

INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2	Location Map Sheet
B Sheets	Typical Cross Sections and Details
B.1 - 6	Typical Cross Sections and Details
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 6	IA 3
* D.7 - 9	IA143
E Sheets	Side Road Plan and Profile Sheets
* E.1 - 3	L36
* E.4	Roundabout Circle
F Sheets	Detour or Temporary Pavement Sheets
* F.1 - 3	Detour Plan and Profile Sheets
G Sheets	Survey Sheets
G.1	Reference Ties and Bench Marks
G.2	Horizontal Control Tab. & Super for all Alignments
J Sheets	Traffic Control and Staging Sheets
* J.1 - 6	Staging and Traffic Control Sheets
W Sheets	Mainline Cross Sections
W.1 - 32	Mainline Cross Sections IA 3
W.33 - 39	Mainline Cross Sections IA 143
W.40 - 70	Detour Cross Sections IA 3
W.71 - 83	Detour Cross Sections IA 3EB
X Sheets	Side Road Cross Sections
X.1 - 8	Side Road Cross Sections L-36
	* Color Plan Sheets



PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
Cherokee COUNTY
PCC Pavement - Grade and New
IA 143 Intersection in Marcus

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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



L36	
DESIGN DATA RURAL	
20 19	AADT 1,350 V.P.D.
20 -	AADT - V.P.D.
20 -	DHV - V.P.H.
TRUCKS	- %
Total	
Design ESALs	-

IA 3	
DESIGN DATA URBAN	
20 26	AADT 3,700 V.P.D.
20 46	AADT 4,300 V.P.D.
20 46	DHV 450 V.P.H.
TRUCKS	23 %
Total	
Design ESALs	--

IA 143	
DESIGN DATA URBAN	
20 21	AADT 2,820 V.P.D.
20 -	AADT - V.P.D.
20 -	DHV - V.P.H.
TRUCKS	15 %
Total	
Design ESALs	-

REVISIONS

TOTAL	
..	
PROJECT IDENTIFICATION NUMBER	
22-18-003-010	
PROJECT NUMBER	
HSIPX-003-2(086)--3L-18	
R.O.W. PROJECT NUMBER	
HSIPX-003-2(089)--3L-18	

PRELIMINARY PLANS

Subject to change by final design.

D5 PLAN - Date: 11/09/23

Curbed Shoulder

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

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

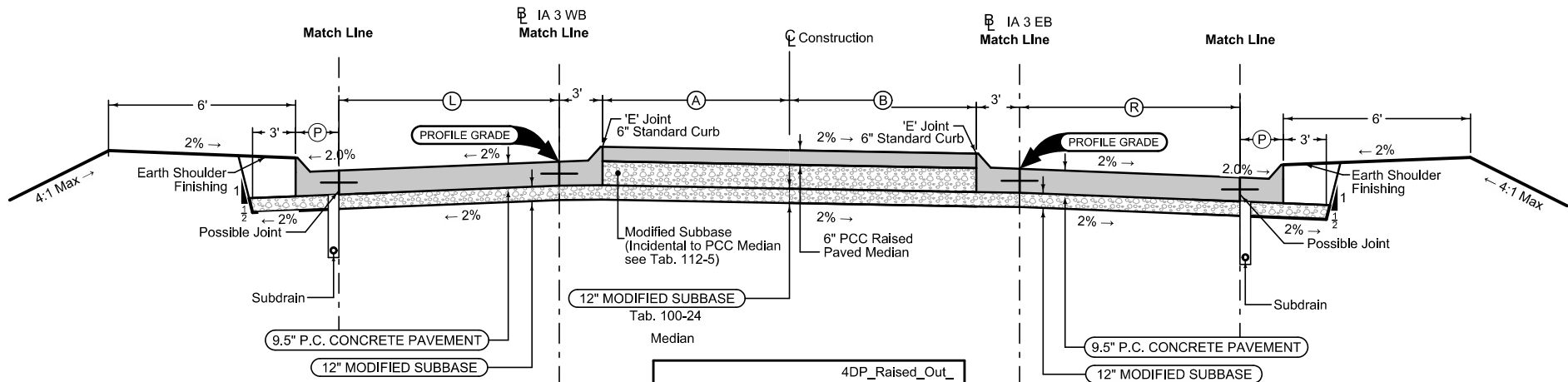
2_Curb_04-21-20			
STATION TO STATION		(P) Feet	Curb Type See PV-102
4155+60.00	4157+62.28	3	6" Standard
4159+25.00	4162+50.96	3	6" Standard

Curbed Shoulder

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

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

2_Curb_04-21-20			
STATION TO STATION		(P) Feet	Curb Type See PV-102
3155+13.26	3157+54.03	3	6" Standard
3159+16.15	3160+64.93	3	6" Standard



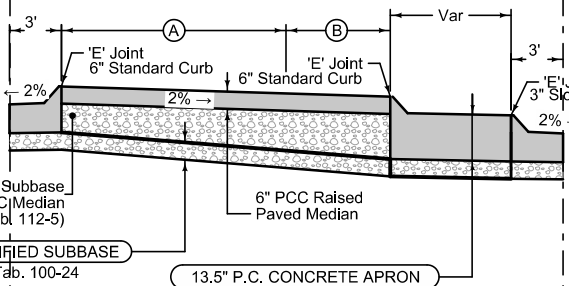
Mainline Jointing:
Transverse joints: CD refer to L sheets for spacing
Longitudinal joint: L-2

BEGIN STATION	END STATION	(L) Feet
4151+00.00	4155+65.00	12
4155+65.00	4157+62.28	Vari. (12-16.8)
4159+25.00	4160+15.51	Vari. (19.6-12)
4160+15.51	4169+70.00	12

4DP_Raised_Out_04-21-20			
BEGIN STATION	END STATION	(A) Feet	(B) Feet
153+93.00	157+50.88	Vari.	Vari.
160+28.69	162+79.15	Vari.	Vari.

Mainline Jointing:
Transverse joints: CD refer to L sheets for spacing
Longitudinal joint: L-2

BEGIN STATION	END STATION	(R) Feet
3151+00.00	3156+57.02	12
3156+57.02	3157+54.03	Vari. (12-20.2)
3159+16.15	3160+94.93	Vari. (16.6-12)
3160+94.93	3169+70.00	12

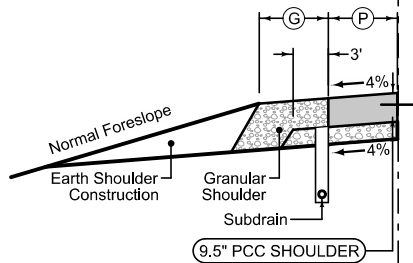


4DP_Raised_Out_04-21-20			
BEGIN STATION	END STATION	(A) Feet	(B) Feet
159+19.51	160+28.69	Vari.	Vari.

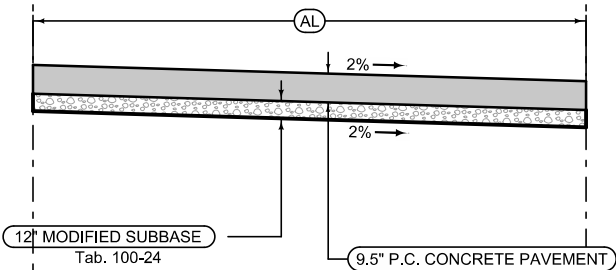
Full Depth PCC Combination Shoulder

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

2_C_FullPCC_04-20-21			
STATION TO STATION		(P) Feet	(G) Feet
4151+00.00	4155+60.00	4	2
4162+50.96	4169+70.00	4	4



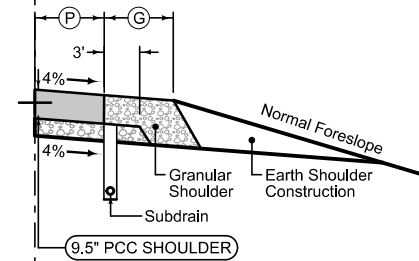
Mainline paving



Median Jointing:
Transverse joints: CD refer to L sheets for spacing
Longitudinal joint: L-2

STATION TO STATION		(AL) Feet
151+00.00	153+93.00	Vari
162+71.00	169+70.00	Vari

Mainline paving



Full Depth PCC Combination Shoulder

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

2_C_FullPCC_04-20-21			
STATION TO STATION		(P) Feet	(G) Feet
3151+00.00	3155+13.26	4	2
3160+64.93	3169+70.00	8	0

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

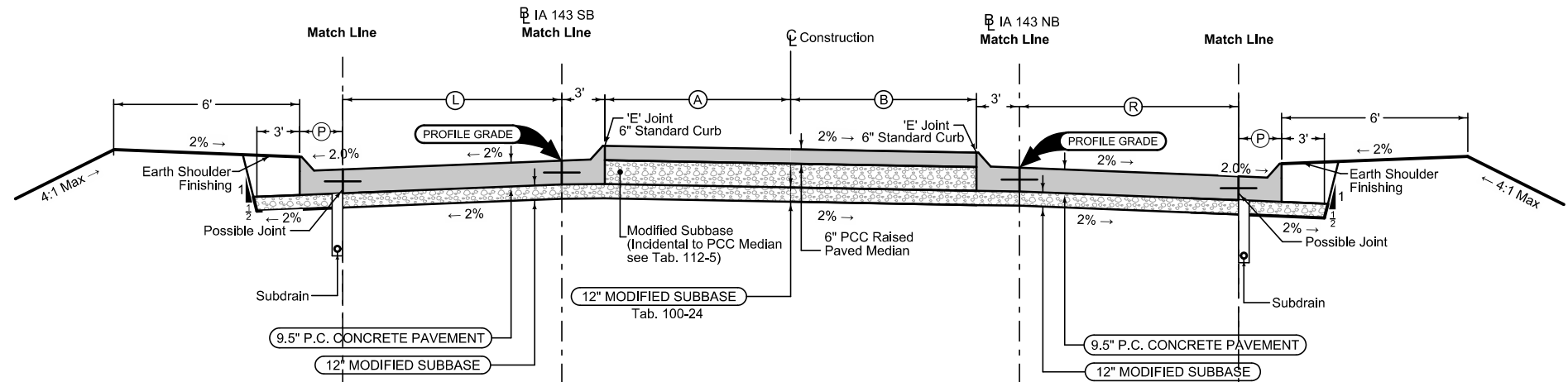
See Tab 112-9 for shoulder quantities.

IA 3

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

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

			2_Curb_ 04-21-20
STATION TO STATION		 Feet	Curb Type See PV-102
6002+48.69	6004+82.93	3	6" Standard



Mainline Jointing:
Transverse joints: CD refer to L sheets for spacing
Longitudinal joint: L-2

BEGIN STATION	END STATION	Ⓐ Feet
6002+48.69	6003+33.65	Vari. (20.4-12)
6003+33.65	6007+24.00	12

Median

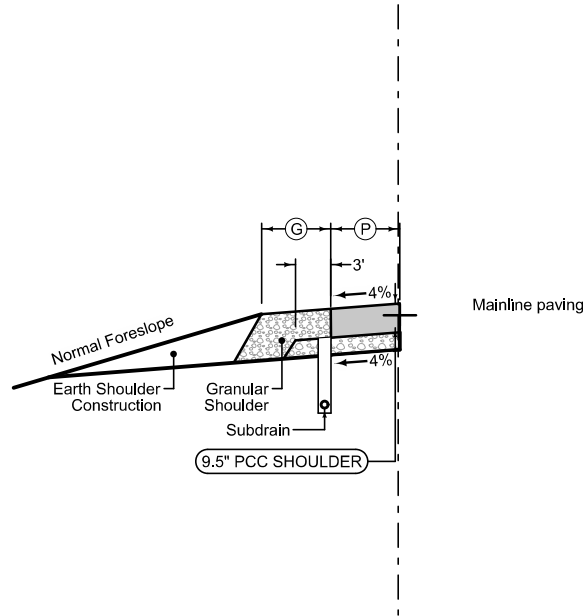
4DP_Raised_Out_04-21-20			
BEGIN STATION	END STATION	(A) Feet	(B) Feet
2+53.47	5+08.55	Vari.	Vari.

Mainline Jointing:
Transverse joints: CD refer to L sheets for spacing
Longitudinal joint: L-2

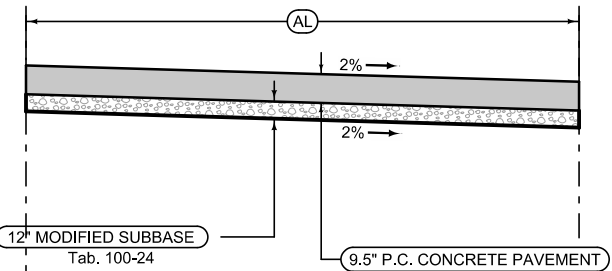
BEGIN STATION	END STATION	Ⓜ Feet
5002+41.00	5004+60.00	Var. (15.8-12)
5004+60.00	5007+24.00	12

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

2_C_FullPCC_04-20-21			
STATION TO STATION		(P) Feet	(G) Feet
6004+82.93	6007+24.00	4	2

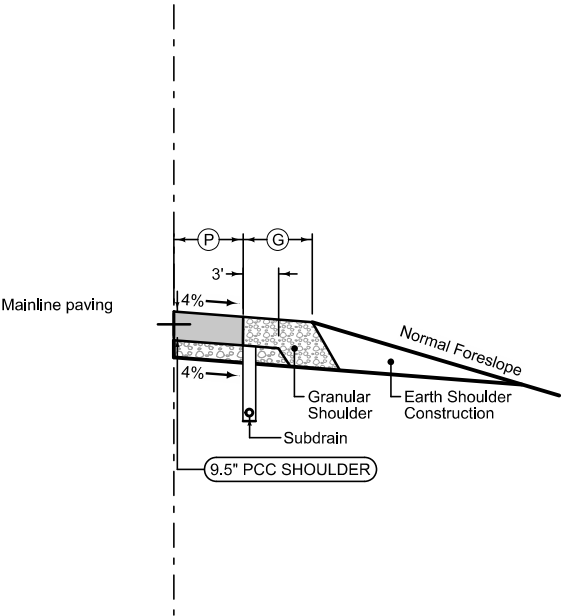


Mainline paving



Median Jointing:
Transverse joints: CD refer to L sheets for spacing
Longitudinal joint: L-2

STATION TO STATION		(AL) Feet
5+08.55	7+24.00	Vari



Mainline paving

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

2_C_FullPCC_04-20-21			
STATION TO STATION		(P) Feet	(G) Feet
5004+60.00	5007+24.00	4	2

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

Curbed Shoulder

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

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

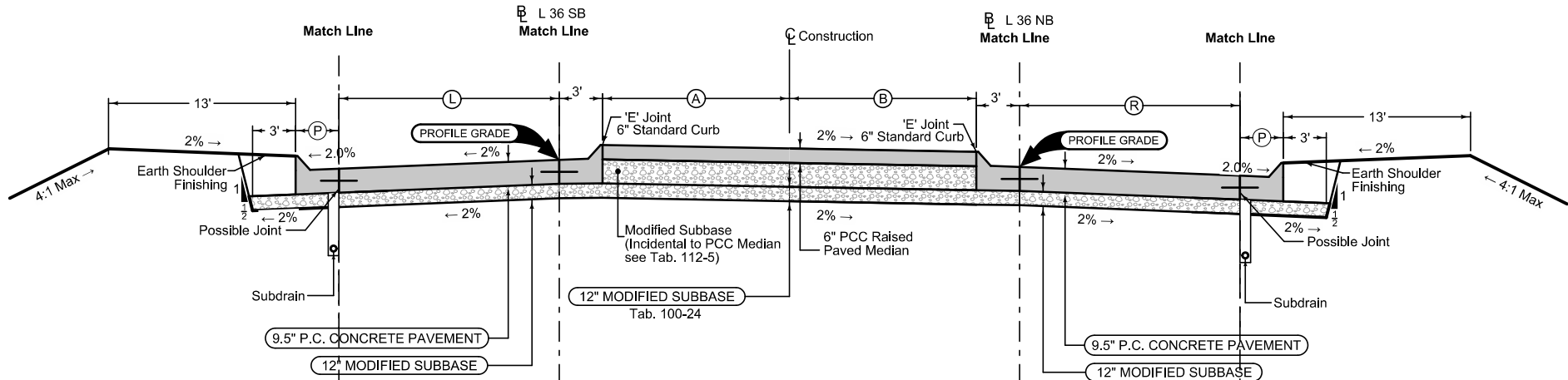
2_Curb_04-21-20			
STATION TO STATION		(P) Feet	Curb Type See PV-102
8144+85.00	8157+30.26	3	6" Standard

Curbed Shoulder

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

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

2_Curb_04-21-20			
STATION TO STATION		(P) Feet	Curb Type See PV-102
5002+41.00	5004+60.00	3	6" Standard



Mainline Jointing:
Transverse joints: CD refer to L sheets for spacing
Longitudinal joint: L-2

BEGIN STATION	END STATION	(L) Feet
8152+12.00	8144+85.00	12
8144+85.00	8157+30.26	Vari. (12-15.7)

Median

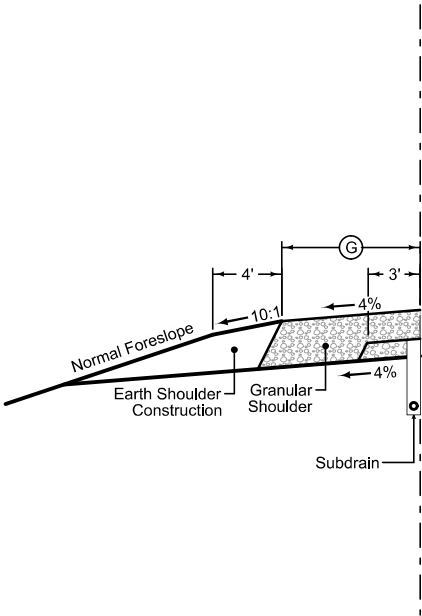
4DP_Raised_Out_04-21-20			
BEGIN STATION	END STATION	(A) Feet	(B) Feet
2155+50.00	2157+16.98	Vari.	Vari.

Mainline Jointing:
Transverse joints: CD refer to L sheets for spacing
Longitudinal joint: L-2

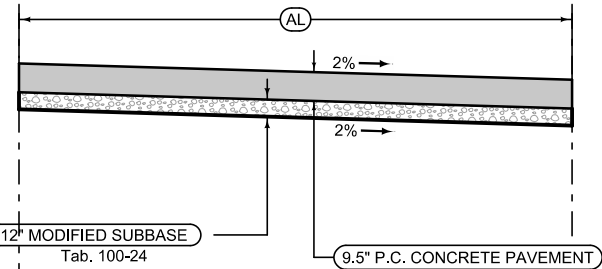
BEGIN STATION	END STATION	(R) Feet
5002+41.00	5004+60.00	Vari. (15.8-12)
5004+60.00	5007+24.00	12

Granular Shoulder

2_G_SR_04-21-20		
STATION TO STATION		(G) Feet
8152+12.00	8144+85.00	6



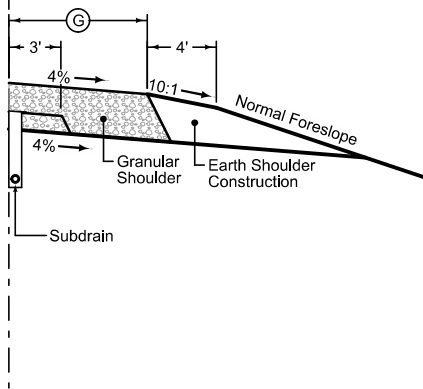
Mainline paving



Median Jointing:
Transverse joints: CD refer to L sheets for spacing
Longitudinal joint: L-2

STATION TO STATION			(AL) Feet
2152+12.00	2155+50.00	Vari	

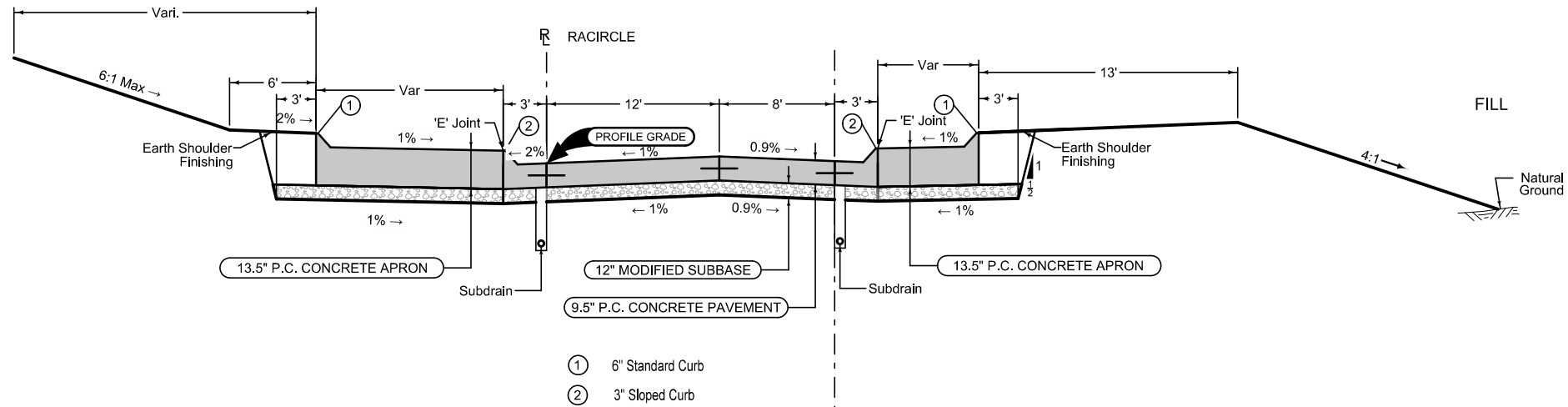
Mainline paving



Granular Shoulder

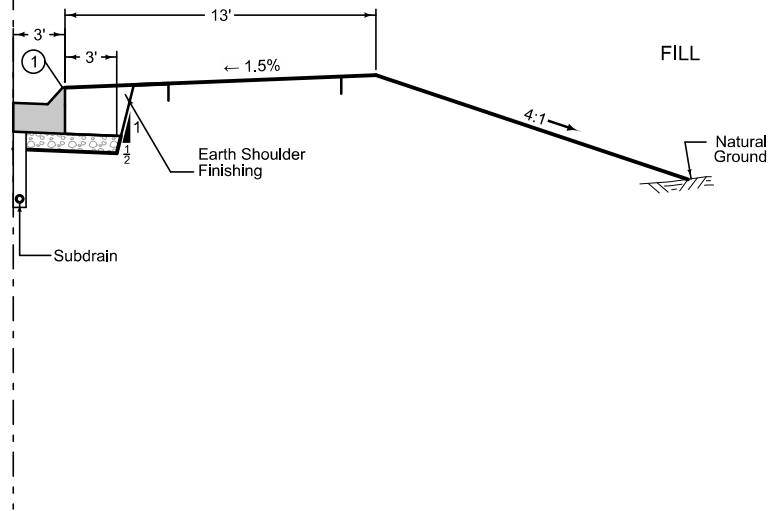
2_G_SR_04-21-20		
STATION TO STATION		(G) Feet
5004+60.00	5007+24.00	6

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



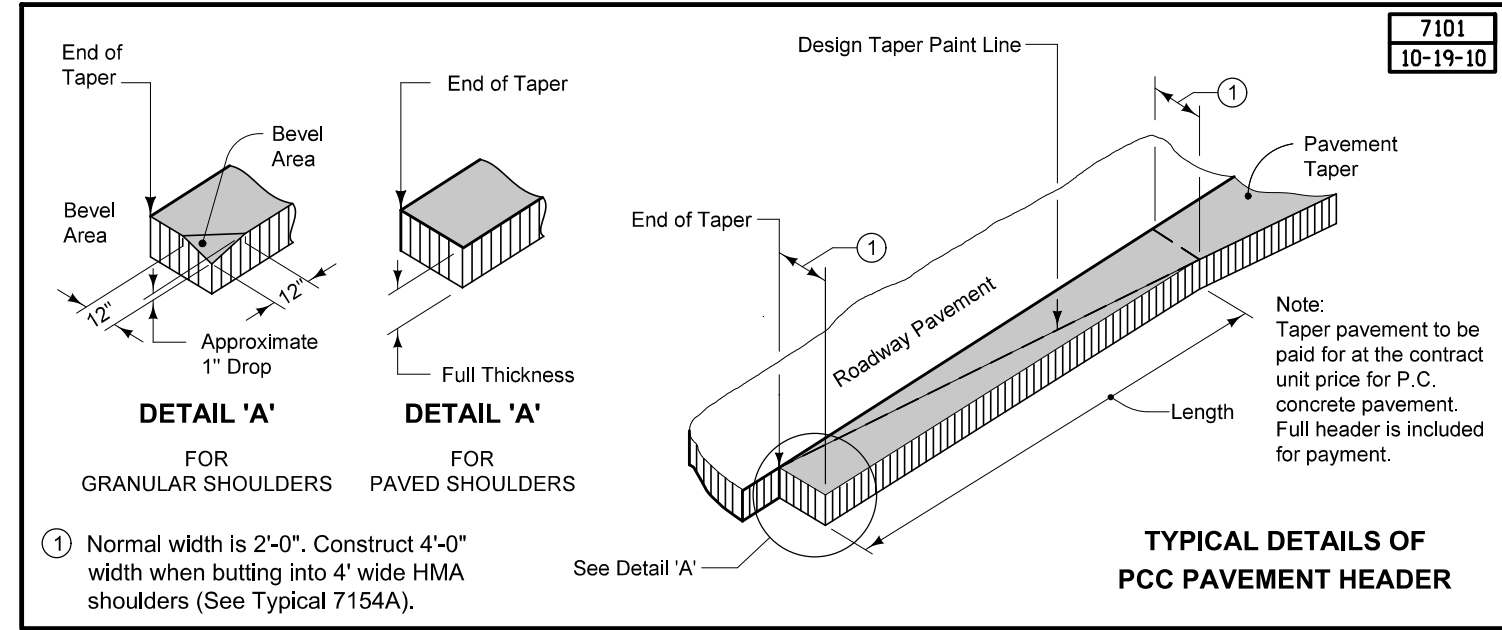
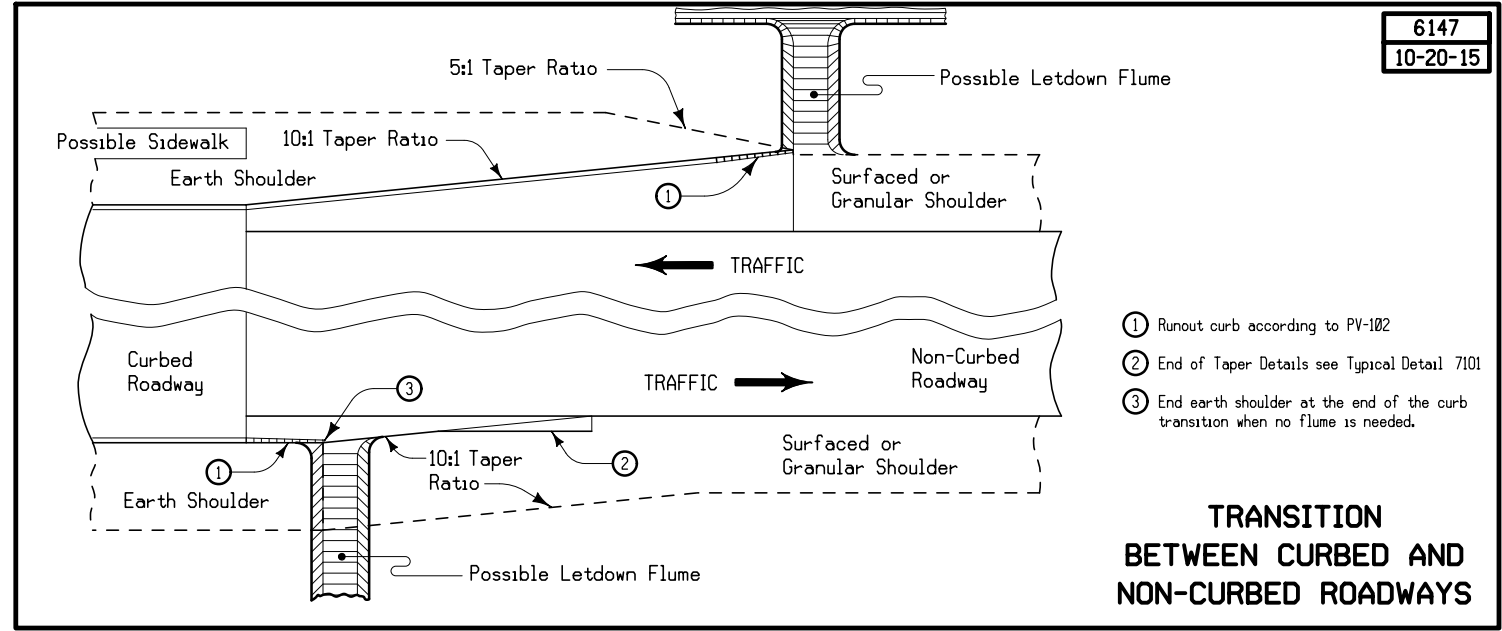
LOCATION		
ROAD IDENTIFICATION	STATION TO STATION	
RACIRCLE	1000+00.00	1004+39.82

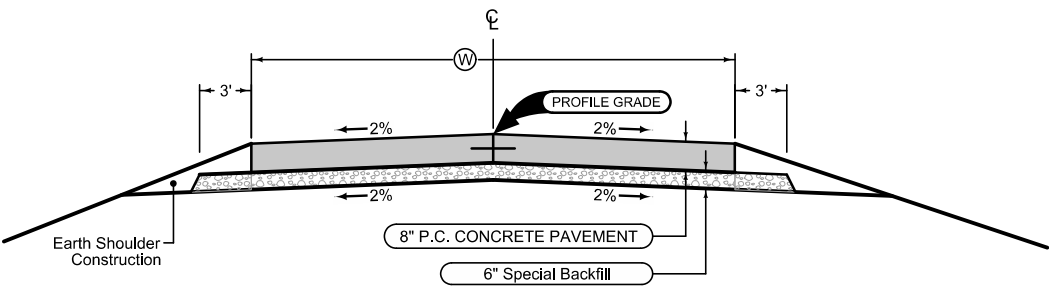
Note: See 'L' Sheets for Jointing Layout



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

Roundabout

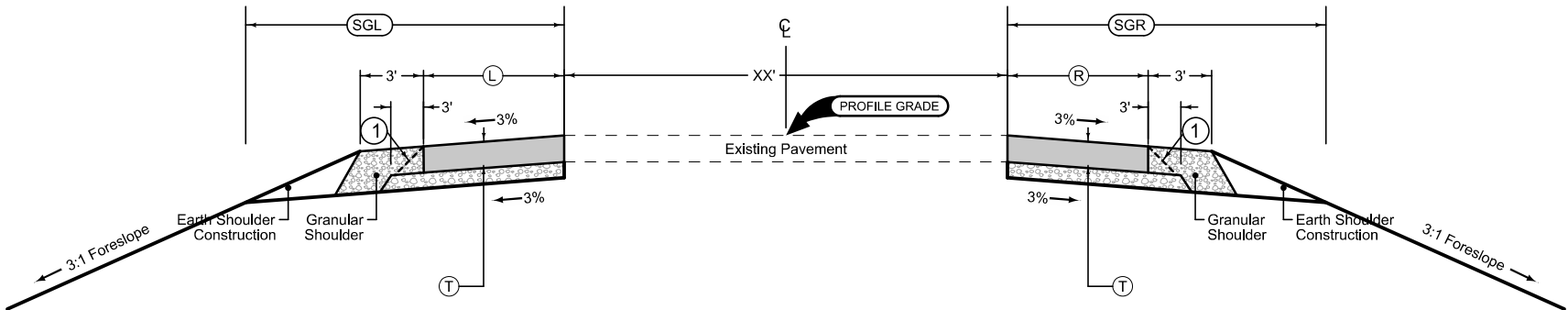




ROAD IDENTIFICATION	Ⓜ Feet
ENTR163 (IA 3)	45
ENTR2154 (L36)	45

See Tab 102-3 for pavement quantities.

PAVED ENTRANCE



LOCATION			DIMENSIONS						6" Special Backfill	Earth Shoulder Construction
ROAD IDENTIFICATION	STATION TO STATION		HMA			PCC				
			PW Feet	T Inches	SGW Feet	PW Feet	T Inches	SGW Feet		
IA 3	145+52.72	157+77.07		N/A			9.5			
IA 3	164+62.95	169+93.14		9			8			
IA 3	170+44.18	174+09.49		9			8			

LOCATION			DIMENSIONS						6" Special Backfill	Earth Shoulder Construction
ROAD IDENTIFICATION	STATION TO STATION		HMA			PCC				
			PW Feet	T Inches	SGW Feet	PW Feet	T Inches	SGW Feet		
									Tons/Station	Station
IA 3 EB	3163+60.35	3173+94.07		9			8			

Quantity calculations based on vertical pavement edges.
Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

① Possible HMA 1:1 slope

DETOUR PAVEMENT

	Interstate Highway Symbol
	U.S. Highway Symbol
	Iowa Highway Symbol
	County Road Highway Symbol
	Evergreen Tree
	Deciduous Tree
	Fruit Tree
	Shrub (Bushes)
	Timber
	Hedge
	Stump
	Swamp
	Rock Outcrop
	Broken Concrete
	Revetment (Rip Rap)
	Cemetery
	Grave
	Cave
	Sink Hole
	Board Fence
	Chain Link or Security Fence
	Wire Fence
	Terrace
	Earth Dam or Dike (Existing)
	Tile Outlet
	Edge of Water
	Existing Drainage
	Right of Way Rail or Lot Corner
	Concrete Monument
	Well
	Windmill
	Beehive Intake
	Existing Intake
	Existing Utility Access (Manhole)
	Fire Hydrant
	Water Hydrant (Rural)

	Septic Tank
	Cistern
	L.P. Gas Tank (No Footing)
	Underground Storage Tank
	Latrine
	Satellite TV Dish
	Water Hook Up
	Radio Tower
	Tower Anchor
	Guardrail (Beam or Cable)
	Guard Post (one or two)
	Guard Post (over two)
	Filler Pipe
	Gas Valve
	Water Valve
	Speed Limit Sign
	Mile Marker Post
	Sign
	Traffic Signal Control Box
	Rail Road Signal Control Box
	Telephone Switch Box
	Electric Box

- FO — FOID, West Iowa Telephone - Quality D
- W — WL1D, Cherokee Rural Water District - Quality D
- W2 — WL2D, Macus, City of - Quality D
- E — EL1D, MidAmerican-Elec - Quality D
- G — GL1D, MidAmerican-Gas - Quality D
- SAN. — SA1D, Marcus, City of - Quality D
- PPA, MidAmerican-Elec

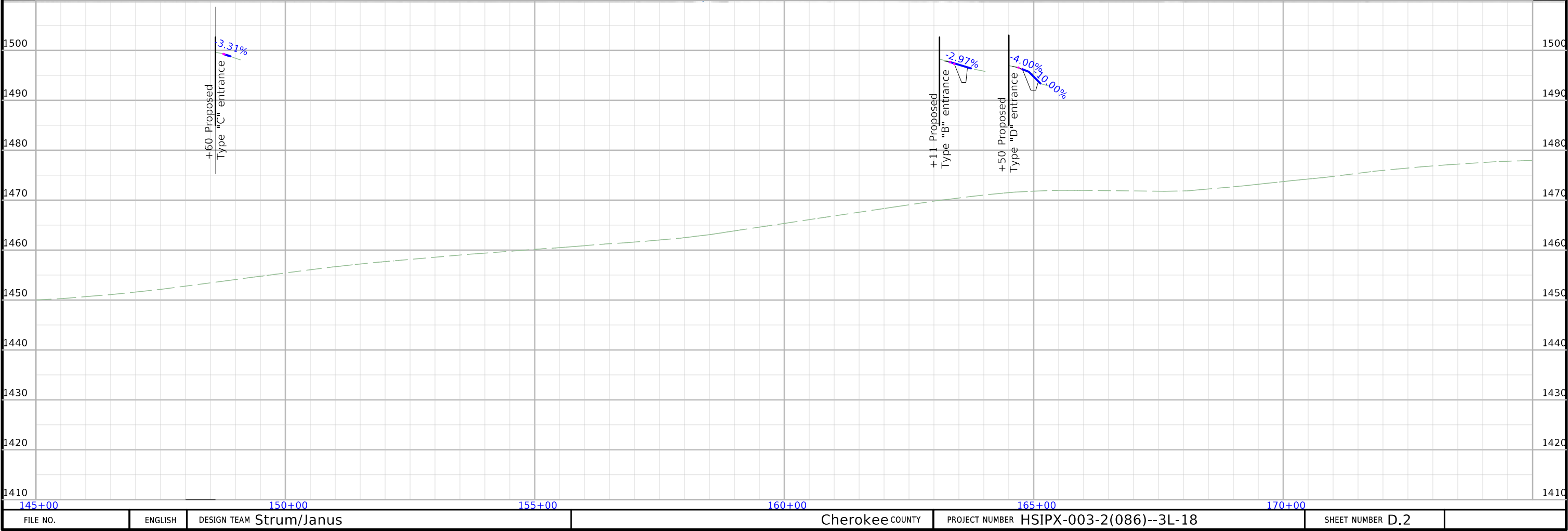
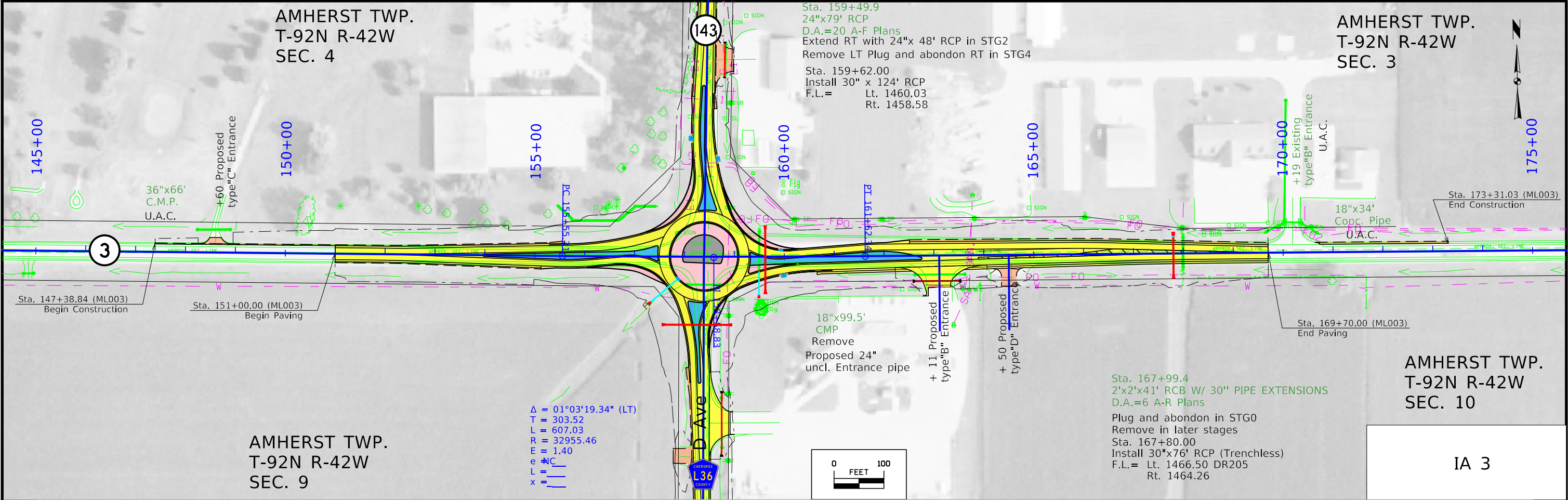
LINEWORK		Design Color No.
Green	(2)	Existing Topographic Features and Labels
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)	Existing Utilities
SHADING		Design Color No.
Lavender	(9)	Temporary Pavement Shading
Yellow	(4)	Proposed Pavement Shading
Orange	(6)	Proposed 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
Blue, Light	(230)	Proposed Paved Median
Pink	(11)	Proposed Paved Truck Apron
Green, Light	(225)	Existing Pavement Shading
Red	(3)	Proposed Structure Shading
Red	(3)	Delineates Restricted Areas

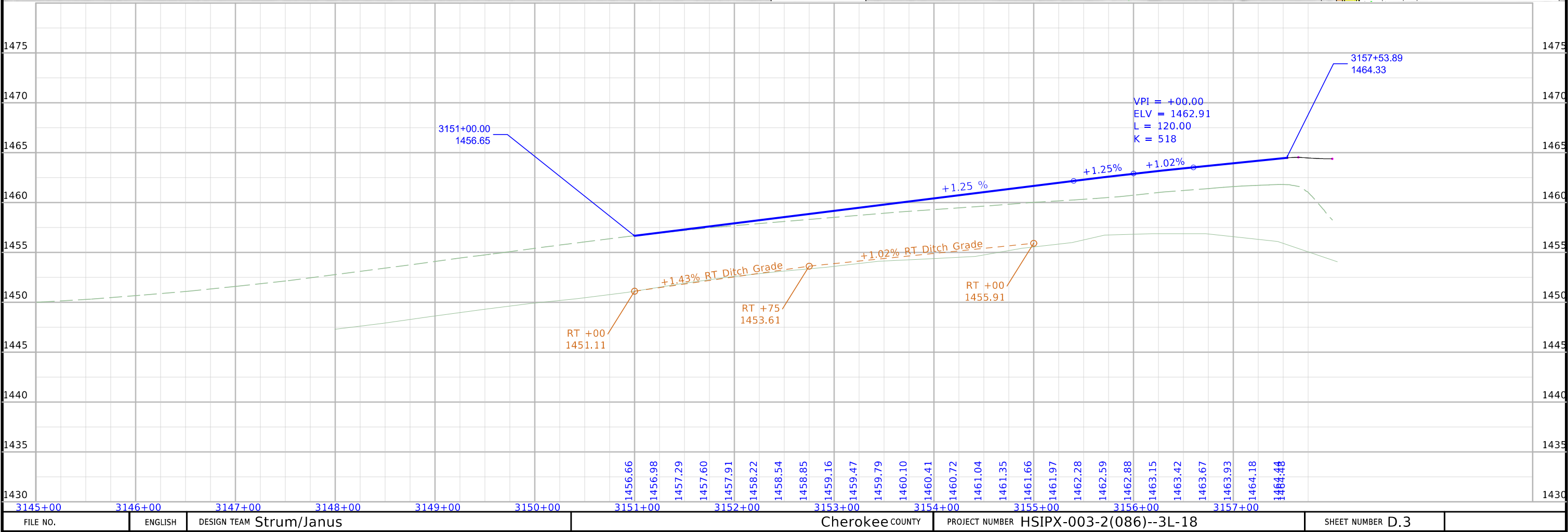
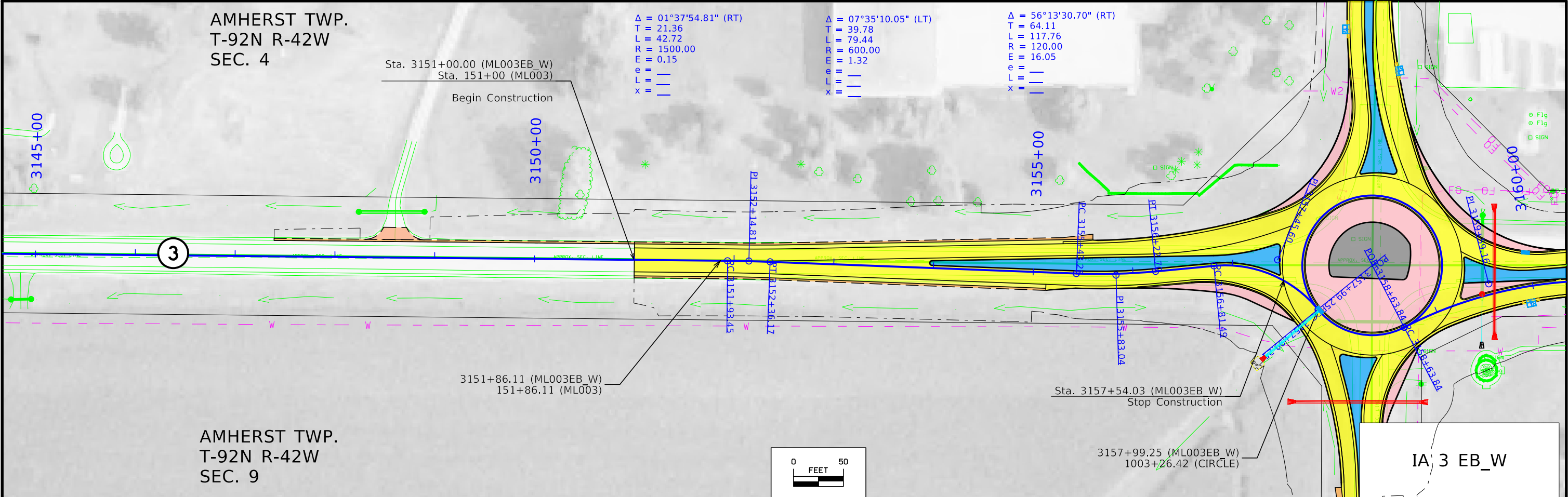
LINEWORK	Design	Color	No.
Green	(10)		Existing Ground Line Profile
Blue	(1)		Proposed Profile and Annotation
Magenta	(5)		Existing Utilities
Blue, Light	(230)		Proposed Ditch Grades, Left
Black	(0)		Proposed Ditch Grades, Median
Rust	(14)		Proposed Ditch Grades, Right

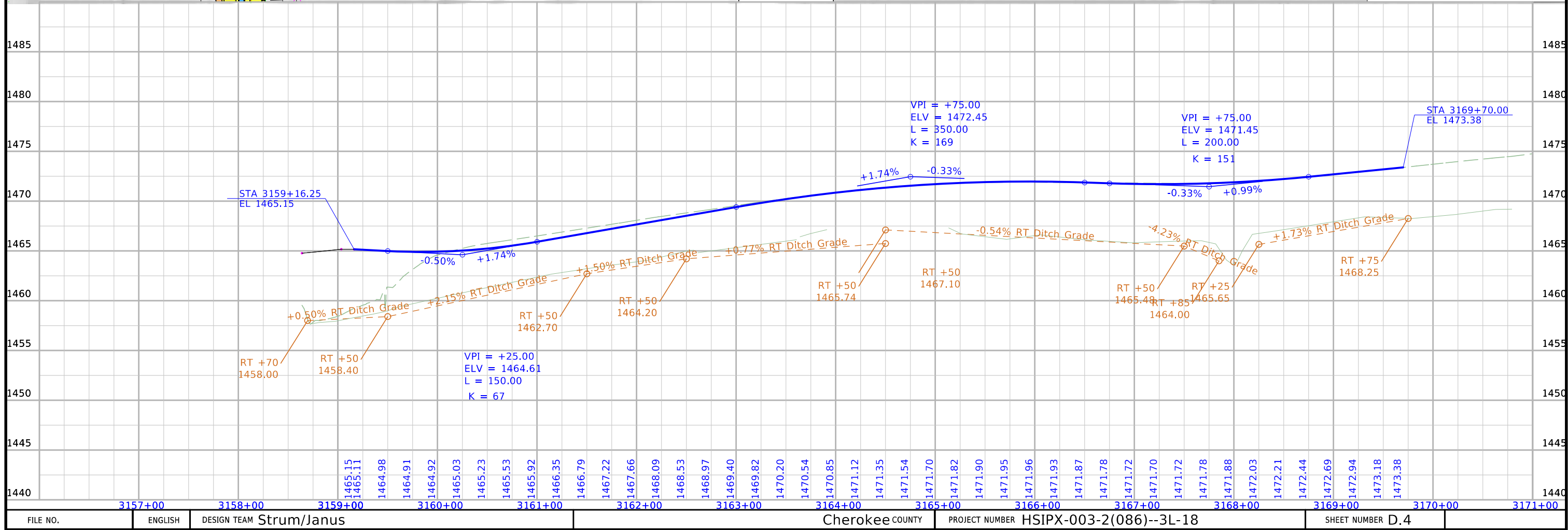
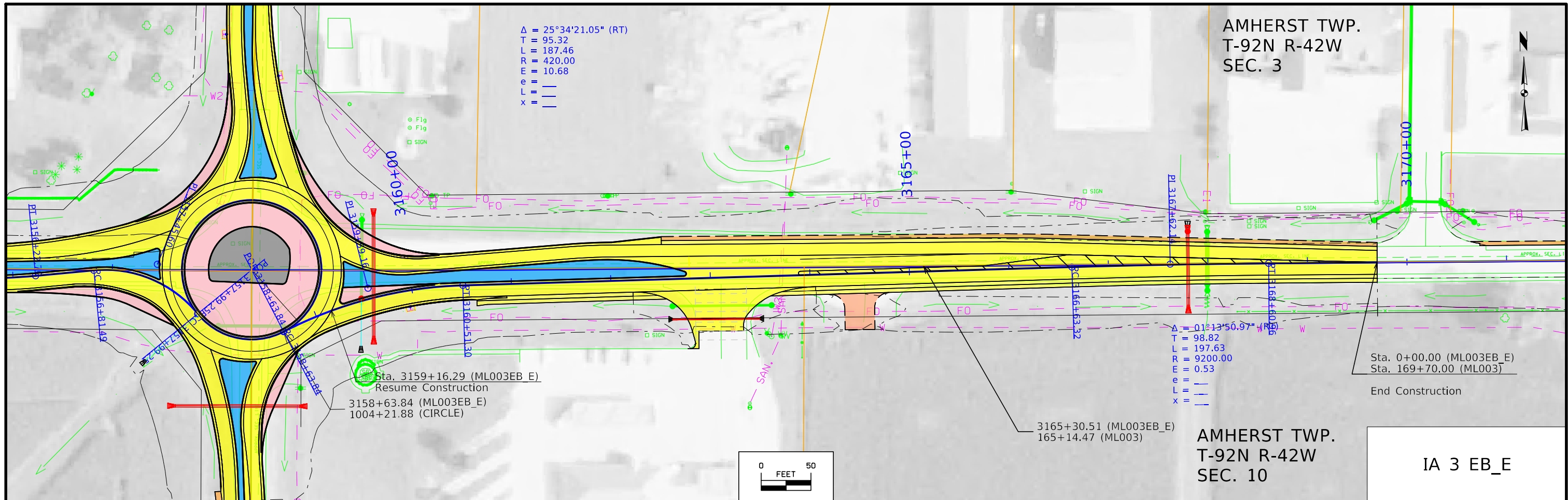
- Proposed Right-of-Way
- Existing Right of Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Easement (Temporary)
- Easement
- Access Control
- Property Line

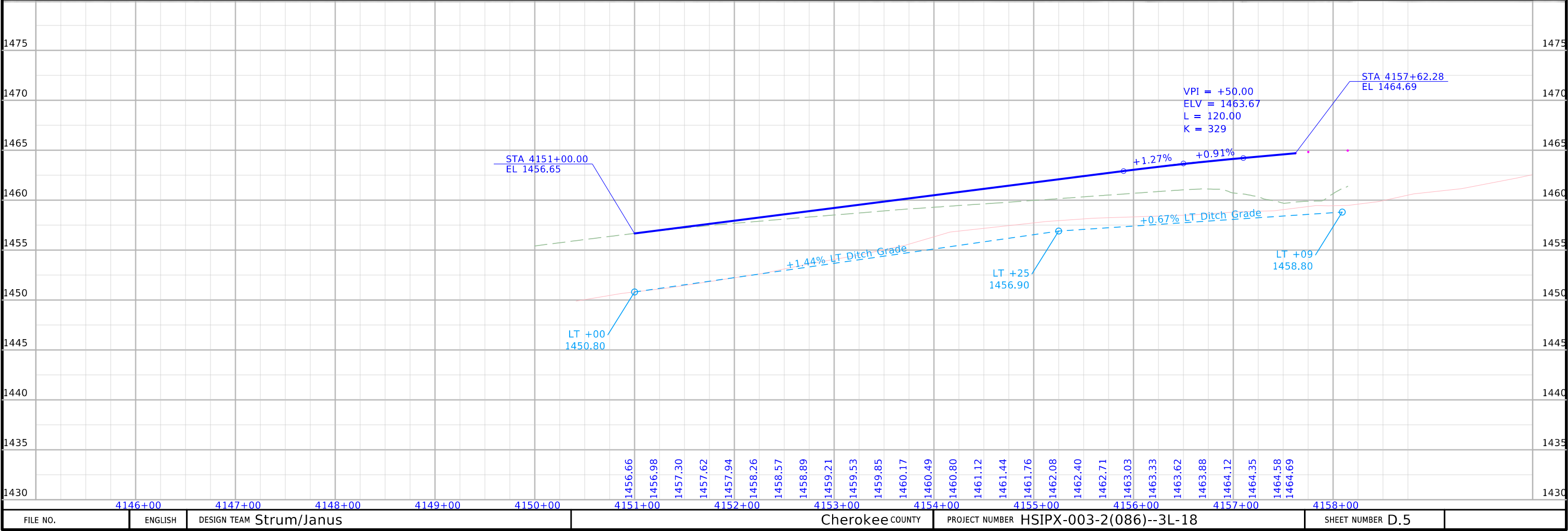
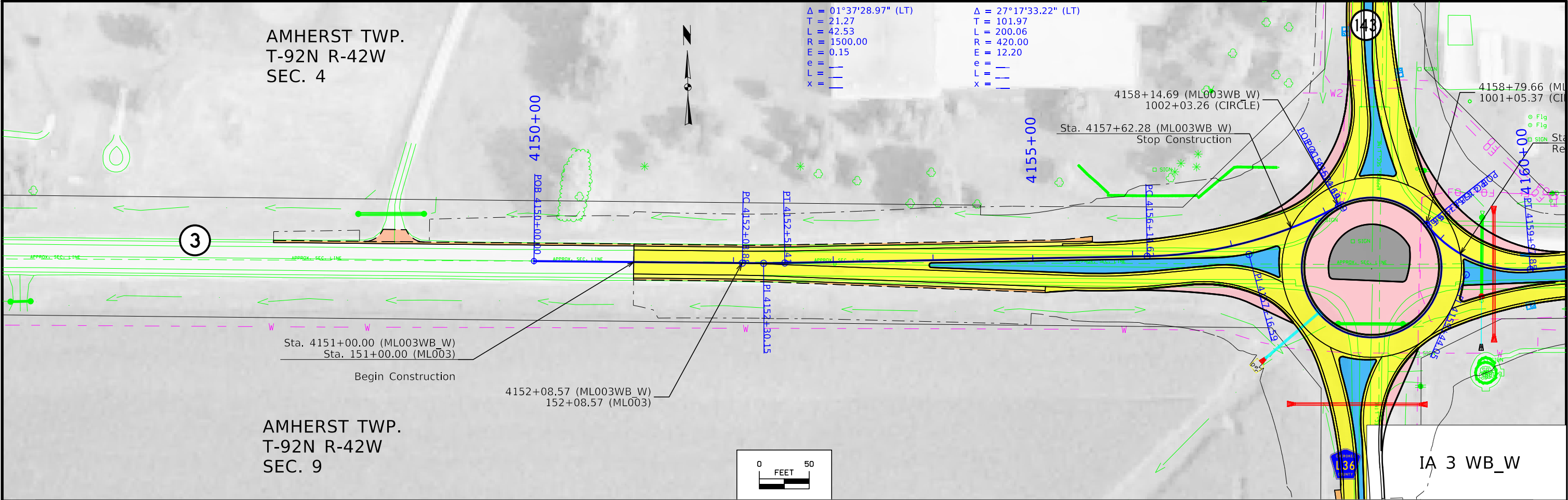
	Reference Point
	Station
	Survey Line
	Section Corner
	Ground Line Intercept
	Saw Cut
	Guardrail
	Trench Drain
	HighTension Cable Guardrail
	Sheet Pile
	Pavement Removal
	Clearing & Grubbing Area

