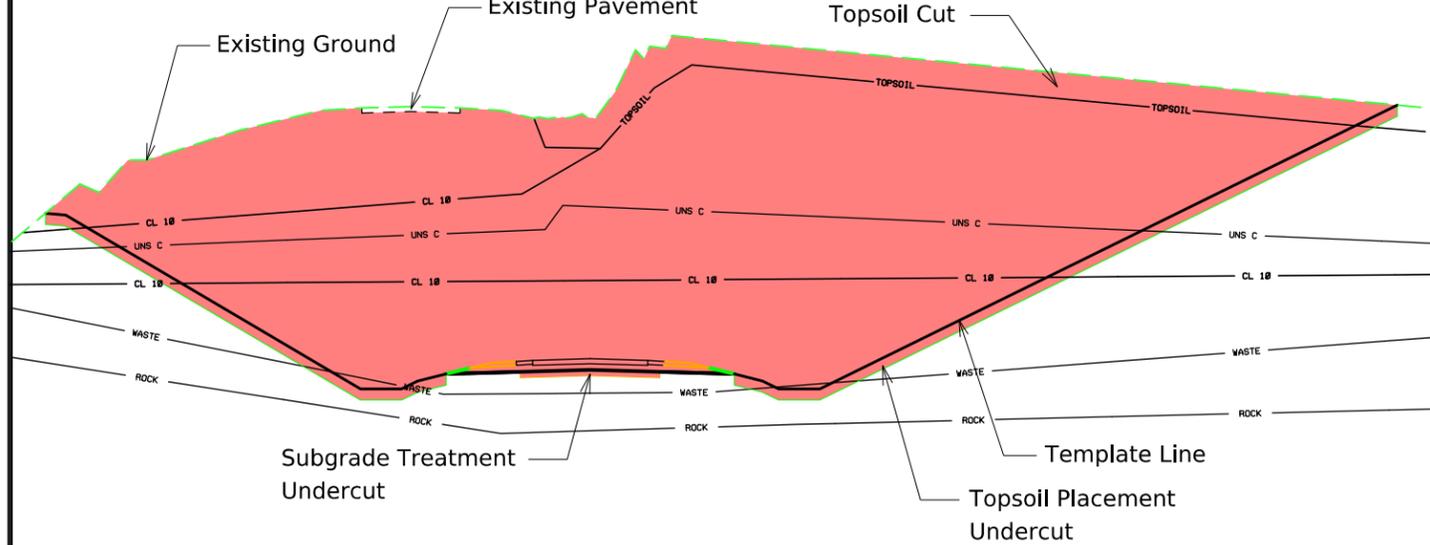


### CUT SIDE Total Cut Unadjusted RURAL



**Notes:**

1. "Total Cut Unadjusted" Column includes all cut values in the Station Range based on Typical, Topsoil and Subgrade Treatment needs.
2. "Total Cut Unadjusted" does not include and Existing Pavement values inside or outside the cut template as shown on cross sections.
3. Tabulated Plowing and Shaping operations are included in the "Total Cut Unadjusted" values.

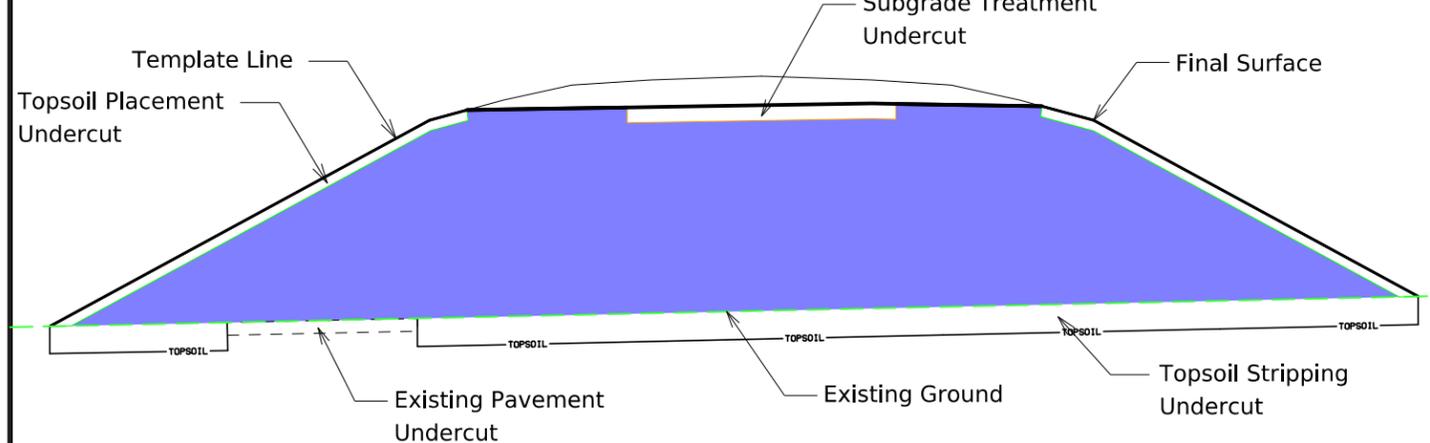
### CUT SIDE Total Cut Adjusted



**Notes:**

1. "Total Cut Adjusted" Column includes all cut values usable as Class 10 material.
2. "Total Cut Adjusted" does not include and Existing Pavement , Existing Topsoil, or material to be wasted.

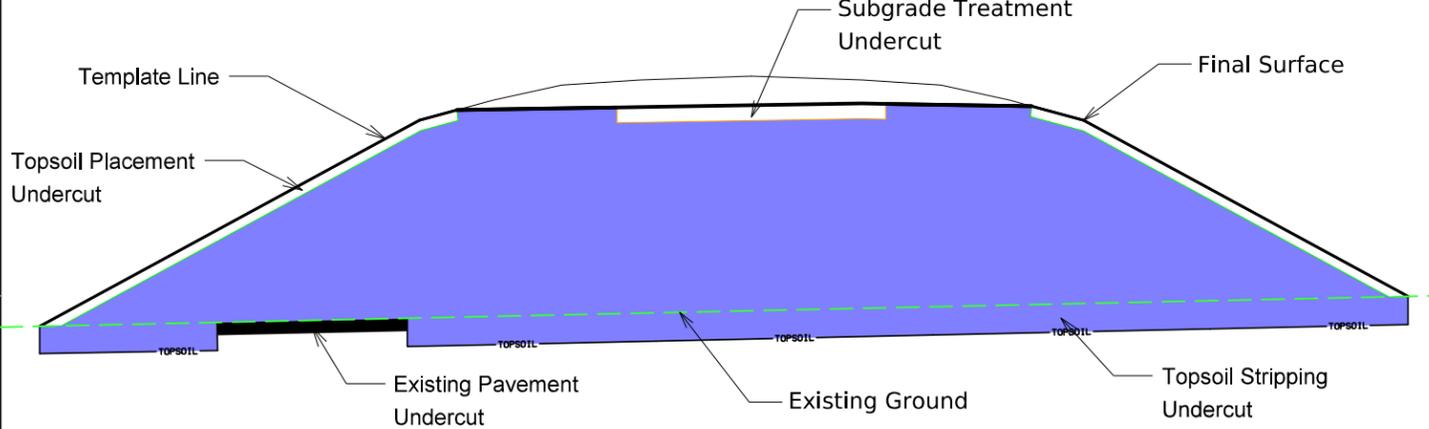
### FILL SIDE Total Fill Unadjusted RURAL



**Notes:**

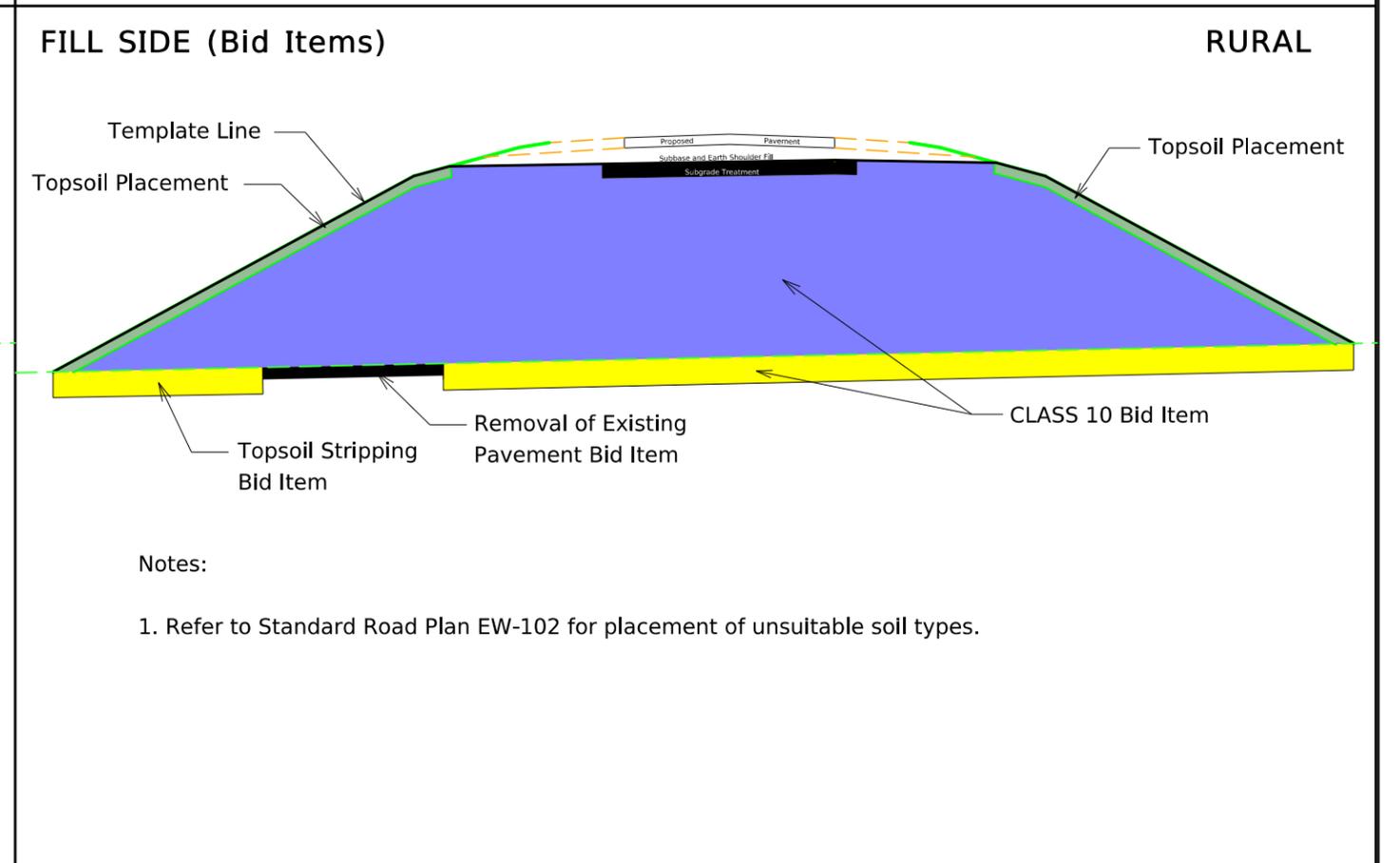
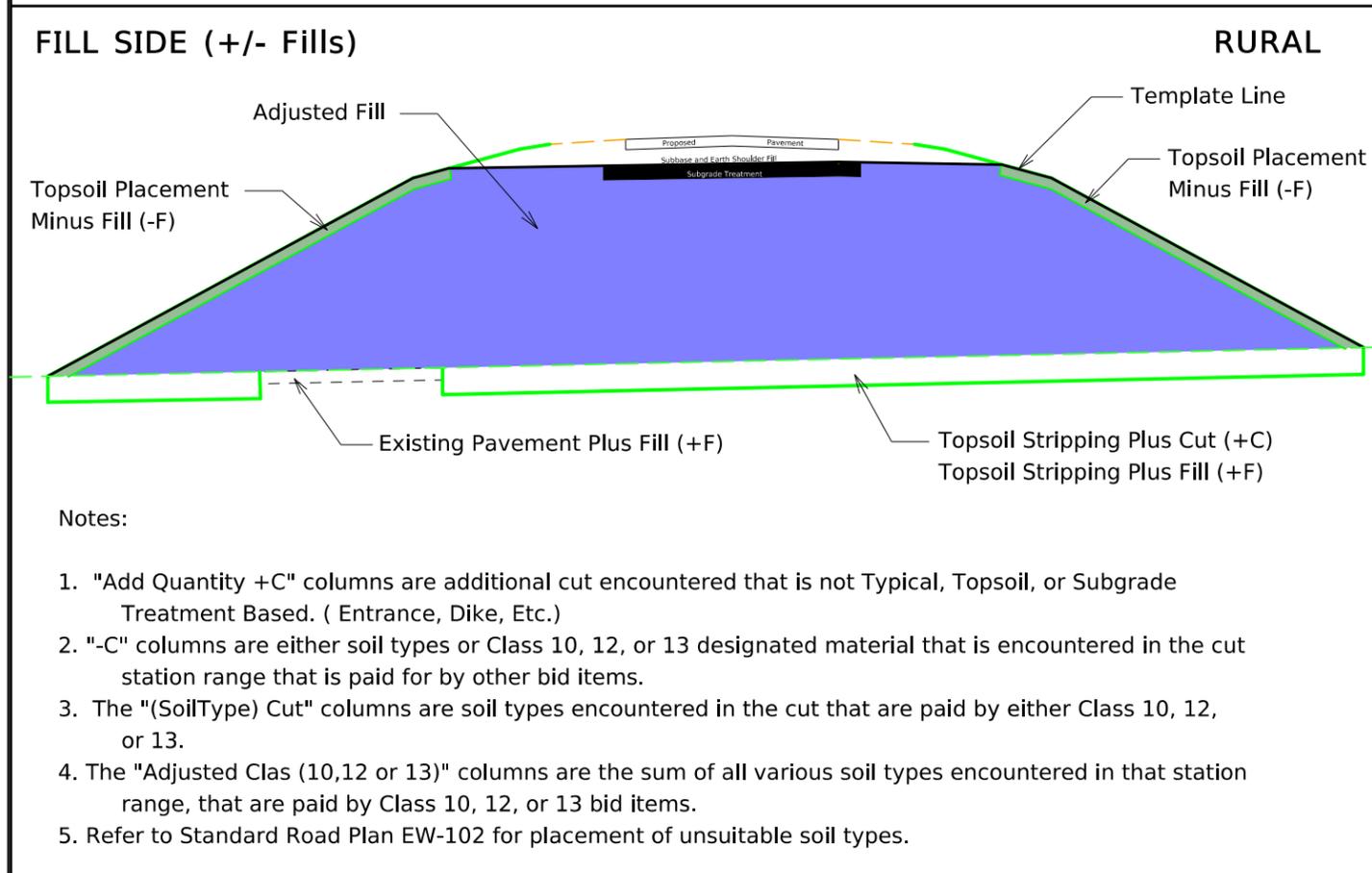
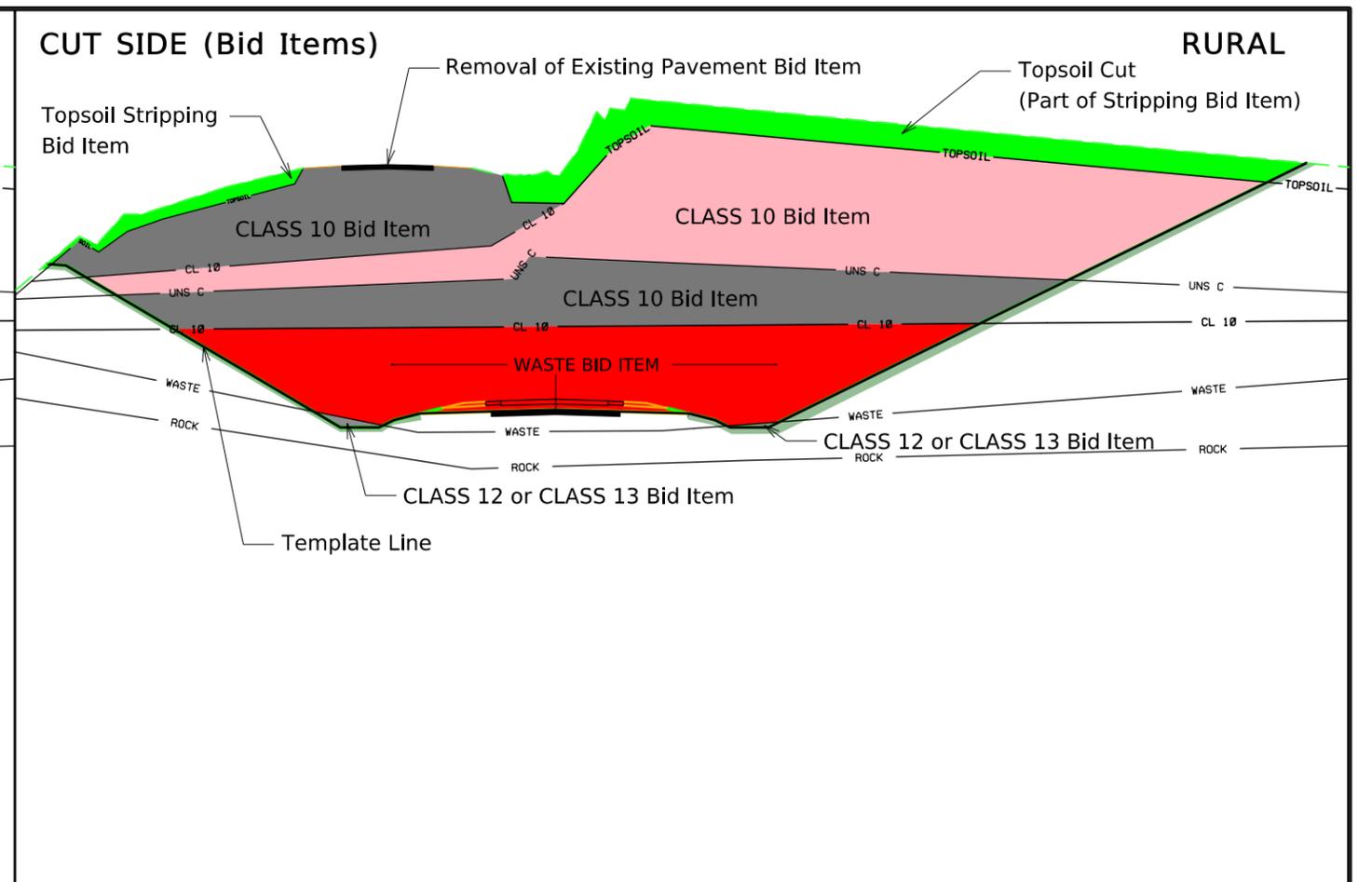
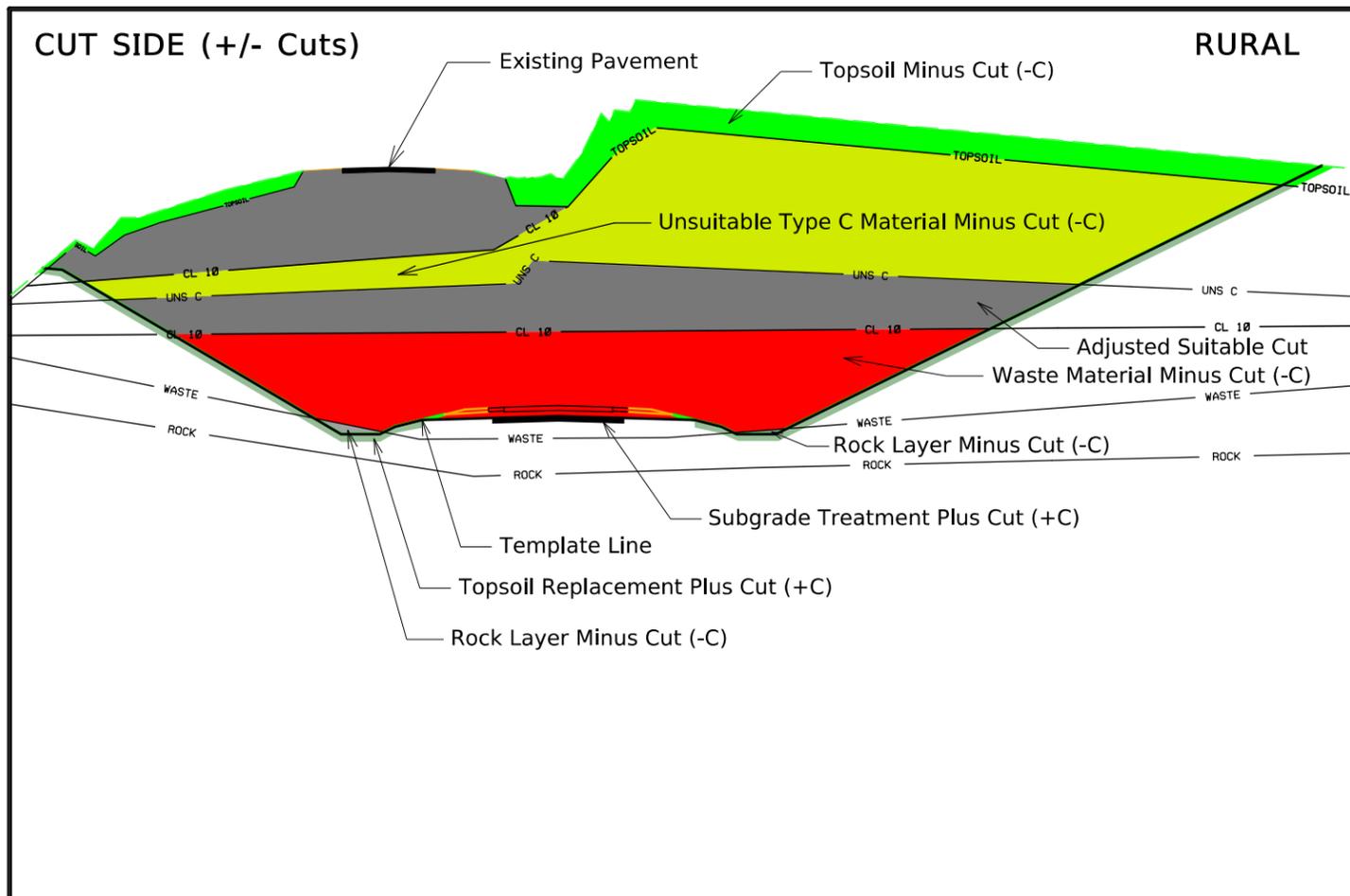
1. "Total Fill Unadjusted" Column includes all Class 10, 12, and 13 fill. This excludes the topsoil, subgrade treatment, subbase, new pavement, and shoulder fill needs in that station range.
2. "Total Fill Unadjusted" Column does not include adjustments for additional fill from cuts such as existing pavement removed, plowing and shaping operations, entrances, dikes, or topsoil stripping.

### FILL SIDE Total Fill Adjusted



**Notes:**

1. "Total Fill Adjusted" Column includes all Class 10, 12, and 13 fill and adjustments for additional fill from cuts such as existing pavement, plowing and shaping operations, entrances, dikes, and topsoil stripping.
2. The available area to place unsuitable materials in the T Sheet tabulation does not include the undercut values from the topsoil stripping, existing pavement, or plowing and shaping



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

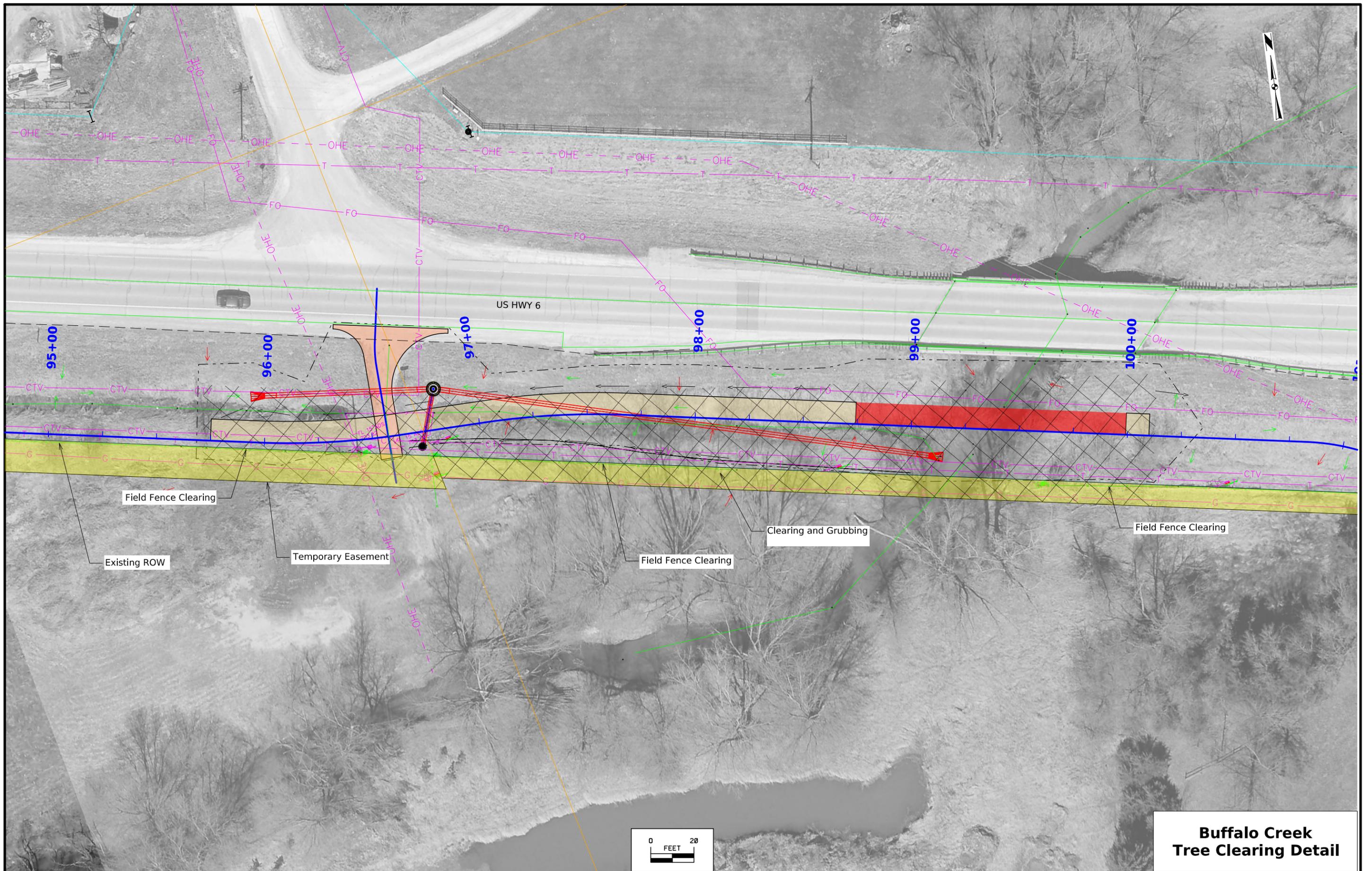
- Notes:
1. Refer to Standard Road Plan EW-102 for placement of unsuitable soil types.

**TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS**

Station	Cut				Fill				Checks (EW-102)		Topsoil				[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]									
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink									
CCT																							
54+50.00	13	3	10	3	2	2	3	0	0	0	10	2	3	7									
54+75.00	13	1	13	1	14	14	18	-17	0	0	13	5	7	6									
55+00.00	16	0	16	0	31	31	41	-41	0	0	16	7	10	6									
55+25.00	19	1	18	1	46	46	60	-60	0	0	18	9	13	5									
55+50.00	20	1	19	1	57	57	74	-73	0	0	19	10	15	5									
55+75.00	24	6	19	6	31	31	40	-35	0	0	19	5	7	11									
56+00.00	20	5	14	5	1	1	1	5	0	0	14	0	0	15									
56+25.00	11	0	11	0	1	1	1	-1	0	0	11	0	0	11									
56+50.00	17	2	15	2	36	36	46	-45	0	0	15	5	7	8									
56+75.00	23	3	19	3	68	68	88	-85	0	0	19	10	14	5									
57+00.00	21	3	18	3	61	61	79	-76	0	0	18	9	13	5									
57+25.00	19	2	17	2	49	49	63	-61	0	0	17	8	11	5									
57+50.00	17	2	15	2	32	32	41	-40	0	0	15	6	9	6									
57+75.00	15	2	13	2	15	15	20	-19	0	0	13	5	6	7									
58+00.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
64+25.00	25	12	12	12	3	3	5	8	0	0	12	0	0	13									
64+50.00	17	2	15	2	19	19	25	-23	0	0	15	0	0	15									
64+75.00	19	0	18	0	53	53	69	-68	0	0	18	0	0	18									
65+00.00	21	0	21	0	91	91	119	-119	0	0	21	0	0	21									
65+25.00	22	0	22	0	126	126	164	-164	0	0	22	0	0	22									
65+50.00	21	0	21	0	152	152	198	-198	0	0	21	0	0	21									
65+75.00	13	0	13	0	98	98	128	-127	0	0	13	0	0	13									
66+00.00	7	0	7	0	16	16	21	-21	0	0	7	0	0	7									
66+25.00	12	0	12	0	76	76	99	-99	0	0	12	0	0	12									
66+50.00	20	0	20	0	155	155	202	-202	0	0	20	0	0	20									
66+75.00	22	0	22	0	151	151	197	-197	0	0	22	0	0	22									
67+00.00	21	0	21	0	131	131	170	-170	0	0	21	0	0	21									
67+25.00	21	1	20	1	106	106	138	-138	0	0	20	0	0	20									
67+50.00	20	1	19	1	86	86	112	-111	0	0	19	0	0	19									
67+75.00	19	0	19	0	71	71	92	-92	0	0	19	0	0	19									
68+00.00	19	0	19	0	55	55	72	-72	0	0	19	9	13	6									
68+25.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
95+75.00	38	18	20	18	7	7	10	9	0	0	20	11	16	4									
96+00.00	27	9	17	9	20	20	26	-16	0	0	17	8	12	6									
96+25.00	25	13	12	13	14	14	19	-6	0	0	12	6	9	4									
96+50.00	21	11	10	11	12	12	16	-5	0	0	10	5	7	3									
96+75.00	12	1	11	1	49	49	64	-63	0	0	11	5	7	4									
97+00.00	15	1	14	1	83	83	108	-108	0	0	14	6	9	6									
97+25.00	16	0	16	0	98	98	128	-128	0	0	16	7	10	7									
97+50.00	18	0	18	0	119	119	155	-155	0	0	18	8	12	6									
97+75.00	19	0	19	0	148	148	192	-192	0	0	19	10	14	5									
98+00.00	20	0	20	0	178	178	231	-231	0	0	20	12	17	4									
98+25.00	19	0	19	0	194	194	252	-252	0	0	19	13	18	1									
98+50.00	15	2	12	2	111	111	144	-142	0	0	12	7	10	3									
98+75.00	2	1	2	1	9	9	12	-11	0	0	2	0	0	2									
98+80.00	4	1	3	1	14	14	18	-18	0	0	3	0	0	3									
98+90.00	3	0	3	0	2	2	3	-3	0	0	3	0	0	3									
99+00.00	8	0	8	0	0	0	0	0	0	0	8	0	0	8									
99+25.00	8	0	8	0	0	0	0	0	0	0	8	0	0	8									
99+50.00	8	0	8	0	0	0	0	0	0	0	8	0	0	8									
99+75.00	3	0	3	0	0	0	0	0	0	0	3	0	0	3									
99+85.00	3	0	3	0	2	2	3	-3	0	0	3	0	0	3									
99+95.00	2	1	2	1	12	12	15	-15	0	0	2	2	3	-1									
100+00.00	7	2	5	2	53	53	69	-68	0	0	5	7	10	-5									
100+10.00	8	0	8	0	49	49	64	-64	0	0	8	7	9	-2									
100+20.00	9	0	9	0	33	33	43	-43	0	0	9	7	9	0									
100+30.00																							
CCT																							
Totals:	856	107	750	107	3,041	3,041	3,955	-3,851	0	0	750	213	299	453									

### TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

Station	Cut				Fill				Checks (EW-102)		Topsoil				[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]									
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink									
Summary:																							
CCT	856	107	750	107	3,041	3,041	3,955	-3,851	0	0	750	213	299	453									
Project Totals:	856	107	750	107	3,041	3,041	3,955	-3,851	0	0	750	213	299	453									
	<u>Excavation, Class 10, Roadway &amp; Borrow</u> [4] 107										<u>Topsoil, Strip, Salvage &amp; Spread</u> [11] 750												
	<u>Embankment in Place, Contractor Furnished</u> 3,851 / 1.3 = 2,962 [8] / 1.3																						



Field Fence Clearing

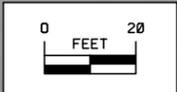
Existing ROW

Temporary Easement

Field Fence Clearing

Clearing and Grubbing

Field Fence Clearing



**Buffalo Creek  
Tree Clearing Detail**

**ESTIMATED BRIDGE QUANTITIES**

ITEM NO.	ITEM CODE	ITEM	UNIT	TOTAL
1	2402-2720000	EXCAVATION, CLASS 20	CY	95
2	2403-0100010	STRUCTURAL CONCRETE (BRIDGE)	CY	66.3
3	2404-7775005	REINFORCING STEEL, EPOXY COATED	LB	6156
4	2414-6460000	ORNAMENTAL METAL RAILING	LF	80
5	2429-0000100	PRE-ENGINEERED BRIDGE	EACH	3
6	2501-0201057	PILES, STEEL, HP 10 X 57	LF	1560

**ESTIMATE REFERENCE INFORMATION**

Item No.	Item Code	Description
1	2402-2720000	EXCAVATION, CLASS 20 Includes excavation for west & east abutment for all three bridges. Includes furnishing and placing subdrains (including excavation) and subdrain outlet at abutments. Includes furnishing and placing porous backfill, geotextile fabric, and water flooding. See Sheet V.02.
2	2403-0100010	STRUCTURAL CONCRETE (BRIDGE) Includes furnishing and placing concrete for six abutments, and twelve abutment wings. Structural concrete shall be class C. Contractor shall provide certified plant inspection. Includes furnishing and placing 3 inch diameter pvc plastic pipe and expanding foam in the abutment wings. See Sheet V.02.
3	2404-7775005	REINFORCING STEEL, EPOXY COATED
4	2414-6460000	ORNAMENTAL METAL RAILING Refer to Sheet V.13.
5	2429-0000100	PRE-ENGINEERED BRIDGE Bridge shall be manufactured by a company on the approved list as per I.M. 557. Finish of bridge shall be weathering steel.  Bridges shall be steel-truss superstructures at 60'-0" x 12'-0", 50'-0" x 12'-0", and 125'-0" x 12'-0".  Includes all costs associated with design, fabrication, delivery, erection, and assembly of the pre-engineered steel truss bridges. Includes the cost of all materials, equipment, and labor necessary to install the bridge. The bridge manufacturer shall design the bridge to fit within the substructure as detailed in these plans. These plans assume the anchor bolts at each abutment will be located on the inside face of the truss below the deck. Includes cost of epoxy coated rebar, structural concrete deck, and metal form pan and all labor and equipment to install these items. A Certified Plant Inspection shall be required for the reinforced concrete deck of the trail bridges. See V Sheets for additional information.
6	2501-0201057	PILE, STEEL, HP 10X57 Includes cost to furnish and install all piles at abutments. Refer to sheet V.11.

**Structural Design**

	I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.	
	Signature Tim McDermott	Date 01-28-2026
	Printed or Typed Name Tim McDermott	
	My license renewal date is December 31, 2027	
Pages or sheets covered by this seal: Sheet V.1 through V.14		

DESIGN FOR 0°SKEW  
**PEDESTRIAN BRIDGES  
STEEL TRUSS**

**BRIDGE QUANTITIES**  
CLEAR CREEK TRAIL  
**JOHNSON COUNTY**

JANUARY, 2026

DESIGN SHEET NO. 1 OF 14



## General Notes:

This design is for the construction of three pre-engineered steel truss trail bridges as a part of the Clear Creek Trail. The three bridges are as follows:

1. 60'x12' West Bridge over unnamed creek.
2. 50'x12' Middle Bridge over Pig Run.
3. 125'x12' East Bridge over Buffalo Creek.

These bridges shall be designed based on the following live loads:  
90 psf uniform live load on the full deck area or one 20,000 lb vehicle load.

Utility companies whose facilities are shown on the plans or known to be within the construction limits shall be notified by the bridge contractor of the starting date.

Class 20 excavation material unsuitable for backfilling shall be disposed of in a manner that will leave the site in a neat condition. It shall be the Bridge Contractor's responsibility to provide sites for excess excavated material. No payment for overhaul will be allowed for material hauled to these sites.

Minimum clear distance from face to face of concrete to near reinforcing bar is to be 2" unless otherwise noted or shown.

No waiting time required between completion of abutment fill and driving piles.

Concrete forms are required to remain in place 5 days or longer in accordance with Article 2403.03,M,2, of the Standard Specifications, except the minimum concrete flexural strength required before removal of forms shall be 575 psi.

The Bridge Contractor is to install subdrains behind the abutments as detailed. The subdrains shall be 4" diameter perforated subdrain (polyethylene corrugated tubing). The subdrain shall include a metal pipe outlet section with a removable rodent guard as detailed in these plans.

Keyway dimensions shown on the plans are based on nominal dimensions unless stated otherwise. In addition, the bevel used on the keyway shall be limited to a maximum of 10 degrees from vertical.

These bridge plans label all reinforcing steel with english notation (5a1 is  $\frac{5}{8}$  inch diameter bar). English reinforcing steel received in the field may display the following "Bar Designation". The "Bar Designation" is the stamped impression on the reinforcing bars, and is equivalent to the bar diameter in millimeters.

English Size	3	4	5	6	7	8	9	10	11
Bar Designation	10	13	16	19	22	25	29	32	36

All reinforcing bars and bars noted as dowels supplied for this structure shall be deformed reinforcement unless otherwise noted or shown.

## Specifications:

Design: AASHTO LRFD 10th Ed, Series of 2024, except as noted in the current Iowa Bridge Design Manual.

Construction: Iowa Department of Transportation Standard Specifications for Highway and Bridge Construction, Series 2023, Plus applicable General Supplemental Specifications, Developmental Specifications, Supplemental Specifications and special provisions shall apply to construction work on this project.

## Design Stresses:

Design stresses for the following materials are in accordance with the AASHTO LRFD Bridge Design Specifications, 10th Ed, Series of 2024, except as noted in the current Iowa Bridge Design Manual.

Reinforcing steel in accordance with AASHTO LRFD Section 5, Grade 60 for epoxy coated and non-coated, and Grade 60 or 75 for stainless.

Concrete in accordance with AASHTO LRFD Section 5,  $f'c = 4.0$  ksi.

Structural steel in accordance with AASHTO LRFD Section 6, ASTM A709 Grade 36, Grade 50, and Grade 50w ( AASHTO M270 Grade 36, Grade 50, and Grade 50w).

## Pre-Engineered Bridge Notes:

Values noted here are taken from AASHTO LRFD Guide Specification for the Design of Pedestrian Bridges, 2009.

The pre-engineered bridge shall be designed as specified in the General Notes.

Vertical and lateral deflections shall be limited to L/360, due to vertical and lateral loads, respectively.

The pre-engineered bridge shall be a steel-truss, fabricated using weathering steel.

Safety and rub rails shall be horizontal, with the top railings a minimum of 48 inches above the bridge deck.

The bridge railings shall extend as required to meet the wingwall safety fence.

The bridges shall be designed to withstand applicable effects of ice and horizontal stream loads as well as uplift forces associated with the  $Q_s$  flood elevation.

Truss bearing values for substructure design shall not exceed (per bearing):

Maximum Allowable Bearing Loads (kips)					
	DL	LL	WL (transverse) (2 bearings)	WL (uplift)	Thermal (longitudinal)
<b>West Bridge (60'-0" x 12'-0")</b>					
West Abut.	7.3	8.1	6.1	2.9	1.1
East Abut.	7.3	8.1	6.1	2.9	1.1
<b>Middle Bridge (50'-0" x 12'-0")</b>					
West Abut.	6.1	6.8	4.9	2.3	0.9
East Abut.	6.1	6.8	4.9	2.3	0.9
<b>East Bridge (125'-0" x 12'-0")</b>					
West Abut.	18.8	17.6	20.9	6.5	2.8
East Abut.	18.8	17.6	20.9	6.5	2.8

If these values are exceeded, contact Engineer.

A deck joint cover plate shall be furnished and installed by the truss manufacturer.

Contractor to provide and place all reinforcing steel per pre-engineered bridge drawings.

All rebar provided in the concrete deck shall be Grade 60 and be epoxy coated.

Concrete deck shall be structural concrete with a minimum compressive strength ( $F'c$ ) of 4000psi. Concrete deck finish to receive a transverse broom finish.

Any changes in quantities due to the change of dimensions shown on these plans shall be incidental to the price bid for "PRE\_ENGINEERED STEEL TRUSS TRAIL BRIDGE."

Certain dimensions as shown in these plans may require adjustment to match the dimensions of the actual truss provided. All adjusted dimensions, anchor bolt requirements, and anchor bolt loads shall be submitted to the Engineer for review prior to construction. The truss bearing plate shall be sized so that the allowable bearing stress on the abutment is not exceeded.

Abutment details shown in these plans have been established for a 2'-6" height from the bottom of truss bearing to the top of the deck. For other heights, the contractor may modify dimensions shown in these plans. The contractor shall submit details of all modifications to the Engineer for approval before work has started. All proposed changes must maintain the specified grade and camber.

## Working Drawing and Calculation Submittals

No.	Working Drawing Description	Certified by Iowa P.E. (Yes/No)
1	Ornamental Metal Railing	No
2	Pre-Engineered Pedestrian Bridge, 50'-0" x 12'-0"	Yes
3	Pre-Engineered Pedestrian Bridge, 60'-0" x 12'-0"	Yes
4	Pre-Engineered Pedestrian Bridge, 125'-0" x 12'-0"	Yes
5		
No.	Calculation Description	Certified by Iowa P.E. (Yes/No)
6	Pre-Engineered Pedestrian Bridge Design	Yes
7		

Submit drawings & calculations to:  
Tim McDermott, P.E.  
mcdermotttim@stanleygroup.com

Stanley Consultants, Inc.  
100 Court Ave, Ste 300  
Des Moines, IA 50309

Class 20 excavation quantities are based on the assumption that the channel excavation is completed prior to starting construction of the abutments.

The channel excavation is shown on the trail plans and is to be completed before abutment piles are driven. the bridge contractor is to level off and shape the berms at abutment locations to the elevations and dimensions shown.

It shall be the bridge contractor's responsibility to provide sites for excess excavated material. no payment for overhaul will be allowed for material hauled to these sites.

Utility companies whose facilities are shown on the plans or known to be within the construction limits shall be notified by the bridge contractor of the starting date.

The contractor shall visit the site to ensure he or she is familiar with the existing conditions.

All bridge concrete incorporated into this project shall require Iowa DOT certified plant inspection. It is the contractor's responsibility to supply an Iowa DOT certified plant inspector for these activities. the certified plant inspector shall coordinate his or her activities with the grade inspector and the project Engineer.

All concrete for this project shall use class 3 aggregates.

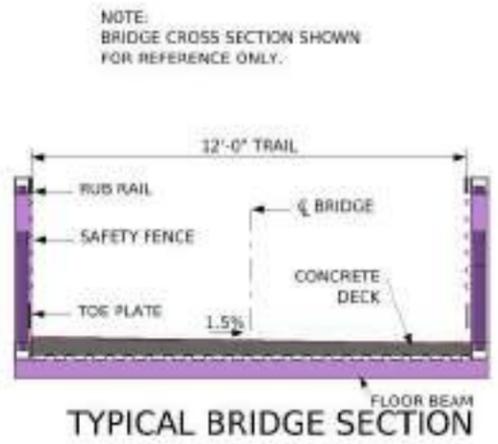
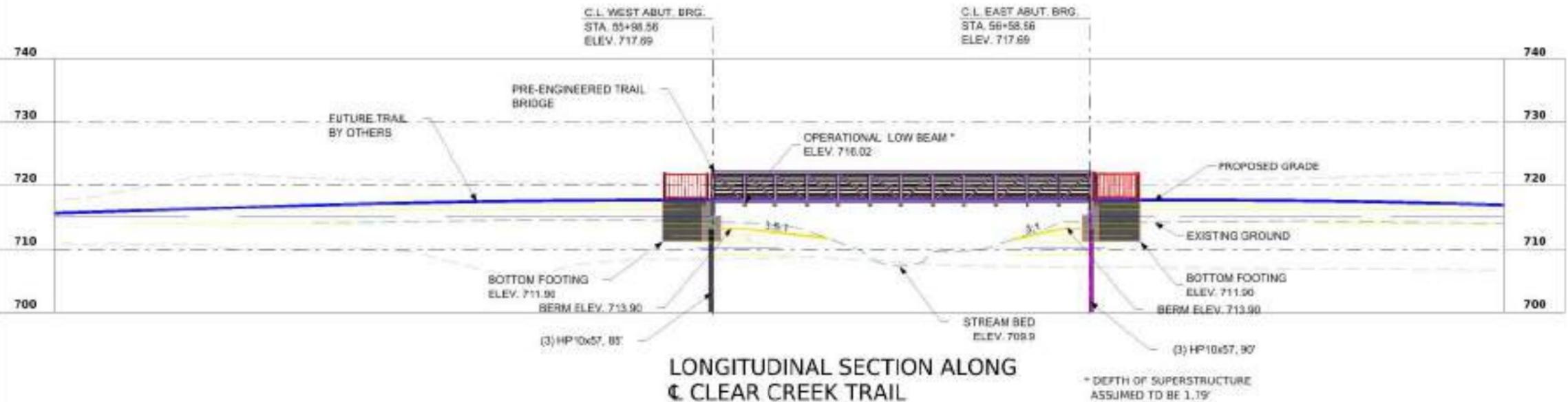
All exposed corners 90 degrees or sharper are to be filleted with a  $\frac{3}{4}$ " dressed and beveled strip.

DESIGN FOR 0°SKEW  
**PEDESTRIAN BRIDGES  
STEEL TRUSS**

**GENERAL NOTES**  
CLEAR CREEK TRAIL  
**JOHNSON COUNTY**

JANUARY, 2026

DESIGN SHEET NO. 3 OF 14



**HYDRAULIC DATA**

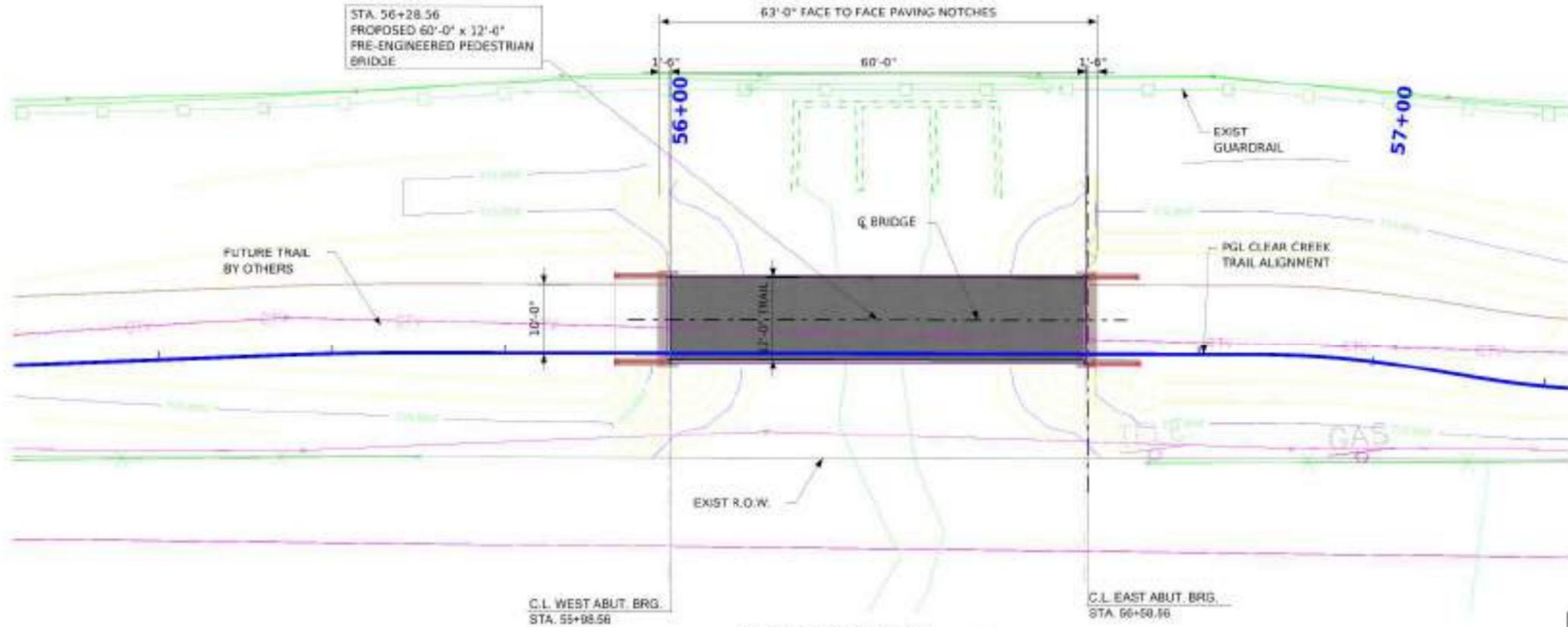
DRAINAGE AREA = 0.22 SQ. MI.  
 STREAM SLOPE = 0.009 FT./FT.  
 AVG. LOW WATER STAGE = 706.28

