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No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2	Location Map Sheet
B Sheets	Typical Cross Sections and Details
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D Sheets	Mainline Plan and Profile Sheets
D.1	Plan & Profile Legend & Symbol Information Sheet
D.2	US 20
G Sheets	Survey Sheets
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G.2 - 3	Horizontal Control Tab. & Super for all Alignments
J Sheets	Traffic Control and Staging Sheets
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J.2 - 6	Staging Notes Stage
V Sheets	Bridge and Culvert Situation Plans
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W Sheets	Mainline Cross Sections
W.1 - 15	Mainline Cross Sections



PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
Dubuque COUNTY
Bridge Replacement - Steel Girder
 Middle Branch Catfish Cr and CC RR
 0.6 mi E of NW Arterial in Dubuque (WB)

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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



REVISIONS

TOTAL
31
PROJECT IDENTIFICATION NUMBER
19-31-020-030
PROJECT NUMBER
BRF-020-9(261)--38-31
R.O.W. PROJECT NUMBER
NHSN-020-9(262)--2R-31

Schedule:
B1- 01-05-24
D5- 02-06-24
D4- 07-22-25
B3- 09-02-25

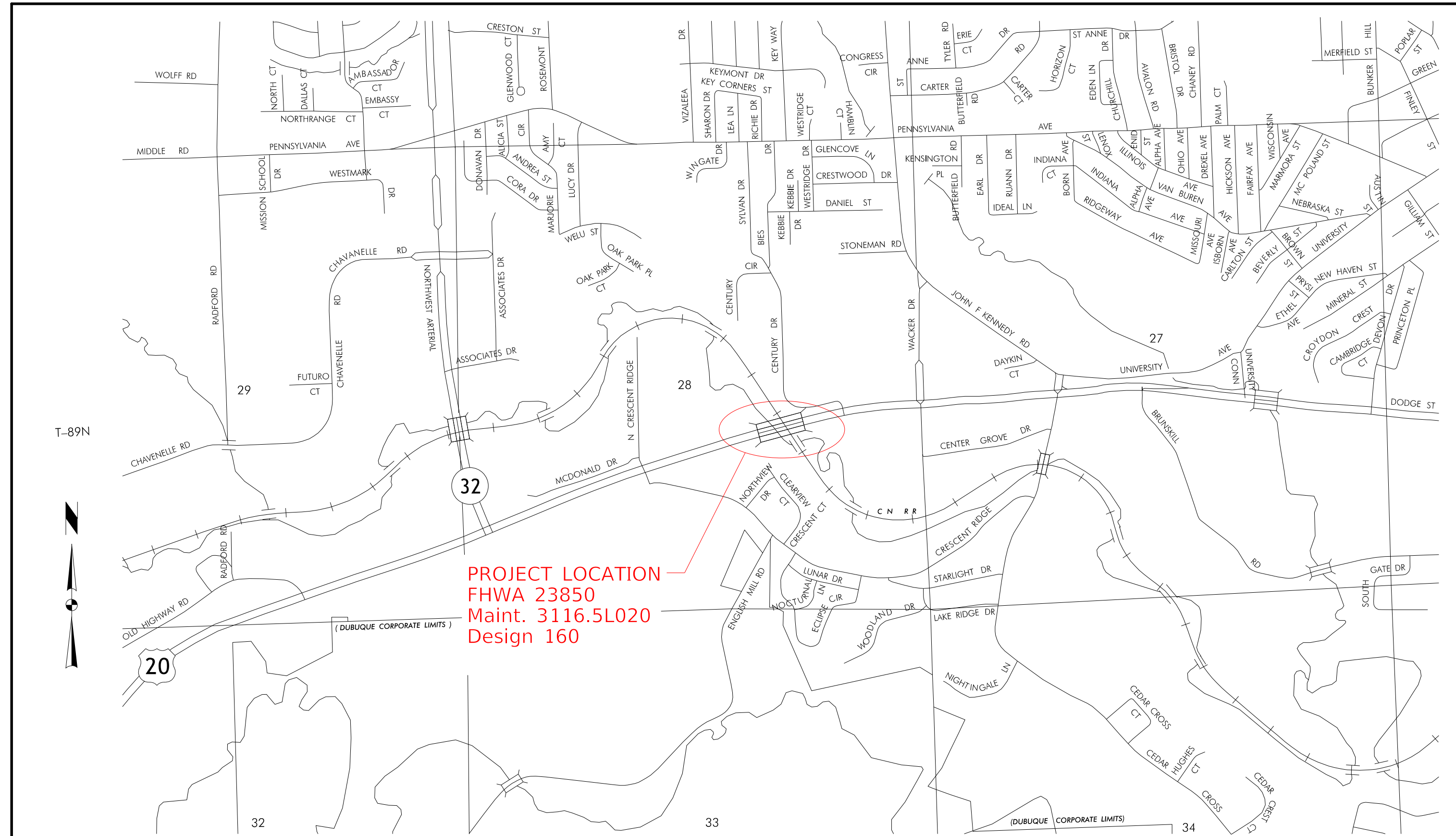
DESIGN DATA RURAL			
2025	AADT	37,200	V.P.D.
2045	AADT	53,100	V.P.D.
20	-- DHV	--	V.P.H.
	TRUCKS	8	%
	Total		
	Design ESALs	--	

INDEX OF SEALS		
SHEET NO.	NAME	TYPE
A.1	X	Primary Signature Block

PRELIMINARY PLANS

Subject to change by final design.

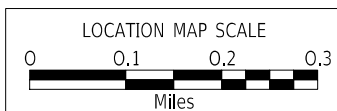
D3 PLAN - Date: 09-29-22



T-89N

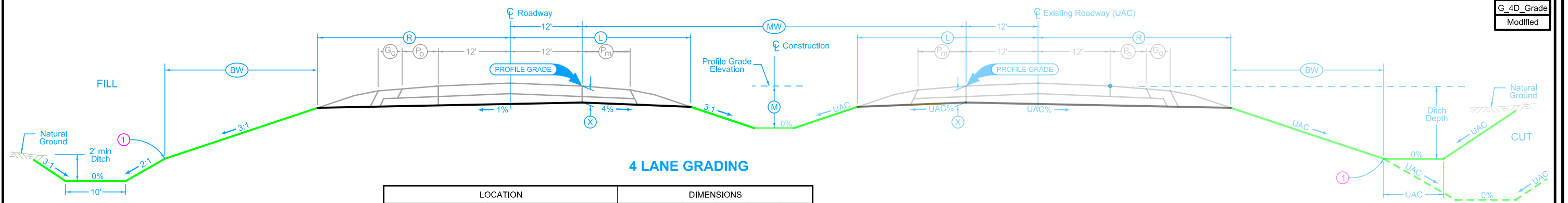


PROJECT LOCATION
FHWA 23850
Maint. 3116.5L020
Design 160



R-2E

City of
DUBUQUE



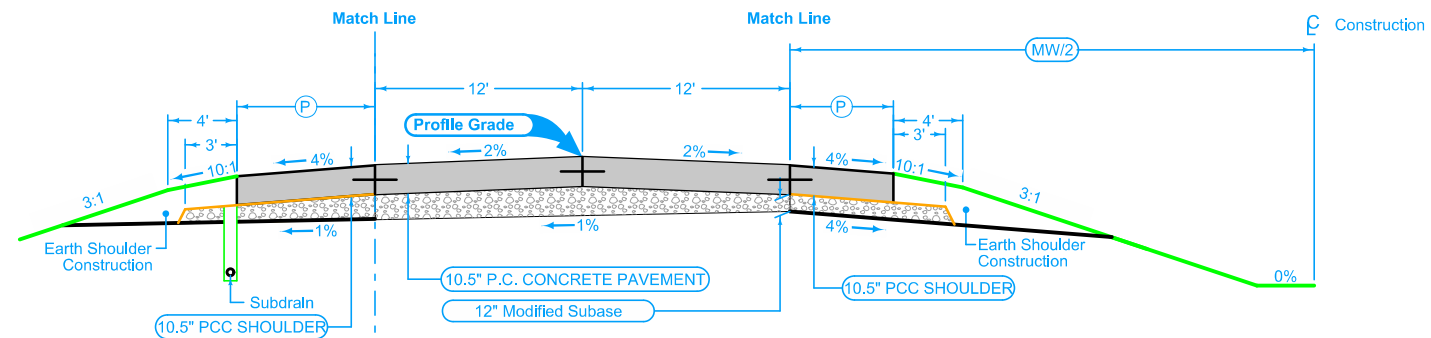
4 LANE GRADING

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.

1 Refer to project plan and cross sections for specific location of foreslope change.

LOCATION		DIMENSIONS					
ROAD IDENTIFICATION	STATION TO STATION	L Feet	R Feet	X Inches	BW Feet	MW Feet	M Feet
US 20	22+00 33+00	35.8	31.8	22.5	--	50	UAC



Section shown in the direction of traffic.

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

Full Depth PCC Shoulder

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

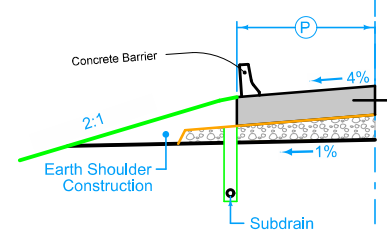
4_P_FullPCC_04-21-20			
Direction of Travel	BEGIN STATION	END STATION	(P) Feet
WB	28+40	33+00	10

Full Depth PCC Shoulder

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

4_P_FullPCC_04-21-20			
Direction of Travel	BEGIN STATION	END STATION	(P) Feet
WB	22+00	33+00	6

4DP_04-21-20			
Direction of Travel	BEGIN STATION	END STATION	(MW) Feet
WB	22+00	33+00	50



Full Depth PCC Shoulder With Concrete Barrier

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

4_P_FullPCC_04-21-20			
Direction of Travel	BEGIN STATION	END STATION	(P) Feet
WB	22+00	23+60	11.6
WB	27+90	28+40	11.6

