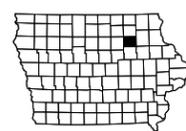
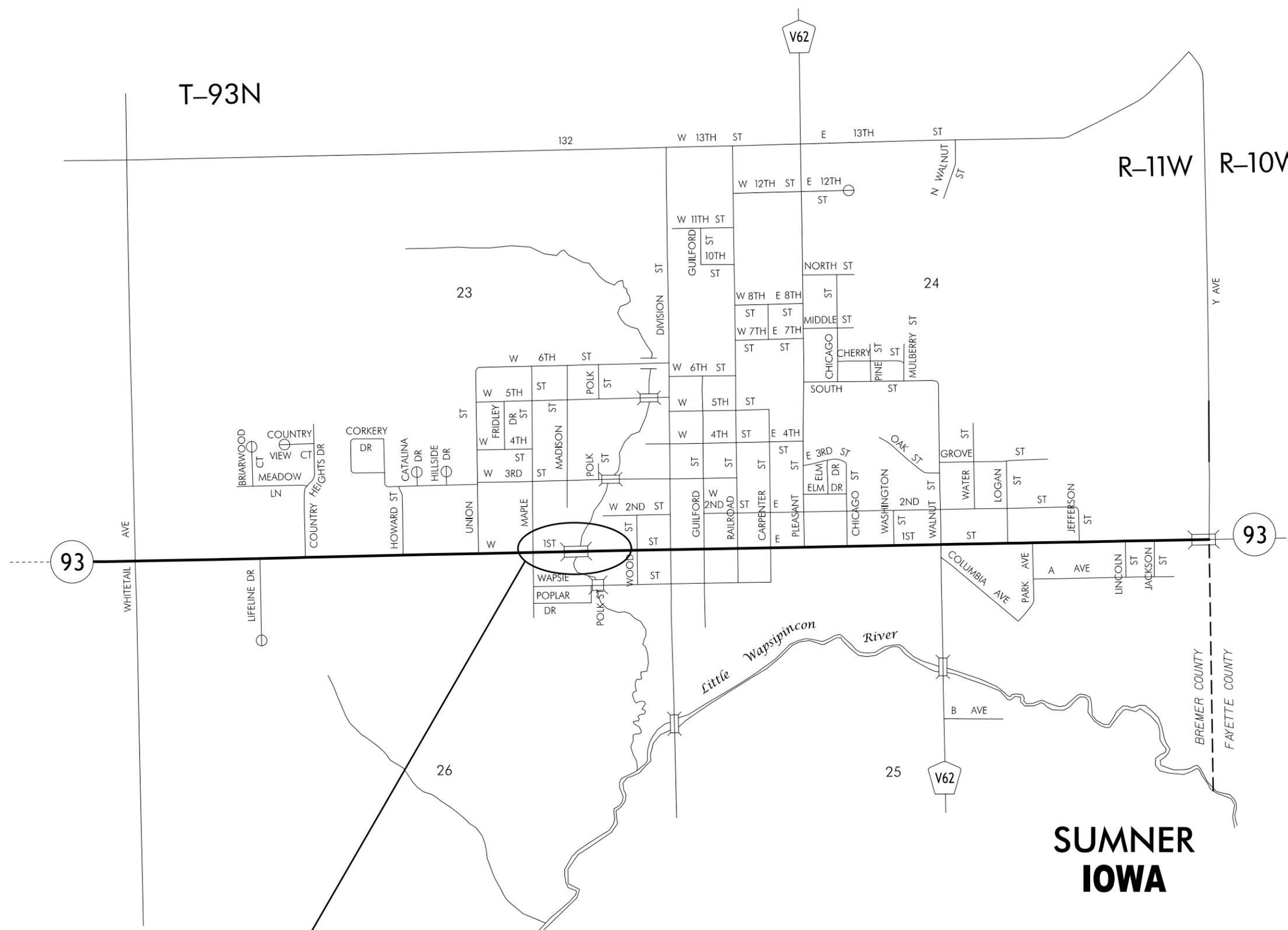
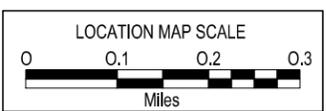


T-93N

R-11W R-10W



PROJECT LOCATION
 Ref. Loc. 14.5
 FHWA No. 015740



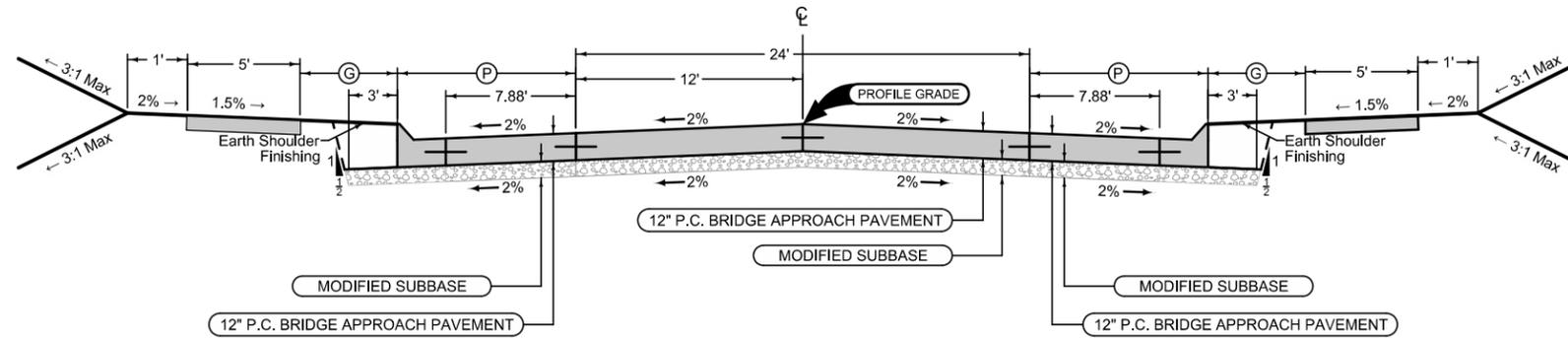
**SUMNER
 IOWA**

Curbed Shoulder

Shoulder Jointing:
 Longitudinal joint not required when distance from back of
 curb to nearest joint is less than 15':

Single pour: L-2
 Staged : BT-2
 Transverse: C at 17' spacing

STATION TO STATION		Ⓞ Feet	Ⓟ Curb Type See PV-102
523+34.58	523+46.24	4.5	6" STA
523+46.24	523+74.58	4.5-0	6" STA
525+45.42	525+73.82	0-3.8	6" STA
525+73.82	525+85.42	3.8	6" STA



Curbed Shoulder

Shoulder Jointing:
 Longitudinal joint not required when distance from back of
 curb to nearest joint is less than 15':

Single pour: L-2
 Staged : BT-2
 Transverse: C at 17' spacing

STATION TO STATION		Ⓞ Feet	Ⓟ Curb Type See PV-102
523+55.01	523+74.58	6.8-0	6" STA
525+45.44	525+77.42	0-6.0	6" STA
525+77.42	525+85.42	6.0	6" STA

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

Full Depth PCC Bridge Approach

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

STATION TO STATION		Ⓟ Feet
523+34.58	523+46.24	10.5
523+46.24	523+74.58	10.5-13.3
523+74.58	524+09.04	13.3
525+19.89	525+45.44	13.3
525+45.44	525+73.75	13.3-10.5
525+73.75	525+85.42	10.5

STATION TO STATION	
523+34.58	524+09.04
525+10.95	525+85.42

Full Depth PCC Bridge Approach

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

STATION TO STATION		Ⓟ Feet
523+34.58	523+46.24	10.5
523+46.24	523+74.58	10.5-13.3
523+74.58	524+00.34	13.3
525+11.29	525+45.44	13.3
525+45.44	525+73.75	13.3-10.5
525+73.75	525+85.42	10.5

