

Index of Sheets	
No.	Description
Sheets Bridge Plan	
A.1	Title Sheet
A.2 - A.7	Location Map Sheets
V.1	Estimated Quantities - Ringgold Design 127
V.2 - V.4	Ringgold Design 127
V.5	Estimated Quantities - Appanoose Design 127
V.6 - V.8	Apponoose Design 127
V.9	Estimated Quantities - Davis Design 127
V.10 - V.14	Davis Design 127
V.15	Estimated Quantities - Lee Design 227
V.16 - V.19	Lee Design 227
V.20	Estimated Quantities - Henry Design 127
V.21 - V.28	Henry Design 127
V.29	Estimated Quantities - Mahaska Design 427
V.30 - V.33	Mahaska Design 427
Road Sheets Road Plan	
A.8 - J.6	Road Plans
C.1	Total Quantities - Road
C.2	Estimated Quantities - Road - Ringgold Design 127
C.2	Standard Plans - Road - Ringgold Design 127
C.3	Estimated Quantities - Road - Appanoose Design 127
C.3	Standard Plans - Road - Appanoose Design 127
C.4	Estimated Quantities - Road - Davis Design 127
C.4	Standard Plans - Road - Davis Design 127
C.5	Estimated Quantities - Road - Lee Design 227
C.5	Standard Plans - Road - Lee Design 227
C.6	Estimated Quantities - Road - Henry Design 127
C.6	Standard Plans - Road - Henry Design 127
C.7	Estimated Quantities - Road - Mahaska Design 427
C.7	Standard Plans - Road - Mahaska Design 427



PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM STATEWIDE COUNTY

Bridge Repair

Various Locations Statewide

Refer to the Plan Sheets for list of applicable specifications.

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



Revisions

TOTAL	
54	
PROJECT IDENTIFICATION NUMBER	
26-00-000-170	
PROJECT NUMBER	
BRFN-000-T(462)--39-00	
R.O.W. PROJECT NUMBER	
PROJECT DIRECTORY NUMBER	
0000017026	

Iowa DOT Bridges and Structures
Consultant Coordinator Contact:
Christian Yi

Standard Road
Plans

Standard Road Plans are listed on Sheet
No. C.2 - C.7


Design Data Rural

Refer to individual
Situation Plans for
Traffic Data information.

Index of Seals		
Sheet No.	Name	Type
A.1	J. Scott Ingersoll *	Structural Design
A.8	Jordan L. Provost *	Roadway Design

