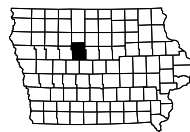


BRIDGE REPLACEMENT
BRF-926-0(19)--38-94

WEBSTER COUNTY

LETTING DATE
07-18-2023



PLANS OF PROPOSED IMPROVEMENT ON THE
**PRIMARY ROAD SYSTEM
WEBSTER COUNTY
BRIDGE REPLACEMENT**

Business U.S. 20 (IA 926) westbound bridge over CN Railroad and 7th st., 1.5 miles north of the south junction of U.S. 169 in Fort Dodge
SCALES: As Noted

REVISIONS

TOTAL	32
PROJECT IDENTIFICATION NUMBER	
PROJECT NUMBER	18-94-926-020
R.O.W. PROJECT NUMBER	BRF-926-0(19)--38-94
	STPN-926-0(20)--2J-94

INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2	Project Location Map
B Sheets	Typical Cross Sections and Details
B.1 - 2	Typical Cross Sections and Details
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2	IA 926 Plan Sheet
* D.3	IA 926 Profile Sheet
G Sheets	Survey Sheets
G.1	Reference Ties and Bench Marks
G.2	Control Point Vicinity Map
G.3	Horizontal Control Tab. & Super for all Alignments
J Sheets	Traffic Control and Staging Sheets
J.1	Traffic Control Plan
* J.2	Detour Plans Legend and Symbol Information Sheet
* J.3 - 9	IA 926 Detour Plans
V Sheets	Bridge and Culvert Situation Plans
* V.1 - 4	Bridge and Culvert Situation Plans
W Sheets	Mainline Cross Sections
W.1 - 9	IA 926 Cross Sections
	* Color Plan Sheets

Refer to the Proposal Form for list of applicable specifications.

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



DESIGN DATA URBAN			
2023	AADT	15,500	V.P.D.
2043	AADT	15,800	V.P.D.
20 --	DHV	1634	V.P.H.
TRUCKS		5	%
Total			
Design	ESALs	--	

INDEX OF SEALS		
	X	
X	X	X

P09: 07-06-2022

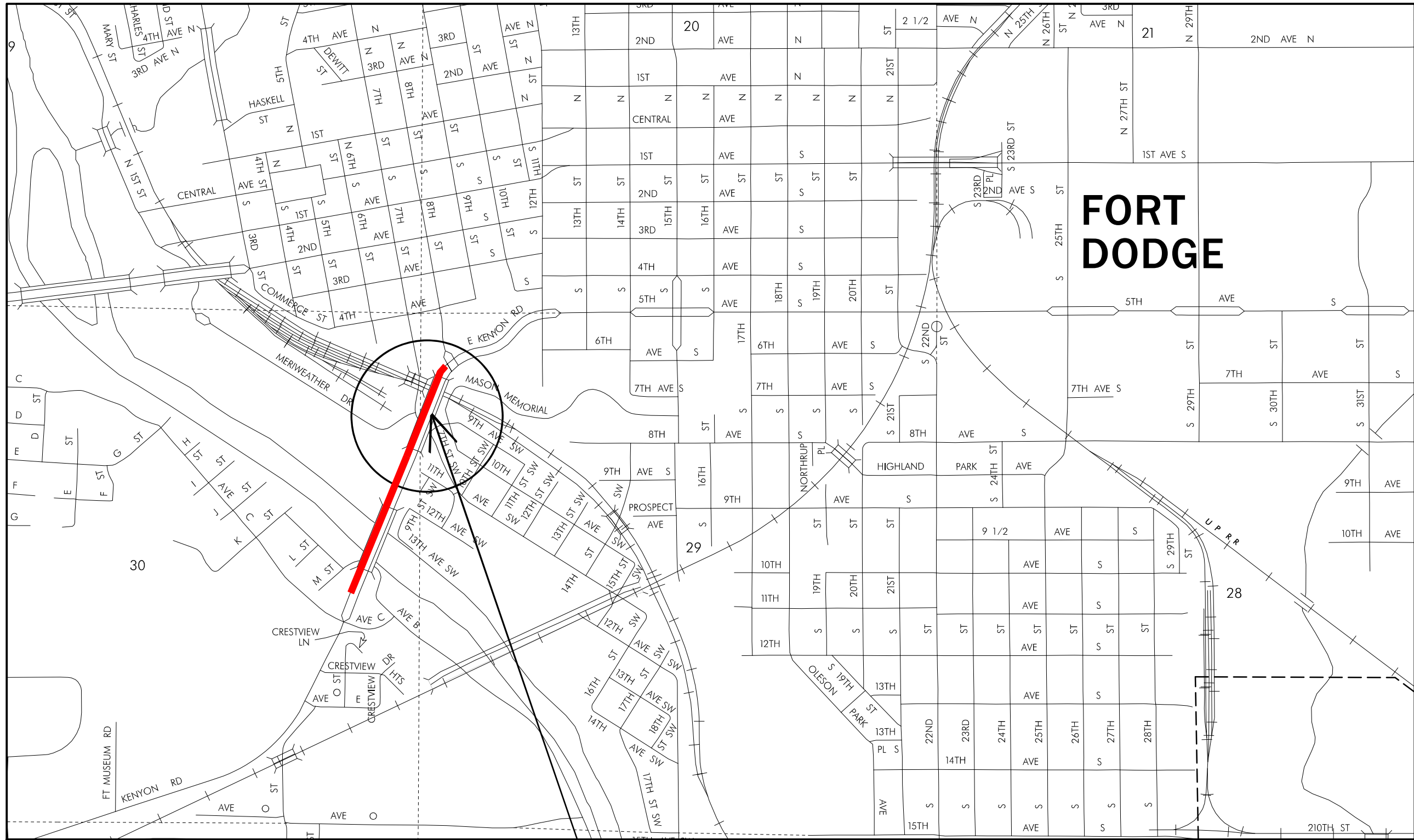
D4: 03-21-2023

PRELIMINARY PLANS

Subject to change by final design.

D5 PLAN - Date: 03-31-2022

T-89N



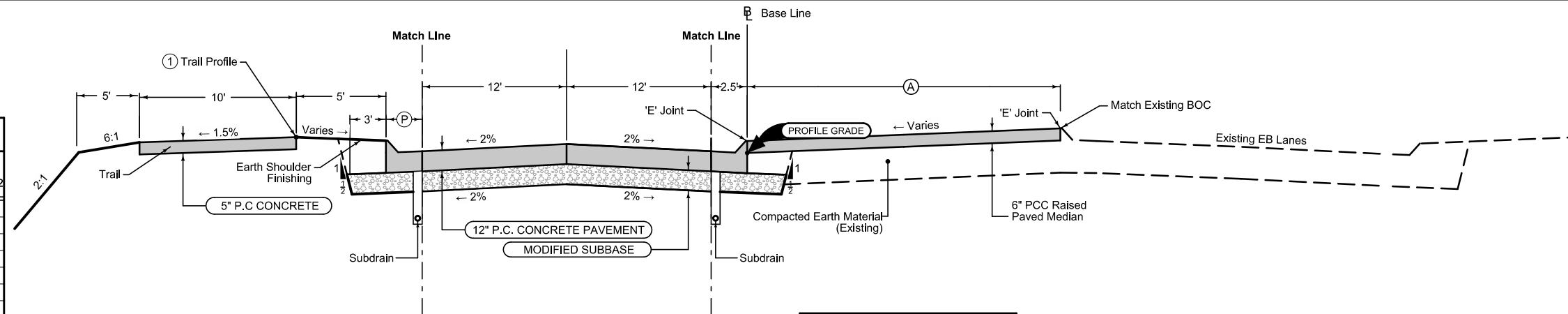
R-28W

PROJECT LOCATION
 STA. 736+61.02
 FHWA No. 52102
 Maint. No. 9401.5L926

Curbed Shoulder with Trail

2_Curb_04-21-20			
STATION TO STATION	(P) Feet	Curb Type	See PV-102
732+18.61	732+44.60	2.5	6" Std
732+44.60	732+73.77	2.5-5.5	6" Std
732+73.77	732+90.61	5.5	6" Std
740+30.39	740+59.69	5.5	6" Std
740+59.69	740+72.39	5.5-4.0	6" Std
740+72.39	740+82.81	4.0	6" Std

- ① Trail Profile from Sta. 732+10.00 to Sta. 732+73.77
- ② Nominal 15'
- ③ Nominal 3'



Bridge Approach

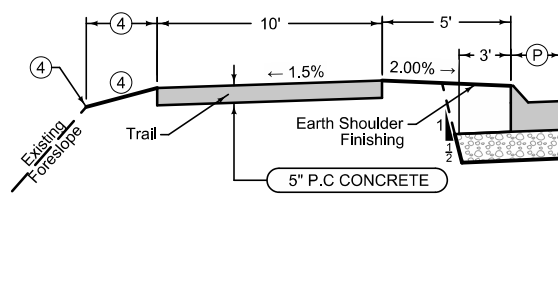
BEGIN STATION	END STATION
732+18.61	732+90.61
740+30.39	741+00.39

4DP_Raised_Out_04-21-20		
BEGIN STATION	END STATION	(A) Feet
732+18.61	732+90.61	②
740+30.39	741+00.39	③

Curbed Shoulder with Trail

2_Curb_04-21-20			
STATION TO STATION	(P) Feet	Curb Type	See PV-102
740+82.81	741+00.39	4.0	6" Std

- ④ Tie to existing break



See Tab 100-24 or 100-25 for pavement quantities.
See Tab 112-9 for shoulder quantities.

IA 926

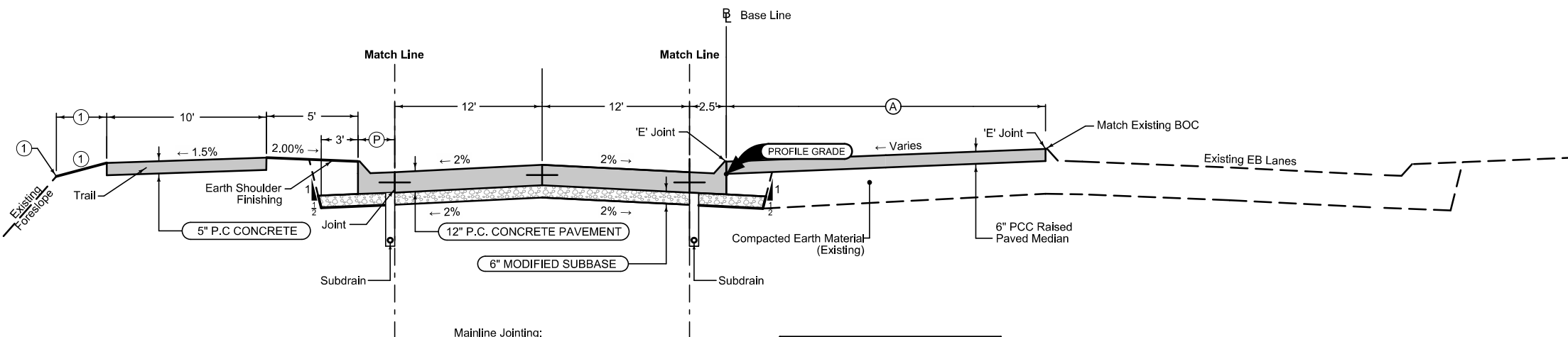
Curbed Shoulder with Trail

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

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

2_Curb_04-21-20			
STATION TO STATION	(P) Feet	Curb Type	See PV-102
741+00.39	741+35.00	4.0	6" Std

- ① Tie to existing break
- ② Nominal 3'



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

BEGIN STATION	END STATION
741+00.39	741+35.00

4DP_Raised_Out_04-21-20		
BEGIN STATION	END STATION	(A) Feet
741+00.39	741+35.00	②

See Tab 100-24 or 100-25 for pavement quantities.
See Tab 112-9 for shoulder quantities.

IA 926

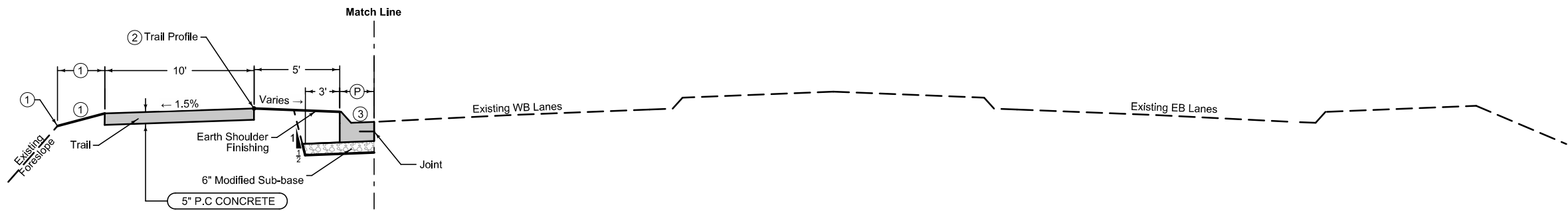
Curbed Shoulder with Trail

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

Single pour: L-2
 Transverse: Match Main Line Joint Spacing

STATION TO STATION		(P) Feet	Curb Type See PV-102
731+10.00	731+90.00	2.5	6" Std

- ① Tie to existing break
- ② Trail Profile from Sta. 732+10.00 to Sta. 732+73.77
- ③ Match existing cross slope



Curbed Shoulder with Trail

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

Single pour: L-2
 Transverse: Match Main Line Joint Spacing

STATION TO STATION		(P) Feet	Curb Type See PV-102
731+90.00	732+18.61	2.5	6" Std

- ② Trail Profile from Sta. 732+10.00 to Sta. 732+73.77
- ③ Match existing cross slope



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
 Transverse: Match Main Line Joint Spacing

STATION TO STATION		(P) Feet	Curb Type See PV-102
741+35.00	741+62.00	4.0	6" Std

- ③ Match existing cross slope
- ④ Tie to existing edge of sidewalk



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
- Water Hydrant (Rural)
- Septic Tank
- Cistern
- L.P. Gas Tank (No Footing)
- Underground Storage Tank
- Latrine
- Satellite TV Dish
- Water Hook Up
- Radio Tower
- Tower Anchor
- Guardrail (Beam or Cable)
- Guard Post (one or two)
- Guard Post (over two)
- Filler Pipe
- Gas Valve
- Water Valve
- Speed Limit Sign
- Mile Marker Post
- Sign
- Traffic Signal Control Box
- Rail Road Signal Control Box
- Telephone Switch Box
- Electric Box