SURVEY SYMBOLS

	AST, Above Ground Storage Tank		PR, Electric Riser Pole
	BB, Billboard		PRO, Profile Shot
	BBB, Bottom of Bridge Beam		PT, Curve Point
	BCL, Bridge Centerline		REF, Reference Tie Point
	BD, Bridge Deck		RET, Retaining Walls
	BIN, Grain Bin		RIP, Rip-Rap
	BL, Topo Breakline		ROC, Rock Outcropping
	BLD, Building or Foundation		ROW, Right of Way Mark
	BLS, Bridge Low Steel		RR, Centerline of Railroad Tracks
	BM, Bench Mark		RRB, Railroad Signal Box
	BNK, Stream Bank		RRF, Railroad Frog
	BRG, Bridge		RRR, Railroad Rail
	C, Centerline BL of Road -ML or SR		RRS, Railroad Signal
	CAV, Cave		RRW, Railroad Switch
	CEL, Cell Phone Tower		RT, Radio Tower
	CIS, Cistern		S, Soil Sampling Site -Wetlands
	CON, Concrete or A/C Slab		SBR, Size of Bridge
	CP, Control Point		SC, Spiral Point
	CRP, Corporation Line		SCR, Section Corner
	CS, Curve Point		SEP, Septic Tank
	CU, Back of Curb		SF, Silt Fence -Wetlands
	CUL, Culvert		SG, Staff Gauge -Wetlands
	D, Centerline Draw or Stream -Down		SH, Paved Shoulder
	DAB, Drainage Area Boundary		SHR, Shrub
	DIK, Centerline of Dike or Dam		SI, Sign
	DTM, Photogrammetry Elv Control Check		SL, Speed Limit Sign
	DU, Centerline Draw or Stream -Up		SLN, Section Line
	EB, Electrical Box		SLO, Silo
	EG, Edge of Gravel Road		SNK, Sink Hole
	ENP, Edge Paved Entrance and Park Lot		SNP, Unpaved Shoulder
	ENT, Centerline BL of Entrance		SP, Stream Profile
	ENU, Edge Unpaved Entrance and Parking		STP, Stump
	EP, Edge of Paved Roads -ML or SR		SWK, Sidewalk
	EW, Edge of Water		SWP, Swamp or Marsh
	FCL, Chain Link and Security Fence		TA, Tower Anchor
	FENO, FENO Monument		TBO, Telephone Booth
	FHD, Fire Hydrants		TCB, Traffic Signal Box
	FLG, Flag Poles		TDC, Tree Deciduous
	FP, Filler Pipe		TD, Traffic Detection Loop
	FW, Wire Fence		TER, Terrace
	FWD, Wood Fence		TEV, Evergreen Tree
	GDC, Guard Rail Cable		TFR, Tree Fruit
	GDL, Guard Rail Steel		TGP, Telegraph Pole
	GP, Guard Post -Less Than 4 Posts		TIL, Tile Line
	GPR, Guard Post -4 or More Posts		TLNL, Tree Line Left
	GR, Ground Shot		TLNR, Tree Line Right
	GRV, Grave		TOP, Top of Bridge Pier
	GU, Gutter In Front of Curb		TPA, Telephone Pole Co. 1
	GV, Gas Valve		TPB, Telephone Pole Co. 2
	HDG, Hedge Row		TPC, Telephone Pole Co. 3
	HS, Hydric Soil -Wetlands		TR, Telephone Riser Pole
	HT, Electrical Highline Tower		TRL, Trail
	IN, Storm Sewer Intake		TS, Spiral Point
	INB, Storm Sewer Beehive Intake		TSB, Telephone Switch Box
	LC, Lot Corner		TSG, Traffic Signal
	LIN, Miscellaneous Line		TSL, Traffic Signal and Luminare
	LP, L.P. Tank		TV, Satellite TV Dish
	LUM, Luminaire		TVP, TV Pedestal
	MH, Utility Access -Manhole		TW, Top of Water
	MIS, Miscellaneous		UB, Utility Box
	MM, Mile Marker Post		UE, Utility Elevation
	OUT, Tile Outlet		UPH, Utility Pot Hole - Quality A
	PC, Curve Point		UST, Underground Tank
	PCP, Photo Control Point		UV, Underground Utility Vault
	PCT, Photo Control Target		VS, Channel Cross Section
	PI, Tangent Point		WC, Wild Card -Misc. Field Shot
	PIP, Pipe Culvert		WEL, Well
	PL, Location of Photo -Wetlands		WHD, Water Hydrant
	PLG, Location of General Photo		WHU, RV Water Hook Up
	POC, Curve Point		WM, Wind Mill
	POST, Spiral Point		WND, Wind Turbine
			WV, Water Valve

UTILITY LEGEND

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

Remark Abbreviations

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

	F01D, Fiber Optic Windstream - Quality D Dan Hogan (563) 920 2428 Dan.Hogan@windstream.com
	TL1D, Telephone Line Windstream - Quality D Dan Hogan (563) 920 2428 Dan.Hogan@windstream.com
	Steve Kness (319) 538 1985 stephen.kness@windstream.com
	F02D, Fiber Optic Community Digital Network - Quality D Matt Leisinger (319) 509 1106 mleisinger@cdwireless.com
	Sharon Huck (319) 961 8362 readlyn@netins.net
	GL1D, Gas Line Black Hills Energy - Quality D
	SA1D, Sanitary Sewer City of Sumner- Quality D
	ST1D, Storm Sewer City of Sumner - Quality D
	TV1D, TV Cable Mediacom - Quality D
	WL1D, Water Line City of Sumner - Quality D
	PPA, Power Pole Windstream

