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PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
Monona COUNTY
Bridge Replacement
IA 141 at Soldier River 3.9 mi W of IA 183

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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



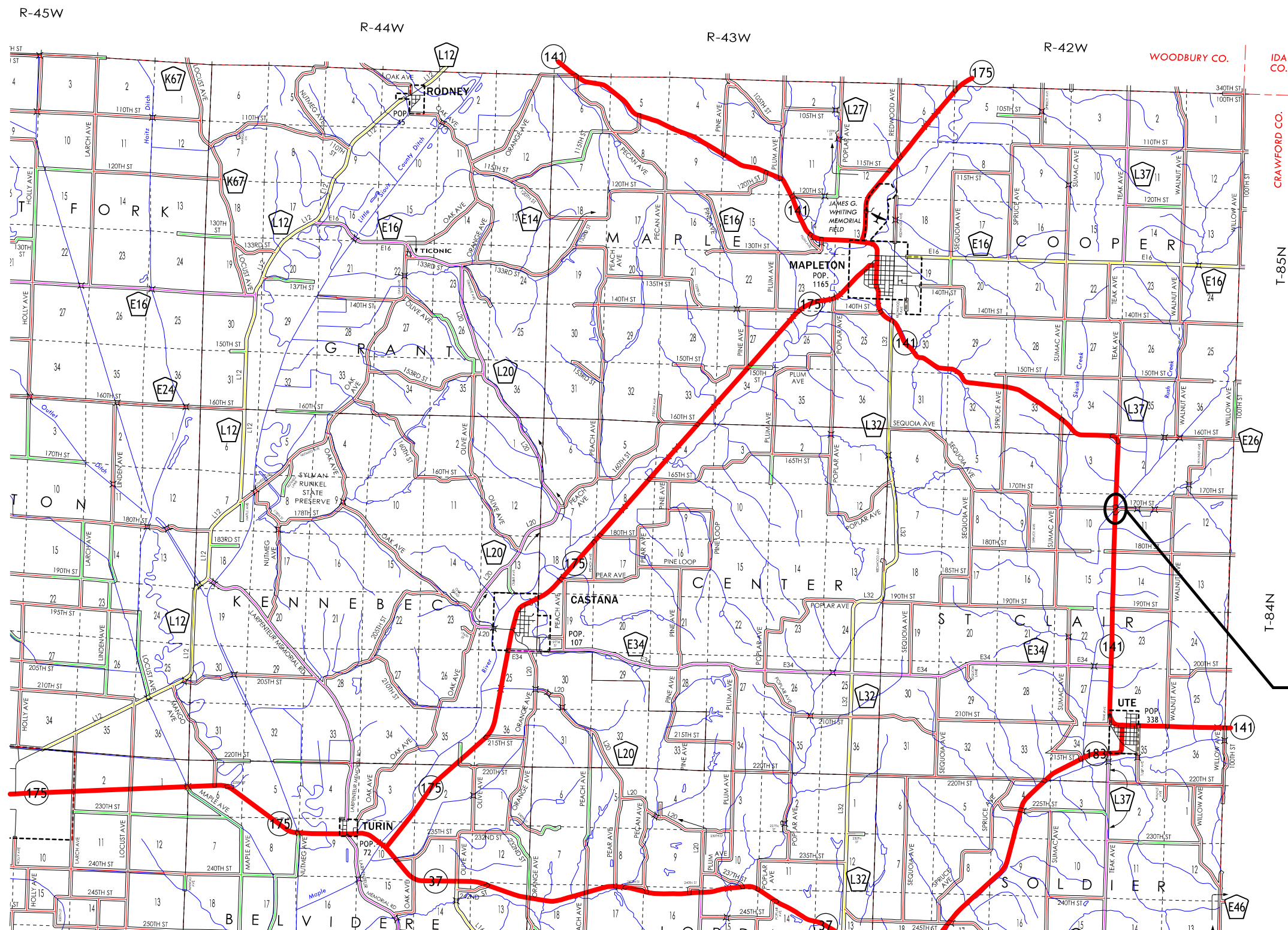
REVISIONS

PROJECT IDENTIFICATION NUMBER	TOTAL
	47
24-16-030-030	
PROJECT NUMBER	
BRF-141-2(070)--38-67	
R.O.W. PROJECT NUMBER	

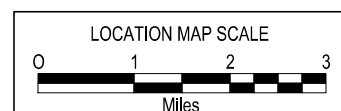
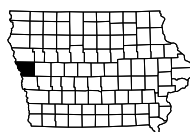
PRELIMINARY PLANS

Subject to change by final design.

D5 PLAN - 4/14/2026



**PROJECT
LOCATION
STA. 1682+79.20
FHWA NO. 036790**



DRAINAGE STRUCTURE BY ROAD CONTRACTOR

104_03
3/18/24

Length of unclassified pipe calculated is based on using Reinforced Concrete Pipe.
* Not a bid item
(1) Diameter or equivalent diameter
(2) UNCL = Unclassified Pipe CMP = Corrugated Metal Pipe RCP = Reinforced Concrete Pipe LCP = Arch or Elliptical Low Clearance Pipe SARC = Steel Arch Pipe
(3) Backfill according to DR-101

Drainage Area (ACRE)	Location	Type	Size (IN) (1)	Pipe Classification	Kind of Pipe (2)	Length New Const. (LF)	Length of total that is Trenchless	Bedding Class	Design Cover (H) (FT)	Camber* (DR-102) (FT)	Apron No. (IN)	Apron No. (OUT)	Apron Guard* (DR-213) (No.)	Elbow* (DR-141) (No.)	Diaphragm* (DR-501) (No.)	Tee Section* (DR-142) (No.)	"D" Section* (DR-141) (No.)	Reducer* (No.)	Type 'C' Conn.* (DR-122)	Type 'C' Conn.* (No.)	Connected Pipe Joint* (DR-121)	4" Perforated Subdrain* (FT)	Flow Line Elevation LT.	Flow Line Elevation RT.	Flow Line Elevation Other	Flow Line Elevation Other	Dimensions Lineal Feet Total (Left)	Dimensions Lineal Feet Total (Right)	Dimensions Lineal Feet Extensions	Dimensions Lineal Feet Extensions	Skew Ahead Degrees (Left)	Skew Ahead Degrees (Right)	Dike Location	Dike Station	Dike Elevation	Dike Type	Class 20 (CY)	Flowable Mortar	Floodable Backfill* (A)	Porous Backfill* (B)	Flooded Backfill (A+B)	Remarks
202.4	2676+60.00	DR-651	72.0	2000	UNCL	49.0		B	3.00	0.05	1	1											1179.35	1178.71			31.64	31.86														
110	3689+00.00	DR-651	60.0	2000	UNCL	49.0		B	3.00	0.05	1	1											1175.27	1175.91			32.05	31.45														

REMOVAL OF EXISTING STRUCTURES			
Line No.	Location	Description	Remarks
1.0	1680+10.94, 31.4 LT	24" x 68' CMP	
2.0	2672+45.42, 78' RT	36" x 108' CMP	
3.0	2674+28.59, 234' RT	54" x 192' CMP	
4.0	3688+22.81, 185.5 LT	36" x 40' CMP	

110_02
8/15/22

	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

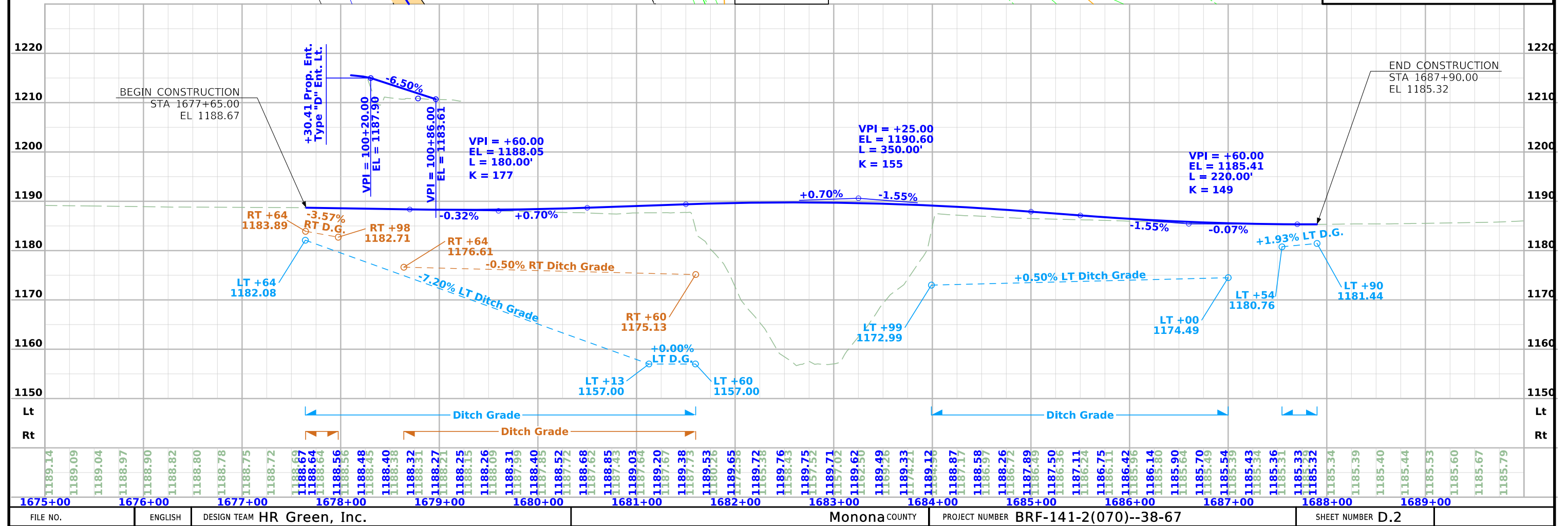
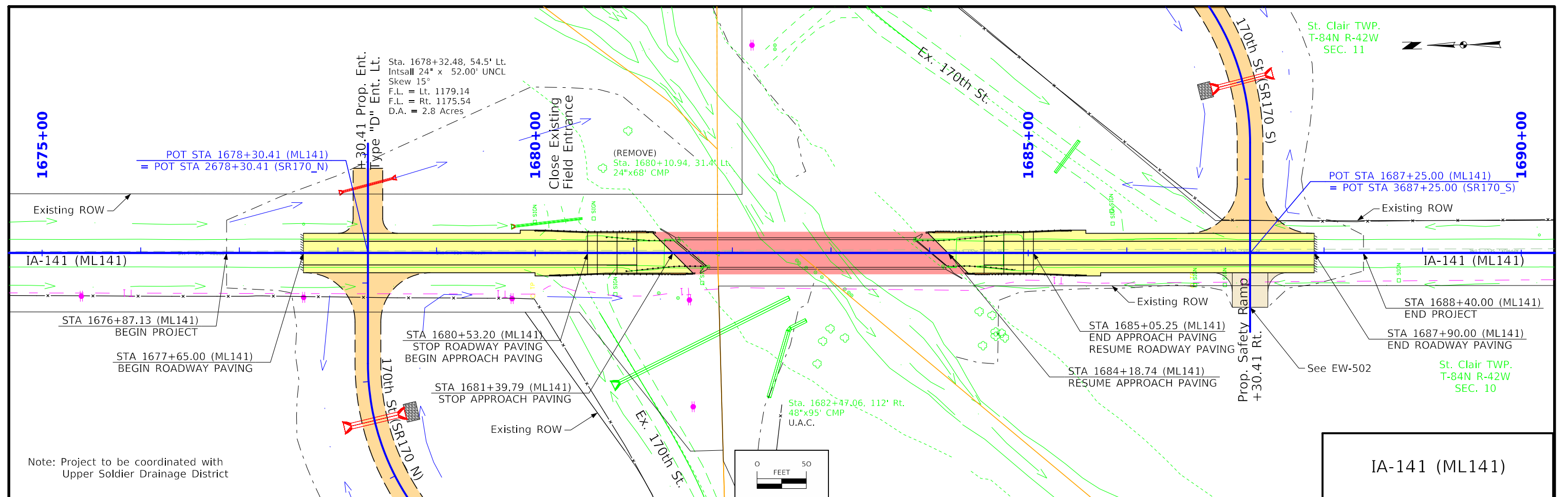
(WINIA) WINDSTREAM COMMUNICATIONS
Company name : WINDSTREAM COMMUNICATIONS
Design contact: Zingula, Lisa A
Phone: 8002891901
Email: Lisa.Zingula@windstream.com

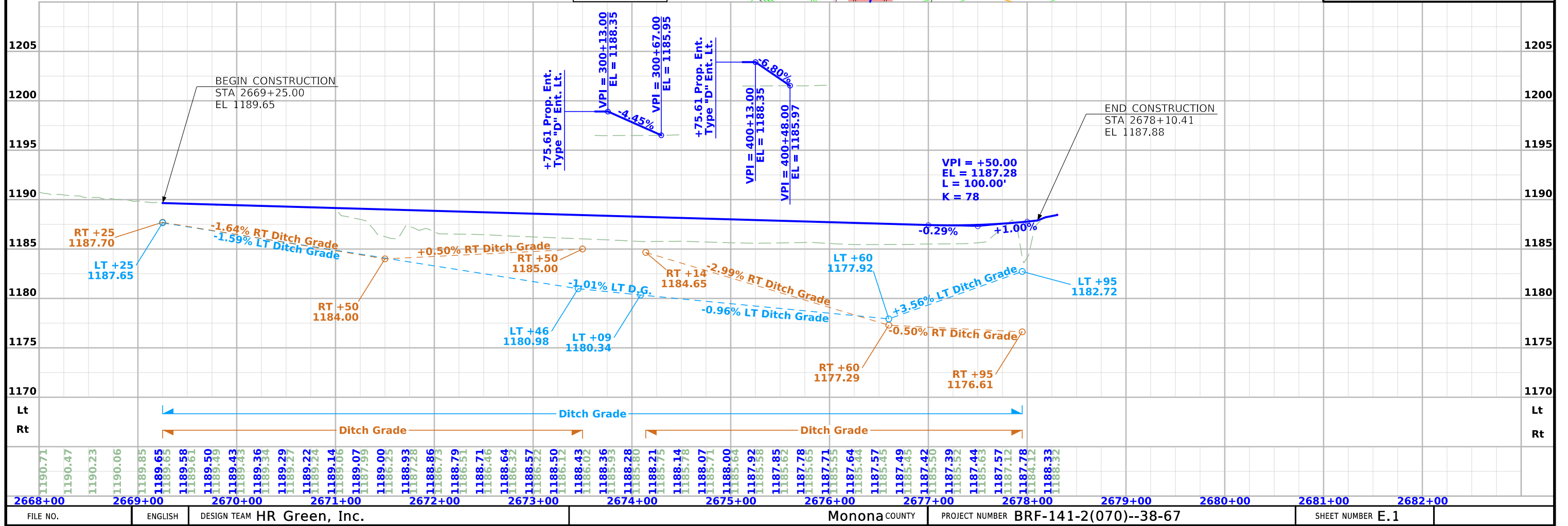
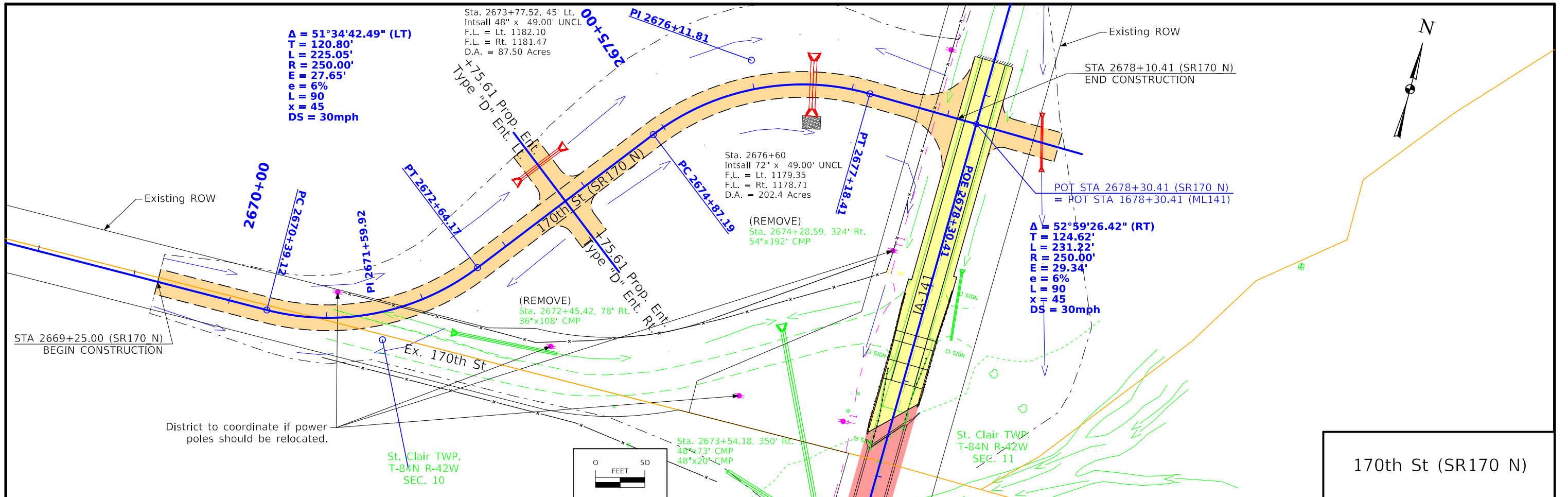
LINEWORK		Design Color No.
Green	(2)	Existing Topographic Features and Labels
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)	Existing Utilities
SHADING		Design Color No.
Lavender	(9)	Temporary Pavement Shading
Yellow	(4)	Proposed Pavement Shading
Orange	(6)	Proposed Granular Shading
Orange	(70)	Proposed Shoulder Granular Shading
Yellow	(68)	Proposed Shoulder Paved Full Depth Shading
Yellow	(132)	Proposed Shoulder Paved Partial Depth Shading
Gray, Dark	(112)	Proposed Grade and Pave Shading "In conjunction with a paving project"
Brown, Light	(236)	Grading Shading
Orange, Light	(134)	Proposed Granular Entrance Shading
Yellow	(220)	Proposed Paved Entrance Shading
Tan	(8)	Proposed Sidewalk Shading
Blue, Light	(230)	Proposed Sidewalk Landing Shading
Pink	(11)	Proposed Sidewalk Ramp Shading
Green, Light	(225)	Existing Pavement Shading
Red	(3)	Proposed Structure Shading
Red	(3)	Delineates Restricted Areas