* Foth Infrastructure & Environment, LLC

Structural Design



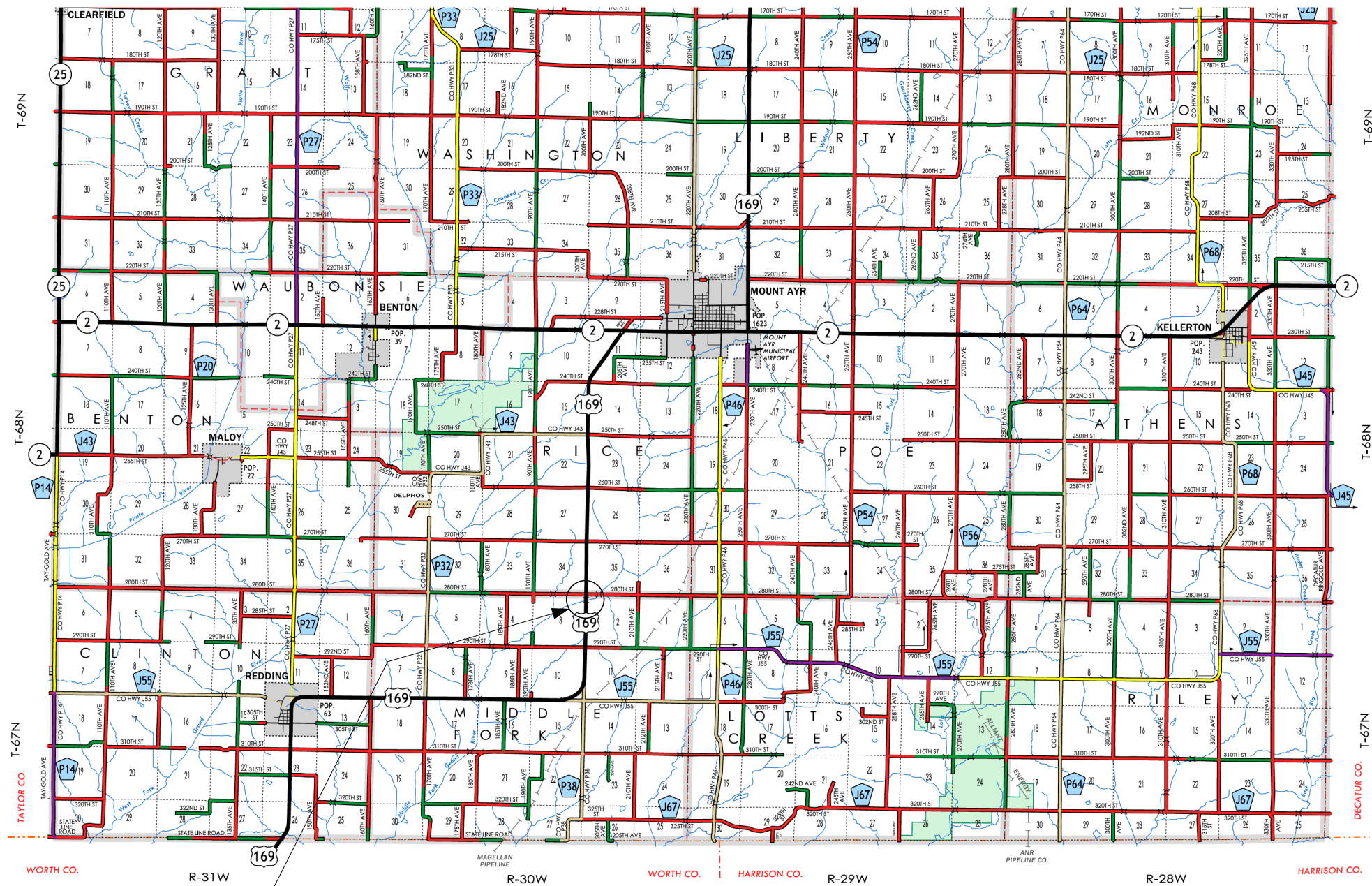
I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature J. Scott Ingersoll Date 04-27-2026

