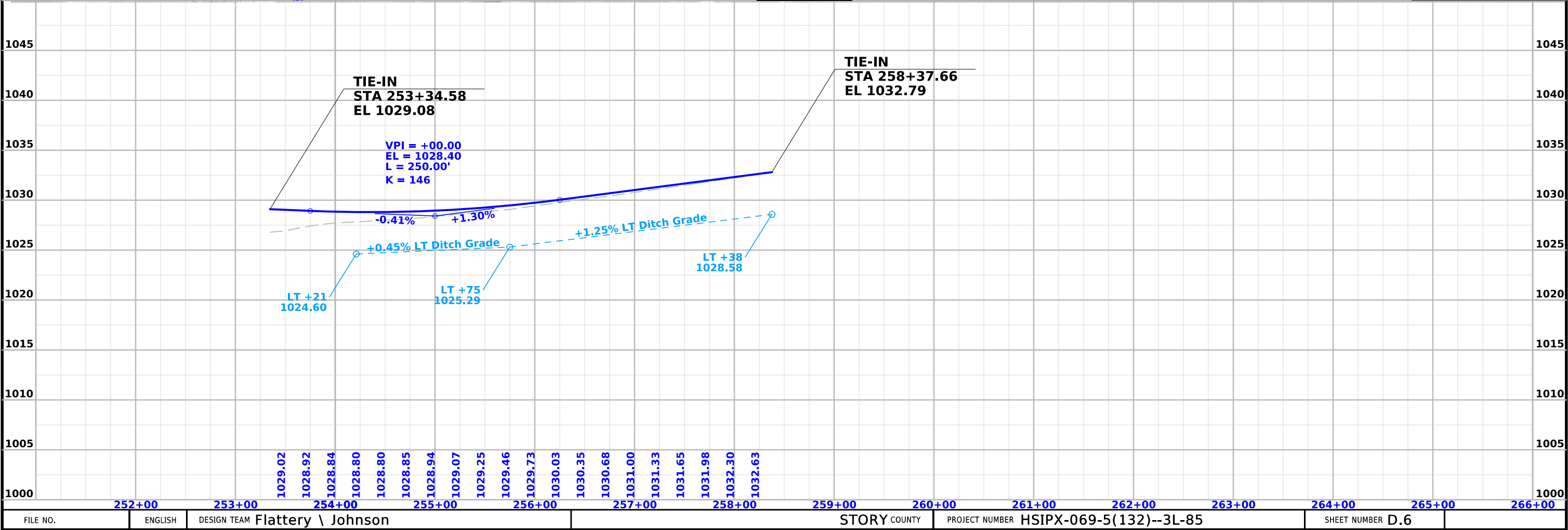
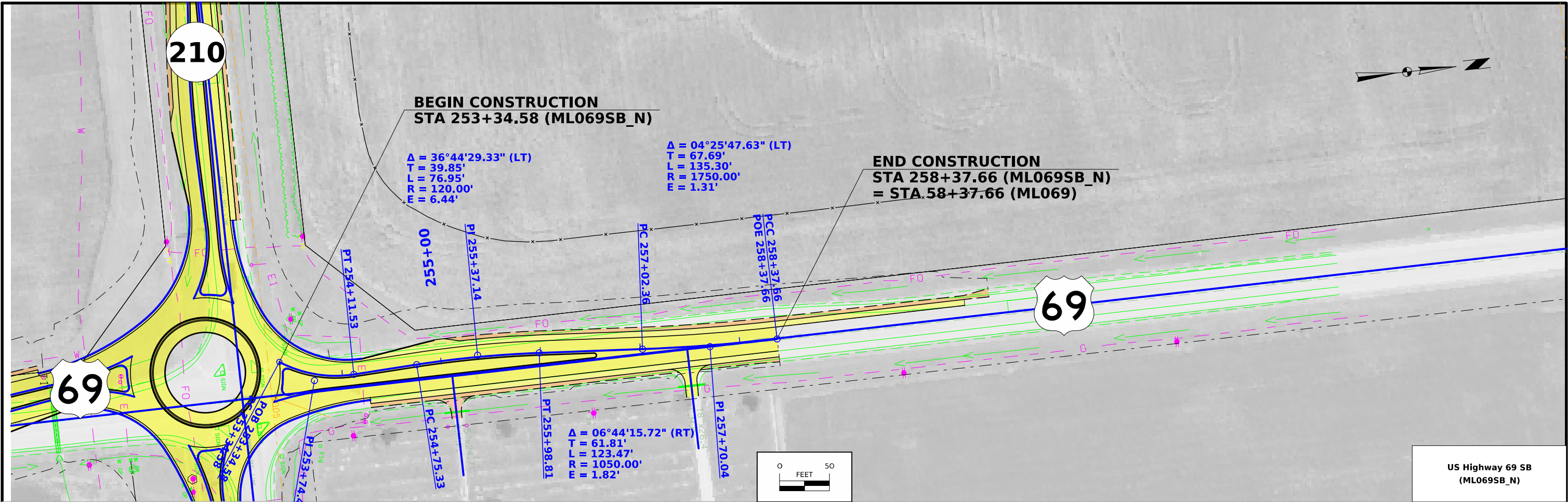
- Proposed Right-of-Way Symbol
- Proposed Right-of-Way Line
- Existing Right of Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Easement (Temporary) Symbol
- Easement (Temporary) Line
- Easement
- Access Control
- Property Line Symbol
- Property Line

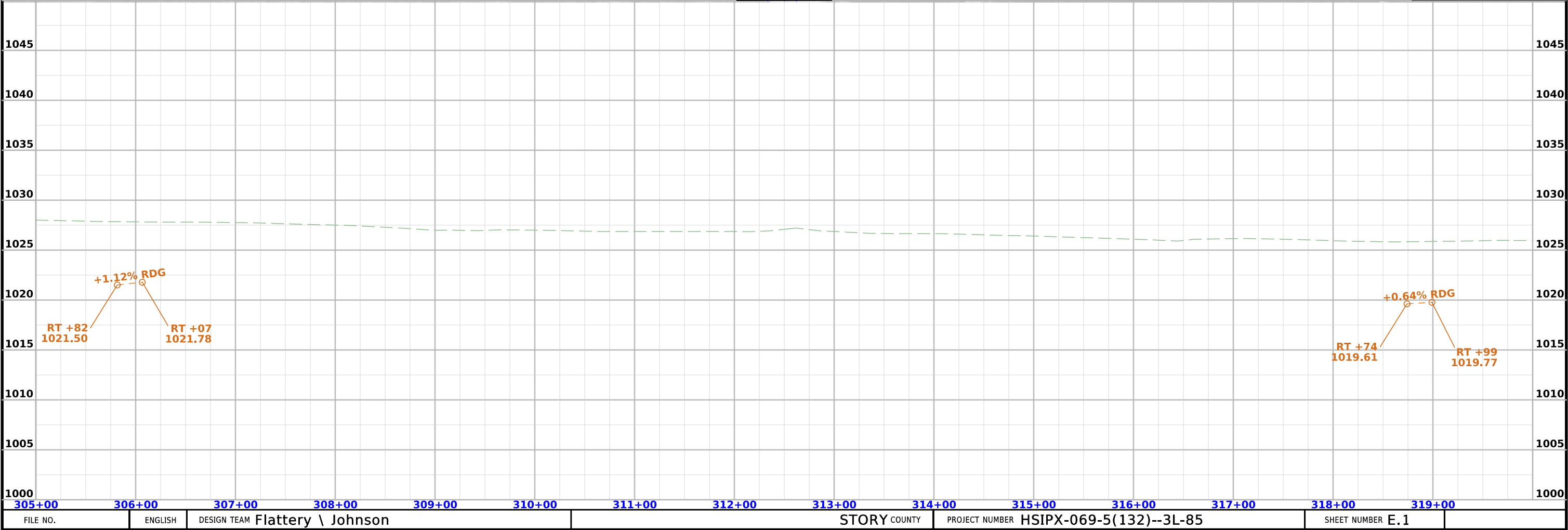
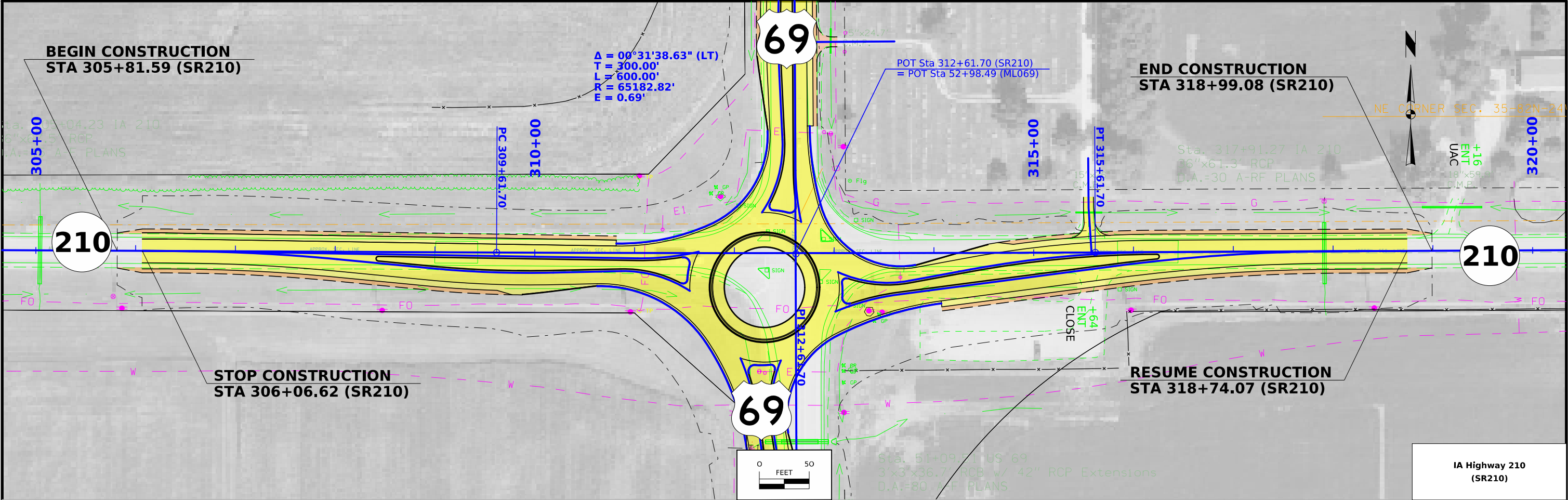
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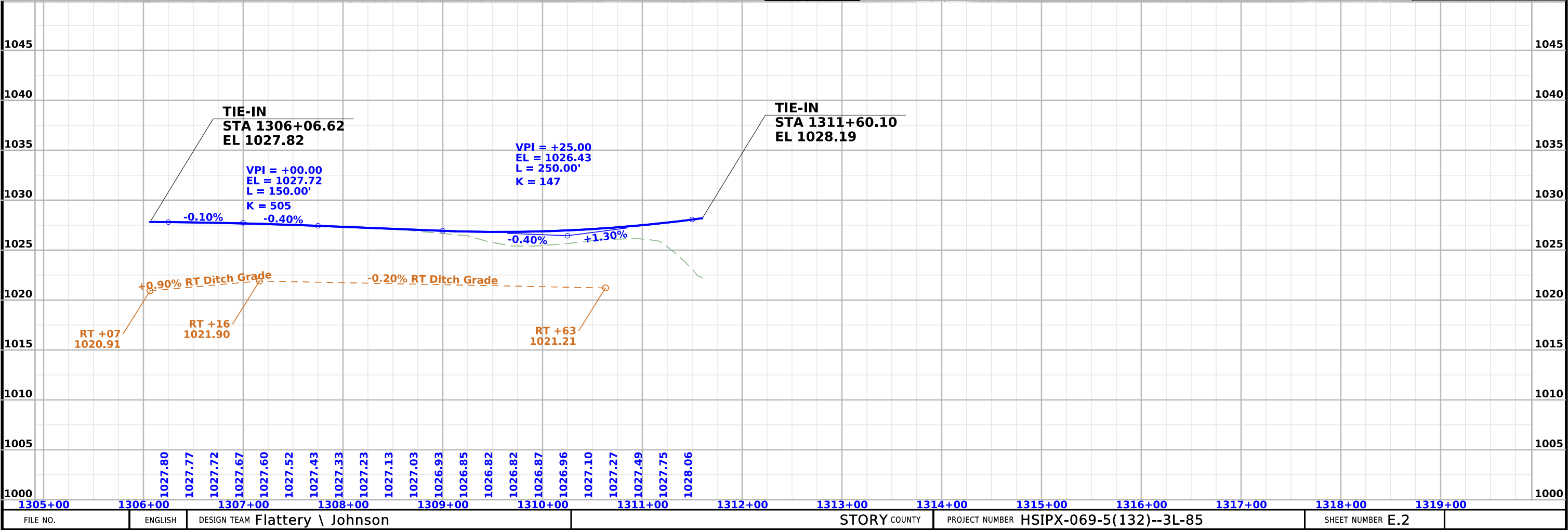
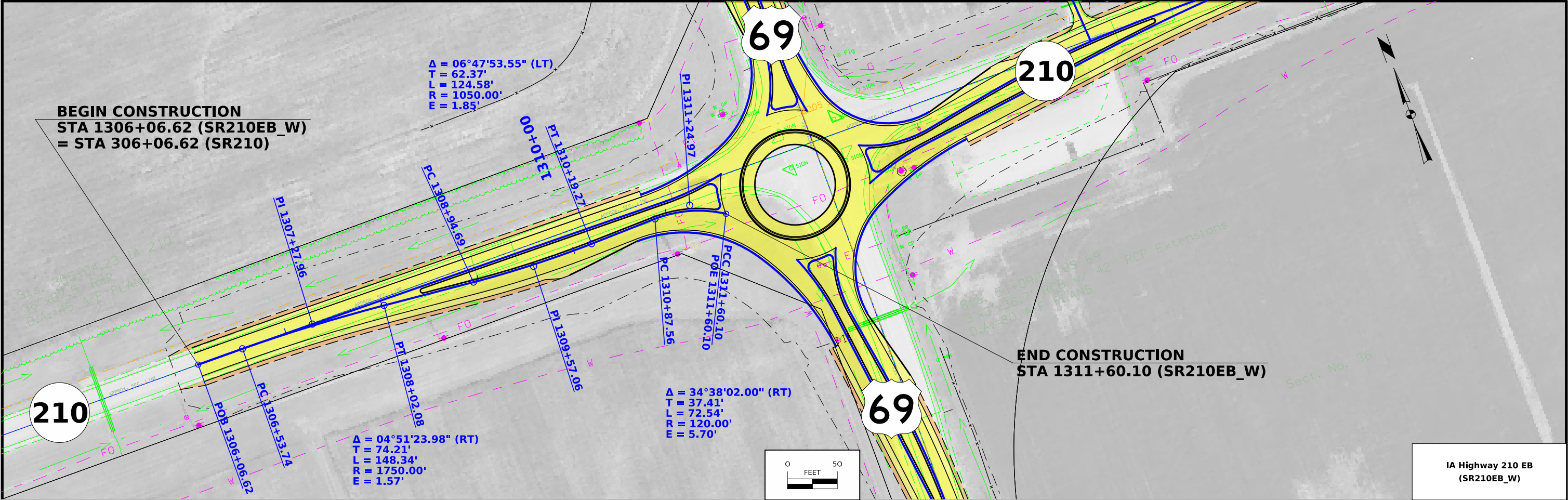


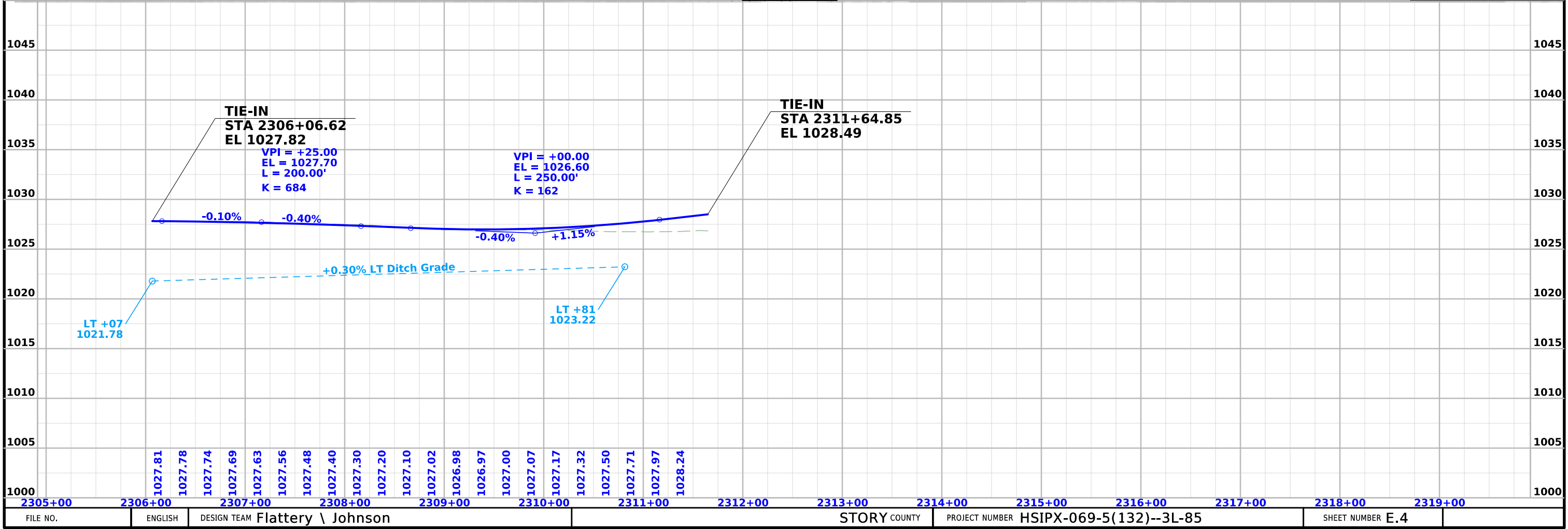
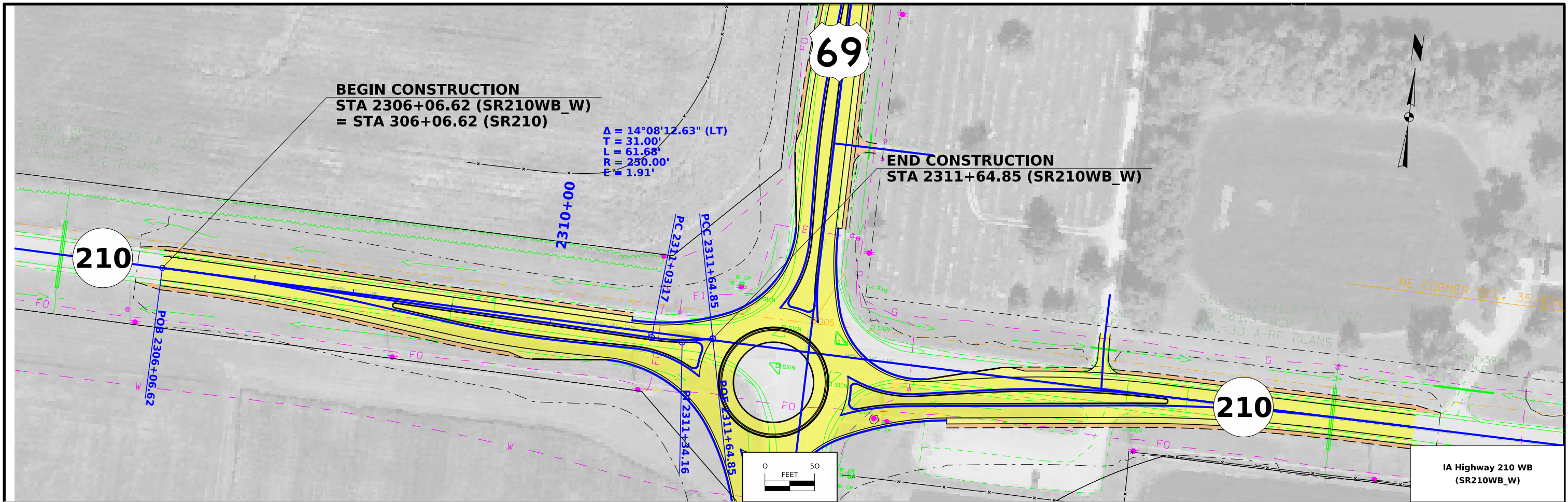


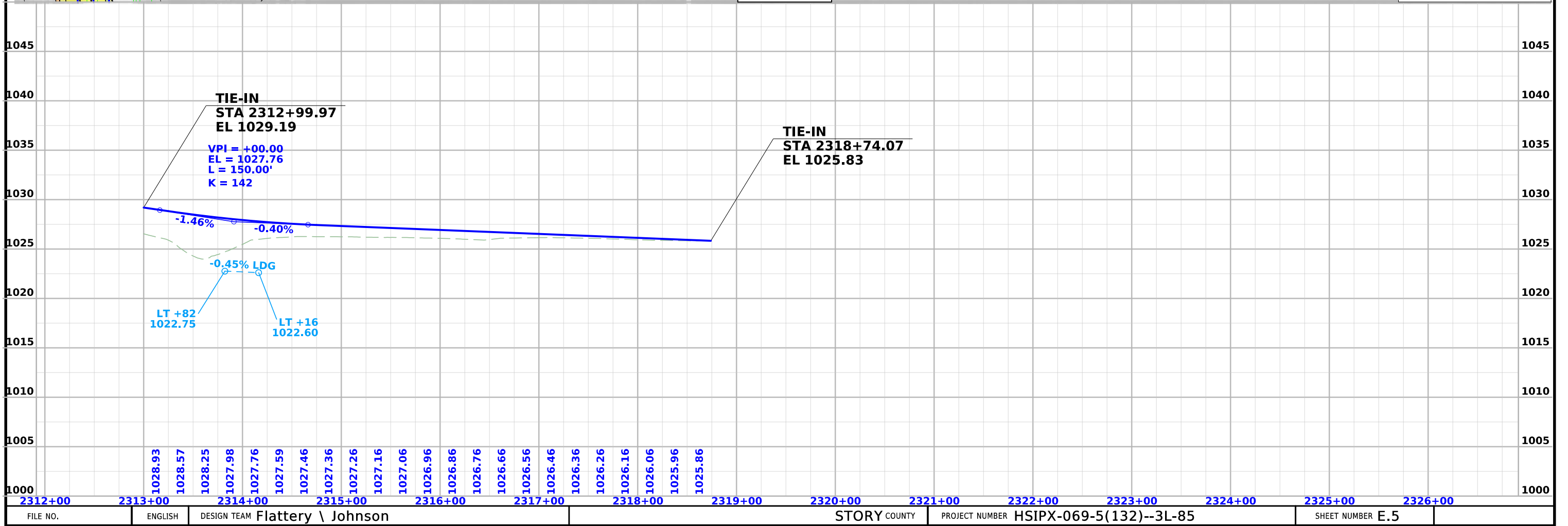
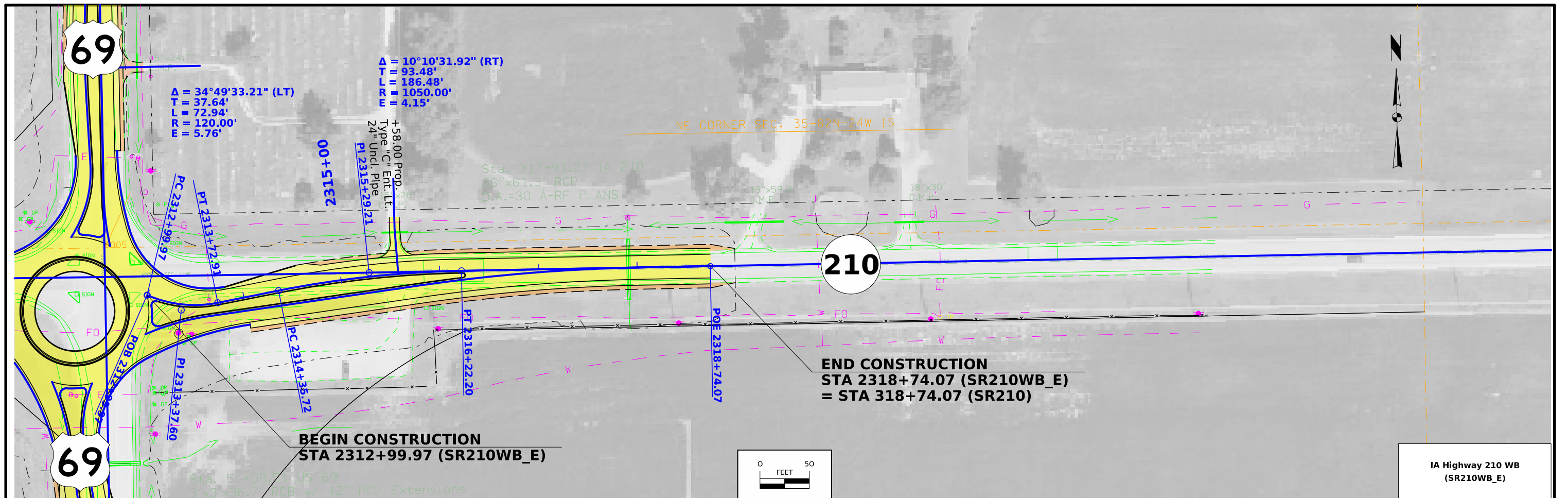


