

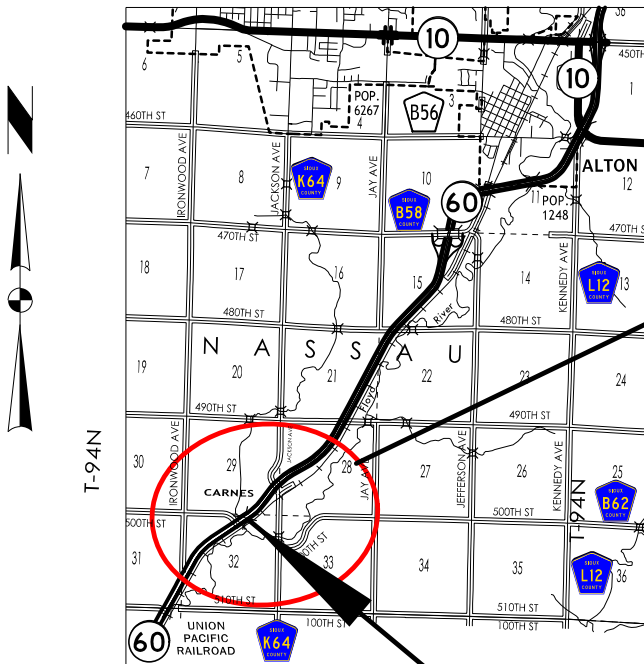


PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
Sioux COUNTY
Median Crossover
Floyd River Tributary 0.5 mi S of Co Rd K64 (NB)

SCALES: As Noted

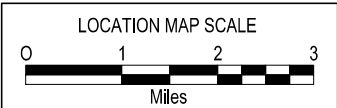
Refer to the Proposal Form for list of applicable specifications.

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



R-44W

NB FHWA 731713
SB FHWA 708905



REVISIONS

TOTAL
95

PROJECT IDENTIFICATION NUMBER

21-84-060-010

PROJECT NUMBER

BRFN-060-2(093)--39-84

R.O.W. PROJECT NUMBER

NHSN-060-2(88)--2R-84

A Sheets

A.1

B Sheets

B.1 - 4

C Sheets

C.1 - 2

C.3

C.4 - 8

F Sheets

F.1

F.2 - 3

G Sheets

G.1 - 3

G.4

J Sheets

J.1

J.1

J.3

J.4 - 8

R Sheets

RC.1 - 10

RR.1 - 4

T Sheets

T.1 - 2

T.3 - 6

U Sheets

U.1 - 3

W Sheets

W.1

W.2 - 22

W.23 - 44

Title Sheets

Title Sheet

Typical Cross Sections and Details

Typical Cross Sections and Details

Quantities and General Information

Estimated Project Quantities

Standard Road Plans

Tabulations (beg. with tab. of incidentals if needed)

Detour or Temporary Pavement Sheets

Legend Sheet

Detour Plan and Profile Sheets

Survey Sheets

Reference Ties and Bench Marks

Horizontal Control Tab. & Super for all Alignments

Traffic Control and Staging Sheets

Traffic Control Plan

Staging Notes Stage

Traffic Control & Staging Legend & Symbol Info. Sheet

Staging and Traffic Control Sheets Stage ??

Erosion Control Sheets

Est. Quantities, PPP, General Notes and Tabulations

Erosion Control Legend and Symbol Information Sheet

Earthwork Quantity Sheets

Earthwork Legend

Earthwork Quantity Sheets

500 Series, Mod.Stds. and Detail Sheets

500 Series, Modified Standards and Detail Sheets

Mainline Cross Sections

Cross Sections Legend & Symbol Information Sheet

DET100

DET200

PROJECT LOCATION
Ref. Loc. 9.89

INDEX OF SEALS

SHEET NO.	NAME	TYPE	BID QUANTITY SHEETS
A.1	Jason R. Strum	Primary Signature Block	C.1-C.2
RC.1	Rachel A. Harris	Landscape Design	RC.2-RC.3

ROADWAY DESIGN

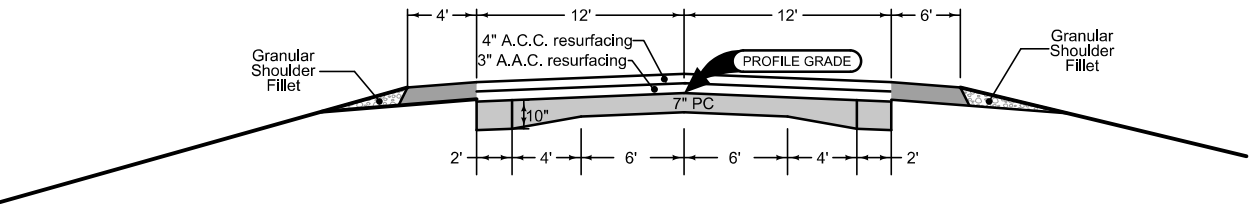


I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

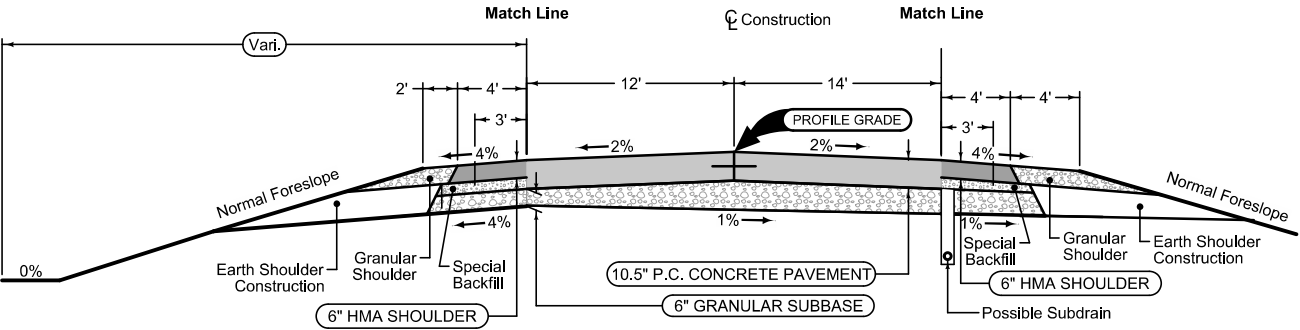
Signature: *Jason R. Strum* Date: 4-29-2026
Jason R. Strum
Printed or Typed Name

My license renewal date is December 31, 20 27

Pages or sheets covered by this seal: A.1, B.1-B.4, C.1-C.8, F.1-F.3, G.4, J.1-J.8, T.1-T.6, U.1-U.3, W.1-W.44



STATION TO STATION	
1524+50.00	1527+95.00

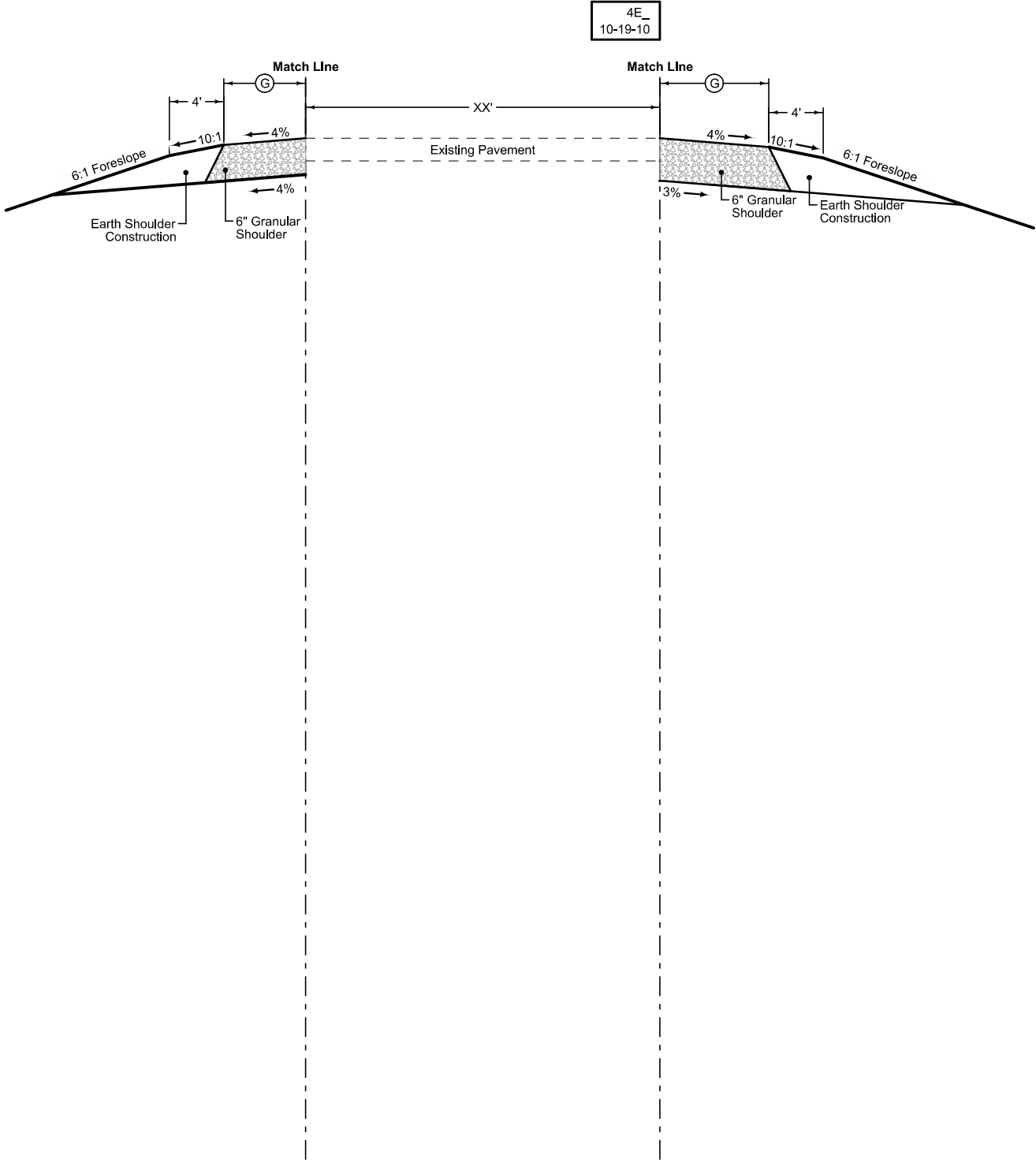


STATION TO STATION	
1528+56.00	1529+74.00

Existing IA 60 NB
(For Information only)

Granular Shoulder at guardrail

2_G_SR_ 04-21-20		
STATION TO STATION		Ⓞ Feet
529+36.79	530+57.07	Var.

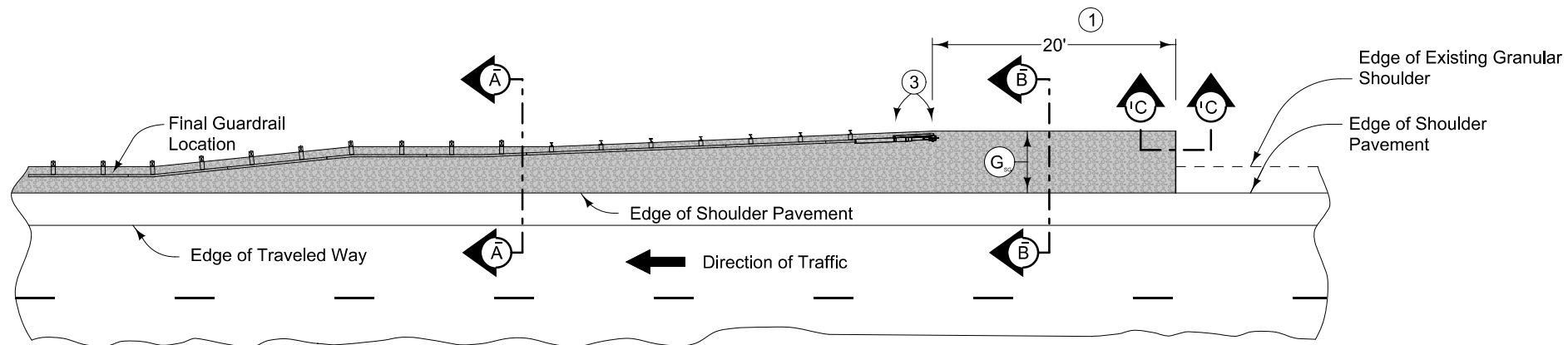


Granular Shoulder at guardrail

2_G_SR_ 04-21-20		
STATION TO STATION		Ⓞ Feet
528+59.91	530+67.62	Var.

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

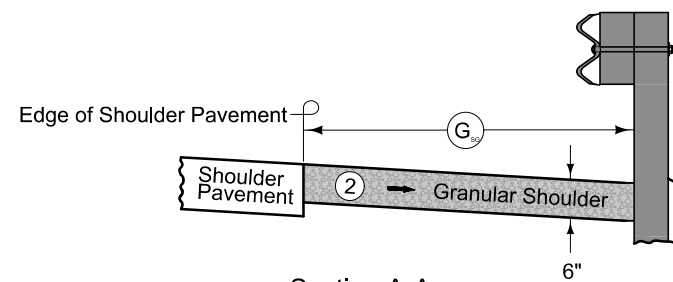
IA 60 SB



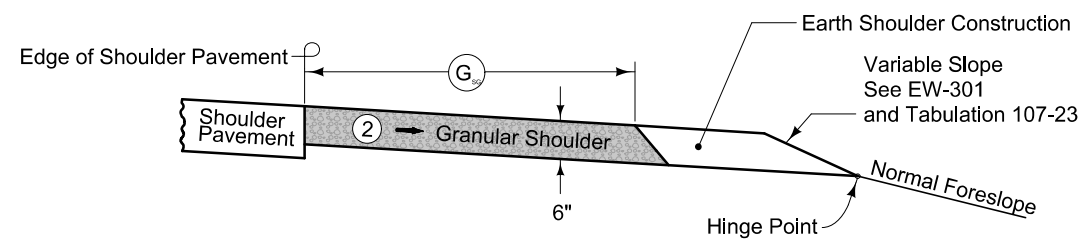
PLAN VIEW

Refer to Tabulation 112-9 for shoulder quantities.

- ① Continue granular shoulder 20 feet beyond the center of the first post.
- ② Match shoulder slope.



Section A-A



Section B-B

GRANULAR SHOULDER AT GUARDRAIL
(ADJACENT TO PARTIAL WIDTH PAVED SHOULDER)

ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Roadway Items : Roadway Items

Item no.	Item Code	Item	Unit	Quantities	Estimate Reference Notes
				Estimated	
				Roadway Items	
1	2102-0425071	SPECIAL BACKFILL	CY	1,270.2	Refer to Detour Typical on Sheet B.2, and Tab. 100-24 on Sheet C.4.
2	2102-2625000	EMBANKMENT-IN-PLACE	CY	5,132	Refer to Tab. 107-28 on T sheets.
3	2102-2710070	EXCAVATION, CLASS 10, ROADWAY AND BORROW	CY	764	Refer to Tab. 107-28 on T sheets.
4	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD	CY	2,311	Refer to Tab. 107-28 on T sheets. Depth - Quantity based on stripping 8 inches and spreading 8 inches. Spread the excess topsoil evenly on the foreslope.
5	2121-7425010	GRANULAR SHOULDERS, TYPE A	TON	840.08	Refer to Detour Typical on Sheet B.2 and Tab. 112-9 on Sheet C.5.
6	2121-7425020	GRANULAR SHOULDERS, TYPE B	TON	31.82	Granular shoulders at guardrail. Refer to Typical on Sheet B.3-B.4 and Tab. 112-9 n Sheet C.5.
7	2123-7450000	SHOULDER CONSTRUCTION, EARTH	STA	3.3	Requires 20.1 cu. yds. of topsoil for Earth Shoulder Fill. Refer to Typical on Sheet B.3 and Tab. 112-9 on Sheet C.5.
8	2304-0100000	DETOUR PAVEMENT 9 IN PCC or 12 IN HMA	SY	4,570	Refer to Detour Typical on Sheet B.2, and Tab. 100-24 on Sheet C.4.
9	2312-8260250	GRANULAR SURFACING ON ROAD, CRUSHED STONE	TON	17	This item is for construction of temporary Median Entrance Crossover at STA 541+09 to maintain access.
10	2402-2720100	EXCAVATION, CLASS 20, FOR ROADWAY PIPE CULVERT	CY	10.2	Refer to Tab. 104-3 on Sheet C.5.
11	2416-0101136	REMOVE AND REINSTALL CONCRETE PIPE APRONS GREATER THAN 36 IN.	EACH	1	Refer to Tab. 104-3 on Sheet C.5.
12	2416-1180078	CULVERT, CONCRETE ROADWAY PIPE, 78 IN. DIA.	LF	26	
13	2422-0360024	APRONS, UNCLASSIFIED, 24 IN. DIA.	EACH	4	Refer to Tab. 104-3 on Sheet C.5. No no polyethylene pipe allowed under crossover.
14	2422-1723024	CULVERT, UNCLASSIFIED ROADWAY PIPE, 24 IN. DIA.	LF	88	
15	2505-4008300	STEEL BEAM GUARDRAIL	LF	112.5	Refer to Tab. 108-8A on Sheet C.7 and detail on U.1.
16	2505-4008410	STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION, BA-201	EACH	2	
17	2505-4021010	STEEL BEAM GUARDRAIL END ANCHOR, BOLTED	EACH	2	
18	2505-4021720	STEEL BEAM GUARDRAIL TANGENT END TERMINAL, BA-205	EACH	2	

Item no.	Item Code	Item	Unit	Quantities	Estimate Reference Notes
				Estimated	
				Roadway Items	
19	2510-6745850	REMOVAL OF PAVEMENT	SY	829.6	Refer to Tabs.110-1 and 102-5 on Sheet C.7.
20	2526-8285040	CONSTRUCTION SURVEY, LOCATION SURVEY	LS	1	
21	2527-9263209	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED	STA	17.22	Refer to Tab. 108-22 on Sheet C.8.
22	2528-2518000	SAFETY CLOSURE	EACH	3	Refer to Tab. 108-13A on Sheet C.7.
23	2528-2518005	CROSSOVER BARRICADE	EACH	2	<p>Refer to sheet U.2-U.3 for details.</p> <p>Method of Measurement:</p> <p>The Engineer shall measure the number of Crossover Barricades installed.</p> <p>Basis of Payment:</p> <p>The price bid for Crossover Barricade shall be considered full compensation for all materials, equipment, and labor needed to install each barricade.</p>
24	2528-8445110	TRAFFIC CONTROL	LS	1	Refer to J sheets.
25	2533-4980005	MOBILIZATION	LS	1	--

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

Number	Date	Title
--------	------	-------

[illegible]

100-27
04-17-18

PROPOSED POSTED SPEED LIMIT						
Road Identification	Begin Station	End Station	Proposed Posted Speed Limit			Remarks
			35 or less	40 - 45	over 45	
US60	1527+02.60	1529+49.07			X	

100-24

04-21-15

PCC PAVEMENT

Typical Intersection

Ramp or Loop Taper

Channelized Intersection
Widen Existing Roadway

Channelized Intersection
Reconstructed Roadway

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.

Location				Mainline			Area ③								Total Area By Pavement Thickness		Special Backfill	Modified Subbase	Granular Subbase	Remarks
Road Identification	Direction of Travel	Station to Station		Width	Length	Area	A ①	B	C	D	E	F ②	G	H	SY		CY	CY	SY	
															9 IN	10% IN				
DET100	NB	106+00.00	121+19.61	16.0	1519.6	2212.5										2212.5		631.8		
DET200	NB	233+00.00	248+55.36	16.0	1555.4	2357.5										2357.5		638.4		9" PCC or 12" HMA
																4570.0		1270.2		

- Calculations assume a HMA unit weight (lbs/cf) of 0, a Special Backfill unit weight (lbs/cf) of 140, and a Granular Shoulder unit weight (lbs/cf) of 140.

DRAINAGE STRUCTURE BY ROAD CONTRACTOR

Length of unclassified pipe calculated is based on using Corrugated Metal Pipe.

* Not a bid item

① Diameter or equivalent diameter

② UNCL = Unclassified Pipe CMP = Corrugated Metal Pipe RCP = Reinforced Concrete Pipe LCP = Arch or Elliptical Low Clearance Pipe SARC = Steel Arch Pipe

(3) Backfill according to DR-101

FILE NO.	ENGLISH	DESIGN TEAM	Strum\Janus	SIoux COUNTY	PROJECT NUMBER	BRFN-060-2(093)--39-84	SHEET NUMBER	C.5
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102-5
04-18-17

EXISTING PAVEMENT

No.	Location					Year	Type	Project Number	Surface		Base		Subbase		Removal		Coarse Aggregate			Reinforcement	Remarks
	County	Route	Dir. of Travel	Begin Ref. Loc. Sign	End Ref. Loc. Sign				Type	Depth	Type	Depth	Type	Depth	Type	Depth	Source	Type	Durability Class	Type	
1	84	60	NB	8.28	9.63	2011		NHSX-060-1(61)--3H-75	HMA	2					MIL	2	SIoux FALLS	QUARTZ			
						1991		FN-60-2(18)--21-84	ACC	4							HAWARDEN-NORTH	GRAVEL			
						1982		MP-60-3(1)9--76-84	BSC												
						1974		MP-3577--69-84	ACC	0.5							DELL RAPIDS	QUARTZ			
						1960		F-342(23)	ACC	1.5	ACC	1.5					L. G. EVERIST	GRAVEL			
						1936		FA-342AB	PC7	7							HAWARDEN-NORTH	GRAVEL	2		
2	84	60	NB	9.63	12.33	2006		NHSX-60-1(21)--3H-75	PCC	10.5	GSB	10.5					DELL RAPIDS	QUARTZ	I		
3	84	60	SB	8.26	12.33	2006		NHSX-60-1(21)--3H-75	PCC	10.5	GSB	10.5					DELL RAPIDS	QUARTZ	I		

110-1
04-16-13

REMOVAL OF PAVEMENT

Refer to Tabulation 102-5

* Not a Bid Item

Begin Station	End Station	Side	Pavement Type	Area	Saw Cut*	Remarks
				SY	LF	
STG 2						
1506+00.00	1510+16.27	Med	ACC	203.1	424.3	NB, median shoulders
520+18.54	524+36.42	Med	HMA	204.5	425.9	SB, median shoulders
533+00.44	537+21.31	Med	HMA	216.2	428.9	SB, median shoulders
1541+37.47	1545+58.13	Med	HMA	205.8	428.7	NB, median shoulders
			TOTAL:	829.6		

FILE NO.

ENGLISH

DESIGN TEAM Strum\Janus

SIoux COUNTY

PROJECT NUMBER BRFN-060-2(093)--39-84

SHEET NUMBER C.6

4/15/2026 8:56:09 AM ajanus2 c:\pw_work\pwmain\ajanus2\d2674902\SHt_84060093_C02.xlsm

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

[illegible]

SAFETY CLOSURES			
Station	Closure Type		Remarks
	Road Qty.	Hazard Qty.	
STG 1A			
525+80.00	1		median crossing
525+80.00	1		median crossing
525+80.00	1		500th St
TOTAL :	3		

108-22

PAVEMENT MARKING LINE TYPES

See PM-110

*BCY4 - Place on the same side of the roadway to match existing markings near the project.

**NPY4 - For estimating purposes only. No Passing Zone Lines will be located in the field.

***MNY4 - Factor of 1.00 as value includes number of 4-inch passes to cover median nose area.

ELY6: Edge Line Left (Yellow) @ 1.00

BLW6: Broken Lane Line (White) @ 0.25

ELW6: Edge Line Right (White) @ 1.00

DCY6: Double Centerline (Yellow) @ 2.00

Location				Length by Line Type (Unfactored)																Remarks		
Road ID	Station to Station		Dir. of Travel	Marking Type	Side			ELY6	BLW6	ELW6	DCY6											
					L	C	R	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA		STA	STA
IA 60	520+00.00	524+40.00	SB	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	X			4.40														
IA 60	532+90.00	537+25.00	SB	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	X			4.35														
IA 60	1506+00.00	1510+25.00	NB	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	X			4.25														
IA 60	1541+38.00	1545+60.00	NB	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	X			4.22														
				Factored Total: PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED				17.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				Bid Quantity: 2527-9263209 - PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED							17.22											

FILE NO.

ENGLISH

DESIGN TEAM

Strum\Janus

SIoux COUNTY

PROJECT NUMBER

BRFN-060-2(093) - - 39-84

SHEET NUMBER

C.8

4/15/2026

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ajanus2

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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

	FO1D, Fiber Optic Frontier Communications - Quality D Charles Salen Charles.salen@ftr.com 712 541-1941
	FO2D, Fiber Optic Premier Communications - Quality D
	FO3D, Fiber Optic Long Lines Broadband - Quality D
	TL1D, Telephone Line Western Iowa Telephone - Quality D
	EL1D, Electric Line Iowa DOT - Quality D
	WL1D, Water Line Southern Sioux County Regional Water - Quality D

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.
Lavender	(9)	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
Gray, Dark	(112)	Proposed Grade and Pave Shading "In conjunction with a paving project"
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
Green, Light	(225)	Existing Pavement 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

Existing Right of Way

Existing and Proposed Right-of-Way

Easement and Existing Right-of-Way

Easement (Temporary)

Easement

Access Control

Property Line

PLAN AND PROFILE
LEGEND AND SYMBOL
INFORMATION SHEET

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

L = 11°02'59.05"(LT)
T = 338.54
L = 674.99
R = 3500.00
E = 16.34
e = |
L = |
x = |

Sta. 514+10.1 SB
78"x93.2' RCP
D.A.=41.01 A-R (Plan)
U.A.C.

Nassau TWP.
T-94N R-44W
SEC. 32

Sta. 121+19.61 (DET100)
Sta. 524+36.42, 47.93' LT (ML060)

End Construction

500th St

120+00

115+00

110+00

117+01.10 0.00'
DET100

Constant 2% Slope

110+14.99 16.00'
DET100

U.P. RAILROAD

U.P. RAILROAD

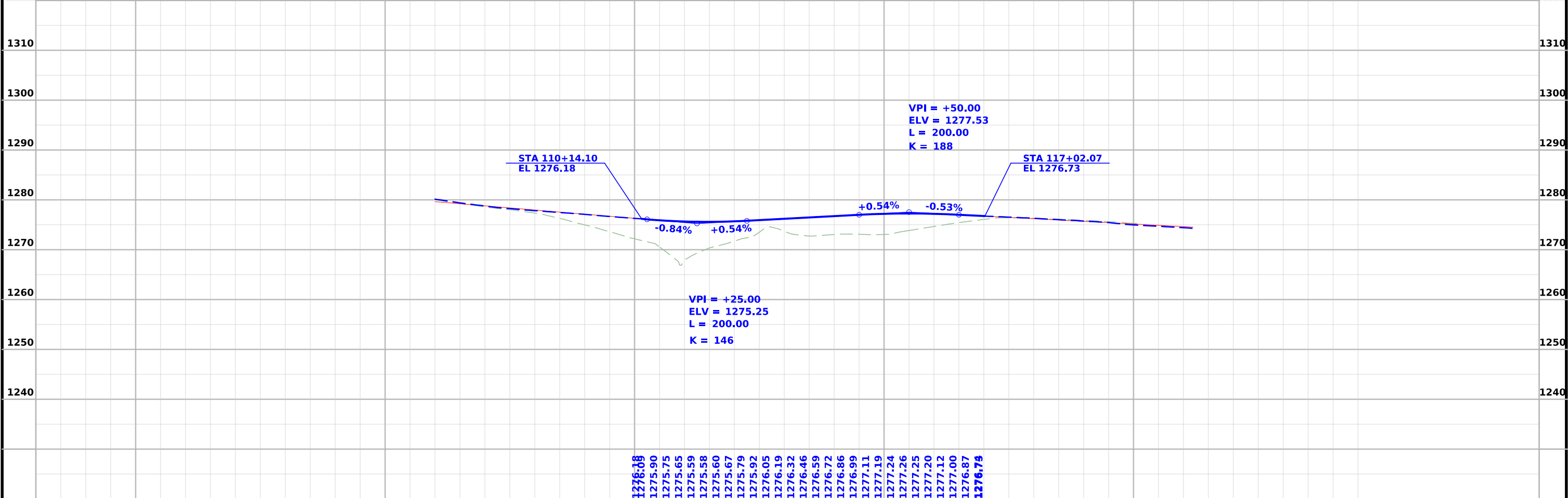
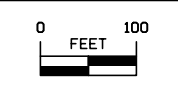
Sta. 106+00.00 (DET100)
Sta. 1506+00, 14' LT (ML060NB)
Begin Construction

Sta. 514+19.8,NB 111.6 RT
5.0'x6.5'x56.5' RCB W/ 78" x15.9FT RCP EXTENSION
D.A.=41.01 A-R (PLAN)
Extend LT with 26'x78" RCP

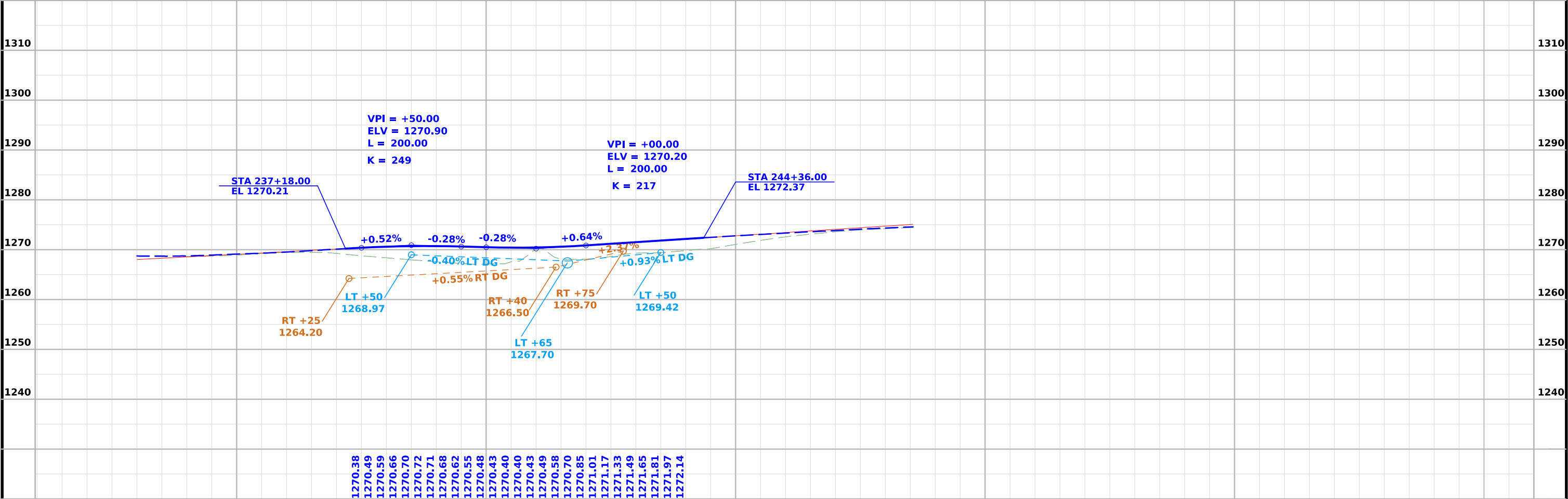
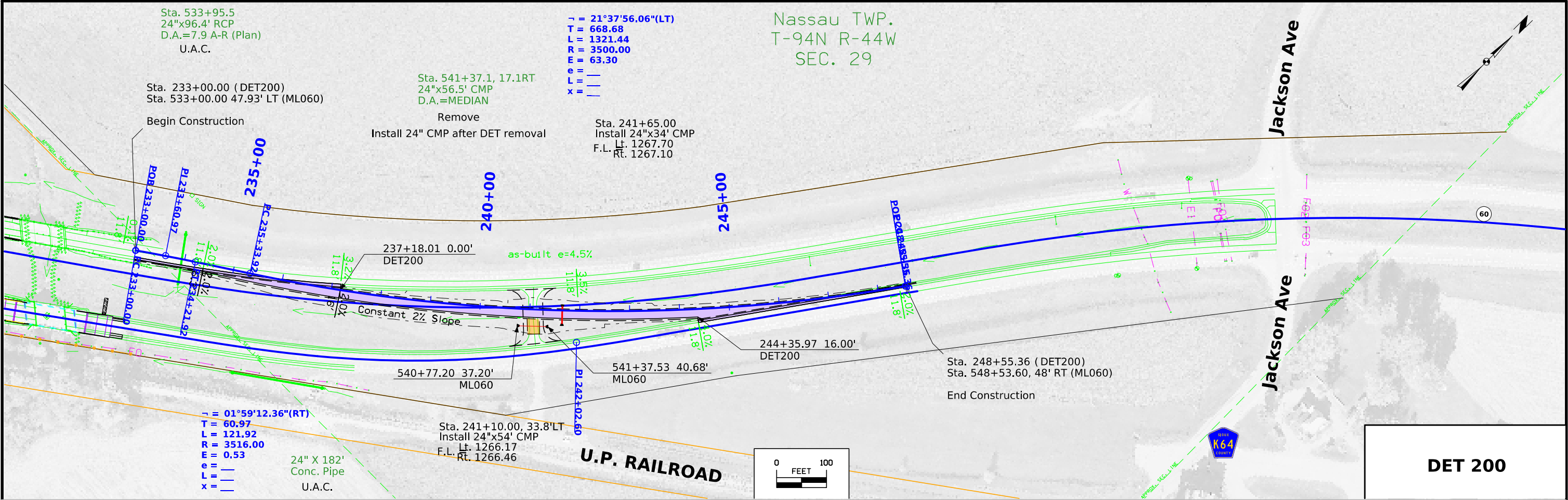
L = 11°56'18.79"(RT)
T = 367.64
L = 732.62
R = 3516.00
E = 19.17
e = |
L = |
x = |

Sta. 525+22.7 CL 36.4 RT
24"x112' RCP
D.A.=MEDIAN
U.A.C.
24"x50'
C.M.P.
U.A.C.