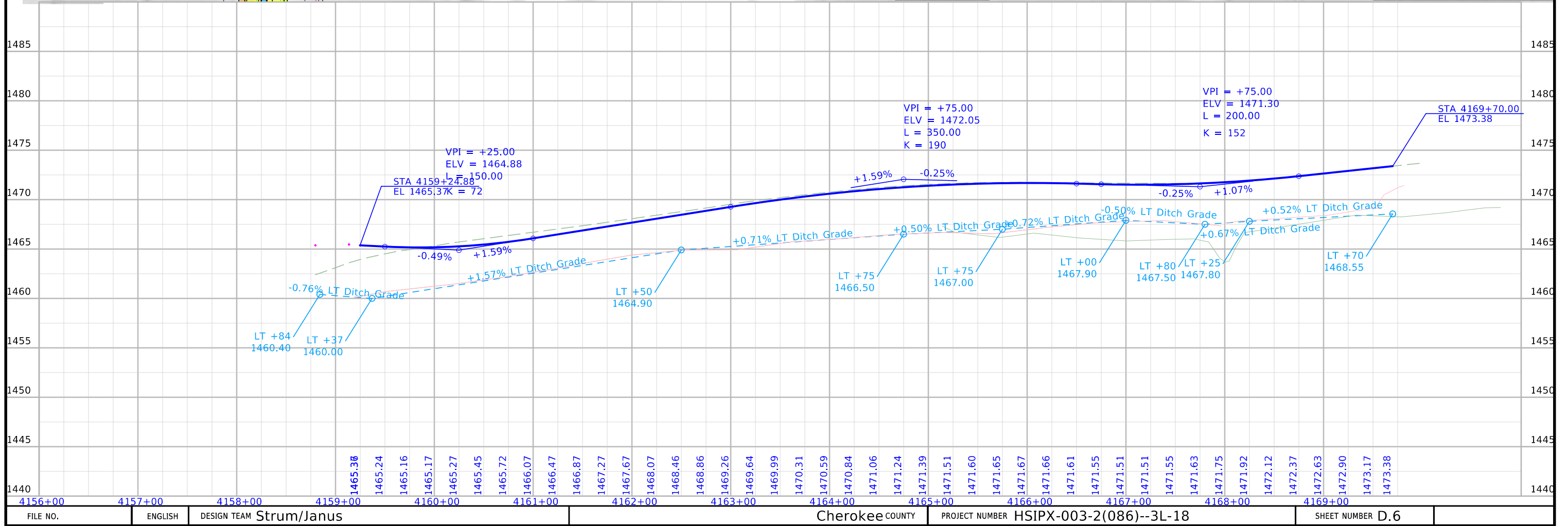
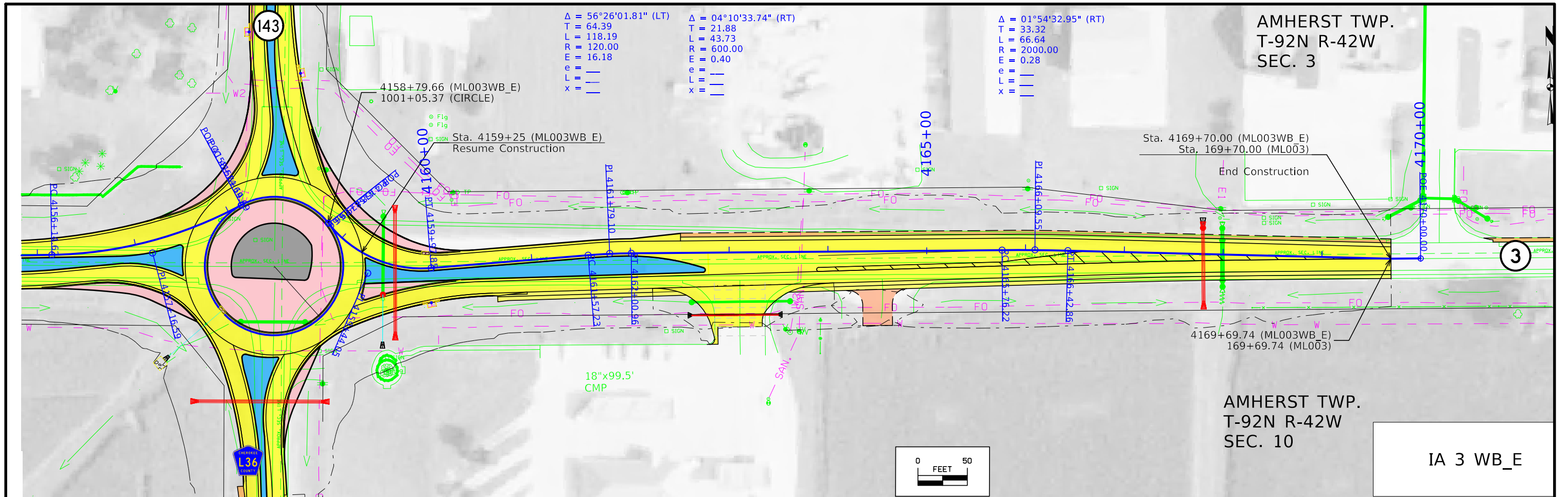
(COVERS SHEET SERIES D, E, F, & K)

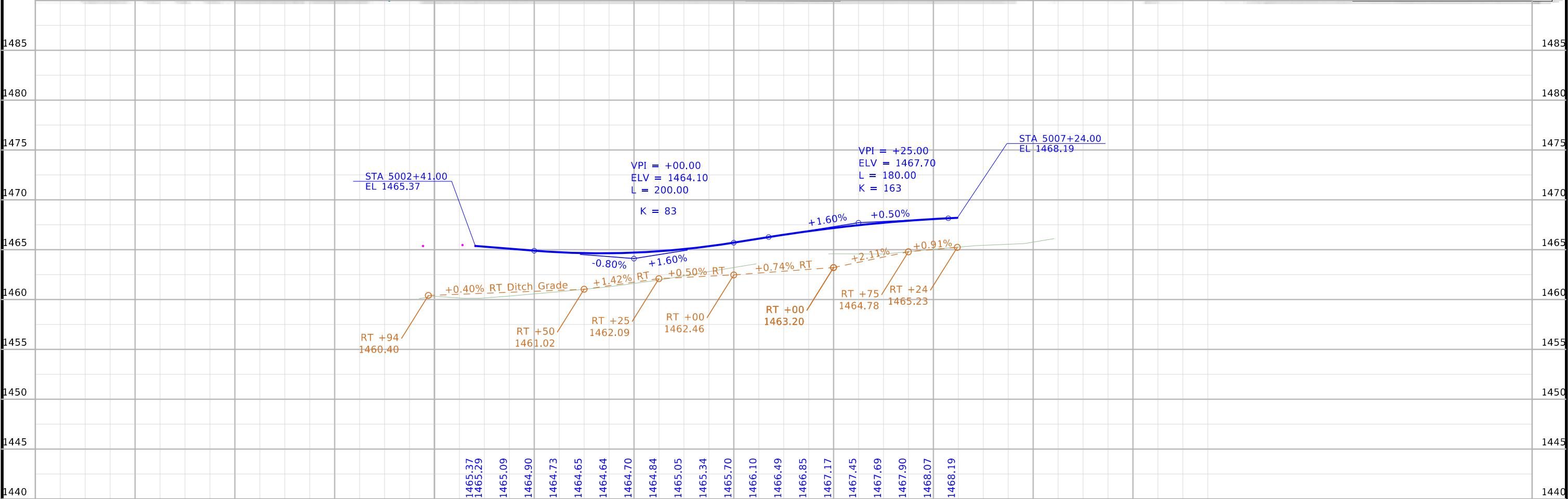
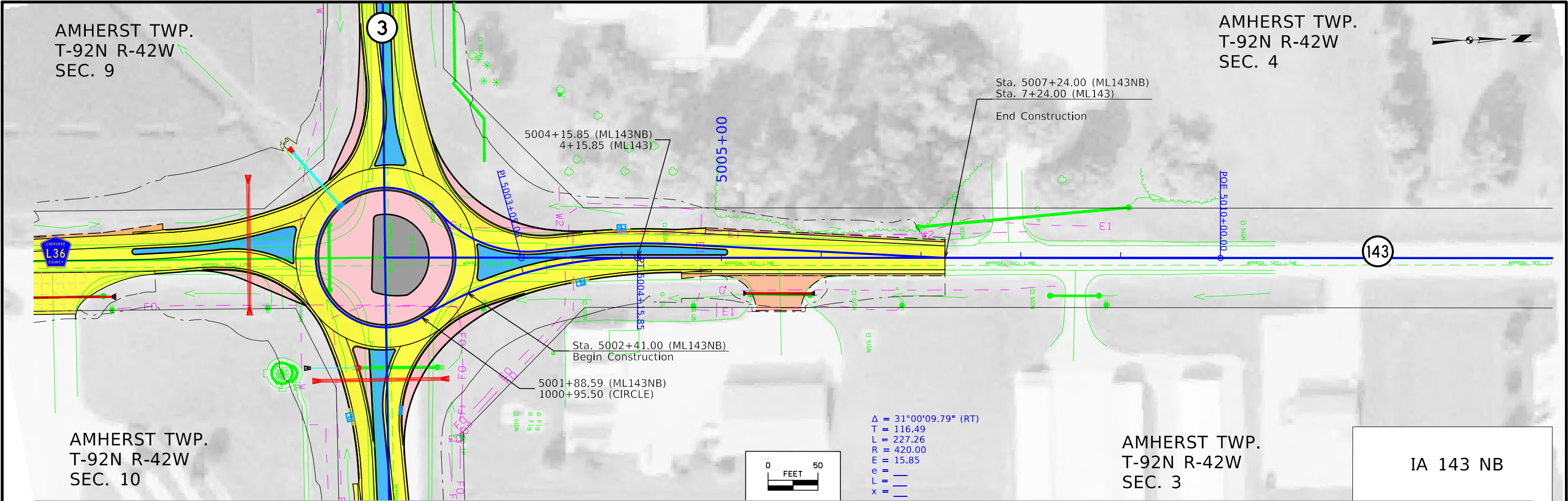


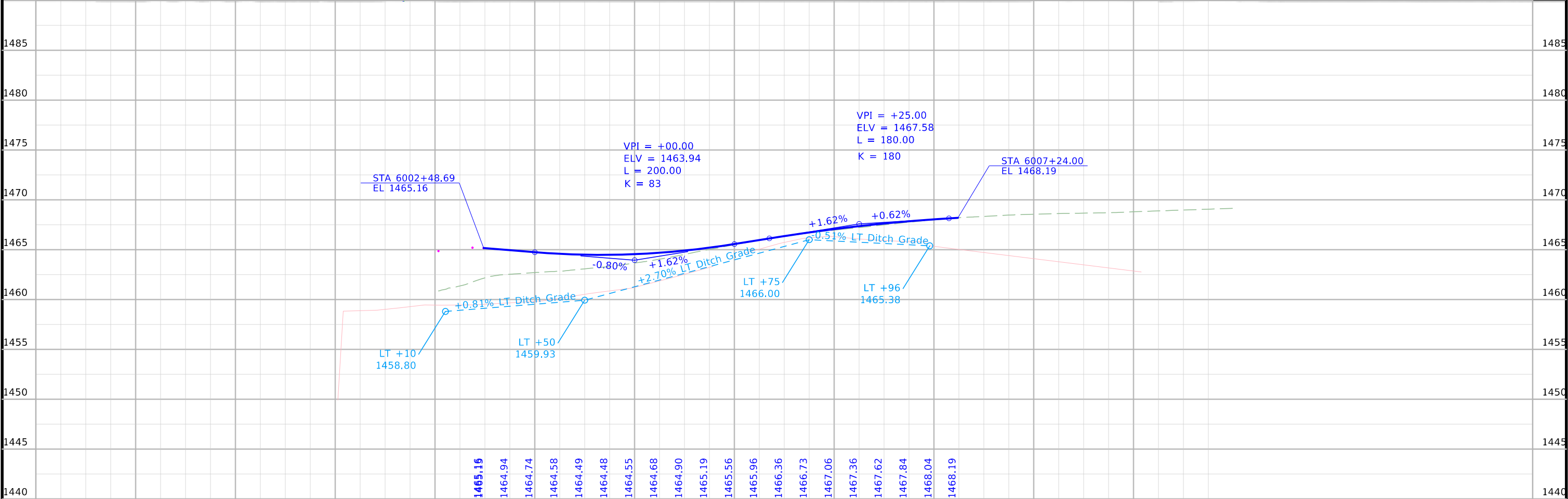
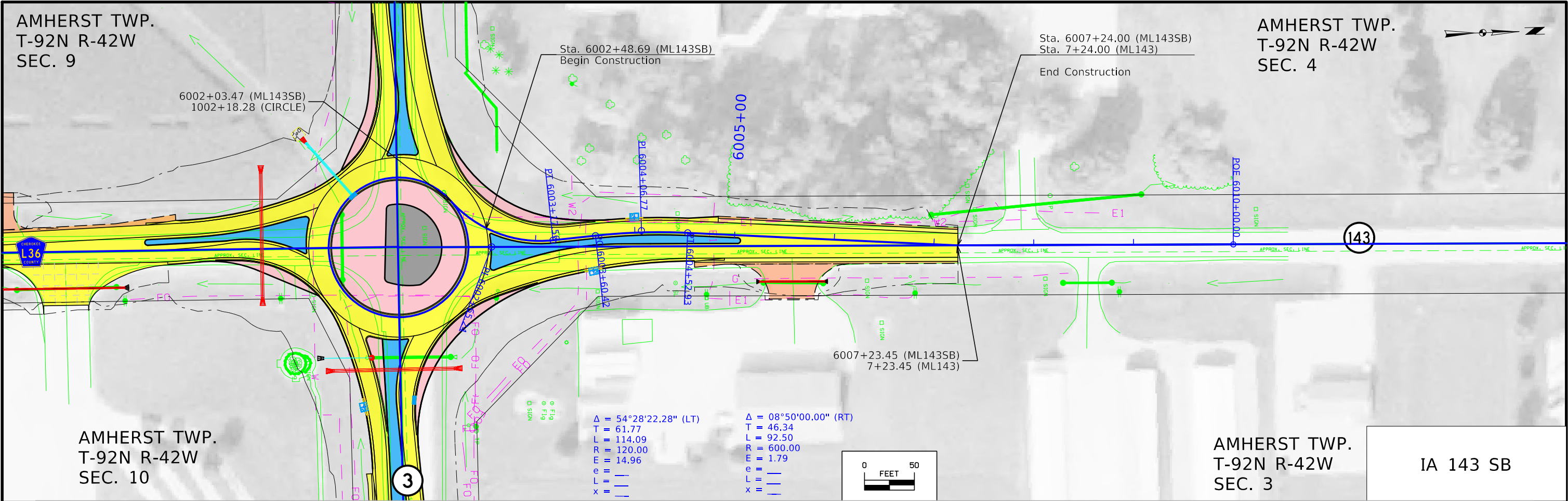


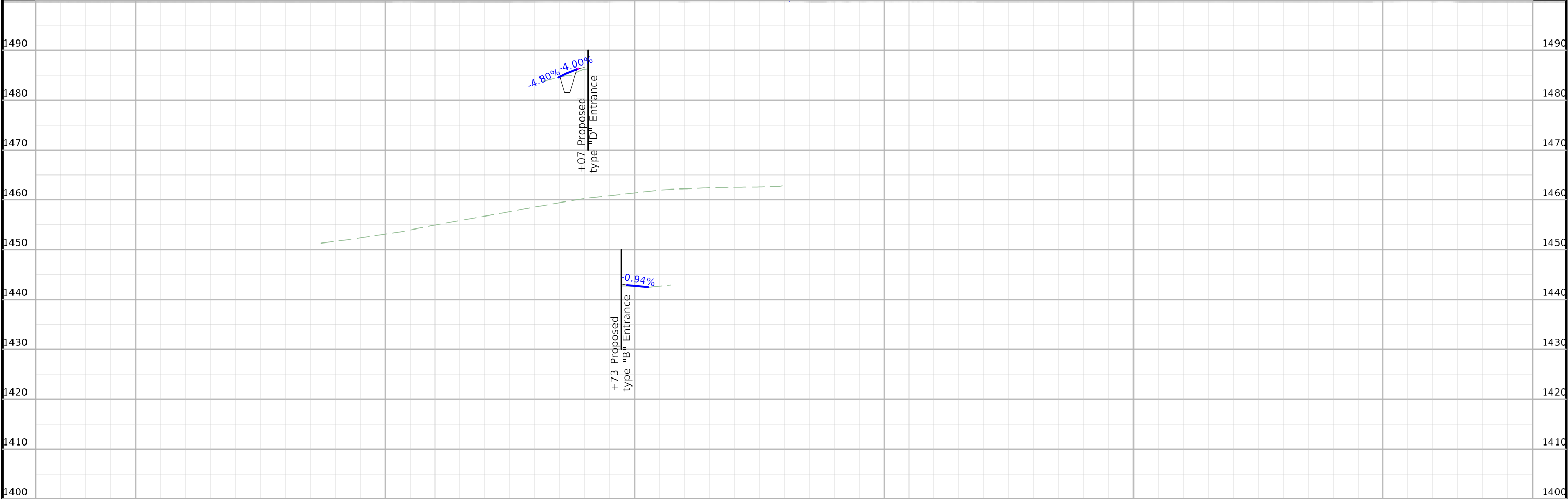
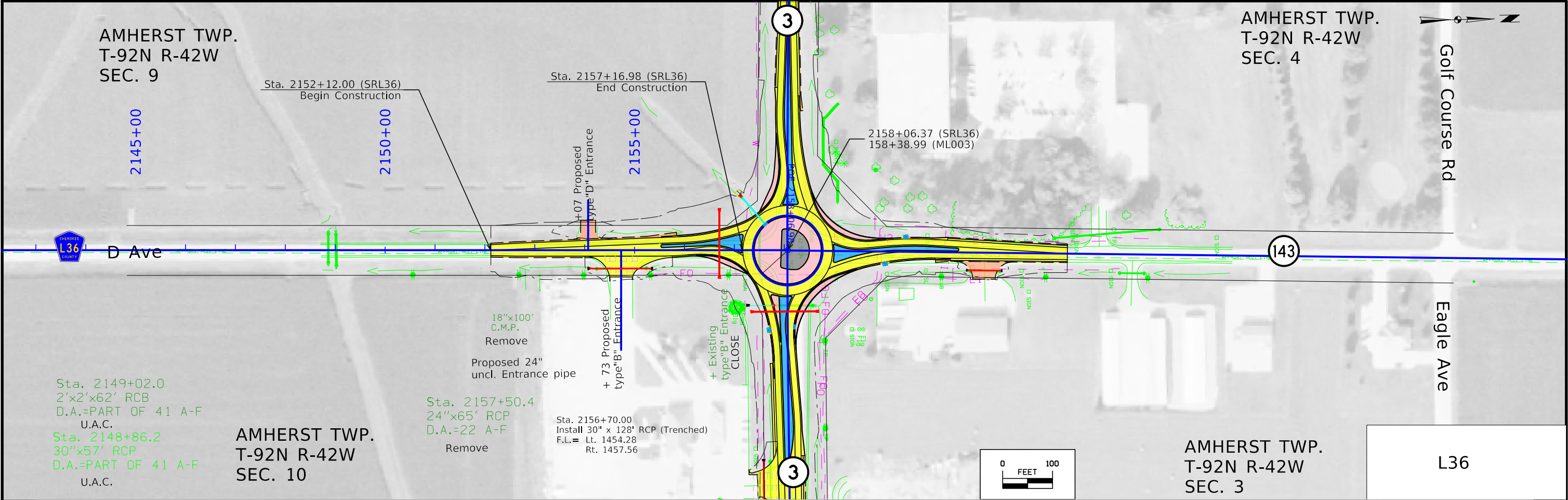




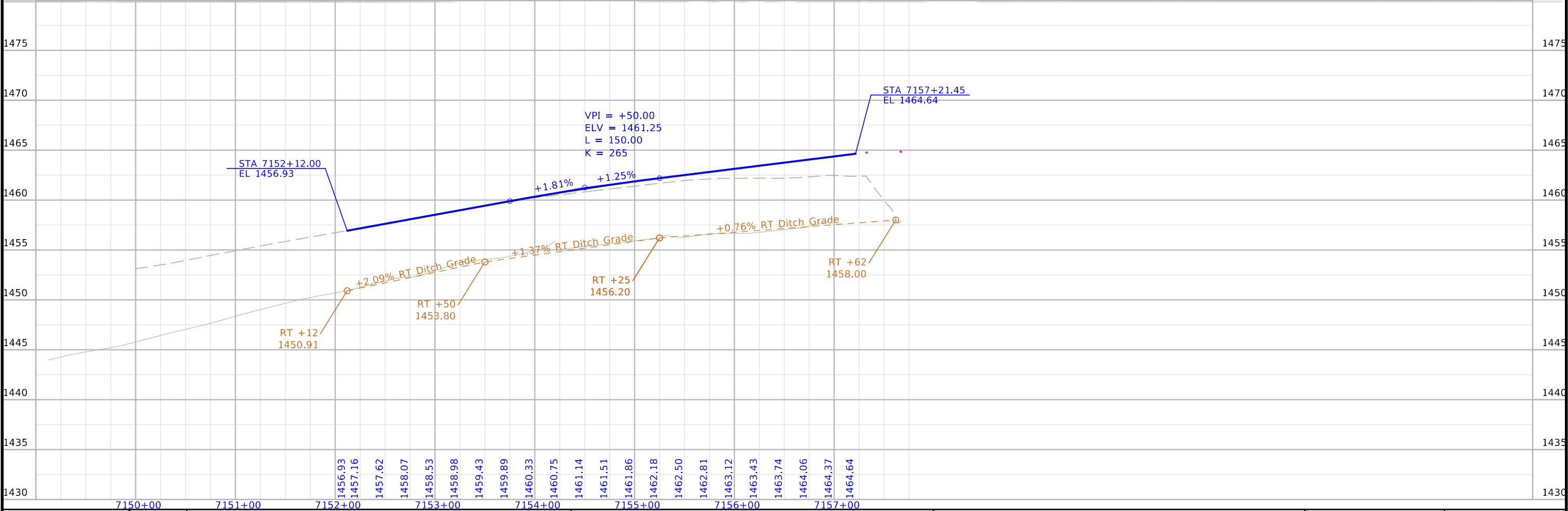
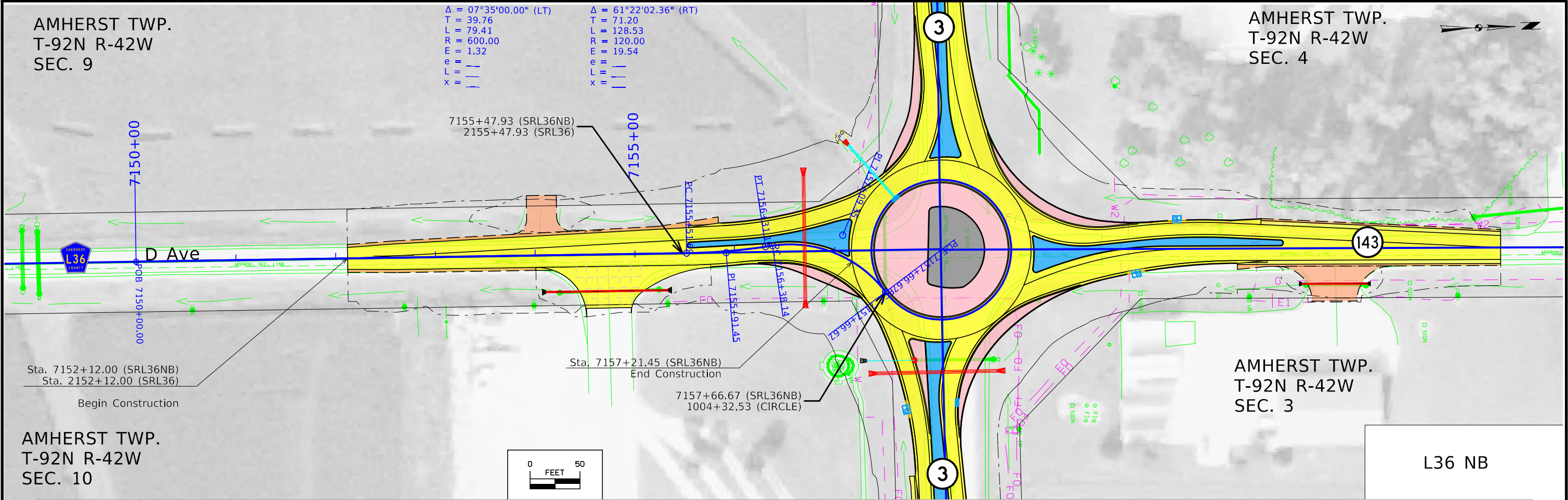


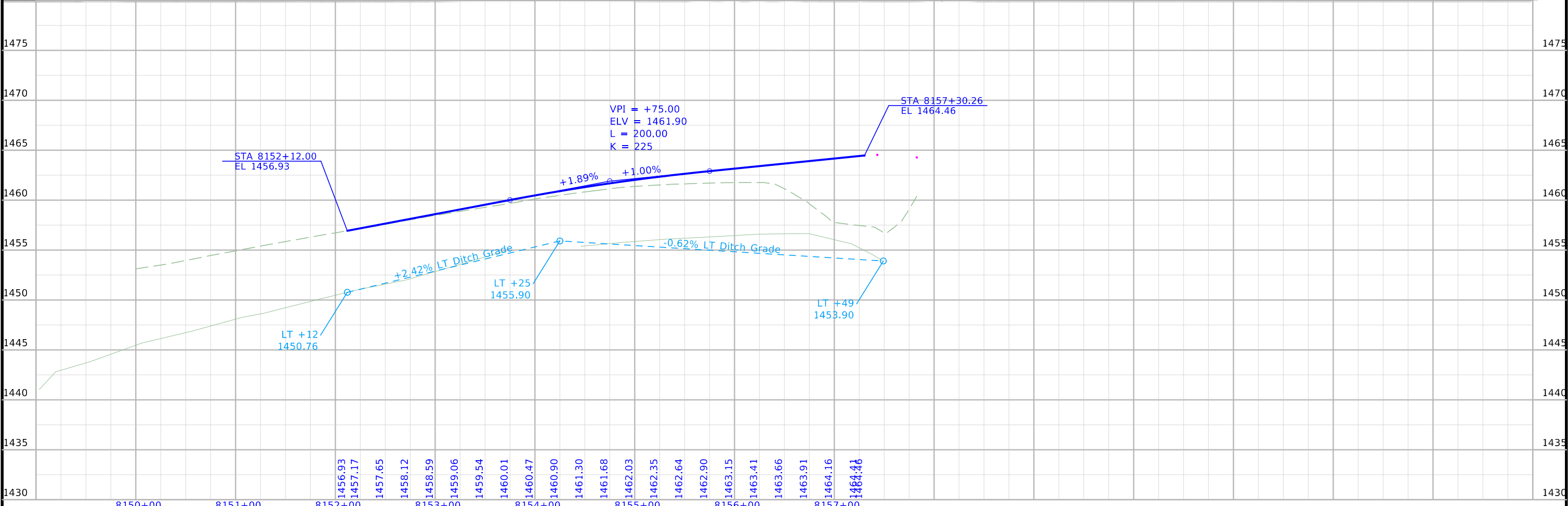
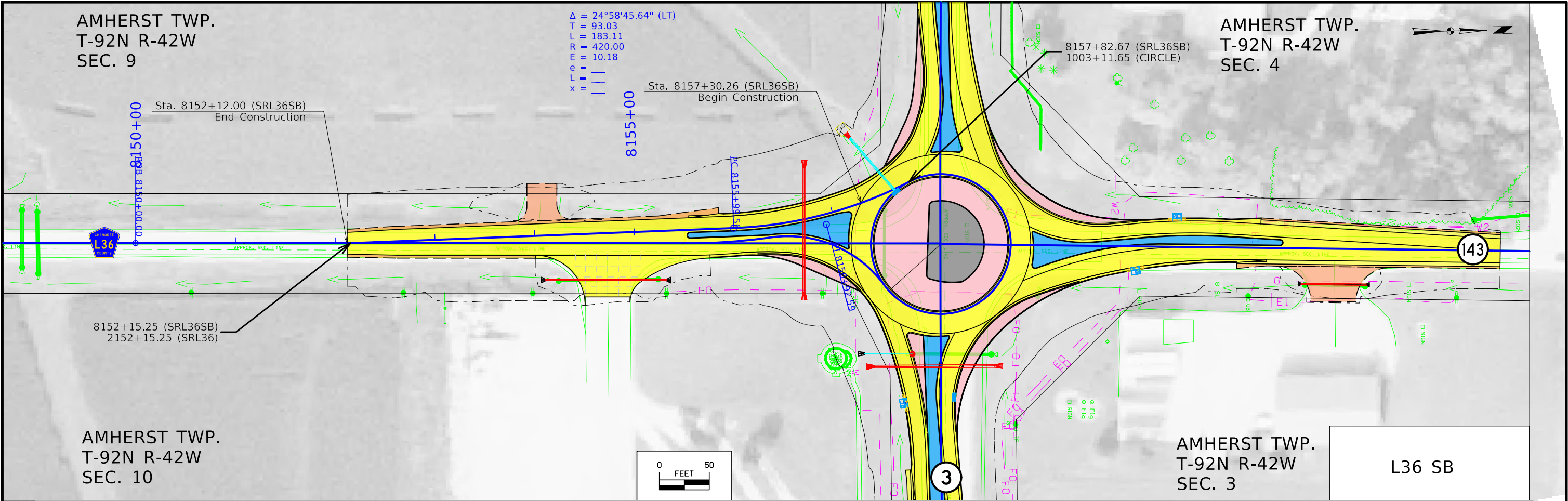


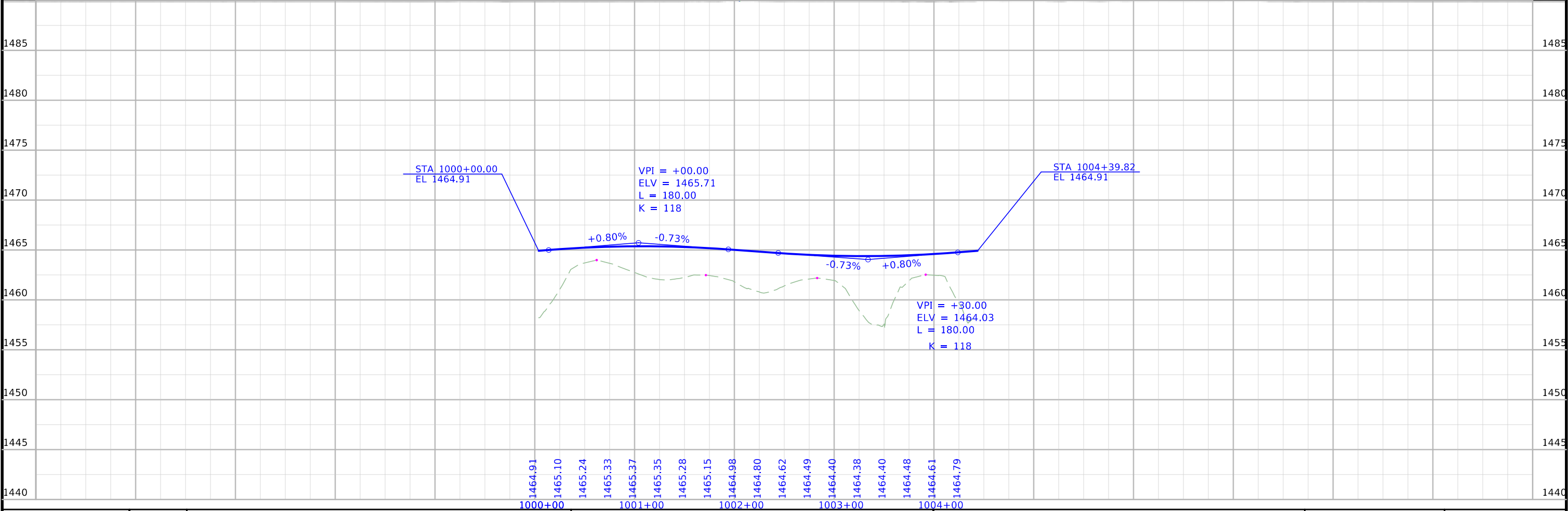
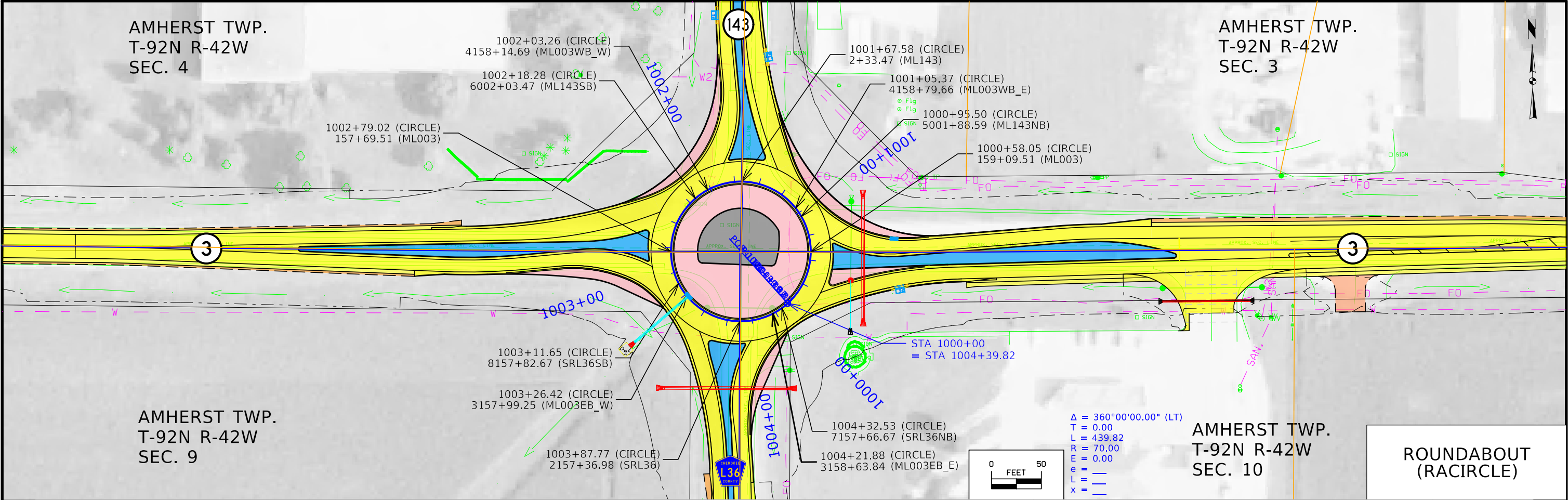


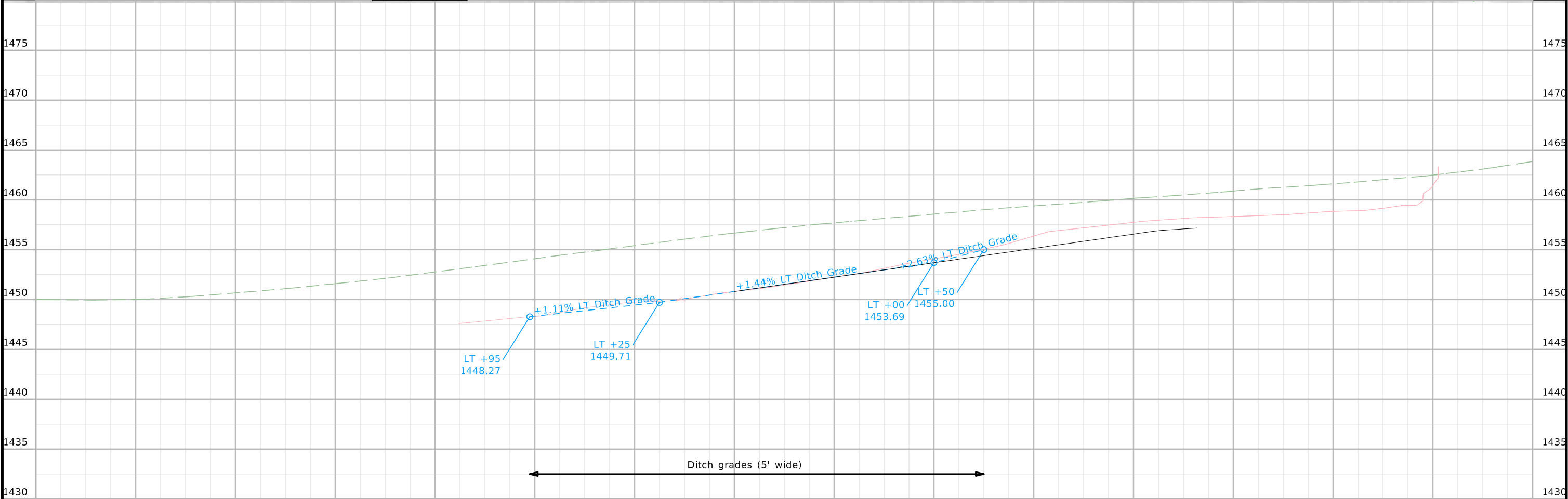
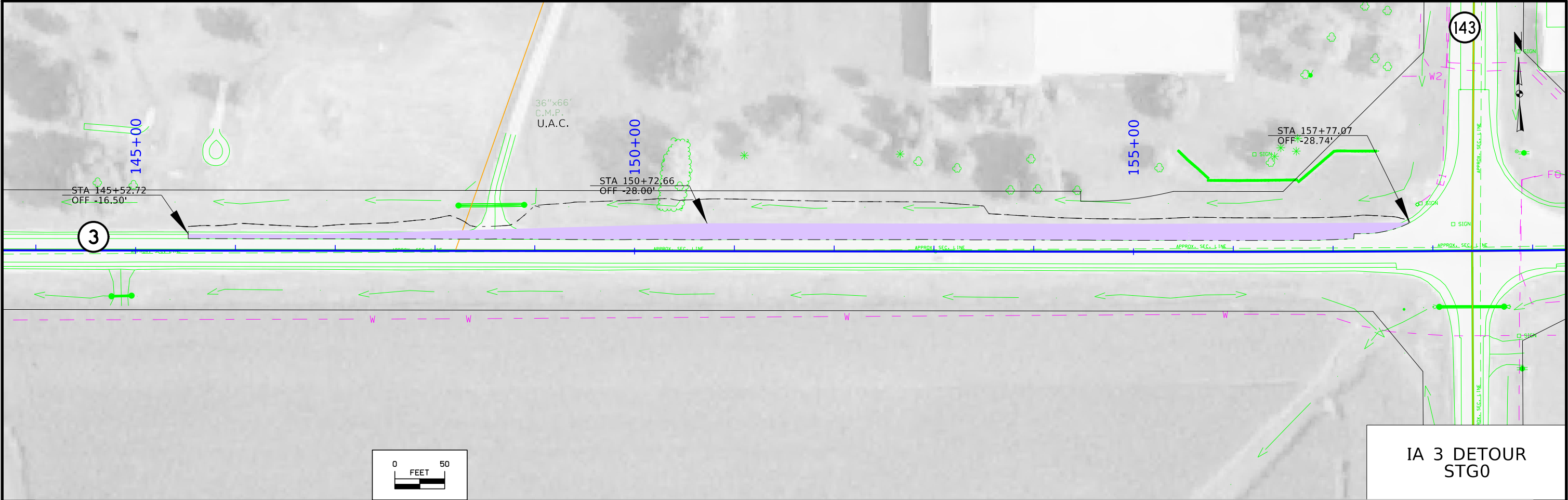


FILE NO.	ENGLISH	DESIGN TEAM	Strum/Janus	Cherokee COUNTY	PROJECT NUMBER	HSIPX-003-2(086)--3L-18	SHEET NUMBER	E.1
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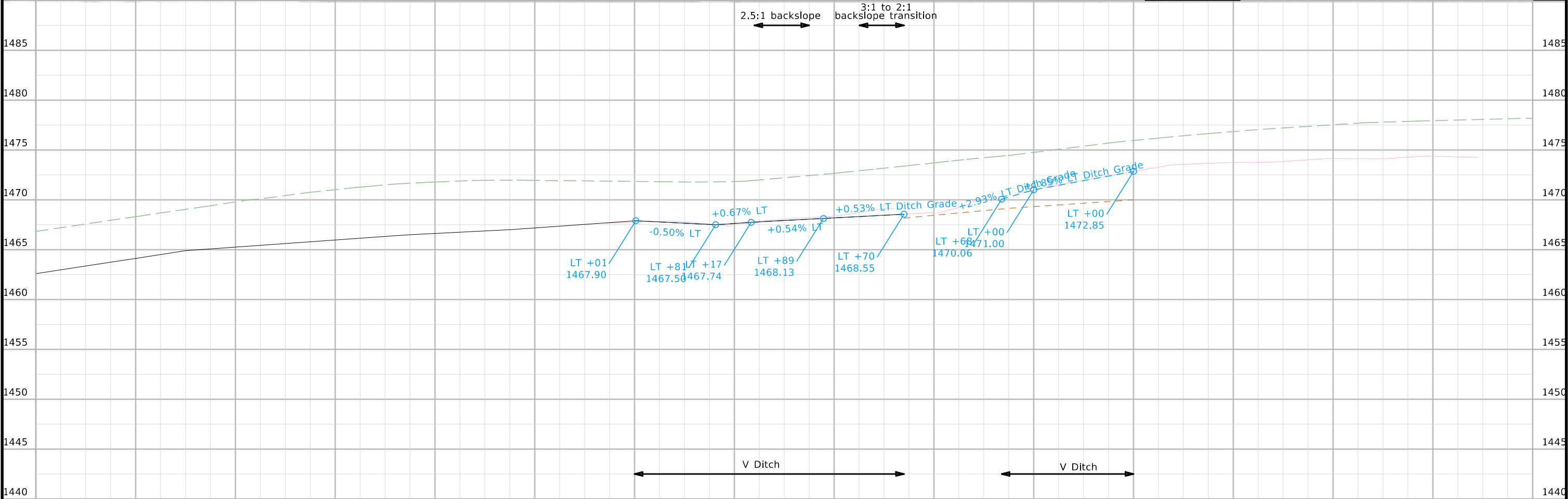
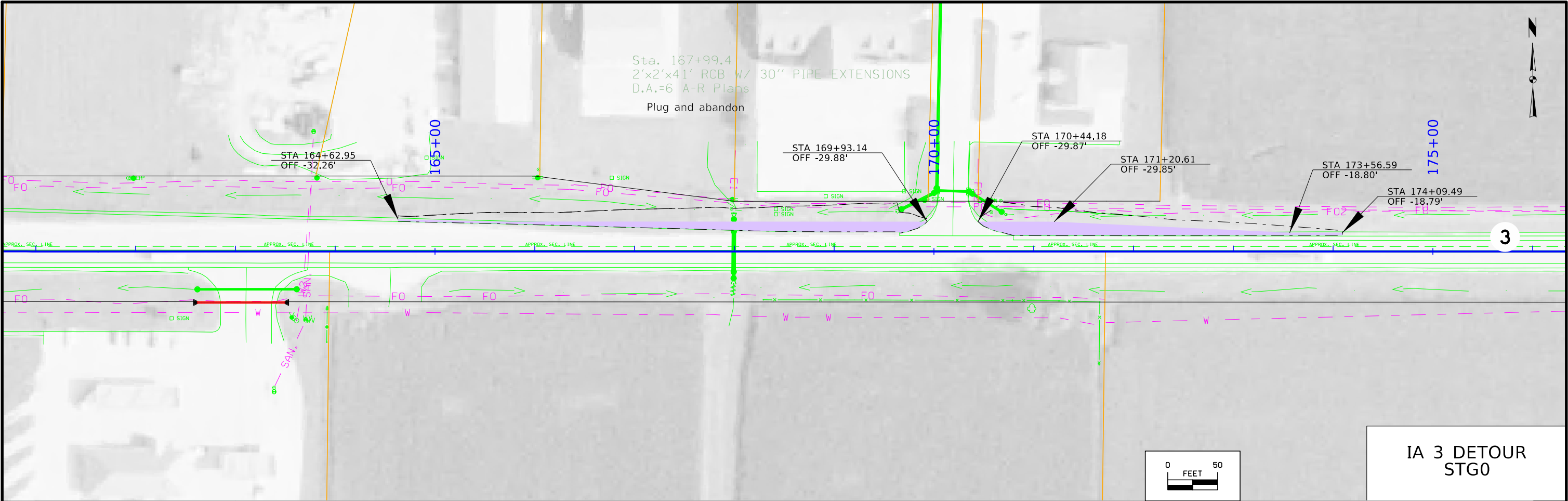


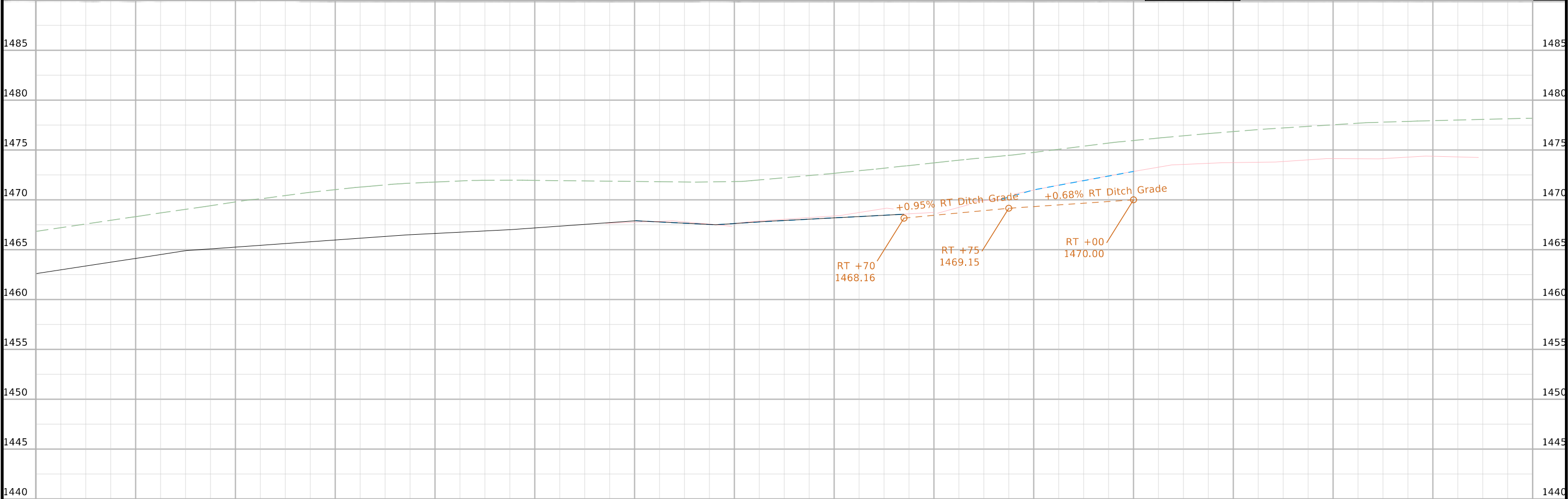
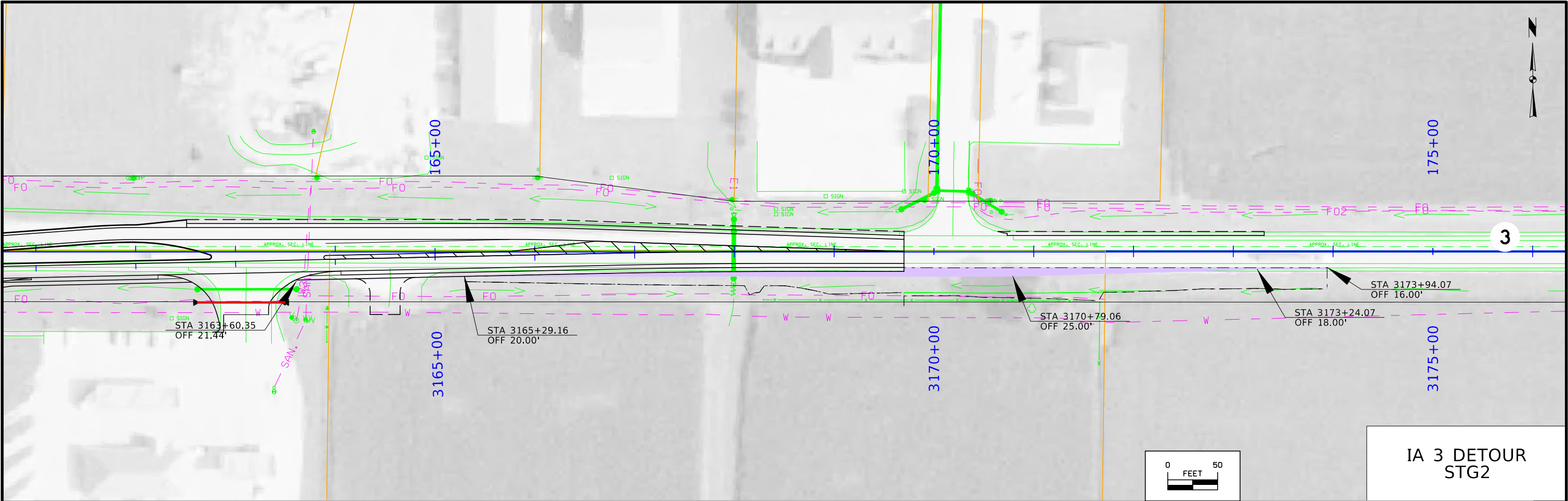






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161+00	162+00	163+00	164+00	165+00	166+00	167+00	168+00	169+00	170+00	171+00	172+00	173+00	174+00	175+00
FILE NO.	ENGLISH	DESIGN TEAM	Strum/Janus			Cherokee COUNTY			PROJECT NUMBER	HSIPX-003-2(086)--3L-18			SHEET NUMBER	F.3

[illegible]

SPIRAL OR CIRCULAR CURVE DATA

[illegible]

Survey Information

SURVEY INDEX

County: Cherokee
PIN: 22-18-003-010
Project Number: HSIPX-003-2(086)—3L-18
Location: IA 143 Intersection in Marcus
Type of Work: Roundabout
Project Directory: 1800301022

PROJECT DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 ADJUSTMENT)
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 04
(U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2018u2

Alignment Information

Alignment information is provided by the District 3 Land Survey Office.

Survey Personnel

Jason Arn – Survey Party Chief
Robert Fredrickson – Assistant Survey Party Chief

Date(s) of Survey

Begin Date 09/16/2022
End Date 10/20/2022

General Information

This survey is for the reconstruction of IA Hwy 3 and IA Hwy 143 intersection at Marcus for a potential roundabout. This project is a Full Field DTM survey.

Utility Information

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

Project Control

Coordinates were determined for primary project control points by conducting two concurrent six-hour static observations. Post processing is constrained to nearby Iowa Real Time Network reference stations. An additional primary control point was placed in the project corridor using a GNSS Base-Rover setup relative to Pt. 180030466 and Pt. 180030471. Three observations with a minimum of 2-hours between were collected and used in a weighted average. For additional details of the control survey, contact the Preliminary Survey department.

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 04 (U.S. Survey Foot)

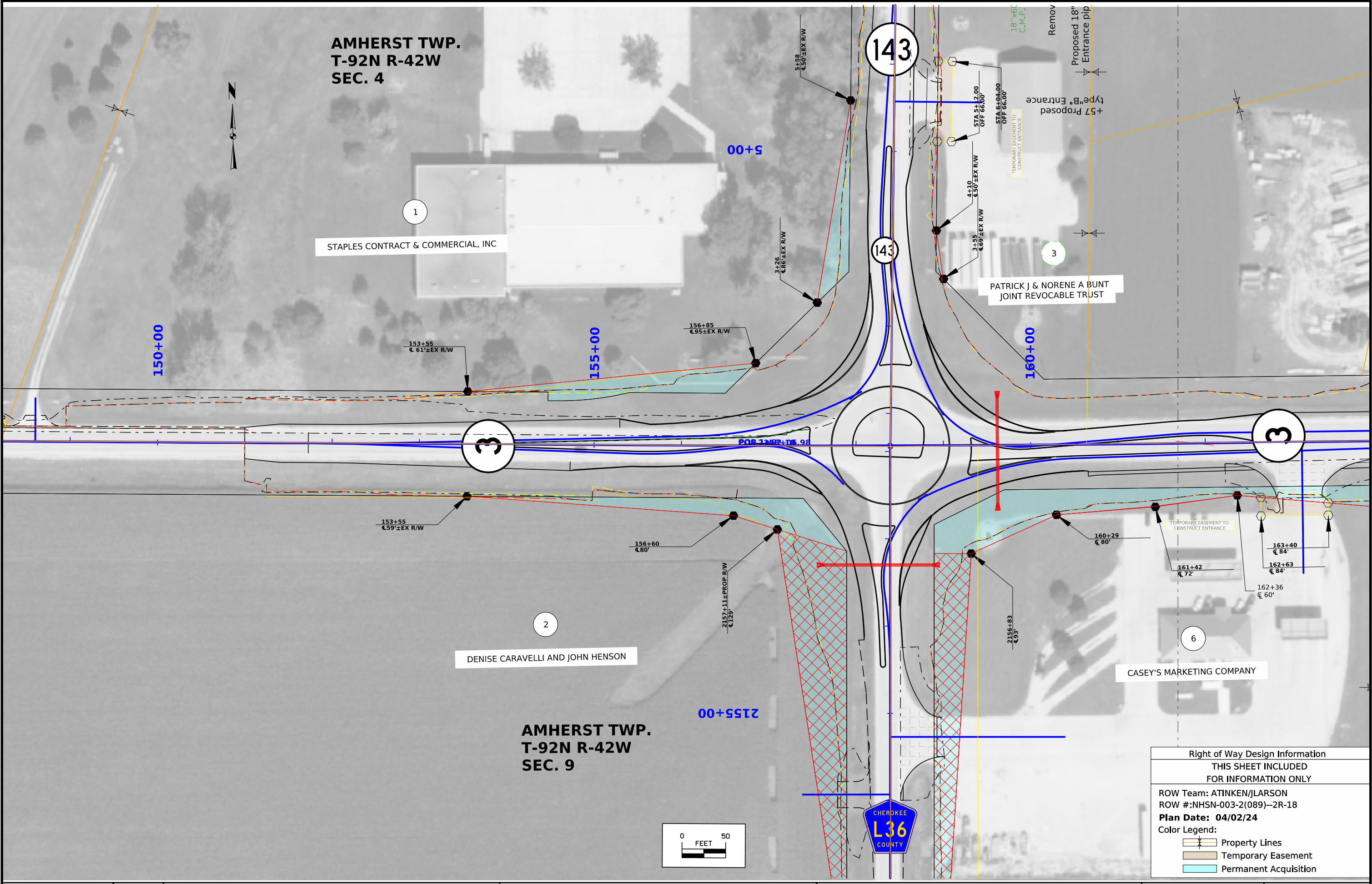
VERT. DATUM: NAVD88 - Geoid Model: 2018u2

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

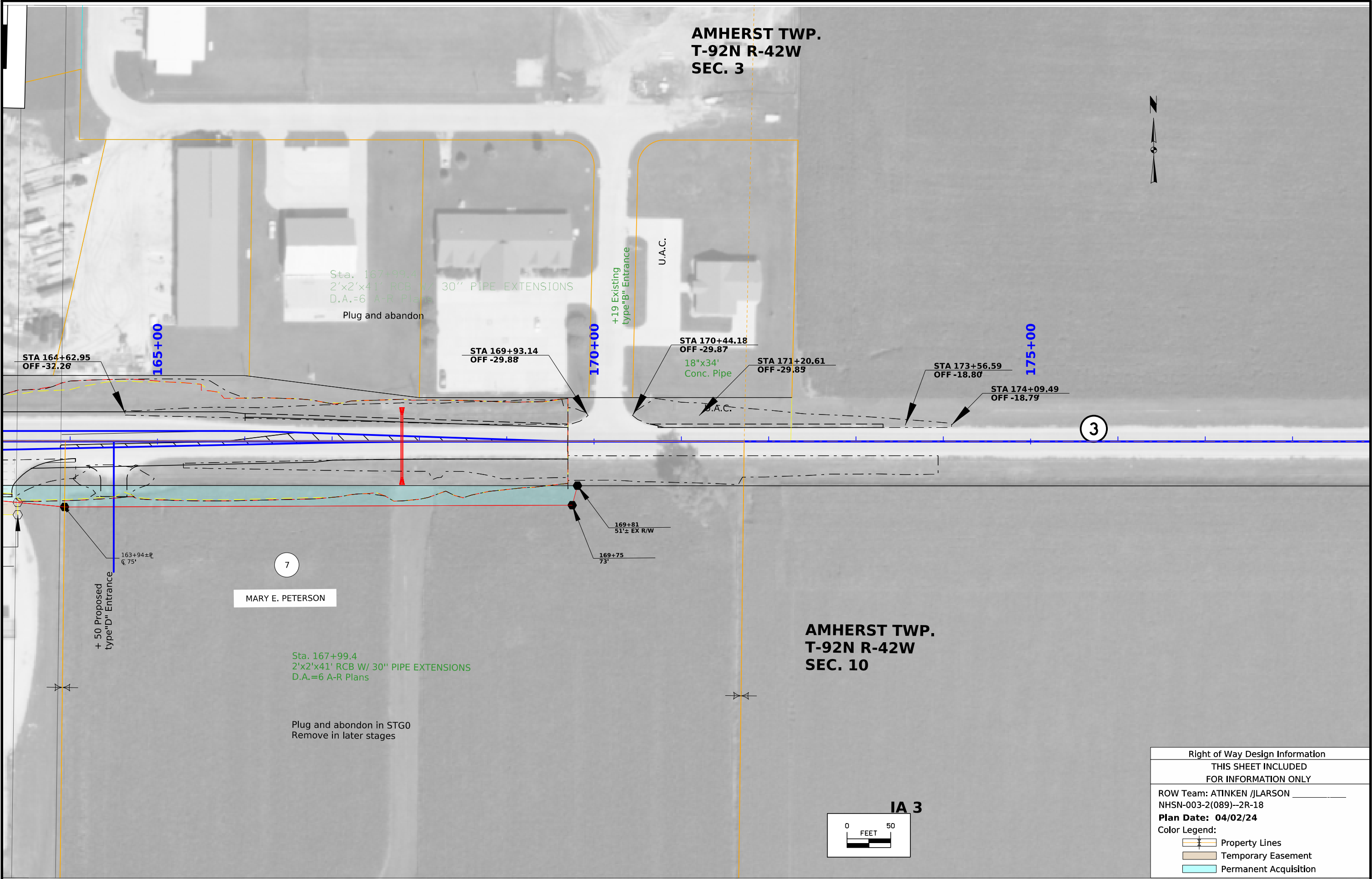
HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING
HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (laRTN 2019 Adjustment)
la. Regional Coordinate System Zone 04 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: 2018u2

Point Name	Northing	Easting	Elevation	Feature Definition-Description
180030466	8701583.38	14237972.06	1461.61	CP 180030466 SET FENO MONUMENT 0.5 MI WEST OF HWY 3 AND HWY 143 INTERSECTION IN THE SOUTH DITCH WEST SIDE OF FIELD ENTRANCE
180030471	8701511.93	14240564.28	1457.79	CP 180030471 FND CONC MONUMENT IN GOOD CONDITION IN SW QUAD OF HWY 3 AND HWY 143 INTERSECTION
181430003	8702943.16	14240724.54	1473.63	CP 181430003 FND CONC MONUMENT IN GOOD CONDITION IN NE QUAD OF HWY 143 AND EAGLE AVE INTERSECTION IN MARCUS

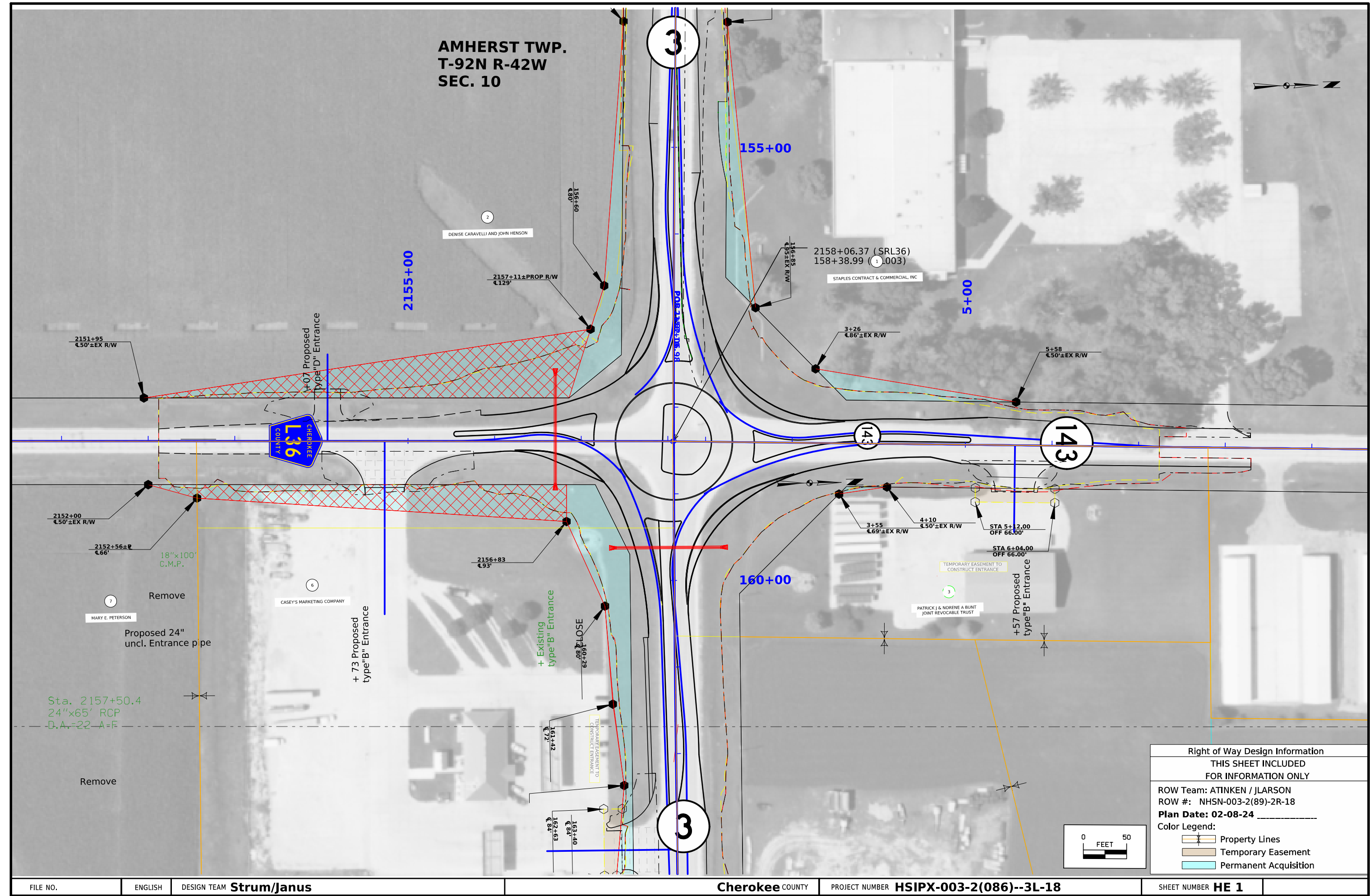
NO ACCESS RIGHTS ARE TO BE ACQUIRED ON THIS PROJECT.