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

US 20 PCC PAVING

SURVEY SYMBOLS

<ul style="list-style-type: none"> ● AST, Above Ground Storage Tank ○ BB, Billboard ○ BBB, Bottom of Bridge Beam ○ BCL, Bridge Centerline ○ BD, Bridge Deck ○ BIN, Grain Bin ○ BL, Topo Breakline ○ BLD, Building or Foundation ○ BLS, Bridge Low Steel ○ BM, Bench Mark ○ BNK, Stream Bank ○ BRG, Bridge ○ C, Centerline BL of Road -ML or SR ○ CAV, Cave ○ CEL, Cell Phone Tower ○ CIS, Cistern ○ CON, Concrete or A/C Slab ○ CP, Control Point ○ CRP, Corporation Line ○ CS, Curve Point ○ CU, Back of Curb ○ CUL, Culvert ○ D, Centerline Draw or Stream -Down ○ DAB, Drainage Area Boundary ○ DIK, Centerline of Dike or Dam ○ DTM, Photogrammetry Elv Control Check ○ DU, Centerline Draw or Stream -Up ○ EB, Electrical Box ○ EG, Edge of Gravel Road ○ ENP, Edge Paved Entrance and Park Lot ○ ENT, Centerline BL of Entrance ○ ENU, Edge Unpaved Entrance and Parking ○ EP, Edge of Paved Roads -ML or SR ○ EW, Edge of Water ○ FCL, Chain Link and Security Fence ○ FENO, FENO Monument ○ FHD, Fire Hydrants ○ FLG, Flag Poles ○ FP, Filler Pipe ○ FW, Wire Fence ○ FWD, Wood Fence ○ GDC, Guard Rail Cable ○ GDL, Guard Rail Steel ○ GP, Guard Post -Less Than 4 Posts ○ GPR, Guard Post -4 or More Posts ○ GR, Ground Shot ○ GRV, Grave ○ GU, Gutter In Front of Curb ○ GV, Gas Valve ○ HDG, Hedge Row ○ HS, Hydric Soil -Wetlands ○ HT, Electrical Highline Tower ○ IN, Storm Sewer Intake ○ INB, Storm Sewer Beehive Intake ○ LC, Lot Corner ○ LIN, Miscellaneous Line ○ LP, L.P. Tank ○ LUM, Luminaire ○ MH, Utility Access -Manhole ○ MIS, Miscellaneous ○ MM, Mile Marker Post ○ OUT, Tile Outlet ○ PC, Curve Point ○ PCP, Photo Control Point ○ PCT, Photo Control Target ○ PI, Tangent Point ○ PIP, Pipe Culvert ○ PL, Location of Photo -Wetlands ○ PLG, Location of General Photo ○ POC, Curve Point ○ POST, Spiral Point 	<ul style="list-style-type: none"> ○ PRO, Profile Shot ○ PT, Curve Point ○ REF, Reference Tie Point ○ RET, Retaining Walls ○ RIP, Rip-Rap ○ ROC, Rock Outcropping ○ ROW, Right of Way Mark ○ RR, Centerline of Railroad Tracks ○ RRB, Railroad Signal Box ○ RRF, Railroad Frog ○ RRR, Railroad Rail ○ RRS, Railroad Signal ○ RRW, Railroad Switch ○ RT, Radio Tower ○ S, Soil Sampling Site -Wetlands ○ SBR, Size of Bridge ○ SC, Spiral Point ○ SCR, Section Corner ○ SEP, Septic Tank ○ SF, Silt Fence -Wetlands ○ SG, Staff Gauge -Wetlands ○ SH, Paved Shoulder ○ SHR, Shrub ○ SI, Sign ○ SL, Speed Limit Sign ○ SLN, Section Line ○ SLO, Silo ○ SNK, Sink Hole ○ SNP, Unpaved Shoulder ○ SP, Stream Profile ○ STP, Stump ○ SWK, Sidewalk ○ SWP, Swamp or Marsh ○ TA, Tower Anchor ○ TBO, Telephone Booth ○ TCB, Traffic Signal Booth ○ TDC, Tree Deciduous ○ TDL, Traffic Detection Loop ○ TER, Terrace ○ TEV, Evergreen Tree ○ TFR, Tree Fruit ○ TGP, Telegraph Pole ○ TIL, Tile Line ○ TLNL, Tree Line Left ○ TLNR, Tree Line Right ○ TOP, Top of Bridge Pier ○ TPA, Telephone Pole Co. 1 ○ TPB, Telephone Pole Co. 2 ○ TPC, Telephone Pole Co. 3 ○ TR, Telephone Riser Pole ○ TRL, Trail ○ TS, Spiral Point ○ TSB, Telephone Switch Box ○ TSG, Traffic Signal ○ TSL, Traffic Signal and Luminare ○ TV, Satellite TV Dish ○ TVP, TV Pedestal ○ TW, Top of Water ○ UB, Utility Box ○ UE, Utility Elevation ○ UPH, Utility Pot Hole - Quality A ○ UST, Underground Tank ○ UV, Underground Utility Vault ○ VS, Channel Cross Section ○ WC, Wild Card -Misc. Field Shot ○ WEL, Well ○ WHD, Water Hydrant ○ WHU, RV Water Hook Up ○ WM, Wind Mill ○ WND, Wind Turbine ○ WV, Water Valve
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UTILITY LEGEND

— E1 —	Electric Line Alliant
— F0(B) —	Fiber Optic Central Scott
— F0(C) —	Fiber Optic ICN
— F0 —	Fiber Optic ComElec
— F02 —	Fiber Optic City of Dubuque
— F03 —	Fiber Optic IMON Fiber
— SAN, (C) —	Sanitary Sewer City of Dubuque
— ST S2(C) —	Storm Sewer Iowa DOT

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

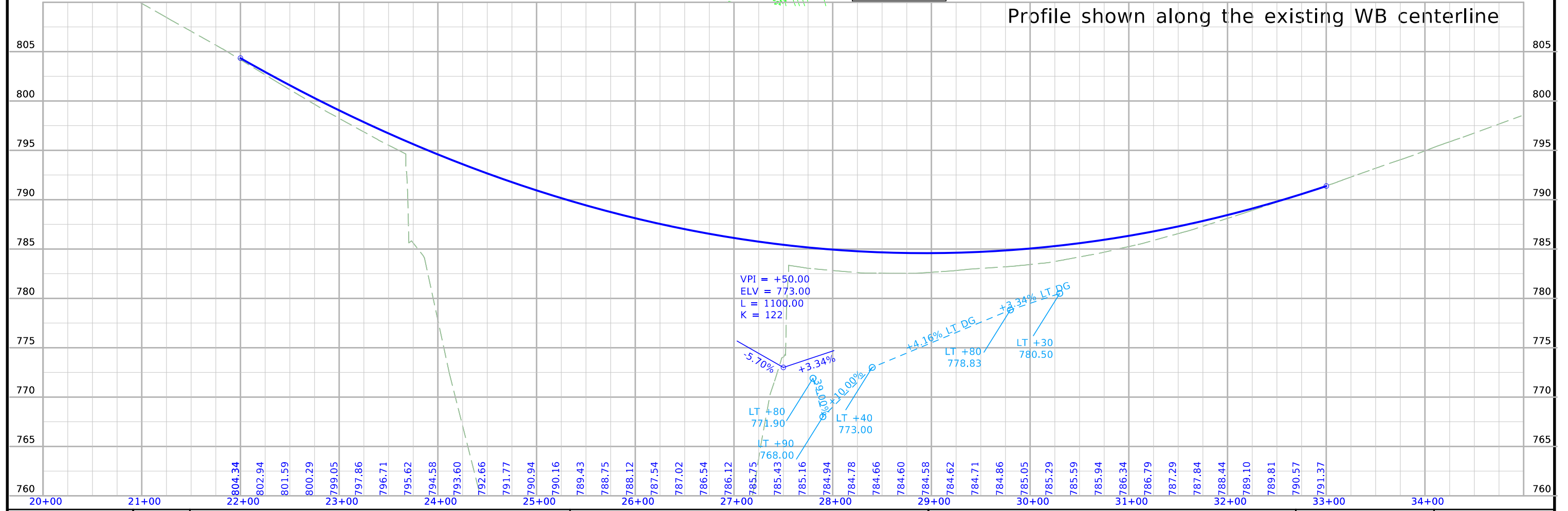
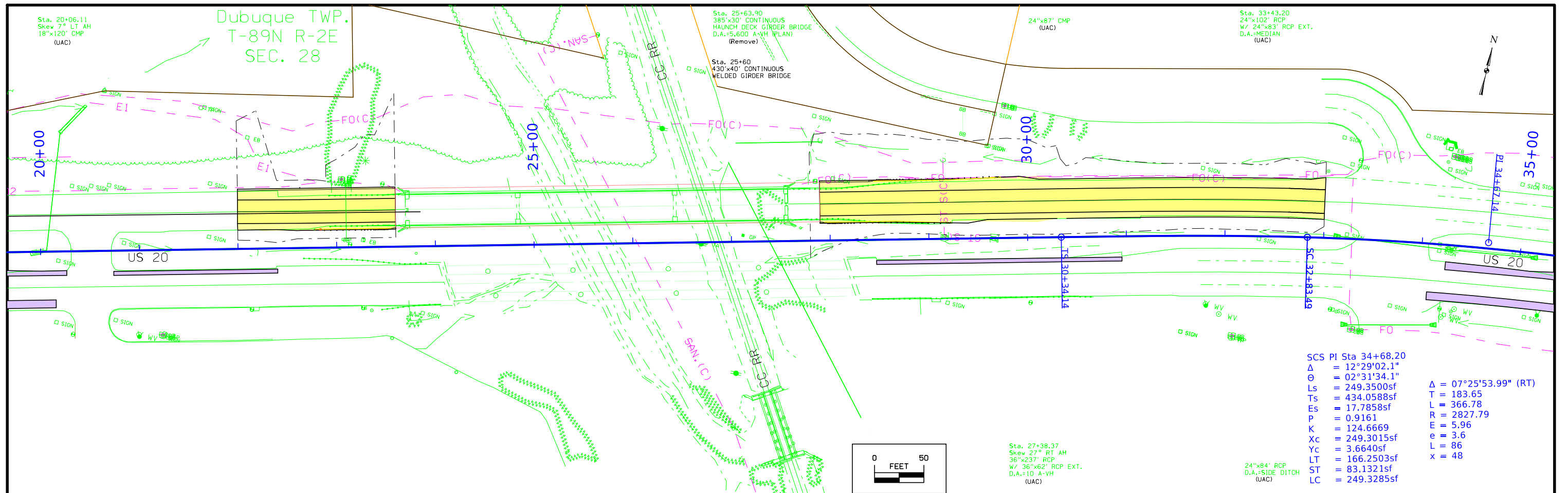
LINEWORK	Design Color No.	
Green	(10)	Existing Ground Line Profile
Blue	(1)	Proposed Profile and Annotation
Magenta	(5)	Existing Utilities
Blue, Light	(230)	Proposed Ditch Grades, Left
Black	(0)	Proposed Ditch Grades, Median
Rust	(14)	Proposed Ditch Grades, Right

Symbol	Description
○	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

Symbol	Description
▲	Proposed Right-of-Way
△	Existing Right of Way
▲△	Existing and Proposed Right-of-Way
▲△	Easement and Existing Right-of-Way
○	Easement (Temporary)
●	Easement
C/A	Access Control
— — —	Property Line

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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



Survey Information

SURVEY INDEX

County: Dubuque
PIN: 19-31-020-030

Project Number: BRF-020-9(261)--38-31

**Location: HWY-20 over Middle Branch Catfish Creek and CC RR,
approximately 0.5 miles East of NW Arterial to Wacker Drive**

Type of Work: Bridge - Unspecified
Project Directory: 3102003019

Survey Personnel

Jeremy Leemon	Survey Project Manager
Chris Ries	Assistant Survey Project Manager
CJ Beckman	Instrument
Jacob Powers	Instrument

Date(s) of Survey

Begin Date	02/8/2022
End Date	04/30/2022

General Information

Measurement units for this survey are US survey feet. This is a Partial DTM survey for US Hwy 20 Bridge Replacement over Catfish Creek at locations 570 feet E of the intersection at N Crescent Ridge and Dodge St to the intersection of Wacker Drive and Dodge Street. Approximately 2,700 feet long.

Project Control

A calibration was performed utilizing the Dubuque GIS network system. 6 Dubuque County monuments encompassing the project were observed for 3 minute observations. The monuments were converted from Iowa North Zone to the Iowa Regional Coordinate Zone system 11 utilizing Trimble Business Center. The Horizontal Scale Factor is: 0.9999927547. Additional control was established from the calibration along the site. For additional details of the control survey, contact the Preliminary Survey department.

PROJECT DATUM: NAD83(2011) EPOCH 2010.00
VERTICAL DATUM: NAVD88 – GEOID MODEL 18
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 11

Alignments Information

The horizontal alignment for this survey is a retrace of As-Built Grading & Paving Plans STP-A-20-9(165)—22-31. Survey stationing was equated to the plan ST at STA 38+99.62 at point #4003, Found ½" Rebar 6" Deep, and run back and forward without equation to the throughout the survey.

