

INDEX OF SHEETS	
No.	DESCRIPTION
<b>A Sheets</b>	<b>Title Sheets</b>
A.1	Title Sheet
A.2	Location Map Sheet
A.3 - 10	Design Concept
A.11 - 13	Design Criteria
A.14	Crash Data/Questions
<b>B Sheets</b>	<b>Typical Cross Sections and Details</b>
B.1 - 3	Typical Cross Sections and Details
<b>D Sheets</b>	<b>Mainline Plan and Profile Sheets</b>
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2	IA 92
<b>G Sheets</b>	<b>Survey Sheets</b>
G.1	Reference Ties and Bench Marks
G.2	Control Point Vicinity Map
G.3	Horizontal and Vertical Control Coordinates
<b>J Sheets</b>	<b>Traffic Control and Staging Sheets</b>
J.1	Traffic Control Plan
* J.2	Traffic Control & Staging Legend & Symbol Info. Sheet
* J.3 - 4	Staging and Traffic Control Sheets Stage 2 & 3
<b>V Sheets</b>	<b>Bridge and Culvert Situation Plans</b>
* V.1	Bridge and Culvert Situation Plans
<b>W Sheets</b>	<b>Mainline Cross Sections</b>
* W.1	Cross Sections Legend & Symbol Information Sheet
* W.2 - 15	Mainline Cross Sections
	* Color Plan Sheets



PLANS OF PROPOSED IMPROVEMENT ON THE  
**PRIMARY ROAD SYSTEM**  
**Adair COUNTY**  
**Bridge Replacement- PPCB**  
W Fork Nodaway River  
1.6 mi E of Co Rd N51

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
42
PROJECT IDENTIFICATION NUMBER
19-01-092-010
PROJECT NUMBER
BRF-092-3(40)--38-01
R.O.W. PROJECT NUMBER
STPN-092-3(41)--2J-01

DESIGN DATA RURAL			
2024	AADT	1100	V.P.D.
2044	AADT	1100	V.P.D.
20	--	DHV	-- V.P.H.
	TRUCKS	17	%
	Total		
	Design ESALS	--	

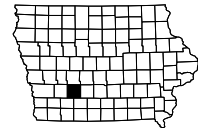
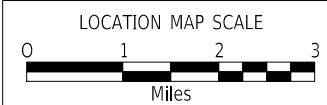
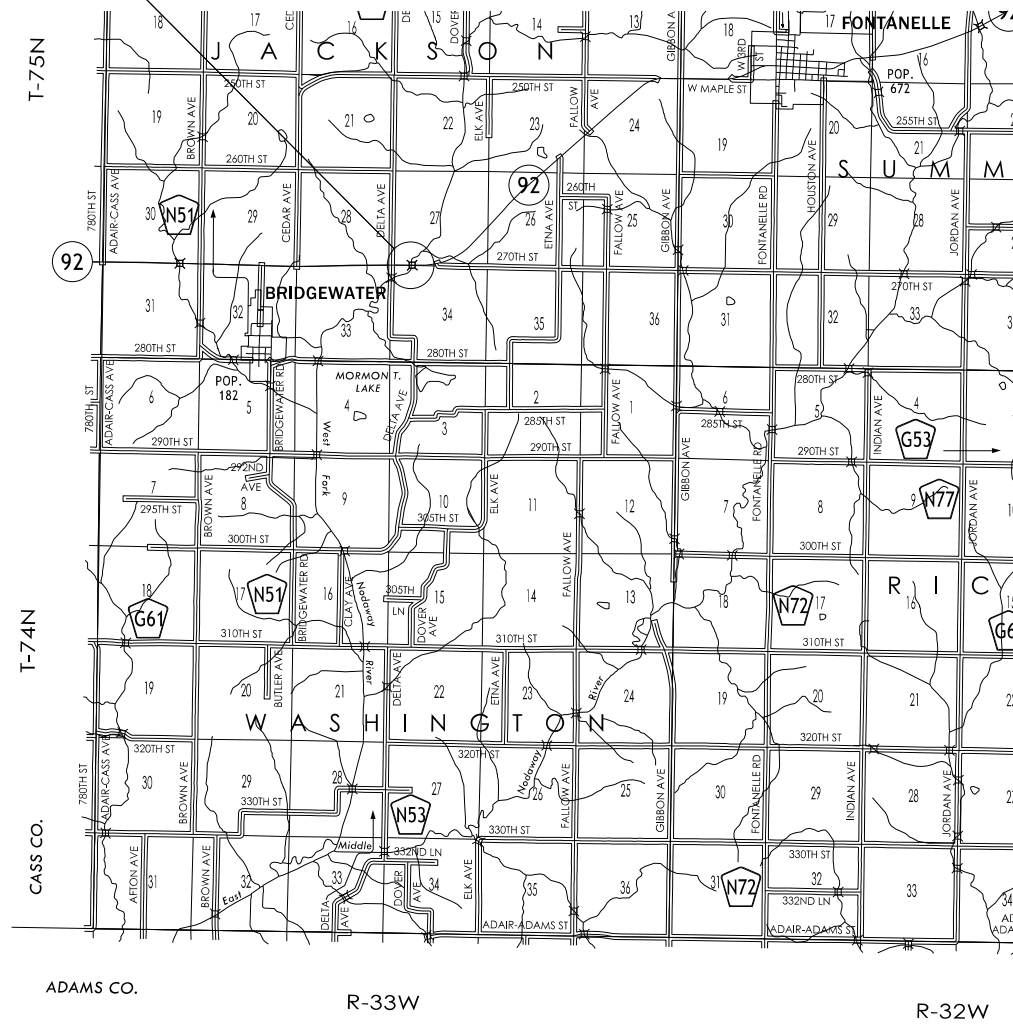
INDEX OF SEALS		
	TYPE	BID QUANTITY SHEETS
	Primary Signature Block	X
	X	X

**PRELIMINARY PLANS**

Subject to change by final design.

**D3 PLAN - Date: 6-30-22**

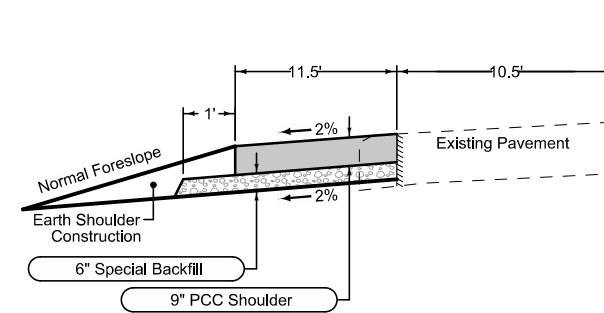
PROJECT LOCATION  
 FHWA 13010  
 REF LOC = 70.60



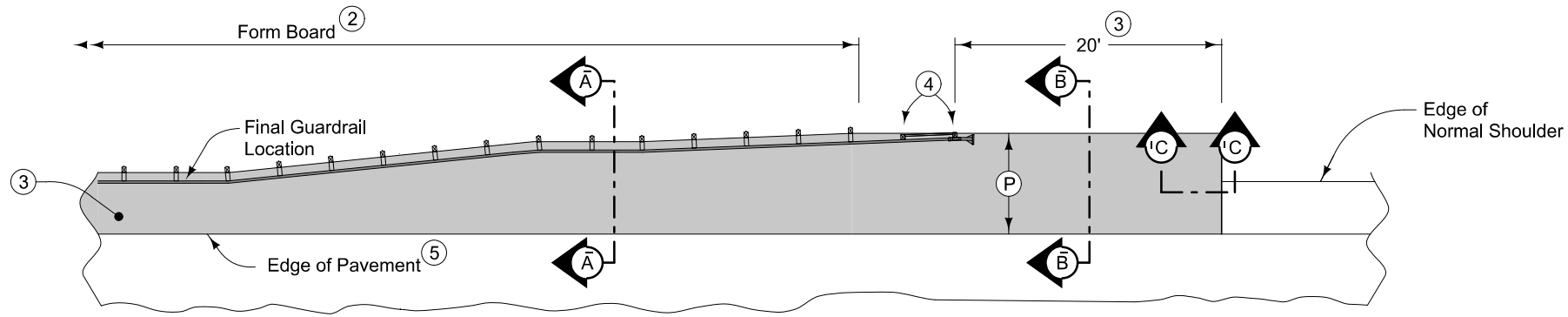
**Detour Pavement**

PCC Pavement Jointing:  
 Longitudinal joint: B  
 Transverse joint: C at 15' spacing

Custom			
STATION TO STATION		DETOUR PAVEMENT (SY)	SPECIAL BACKFILL (CY)
166+05.00	168+55.28	222.5	xx
171+98.37	174+55.00	228.1	xx
Totals:		450.6	xx



Detour Pavement



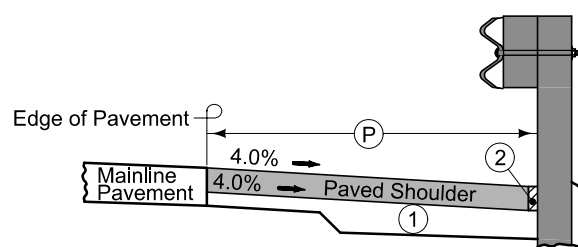
PLAN VIEW

9" PCC Paved Shoulder at guardrail. Jointing layout as follows:

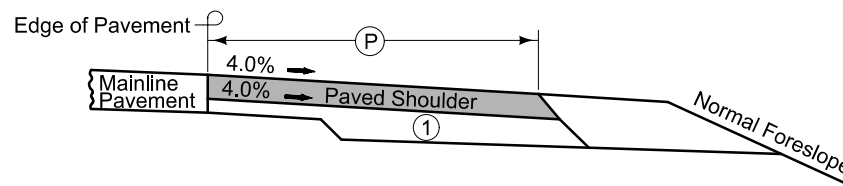
PCC Pavement Jointing:  
Longitudinal joint: B  
Transverse joint: C at 15' spacing

Refer to Tabulation 112-9 for shoulder quantities.

- ① For subgrade treatment, refer to other details in the plan.
- ② PCC option only: When guardrail posts are installed prior to construction of PCC paved shoulder, fasten form board to the face of guardrail posts for the length shown. Refer to note 4 for final 2 posts.
- ③ Continue paved shoulder to existing paved shoulder or 20 feet beyond the center of the first post.
- ④ Shoulder may be notched for final 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.
- ⑤ 'KT-1 joint for PCC shoulder.  
'B' joint for HMA shoulder.

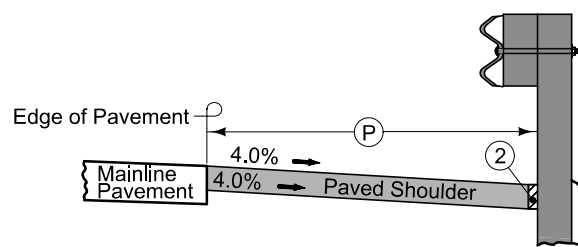


Section A-A

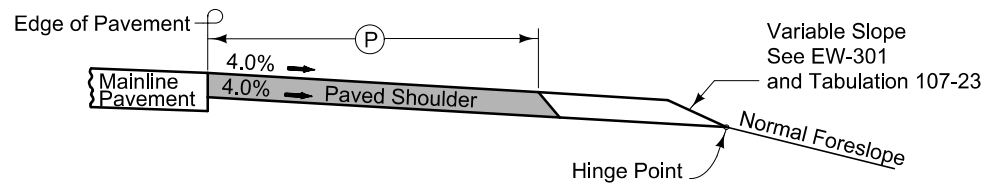


Section B-B

NEW CONSTRUCTION

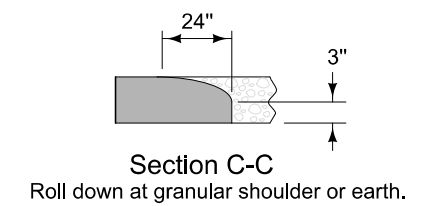


Section A-A



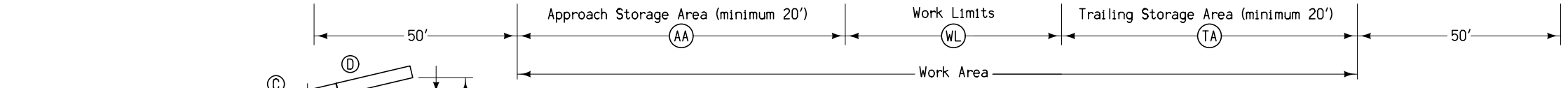
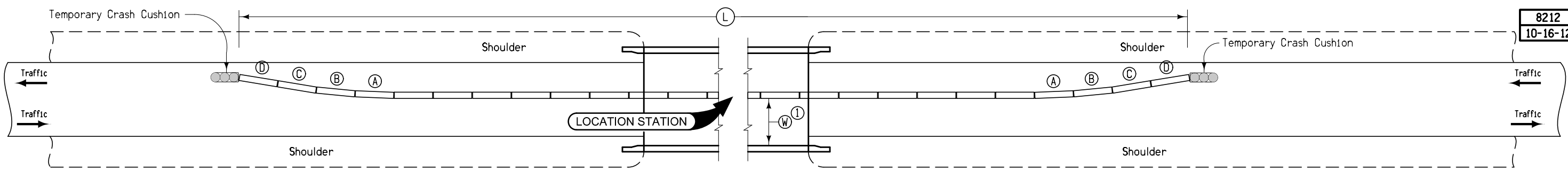
Section B-B