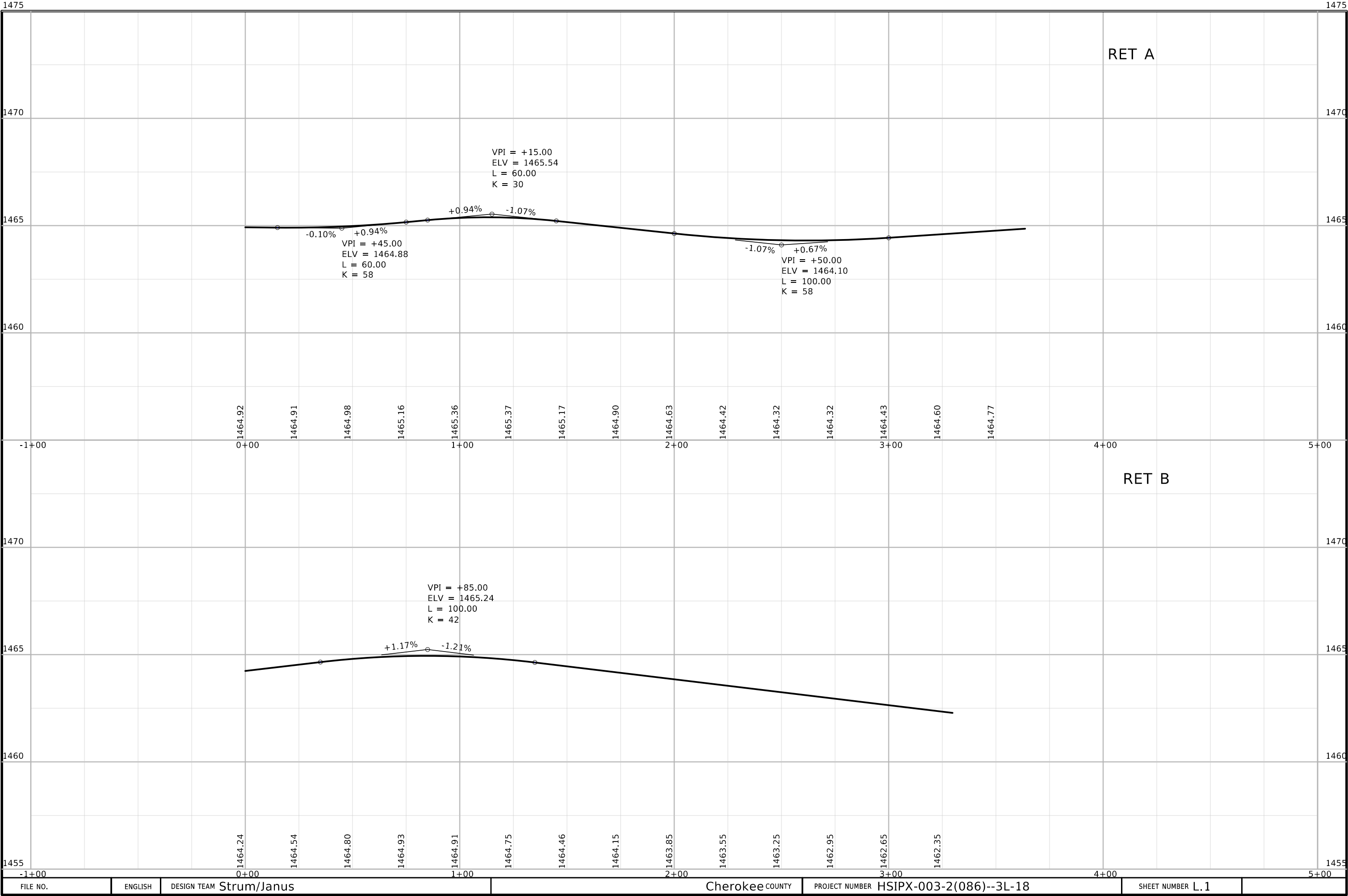


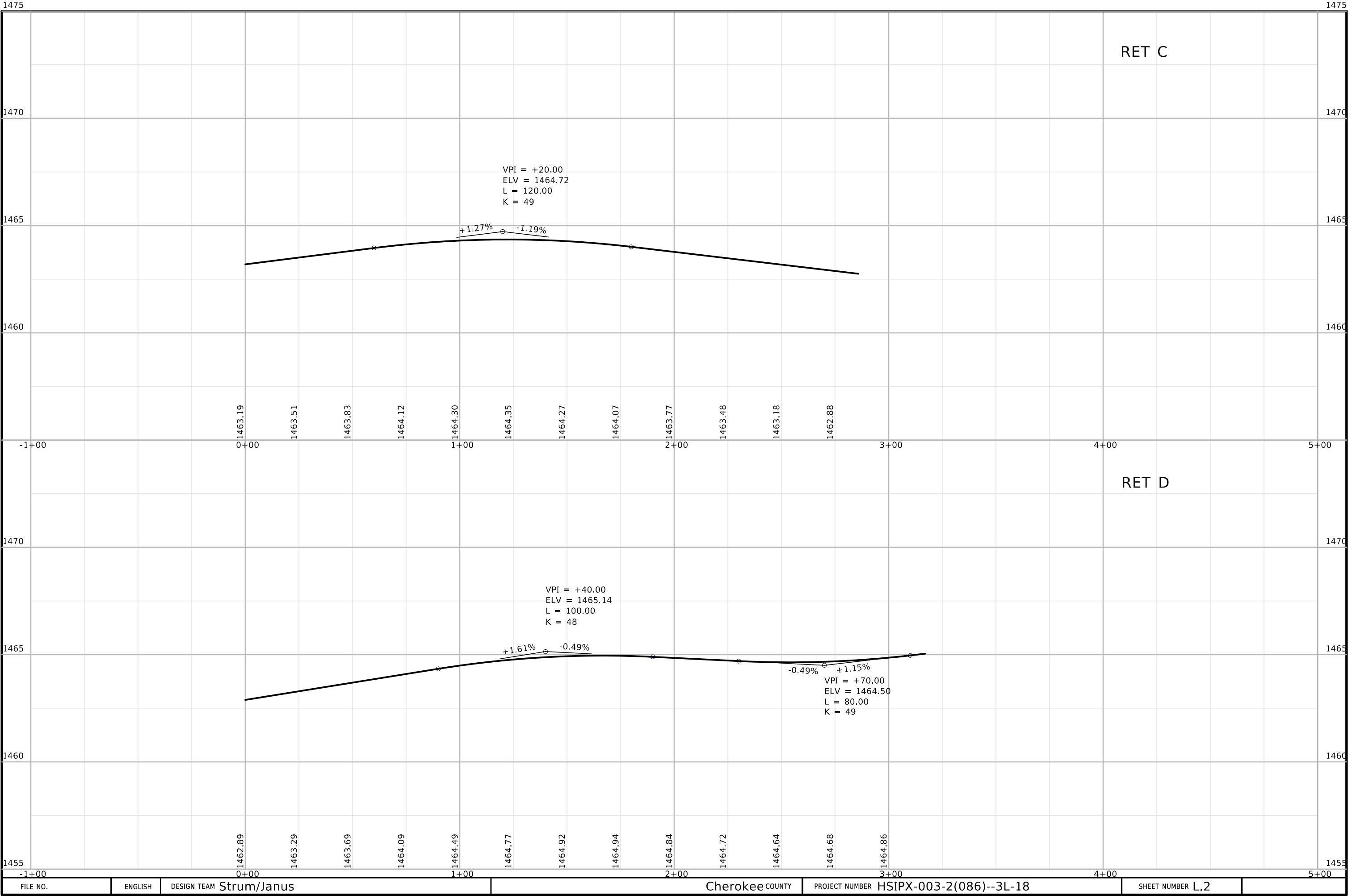
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10/8/2024	atinken	Strum/Janus		HSIPX-003-2(086)--3L-18	H 1

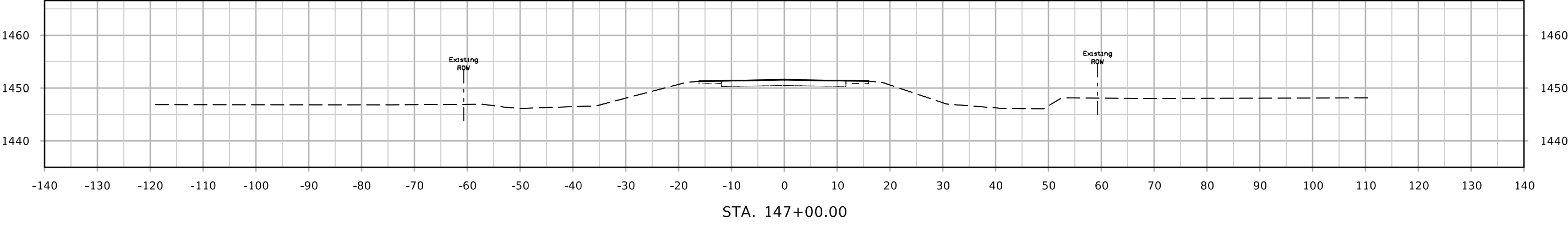
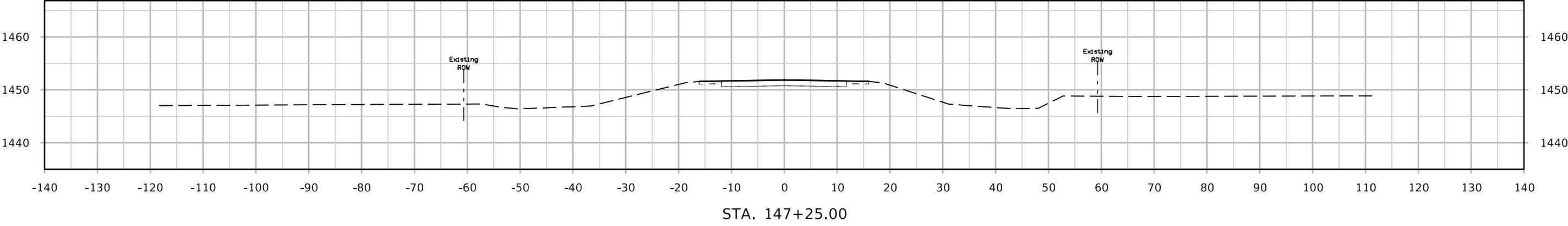
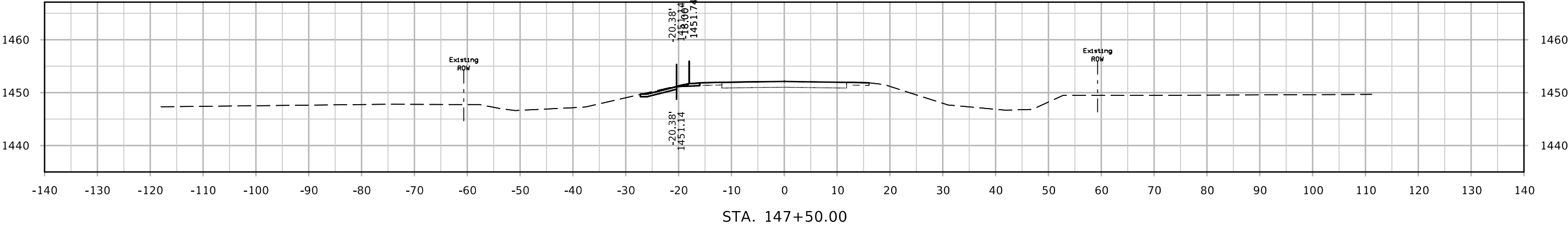


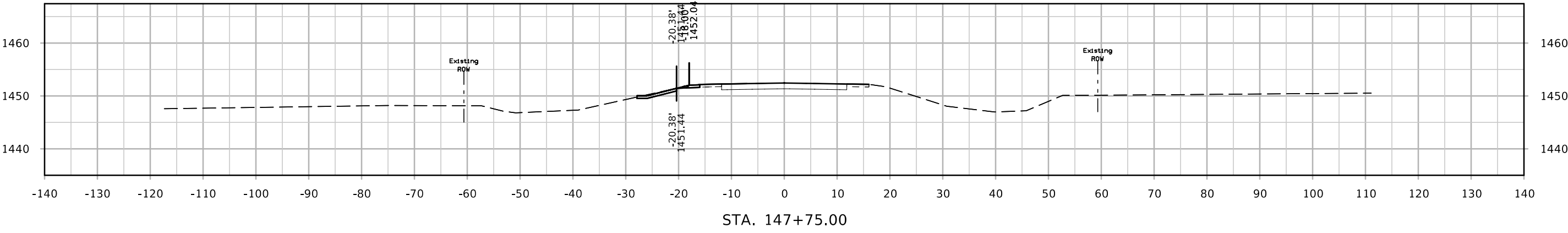
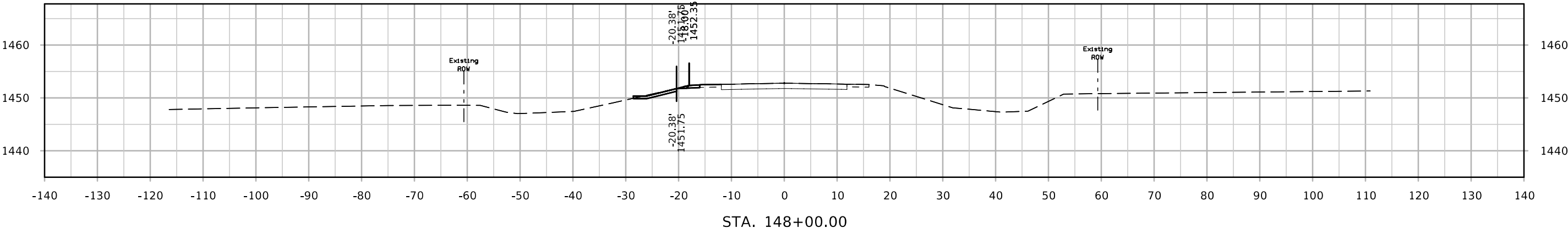
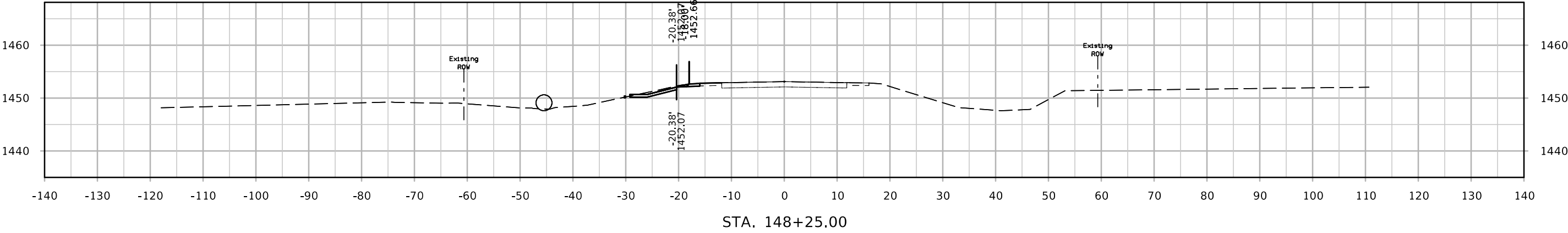
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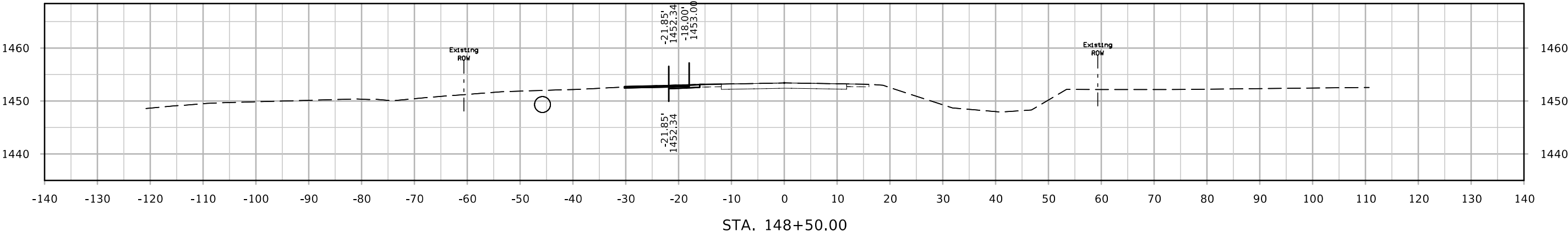
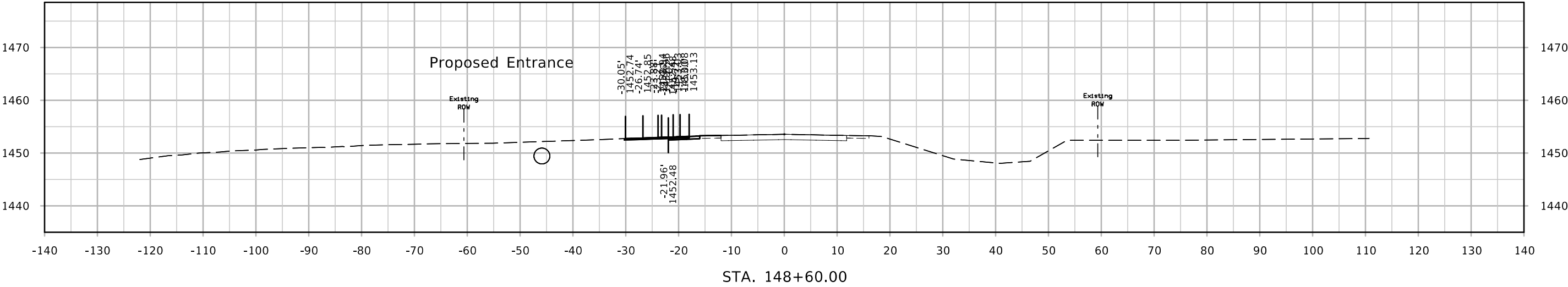
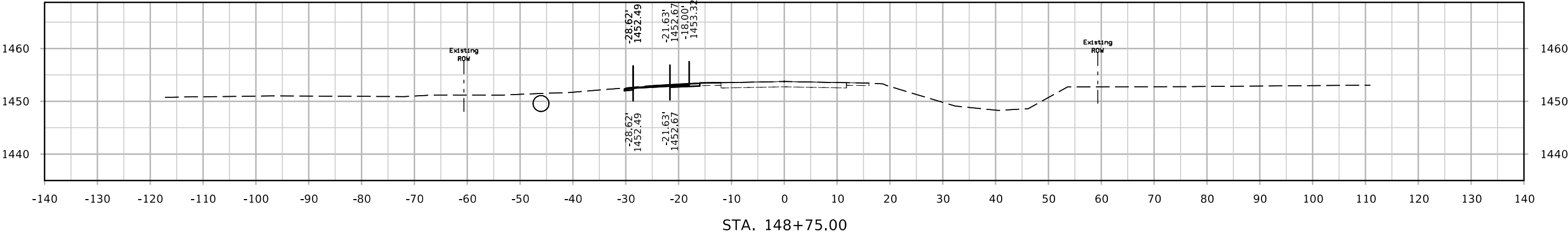


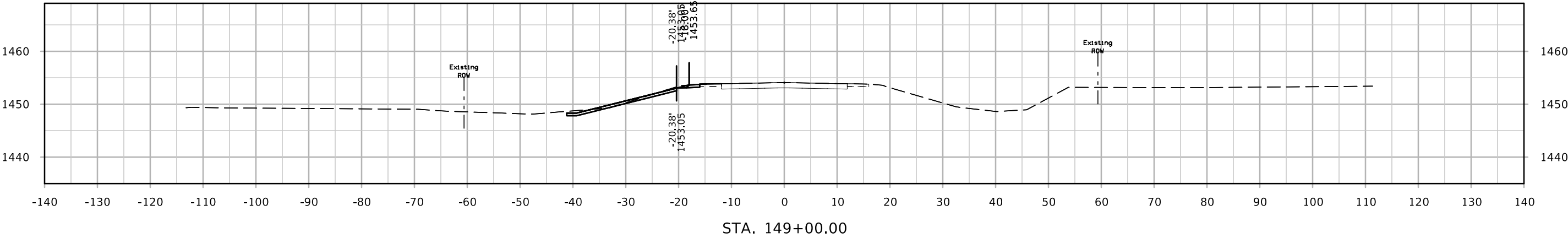
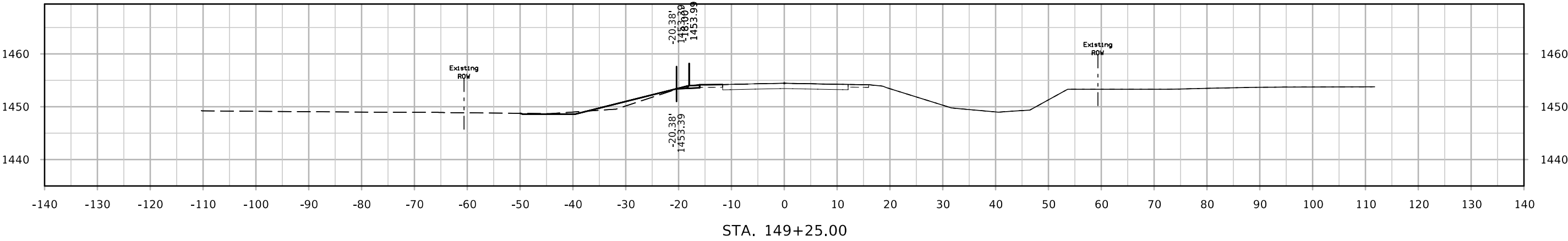
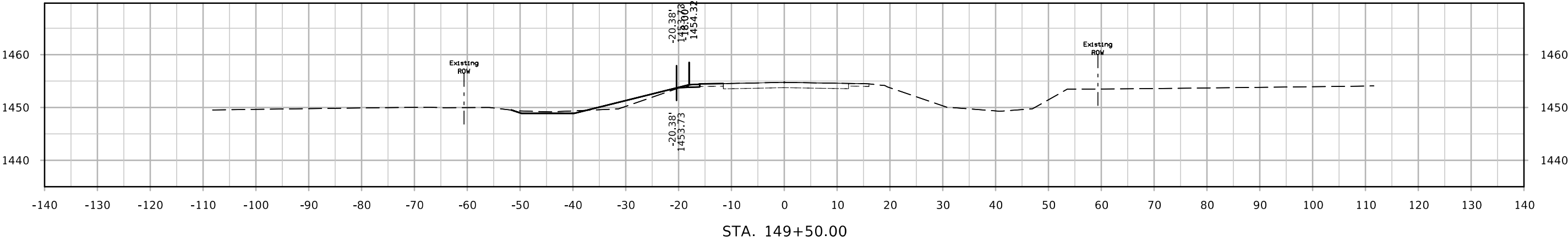


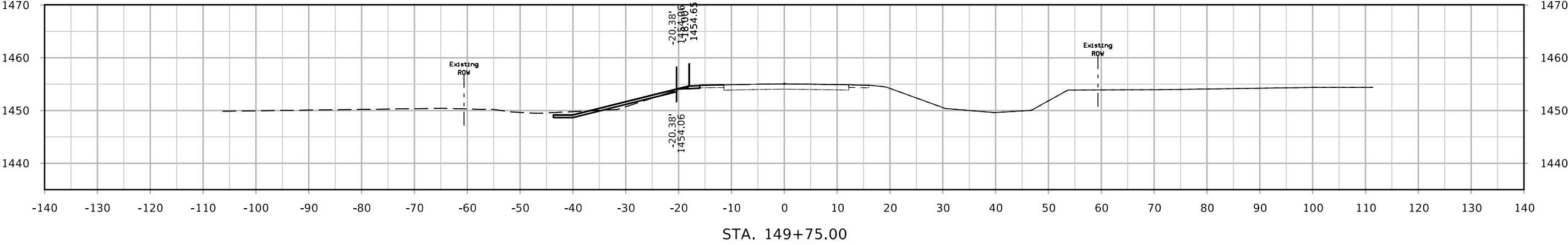
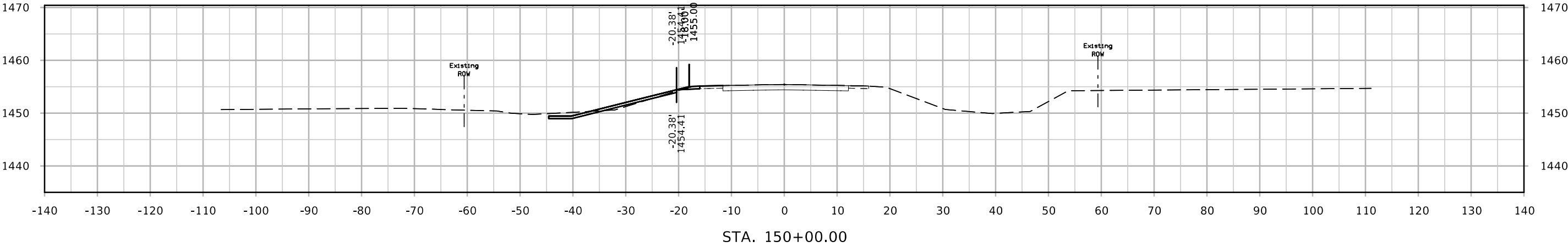
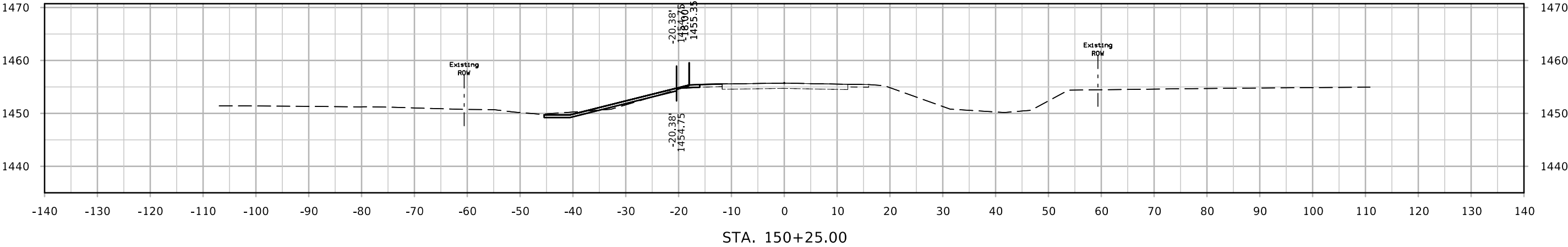


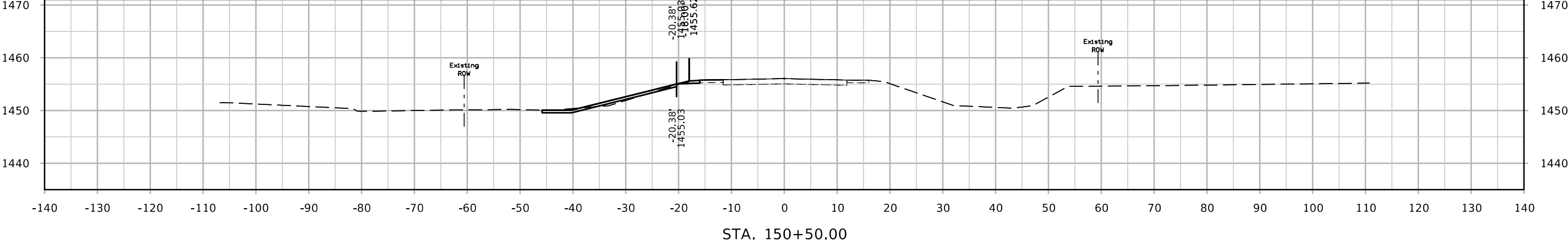
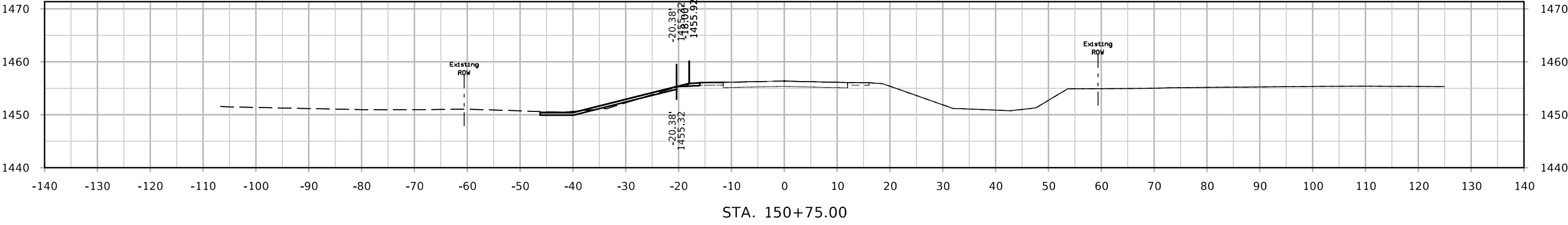
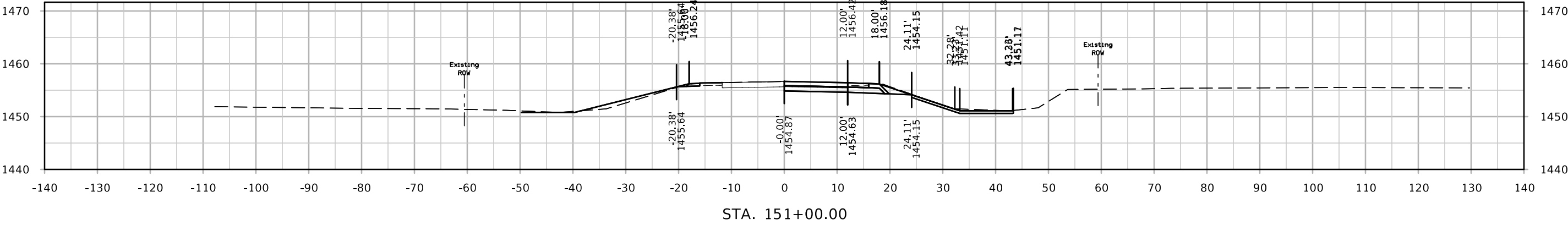


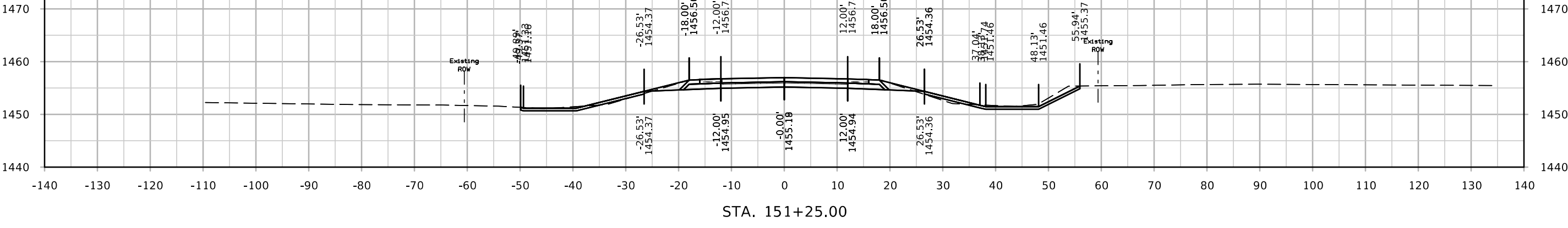
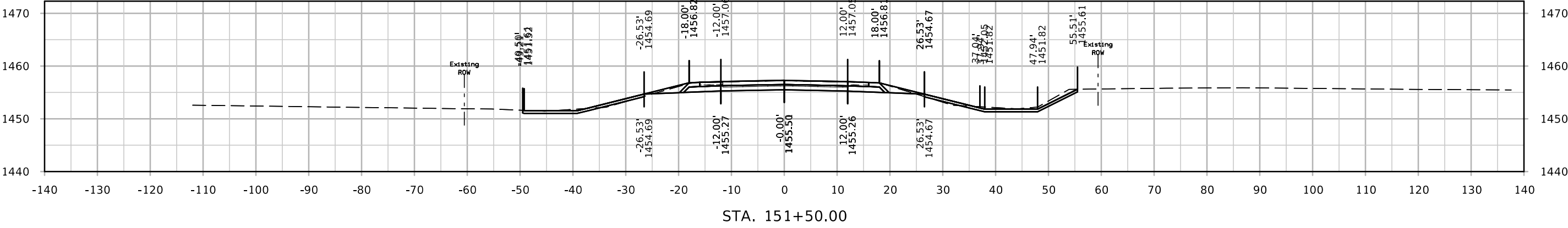
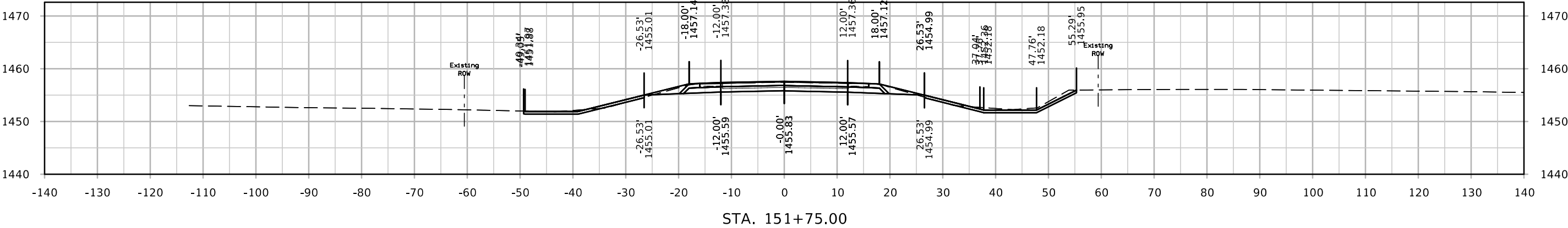


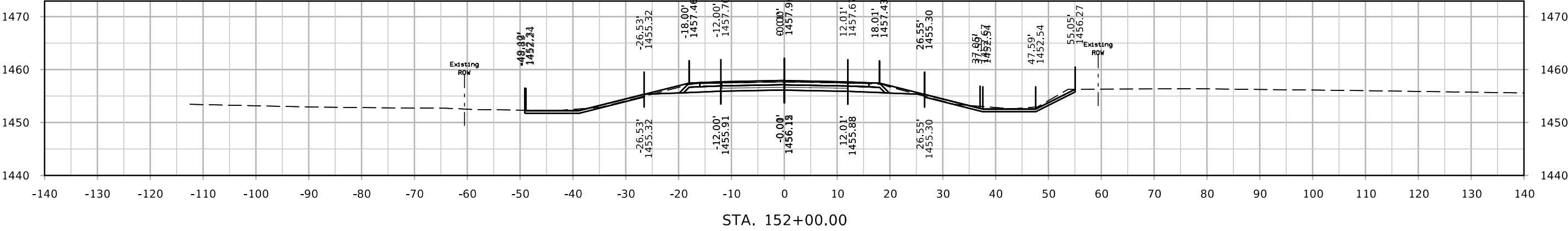
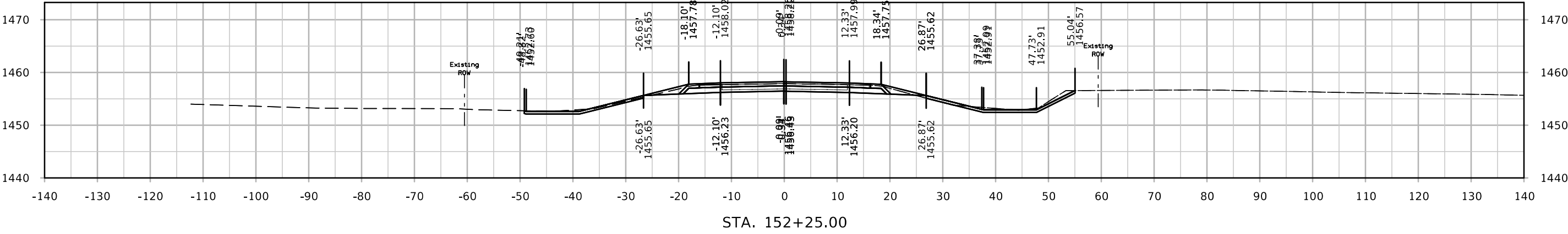
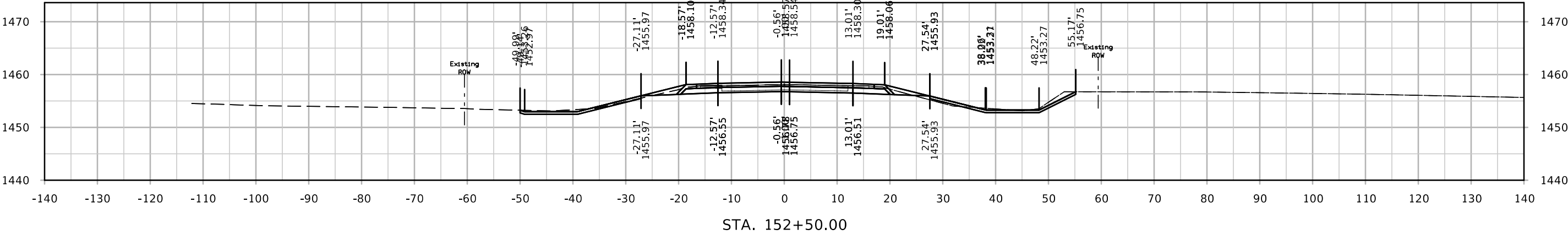


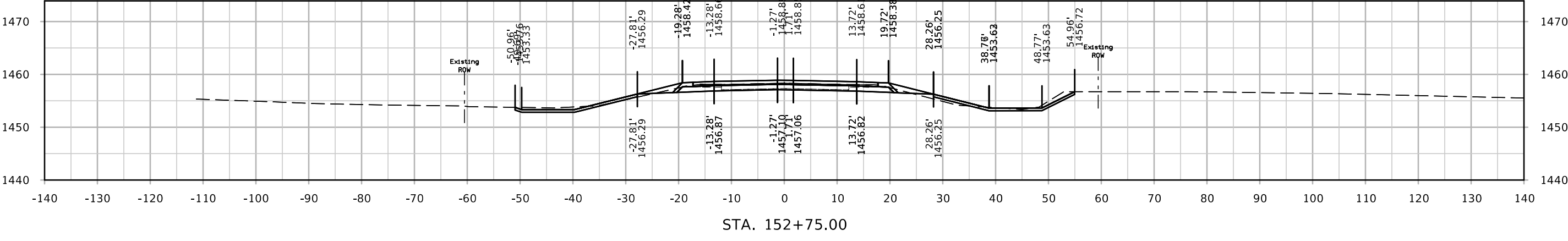
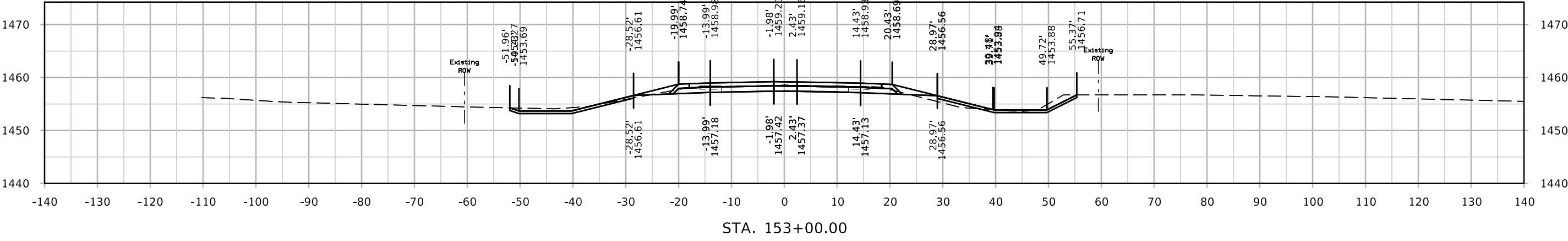
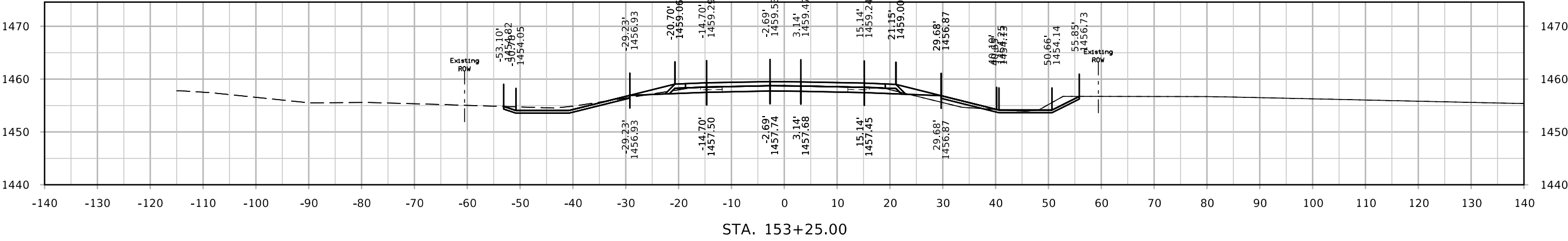


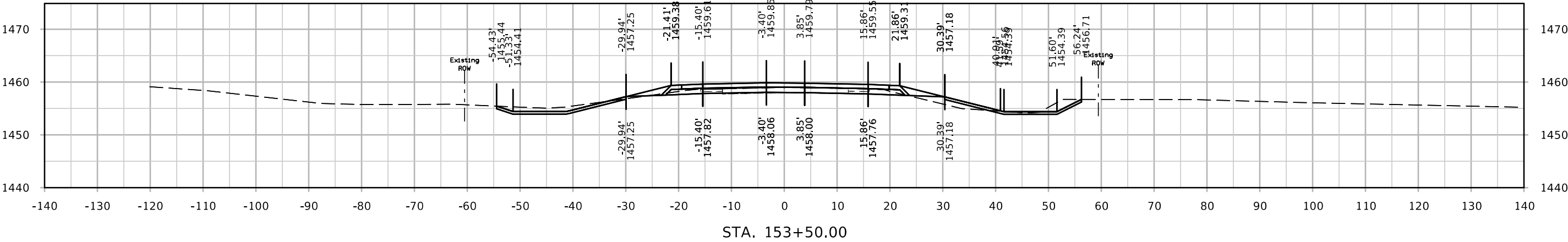
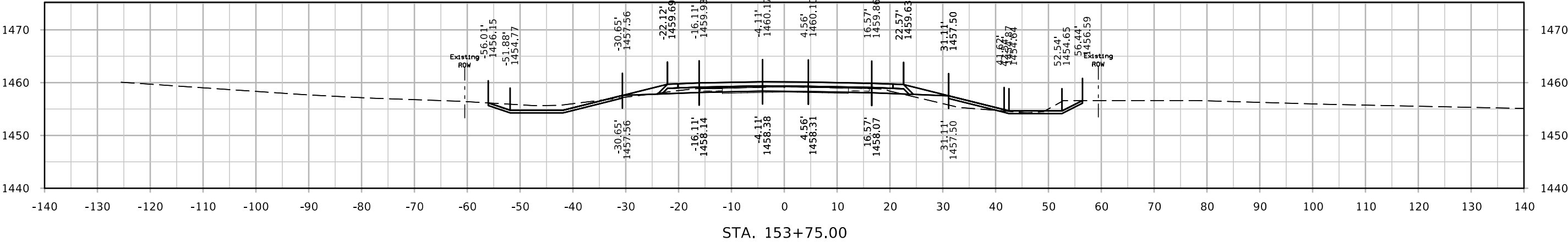
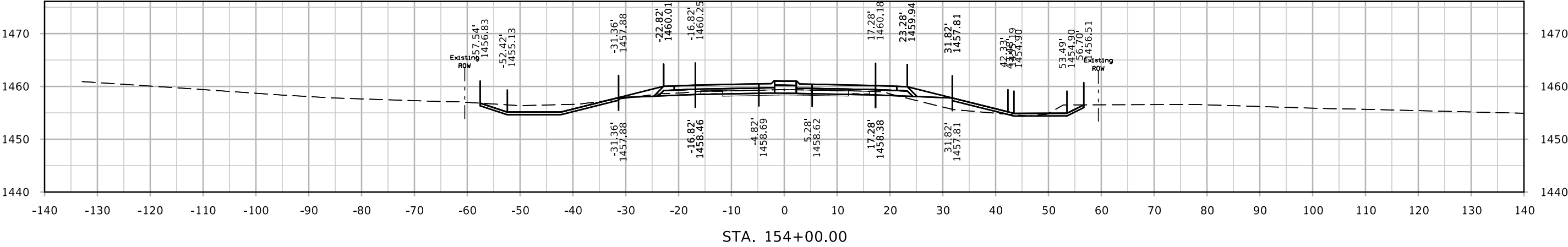


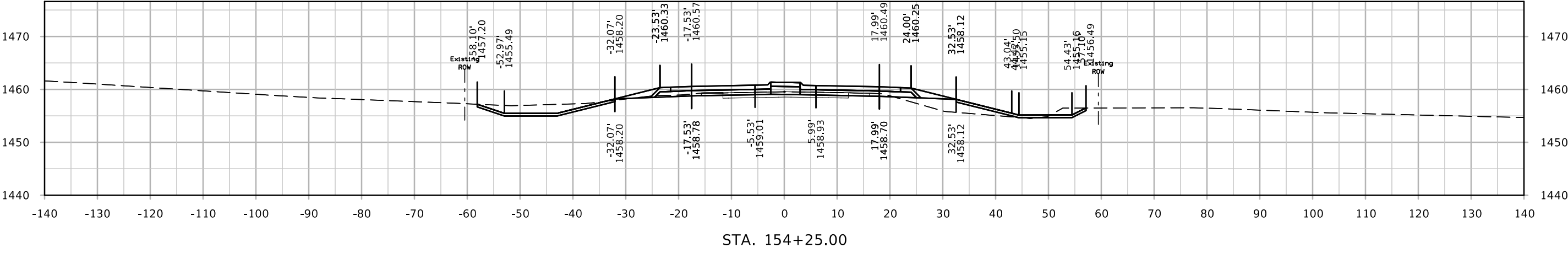
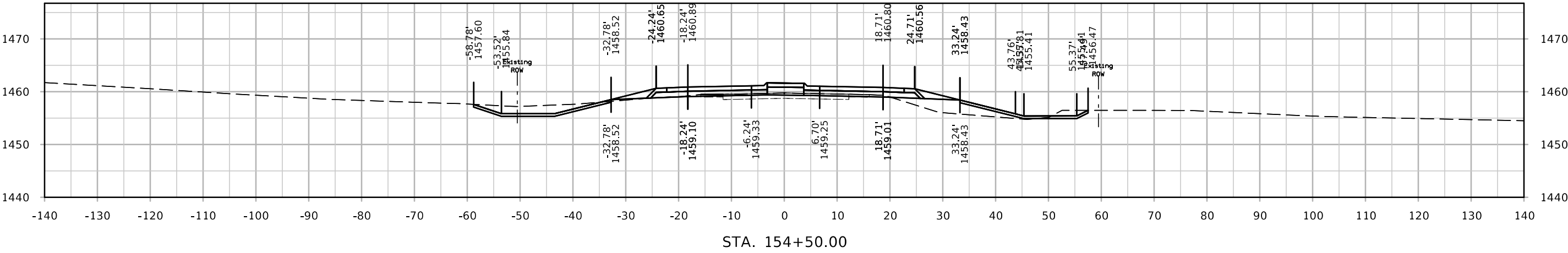
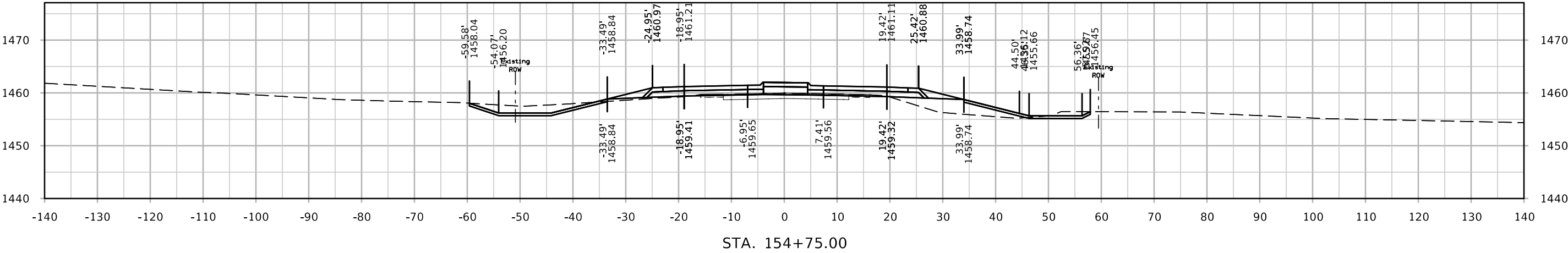


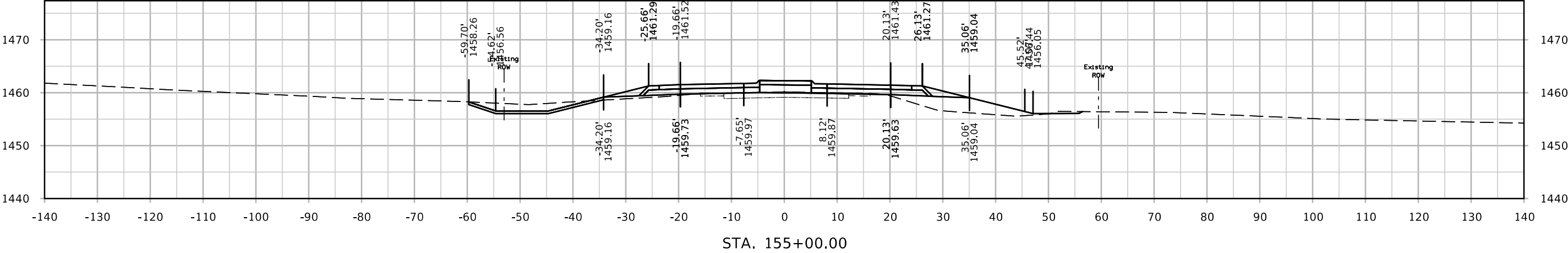
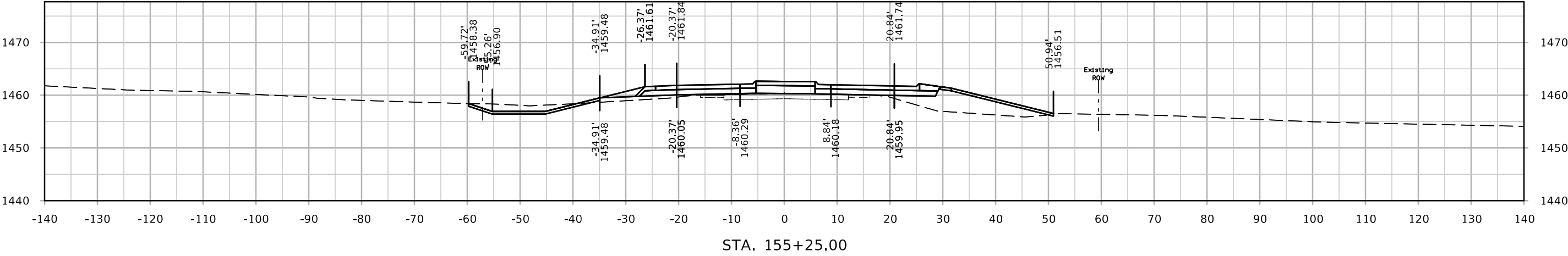
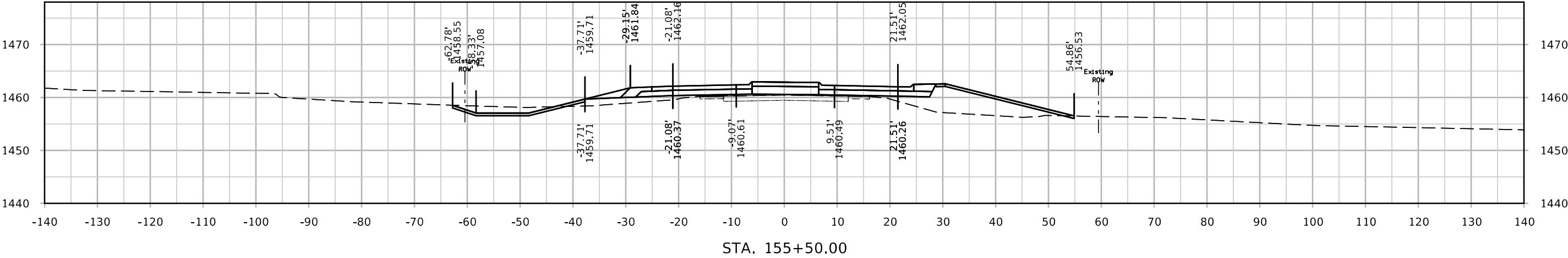


