LETTING DATE
Nov 18, 2025

Bridge Replacement
BRF-071-8(62)--38-21

CLAY COUNTY

IOWA DOT

REVISIONS

TOTAL
..
PROJECT IDENTIFICATION NUMBER
21-21-071-020
PROJECT NUMBER
BRF-071-8(62)--38-21
R.O.W. PROJECT NUMBER
NHSN-071-8(63)--2R-21

INDEX OF SHEETS

H Sheets

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

CLAY COUNTY

Bridge Replacement

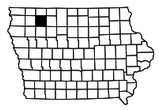
Willow River, 3.4 Miles N of N Jct IA 10

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.



DESIGN DATA RURAL			
20 --	AADT	4,100	V.P.D.
20 --	AADT	4,300	V.P.D.
20 --	DHV	–	V.P.H.
TRUCKS		15	%
Total Design ESALs		–	

INDEX OF SEALS

SHEET NO.	NAME	TYPE	BID QUANTITY SHEETS
A.1	Michael J. Janechek	Primary Signature Block	X
V.1	Phillip M. Harpole	Hydraulic Design	X

D4 PLAN - Jul 22, 2025

PRELIMINARY PLANS

Subject to change by final design.

D5 PLAN - Dec 01, 2023

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Shive-Hattery	CLAY COUNTY	PROJECT NUMBER BRF-071-8(62)--38-21	SHEET NUMBER A1

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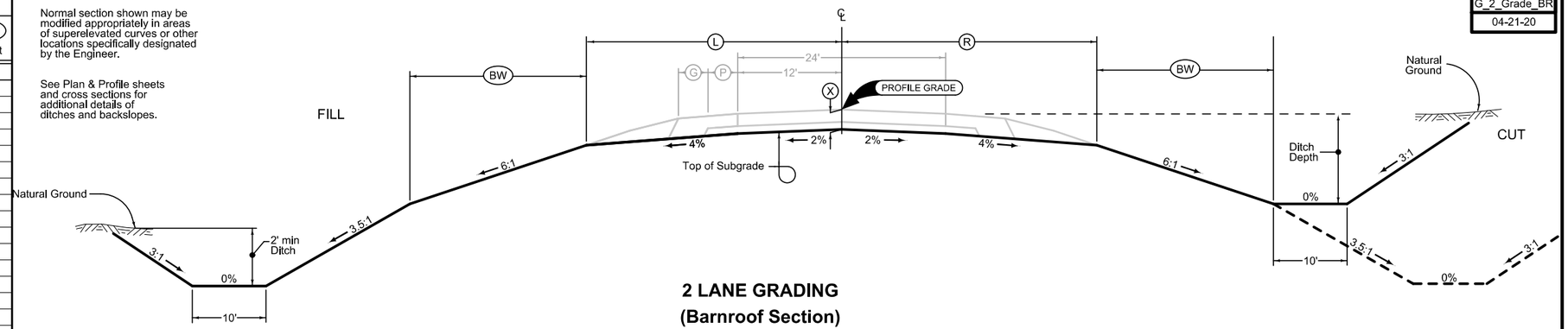
LOCATION			DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW) Feet
US 71	38+47.56	39+74.58			22	
	40+35.39	42+22.44			22	

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
(Barnroof Section)

G_2_Grade_BR
04-21-20

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Shive-Hattery	CLAY COUNTY	PROJECT NUMBER BRF-071-8(62)--38-21	SHEET NUMBER B1	

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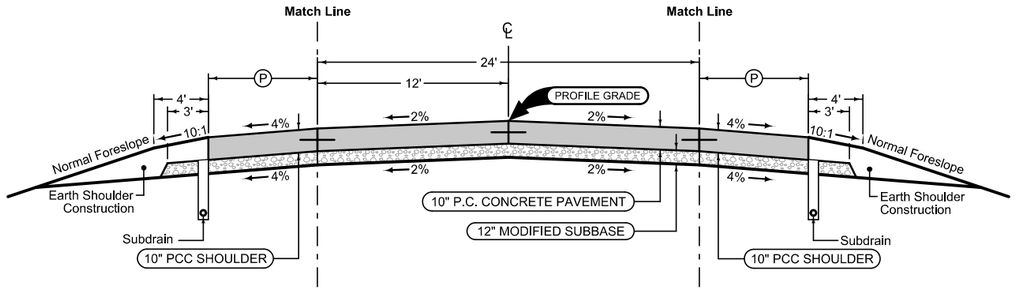
Full Depth PCC Shoulder

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

2_P_FullPCC_ 04-20-21		
STATION TO STATION		(P) Feet
36+74.56	38+47.56	10
38+47.56	39+14.56	VAR.
41+65.45	42+45.91	VAR.
42+45.91	43+95.37	10



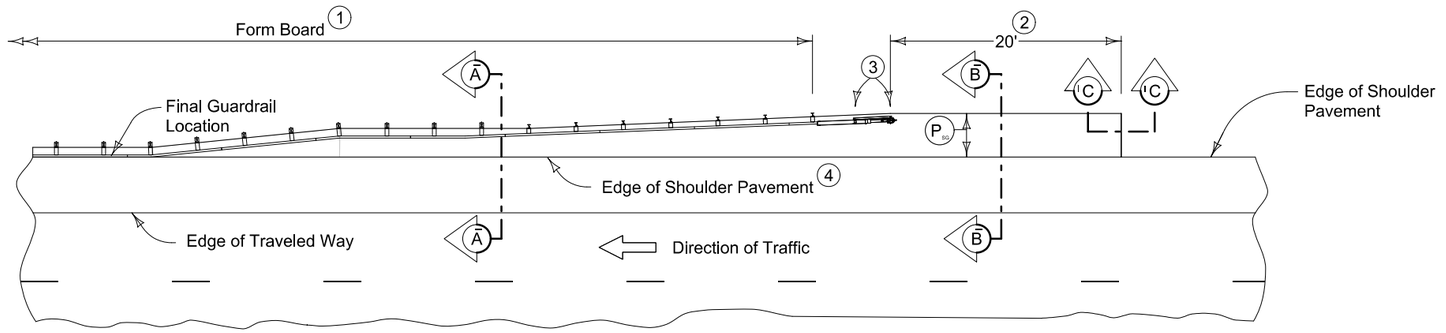
Mainline Jointing:
Transverse joints: CD at 17' spacing
Longitudinal joint: L-2

2P_ 04-21-20	
STATION TO STATION	
38+47.56	39+04.56
41+65.45	42+22.44

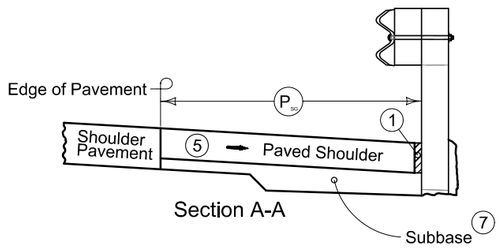
Full Depth PCC Shoulder

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

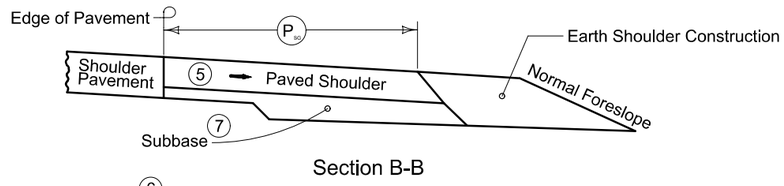
2_P_FullPCC_ 04-20-21		
STATION TO STATION		(P) Feet
36+74.56	38+23.92	10
38+23.92	39+04.56	VAR.
41+55.45	42+22.44	VAR.
42+22.44	43+95.37	10



PLAN VIEW

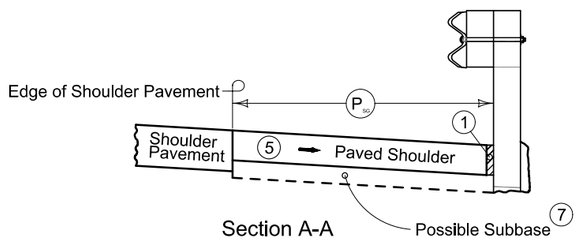


Section A-A

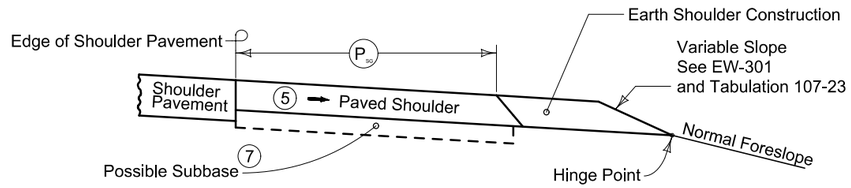


Section B-B

NEW CONSTRUCTION 6



Section A-A



Section B-B

EXISTING SHOULDER

9" HMA Paved Shoulder at guardrail. 8" 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.

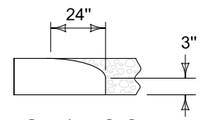
(3) Shoulder may be notched for first 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.