Printed or Typed Name J. Scott Ingersoll

My license renewal date is December 31, 2026

Pages or sheets covered by this seal: A.1 - A.7 & V.1 - V.33



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

UNINCORPORATED PLACE

STATE PARKS

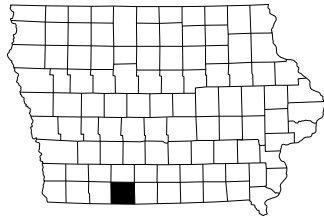
STATE INSTITUTIONS

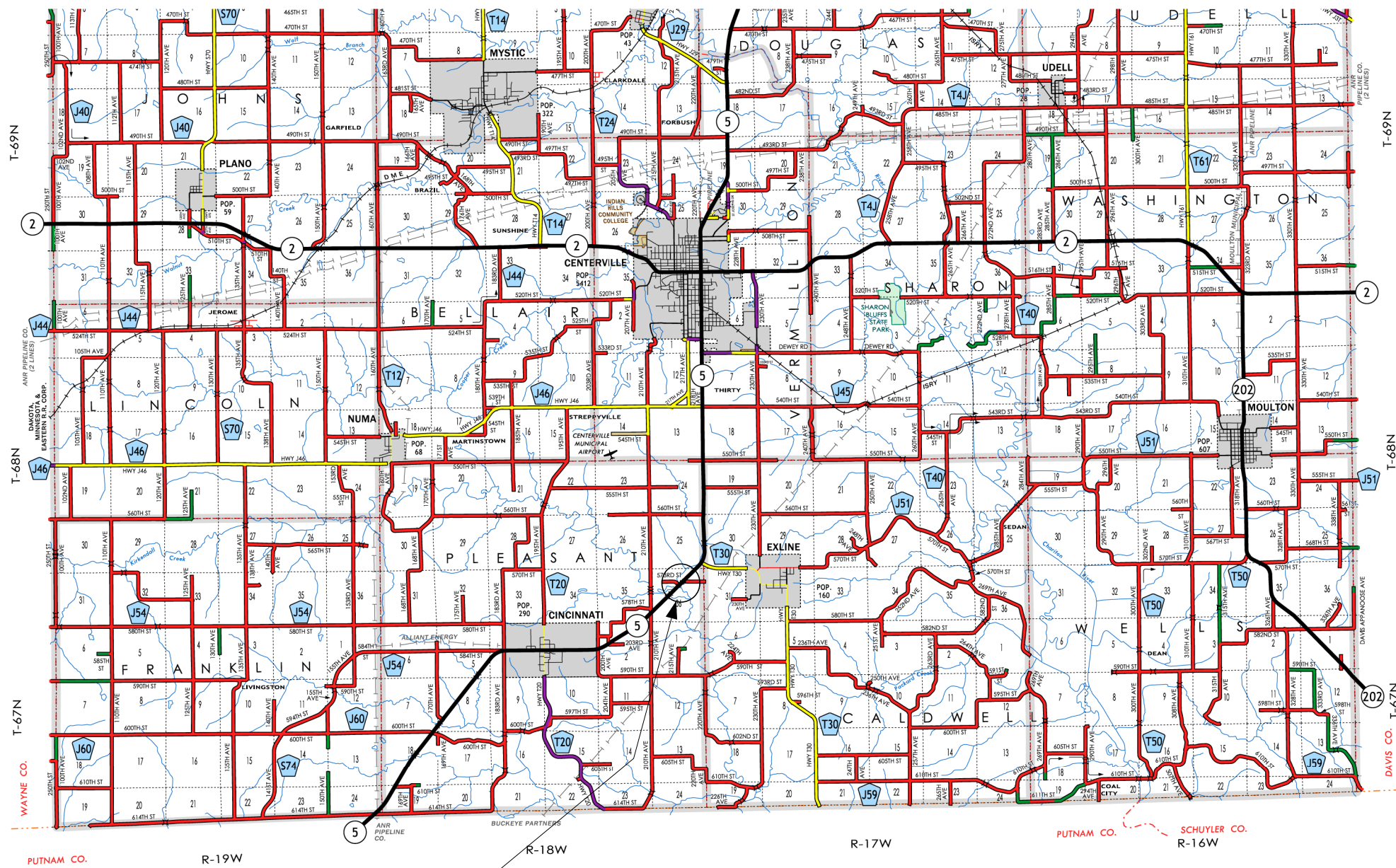
