BRIDGE REPLACEMENT
BRF-057-1(045)--38-12

LETTING DATE
10/17/2028

BUTLER COUNTY

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A.2	Project Location
A.3	Cost Estimate
B Sheets	**Typical Sections and Details**
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C Sheets	**Tabulations**
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IOWA DOT

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM
BUTLER COUNTY
BRIDGE REPLACEMENT
IA 57 OVER BEAVER CREEK, 1.3 MI. E. OF JCT. SR T53

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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

REVISIONS

TOTAL
..
PROJECT IDENTIFICATION NUMBER
24-12-057-020
PROJECT NUMBER
BRF-057-1(045)--38-12
R.O.W. PROJECT NUMBER

NOTE: THIS PROJECT IS ANTICIPATED TO PRODUCE A SURPLUS OF 968 CUBIC YARDS OF EARTH.

DESIGN DATA RURAL		
2023	AADT	2,260 V.P.D.
2029	AADT	2,545 V.P.D.
2029	DHV	– V.P.H.
TRUCKS		7.0 %
Total Design ESALs		600,000

INDEX OF SEALS

SHEET NO.	NAME	TYPE	BID QUANTITY SHEETS

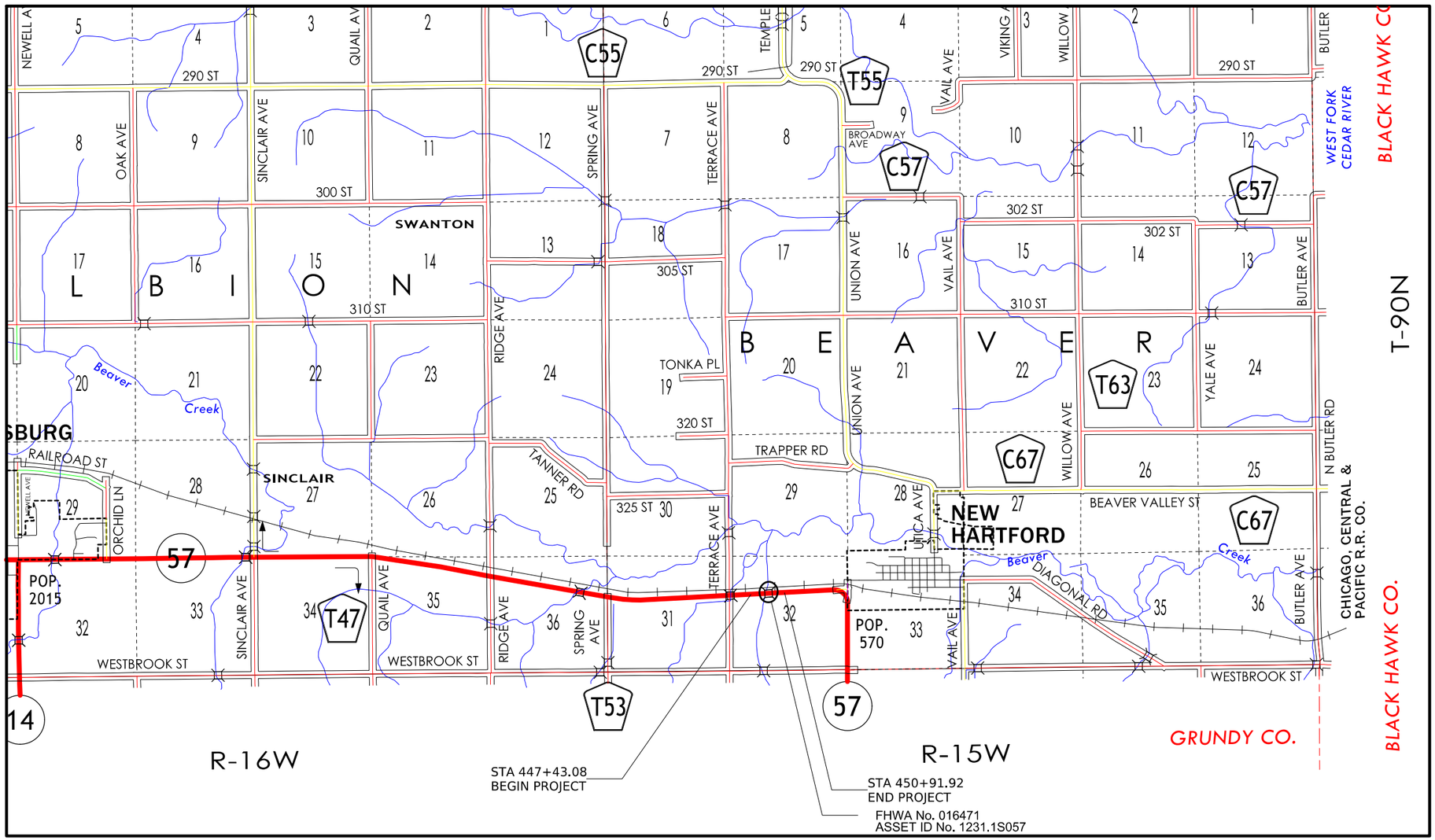
PRELIMINARY PLANS

Subject to change by final design.

D05 PLAN - Date: 12-15-2025

FILE NO. 32881	ENGLISH	DESIGN TEAM BENESCH	BUTLER COUNTY	PROJECT NUMBER BRF-057-1(045)--38-12	SHEET NUMBER A.1

12:52:24 PM 12/15/2025 jMajcher pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\1205702024\Design\CADD_Files\Sheet_Files\SHT_12057045Z05_A Sheets.dgn



LOCATION MAP SCALE

0 1 2

Miles

PROJECT LOCATION

FILE NO. 32881	ENGLISH	DESIGN TEAM BENESCH	BUTLER COUNTY	PROJECT NUMBER BRF-057-1(045)--38-12	SHEET NUMBER A.2

2:00:43 PM 12/11/2025 jMajcher pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\1205702024\Design\CADD_Files\Sheet_Files\SHT_12057045Z05_A Sheets.dgn

BRIDGE ESTIMATE:

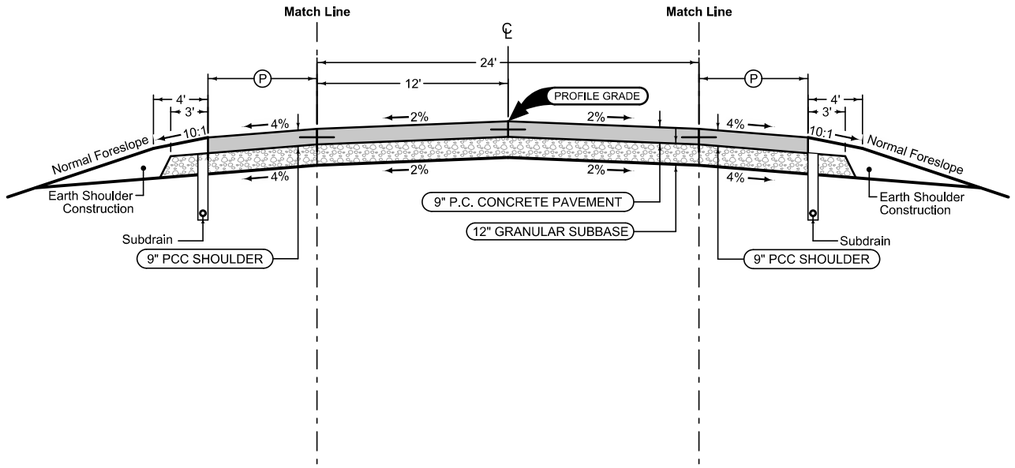
Item	Quantity	Unit	Rate	Amount
Twin Box Culvert - 12' x 6' x 66'	315	CY	$900	$283,500
Remove Existing Bridge	1140	SF	$20	$22,800
Stream Mitigation	1	LS	$100,000	$100,000
Mobilization	1	LS	$42,130	$42,130
	Base Cost:			$448,430
	Contingency:		$ 69,600.00	$69,600
	4 Years Inflation:		4.5%	$99,730
	BRIDGE TOTAL:			**$617,760**

ROADWAY ESTIMATE:

Item	Quantity	Unit	Rate	Amount
Excavation, Class 10, Roadway and Borrow	1347	CY	$11.50	$15,491
Excavation, Class 10, Waste	968	CY	$18.00	$17,424
Topsoil, Furnish and Spread	250	CY	$75.00	$18,750
Compaction with Moisture and Density Control	348	CY	$9.00	$3,132
Modified Subbase	578	CY	$60.00	$34,680
Paved Shoulder, PCC, 9"	805	SY	$95.00	$76,475
Shoulder Construction, Earth	14	STA	$615.00	$8,389
PCC Pavement, 9"	930	SY	$150.00	$139,500
Removal of Steel Beam Guardrail	275	LF	$13.00	$3,575
Steel Beam Guardrail	75	LF	$40.00	$3,000
Steel Beam Guardrail Barrier Transition Section, BA-201	2	EACH	$3,100.00	$6,200
Steel Beam Guardrail End Anchor, Bolted	2	EACH	$320.00	$640
Steel Beam Guardrail Tangent End Terminal BA-205	2	EACH	$3,250.00	$6,500
Removal of Pavement	1006	SY	$21.00	$21,126
Silt Fence	1744	LF	$2.00	$3,488
Silt Fence for Ditch Checks	144	LF	$2.00	$288
Silt Basins	8	EACH	$450.00	$3,600
Removal of Silt Fence or Silt Fence for Ditch Checks	944	LF	$0.50	$472
Removal of Silt Basins	8	EACH	$450.00	$3,600
Maintenance of Silt Fence or Silt Fence for Ditch Check	189	LF	$0.75	$142
Stabilized Construction Entrance	300	LF	$60.00	$18,000
Additional Roadway Items	1	LS	$10,000.00	$10,000
Detour	1	LS	5%	$19,224
Mobilization	1	LS	10%	$38,447
	Base Cost:			$452,142
	Contingency:		20%	$90,428
	4 Years Inflation:		4.5%	$104,455
	ROADWAY TOTAL:			**$647,025**

PROJECT TOTAL:	**$1,264,785**

D05 COST ESTIMATE



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

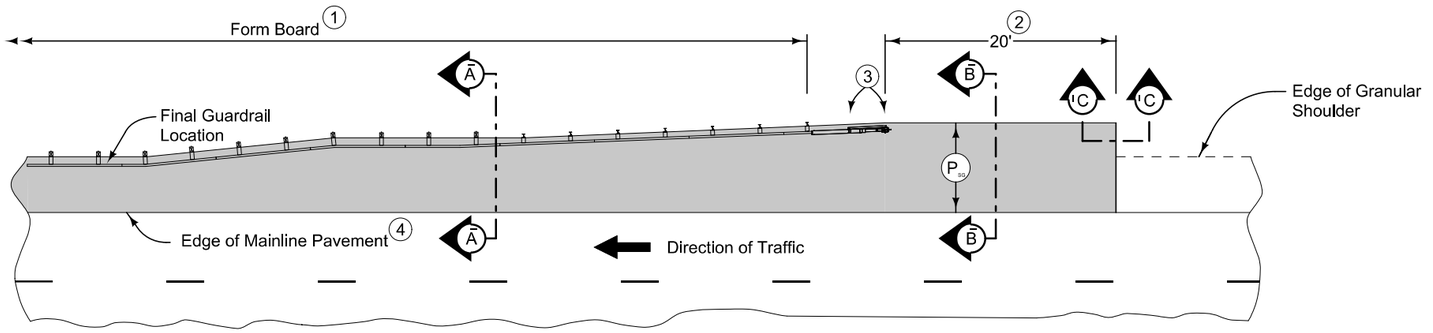
2P_ 04-21-20	
STATION TO STATION	
447+43.08	450+91.92

Full Depth PCC Shoulder

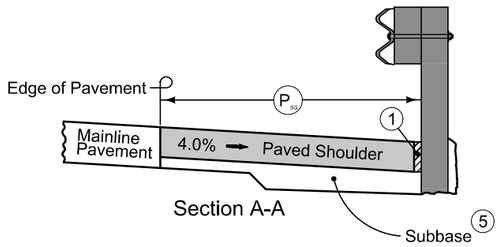
Shoulder Jointing:
Longitudinal joint: BT-2, or L-2
Transverse joints: C at 17' spacing

2_P_FullPCC_ 04-15-25		
STATION TO STATION		(P) Feet
447+43.08 LT	447+63.08 LT	12.3
447+63.08 LT	448+20.03 LT	10-12.3
448+20.03 LT	450+14.99 LT	10.0
450+14.99 LT	450+71.92 LT	10-12.3
450+71.92 LT	450+91.92 LT	12.3
447.43.08 RT	450+91.92 RT	10.0

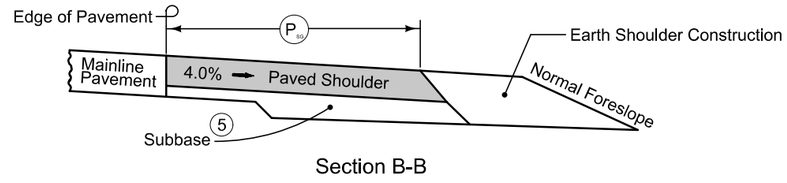
TYPICAL SECTION IA 57



PLAN VIEW

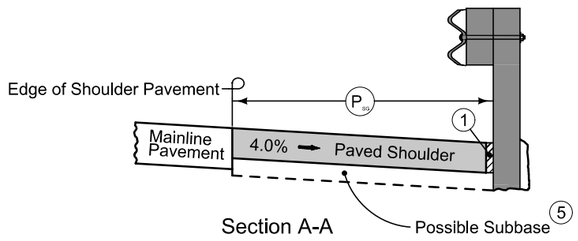


Section A-A

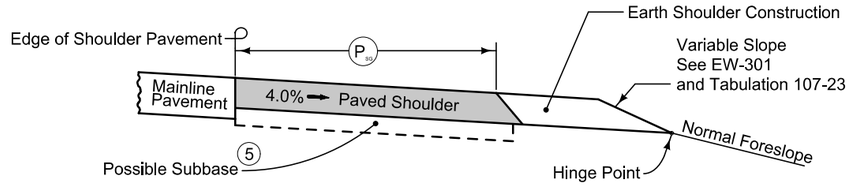


Section B-B

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.

