LETTING DATE 10-18-2022

PAGE/FREMONT Co. BRIDGE REPLACEMENT-PPCB BRF-059-1(31)--38-73

IOWA DOT

Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

PAGE/FREMONT COUNTY

BRIDGE REPLACEMENT-PPCB

East Nishnabotna River 1.0 mi N of IA 48

SCALES: As Noted

Refer to Proposal Form for list of applicable Specifications.

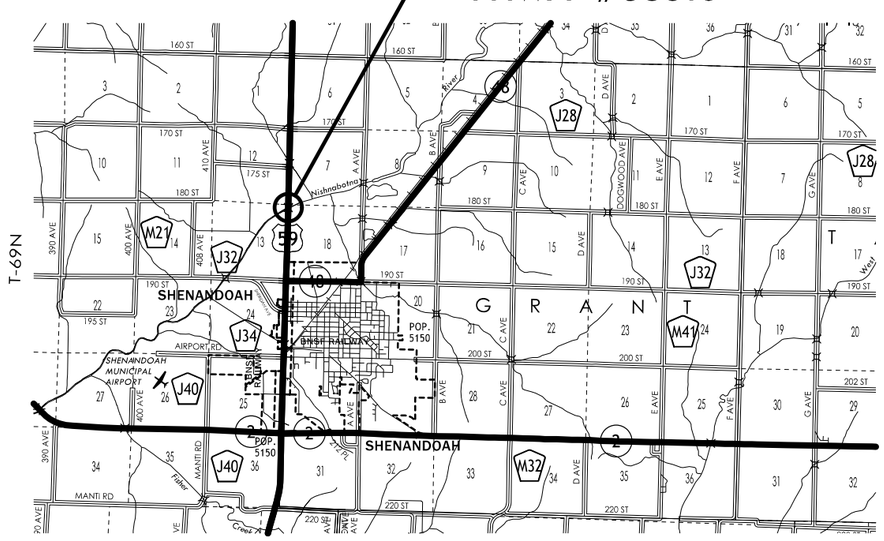
Value Engineering Saves. Refer to Article 1105.14 of the Specifications.

H Sheets

REVISIONS

	TOTAL
	--
PROJECT IDENTIFICATION NUMBER	
16-73-059-010	
PROJECT NUMBER	
BRF-059-1(31)--38-73	
R.O.W. PROJECT NUMBER	
NHSN-059-1(32)--2R-73	
NHSN-059-1(33)--2R-36	

Project Location
Sta. 71+74.50
Ref. Loc. 14.18
FHWA #38610



LOCATION MAP SCALE
0 1 2 3
Miles

INDEX OF SHEETS

DESIGN DATA RURAL		
2021 AADT	1700	V.P.D.
2041 AADT	1900	V.P.D.
20 -- DHV	--	V.P.H.
TRUCKS	17	%
Total Design ESALs	--	

PRELIMINARY PLANS

Subject to change by final design.

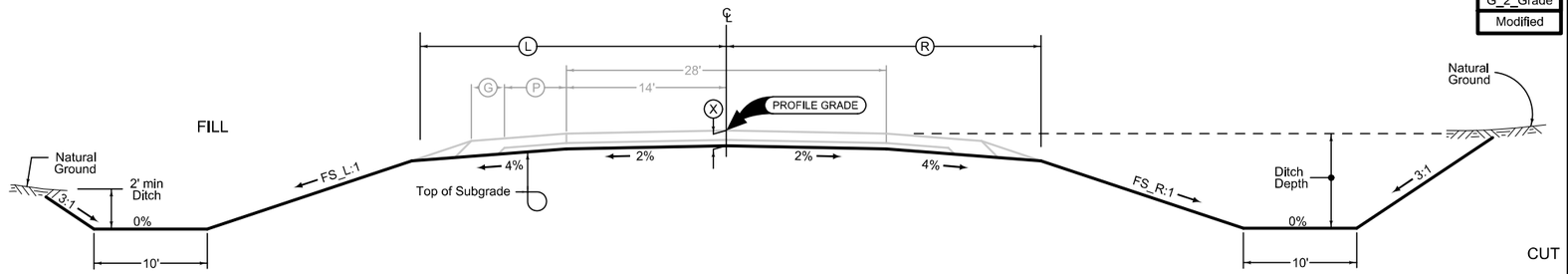
D5 PLAN – Date: 10-01-2020

FILE NO. 31409	ENGLISH	DESIGN TEAM Holst \ Dudley	PAGE/FREMONT COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER A.1

3:05:36 PM 9/30/2020 ddudley pw:\\ntPwInt1.dot.int.lan:PWMain\Documents\Projects\7305901016\Design\CADD_Files\Sheet_Files\SHT_73059031_A01.dgn

LOCATION			DIMENSIONS				
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	FS_L	FS_R
US 59	67+22.00	67+37.00	24.4-27.4	24.4-27.4	18	3-4	3-4
US 59	76+12.00	76+30.00	27.8	27.8	18	4	4
US 59	76+30.00	76+50.00	27.8-25.5	27.8-24.7	18	4-3.7	4-3.2

G_2_Grade
Modified



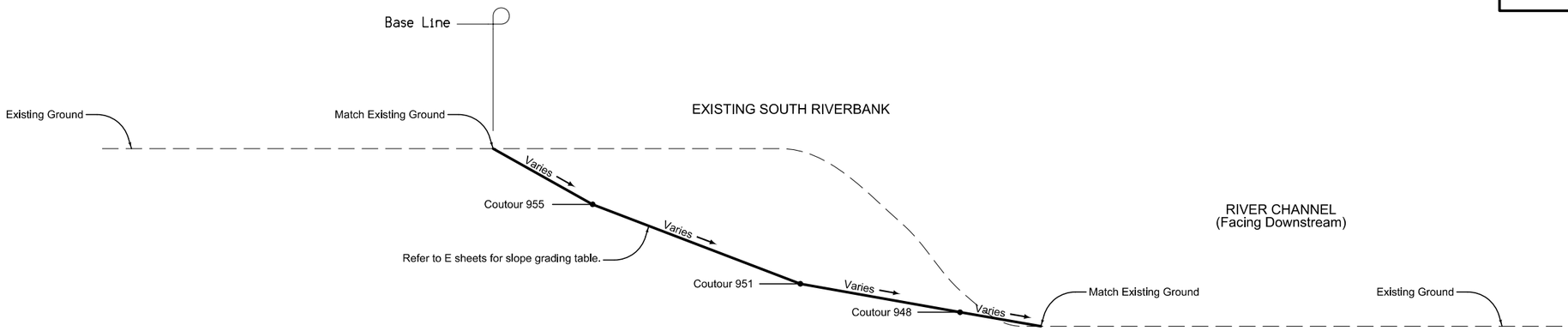
Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

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

2 LANE GRADING

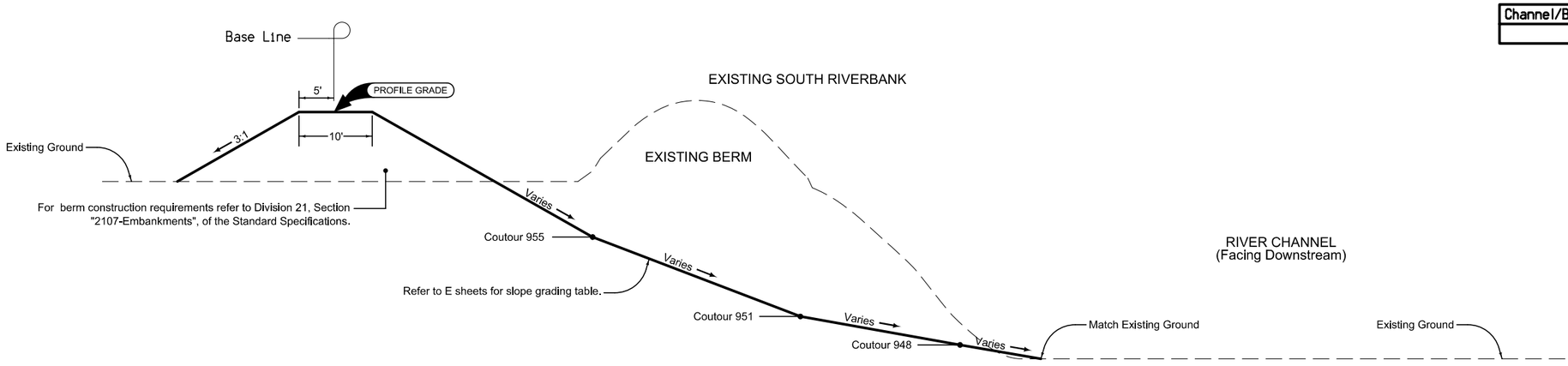
Channel/Berm Grading
1

Channel/Berm Grading_1	
STATION TO STATION	
201+69.00	210+43.65



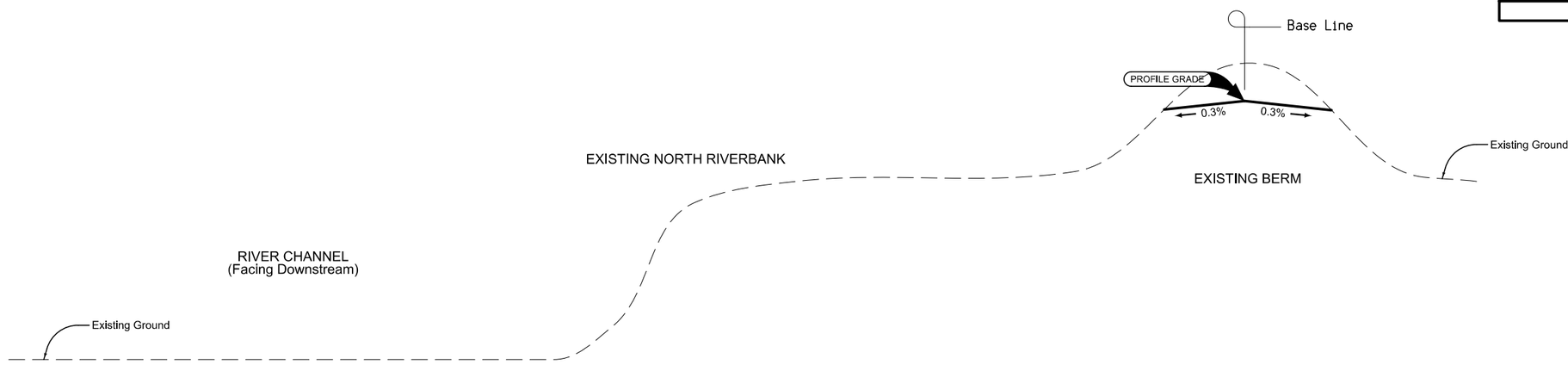
Channel/Berm Grading
2

Channel/Berm Grading_2	
STATION TO STATION	
210+43.65	220+84.00



Channel/Berm Grading
3

Channel/Berm Grading_3	
STATION TO STATION	
100+65.00	112+21.00



Granular Shoulder

STATION TO STATION		2_G_SR_ 10-19-10 (G) Feet
67+22.00	67+32.00	6-8
67+32.00	67+54.02	8
76+11.43	76+40.00	8
76+40.00	76+50.00	6-8

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

STATION TO STATION		2_P_Guard_ 10-17-17 (P) Feet
67+54.02	67+86.29	11.1
67+86.29	68+24.01	11.1-9.6
68+24.01	68+25.43	9.6
75+23.57	75+41.51	9.6
75+41.51	75+79.10	11.1-9.6
75+79.10	76+11.43	11.1

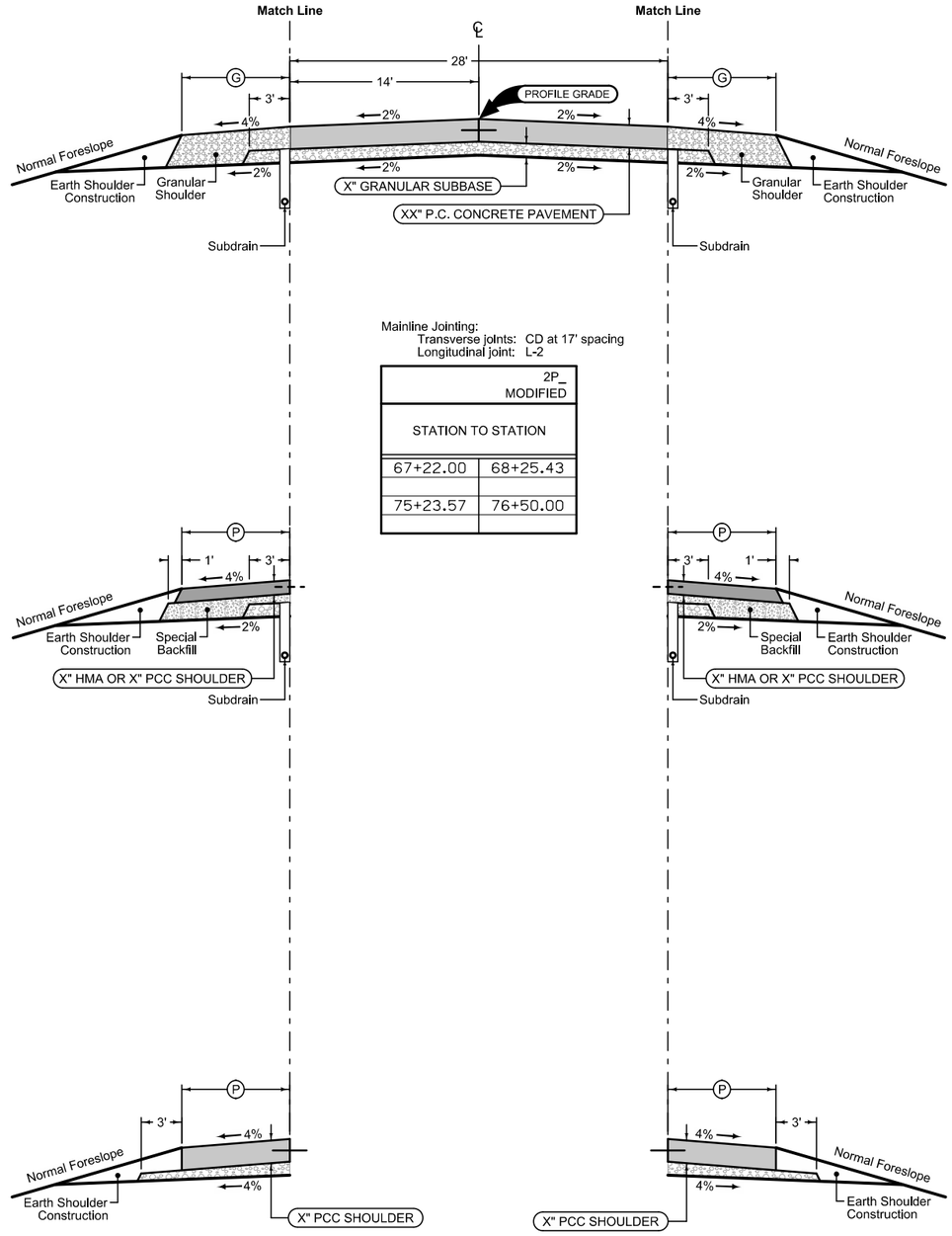
Refer to Design Detail 7156.

Full Depth PCC Shoulder

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

STATION TO STATION		2_P_FullPCC_ MODIFIED (P) Feet
68+25.43	68+75.43	9.6
74+73.57	75+23.57	9.6

Refer to Modified Standard Road Plan BR-211 in U sheets.



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

STATION TO STATION		2P_ MODIFIED
67+22.00	68+25.43	
75+23.57	76+50.00	

Granular Shoulder

STATION TO STATION		2_G_SR_ 10-19-10 (G) Feet
67+22.00	67+32.00	6-8
67+32.00	67+37.73	8
75+94.98	76+40.00	8
76+40.00	76+50.00	6-8

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

STATION TO STATION		2_P_Guard_ 10-17-17 (P) Feet
67+37.73	67+70.02	11.1
67+70.02	68+07.68	11.1-9.6
68+07.68	68+25.43	9.6
75+23.57	75+25.05	9.6
75+25.05	75+62.70	9.6-11.1
75+62.70	75+94.98	11.1

Refer to Design Detail 7156.

Full Depth PCC Shoulder

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

STATION TO STATION		2_P_FullPCC_ MODIFIED (P) Feet
68+25.43	68+75.43	9.6
74+73.57	75+23.57	9.6

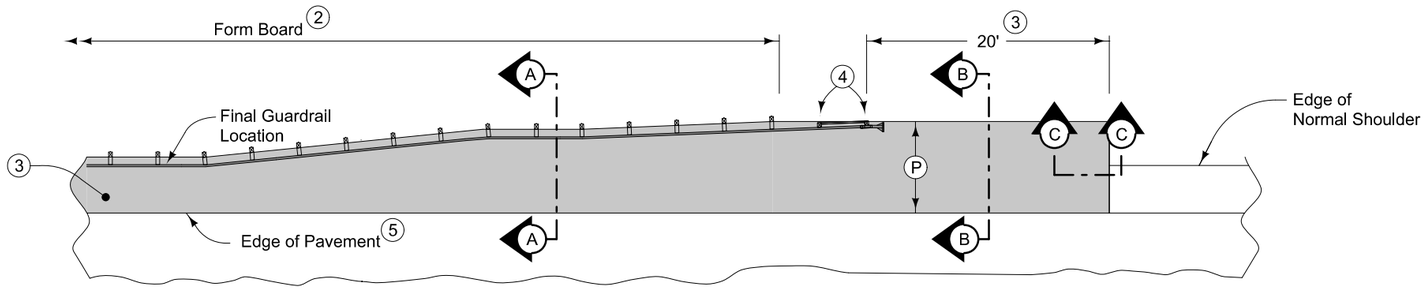
Refer to Modified Standard Road Plan BR-211 in U sheets.

See Tab 100-24 or 100-25 for pavement quantities.

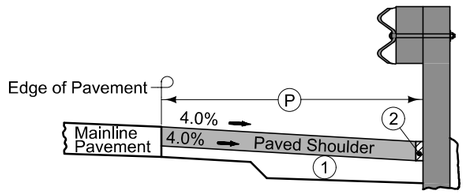
See Tab 112-9 for shoulder quantities.

US 59

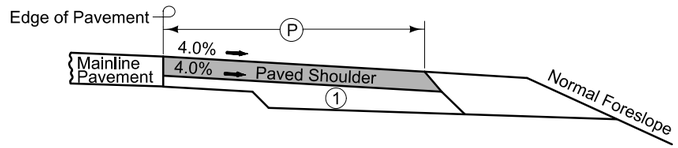
7156
04-18-17



PLAN VIEW

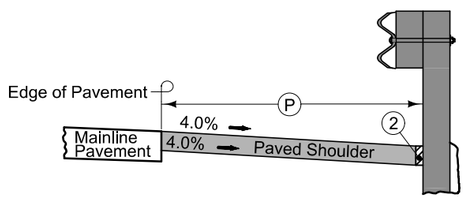


Section A-A

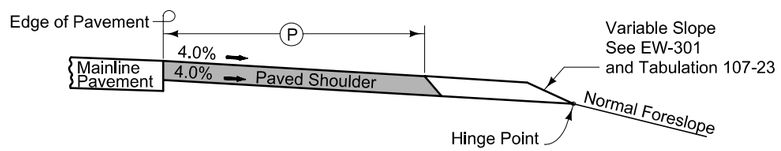


Section B-B

NEW CONSTRUCTION



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.

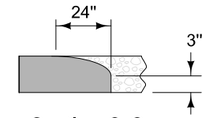
(1) For subgrade treatment, refer to other details in the plan.

(2) 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. Refer to note 4 for final 2 posts.

(3) Continue paved shoulder to existing paved shoulder or 20 feet beyond the center of the first post.

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

(5) 'KT-1 joint for PCC shoulder.
'B' joint for HMA shoulder.