DET 100



FILE NO. -	ENGLISH	DESIGN TEAM Strum/Janus	Sioux COUNTY	PROJECT NUMBER BRFN-060-2(093)--39-84	SHEET NUMBER F.2
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Survey Information

SURVEY INDEX

County: Sioux
PIN: 21-84-060-010
Project Number: BRF-060-2(87)—38-84
Location: Floyd River Tributary 0.5mi S of Co Rd K64 NB
Type of Work: Bridge Unspecified
Project Directory: 8406001021

Survey Personnel

Paul Harry – Survey Party Chief
Dan Duncan – Survey Party Chief

Date(s) of Survey

Begin Date 10/19/2022
End Date 11/21/2022

Additional Survey

Begin Date 8/21/2023
End Date 8/5/2023

General Information

This survey is for IA 80 NB bridge over Floyd River Tributary. This survey is full field DTM without Photo.

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

Nearby Iowa Real Time Network reference stations were utilized to obtain horizontal and vertical control on primary project control points. Three five-minute observations were taken with a minimum two-hour time span between and used in a weighted average to obtain final coordinate values.
An additional control point was placed at the north end of the project using a GNSS Base-Rover setup relative to Pts. 840600098 and 840600090.
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 01
(U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2018u2

Alignment Information

Original main line alignment for this project was provided by the District 3 ROW Office. The main line alignment was extended back and ahead without equation throughout the additional survey request. The alignment is a retrace of metric As-built Plans NHSX-60-1(21)—3H-75. Metric stationing was converted to English stationing.

The north bound lanes alignment is a best fit of metric As-built Plans NHSX-60-1(21)—3H-75 and English As-built Plans F-342(23). English stationing was equated to Bridge Station 528+25.3 from As-built Plans FN—33-2(1)—21-84 (bridge widening). Stationing was carried back and ahead without equation.

y D

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 01 (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 (laRTN 2019 Adjustment)
la. Regional Coordinate System Zone 01 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: 2018u2

Point Name	Northing	Easting	Elevation	Code - Description
840600090	9498766.28	11279490.55	1298.32	CP SET FENO 5IN BELOW GRADE 0.5MILES SW ALONG HWY 60 FROM THE INTERSECTION OF HWY 60 AND 500TH ST MONUMENT IS 96FT NW OF THE OUTSIDE EDGE PAVED SHOULDER HWY 60 SB 86FT NW OF MILE MARKER 9 AND 53FT S OF A ROW POST
840600098	9501296.78	11283193.64	1270.89	CP SET FENO 3IN BELOW GRADE 0.2MILES SW ALONG HWY 60 FROM THE INTERSECTION OF HWY 60 AND JACKSON AVE MONUMENT IS 81FT SE OF THE OUTSIDE EDGE OF THE PAVED SHOULDER HWY 60 NB 57FT E OF A SIGN POST BASE AND 10FT W OF A ROW POST
840600107	9504249.84	11286569.14	1286.90	CP SET FENO 3IN DEEP EAST ROW IA 60 NB TOP OF BANK 0.34mi SOUTH OF 490TH ST
G103	9495347.78	11289320.32	1399.34	CP FOUND SIOUX COUNTY MONUMENT NEAR THE INTERSECTION OF 510TH ST AND JAY AVE MONUMENT IS 52FT E OF CL JAY AVE 28FT N OF CL 510TH ST 20FT SE OF POWER POLE AND 5FT W OF A BURIED FIBER MARKER POST
G104	9495469.85	11273745.66	1363.12	CP FOUND SIOUX COUNTY MONUMENT 0.8MILES W ALONG 510TH ST FROM THE INTERSECTION OF HWY 60 AND 510TH ST MONUMENT IS 30 FT N OF THE CL 510TH ST 39FT E OF CL FIELD ENT AND 1.7FT S OF WITNESS POST
HOMAN RESET	9495327.36	11292526.64	1422.78	CP FOUND NGS MONUMENT 0.6MILES E ALONG 510TH ST FROM THE INTERSECTION OF 510TH ST AND JAY AVE MONUMENT IS 30FT N OF CL 510TH ST 214FT NE OF NGS MONUMENT STAMPED HOMAN3 AND 110FT NW OF NGS MONUMENT STAMPED HOMAN1

ALIGNMENT COORDINATES

Name	Location	Point on Tangent			Begin Spiral			Begin Curve			Simple Curve PI or Master PI of SCS			End Curve			End Spiral		
		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates	
			Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)
1	ML060	431+95.16	9492638.00	11276318.03															
2	ML060				491+95.16	9497935.21	11279135.75				493+96.41	9498112.89	11279230.26				494+97.00	9498199.47	11279281.56
3	ML060							494+97.00	9498199.47	11279281.56	501+33.84	9498747.37	11279606.17	507+55.04	9499134.04	11280112.19			
4	ML060				507+55.04	9499134.04	11280112.19				508+55.67	9499195.14	11280192.15				510+56.88	9499309.85	11280357.51
6	ML060				532+19.63	9500542.58	11282134.54				534+20.87	9500657.28	11282299.90				535+21.47	9500718.05	11282380.11
7	ML060							535+21.47	9500718.05	11282380.11	539+97.40	9501005.43	11282759.48	544+67.87	9501381.34	11283051.38			
8	ML060				544+67.87	9501381.34	11283051.38				545+68.50	9501460.82	11283113.09				547+69.71	9501624.79	11283229.77
10	ML060				548+76.17	9501711.53	11283291.49				550+77.41	9501875.50	11283408.16				551+78.01	9501955.37	11283469.36
11	ML060							551+78.01	9501955.37	11283469.36	560+00.90	9502608.56	11283969.87	568+03.82	9503028.66	11284677.45			
12	ML060				568+03.82	9503028.66	11284677.45				569+04.44	9503080.03	11284763.97				571+05.66	9503176.58	11284940.54
14	ML060				571+74.08	9503209.41	11285000.57				573+75.31	9503305.95	11285177.13				574+75.92	9503357.11	11285263.78
15	ML060							574+75.92	9503357.11	11285263.78	587+34.40	9503996.85	11286347.54	599+32.60	9505099.65	11286953.85			
16	ML060				599+32.60	9505099.65	11286953.85				600+33.22	9505187.82	11287002.33				602+34.44	9505367.26	11287093.43
18	ML060				653+47.67	9509926.45	11289408.35				655+48.90	9510105.88	11289499.46				656+49.50	9510194.40	11289547.29
19	ML060							656+49.50	9510194.40	11289547.29	663+34.80	9510797.31	11289873.05	670+13.99	9511309.60	11290328.23			
20	ML060				670+13.99	9511309.60	11290328.23				671+14.60	9511384.82	11290395.06				673+15.82	9511531.79	11290532.52
22	ML060				693+73.78	9513034.78	11291938.30				695+75.08	9513181.79	11292075.80				696+75.62	9513260.71	11292138.31
23	ML060							696+75.62	9513260.71	11292138.31	700+30.98	9513539.29	11292358.94	703+77.67	9513880.04	11292459.78			
1	ML060NB	1504+86.72	9499056.03	11280241.32															
2	ML060NB	1521+40.52	9500019.63	11281585.39															
3	ML060NB	1525+66.56	9500263.50	11281934.73															
4	ML060NB				1530+65.16	9500553.56	11282340.27				1532+66.44	9500670.65	11282503.99				1533+67.00	9500734.86	11282581.52
5	ML060NB							1533+67.00	9500734.86	11282581.52	1535+69.70	9500864.14	11282737.64	1537+71.19	9501020.53	11282866.61			
6	ML060NB				1537+71.19	9501020.53	11282866.61				1538+71.85	9501098.18	11282930.65				1540+73.03	9501262.14	11283047.41
7	ML060NB	1545+44.98	9501646.56	11283321.19															

SPIRAL OR CIRCULAR CURVE DATA

[illegible]

108-26A
08-01-08

STAGING NOTES

STG 1 Traffic

IA 60 NB on existing Lanes

IA 60 SB close outside lane of traffic. Shift traffic to inside lane per Standard Road Plan TC-418.

500th St Closed to traffic

STG 1 Construction

Install SB outside guardrail and shoulders.

STG 2 Traffic

IA 60 NB and SB - close inside lanes of traffic. Shift traffic to outside lanes per Standard Road Plan TC-418.

Jackson Ave traffic on existing lanes.

500th St Closed to traffic

STG 2 Construction

Remove existing shoulders and construct median crossovers

Install SB median guardrail and shoulders.

108-23A
08-01-08

TRAFFIC CONTROL PLAN

IA 60

Maintain at least one lane of traffic in each direction on IA 60 at all times.

Sideroads

500th St will be closed during crossover construction.

Jackson Ave maintain traffic on existing lanes.

Entrances

Maintain access at all times

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	

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 Travel Restrictions Expected									

FILE NO.

DESIGN TEAM Strum\Janus

SIoux COUNTY

PROJECT NUMBER BRFN-060-2(093) - - 39-84

SHEET NUMBER J.1

4/13/2026 9:21:59 AM ajanus2 c:\pw_work\pwmain\ajanus2\d2674902\SHt_84060093_J01.xlsm

CROSS SECTION VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS			
SHADING	Design Color No.		
Green, Light	(225)	<div></div>	Existing Pavement Shading
Gray, Light	(48)	<div></div>	Previously Constructed Pavement Shading
Gray, Med	(80)	<div></div>	Previously Constructed Granular Surface Shading
Blue, Light	(230)	<div></div>	Proposed Pavement Shading
Lavender	(9)	<div></div>	Temporary Pavement Shading
Brown, Med	(237)	<div></div>	Future Proposed Pavement Shading

CROSS SECTION VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS			
<div></div>	Pavement Removal	<div></div>	Proposed Granular Shoulder
<div></div>	Proposed Granular Subbase	<div></div>	Temporary Shoulder
<div></div>	Proposed Special Backfill	<div></div>	Existing Shoulder Strengthening
<div></div>	Temporary Barrier Rail	<div></div>	Permanent Barrier Rail
		<div></div>	Channelizing Device

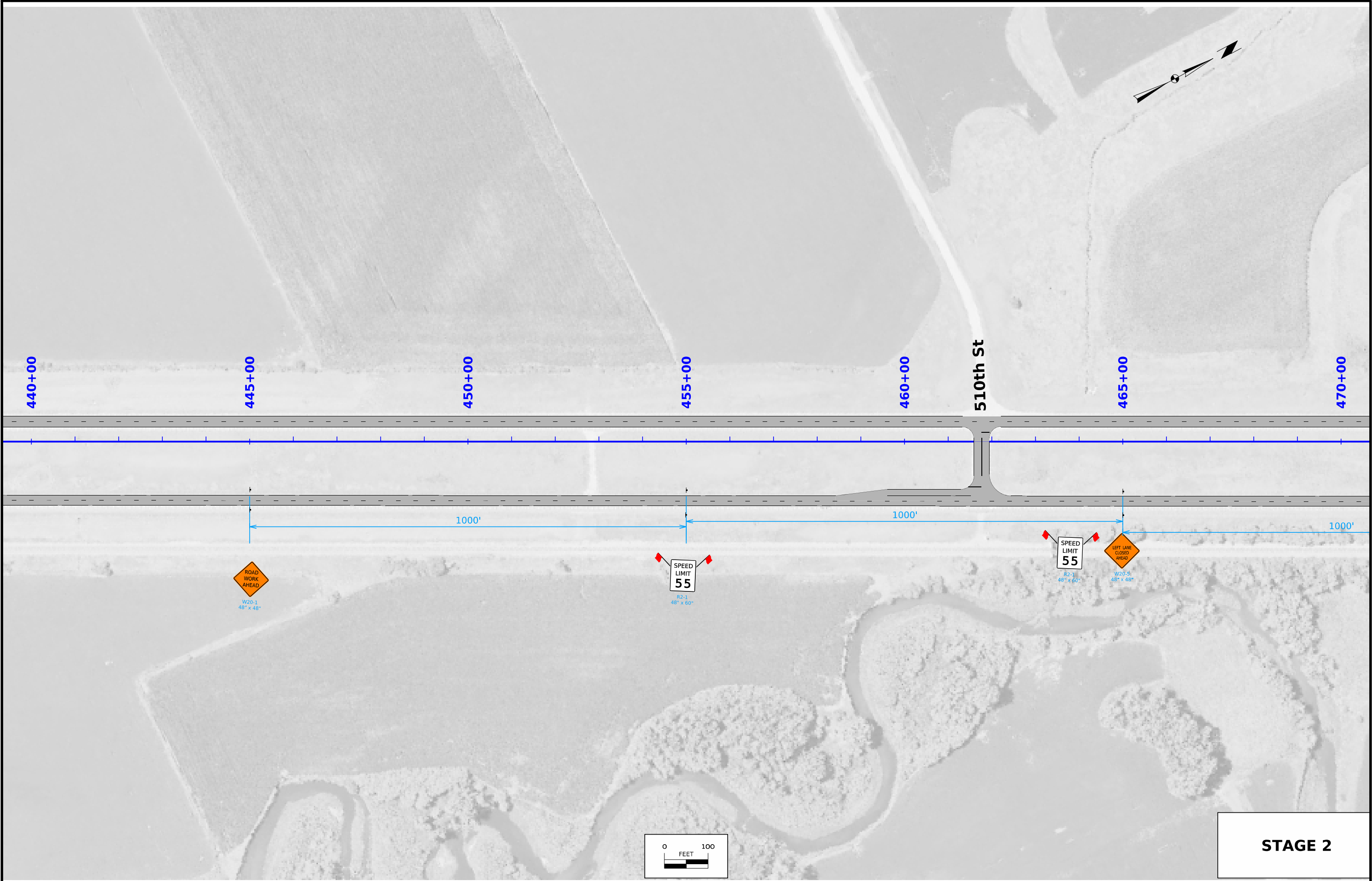
PLAN VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS			
LINEWORK	Design Color No.		
Green	(2)	<div></div>	Existing Topographic Features and Labels
Magenta	(5)	<div></div>	Pavement Marking Call Outs
Blue	(1)	<div></div>	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Yellow	(4)	<div></div>	Pavement Markings, Yellow
Off White	(254)	<div></div>	Pavement Markings, White
Violet	(15)	<div></div>	Temporary barrier rail, Unpinned
Flush Orange	(228)	<div></div>	Temporary barrier rail, Pinned
SHADING	Design Color No.		
Green, Light	(225)	<div></div>	Existing Pavement Shading
Gray, Light	(48)	<div></div>	Previously Constructed Pavement Shading
Gray, Med	(80)	<div></div>	Proposed Granular Surface Shading
Gray, Med	(80)	<div></div>	Previously Constructed Granular Surface Shading
Blue, Light	(230)	<div></div>	Proposed Pavement Shading
Lavender	(9)	<div></div>	Temporary Pavement Shading
Brown, Light	(236)	<div></div>	Proposed Grading Limits Shading
Pink, Dark	(13)	<div></div>	Proposed MSE or CIP Wall Shading
Red	(3)	<div></div>	Proposed Bridge Shading and Sign Trusses
Black w/Gray, Light Fill	(0,48)	<div></div>	Previously Constructed Structure

PLAN VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS			
<div></div>	Channelizing Device	<div></div>	Crash Cushion (Temp or Perm)
<div></div>	Drum	<div></div>	Traffic Signal
<div></div>	Temporary Lane Separator	<div></div>	Flagger
<div></div>	Tubular Marker	<div></div>	Temporary Floodlighting
<div></div>	Channelizer Marker	<div></div>	Traffic Sign
<div></div>	Concrete Barrier Marker	<div></div>	Type III Barricade
<div></div>	Delineator	<div></div>	Type A Warning Light
<div></div>	Temporary Barrier Rail	<div></div>	Direction of Traffic
<div></div>	Pavement Removal	<div></div>	Safety Closure
<div></div>	Sand Barrel Layout	<div></div>	Lane Identification

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

TRAFFIC CONTROL
AND
STAGING
LEGEND AND SYMBOL
INFORMATION SHEET

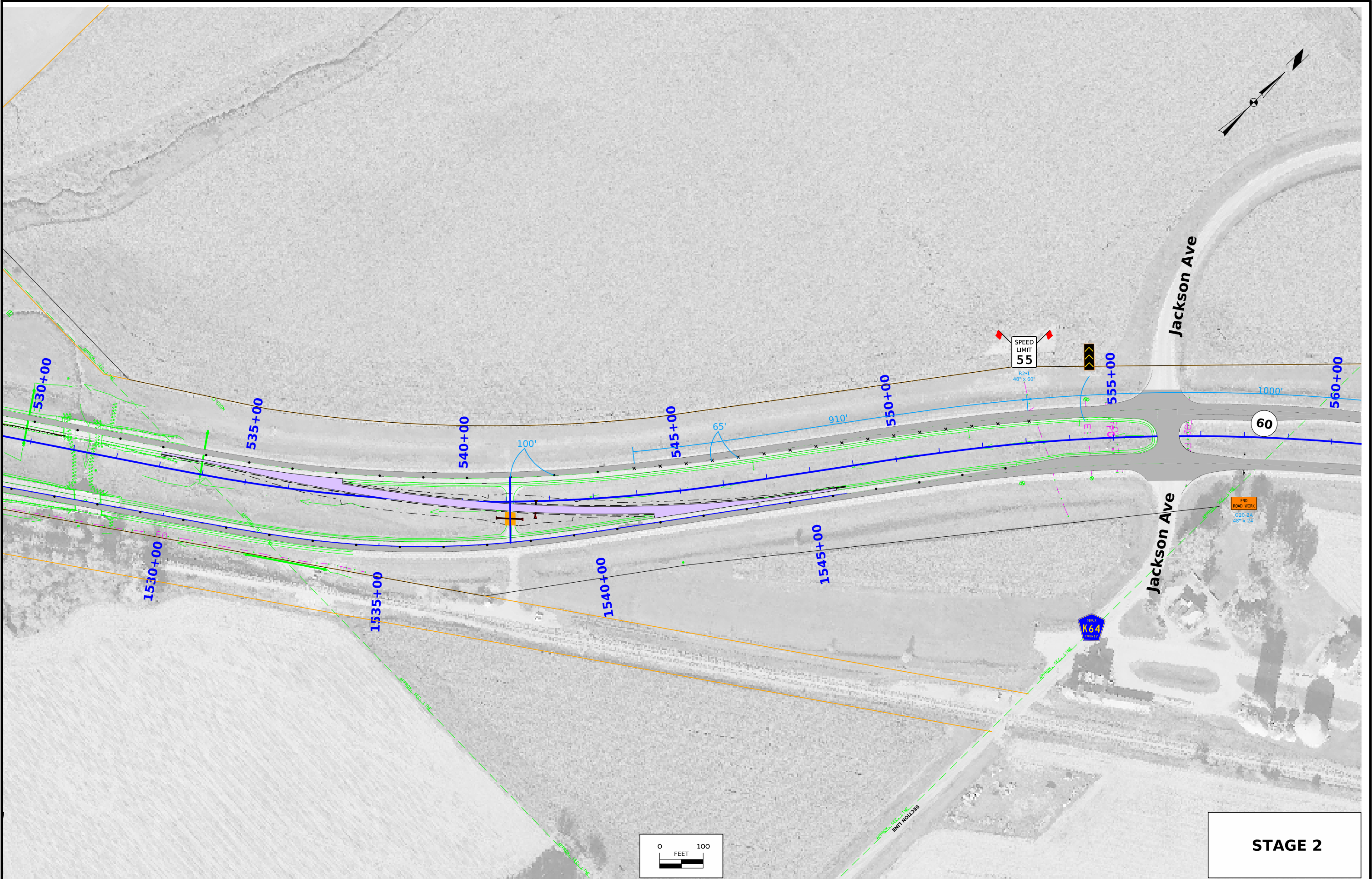
(COVERS SHEET SERIES J)

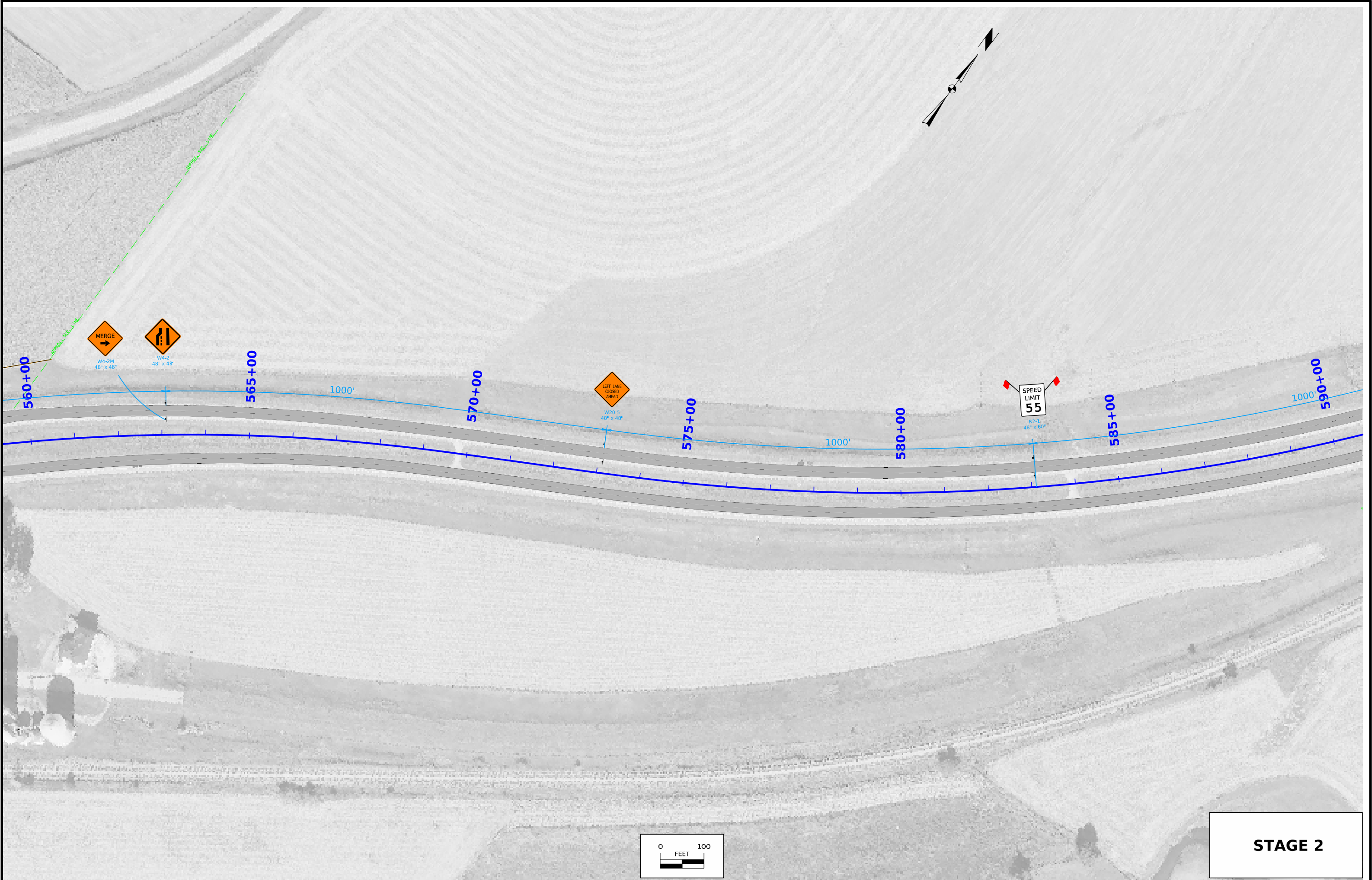


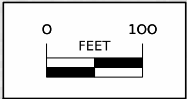
STAGE 2



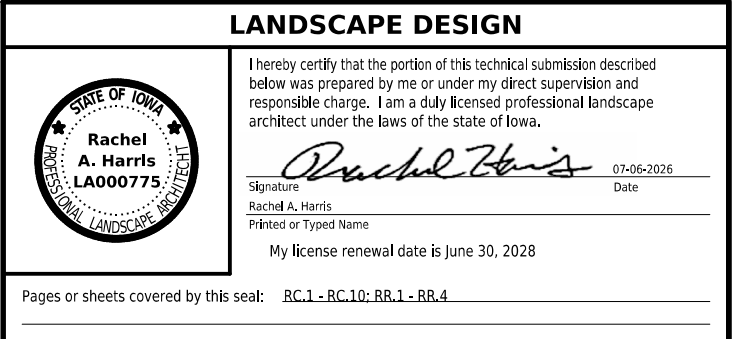








STAGE 2



Signature Rachel Harris Date 07-06-2026

Rachel A. Harris
Printed or Typed Name

My license renewal date is June 30, 2028

Pages or sheets covered by this seal: RC.1 - RC.10; RR.1 - RR.4

ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Roadside Items : Roadside Items

Item no.	Item Code	Item	Unit	Quantities	Estimate Reference Notes
				Estimated	
				Roadside Items	
1	2507-3250005	ENGINEERING FABRIC	SY	69.4	<p>Refer to Tab. 100-23 for locations.</p> <p>Refer to Standard Road Plan EC-301.</p> <p>Use material specified for embankment erosion control according to Article 4196.01, B, 3. of the Standard Specifications. Material will be measured in sq. yds. of actual area covered. Refer to details.</p> <p>The tabulation includes estimated locations for placement of "Engineering Fabric" to address erosion at culvert outlets. The bid quantity includes an additional 30% for other locations as needed. Verify additional locations with the Engineer prior to placement.</p>
2	2507-8029000	EROSION STONE	TON	40.8	<p>Refer to Tab. 100-23 for locations.</p> <p>Refer to Standard Road Plan EC-301.</p> <p>The tabulation includes estimated locations for placement of "Erosion Stone" to address erosion to be encountered during construction. Verify specific locations with the Engineer prior to beginning placement. Bid item includes 30% additional quantity for other locations of erosion.</p> <p>Estimated at 1.6 ton/cu yd. Erosion Stone shall meet requirements of Article 4130 of the Standard Specifications.</p>
3	2601-2634100	MULCHING	ACRE	2.4	<p>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.</p> <p>Item is included for areas requiring reshaping and seedbed preparation except where slope protection has been applied. Use mulch that is Certified Noxious Weed Seed Free Mulch as certified by the Iowa Crop Improvement Association or adjacent states Crop Improvement Associations.</p> <p>Mulch Rate: 1 1/2 tons of dry cereal straw or native grass straw per acre.</p>
4	2601-2642100	STABILIZING CROP - SEEDING AND FERTILIZING	ACRE	2.4	<p>Seed and fertilize all disturbed areas according to Article 2601.03, C, 1, of the Standard Specifications.</p>
5	2602-0000150	STABILIZED CONSTRUCTION ENTRANCE, EC-303	LF	200	<p>Refer to Standard Road Plan EC-303.</p>
6	2602-0000312	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.	LF	400	<p>Refer to Tab. 100-19 for locations.</p> <p>Refer to Standard Road Plan EC-204.</p> <p>The tabulation includes estimated locations for placement of "Perimeter and Slope Sediment Control Device, 12 in. dia." to address erosion to be encountered during construction.</p> <p>Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 25% additional quantity for field adjustments and replacements.</p>

Item no.	Item Code	Item	Unit	Quantities	Estimate Reference Notes
				Estimated	
				Roadside Items	
7	2602-0000320	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 20 IN. DIA.	LF	400	Refer to Standard Road Plan EC-204. Item may be used in addition to, or as a direct replacement for "Perimeter and Slope Sediment Control Device, 12 in. dia." upon Engineer approval.
8	2602-0000351	REMOVAL OF PERIMETER AND SLOPE OR DITCH CHECK SEDIMENT CONTROL DEVICE	LF	800	
9	2602-0010010	MOBILIZATIONS, EROSION CONTROL	EACH	1	
10	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	1	

281_01
9/28/22

SECTION 404 PERMIT AND CONDITIONS

Construct this project according to the requirements of U.S. Army Corps of Engineers Nationwide, Permit No. 3. A copy of this permit is available from the Iowa DOT website (<http://www.envpermits.iowadot.gov/>). The U.S. Army Corps of Engineers reserves the right to visit the site without prior notice.

281_03
11/9/23

STORM WATER BEST MANAGEMENT PRACTICES

When the following best management practices are used, they are intended to account for disturbed areas where storage volume cannot be provided: Perimeter and Slope Sediment Control Devices, Rock Splash Basins and Seeding.

282_03
9/28/22

TEMPORARY STREAM CROSSING, CAUSEWAY, OR EQUIPMENT PAD

Standard Road Plan EW-401 is listed in Tabulation 105-4; however, it is included for information purposes only since it is an option. No quantities associated with constructing EW-401 are included in any bid items.

INDEX OF TABULATIONS			
Line No.	Tabulation	Tabulation Title	Sheet No.
1.0	111_25	INDEX OF TABULATIONS	RC.5
2.0	105_04	STANDARD ROAD PLANS	RC.6
3.0	100_19	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE	RC.7
4.0	100_23	ROCK EROSION CONTROL	RC.8
5.0	110_12	POLLUTION PREVENTION PLAN	RC.9 - RC.10

<div>105_04 4/21/26</div> <div>STANDARDS</div> <div>The following Standards apply to construction work on this project.</div>		
Number	Date	Title
EC-204	10-19-21	Perimeter, Slope and Ditch Check Sediment Control Devices
EC-301	10-18-22	Rock Erosion Control (REC)
EC-303	10-19-21	Stabilized Construction Entrance
EC-502	04-21-15	Seeding in Rural Areas
EW-401	10-20-15	Temporary Stream Crossing, Causeway, or Equipment Pad

<div>PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE</div> <div>Possible Standards: EC-204</div>						100_19 10/15/24
Station From	Station To	Side	Sediment Control Device Type	Diameter Size	Length (LF)	Remarks
530+73.00		Median	Perimeter and Slope	12 inch	120.00	
531+71.00		Median	Perimeter and Slope	12 inch	120.00	
241+38.00		Right	Perimeter and Slope	12 inch	40.00	Inlet Protection
241+65.00		Left	Perimeter and Slope	12 inch	40.00	Inlet Protection

Total:320

Refer to EC-301 and Detail 570-8

100_23
8/15/22

Road Identification	Station From	Station To	Side	Length (FT)	Width (FT)	Rock Erosion Control Type	Engineering Fabric (SY)	Class E Revetment (TON)	Erosion Stone (TON)	Remarks
DET 200 (US 60)	240+70.00		Right	11.50	11.5	Type 4 - Rock Splash Basin	26.7		15.700	
DET 200 (US 60)	241+64.00		Right	11.50	11.5	Type 4 - Rock Splash Basin	26.7		15.700	

Total:		53.4	31.4
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<div>110_12 1/13/23</div> <div>POLLUTION PREVENTION PLAN</div> <div><p>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).</p><p>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.</p><p>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.</p><p>I. ROLES AND RESPONSIBILITES</p><p>A. Designer:</p><ol style="list-style-type: none">Prepares Base PPP included in the project plan.Prepares Notice of Intent (NOI) submitted to Iowa DNR.Is signature authority on the Base PPP. If consultant designed, signature from Contracting Authority is also required.<p>B. Contractor:</p><ol style="list-style-type: none">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.Designates a Water Pollution Control Manager (WPCM), who has the duties and responsibilities as defined in Section 2602 of the Standard Specifications.Submits an Erosion Control Implementation Plan (ECIP) and ECIP updates according to Section 2602 of the Standard Specifications.Installs and maintains appropriate controls. This work may be subcontracted as documented through Subcontractor Request Forms (Form 830231).Supervises and implements good housekeeping practices according to Paragraph III, C, 2.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.Complies with training and certification requirements of Section 2602 of the Standard Specifications.Submits amended PPP site map according to Section 2602 of the Standard Specifications.<p>C. Subcontractors:</p><ol style="list-style-type: none">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 perorming 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.Implement good housekeeping practices according to Paragraph III, C, 2.<p>D. RCE/Project Engineer:</p><ol style="list-style-type: none">Is Project Storm Water Manager.On projects where DOT is the Contracting Authority, is current with erosion control training or certification.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.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.Supervises all work necessary to meet storm water requirements at the Project, including work performed by contractors and subcontractors.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.Is familiar with the Project PPP and storm water site map.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.Is the point of contact for the Project for regulatory officials, Inspector, contractors, and subcontractors regarding storm water requirements.Is signature authority on Notice of Discontinuation.Maintains an up-to-date record of contractors, subcontractors, and subcontracted work items through Subcontractor Request Forms (Form 830231).Makes information to determine permit compliance available to the DNR upon their request.</div>				<div>110_12 1/13/23</div> <div>POLLUTION PREVENTION PLAN</div> <div><p>E. Inspector:</p><ol style="list-style-type: none">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.Makes information to determine permit compliance available to the DNR upon their request.Conducts joint required inspections of the site with the contractor/subcontractor.Completes an inspection report after each inspection.Is signature authority on storm water inspection reports.<p>F. PROJECT SITE DESCRIPTION</p><p>A. This Pollution Prevention Plan (PPP) is for the construction of Median Crossovers in Sioux County.</p><p>B. This PPP covers approximately 32.7 acres with an estimated 3.4 acres being disturbed. The portion of the PPP covered by this contract has 2.4 acres disturbed.</p><p>C. The PPP is located in an area of Galva - Primghar soil association.</p><p>The estimated weighted average runoff coefficient number for this PPP after completion will be 0.36.</p><p>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.</p><p>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.</p><p>F. Runoff from this work will flow into Unnamed Floyd River Tributary to the Floyd River.</p><p>III. CONTROLS</p><p>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.</p><p>B. Preserve vegetation in areas not needed for construction.</p><p>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.</p><p>1. EROSION AND SEDIMENT CONTROLS</p><p>a. Stabilization Practices</p><ol style="list-style-type: none">Site plans will ensure that existing vegetation or natural buffers are preserved where attainable and disturbed portions of the site will be stabilized.Initialize stabilization of disturbed areas immediately after clearing, grading, excavating, or other earth disturbing activities have:<ol style="list-style-type: none">Permanently ceased on any portion of the site, orTemporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days.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.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.Preservation of existing vegetation within right-of-way or easements will act as vegetative buffer strips.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.<p>b. Structural Practices</p><ol style="list-style-type: none">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.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.</div>					
FILE NO.	ENGLISH	DESIGN TEAM	Harris/Pohlen/McDonald	SIoux COUNTY	PROJECT NUMBER	BRFN-060-2(093) -- 39-84	SHEET NUMBER	RC.9	

4/14/2026 9:10:47 AM

baebanamecdonald@iowadot.us

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.

