LETTING DATE
Jan 22 2025

Bridge-Unspecified
BRFN-092-1(75)--39-78

POTTAWATTAMIE COUNTY

INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	**Title Sheets**
A.1	Title Sheet
A.2	Location Map
B Sheets	**Typical Cross Sections and Details**
B.1 - 4	Typical Cross Sections and Details
D Sheets	**Mainline Plan and Profile Sheets**
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2	IA 92
E Sheets	**Drainage Ditch**
* E.1	N.E. ML Drainage Ditch
* E.2	S.W. ML Drainage Ditch
* E.3	S.E. ML Drainage Ditch
G Sheets	**Survey Sheets**
G.1	Survey Information
G.2	Control Point Vincinity Map
G.3	Horizontal and Vertical Project Control
G.4	Horizontal Control Tab
J Sheets	**Traffic Control and Staging Sheets**
J.1	Traffic Control Plan
V Sheets	**Bridge and Culvert Situation Plans**
V.1	RCB Situation Plan Sta 177+23.00
W Sheets	**Mainline Cross Sections**
* W.1	Cross Section Legend & Symbol Information Sheet
* W.2 - 7	Mainline Cross Sections
	* Color Plan Sheets

H Sheets

IOWA DOT

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

POTTAWATTAMIE COUNTY

Bridge-Unspecified

Indian Creek 0.7 mi W of Co Rd M47

SCALES: As Noted

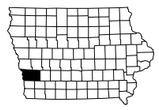
Refer to the Proposal Form for list of applicable specifications.

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
24
PROJECT IDENTIFICATION NUMBER
20-78-092-010
PROJECT NUMBER
BRFN-092-1(75)--39-78
R.O.W. PROJECT NUMBER
STPN-092-1(76)--2J-78



INDEX OF SEALS			
SHEET NO.	NAME	TYPE	BID QUANTITY SHEETS
A.1	Paul Flattery	Primary Signature Block	X

PRELIMINARY PLANS

Subject to change by final design.

D5 REVISION - 06/20/23

FILE NO.	ENGLISH	DESIGN TEAM Flattery\Carlson	POTTAWATTAMIE COUNTY	PROJECT NUMBER BRFN-092-1(75)--39-78	SHEET NUMBER A.1

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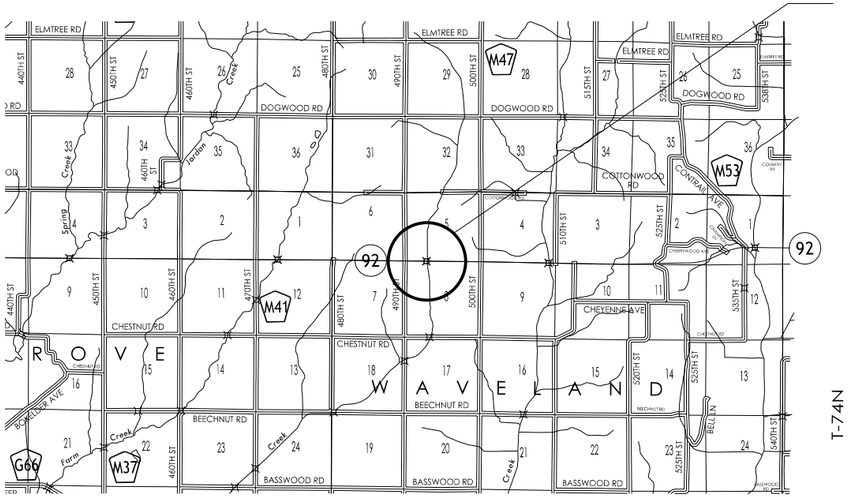

PROJECT LOCATION
Ref.Loc. 36.86
FHWA No. 43910
Maint No. 7836.9S092

T-74N

LOCATION MAP SCALE
0 1 2 3
Miles

FILE NO.	ENGLISH	DESIGN TEAM Flattery\Carlson	POTTAWATTAMIE COUNTY	PROJECT NUMBER BRFN-092-1(75)--39-78	SHEET NUMBER A.2	

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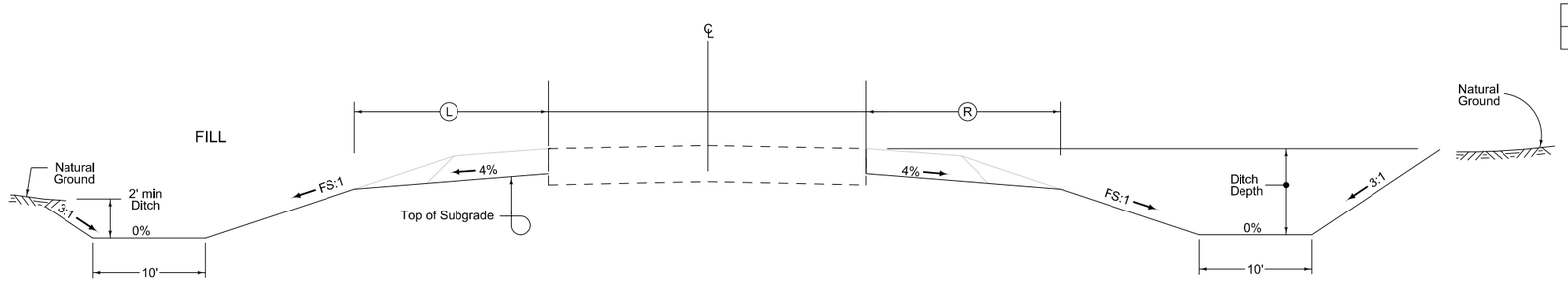
LOCATION			DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	FS
IA 9	175+44.94	178+88.60	(1)	(1)	6"	(1)
IA 9	175+53.47	179+05.22	(1)	(1)	6"	(1)
			(1) See XS for Details			

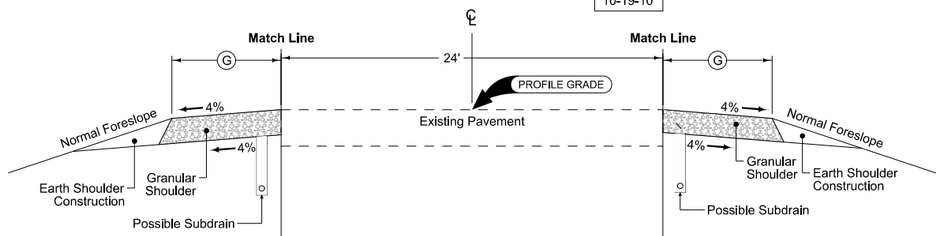


Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

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

2 LANE SHOULDER GRADING

2E_
10-19-10



Granular Shoulder

1R_G_
10-19-10

BEGIN STATION	END STATION	(G) Feet
175+44.94	178+88.60	10'