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

PAVED SHOULDER AT GUARDRAIL

SURVEY SYMBOLS

- TL1 Underground Telephone Co. 1
- RET Retaining Walls
- GDL Guard Rail Steel
- FW Wire Fence
- EW Edge of Water
- SNP Unpaved Shoulder
- EP Edge of Paved Roads (ML or SR)
- ENU Edge Unpaved Entrance & Parking
- EB Edge of Bank
- D Centerline Draw or Stream (Down)
- BL Break Line
- CUL Culvert Structure Line
- CON Concrete Slab
- CUL Culvert Pipe
- PPA Power Pole Co. 1
- TPD Telephone Pedestal
- SI Sign
- TRD Tree Deciduous
- SC Section Corner

UTILITY LEGEND

- MidAmerican
- CenturyLink

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.**	
Yellow	(4)	Highlight for Critical Notes or Features
Red	(3)	Delineates Restricted Areas
Lavender	(9)	Temporary Pavement Shading
Gray, Light	(48)	Proposed Pavement Shading
Gray, Med	(80)	Proposed Granular Shading
Gray, Dark	(112)	Proposed Grade and Pave Shading "In conjunction with a paving project"
Brown, Light	(236)	Grading Shading
Tan	(8)	Proposed Sidewalk Shading
Blue, Light	(230)	Proposed Sidewalk Landing Shading
Pink	(11)	Proposed Sidewalk Ramp Shading

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	
Green	(2)	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

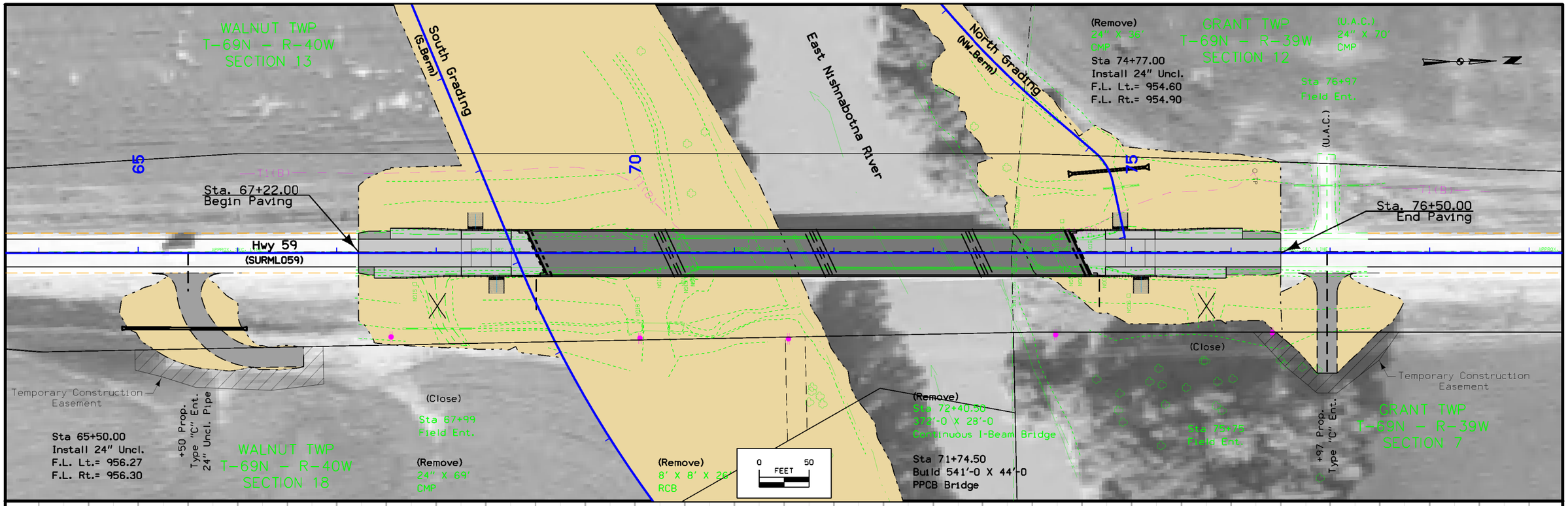
- Reference Point
- Station
- Survey Line
- Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Trench Drain
- HighTension Cable Guardrail
- Sheet Pile
- Pavement Removal
- Clearing & Grubbing Area

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. 31409	ENGLISH	DESIGN TEAM Holst \ Dudley	PAGE/FREMONT COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER D.2

WALNUT TWP
T-69N - R-40W
SECTION 13

GRANT TWP
T-69N - R-39W
SECTION 12

N

East Nishnabotna River

North Grading
(NW Berm)

South Grading
(S Berm)

70

75

80

85

90

95

Hwy 59
(SURML059)

Flowage Easements
0.32 Ac. Total

WALNUT TWP
T-69N - R-40W
SECTION 18

GRANT TWP
T-69N - R-39W
SECTION 7

0 100
FEET

Flowage Easements

FILE NO. 31409	ENGLISH	DESIGN TEAM Holst \ Dudley	PAGE/FREMONT COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER D.3

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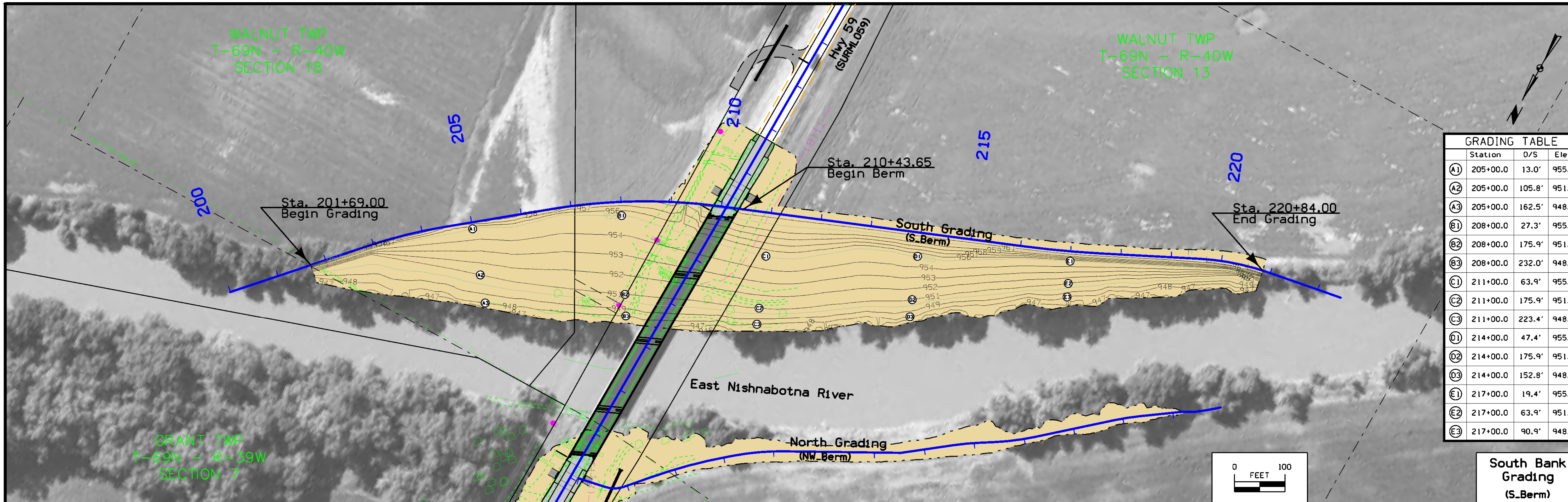
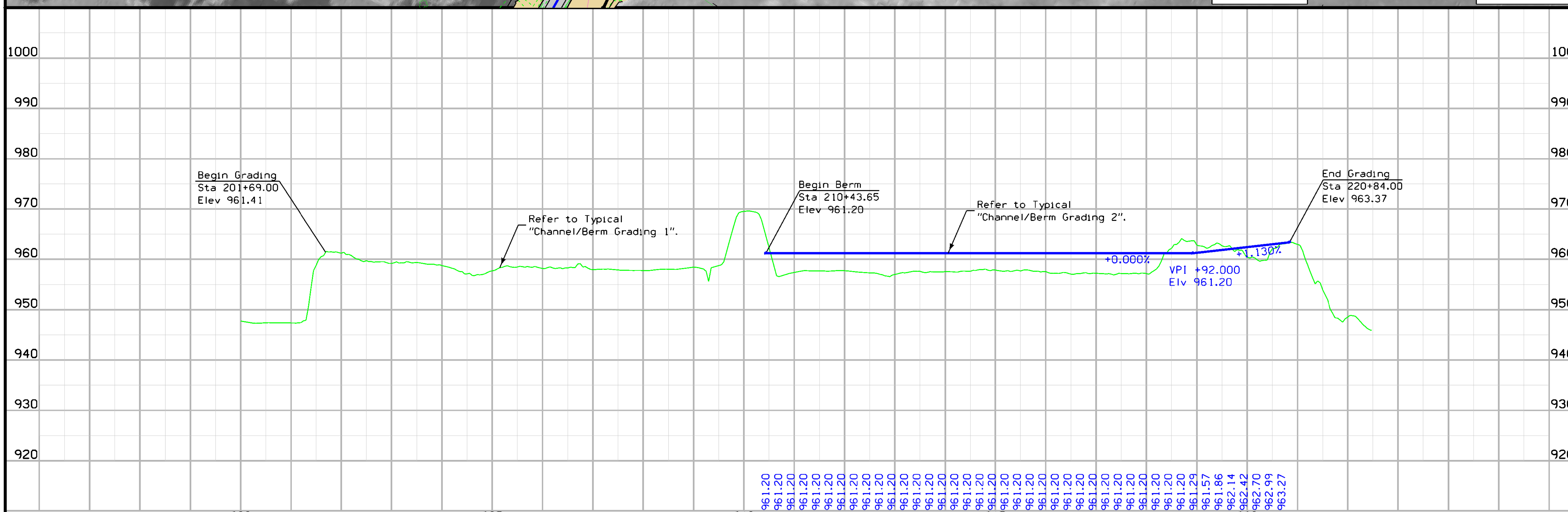


	GRADING TABLE		
	Station	O/S	Elev.
A1	205+00.0	13.0'	955.0
A2	205+00.0	105.8'	951.0
A3	205+00.0	162.5'	948.0
B1	208+00.0	27.3'	955.0
B2	208+00.0	175.9'	951.0
B3	208+00.0	232.0'	948.0
C1	211+00.0	63.9'	955.0
C2	211+00.0	175.9'	951.0
C3	211+00.0	223.4'	948.0
D1	214+00.0	47.4'	955.0
D2	214+00.0	175.9'	951.0
D3	214+00.0	152.8'	948.0
E1	217+00.0	19.4'	955.0
E2	217+00.0	63.9'	951.0
E3	217+00.0	90.9'	948.0

South Bank Grading
(S_Berm)



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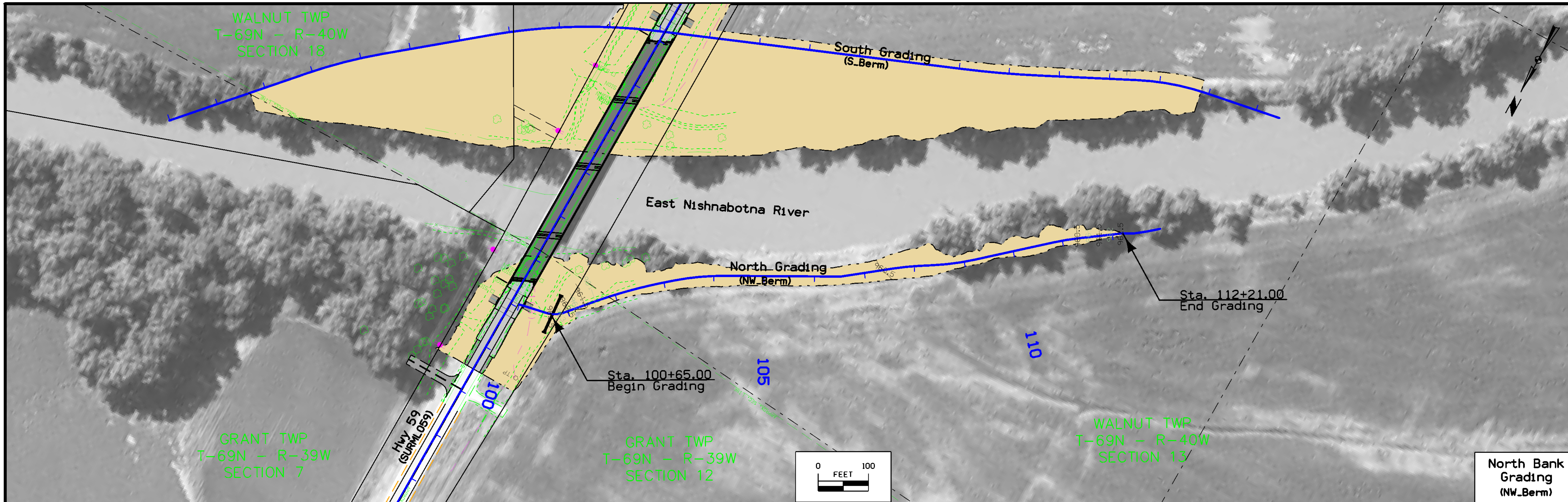

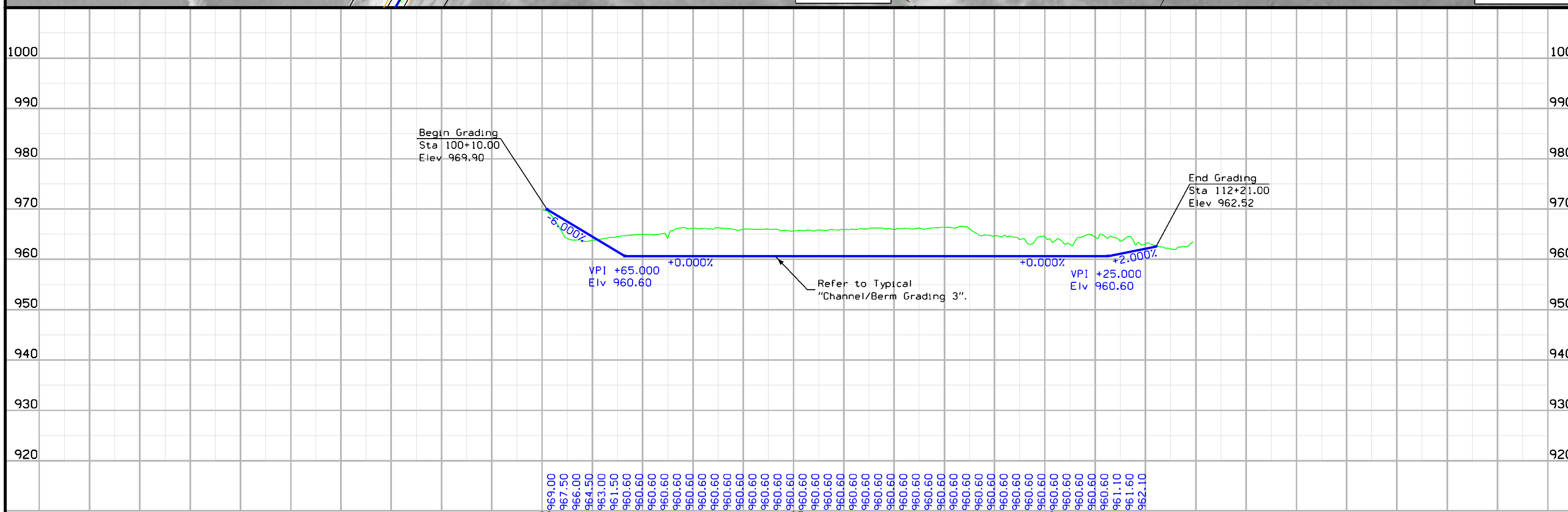

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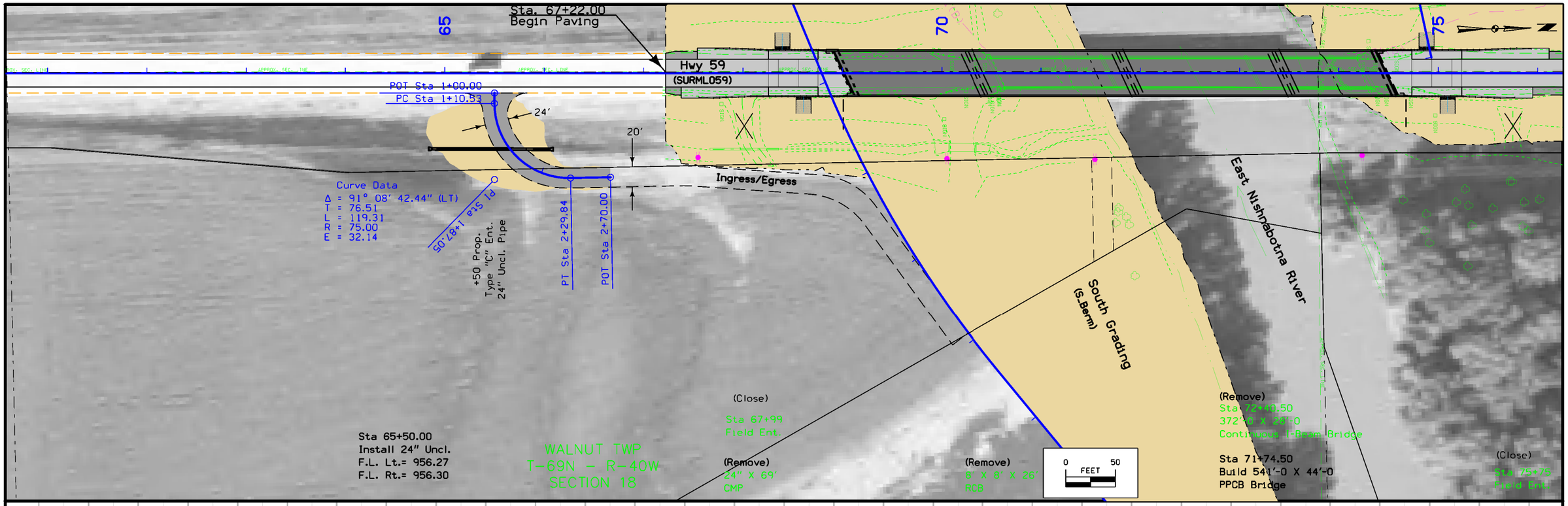

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Page and Fremont County
BRF-059-1(31) - -38-73
US 59 Page County
Hydraulic Modeling and Bridge Survey
For the East Nishnabotna River
Bridge Maintenance Number 7314.2S059
PIN 16-73-059-010

Party Personnel

HDR Engineering
Brian Jensen- Party Chief
Lucas Chmela – CTA
David Rupiper – Mapping

Date(s) of Survey

Begin Date	06/26/2017
End Date	07/14/2017

General Information

Measurement units for this survey are US Survey Feet. This survey is for the proposed bridge replacement of the US Highway 59 Bridge over the East Nishnabotna River one mile North of IA 48 near Shenandoah Iowa.

Vertical Control

This survey is relative to NAVD 88 vertical datum. Three Primary Control points were provided by the Iowa Department of Transportation with Elevations included for these control points (Refer to Adjusted Points Table below shown with the Horizontal Control Section). Two Additional Secondary Control Points were set and established for the topographic Survey and the elevations were derived from the Three Primary Control Points (Refer to Secondary Control Points Table below shown with the Horizontal Control Section).

Vertical Equations to the Project Datum Bench Marks and
Other Benches along this Survey are as Follows:

NGS BM # SDA-A this survey Elev. = 972.10 (NAVD 88 English).
= NGS BM # SDA-A Elev. = 971. 90 (NAVD 88 English) Published Elevation

Horizontal Control

A 2016-2017 GPS network for Project BRF-059-1(31) - - 38-73 was provided by the Iowa Department of Transportation. Three Primary Control points were provided by the Iowa Department of Transportation (Refer to Primary Control Points Table shown below). Datum is IaRCS Zone 12 (US Survey Feet). Two Additional Secondary Control Points were set and established for the topographic Survey (Refer to Secondary Control Points Table shown below).

Alignment Information

Mainline Alignment (US 59)

From 1964 PCC Paving F Project No. 442(8).
The mainline alignment for this survey is a retrace of PCC Paving F Project No. 442(8). The mainline alignment was created in centerline of median. Stationing was obtained at PI Sta. 2001+60.36 and carried ahead to PI Sta. 3100+53.44 without equation. The following PI and PT points were used to create this CL alignment.