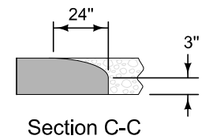
(1) PCC option only: When guardrail posts are installed prior to construction of PCC paved shoulder, fasten form board to the face of guardrail posts for the length shown.

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

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

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

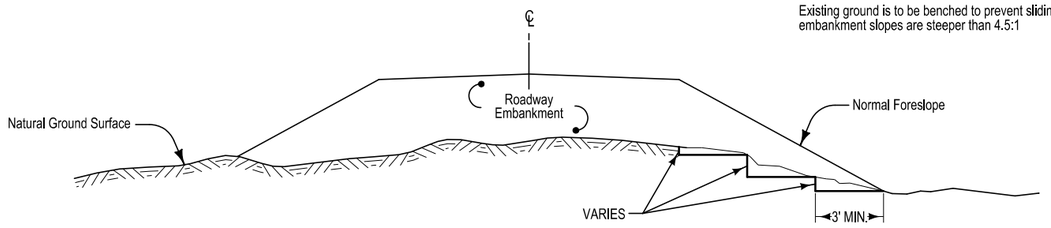
(5) Refer to other details in the plan.



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

PAVED SHOULDER AT GUARDRAIL
(GRANULAR SHOULDER ADJACENT TO MAINLINE)

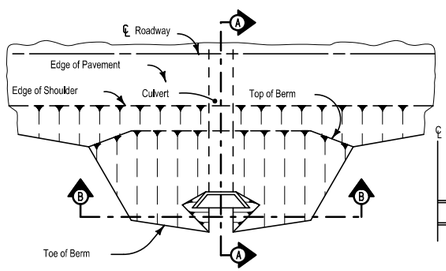
BENESCH-1
11-18-25



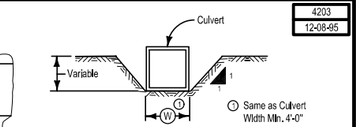
Existing ground is to be benched to prevent sliding when embankment slopes are steeper than 4.5:1

TYPICAL CROSS SECTION
STEPPED FORESLOPE

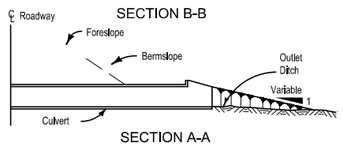
4203
12-08-95



TYPICAL PLAN



SECTION B-B



SECTION A-A

TYPICAL DETAILS FOR OUTLET DITCH
THROUGH FORESLOPE BERM

100_01D
8/15/22

PROJECT DESCRIPTION

This project involves the bridge replacement at IA 57 over Beaver Creek in Butler County. The work entails replacing the existing 20' x 44' concrete slab bridge on IA 57 with a 12' x 6' x 66' twin cast-in-place RCB culvert and reconstructing approximately 350' of IA 57.

105_04
4/21/26

STANDARDS

The following Standards apply to construction work on this project.

Number	Date	Title
BA-200	04-21-26	Steel Beam Guardrail Components
BA-201	10-18-22	Steel Beam Guardrail Barrier Transition Section (MASH TL-3)
BA-202	04-15-25	Steel Beam Guardrail Bolted End Anchor
BA-205	10-17-23	Steel Beam Guardrail Tangent End Terminal (MASH TL-3)
BA-206	10-19-21	Steel Beam Guardrail Flared End Terminal For Cable Connection
BA-250	10-21-25	Steel Beam Guardrail Installation at Concrete Barrier or Bridge End Post (MASH TL-3)
DR-303	10-17-17	Subdrains (Longitudinal)
DR-305	04-19-22	Subdrain Outlets (Standard Subdrain, Pressure Release and Special)
EC-201	04-20-21	Silt Fence
EC-204	10-19-21	Perimeter, Slope and Ditch Check Sediment Control Devices
EC-303	10-19-21	Stabilized Construction Entrance
EW-301	04-16-24	Guardrail Grading
EW-402	04-18-17	Temporary Stream Diversion
EW-403	04-18-17	Temporary Erosion Control Measures
PM-110	10-15-24	Line Types
SI-211	10-18-22	Object Marker and Delineator Placement with Guardrail
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-252	10-21-25	Routes Closed to Traffic

111_25
4/21/26

INDEX OF TABULATIONS

Tabulation	Tabulation Title	Sheet No.
100_01D	PROJECT DESCRIPTION	C.1
100_14	SILT BASINS	C.4
100_17	TABULATION OF SILT FENCES	C.4
100_18	SILT FENCES FOR DITCH CHECKS	C.4
103_07	SHRINKAGE DATA	C.4
105_04	STANDARD ROAD PLANS	C.2
107_23	GRADING FOR GUARDRAIL INSTALLATIONS	C.5
108_08A	STEEL BEAM GUARDRAIL AT CONCRETE BARRIER OR BRIDGE RAIL END SECTION	C.5
111_25	INDEX OF TABULATIONS	C.2
232_03A	EROSION CONTROL (RURAL SEEDING)	C.3
232_03C	EROSION CONTROL (NATIVE GRASS SEEDING)	C.3
262_05	UTILITIES (POINT 25 PROJECT)	C.3
281_01	SECTION 404 PERMIT AND CONDITIONS	C.3
101_16	ALIGNMENT COORDINATES	G.5
108_23A	TRAFFIC CONTROL PLAN	J.1
108_25	511 TRAVEL RESTRICTIONS	J.1
108_26A	STAGING NOTES	J.1
111_01	COORDINATED OPERATIONS	J.1

232_03A
9/28/22

EROSION CONTROL (RURAL SEEDING)

Area to be seeded is estimated to be less than 1 acre. If the contractor determines the area exceeds 2 acres, notify the Engineer. Approved quantity in excess of 2 acres will be paid for as extra work according to Article 1109.03,B of the Standard Specifications.

Following the completion of work in a disturbed area and according to the seeding dates in Section 2601 of the Standard Specifications, place seed, fertilizer, and mulch on the disturbed area lying 8 feet adjacent to shoulder and median as follows:

Place seed and fertilize according to the requirements of Article 2601.03,C,3 and Section 4169 of the Standard Specifications.

Place mulch according to the requirements of Articles 2601.03,E,2,a and 4169.07,A of the Standard Specifications.

Preparing the seedbed, furnishing and applying seed, fertilizer, and mulch are all incidental to mobilization and will not be paid for separately.

232_03C
8/28/24

EROSION CONTROL (NATIVE GRASS SEEDING)

Area to be seeded is estimated to be less than 1 acre. If the Contractor determines the area exceeds 2 acres, notify the Engineer. Approved quantity in excess of 2 acres will be paid for as extra work according to Article 1109.03,B of the Standard Specifications.

Following the completion of work in a disturbed area and according to the seeding dates in Section 2601 of the Standard Specifications, place seed and mulch on the disturbed area lying 8 feet or more beyond the shoulder as follows:

SEED MIX:

Big bluestem (Andropogon geradii)	6 lbs. PLS/Acre (7.0 kg/ha)
Indiangrass (Sorghastrum nutans)	6 lbs. PLS/Acre (7.0 kg/ha)
Little bluestem (Schizachyrium scoparium)	6 lbs. PLS/Acre (7.0 kg/ha)
Partridge Pea (Chamaecrista fasciculata)	4 lbs. PLS/Acre (4.5 kg/ha)
Sideoats grama (Bouteloua curtipendula)	4 lbs. PLS/Acre (4.5 kg/ha)
Canada wildrye (Elymus canadensis)	2 lbs. PLS/Acre (2.2 kg/ha)
Switchgrass (Panicum virgatum)	1 lbs. PLS/Acre (1.1 kg/ha)
Oats (Avena sativa)	32 lbs./Acre (36.0 kg/ha)

Furnish Big bluestem, Indiangrass, Canada wildrye and Little bluestem that is debearded or equal to facilitate the application of seed.

Furnish seed certified as Source Identified Class (Yellow Tag) Source G0-Iowa. Oats are excluded from this requirement. Place seed according to the requirements of Article 4169.02 of the Standard Specifications.

Place mulch according to the requirements of Articles 2601.03,E,2,a and 4169.07,A of the Standard Specifications.

Preparing the seedbed, furnishing and applying seed and mulch are incidental to mobilization and will not be paid for separately.

262_05
9/28/22

UTILITIES (POINT 25 PROJECT)

This is a POINT 25 project and is subject to the provisions of IAC 761-115.25.

281_01
9/28/22

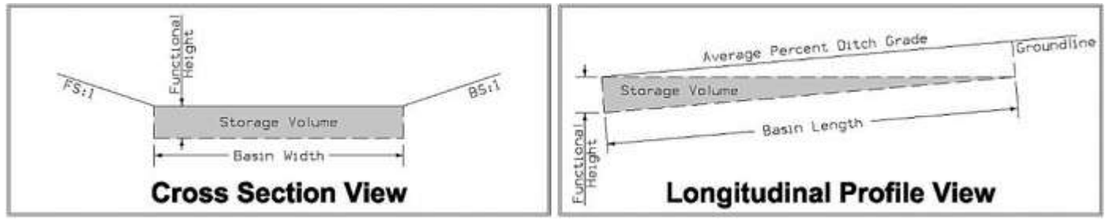
SECTION 404 PERMIT AND CONDITIONS

Construct this project according to the requirements of U.S. Army Corps of Engineers Nationwide, Permit No. <<_____>>. A copy of this permit is available from the Iowa DOT website (http://www.envpermits.iowadot.gov/). The U.S. Army Corps of Engineers reserves the right to visit the site without prior notice.

100_14
8/15/22

SILT BASINS

Possible Standard: EW-403



* The functional height used in the volume equation is 95% of effective height. Effective height is 3 feet as shown in EW-403.
* Volume equation: (0.5*Length*(Width*Height+Width*(Height-Length*Avg%Slope))

Basin No.	Station	Side	Installation (Each)	Removal (Each)	Basin Width (FT)	Basin Length (FT)	Height (FT)	Avg. % Slope	Volume (CF)	Remarks
1	448+70.00	Right	1.0	1.0	10.0	127.0	2.85	4.4	1809.75	
2	447+90.00	Right	1.0	1.0	10.0	202.0	2.85	2.3	2878.50	
3	448+76.00	Left	1.0	1.0	10.0	133.0	2.85	3.5	1895.25	
4	448+96.00	Left	1.0	1.0	10.0	196.0	2.85	2.6	2793.00	
			4.0	4.0						TAB QUANTITY
			8.0	8.0						BID QUANTITY (100% INC.)

100_17
8/15/22

TABULATION OF SILT FENCES

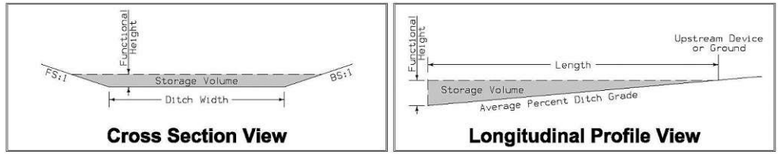
Refer to EC-201

Station From	Station To	Side	Length (FT)	Remarks
447+43.08	450+91.92	Left	348.84	MID-SLOPE
447+43.08	450+91.92	Left	348.84	TOE OF SLOPE
447+43.08	450+91.92	Right	348.84	MID-SLOPE
447+43.08	450+91.92	Right	348.84	TOE OF SLOPE
			1395.36	TAB QUANTITY
			1744.20	BID QUANTITY (25% INC.)

100_18
8/15/22

SILT FENCES FOR DITCH CHECKS

Possible Standard: EC-201



* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.
* Volume equation: [0.5*Spacing*(0.5*H^2*FS+DW*H+0.5*H^2*BS)]

Basin No.	Type	Station	Side	Installation (LF)	Maintenance (LF)	Removal (LF)	Foreslope (FS:1)	Backslope (BS:1)	Ditch Width (FT)	Avg. % Slope Ditch Grade	Volume (CF)	Remarks
1	Type 1	447+75.00	Right	16.0	1.6	8.0	3.0	2.5	5.0	4.4	204.40	
1	Type 1	448+10.00	Right	16.0	1.6	8.0	3.0	2.5	5.0	4.4	204.40	
1	Type 1	448+45.00	Right	16.0	1.6	8.0	3.0	2.5	5.0	4.4	204.40	
2	Type 1	449+15.00	Right	16.0	1.6	8.0	3.0	2.5	5.0	2.3	350.40	
2	Type 1	449+75.00	Right	16.0	1.6	8.0	3.0	2.5	5.0	2.3	350.40	
2	Type 1	450+35.00	Right	16.0	1.6	8.0	3.0	2.5	5.0	2.3	350.40	
				96.0	9.6	48.0						TAB QUANTITY
				144.0	14.4	72.0						BID QUANTITY (50% INC.)