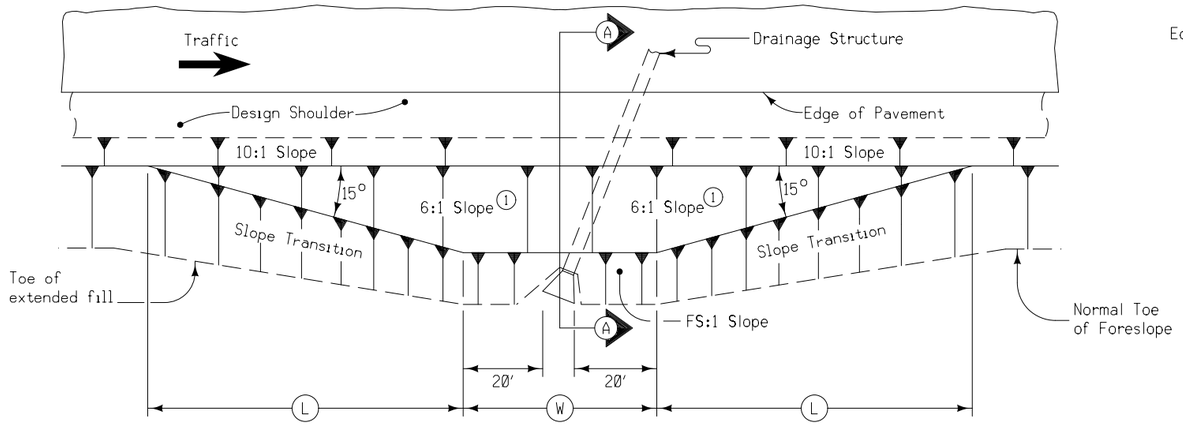
Granular Shoulder

1R_G_
10-19-10

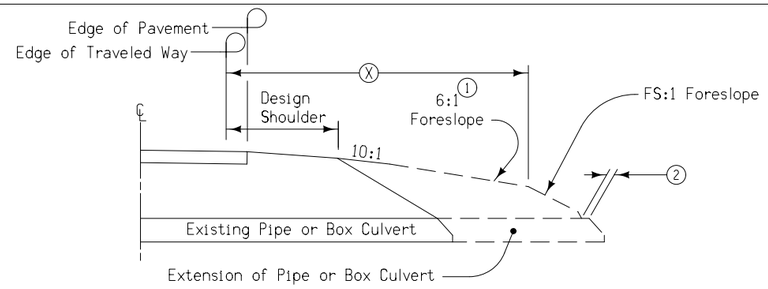
BEGIN STATION	END STATION	(G) Feet
175+53.47	179+05.22	10'

IA 92

See Tab 112-9 for shoulder quantities.



PLAN VIEW



SECTION A-A

STRUCTURE LOCATION		W	L	X	FS
STATION (3)	SIDE	Feet	Feet	Feet	
177+22.65	RT.	66.6	149.8	51.4	3
177+22.65	LT.	68.0	146.7	49.3	3

DESIGNER INFO

4312
10-15-19

At locations where an extended or newly constructed drainage structure extends beyond the normal foreslope cover, flatten as indicated so as to cover the structure. Minimum earth cover is 6 inches.

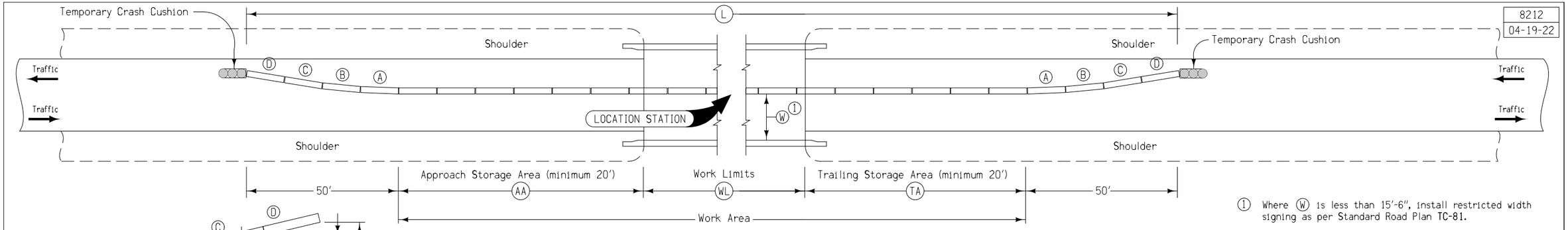
(1) Slope may be flatter than 6:1.

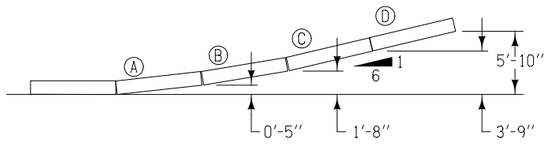
(2) 6 inch minimum for pipe installations or to top of headwall on RCB.

(3) At ℄ of roadway.

(W) = Pipe or RCB opening width plus 20 feet each side.

BARNROOF FORESLOPE AT SKEWED DRAINAGE STRUCTURE





BARRIER OFFSETS FOR FLARE SECTIONS

Station	Side	AA	WL	TA	L	Anchored	W 1	Remarks
		Feet	Feet	Feet	Feet	X	Ft-Inches	
177+23.80	Lt.	20	40	20	130		14	
177+23.80	Rt.	20	40	20	130		14	

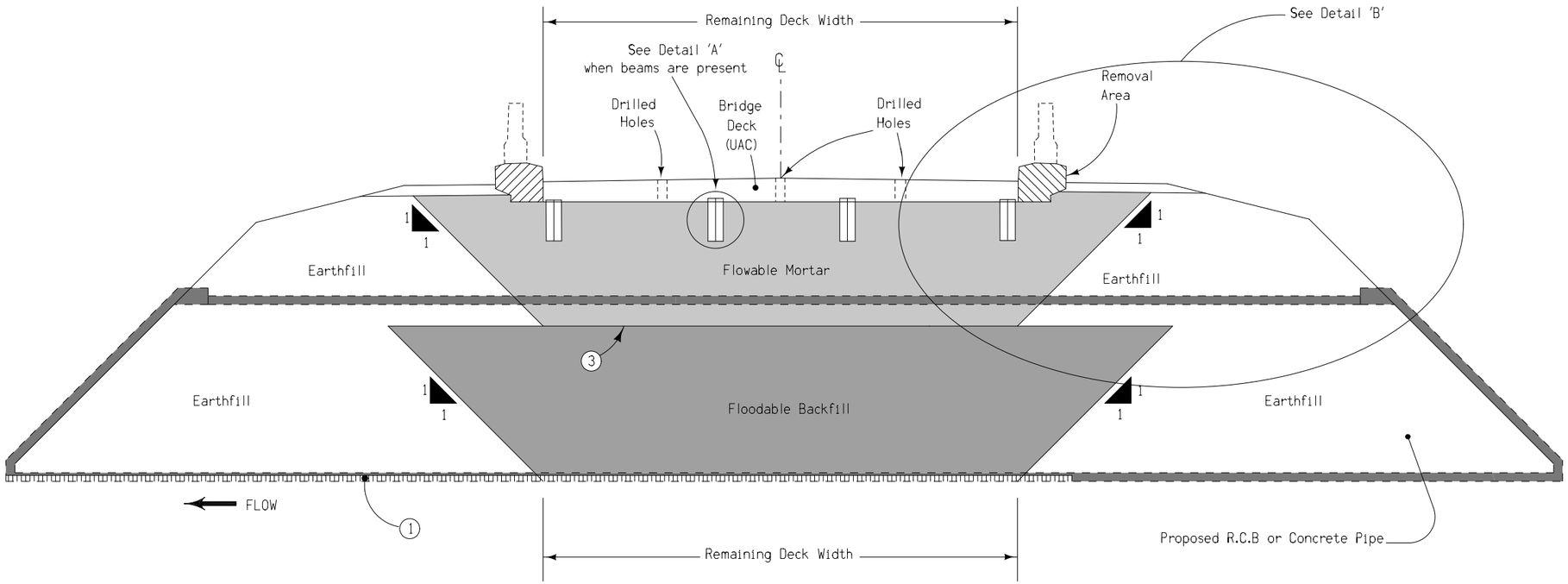
(1) Where (W) is less than 15'-6", install restricted width signing as per Standard Road Plan TC-81.