PT Sta. 44+09.30 Paving F Project No. 442(8) (found)
PI Sta. 126+88.30 Paving F Project No. 442(8) (found)

This Mainline survey relates to the mainline plan stationing as follows:

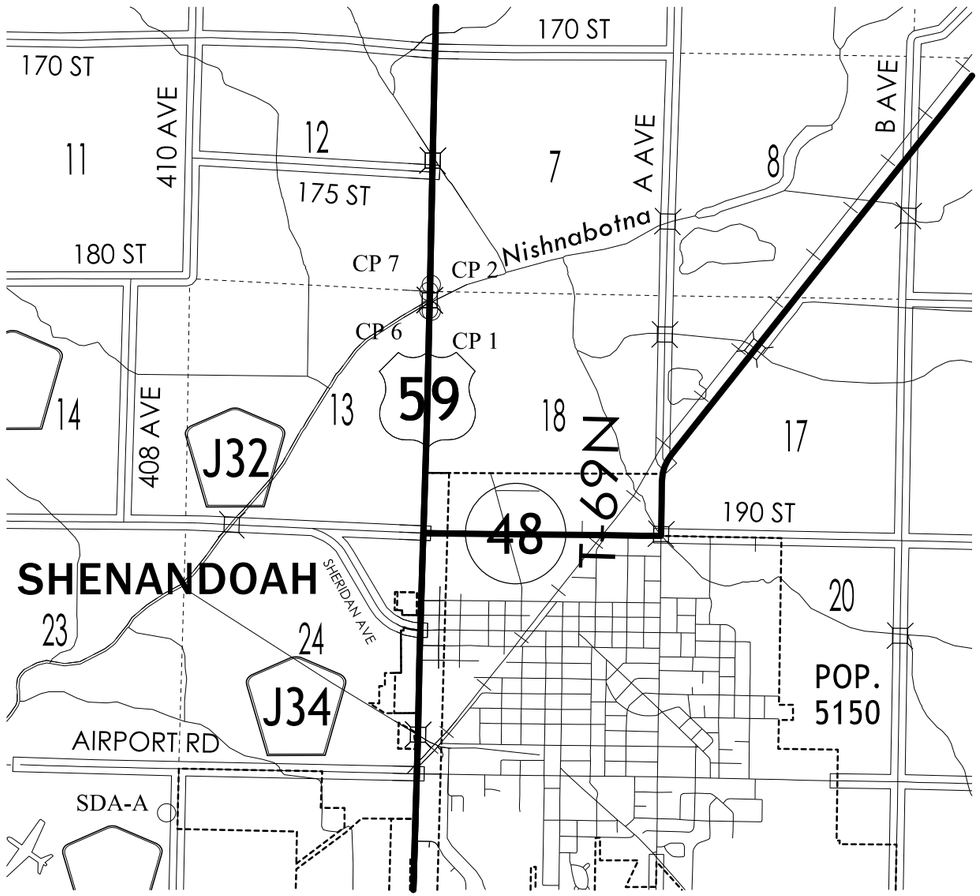
PI Sta. 21+26.57 this survey
= PT Sta. 21+30.00 Paving F Project No. 442(8)

PI Sta. 41+09.30 this survey
=PI Sta. 41+09.30 Paving F Project No. 442(8)

PI Sta. 126+88.30 this survey
=PI Sta. 126+89.77 Paving F Project No. 442(8)

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
VERT. DATUM: NAVD88
Ia. Regional Coordinate System Zone 12

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

VERT. DATUM: NAVD88

Ia. Regional Coordinate System Zone 12

Primary Control

Name	Northing (USft)	Easting (USft)	Elevation (USft)	Code
1	6156281.990	22047323.568	967.334	
2	6156867.075	22047323.121	967.490	
SDA−A	6145278.562	22041515.848	972.102	

Secondary Control

Name	Northing (USft)	Easting (USft)	Elevation (USft)	Code
6	6156317.406	22047264.619	970.01	
7	6156715.741	22047271.863	969.56	

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	SURML059	21+26.57 R1	6151408.46	22047149.66															
2	SURML059							38+09.30 R1	6153090.20	22047207.30	41+09.30 R1	6153390.03	22047217.58	44+09.30 R1	6153689.96	22047224.19			
3	SURML059	126+89.77 R1	6161968.42	22047406.74															
1	S_BERM	200+00.00 R1	6156781.09	22048062.08															
2	S_BERM							202+87.77 R1	6156569.83	22047866.69	203+66.55 R1	6156511.99	22047813.19	204+45.01 R1	6156463.24	22047751.30			
4	S_BERM							206+59.79 R1	6156330.34	22047582.58	208+29.35 R1	6156225.42	22047449.38	209+96.43 R1	6156164.01	22047291.32			
6	S_BERM							216+06.01 R1	6155943.25	22046723.12	216+83.06 R1	6155915.35	22046651.30	217+60.03 R1	6155882.00	22046581.84			
8	S_BERM							219+54.79 R1	6155797.71	22046406.27	220+25.55 R1	6155767.09	22046342.48	220+95.37 R1	6155755.36	22046272.70			
9	S_BERM	222+47.93 R1	6155730.09	22046122.25															
1	NW_BERM	100+00.00 R1	6156773.37	22047276.28															
2	NW_BERM							100+56.65 R1	6156762.57	22047220.67	100+75.15 R1	6156759.04	22047202.51	100+92.35 R1	6156745.25	22047190.17			
4	NW_BERM							101+50.31 R1	6156702.06	22047151.52	102+28.55 R1	6156643.75	22047099.35	103+06.48 R1	6156594.26	22047038.74			
6	NW_BERM							103+21.62 R1	6156584.68	22047027.01	103+70.82 R1	6156553.56	22046988.90	104+19.71 R1	6156530.47	22046945.46			
8	NW_BERM	106+52.72 R1	6156421.11	22046739.71															
9	NW_BERM							107+58.61 R1	6156357.32	22046655.18	107+84.50 R1	6156341.73	22046634.51	108+10.35 R1	6156328.35	22046612.34			
11	NW_BERM							108+38.02 R1	6156314.06	22046588.65	108+79.79 R1	6156292.47	22046552.88	109+21.38 R1	6156265.25	22046521.19			
13	NW_BERM							110+81.78 R1	6156160.74	22046399.52	111+07.99 R1	6156143.66	22046379.63	111+34.15 R1	6156128.75	22046358.07			
15	NW_BERM							112+17.96 R1	6156081.10	22046289.14	112+24.90 R1	6156077.15	22046283.43	112+31.80 R1	6156074.32	22046277.09			
17	NW_BERM							112+33.90 R1	6156073.46	22046275.17	112+38.46 R1	6156071.60	22046271.01	112+42.99 R1	6156069.02	22046267.26			
19	NW_BERM							112+47.20 R1	6156066.64	22046263.79	112+67.23 R1	6156054.91	22046247.54	112+87.25 R1	6156041.92	22046232.29			
20	NW_BERM	112+95.36 R1	6156036.66	22046226.11															

SPIRAL OR CIRCULAR CURVE DATA

Name	Location	ΔSCS	Horizontal Alignment Data													Remarks
			Spiral Data								Curve Data					
			θS	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	ΔC	T	L	R	E	
C1	S_BERM										9°00'33.5"	78.783	157.242	1000.000	3.099	
C2	S_BERM										16°59'38.1"	169.565	336.641	1135.000	12.596	
C3	S_BERM										4°24'44.9"	77.050	154.024	2000.000	1.484	
C4	S_BERM										16°06'33.5"	70.757	140.580	500.000	4.982	
C1	NW_BERM										37°11'19.9"	18.504	35.699	55.000	3.029	
C2	NW_BERM										8°56'51.2"	78.241	156.164	1000.000	3.056	
C3	NW_BERM										11°14'23.5"	49.201	98.086	500.000	2.415	
C4	NW_BERM										5°55'42.1"	25.890	51.735	500.000	0.670	
C5	NW_BERM										9°33'06.2"	41.774	83.355	500.000	1.742	
C6	NW_BERM										6°00'07.0"	26.212	52.377	500.000	0.687	
C7	NW_BERM										10°34'22.4"	6.940	13.840	75.000	0.320	
C8	NW_BERM										10°24'36.5"	4.555	9.085	50.000	0.207	
C9	NW_BERM										4°35'22.6"	20.037	40.052	500.000	0.401	

DRAINAGE PURPOSES

N

63+93 ℄999′

65+08 ℄1017′

67+82 ℄1017′

67+53 ℄998′

67+78 ℄912′

NE¼ NE¼
SEC. 13-69-40W
FREMONT CO.

70+54 ℄714′

87+55±P ℄614′

East Nishnabotna River

① JOYCE E McLAREN LIFE ESTATE
AND JOYCE E McLAREN

① JOYCE E McLAREN LIFE ESTATE
AND JOYCE E McLAREN

74+15 ℄204′

SE¼ SE¼
SEC. 12-69-40W
FREMONT CO.

67+75 ℄157′

67+35 ℄100′±EX R/W

60

65

73+25 ℄100′±EX R/W

71+47 ℄100′±EX R/W

76+85 ℄90′±EX R/W

80

85

90+56 ℄83′±E

64+ ℄142′

66+88 ℄138′

68+38 ℄130′

68+52 ℄100′±EX R/W

76+21 ℄144′

77+71 ℄141′

72+32 ℄100′±EX R/W

TEMPORARY EASEMENT TO CONSTRUCT ENTRANCE

85+72 ℄80±EX R/W

85+77 ℄98′

72+47±EX PROP COR ℄132.80′

69+81±P ℄295′

70+07±P ℄279′

72+36 ℄543′

TEMPORARY EASEMENT TO CONSTRUCT ENTRANCE

④ JOHN EDWIN WILLIAMS AND
ILA MOGENSEN JT LIV TRUST

NW¼ NW¼
SEC. 18-69-39W
PAGE CO.

③ CONNELL BROTHERS LLC

74+39 ℄634′

73+93 ℄686′

SW¼ SW¼
SEC. 7-69-39W
PAGE CO.

0 FEET 100

Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: ATINKEN /JLARSON
ROW #: NHSN-059-1(32)--2R-73
NHSN-059-1(33)--2R-36
Plan Date: 12/28/20
Color Legend:
- Property Lines
- Temporary Easement
- Permanent Acquisition

FILE NO.	ENGLISH	DESIGN TEAM	Holst/Dudley		PAGE/FREMONT	COUNTY	PROJECT NUMBER	BRF-059-1(31)--38-73	SHEET NUMBER	H.1	

2:40:34 PM 12/23/2020 atinken pw:\\ntPwInt1.dot.int.lan:PWMain\Documents\Projects\7305901016\ROW\73059032.sht

N

87+55±
℄614′

74+15
℄204′

SE¼ SE¼
SEC. 12-69-40W
FREMONT CO.

⑤
MARKAM GROUP LLC ETAL

94+46
℄469′

90+56
℄83′±EX R/W

94+54
℄87±EX R/W

76+85
℄90′±EX R/W

80
85
90
95
100
105

85+72
℄80±EX R/W

85+77
℄98′

77+71
℄141′

TEMPORARY EASEMENT TO
CONSTRUCT ENTRANCE

PERMANENT FLOWAGE EASEMENT

96+06
℄99′

96+22
℄80′±EX R/W

±EX PROP COR
.80′

④
JOHN EDWIN WILLIAMS AND
ILA MOGENSEN JT LIV TRUST

④
JOHN EDWIN WILLIAMS AND
ILA MOGENSEN JT LIV TRUST

74+39
℄634′

SW¼ SW¼
SEC. 7-69-39W
PAGE CO.

0 FEET 100

Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: ATINKEN /JLARSON
ROW #: NHSN-059-1(32)--2R-73
NHSN-059-1(33)--2R-36
Plan Date: 12/28/20
Color Legend:
Property Lines
Temporary Easement
Permanent Acquisition

FILE NO.	ENGLISH	DESIGN TEAM	Holst/Dudley		PAGE/FREMONT	COUNTY	PROJECT NUMBER	BRF-059-1(31)--38-73	SHEET NUMBER H.2	

2:42:53 PM 12/23/2020 atinken pw:\\ntPwInt1.dot.int.lan:PWMain\Documents\Projects\7305901016\ROW\73059032.sht

31+94±P
℄6590.83'(Ex. Prop. Cor.)

36+87
℄6429'

N

31+97±P
℄6498'

35+58
℄6383'

33+26
℄5892'

⑧
OLSON INVESTMENTS LP

PERMANENT EASEMENT FOR
DRAINAGE PURPOSES

34+59
℄5817'

37+45
℄5273'

40+20
℄5276'

42+05±P
℄5183'

⑦
BRUGMANN ACRES LLC

PERMANENT EASEMENT FOR
DRAINAGE PURPOSES

36+24
℄5146'

49+23

54+38

Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: ATINKEN /JLARSON
ROW #: NHSN-059-1(32)--2R-73
NHSN-059-1(33)--2R-36
Plan Date: 03/29/21
Color Legend:
- **Property Lines**
- **Temporary Easement**
- **Permanent Acquisition**

FILE NO.	ENGLISH	DESIGN TEAM	Holst/Dudley	PAGE/FREMONT	COUNTY	PROJECT NUMBER	BRF-059-1(31)--38-73	SHEET NUMBER	HE.1

10:36:23 AM 3/29/2021 atinken pw:\\ntPwInt1.dot.int.lan:PWMain\Documents\Projects\7305901016\ROW\73059032.sht

DRAINAGE PURPOSES

40+20
℄5276'

42+05±P
℄5183'

⑦
BRUGMANN ACRES LLC

PERMANENT EASEMENT FOR
DRAINAGE PURPOSES

N

64+96
℄5531'

49+23
℄4787'±EX R/W

54+38
℄4803'

67+77
℄5181'

⑦

42+09±P
℄5004'

P

49+97
℄4526'

52+82
℄4400'

47+85
℄4698'

46+69
℄4789'±EX Prop Line

56+25
℄4652'

①

JOYCE E McLAREN LIFE ESTATE

AND JOYCE E McLAREN

54+52
℄4179'

48+68
℄4217'

PERMANENT EASEMENT FOR
DRAINAGE PURPOSES

PERMANENT EASEMENT FOR
DRAINAGE PURPOSES

①

JOYCE E McLAREN LIFE ESTATE

AND JOYCE E McLAREN

Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: ATINKEN /JLARSON

ROW #: NHSN-059-1(32)--2R-73
NHSN-059-1(33)--2R-36

Plan Date: 12/28/20

Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition

FILE NO.	ENGLISH	DESIGN TEAM	Holst/Dudley		PAGE/FREMONT	COUNTY	PROJECT NUMBER	BRF-059-1(31)--38-73	SHEET NUMBER	HE.2	

2:54:12 PM 12/23/2020 atinken pw:\\ntPwInt1.dot.int.lan:PWMain\Documents\Projects\7305901016\ROW\73059032.sht

54+38
℄4803′

67+77
℄5181′

73+50
℄5061′

76+04±P
℄4744′

78+60′
℄4749′

N

56+25
℄4652′

PERMANENT EASEMENT FOR
DRAINAGE PURPOSES

①

JOYCE E McLAREN LIFE ESTATE

AND JOYCE E McLAREN

⑥

AMELIA McINTYRE RESTATED

REVOCABLE TRUST

PERMANENT EASEMENT FOR
DRAINAGE PURPOSES

FOR

56+77
℄3250′

Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: ATINKEN /JLARSON

ROW #: NHSN-059-1(32)--2R-73
NHSN-059-1(33)--2R-36

Plan Date: 12/28/20

Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition

FILE NO.	ENGLISH	DESIGN TEAM	Holst/Dudley		PAGE/FREMONT	COUNTY	PROJECT NUMBER	BRF-059-1(31)--38-73	SHEET NUMBER	HE.3	

12:39:05 PM 12/28/2020 atinken pw:\\ntPwInt1.dot.int.lan:PWMain\Documents\Projects\7305901016\ROW\73059032.sht

N

75+95
℄2748'

73+52
℄2742'

79+00
℄2766'

6

AMELIA McINTYRE RESTATED

REVOCABLE TRUST

88+74± EX Prop Cor
℄2641± Ex Prop Cor

73+52
℄2587'

83+80
℄2625'

1

JOYCE E McLAREN LIFE ESTATE

AND JOYCE E McLAREN

PERMANENT EASEMENT FOR
DRAINAGE PURPOSES

91+05
℄2146'

88+19
℄2034'

PERMANENT EASEMENT FOR
DRAINAGE PURPOSES

5

MARKAM GROUP LLC ETAL

86+89
℄1377'

Right of Way Design Information

THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: ATINKEN /JLARSON

ROW #: NHSN-059-1(32)--2R-73
NHSN-059-1(33)--2R-36

Plan Date: 12/28/20

Color Legend:

- **Property Lines**
- **Temporary Easement**
- **Permanent Acquisition**

FILE NO.	ENGLISH	DESIGN TEAM	Holst/Dudley	PAGE/FREMONT	COUNTY	PROJECT NUMBER	BRF-059-1(31)--38-73	SHEET NUMBER	HE.4

12:34:12 PM 12/28/2020 atinken pw:\\ntPwInt1.dot.int.lan:PWMain\Documents\Projects\7305901016\ROW\73059032.sht

N

86+89
℄1377'

PERMANENT EASEMENT FOR
DRAINAGE PURPOSES

①

JOYCE E McLAREN LIFE ESTATE

AND JOYCE E McLAREN

87+55±P
℄614'

PERMANENT EASEMENT FOR
DRAINAGE PURPOSES

⑤

MARKAM GROUP LLC ETAL

94+46
℄469'

SE¼ SE¼
SEC. 12-69-40W
FREMONT CO.

90+56
℄83'±EX R/W

94+54
℄87±EX R/W

85+72
℄80±EX R/W

85+77
℄98'

96+06
℄99'

96+22
℄80'±EX R/W

PERMANENT FLOWAGE EASEMENT

77+71
℄141'

RY EASEMENT TO

Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY
ROW Team: ATINKEN /JLARSON
ROW #: NHSN-059-1(32)--2R-73
NHSN-059-1(33)--2R-36
Plan Date: 12/28/20
Color Legend:
Property Lines
Temporary Easement
Permanent Acquisition

FILE NO.	ENGLISH	DESIGN TEAM	Holst/Dudley	PAGE/FREMONT	COUNTY	PROJECT NUMBER	BRF-059-1(31)--38-73	SHEET NUMBER HE.5	

12:36:28 PM 12/28/2020 atinken pw:\\ntPwInt1.dot.int.lan:PWMain\Documents\Projects\7305901016\ROW\73059032.sht

108-23A
08-01-08

TRAFFIC CONTROL PLAN

US 59 will be closed, and an offsite detour will be utilized. Detour route signs will be provided, installed, and maintained by IaDOT. Detour route will be to go west on J32, to county road M16, north to J18, and east to US 59. Signing improvements will be required at intersection of M16 and J18.