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.

- 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.

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.

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.

ENGLISH	DESIGN TEAM
usebanamecdonald@iowadot. us	






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.




- 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.








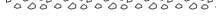
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage 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.








Print Name










LINE STYLE LEGEND OF LANDSCAPE SHEETS	
LINESTYLE	Design Element
-----	Living Snow Fence Single Row
-----	Living Snow Fence Double Row
-----	Mechanical Edge

















CELL LEGEND OF LANDSCAPE SHEETS		
CELL	Design Element	Plant Diameter
	Clearing	
	Proposed Shrub	6 FT
	Proposed Understory Tree	12 FT
	Proposed Conifer Tree	18 FT
	Proposed Overstory Tree	30 FT

PATTERN LEGEND OF LANDSCAPE SHEETS	
	Brush Clearing
	Clearing & Grubbing
	Spray Area

LINE STYLE LEGEND OF EROSION CONTROL SHEETS	
LINESTYLE	Design Element
	Silt Fence
	Perimeter and Slope Sediment Control Device (9")
	Perimeter and Slope Sediment Control Device (12")
	Perimeter and Slope Sediment Control Device (20")
	Open-Throat Curb Intake Sediment Filter
	Concentrated Flow
	Rock Check and Rock Check Dam
	Sheet Flow

CELL LEGEND OF EROSION CONTROL SHEETS	
CELL	Design Element
	Temporary Sediment Control basin
	Erosion Control for Circular Intake or Manhole Well
	Erosion Control for Rectangular Intake or Manhole Well
	Grate Intake Sediment Filter Bag
	Silt Basin
	Silt Fence Tail
	Stormwater Drainage Basin Discharge Point

PLAN VIEW COLOR LEGEND OF EROSION CONTROL 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	
Black	(0)		Permanent Erosion Control Features	
Blaze Orange	(222)		Temporary Erosion Control Features	
SHADING	Design Color No.		Transparency	
Citron	(234)		Mulching, All Types	50%
Light Brown	(238)		Special Ditch Control, Wood Excelsior Mat	0%
Grass Green	(233)		8FT Mow Strip	50%
Red	(3)		Delineates Restricted Areas	0%

PATTERN LEGEND OF EROSION CONTROL SHEETS	
	Seeding and Fertilizing
	Seeding and Fertilizing (Rural)
	Seeding and Fertilizing (Urban)
	Native Grass Seeding
	Salt Tolerant Seeding
	Wetland Grass Seeding
	Wildflower Seeding
	Sodding
	Turf Reinforcement Mat Type 1
	Turf Reinforcement Mat Type 2
	Turf Reinforcement Mat Type 3
	Turf Reinforcement Mat Type 4
	Slope Protection, Wood Excelsior Mat
	Transition Mat
	Rock Features, Permanent
	Rock Features, Temporary

LEGEND AND SYMBOL
INFORMATION SHEET
(COVERS SHEET SERIES D & R)

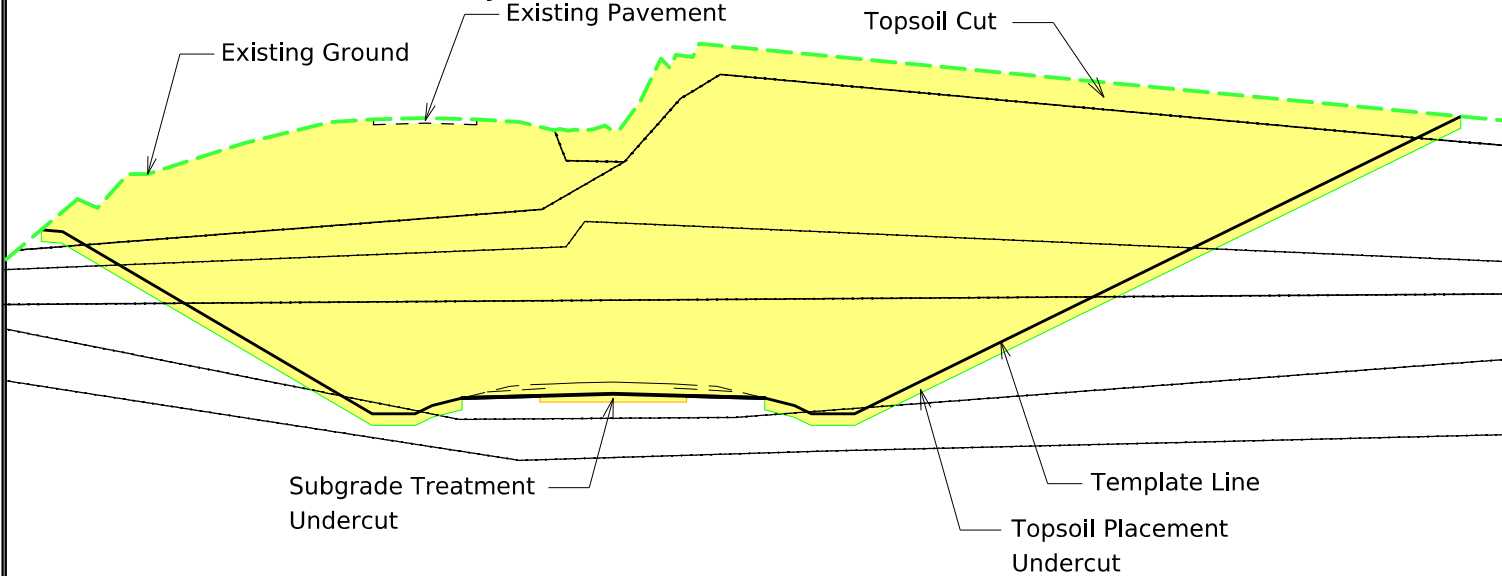






CUT SIDE Total Cut Unadjusted

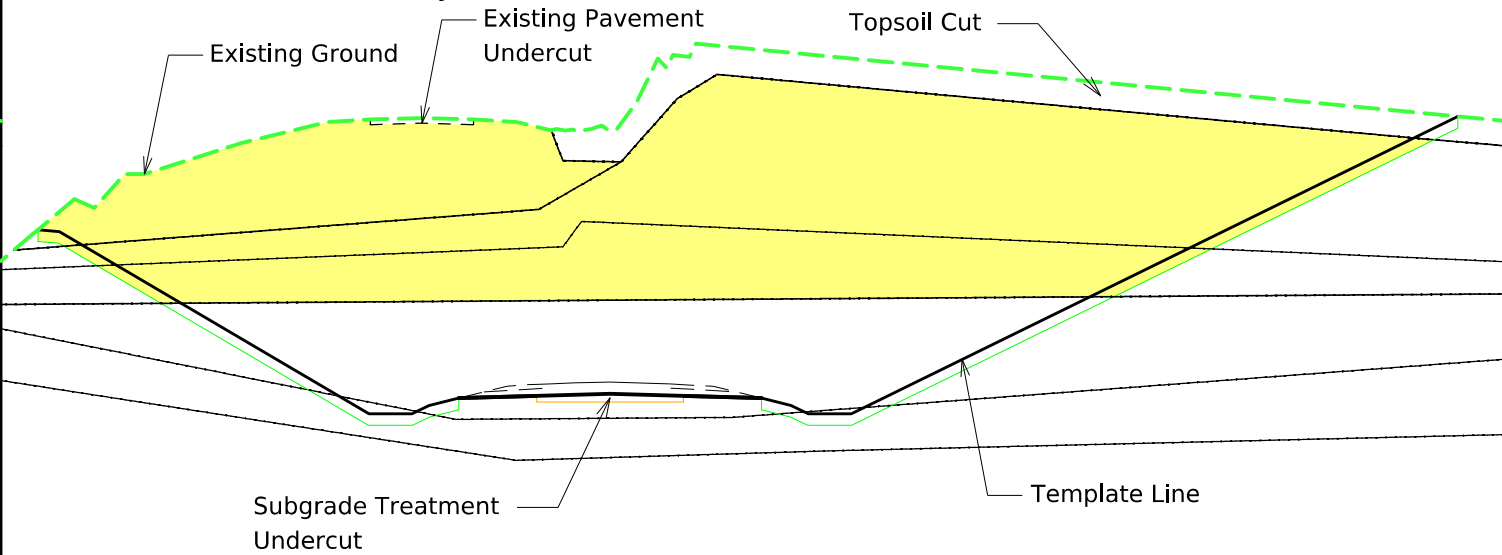
RURAL



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

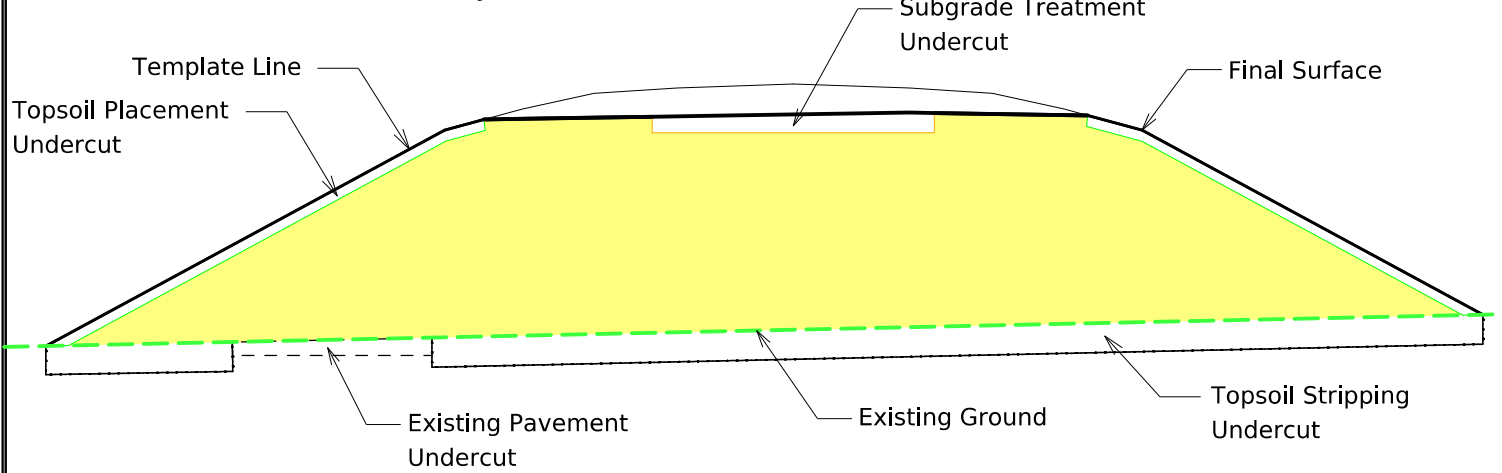


Notes:

- 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

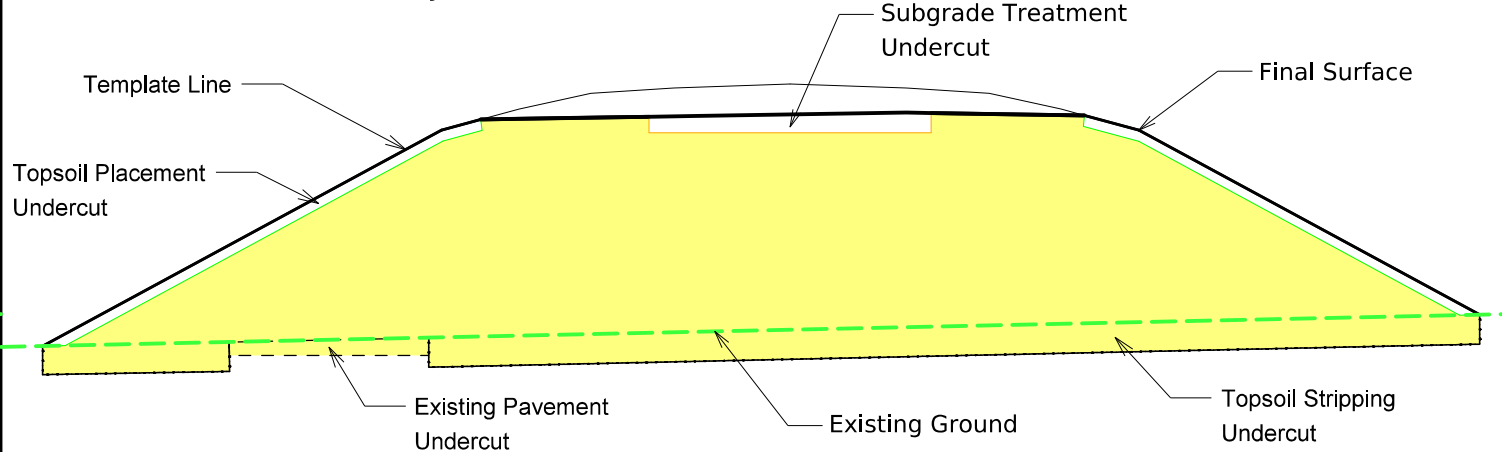
RURAL



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

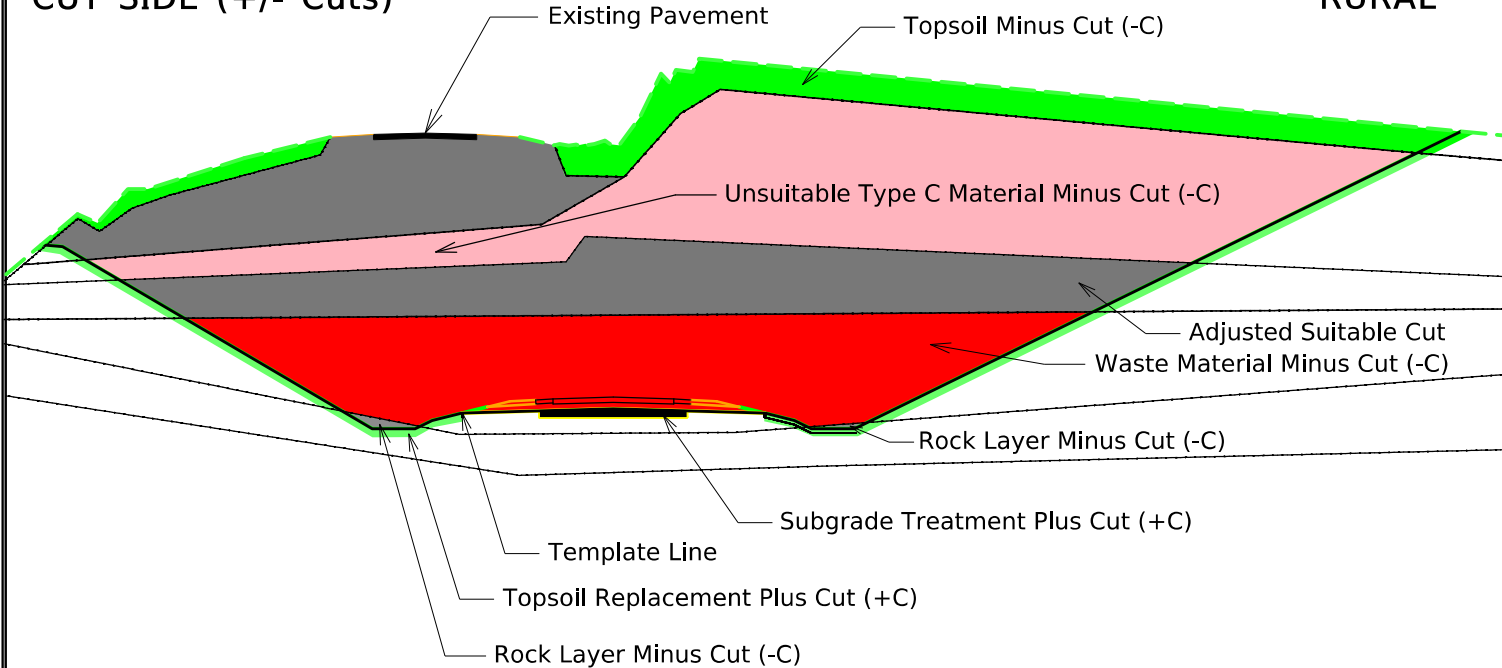


Notes:

- 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

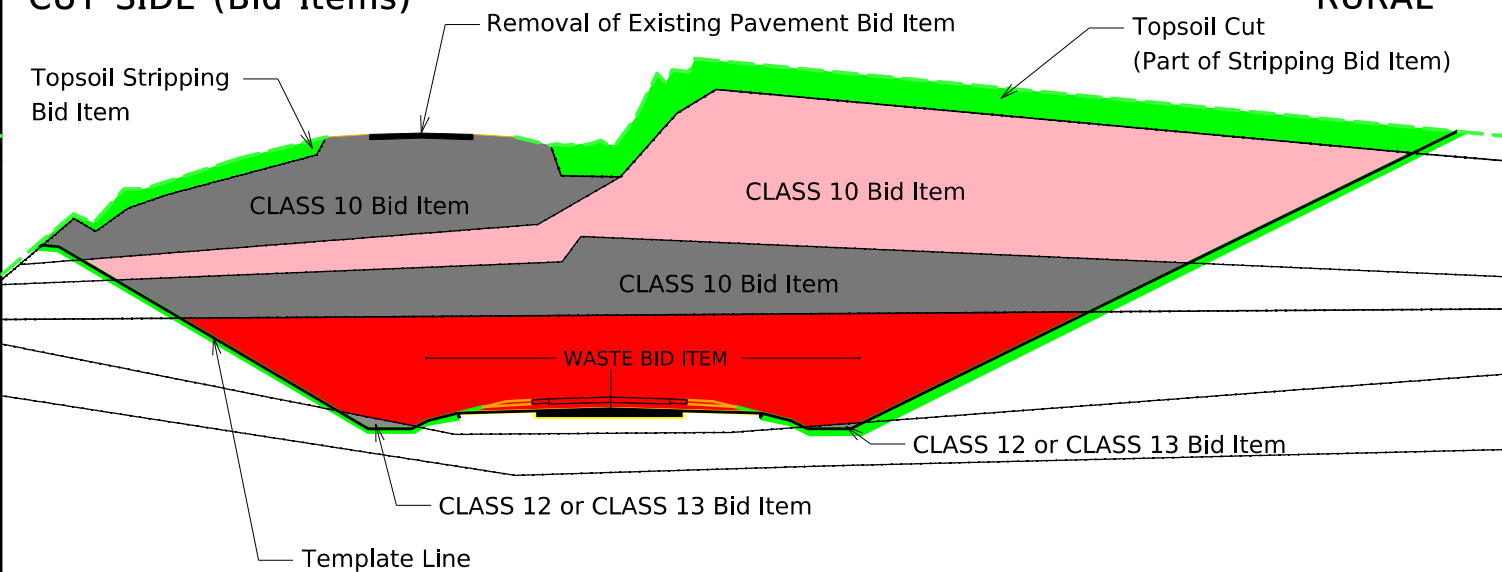
CUT SIDE (+/- Cuts)

RURAL



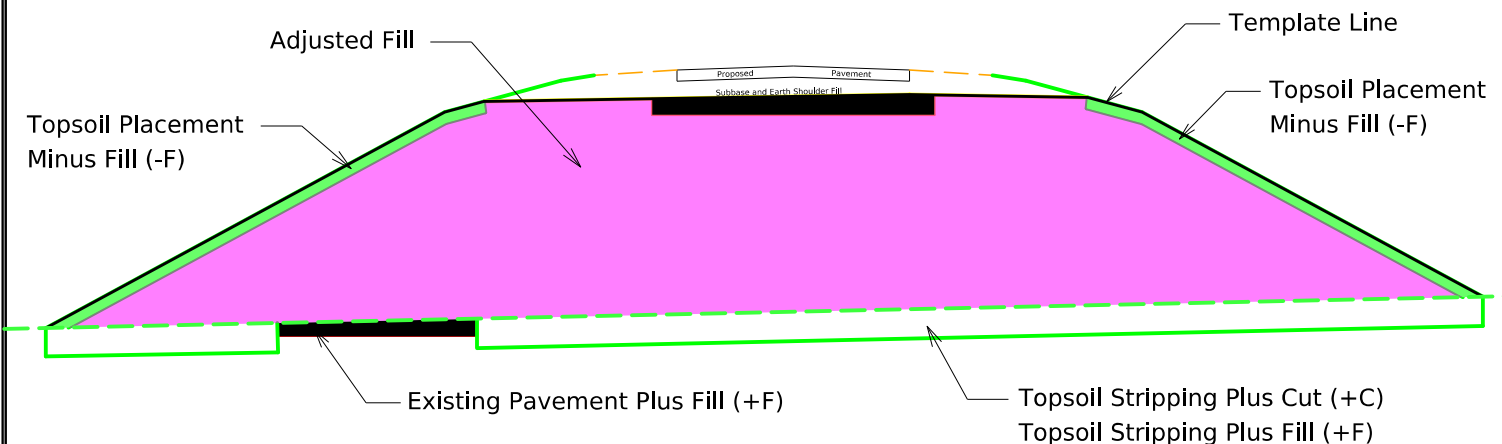
CUT SIDE (Bid Items)

RURAL



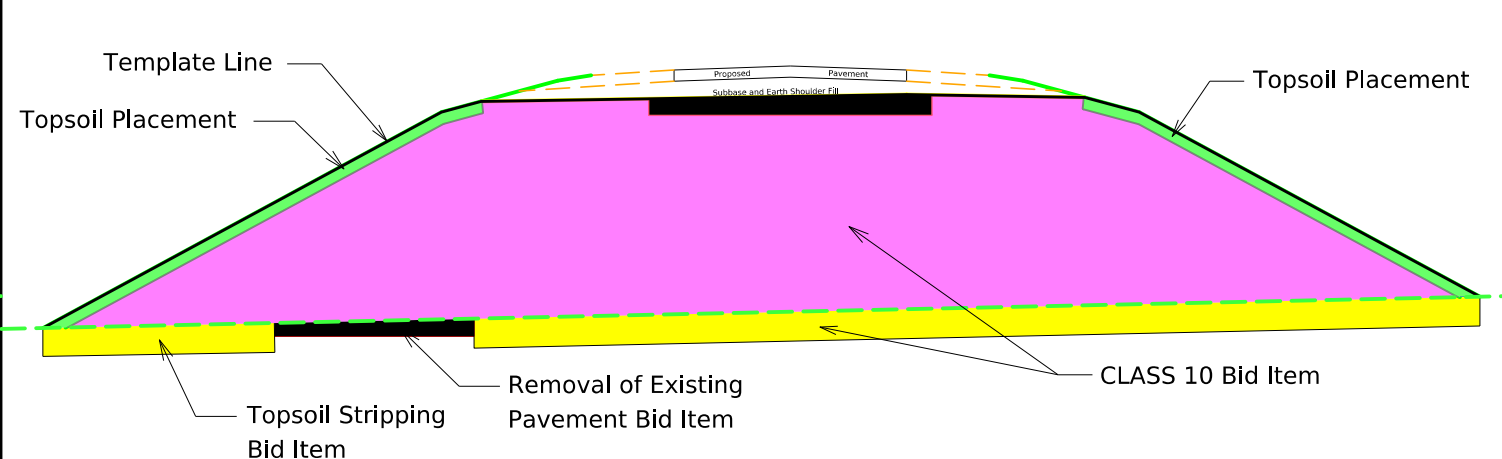
FILL SIDE (+/- Fills)

RURAL



FILL SIDE (Bid Items)

RURAL



Notes:

1. "Add Quantity +C" columns are additional cut encountered that is not Typical, Topsoil, or Subgrade Treatment Based. (Entrance, Dike, Etc.)
2. "-C" columns are either soil types or Class 10, 12, or 13 designated material that is encountered in the cut station range that is paid for by other bid items.
3. The "(SoilType) Cut" columns are soil types encountered in the cut that are paid by either Class 10, 12, or 13.
4. The "Adjusted Clas (10,12 or 13)" columns are the sum of all various soil types encountered in that station range, that are paid by Class 10, 12, or 13 bid items.
5. Refer to Standard Road Plan EW-102 for placement of unsuitable soil types.

Notes:

1. Refer to Standard Road Plan EW-102 for placement of unsuitable soil types.

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

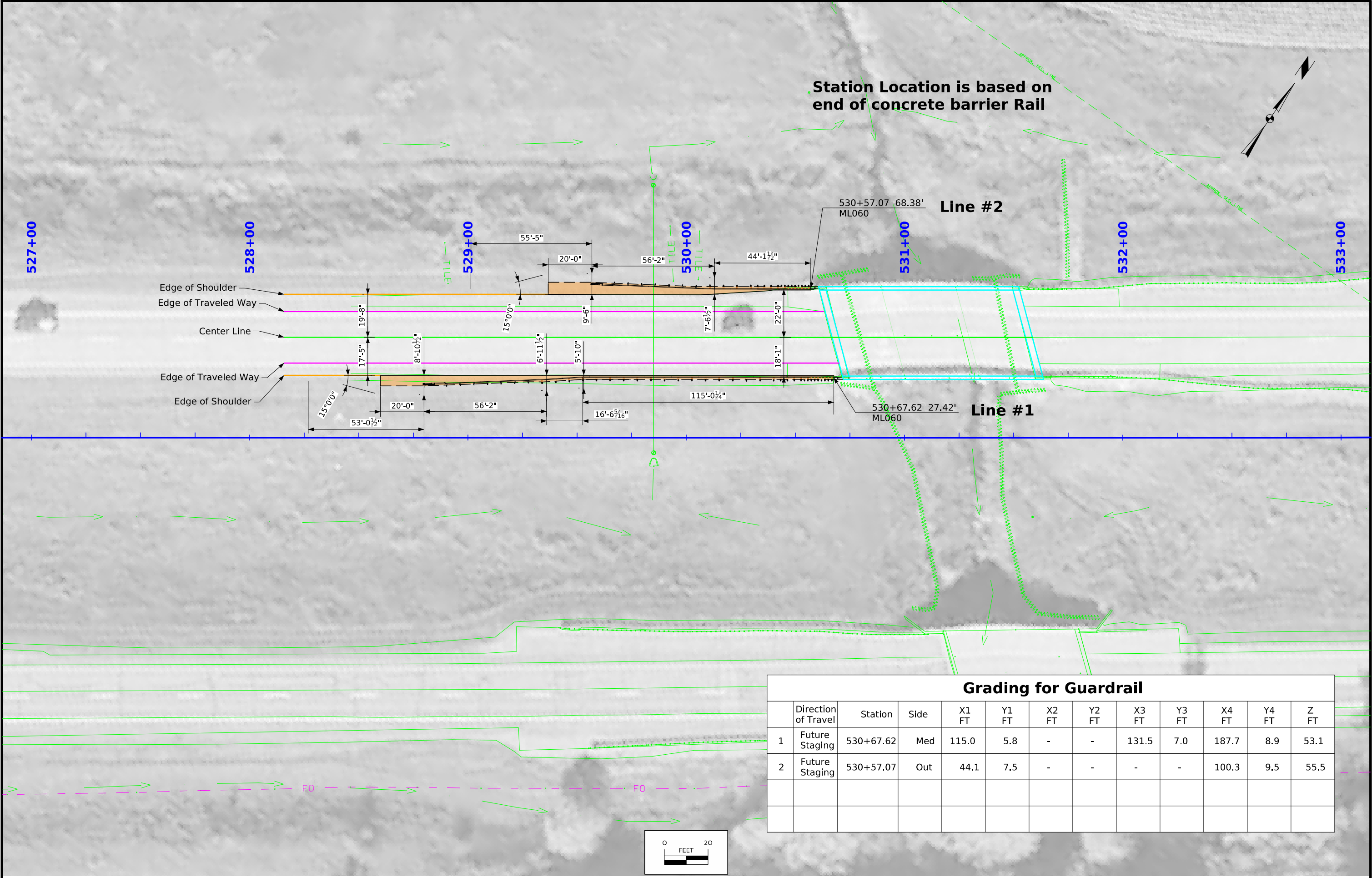
Station	Cut					Fill					Checks (EW-102)		Topsoil									
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Manually Calculated Fill Adjustments (+/- Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink						
DET200																						
233+00.00	20	9	5	5	9	0		0	0	9	0	0	5	0	0	5						
233+50.00	19	8	7	4	8	0		0	0	8	0	0	7	0	0	7						
234+00.00	21	7	10	4	7	1		1	2	5	0	0	10	0	0	10						
234+50.00	25	6	15	4	6	6		6	8	-1	0	0	15	1	2	13						
235+00.00	33	7	22	4	7	17		17	22	-15	0	0	22	5	7	16						
235+50.00	42	6	32	4	6	40		40	51	-45	0	0	32	9	13	18						
236+00.00	51	6	41	4	6	73		73	95	-89	0	0	41	14	19	22						
236+50.00	58	6	48	4	6	111		111	144	-138	0	0	48	15	22	26						
237+00.00	60	4	54	2	4	153		153	198	-195	0	0	54	20	28	27						
237+50.00	64	4	60	0	4	183		183	238	-234	0	0	60	26	36	24						
238+00.00	75	8	68	0	8	210		210	273	-265	0	0	68	26	37	31						
238+50.00	75	7	68	0	7	217		217	282	-275	0	0	68	27	38	31						
239+00.00	69	5	64	0	5	215		215	279	-274	0	0	64	28	40	24						
239+50.00	72	7	65	0	7	218		218	283	-277	0	0	65	30	42	24						
240+00.00	77	12	65	0	12	196		196	254	-242	0	0	65	27	38	27						
240+50.00	162	117	45	0	117	89		89	116	1	0	0	45	38	54	-9						
241+00.00	202	148	55	0	148	57	88	145	189	-41	0	0	55	50	70	-15						
241+50.00	125	50	76	0	50	118		118	154	-104	0	0	76	40	56	20						
242+00.00	73	12	60	0	12	125		125	163	-151	0	0	60	17	24	37						
242+50.00	53	2	50	0	2	109		109	142	-140	0	0	50	6	9	41						
243+00.00	45	1	44	0	1	93		93	121	-120	0	0	44	7	9	35						
243+50.00	41	0	40	0	0	82		82	107	-106	0	0	40	3	4	36						
244+00.00	45	4	39	2	4	59		59	77	-73	0	0	39	5	6	33						
244+50.00	45	7	35	4	7	41		41	54	-47	0	0	35	4	5	30						
245+00.00	38	7	28	4	7	25		25	32	-26	0	0	28	3	5	23						
245+50.00	32	7	21	4	7	12		12	15	-8	0	0	21	2	3	18						
246+00.00	26	7	15	4	7	4		4	6	2	0	0	15	0	0	15						
247+00.00	23	7	11	4	7	1		1	2	5	0	0	11	0	0	11						
247+50.00	20	8	8	4	8	0		0	0	7	0	0	8	0	0	9						
248+00.00	18	7	7	4	7	0		0	0	7	0	0	7	0	0	7						
248+00.00	17	7	6	4	7	0		0	0	7	0	0	6	0	0	6						
248+50.00	2	1	1	0	1	0		0	0	1	0	0	1	0	0	1						
248+55.36																						
DET200																						
Totals:	1,729	493	1,164	72	493	2,455	88	2,543	3,307	-2,815	0	0	1,164	404	567	600						