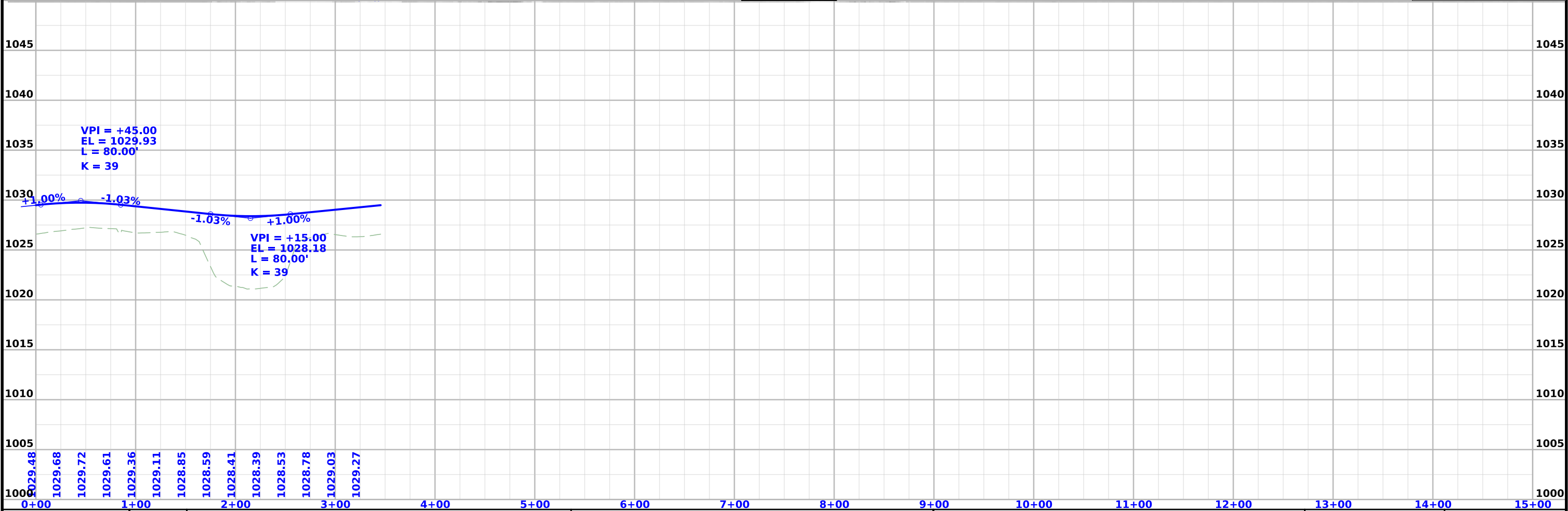
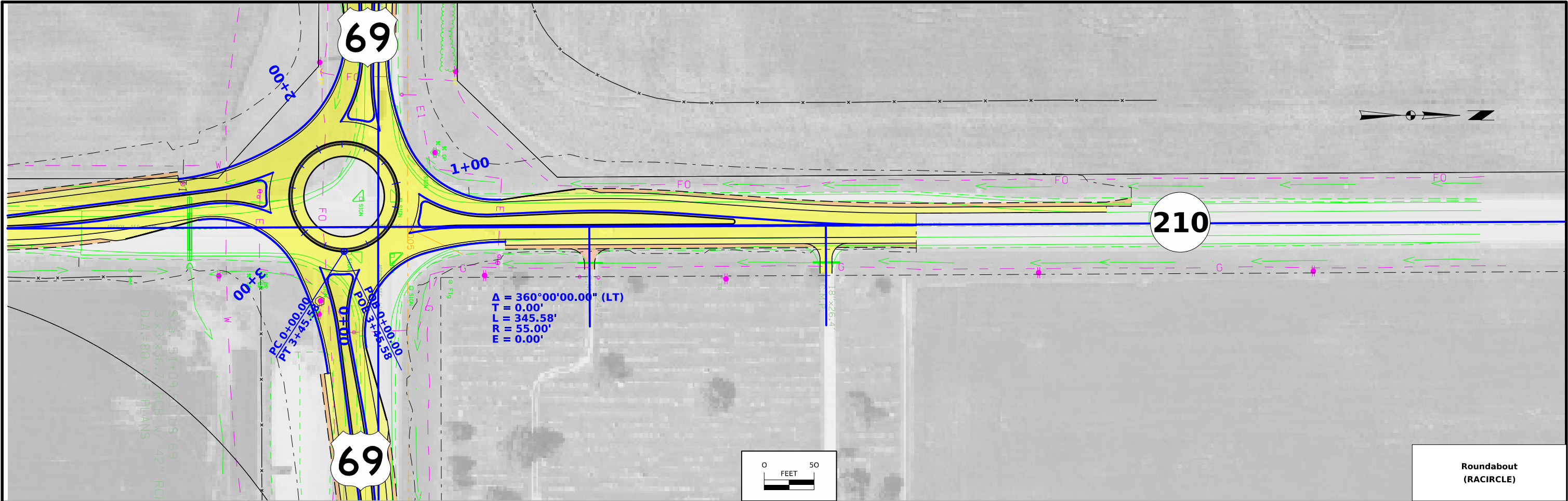












FILE NO.	ENGLISH	DESIGN TEAM	STORY COUNTY	PROJECT NUMBER	SHEET NUMBER
		Flattery \ Johnson		HSIPX-069-5(132)--3L-85	E.6

Survey Information

SURVEY INDEX

County: Story
PIN: 25-85-069-010
Project Number: HSIPX-069-5(132)—2L-85
Location: US 69 / IA 210 Intersection
Type of Work: Intersection Improvement
Project Directory: 8506901025

Survey Personnel

Clayton Henningsen – Survey Party Chief
Kokou Allade – Assistant Survey Party Chief

Date(s) of Survey

Begin Date 12/14/2024
End Date 02/23/2025

General Information

This survey is for US Hwy 69 and IA 210 intersection just south of Huxley. This survey request was for the US Hwy 69 and IA 210 corridors only. 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 08
(U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2018u3

Alignment Information

Alignments provided by district 1 survey office.

District 1 Notes IA 210

This horizontal alignment is a retrace of Ia210 using information found in as-built plans for project F-947(3). Stationing was held at P.I. Sta. 312+61.70 (project F-947(3)) and ran back and ahead without equations.

Survey stationing relates to plan stationing at the following points...

P.I. Sta. 188+90.5 (Proj. F-947(3)) = P.I. Sta. 188+91.34 (This survey)
Found nail remains in asphalt pavement surface.

P.I. Sta. 253+35.3 (Proj. F-947(3)) = P.I. Sta. 253+35.70 (This survey)
Set hinge nail in asphalt pavement surface.

P.I. Sta. 312+61.7 (Proj. F-947(3)) = P.I. Sta. 312+61.70 (This survey)
Found hinge nail in asphalt pavement surface.

P.I. Sta. 428+82.4 (Proj. F-947(3)) = P.I. Sta. 428+80.10 (This survey)
Found hinge nail in asphalt pavement surface.

District 1 Notes US 69

This horizontal alignment is a retrace of U.S. 69 using information found in as-built plans for projects FI-311(1)(2) and FA-311. Stationing was held at P.I. Sta. 0+00 and ran ahead without equations.

Survey stationing relates to plan stationing at the following points.

P.I. Sta. 0+00 (Proj. FI-311(1)(2)) = P.I. Sta. 00+00.00 (This survey) = SE corner
Section 35-82N-24W
Found MAG nail in “X” cut in the concrete pavement.

E¼ cor. Section 35-82N-24W is P.O.T. 26+65.92 (This survey)
Cut an “X” in the concrete pavement.

P.I. Sta. 53+28.3 (Proj. FI-311(1)(2)) = P.I. Sta. 53+27.89 (This survey) = NE corner
Section 35-82N-24W
Found MAG nail in asphalt pavement.

P.I. Sta. 79+82.5 (Proj. FI-311(1)(2)) = P.I. Sta. 79+81.67 (This survey) = E¼ corner
Section 26-82N-24W

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 08 (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 08 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: 2018u3

<u>Point Name</u>	<u>Northing</u>	<u>Easting</u>	<u>Elevation</u>	<u>Feature Definition-Description</u>
403	7587849.58	18526347.33	1018.36	CP STORY COUNTY GPS AS DESCRIBED IN GOOD CONDITION
850691053	7594316.75	18531624.12	1037.18	CP FENO IN WEST DITCH US 69 0.2 TENTHS OF A MILE NORTH OF INTERSECTION IA 210
85210018	7593168.52	18528441.20	1031.08	CP FENO ON WEST EDGE FIELD ENT TO NORTH OF IA 210 0.6 TENTHS OF A MILE WEST OF INTERSECTION US 69

108-23A
08-01-08

TRAFFIC CONTROL PLAN

Traffic on US 69 will be maintained at all times.
Traffic on IA 210 will have a potential detour.

108-26A
08-01-08

STAGING NOTES

108-25
10-21-14

511 TRAVEL RESTRICTIONS

Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
			No Restrictions expected.									

111-01
04-17-12

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
None provided.	

FILE NO.

ENGLISH

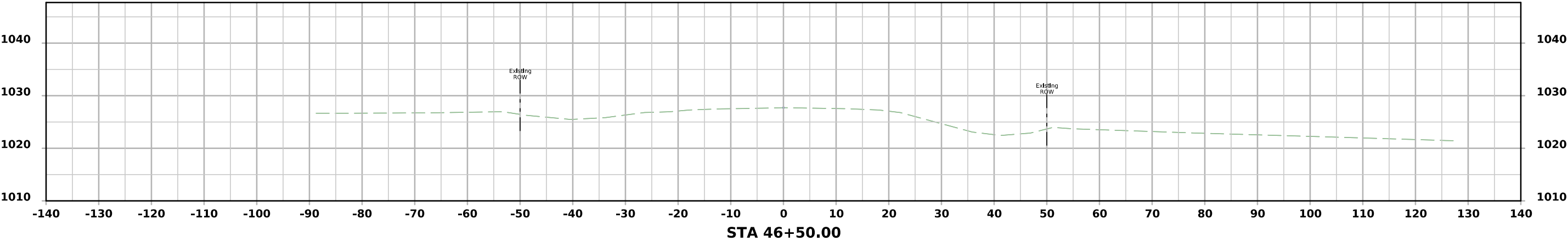
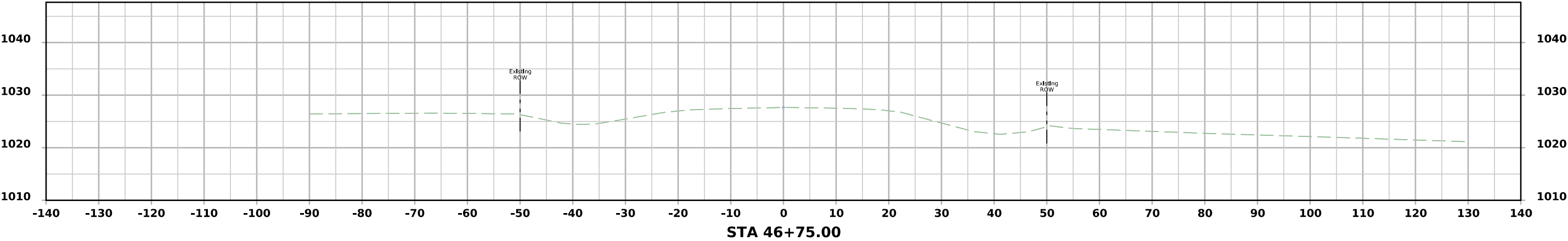
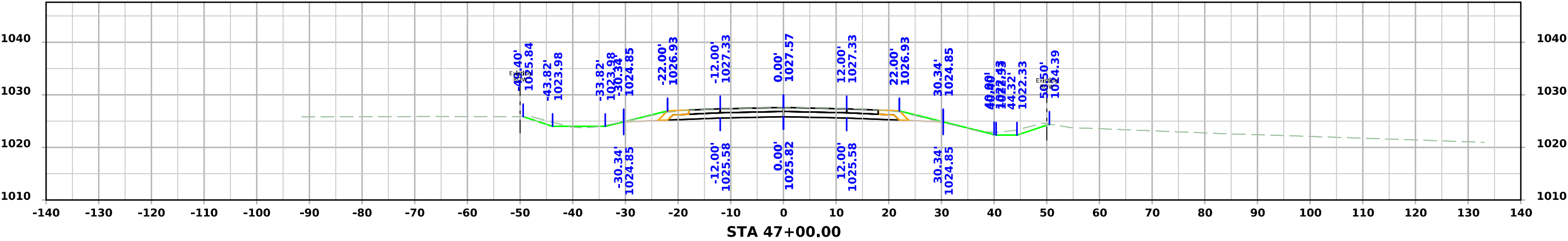
DESIGN TEAM Flattery\Johnson

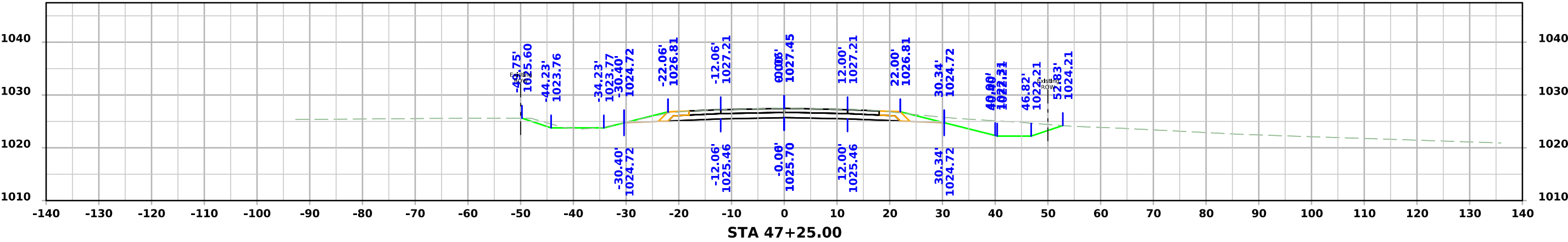
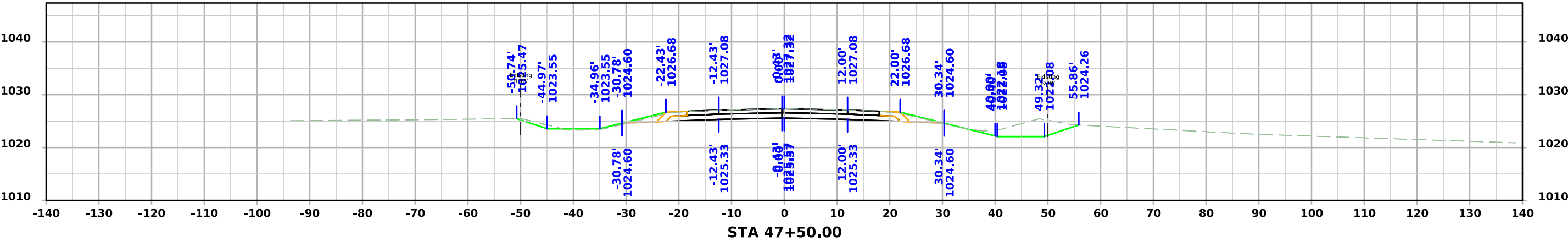
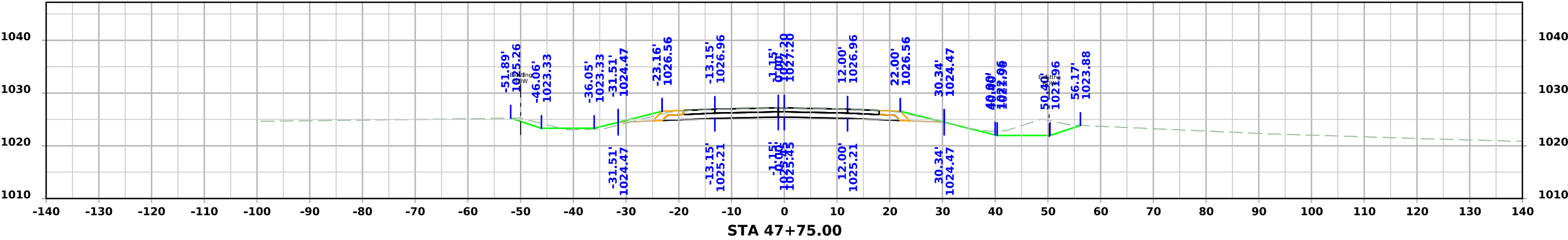
STORY COUNTY

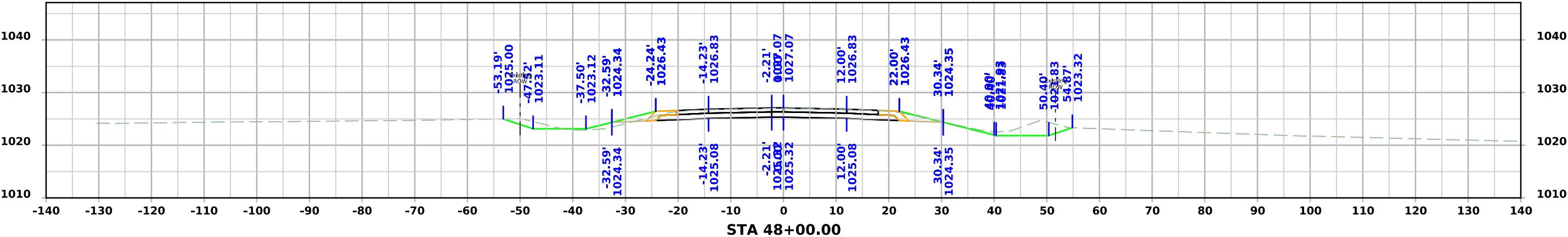
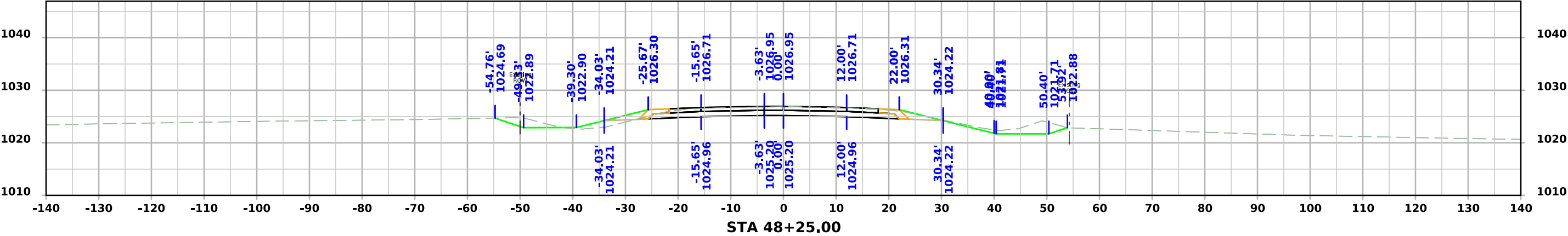
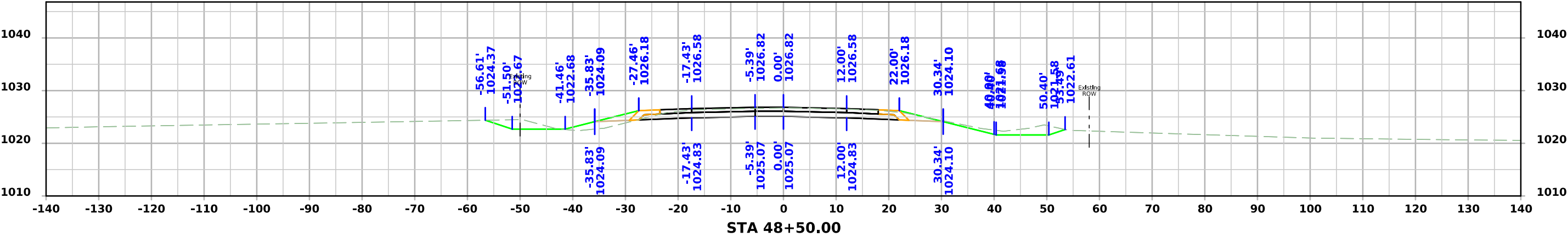
PROJECT NUMBER HSIPX-069-5(132)--3L-85

SHEET NUMBER J.1

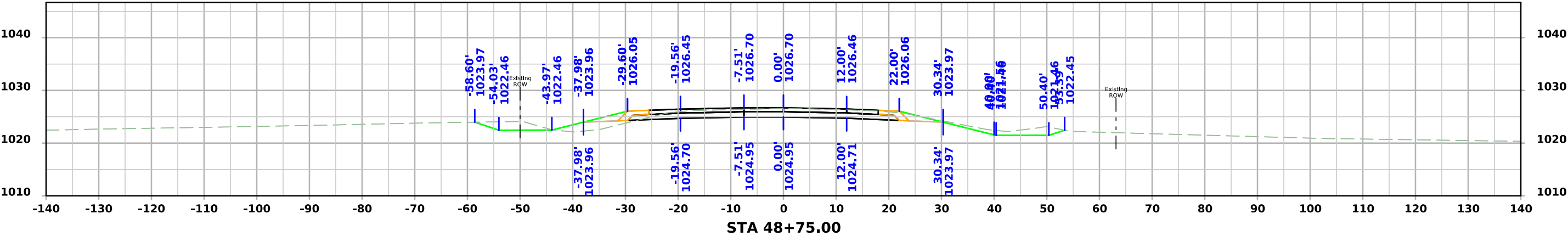
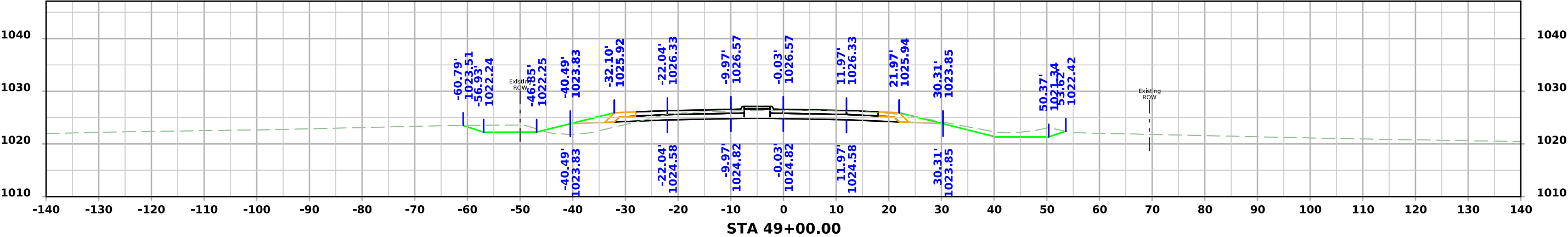
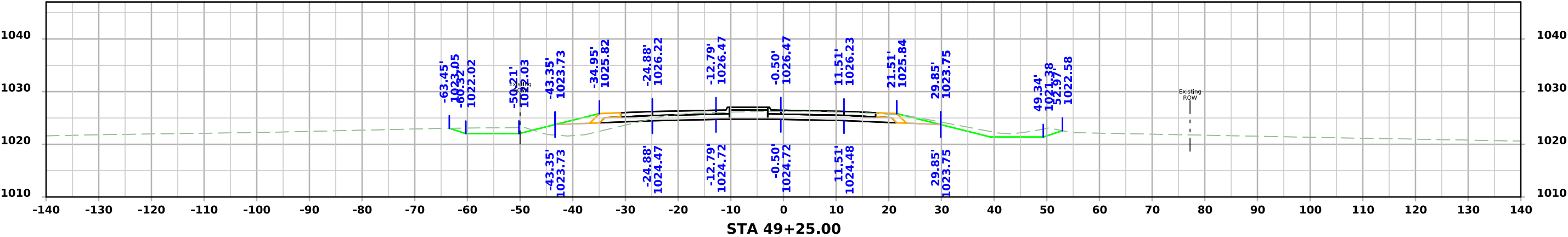
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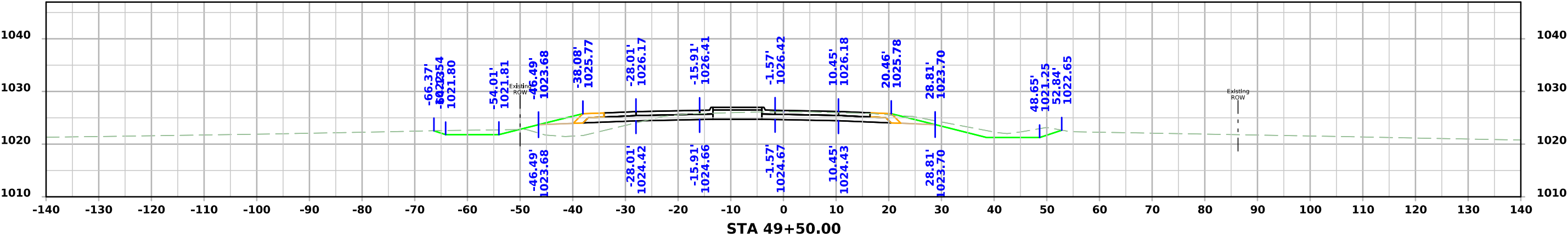
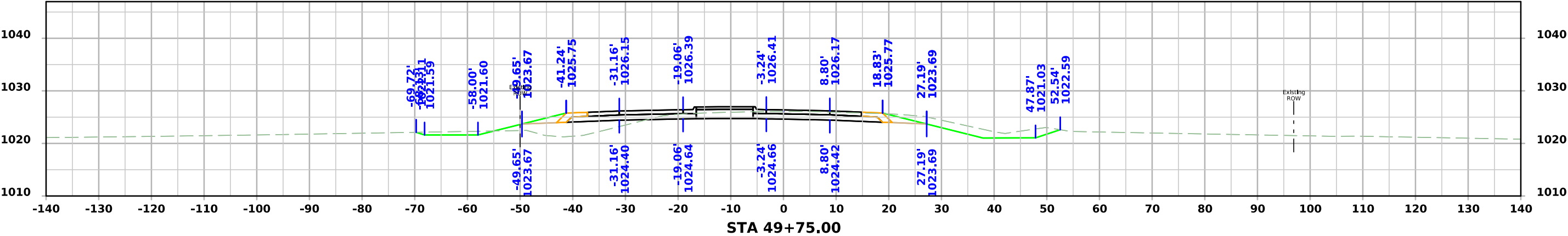
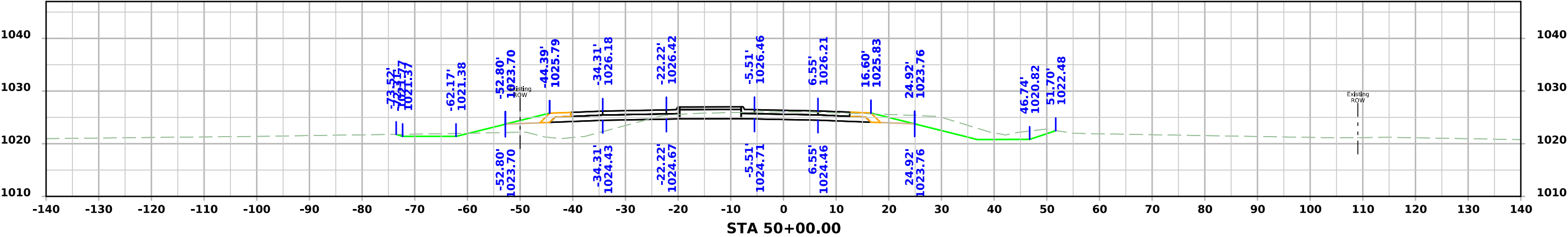