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

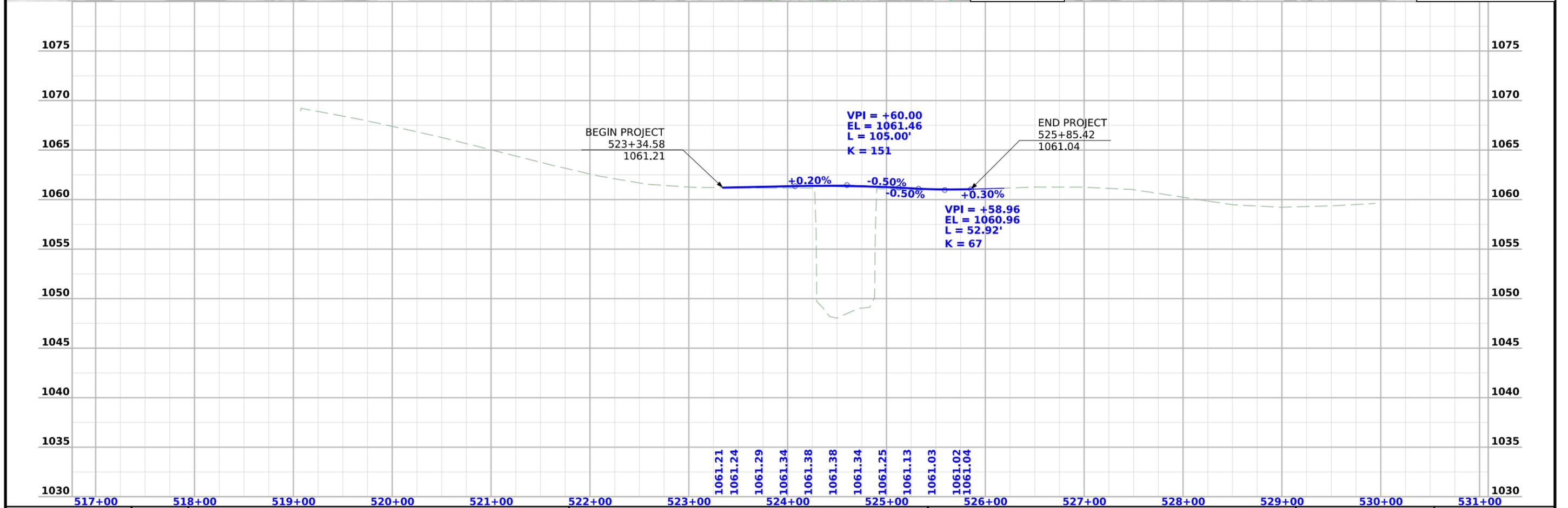
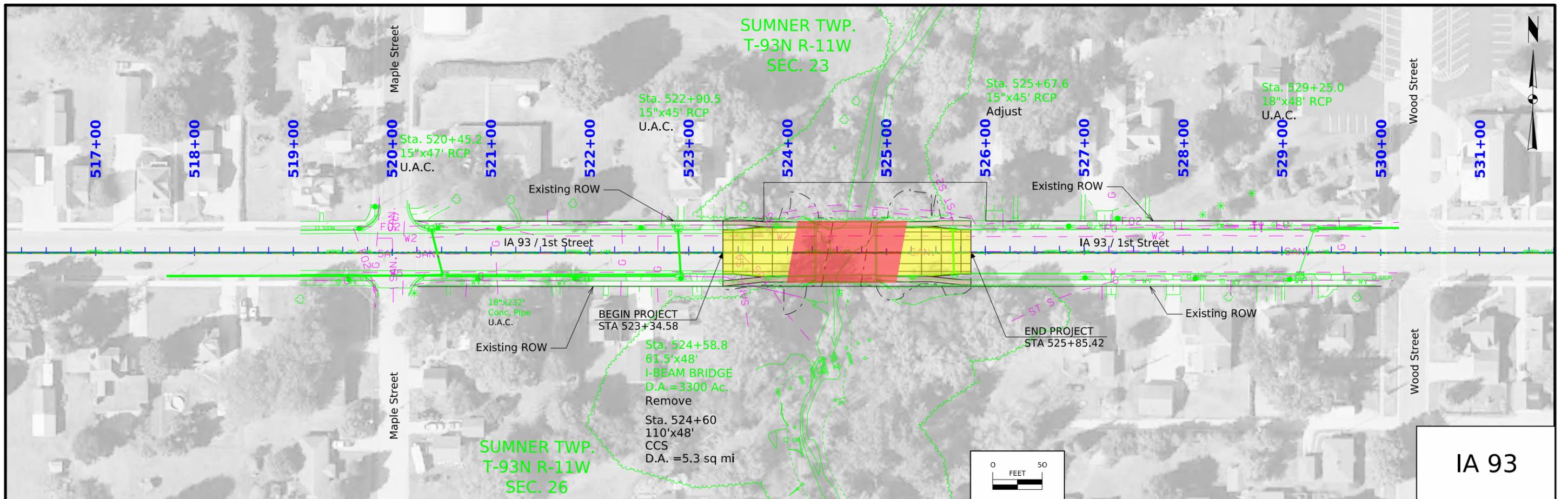
Reference Point	
	Station
	Survey Line
	Section Corner
	Ground Line Intercept
	Saw Cut
	Guardrail
	Trench Drain
	HighTension Cable Guardrail
	Sheet Pile
	Pavement Removal
	Clearing & Grubbing Area

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)



Survey Information

SURVEY INDEX

County: Bremer
Project Code: 23-09-093-010
Phase Number: BRF-093-1(030)--38-09
Location: Stream 0.7 mi W of Co Rd V62 in Sumner
Type of Work: Bridge-Unspecified
Project Directory: 0909301023

Survey Personnel

John Hahn – Survey Party Chief

Date(s) of Survey

Begin Date 10/21/2024
End Date 03/10/2025

General Information

This survey is for IA Highway 93 bridge replacement .7 miles west of County Road V62 in the town of Sumner. 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

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

PROJECT DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 ADJUSTMENT)
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 5
(U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2018u3

Alignment Information

The horizontal alignment for Iowa Hwy 93 this survey was provided by IDOT District 2 ROW Survey.

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 5 (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)
la. Regional Coordinate System Zone 5 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: 2018u3

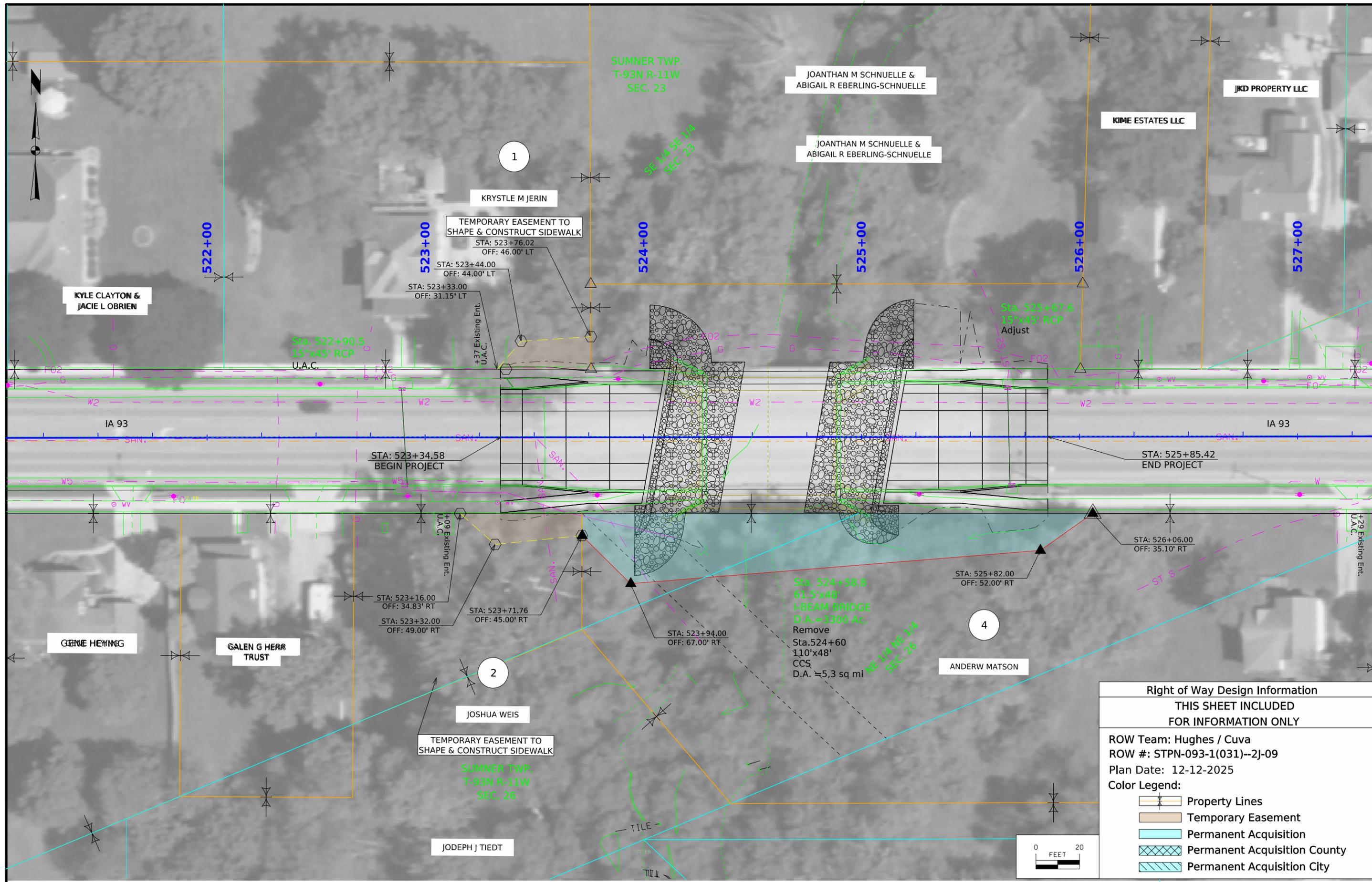
Point Name	Northing	Easting	Elevation	Code/Description
29	8976948.29	15545120.23	1081.17	CP FND BREMER CO GPS CONTROL POINT AS DESCRIBED IN GOOD CONDITION
CPE	8971953.35	15540876.59	1061.05	CP SET FENO MONUMENT
CPS	8971598.97	15539050.28	1055.36	CP SET FENO MONUMENT
CPW	8971936.18	15535626.49	1084.35	CP SET FENO MONUMENT
J38	8966691.27	15548226.77	1071.71	CP FND NGS THIRD ORDER BENCH MARK J 38 RESET AS DESCRIBED IN GOOD CONDITION

