

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 - 3	Typical Cross Sections and Details
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 3	IA 10
E Sheets	Side Road Plan and Profile Sheets
* E.1 - 2	Jay Ave
* E.3	Roundabout
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	Traffic Control Plan
* J.2	Staging Notes Stage
* J.3	Traffic Control & Staging Legend & Symbol Info. Sheet
* J.4	Staging and Traffic Control Sheets Stage ??
L Sheets	Geometric, Staking and Jointing Sheets
L.1	Geometric & Staking Roundabout
L.3	Jointing Roundabout
V Sheets	Bridge and Culvert Situation Plans
V.1	Retaining Wall
W Sheets	Mainline Cross Sections
W.1 - 8	Mainline Cross Sections
X Sheets	Side Road Cross Sections
X.1 - 5	Jay Ave
X.6 - 10	Roundabout
	* Color Plan Sheets



PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
SIoux COUNTY
PCC Pavement - Grade and New
Jay Ave Intersection in Orange City

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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



REVISIONS

TOTAL

PROJECT IDENTIFICATION NUMBER

21-84-010-010

PROJECT NUMBER

HSIPX-010-1(87)--3L-84

R.O.W. PROJECT NUMBER

STPN-010-1(88)--2J-84

INDEX OF SHEETS

No.	DESCRIPTION
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PRELIMINARY PLANS

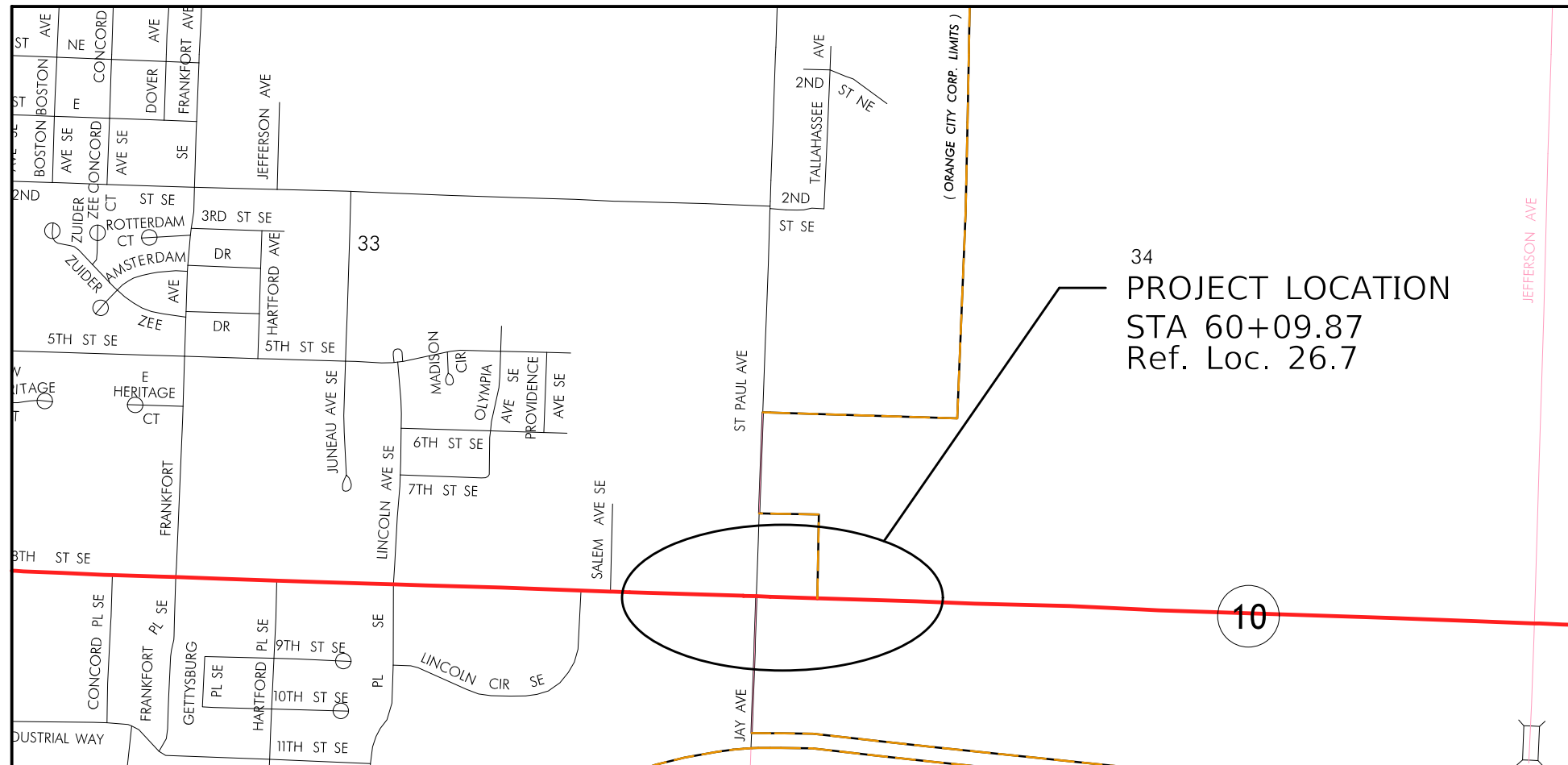
Subject to change by final design.

D5 PLAN - Date: 11-9-2021

IA 10	
DESIGN DATA RURAL	
2020 AADT	6,780 V.P.D.
2023 AADT	9,500 V.P.D.
20 -- DHV	-- V.P.H.
TRUCKS	6 %
Total	
Design ESALs	--

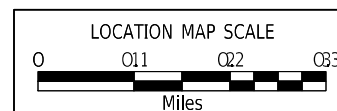
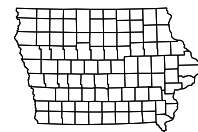
Jay Ave	
DESIGN DATA RURAL	
2019 AADT	1,570 V.P.D.
20 -- AADT	-- V.P.D.
20 -- DHV	-- V.P.H.
TRUCKS	3 %
Total	
Design ESALs	--

R-44W



34
 PROJECT LOCATION
 STA 60+09.87
 Ref. Loc. 26.7

T-95N
 T-94N



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: C at 17' spacing

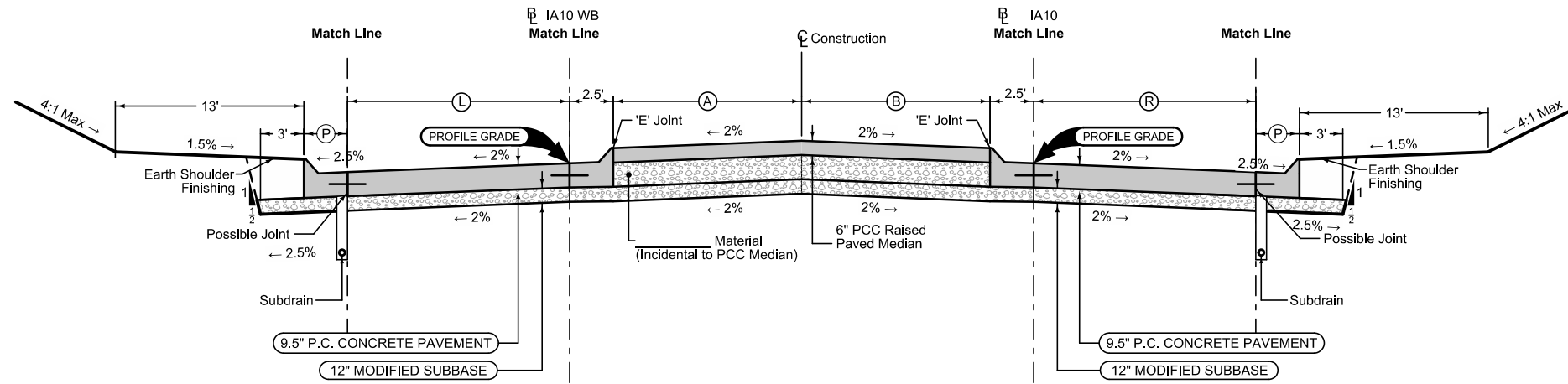
STATION TO STATION		(P) Feet	Curb Type See PV-102
158+50.00	159+67.46	2.5	6" Sloped
160+96.69	162+17.00	2.5	6" Sloped

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: C at 17' spacing

STATION TO STATION		(P) Feet	Curb Type See PV-102
160+96.69	161+50.00	2.5	6" Sloped



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

BEGIN STATION	END STATION	(L) Feet
158+50.00	159+67.46	Vari. (14-18)
160+96.69	163+00.00	Vari. (18-12)

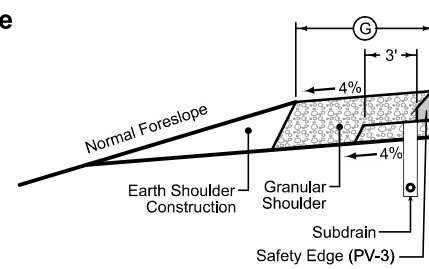
4DP_Raised_Out_L 04-21-20			
BEGIN STATION	END STATION	(A) Feet	(B) Feet
158+50.00	159+67.46		
160+96.69	162+98.00		

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

BEGIN STATION	END STATION	(R) Feet
158+50.00	159+67.46	Vari. (12-18)
160+96.69	163+00.00	Vari. (18-12)

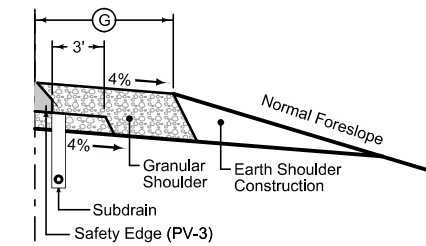
Granular Shoulder with Safety Edge

STATION TO STATION		(G) Feet
162+17.00	163+00.00	10



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

2P_ 04-21-20		
STATION TO STATION	(AL) Feet	
158+50.00	158+55.00	14
163+98.00	163+00.00	14



Granular Shoulder with Safety Edge

STATION TO STATION		(G) Feet
161+50.00	163+00.00	10

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: C at 17' spacing

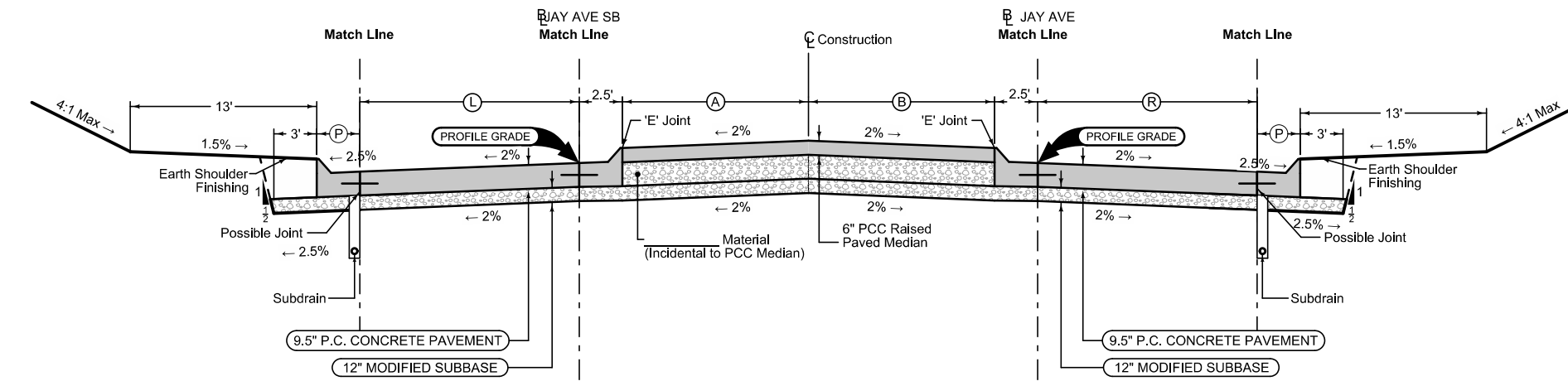
STATION TO STATION		(P) Feet	Curb Type See PV-102
2057+34.00	2059+32.46	2.5	6" Standard
2060+61.13	2061+38.00	2.5	6" Standard

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: C at 17' spacing

STATION TO STATION		(P) Feet	Curb Type See PV-102
2057+34.00	2059+32.46	2.5	6" Standard
2060+61.13	2061+15.00	2.5	6" Standard



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

BEGIN STATION	END STATION	(L) Feet
2057+34.00	2059+32.46	Vari. (11-18)
2060+61.13	2062+75.81	Vari. (18-11)

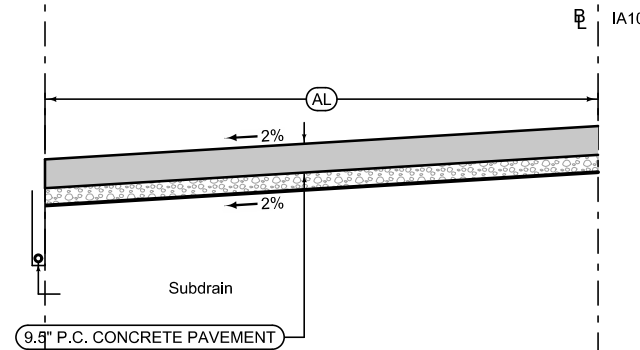
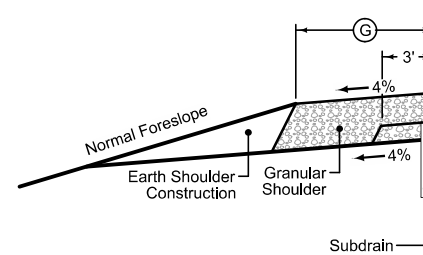
4DP_Raised_Out_L 04-21-20			
BEGIN STATION	END STATION	(A) Feet	(B) Feet
2058+50.00	2059+32.46		
2060+61.13	2061+42.00		

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

BEGIN STATION	END STATION	(R) Feet
2057+34.00	2059+32.46	Vari. (11-18)
2060+61.13	2062+75.81	Vari. (18-11)

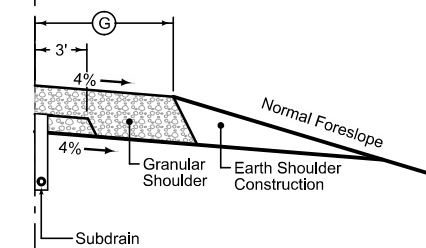
Granular Shoulder

STATION TO STATION		(G) Feet
2061+38.00	2062+75.81	3



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

2P_ 04-21-20		(AL) Feet
2057+34.00	2058+50.00	Vari.
2061+42.00	2062+75.81	

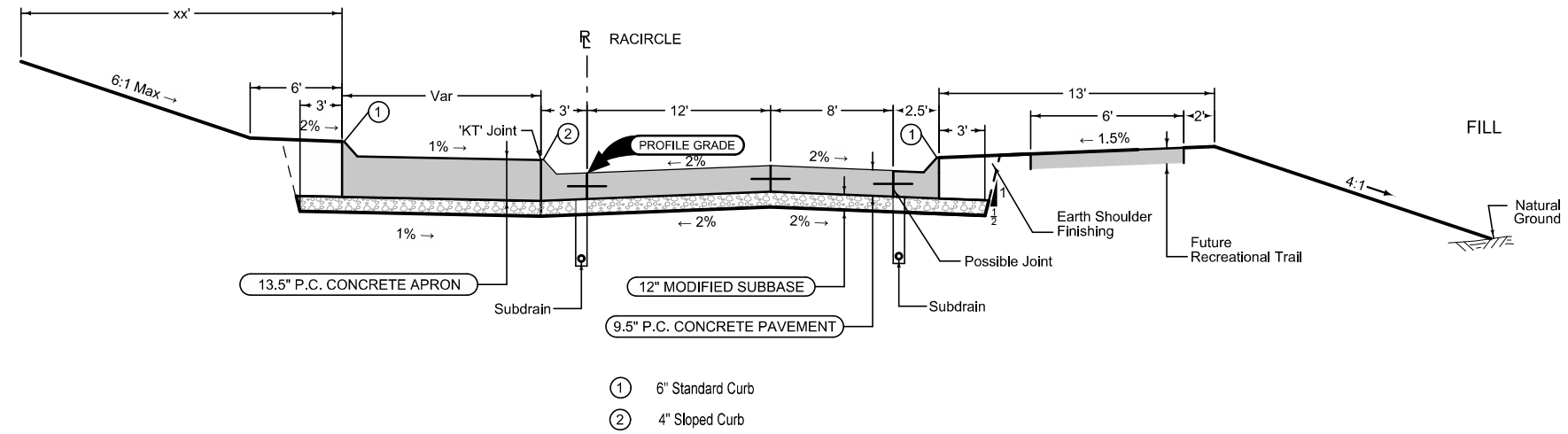


Granular Shoulder

STATION TO STATION		(G) Feet
2061+15.00	2062+75.81	3

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

Jay Ave



LOCATION		
ROAD IDENTIFICATION	STATION TO STATION	
RACIRCLE	xx	xx

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

SURVEY SYMBOLS

- 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

UTILITY LEGEND

- T1
- T2
- T3
- T5
- E1
- F02
- G
- SAN
- W
- ST S
- Water Hydrant

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
Gray, Light	(48)		Proposed Pavement Shading
Gray, Med	(80)		Proposed Granular Shading
Gray, Dark	(112)		Proposed Grade and Pave Shading "In conjunction with a paving project"
Brown, Light	(236)		Grading Shading
Tan	(8)		Proposed Sidewalk Shading
Blue, Light	(230)		Proposed Sidewalk Landing Shading
Pink	(11)		Proposed Sidewalk Ramp Shading