Survey stationing relates to As-built plan stationing as follows:

POT Sta. 15+00.00 Plan
= Survey POT Sta. 15+00.00

PC Sta. 50+13.66 Plan
= Survey POT Sta. 50+13.19

Utility Information

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

CONTROL POINT VICINITY MAP

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



HORIZ. DATUM: NAD83(2011) EPOCH 2010.00 - Ia. RCS Zone 11

VERT. DATUM: NAVD88 - Geoid Model 18

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

HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING

HORIZ. DATUM: NAD83(2011) EPOCH 2010.00
 la. Regional Coordinate System Zone 11

VERT. DATUM: NAVD88
 Geoid Model 18
 Project Control Marks are Bench Marks

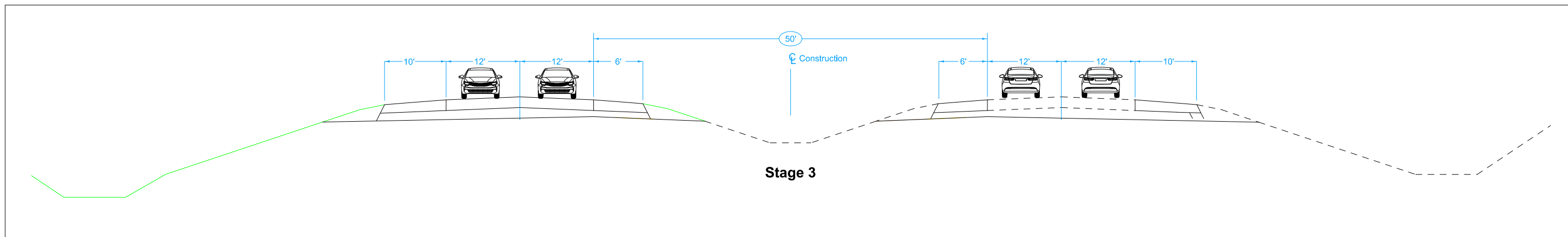
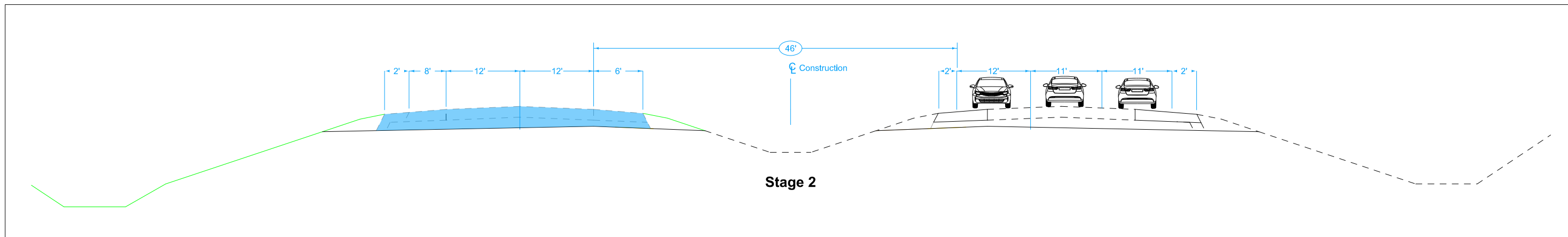
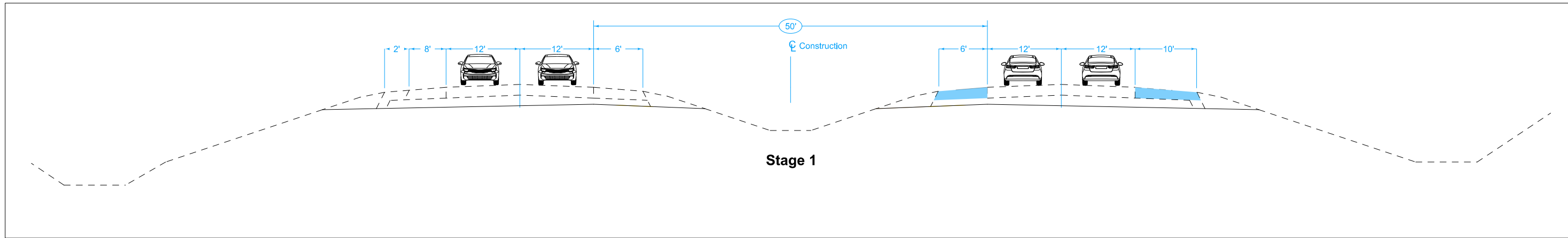
Point Name	Northing	Easting	Elevation	Feature Definition-Description
100	8417226.426	21448583.759	826.097	SET 5/8" REBAR 6" DEEP IN ISLAND ON SOUTH END OF KENNEDY MALL PARKING LOT
101	8416847.436	21448057.913	781.039	SET T-BAR IN HWY 20 MEDIAN, EAST END OF BRIDGES
102	8416732.486	21447684.990	791.743	SET T-BAR IN HWY 20 MEDIAN, WEST END OF BRIDGES
104	8416538.949	21446836.538	842.106	SET T-BAR IN HWY 20 MEDIAN, AT INTERSECTION W/ OAK GROVE DR.

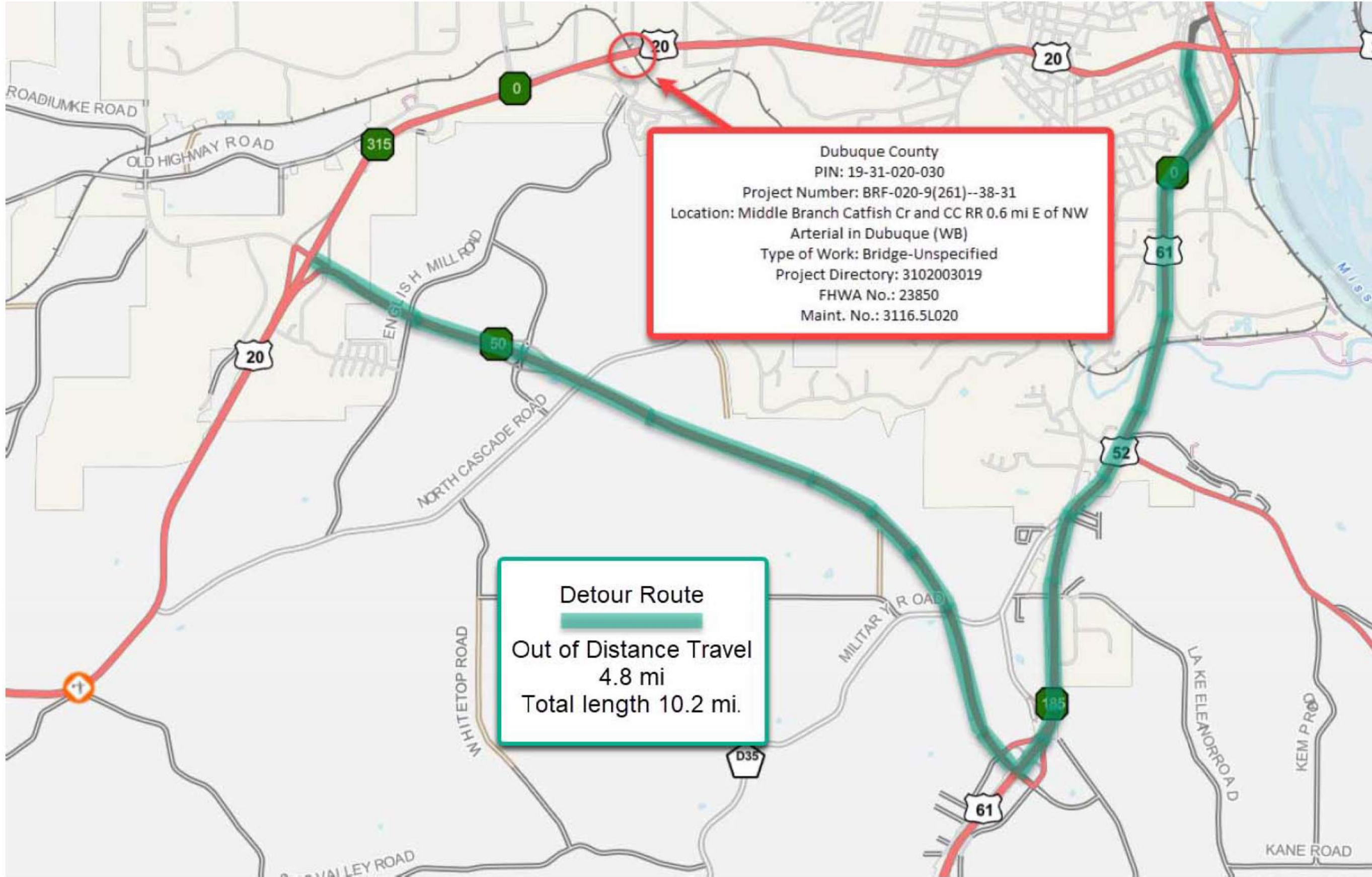
511 TRAVEL RESTRICTIONS

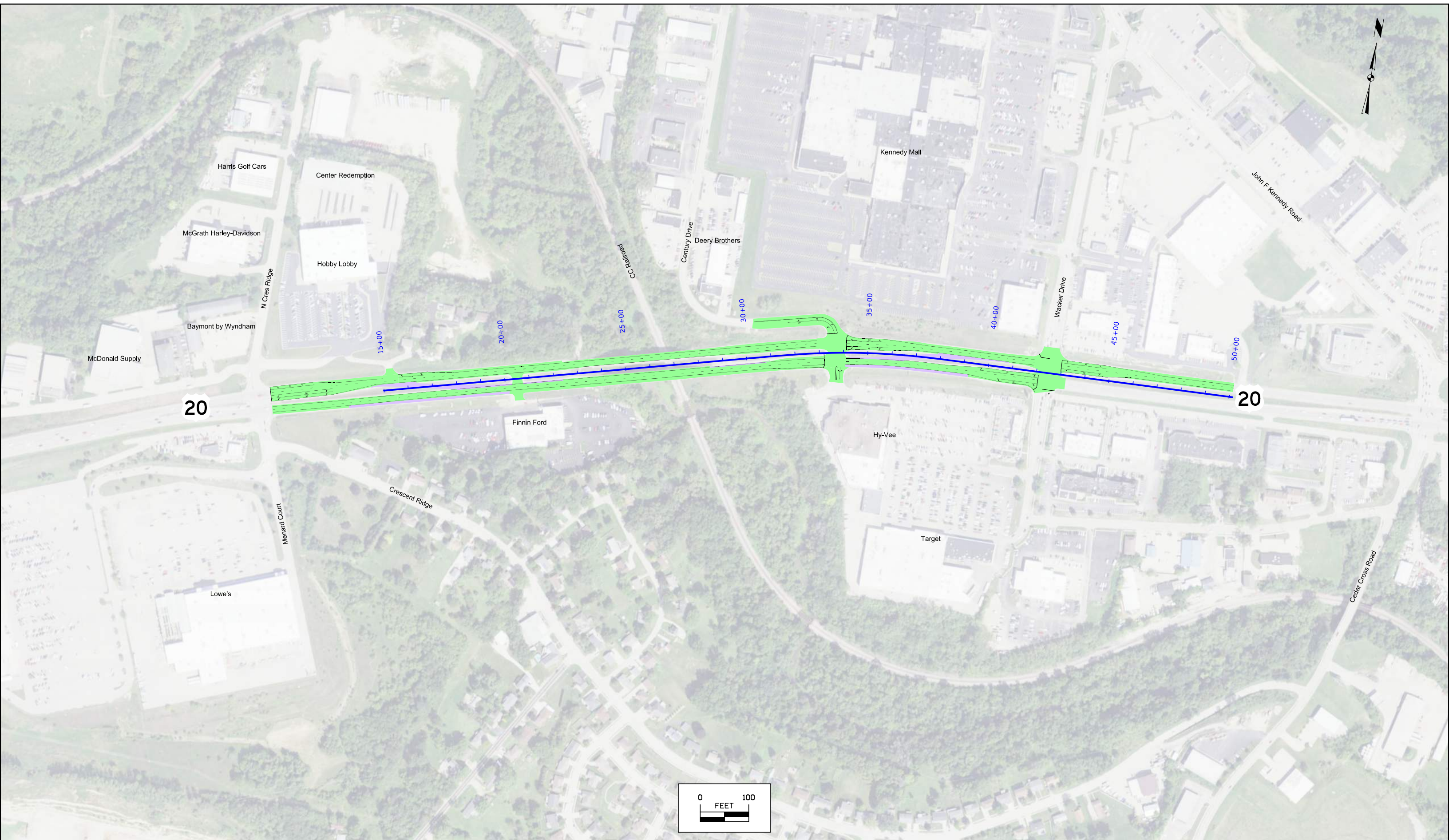
Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
			None anticipated									

TRAFFIC CONTROL PLAN	108-23A 08-01-08
<p>US 20 Route will remain open to traffic for the duration of the project.</p> <p>Century Drive Route will remain open to right-in-right-out traffic.</p> <p>Finnin Ford Route will remain open to right-in-right-out traffic.</p> <p>Second Entrance to Housing Development and Hobby Lobby Entrance will be closed to traffic for the duration of the project.</p>	

STAGING NOTES	108-26A 08-01-08
<p>Stage 1 Construct crossovers on the east and west sides of the project, and preform shoulder strengthening. *****</p> <p>Stage 2 Place traffic on EB lanes for two 11 ft EB lanes and one 12 ft WB lane. Reconstruct bridge and pavement. *****</p> <p>Stage 3 Place WB traffic on new WB lanes. Reopen EB to two lanes of traffic.</p>	