EXISTING SHOULDER



PAVED SHOULDER AT GUARDRAIL

8212  
10-16-12

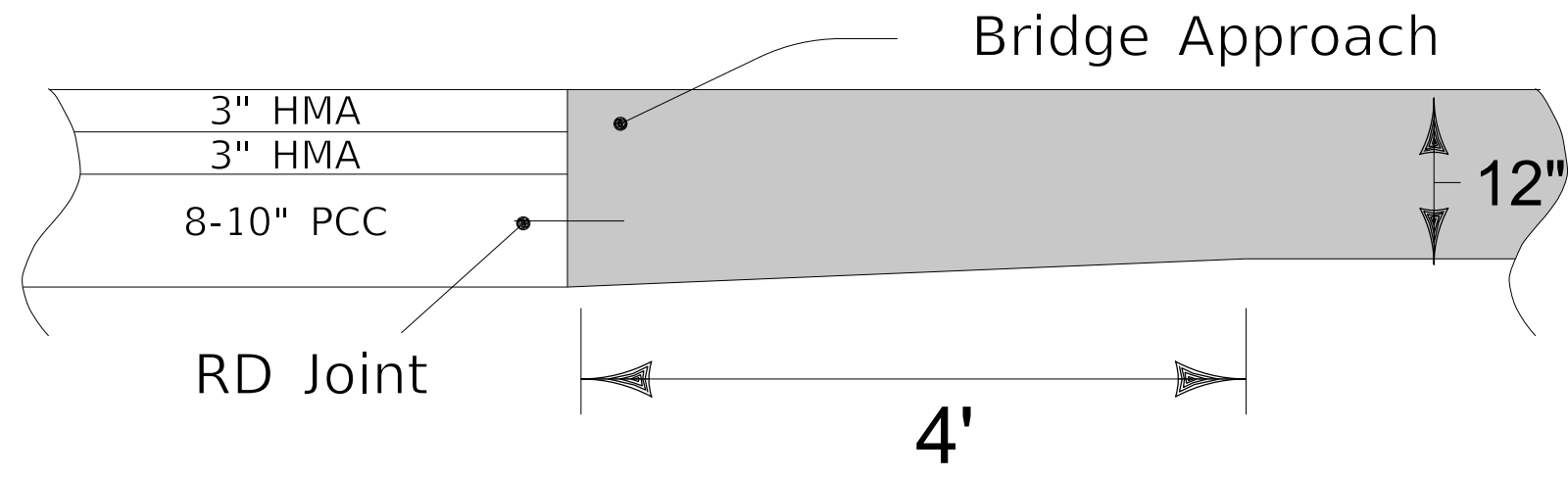


**BARRIER OFFSETS FOR FLARE SECTIONS**

① Where  $W$  is less than 14'-6", install restricted width signing as per Standard Road Plan TC-81.

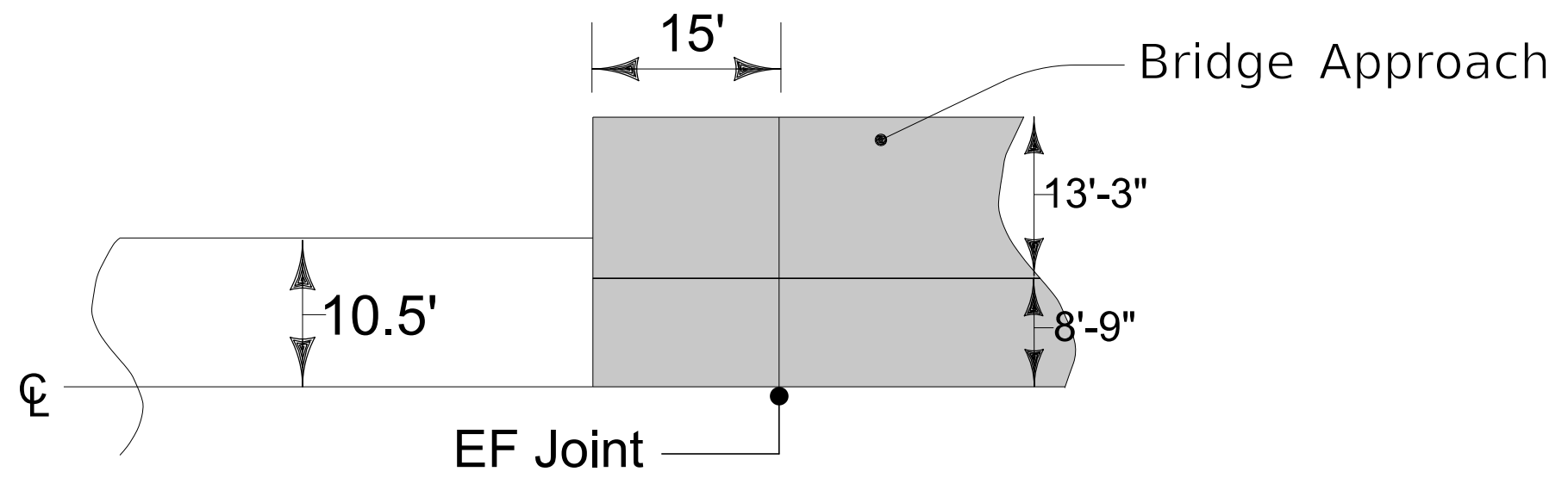
**TEMPORARY CONCRETE BARRIER LAYOUT  
for Two-Way Traffic**

Station	Side	AA	WL	TA	L	Anchored	W <sup>①</sup>	Remarks
		Feet	Feet	Feet	Feet	X	Ft-Inches	
170+50	Left	78.5	464	72.5	715	X	15'-3"	Stage 2
170+50	Right	72.5	464	78.5	715	X	11'	Stage 3



Profile View

Transition at End of Bridge Approach



Plan View

EF Joint Location at Bridge Approach

### 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

Sub-Surface Utility Mapping Quality Level is in accordance with CI/ASCE 38-02 Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data.

Remark Abbreviations  
 QLA Quality Level A Highest guideline quality level  
 QLD Quality Level D Lowest guideline quality level

- FO1D Windstream Communications - Quality D
- FO2D Centurylink - Quality D
- TL1D Cumberland Telephone Company - Quality D
- PPA Farmers Electric Cooperative

### PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK		Design Color No.	
Green	(2)		Existing Topographic Features and Labels
Blue	(1)		Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)		Existing Utilities
SHADING		Design Color No.	
Lavender	(9)		Temporary Pavement Shading
Yellow	(4)		Proposed Pavement Shading
Orange	(6)		Proposed Granular Shading
Orange	(70)		Proposed Shoulder Granular Shading
Yellow	(68)		Proposed Shoulder Paved Full Depth Shading
Yellow	(70)		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

### 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

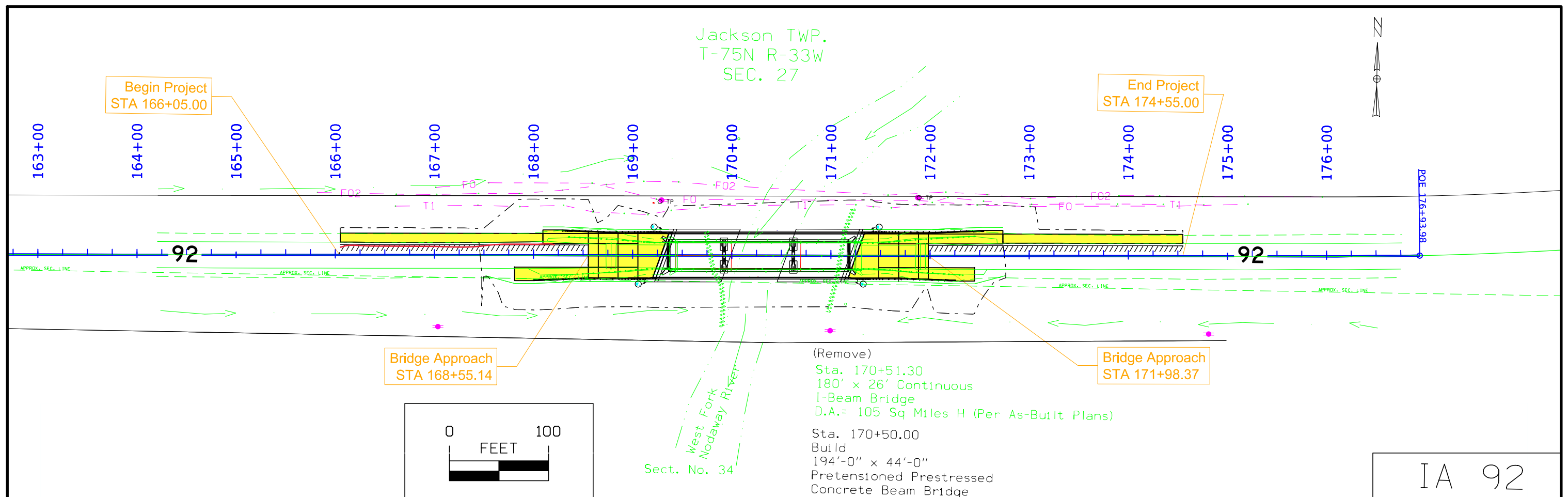
### RIGHT-OF-WAY LEGEND

- 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

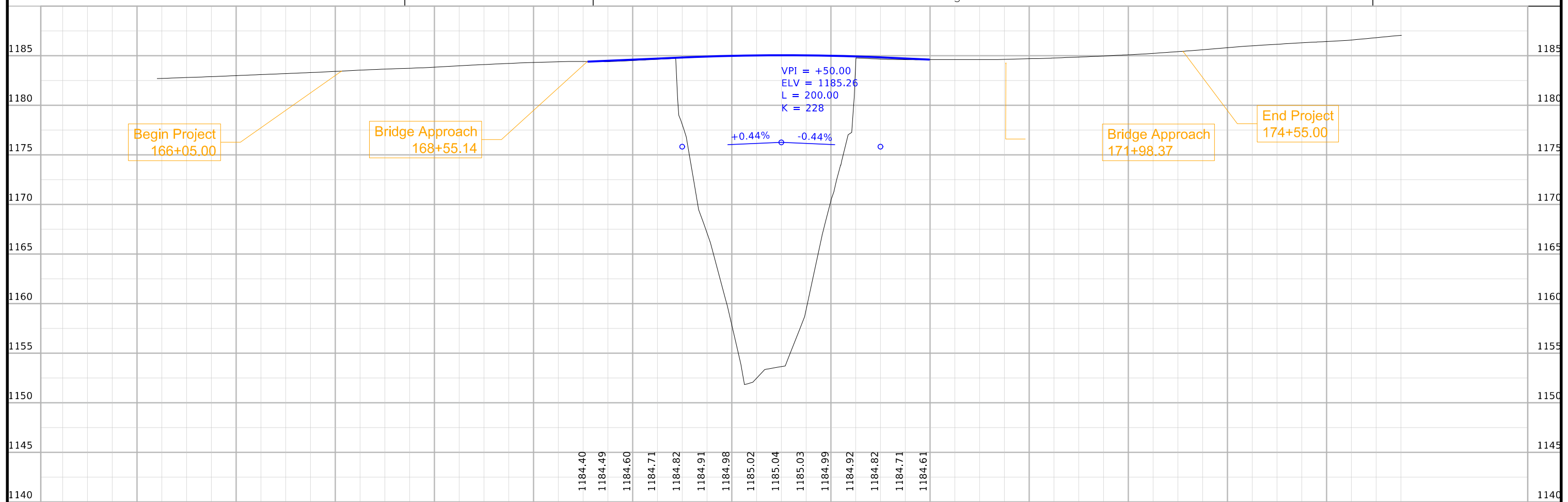
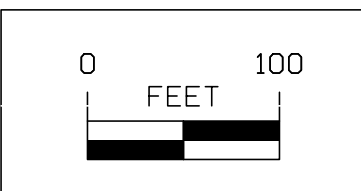
(COVERS SHEET SERIES D, E, F, & K)

Jackson TWP.  
T-75N R-33W  
SEC. 27



(Remove)  
Sta. 170+51.30  
180' x 26' Continuous  
I-Beam Bridge  
D.A.= 105 Sq Miles H (Per As-Built Plans)

Sta. 170+50.00  
Build  
194'-0" x 44'-0"  
Pretensioned Prestressed  
Concrete Beam Bridge





## Survey Information

**Adair County**  
**BRF-092-3(40)--38-01**  
**Location: W Fork Nodaway River 1.6 mi E of Co Rd N51**  
**Type of Work: Bridge-Unspecified**  
**Project Directory: 0109201019**  
**PIN: 19-01-092-010**  
**Sap-0250.1**

### Party Personnel

Clayton Henningsen- Survey Party Chief  
Jason Arn- Survey Party Chief  
Paul Harry- Survey Party Chief

### Date(s) of Survey

Begin Date 10/01/2020  
End Date 10/15/2020

### General Information

Measurement units for this survey are US survey feet. This survey is for proposed bridge reconstruction on IA 92 1.6 mi east of County Road N51. This is a full field survey.

### Vertical Control

Vertical datum for this survey is NAVD88 (Computed using Geoid12b). GRS80 Ellipsoidal Height was computed at project Pts. 01092005, 01092006, X 103, PJH 20 1968 and by doing concurrent 5 hour static observations. The project control is relative to nearby Iowa RTN Base Stations.