103_07
8/15/22

SHRINKAGE DATA

Material	%	Remarks
EXCAVATION, CLASS 10	30.0	

107_23
8/15/22

GRADING FOR GUARDRAIL INSTALLATIONS

Refer to EW-301.

(1) Lane(s) to which the installation is adjacent.

Direction of Traffic (1)	Station	Side	Foreslope at Guardrail	X1 (FT)	Y1 (FT)	X2 (FT)	Y2 (FT)	X3 (FT)	Y3 (FT)	X4 (FT)	Y4 (FT)	Z (FT)	Excavation Class 10 (CY)	Embankment-in-Place (CY)	Remarks
EB	448+49.41	Left	3:1	42.7	15.1					99.6	17.4	62.1			SEE TAB 107-28 ON T.3 FOR EARTHWORK QUANTITIES
WB	449+22.26	Right	3:1	92.7	15.1					149.7	17.4	74.9			SEE TAB 107-28 ON T.3 FOR EARTHWORK QUANTITIES

108_08A
4/25/25

STEEL BEAM GUARDRAIL AT CONCRETE BARRIER OR BRIDGE RAIL END SECTION

Possible Standards: BA-200, BA-201, BA-202, BA-205, BA-206, BA-209, BA-210, BA-211, BA-221, BA-225, BA-250, BA-260, LS-625, LS-626, LS-630, LS-635, SI-172, SI-173 and SI-211.

(1) Lane(s) to which the obstacle is adjacent.
(2) Not a bid item. Incidental to guardrail installation.

Direction of Travel (1)	Side	Station	Offset (FT)	Barrier Transition Section	Barrier Transition Section (EA)	End Terminal	End Terminal Count (EA)	VT1 (LF)	VF (LF)	VT2 (LF)	ET (LF)	BA-211 Station	BA-211 (Type)	SI-211 (Type) (2)	Delineator SI-172 Type 1 (EA) (2)	Object Marker Type 2 (EA) (2)	Object Marker Type 3 Lt (EA)(2)	Object Marker Type 3 Rt (EA)(2)	Bolted End Anchor BA-202 (Type)	Bolted End Anchor BA-202 (EA)	Post Adapter BA-210 (EA)	Steel Beam Guardrail BA-200 (LF)	Remarks
EB	Left	448+49.41	22.0	BA-201	1	BA-205	1	53.125			47.70			3			1		B	1		12.5	
WB	Right	449+22.26	22.0	BA-201	1	BA-205	1	103.125			47.70			3				1	B	1		62.5	
Total:					**2**		**2**										**1**	**1**		**2**		**75**	

SURVEY SYMBOLS

- Interstate Highway Symbol
- U.S. Highway Symbol
- Iowa Highway Symbol
- County Road Highway Symbol
- Evergreen Tree
- Deciduous Tree
- Fruit Tree
- Shrub (Bushes)
- Timber
- Hedge
- Stump
- Swamp
- Rock Outcrop
- Broken Concrete
- Revetment (Rip Rap)
- Cemetery
- Grave
- Cave
- Sink Hole
- Board Fence
- Chain Link or Security Fence
- Wire Fence
- Terrace
- Earth Dam or Dike (Existing)
- Tile Outlet
- Edge of Water
- Existing Drainage
- Right of Way Rail or Lot Corner
- Concrete Monument
- Well
- Windmill
- Beehive Intake
- Existing Intake
- Existing Utility Access (Manhole)
- Fire Hydrant
- WH Water Hydrant (Rural)
- ST Septic Tank
- C Cistern
- LP L.P. Gas Tank (No Footing)
- UST Underground Storage Tank
- Latrine
- Satellite TV Dish
- WHU Water Hook Up
- RT Radio Tower
- TA Tower Anchor
- Guardrail (Beam or Cable)
- GP Guard Post (one or two)
- Guard Post (over two)
- FP Filler Pipe
- GV Gas Valve
- WV Water Valve
- SL Speed Limit Sign
- MM Mile Marker Post
- SIGN Sign
- TCB Traffic Signal Control Box
- RRB Rail Road Signal Control Box
- TSB Telephone Switch Box
- EB Electric Box

UTILITY LEGEND

- FO Existing Fiber Optics
- W Existing Water Line

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.		
Green	(2)		Existing Topographic Features and Labels
Blue	(1)		Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)		Existing Utilities
SHADING	**Design Color No.**		**Transparency**
Pink, Dark	(13)		Temporary Pavement Shading — 50%
Yellow	(4)		Proposed Pavement Shading — 50%
Orange	(6)		Proposed Granular Shading — 50%
Orange	(70)		Proposed Shoulder Granular Shading — 50%
Yellow	(68)		Proposed Shoulder Paved Full Depth Shading — 50%
Yellow	(132)		Proposed Shoulder Paved Partial Depth Shading — 50%
Brown, Light	(236)		Grading Shading — 50%
Orange, Light	(134)		Proposed Granular Entrance Shading — 50%
Yellow	(220)		Proposed Paved Entrance Shading — 50%
Tan	(8)		Proposed Sidewalk Shading — 50%
Blue, Light	(230)		Proposed Sidewalk Landing Shading — 50%
Pink	(11)		Proposed Sidewalk Ramp Shading — 50%
Red	(3)		Proposed Structure Shading — 50%
Red	(3)		Delineates Restricted Areas — 0%

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

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

RIGHT-OF-WAY LEGEND

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

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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

FILE NO. 32881	ENGLISH	DESIGN TEAM BENESCH	BUTLER COUNTY	PROJECT NUMBER BRF-057-1(045)--38-12	SHEET NUMBER D.1

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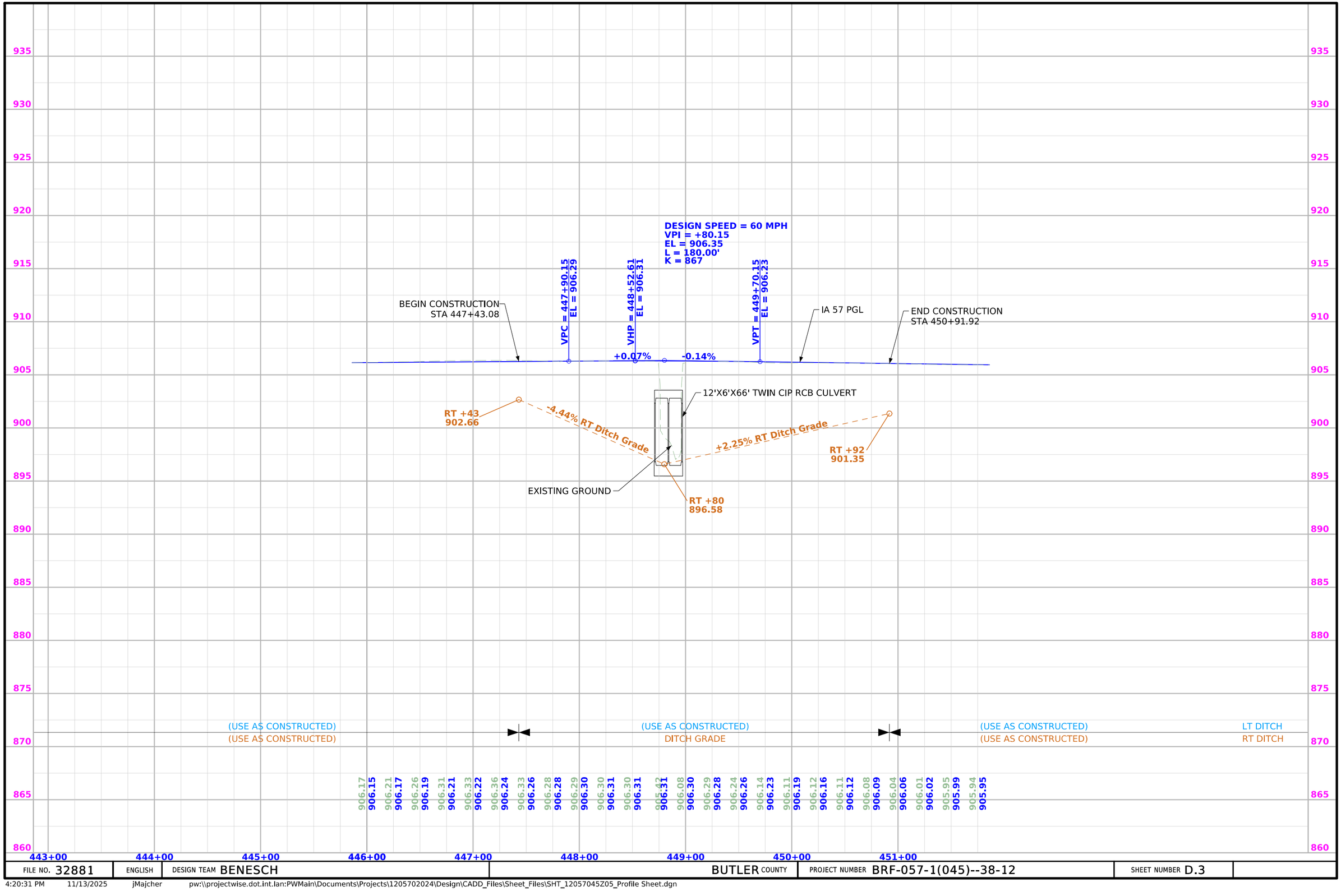
BEAVER TWP.
T-90N R-15W
SEC. 32

EXISTING RAILROAD BRIDGE
LIMIT OF CONSTRUCTION
PROPOSED TEMPORARY EASEMENT
EXIST. ROW
446+00
447+00
448+00
449+00
450+00
451+00
REMOVE EXISTING GUARDRAIL
INSTALL PROPOSED GUARDRAIL
REMOVE EXISTING GUARDRAIL
PCC PAVED SHOULDER
INSTALL PROPOSED GUARDRAIL
EXIST. ROW
PCC PAVED SHOULDER
STA. 447+43.08
BEGIN PROPOSED PAVEMENT CONSTRUCTION
SHOULDER GRADING
STA. 450+91.92
END PROPOSED PAVEMENT CONSTRUCTION
IA 57
SIGN
PRIVATE ENTRANCE (UAC)
PCC PAVED SHOULDER
GRADING
PROPOSED PCC PAVEMENT
REMOVE EXISTING GUARDRAIL
PCC PAVED SHOULDER
REMOVE EXISTING GUARDRAIL
LIMIT OF CONSTRUCTION
EXIST. ROW
BEAVER CREEK
(REMOVE)
20' X 24'
SLAB BRIDGE
INSTALL
12' X 6' X 66' TWIN
CIP RCB CULVERT
SKEW 5° LA
STA 448+83.92
TEMPORARY STREAM DIVERSION
PROPOSED TEMPORARY EASEMENT
N
0 FEET 50

Design No. 0129
File No. 32881

FILE NO. 32881	ENGLISH	DESIGN TEAM BENESCH	BUTLER COUNTY	PROJECT NUMBER BRF-057-1(045)--38-12	SHEET NUMBER D.2

2:10:13 PM 12/11/2025 jMajcher pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\1205702024\Design\CADD_Files\Sheet_Files\SHT_12057045Z05_D Sheets.dgn



FILE NO. 32881	ENGLISH	DESIGN TEAM BENESCH	BUTLER COUNTY	PROJECT NUMBER BRF-057-1(045)--38-12	SHEET NUMBER D.3

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SURVEY INDEX

County: Butler
PIN: 24-12-057-020
Project Number: BRF-057-1(045)--38-12
Location: IA 57 over Beaver Creek, 1.3 MI. E. OF Co Rd T53
Type of Work: Bridge Replacement
Project Directory: 1205702024

Survey Personnel

Tom Pajula – Survey Party Chief
Eric Wesel – Assistant Survey Party Chief

Date(s) of Survey

Begin Date	12/11/2024
End Date	01/31/2025

General Information

This survey is for IA 57 bridge replacement at location 1.3 mi E of Co Rd T53. This project is a Full Field DTM survey.

Utility Information

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

Project Control

Nearby Iowa Real Time Network reference stations were utilized to obtain horizontal and vertical control on primary project control points. Three five-minute observations were taken with a minimum two-hour time span between and used in an 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
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 05 (U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2018u3

Alignment Information

The horizontal alignment for Iowa 57 this survey is a retrace of Plans for Project No. FN-20-5(4)—21-12. Survey stationing was equated to the plan face of west abutment at Sta. 448+76.1, split the pavement to the west and east, and carried back and ahead without equation throughout the survey. Stationing increases to the east in both the plan and the survey.