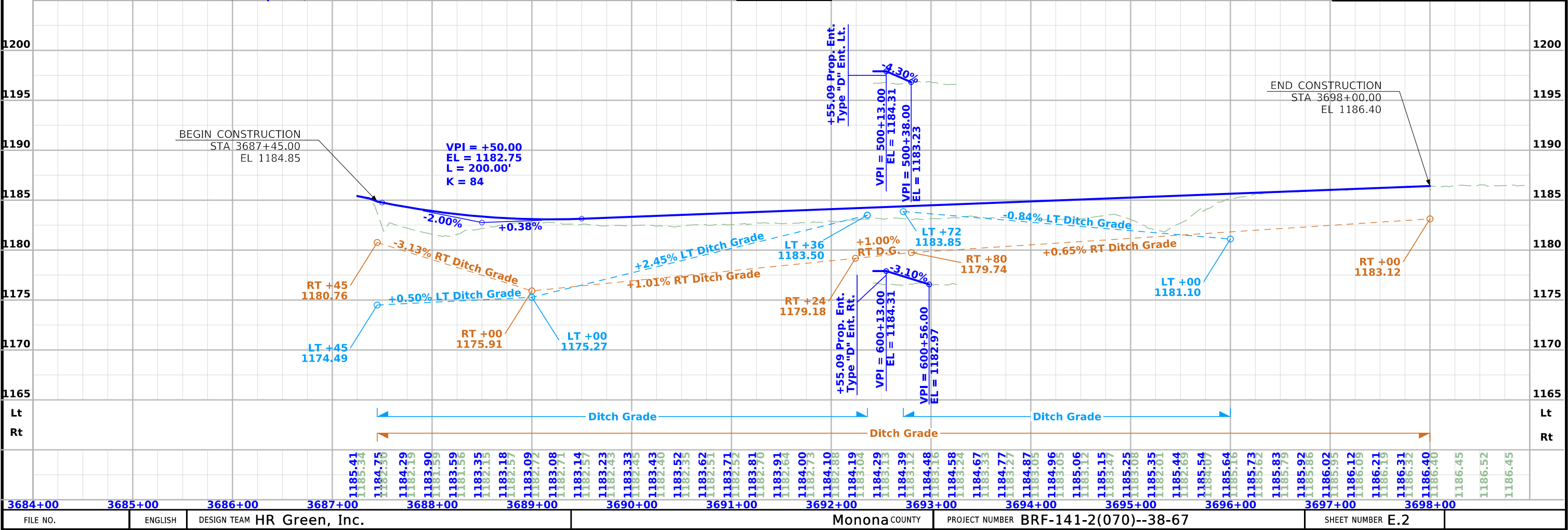
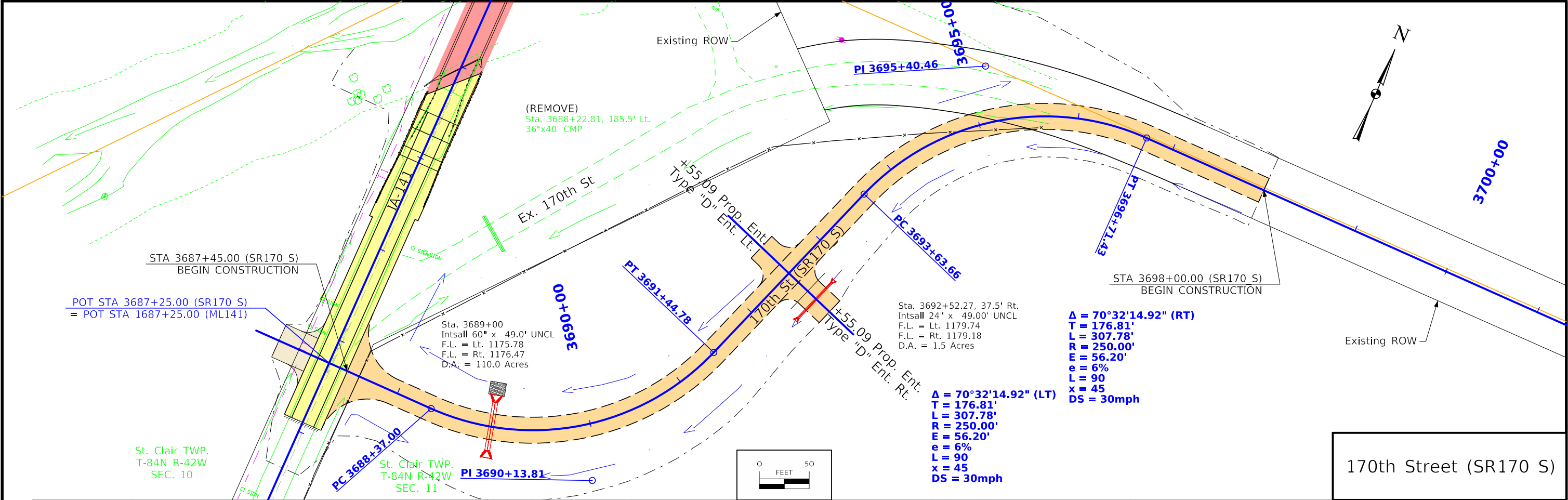
LINEWORK	Design Color	No.	
Green	(10)		Existing Ground Line Profile
Blue	(1)		Proposed Profile and Annotation
Magenta	(5)		Existing Utilities
Blue, Light	(230)		Proposed Ditch Grades, Left
Black	(0)		Proposed Ditch Grades, Median
Rust	(14)		Proposed Ditch Grades, Right

- 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

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







SURVEY INFORMATION

County: Monona
PIN: 24-67-141-030
Project Number: BRF-141-2(070)--38-67
Location: Intersection of IA 141 & 170th Street over Soldier River
Type of Work: Bridge-Unspecified
Project Directory: 6714103024

Survey Personnel

Chad Vandergriend - Survey Party Chief
Dwane Amador Rocha - Assistant Survey Party Chief

Date(s) of Survey

Begin Date 01/13/2025
End Date 01/15/2025

General Information

This survey is for IA Hwy 141 Bridge over Soldier River. Location is the intersection of IA 141 & 170th Street w/ the survey extending 500' N & S from the existing bridge ends. Survey was also requested along 170th Street approximately 200' E & W of the intersection w/ IA 141. 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 Prelim Survey project directory.

Project Control

Nearby Iowa Real Time Network reference stations were utilized to obtain horizontal and vertical control on primary project control points. Three five-minute observations were taken with a minimum two-hour time span between and used in a weighted average to obtain final coordinate values. For additional details of the control survey, contact the Preliminary Survey department.

PROJECT DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 ADJUSTMENT)
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 6
(U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2018u3

Alignment Information

The horizontal alignment for IA Hwy 141 survey is a retrace of As-built Plans No. FN-795 and FN-141-2(29)21-67. Survey stationing was equated to the plan POT at Sta. 681+85.10 and carried back and ahead with/without equation throughout the survey.

Survey stationing relates to as built plan stationing as follows:

POT Sta. 668+74.43 As-built Plans Project No. FN-795
Survey POT Sta. 668+74.43

PI Sta. 681+85.10 As-built Plans Project No. FN-795
Survey PI Sta. 681+85.10

POT Sta. 707+18.50 As-built Plans Project No. FN-795
Survey POT Sta. 707+18.50

CONTROL POINT VICINITY MAP

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



HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment) - Iowa RCS Zone 06 (U.S. Survey Foot)

VERT. DATUM: NAVD88 - Geoid Model: 2018u3

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

HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING
HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment)
Ia. Regional Coordinate System Zone 06 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: 2018u3

POINT NAME	NORTHING	EASTING	ELEVATION	FEATURE DEFINITION-DESCRIPTION
IADOT 6871 NGS_T91 RESET	7296699.407	16481743.989	1106.459	DISK IN CONC. MONUMENT IN MAPELTON APPROX. .5 MILES SW OF IA141/IA175 INTERSECTION ALONG IA175 AT TOE OF EAST FORESLOPE
67140247_6871	7299311.737	16483720.488	1113.469	'X' IN CONC. COLLAR OF MANHOLE LID. IN MAPELTON APPROX. 300 FEET NORTH OF IA141/SIOUX ST. INTERSECTION ALONG IA141. APPROX. 40 FEET WEST OF THE CENTERLINE OF IA141
241410417	7263121.482	16537287.853	1231.405	IHC PLUG W/ + CUT IN TOP NW WINGWALL EXISTING BRIDGE. IN CHARTER OAK APPROX. 550 FEET WEST OF INTERSECTION IA141/140TH ST.
501	7276367.485	16506493.180	1184.960	4' X 3/4" REBAR - 6" DEPTH APPROX. 480 FEET EAST OF INTERSECTION IA141/170TH ST. ALONG 170TH ST. NORTH SHOULDER OF ROADWAY
502	7275624.161	16506213.250	1185.434	4' X 3/4" REBAR - 6" DEPTH APPROX. 400 FEET SOUTH OF INTERSECTION IA141/170TH ST. ALONG IA141 EAST SHOULDER OF ROADWAY
503	7276440.668	16505931.497	1186.108	4' X 3/4" REBAR - 6" DEPTH APPROX. XXX FEET WEST OF INTERSECTION IA141/170TH ST. ALONG 170TH ST. SOUTH SHOULDER OF ROADWAY
504	7276877.000	16506241.457	1182.159	4' X 3/4" REBAR - 6" DEPTH APPROX. 300 FEET NORTH OF INTERSECTION IA141/170TH ST. ALONG IA141 EAST SHOULDER OF ROADWAY

ALIGNMENT COORDINATES

101-16

0-20-09

[illegible]

FILE NO.

ENGLISH

DESIGN TEAM

HR Green, Inc.\Bowman Consulting Group**MONONA** COUNTYPROJECT NUMBER **BRF-141-2(070)--38-67**SHEET NUMBER **G.4**

SYSTEMTIME	SYSTEMDATE	USERNAME	DGNSPEC
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ALIGNMENT COORDINATES																				101_16 10/25/24
Name	Location	Point on Tangent Station	Point on Tangent Y Northing	Point on Tangent X Easting	Begin Spiral Station	Begin Spiral Y Northing	Begin Spiral X Easting	Begin Curve Station	Begin Curve Y Northing	Begin Curve X Easting	Simple Curve PI or Master PI Station	Simple Curve PI or Master PI Y Northing	Simple Curve PI or Master PI X Easting	End Curve Station	End Curve Y Northing	End Curve X Easting	End Spiral Station	End Spiral Y Northing	End Spiral X Easting	
1	ML141	1668+74.43	7277768.08	16506224.90																
1	ML141	1676+51.47	7276991.12	16506213.61																
1	ML141	1688+89.21	7275753.50	16506196.63																
1	ML141	1707+18.50	7273924.36	16506172.64																
1	SR170_N	2665+75.31	7276438.89	16505102.91																
1	SR170_N							2670+39.12	7276443.96	16505566.69	2671+59.92	7276445.28	16505687.48	2672+64.17	7276540.74	16505761.51				
1	SR170_N							2674+87.20	7276716.97	16505898.19	2676+11.82	7276815.44	16505974.56	2677+18.41	7276813.73	16506099.17				
1	SR170_N	2678+30.41	7276812.20	16506211.16																
1	SR170_S	3687+25.00	7275917.69	16506198.89																
1	SR170_S							3688+37.00	7275916.16	16506310.87	3690+13.81	7275913.73	16506487.66	3691+44.78	7276079.61	16506548.85				
1	SR170_S							3693+63.66	7276284.96	16506624.61	3695+40.46	7276450.84	16506685.80	3696+71.43	7276448.42	16506862.59				
1	SR170_S	3701+80.76	7276441.43	16507371.87																
1	ENTL_167830	100+00.00	7276812.20	16506211.16																
1	ENTL_167830	101+11.17	7276810.67	16506322.32																
1	ENTL_267375	300+00.00	7276628.85	16505829.85																
1	ENTL_267375	300+86.94	7276682.13	16505761.15																
1	ENTR_267375	400+00.00	7276628.85	16505829.85																
1	ENTR_267375	400+90.15	7276574.13	16505901.49																
1	ENTL_369254	500+00.00	7276182.29	16506586.73																
1	ENTL_369254	500+83.67	7276211.25	16506508.23																
1	ENTR_369254	600+00.00	7276182.29	16506586.73																
1	ENTR_369254	600+88.96	7276151.5	16506670.19																

SPIRAL OR CIRCULAR CURVE DATA																101_17 1/17/24
Name	Location	SCS	S	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	C	T	L	R	E	Remarks
C1	SR170_N										51.578	120.797	225.054	250	27.654	
C2	SR170_N										52.991	124.620	231.215	250	29.339	
C1	SR170_S										70.537	176.805	307.778	250	56.203	
C2	SR170_S										70.537	176.805	307.778	250	56.203	

