LETTING DATE
Nov. 17, 2026

Bridge Deck Overlay
STP-333-1(032)--2C-36
FREMONT COUNTY

Index of Sheets

No.	Description
Sheets	Bridge Plan
A.1	Title Sheet
A.2	Location Map Sheet
V.1	Estimated Quantities - Design 327
V.1 - V.12	Design 327
Road Sheets	Road Plan
A.3 - J.7	Road Plans
C.1 - C.2	Estimated Quantities - Road
C.9	Standard Plans - Road

IOWA DOT

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM
FREMONT COUNTY
Bridge Deck Overlay

IA 333 over I-29, at JCT. of I-29

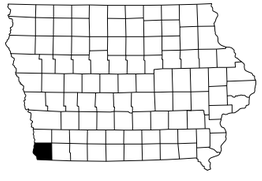
Refer to the Plan Sheets for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.13 of the Specifications.

IOWA ONE CALL
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www.iowaonecall.com
811 Know what's below. Call before you dig.

Revisions

	TOTAL
	45
PROJECT IDENTIFICATION NUMBER	
22-36-333-020	
PROJECT NUMBER	
STP-333-1(032)--2C-36	
R.O.W. PROJECT NUMBER	
PROJECT DIRECTORY NUMBER	
3633302022	



Standard Road Plans

Standard Road Plans are listed on sheet number C.9.

Design Data I-29

2024 AADT	15,900 V.P.D.
TRUCKS	40 %

AADT includes traffic in both directions.

Design Data IA 333

2024 AADT	830 V.P.D.
TRUCKS	12 %

Index of Seals

Sheet No.	Name	Type
A.1	Ryan G. Vashaw	Structural Design
A.3	Steven Scott Sweet	Roadway Design

Iowa DOT Bridges and Structures
Consultant Coordinator Contact:
Zahrah Alghalibi

Structural Design

LICENSED PROFESSIONAL ENGINEER
Ryan G. Vashaw
28128
IOWA

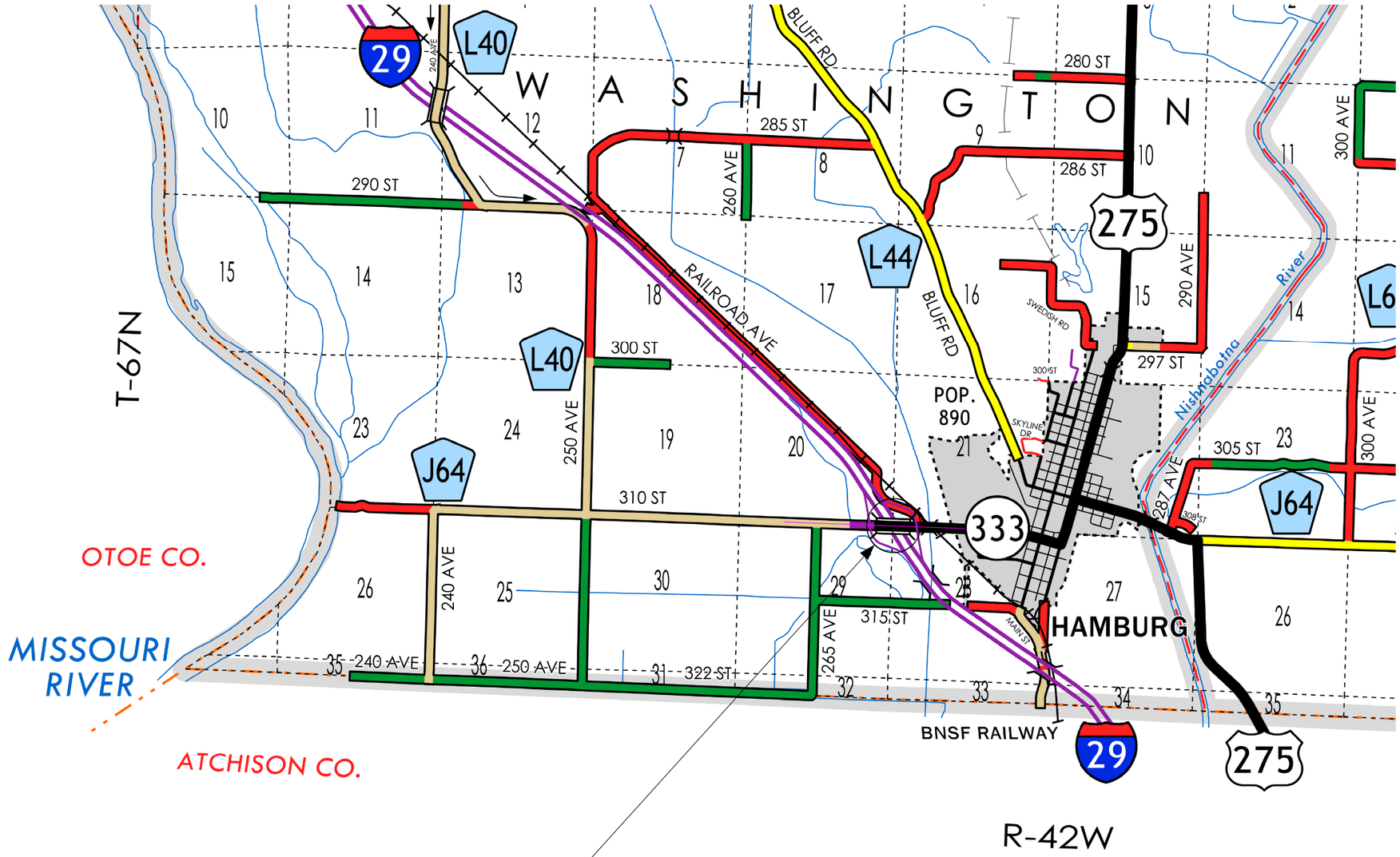
I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature — Date: 8/11/26

Ryan G. Vashaw
Printed or Typed Name

My license renewal date is December 31, 2026

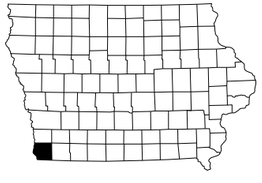
Pages or sheets covered by this seal: Sheets A.1-A.2, V.1-V.12



LEGEND

- INTERSTATE HIGHWAY
- PRIMARY HIGHWAY-DIVIDED
- PRIMARY HIGHWAY
- PORTLAND CEMENT CONCRETE ROAD
- ASPHALT ROAD
- BITUMINOUS ROAD
- GRAVEL ROAD
- EARTHEN ROAD
- INTERSTATE HIGHWAY
- UNITED STATES HIGHWAY
- STATE HIGHWAY
- COUNTY HIGHWAY
- RAILROAD
- PIPELINE
- AIRPORT
- HYDROLOGY
- BRIDGE
- STATE BOUNDARY
- COUNTY BOUNDARY
- CORPORATE BOUNDARY
- TOWNSHIP LINE
- SECTION LINE
- ROAD NAMES (ABBEY ROAD)
- UNINCORPORATED PLACE (ELWOOD)
- STATE PARKS
- STATE INSTITUTIONS
- FEDERAL LAND

N



Fremont County Location Map

Not To Scale

Design No. 327
FHWA No. 600050

FILE NO. 32383	ENGLISH	DESIGN TEAM WHKS	FREMONT COUNTY	PROJECT NUMBER STP-333-1(032)–2C-36	SHEET NUMBER A.2	

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ESTIMATED BRIDGE REPAIR QUANTITIES

ITEM NO.	ITEM CODE	ITEM	UNIT	TOTAL
1	2102-2713090	EXCAVATION, CLASS 13, WASTE	CY	102.6
2	2401-6750001	REMOVALS, AS PER PLAN	LS	1
3	2402-2720000	EXCAVATION, CLASS 20	CY	33.3
4	2403-0100000	STRUCTURAL CONCRETE (MISCELLANEOUS)	CY	49.2
5	2404-7775005	REINFORCING STEEL, EPOXY COATED	LB	5314
6	2413-0698074	DECK REPAIR, CLASS A	SY	231.2
7	2426-6772016	CONCRETE REPAIR	SF	62
8	2507-2638660	BRIDGE WING ARMORING - MACADAM STONE	SY	30.1
9	2507-3250005	ENGINEERING FABRIC	SY	261.7
10	2507-6799000	BANK SHAPING	LS	1
11	2507-6800061	REVETMENT, CLASS E	TON	153.8
12	2508-0970000	CONTAINMENT	LS	1
13	2508-0990000	PAINT WASTE TRANSPORT AND DISPOSAL	LS	1
14	2508-0991000	PAINTING OF STRUCTURAL STEEL	LS	1
15	2510-6745640	REMOVAL OF EXISTING P.C. OVERLAY	SY	1156.1
16	2533-4980005	MOBILIZATION	LS	1
		Alternate AA Option 1		
17	2413-0698066	DECK OVERLAY (CLASS O PCC)	SY	1156.1
		Alternate AA Option 2		
18	2403-1000010	TRIAL BATCH AND TEST PLACEMENT (FIBER REINFORCED CONCRETE)	LS	1
19	2413-0698067	DECK OVERLAY (CLASS HPC-O PCC)	SY	1156.1
20	2413-1000005	FIBER REINFORCEMENT FOR CONCRETE REPAIR/OVERLAY	SY	1156.1

ESTIMATE REFERENCE INFORMATION

ITEM NO.	ITEM CODE	ITEM DESCRIPTION
1	2102-2713090	EXCAVATION, CLASS 13, WASTE Includes volume of excavation on berm slopes for placement of embedded rock flumes. Dispose of excess material according to Article 1106.07 of the current specifications.
2	2401-6750001	REMOVALS, AS PER PLAN See General Notes for description of removal items. Removal of scheduled items shall be in accordance with Section 2401, of the Standard Specifications. Any damage to material not to be removed shall be the responsibility of the Contractor and repaired at no extra cost to the state.
3	2402-2720000	EXCAVATION, CLASS 20 Includes excavation for removal of existing backwall between wings and furnishing and placing granular backfill and engineering fabric between wings. No extra payment will be made.
4	2403-0100000	STRUCTURAL CONCRETE (MISCELLANEOUS) Includes the cost of setting bars as dowels in the existing footing, wings, curb, and rail. Includes all resilient joint filler required.
5	2404-7775005	REINFORCING STEEL, EPOXY COATED - -
6	2413-0698074	DECK REPAIR, CLASS A Quantity for Class A repair is estimated as 20% of the deck area due to the presence of and existing deck overlay.
7	2426-6772016	CONCRETE REPAIR - -
8	2507-2638660	BRIDGE WING ARMORING - MACADAM STONE Includes furnishing and placing engineering fabric, macadam stone, 4" x 6" treated timbers, 1/2" diameter steel pins (or rebars), and all required excavating, shaping and compacting for wing armoring. Clearing and grubbing necessary for placement of wing armoring is incidental and included in the unit cost bid price.
9	2507-3250005	ENGINEERING FABRIC Engineering fabric shall be material as specified for embankment erosion control in accordance with Article 4196.01,B,3, of the Standard Specifications.
10	2507-6799000	BANK SHAPING Includes filling low and eroded areas, smoothing, shaping, and preparation of berm slopes for placement of revetment for rock flumes. Includes dressing the berm slopes and wings which are disturbed during construction.
11	2507-6800061	REVETMENT, CLASS E Estimated at 1.5 ton/cu yd. Class E revetment shall meet requirements of Article 4130.
12	2508-0970000	CONTAINMENT - -
13	2508-0990000	PAINT WASTE TRANSPORT AND DISPOSAL - -

ESTIMATE REFERENCE INFORMATION

ITEM NO.	ITEM CODE	ITEM DESCRIPTION
14	2508-0991000	PAINTING OF STRUCTURAL STEEL Includes cleaning and painting of all steel within 3' of the girder ends at each abutment including abutment bearing sole plates, anchor bars, and masonry plates.
15	2510-6745640	REMOVAL OF EXISTING P.C. OVERLAY - -
16	2533-4980005	MOBILIZATION - -
17	2413-0698066	DECK OVERLAY (CLASS O PCC) Includes the cost of furnishing and placing concrete sealer at barrier rails.
18	2403-1000010	TRIAL BATCH AND TEST PLACEMENT (FIBER REINFORCED CONCRETE) Includes all work and materials necessary for trial batch and test placement of fiber reinforced concrete. Refer to "Developmental Specifications for Fiber Reinforcement for Structural Concrete" for additional information.
19	2413-0698067	DECK OVERLAY (CLASS HPC-O PCC) Includes the cost of furnishing and placing concrete sealer at barrier rails.
20	2413-1000005	FIBER REINFORCEMENT FOR CONCRETE REPAIR/OVERLAY See "Developmental Specifications for Fiber Reinforcement for Structural Concrete". Polypropylene fibers shall be included in the bridge deck overlay.

Roadway quantities shown elsewhere in these plans.

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Design For Repairs to 35°16'19.32" Skew R.A.

328'-0" x 32'-0" Continuous Welded Plate Girder Bridge

56'-0" End Spans 108'-0" Interior Spans

Estimated Bridge Repair Quantities

STA. 1105+29.74 (IA 333) Turn-in Date: Sept. 1, 2026

Fremont County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 327 Design Sheet No. 1 of 12 FHWA No. 600050

General Notes:

This design is for repairs to the existing 328'-0" x 32'-0" Continuous Welded Plate Girder bridge on IA 333 over I-29 in Fremont County.

Electronic copies of original design plans and repair plans are available to the Contractor as part of the E-files supplied with the contract documents. Shop drawings will be available to the contractor by contacting the Contracts & Specifications Bureau - Highway Division - Iowa DOT - Ames. Dimensions on these plans are based on original design plans (Design No. 969).

See Design Sheet 3 for list of repair items.

The City and utility companies whose facilities are shown on the plans or known to be within the construction limits shall be notified by the Contractor of the construction starting date.

Faint lines on plans indicate the existing structure.

All dimensions and details shown on these plans pertinent to new construction shall be verified in the field by the Contractor before starting construction.

These bridge plans label all reinforcing steel with English notation (5a1 is ⅝ inch diameter bar). English reinforcing steel received in the field may display the following "Bar Designation" . The "Bar Designation" is the stamped impression on the reinforcing bars, and is equivalent to the bar diameter in millimeters.

English Size	3	4	5	6	7	8	9	10	11
Bar Designation	10	13	16	19	22	25	29	32	36

The top and interior faces of the existing concrete railing are to be cleaned and sealed in accordance with Article 2403.03, P, of the Standard Specifications. The new sections of rail shall not be sealed. All costs associated with cleaning and sealing of the concrete rails shall be included in the unit price bid item "Deck Overlay".

No preliminary deck survey is shown. The plan quantity for "Class A bridge deck repair" is estimated as 20% of the total deck area. The actual quantity is determined by the engineer after the P.C.C. overlay has been removed. Actual spalled and hollow areas as determined by the engineer shall be repaired.

Minimum clear distance from face of concrete to near reinforcing bar is to be 2" unless otherwise noted or shown.

Present deck thickness is about 9½", including existing overlay. The Contractor shall exercise care in removing concrete in order to prevent unnecessary unbonding of reinforcing steel.

Ready mix trucks are not allowed on the prepared portion of the bridge deck.

All reinforcing bars and bars noted as dowels supplied for this structure shall be deformed reinforcement unless otherwise noted or shown.

The lump sum bid for "Removals, As Per Plan" shall include all costs associated with removing the backwall and portions of the wingwall and maskwall at each abutment, existing corrugated drain extension tubes, portions of deck, curb, and rail, existing sliding plate joints at each abutment, and portions of rail and cover plate at light pole blister. Removal of scheduled items shall be in accordance with Section 2401 of the Specifications. Any damage to any steel or concrete not to be removed shall be the responsibility of the Contractor and repaired at no extra cost to the State.

The bridge deck is covered with a 1¾" thick portland cement concrete overlay. The Contractor shall note the redefining of the classification line (boundary between repair and overlay) for this project due to the existing 1¾" overlay. The classification line will be defined as 2 inches below the top of existing overlay. This will necessitate the removal of the existing bridge deck overlay before placing the proposed new bridge deck overlay.

The bridge deck may have been epoxy-injected. The contractor shall remove all exposed epoxy. Removal of epoxy is incidental to "Removal of Existing P.C.C. Overlay" and "Deck Repair, Class A" as appropriate.

All costs associated with the removal of the existing overlay shall be included in the bid item "Removal of Existing P.C.C. Overlay". Removal of existing overlay shall be computed in square yards from the measurement areas removed. The Contractor will be paid the contract price per square yard for furnishing all equipment and labor necessary to remove the concrete to within ¼" above the classification line. All costs, including furnishing equipment and labor, associated with removal of the next ¼" of concrete (to the classification line) shall be included in the bid item "Deck Overlay".

Upon completion of the removal of concrete down to the classification line, the Engineer shall determine the areas of bridge deck to be repaired as "Deck Repair, Class A". Actual hollow areas, as determined by the Engineer, shall be repaired.

Areas of curb indicated on the "Situation Plan" or designated by the Engineer are to be repaired using concrete repair notes and details included in these plans.

The abutment backwalls shall be constructed using structural concrete class C. Promptly after the concrete has been placed and vibrated as provided in Articles 2403.03, C, and 2403.03, D, of the Standard Specifications, it shall be hand finished to provide a smooth surface with the proper crown. The contractor may elect to use formwork which is marked or trimmed to the correct elevation to provide limits for hand finishing.

Keyway dimensions shown on the plans are based on nominal dimensions unless stated otherwise. In additoin the bevel used on the keyway shall be limited to a maximum of 10 degrees from vertical.