This survey observed 1 NGS GPS control with published NAVD88 heights to compare to local ground control:

NGS mark designated X 103 (PID MJ1036) has a published Elev. 1366.34  
Survey Elev. = 1366.252

This survey observed 1 USGS 3<sup>rd</sup> Order benchmark with published NGVD 29 converted to NAVD88 heights to compare to local ground control:

USGS 3<sup>rd</sup> Order mark designated PJH 20 1968 has a published NGVD29 =1260.558  
NAVD88 conversion= 1260.89  
Survey Elev. = 1260.861

### Horizontal Control

The project coordinate system for this survey is Iowa RCS Zone 7 (U.S. Survey Feet). This survey control is relative to laRTN reference stations. laRTN Reference Station coordinates are relative to the National Reference Station network datum: NAD83 (2011) for Epoch 2010.00. Coordinates were determined by conducting concurrent 5 hour static observations on Project Pts. 01092005, 01092006, X 103, PJH 20 1968.

### Alignment Information

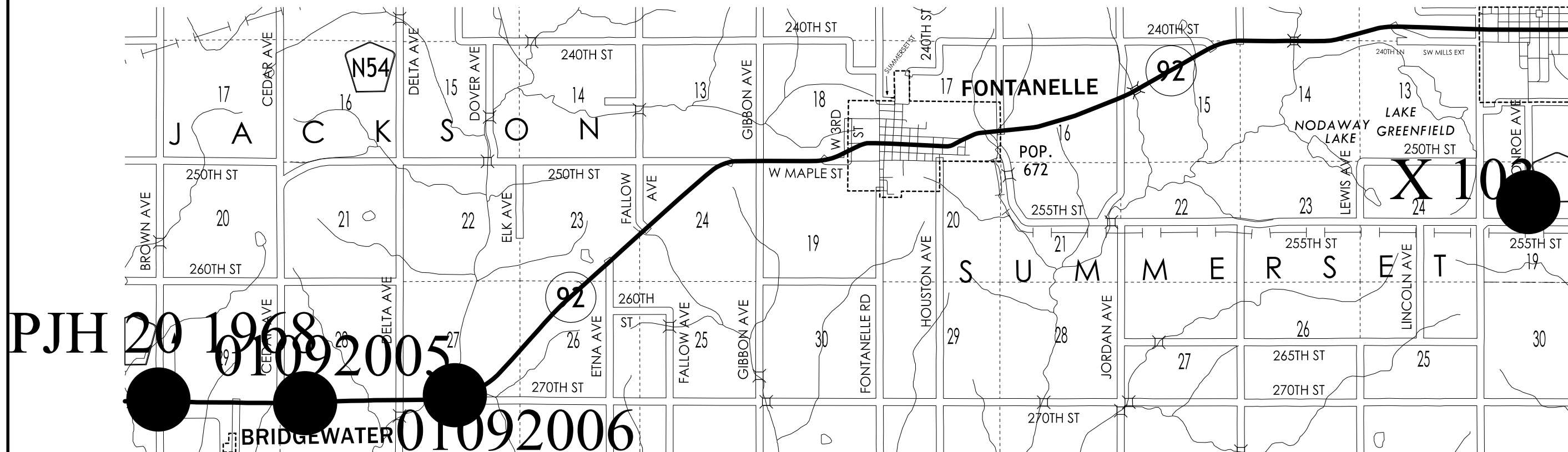
The horizontal alignment for this survey is a retrace of A.C.C. Widening & Resurfacing No. F-92-3(16)—20-01. Survey stationing was equated to the plan PC at Sta. 176+26.9 and run back and ahead without equation throughout the survey.

Survey stationing relates to as built plan stationing as follows:

PC Sta. 176+26.9 A.C.C. Widening & Resurfacing No. F-92-3(16)—20-01  
Survey PC Sta. 176+26.9

### 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

Ia. Regional Coordinate System Zone 7

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) EPOCH 2010.00

VERT. DATUM: NAVD88

Ia. Regional Coordinate System Zone 7

Project Control Marks are Bench Marks

Point Name	North Coordinate	East Coordinate	Elevation	Feature Code- Monument Description
01092005	7167420.18	17493326.35	1276.182	CP 01092005 FROM INTERSECTION OF IA 92 AND CO RD N51 NEAR BRIDGWATER GO EAST 0.57 MILES ALONG HWY 92 TO A FIELD ENTRANCE ON SOUTH SIDE OF HWY 92 SET FENO TYPE MONUMENT 0.3 DEEP 33 FEET SOUTH OF IA 92 CENTERLINE 35 FEET NORTHWEST OF P POLE 38 FEET NORTHWEST OF EAST GATE POST 22 FEET EAST OF FIELD ENTRANCE CENTERLINE
01092006	7167772.07	17499885.01	1191.597	CP 01092006 FROM INTERSECTION OF IA 92 AND CO RD N51 NEAR BRIDGWATER GO EAST 1.8 MILES ALONG HWY 92 TO 270 TH ST ON NORTH SIDE OF HWY A SET FENO TYPE MONUMENT 0.3 DEEP 98 FEET NORTH OF IA 92 CENTERLINE 67 FEET NORTHWEST OF TEL PEDESTAL 62 FEET NORTHWEST OF WOOD POST WITH ATTACHED UTILITY BOX
X103	7176234.373	17546866.83	1366.252	CP X103 AT INTERSECTION OF SW 2ND ST AND IA 92 IN GREENFIELD GO SOUTH 1.4 MILES ALONG SW 2ND ST FOUND A STANDARD DISK STAMPED X 103 1935 AND SET IN THE TOP OF A CONCRETE POST 2 FEET NORTH OF A HARN SIGN 5 FEET WEST OF A WITNESS POST 36 FEET WEST OF MONROE AVE CENTERLINE 103 FEET SOUTH OF TEL PEDESTAL
PJH 20 1968	7167586.317	17486903.58	1260.861	CP PJH 20 1968 FROM INTERSECTION OF IA 92 AND CO RD N51 NEAR BRIDGWATER GO WEST 0.65 MILES ALONG HWY 92 TO BROWN AVE IN NORTHWEST CORNER OF INTERSECTION A FOUND DISK ENCASED IN A CLAY TILE STAMPED 20 PJH 1968 2.5 FEET NORTHEAST OF A WITNESS POST 87 FEET NORTH OF IA 92 CENTERLINE 65 FEET WEST OF BROWN AVE CENTERLINE 41 FEET NORTHWEST OF TEL PEDESTAL

108-23A  
08-01-08

**TRAFFIC CONTROL PLAN**

One lane of alternating traffic on IA 92 shall be maintained at all times via temporary traffic signals.

108-26A  
08-01-08

**STAGING NOTES**

Stage 1

Traffic:  
Maintain one lane of alternating traffic on EB lane of IA 92 via temporary traffic signals.  
Close WB lane.  
Construction:  
Construct detour pavement.

Stage 2

Traffic:  
Maintain one lane of alternating traffic on EB lane of IA 92 via temporary traffic signals and TBR.  
Construction:  
Construct west half of the bridge, bridge approaches, and paved shoulder in front of guardrail.

Stage 3

Traffic:  
Maintain one lane of alternating traffic on WB lane of IA 92 via temporary traffic signals and TBR.  
Construction:  
Construct east half of the bridge, bridge approaches, and paved shoulder in front of guardrail.

108-25  
10-21-14

**511 TRAVEL RESTRICTIONS**

Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
IA 92	Both	Adair	REF LOC: 70.5-70.65		Barrier	N/A	Horizontal	N/A	11'	10'	N/A	

**CROSS SECTION VIEW COLOR LEGEND  
OF TRAFFIC CONTROL AND STAGING SHEETS**

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Med	(237)	Future Proposed Pavement Shading

**CROSS SECTION VIEW PATTERN AND SYMBOL LEGEND  
OF TRAFFIC CONTROL AND STAGING SHEETS**

	Pavement Removal		Proposed Granular Shoulder
	Proposed Granular Subbase		Temporary Shoulder
	Proposed Special Backfill		Existing Shoulder Strengthening
	Temporary Barrier Rail		Permanent Barrier Rail
			Channelizing Device

**PLAN VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS**

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Magenta	(5)	Pavement Marking Call Outs
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Yellow	(4)	Pavement Markings, Yellow
Off White	(254)	Pavement Markings, White
Violet	(15)	Temporary barrier rail, Unpinned
Flush Orange	(228)	Temporary barrier rail, Pinned

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Proposed Granular Surface Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Light	(236)	Proposed Grading Limits Shading
Pink, Dark	(13)	Proposed MSE or CIP Wall Shading
Red	(3)	Proposed Bridge Shading and Sign Trusses
Black w/Gray, Light Fill	(0,48)	Previously Constructed Structure

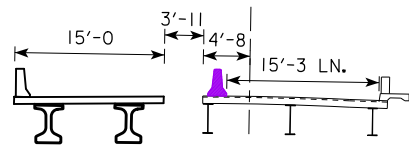
**PLAN VIEW PATTERN AND SYMBOL LEGEND  
OF TRAFFIC CONTROL AND STAGING SHEETS**

	Channelizing Device		Crash Cushion (Temp or Perm)
	Drum		Traffic Signal
	Temporary Lane Separator		Flagger
	Tubular Marker		Temporary Floodlighting
	Channelizer Marker		Traffic Sign
	Concrete Barrier Marker		Type III Barricade
	Delineator		Type A Warning Light
	Temporary Barrier Rail		Direction of Traffic
	Pavement Removal		Safety Closure
	Sand Barrel Layout		Lane Identification

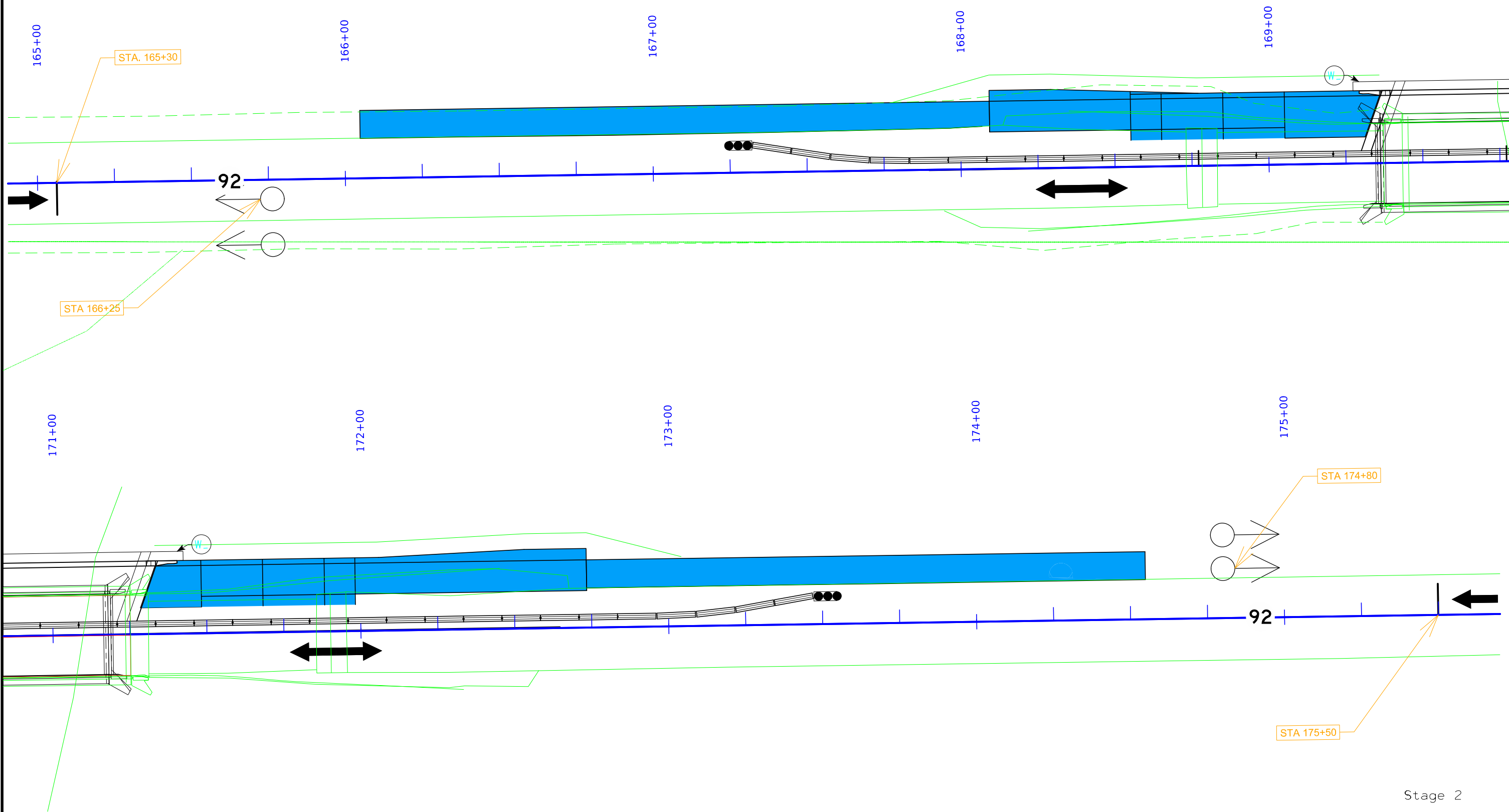
NOTE: Device spacing according to Standard Road Plans unless specifically dimensioned.