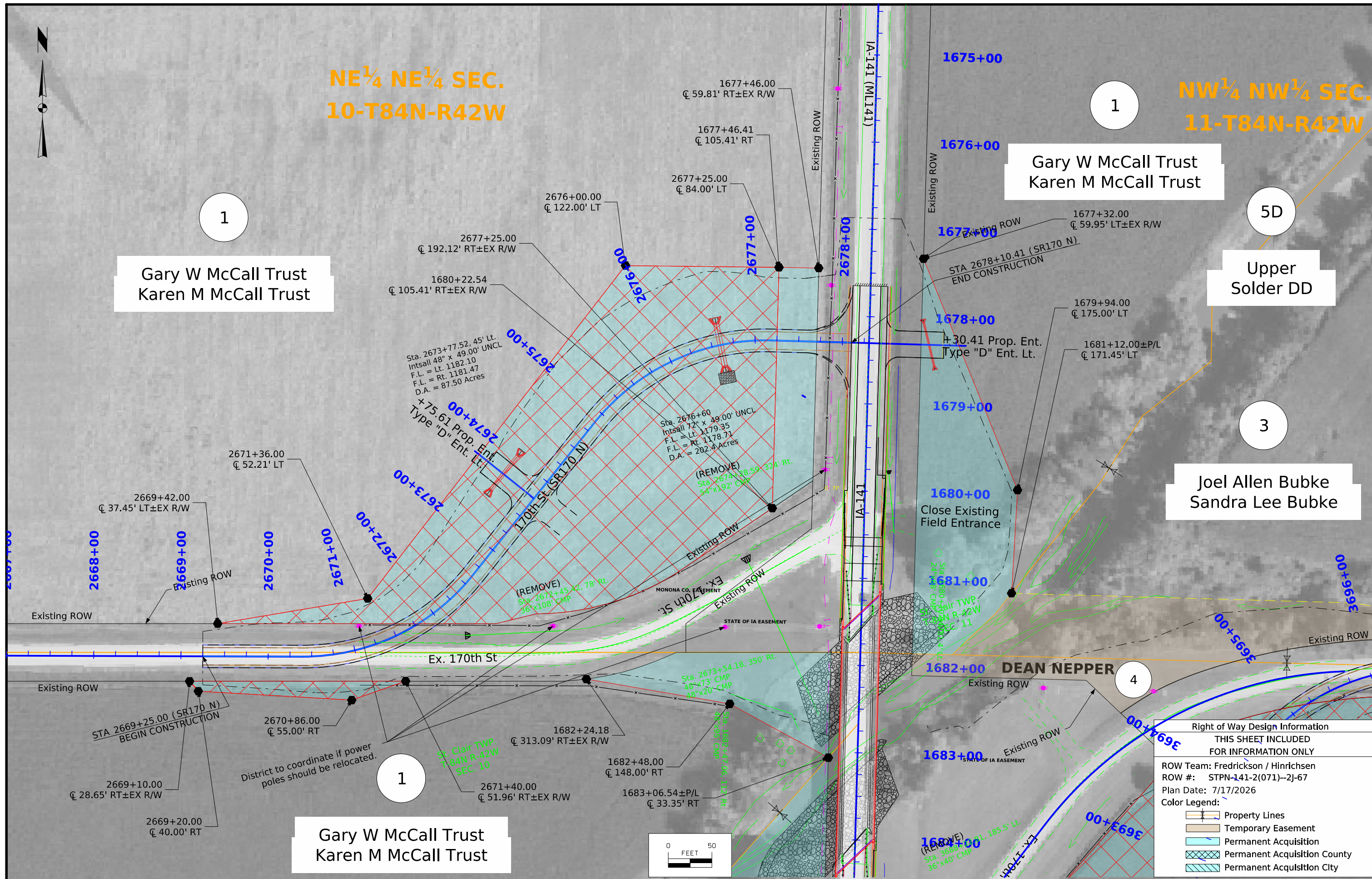
101_18
6/17/24

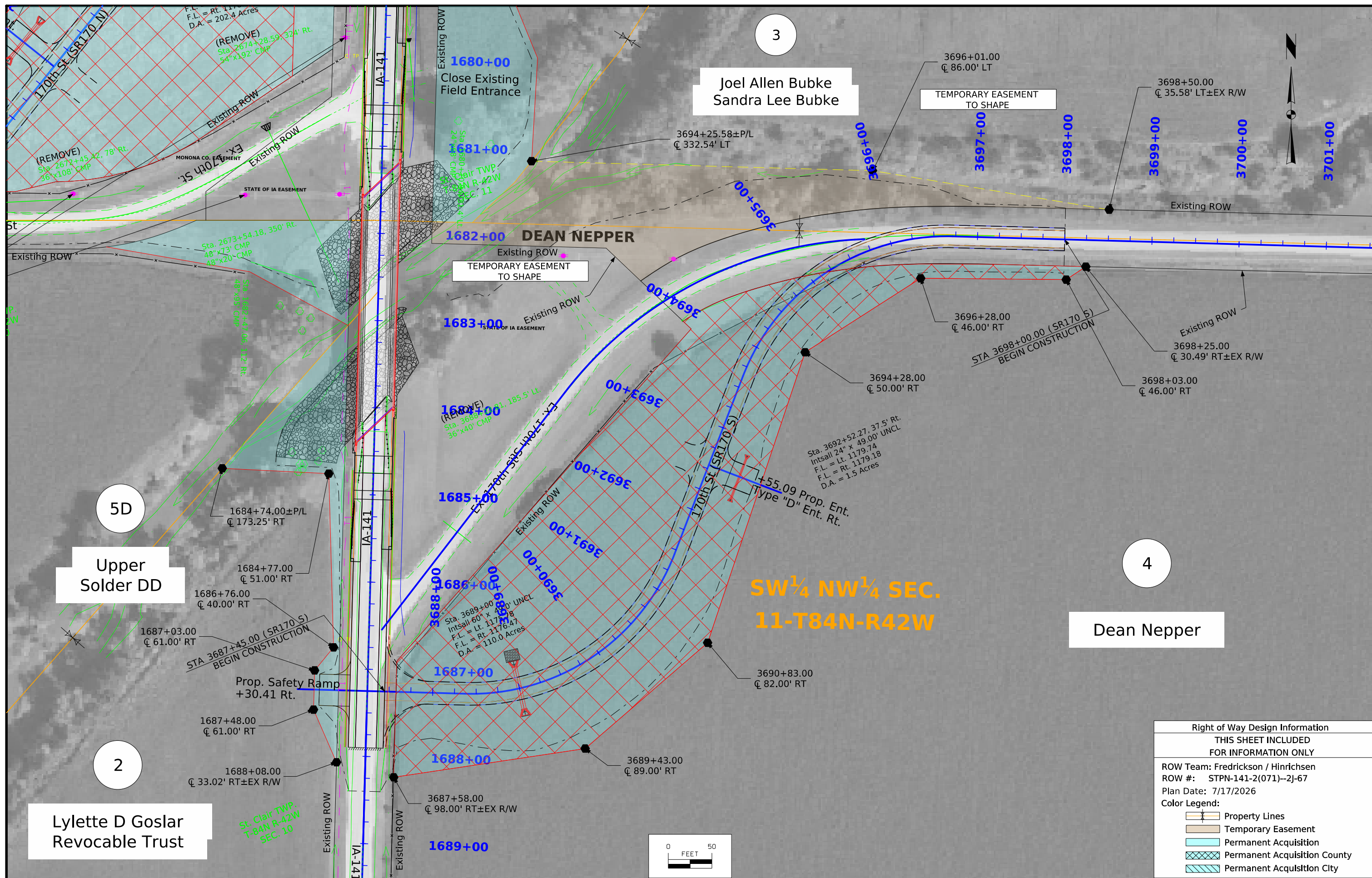
SUPERELEVATION DATA
See PV-300 Series

Road Identification	Circular Curve or Spiral Curve Name	Radius (FT)	e (%)	L (FT)	x (FT)	Standard Road Plan	Section A-A	Section A'-A'	Section B-B	Section C'-C'	Section C-C	Section D-D	Case A	Case B	Case C	Case S	Case T	Case U	Remarks
170th St (North)	SR170_N	250.0	6.0	90.0	45.00	PV-301	2669+31.12		2669+76.12		2670+21.12	2670+66.12							
							2673+72.17		2673+27.17		2672+82.17	2672+37.17							
		250.0	6.0	90.0	45.00	PV-301	2673+72.17		2674+24.19		2674+69.19	2675+14.19							
							2678+26.41		2677+81.41		2677+36.41	2676+91.41							
170th St (South)	SR170_S	250.0	6.0	90.0	45.00	PV-301	3687+29.00		3687+74.00		3688+19.00	3688+64.00							
							3692+52.78		3692+07.78		3691+62.78	3691+17.78							
		250.0	6.0	90.0	45.00	PV-301	3692+52.78		3693+00.66		3693+45.66	3693+90.66							
							3697+79.43		3697+34.43		3696+89.43	3696+44.43							

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NO ACCESS RIGHTS ARE TO BE ACQUIRED ON THIS PROJECT.





Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: Fredrickson / Hinrichsen	
ROW #: STPN-141-2(071)--2J-67	
Plan Date: 7/17/2026	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition
	Permanent Acquisition County
	Permanent Acquisition City

108_23A
8/15/22

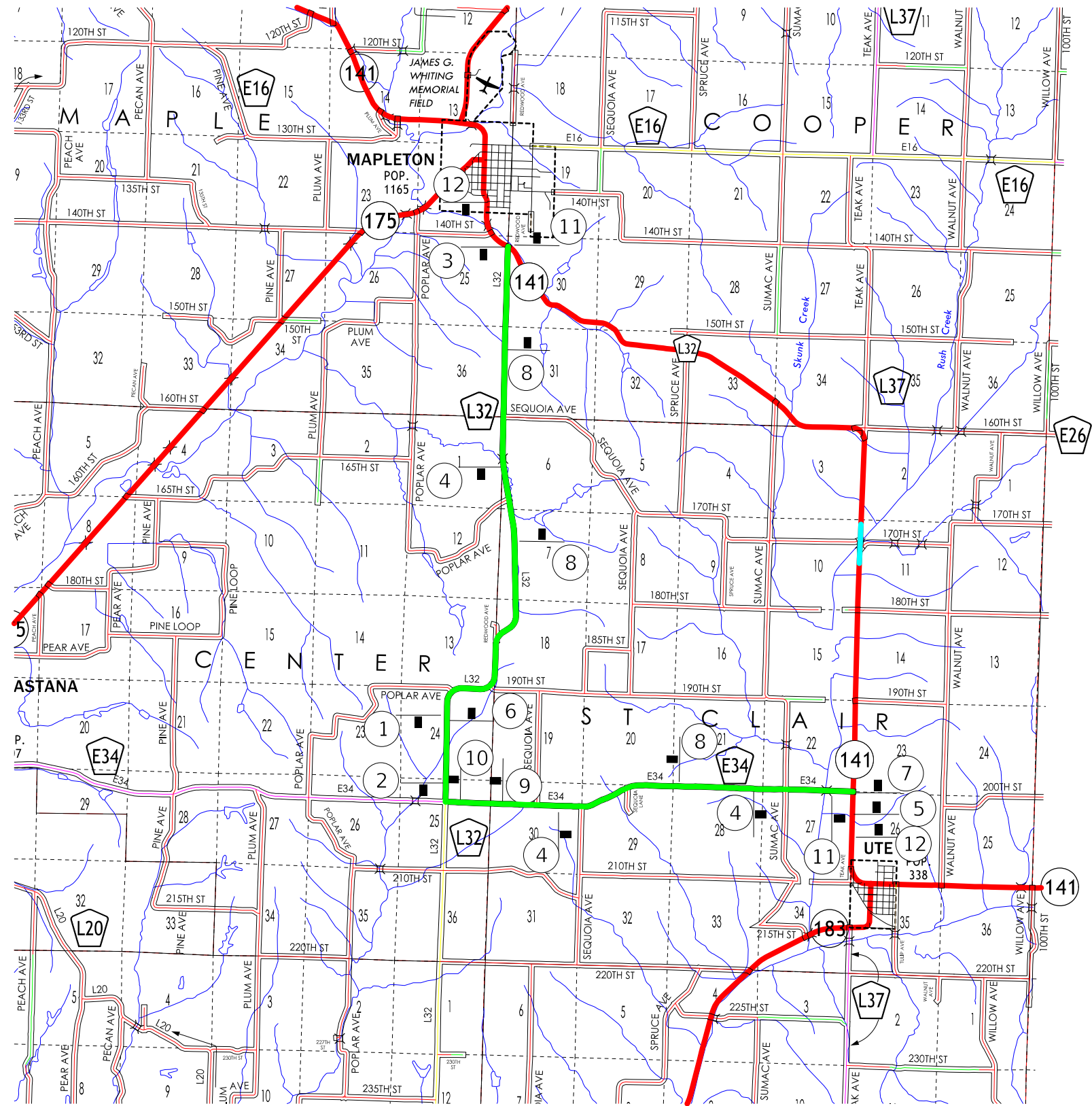
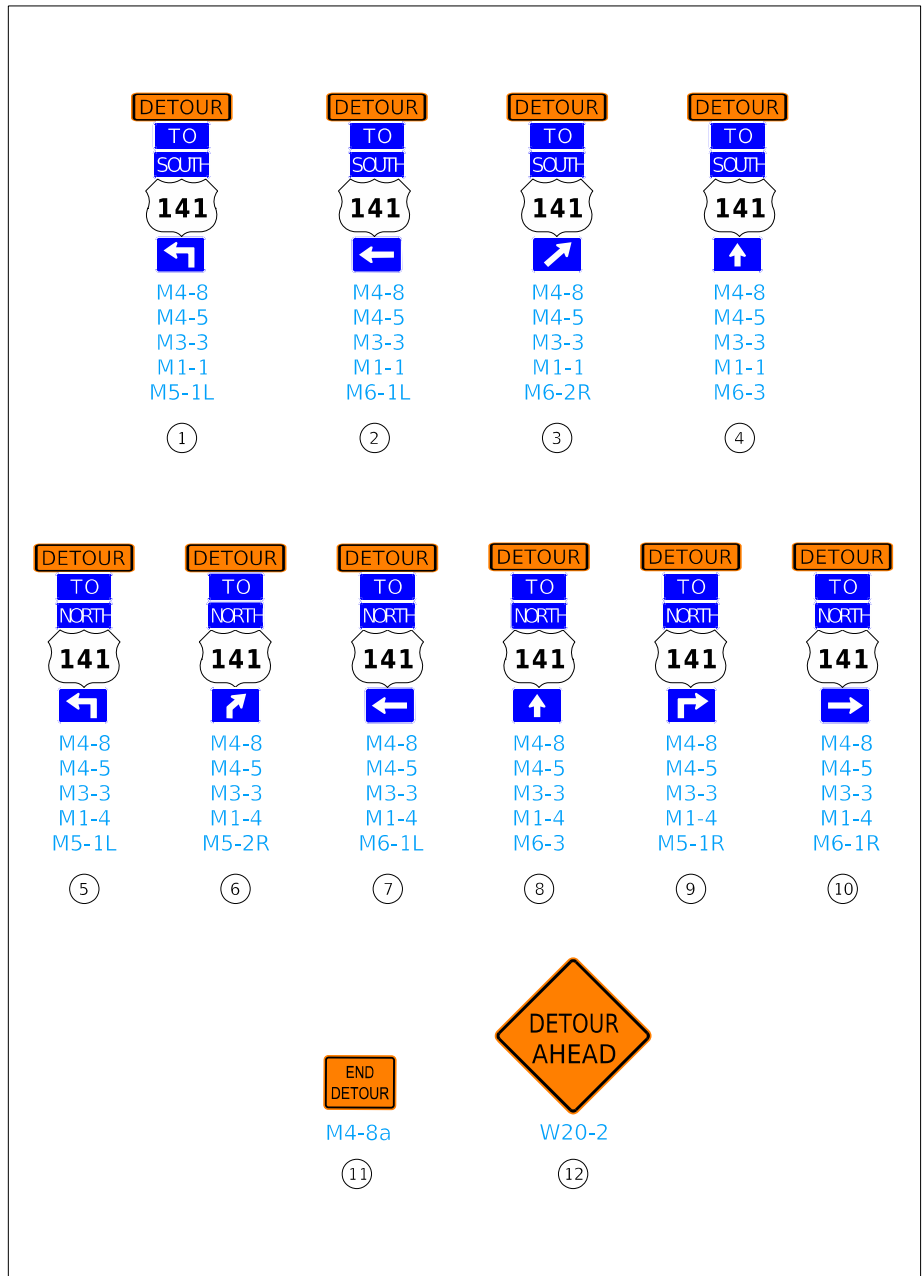
TRAFFIC CONTROL PLAN

Traffic control on this project shall be in accordance with the specific layouts shown on these plans. Traffic along IA-141 and 170th Street shall be maintained via detours during construction. For additional information, refer to Part 6 of the Manual on Uniform Traffic Control Devices (MUTCD) and the Standard Specifications.

The Contractor shall sign and maintain detours for IA-141. Permanent signing that conveys a message contrary to the message of the temporary detour signing or is not applicable to the working conditions shall be covered by The Contractor, as directed by the Engineer and stated in the Standard Specifications.

170th Street will be closed. No designated detour will be required by The Contractor. Any detour related needs will be responsibility of Monona County.

Soldier River is a marked Iowa DNR paddling route and will be closed to users during the duration of the project. See J sheets for recommended signage and locations.



T-85N
CRA
T-84N

(Not to Scale)

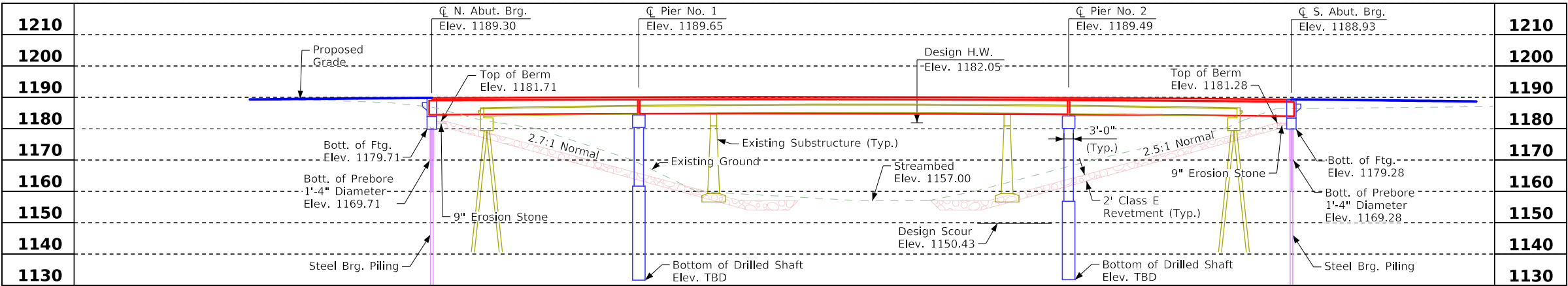
LEGEND

Detour Route

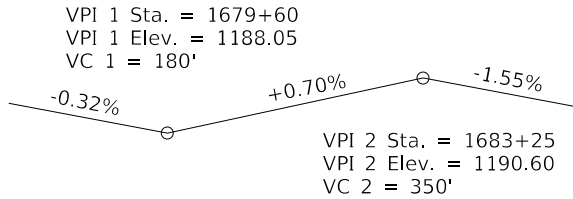
Road Closure

Detour Route

IA 141



Control Point: 7296699.407 N, 16481743.989 E, Elev. 1106.459; Disk in Concrete Monument in Mapleton approx. 0.5 miles SW of IA 141/IA175 intersection along IA 175 at toe of east foreslope



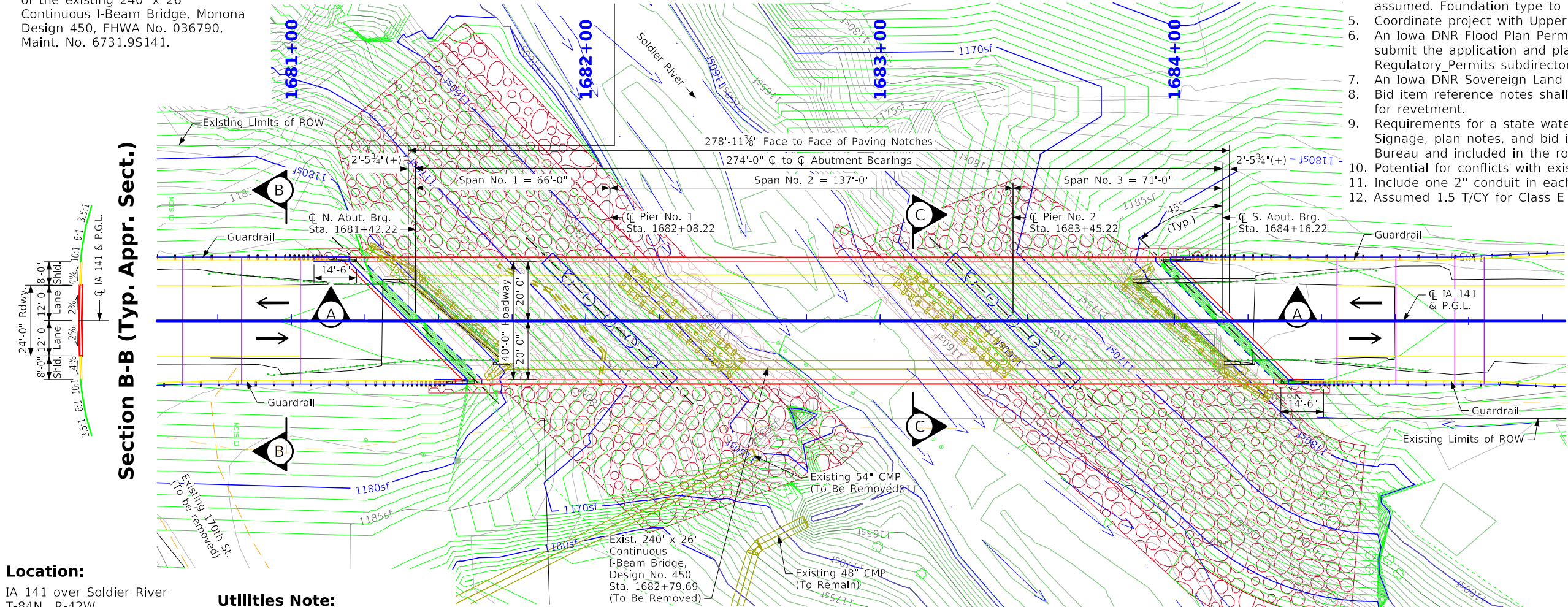
Proposed Profile Grade IA 141

- ① Class E Revetment - 2' Thickness, 2.5:1 Max, slope normal to abutment.

General Note:
1. This design is for the replacement of the existing 240' x 26' Continuous I-Beam Bridge, Monona Design 450, FHWA No. 036790, Maint. No. 6731.9S141.