20

20

Harris Golf Cars

Center Redemption

McGrath Harley-Davidson

Hobby Lobby

Baymont by Wyndham

McDonald Supply

N Cres Ridge

15+00

20+00

25+00

Century Dr

Century Drive

Deery Brothers

30+00

35+00

40+00

Wacker Drive

45+00

50+00

John F Kennedy Road

Finnin Ford

Hy-Vee

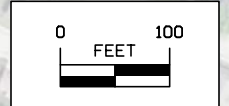
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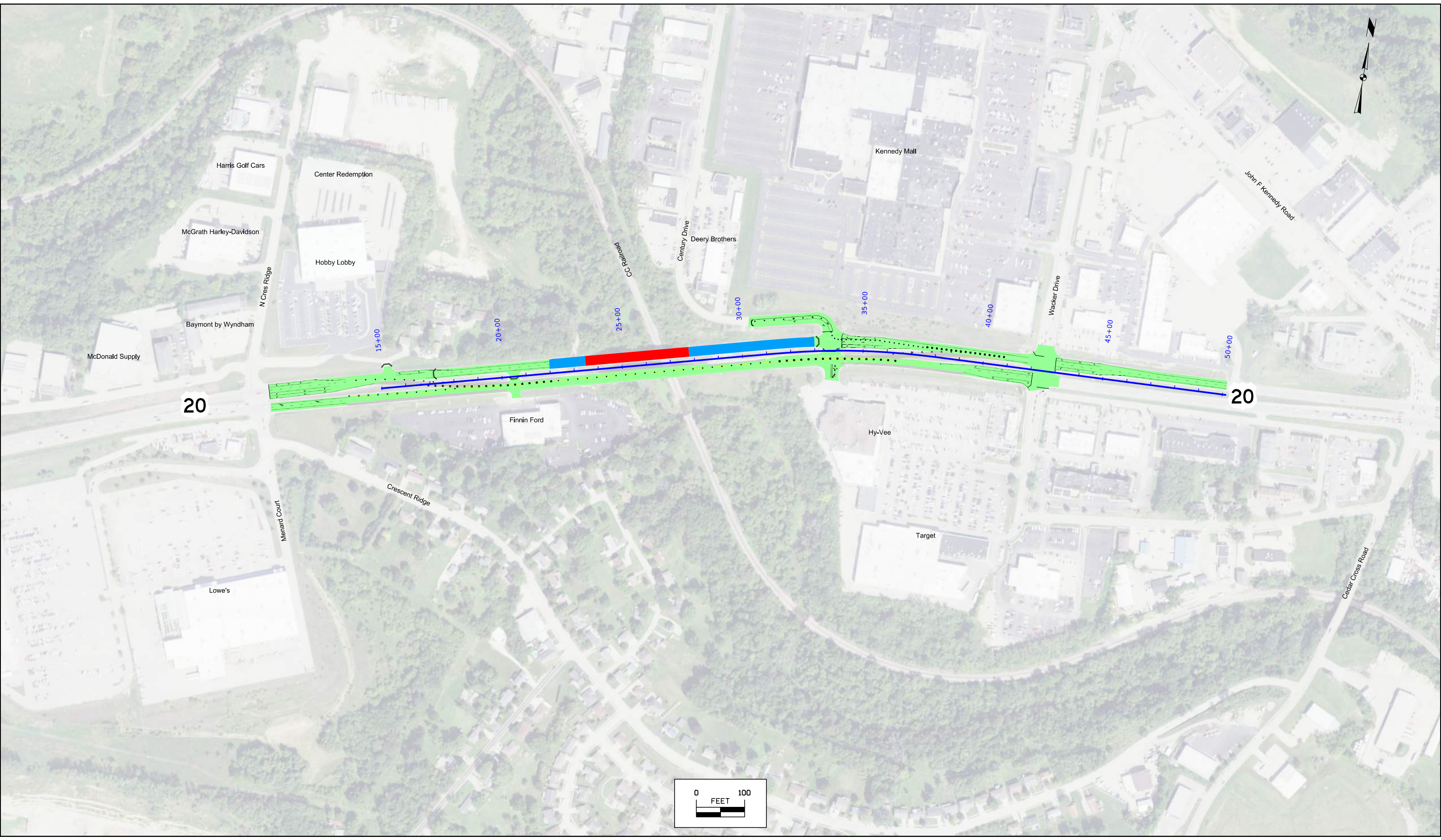
Lowe's