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The lump sum bid for "Painting Structural Steel" shall include the cost of preparing all existing structural steel within 3' of girder ends at both abutments for painting (including bearings) and field painting existing structural steel as noted in these plans. Cleaning and painting shall be in accordance with Section 2508, of the Standard Specifications. An epoxy paint system shall be used.

Containment and disposal of waste shall be in accordance with Section 2508, of the Standard Specifications. All costs associated with hauling and depositing of waste at the designated site/facility shall be the responsibility of the Contractor and included in the contract unit price bid for the "Containment" item.

The contractor shall conduct their operations in such a manner that any paint removed during demolition is contained, collected, and disposed of in accordance with Section 2508, of the Standard Specifications. Before delivery of any scrap steel the contractor shall provide a written notice to the receiving facility. This notice shall at a minimum include:

1. A notice that the scrap steel is coated with paint that has regulated materials at levels which could be hazardous to employees or the environment.
2. A copy of the scrape sample provided in the contract documents.
3. A signature block for the receiving facility to confirm their receipt of this information.

A copy of this notice, signed by the receiving facility, shall be returned to the Engineer before any scrap steel is removed from the project.

A scrape sample was taken from the Girders, Abutment Bearings, and Expansion Plates to get an indication of the existence of and level of total lead and total chromium. Analysis of total lead and chromium samples are shown in the table on this page. These analyses show the existence of these two toxic constituents. Level indicated by these tests could create conditions above regulatory limits for health and safety requirements. No other constituents were analyzed. The Bidder should not rely on the Iowa DOT's testing and analysis for any purpose other than as an indication of the existence of these two toxic constituents.

Scrape Sample Results

Date Sampled	Sampled Item	Total Pb (ppm)	Total Cr (ppm)	TCLP Pb (ppm)	TCLP Cr (ppm)
8/21/1995	Beam	3,980	1,500	----	----
2/28/2018	Girder	825	675	----	----
9/20/2018	Abutment Bearing	1,500	290	----	----
9/20/2018	Expansion Plate	12,000	110	----	----
11/30/2023	Expansion Plate	233,000	2,110	----	----
9/20/2018	Girder	2,700	460	----	----

Specifications:

Design: AASHTO Series of 2002.

Construction: Iowa Department of Transportation Standard Specifications for Highway and Bridge Construction, Series 2023, plus applicable General Supplemental Specifications, Developmental Specifications, Supplemental Specifications and Special Provisions shall apply to construction work on this project.

Developmental Specifications for Fiber Reinforcement for Structural Concrete.

Developmental Specifications for Electronic Ticketing.

Design Stresses:

Design stresses for the following materials are in accordance with the AASHTO Standard Specifications for Highway Bridges, Series of 2002.

Concrete in accordance with Section 8, f'c = 4.0 ksi.

Reinforcing steel in accordance with Section 8, Grade 60.

Bank Shaping Note:

All costs for material, equipment, and labor required to perform the work noted and directed by the Engineer shall be included in the lump sum unit price bid for "Bank Shaping" (except for engineering fabric), no additional measurement or payment shall be made.

The engineering fabric shall be in accordance with Article 4196.01, B, 3. of the Standard Specifications. If the engineering fabric is lapped, this lap shall be a minimum of one foot in length, single fashion with up slope lap piece on top and stapled for continuity.

The bridge contractor shall dress up the slopes around the wings and berms which are disturbed during construction. This work is to be included in the lump sum bid item "Bank Shaping."

The Contractor shall be responsible for any plant materials destroyed adjacent to the bridge. The Contractor shall replant, reseed, and remulch all disturbed areas, designated by the Engineer, in accordance with Section 2601 of the Standard Specifications, at the Contractor's expense.

Design History at this Site (Includes this Design)

Des. No.	Type of Work
969	Original Design
295	Bridge Deck Overlay
327	Bridge Deck Re-Overlay

Traffic Control Plan:
The roadway will be closed to thru traffic. Refer to the traffic control plan shown elsewhere in these plans.

Design For Repairs to 35°16'19.32" Skew R.A.

328'-0" x 32'-0" Continuous Welded Plate Girder Bridge

56'-0" End Spans — 108'-0" Interior Spans

General Notes

STA. 1105+29.74 (IA 333) — Turn-in Date: Sept. 1, 2026

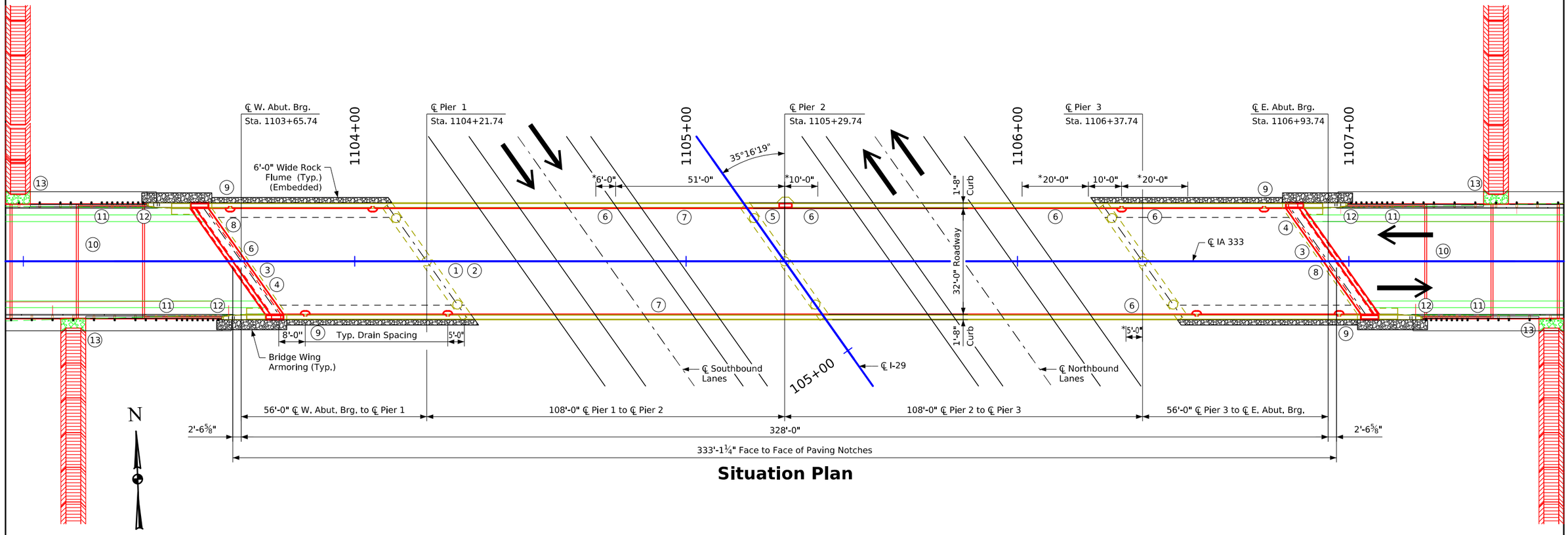
Fremont County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 327 — Design Sheet No. 2 of 12 — FHWA No. 600050

FILE NO. 32383	ENGLISH	DESIGN TEAM WHKS	FREMONT COUNTY	PROJECT NUMBER STP-333-1(032)–2C-36	SHEET NUMBER V.2	

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Situation Plan

Repairs shall consist of:

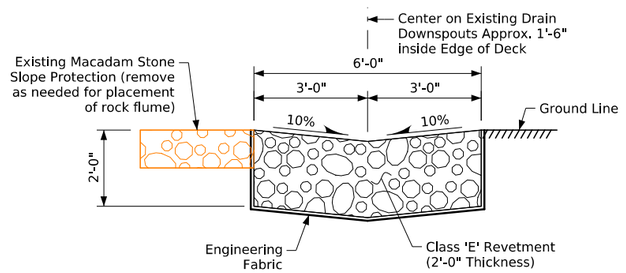
1. Remove the existing overlay, scarify the top of deck, and re-overlay the bridge.
2. Perform Class A repairs. Repair quantity estimated as 20% of deck area.
3. Remove the existing sliding plates, remove 2' of the deck at each end, and encase the beam ends with a semi-integral diaphragm.
4. Remove and reconstruct the abutment backwalls below the semi integral diaphragm.
5. Remove barrier cover plate and infill with concrete.
6. Perform concrete repairs to the curb and abutment seats.
7. Clean and seal the barrier rails and curbs.
8. Clean and paint abutment bearings. Zone paint 3' from beam ends at both abutments.
9. Remove the corrugated drain tubes, perform bank shaping, place wing armoring, and install rock flumes down berm slopes. Perform clearing and grubbing around wings.
10. Remove and replace the existing approaches and shoulders up to the bridge.
11. Remove and replace the existing guardrail.
12. Remove existing drain intakes and plug and abandon the pipes.
13. Construct bridge end drains at both ends.

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Note:

*Denotes areas of concrete repair to face of curbs. Estimated total length = 61 LF. Estimated area = 54 SF. Areas are based on a site visit in July 2023. Actual curb areas to be repaired shall be determined by the Engineer at time of construction.

See Design Sheet 11 for concrete repair details. Repairs are to be "Regular" repairs.



Section thru Rock Flume

Typical at Both Berms, Both Sides of Bridge

Traffic Estimate

IA 333

2024 AADT	830 V.P.D.
TRUCKS	12 %

Location

IA 333 over I-29
T-67N R-42W
Sections 20, 21, 28 & 29
Washington Township
Fremont County
FHWA No. 600050
Bridge Maint. No. 3600.0S333
Latitude 40.600693°
Longitude -95.678309°

Design For Repairs to 35°16'19.32" Skew R.A.

328'-0" x 32'-0" Continuous Welded Plate Girder Bridge

56'-0" End Spans — 108'-0" Interior Spans

Situation Plan

STA. 1105+29.74 (IA 333) — Turn-in Date: Sept. 1, 2026

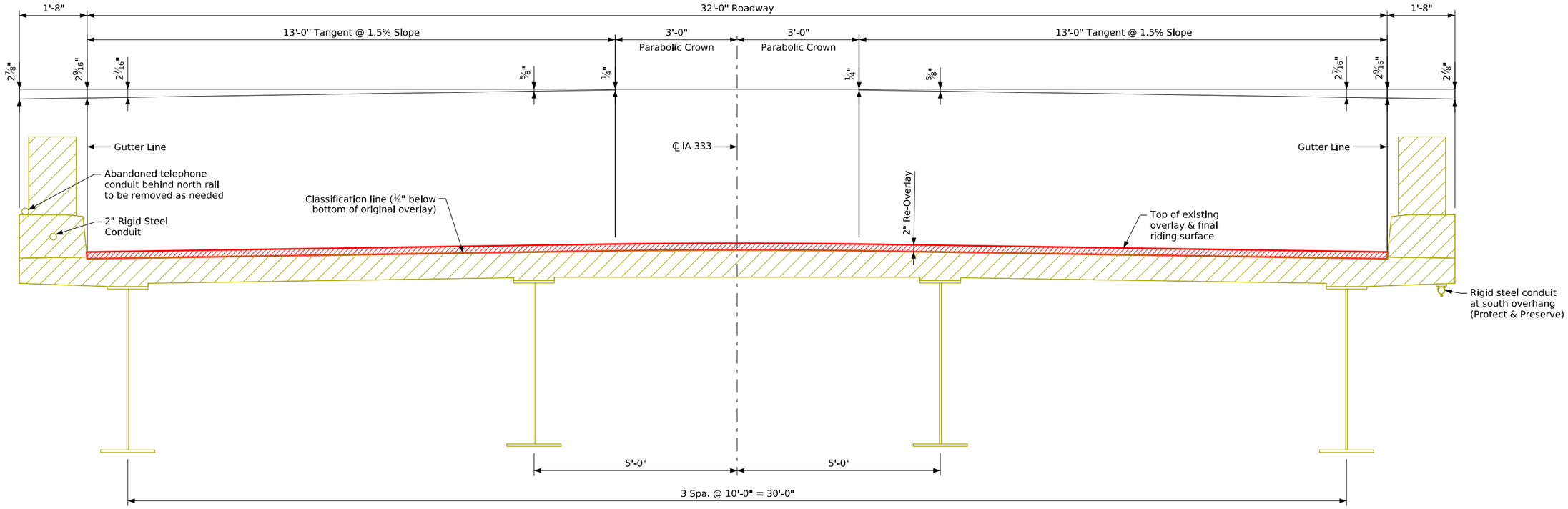
Fremont County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 327 — Design Sheet No. 3 of 12 — FHWA No. 600050

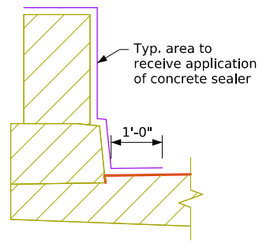
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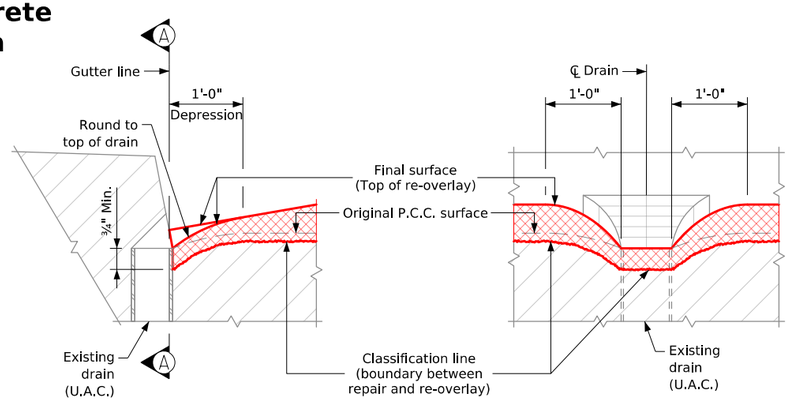


Transverse Section

(Looking East)



Detail of Concrete Sealer Area

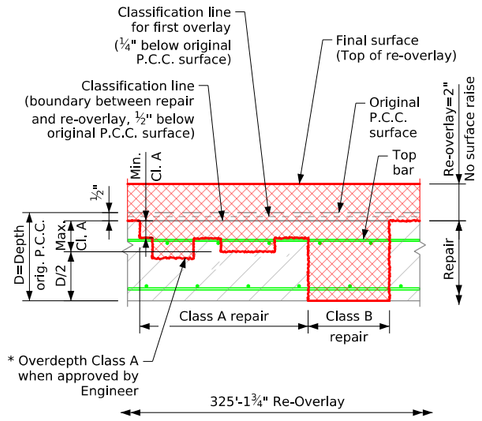


Section A-A

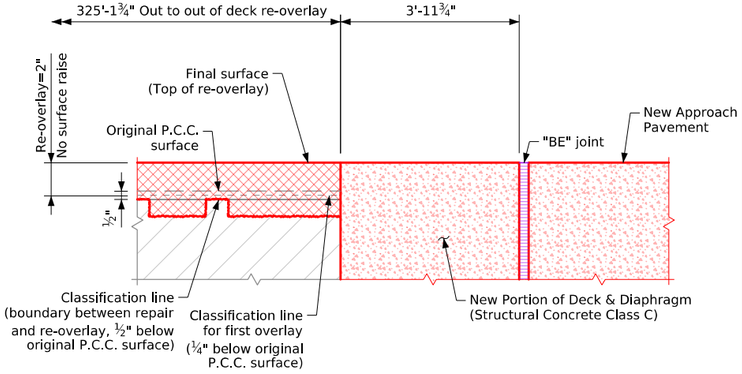
Deck Repair Detail at Drain

(Required at 8 Locations)

* Per IDOT Std. Spec. 2413.03.C.3.b, limited areas of Class A removal may exceed 50% of the floor thickness at the Engineer's direction. These limited areas of excess depth (overdepth) will be measured as Class A deck repair.



Repair and Re-Overlay Definition



Part Longitudinal Section Along Roadway

Both Abutments

Design For Repairs to 35°16'19.32" Skew R.A.