UTILITY LEGEND

- SA1D Sanitary Sewer City of Fort Dodge - Quality D
- ST1D Storm Sewer City of Fort Dodge - Quality D
- WL1D Water Line City of Fort Dodge - Quality D
Jeff Wood
819 1st Avenue S
Fort Dodge, IA 50501-4739
jwood@fordodgeiowa.org
(515) 955-6139
- FO1D Fiber Optic Frontier Communications - Quality D
- TL1D Telephone Line Frontier Communications - Quality D
Trent Flockhart
600 1st Avenue North
Fort Dodge, IA 50501
Trent.Flockhart@ftr.com
(515) 573-1268
- GL1D Cable TV Line Mediacom Communications Corporation - Quality D
Mike Lawler
1225 2nd Ave. S
Fort Dodge, IA 50501
mlawler@mediacomcc.com
(515) 955-6100
- PPA Power Pole MidAmerican Energy - Quality D
- EL1D Electric Line MidAmerican Energy - Quality D
- GL1D Gas Line MidAmerican Energy - Quality D
- GL2D Gas Line MidAmerican Energy - Quality D
Brian Sewell
4000 1st Ave. S
Fort Dodge, IA 50501
Brian.Sewell@midamerican.com
(515) 574-5042
- GL3D Gas Line MidAmerican Energy - Quality D
Matt Kovacic
2811 5th Avenue
Rock Island, IL 61201
mskovacic@midamerican.com
(309) 793-3704
- TL2D Telephone Line ICN Iowa Communication Network - Quality D

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK		Design Color No.	
Green	(2)		Existing Topographic Features and Labels
Blue	(1)		Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)		Existing Utilities
SHADING		Design Color No.	
Lavender	(9)		Temporary Pavement Shading
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

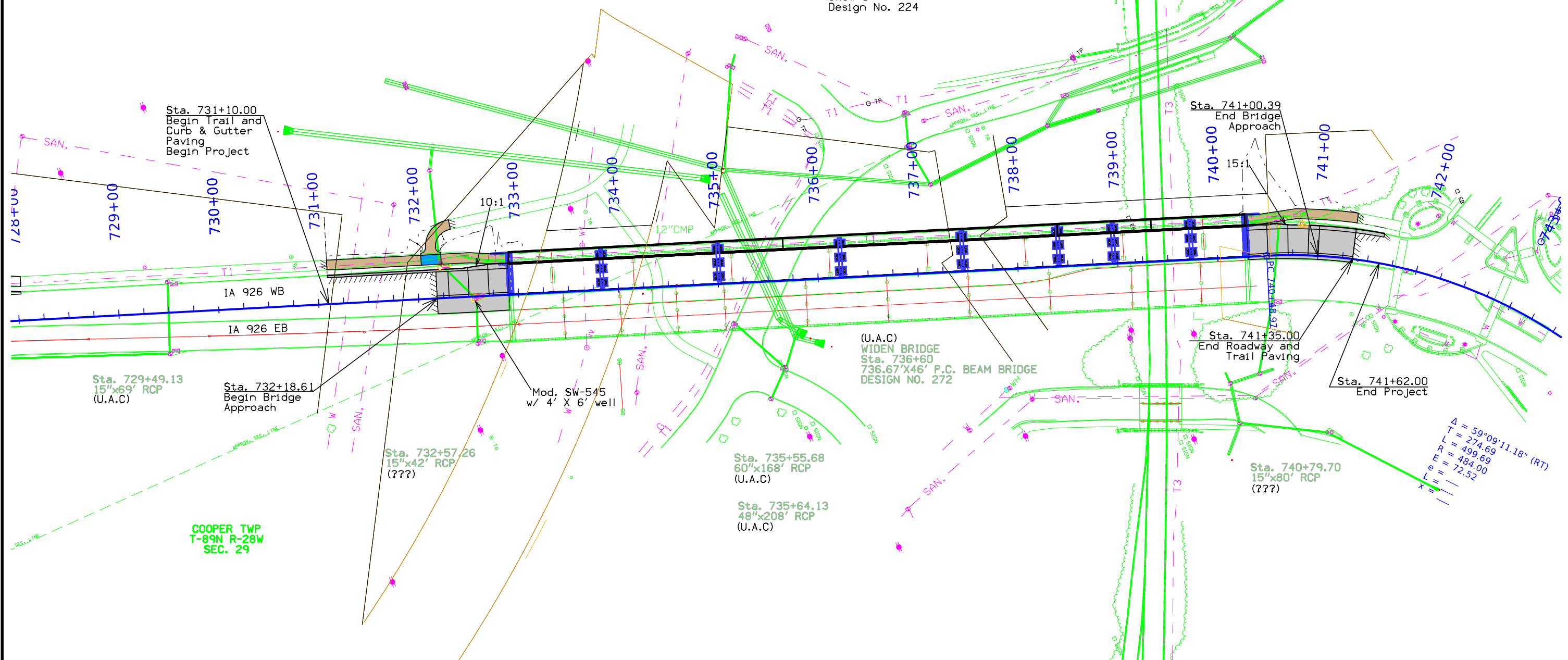
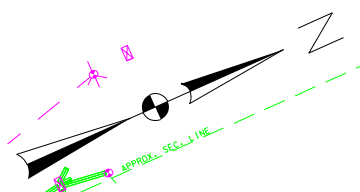
- Proposed Right-of-Way
- Existing Right of Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Easement (Temporary)
- Easement
- Access Control
- Property Line

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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

DOUGLAS TWP
T-89N R-28W
SEC. 30

(Remove)
BRIDGE
658' X 34' CONT. STEEL GIRDER BRIDGE
WITH 2-36' X 34' CONC. APPROACHES
DESIGN NO. 9408
Sta. 736+61.02
Build 735'-9" X 30'-0" PPCB & RSB w/
10'-0" Bike Trail
Skew 0°
Design No. 224



Sta. 731+10.00
Begin Trail and
Curb & Gutter
Paving
Begin Project

Sta. 741+00.39
End Bridge
Approach

Sta. 741+62.00
End Project

Sta. 729+49.13
15"x69' RCP
(U.A.C)

Sta. 732+18.61
Begin Bridge
Approach

Mod. SW-545
w/ 4' X 6' well

(U.A.C)
WIDEN BRIDGE
Sta. 736+60
736.67'X46' P.C. BEAM BRIDGE
DESIGN NO. 272

Sta. 741+35.00
End Roadway and
Trail Paving

Sta. 732+57.26
15"x42' RCP
(???)

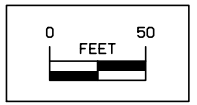
Sta. 735+55.68
60"x168' RCP
(U.A.C)

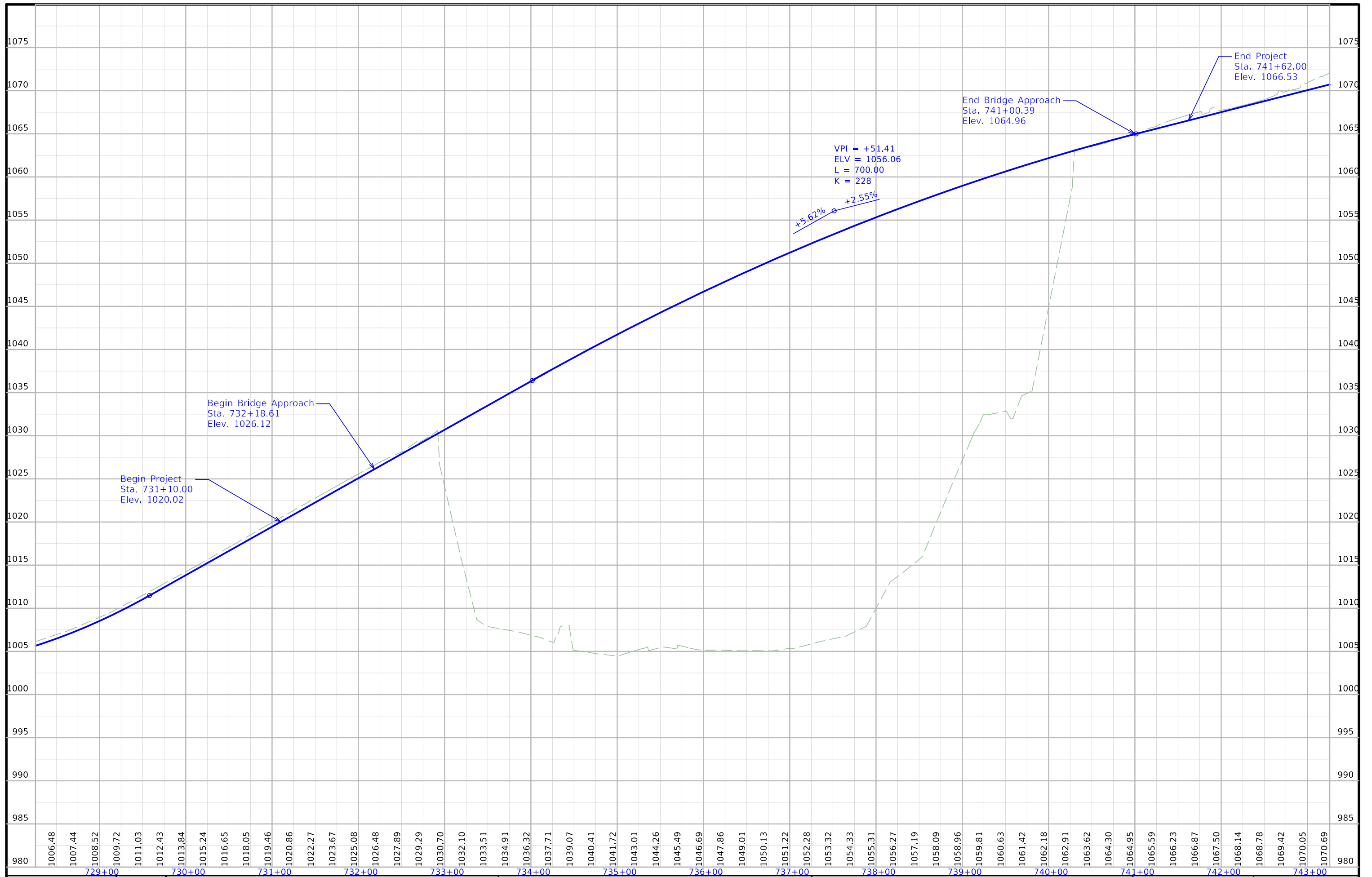
Sta. 735+64.13
48"x208' RCP
(U.A.C)

Sta. 740+79.70
15"x80' RCP
(???)

$\Delta = 59^{\circ}09'11.18"$ (RT)
L = 274.69
T = 499.69
R = 484.00
L = 72.52
X =

COOPER TWP
T-89N R-28W
SEC. 29





FILE NO. -	ENGLISH	DESIGN TEAM Jia \ Dewolf \ Cooper	Webster COUNTY	PROJECT NUMBER BRF-926-0(19)--38-94	SHEET NUMBER D.3
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Survey Information

Webster County
BRF-926-0(17)—38-94
BRF-926-0(19)—38-94
US 20 Fort Dodge
PIN 18-94-926-010
18-94-926-020
Sap-09590

General Information

Measurement units for this survey are US survey feet. This preliminary engineering survey is for improvements to US 20 over Des Moines River and B Ave 1.3 miles north of south junction US 169 in Fort Dodge. This project is a full field survey within the survey limits.

Vertical Control

Vertical datum for this survey is relative to NAVD88, Geoid 12b.

Vertical positions were established by static observations and post processed using concurrent observations from the laRTN Fort Dodge and Clarion reference stations.

Horizontal Control

The project coordinate system is the Iowa Regional Coordinate System, Zone 4. Horizontal datum is NAD83 (2011) for Epoch 2010.00. The projection parameters for Zone 4 of the laRCS is defined below:

Lambert Conformal Conic Projection North American Datum of 1983
Origin Lat: 42°32'00"N
Origin Central Meridian: 094°50'00"W
Central Meridian Scale: 1.000045
False Northing: 8,600,000
False Easting: 14,500,000

Horizontal positions for site control were established by static observations and post processed using concurrent observations from the laRTN Fort Dodge and Clarion reference stations

Alignment Information

US 20
The horizontal alignment for this survey is a retrace of as-built plans U-20-3(11)—40-94. Survey stationing was equated to the plan POC at station 747+50.00 and run back without equation.

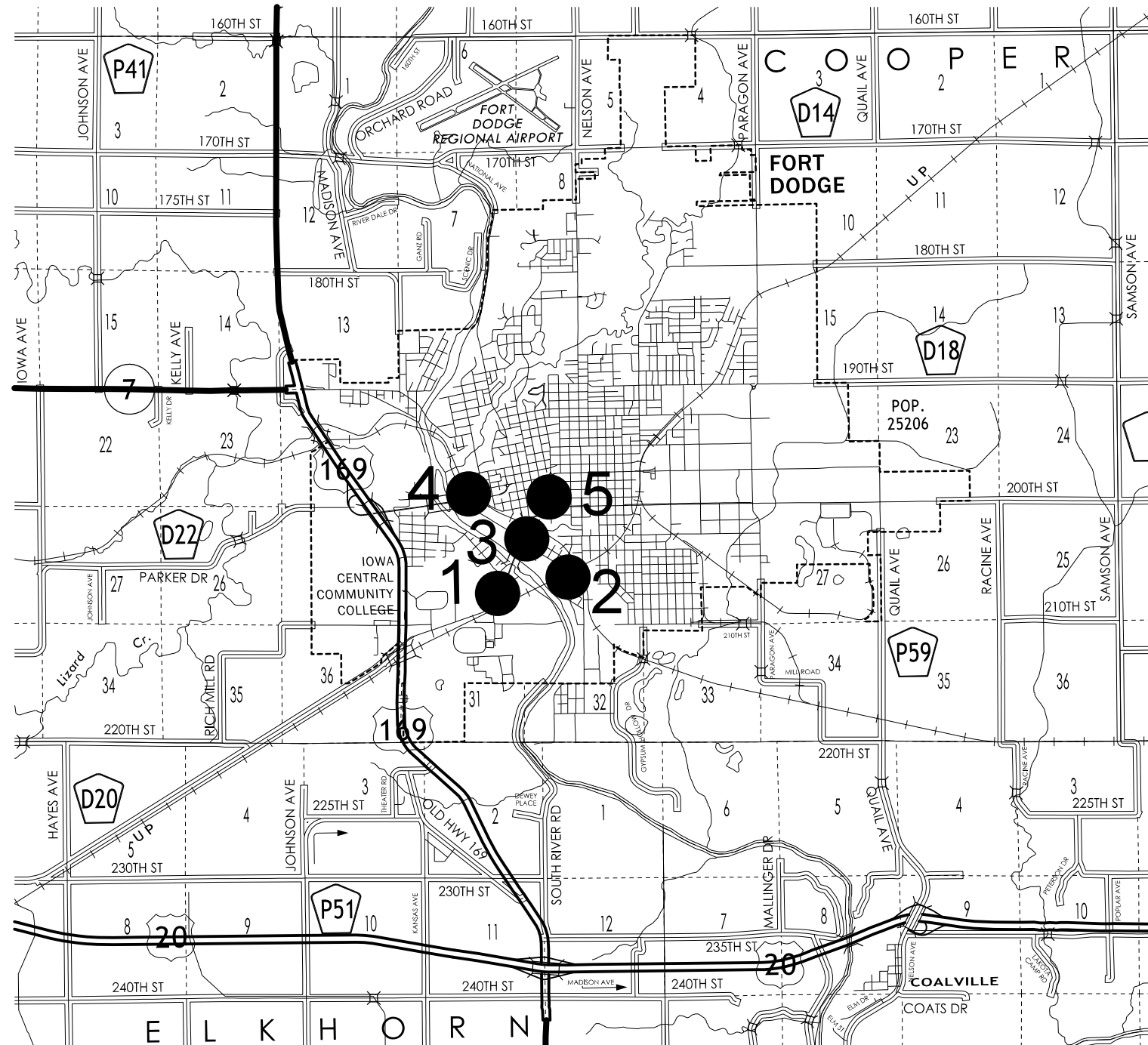
Utility Information
Sub-Surface Utility Mapping Quality Level is in accordance with CI/ASCE 38-02 Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data.