ALIGNMENT COORDINATES

Line No.	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
1.0		SURMLA093	507+15.81	8971981.82	15537182.12															
2.0		SURMLA093	527+27.60	8971997.62	15539193.85															
3.0		SURMLA093	533+64.31	8971999.73	15539830.55															

NO ACCESS RIGHTS ARE TO BE ACQUIRED ON THIS PROJECT.

ACCESS CONTROL PREVIOUSLY ACQUIRED.



Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: Hughes / Cuva	
ROW #: STPN-093-1(031)--2J-09	
Plan Date: 12-12-2025	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition
	Permanent Acquisition County
	Permanent Acquisition City



TRAFFIC CONTROL PLAN

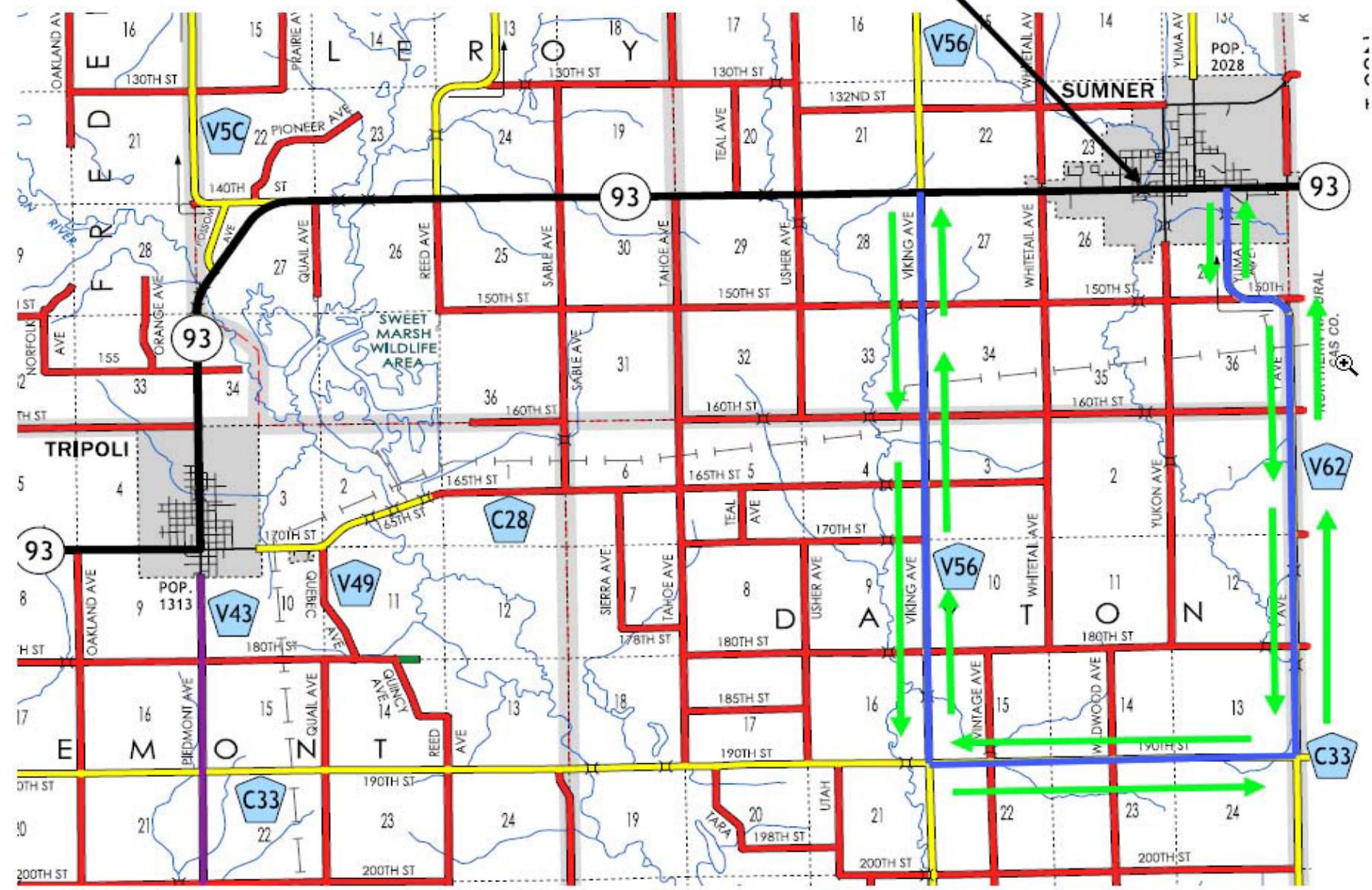
108_23A
8/15/22

IA 93 will be closed to traffic.

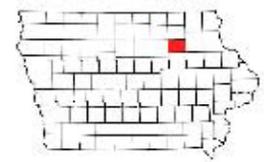
511 TRAVEL RESTRICTIONS

Line No.	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
1.0	IA 93	Both	Bremer	IA 93 Detour Route	Stream	Bridge	197	Weight	80,000 Lbs				56,000 Lbs for Straight Truck