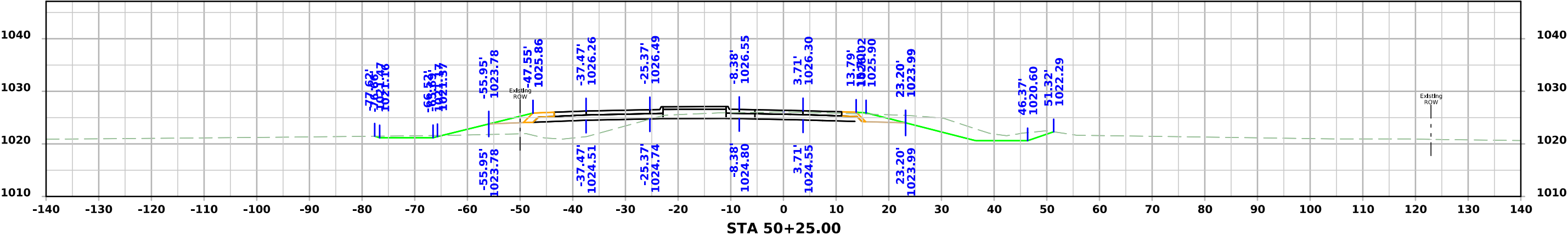
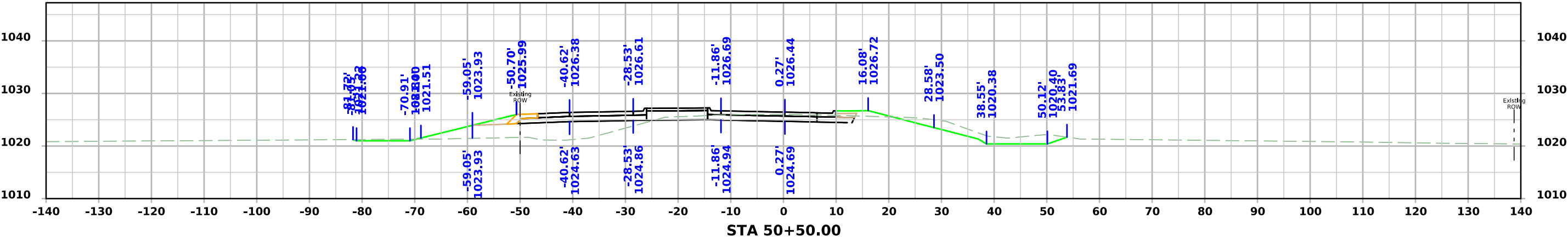
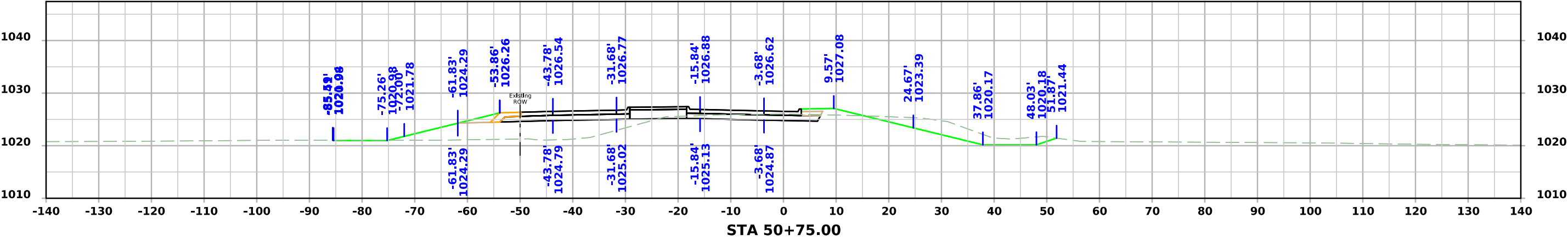




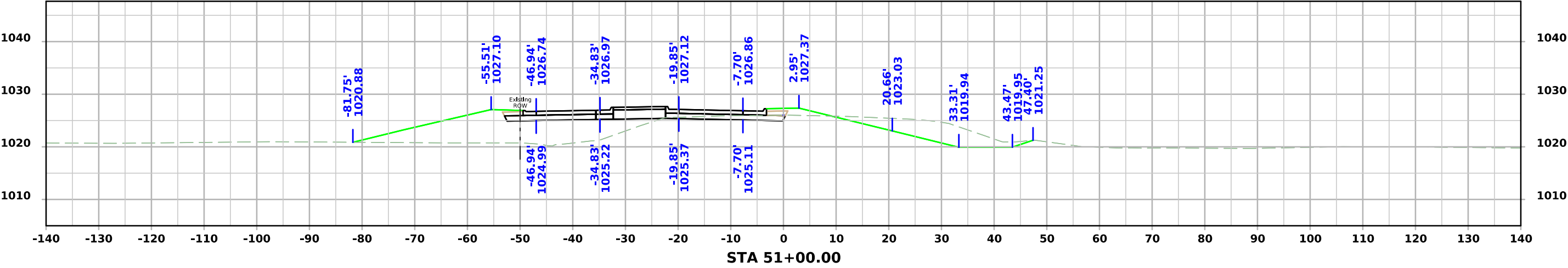
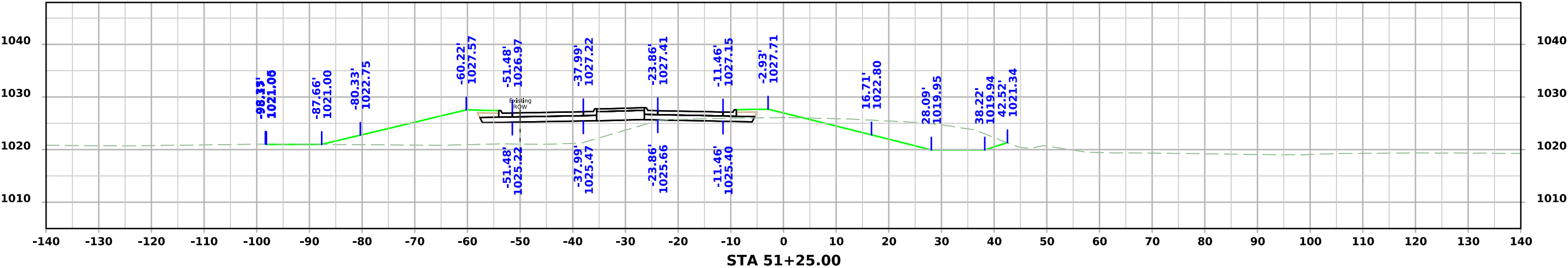
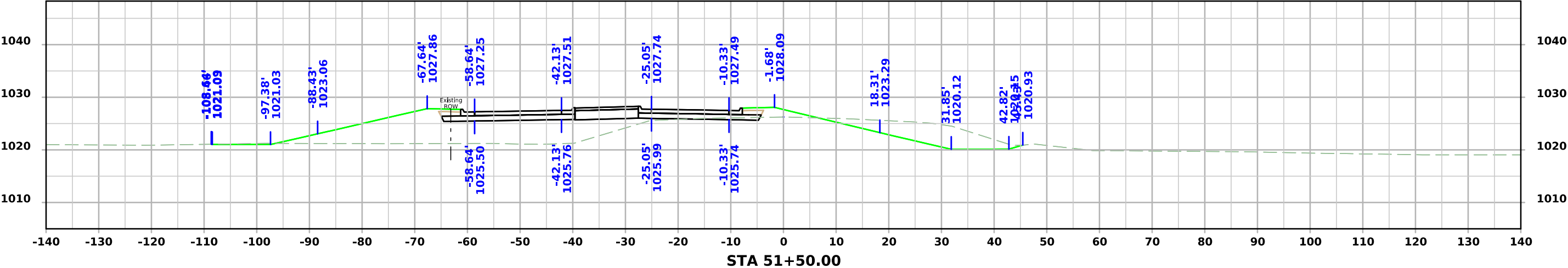
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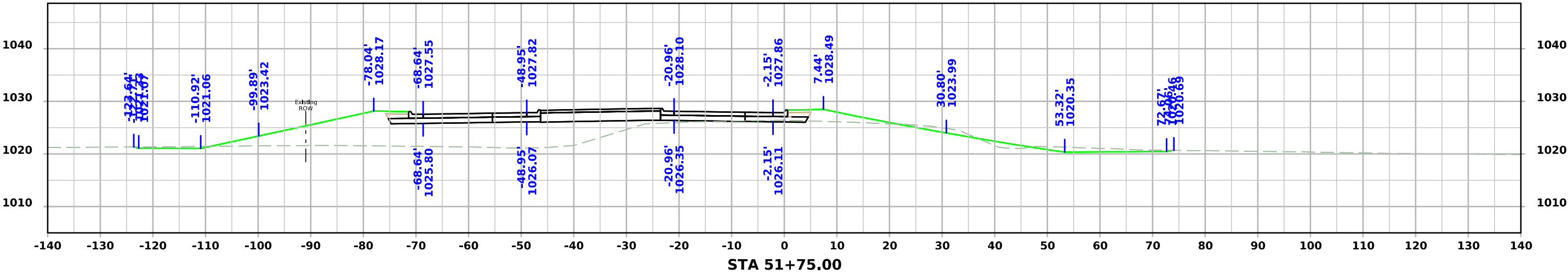
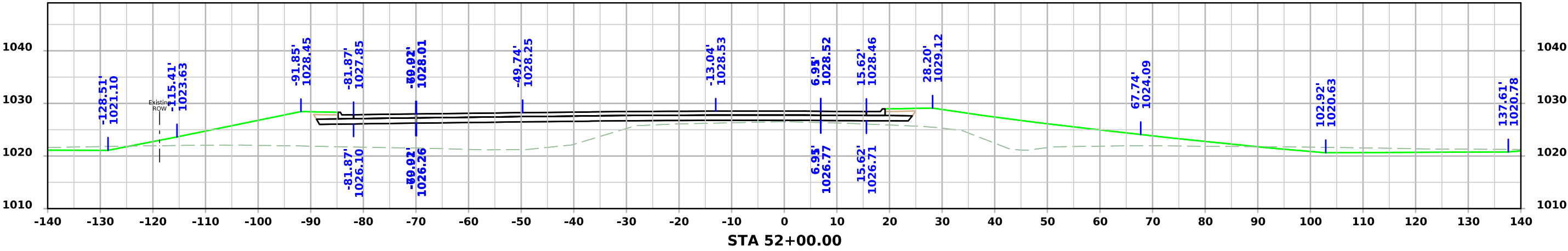
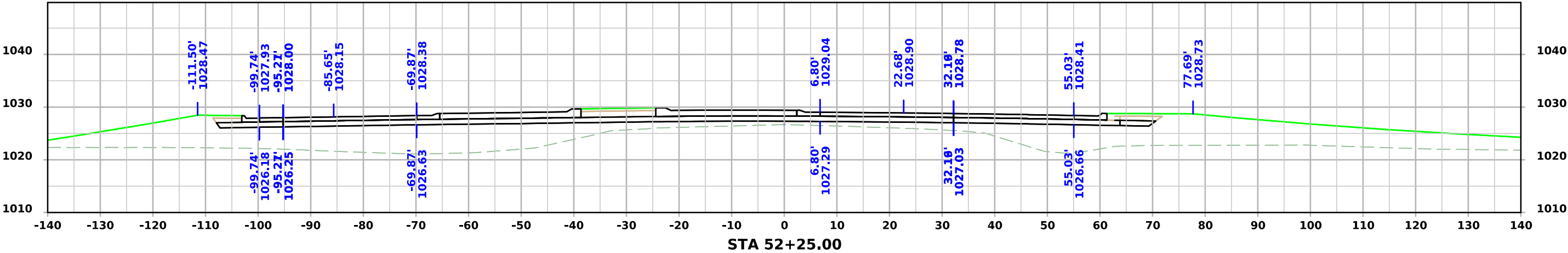




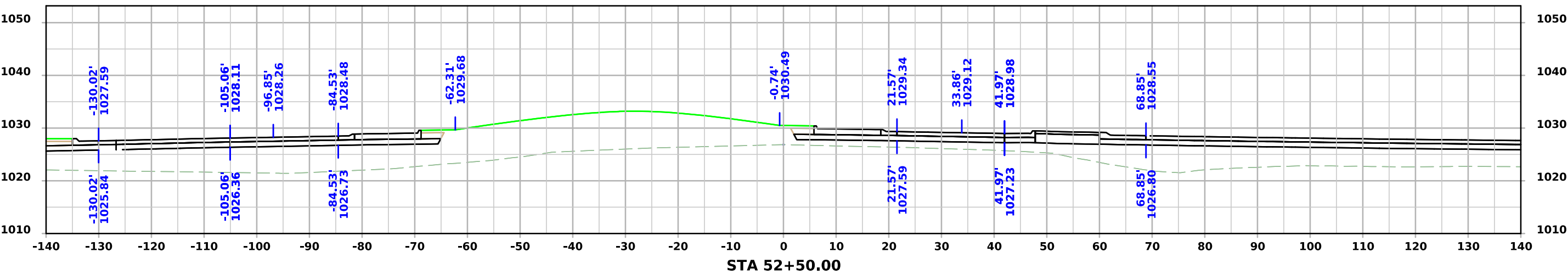
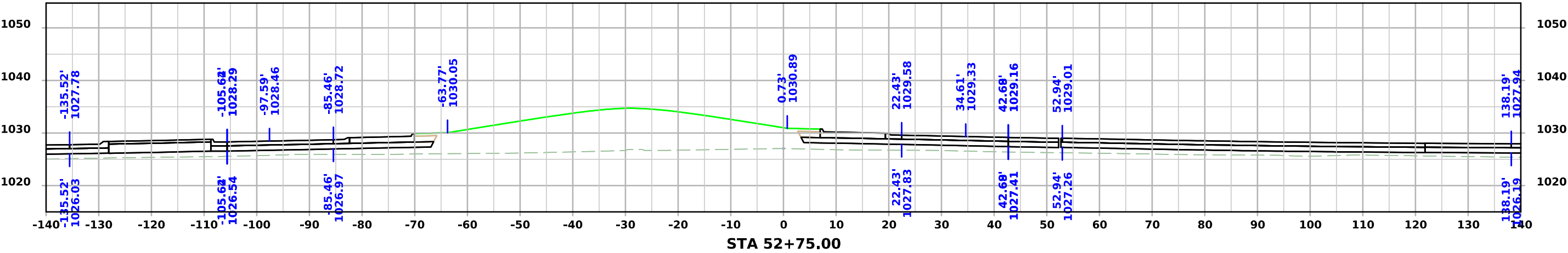
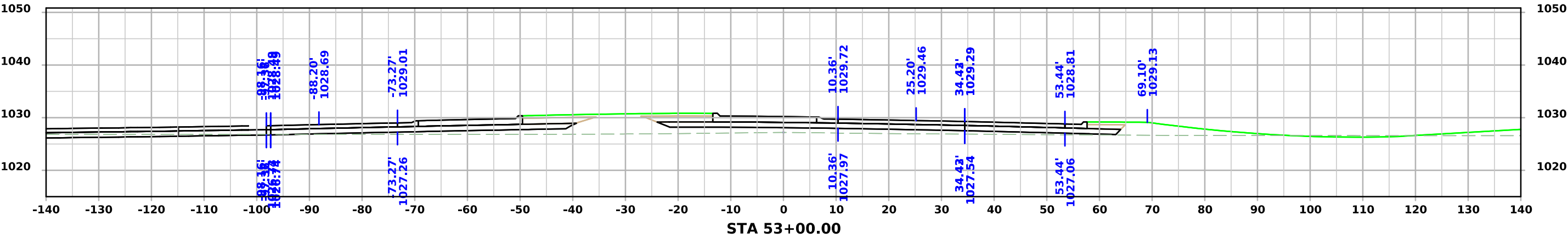
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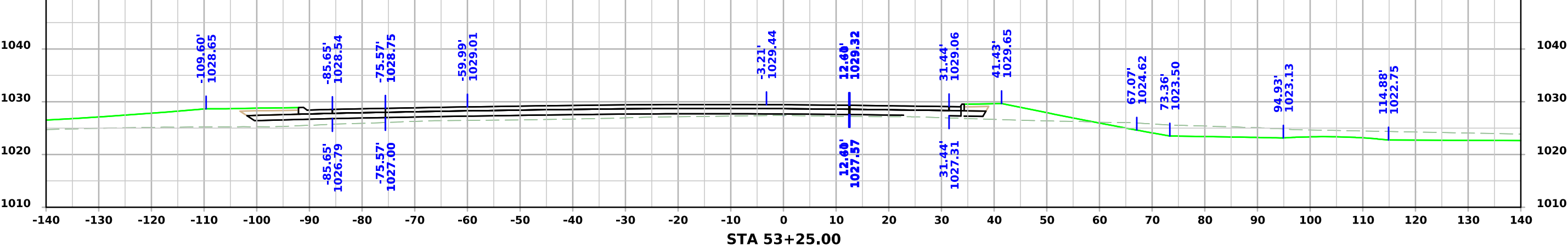
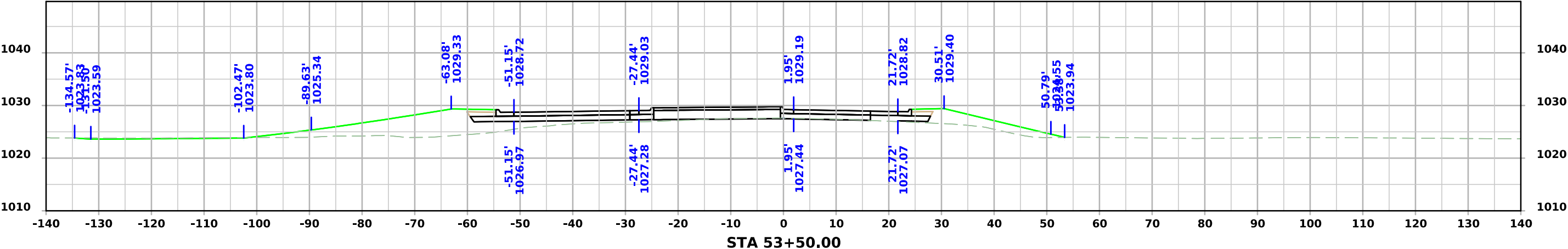
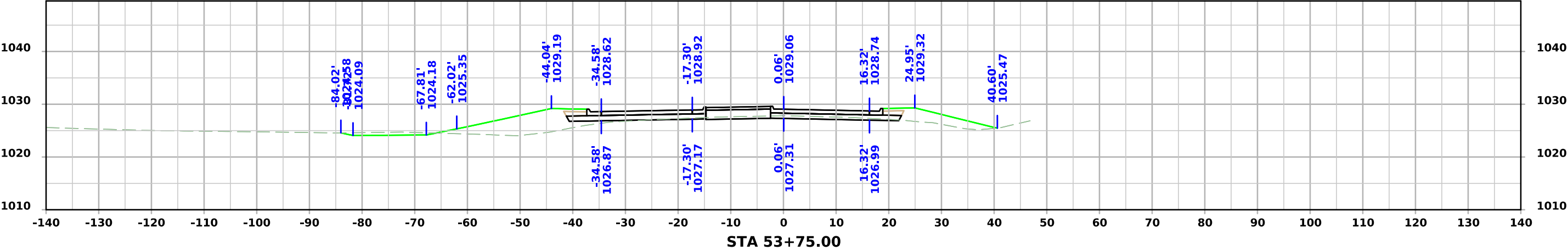


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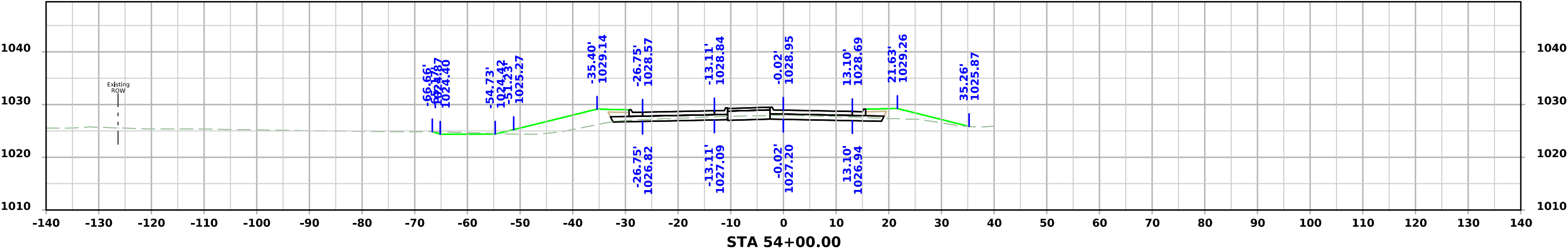
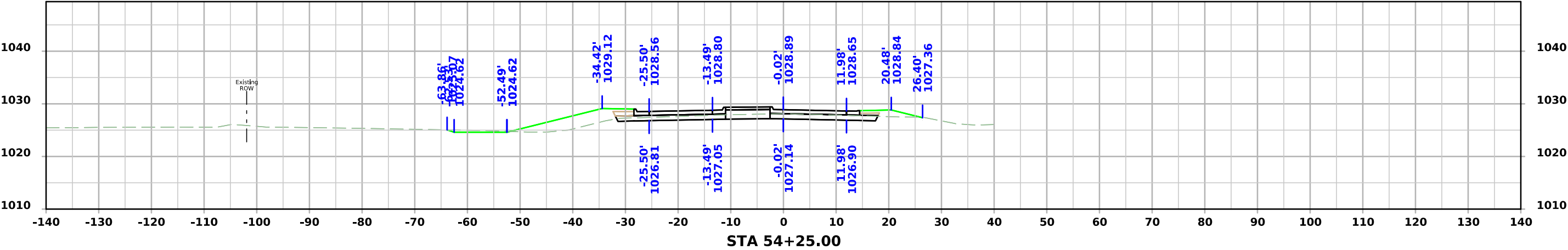
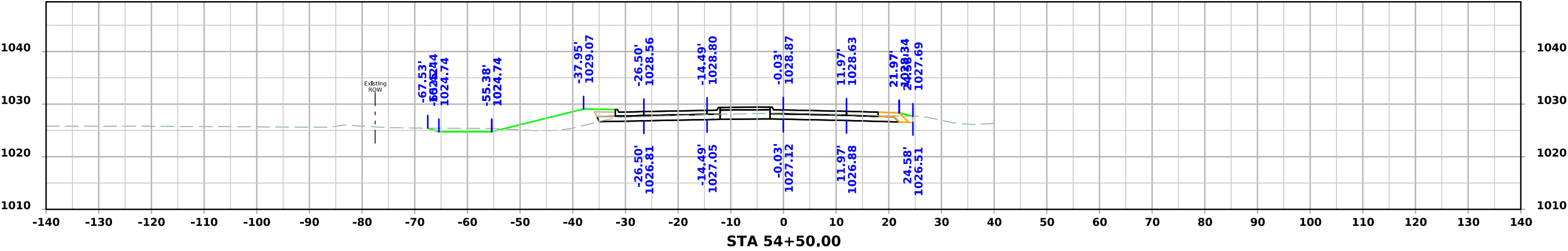