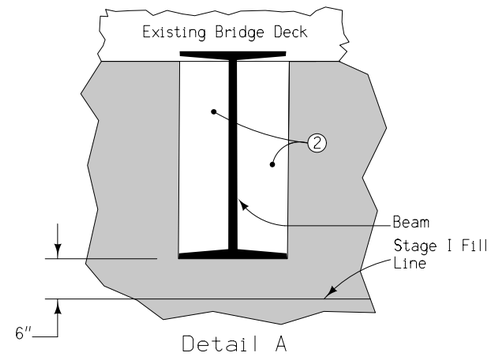
TEMPORARY CONCRETE BARRIER LAYOUT for Two-Way Traffic

8212
04-19-22

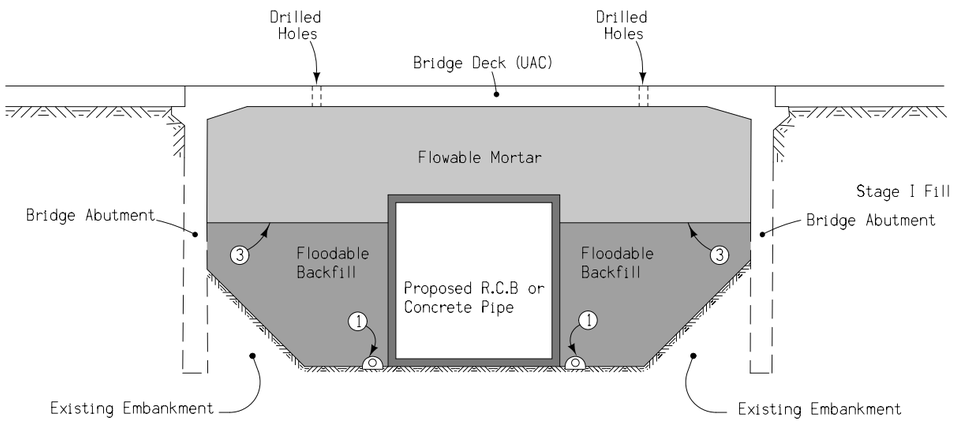
DESIGNER INFO

4317
04-21-20

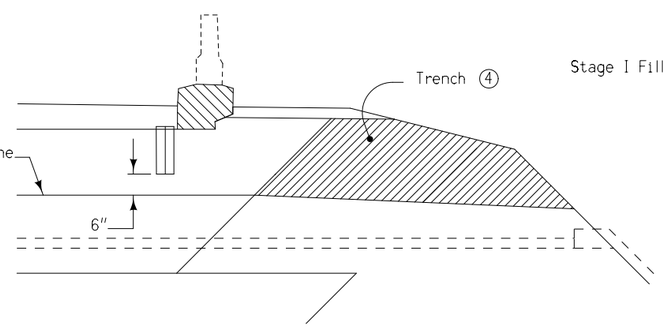




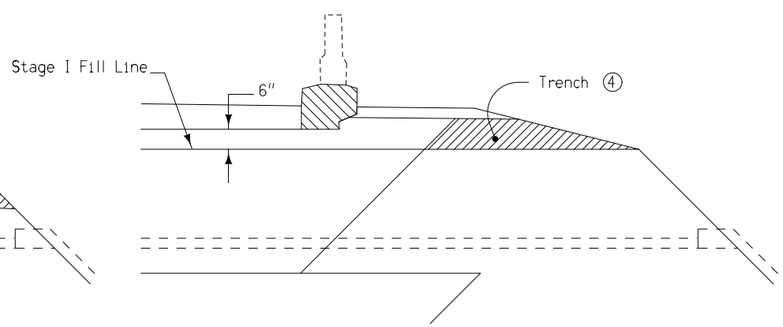
Detail A
Flange Filler Material Area
when beams are present



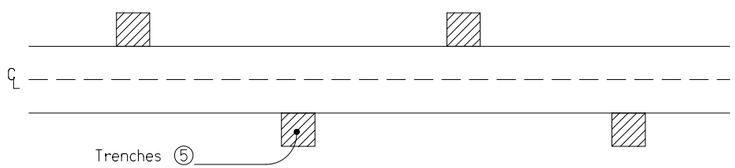
Section along Centerline



Detail B (Beam Bridge)



Detail B (Slab Bridge)



Trench Layout

Denotes pay limits for flowable mortar

Denotes pay limits for flooded backfill

1. 4" Subdrain at flowline elevation of culvert with 4" cover of porous backfill.
2. Place Flange Filler Material to fill pocket area between flanges to prevent flowable mortar from building up. Flange Filler Material is incidental to flowable mortar.
3. Fill void with the maximum amount of Floodable Backfill possible. Distance from Floodable Backfill to bridge beams (when present) or bridge deck shall not exceed 5'.
4. Cut trenches in the soil plug to provide drainage for the flowable mortar. Backfill the trenches with open graded crushed stone, gravel, or recycled PCC to allow water to drain. Backfill material is incidental to flowable mortar.
5. Place trenches at 20' spacing with a minimum of two trenches on each side of the roadway.

FILL FOR CULVERT USED IN BRIDGE REPLACEMENTS

FILE NO.	ENGLISH	DESIGN TEAM Flattery\Carlson	POTTAWATTAMIE COUNTY	PROJECT NUMBER BRFN-092-1(75)--39-78	SHEET NUMBER B.4

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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)
- Septic Tank
- Cistern
- L.P. Gas Tank (No Footing)
- 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, Nishnabotna Valley REC - Quality D*
- F0 — *FO1D, Centurylink - Quality D*
- F02 — *FO2D, Griswold Cooperative Telephone - Quality D*
- F03 — *FO3D, Aureon Network Services - Quality D*

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

- Reference Point / Station — Survey Line
- Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Trench Drain
- HighTension Cable Guardrail
- Sheet Pile
- Pavement Removal
- Clearing & Grubbing Area

RIGHT-OF-WAY LEGEND

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

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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

FILE NO.	ENGLISH	DESIGN TEAM Flattery\Carlson	POTTAWATTAMIE COUNTY	PROJECT NUMBER BRFN-092-1(75)--39-78	SHEET NUMBER D.1

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Waveland TWP.
T-74N R-38W
SEC. 5

STA. 175+44.94
BEGIN WB SHLDR CONSTRUCTION

STA 178+88.60
END WB SHLDR CONSTRUCTION

STA 175+53.47
BEGIN WB SHLDR CONSTRUCTION

STA 179+05.22
END WB SHLDR CONSTRUCTION

APPROX. SEC. LINE

92

E1F02

F02

E0

F03

Sta. 177+24.3
41.25'x30' Simple Span
I-Beam Bridge
D.A.=2577 A-H Plans
U.A.C. - Sawcut to remove sidewalls
Sta. 177+23.80
Build 12' x 12' x 130' RCB
Skew = 6° RT Ahd.
Design No. 625

Indian Creek

Sect. No. 8

0 50
FEET

Sta. 175+90
200' Rt.

Sta. 178+60
200' Rt.

UAC GRADE

+06 Lt.
1223.09sf

+90 Lt.
1222.59sf

+60 Lt.
1221.00sf

+00 Lt.
1218.50sf

-0.60% Lt.
Ditch Grade

-2.27% Lt.
Ditch Grade

-6.25%
D.G.

1255
1250
1245
1240
1235
1230
1225
1220
1215
1210

169+00 170+00 171+00 172+00 173+00 174+00 175+00 176+00 177+00 178+00 179+00 180+00 181+00 182+00 183+00 184+00

FILE NO.	ENGLISH	DESIGN TEAM Flattery\Carlson	POTTAWATTAMIE COUNTY	PROJECT NUMBER BRFN-092-1(75)--39-78	SHEET NUMBER D.2	

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Waveland TWP.
T-74N R-38W
SEC. 5

STA 0+00.00
BEGIN LT DITCH GRADE

STA 2+11.07
END LT DITCH GRADE

0+00
1+00
2+00
180+00

F03
F02
F0

℄IA 92

0
FEET
20

N.E. ML DRAINAGE DITCH

1240
1235
1230
1225
1220

LT +00
1223.00

+0.00% LT Ditch Grade

LT +25
1228.98

+0.00% LT Ditch Grade

LT +11
1238.25

1223.00
1224.11
1225.33
1226.55
1227.76
1228.98
1230.20
1233.68
1236.46

0+00
1+00
2+00
3+00
4+00

FILE NO.	ENGLISH	DESIGN TEAM Flattery\Carlson	POTTAWATTAMIE COUNTY	PROJECT NUMBER BRFN-092-1(75)--39-78	SHEET NUMBER E.1

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Waveland TWP.
T-74N R-38W
SEC. 5

1+75.00

0+00

1+00

F1 F02

F02

Sect. No. 8

STA. 0+00.00
BEGIN RT DITCH GRADE

STA. 1+54.71
END RT DITCH GRADE

N

WAVELAND TWP.
T-74N R-38W
SEC 8

Sta. 178+60
200' Rt.

