LETTING DATE Jan 19 2028

Grade and Pave

STP-021-3(018)--2C-48

Iowa \ Benton COUNTY

INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	**Title Sheets**
A.1	Title Sheet
A.2	Location Map Sheet
B Sheets	**Typical Cross Sections and Details**
B.1 - 6	Typical Cross Sections and Details
C Sheets	**Quantities and General Information**
C.1	Access Points and Safety Ramps
D Sheets	**Mainline Plan and Profile Sheets**
D.1	Plan & Profile Legend & Symbol Information Sheet
D.2 - 10	IA 21 Plan and Profile
G Sheets	**Survey Sheets**
G.1	Reference Ties and Bench Marks
G.2	Control Point Vicinity Map
G.3	Horizontal and Vertical Control Tab.
J Sheets	**Traffic Control and Staging Sheets**
J.1	Traffic Control Plan
J.2 - 3	Paddling Route Traffic Control
U Sheets	**500 Series, Mod.Stds. and Detail Sheets**
U.1	Existing Superelevation Information
V Sheets	**Bridge and Culvert Situation Plans**
V.0 - 12	Bridge and Culvert Situation Plans
VW.1	Mainline Culvert Cross Sections
W Sheets	**Mainline Cross Sections**
W.1	Cross Sections Legend & Symbol Information Sheet
W.2 - 63	IA 21 Cross Sections
X Sheets	**Side Road Cross Sections**
X.1 - 3	Mainline Entrance Profiles

<-- H Sheets

IOWA DOT

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

Iowa \ Benton COUNTY

Grade and Pave

0.3 mi N of IA 212 to
3rd St in Belle Plaine

SCALES: As Noted

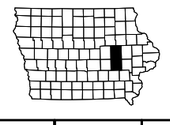
Refer to the Proposal Form for list of applicable specifications.

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

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
811 Know what's below. Call before you dig.

REVISIONS

TOTAL 105
PROJECT IDENTIFICATION NUMBER
23-48-021-030
PROJECT NUMBER
STP-021-3(018)--2C-48
R.O.W. PROJECT NUMBER



DESIGN DATA RURAL			
2029	AADT	2,790	V.P.D.
2049	AADT	2,930	V.P.D.
20 –	DHV	–	V.P.H.
TRUCKS		12	%
Total Design ESALs		–	

INDEX OF SEALS

SHEET NO.	NAME	TYPE	BID QUANTITY SHEETS
A.1	X	Primary Signature Block	X
X	X	X	X

PRELIMINARY PLANS

Subject to change by final design.

D5 REVISION: 4/8/2026

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER A.1

9:23:14 AM 4/7/2026 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_A01.dgn

END CONSTRUCTION
STA 165+28.99
MP 55.44

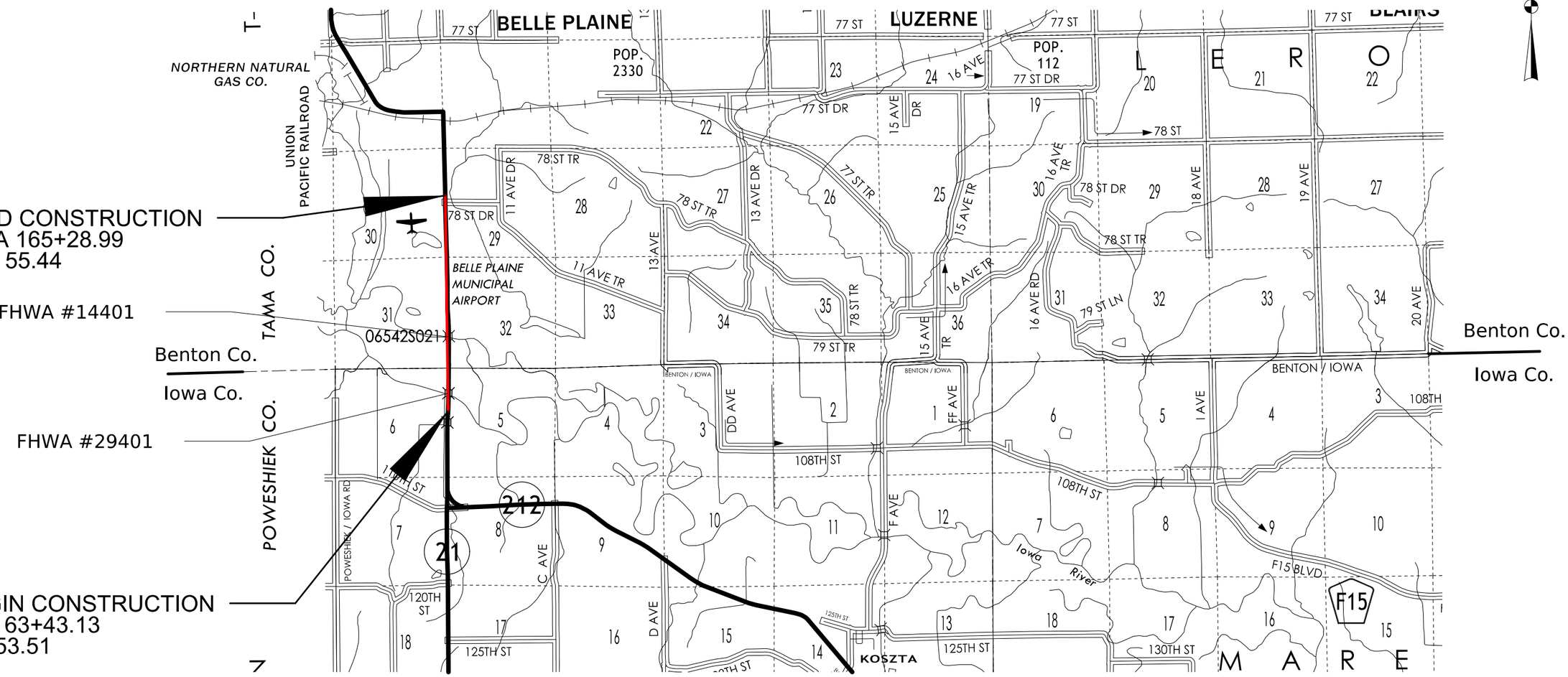
FHWA #14401

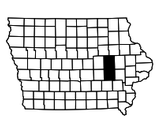
Benton Co.

Iowa Co.

FHWA #29401

BEGIN CONSTRUCTION
STA 63+43.13
MP 53.51



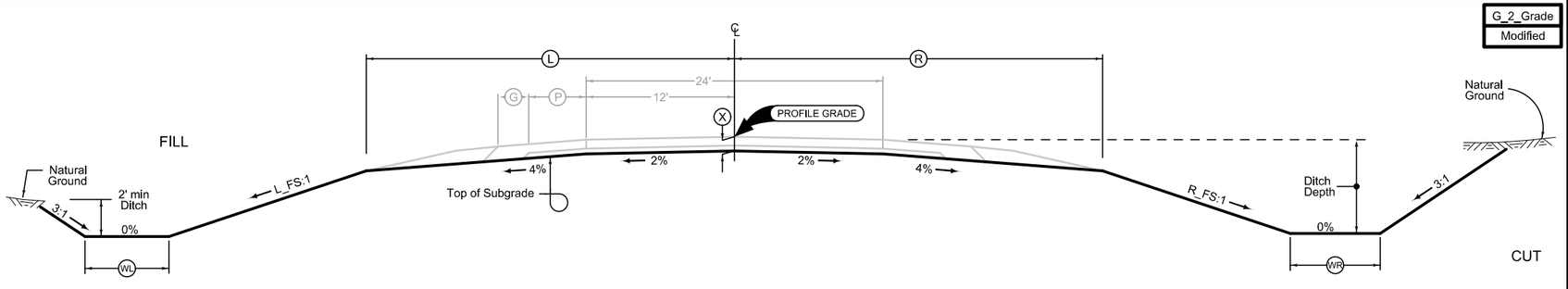


LOCATION MAP SCALE
0 1 2 3
Miles

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER A.2	

10:53:49 AM 10/28/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_A01.dgn

LOCATION			DIMENSIONS						
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(WL) Feet	(WR) Feet	L_FS	R_FS
IA 21	109+93.10	121+36.31	28.1	30.5	21.5	0	N/A	3	4
IA 21	124+33.35	128+08.31	30.5	30.5	21.5	5	N/A	4	4
IA 21	131+05.34	148+50.00	30.5	30.5	21.5	5	N/A	4	4
IA 21	148+50.00	155+99.76	30.5	30.5	21.5	5	6	4	4
IA 21	155+99.76	160+49.76	Var.	Var.	21.5	5	6	4	4
IA 21	160+49.76	164+30.10	39.5	33.5	21.5	5	6	4	4
IA 21	164+30.10	165+25.00	24.6	33.5	21.5	Curb	6	Curb	4



Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

See plan & profile sheets and cross sections for additional details of ditches and backslopes.

2 LANE GRADING

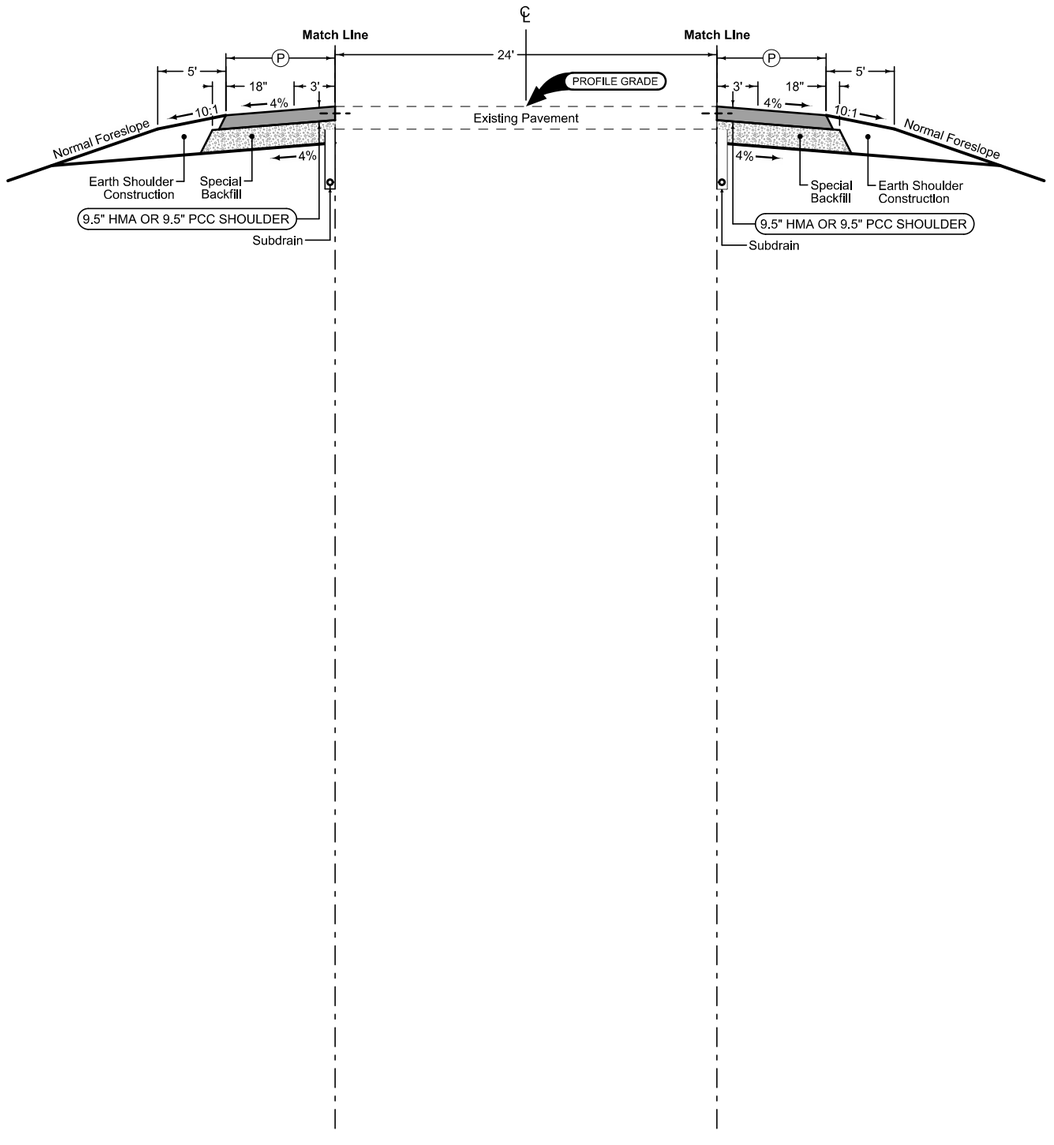
IA 21

Paved Shoulder at Guardrail

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5
Transverse joints: C at mainline spacing
HMA Shoulder Jointing:
Longitudinal joint: B

2_P_Guard_ 04-21-20		
STATION TO STATION		(P) Feet
63+83.68	64+52.44	Var.
72+18.66	73+30.54	Var.

(1) Typical follows Detail 7156



Paved Shoulder at Guardrail

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5
Transverse joints: C at mainline spacing
HMA Shoulder Jointing:
Longitudinal joint: B

2_P_Guard_ 04-21-20		
STATION TO STATION		(P) Feet
63+30.14	64+52.44	Var.
72+18.66	72+87.59	Var.

(1) Typical follows Detail 7156

IA 21

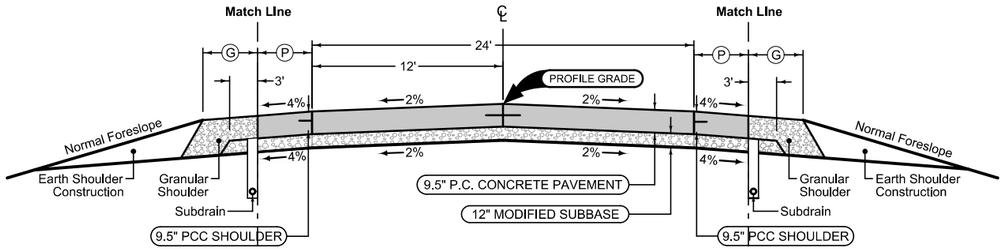
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER B.2	

2:21:09 PM 10/24/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_B01.dgn

Full Depth PCC Combination Shoulder

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

2_C_FullPCC_ Modified			
STATION TO STATION		(P) Feet	(G) Feet
80+38.12	81+22.50	4	6
86+44.99	93+64.96	4	6
99+03.23	120+59.31	4	6
132+07.78	159+50.00	4	6



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

2P_ 04-21-20	
STATION TO STATION	
80+38.12	81+88.06
85+41.94	94+53.07
98+00.61	121+37.36
124+33.35	128+08.31
131+04.27	159+50.00

Full Depth PCC Combination Shoulder

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

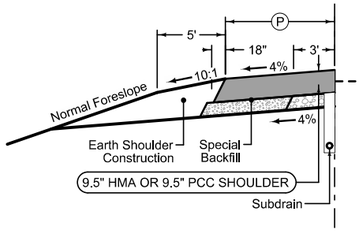
2_C_FullPCC_ Modified			
STATION TO STATION		(P) Feet	(G) Feet
80+38.12	80+85.01	4	6
86+07.50	93+50.64	4	6
98+65.44	120+34.31	4	6
131+56.85	159+50.00	4	6

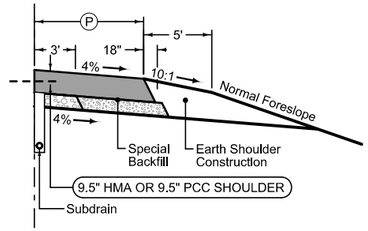
Paved Shoulder at Guardrail

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5
Transverse joints: C at mainline spacing
HMA Shoulder Jointing:
Longitudinal joint: B

2_P_Guard_ 04-21-20		
STATION TO STATION		(P) Feet
81+22.50	81+88.06	Var.
85+41.94	86+44.99	Var.
93+64.96	94+53.07	Var.
98+00.61	99+03.23	Var.
120+59.31	121+37.36	Var.
124+32.24	128+09.39	7.6'
131+04.27	132+07.78	Var.

(1) Typical follows Detail 7157





Paved Shoulder at Guardrail

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-5
Transverse joints: C at mainline spacing
HMA Shoulder Jointing:
Longitudinal joint: B

2_P_Guard_ 04-21-20		
STATION TO STATION		(P) Feet
80+85.01	81+88.06	Var.
85+41.94	86+07.50	Var.
93+50.64	94+53.07	Var.
98+00.61	98+65.44	Var.
120+34.31	121+37.36	Var.
124+32.24	128+09.39	7.6'
131+04.27	131+56.85	Var.

(1) Typical follows Detail 7157

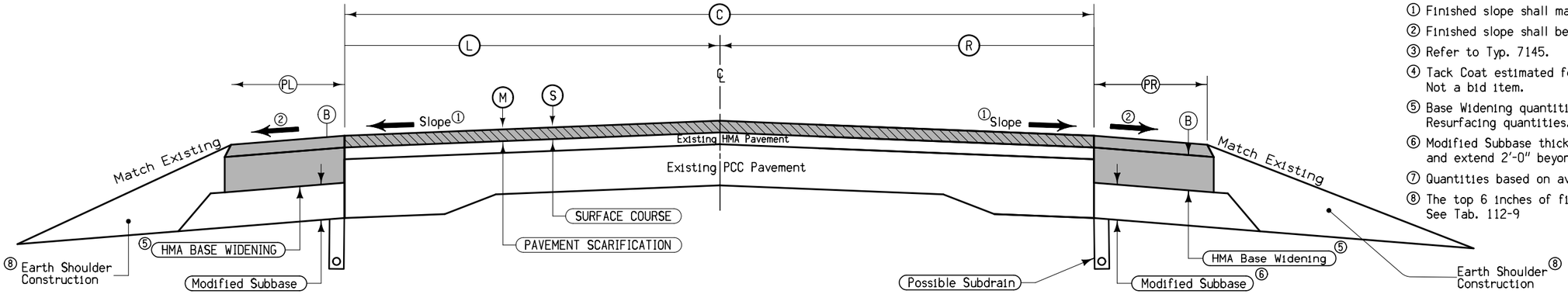
IA 21

= HMA Resurfacing and Paved Shoulder

= Pavement Scarification

TYPICAL CROSS SECTION
HMA RESURFACING WITH MILLING

2602-A
MODIFIED



Notes:

① Finished slope shall match existing pavement.

② Finished slope shall be 4%.

③ Refer to Typ. 7145.

④ Tack Coat estimated for 1 applications. Not a bid item.

⑤ Base Widening quantities are not included with Resurfacing quantities. Refer to Tab. 106-5.

⑥ Modified Subbase thickness shall be 12 inches and extend 2'-0" beyond the edge of Base Widening.

⑦ Quantities based on average widths.

⑧ The top 6 inches of fill material shall be Topsoil. See Tab. 112-9

DESIGN RATES	
ITEM	RATE
Surface Course	155 lbs./cu. ft.
Intermediate Course	150 lbs./cu. ft.
Tack Coat	0.05 gal./sq. yds.

TABLE OF DESIGN QUANTITIES Per Station

Location			(S)	(M)	(C)	(L)	(R)	(PL)	(PR)	Tack Coat	Asphalt Binder	Hot Mix Asphalt (Tons)	Pavement Scarification	Remarks
Road ID	Station to Station		Inches	Inches	Feet	Feet	Feet	Feet	Feet	Gallons ④	Tons	Surface	Tons	
IA 21	159+50.00	160+00.00	2.0	2.0	24	12	12	10	10					
IA 21	160+00.00	162+50.00	2.0	2.0	24	12	12	10-4.5	10					

IA 21

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER B.4	

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DESIGNER INFORMATION

7156
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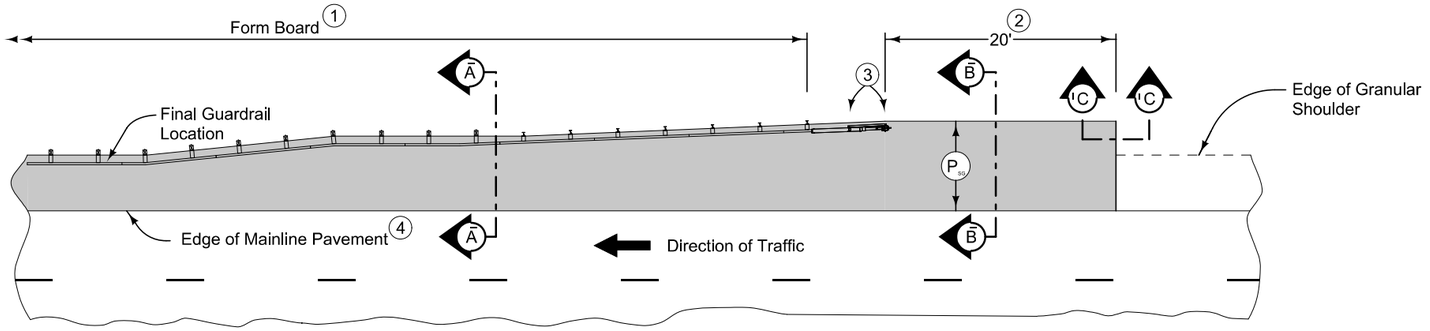
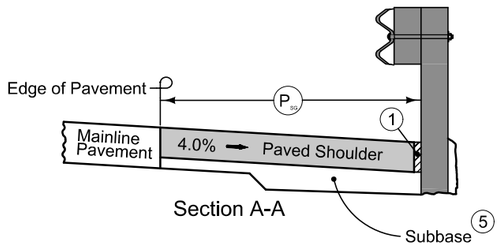
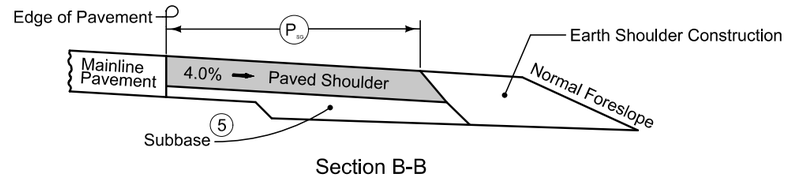


PLAN VIEW





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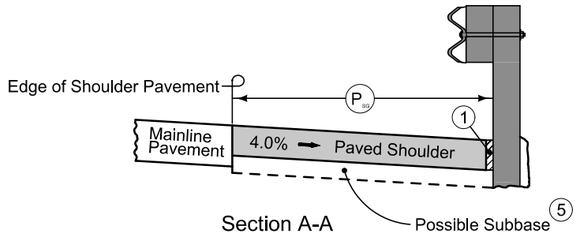
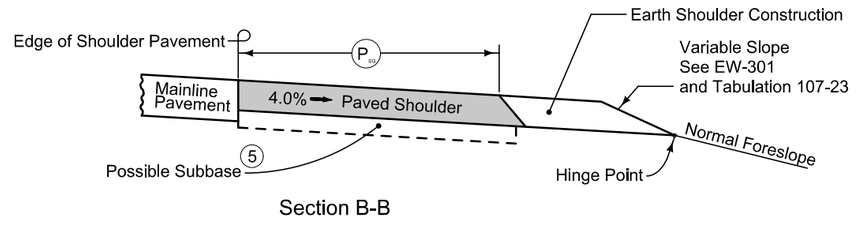




EXISTING SHOULDER

9.5" HMA Paved Shoulder at guardrail. 9.5" PCC may be substituted with the following jointing layout:

Match mainline pavement joint spacing. When mainline pavement is 8" or greater in thickness, place additional transverse 'C' joints in shoulder at mid-panel of the mainline pavement. Place longitudinal 'C' joint at P/2 from edge of mainline pavement when P is greater than 10' wide. Terminate longitudinal joint at transverse joint less than 10' in length.

Compaction of HMA is required to face of guardrail post. Hand compaction will be allowed under guardrail. Removal and reinstallation of guardrail will be allowed with no additional payment.

Refer to Tabulation 112-9 for shoulder quantities.

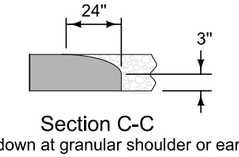
(1) PCC option only: When guardrail posts are installed prior to construction of PCC paved shoulder, fasten form board to the face of guardrail posts for the length shown.

(2) Continue paved shoulder 20 feet beyond the center of the first post.

(3) Shoulder may be notched for first 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.

(4) 'BT' joint (per PV-101) for PCC shoulder.
'B' joint (per PV-101) for HMA shoulder.

(5) Refer to other details in the plan.



PAVED SHOULDER AT GUARDRAIL
(GRANULAR SHOULDER ADJACENT TO MAINLINE)

7157
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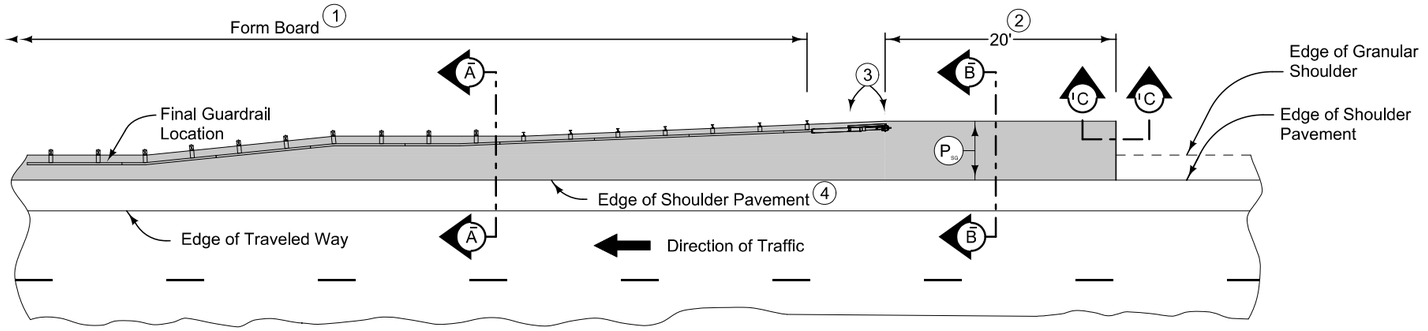
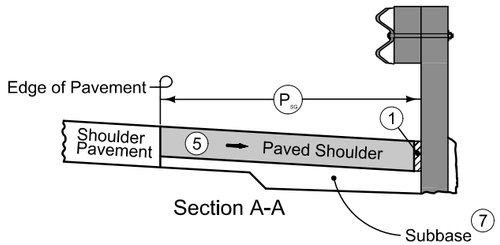
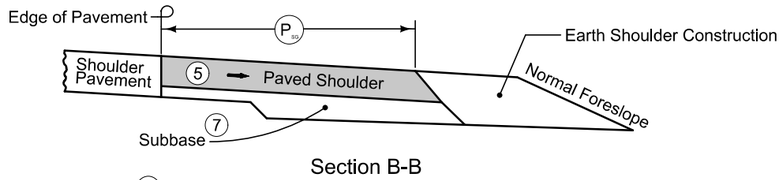


PLAN VIEW

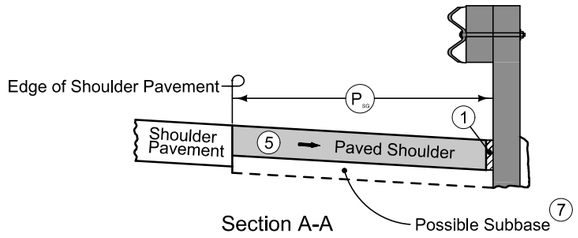


Section A-A

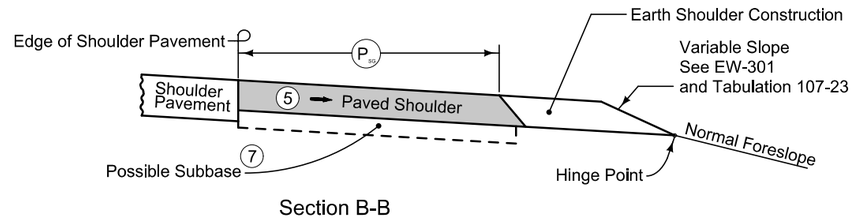


Section B-B

NEW CONSTRUCTION 6



Section A-A



Section B-B

EXISTING SHOULDER

9.5" HMA Paved Shoulder at guardrail. 9.5" PCC may be substituted with the following jointing layout:

Match mainline pavement joint spacing. When mainline pavement is 8" or greater in thickness, place additional transverse 'C' joints in shoulder at mid-panel of the mainline pavement. Place longitudinal 'C' joint at P/2 from edge of mainline pavement when P is greater than 10' wide. Terminate longitudinal joint at transverse joint less than 10' in length.

Compaction of HMA is required to face of guardrail post. Hand compaction will be allowed under guardrail. Removal and reinstallation of guardrail will be allowed with no additional payment.

Refer to Tabulation 112-9 for shoulder quantities.

(1) 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.

(2) Continue paved shoulder 20 feet beyond the center of the first post.

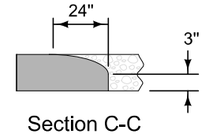
(3) Shoulder may be notched for first 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.

(4) 'BT' (per PV-101) joint for PCC shoulder.
'B' (per PV-101) joint for HMA shoulder.

(5) Match shoulder slope.

(6) The Contractor has the option to pave the paved shoulder at guardrail and the partial width paved shoulder as one operation.

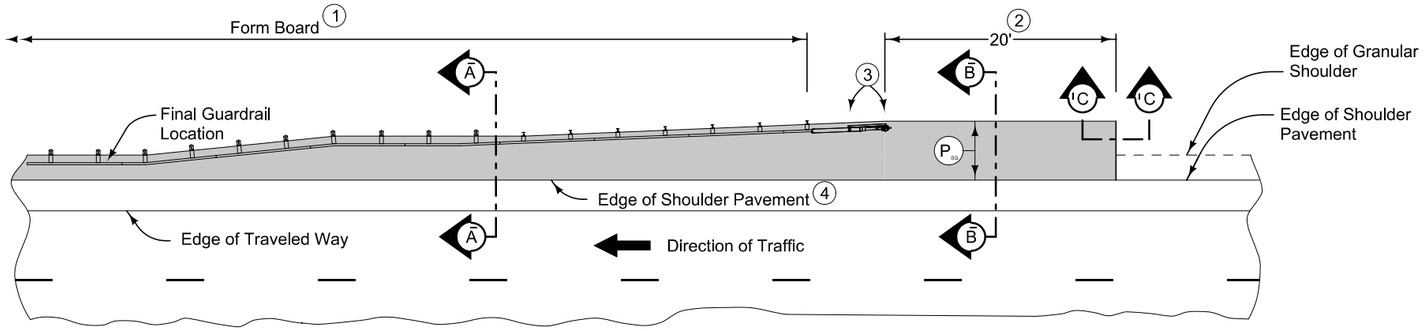
(7) Refer to other details in the plan.



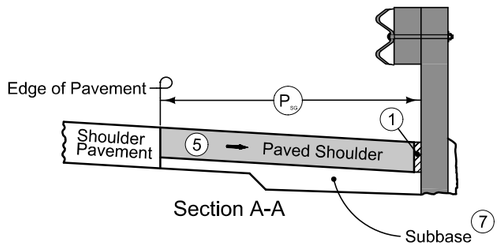
Section C-C
Roll down at granular shoulder or earth.

PAVED SHOULDER AT GUARDRAIL
(ADJACENT TO PARTIAL WIDTH PAVED SHOULDER)

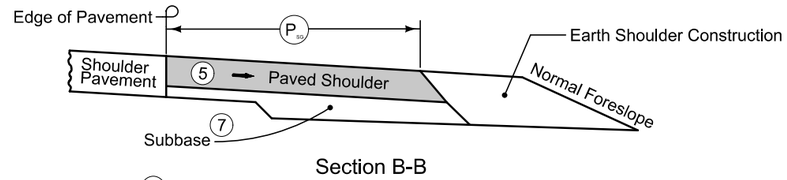
7157
Modified



PLAN VIEW

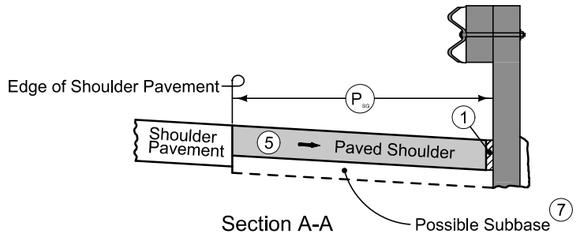


Section A-A

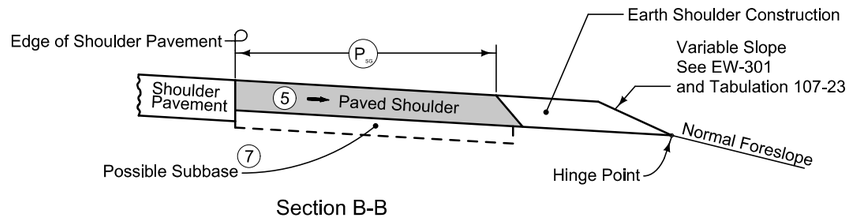


Section B-B

NEW CONSTRUCTION 6



Section A-A



Section B-B

EXISTING SHOULDER

9.5" HMA Paved Shoulder at guardrail. 9.5" PCC may be substituted with the following jointing layout:

Match mainline pavement joint spacing. When mainline pavement is 8" or greater in thickness, place additional transverse 'C' joints in shoulder at mid-panel of the mainline pavement. Place longitudinal 'C' joint at P/2 from edge of mainline pavement when P is greater than 10' wide. Terminate longitudinal joint at transverse joint less than 10' in length.

Compaction of HMA is required to face of guardrail post. Hand compaction will be allowed under guardrail. Removal and reinstallation of guardrail will be allowed with no additional payment.

Refer to Tabulation 112-9 for shoulder quantities.

(1) 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.

(2) Continue paved shoulder 20 feet beyond the center of the first post.

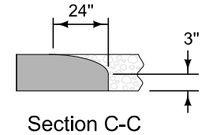
(3) Shoulder may be notched for first 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.

(4) 'BT' (per PV-101) joint for PCC shoulder.
'B' (per PV-101) joint for HMA shoulder.

(5) Match shoulder slope.

(6) The Contractor has the option to pave the paved shoulder at guardrail and the partial width paved shoulder as one operation.

(7) Refer to other details in the plan.



Section C-C
Roll down at granular shoulder or earth.

PAVED SHOULDER AT GUARDRAIL
(ADJACENT TO PARTIAL WIDTH PAVED SHOULDER)

ACCESS POINTS AND SAFETY RAMPS

Refer to Cross-Sections

Length of Unclassified Pipe calculated is based on using Corrugated Metal Pipe.
(1) Refer to MI-210.
(2) Refer to EW-501.
(3) Refer to EW-501 or EW-502.
*Predetermined for access point not constructed with this project.

Station	Side	Access Type	Descriptor	Case	Curb Type	Curb Length (1) (LF)	Width (FT)	PR (1) (2) (FT)	SR (2) (FT)	Pipe Culvert (H) (3) (FT)	Pipe Culvert Size (3) (IN)	Culvert Length (3) (LF)	Pipe Culvert Lt. (3) (LF)	Pipe Culvert Rt. (3) (LF)	Culvert Aprons (3) (No.)	Driveway Surface Type	Driveway Surface Area (SY)	Driveway Surfacing Material (TON)	Remarks
63+55.00	Right	C		1			20.0		15.0	8.1	24.0	85.0	29.60	55.40	2	Granular		27.500	
93+90.00	Left	C		1			20.0		15.0							Granular		28.100	
109+72.50	Right	C		1			20.0		20.0	1.2	48.0	47.0	26.00	21.00	2	Granular		15.900	Arch Pipe
110+05.40	Left	C		1			20.0		20.0	4.2	30.0	83.0	40.80	42.20	2	Granular		15.900	
138+61.70	Left	D	Joint	1			30.0		30.0	2.5	30.0	68.0	33.70	34.30	2	Granular		37.504	
145+27.35	Right	C		1			20.0		15.0	1.5	30.0	52.0	26.10	25.90	2	Granular		14.648	Arch Pipe
148+55.09	Right	C		1			20.0		15.0	1.8	30.0	53.0	27.20	25.80	2	Granular		13.521	
150+24.24	Right	D		1			30.0		15.0	1.2	30.0	59.0	27.40	31.60	2	Granular		20.590	
159+13.55	Left	C		1			20.0		15.0	1.3	36.0	41.0	21.30	19.70	2	Granular		12.098	Arch Pipe

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
- WH Water Hydrant (Rural)
- ST Septic Tank
- C Cistern
- LP L.P. Gas Tank (No Footing)
- UST Underground Storage Tank
- Latrine
- Satellite TV Dish
- WHU Water Hook Up
- RT Radio Tower
- TA Tower Anchor
- Guardrail (Beam or Cable)
- GP Guard Post (one or two)
- Guard Post (over two)
- FP Filler Pipe
- GV Gas Valve
- WV Water Valve
- SL Speed Limit Sign
- MM Mile Marker Post
- SIGN Sign
- TCB Traffic Signal Control Box
- RRB Rail Road Signal Control Box
- TSB Telephone Switch Box
- EB Electric Box

UTILITY LEGEND

- E1 — ***EL1D, Electric Line Alliant Energy - Quality D***
- FO — ***FO1D, Fiber Optic USA Communications - Quality D***
- FO2 — ***FO2D, Fiber Optic Windstream - Quality D***
- G — ***GL1D, Gas Line Alliant Energy - Quality D***
- G2 — ***GL2D, Gas Line MidAmerican - Quality D***
- SAN. — ***SA1D, Sanitary Sewer City of Belle Plaine- Quality D***
- ST S — ***ST1D, Storm Sewer City of Belle Plaine - Quality D***
- T1 — ***TL1D, Telephone Line Windstream Communications - Quality D***
- T2 — ***TL2D, Telephone Line USA Communications - Quality D***
- TV — ***TV1D, TV Cable Mediacom - Quality D***
- W — ***WL1D, Water Line City of Belle Plaine - Quality D***

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Construction Manager
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E1 —
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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.**		**Transparency**
Pink, Dark	(13)	Temporary Pavement Shading	50%
Yellow	(4)	Proposed Pavement Shading	50%
Orange	(6)	Proposed Granular Shading	50%
Orange	(70)	Proposed Shoulder Granular Shading	50%
Yellow	(68)	Proposed Shoulder Paved Full Depth Shading	50%
Yellow	(132)	Proposed Shoulder Paved Partial Depth Shading	50%
Brown, Light	(236)	Grading Shading	50%
Orange, Light	(134)	Proposed Granular Entrance Shading	50%
Yellow	(220)	Proposed Paved Entrance Shading	50%
Tan	(8)	Proposed Sidewalk Shading	50%
Blue, Light	(230)	Proposed Sidewalk Landing Shading	50%
Pink	(11)	Proposed Sidewalk Ramp Shading	50%
Red	(3)	Proposed Structure Shading	50%
Red	(3)	Delineates Restricted Areas	0%

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

- 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 Symbol
- Proposed Right-of-Way Line
- Existing Right of Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Easement (Temporary) Symbol
- Easement (Temporary) Line
- Easement
- C/A Access Control
- Property Line Symbol
- Property Line

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER D.1

11:32:06 AM 12/10/2025 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_LEGEND.dgn

Δ = 03°41'52.87" (LT)
T = 246.62'
L = 493.07'
R = 7639.44'
E = 3.98'
①

Sta. 68+35.53
624'x44'
Pretensioned Prestressed Concrete Beam Bridge
D.A.=2455 sq mi (Plan)
(U.A.C.)

HONEY CREEK TWP.
T-81N R-12W
SEC. 6

Iowa River

PI 63+71.04

65+00

70+00

75+00

STA 63+14.40 (ML 021)
BEGIN PROJECT

STA 63+30.13 (ML 021)
BEGIN PAVING

PI 61+24.59

STA 65+25.17 (ML 021)
STOP PAVING/GRADING

STA 64+52.44 (ML 021)
BEGIN BRIDGE APPROACH

STA 71+45.96 (ML 021)
RESUME PAVING/GRADING

STA 72+18.66 (ML 021)
STOP BRIDGE APPROACH

STA 73+55.89 (ML 021)
STOP GRADING

STA 73+30.54 (ML 021)
STOP PAVING

21

24" C.M.P. (Replace)

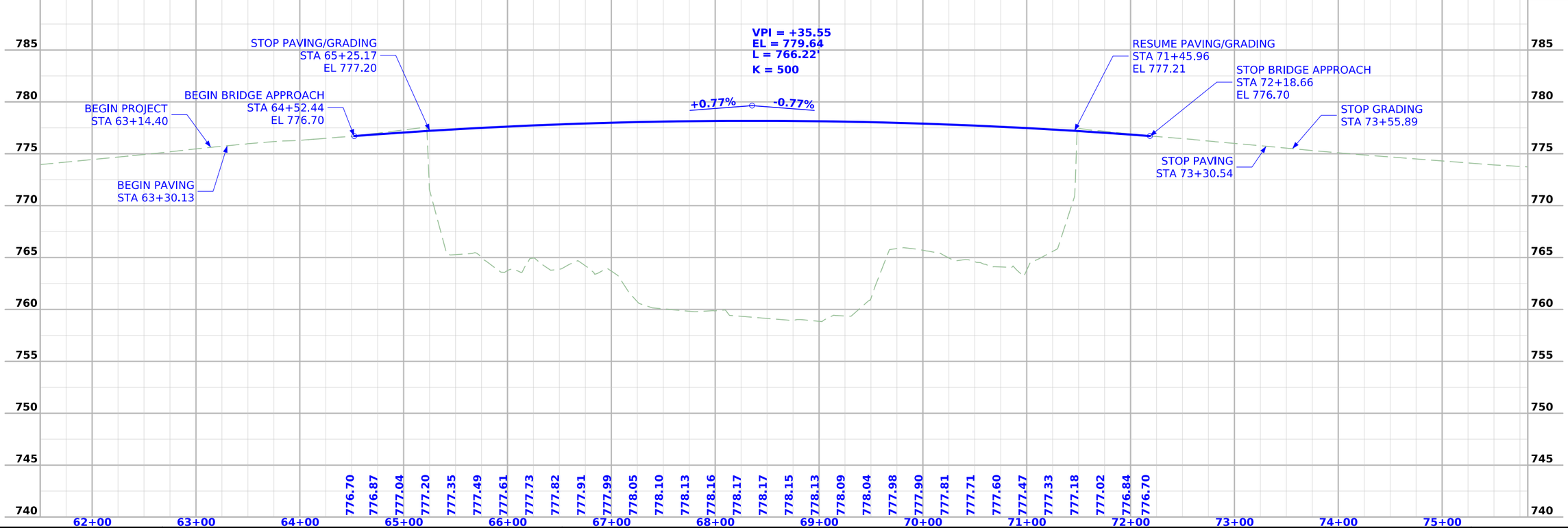
+55.00 Prop. "C" Ent. W=20.0'

SEC. 5

① Refer to U Sheet for Super Elevation Data

0 50 FEET

IA 21



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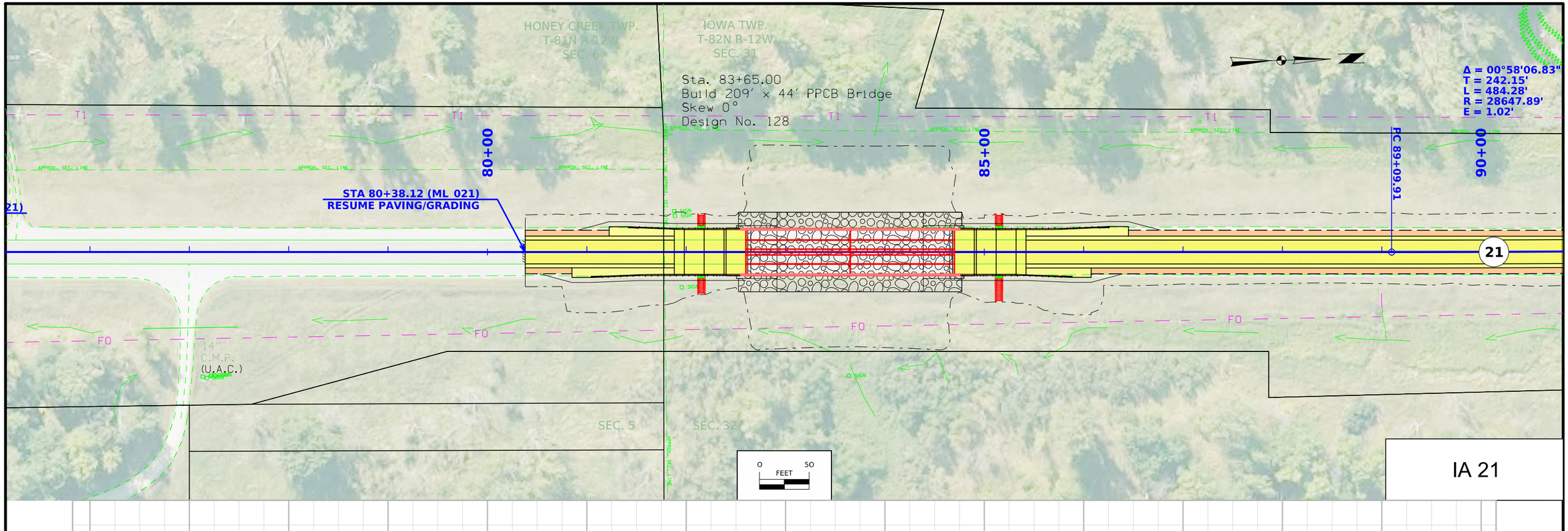

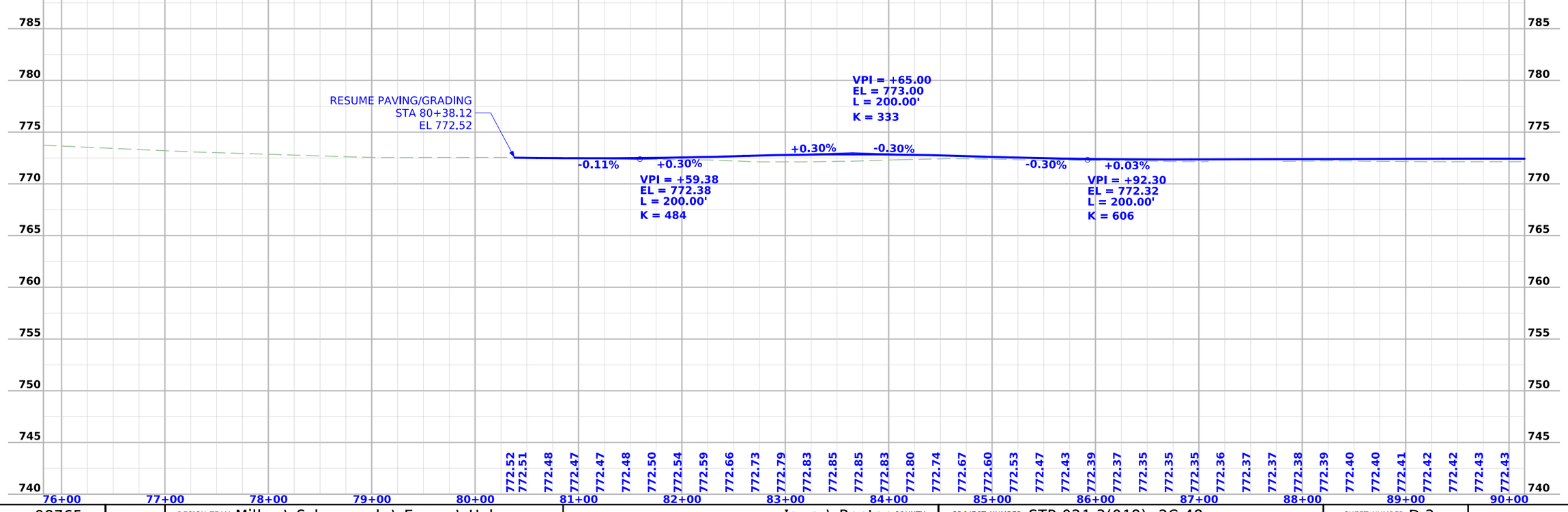

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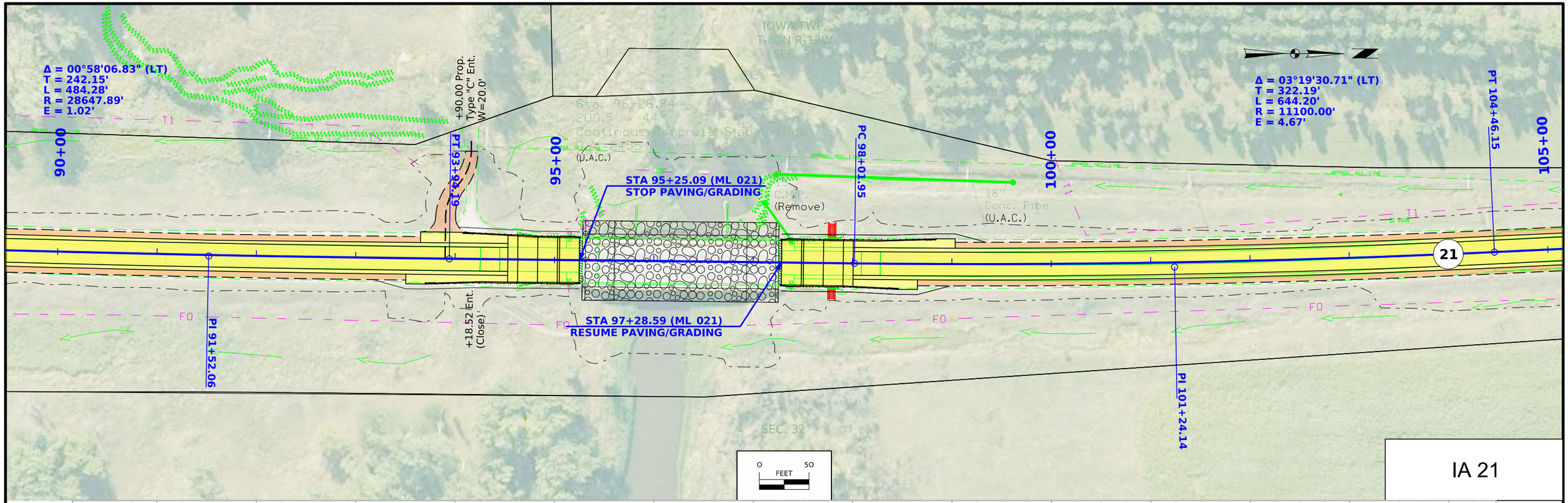

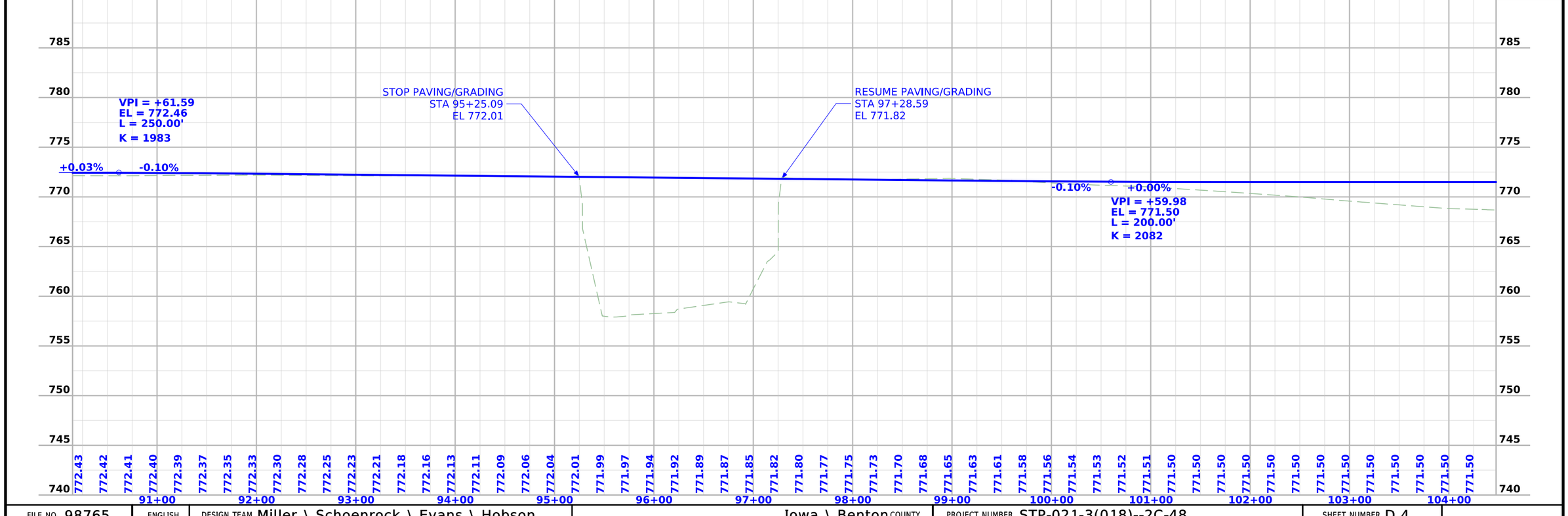

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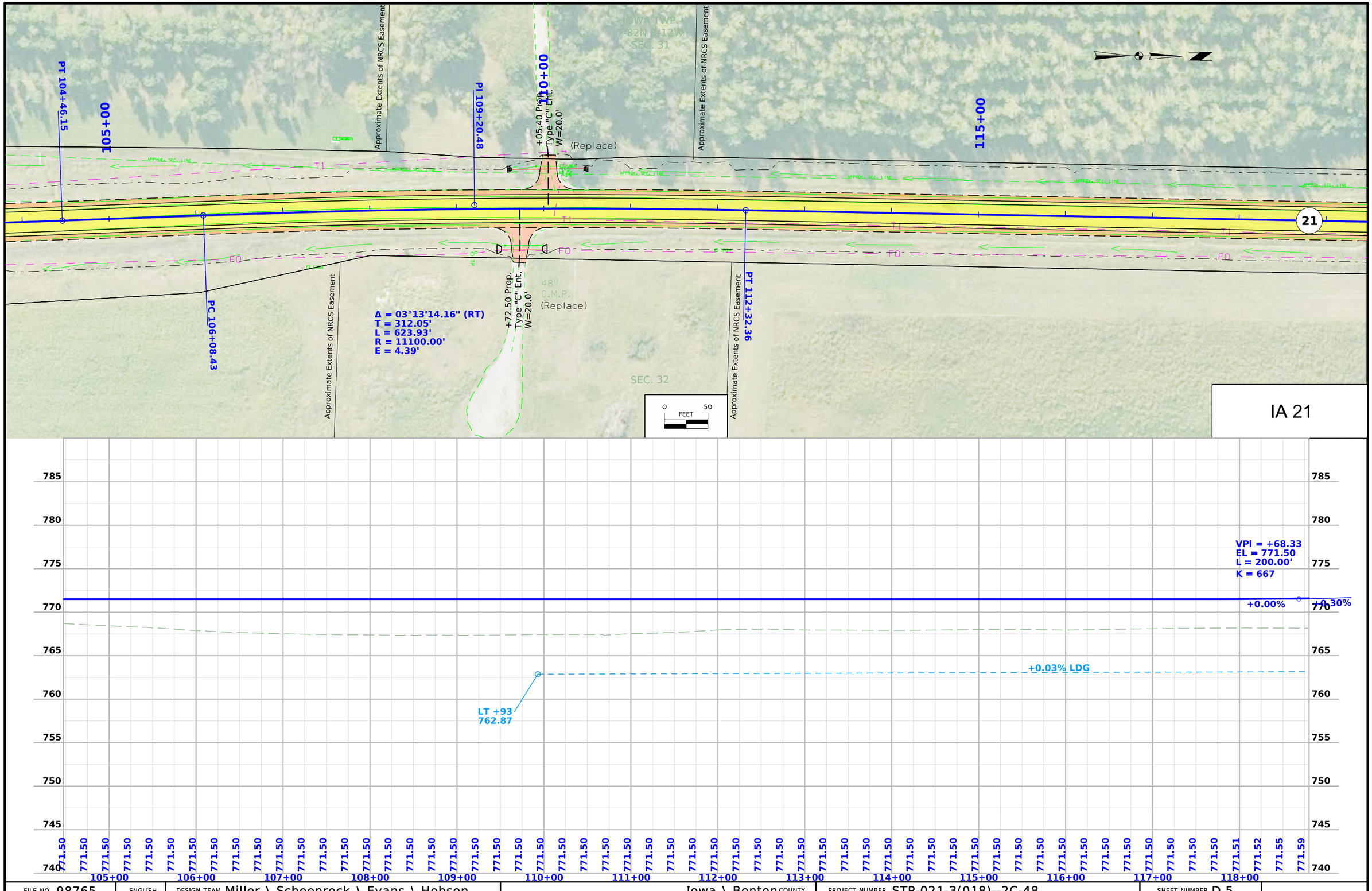
11:32:26 AM 12/10/2025 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_D02.dgn



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11:32:30 AM 12/10/2025 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_D02.dgn