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut					Fill					Checks (EW-102)		Topsoil									
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Template Pavement Removal Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Manually Calculated Fill Adjustments (+/- Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink						
IA60SB 528+46.67 528+50.00 529+00.00 529+20.00 529+50.00 530+00.00 530+50.00 530+55.00 530+67.62 IA60SB Totals:	1 16 12 19 31 31 2 2	0 6 3 3 7 7 1 1	0 10 9 16 24 23 1 1	0 0 0 0 0 0 0 0	0 6 3 3 7 7 1 1	0 8 4 6 7 7 0 1	 	0 8 4 6 7 7 0 1	0 10 6 8 9 10 1 1	0 -4 -3 -5 -2 -2 -2 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 10 9 16 24 23 1 1	0 6 5 5 6 7 0 0	0 9 7 7 9 10 1 1	0 2 3 10 16 14 1 1						



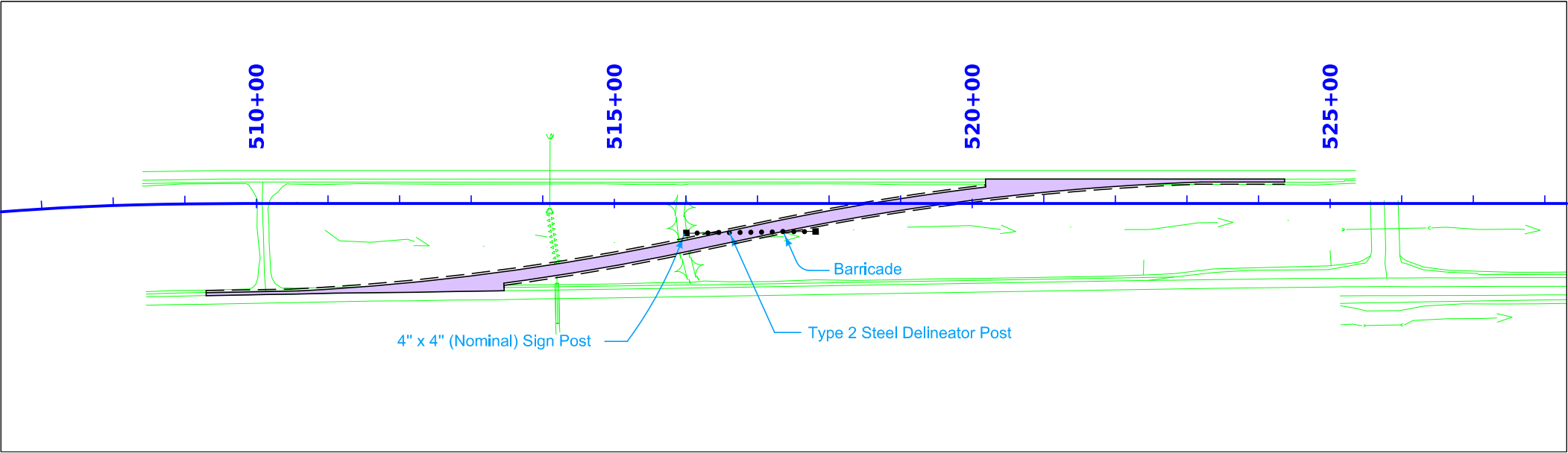
Station Location is based on
end of concrete barrier Rail

Line #2

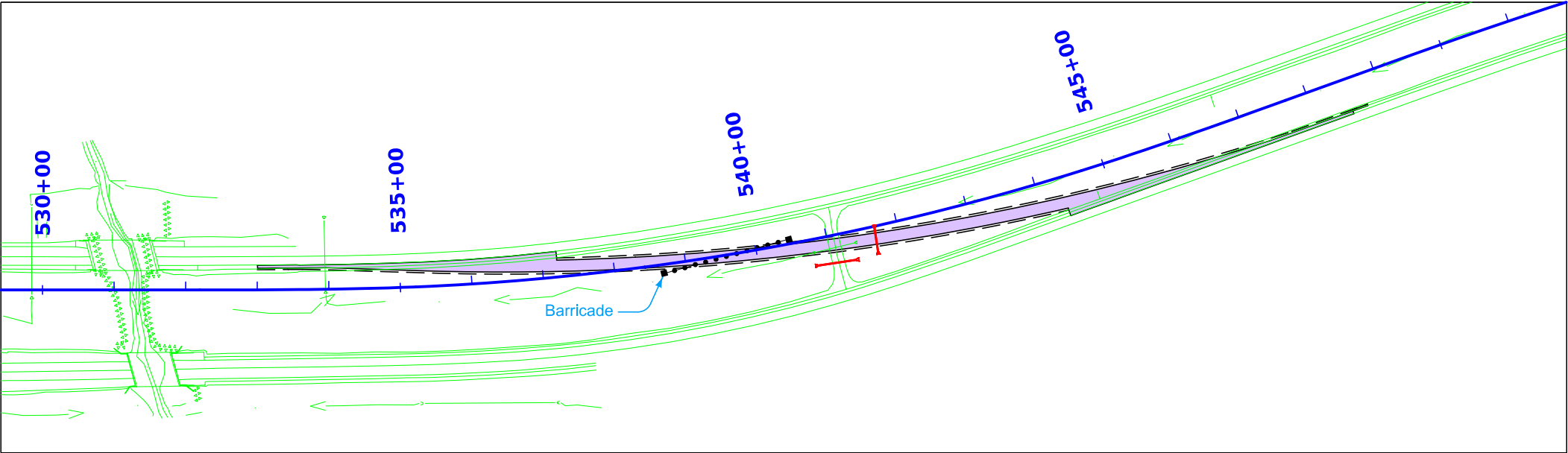
Line #1

Grading for Guardrail

	Direction of Travel	Station	Side	X1 FT	Y1 FT	X2 FT	Y2 FT	X3 FT	Y3 FT	X4 FT	Y4 FT	Z FT
1	Future Staging	530+67.62	Med	115.0	5.8	-	-	131.5	7.0	187.7	8.9	53.1
2	Future Staging	530+57.07	Out	44.1	7.5	-	-	-	-	100.3	9.5	55.5



DET 100 PLAN VIEW

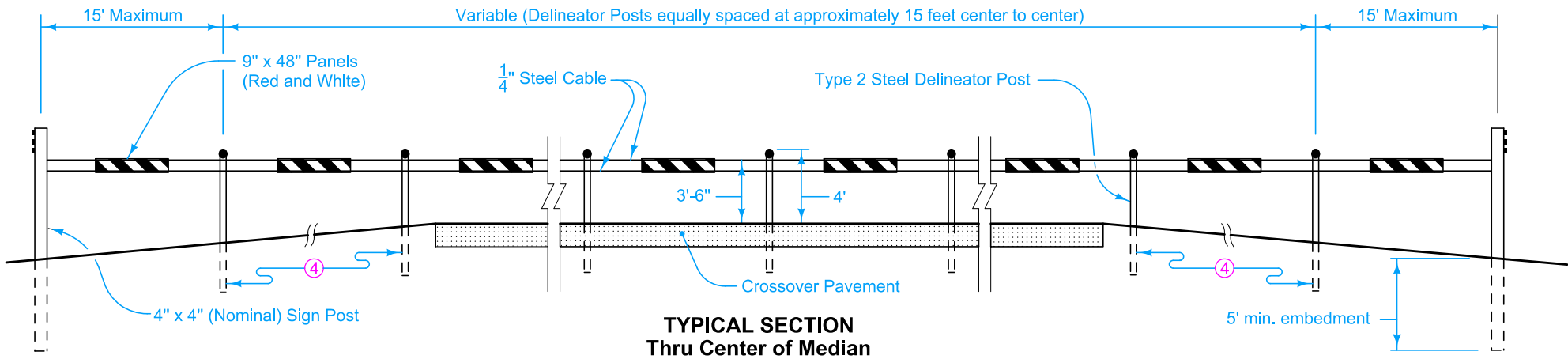


DET 200 PLAN VIEW

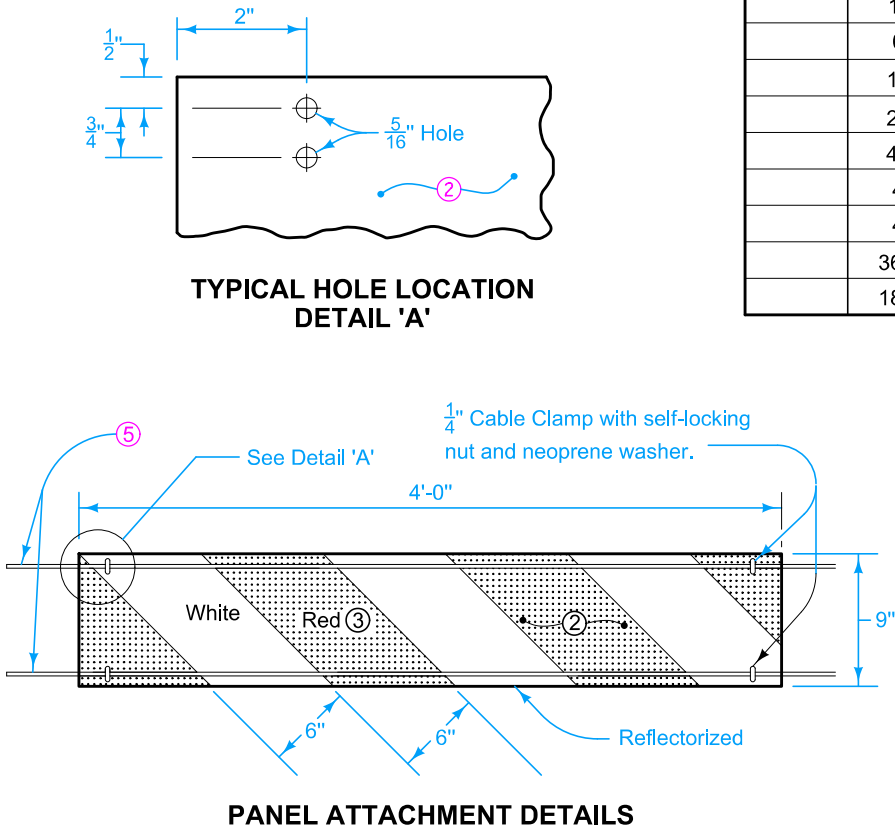
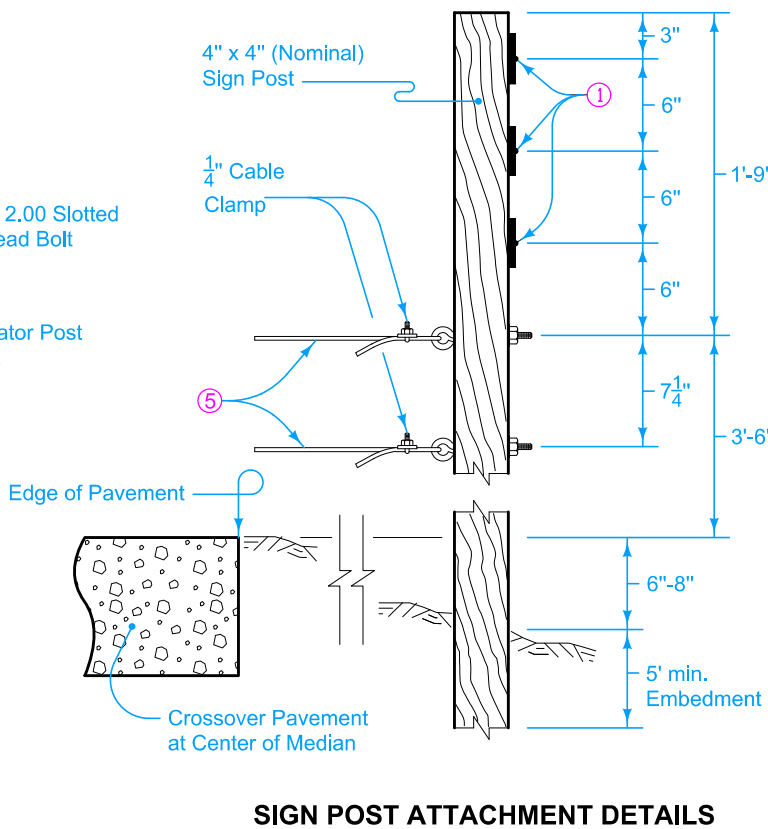
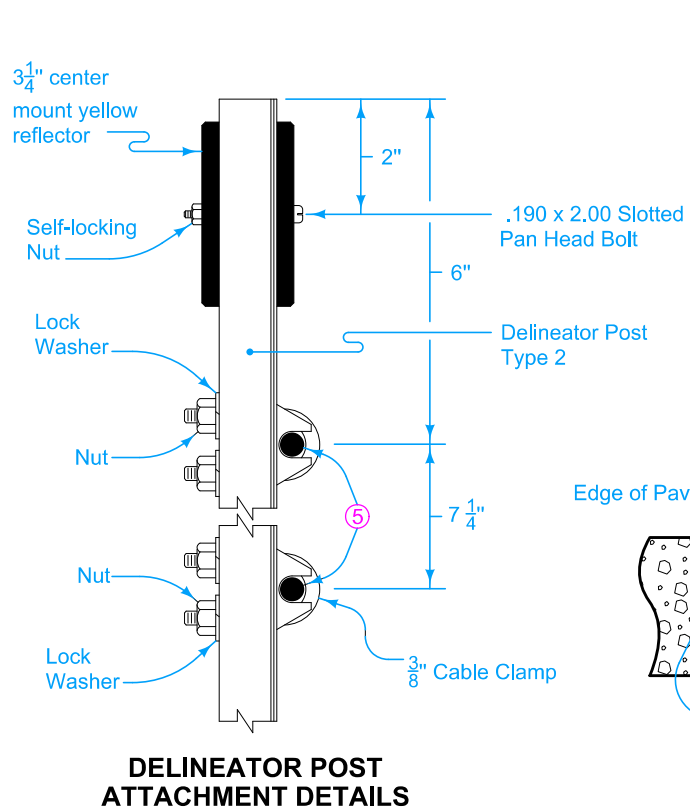
LOCATION OF BARRICADE
AT CROSSOVER

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

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



List Of Materials For Barricading At Median Crossovers			
Quantities for Crossover		Items	
	DET100	DET200	
	11	11	Type 2 Steel Delineator Posts
	2	2	4" x 4" (Nominal) Sign Post
	28	28	3 1/4" Yellow Reflectors, center mounted
	11	11	0.190 x 2.00 slotted pan head bolts and self-locking nuts
	6	6	0.190 x 1.25 slotted pan head screws
	12	12	9" x 48" Aluminum panels (red on white)
	22	22	3/8" Cable clamps, lock washers and nuts
	48	48	1/4" Cable clamps, neoprene washers and self-locking nuts
	4	4	3/8" x 6" Eye bolts, washers and nuts
	4	4	1/4" Cable clamps
	360'	360'	Approximate length of 1/4" diameter Steel Cable
	180'	180'	Distance from Sign Post to Sign Post



MODIFIED

ROAD DESIGN DETAIL

MODIFICATIONS: Changed List of Materials needed for specific crossovers

REVISION	
9	10-19-10
540-13	
SHEET 1 of 1	

DETAILS OF BARRICADE
AT CROSSOVER

CROSS SECTION VIEW COLOR LEGEND			
Design Color No.	Feature	Design Color No.	Feature
Aggregate		Structural	
(64)	Choke Stone	(112)	Noise Wall
(42)	Engineering Fabric	(112)	Noise Wall Footing
(8)	Flooded Backfill	(112)	Retaining Wall Back
(92)	Macadam Stone	(112)	Retaining Wall Back Excavate
(20)	Modified	(112)	Retaining Wall Face
(12)	Plowing Shaping	(112)	Retaining Wall Front Excavate
(14)	Porous Backfill	(112)	Retaining Wall Front Footing
(8)	Revetment Class A	(112)	Retaining Wall MSE Gutter
(6)	Revetment Class B	(112)	Retaining Wall Reinforced Earth
(62)	Revetment Class C	Grading	
(188)	Revetment Class D	(8)	Behind Curb Cut
(28)	Revetment Class E	(6)	Granular
(12)	Shoulder Special Backfill	(13)	Granular Back Fill
(12)	Special Backfill	(48)	Rock Undercut
(20)	Subbase	(8)	Shoulder Earth Fill
(20)	Subbase Lower	(2)	Side Slopes
(20)	Subbase Upper	(226)	Side Slopes Dressing
(118)	Subgrade Treatment	Substrata	
Asphalt		(128)	Boulder Substrata
(207)	HMA Base Course	(48)	Broken Weathered Substrata
(207)	HMA Interim Course	(3)	Core Out Substrata
(207)	HMA Surface Course	(203)	Existing Pavement Substrata
Concrete		(6)	Loam Substrata
(0)	Barrier Concrete	(80)	Rock Substrata
(0)	Barrier Concrete Footing	(4)	Select Sand Substrata
(0)	Curb Gutter	(3)	Shale Substrata
(48)	Flowable Mortar	(10)	Topsoil Substrata
(0)	Median Concrete	Unsuitable / Waste	
(0)	PCC Pavement	(3)	Unsuitable Type A
(0)	Sidewalk	(13)	Unsuitable Type B
Shoulder		(11)	Unsuitable Type C
(209)	Shoulder HMA	(3)	Waste
(0)	Shoulder PCC		
(6)	Shoulder Granular		
Existing			
(0)	Existing Pavement		

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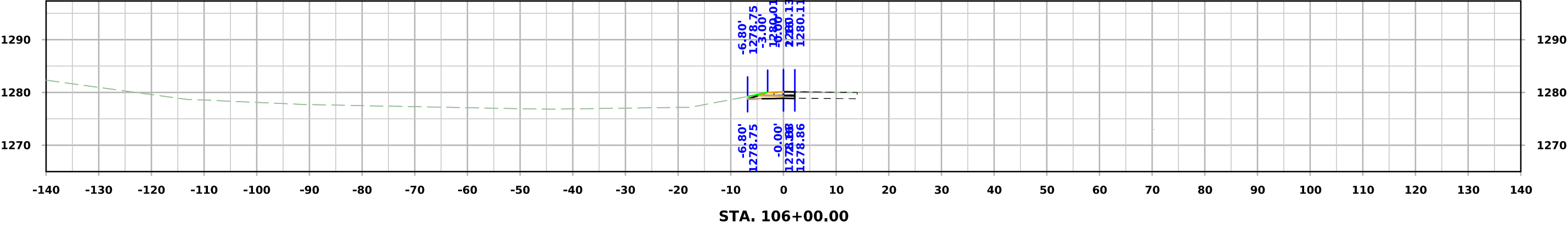
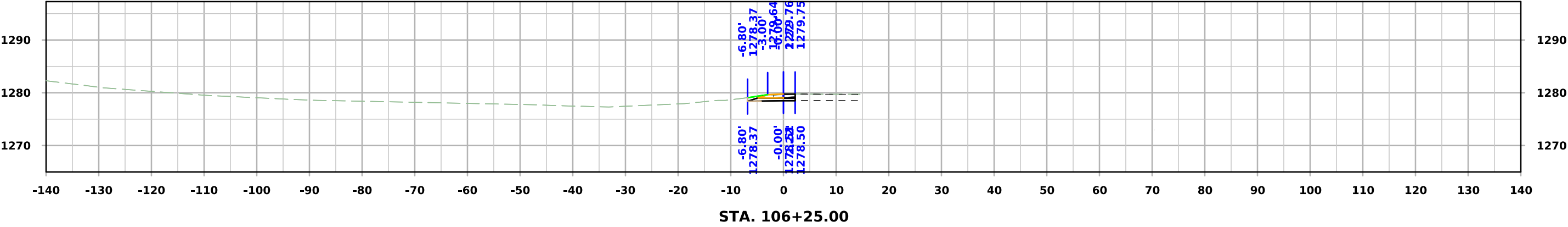
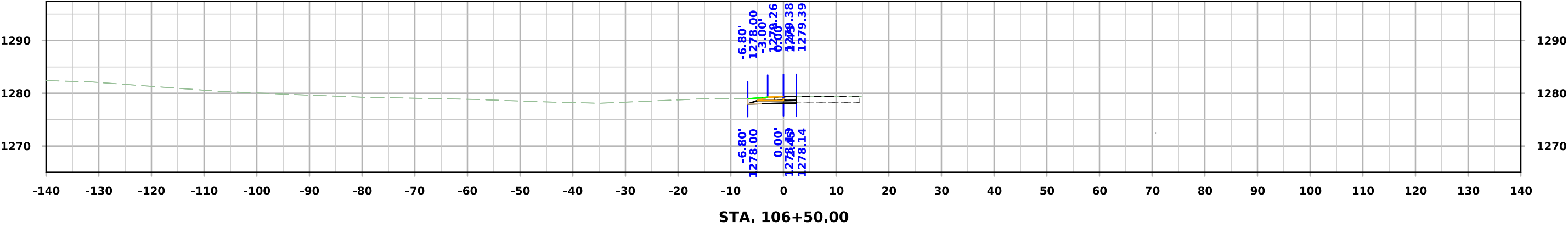
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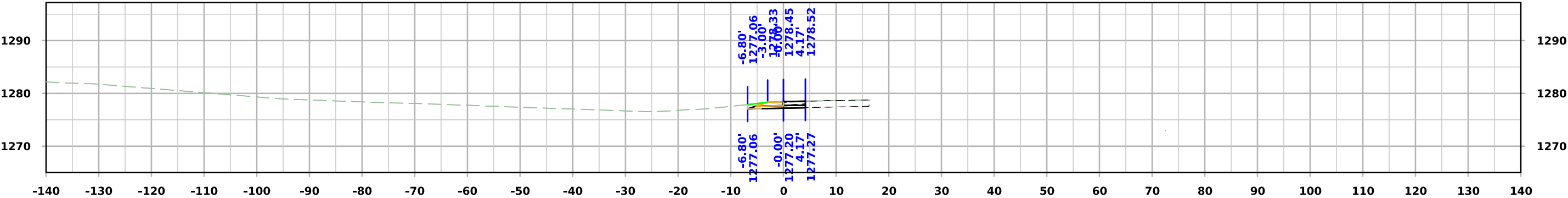
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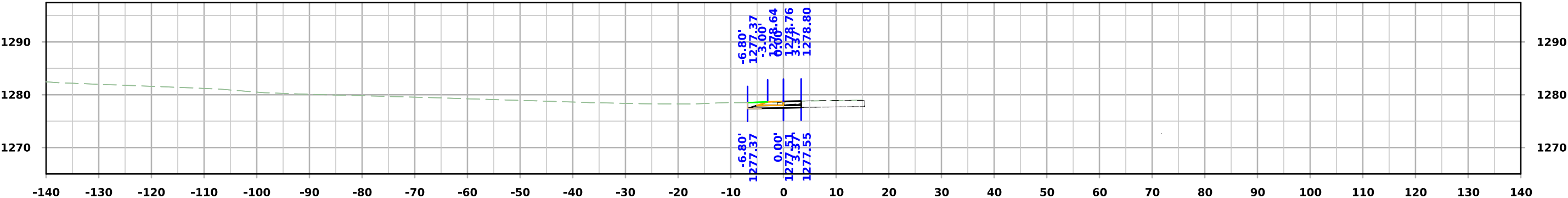
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LEGEND AND INFORMATION SHEET

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

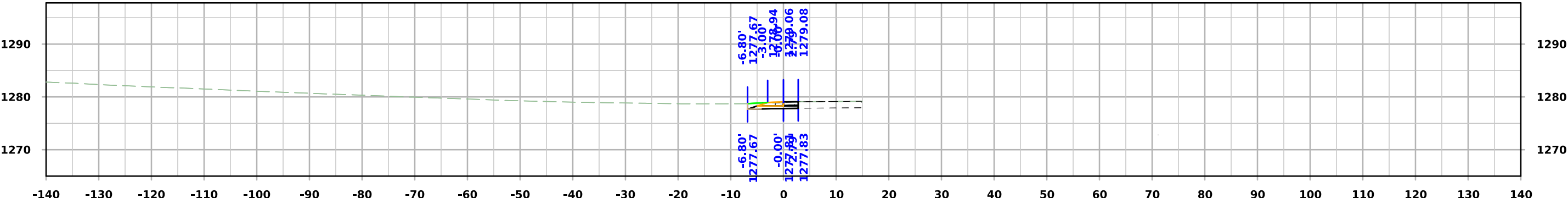




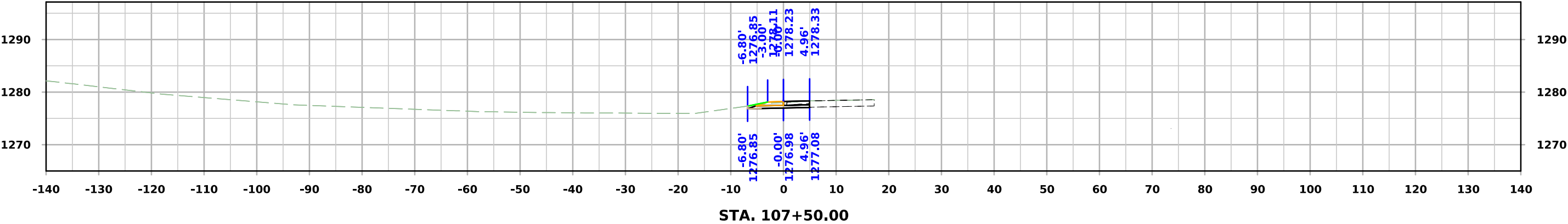
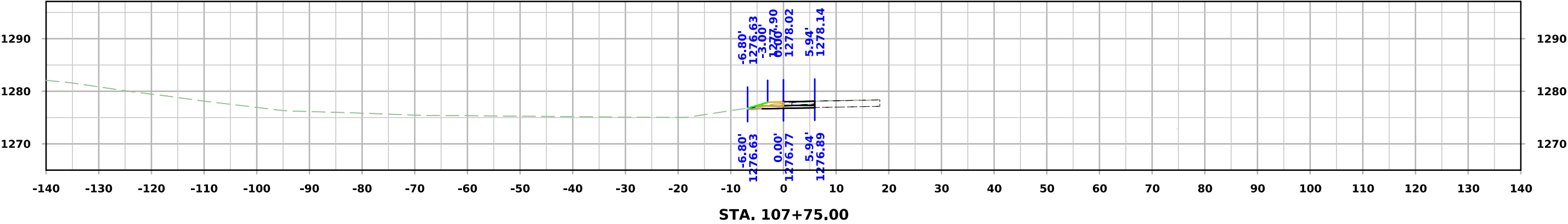
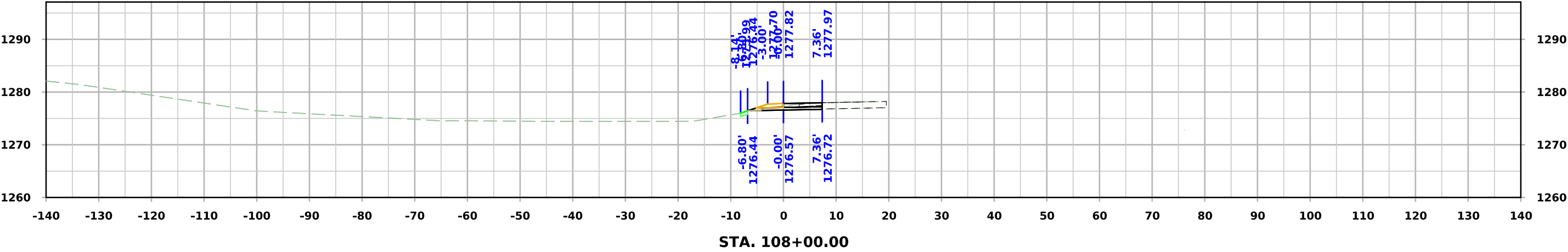
STA. 107+25.00



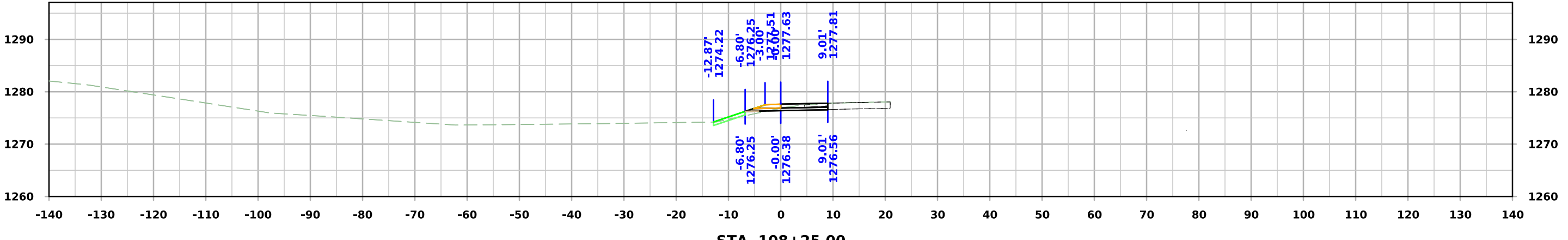
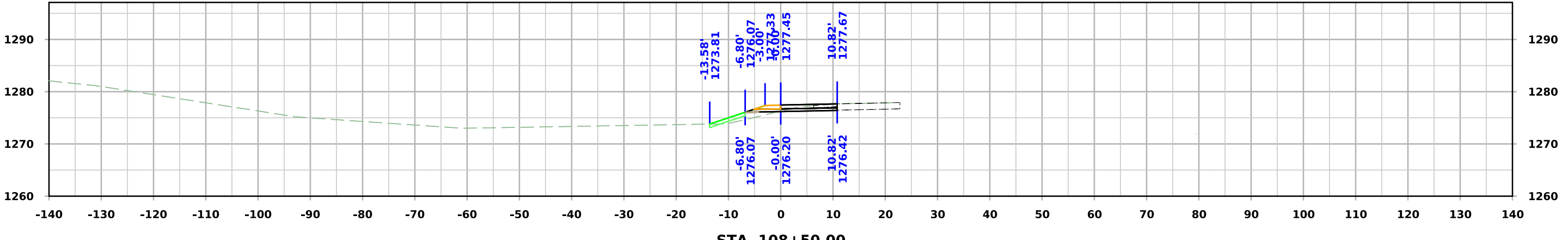
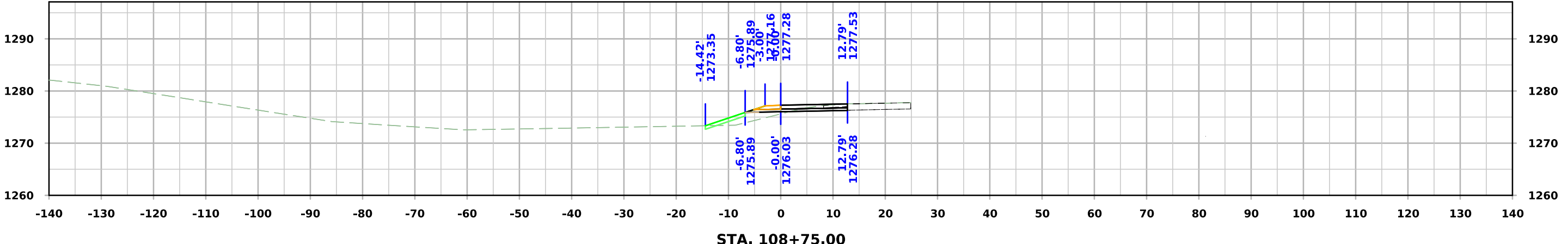
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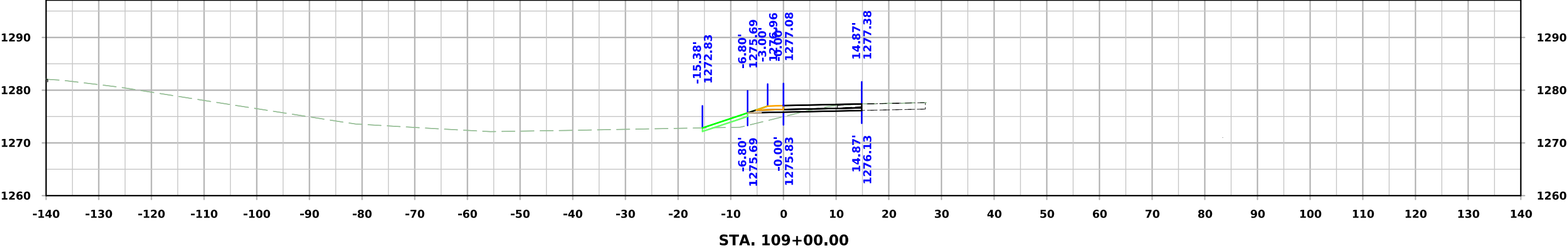
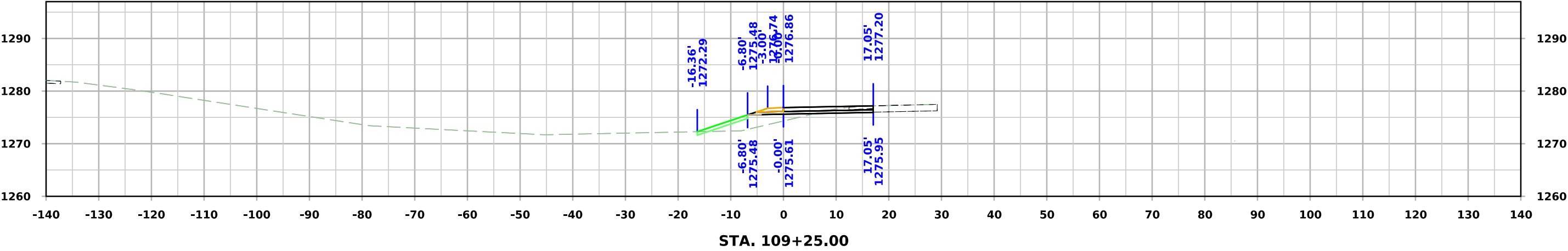
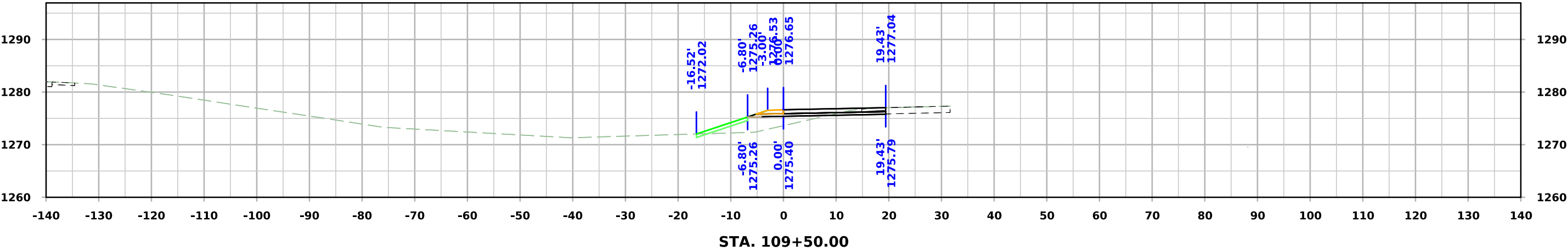
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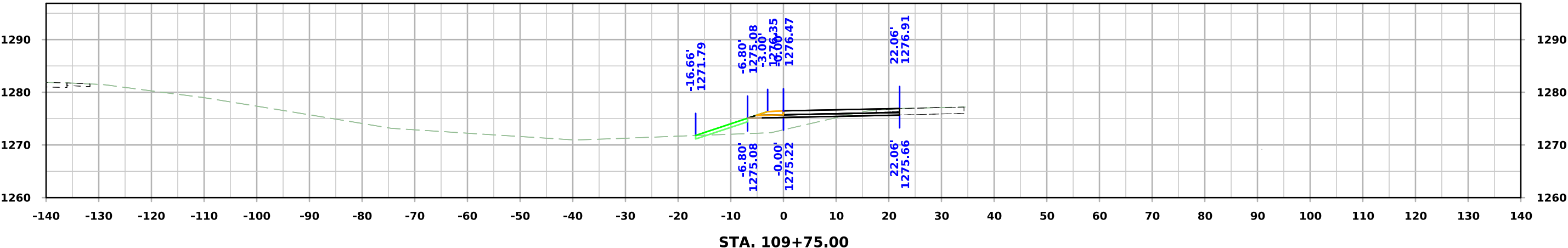
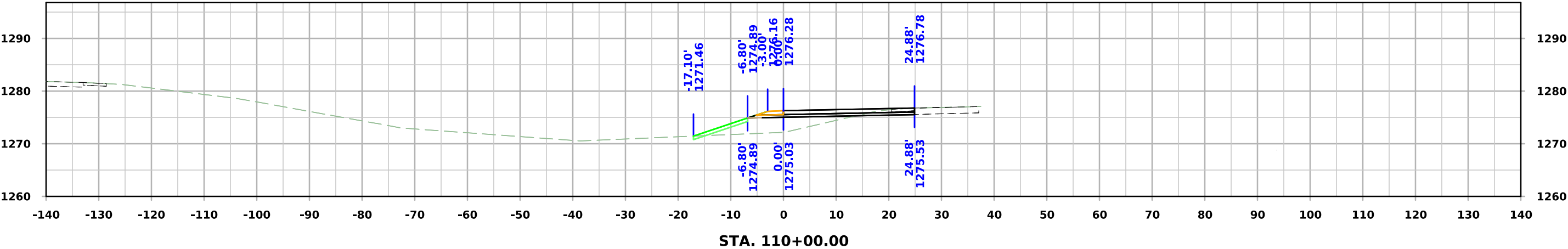
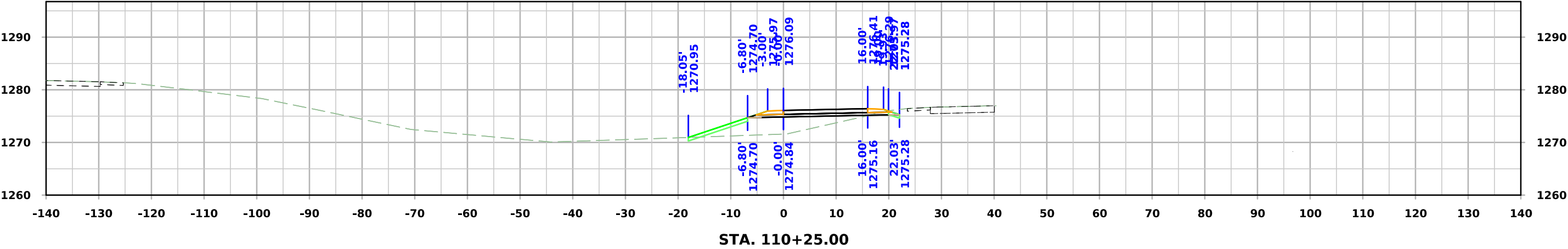