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

A One-call utility locate request (Ticket# 552004559) was made July 7, 2020. The following Companies were listed:

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

Coordinate listing from next sheet will be used with laRTN 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

Point Name	Northing	Easting	Elevation	Feature Definition	Description
CP1	8585070.70	14673125.15	1079.760	CP	SET FENO MONUMENT//IDOT BRASS CAP NW QUADRANT OF KENYON ROAD AND AVE E//+/-20FT NORTH OF UNITY POINT SIGN//+/-20FT WEST OF SIDEWALK
CP2	8586386.79	14675715.07	1005.635	CP	SET FENO MONUMENT//IDOT BRASS CAP SOUTH SIDE OF 11TH AVE SW INLINE WITH POWERPOLE//+/-7FT SOUTH OF BACK OF CURB//+/-70FT EAST OF 13TH ST SW
CP3	8587469.60	14674403.20	1008.556	CP	SET FENO MONUMENT//IDOT BRASS CAP SOUTH SIDE OF 11TH AVE SW INLINE WITH 1ST PIER FROM SOUTH SIDE OF NORTH BOUND BRIDGE//+/-45FT SOUTHWEST OF BACK OF CURB//ACROSS FROM ROW SIGN
CP4	8588826.74	14671977.48	991.811	CP	SET FENO MONUMENT//IDOT BRASS CAP SOUTH SIDE OF MERIWETHER DRIVE//5FT SOUTH OF BACK OF CURB//ACROSS FROM 2ND LIGHT POLE WEST OF DRIVE TO RIVERFRONT PARKING LOT
CP5	8588447.63	14674882.86	1084.993	CP	SET FENO MONUMENT//IDOT BRASS CAP SOUTH SIDE OF KENYON ROAD//+/-5FT SOUTH OF SIDEWALK//+/-75FT EAST OF 2ND POWER POLE EAST OF S 8TH ST

108-23A 08-01-08
TRAFFIC CONTROL PLAN
IA 926 west bound lanes will be closed during construction. Through traffic will be maintained via crossovers detailed in sheets J.3 through J.9. The contractor shall provide access to all entrances at all times.

111-01 04-17-12								
COORDINATED OPERATIONS								
Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.								
<table border="1"> <thead> <tr> <th>Project</th> <th>Type of Work</th> </tr> </thead> <tbody> <tr> <td>BRF-926-0(17)--38-94</td> <td>Bridge Replacement</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Project	Type of Work	BRF-926-0(17)--38-94	Bridge Replacement				
Project	Type of Work							
BRF-926-0(17)--38-94	Bridge Replacement							










108-25 10-21-14	511 TRAVEL RESTRICTIONS
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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

**CROSS SECTION VIEW COLOR LEGEND
OF TRAFFIC CONTROL AND STAGING SHEETS**

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Med	(237)	Future Proposed Pavement Shading

**CROSS SECTION VIEW PATTERN AND SYMBOL LEGEND
OF TRAFFIC CONTROL AND STAGING SHEETS**





















	Pavement Removal		Proposed Granular Shoulder
	Proposed Granular Subbase		Temporary Shoulder
	Proposed Special Backfill		Existing Shoulder Strengthening
	Temporary Barrier Rail		Permanent Barrier Rail
			Channelizing Device

PLAN VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Magenta	(5)	Pavement Marking Call Outs
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Yellow	(4)	Pavement Markings, Yellow
Off White	(254)	Pavement Markings, White
Violet	(15)	Temporary barrier rail, Unpinned
Flush Orange	(228)	Temporary barrier rail, Pinned

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Proposed Granular Surface Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Light	(236)	Proposed Grading Limits Shading
Pink, Dark	(13)	Proposed MSE or CIP Wall Shading
Red	(3)	Proposed Bridge Shading and Sign Trusses
Black w/Gray, Light Fill	(0,48)	Previously Constructed Structure

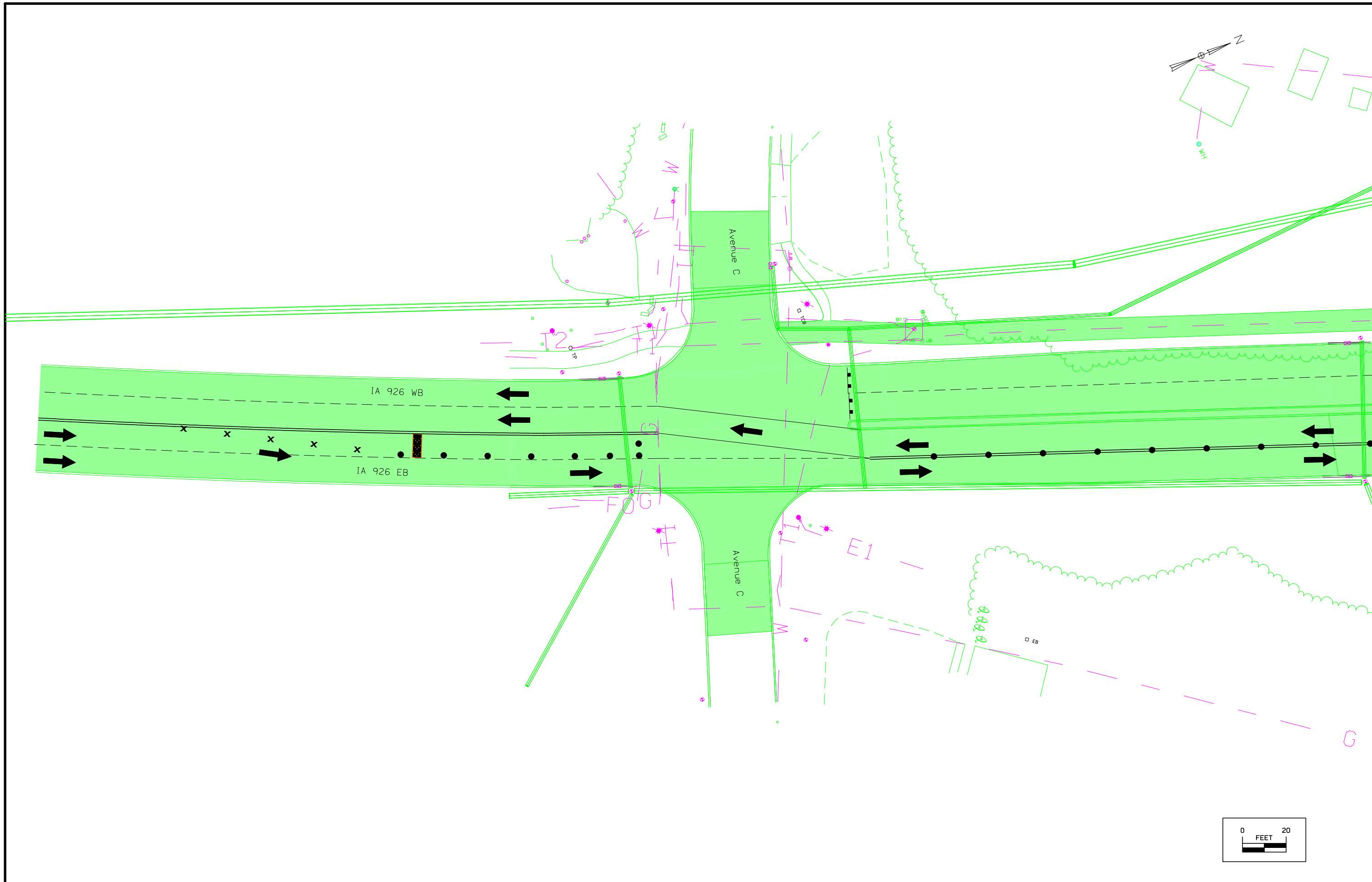
**PLAN VIEW PATTERN AND SYMBOL LEGEND
OF TRAFFIC CONTROL AND STAGING SHEETS**

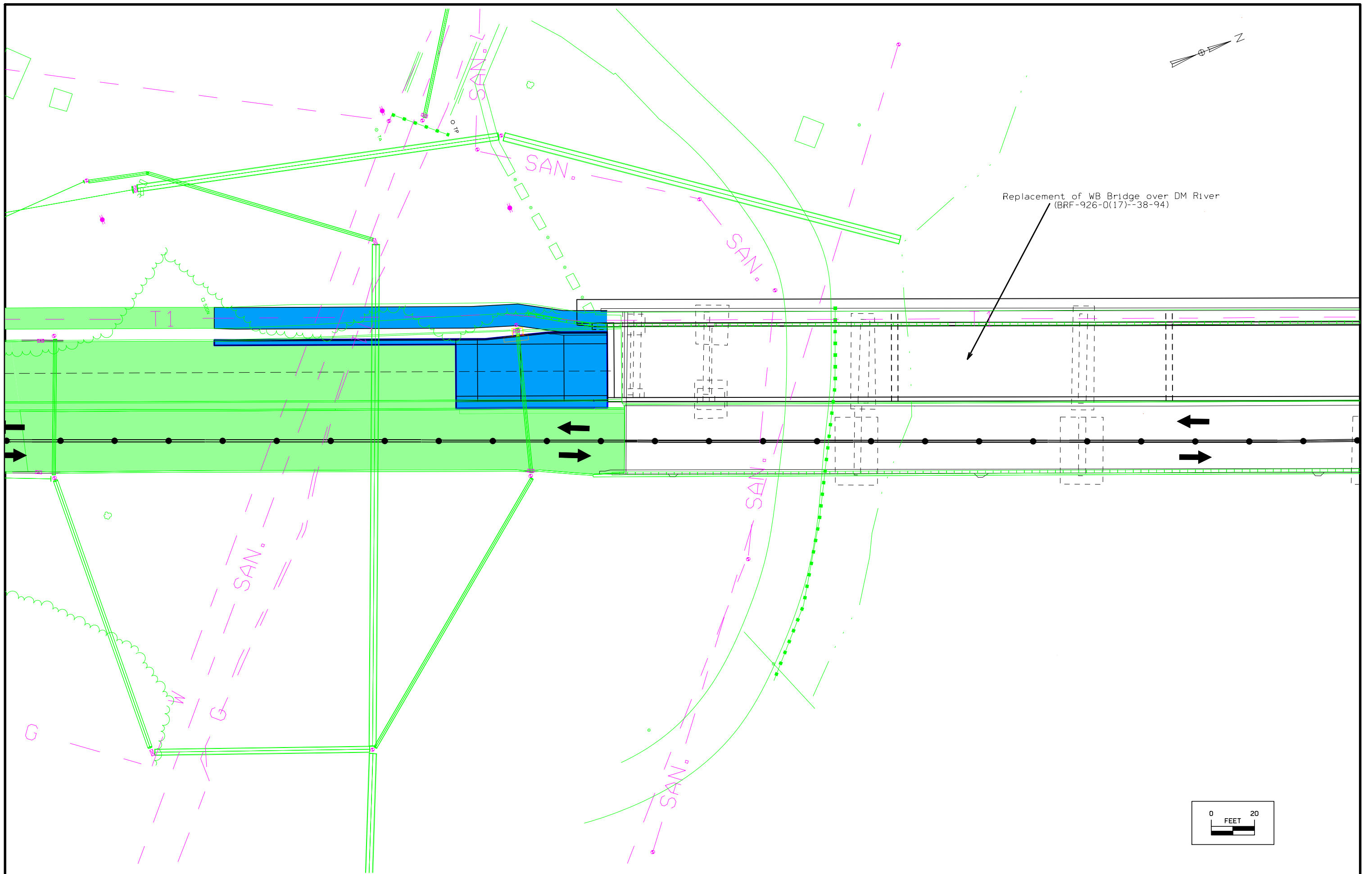
	Channelizing Device		Crash Cushion (Temp or Perm)
	Drum		Traffic Signal
	Temporary Lane Separator		Flagger
	Tubular Marker		Temporary Floodlighting
	Channelizer Marker		Traffic Sign
	Concrete Barrier Marker		Type III Barricade
	Delineator		Type A Warning Light
	Temporary Barrier Rail		Direction of Traffic
	Pavement Removal		Safety Closure
	Sand Barrel Layout		Lane Identification