(4) 'KT' (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 full 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 FULL WIDTH PAVED SHOULDER)

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
- 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

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

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

FO *FO1D1, CENTURY LINK - 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 Iowa DOT\Shive-Hattery	CLAY COUNTY	PROJECT NUMBER BRF-071-8(62)--38-21	SHEET NUMBER D1

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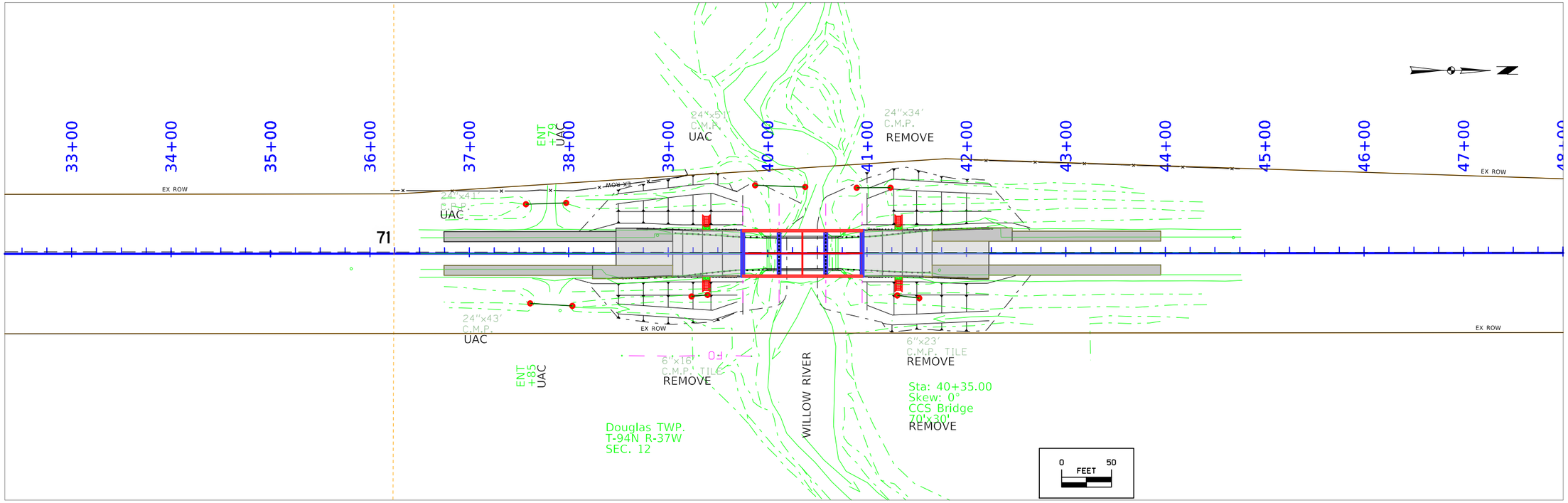

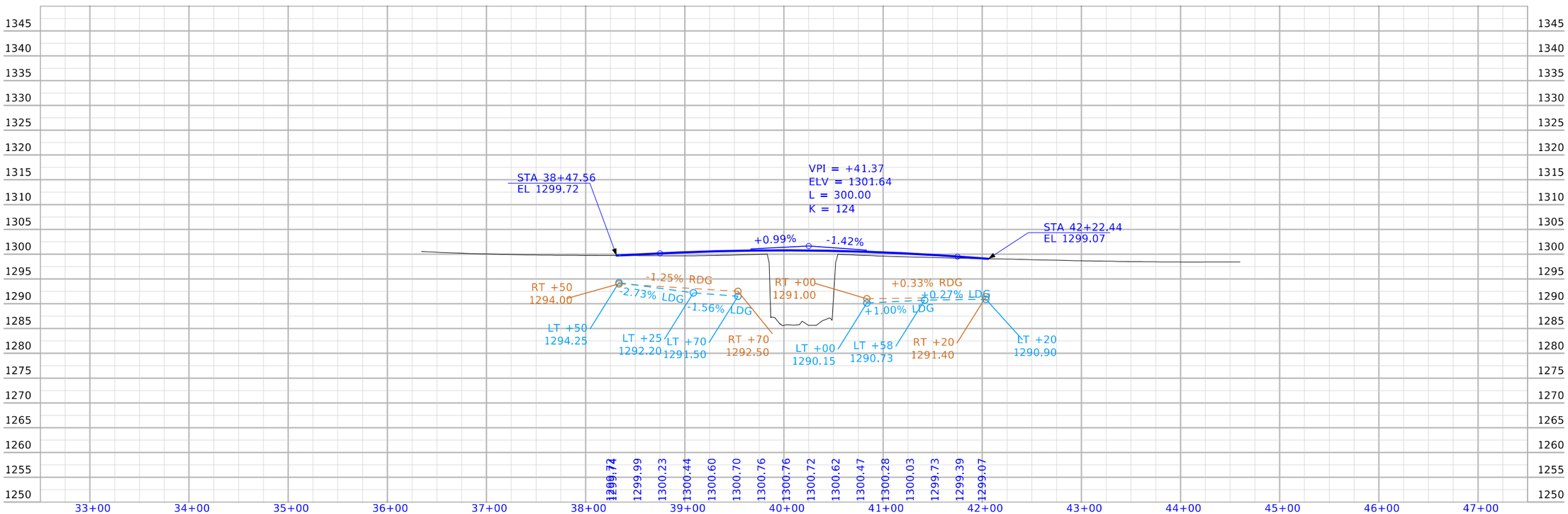

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Shive-Hattery	Clay COUNTY	PROJECT NUMBER BRF-071-8(62)--38-21	SHEET NUMBER D2

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SURVEY INDEX

County: Clay
PIN: 21-21-071-020
Project Number: BRF- 071-8(62)--38-21
Location: Willow River 3.4 mi N of N Jct IA 10
Type of Work: Topographic Survey
Project Directory: 2107102021

Survey Personnel

Murray Berting – PLS
Gavin Gear – Land Survey Technician

Date(s) of Survey

Begin Date	10/06/2022
End Date	03/29/2023

General Information

Measurement units for this survey are US survey feet. This survey is for proposed bridge reconstruction and reconstruction of State Highway 71, over the Willow River. Project datum and control information is provided by Shive-Hattery Inc. This project is a Preliminary Survey. This survey request was for the bridge over the Willow River, State Highway 71 corridor and the Willow River.

Project Control

Vertical Control

Nearby Iowa Real Time Network reference stations were utilized to obtain horizontal and vertical control on primary project control points. (3) three-minute observations were taken with a minimum two-hour time span between and used in a weighted average to obtain final coordinate values. 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 01 (U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2012bu2

Alignment Information

The horizontal alignment for U.S. Hwy 71 this survey is a retrace of As-built Plans No. FN-935. Survey stationing was equated to the plan POT at Sta. 215+40 and run back and ahead without equation throughout the survey.

Survey stationing relates to as built plan stationing as follows:

POT Sta. 215+40.0 As-built Plans Project No. FN-935
Survey POT Sta. 215+40.0

POT Sta. 241+57.35 As-built Plans Project No. FN-935
Survey POT Sta. 241+58.70

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 01 (U.S. Survey Foot)

VERT. DATUM: NAVD88 - Geoid Model: 2012bu2

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 01 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: 2012bu2

POINT NAME	NORTHING	EASTING	ELEVATION	FEATURE DEFINITION
501	9519325.722	11523632.140	1294.635333	CP 1" GAS PIPE W/ IDOT CAP ROW
502	9517967.878	11523646.200	1294.032667	CP TPOST REF
504	9516255.271	11523655.900	1308.701	CP 1" GAS PIPE W/ IDOT CAP
505	9515755.198	11523780.630	1336.049667	CP 1" GAS PIPE W/ IDOT CAP
506	9515955.207	11523805.840	1337.653333	CP 1" GAS PIPE W/ IDOT CAP
507	9515655.231	11523785.720	1341.703667	CP 1" GAS PIPE W/ IDOT CAP

NO ACCESS RIGHTS ARE TO BE ACQUIRED ON THIS PROJECT.

1

JAMES G AND MARCIA B LARSON

DOUGLAS TWP
NE¼ SW¼
SEC. 12-T94N-R37W

39+45
℄86'

39+45
℄ 88'

39+00
℄ 77' ±EX R/W

39+65
℄ 81' ± EX R/W

35+00

40+00

45+00

EX ROW

EX ROW

EX ROW

EX ROW

41+10
℄ 80' ±EX R/W

41+23
℄ 88'

42+30
℄ 80'±EX R/W

42+25
℄ 88'

2

COLLEEN B ANDERSON

DOUGLAS TWP
NW¼ SE¼
SEC. 12-T94N-R37W

0 50
FEET

Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY
ROW Team: ATINKEN / JLARSON
ROW #: NHSN-071-8(63)--2R-21
Plan Date: 2/26/24
Color Legend:
Property Lines
Temporary Easement
Permanent Acquisition

FILE NO.	ENGLISH	DESIGN TEAM	IOWA DOT \ SHIVE HATTERY		CLAY	COUNTY	PROJECT NUMBER	BRF-071-8(62)--38-21	SHEET NUMBER	H1	

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108-23A
08-01-08

TRAFFIC CONTROL PLAN

1) While bridge and approaches are being removed and replaced, traffic shall be maintained on US 71 at all times by staged construction with temporary signals allowing one lane of traffic. (TC-217)

2) Signage and devices shall be furnished, installed, maintained, and removed by Contractor.