Approximate Extents of NRCS Easement

IOWA TWP.
T-82N R-12W
SEC. 31

Sta. 122+84.80
Build 150' x 44' CCS Bridge
Skew 0°
Design No. 228

Sta. 129+56.83
Build 150' x 44' CCS Bridge
Skew 0°
Design No. 328

120+00 125+00 130+00

APPROX. SEC. LINE

T1 FO

21

SEC. 32

0 50
FEET

IA 21

VPI = +85.00
EL = 772.75
L = 225.00'
K = 375

VPI = +21.00
EL = 771.74
L = 200.00'
K = 333

VPI = +57.00
EL = 772.75
L = 225.00'
K = 375

+0.30% -0.30% -0.30% +0.30% +0.30% -0.30%

+0.03% LDG +0.03% LDG +0.04% LDG +0.03% RDG +0.04% LDG

LT +04
763.26

LT +65
763.31

LT +76
763.41

LT +76
763.50

RT +37
765.50

LT +37
763.57

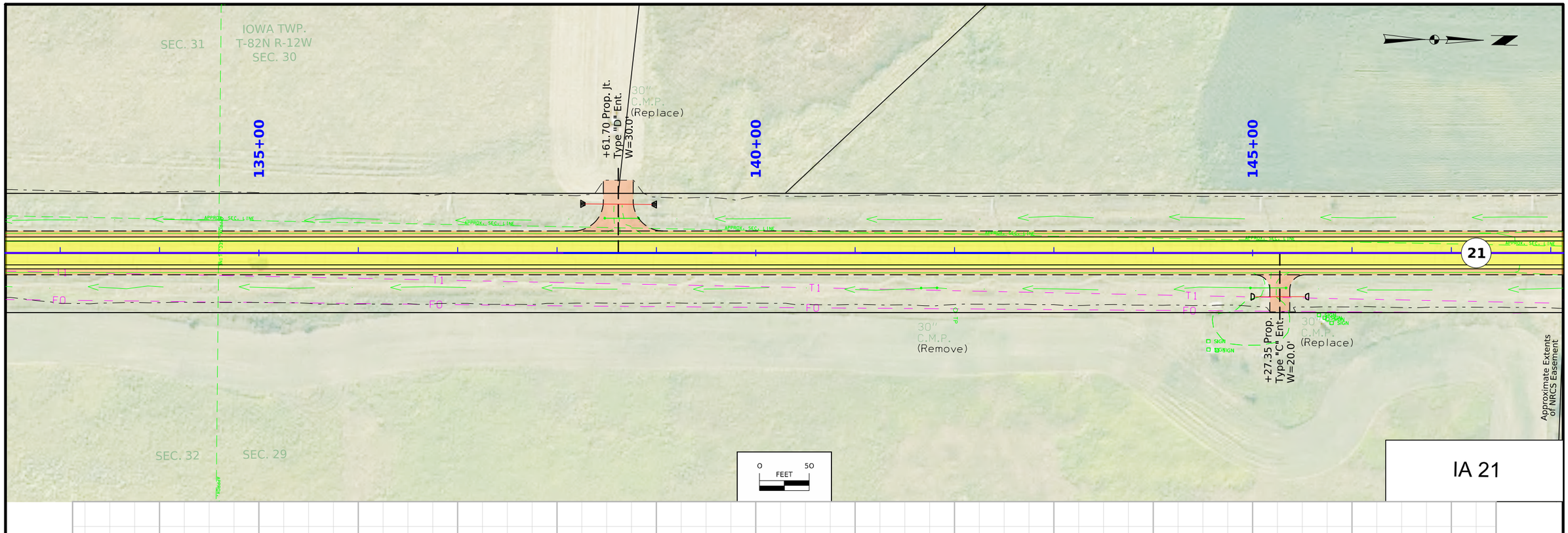
785 780 775 770 765 760 755 750 745 740

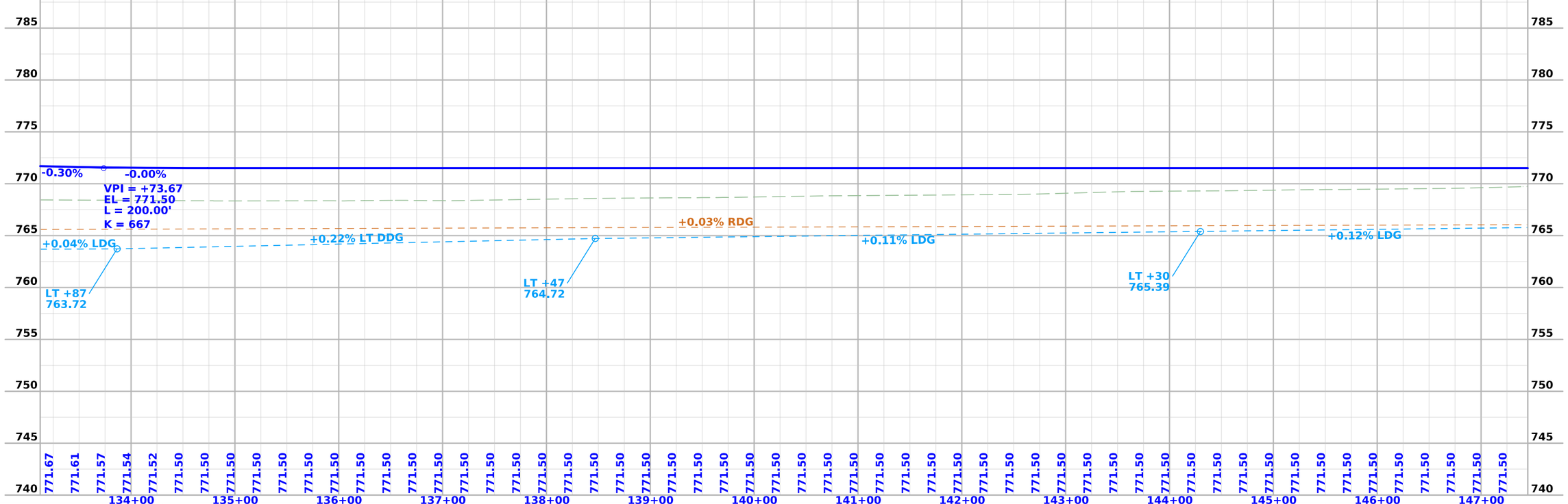
119+00 120+00 121+00 122+00 123+00 124+00 125+00 126+00 127+00 128+00 129+00 130+00 131+00 132+00 133+00

771.63 771.68 771.75 771.82 771.90 771.97 772.05 772.12 772.20 772.27 772.35 772.42 772.48 772.53 772.56 772.58 772.58 772.56 772.52 772.47 772.40 772.33 772.25 772.18 772.10 772.03 771.97 771.92 771.90 771.89 771.90 771.94 771.99 772.05 772.13 772.20 772.28 772.35 772.43 772.49 772.54 772.57 772.58 772.58 772.56 772.52 772.47 772.40 772.32 772.25 772.17 772.10 772.02 771.95 771.87 771.80 771.73

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER D.6

11:32:35 AM 12/10/2025 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_D02.dgn





FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER D.7

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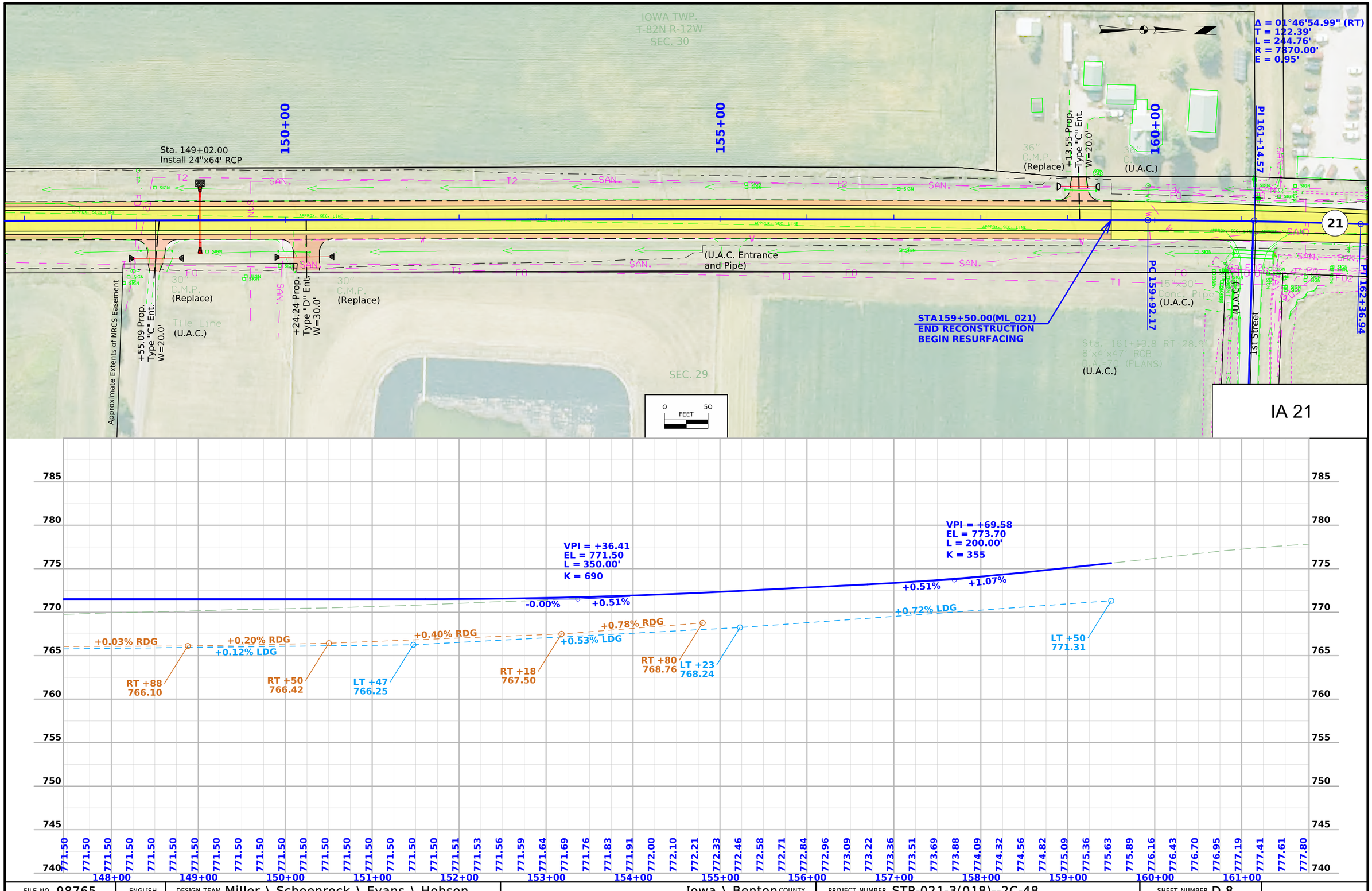
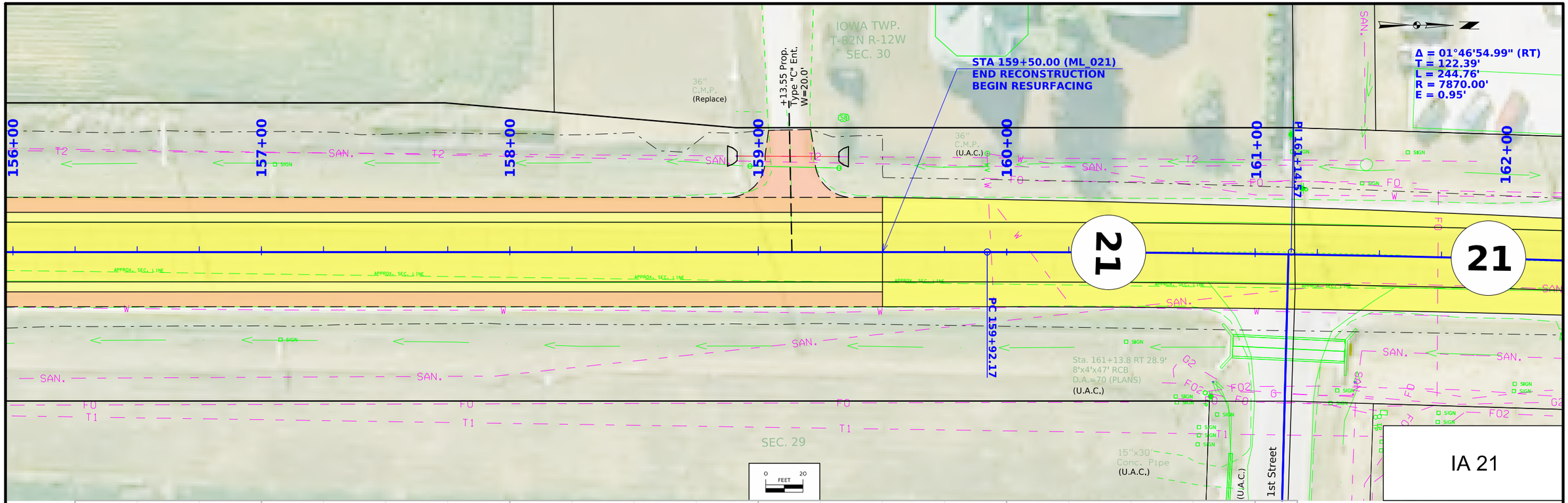
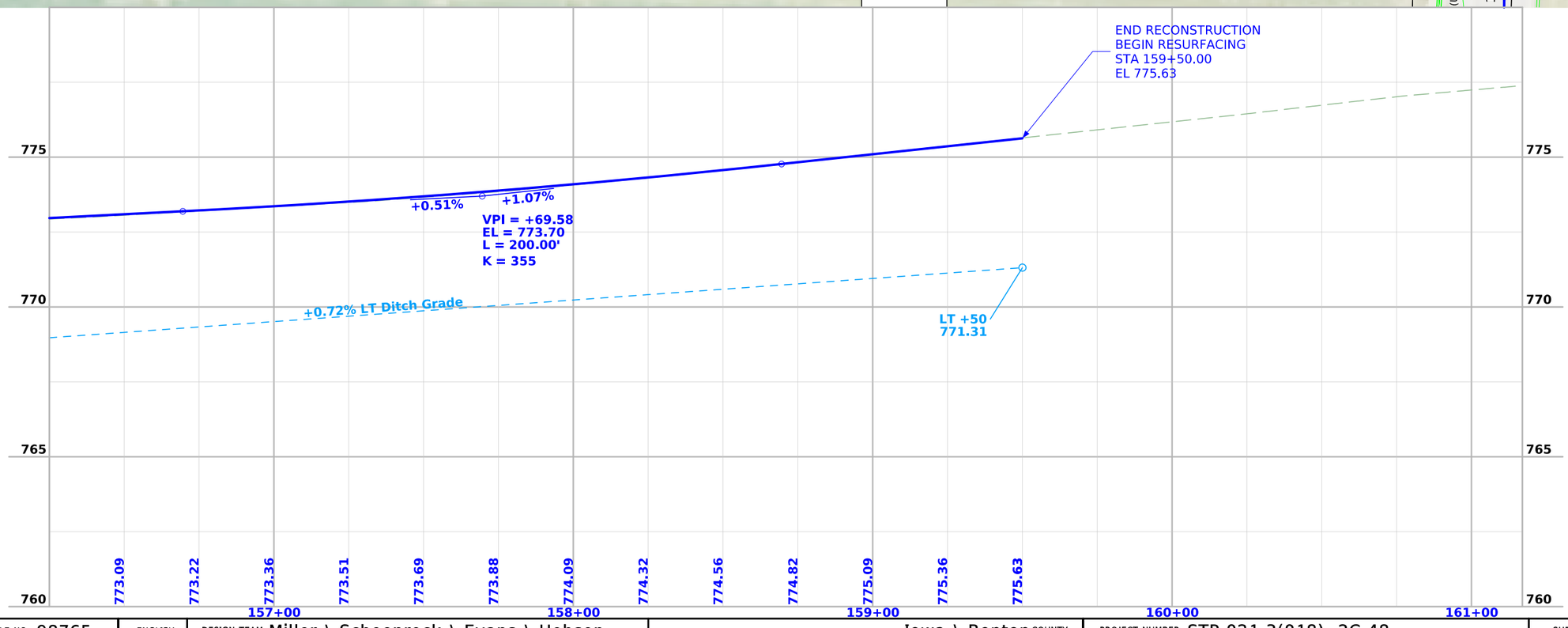


FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER D.8

8:31:31 AM 4/7/2026 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_D02.dgn





FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER D.9

8:31:35 AM 4/7/2026 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_D02.dgn

Δ = 01°46'54.99" (RT)
T = 122.39'
L = 244.76'
R = 7870.00'
E = 0.95'

24"x48" Conc. Pipe (U.A.C.)
30"x48" Conc. Pipe (U.A.C.)

IOWA TWP.
T-82N R-12W
SEC. 30

3rd Street

PI 161+47.17
162+00
163+00
164+00
PC 164+89.02
165+00
166+00
PT 166+67.00
167+00

(U.A.C.)

APPROX. SEC. LINE

PT 162+36.94

STA 162+50.00 (ML 021)
END PROJECT

PI 165+78.01

SEC. 29

Δ = 01°46'46.88" (LT)
T = 89.00'
L = 177.98'
R = 5730.00'
E = 0.69'

0 FEET 20

21

IA 21

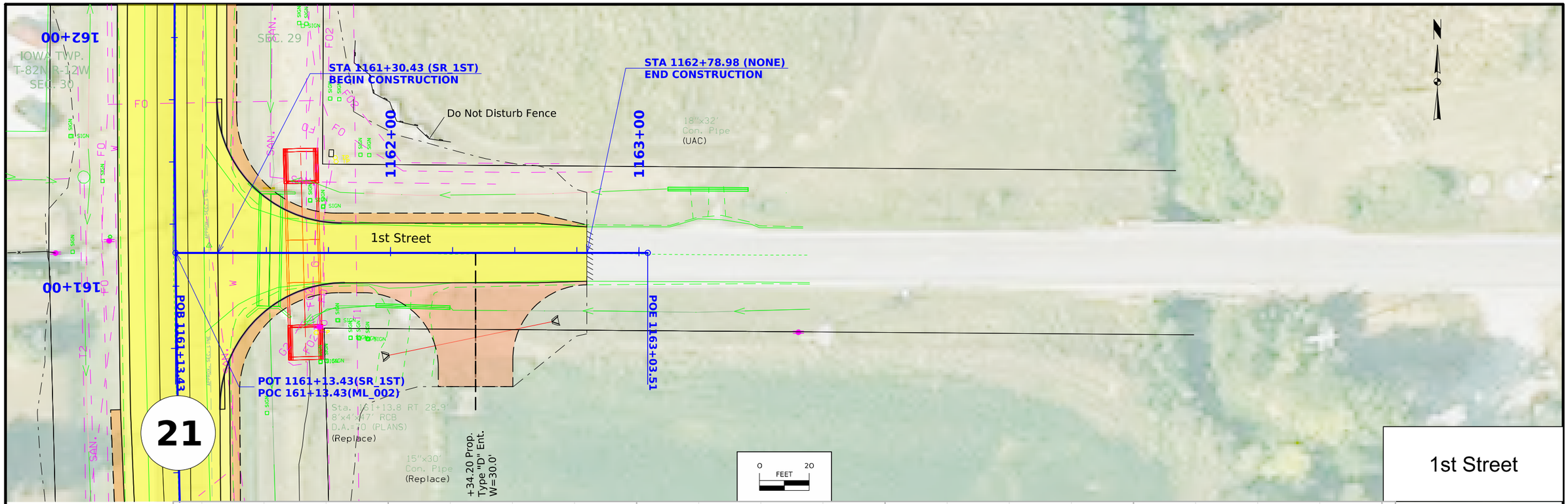
END PROJECT
STA 162+50.00

780
775
770
765

162+00
163+00
164+00
165+00
166+00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER D.10	

8:31:37 AM 4/7/2026 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_D02.dgn



FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER E.1

11:39:41 AM 2/16/2026 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_E01.dgn

SURVEY INDEX

County: Iowa
PIN: 23-48-021-030
Project Number: STP-021-3(017)--2C-48
Location: 0.3 mi N of IA 212 to 0.5 mi S of SCL/1st St of Belle Plaine
Type of Work: Grade and Pave
Project Directory: 4802103023

Survey Personnel
John Hahn – Survey Party Chief
Dan Duncan – Survey Party Chief

Date(s) of Survey
Begin Date	06/06/2024
End Date	01/07/2025

General Information
This survey is for IA Hwy 21 Grade and Pave 0.3 mi N of IA 212 to 0.5 mi S of SCL/1st St of Belle Plaine. This survey request was for the IA Hwy 21 corridor only. This project is a Partial Field DTM with Photo control.

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

Project Control
Coordinates were determined for primary project control points by conducting concurrent six-hour static observations (Benton County GPS Control Point 4001, Iowa County GPS Control Points 4087,4106; as well as CP1 and CP4). Post processing is constrained to nearby Iowa Real Time Network reference stations. Two additional control points, CP2 and CP3, were established using a base-rover setup relative to Bremer County GPS Control Point 4087. Two 5 minute observations were made with appropriate time span between and used in a weighted average to determine final coordinates. For additional details of the control survey, contact the Preliminary Survey department.

PROJECT DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 ADJUSTMENT)
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 10 (U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2018u3

Alignment Information

The horizontal alignment for Iowa Hwy 21 this survey is a retrace of As-built Plans No. FN-58, FN-505(7) and BRF-21-3(6)—38-48. Survey stationing was equated to the plan PI at Sta. 46+56.40 (BRF-21-3(6)—38-48 stationing) and carried back and ahead without equation throughout the survey.

Survey stationing relates to as built plan stationing as follows:

PI Sta. 2704+50.0 As-built Plans Project No. FN-505(7)
Survey PI Sta. 11+06.40 (BRF-21-3(6)—38-48 stationing)

PI Sta. 2711+34.9 As-built Plans Project No. FN-505(7)
Survey PI Sta. 17+91.50 (BRF-21-3(6)—38-48 stationing)

PI Sta. 46+56.40 As-built Plans Project No. BRF-21-3(6)—38-48
Survey PI Sta. 46+56.40

PI Sta. 53+74.24 As-built Plans Project No. BRF-21-3(6)—38-48
Survey PI Sta. 53+74.24

PI Sta. 61+24.02 As-built Plans Project No. BRF-21-3(6)—38-48
Survey PI Sta. 61+24.58

PI Sta. 91+51.61 As-built Plans Project No. BRF-21-3(6)—38-48
Survey PI Sta. 91+52.05

PI Sta. 101+58.54 As-built Plans Project No. BRF-21-3(6)—38-48
Survey PI Sta. 101+58.01

PI Sta. 108+58.35 As-built Plans Project No. BRF-21-3(6)—38-48
Survey PI Sta. 108+58.25

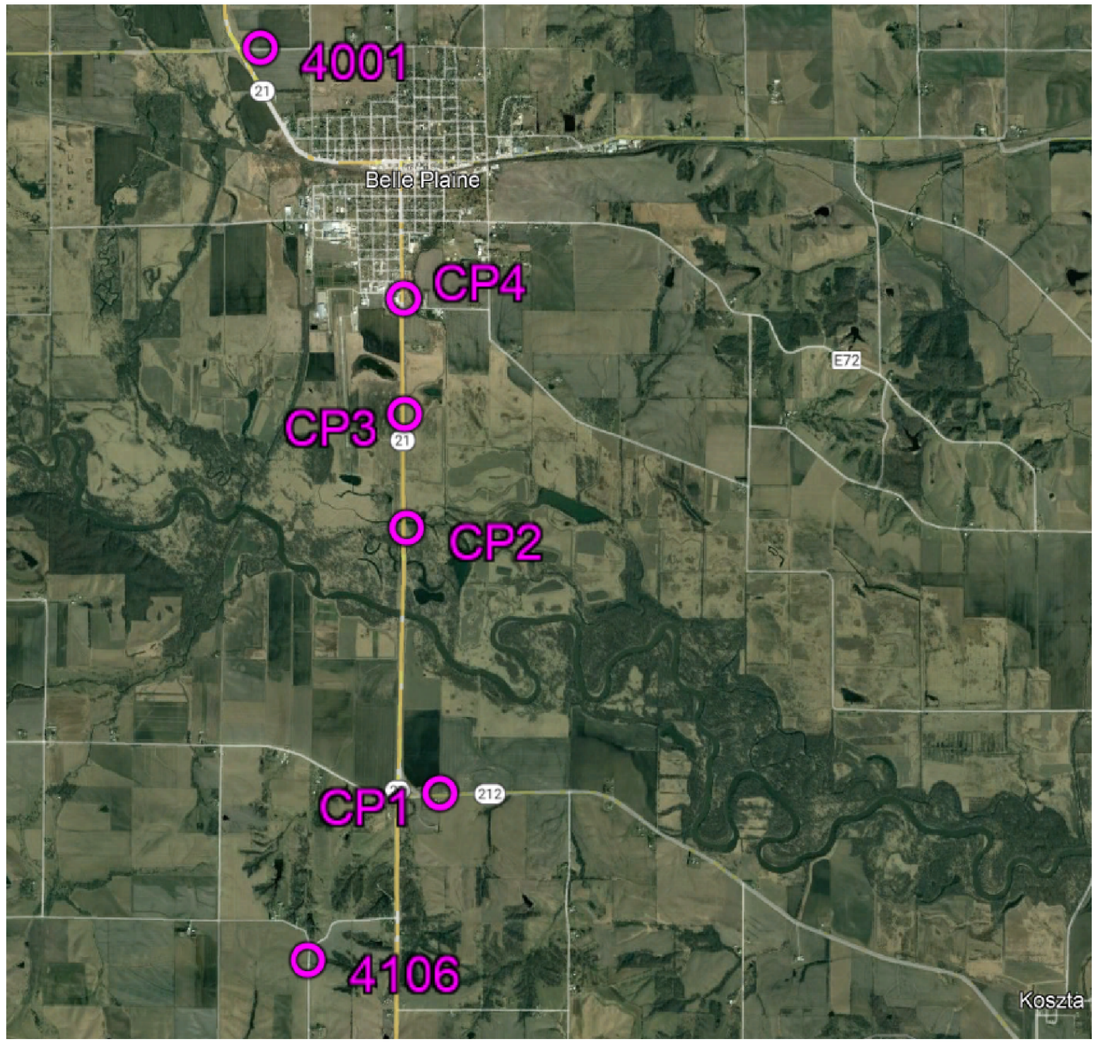
PI Sta. 130+45.02 As-built Plans Project No. BRF-21-3(6)—38-48
Survey PI Sta. 130+47.72

PI Sta. 1072+59.8 As-built Plans Project No. FN-58
Survey PI Sta. 154+33.93 (BRF-21-3(6)—38-48 stationing)

PI Sta. 1079+40.6 As-built Plans Project No. FN-58
Survey PI Sta. 161+14.73 (BRF-21-3(6)—38-48 stationing)

CONTROL POINT VICINITY MAP

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



HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment) - Iowa RCS Zone 10 (U.S. Survey Foot)

VERT. DATUM: NAVD88 - Geoid Model: 2018u3

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

HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING
HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment)
Ia. Regional Coordinate System Zone 10 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: 2018u3

POINT NAME	NORTHING	EASTING	ELEVATION	DESCRIPTION/CODE
4001	8027296.35	20329243.67	786.62	CP FND IOWA COUNTY GPS CONTROL POINT AS DESCRIBED IN GOOD CONDITION
4087	8009773.44	20333486.57	775.77	CP FND IOWA COUNTY GPS CONTROL POINT AS DESCRIBED IN GOOD CONDITION
4106	7999647.28	20330521.11	935.67	CP FND NGS CBN HORIZONTAL CONTROL STATION HARTWICK AS DESCRIBED IN GOOD CONDITION
CP1	8004643.92	20334568.52	805.36	CP FND IDOT ROW RAIL IN GOOD CONDITION EAST SIDE FIELD ENT NORTH ROW IA HWY 21
CP2	8012721.29	20333633.24	765.40	CP SET FENO MONUMENT 71FT SE OF END OF SOUTHEAST GUARDRAIL IA HWY 21 OVERFLOW BRIDGE
CP3	8016366.88	20333582.74	765.79	CP SET FENO MONUMENT .6 MILES SOUTH OF INTERSECTION OF IA HWY 21 AND 1ST ST TOP OF EAST BACK SLOPE
CP4	8019675.43	20333569.60	779.36	CP SET FENO MONUMENT EAST ROW IA HWY 21 NEAR WELCOME TO BELLE PLAINE SIGN

NO ACCESS RIGHTS ARE TO BE ACQUIRED ON THIS PROJECT.

ACCESS CONTROL PREVIOUSLY ACQUIRED.

FILE NO.	ENGLISH	DESIGN TEAM	IOWA DOT * OFFICE OF ROW	COUNTY	PROJECT NUMBER	SHEET NUMBER	

Benton **STPN-021-4(030)--2J-06**

Iowa Co to 3rd St in Belle Plaine

4802103023

Project Code **23-48-021-030**

Route **IA 21**

		State		County		City			Temp Ease					
Parcel No	Owner Name	Fee	Ease	Fee	Ease	Fee	Ease	Excess		Mitigation	Other	Relocation Needed	A/C Only	Total Acq
1	Double Crown Investment LLC								0.04 AC					
3	Golden Grain Enterprises LLC	0.95 AC							0.01 AC					
4	City of Belle Plain	0.06 AC							0.02 AC					
5	Eric Fisher	0.01 AC							0.01 AC					

4 Parcels

IOWA TWP.
T-82N R-12W
SEC. 31

SE¼ NE¼
SEC. 31

NE¼ NE¼
SEC. 31

TEMPORARY EASEMENT TO
CONSTRUCT ENTRANCE & SHAPE

1

DOUBLE CROWN INVESTMENTS LLC

Approximate Extents of NRCS Easement

Approximate Extents of NRCS Easement

110+00

115+00

120+00

Approximate Extents of NRCS Easement

STA: 109+97.00
OFF: 72.00' LT

STA: 109+55.00
OFF: 58.36' LT

105.40 Prop.
Type "C" Ent.
W=20.0'

STA: 110+37.00
OFF: 72.00' LT

STA: 111+03.00
OFF: 63.00' LT

STA: 111+09.00
OFF: 59.48' LT

30"
C.M.P.
(Replace)

STA: 121+98.00
OFF: 112.00' LT

STA: 121+38.05
OFF: 65.00' LT

21

21

42"
C.M.P.
(Replace)

172.50 Prop.
Type "C" Ent.
W=20.0'

Approximate Extents of NRCS Easement

Approximate Extents of NRCS Easement

Sta. 122+84.80
Build 150' x 44' CCS Bridge
Skew 0°
Design No. 228

NW¼ NW¼
SEC. 32

SW¼ NW¼
SEC. 32

IOWA TWP.
T-82N R-12W
SEC. 32

UNITED STATES OF AMERICA
FISH & WILDLIFE

0 50
FEET

Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY

ROW Team: Hughes / Cuva
ROW #: STPN-021-4(030)—2J-06
Plan Date: 3-12-2026
Color Legend:
- Property Lines
- Temporary Easement
- Permanent Acquisition
- Permanent Acquisition County
- Permanent Acquisition City

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller / Schoenrock / Evans / Hobson	BENTON COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER H.1	

10:03:58 AM 3/12/2026 CHUGHES pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\ROW\H sheets-48021030.dgn

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IOWA TWP.
T-82N R-12W
SEC. 31

NE¼ NE¼
SEC. 31

SE¼ SE¼
SEC. 30

3

GOLDEN GRAIN ENTERPRISES LLC

GOLDEN GRAIN

T

STA: 121+98.00
OFF: 112.00' LT

STA: 123+72.00
OFF: 112.00' LT

STA: 123+89.00
OFF: 79.00' LT

125+00

STA: 128+72.00
OFF: 112.00' LT

STA: 128+42.00
OFF: 79.00' LT

STA: 130+43.00
OFF: 112.00' LT

130+00

STA: 130+74.00
OFF: 78.00' LT

STA: 132+00.00
OFF: 76.00' LT

STA: 133+00.00
OFF: 69.00' LT

135+00

21

21

Approximate Extents of NRCS Easement

Sta. 122+84.80
Build 150' x 44' CCS Bridge
Skew 0°
Design No. 228

Sta. 129+56.83
Build 150' x 44' CCS Bridge
Skew 0°
Design No. 328

Approximate Extents of NRCS Easement

NW¼ NW¼
SEC. 32

SW¼ SW¼
SEC. 29

IOWA TWP.
T-82N R-12W
SEC. 32

UNITED STATES OF AMERICA
FISH & WILDLIFE

0 50
FEET

Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY

ROW Team: Hughes / Cuva
ROW #: STPN-021-4(030)--2J-06
Plan Date: 3-3-2026
Color Legend:
- Property Lines
- Temporary Easement
- Permanent Acquisition
- Permanent Acquisition County
- Permanent Acquisition City

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller / Schoenrock / Evans / Hobson	BENTON COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER H.2	

10:14:02 AM 3/12/2026 CHUGHES pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\ROW\H sheets-48021030.dgn

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IOWA TWP.
T-82N R-12W
SEC. 30

SE¼ SE¼
SEC. 30

NE¼ SE¼
SEC. 30

3

GOLDEN GRAIN ENTERPRISES LLC

TEMPORARY EASEMENT TO
CONSTRUCT ENTRANCE

5

ERIC FISHER &
MICHELLE YANECEK

TEMPORARY EASEMENT TO
CONSTRUCT ENTRANCE

3

GOLDEN GRAIN ENTERPRISES LLC

140+00

145+00

150+00

STA: 138+41.00
OFF: 83.00' LT

STA: 138+27.00
OFF: 63.37' LT

STA: 138+62.00
OFF: 63.00' LT

+61.70 Prop. Jt.
Type "D" Ent.
W=36.0'

STA: 138+64.23
OFF: 83.00' LT

STA: 138+82.00
OFF: 83.00' LT

STA: 138+98.00
OFF: 63.00' LT

STA: 140+32.99
OFF: 63.00' LT

30"
C.M.P.
(Replace)

Sta. 149+02.00
Install 24"x64' RCP

21

21

30"
C.M.P.
(Remove)

30"
C.M.P.
(Replace)

+27.35 Prop.
Type "C" Ent.
W=20.0'

STA: 148+13.13
OFF: 60.01' RT

STA: 148+31.00
OFF: 60.81' RT

STA: 148+40.00
OFF: 68.00' RT

30"
C.M.P.
(Replace)

+55.09 Prop.
Type "C" Ent.
W=20.0'

STA: 148+80.00
OFF: 63.00' RT

STA: 149+85.00
OFF: 64.00' RT

Tile Line
(U.A.C.)

STA: 148+66.00
OFF: 62.38' RT

STA: 149+98.00
OFF: 62.16' RT

STA: 150+06.00
OFF: 68.00' RT

STA: 148+59.00
OFF: 70.00' RT

30"
C.M.P.
(Replace)

+24.24 Prop.
Type "C" Ent.
W=30.0'

STA: 150+13.17
OFF: 60.00' RT

STA: 150+53.00
OFF: 60.00' RT

STA: 150+43.00
OFF: 68.00' RT

TEMPORARY EASE
CONSTRUCT ENT

Approximate Extents of NRCS Easement

SW¼ SW¼
SEC. 29

TEMPORARY EASEMENT TO
CONSTRUCT ENTRANCE

Approximate Extents of NRCS Easement

4

CITY OF BELLE PLAIN

NW¼ SW¼
SEC. 29

IOWA TWP.
T-82N R-12W
SEC. 29

UNITED STATES OF AMERICA
FISH & WILDLIFE

Right of Way Design Information
THIS SHEET INCLUDED FOR INFORMATION ONLY
ROW Team: Hughes / Cuva ROW #: STPN-021-4(030)--2J-06 Plan Date: 3-3-2026 Color Legend: Property Lines Temporary Easement Permanent Acquisition Permanent Acquisition County Permanent Acquisition City

0 50
FEET

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller / Schoenrock / Evans / Hobson	BENTON COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER H.3	

10:18:34 AM 3/12/2026 CHUGHES pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\ROW\H sheets-48021030.dgn

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IOWA TWP.
T-82N R-12W
SEC. 30

NE¼ SE¼
SEC. 30

SE¼ NE¼
SEC. 30

RYAN JANSS

2nd Street

6th AVE.

JOEL G THYS

3

GOLDEN GRAIN ENTERPRISES LLC

DENNIS E &
JOAN M MCFRALAND

CITY OF BELLE PLAIN

3rd Street

155+00

160+00

165+00

STA: 152+00.00
OFF: 63.00' LT

STA: 152+44.00
OFF: 60.01' LT

+33.5F Prop.
15"ø C.M.P.
W=200'

C.M.P.
(Replace)

C.M.P.
(U.A.C.)

24"x48"
Conc. Pipe
(U.A.C.)

30"x48"
Conc. Pipe
(U.A.C.)

21

21

STA: 150+13.17
OFF: 60.00' RT

C.M.P.
(Replace)

STA: 150+53.00
OFF: 60.00' RT

STA: 150+43.00
OFF: 68.00' RT

(U.A.C. Entrance
and Pipe)

STA: 161+98.8 RT 28.9
8'x4'x47' RCB
D.A.=70 (PLANS)
(U.A.C.)

STA: 162+50.00 (ML_021)
END PROJECT

15"x30"
Conc. Pipe
(U.A.C.)

1st Street

TEMPORARY EASEMENT TO
CONSTRUCT ENTRANCE

CITY OF BELLE PLAIN

4

CTIY OF BELLE PLAIN

NW¼ SW¼
SEC. 29

IOWA TWP.
T-82N R-12W
SEC. 29

SW¼ NW¼
SEC. 29

ERIC D &
JULIE A FISHER
MICHELLE YANECEK

0 50
FEET

Right of Way Design Information

THIS SHEET INCLUDED
FOR INFORMATION ONLY

ROW Team: Hughes / Cuva
ROW #: STPN-021-4(030)--2J-06
Plan Date: 4-8-2026
Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition
- Permanent Acquisition County
- Permanent Acquisition City

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller / Schoenrock / Evans / Hobson	BENTON COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER H.4

1:53:38 PM 4/13/2026 CHUGHES pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\ROW\H sheets-48021030.dgn

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108-23A
08-01-08

TRAFFIC CONTROL PLAN

1. IA 21 will be closed during construction. A detour route will be utilized. Refer to J sheet for more infortmation.

2. The contractor shall provide, install, maintain, and remove all paddle route signs.

3. The contractor shall contact the Iowa DNR water trails coordinator prior to starting and finishing project construction so the appropriate information can be entered into the DNR's interactive river mapping system. The current contact is John Wenck with email being John.Wenck@dnr.iowa.gov.

4. The contractor is to contact the Iowa DNR no later than one week in advance of the beginning or ending of construction activities.

5. Refer to sheet J.2 for aerial and waterway map showing required waterway(s) signage locations as well as fabrication and installation information.

6. Sign mounting methods used to install temporary signs shall be at the discretion of applicants and/or their contractors, and are not to be construed as limited to Iowa DNR methods listed in Chapter 6 of Developing Water Trails in Iowa found at https://www.iowadnr.gov/places-go/water-trails/water-trail-development#developingwater-trails-in-iowa.

7. Contractor shall coordinate sign placement and installation with Conservation Officer Brad Baker via phone #319-430-1630 or email brad.baker@dnr.iowa.gov

8. Contractor shall coordinate sign placement and management for Chelsea Boat Ramp Accesses with Tama CCB via phone #641-481-3153 or email curtis.behrens@tamacounty.org

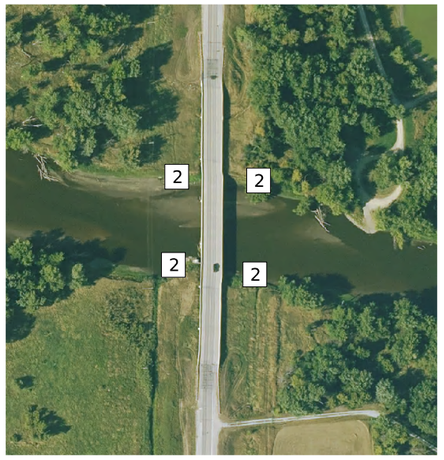
9. Maintenance of paddle route signage is the same as the roadway traffic control following Articles 2528.01C, 2528.02, and 2528.03A of the Standard Specifications.

10. Signs shall be maintained by applicants and/or their contractor so as to be visible throughout the period the channel is obstructed. When obstructions to the channel are not needed for a period of 30 days or greater, signage should be temporarily removed.

11. Where a river may have temporary obstructions or anticipated falling debris from bridge work or other similar cases, extra consideration should be taken to properly shield waterway users from entering the work area and have any notes that would ensure the contractor provides appropriate protection.

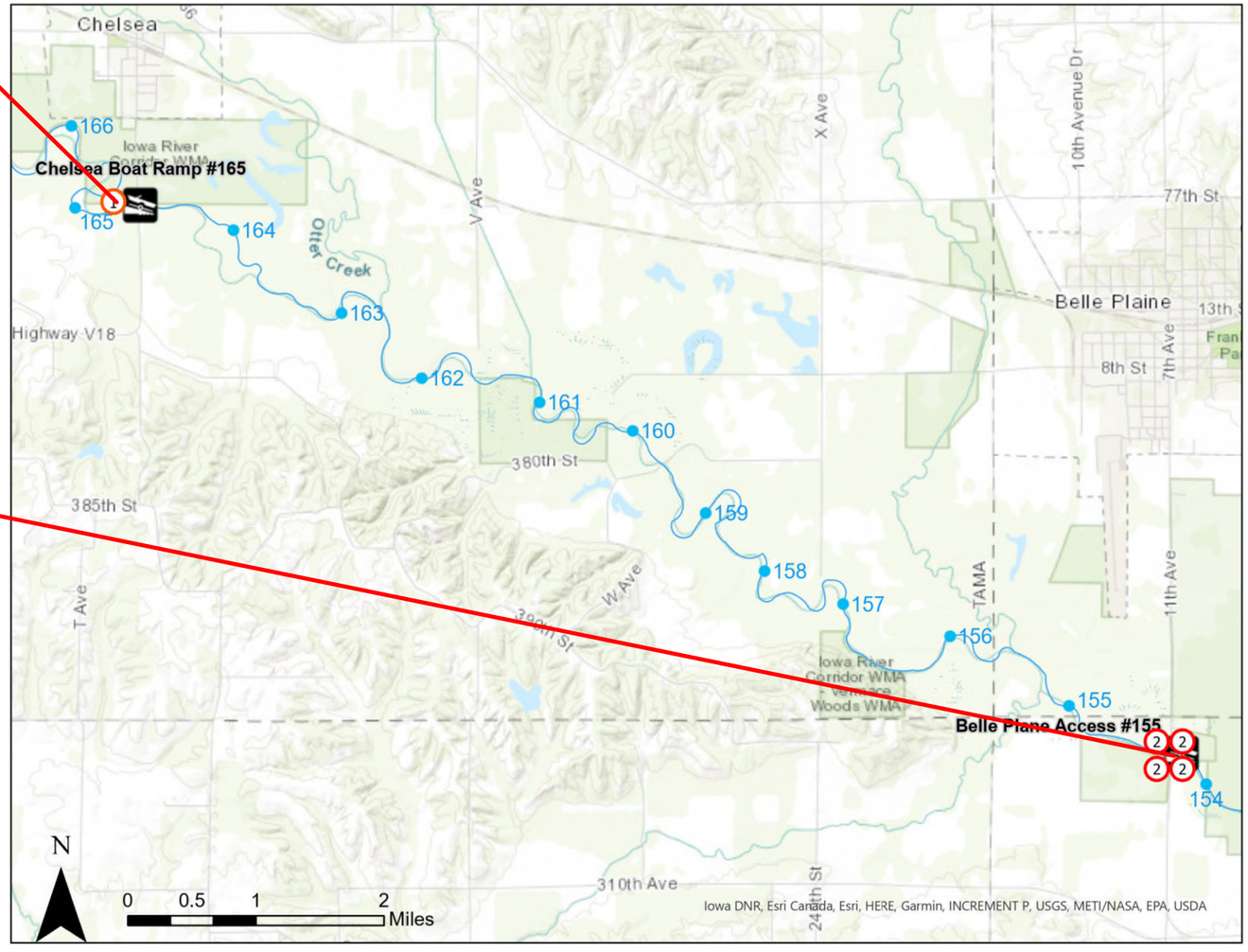
Chelsea Boat Ramp

1 Locate sign at the top of the boat ramp or carry-down access, facing parking area.



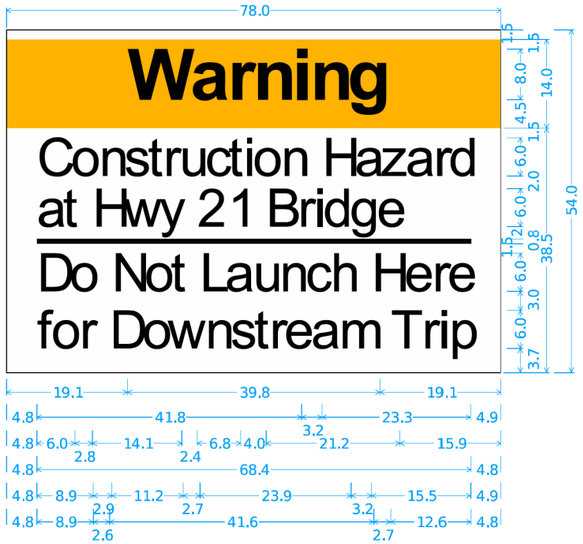
IA 21 Iowa River Bridge South of Belle Plaine

2 Locate signs at bridge site, opposite sides of the river, 1 pair facing upstream, 1 pair facing downstream; OR, 2 signs placed near center of channel 12 feet above regular water level, one facing upstream, one facing downstream.



FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER J.2

3:03:33 PM 10/28/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_J02.dgn

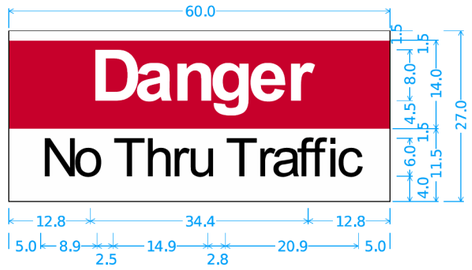


No border, White on White;

No border, White on Fluorescent Orange;
"Warning" Black, Arial, Bold;

No border, Black on White;
"Construction Hazard", Arial; "at Hwy 21 Bridge", Arial;
"Do Not Launch Here", Arial; "for Downstream Trip", Arial;

Sign #1

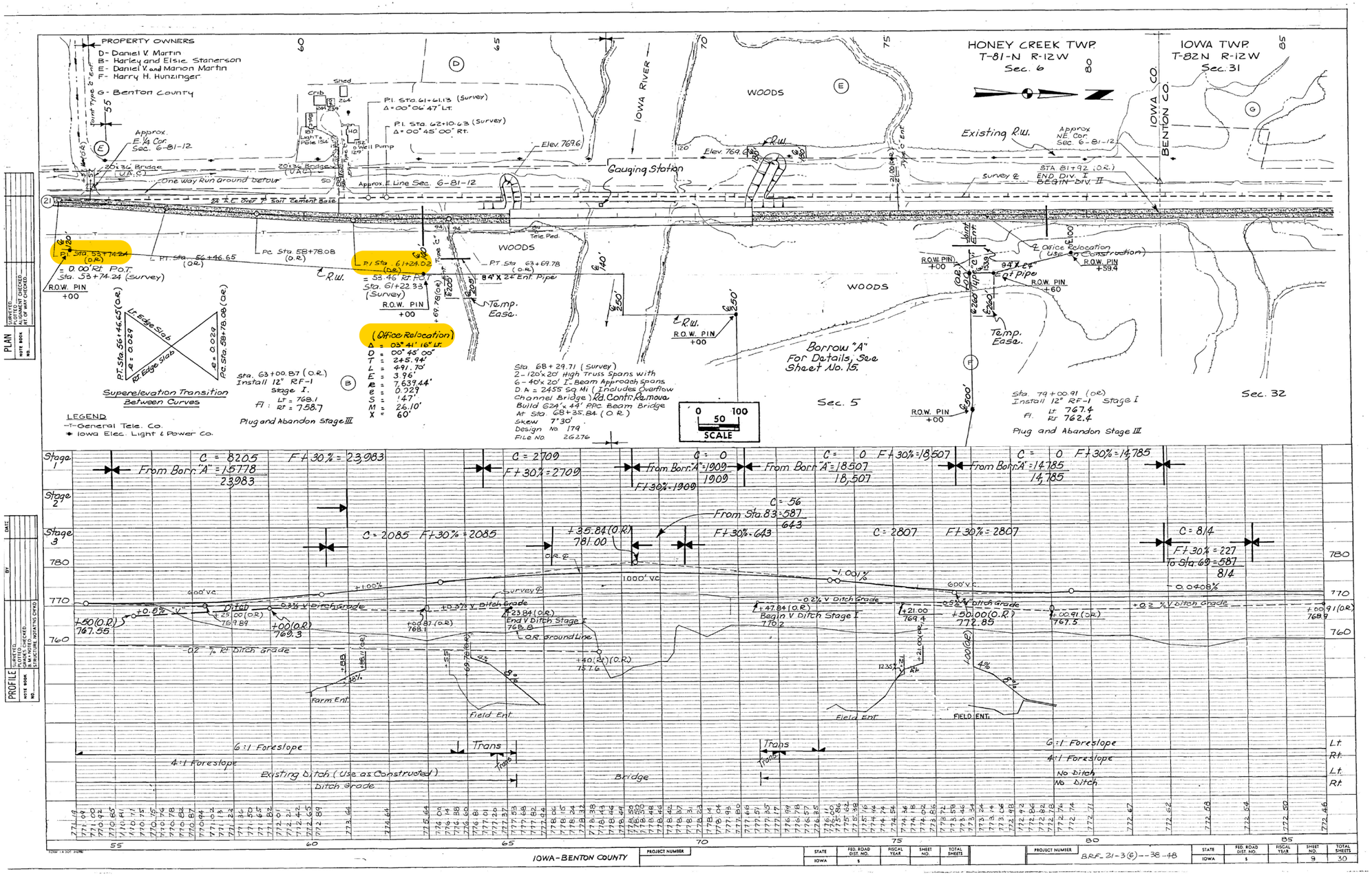


No border, White on White;

No border, White on Red;
"Danger", Arial, Bold;

No border, Black on White;
"No Thru Traffic", Arial;

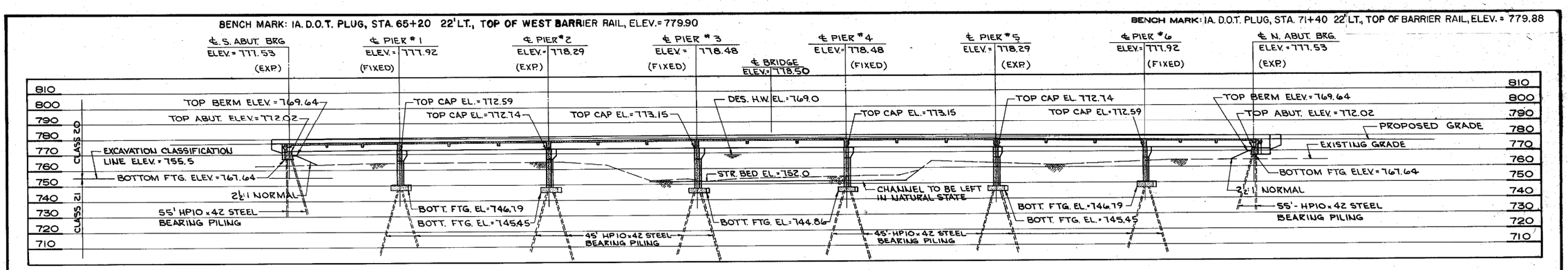
Sign #2



For Information Only

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER U.1

9:31:31 AM 7/25/2025 bhobson pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_U01.dgn



LONGITUDINAL SECTION ALONG PROPOSED ℄ ROADWAY

I.N.R.C. Approval No. 80-161; Dated 6-20-80

Hydraulic Data

Main Channel Bridge Des. 179

Drainage Area = 2,455 Sq. Mi.
Stream Slope = 1.40 ft./Mi.
Avg. Low Water Stage = El. 755.1

Q_{25} = 16,010 cfs (31,180 cfs)
Stage = El. 768.7

Q_{50} = 17,870 cfs (36,050 cfs)
Stage = El. 769.0
Regulatory Low Beam = El. 772.9
Avg. Bridge Velocity = 4.0 fps

Q_{100} = 19,680 cfs (40,790 cfs)
Stage = El. 769.3
Operational Low Beam = El. 771.9
Backwater = 0.51 / 0.96 Ft.
Avg. Bridge Velocity = 4.3 fps

Q_{200} = 22,160 cfs (47,680 cfs)
Stage = El. 769.8
Avg. Bridge Velocity = 4.5 fps

Q_{500} = 23,670 cfs (52,230 cfs)
Stage = El. 770.0
Avg. Bridge Velocity = 4.7 fps

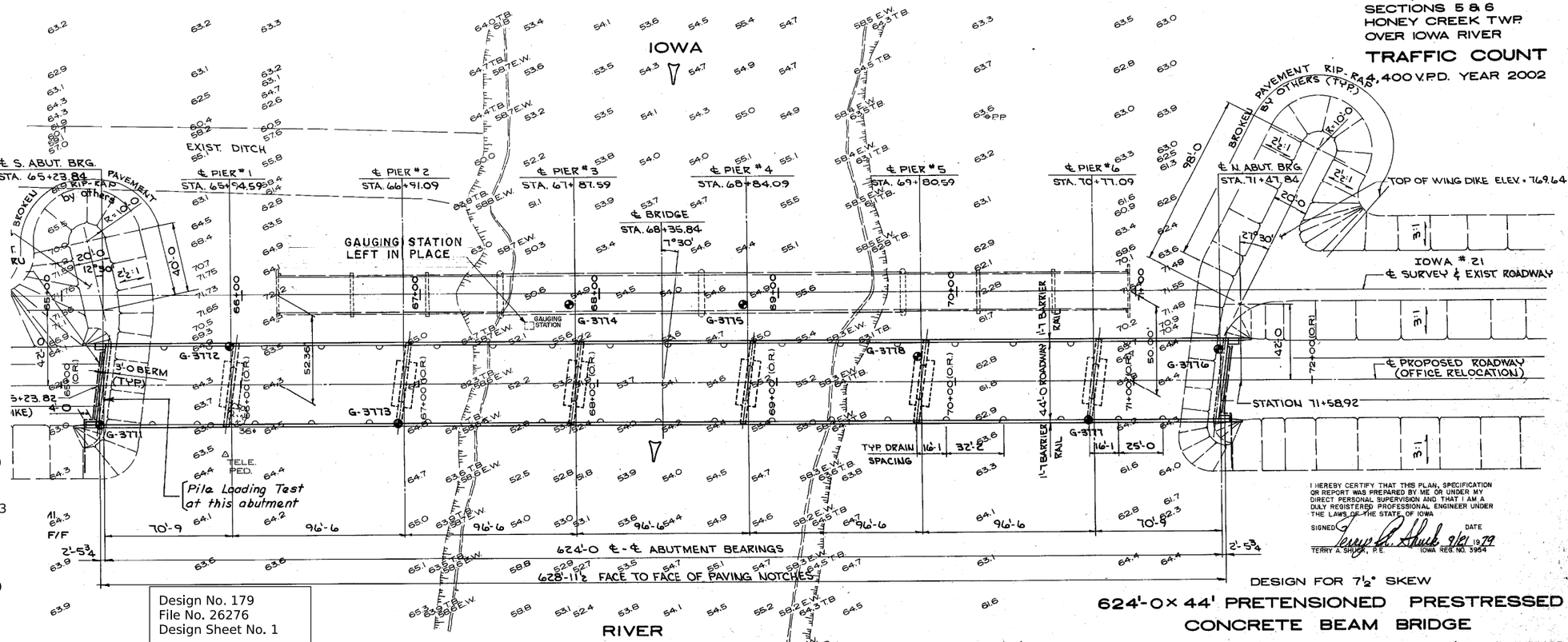
Q_{200} Proj. = 24,760 cfs (56,700 cfs)
Stage = El. 770.2
Avg. Bridge Velocity = 4.8 fps
Calculated Design Scour = El. 738.3

Q_{500} Proj.= 25,875 cfs (62,200 cfs)
Stage = El. 770.5
Avg. Bridge Velocity = 4.9 fps
Calculated Check Scour = El. 737.9

Roadway Overtop = 47,200 cfs
Roadway Overtop El. 771.3 (ETW)
Sta. 151+60 MP 55.20

Discharge in parenthesis represents total streamflow.

Backwater references change from existing/pre-development condition near first high-damage potential development upstream of project site (North floodplain near airport industrial area).



SITUATION PLAN
SCALE: 1"=30'-0

Design No. 179
File No. 26276
Design Sheet No. 1

This Sheet from Original Design Plans is Included to Show Proposed Hydraulic Data and Existing Bridge For Information Only.

DESIGNED BY:
CHECKED BY:
Points to Ehlig 6-18-80

TERRY A. SHUCK STRUCTURAL ENGINEERS, INC.
DES MOINES, IOWA

IOWA COUNTY

LOCATION

IOWA 21
IOWA COUNTY
T-81N, R-12W
SECTIONS 5 & 6
HONEY CREEK TWP.
OVER IOWA RIVER

TRAFFIC COUNT

2,400 V.P.D. YEAR 2002

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA

SIGNED Terry A. Shuck DATE 9/21/1979
TERRY A. SHUCK, P.E. IOWA REG. NO. 5904

DESIGN FOR 7½° SKEW

624'-0 x 44' PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

70'-9 END SPANS 96'-6 INT. SPANS

SITUATION PLAN

STATION: 68+35.84 (O.R.)

IOWA COUNTY

IOWA DEPARTMENT OF TRANSPORTATION – HIGHWAY DIVISION

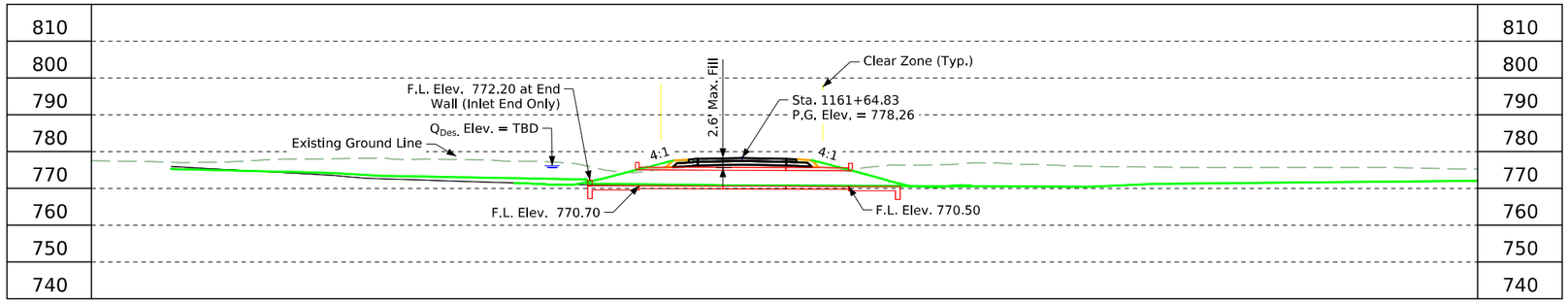
DESIGN SHEET NO. 1 OF 22 FILE NO. 26276 DESIGN NO. 179

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL
BRF-21-3(6)--38-48	IOWA	5		3	36

FILE NO.	ENGLISH	DESIGN TEAM WHKS & Co.	Iowa COUNTY	PROJECT NUMBER STP-021-3(019)--2C-48	SHEET NUMBER V.0

SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC

Control Point: CP4 SET FENO MONUMENT EAST ROW IA HWY 21 NEAR WELCOME TO BELLE PLAINE SIGN, N=8019675.43, E=20333569.60, EL.=779.36



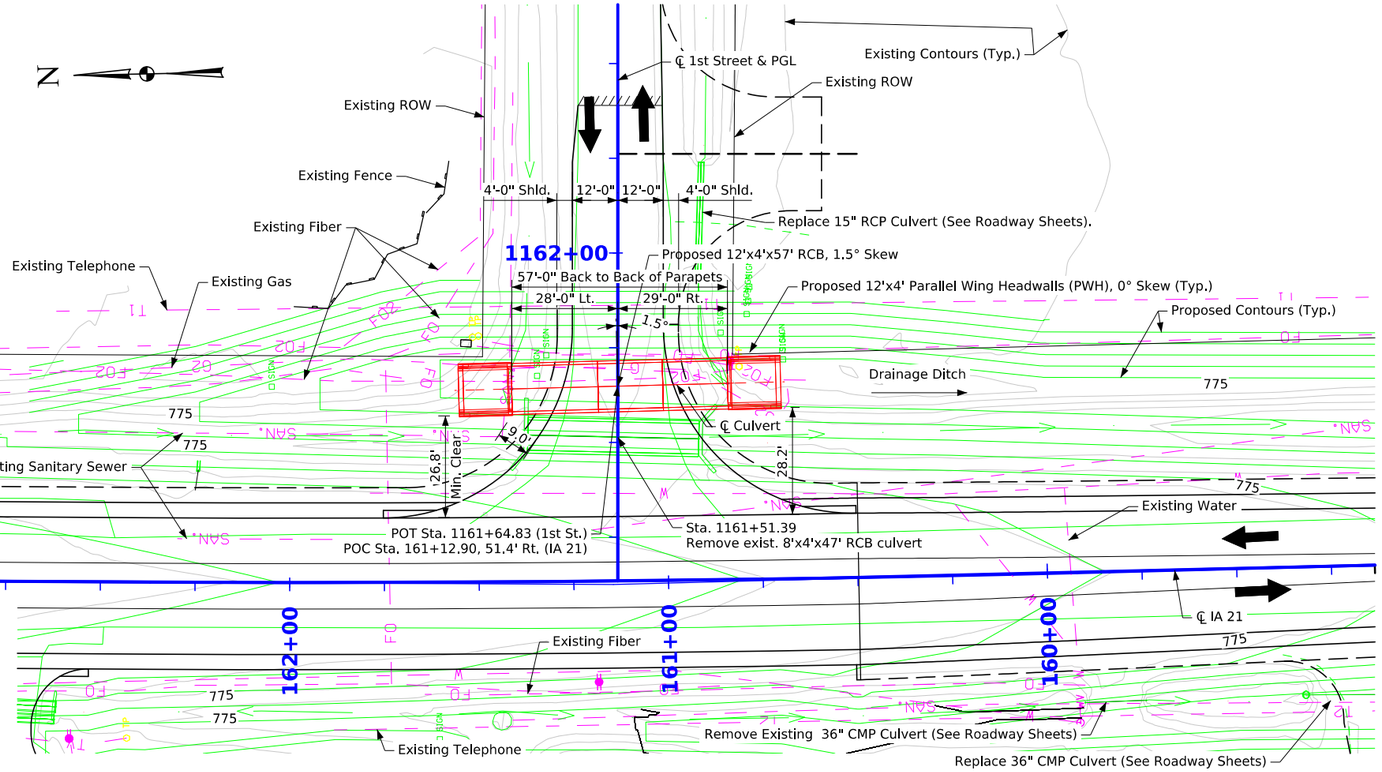
5.0% 0.14%

VPI Sta. = 1161+65.38
VPI Elev. = 778.43
L = 25'

Proposed Profile Grade On ℄ 1st Street

Longitudinal Section Along ℄ Culvert

Design Fill = 3'
Anticipated Settlement = TBD



Situation Plan

0 20
Scale In Feet

Hydraulic Data

Hydraulic data to be determined at a later date.