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK		Design Color No.	
Green	(2)		Existing Ground Line Profile
Blue	(1)		Proposed Profile and Annotation
Magenta	(5)		Existing Utilities
Blue, Light	(230)		Proposed Ditch Grades, Left
Black	(0)		Proposed Ditch Grades, Median
Rust	(14)		Proposed Ditch Grades, Right

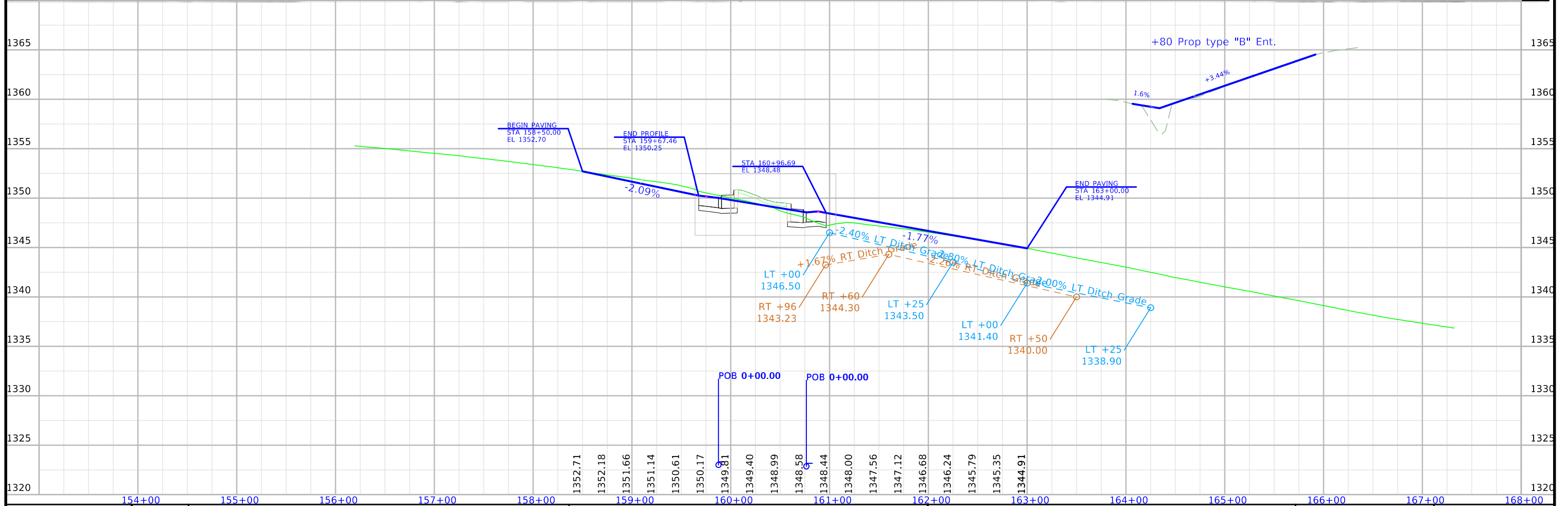
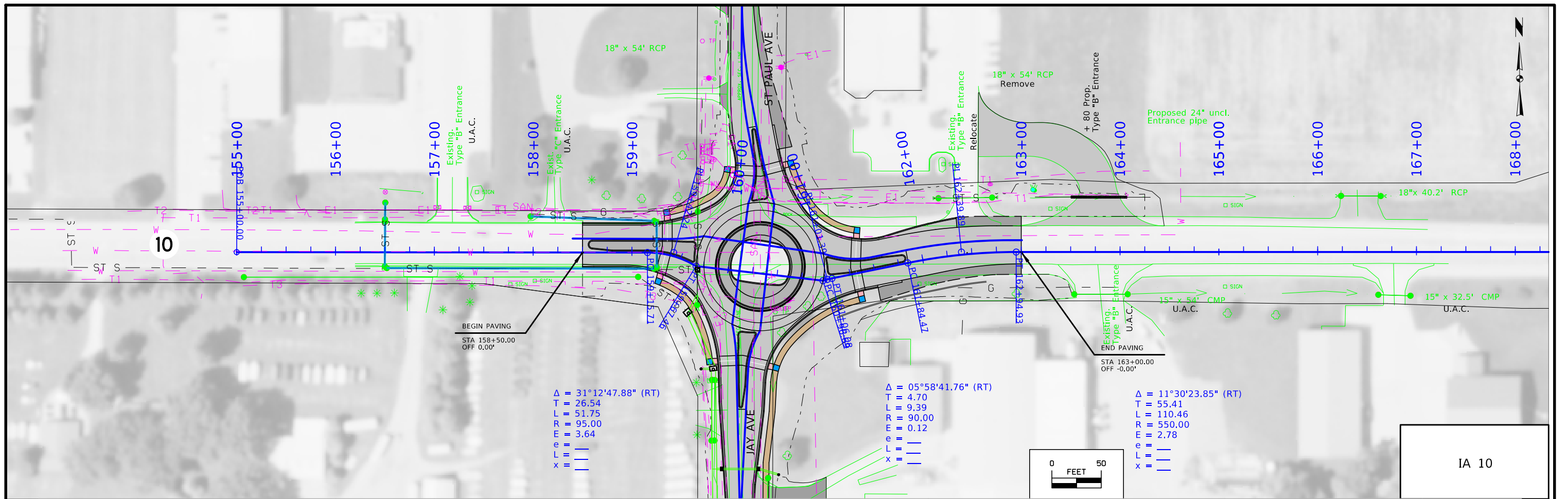
- Reference Point
- Station
- Survey Line
- Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Trench Drain
- HighTension Cable Guardrail
- Sheet Pile
- Pavement Removal
- Clearing & Grubbing Area

RIGHT-OF-WAY LEGEND

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

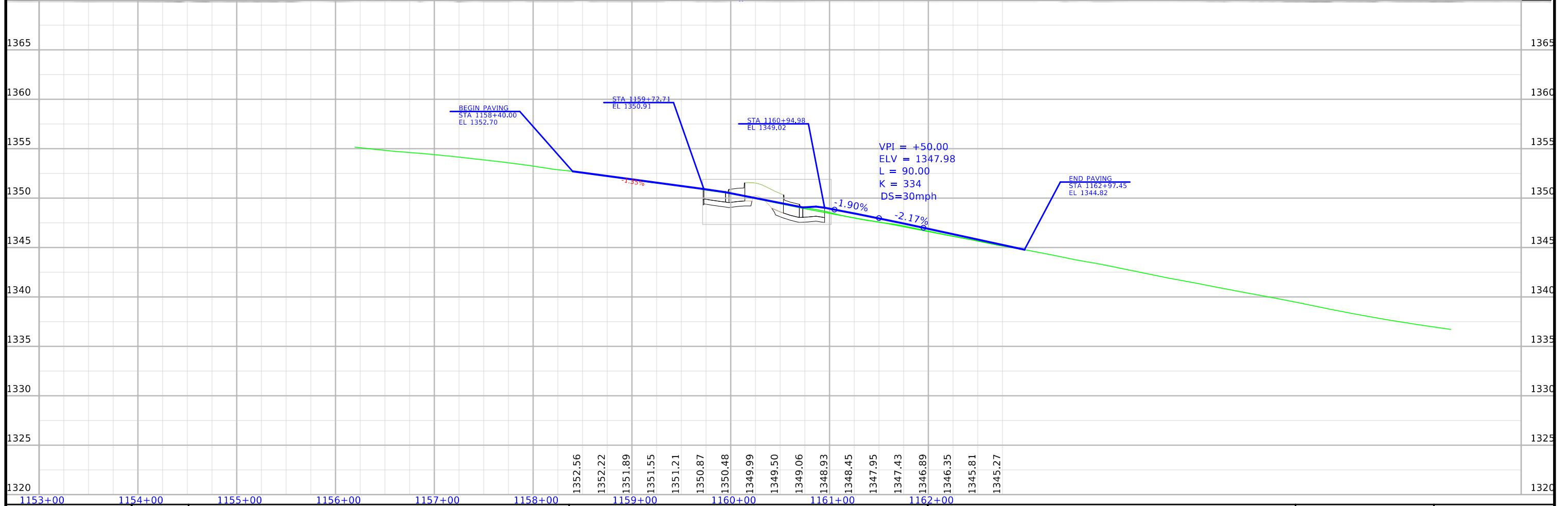
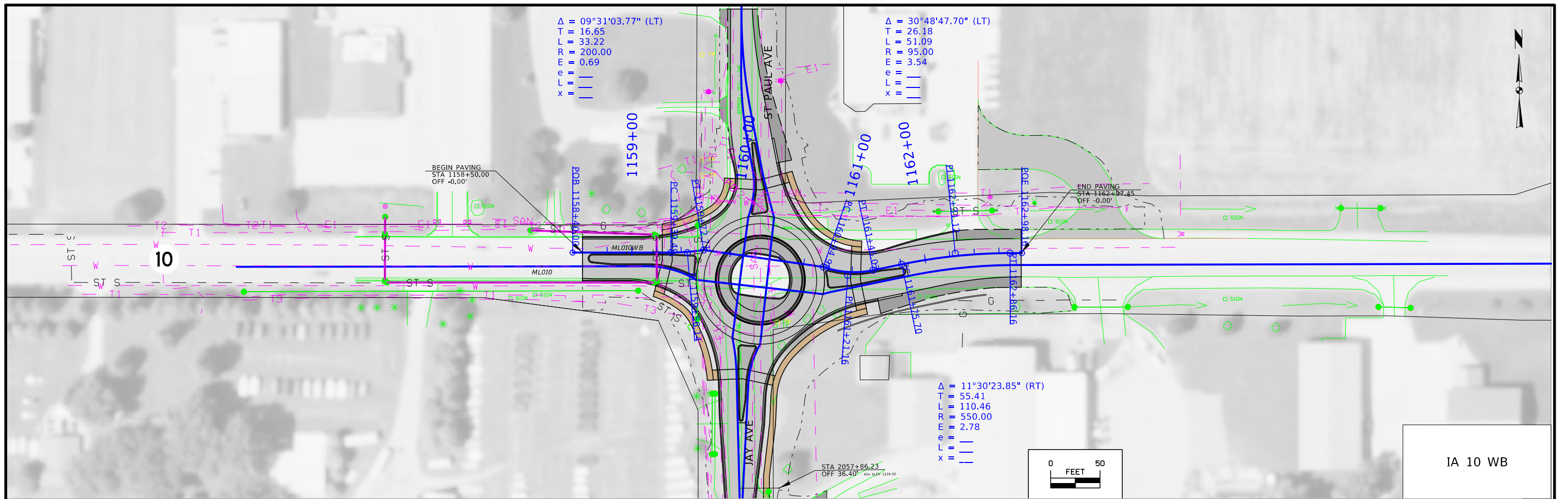
PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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

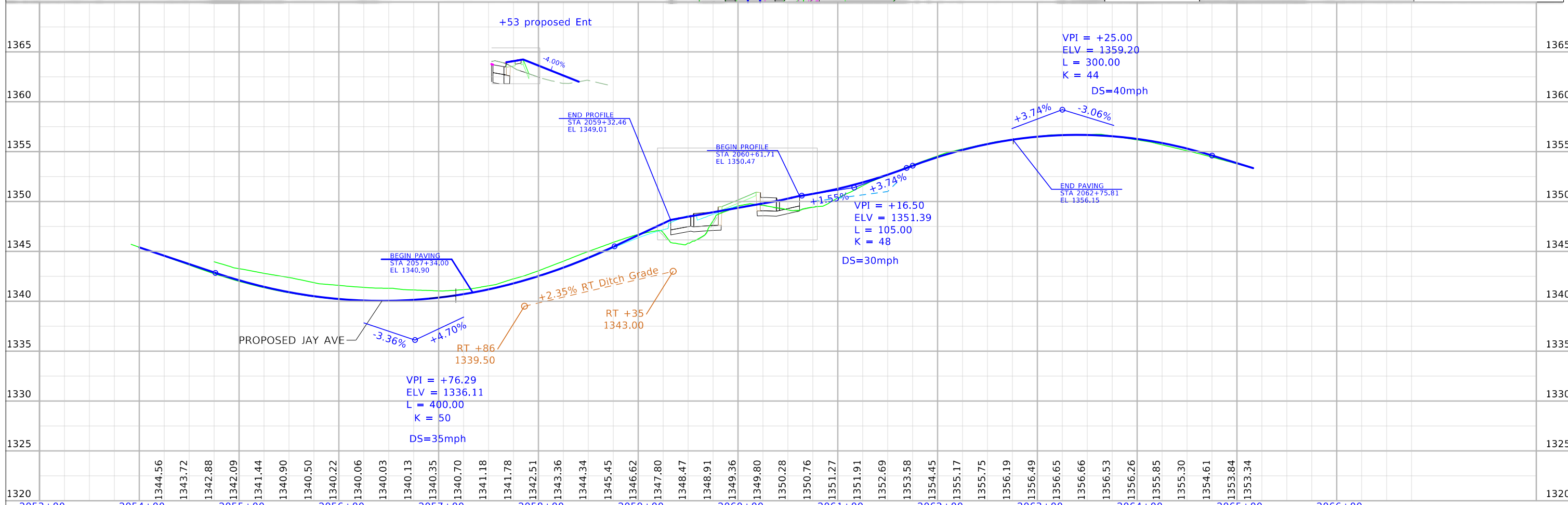
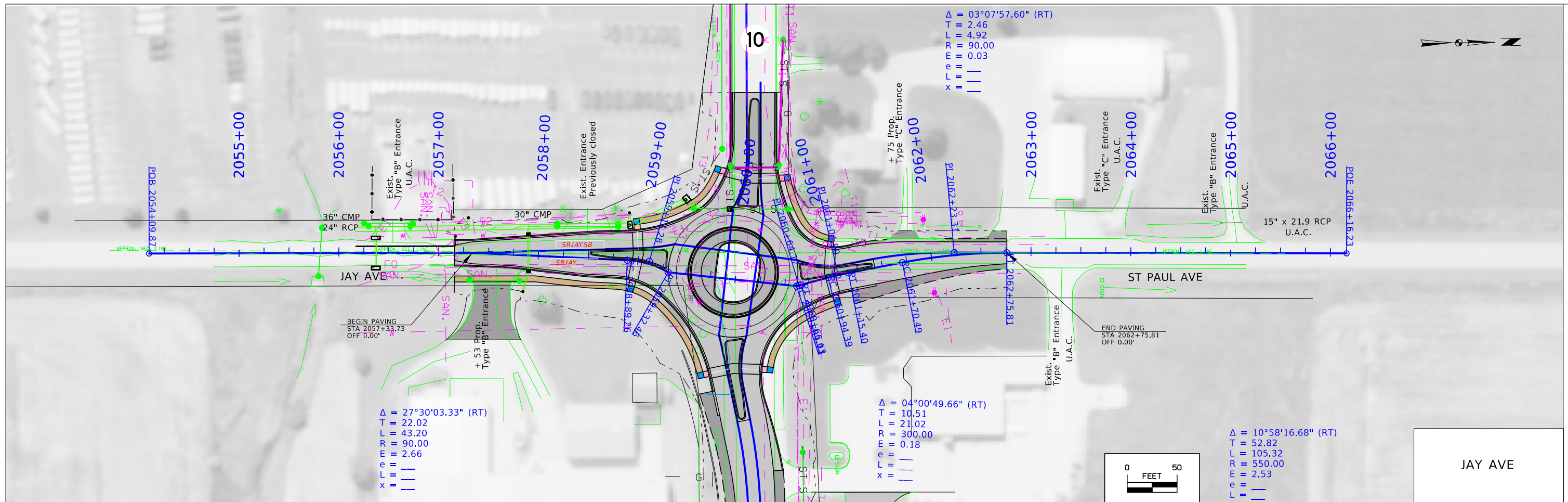