- Design Notes:
1. Non-Standard Abutment Wing Walls required at southwest and northeast wings.
 2. TL-4 Single Slope Bridge Railing proposed.
 3. Non-Standard 3'-6" Integral Abutment width proposed.
 4. Pier-Type - Frame Pier on Drilled Shafts with 3'-0" diam. pier columns assumed. Foundation type to be confirmed during final design.
 5. Coordinate project with Upper Soldier Drainage District.
 6. An Iowa DNR Flood Plan Permit is required. Preliminary Design will submit the application and place the permit in the PW Regulatory Permits subdirectory upon receipt.
 7. An Iowa DNR Sovereign Land Permit is required.
 8. Bid item reference notes shall restrict broken concrete as a substitute for revetment.
 9. Requirements for a state water trail or paddling route are applicable. Signage, plan notes, and bid items shall be addressed by the Design Bureau and included in the road plans.
 10. Potential for conflicts with exist. foundations at piers and abutments.
 11. Include one 2" conduit in each barrier rail.
 12. Assumed 1.5 T/CY for Class E quantity and 1.6 T/CY for Erosion Stone.

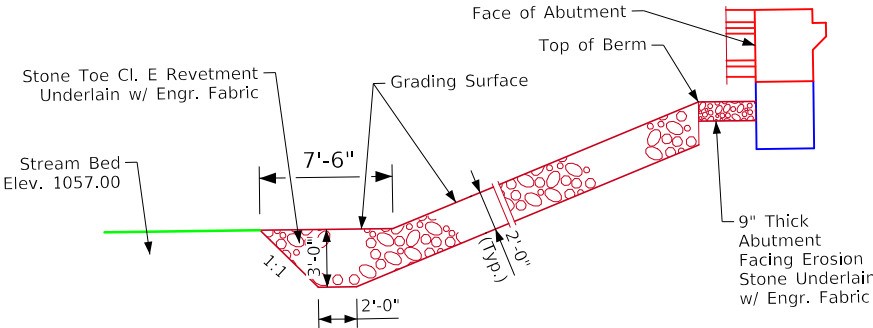
Hydraulic Data:
SoldierR_37.48
Drainage Area = 136 Sq. Mi.
Stream Slope (HGL) = 0.00102 Ft./Ft.
Operational Low Beam, Elev. 1183.19
Channel Low Beam, Elev. 1183.75
Q₅₀ = 13,200 cfs
Stage = 1180.01
Operational Freeboard = 3.18 ft.
Avg. Bridge Velocity = 4.03 fps
Q₁₀₀ = 15,200 cfs
Stage = 1181.82
Operational Freeboard = 1.37 ft.
Backwater = (+)0.09 Ft.
Avg. Bridge Velocity = 4.18 fps
Q₂₀₀ = 19,400 cfs
Stage = 1184.54
Calculated Design Scour = 1150.43
Q₅₀₀ = 20,800 cfs
Stage = 1185.57
Channel Freeboard = -2.38 ft.
Avg. Bridge Velocity = 5.11 fps
Calculated Check Scour = 1150.46
Roadway Overtop occurs ±300' south of bridge.



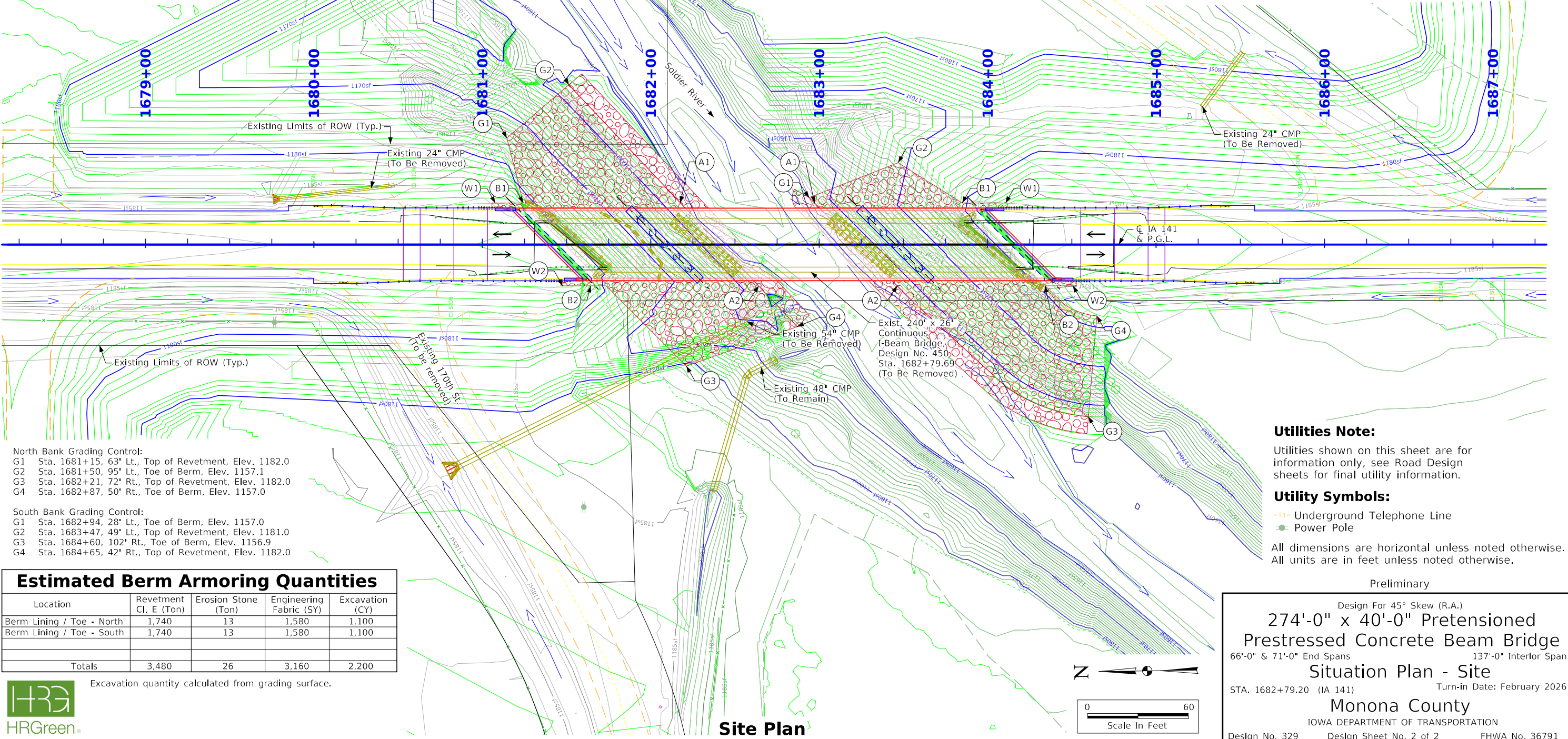
Berm Slope Location Table						
Points	North Abutment			South Abutment		
	Station	Offset	Elev.	Station	Offset	Elev.
A1	1682+18.50	24.6 Lt.	1157.0	1682+96.22	24.6 Lt.	1157.0
A2	1681+48.72	24.6 Rt.	1157.0	1683+36.22	24.6 Rt.	1157.0
B1	1682+65.12	24.6 Lt.	1181.7	1683+83.92	24.6 Lt.	1181.3
B2	1681+65.32	24.6 Rt.	1181.7	1684+23.92	24.6 Rt.	1181.3
W1	1681+08.72	24.6 Lt.	1188.54	1684+09.72	24.6 Lt.	1188.47
W2	1681+48.72	24.6 Rt.	1188.82	1684+49.72	24.6 Rt.	1188.04

Berm slope elevations reflect the grading surface.

Control Point: 7296699.407 N, 16481743.989 E, Elev. 1106.459; Disk in Concrete Monument in Mapleton approx. 0.5 miles SW of IA 141/IA175 intersection along IA 175 at toe of east foreslope



Section Through Embedded Bank Lining and Stone Toe



Utilities Note:

Utilities shown on this sheet are for information only, see Road Design sheets for final utility information.

Utility Symbols:

- T1- Underground Telephone Line
- Power Pole

All dimensions are horizontal unless noted otherwise. All units are in feet unless noted otherwise.

Preliminary

Design For 45° Skew (R.A.)

274'-0" x 40'-0" Pretensioned Prestressed Concrete Beam Bridge

66'-0" & 71'-0" End Spans 137'-0" Interior Span

Situation Plan - Site

STA. 1682+79.20 (IA 141) Turn-in Date: February 2026

Monona County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 329 Design Sheet No. 2 of 2 FHWA No. 36791

Estimated Berm Armoring Quantities				
Location	Revetment Cl. E (Ton)	Erosion Stone (Ton)	Engineering Fabric (SY)	Excavation (CY)
Berm Lining / Toe - North	1,740	13	1,580	1,100
Berm Lining / Toe - South	1,740	13	1,580	1,100
Totals	3,480	26	3,160	2,200

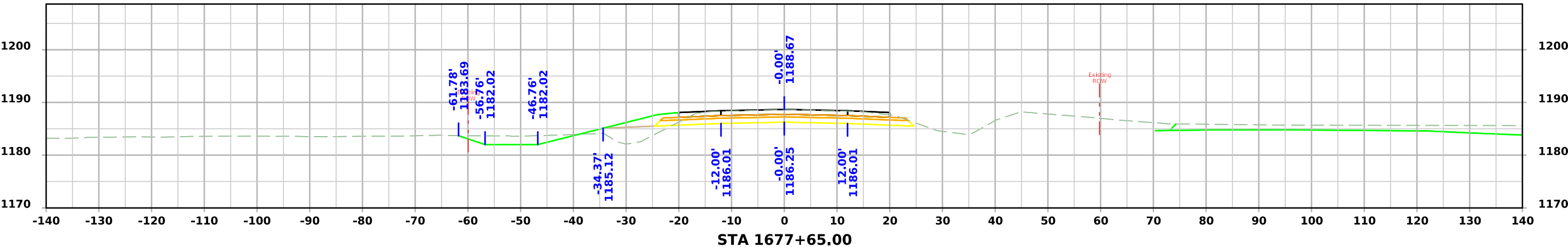
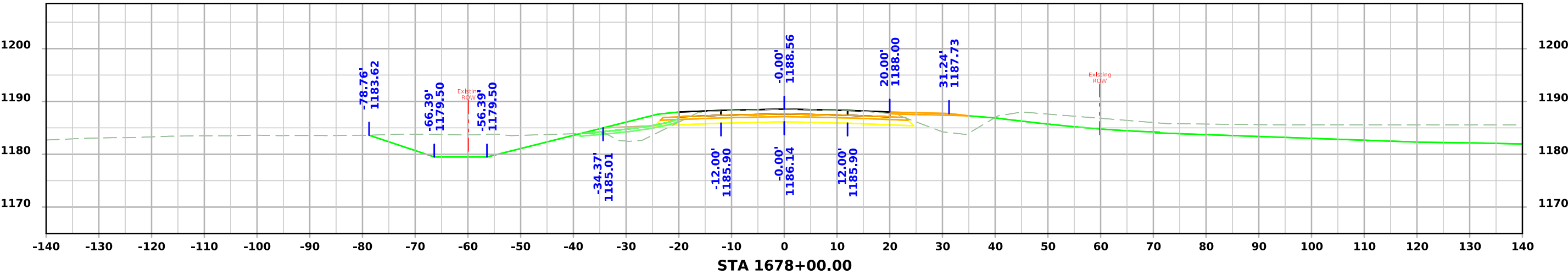
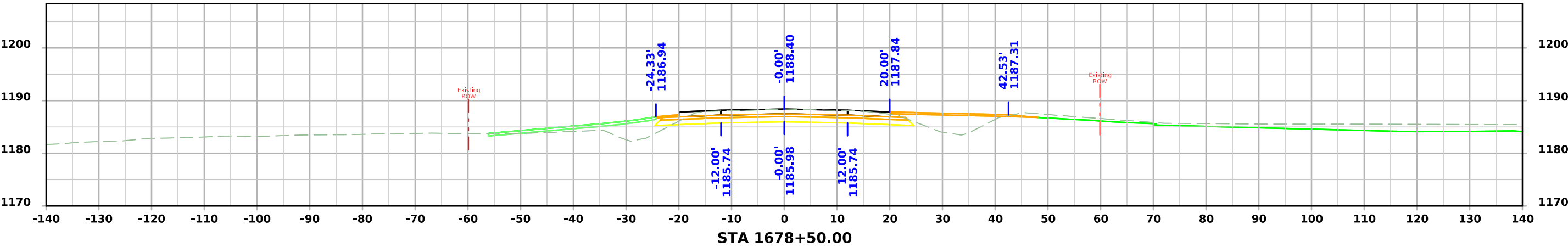
Excavation quantity calculated from grading surface.

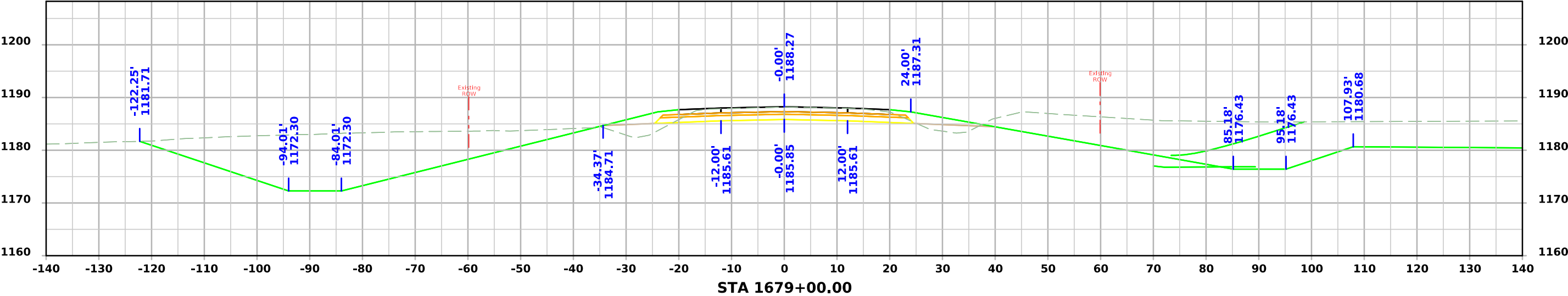
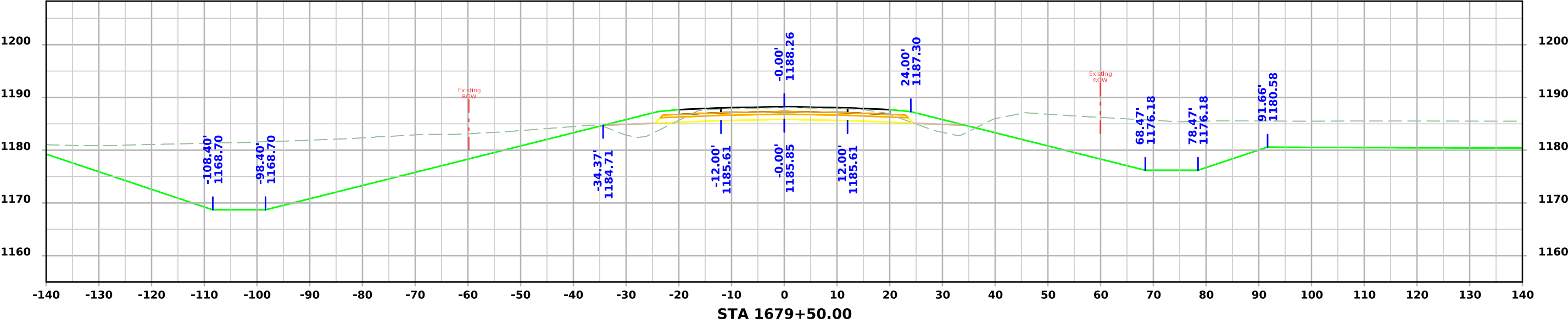


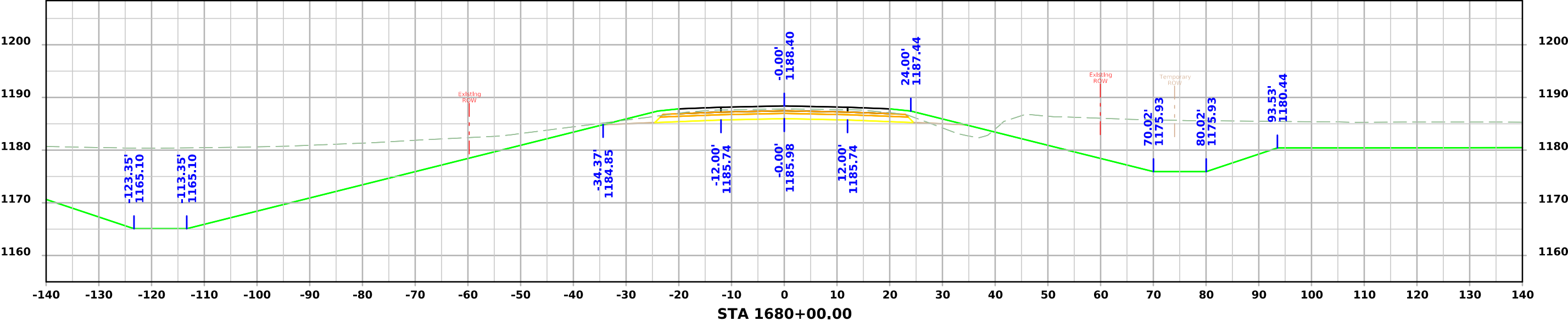
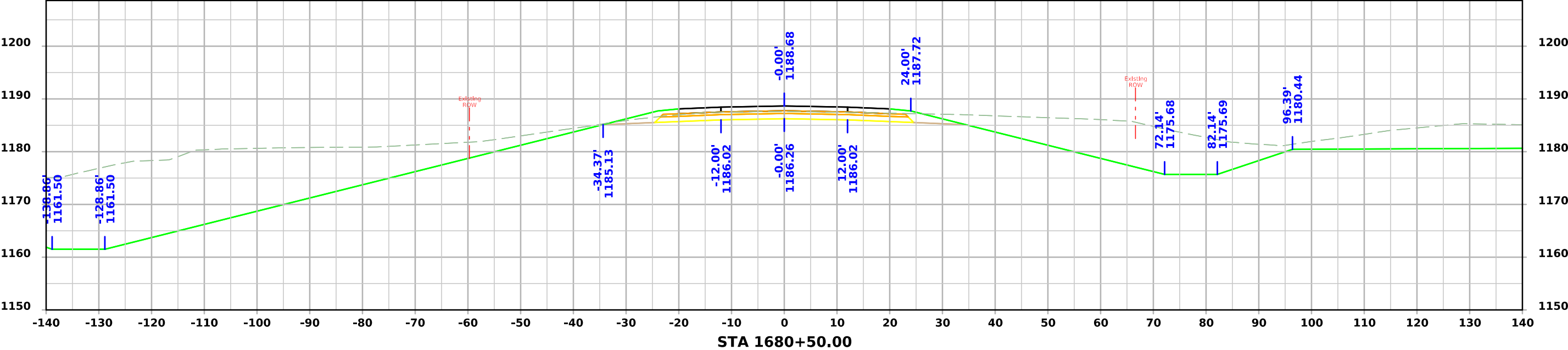
Site Plan