**TRAFFIC CONTROL  
AND  
STAGING  
LEGEND AND SYMBOL  
INFORMATION SHEET**

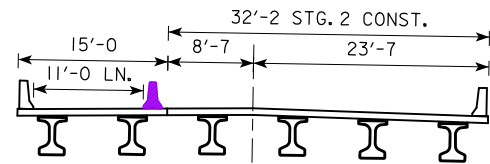
(COVERS SHEET SERIES J)



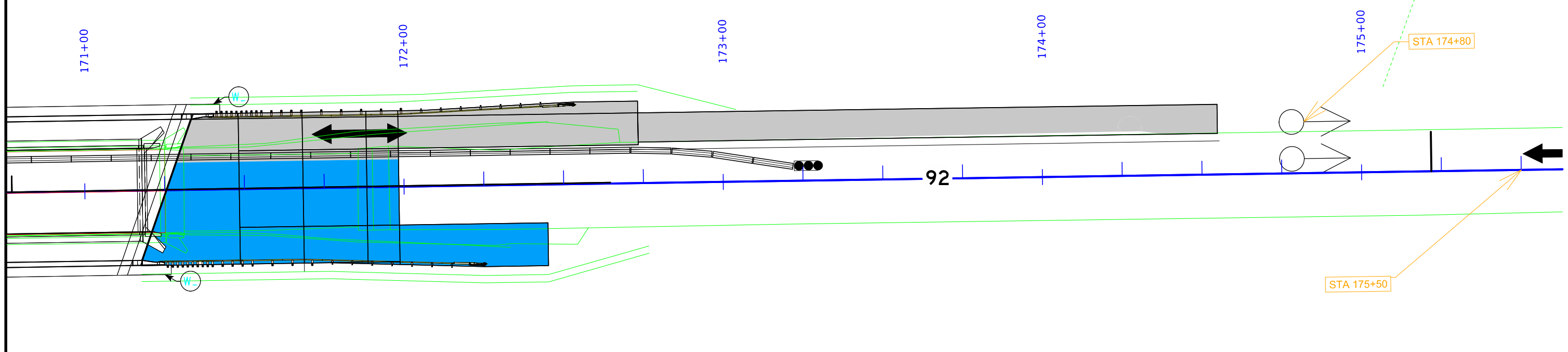
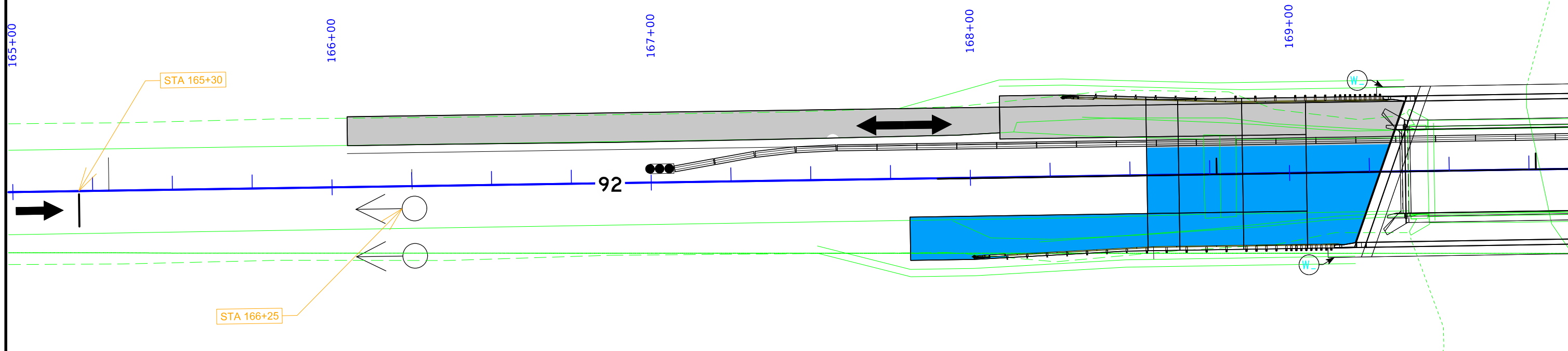
Stage 2 Traffic and Construction  
Bridge Construction



Stage 2



Stage 3 Traffic and Construction  
Bridge Construction



Stage 3

1200						1200
1190		☉ W. ABUT. BRG. ELEV. 1184.26±	☉ PIER NO. 1 ELEV. 1177?	☉ PIER NO. 2 ELEV. 1177?	☉ E. ABUT. BRG. ELEV. 1184.35±	1190
1180						1180
1170		BOTT. FTG. EL. 1176.19±			BOTT. FTG. EL. 1176.28±	1170
1160		10' PREBORE TOP OF BERM EL. 1178.19			10' PREBORE TOP OF BERM EL. 1178.28	1160
1150						1150

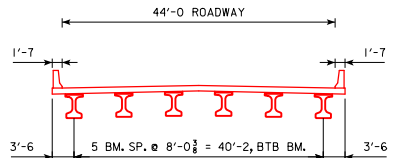
LONGITUDINAL SECTION ALONG ☉ APPROACH ROADWAY

**HYDRAULIC DATA**

DRAINAGE AREA = 104 SQ. MI.  
STREAM SLOPE = 3.2 FT./MI.  
AVG. LOW WATER STAGE = ????.?

Q<sub>50</sub> = 12,500 CFS  
STAGE = 1176.2  
REGULATORY LOW BEAM = ????.?  
BACKWATER = 0.28 FT.  
AVG. BRIDGE VELOCITY = 5.7 FPS

Q<sub>100</sub> = 14,600 CFS  
STAGE = 1177.1  
OPERATIONAL LOW BEAM = ????.?  
BACKWATER = 0.44 FT.  
AVG. BRIDGE VELOCITY = 6.3 FPS



TYPICAL BRIDGE SECTION

NOTE:  
CONDUIT TO BE PLACED IN EACH BARRIER.

**UTILITIES LEGEND:**

UTILITY SURVEY NOT CONDUCTED  
UTILITIES SHOWN ON THIS SHEET ARE FOR INFORMATION ONLY, SEE ROAD DESIGN SHEETS FOR FINAL UTILITY INFORMATION.

**LOCATION**

IA 92 OVER W. FORK NODAWAY RIVER  
T-75N R-33W  
SECTIONS 27 AND 34  
JACKSON TOWNSHIP  
ADAIR COUNTY  
FHWA NO. 013010 (EXISTING)  
FHWA NO. ???  
BRIDGE MAINT. NO. 0170.65092  
LATITUDE 41.258834°  
LONGITUDE -94.638793°

PRELIMINARY - CONCEPT

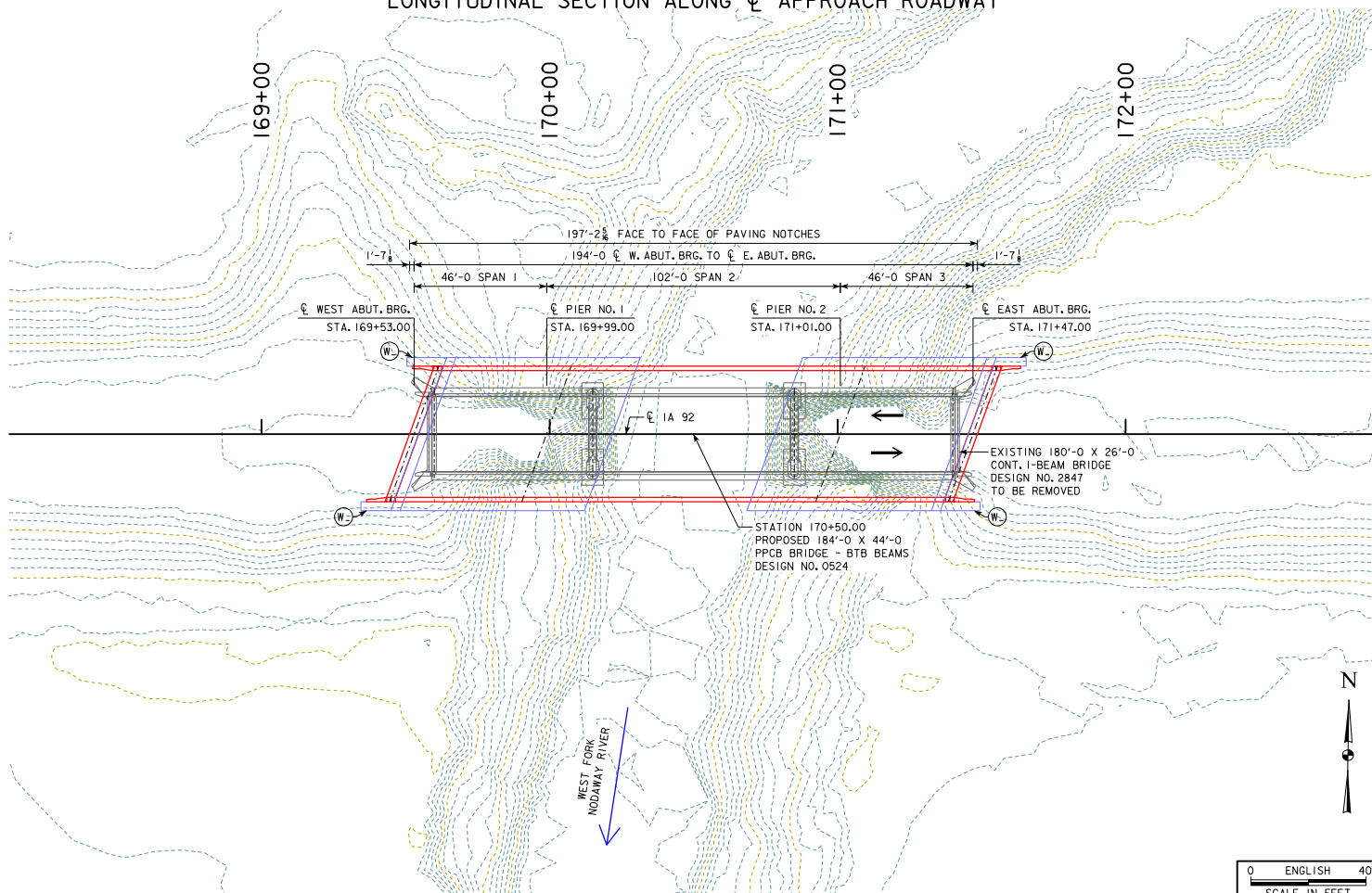
DESIGN FOR 20° SKEW L.A.

**194'-0" X 44'-0" PRETENSIONED  
PRESTRESSED CONCRETE BEAM BRIDGE**  
46'-0" END SPANS 102'-0" INTERIOR SPAN

**SITUATION PLAN - CONCEPT**  
STATION 170+50.00 (☉ IA 92) DECEMBER, 2020

ADAIR COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY ADMINISTRATION  
DESIGN SHEET NO. \_\_\_ OF \_\_\_ FILE NO. 32043 DESIGN NO. 0524



SITUATION PLAN



## CROSS SECTION VIEW COLOR LEGEND

Design Color No.	Feature	Design Color No.	Feature
<b>Aggregate</b>			
(64)	Choke Stone	(8)	Behind Curb Cut
(42)	Engineering Fabric	(6)	Granular
(8)	Flooded Backfill	(13)	Granular Back Fill
(92)	Macadam Stone	(48)	Rock Undercut
(20)	Modified	(8)	Shoulder Earth Fill
(12)	Plowing Shaping	(2)	Side Slopes
(14)	Porous Backfill	(226)	Side Slopes Dressing
(8)	Revetment Class A	<b>Substrata</b>	
(6)	Revetment Class B	(128)	Boulder Substrata
(62)	Revetment Class C	(209)	Boulder Removed Substrata
(188)	Revetment Class D	(48)	Broken Weathered Substrata
(28)	Revetment Class E	(210)	Broken Weathered Removed Substrata
(12)	Shoulder Special Backfill	(3)	Core Out Substrata
(12)	Special Backfill	(195)	Core Out Remove and Replace Substrata
(20)	Subbase	(115)	Core Out Remove Only Substrata
(20)	Subbase Lower	(203)	Existing Pavement Substrata
(20)	Subbase Upper	(200)	Existing Pavement Remove and Replace Substrata
(118)	Subgrade Treatment	(184)	Existing Pavement Remove Only Substrata
<b>Asphalt</b>			
(207)	HMA Base Course	(6)	Loam Substrata
(207)	HMA Interim Course	(211)	Loam Removed Substrata
(207)	HMA Surface Course	(80)	Rock Substrata
<b>Concrete</b>			
(0)	Barrier Concrete	(212)	Rock Removed Substrata
(0)	Barrier Concrete Footing	(4)	Select Sand Substrata
(0)	Curb Gutter	(214)	Select Sand Removed Substrata
(48)	Flowable Mortar	(3)	Shale Substrata
(0)	Median Concrete	(215)	Shale Removed Substrata
(0)	PCC Pavement	(10)	Topsoil Substrata
(0)	Sidewalk	(4)	Topsoil Remove and Replace Substrata
<b>Shoulder</b>			
(209)	Shoulder HMA	(2)	Topsoil Remove Only Substrata
(0)	Shoulder PCC	<b>Unsuitable / Waste</b>	
(6)	Shoulder Granular	(3)	Unsuitable Type A
<b>Existing</b>			
(0)	Existing Pavement	(216)	Unsuitable Type A Removed
<b>Structural</b>			
(0)	Bridge	(13)	Unsuitable Type B
(21)	Guardrail	(217)	Unsuitable Type B Removed
(112)	Noise Wall	(11)	Unsuitable Type C
(112)	Noise Wall Footing	(218)	Unsuitable Type C Removed
(112)	Retaining Wall Back	(3)	Waste
(112)	Retaining Wall Back Excavate	(219)	Waste Removed
(112)	Retaining Wall Face	<b>Trigger Switches</b>	
(112)	Retaining Wall Front Excavate	(27)	Do Not Construct
(112)	Retaining Wall Front Footing		
(112)	Retaining Wall MSE Gutter		
(112)	Retaining Wall Reinforced Earth		