328'-0" x 32'-0" Continuous Welded Plate Girder Bridge

56'-0" End Spans — 108'-0" Interior Spans

Deck Repair Details

STA. 1105+29.74 (IA 333)

Turn-in Date: Sept. 1, 2026

Fremont County

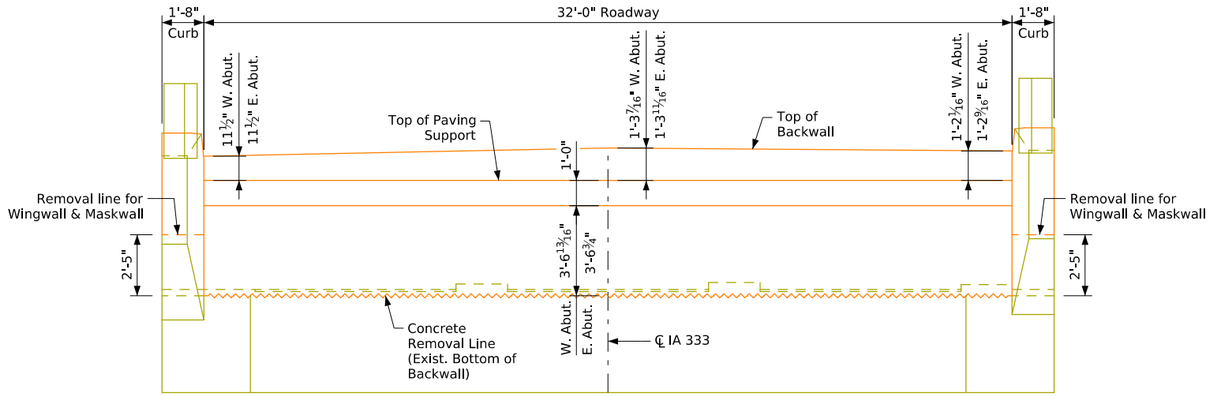
IOWA DEPARTMENT OF TRANSPORTATION

Design No. 327 — Design Sheet No. 4 of 12 — FHWA No. 600050

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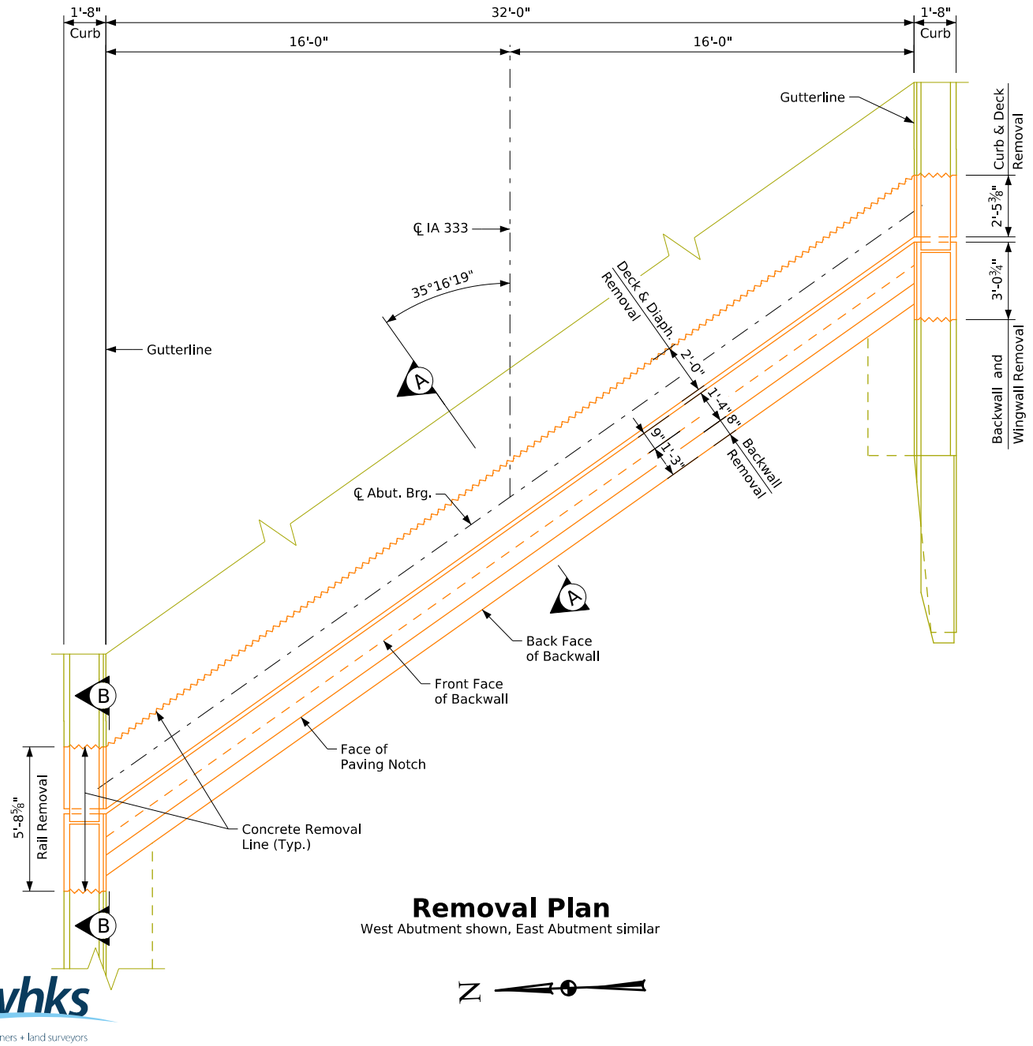
FILE NO. 32383	ENGLISH	DESIGN TEAM WHKS	FREMONT COUNTY	PROJECT NUMBER STP-333-1(032)–2C-36	SHEET NUMBER V.4

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Abutment Rear Elevation

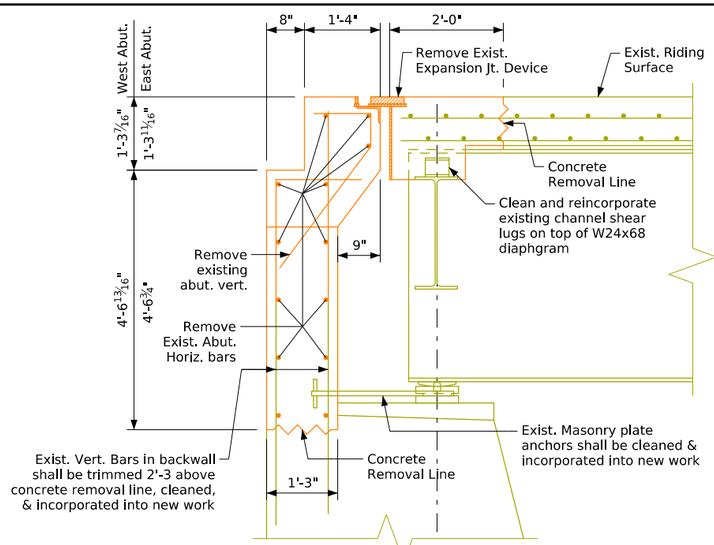
West Abutment looking East, East Abutment looking West



Removal Plan

West Abutment shown, East Abutment similar

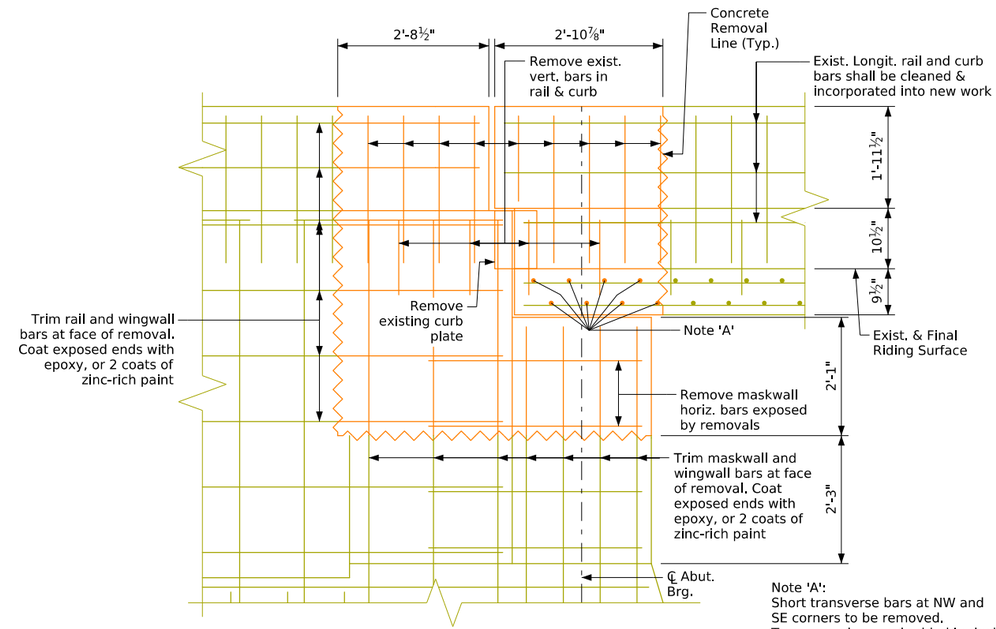
N



Note: Clean and reincorporate existing deck transverse and longitudinal bars exposed during removals, except short transverse bars at the NW and SE corners (see Note 'A').

Section A-A

(Approach not shown, see roadway plans)
(Section shown normal to abutment)



Note 'A':
Short transverse bars at NW and SE corners to be removed. Transverse bars embedded in deck at SW and NE corners to be cleaned and reincorporated.

Section B-B

Design For Repairs to 35°16'19.32" Skew R.A.

328'-0" x 32'-0" Continuous Welded Plate Girder Bridge

56'-0" End Spans — 108'-0" Interior Spans

Abutment Removal Details

STA. 1105+29.74 (IA 333)

Turn-in Date: Sept. 1, 2026

Fremont County

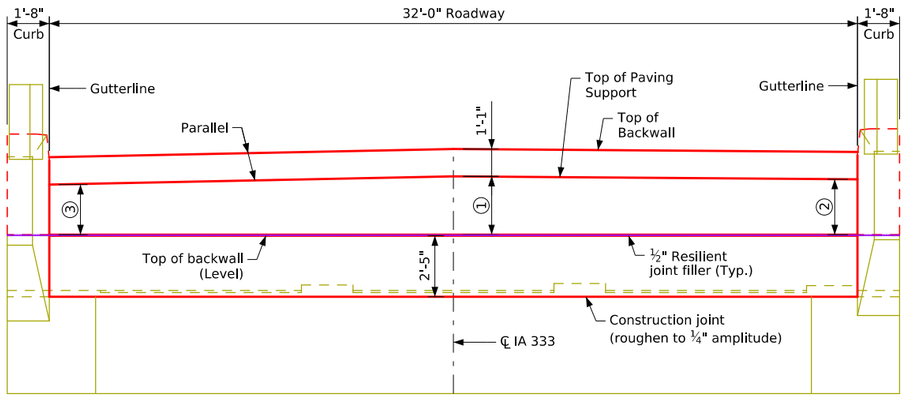
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Design No. 327 — Design Sheet No. 5 of 12 — FHWA No. 600050

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FILE NO. 32383	ENGLISH	DESIGN TEAM WHKS	FREMONT COUNTY	PROJECT NUMBER STP-333-1(032)—2C-36	SHEET NUMBER V.5

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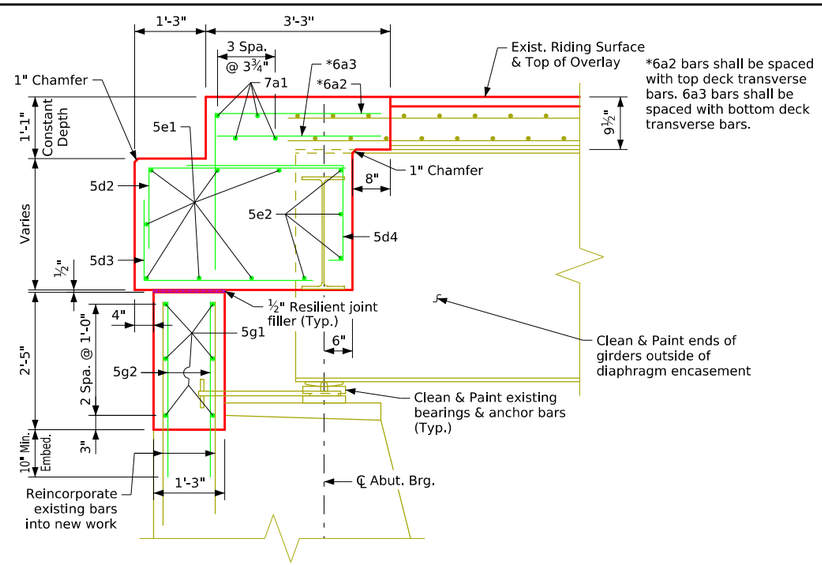


Rear Elevation

West Abutment looking East, East Abutment looking West

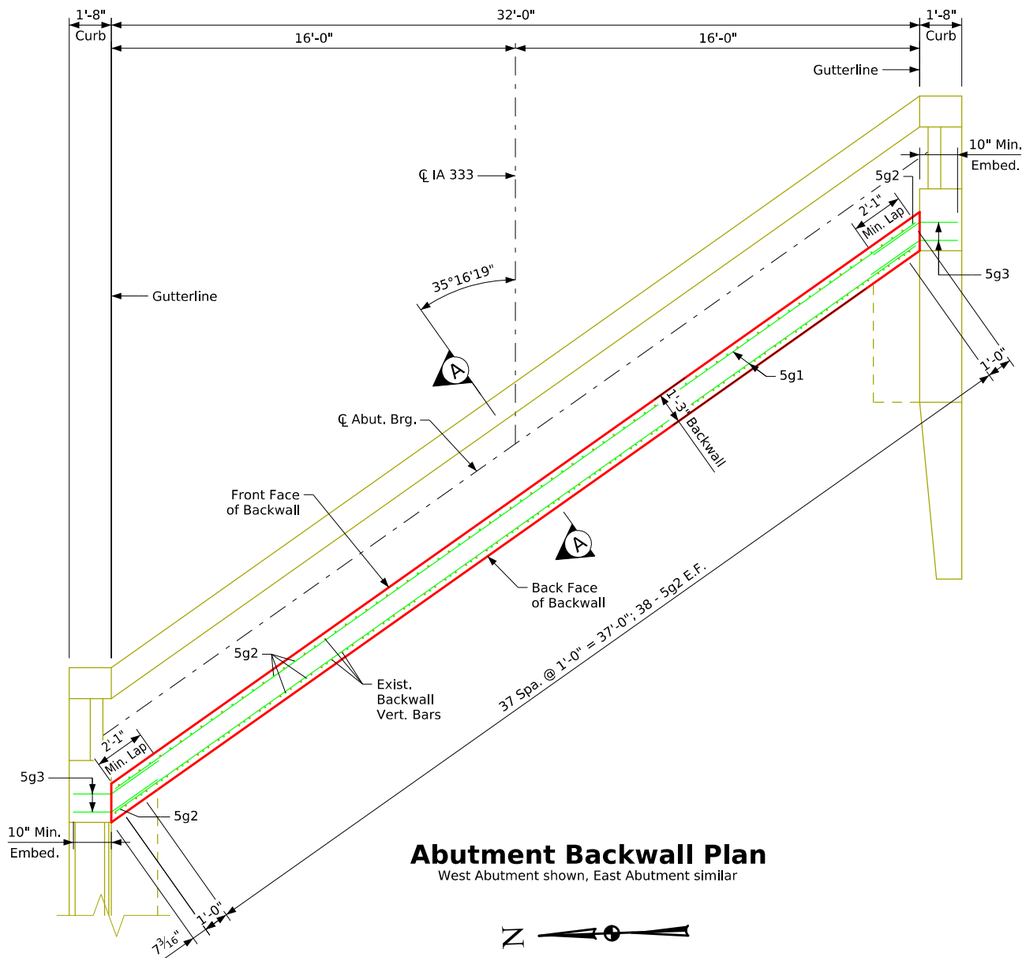
Diaphragm Dimensions

	①	②	③
West Abutment	2'-3¾"	2'-2⅜"	1'-11¾"
East Abutment	2'-4"	2'-2¾"	1'-11¾"



Section A-A

(Approach not shown, see roadway plans)
(Section shown normal to abutment)



Abutment Backwall Plan

West Abutment shown, East Abutment similar

N

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Design For Repairs to 35°16'19.32" Skew R.A.

328'-0" x 32'-0" Continuous Welded Plate Girder Bridge

56'-0" End Spans — 108'-0" Interior Spans

Abutment Details

STA. 1105+29.74 (IA 333)

Turn-in Date: Sept. 1, 2026

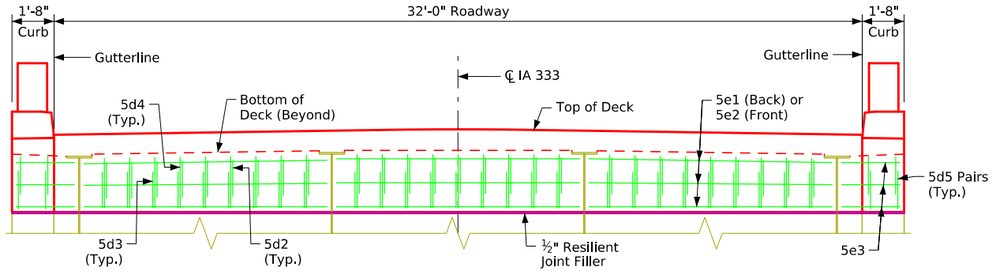
Fremont County

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Design No. 327 — Design Sheet No. 6 of 12 — FHWA No. 600050