FILE NO.	ENGLISH	DESIGN TEAM	Holst Strum Schrock	SIoux COUNTY	PROJECT NUMBER	HSIPX-010-1(87)--3L-84	SHEET NUMBER	D,2
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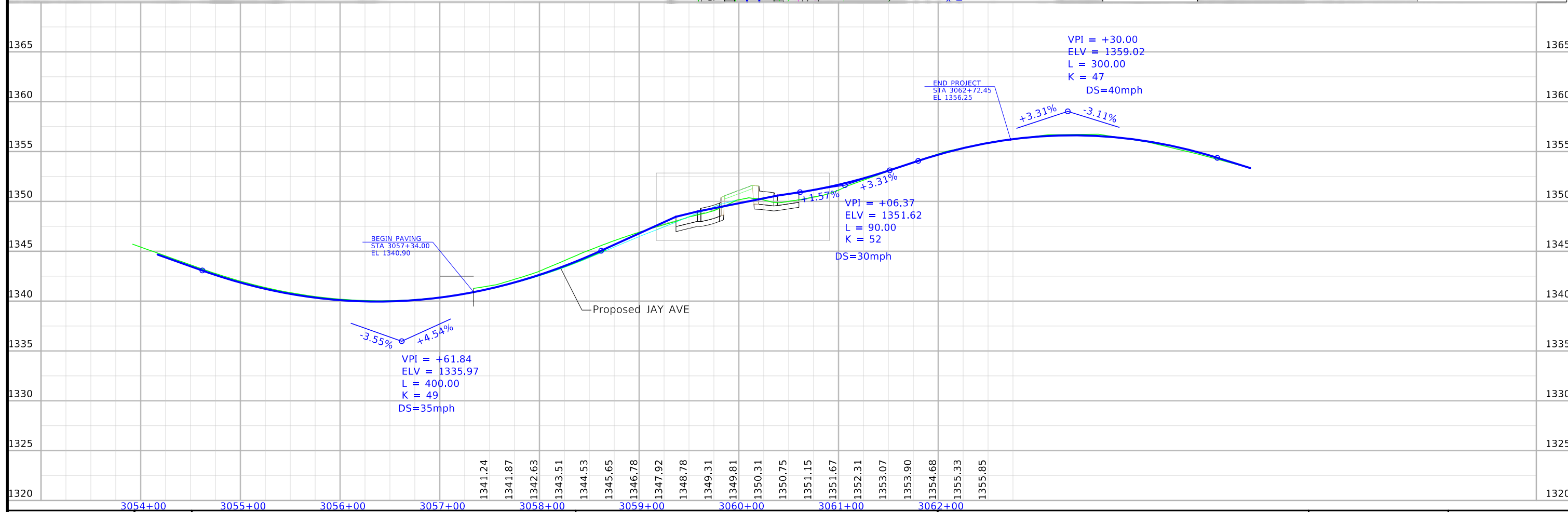
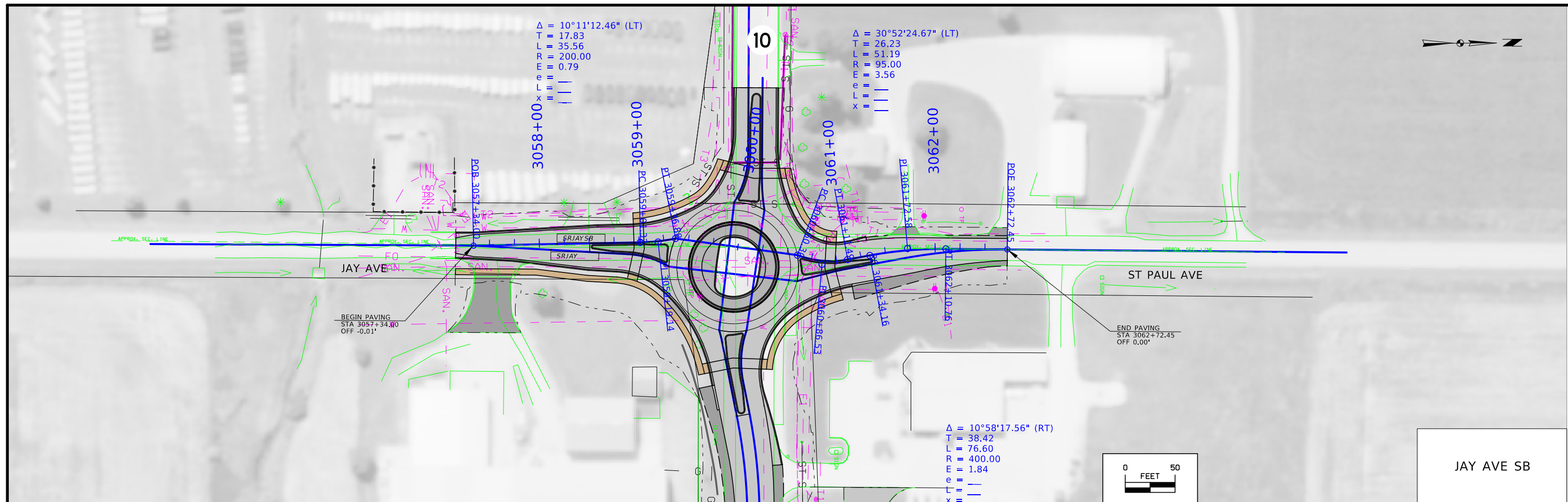
00+0 00+0



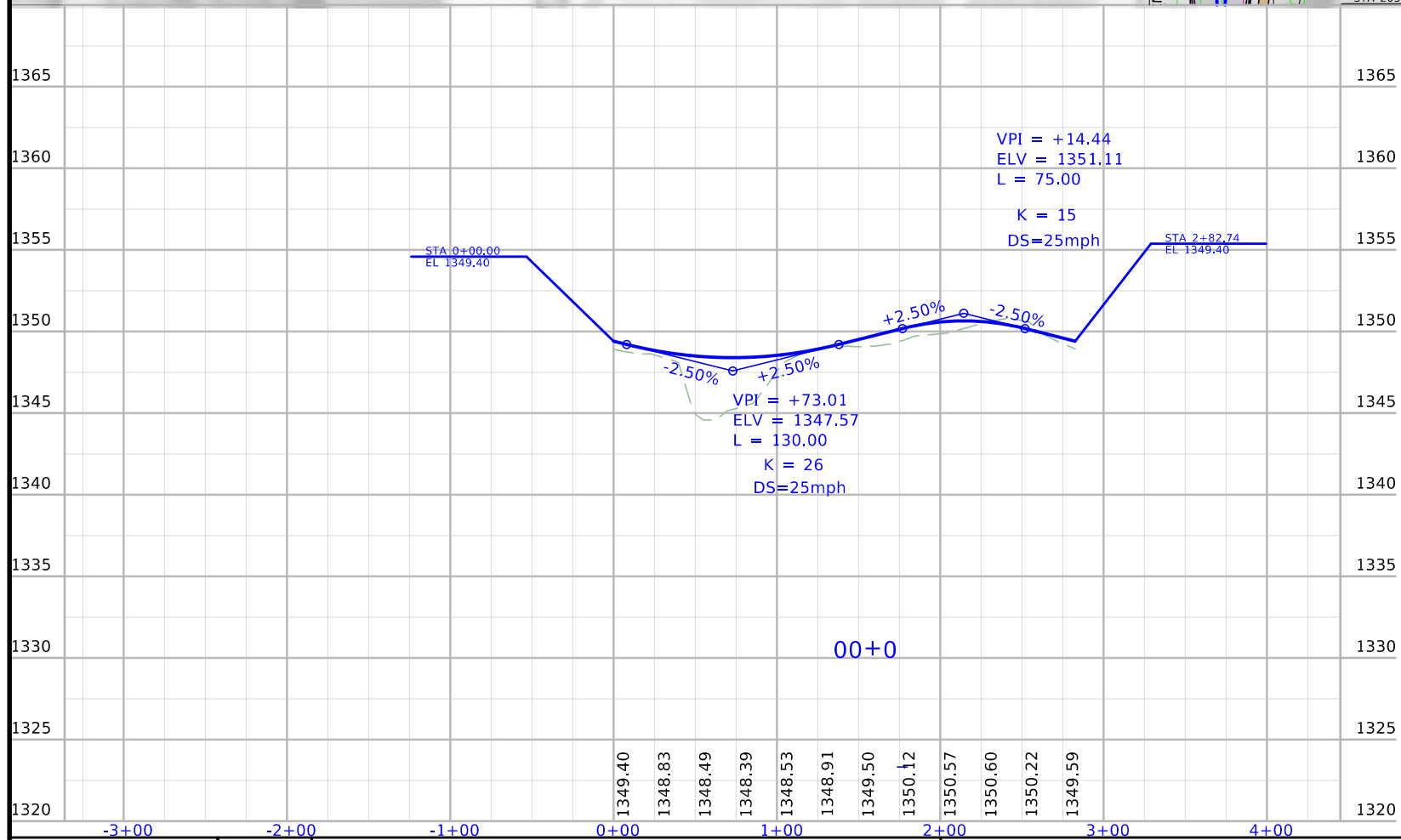
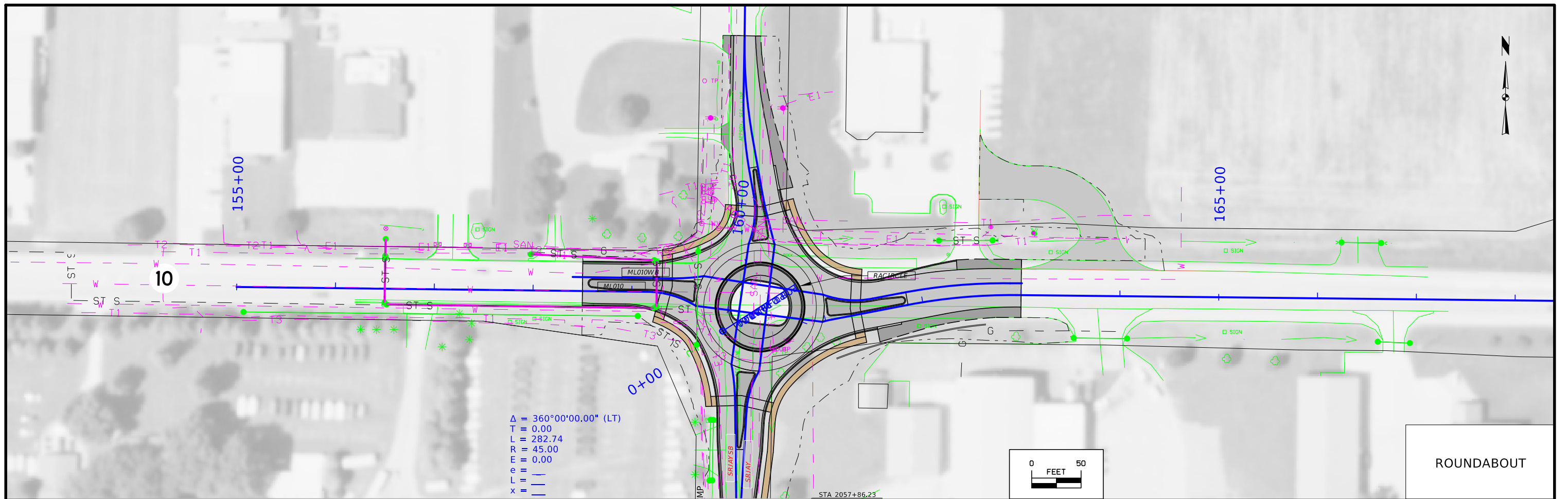
1153+00	1154+00	1155+00	1156+00	1157+00	1158+00	1159+00	1160+00	1161+00	1162+00
1352.56	1352.22	1351.89	1351.55	1351.21	1350.87	1350.48	1349.99	1349.50	1349.06
1348.93	1348.45	1347.95	1347.43	1346.89	1346.35	1345.81	1345.27		



FILE NO.	ENGLISH	DESIGN TEAM	SIoux COUNTY	PROJECT NUMBER	SHEET NUMBER
		Holst Strum Schrock		HSIPX-010-1(87)--3L-84	E.1



FILE NO.	ENGLISH	DESIGN TEAM Holst \ Strum \ Schrock	SIoux COUNTY	PROJECT NUMBER HSIPX-010-1(87)--3L-84	SHEET NUMBER E,2
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Survey Information

Sioux County
H SIPX-010-1(87)--3L-84
Jay Ave Intersection in Orange City
PCC Pavement - Grade and New
PIN 16-07-020-030
Sap-404.1

Party Personnel

Jim Sailor- Land Surveyor
Kris Bliven- Survey Party Chief
Jeffrey Duncan- Engineering Technician Senior

Date(s) of Survey

Begin Date 04/28/2021
End Date 05/03/2021

General Information

Measurement units for this survey are US survey feet. This survey is for proposed roundabout at Jay Ave in Orange City. Project datum and control information is provided by Design Survey Office. This project is a Full DTM without Photo control.

Project Control

Primary geodetic style three-dimensional project control monuments are found or placed at approximate ½ to 1 mile intervals throughout this project. Datum was accessed via GNSS static survey observations using Iowa Real Time Network reference stations in the area. Other legacy datum monuments in the area were surveyed comparing legacy coordinates to validate the results of the local project network adjustment. Comparisons validate results. For additional details of the control survey see the control survey report in the CONTROL file folder of the PrelimSurvey project directory.

PROJECT DATUM: NAD83(2011) EPOCH 2010.00
VERTICAL DATUM: NAVD88
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 1

Alignment Information

The horizontal alignment for this survey was provided by District 3 R.O.W. office.

CONTROL POINT VICINITY MAP

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



HORIZ. DATUM: NAD83(2011) EPOCH 2010.00

VERT. DATUM: NAVD88

1a. Regional Coordinate System Zone 1

Coordinate listing from next sheet will be used with 1aRTN for monument recovery. No other reference ties are given.

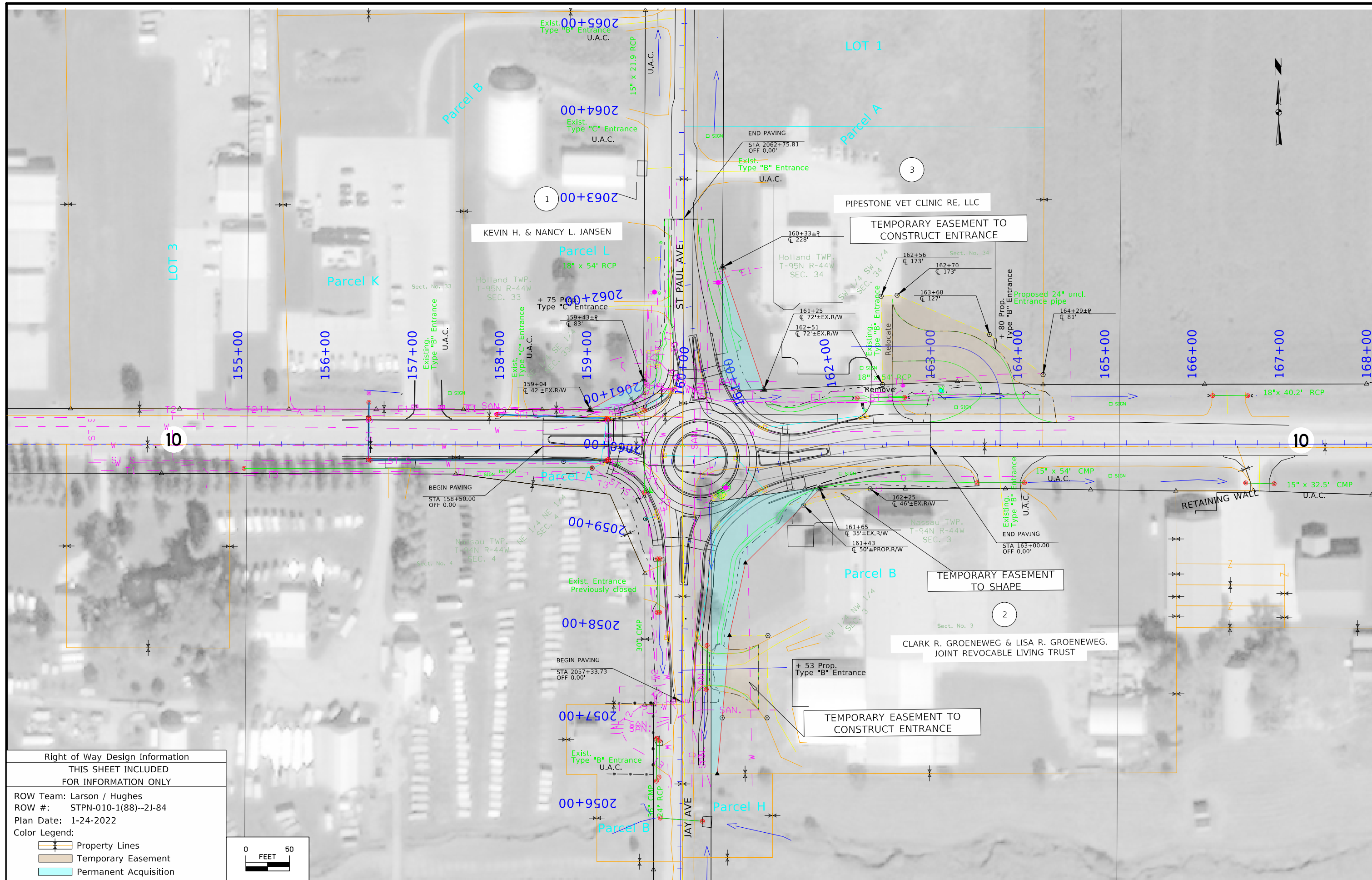
HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING

HORIZ. DATUM: NAD83(2011) EPOCH 2010.00

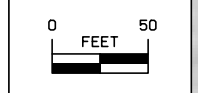
VERT. DATUM: NAVD88

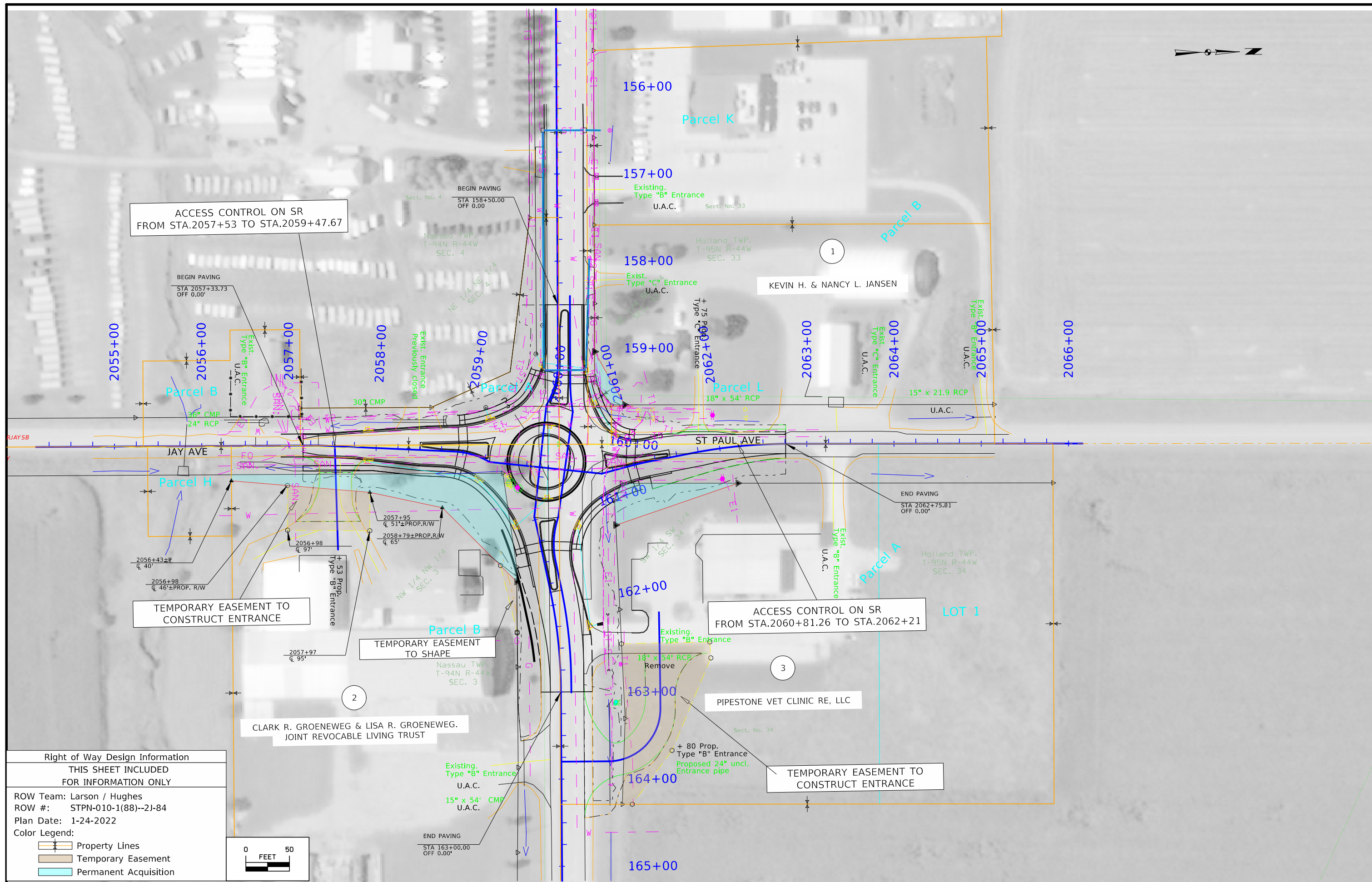
1a. Regional Coordinate System Zone 1
Project Control Marks are Bench Marks

Point Name	Northing	Easting	Elevation	Feature Definition-Description
CP1	9527101.573	11286449.02	1401.873	CP SET 5/8IN REBAR AT -6IN DP 105FT S OF S BACK OF CURB HWY 10 23FT W CL DRIVE ENT 20FT E OF NW COR PARKING LOT
CP2	9527054.661	11290443.25	1329.178	CP 3/4IN PIPE W/YELLOW DOT CAP 105FT S OF CL HWY 10 89FT SE TOP OF E OUTLET RCP 18FT E OF E BANK OF CREEK
CP3	9527054.469	11292054.53	1335.794	CP 3/4IN PIPE W/YELLOW DOT CAP 95FT WSW OF PP 77FT S CL HWY 10 40FT W OF EL OF ENT EXTENDED



Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: Larson / Hughes	
ROW #: STPN-010-1(88)--2J-84	
Plan Date: 1-24-2022	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition





ACCESS CONTROL ON SR
FROM STA.2057+53 TO STA.2059+47.67

TEMPORARY EASEMENT TO
CONSTRUCT ENTRANCE

ACCESS CONTROL ON SR
FROM STA.2060+81.26 TO STA.2062+21

PIPESTONE VET CLINIC RE, LLC

CLARK R. GROENEWEG & LISA R. GROENEWEG.
JOINT REVOCABLE LIVING TRUST

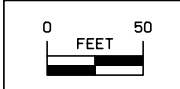
TEMPORARY EASEMENT TO
CONSTRUCT ENTRANCE

Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY

ROW Team: Larson / Hughes
ROW #: STPN-010-1(88)--2J-84
Plan Date: 1-24-2022

Color Legend:

 Property Lines
 Temporary Easement
 Permanent Acquisition



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

TRAFFIC CONTROL PLAN 108-23A
08-01-08

Maintain traffic along IA 10 during construction using signals.

STAGING NOTES 108-26A
08-01-08

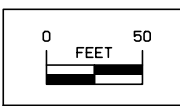
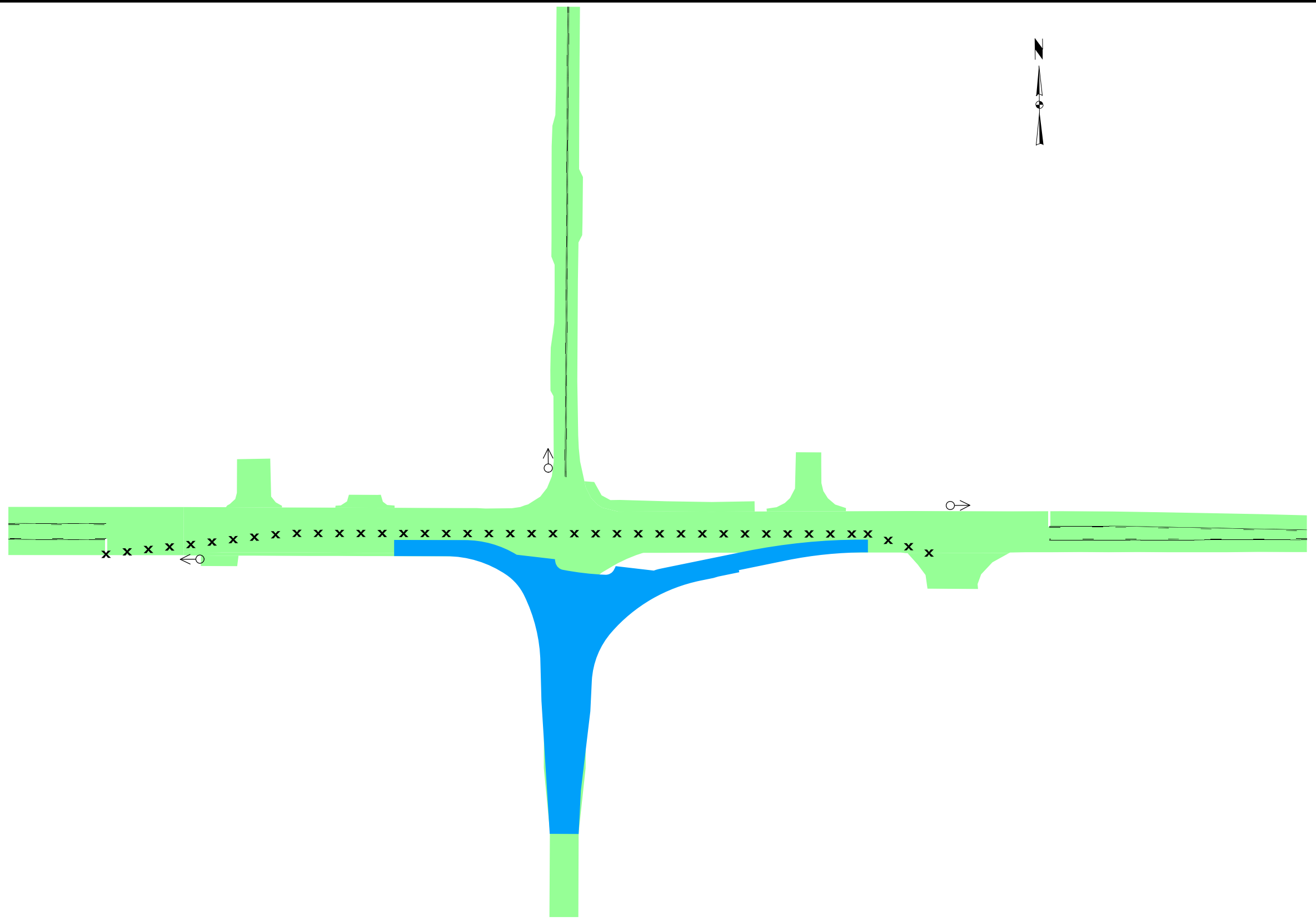
Stage 1
 Close Jay Ave south of IA 10
 Maintain Jay Ave north of IA 10 and a single lane of traffic on existing IA 10 using signals

 Construct southern portion of off-alignment roundabout

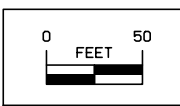
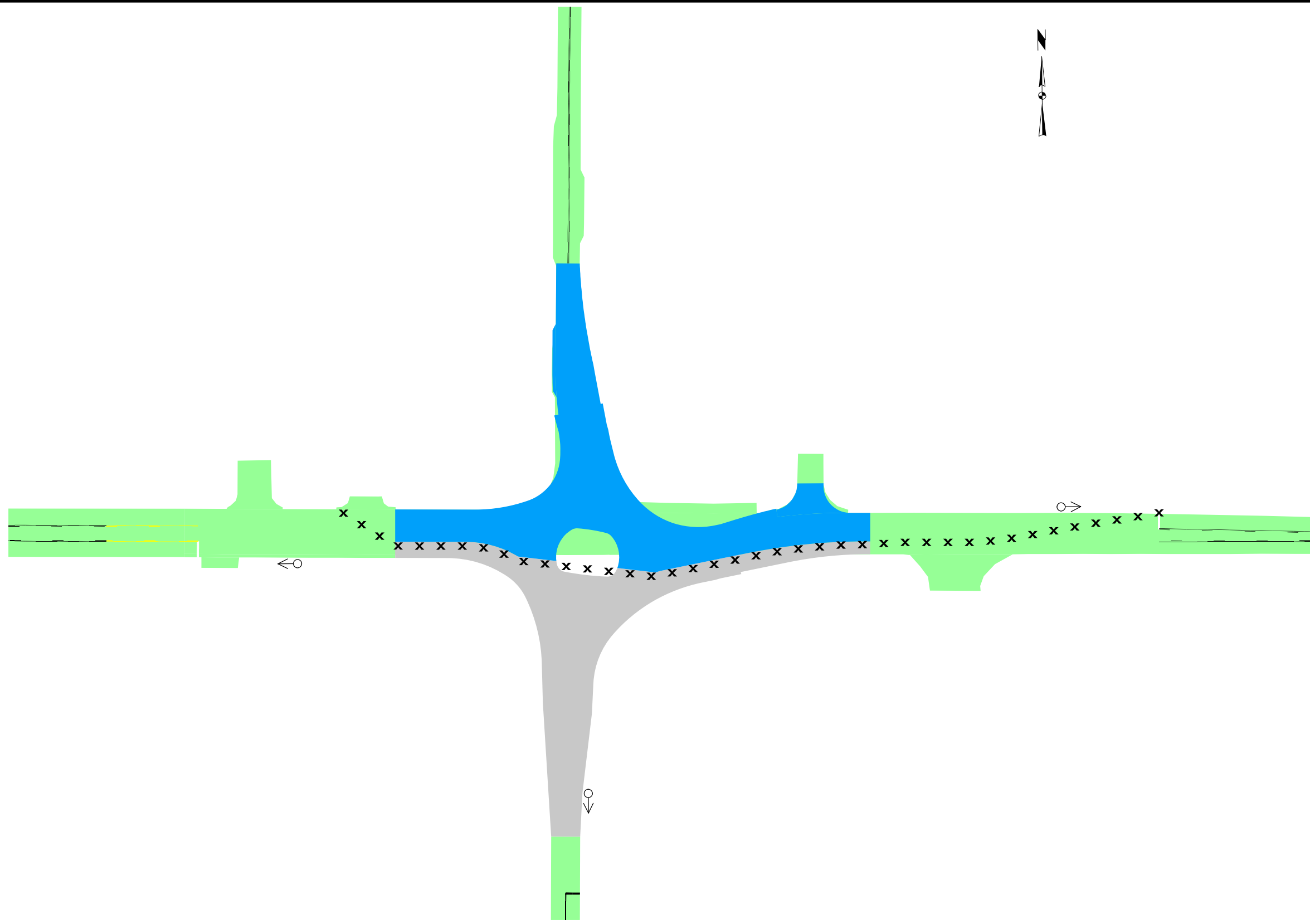
Stage 2
 Close Jay Ave north of IA 10
 Reopen Jay Ave south of IA 10
 Shift single lane of IA 10 to new pavement