FEDERAL LAND

Design No. 127
FHWA No. 46261

Ringgold County Location Map

Not To Scale





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

UNINCORPORATED PLACE

STATE PARKS

STATE INSTITUTIONS

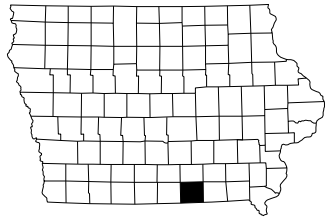
FEDERAL LAND

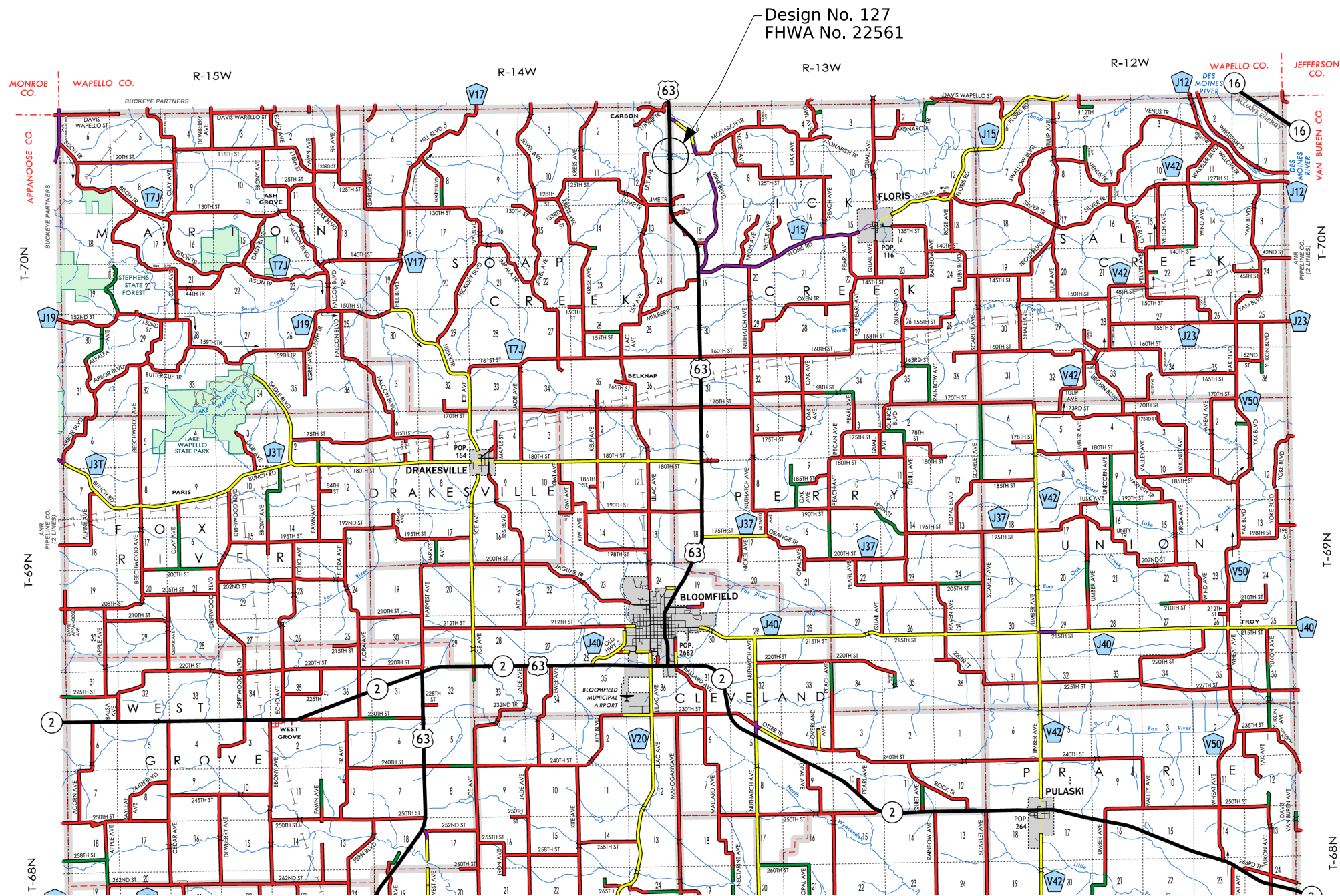