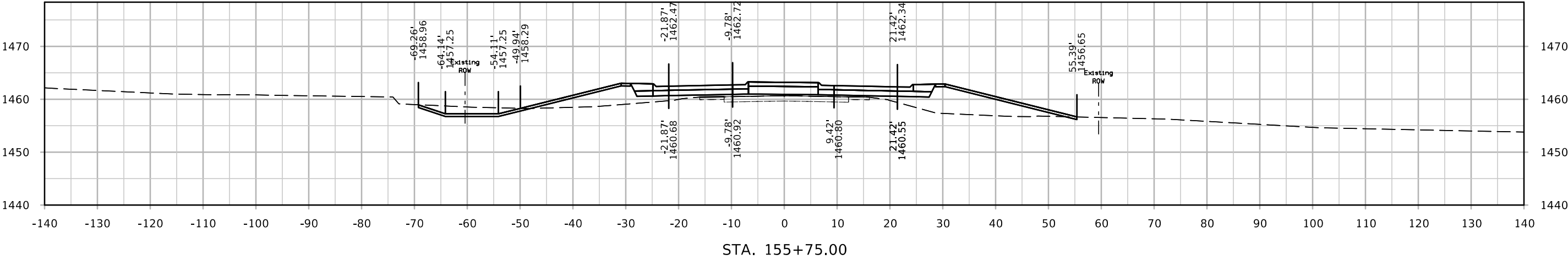
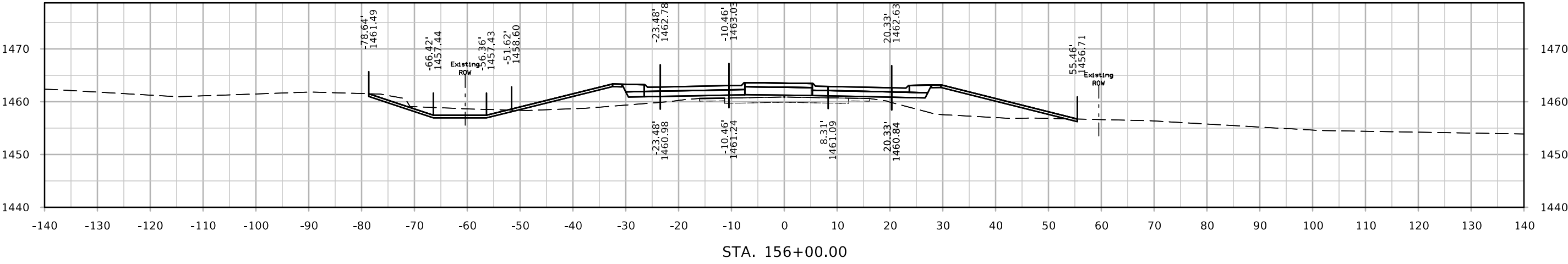
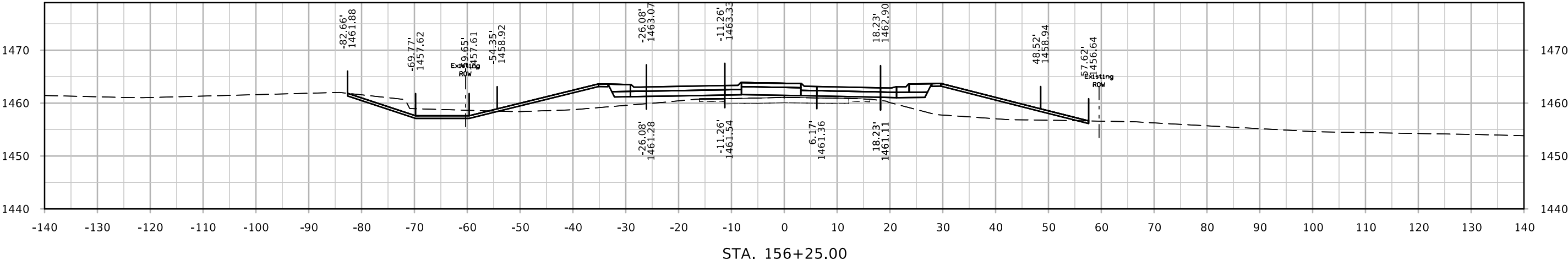




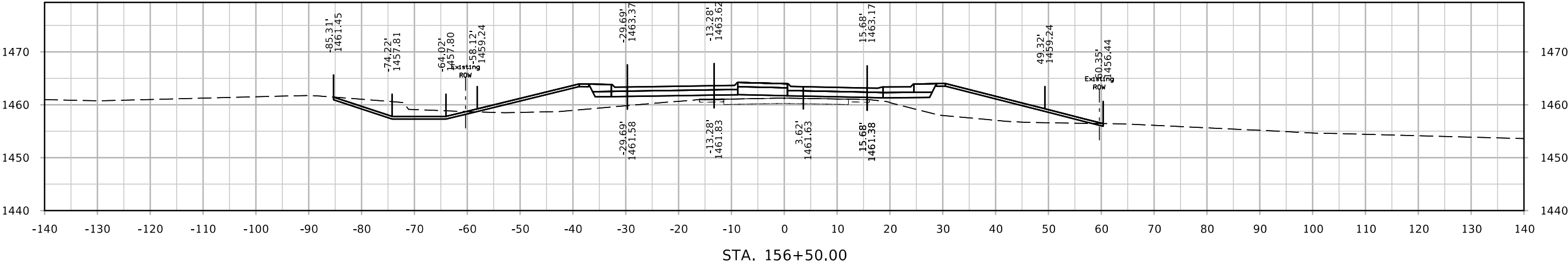
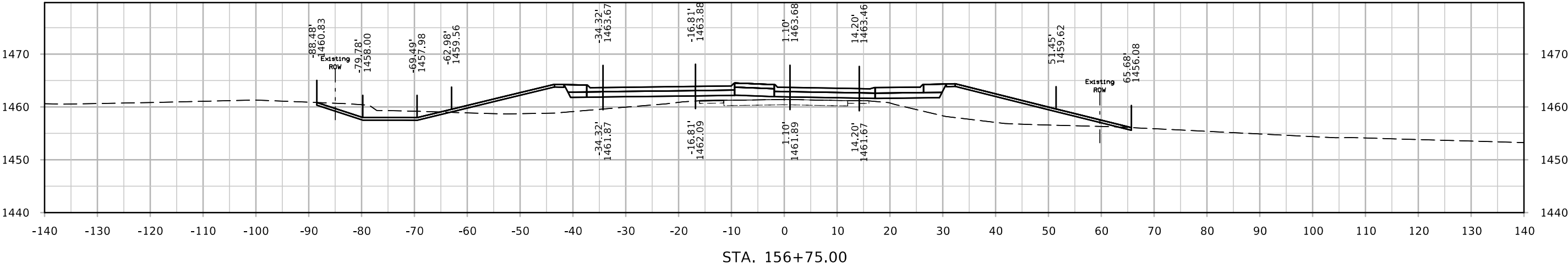
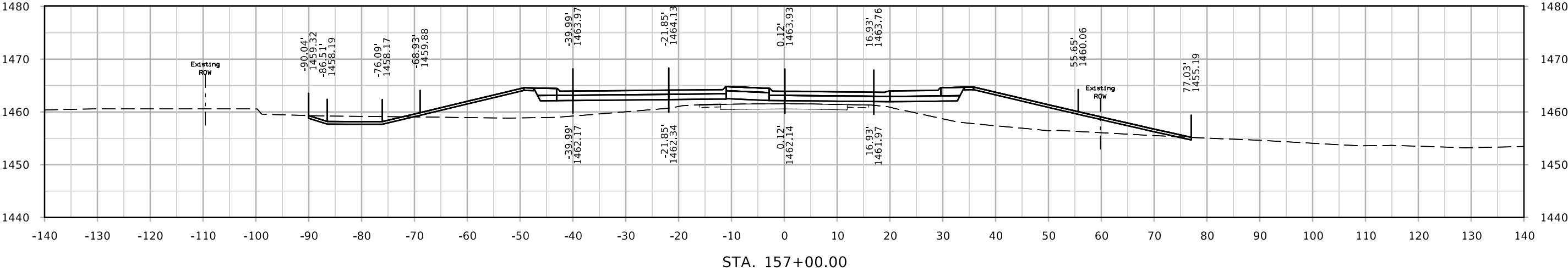


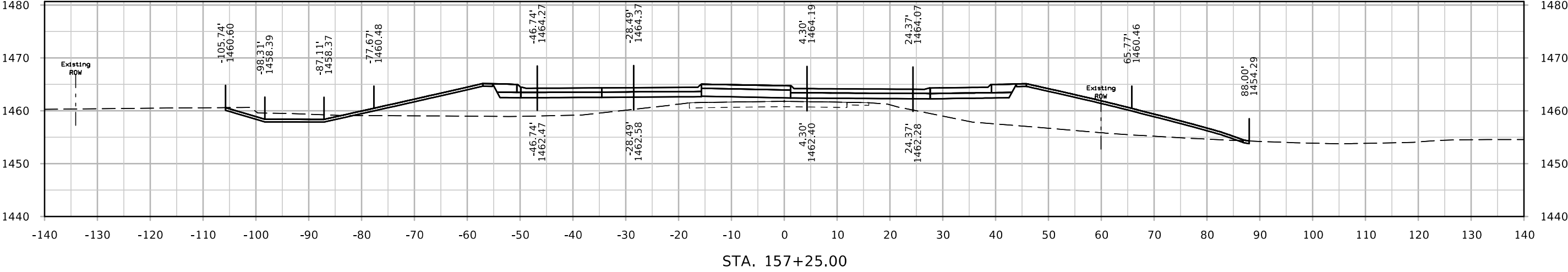
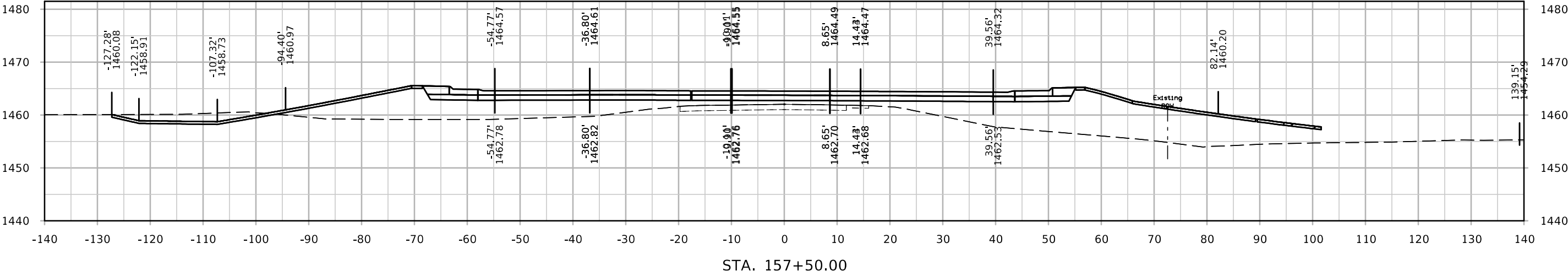
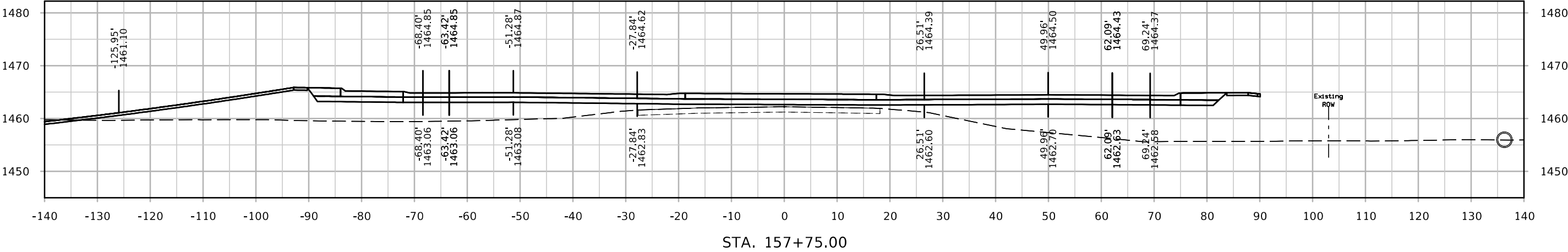


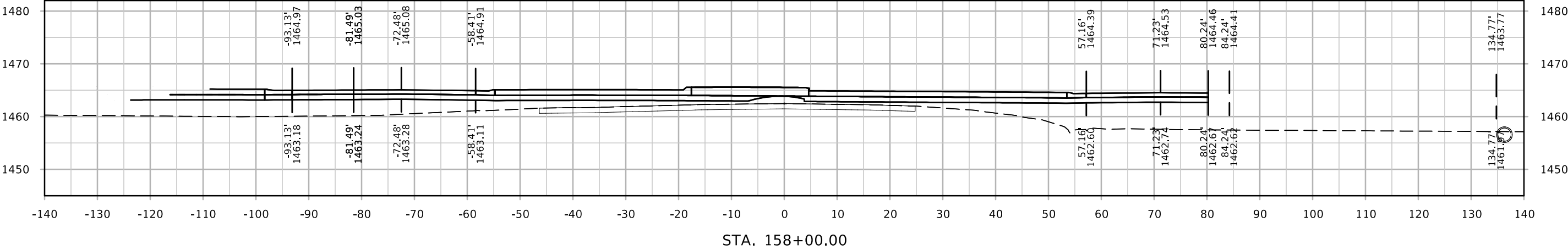
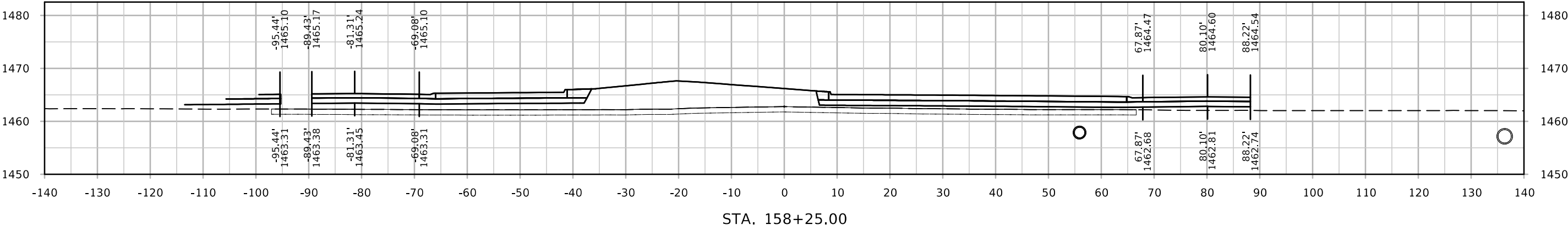
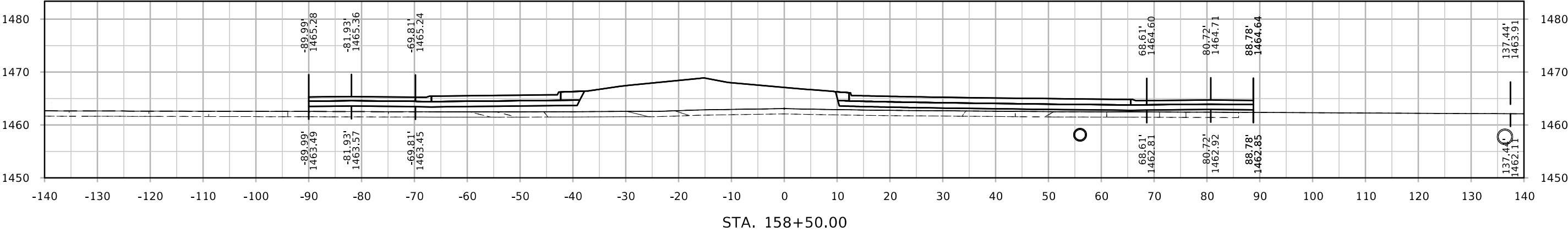


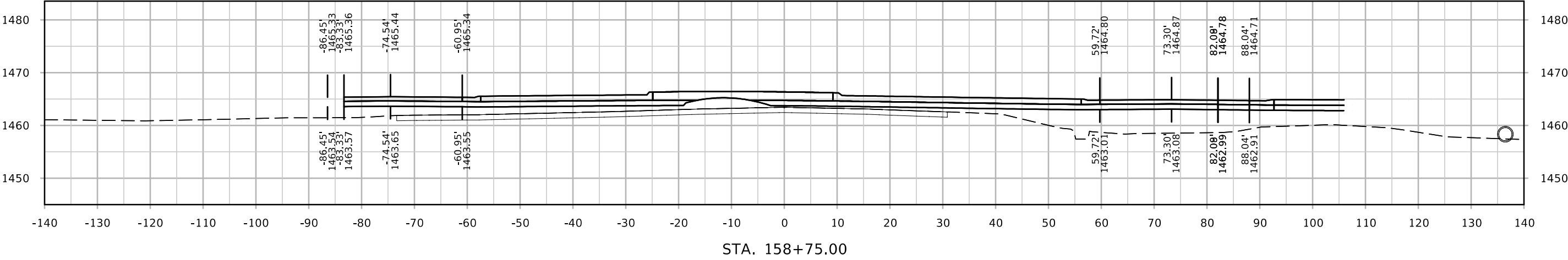
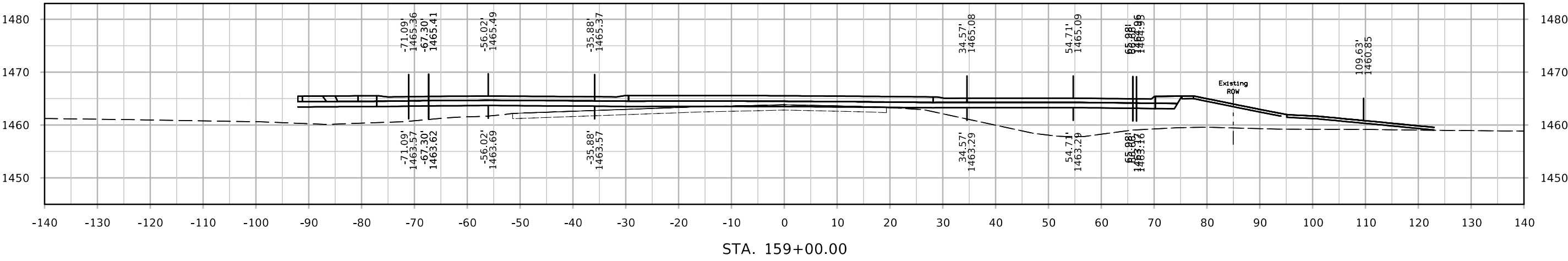
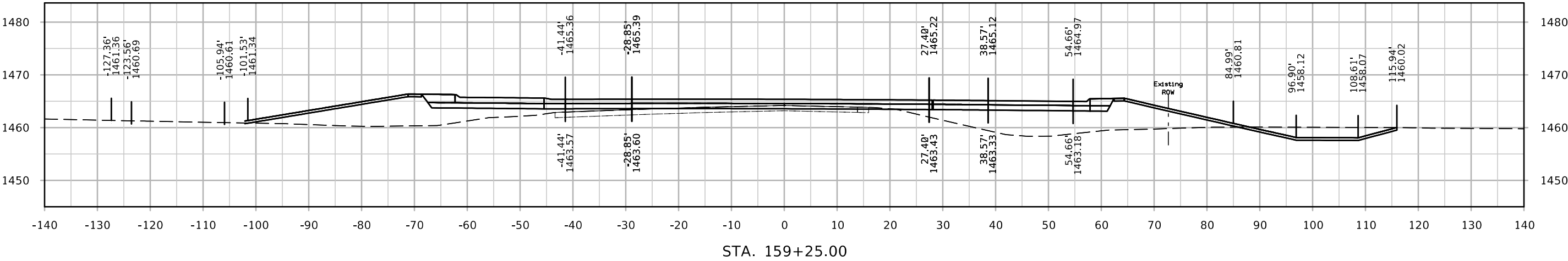


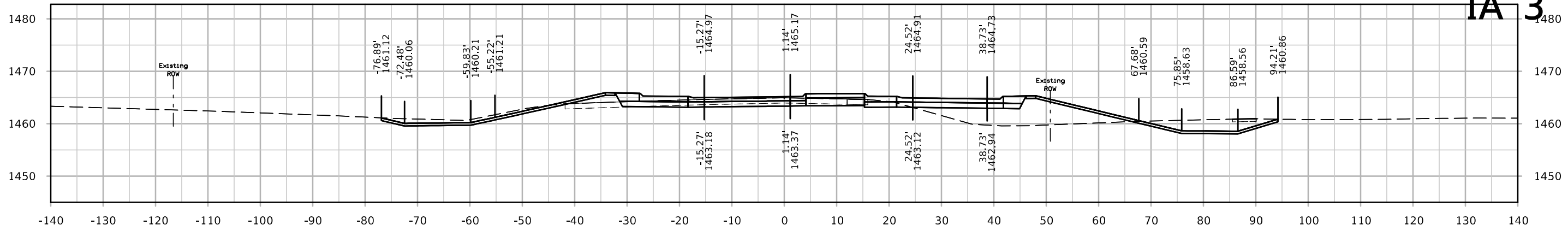
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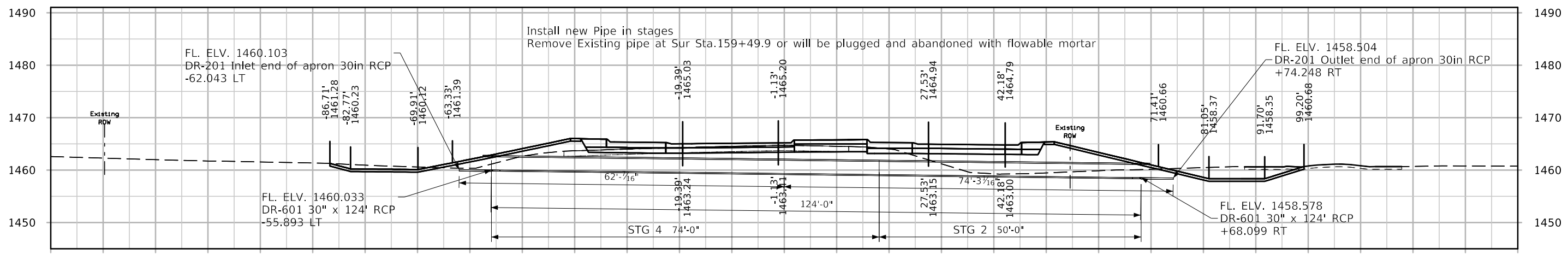




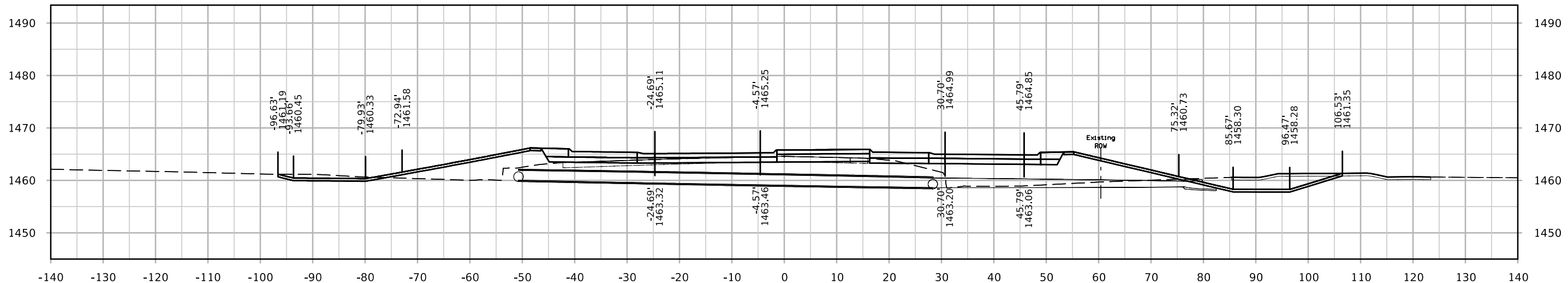




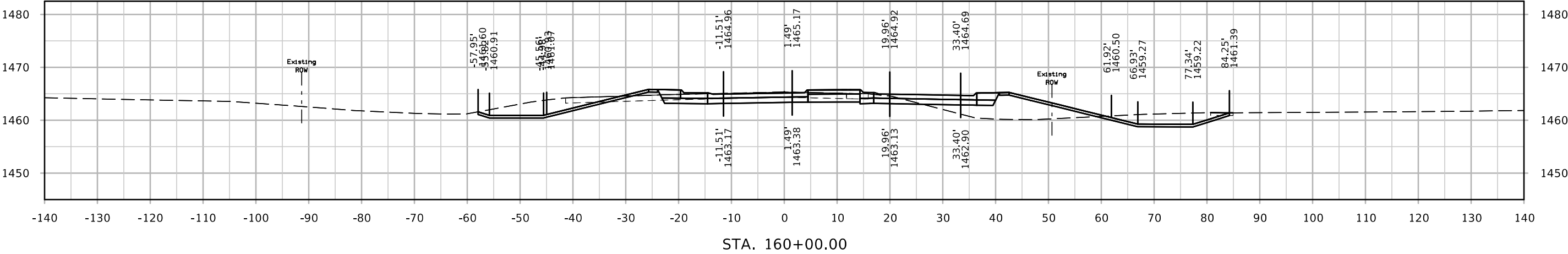
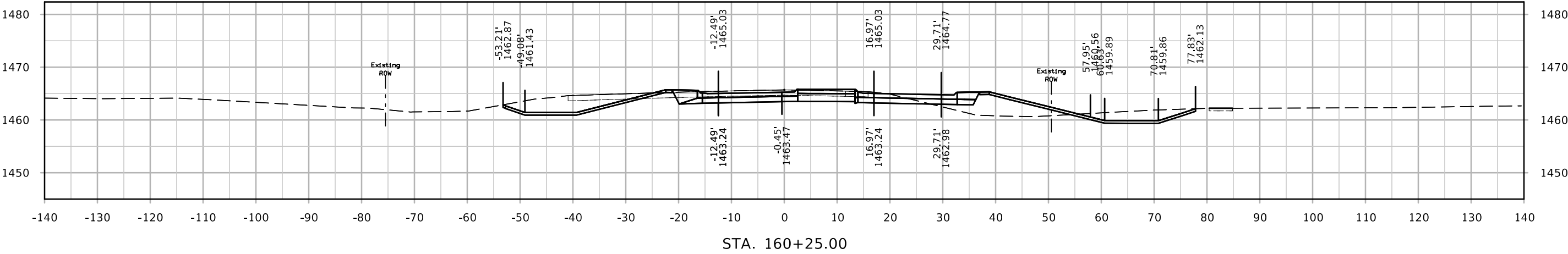
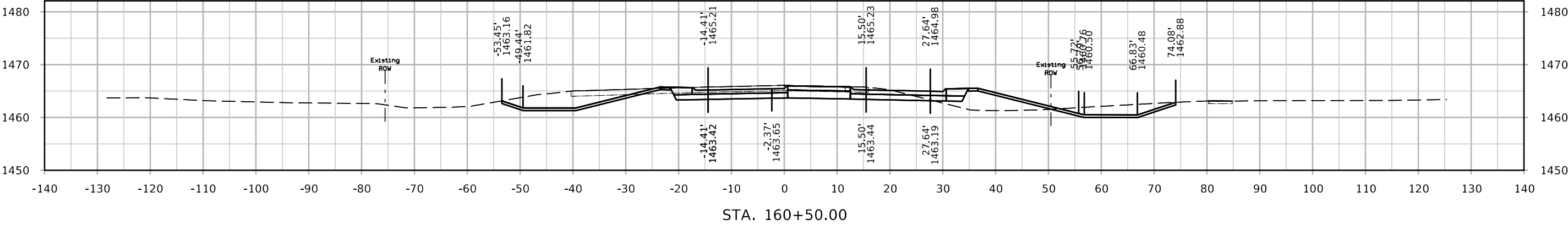
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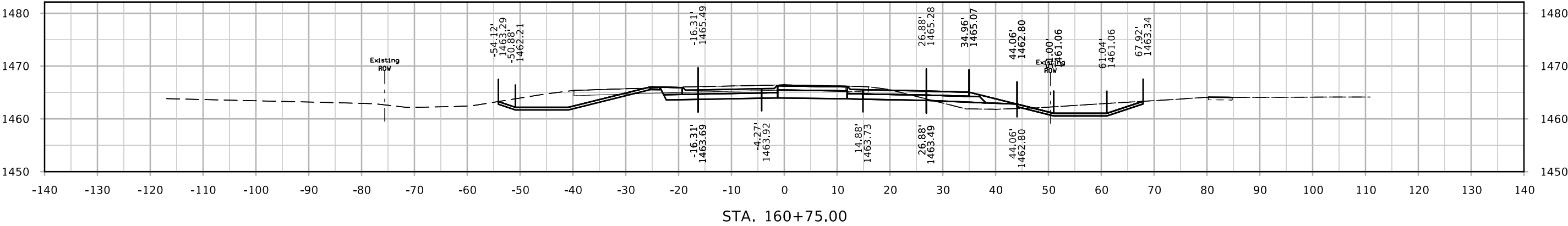
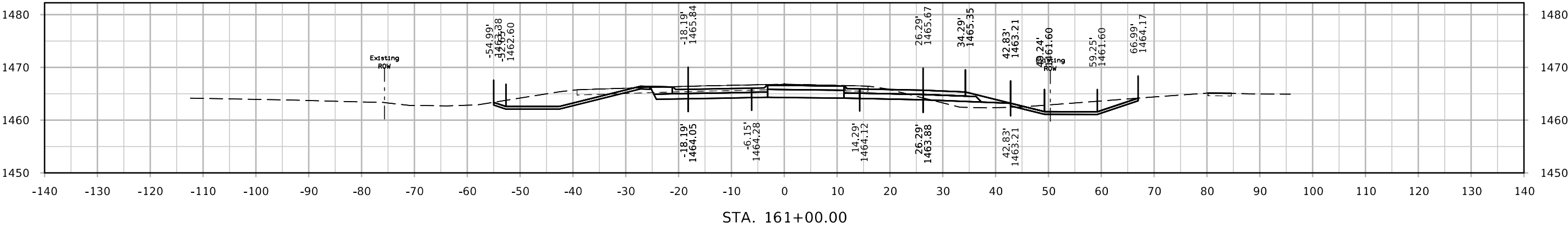
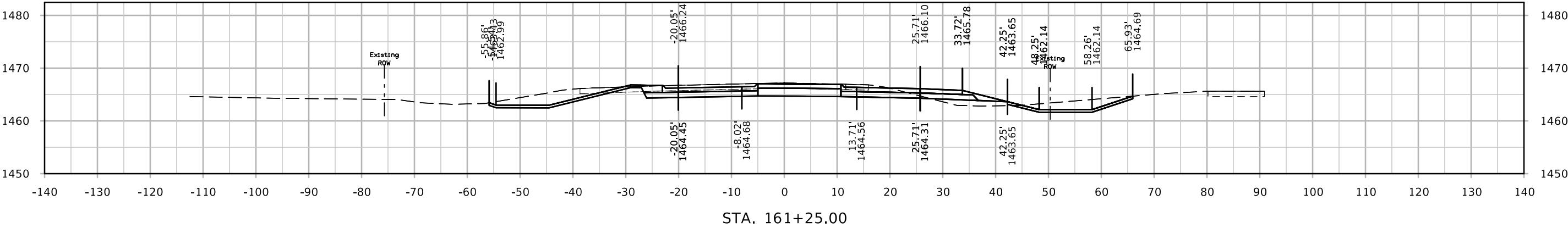


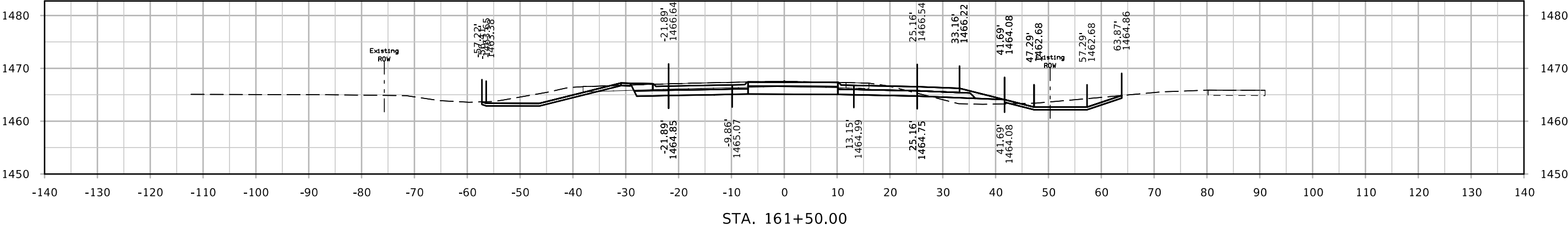
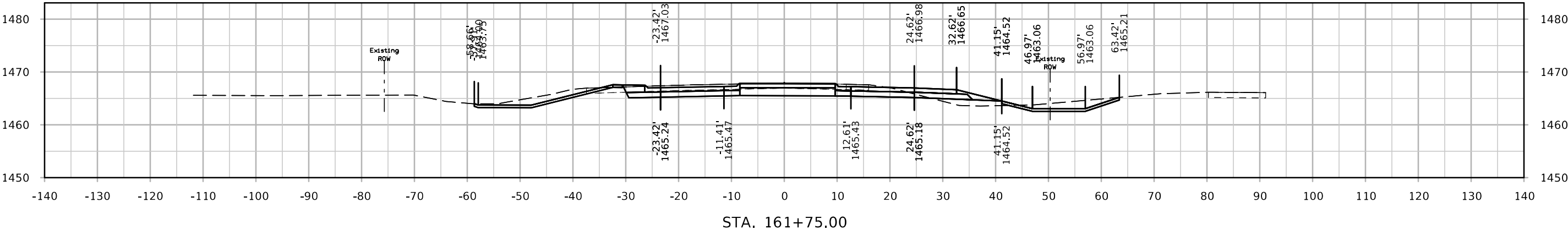
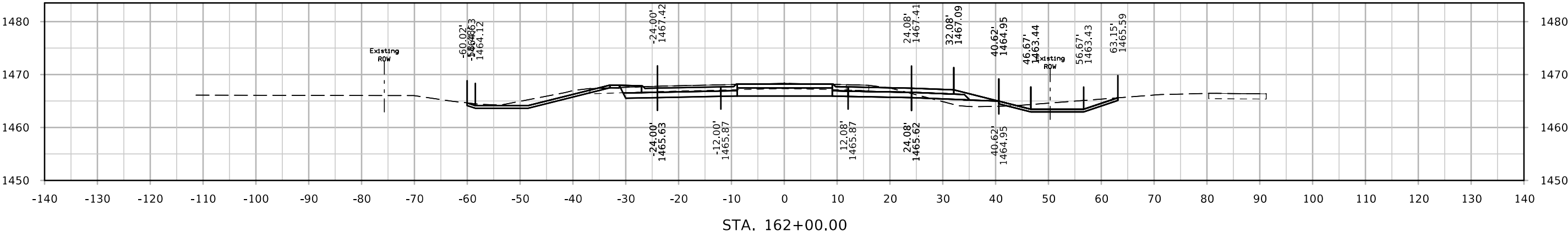
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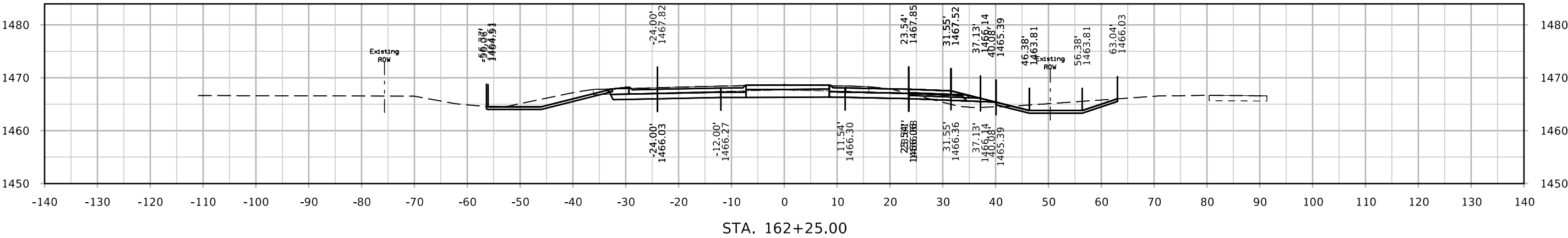
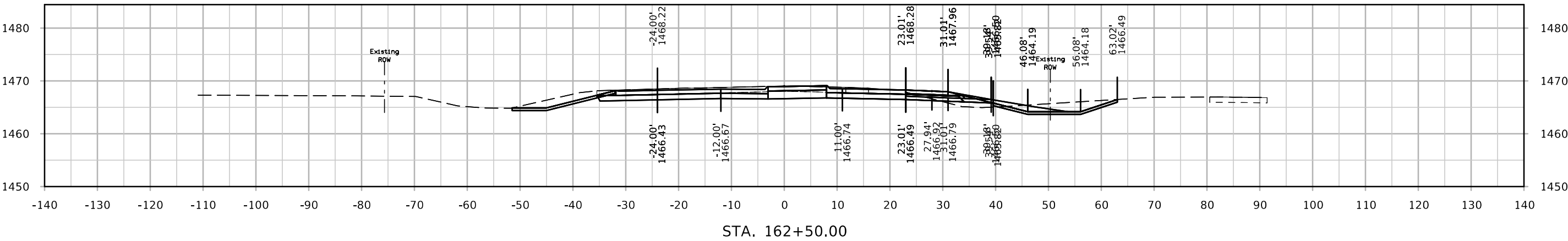
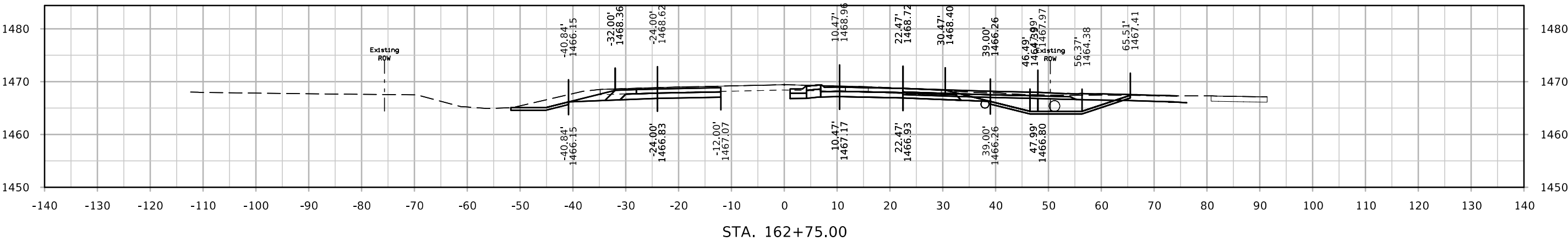


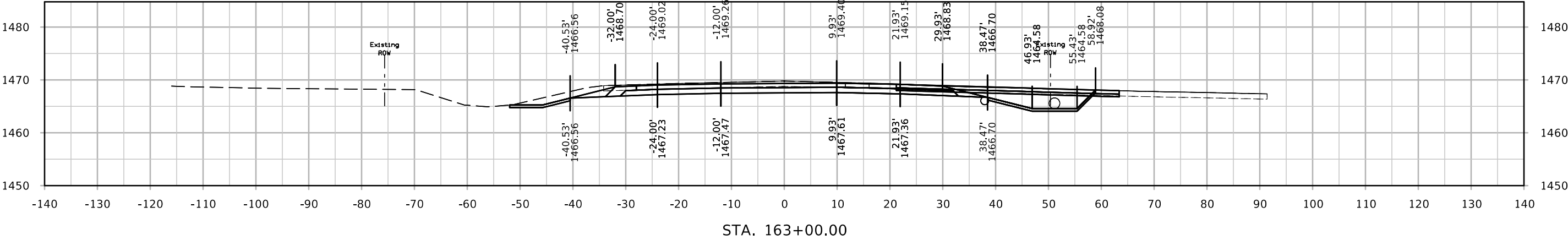
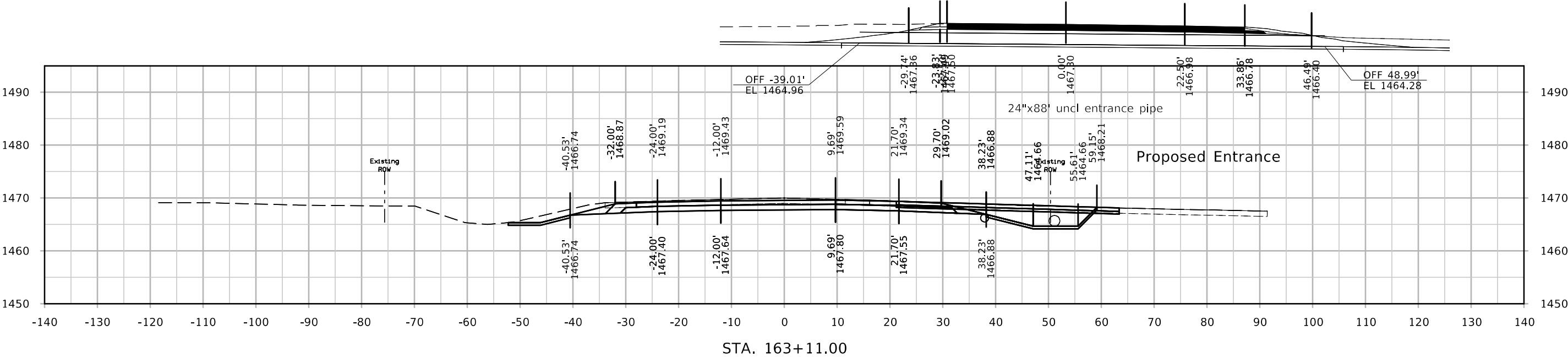
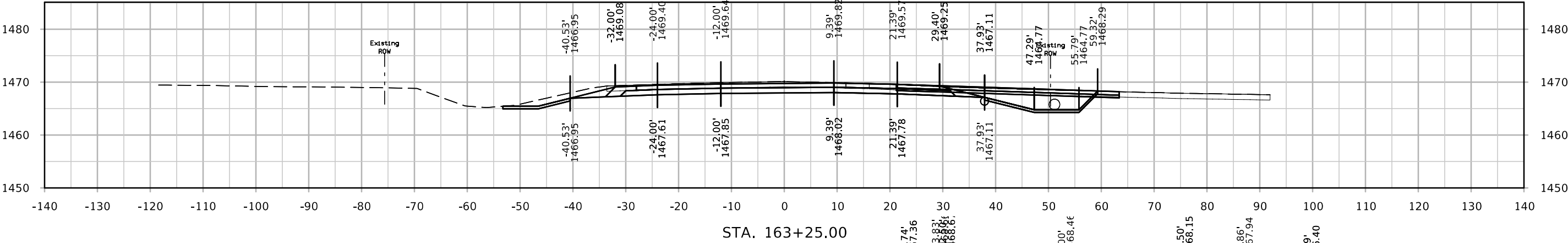
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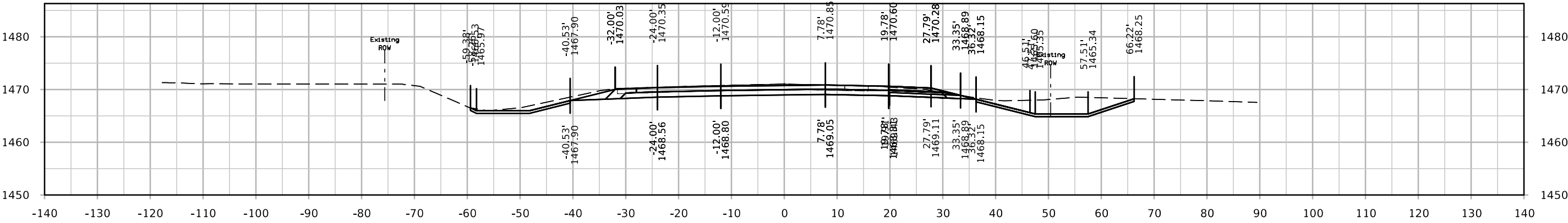




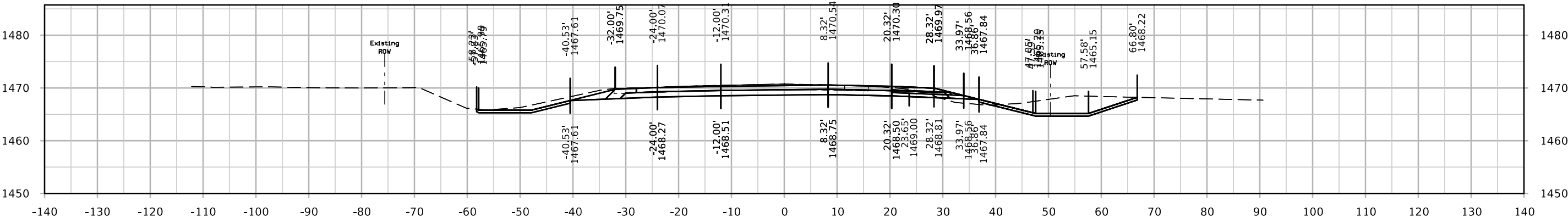




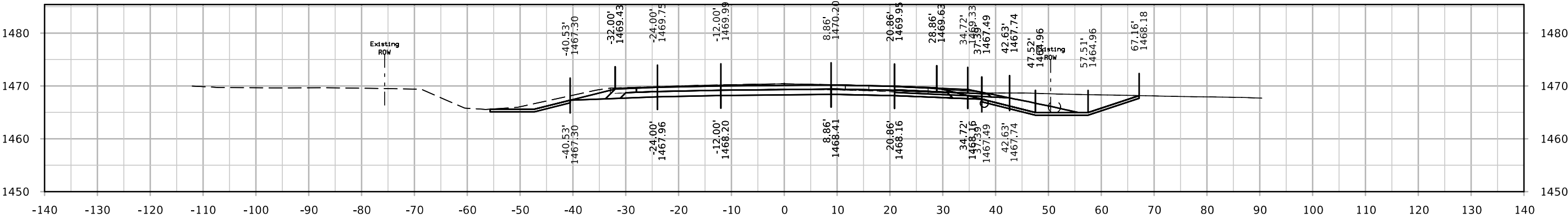




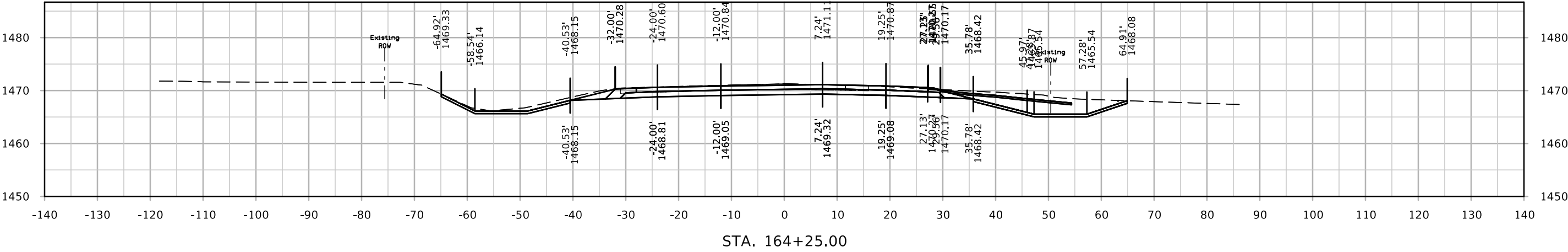
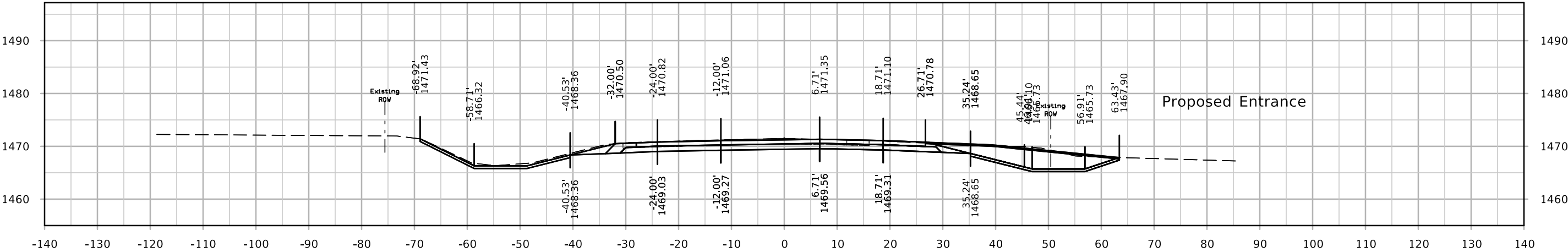
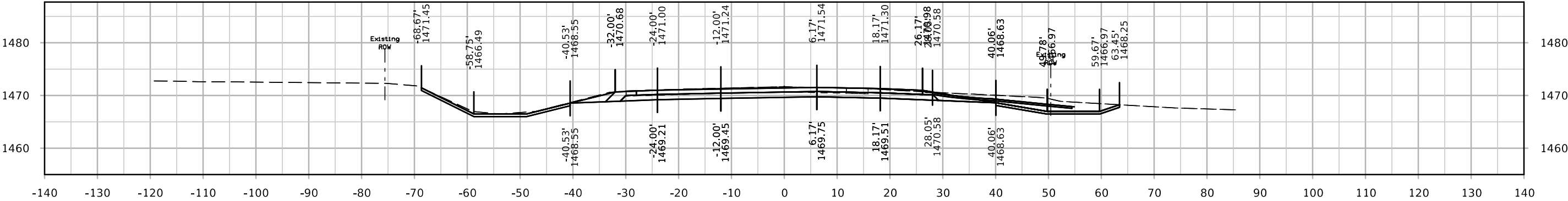
STA. 164+00.00

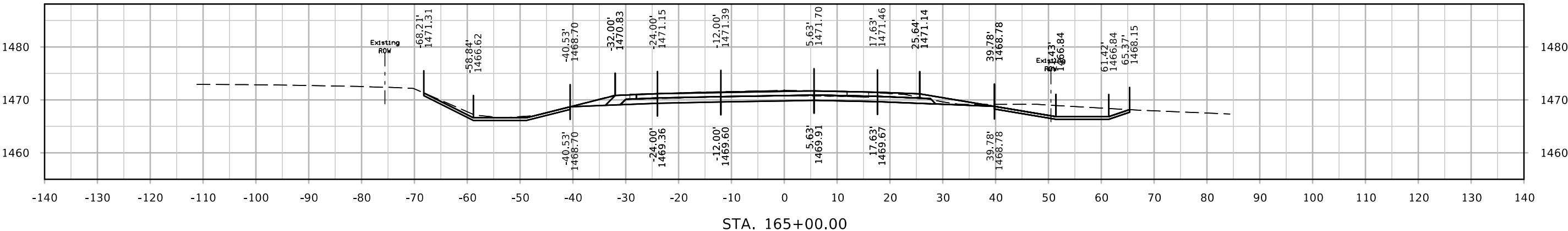
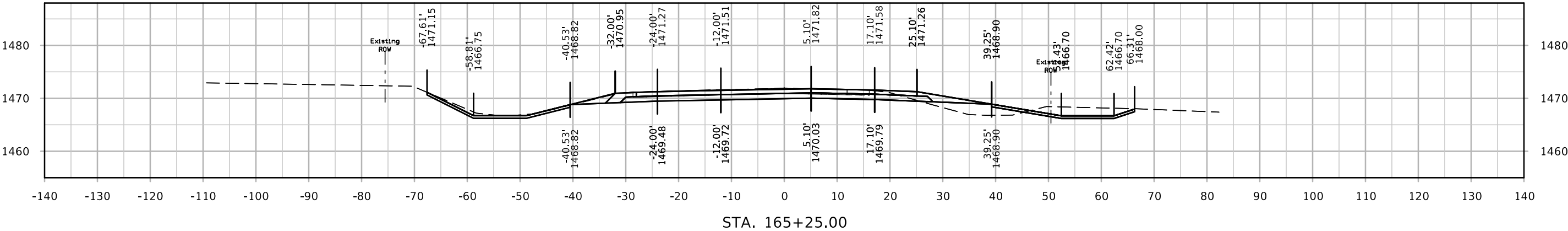
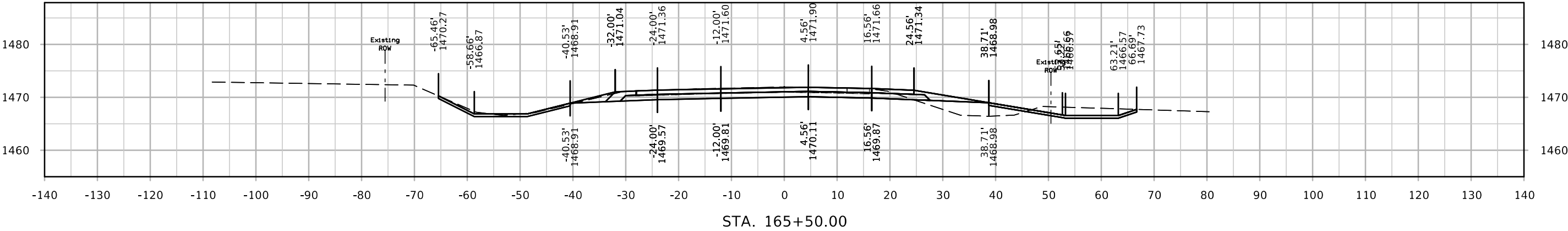


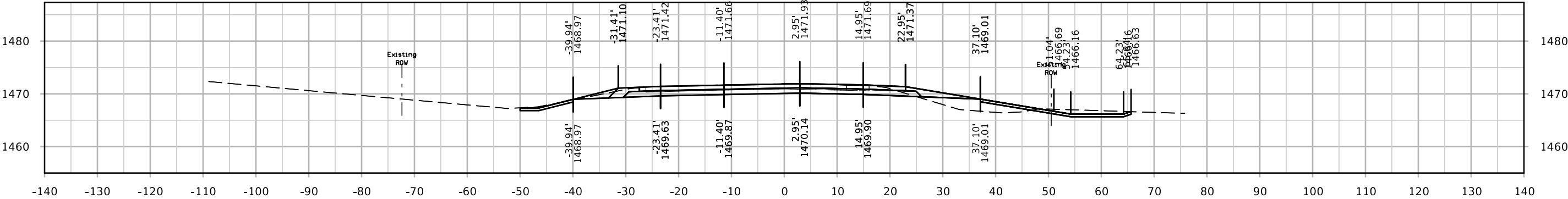
STA. 163+75.00



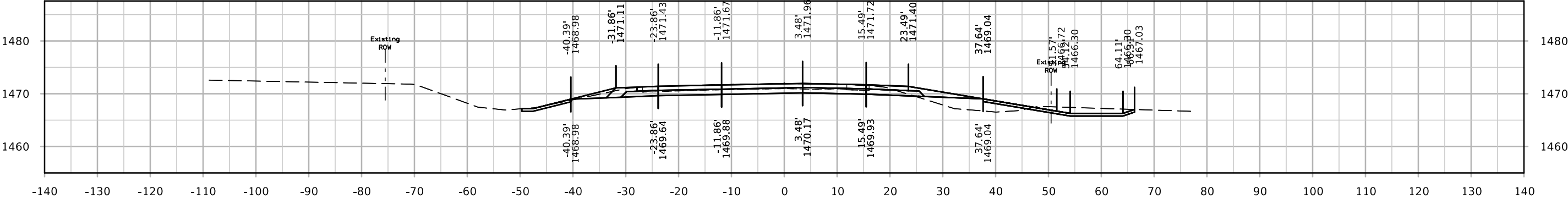
STA. 163+50.00



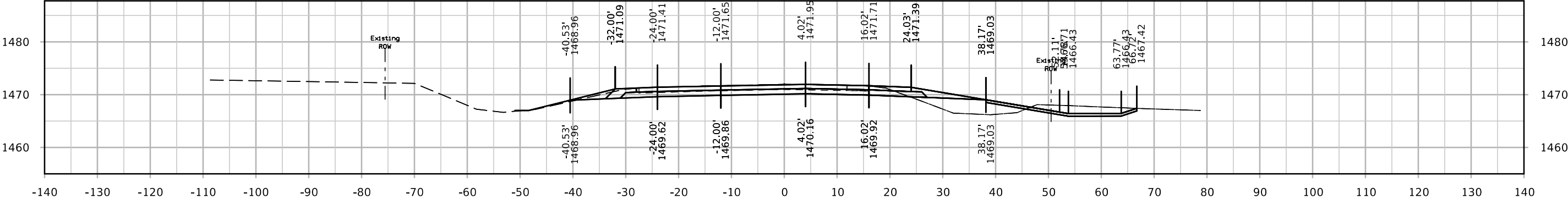




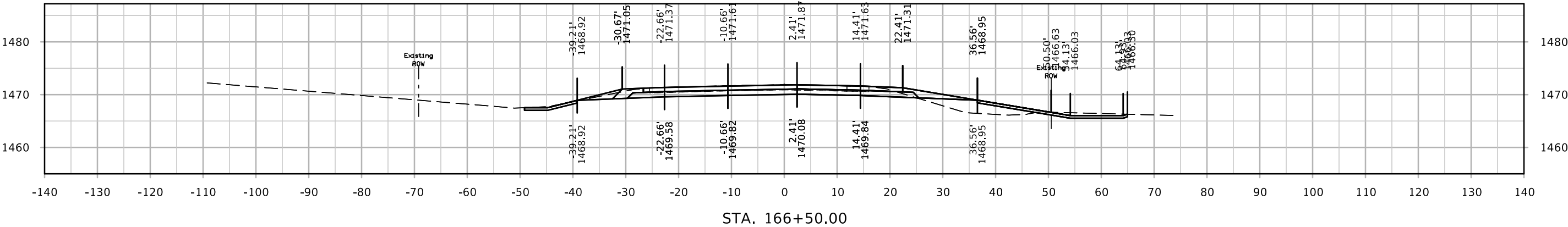
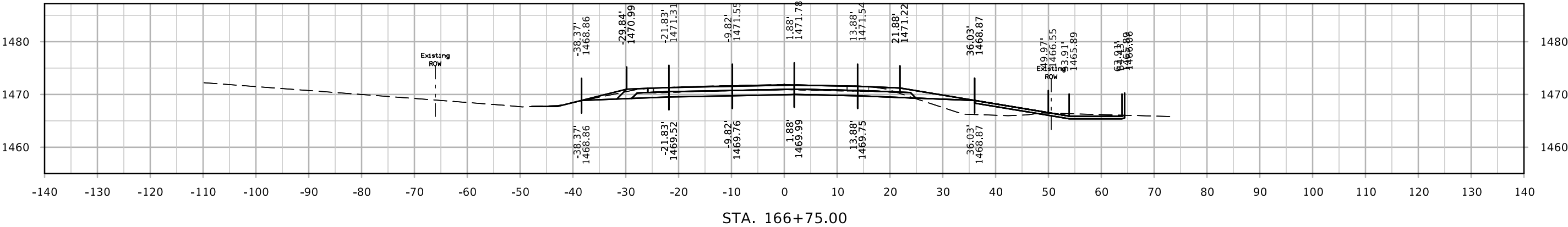
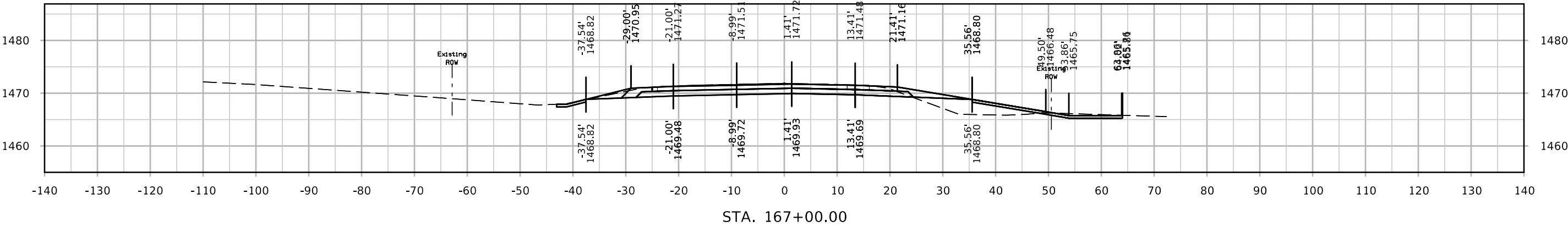
STA. 166+25.00