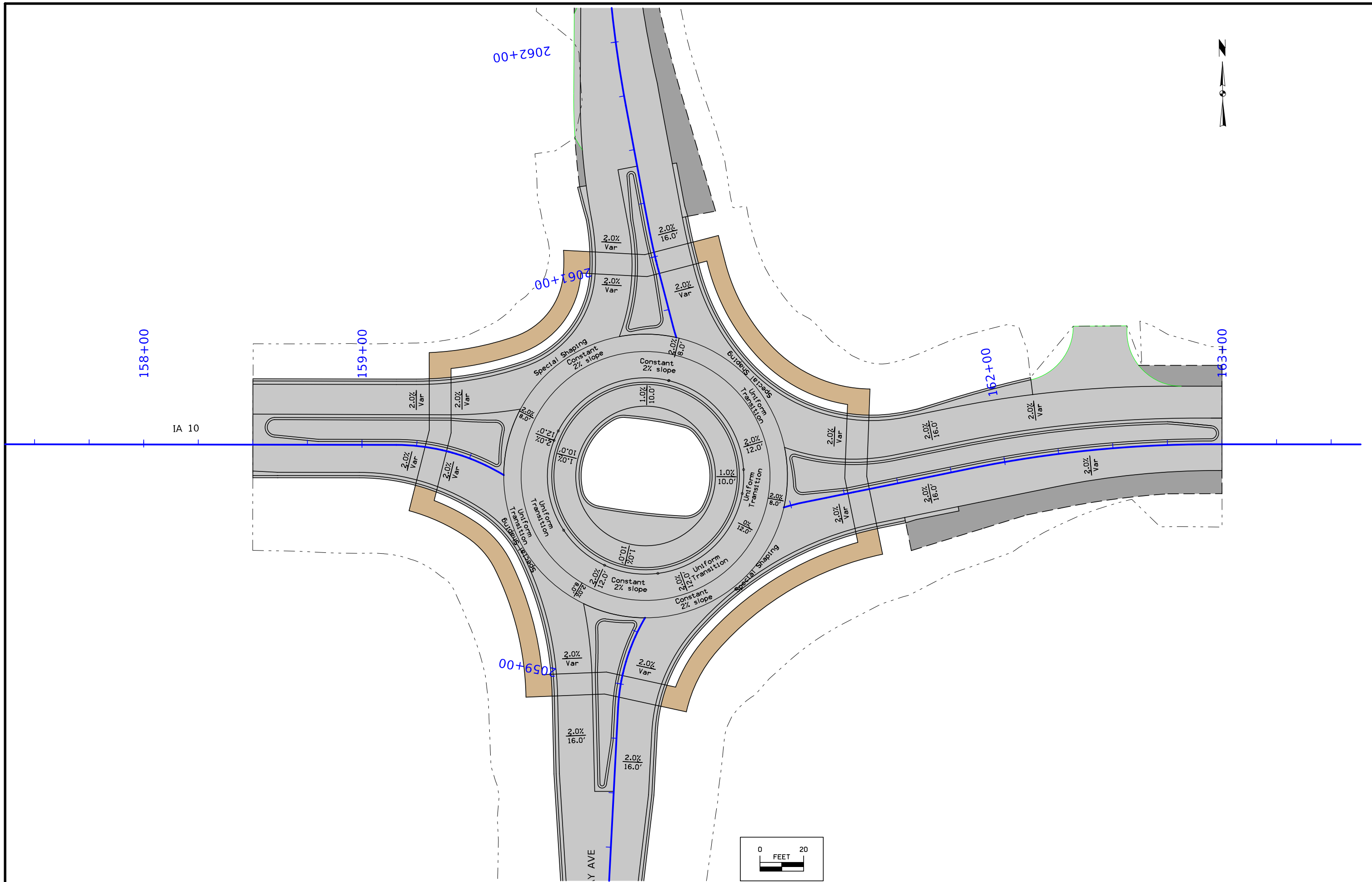
 Finish construction of the roundabout

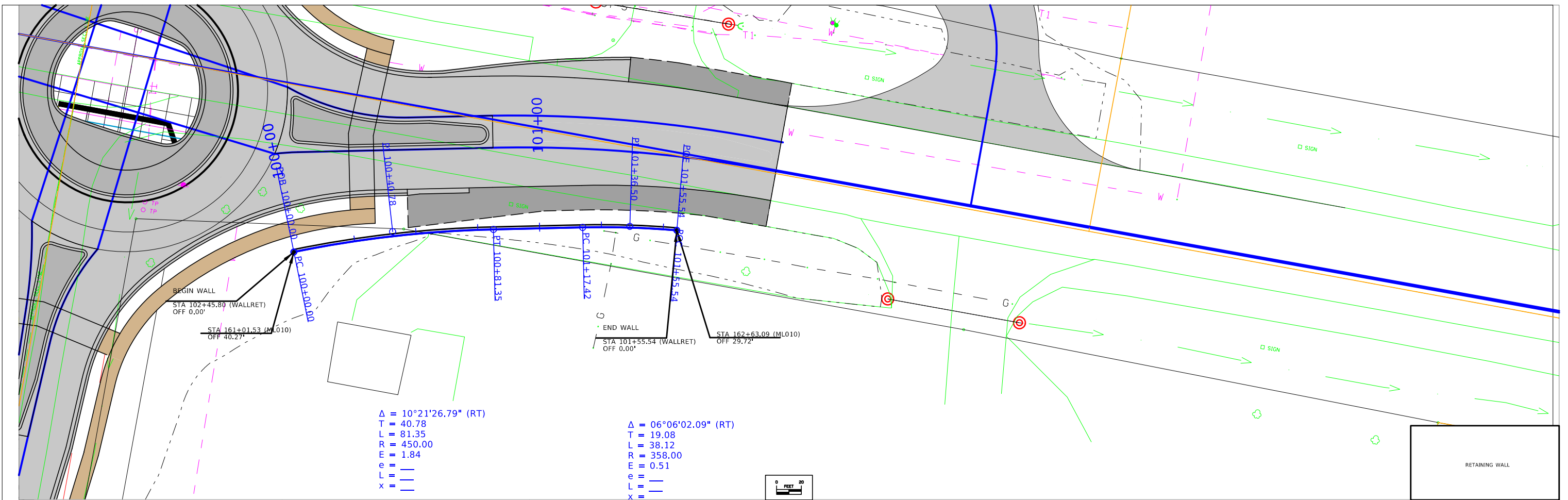
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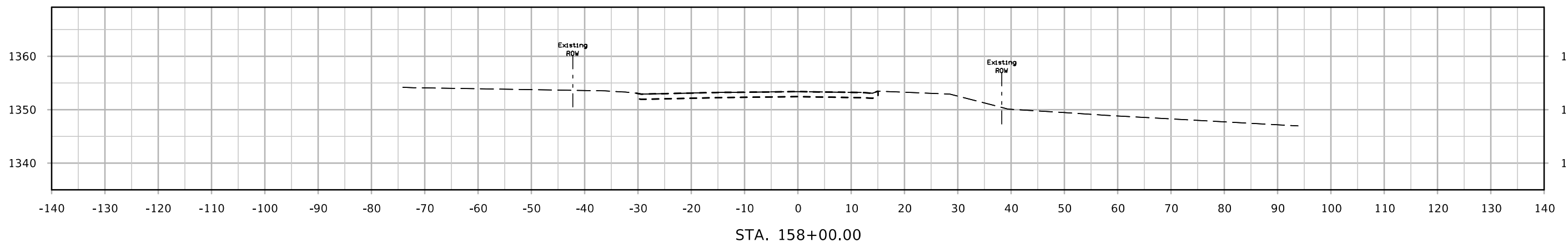
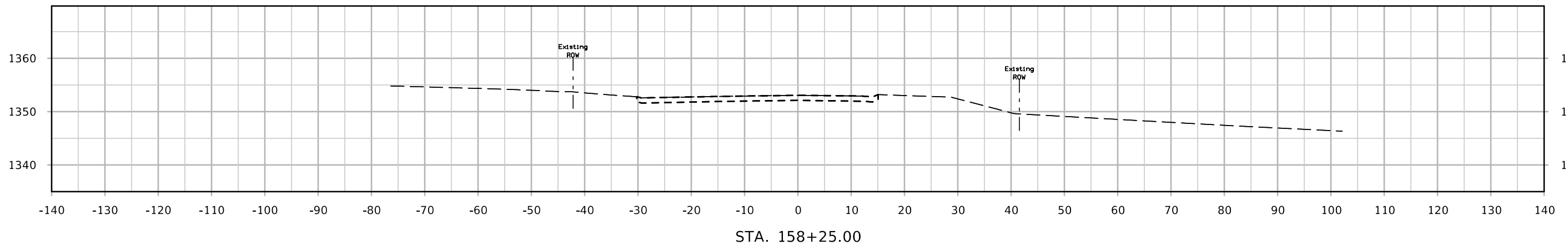
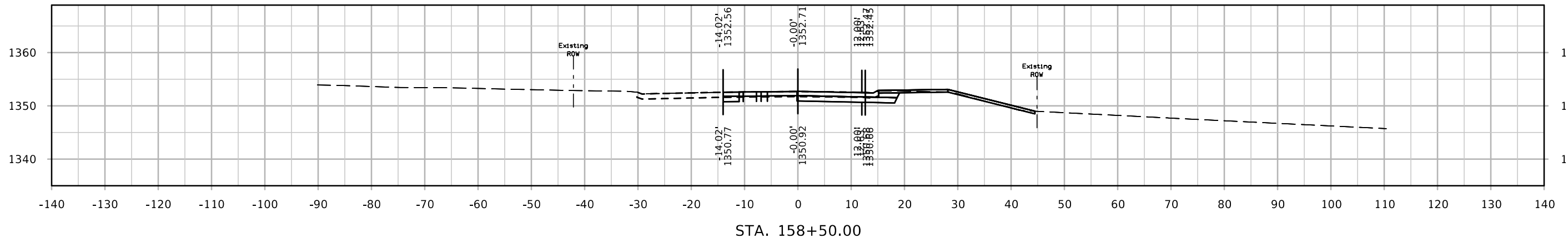


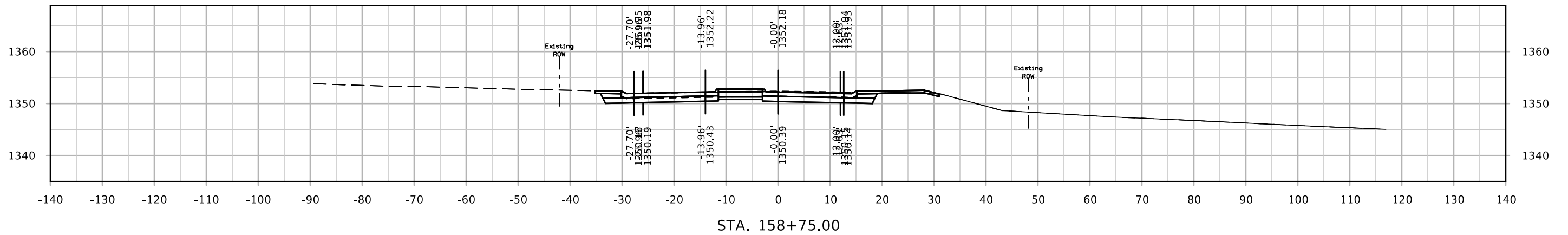
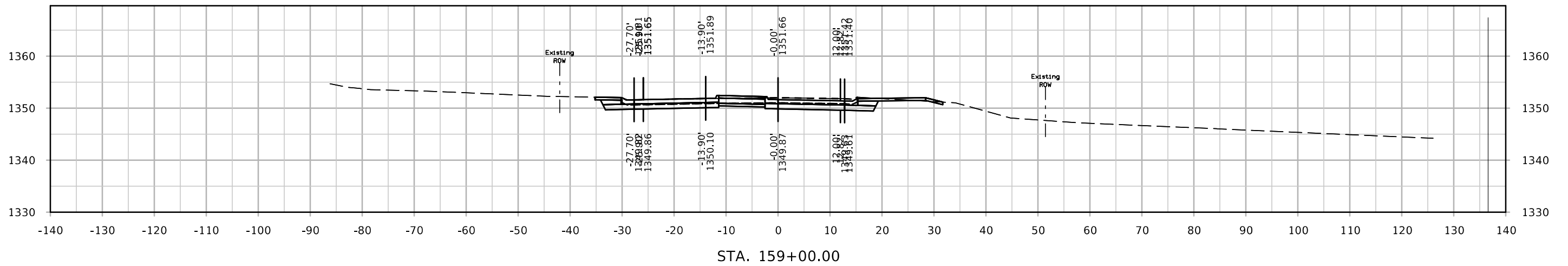
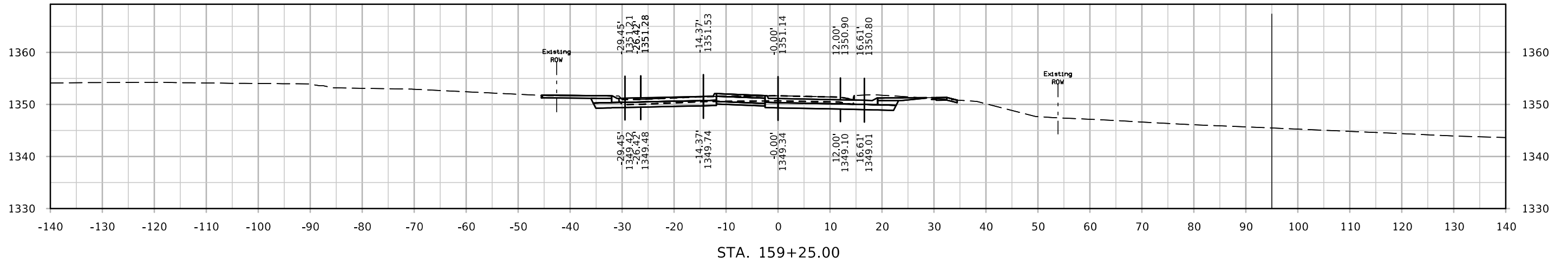
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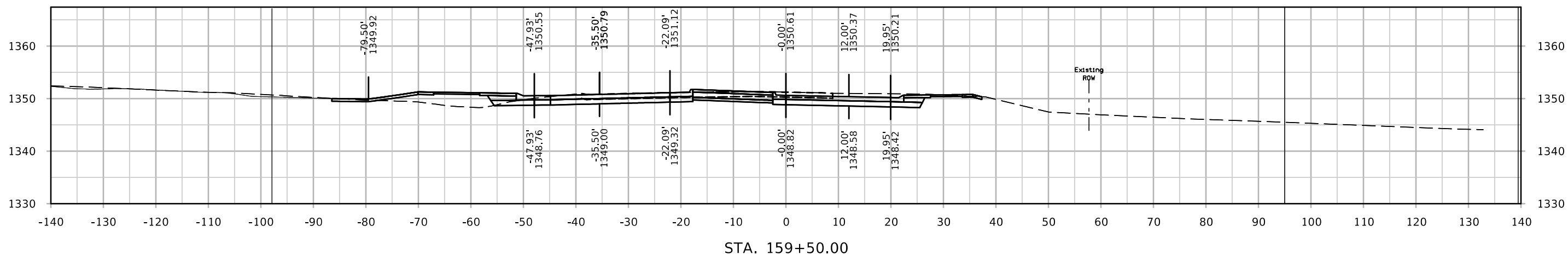
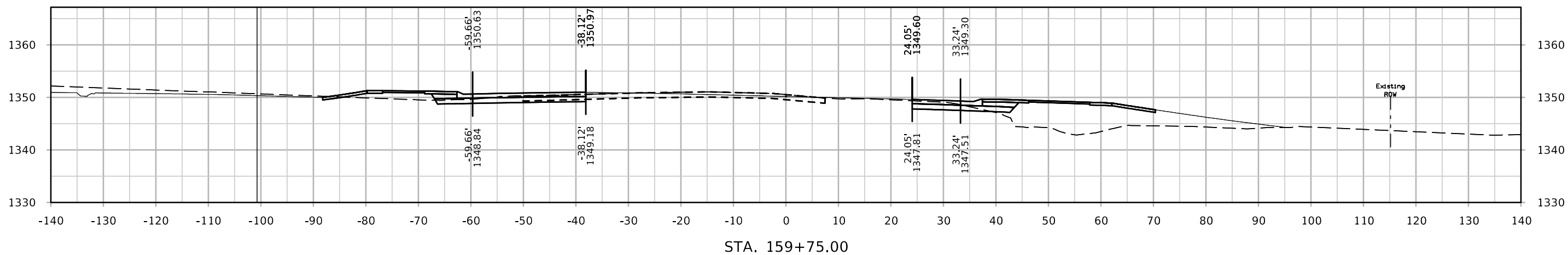
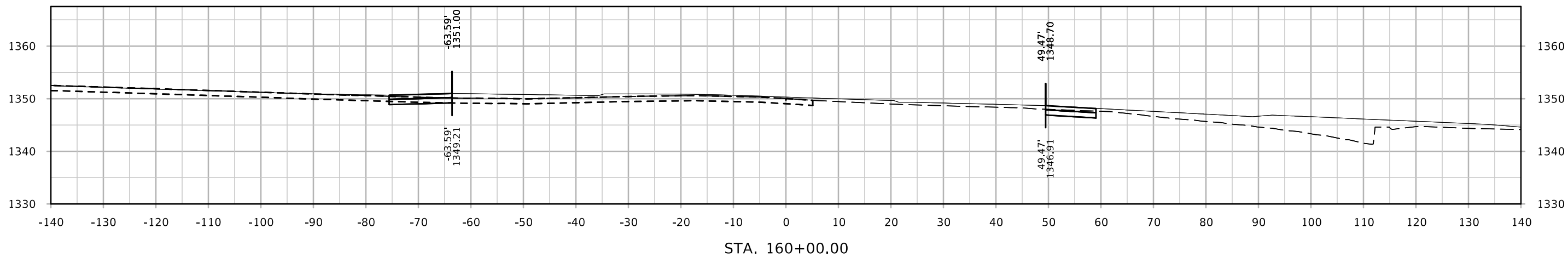


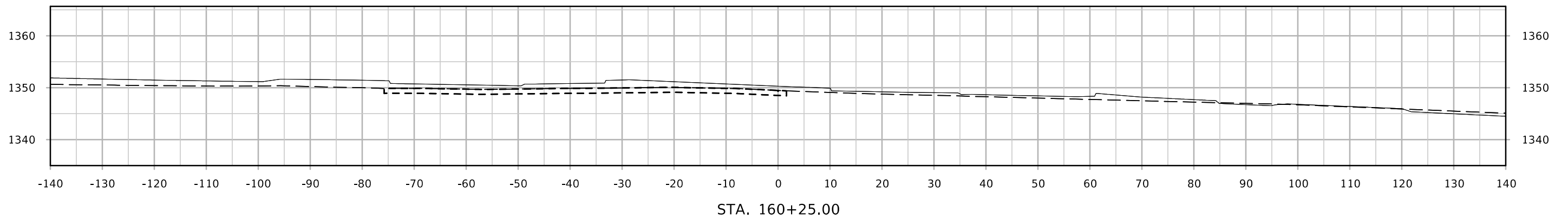
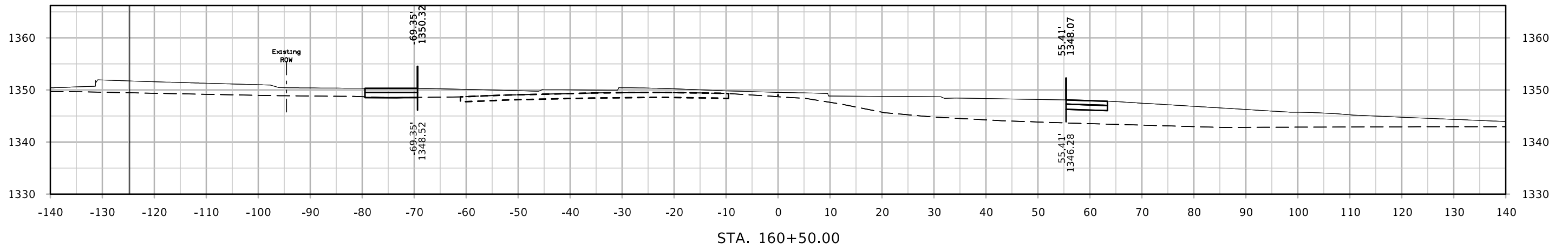
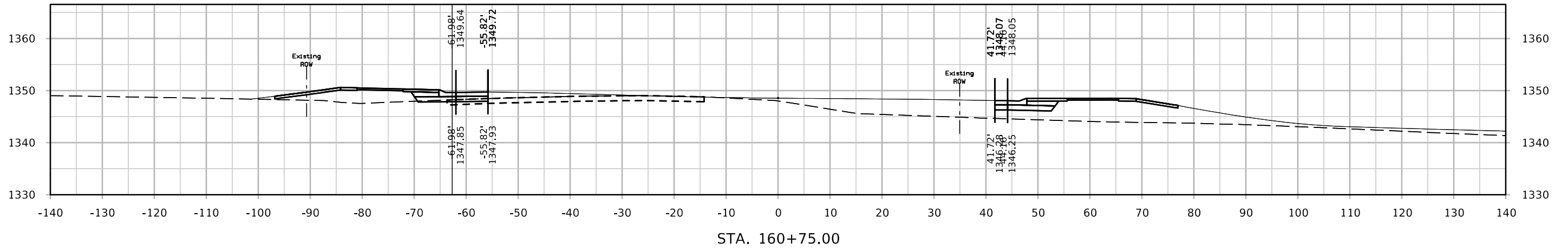