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

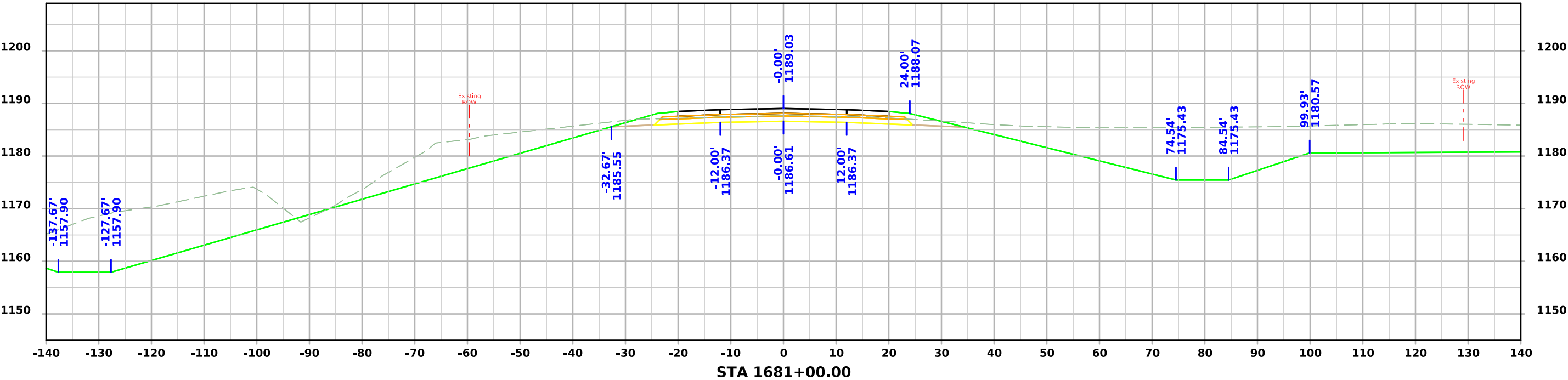
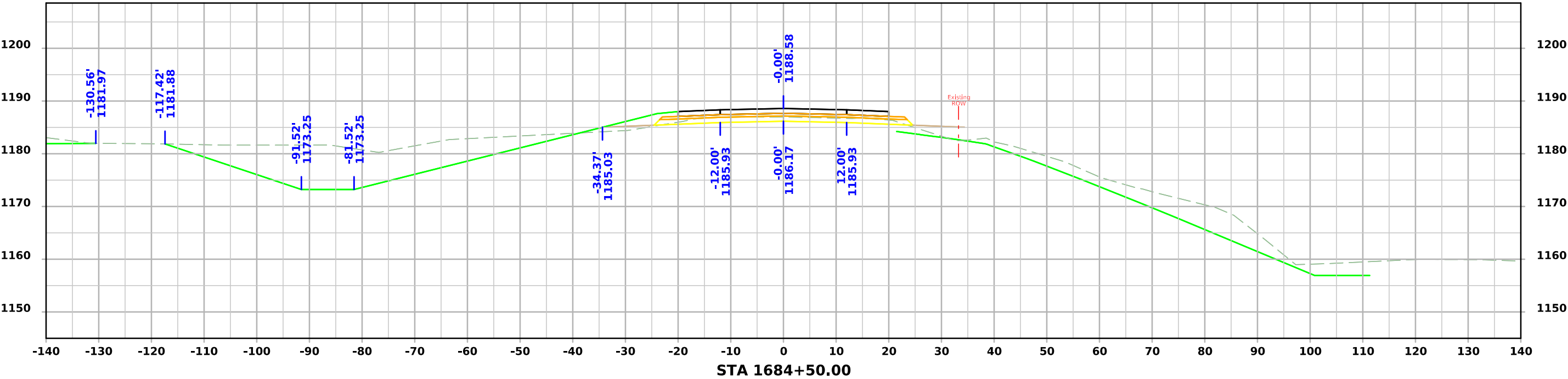
CROSS SECTIONS
LEGEND AND INFORMATION SHEET
(COVERS SHEET SERIES W, X, Y, & Z)

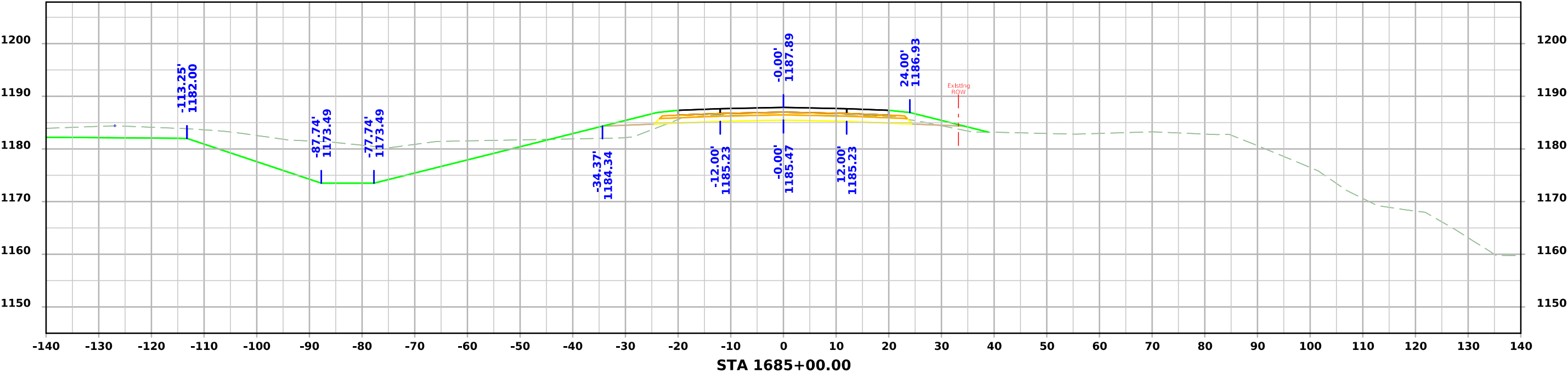
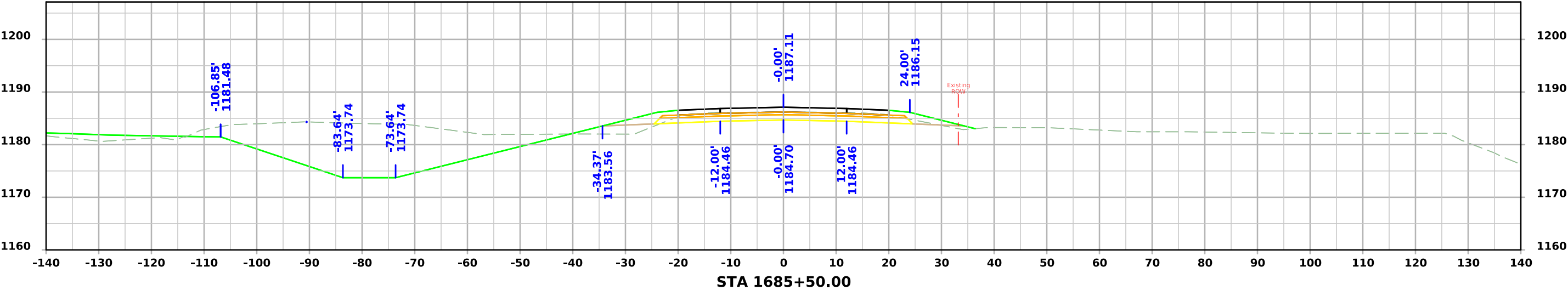




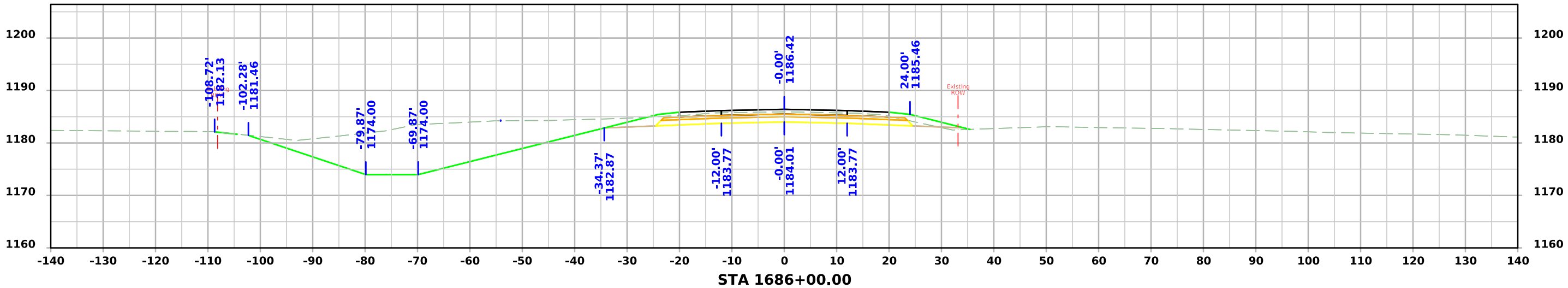
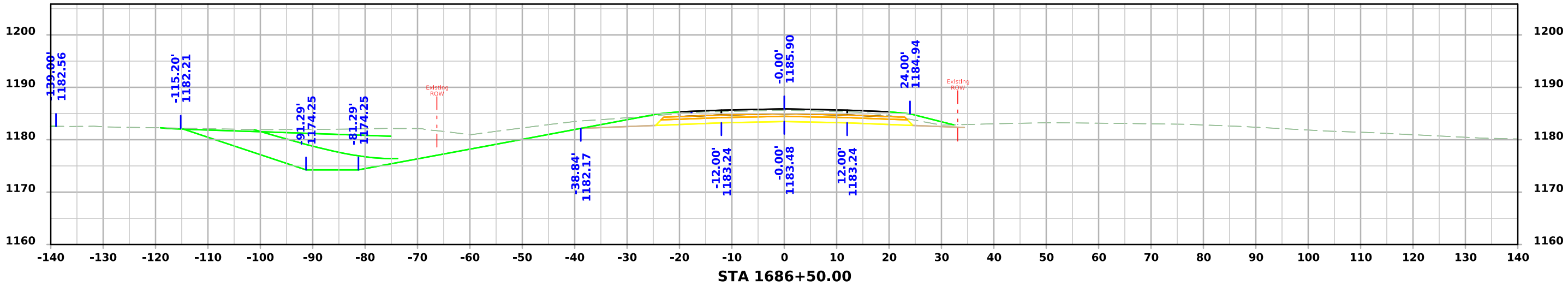
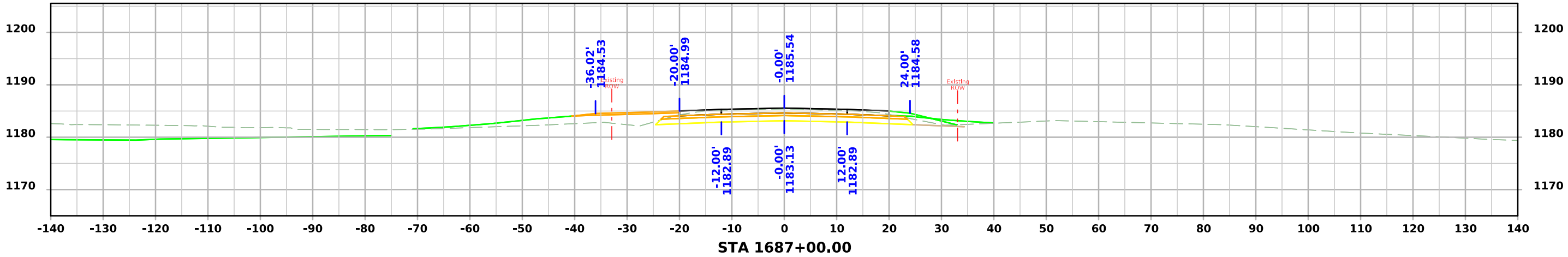


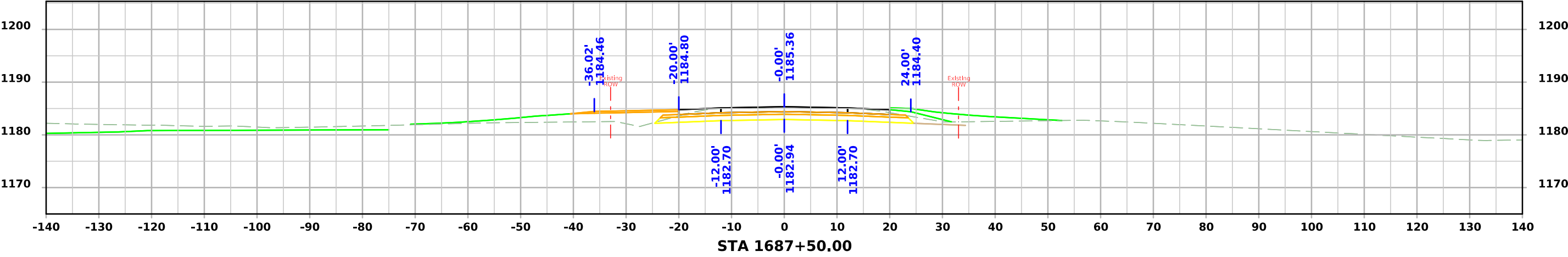
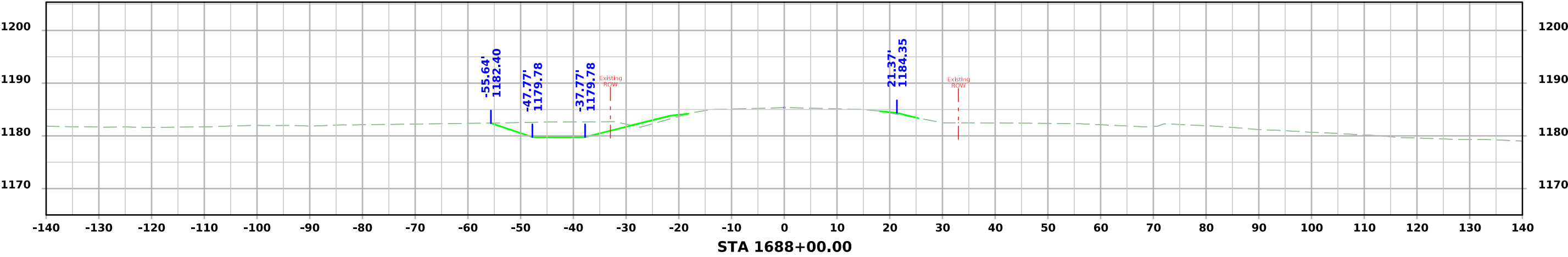
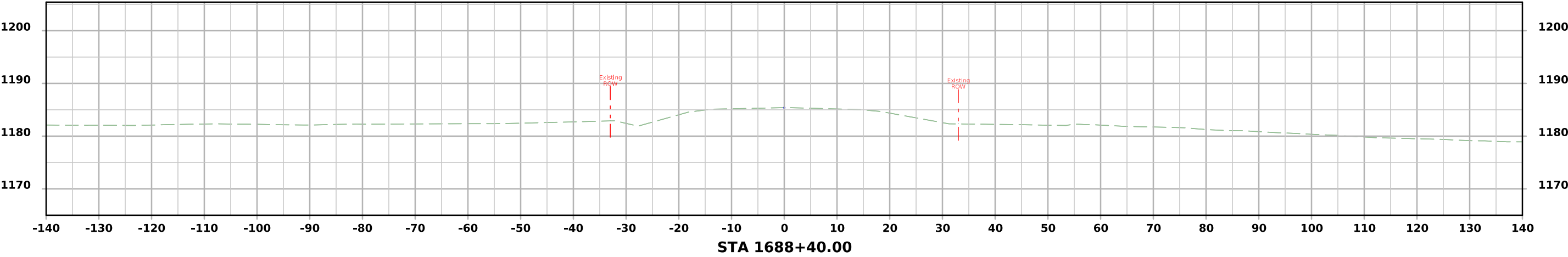
IA-141