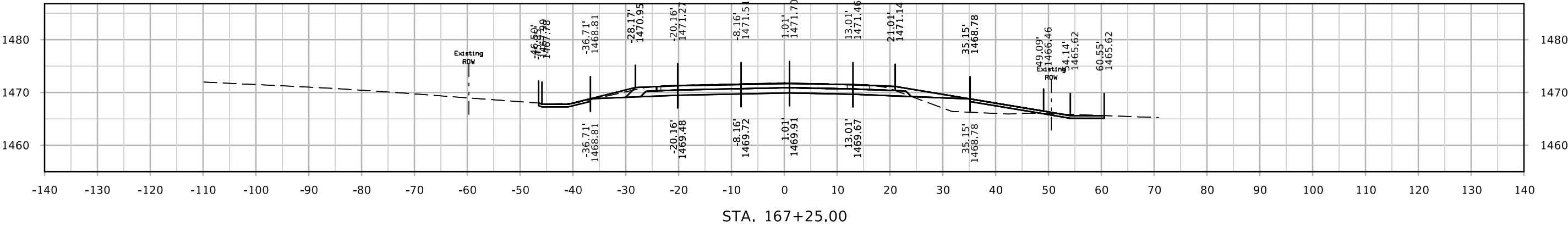
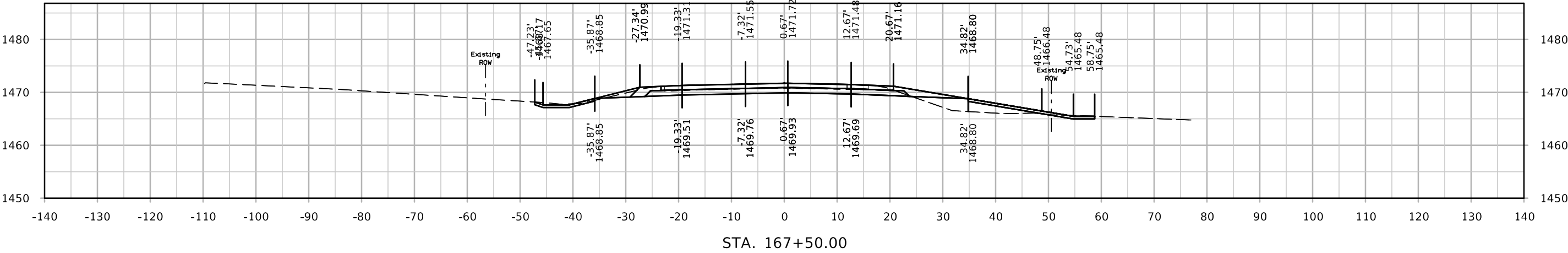
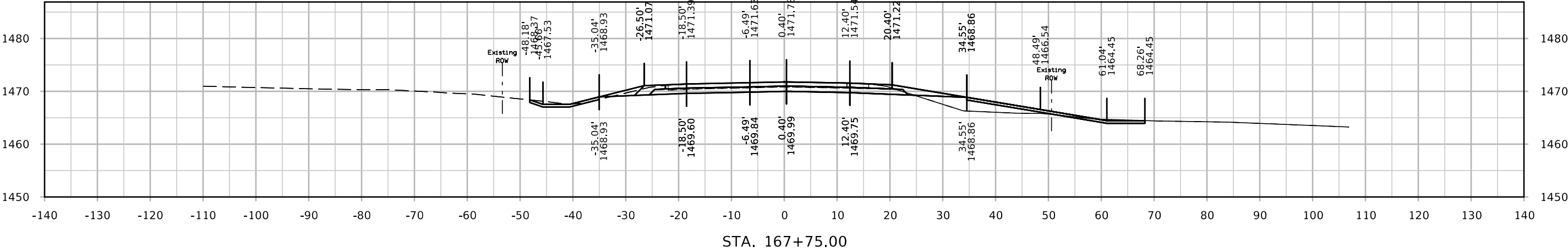


STA. 166+00.00

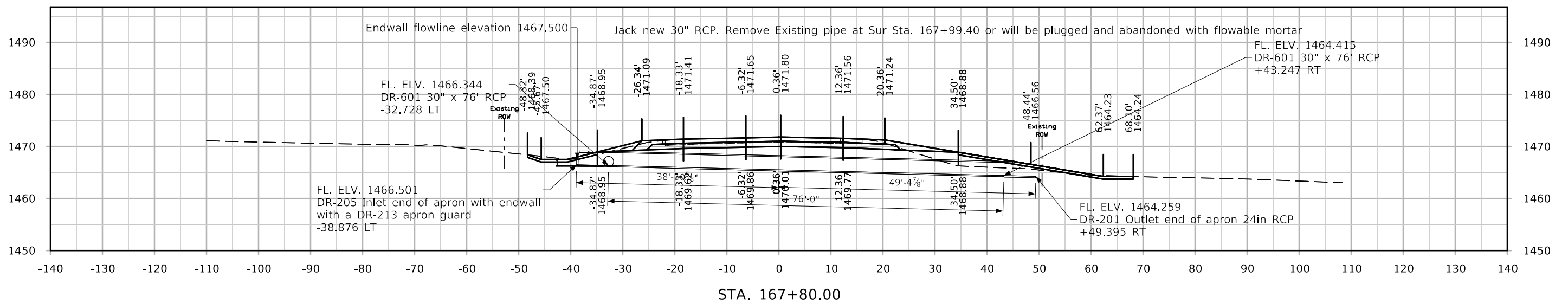
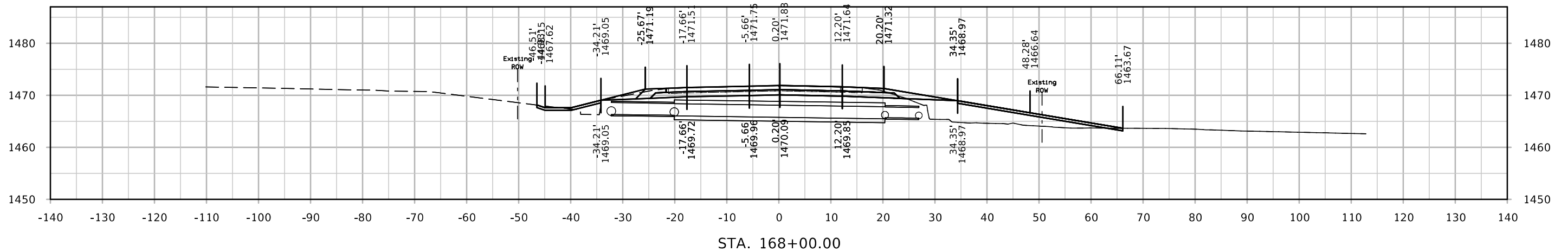
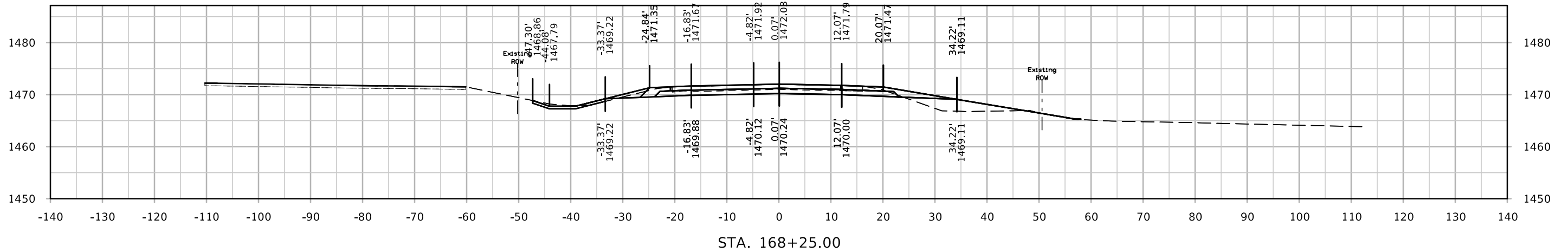


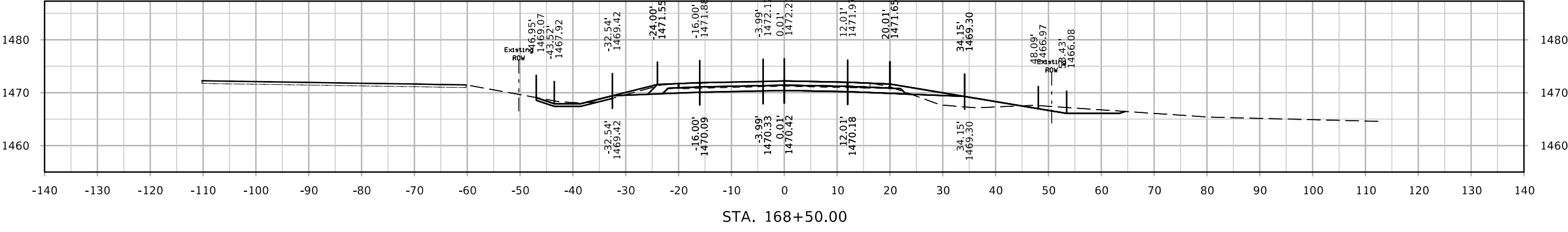
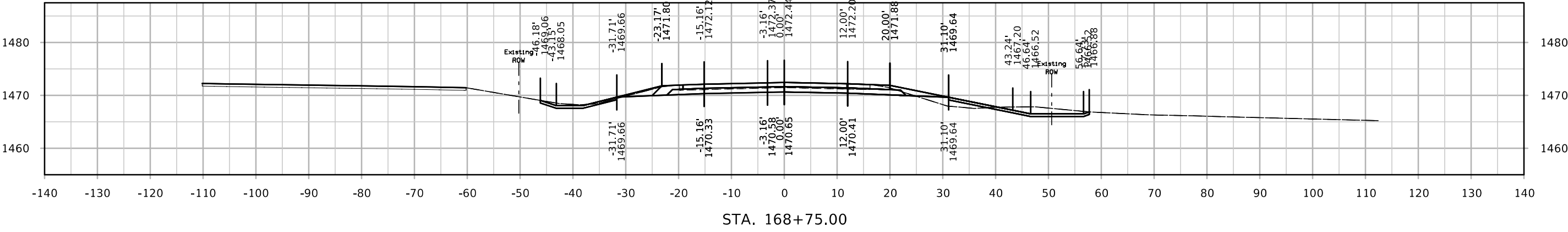
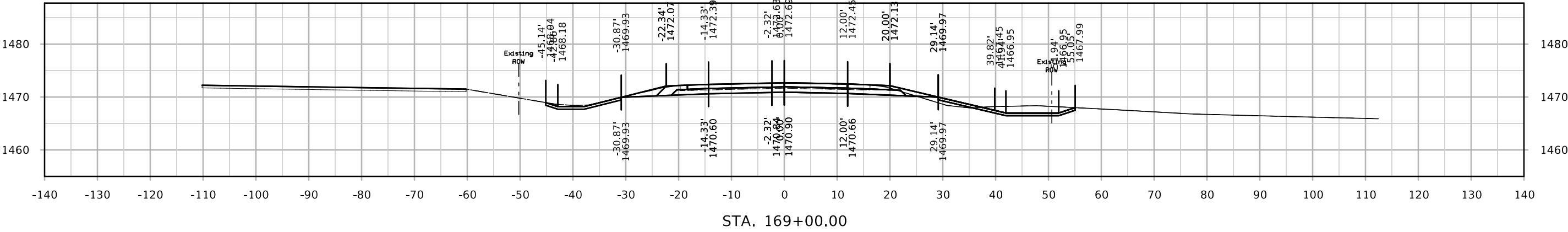
STA. 165+75.00

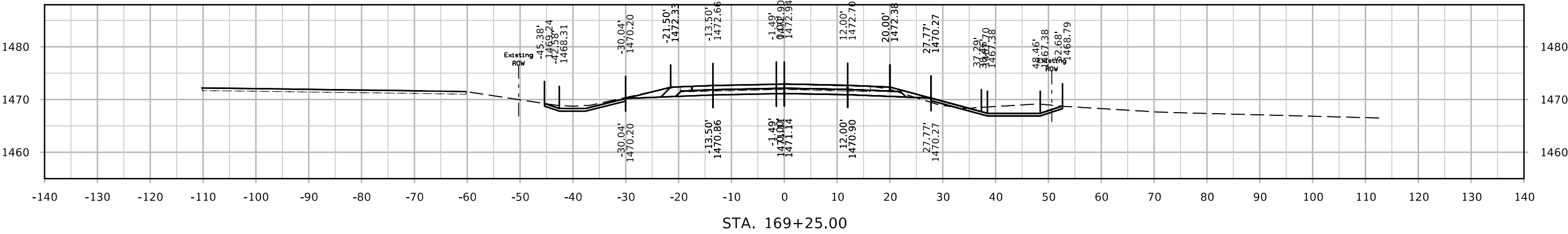
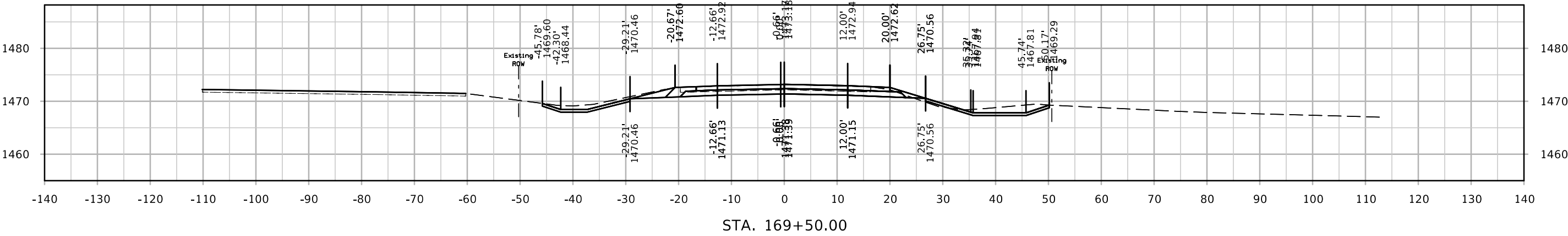
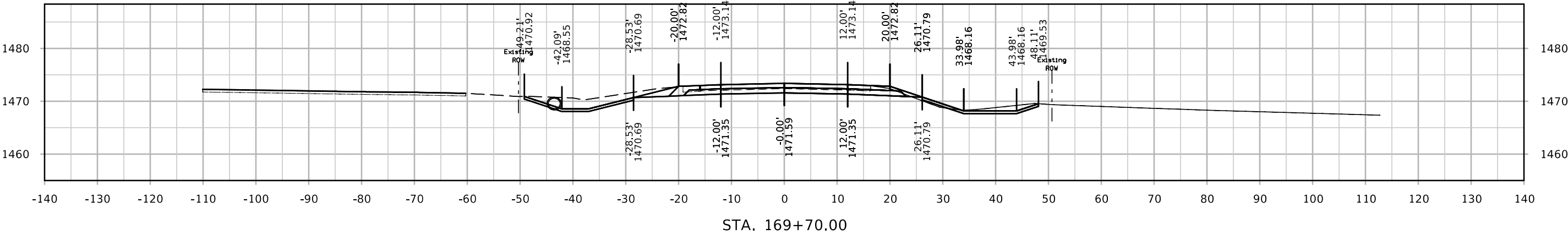




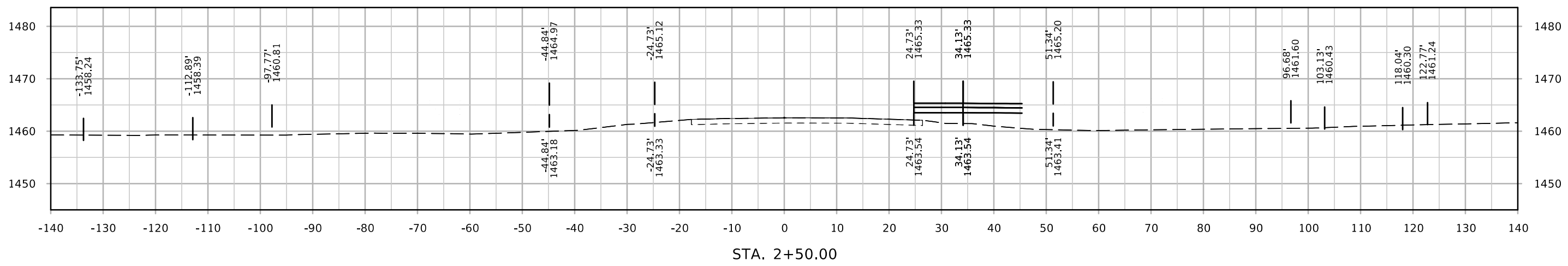
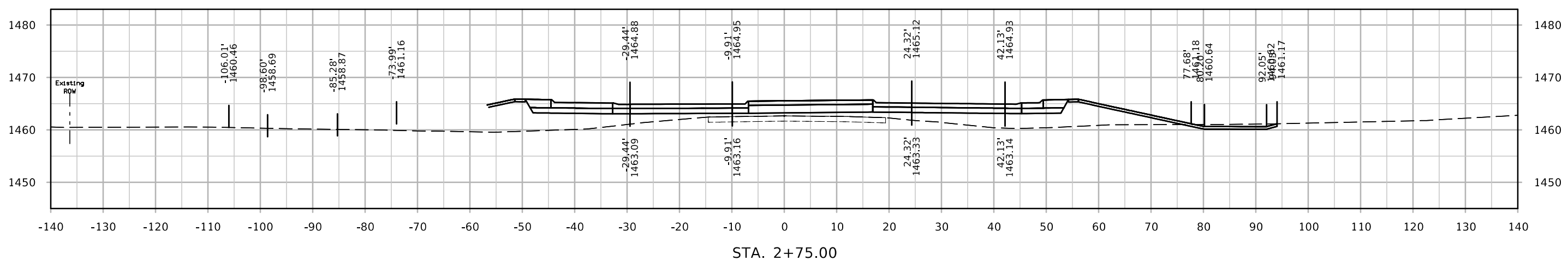
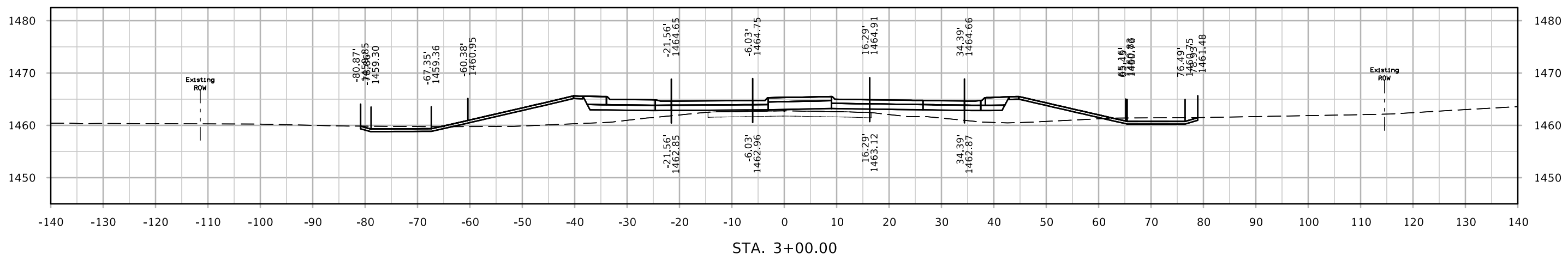
IA 3



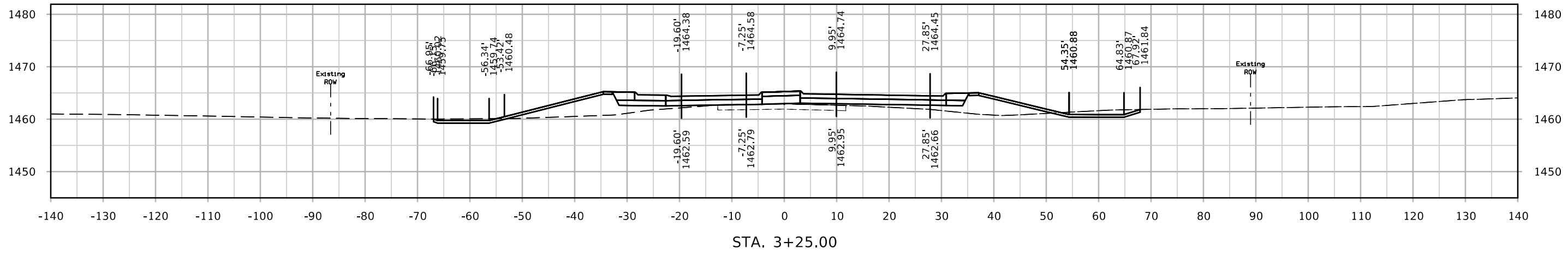
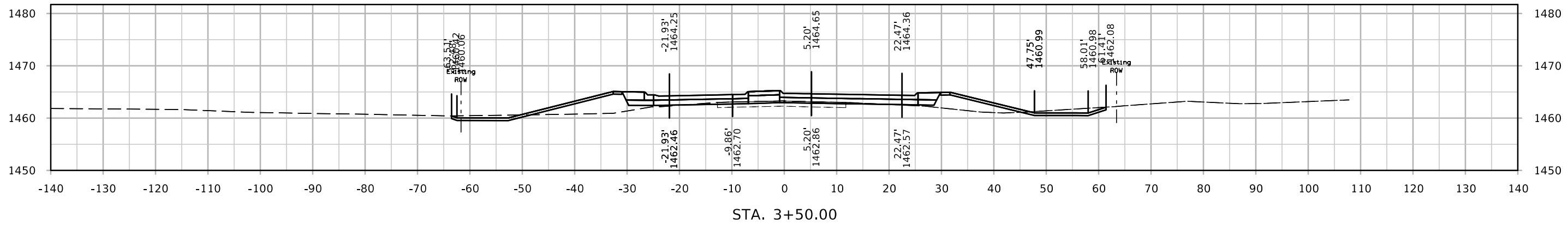
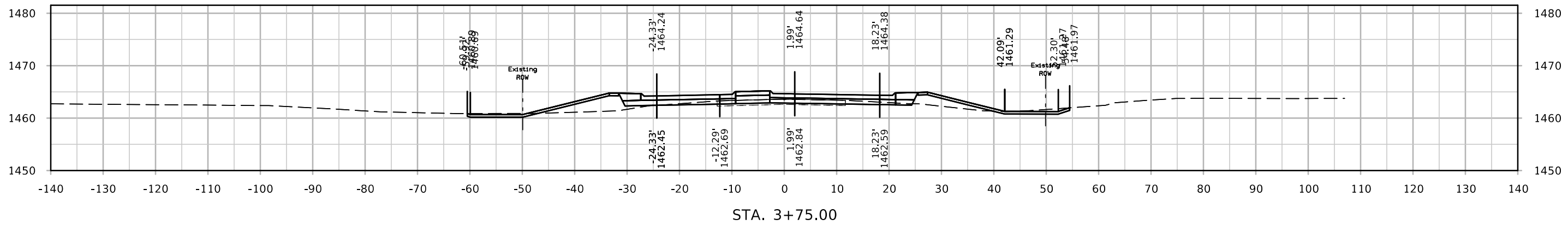




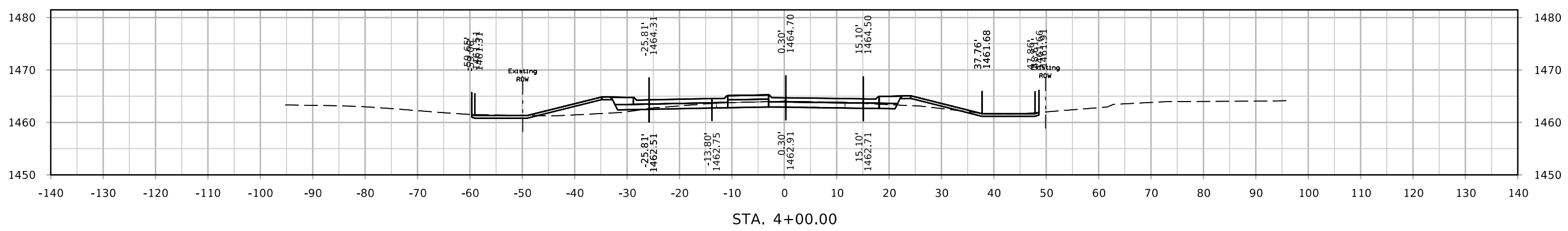
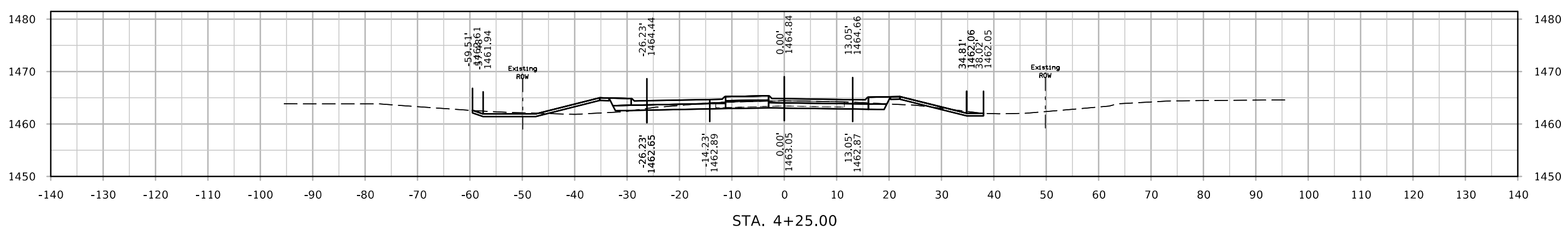
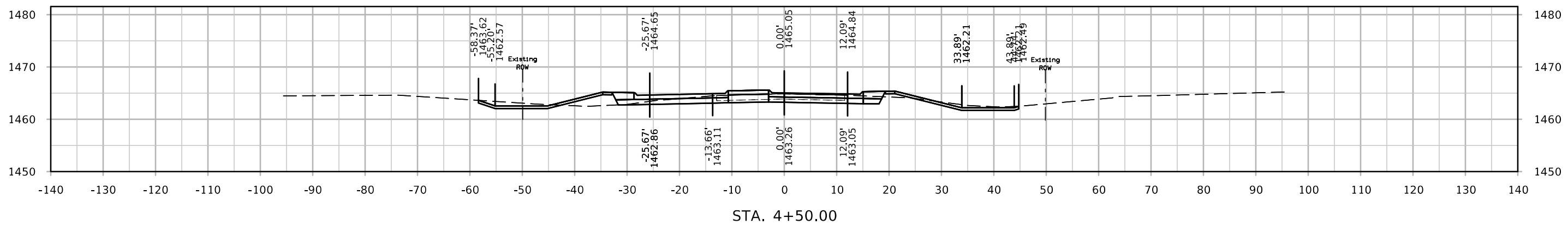
IA 143



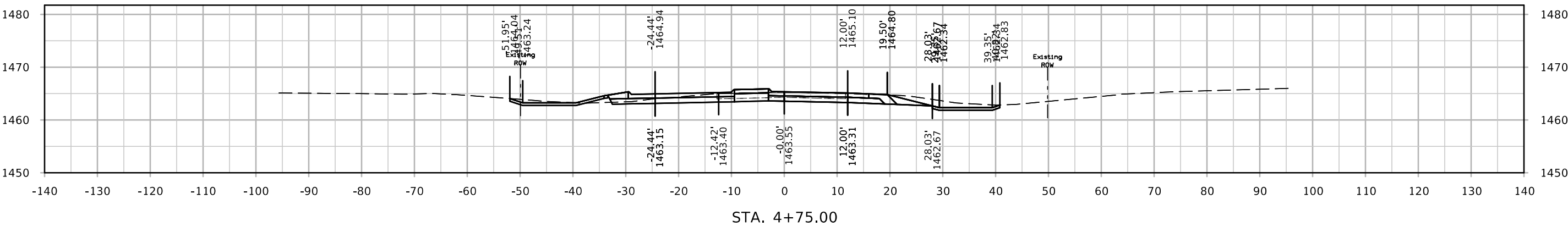
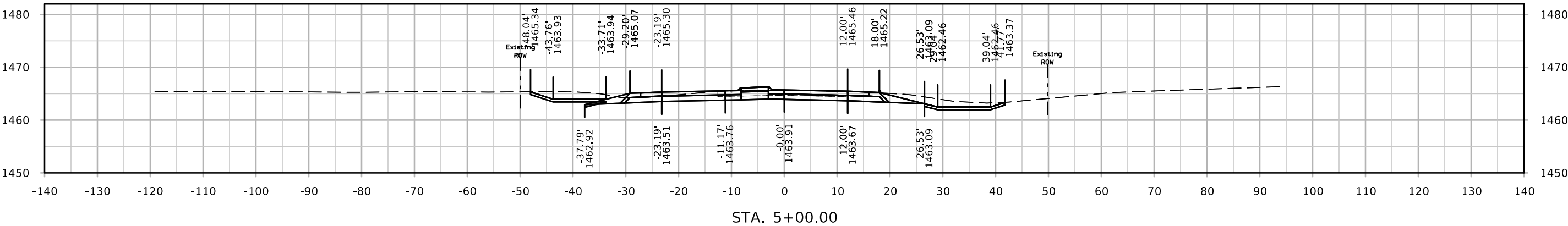
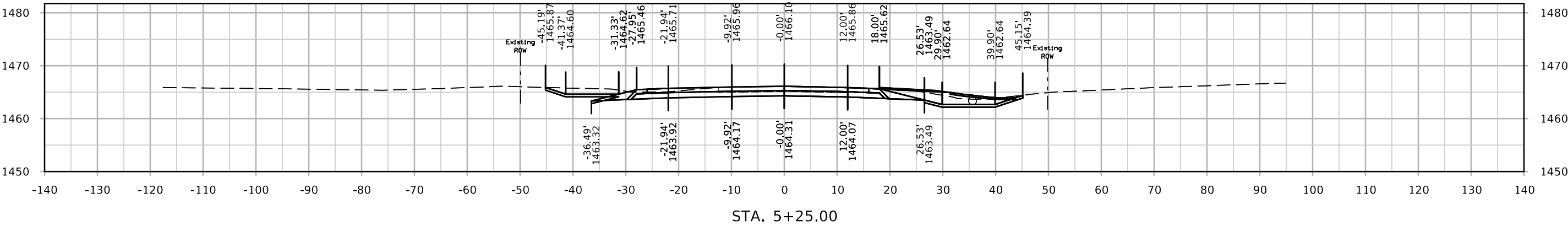
IA 143



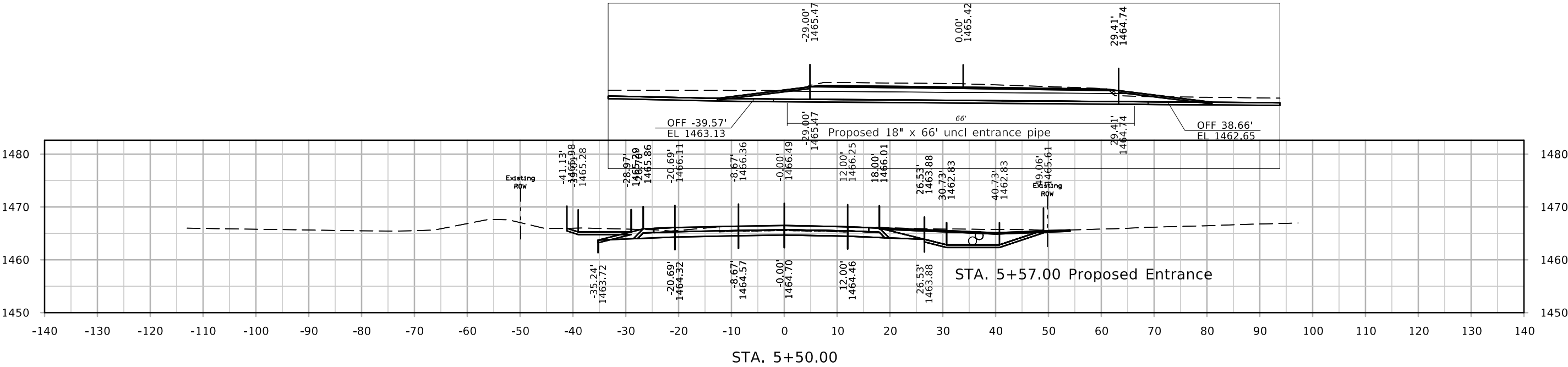
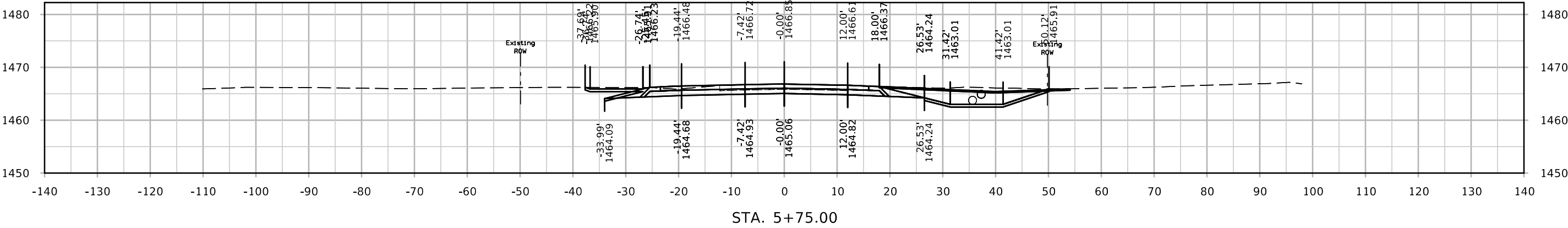
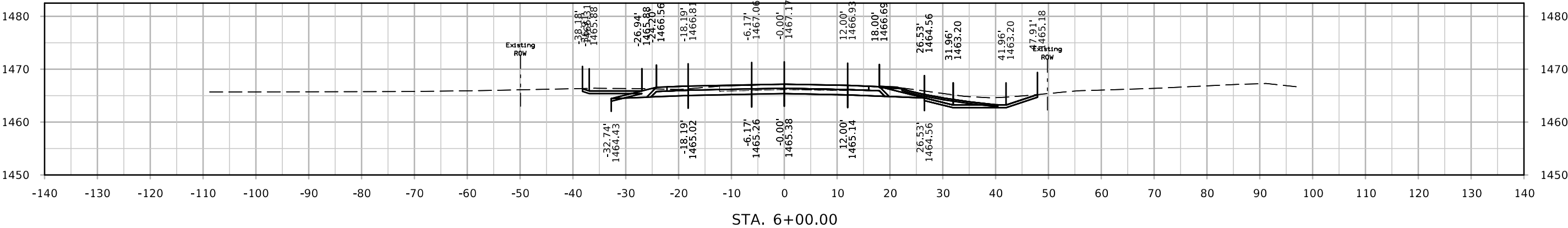
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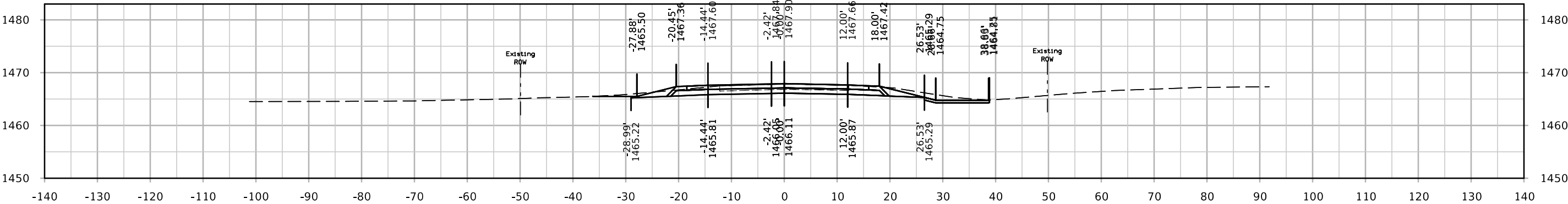


IA 143

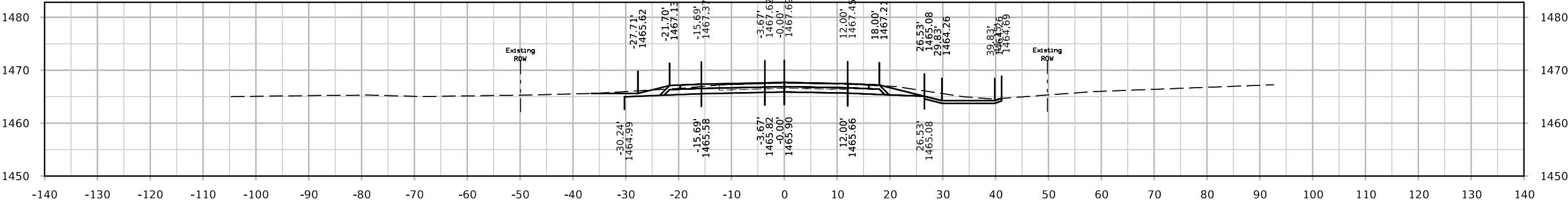


IA 143

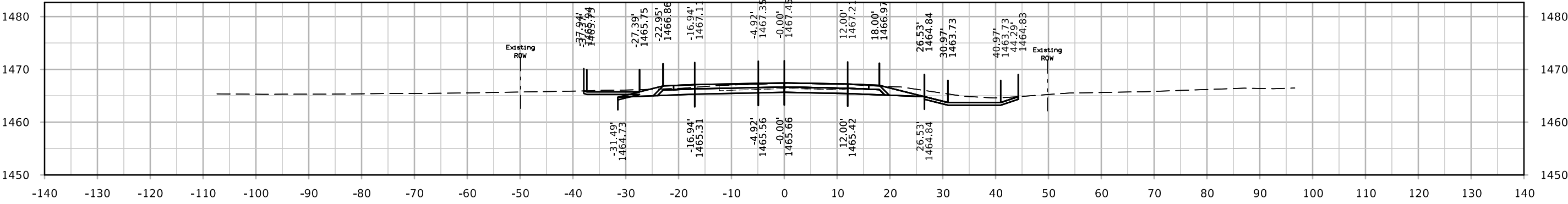




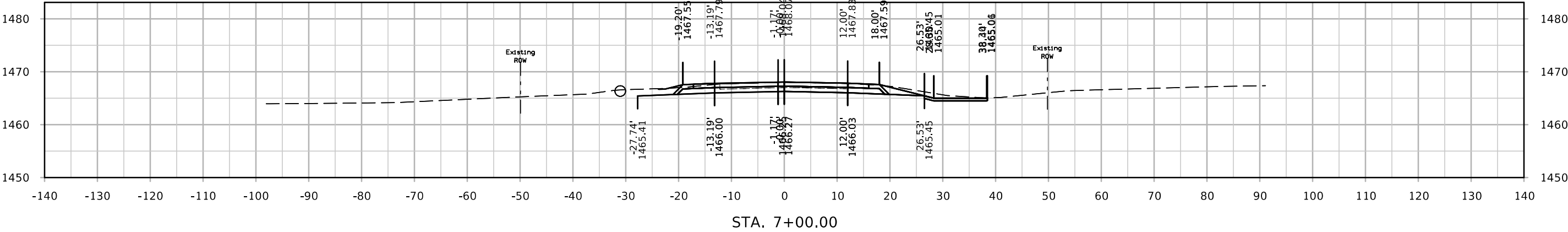
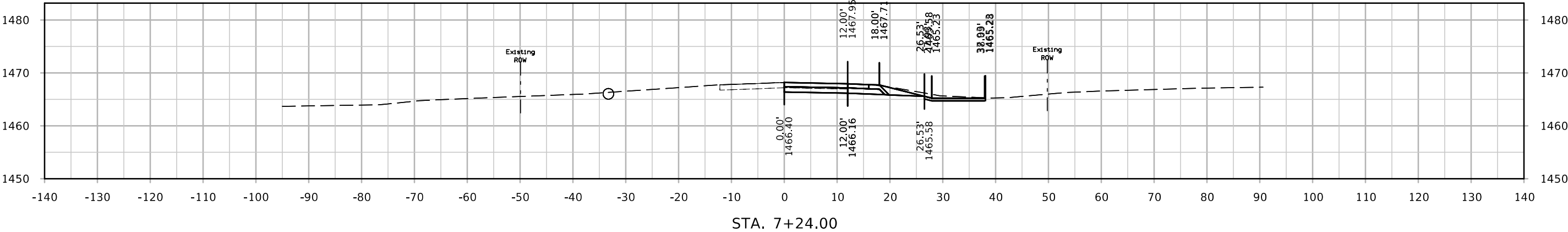
STA. 6+75.00



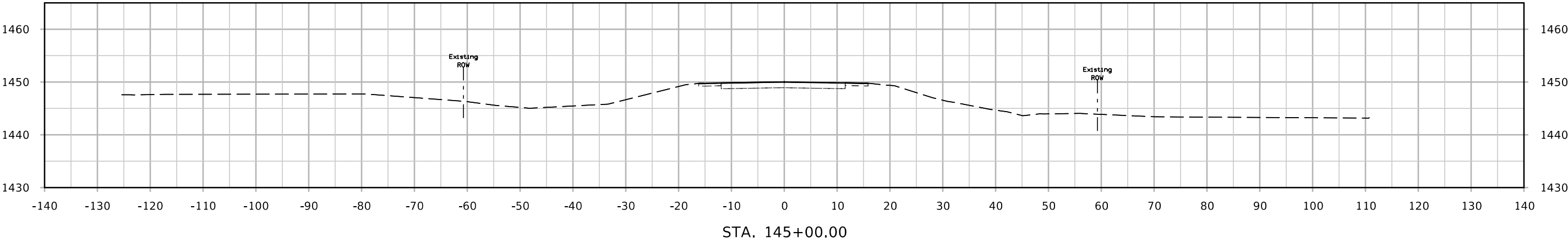
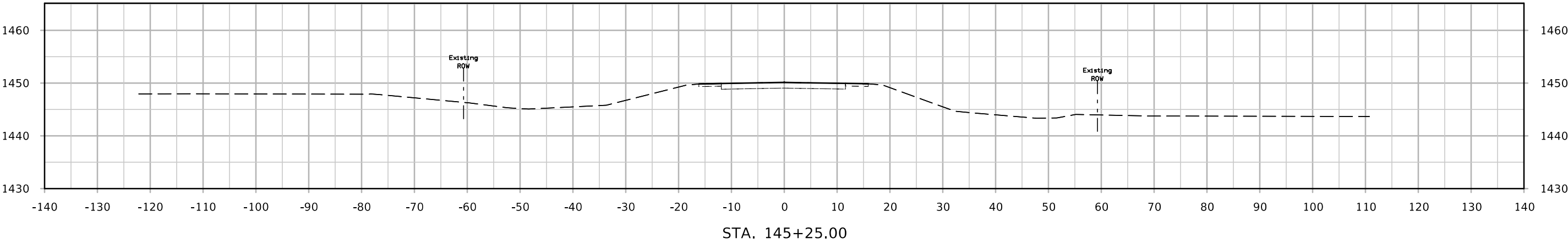
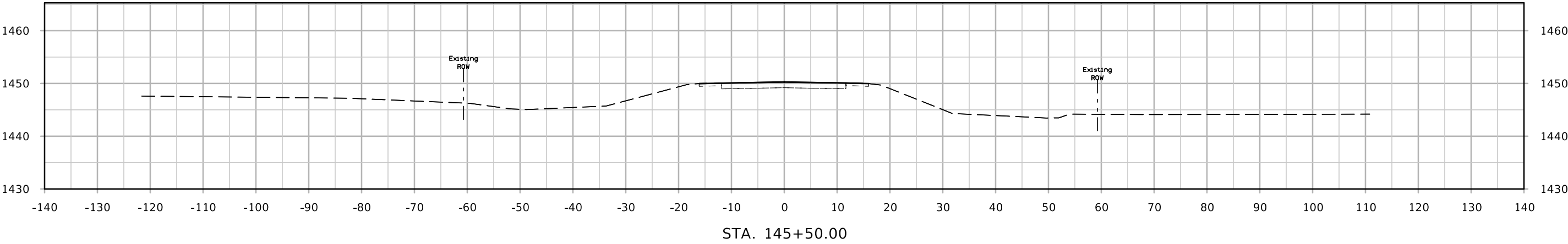
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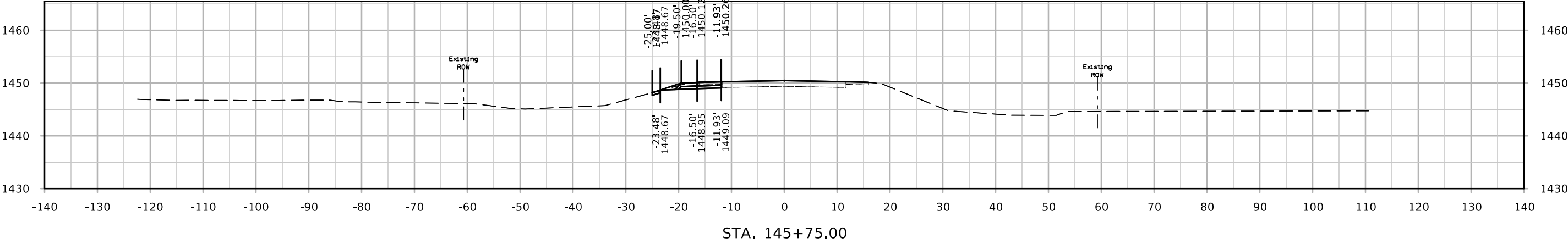
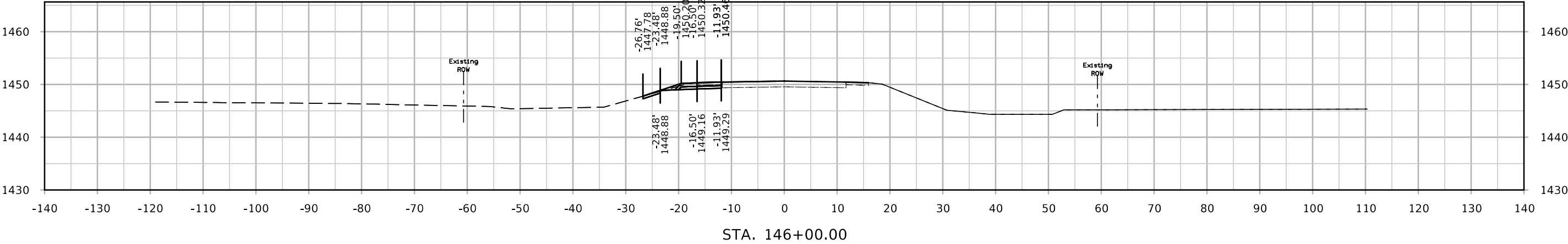
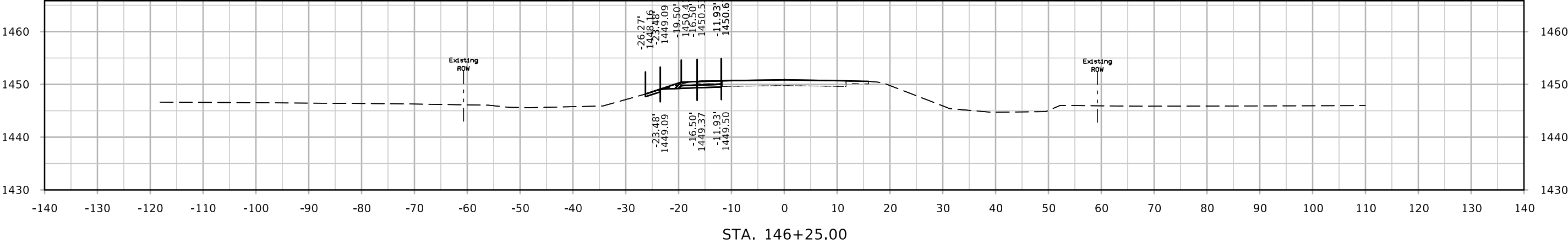
STA. 6+25.00



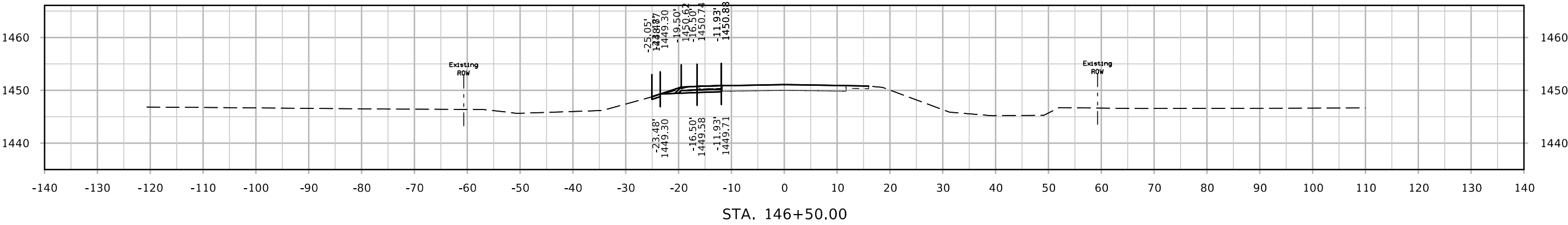
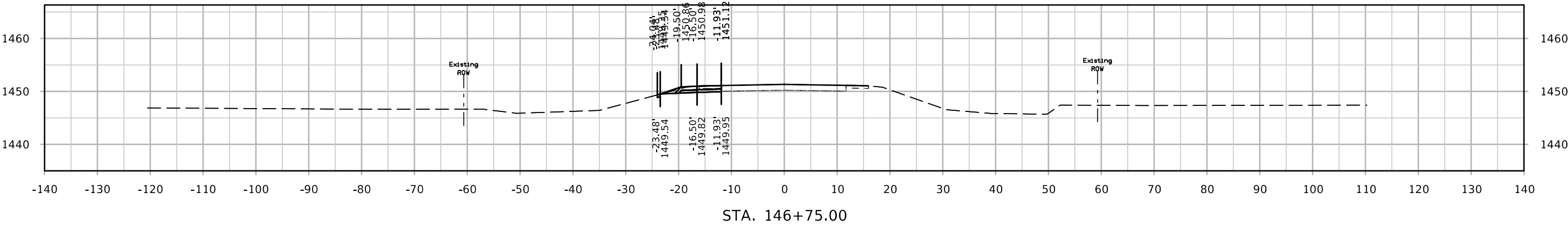
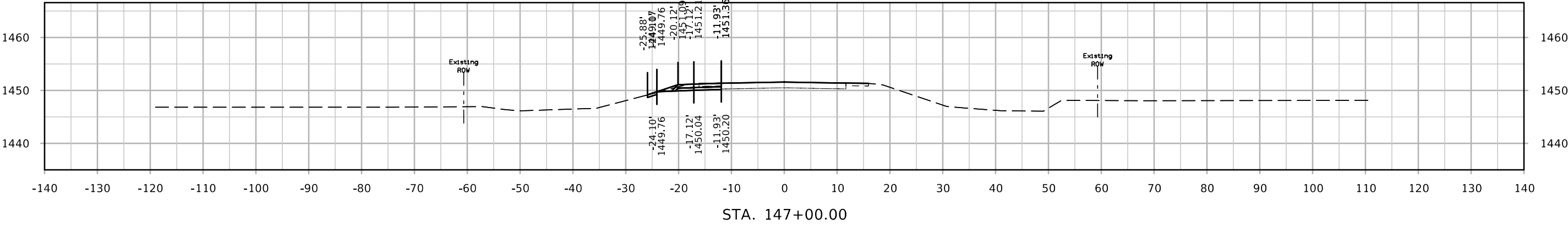
DET IA3



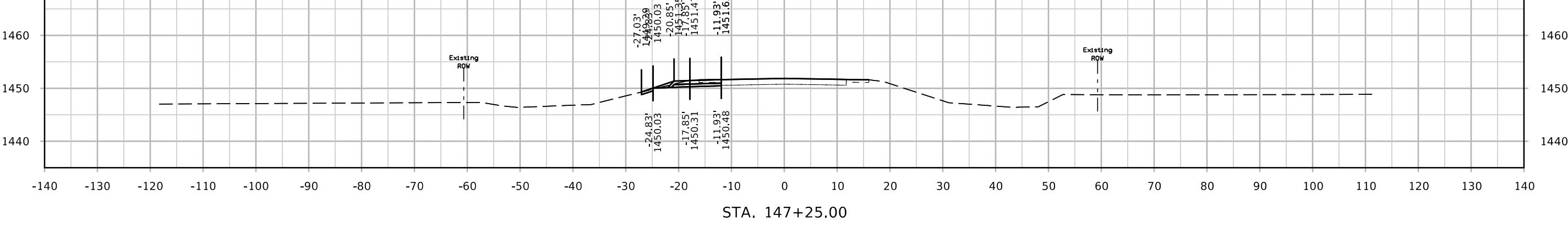
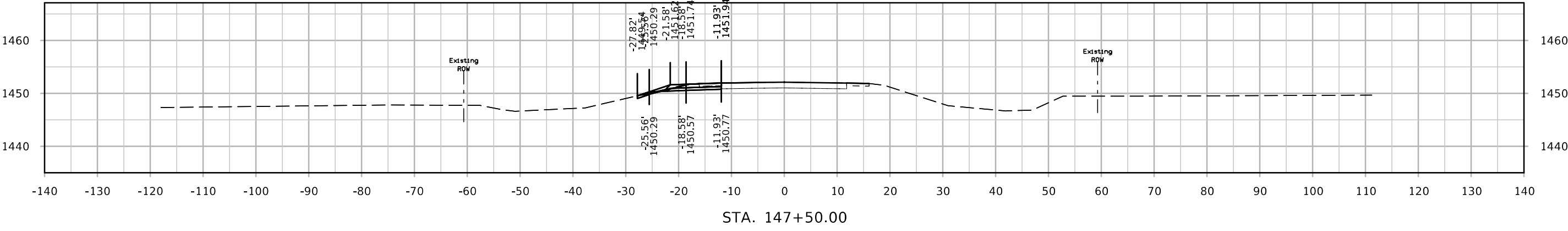
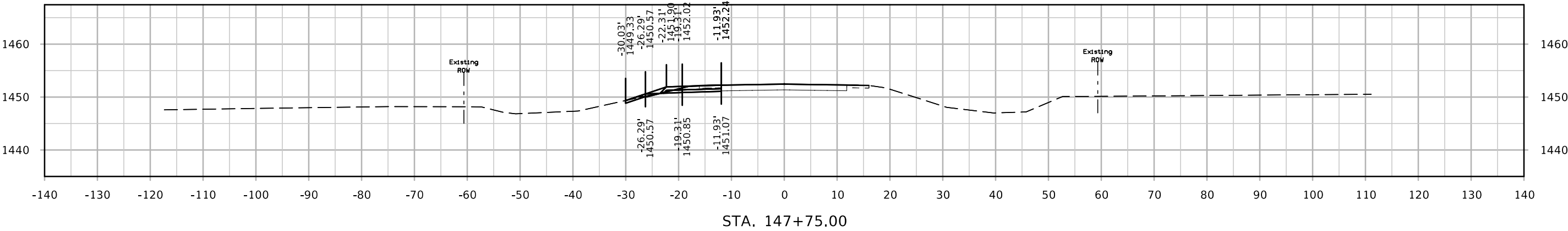
DET IA3