108-26A
08-01-08

STAGING NOTES

Stage 1:
Construct temporary pavement at SB shoulders.
Remove and replace east(NB) portion of US 71 roadway, approaches and bridge with traffic shifted to SB lane using temporary signals.

Stage 2:
Remove and replace west half of roadway, approaches and complete bridge structure with traffic shifted to NB lane and temporary pavement using temporary signals.

Stage 3:
Complete approach and roadway to re-establish centerline with US 71 traffic shifted to SB lane using temporary signals.

108-25
10-21-14

511 TRAVEL RESTRICTIONS

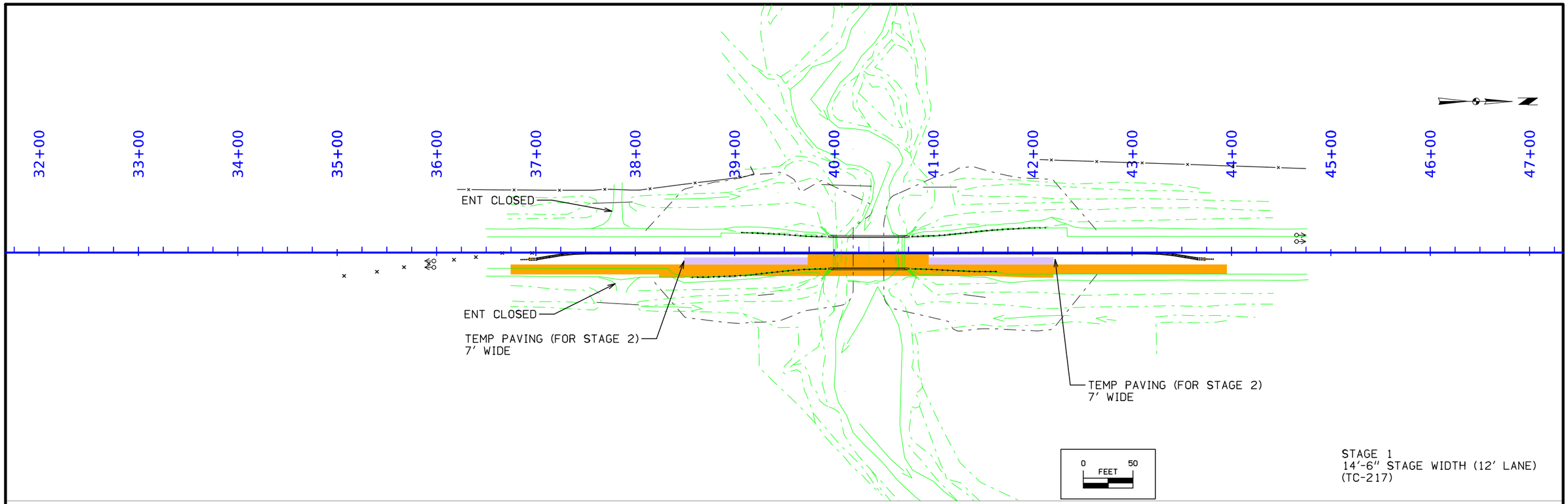
Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
US 71	Both	CLAY	Bridge over Willow River	Willow River	Bridge		Width					

111-01
04-17-12

COORDINATED OPERATIONS

Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

Project	Type of Work
None Provided	



STAGE 1
14'-6" STAGE WIDTH (12' LANE)
(TC-217)

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Shive-Hattery	CLAY COUNTY	PROJECT NUMBER BRF-071-8(62)--38-21	SHEET NUMBER J2	

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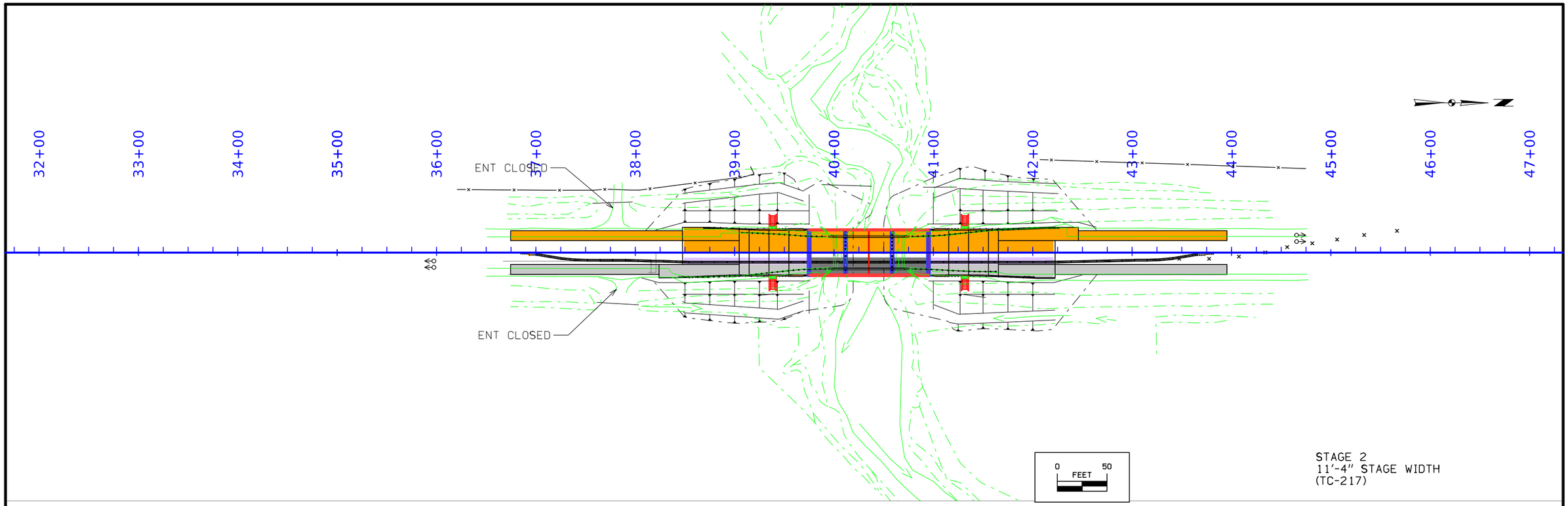

STAGE 2
11'-4" STAGE WIDTH
(TC-217)

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Shive-Hattery	CLAY COUNTY	PROJECT NUMBER BRF-071-8(62)--38-21	SHEET NUMBER J3	

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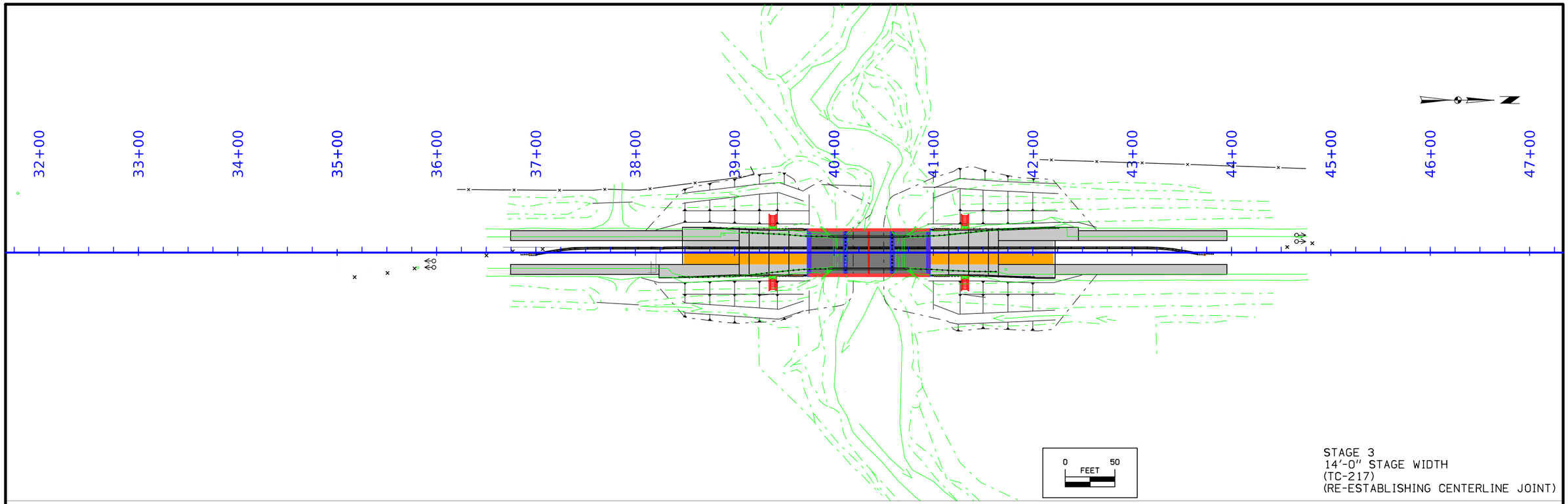