Q<sub>1</sub> = 481 CFS  
 STAGE = 713.24  
 OPERATIONAL LOW BEAM = 716.02  
 AVG. BRIDGE VELOCITY = 3.10 FPS

Q<sub>2</sub> = 587 CFS  
 STAGE = 713.74  
 AVG. BRIDGE VELOCITY = 3.33 FPS

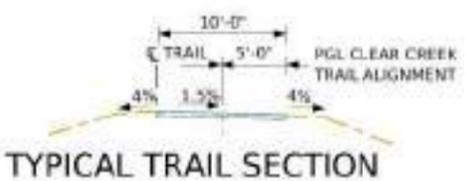
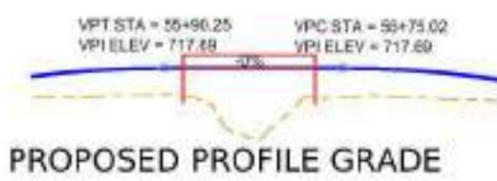
Q<sub>3</sub> = 703 CFS  
 STAGE = 714.24  
 AVG. BRIDGE VELOCITY = 3.49 FPS

Q<sub>4</sub> = 869 CFS



**UTILITIES LEGEND**

G - EXISTING GAS LINE  
 T - EXISTING TELEPHONE LINE  
 CTV - EXISTING CTV



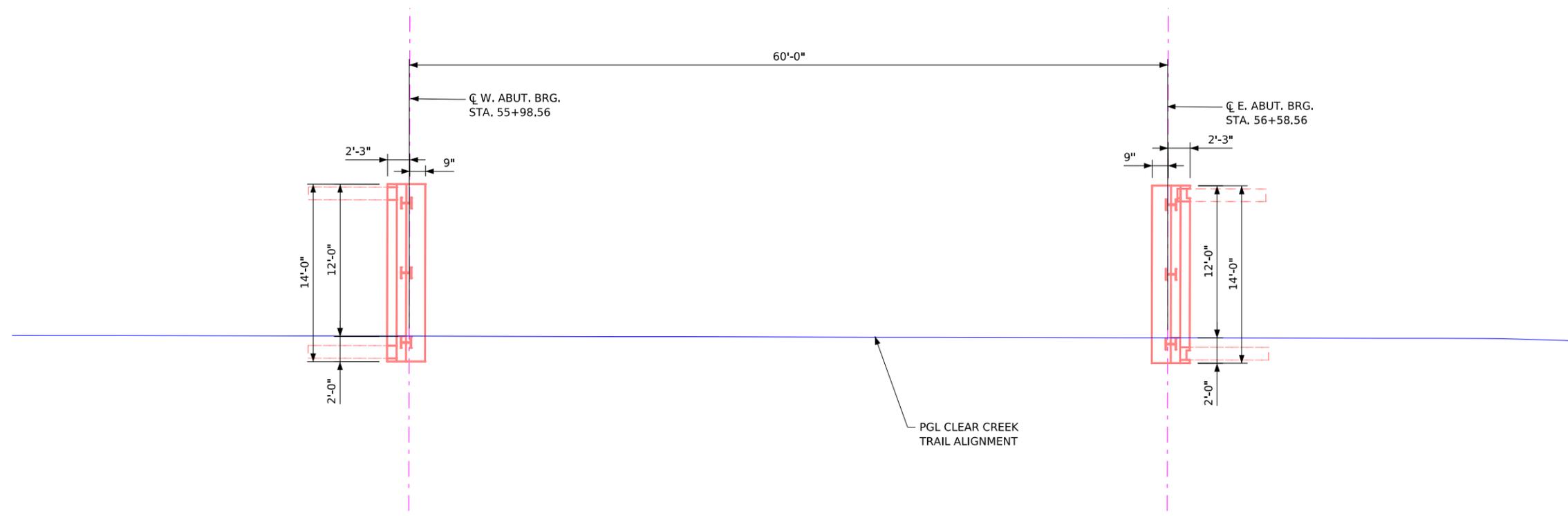
**LOCATION**  
 JOHNSON COUNTY  
 CLEAR CREEK TRAIL  
 OVER UNNAMED CREEK  
 T-80N R-07W  
 SECTION 30

DESIGN FOR 0°SKEW

**60'-0" x 12'-0" PRE-ENGINEERED PEDESTRIAN BRIDGE**

**WEST BRIDGE SITUATION PLAN**  
 STA. 56+28.56 CLEAR CREEK TRAIL  
 JOHNSON COUNTY  
 JANUARY, 2026

DESIGN SHEET NO. 4 OF 14



STAKING PLAN



West Bridge Coordinates				
Point Location	Northing	Easting	Base line Station	Base line Offset
West_Abut_Lt	629700.284	2127709.519	55+98.56	-12.00
West_Abut_PGL	629688.372	2127708.073	55+98.56	0.00
West_Abut_Rt	629686.386	2127707.832	55+98.56	2.00
East_Abut_Lt	629693.056	2127769.081	56+58.56	-12.00
East_Abut_PGL	629681.143	2127767.635	56+58.56	0.00
East_Abut_Rt	629679.158	2127767.395	56+58.56	2.00

DESIGN FOR 0°SKEW

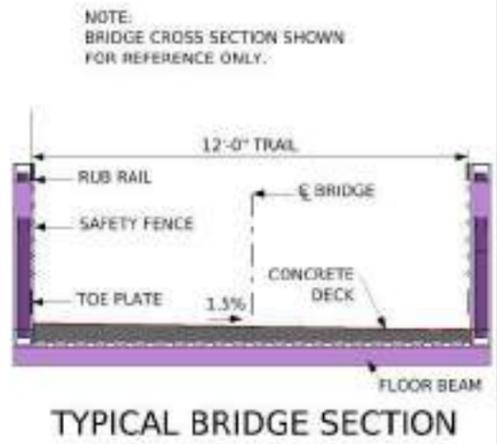
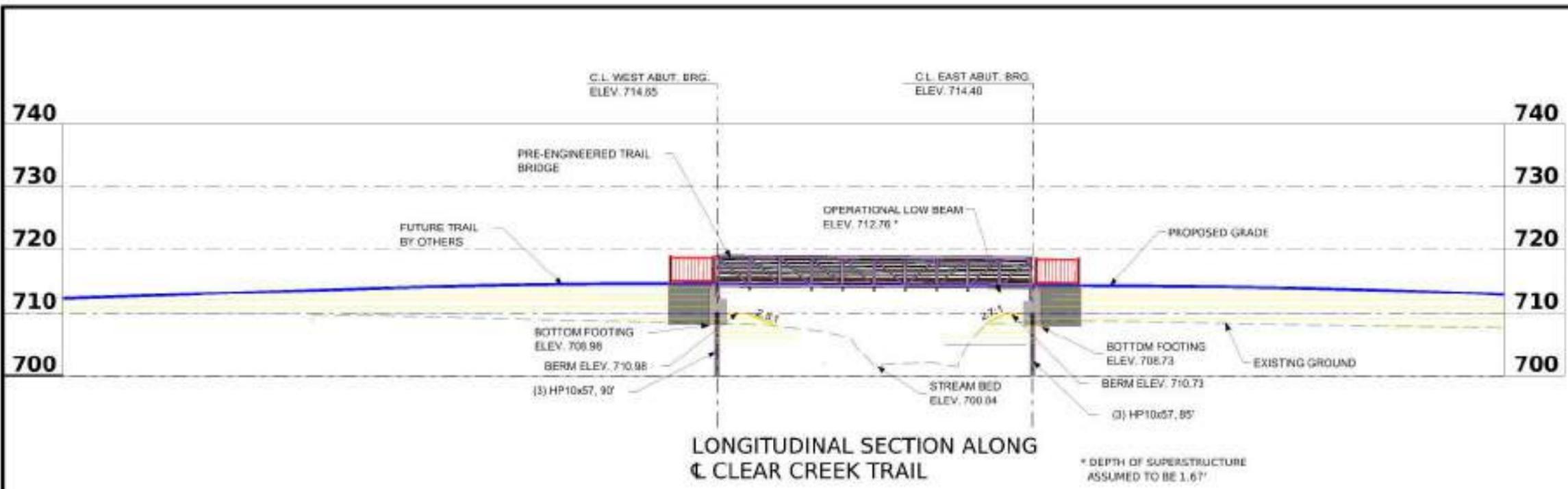
**60'-0" x 12'-0" PRE-ENGINEERED PEDESTRIAN BRIDGE**

**WEST BRIDGE STAKING PLAN**

STA. 56+28.56 CLEAR CREEK TRAIL JANUARY, 2026

**JOHNSON COUNTY**

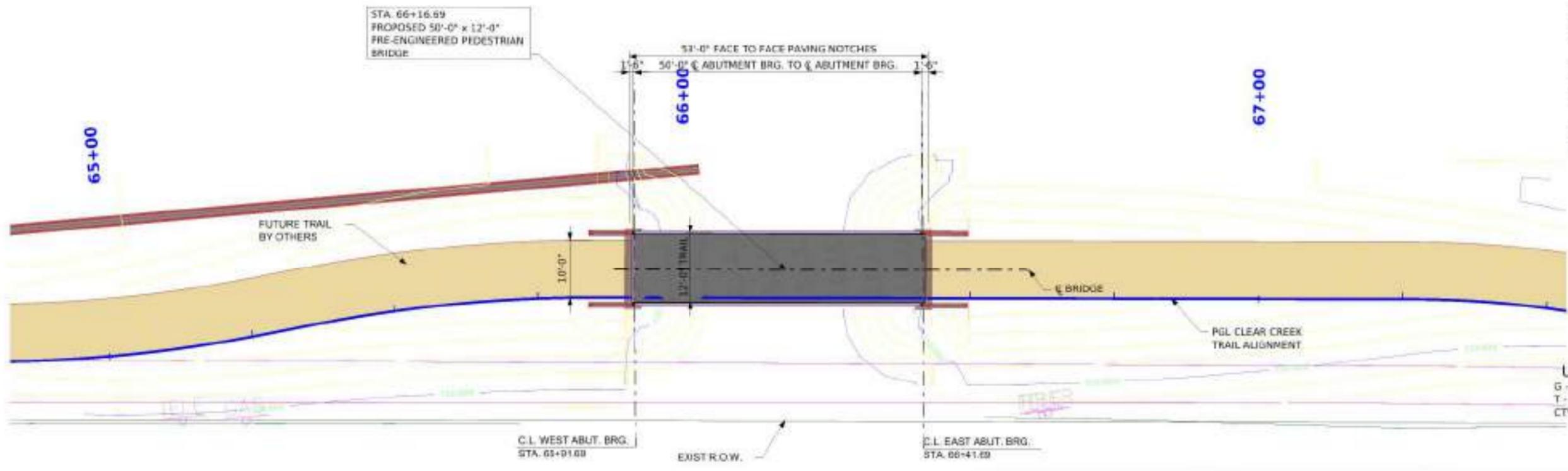
DESIGN SHEET NO. 5 OF 14



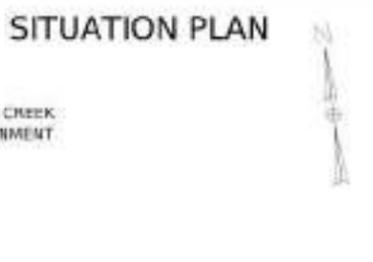
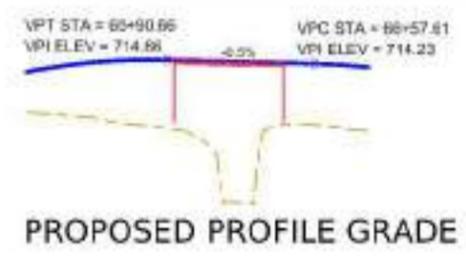
**HYDRAULIC DATA**  
 DRAINAGE AREA = 0.93 SQ. MI.  
 STREAM SLOPE = 0.007 FT./FT.  
 AVG. LOW WATER STAGE = 701.59

Q<sub>1</sub> = 445 CFS  
 STAGE = 708.28  
 OPERATIONAL LOW BEAM = 712.76  
 AVG. BRIDGE VELOCITY = 3.59 FPS

Q<sub>2</sub> = 534 CFS  
 STAGE = 708.86  
 AVG. BRIDGE VELOCITY = 3.61 FPS



**UTILITIES LEGEND**  
 G - EXISTING GAS LINE  
 T - EXISTING TELEPHONE LINE  
 CTV - EXISTING CTV



**LOCATION**  
 JOHNSON COUNTY  
 CLEAR CREEK TRAIL  
 OVER PIG RUIN  
 T-80N R-07W  
 SECTION 30

DESIGN FOR 0° SKEW

**50'-0" x 12'-0" PRE-ENGINEERED PEDESTRIAN BRIDGE**

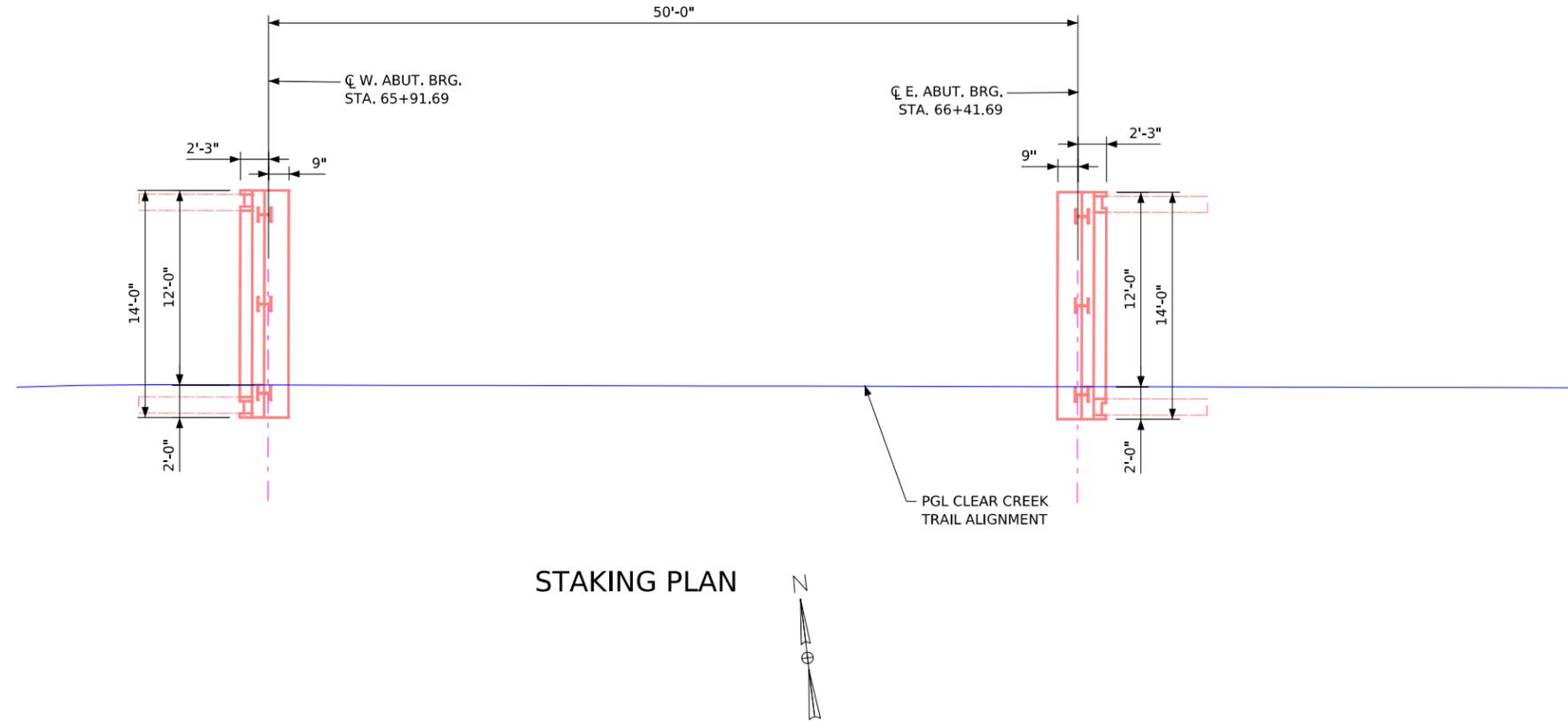
**MIDDLE BRIDGE SITUATION PLAN**

STA. 66+16.69 CLEAR CREEK TRAIL

JOHNSON COUNTY

JANUARY, 2026

DESIGN SHEET NO. 6 OF 14



STAKING PLAN

Middle Bridge Coordinates				
Point Location	Northing	Easting	Base line Station	Base line Offset
West_Abut_Lt	629587.065	2128695.084	65+91.69	-12.00
West_Abut_PGL	629575.152	2128693.639	65+91.69	0.00
West_Abut_Rt	629573.167	2128693.398	65+91.69	2.00
East_Abut_Lt	629581.041	2128744.720	66+41.69	-12.00
East_Abut_PGL	629569.128	2128743.274	66+41.69	0.00
East_Abut_Rt	629567.143	2128743.033	66+41.69	2.00

DESIGN FOR 0°SKEW

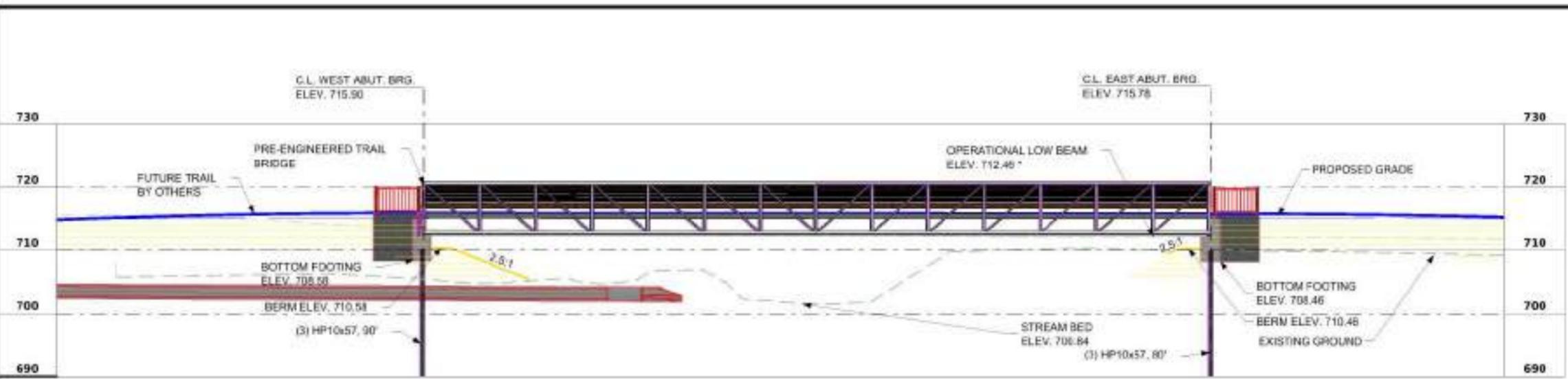
**50'-0" x 12'-0" PRE-ENGINEERED PEDESTRIAN BRIDGE**

**MIDDLE BRIDGE STAKING PLAN**

STA. 66+16.69 CLEAR CREEK TRAIL JANUARY, 2026

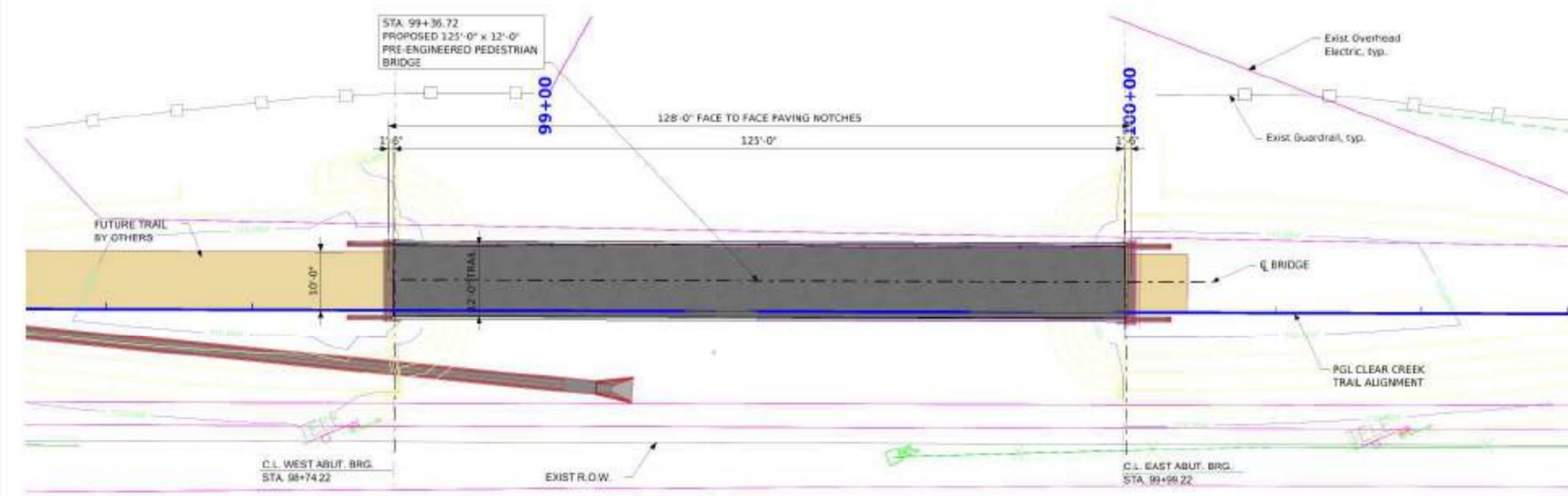
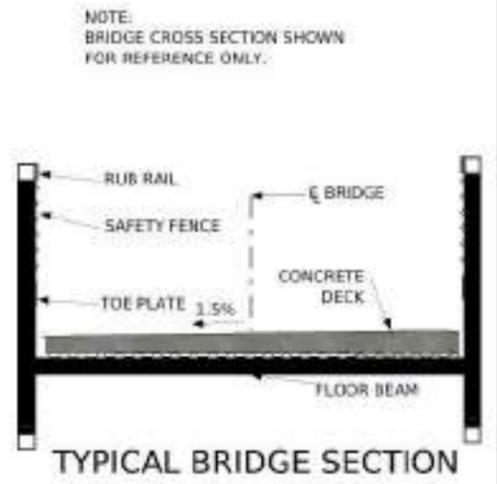
**JOHNSON COUNTY**

DESIGN SHEET NO. 7 OF 14



LONGITUDINAL SECTION ALONG  
 CLEAR CREEK TRAIL

\* DEPTH OF SUPERSTRUCTURE  
 ASSUMED TO BE 3.32'



**HYDRAULIC DATA**

DRAINAGE AREA = 7.63 SQ. MI.  
 STREAM SLOPE = 0.003 FT./FT.