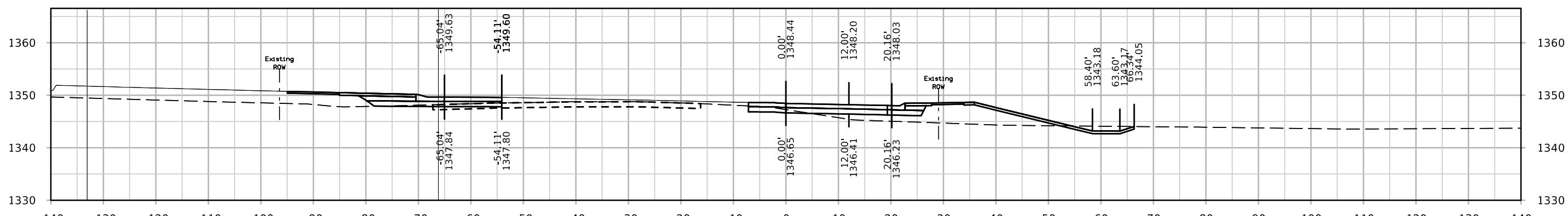
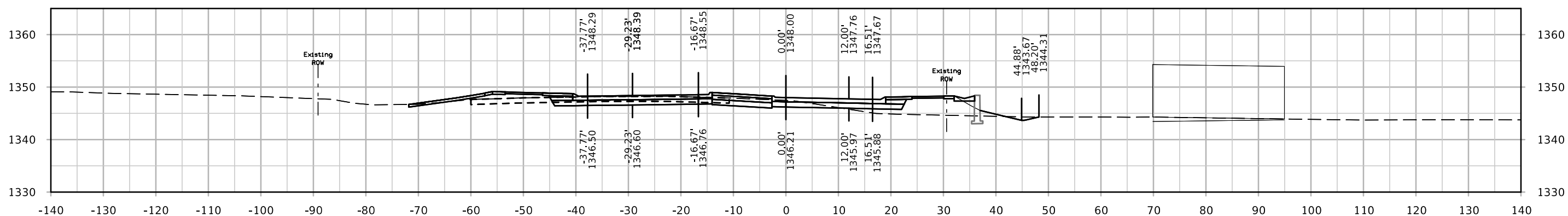
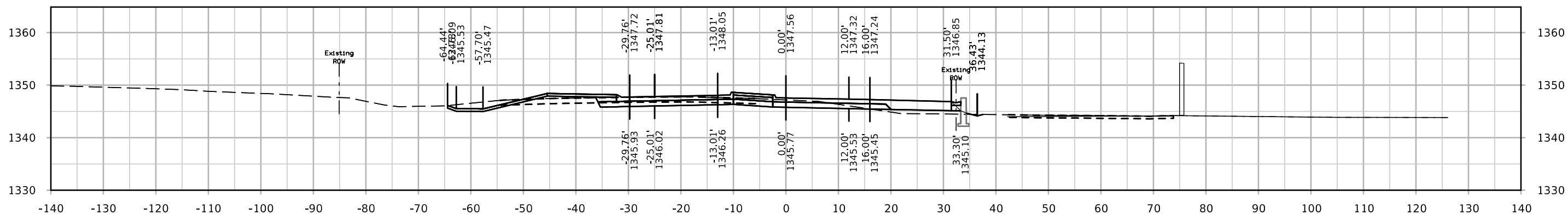


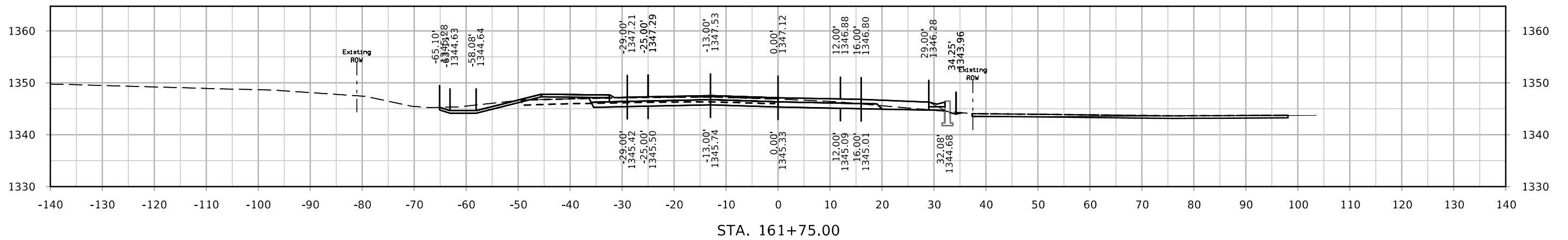
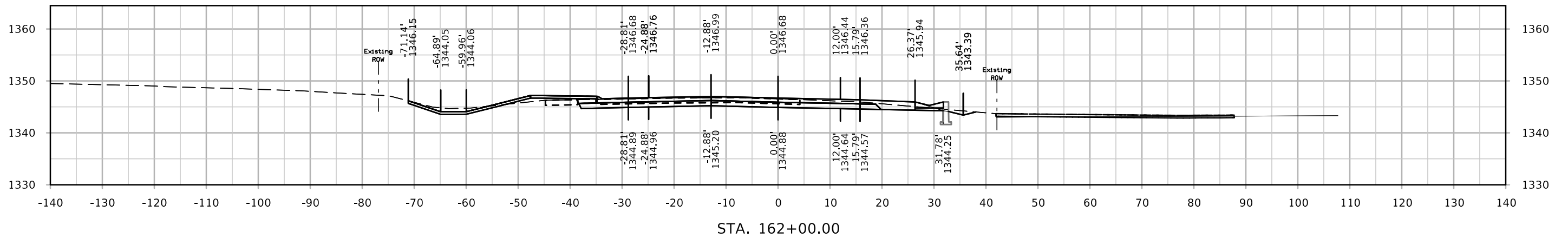
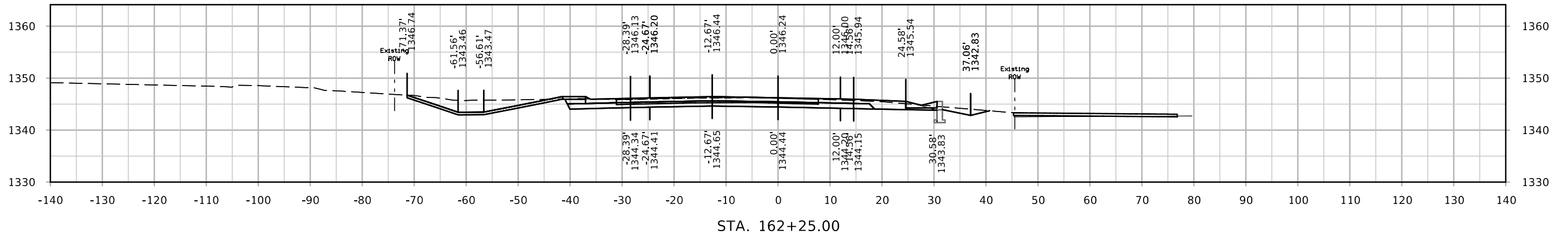


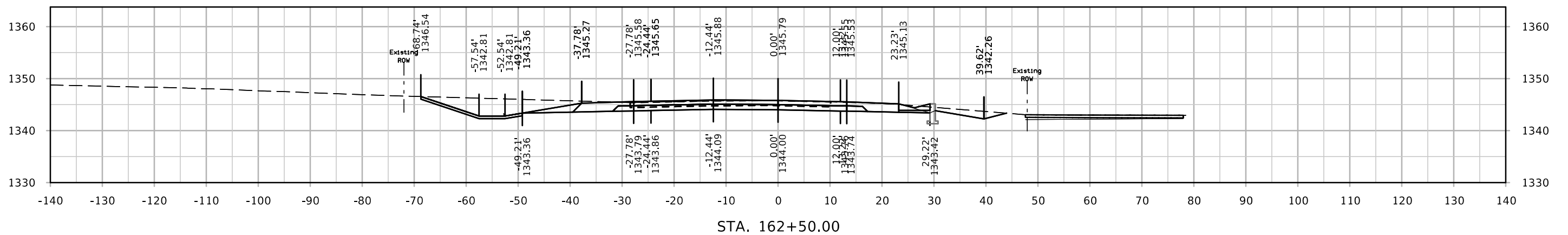
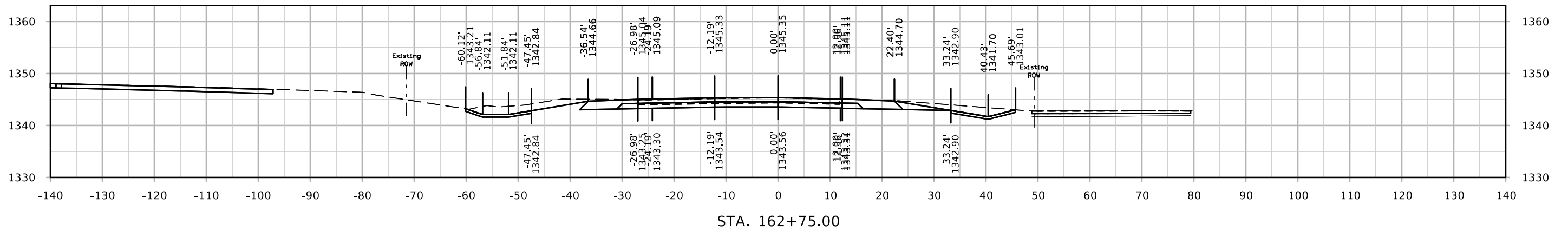
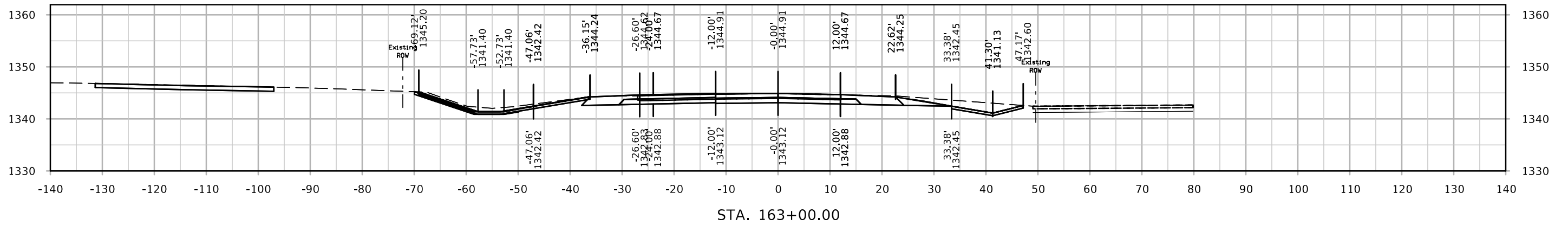


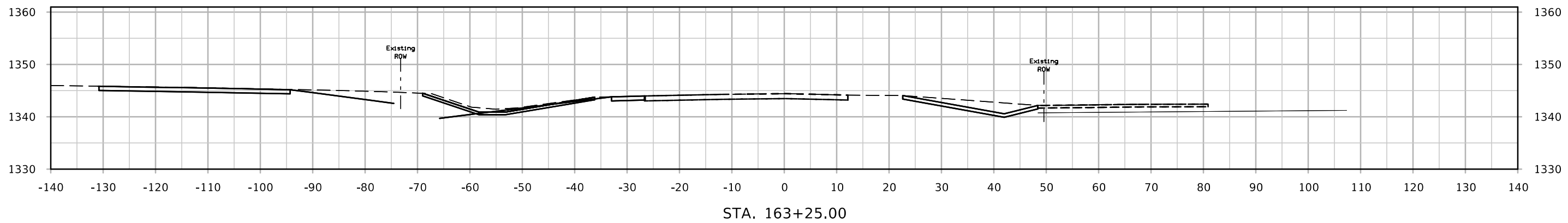
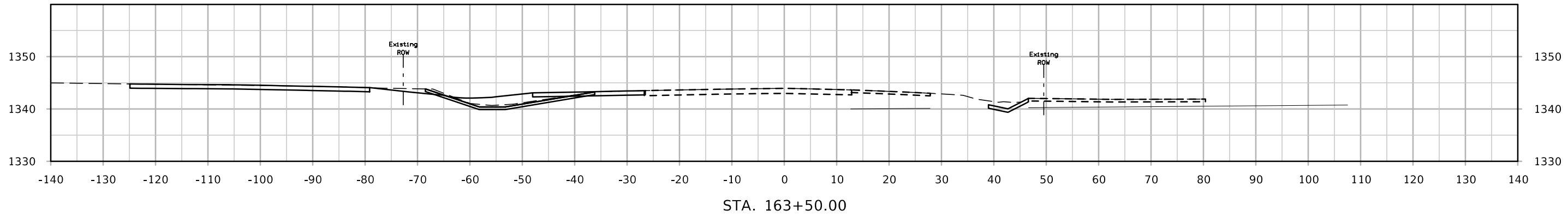




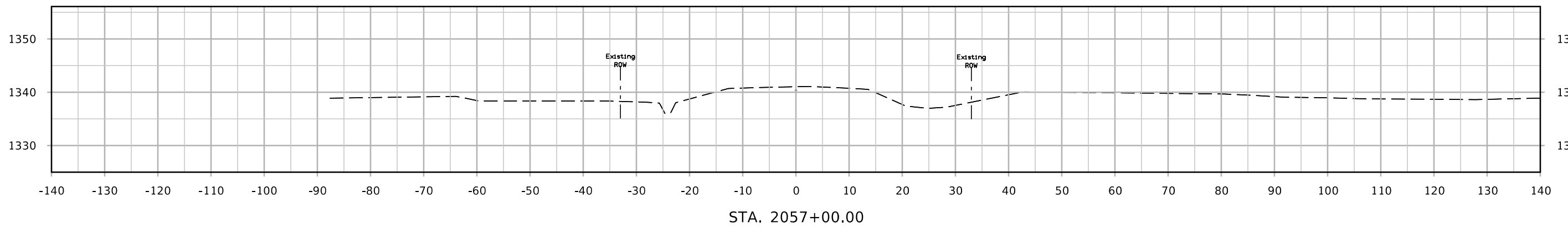
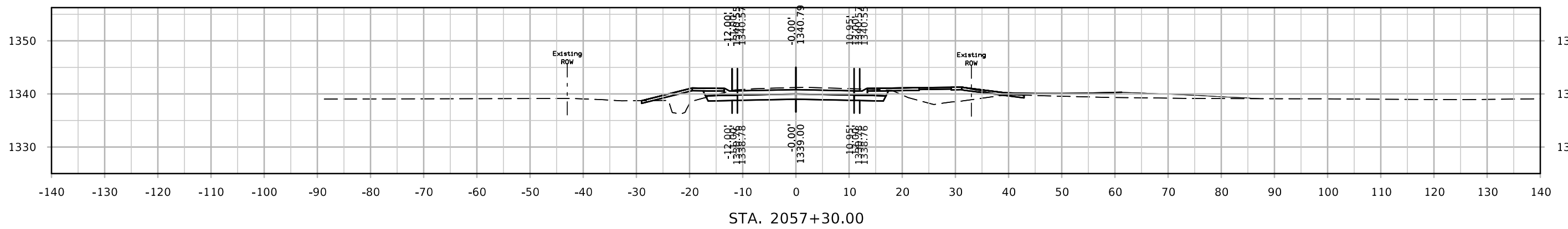
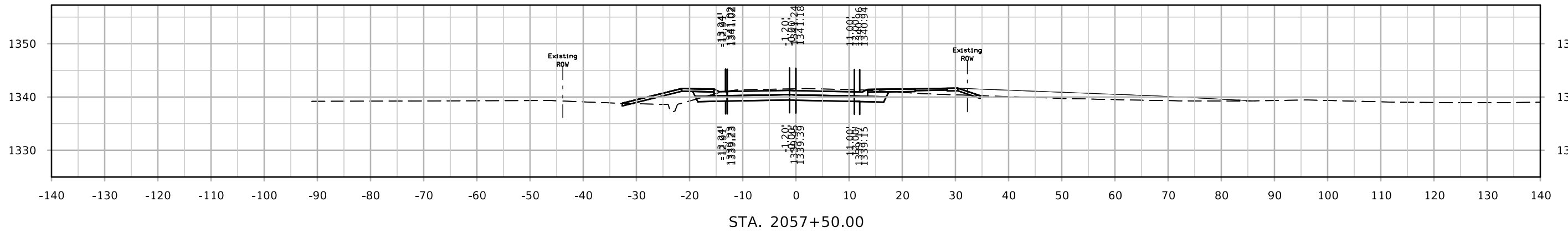