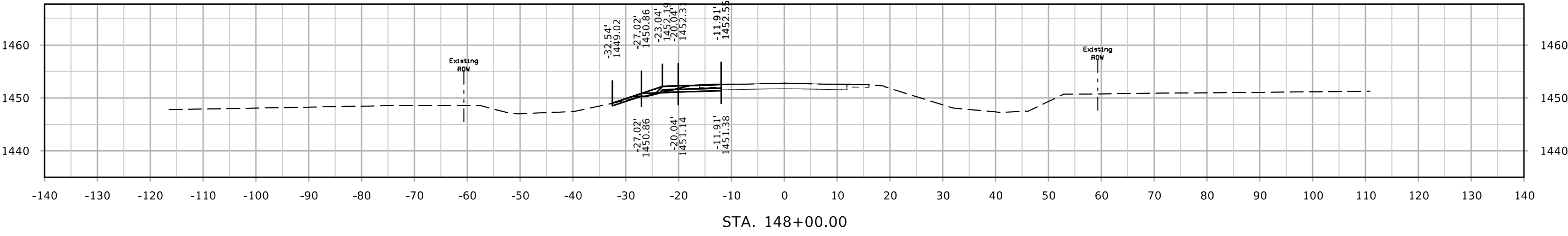
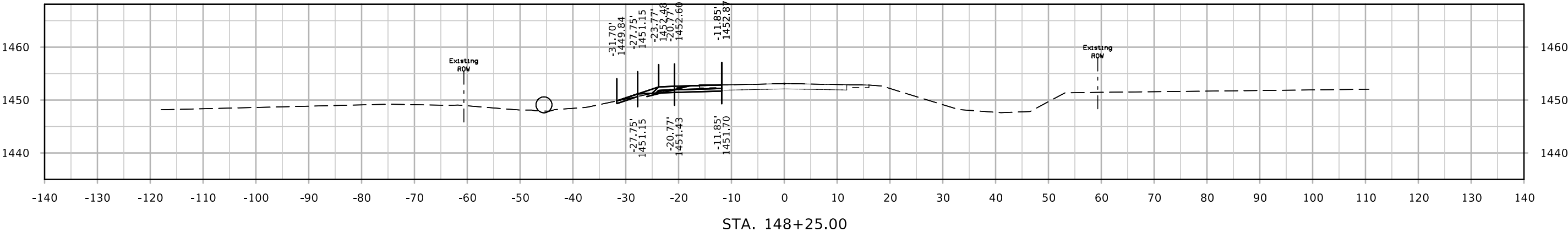
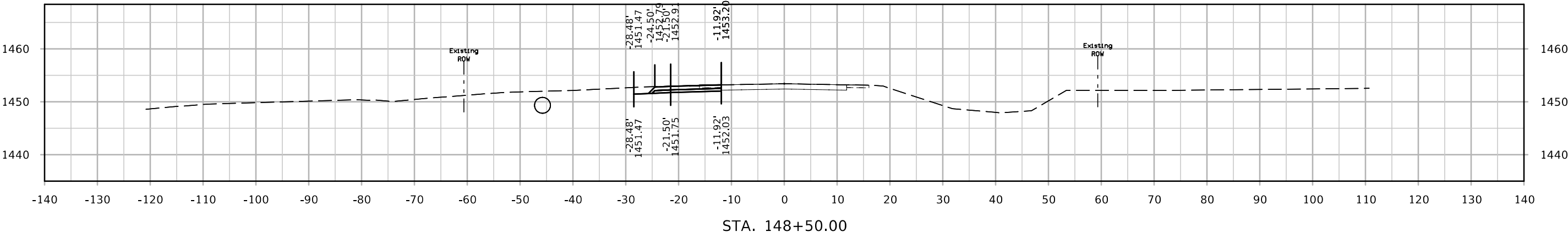
DET IA3



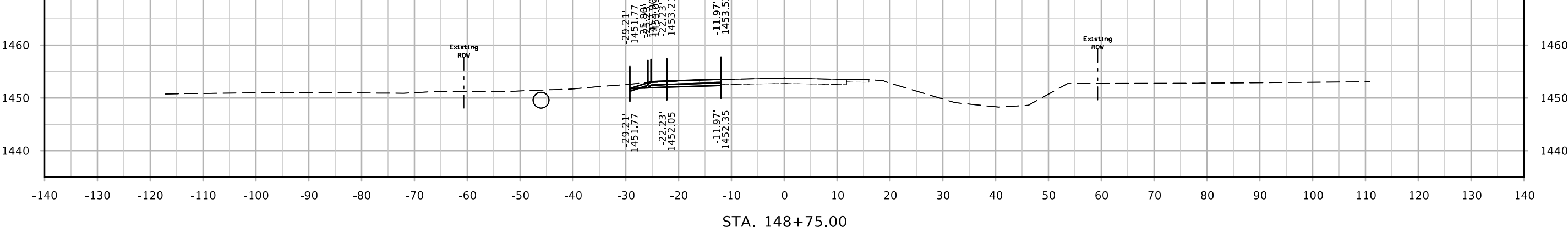
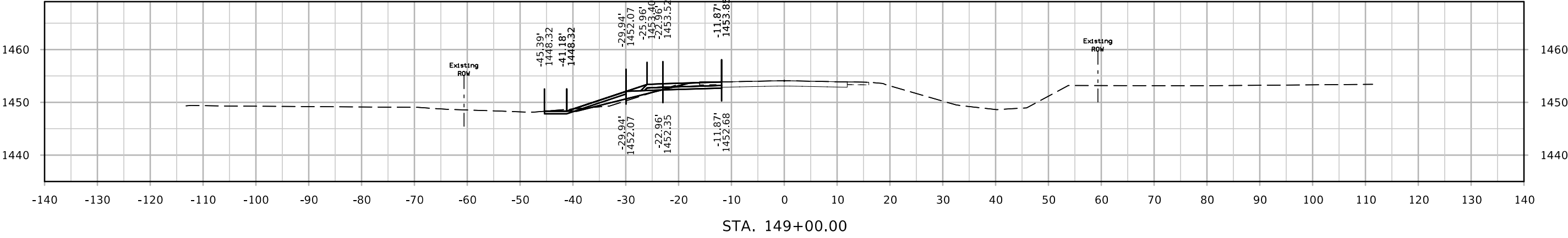
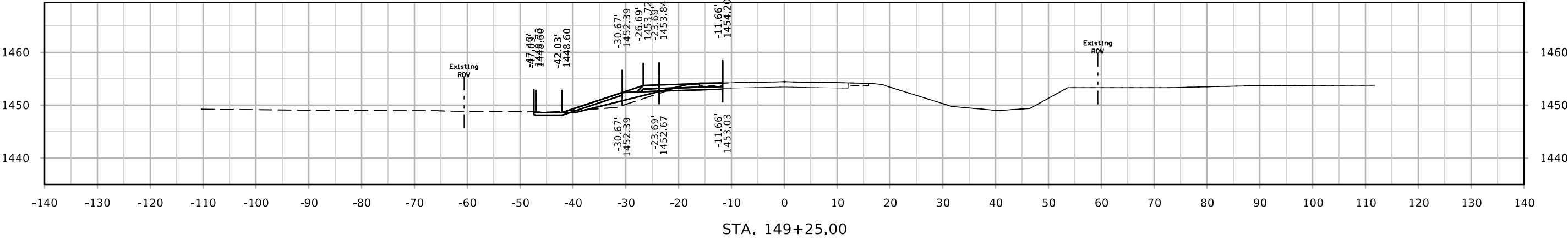
DET IA3



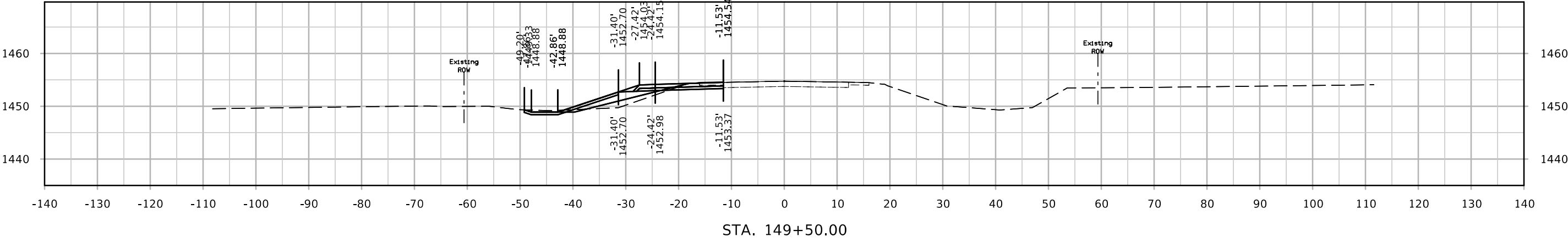
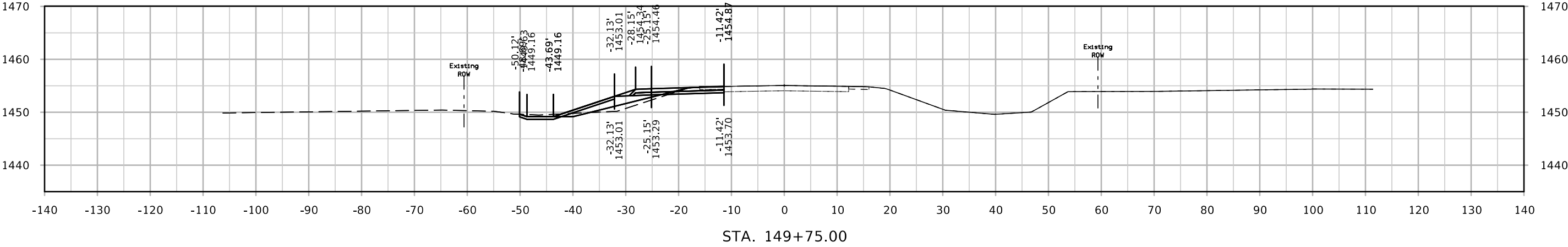
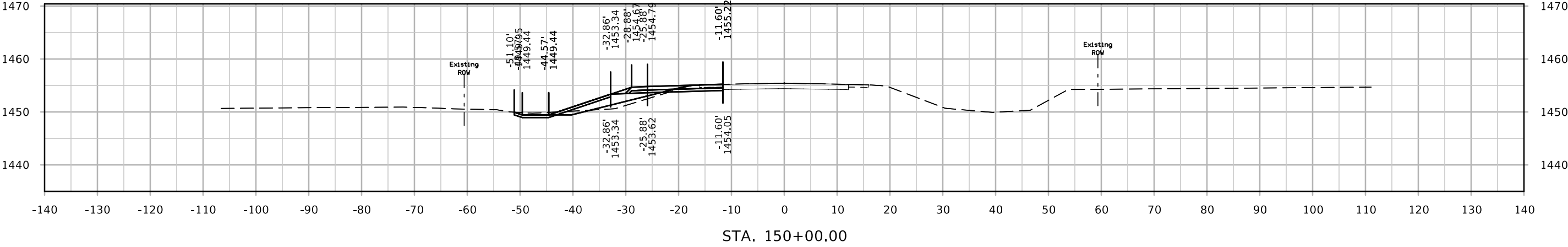
DET IA3



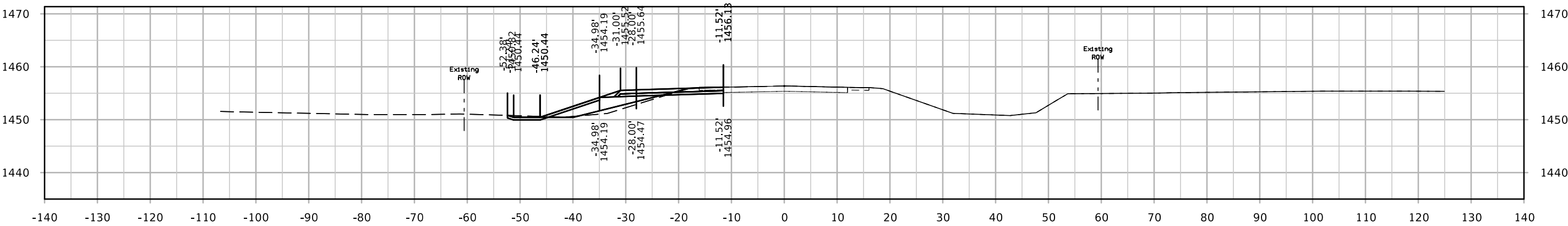
DET IA3



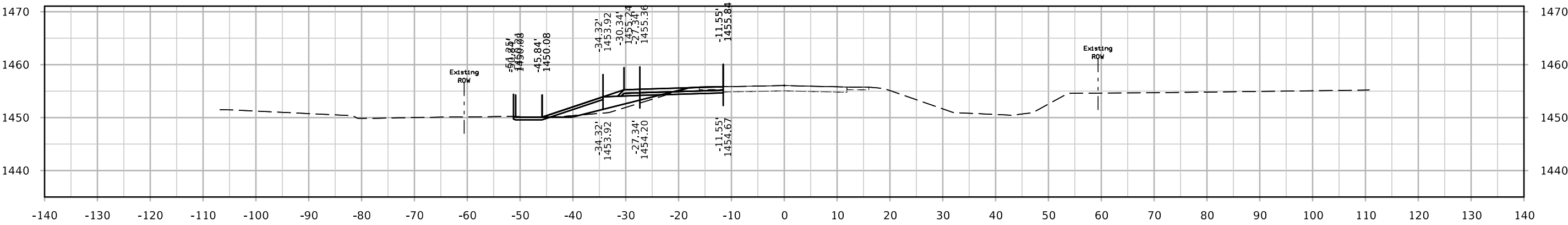
DET IA3



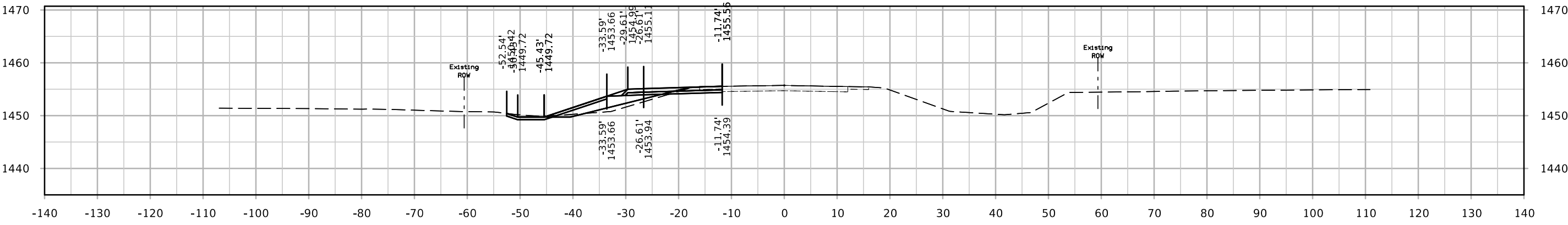
DET IA3



STA. 150+75.00

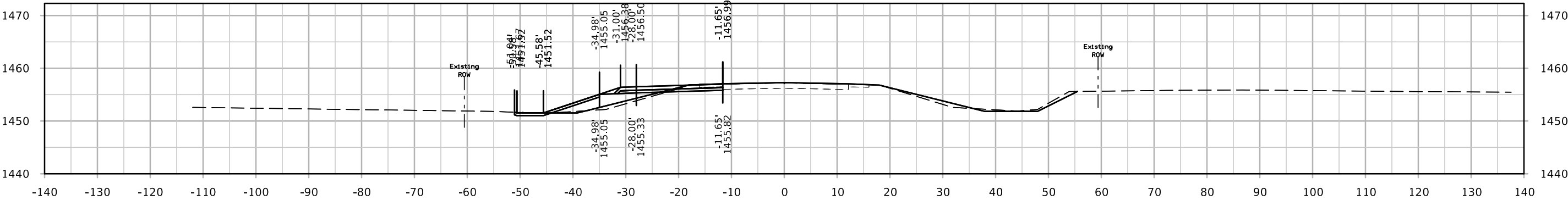


STA. 150+50.00

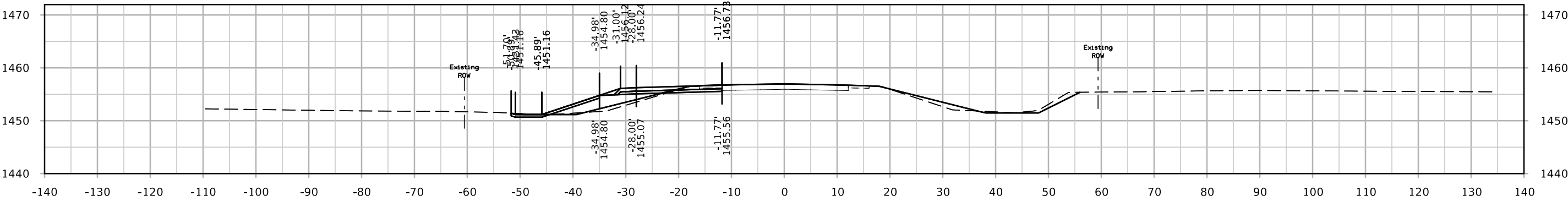


STA. 150+25.00

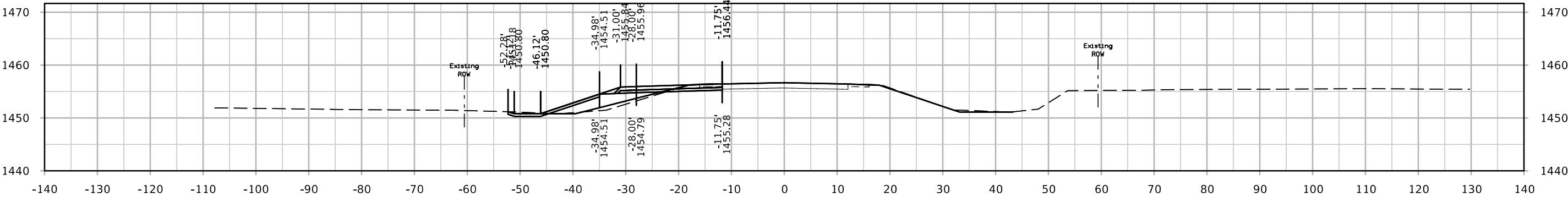
DET IA3



STA. 151+50.00

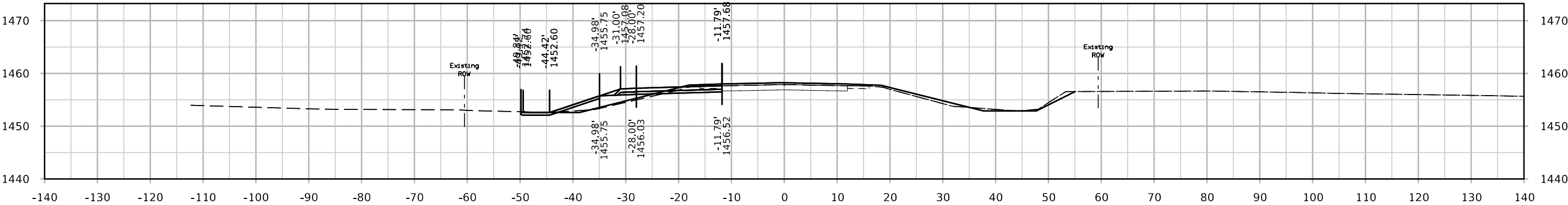


STA. 151+25.00

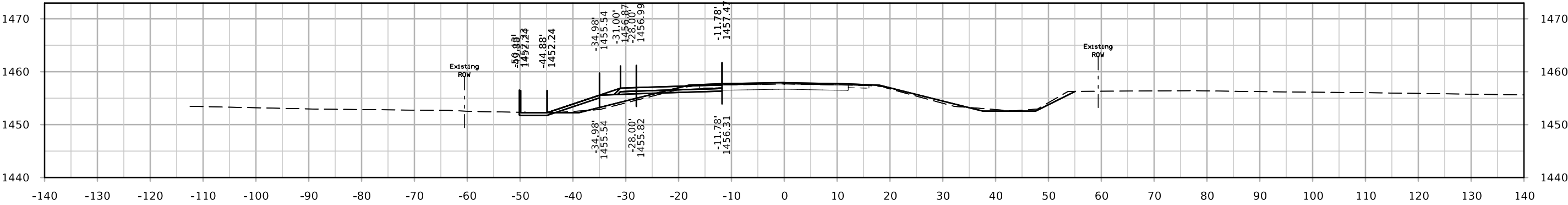


STA. 151+00.00

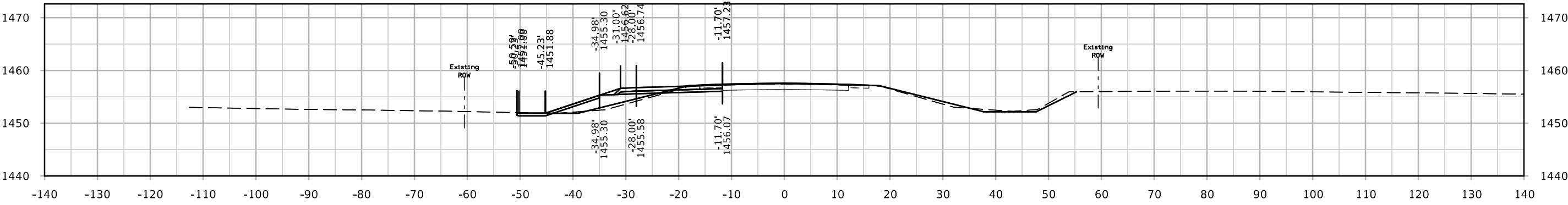
DET IA3



STA. 152+25.00

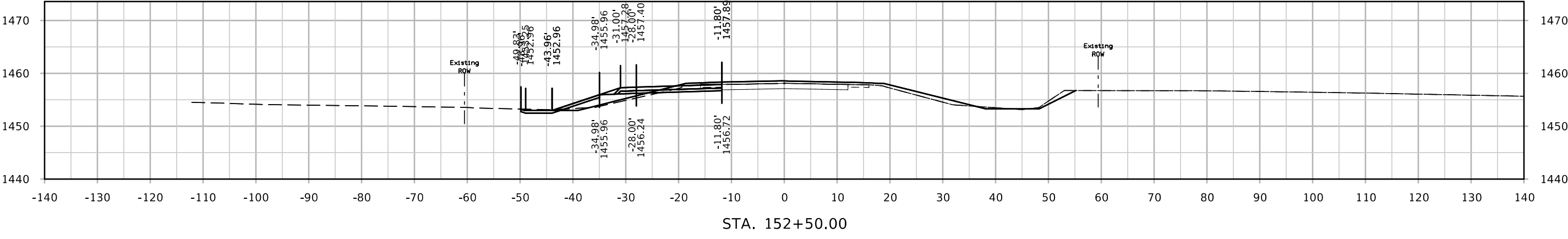
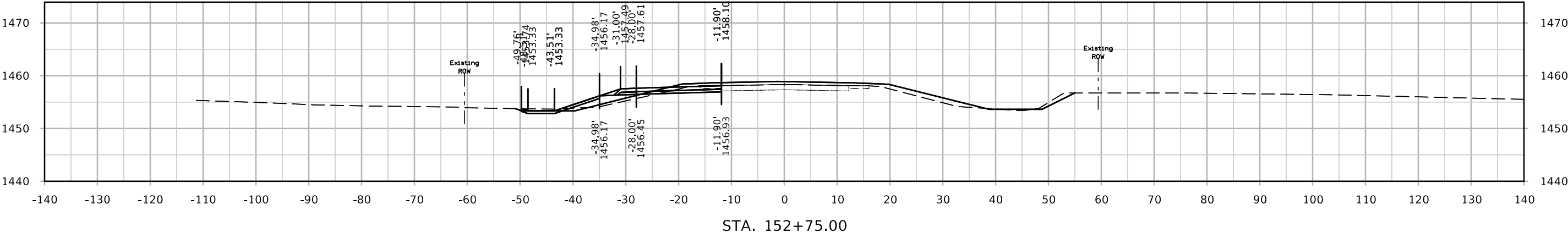
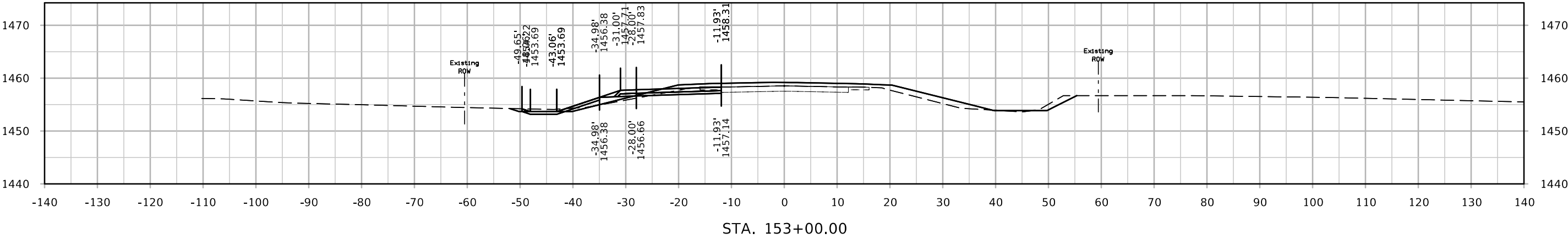


STA. 152+00.00

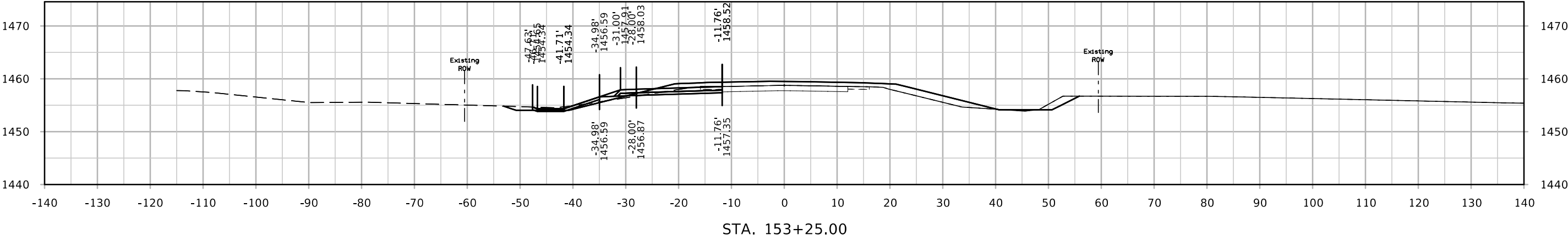
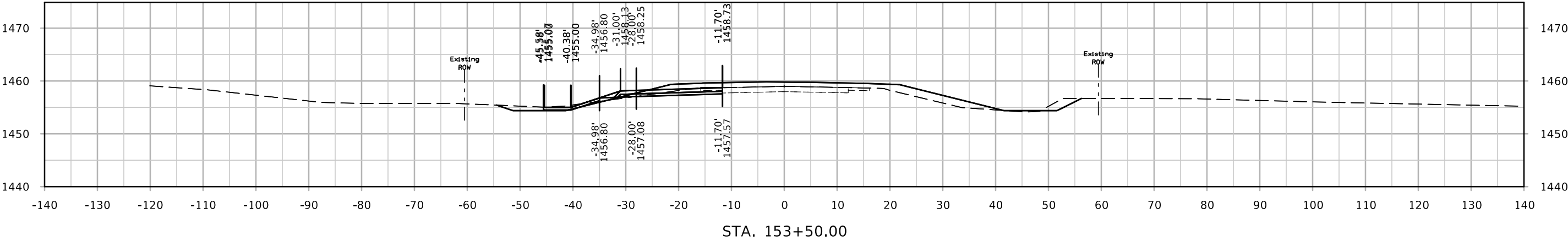
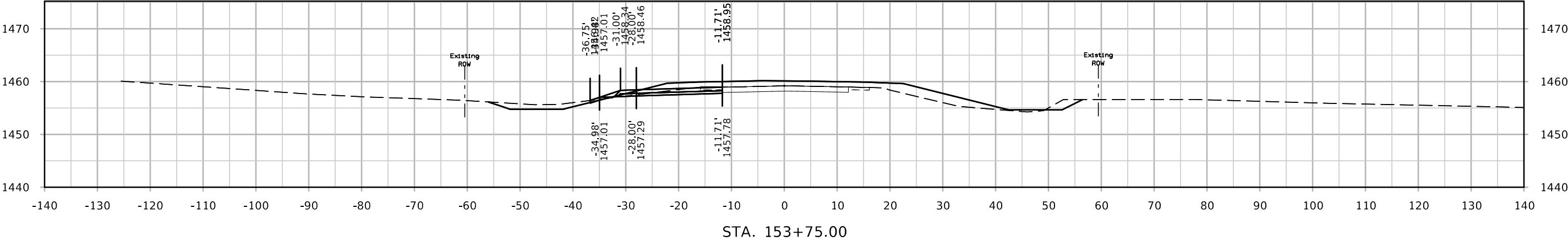


STA. 151+75.00

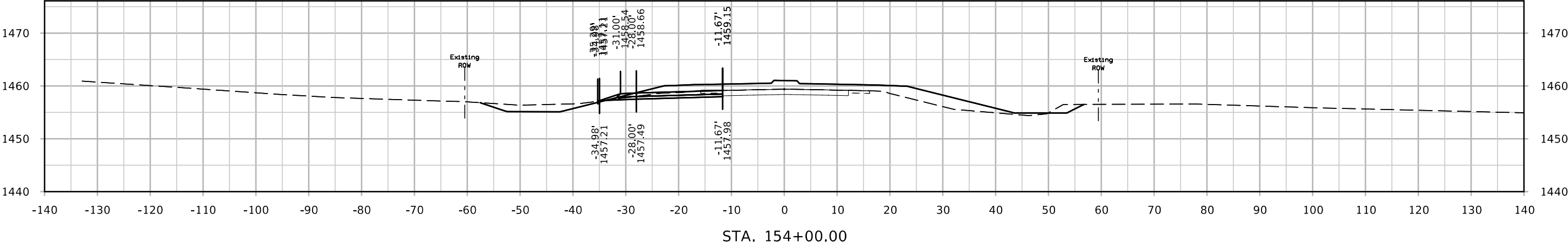
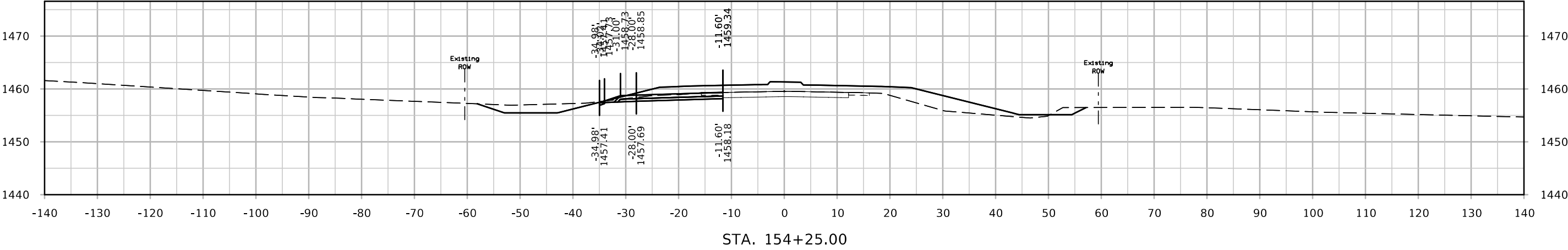
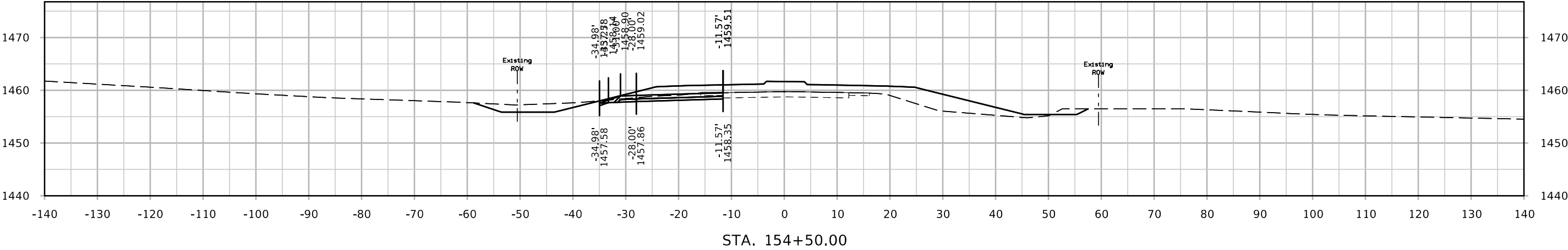
DET IA3



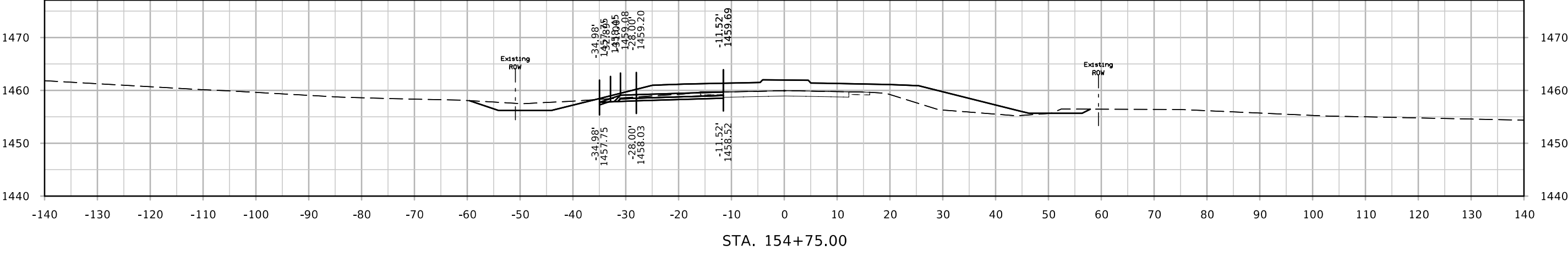
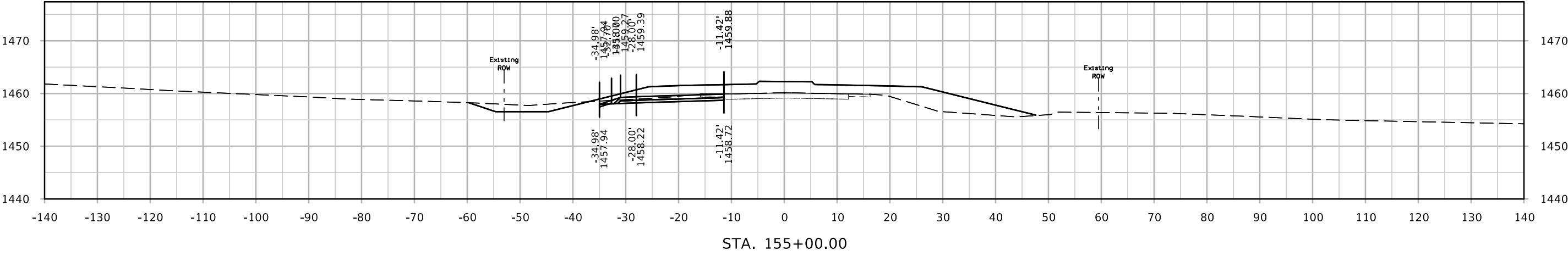
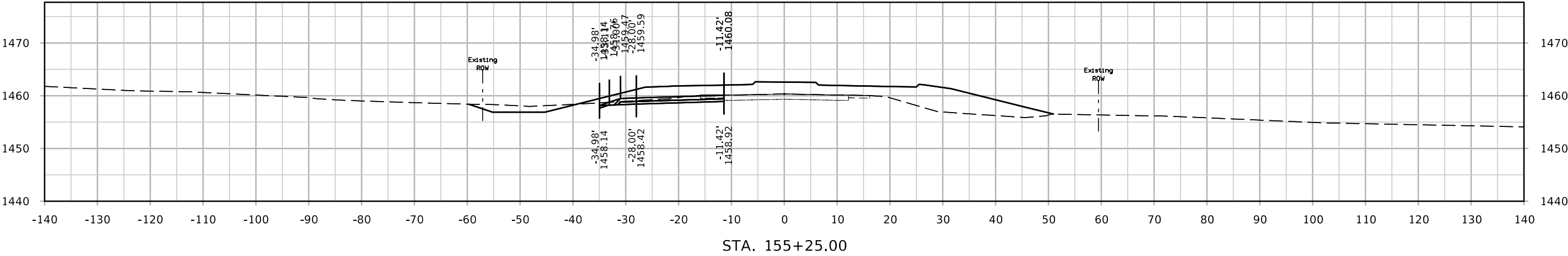
DET IA3



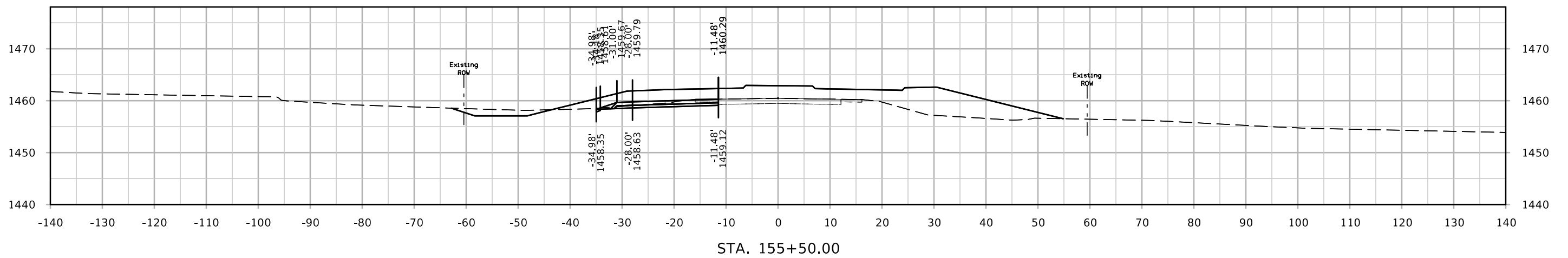
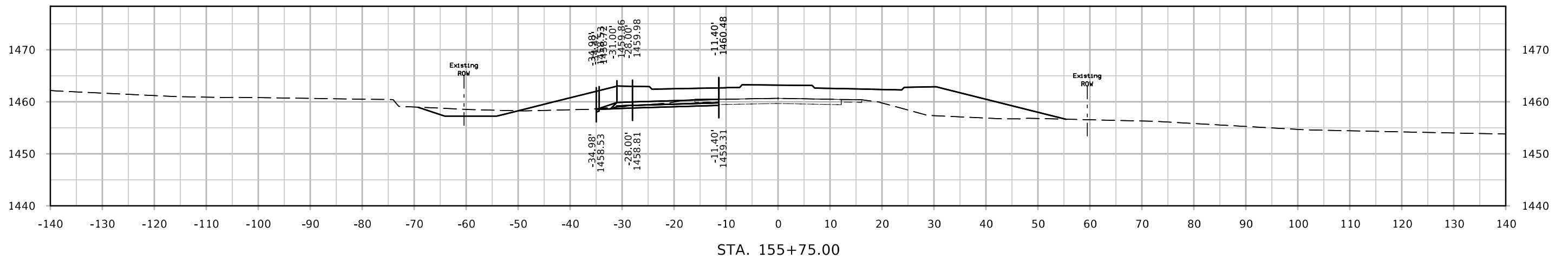
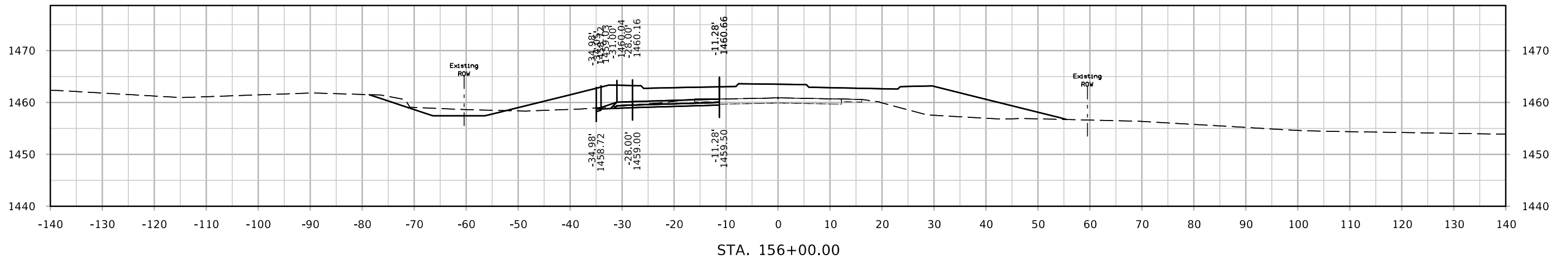
DET IA3