General Notes:

--This design is for the replacement of the existing 8'x4'x47' Reinforced Concrete Box Culvert carrying drainage ditch and Minnow Creek overflow.

Plan Notes:

--Revetment stone is embedded.
--Faint lines indicate existing contours.

Designer Notes

--An Iowa DNR Flood Plain Permit is required. Preliminary Design will submit the application and place the permit in the PW Regulatory_Permits subdirectory folder upon receipt.
--A 1.5' high end wall is required across the inlet apron between wings to accommodate ditch elevation. Final designer shall include non-standard wall details in plans.

Utilities Note:

Utilities shown on this sheet are for information only.See Road Design sheets for utility information.

General Utility Symbols:

FO - Fiber Optic Line
SAN. - Sanitary Sewer
W - Water Line
G - Gas Line
T - Telephone Line
- Power Poles

Revetment cross section, quantities, and grading points to be added at a later date after completion of hydraulics.

Traffic Data

2021 AADT 410 V.P.D.
TRUCKS 13 %

Location:

1st St. Over Drainage Ditch
T-82N R-12W
Section 29
Iowa Township
Benton County
City of Belle Plaine
Asset ID No. 901050
Latitude: 41.884955
Longitude: -92.277891

Preliminary

Design For 1°30' Skew (R.A.)
12'x4'x57'-0"
RCB Culvert

Situation Plan - CIP Alternate

STA. 1161+64.83 (1st Street) Turn-in Date: Jan 2026

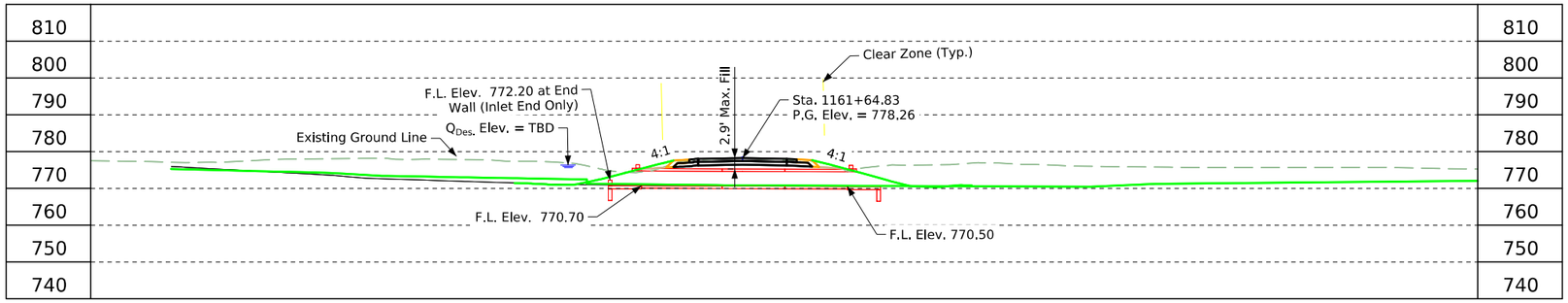
Benton (Iowa) County
IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0528 Design Sheet No. 1 of 2 Asset ID No. 901050

FILE NO. 32862	ENGLISH	DESIGN TEAM WHKS & Co.	Benton (Iowa) COUNTY	PROJECT NUMBER STP-021-4(033)--2C-06	SHEET NUMBER V.1	

12:23:05 PM 1/23/2026 bhackman pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\4802103023\Bridge\(033)_RCB Culvert\SHT_06021033_WHKS_528_901050_Z10.dgn

Control Point: CP4 SET FENO MONUMENT EAST ROW IA HWY 21 NEAR WELCOME TO BELLE PLAINE SIGN, N=8019675.43, E=20333569.60, EL.=779.36



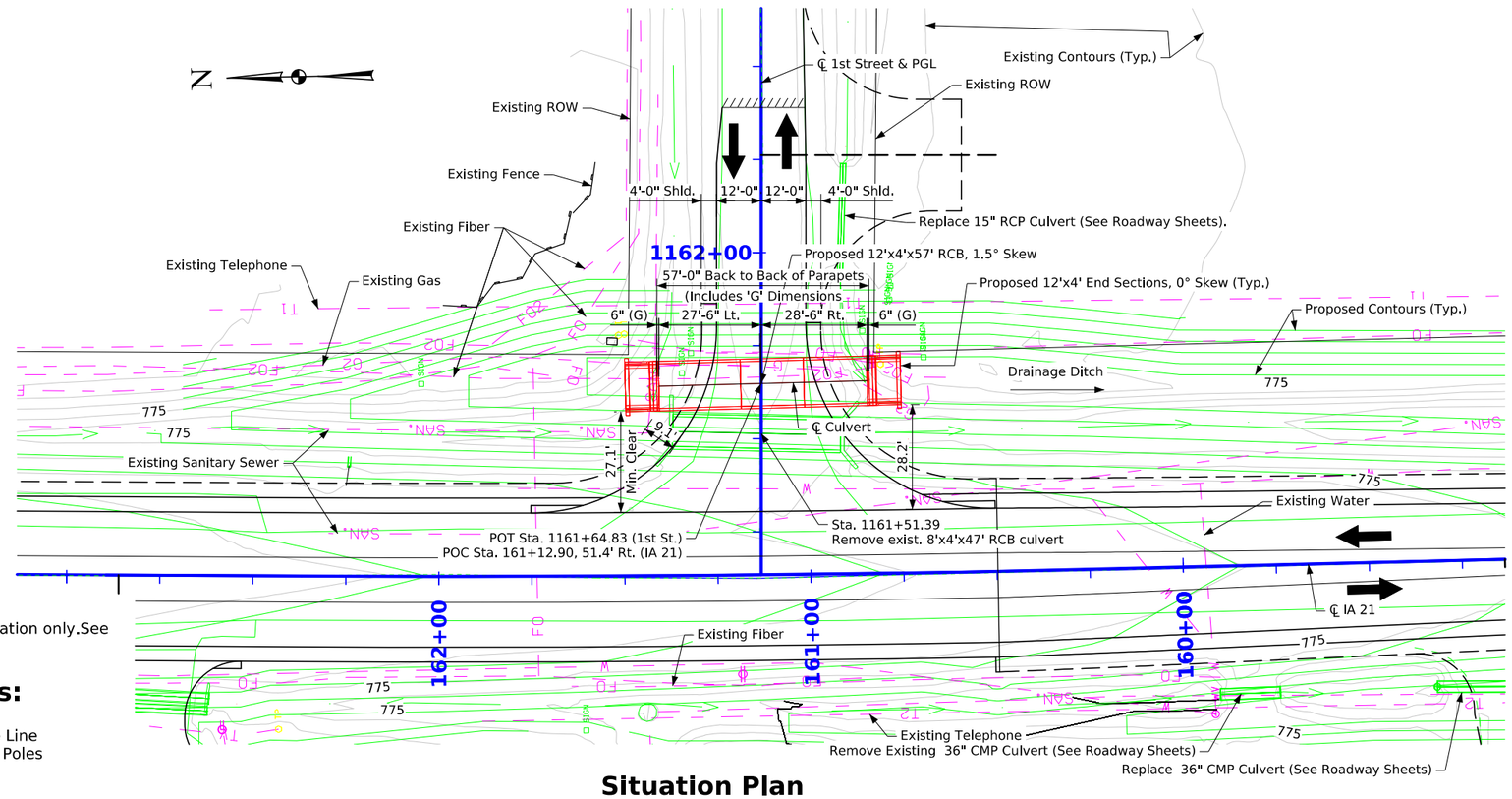
5.0% 0.14%

VPI Sta. = 1161+65.38
VPI Elev. = 778.43
L = 25'

Proposed Profile Grade On ℄ 1st Street

Longitudinal Section Along ℄ Culvert

Design Fill = 3'
Anticipated Settlement = TBD



Situation Plan

0 20
Scale In Feet

Utilities Note:

Utilities shown on this sheet are for information only.See Road Design sheets for utility information.

General Utility Symbols:

FO - Fiber Optic Line
SAN. - Sanitary Sewer
W - Water Line
G - Gas Line
T - Telephone Line
- Power Poles

Revetment cross section, quantities, and grading points to be added at a later date after completion of hydraulics.

Traffic Data

2021 AADT	410 V.P.D.
TRUCKS	13 %

Location:

1st St. Over Drainage Ditch
T-82N R-12W
Section 29
Iowa Township
Benton County
City of Belle Plaine
Asset ID No. 901050
Latitude: 41.884955
Longitude: -92.277891

Hydraulic Data

Hydraulic data to be determined at a later date.

General Notes:

--This design is for the replacement of the existing 8'x4'x47' Reinforced Concrete Box Culvert carrying drainage ditch and Minnow Creek overflow.

Plan Notes:

--Revetment stone is embedded.
--Faint lines indicate existing contours.

Designer Notes

--An Iowa DNR Flood Plain Permit is required. Preliminary Design will submit the application and place the permit in the PW Regulatory_Permits subdirectory folder upon receipt.
--A 1.5' high end wall is required across the inlet apron between wings to accommodate ditch elevation. Final designer shall include non-standard wall details in plans.

Preliminary

Design For 1°30' Skew (R.A.)
12'x4'x57'-0"
RCB Culvert

Situation Plan - Precast Alternate

STA. 1161+64.83 (1st Street)
Turn-in Date: Jan 2026

Benton (Iowa) County
IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0528 | Design Sheet No. 2 of 2 | Asset ID No. 901050

FILE NO. 32862	ENGLISH	DESIGN TEAM WHKS & Co.	Benton (Iowa) COUNTY	PROJECT NUMBER STP-021-4(033)--2C-06	SHEET NUMBER V.2

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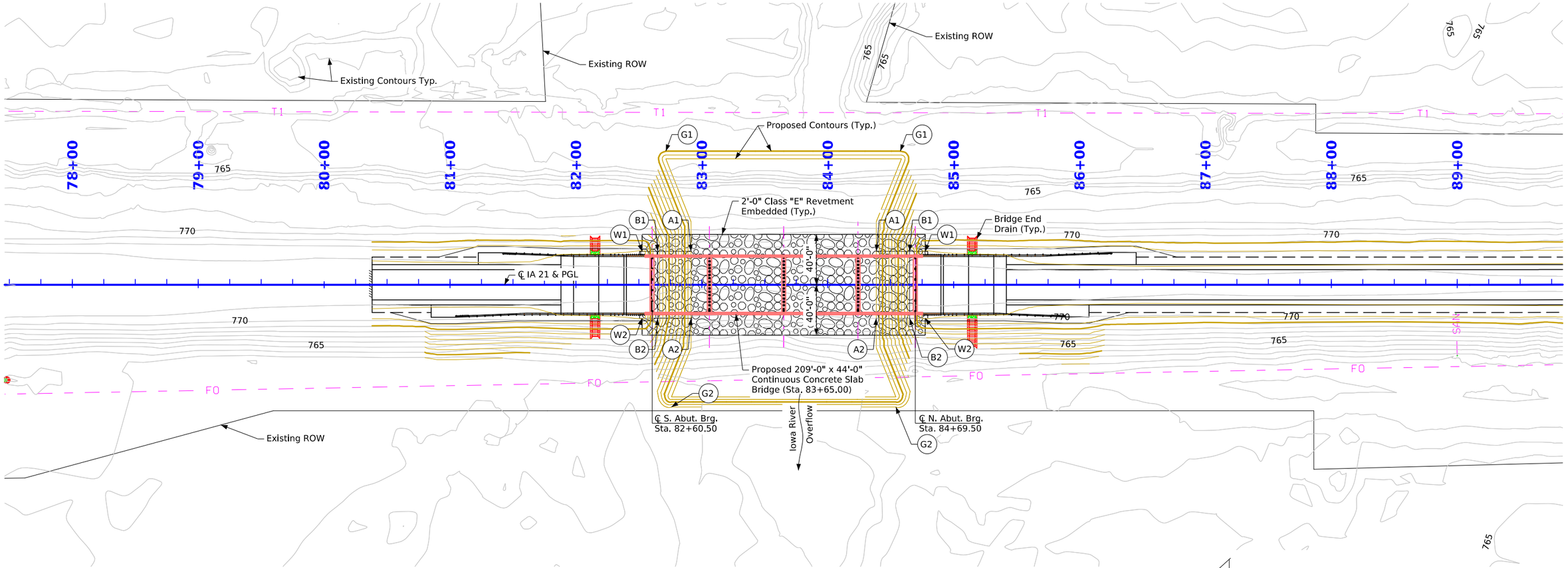
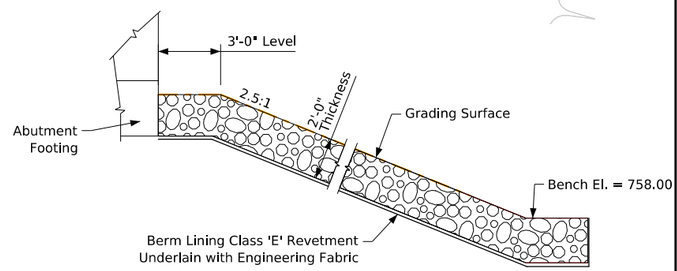
Control Point: CP2 SET FENO MONUMENT 71FT SE OF END OF SOUTHEAST GUARDRAIL IA HWY 21 OVERFLOW BRIDGE, N=8012721.29, E=20333633.24, EL.=765.40
CP3 SET FENO MONUMENT 0.6 MILES SOUTH OF INTERSECTION OF IA HWY 21 AND 1ST ST TOP OF EAST BACKSLOPE, N = 8016366.88, E=20333582.74, EL.=765.79



Site Plan

N

0 40
Scale In Feet



Section Thru Embedded Berm Lining

Normal to Berm Slope

Preliminary

Berm Slope Location Table

Points	South Abutment			North Abutment		
	Station	Offset	Elev.	Station	Offset	Elev.
A1	82+91.43	26.58' Lt.	758.00	84+38.57	26.58' Lt.	758.00
A2	82+91.43	26.58' Rt.	758.00	84+38.57	26.58' Rt.	758.00
B1	82+65.00	26.58' Lt.	768.58	84+65.00	26.58' Lt.	768.58
B2	82+65.00	26.58' Rt.	768.58	84+65.00	26.58' Rt.	768.58
G1	82+71.45	106.06' Lt.	760.00	84+57.69	106.06' Lt.	760.00
G2	82+75.93	97.00' Rt.	762.00	84+53.75	97.00' Rt.	762.00
W1	82+55.00	26.58' Lt.	772.08	84+75.00	26.58' Lt.	772.08
W2	82+55.00	26.58' Rt.	772.08	84+75.00	26.58' Rt.	772.08

Berm slope elevations reflect the grading surface.

Estimated Berm Armoring Quantities

Location	Revetment CL. E (Ton)	Engineering Fabric (SY)	CL. 10 Channel Excavation (CY)
South Abutment Berm	308.3	347.5	205.5
North Abutment Berm	308.3	347.5	205.5
Channel	1307.8	1373.2	871.9
Total	1924.4	2068.2	1282.9

Excavation quantity calculated from grading surface. Excavation quantity is for embedded revetment core out only, and does not include excavation to the grading surface. Excavation quantity to the grading surface is determined by Road Design and included in the Road Plans.

Design For 0 Degree Skew

209'-0" x 44'-0" Continuous Concrete Slab Bridge

45'-6" End Spans — Two 59'-0" Interior Spans

Situation Plan - Site

STA. 83+65.00 (IA 21) — Turn-in Date: Dec. 2025

Benton (Iowa) County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 128 — Design Sheet No. 3 of 3 — FHWA No. 701345

FLOODPLAIN DEVELOPMENT PERMIT CERTIFICATION:

THE PROJECT CONSISTS OF THE CONSTRUCTION OF THREE (3) OVERFLOW BRIDGES (NORTH OVERFLOW A, C AND D). THE EXISTING MAIN CHANNEL BRIDGE WILL BE UTILIZED WITHOUT MODIFICATION. THE EXISTING NORTH OVERFLOW BRIDGE (NORTH OVERFLOW B) WILL BE UTILIZED WITHOUT MODIFICATION WITH THE EXCEPTION OF EMBEDDED REVETMENT PLACED IN THE BRIDGE WATERWAY AREA.

EXISTING IA 21 ROADWAY GRADE WILL BE UTILIZED FROM THE SOUTH EXTENT OF THE FLOODPLAIN TO THE NORTH OVERFLOW A SITE. BETWEEN THE NORTH OVERFLOW A AND NORTH OVERFLOW B SITES MINIMAL ROADWAY GRADE RAISE WILL BE MADE. NORTH OF THE NORTH OVERFLOW B SITE A SIGNIFICANT ROADWAY GRADE RAISE WILL BE MADE TO THE NORTH EXTENT OF THE FLOODPLAIN.

HYDRAULIC DESIGN CERTIFICATION - SHEETS COVERED:

BRIDGE DESIGN NO. 179, SHT. V.0, 624'-0 X 44'-0 PPCB BRIDGE (EXISTING), MAIN CHANNEL

BRIDGE DESIGN NO. 128, SHT. V.1-V.3, 209'-0 X 44'-0 CCS BRIDGE, NORTH OVERFLOW A

BRIDGE DESIGN NO. 428, SHT. V.4-V.5, 200'-6 X 44'-0 CCS BRIDGE (EXISTING), NORTH OVERFLOW B

BRIDGE DESIGN NO. 228, SHT. V.6-V.8, 150'-0 X 44'-0 CCS BRIDGE, NORTH OVERFLOW C

BRIDGE DESIGN NO. 328, SHT. V.9-V.11, 150'-0 X 44'-0 CCS BRIDGE, NORTH OVERFLOW D

ROADWAY PLAN SHT. 1-3, EXISTING IA 21 GRADE SOUTH FLOODPLAIN EXTENT TO NORTH OF MAIN CHANNEL BRIDGE.

ROADWAY PLAN SHT. D.3-D.8, EXISTING IA 21 GRADE, PROPOSED IA 21 GRADE FROM NORTH OVERFLOW A TO NORTH EXTENT OF FLOODPLAIN.

HYDRAULIC DESIGN

PROFESSIONAL ENGINEER — LICENSED — William L. Kaufman 15098 — IOWA

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: William L. Kaufman — Date: Dec. 12, 2025

Printed or Typed Name: William L. Kaufman

My license renewal date is December 31, 2025

Pages or sheets covered by this seal: REFER TO HYDRAULIC DESIGN CERTIFICATION NOTE ABOVE.

HYDRAULIC DESIGN

PROFESSIONAL ENGINEER — LICENSED — William L. Kaufman 15098 — IOWA

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: William L. Kaufman — Date: Dec. 12, 2025

Printed or Typed Name: William L. Kaufman

My license renewal date is December 31, 2025

Pages or sheets covered by this seal: HYDRAULIC ANALYSIS DOCUMENT, SCOUR ANALYSIS (MAIN CHANNEL AND FOUR OVERFLOW BRIDGES).

PRELIMINARY

DESIGN FOR 0 DEG SKEW

209'-0 X 44'-0 CONTINUOUS CONCRETE SLAB BRIDGE

45'-6 END SPANS — TWO 59'-0 INTERIOR SPANS

SITUATION PLAN - REGULATORY

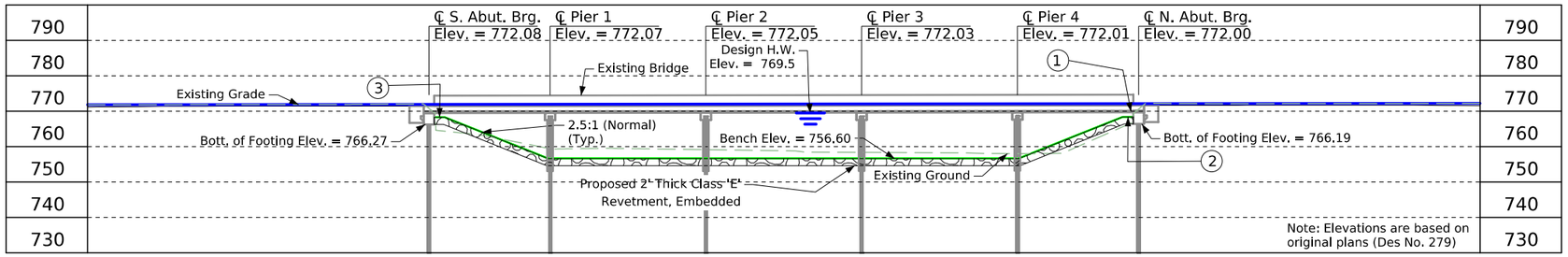
STATION 83+65.00 (IA 21) — DECEMBER 2025

BENTON (IOWA) COUNTY

IOWA DEPARTMENT OF TRANSPORTATION

DESIGN NO. 128 — DESIGN SHEET NO. 3R OF 3 — FHWA NO. 701345

Control Point: CP2 SET FENO MONUMENT 71FT SE OF END OF SOUTHEAST GUARDRAIL IA HWY 21 OVERFLOW BRIDGE, N+8012721.29, E=20333633.24, EL.=765.40
CP3 SET FENO MONUMENT 0.6 MILES SOUTH OF INTERSECTION OF IA HWY 21 AND 1ST ST TOP OF EAST BACKSLOPE, N = 8016366.88, E=20333582.74, EL.=765.79

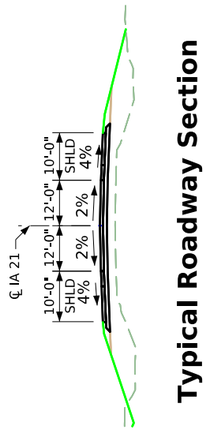


Longitudinal Section Along ℄ Approach Roadway

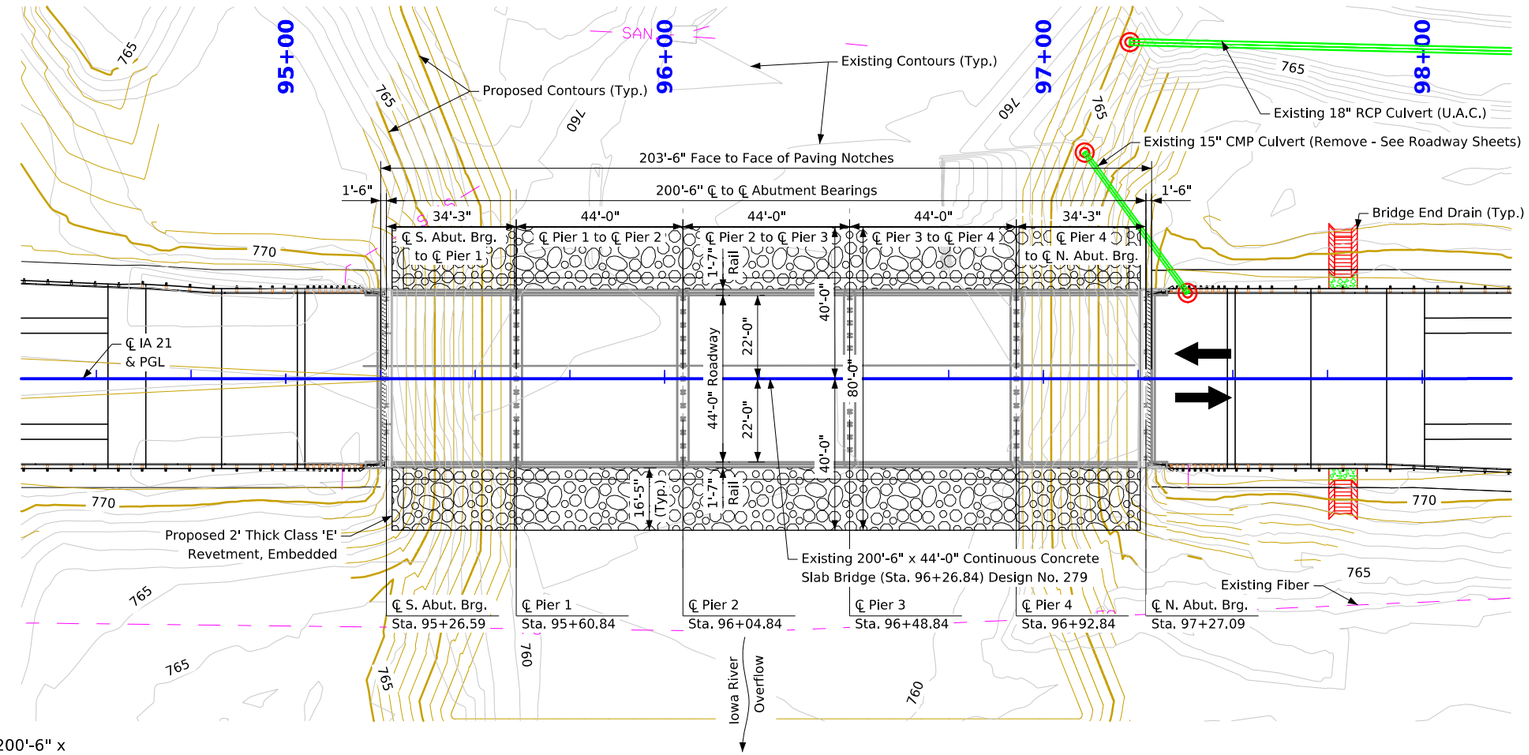
① Operational Low slab = See Hydraulic Data

② Top of North Berm Elev. = 768.2

③ Top of South Berm Elev. = 768.3



Typical Roadway Section



Situation Plan

0 20
Scale In Feet

N

Hydraulic Data

(Existing) North Overflow Bridge B Des. 279

Drainage Area = 2,455 Sq. Mi. (Overflow)

Q_{50} = 6,030 cfs (36,050 cfs)
Stage = El. 769.2
Avg. Bridge Velocity = 3.1 fps

Q_{100} = 6,895 cfs (40,790 cfs)
Stage = El. 769.5
Operational Low Slab = El. 770.1
Avg. Bridge Velocity = 3.4 fps

Q_{200} = 8,125 cfs (47,680 cfs)
Stage = El. 769.9
Avg. Bridge Velocity = 3.8 fps

Q_{500} = 8,815 cfs (52,230 cfs)
Stage = El. 770.2
Avg. Bridge Velocity = 4.1 fps

Q_{200} Proj. = 9,265 cfs (56,700 cfs)
Stage = El. 770.4
Avg. Bridge Velocity = 4.2 fps
Calculated Design Scour = El. 742.2

Q_{500} Proj.= 9,695 cfs (62,200 cfs)
Stage = El. 770.6
Avg. Bridge Velocity = 4.4 fps
Calculated Check Scour = El. 741.4

Discharge in parenthesis represents total streamflow.

Refer to Design No. 179, Main Channel Bridge Data, for general IA 21 crossing hydraulic data.

General Notes:

--This design is for placing revetment at the existing 200'-6" x 44' Continuous Concrete Slab Bridge, Benton County. Design 279, FHWA No. 14401.

Designer Notes:

--Density used for Class E quantity calculations is 1.5 T/cy
--Review need for FAA notification due to proximity to Belle Plaine Airport.

Plan Notes:

--Class E revetment stone is embedded.
--The bridge will be designed to withstand the applicable effects of ice and the horizontal stream loads and uplift forces associated with the Q_{100} flood.
--Faint lines indicate existing contours.

Utilities Note:

Utilities shown on this sheet are for information only. See Road Design sheets for utility information.

General Utility Symbols:

FO - Fiber Optic Line
San. - Sanitary Sewer

Traffic Data

2029 AADT	2,787 V.P.D.
TRUCKS	12 %

Location

IA 21 over Iowa River Overflow (NOF-B)
T-82N R-12W
Section 32
Iowa Township
Benton County
FHWA No. 14401 (Existing)
Latitude 41.867159°
Longitude -92.277780°

Preliminary

Design For Repairs to 0 Degree Skew

200'-6" x 44'-0" Continuous Concrete Slab Bridge

34'-3" End Spans — Three 44'-0" Interior Spans

Situation Plan

STA. 96+26.84 (IA 21) — Turn-in Date: Dec. 2025

Benton (Iowa) County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 428 — Design Sheet No. 1 of 2 — FHWA No. 14401

FILE NO. 32862	ENGLISH	DESIGN TEAM WHKS & Co.	Benton (Iowa) COUNTY	PROJECT NUMBER STP-021-3(019)--2C-48	SHEET NUMBER V.4

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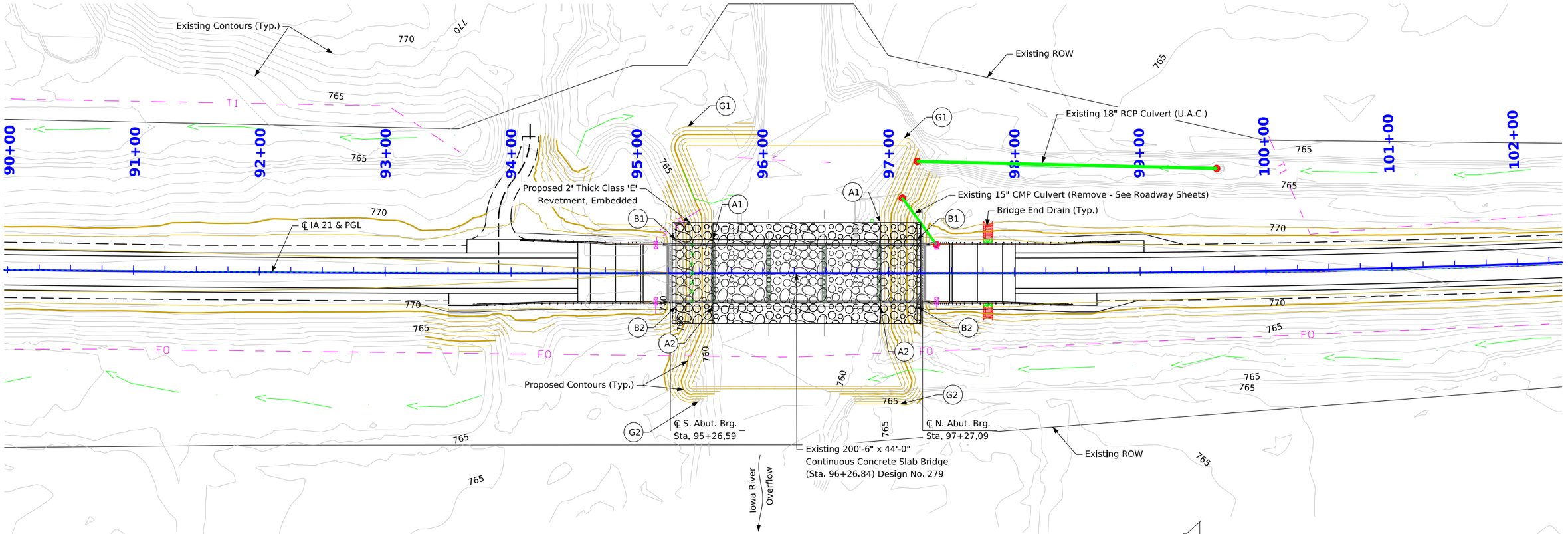
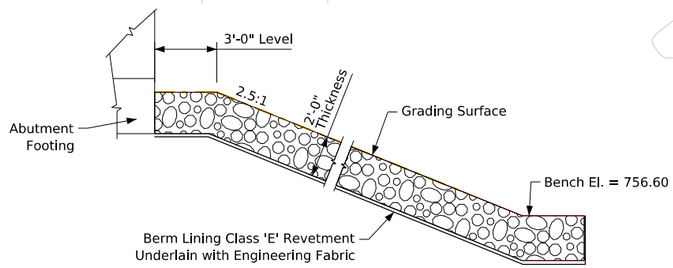
CP3 SET FENO MONUMENT 0.6 MILES SOUTH OF INTERSECTION OF IA HWY 21 AND 1ST ST TOP OF EAST BACKSLOPE, N = 8016366.88, E=20333582.74, EL.=765.79





Section Thru Embedded Berm Lining
Normal to Berm Slope

Estimated Berm Armoring Quantities

Location	Revetment CL. E (Ton)	Engineering Fabric (SY)	CL. 10 Channel Excavation (CY)
South Abutment Berm	306.7	338.8	204.5
North Abutment Berm	304.3	336.3	202.9
Channel	1184.4	1243.6	789.6
Total	1795.4	1918.7	1197.0

Excavation quantity calculated from grading surface. Excavation quantity is for embedded revetment core out only, and does not include excavation to the grading surface. Excavation quantity to the grading surface is determined by Road Design and included in the Road Plans.

Berm Slope Location Table

Points	South Abutment			North Abutment		
	Station	Offset	Elev.	Station	Offset	Elev.
A1	95+60.34	26.58' Lt.	756.60	96+93.59	26.58' Lt.	756.60
A2	95+60.34	26.58' Rt.	756.60	96+93.59	26.58' Rt.	756.60
B1	95+31.09	26.58' Lt.	768.30	97+22.59	26.58' Lt.	768.20
B2	95+31.09	26.58' Rt.	768.30	97+22.59	26.58' Rt.	768.20
G1	95+40.42	116.20' Lt.	762.00	97+12.30	107.20' Lt.	759.00
G2	95+48.85	101.80' Rt.	763.00	97+40.40	109.98' Rt.	764.00

Berm slope elevations reflect the grading surface.

Preliminary

Design For Repairs to 0 Degree Skew

200'-6" x 44'-0" Continuous Concrete Slab Bridge

34'-3" End Spans — Three 44'-0" Interior Span

Situation Plan - Site

STA. 96+26.84 (IA 21) — Turn-in Date: Dec. 2025

Benton (Iowa) County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 428 — Design Sheet No. 2 of 2 — FHWA No. 14401

FILE NO. 32862	ENGLISH	DESIGN TEAM WHKS & Co.	Benton (Iowa) COUNTY	PROJECT NUMBER STP-021-3(019)--2C-48	SHEET NUMBER V.5	

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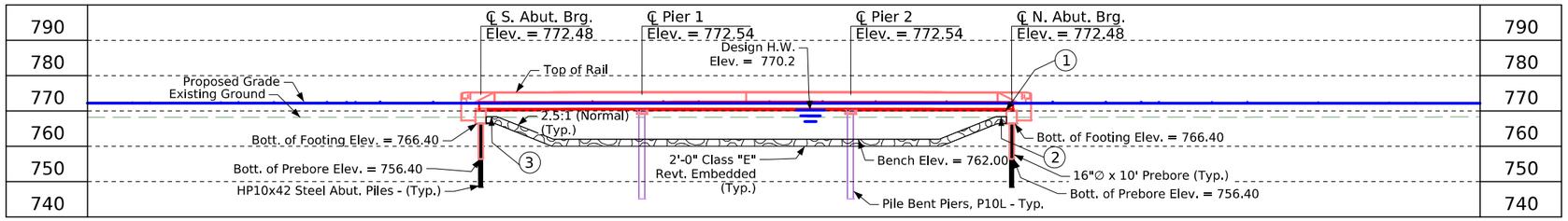
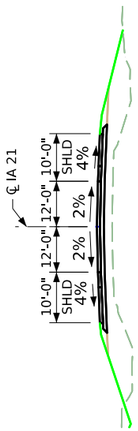
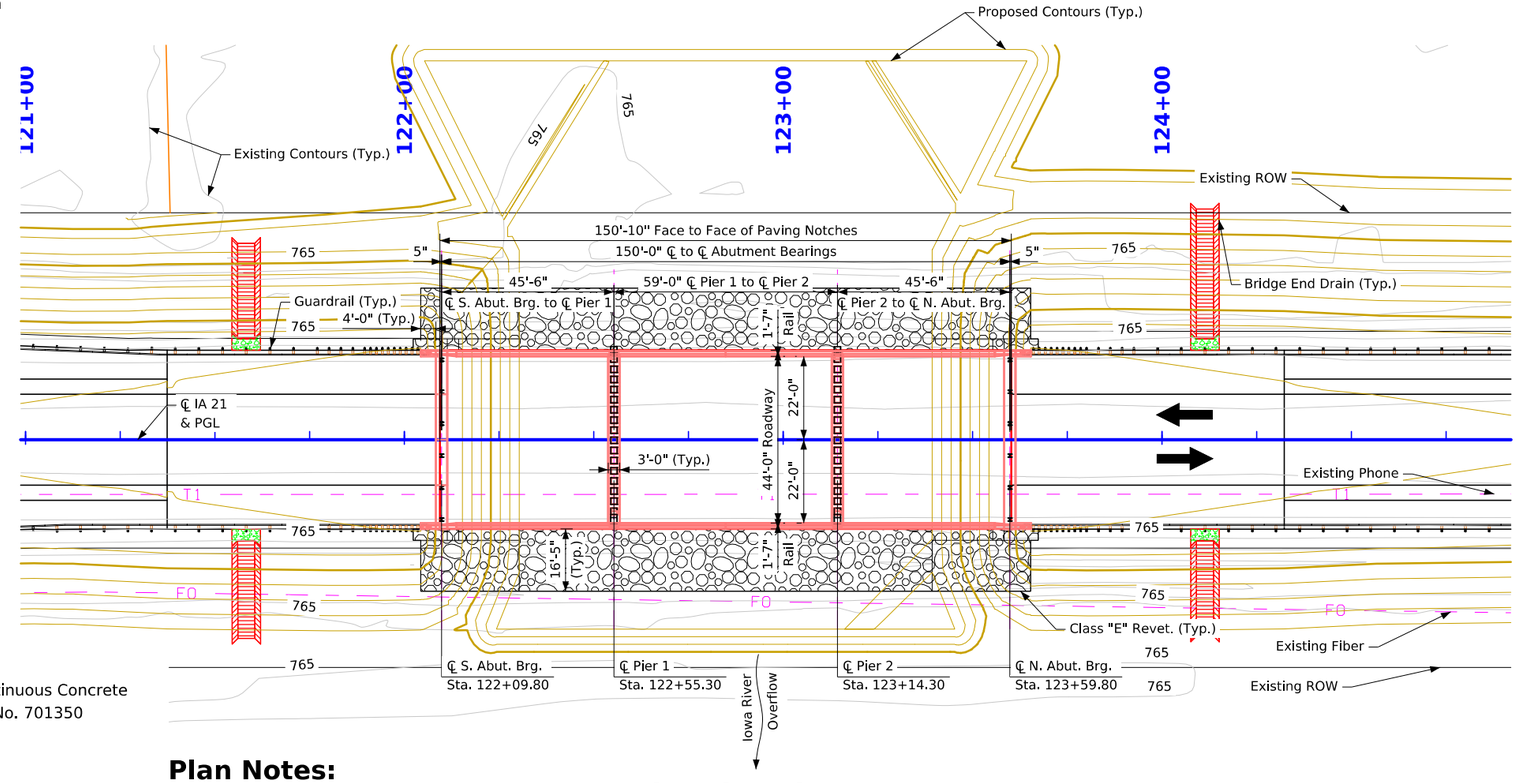
CP3 SET FENO MONUMENT 0.6 MILES SOUTH OF INTERSECTION OF IA HWY 21 AND 1ST ST TOP OF EAST BACKSLOPE, N = 8016366.88, E=20333582.74, EL.=765.79



Longitudinal Section Along ℄ Approach Roadway



Typical Roadway Section



General Notes:

--This design is for a new 150'-0" x 44'-0" Continuous Concrete Slab Bridge, Iowa County. Design 228, FHWA No. 701350

Designer Notes:

--TL-4 Single Slope Bridge Railing Proposed
--Standard Bridge No. J44
--Pier Type - P10L Pile Bent (Type 1, 2 or 3) Individually Encased
--An Iowa DNR Flood Plain Permit is required. Preliminary Design will submit the application and place the permit in the PW Regulatory_Permits subdirectory folder upon receipt.
--The bridge does not meet Iowa DOT's desired operational or channel freeboard per BDM 3.2.2.4 (reason: overflow structure). Final design aspects in the BDM related to inundation required.
--Density used for Class E quantity calculations is 1.5 T/cy
--Review need for FAA notification due to proximity to Belle Plaine Airport.

Plan Notes:

--Top of bridge deck at centerline roadway is 0.03' below the profile grade to account for deck cross slope and parabolic crown.
--Class E revetment stone is embedded.
--The bridge will be designed to withstand the applicable effects of ice and the horizontal stream loads and uplift forces associated with the Q_{100} flood.
--Faint lines indicate existing contours.

Utilities Note:

Utilities shown on this sheet are for information only. See Road Design sheets for utility information.

General Utility Symbols:

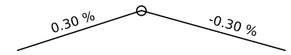
FO - Fiber Optic Line
T - Telephone Line

Situation Plan

0 20
Scale In Feet

N

1 Operational Low slab = See Hydraulic Data
2 Top of North Berm Elev. = 768.40
3 Top of South Berm Elev. = 768.40



VPI Sta. = 122+85.00 VC = 225'
VPI Elev. = 772.750

Proposed Profile Grade ℄ IA 21

Hydraulic Data

North Overflow Bridge C Des. 228

Drainage Area = 2,455 Sq. Mi. (Overflow)

Q_{50} = 2,605 cfs (36,050 cfs)
Stage = El. 769.9
Avg. Bridge Velocity = 2.5 fps

Q_{100} = 3,170 cfs (40,790 cfs)
Stage = El. 770.2
Operational Low Slab = El. 770.0
Avg. Bridge Velocity = 3.0 fps

Q_{200} = 4,110 cfs (47,680 cfs)
Stage = El. 770.7
Avg. Bridge Velocity = 3.9 fps

Q_{500} = 4,670 cfs (52,230 cfs)
Stage = El. 770.9
Avg. Bridge Velocity = 4.4 fps

Q_{200} Proj. = 4,985 cfs (56,700 cfs)
Stage = El. 771.1
Avg. Bridge Velocity = 4.7 fps
Calculated Design Scour = El. 749.8

Q_{500} Proj.= 5,265 cfs (62,200 cfs)
Stage = El. 771.4
Avg. Bridge Velocity = 5.0 fps
Calculated Check Scour = El. 749.2

Discharge in parenthesis represents total streamflow.

Refer to Design No. 179, Main Channel Bridge Data, for general IA 21 crossing hydraulic data.

Traffic Data

2029 AADT 2,787 V.P.D.
TRUCKS 12 %

Location

IA 21 over Iowa River Overflow (NOF-C)
T-82N R-12W
Section 32
Iowa Township
Benton County
FHWA No. 701350 (Proposed)
Latitude 41.874450°
Longitude -92.277912°

Preliminary

Design For 0 Degree Skew

150'-0" x 44'-0" Continuous Concrete Slab Bridge

45'-6" End Spans 59'-0" Interior Span

Situation Plan

STA. 122+84.80 (IA 21) Turn-in Date: Dec. 2025

Benton (Iowa) County
IOWA DEPARTMENT OF TRANSPORTATION

Design No. 228 Design Sheet No. 1 of 3 FHWA No. 701350

FILE NO. 32862	ENGLISH	DESIGN TEAM WHKS & Co.	Benton (Iowa) COUNTY	PROJECT NUMBER STP-021-3(019)--2C-48	SHEET NUMBER V.6

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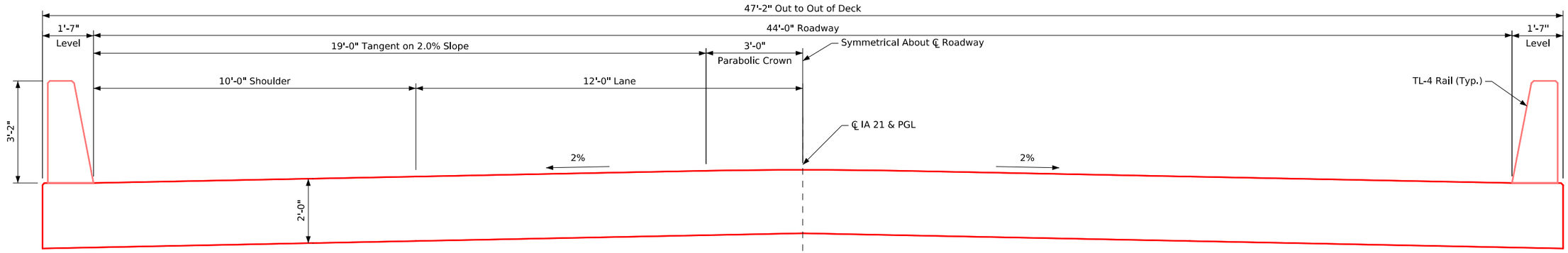

Transverse Section

(Looking North)

Preliminary

Design For 0 Degree Skew

150'-0" x 44'-0" Continuous Concrete Slab Bridge

45'-6" End Spans | 59'-0" Interior Span

Situation Plan - Misc.

STA. 122+84.80 (IA 21) | Turn-in Date: Dec. 2025

Benton (Iowa) County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 228 | Design Sheet No. 2 of 3 | FHWA No. 701350

FILE NO. **32862**	ENGLISH	DESIGN TEAM **WHKS & Co.**	**Benton (Iowa)** COUNTY	PROJECT NUMBER **STP-021-3(019)--2C-48**	SHEET NUMBER V.7	

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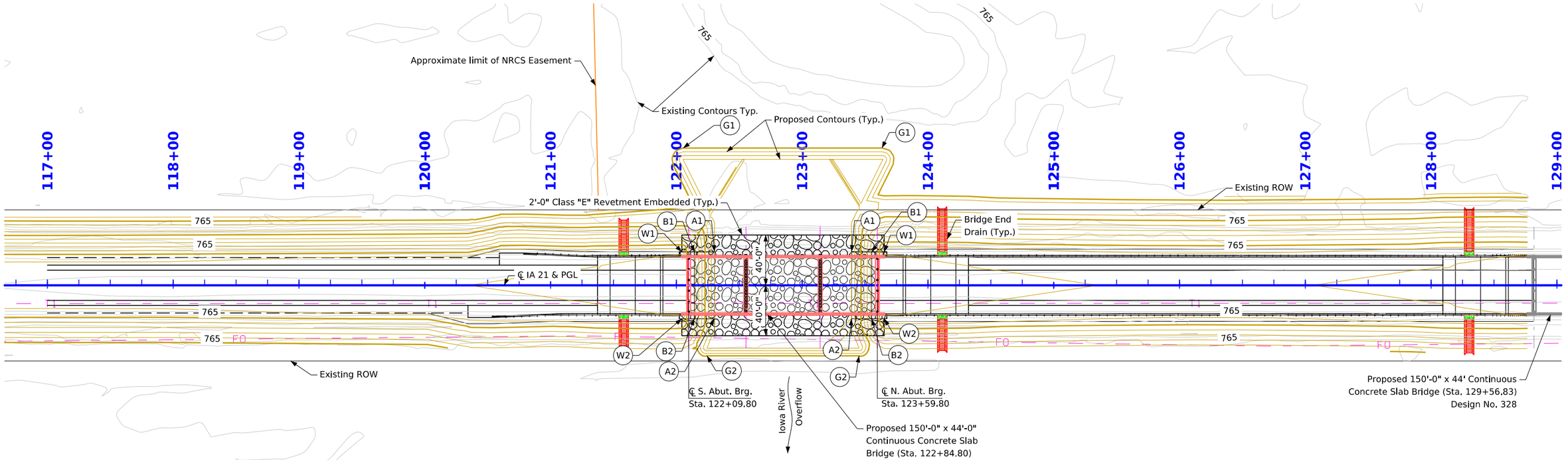
Control Point: CP2 SET FENO MONUMENT 71FT SE OF END OF SOUTHEAST GUARDRAIL IA HWY 21 OVERFLOW BRIDGE, N+8012721.29, E=20333633.24, EL.=765.40
CP3 SET FENO MONUMENT 0.6 MILES SOUTH OF INTERSECTION OF IA HWY 21 AND 1ST ST TOP OF EAST BACKSLOPE, N = 8016366.88, E=20333582.74, EL.=765.79



Site Plan

N

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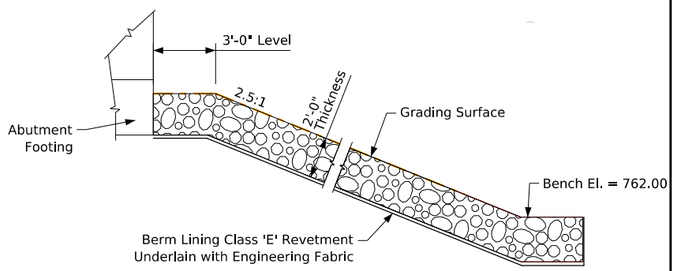
Scale In Feet



Section Thru Embedded Berm Lining

Normal to Berm Slope

Preliminary

Berm Slope Location Table

Points	South Abutment			North Abutment		
	Station	Offset	Elev.	Station	Offset	Elev.
A1	122+30.30	26.58' Lt.	762.00	123+39.30	26.58' Lt.	762.00
A2	122+30.30	26.58' Rt.	762.00	123+39.30	26.58' Rt.	762.00
B1	122+14.30	26.58' Lt.	768.40	123+55.30	26.58' Lt.	768.40
B2	122+14.30	26.58' Rt.	768.40	123+55.30	26.58' Rt.	768.40
G1	122+05.30	109.00' Lt.	765.00	123+63.48	109.00' Lt.	765.00
G2	122+24.38	56.00' Rt.	765.00	123+45.21	56.00' Rt.	765.00
W1	122+04.30	26.58' Lt.	771.90	123+65.30	26.58' Lt.	771.90
W2	122+04.30	26.58' Rt.	771.90	123+65.30	26.58' Rt.	771.90

Berm slope elevations reflect the grading surface.

Estimated Berm Armoring Quantities

Location	Revetment CL. E (Ton)	Engineering Fabric (SY)	CL. 10 Channel Excavation (CY)
South Abutment Berm	201.1	233.5	134.1
North Abutment Berm	201.1	233.5	134.1
Channel	968.9	1017.3	645.9
Total	1371.1	1484.3	914.1

Excavation quantity calculated from grading surface. Excavation quantity is for embedded revetment core out only, and does not include excavation to the grading surface. Excavation quantity to the grading surface is determined by Road Design and included in the Road Plans.

Design For 0 Degree Skew

150'-0" x 44'-0" Continuous Concrete Slab Bridge

45'-6" End Spans — 59'-0" Interior Span

Situation Plan - Site

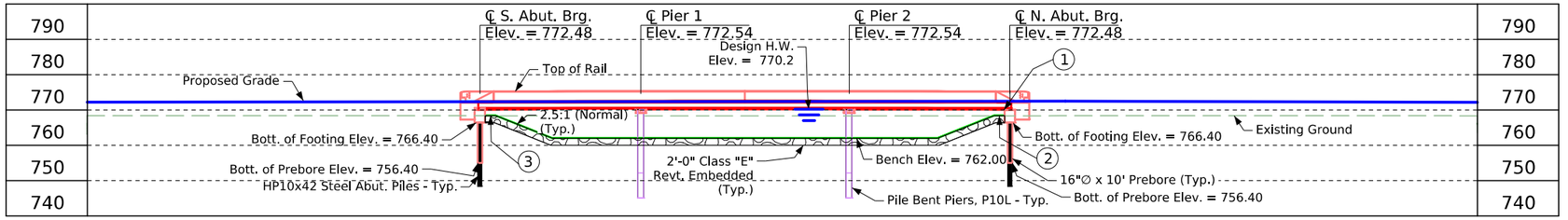
STA. 122+84.80 (IA 21) — Turn-in Date: Dec. 2025

Benton (Iowa) County

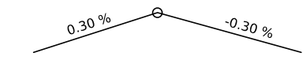
IOWA DEPARTMENT OF TRANSPORTATION

Design No. 228 — Design Sheet No. 3 of 3 — FHWA No. 701350

Control Point: CP2 SET FENO MONUMENT 71FT SE OF END OF SOUTHEAST GUARDRAIL IA HWY 21 OVERFLOW BRIDGE, N=8012721.29, E=20333633.24, EL.=765.40
CP3 SET FENO MONUMENT 0.6 MILES SOUTH OF INTERSECTION OF IA HWY 21 AND 1ST ST TOP OF EAST BACKSLOPE, N = 8016366.88, E=20333582.74, EL.=765.79



Longitudinal Section Along ℄ Approach Roadway



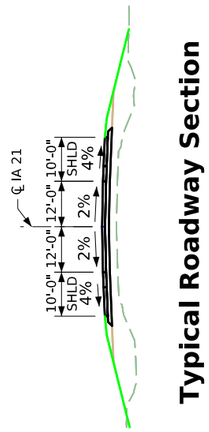
VPI Sta. = 129+57.00 VC = 225'
VPI Elev. = 772.750

Proposed Profile Grade ℄ IA 21

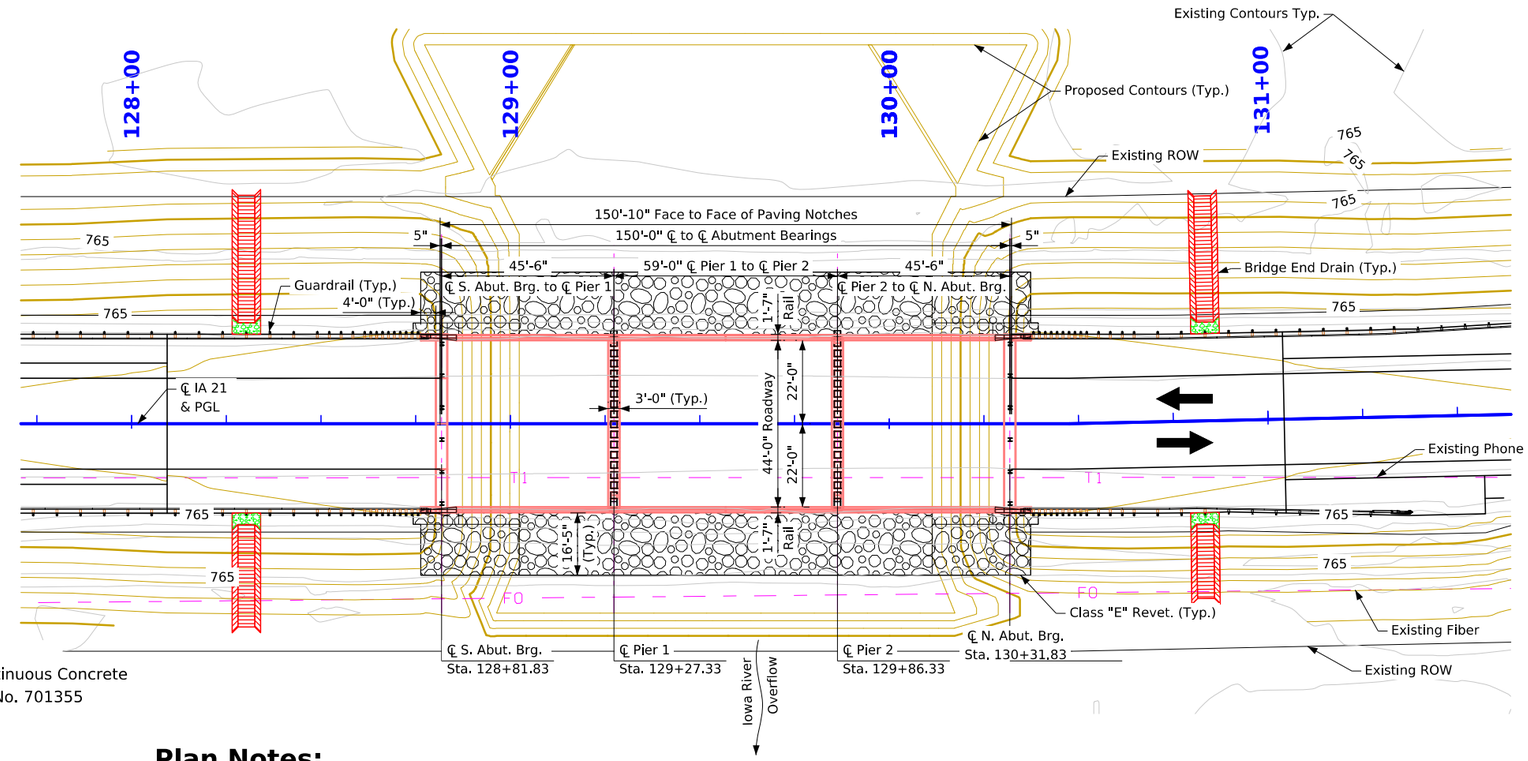
① Operational Low slab = See Hydraulic Data

② Top of North Berm Elev. = 768.40

③ Top of South Berm Elev. = 768.40



Typical Roadway Section



Situation Plan

0 20
Scale In Feet

N

Hydraulic Data

North Overflow Bridge D Des. 328

Drainage Area = 2,455 Sq. Mi. (Overflow)

Q_{50} = 2,295 cfs (36,050 cfs)
Stage = El. 769.9
Avg. Bridge Velocity = 2.2 fps

Q_{100} = 2,850 cfs (40,790 cfs)
Stage = El. 770.2
Operational Low Slab = El. 770.0
Avg. Bridge Velocity = 2.7 fps

Q_{200} = 3,685 cfs (47,680 cfs)
Stage = El. 770.8
Avg. Bridge Velocity = 3.5 fps

Q_{500} = 4,285 cfs (52,230 cfs)
Stage = El. 771.0
Avg. Bridge Velocity = 4.1 fps

Q_{200} Proj. = 4,650 cfs (56,700 cfs)
Stage = El. 771.2
Avg. Bridge Velocity = 4.4 fps
Calculated Design Scour = El. 751.0

Q_{500} Proj.= 5,025 cfs (62,200 cfs)
Stage = El. 771.5
Avg. Bridge Velocity = 4.8 fps
Calculated Check Scour = El. 750.0

Discharge in paranthesis represents total streamflow.