$Q_1 = 3,190$  CFS  
 STAGE = 711.84  
 OPERATIONAL LOW BEAM = 712.46

$Q_2 = 3,790$  CFS  
 STAGE = 712.19

$Q_3 = 4,920$  CFS  
 STAGE = 714.33  
 AVG. BRIDGE VELOCITY = 6.0 FPS

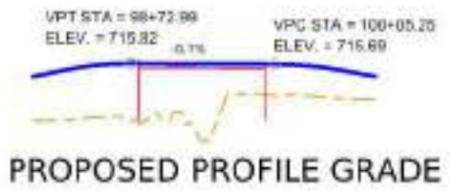
$Q_4 = 5,410$  CFS

**UTILITIES LEGEND**

G - EXISTING GAS LINE

T - EXISTING TELEPHONE LINE

CTV - EXISTING CTV



SITUATION PLAN

**LOCATION**  
 JOHNSON COUNTY  
 CLEAR CREEK TRAIL  
 OVER BUFFALO CREEK  
 T-80N R-07W  
 SECTION 30

DESIGN FOR 0°SKEW

**125'-0" x 12'-0" PRE-ENGINEERED  
 PEDESTRIAN BRIDGE**

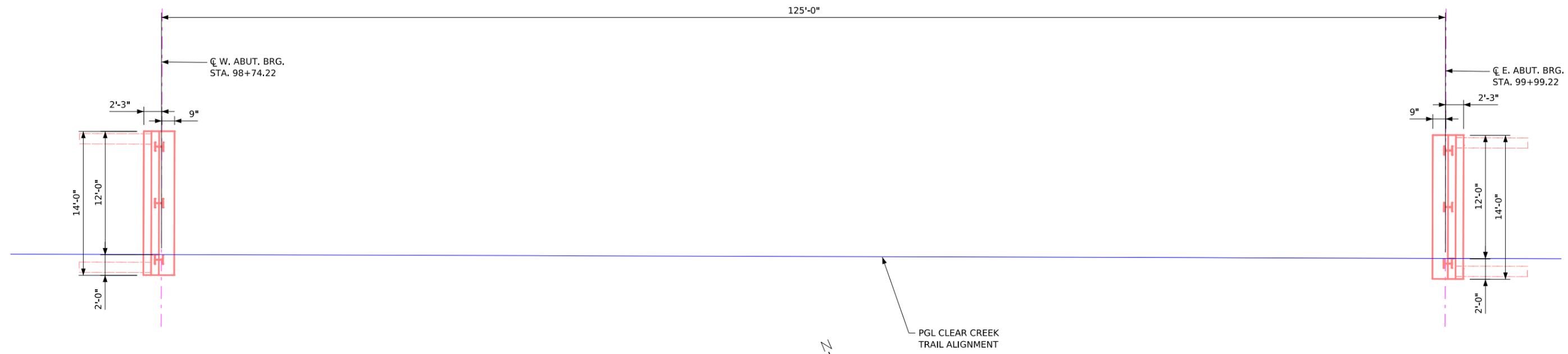
**EAST BRIDGE SITUATION PLAN**

STA. 99+36.72 CLEAR CREEK TRAIL

JOHNSON COUNTY

JANUARY, 2026

DESIGN SHEET NO. 8 OF 14



STAKING PLAN

East Bridge Coordinates				
Point Location	Northing	Easting	Base line Station	Base line Offset
West_Abut_Lt	628966.437	2131904.340	98+74.22	-12.00
West_Abut_PGL	628955.380	2131899.676	98+74.22	0.00
West_Abut_Rt	628953.537	2131898.899	98+74.22	2.00
East_Abut_Lt	628917.853	2132019.512	99+99.22	-12.00
East_Abut_PGL	628906.796	2132014.848	99+99.22	0.00
East_Abut_Rt	628904.953	2132014.071	99+99.22	2.00

DESIGN FOR 0°SKEW

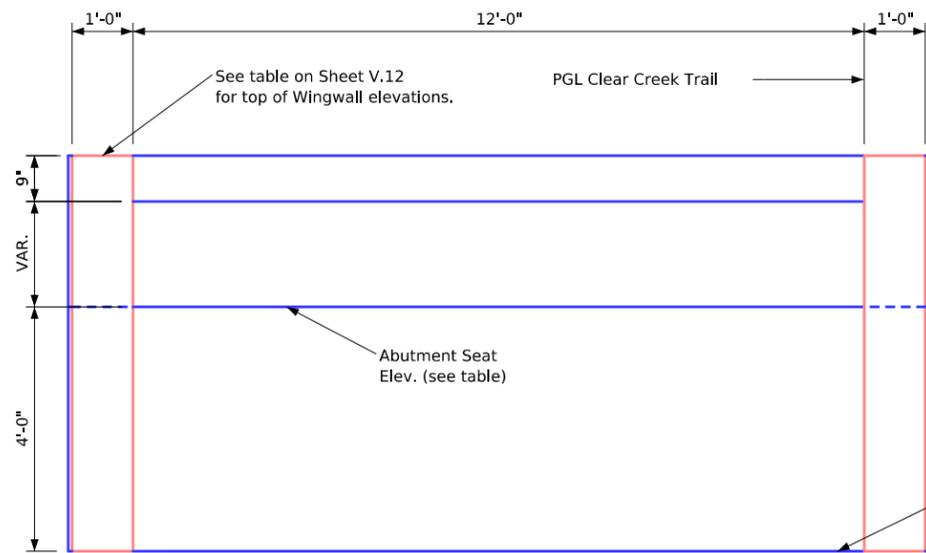
**125'-0" x 12'-0" PRE-ENGINEERED PEDESTRIAN BRIDGE**

**EAST BRIDGE STAKING PLAN**

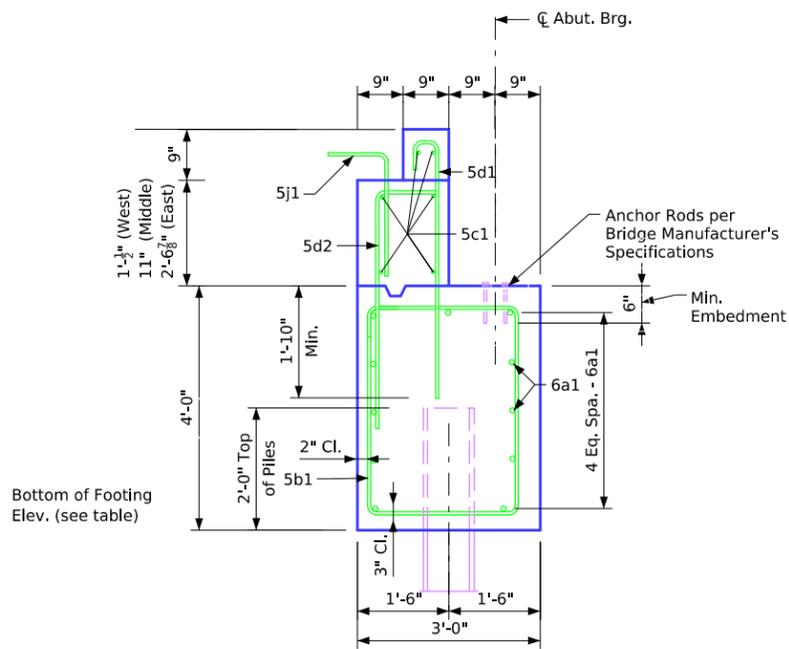
STA. 99+36.72 CLEAR CREEK TRAIL JANUARY, 2026

**JOHNSON COUNTY**

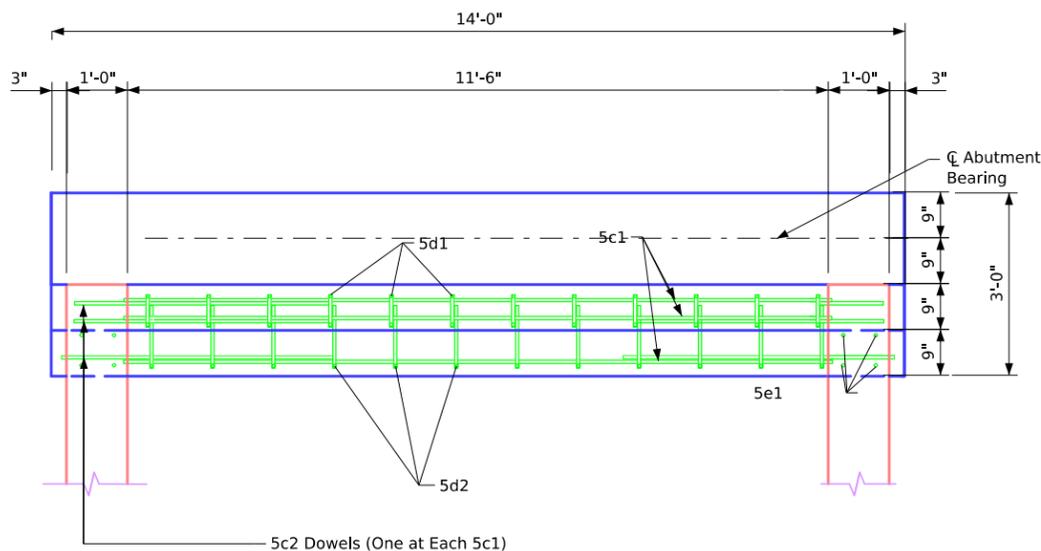
DESIGN SHEET NO. 9 OF 14



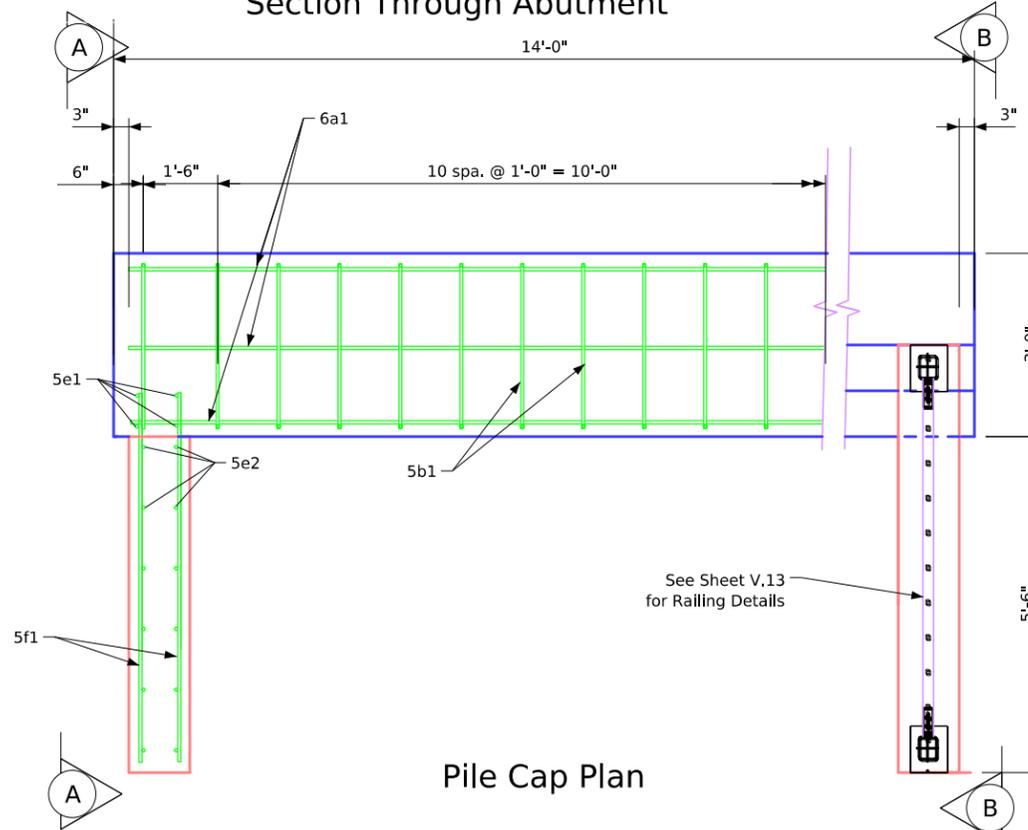
Rear Elevation



Section Through Abutment



Abutment Plan

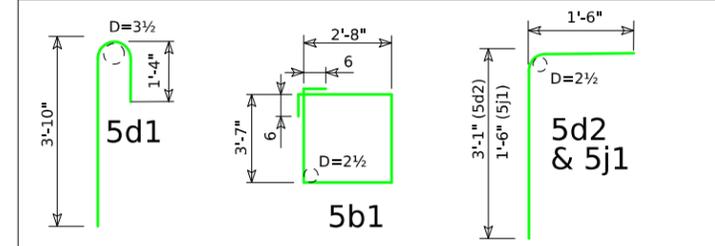


Pile Cap Plan

REINFORCING STEEL - ONE ABUTMENT

MARK	LOCATION	SHAPE	LENGTH	NO.	WEIGHT
6a1	Abutment Footing Longit.	[Symbol]	13'-6"	11	223
5b1	Abutment Footing Hoops	[Symbol]	13'-6"	14	197
5c1	Backwall Longit.	[Symbol]	11'-6"	6	72
5c2	Backwall to Wing Dowels	[Symbol]	4'-5"	12	55
5d1	Backwall Vertical	[Symbol]	5'-2"	12	65
5d2	Backwall Vertical	[Symbol]	4'-7"	12	57
5e1	Wingwall Vertical	[Symbol]	5'-3"	8	44
5e2	Wingwall Vertical	[Symbol]	6'-0"	24	150
5f1	Wingwall Longit.	[Symbol]	6'-0"	20	125
5j1	Approach Sidewalk Slab Dowels	[Symbol]	3'-0"	12	38
REINFORCING STEEL EPOXY COATED - TOTAL (LBS.)					1026

BENT BAR DETAILS



Note: Dimensions are out to out. D = pin diameter.

ESTIMATED QUANTITIES - ONE ABUT.

LOCATION	UNIT	QUANTITY
Structural Concrete (Bridge), West Bridge*	C.Y.	10.7
Structural Concrete (Bridge), Middle Bridge*	C.Y.	10.6
Structural Concrete (Bridge), East Bridge*	C.Y.	11.9
Reinforcing Steel Epoxy Coated	LBS.	1026

\* Includes 2 wingwalls @ 1.68 CY

ABUTMENT NOTES:

The minimum clear distance from the face of the concrete to near reinforcing bar is to be 2 inches unless otherwise noted or shown.

All reinforcing steel is to be grade 60.

Note: See Sheet V.12 for wingwall sections A-A and B-B

Abutment Seat Elevations		
Bridge	West Abutment	East Abutment
West	715.90	715.90
Middle	712.98	712.73
East	712.58	712.46

Abutment Bottom of Footing Elevations		
Bridge	West Abutment	East Abutment
West	711.90	711.90
Middle	708.98	708.73
East	708.58	708.46

DESIGN FOR 0° SKEW  
**PEDESTRIAN BRIDGES**  
**STEEL TRUSS**  
**ABUTMENT DETAILS**  
 CLEAR CREEK TRAIL JANUARY, 2026  
**JOHNSON COUNTY**

DESIGN SHEET NO. 10 OF 14

## WEST BRIDGE

### WEST ABUTMENT PILE DRIVING NOTES

THE CONTRACT LENGTH OF 85 FEET FOR THE WEST ABUTMENT PILES IS BASED ON A MIXED SOIL CLASSIFICATION, A TOTAL FACTORED AXIAL LOAD PER PILE (PU) OF 32 KIPS, AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.65 FOR SOIL AND 0.7 FOR ROCK END BEARING. TO ACCOUNT FOR SOIL CONSOLIDATION UNDER THE NEW FILL, THE FACTORED AXIAL LOAD INCLUDES A FACTORED DOWNDRAG LOAD OF 6 KIPS.

THE NOMINAL AXIAL BEARING RESISTANCE FOR CONSTRUCTION CONTROL WAS DETERMINED FROM A MIXED SOIL CLASSIFICATION AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.65 FOR SOIL AND 0.7 FOR ROCK END BEARING. PILES ARE ASSUMED TO BE DRIVEN FROM A START ELEVATION AT THE BOTTOM OF FOOTING.

THE REQUIRED NOMINAL AXIAL BEARING RESISTANCE FOR WEST ABUTMENT PILES IS 36 TONS AT END OF DRIVE OR RETAP. THE PILE CONTRACT LENGTH SHALL BE DRIVEN AS PER PLAN UNLESS PILES REACH REFUSAL. CONSTRUCTION CONTROL REQUIRES A WEAP ANALYSIS WITH BEARING GRAPH.

### EAST ABUTMENT PILE DRIVING NOTES

THE CONTRACT LENGTH OF 90 FEET FOR THE EAST ABUTMENT PILES IS BASED ON A MIXED SOIL CLASSIFICATION, A TOTAL FACTORED AXIAL LOAD PER PILE (PU) OF 42 KIPS, AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.65 FOR SOIL AND 0.7 FOR ROCK END BEARING. TO ACCOUNT FOR SOIL CONSOLIDATION UNDER THE NEW FILL, THE FACTORED AXIAL LOAD INCLUDES A FACTORED DOWNDRAG LOAD OF 16 KIPS.

THE NOMINAL AXIAL BEARING RESISTANCE FOR CONSTRUCTION CONTROL WAS DETERMINED FROM A MIXED SOIL CLASSIFICATION AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.65 FOR SOIL AND 0.7 FOR ROCK END BEARING. PILES ARE ASSUMED TO BE DRIVEN FROM A START ELEVATION AT THE BOTTOM OF FOOTING.

THE REQUIRED NOMINAL AXIAL BEARING RESISTANCE FOR EAST ABUTMENT PILES IS 41 TONS AT END OF DRIVE OR RETAP. THE PILE CONTRACT LENGTH SHALL BE DRIVEN AS PER PLAN UNLESS PILES REACH REFUSAL. CONSTRUCTION CONTROL REQUIRES A WEAP ANALYSIS WITH BEARING GRAPH.

## MIDDLE BRIDGE

### WEST ABUTMENT PILE DRIVING NOTES

THE CONTRACT LENGTH OF 90 FEET FOR THE WEST ABUTMENT PILES IS BASED ON A MIXED SOIL CLASSIFICATION, A TOTAL FACTORED AXIAL LOAD PER PILE (PU) OF 37 KIPS, AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.65 FOR SOIL AND 0.7 FOR ROCK END BEARING. TO ACCOUNT FOR SOIL CONSOLIDATION UNDER THE NEW FILL, THE FACTORED AXIAL LOAD INCLUDES A FACTORED DOWNDRAG LOAD OF 13 KIPS.

THE NOMINAL AXIAL BEARING RESISTANCE FOR CONSTRUCTION CONTROL WAS DETERMINED FROM A MIXED SOIL CLASSIFICATION AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.65 FOR SOIL AND 0.7 FOR ROCK END BEARING. PILES ARE ASSUMED TO BE DRIVEN FROM A START ELEVATION AT THE BOTTOM OF FOOTING.

THE REQUIRED NOMINAL AXIAL BEARING RESISTANCE FOR WEST ABUTMENT PILES IS 35 TONS AT END OF DRIVE OR RETAP. THE PILE CONTRACT LENGTH SHALL BE DRIVEN AS PER PLAN UNLESS PILES REACH REFUSAL. CONSTRUCTION CONTROL REQUIRES A WEAP ANALYSIS WITH BEARING GRAPH.

### EAST ABUTMENT PILE DRIVING NOTES

THE CONTRACT LENGTH OF 85 FEET FOR THE EAST ABUTMENT PILES IS BASED ON A MIXED SOIL CLASSIFICATION, A TOTAL FACTORED AXIAL LOAD PER PILE (PU) OF 31 KIPS, AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.65 FOR SOIL AND 0.7 FOR ROCK END BEARING. TO ACCOUNT FOR SOIL CONSOLIDATION UNDER THE NEW FILL, THE FACTORED AXIAL LOAD INCLUDES A FACTORED DOWNDRAG LOAD OF 7 KIPS.

THE NOMINAL AXIAL BEARING RESISTANCE FOR CONSTRUCTION CONTROL WAS DETERMINED FROM A MIXED SOIL CLASSIFICATION AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.65 FOR SOIL AND 0.7 FOR ROCK END BEARING. PILES ARE ASSUMED TO BE DRIVEN FROM A START ELEVATION AT THE BOTTOM OF FOOTING.

THE REQUIRED NOMINAL AXIAL BEARING RESISTANCE FOR EAST ABUTMENT PILES IS 27 TONS AT END OF DRIVE OR RETAP. THE PILE CONTRACT LENGTH SHALL BE DRIVEN AS PER PLAN UNLESS PILES REACH REFUSAL. CONSTRUCTION CONTROL REQUIRES A WEAP ANALYSIS WITH BEARING GRAPH.

## EAST BRIDGE

### WEST ABUTMENT PILE DRIVING NOTES

THE CONTRACT LENGTH OF 90 FEET FOR THE WEST ABUTMENT PILES IS BASED ON A MIXED SOIL CLASSIFICATION, A TOTAL FACTORED AXIAL LOAD PER PILE (PU) OF 76 KIPS, AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.65 FOR SOIL AND 0.7 FOR ROCK END BEARING. TO ACCOUNT FOR SOIL CONSOLIDATION UNDER THE NEW FILL, THE FACTORED AXIAL LOAD INCLUDES A FACTORED DOWNDRAG LOAD OF 29 KIPS.

THE NOMINAL AXIAL BEARING RESISTANCE FOR CONSTRUCTION CONTROL WAS DETERMINED FROM A MIXED SOIL CLASSIFICATION AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.65 FOR SOIL AND 0.7 FOR ROCK END BEARING. PILES ARE ASSUMED TO BE DRIVEN FROM A START ELEVATION AT THE BOTTOM OF FOOTING.

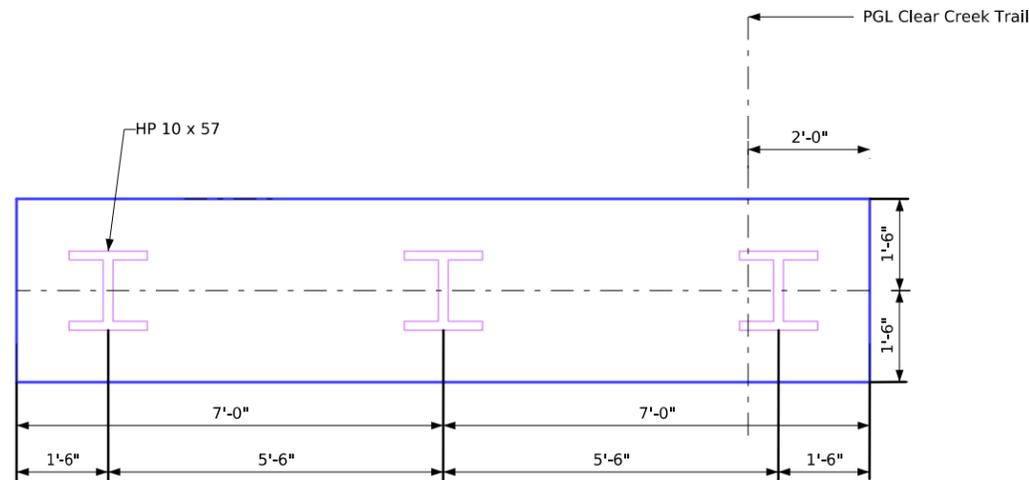
THE REQUIRED NOMINAL AXIAL BEARING RESISTANCE FOR WEST ABUTMENT PILES IS 73 TONS AT END OF DRIVE OR RETAP. THE PILE CONTRACT LENGTH SHALL BE DRIVEN AS PER PLAN UNLESS PILES REACH REFUSAL. CONSTRUCTION CONTROL REQUIRES A WEAP ANALYSIS WITH BEARING GRAPH.

### EAST ABUTMENT PILE DRIVING NOTES

THE CONTRACT LENGTH OF 80 FEET FOR THE EAST ABUTMENT PILES IS BASED ON A MIXED SOIL CLASSIFICATION, A TOTAL FACTORED AXIAL LOAD PER PILE (PU) OF 53 KIPS, AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.65 FOR SOIL AND 0.7 FOR ROCK END BEARING. TO ACCOUNT FOR SOIL CONSOLIDATION UNDER THE NEW FILL, THE FACTORED AXIAL LOAD INCLUDES A FACTORED DOWNDRAG LOAD OF 7 KIPS.

THE NOMINAL AXIAL BEARING RESISTANCE FOR CONSTRUCTION CONTROL WAS DETERMINED FROM A MIXED SOIL CLASSIFICATION AND A GEOTECHNICAL RESISTANCE FACTOR (PHI) OF 0.65 FOR SOIL AND 0.7 FOR ROCK END BEARING. PILES ARE ASSUMED TO BE DRIVEN FROM A START ELEVATION AT THE BOTTOM OF FOOTING.

THE REQUIRED NOMINAL AXIAL BEARING RESISTANCE FOR EAST ABUTMENT PILES IS 44 TONS AT END OF DRIVE OR RETAP. THE PILE CONTRACT LENGTH SHALL BE DRIVEN AS PER PLAN UNLESS PILES REACH REFUSAL. CONSTRUCTION CONTROL REQUIRES A WEAP ANALYSIS WITH BEARING GRAPH.



ABUTMENT PILING LAYOUT

### ABUTMENT PILE NOTES:

3 - HP 10x57 steel bearing piling required at each abutment.

Details on this sheet are to be used only when abutments are placed on steel piles. If rock is encountered closer than 12' below abutment footing, special analysis may be required.

Steel abutment piles shall be driven to full penetration if practicable but in no case to a bearing value less than shown in design plans.

Abutment piling was designed for the greater of the following live loads:

1. 90 psf uniform live load on the full deck area.
2. One 20,000 lb vehicle load (HS10 Truck).

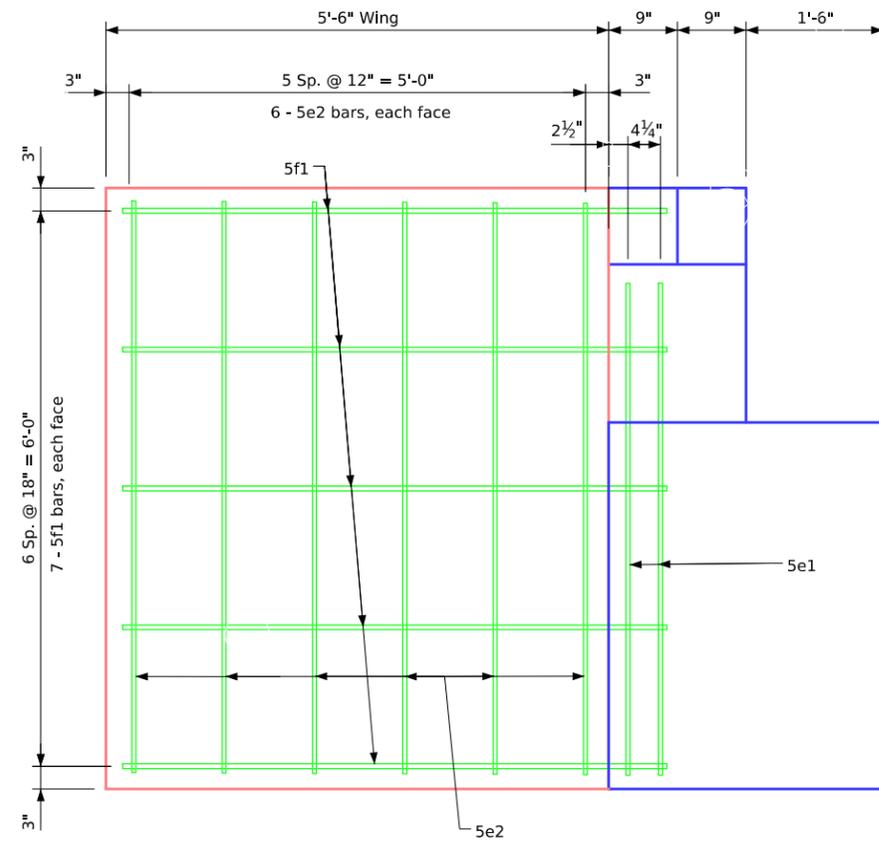
Dimensions shown on Piling Layout are at bottom of footing.