0 FEET 20

S.W. ML DRAINAGE DITCH

Barrel 27.5' X 14.375' out to out
25' X 12.333' inside

1230

1225

1220

1215

1210

0+00 1+00 2+00 3+00 4+00

+0.00% RT Ditch Grade

RT +00
1226.28

RT +80
1225.08

+0.00% RT Ditch Grade

RT +55
1217.11

FILE NO.	ENGLISH	DESIGN TEAM Flattery\Carlson	POTTAWATTAMIE COUNTY	PROJECT NUMBER BRFN-092-1(75)--39-78	SHEET NUMBER E.2	

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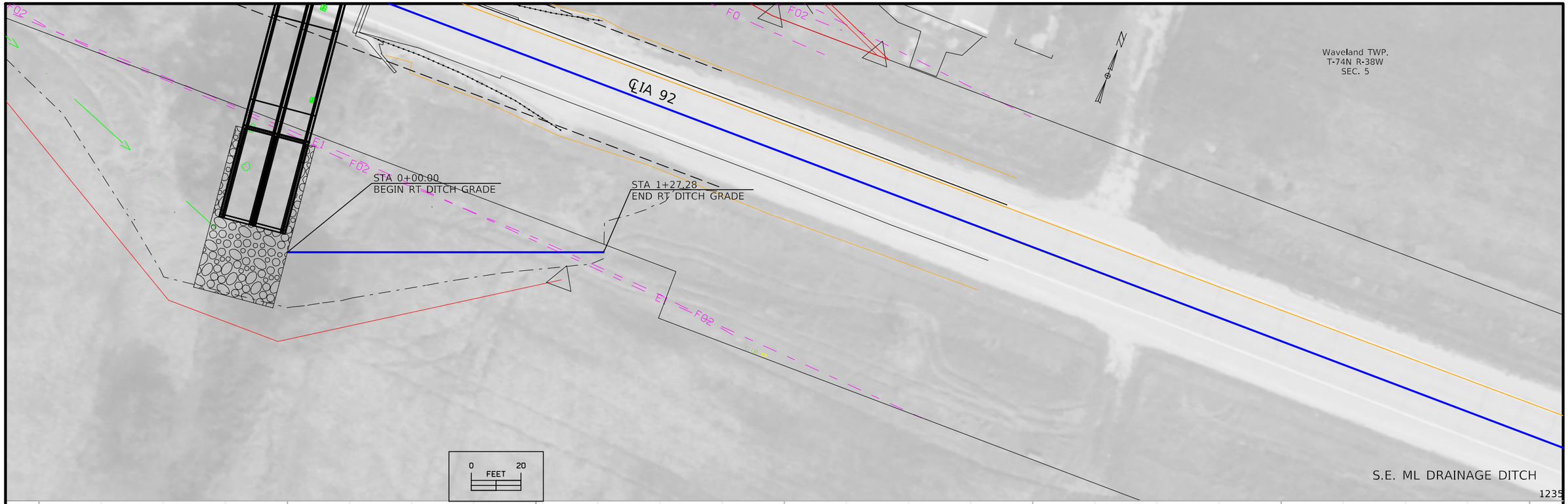

FILE NO.	ENGLISH	DESIGN TEAM Flattery\Carlson	POTTAWATTAMIE COUNTY	PROJECT NUMBER BRFN-092-1(75)--39-78	SHEET NUMBER E.3

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SURVEY INDEX

County: Pottawattamie
PIN: 20-78-092-010
Project Number: BRFN-092-1(75)--39-78
Location: Indian Creek 0.7 mi W of Co Rd M47
Type of Work: Bridge
Project Directory: 9417503020

Survey Personnel

Clayton Henningsen – Survey Party Chief
Jason Arn – Survey Party Chief
Robert Fredrickson – Assistant Survey Party Chief

Date(s) of Survey

Begin Date	12/01/2021
End Date	12/09/2021

General Information

Measurement units for this survey are US survey feet. This survey is for IA Hwy 92 bridge repair or replacement. Located over Indian Creek 0.7 mi west of county road M47. Survey is a full field.

Project Control

Coordinates were determined for primary project control points by conducting concurrent five-hour static observations. Post processing is constrained to nearby Iowa Real Time Network reference stations. For additional details of the control survey, contact the Preliminary Survey department.

PROJECT DATUM: NAD83(2011) EPOCH 2010.00
VERTICAL DATUM: NAVD88
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 6

Alignments Information

Alignment is a retrace of As-built Plan FN-92-1(15)—21-78. Stationing is held at POT 162+39.7 and carried ahead without equation.

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

POT Sta. 162+39.7 As Built Plans FN-92-1(15)—21-78
= Survey POT Sta. 162+39.7

PI Sta. 196+60.5 As Built Plans FN-92-1(15)—21-78
= Survey PI Sta. 196+60.33

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 06
VERT. DATUM: NAVD88 - Geoid Model g2012bu3

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
Ia. Regional Coordinate System Zone 06

VERT. DATUM: NAVD88
Geoid Model g2012bu3
Project Control Marks are Bench Marks

Point Name	Northing	Easting	Elevation	Feature Definition-Description
78092036	6958240.325	16632711.91	1259.978	CP 78092036 FROM THE INTERSECTION OF STATE HIGHWAY 92 AND STATE HIGHWAY 48 IN GRISWOLD GO WEST ALONG HWY 92 5.9 MILES A FENO TYPE MONUMENT 0.3 DEEP ALONGSIDE AN ENTRANCE ON NORTH SIDE 52 FEET N OF HWY 92 CENTERLINE 14 FEET NORTHEAST OF TOP CENTER INLET OF CMP 7 FEET SOUTH OF A CHAINLINK FENCE 22 FEET SOUTHEAST OF A LUM POLE
78092037	6958102.694	16635958.87	1293.754	CP 78092037 FROM THE INTERSECTION OF STATE HIGHWAY 92 AND STATE HIGHWAY 48 IN GRISWOLD GO WEST ALONG HWY 92 5.2 MILES A FOUND IRON PIN SET IN A CONC MONUMENT IN THE SOUTH DITCH 74 FEET SOUTH OF THE EDGE OF PAVEMENT 101 FEET EAST OF A WOOD FIBER OPTIC POST 117 FEET EAST OF STATION MARKER 195 0.6 FEET SOUTH OF A T POST

NOTE:
The first two digits in the control point name refer to the county number.
The next 3 digits refer to the highway number.
The next 3 digits refer to the highway milepost.
The last digit refers to the distance from the referenced milepost to the nearest tenth of a mile.

ALIGNMENT COORDINATES

Name	Location	Point on Tangent			Begin Spiral			Begin Curve			Simple Curve PI or Master PI of SCS			End Curve			End Spiral		
		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates	
			Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)
1	ML092	162+39.700	6958188.54	16632581.39															
2	ML092	196+60.333	6958188.41	16636002.02															

NO ACCESS RIGHTS ARE TO BE ACQUIRED ON THIS PROJECT.