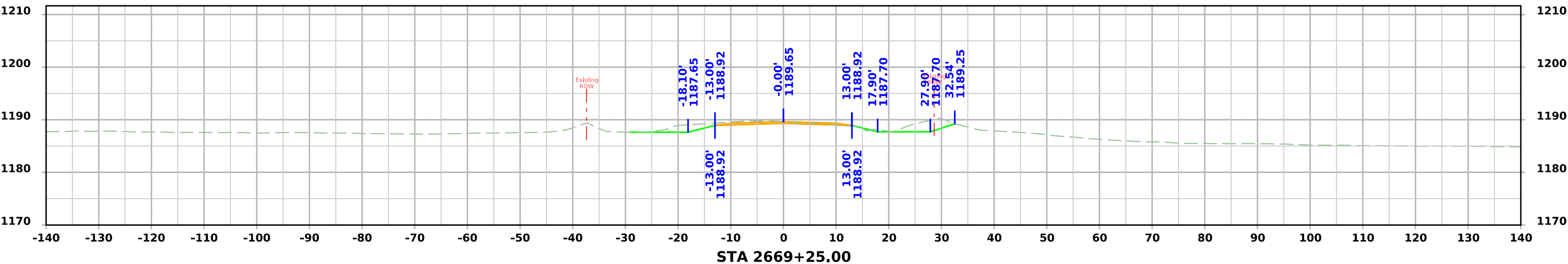
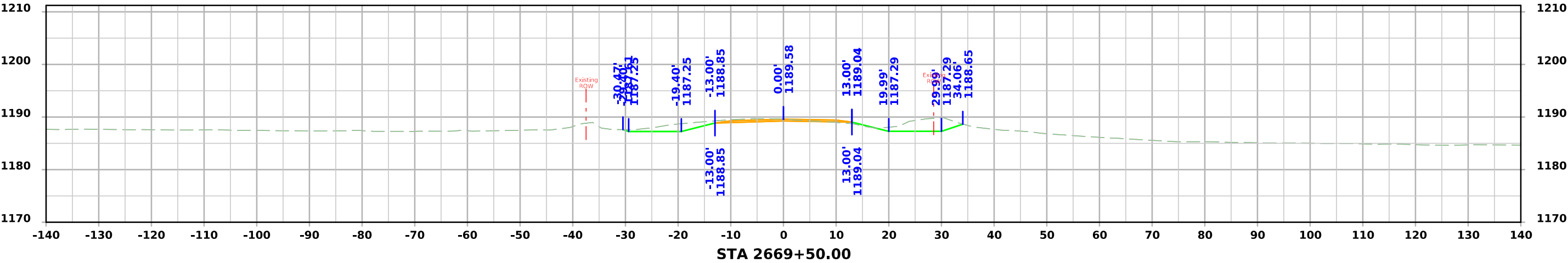
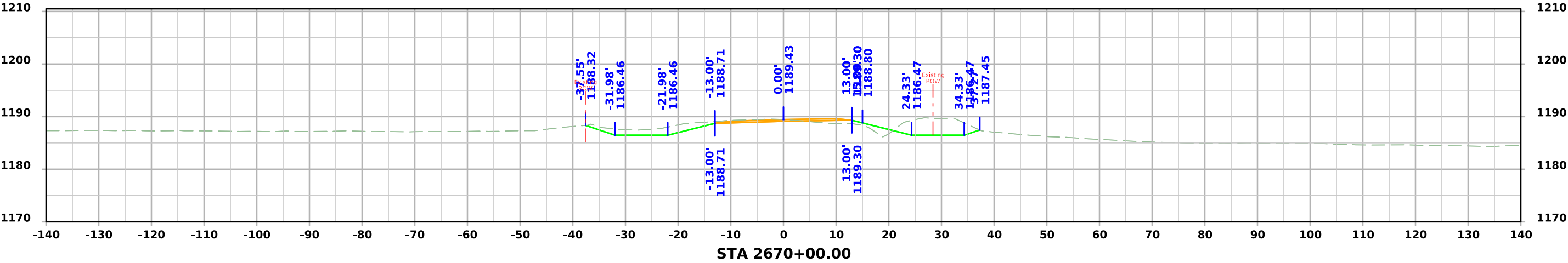


IA-141

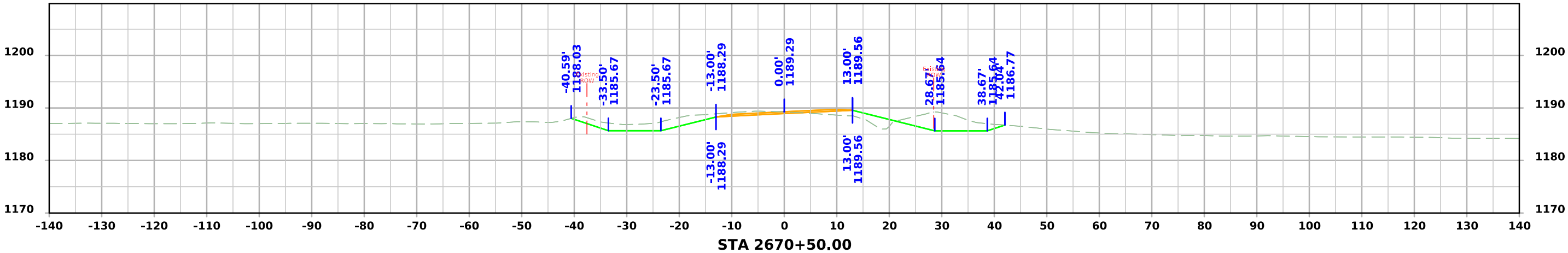
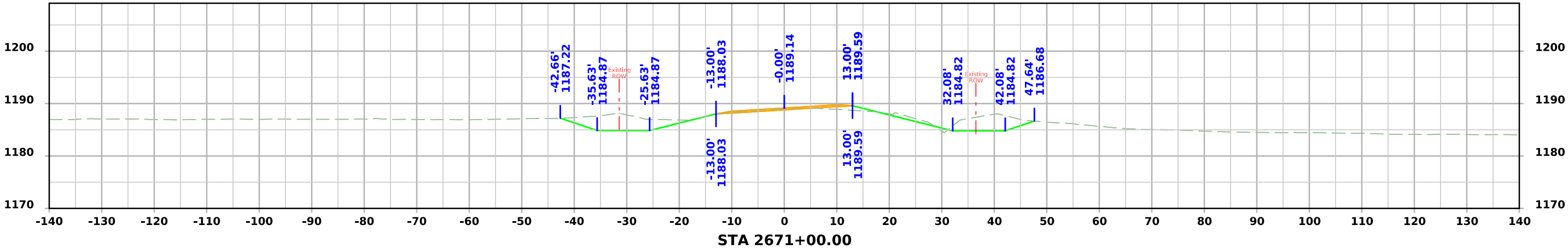
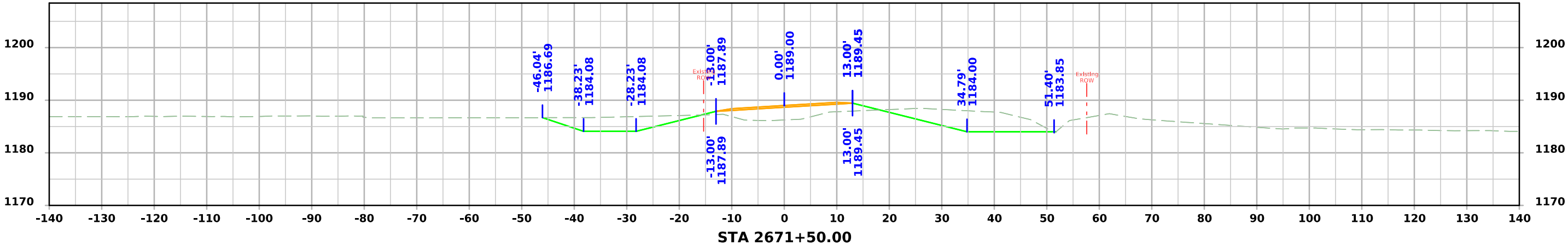