STAGE 3
14'-0" STAGE WIDTH
(TC-217)
(RE-ESTABLISHING CENTERLINE JOINT)

FILE NO.	ENGLISH	DESIGN TEAM Iowa DOT\Shive-Hattery	CLAY COUNTY	PROJECT NUMBER BRF-071-8(62)--38-21	SHEET NUMBER J4	

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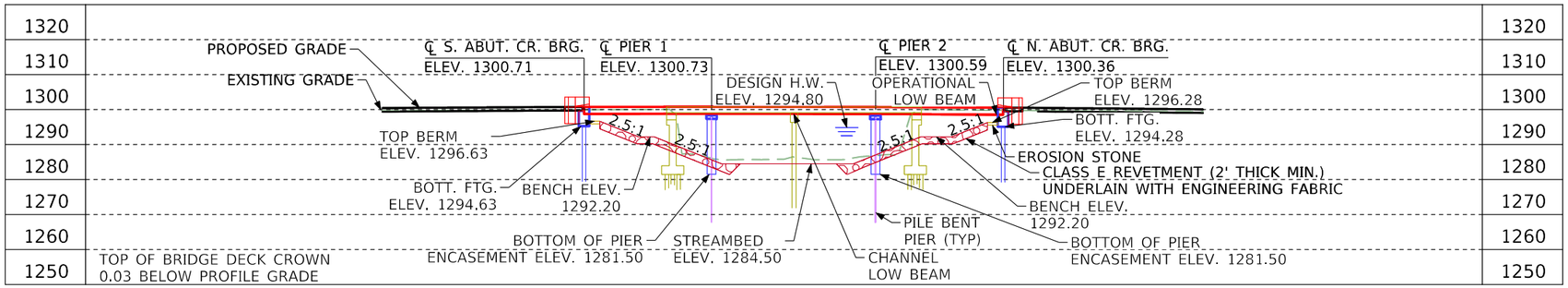
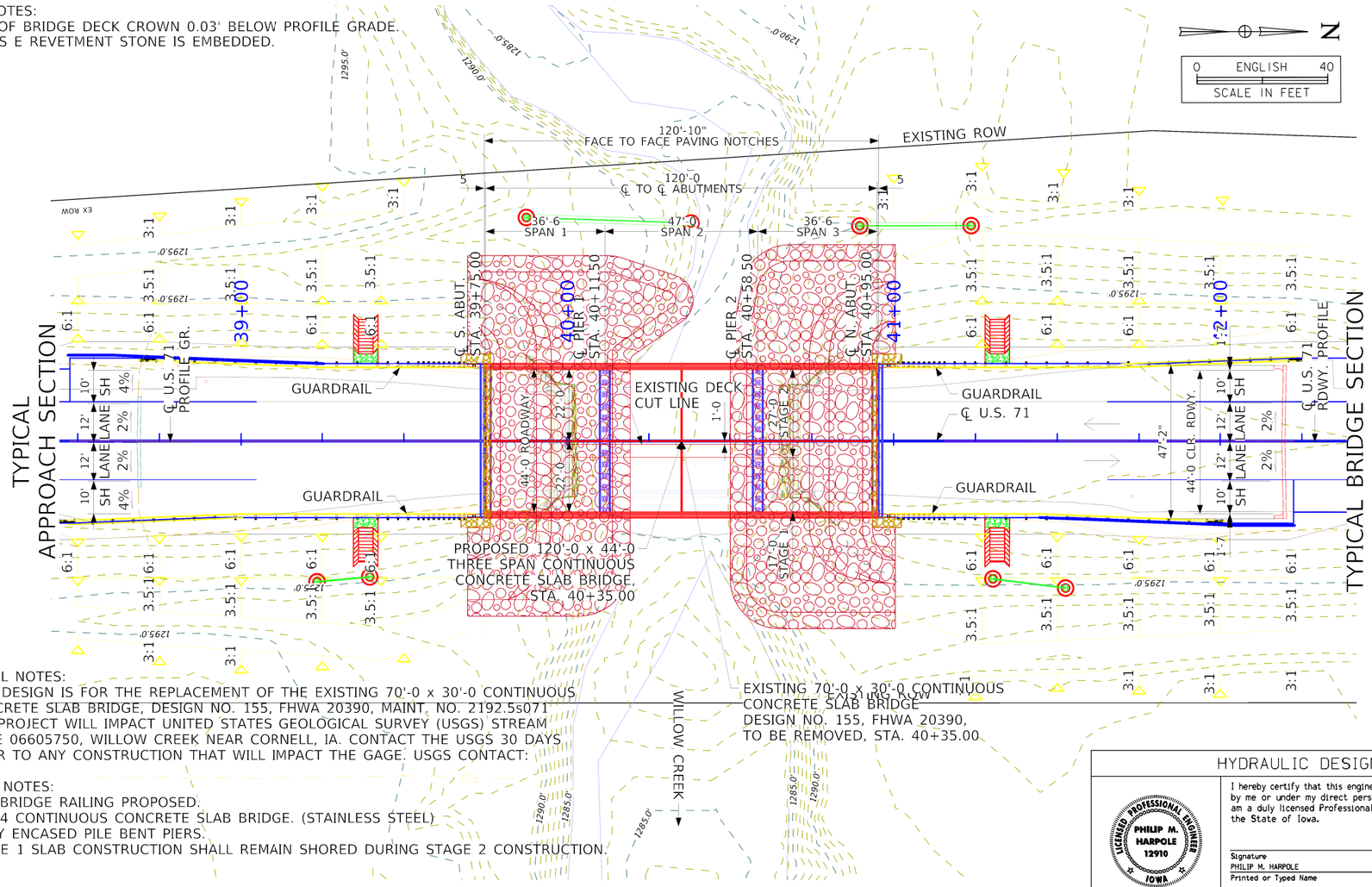
Control Point: POINT NAME 504, Y=9516255.27, X=11523656, Z=1308.70, CP 1" GAS PIPE W/IDOT CAP



LONGITUDINAL SECTION ALONG ℄ APPROACH ROADWAY

PRELIMINARY DESIGN SCOUR ELEV. = 1280.4
VERIFY ELEVATIONS WHEN SOIL BORINGS ARE COMPLETE

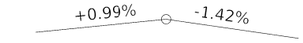
PLAN NOTES:
1. TOP OF BRIDGE DECK CROWN 0.03' BELOW PROFILE GRADE.
2. CLASS E REVETMENT STONE IS EMBEDDED.



GENERAL NOTES:
1. THIS DESIGN IS FOR THE REPLACEMENT OF THE EXISTING 70'-0 x 30'-0 CONTINUOUS CONCRETE SLAB BRIDGE, DESIGN NO. 155, FHWA 20390, MAINT. NO. 2192.5s071
2. THE PROJECT WILL IMPACT UNITED STATES GEOLOGICAL SURVEY (USGS) STREAM GAGE 06605750, WILLOW CREEK NEAR CORNELL, IA. CONTACT THE USGS 30 DAYS PRIOR TO ANY CONSTRUCTION THAT WILL IMPACT THE GAGE. USGS CONTACT:

DESIGN NOTES:
1. TL-4 BRIDGE RAILING PROPOSED.
2. J44-14 CONTINUOUS CONCRETE SLAB BRIDGE. (STAINLESS STEEL)
3. FULLY ENCASED PILE BENT PIERS.
4. STAGE 1 SLAB CONSTRUCTION SHALL REMAIN SHORED DURING STAGE 2 CONSTRUCTION.

SITUATION PLAN



VPI Sta. = 40+25.00 LVC = 300.00
VPI Elev. = 1301.64

Proposed Profile Grade U.S. 71

Hydraulic Data

Drainage Area = 81.2 Sq. Mi.
Stream Slope = 5.39 Ft./Mi.
Avg. Low Water Stage = 1285.6

Q_{25} = 3,490 CFS
Stage = 1294.6

Q_{50} = 4,300 CFS
Stage = 1294.8
Channel Low Beam = 1298.57
Avg. Bridge Velocity = 6.97 FPS

Q_{100} = 5,210 CFS
Stage = 1295.1
Operational Low Beam = 1298.25
Backwater = 0.86 Ft.
Avg. Bridge Velocity = 8.09 FPS

Q_{200} = 6,200 CFS
Stage = 1295.4
Calculated Design Scour = 1280.4

Q_{500} = 7,380 CFS
Stage = 1295.7
Avg. Bridge Velocity = 10.50 FPS
Calculated Check Scour = 1279.8

Roadway Overtop 1298.40
Sta. 44+33.0

RIBD Site Identification Code: WillowC_Clay4.74

Utilities Legend

Symbol - Type
—— FO —— Fiberoptic Telephone
Utilities shown on this sheet are for information only, see road design sheets for final utility information.