Survey stationing relates to as built plan stationing as follows:

POT Sta. 488+76.1 As-built Plans Project No. FN-20-5(4)—21-12
Survey POT Sta. 488+76.1

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 05 (U.S. Survey Foot)

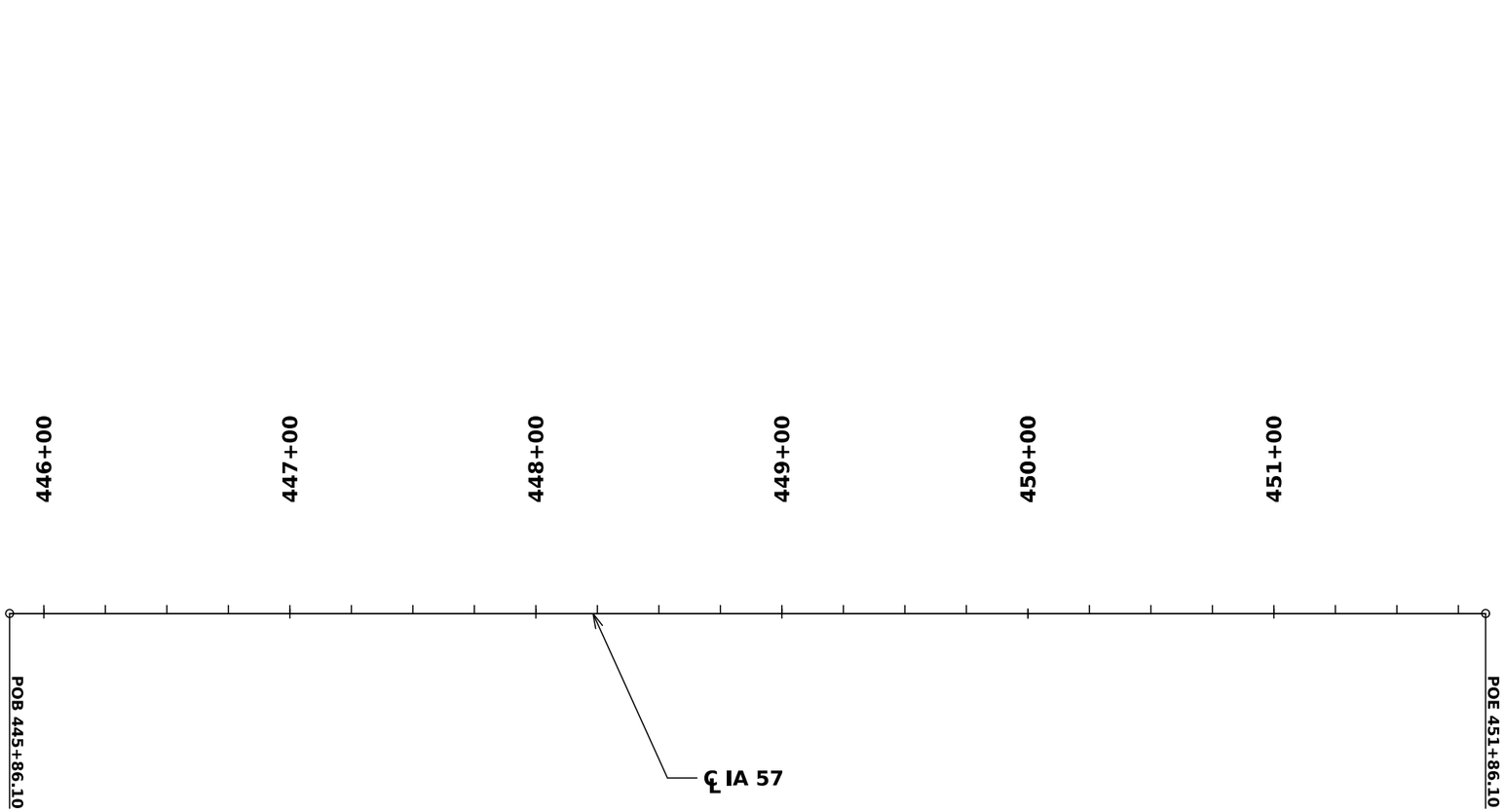
VERT. DATUM: NAVD88 - Geoid Model: 2018u3

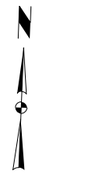
Coordinate listing from next sheet will be used with IaRTN for monument recovery. No other reference ties are given.

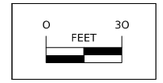
HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING

HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment)
Ia. Regional Coordinate System Zone 05 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: 2018u3

Point Name	Northing	Easting	Elevation	Code Description
15	8869398.43	15393726.48	905.41	CP SET MAG NAIL SOUTH EDGE OF IA 57 +/-107FT SOUTHWEST OF THE SECOND POWERPOLE WEST OF BEAVER CREEK +/-1.5FT NORTH OF THE EDGE OF BIT PAVEMENT
16	8869362.23	15393219.80	905.29	CP REBAR WITH CAP +/-68FT WEST OF BEAVER CREEK +/-2.6FT SOUTH OF THE 6TH GUARDRAIL POST FROM THE WEST +/-15.3FT SOUTH OF THE SOUTH EDGE OF BIT PAVEMENT
17	8869383.57	15392714.47	905.29	CP SET MAG NAIL NORTH EDGE OF IA 57 +/-438FT EAST OF THE CENTER OF THE BRIDGE OVER BEAVER CREEK +/-1.5FT SOUTH OF THE EDGE OF BIT PAVEMENT
AB3	8869371.4	15393315.4	908.94	BM SQUARE CUT SOUTHEAST CORNER OF TOP OF WINGWALL IN THE SOUTHEAST QUADRANT OF BRIDGE OVER BEAVER CREEK







ALIGNMENT
IA 57

FILE NO. 32881	ENGLISH	DESIGN TEAM BENESCH	BUTLER COUNTY	PROJECT NUMBER BRF-057-1(045)--38-12	SHEET NUMBER G.4	

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ALIGNMENT COORDINATES

Name	Location	Point on Tangent Station	Point on Tangent Y Northing	Point on Tangent X Easting	Begin Spiral Station	Begin Spiral Y Northing	Begin Spiral X Easting	Begin Curve Station	Begin Curve Y Northing	Begin Curve X Easting	Simple Curve PI or Master PI Station	Simple Curve PI or Master PI Y Northing	Simple Curve PI or Master PI X Easting	End Curve Station	End Curve Y Northing	End Curve X Easting	End Spiral Station	End Spiral Y Northing	End Spiral X Easting
PR CL IA 57	Mainline	445+86.10	8869381.51	15392987.44															
PR CL IA 57	Mainline	451+86.10	8869405.38	15393586.96															

NO ACCESS RIGHTS ARE TO BE ACQUIRED ON THIS PROJECT.

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

N

SW¼ NW¼ SEC. 32

SE¼ NW¼ SEC. 32

BEAVER TWP.
T-90N R-15W
SEC. 32

BEAVER CREEK

2

JOHN W & JOYCE E SMITH

446+00 447+00 448+00 449+00 450+00 451+00

TEMPORARY EASEMENT FOR CHANNEL SHAPING

1R

Chicago, Central & Pacific

STA: 448+60.00
OFF: 44.00' LT

STA: 448+82.00
OFF: 66.00' LT

STA: 449+05.00
OFF: 66.00' LT

STA: 448+48.00
OFF: 32.40' LT

STA: 447+52.00
OFF: 51.00' LT

STA: 447+42.00
OFF: 51.00' LT

STA: 447+00.00
OFF: 32.39' LT

STA: 449+15.00
OFF: 44.00' LT

STA: 450+95.00
OFF: 51.00' LT

STA: 451+12.00
OFF: 32.43' LT

STA: 447+74.00
OFF: 32.40' LT

STA: 447+43.08
BEGIN CONSTRUCTION

STA: 450+91.92
END CONSTRUCTION

IA 57

IA 57

STA: 448+55.00
OFF: 83.25' RT

STA: 448+60.00
OFF: 92.00' RT

STA: 449+20.00
OFF: 83.22' RT

STA: 448+89.00
OFF: 95.00' RT

2

JOHN W & JOYCE E SMITH

(REMOVE)
20' X 24'
SLAB BRIDGE

INSTALL
12' X 6' X 66' TWIN
CIP RCB CULVERT
SKEW 5° LA
STA 448+83.92

BEAVER CREEK

ENT. APPROX. STA. 451+45
(U.A.C.)

Right of Way Design Information
THIS SHEET INCLUDED FOR INFORMATION ONLY
ROW Team: Cuva / Hughes
ROW #: STPN-057-1(046)-2J-12
Plan Date: 3-26-2026
Color Legend:
Property Lines
Temporary Easement
Permanent Acquisition
Permanent Acquisition County
Permanent Acquisition City

0 50
FEET

FILE NO.	ENGLISH	DESIGN TEAM BENESCH	BUTLER COUNTY	PROJECT NUMBER BRF-057-1(045)--38-12	SHEET NUMBER H.1

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108_23A
8/15/22

TRAFFIC CONTROL PLAN

IA 57 will be closed to traffic during construction using Standard Road Plan TC-252. Traffic will be detoured via IA 57 (U Avenue), County Road D17 (120th Street) and IA 14 (N Avenue). All detour signs are to be provided, placed, maintained and removed by the Contractor as part of the Traffic Control bid item.

108_25
3/28/24

511 TRAVEL RESTRICTIONS

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

108_26A
8/15/22

STAGING NOTES

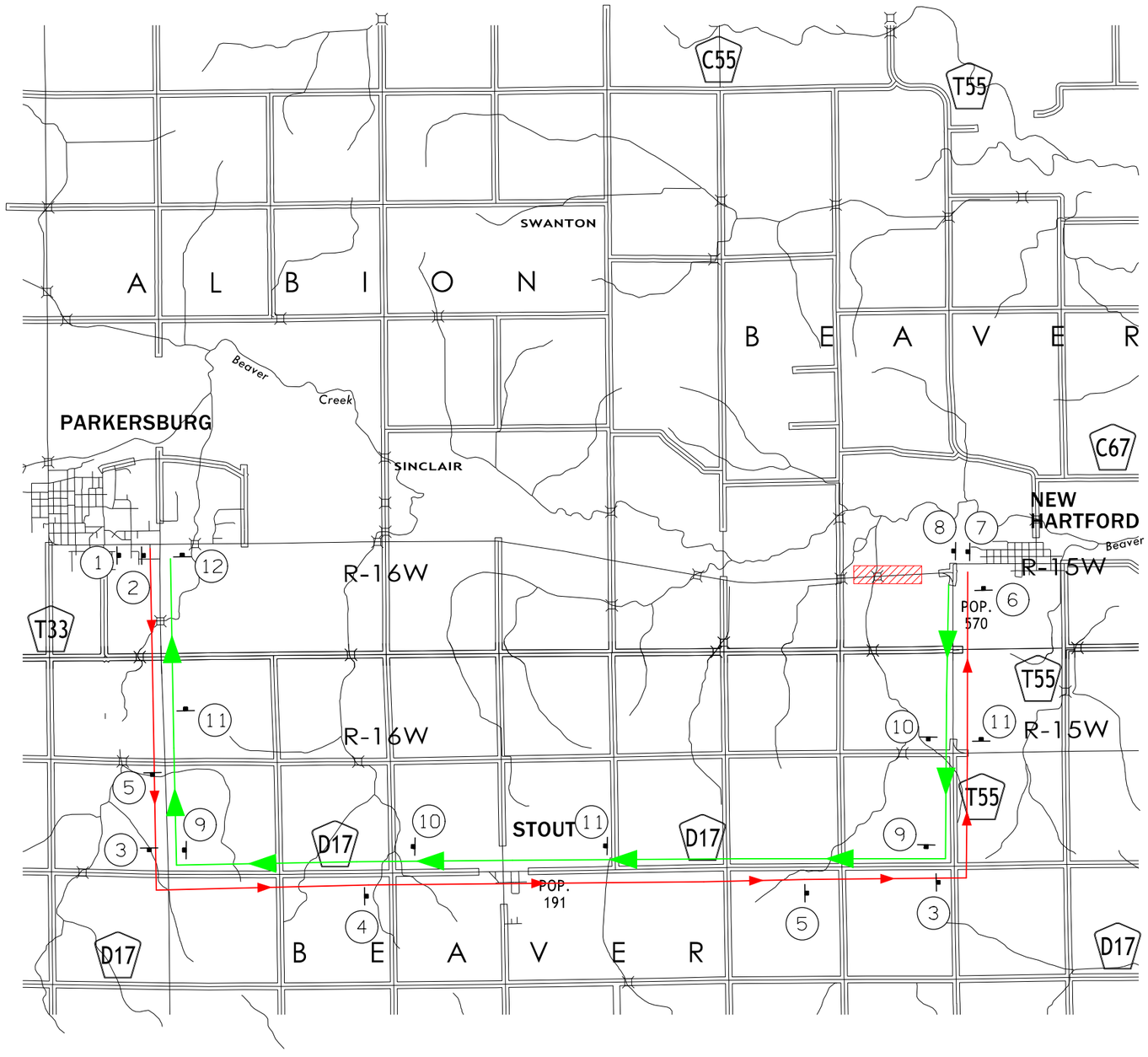
Construction will be performed in a single stage during a full closure of the bridge.