Design No. 127
FHWA No. 13901

Appanoose County Location Map

Not To Scale



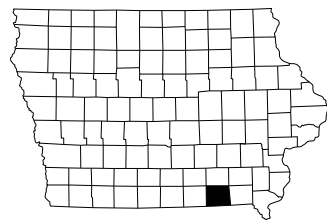


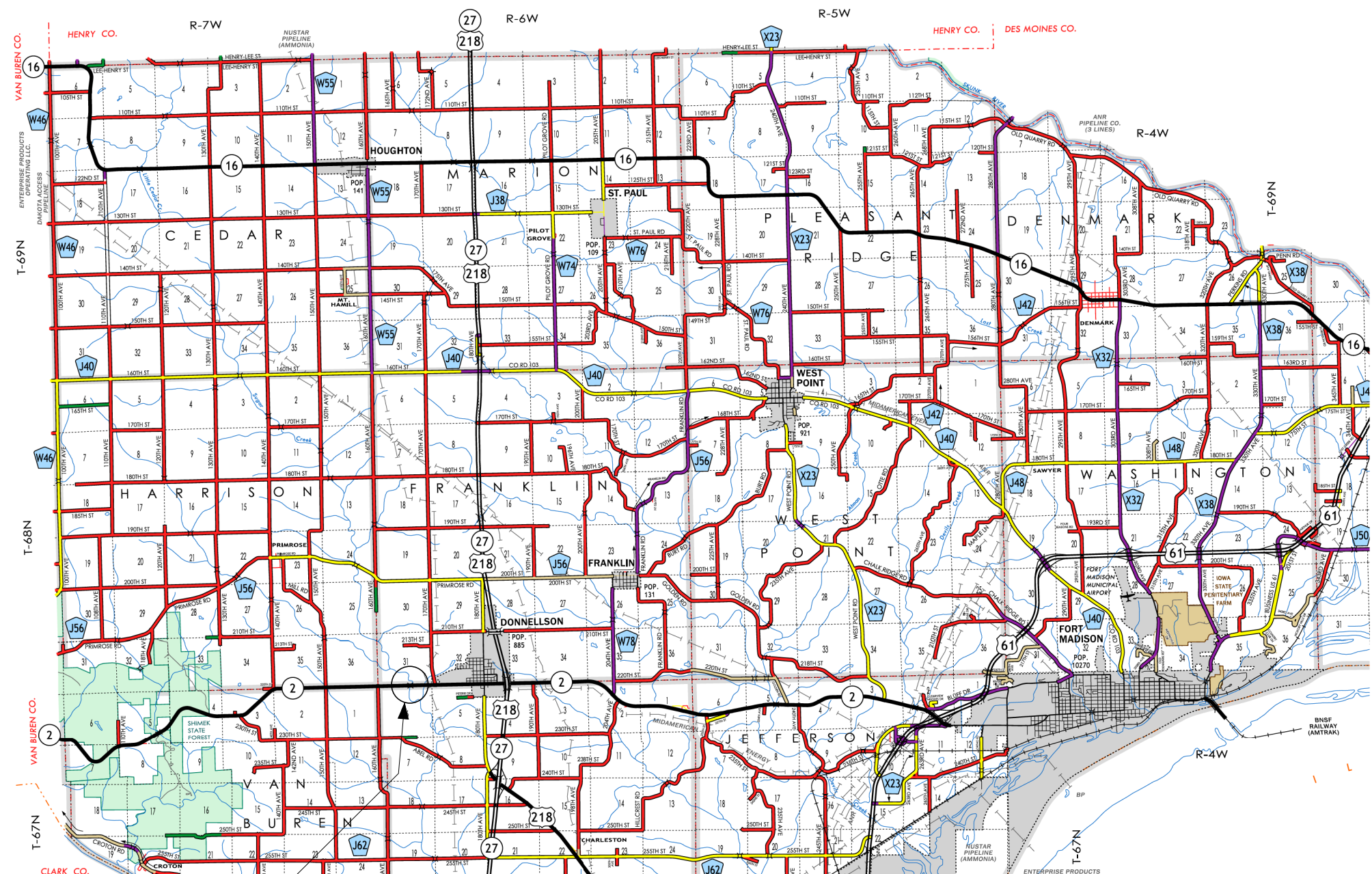
Davis County Location Map

Not To Scale

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	
UNINCORPORATED PLACE	
STATE PARKS	
STATE INSTITUTIONS	
FEDERAL LAND	