Memard Court

Crescent Ridge

Cedar Cross Road





20

20

Harris Golf Cars

Center Redemption

McGrath Harley-Davidson

Hobby Lobby

Baymont by Wyndham

McDonald Supply

N Cres Ridge

15+00

20+00

25+00

Century Drive

30+00

Deery Brothers

35+00

Kennedy Mall

40+00

Wacker Drive

45+00

John F Kennedy Road

50+00

Finnin Ford

Crescent Ridge

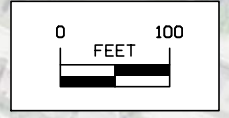
Memard Court

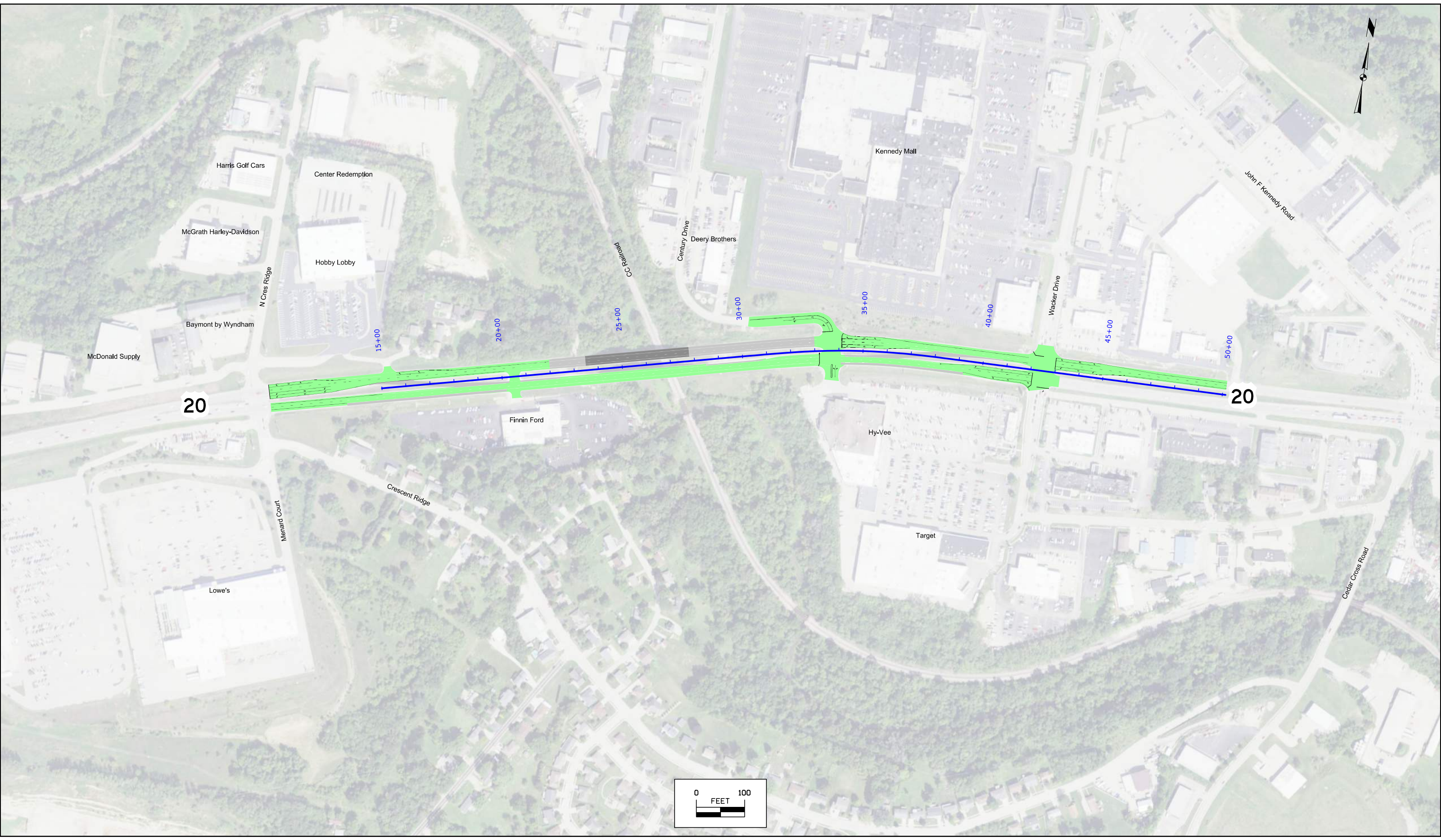
Lowe's

Hy-Vee

Target

Cedar Cross Road





20

20

Harris Golf Cars

Center Redemption

McGrath Harley-Davidson

Hobby Lobby

Baymont by Wyndham

McDonald Supply

Kennedy Mall

Deery Brothers

John F Kennedy Road

N Cres Ridge

Century Drive

Wacker Drive

15+00

20+00

25+00

30+00

35+00

40+00

45+00

50+00

Finnin Ford

Hy-Vee

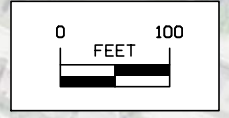
Target

Lowe's

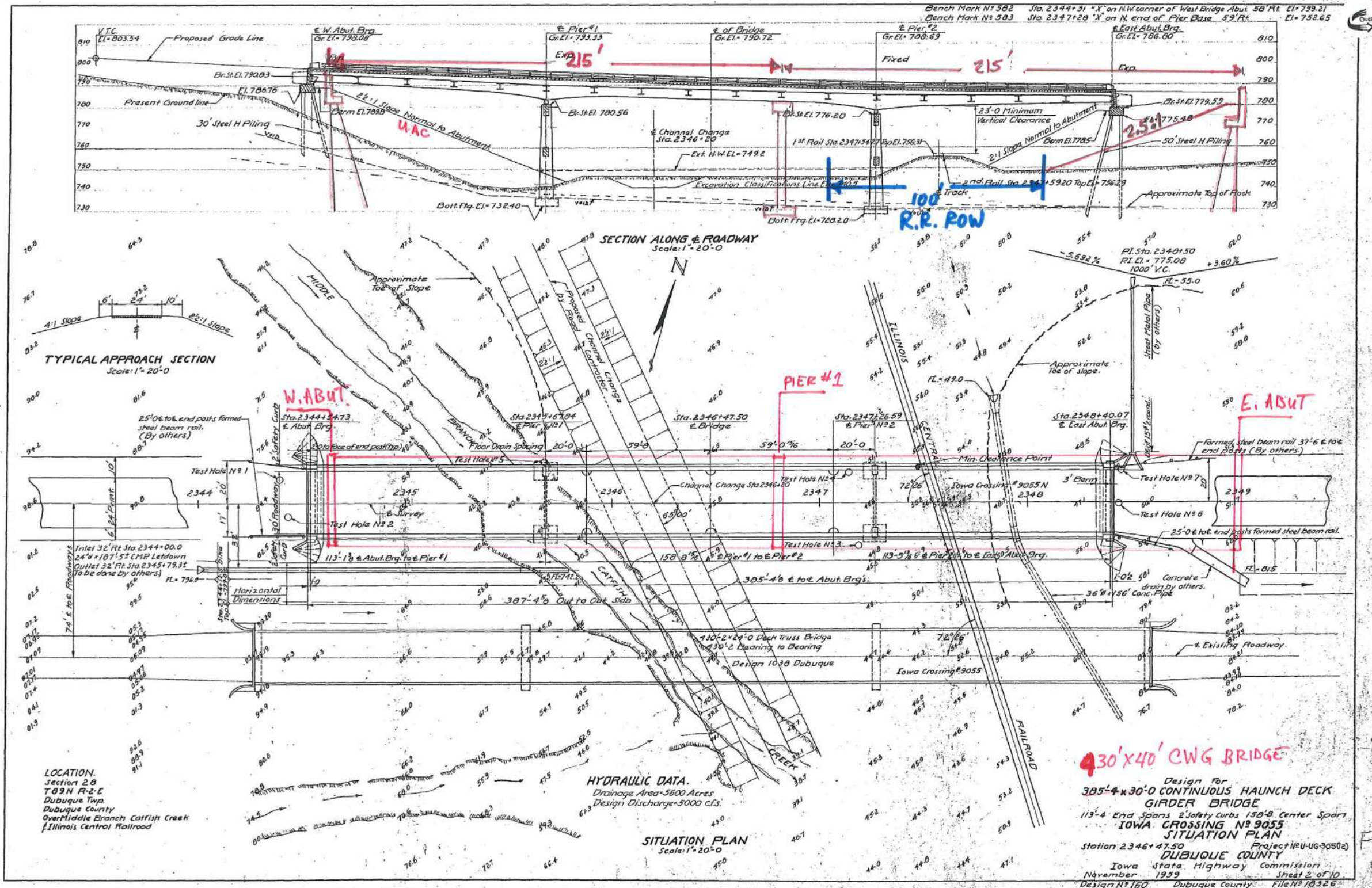
Memard Court

Crescent Ridge

Cedar Cross Road



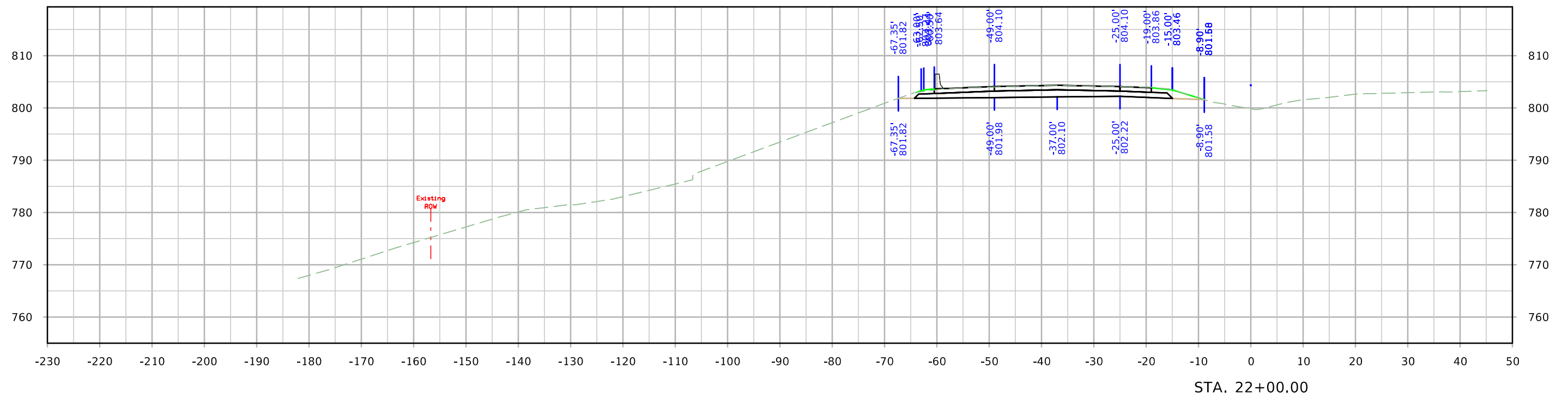
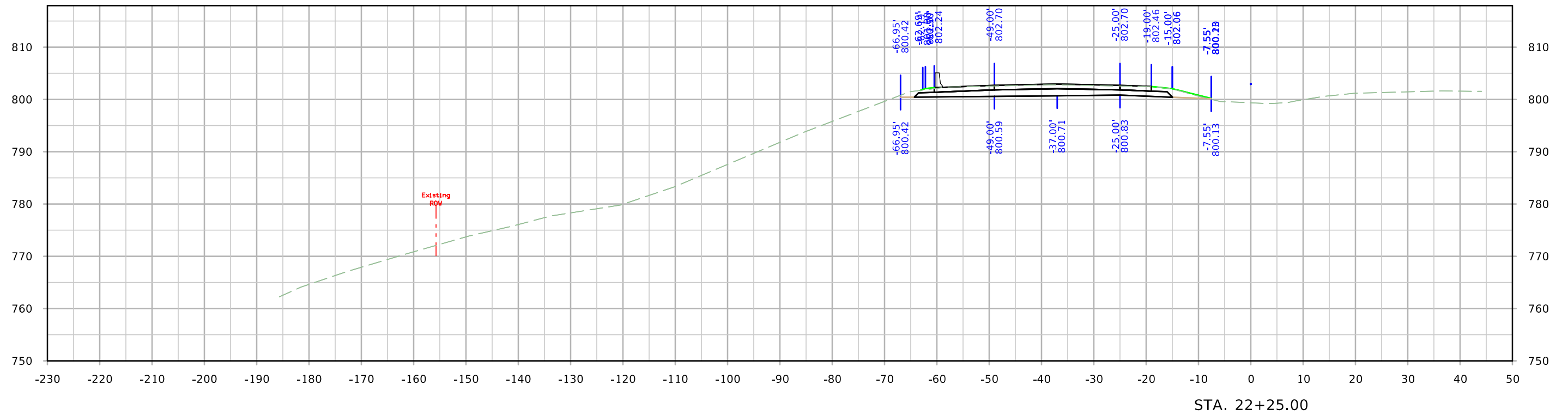
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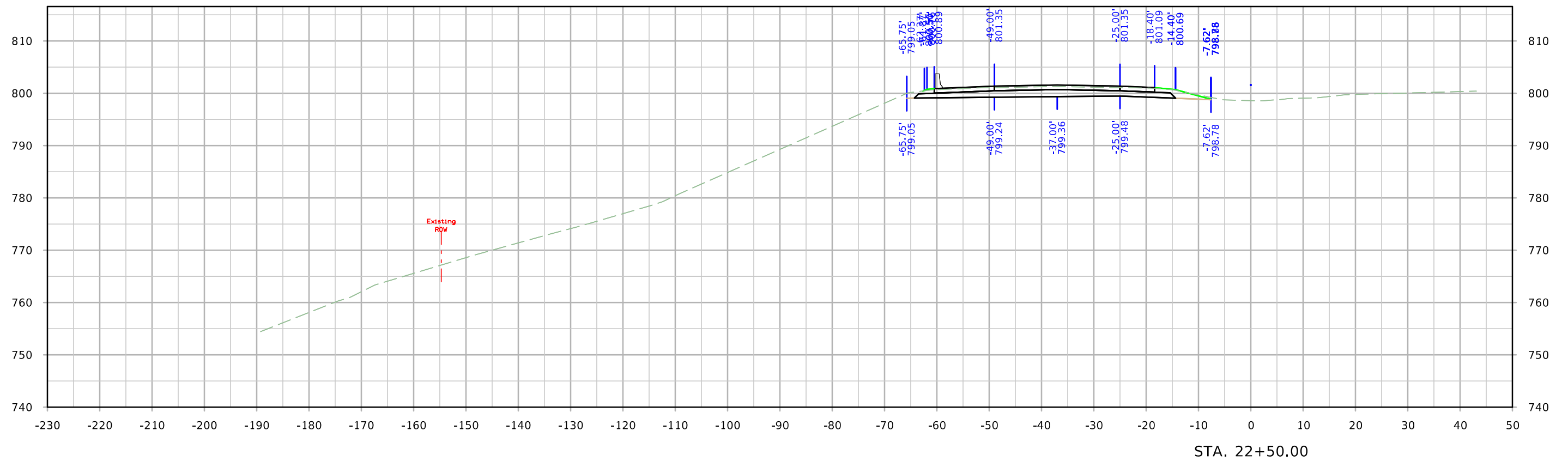
LOCATION:
 Section 28
 T89N R-2E
 Dubuque Twp.
 Dubuque County
 Over Middle Branch Catfish Creek
 Illinois Central Railroad

430' x 40' CWG BRIDGE
 Design for
 305'-4" x 30'-0" CONTINUOUS HAUNCH DECK
 GIRDER BRIDGE
 113'-4" End Spans 2 Safety Curbs 150'-8" Center Span
 IOWA CROSSING #9055
 SITUATION PLAN
 Station 2346+47.50 Project NEU-UG-30502
 DUBUQUE COUNTY
 Iowa State Highway Commission
 November 1959 Sheet 2 of 10
 Design # 160 Dubuque County File # 10326
 Designed by: J.K. Traced by: J.S. Checked by: M.L.

ML - US 20

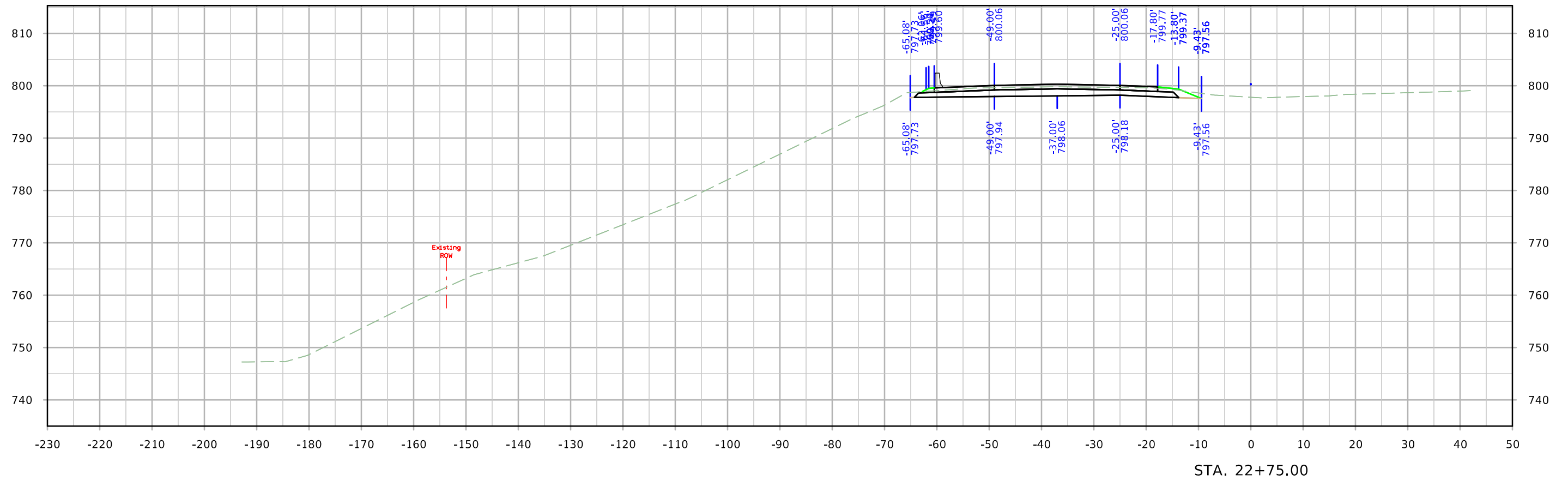


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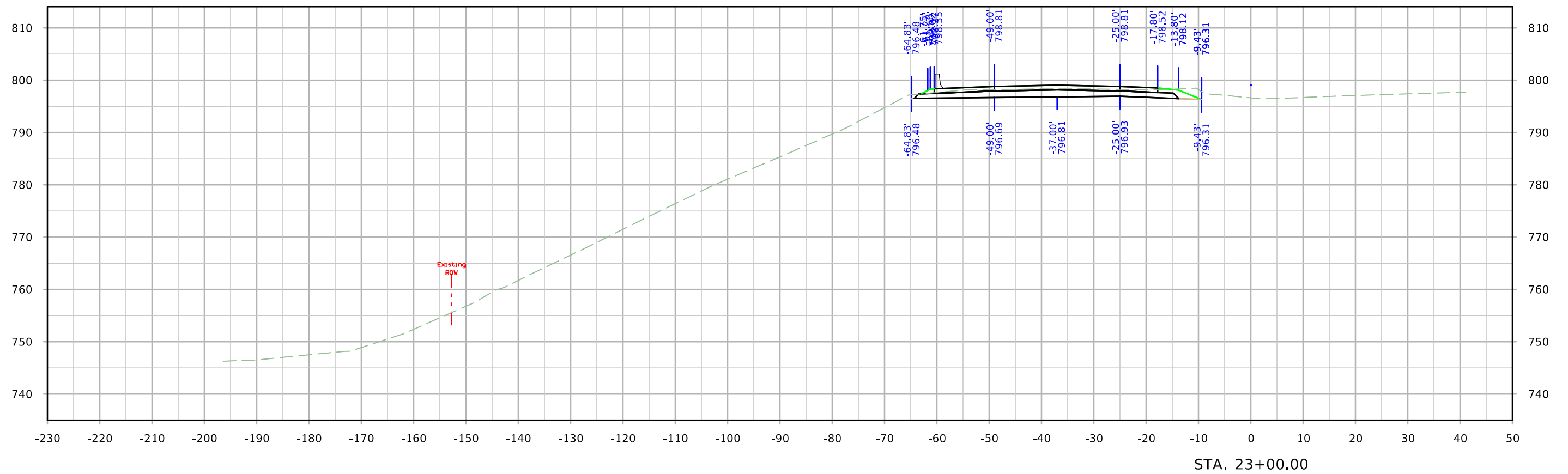
STA. 22+50.00