**NOTES:**

Text

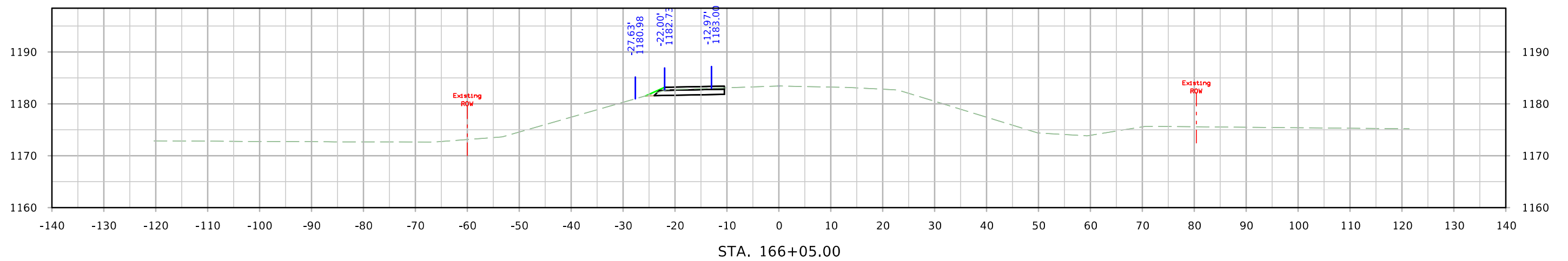
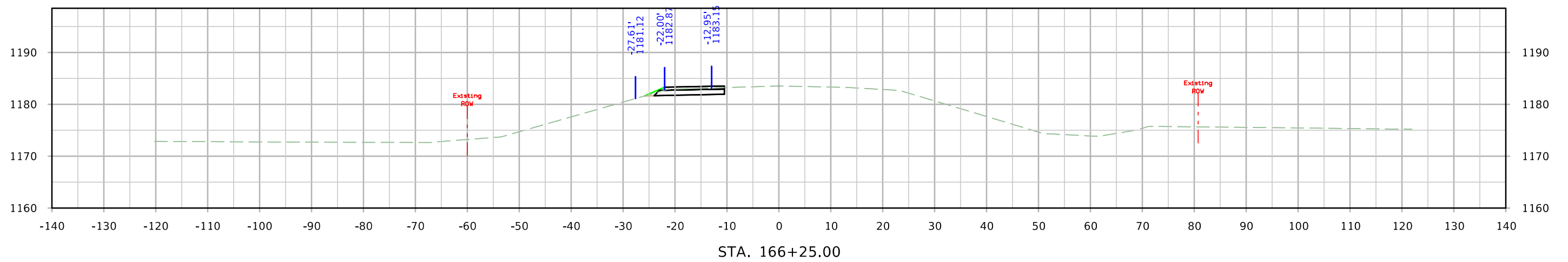
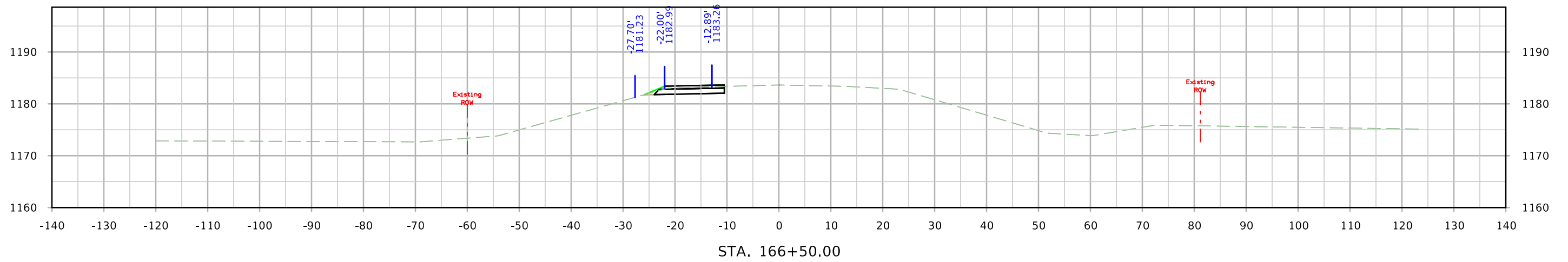
**NOTES:**

Text

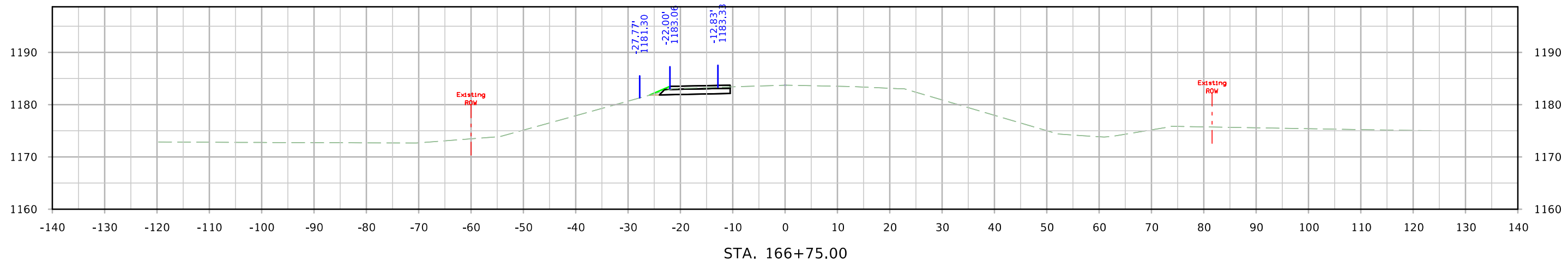
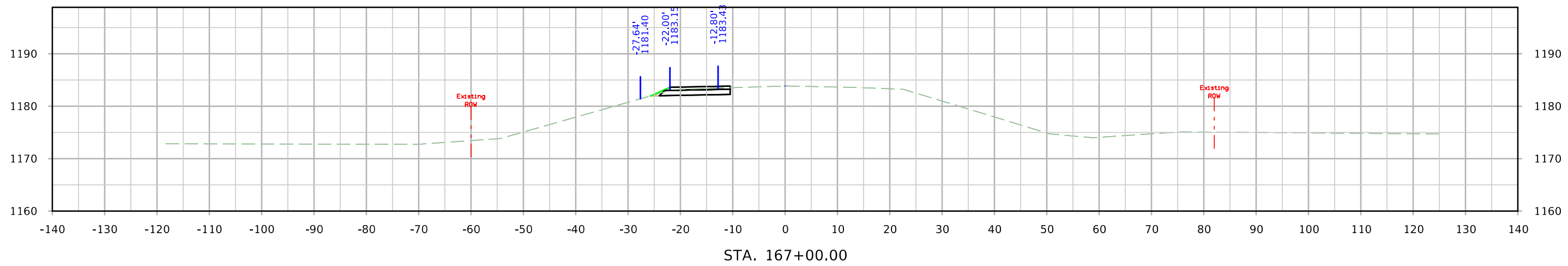
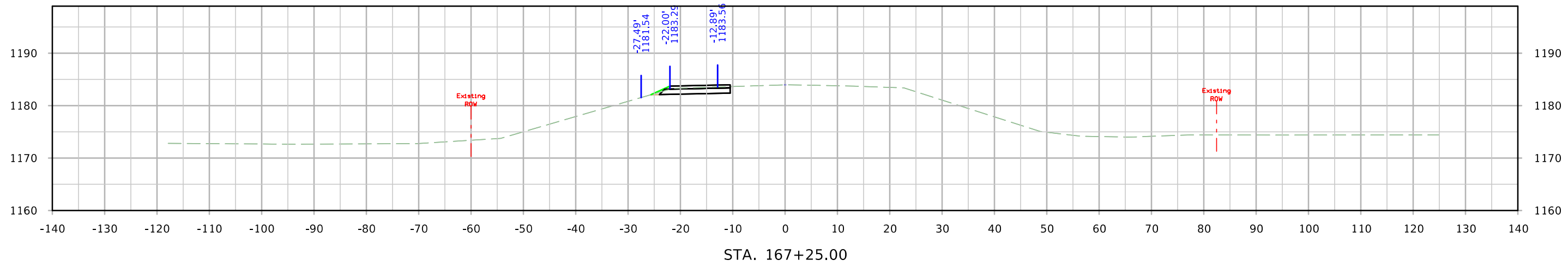
## CROSS SECTIONS LEGEND AND INFORMATION SHEET