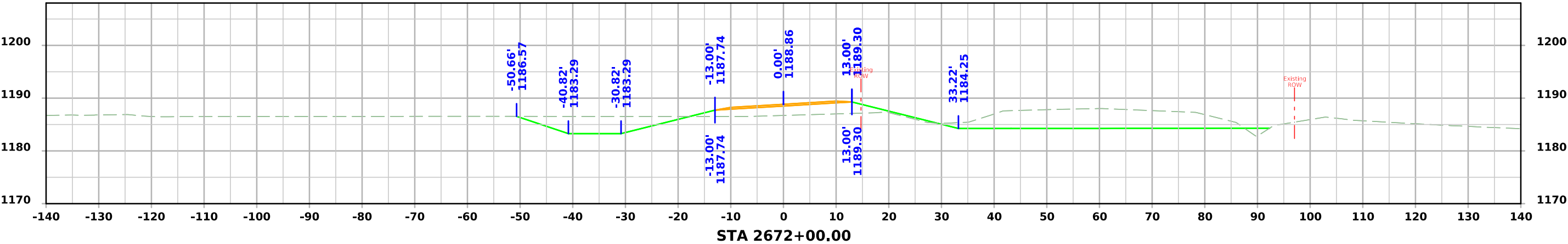
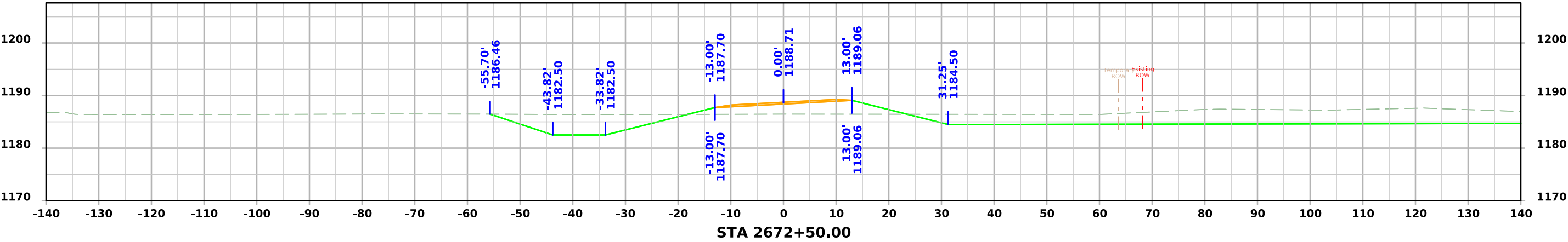
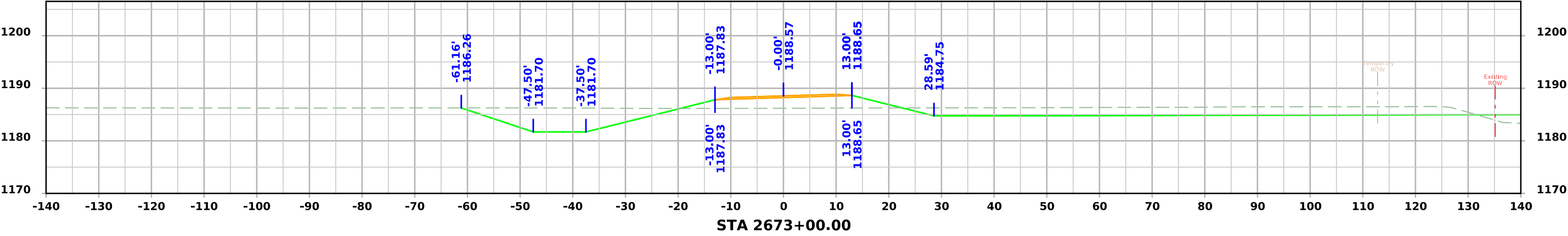
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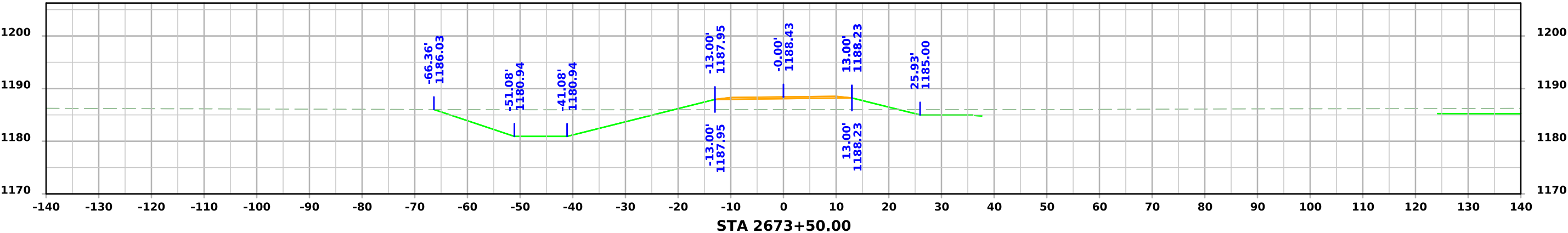
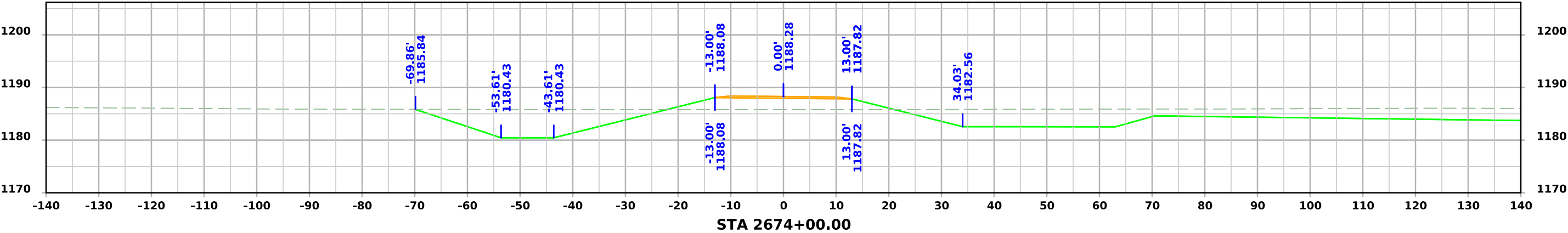
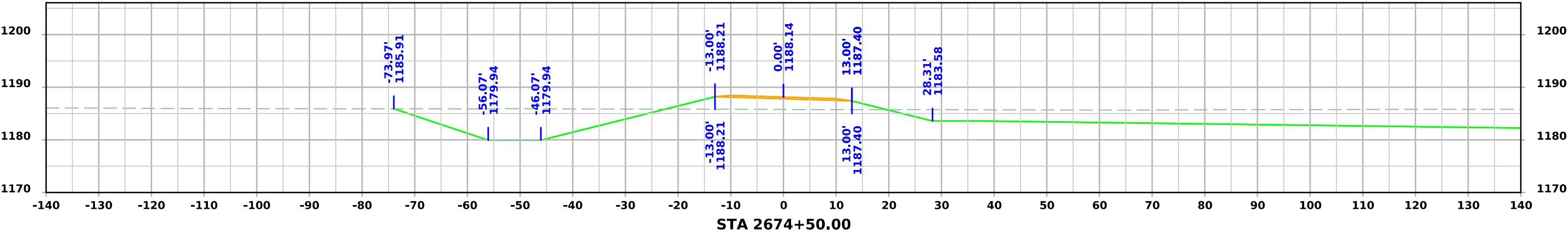
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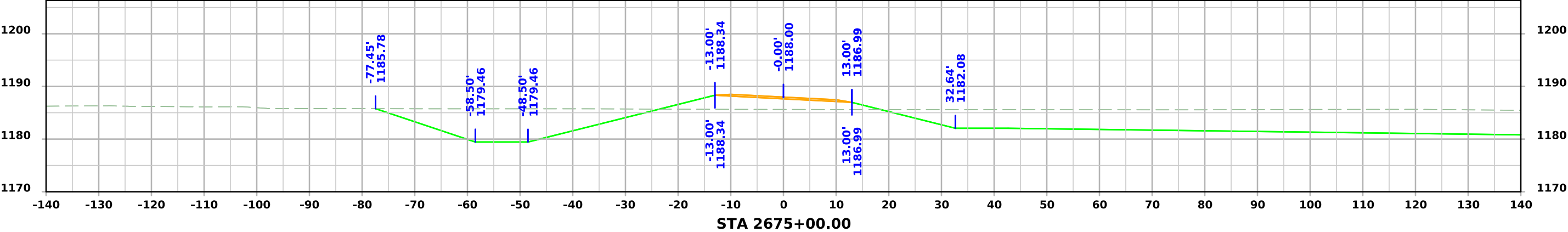
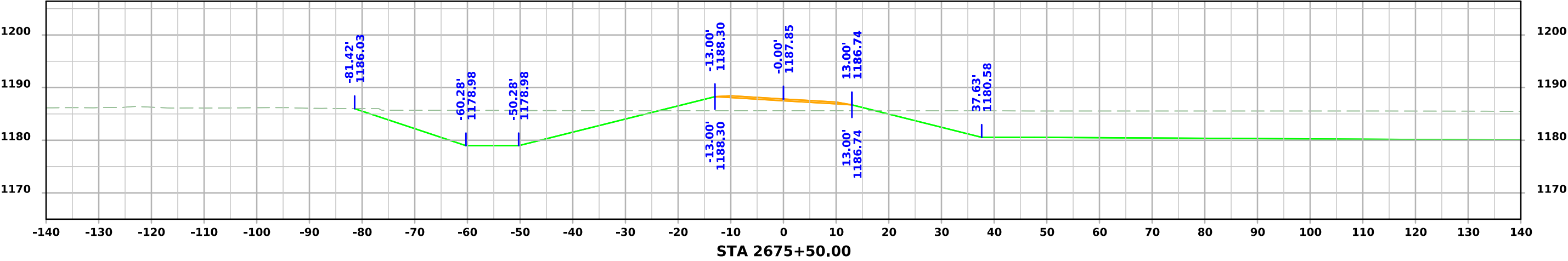
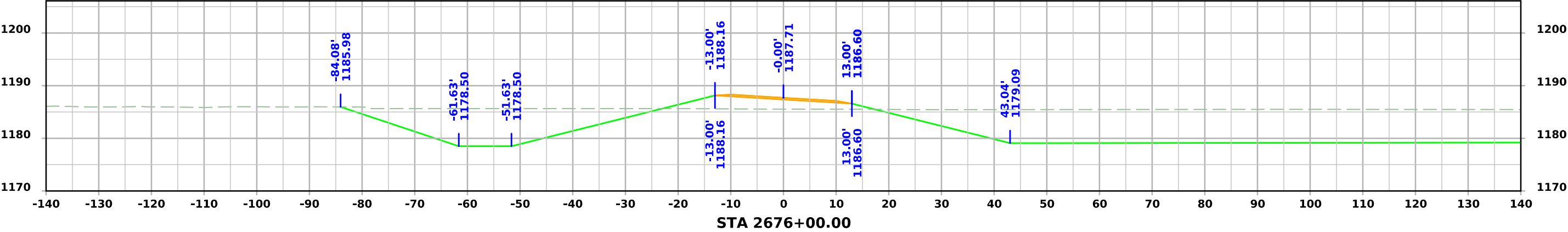
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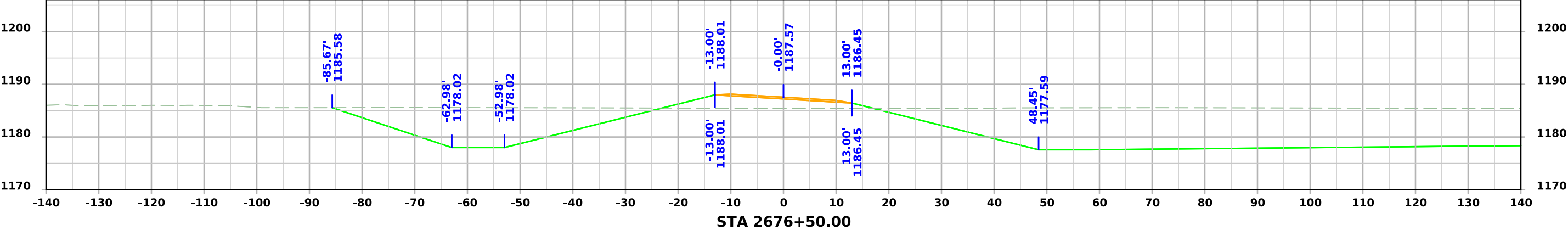
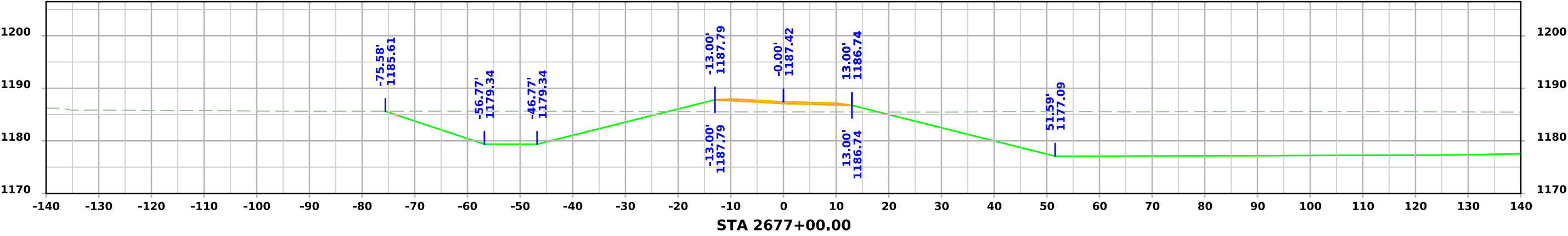
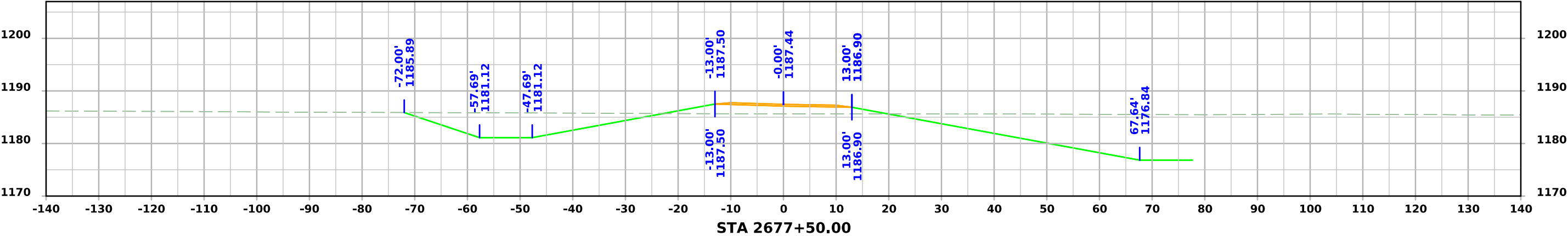
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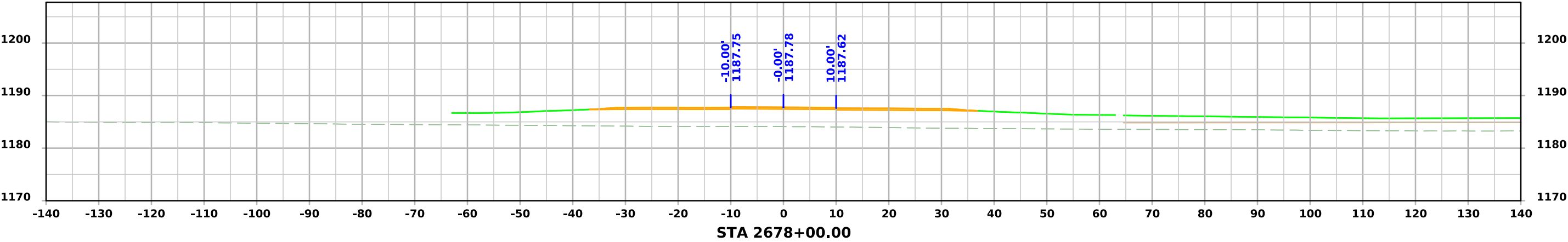
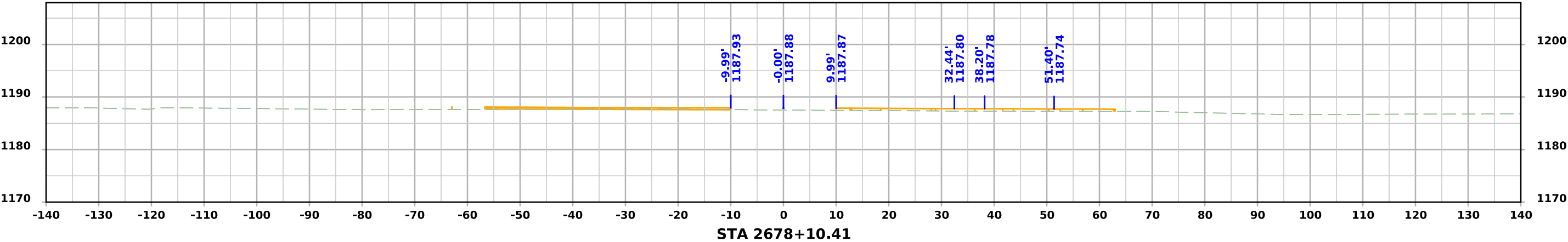
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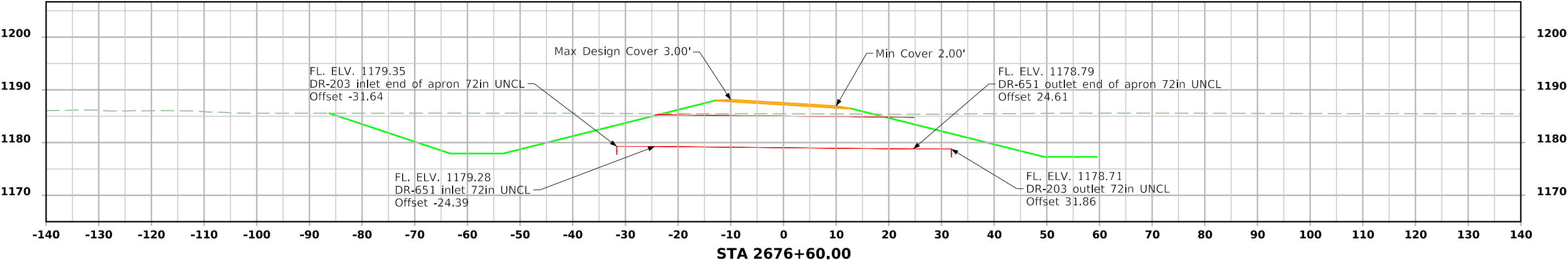
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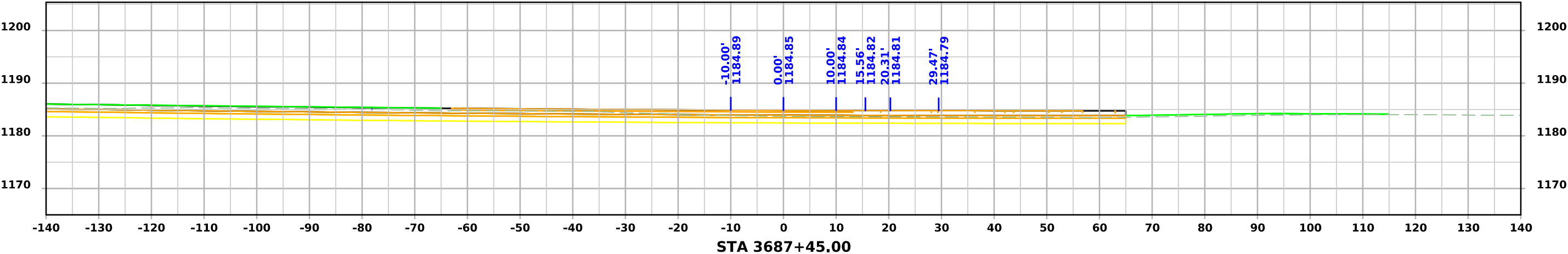
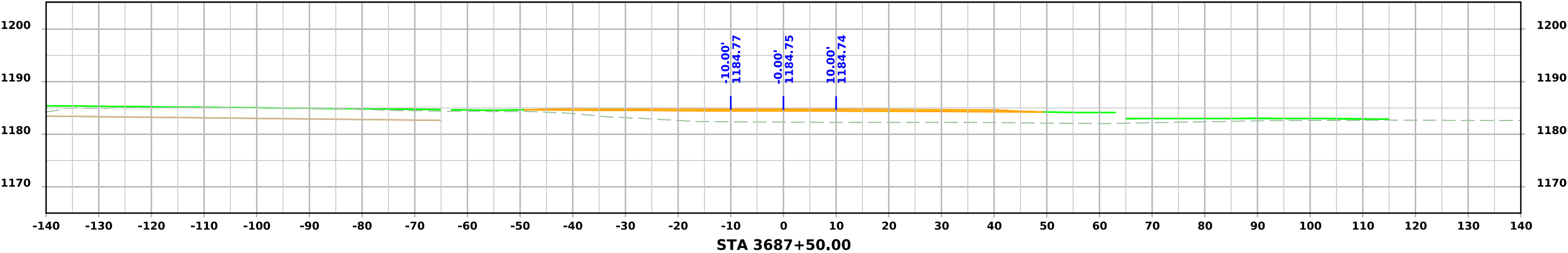
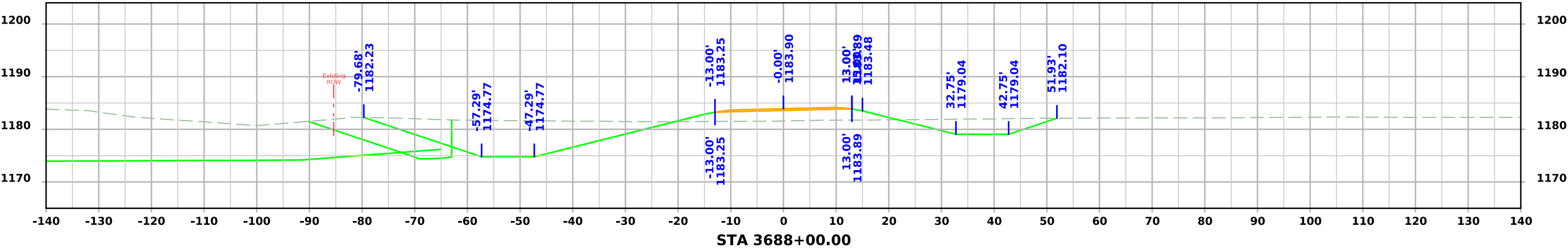
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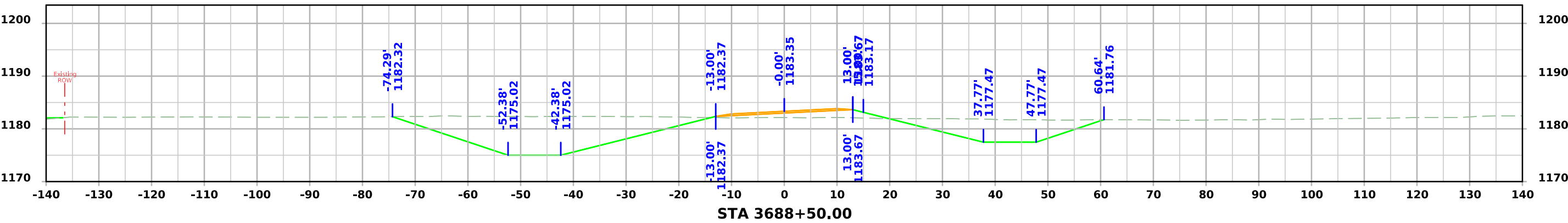
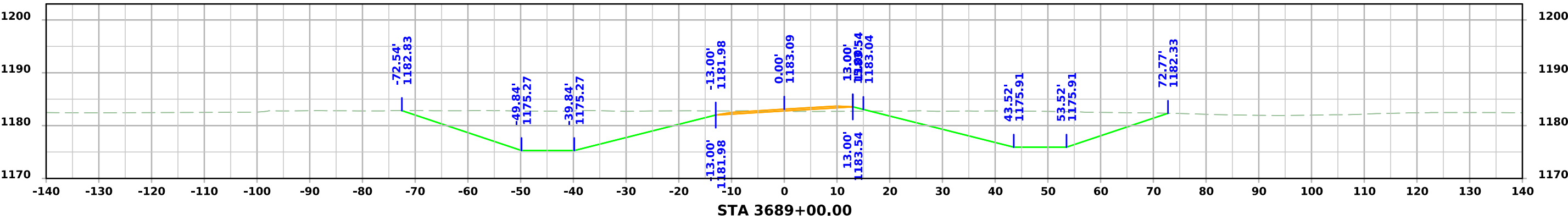
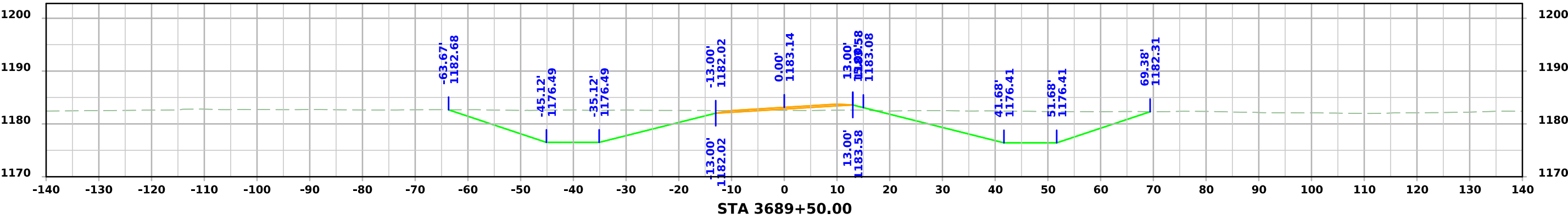
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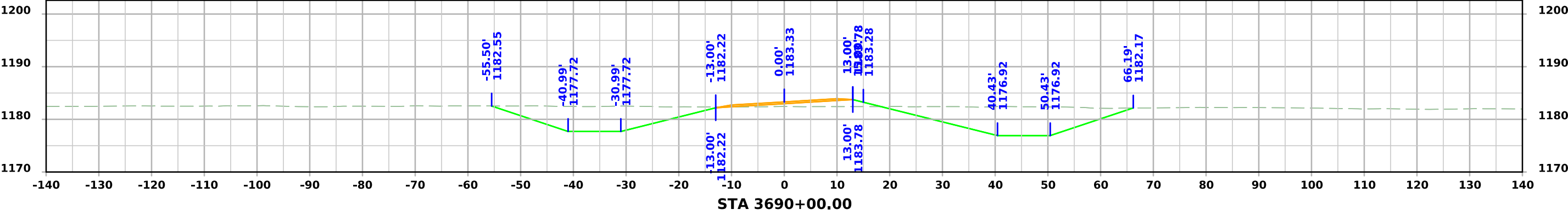
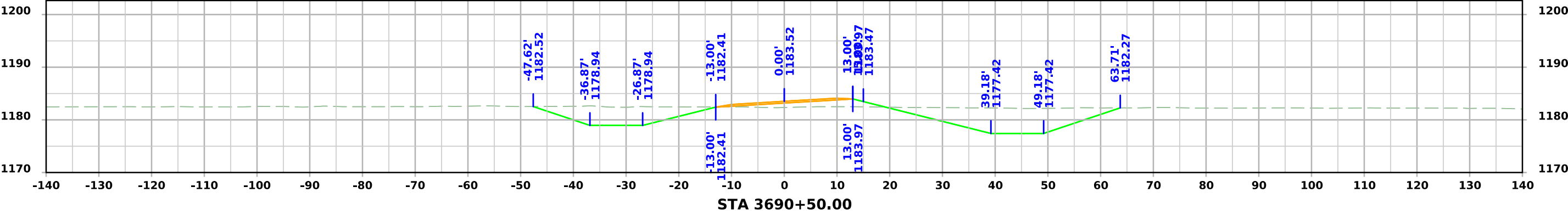
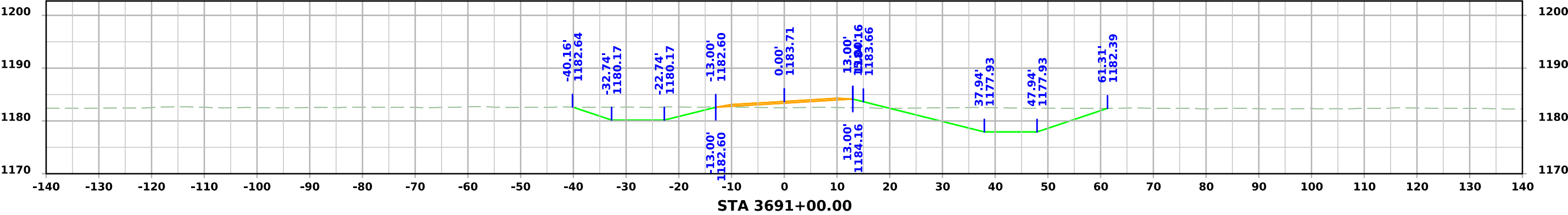
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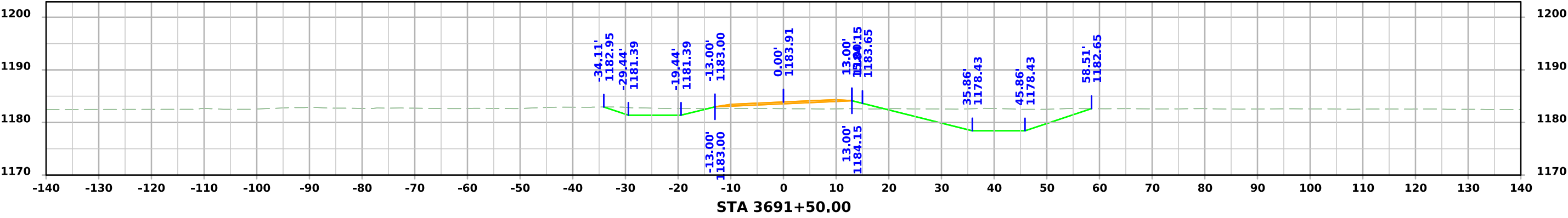
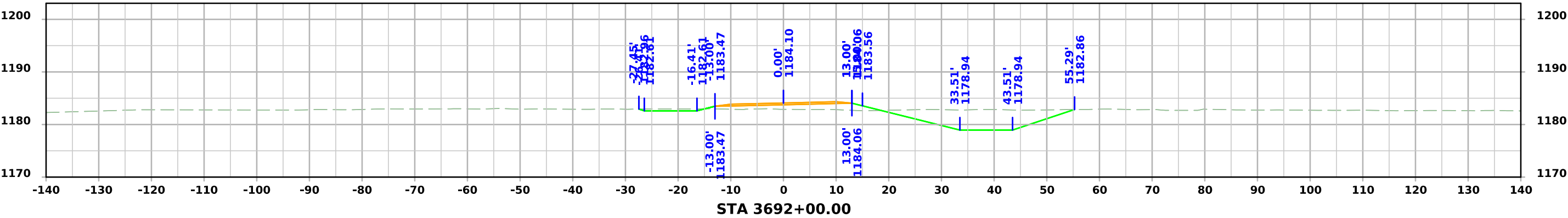
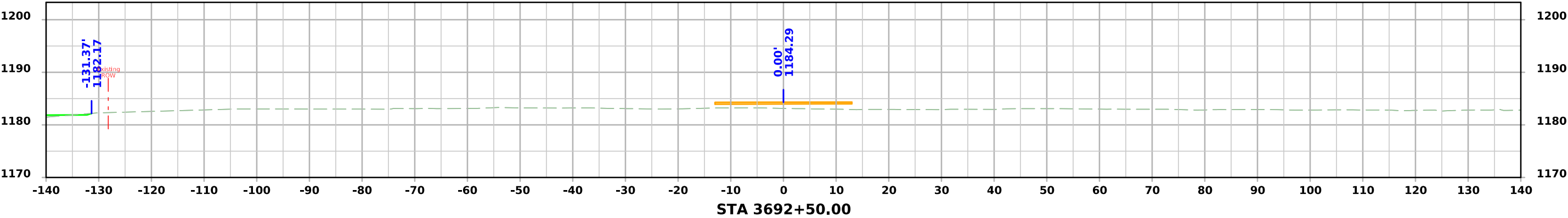
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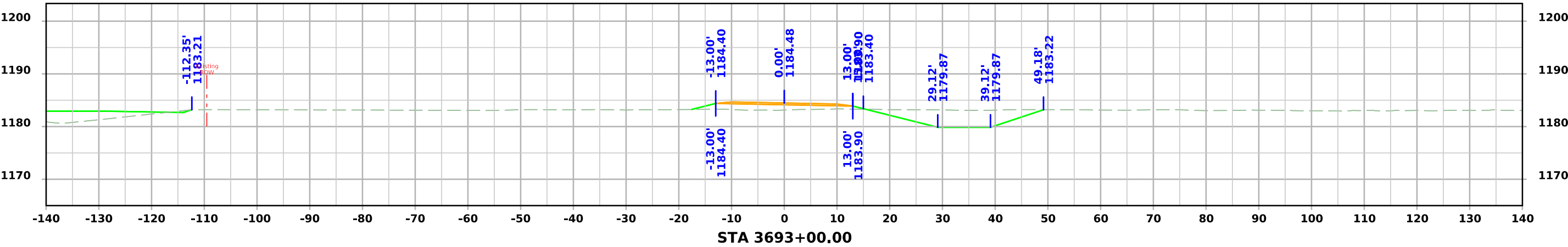
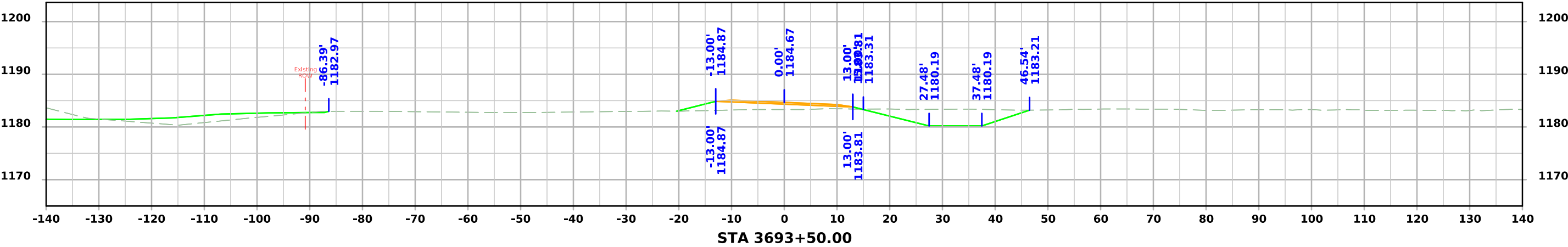
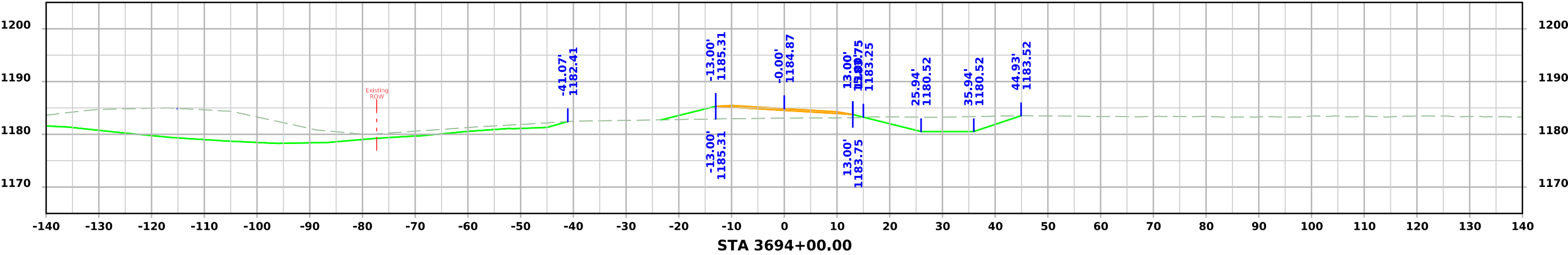
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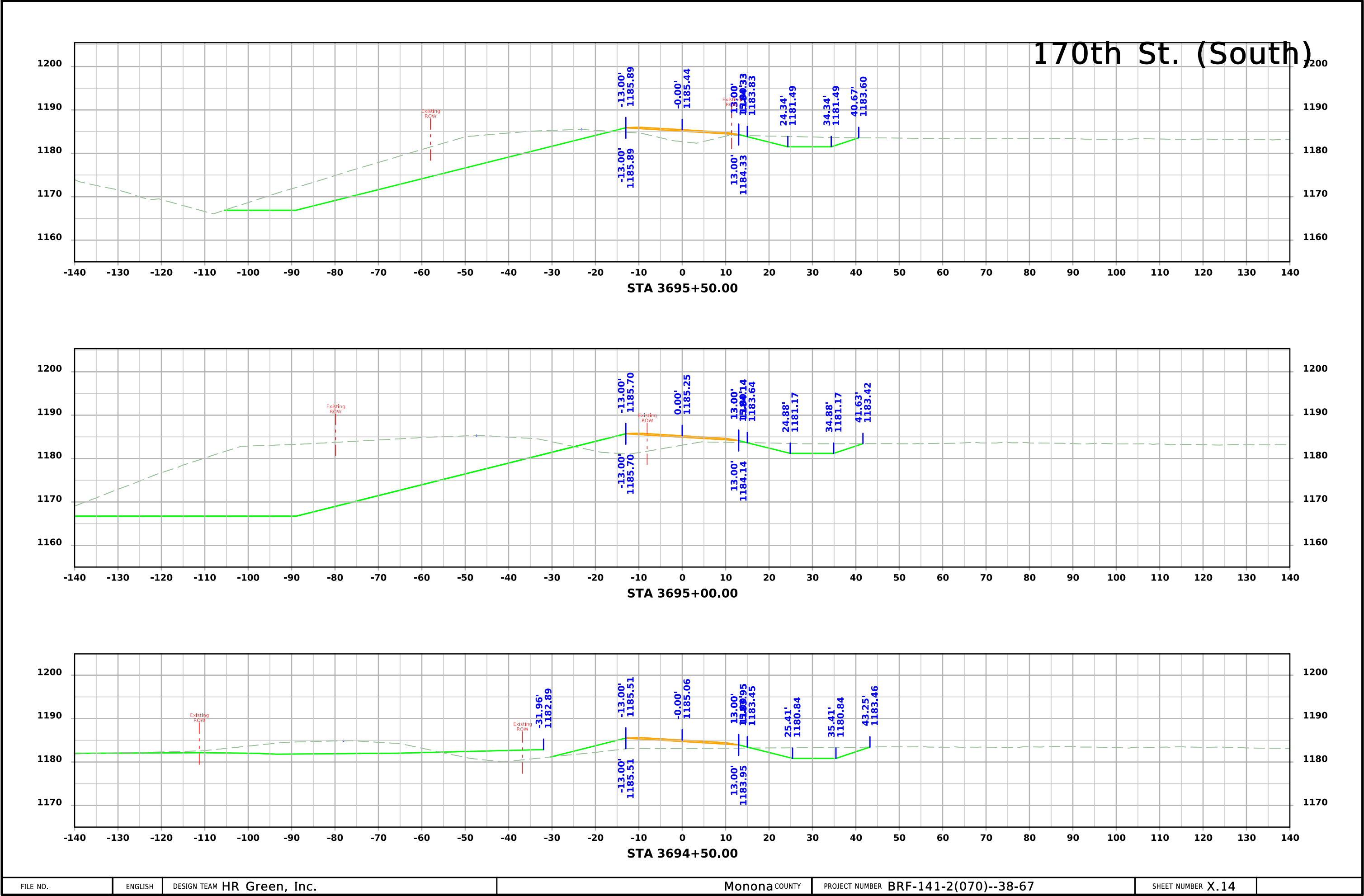