Project Location



← DETOUR



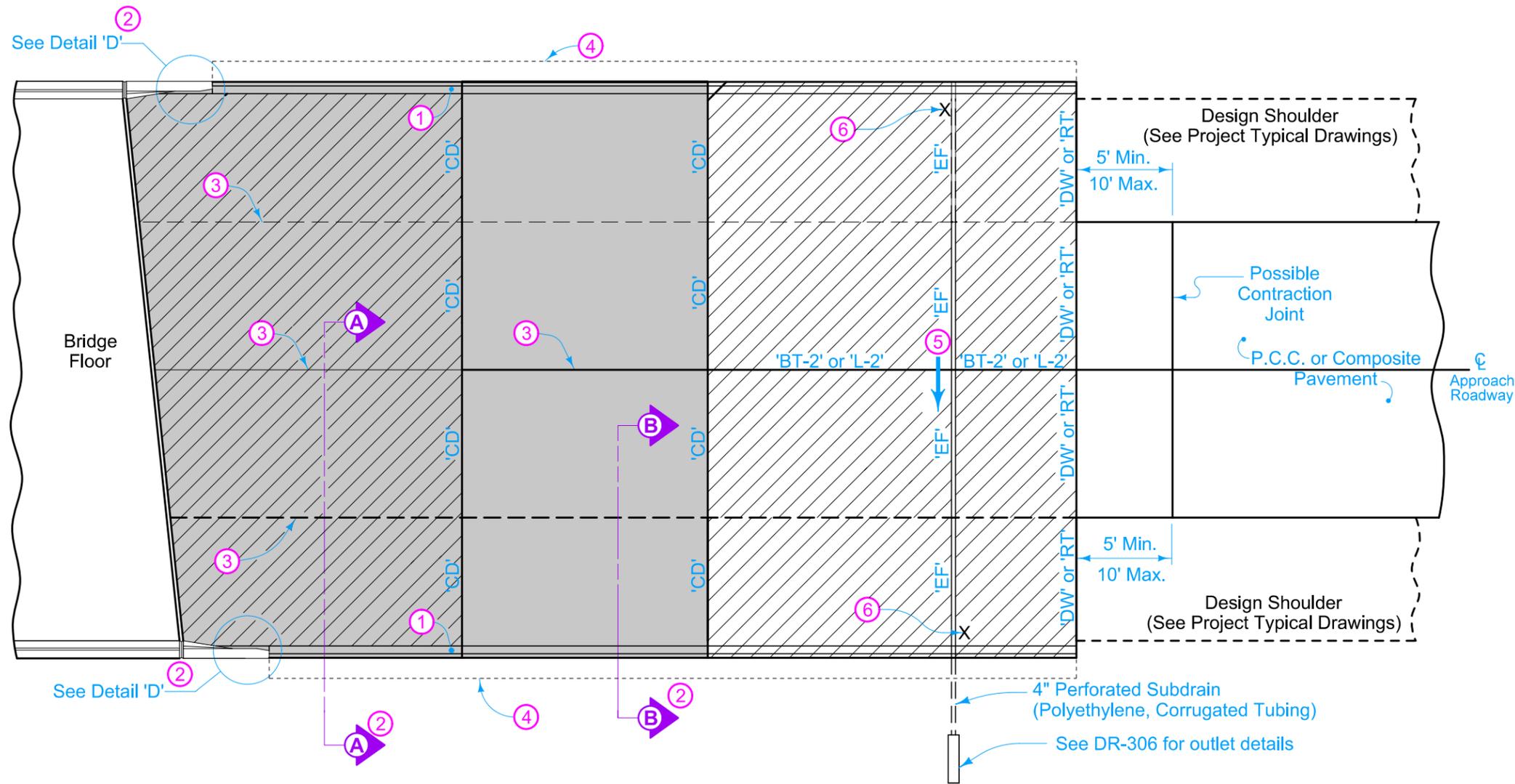
Bremer County
 Stream 0.7 mi West of Co Rd V62 in Sumner
 BRF-093-1(030)--38-09
 PIN: 23-09-093-010



For joint details, see PV-101.

- ① Build 4 inch Sloped Curb to end of Double Reinforced Section. Refer to PV-102 for curb and runout details.
- 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 'BT-2' joint

- ④ Polymer Grid and excavation limits of Modified Subbase 2 feet outside of pavement edge. See BR-201, BR-202, BR-203, or BR-204.
- ⑤ Slope subdrain to drain.
- ⑥ Place an "X" in the plastic concrete near the 'EF' joint at the outside edge of pavement.



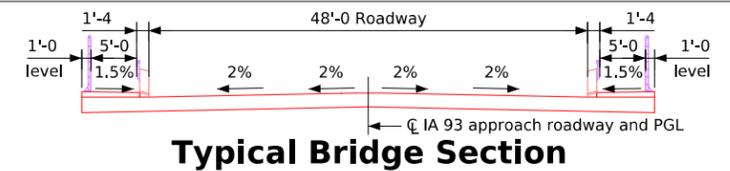
PLAN VIEW

Pay limits for contract item include the following areas:

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

MODIFIED	REVISION
	4 MODIFIED
STANDARD ROAD PLAN	BR-211
SHEET 1 of 1	
MODIFICATIONS: Extended Curb to the End of Non Reinforced Section	
APPROVED BY DESIGN METHODS ENGINEER	
BRIDGE APPROACH (ABUTTING PCC OR COMPOSITE PAVEMENT)	

Control Point CPS: 8971598.97 Northing, 15539050.28 Easting, 1055.36 Elev, CP Set Feno Monument



Typical Bridge Section

Utilities Note:

Utilities shown on this sheet are for information only. See Road Design sheets for utility information.

General Utility Symbols:

- E - Electric Line
- G - Gas Line
- SAN - Sanitary Sewer
- T - Telephone Line
- W - Water Line
- FO - Fiber Optic Line
- GHP - Gas High Pressure
- ST S - Storm Sewer
- TV - TV
- - Power Poles

Hydraulic Data

RIDB: LittleWapsipiniconR_Buch_Trib35_0.63
 Drainage Area = 5.3 Sq. Mi.
 Stream Slope (HGL) = 19.1 ft./Mi.
 Avg. Low Water Stage = 1048.12

Operational low slab = 1059.0
 Channel low slab = 1059.2

Q₂₅ = 1,380 cfs
 Stage = 1055.6

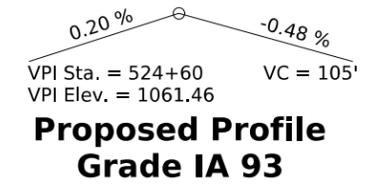
Q₅₀ = 2,620 cfs
 Stage = 1057.3
 Operational Freeboard = 1.7 ft.
 Avg. Bridge Velocity = 4.48 fps

Q₁₀₀ = 3,220 cfs (design)
 Stage = 1058.0
 Operational Freeboard = 1.0 ft.
 Backwater = 0.00 ft.
 Avg. Bridge Velocity = 4.91 fps