DESIGN FOR 0°SKEW  
**PEDESTRIAN BRIDGES  
 STEEL TRUSS**

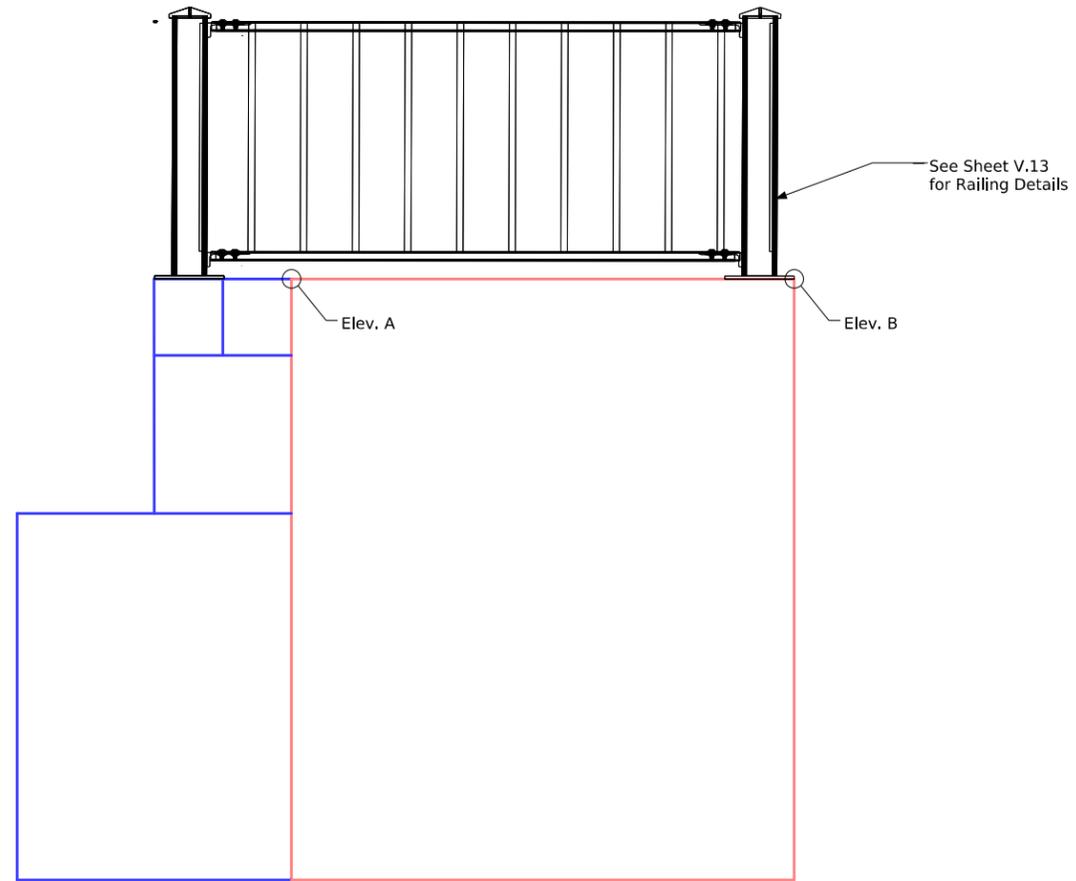
**ABUTMENT DETAILS**  
 CLEAR CREEK TRAIL JANUARY, 2026  
**JOHNSON COUNTY**

DESIGN SHEET NO. 11 OF 14

FILE NO.	ENGLISH	DESIGN TEAM	JOHNSON COUNTY	PROJECT NUMBER	SHEET NUMBER
2/19/2026	9925	Stanley Consultants Inc.	JOHNSON COUNTY	32284.01	V.11



View A-A



View B-B

Note: See Sheet V.10 for cut locations of sections A-A and B-B.

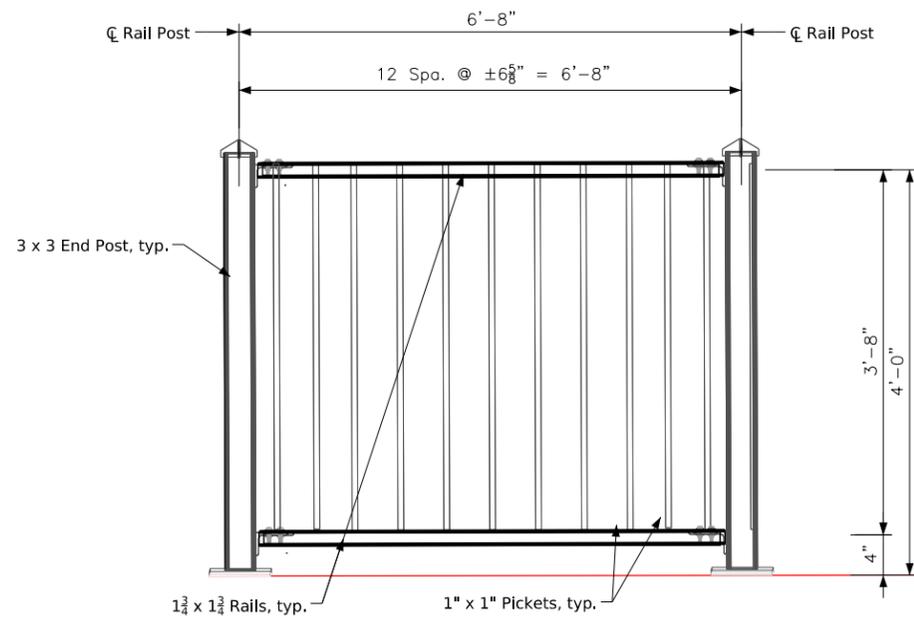
Table of Wingwall Elevations				
Bridge	West Abutment		East Abutment	
	Elev. A	Elev. B	Elev. A	Elev. B
West	Left 717.78	Left 717.78	Left 717.84	Left 717.84
	Right 717.70	Right 717.70	Right 717.71	Right 717.71
Middle	Left 714.85	Left 714.91	Left 714.55	Left 714.59
	Right 714.70	Right 714.66	Right 714.41	Right 714.37
East	Left 715.74	Left 715.73	Left 715.61	Left 715.61
	Right 715.89	Right 715.88	Right 715.76	Right 715.76

DESIGN FOR 0°SKEW

**PEDESTRIAN BRIDGES  
STEEL TRUSS**

**WINGWALL DETAILS**  
CLEAR CREEK TRAIL JANUARY, 2026  
**JOHNSON COUNTY**

DESIGN SHEET NO. 12 OF 14



**Typical Rail Section**

**Ornamental Metal Rail Notes:**

The railing is to be bid on a linear foot basis measured from  $\text{C}$  to  $\text{C}$  of end posts. The ornamental metal railing system shall be a 2-rail fence manufactured by the following approved manufacturers:

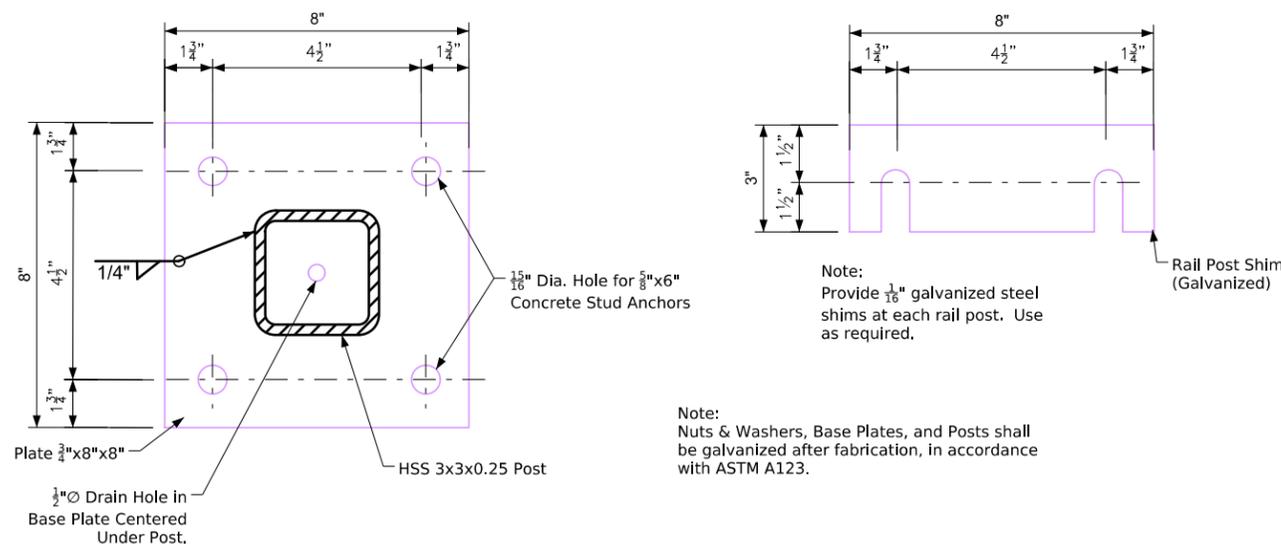
1. Ameristar Montage II "Majestic"
2. Master Halco Classic Premier Universal 2-Rail
3. Merchants Metal Guardsman Industrial "The Monroe"
4. Approved Equal

The contractor may submit alternate manufacturer's designs and panel layouts for approval. Alternate railing product submission shall be in general compliance with the railing geometry detailed on this plan and shall meet or exceed the load capacity and surface finish specifications for the Ameristar product. Alternate fence product submissions shall be designed by the manufacturer in accordance with AASHTO LRFD Bridge Design Specifications, Series of 2020. The price bid for "Ornamental Metal Railing" shall be full compensation for furnishing all material, including concrete anchors and shims, and all of the equipment and labor required to erect the fence in accordance with these plans and specifications.

Shop drawings shall be submitted for review by the engineer, railing materials shall not be ordered until approved shop drawings are returned to the contractor. Field cutting of panels will not be allowed.

The stud concrete anchors shall be galvanized and have a minimum pullout strength of 8000 pounds based on 4000 psi concrete. Base plates shall be provided by the railing manufacturer and shall be galvanized, after fabrication, in accordance with the requirements of ASTM A123. Base plates shall receive a powder coat finish to match the posts.

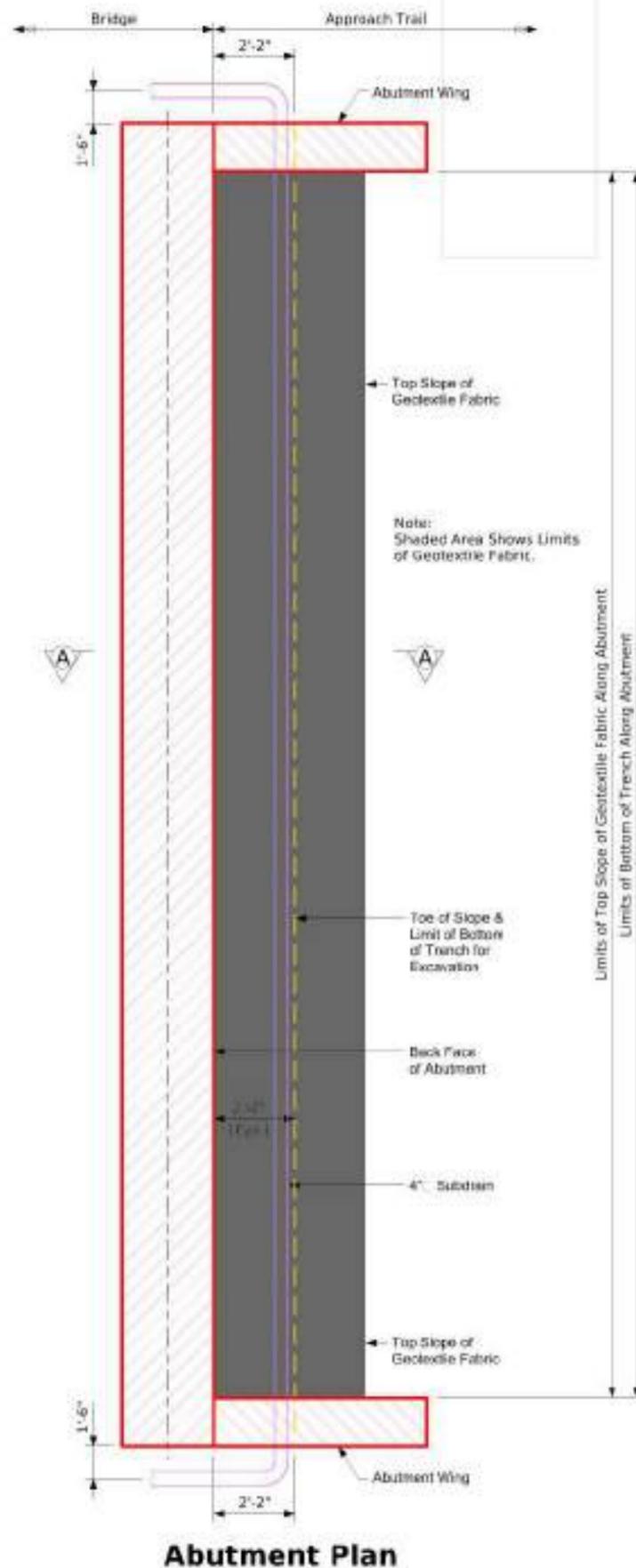
The railing shall be true to line and comply with the best practices for fence construction of this type. All posts shall be set vertical.



**Post Base Plate and Shim Details**

DESIGN FOR 0°SKEW  
**PEDESTRIAN BRIDGES  
 STEEL TRUSS**  
**Safety Rail Details**  
 CLEAR CREEK TRAIL JANUARY, 2026  
**JOHNSON COUNTY**

DESIGN SHEET NO. 13 OF 14



**Abutment Plan**

**Abutment Backfill Process:**

The base of the excavation subgrade behind the abutment is to be graded with a 4% slope away from the abutment footing and a 2% cross slope in the direction of the subdrain outlet. This excavation shaping is to be done prior to beginning installation of the geotextile and backfill material.

After the subgrade has been shaped, the geotextile fabric shall be installed in accordance with the details shown. The fabric is intended to be installed in the base of the excavation and extended vertically up the abutment backwall, abutment wing walls, and excavation face to a height that will be approximately 1 to 2 ft higher than the height of the porous backfill placement as shown in the "Backfill Details" on this sheet. The strips of the fabric placed shall overlap approximately 1 ft and shall be pinned in place. The fabric shall be attached to the abutment by using lath folded in the fabric and secured to the concrete with shallow concrete nails. The fabric placed against the excavation face shall be pinned.

When the fabric is in place, the subdrain shall be installed directly on the fabric at the toe of the rear excavation slope. A slot will need to be cut in the fabric at the point where the subdrain exits the fabric near the end of the abutment wing wall.

Porous backfill is then placed and leveled, no compaction is required.

The remaining work involves backfilling with floodable backfill, surface flooding, and vibratory compaction. The floodable backfill material shall be in accordance with the Standard Specifications. The floodable backfill shall be placed in individual lifts, surface flooded, and compacted with vibratory compaction to ensure full consolidation. Limit the loose lifts to no more than 2 ft of thickness.

Start surface flooding for each floodable backfill lift at the high point of the subdrain and progress to the low point where the subdrain exits the fabric. To ensure uniform surface flooding, water running full in a 2"Ø hose should be sprayed in successive 6 ft to 8 ft increments for 5 minutes within each increment.

Floodable backfill lift placement, flooding, and compaction shall progress until the required full thickness of the abutment backfill has been completed.

Water required for flooding, subdrains, porous backfill, floodable backfill, and geotextile fabric furnished at the bridge abutments will not be measured separately for payment.

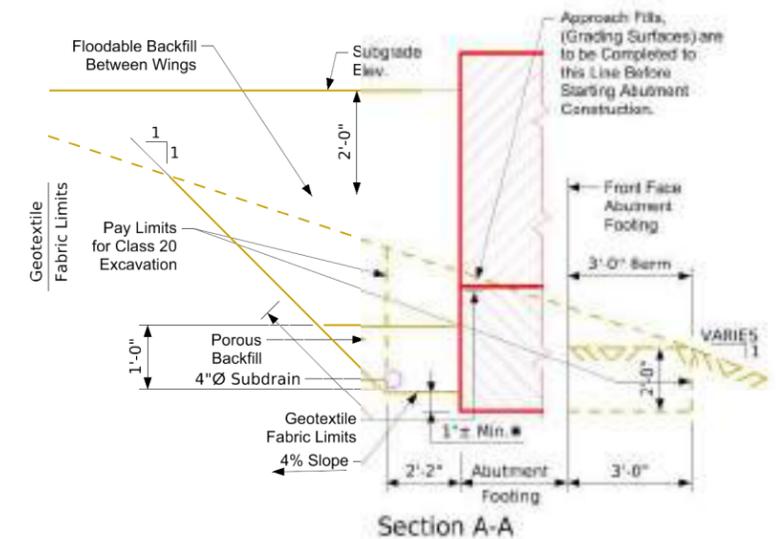
The cost of water required for flooding, subdrains, porous backfill, floodable backfill, and geotextile fabric furnished at the bridge abutments shall be included in the contract unit price bid for "Structural Concrete".

**Note:**

Subdrain shall slope downward 2% from centerline approach roadway when outletting both sides of the abutment.

Subdrain shall slope downward 2% from high end when outletting at one end of the abutment.

The geotextile fabric shall be in accordance with Article 4196.01, B, 6 of the Standard Specifications. If the engineering fabric is lapped the laps shall be a minimum of 1 ft in length, shingle fashion with up slope lap piece on top and stapled for continuity.



**Section A-A  
Backfill Details**

Note: Geotextile Fabric will be Attached to Face of Abutment Footing and Wings.

\* Dimension Varies Due to 2% Subdrain Slope.

DESIGN FOR 0°SKEW  
**PEDESTRIAN BRIDGES  
 STEEL TRUSS**  
**ABUTMENT BACKFILL DETAILS**  
 CLEAR CREEK TRAIL JANUARY, 2026  
**JOHNSON COUNTY**  
 DESIGN SHEET NO. 14 of 14

## 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
<b>Grading</b>			
(8)	Revetment Class A	<b>Substrata</b>	
(6)	Revetment Class B	(128)	Boulder
(62)	Revetment Class C	(209)	Boulder Removed
(188)	Revetment Class D	(48)	Broken Weathered
(28)	Revetment Class E	(210)	Broken Weathered Removed
(12)	Shoulder Special Backfill	(3)	Core Out
(12)	Special Backfill	(115)	Core Out Remove Only
(20)	Subbase	(195)	Core Out Remove and Replace
(20)	Subbase Lower	(203)	Existing Pavement
(20)	Subbase Upper	(184)	Existing Pavement Remove Only
(118)	Subgrade Treatment	(200)	Existing Pavement Remove and Replace
<b>Asphalt</b>			
(207)	HMA Base Course	(6)	Loam
(207)	HMA Interim Course	(211)	Loam Removed
(207)	HMA Surface Course	(80)	Rock
<b>Bridge</b>			
(0)	Bridge	(212)	Rock Removed
<b>Concrete</b>			
(0)	Barrier Concrete	(4)	Select Sand
(0)	Barrier Concrete Footing	(214)	Select Sand Removed
(0)	Curb Gutter	(3)	Shale
(48)	Flowable Mortar	(215)	Shale Removed
(0)	Median Concrete	(10)	Topsoil
(0)	PCC Pavement	(2)	Topsoil Remove Only
(0)	Sidewalk	(4)	Topsoil Remove and Replace
<b>Unsuitable / Waste</b>			
(0)	Existing Pavement	(3)	Unsuitable Type A
(209)	Shoulder HMA	(216)	Unsuitable Type A Removed
(0)	Shoulder PCC	(13)	Unsuitable Type B
(6)	Shoulder Granular	(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		
(112)	Retaining Wall Front Excavate		
(112)	Retaining Wall Front Footing		
(112)	Retaining Wall MSE Gutter		
(112)	Retaining Wall Reinforced Earth		
<b>Structural</b>			

**NOTES:**

Text

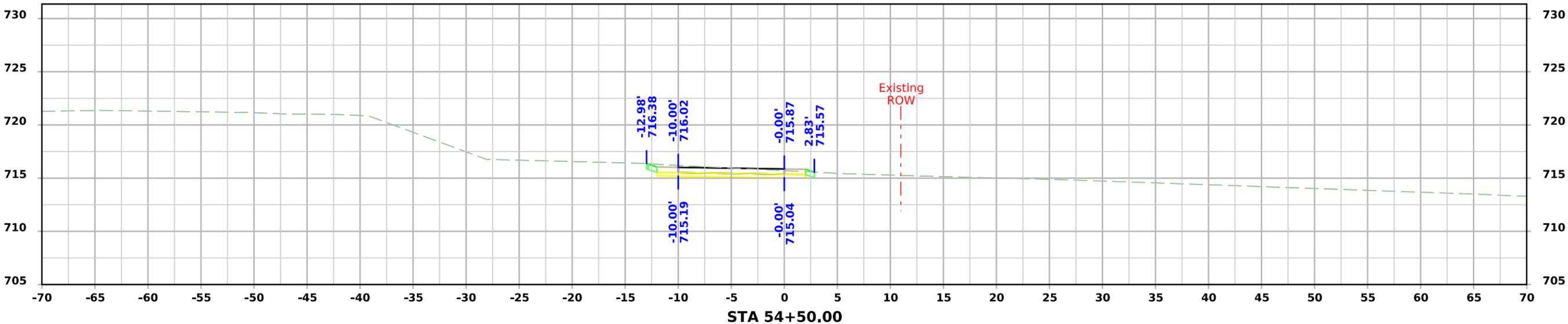
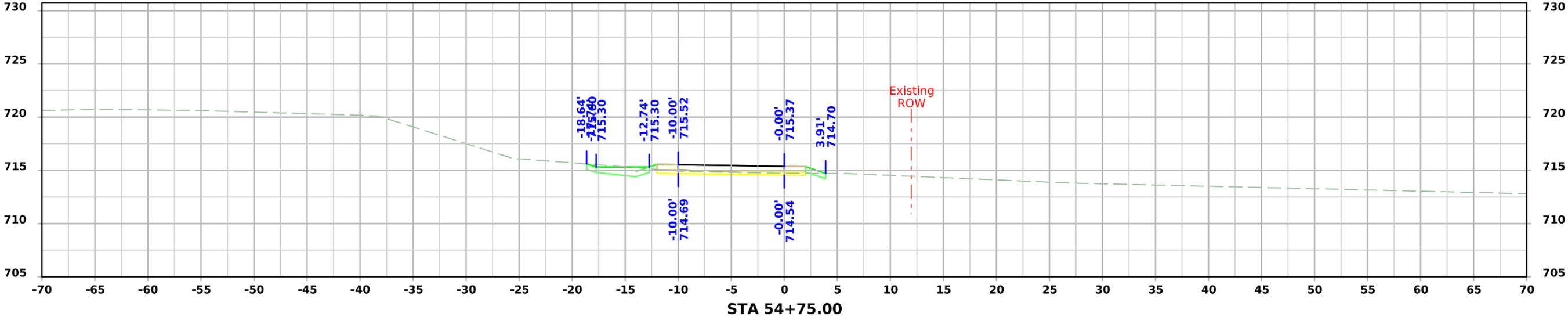
**NOTES:**

Text

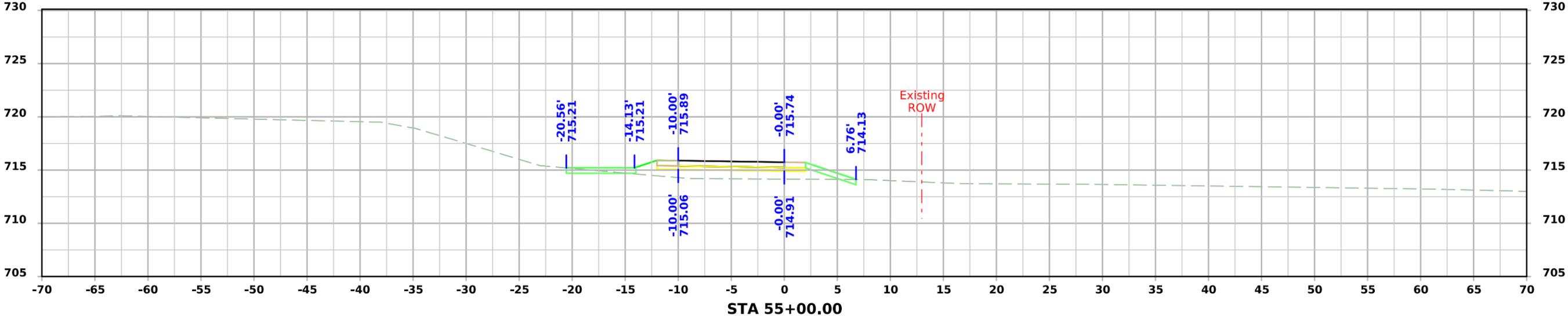
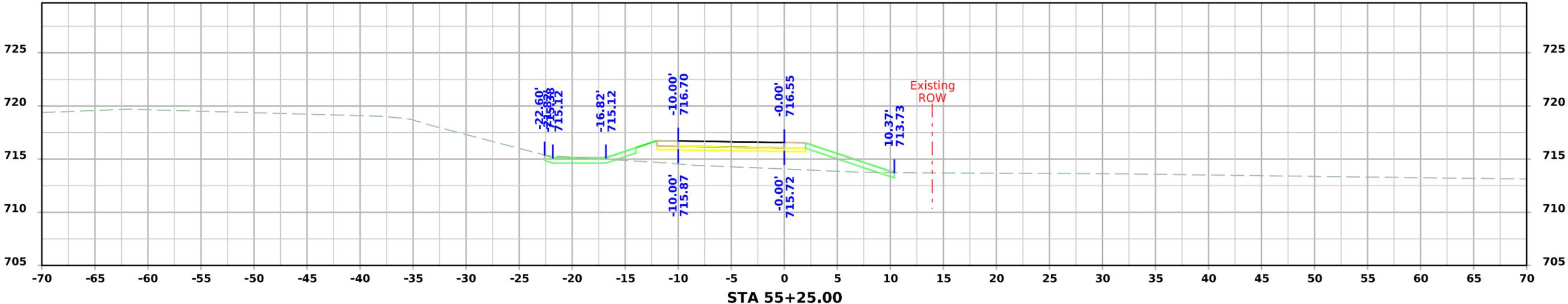
## CROSS SECTIONS LEGEND AND INFORMATION SHEET