Refer to Design No. 179, Main Channel Bridge Data, for general IA 21 crossing hydraulic data.

General Notes:

--This design is for a new 150'-0" x 44'-0" Continuous Concrete Slab Bridge, Iowa County. Design 328, FHWA No. 701355

Designer Notes:

--TL-4 Single Slope Bridge Railing Proposed
--Standard Bridge No. J44
--Pier Type - P10L Pile Bent (Type 1, 2 or 3) Individually Encased
--An Iowa DNR Flood Plain Permit is required. Preliminary Design will submit the application and place the permit in the PW Regulatory_Permits subdirectory folder upon receipt.
--The bridge does not meet Iowa DOT's desired operational or channel freeboard per BDM 3.2.2.4 (reason: overflow structure). Final design aspects in the BDM related to inundation required.
--Density used for Class E quantity calculations is 1.5 T/cy
--Review need for FAA notification due to proximity to Belle Plaine Airport.

Plan Notes:

--Top of bridge deck at centerline roadway is 0.03' below the profile grade to account for deck cross slope and parabolic crown.
--Class E revetment stone is embedded.
--The bridge will be designed to withstand the applicable effects of ice and the horizontal stream loads and uplift forces associated with the Q_{100} flood.
--Faint lines indicate existing contours.

Utilities Note:

Utilities shown on this sheet are for information only. See Road Design sheets for utility information.

General Utility Symbols:

FO - Fiber Optic Line T - Telephone Line

Traffic Data

2029 AADT 2,787 V.P.D.
TRUCKS 12 %

Location

IA 21 over Iowa River Overflow (NOF-D)
T-82N R-12W
Section 32
Iowa Township
Benton County
FHWA No. 701355 (Proposed)
Latitude 41.876295°
Longitude -92.277904°

Preliminary

Design For 0 Degree Skew

150'-0" x 44'-0" Continuous Concrete Slab Bridge

45'-6" End Spans 59'-0" Interior Span

Situation Plan

STA. 129+56.83 (IA 21) Turn-in Date: Dec. 2025

Benton (Iowa) County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 328 Design Sheet No. 1 of 3 FHWA No. 701355

FILE NO. 32862	ENGLISH	DESIGN TEAM WHKS & Co.	Benton (Iowa) COUNTY	PROJECT NUMBER STP-021-3(019)--2C-48	SHEET NUMBER V.9	

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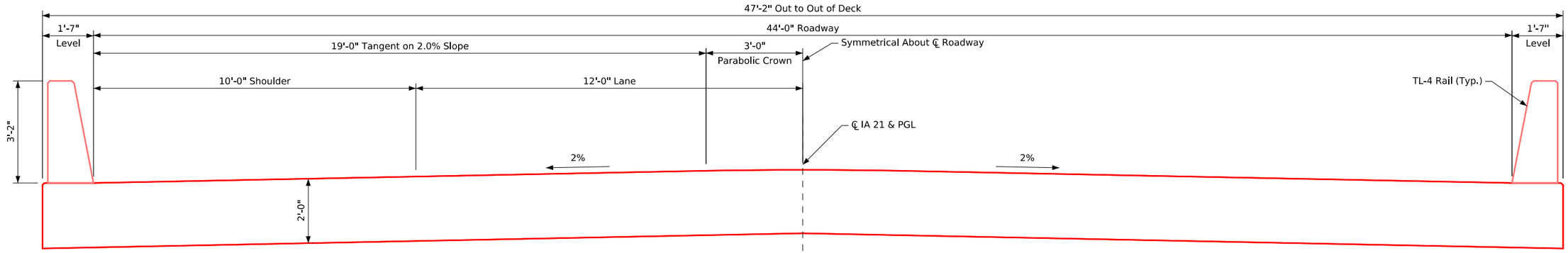

Transverse Section

(Looking North)

Preliminary

Design For 0 Degree Skew

150'-0" x 44'-0" Continuous Concrete Slab Bridge

45'-6" End Spans | 59'-0" Interior Span

Situation Plan - Misc.

STA. 129+56.83 (IA 21) | Turn-in Date: Dec. 2025

Benton (Iowa) County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 328 | Design Sheet No. 2 of 3 | FHWA No. 701355

FILE NO. **32862**	ENGLISH	DESIGN TEAM **WHKS & Co.**	**Benton (Iowa)** COUNTY	PROJECT NUMBER **STP-021-3(019)--2C-48**	SHEET NUMBER V.10

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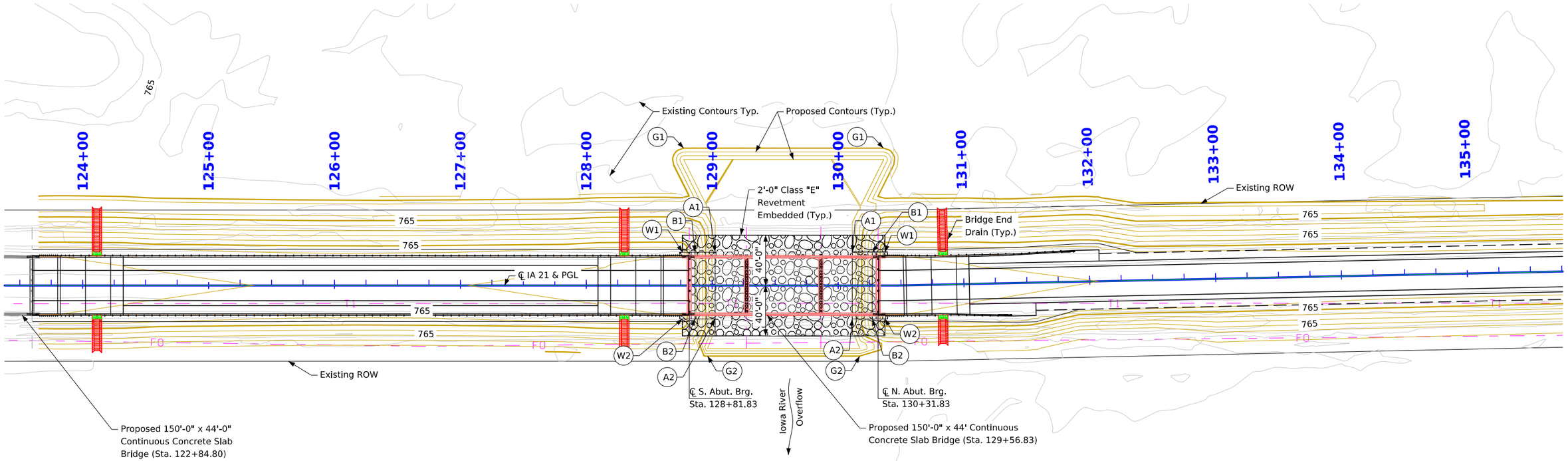
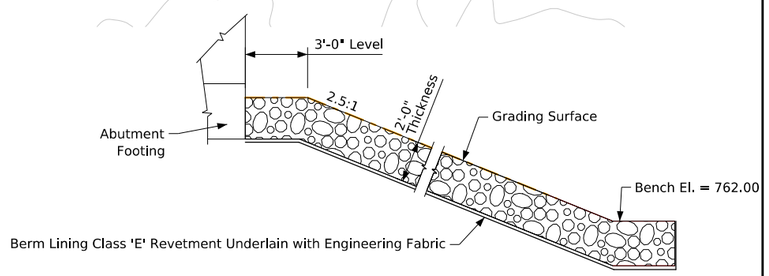


Site Plan

N

0 40
Scale In Feet



Section Thru Embedded Berm Lining

Normal to Berm Slope

Preliminary

Berm Slope Location Table

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B2	128+86.33	26.58' Rt.	768.40	130+27.33	26.58' Rt.	768.40
G1	128+77.33	109.00' Lt.	765.00	130+36.02	109.00' Lt.	765.00
G2	128+96.41	56.00' Rt.	765.00	130+17.22	56.00' Rt.	765.00
W1	128+76.33	26.58' Lt.	771.90	130+37.33	26.58' Lt.	771.90
W2	128+76.33	26.58' Rt.	771.90	130+37.33	26.58' Rt.	771.90

Berm slope elevations reflect the grading surface.

Estimated Berm Armoring Quantities

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Situation Plan - Site

STA. 129+56.83 (IA 21) — Turn-in Date: Dec. 2025

Benton (Iowa) County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 328 — Design Sheet No. 3 of 3 — FHWA No. 701355

FILE NO. 32862	ENGLISH	DESIGN TEAM WHKS & Co.	Benton (Iowa) COUNTY	PROJECT NUMBER STP-021-3(019)--2C-48	SHEET NUMBER V.11

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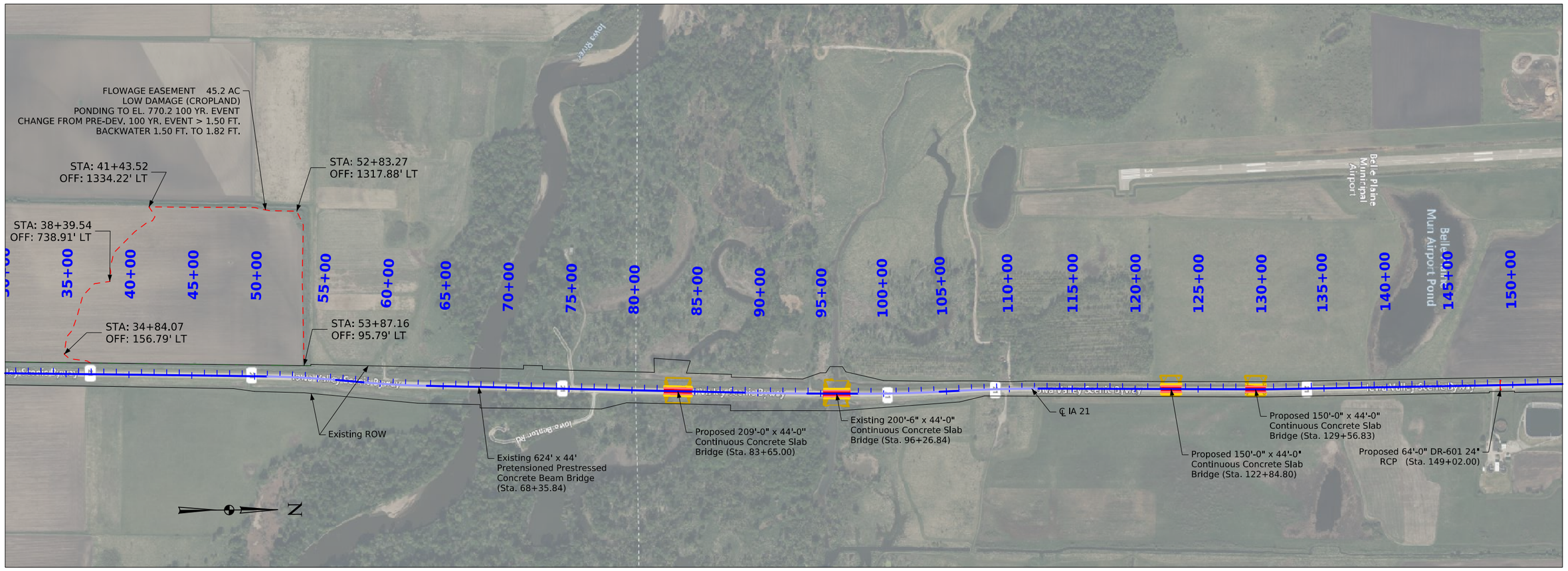

Flowage Easement Plan

0 400
Scale In Feet

IA 21 over Iowa River Flood Mitigation

Flowage Easement Plan

Turn-in Date: Dec. 2025

Benton (Iowa) County

IOWA DEPARTMENT OF TRANSPORTATION

Design Sheet No. 1 of 1

FILE NO. 32862	ENGLISH	DESIGN TEAM WHKS & Co.	Benton (Iowa) COUNTY	PROJECT NUMBER STP-021-3(019)–2C-48	SHEET NUMBER V.12	

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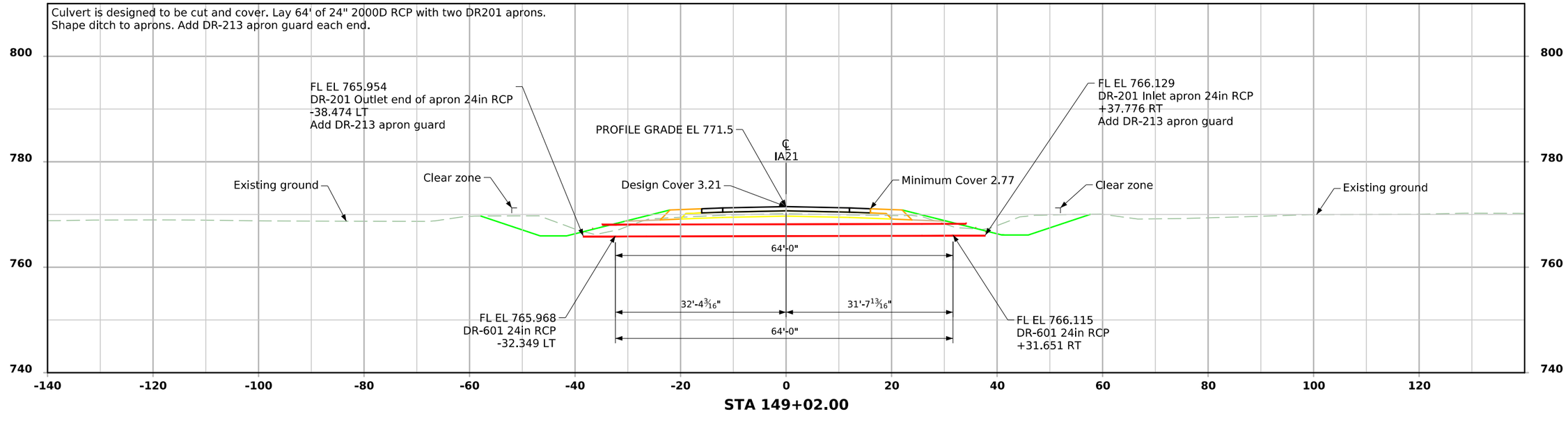

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SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC

CROSS SECTION VIEW COLOR LEGEND

Design Color No.	Feature
Aggregate	
(64)	Choke Stone
(42)	Engineering Fabric
(8)	Flooded Backfill
(92)	Macadam Stone
(20)	Modified
(12)	Plowing Shaping
(14)	Porous Backfill
(8)	Revetment Class A
(6)	Revetment Class B
(62)	Revetment Class C
(188)	Revetment Class D
(28)	Revetment Class E
(12)	Shoulder Special Backfill
(12)	Special Backfill
(20)	Subbase
(20)	Subbase Lower
(20)	Subbase Upper
(118)	Subgrade Treatment
Asphalt	
(207)	HMA Base Course
(207)	HMA Interim Course
(207)	HMA Surface Course
Bridge	
(0)	Bridge
Concrete	
(0)	Barrier Concrete
(0)	Barrier Concrete Footing
(0)	Curb Gutter
(48)	Flowable Mortar
(0)	Median Concrete
(0)	PCC Pavement
(0)	Sidewalk
Existing	
(0)	Existing Pavement
Shoulder	
(209)	Shoulder HMA
(0)	Shoulder PCC
(6)	Shoulder Granular
Structural	
(112)	Noise Wall
(112)	Noise Wall Footing
(112)	Retaining Wall Back
(112)	Retaining Wall Back Excavate
(112)	Retaining Wall Face
(112)	Retaining Wall Front Excavate
(112)	Retaining Wall Front Footing
(112)	Retaining Wall MSE Gutter
(112)	Retaining Wall Reinforced Earth

Design Color No.	Feature
Grading	
(8)	Behind Curb Cut
(6)	Granular
(13)	Granular Back Fill
(48)	Rock Undercut
(8)	Shoulder Earth Fill
(2)	Side Slopes
(226)	Side Slopes Dressing
Substrata	
(128)	Boulder
(209)	Boulder Removed
(48)	Broken Weathered
(210)	Broken Weathered Removed
(3)	Core Out
(115)	Core Out Remove Only
(195)	Core Out Remove and Replace
(203)	Existing Pavement
(184)	Existing Pavement Remove Only
(200)	Existing Pavement Remove and Replace
(6)	Loam
(211)	Loam Removed
(80)	Rock
(212)	Rock Removed
(4)	Select Sand
(214)	Select Sand Removed
(3)	Shale
(215)	Shale Removed
(10)	Topsoil
(2)	Topsoil Remove Only
(4)	Topsoil Remove and Replace
Unsuitable / Waste	
(3)	Unsuitable Type A
(216)	Unsuitable Type A Removed
(13)	Unsuitable Type B
(217)	Unsuitable Type B Removed
(11)	Unsuitable Type C
(218)	Unsuitable Type C Removed
(3)	Waste
(219)	Waste Removed

NOTES:

Text

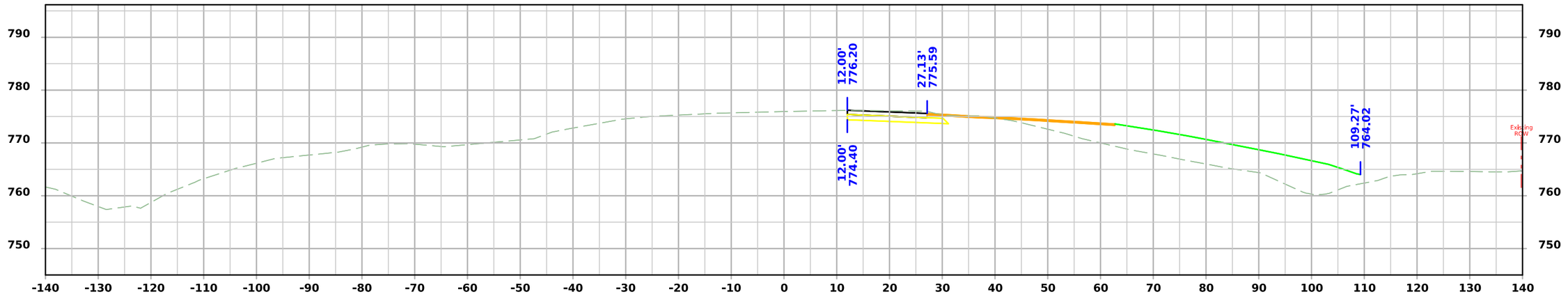
NOTES:

Text

CROSS SECTIONS
LEGEND AND INFORMATION SHEET

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

ML - IA 21



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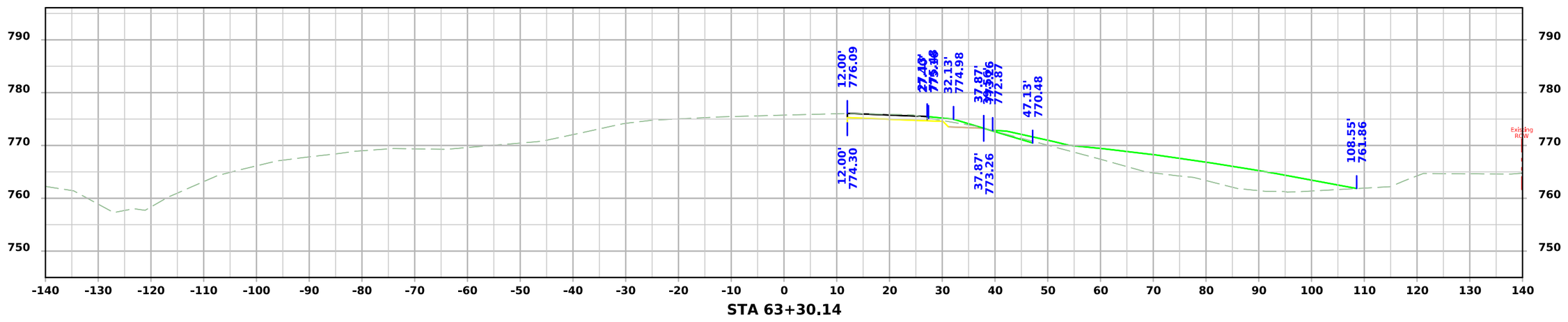

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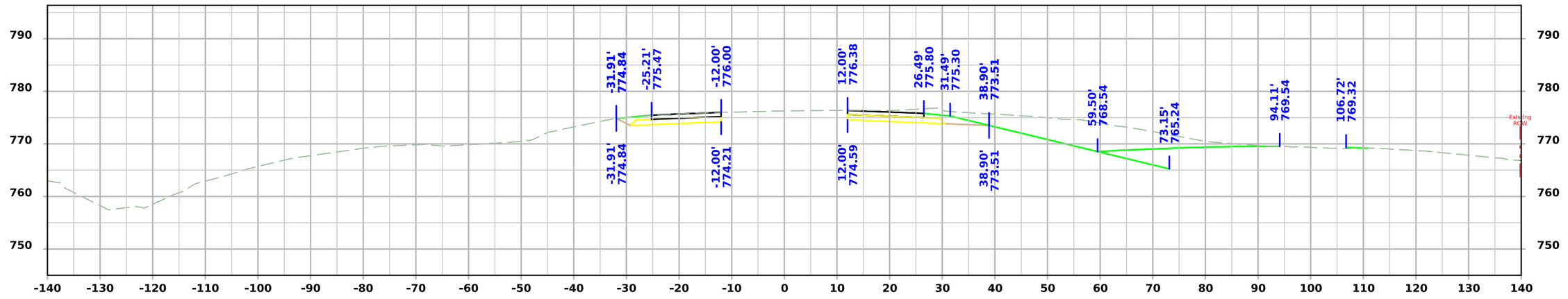

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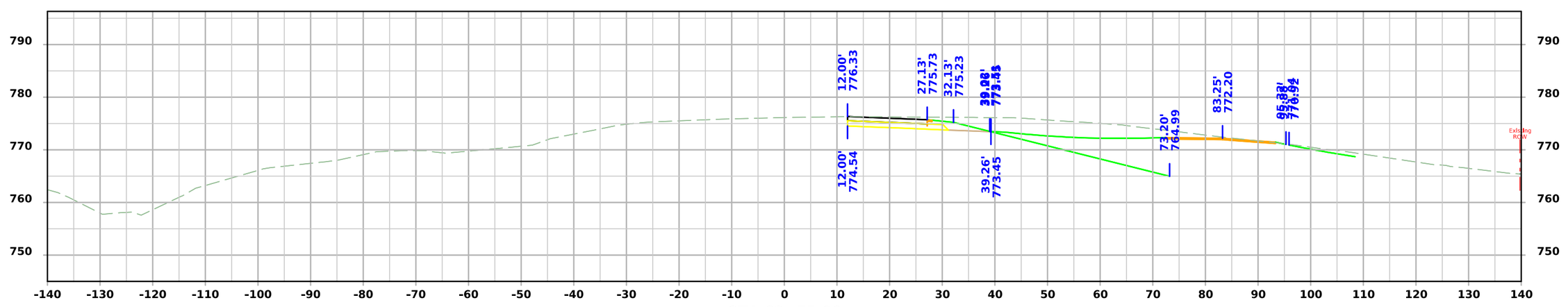

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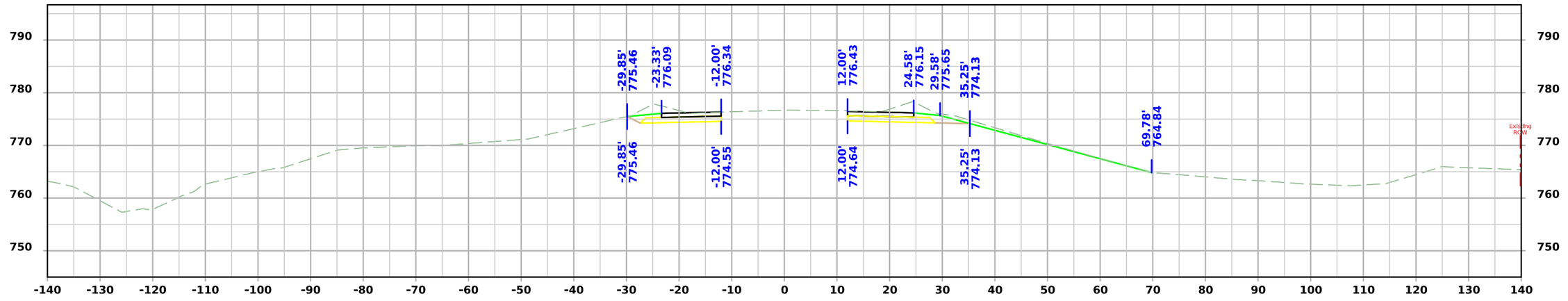

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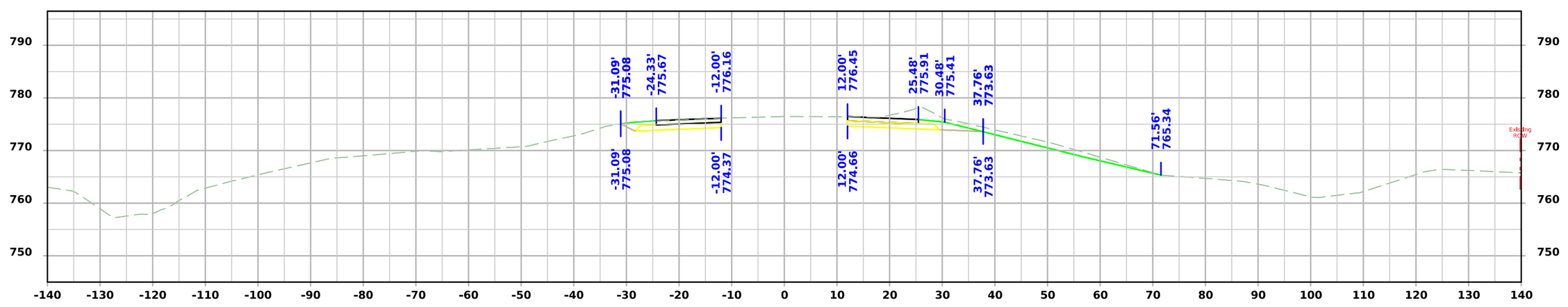

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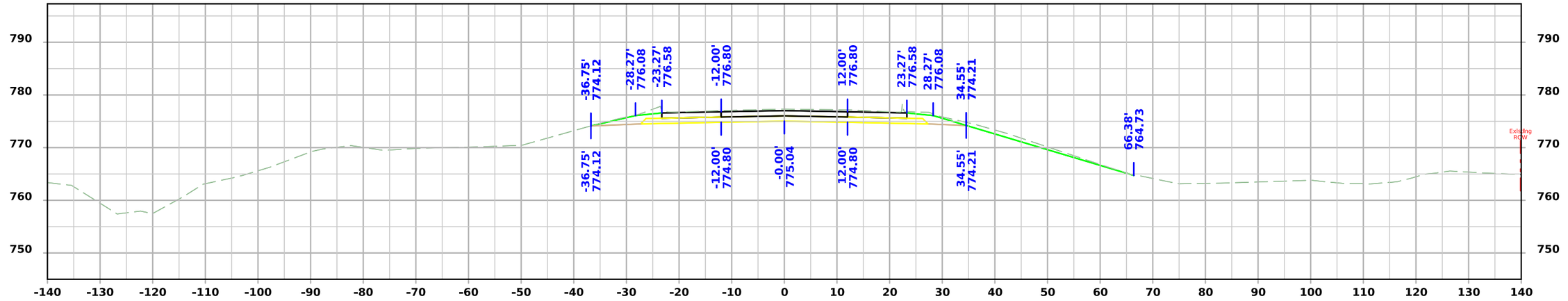

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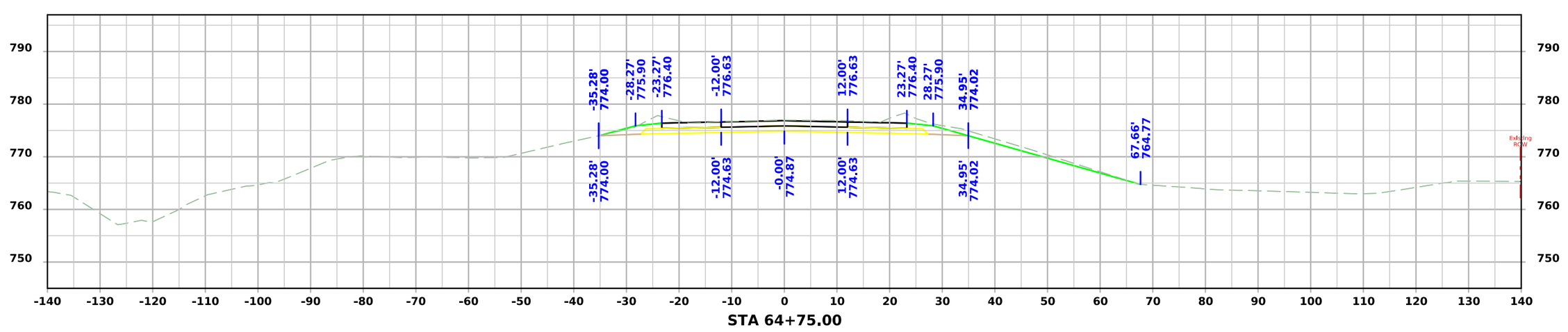

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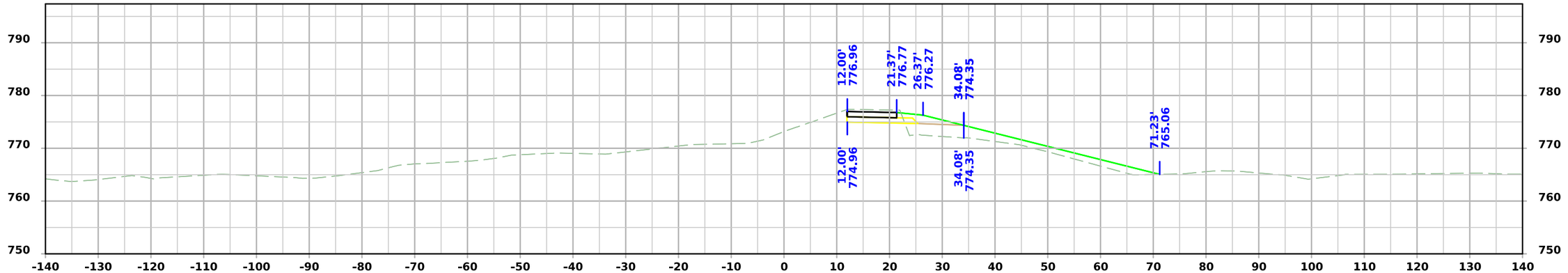
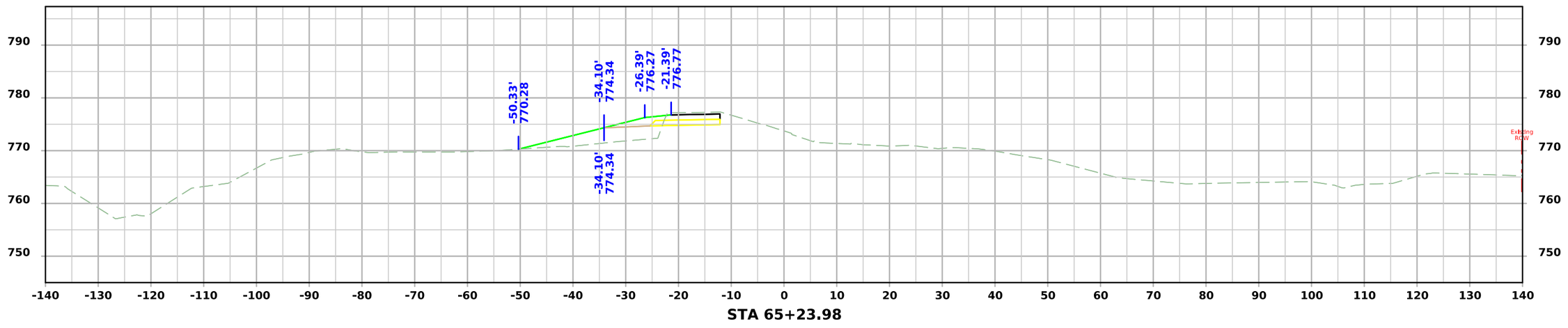
ML - IA 21



STA 71+47.13

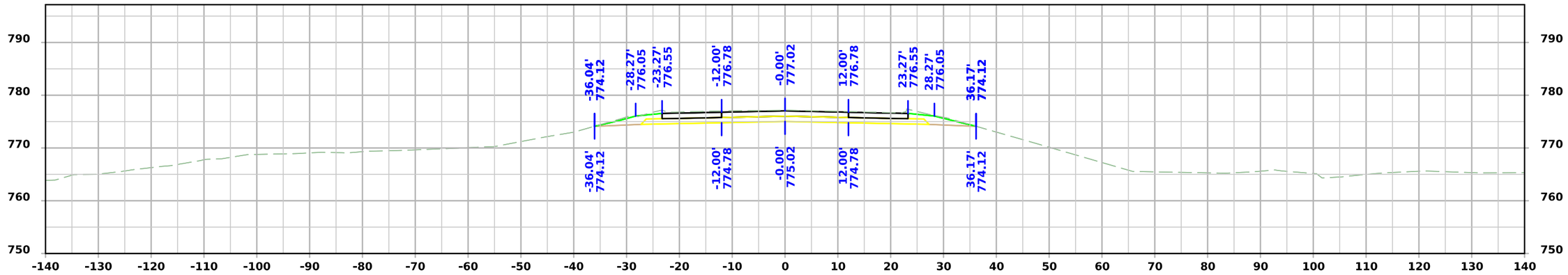


STA 65+23.98

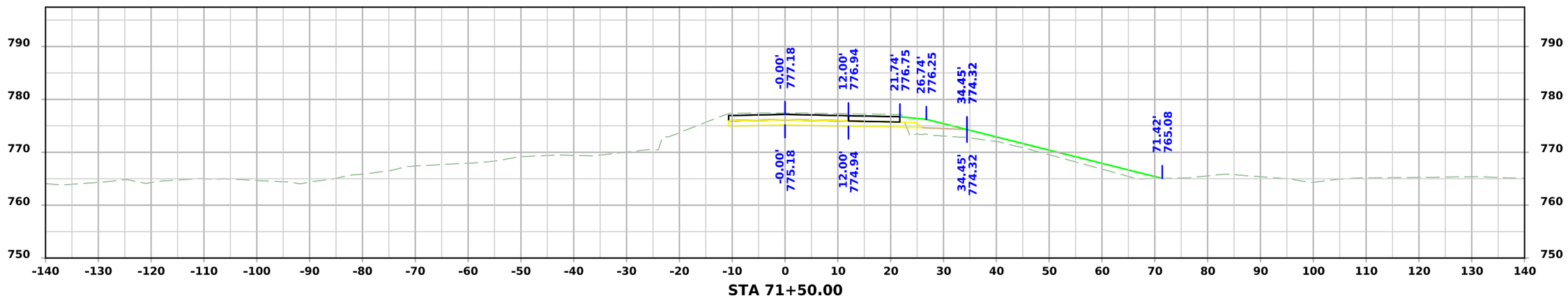
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.6

10:55:35 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

ML - IA 21



STA 71+75.00

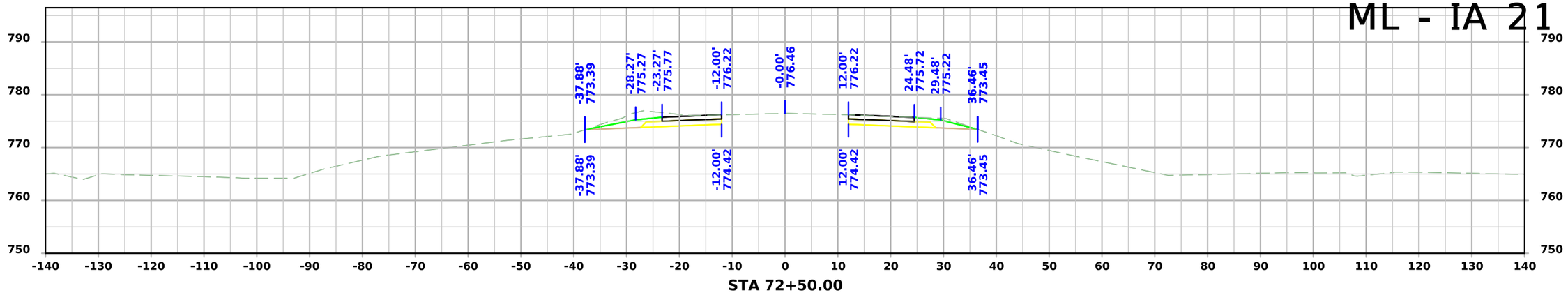


STA 71+50.00

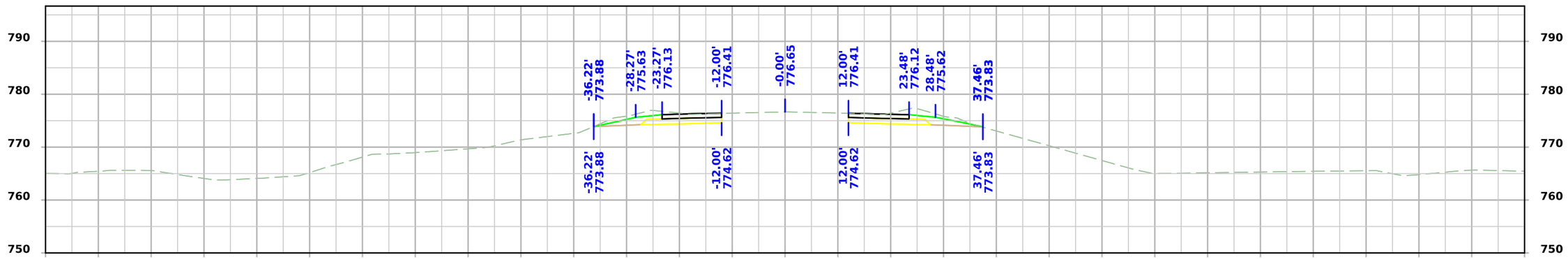
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.7	

10:55:36 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

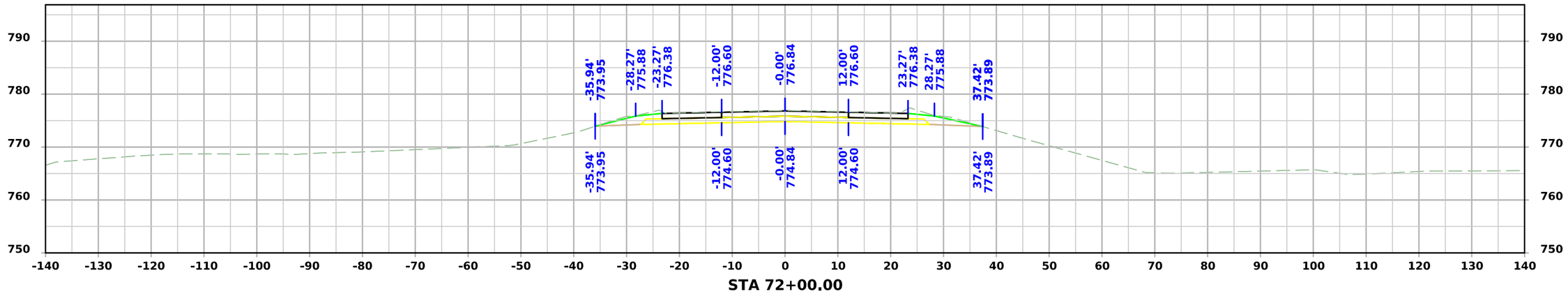
ML - IA 21



STA 72+50.00



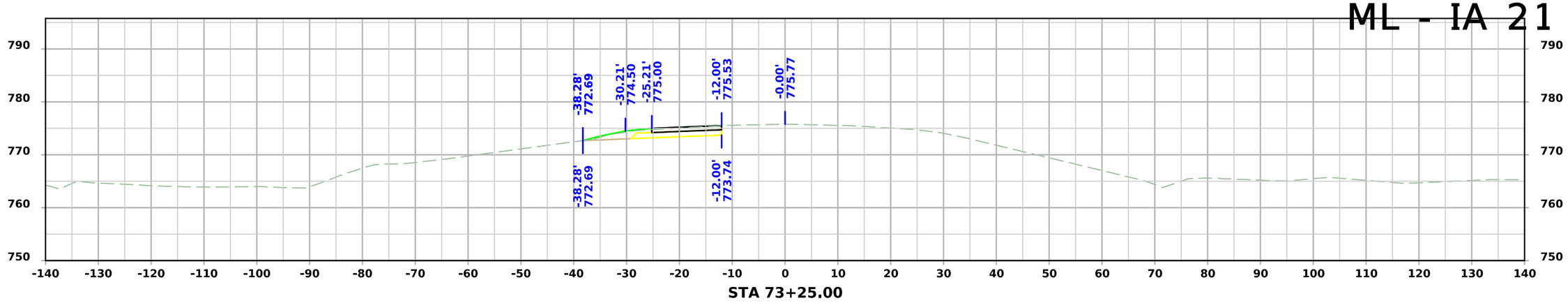
STA 72+25.00



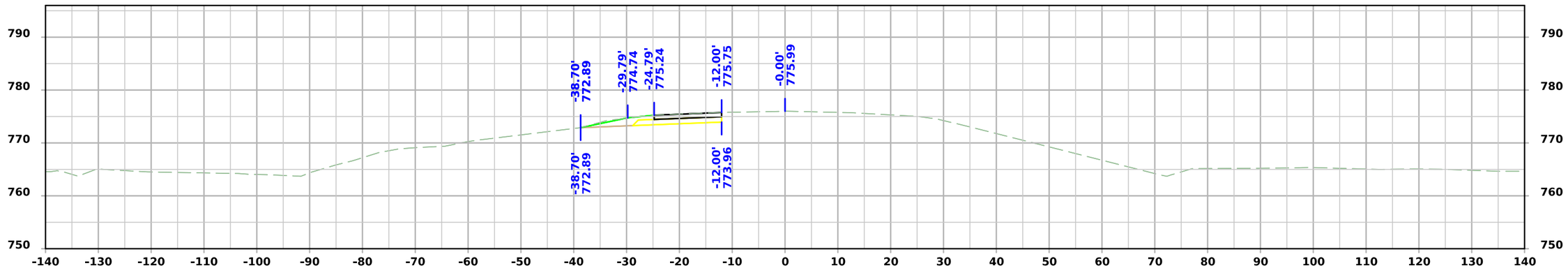
STA 72+00.00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.8

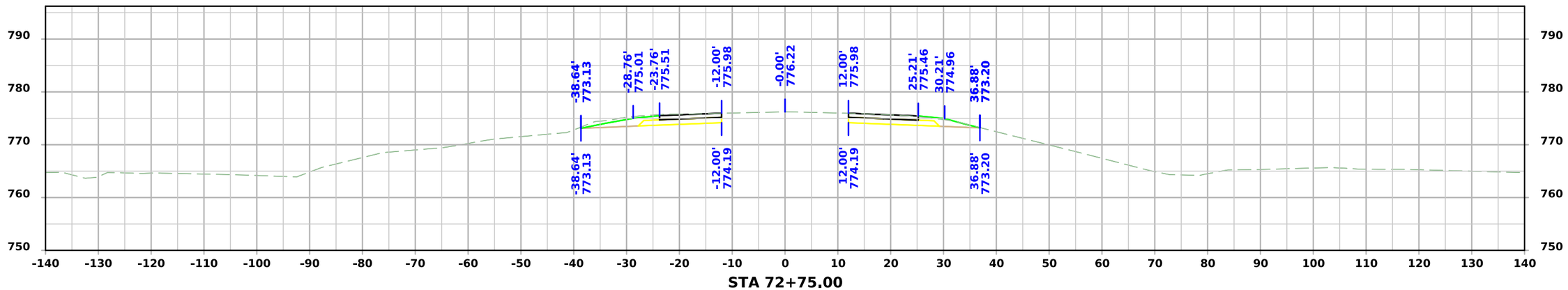
ML - IA 21



STA 73+25.00



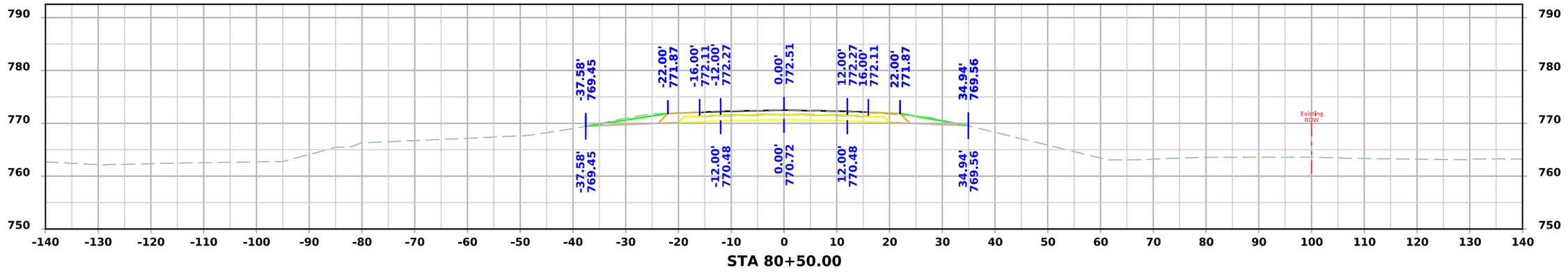
STA 73+00.00



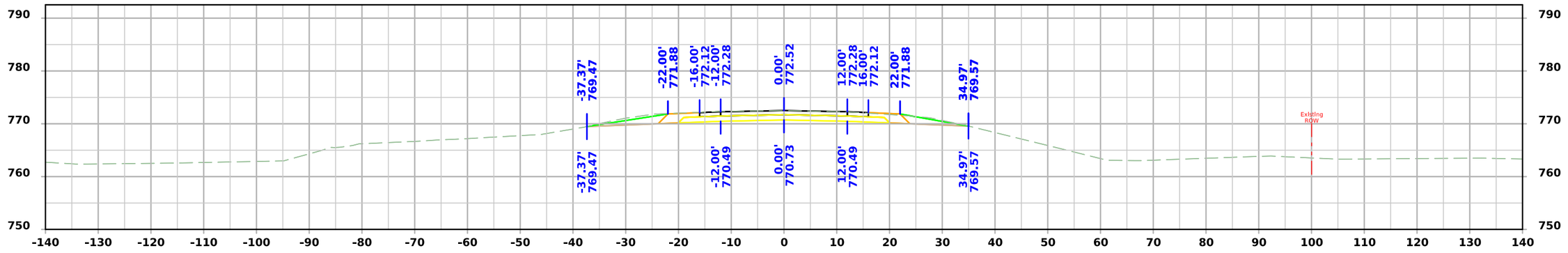
STA 72+75.00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.9	

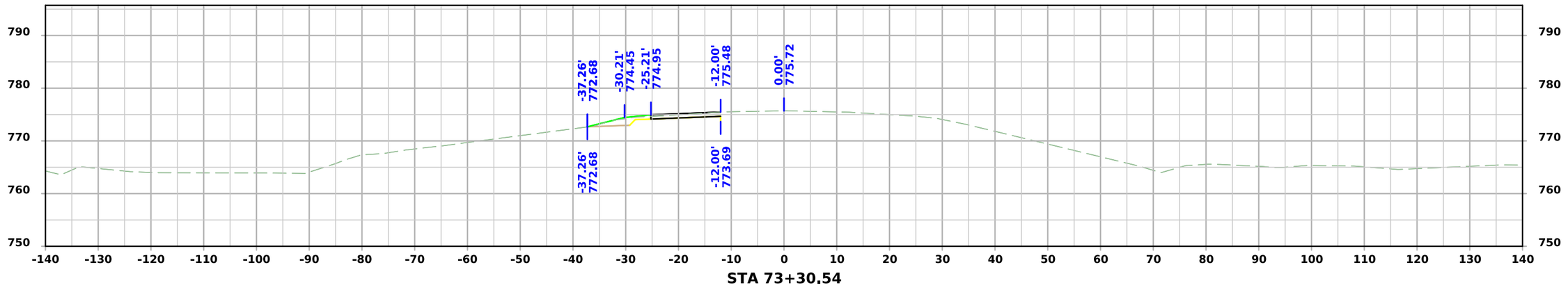
ML - IA 21



STA 80+50.00



STA 80+38.12

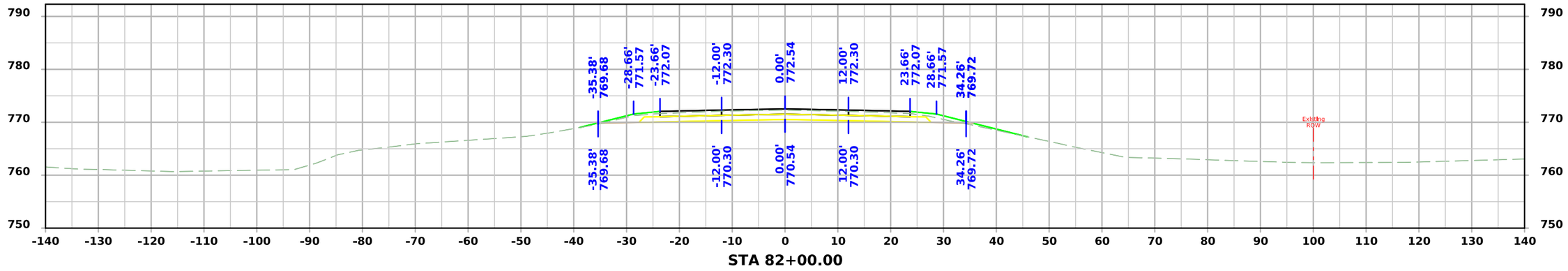


STA 73+30.54

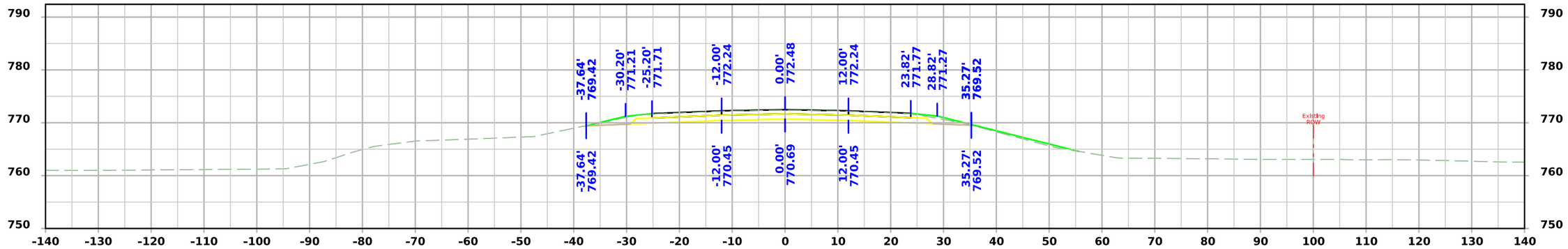
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.10

10:55:38 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

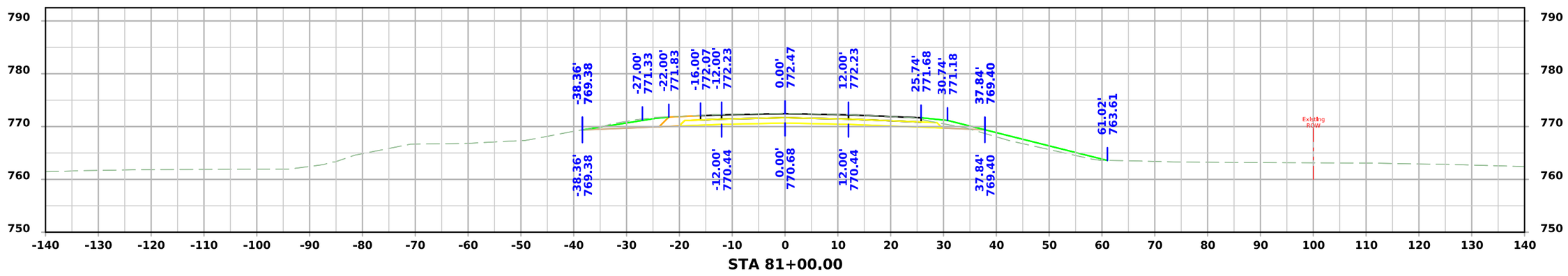
ML - IA 21



STA 82+00.00



STA 81+50.00

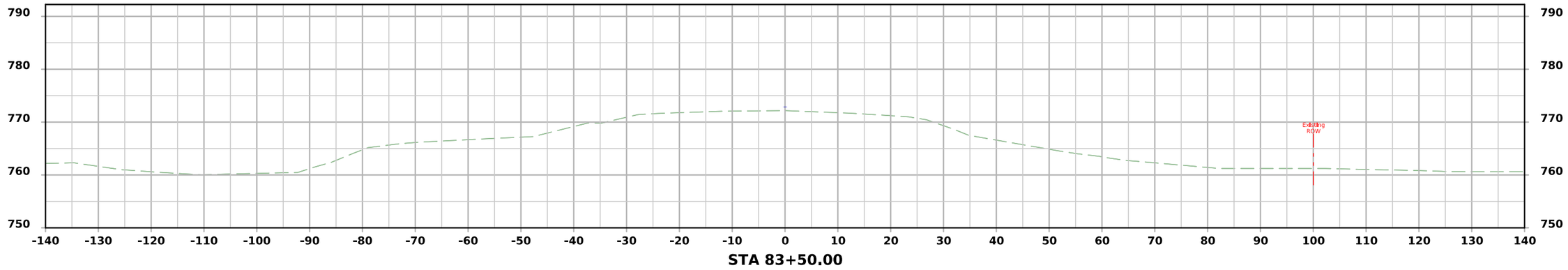


STA 81+00.00

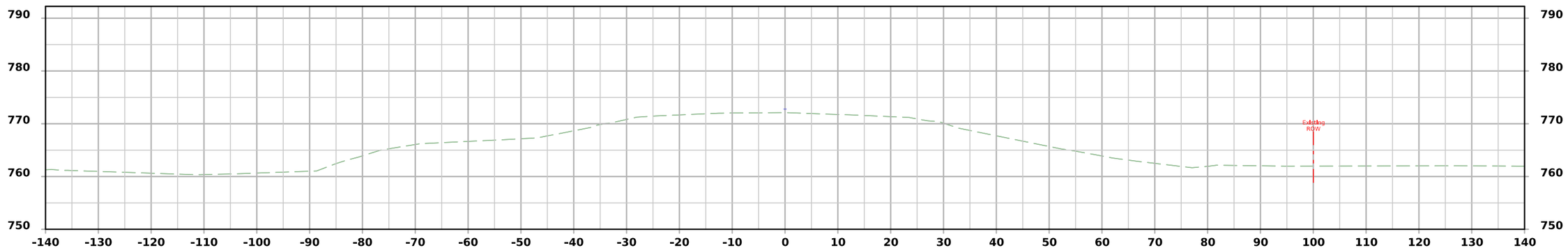
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.11

10:55:39 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

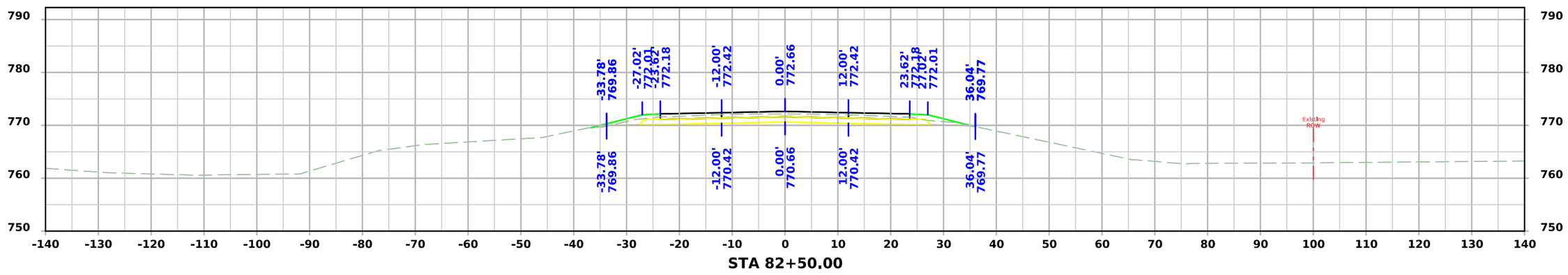
ML - IA 21



STA 83+50.00



STA 83+00.00

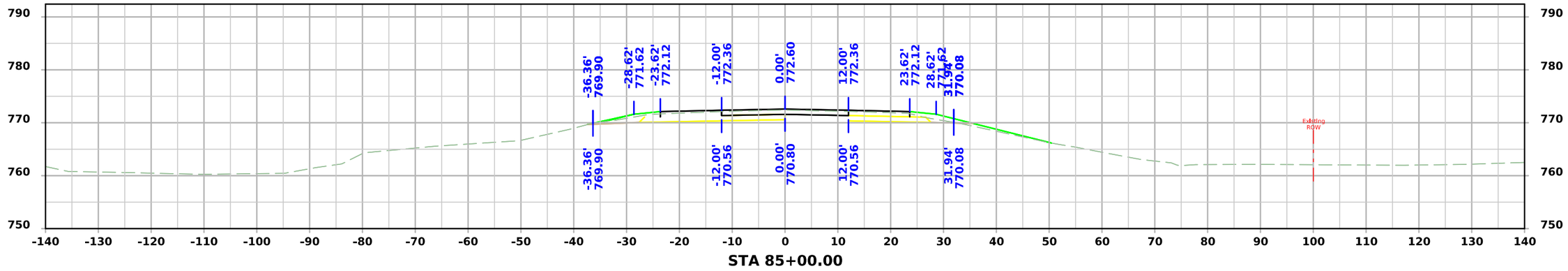


STA 82+50.00

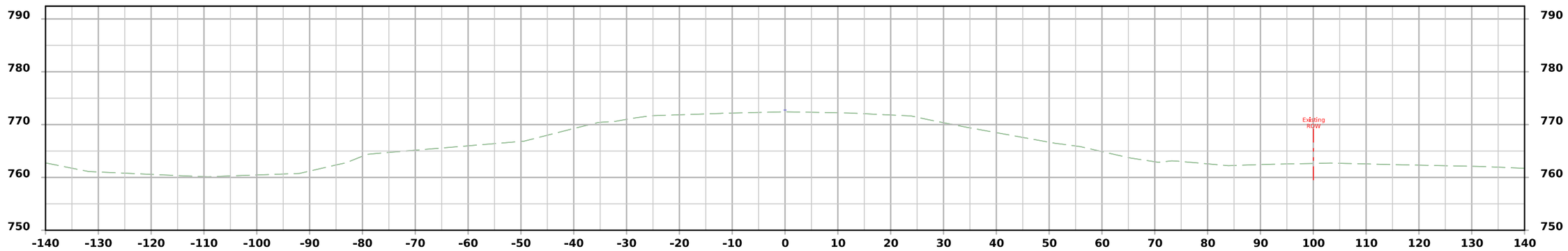
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.12