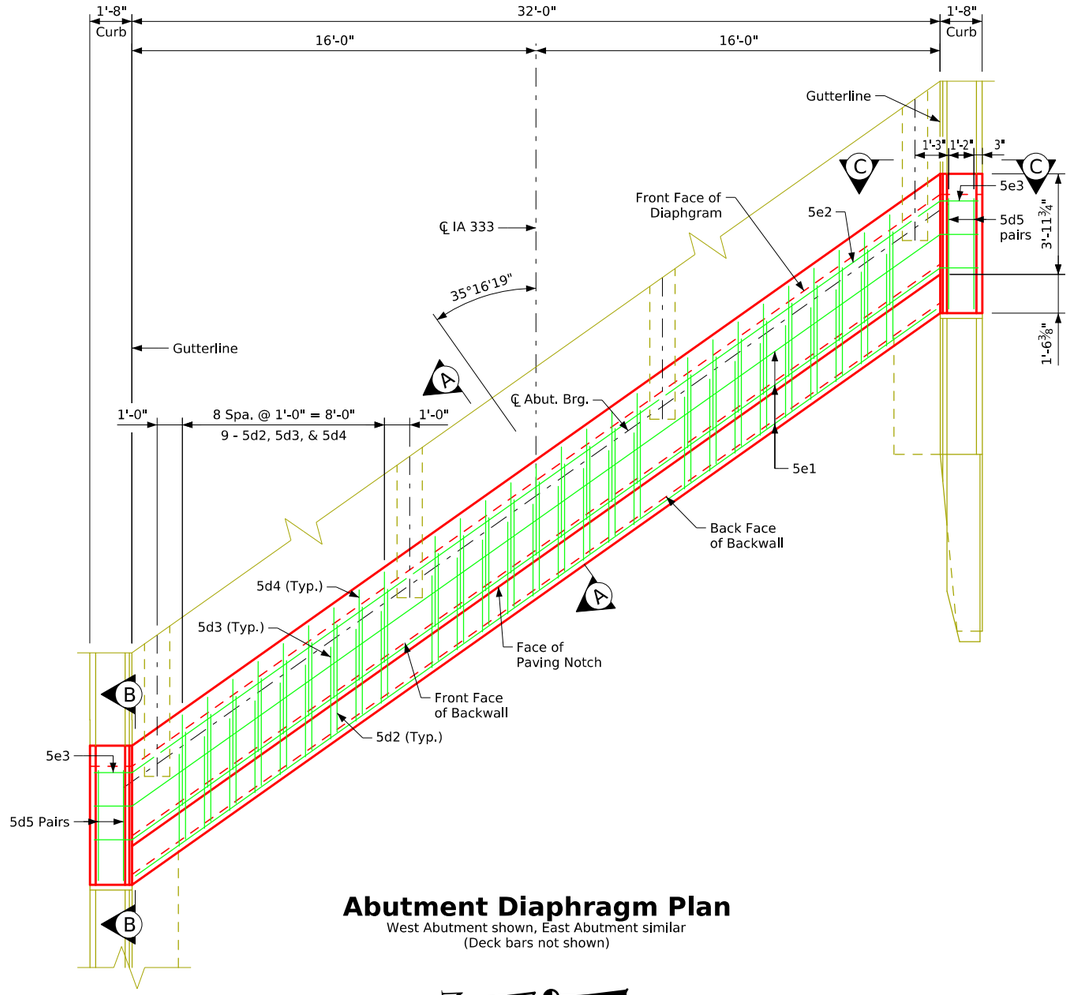
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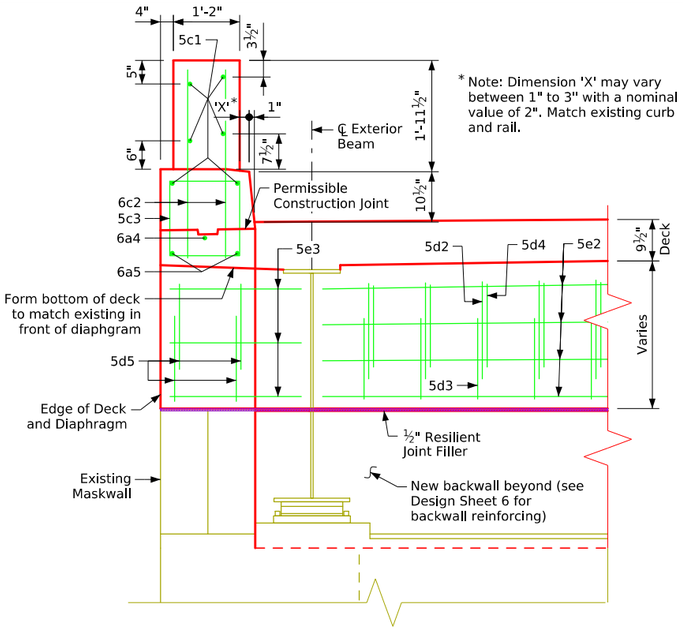
Section Through Abutment Diaphragm

West Abutment shown, East Abutment similar
(Deck and barrier rail reinforcing not shown)



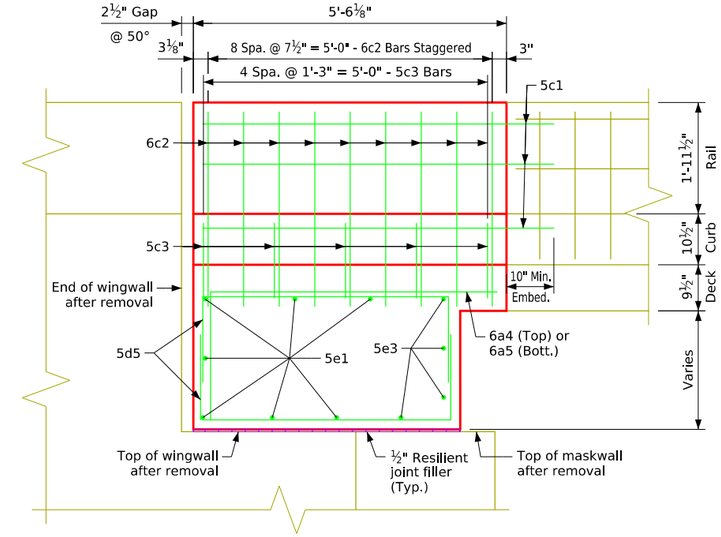
Abutment Diaphragm Plan

West Abutment shown, East Abutment similar
(Deck bars not shown)



Section C-C

(Deck and Backwall Reinforcing not shown)



Section B-B

(Deck Reinforcing Not Shown)

Note: See Design Sheet 6 for Section A-A.

Design For Repairs to 35°16'19.32" Skew R.A.

328'-0" x 32'-0" Continuous Welded Plate Girder Bridge

56'-0" End Spans — 108'-0" Interior Spans

Superstructure Details

STA. 1105+29.74 (IA 333) — Turn-in Date: Sept. 1, 2026

Fremont County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 327 — Design Sheet No. 7 of 12 — FHWA No. 600050

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FILE NO. 32383	ENGLISH	DESIGN TEAM WHKS	FREMONT COUNTY	PROJECT NUMBER STP-333-1(032)–2C-36	SHEET NUMBER V.7

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Dowel Setting Note:

The 5c1, 5g2, and 5g3 bars shall be set as dowels in drilled holes. Holes are to be 10" deep. The dowels shall be installed in accordance with the manufacturer's recommendations. Either of the following systems may be used as a bonding agent for vertical dowels, but only system "A" may be used for horizontal dowels:

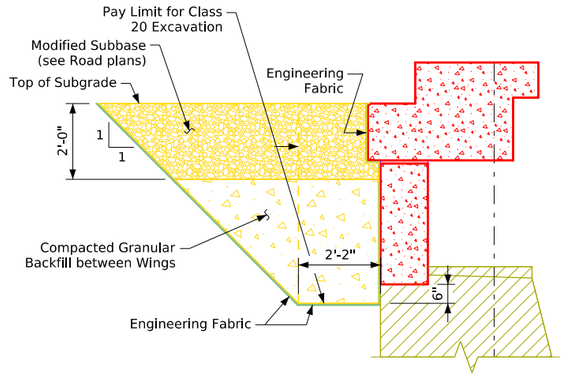
A. Polymer grout system shall be in accordance with Article 2301.03, E, of the Standard Specifications.

B. Hydraulic cement grout systems. Drilled holes are to be 2½ times the dowel diameter and are to be blown clean with compressed air immediately prior to placing grout. The hydraulic cement grout shall be one of those approved in Materials I.M. 491.13 and shall be used in accordance with the manufacturer's recommendations.

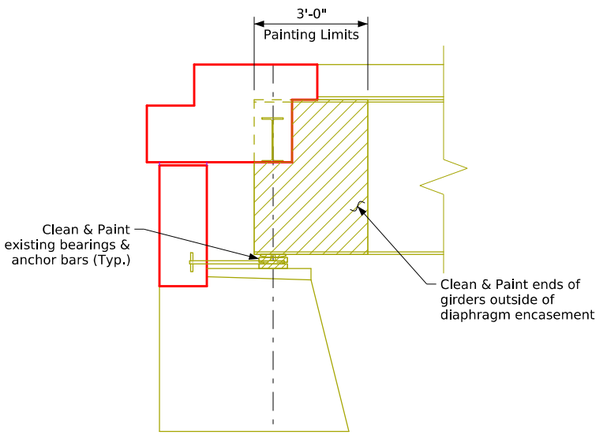
Abutment Notes:

Minimum clear distance from face of concrete to near reinforcing bar is to be 2" unless otherwise noted or shown.

The price bid for "Structural Concrete (Misc.)" shall include the cost of setting bars as dowels in the existing footing, maskwalls, barrier rails, and curbs.

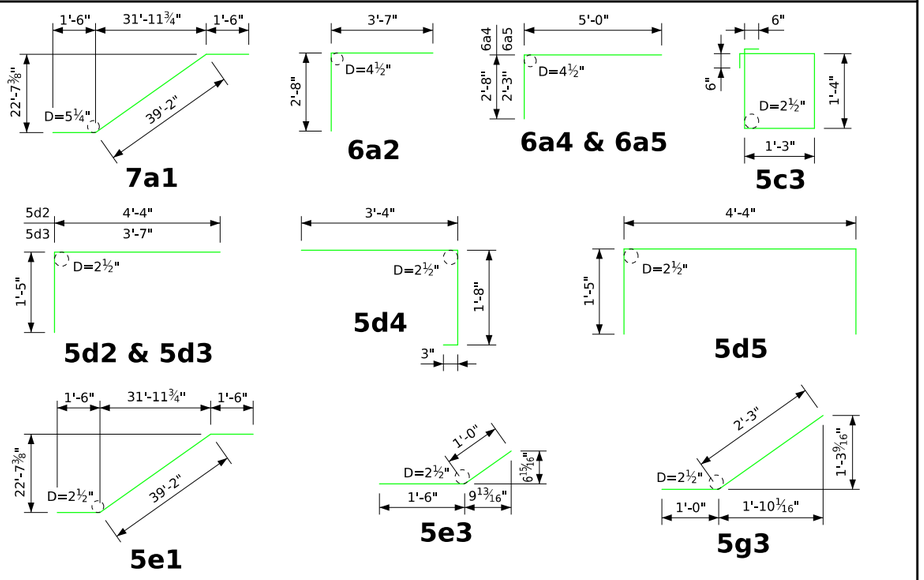


Abutment Backfill Detail



Paint Limit Details

Bent Bar Details



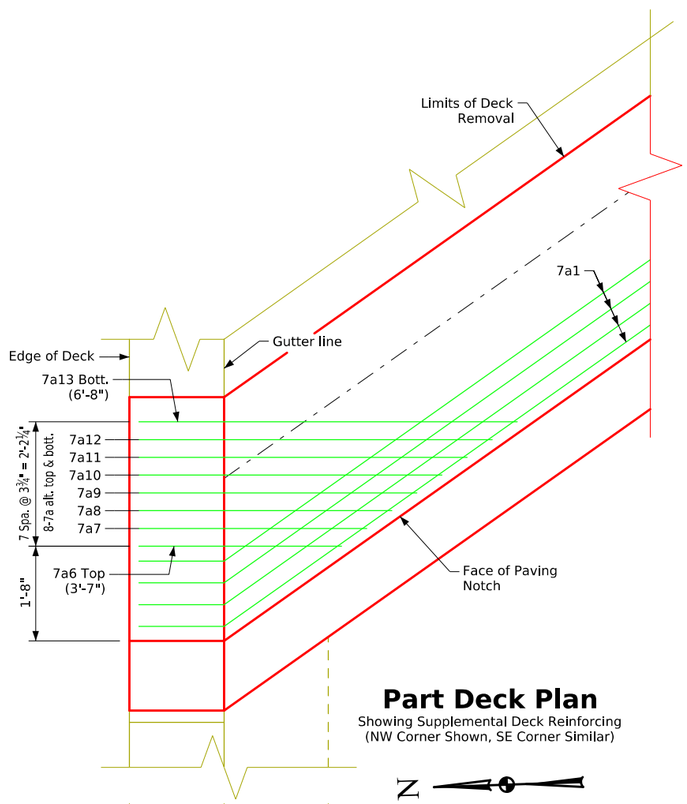
Note: All dimensions are out to out. D = Pin Diameter

Epoxy Coated Reinforcing Steel Bar List – One Abut.

Bar	Location	Shape	No.	Length	Weight
7a1	Deck, Transverse, Along Skew		4	42'-2"	345
6a2	Deck, Longitudinal, Top		27	6'-3"	253
6a3	Deck, Longitudinal, Bottom		24	3'-7"	129
6a4	Deck, Longitudinal, Curb, Top		2	7'-8"	23
6a5	Deck, Longitudinal, Curb, Bottom		4	7'-3"	44
7a6-7a13	Deck, Transverse		8	Varies	84
5c1	Curb & Rail Horizontal, Dowels		12	6'-2	77
6c2	Rail, Verticals		18	3'-4"	90
5c3	Curb, Hoops		10	6'-2"	64
5d2	Diaphragm, Hoop, Vertical		27	5'-9"	162
5d3	Diaphragm, Hoop, Vertical		27	5'-0"	141
5d4	Diaphragm, Hoop, Vertical		27	5'-3"	148
5d5	Diaphragm, Vert., Ends		8	7'-2"	60
5e1	Diaphragm, Transverse		7	42'-2"	308
5e2	Diaphragm, Between Beams		12	11'-10"	148
5e3	Diaphragm, Ends		8	2'-6"	21
5g1	Backwall Horizontal		6	38'-10"	243
5g2	Backwall Vertical, Dowels		78	3'-1"	251
5g3	Backwall, Horizontal, Dowels		12	3'-3"	41
	Epoxy Coated Reinforcing Steel – Total Weight (lbs.)				2,632

Concrete Placement Quantites

Location	Quantity
Abutment Backwall - 2 @ 4.4 C.Y.	8.8
Deck & Diaphragm - West Abutment	18.5
Deck & Diaphragm - East Abutment	18.6
Curbs - 4 @ 0.3 C.Y.	1.2
Rails - 4 @ 0.46 C.Y.	1.8
Total (cu. yds.)	48.9



Part Deck Plan

Showing Supplemental Deck Reinforcing
(NW Corner Shown, SE Corner Similar)

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Design For Repairs to 35°16'19.32" Skew R.A.

328'-0" x 32'-0" Continuous Welded Plate Girder Bridge

56'-0" End Spans — 108'-0" Interior Spans

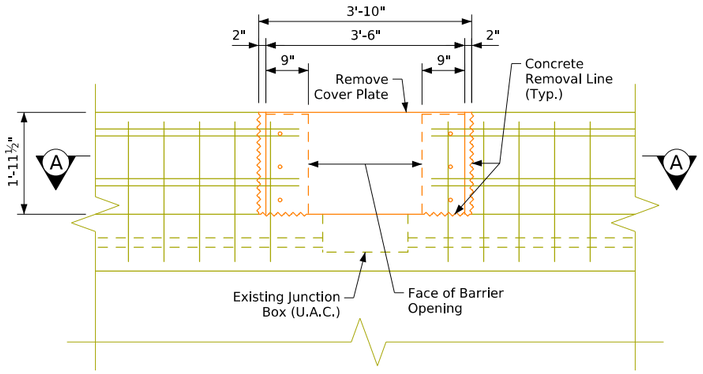
Superstructure Details

STA. 1105+29.74 (IA 333) — Turn-in Date: Sept. 1, 2026

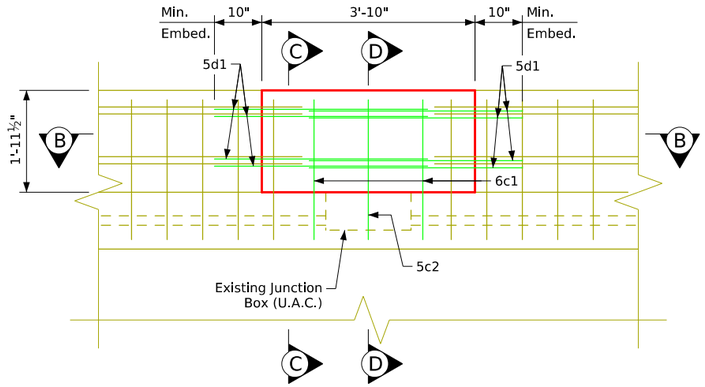
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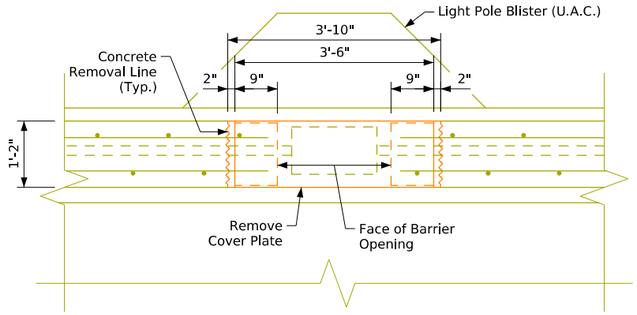
Design No. 327 — Design Sheet No. 8 of 12 — FHWA No. 600050



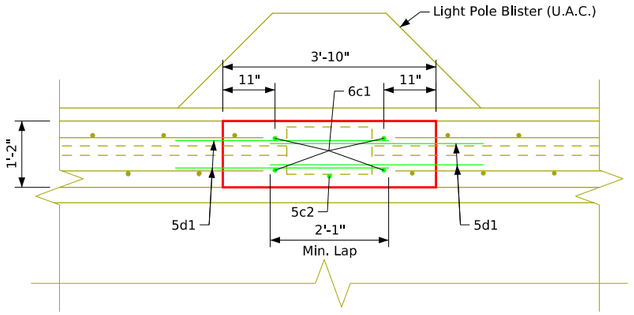
Removal Part Elevation at Light Blister



Repair Part Elevation at Light Blister

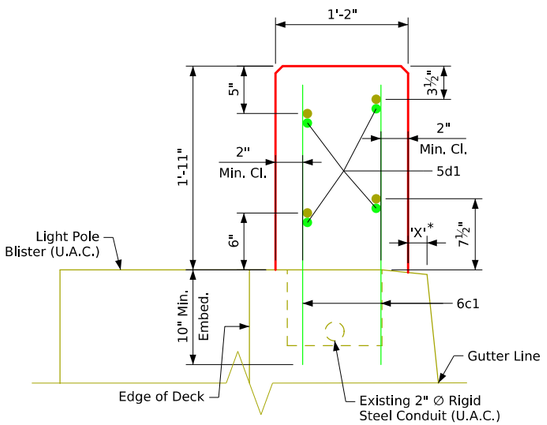


Section A-A

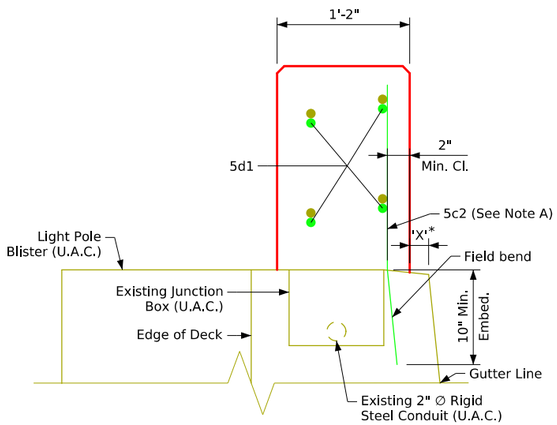


Section B-B

Note: If existing rebar is encountered during removals, it shall be carefully exposed and incorporated into new work.