WAVELAND TWP.
T-74N R-38W
SEC 5

177+29
℄144'

175+00
℄ 78'±EX R/W

179+50
℄ 50'± EX R/W

1

FINO FARMS, LLC

176+00

177+00

178+00

179+00

℄IA 92

175+97
℄ 76'±EX R/W

178+58
℄80'±EX R/W

2

HERITAGE FOX LTD

177+13
℄ 143'

177+60
℄143'

WAVELAND TWP.
T-74N R-38W
SEC 8

0 20
FEET

Right of Way Design Information

THIS SHEET INCLUDED
FOR INFORMATION ONLY

ROW Team: ATINKEN / JLARSON
ROW #: STPN-092-1(76)--2J-78
Plan Date: 6-15-23
Color Legend:
Property Lines
Temporary Easement
Permanent Acquisition

FILE NO.	ENGLISH	DESIGN TEAM FLATTERY/CARLSON	POTTAWATTAMIE COUNTY	PROJECT NUMBER BRFN-092-1(75)--39-78	SHEET NUMBER H.1

6:43:07 AM 6/21/2023 jlarso1 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7809201020\ROW\78092076.dgn

108-23A
08-01-08

TRAFFIC CONTROL PLAN

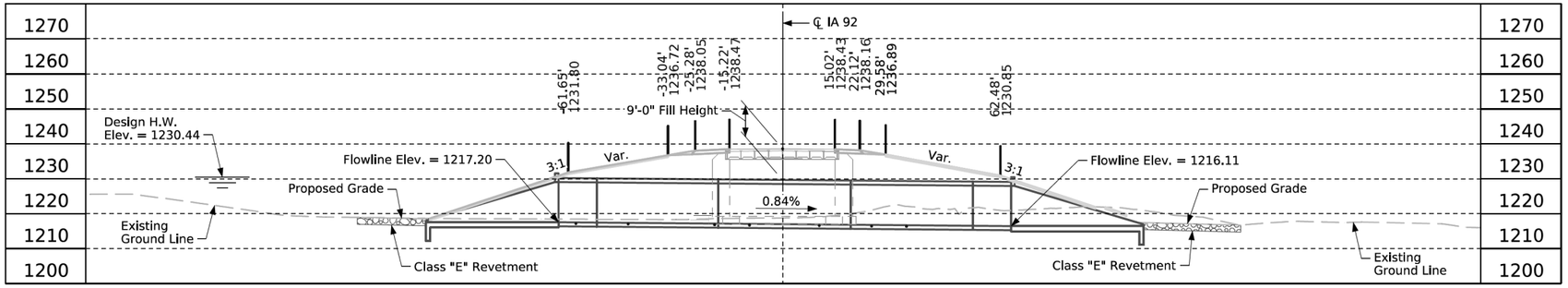
Traffic shall be maintained on IA 92 at all times. However, it will be necessary to reduce traffic down to one lane via use of TBR per Standard Road Plan TC-217 during the removal of the bridge rail, guardrail, deck patching, and placement of the flowable mortar.

108-25
10-21-14

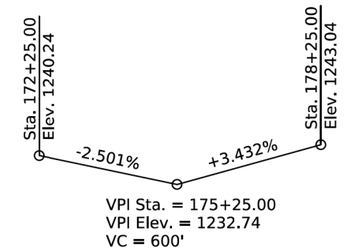
511 TRAVEL RESTRICTIONS

Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
			No Travel Restrictions Expected									

Control Point 78092036: 6958240.325 N, 16632711.91 E, FENO monument 0.3' deep alongside an entrance on north side, 52 feet north of Hwy. 92 centerline, 14 feet northeast of top center inlet of CMP 7 feet south of a chainlink fence 22 feet southeast of a luminarire pole, Elev. 1259.98



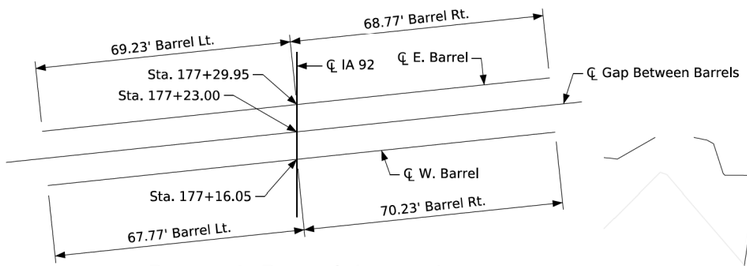
Longitudinal Section Along ℄ Culvert



VPI Sta. = 175+25.00
VPI Elev. = 1232.74
VC = 600'

Proposed Profile Grade IA 92

Note:
These elevations are based on the theoretical grade proposed on the original as-built plans (Design 256) and are not guaranteed for construction.



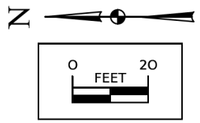
Precast Barrel Layout

Note: Lintel beam and curtain walls shall form one continuous line and shall not be staggered or offset.

Utilities Legend:

E1 - Nishnabotna Valley REC
FO - Centurylink
FO2 - Griswold Cooperative Telephone
FO3 - Aureon Network Services

Utilities shown on this sheet are for information only, see road design sheets for final utility information.



Traffic Estimate

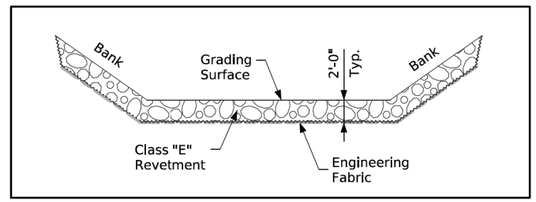
2025 AADT	1300 V.P.D.
2045 AADT	1400 V.P.D.
TRUCKS	16 %

Location

IA 92 over Indian Creek
T-74N R-38W
Sections 5 & 6
Waveland Township
Pottawattamie County
FHWA No. 43911
Bridge Maint. No. 7836.9S092
Latitude 41.232065°
Longitude -95.245957°

Hydraulic Data

RIDB: Not Applicable
Drainage Area = 3.76 Sq.Mi.
Q_{50} = 2780 cfs
HW Elev. (50-year) = 1230.44
Exit Velocity = 11.98 fps
Stream Slope = 31.43 Ft./Mi.
Q_{100} = 3400 cfs
Q_{500} = 4080 cfs



Typical Channel Protection

Estimated Revetment Quantities Included With Road Plans

Location	Revetment Class "E" (Ton)	Engineering Fabric (SY)	CL. 10 Channel Excavation (CY)
Inlet	104	97	65
Outlet	144	135	90
Totals	248	232	155

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.
Quantities shown for information only. See Road Sheets.

Situation Plan

General Note:
This design is for the replacement of the existing 41'-3" x 30' steel I-Beam bridge, Design No.'s 4538/256, FHWA No. 43910, Maintenance No. 7836.9S092.

Plan Note:
Flow line of the culvert has been set 1' below streambed.

Hydraulic Design

LICENSED PROFESSIONAL ENGINEER
Blair A. Spotts
26397
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 — Date: 03-29-2023
Blair A. Spotts
Printed or Typed Name

My license renewal date is December 31, 2023

Pages or sheets covered by this seal: V.1

Design For 6 Degree (RA) Skew

Twin 12'-0" x 12'-0" x 130'-0" Reinforced Concrete Box Culvert

Situation Plan

STA. 177+23.00 (IA 92)
Turn-in Date: Mar 2023

Pottawattamie County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 625 | Design Sheet No. 1 of 1 | FHWA/Asset 43911

FILE NO.	ENGLISH	DESIGN TEAM Flattery\Carlson	POTTAWATTAMIE COUNTY	PROJECT NUMBER BRFN-092-1(75)--39-78	SHEET NUMBER V.1

8:05:54 AM 5/4/2023 pcarls2 pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\7809201020\Design\CADD_Files\Sheet_Files\V01_78092075.dgn

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
Concrete	
(0)	Barrier Concrete
(0)	Barrier Concrete Footing
(0)	Curb Gutter
(48)	Flowable Mortar
(0)	Median Concrete
(0)	PCC Pavement
(0)	Sidewalk
Shoulder	
(209)	Shoulder HMA
(0)	Shoulder PCC
(6)	Shoulder Granular
Existing	
(0)	Existing Pavement
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
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 Substrata
(48)	Broken Weathered Substrata
(3)	Core Out Substrata
(203)	Existing Pavement Substrata
(6)	Loam Substrata
(80)	Rock Substrata
(4)	Select Sand Substrata
(3)	Shale Substrata
(10)	Topsoil Substrata
Unsuitable / Waste	
(3)	Unsuitable Type A
(13)	Unsuitable Type B
(11)	Unsuitable Type C
(3)	Waste