10:55:39 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

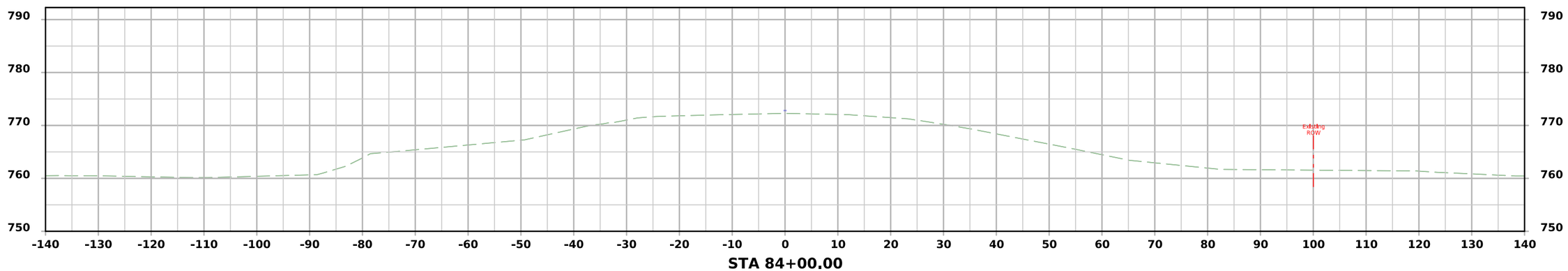
ML - IA 21



STA 85+00.00



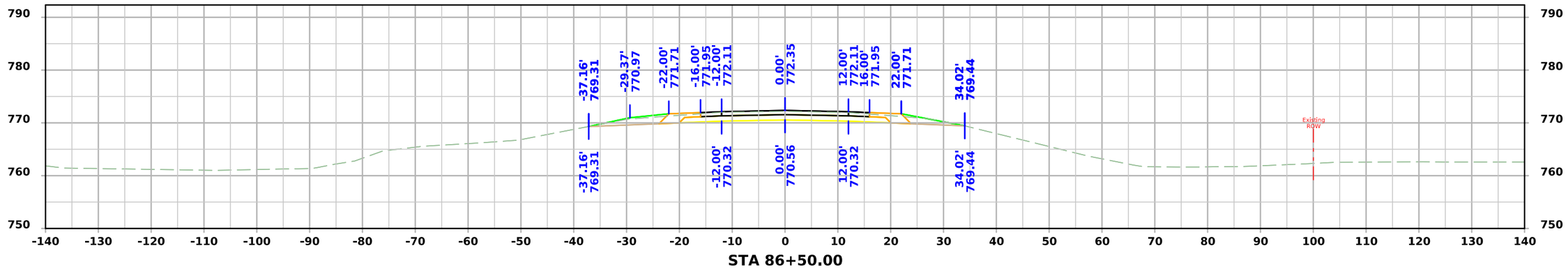
STA 84+50.00



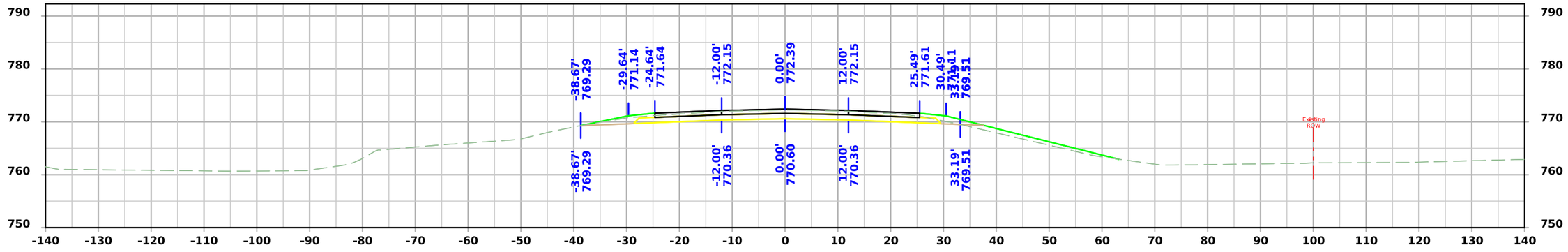
STA 84+00.00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.13

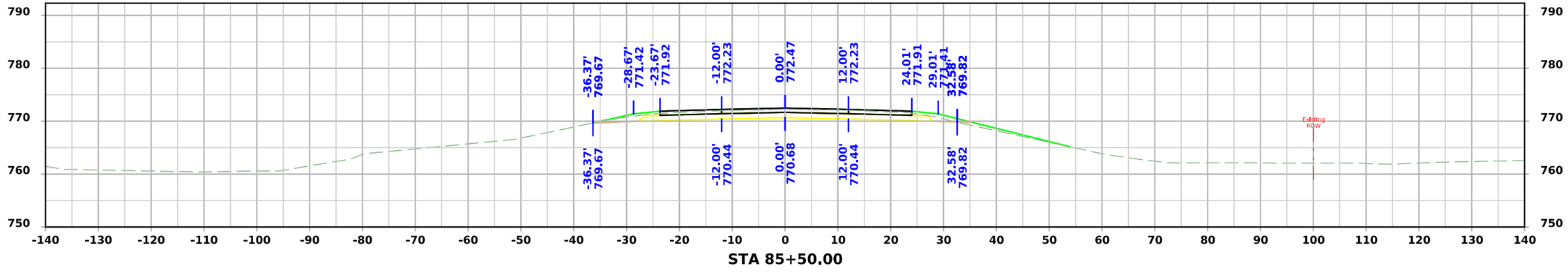
ML - IA 21



STA 86+50.00



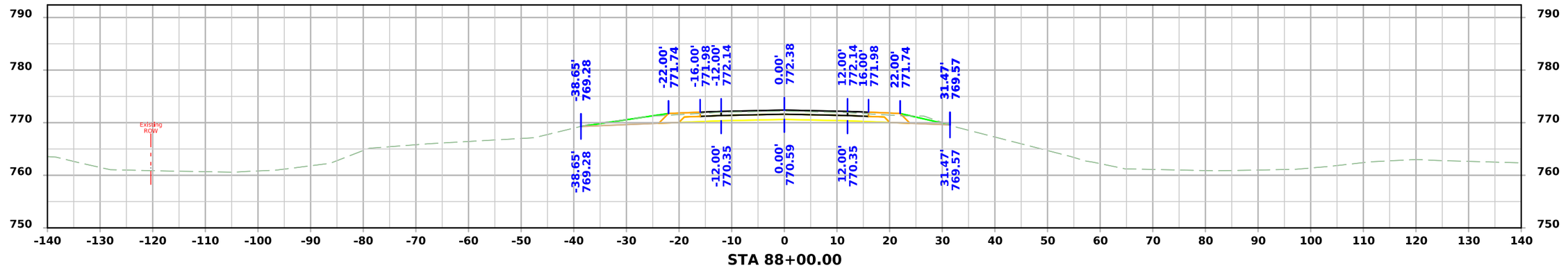
STA 86+00.00



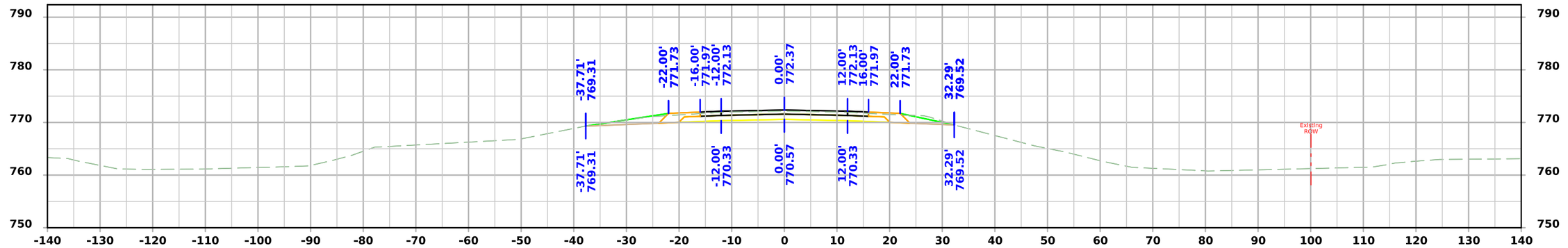
STA 85+50.00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.14

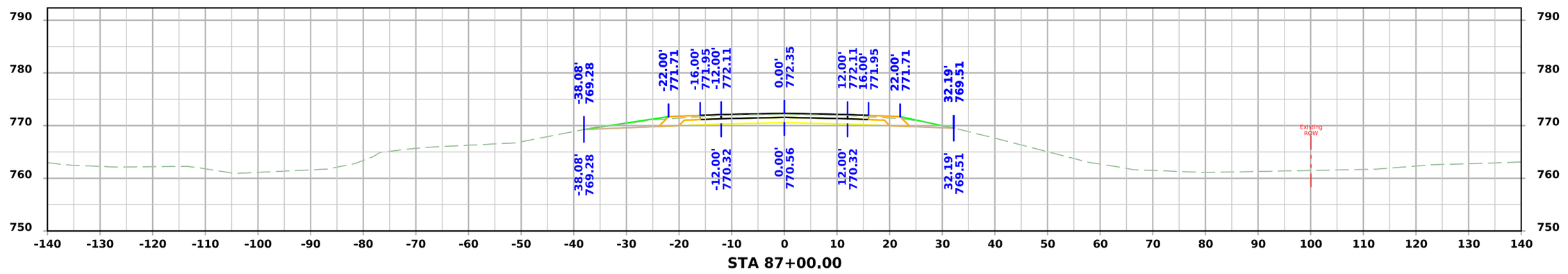
ML - IA 21



STA 88+00.00



STA 87+50.00

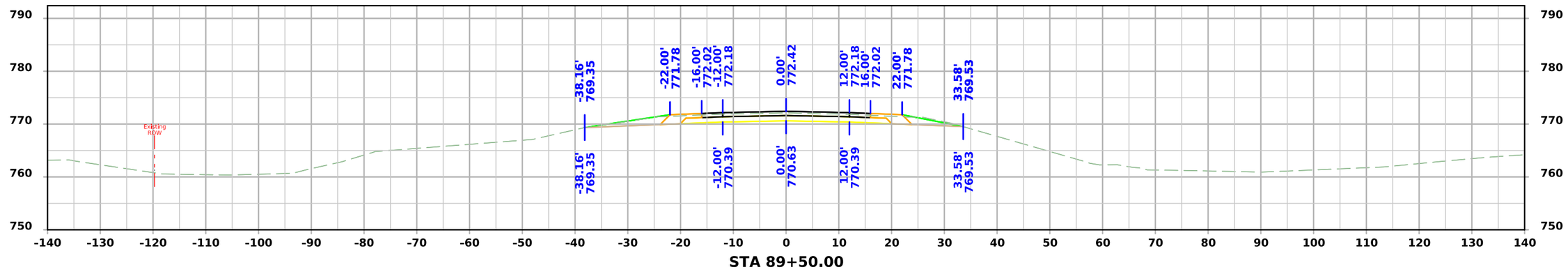


STA 87+00.00

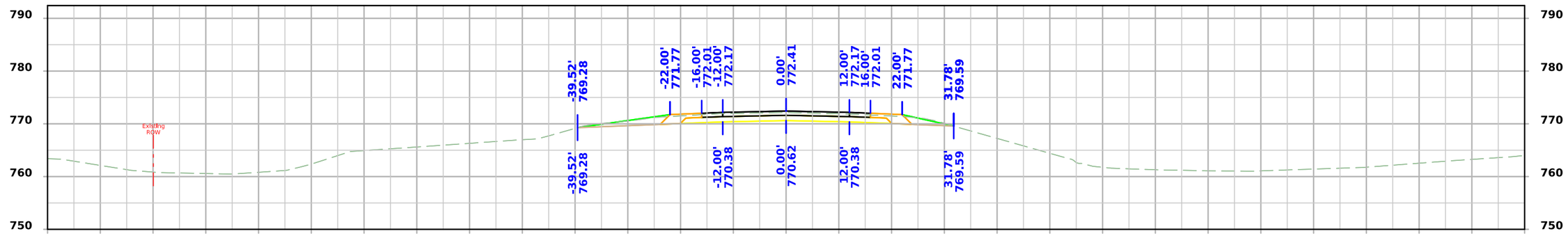
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.15

10:55:42 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

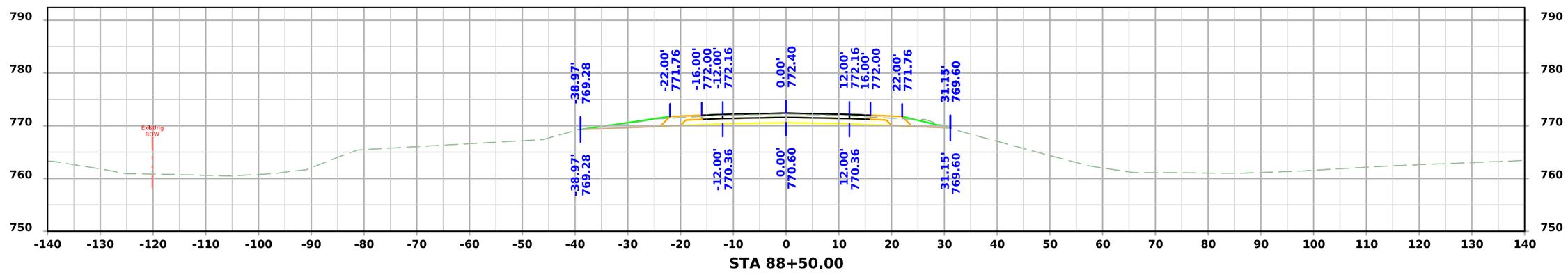
ML - IA 21



STA 89+50.00



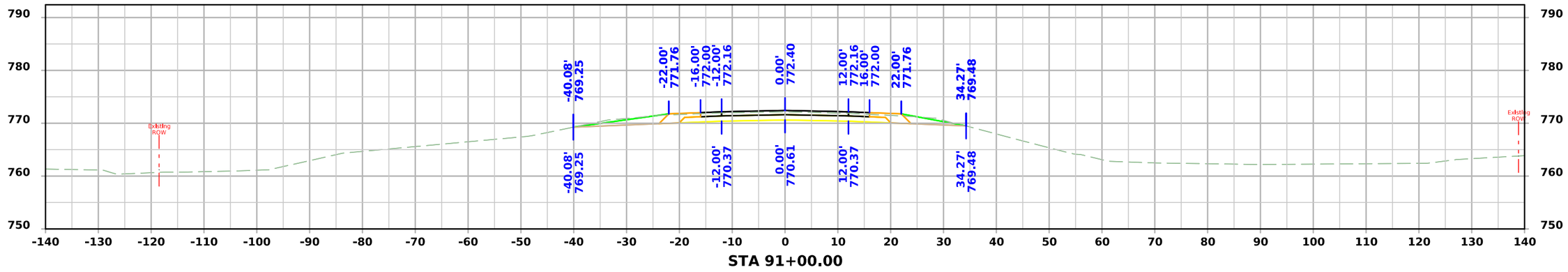
STA 89+00.00



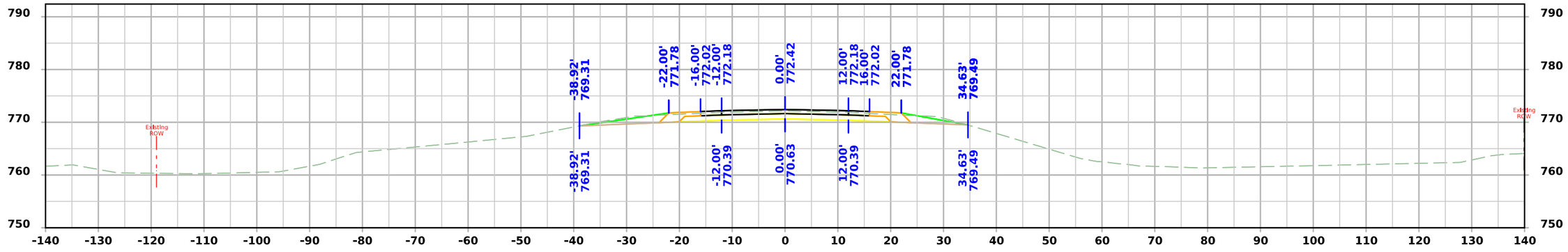
STA 88+50.00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.16

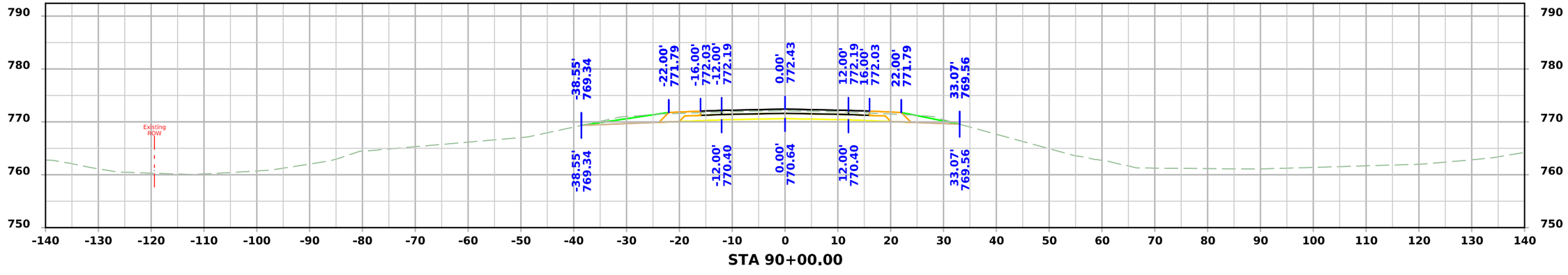
ML - IA 21



STA 91+00.00



STA 90+50.00

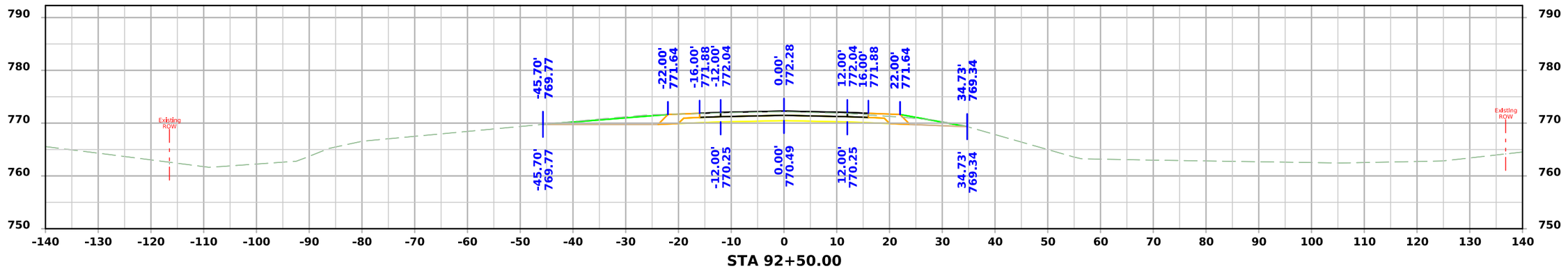


STA 90+00.00

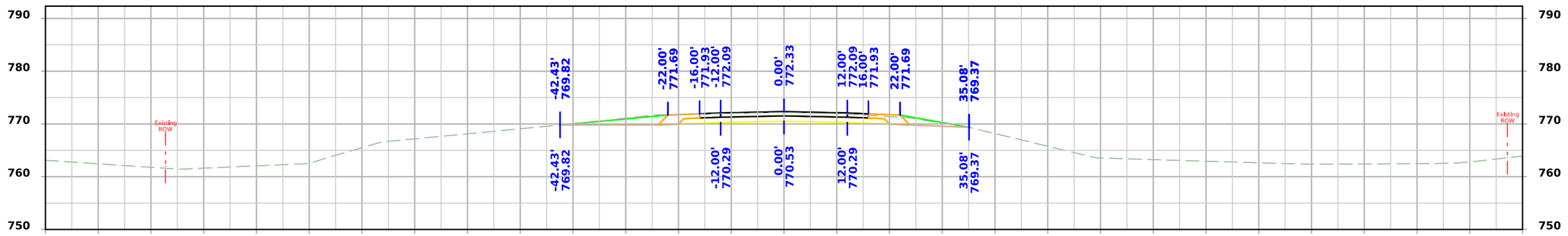
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.17

10:55:44 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

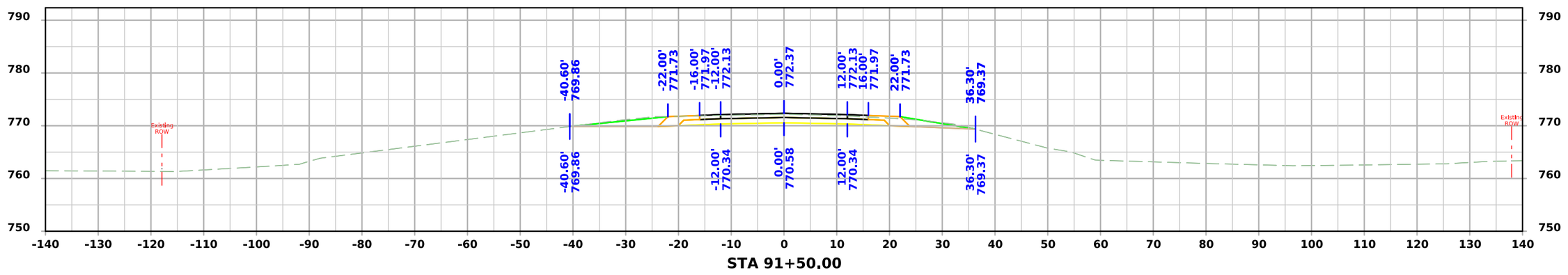
ML - IA 21



STA 92+50.00



STA 92+00.00

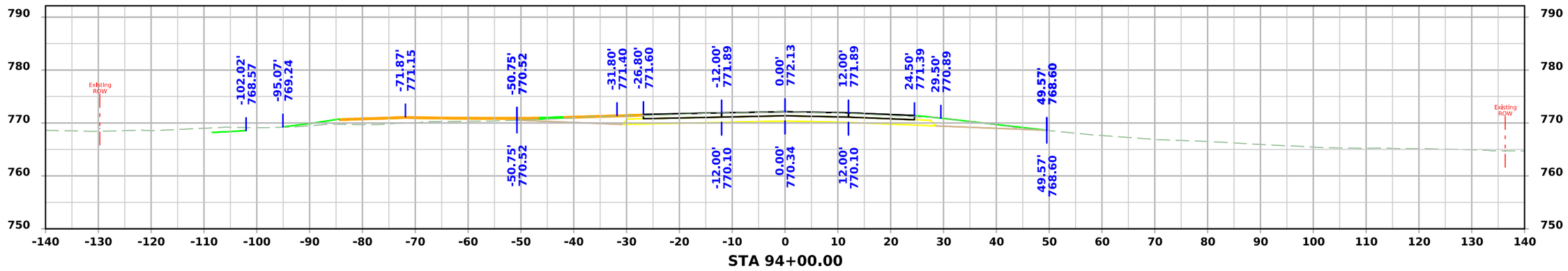


STA 91+50.00

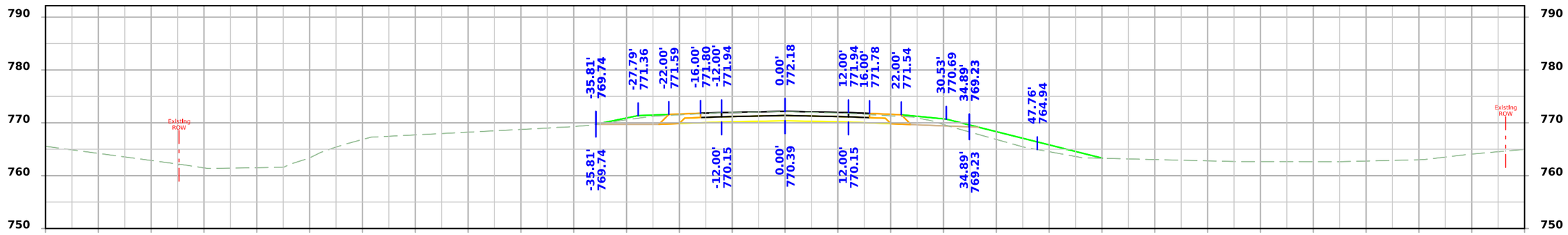
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.18

10:55:44 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

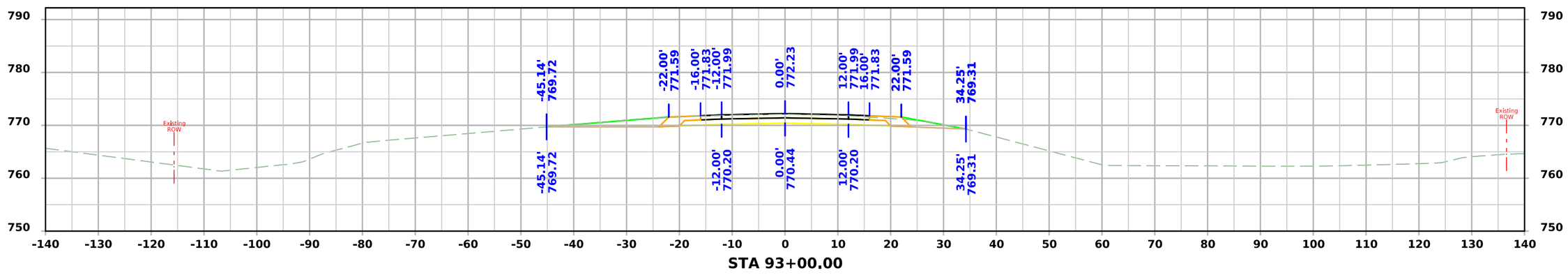
ML - IA 21



STA 94+00.00



STA 93+50.00



STA 93+00.00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.19

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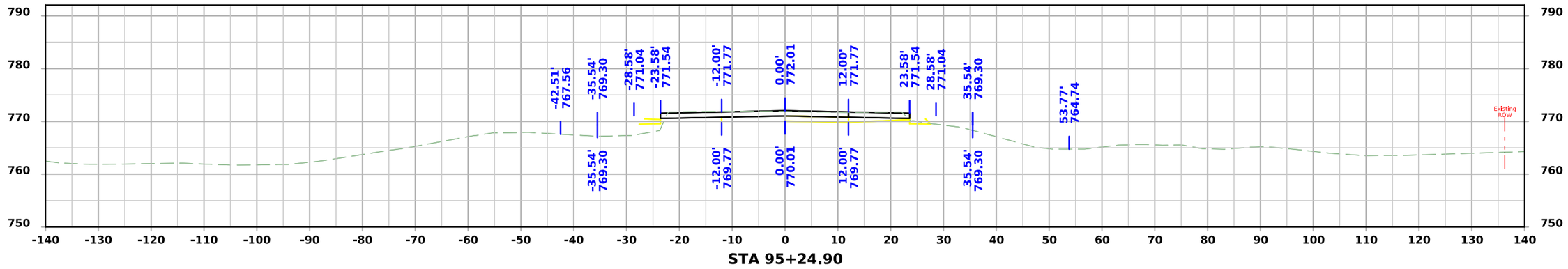
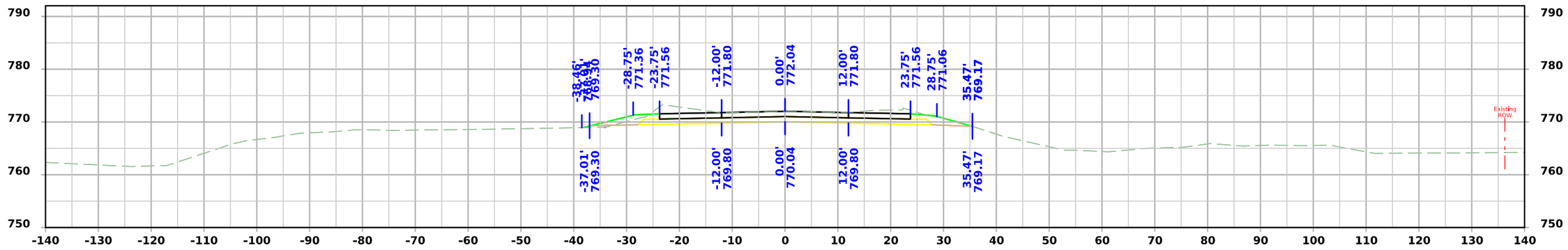
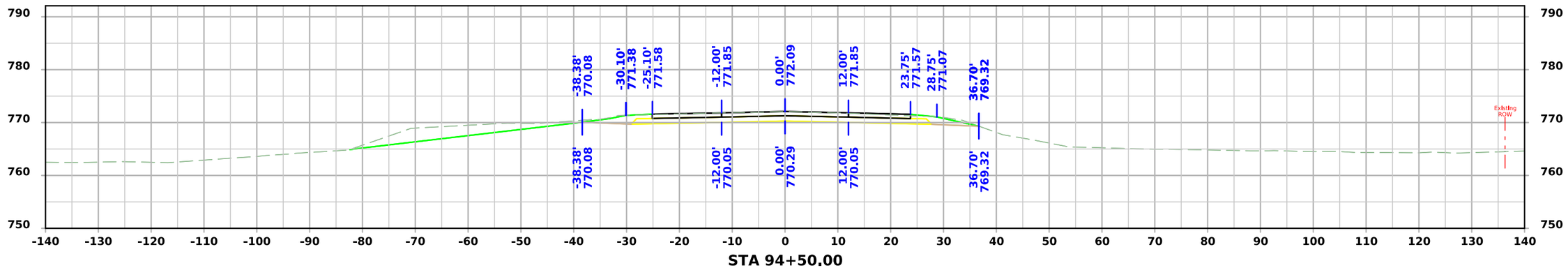
ML - IA 21



STA 95+24.90



STA 95+00.00

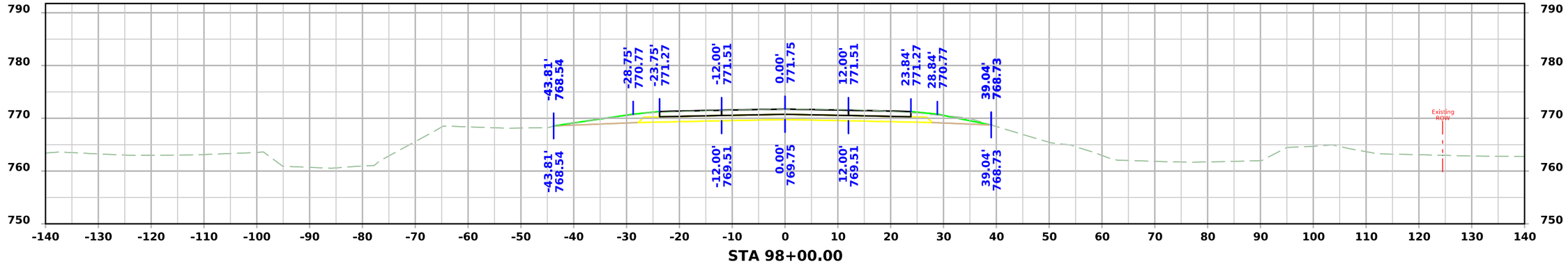


STA 94+50.00

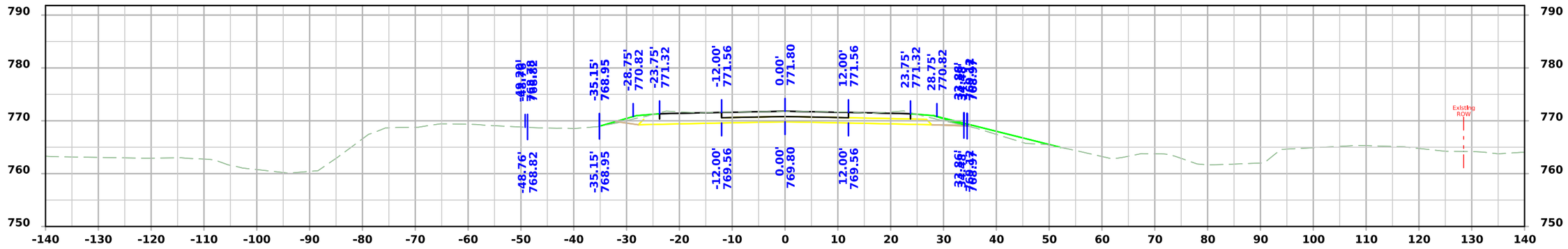
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.20

10:55:46 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

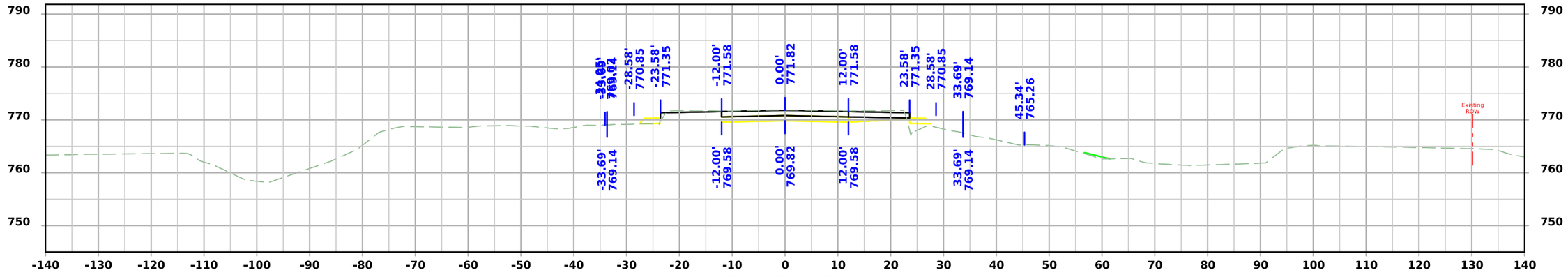
ML - IA 21



STA 98+00.00



STA 97+50.00

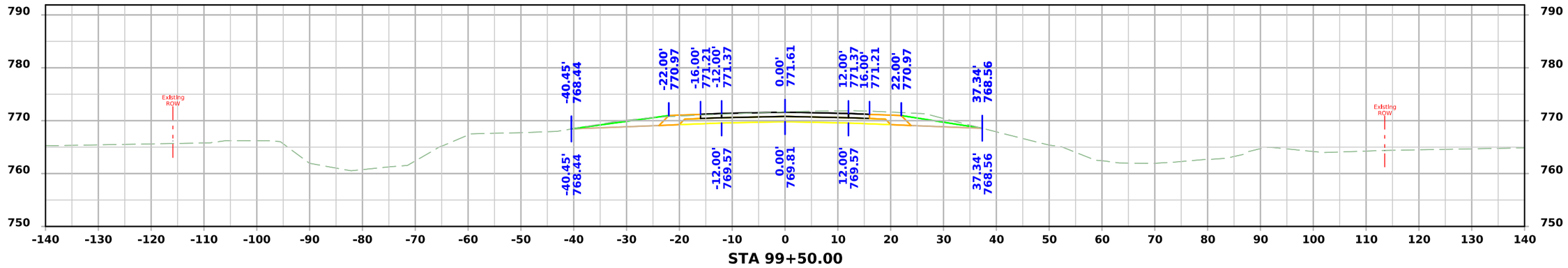


STA 97+28.59

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.21

10:55:47 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

ML - IA 21



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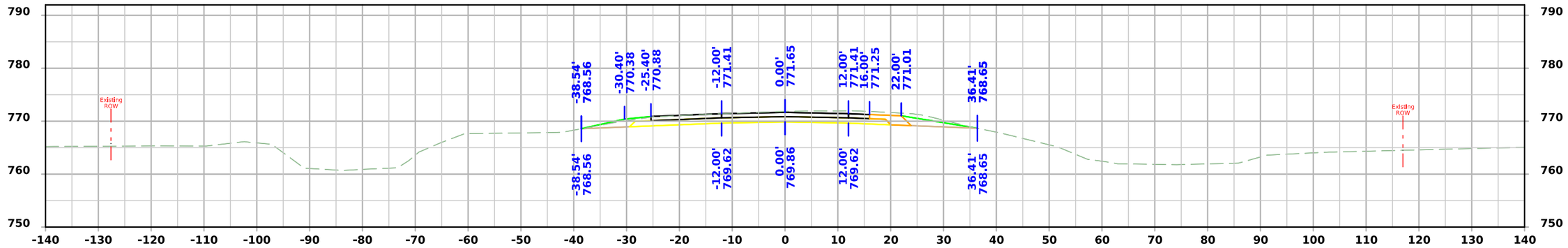

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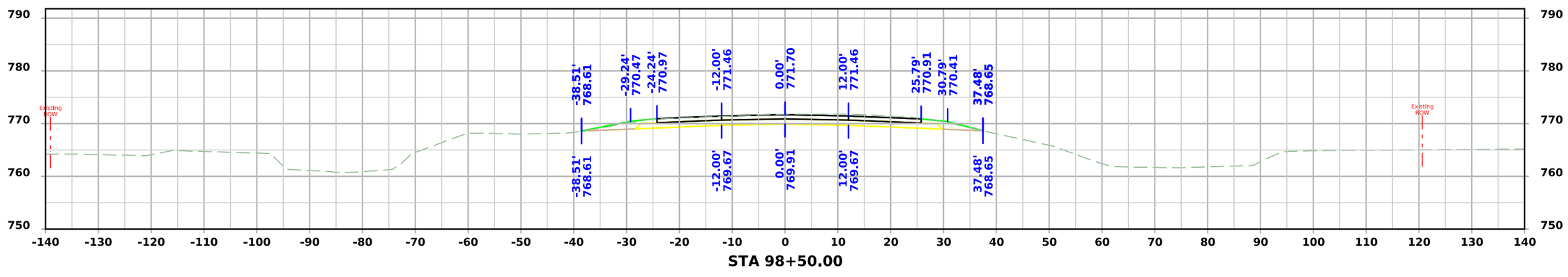
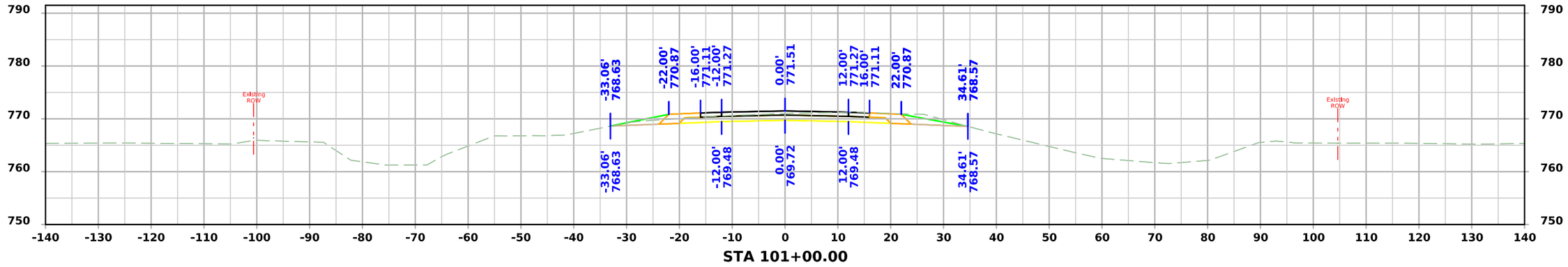


STA 98+50.00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.22

10:55:48 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

ML - IA 21



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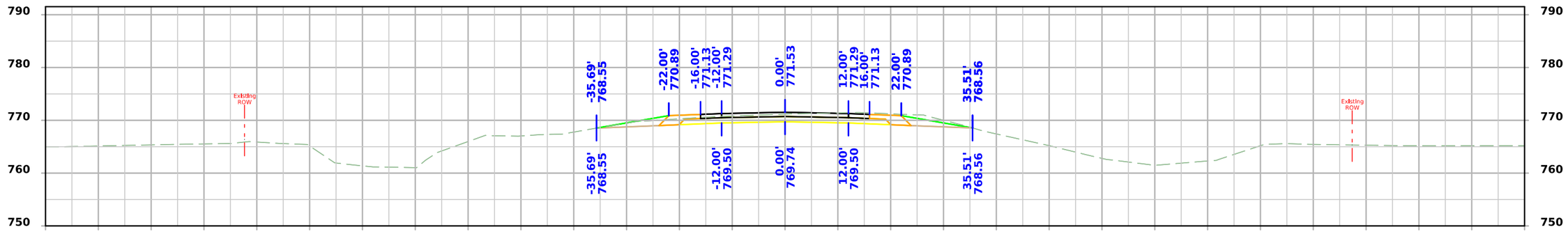

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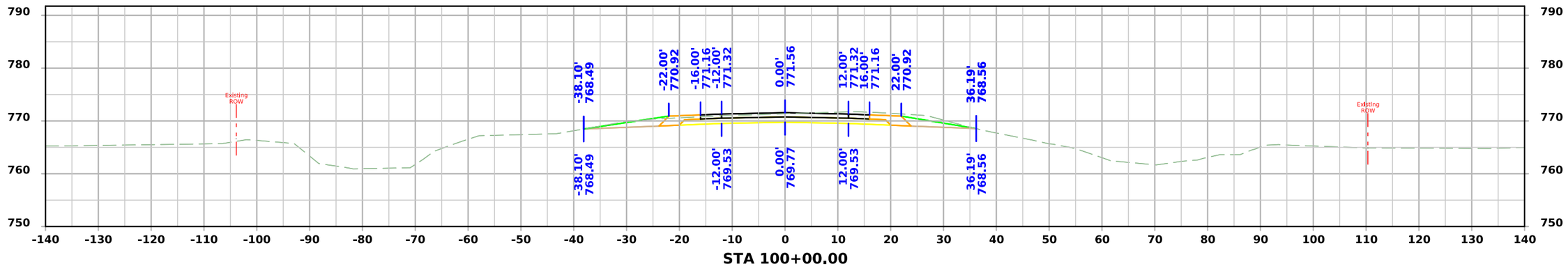
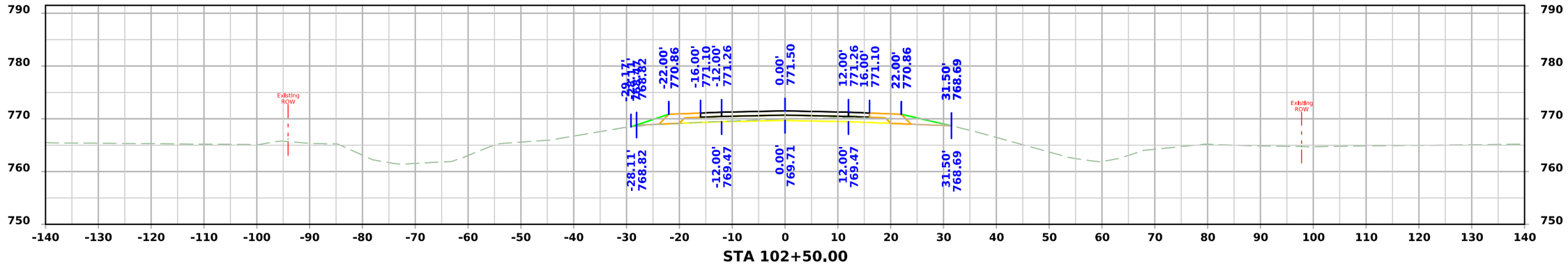


STA 100+00.00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.23

10:55:49 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

ML - IA 21



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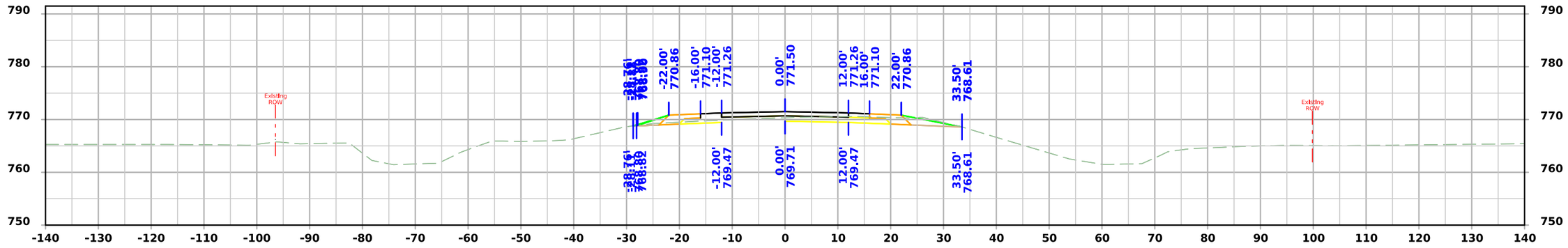
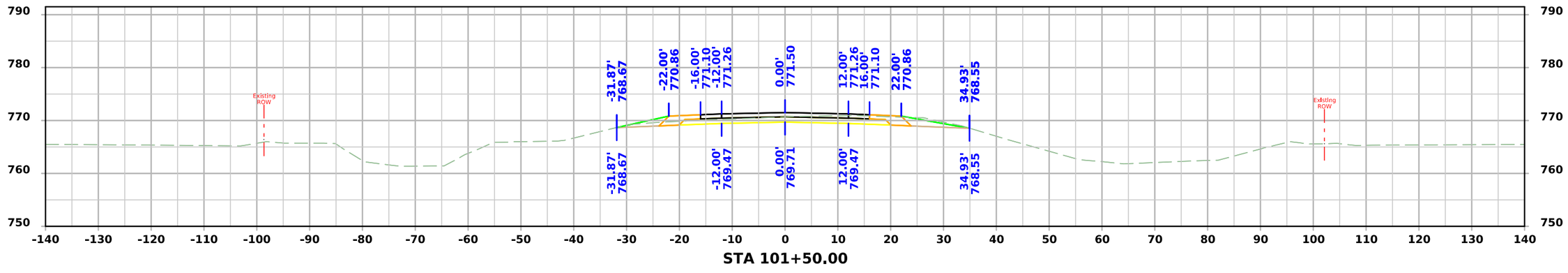


STA 102+00.00

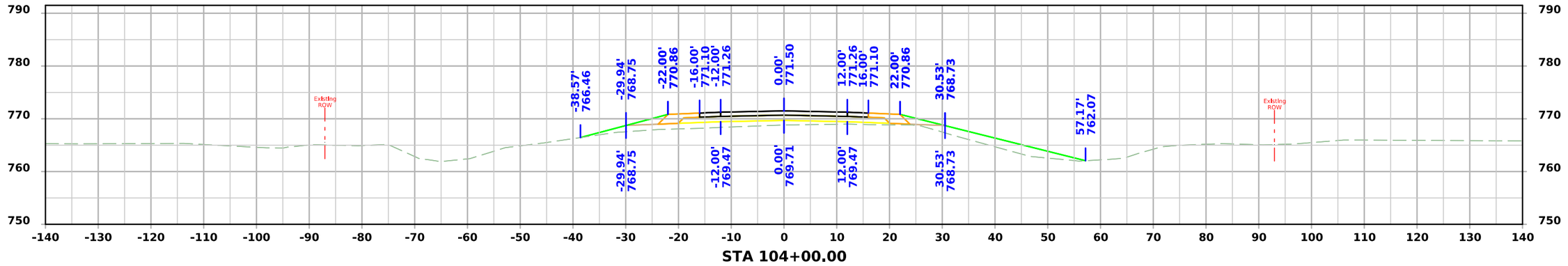


STA 101+50.00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.24

10:55:49 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

ML - IA 21



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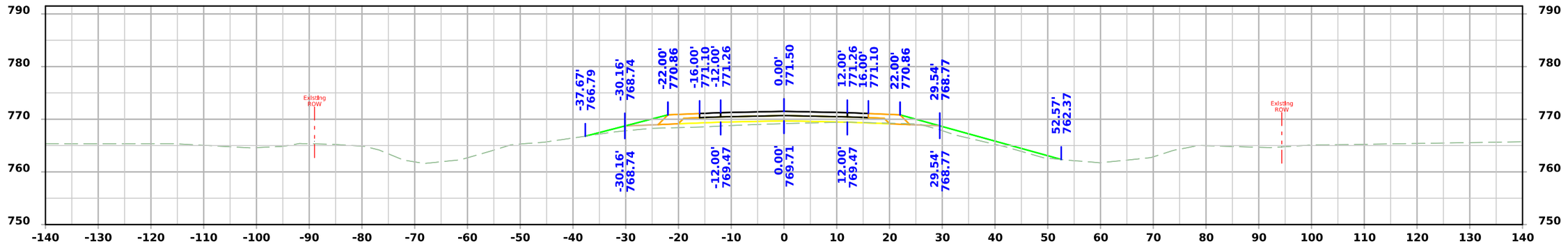

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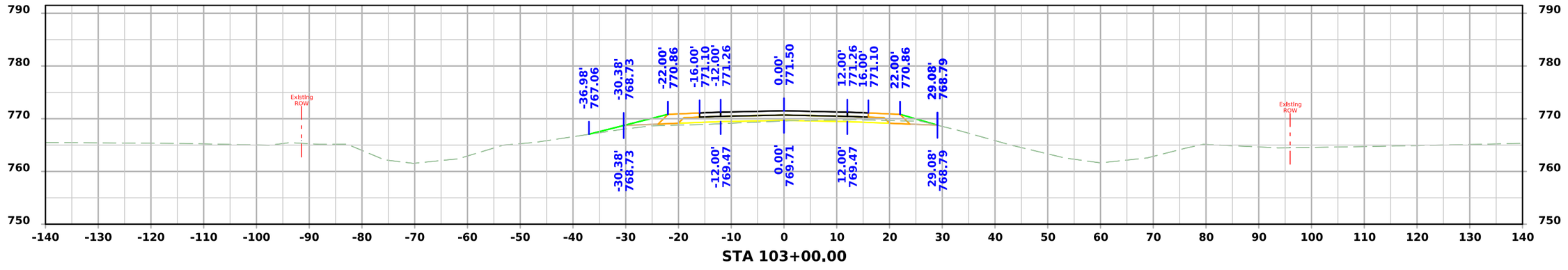
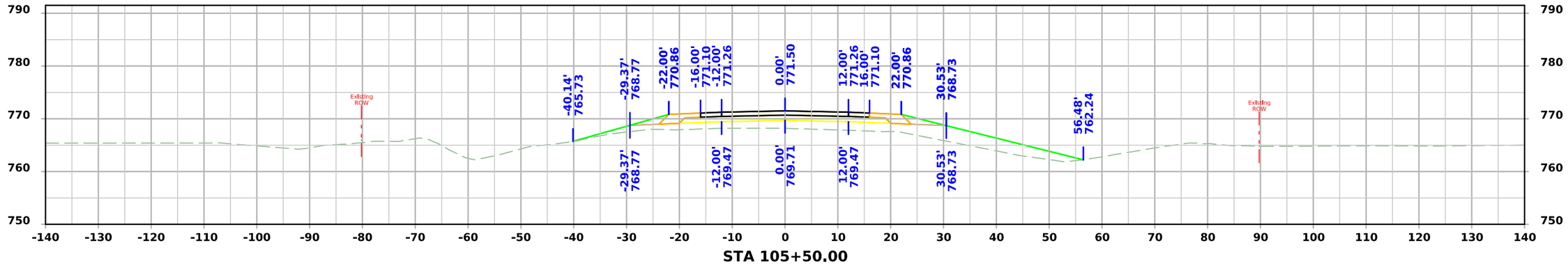


STA 103+00.00

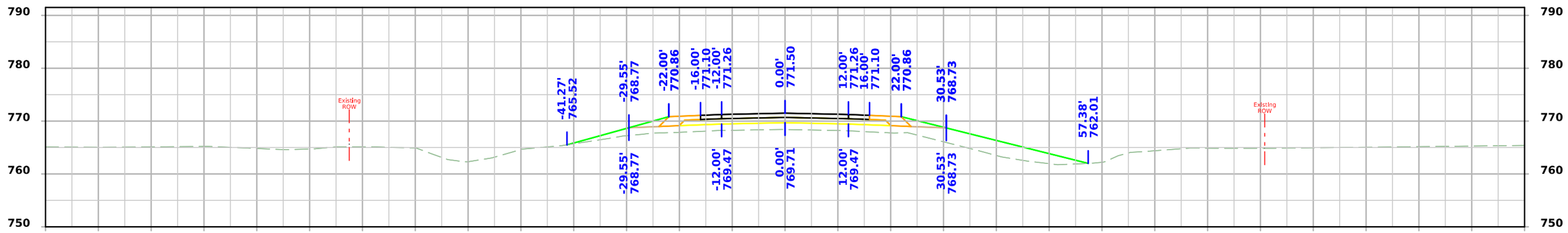
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.25

10:55:50 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

ML - IA 21



STA 105+50.00



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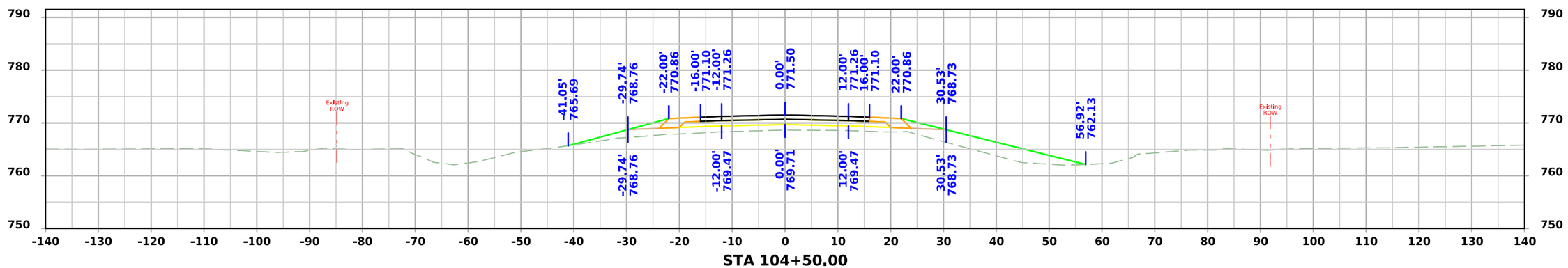
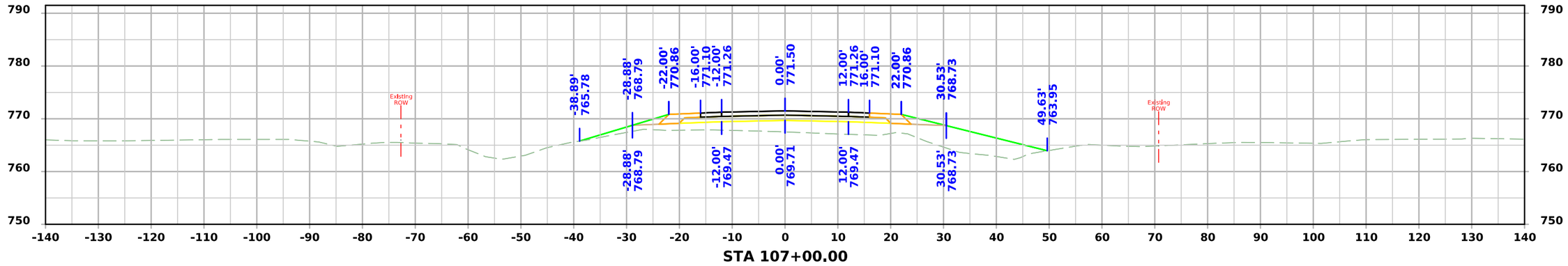


STA 104+50.00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.26	

ML - IA 21



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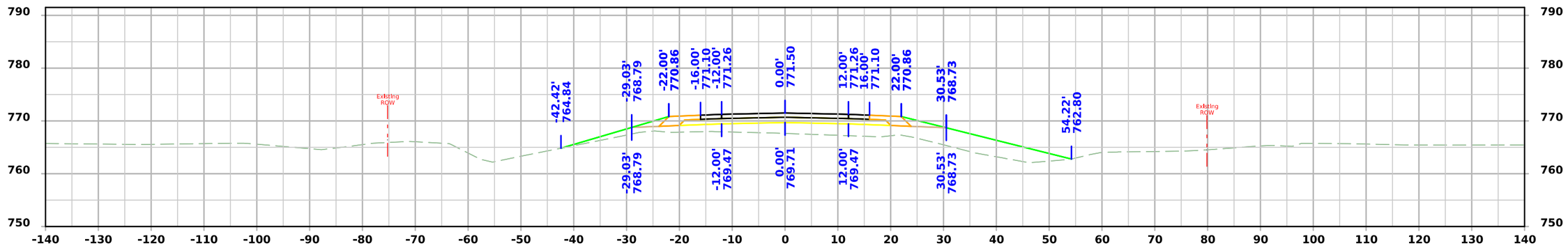

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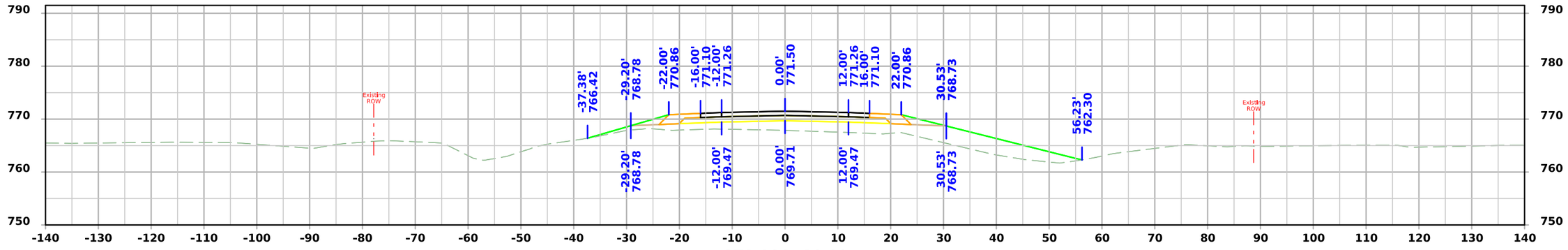
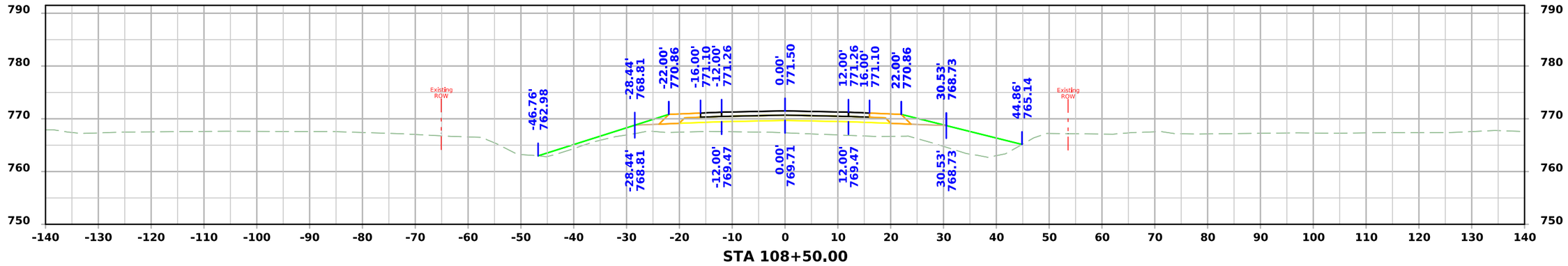