ML - US 20

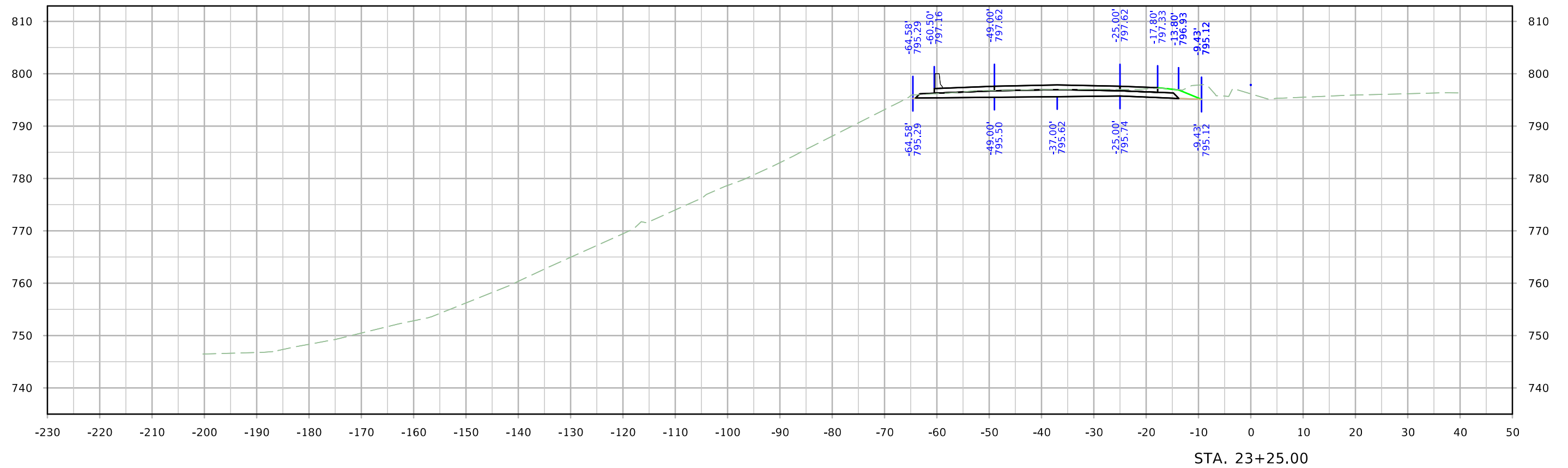


STA. 22+75.00

ML - US 20

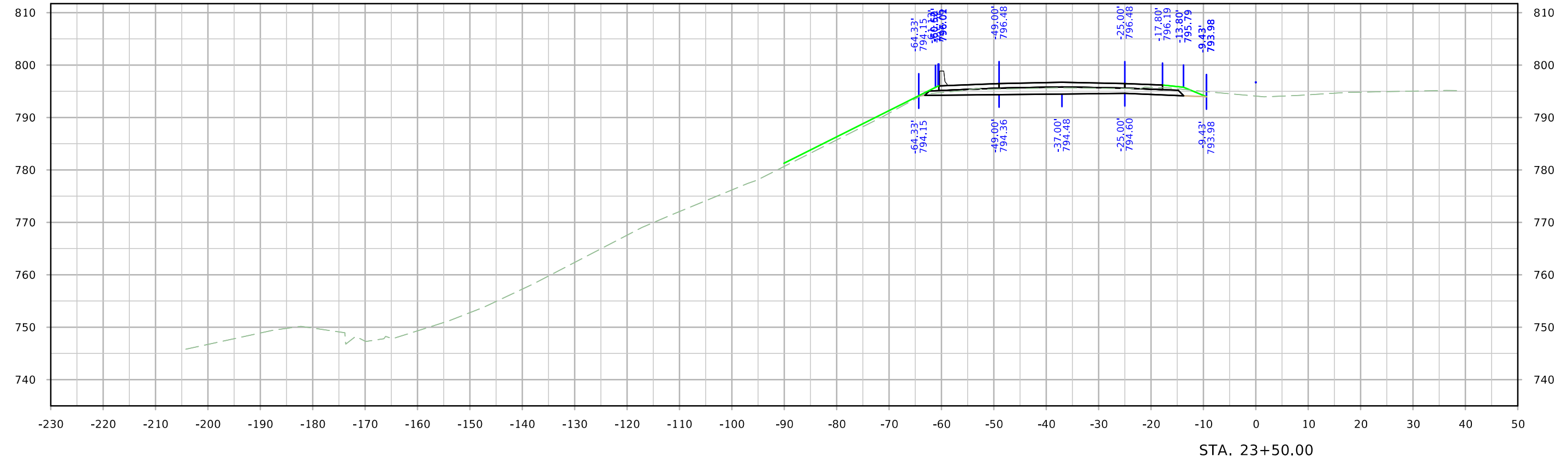
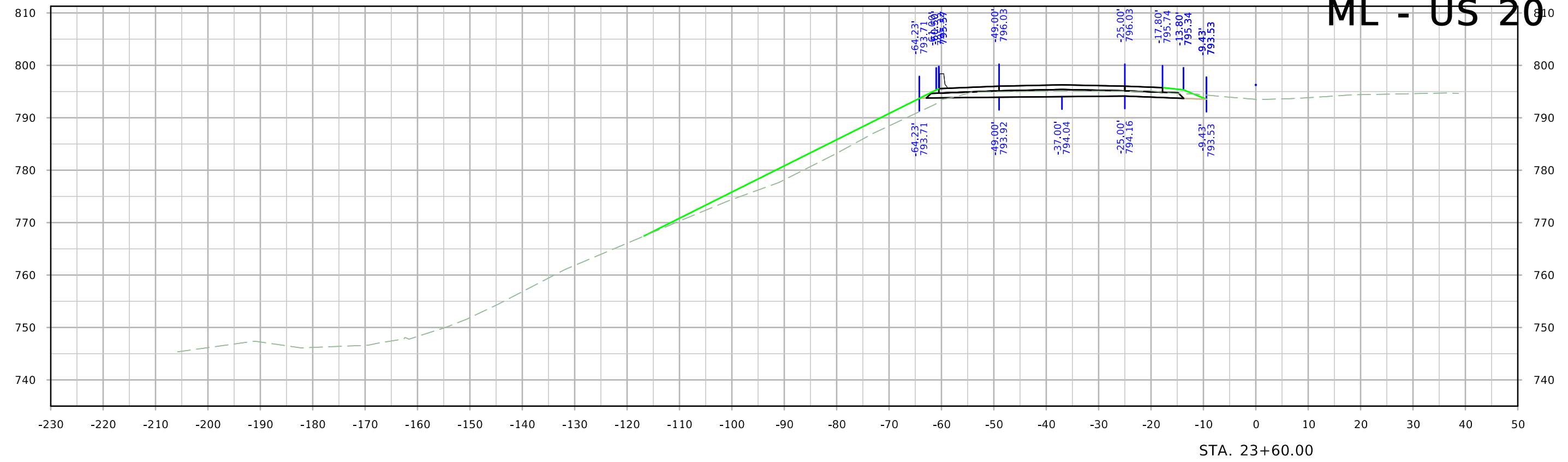


ML - US 20

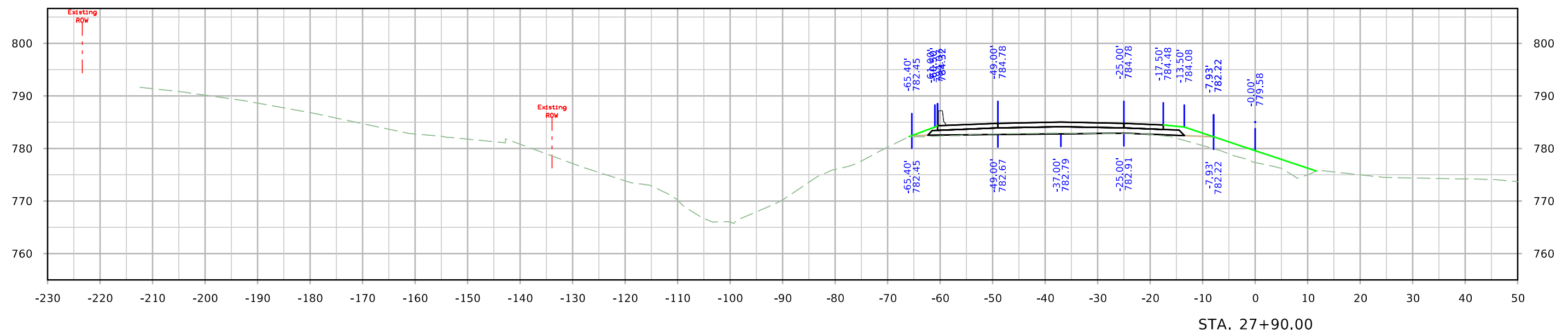
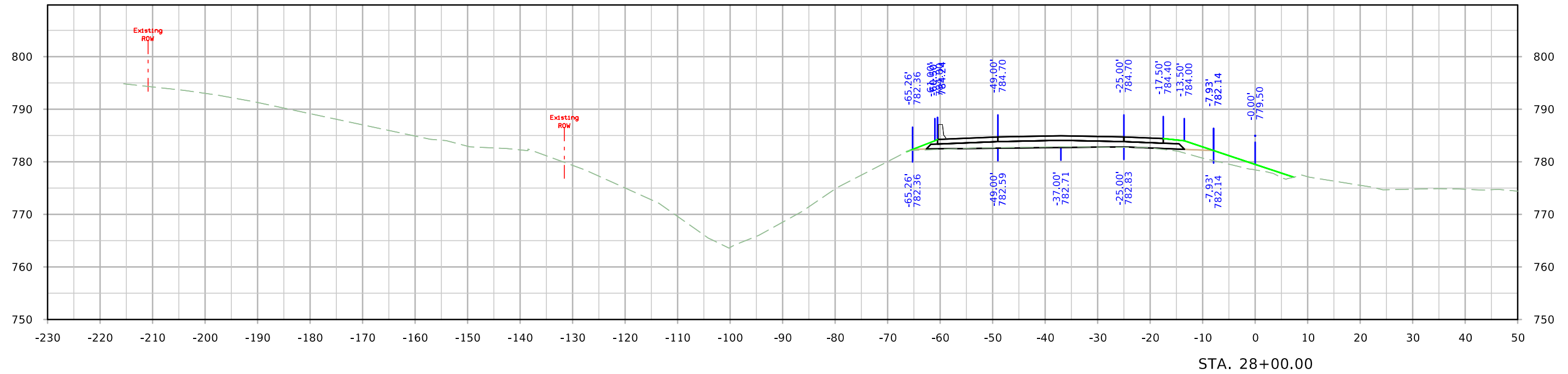