NOTES:

Text

NOTES:

Text

CROSS SECTIONS
LEGEND AND INFORMATION SHEET

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

FILE NO.	ENGLISH	DESIGN TEAM Flattery\Carlson	POTTAWATTAMIE COUNTY	PROJECT NUMBER BRFN-092-1(75)--39-78	SHEET NUMBER W.1	

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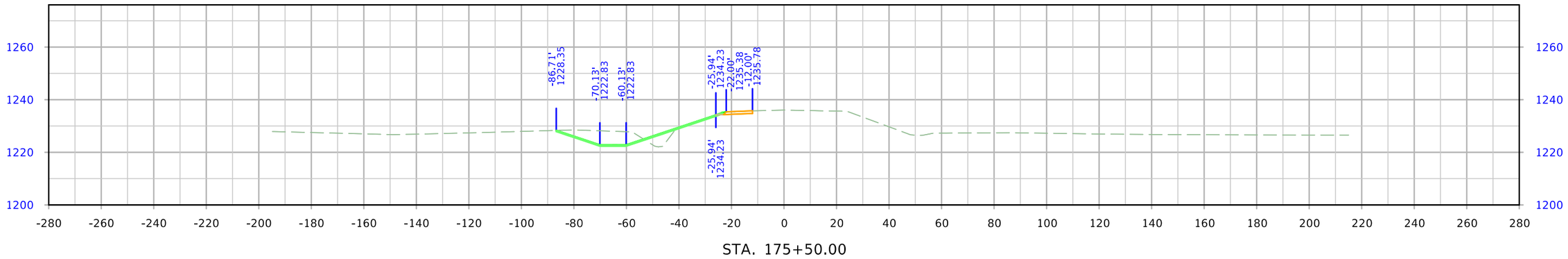
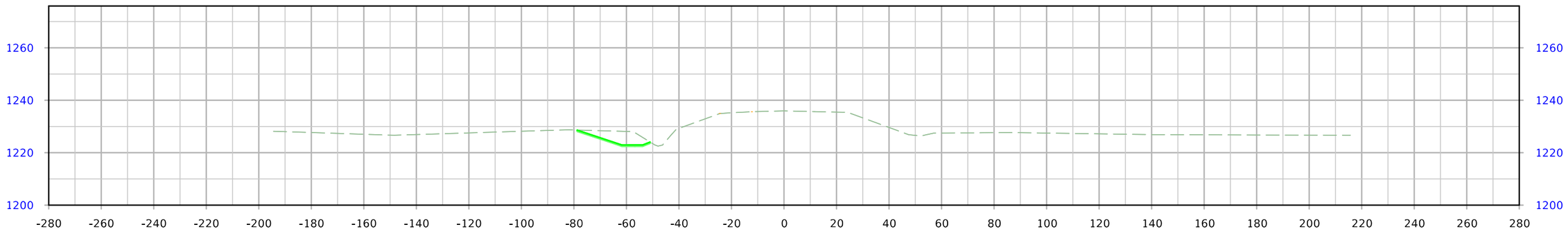
IA 92



STA. 175+50.00



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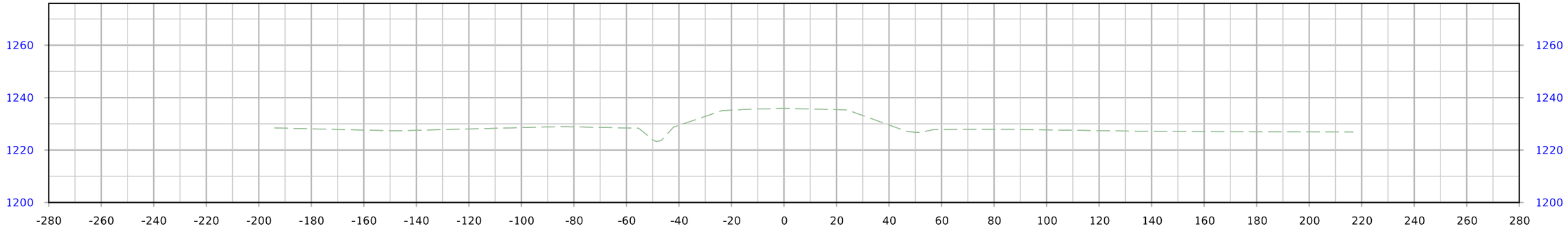

STA. 175+00.00

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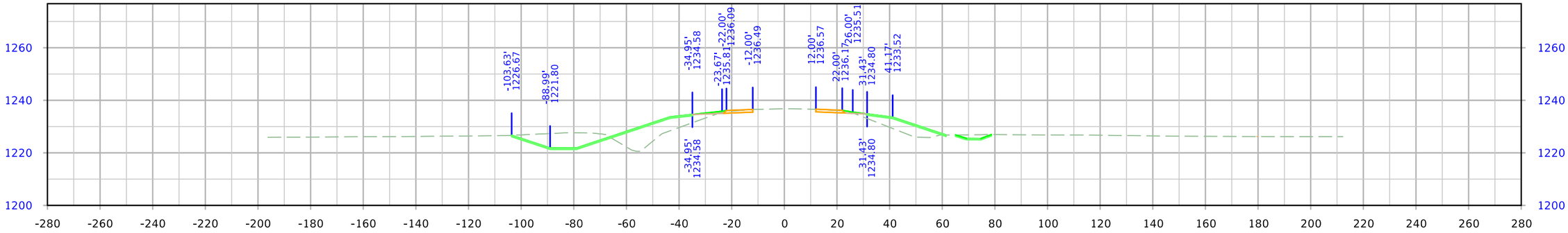

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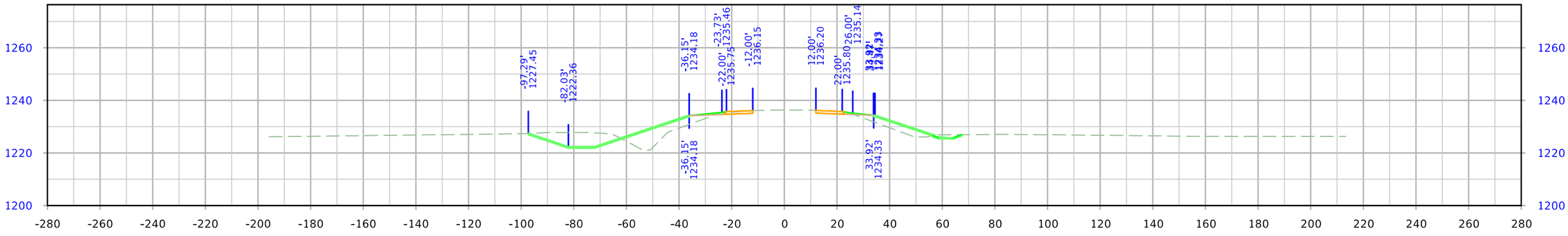

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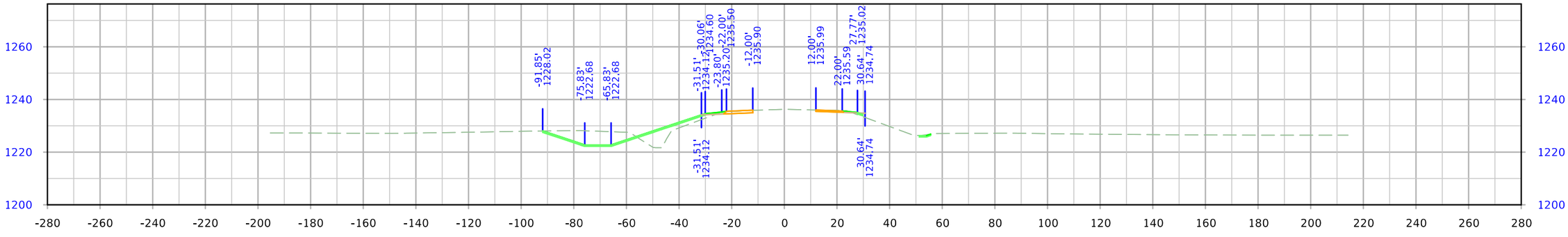