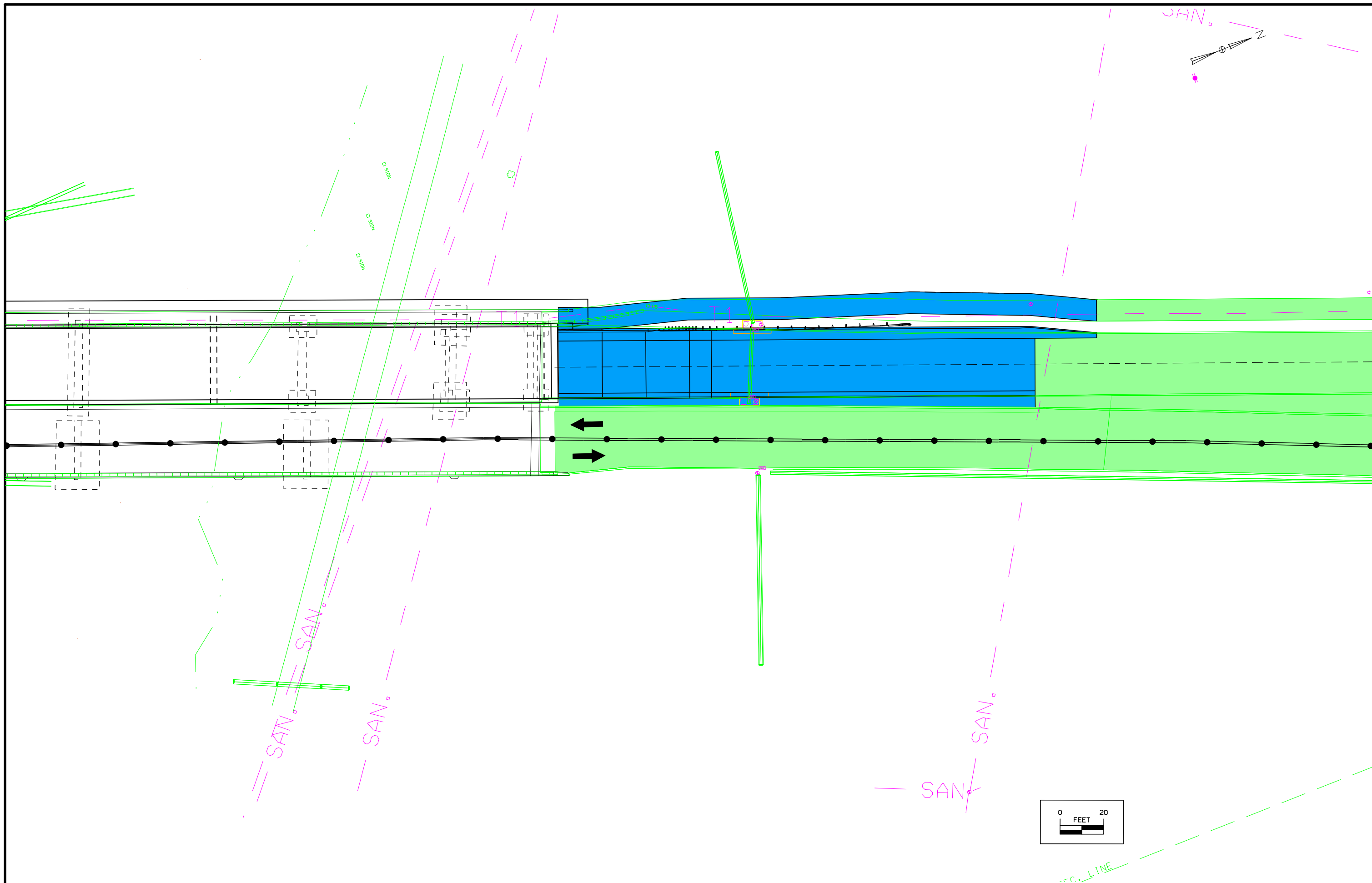
NOTE: Device spacing according to Standard Road Plans unless specifically dimensioned.

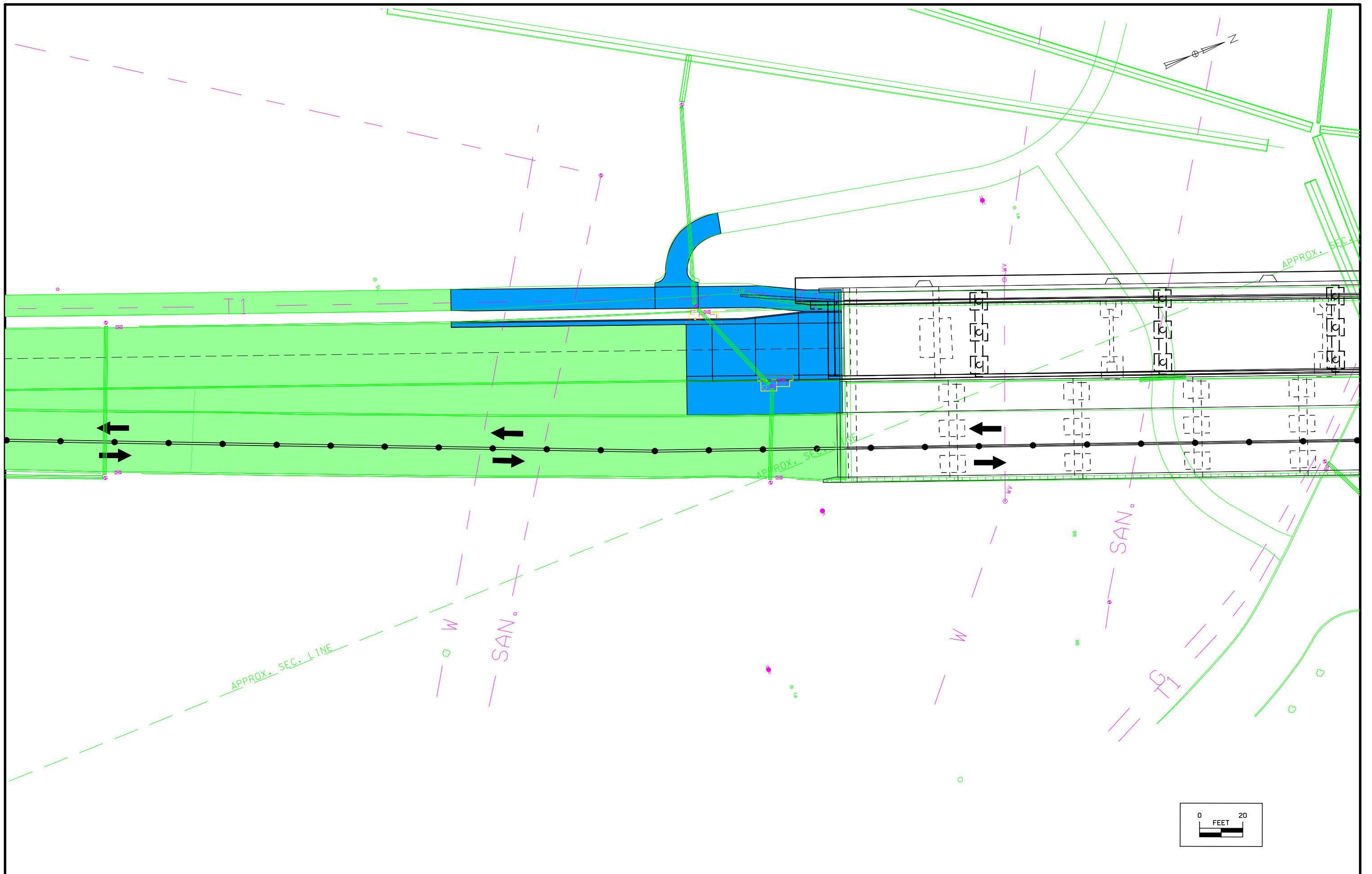
**TRAFFIC CONTROL
AND
STAGING
LEGEND AND SYMBOL
INFORMATION SHEET**

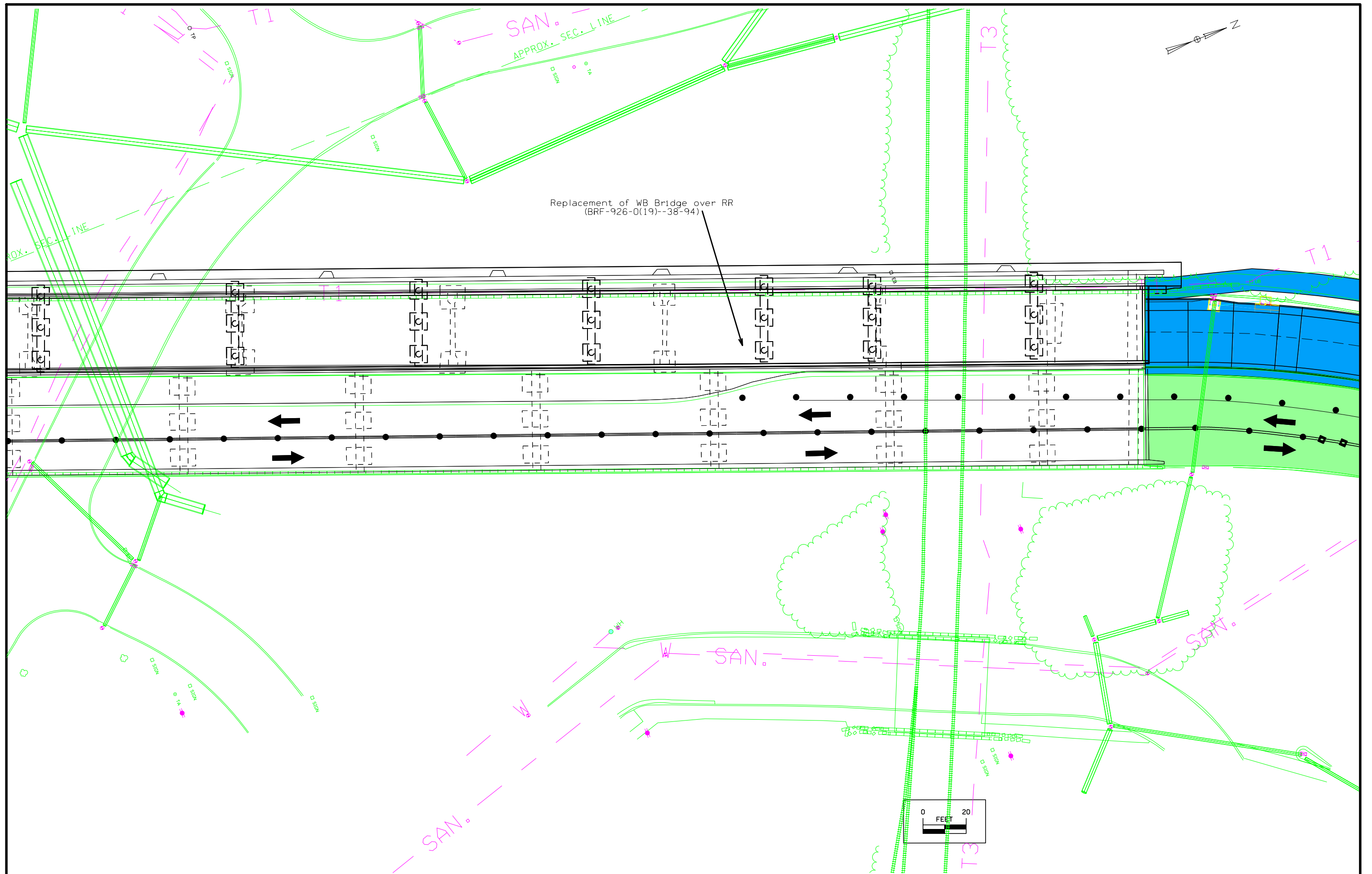
(COVERS SHEET SERIES J)