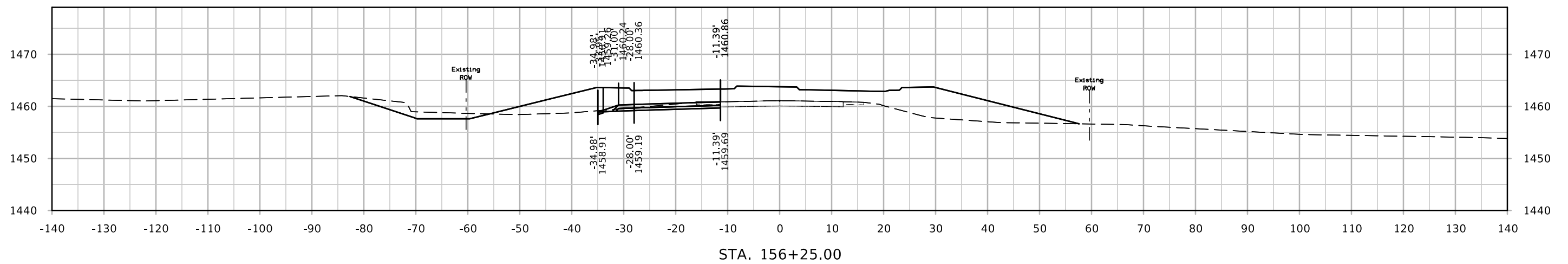
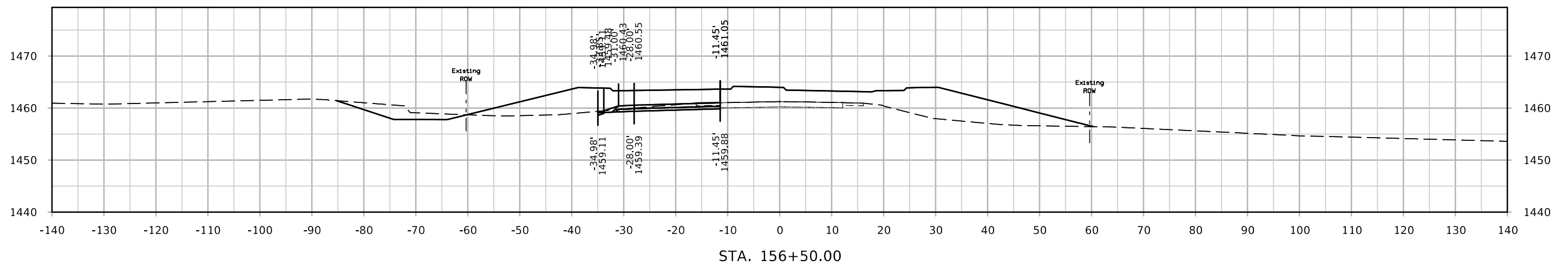
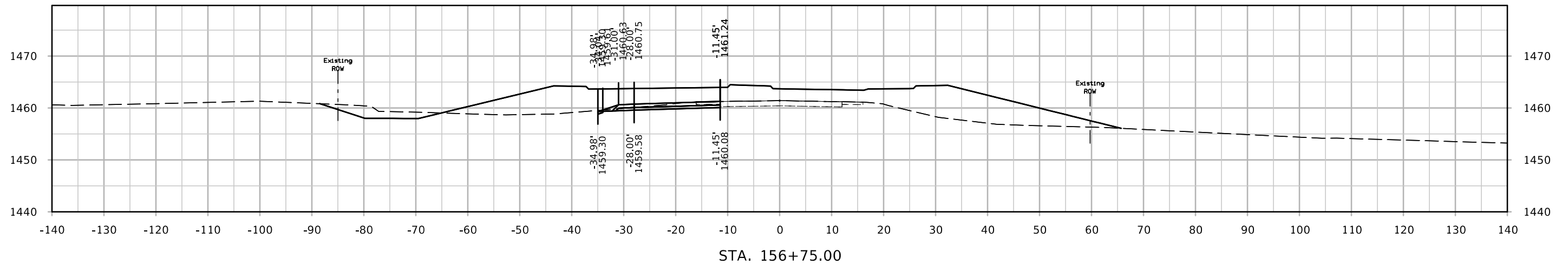
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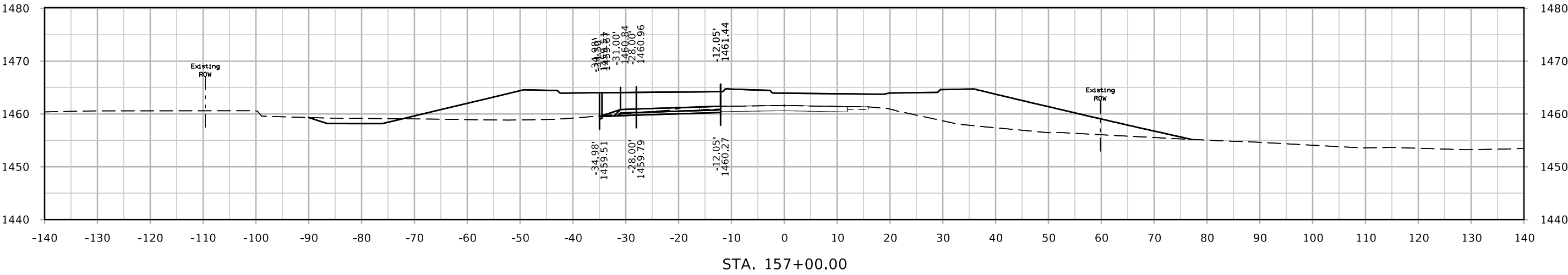
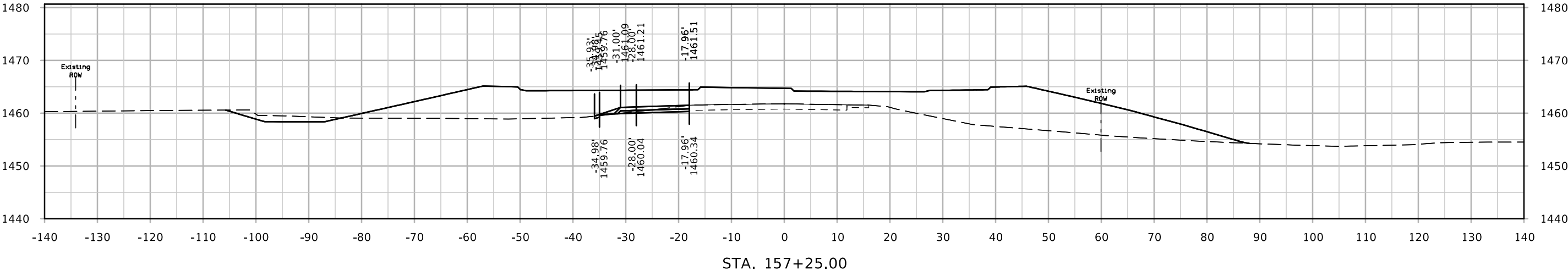
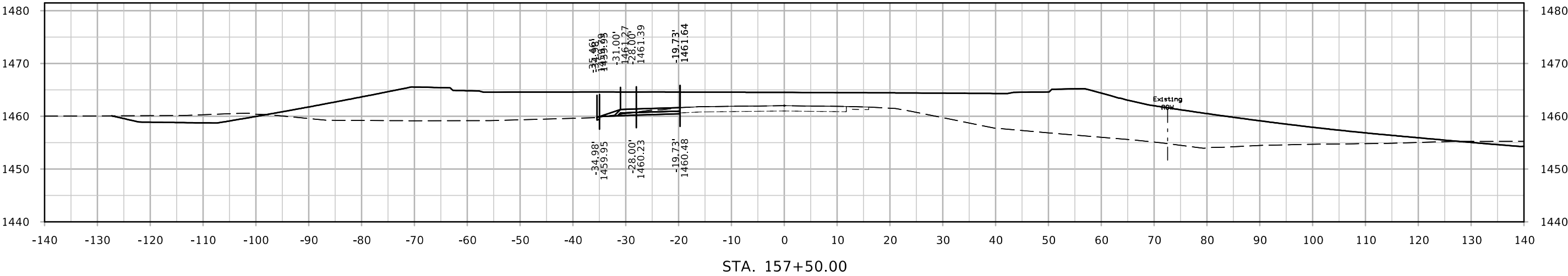
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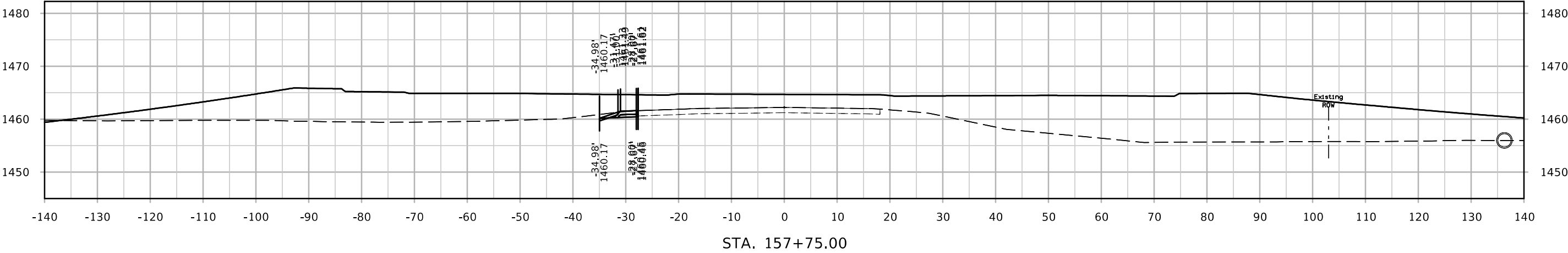
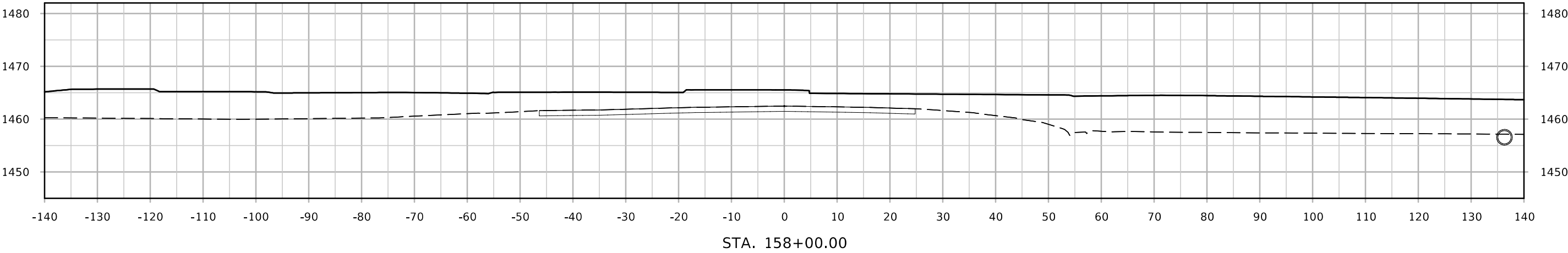
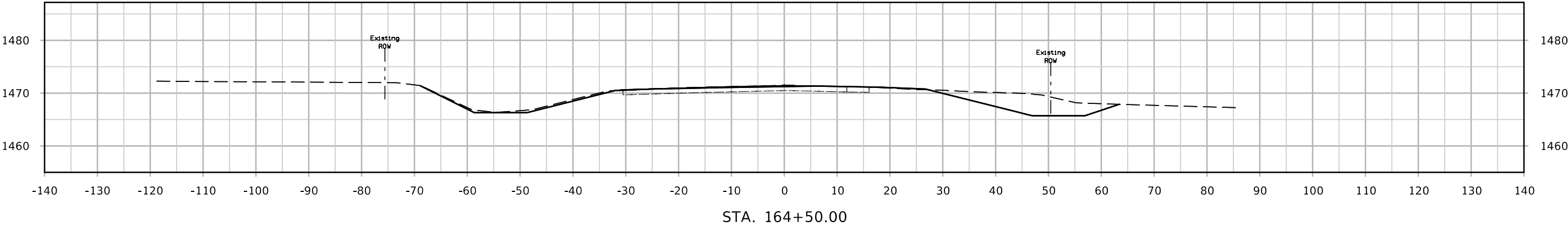
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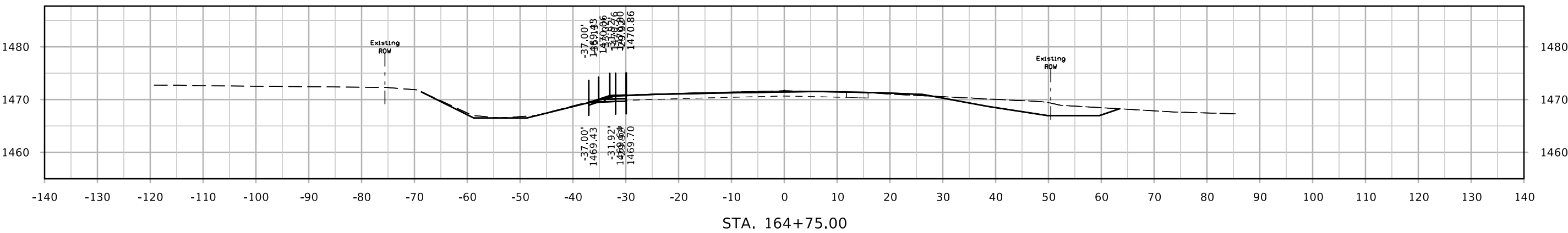
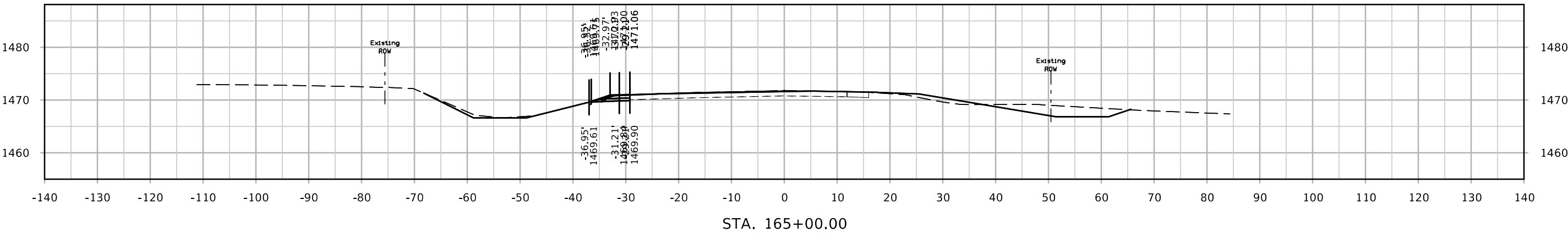
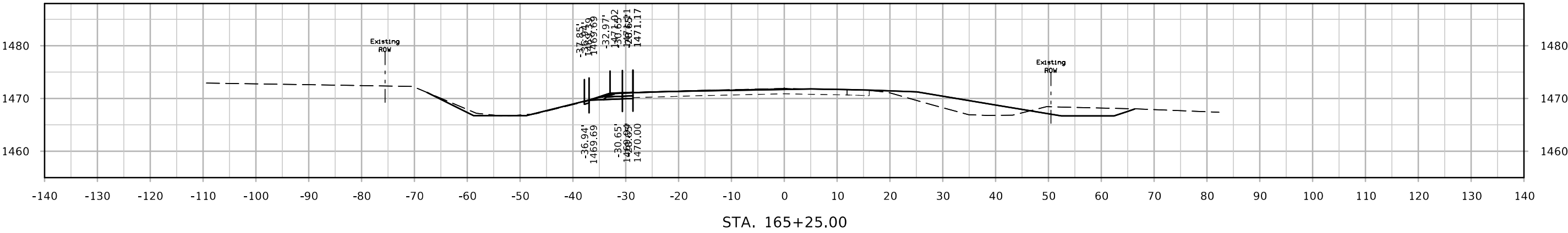
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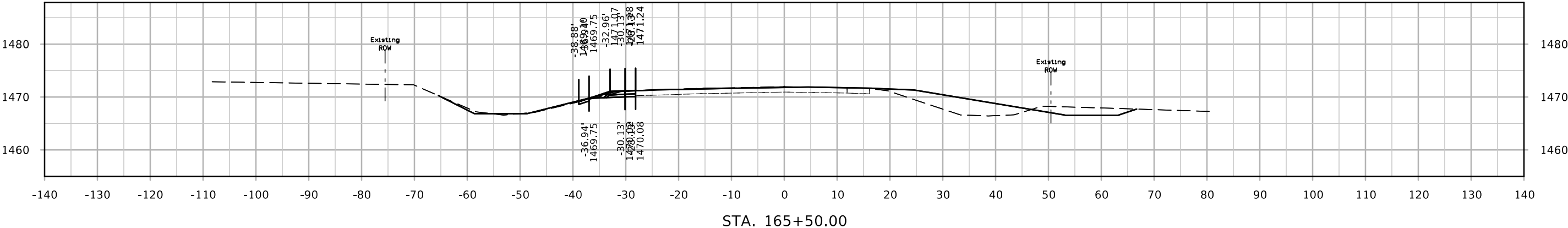
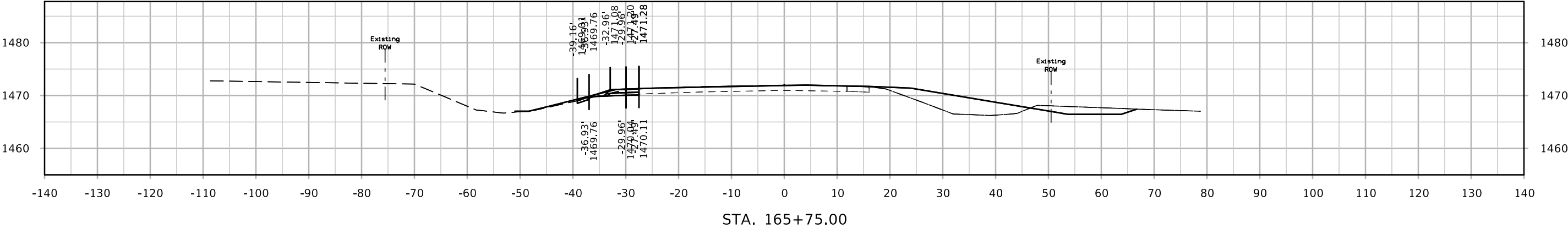
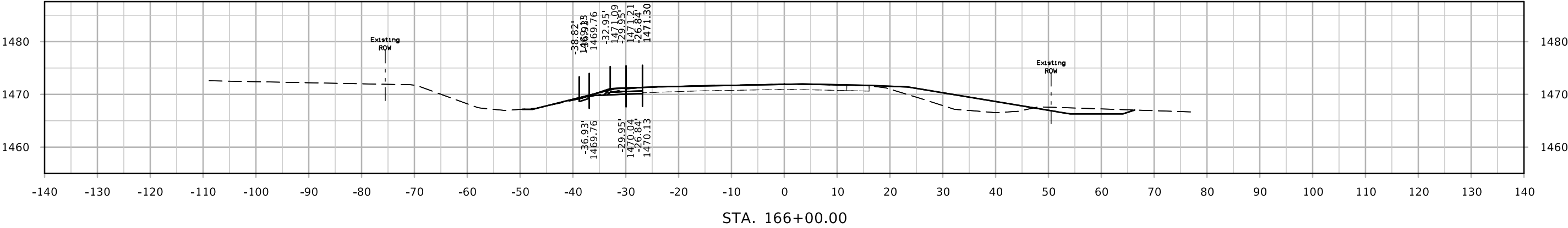
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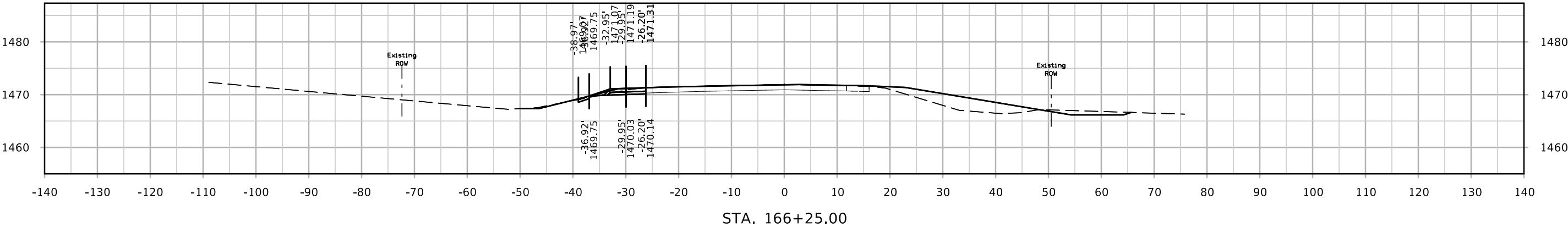
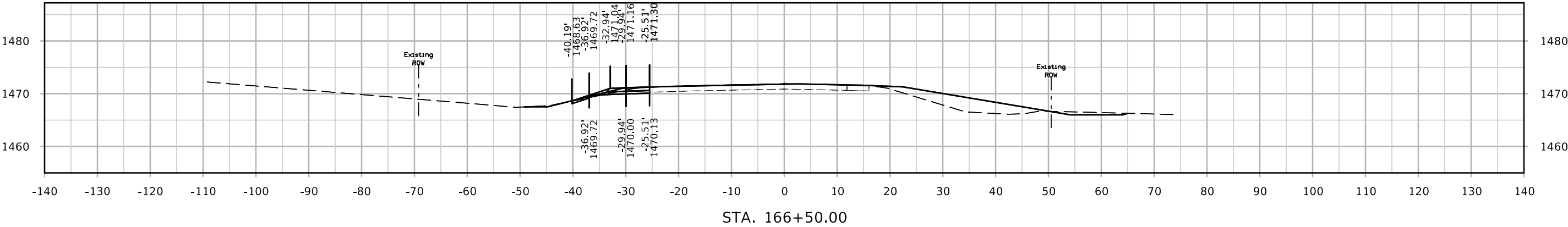
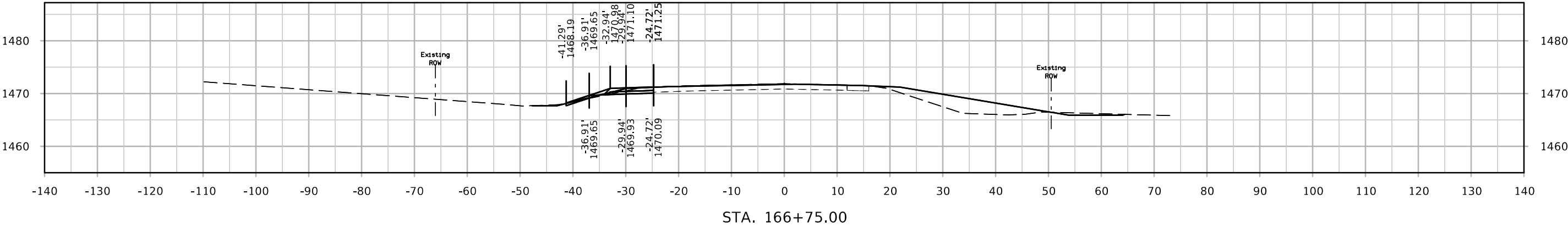
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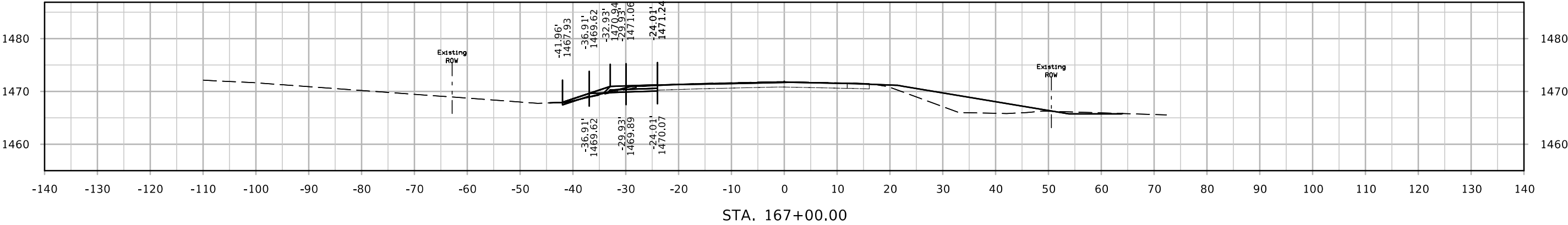
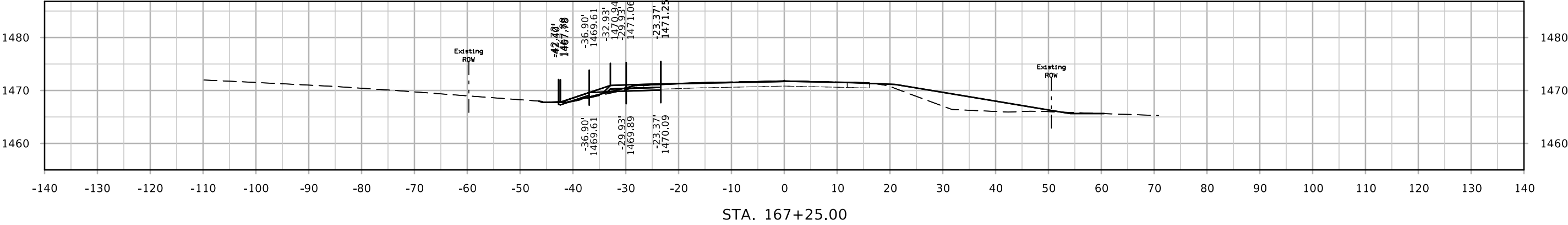
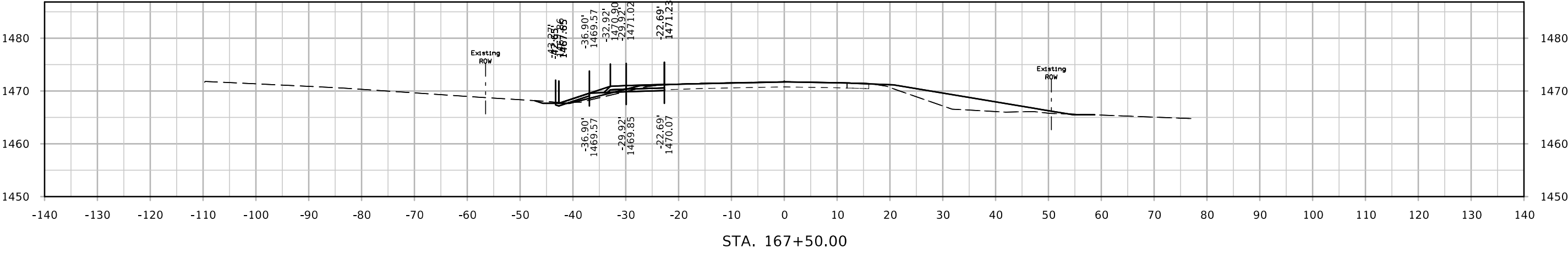
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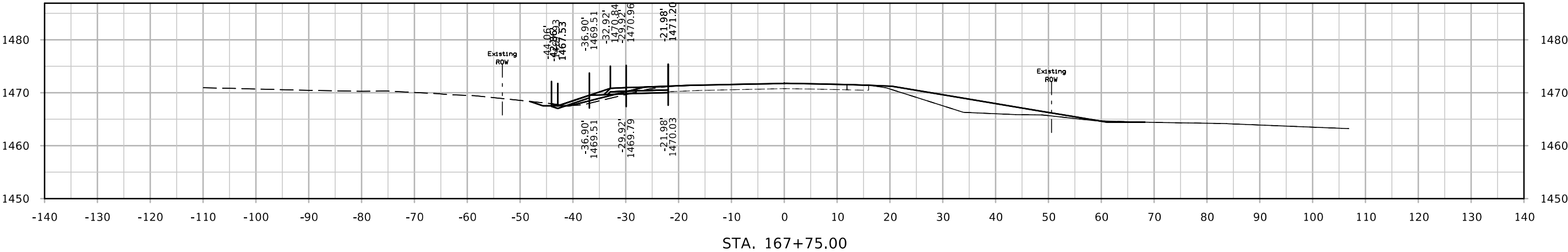
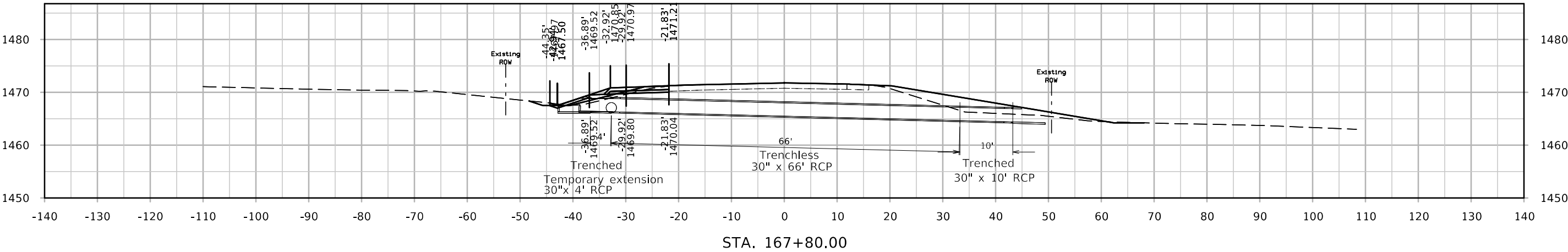
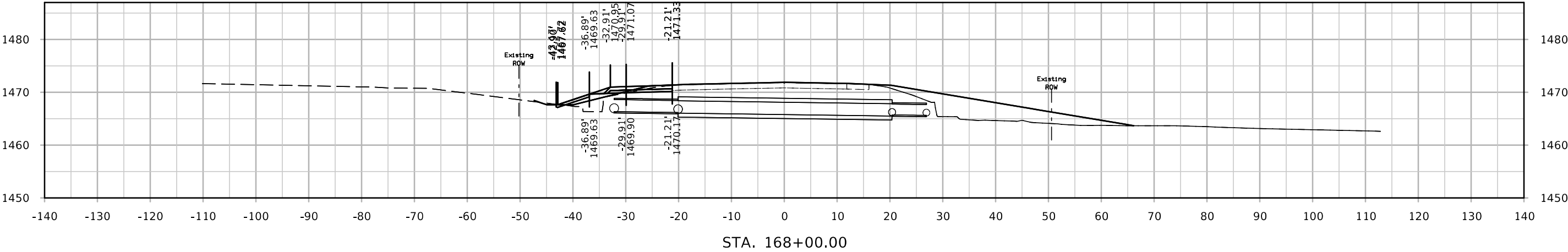
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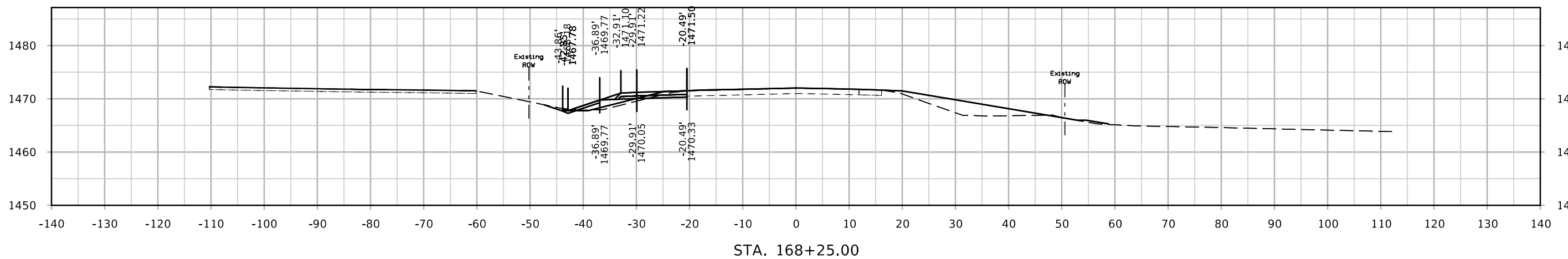
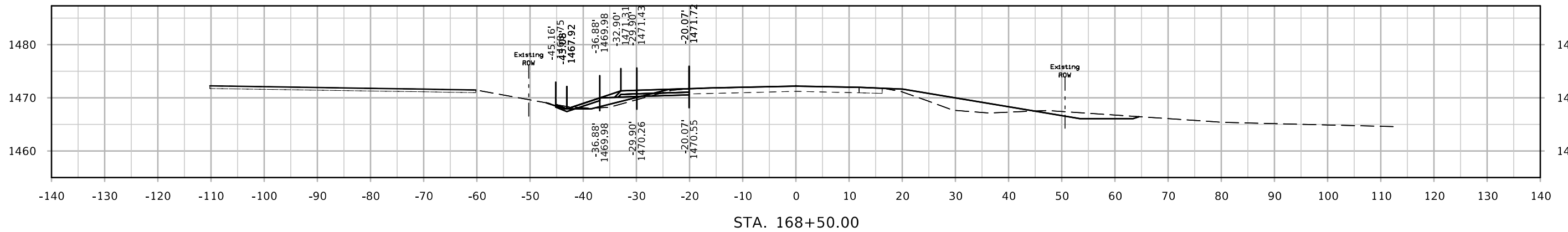
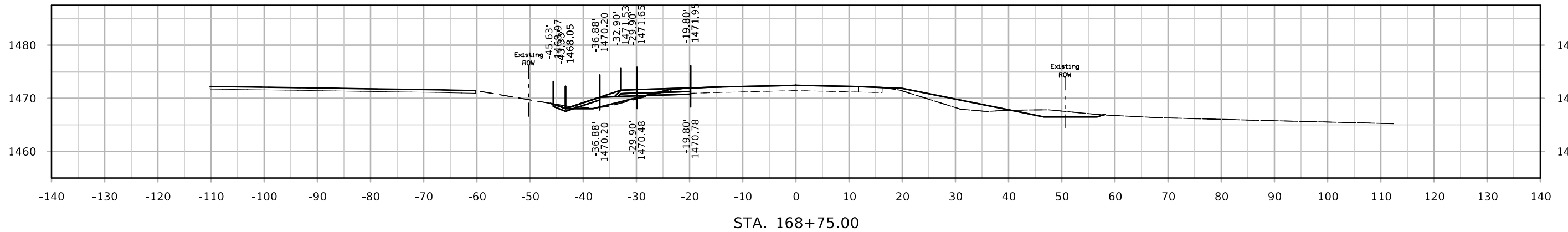
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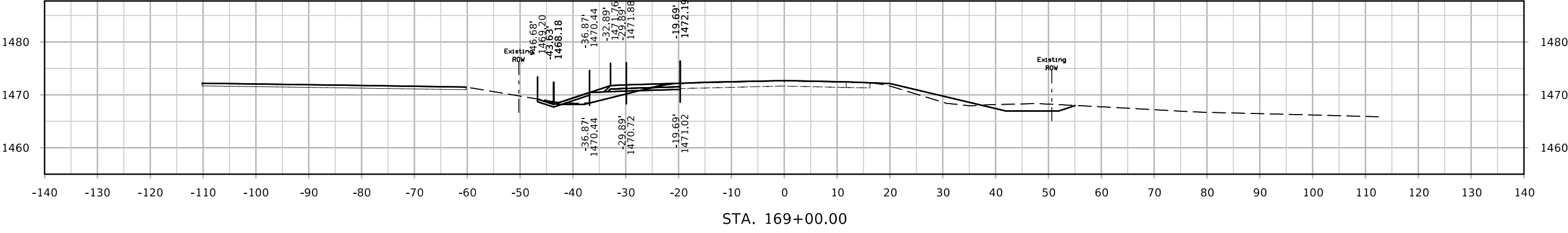
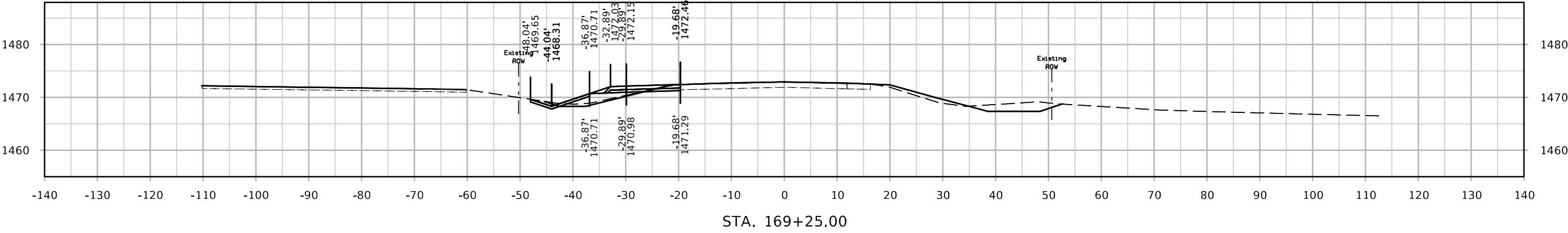
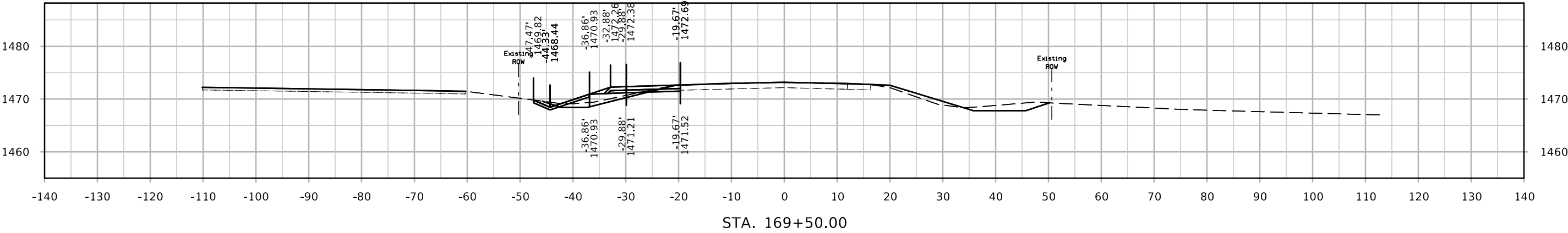
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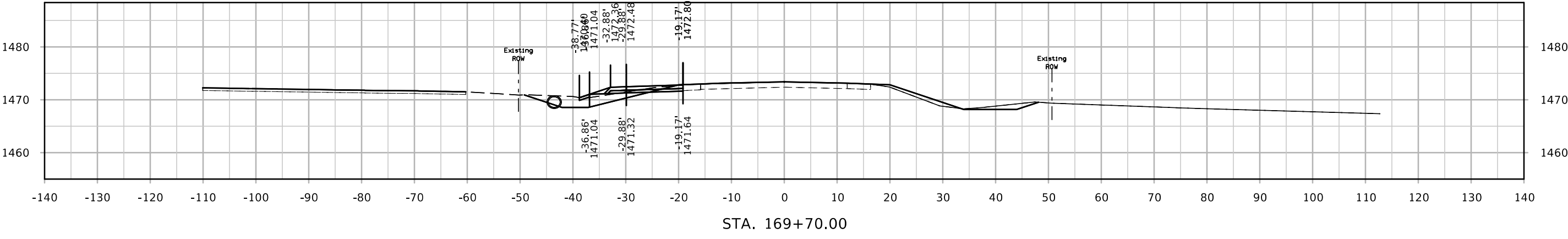
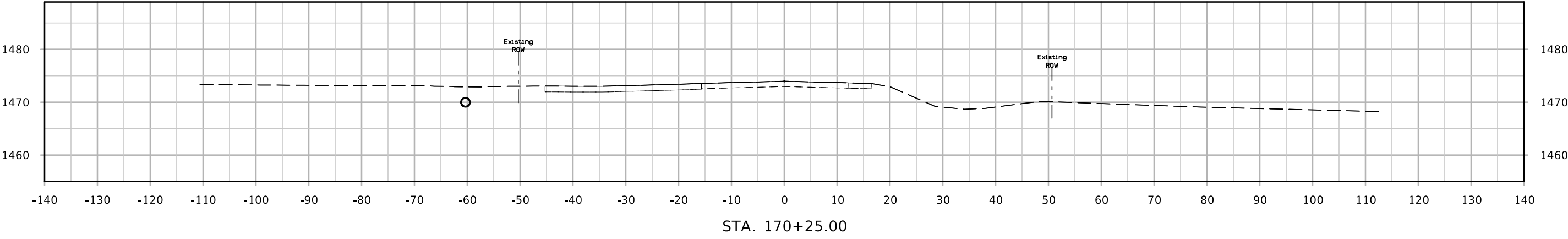
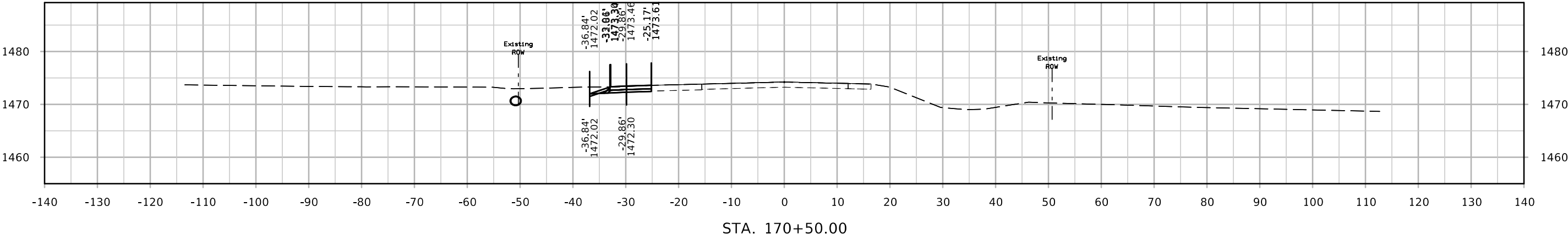
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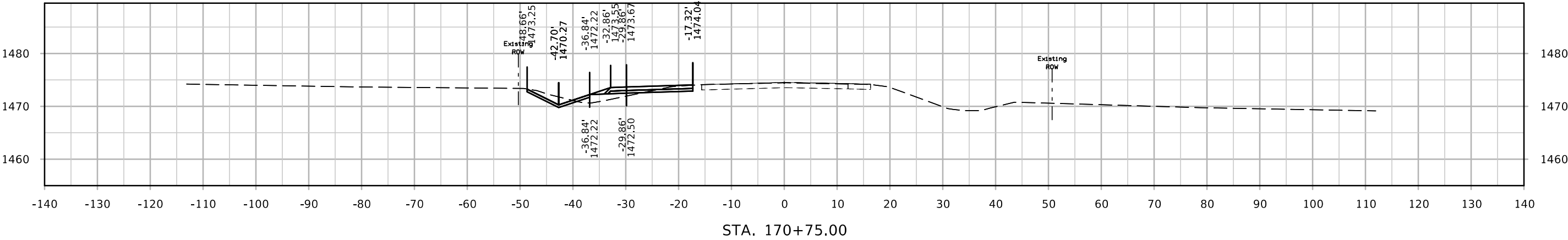
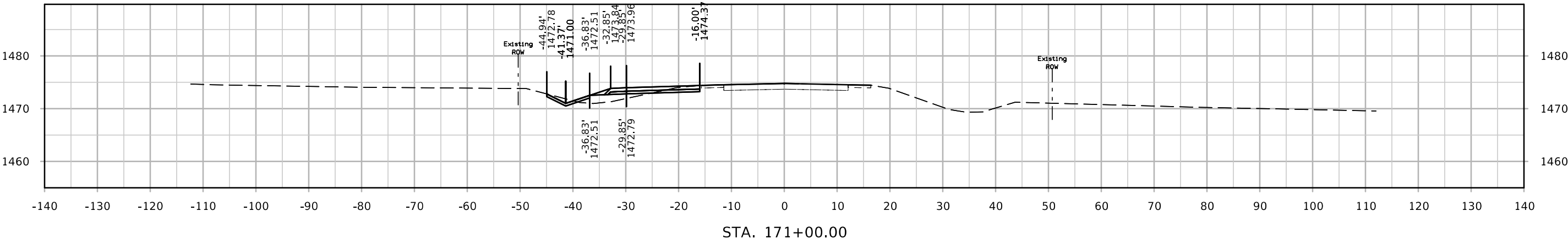
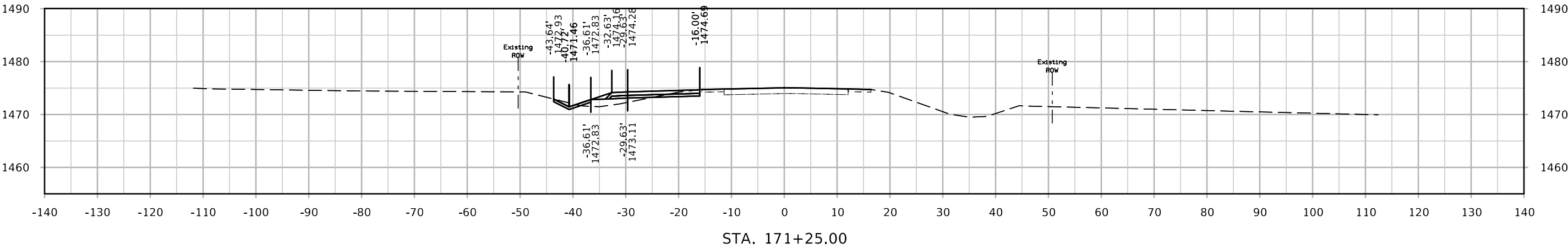
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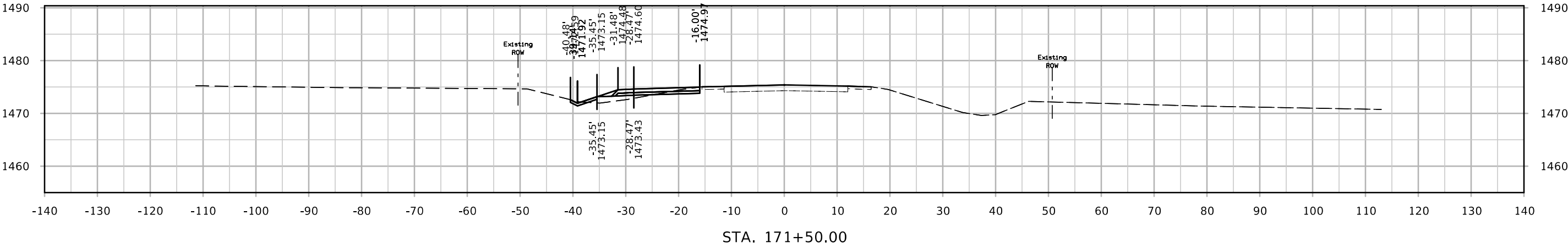
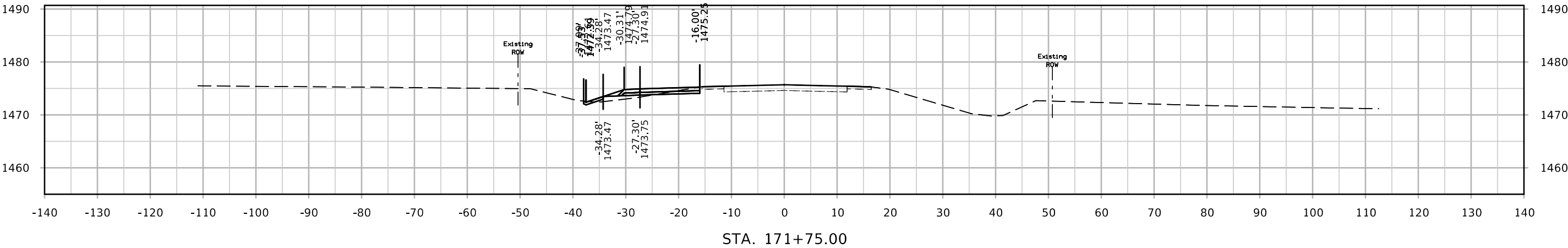
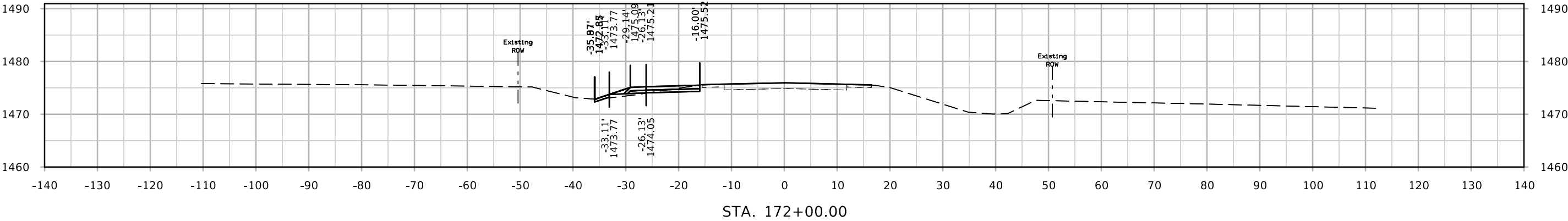
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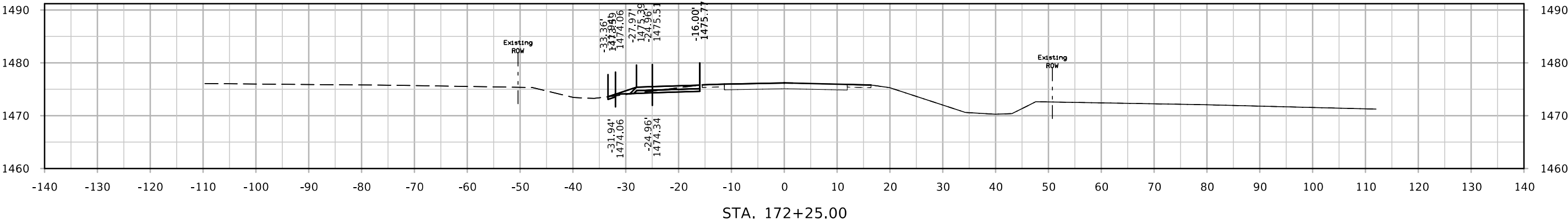
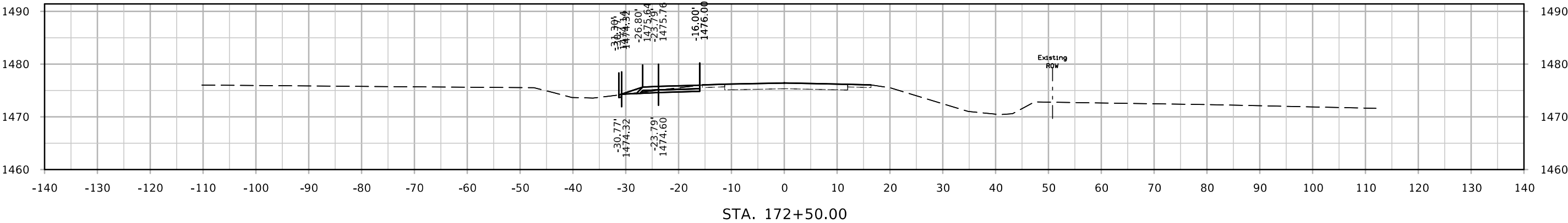
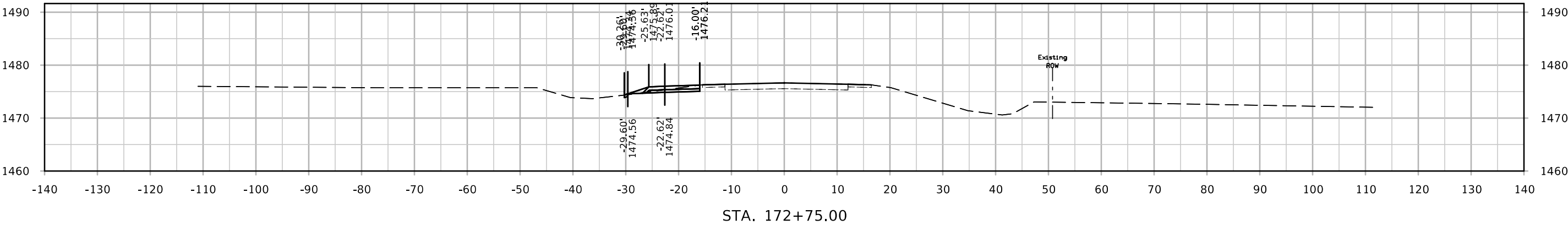
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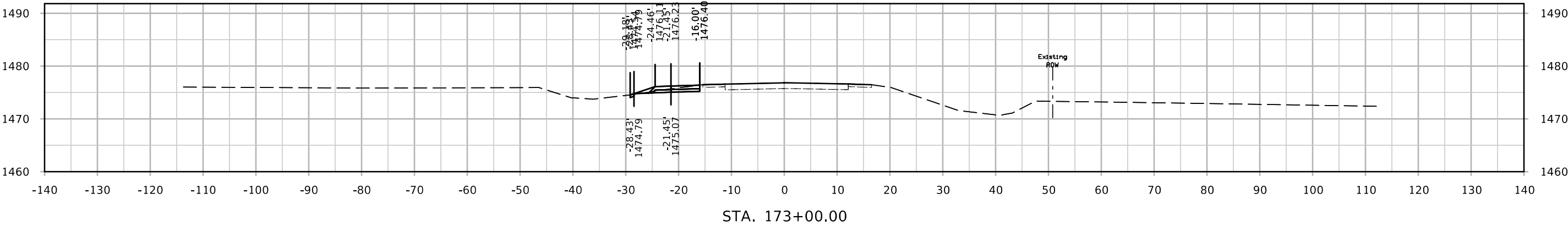
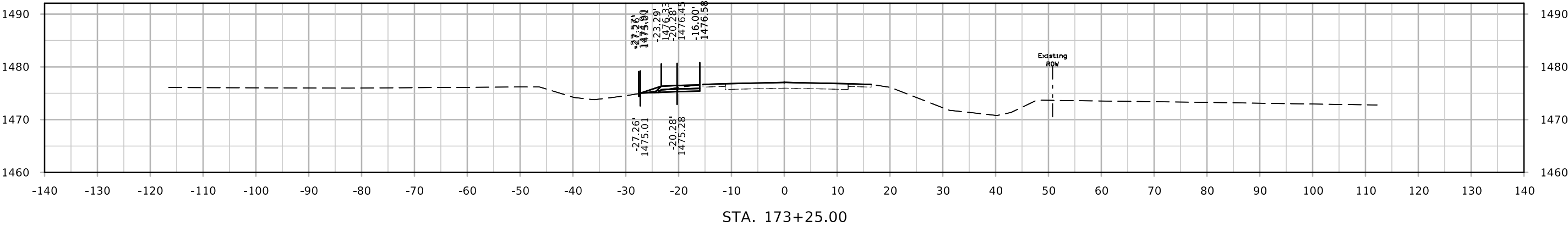
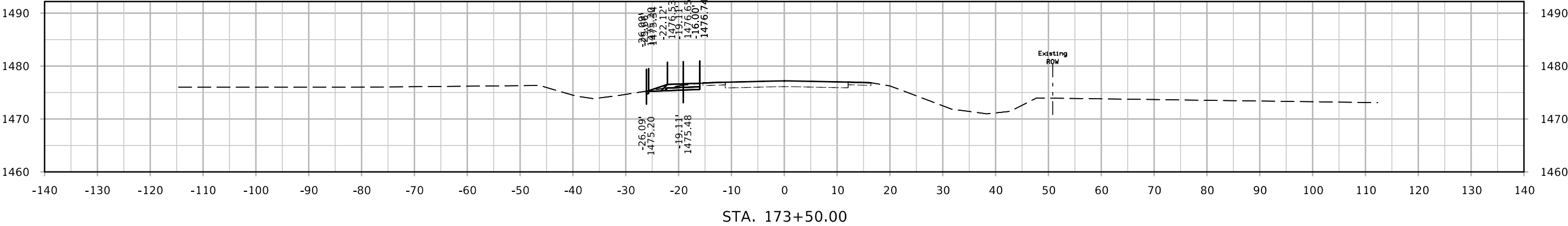
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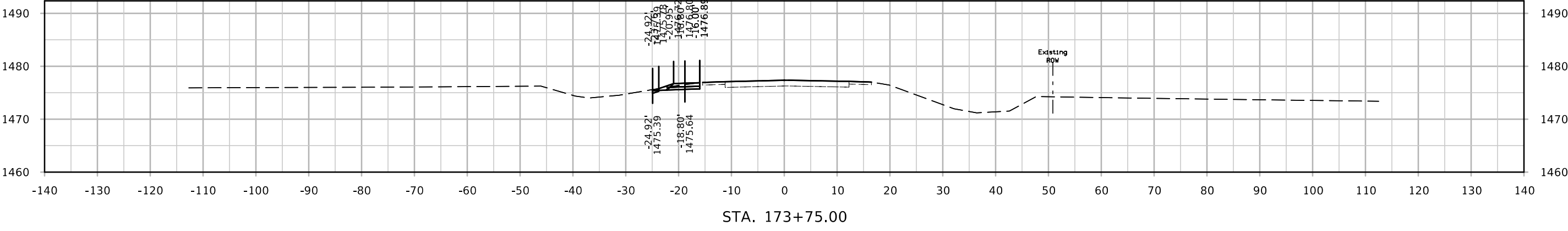
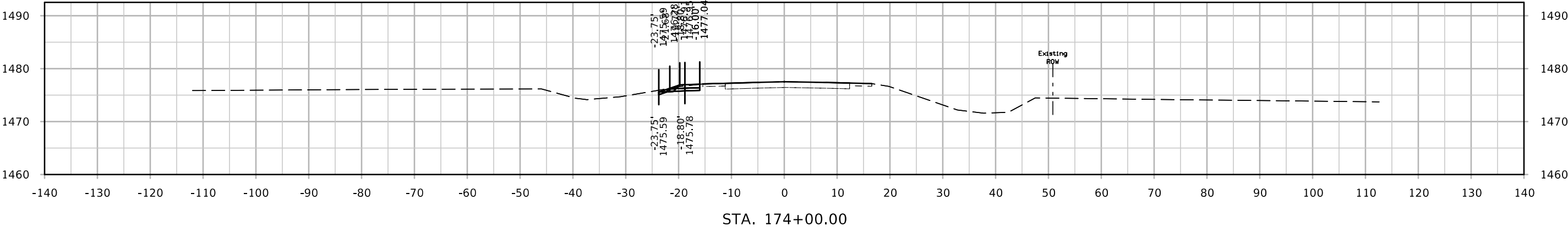
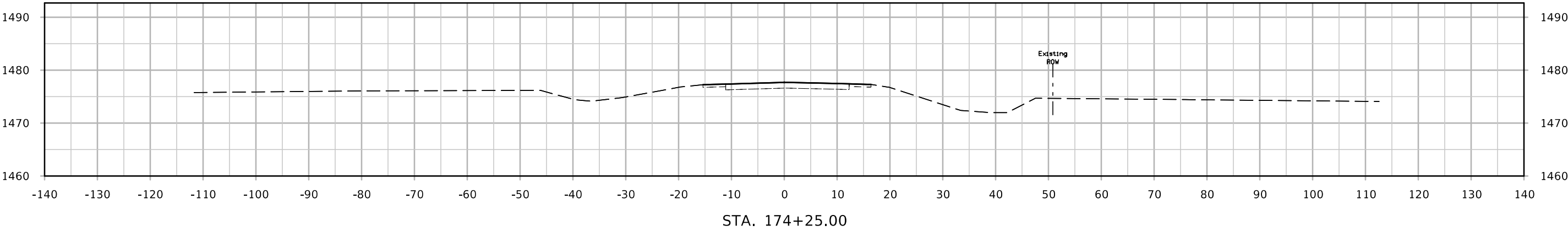
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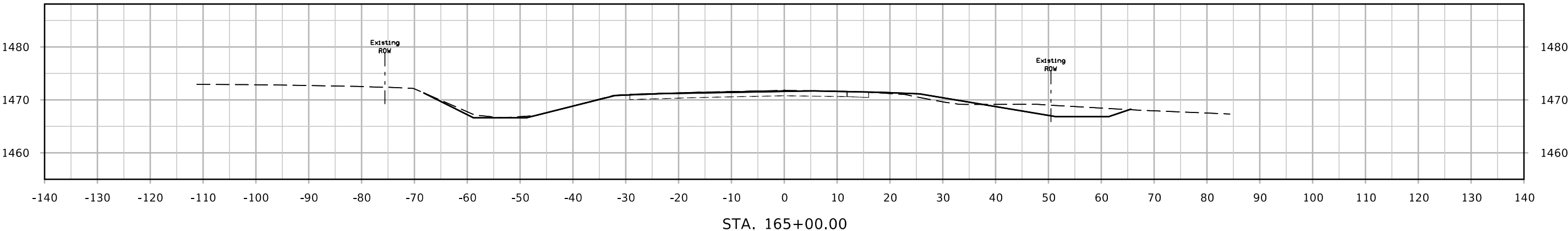
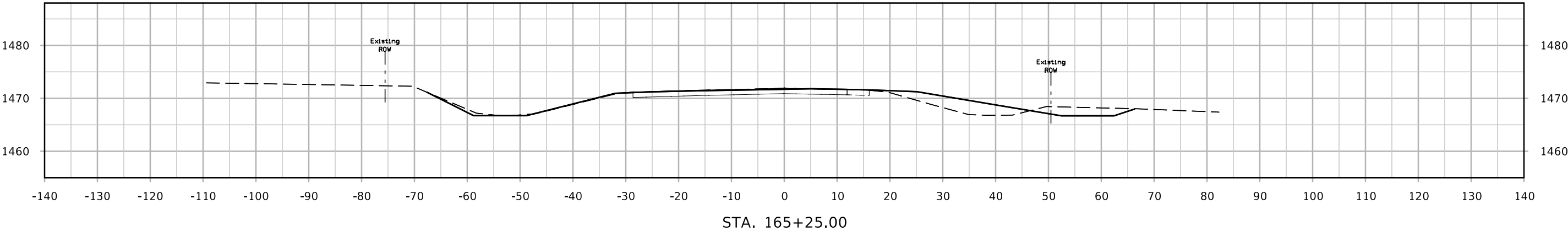
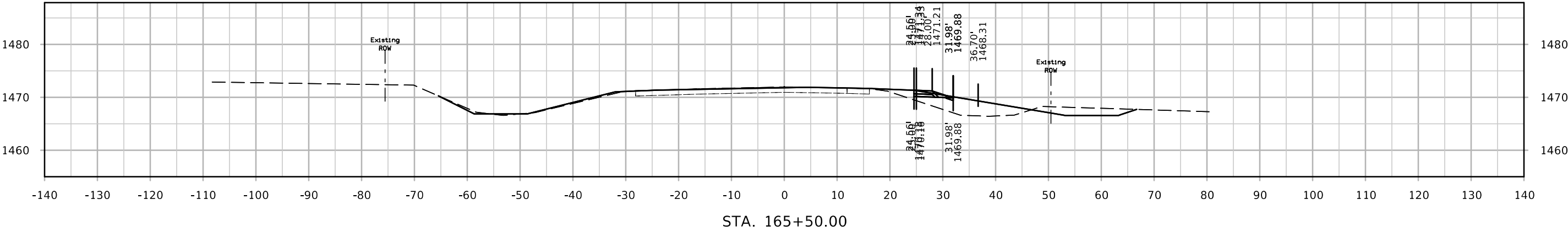
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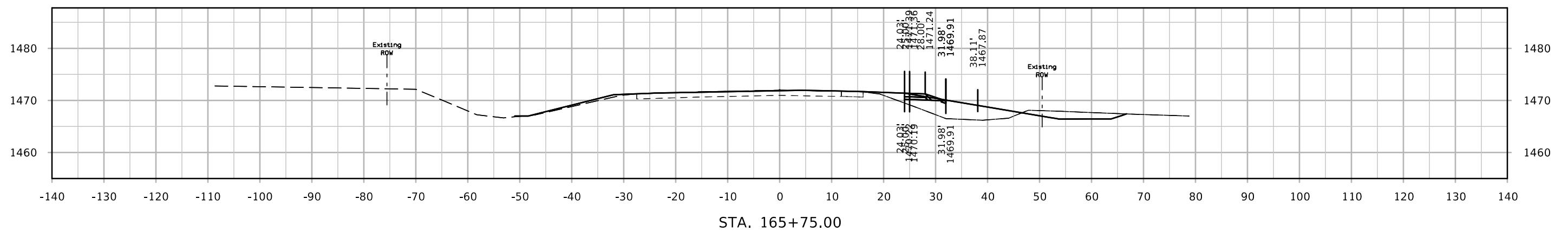
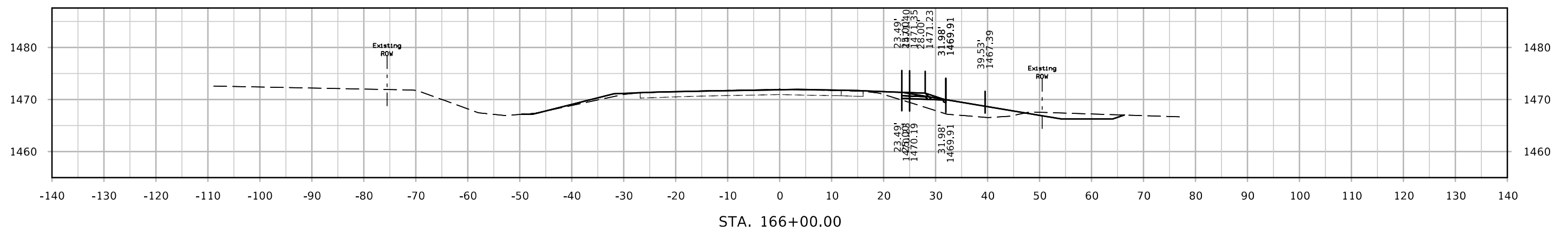
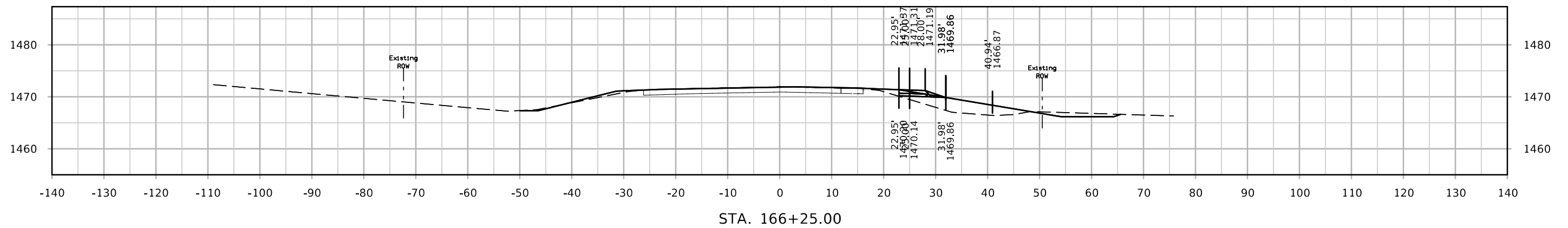
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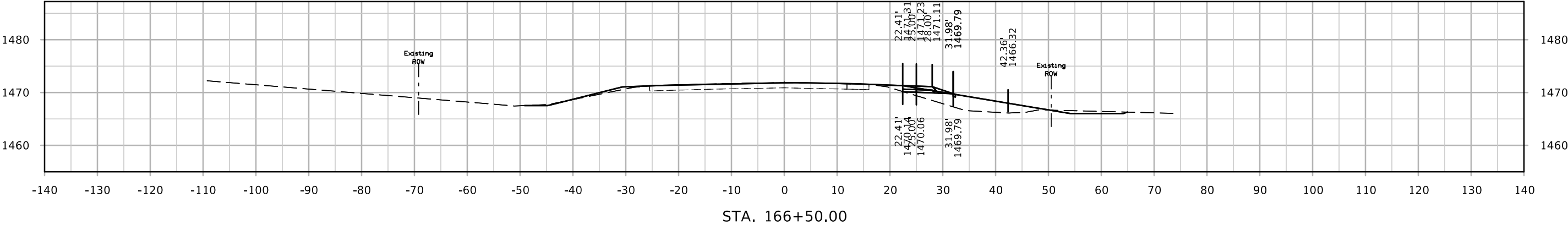
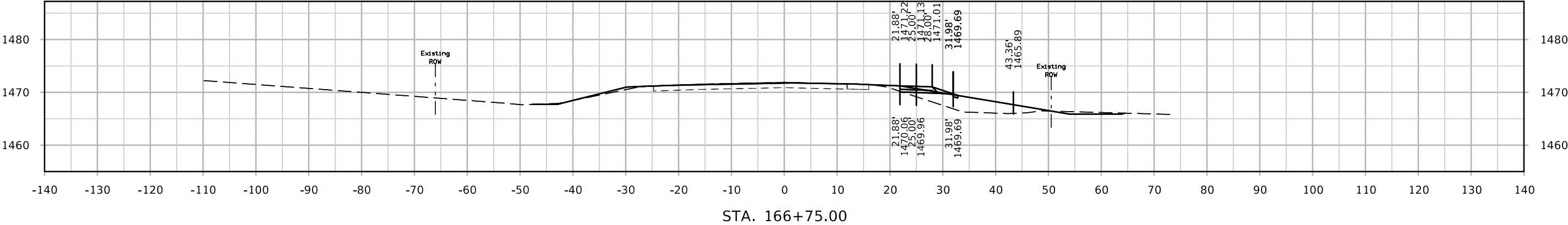
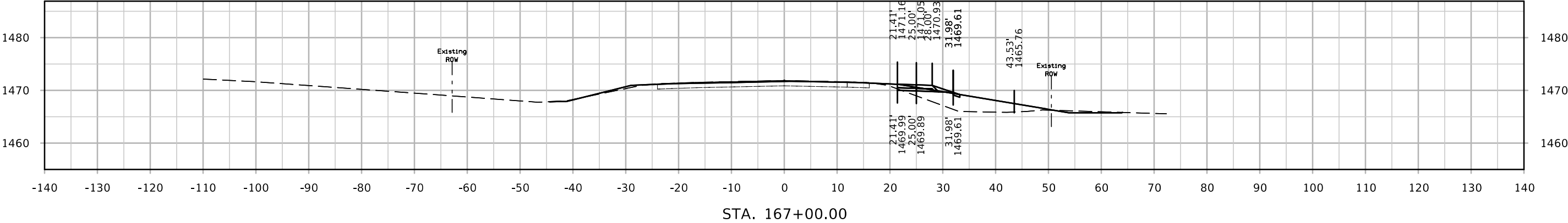
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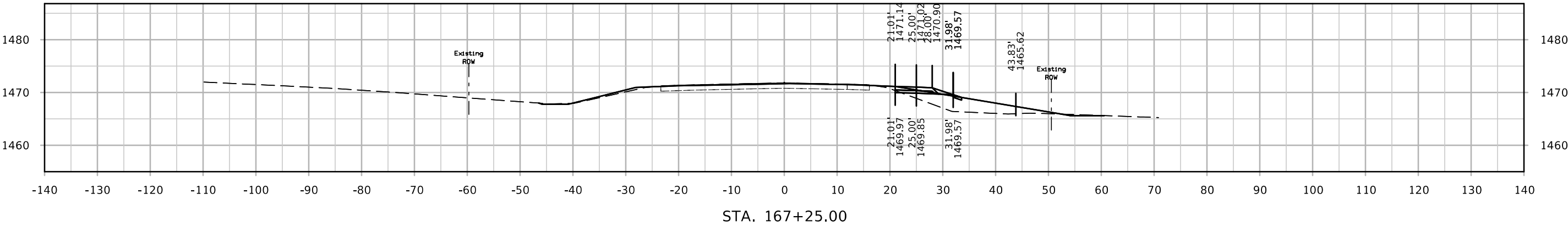
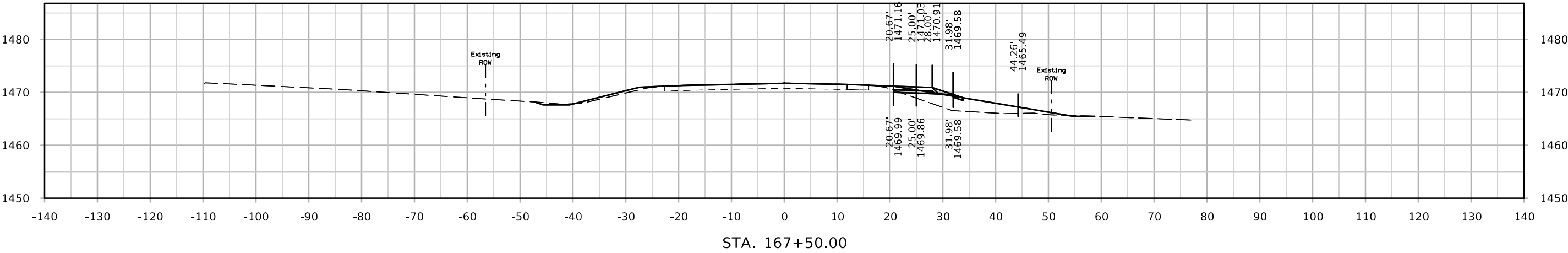
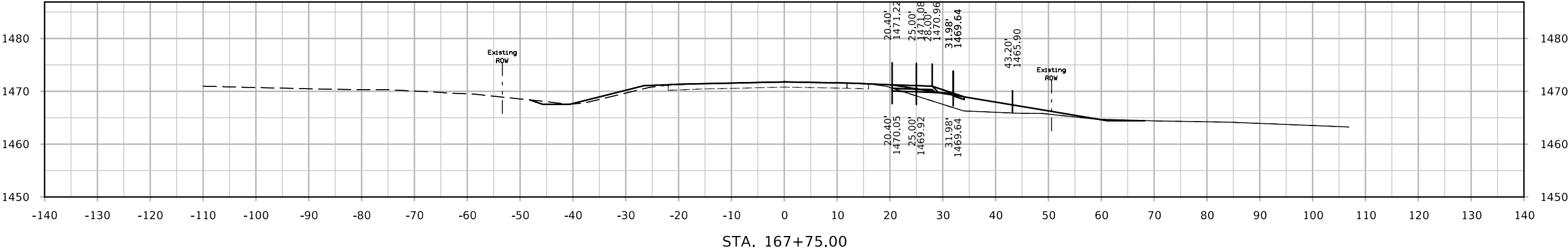
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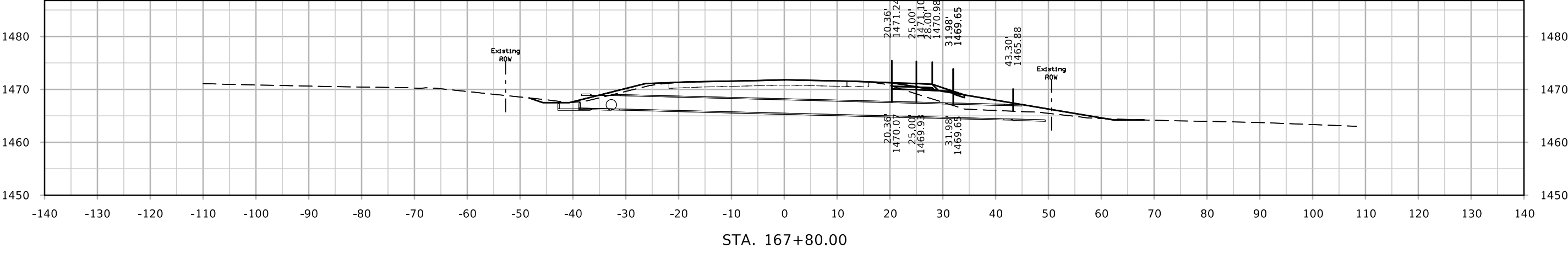
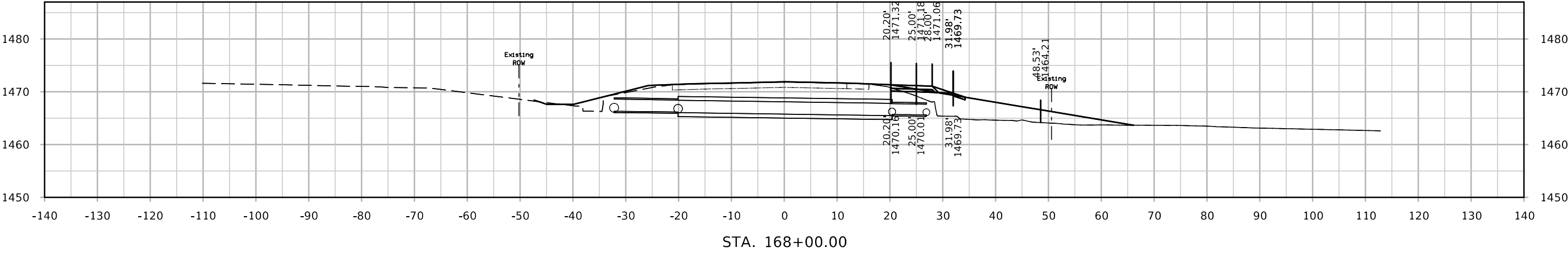
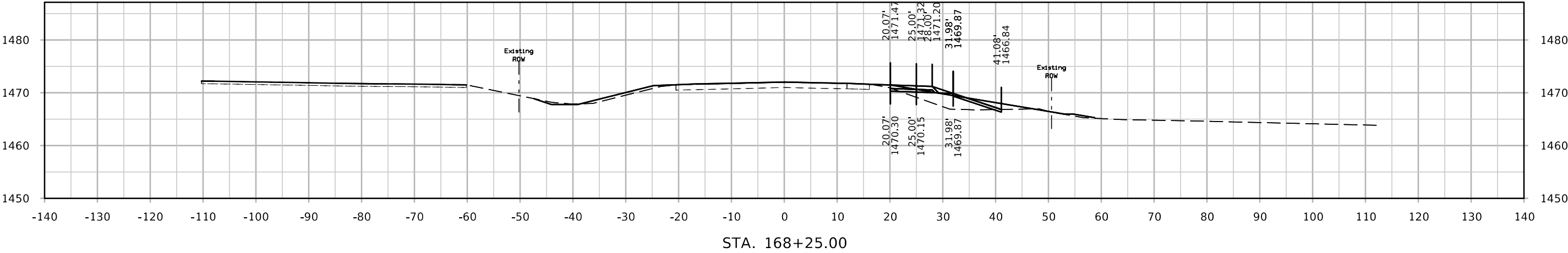
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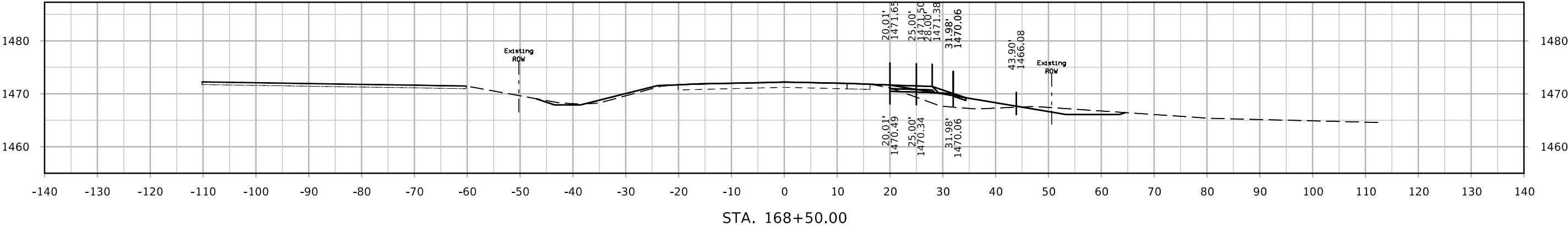
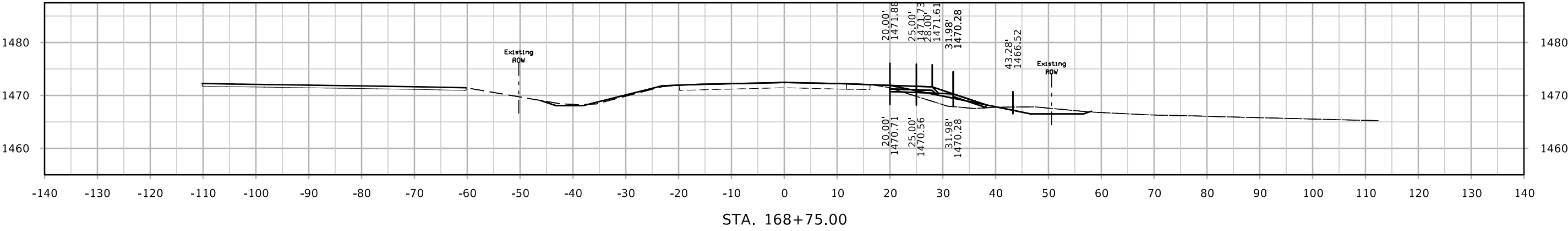
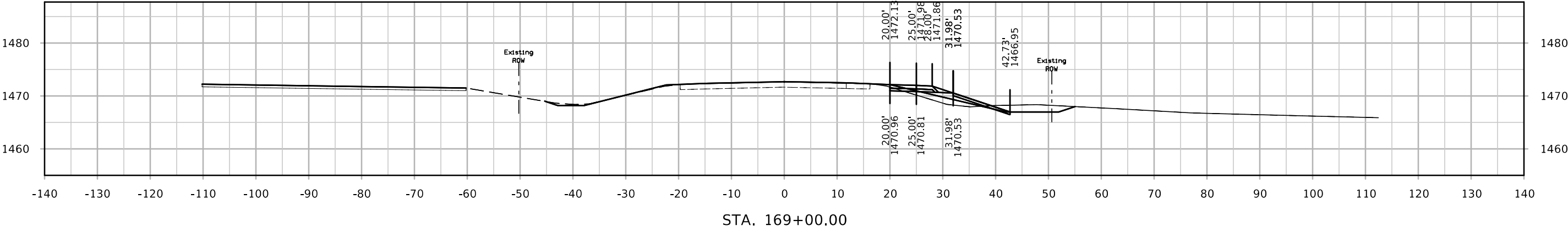
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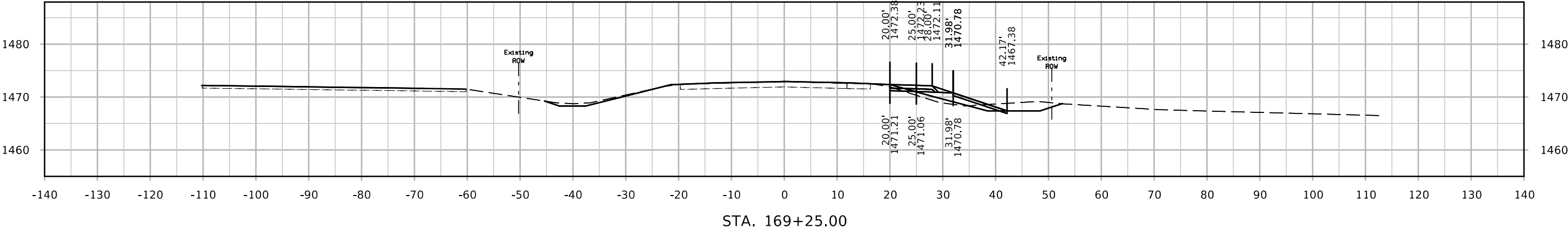
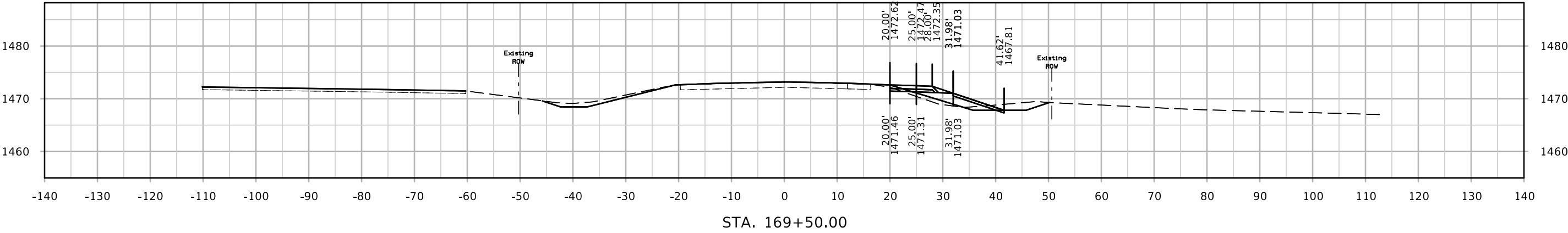
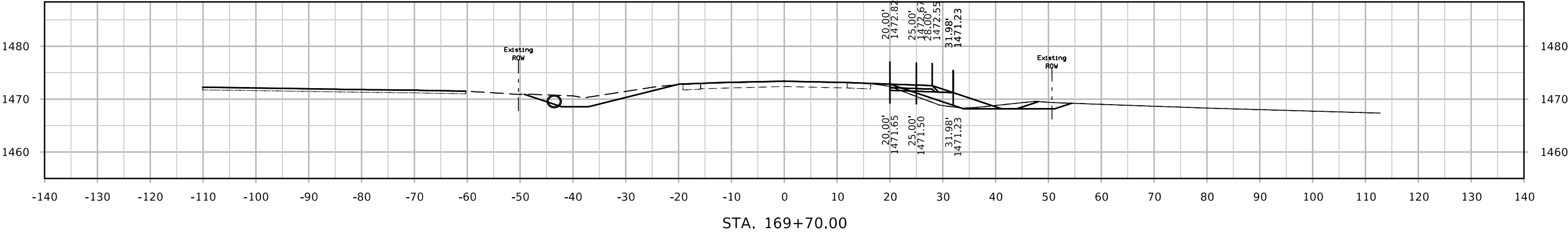
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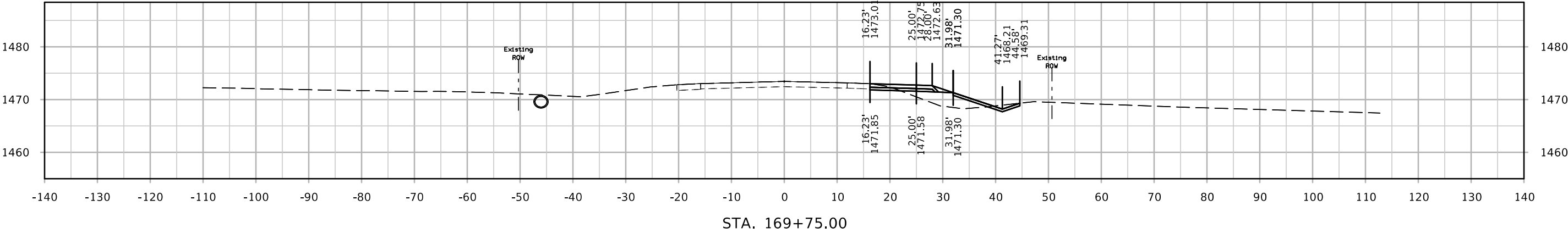
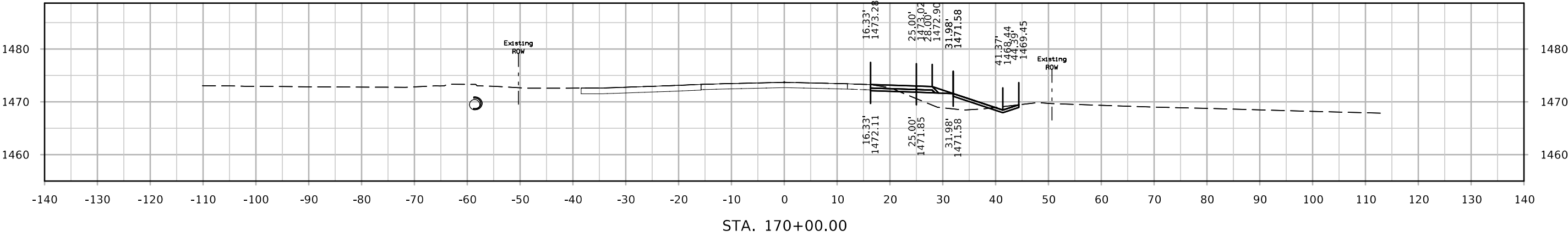
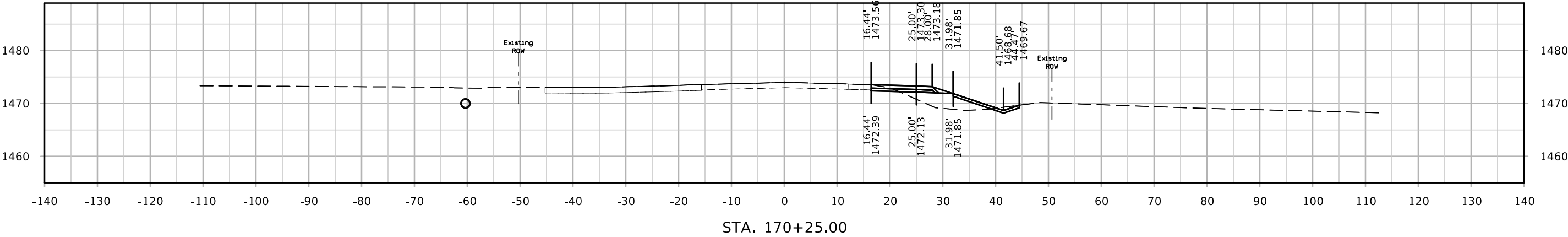
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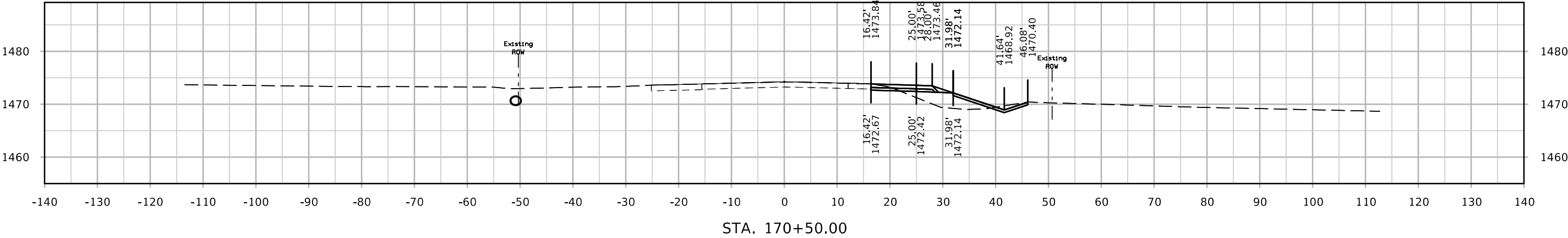
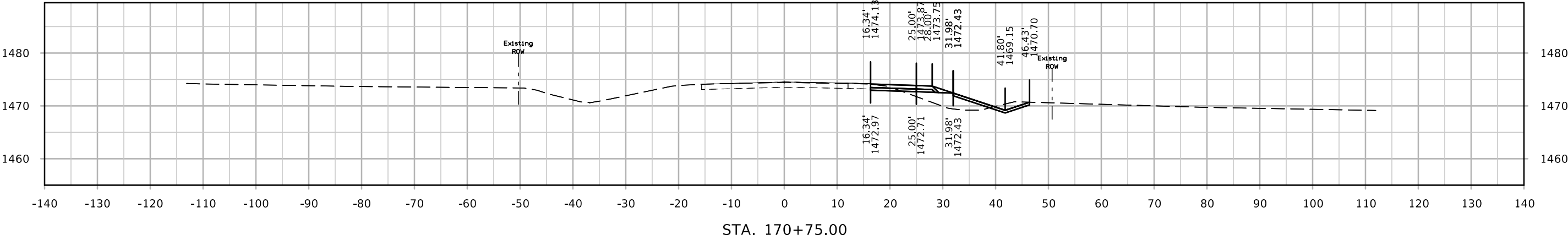
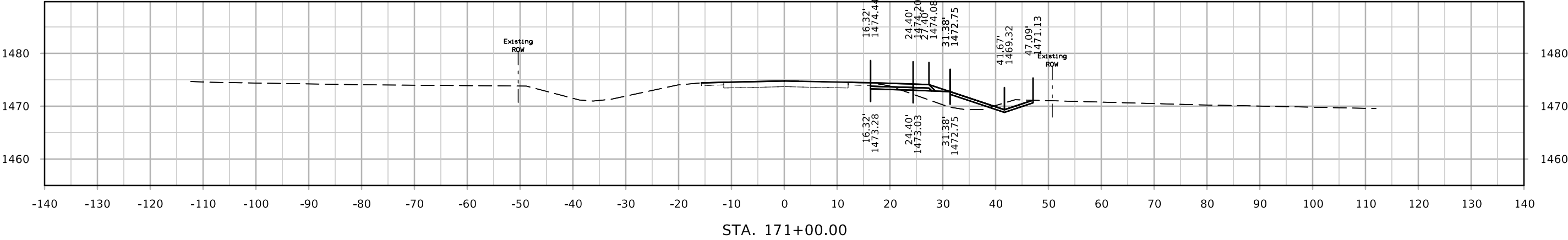
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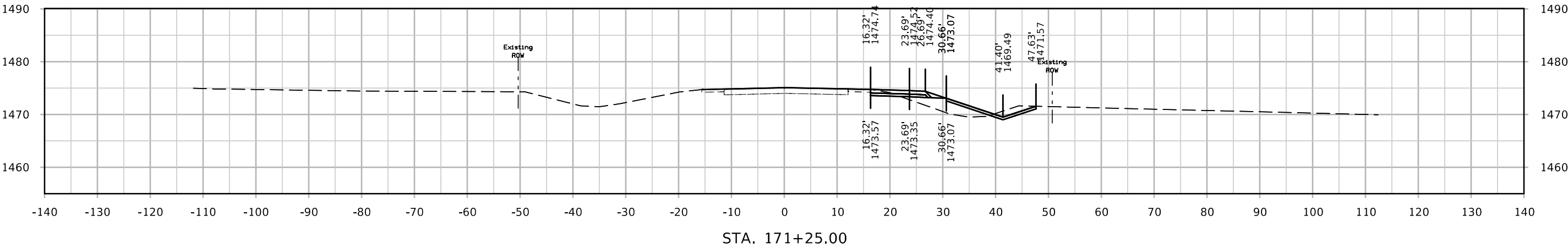
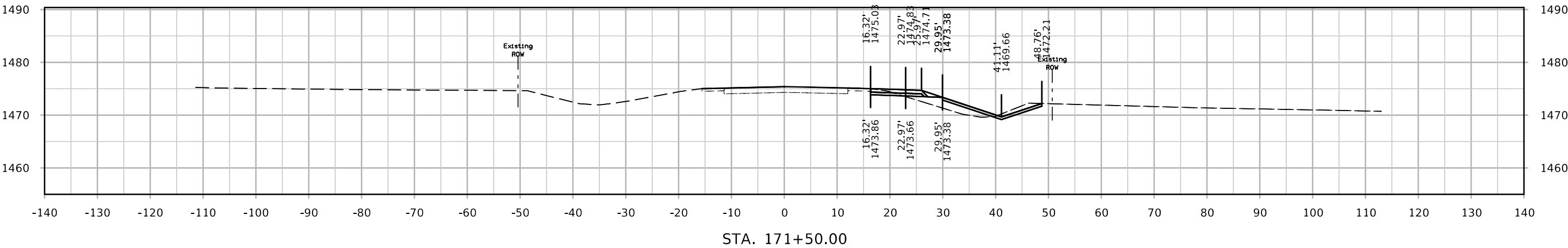
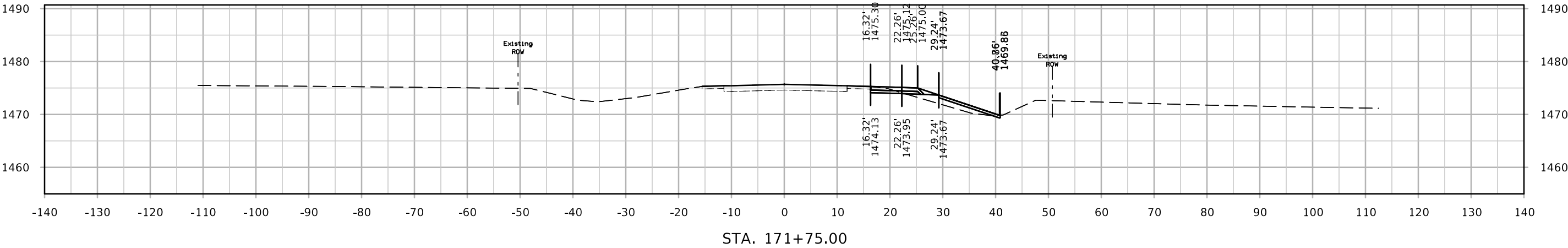
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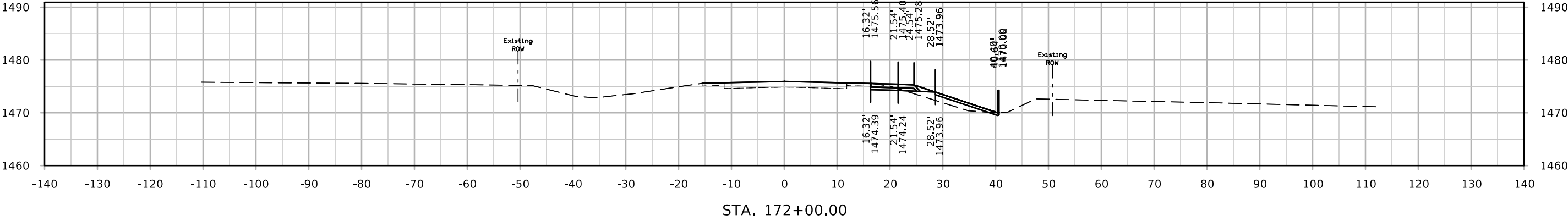
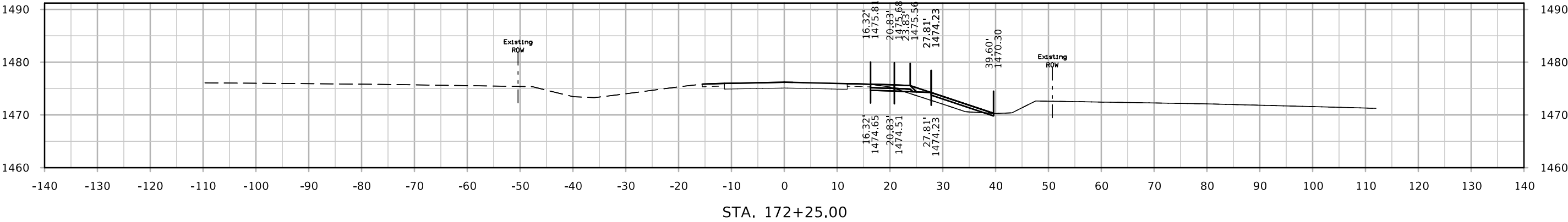
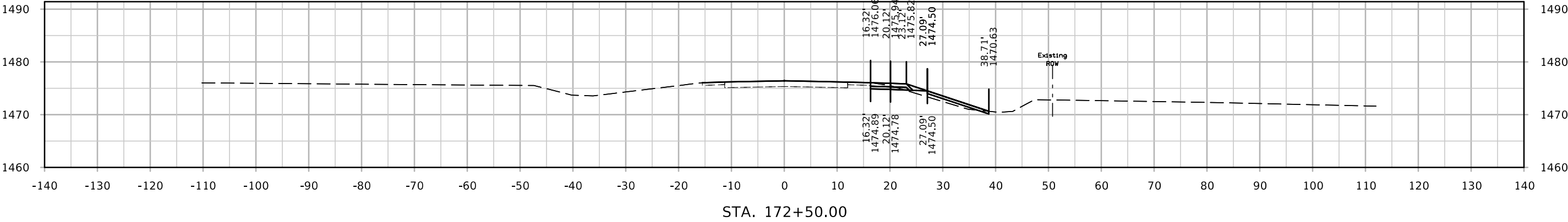
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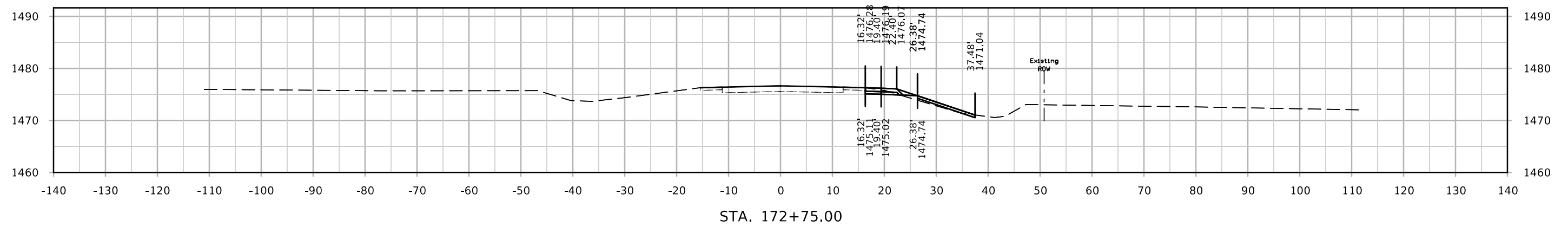
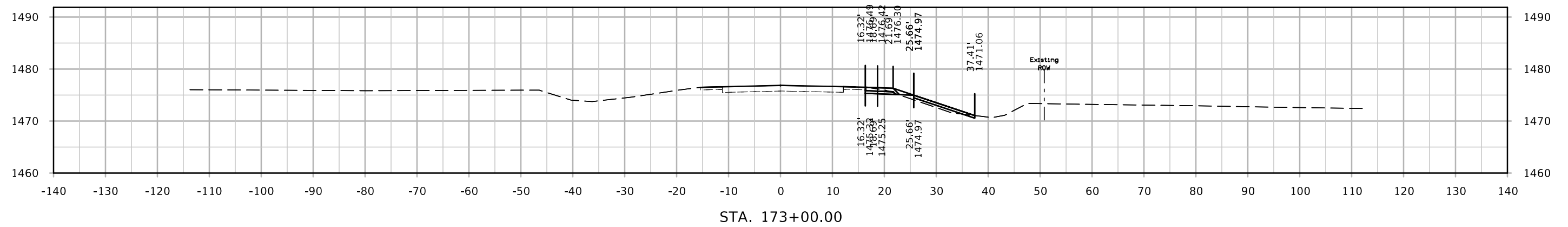
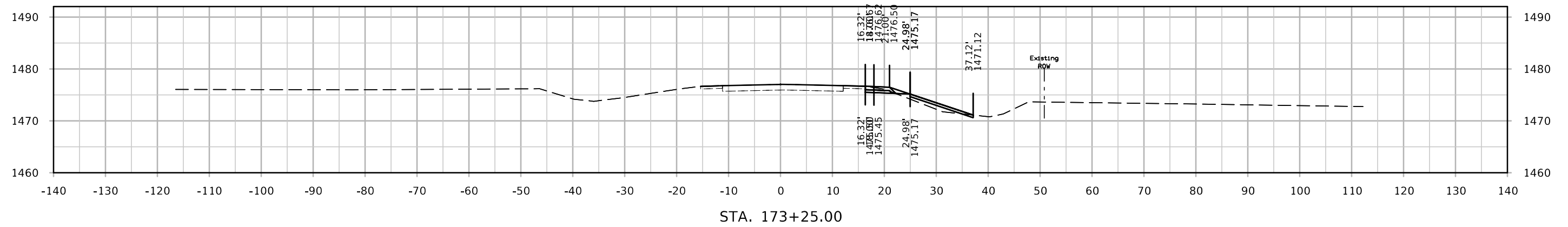
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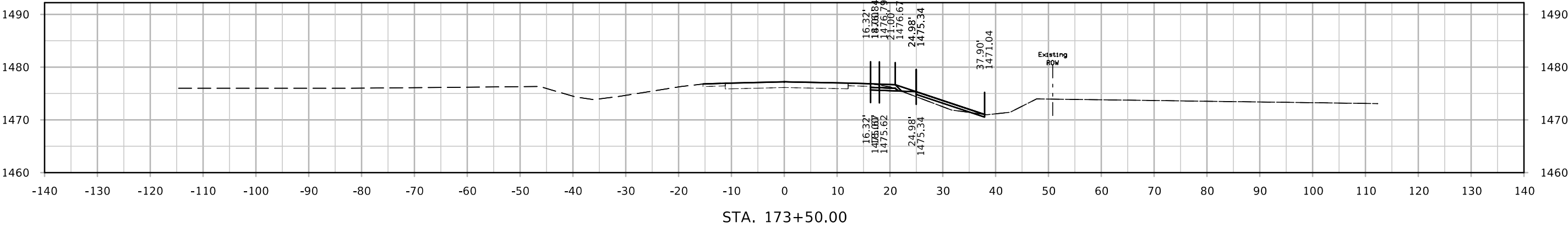
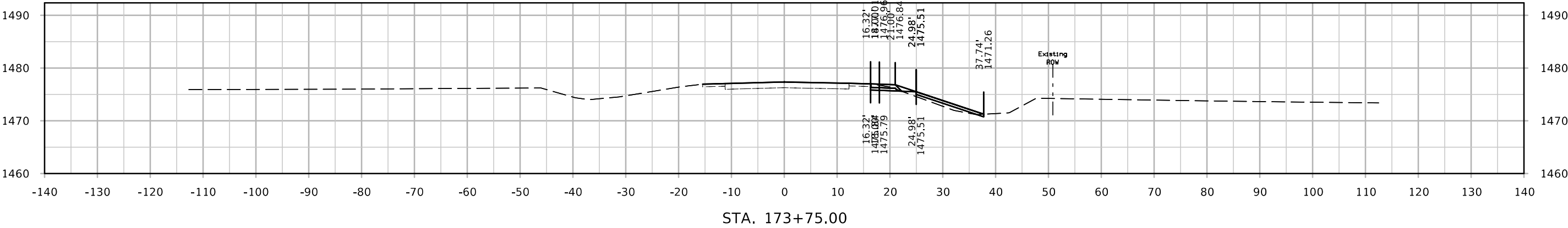
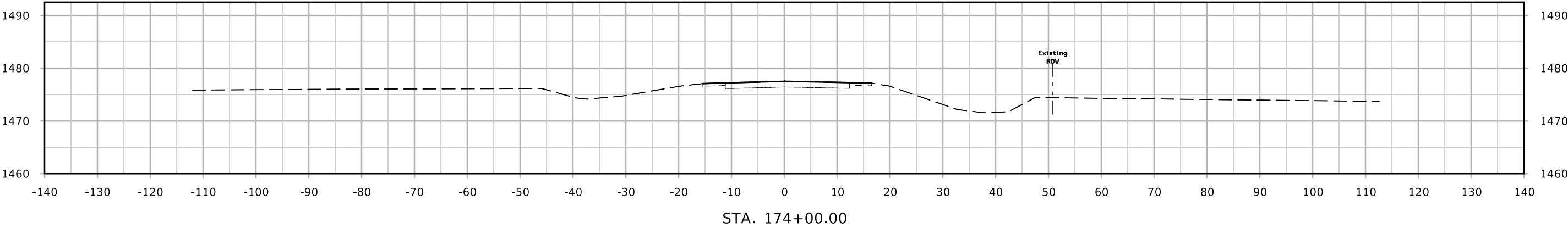
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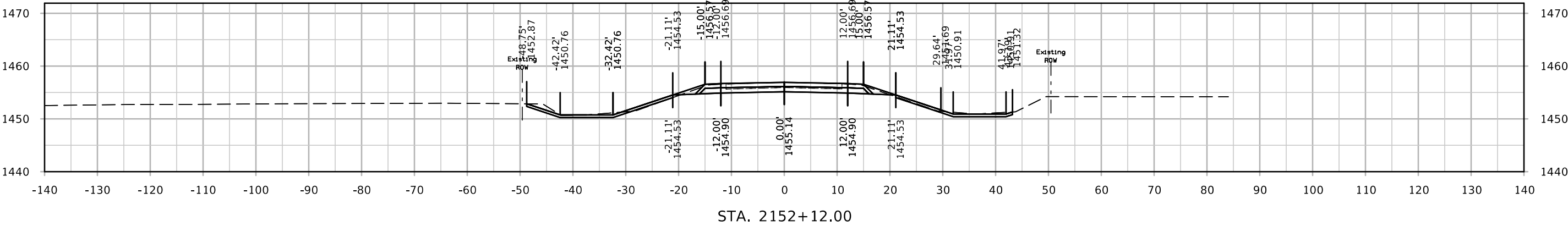
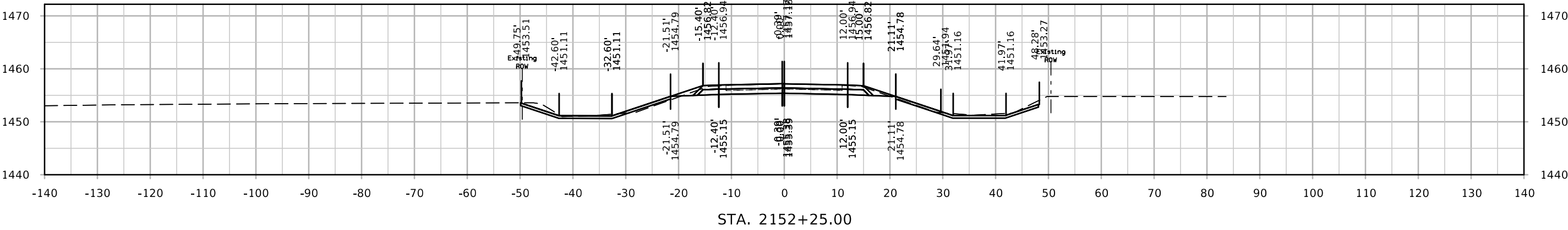
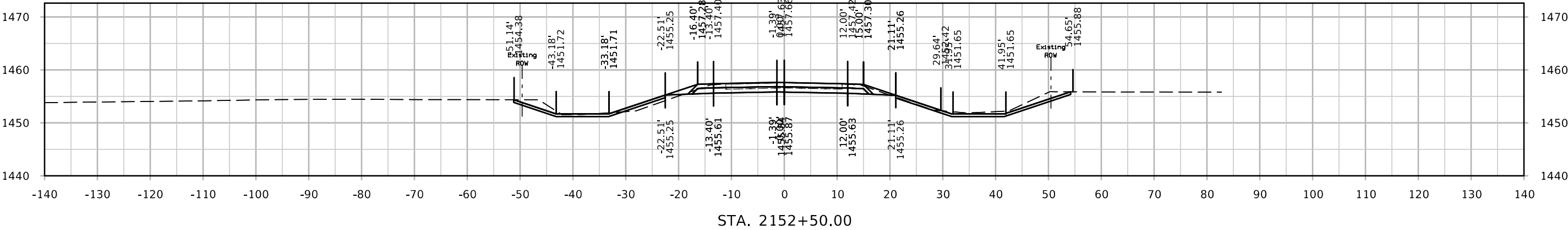