STA 106+00.00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.27

10:55:52 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

ML - IA 21



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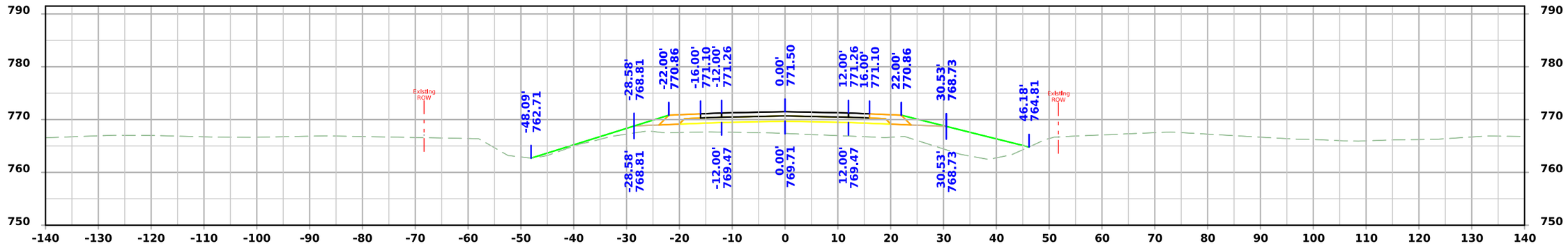

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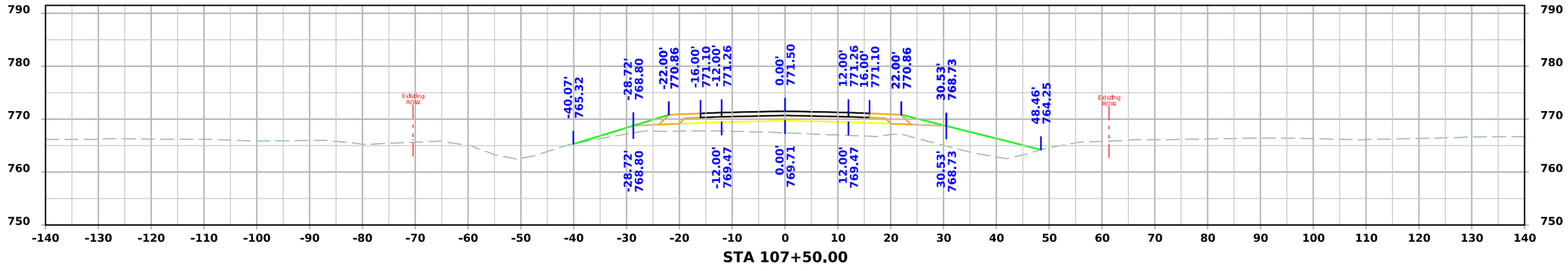
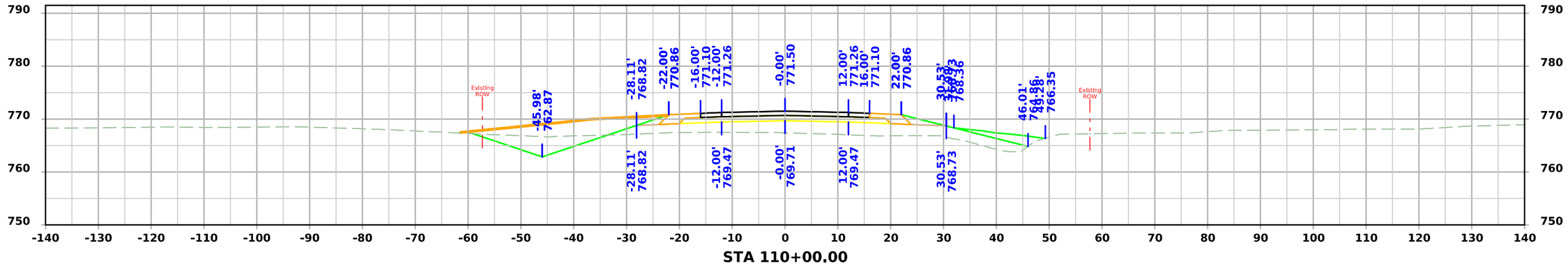


STA 107+50.00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.28

10:55:53 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

ML - IA 21



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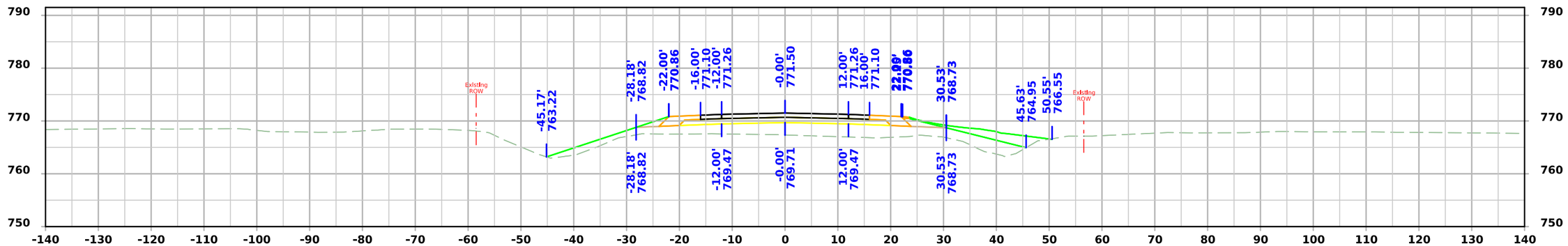

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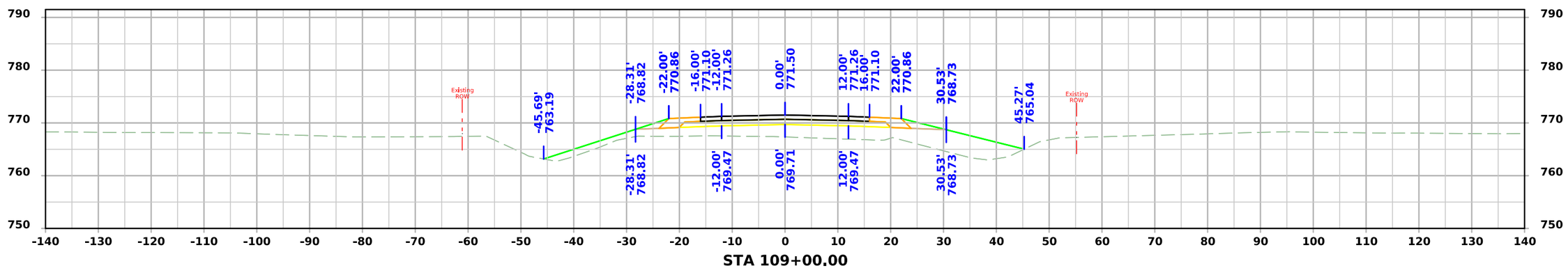
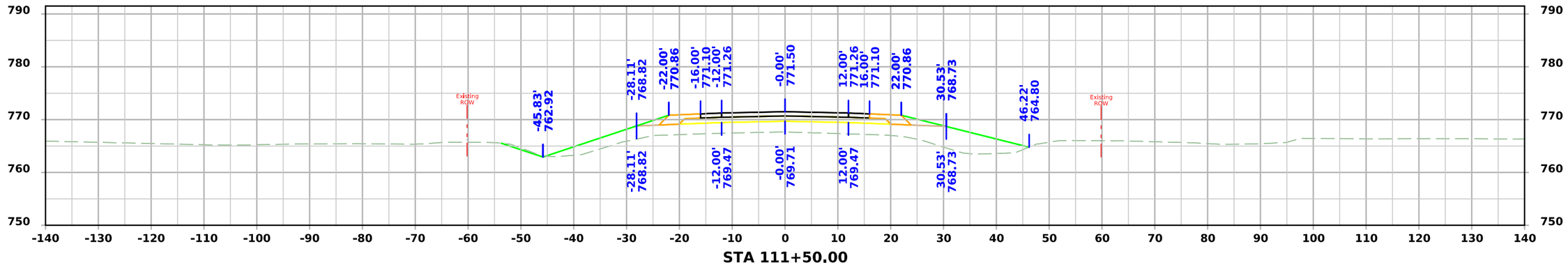


STA 109+00.00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.29

10:55:54 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

ML - IA 21



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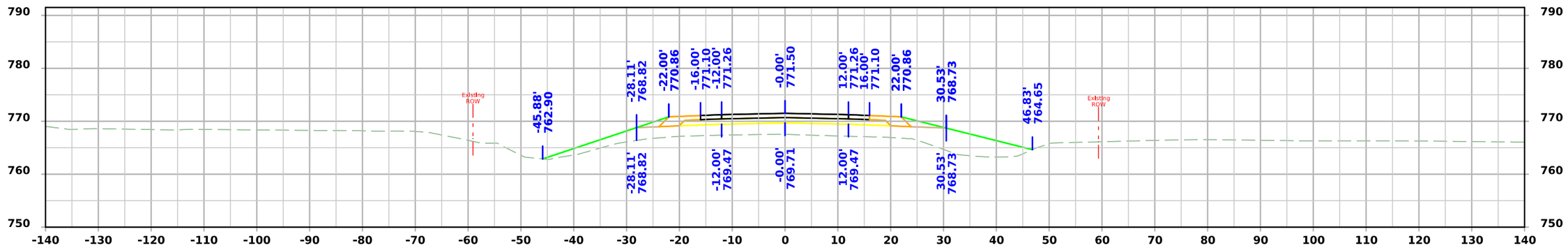

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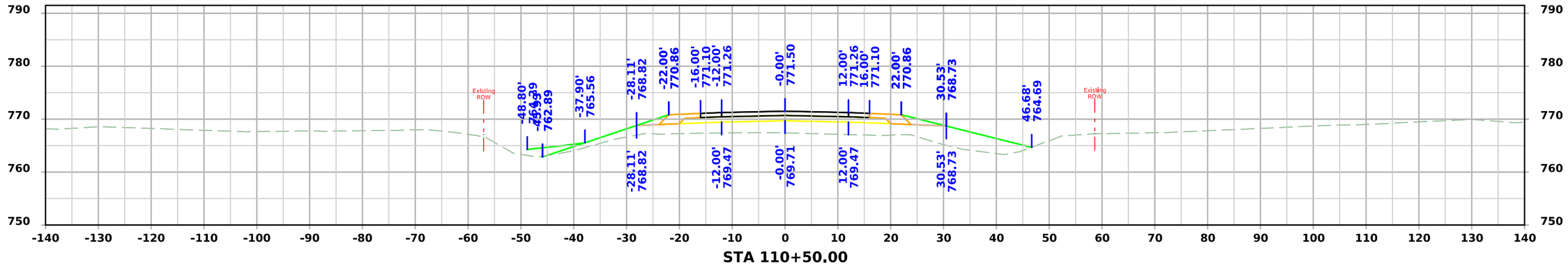

STA 110+50.00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.30

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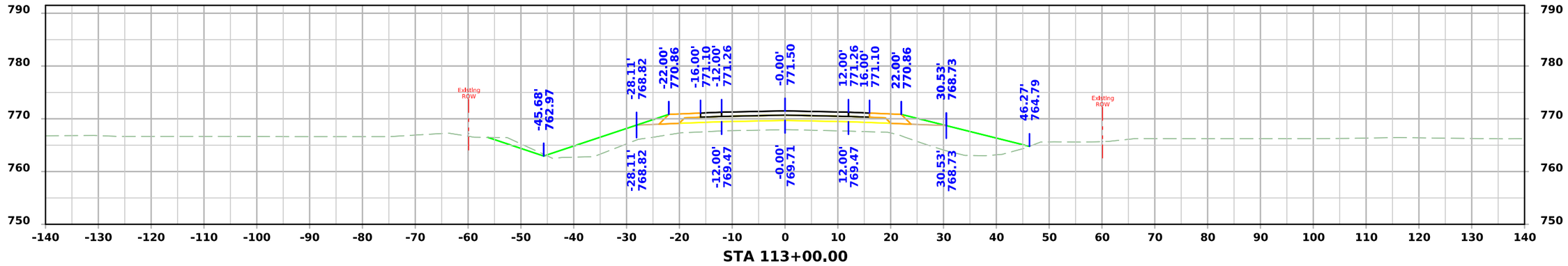
ML - IA 21



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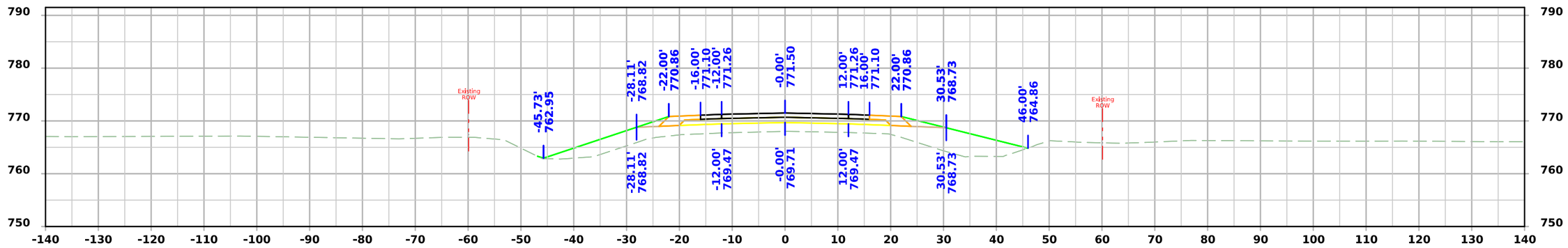

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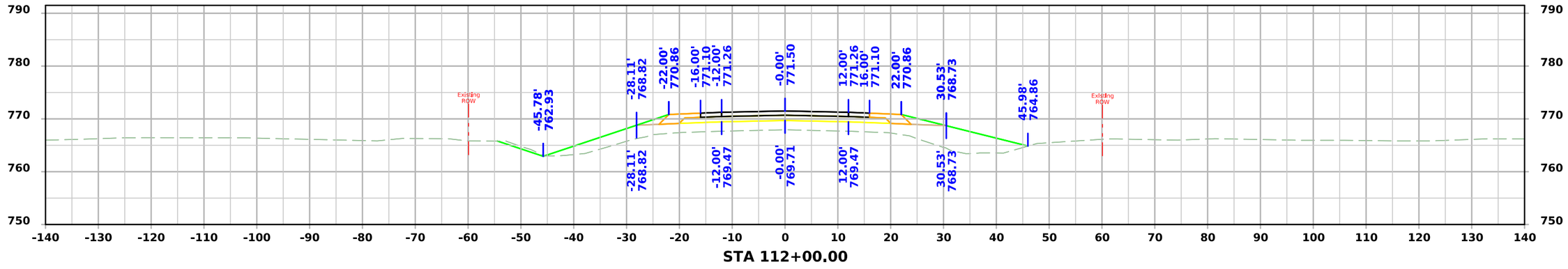
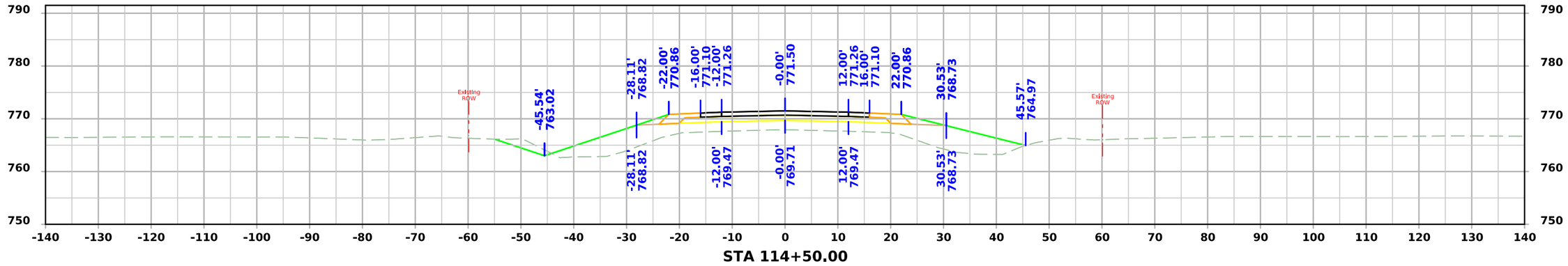


STA 112+00.00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.31

10:55:55 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

ML - IA 21



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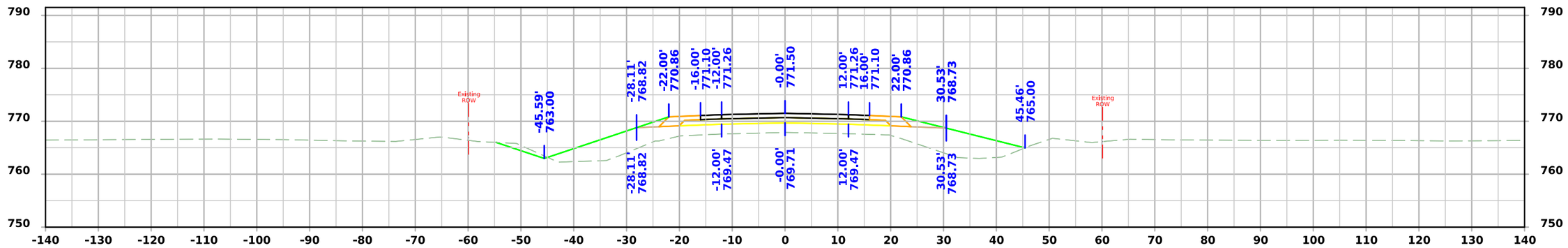

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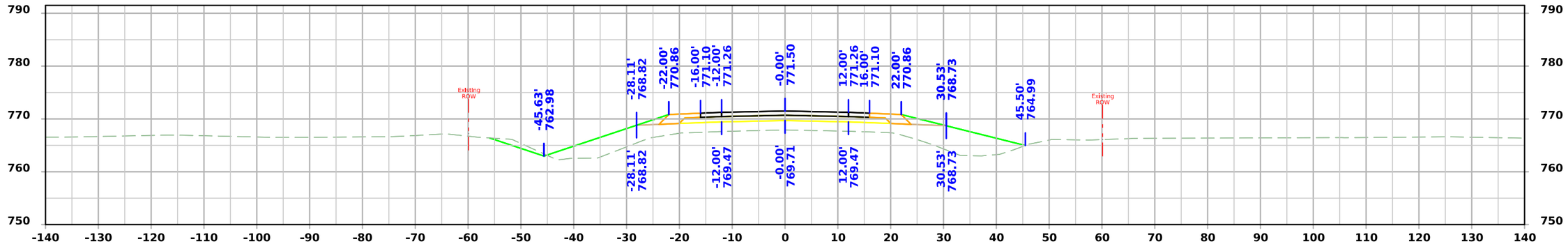
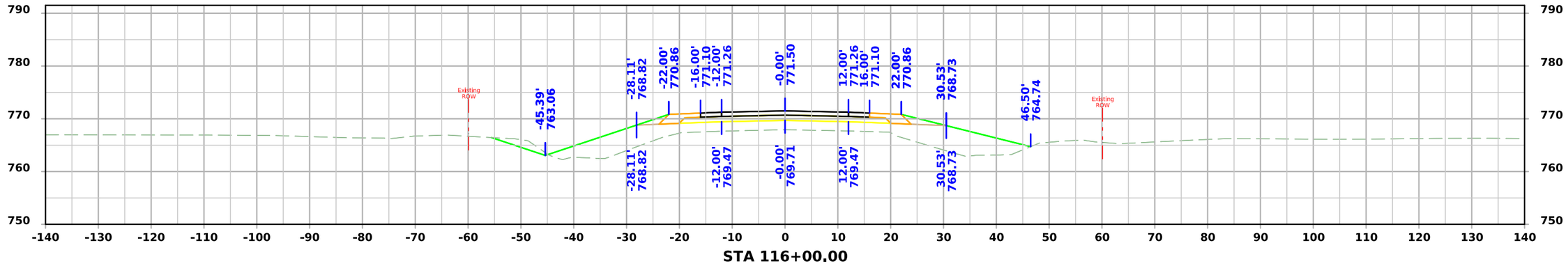


STA 113+50.00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.32

10:55:56 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

ML - IA 21



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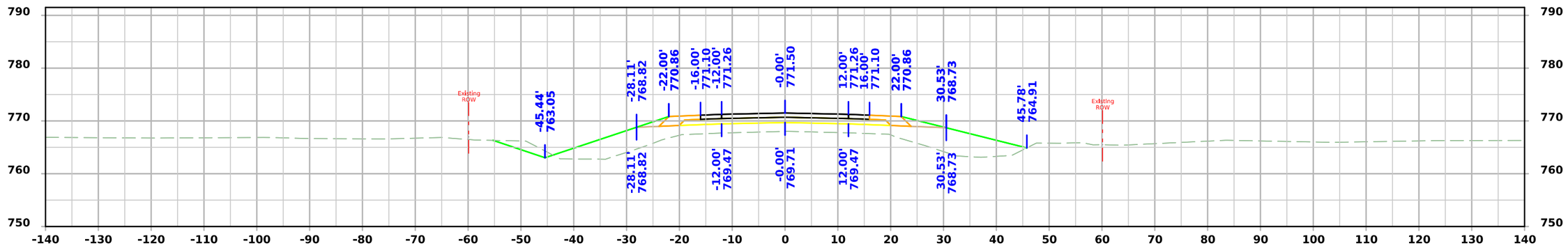

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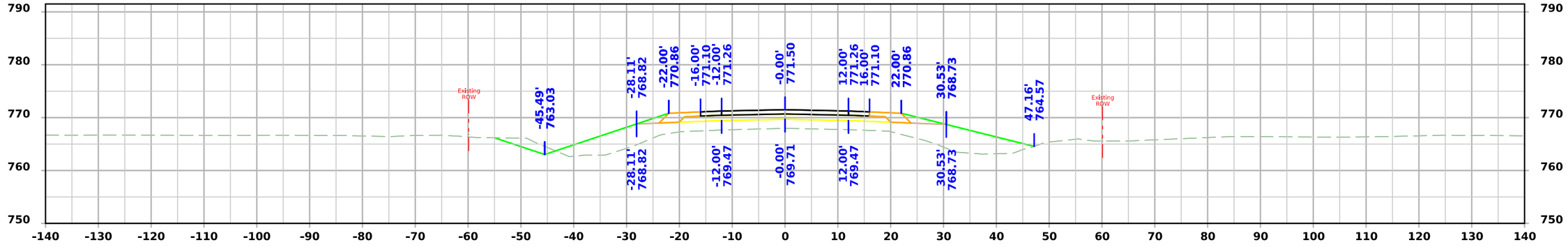

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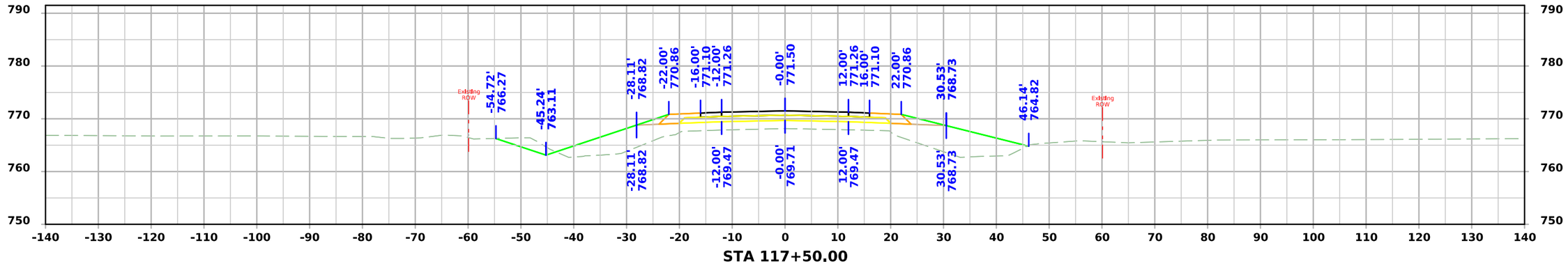
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.33

10:55:57 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

ML - IA 21



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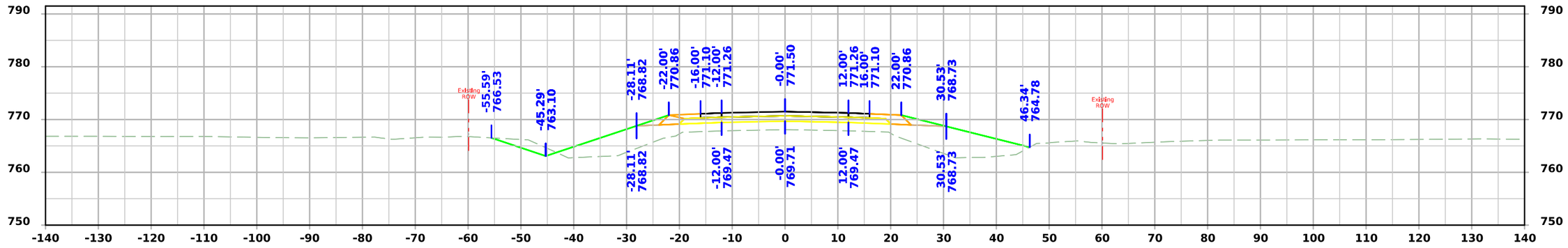

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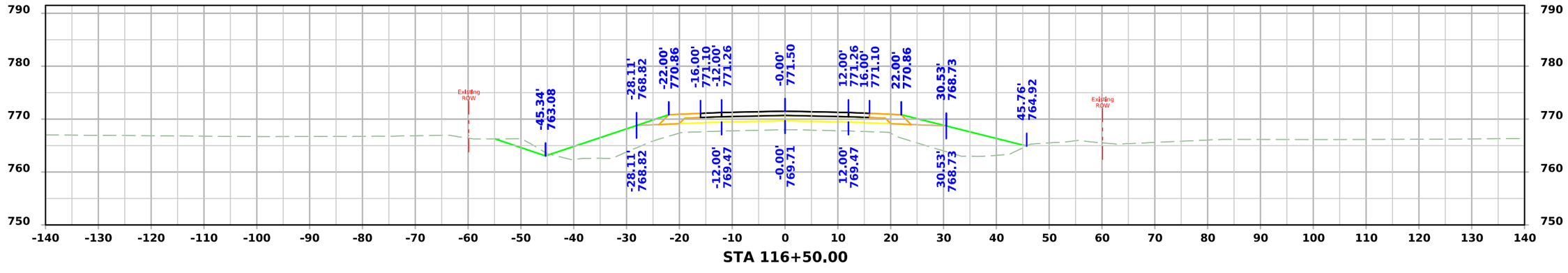

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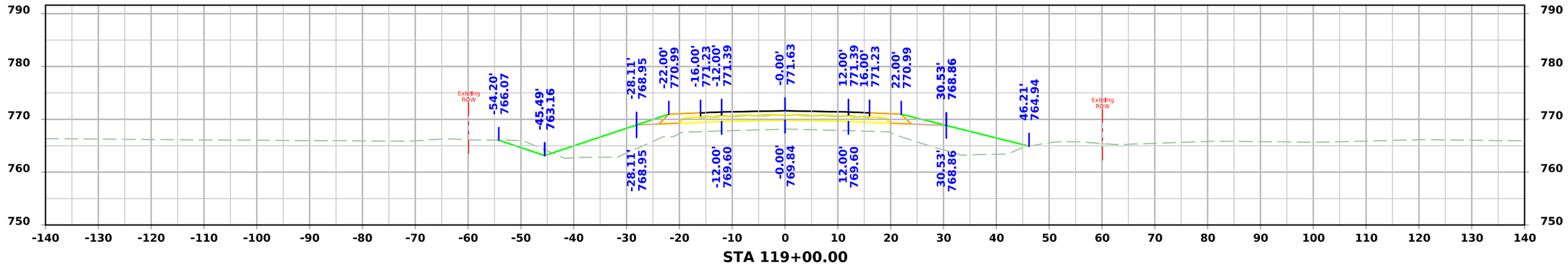
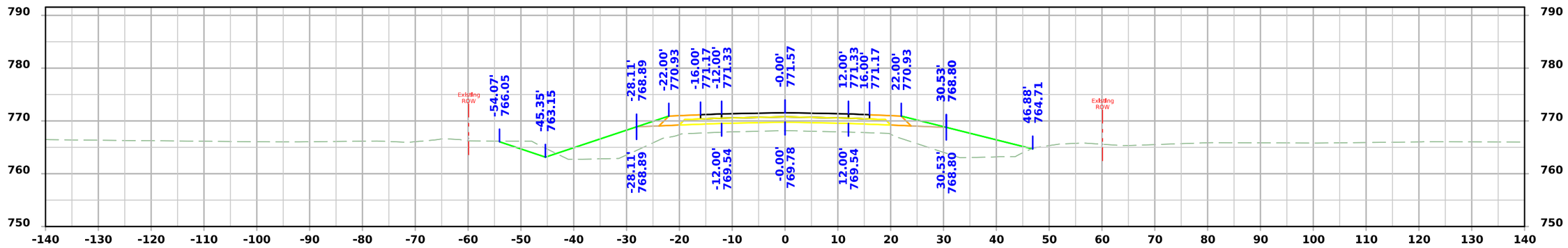
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.34

10:55:58 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

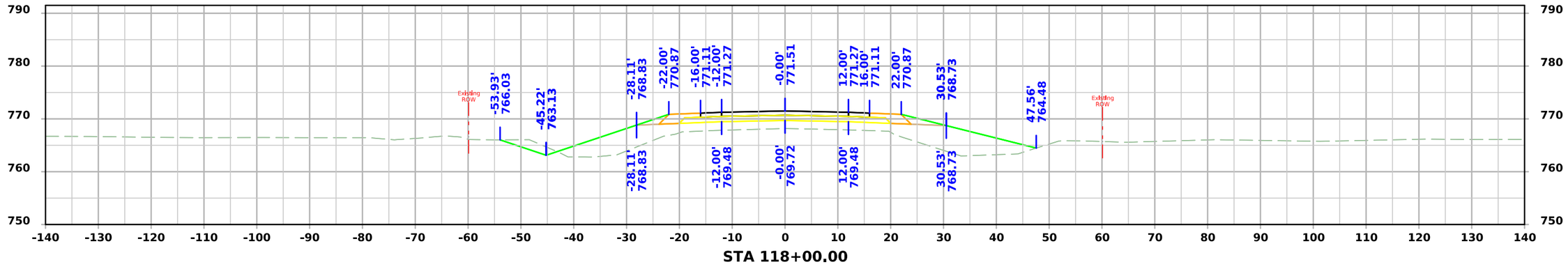
ML - IA 21



STA 119+00.00



STA 118+50.00

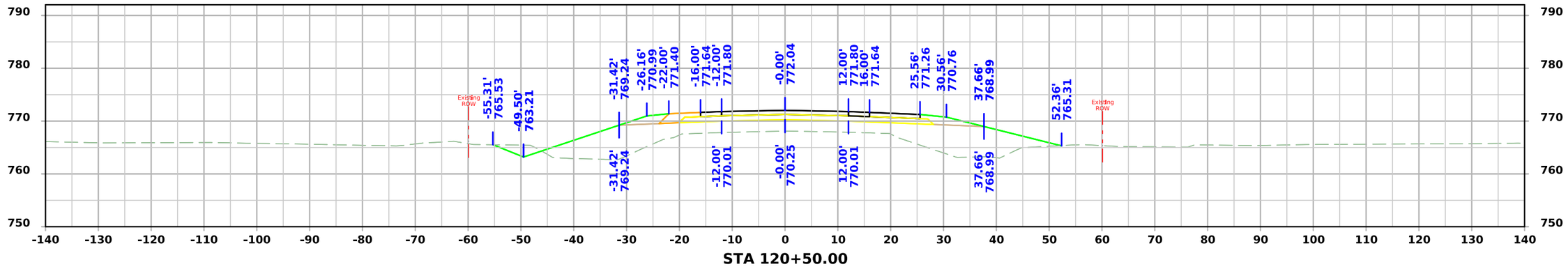


STA 118+00.00

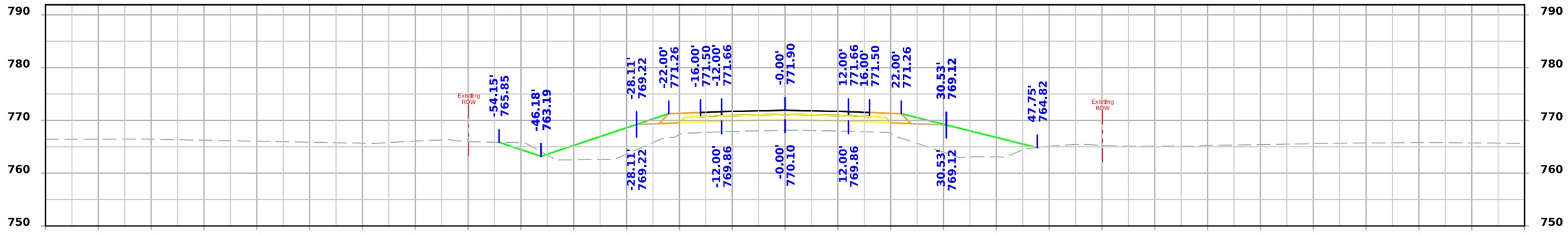
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.35

10:55:59 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

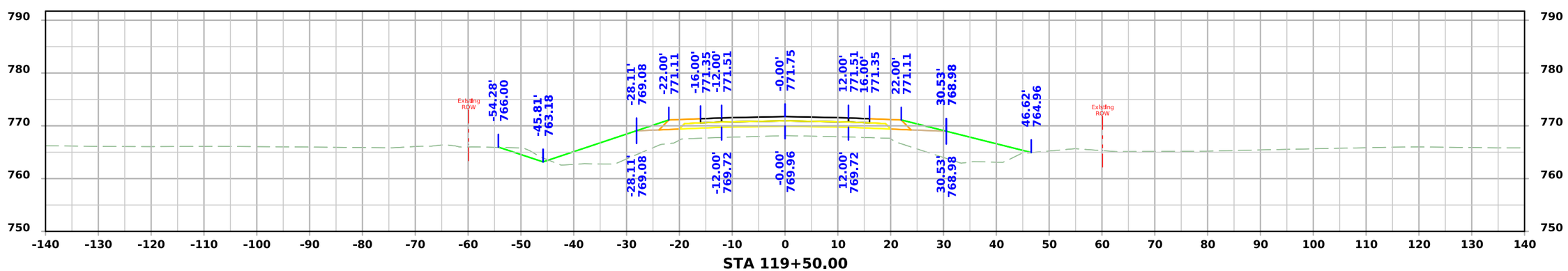
ML - IA 21



STA 120+50.00



STA 120+00.00

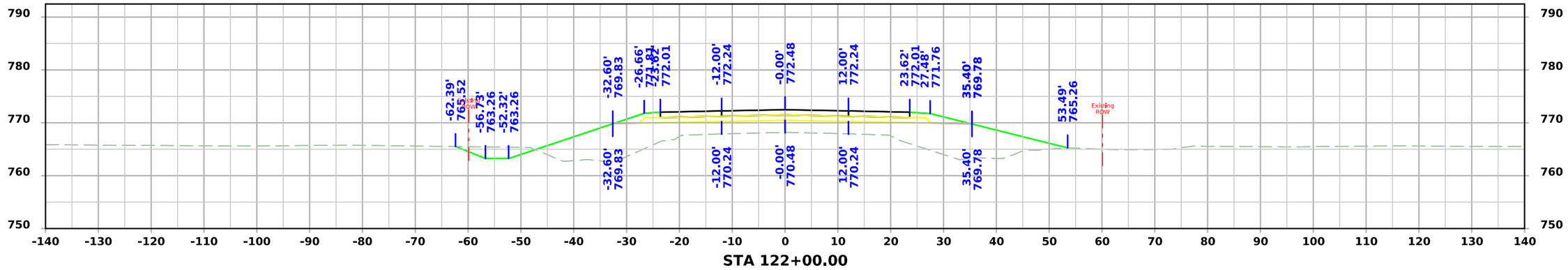


STA 119+50.00

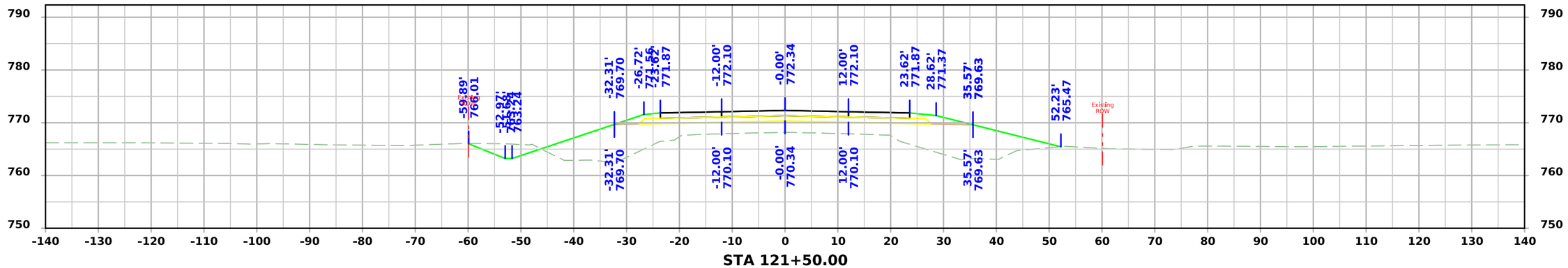
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.36

10:56:00 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

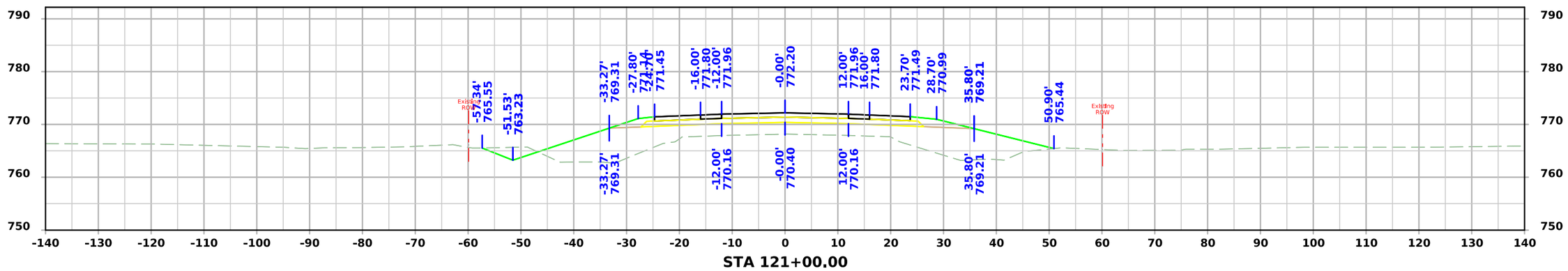
ML - IA 21



STA 122+00.00



STA 121+50.00

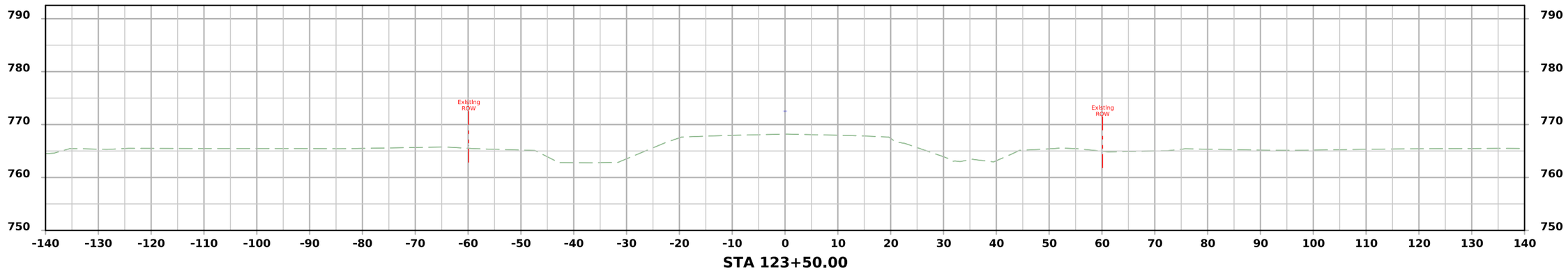


STA 121+00.00

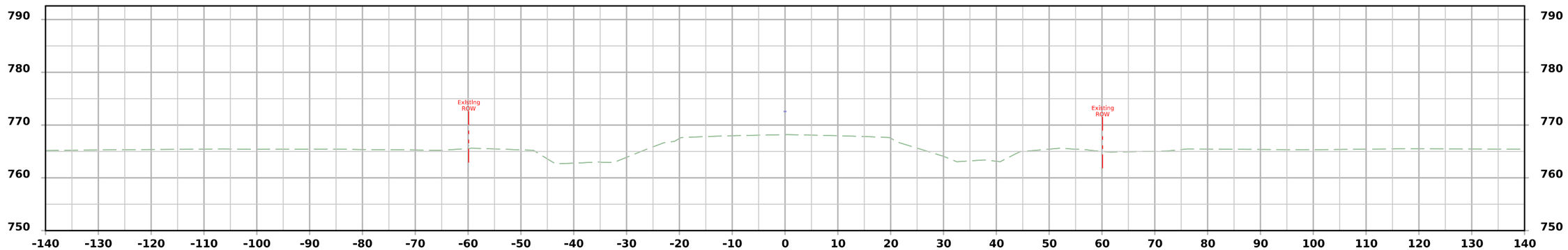
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.37

10:56:01 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

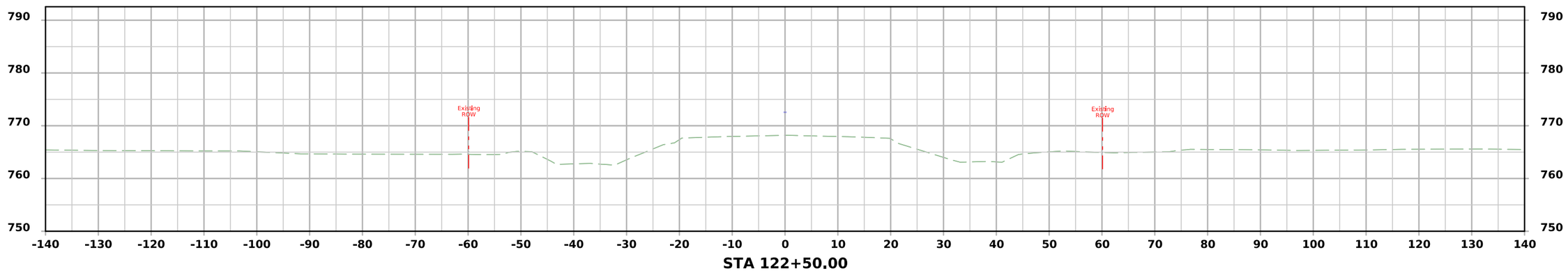
ML - IA 21



STA 123+50.00



STA 123+00.00

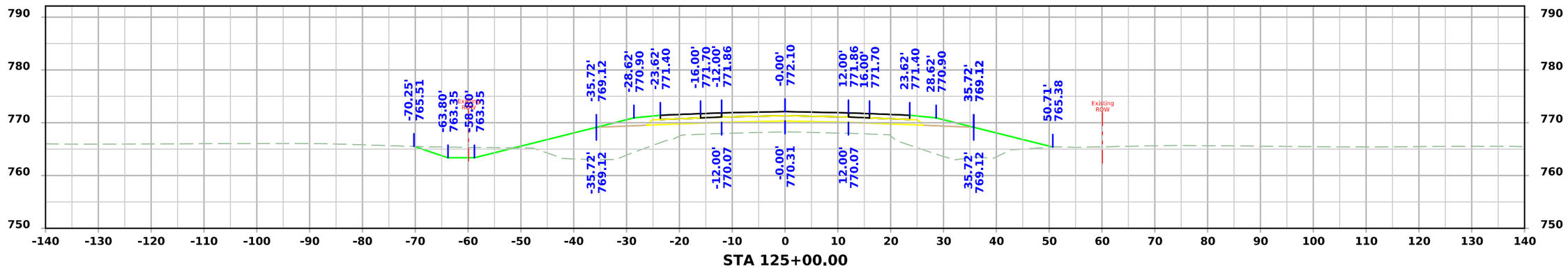


STA 122+50.00

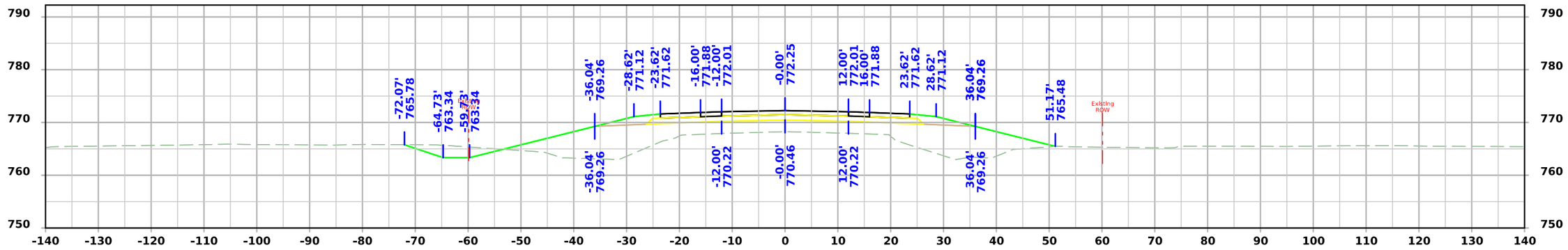
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.38

10:56:01 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

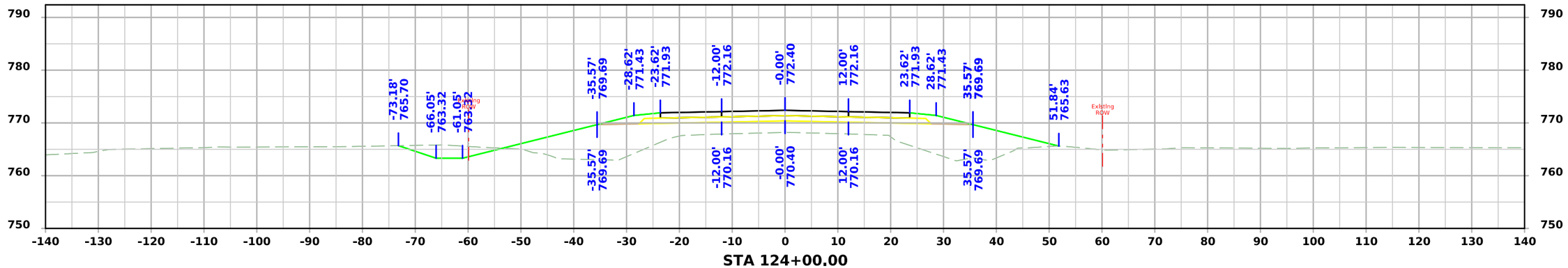
ML - IA 21



STA 125+00.00



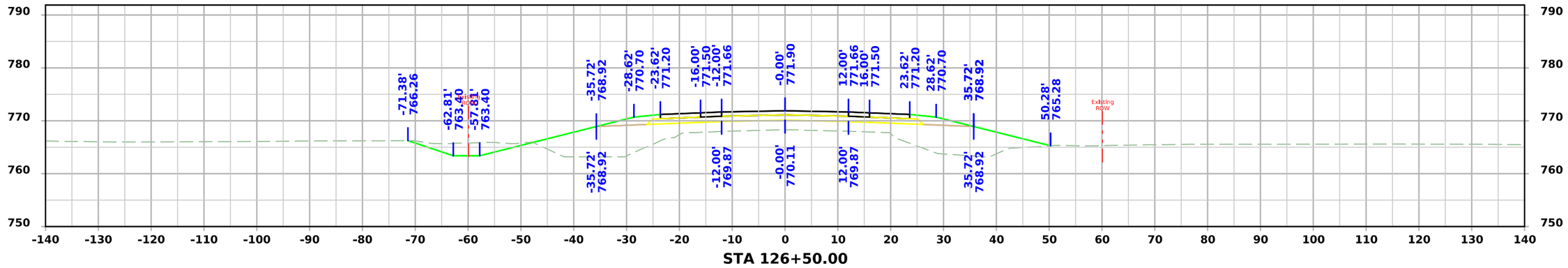
STA 124+50.00



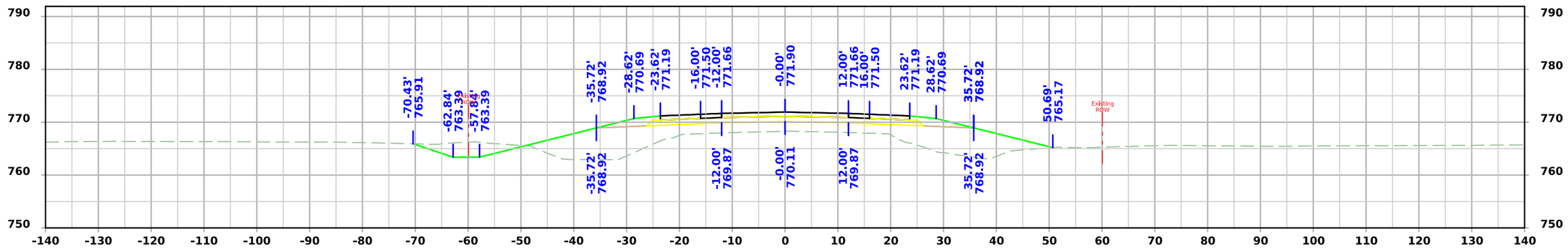
STA 124+00.00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.39

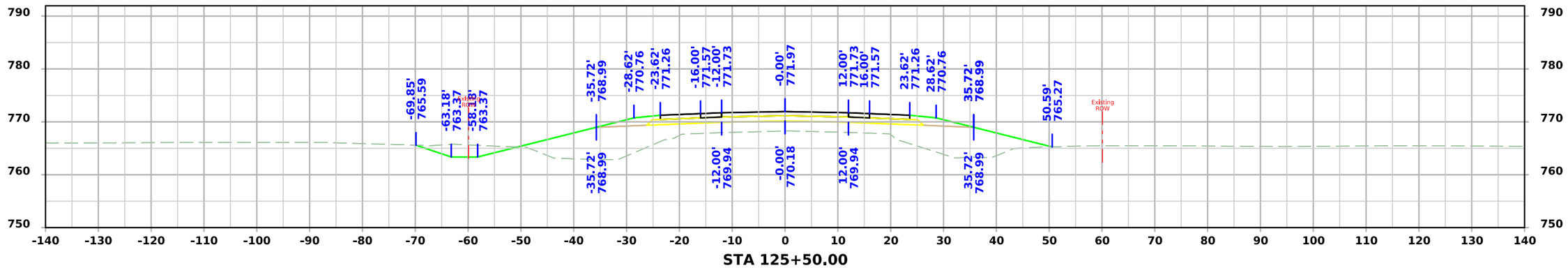
ML - IA 21



STA 126+50.00



STA 126+00.00

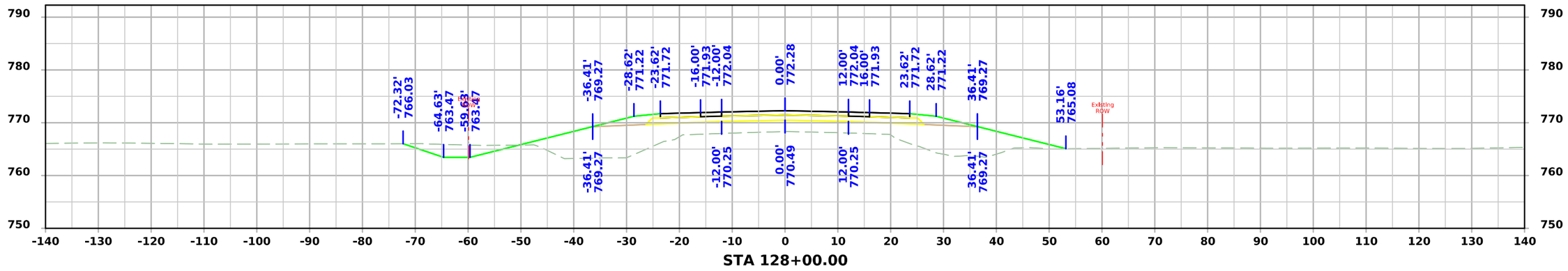


STA 125+50.00

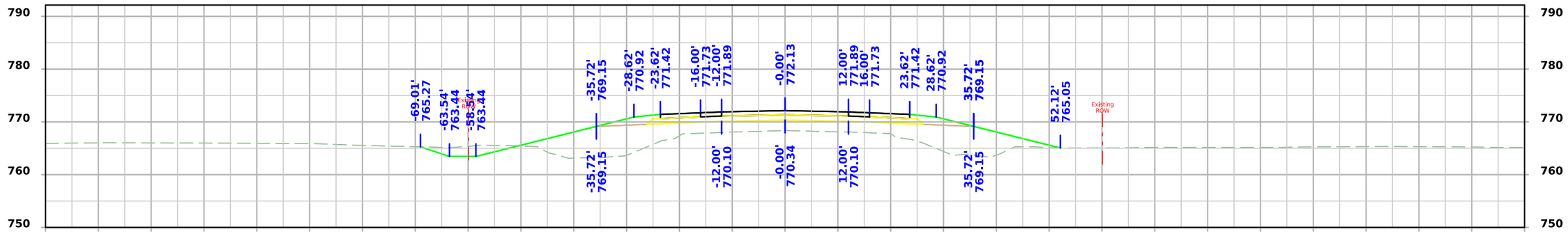
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.40

10:56:03 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

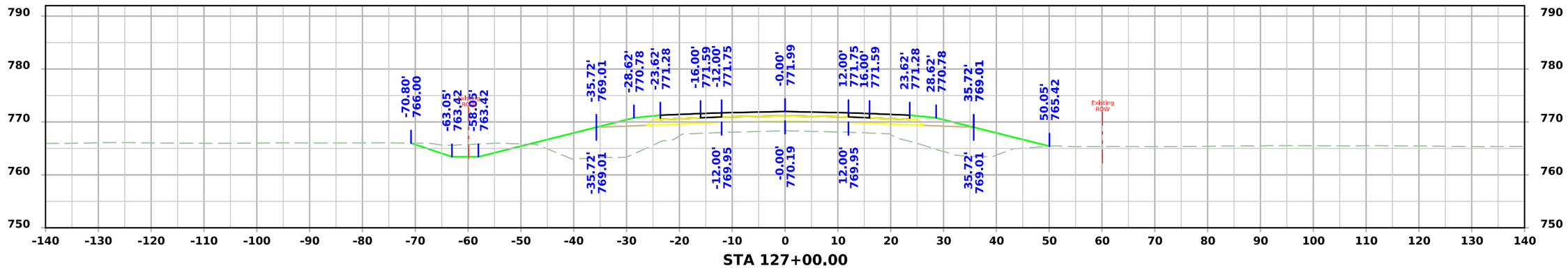
ML - IA 21



STA 128+00.00



STA 127+50.00

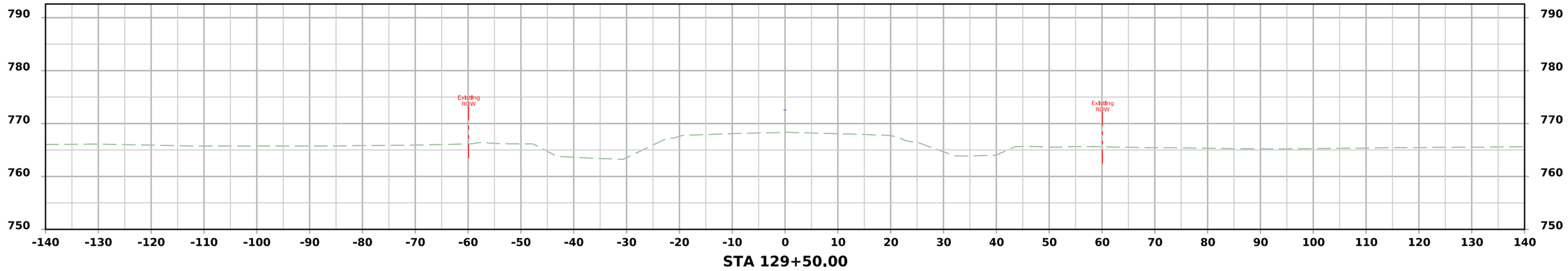


STA 127+00.00

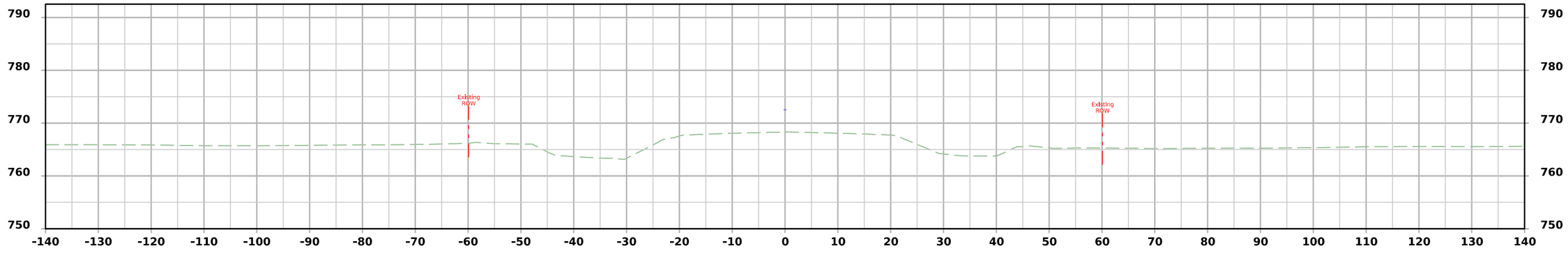
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.41	