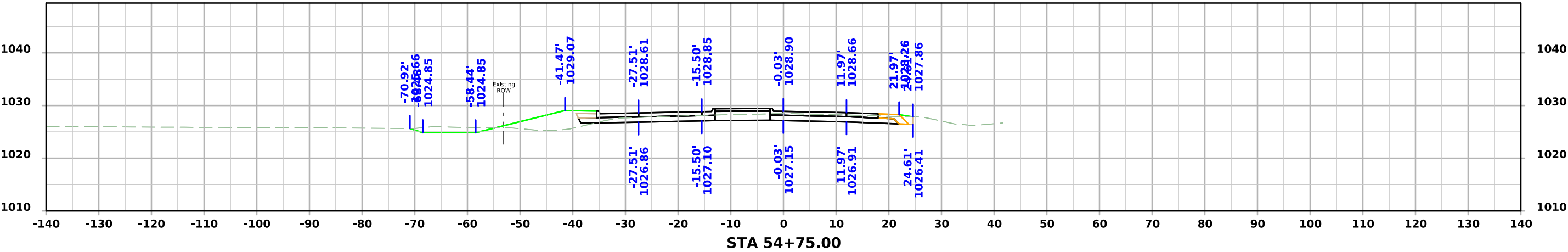
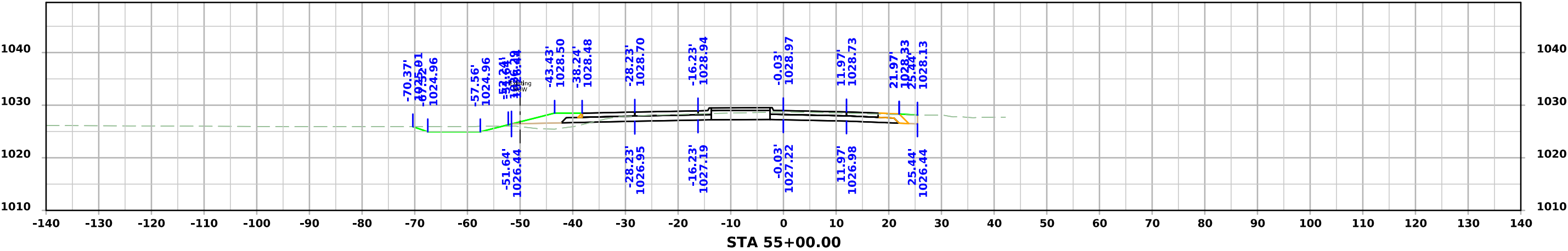
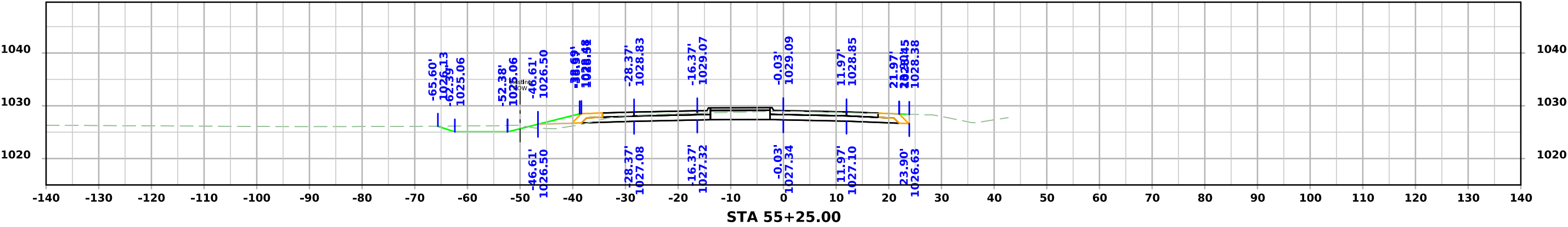
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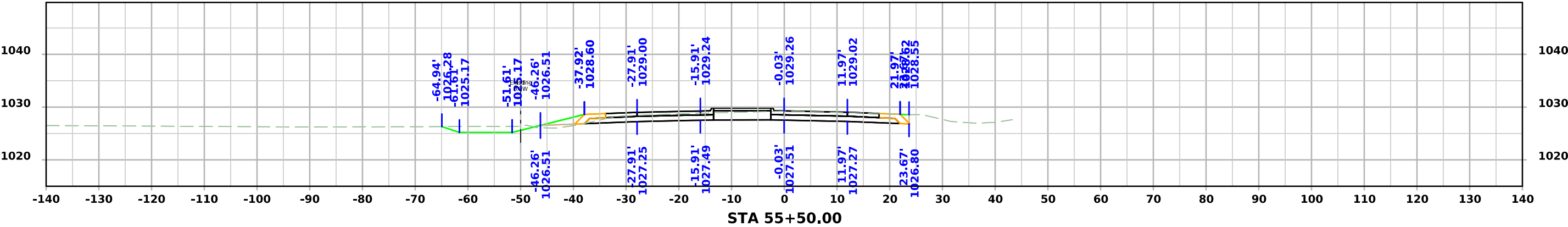
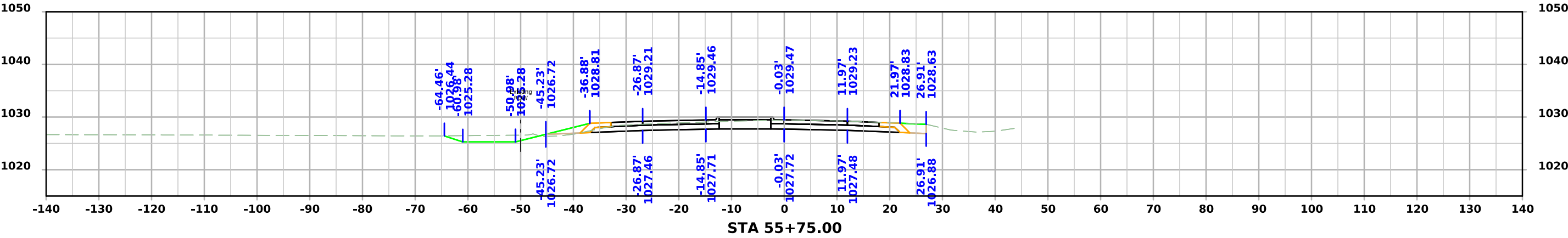
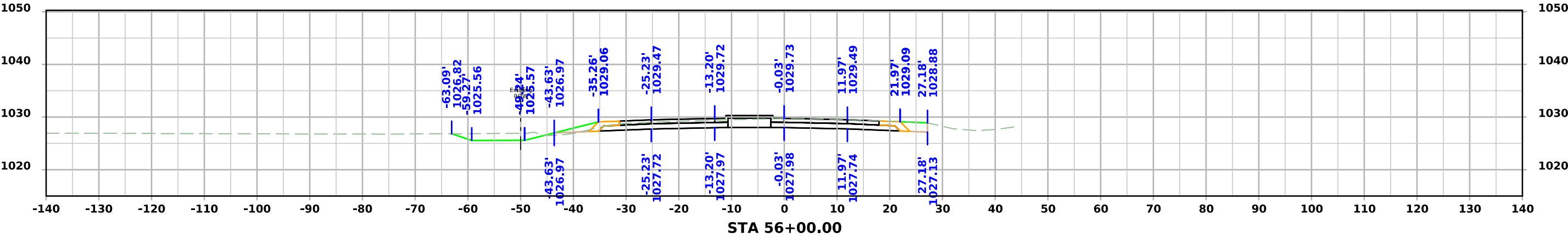


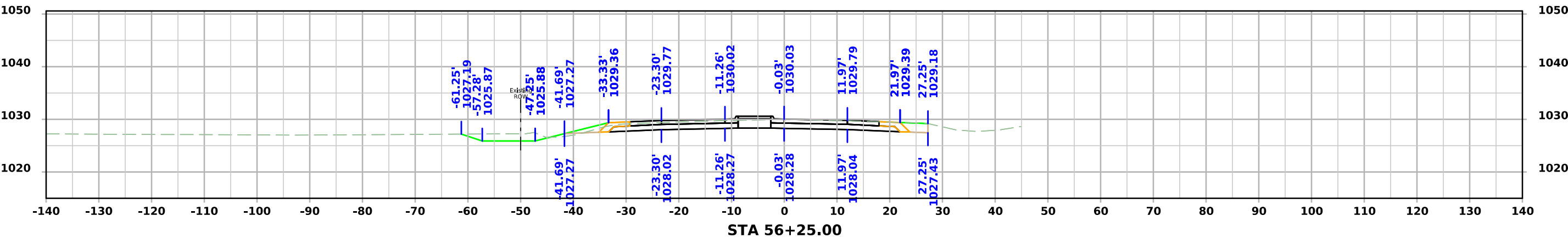
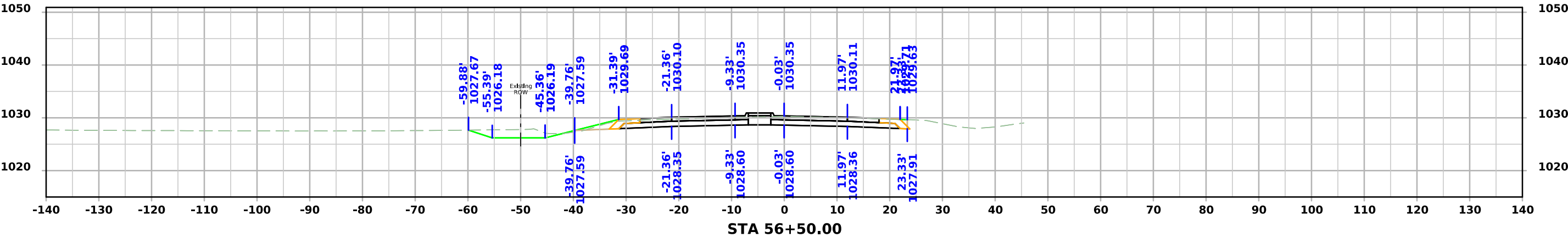
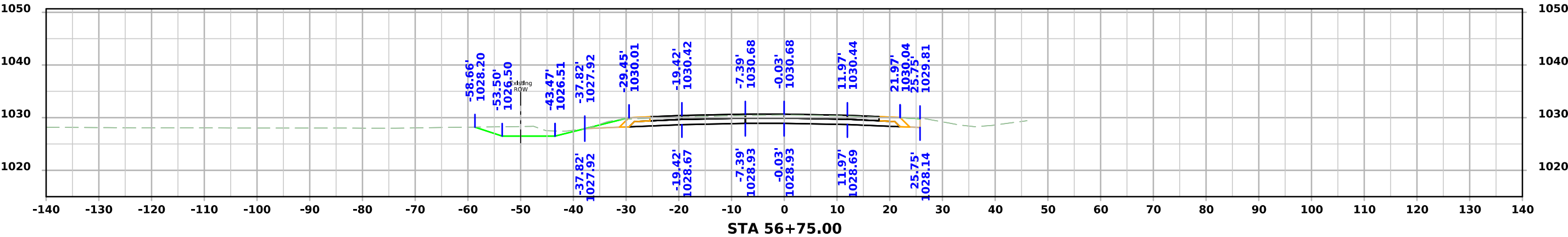


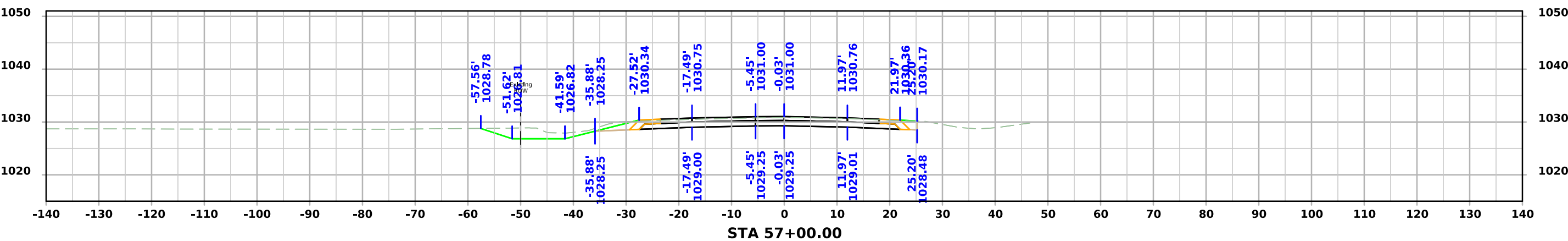
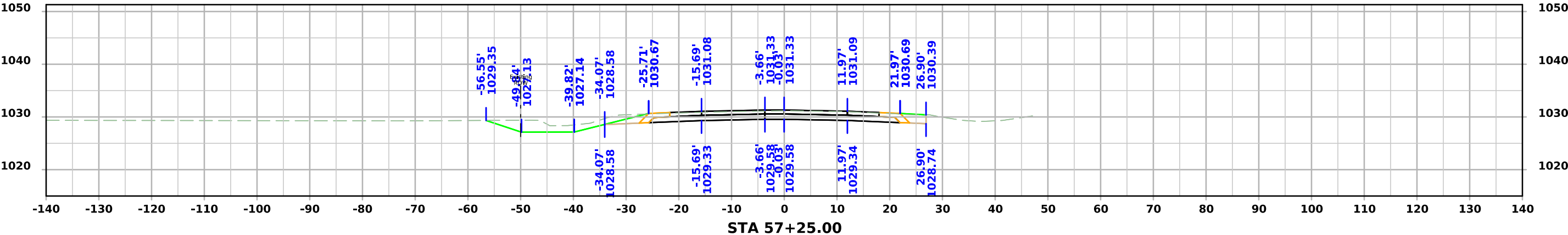
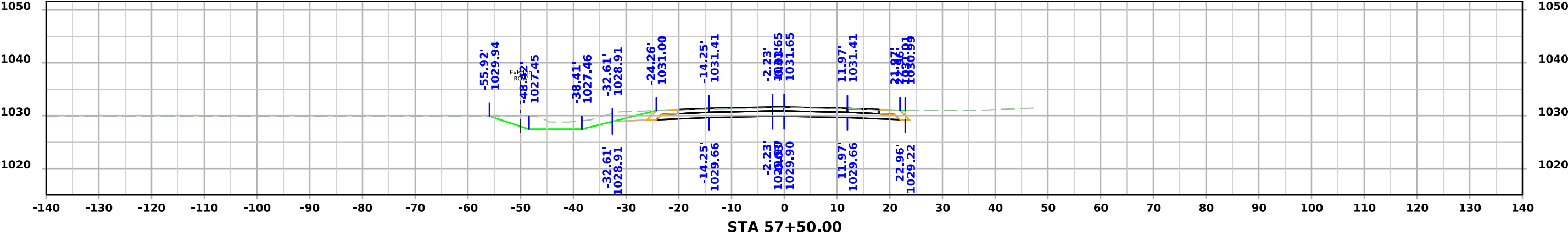
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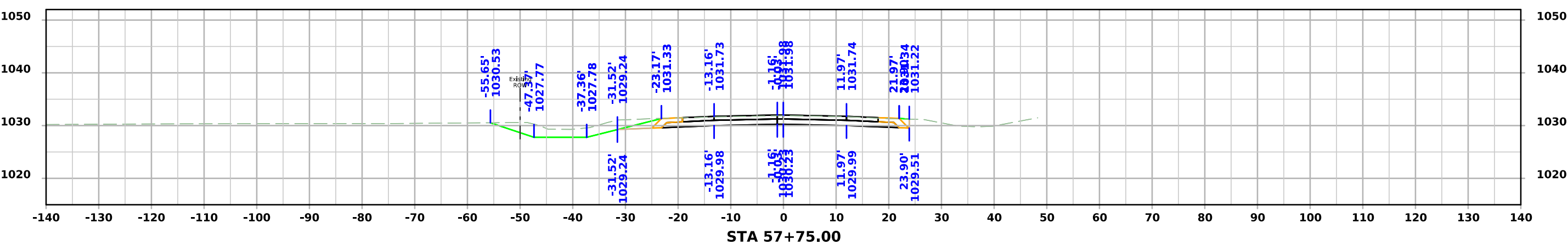
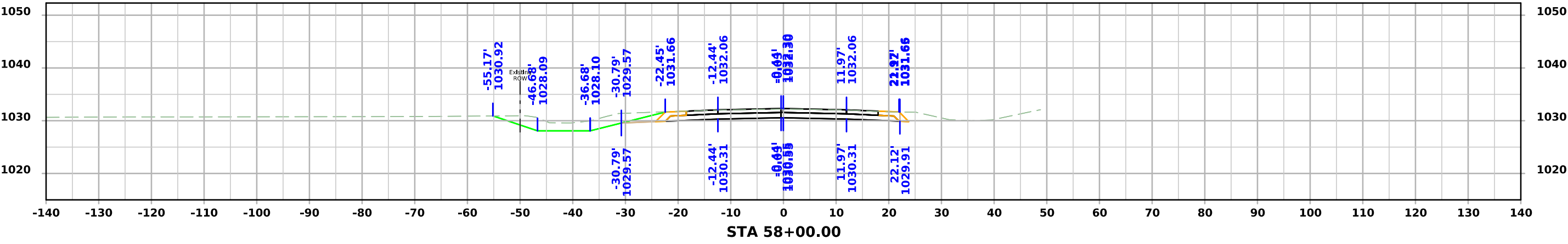
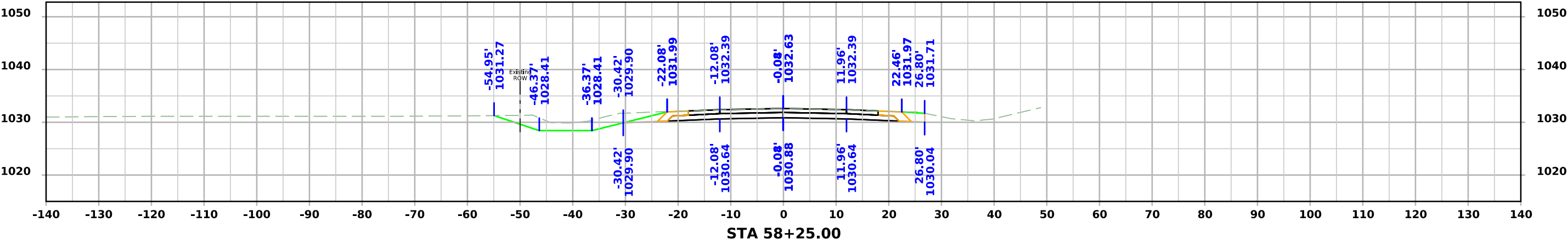




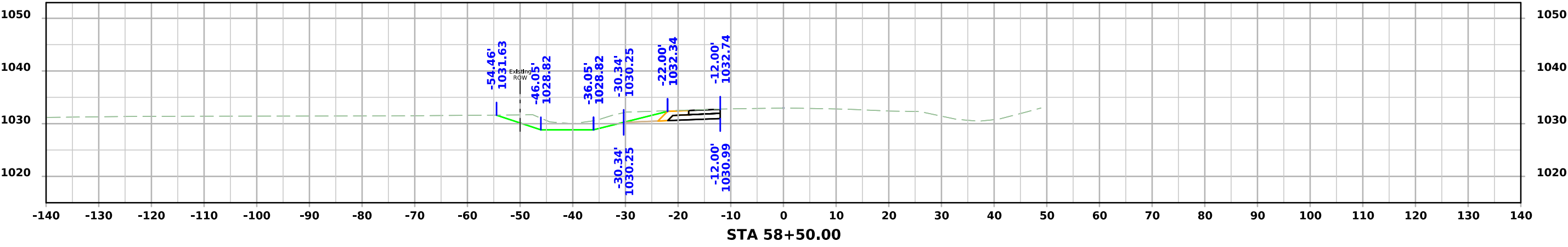
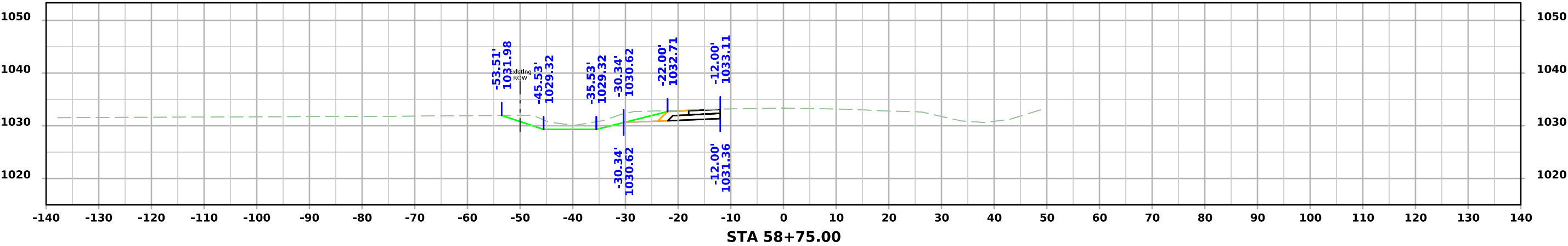
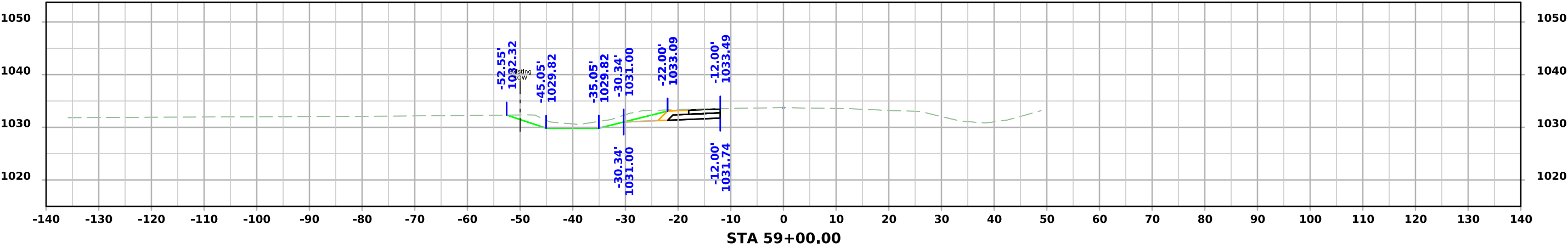


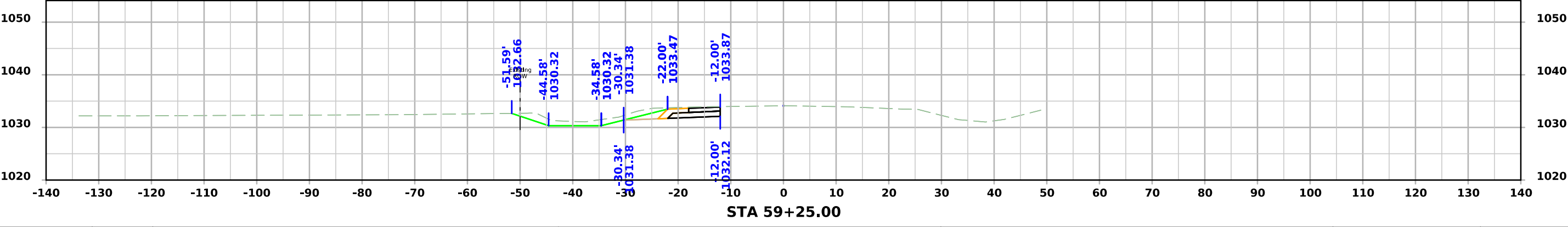
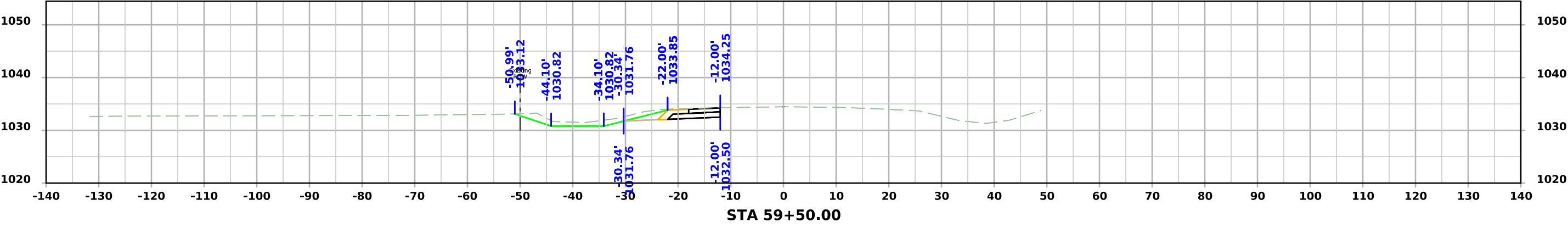
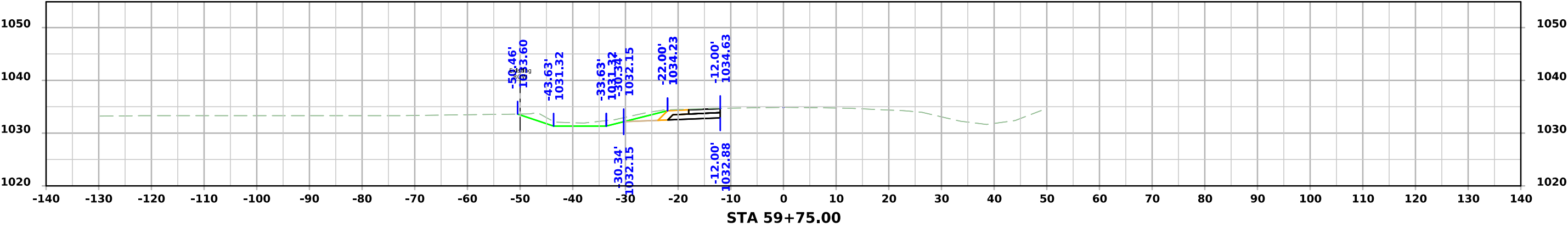