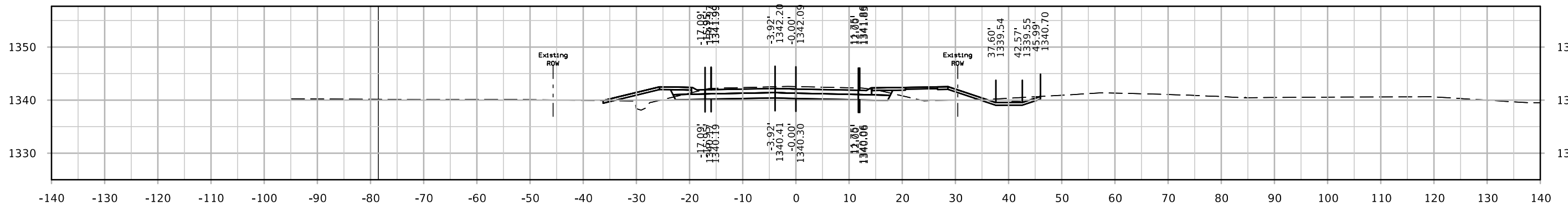
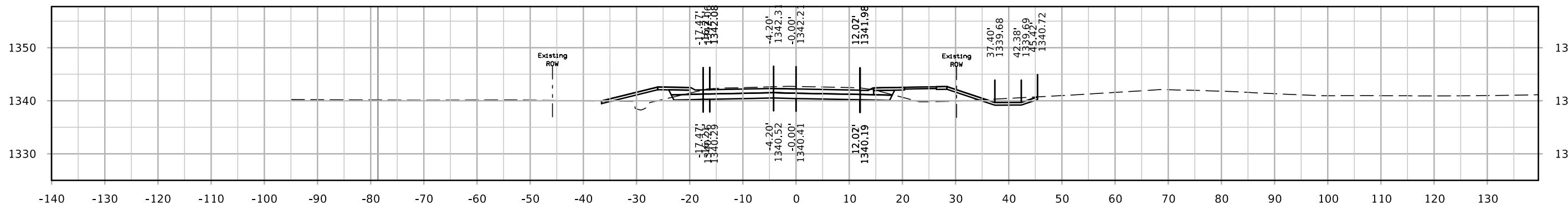
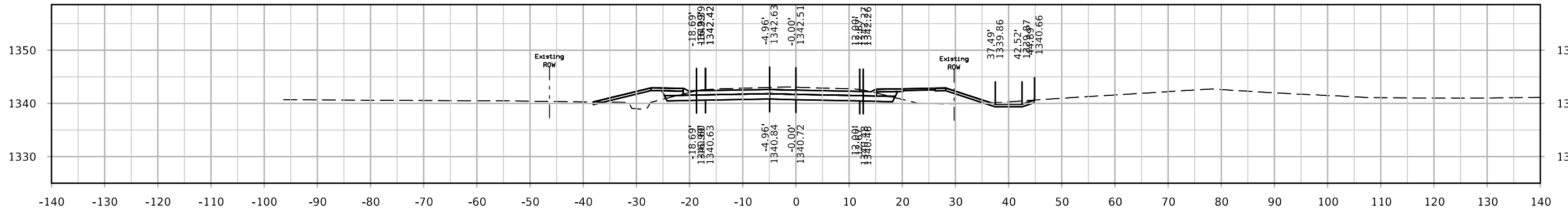