10:56:04 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

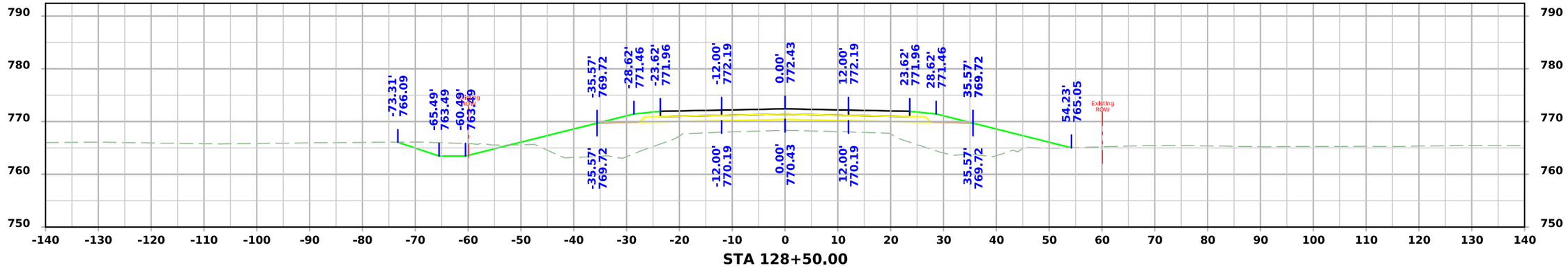
ML - IA 21



STA 129+50.00



STA 129+00.00

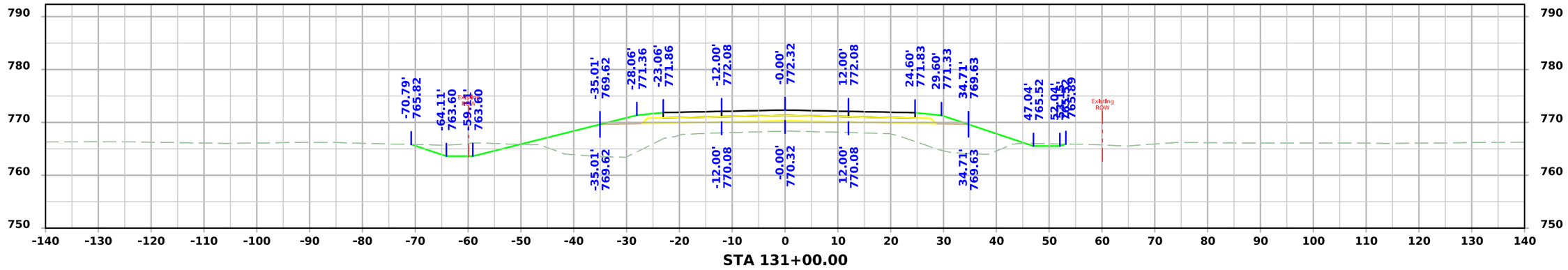


STA 128+50.00

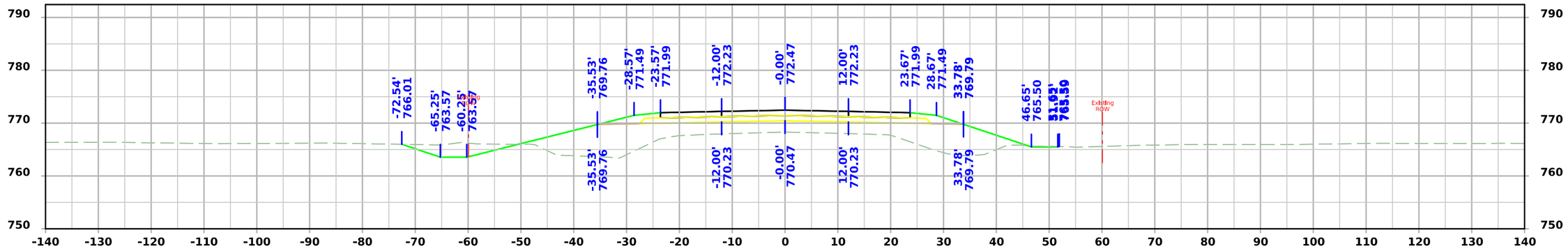
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.42

10:56:05 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

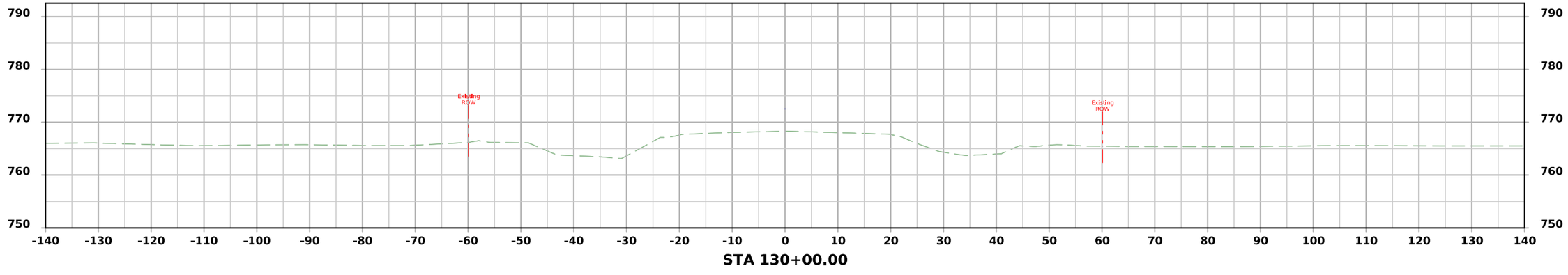
ML - IA 21



STA 131+00.00



STA 130+50.00

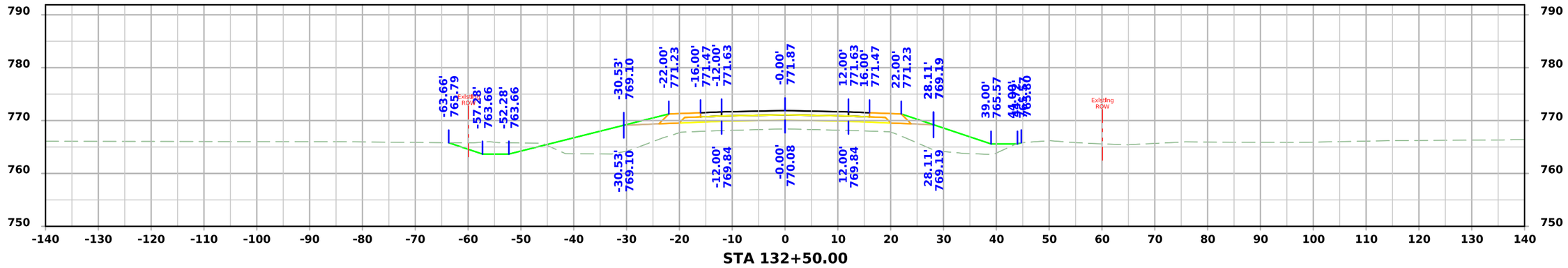


STA 130+00.00

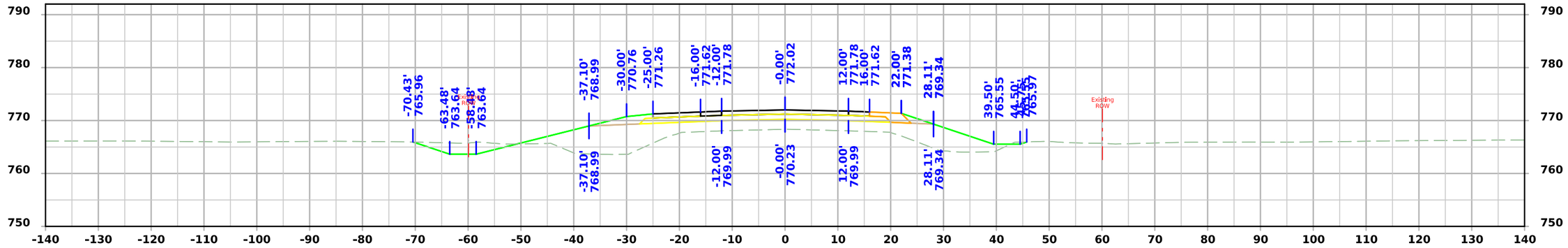
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.43

10:56:06 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

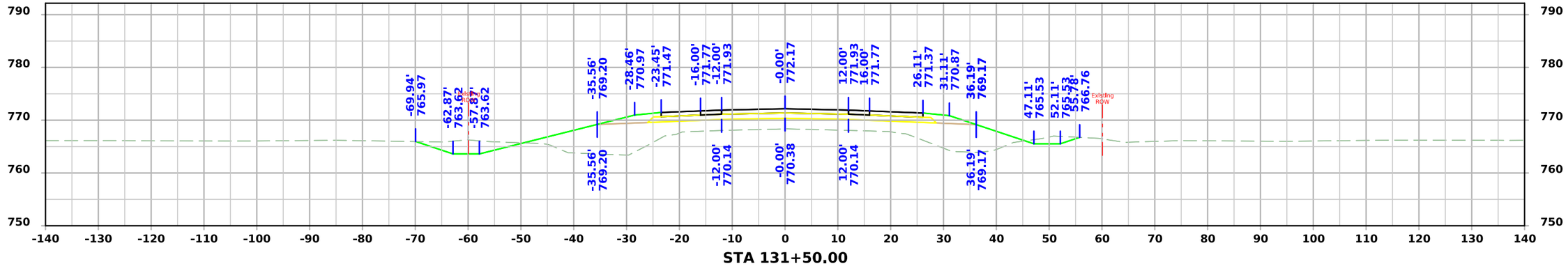
ML - IA 21



STA 132+50.00



STA 132+00.00

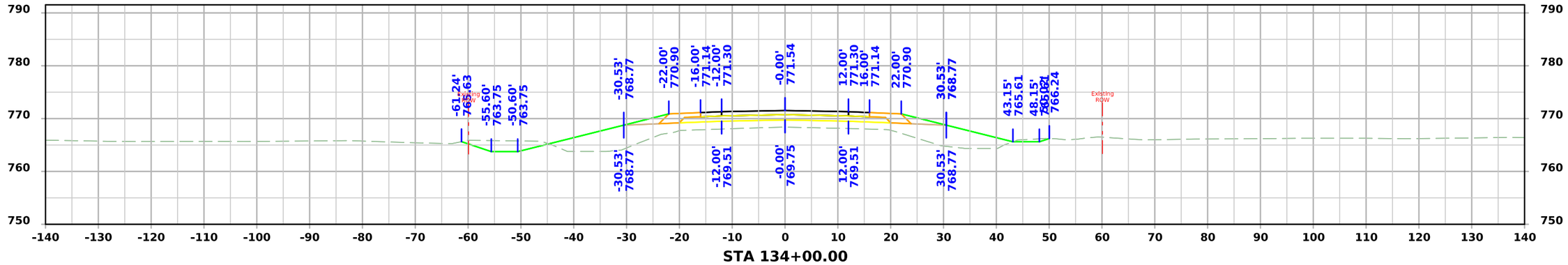


STA 131+50.00

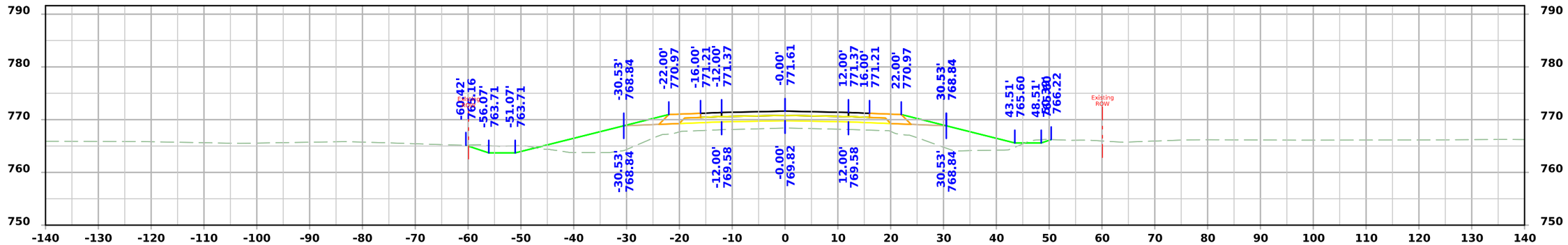
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.44

10:56:06 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

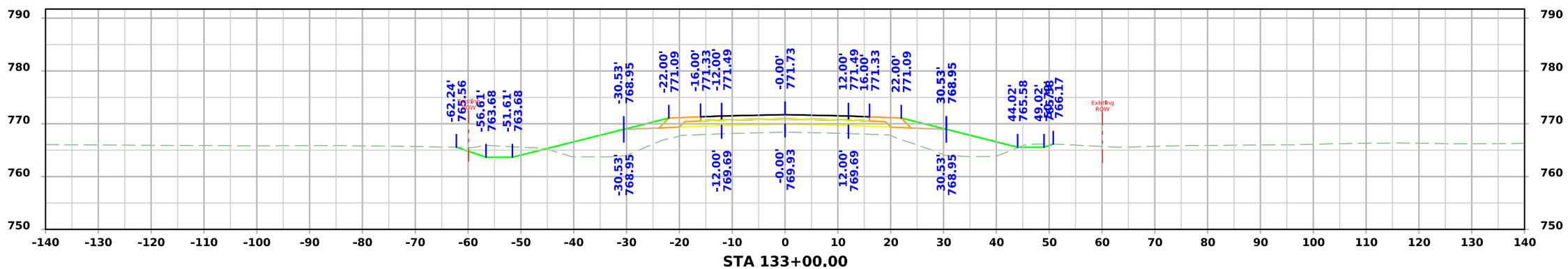
ML - IA 21



STA 134+00.00



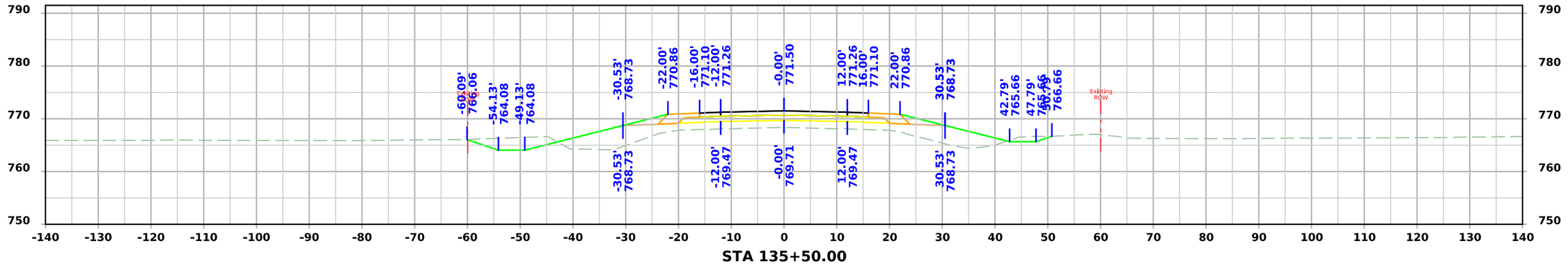
STA 133+50.00



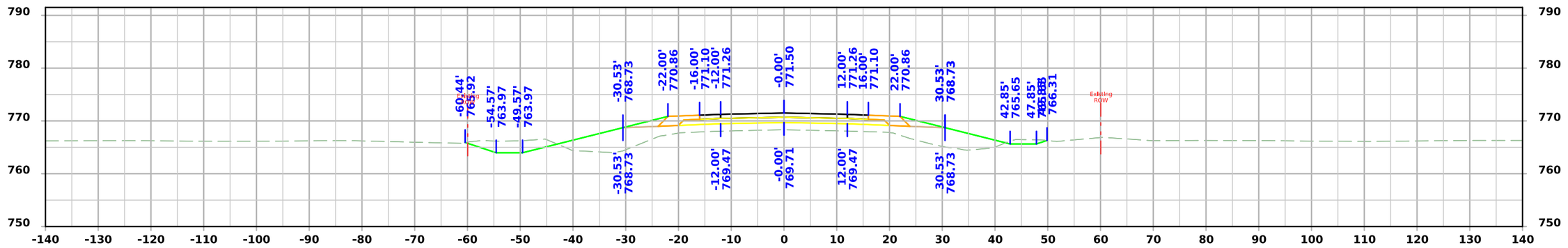
STA 133+00.00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.45

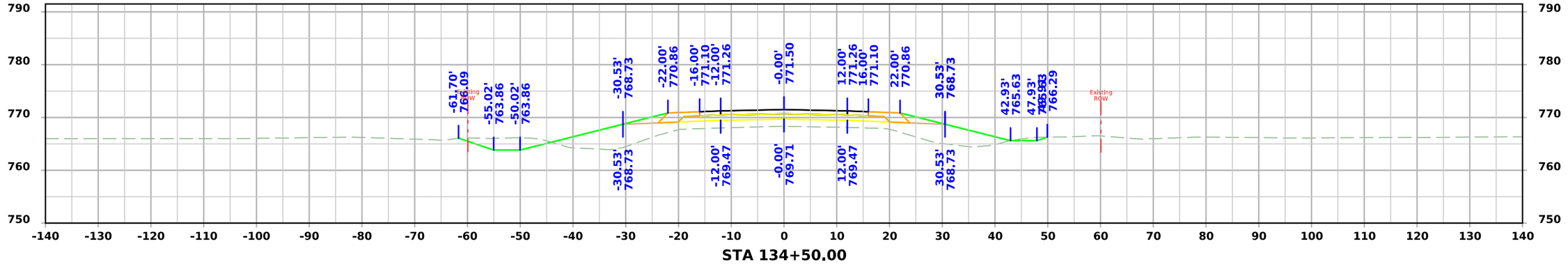
ML - IA 21



STA 135+50.00



STA 135+00.00

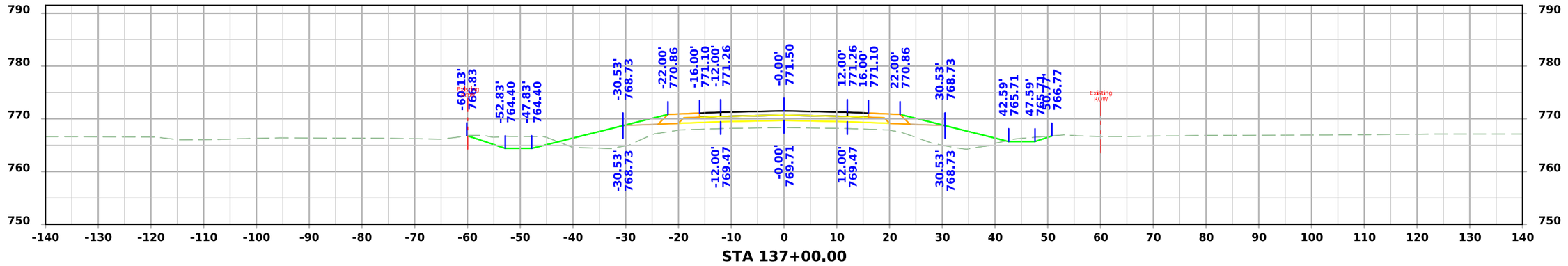


STA 134+50.00

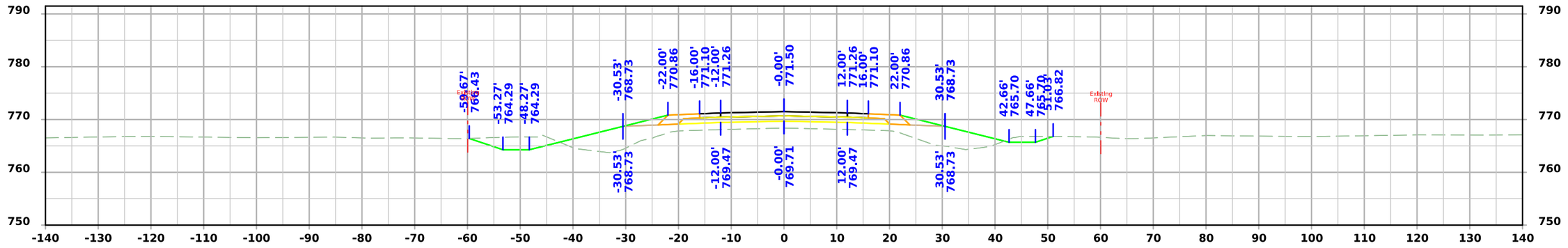
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.46

10:56:08 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

ML - IA 21



STA 137+00.00



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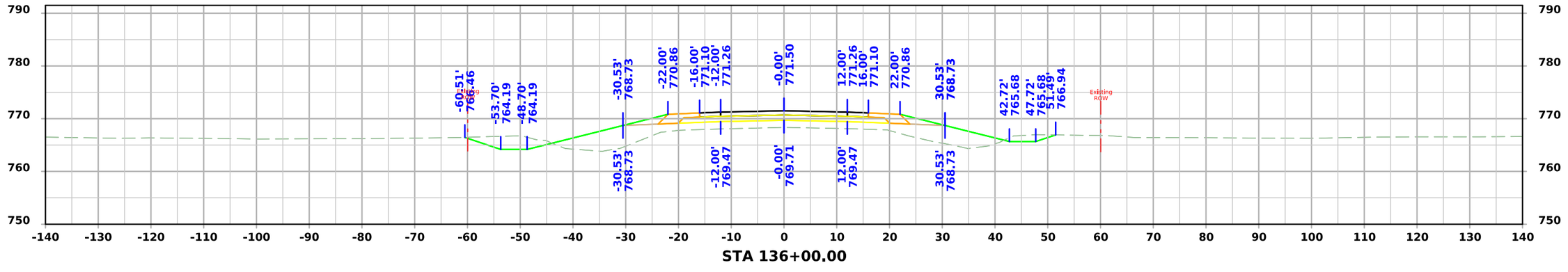
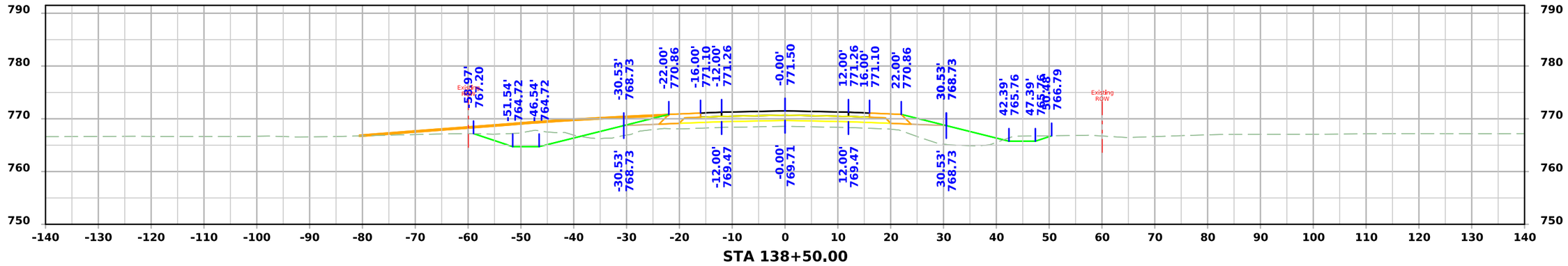


STA 136+00.00

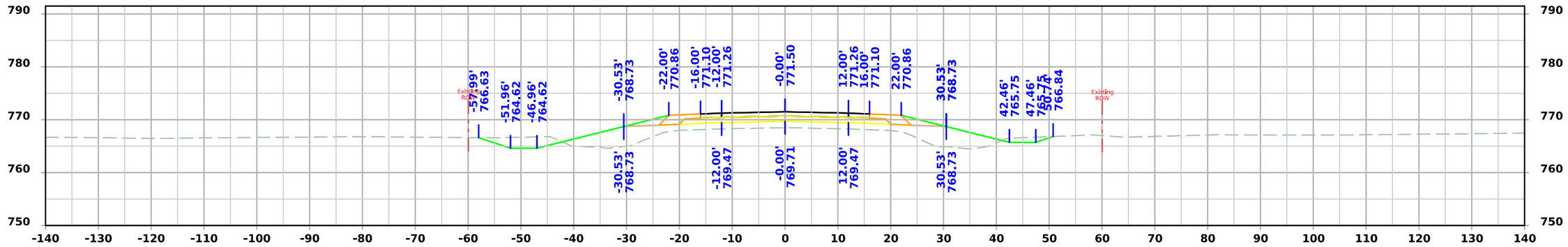
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.47

10:56:09 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

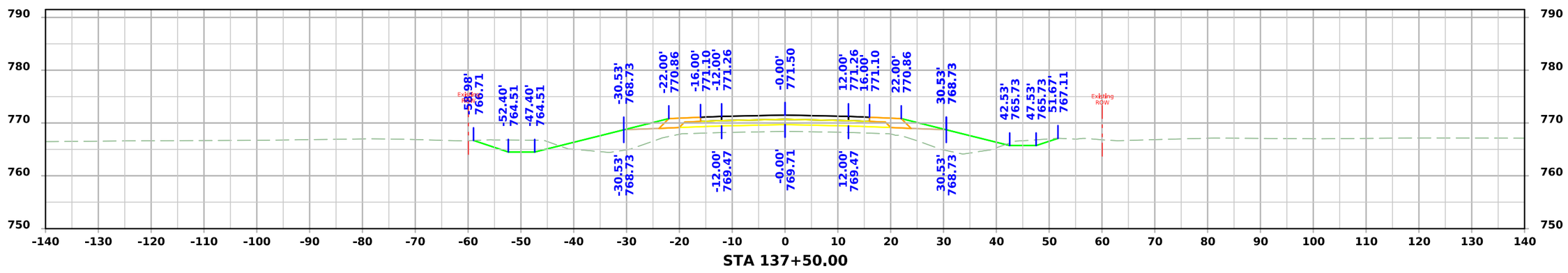
ML - IA 21



STA 138+50.00



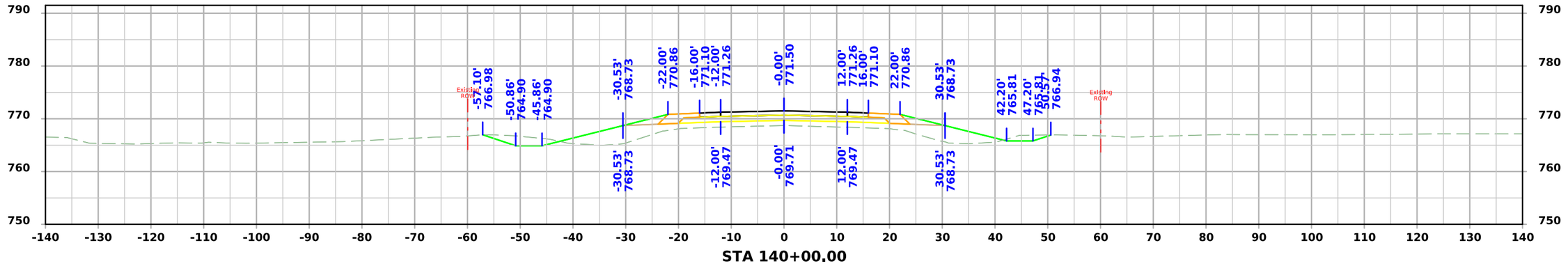
STA 138+00.00



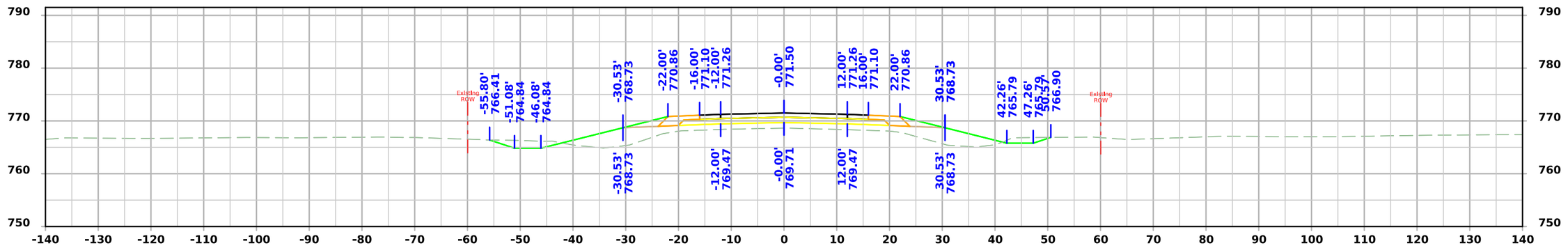
STA 137+50.00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.48

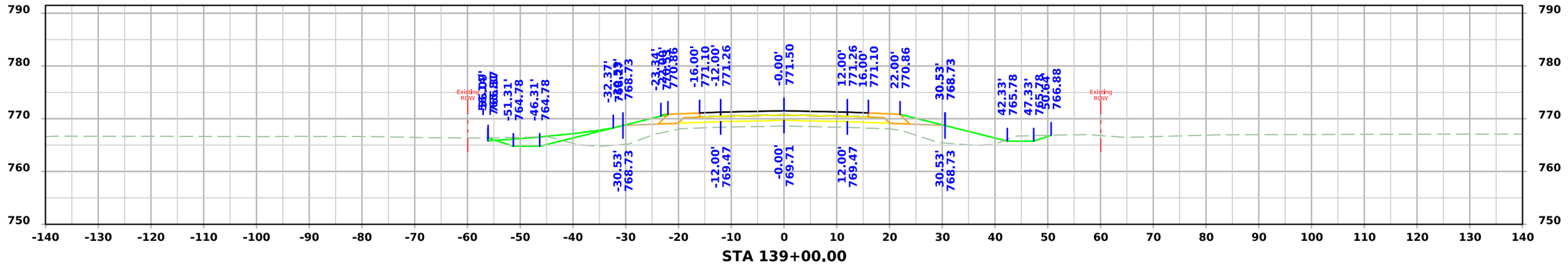
ML - IA 21



STA 140+00.00



STA 139+50.00

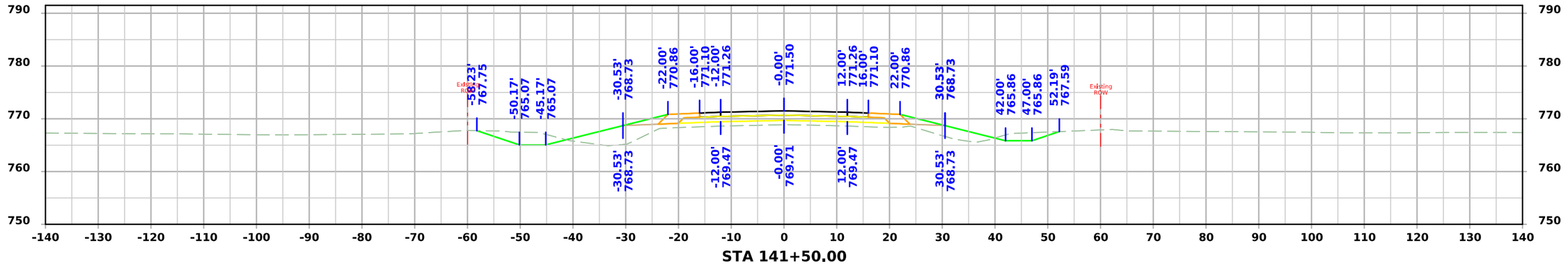


STA 139+00.00

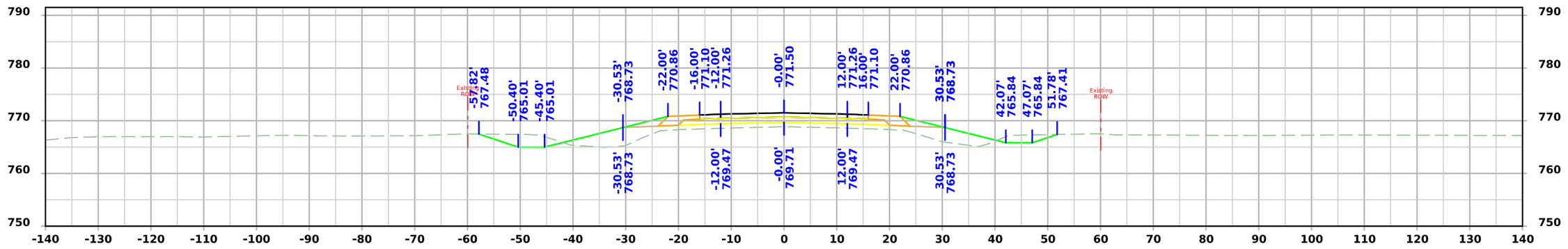
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.49

10:56:11 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

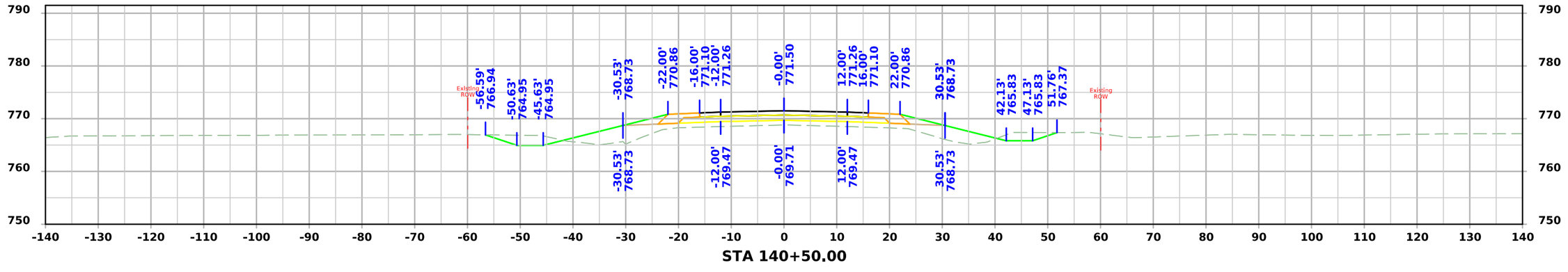
ML - IA 21



STA 141+50.00



STA 141+00.00

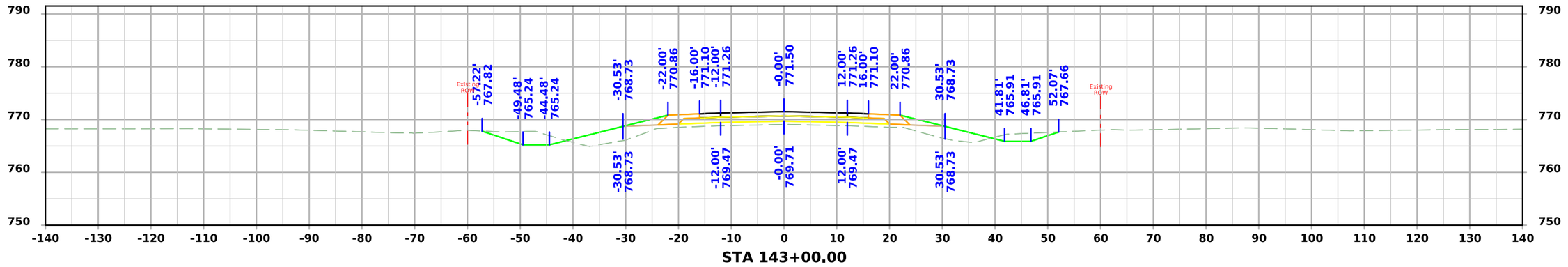


STA 140+50.00

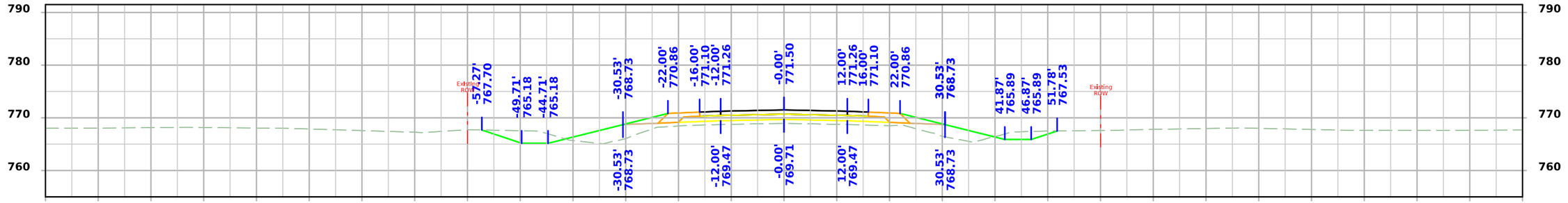
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.50

10:56:12 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

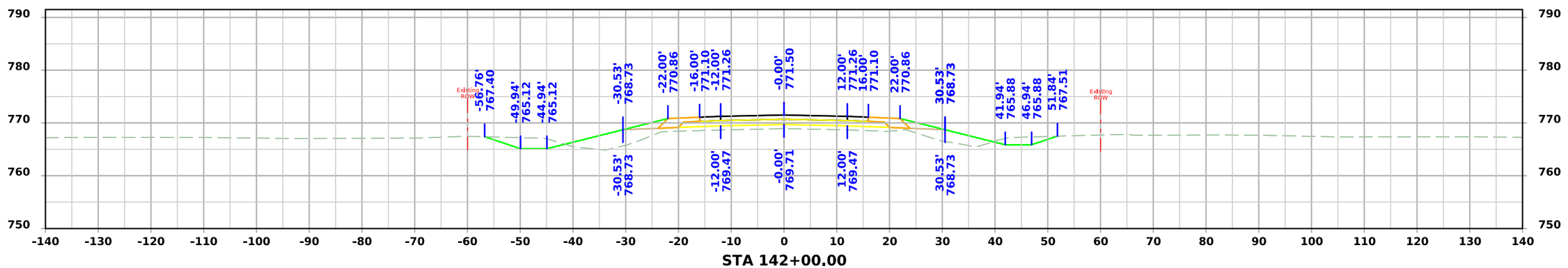
ML - IA 21



STA 143+00.00



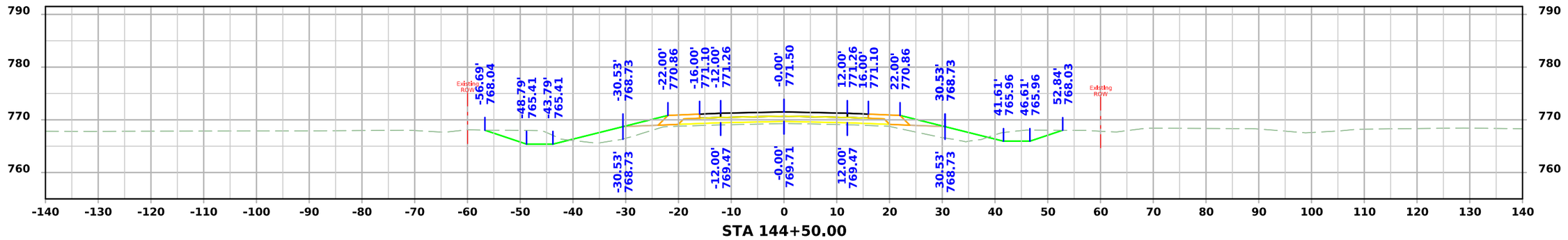
STA 142+50.00



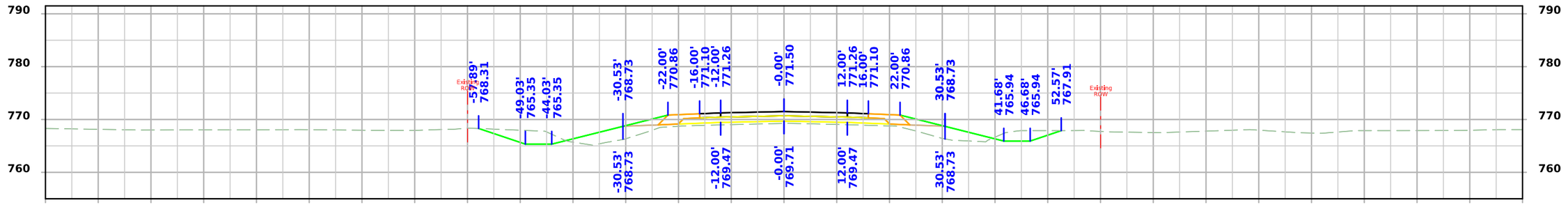
STA 142+00.00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.51

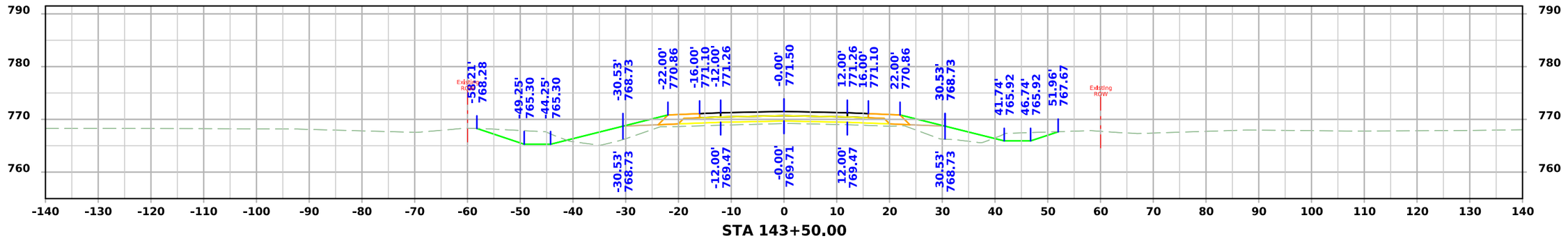
ML - IA 21



STA 144+50.00



STA 144+00.00

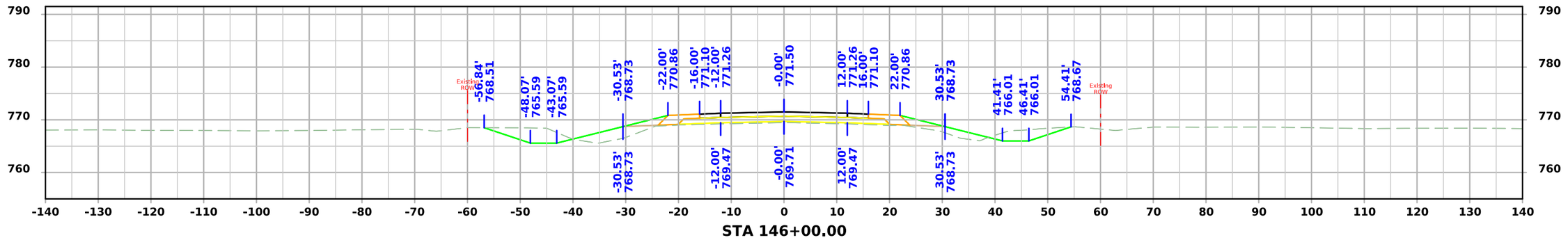


STA 143+50.00

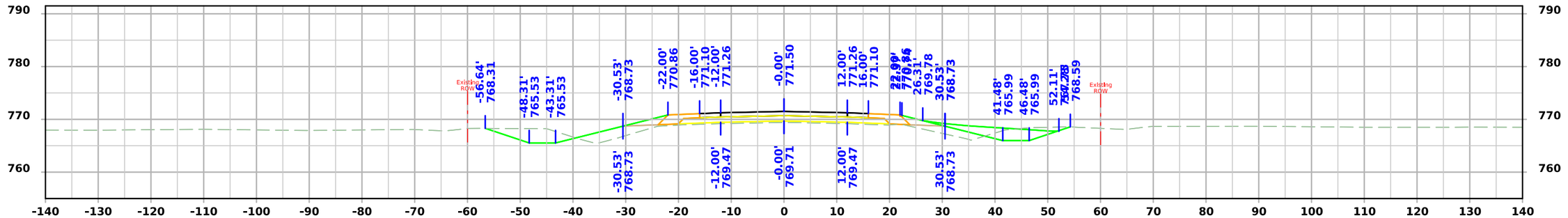
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.52

10:56:13 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

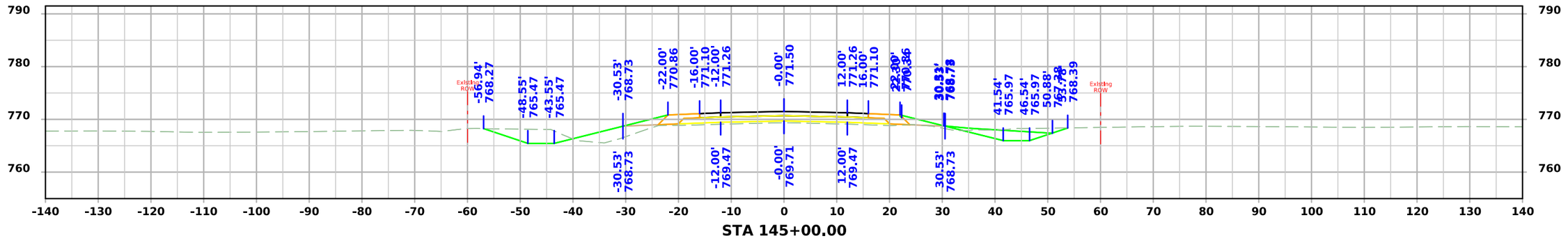
ML - IA 21



STA 146+00.00



STA 145+50.00

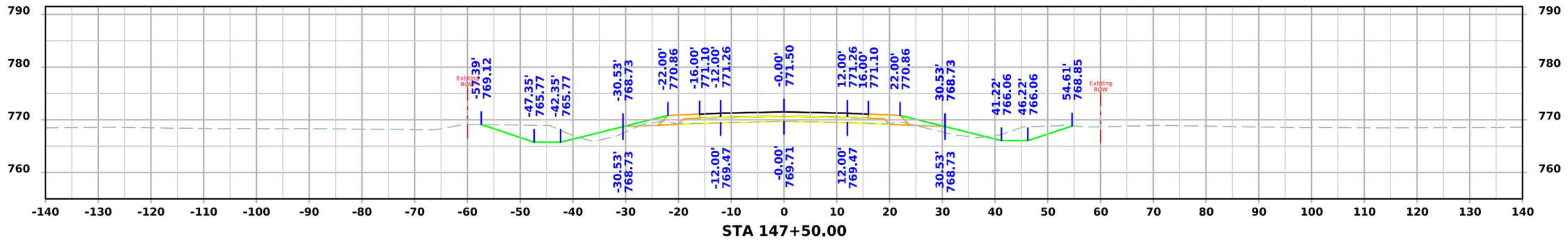


STA 145+00.00

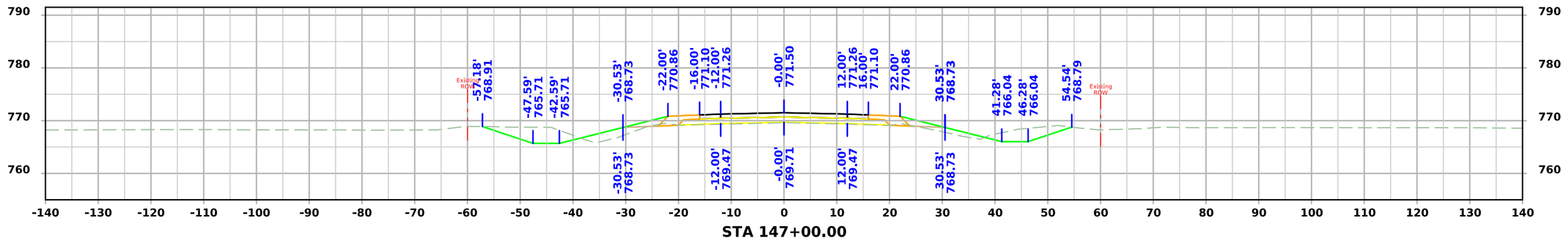
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.53

10:56:14 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

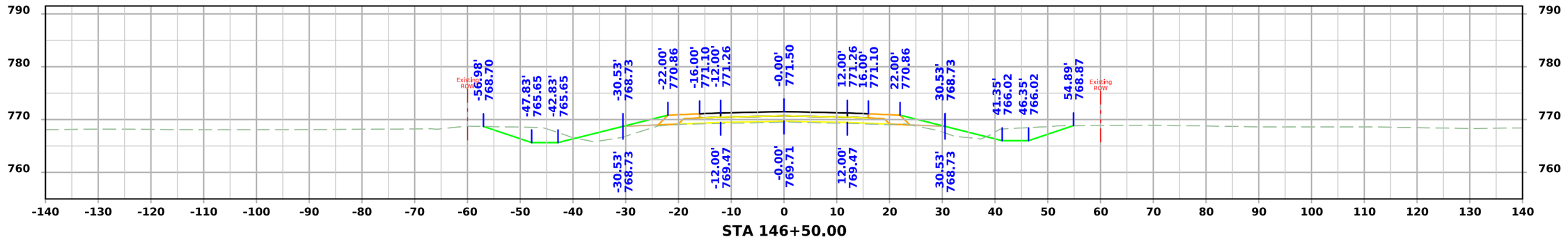
ML - IA 21



STA 147+50.00



STA 147+00.00

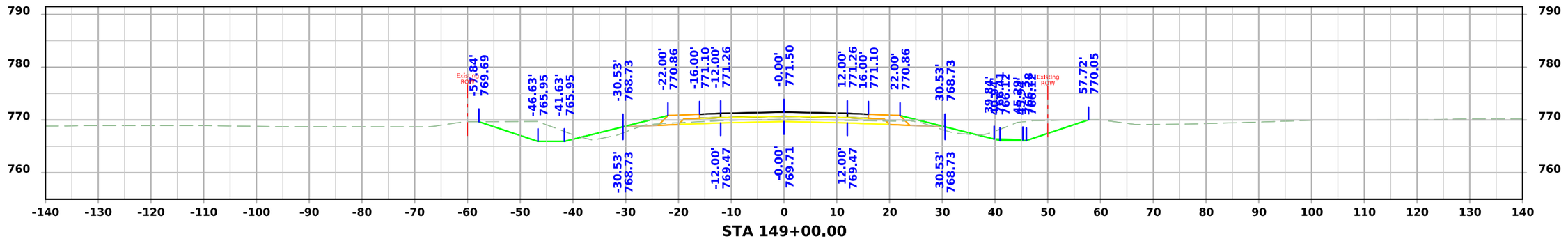


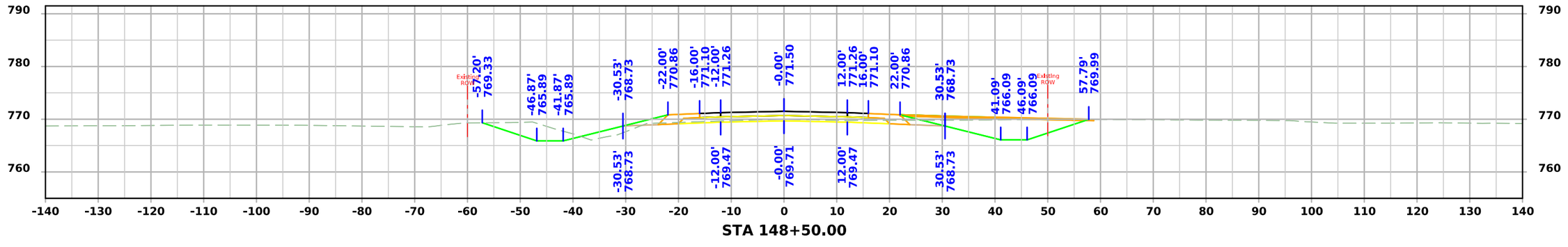
STA 146+50.00

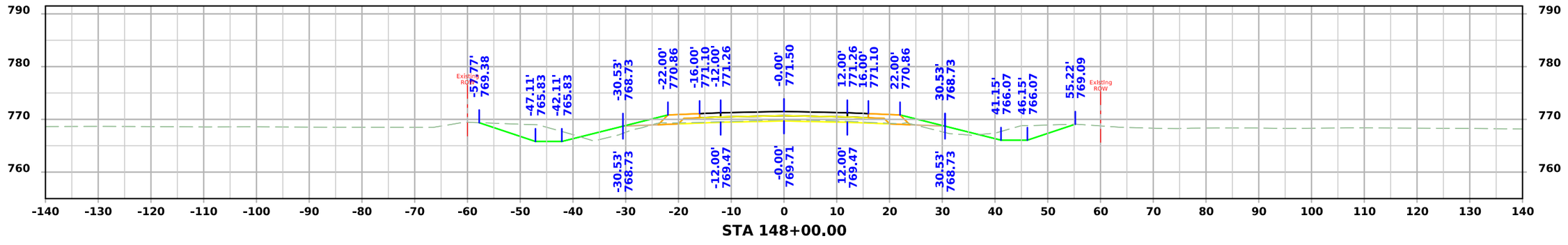
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.54

10:56:15 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

ML - IA 21



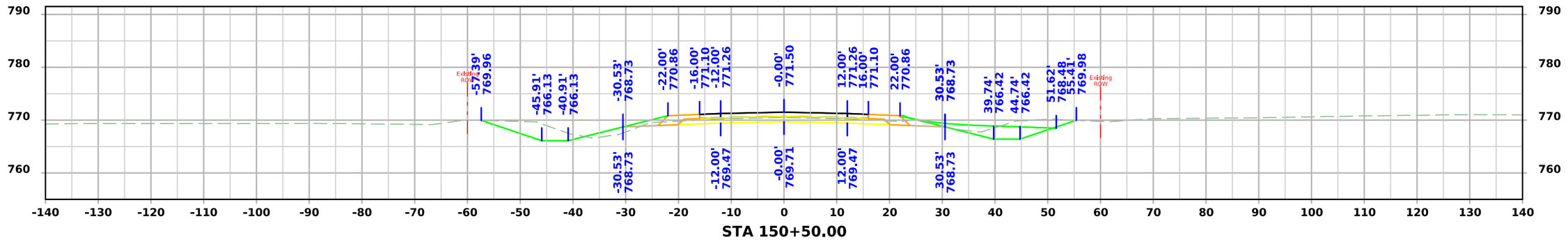


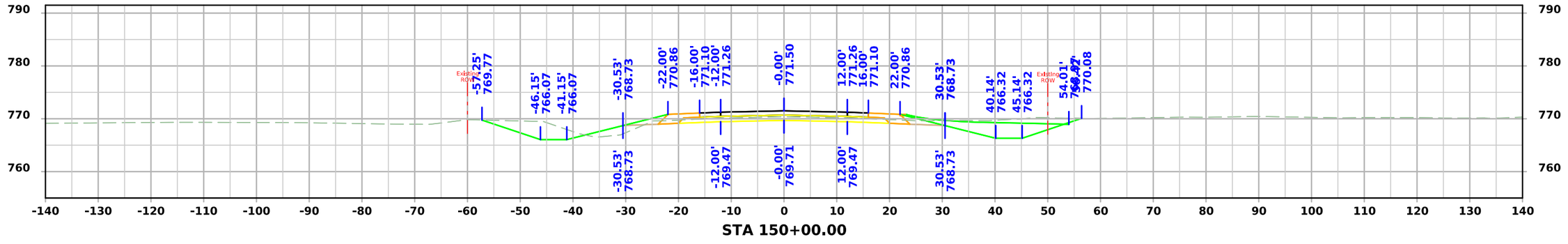


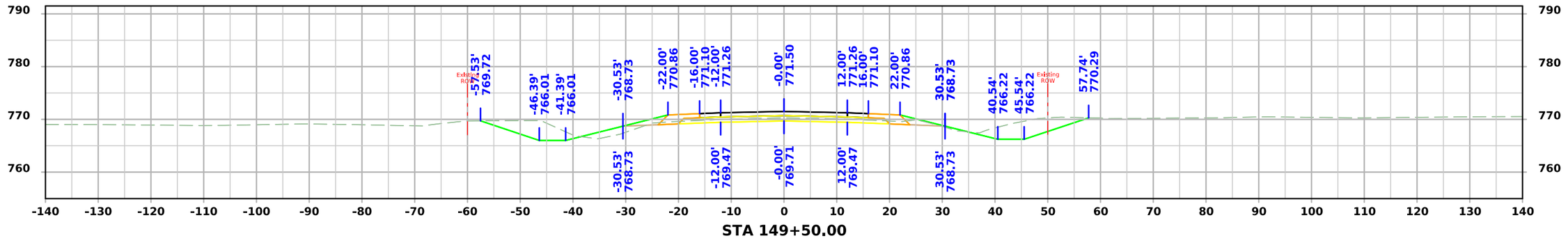
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.55

10:56:16 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

ML - IA 21



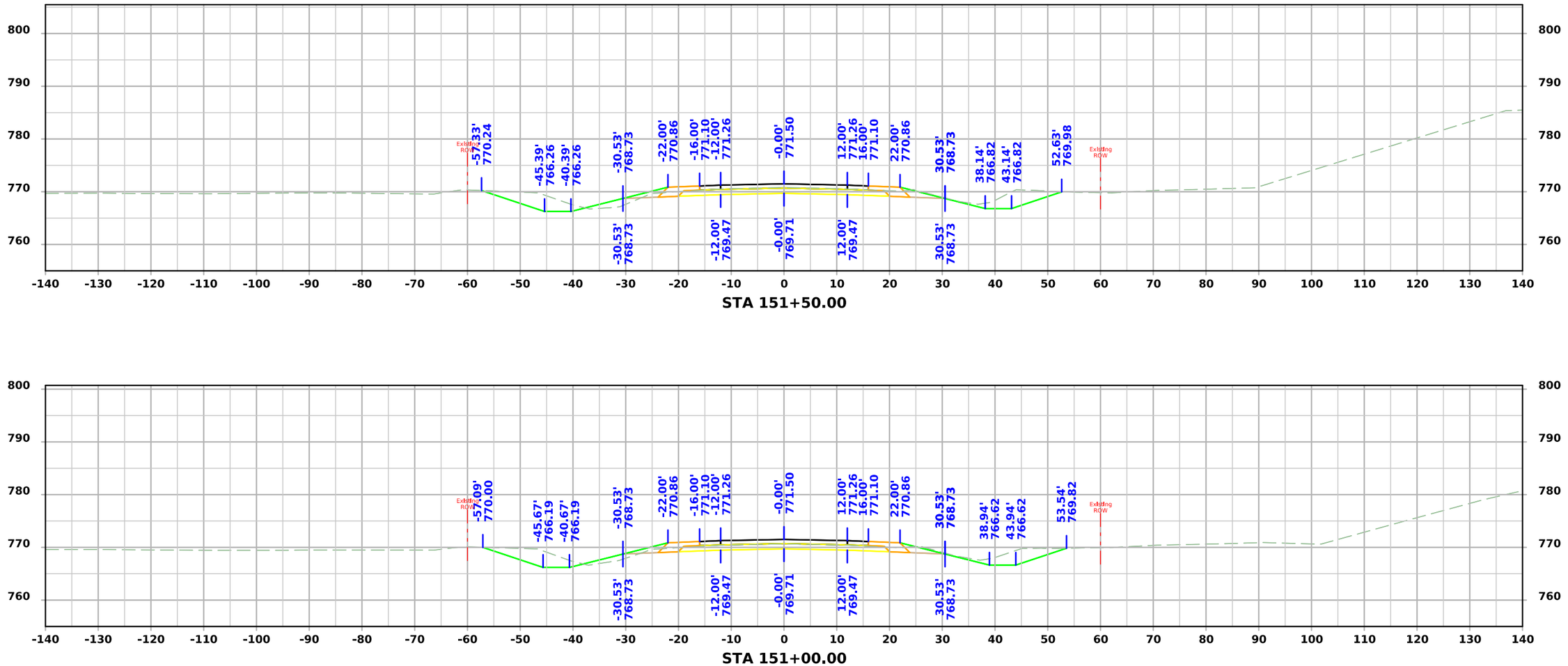




FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.56

10:56:17 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

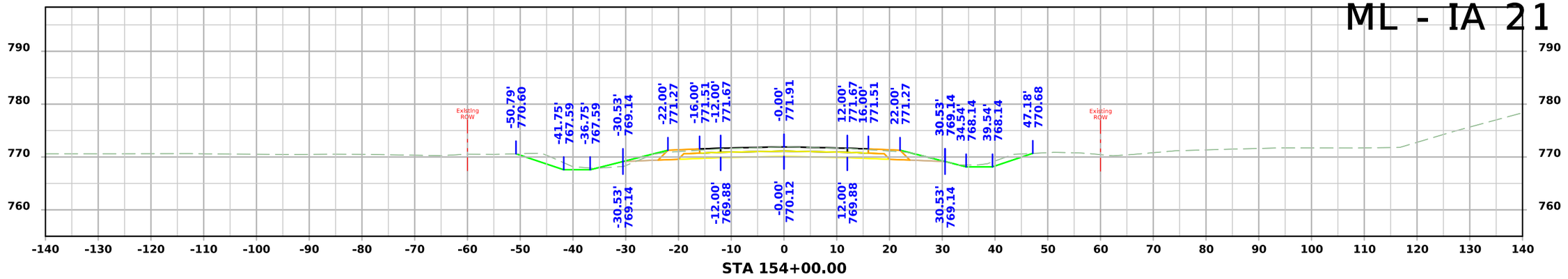
ML - IA 21



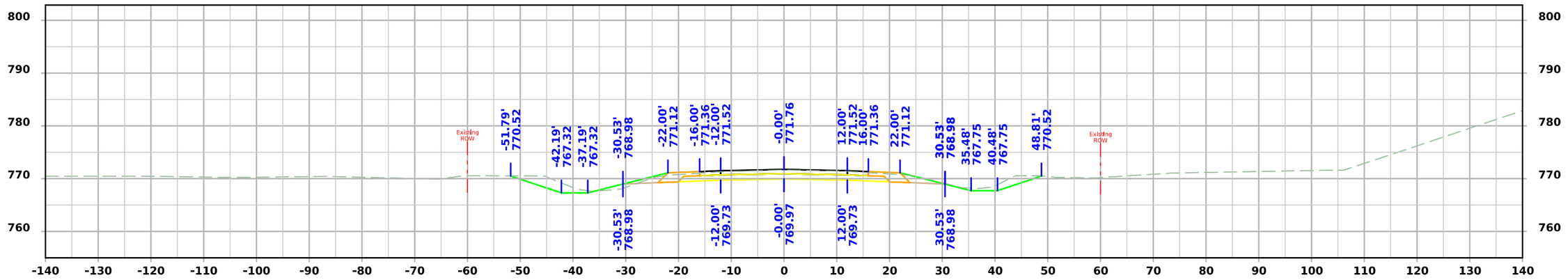
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.57