Q₂₀₀ = 3,830 cfs
 Stage = 1058.7
 Calculated Design Scour = 1043.08

Q₅₀₀ = 4,660 cfs
 Channel Freeboard = -0.6 ft.
 Calculated Check Scour = 1041.69

Q Overtop = N/A
 Roadway Overtop N/A
 Sta. N/A



Proposed Profile Grade IA 93

Traffic Estimate

2028 AADT	4310 V.P.D.
2048 AADT	4612 V.P.D.
2048 DHV	476 V.P.H.
TRUCKS	4 %
Total	???
Design ESALS	???

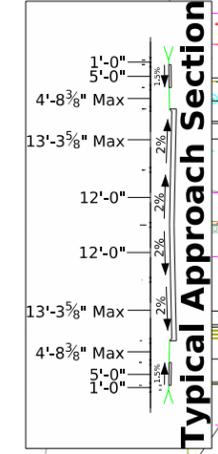
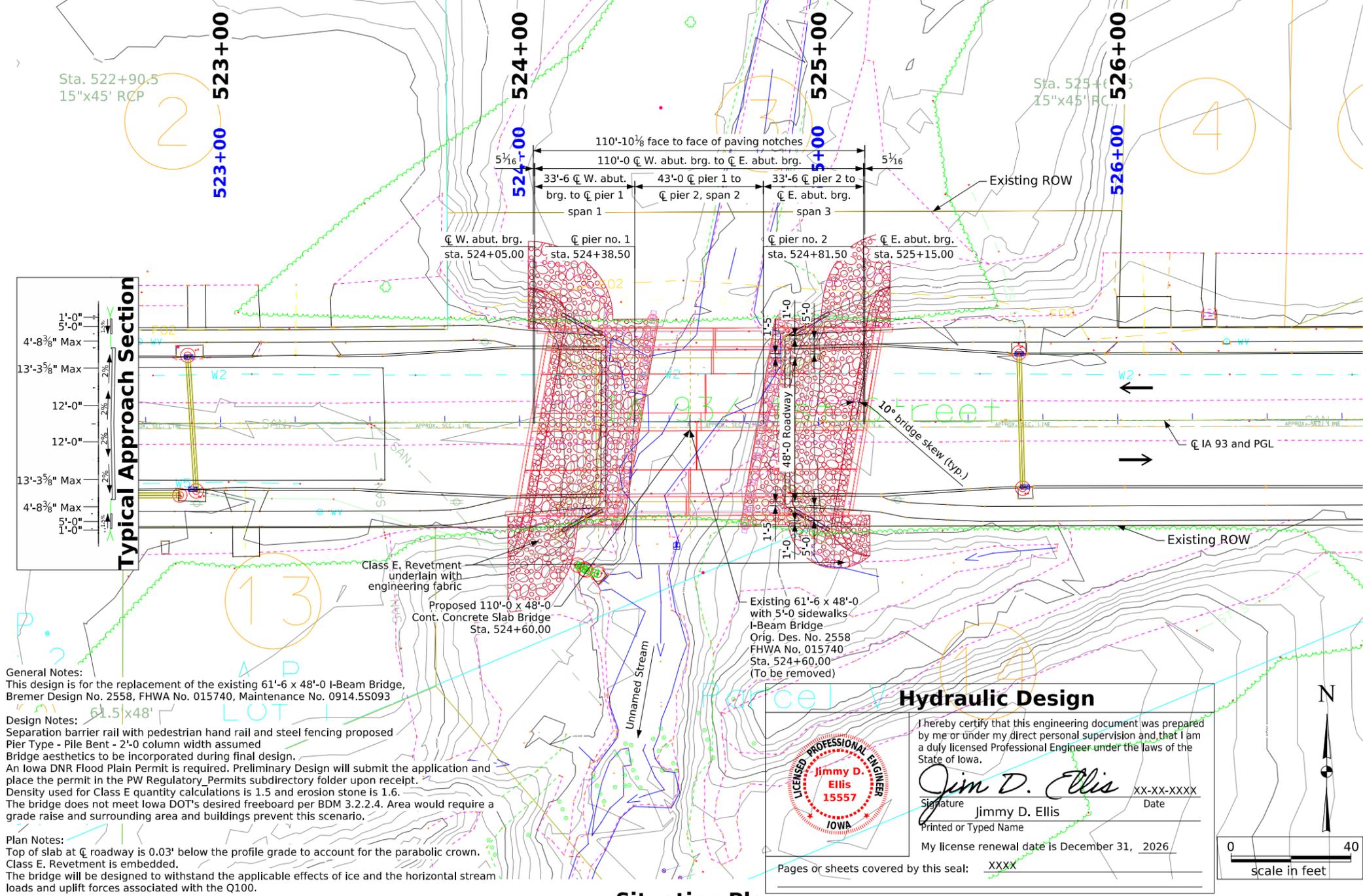
Location

IA 93 over unnamed stream
 In City of Sumner
 T-93N R-11W
 Sections 23 and 26
 Sumner Township
 Bremer County
 FHWA No. 015740 (exist.)
 FHWA No. 0157xx (prop.)
 Bridge Maint. No. 0914.5S093
 Latitude 42.847451° (SIA)
 Longitude -92.104989° (SIA)

Design For 10° skew left ahead
110'-0 x 48'-0 Continuous Concrete Slab Bridge with 5'-0 Sidewalks
 33'-6 End Spans 43'-0 Interior Span
Situation Plan
 Sta. 524+60 (C IA 93) TSL Date: September 2025
Bremer County
 IOWA DEPARTMENT OF TRANSPORTATION
 Design No. 0228 Design Sheet No. 1 of 2 FHWA No. 015741

1090	① class E. revetment underlain with engineering fabric. Revetment and erosion stone are embedded	1090
1080	② grading surface, 2.5:1 max., normal	1080
1070		1070
1060		1060
1050		1050
1040		1040
1030		1030
1020		1020

Longitudinal Section Along C Approach Roadway



Typical Approach Section

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.

Jimmy D. Ellis XX-XX-XXXX
 Signature Date
 Printed or Typed Name Jimmy D. Ellis
 My license renewal date is December 31, 2026

LICENSED PROFESSIONAL ENGINEER
 Jimmy D. Ellis
 15557
 IOWA

Pages or sheets covered by this seal: XXXX

General Notes:
 This design is for the replacement of the existing 61'-6 x 48'-0 I-Beam Bridge, Bremer Design No. 2558, FHWA No. 015740, Maintenance No. 0914.5S093

Design Notes:
 Separation barrier rail with pedestrian hand rail and steel fencing proposed
 Pier Type - Pile Bent - 2'-0 column width assumed
 Bridge aesthetics to be incorporated during final design.
 An Iowa DNR Flood Plain Permit is required. Preliminary Design will submit the application and place the permit in the PW Regulatory Permits subdirectory folder upon receipt.
 Density used for Class E quantity calculations is 1.5 and erosion stone is 1.6.
 The bridge does not meet Iowa DOT's desired freeboard per BDM 3.2.2.4. Area would require a grade raise and surrounding area and buildings prevent this scenario.

Plan Notes:
 Top of slab at C roadway is 0.03' below the profile grade to account for the parabolic crown.
 Class E. Revetment is embedded.
 The bridge will be designed to withstand the applicable effects of ice and the horizontal stream loads and uplift forces associated with the Q100.

Situation Plan

Control Point CPS: 8971598.97 Northing, 15539050.28 Easting, 1055.36 Elev. CP Set Feno Monument

Erosion Stone Slope Protection from top of revetment to front face of abutment (extends 3' beyond bridge deck)

Berm Slope Location Table

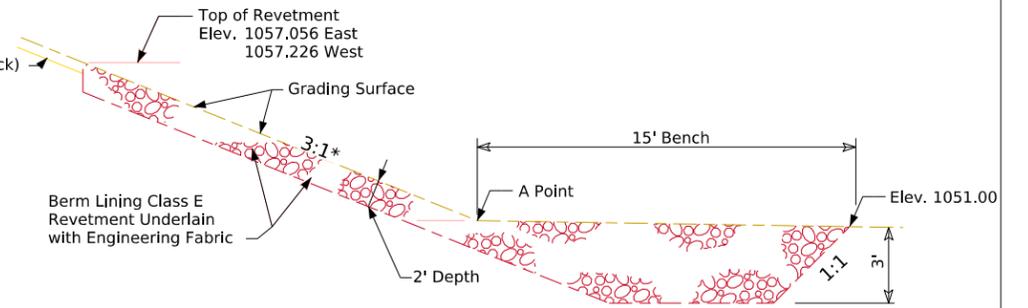
Points	West Abutment			East Abutment		
	Station	Offset	Elev.	Station	Offset	Elev.
A1, A3	524+46.66	34.33' Lt	1051.00	524+85.88	34.33' Lt	1051.00
A2, A4	524+34.55	34.33' Rt	1051.00	524+73.77	34.33' Rt	1051.00
B1, B3	524+15.62	34.33' Lt	1057.23	525+16.48	34.33' Lt	1057.06
B2, B4	524+03.52	34.33' Rt	1057.23	525+04.38	34.33' Rt	1057.06
W1, W3	524+03.23	34.33' Lt	1060.72	525+24.03	34.33' Lt	1060.52
W2, W4	523+95.97	34.33' Rt	1060.70	525+16.97	34.33' Rt	1060.56

Berm slope elevations reflect the grading surface.

Estimated Berm Armoring Quantities

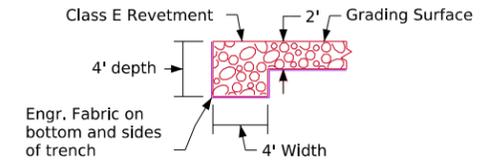
Location	Revetment CL. ?? (Ton)	Erosion Stone (Ton)	Engineering Fabric (SY)	CL. 10 Channel Excavation (CY)
East Berm	315	18	365	225
West Berm	345	18	400	235
Totals	660	36	765	460

Excavation quantity calculated from grading surface. Excavation quantity if for embedded revetment core out only, and does not include excavation to the grading surface. Excavation quantity to the grading surface is determined by Road Design and included in the Road Plans.