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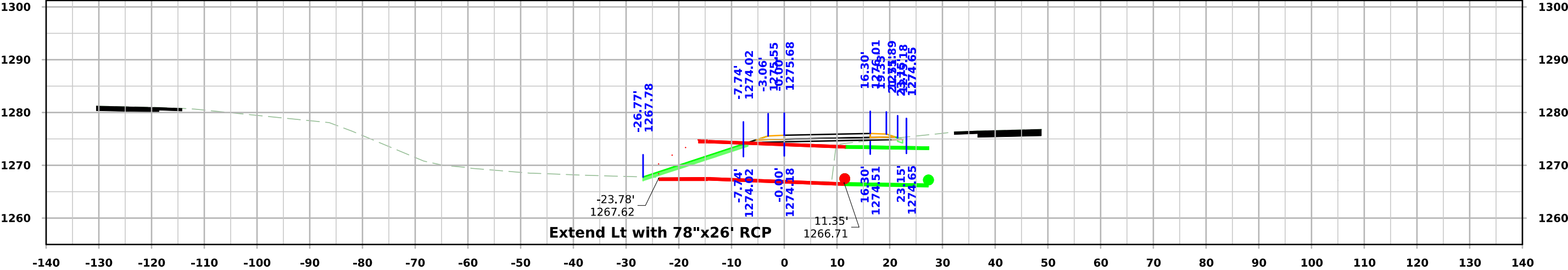


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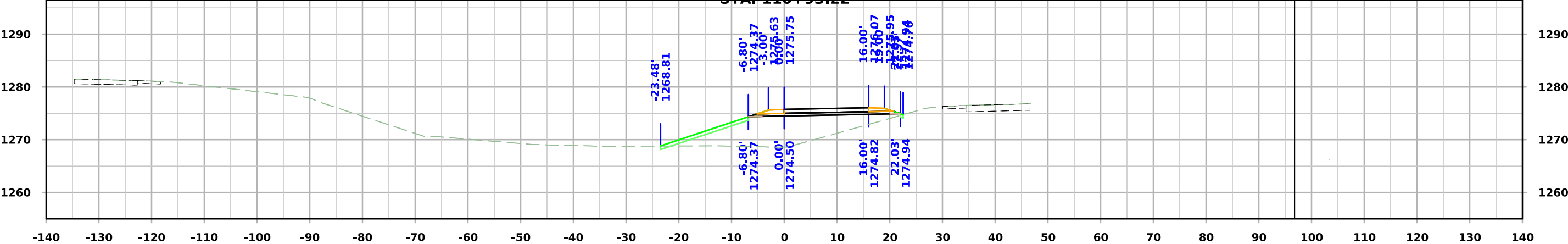




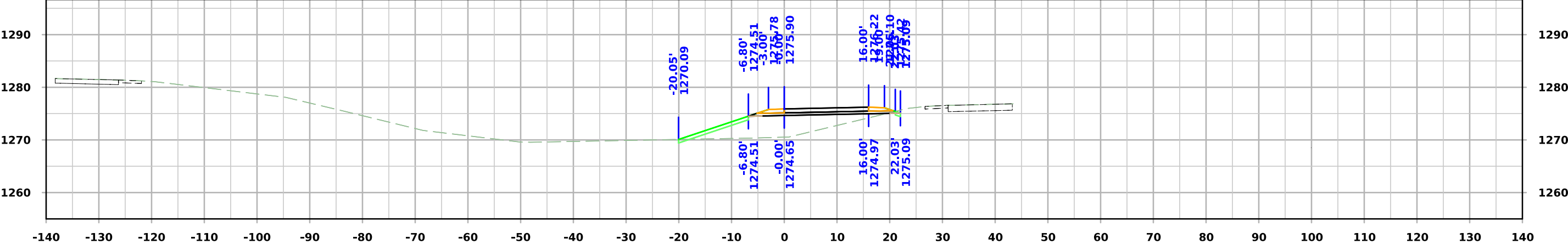
DET100



STA. 110+93.22

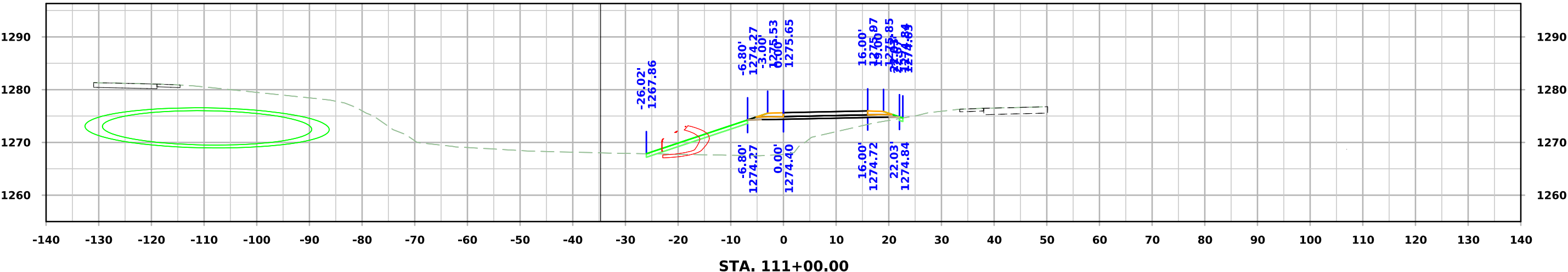
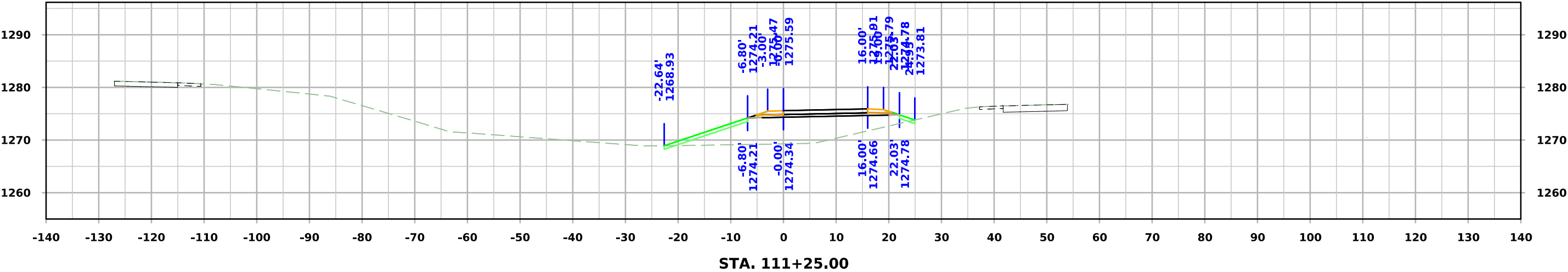
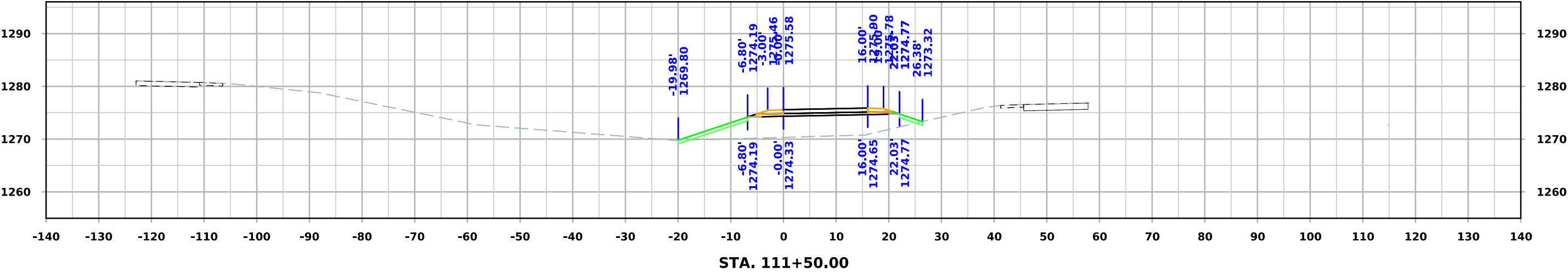


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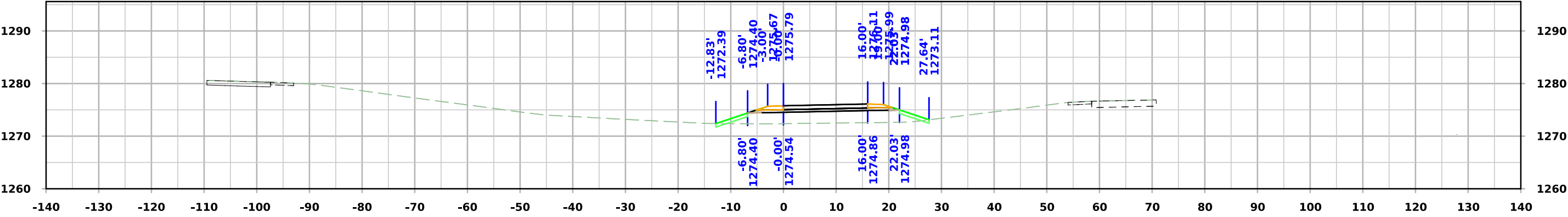


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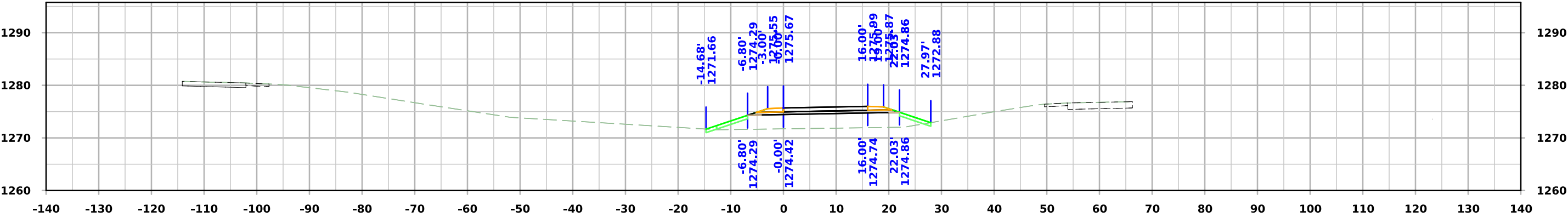
DET100



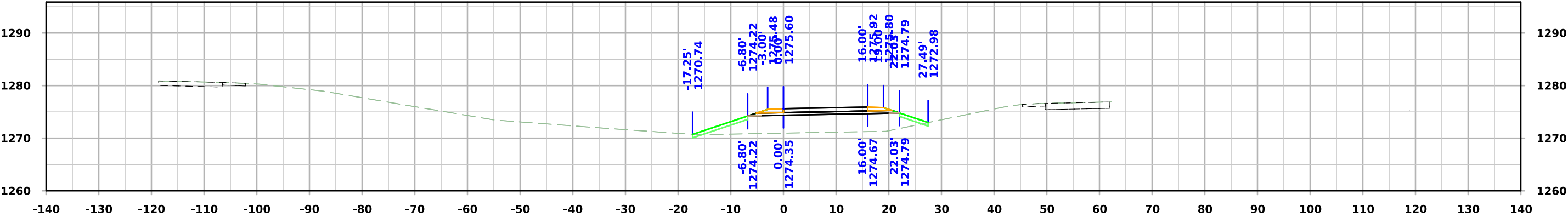
DET100



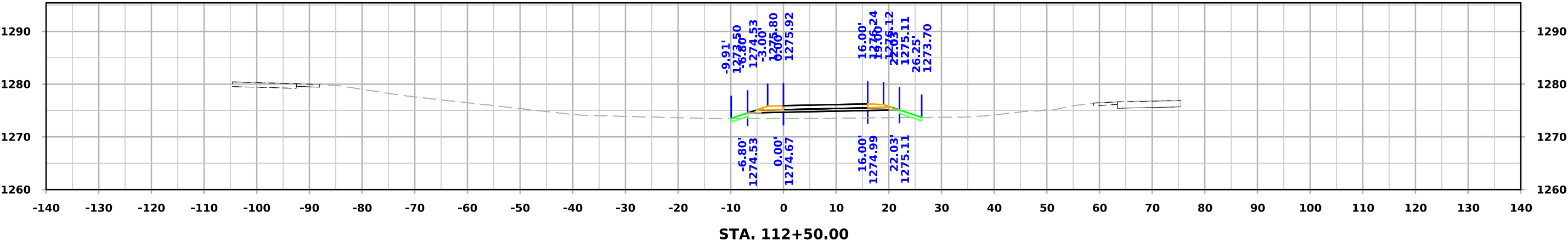
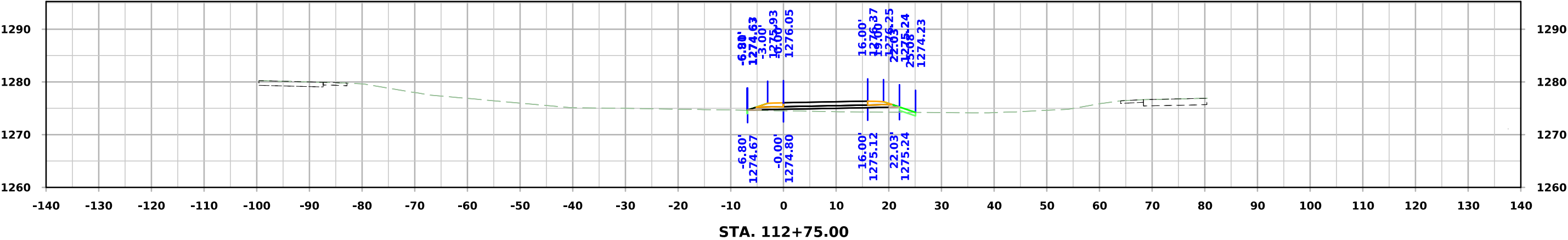
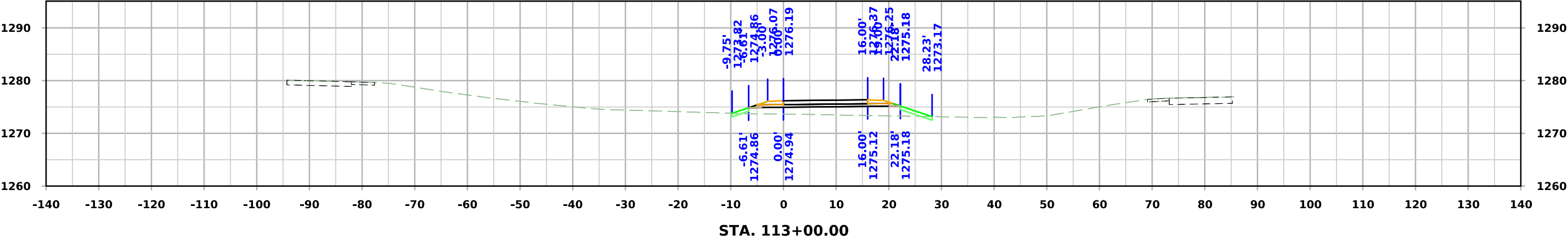
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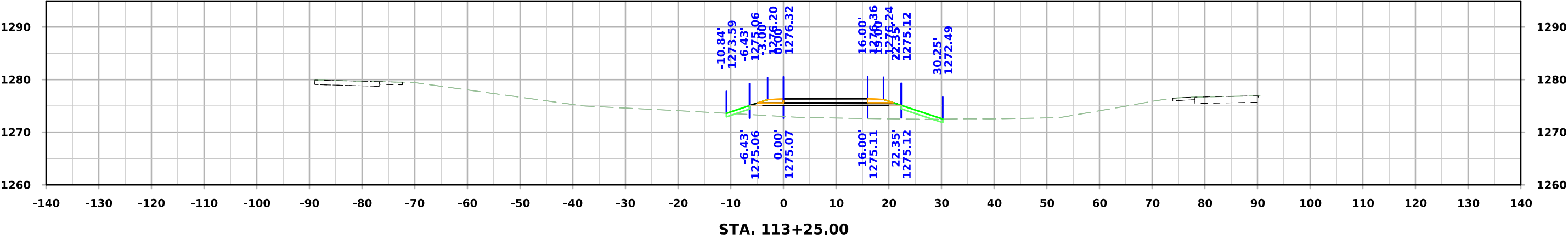
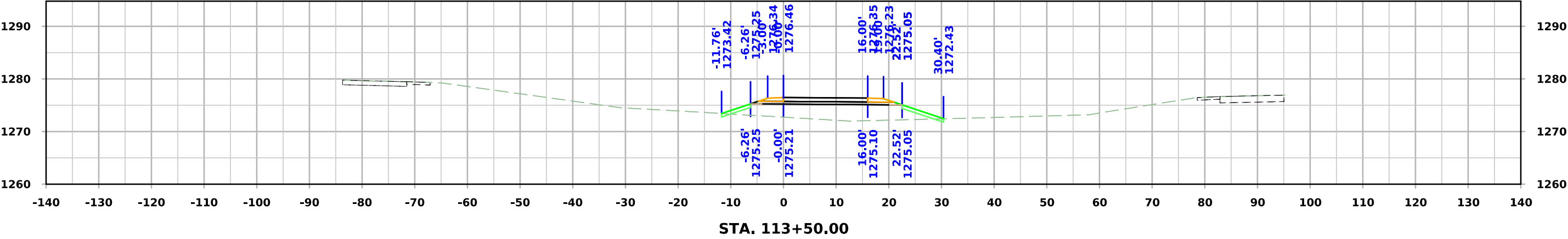
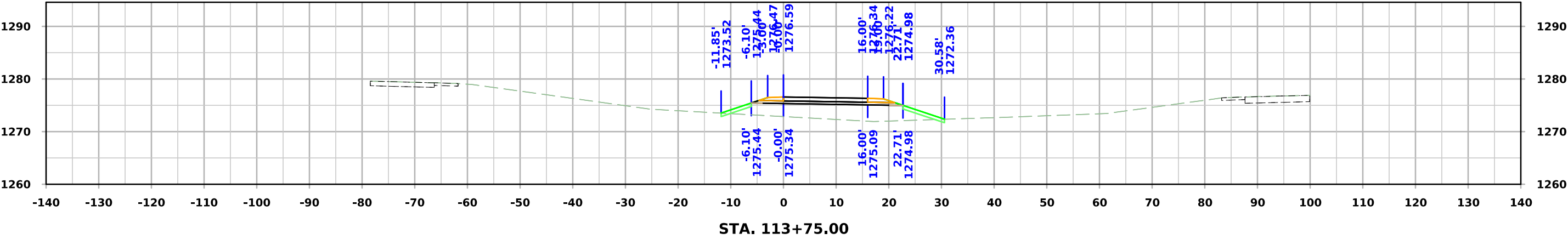


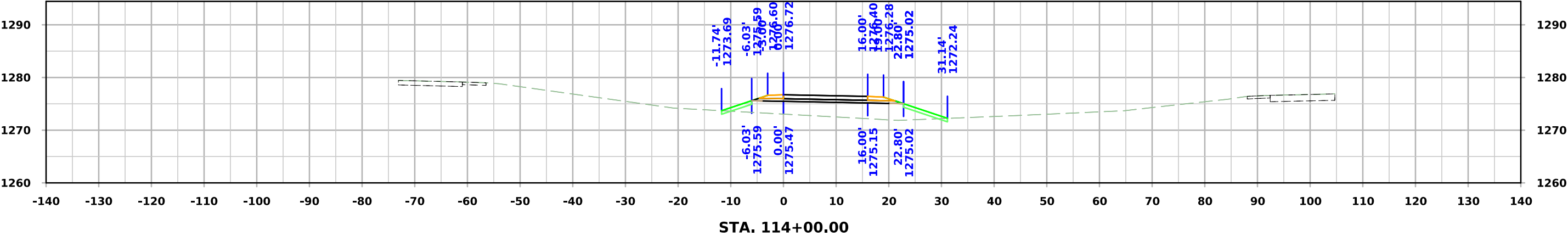
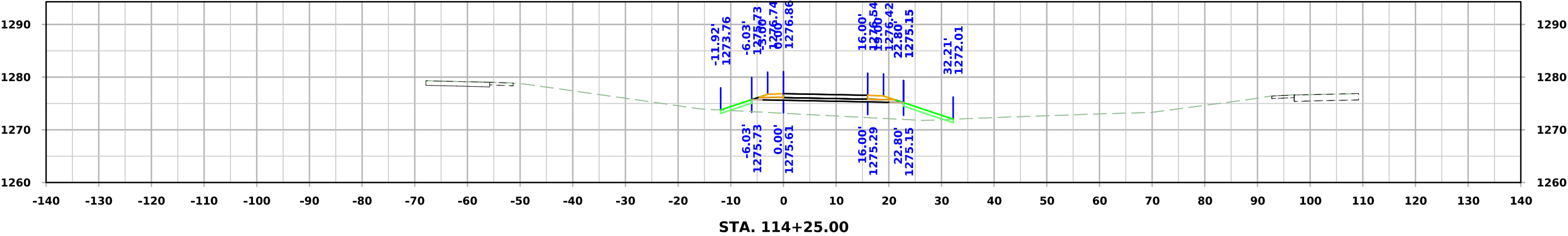
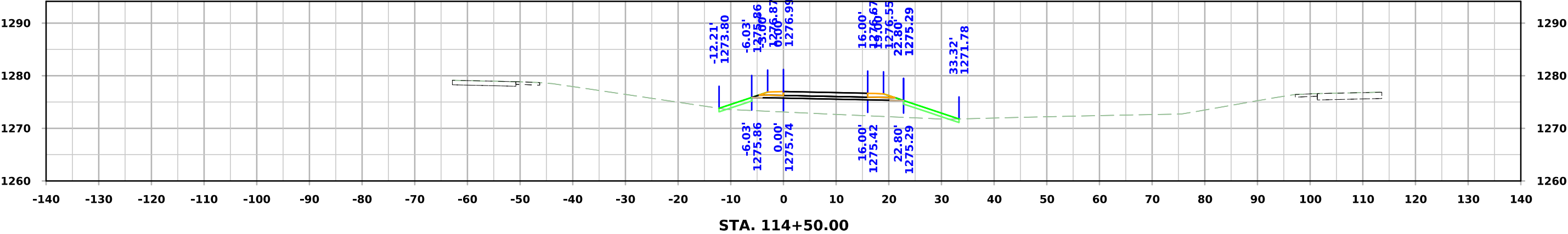
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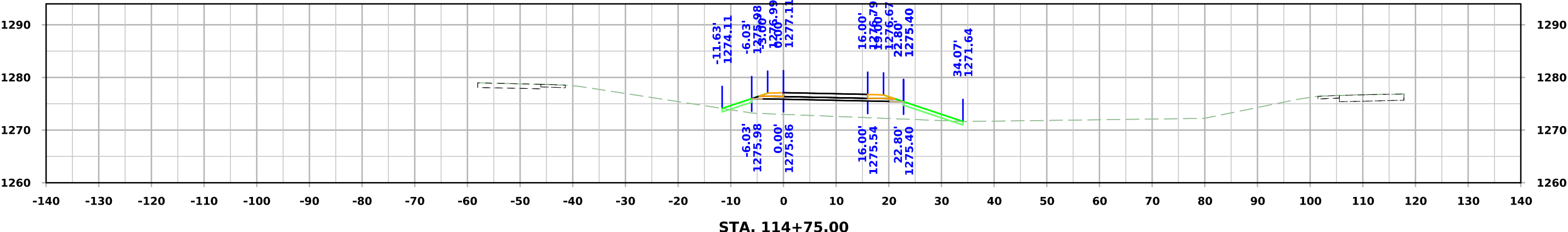
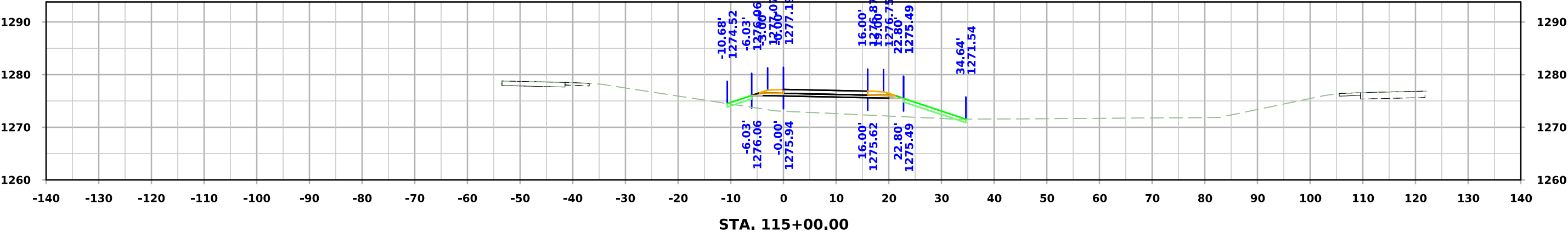
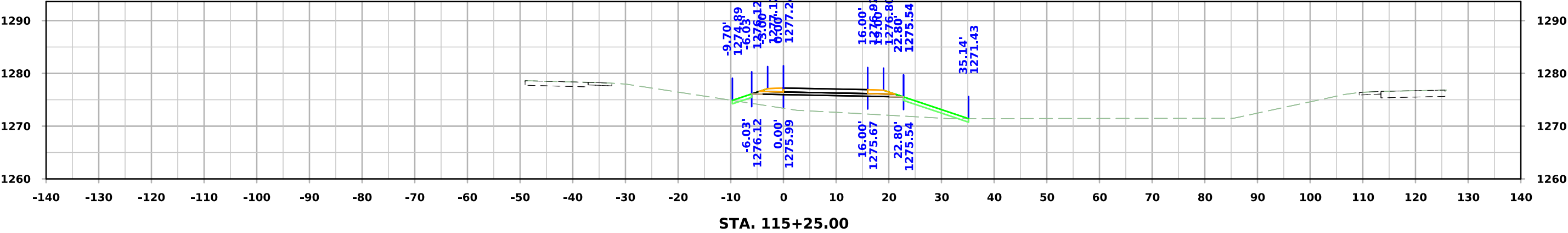