STA. 175+75.00

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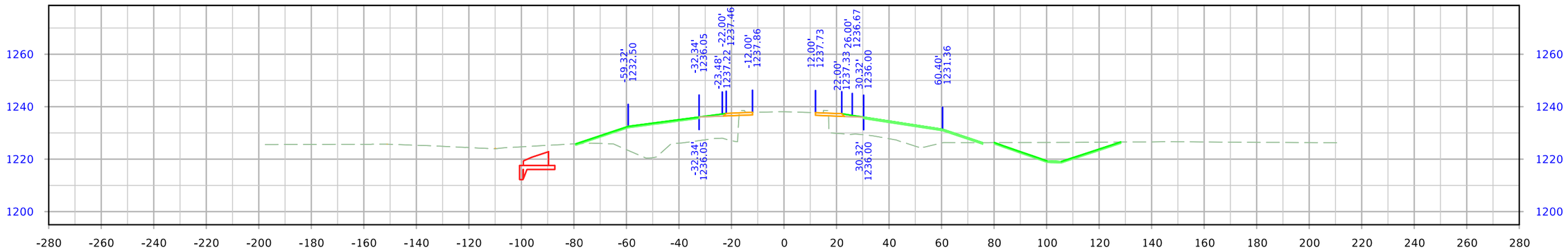
IA 92



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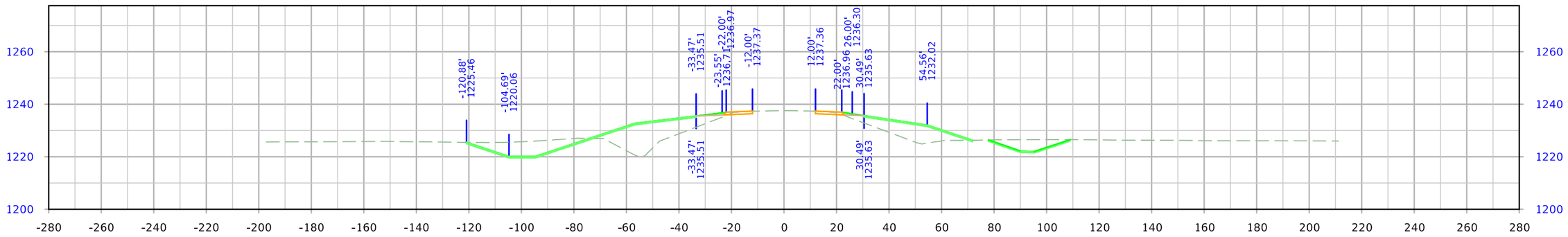

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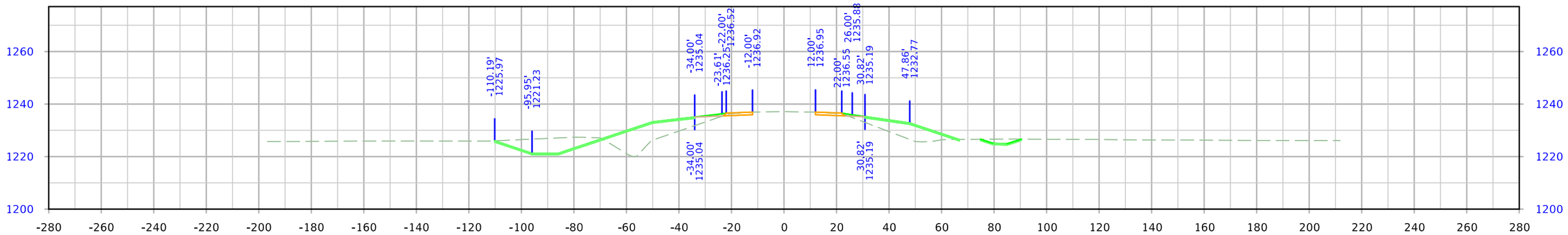

STA. 176+50.00

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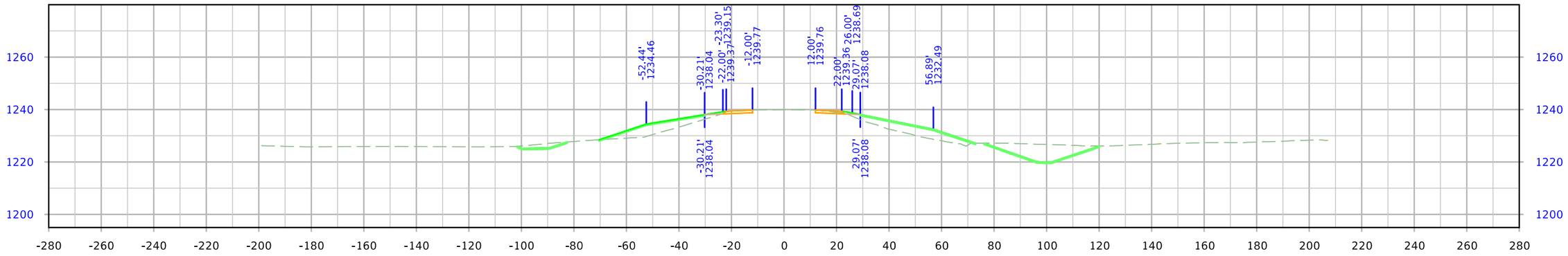
IA 92



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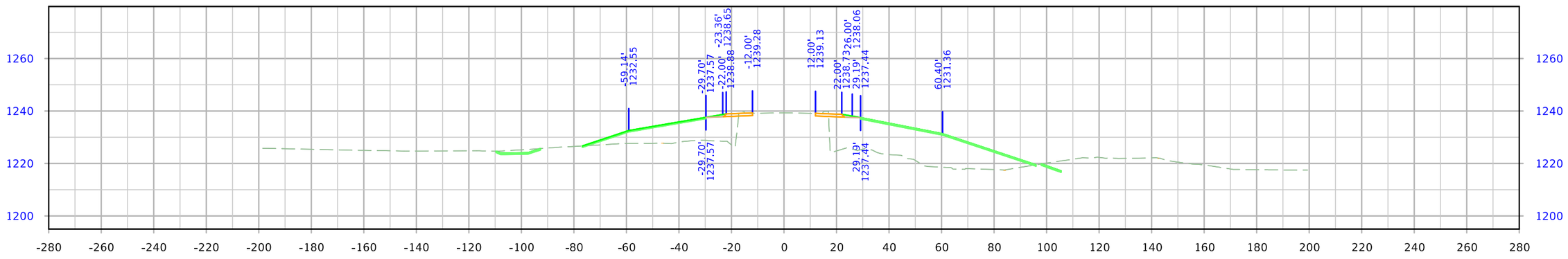

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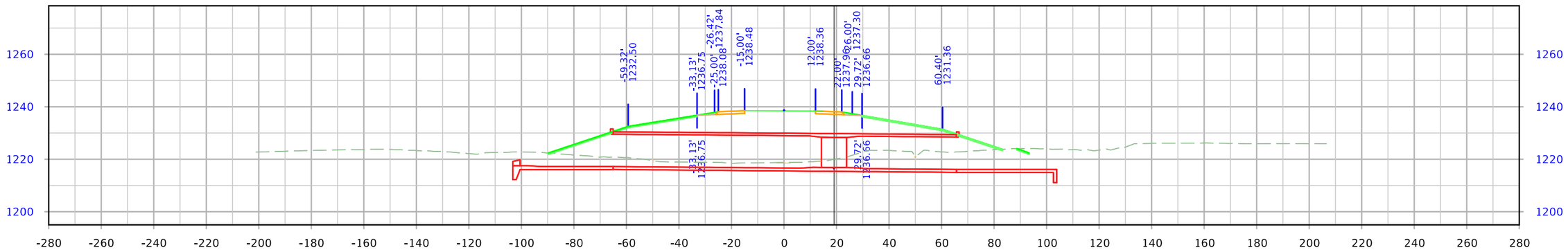