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

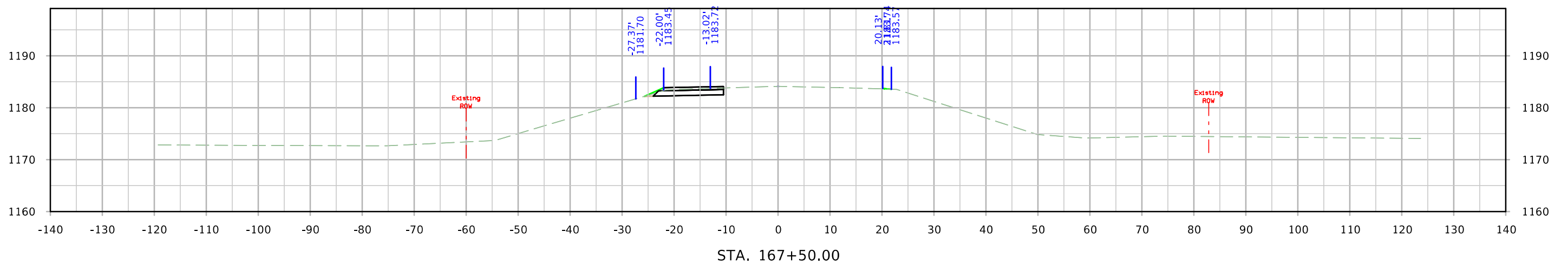
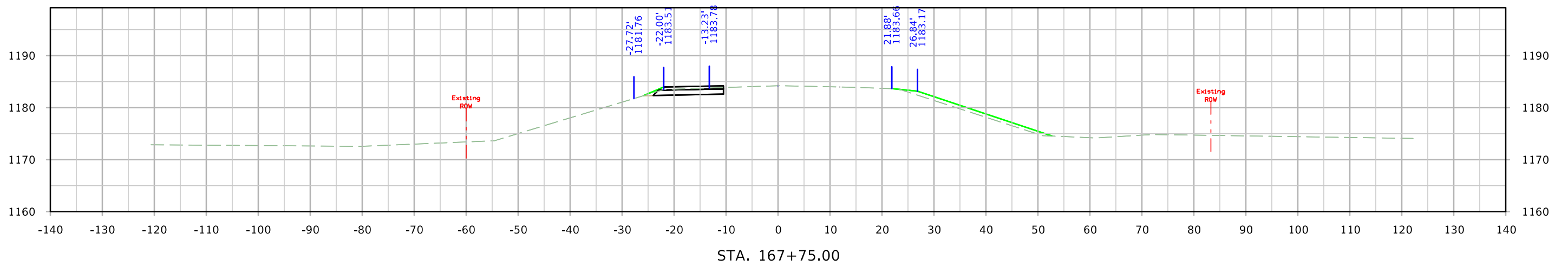
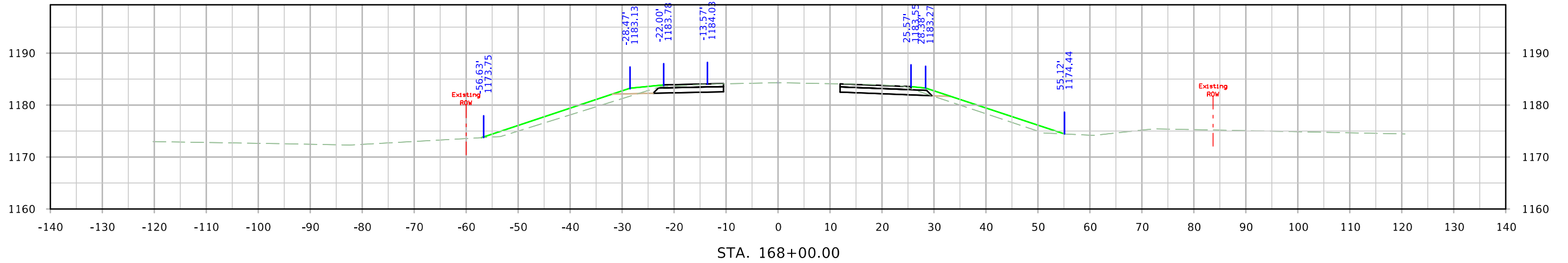
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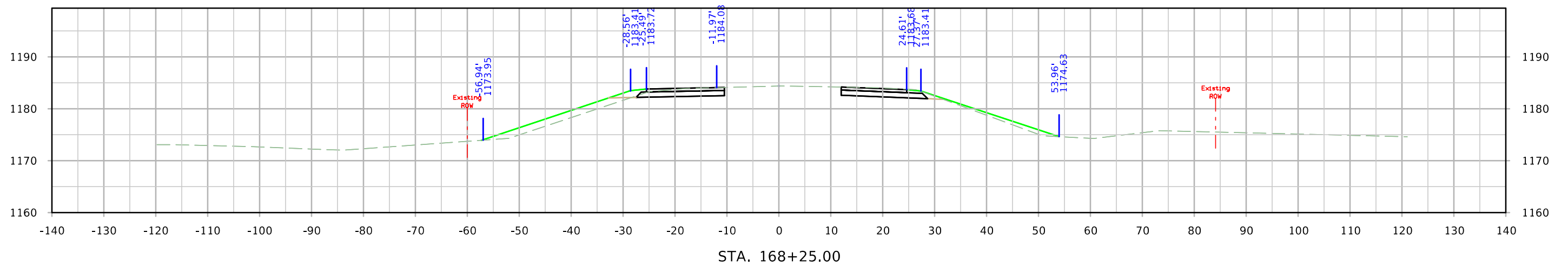
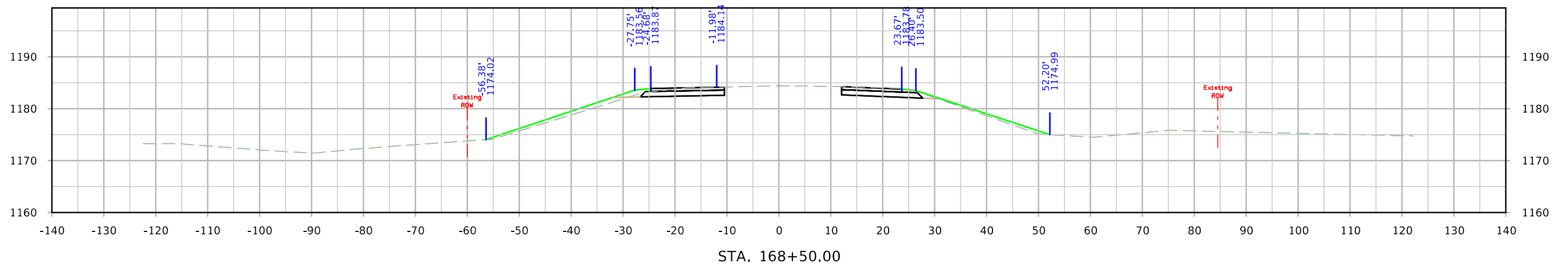
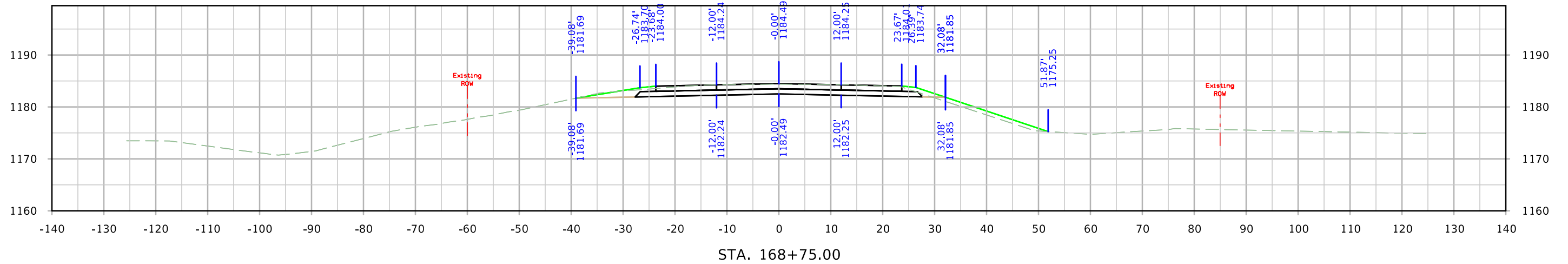
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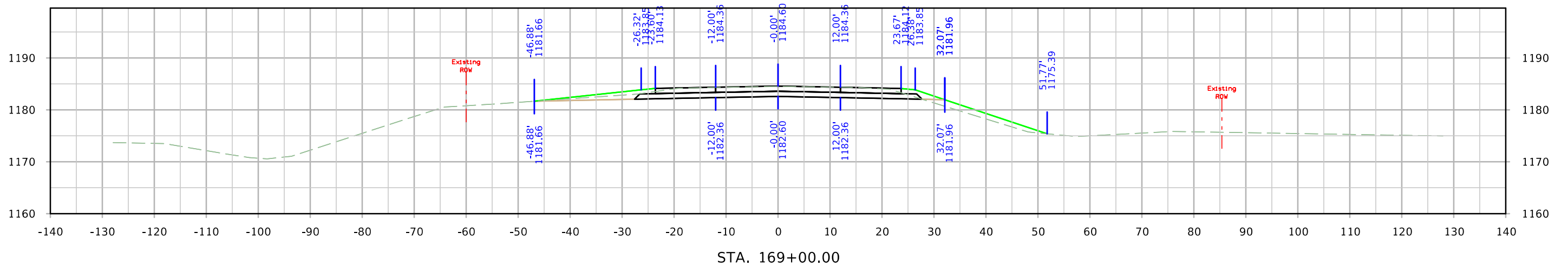
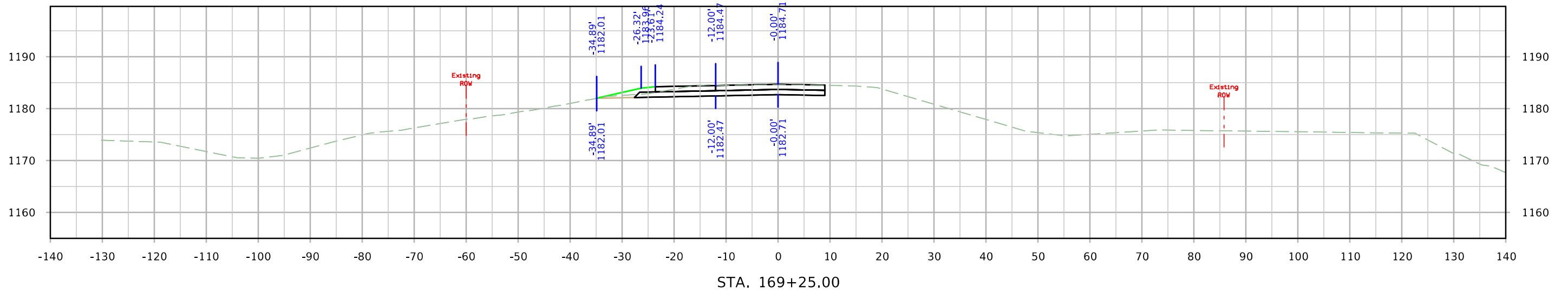
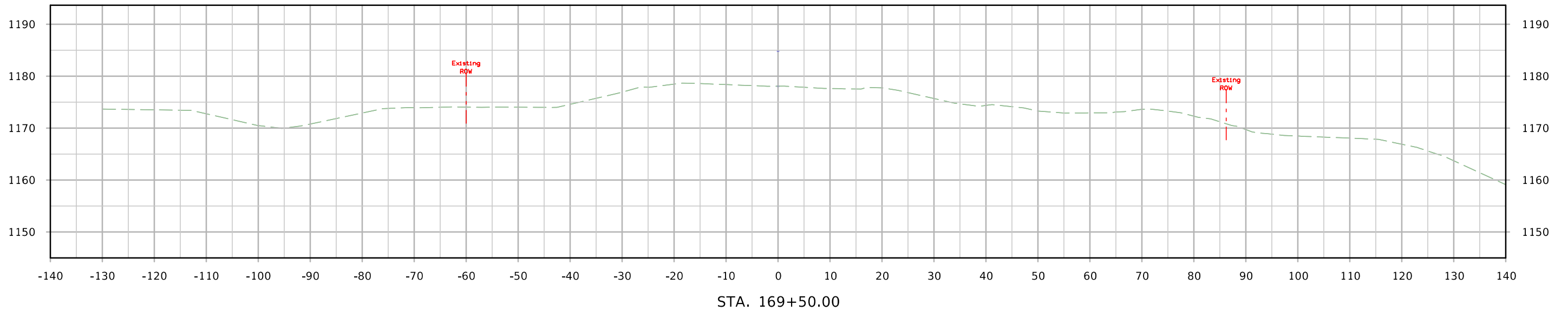
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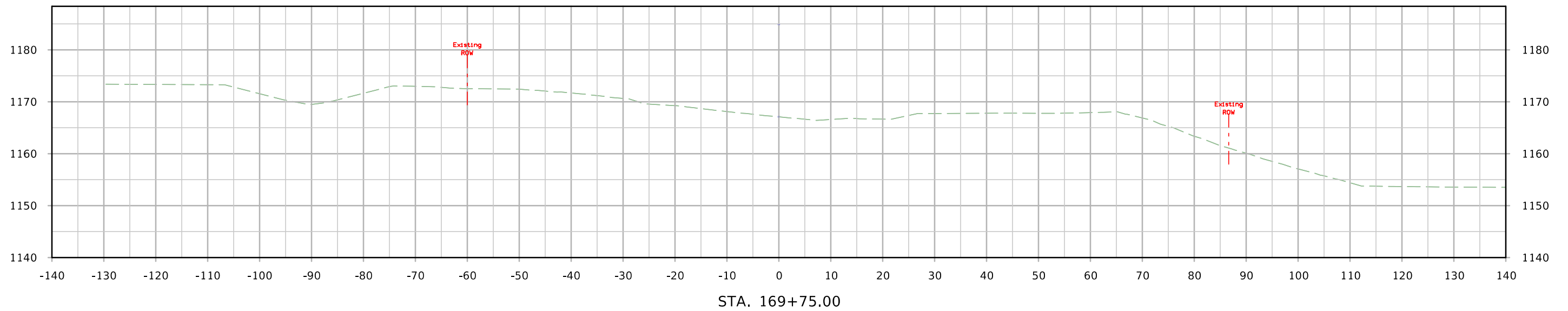
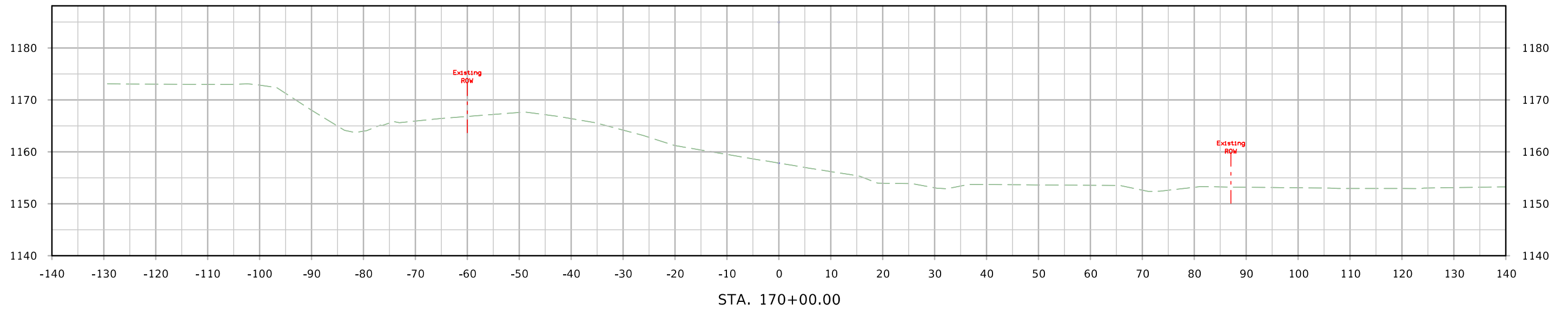
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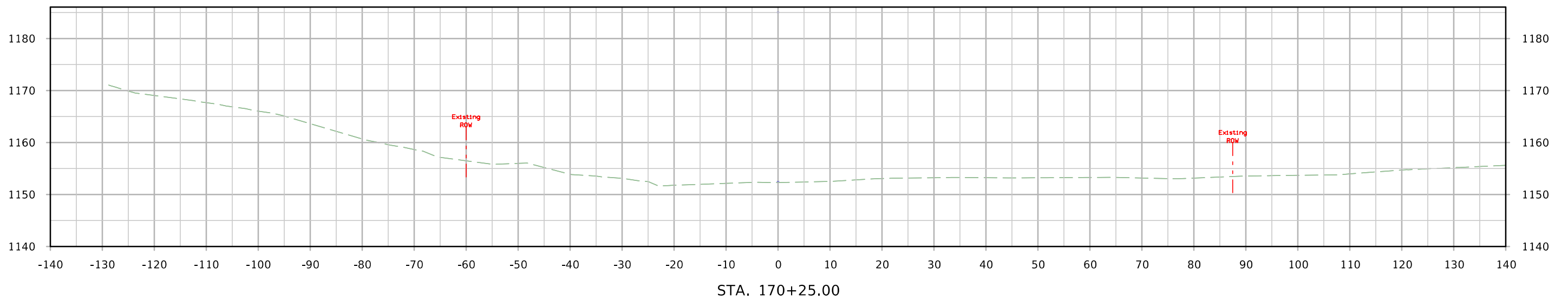
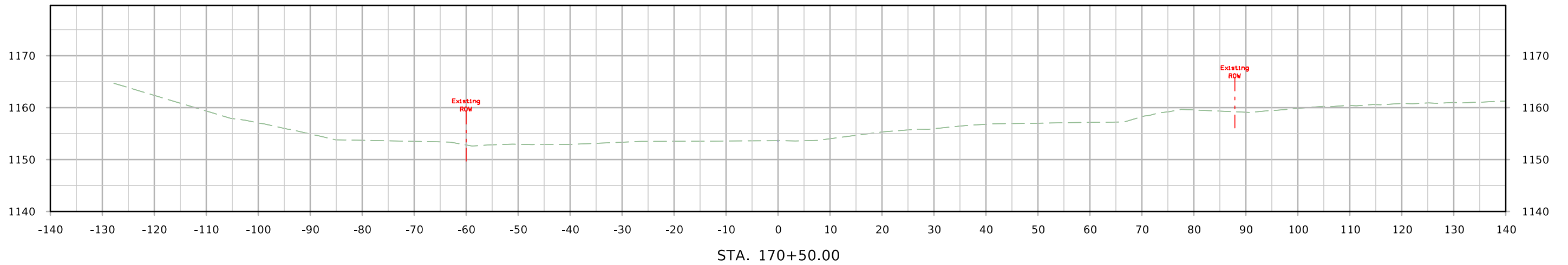
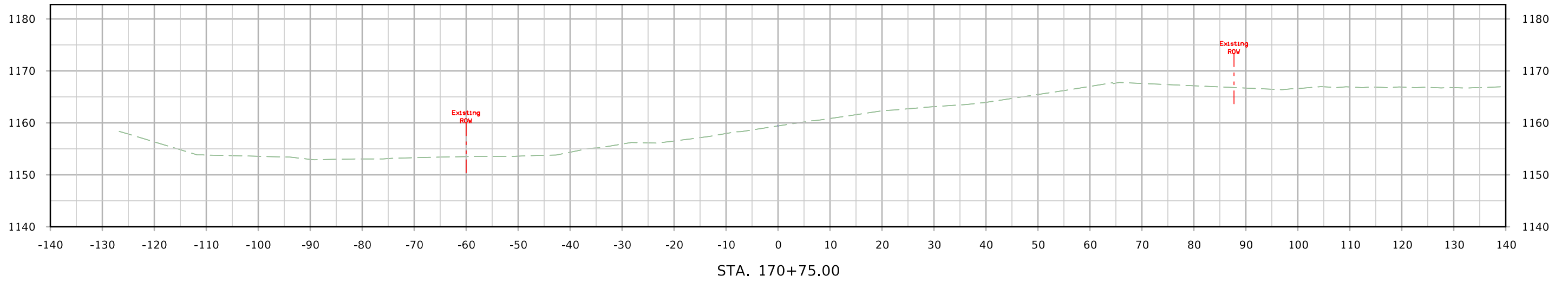
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# ML - IA 92