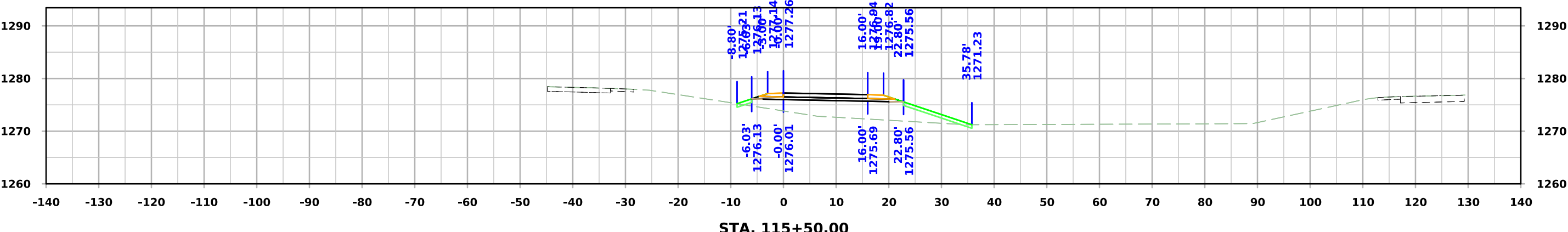
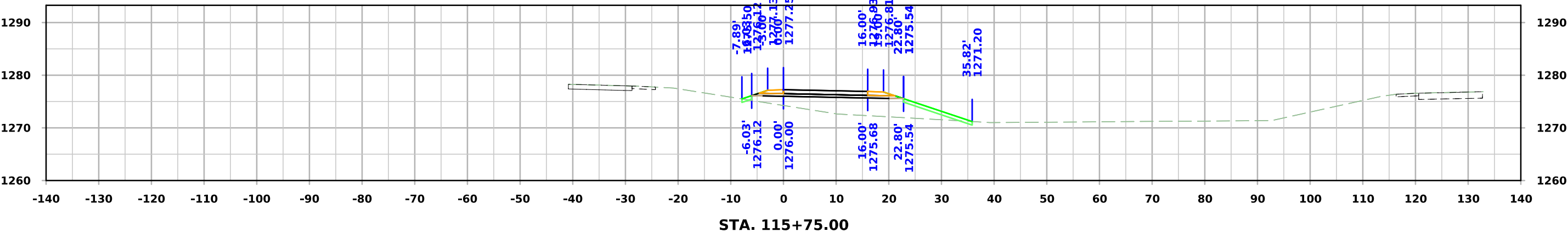
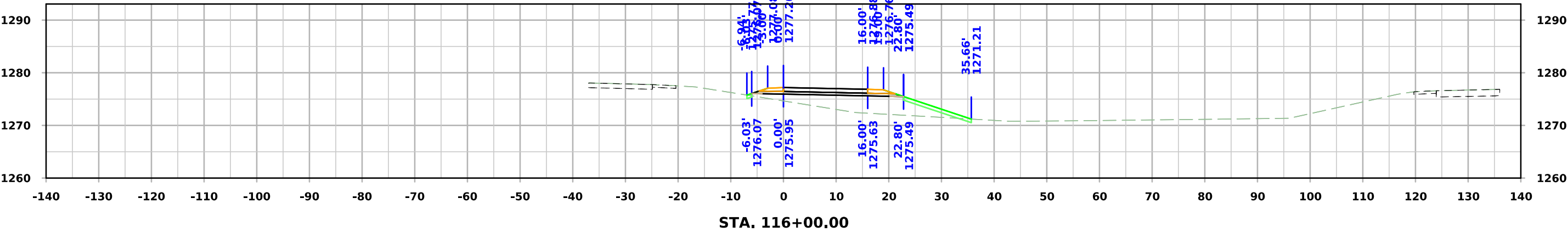
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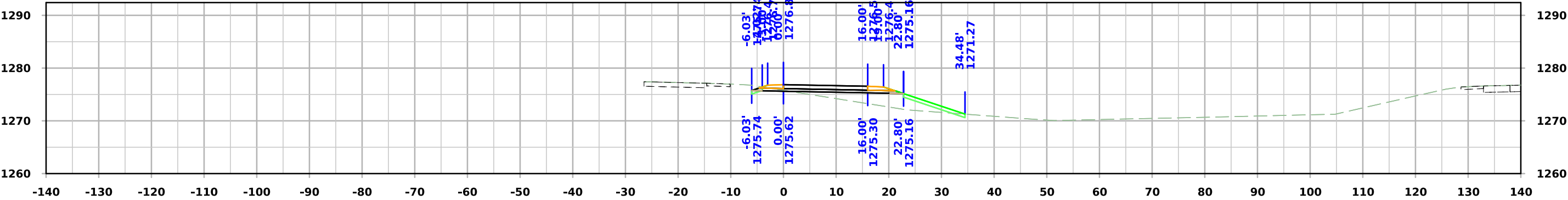




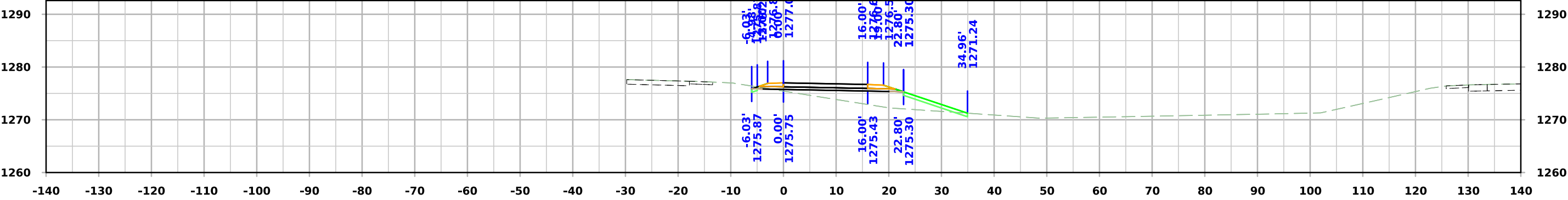




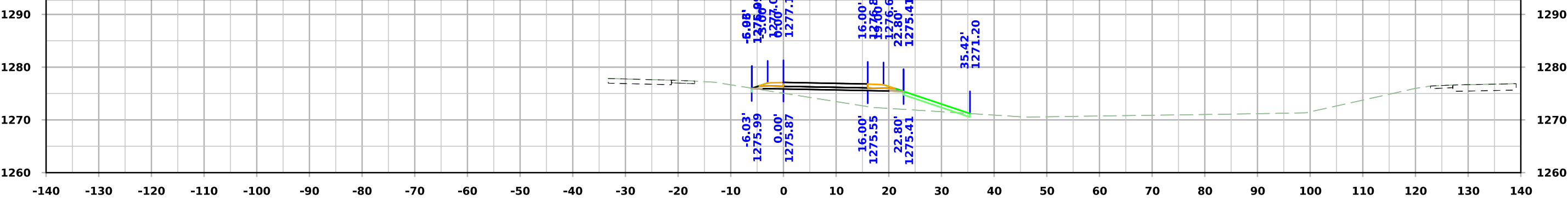




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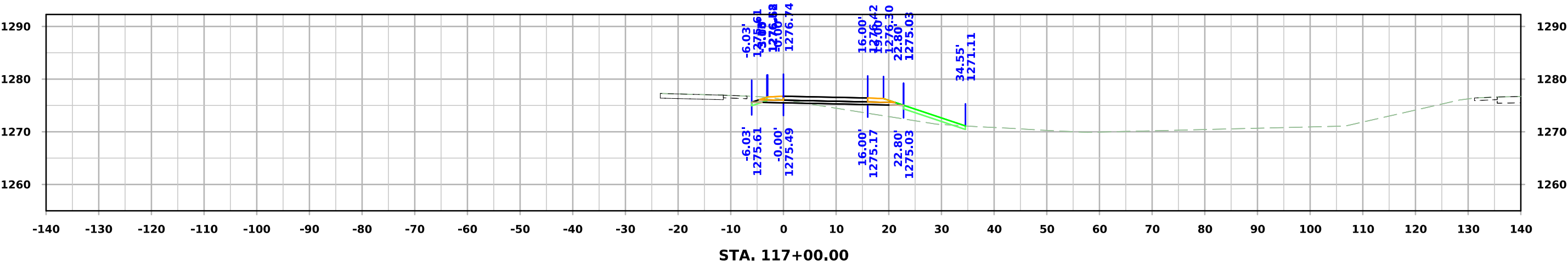
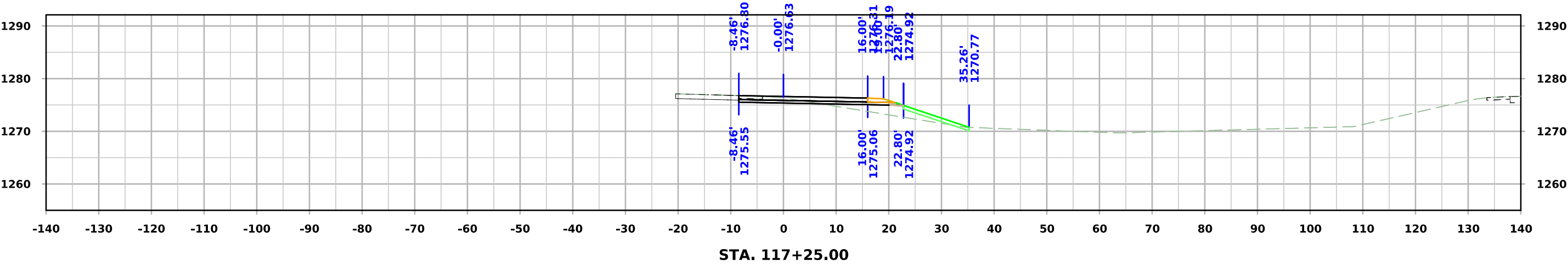
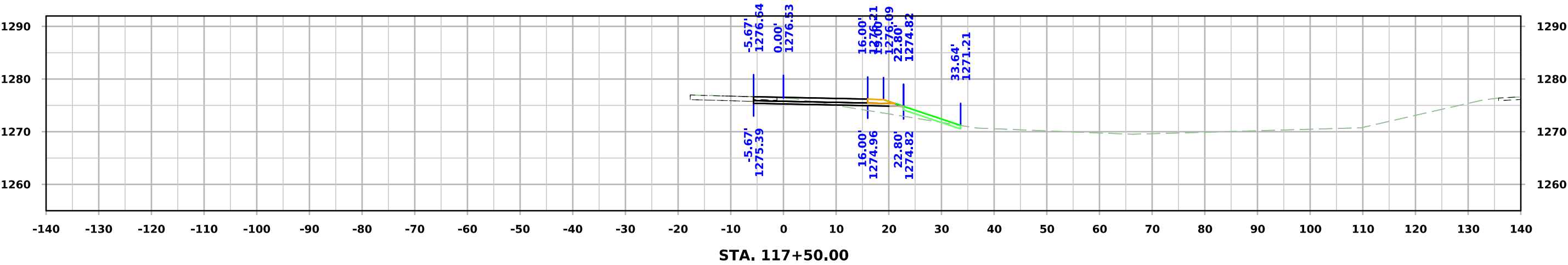


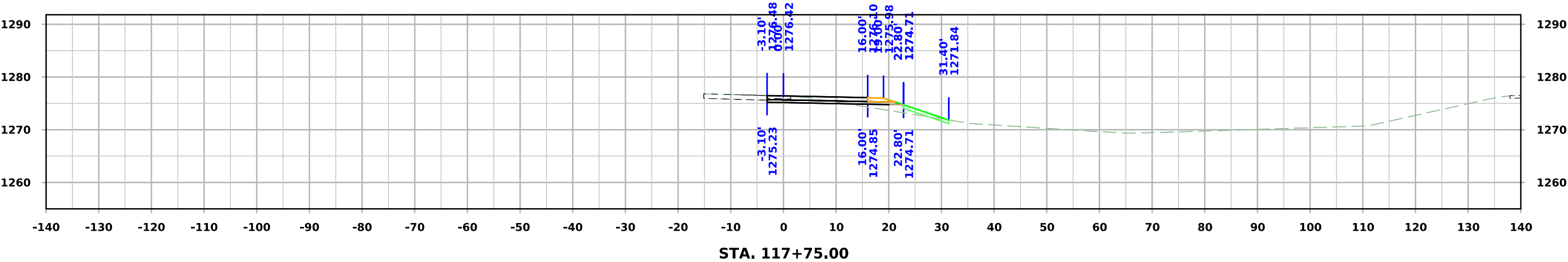
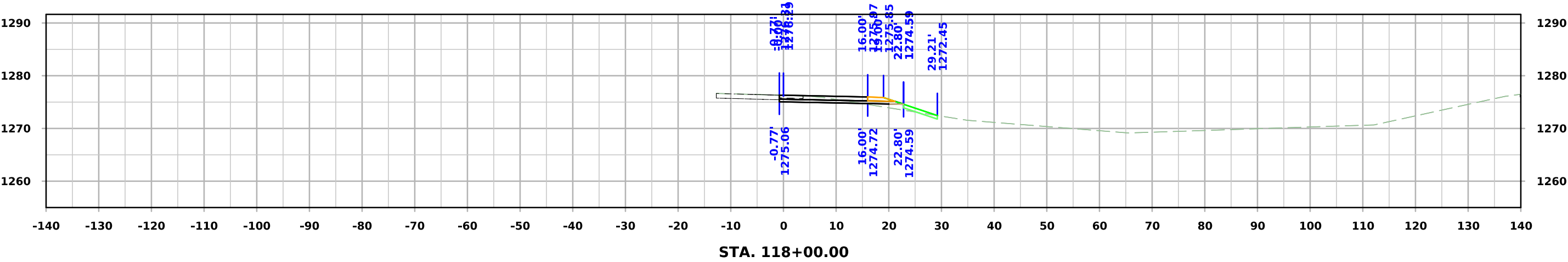
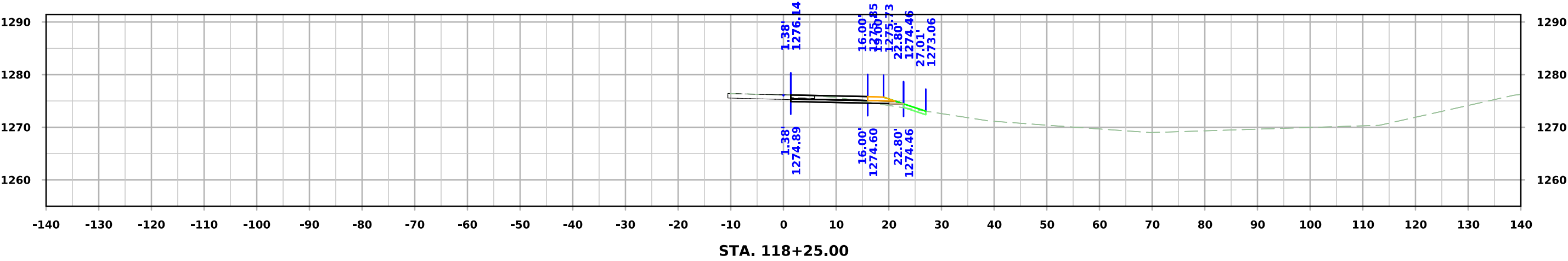
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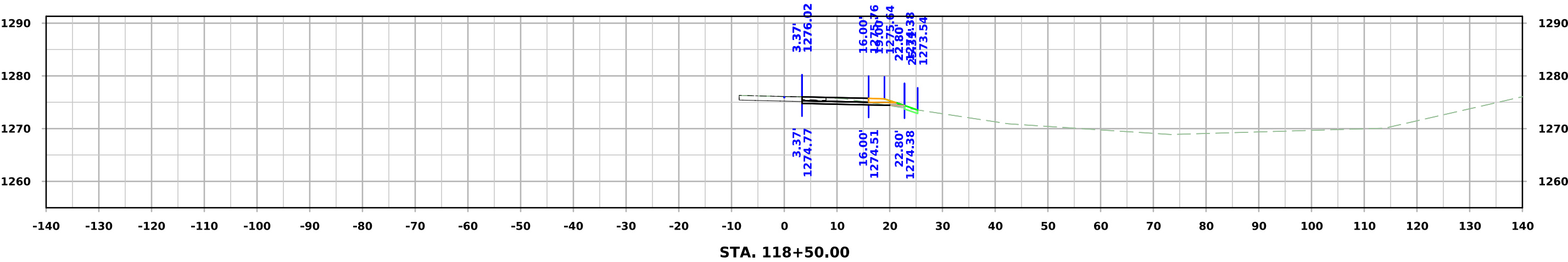
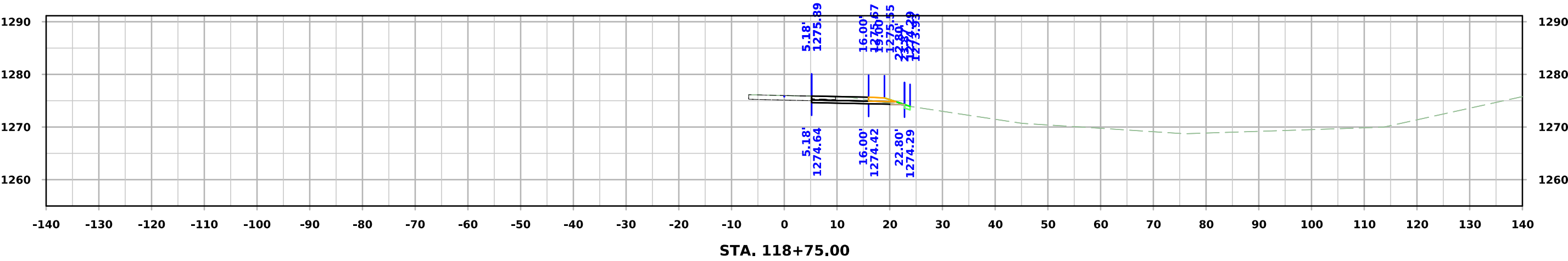
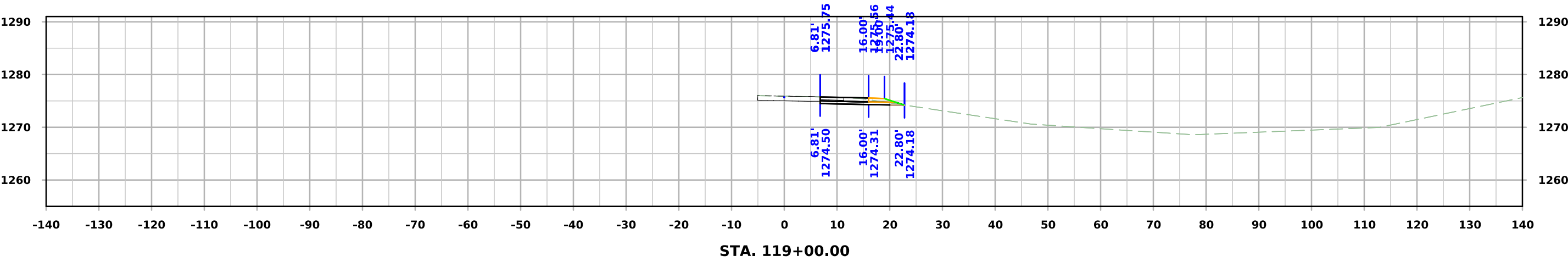


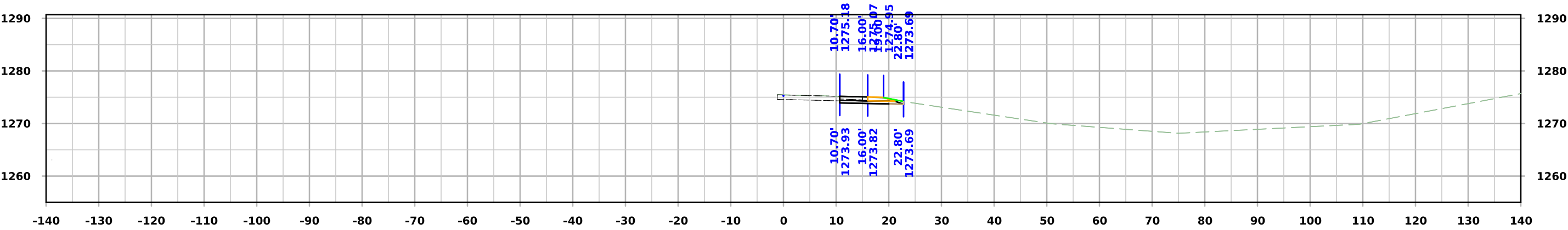
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DET100

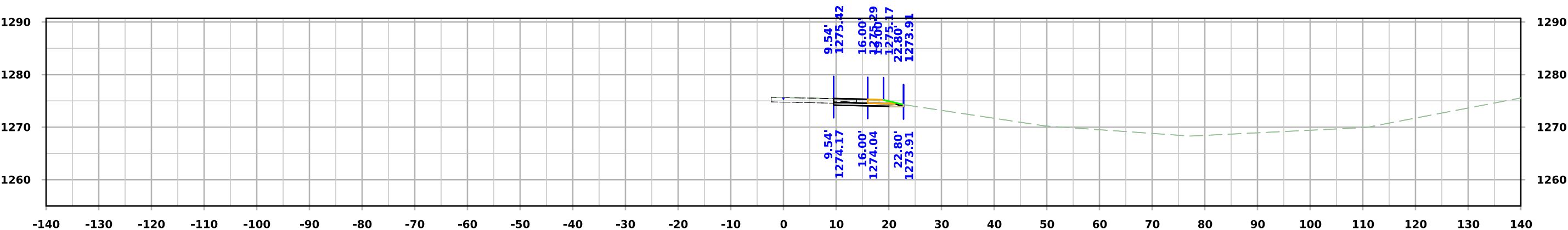




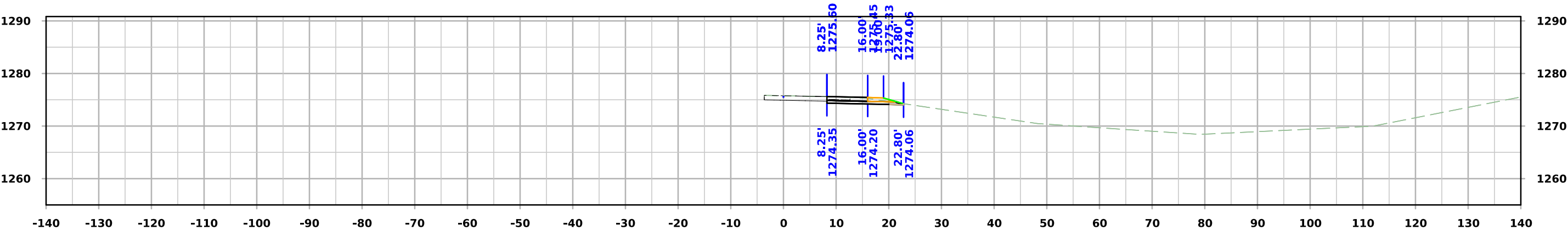




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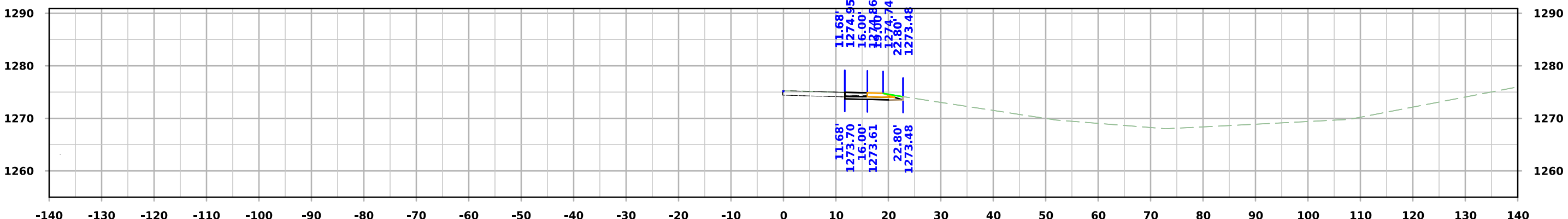
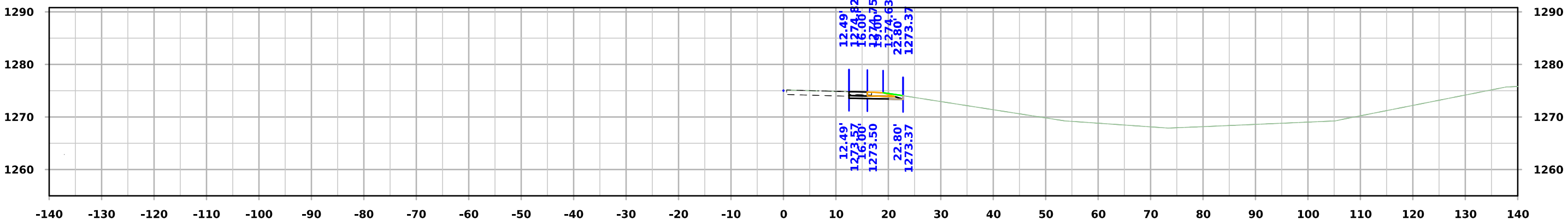
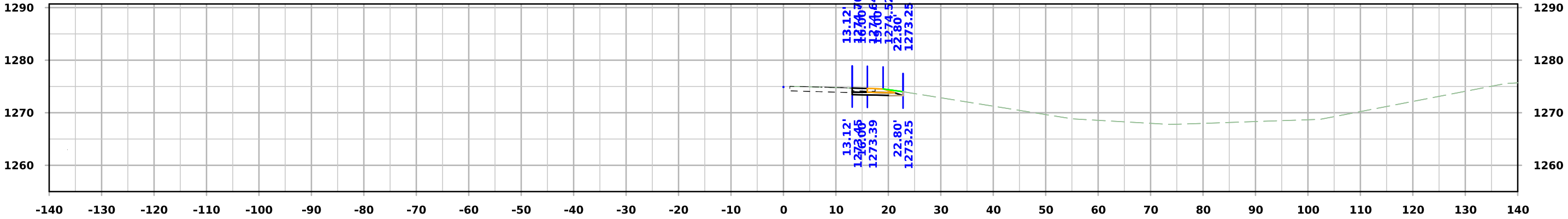


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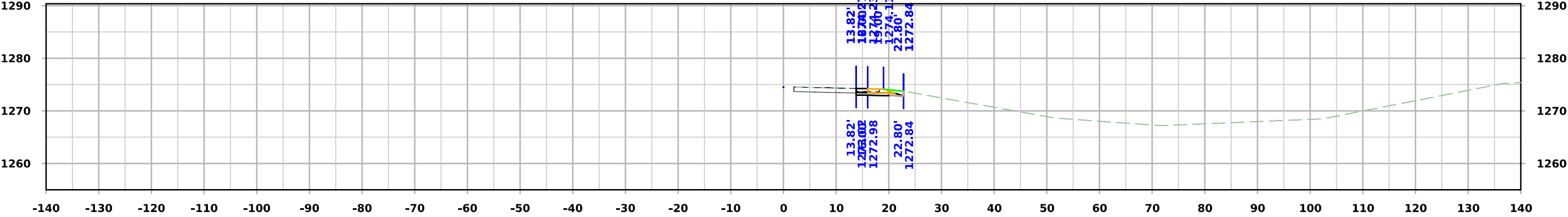


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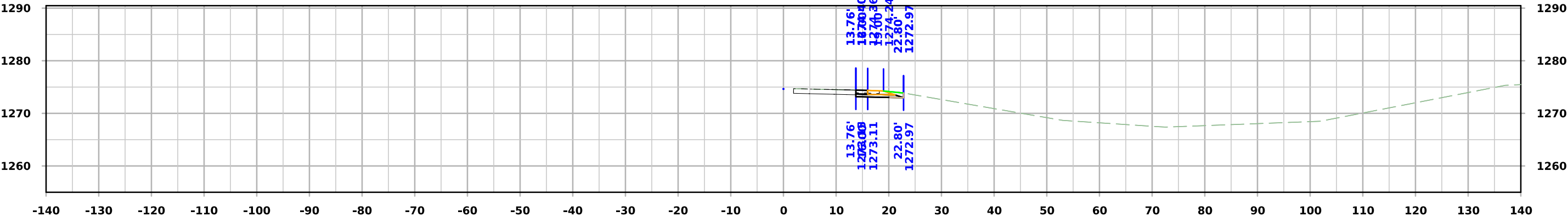
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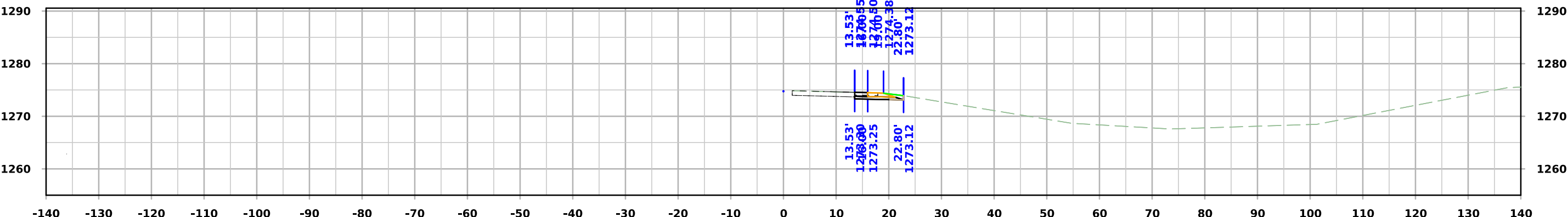
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STA. 121+19.61

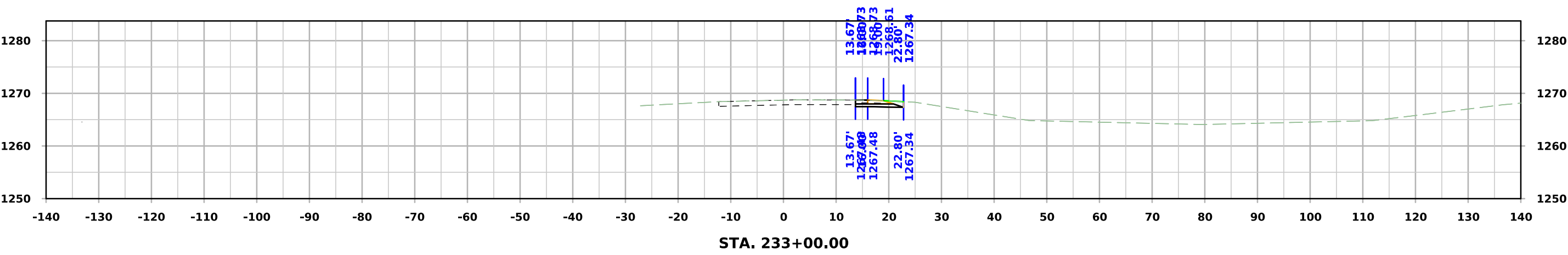
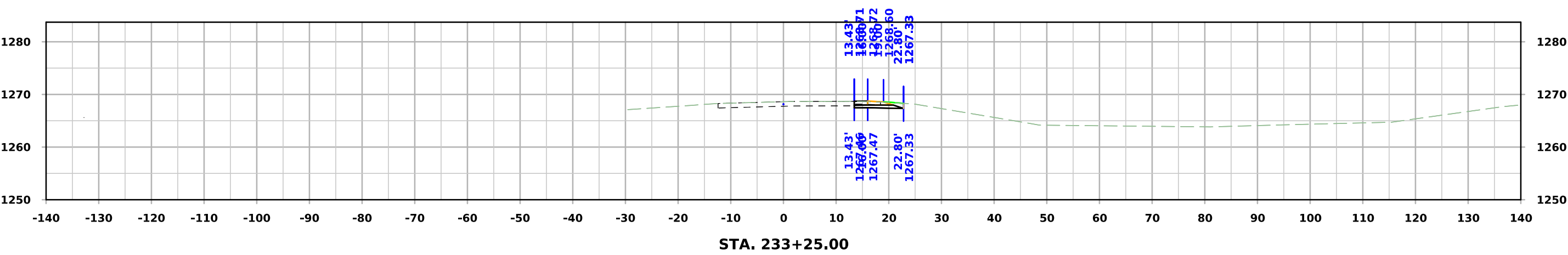
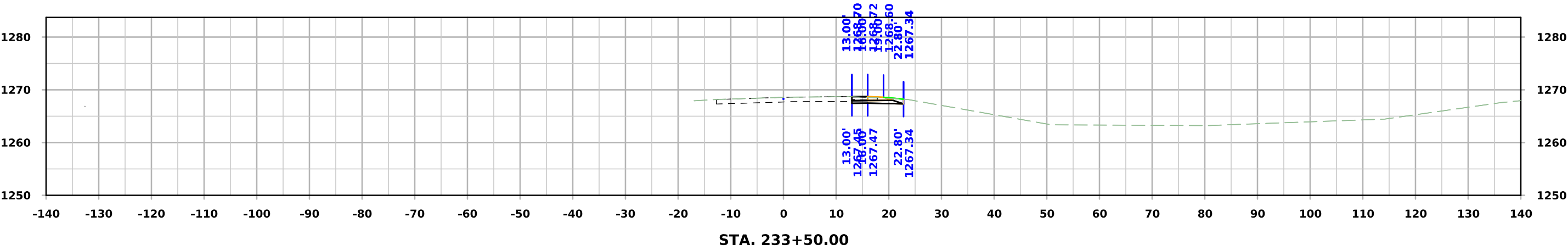