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

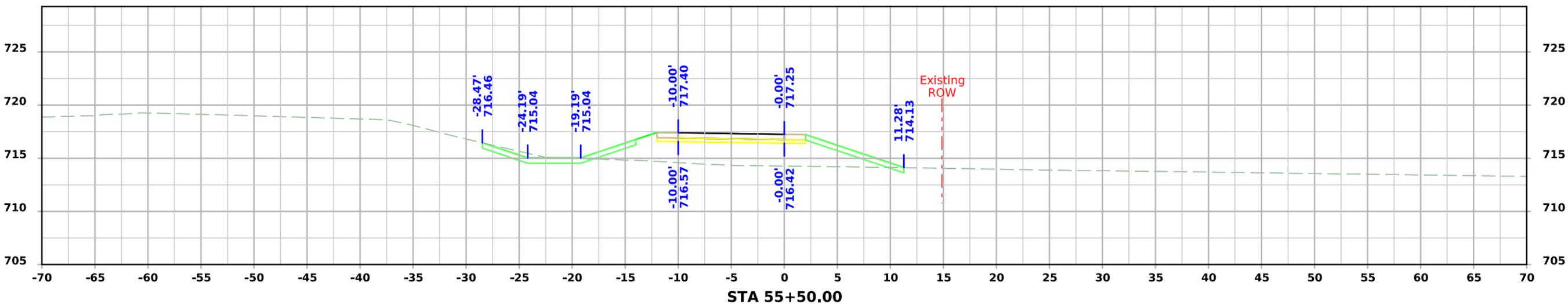
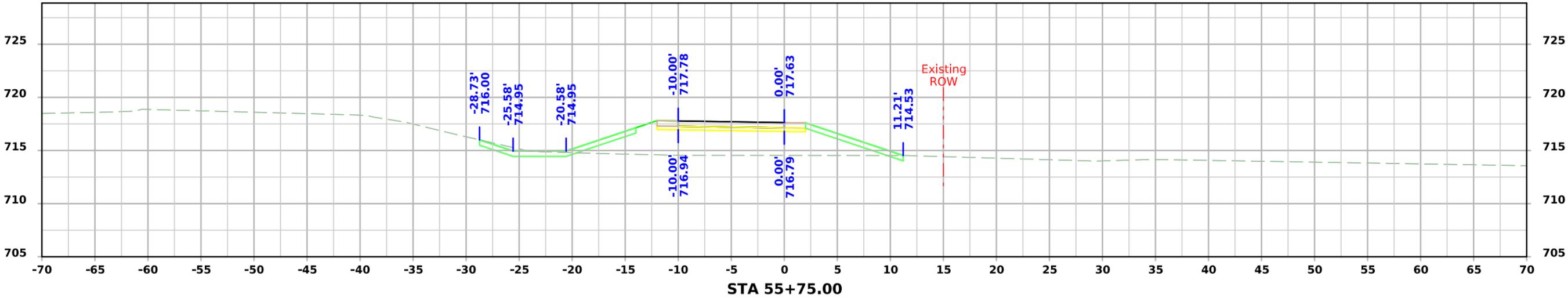
# Clear Creek Trail Phase 2