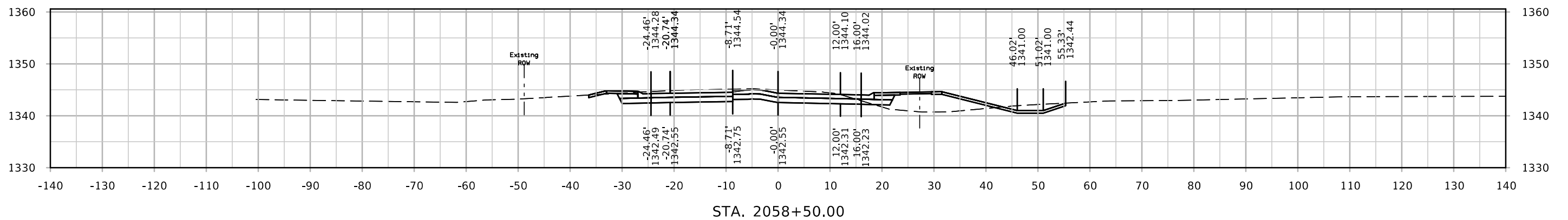
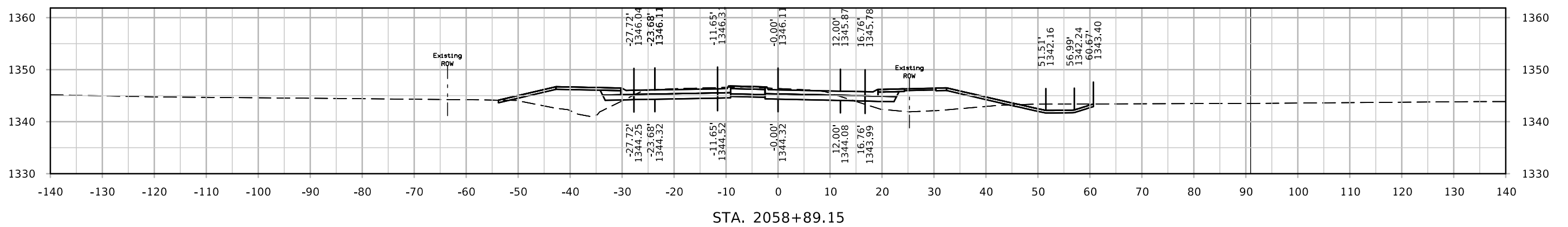
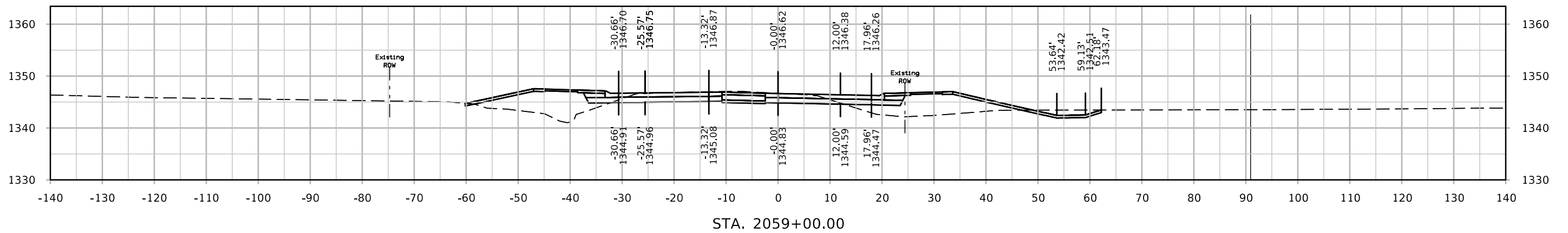
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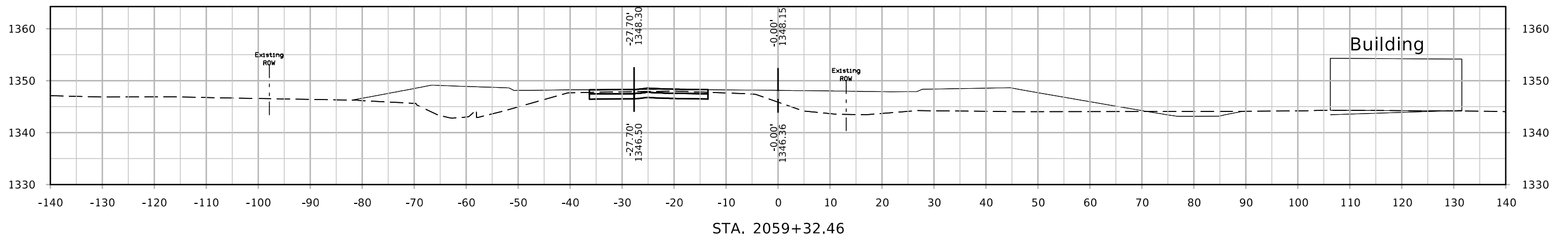
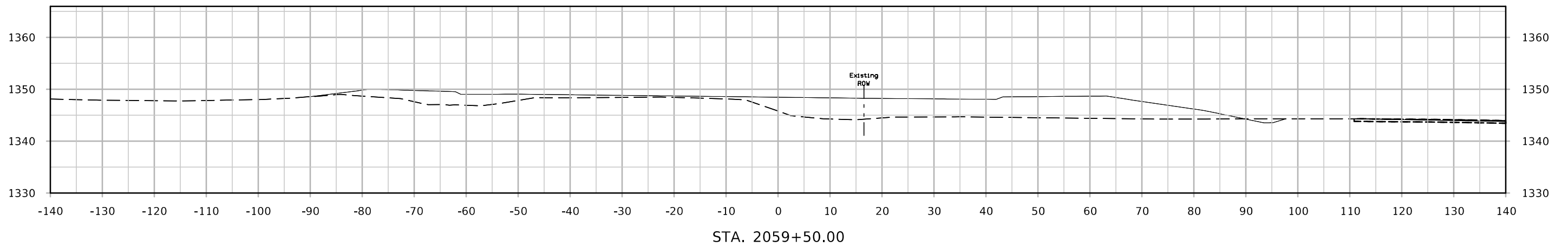
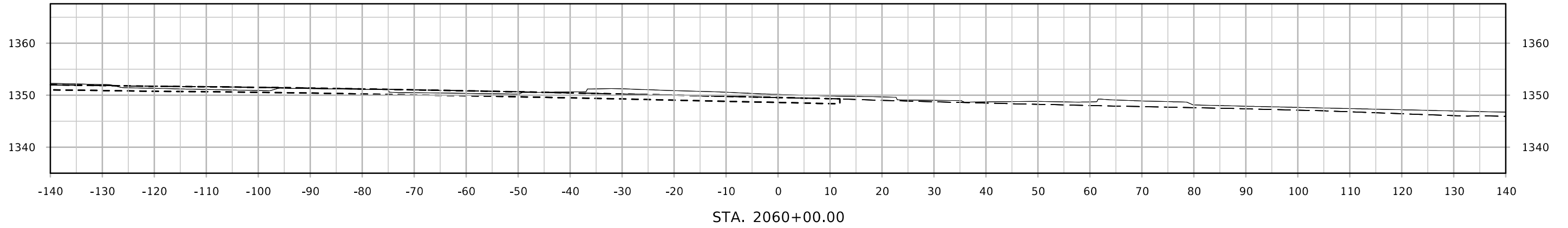
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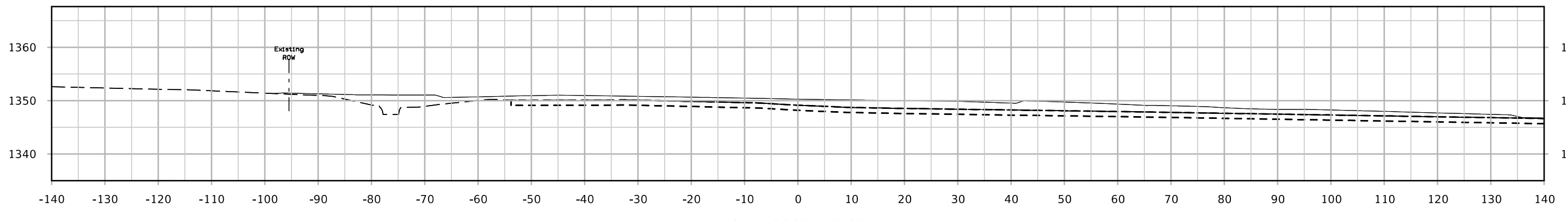
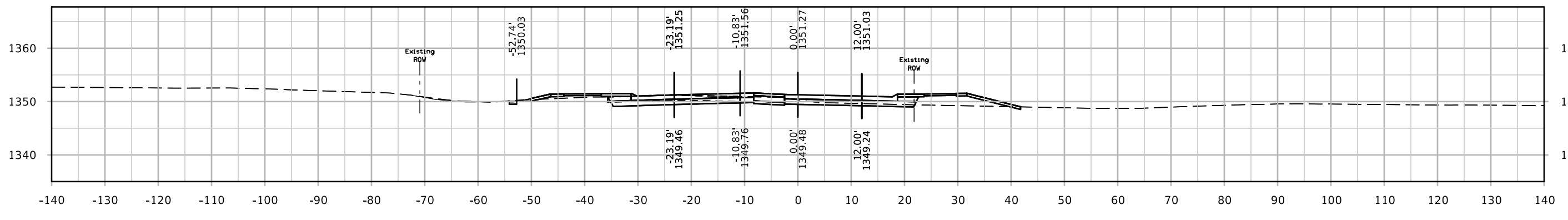
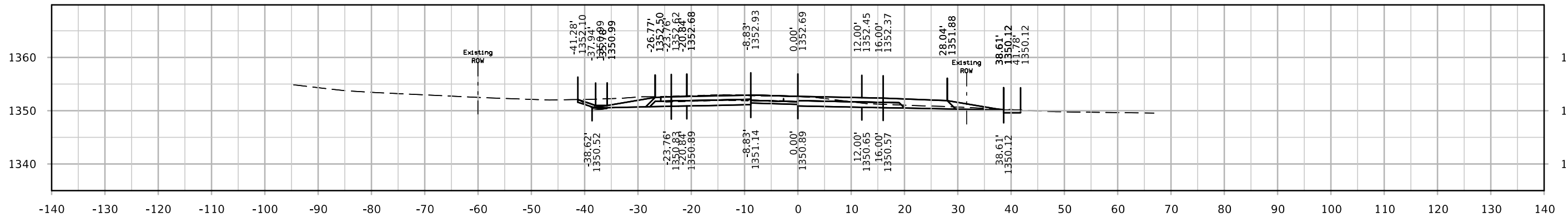
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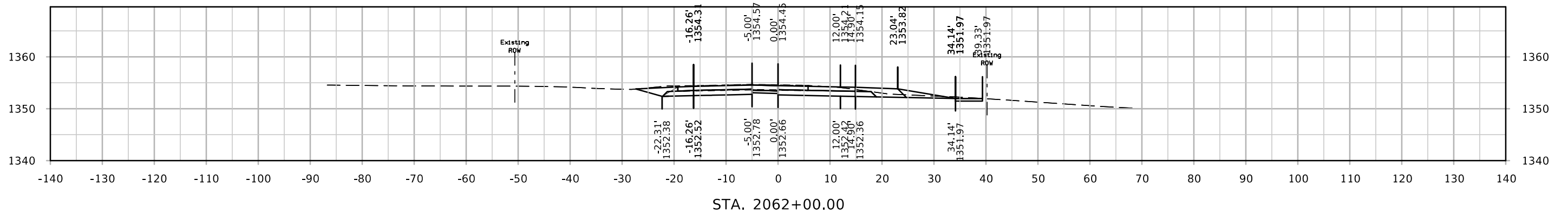
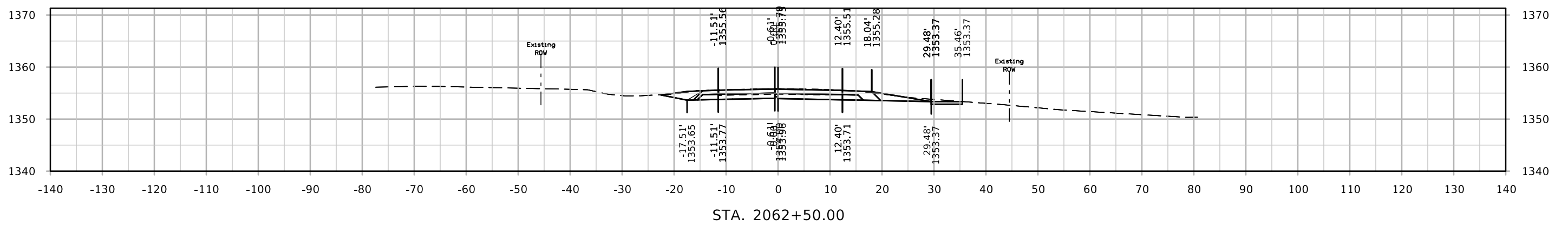
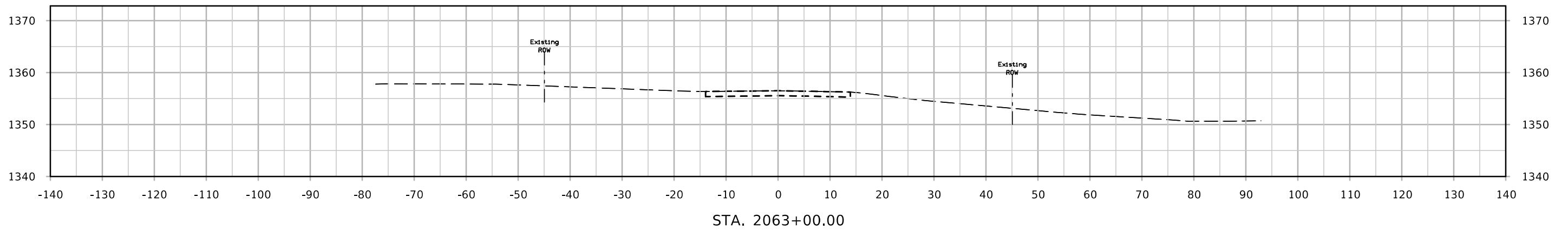
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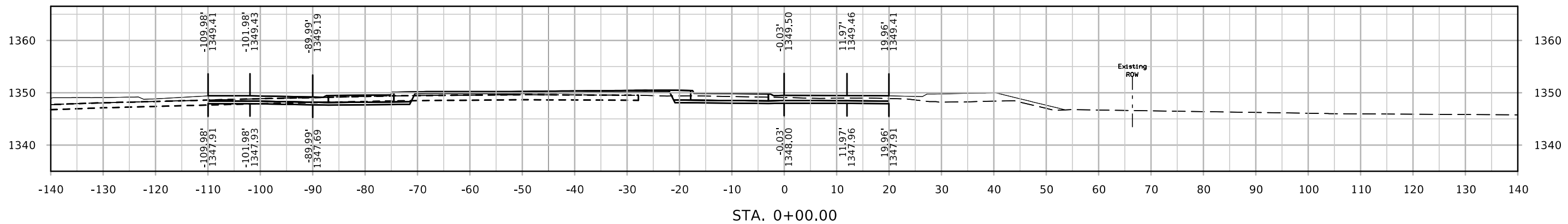
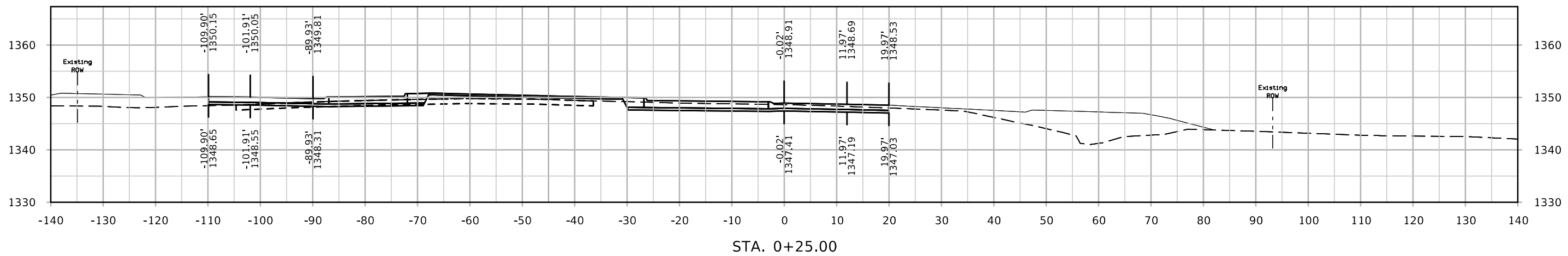
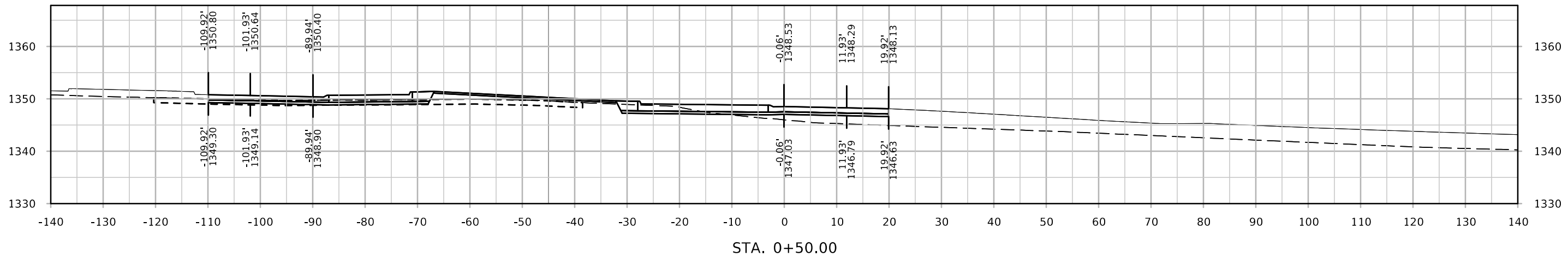
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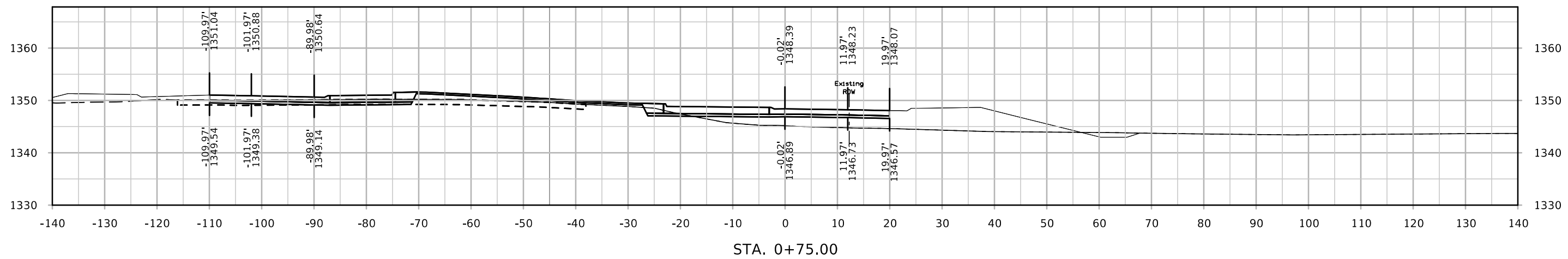
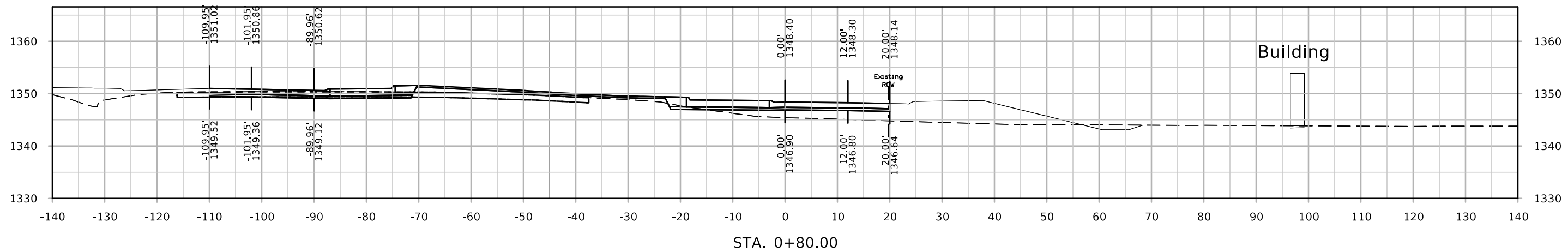
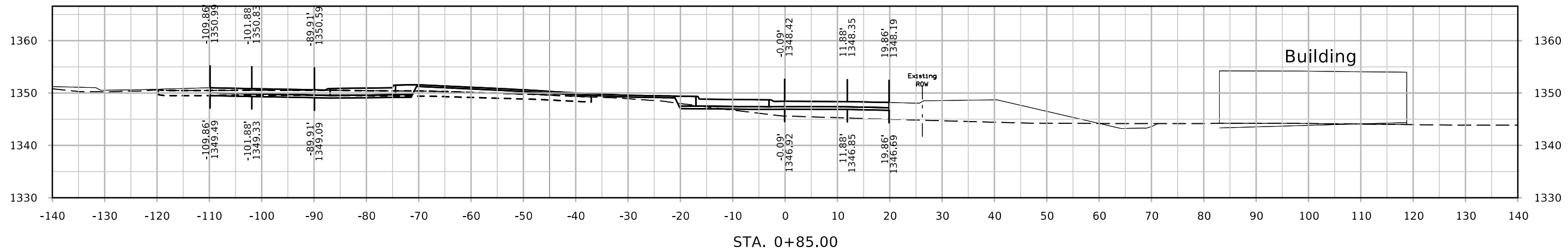
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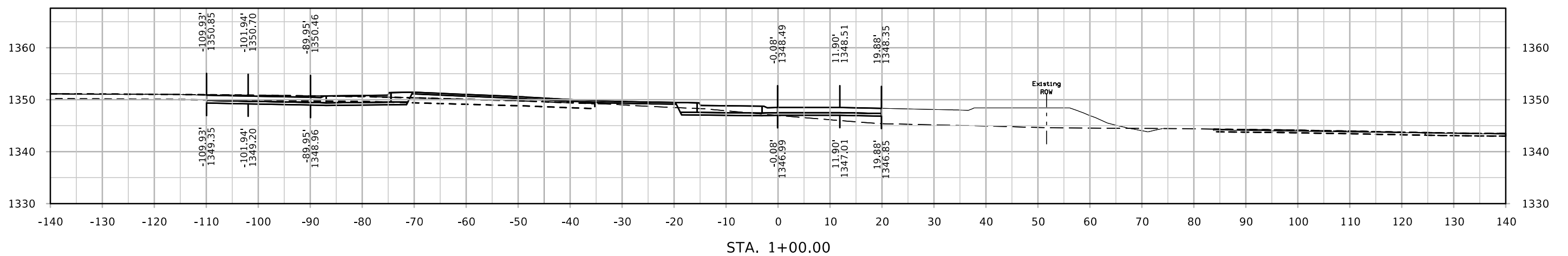
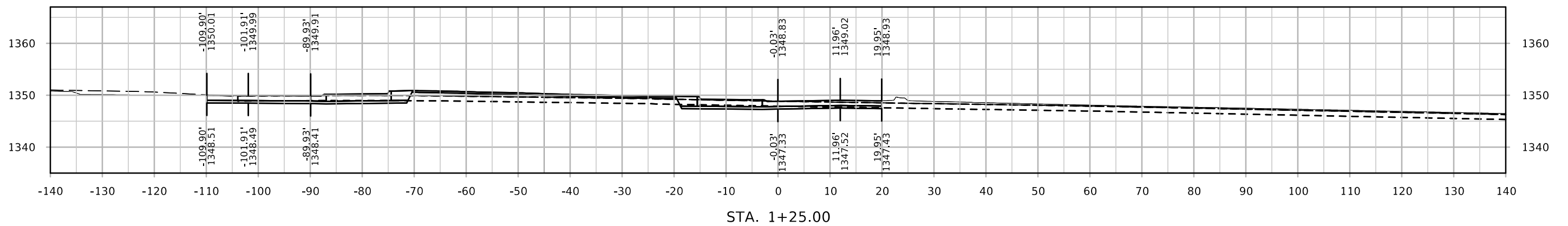
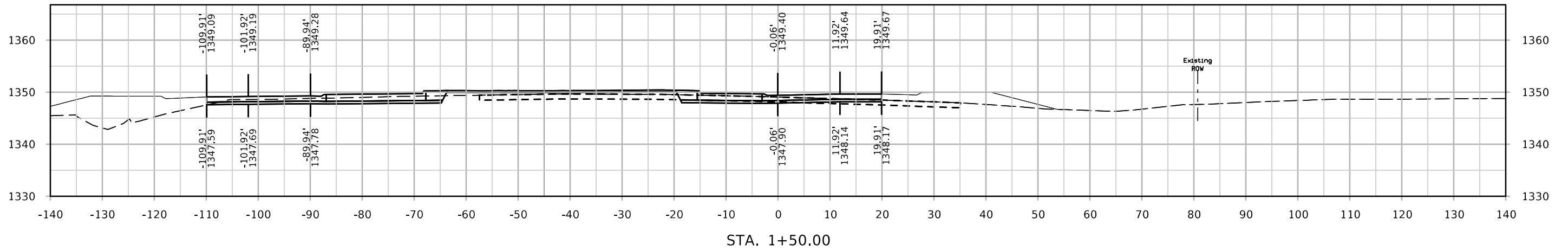
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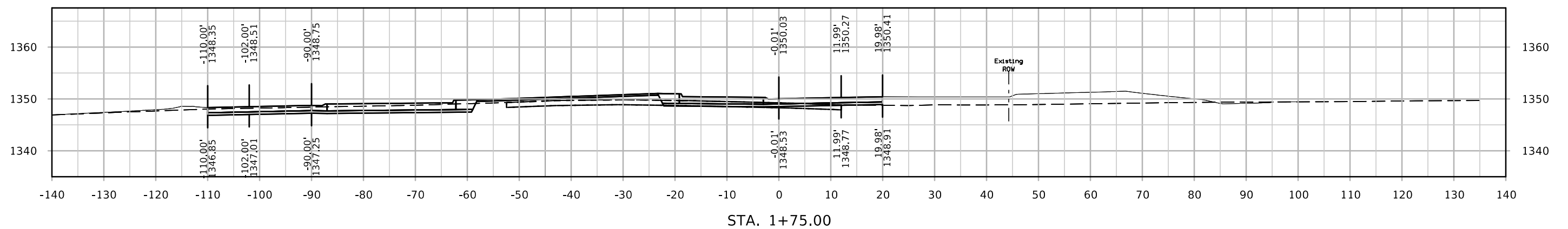
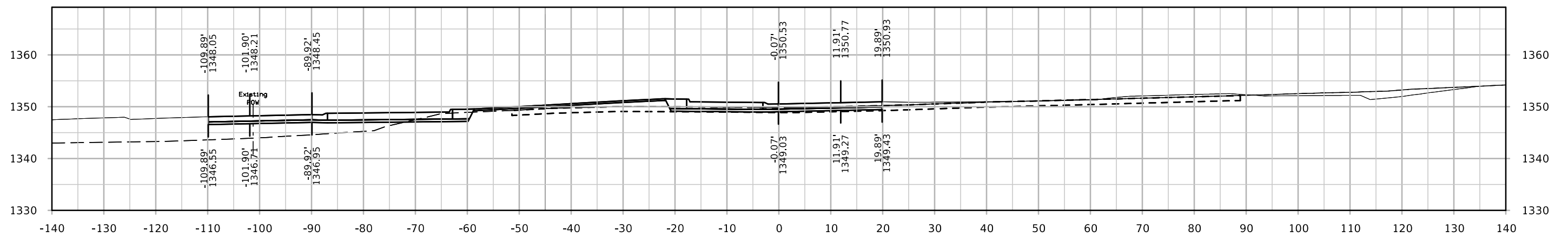
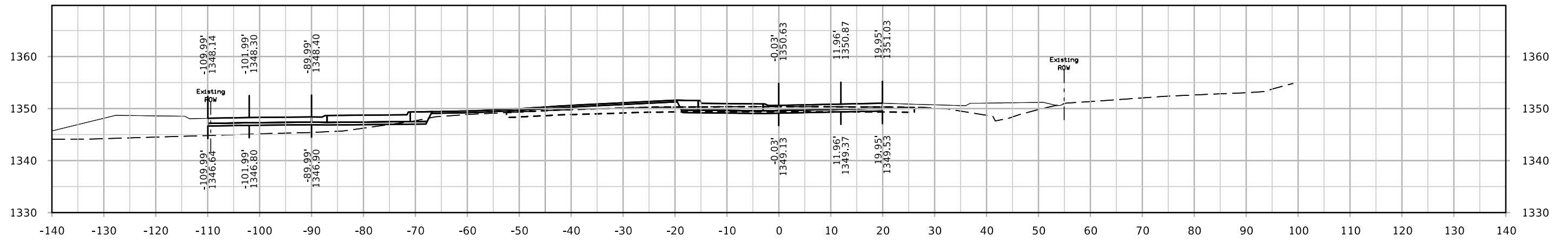
Roundabout



Roundabout



Roundabout



Roundabout