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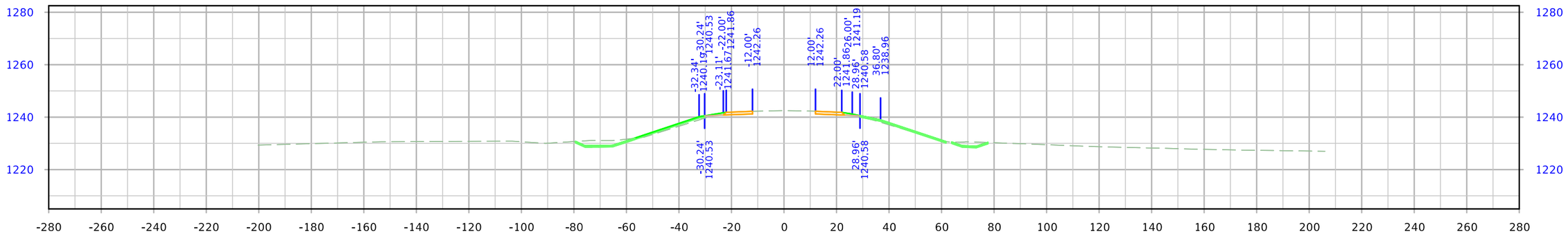
IA 92



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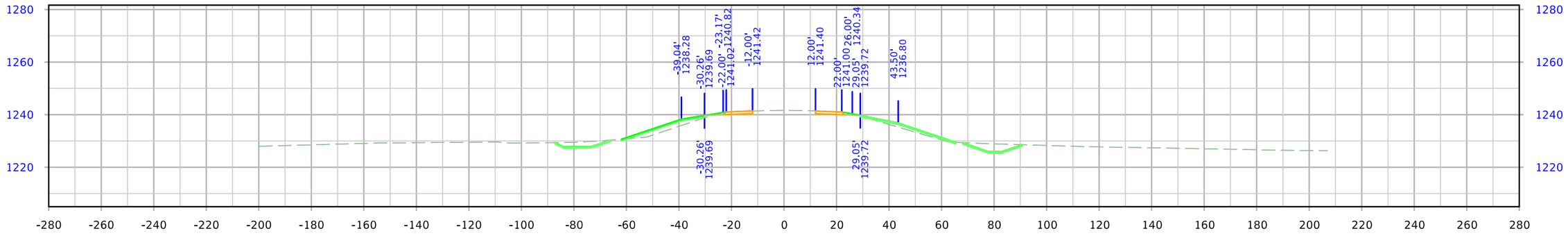

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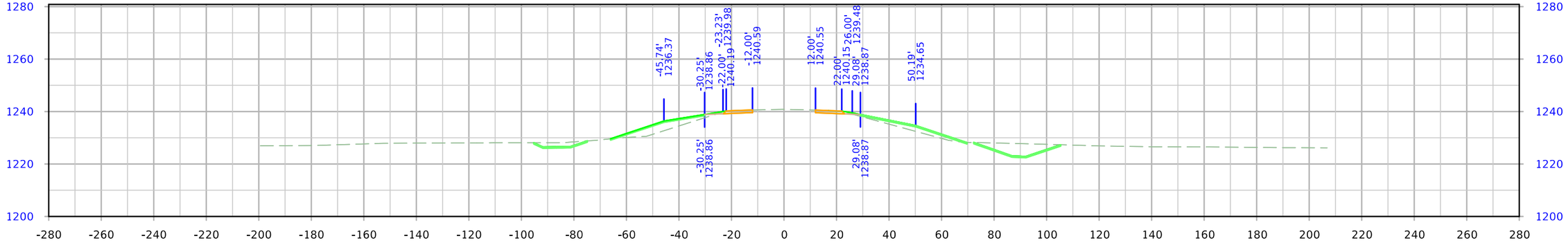

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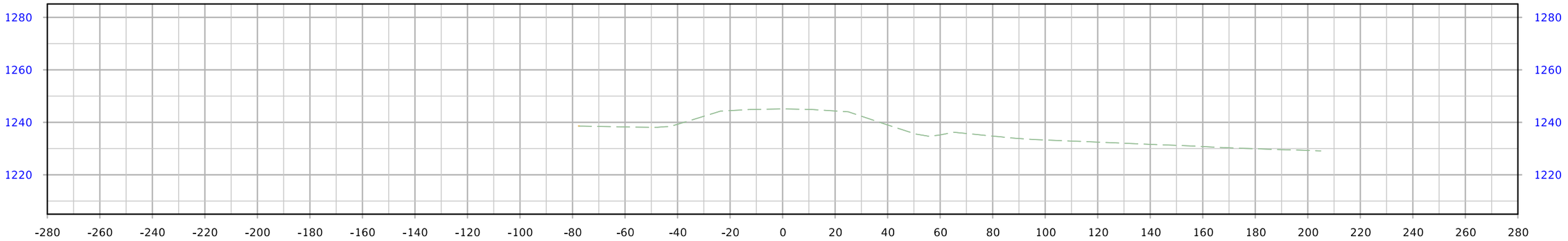
IA 92



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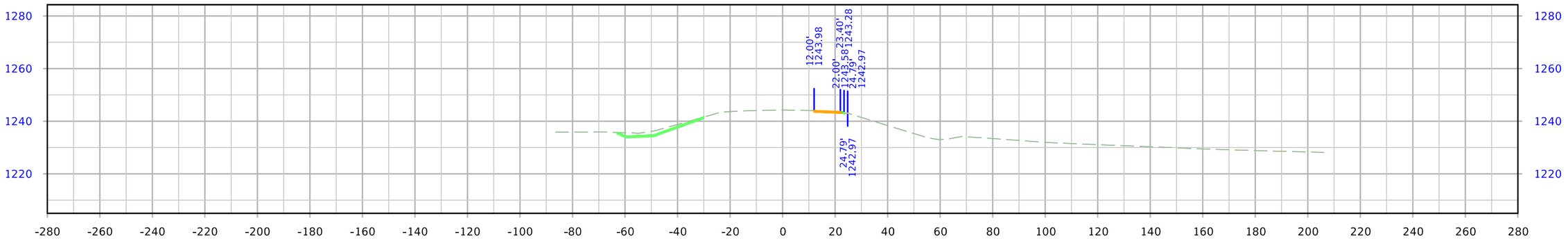

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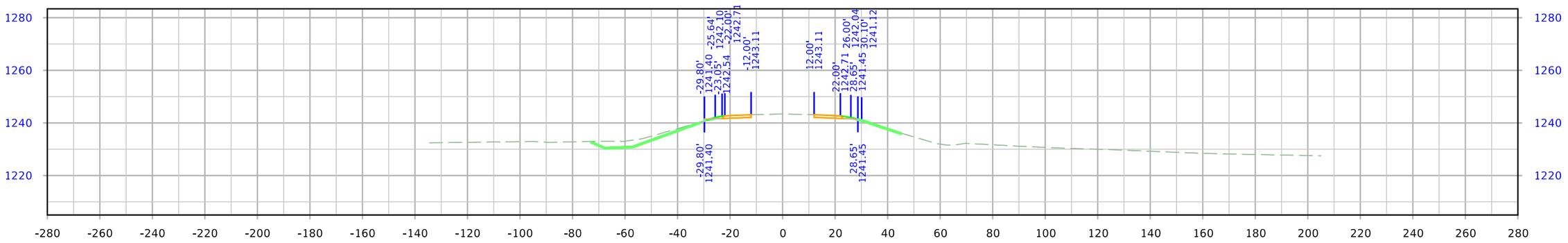

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