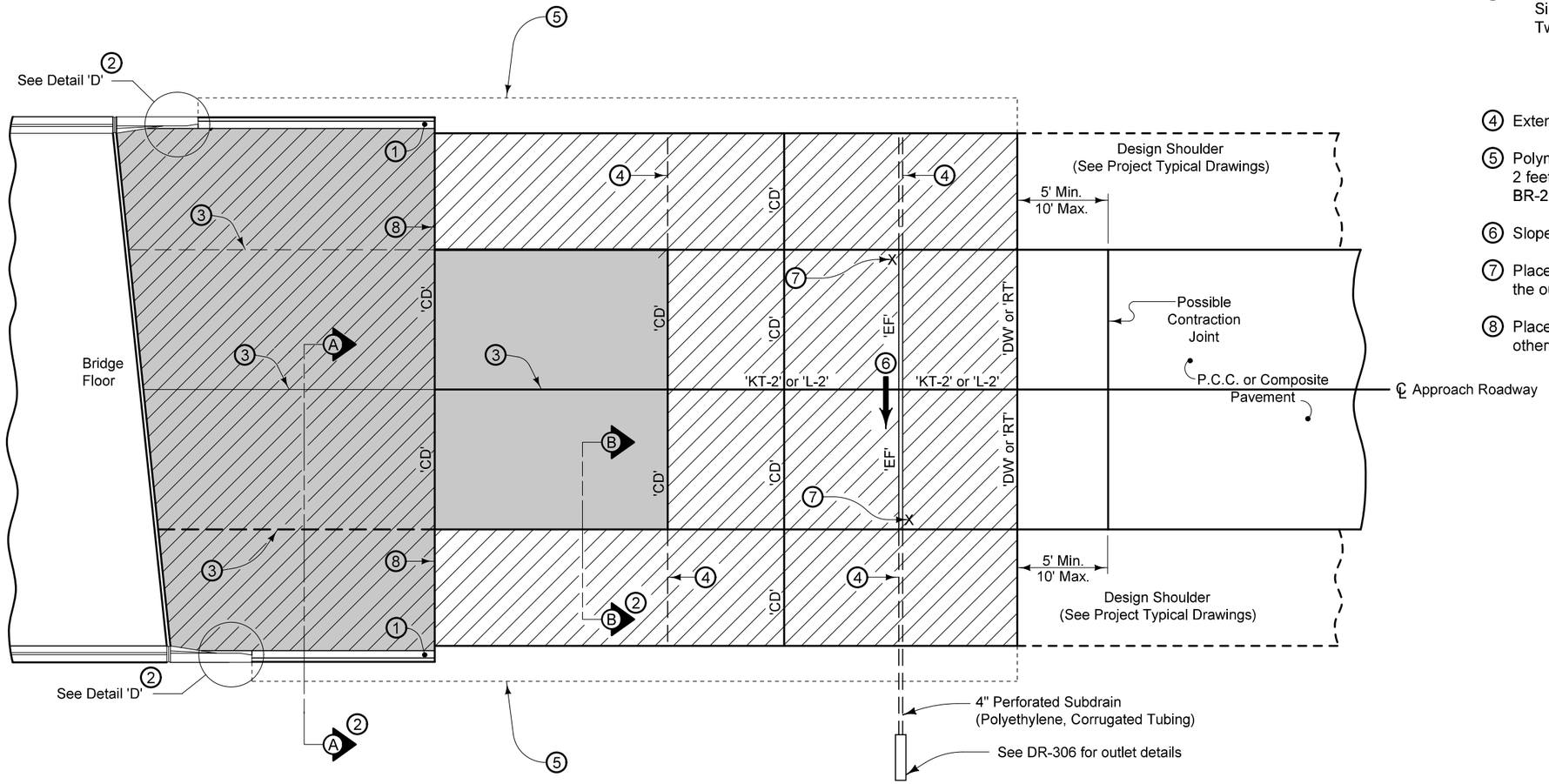
108-25
10-21-14

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
IA 59	Both	Fremont/Page	Bridge over East Nishnabotna River on IA 59				Closed					

For joint details, see PV-101.

1. Build 4 inch Sloped Curb to end of Double Reinforced Section.
2. See BR-201, BR-202, BR-203, or BR-204.
3. Longitudinal Joint (PV-101):
   Single Pour - Saw cut joint per Detail B .
   Two Pours - Use 'KS-1' joint (Single Reinforced Section).
   Use 'KS-2' joint (Double Reinforced Section).
4. Extend 'CD' and 'EF' joints where PCC Shoulder.
5. Polymer Grid and excavation limits of Modified Subbase 2 feet outside of pavement edge. See BR-201, BR-202, BR-203, or BR-204.
6. Slope subdrain to drain.
7. Place an "X" in the plastic concrete near the 'EF' joint at the outside edge of pavement.
8. Place 'RD' Joint where PCC shoulder. Place 'B' joint otherwise.



PLAN VIEW

Pay limits for contract item include the following areas:

- Double Reinforced Section
- Single Reinforced Section
- Non-Reinforced Section

MODIFIED STANDARD ROAD PLAN

REVISION	
1	10-17-17

BR-211

SHEET 1 of 1

MODIFICATIONS: Included shoulder area adjacent to standard single and non-reinforced paving as non-reinforced approach paving.

Added CD joint between end of single reinforced section and EF joint.

BRIDGE APPROACH (ABUTTING PCC OR COMPOSITE PAVEMENT)

FILE NO. 31409	ENGLISH	DESIGN TEAM Holst \ Dudley	PAGE/FREMONT COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER U.1

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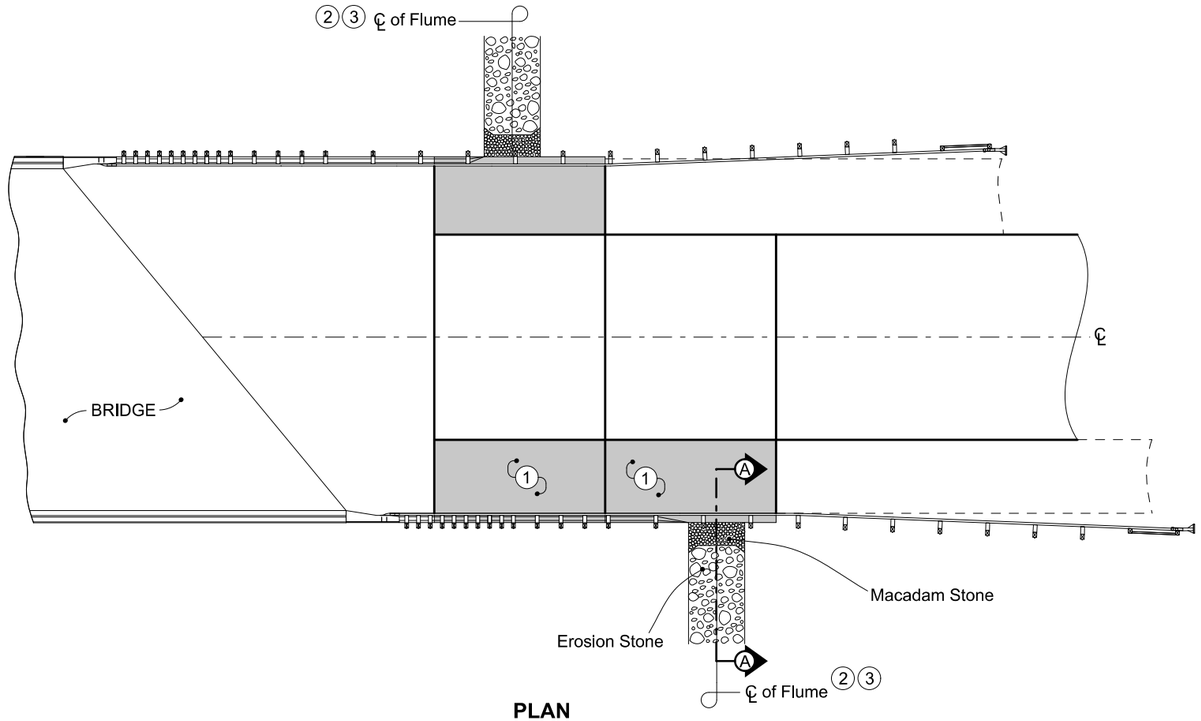


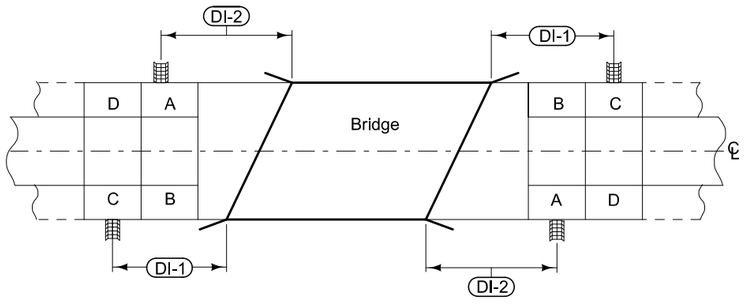
PLAN

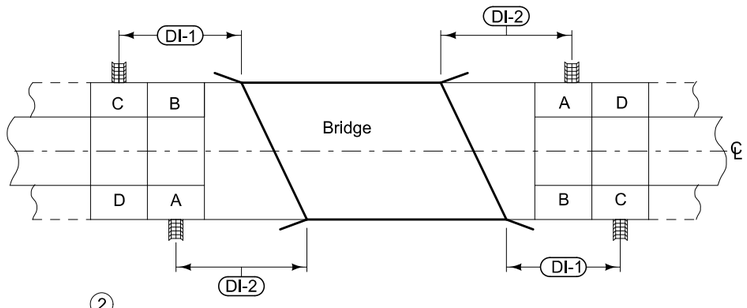
Price bid for "Bridge End Drain, DR-402" is full compensation for furnishing, installing, and constructing the Bridge End Drain as shown.

(1) Continue 4 inch sloped curb to edge of flume per section B-B. Refer to BR-201, BR-202, BR-203, BR-204, or BR-205 for details of 4 inch curb.

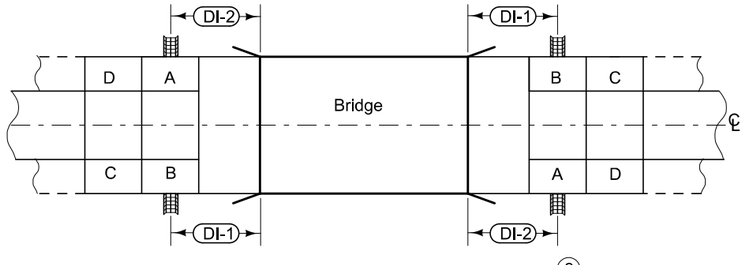
(2) DI-1 and DI-2 distances measured from center of Bolt Pattern.

(3) Extend rock flume to toe of backslope. If no backslope exists, extend rock flume a minimum of 4 feet beyond the toe of foreslope.





PCC SHOULDER PANEL LOCATIONS (2)
(Skewed Bridge)



PCC SHOULDER PANEL LOCATIONS (2)
(Non-Skewed Bridge)

Possible Contract Items:
- Paved Shoulder, Portland Cement Concrete (Paved Shoulder Panel for Bridge-End Drain)
- Bridge End Drain, DR-402

Incidental to Paved Shoulder:
- Modified Subbase
- Polymer Grid

Incidental to Bridge End Drain:
- Macadam Stone Base Material
- Erosion Stone
- Engineering Fabric
- Excavation, hauling, and disposing of material

Possible Tabulation:
- 104-8A

MODIFIED STANDARD ROAD PLAN

REVISION	
5	10-15-19

DR-402

SHEET 1 of 2

MODIFICATIONS: Changed overall width of sections B-B, C-C, and D-D from 7'-6" to 15'-0".

ROCK FLUME FOR BRIDGE END DRAIN

FILE NO. 31409	ENGLISH	DESIGN TEAM Holst \ Dudley	PAGE/FREMONT COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER U.2

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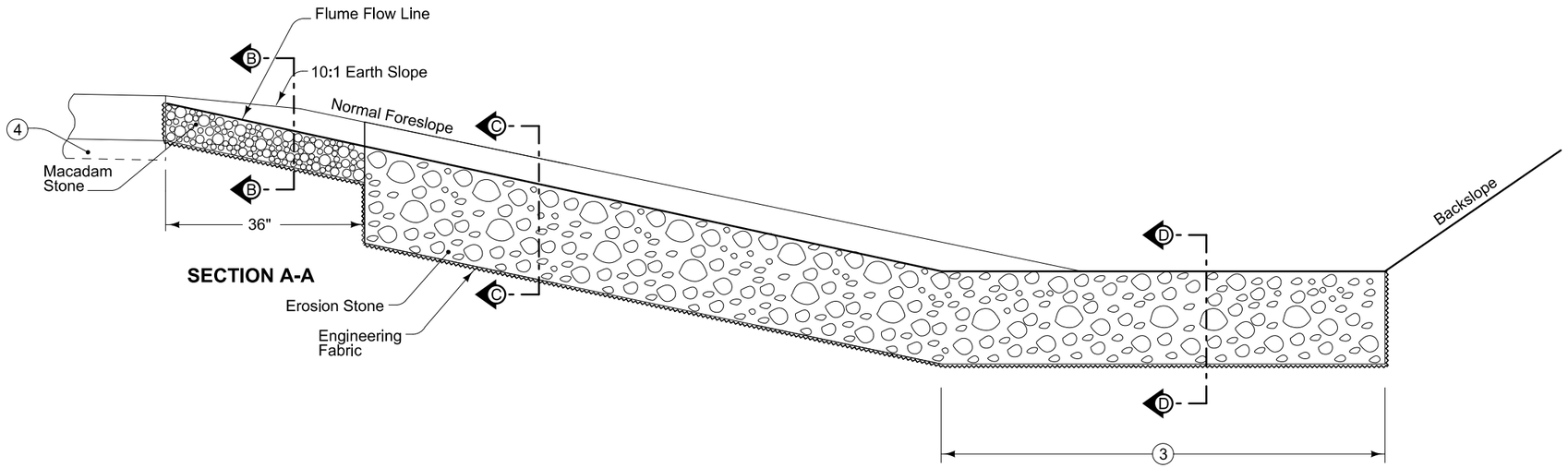
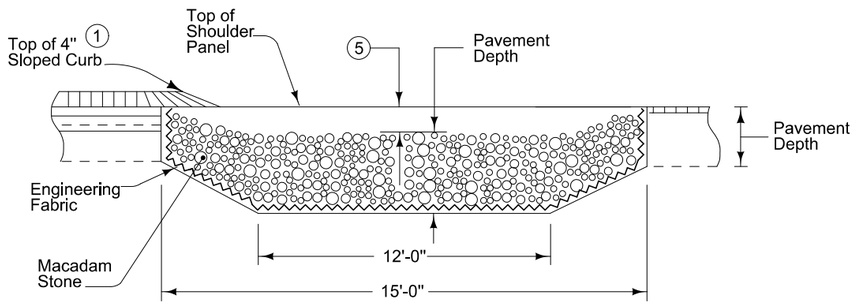
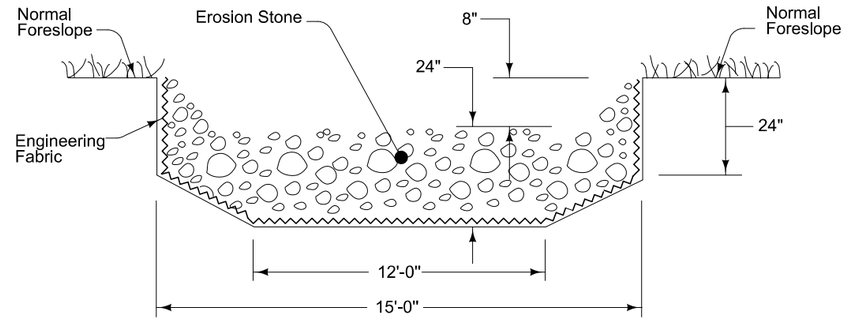


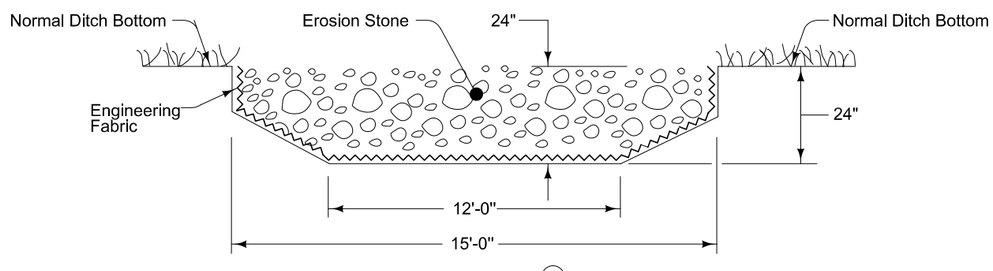
1. Continue 4 inch sloped curb to edge of flume per section B-B. Refer to BR-201, BR-202, BR-203, BR-204, or BR-205 for details of 4 inch curb.
3. Extend flume to toe of backlope. If no backslope exists, extend rock flume a minimum of 4 feet beyond the toe of foreslope.
4. Install modified subbase and polymer grid under PCC shoulder panels as shown in Section A-A on BR-201, BR-202, or BR-203, BR-204 or BR-205.
5. Transitions from 2 inches at edge of pavement to 8 inches within 3 feet.
6. Transition the flume flow line depth from 8 inches at the toe of slope to 0 inches with an approximate transition rate of 2 inches per 1 foot horizontal.



SECTION B-B



SECTION C-C



SECTION D-D 6

MODIFIED STANDARD ROAD PLAN

REVISION	
5	10-15-19

DR-402

SHEET 2 of 2

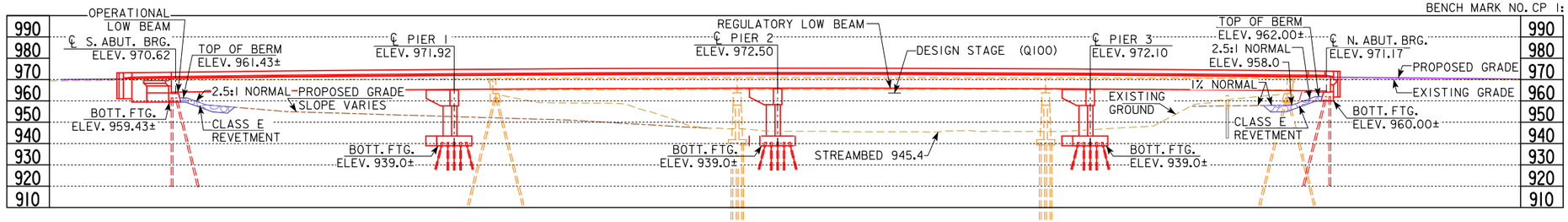
MODIFICATIONS: Changed overall width of sections B-B, C-C, and D-D from 7'-6" to 15'-0".

ROCK FLUME FOR BRIDGE END DRAIN

FILE NO. 31409	ENGLISH	DESIGN TEAM Holst \ Dudley	PAGE/FREMONT COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER U.3

10:46:51 AM 9/30/2020 ddudley pw:\\ntPwInt1.dot.int.lan:PWMain\Documents\Projects\7305901016\Design\CADD_Files\Sheet_Files\SHT_73059031_U01.dgn

BENCH MARK NO. CP 1: NORTHING 6156281.990, EASTING 22047323.568, ELEV. 967.334



LONGITUDINAL SECTION ALONG ℄ APPROACH ROADWAY

NOTES:

1. TOP OF BRIDGE DECK CROWN 0.03' BELOW PROFILE GRADE.
2. CLASS E REVETMENT IS EMBEDDED. SEE DETAILS.

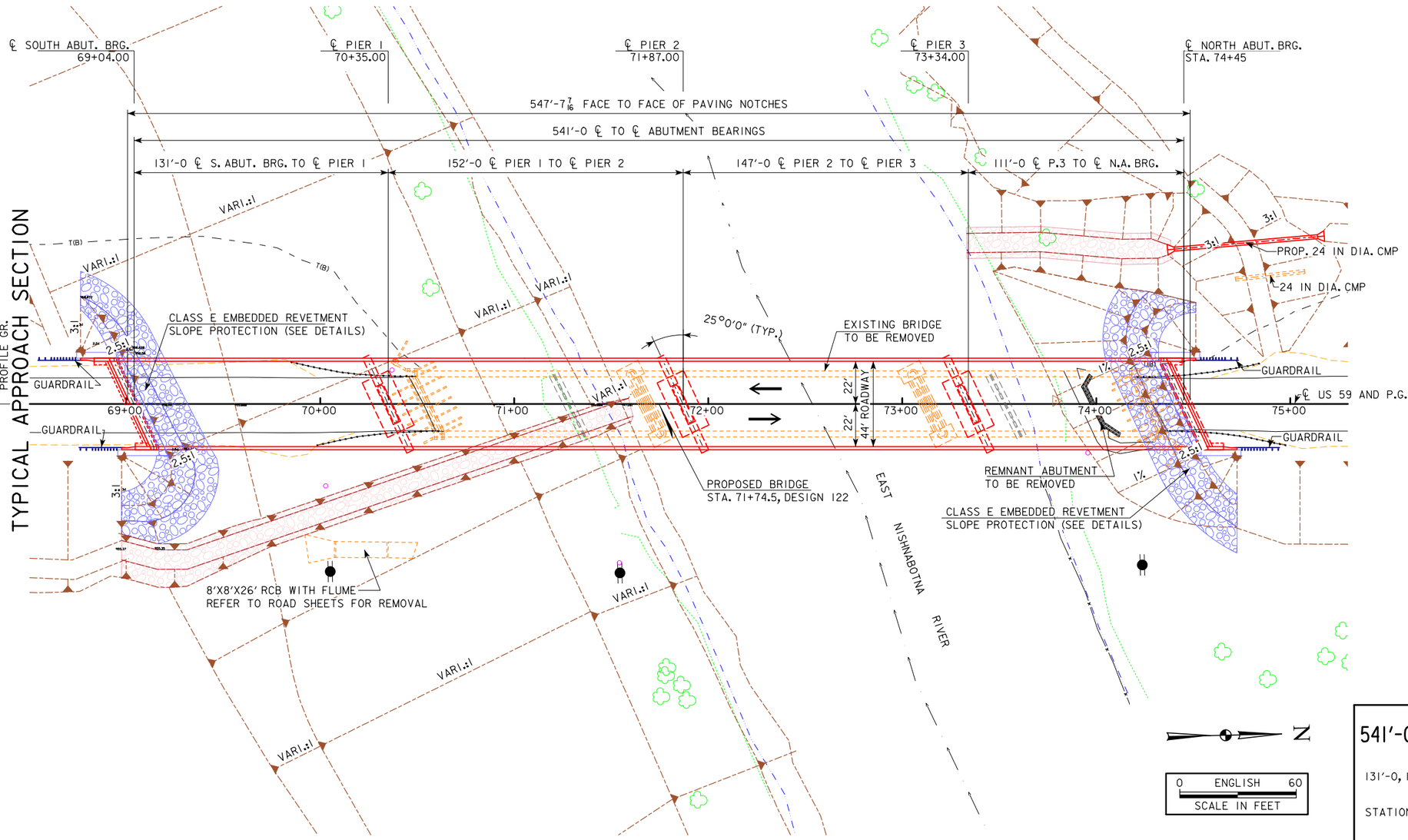
G1=1.200% G2=-1.000%

VPI STA = 67+42.000 VPI ELEV = 968.704

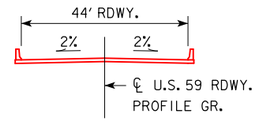
VPI STA = 71+75.000 VPI ELEV = 973.900 VC = 500.000'

VPI STA = 76+30.000 VPI ELEV = 969.350

PROPOSED PROFILE GRADE US 59



SITUATION PLAN



TYPICAL BRIDGE SECTION

UTILITIES LEGEND:

- POWER POLE
T - TELEPHONE LINE

UTILITIES SHOWN ON THIS SHEET ARE FOR INFORMATION ONLY, SEE ROAD DESIGN SHEETS FOR FINAL UTILITY INFORMATION.