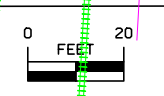


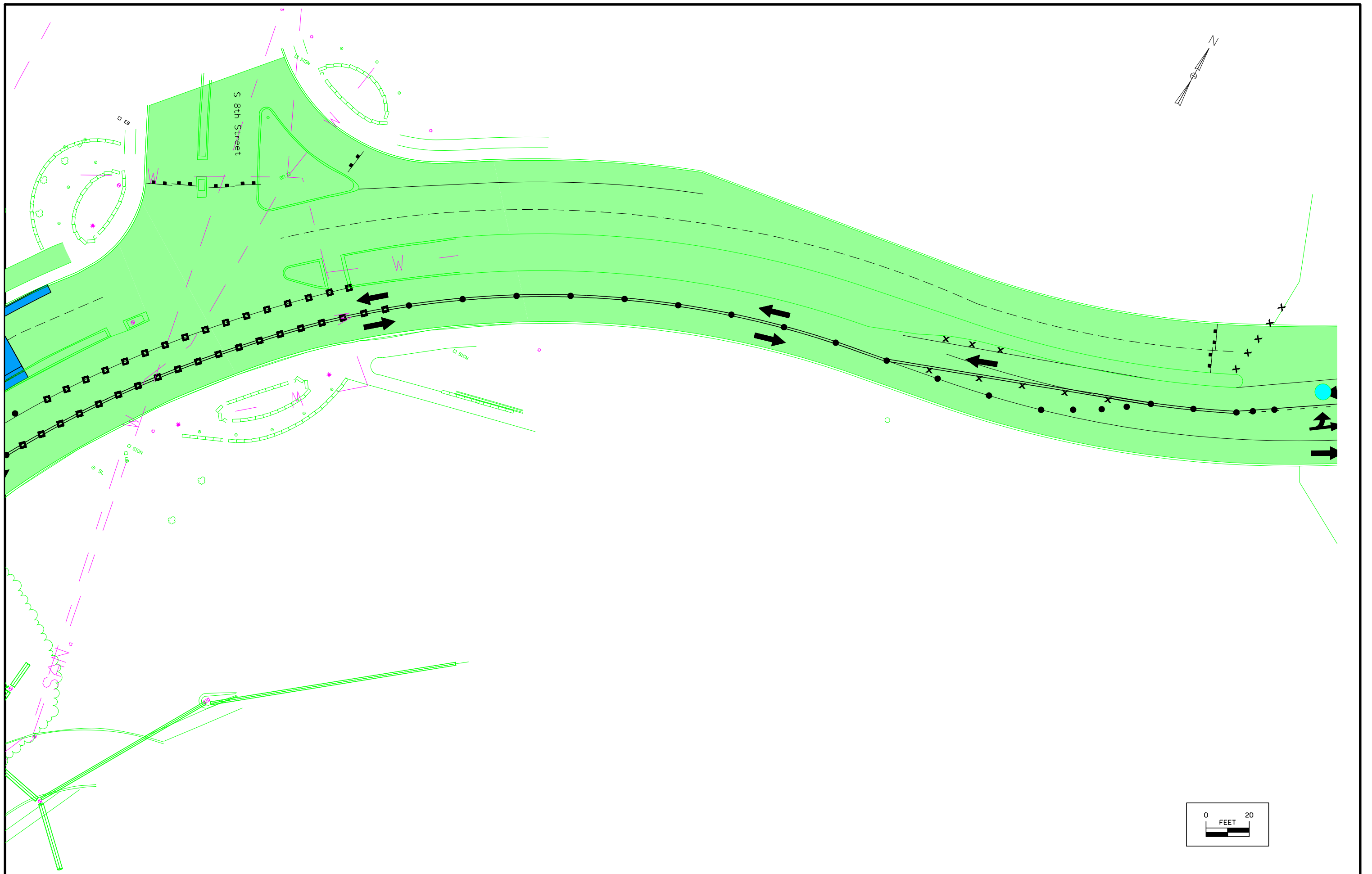


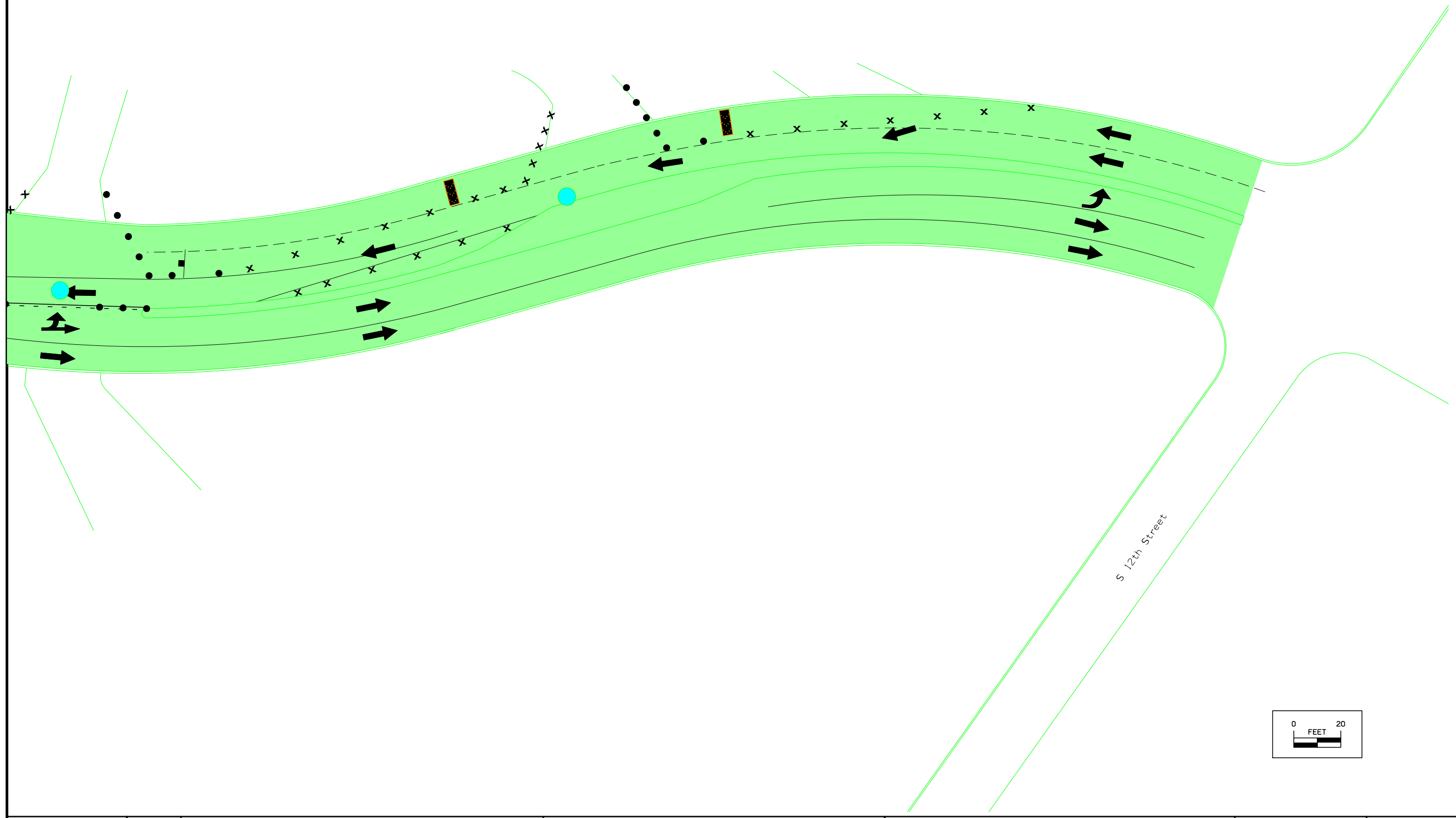
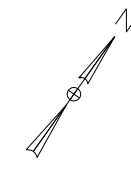




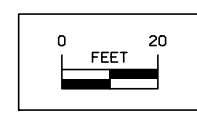
Replacement of WB Bridge over RR
(BRF-926-0(19)--38-94)



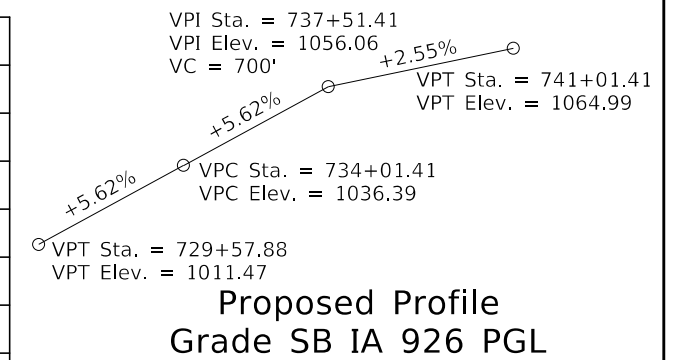
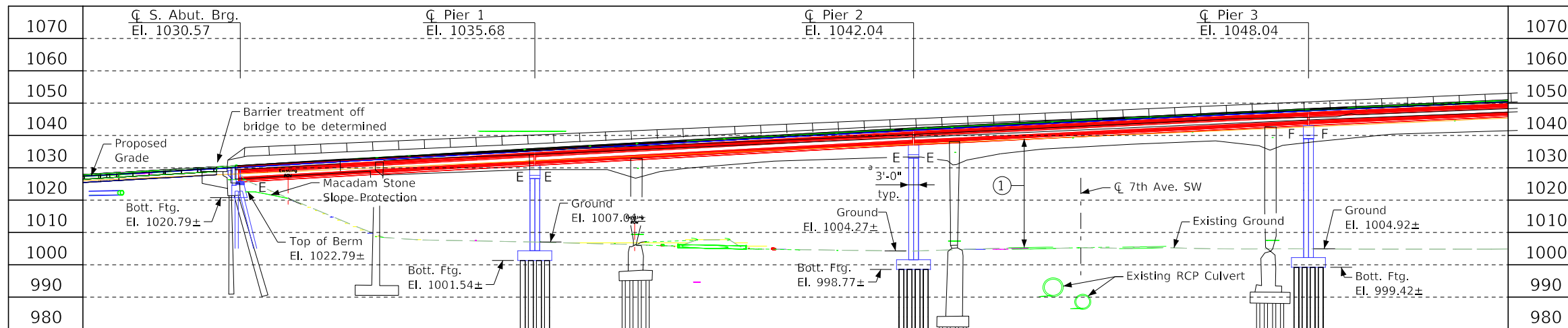




S 12th Street



Control Point: Set feno monument DOT brass cap South side of 11th Ave. SW inline with 1st pier from South side of Northbound bridge ±45 ft Southwest of back of curb across from ROW sign, Northing 8587469.60, Easting 14674403.20, Elevation 1008.556



Note:
1. Top of bridge deck at centerline roadway is 0.26' above the profile grade to account for deck cross slope and parabolic crown.

Longitudinal Section Along Centerline Roadway

Notes to the Designer:

1. Bridge aesthetics to be incorporated during final design.
2. Barrier type to be determined during final design.
3. Berm slopes to be confirmed during final design.
4. Frame type pier proposed
5. BTC & W27 Beams proposed
6. Straight 6'-0" fence proposed along sidewalk. (to be determined during final design)
7. Non-standard abutment wingwall

Notes to the Designer (Continued):

8. Piers 2 and 3 are located outside the acceptable clear zone of 12 ft.
9. Foundations to be determined during final design.
10. Pier 7 is currently located within 25 ft of a track. Crash wall requirements shall be evaluated during final design.
11. Railroad ROW not shown. Iowa BSB requested from IOWA RR Coordination.
12. Semi-integral abutments will be investigated during final design.

General Notes

1. This Design is for the replacement of the existing 742'-0" x 33'-0" Prestensioned Prestressed Concrete Beam and Steel Frame Bridge with 5' Sidewalk, Design Nos. 235 & 575, FHWA No. 52101, Maint No. 9401.5L926

Minimum Vertical Clearance Proposed Condition

Overhead Station = 735+37.24, Offset 2.29' Lt
Overhead Elevation = 1043.67
Depth of Superstructure = 4'-7"
Underpass Elevation = 1005.10
Minimum Vertical Clearance = 33'-11"

Existing Condition

Overhead Station = 735+37.24, Offset 2.29' Lt
Overhead Elevation = 1043.52
Depth of Superstructure = 4'-6"
Underpass Elevation = 1005.11
Minimum Vertical Clearance = 33'-10"

Utilities Legend

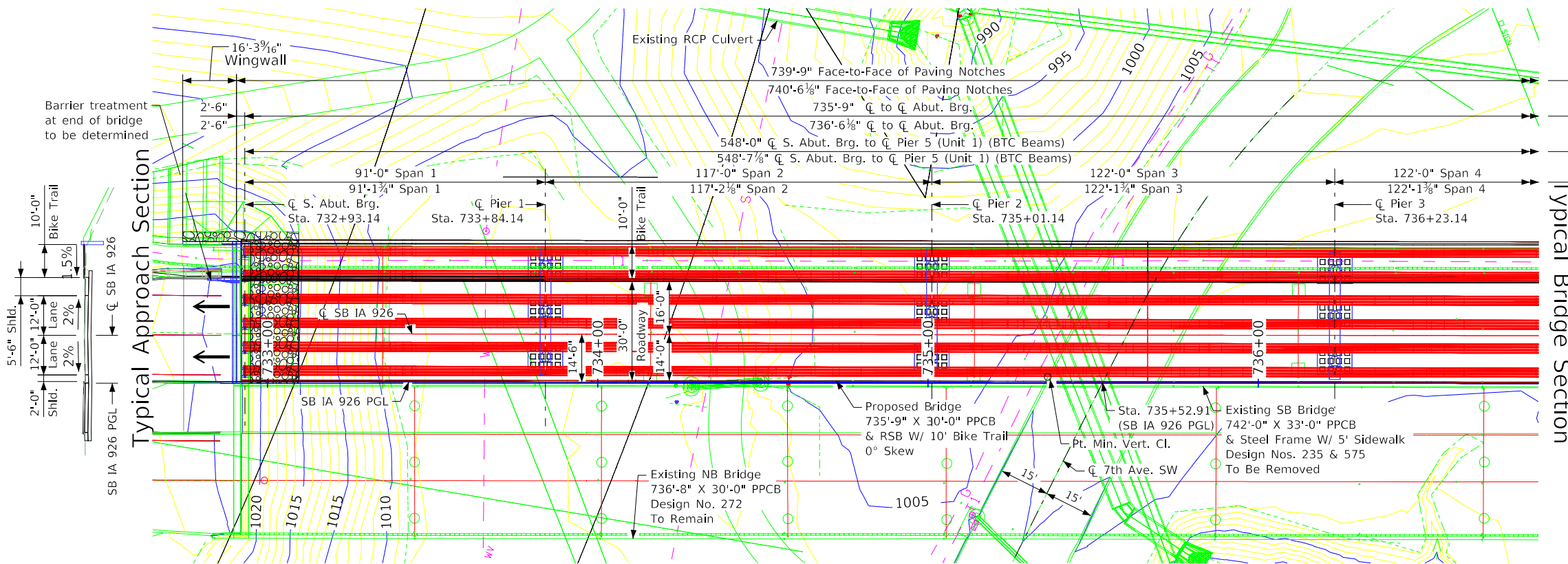
- W - Water
- T1 - Telephone
- G - Gas
- SAN - Sanitary Sewer

Traffic Estimate

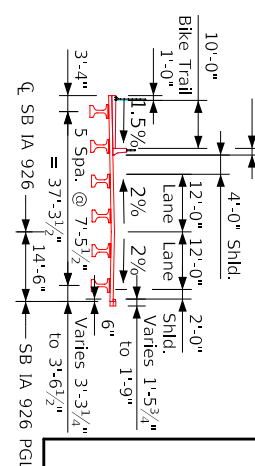
2023 AADT	7,578	V.P.D.
2043 AADT	7,726	V.P.D.
2043 DHV	642	V.P.H.
Trucks	5	%
Total Design ESALs	1,127,996	

Location

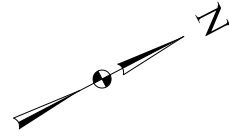
IA 926 over the CN RR and 7th St SW
T-89N R-28W
Sections 29 & 30
Wahkonsa Township
Webster County
City of Fort Dodge
FRA No, 307381T
Bridge Maint. No. 9401.5L926
FHWA No. 52101
Latitude 42.498147
Longitude -94.186964