Location

U.S. 71 Over Willow Creek
T-94N R-37W
Section 12
Douglas Township
Clay County
FHWA No.
Bridge Maint. No. 2192.5s071
Latitude 42.972575°
Longitude -95.161392°

Traffic Estimate

2026	AADT	4,100 V.P.D.
2046	AADT	4,300 V.P.D.
2046	DHV	450 V.P.H.
Trucks		15 %
Total Design ESALs		??,???

HYDRAULIC DESIGN

LICENSED PROFESSIONAL ENGINEER — PHILIP M. HARPOLE 12910 — 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
PHILIP M. HARPOLE
Printed or Typed Name

My license renewal date is December 31, 2023

Pages or sheets covered by this seal: V.1, V.2, V.3

Design For 0° Skew

120'-0 x 44'-0 CONTINUOUS CONCRETE SLAB BRIDGE

36'-6 End Spans 47'-0 Interior Span

SITUATION PLAN

STA. 40+35.00 (U.S. 71) SEPTEMBER 2023

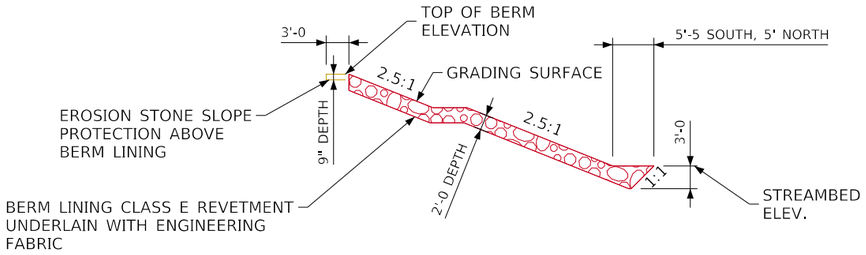
Clay County
IOWA DEPARTMENT OF TRANSPORTATION

Design No. #### Design Sheet No. 001 of 003 FHWA/Asset ####

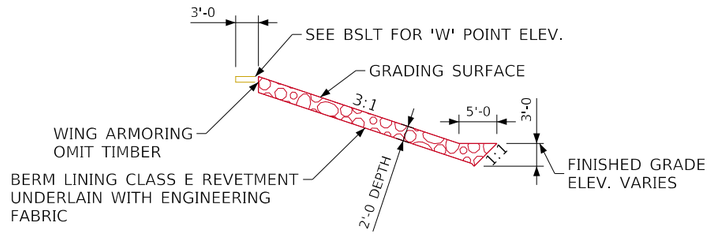
FILE NO. ####	ENGLISH	DESIGN TEAM SHIVE-HATTERY	CLAY COUNTY	PROJECT NUMBER BRF-071-8(62)--38-21	SHEET NUMBER V.1	REVISED

SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC

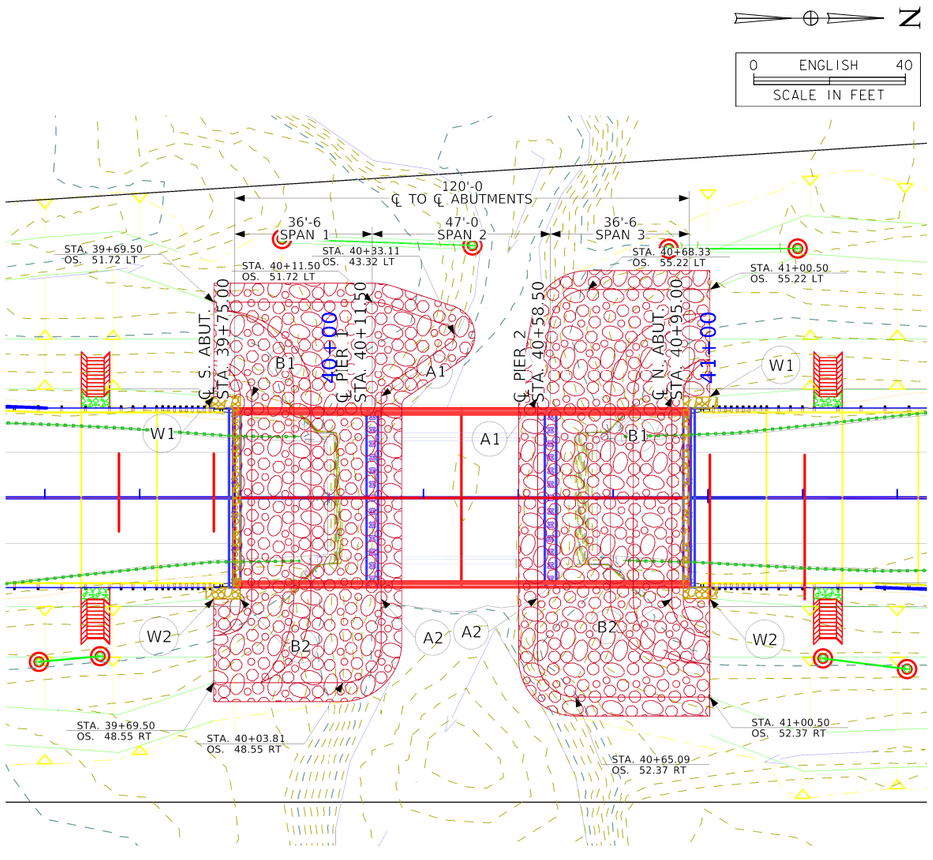
Changed by Addenda



SECTION THRU EMBEDDED REVETMENT BERM



SECTION THRU EMBEDDED REVETMENT BERM NORMAL TO BRIDGE WING AT 'W' POINT



SITE PLAN

Berm Slope Location Table

Points	South Abutment			North Abutment		
	Station	Offset	Elev.	Station	Offset	Elev.
A1	40+14.33	26.58' LT	1284.50	40+55.05	26.58' LT	1284.50
A2	40+14.33	26.58' RT	1284.50	40+55.05	26.58' RT	1284.50
B1	39+79.50	26.58' LT	1296.63	40+90.50	26.58' LT	1296.28
B2	39+79.50	26.58' RT	1296.63	40+90.50	26.58' RT	1296.28
W1	39+69.50	26.58' LT	1299.94	41+00.50	26.58' LT	1299.55
W2	39+69.50	26.58' RT	1299.94	41+00.50	26.58' RT	1299.55

Berm slope elevations reflect the grading surface.

Estimated Berm Armoring Quantities

Location	Revetment CL. E (Ton)	Erosion Stone (Ton)	Engineering Fabric (SY)	Excavation (CY)
Berm Lining - South Abutment	661.1	7.2	687.6	413.2
Berm Lining - North Abutment	655.0	7.2	678.7	409.4
Totals	1316.1	14.4	1366.3	822.6

Excavation quantity calculated from grading surface.

Design For 0° Skew

120'-0 x 44'-0 CONTINUOUS CONCRETE SLAB BRIDGE

36'-6 End Spans 47'-0 Interior Span

SITUATION PLAN - SITE

STA. 40+35.00 (U.S. 71) SEPTEMBER 2023

Clay County

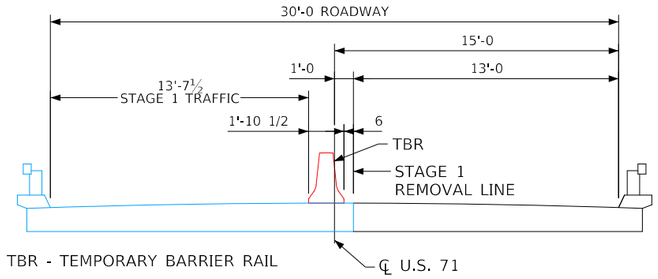
IOWA DEPARTMENT OF TRANSPORTATION

Design No. #### Design Sheet No. 002 of 003 FHWA/Asset ####

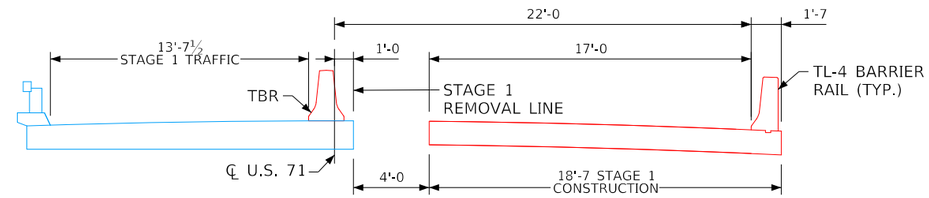
FILE NO. ####	ENGLISH	DESIGN TEAM SHIVE-HATTERY	CLAY COUNTY	PROJECT NUMBER BRF-071-8(62)--38-21	SHEET NUMBER V.2	REVISED

SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC

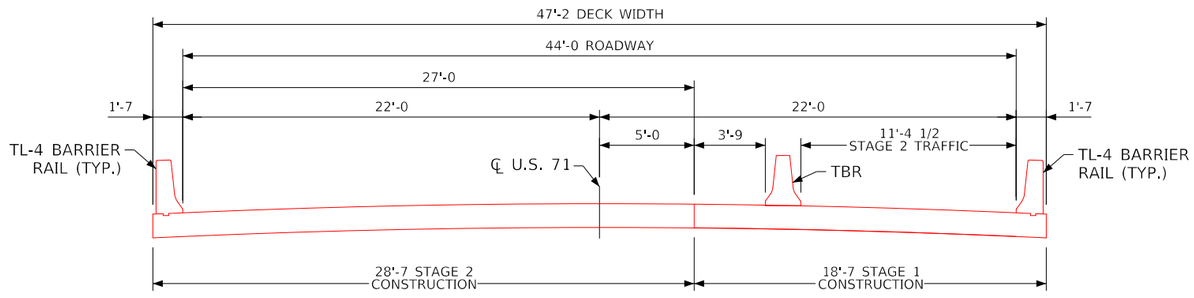
Changed by Addenda



STAGE 1 REMOVAL



STAGE 1 CONSTRUCTION



STAGE 2 CONSTRUCTION

Design For 0° Skew

120'-0 x 44'-0 CONTINUOUS CONCRETE SLAB BRIDGE

36'-6 End Spans 47'-0 Interior Span

STAGE PLAN

STA. 40+35.00 (U.S. 71) SEPTEMBER 2023

Clay County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. #### Design Sheet No. 003 of 003 FHWA/Asset ####

FILE NO. ####	ENGLISH	DESIGN TEAM SHIVE-HATTERY	CLAY COUNTY	PROJECT NUMBER BRF-071-8(62)--38-21	SHEET NUMBER V.3	REVISED

SYSTEMTIME SYSTEMDATE USERNAME DGNSPEC

Changed by Addenda

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

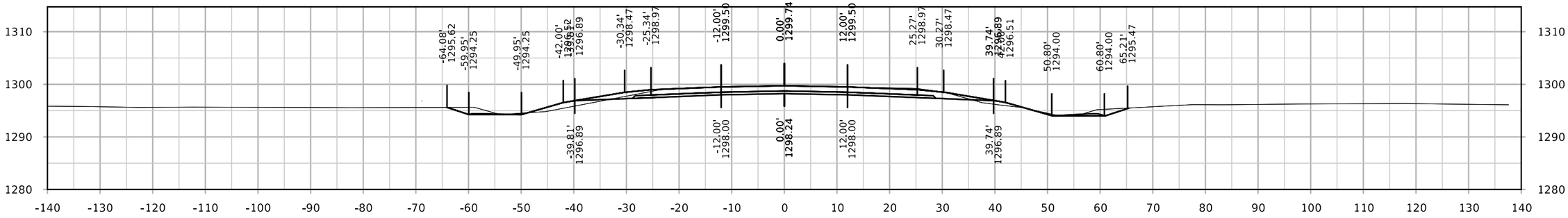
NOTES:

Text

CROSS SECTIONS
LEGEND AND INFORMATION SHEET

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

US 71



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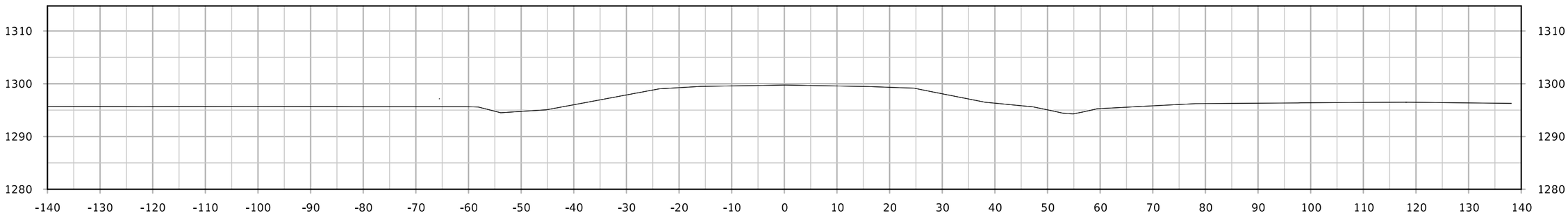

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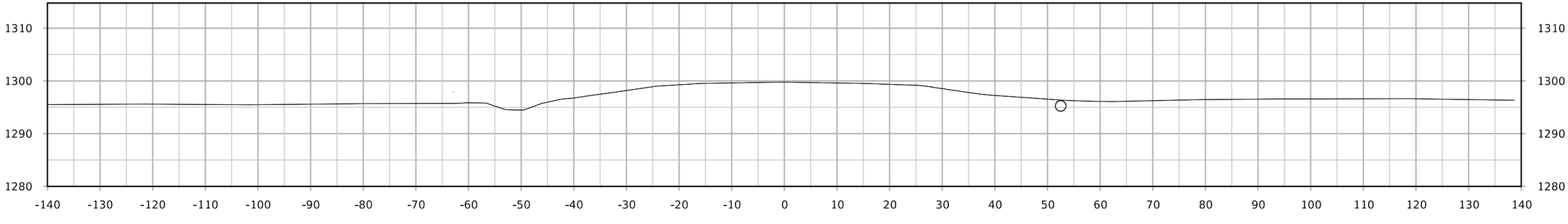

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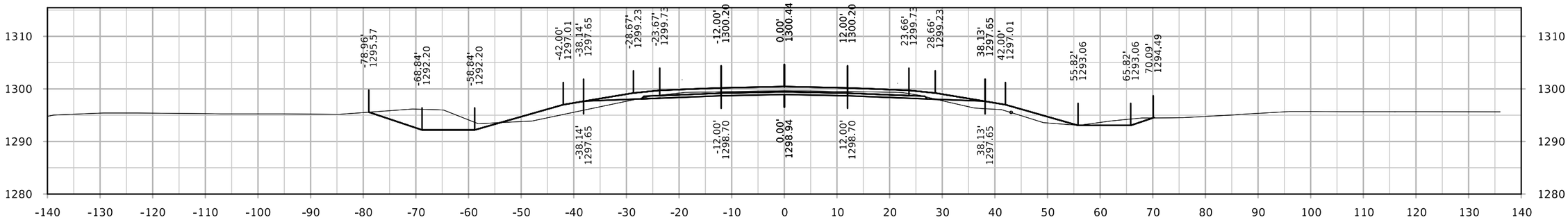

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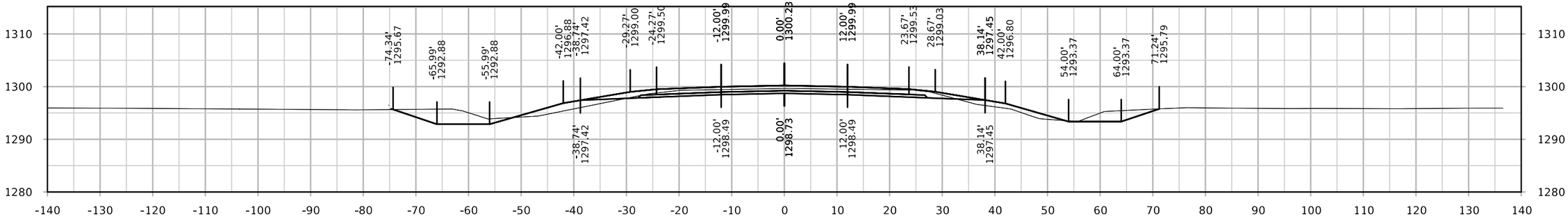

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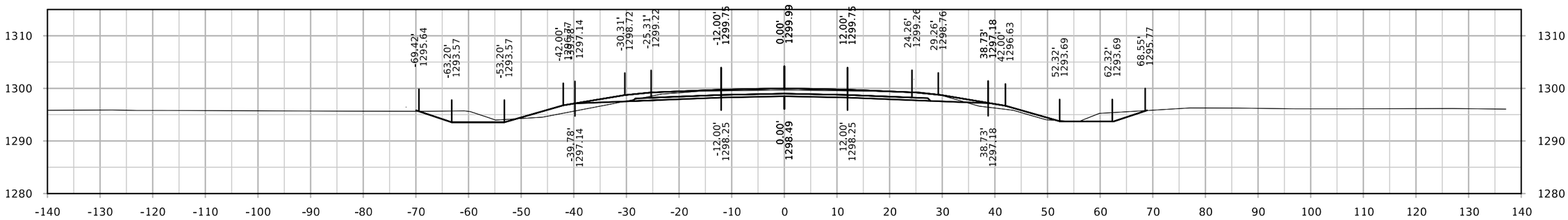

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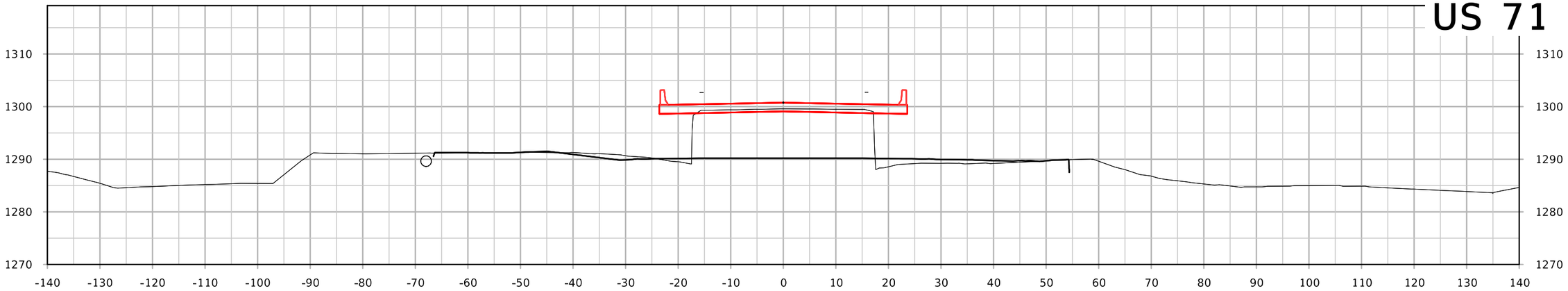