Section C-C



Section D-D

Epoxy Coated Reinforcing Steel

Bar	Location	Shape	No.	Length	Weight
5d1	Rail, Horizontal		8	3'-9"	31
6c1	Rail, Vertical		4	2'-7"	16
5c2	Rail, Vertical		1	2'-7"	3
	Epoxy Coated Reinforcing Steel – Total Weight (lbs.)				50

Concrete Placement Quantites

Location	Quantity
Retrofit Rail Infill	0.3
Total (cu. yds.)	0.3

Dowel Setting Note

The 5d1, 6c1, & 5c2 bars shall be set as dowels in drilled holes. Holes are to be 10" deep. The dowels shall be installed in accordance with the Manufacturer's recommendations. Either of the following systems may be used as a bonding agent for vertical dowels, but only System "A" may be used for horizontal dowels:

A. Polymer grout system in accordance with Article 2301.03, E, of the Standard Specifications.
B. Hydraulic cement grout systems. Drilled holes are to be 2½ times the dowel diameter and are to be blown clean with compressed air immediately prior to placing grout. The hydraulic cement grout shall be one of those approved in Materials I.M. 491.13 and shall be used in accordance with the Manufacturer's recommendations.

The price bid for "Structural Concrete (Miscellaneous)" shall include the costs of setting bars as dowels in the curbs and retrofit rails.

Note A:
Holes for 5c2 dowel shall be drilled to clear the existing junction box and maintain minimum clearance at the bottom of the dowel to the near face of the existing concrete. Field bend bars extending in the rail as close to the top of curb as possible to maintain minimum clearance to the near face of proposed concrete.

* Note:
Dimension 'X' shall match existing rail. Minimum = 1", Maximum = 3".

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Design For Repairs to 35°16'19.32" Skew R.A.

328'-0" x 32'-0" Continuous Welded Plate Girder Bridge

56'-0" End Spans — 108'-0" Interior Spans

Barrier Rail Repair

STA. 1105+29.74 (IA 333) — Turn-in Date: Sept. 1, 2026

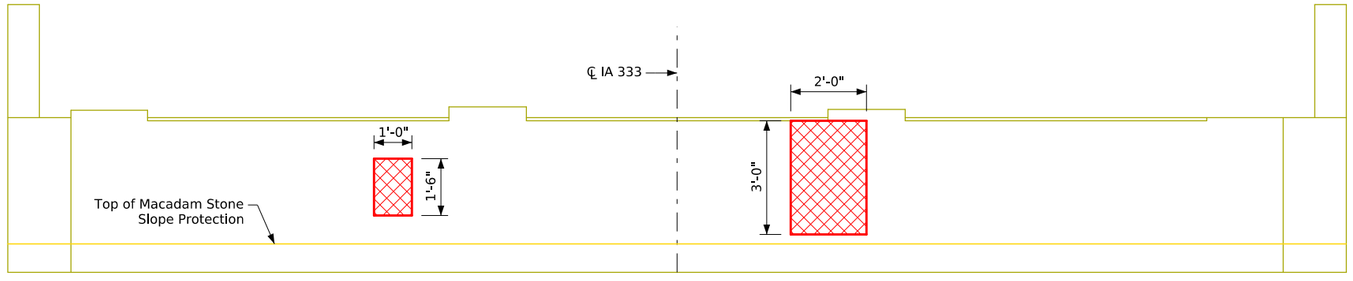
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Design No. 327 — Design Sheet No. 9 of 12 — FHWA No. 600050

FILE NO. 32383	ENGLISH	DESIGN TEAM WHKS	FREMONT COUNTY	PROJECT NUMBER STP-333-1(032)–2C-36	SHEET NUMBER V.9	

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West Abutment
(Looking West)

Note:
Repair areas shown are approximate based on June 2025 bridge inspection. Actual spalled and hollow areas as determined by the Engineer at the time of construction shall be repaired.

See Situation Plan for curb repair locations.

Legend

- Indicates Shallow Repair
- Indicates Regular Repair

See Design Sheet 11 for notes and details for concrete repair.

Design For Repairs to 35°16'19.32" Skew R.A.

328'-0" x 32'-0" Continuous Welded Plate Girder Bridge

56'-0" End Spans — 108'-0" Interior Spans

Concrete Repair Details

STA. 1105+29.74 (IA 333)

Turn-in Date: Sept. 1, 2026

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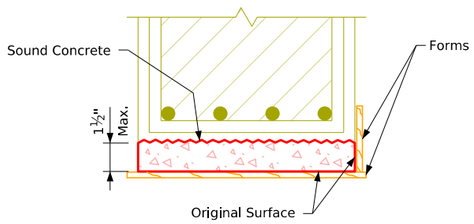
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Design No. 327 | Design Sheet No. 10 of 12 | FHWA No. 600050

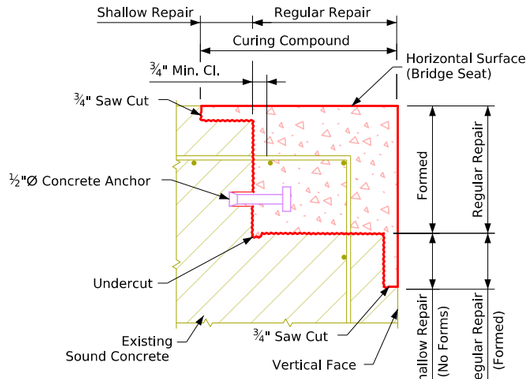
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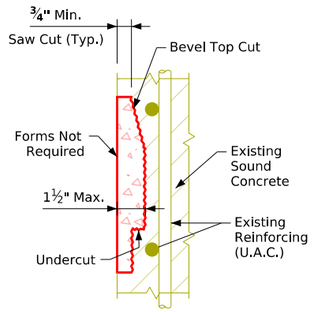
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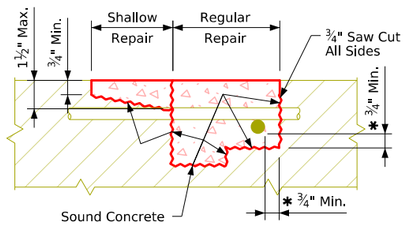
Shallow Repair Bottom Surface



Corner Repair

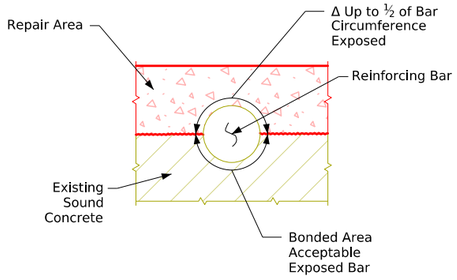


Shallow Repair Vertical Face

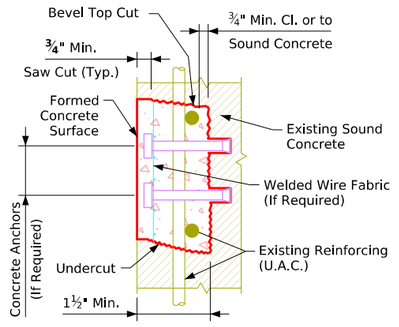


Repair Definition

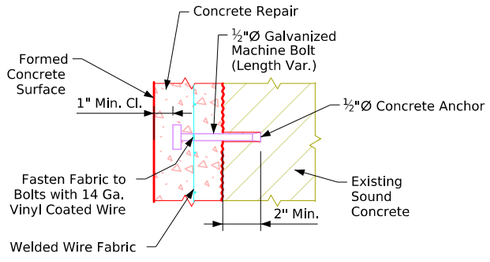
✱ Indicates Clearance for an Un-Bonded Rebar.



Δ If more than ½ of the rebar is exposed it shall be treated as an un-bonded rebar.

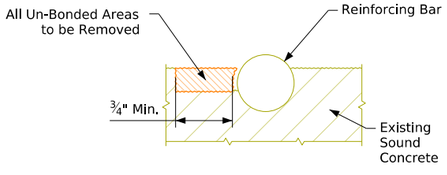


Regular Repair Vertical Face



Anchor Detail

For Spacing and Use of Concrete Anchors and WWF See the Repair Notes.



Concrete Removal Adjacent to Reinforcing

Repair Notes:

The spalled and hollow areas of this bridge as noted and shown in these plans shall be repaired as follows:

- All the costs of equipment and materials required to repair the spalled and hollow areas of this bridge shall be included in the price bid for "Concrete Repair".
- The price bid for "Concrete Repair" shall include the cost of all concrete anchors and welded wire fabric required by the plans.
- The Engineer shall determine and outline by visual and audible inspection the actual areas of the concrete repairs. The Contractor shall be paid for the actual amount of repairs made on a square foot basis based on the price bid per square foot.
- All existing reinforcing bars that are exposed by the concrete removal shall be cleaned and carefully incorporated into the new work, except badly deteriorated existing reinforcing which shall be replaced as directed by the Engineer.
- The concrete anchors required shall have a minimum pull out of 5,000 lbs based on 4,000 psi concrete. An anchor meeting the requirements of Iowa D.O.T. Materials I.M. 453.09 and the pull out load above is required. The anchors shall be galvanized and shall be installed according to recommendations of the Manufacturer. The cost of furnishing and installing the concrete anchors shall be included in the price bid for "Concrete Repair".
- The welded wire fabric shall be ASTM A185 and galvanized as per ASTM A-641. The WWF wires shall be spaced 3x3 or 4x4 and the wires shall have a nominal area of 0.014 to 0.029 sq in inclusive, example "WWF 3x3 - W1.4xW2.9".

Where reinforcement has been exposed and clearance around the periphery of the existing bar is provided, no supplemental reinforcing is required, except where existing reinforcement density and pattern are such that individual open spaces between bars are of 1.5 sq ft or larger. For this condition ½"Ø concrete anchors and welded wire fabric shall be installed at the rate of one concrete anchor with WWF per each 1.5 sq ft of area within each open space.

Repairing the structural concrete shall be in accordance with Section 2426, of the Standard Specifications.

Concrete Placement Quantities

Mark	Type	Units	Quantity
①	Shallow repair	Sq. Ft.	0
②	Regular repair	Sq. Ft.	62
		Total (Sq. Ft.)	62

Estimated Concrete Repair Quantities

Description	Units	Amount
Concrete Repair	Sq. Ft.	62

For estimated repair areas and locations see Design Sheets 3 and 10.

Design For Repairs to 35°16'19.32" Skew R.A.

328'-0" x 32'-0" Continuous Welded Plate Girder Bridge

56'-0" End Spans 108'-0" Interior Spans

Concrete Repair Details

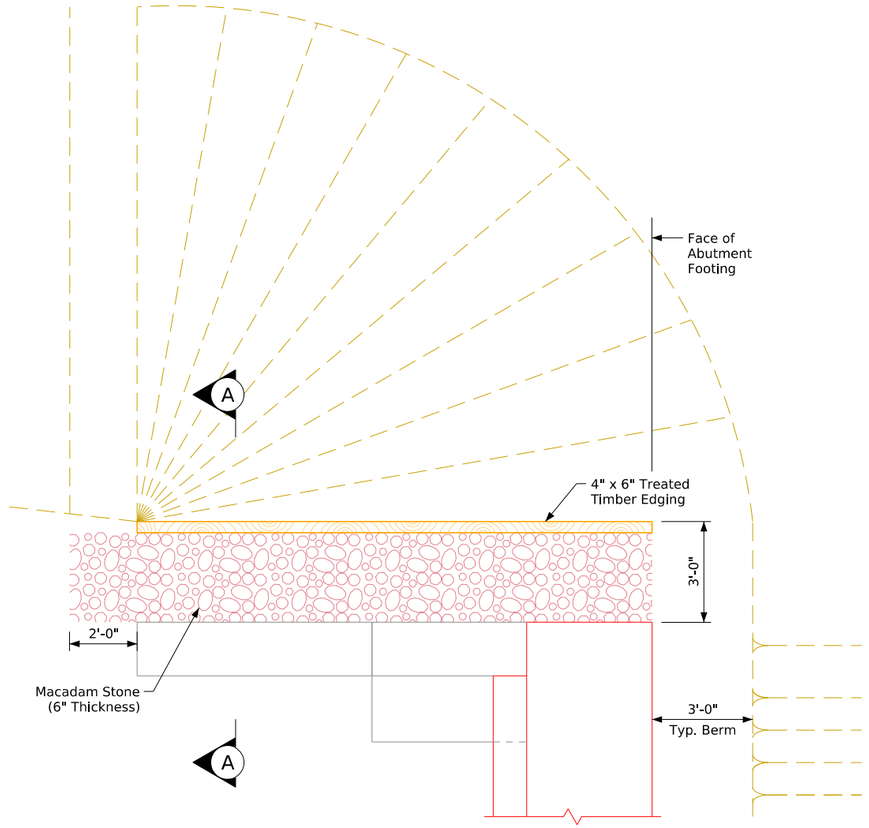
STA. 1105+29.74 (IA 333) Turn-in Date: Sept. 1, 2026

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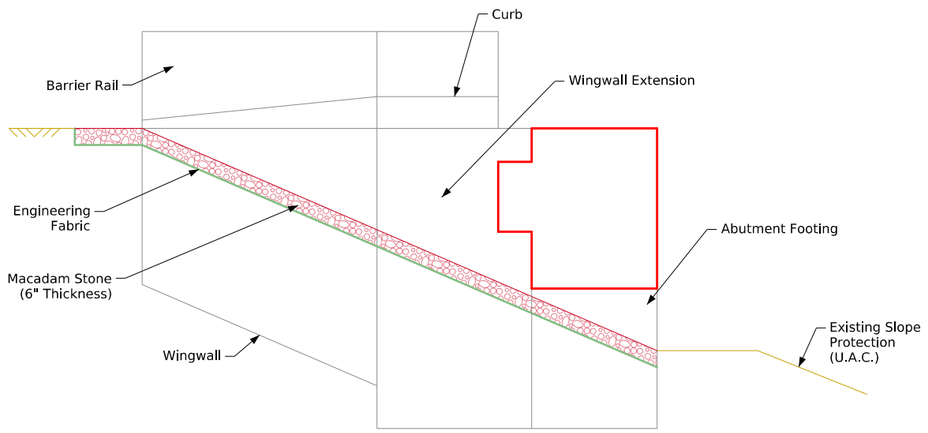
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Design No. 327 Design Sheet No. 11 of 12 FHWA No. 600050

Revised 10-2014 - Deleted All References to Grout. Section 2426 Covers this Requirement and Doesn't Need to be Stated on the Plans.
RepairRetrofitBridges.dgn - 1045 - This Sheet Redrawn 09-27-1990.
RepairRetrofitBridges.dgn - 1045 - This Sheet Re-Issued 07-23.

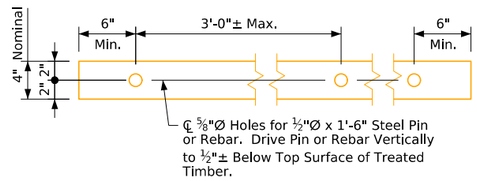


Top View of Wing Armoring with Wing Extension

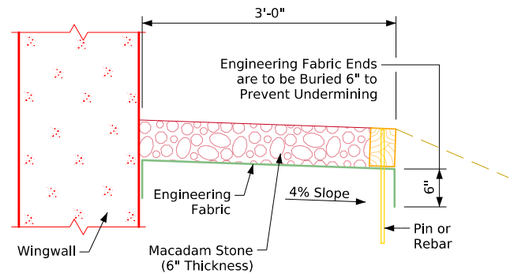


Profile View of Wing Armoring with Wing Extension

(Shown for Integral Abutment with Wing Extensions)



4"x6" Treated Timber Edging Details



Section A-A

General Notes:

Macadam stone shall be placed along the sides of the wing and abutment footing as shown in Section A-A. This is typical at each corner of the bridge unless otherwise noted in the plans. The macadam stone at these locations shall be underlayed with engineering fabric in accordance with Article 4196.01, B, 3, of the Standard Specifications.

The macadam stone shall be in accordance with Section 4122, of the Standard Specifications, coarse material (no choke stone is allowed).

Wood preservative treatment for the timber edging shall meet the requirements for guardrail posts, sawed four sides, in accordance with Section 4161, of the Standard Specifications.

The macadam stone shall be deposited, spread, consolidated and shaped by mechanical or hand methods that will provide uniform 6 inch depth and density and provide uniform surface appearance.

Payment for the bridge wing armoring will be bid per square yard. Cost will include engineering fabric, macadam stone, treated timber edging, excavation, shaping, and compaction to dimensions shown in these plans. Bid item shall be "Bridge Wing Armoring - Macadam Stone".

Design For Repairs to 35°16'19.32" Skew R.A.