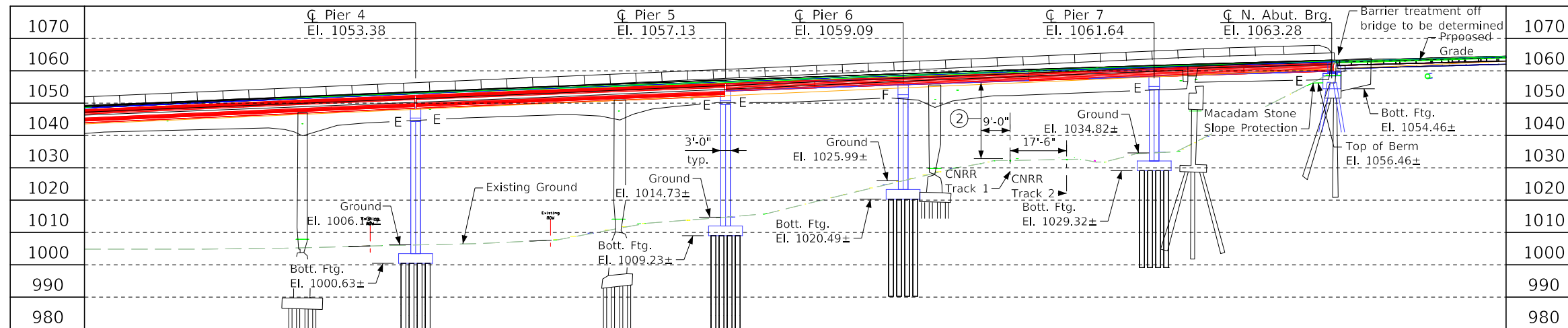
Typical Bridge Section



Situation Plan



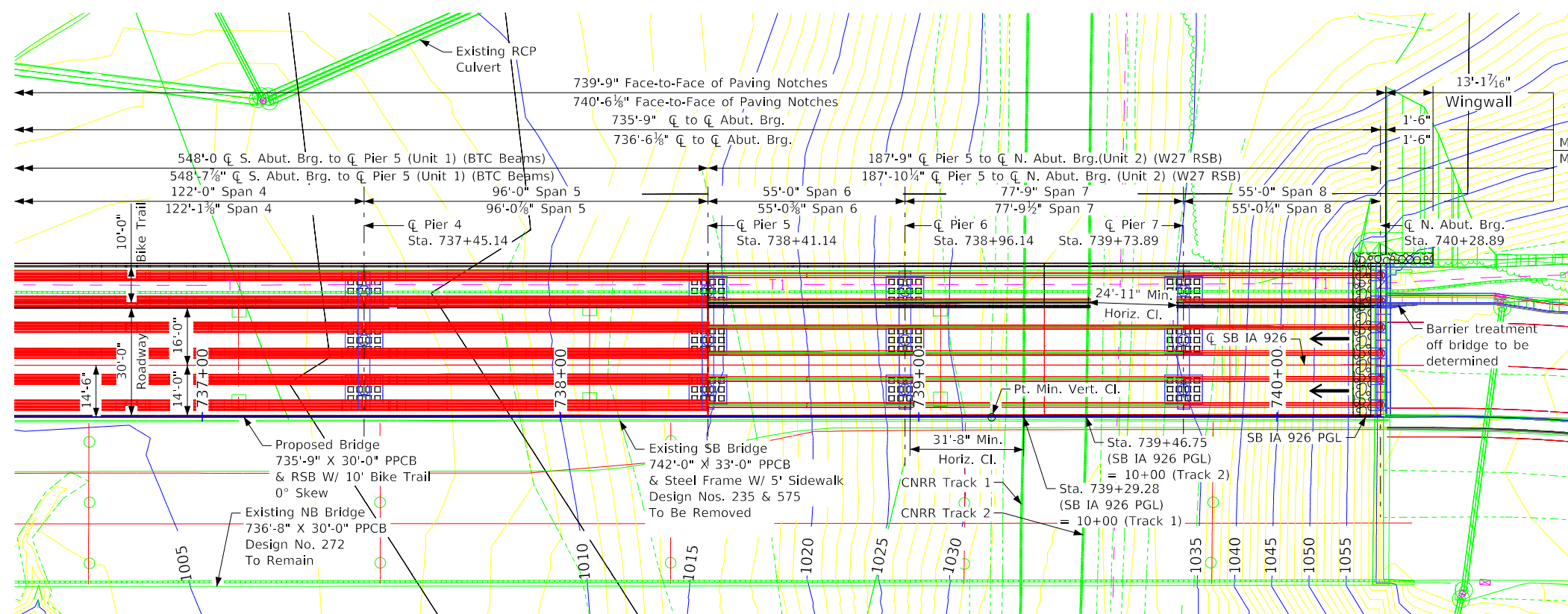
Design For 0° Skew
735'-9" x 30'-0" PPCB & RSB Bridge W/ 10'-0" Bike Trail
91'-0", 55'-0" End Spans
Varies Interior Spans
Situation Plan (1 of 2)
STA. 736+61.02 (SB IA 926)
TS&L Date February 2022
Webster County
IOWA DEPARTMENT OF TRANSPORTATION
Design No. 224 Design Sheet No. 001 of 4 FHWA No. 52102



Longitudinal Section Along \bar{C} Roadway

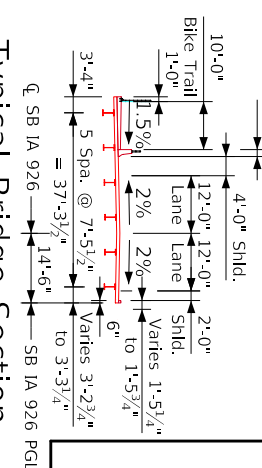
2 Minimum Vertical Clearance Proposed Condition
 Overhead Station = 739+20.16, Offset 2.29' Lt
 Overhead Elevation = 1059.70
 Depth of Superstructure = 3'-2"
 Underpass Station = 9+97.81
 Underpass Elevation = 1033.01
 Minimum Vertical Clearance = 23'-6"

Existing Condition
 Overhead Station = 739+20.16, Offset 2.29' Lt
 Overhead Elevation = 1059.51
 Depth of Superstructure = 4'-6"
 Underpass Elevation = 1033.01
 Minimum Vertical Clearance = 22'-0"



Situation Plan

Typical Bridge Section



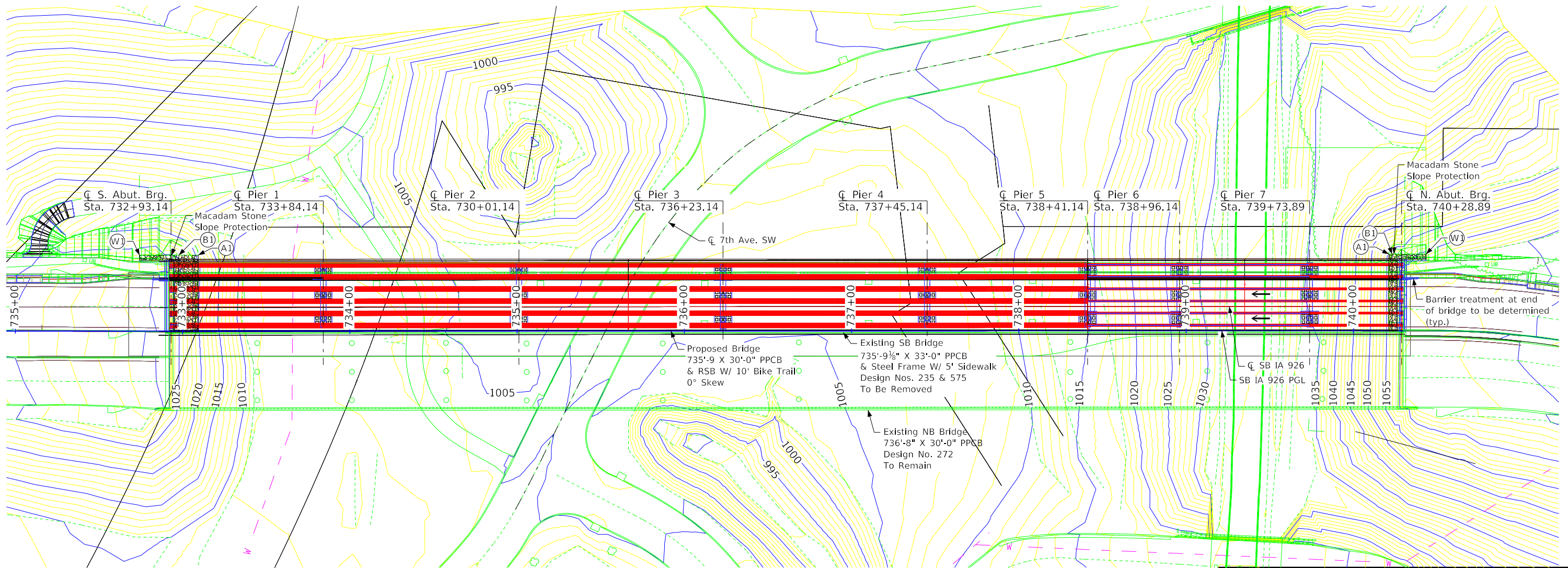
Design For 0° Skew
735'-9" x 30'-0" PPCB & RSB Bridge W/ 10'-0" Bike Trail
 91'-0", 55'-0" End Spans
 Varies Interior Spans
Situation Plan (2 of 2)
 STA. 736+61.02 (SB IA 926)
 TS&L Date February 2022
Webster County
 IOWA DEPARTMENT OF TRANSPORTATION
 Design No. 224 Design Sheet No. 002 of 4 FHWA No. 52102



Berm Slope Location Table						
Points	South Abutment			North Abutment		
	Station	Offset	Elev.	Station	Offset	Elev.
A1	733+9.62	45.92' Lt.	1019.50	740+21.20	45.92' Lt.	1055.50
B1	732+98.05	45.92' Lt.	1022.79	740+23.14	45.92' Lt.	1056.46
W1	732+74.04	45.92' Lt.	1028.50	740+43.52	45.92' Lt.	1062.00

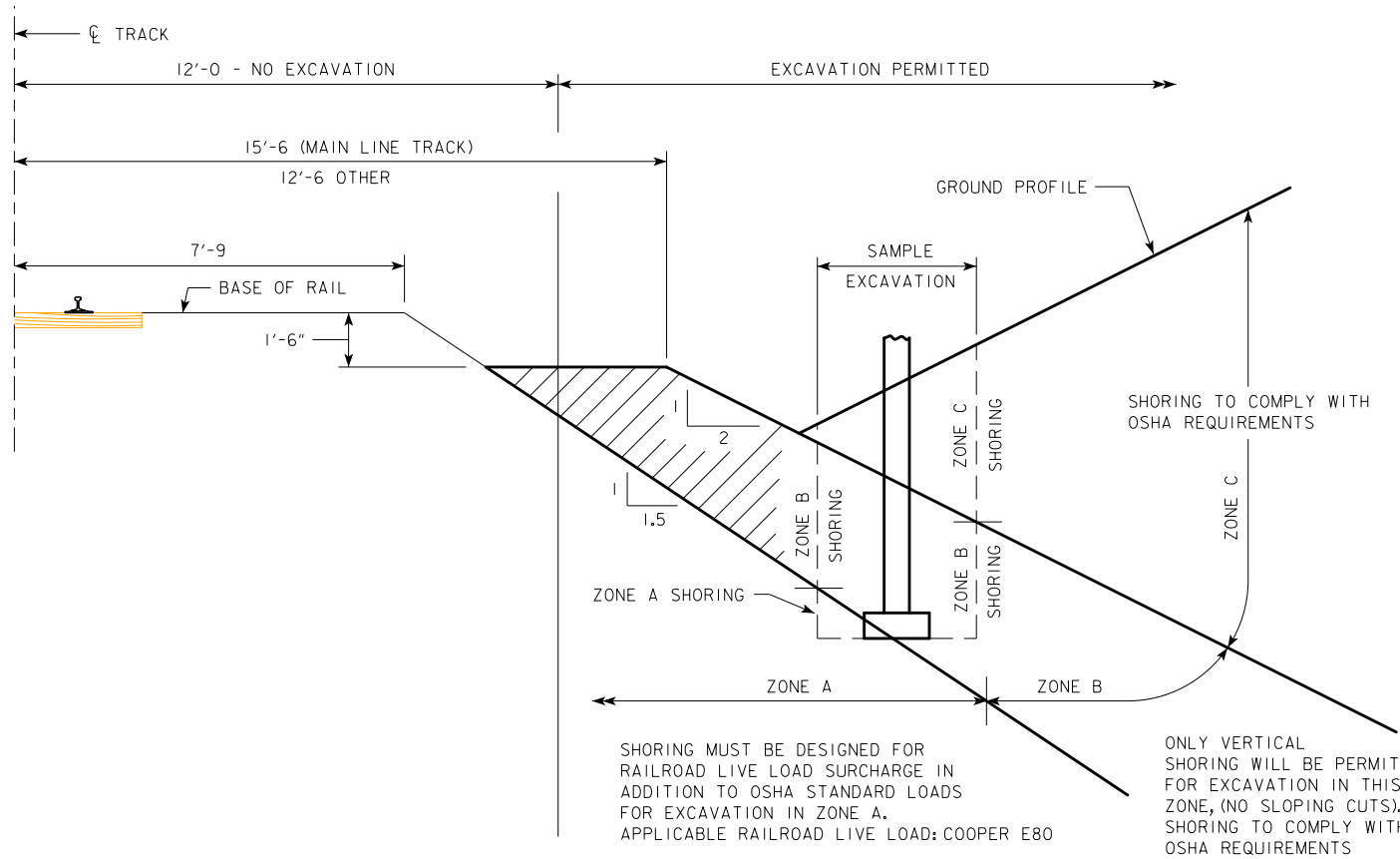
Estimated Berm Slope Quantities		
Location	Macadam Stone (TON)	Engineering Fabric (SY)
South Abutment	147.58	91.1
North Abutment	67.72	41.8

Berm slope elevations reflect the grading surface.



Site Plan

Design For 0° Skew
735'-9" x 30'-0" PPCB
 & RSB Bridge W/ 10'-0" Bike Trail
 91'-0", 55'-0" End Spans
 Varies Interior Spans
Site Plan
 STA. 736+61.02 (SB IA 926) TS&L Date February 2022
Webster County
 IOWA DEPARTMENT OF TRANSPORTATION
 Design No. 224 Design Sheet No. 003 of 4 FHWA No. 52102



TOP OF RAIL ELEVATIONS

(STATIONS INCREASE TO THE EAST)

MAIN LINE			
ALIGNMENT: TRACK 1 SOUTH RAIL		ALIGNMENT: TRACK 2 NORTH RAIL	
STATION	ELEVATION	STATION	ELEVATION
8+82.52	1031.71	9+01.72	1032.07
9+30.77	1032.22	9+32.74	1032.52
9+37.90	1032.27	9+37.55	1032.61
9+69.70	7032.70	9+57.79	1032.89
10+00.00	1033.06	9+73.27	1033.10
10+01.47	1033.08	10+00.00	1033.40
10+30.60	1033.39	10+03.16	1033.44
10+51.90	1033.42	10+33.93	1033.82
		10.62.75	1034.14

GENERAL EXCAVATION ZONES

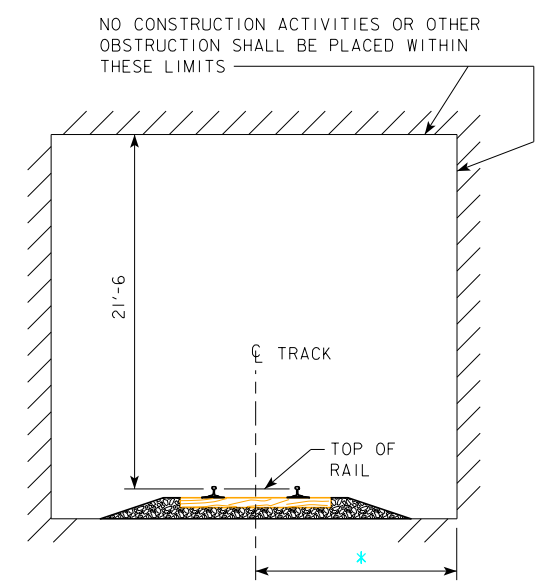
GENERAL SHORING NOTES:

1. ALL DIMENSIONS ARE MEASURED PERPENDICULAR TO TRACK.
2. PRIOR TO COMMENCING ANY WORK, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE RAILROAD DETAILED PLANS INDICATING THE NATURE AND EXTENT OF THE TRACK PROTECTION SHORING PROPOSED. THE CONTRACTOR SHALL INSTALL THE TEMPORARY SHORING SYSTEM PER THE APPROVED PLANS. DESIGN OF THE TEMPORARY SHORING SYSTEM TO COMPLY WITH GUIDELINES FOR TEMPORARY SHORING.
3. FOR EXCAVATIONS WHICH ENCR OACH INTO ZONE A OR B, SHORING PLANS SHALL BE ACCOMPANIED BY DESIGN CALCULATIONS. PLANS AND CALCULATIONS MUST BE SIGNED AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF IOWA.