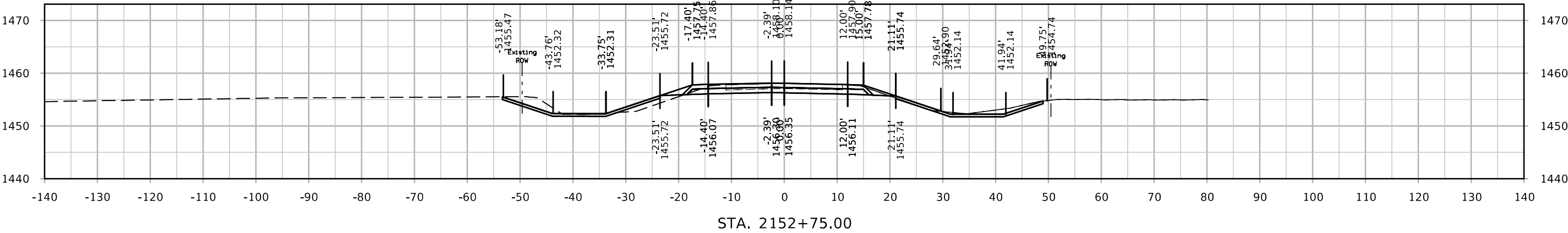
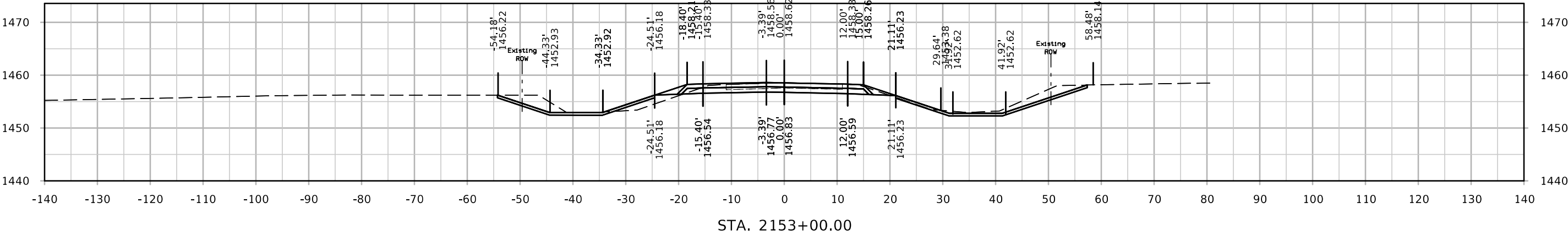
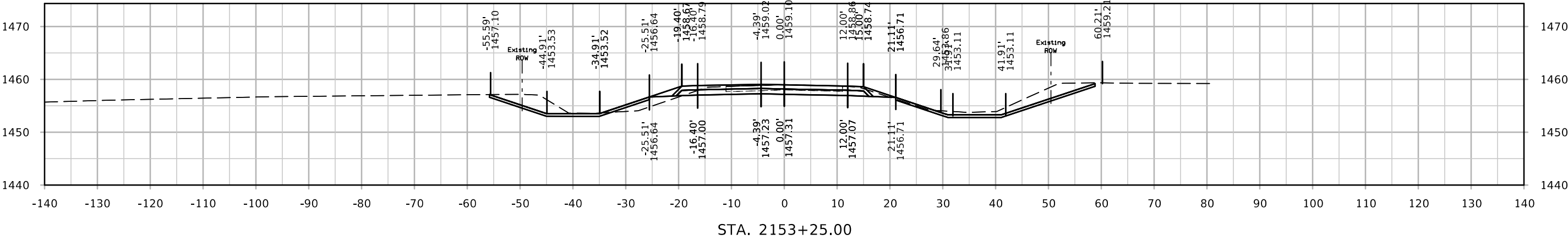
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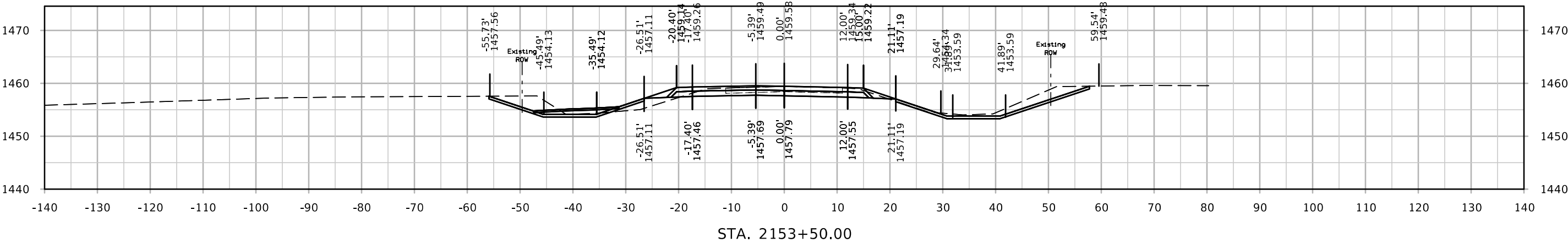
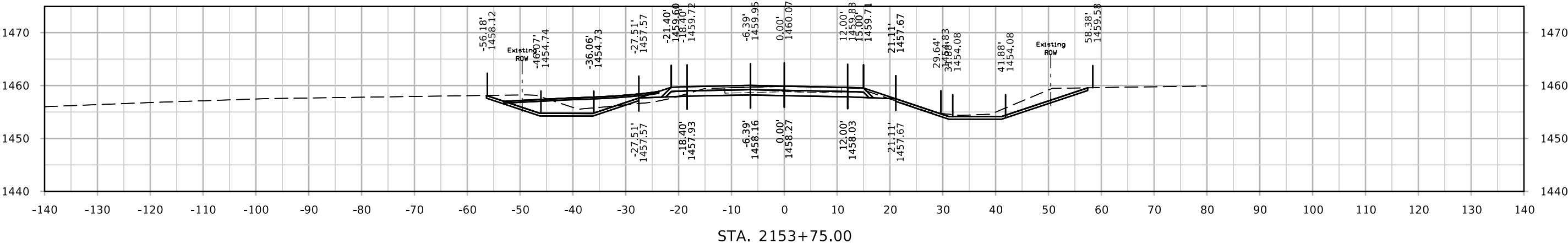
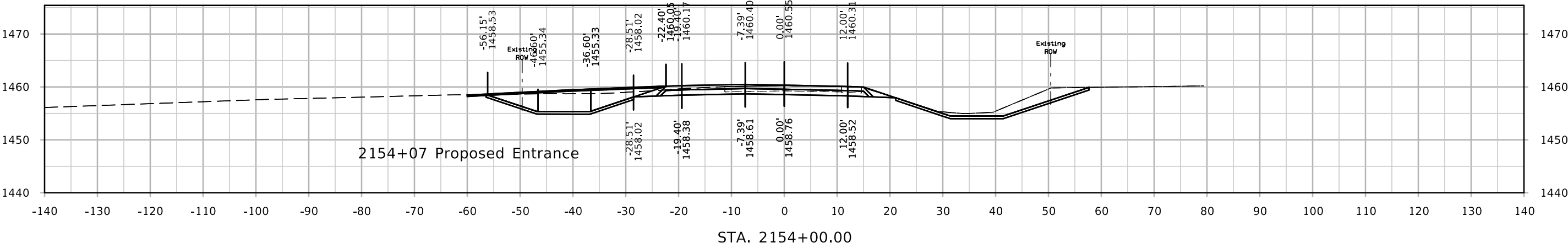


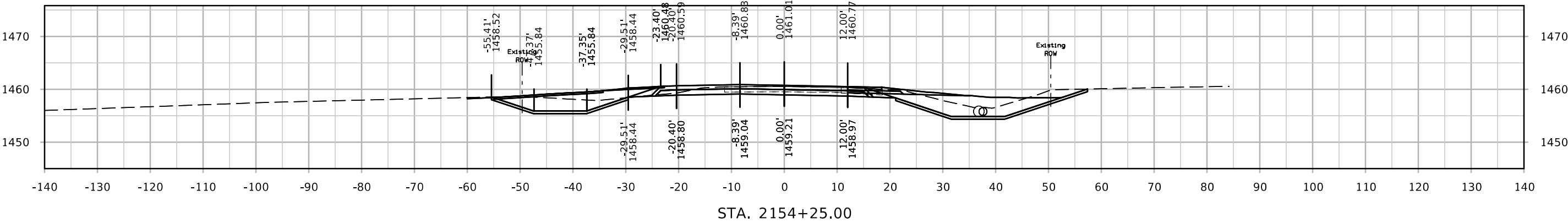
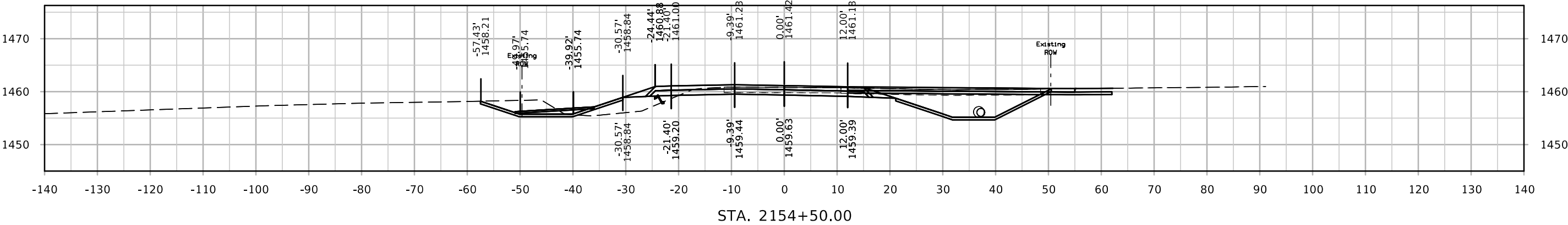
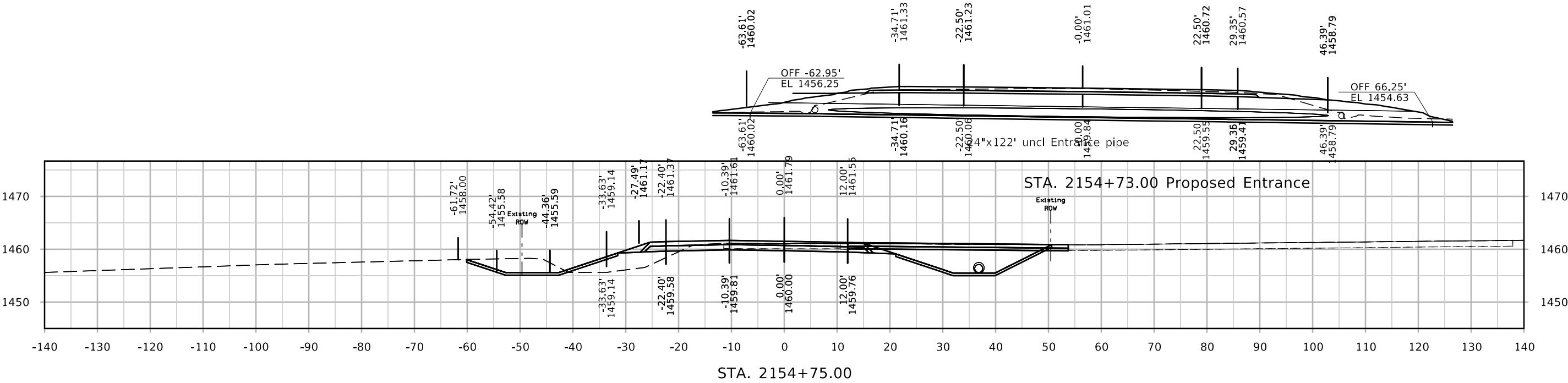
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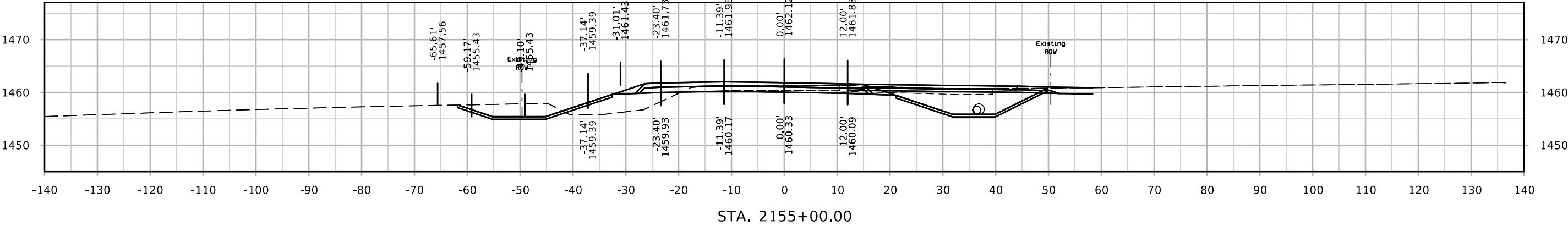
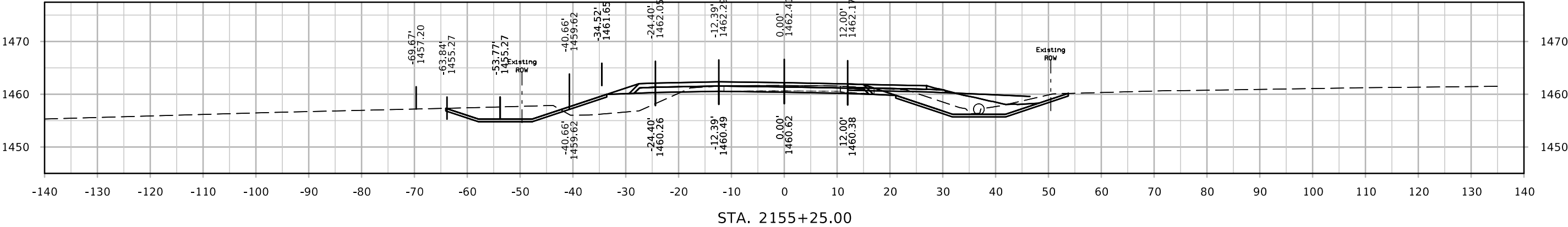
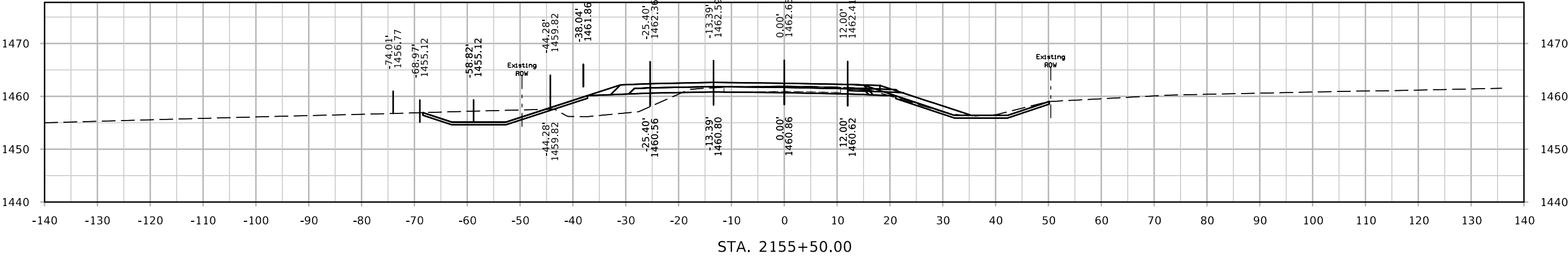


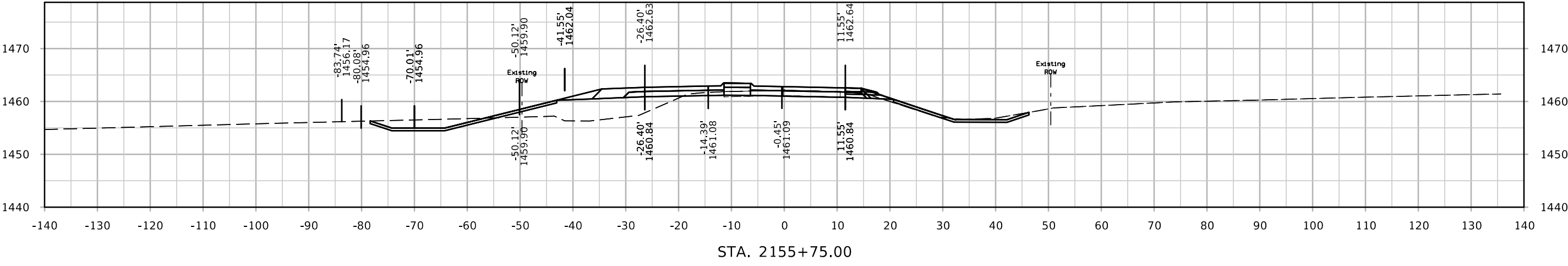
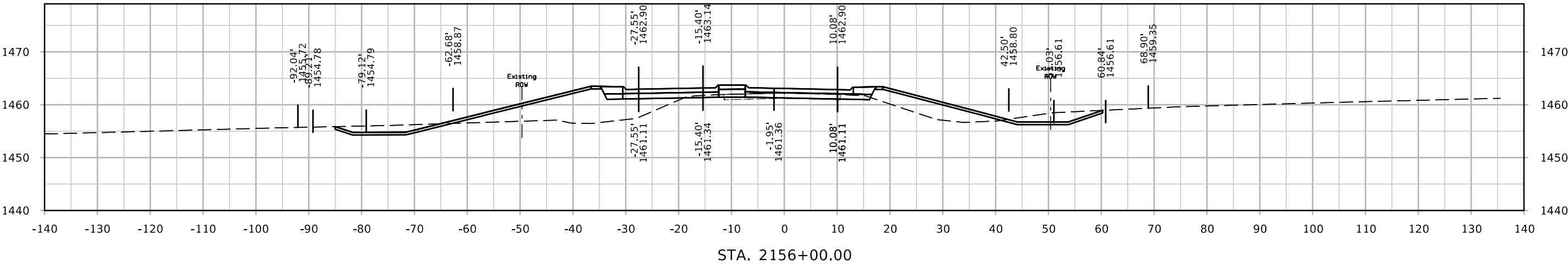
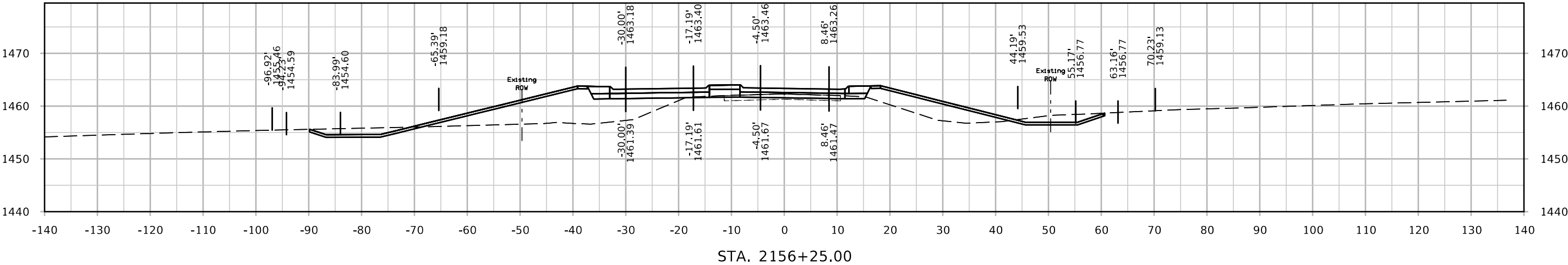


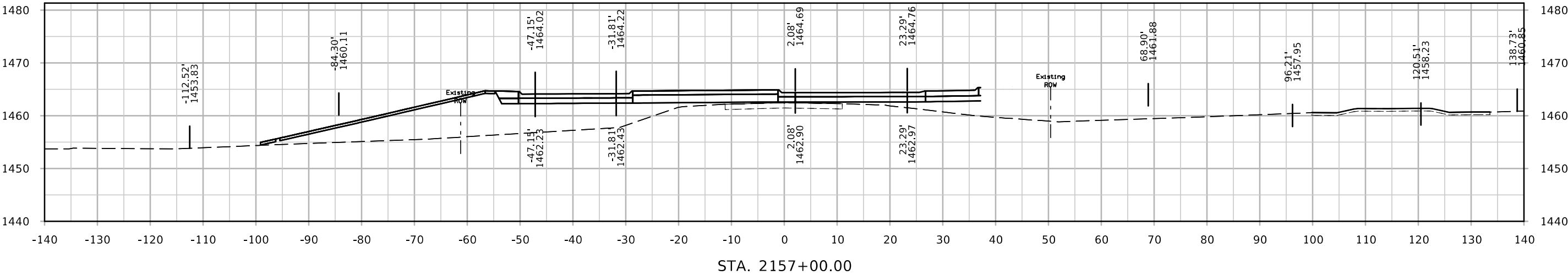












Replace new 30" RCP cut and cover. Remove Existing pipe at Sur Sta. 2157+50.4 or will be plugged and abandoned with flowable mortar.