328'-0" x 32'-0" Continuous
Welded Plate Girder Bridge

56'-0" End Spans 108'-0" Interior Spans

Bridge Wing Armoring

STA. 1105+29.74 (IA 333) Turn-in Date: Sept. 1, 2026

Fremont County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 327 Design Sheet No. 12 of 12 FHWA No. 600050

Revised 06-14 - Added 2 Feet Of Length Of Macadam Stone In Front Of The Bridge Wing.
ForeSlopeProtectionBridges.dgn - 1005 - This Sheet Issued 06-02.
ForeSlopeProtectionBridges.dgn - 1005 - This Sheet Issued 07-23.

FILE NO. 32383	ENGLISH	DESIGN TEAM WHKS	Bridge Wing Armoring for Slope Protection	Standard Sheet 1005 (Modified)	FREMONT COUNTY	PROJECT NUMBER STP-333-1(032)—2C-36	SHEET NUMBER V.12	

4:24:37 PM 8/11/2026 bbarker pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\3633302022\Bridge\(032)_Bridge Deck Overlay\BRG_36333032_WHKS_327_600050_Z06.dgn

INDEX OF SHEETS

No.	DESCRIPTION
A Sheets	**Title Sheets**
A.3	Roadway Title Sheet
B Sheets	**Typical Cross Sections and Details**
B.1	Typical Cross Sections and Details
C Sheets	**Quantities and General Information**
C.1 - 2	Estimated Roadway Quantities and Reference Information
C.3	Project Description
C.4 - 8	Tabulations
C.9	Standard Road Plans
C.10 - 16	Tabulations
C.17	Index of Tabulations
C.18 - 19	Tabulations
C.20	General Notes
D Sheets	**Mainline Plan and Profile Sheets**
D.1	Plan & Profile Legend & Symbol Information Sheet
D.2	IA 333 Plan Sheet
J Sheets	**Traffic Control and Staging Sheets**
J.1	Traffic Control Plan
J.2	511 Travel Restrictions
J.3	Coordinated Operations
J.4 - 7	Detour Sheets

LICENSED PROFESSIONAL ENGINEER
STEVEN S. SWEET
12558
IOWA

I hereby certify that this plan 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.

Steven Scott Sweet — 8/11/2026

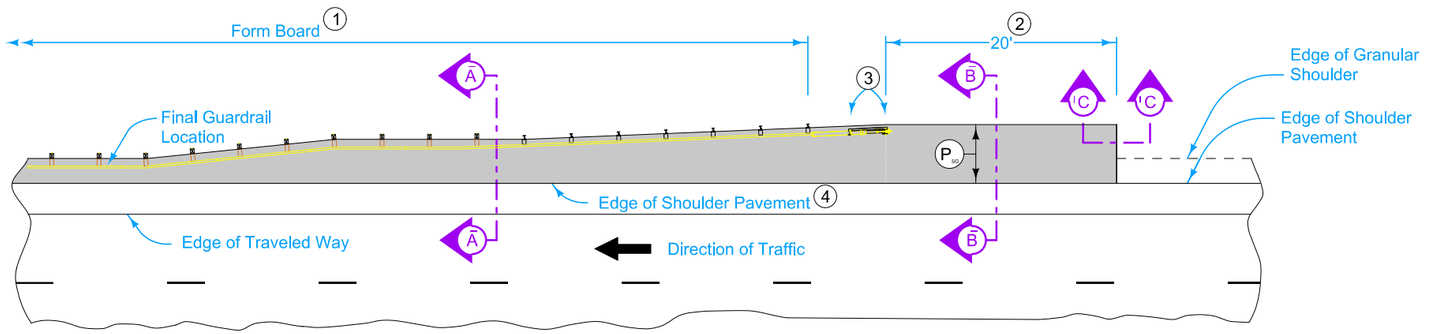
Signature — Date

Steven Scott Sweet

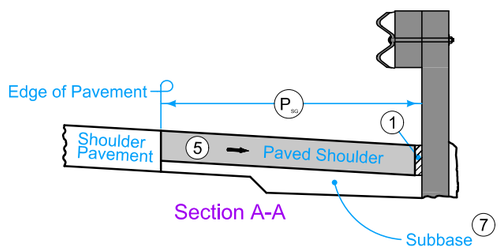
Printed or Typed Name

My license renewal date is December 31, 2026

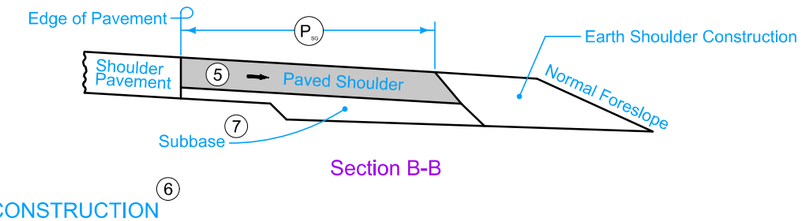
Pages or sheets covered by this seal: A.3, B.1, C.1-C.20, D.1-D.2, J.1-J.7



PLAN VIEW



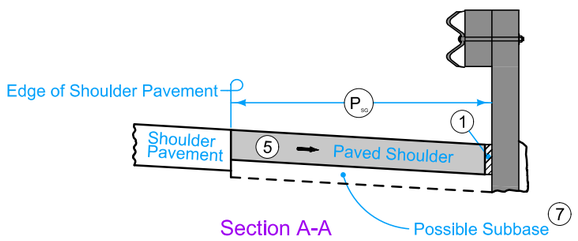
Section A-A



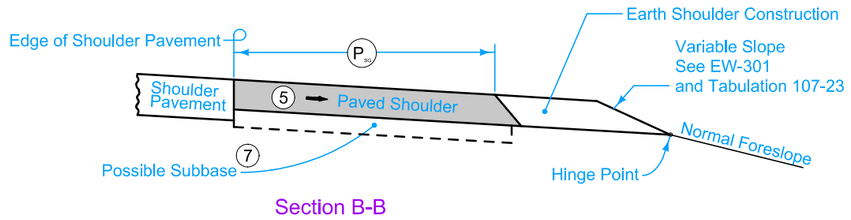
Section B-B

NEW CONSTRUCTION

6



Section A-A



Section B-B

EXISTING SHOULDER

9" HMA Paved Shoulder at guardrail. 8" PCC may be substituted with the following jointing layout:

Match mainline pavement joint spacing. When mainline pavement is 8" or greater in thickness, place additional transverse 'C' joints in shoulder at mid-panel of the mainline pavement. Place longitudinal 'C' joint at P/2 from edge of mainline pavement when P is greater than 10' wide. Terminate longitudinal joint at transverse joint less than 10' in length.

Compaction of HMA is required to face of guardrail post. Hand compaction will be allowed under guardrail. Removal and reinstallation of guardrail will be allowed with no additional payment.

Refer to Tabulation 112-9 for shoulder quantities.

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

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

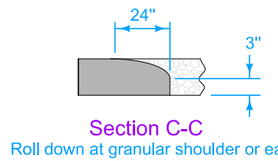
(3) Shoulder may be notched for first 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.

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

(5) Match shoulder slope.

(6) The Contractor has the option to pave the paved shoulder at guardrail and the partial width paved shoulder as one operation.

(7) Refer to other details in the plan.



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

PAVED SHOULDER AT GUARDRAIL
(ADJACENT TO PARTIAL WIDTH PAVED SHOULDER)

ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Roadway Items : Roadway Items

Item no.	Item Code	Item	Unit	Quantities Estimated Roadway Items	Estimate Reference Notes
1	2102-2625000	EMBANKMENT-IN-PLACE	CY	60	Provide borrow material according to Section 2102 of the Standard Specifications. Refer to Tabulation 107_24. Material shall be provided by the Contractor. There was no survey and no x-sections are provided.
2	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD	CY	60	Refer to Tab. 103_10. Quantity will be computed on the basis of a uniform 6 inch depth cut over the area involved. Sufficient field measurements will be taken to assure reasonable conformity with the required depth of cut.
3	2122-5500090	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 9 IN.	SY	156	Refer to Tab. 112_09 for details.
4	2123-7450000	SHOULDER CONSTRUCTION, EARTH	STA	3.24	Refer to Tab. 112_09 for details. Requires a minimum of 4 inches of topsoil. Place according to Article 2105.03,B of the Standard Specifications.
5	2213-2713300	EXCAVATION, CLASS 13, FOR WIDENING	CY	38.9	Refer to Tab.112_09 for details.
6	2301-0690203	BRIDGE APPROACH, BR-203	SY	583.2	Refer to Tab. 112_06.
7	2401-6745065	REMOVAL OF BRIDGE END DRAINS	EACH	4	Refer to Tab. 110_15 for details. Remove intakes and aprons. Fill outlet pipes with flowable mortar.
8	2412-0000100	LONGITUDINAL GROOVING IN CONCRETE, BRIDGE DECK AND/OR APPROACHES	SY	1,504.3	Refer to Tab. 100-28 for details.
9	2503-0500402	BRIDGE END DRAIN, DR-402	EACH	4	Refer to Tab. 104_08A for details.
10	2505-4008120	REMOVAL OF STEEL BEAM GUARDRAIL	LF	625	Refer to Tab. 110_07A for details.
11	2505-4008300	STEEL BEAM GUARDRAIL	LF	150	Refer to Tab. 108_08A for details.
12	2505-4008410	STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION, BA-201	EACH	4	
13	2505-4021010	STEEL BEAM GUARDRAIL END ANCHOR, BOLTED	EACH	4	
14	2505-4021720	STEEL BEAM GUARDRAIL TANGENT END TERMINAL, BA-205	EACH	4	
15	2506-4984000	FLOWABLE MORTAR	CY	10.5	Includes 10.5 cu. yds. for fill and abandon bridge end drain outlet pipes. Refer to Tab. 110_15. Silt inside existing culverts need not be removed prior to placing flowable mortar.
16	2510-6745850	REMOVAL OF PAVEMENT	SY	479.4	Refer to Tabs. 110_01 and 102_05.

Item no.	Item Code	Item	Unit	Quantities	Estimate Reference Notes
				Estimated	
				Roadway Items	
17	2527-9263216	PAINTED PAVEMENT MARKINGS, MULTI-COMPONENT LIQUID	STA	19.52	Refer to Tab. 108_22.
18	2527-9270112	GROOVES CUT FOR PAVEMENT MARKINGS	STA	19.52	
19	2528-2518000	SAFETY CLOSURE	EACH	2	Refer to Tab. 108_13A for details. Closures are for closing IA 333 during construction.
20	2528-8445110	TRAFFIC CONTROL	LS	1	Refer to Traffic Control Plan on Sheet J.1. The Contractor shall be responsible for furnishing, installing, and maintaining detour signage.
21	2528-9290050	PORTABLE DYNAMIC MESSAGE SIGN (PDMS)	CDAY	0	Three signs required; one for NB I-29, one for SB I-29, and one for WB IA 333. See Proposal.
22	2602-0000320	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 20 IN. DIA.	LF	1,150	Refer to Tab. 100_19. The tabulation includes estimated locations for placement of "Perimeter and Slope Sediment Control Device, 20 in. dia." to address erosion to be encountered during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 25% additional quantity for field adjustments and replacements.
23	2602-0000351	REMOVAL OF PERIMETER AND SLOPE OR DITCH CHECK SEDIMENT CONTROL DEVICE	LF	1,150	Refer to Tab. 100_19.

100_01D
8/15/22

PROJECT DESCRIPTION

This project is for the bridge deck overlay for the IA 333 bridge over I-29 in Fremont County. It also includes new bridge approaches and upgraded guardrail. IA 333 will be closed during construction.

PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE

Possible Standards: EC-204

Station From	Station To	Side	Sediment Control Device Type	Diameter Size	Length (LF)	Remarks
1101+70.00	1103+11.00	Right	Perimeter and Slope	20 inch	150.00	
1103+05.00	1103+25.00	Right	Perimeter and Slope	20 inch	30.00	at DR-402 Outlet
1103+19.00	1103+78.00	Right	Perimeter and Slope	20 inch	60.00	
1102+00.00	1102+94.00	Left	Perimeter and Slope	20 inch	110.00	
1102+90.00	1103+05.00	Left	Perimeter and Slope	20 inch	30.00	at DR-402 Outlet
1103+03.00	1103+55.00	Left	Perimeter and Slope	20 inch	70.00	
1107+00.00	1107+57.00	Right	Perimeter and Slope	20 inch	70.00	
1107+50.00	1107+70.00	Right	Perimeter and Slope	20 inch	30.00	at DR-402 Outlet
1107+65.00	1108+60.00	Right	Perimeter and Slope	20 inch	120.00	
1106+80.00	1107+40.00	Left	Perimeter and Slope	20 inch	70.00	
1107+35.00	1107+55.00	Left	Perimeter and Slope	20 inch	30.00	at DR-402 Outlet
1107+49.00	1108+89.00	Left	Perimeter and Slope	20 inch	150.00	
+.00					230.00	+ 25%
Total:					**1150**	

LONGITUDINAL GROOVING

Location	Total (SY)	Remarks
1102+85.97	127.8	Non and single reinforced bridge approach
1103+35.97	89.6	Double reinforced bridge approach
1103+63.80	1069.5	on Bridge
1106+95.68	89.6	Double reinforced bridge approach
1107+23.51	127.8	Non and single reinforced bridge approach
+.00		Total 434.8 SY on Bridge Approaches
+.00		Total 1069.5 SY on Bridge
Total:	**1504.3**	

EXISTING PAVEMENT

County	Route	Direction of Travel	Begin Ref. Location Sign	End Ref. Location Sign	Year	Type	Project Number	Surface Type	Surface Depth (IN)	Base Type	Base Depth (IN)	Subbase Type	Subbase Depth (IN)	Removal Type	Removal Depth (IN)	Coarse Aggregate Source	Coarse Aggregate Type	Course Aggregate Durability Class	Reinforcement Type	Remarks
Fremont	I-29			8.93	1972		I-IG-29-1(16)0--04-36	PCC	8.0	CTB	4.0					Weeping Wate	C.LST.	I		CRC; AC VAR LOC. 1998
Fremont	I-29			8.93	2007		IM-29-1(65)0--13-36	HMA	2.0	HMA	2.0	HMA	2.0			Crescent	C.LST.			

TOPSOIL STRIPPING AND PLACEMENT

Road Identification	Dir. of Traffic	Station From	Station To	Topsoil Stripping Thickness (IN)	Topsoil Placement Thickness (IN)	Remarks
IA 333	EB	1101+82.00	1103+60.00	6.0	4.0	20 Cu. Yd. Topsoil
IA 333	WB	1102+09.00	1103+38.00	6.0	4.0	10 Cu. Yd. Topsoil
IA 333	EB	1107+22.00	1108+51.00	6.0	4.0	10 Cu. Yd. Topsoil
IA 333	WB	1106+99.00	1108+75.00	6.0	4.0	20 Cu. Yd. Topsoil
		+.00				60 Cu. Yd. Topsoil Total

104_08A
8/15/22

SCOUR PROTECTION OR ROCK FLUME FOR BRIDGE END DRAIN

Refer to Standard Road Plan DR-401 and DR-402

Bridge Station	Bridge Corner	Distance DI-1 or DI-2 (FT)	Bridge End Drain Type	Special Ditch Control, Wood Excelsior Mat EC-101 (SQ)	Turf Reinforced Mat (TRM) Type 2 EC-104 (SQ)	Transition Mat EC-105 (SF)	Macadam Stone Base (TONS)	Engineering Fabric (SY)	Erosion Stone (TON)	Remarks
1105+29.74	SW	48.0	DR-402				1.463	158.8	106.200	
1105+29.74	NW	42.0	DR-402				1.463	153.7	102.600	
1105+29.74	SE	42.0	DR-402				1.463	133.3	88.200	
1105+29.74	NE	48.0	DR-402				1.463	158.8	106.200	
										4 Total Bridge End Drains

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-250	10-21-25	Steel Beam Guardrail Installation at Concrete Barrier or Bridge End Post (MASH TL-3)
BR-203	04-21-26	Double Reinforced 12in Approach
BR-211	04-21-26	Bridge Approach (Abutting PCC or Composite Pavement)
DR-402	04-16-24	Rock Flume for Bridge End Drain
EC-204	10-19-21	Perimeter, Slope and Ditch Check Sediment Control Devices
EW-301	04-16-24	Guardrail Grading
PM-110	10-15-24	Line Types
PM-115	04-15-25	Grooving for Line Types
PV-101	10-21-25	Joints
PV-102	10-21-25	PCC Curb Details
SI-172	04-19-16	Delineators
SI-173	04-19-16	Object Markers
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

GRADING FOR GUARDRAIL INSTALLATIONS

Refer to EW-301.

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

Line No.	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
1.0	EB	1103+59.97	Right	4:1	92.6	5.0	92.6	5.0	92.6	5.0	149.0	7.3	28.5		20.0	
2.0	WB	1103+37.33	Left	4:1	42.6	5.0	42.6	5.0	42.6	5.0	98.8	7.3	29.1		10.0	
3.0	EB	1107+22.10	Right	4:1	42.7	5.0	42.7	5.0	42.7	5.0	98.9	7.3	29.8		10.0	
4.0	WB	1106+99.51	Left	4:1	92.6	5.0	92.6	5.0	92.6	5.0	149.0	7.3	26.4		20.0	
Total:															**60**	

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	Right	1103+59.97	16.3	BA-201	1	BA-205	1	103.125			47.70			2		3		1	A	1		62.5	
WB	Left	1103+37.33	26.3	BA-201	1	BA-205	1	53.125			47.70			2		3	1		A	1		12.5	
EB	Right	1107+22.15	26.3	BA-201	1	BA-205	1	53.125			47.70			2		3	1		A	1		12.5	
WB	Left	1106+99.51	16.3	BA-201	1	BA-205	1	103.125			47.70			2		3		1	A	1		62.5	
Total:					**4**		**4**													**4**		**150**	

SAFETY CLOSURES

Refer to Section 2528 of the Standard Specifications

Station	Road Closure Qty.	Hazard Closure Qty.	Remarks
1099+50.00	1		To close IA 333 at west end of interchange
1111+40.00	1		To close IA 333 at east end of interchange
Total:	**2**		

PAVEMENT MARKING LINE TYPES

Line factors based on 6-inch wide continuous line.
*BCY4 - Place on the same side of the roadway to match existing markings near the project.
**NPY4 - Estimating purposes only. No Passing Zone Lines will be located in the field.
***MNY6 - Factor of 1.00 includes number of 6-inch passes to cover median nose area.