RAILROAD GENERAL NOTES:

1. RAILROAD REVIEW AND APPROVAL OF SHORING, ERECTION, DEMOLITION, AND FALSEWORK IS REQUIRED. ALLOW A MINIMUM OF FOUR WEEKS FOR THE REVIEW AND APPROVAL OF EACH SUBMITTAL.
2. THE PROPOSED GRADE SEPARATION PROJECT SHALL NOT INCREASE THE QUANTITY AND/OR CHARACTERISTICS OF THE FLOW IN THE RAILROAD'S DITCHES AND/OR DRAINAGE STRUCTURES.
3. THE ELEVATION OF THE EXISTING TOP-OF-RAIL PROFILE SHALL BE VERIFIED BEFORE BEGINNING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RAILROAD PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR MUST SUBMIT A PROPOSED METHOD OF EROSION AND SEDIMENT CONTROL AND HAVE THE METHOD APPROVED BY THE RAILROAD.
5. ALL SHORING SYSTEMS THAT IMPACT THE RAILROAD'S OPERATIONS AND/OR SUPPORTS THE RAILROAD'S EMBANKMENT SHALL BE DESIGNED AND CONSTRUCTED PER CURRENT RAILROAD GUIDELINES FOR TEMPORARY SHORING.
6. ALL DEMOLITIONS WITHIN THE RAILROAD'S RIGHT-OF-WAY AND/OR DEMOLITION THAT MAY IMPACT THE RAILROAD'S TRACKS OR OPERATIONS SHALL BE IN COMPLIANCE WITH THE RAILROAD'S DEMOLITION GUIDELINES.
7. ERECTION OVER THE RAILROAD'S RIGHT-OF-WAY SHALL BE DESIGNED TO CAUSE NO INTERRUPTION TO THE RAILROAD'S OPERATION, ENABLING THE TRACK(S) TO REMAIN OPEN TO TRAFFIC PER THE RAILROAD'S REQUIREMENTS.
8. ALL CONSTRUCTION PHASING THAT MAY IMPACT THE RAILROAD OPERATIONS SHALL BE DESIGNED TO CAUSE NO INTERRUPTION TO THE RAILROAD'S OPERATION, ENABLING THE TRACK(S) TO REMAIN OPEN TO TRAFFIC PER THE RAILROAD'S REQUIREMENTS.
9. FALSE-WORK CLEARANCES SHALL COMPLY WITH MINIMUM CONSTRUCTION CLEARANCES.
10. ALL PERMANENT CLEARANCES SHALL BE VERIFIED BEFORE PROJECT CLOSING.
11. FOR RAILROAD COORDINATION PLEASE REFER TO THE RAILROAD COORDINATION REQUIREMENTS AS PART OF SPECIAL PROVISIONS.

NOTE:
CNRR = CANADIAN NATIONAL RAILROAD



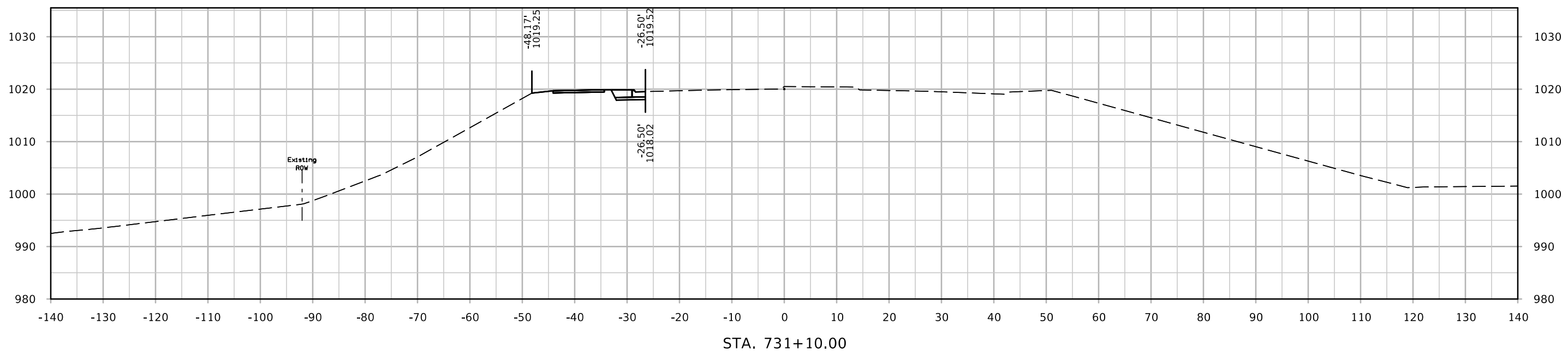
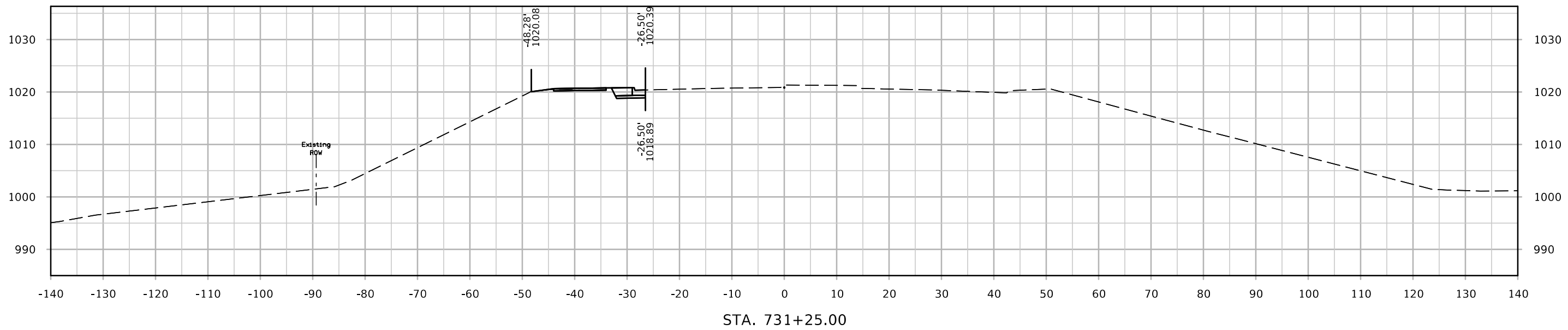
MINIMUM CONSTRUCTION CLEARANCE ENVELOPE

(NORMAL TO RAILROAD)

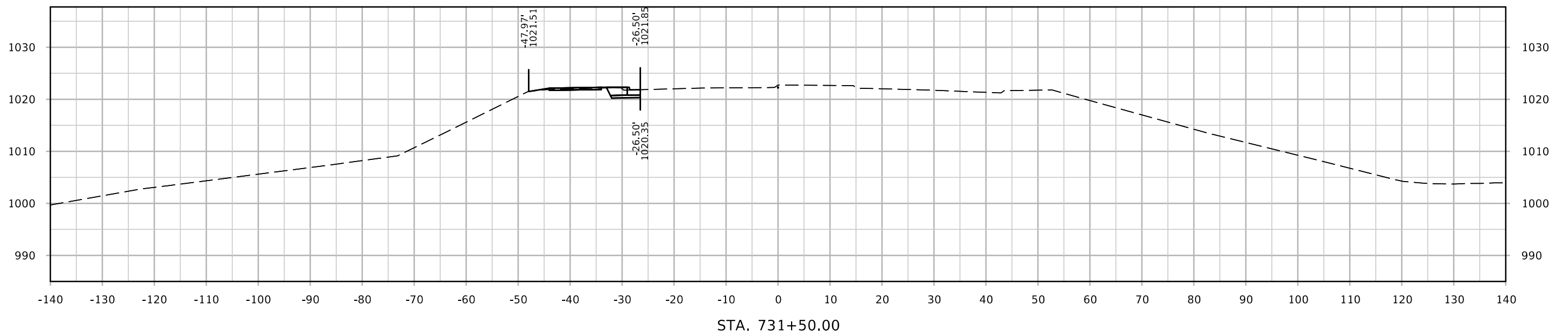
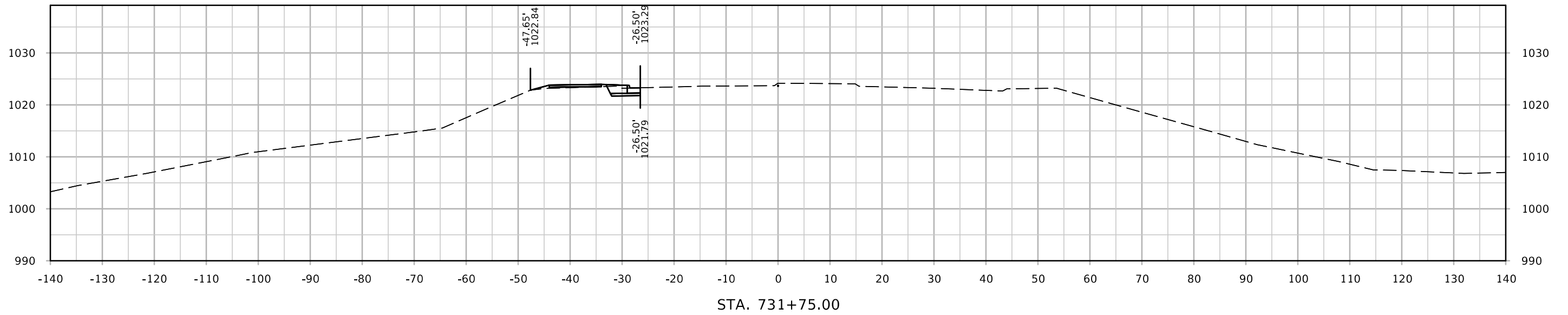
* 15'-0" FOR CNRR

Design For 0° Skew
735'-9" x 30'-0" PPCB
& RSB Bridge W/ 10'-0" Bike Trail
 91'-0", 55'-0" End Spans Varies Interior Spans
CNRR Shoring Details
 STA. 736+61.02 (SB IA 926) TS&L Date February 2022
Webster County
 IOWA DEPARTMENT OF TRANSPORTATION
 Design No. 224 Design Sheet No. 004 of 4 FHWA No. 52102

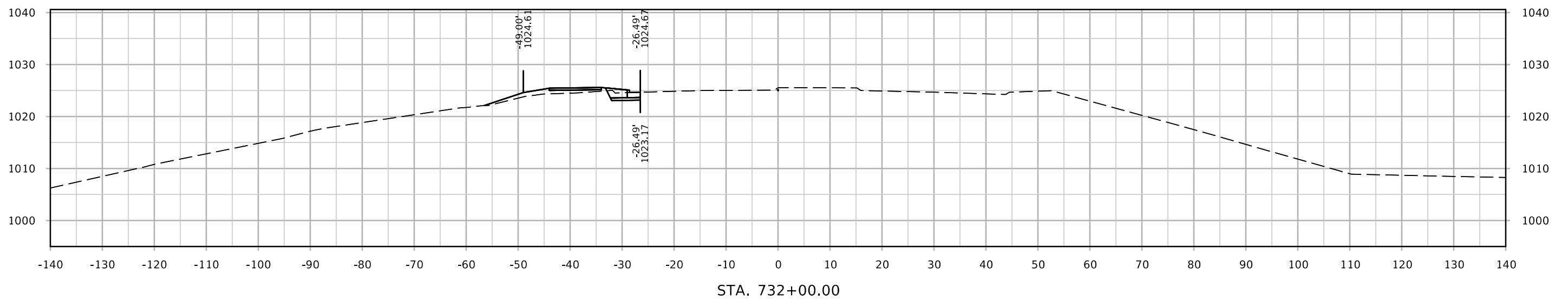
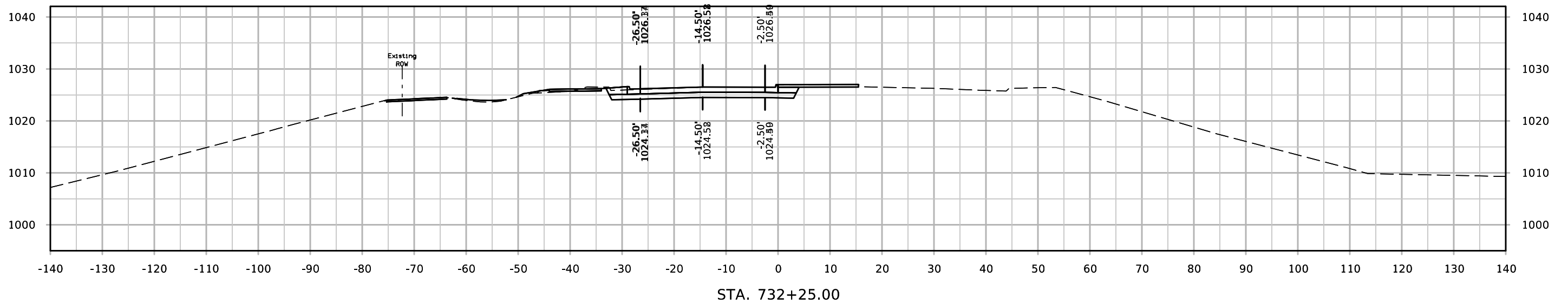
ML - IA 926