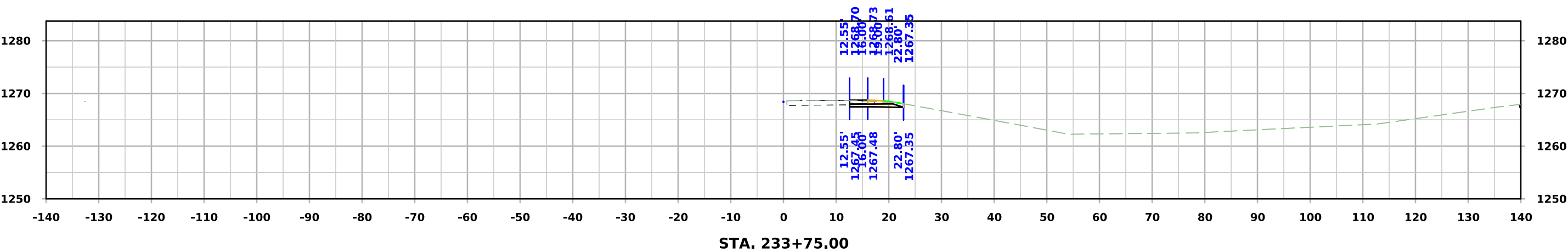
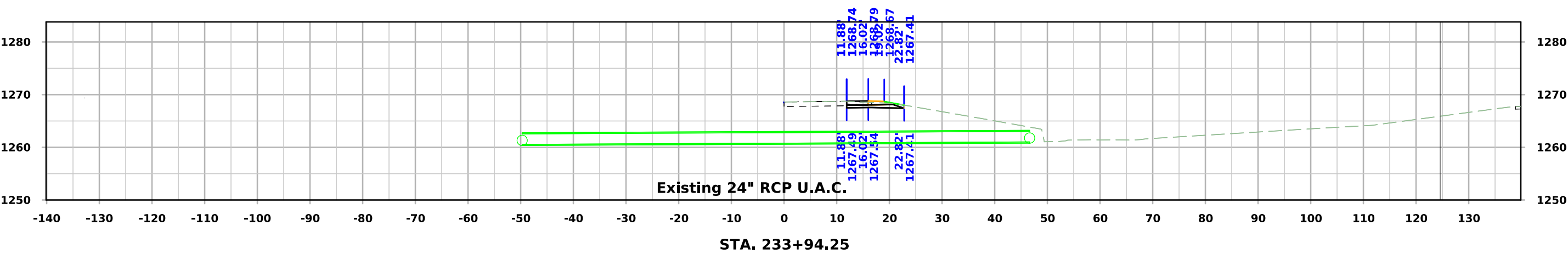
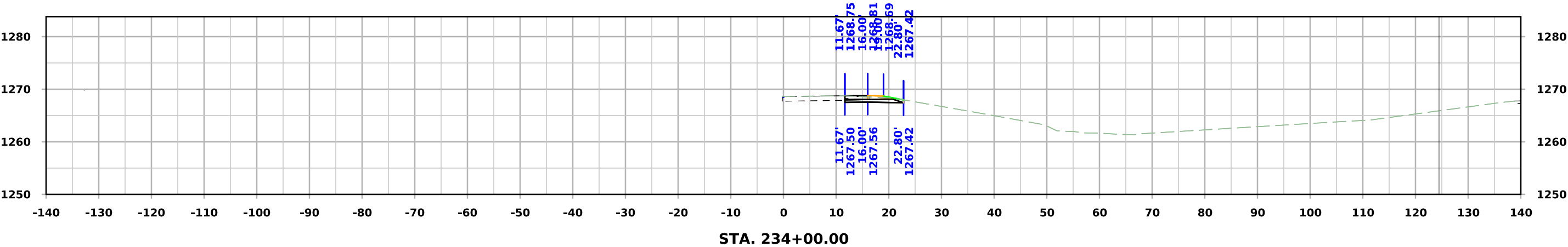
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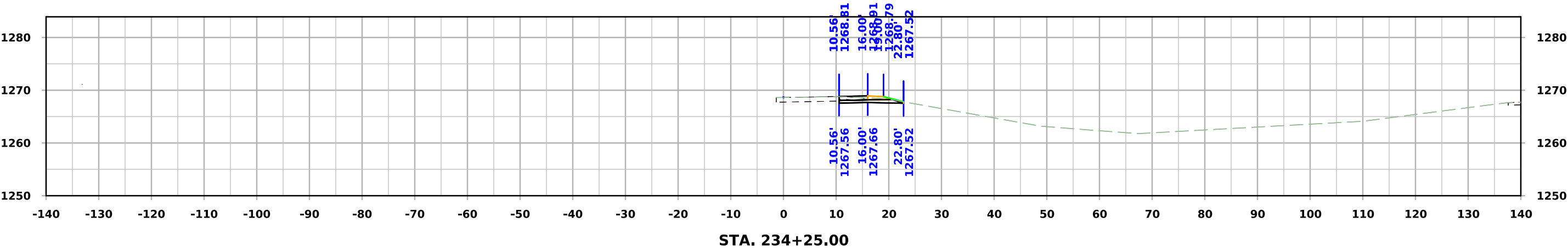
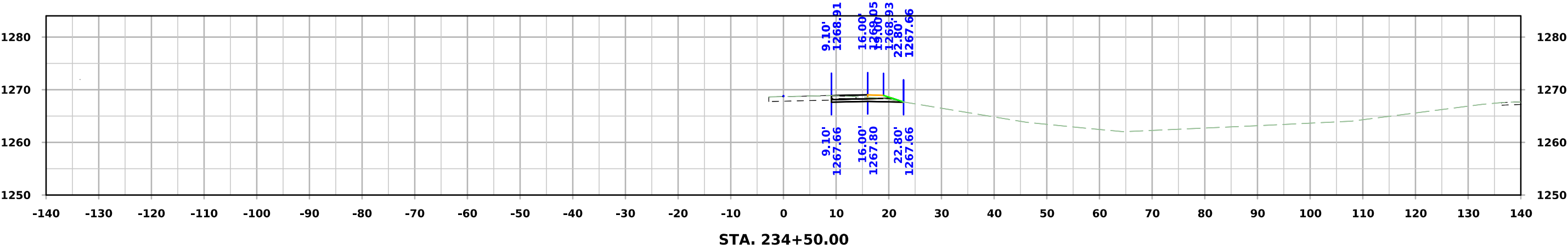
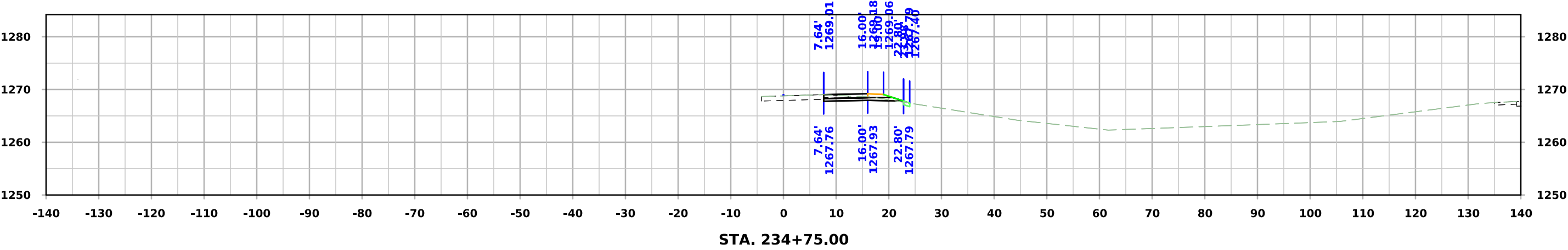


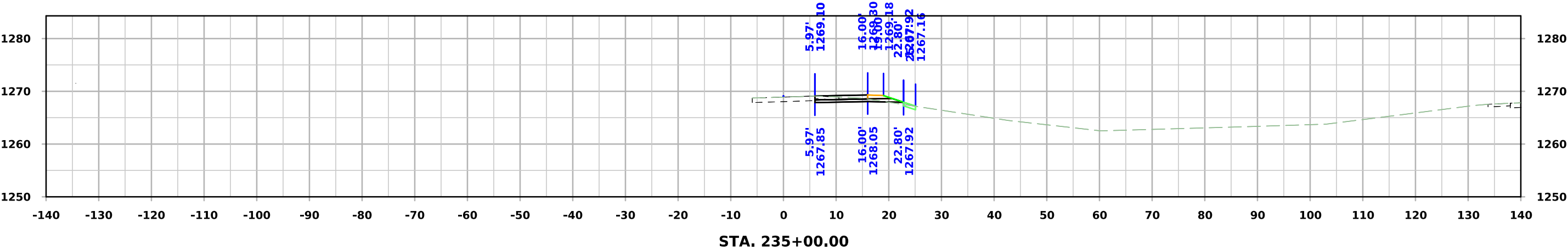
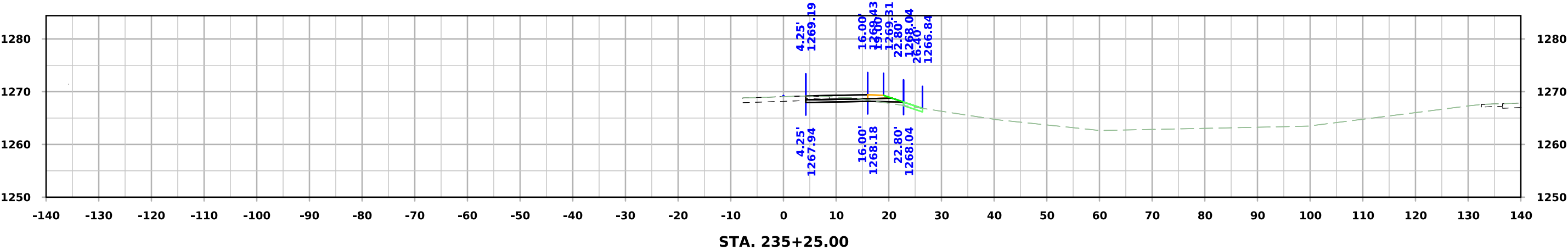
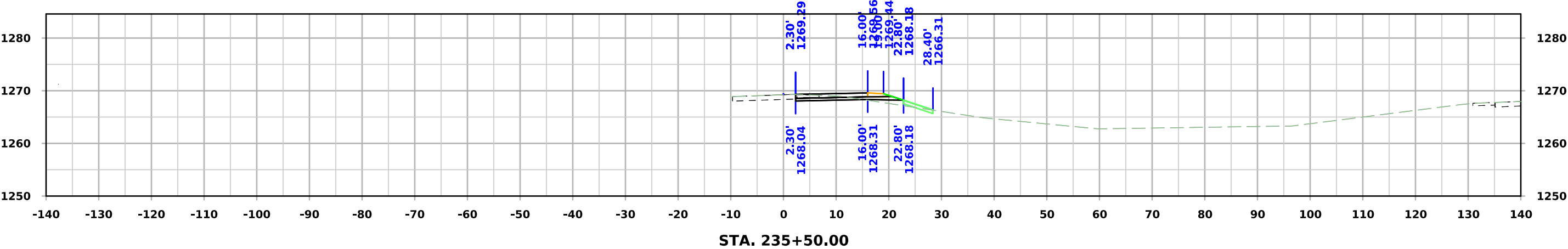
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DET200

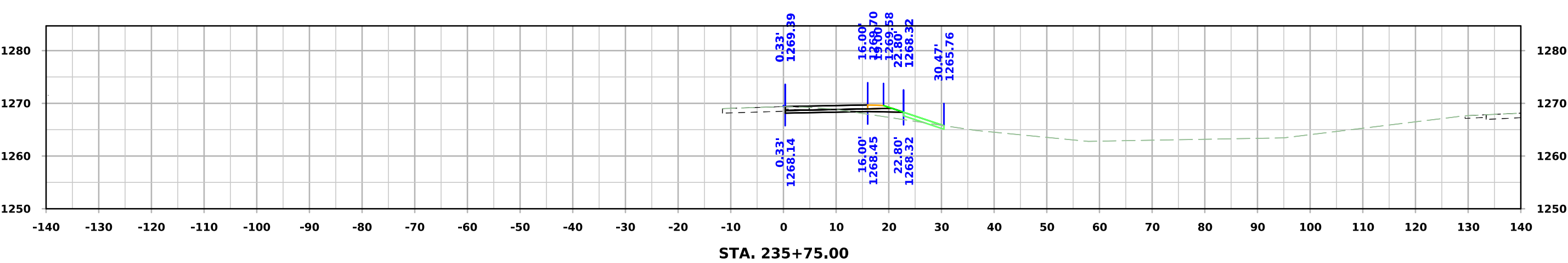
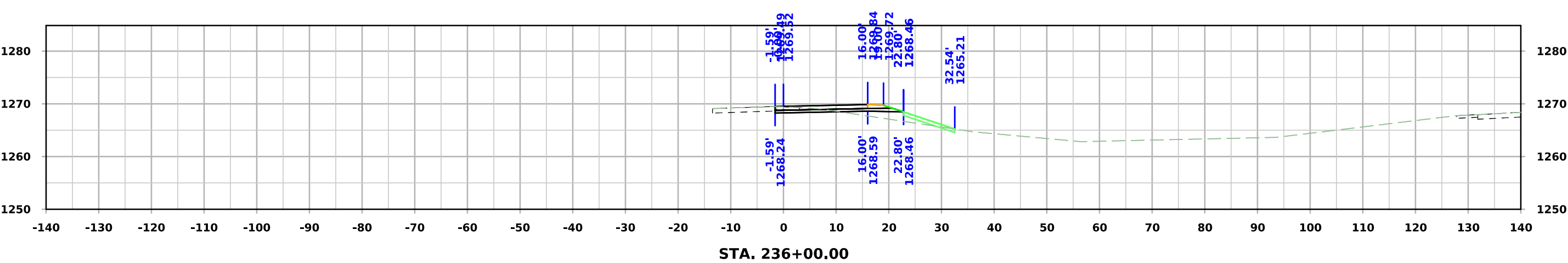
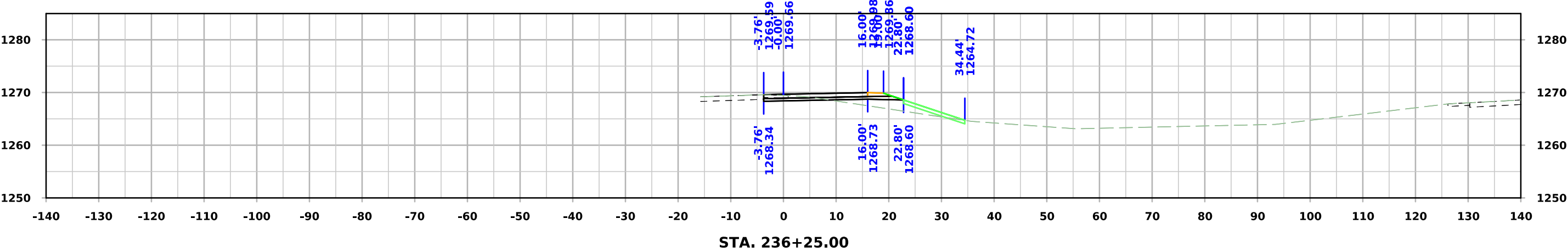




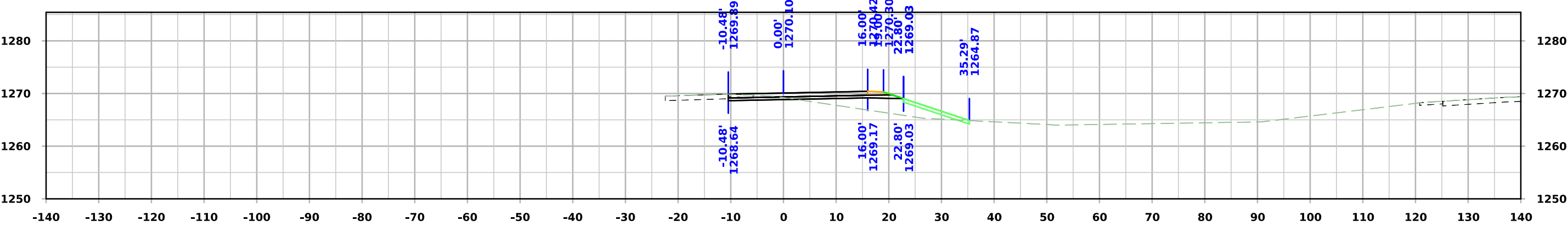




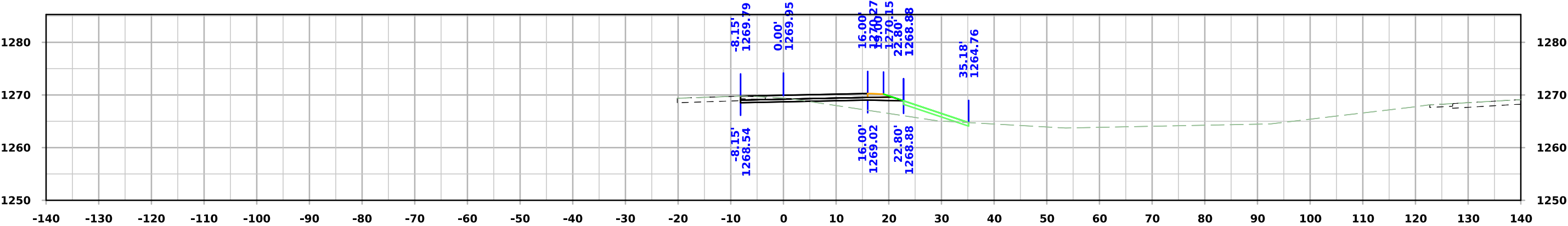
DET200



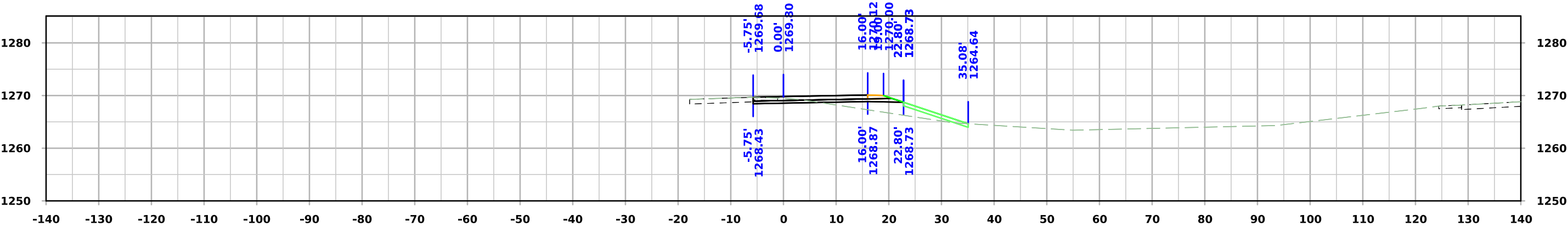
DET200



STA. 237+00.00

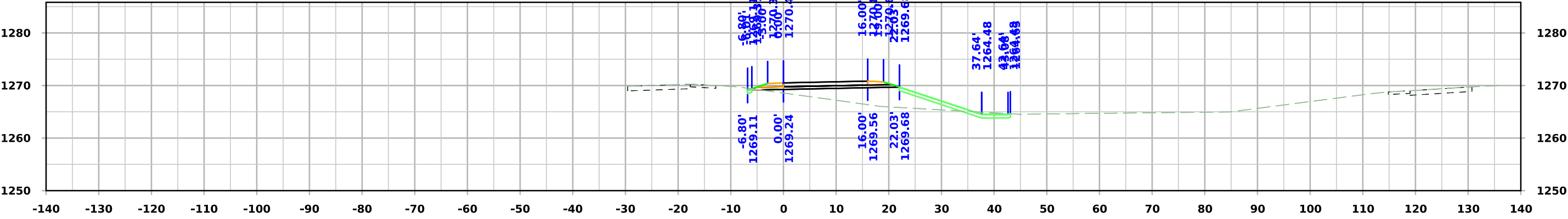


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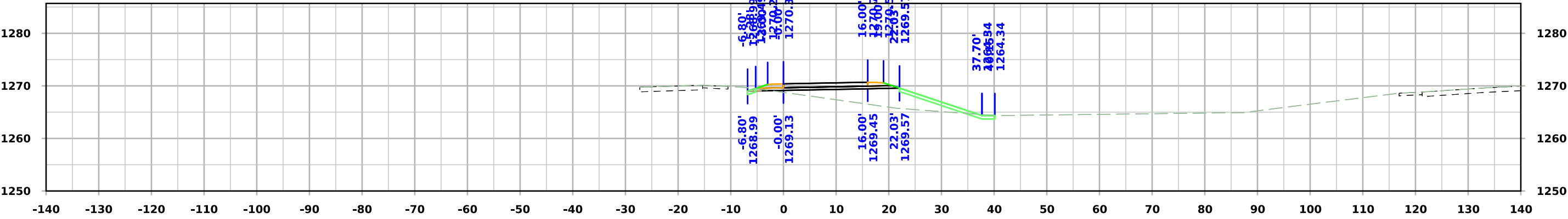


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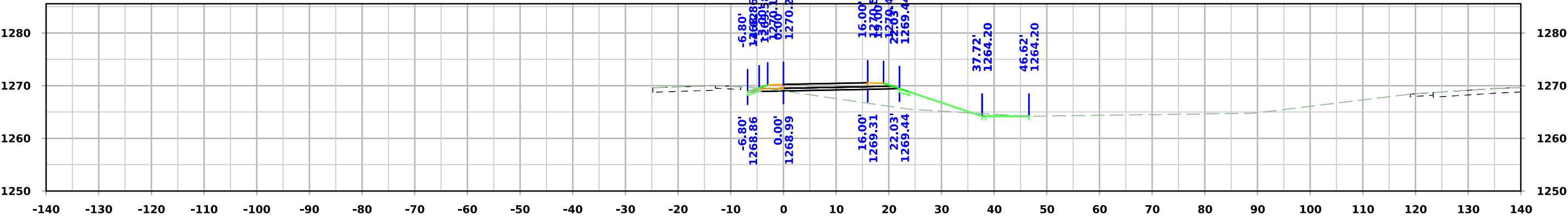
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STA. 237+75.00

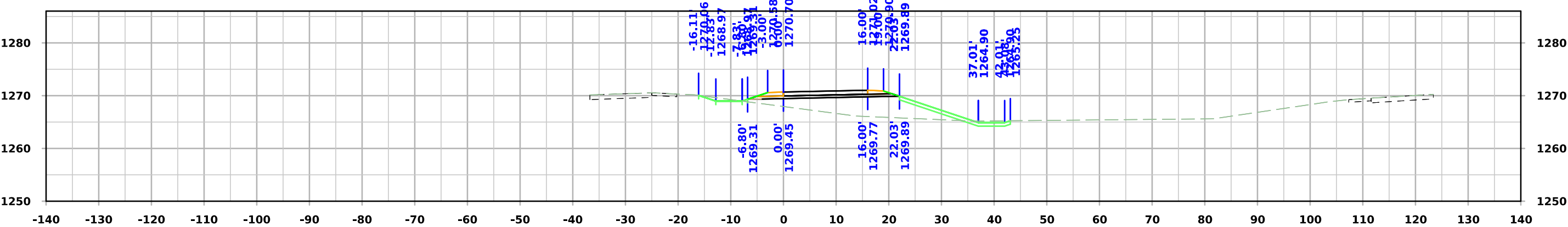


STA. 237+50.00

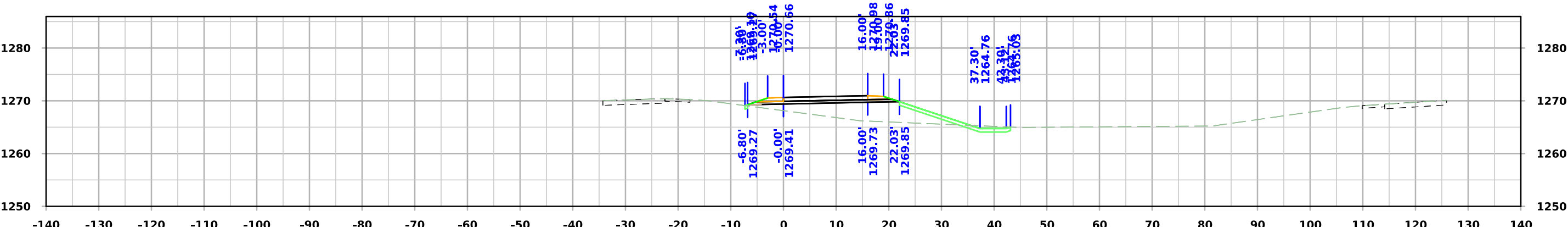


STA. 237+25.00

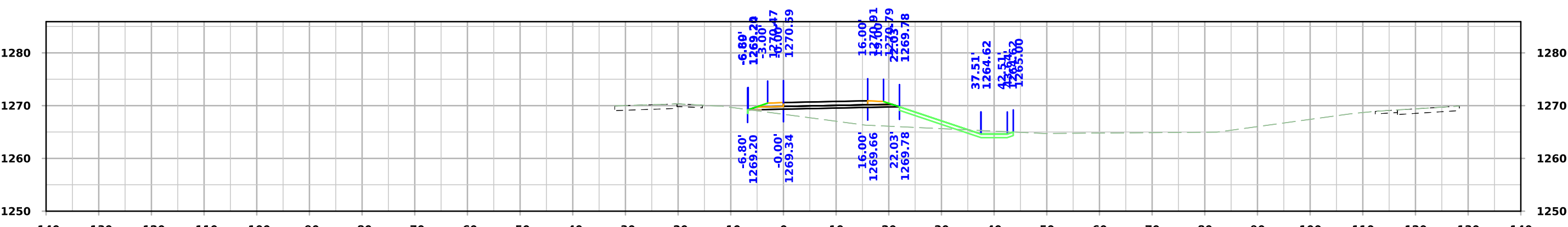
DET200



STA. 238+50.00

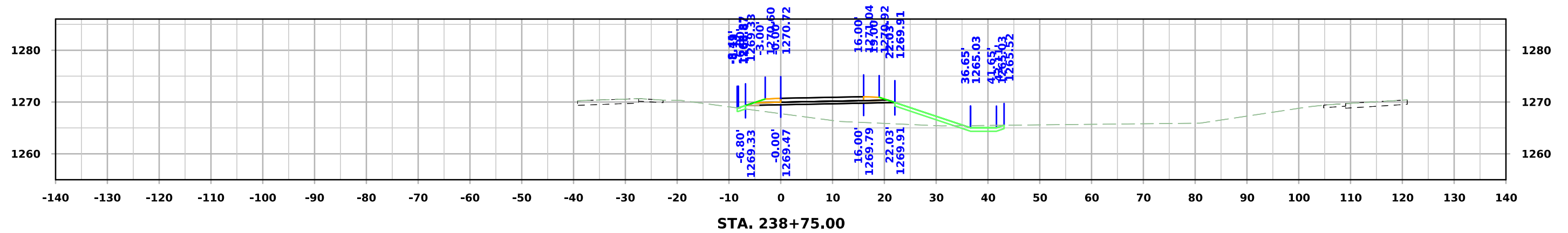
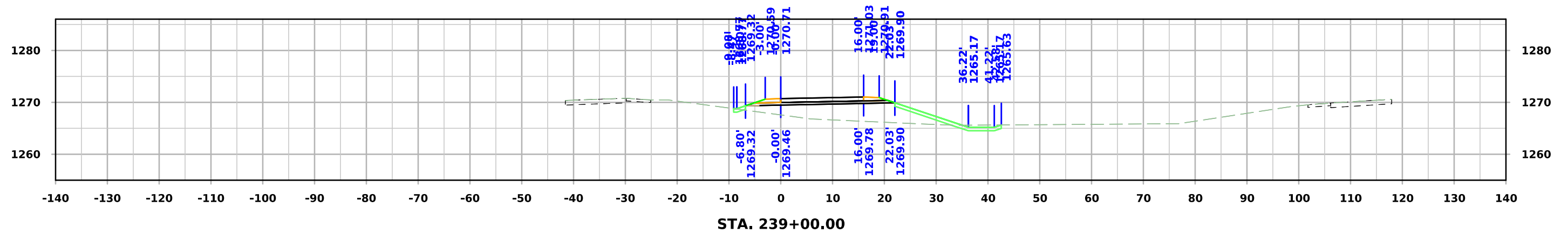
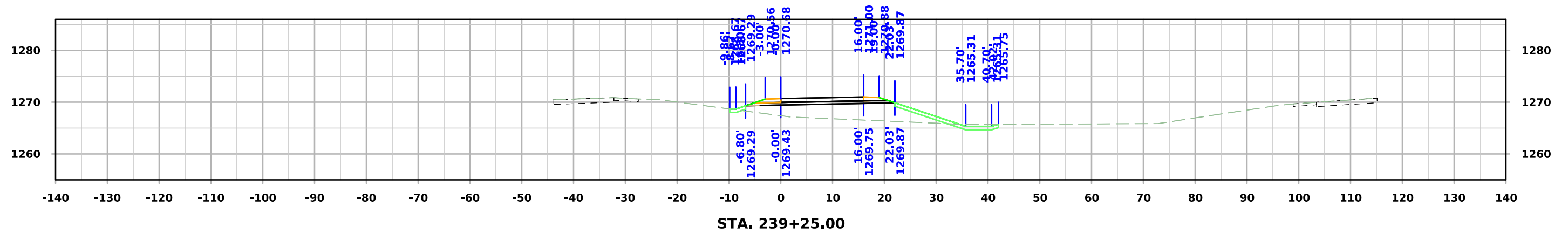


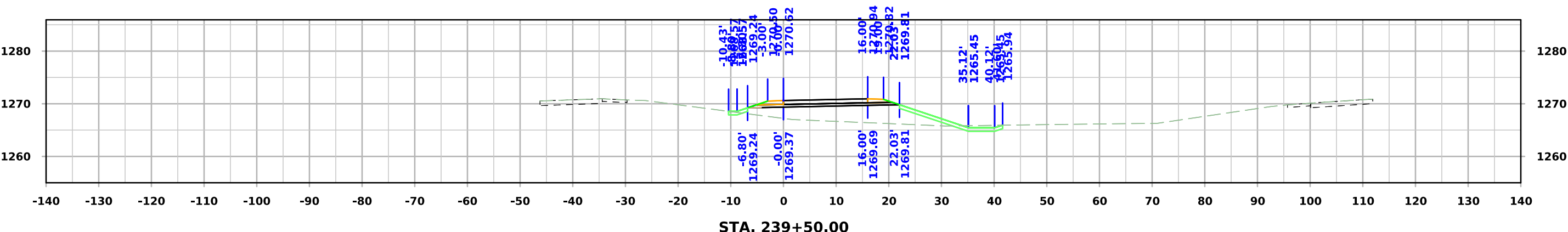
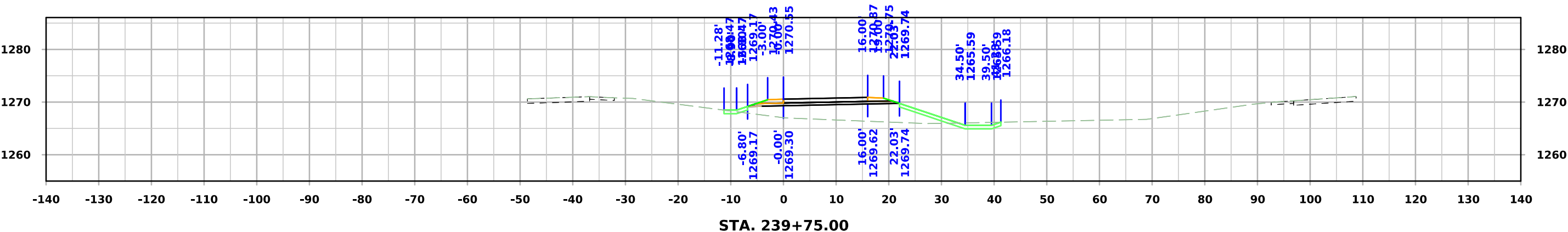
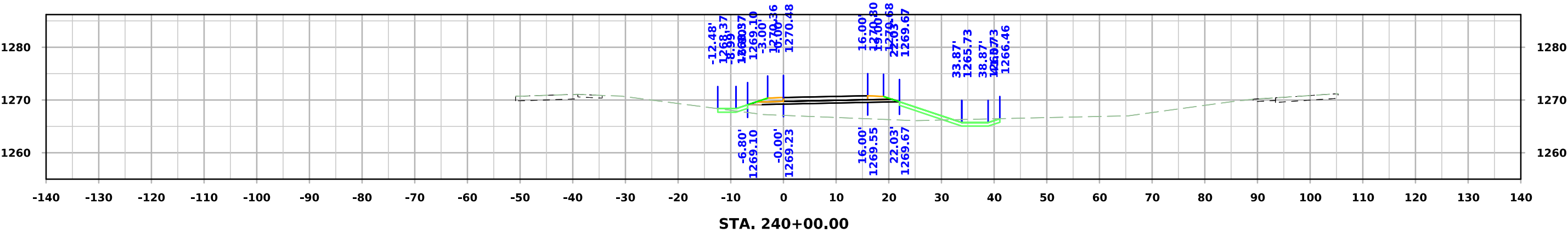
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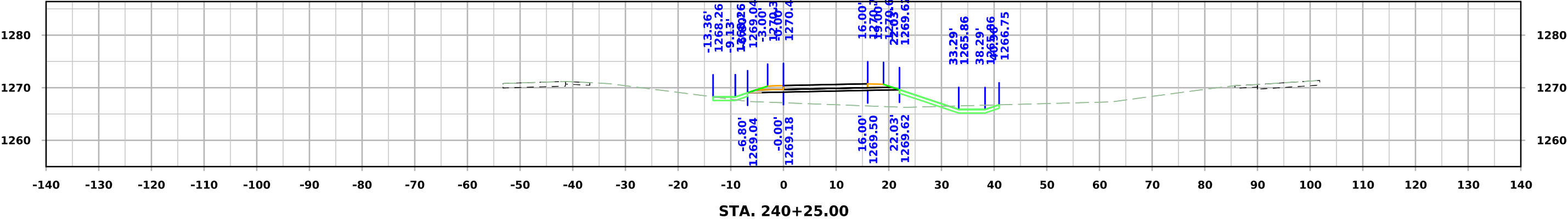
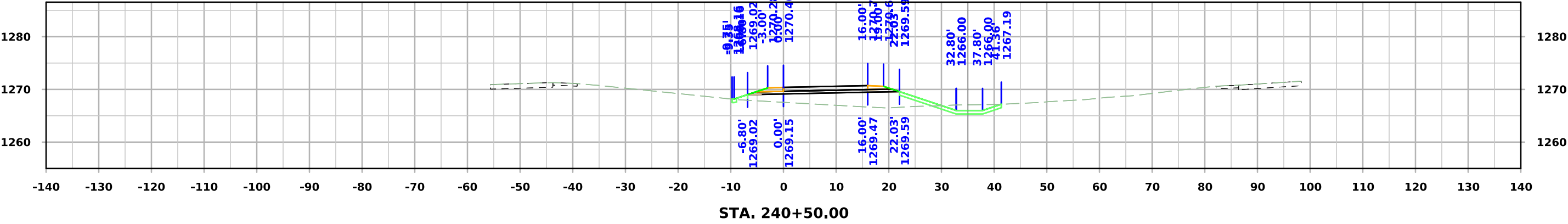
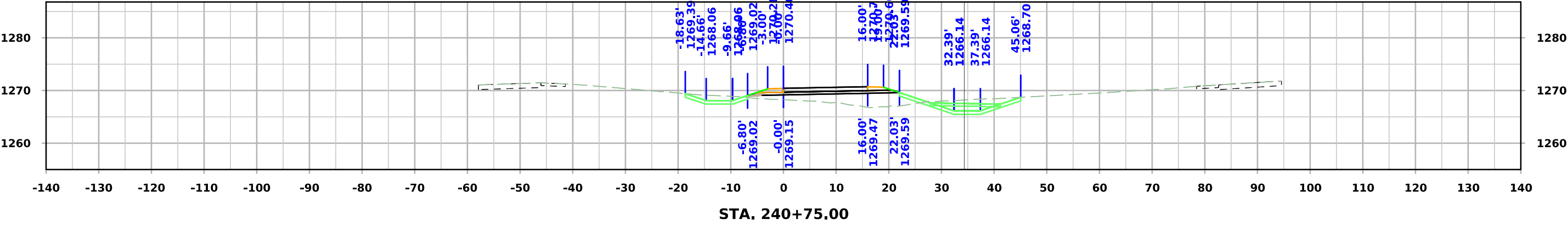