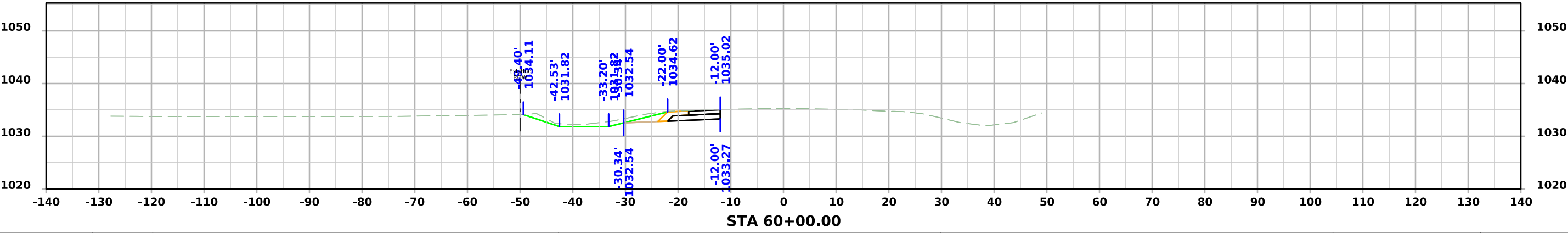
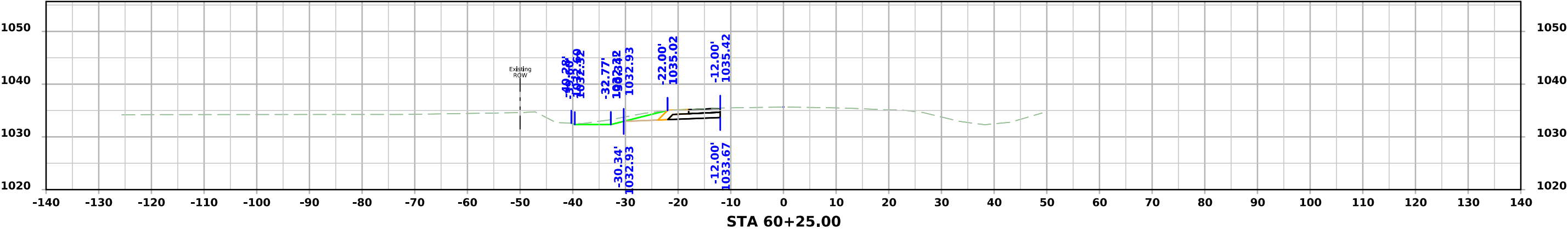
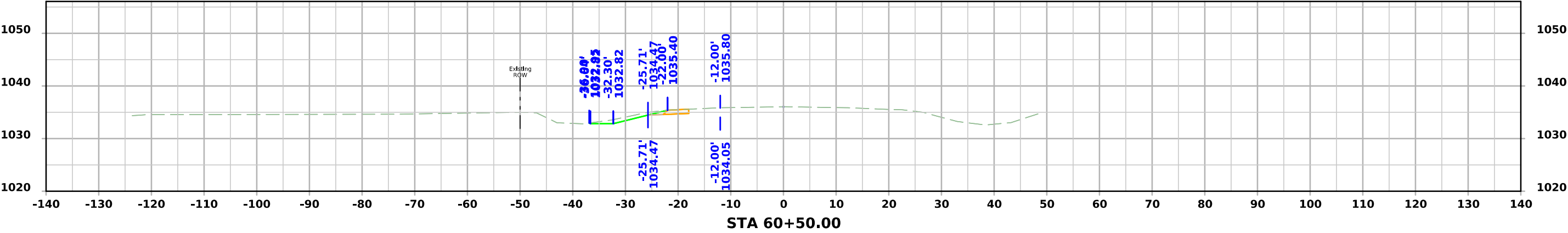


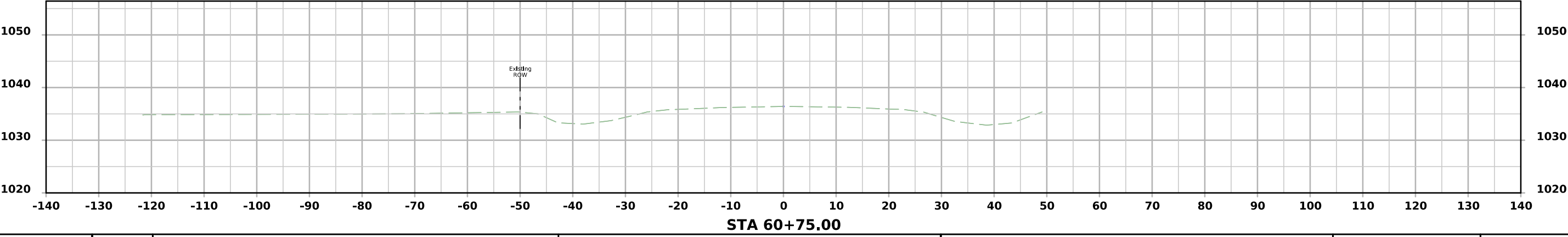
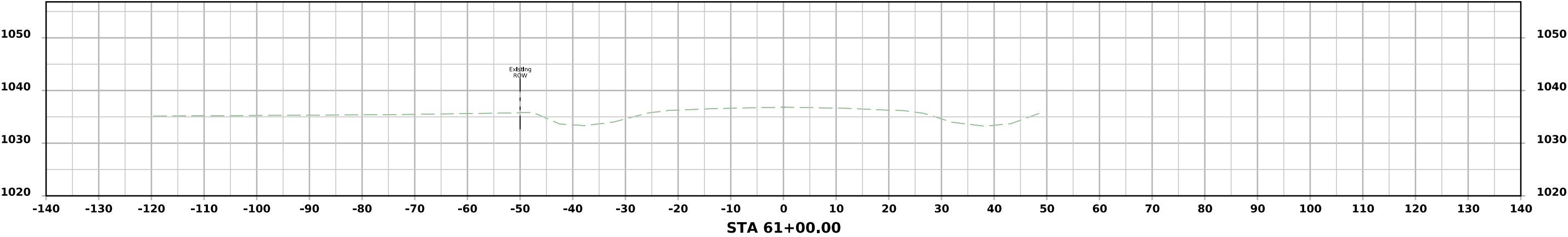


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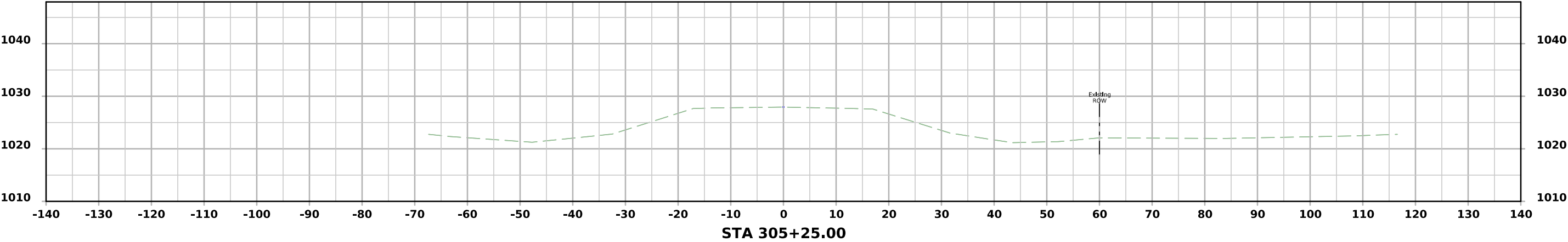
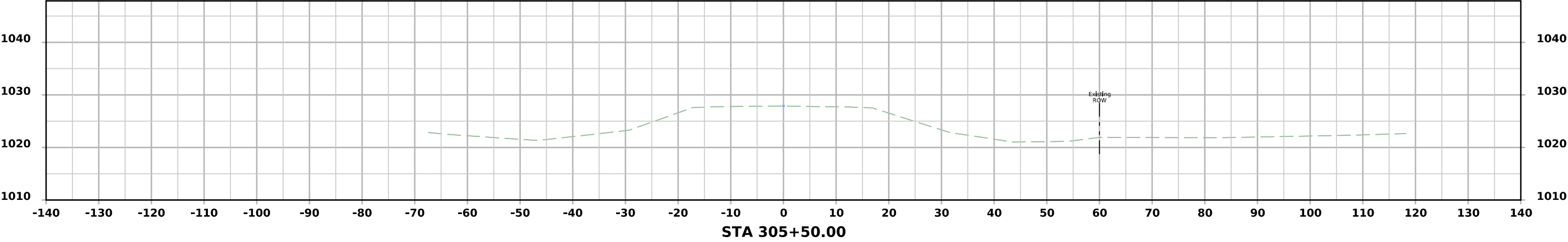
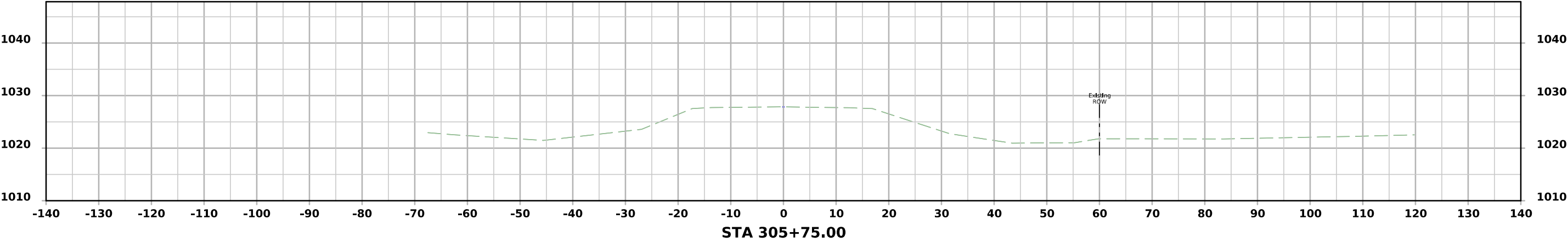




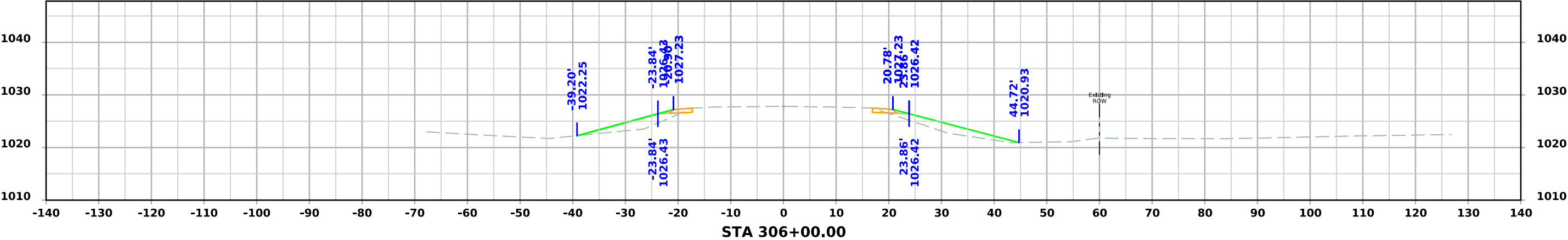
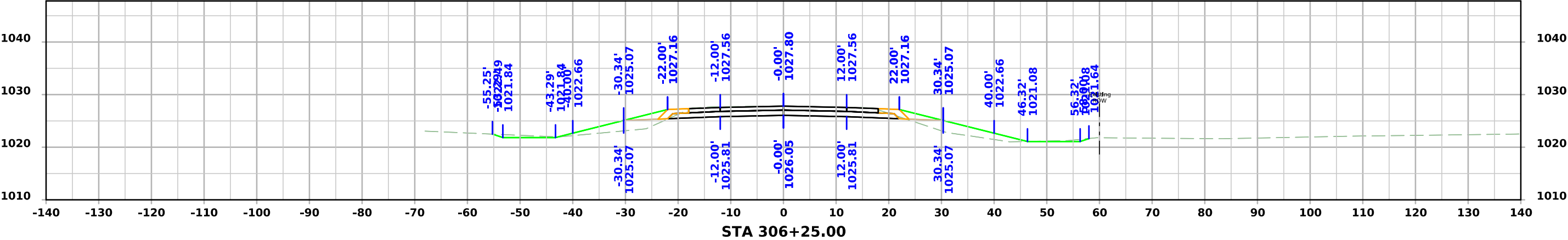
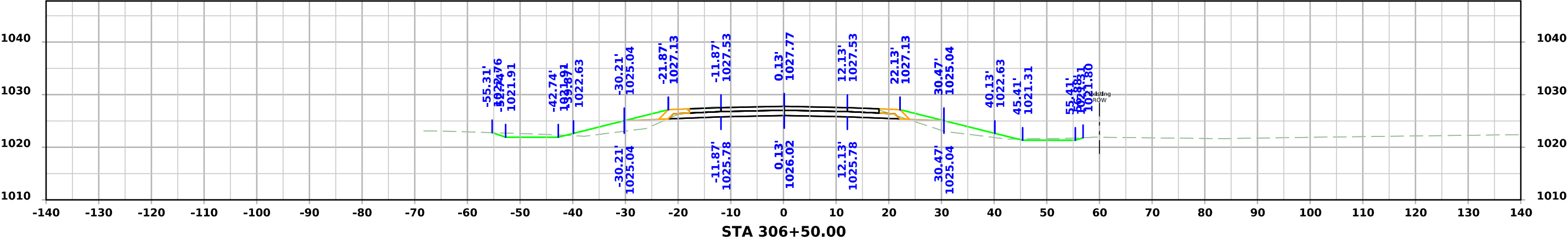


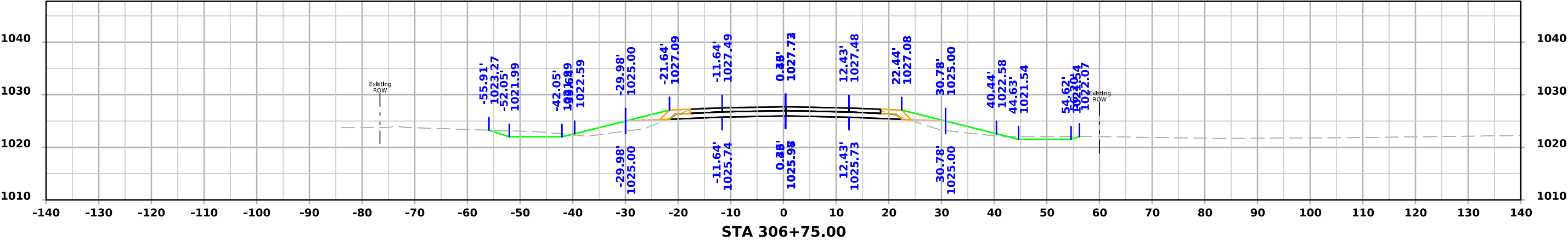
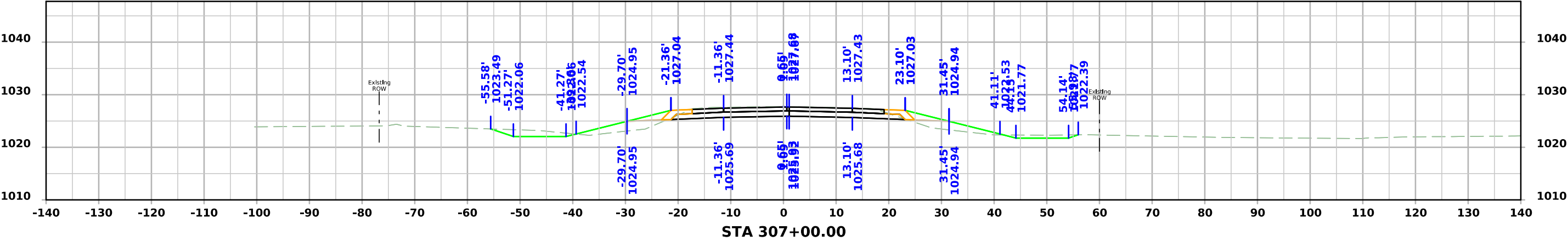
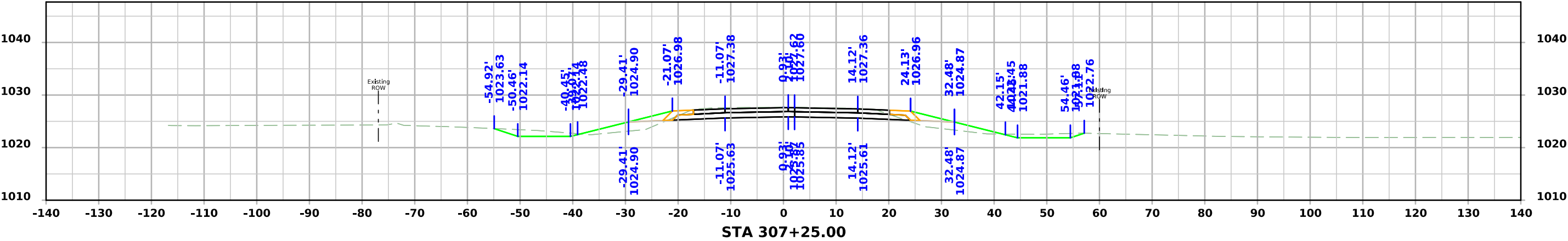


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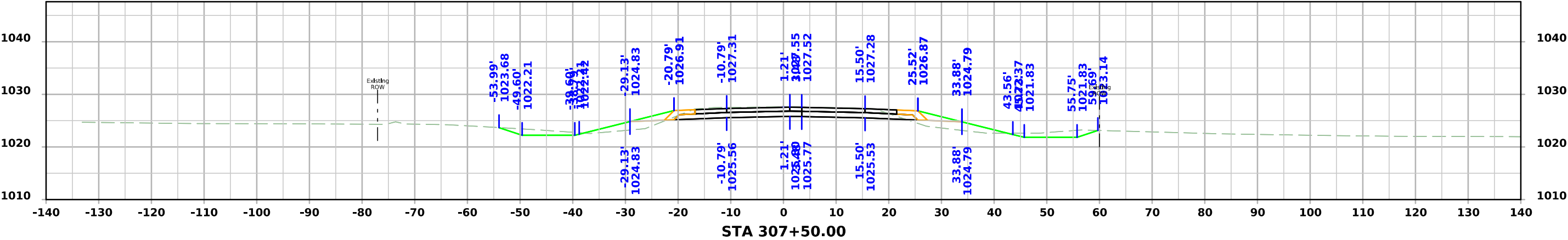
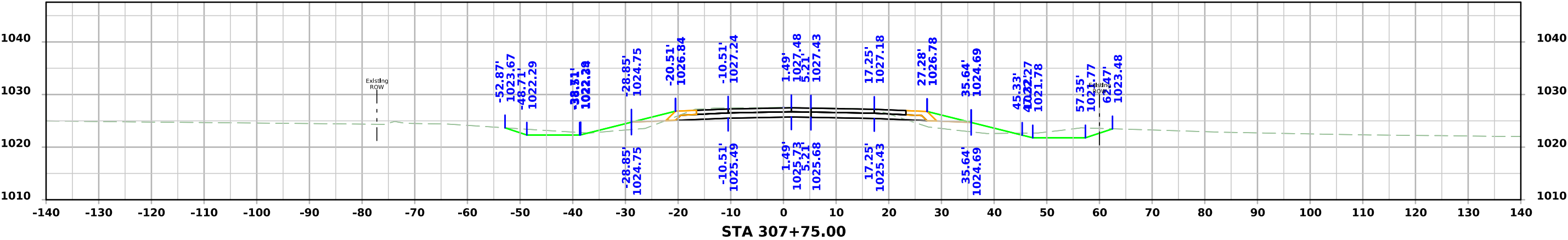
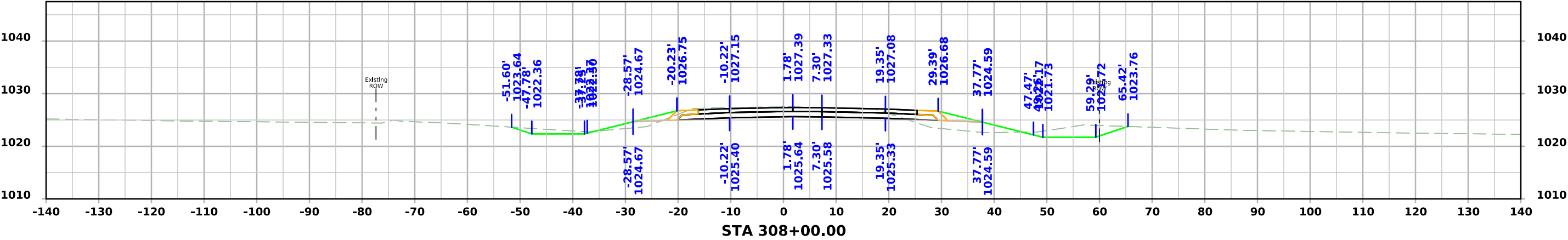


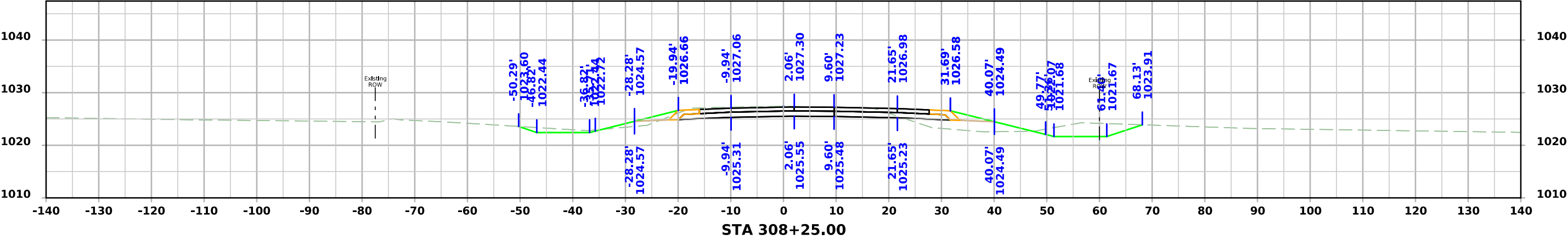
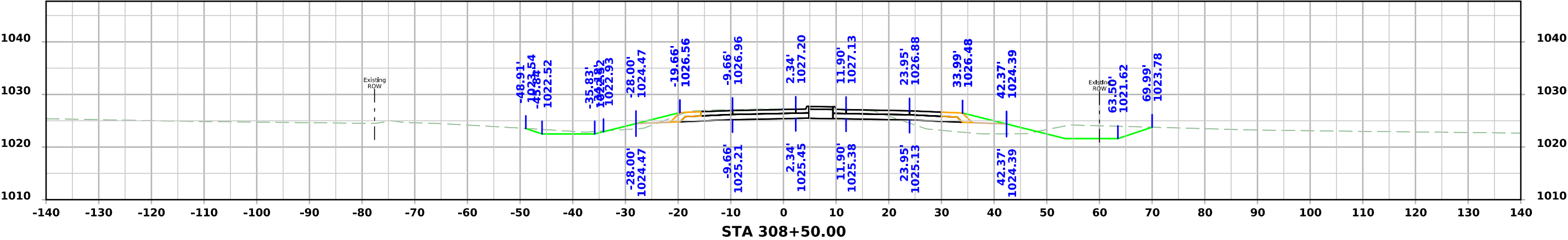
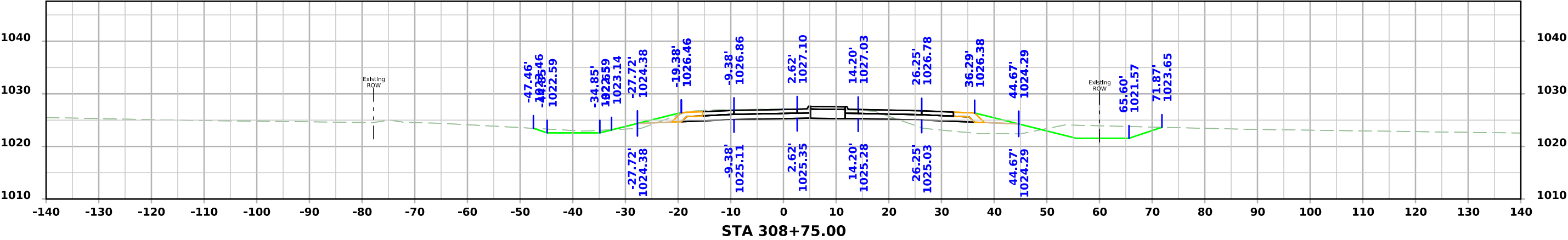
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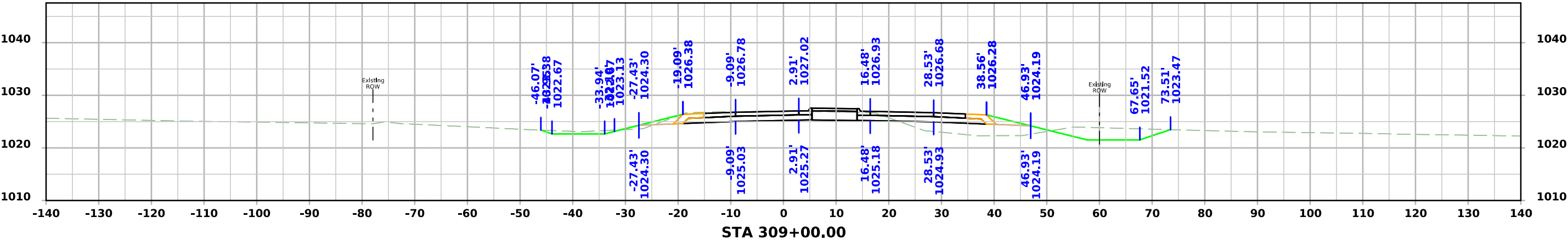
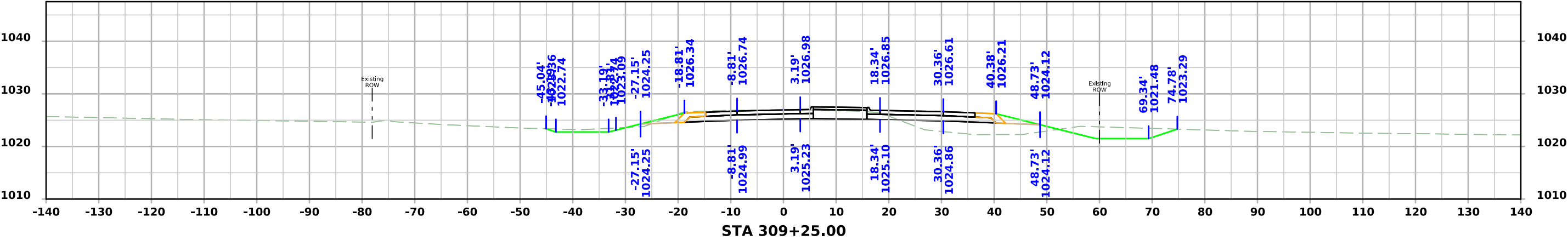
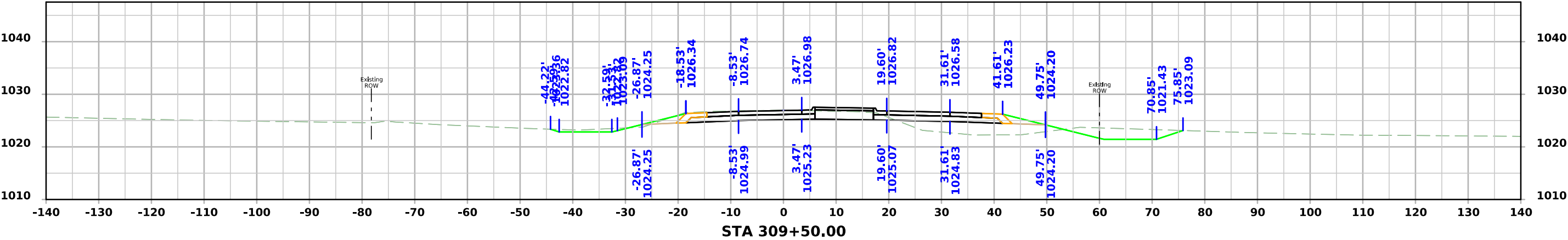