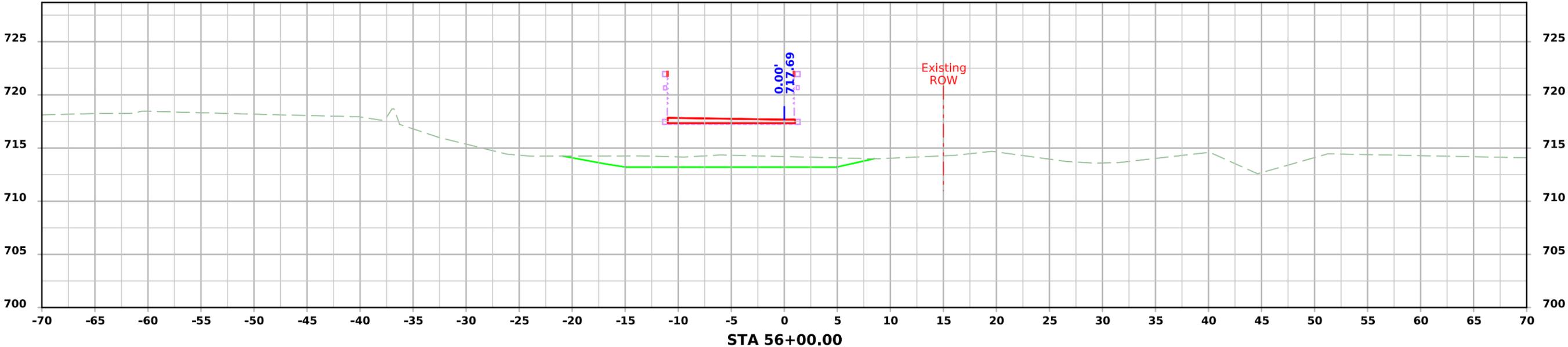
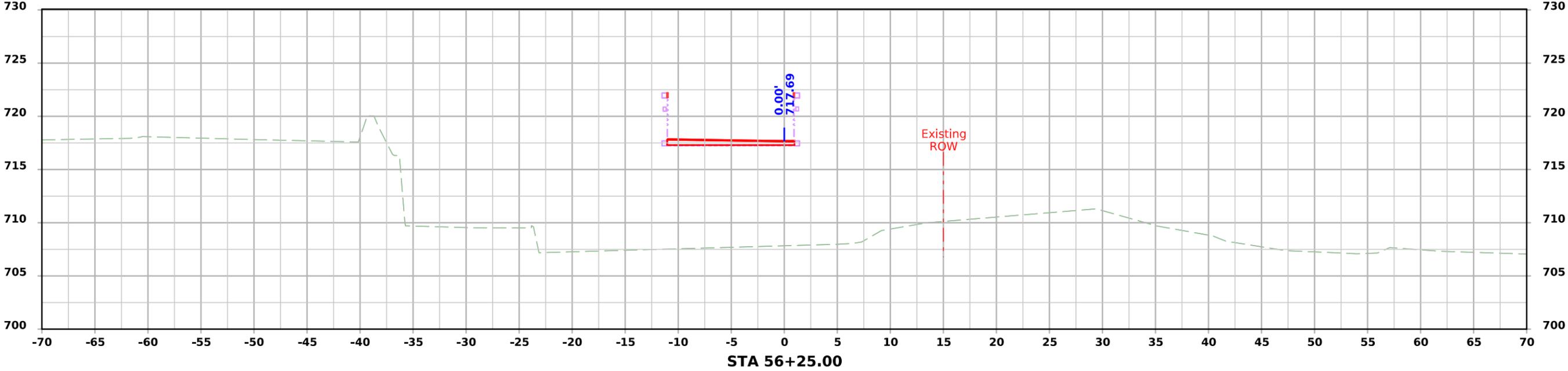
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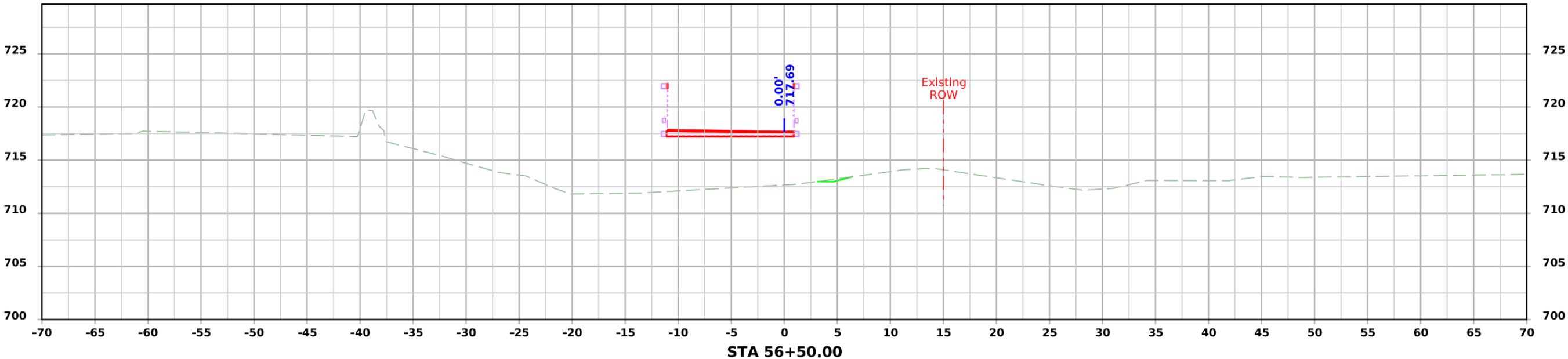
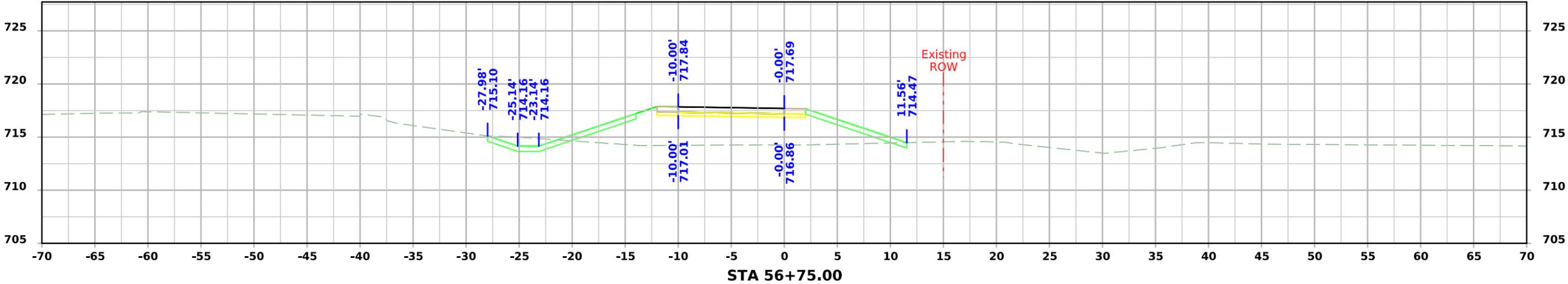
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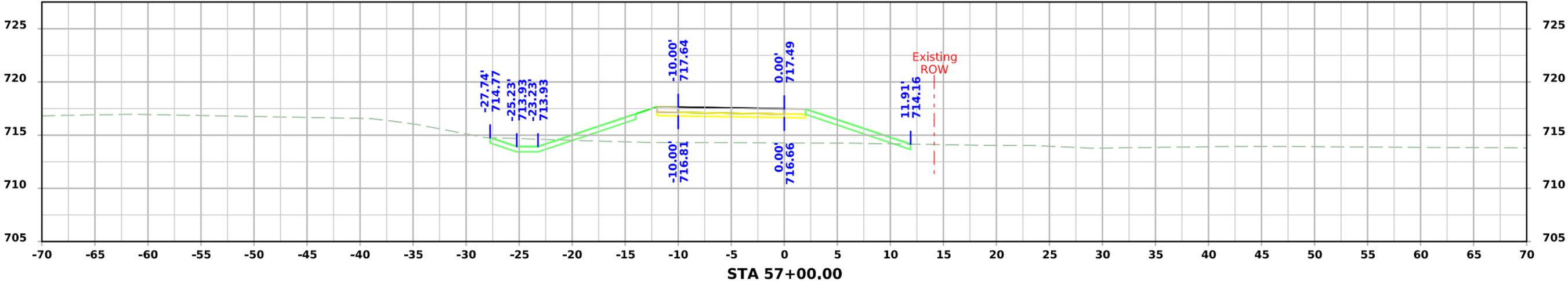
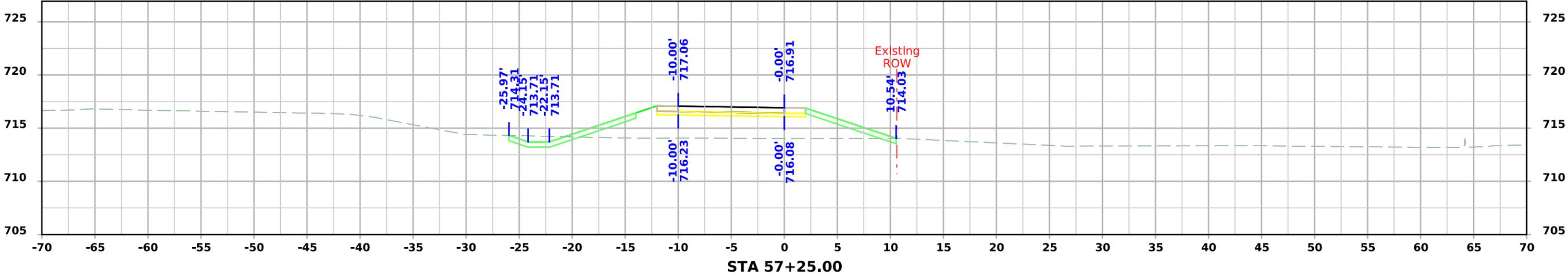
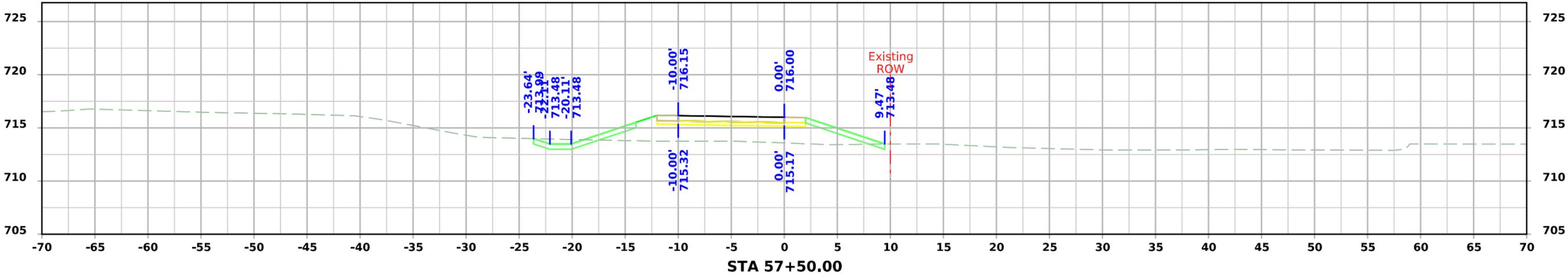
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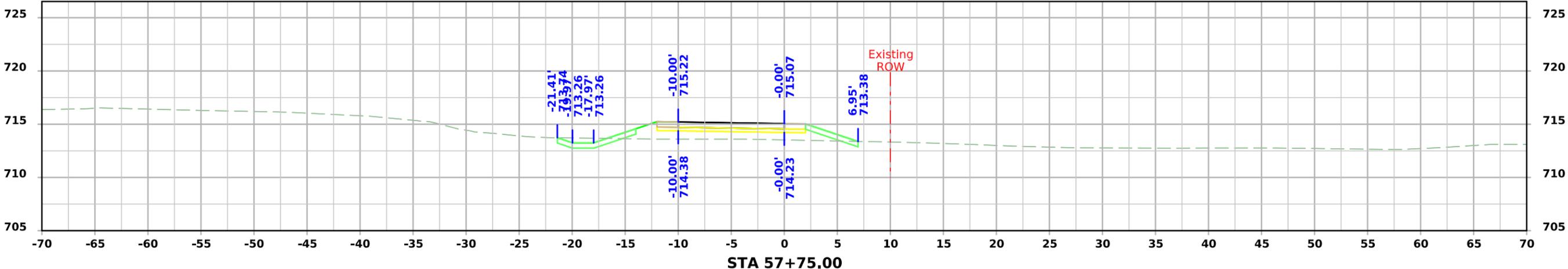
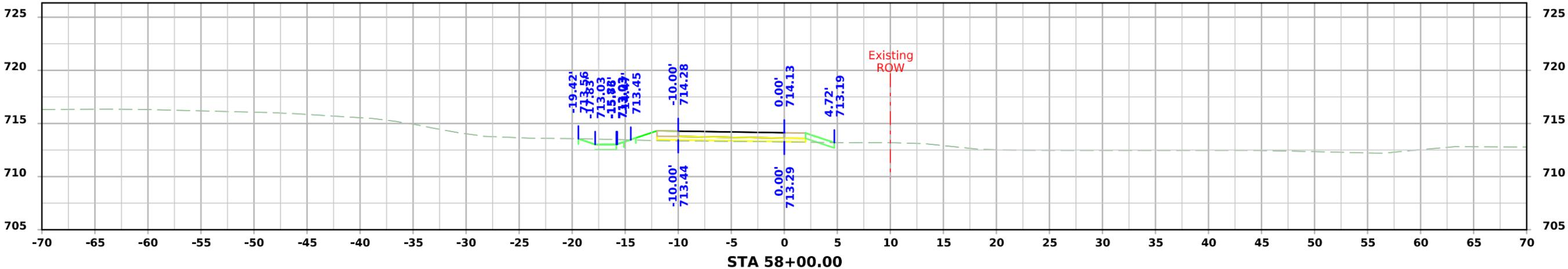
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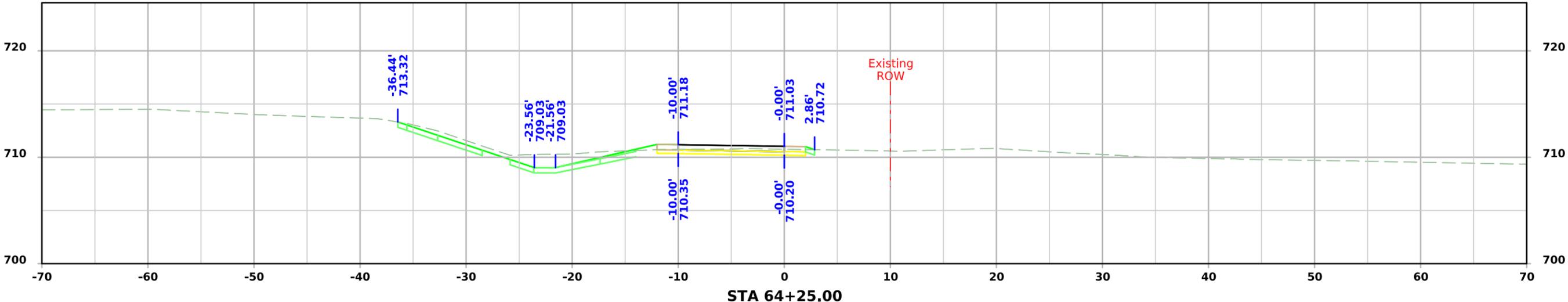
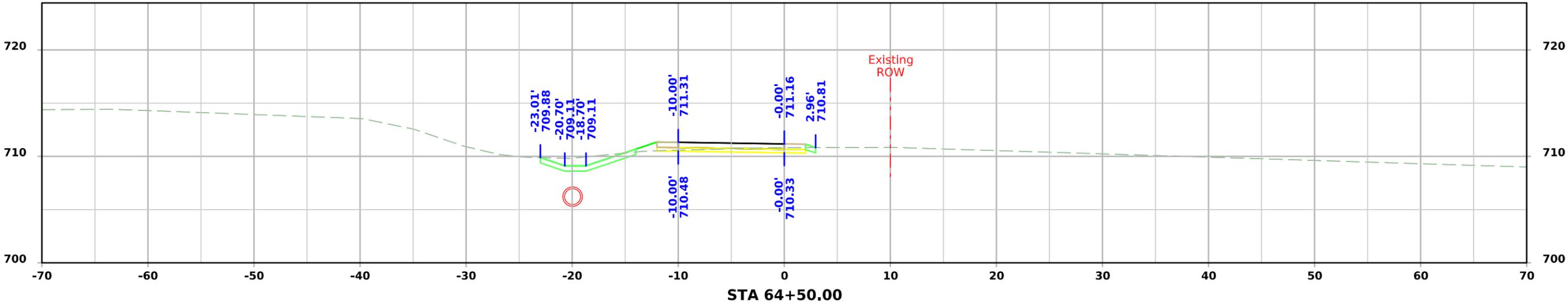
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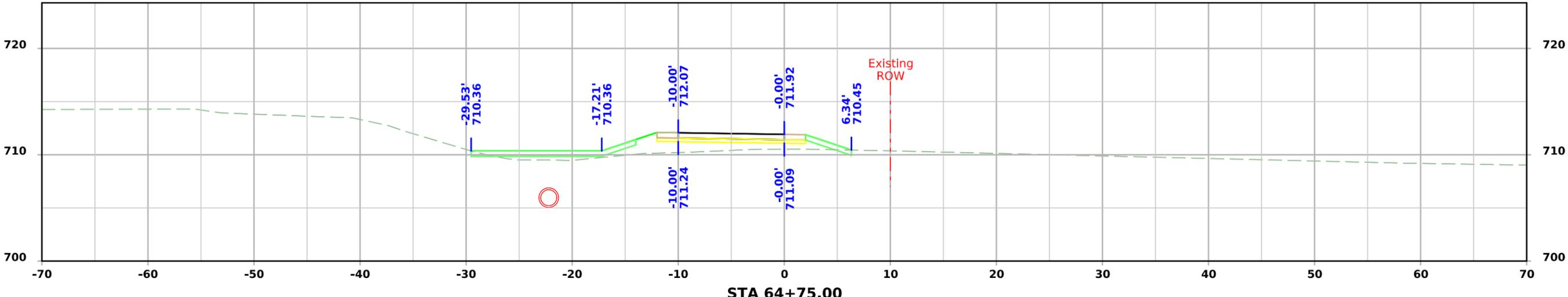
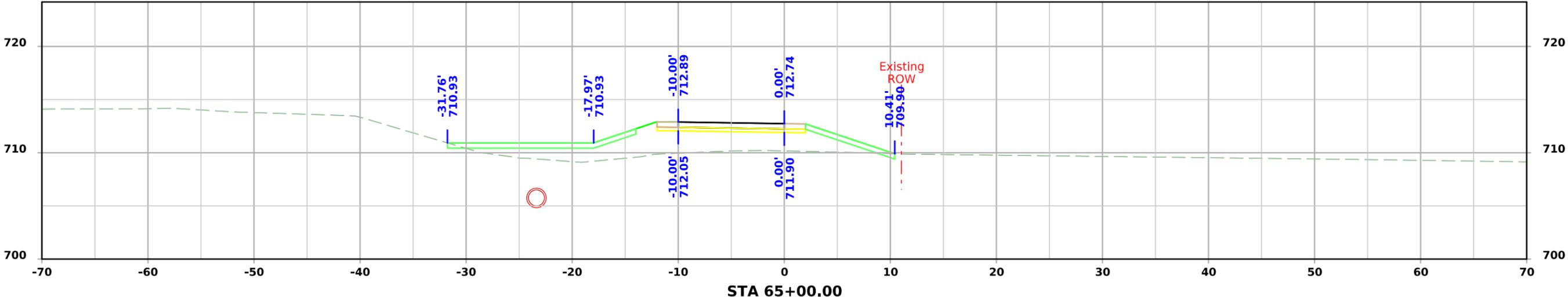
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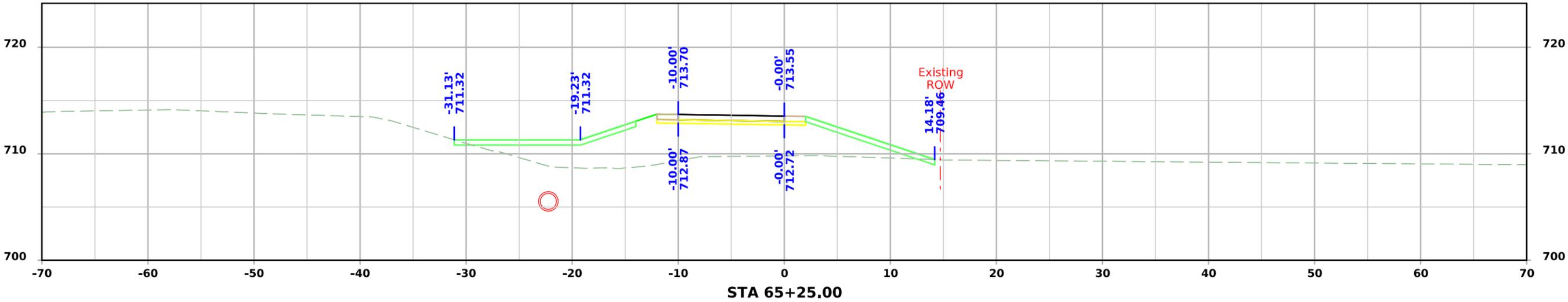
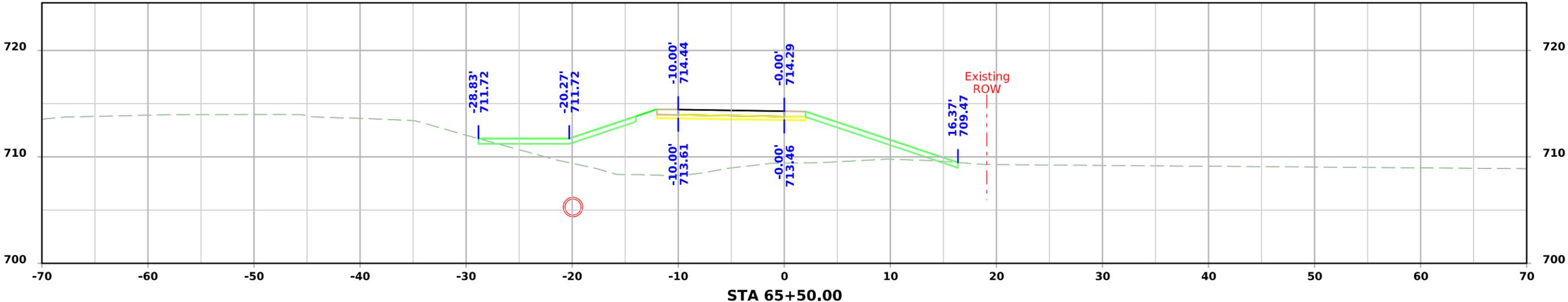
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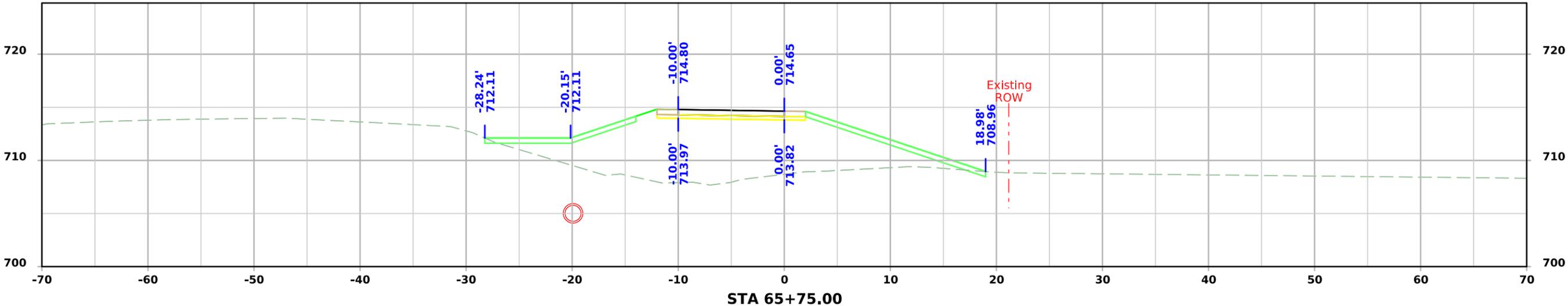
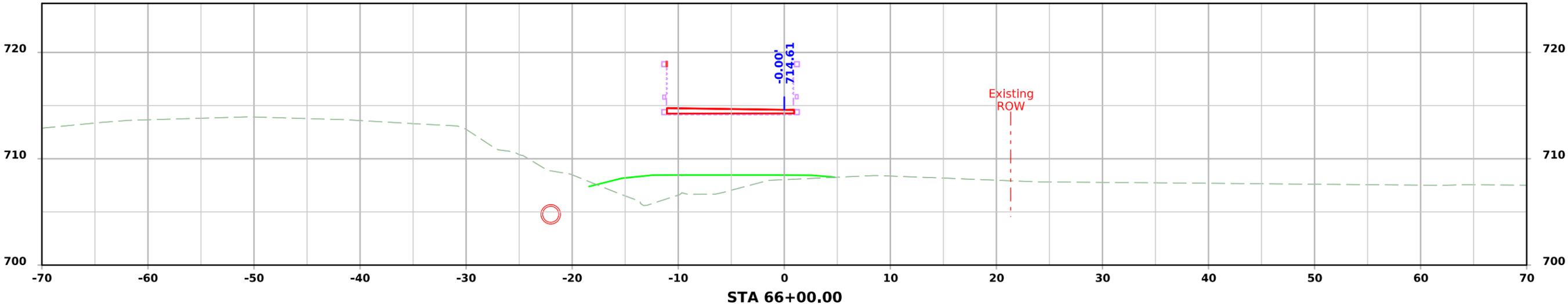
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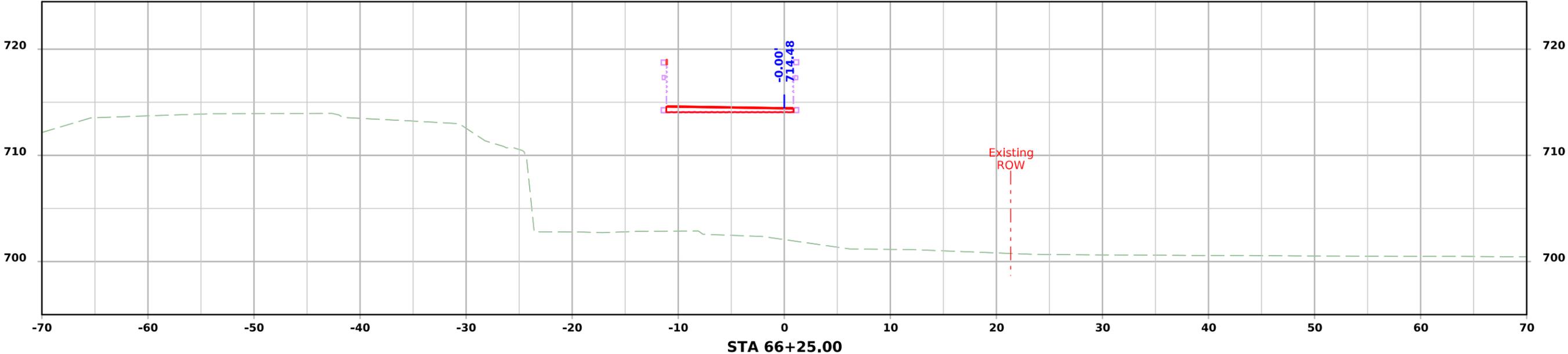
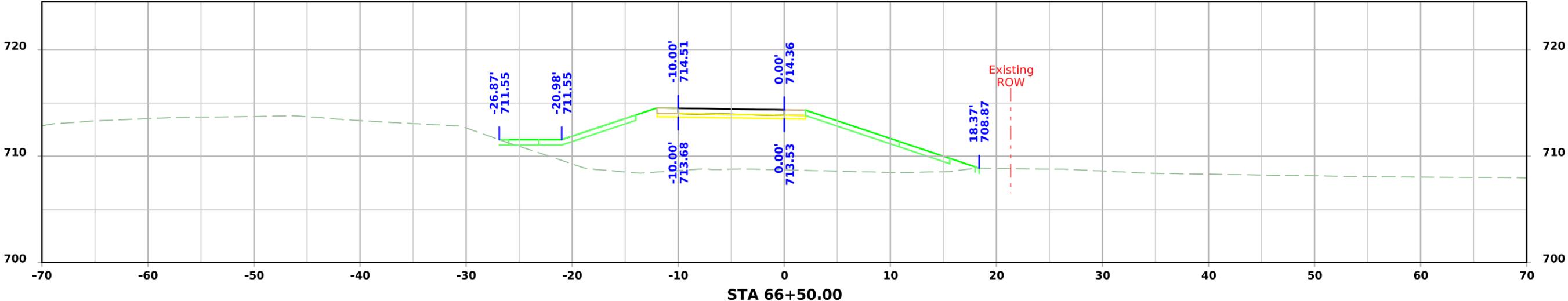
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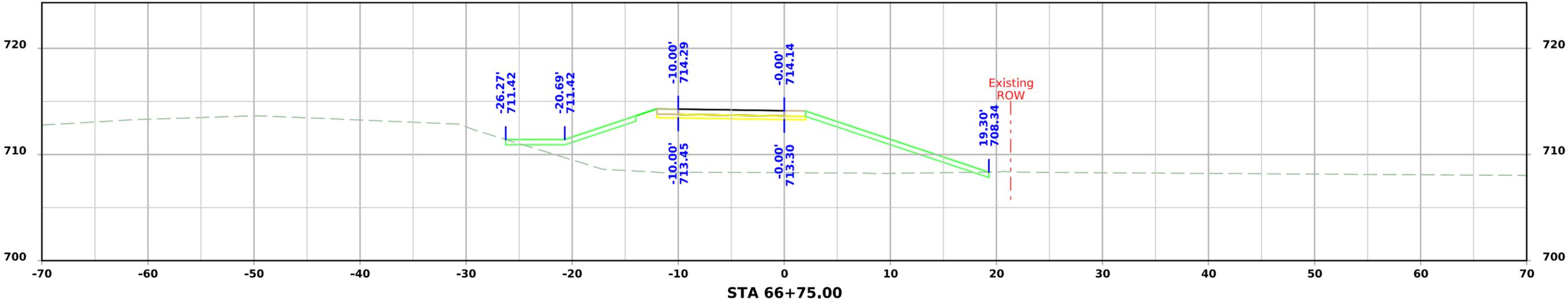
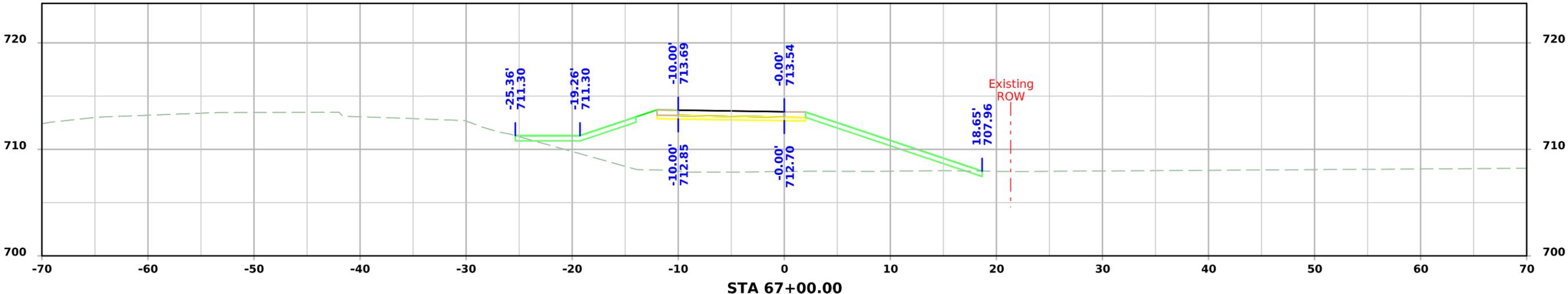
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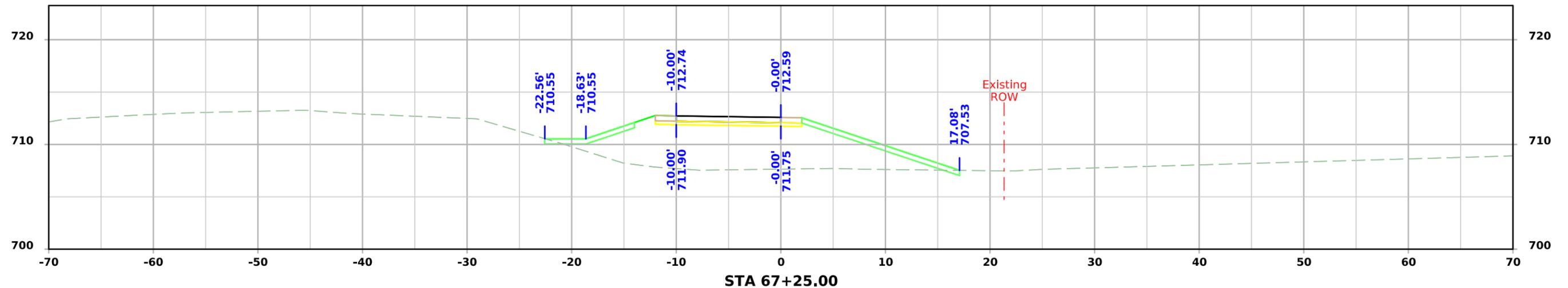
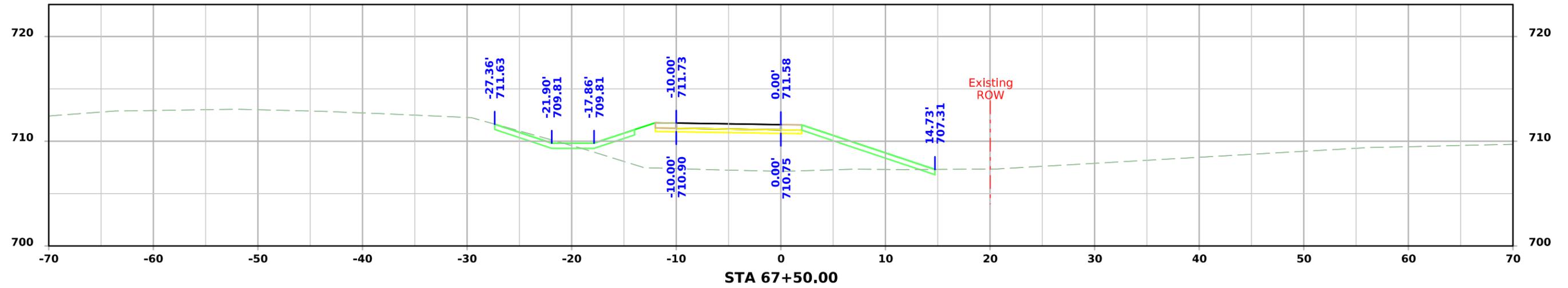