10:56:18 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

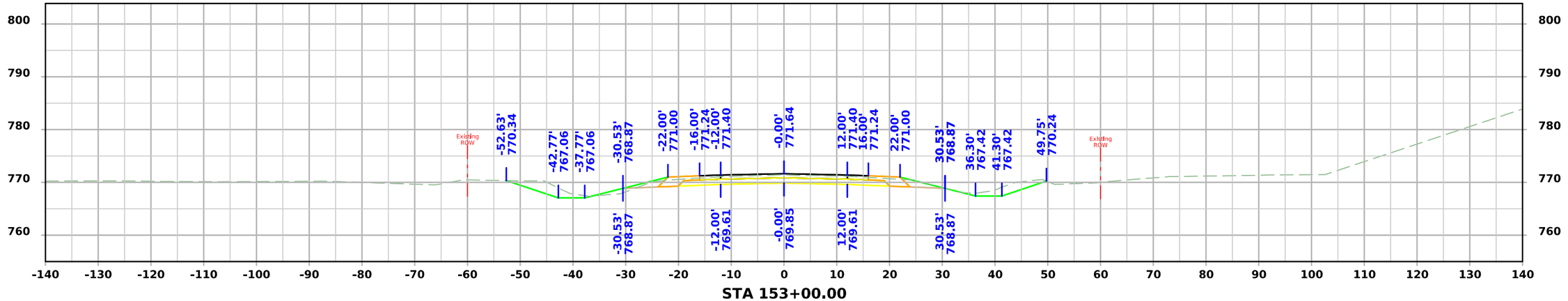
ML - IA 21



STA 154+00.00



STA 153+50.00

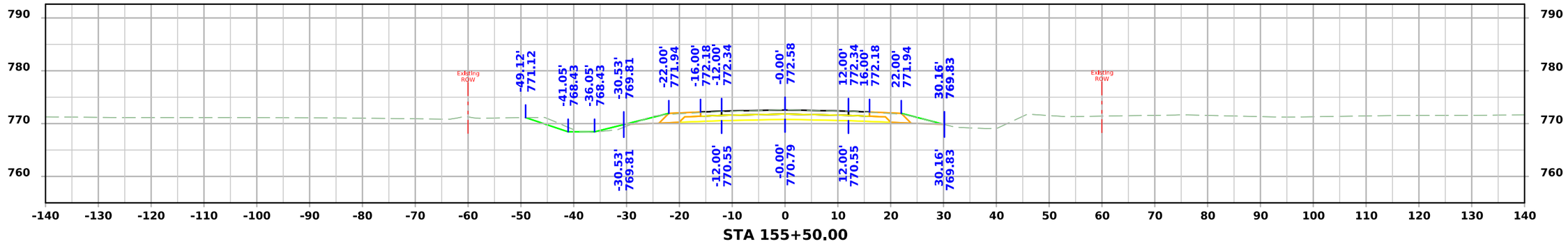


STA 153+00.00

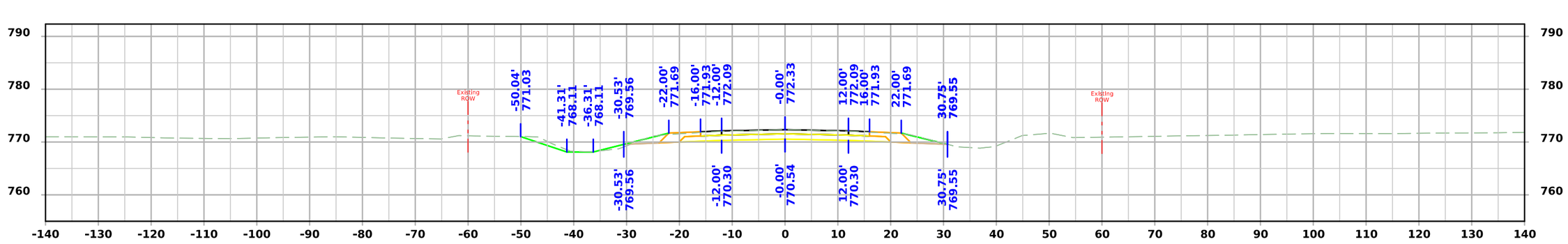
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.59

2:29:15 PM 4/6/2026 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

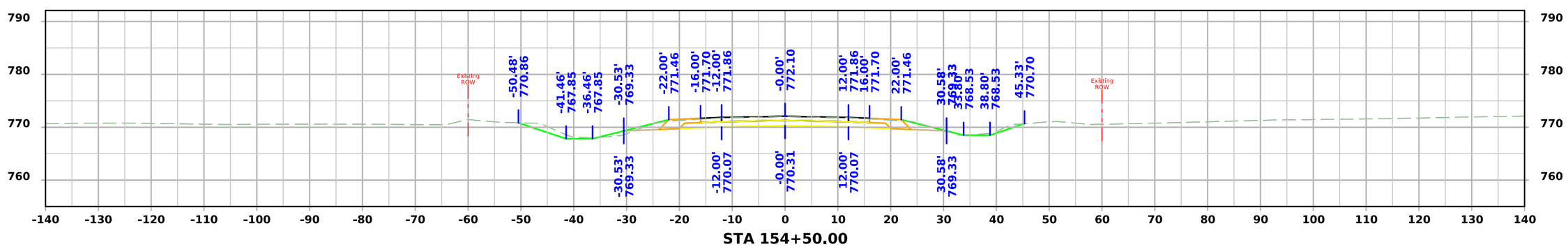
ML - IA 21



STA 155+50.00



STA 155+00.00

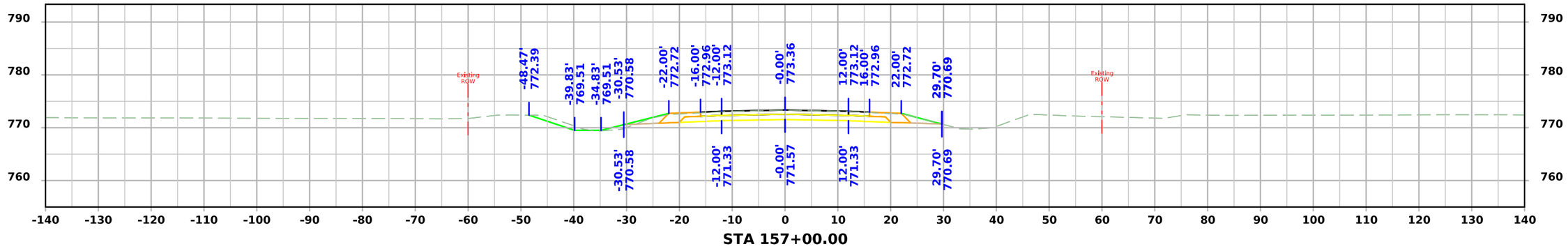


STA 154+50.00

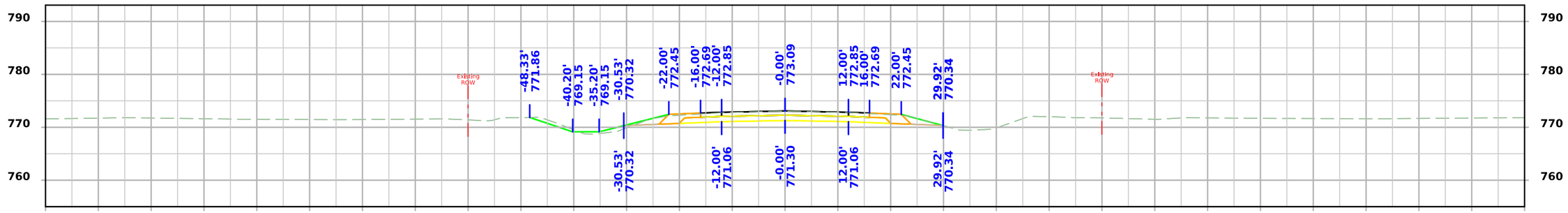
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.60

2:29:16 PM 4/6/2026 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

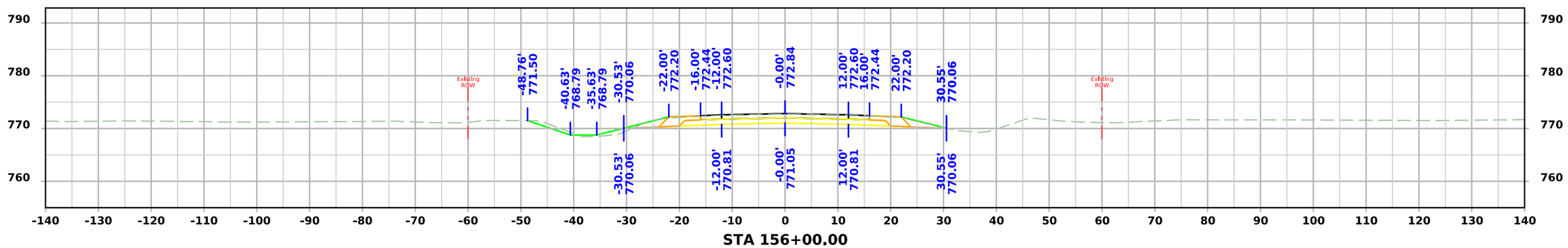
ML - IA 21



STA 157+00.00



STA 156+50.00

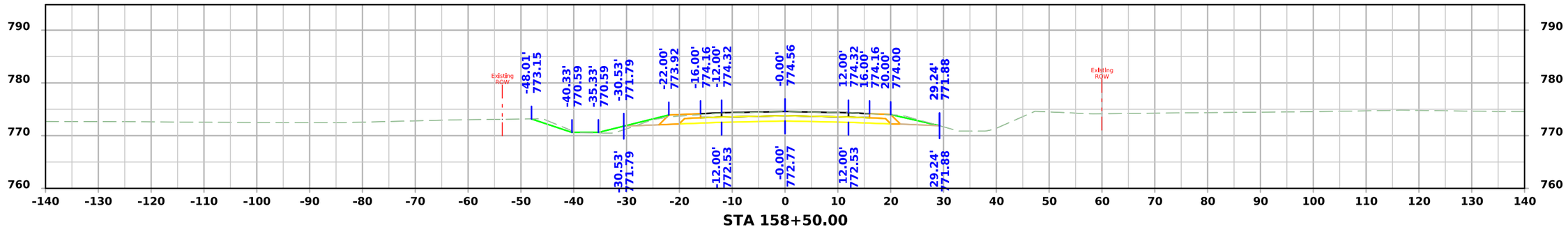


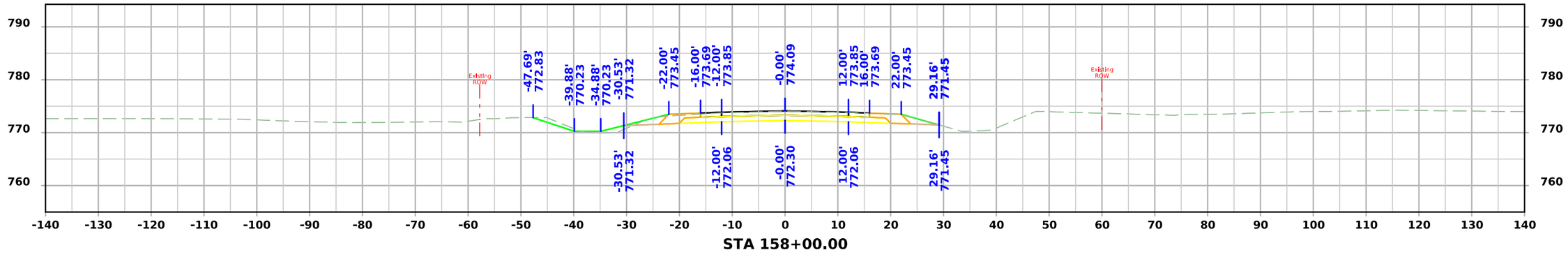
STA 156+00.00

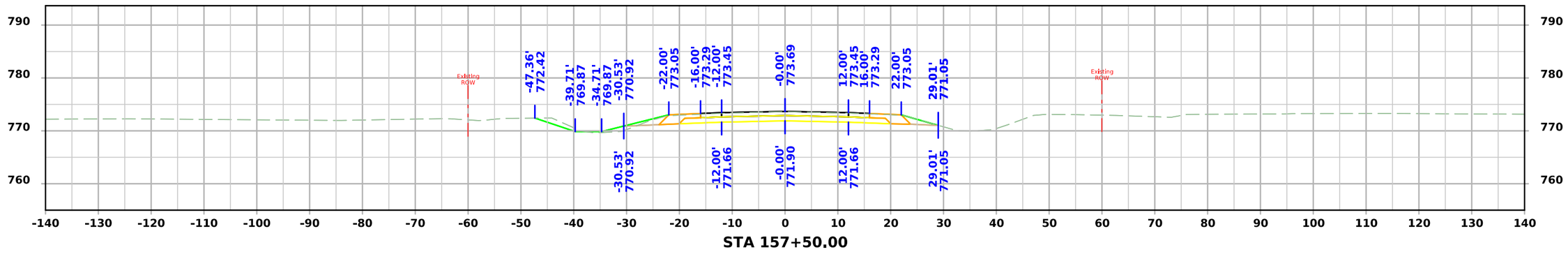
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.61

2:29:17 PM 4/6/2026 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

ML - IA 21



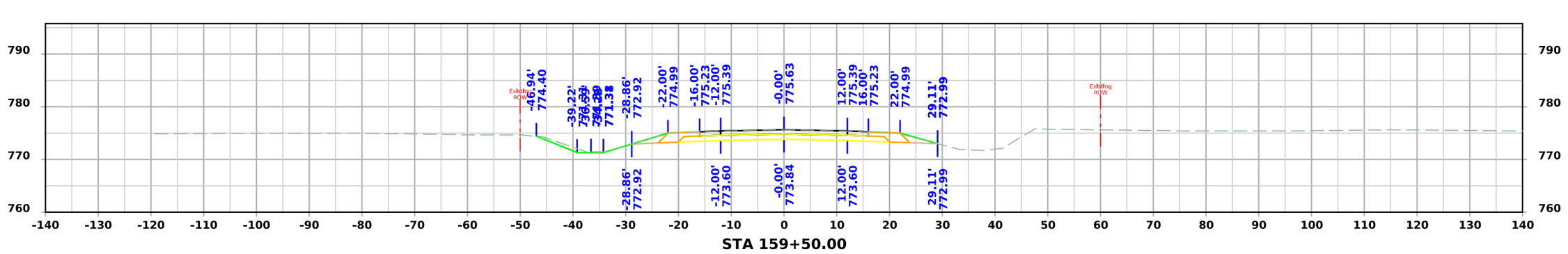


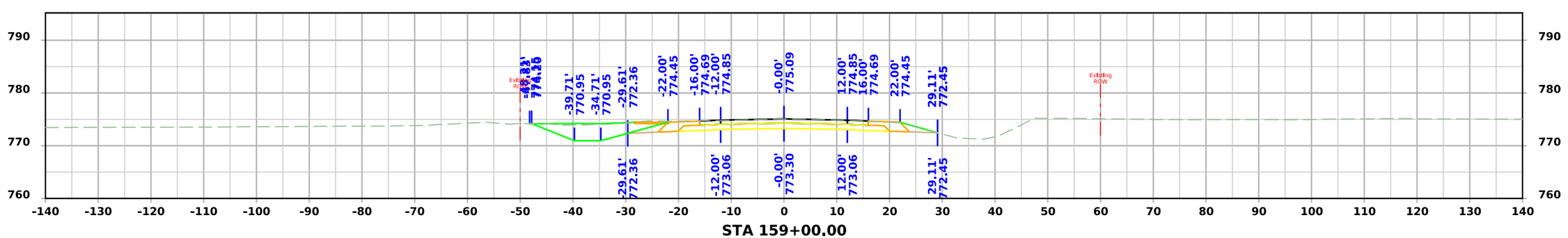


FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.62

2:29:18 PM 4/6/2026 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

ML - IA 21

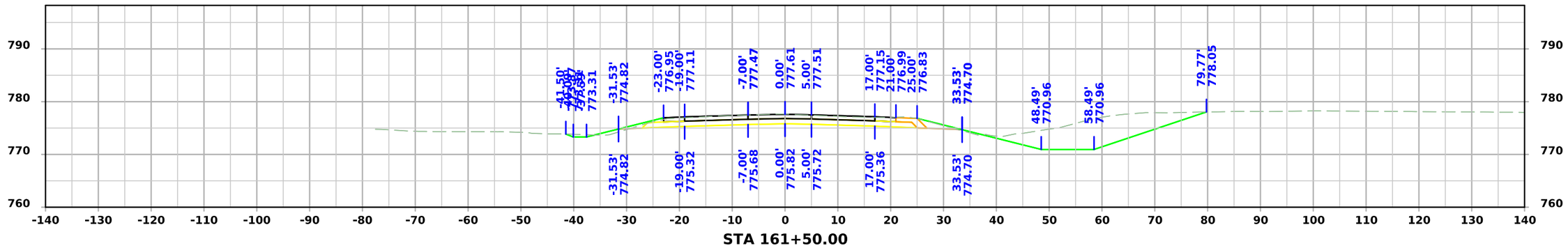

790
780
770
760
-140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140
Existing ROW
-46.94' 774.40
-39.22' 776.59
-34.71' 770.95
-28.86' 772.92
-22.00' 774.99
-16.00' 775.23
-12.00' 775.39
-0.00' 775.63
12.00' 775.39
16.00' 775.23
22.00' 774.99
29.11' 772.99
-28.86' 772.92
-12.00' 773.60
-0.00' 773.84
12.00' 773.60
29.11' 772.99
STA 159+50.00



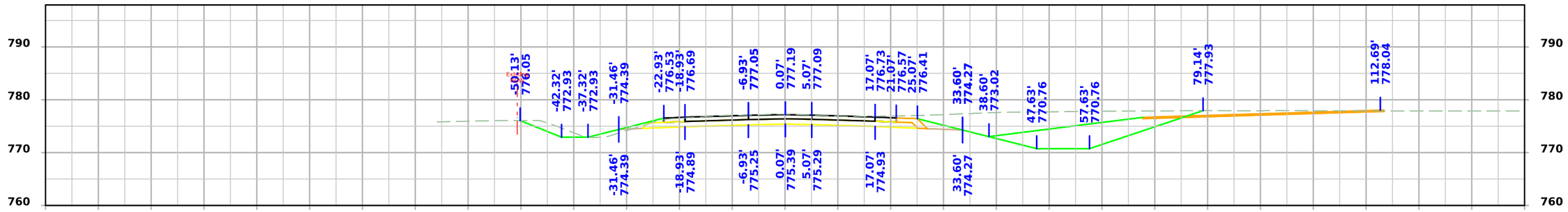
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.63

2:29:19 PM 4/6/2026 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

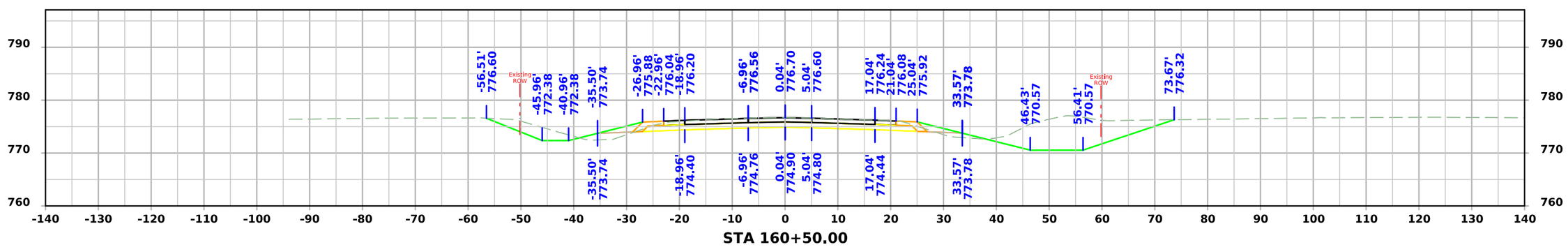
ML - IA 21



STA 161+50.00



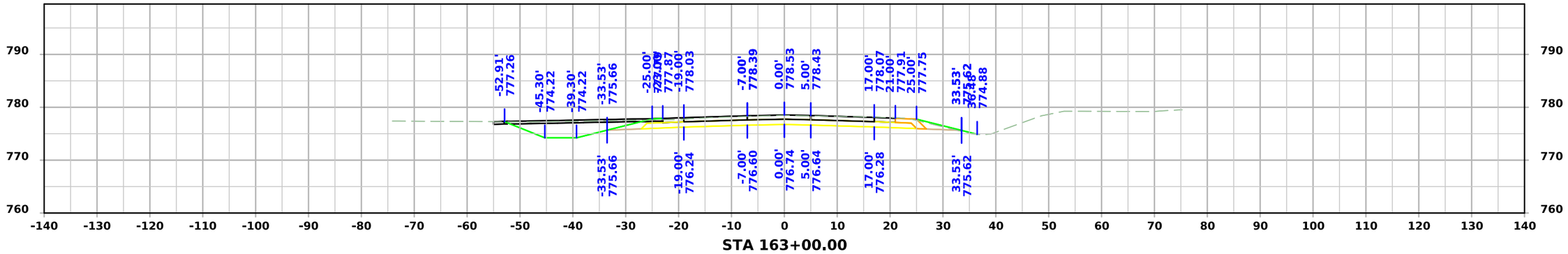
STA 161+00.00



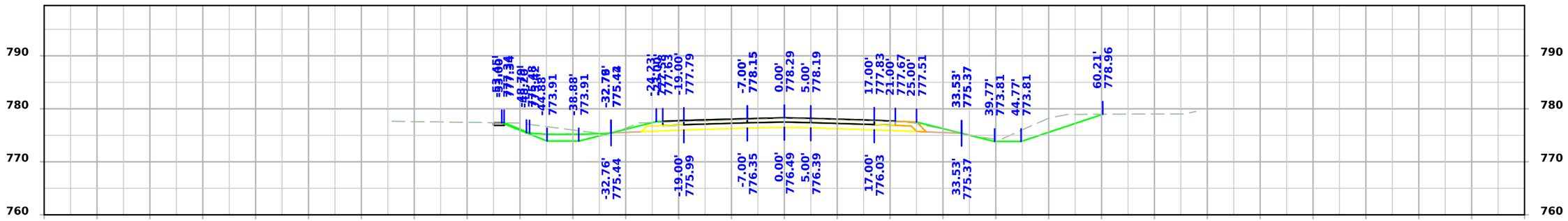
STA 160+50.00

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.64	

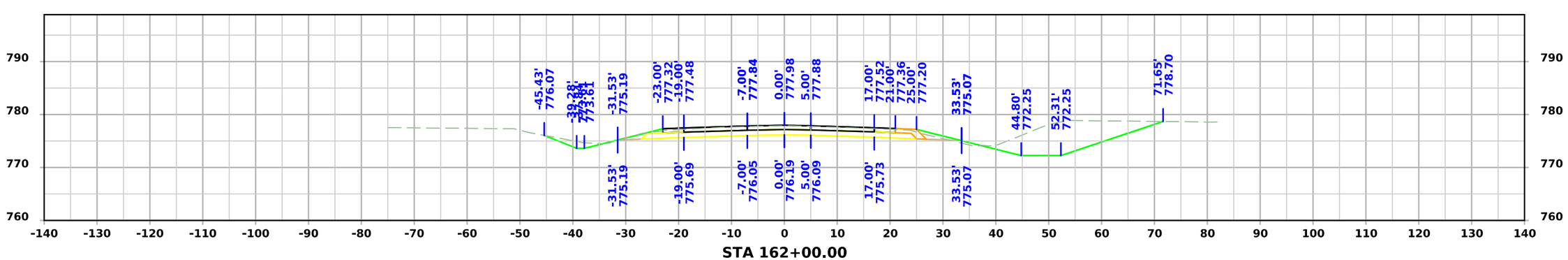
ML - IA 21



STA 163+00.00



STA 162+50.00

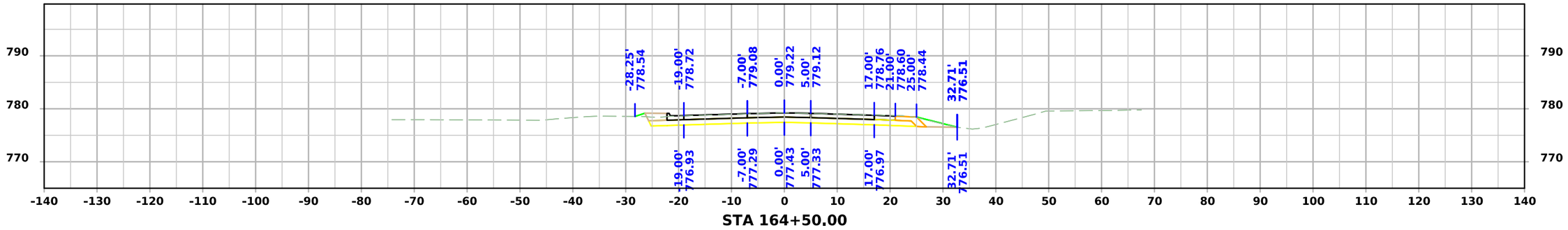


STA 162+00.00

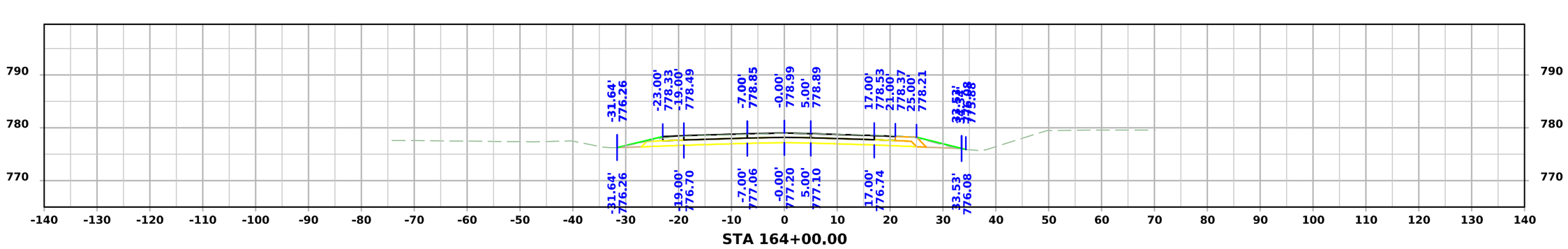
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.65

10:56:25 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

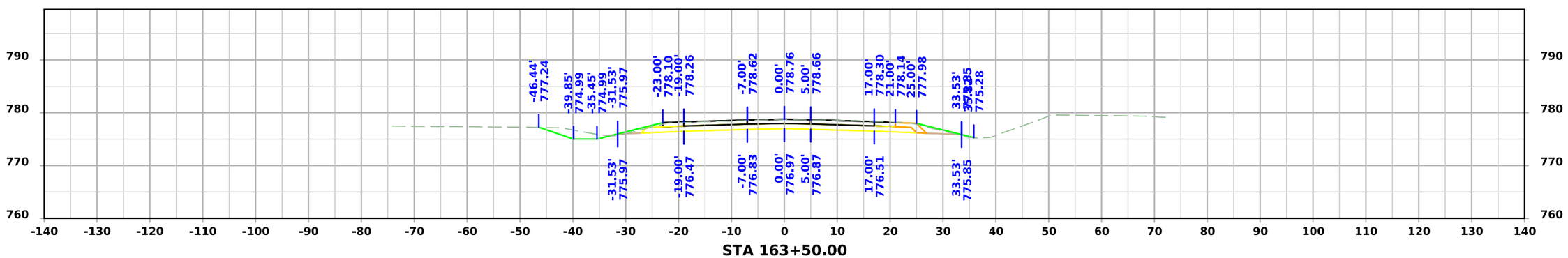
ML - IA 21



STA 164+50.00



STA 164+00.00

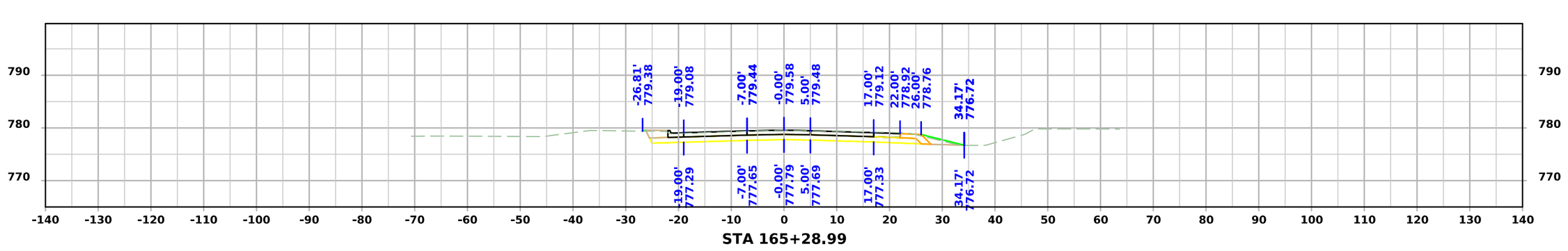


STA 163+50.00

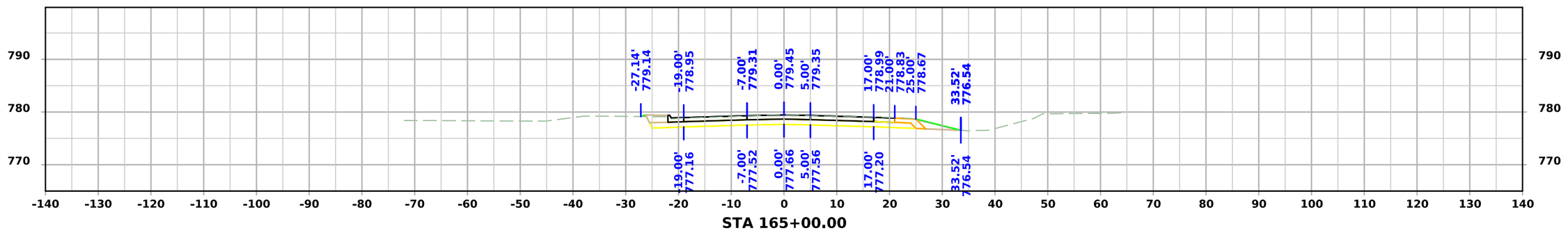
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.66

10:56:26 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

ML - IA 21



STA 165+28.99

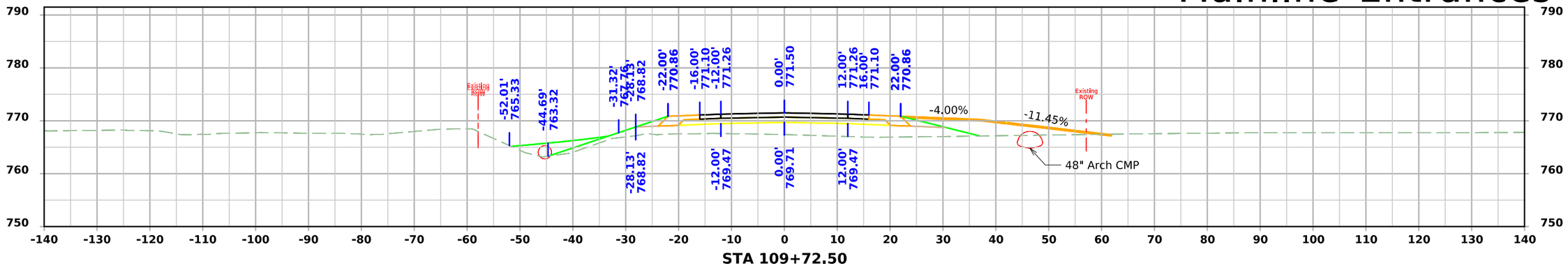


STA 165+00.00

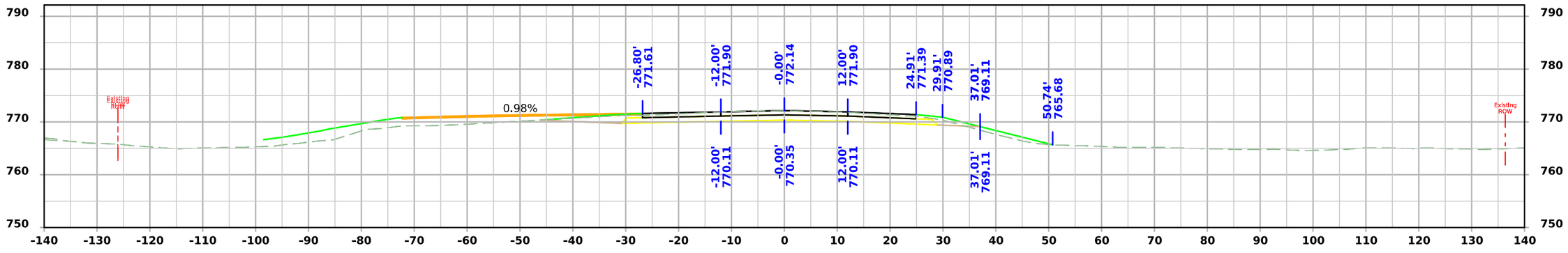
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER W.67

10:56:27 AM 11/13/2025 jevans4 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_W02.dgn

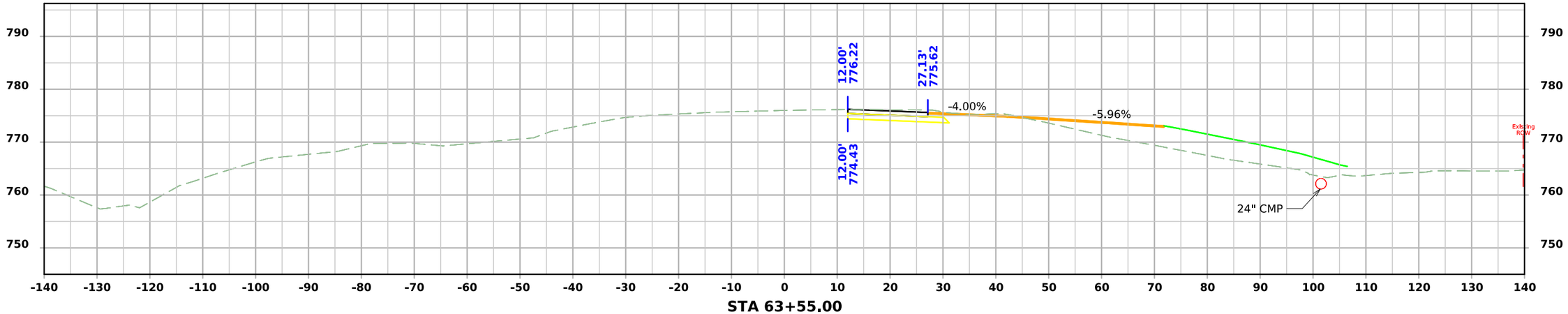
Mainline Entrances



STA 109+72.50



STA 93+90.00

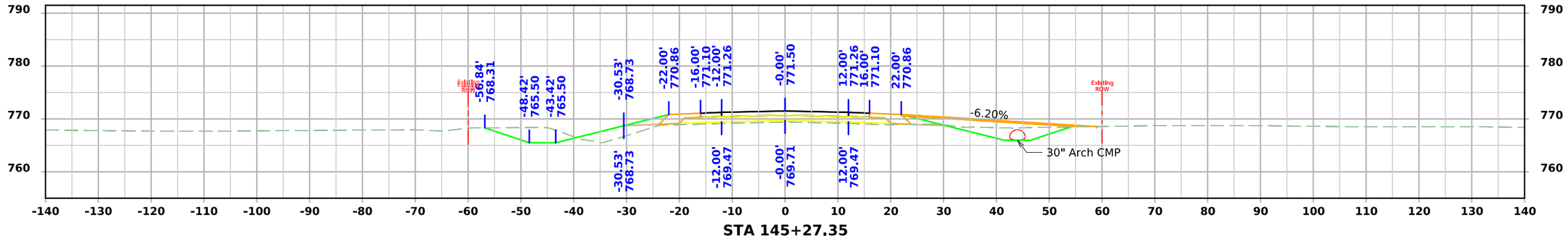


STA 63+55.00

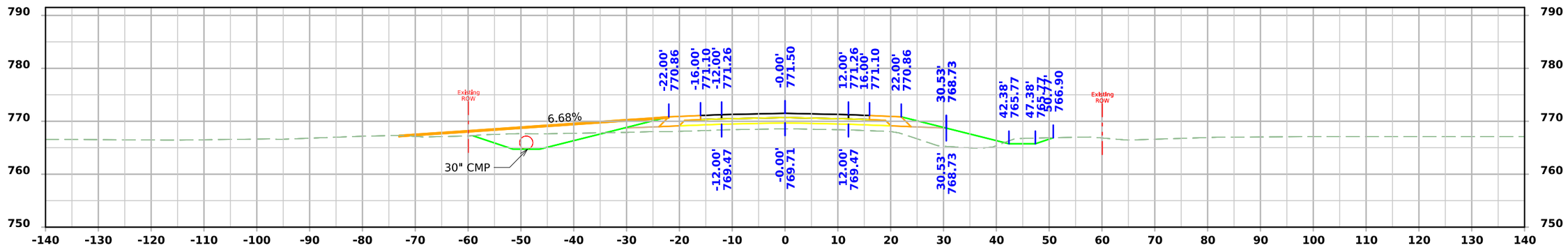
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER X.1

7:30:56 AM 4/7/2026 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_X01.dgn

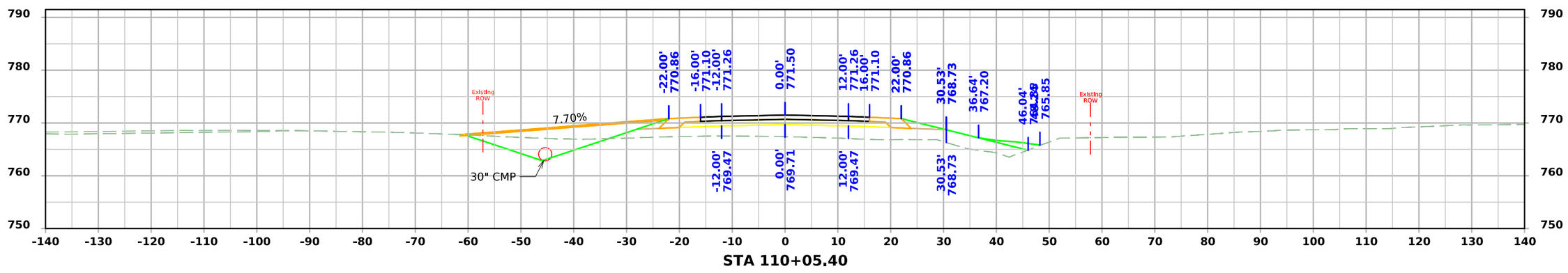
Mainline Entrances



STA 145+27.35



STA 138+61.70

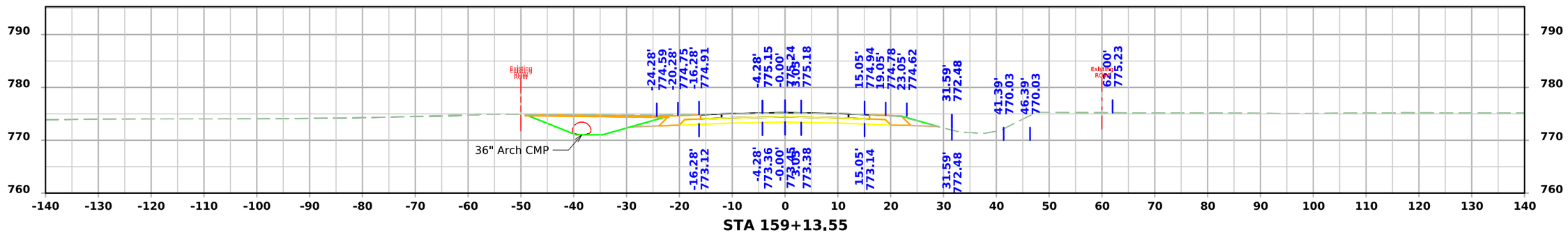


STA 110+05.40

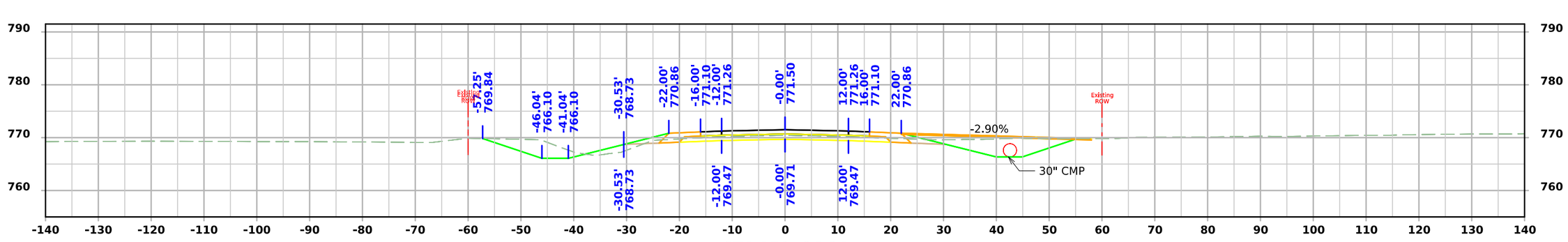
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER X.2

7:30:57 AM 4/7/2026 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_X01.dgn

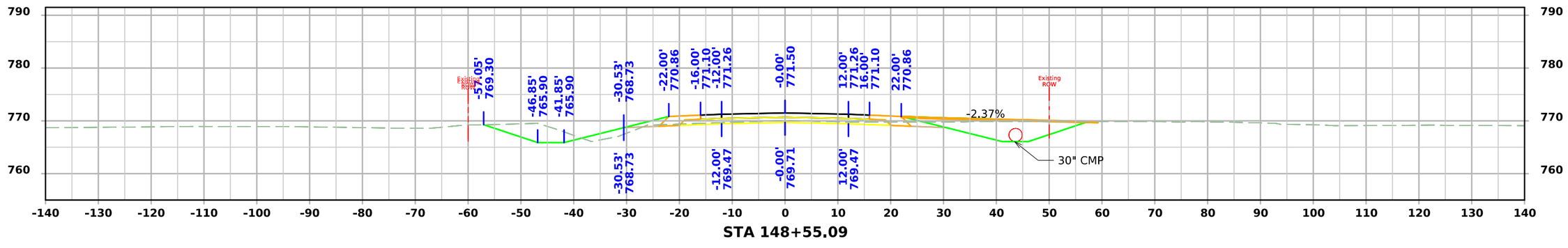
Mainline Entrances



STA 159+13.55



STA 150+24.24

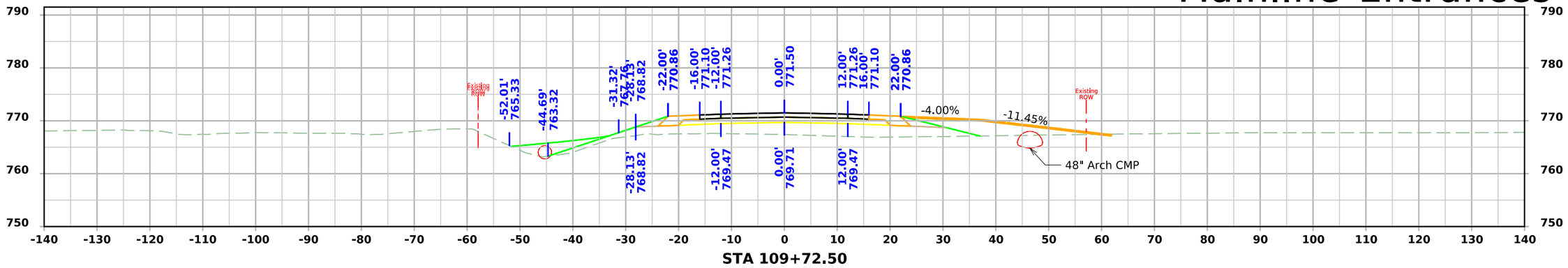


STA 148+55.09

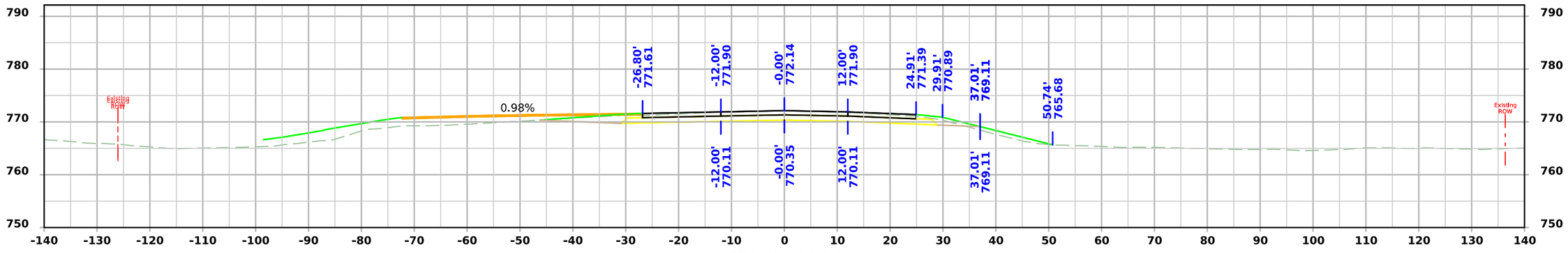
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER X.3

7:30:58 AM 4/7/2026 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_X01.dgn

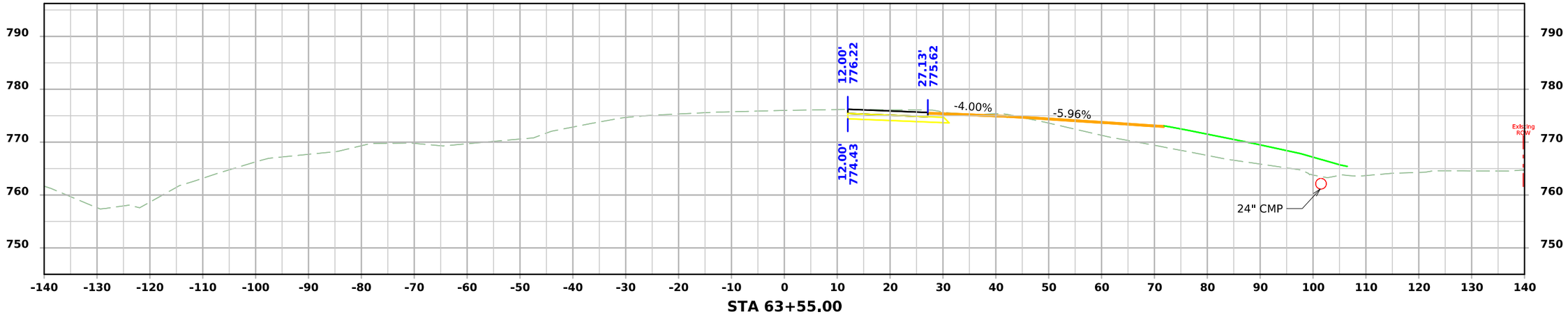
Mainline Entrances



STA 109+72.50



STA 93+90.00

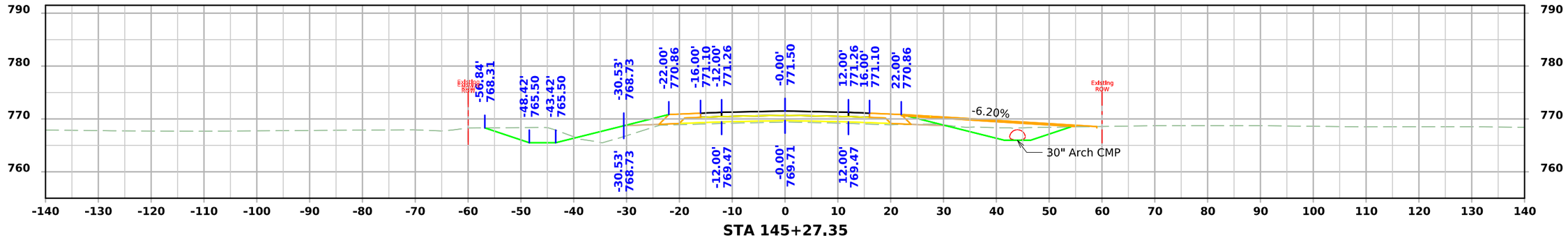


STA 63+55.00

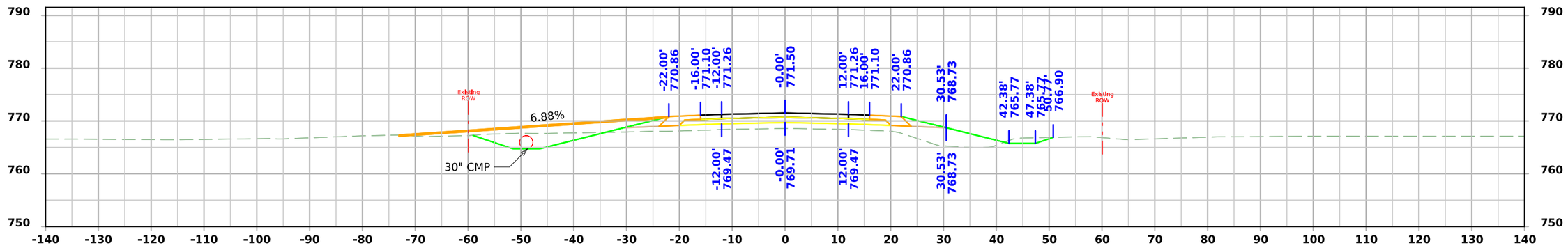
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER X.4	

11:44:06 AM 12/5/2025 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_X01.dgn

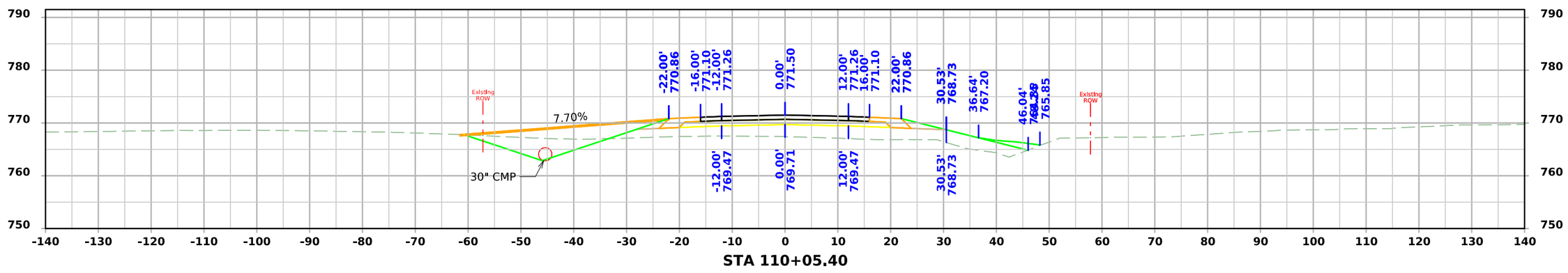
Mainline Entrances



STA 145+27.35



STA 138+61.70

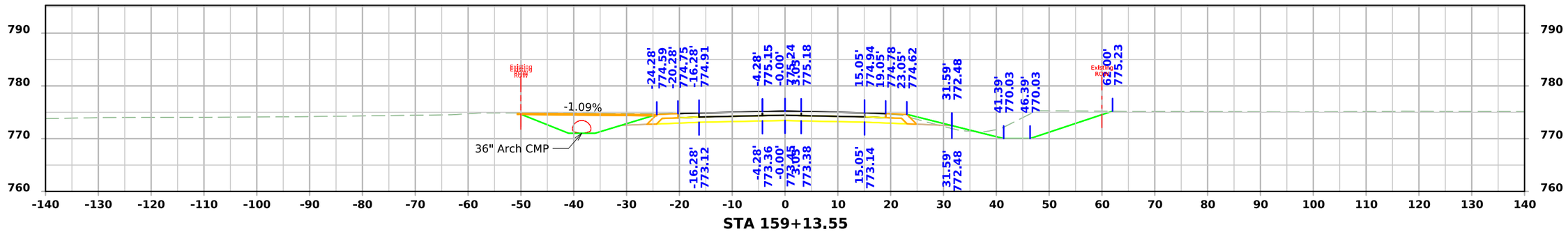


STA 110+05.40

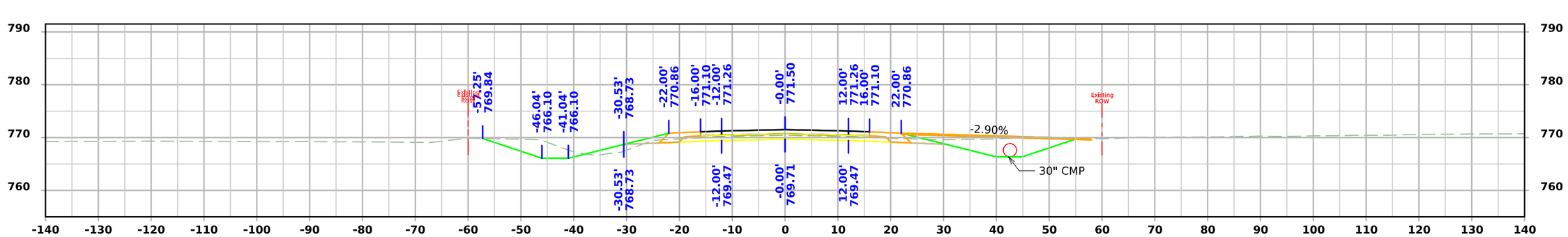
FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER X.5

11:44:07 AM 12/5/2025 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_X01.dgn

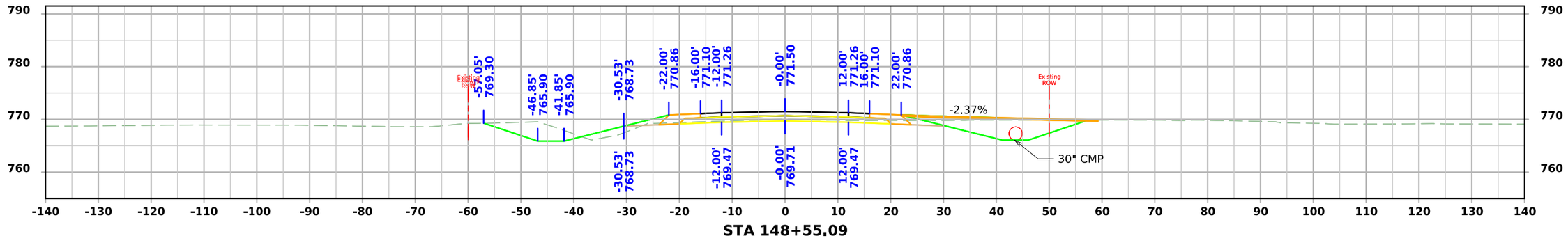
Mainline Entrances



STA 159+13.55



STA 150+24.24

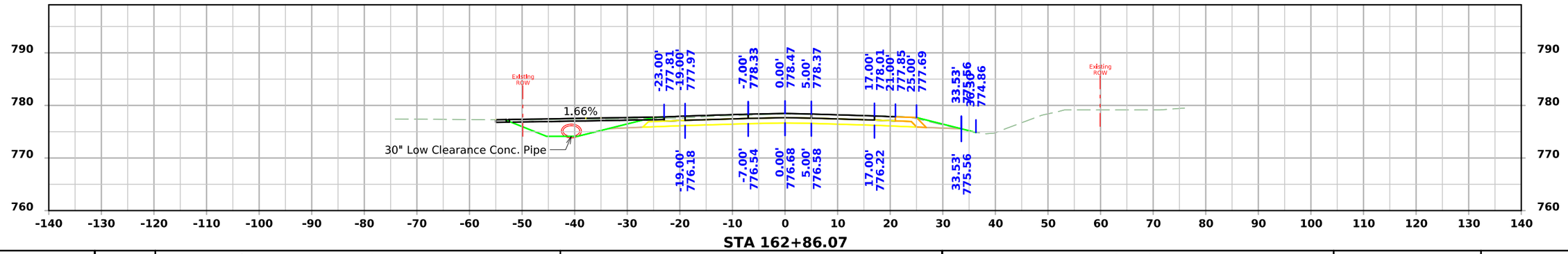


STA 148+55.09

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER X.6

11:44:08 AM 12/5/2025 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_X01.dgn

Mainline Entrances

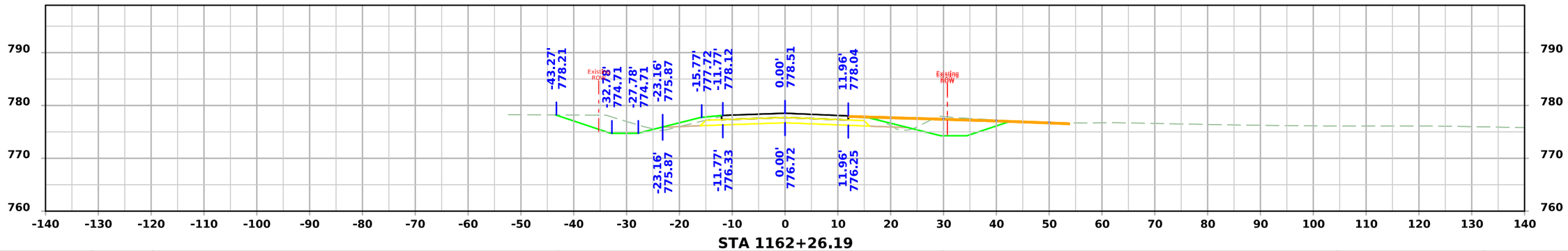


STA 162+86.07

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER X.7

11:44:09 AM 12/5/2025 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_X01.dgn

Side Road Entrances



STA 1162+26.19

FILE NO. 98765	ENGLISH	DESIGN TEAM Miller \ Schoenrock \ Evans \ Hobson	Iowa \ Benton COUNTY	PROJECT NUMBER STP-021-3(018)--2C-48	SHEET NUMBER X.8

11:44:10 AM 12/5/2025 tschoen pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\4802103023\Design\CADD_Files\Sheet_Files\SHT_48021018_X01.dgn