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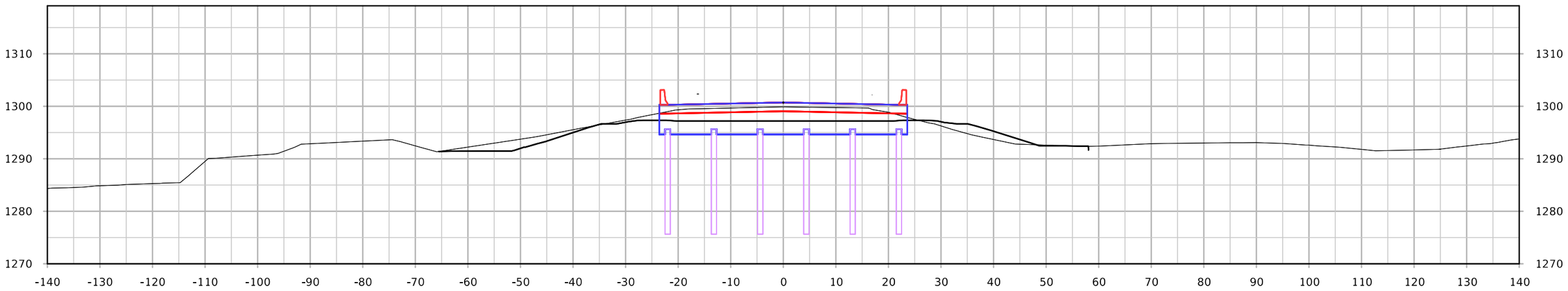

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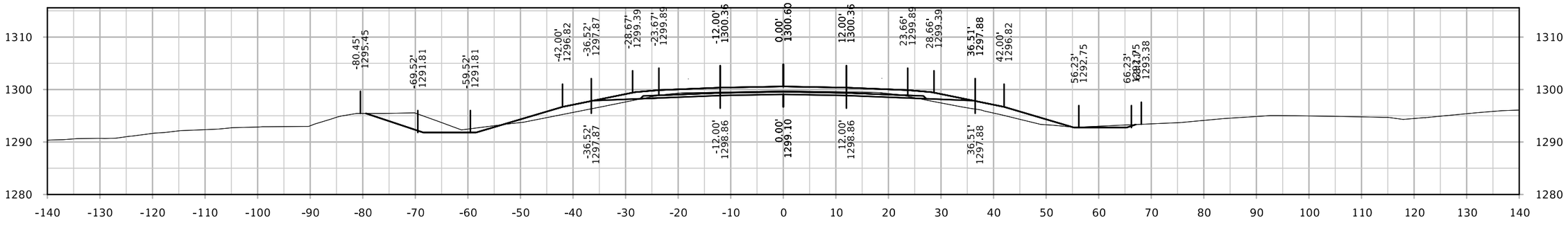

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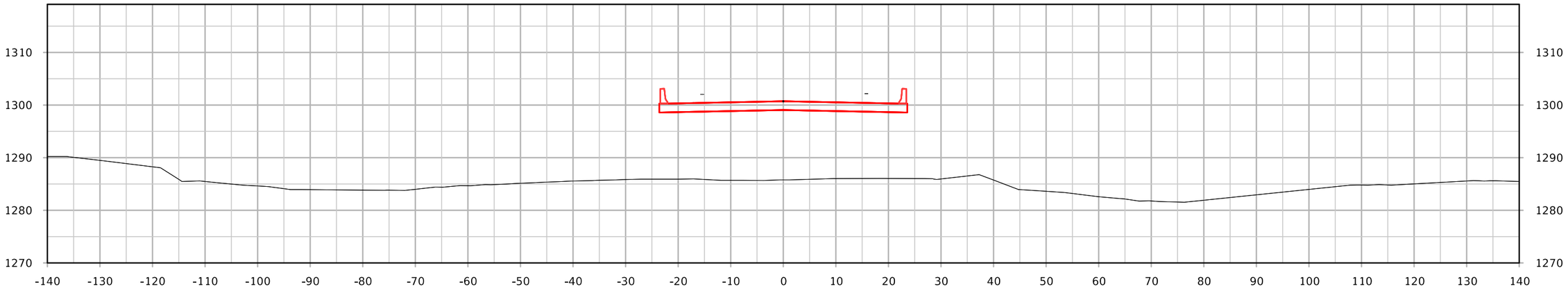

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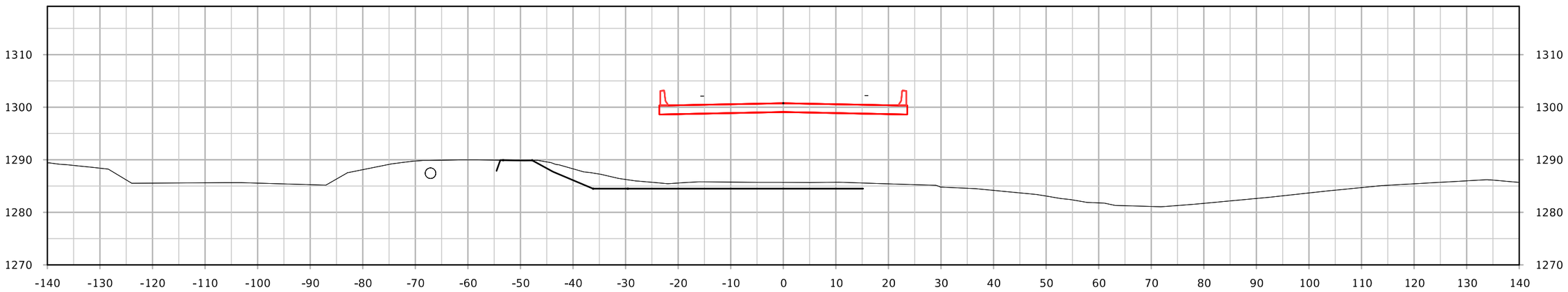

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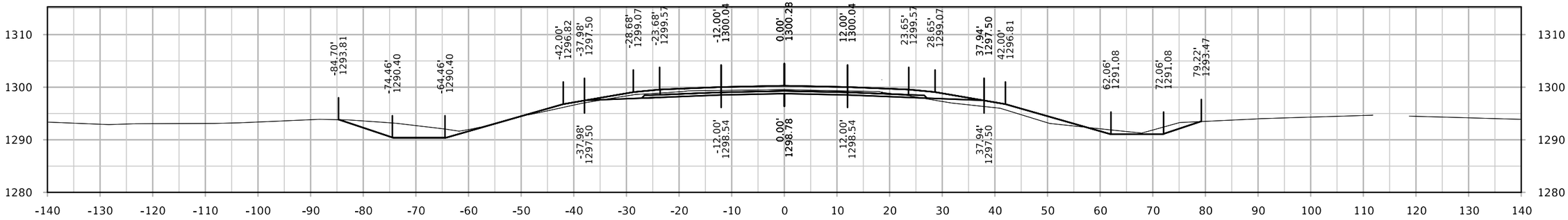

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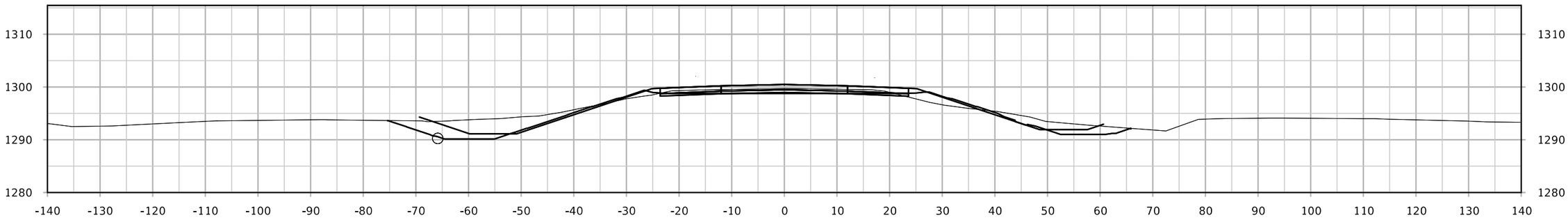