BCY4: Broken Centerline (Yellow) @ 0.17 | BCY6: Broken Centerline (Yellow) @ 0.25 | BLC6: Broken Line Contrast (White/Black) @ 0.50 | BLW4: Broken Lane Line (White) @ 0.17 | BLW6: Broken Lane Line (White) @ 0.25
CBW6: Crosswalk Bar (White) @ 10.00 | CHW8: Channelizing Line (White) @ 1.33 | CHW10: Channelizing Line (White) @ 1.67 | CHY8: Channelizing Line (Yellow) @ 1.33 | CHY10: Channelizing Line (Yellow) @ 1.67
CLW6: Crosswalk Line (White) @ 2.00 | DCY4: Double Centerline (Yellow) @ 1.34 | DCY6: Double Centerline (Yellow) @ 2.00 | DDY4: Double Dotted Line (Yellow) @ 0.44 | DDY6: Double Dotted Line (Yellow) @ 0.67
DLW4: Dotted Line (White) @ 0.22 | DLW6: Dotted Line (White) @ 0.33 | DLY4: Dotted Line (Yellow) @ 0.22 | DLY6: Dotted Line (Yellow) @ 0.33 | ELW4: Edge Line Right (White) @ 0.67
ELW6: Edge Line Right (White) @ 1.00 | ELY4: Edge Line Left (Yellow) @ 0.67 | ELY6: Edge Line Left (Yellow) @ 1.00 | LDW8: Lane Drop (White) @ 0.33 | LDW10: Lane Drop (White) @ 0.42
MNY6: Median Nose (Yellow) @ 1.00 | NPY4: No Passing Zone Line (Yellow) @ 0.84 | NPY6: No Passing Zone Line (Yellow) @ 1.25 | RLW4: Ramp Edge Line Right (White) @ 0.67 | RLW6: Ramp Edge Line Right (White) @ 1.00
RLY4: Ramp Edge Line Left (Yellow) @ 0.67 | RLY6: Ramp Edge Line Left (Yellow) @ 1.00 | SLW2: Stop Line (White) @ 4.00 | SLW4: Solid Lane Line (White) @ 0.67 | SLW6: Solid Lane Line (White) @ 1.00
SPW4: Sloped Curb 4" (White) @ 2.16 | SPW6: Sloped Curb 6" (White) @ 2.28 | SPY4: Sloped Curb 4" (Yellow) @ 2.16 | SPY6: Sloped Curb 6" (Yellow) @ 2.28 | STW6: Standard Curb 6" (Yellow) @ 2.03
STY6: Standard Curb 6" (Yellow) @ 2.03 | YLW2: Yield Line (White) @ 1.15

Road ID	Station From	Station To	Lane	Marking Type	Left	Center	Right	Groove Marking Needed?	Groove Qty. (STA)	BCY4* Factored (STA)	BLW4 Factored (STA)	DCY4 Factored (STA)	DCY6 Factored (STA)	ELW6 Factored (STA)	ELY4 Factored (STA)	Remarks
IA 333	1102+85.97	1107+73.51	Center	Multi-Component Liquid Material		X		Yes	9.76				9.76			
IA 333	1102+85.97	1107+73.51	Right	Multi-Component Liquid Material			X	Yes	4.88					4.88		
IA 333	1102+85.97	1107+73.51	Left	Multi-Component Liquid Material	X			Yes	4.88					4.88		
																Total = 19.52 Sta. Markings
Total:									**19.52**				**9.76**	**9.76**		

REMOVAL OF PAVEMENT

Refer to Tabulation 102-5.

* Not a bid item.

Station From	Station To	Side	Pavement Type	Area (SY)	Saw Cut* (LF)	Remarks
1102+85.97	1103+63.19	Both	HMA/PCC	205.9	24.0	
1102+85.97	1103+72.78	Right	HMA	19.3	2.0	Paved Shoulder
1102+85.97	1103+52.98	Left	HMA	14.9	2.0	Paved Shoulder
1106+96.60	1107+73.51	Both	HMA/PCC	205.1	24.0	
1107+06.50	1107+73.51	Right	HMA	14.9	2.0	Paved Shoulder
1106+86.70	1107+73.51	Left	HMA	19.3	2.0	Paved Shoulder
Total:				**479.4**	**56**	

REMOVAL OF STEEL BEAM GUARDRAIL

(1) Lane(s) to which the installation is adjacent.
(2) Includes length of End Terminals and End Anchors.

No.	Direction of Traffic (1)	Station From	Station To	Side	Removal of Guardrail (2) (LF)
1	EB	1102+03.00	1103+72.00	Right	187.5
2	WB	1102+20.00	1103+42.00	Left	125.0
3	EB	1107+17.00	1108+11.00	Right	125.0
4	WB	1106+95.00	1108+81.00	Left	187.5
Total:					**625**

REMOVAL OF INTAKES AND UTILITY ACCESSES

Item No.	Location Description	Type	Remarks
1	at NW corner of the bridge	Intakes	RF-35 Bridge End Drain
			Requires 2.8 cu. yd. flowable mortar
2	at SW corner of the bridge	Intakes	RF-35 Bridge End Drain
			Requires 2.5 cu. yd. flowable mortar
3	at NE corner of the bridge	Intakes	RF-35 Bridge End Drain
			Requires 2.8 cu. yd. flowable mortar
4	at SE corner of the bridge	Intakes	RF-35 Bridge End Drain
			Requires 2.4 cu. yd. flowable mortar
			Total 10.5 cu. yd. flowable mortar

111_25
4/21/26

INDEX OF TABULATIONS

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	ESTIMATED ROADWAY QUANTITIES & REFERENCE NOTES	C.1-C.2
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100_28	LONGITUDINAL GROOVING	C.5
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103_10	TOPSOIL STRIPPING AND PLACEMENT	C.7
104_08A	SCOUR PROTECTION OR ROCK FLUME FOR BRIDGE END DRAIN	C.8
105_04	STANDARD ROAD PLANS	C.9
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108_08A	STEEL BEAM GUARDRAIL AT CONCRETE BARRIER OR BRIDGE RAIL END SECTION	C.11
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BRIDGE APPROACH SECTION

Refer to the BR Series.

* Not a bid item

Bridge Station	End	Skew Ahead Left (Degrees)	Skew Ahead Right (Degrees)	(T) Thickness (IN)	Pay Length (FT)	Non-Reinf. Area (SY)	Single-Reinf. Area (SY)	Double-Reinf. Area (SY)	SRP Approach	SRP Abutment Type	SRP Abutting Pavement	Perforated * 4" Subdrain (LF)	Subdrain * Outlet (STA)	Subdrain * Outlet Side	Porous * Backfill (CY)	Class 'A' * Crushed Stone Backfill (CY)	Modified * Subbase (TON)	Polymer * Grid (SY)	Special * Backfill (TON)	Remarks
1105+29.74	W		35.3	12.0	77.2	114.6	76.4	100.6	BR-203	Movable	BR-213	44.0	1102+95.97	Left	1.7		285.600	322.2		
1105+29.74	E		35.3	12.0	77.2	114.6	76.4	100.6	BR-203	Movable	BR-213	44.0	1107+63.51	Left	1.7		285.600	322.2		
																				583.2 Sq. Yd. Total Bridge Approach
Total:						**229.2**	**152.8**	**201.2**												

SHOULDERS

(1) Lane(s) to which the shoulder is adjacent.
(2) See Typ. 7156, 7157, or 7158.
(3) Bid Item.
(4) Applies only for Paved Shoulders constructed on project with existing granular shoulders.
(5) Bid Item. Typ. 7156, 7157, or 7158.
(6) Does not include shrink.
(7) Paved shoulder thickness specified in Remarks.
(8) Subbase type specified in Remarks.

Roadway Identification	Direction of Travel (1)	Station From	Station To	Side	P Width (FT)	P SG Width (2) (FT)	G Width (FT)	L Length (FT)	Class 13 Excavation (CY)(3)(4)	HMA (TON)	HMA (TON/STA)	Binder (TONS)	Paved Shoulder (3) (SY)	Shoulder at Grdrail (5)(7)	Reinforced Paved Shoulder(3) (SY)	Special Backfill HMA Alt. (3) (TON)	Special Backfill HMA Alt. (TON/STA)	Special Backfill PCC Alt. (3) (TON)	Special Backfill PCC Alt. (TON/STA)	Pavement Scarification (SY)	Polymer Grid (SY)	Subbase (3) (8) (CY)	Granular Shoulder (3) (TON)	Granular Shoulder (TON/STA)	Shoulder Const. Alt (3) (STA)	Shoulder Const. Alt HMA (6) (CY)	Shoulder Const. Alt PCC (6) (CY)	Remarks
IA 333	EB	1101+91.18	1102+11.18	Right		5.2		20.00	2.8	5.684	28.420	0.341		11.6											0.20			
IA 333	EB	1102+11.18	1102+58.86	Left		4.25		47.68	5.6	11.027	23.128	0.662		22.5											0.48			
IA 333	EB	1102+58.86	1102+85.97	Right		3.27		27.11	2.5	4.815	17.763	0.289		9.9											0.27			
IA 333	WB	1102+18.54	1102+38.54	Left		5.2		20.00	2.9	5.684	28.420	0.341		11.6											0.20			
IA 333	WB	1102+38.54	1102+85.97	Left		4.25		47.43	5.6	10.969	23.128	0.658		22.4											0.47			
IA 333	EB	1107+73.51	1108+20.94	Right		4.25		47.43	5.6	10.969	23.128	0.658		22.4											0.47			
IA 333	EB	1108+20.94	1108+40.94	Right		5.22		20.00	2.9	5.684	28.420	0.341		11.6											0.20			
IA 333	WB	1107+73.51	1108+00.58	Left		3.27		27.07	2.5	4.808	17.763	0.288		9.9											0.27			
IA 333	WB	1108+00.58	1108+48.30	Left		4.25		47.72	5.6	11.036	23.128	0.662		22.5											0.48			
IA 333	WB	1108+48.30	1108+68.30	Left		5.22		20.00	2.9	5.684	28.420	0.341		11.6											0.20			
Total:									**38.9**					**156**											**3.24**			

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.

232_11
6/21/23

EROSION CONTROL (STABILIZING CROP 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.

If outside of permanent seeding dates in Section 2601 of the Standard Specifications, or if required by a storm water permit, place stabilizing crop, fertilizer, and mulch on the disturbed area as follows:

Place seed and fertilize according to the requirements of Article 2601.03,C,1 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 incidental to mobilization and will will not be paid for separately.

262_06
9/28/22

UTILITIES (NOT A POINT 25 PROJECT)

This is NOT a POINT 25 project and is not subject to the provisions of IAC 761-115.25.

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

(CTLIA01) CENTURYLINK
Contact Name : SADIE HULL
Contact Phone: 9185470147
Contact Email: sadie.hull@lumen.com

(MD1E) MIDAMER-ELEC
Contact Name : David Fitch
Contact Phone: 7123665669
Contact Email: dlfitch@midamerican.com

(S11) IOWA DOT
Contact Name : Norman Thomas
Contact Phone: 7126228140
Contact Email: norman.thomas@dot.iowa.gov

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

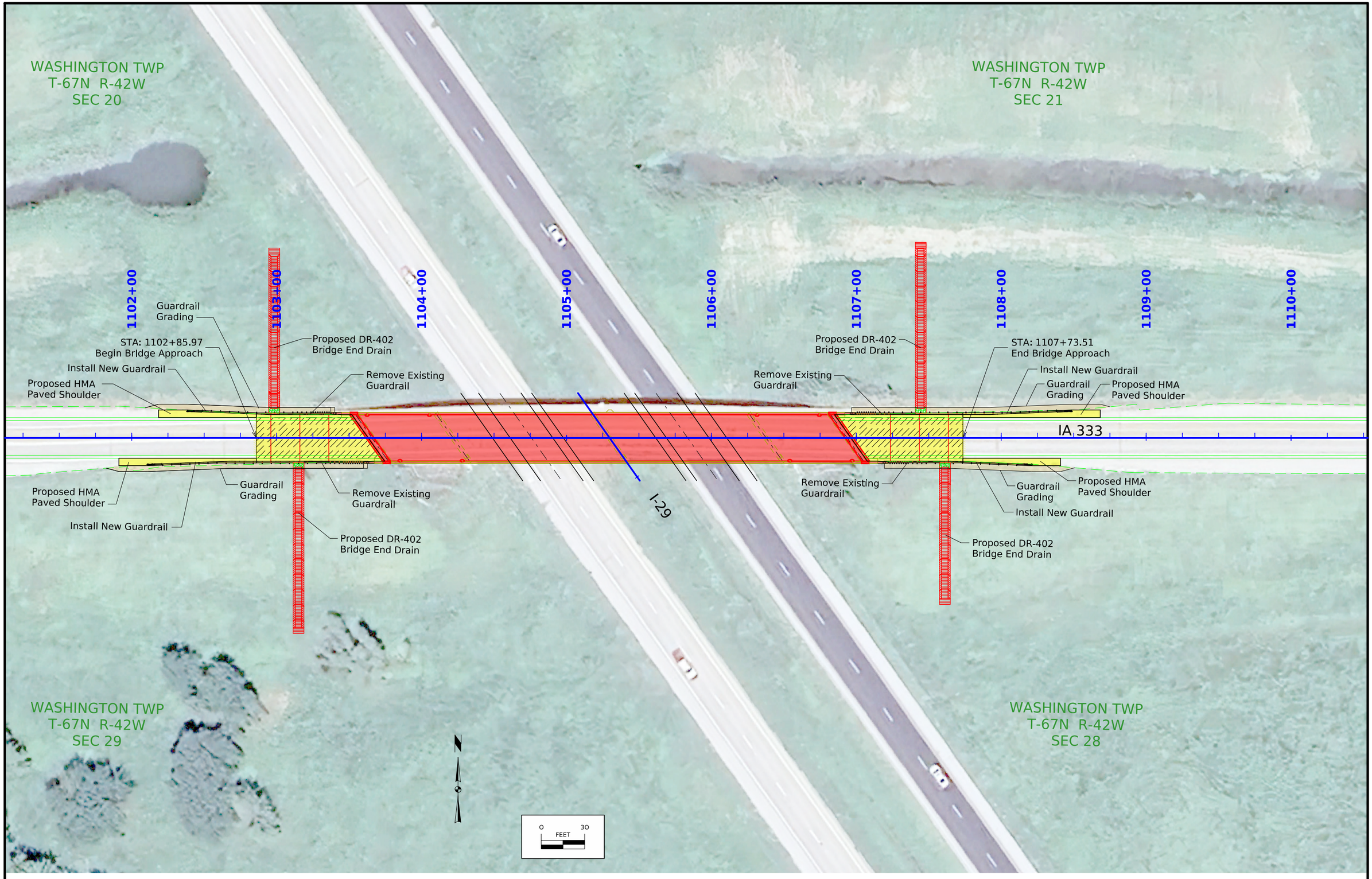
- Proposed Right-of-Way Symbol
- Proposed Right-of-Way Line
- Existing Right of Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Easement (Temporary) Symbol
- Easement (Temporary) Line
- Easement
- C/A Access Control
- Property Line Symbol
- Property Line

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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

FILE NO. 32383	ENGLISH	DESIGN TEAM WHKS	FREMONT COUNTY	PROJECT NUMBER STP-333-1(032)--2C-36	SHEET NUMBER D.1

10:33:12 AM 12/9/2025 kromsey pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\3633302022\Bridge\(032)_Bridge Deck Overlay\WHKS\CADD_Files\36333032_Legend.dgn



FILE NO. 32383	ENGLISH	DESIGN TEAM WHKS	FREMONT COUNTY	PROJECT NUMBER STP-333-1(032)--2C-36	SHEET NUMBER D.2	

3:07:46 PM 12/9/2025 kromsey pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\3633302022\Bridge\(032)_Bridge Deck Overlay\WHKS\CADD_Files\Sheet_Files\36333032_D2_Text.dgn

108_23A
8/15/22

TRAFFIC CONTROL PLAN

1. Traffic Control on this project shall be in accordance with the Standard Road Plans listed on Tabulation 105-4 and the specific layouts shown in the plans. For additional information, refer to Part 6 of the Manual on Uniform Traffic Control Devices (MUTCD) and the current Standard Specifications and Supplemental Specifications. Requirements outlined in Part 6 of the Manual of Uniform Traffic Control Devices (MUTCD) shall govern.

2. IA 333 will be closed during construction. See Sheet J.4 for detour.

3. All traffic control devices shall be furnished, erected, maintained, cleaned, and removed by the Contractor. All traffic control will remain the sole responsibility of the Contractor.

4. The location for storage of equipment by the Contractor during non-working hours shall be as approved by the Engineer. The Contractor will be responsible for securing a safe storage area for equipment and materials to be used on the project.

5. Proposed sign spacing may be modified as approved by the Engineer to meet existing field conditions or to prevent obstruction of the motorist's view of permanent signing.

6. The Contractor shall provide, prior to the start of construction, the name and 24-hour phone number of the Contractor's representative in charge of traffic control.