TRAFFIC ESTIMATE

2021 AADT	1700	V.P.D.
2041 AADT	1900	V.P.D.
202_ DHV	-	V.P.H.
TRUCKS	17	%
TOTAL DESIGN ESALs	-	

LOCATION

US 59 OVER THE EAST NISHNABOTNA RIVER
SECTION 12/13, T-69N, R-40W
WALNUT TOWNSHIP, FREMONT COUNTY
SECTION 7/18, T-69N, R-39W
GRANT TOWNSHIP, PAGE COUNTY
FHWA NO. 38611
BRIDGE MAINT. NO. 7314.2S059
LATITUDE 40.785542°
LONGITUDE -95.384815°

PRELIMINARY

DESIGN FOR 25° SKEW (R.A.)

541'-0 x 44'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

131'-0, 111'-0 END SPANS BTE BEAMS 152'-0, 147' INTERIOR SPANS

SITUATION PLAN

STATION 71+74.5 (US 59) JULY 2020

PAGE COUNTY

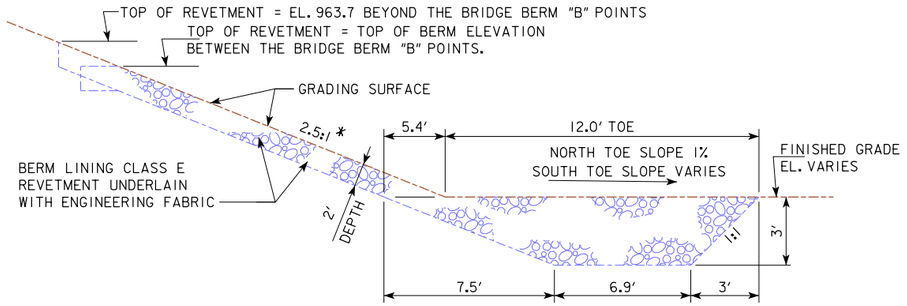
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 3 FILE NO. 31409 DESIGN NO. 122

DESIGN TEAM	PAGE COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER

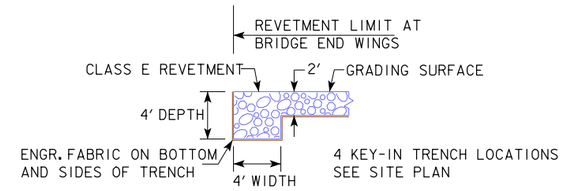
7/31/2020 7:44:32 AM pschwar pw:\\ntPwInt1.dot.int.lan:PWMain\Documents\Projects\7305901016\BRPrelim\STR_73059031_DOT_Z12.dgn TSL_73_0122_01 11x17_pdf.pltcfg

BENCH MARK NO. CP 1: NORTHING 6156281.990, EASTING 22047323.568, ELEV. 967.334



* SLOPE AND DIMENSIONS NORMAL TO BRIDGE ABUTMENTS
BERM SLOPE TRANSITIONS TO 3:1 PERPENDICULAR TO BRIDGE END WINGS

SECTION THRU EMBEDDED REVETMENT BERM

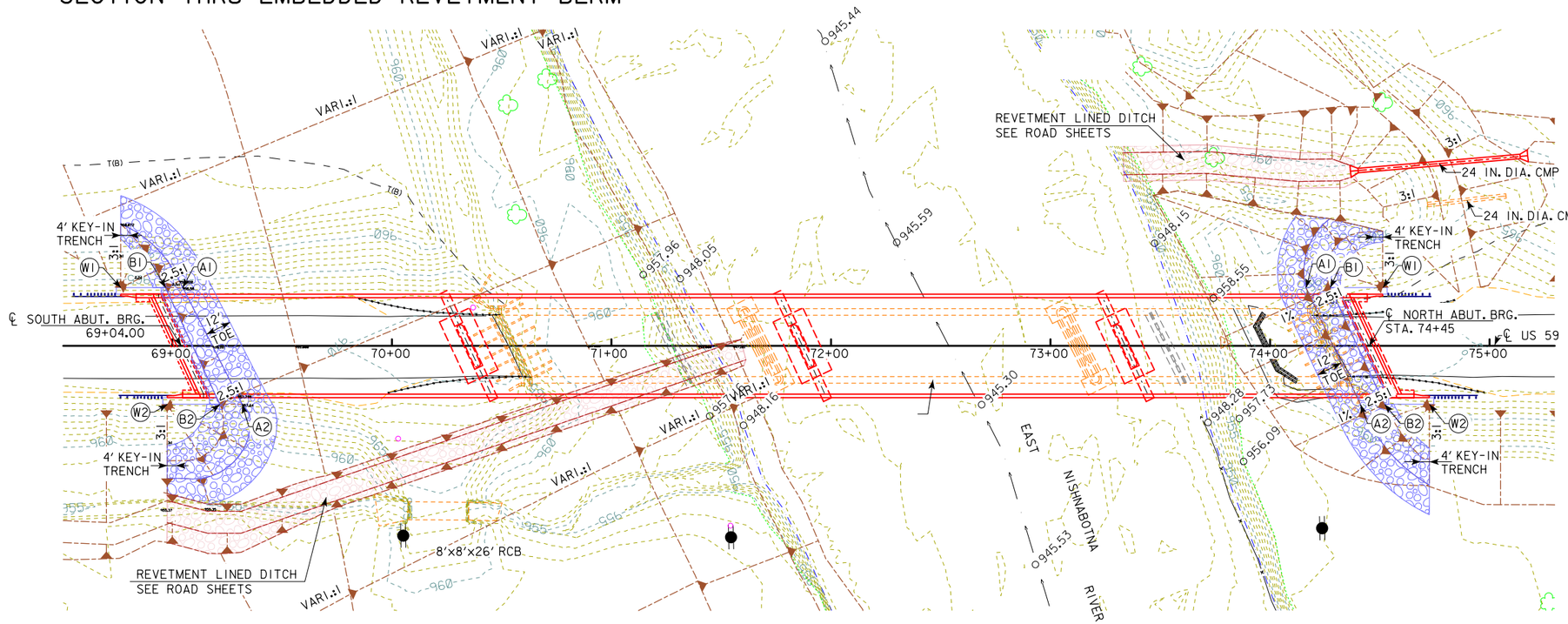


SECTION THRU KEY-IN IN TRENCH

ESTIMATED BERM ARMORING QUANTITIES

LOCATION	REVETMENT CL. E (TON)	EROSION STONE (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
BERM LINING - SOUTH ABUTMENT	568.9	--	537.3	355.5
BERM LINING - NORTH ABUTMENT	533.1	--	514.1	333.2
TOTALS	1102.0	--	1051.4	688.7

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.



SITE PLAN

N

0 ENGLISH 60
SCALE IN FEET

BERM SLOPE LOCATION TABLE

POINTS	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	69+04.73	26.58' LT	958.58	74+16.33	26.58' LT	958.00
A2	69+31.82	28.58' RT	957.64	74+41.11	28.58' RT	958.00
B1	68+96.85	26.58' LT	961.43	74+27.36	26.58' LT	962.00
B2	69+21.63	28.58' RT	961.43	74+52.15	28.58' RT	962.00
W1	68+76.46	26.58' LT	969.73	74+51.32	26.58' LT	970.55
W2	68+97.68	28.58' RT	969.98	74+72.54	28.58' RT	970.34

BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE

HYDRAULIC DESIGN

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature Date

Andrew W. McCoy

Printed or Typed Name

My license renewal date is December 31, 2021

Pages or sheets covered by this seal: 1 THROUGH 3 OF 3

LICENSED PROFESSIONAL ENGINEER Andrew W. McCoy 18963 IOWA

HYDRAULIC DATA

DRAINAGE AREA = 1022 SQ. MI.
STREAM SLOPE = 2.97 FT./MI.
AVG. LOW WATER STAGE = 948.2

Q_{15} (OVERTOP) = 26,900 CFS
STAGE 962.5
ROADWAY OVERTOP 963.3
STA. 34+44.5

Q_{25} = 32,000 CFS
STAGE = 962.8

Q_{50} = 37,900 CFS
STAGE = 962.9
REGULATORY LOW BEAM = 965.97 (DS AT STA. 72+42)

Q_{100} = 44,000 CFS
STAGE = 963.7
OPERATIONAL LOW BEAM = 964.01
BACKWATER = 1.65 FT. (LOW DAMAGE POTENTIAL AREAS)
BACKWATER = 0.96 FT. (HIGH DAMAGE POTENTIAL AREAS)
AVG. BRIDGE VELOCITY = 5.9 FPS

Q_{200} = 50,300 CFS
STAGE = 964.0
CALCULATED DESIGN SCOUR = 920.9

Q_{500} = 59,200 CFS
STAGE = 964.5
CALCULATED CHECK SCOUR = 920.0

EXTREME HW STAGE = 965.3 NAVD88 (60,500 CFS)
DATE = JUNE 1998
(REF: USGS OPEN FILE REPORT 1999-70. REPORT DATUM (NGVD) +0.371 FT = PROJECT DATUM (NAVD88)).

PRELIMINARY

DESIGN FOR 25° SKEW (R.A.)

541'-0 x 44'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

131'-0, 111'-0 END SPANS BTE BEAMS 152'-0, 147' INTERIOR SPANS

SITUATION PLAN-SITE

STATION 71+74.5 (US 59) JULY 2020

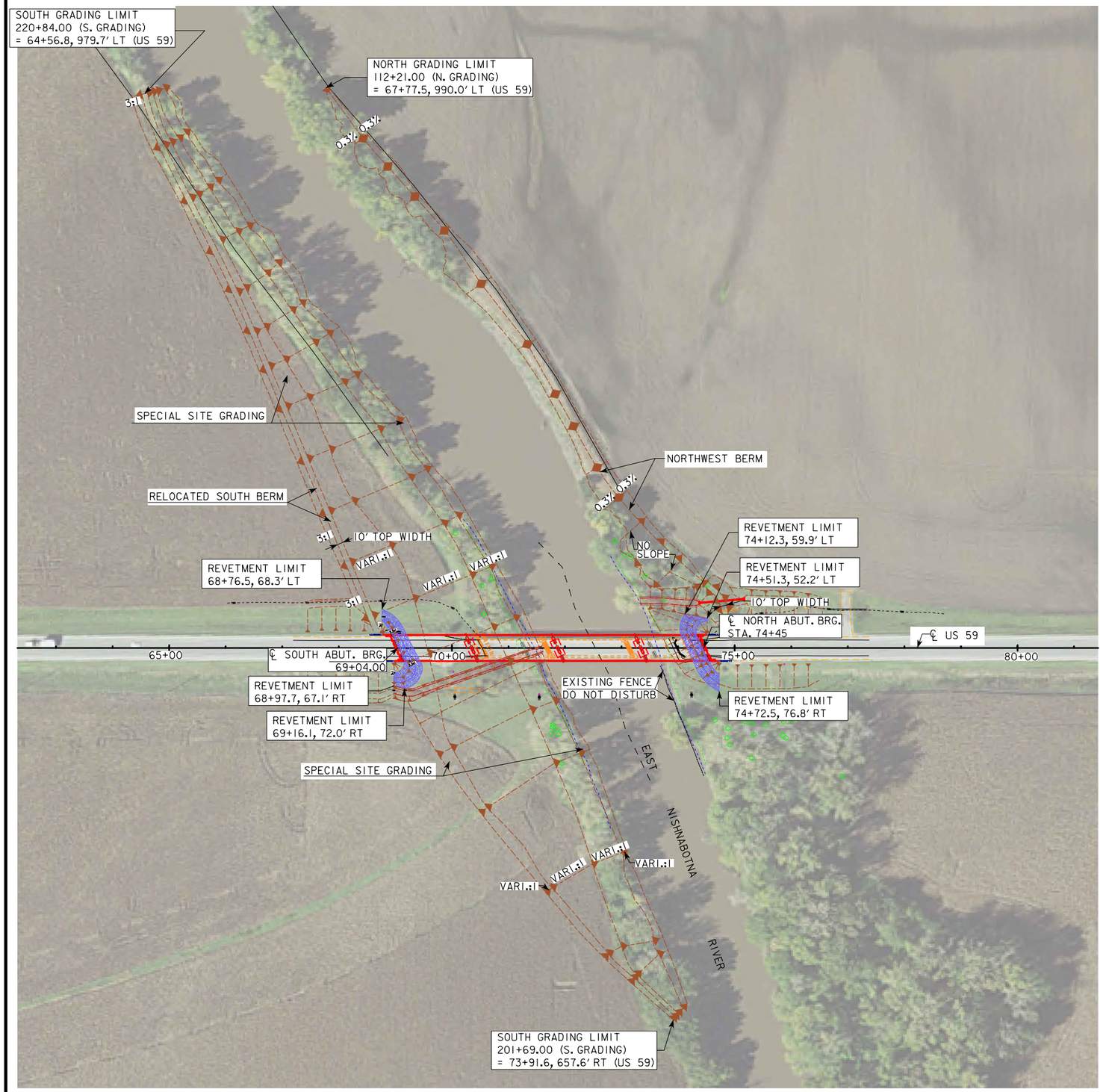
PAGE COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 2 OF 3 FILE NO. 31409 DESIGN NO. 122

DESIGN TEAM | PAGE COUNTY | PROJECT NUMBER BRF-059-1(31)--38-73 | SHEET NUMBER

7/31/2020 7:50:09 AM pschwar pw:\\ntPwInt1.dot.int.lan:PWMain\Documents\Projects\7305901016\BRPrelim\STR_73059031_DOT_Z12.dgn TSL_73_0122_02 11x17_pdf.pltcfg



SITE PLAN

NOTES
1. AGRICULTURAL BERM MODIFICATIONS AND SPECIAL SITE GRADING ARE PROPOSED TO MEET IOWA DNR BACKWATER CRITERIA. SEE ROAD PLANS FOR DESIGN INFORMATION.
2. AGRICULTURAL BERM MODIFICATIONS INCLUDE:
   - RELOCATION OF SOUTH BERM TO ACCOMMODATE THE LONGER PROPOSED BRIDGE.
   - LOWERING TOP OF BERM PROFILE FOR THE SOUTHWEST AND NORTHWEST BERMS. THE PROPOSED LOWER PROFILE WAS DESIGNED TO ALLOW FLOW TO USE THE FLOODPLAIN MORE EFFECTIVELY WITHOUT DECREASING THE LEVEL OF PROTECTION. (REF. 2-D HYDRAULIC MODELING AND THE P.E. CERTIFIED, HYDRAULIC REPORT)
3. SPECIAL SITE GRADING INCLUDES SOUTH SIDE AREAS EAST, WEST AND THROUGH THE BRIDGE. THE GRADING ACCOMMODATES THE PROPOSED AGRICULTURAL BERM MODIFICATIONS AND PROVIDES ADDITIONAL BRIDGE OPENING FLOW AREA.

NOTES TO FINAL DESIGNER (TO BE REMOVED):
1. THE DISTRICT REQUESTS ONE UTILITY CONDUIT TO BE INSTALLED IN EACH BARRIER RAIL.
2. BTE BEAMS PROPOSED.
3. TL-4 BARRIER RAIL PROPOSED.
4. T-PIER PROPOSED/SHOWN.
5. BERM SLOPES TO BE CONFIRMED DURING FINAL DESIGN.

NOTES (TO BE INCORPORATED INTO PLAN GENERAL NOTES THEN REMOVED FROM TSL):
1. THE EXISTING 372'X28' CONTINUOUS I -BEAM BRIDGE BRIDGE AT STA. 72+40.5 DESIGN NO. 7657/186 (FHWA NO. 68610) TO BE REMOVED. OLD REMNANT FOUNDATIONS SHALL BE REMOVED AS NEEDED PER THE STANDARD SPECIFICATIONS.
2. AN IOWA DNR FLOOD PLAIN CONSTRUCTION PERMIT IS REQUIRED.

N

0 ENGLISH 200
SCALE IN FEET

PRELIMINARY

DESIGN FOR 25° SKEW (R.A.)

541'-0 x 44'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

131'-0, 111'-0 END SPANS BTE BEAMS 152'-0, 147' INTERIOR SPANS

SITUATION PLAN-SITE

STATION 71+74.5 (US 59) JULY 2020

PAGE COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 3 OF 3 FILE NO. 31409 DESIGN NO. 122

DESIGN TEAM	PAGE COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER

LINE STYLE LEGEND OF CROSS SECTION SHEETS (ROAD)

- Existing Ground Line
- Proposed Template
- Proposed Topsoil Placement
- Additional Topsoil Removal
- Subgrade Treatment
- Granular Shoulder
- Pavement
- Existing Pipe\RCB
- Proposed Pipe\RCB
- Proposed Dike
- All Elements Associated with Proposed Entrances

LINE STYLE LEGEND OF CROSS SECTION SHEETS (SOILS)

- TOPSOIL — Topsoil (Class 10)
- Slope Dressing Only
- CL 10 — Class 10 Materials
- SEL LO — Select Loams And Clay-Loams
- SEL SA — Select Sand
- UNS A — Unsuitable Type A Disposal
- UNS B — Unsuitable Type B Disposal
- UNS C — Unsuitable Type C Disposal
- SHALE — Shale
- WASTE — Waste
- B&W LS — Broken and Weathered Rock
- ROCK — Solid Rock
- BLDRS — Boulders

Note: All layer lines and descriptions identify layers above the line.

Note: Vertical or near vertical lines connecting soil layers at edges of cross sections are only for the purpose of calculating template quantities and do not depict soil stratification.