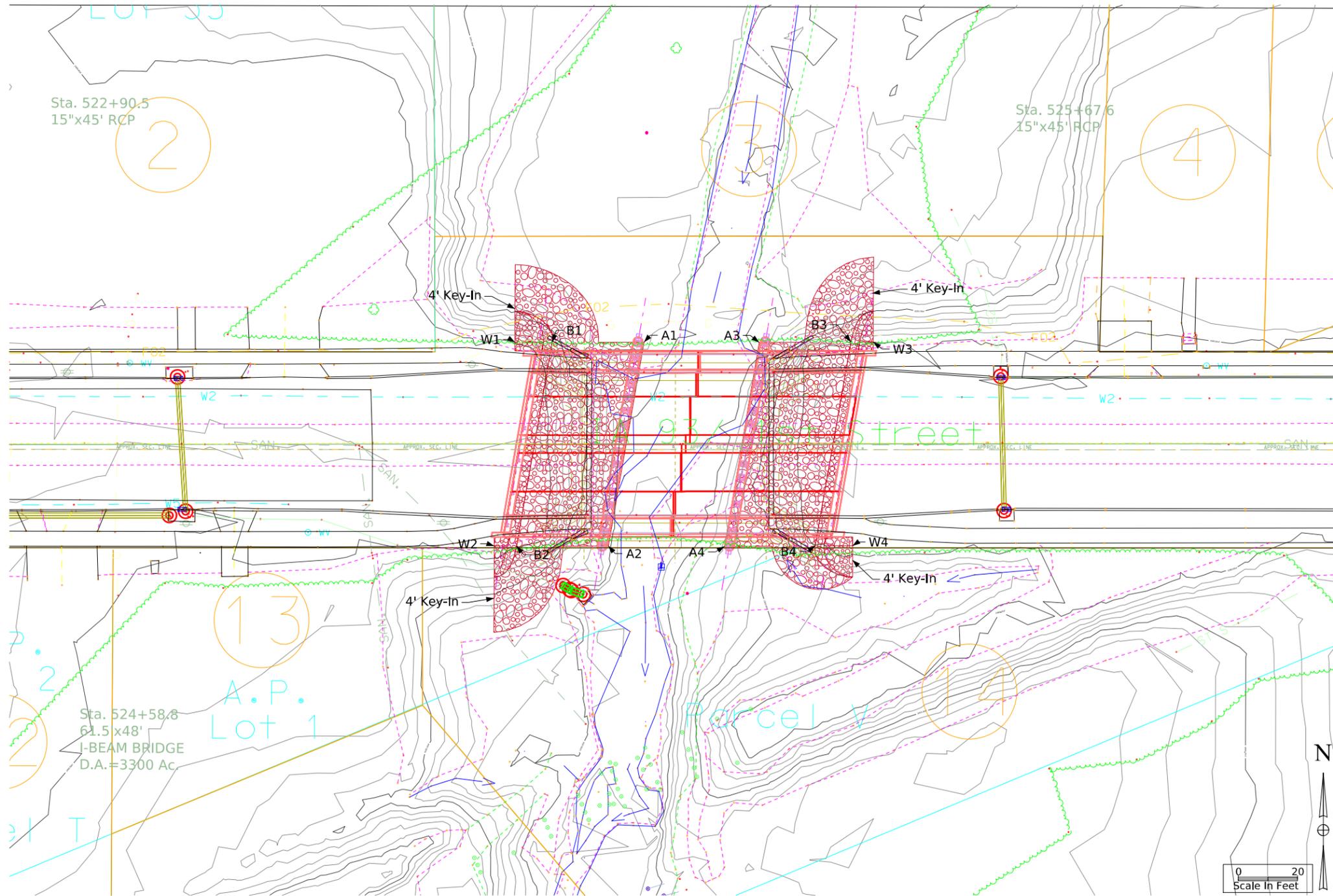


*Slope varies in transition areas (Not to Scale)

Section Thru Embedded Revetment Berm



Typical Section Thru Key-in Trench



Site Plan

Design For 10° skew left ahead
110'-0 x 48'-0 Continuous Concrete Slab Bridge with 5'-0 Sidewalks
 33'-6 End Spans 43'-0 Interior Span
Situation Plan - Site
 STA. 524+60 (IA 93) Turn-in Date: September 2025
Bremer County
 IOWA DEPARTMENT OF TRANSPORTATION
 Design No. 0228 Design Sheet No. 2 of 2 FHWA No. 015741

CROSS SECTION VIEW COLOR LEGEND

Design Color No.	Feature	Design Color No.	Feature
Aggregate			
(64)	Choke Stone	(8)	Behind Curb Cut
(42)	Engineering Fabric	(6)	Granular
(8)	Flooded Backfill	(13)	Granular Back Fill
(92)	Macadam Stone	(48)	Rock Undercut
(20)	Modified	(8)	Shoulder Earth Fill
(12)	Plowing Shaping	(2)	Side Slopes
(14)	Porous Backfill	(226)	Side Slopes Dressing
(8)	Revetment Class A	Substrata	
(6)	Revetment Class B	(128)	Boulder
(62)	Revetment Class C	(209)	Boulder Removed
(188)	Revetment Class D	(48)	Broken Weathered
(28)	Revetment Class E	(210)	Broken Weathered Removed
(12)	Shoulder Special Backfill	(3)	Core Out
(12)	Special Backfill	(115)	Core Out Remove Only
(20)	Subbase	(195)	Core Out Remove and Replace
(20)	Subbase Lower	(203)	Existing Pavement
(20)	Subbase Upper	(184)	Existing Pavement Remove Only
(118)	Subgrade Treatment	(200)	Existing Pavement Remove and Replace
Asphalt			
(207)	HMA Base Course	(6)	Loam
(207)	HMA Interim Course	(211)	Loam Removed
(207)	HMA Surface Course	(80)	Rock
Bridge			
(0)	Bridge	(212)	Rock Removed
Concrete			
(0)	Barrier Concrete	(4)	Select Sand
(0)	Barrier Concrete Footing	(214)	Select Sand Removed
(0)	Curb Gutter	(3)	Shale
(48)	Flowable Mortar	(215)	Shale Removed
(0)	Median Concrete	(10)	Topsoil
(0)	PCC Pavement	(2)	Topsoil Remove Only
(0)	Sidewalk	(4)	Topsoil Remove and Replace
Unsuitable / Waste			
(0)	Existing Pavement	(3)	Unsuitable Type A
Shoulder			
(209)	Shoulder HMA	(216)	Unsuitable Type A Removed
(0)	Shoulder PCC	(13)	Unsuitable Type B
(6)	Shoulder Granular	(217)	Unsuitable Type B Removed
Structural			
(112)	Noise Wall	(11)	Unsuitable Type C
(112)	Noise Wall Footing	(218)	Unsuitable Type C Removed
(112)	Retaining Wall Back	(3)	Waste
(112)	Retaining Wall Back Excavate	(219)	Waste Removed
(112)	Retaining Wall Face		
(112)	Retaining Wall Front Excavate		
(112)	Retaining Wall Front Footing		
(112)	Retaining Wall MSE Gutter		
(112)	Retaining Wall Reinforced Earth		

NOTES:

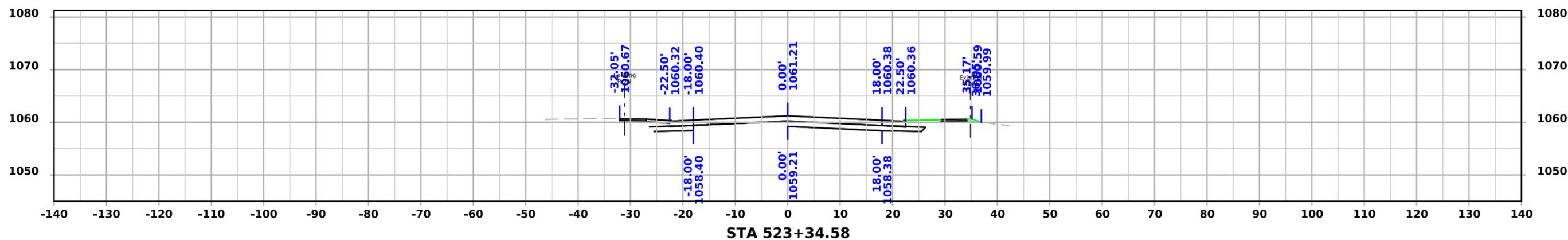
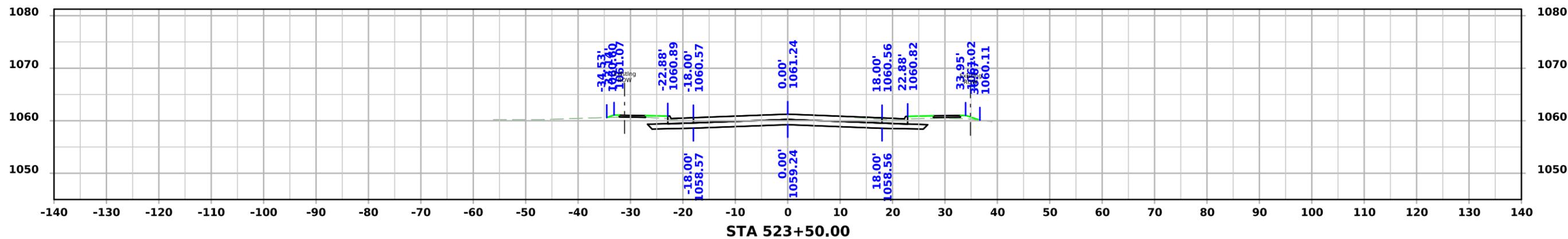
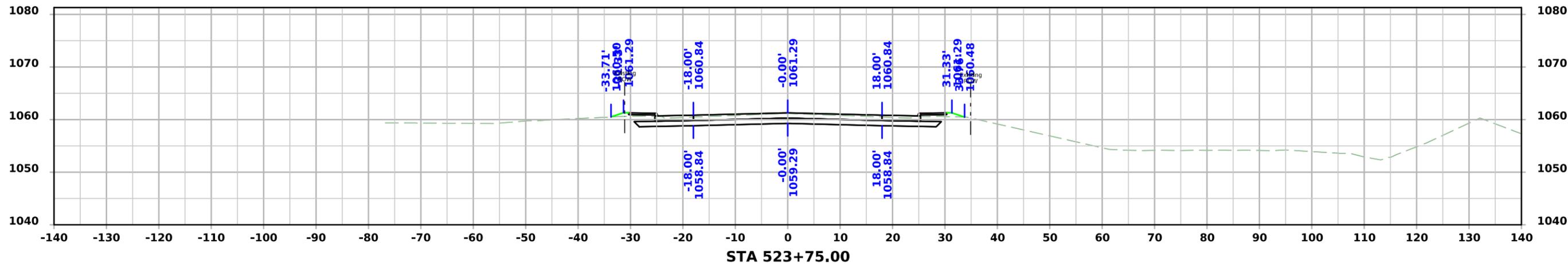
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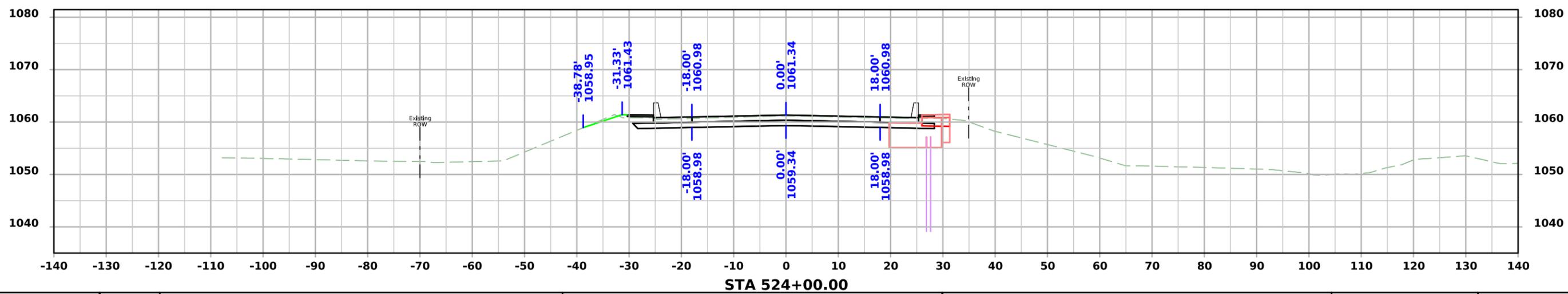
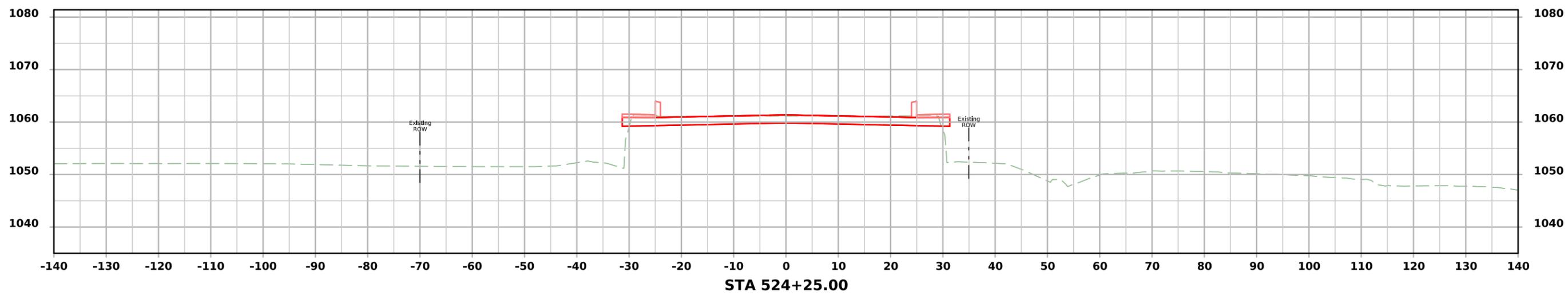
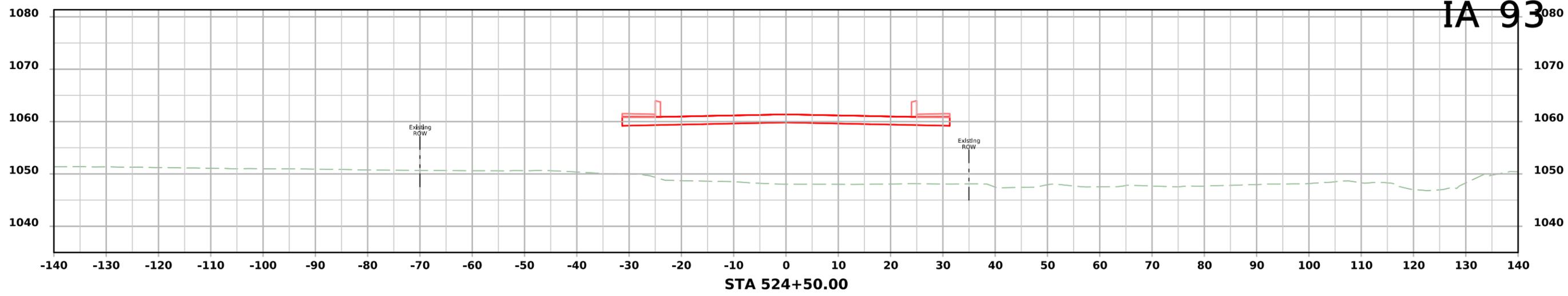
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CROSS SECTIONS LEGEND AND INFORMATION SHEET

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





IA 93