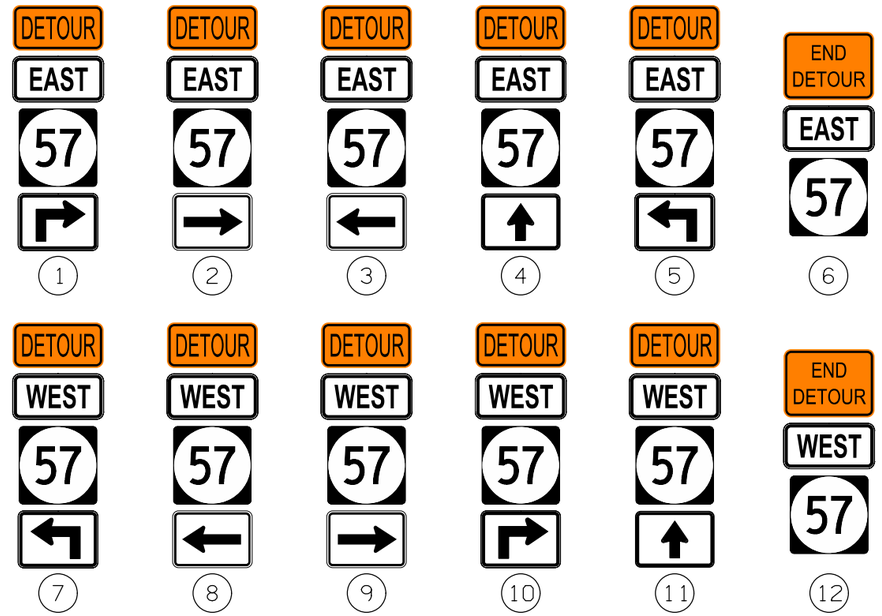
111_01
10/14/22

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 ANTICIPATED	





Notes:
All detour signs are to be provided, placed, maintained and removed by the Contractor as part of the Traffic Control bid item.

Access to all entrances on IA 57 shall be maintained.

IA-57 WB Detour Route

IA-57 EB Detour Route

Road Closed

DETOUR
FOR CLOSURE OF IA 57

FILE NO. 32881	ENGLISH	DESIGN TEAM **BENESCH**	**BUTLER** COUNTY	PROJECT NUMBER **BRF-057-1(045)--38-12**	SHEET NUMBER **J.2**

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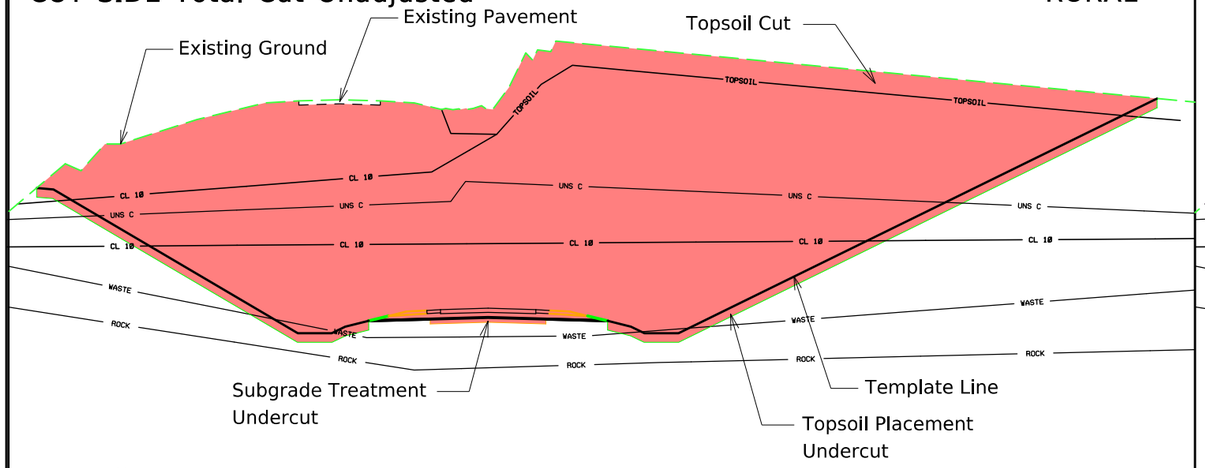
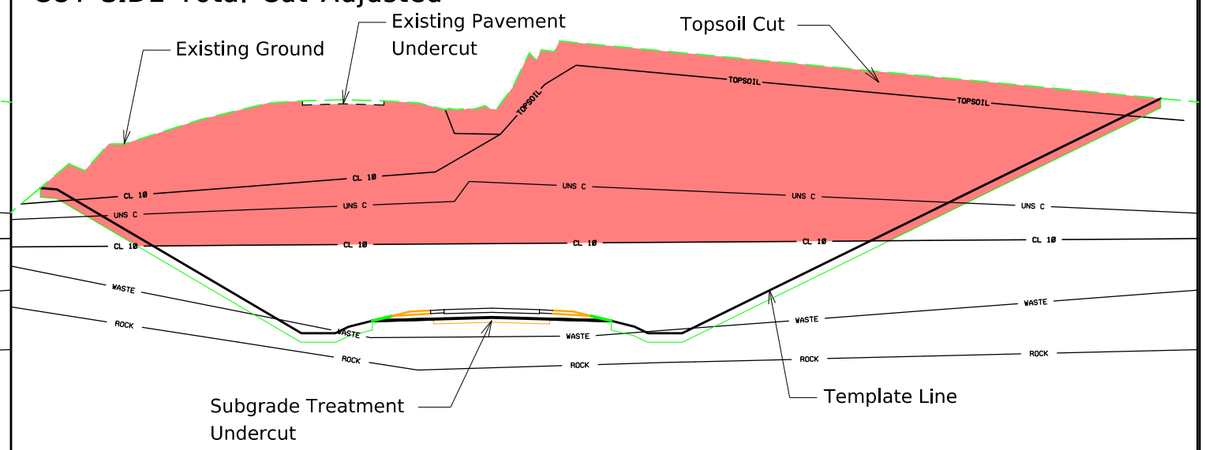
CUT SIDE Total Cut Unadjusted — RURAL



Notes:

1. "Total Cut Unadjusted" Column includes all cut values in the Station Range based on Typical, Topsoil and Subgrade Treatment needs.
2. "Total Cut Unadjusted" does not include and Existing Pavement values inside or outside the cut template as shown on cross sections.
3. Tabulated Plowing and Shaping operations are included in the "Total Cut Unadjusted" values.

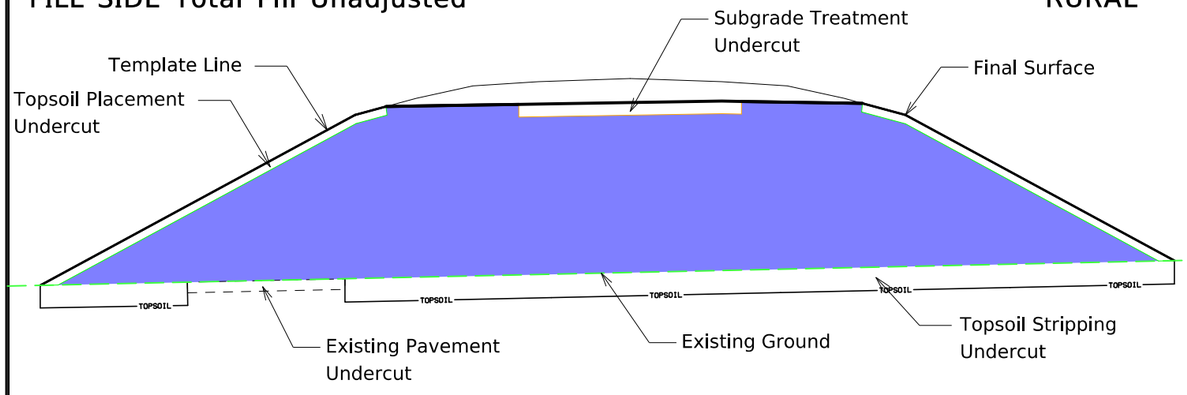
CUT SIDE Total Cut Adjusted



Notes:

1. "Total Cut Adjusted" Column includes all cut values usable as Class 10 material.
2. "Total Cut Adjusted" does not include and Existing Pavement , Existing Topsoil, or material to be wasted.

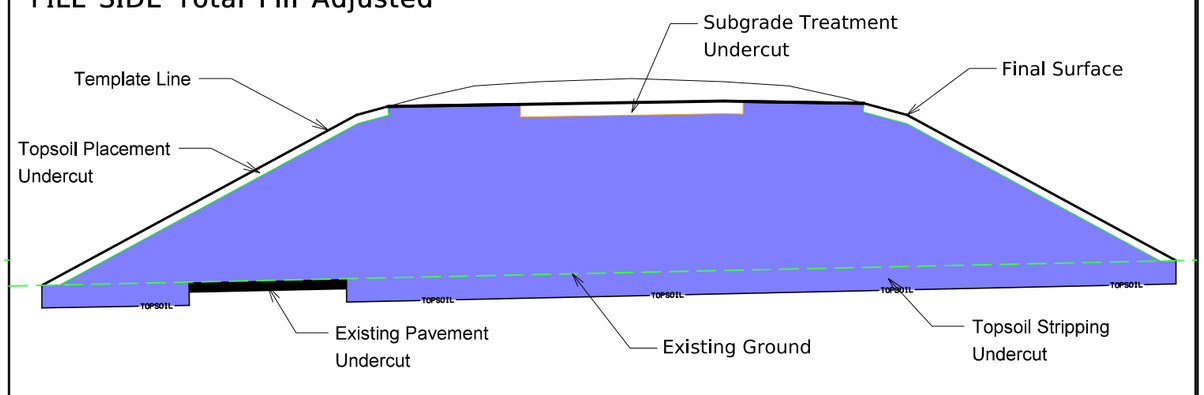
FILL SIDE Total Fill Unadjusted — RURAL



Notes:

1. "Total Fill Unadjusted" Column includes all Class 10, 12, and 13 fill. This excludes the topsoil, subgrade treatment, subbase, new pavement, and shoulder fill needs in that station range.
2. "Total Fill Unadjusted" Column does not include adjustments for additional fill from cuts such as existing pavement removed, plowing and shaping operations, entrances, dikes, or topsoil stripping.

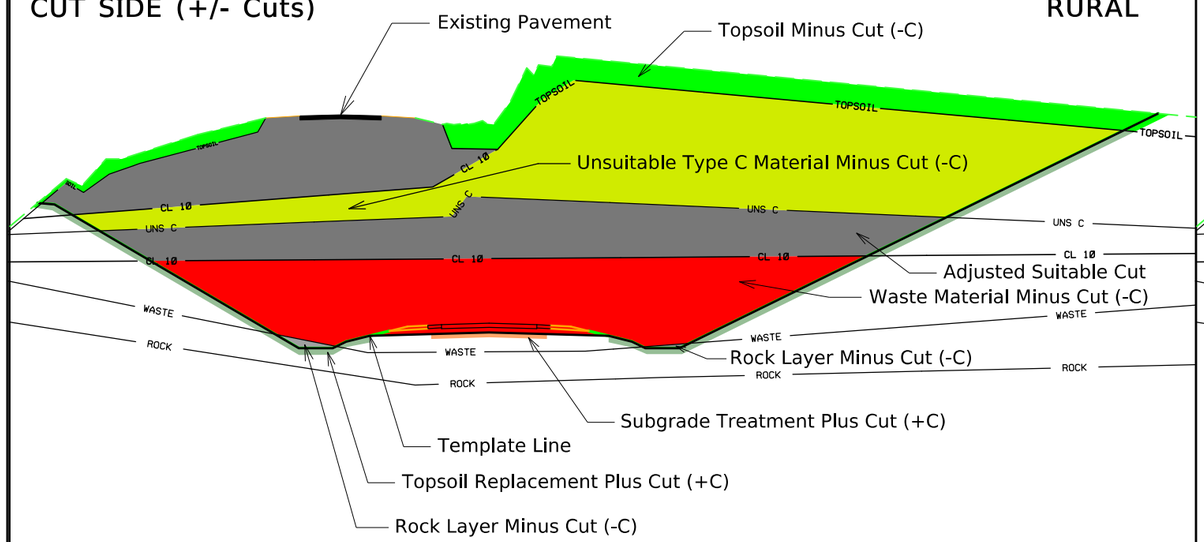
FILL SIDE Total Fill Adjusted



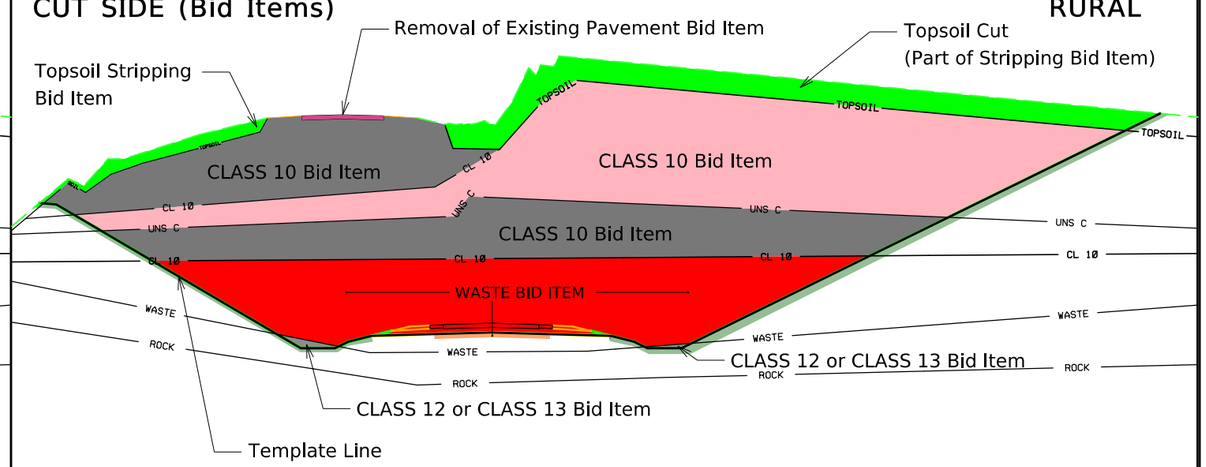
Notes:

1. "Total Fill Adjusted" Column includes all Class 10, 12, and 13 fill and adjustments for additional fill from cuts such as existing pavement, plowing and shaping operations, entrances, dikes, and topsoil stripping.
2. The available area to place unsuitable materials in the T Sheet tabulation does not include the undercut values from the topsoil stripping, existing pavement, or plowing and shaping

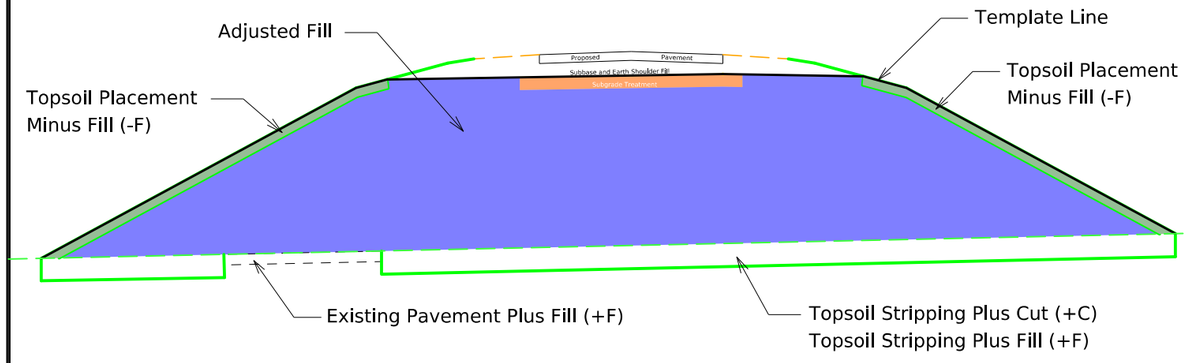
CUT SIDE (+/- Cuts) — RURAL



CUT SIDE (Bid Items) — RURAL



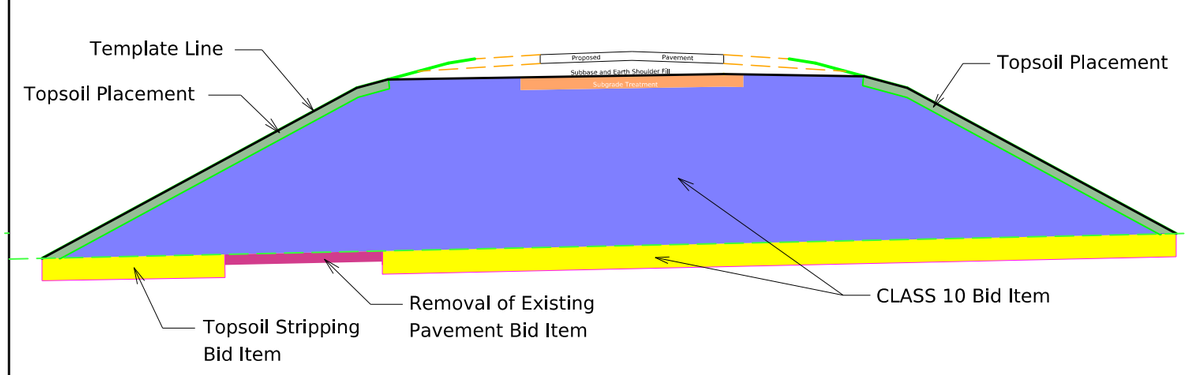
FILL SIDE (+/- Fills) — RURAL



Notes:

1. "Add Quantity +C" columns are additional cut encountered that is not Typical, Topsoil, or Subgrade Treatment Based. (Entrance, Dike, Etc.)
2. "-C" columns are either soil types or Class 10, 12, or 13 designated material that is encountered in the cut station range that is paid for by other bid items.
3. The "(SoilType) Cut" columns are soil types encountered in the cut that are paid by either Class 10, 12, or 13.
4. The "Adjusted Clas (10,12 or 13)" columns are the sum of all various soil types encountered in that station range, that are paid by Class 10, 12, or 13 bid items.
5. Refer to Standard Road Plan EW-102 for placement of unsuitable soil types.

FILL SIDE (Bid Items) — RURAL



Notes:

1. Refer to Standard Road Plan EW-102 for placement of unsuitable soil types.

FILE NO. 32881	ENGLISH	DESIGN TEAM BENESCH	BUTLER COUNTY	PROJECT NUMBER BRF-057-1(045)--38-12	SHEET NUMBER T.2

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Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

	Cut			Fill				Checks (EW-102)		Topsoil										
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
		[1] X (1-0.3)	[2]		[4]	[5] X 1.3	[3] - [6]															
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink									
IA 57																						
447+43.08	21	14	14	7	7	9	5	0	0	0	0	0	0									
447+50.00	210	147	147	21	21	27	120	0	0	0	0	0	0									
448+00.00	313	219	219	6	6	1	219	0	0	0	0	0	0									
448+50.00	414	290	290	67	67	50	240	0	0	0	0	0	0									
449+00.00	396	277	277	64	64	53	224	0	0	0	0	0	0									
449+50.00	282	198	198	11	11	15	183	0	0	0	0	0	0									
450+00.00	186	130	130	67	67	87	43	0	0	0	0	0	0									
450+50.00	103	72	72	106	106	138	-65	0	0	0	0	0	0									
450+91.92																						
Totals:	1,925	1,347	1,347	348	348	380	968	0	0	0	0	0	0									

Excavation, Class 10, Roadway & Borrow
1,347
[3]

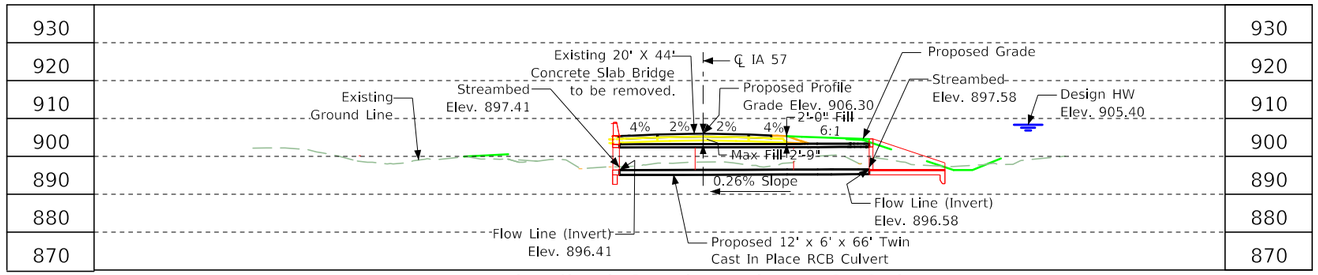
Excavation, Class 10, Waste
968
[7]

Compaction with Moisture and Density Control
348
[5]

#

FILE NO. 32881	ENGLISH	DESIGN TEAM BENESCH	BUTLER COUNTY	PROJECT NUMBER BRF-057-1(045)--38-12	SHEET NUMBER T.3

Control Point: Rebar with cap ±68 ft. west of Beaver Creek ± 2.6 ft. south of the 6th guardrail post from the west ± 15.3 ft. south of the south edge of bit pavement, N:8869362.23, E:15393219.80, El. 905.29



Longitudinal Section Along ℄ Culvert

Hydraulic Design

LICENSED PROFESSIONAL ENGINEER
Eric J. Dean
P28149
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.

Eric Dean — 9-19-2025
Signature — Date

Eric J. Dean
Printed or Typed Name

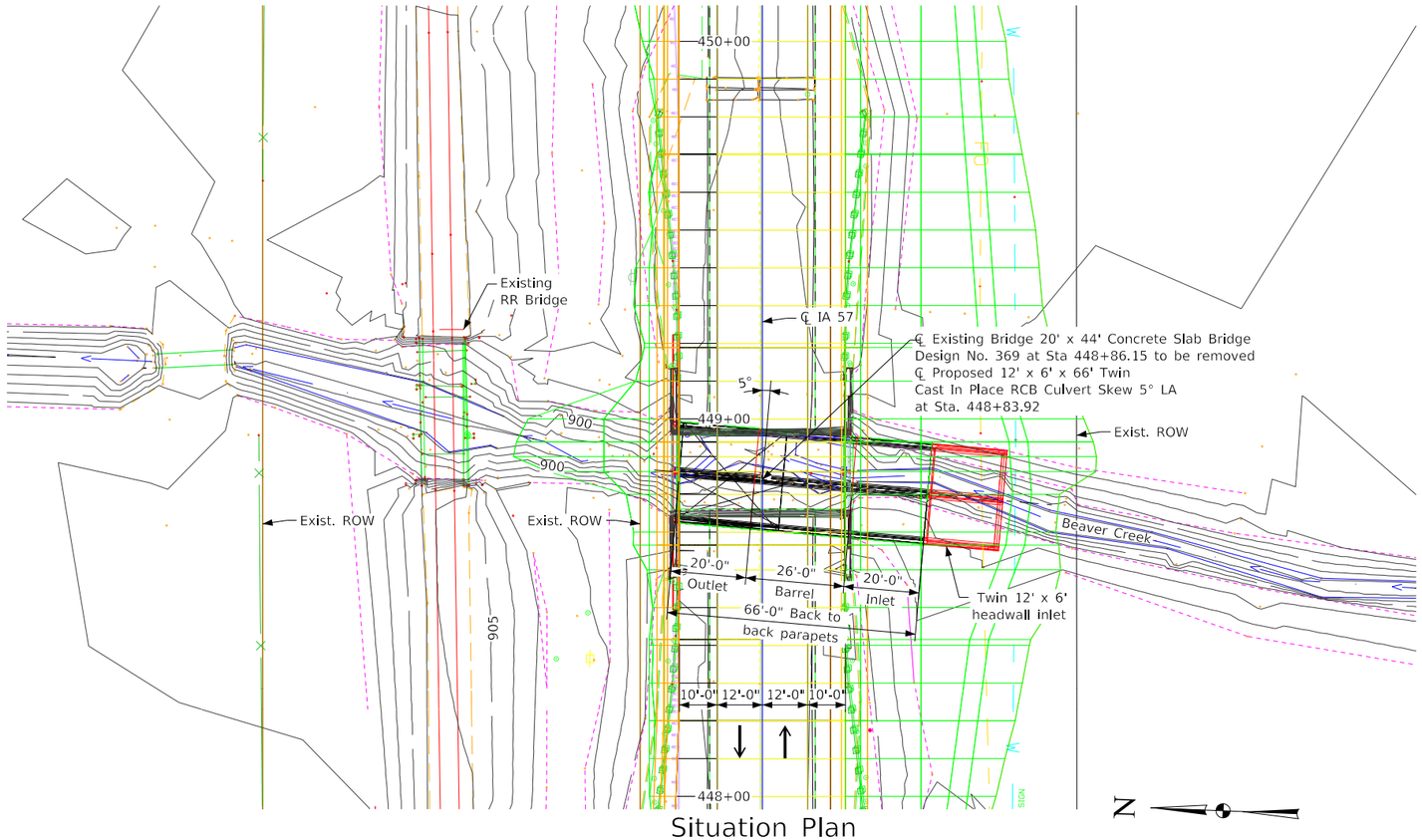
My license renewal date is December 31, 2026

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

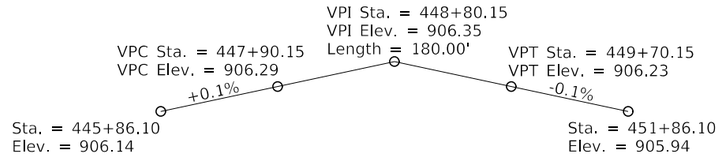
Plan Notes:
1. Drainage through existing channel must be maintained throughout construction.
2. Flow line (Invert) of the culvert has been set 1' below streambed.

General Notes:
This design is for the replacement of the existing 20' x 44' Concrete Slab Bridge, Butler County, Design No. 369 FHWA No. 016470 Maint. No. 1231.1S057

Design Notes:
1. IA 57 will be closed during construction.
2. Additional ROW will be required.
3. Cast-in-place culvert is nonstandard.



Situation Plan



Proposed Profile Grade IA 57

Hydraulic Data

RIDB: NA
Drainage Area = 4.2 sq. mi.
Stream Slope = 15.2 Ft./Mi.
Q_{50} = 2,318 cfs
HW Elev. = 905.4 (50 year)
Exit Velocity = 1.2 fps (50 year)

Q_{100} = 2,758 cfs
HW Elev. = 905.7 (100 year)
Exit Velocity = 3.1 fps (100 year)

Utilities Legend

F0 - Fiber Optic
W - Water

Utilities shown on this sheet are for information only, see Road Design sheets for final utility information.