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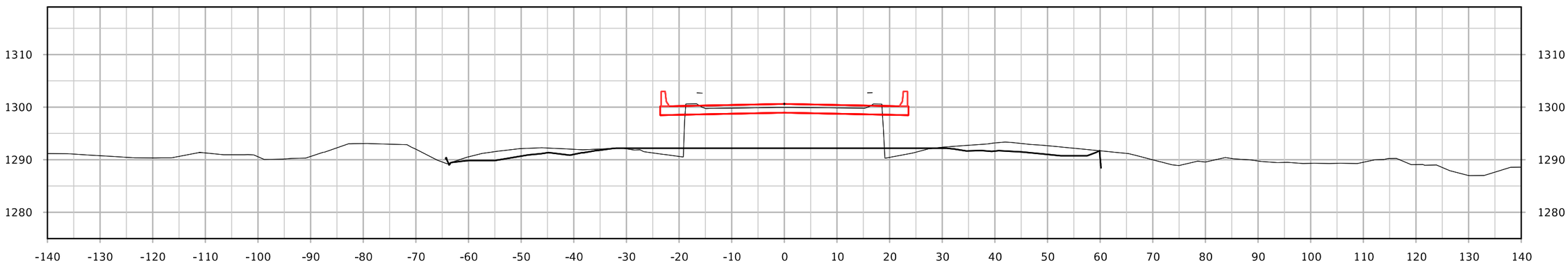

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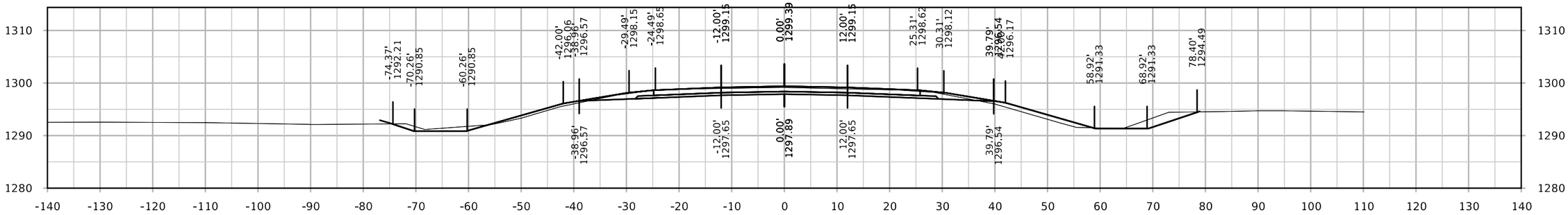

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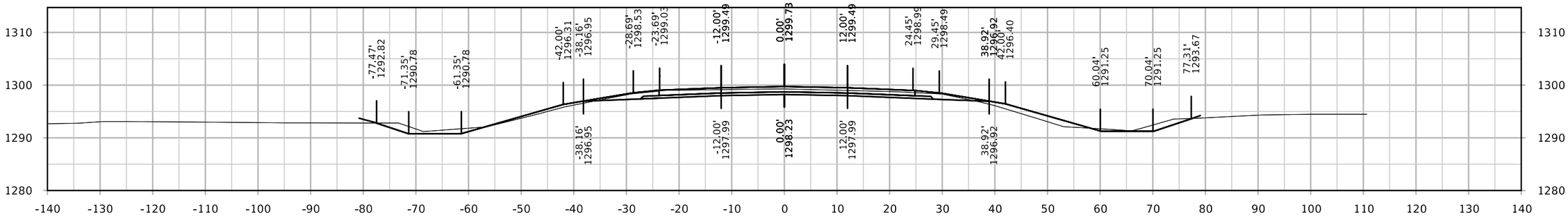

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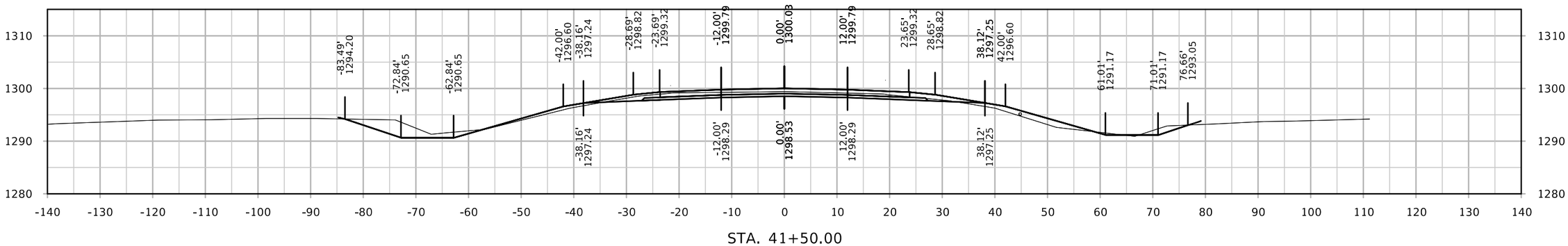

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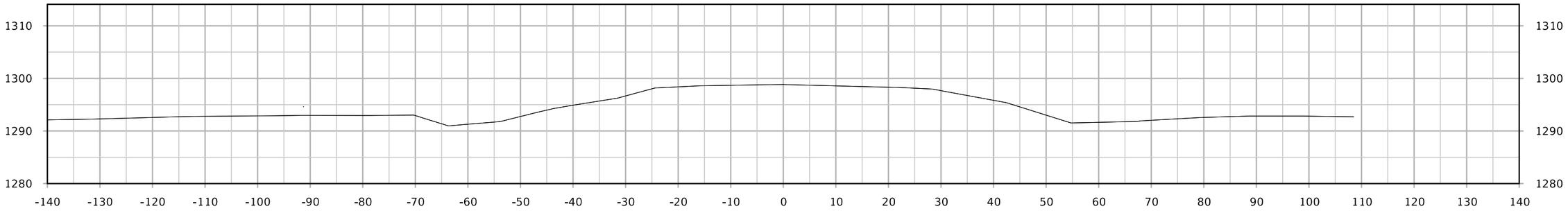

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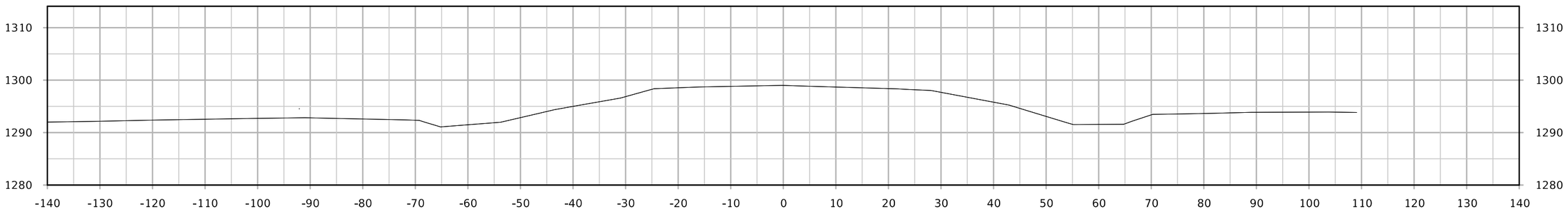

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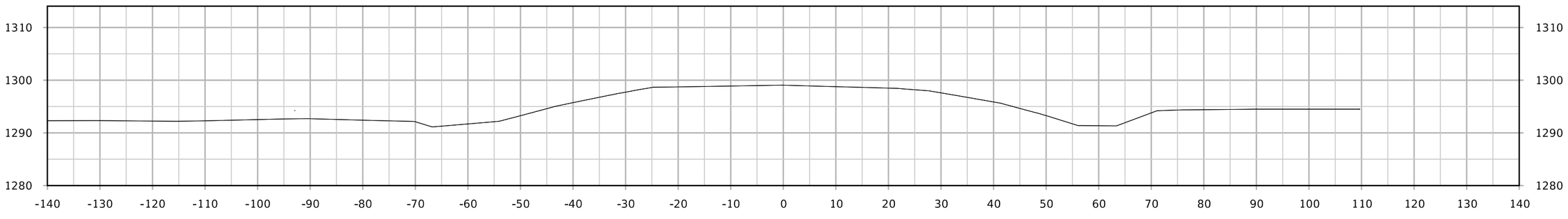

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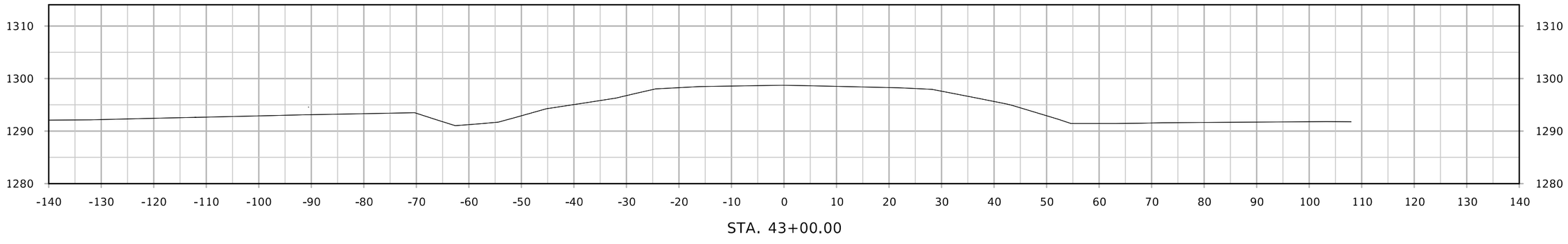

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