STA. 23+25.00

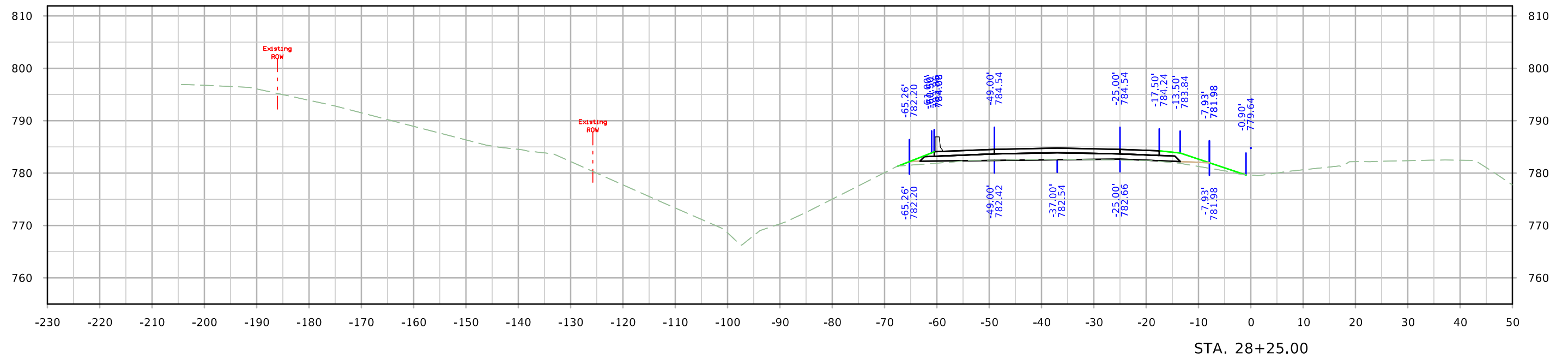
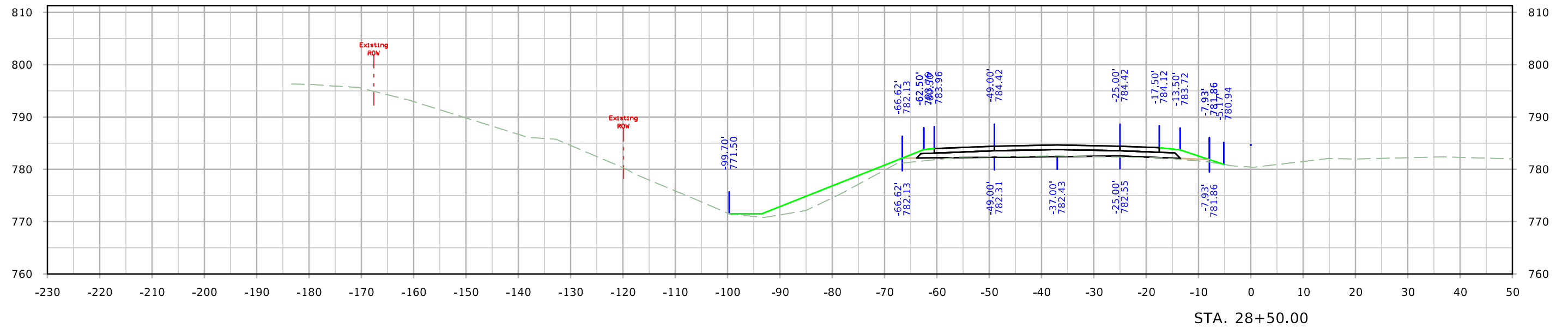
ML - US 20



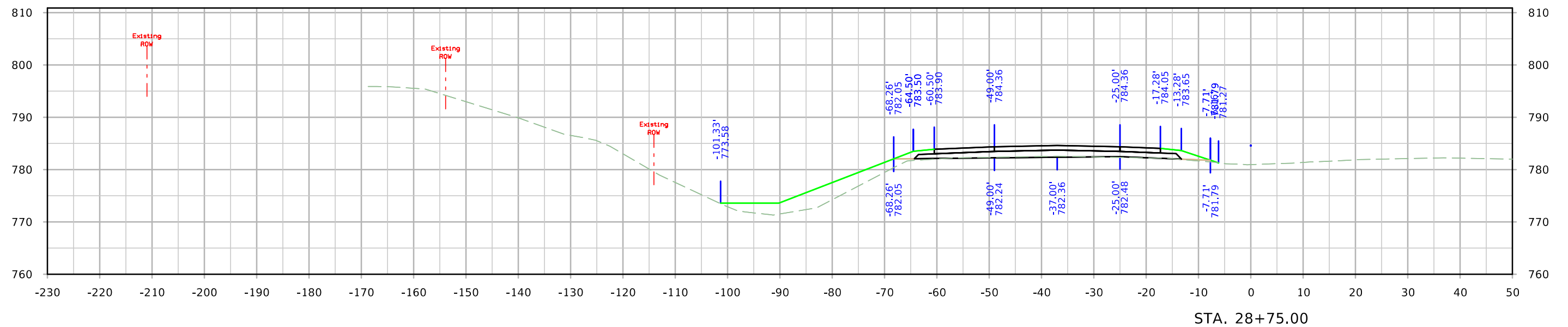
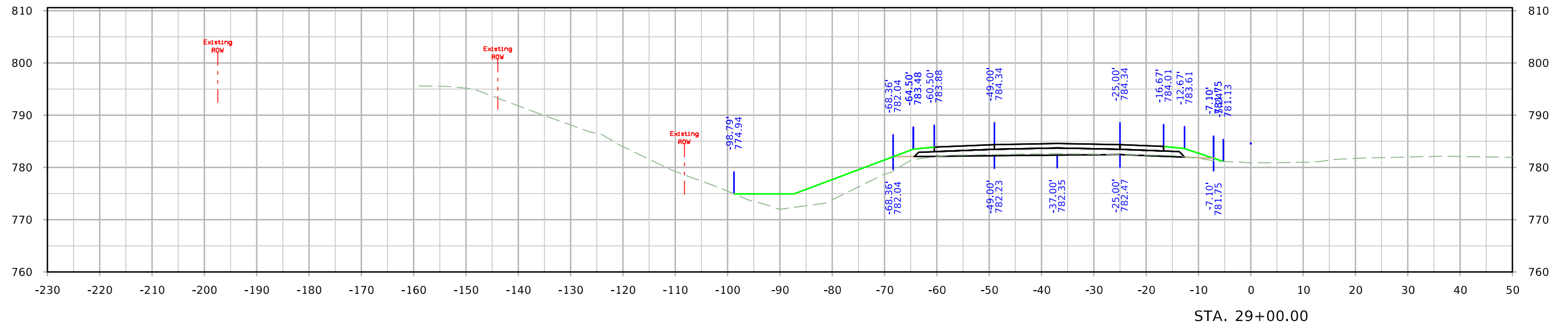
ML - US 20