Location

IA 57 over Beaver Creek
T-90N R-15W
Section 32
Beaver Township
Butler County
FHWA No. 016471
Maintenance No. 1231.1S057
Latitude 42.565338°
Longitude -92.646134°

Traffic Estimate

2023 AADT	2,260 V.P.D.
2029 AADT	2,545 V.P.D.
2029 DHV	-- V.P.H.
TRUCKS	7 %
Total Design ESALs	600,000

Design For 5 Degree LA

Twin 12'x6'x66' Cast In Place Reinforced Concrete Box Culvert

Situation Plan - CIP

STA. 448+83.92 (IA 57) Turn-in Date: December 2025

Butler County

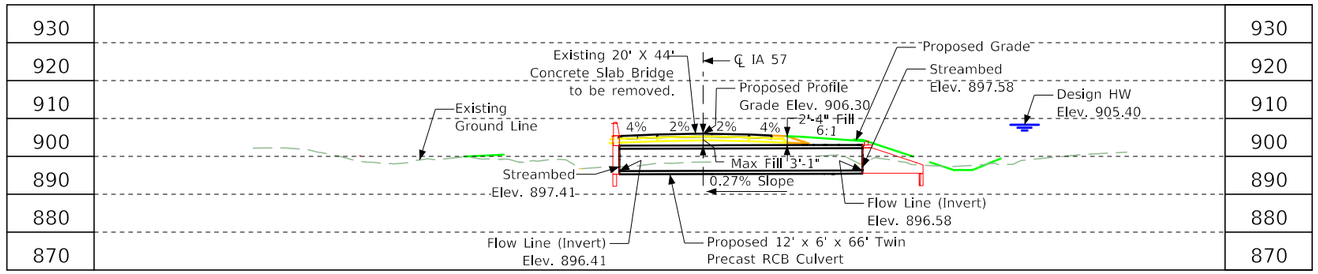
IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0129 Design Sheet No. 1 of 1 FHWA/Asset 016471

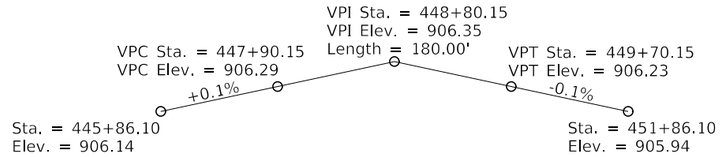
FILE NO. 32881	ENGLISH	DESIGN TEAM Benesch	Butler COUNTY	PROJECT NUMBER BRF-057-1(045)--38-12	SHEET NUMBER V.1	

3:35:06 PM 12/10/2025 kplaczek c:\pw_work\pwmain\kevin.placzek\d2512370\SHT_12057045_0129_FHWA#_CIP_Z05.dgn

Control Point: Rebar with cap ±68 ft. west of Beaver Creek ± 2.6 ft. south of the 6th guardrail post from the west ± 15.3 ft. south of the south edge of bit pavement, N:8869362.23, E:15393219.80, El. 905.29



Longitudinal Section Along ℄ Culvert



Proposed Profile Grade IA 57

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.

LICENSED PROFESSIONAL ENGINEER — Eric J. Dean P28149 — IOWA

Eric Dean — 9-19-2025

Signature — Date

Eric J. Dean

Printed or Typed Name

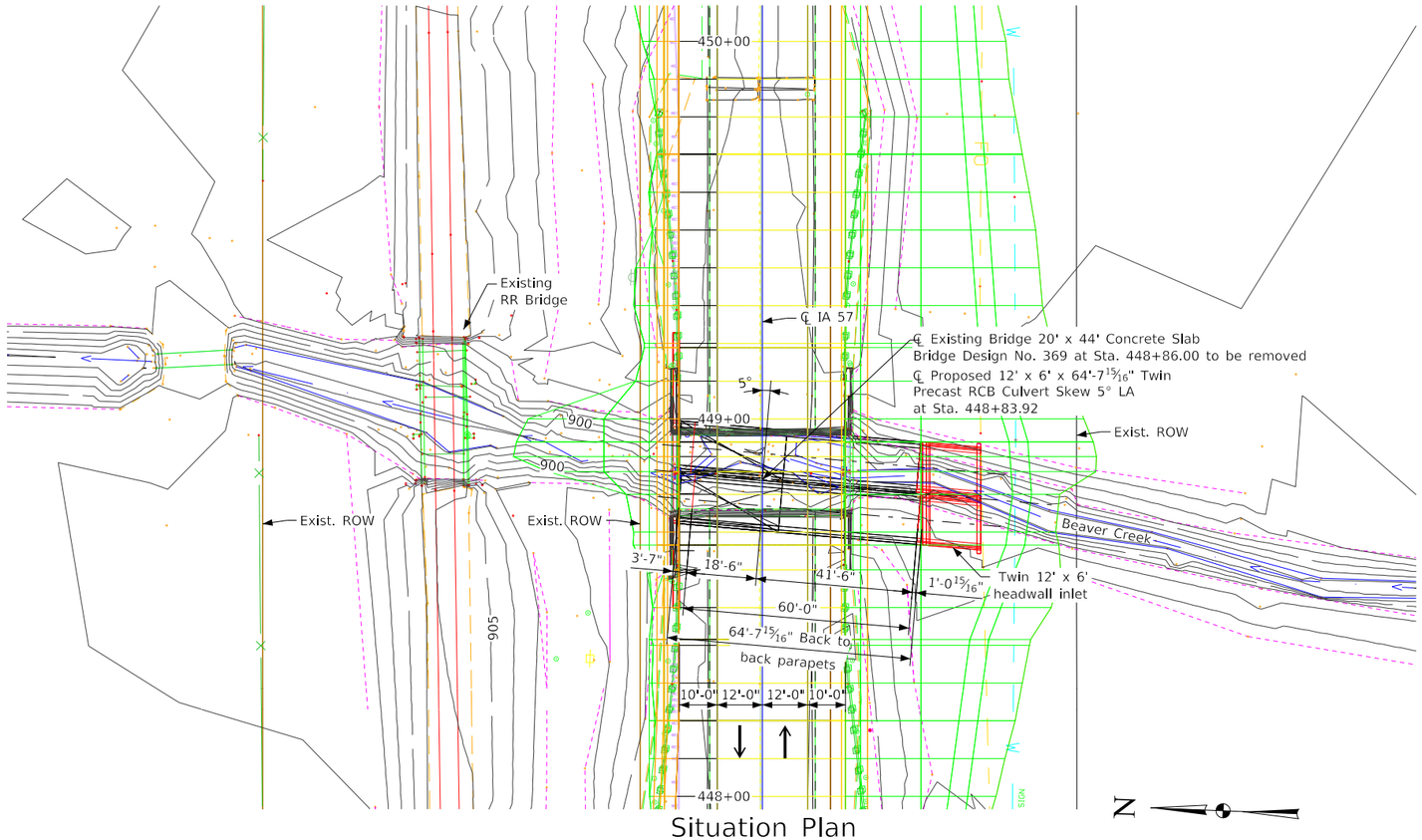
My license renewal date is December 31, 2026

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

Plan Notes:
1. Drainage through existing channel must be maintained throughout construction.
2. Flow line (Invert) of the culvert has been set 1' below streambed.

General Notes:
This design is for the replacement of the existing 20' x 44' Concrete Slab Bridge, Butler County, Design No. 369 FHWA No. 016470 Maint. No. 1231.1S057

Design Notes:
1. IA 57 will be closed during construction.
2. Additional ROW will be required.
3. Precast culvert is nonstandard.



Situation Plan

Hydraulic Data

RIDB: NA
Drainage Area = 4.2 sq. mi.
Stream Slope = 15.2 Ft./Mi.
Q_{50} = 2,318 cfs
HW Elev. = 905.4 (50 year)
Exit Velocity = 1.2 fps (50 year)

Q_{100} = 2,758 cfs
HW Elev. = 905.7 (100 year)
Exit Velocity = 3.1 fps (100 year)

Utilities Legend

F0 - Fiber Optic
W - Water

Utilities shown on this sheet are for information only, see Road Design sheets for final utility information.

Location

IA 57 over Beaver Creek
T-90N R-15W
Section 32
Beaver Township
Butler County
FHWA No. 016471
Maintenance No. 1231.1S057
Latitude 42.565338°
Longitude -92.646134°

Traffic Estimate

2023 AADT	2,260 V.P.D.
2029 AADT	2,545 V.P.D.
2029 DHV	-- V.P.H.
TRUCKS	7 %
Total Design ESALs	600,000

Scale In Feet: 0 20

Design For 5 Degree LA

Twin 12'x6'x64'-7 15/16" Precast Reinforced Concrete Box Culvert

Situation Plan - PC

STA. 448+83.92 (IA 57)

Turn-in Date: December 2025

Butler County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0129 Design Sheet No. 1 of 1 FHWA/Asset 016471

FILE NO. 32881	ENGLISH	DESIGN TEAM Benesch	Butler COUNTY	PROJECT NUMBER BRF-057-1(045)--38-12	SHEET NUMBER V.2

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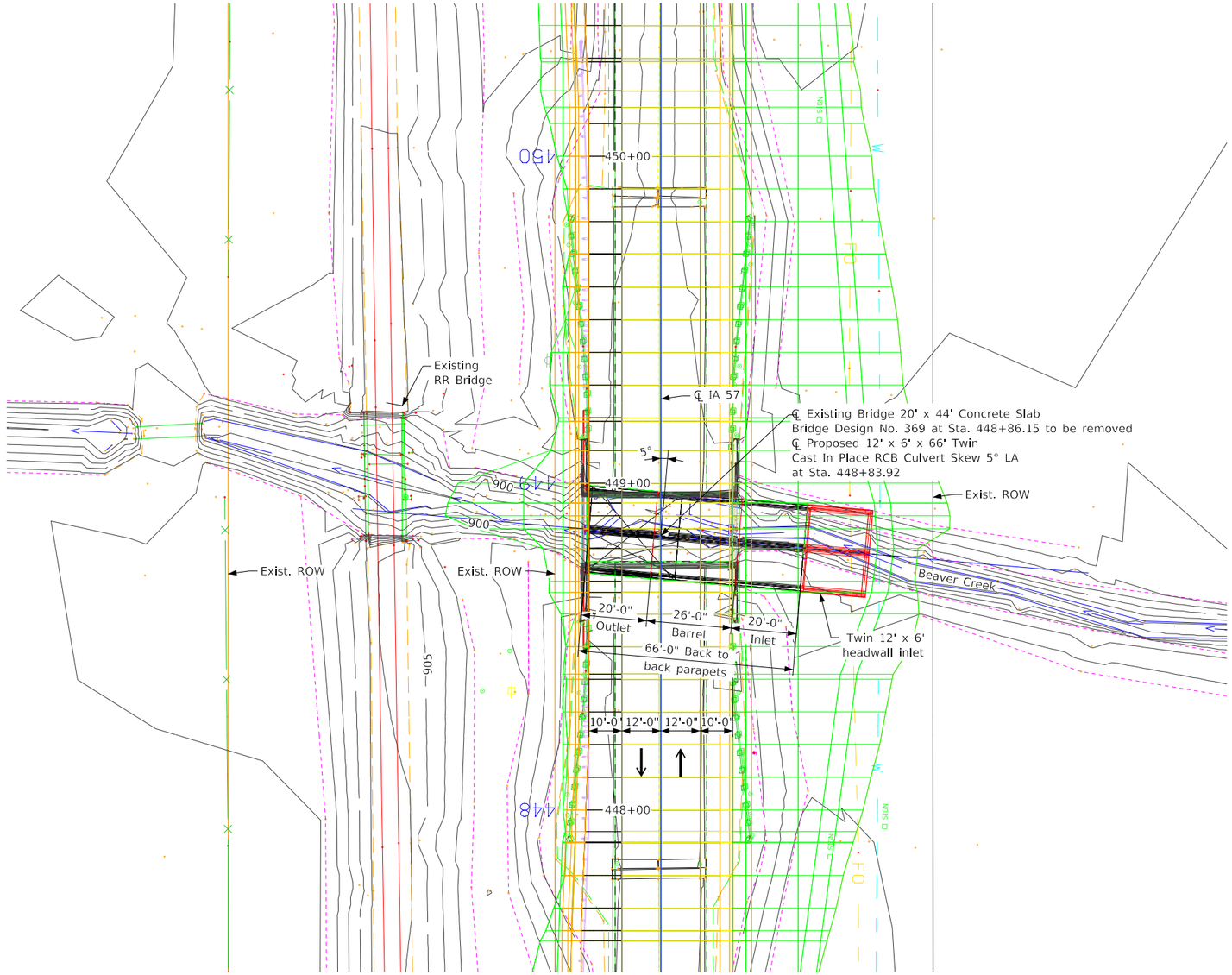

Design For 5 Degree LA

Twin 12'x6' Reinforced Concrete Box Culvert

Situation Plan - Site

STA. 448+83.92 (IA 57)

Turn-in Date: December 2025

Butler County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0129 Design Sheet No. 1 of 1 FHWA/Asset 016471