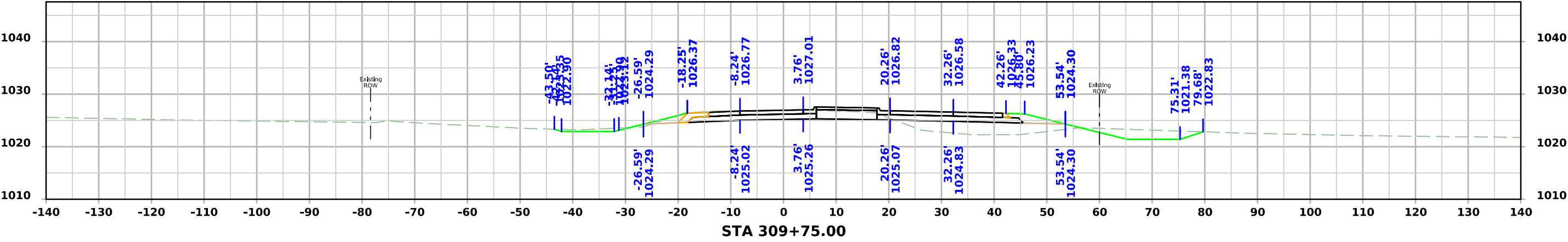
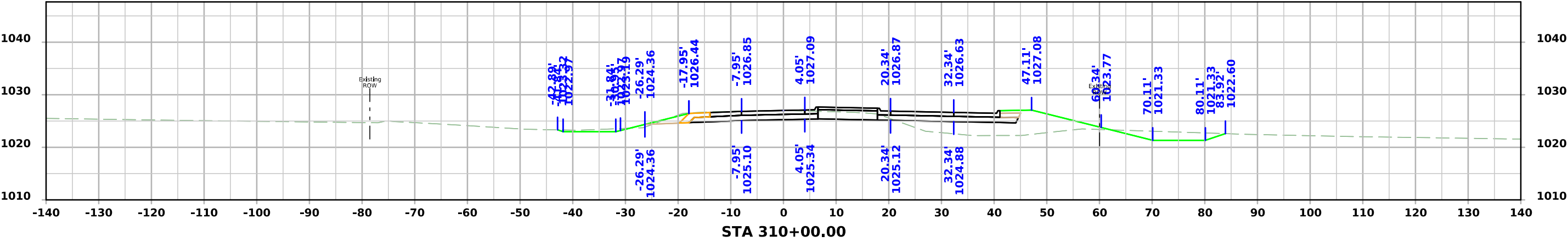
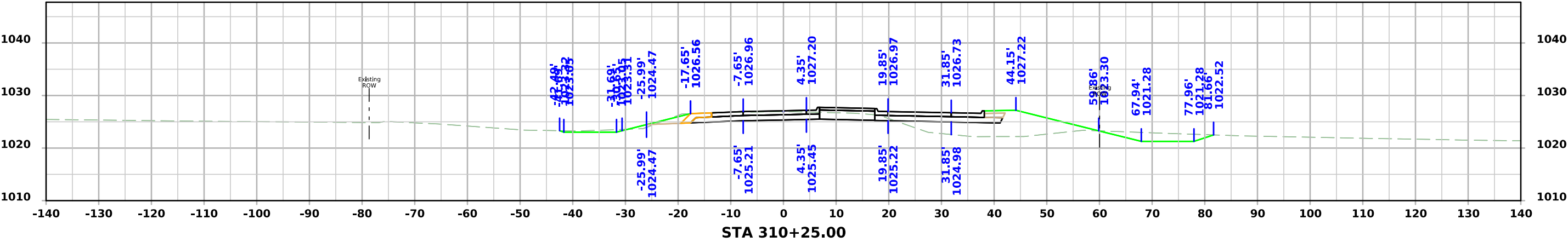
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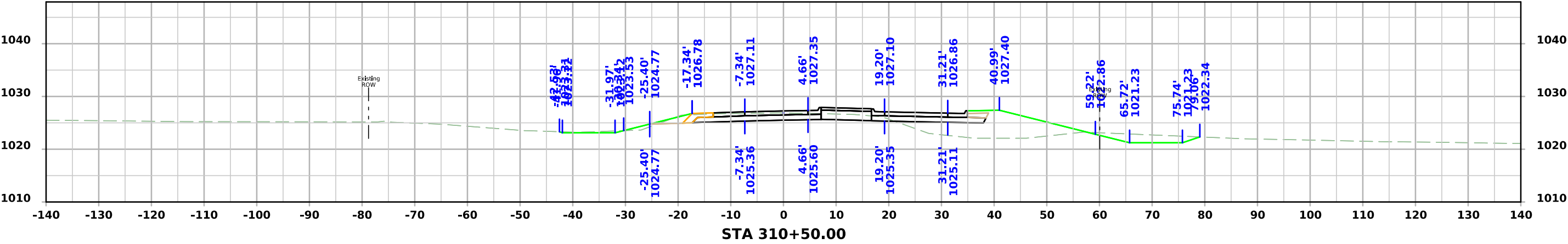
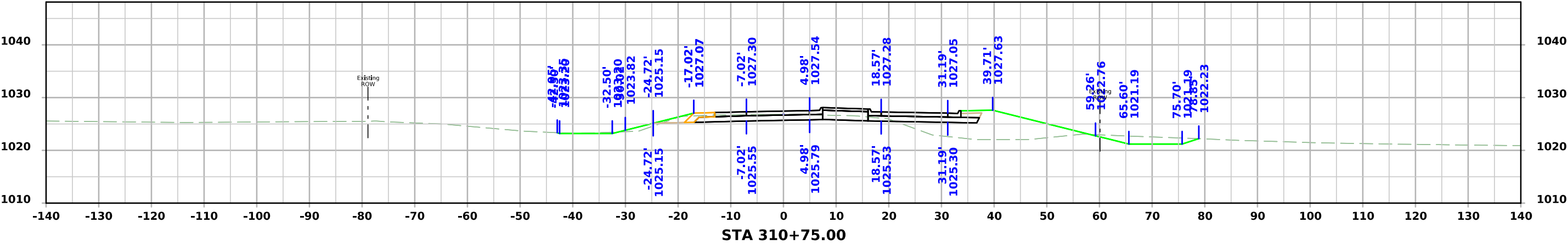
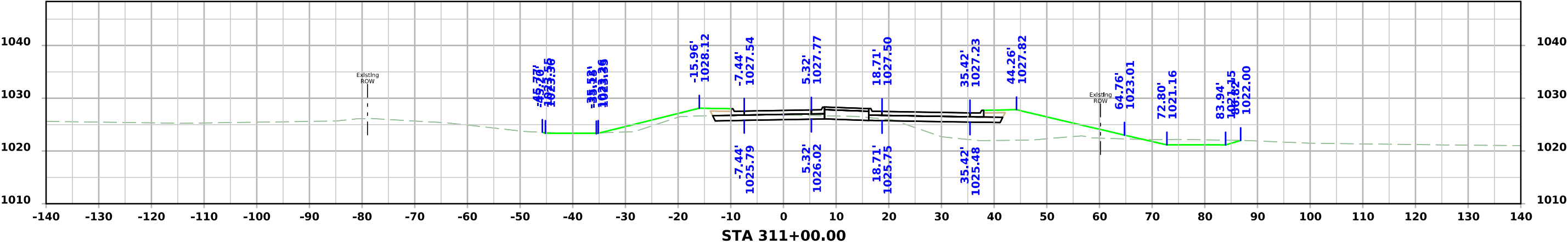