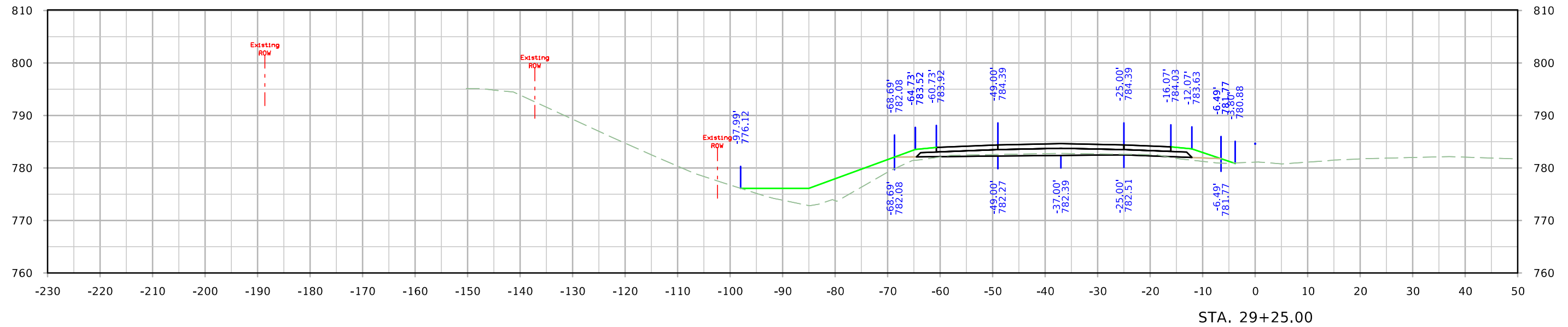
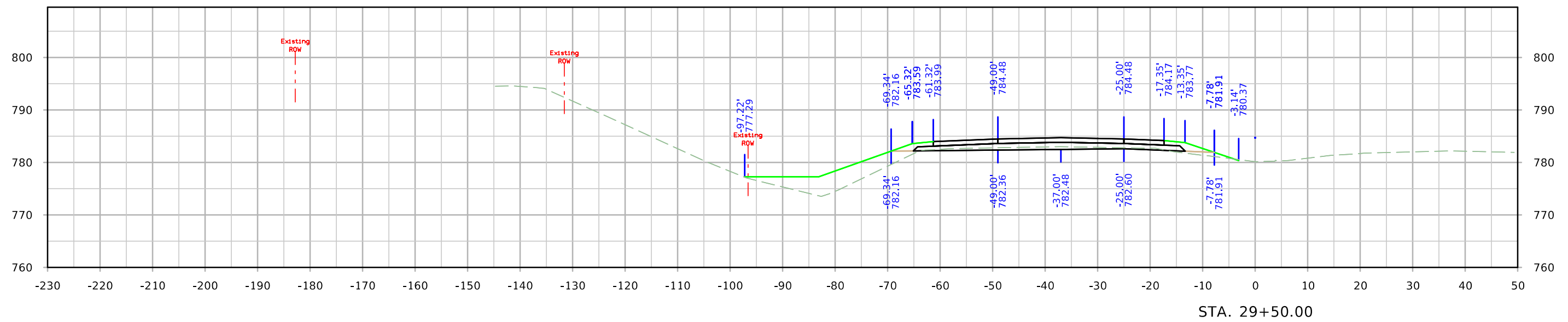
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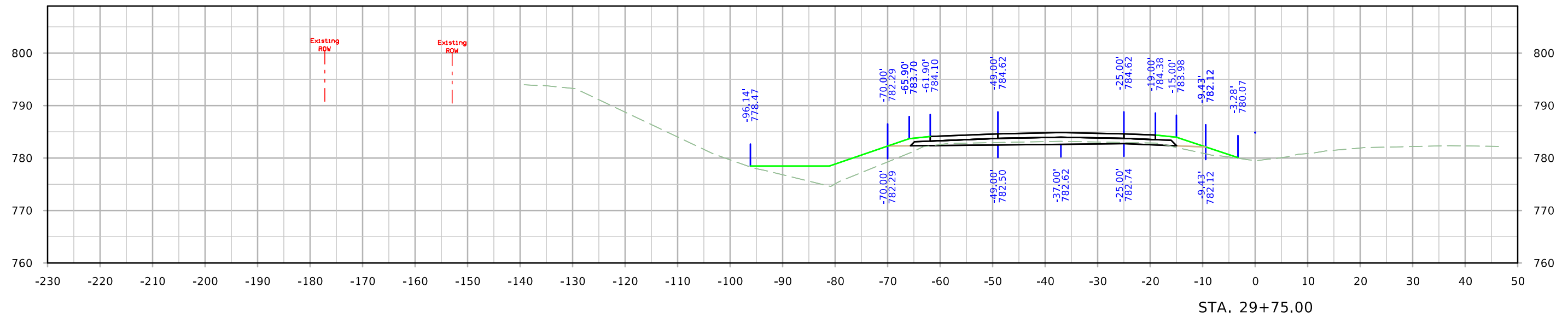
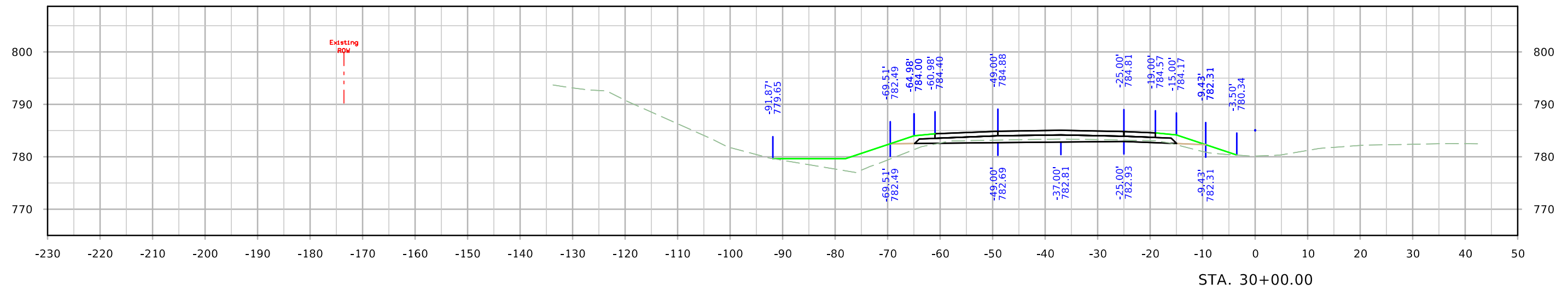
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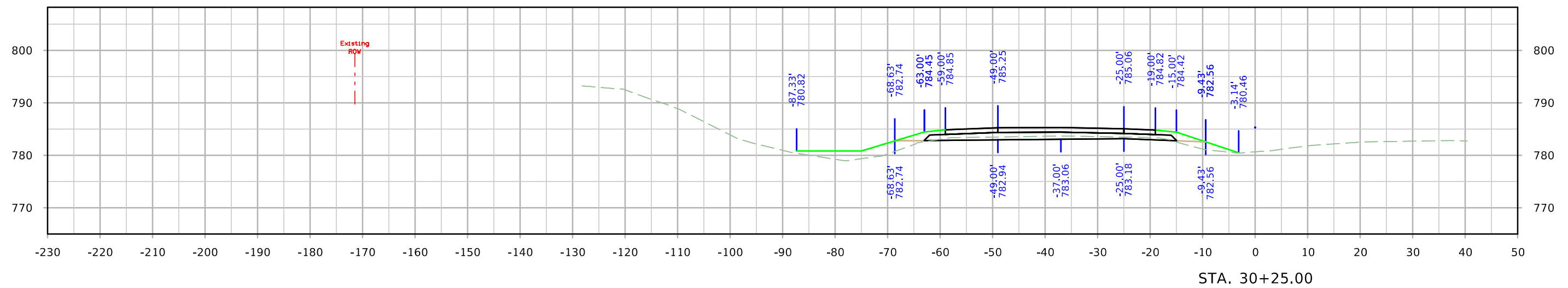
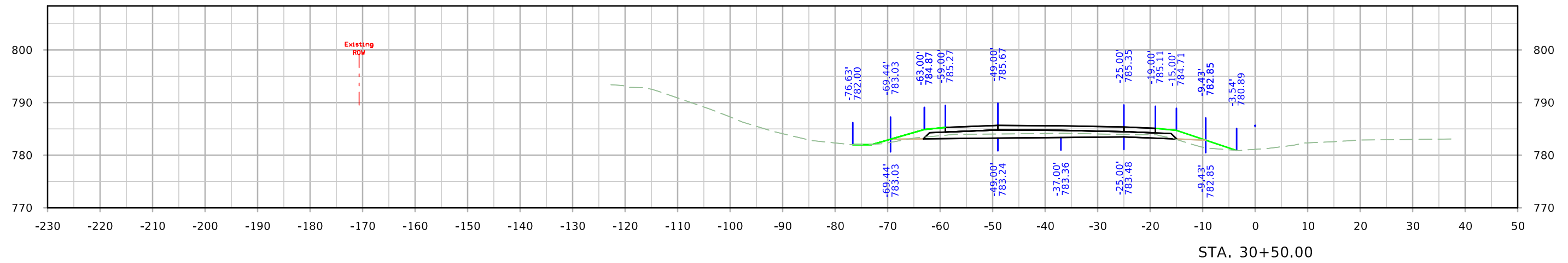
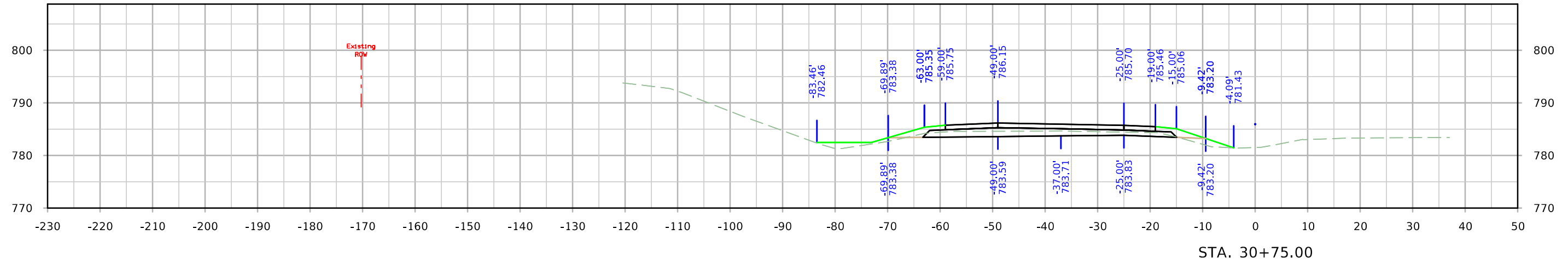
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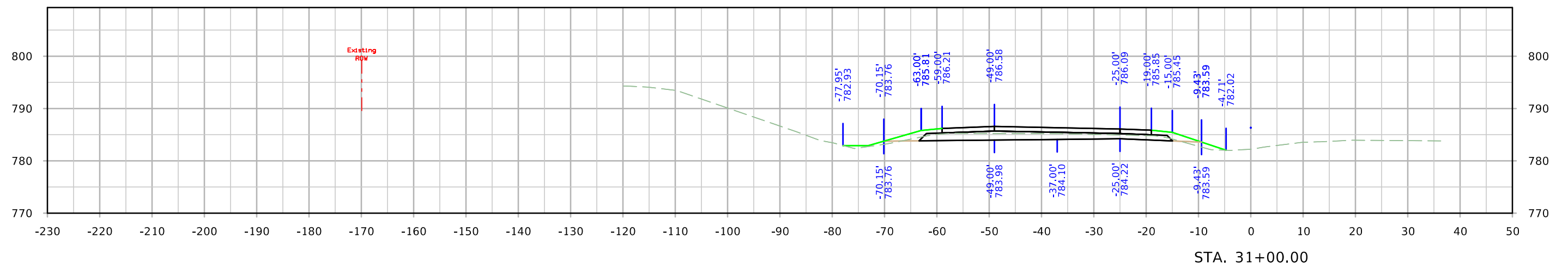
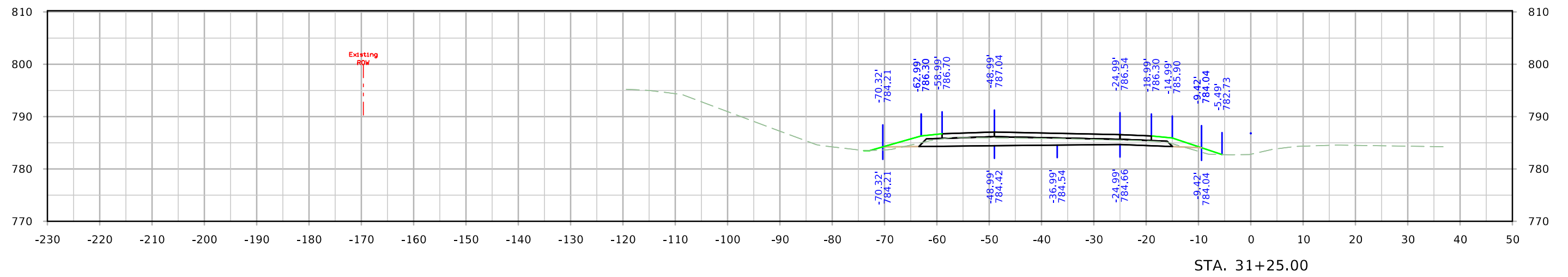
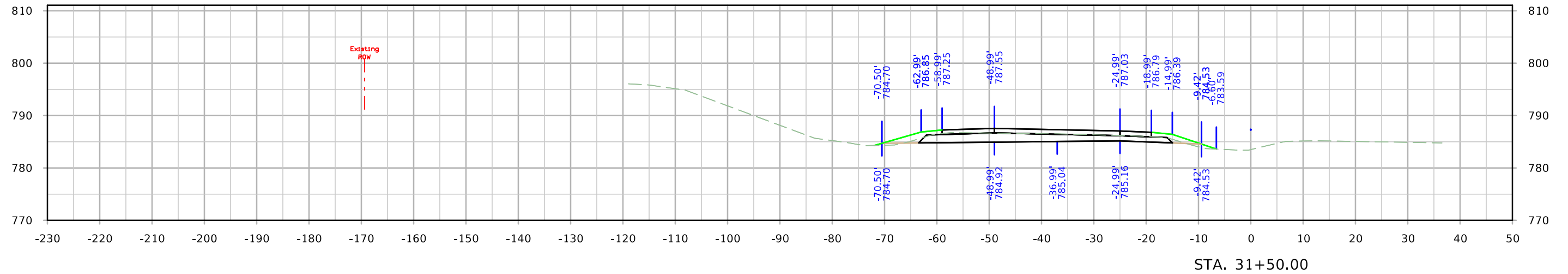
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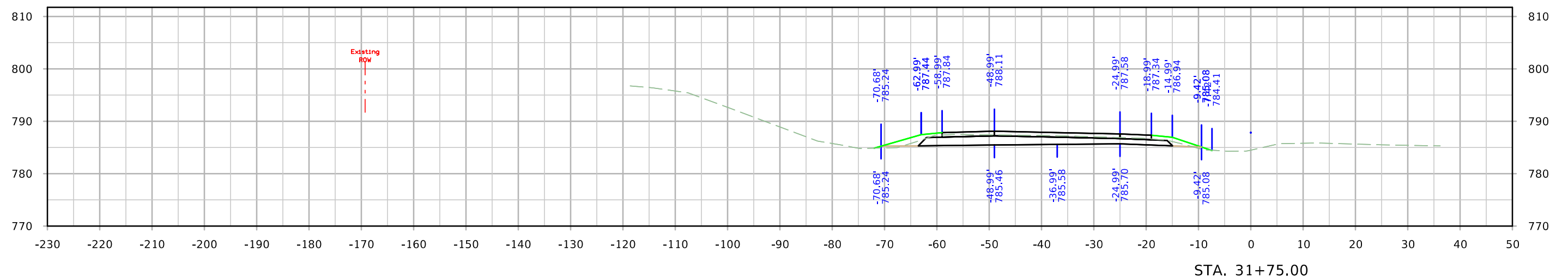
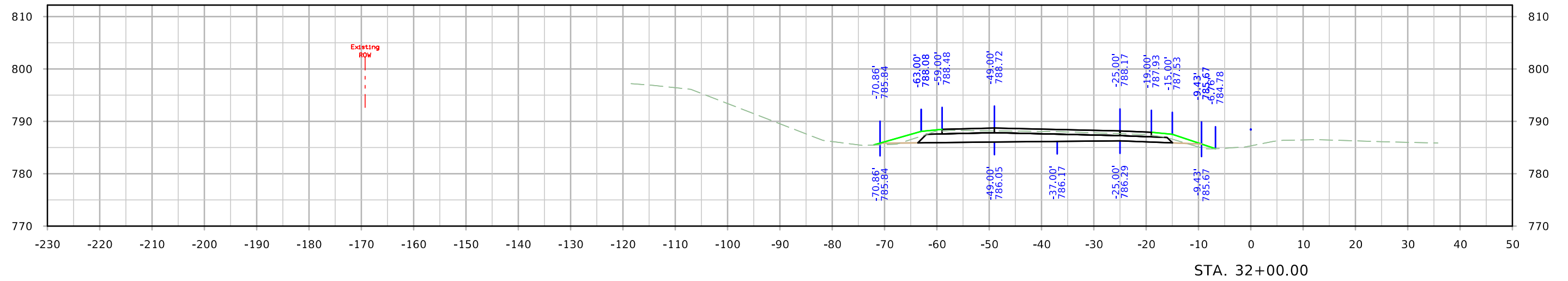
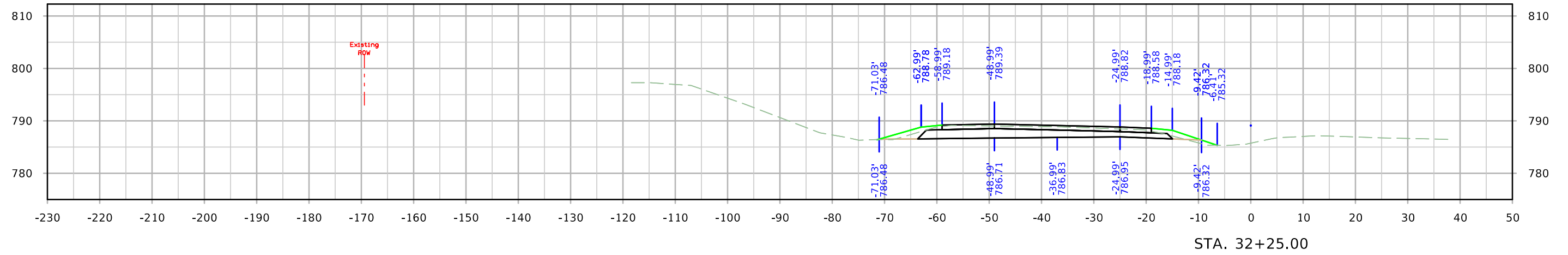
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