7. Proposed changes in the traffic control plan shall be reviewed and approved by the Engineer at least 48 hours prior to changes being implemented in the field.

8. Portable Dynamic Message Signs (PDMS) are required to be in place along Interstate 29 and Iowa 333 seven (7) calendar days prior to the road closure.

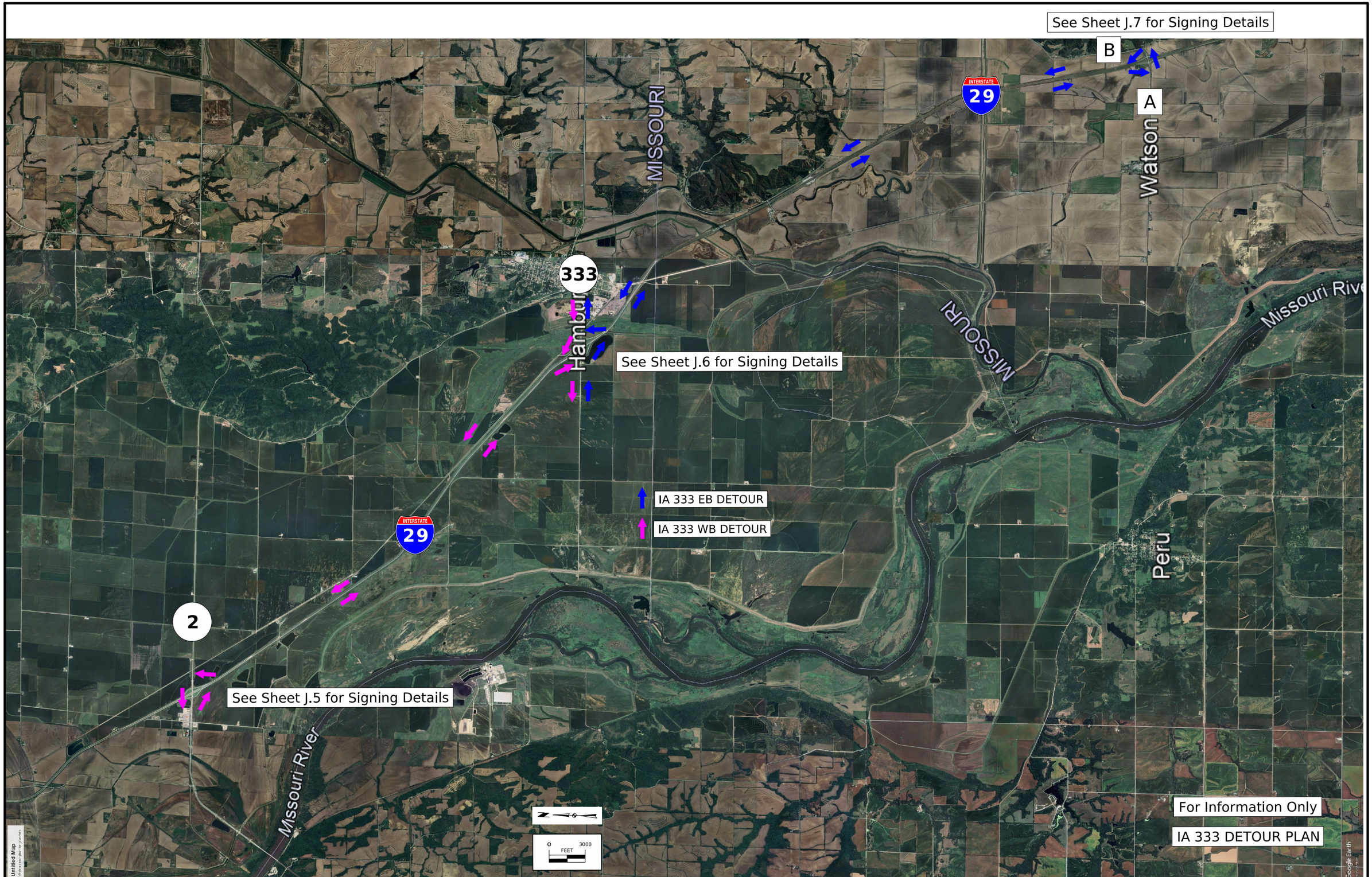
511 TRAVEL RESTRICTIONS

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
IA 333	Both	Fremont	I-29 at the IA 333 Interchange	Bridge over I-29	Traffic Control Device	FHWA No. 600050	Horizontal	32.0			N/A	IA 333 Closed during construction

COORDINATED OPERATIONS

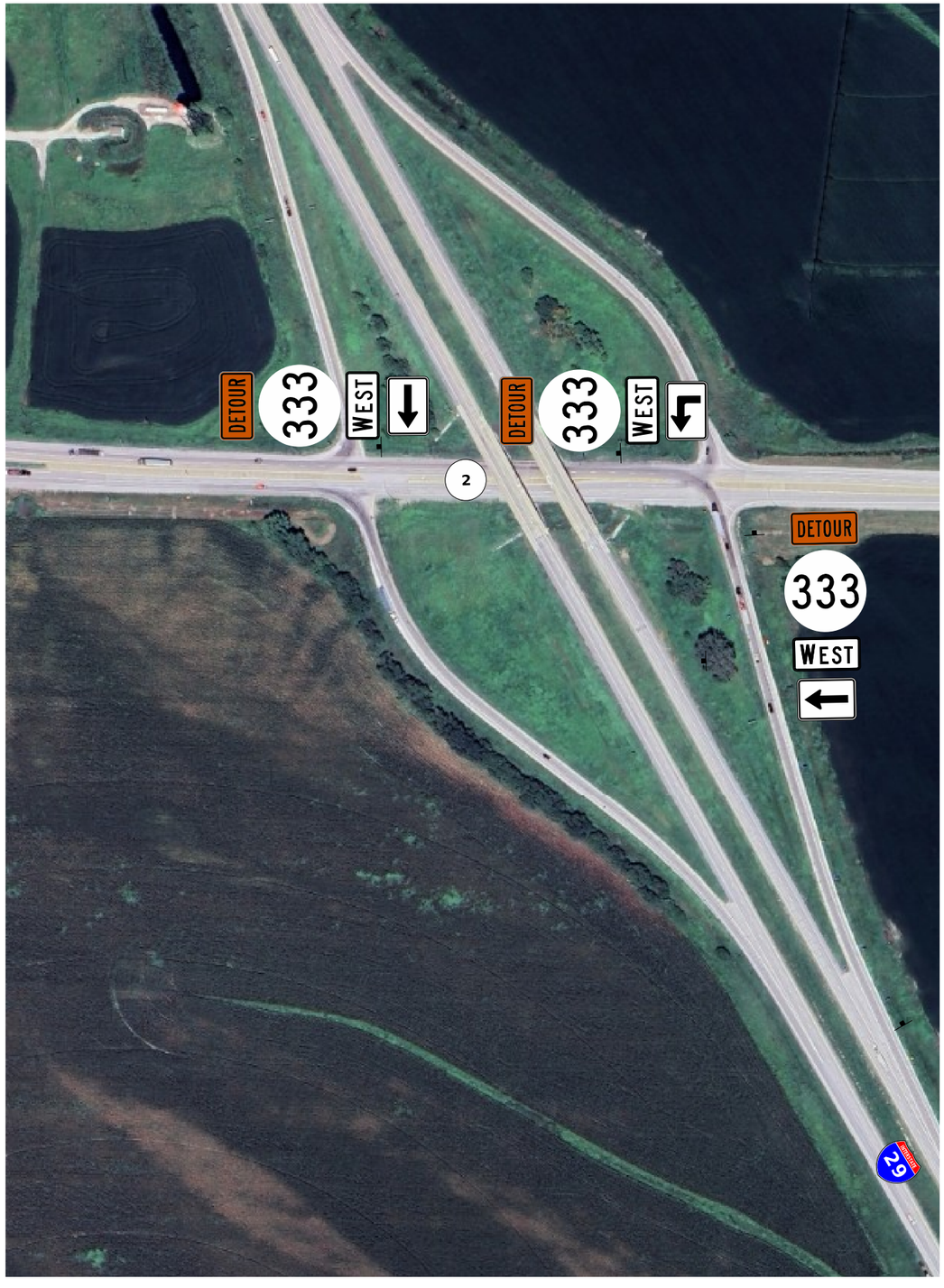
Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

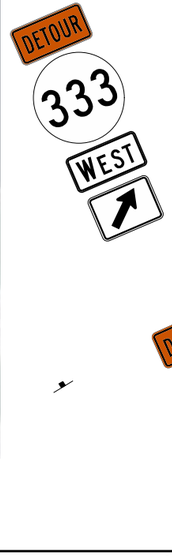
Project	Type of Work
None Provided.	



FILE NO. 32383	ENGLISH	DESIGN TEAM WHKS	FREMONT COUNTY	PROJECT NUMBER STP-333-1(032)--2C-36	SHEET NUMBER J.4

11:42:39 AM 12/11/2025 kromsey pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\3633302022\Bridge\(032)_Bridge Deck Overlay\WHKS\CADD_Files\36333032_Z06_J4.dgn



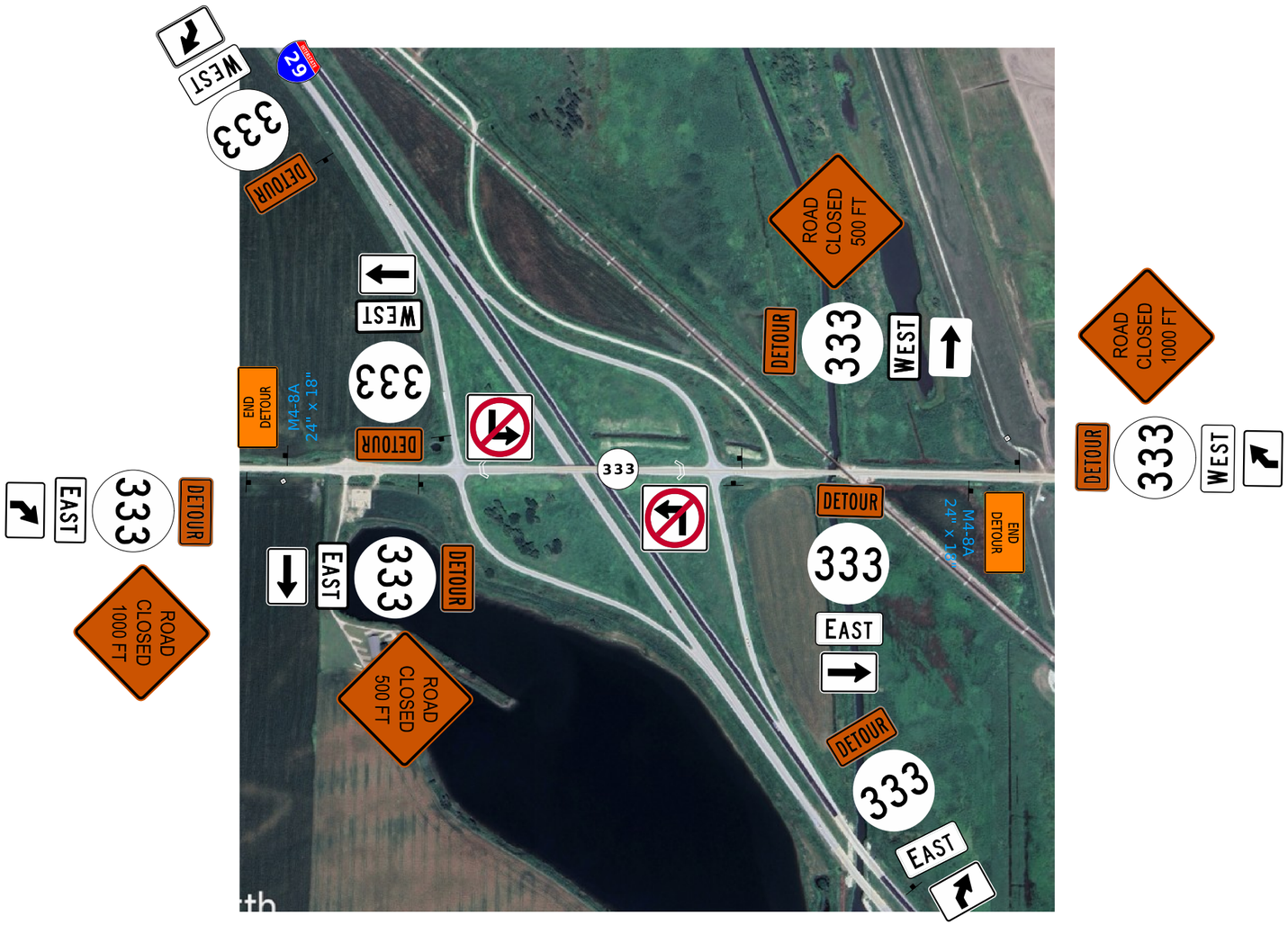




DETOUR ROUTE FOR IA 333 WB

FILE NO. 32383	ENGLISH	DESIGN TEAM WHKS	FREMONT COUNTY	PROJECT NUMBER STP-333-1(032)--2C-36	SHEET NUMBER J.5	

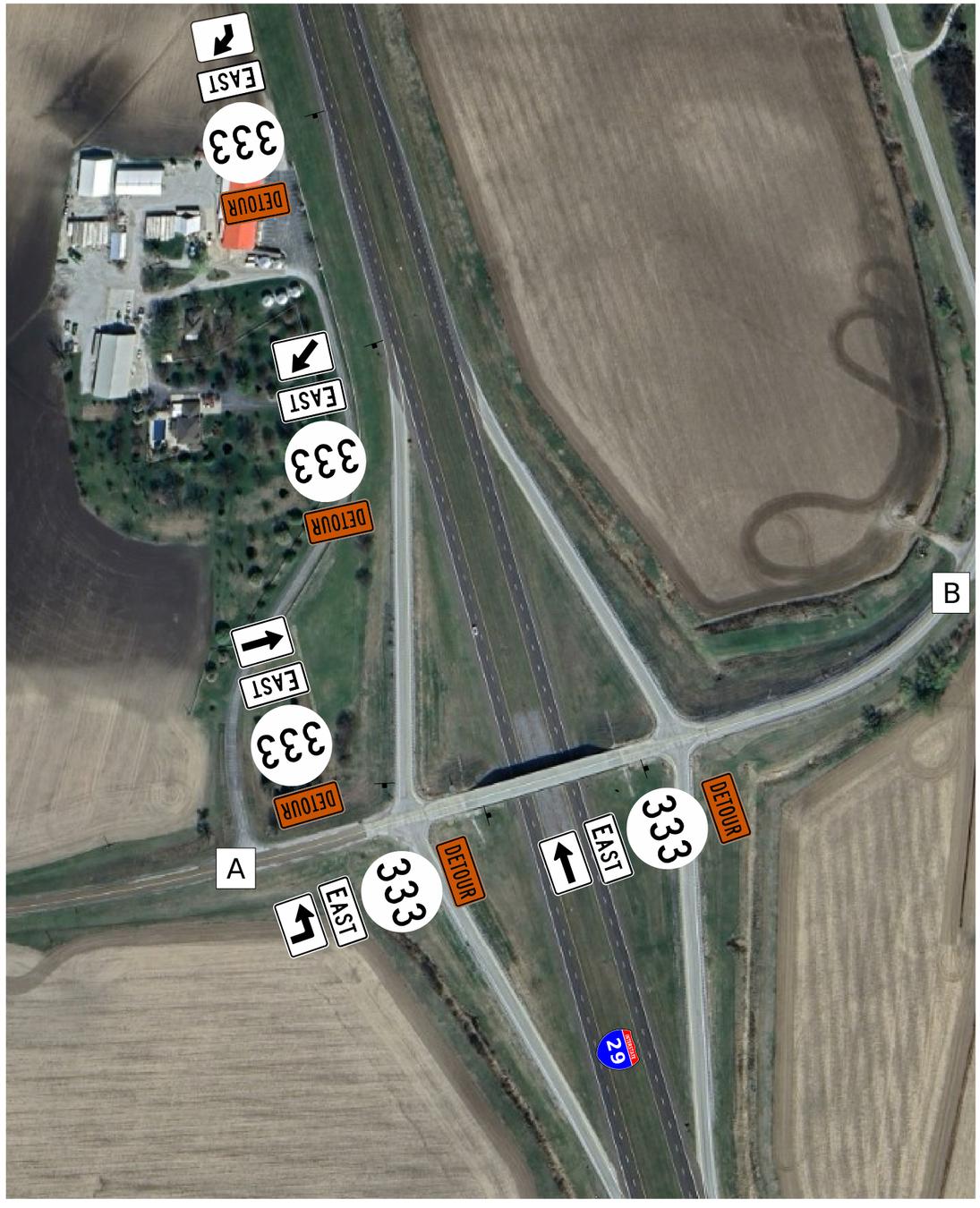
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DETOUR ROUTE FOR IA 333

FILE NO. 32383	ENGLISH	DESIGN TEAM WHKS	FREMONT COUNTY	PROJECT NUMBER STP-333-1(032)--2C-36	SHEET NUMBER J.6

11:45:37 AM 12/11/2025 kromsey pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\3633302022\Bridge\(032)_Bridge Deck Overlay\WHKS\CADD_Files\36333032_Z06_J4.dgn



DETOUR ROUTE FOR IA 333 EB

FILE NO. 32383	ENGLISH	DESIGN TEAM WHKS	FREMONT COUNTY	PROJECT NUMBER STP-333-1(032)--2C-36	SHEET NUMBER J.7

4:51:09 PM 12/10/2025 kromsey pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\3633302022\Bridge\(032)_Bridge Deck Overlay\WHKS\CADD_Files\36333032_Z06_J4.dgn