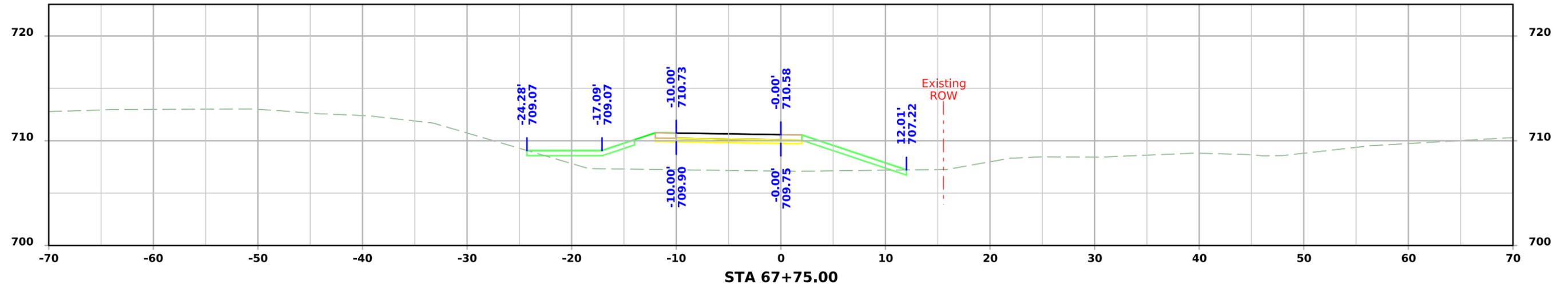
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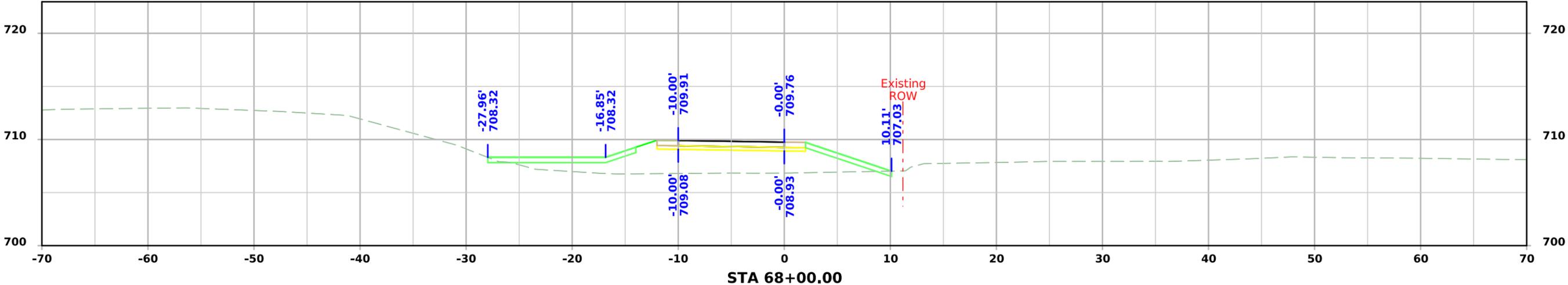
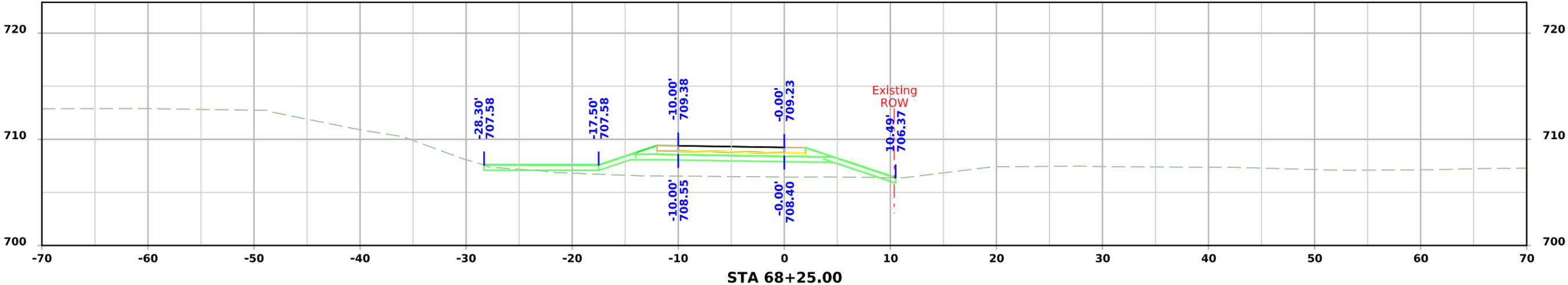
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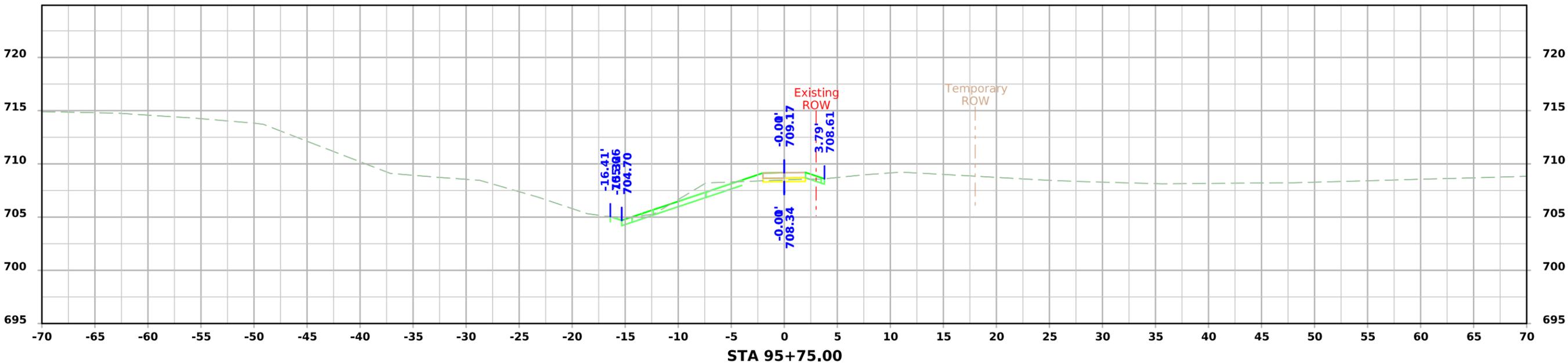
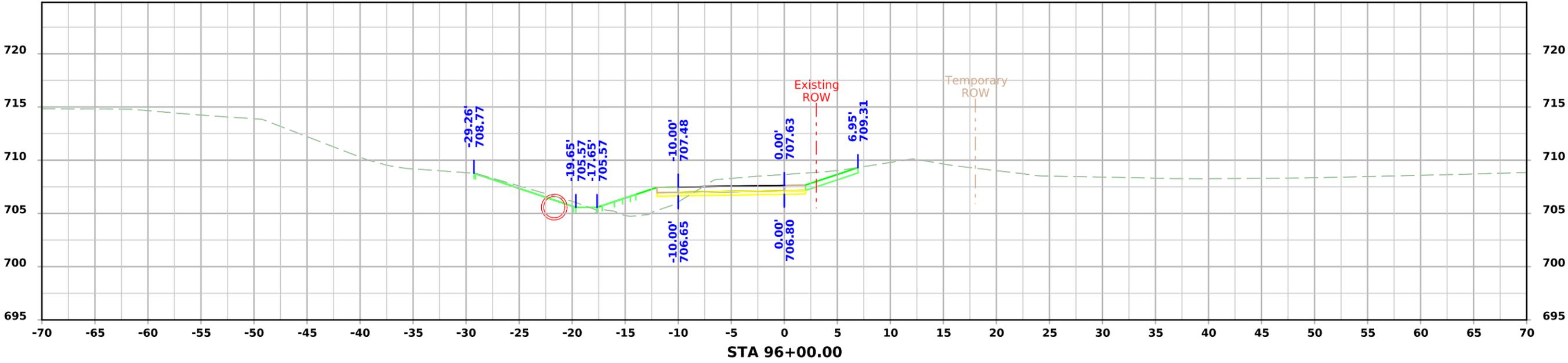
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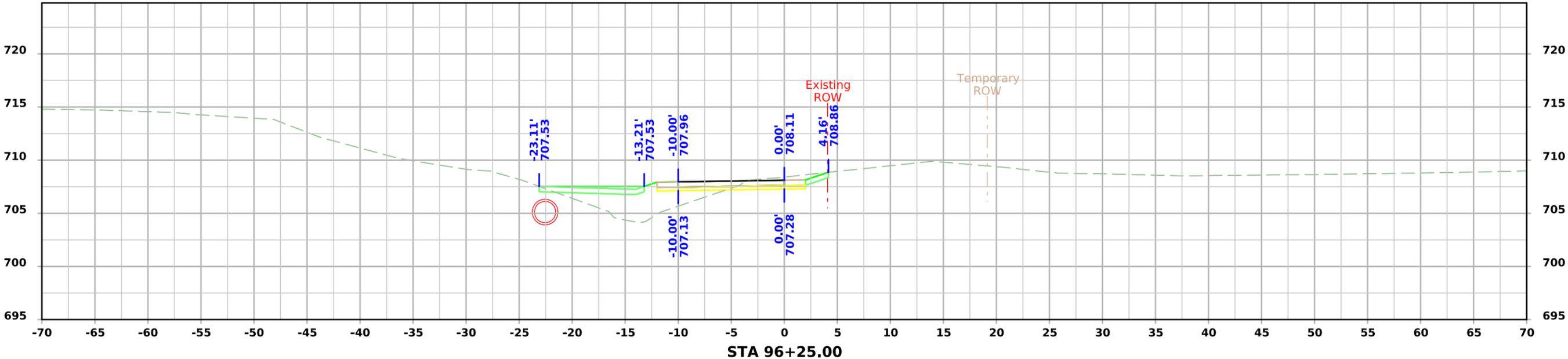
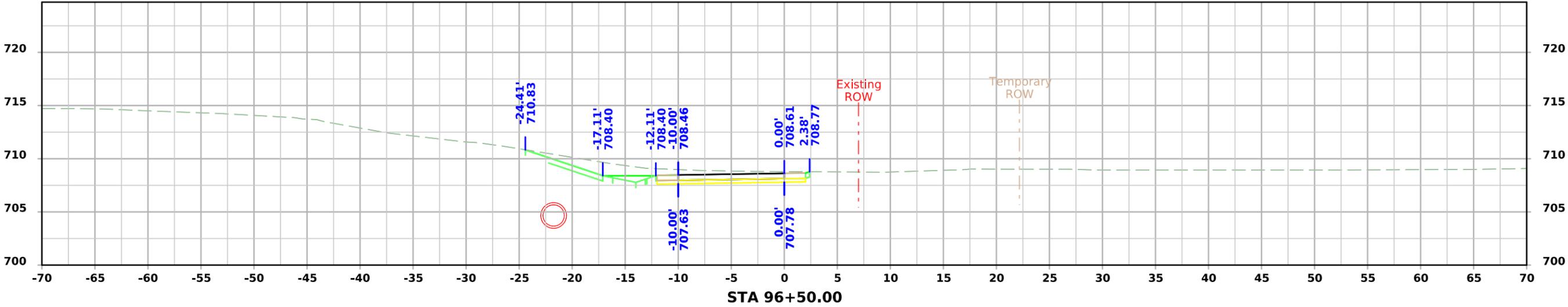
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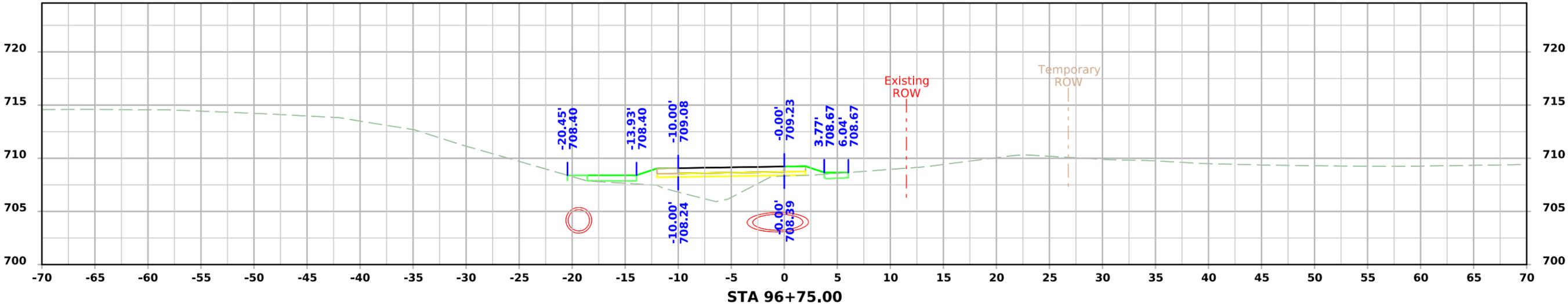
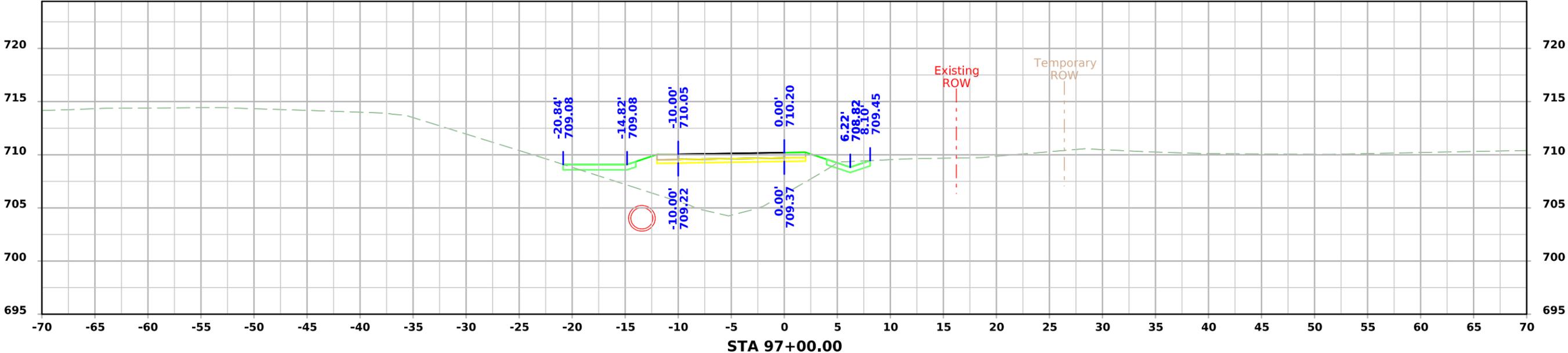
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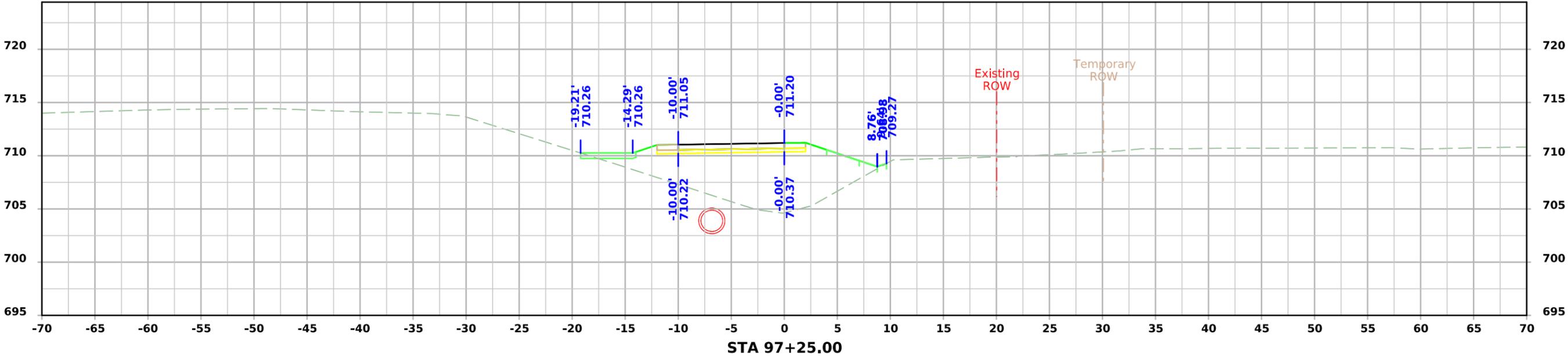
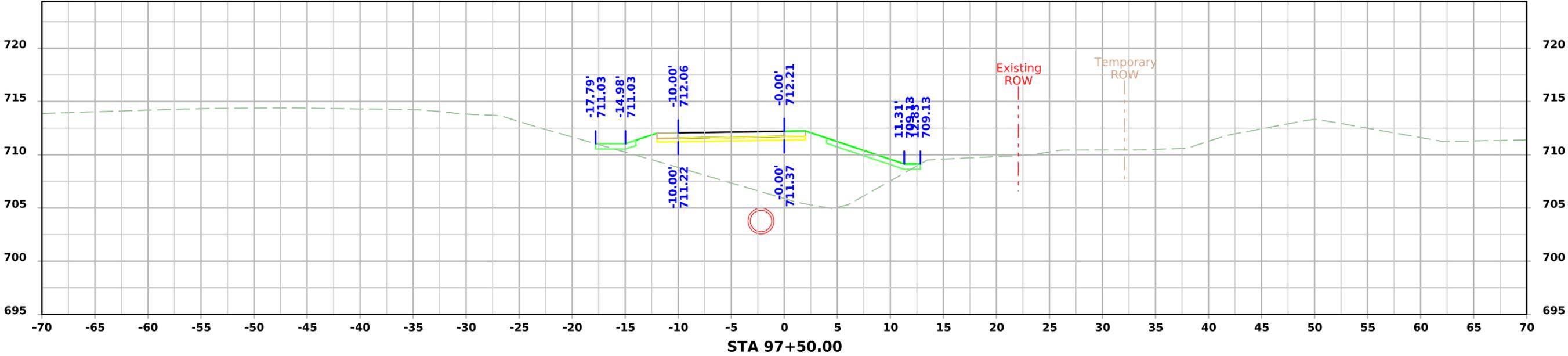
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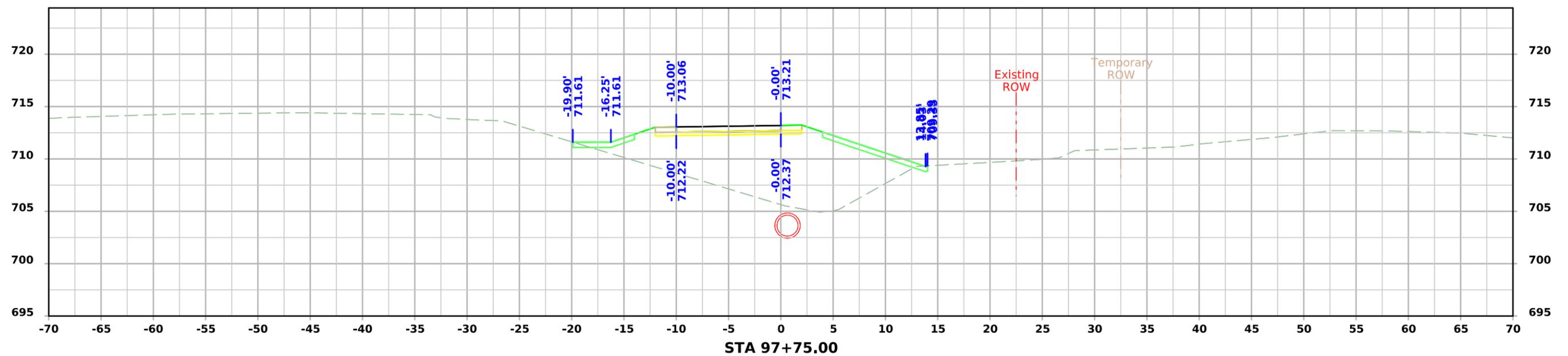
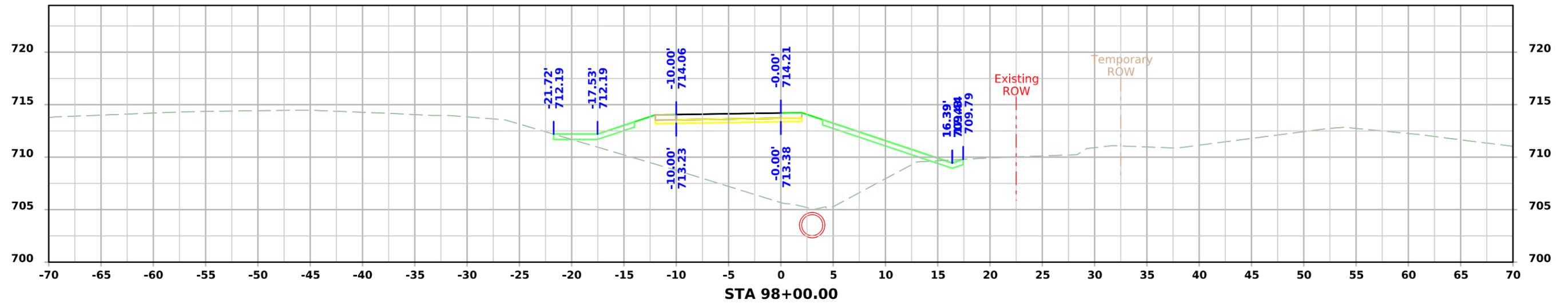
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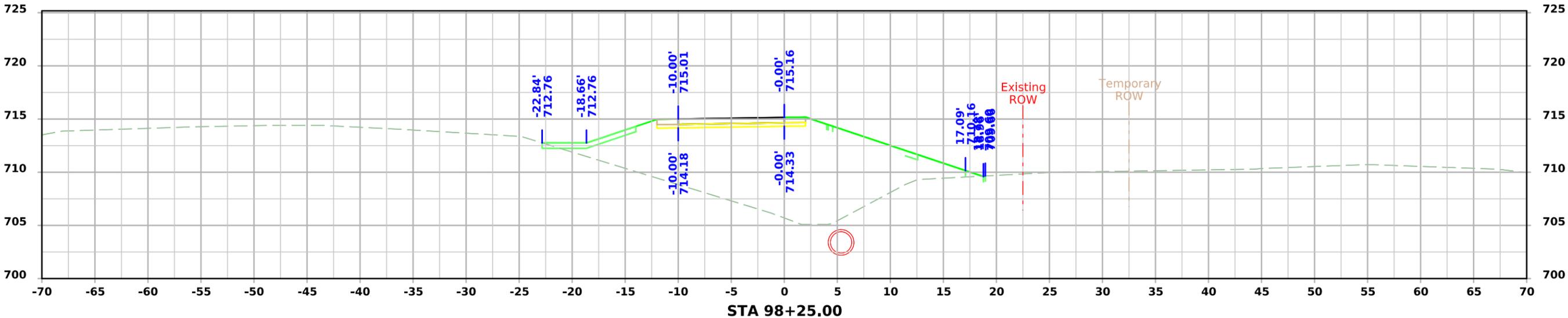
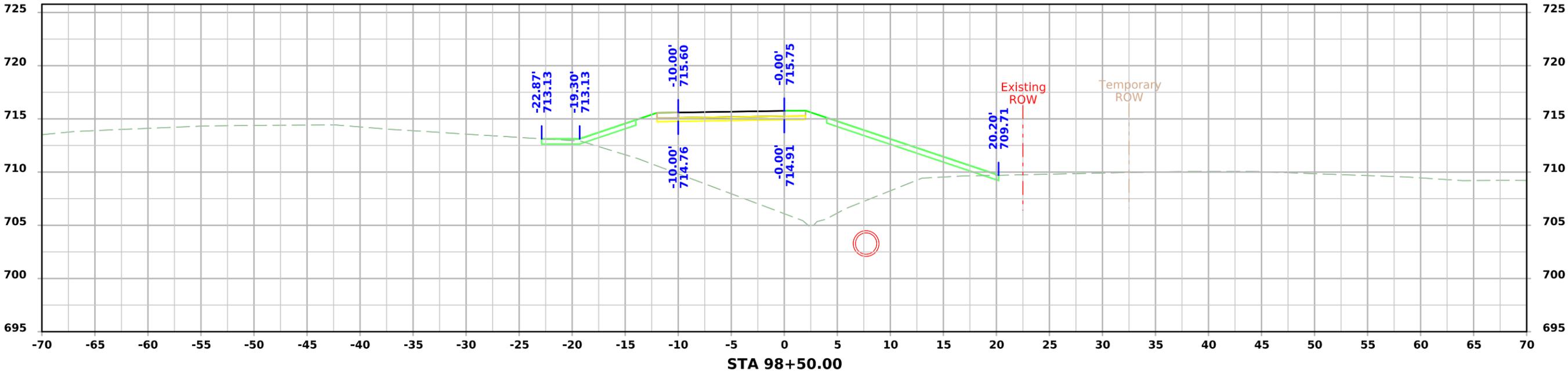
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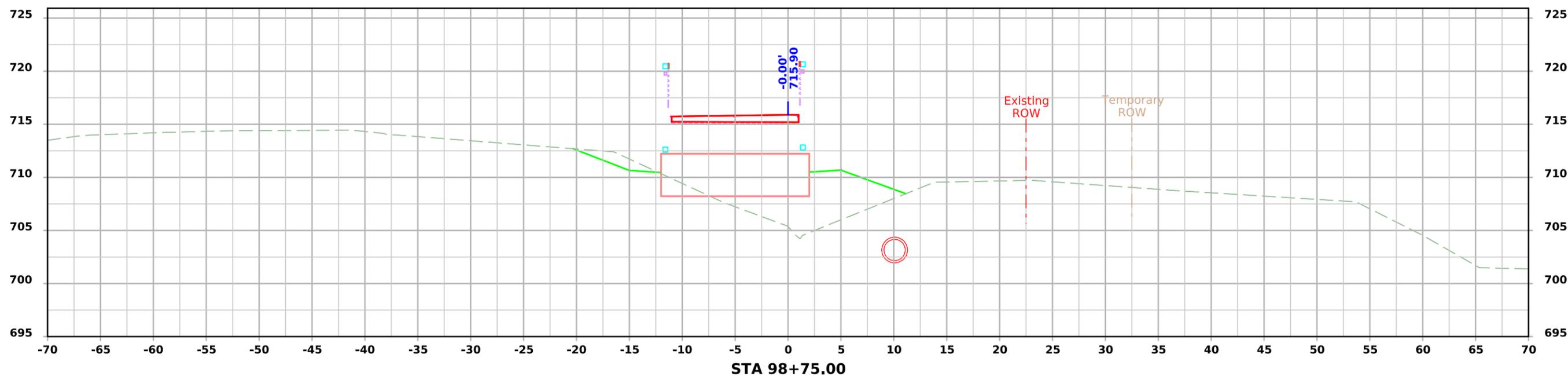
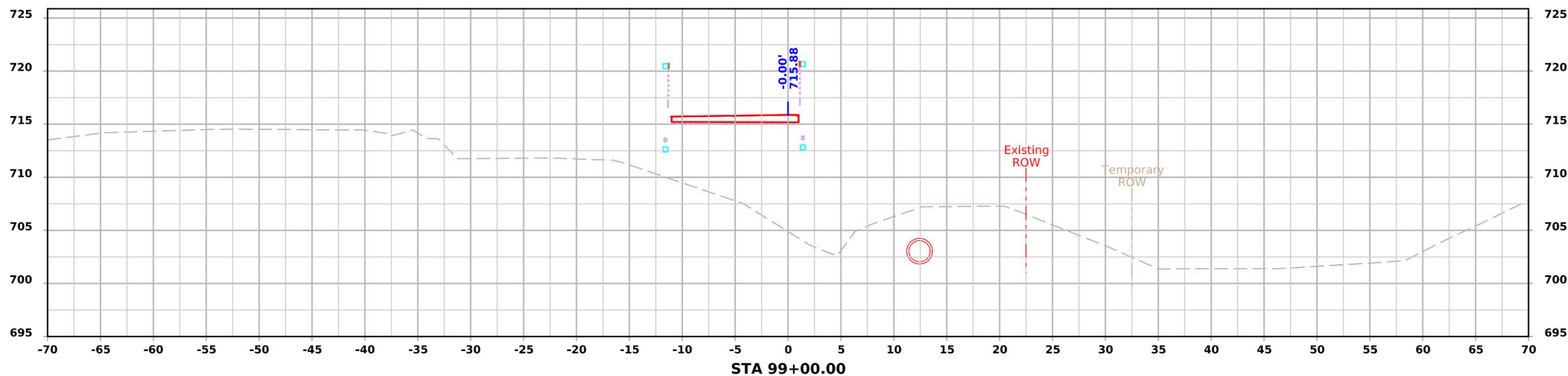
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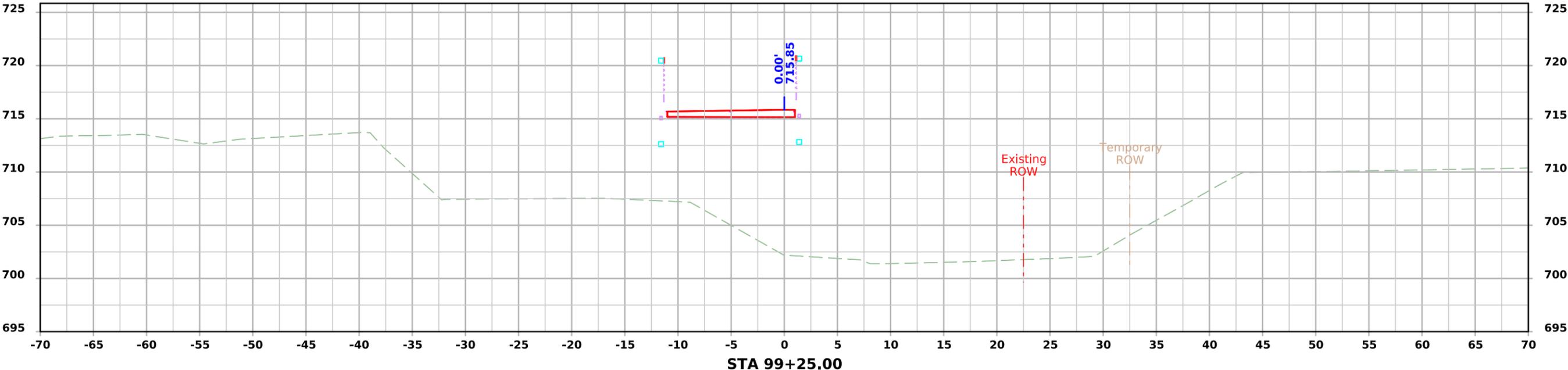
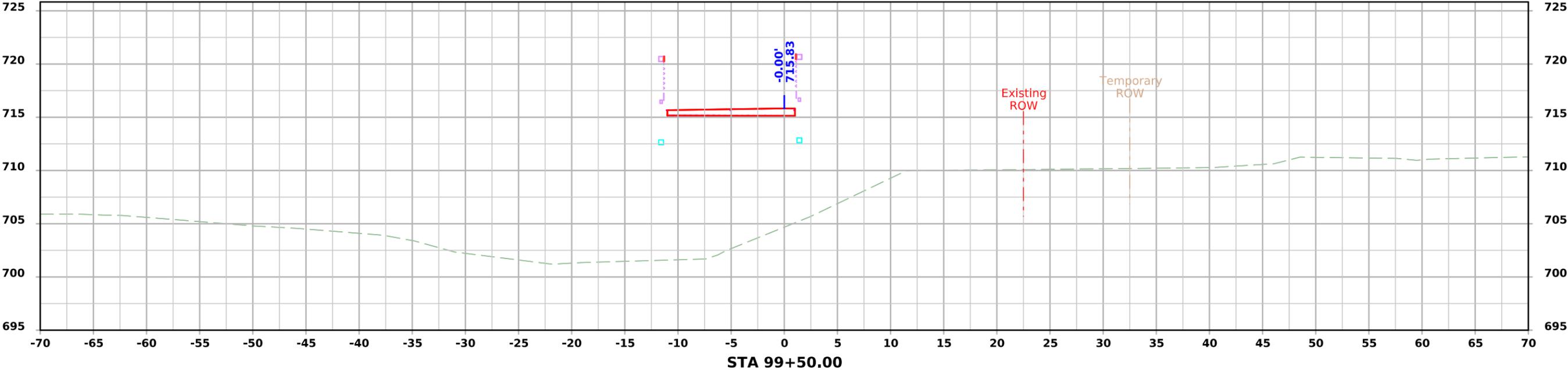
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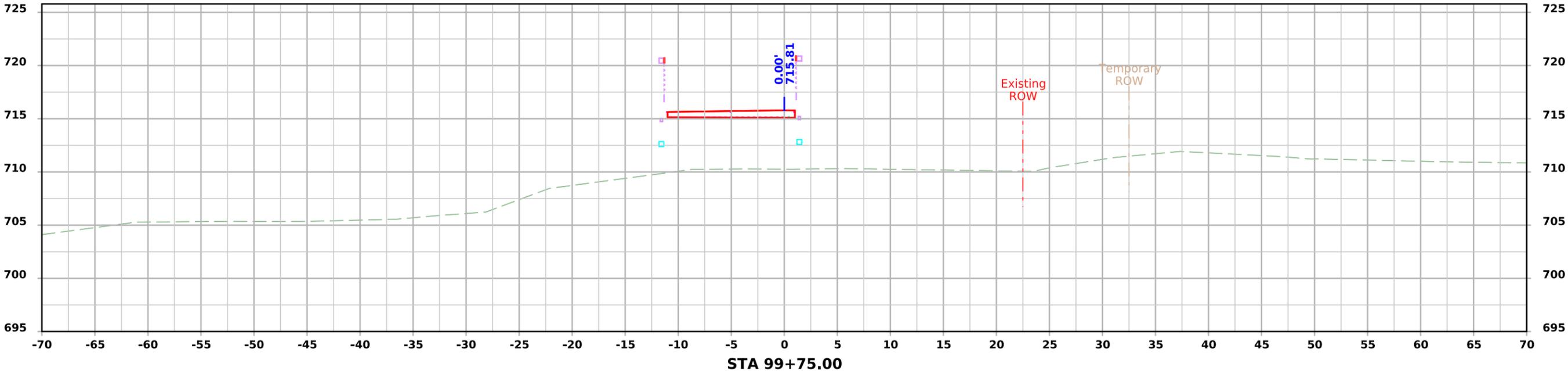
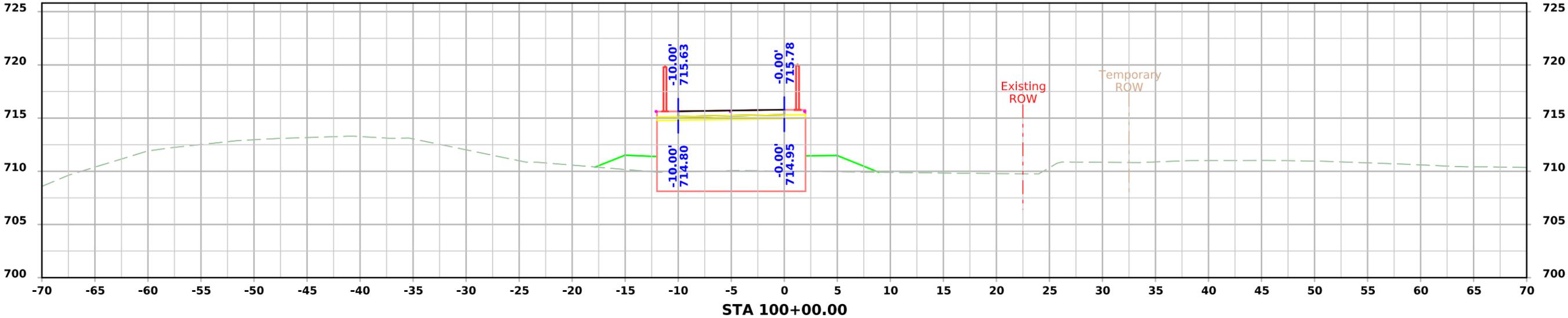
# Clear Creek Trail Phase 2



# Clear Creek Trail Phase 2



# Clear Creek Trail Phase 2



# Clear Creek Trail Phase 2