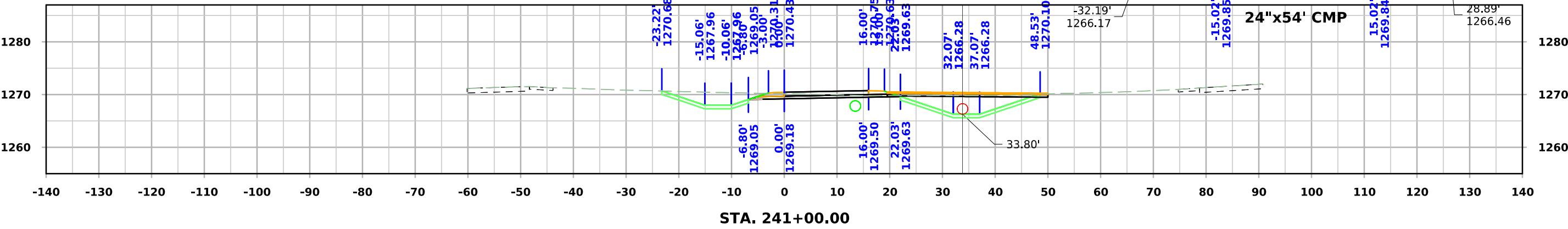
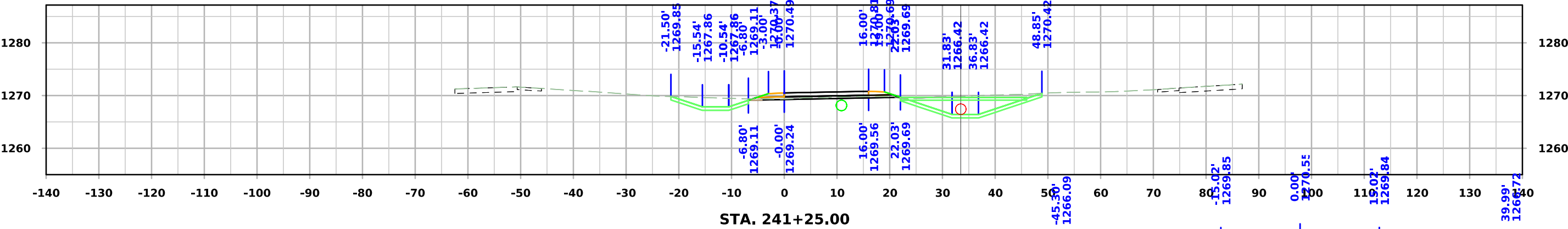
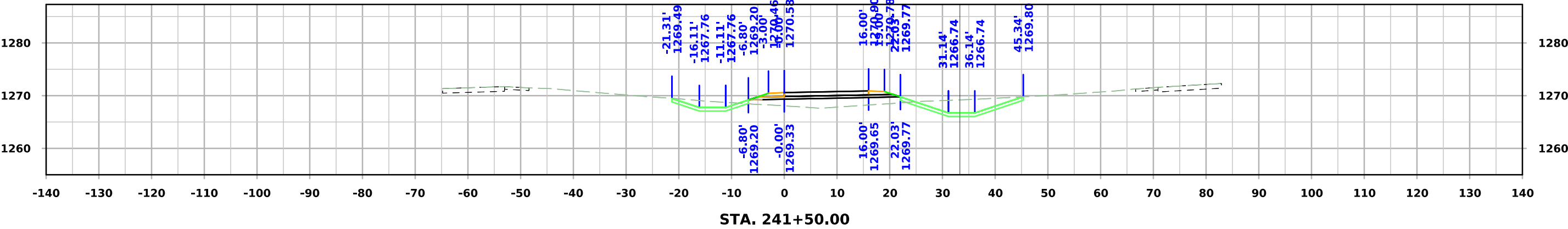
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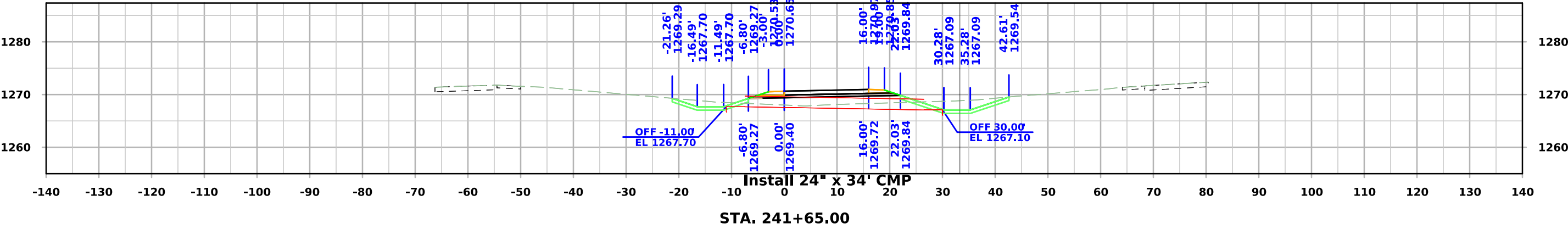
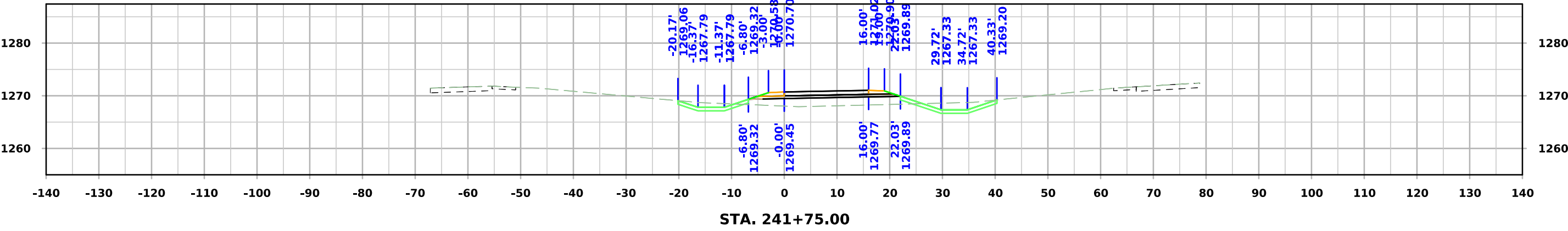
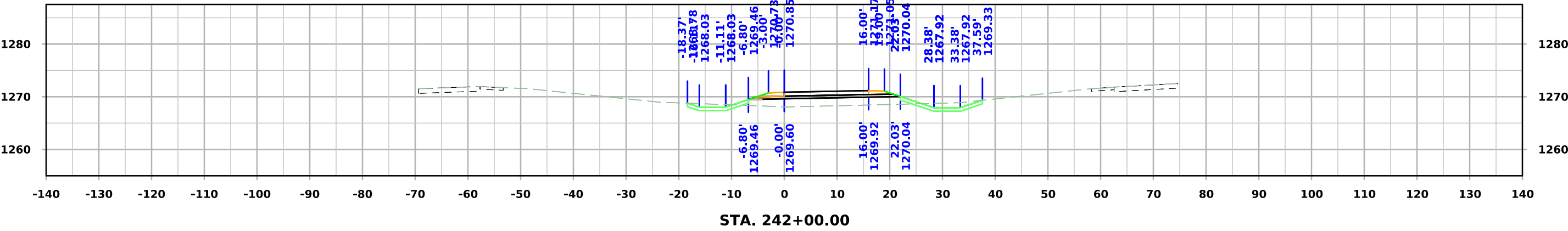
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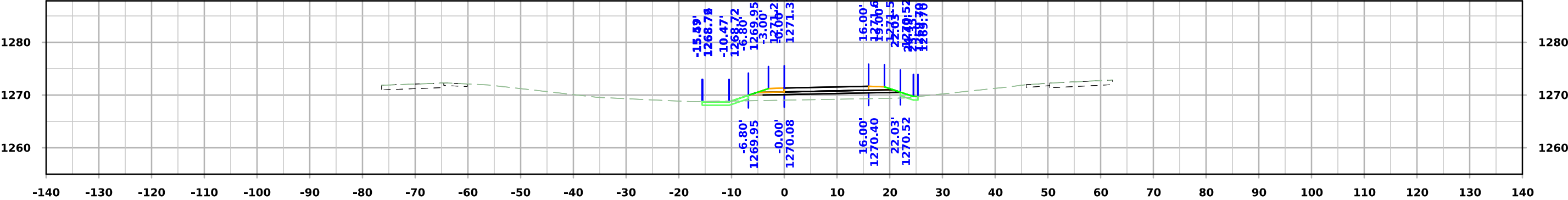




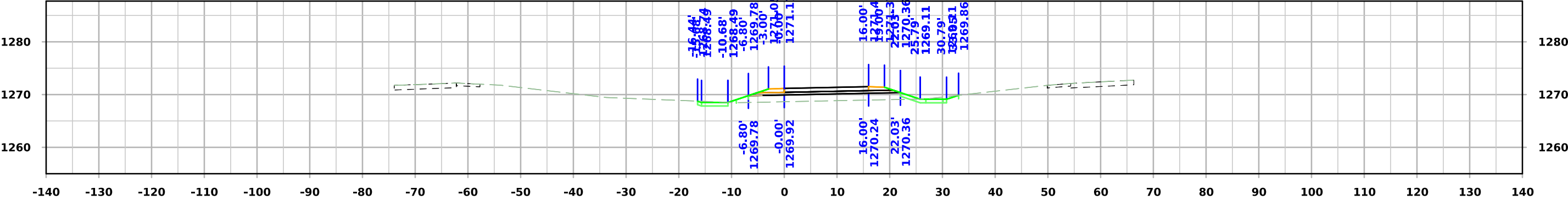




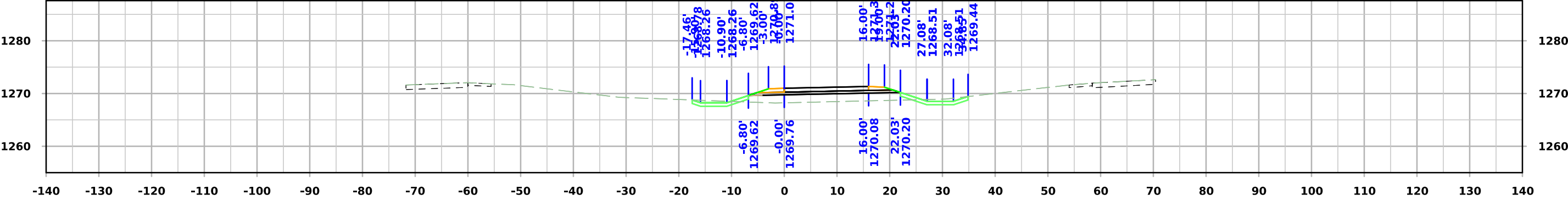




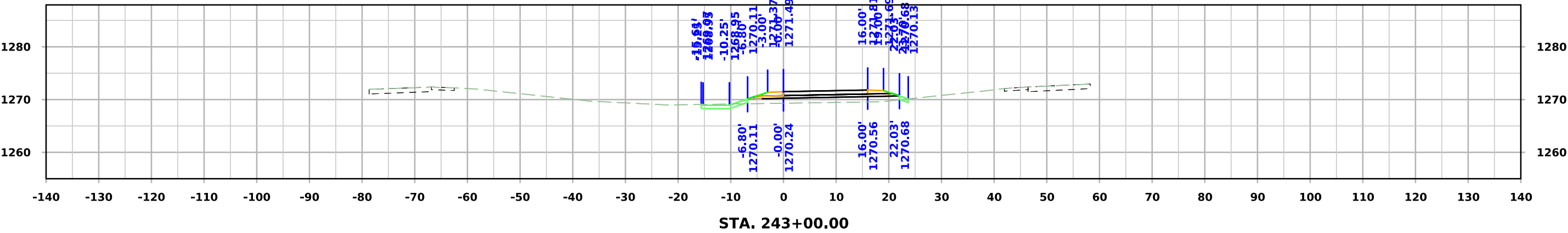
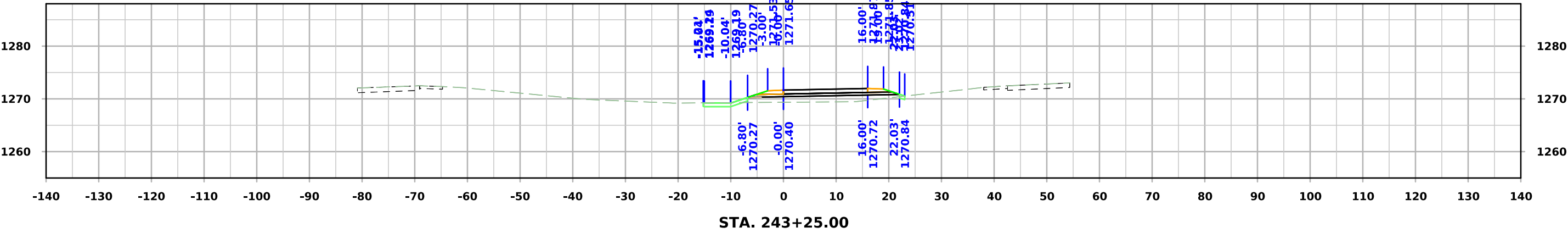
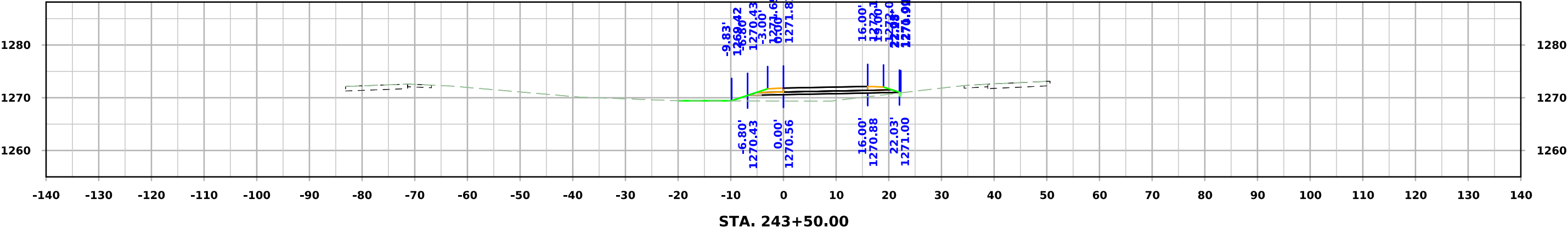
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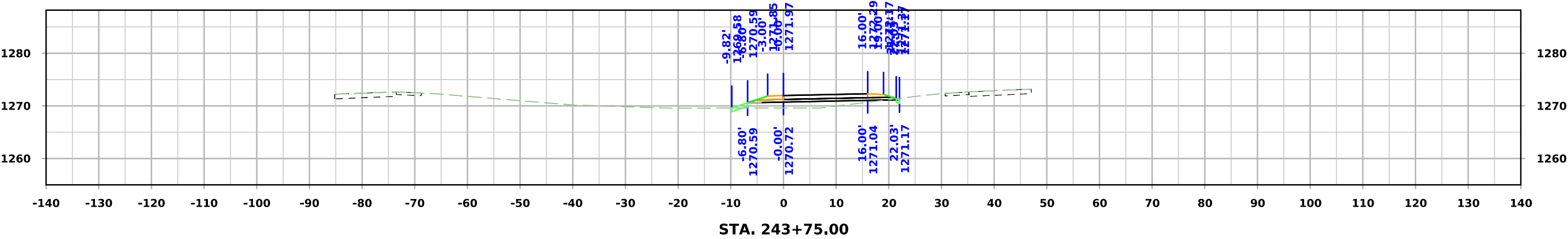
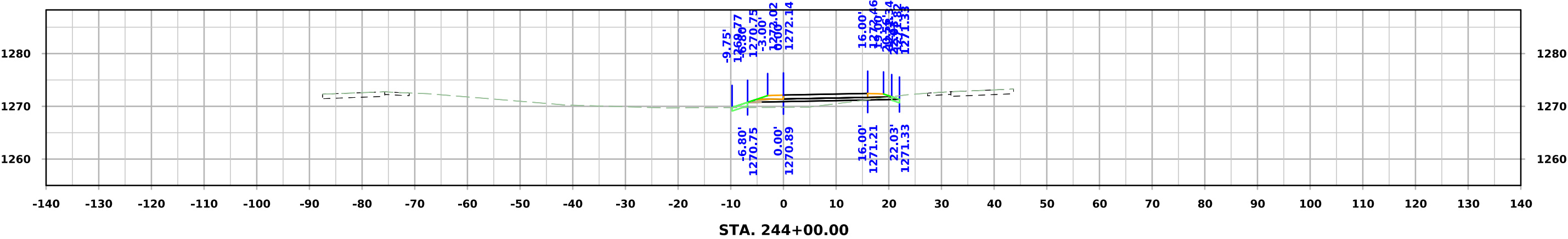
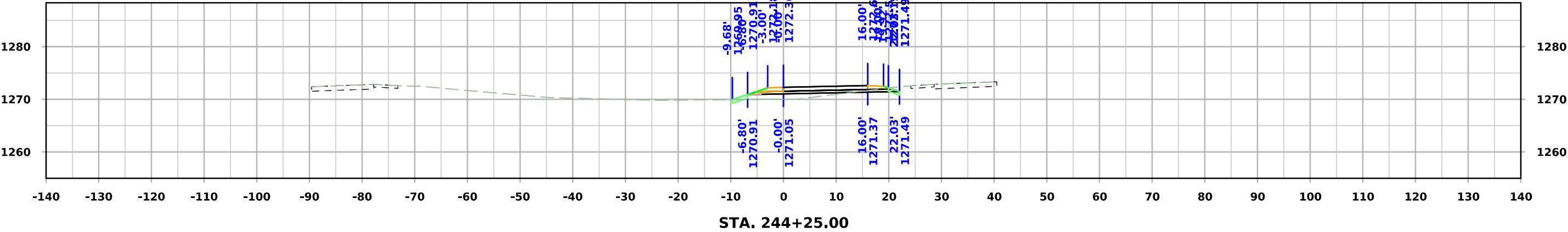


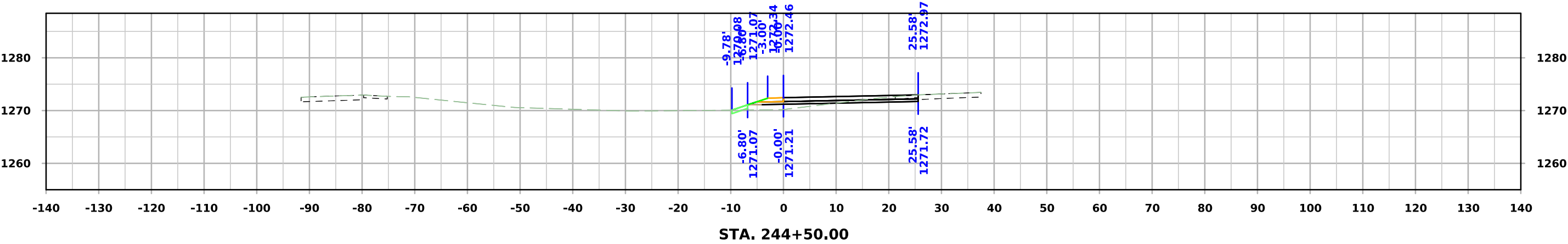
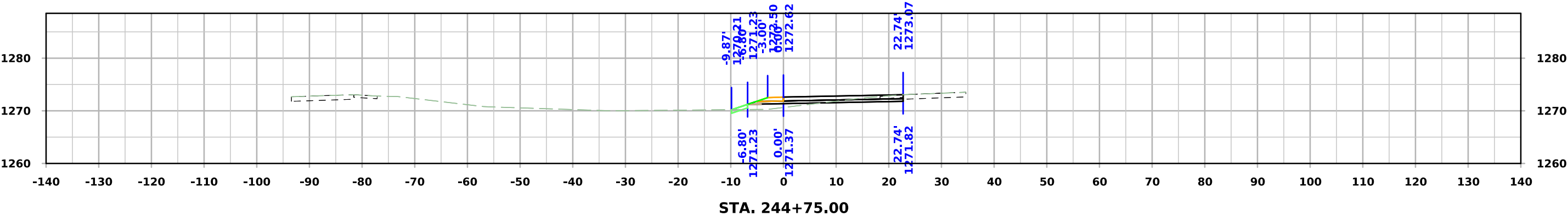
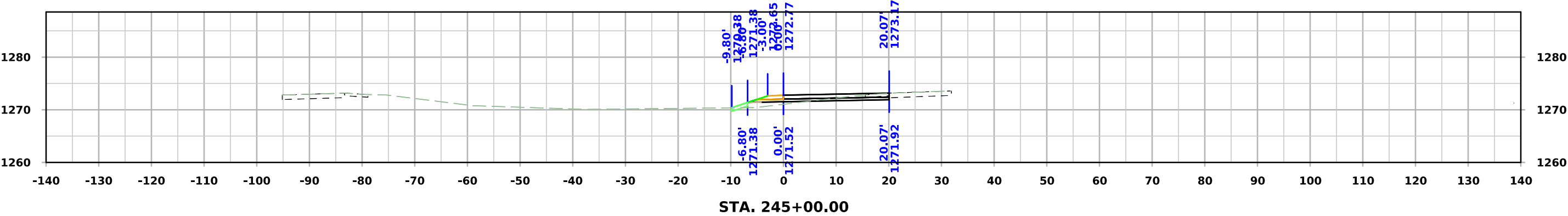
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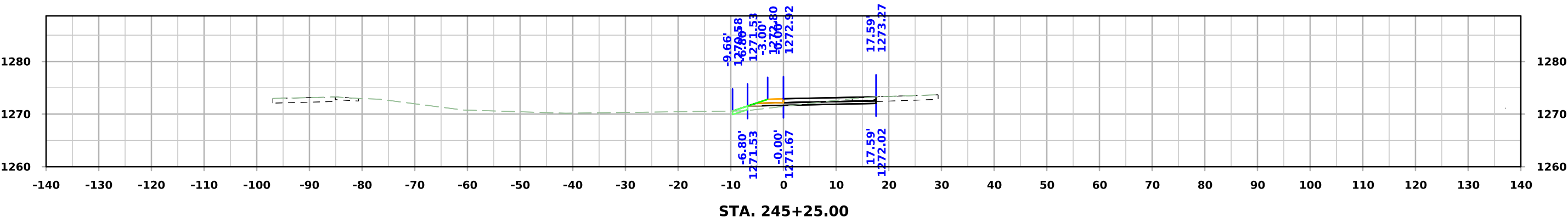
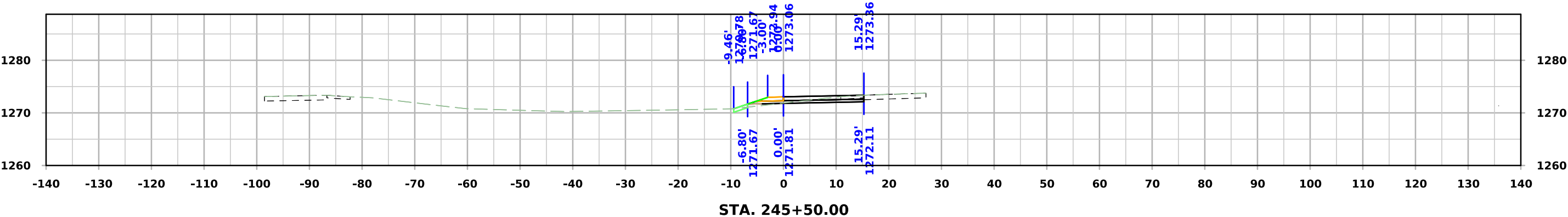
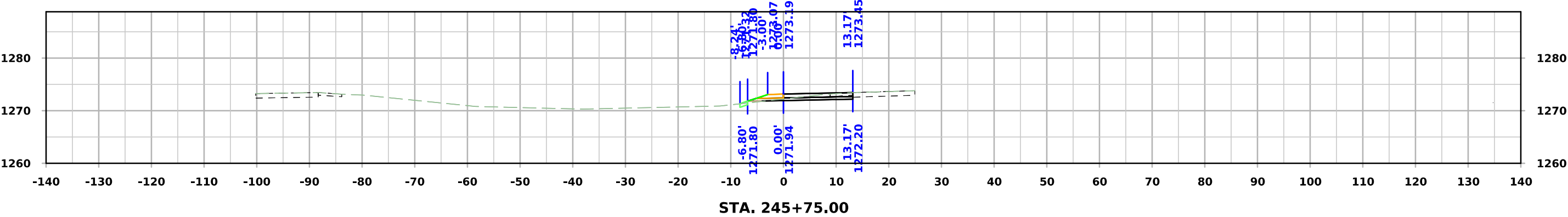


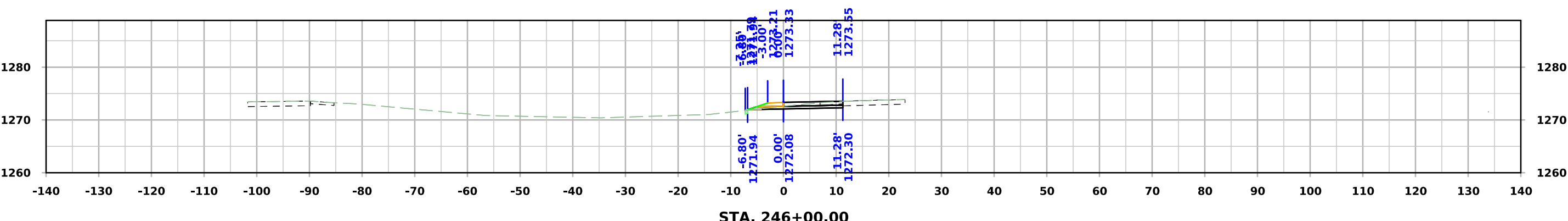
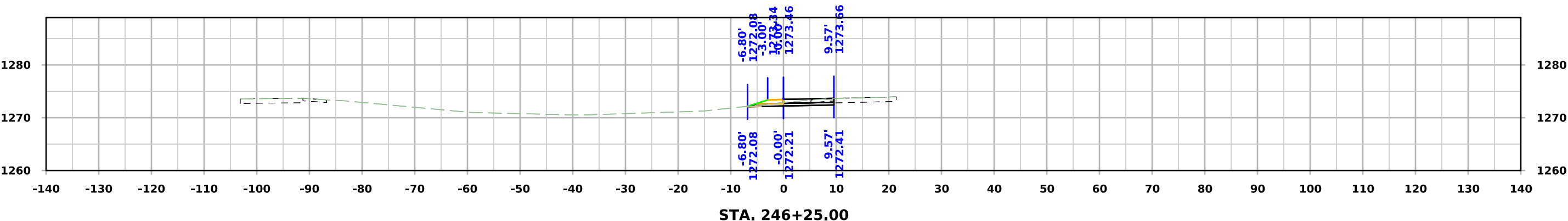
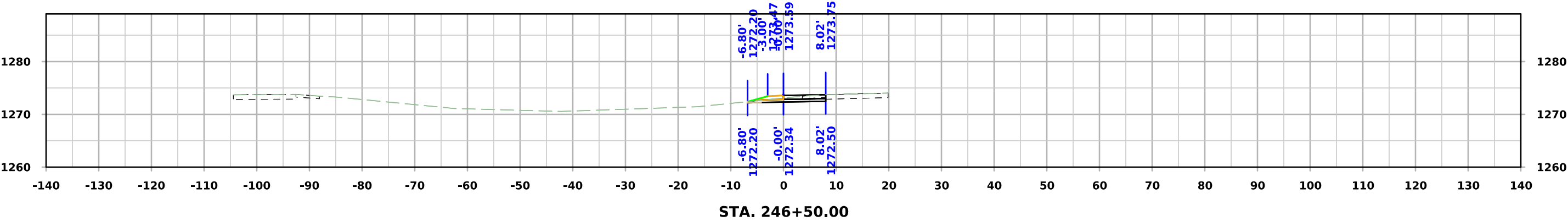
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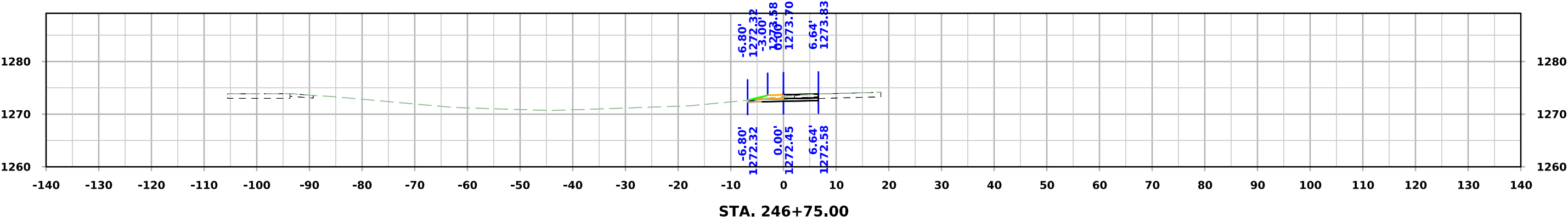
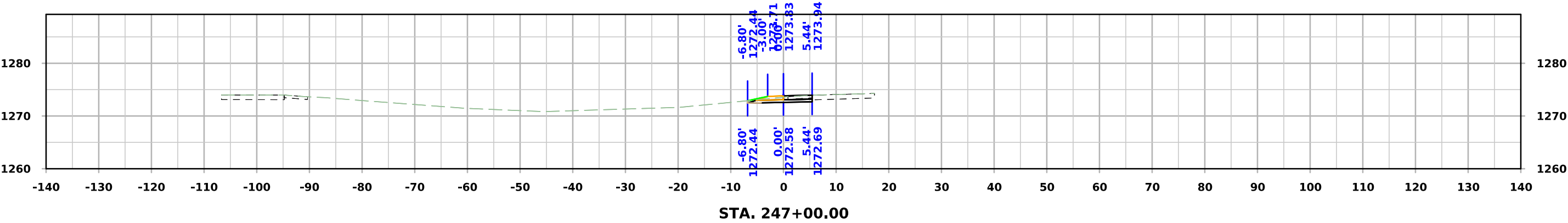
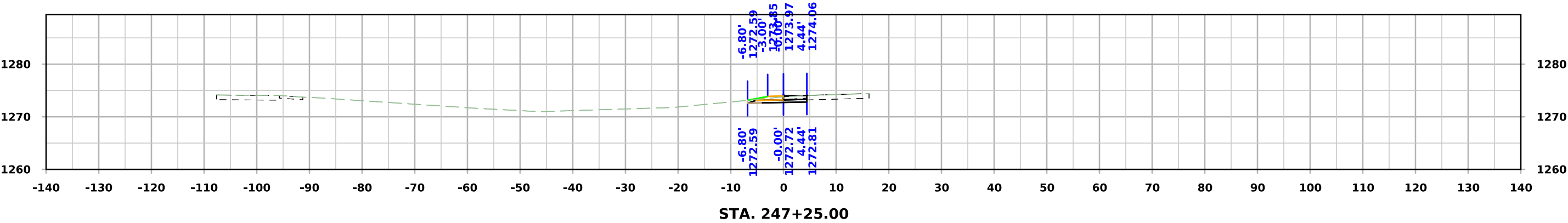












DET200