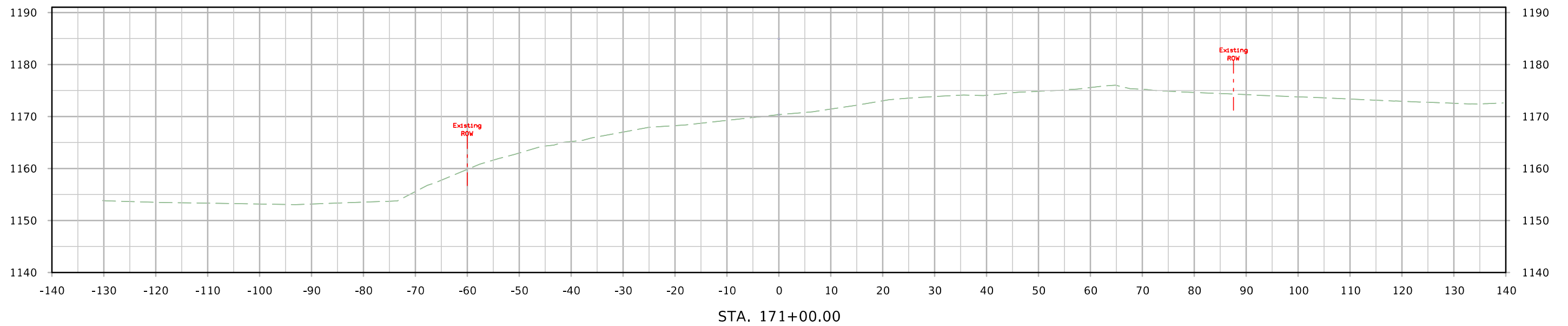
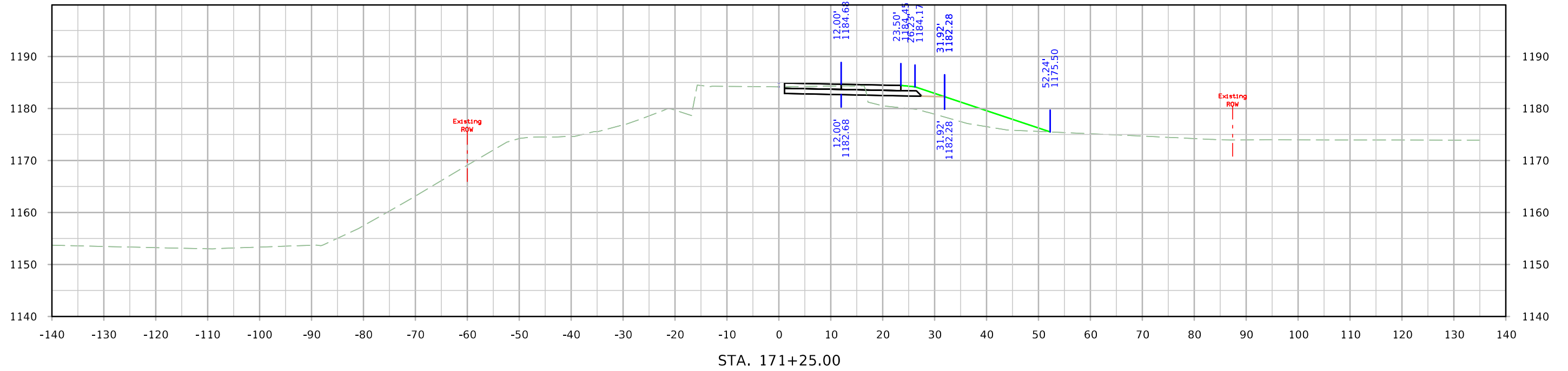


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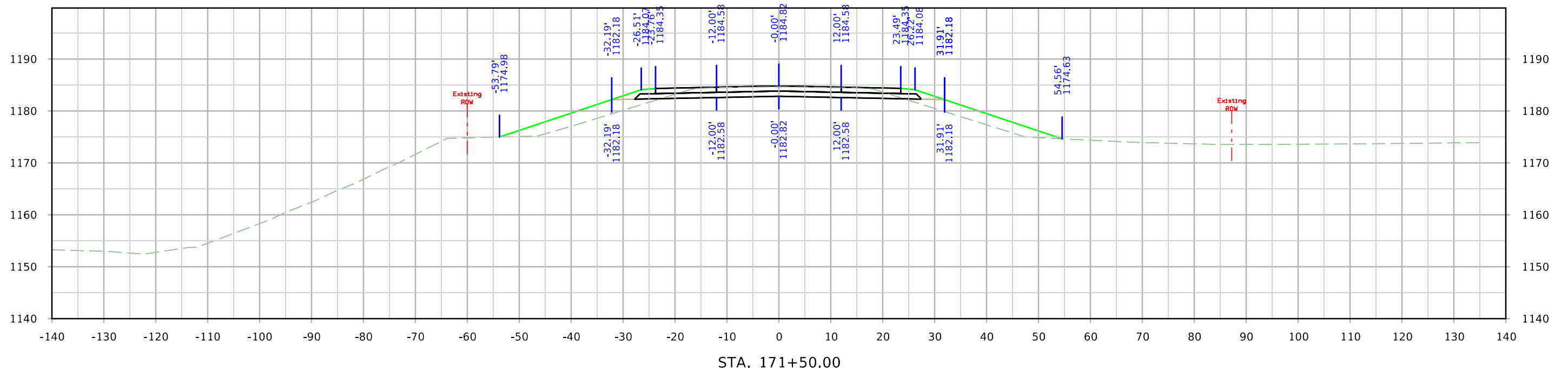
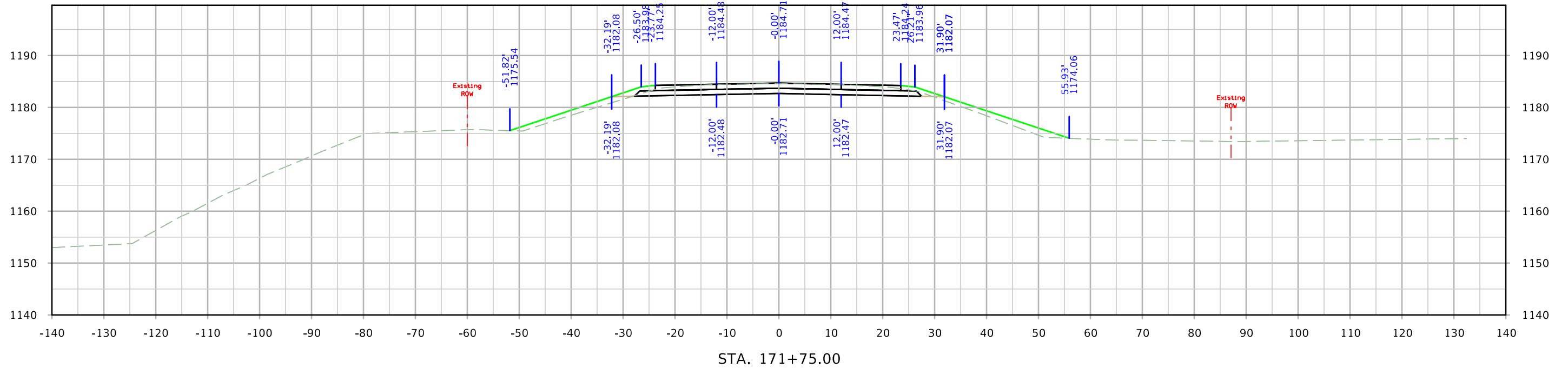




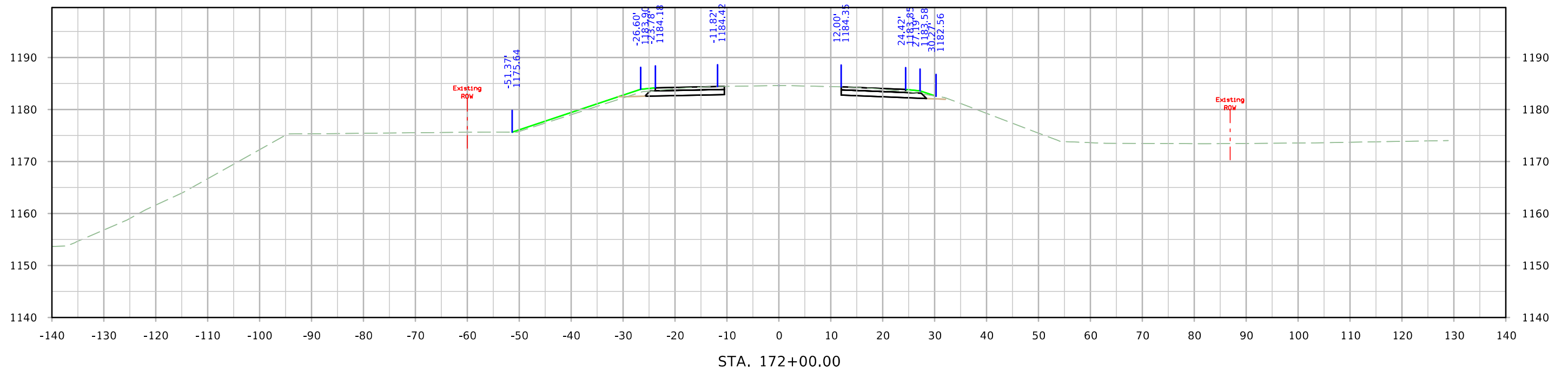
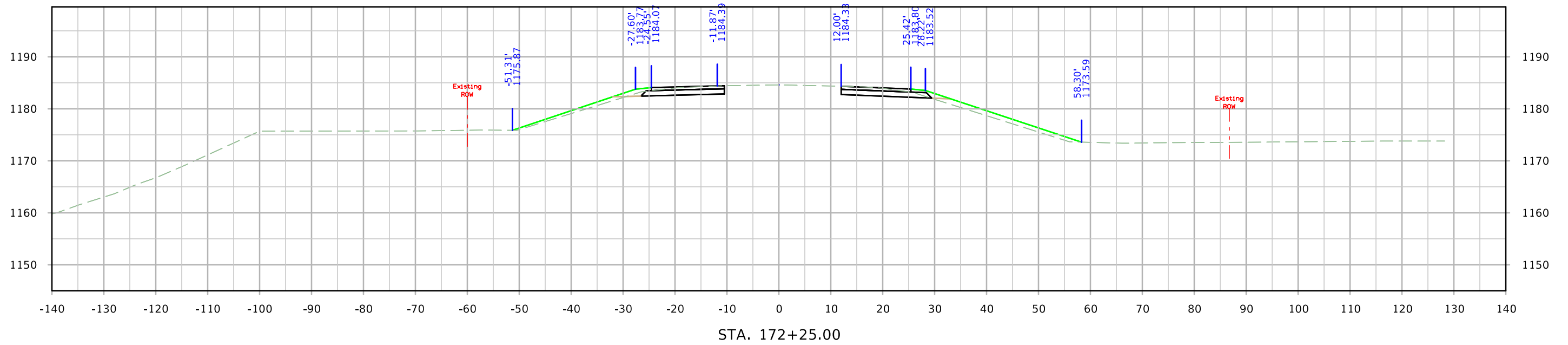
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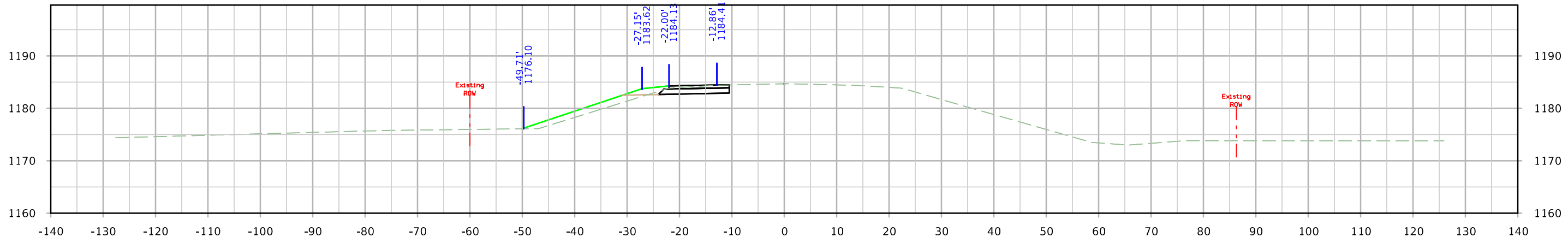
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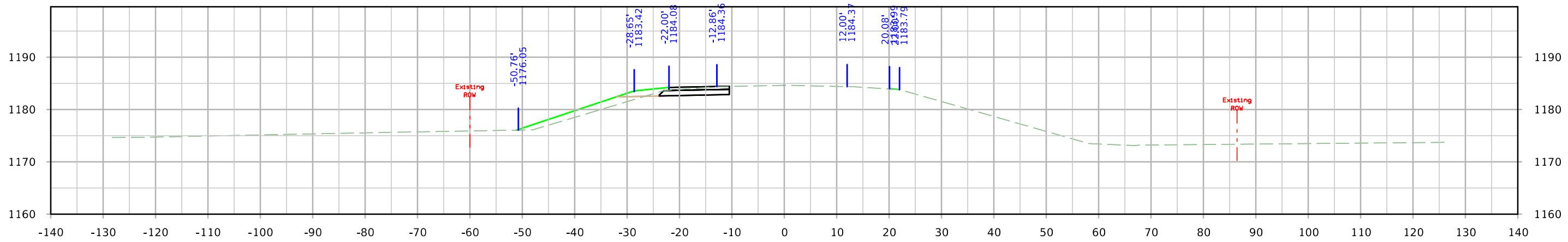
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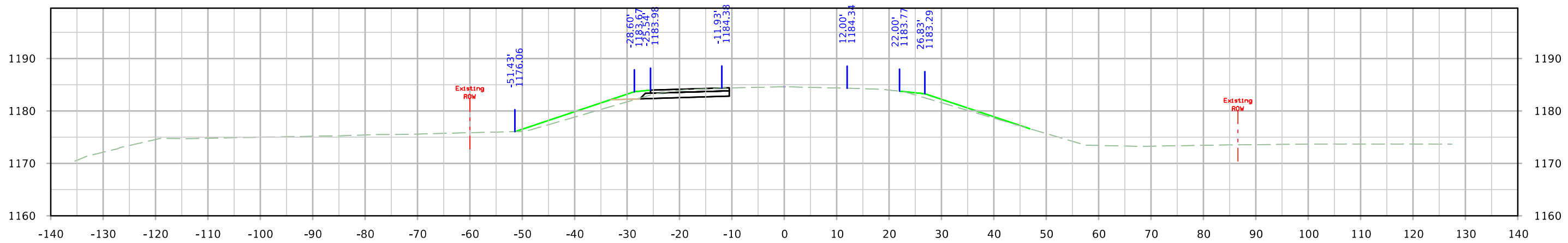
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STA. 173+00.00