SYMBOL LEGEND OF CROSS SECTION SHEETS

Existing ROW — Existing Right-of-Way Limit

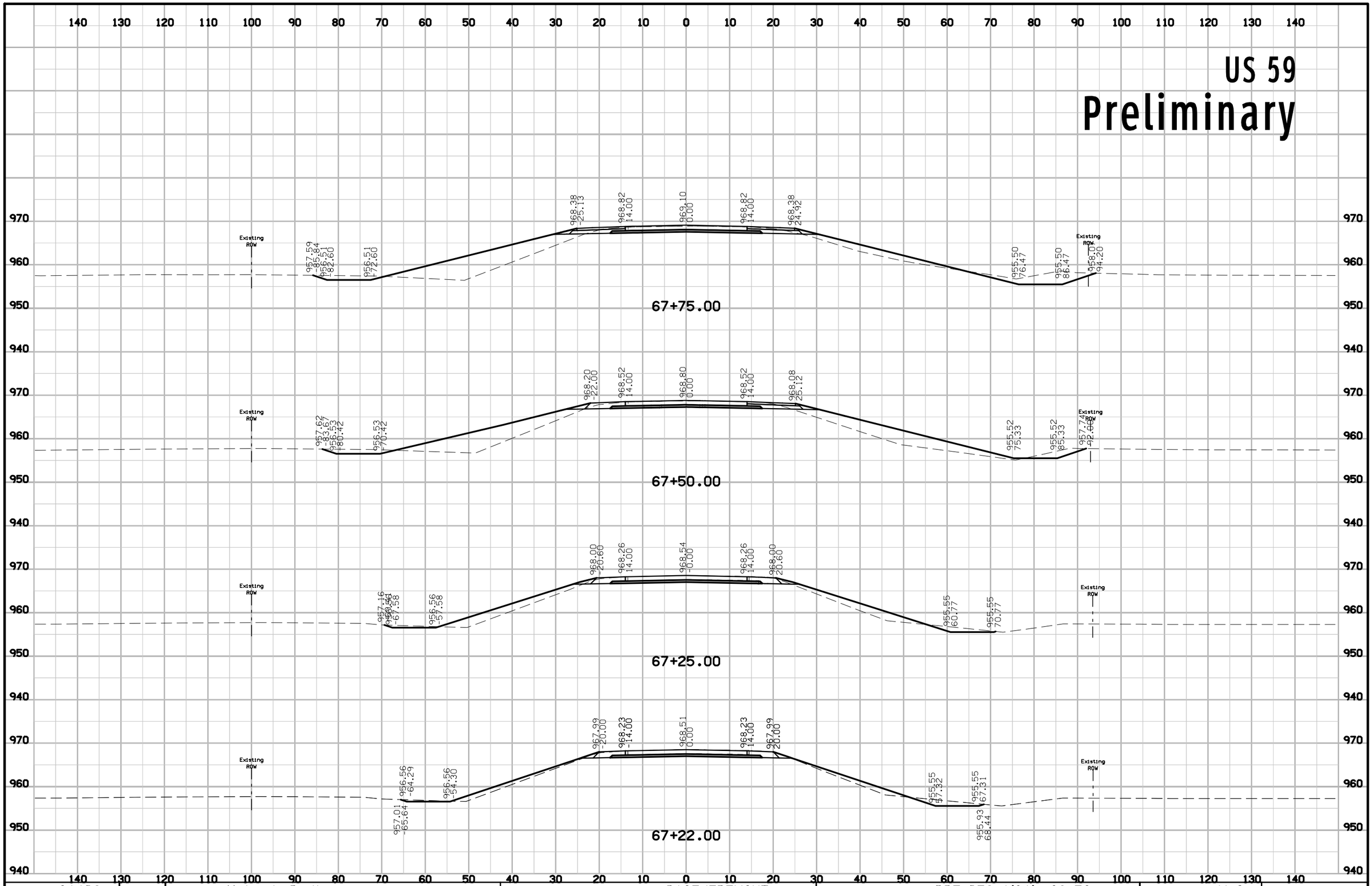
Proposed ROW — Proposed Right-of-Way Limit

Temporary ROW — Temporary Right-of-Way Limit

CROSS SECTION LEGEND AND SYMBOL INFORMATION SHEET

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

US 59
Preliminary



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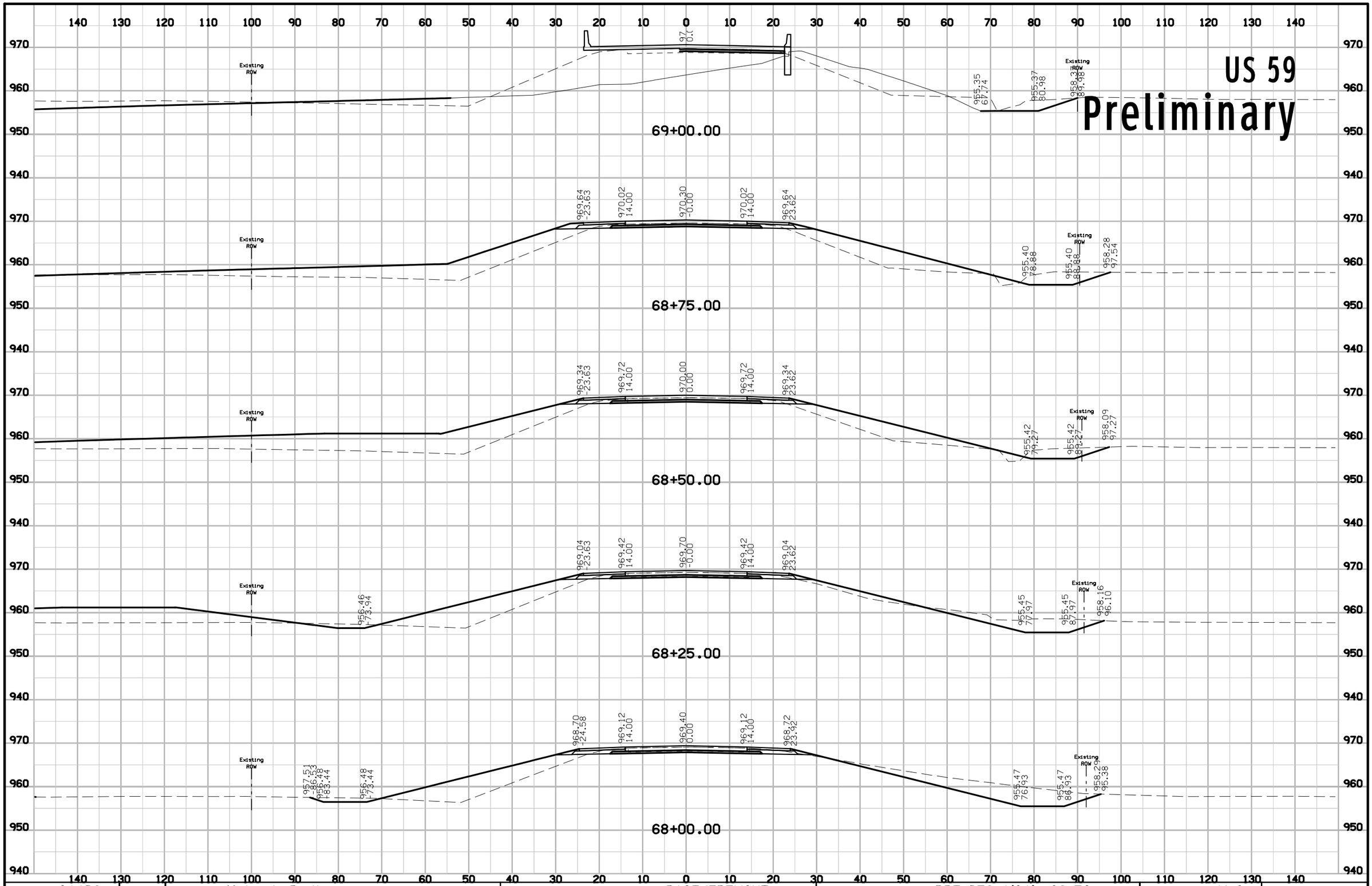
US 59

Preliminary



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US 59
Preliminary

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

970
960
950

Existing ROW

953.10
51.65

953.10
61.65

Existing ROW

70+00.00

Existing ROW

954.88
60.23

954.88
70.23

Existing ROW

69+75.00

Existing ROW

954.54
68.81

954.54
78.81

Existing ROW

69+50.00

Existing ROW

955.18
75.21

955.18
85.21

Existing ROW

958.25
94.43

69+25.00

FILE NO. 31409	ENGLISH	DESIGN TEAM Holst \ Dudley	PAGE/FREMONT COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER W.4

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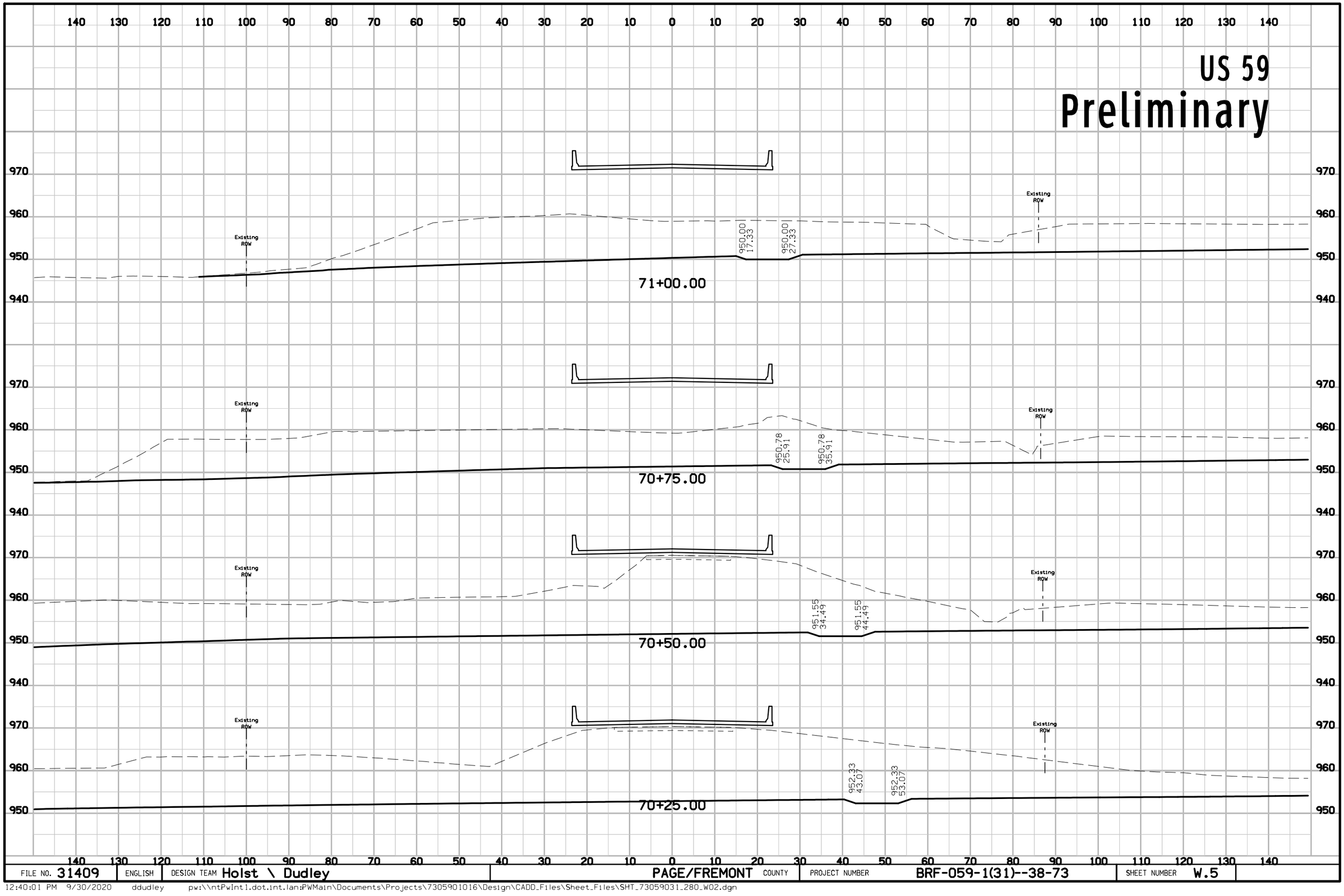
US 59
Preliminary



FILE NO. 31409	ENGLISH	DESIGN TEAM Holst \ Dudley	PAGE/FREMONT COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER W.5

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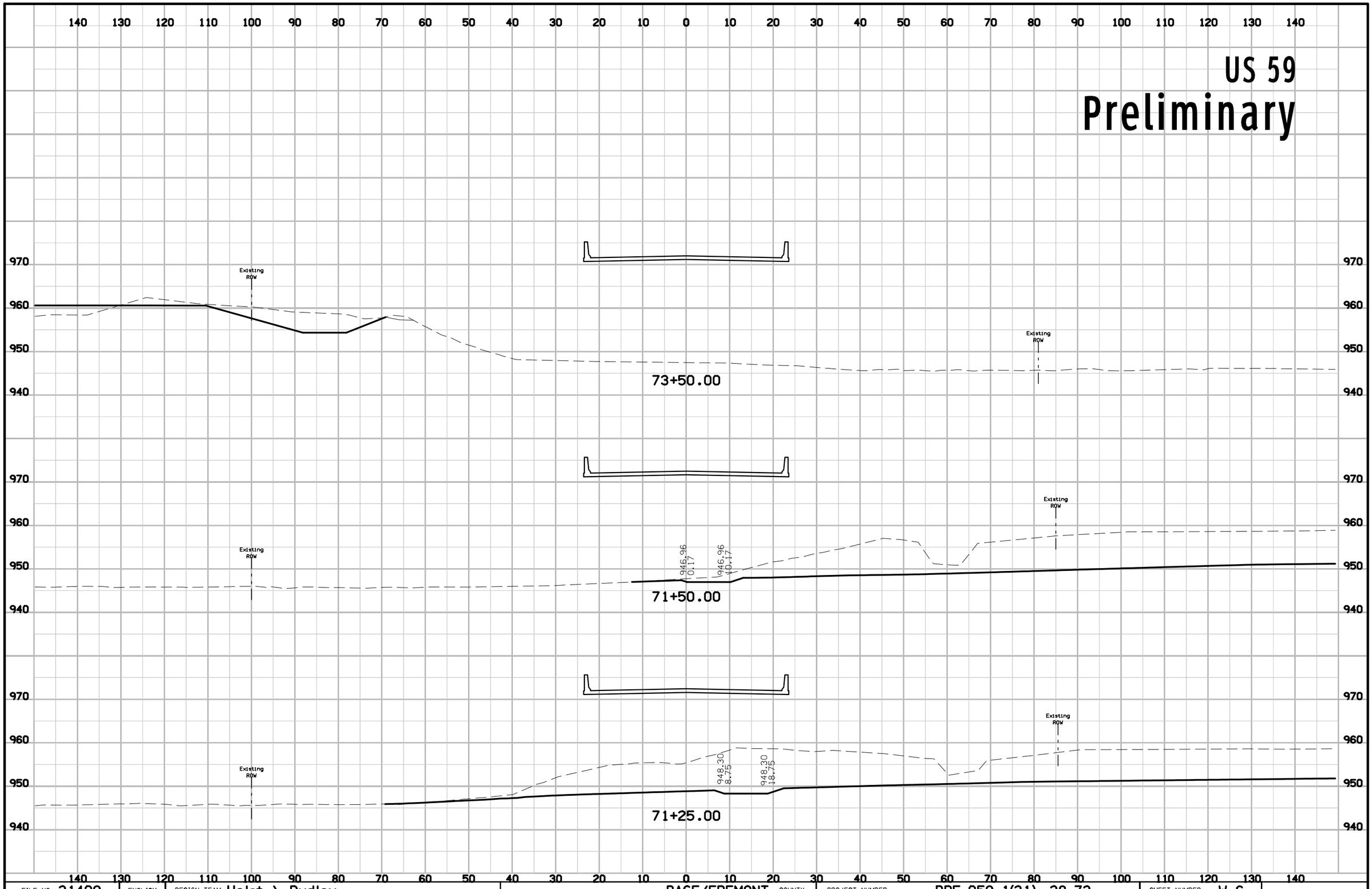
US 59
Preliminary



FILE NO. 31409	ENGLISH	DESIGN TEAM Holst \ Dudley	PAGE/FREMONT COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER W.6

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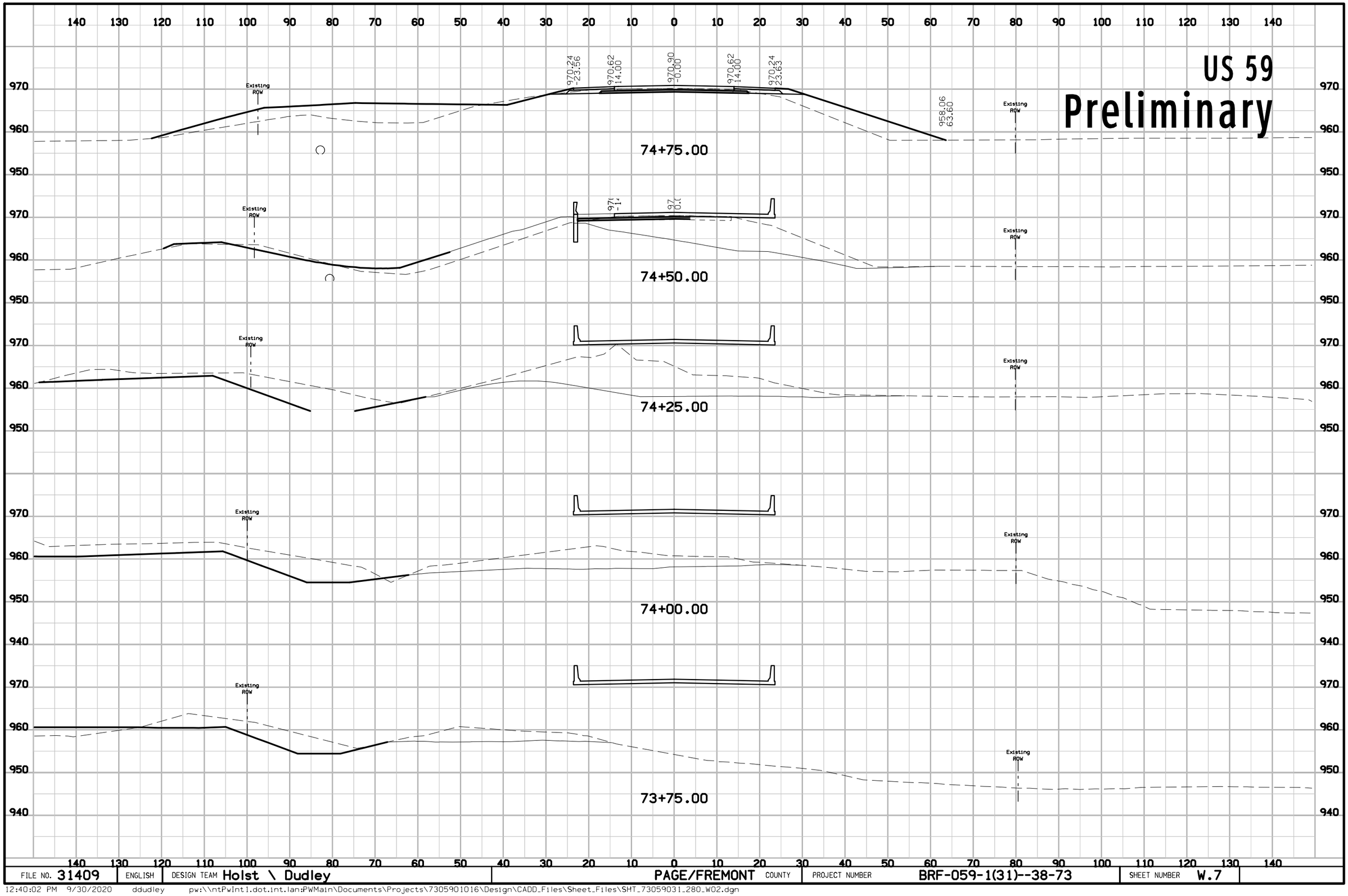
US 59
Preliminary



FILE NO. 31409	ENGLISH	DESIGN TEAM Holst \ Dudley	PAGE/FREMONT COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER W.7