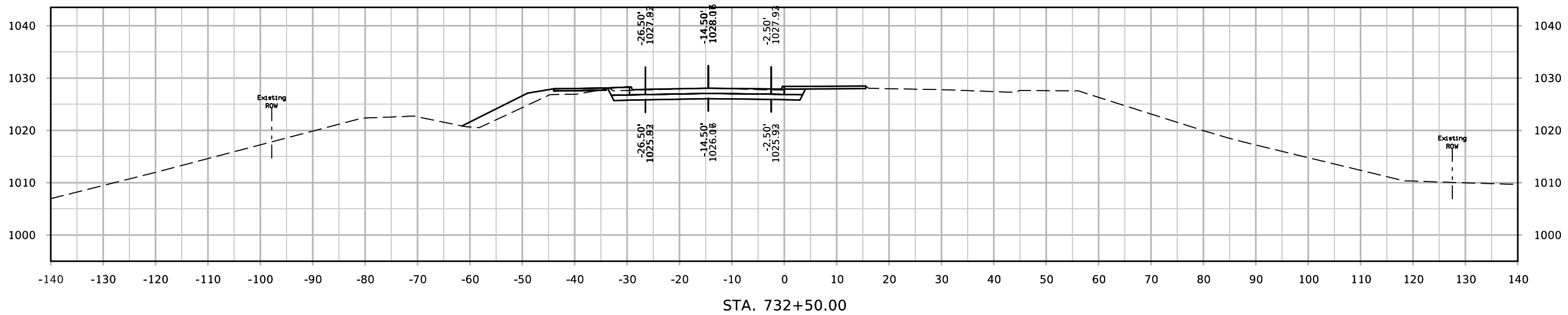
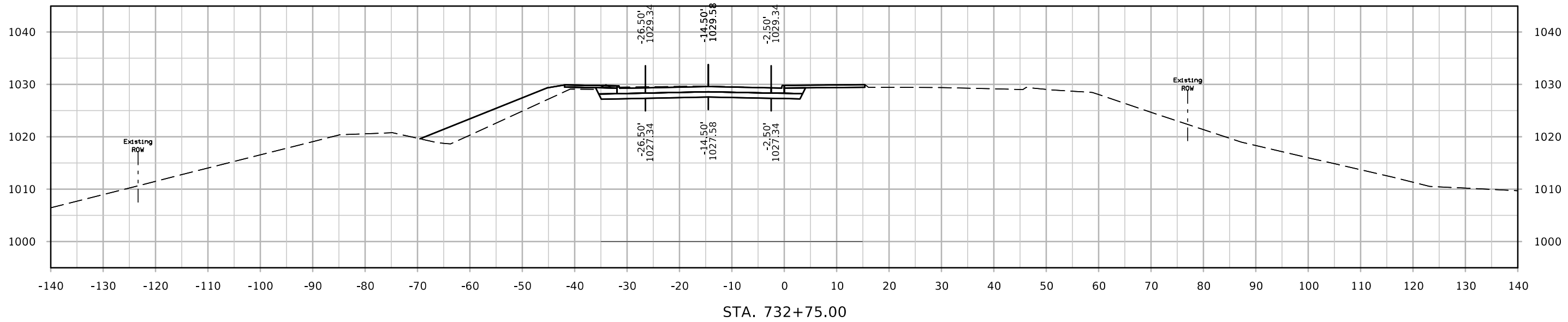
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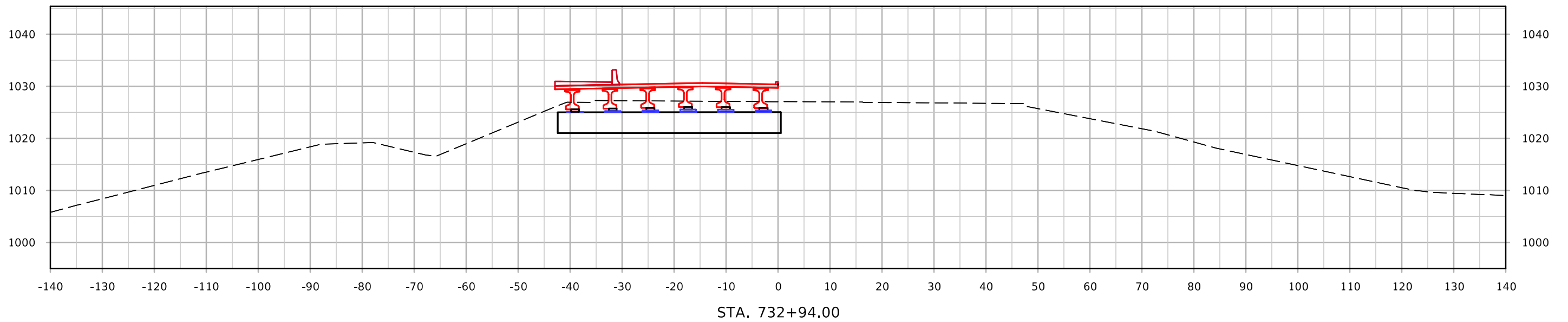
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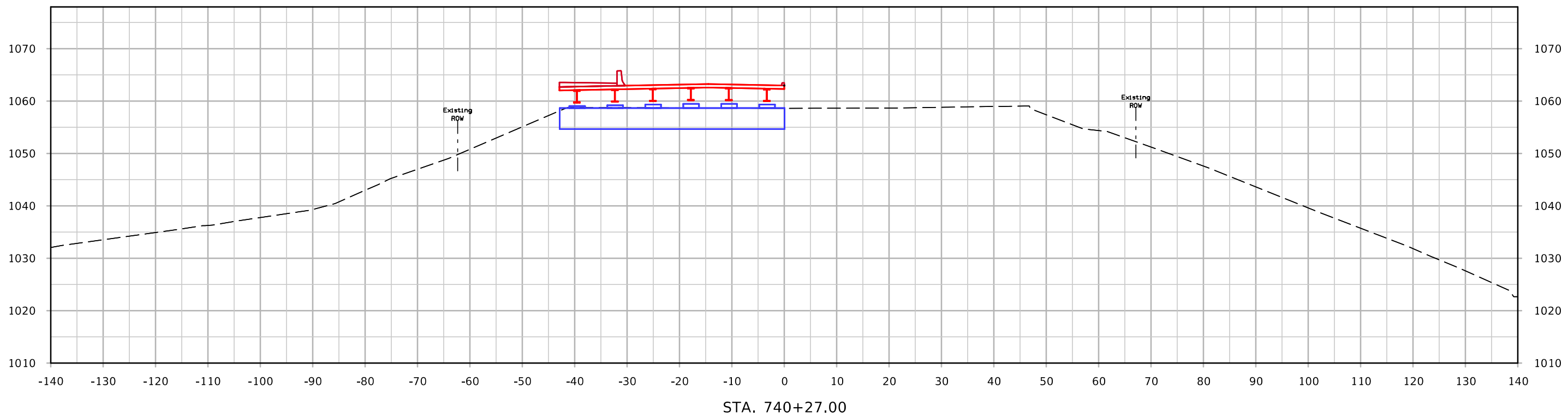
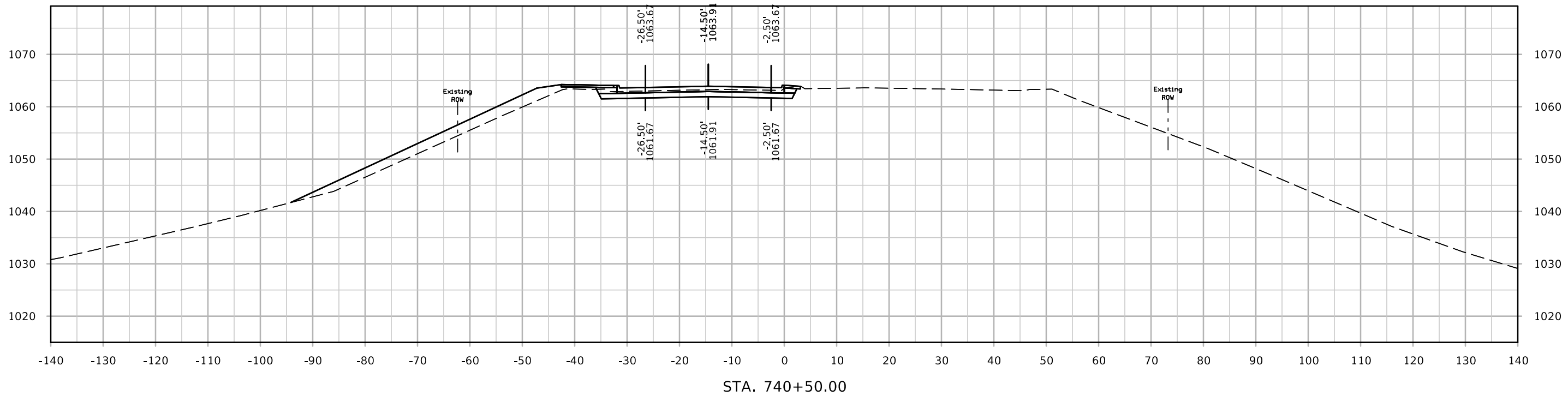
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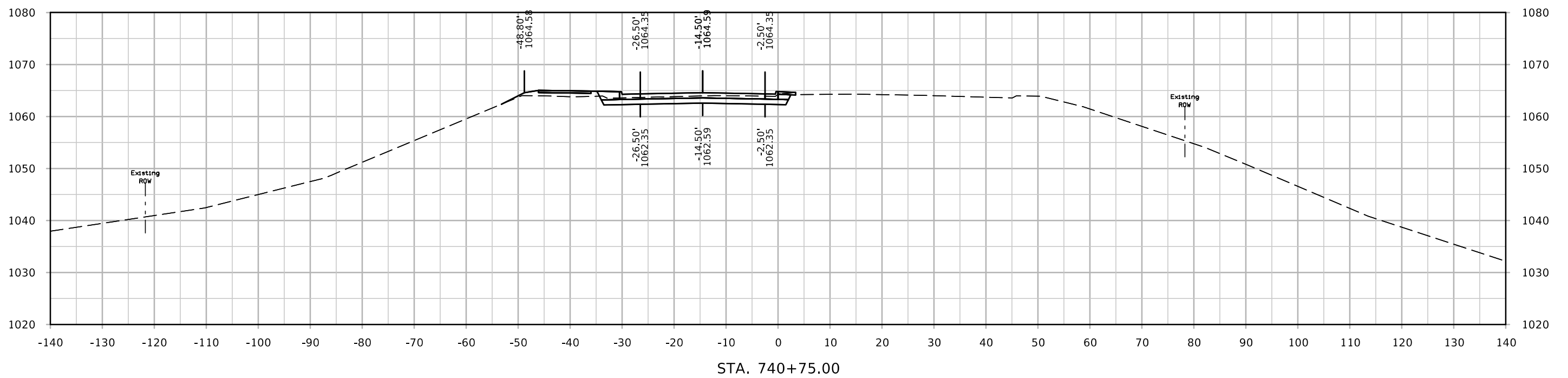
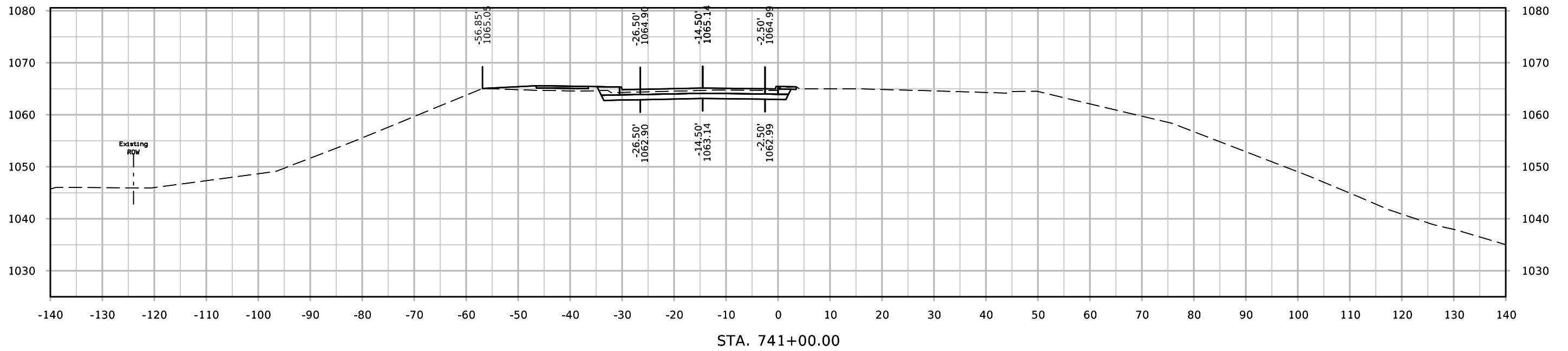
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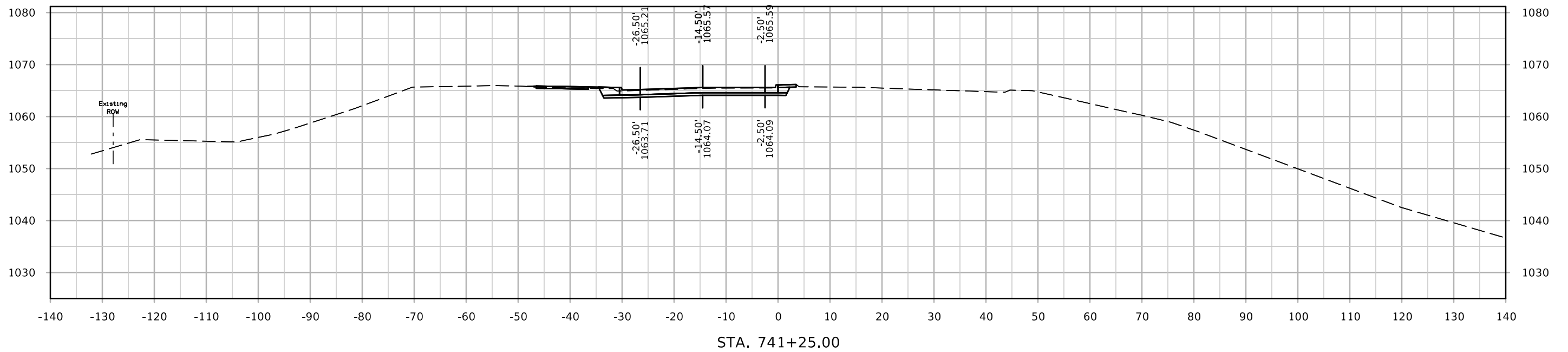
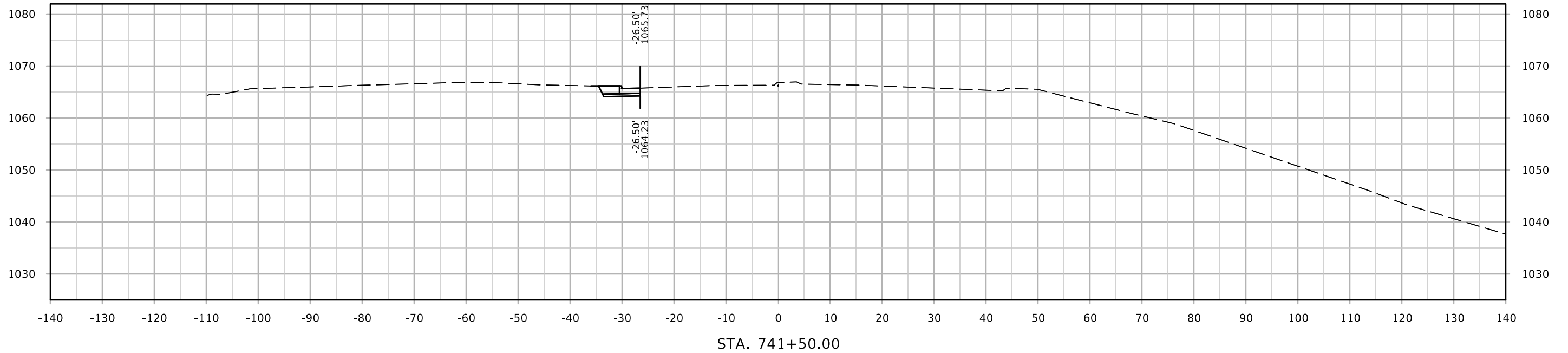
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