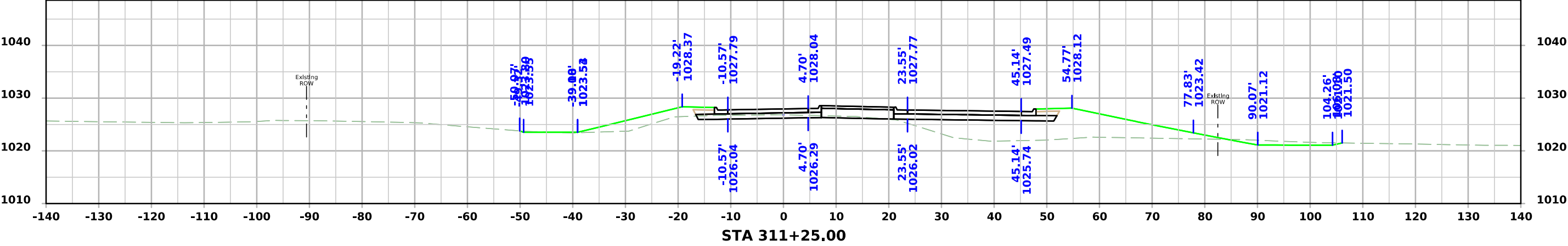
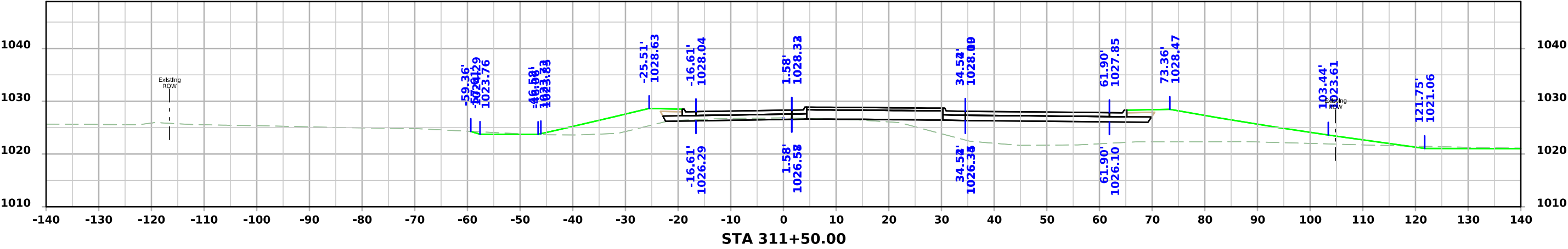
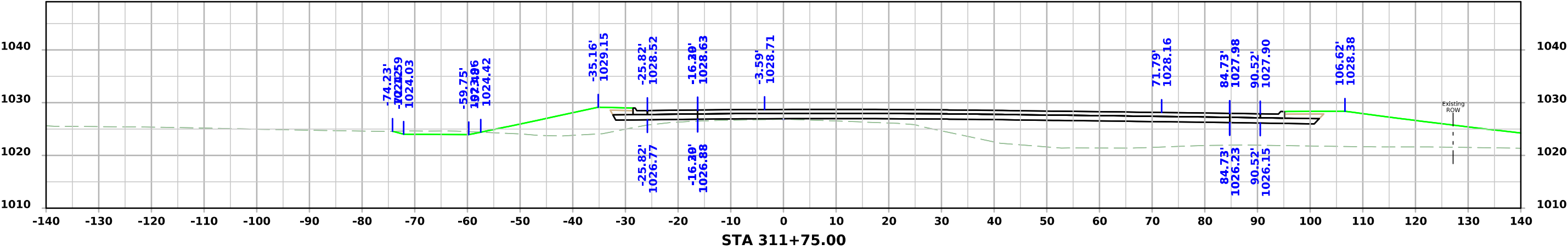
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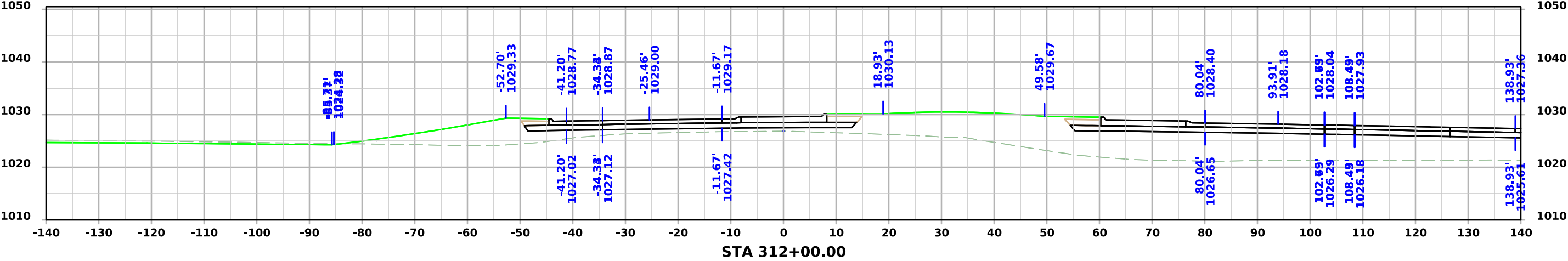
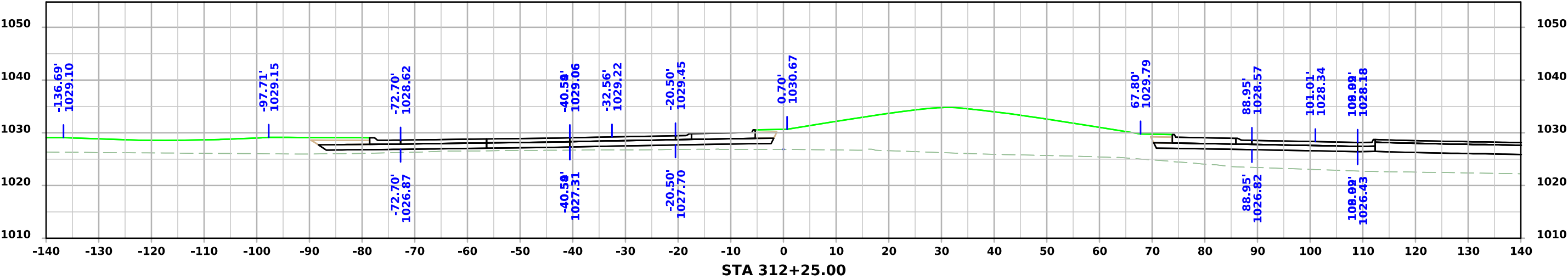
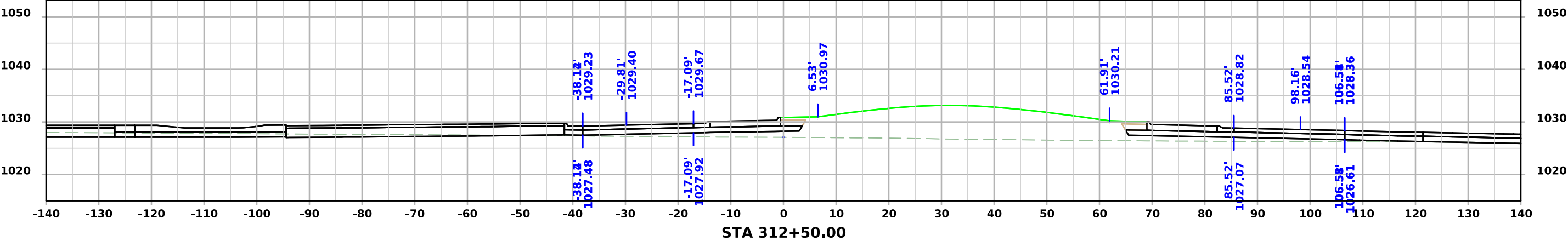
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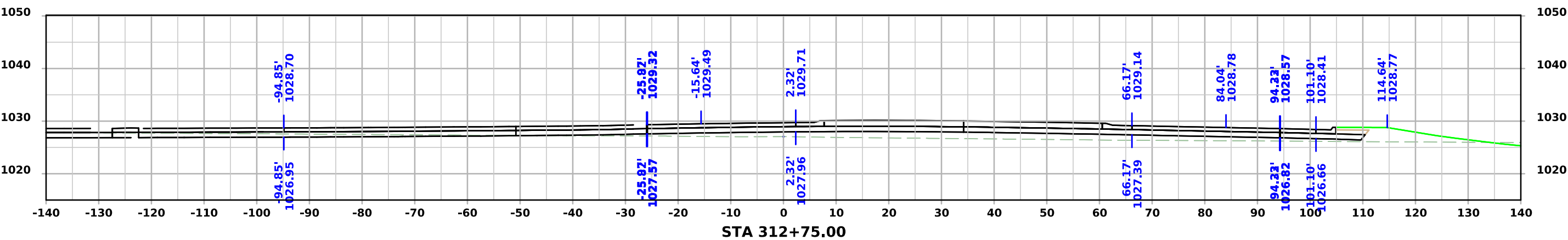
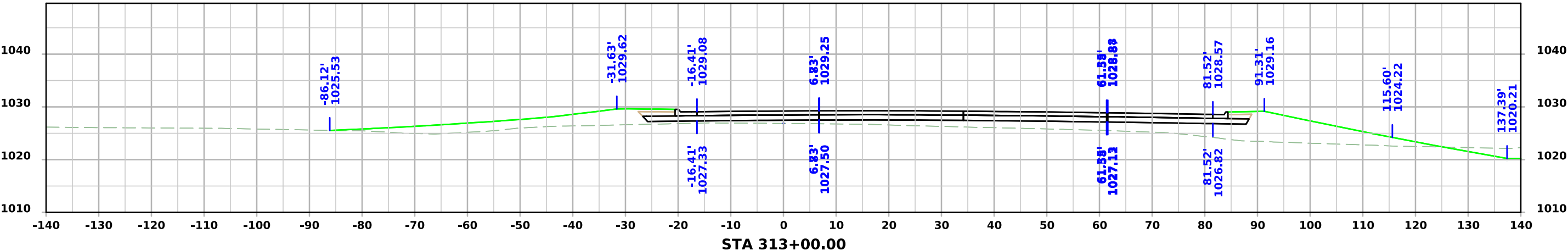
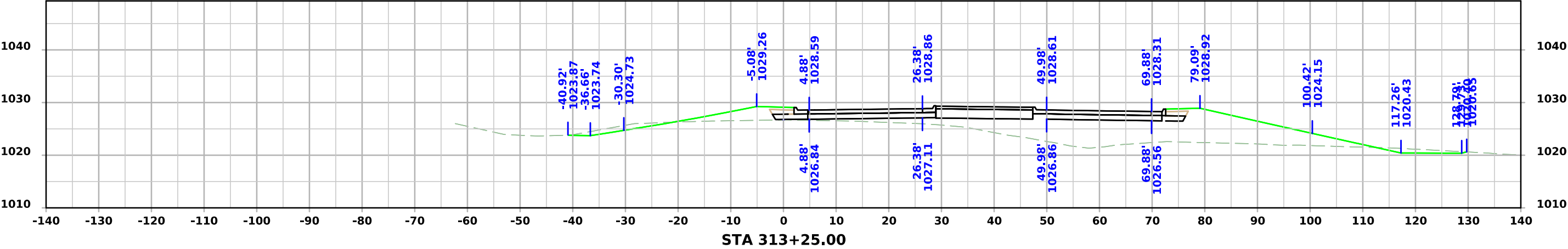
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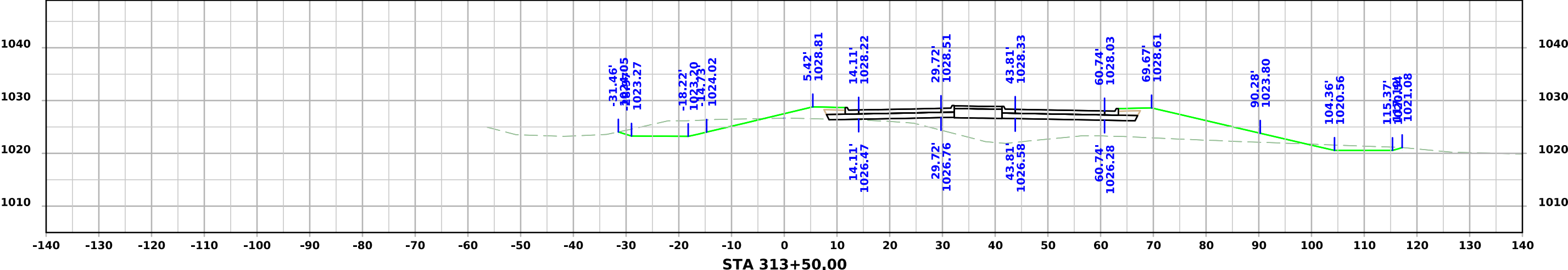
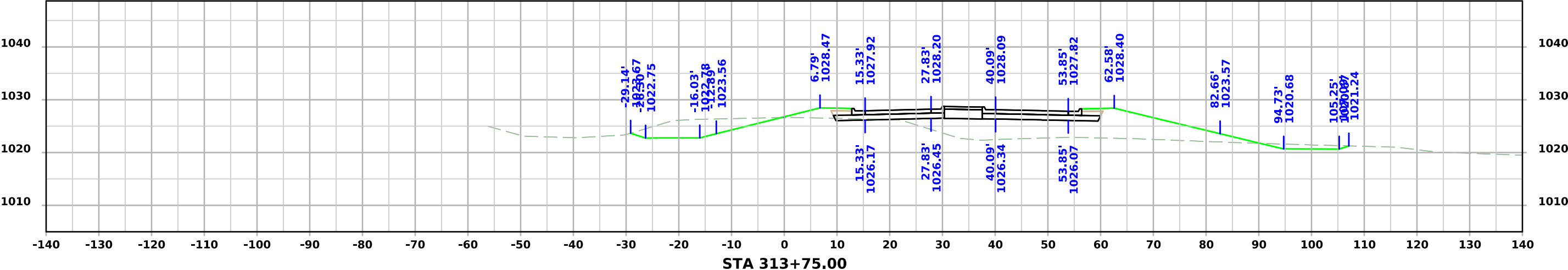
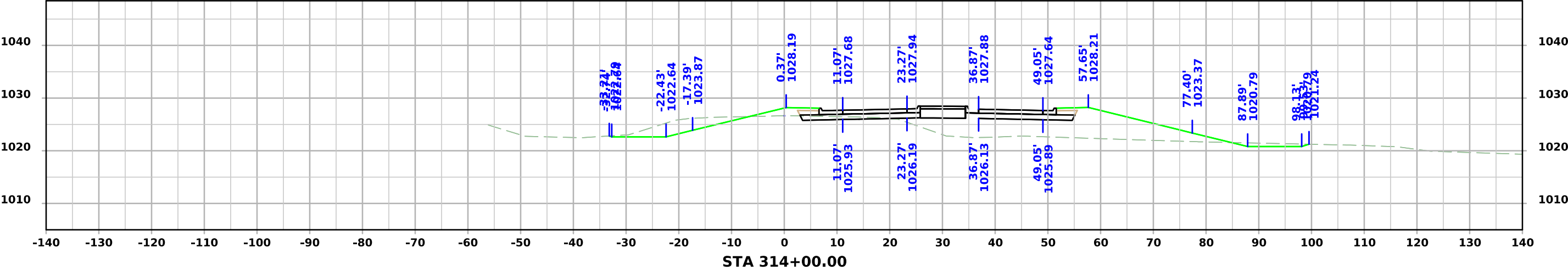
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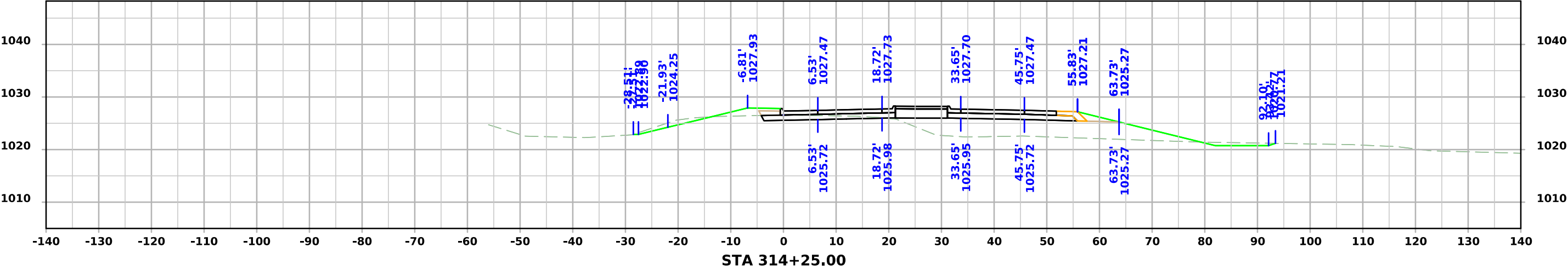
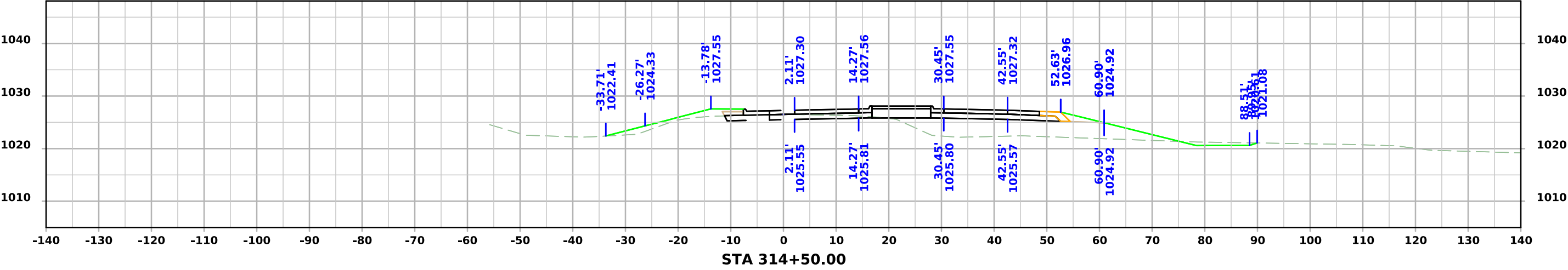
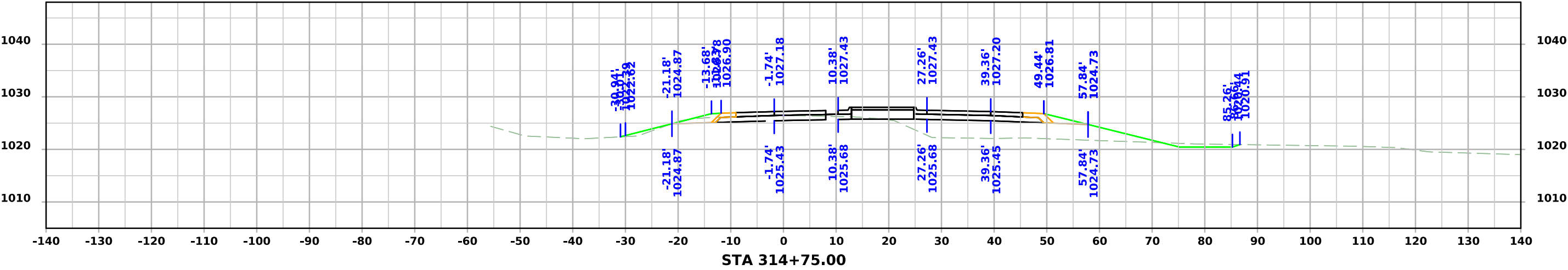
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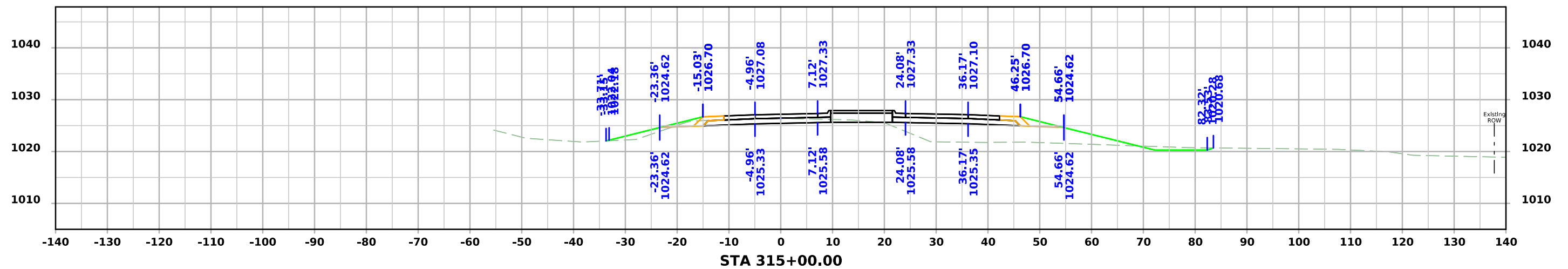
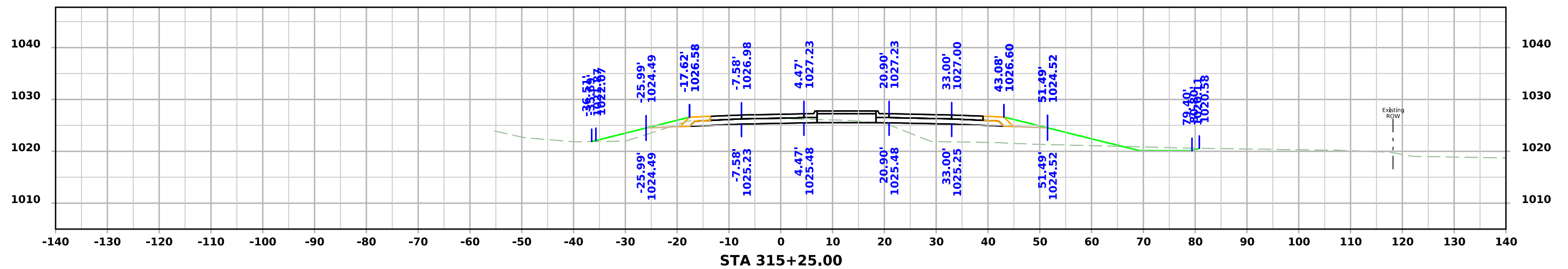
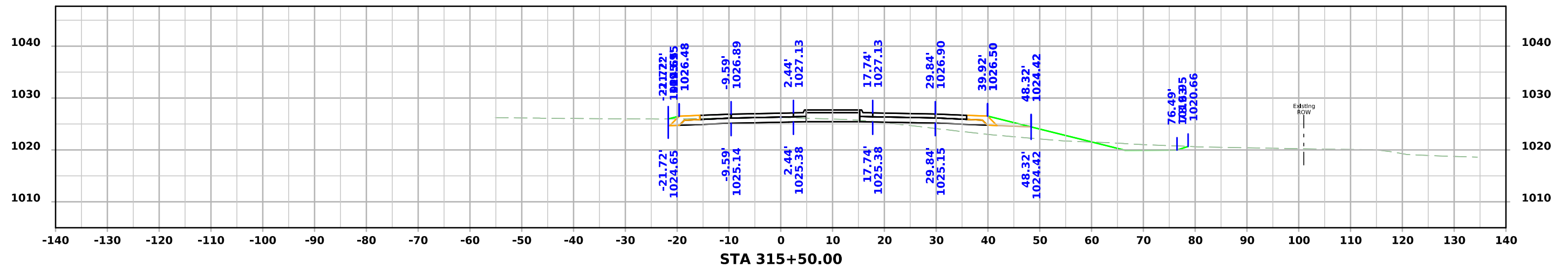
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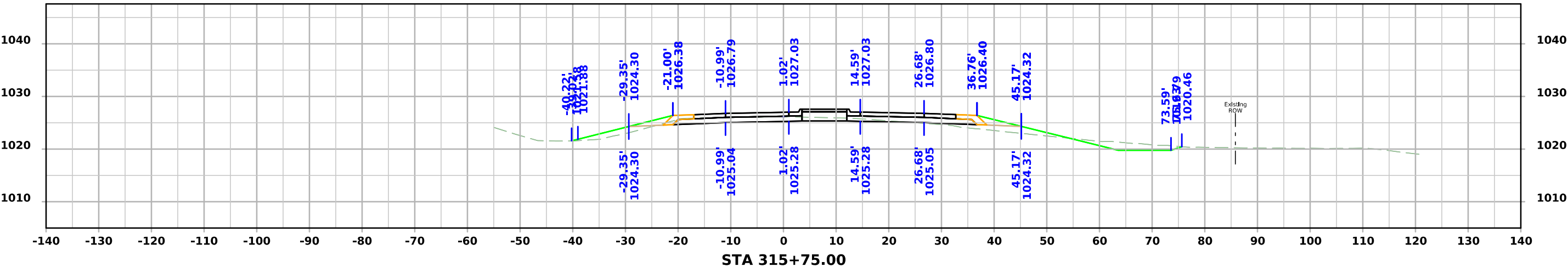
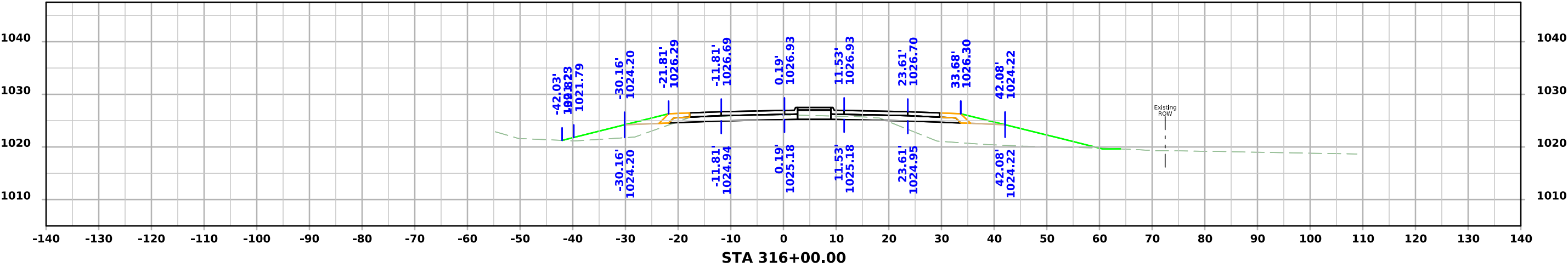
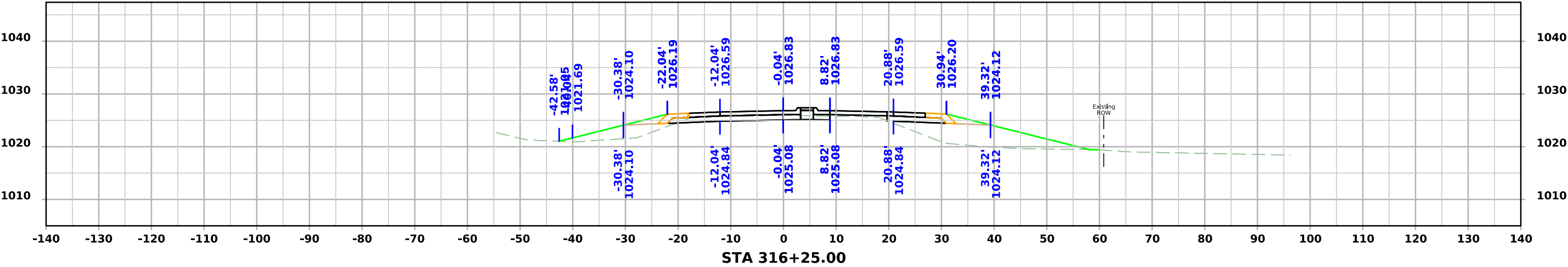
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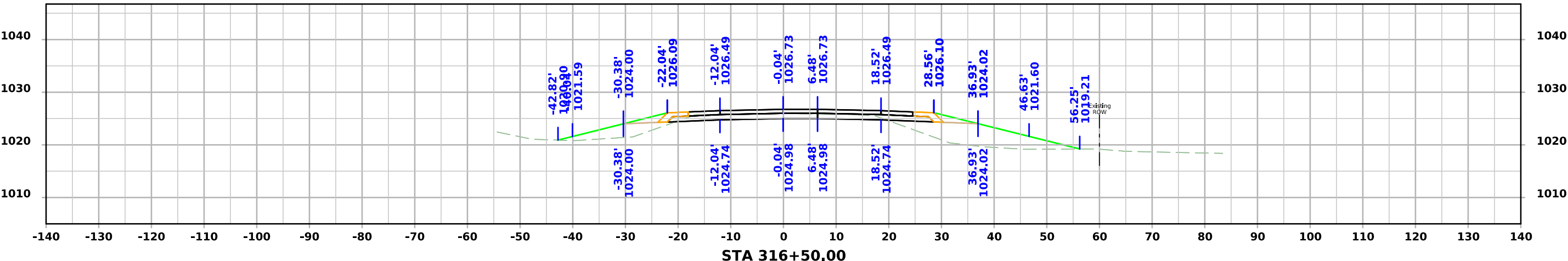
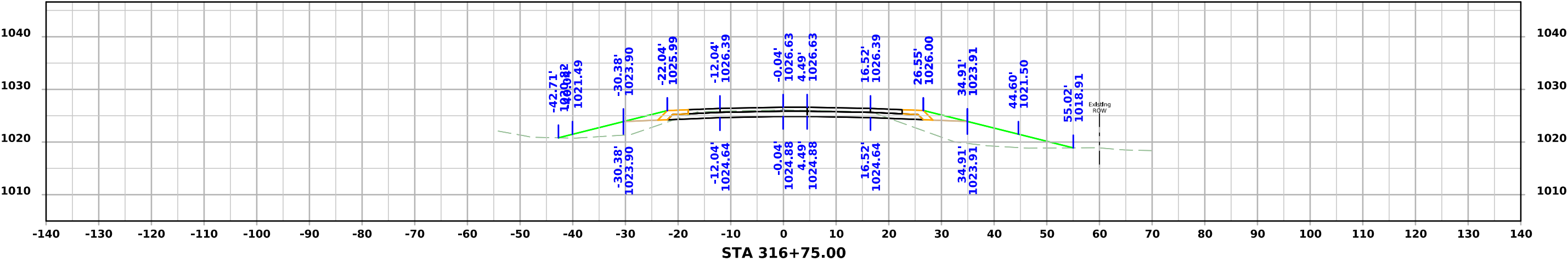
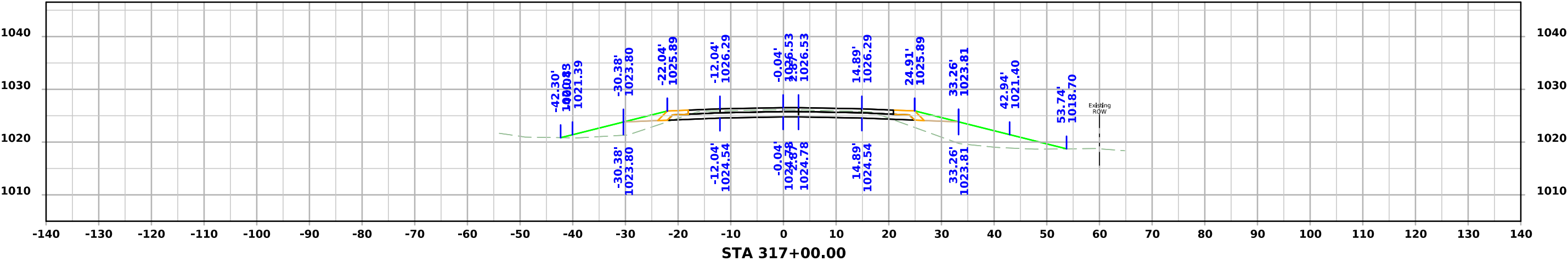
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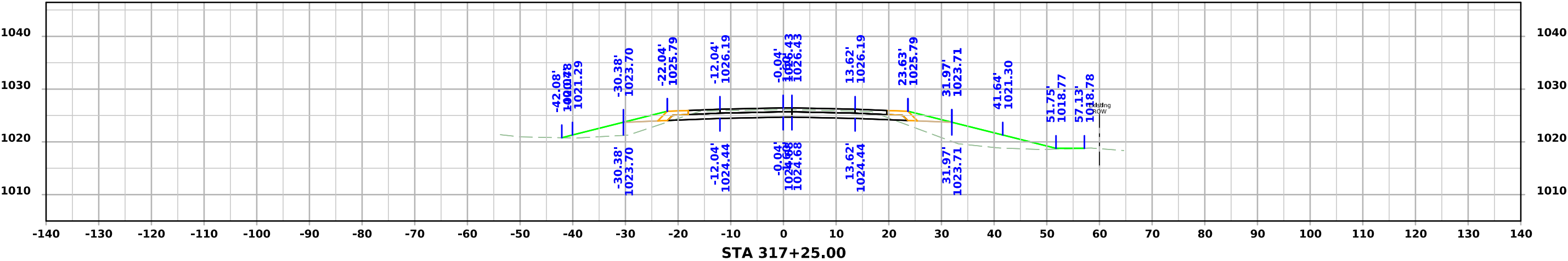
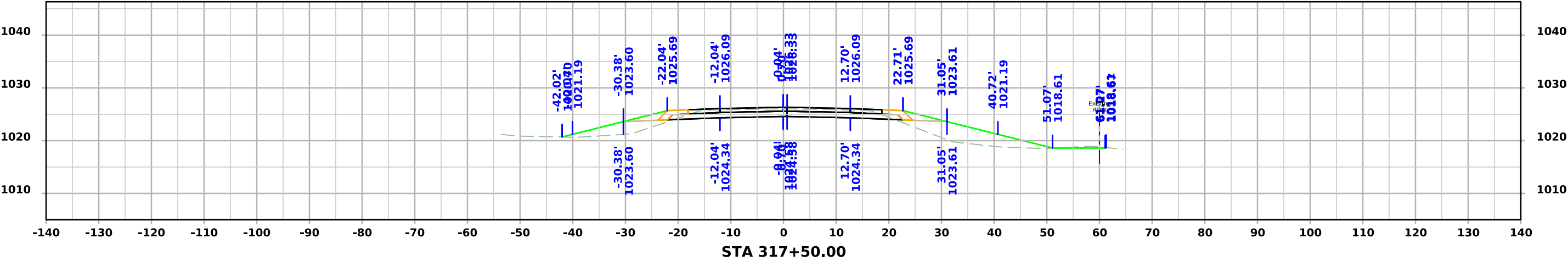
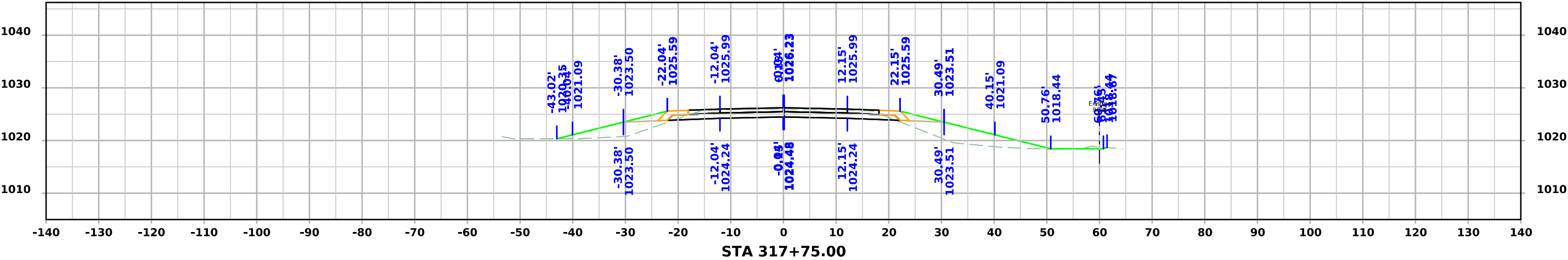
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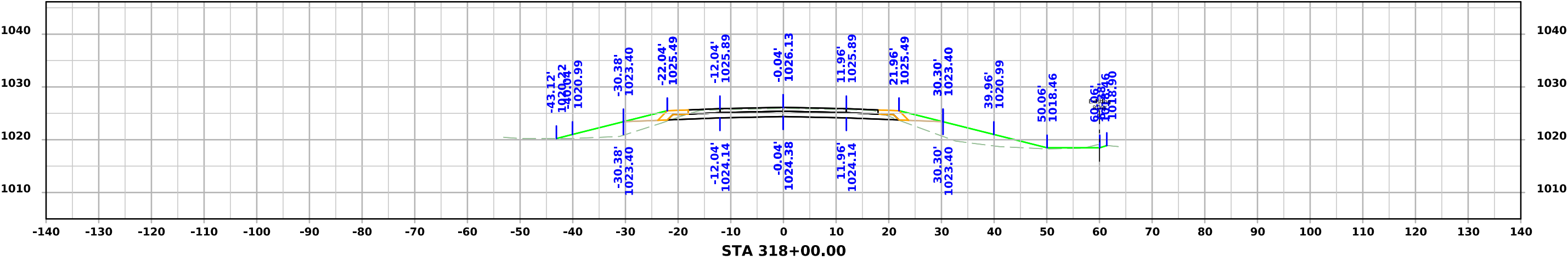
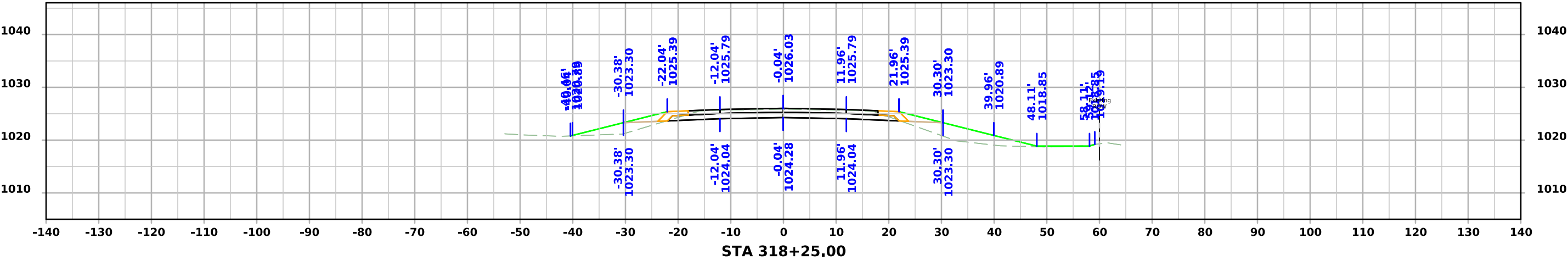
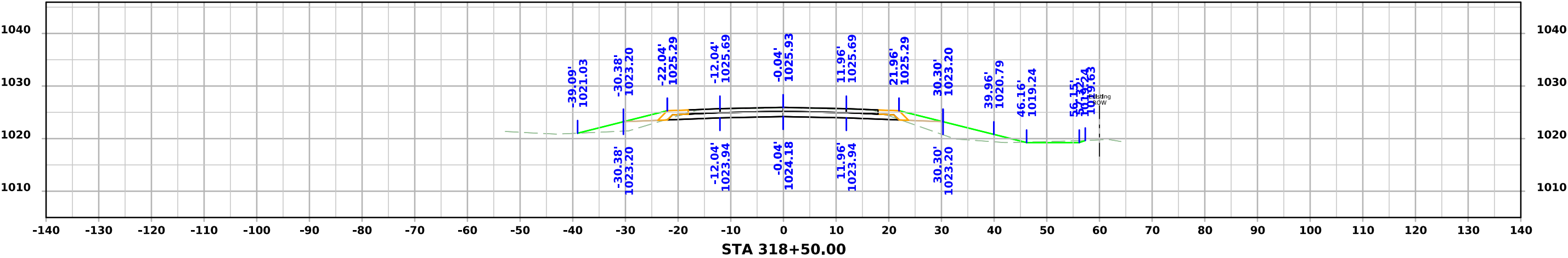
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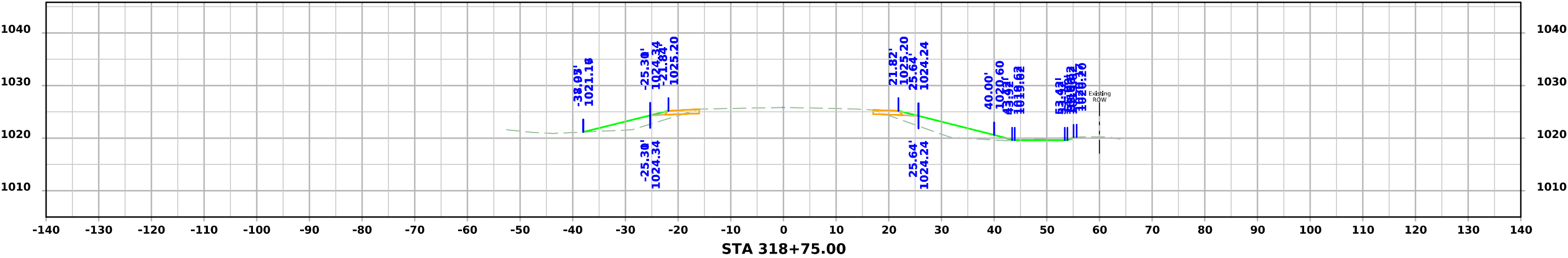
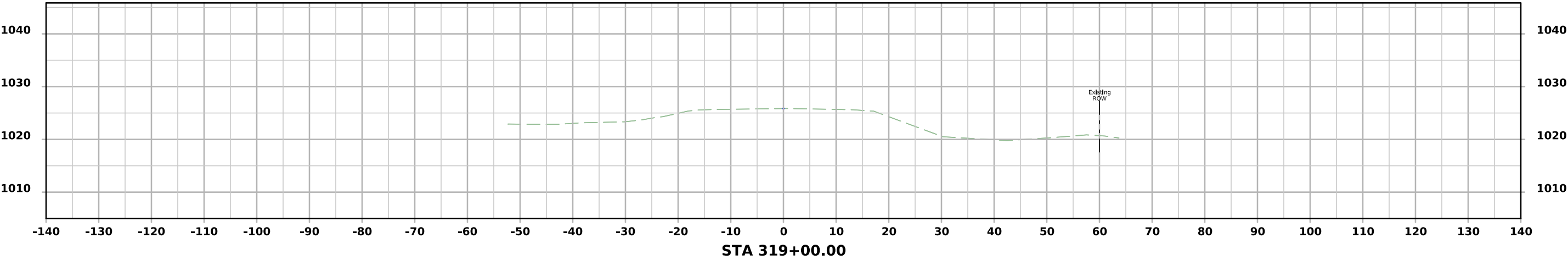
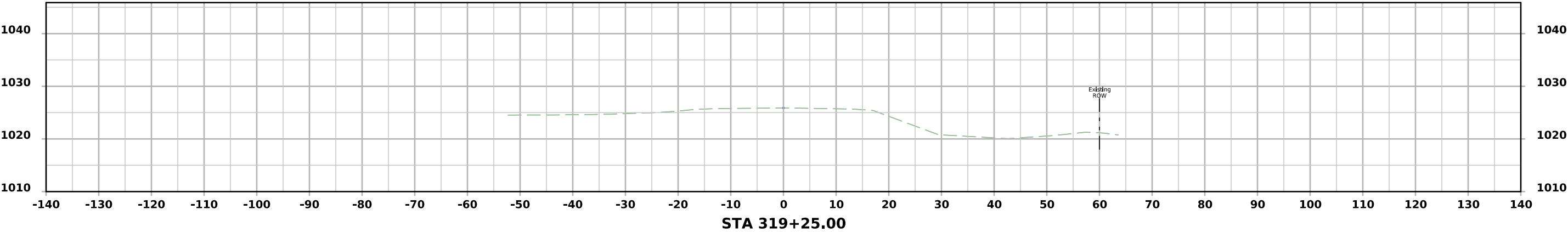