0 20
Scale In Feet

FILE NO. 32881	ENGLISH	DESIGN TEAM Benesch	Butler COUNTY	PROJECT NUMBER BRF-057-1(045)--38-12	SHEET NUMBER V.3

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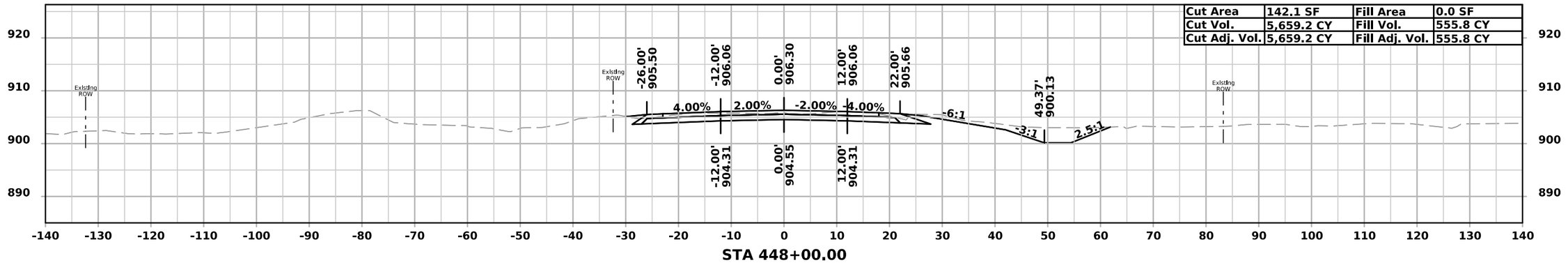
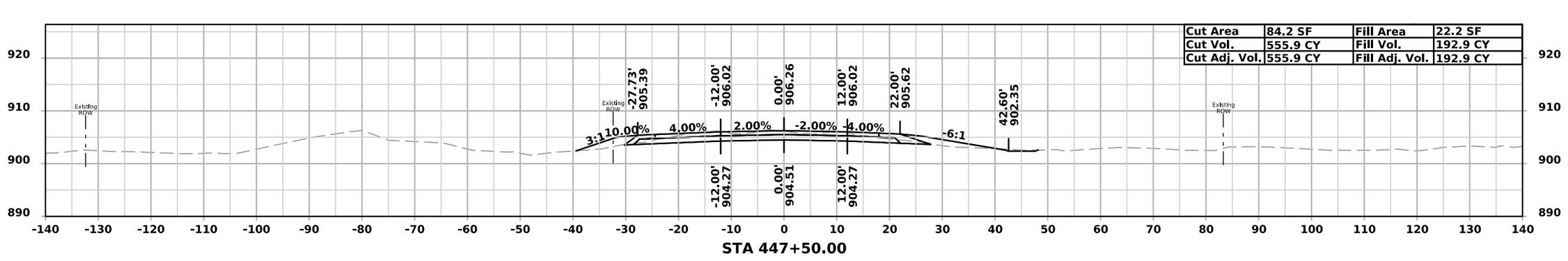
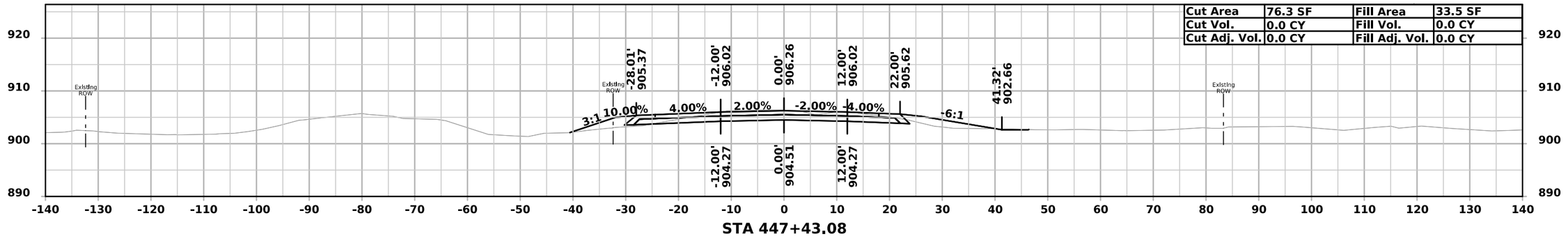
ML - IA 57



STA 448+00.00



STA 447+50.00

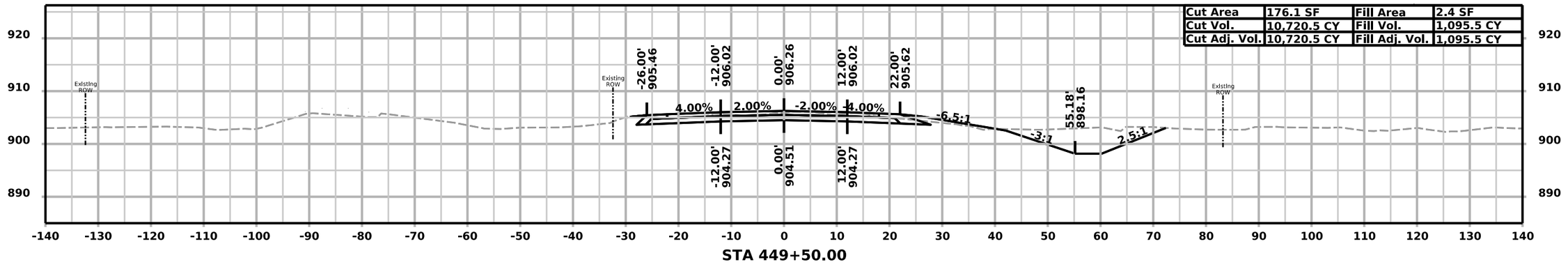


STA 447+43.08

FILE NO. 32881	ENGLISH	DESIGN TEAM BENESCH	BUTLER COUNTY	PROJECT NUMBER BRF-057-1(045)--38-12	SHEET NUMBER W.1

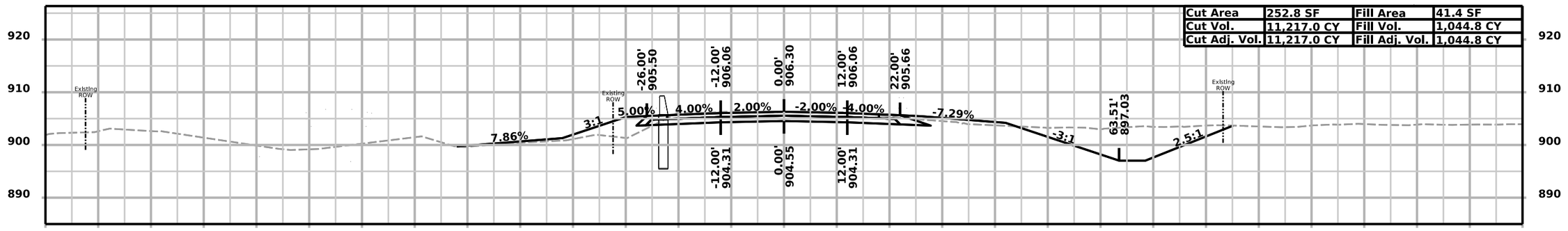
12:34:12 PM 10/17/2025 jMajcher pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\1205702024\Design\CADD_Files\Sheet_Files\Butler_W Sheets.dgn

ML - IA 57



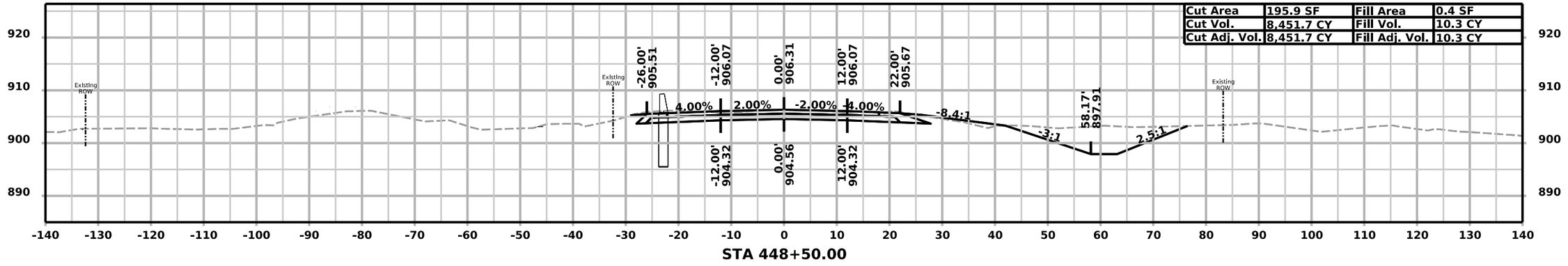
Cut Area	176.1 SF	Fill Area	2.4 SF
Cut Vol.	10,720.5 CY	Fill Vol.	1,095.5 CY
Cut Adj. Vol.	10,720.5 CY	Fill Adj. Vol.	1,095.5 CY

STA 449+50.00



Cut Area	252.8 SF	Fill Area	41.4 SF
Cut Vol.	11,217.0 CY	Fill Vol.	1,044.8 CY
Cut Adj. Vol.	11,217.0 CY	Fill Adj. Vol.	1,044.8 CY

STA 449+00.00



Cut Area	195.9 SF	Fill Area	0.4 SF
Cut Vol.	8,451.7 CY	Fill Vol.	10.3 CY
Cut Adj. Vol.	8,451.7 CY	Fill Adj. Vol.	10.3 CY

STA 448+50.00

FILE NO. 32881	ENGLISH	DESIGN TEAM BENESCH	BUTLER COUNTY	PROJECT NUMBER BRF-057-1(045)--38-12	SHEET NUMBER W.2

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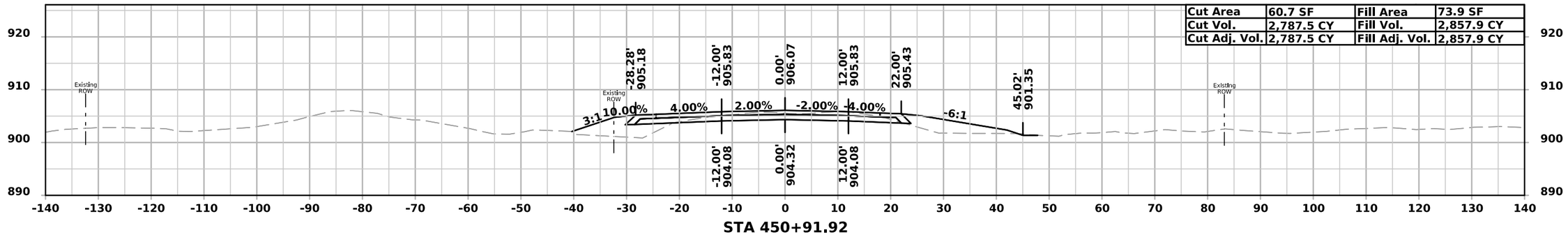
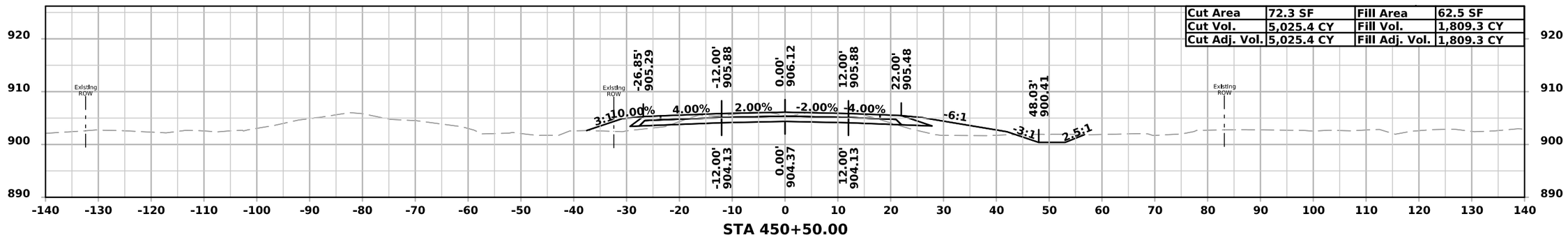
ML - IA 57



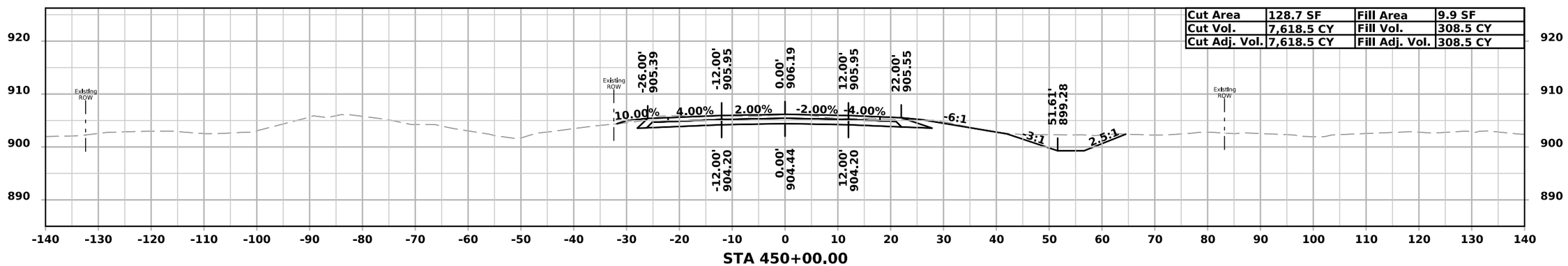
Cut Area	60.7 SF	Fill Area	73.9 SF
Cut Vol.	2,787.5 CY	Fill Vol.	2,857.9 CY
Cut Adj. Vol.	2,787.5 CY	Fill Adj. Vol.	2,857.9 CY

STA 450+91.92



Cut Area	72.3 SF	Fill Area	62.5 SF
Cut Vol.	5,025.4 CY	Fill Vol.	1,809.3 CY
Cut Adj. Vol.	5,025.4 CY	Fill Adj. Vol.	1,809.3 CY

STA 450+50.00



Cut Area	128.7 SF	Fill Area	9.9 SF
Cut Vol.	7,618.5 CY	Fill Vol.	308.5 CY
Cut Adj. Vol.	7,618.5 CY	Fill Adj. Vol.	308.5 CY

STA 450+00.00

FILE NO. 32881	ENGLISH	DESIGN TEAM BENESCH	BUTLER COUNTY	PROJECT NUMBER BRF-057-1(045)--38-12	SHEET NUMBER W.3

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