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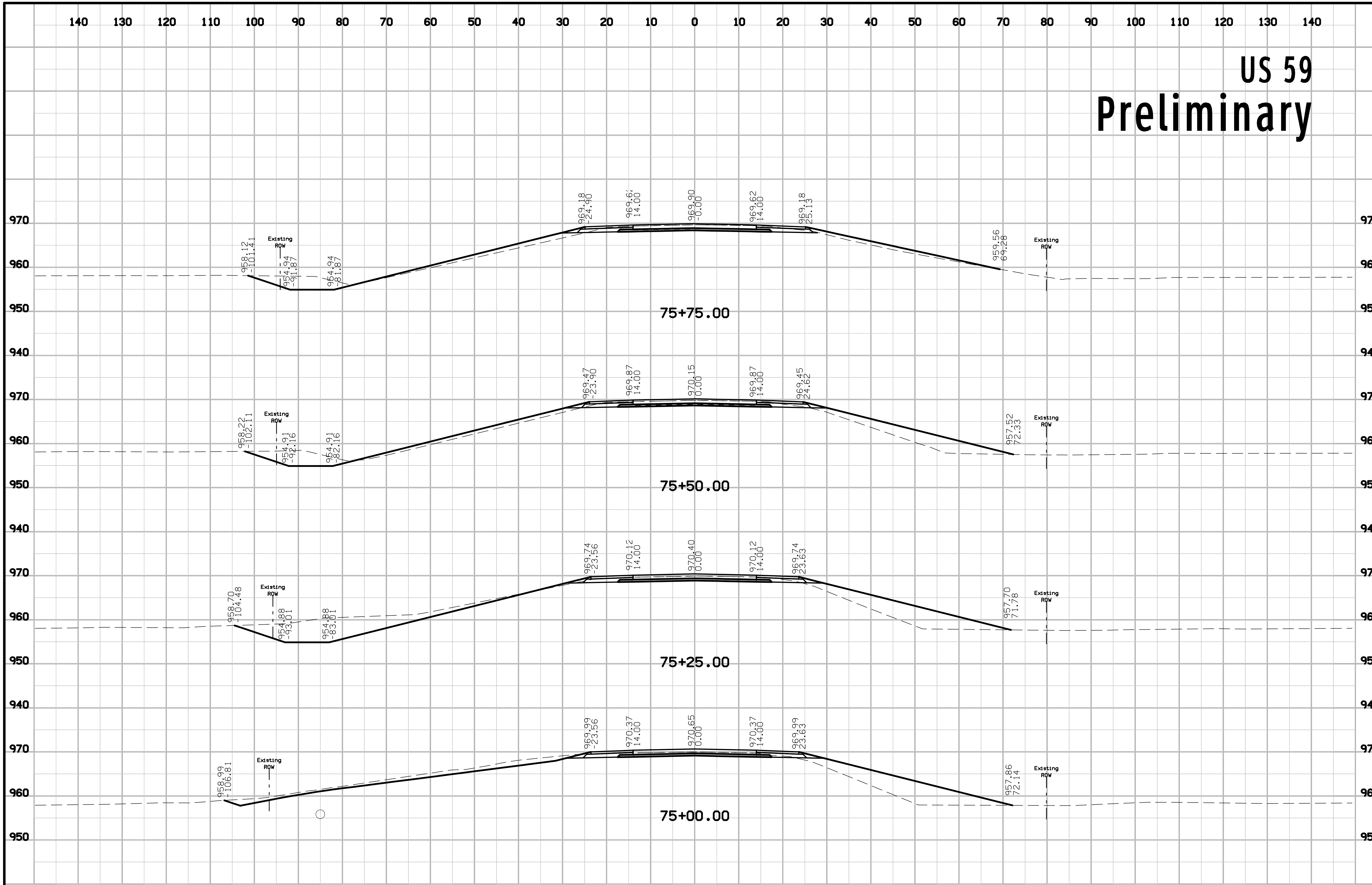
US 59
Preliminary



FILE NO. 31409	ENGLISH	DESIGN TEAM Holst \ Dudley	PAGE/FREMONT COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER W.8

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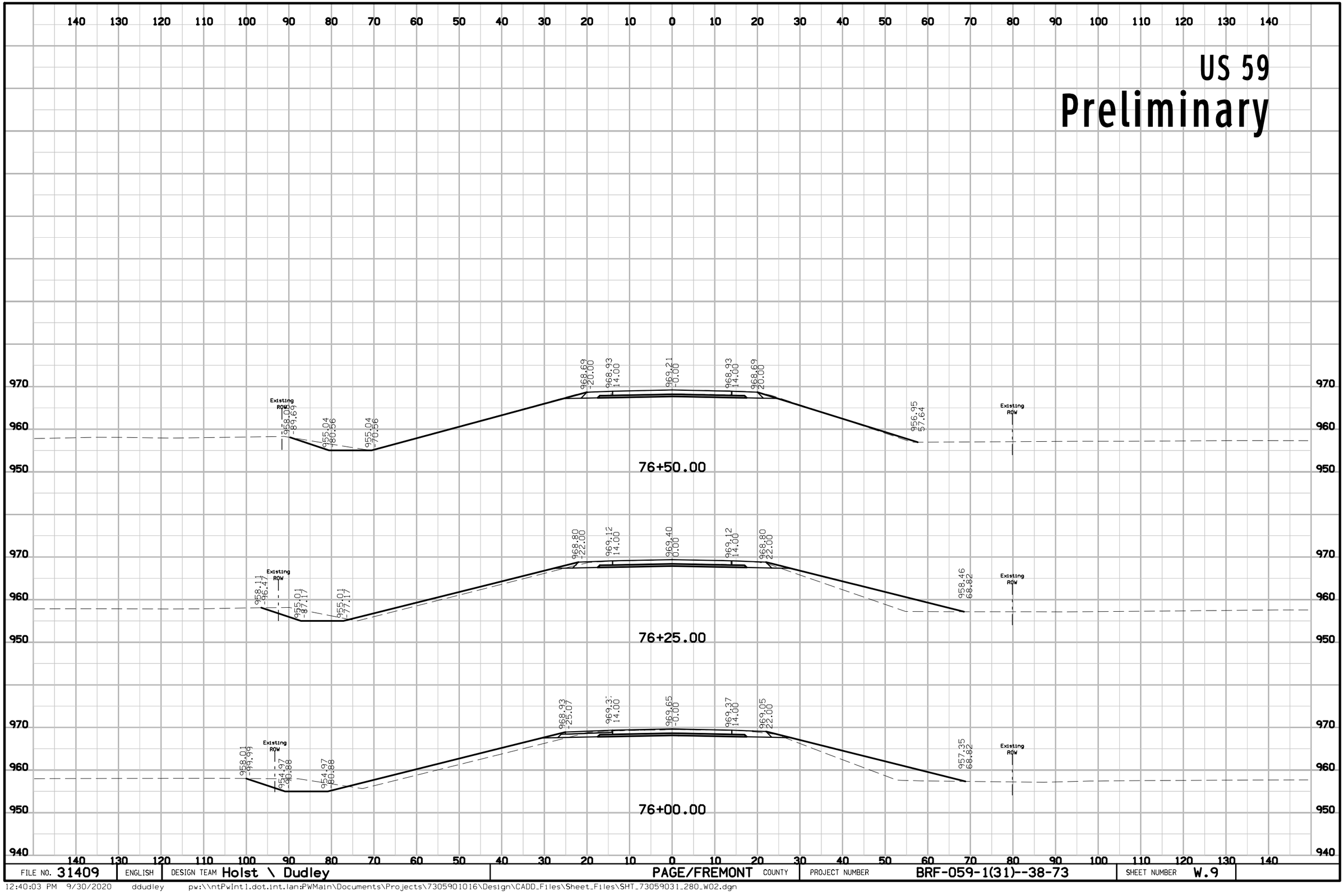
US 59
Preliminary



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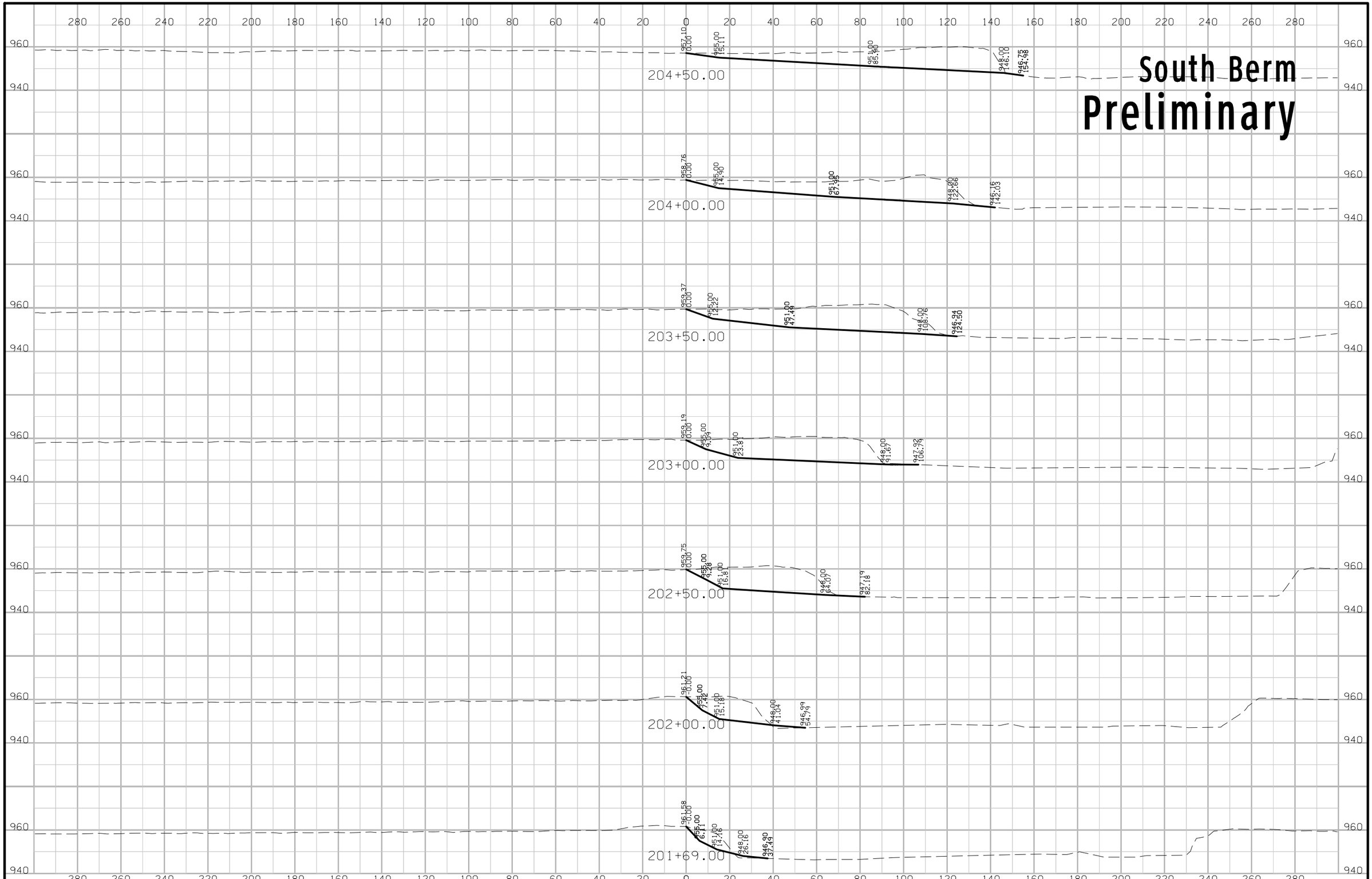
South Berm
Preliminary



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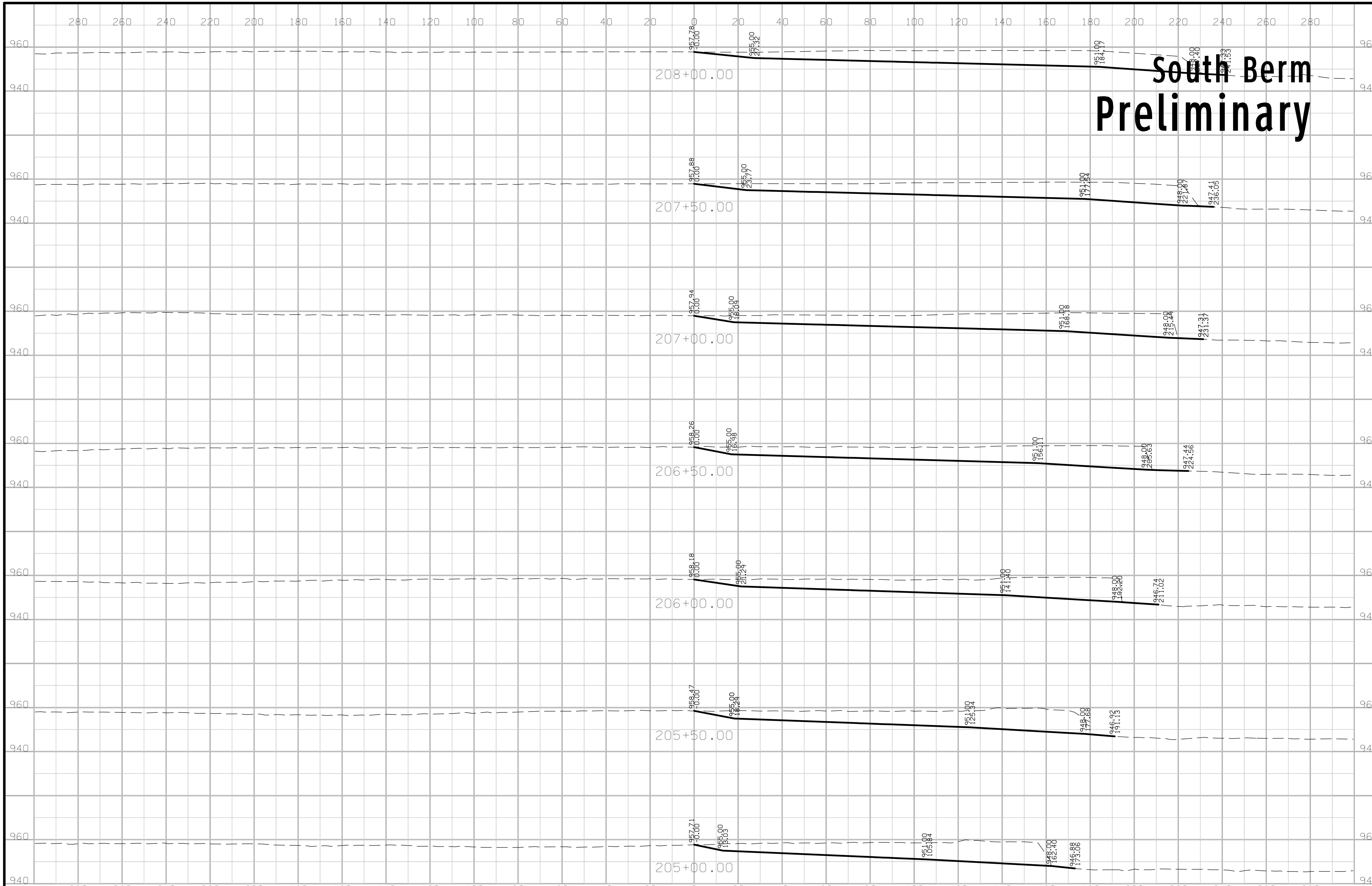
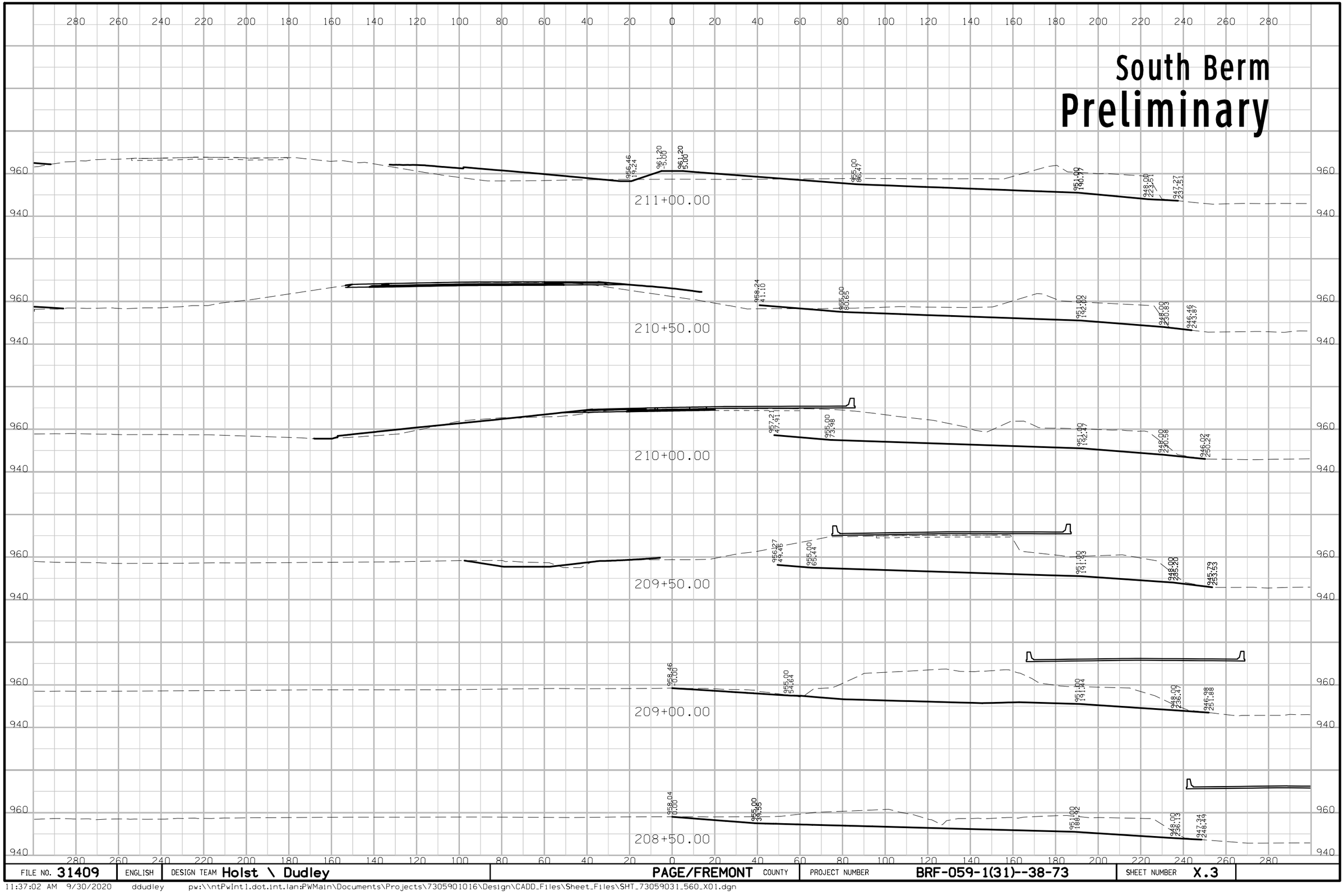


FILE NO. 31409	ENGLISH	DESIGN TEAM Holst \ Dudley	PAGE/FREMONT COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER X.2