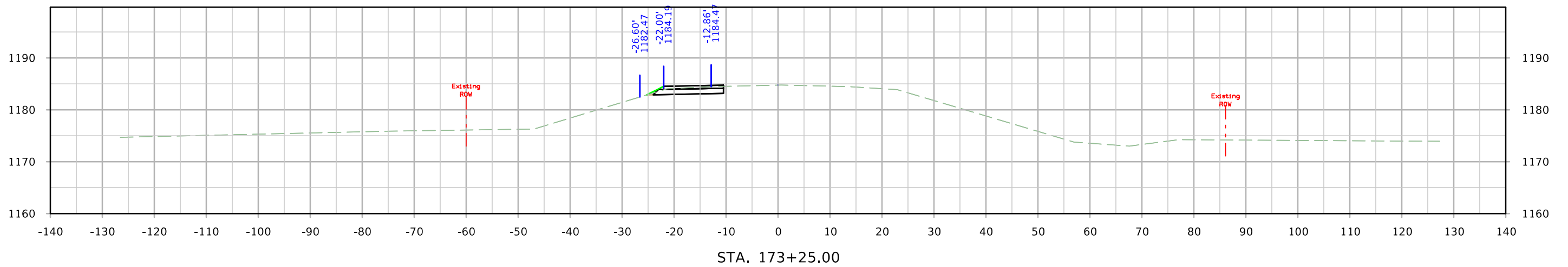
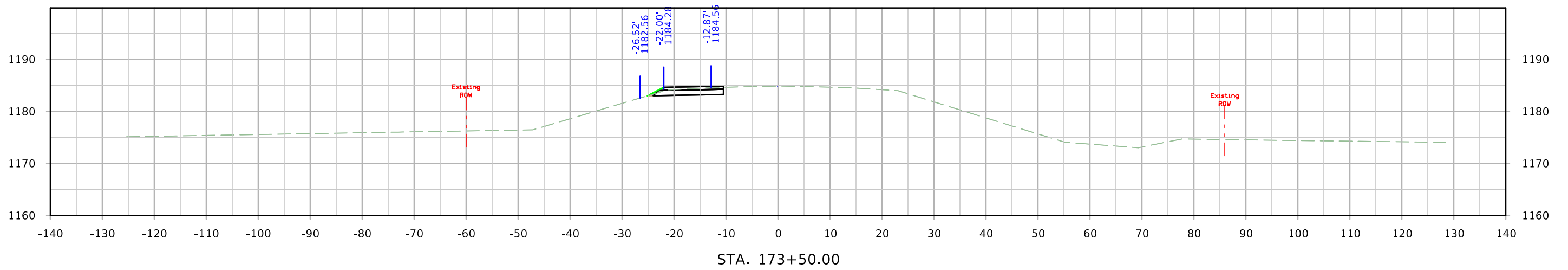
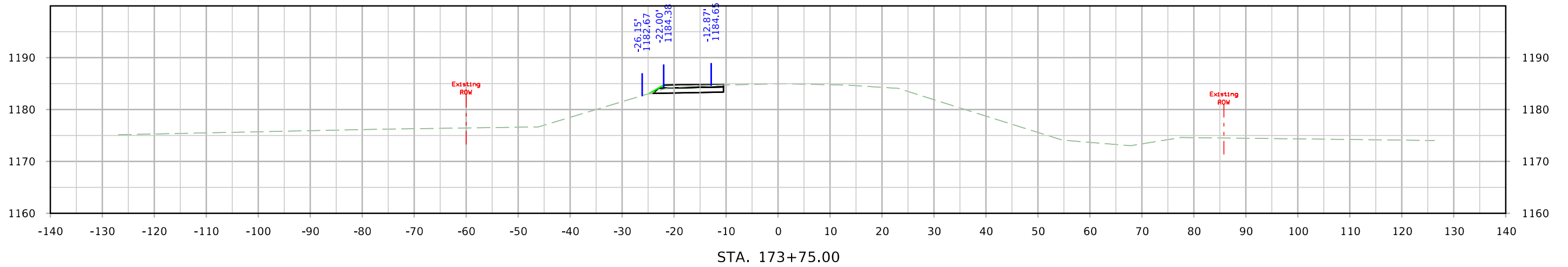


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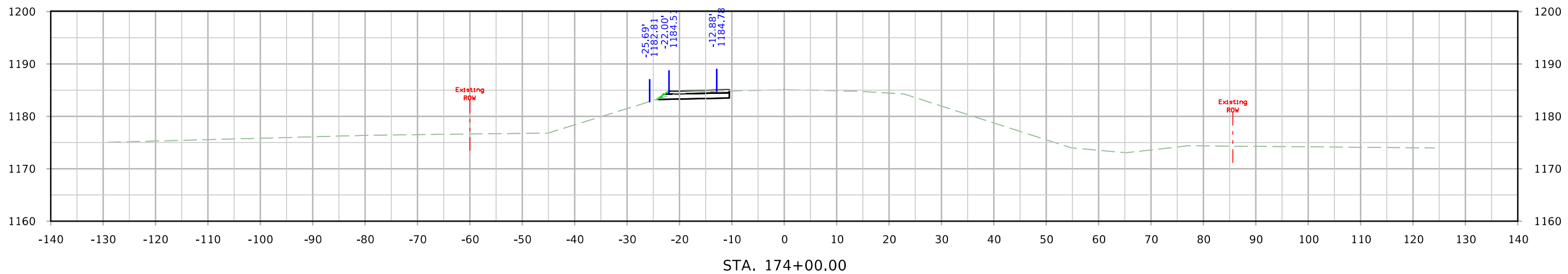
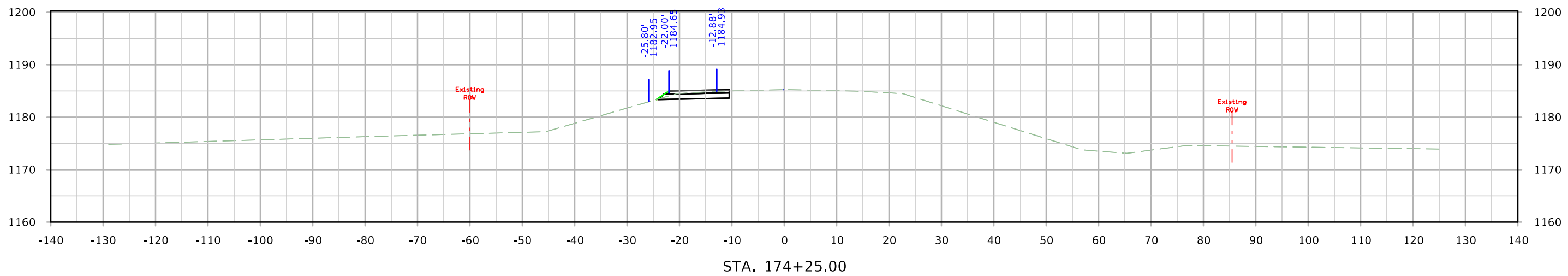
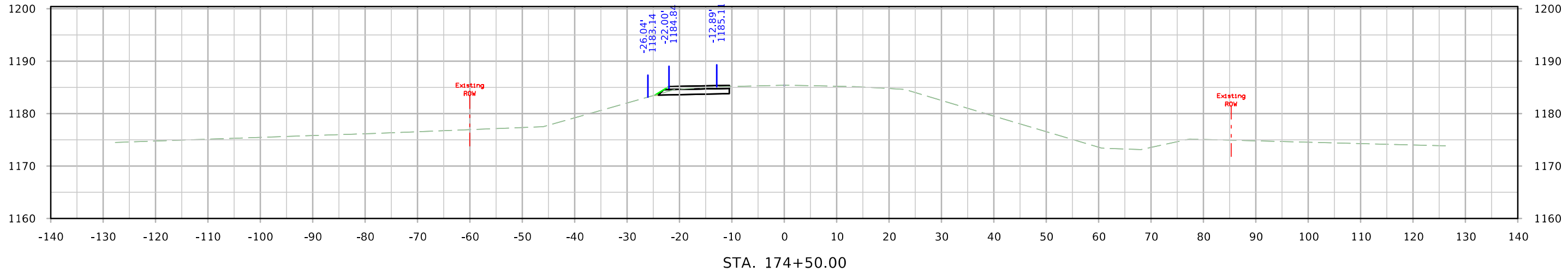


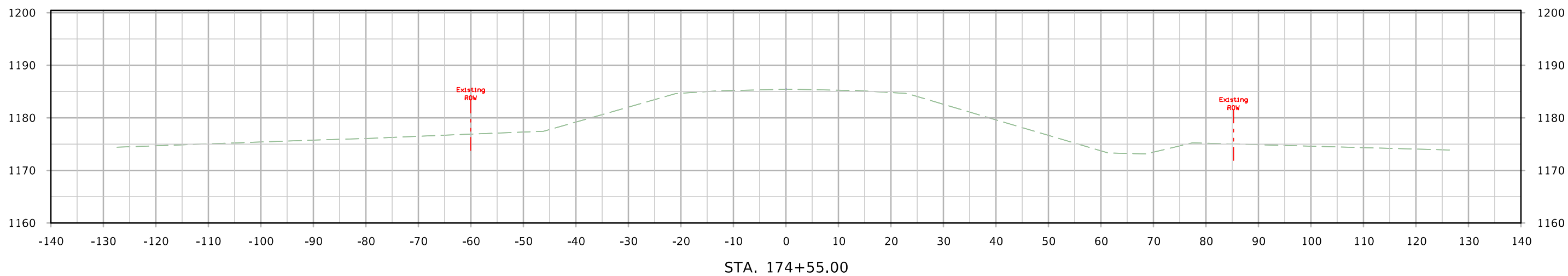
STA. 172+50.00

# ML - IA 92



# ML - IA 92





STA. 174+55.00