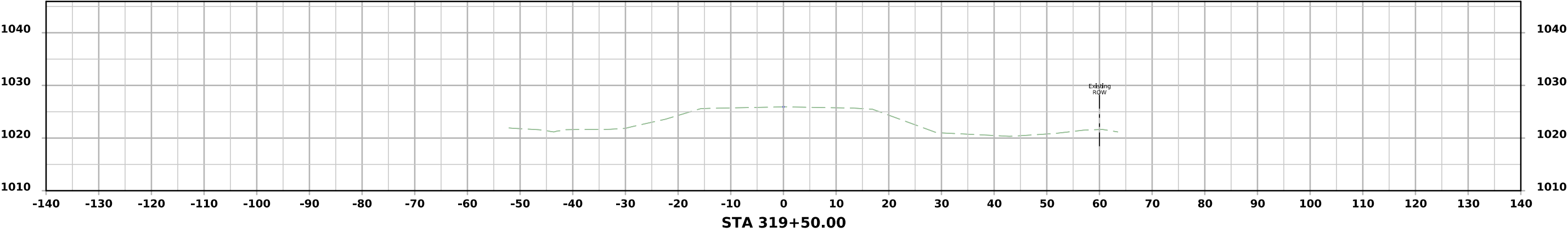
IA 210



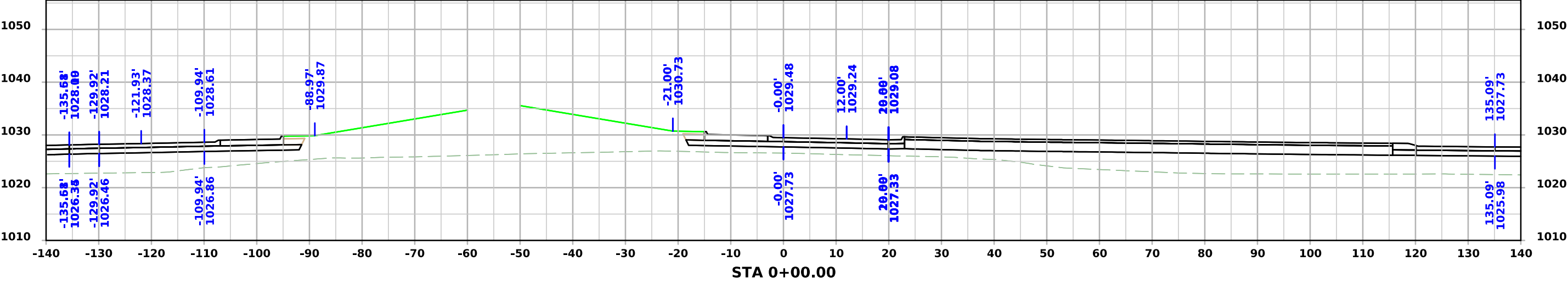
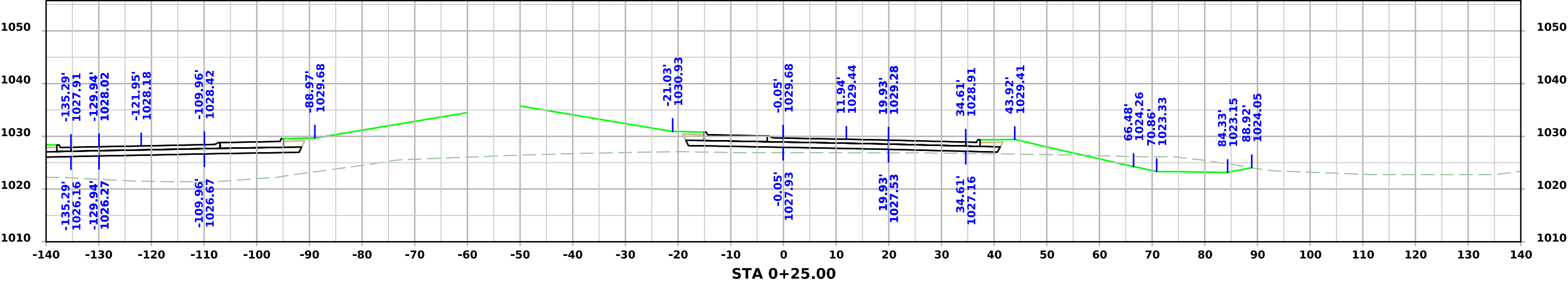
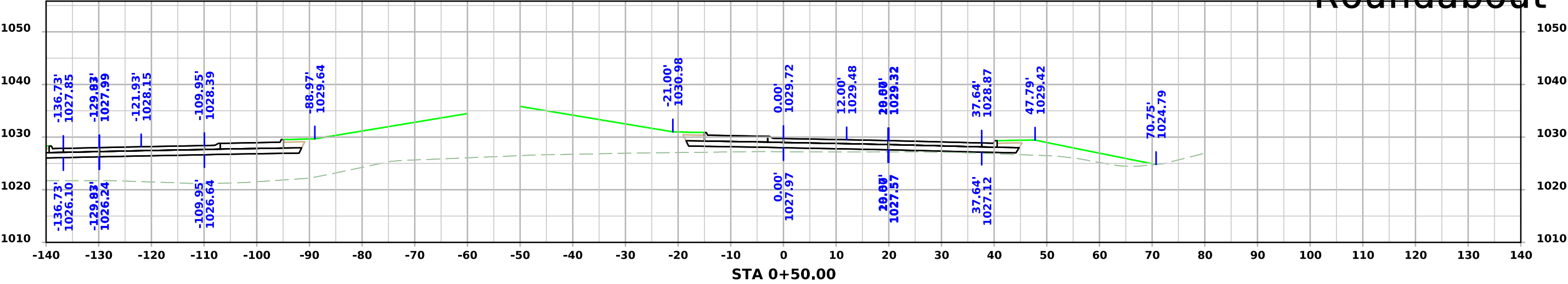
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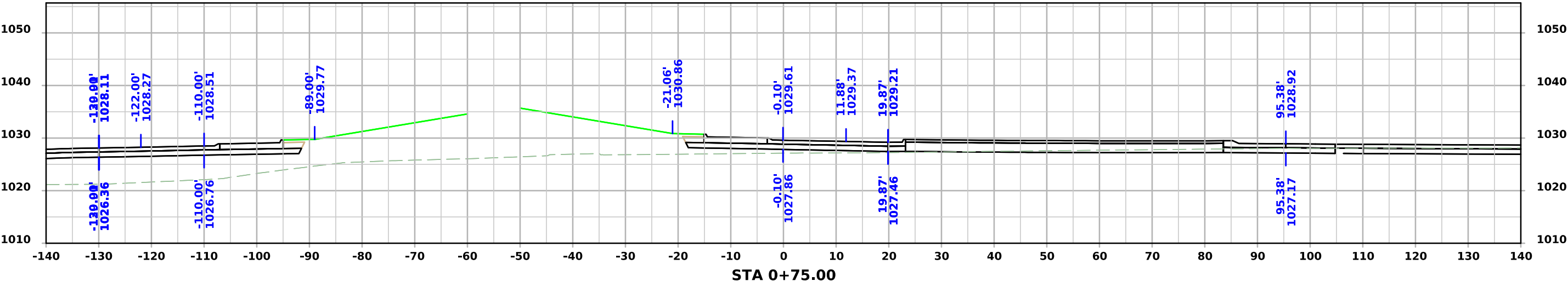
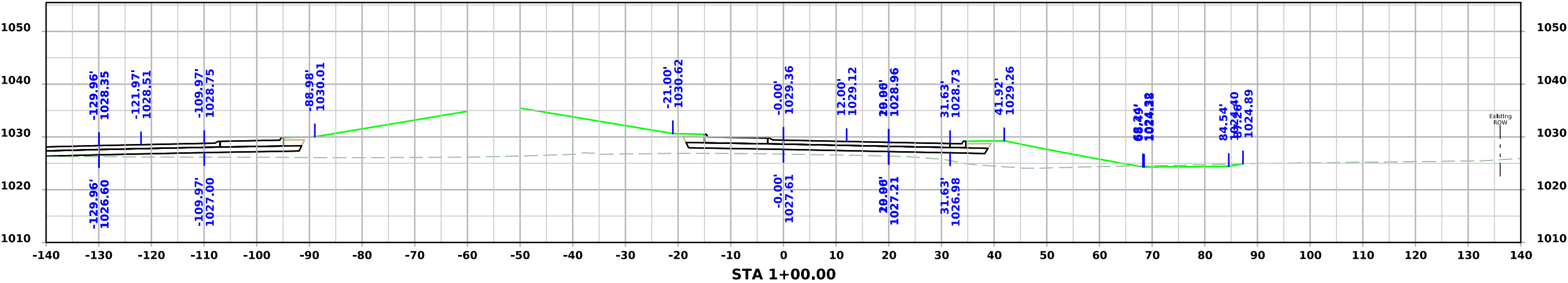
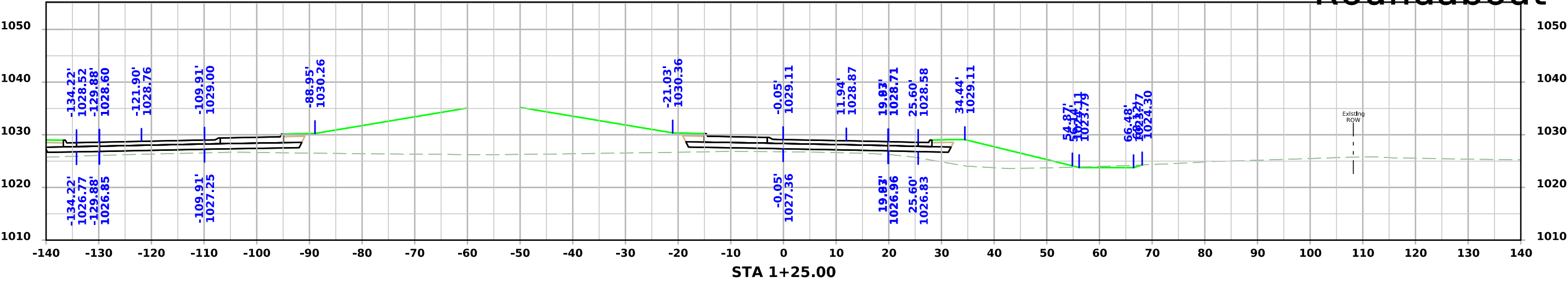




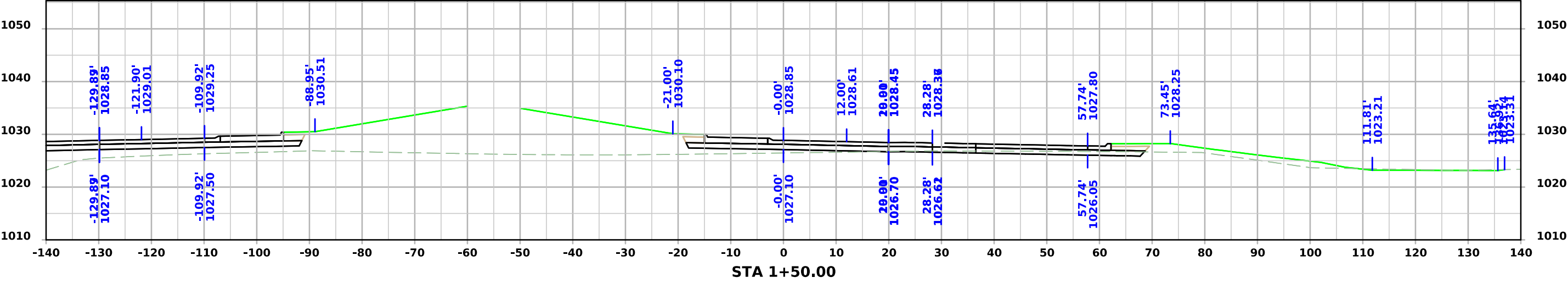
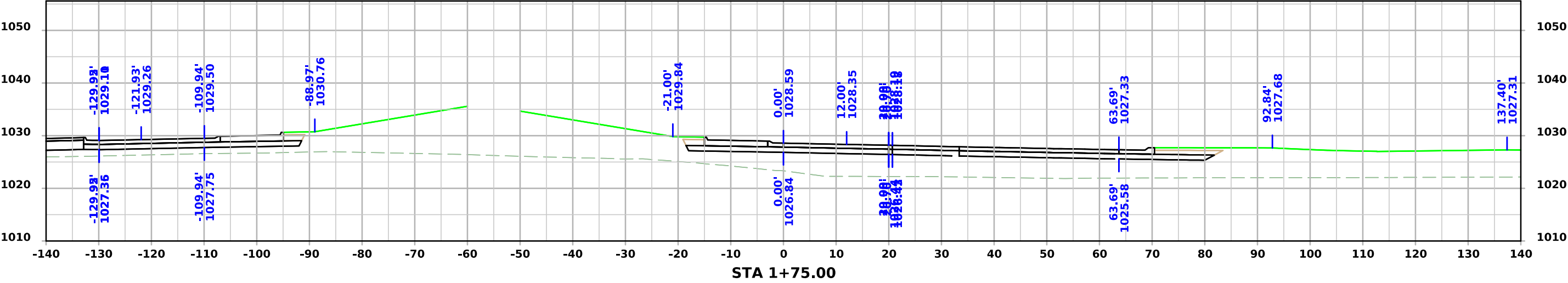
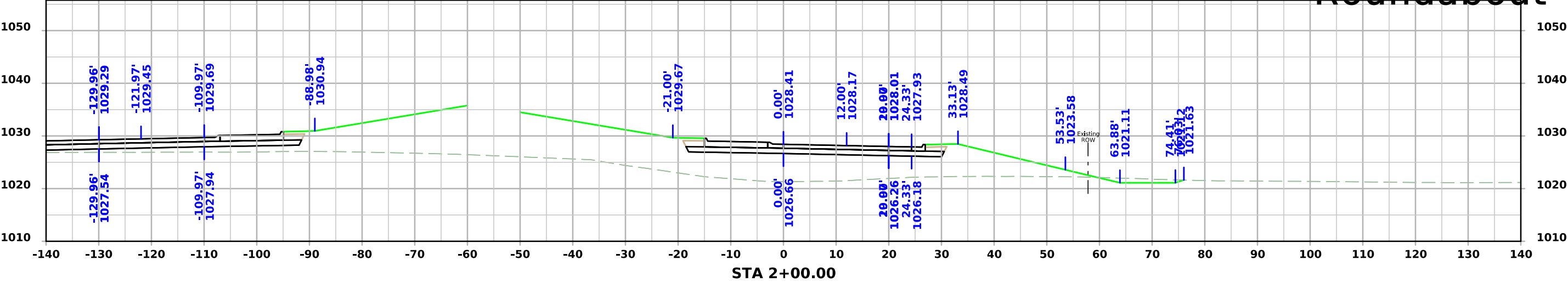
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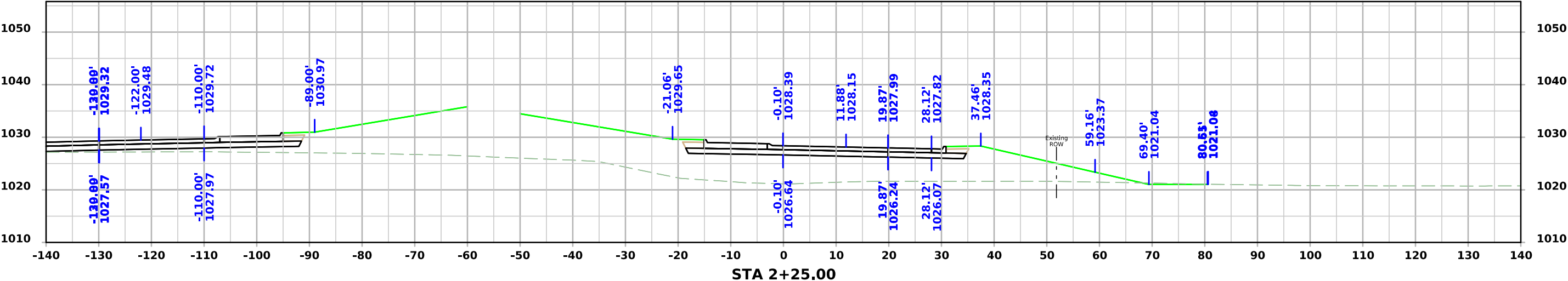
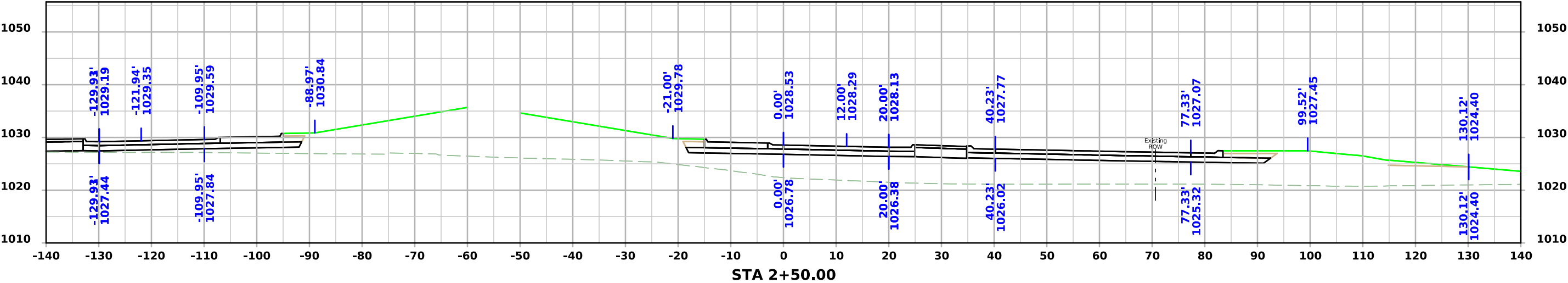
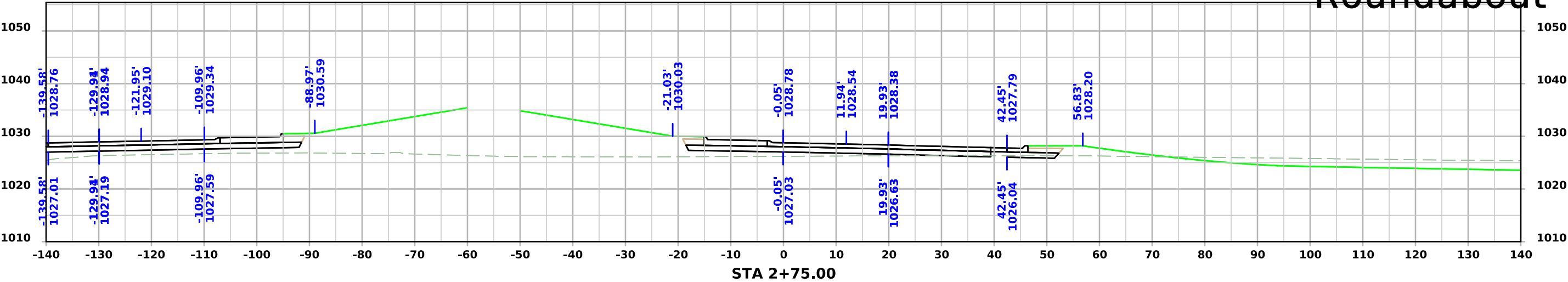
Roundabout



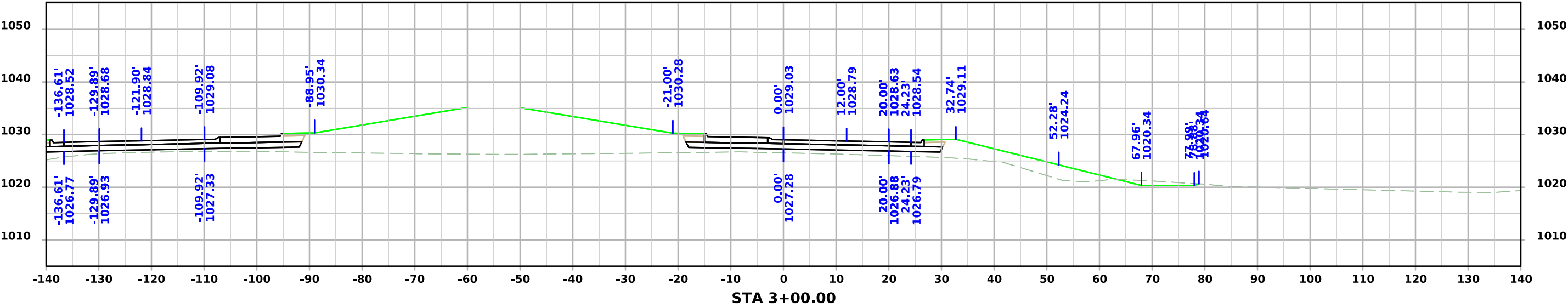
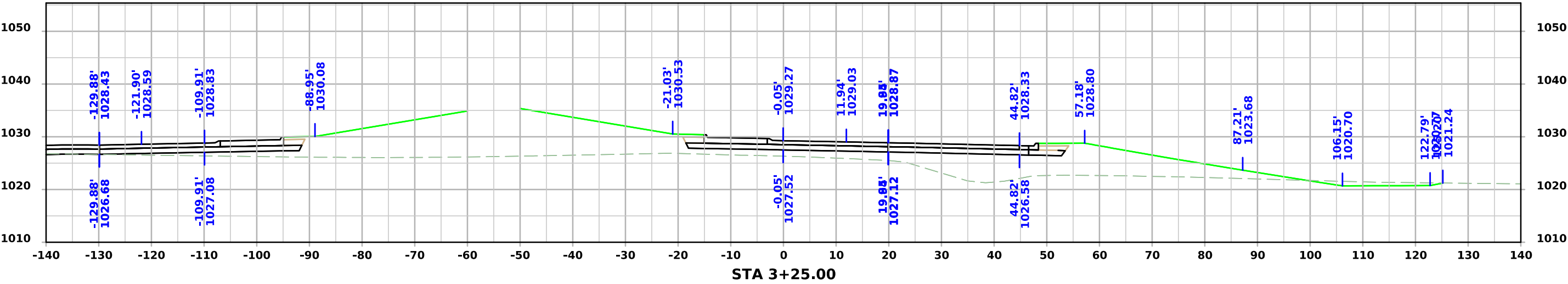
Roundabout



Roundabout



Roundabout



Roundabout