South Berm
Preliminary



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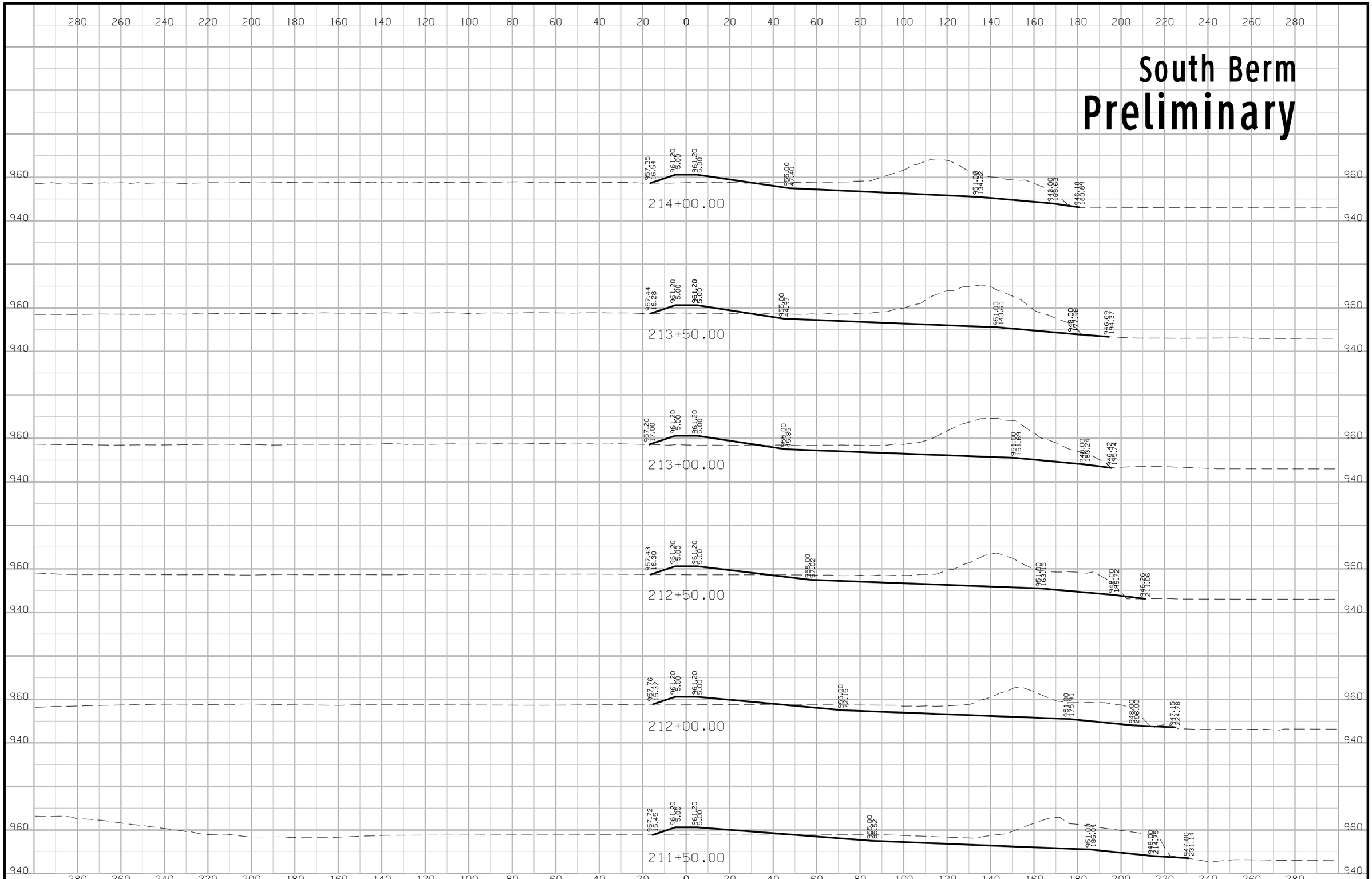
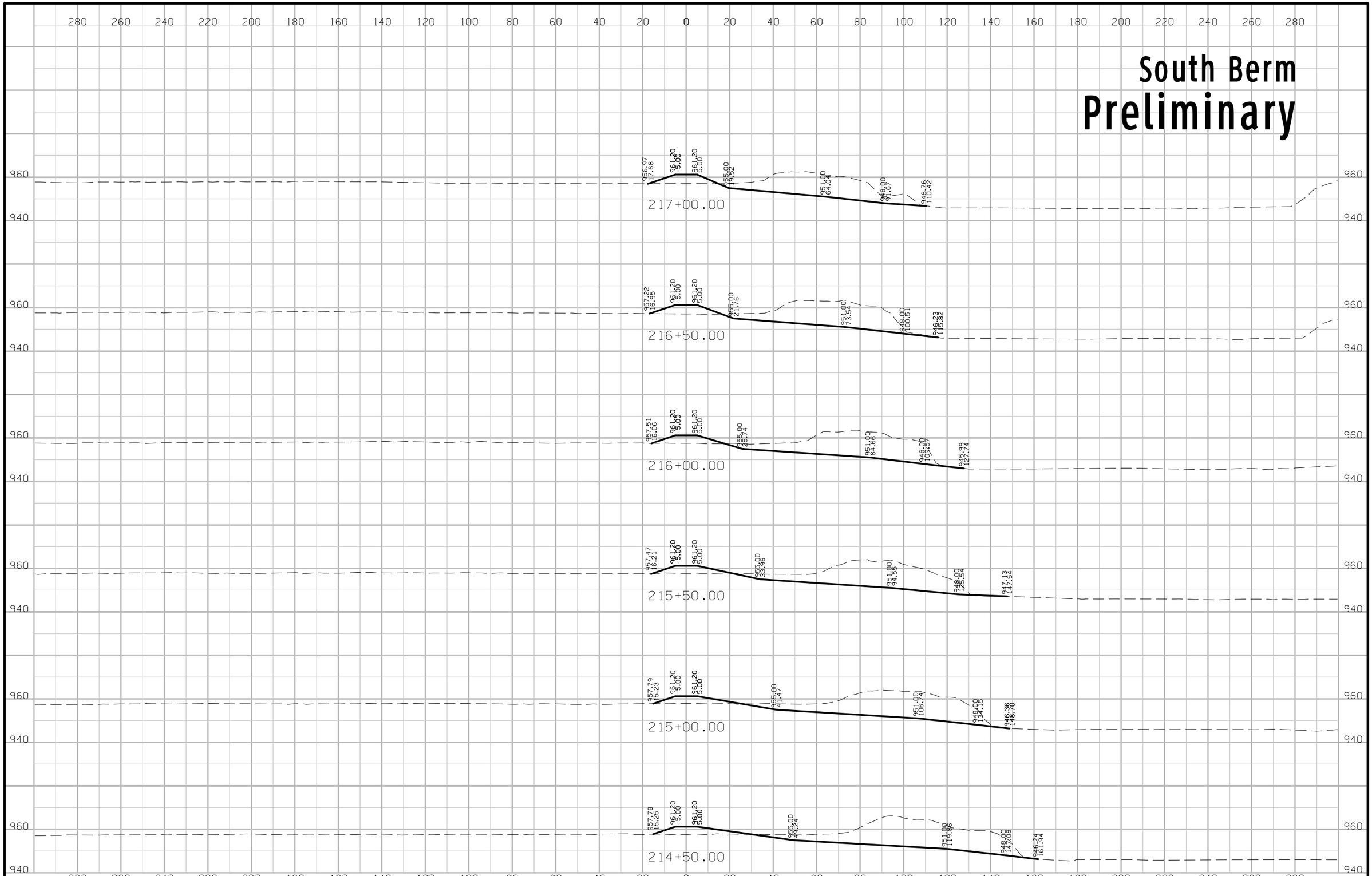
South Berm
Preliminary



FILE NO. 31409	ENGLISH	DESIGN TEAM Holst \ Dudley	PAGE/FREMONT COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER X.4

South Berm
Preliminary



FILE NO. 31409	ENGLISH	DESIGN TEAM Holst \ Dudley	PAGE/FREMONT COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER X.5

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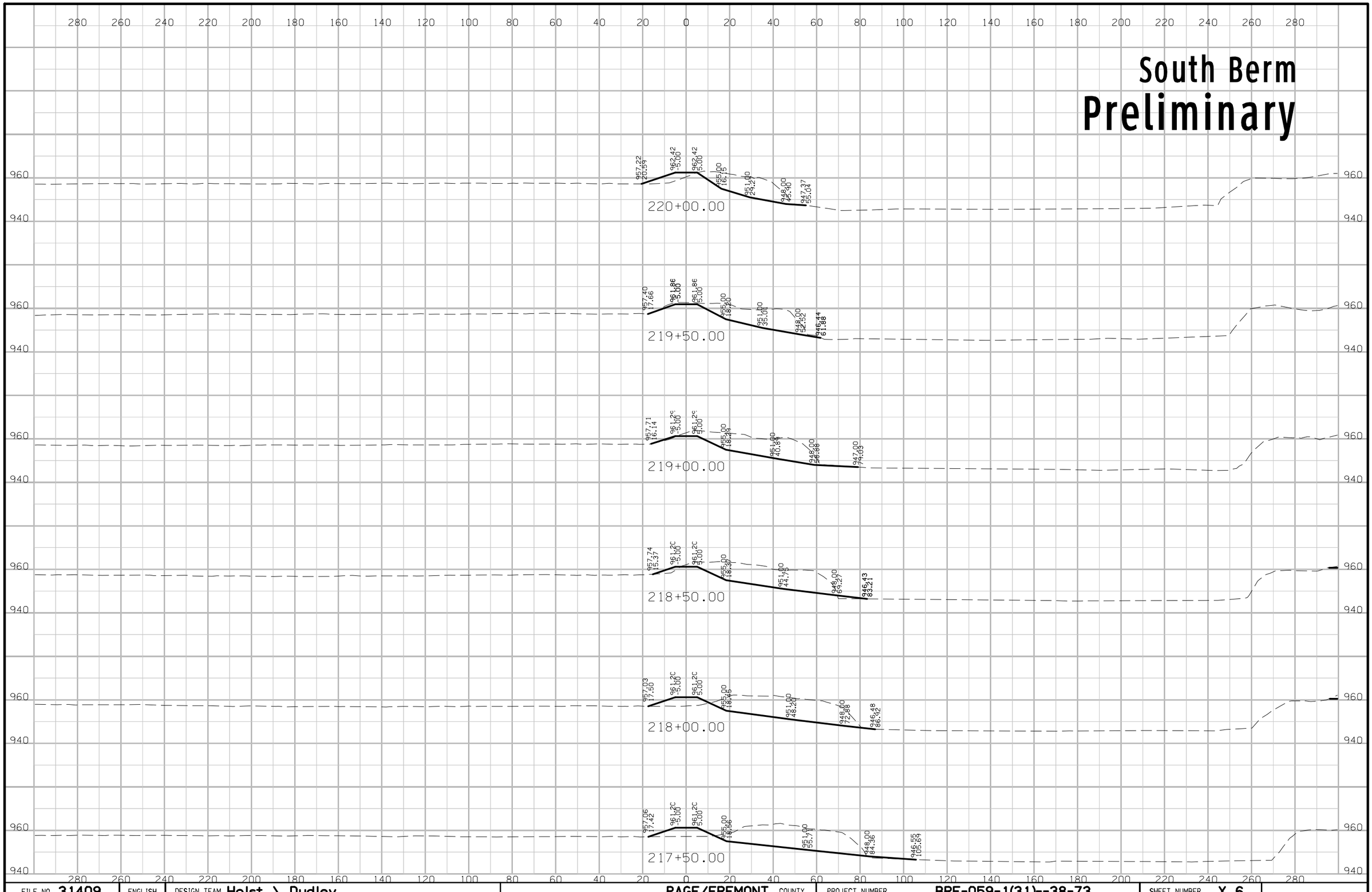
South Berm
Preliminary



FILE NO. 31409	ENGLISH	DESIGN TEAM Holst \ Dudley	PAGE/FREMONT COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER X.6

North Berm
Preliminary

102+50.00

960.58
-58.05

960.60
0.00

960.56
12.79

102+00.00

960.58
-67.56

960.60
0.00

960.56
11.91

101+50.00

961.37
-44.96

961.50
-0.00

961.47
10.70

101+00.00

964.50
0.00

954.61
-34.66

958.54
22.89

100+65.00

966
-0.0

957.12
-33.45

954.91
40.08

FILE NO. 31409	ENGLISH	DESIGN TEAM Holst \ Dudley	PAGE/FREMONT COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER X.7

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North Berm
Preliminary

105+00.00

960.56
-12.27

960.60
-0.00

960.55
18.07

104+50.00

960.56
-13.77

960.60
-0.00

960.54
18.82

104+00.00

960.53
-22.75

960.60
0.00

960.54
20.95

103+50.00

960.51
-29.16

960.60
0.00

960.54
19.36

103+00.00

960.53
-23.53

960.60
0.00

960.55
16.72

FILE NO. 31409	ENGLISH	DESIGN TEAM Holst \ Dudley	PAGE/FREMONT COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER X.8

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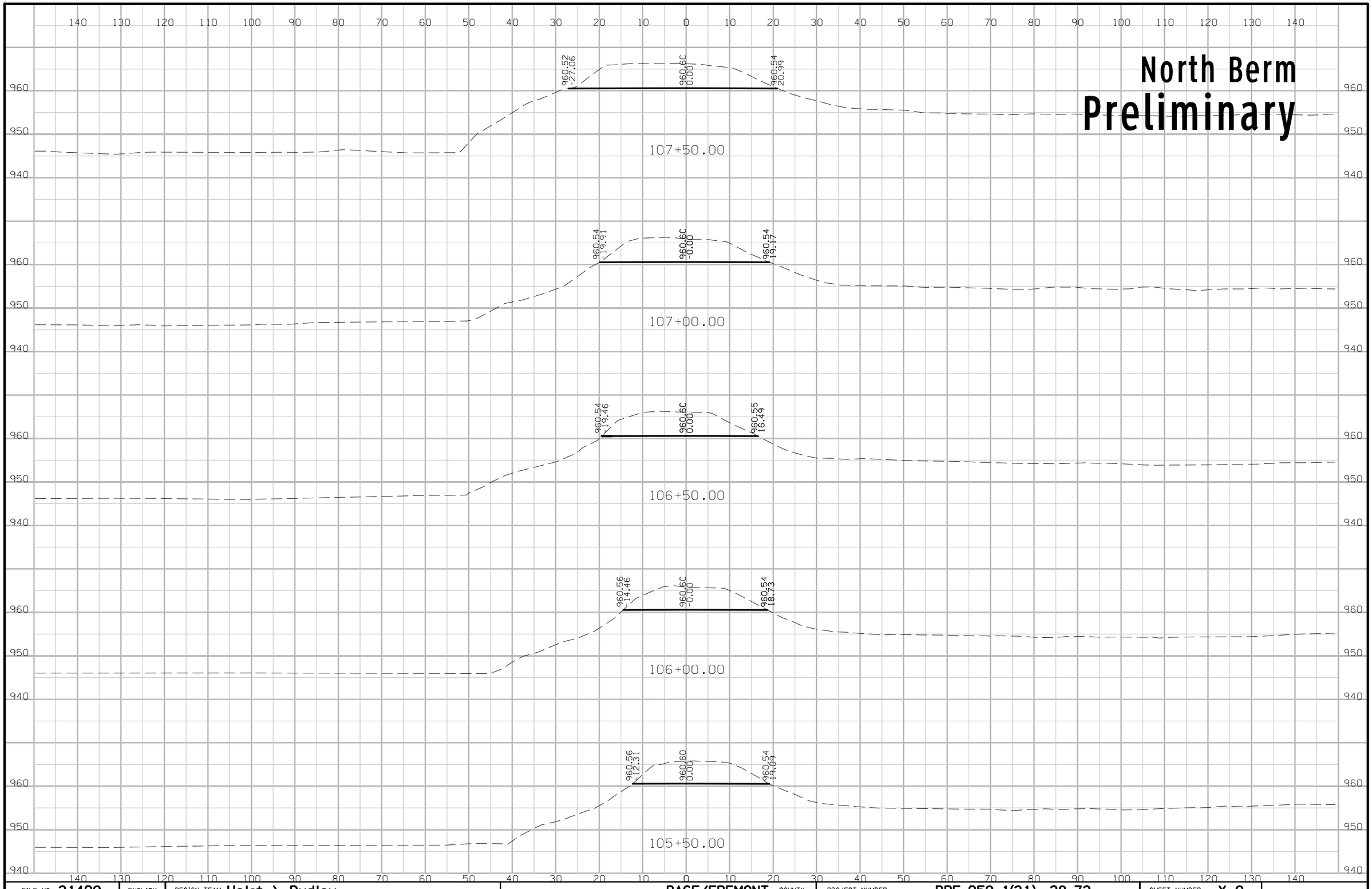
North Berm

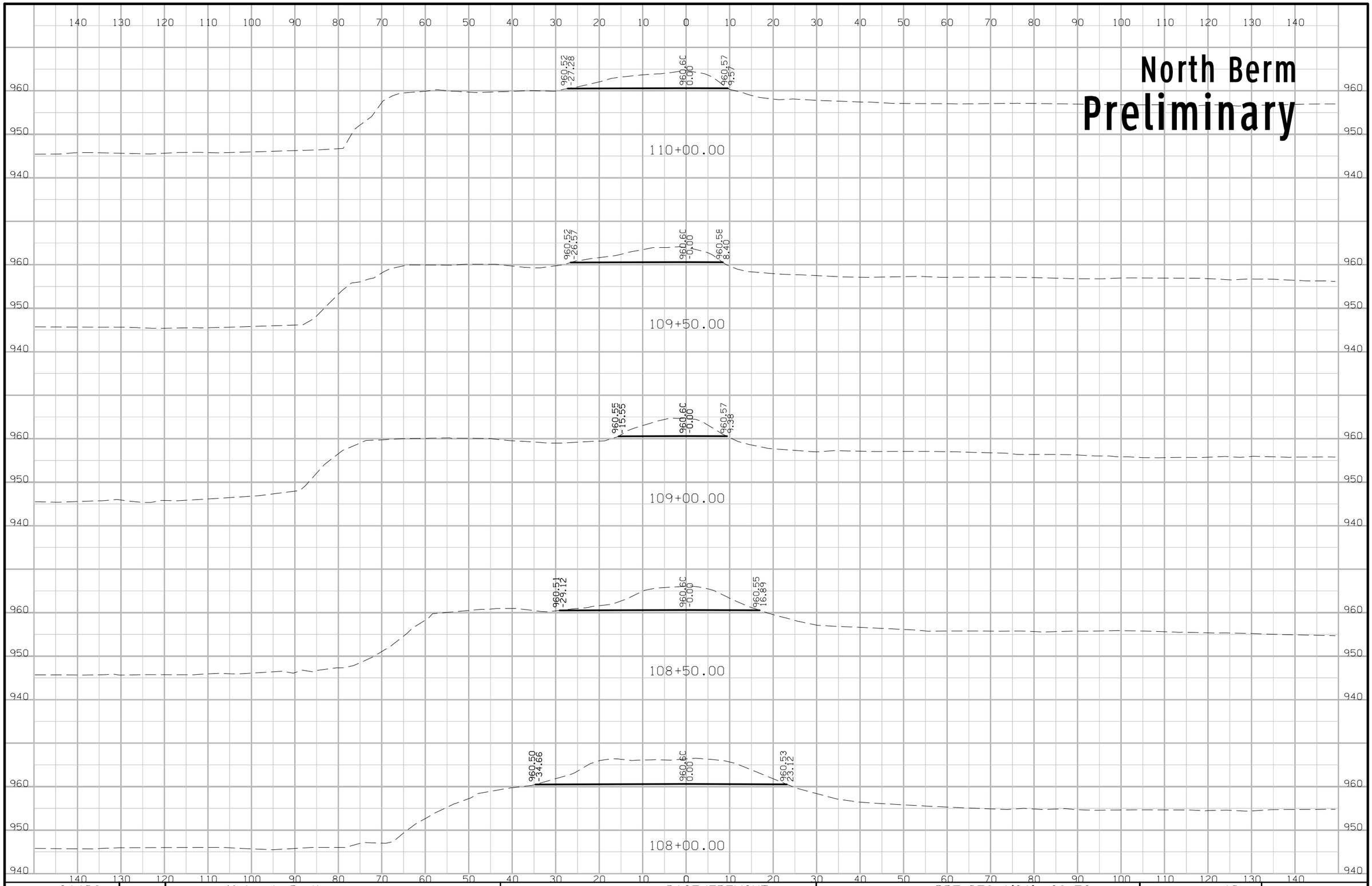
Preliminary



FILE NO. 31409	ENGLISH	DESIGN TEAM Holst \ Dudley	PAGE/FREMONT COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER X.9

11:41:54 AM 9/30/2020 ddudley pw:\\ntPwInt1.dot.int.lan:PWMain\Documents\Projects\7305901016\Design\CADD_Files\Sheet_Files\SHT_73059031_280_X07.dgn

North Berm
Preliminary



FILE NO. 31409	ENGLISH	DESIGN TEAM Holst \ Dudley	PAGE/FREMONT COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER 10

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North Berm

Preliminary

112+21.00

962.52 -0.79 962.52 0.00 962.51 3.40

112+00.00

962.08 -8.28 962.10 0.00 962.08 5.25

111+50.00

961.06 -14.55 961.10 0.00 961.07 10.45

111+00.00

960.56 -27.60 960.60 0.00 960.57 9.73

110+50.00

960.55 -16.38 960.60 -0.00 960.55 15.27

FILE NO. 31409	ENGLISH	DESIGN TEAM Holst \ Dudley	PAGE/FREMONT COUNTY	PROJECT NUMBER BRF-059-1(31)--38-73	SHEET NUMBER X.11

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