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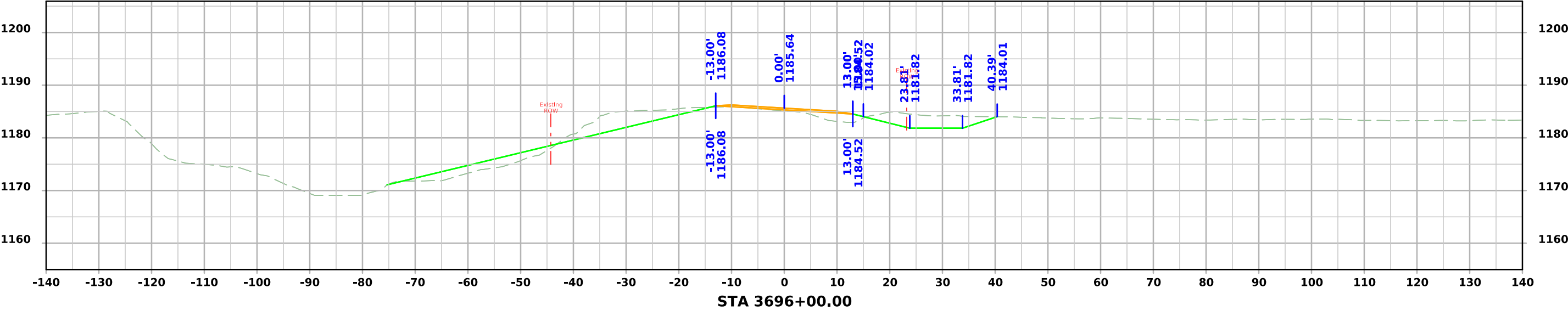
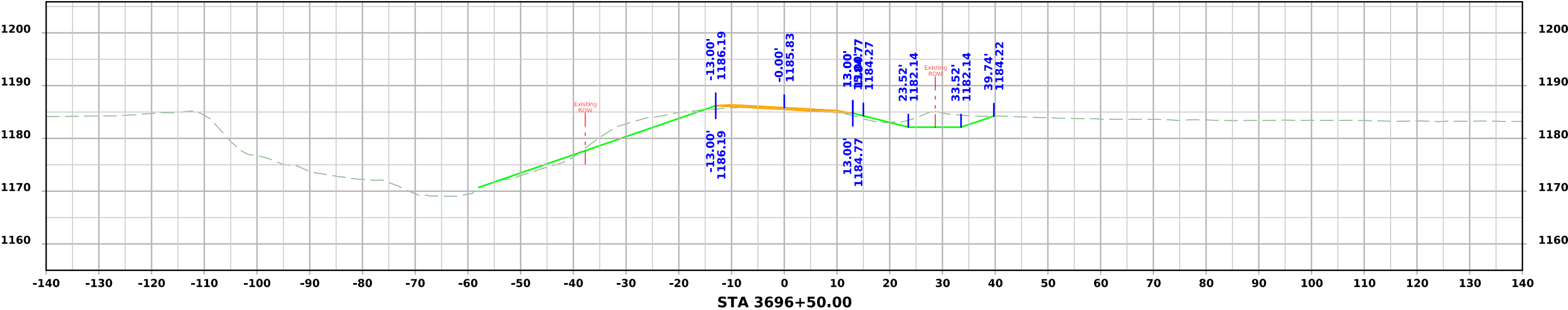


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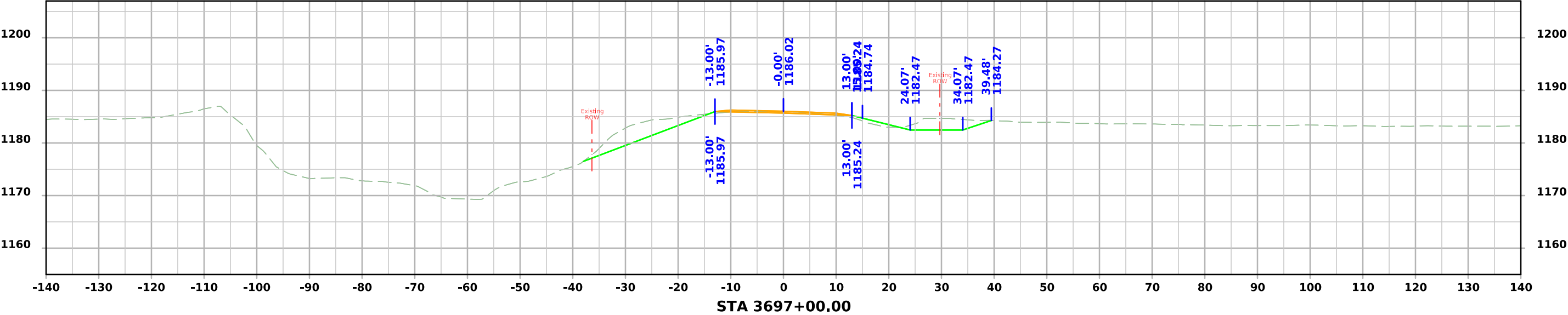
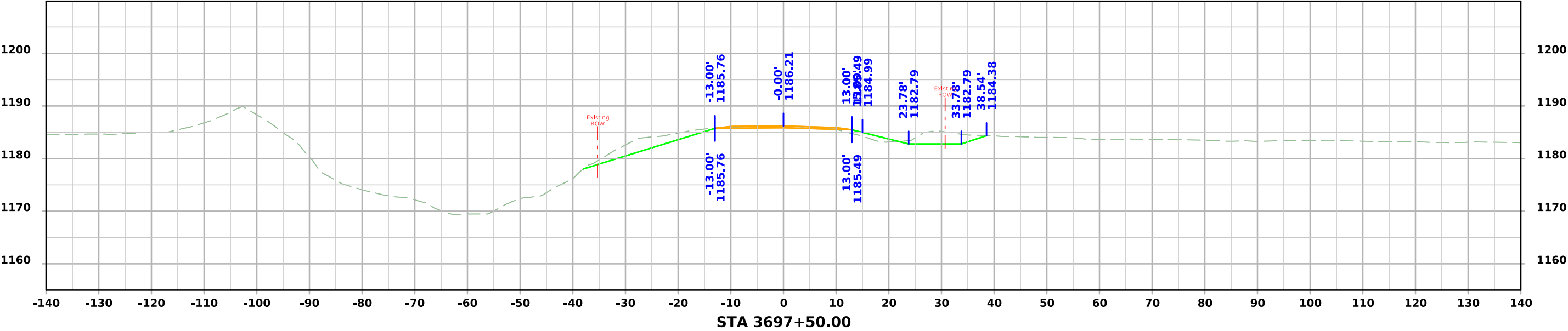




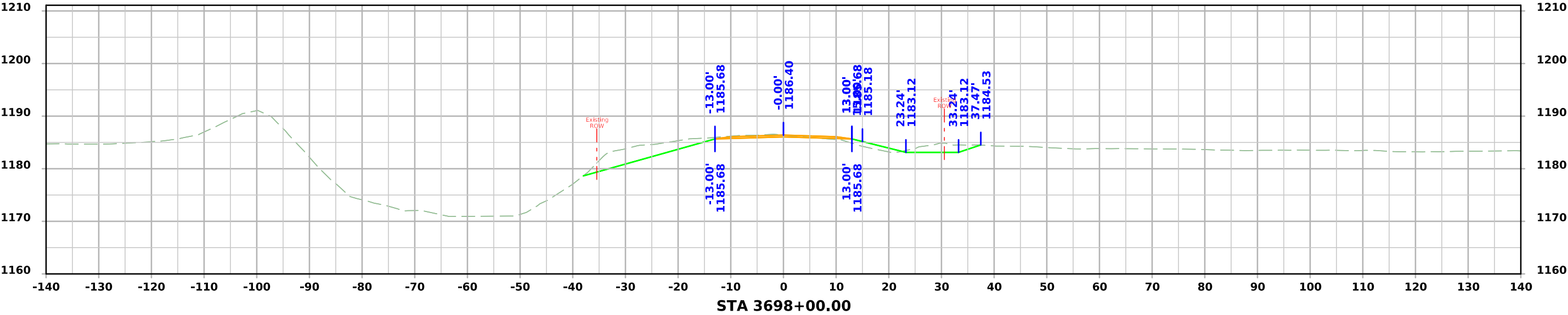
170th St. (South)



170th St. (South)



170th St. (South)



170th St. (South)