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

UNINCORPORATED PLACE

STATE PARKS

STATE INSTITUTIONS

FEDERAL LAND

80

65

237

527

+

+

+

+

— — — — —

— — — — —

— — — — —

— — — — —

— — — — —

— — — — —

— — — — —

— — — — —

— — — — —

— — — — —

— — — — —

— — — — —

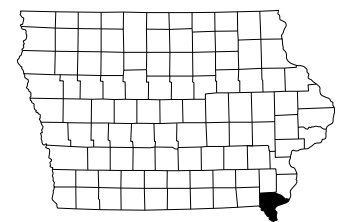
— — — — —

— — — — —

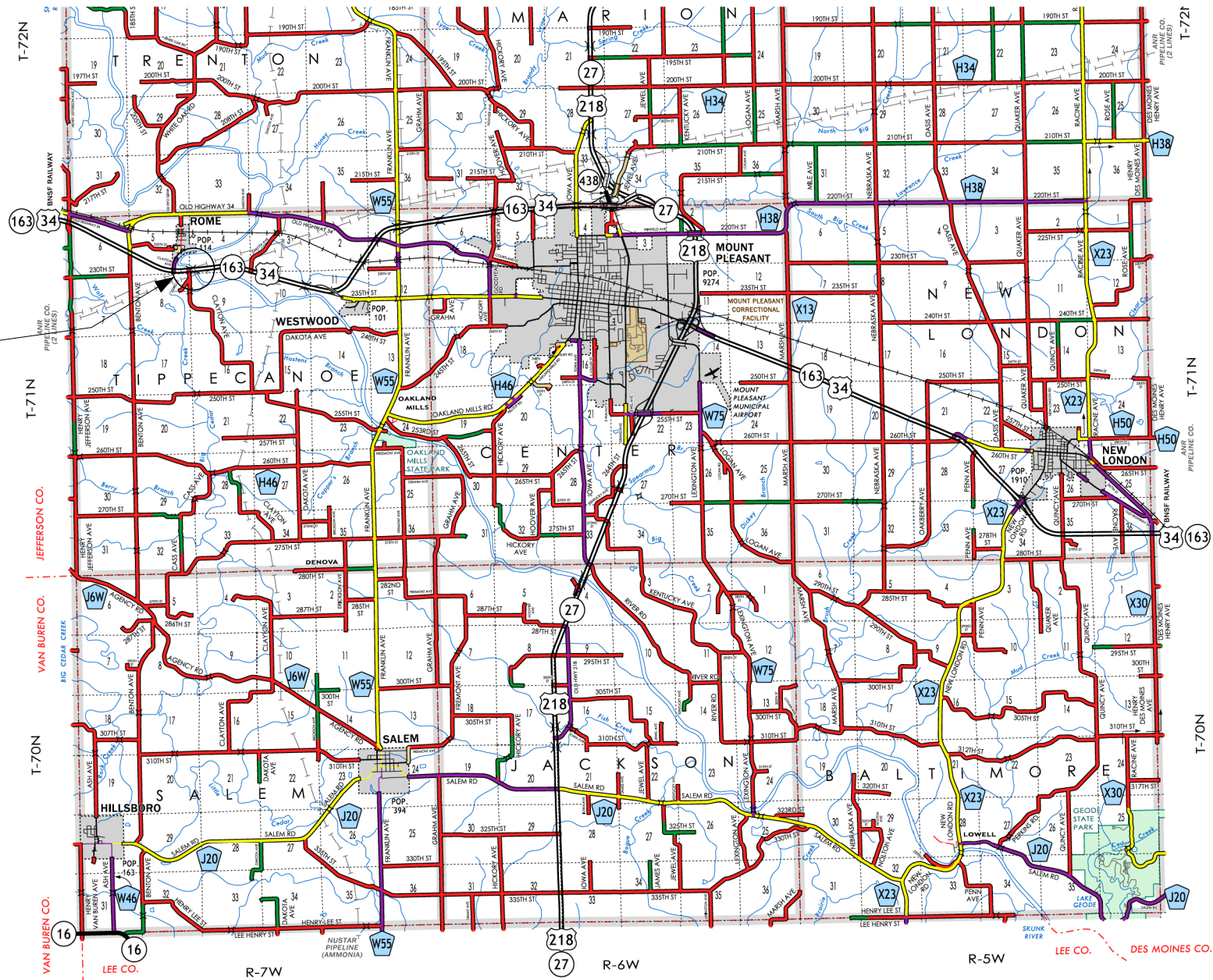
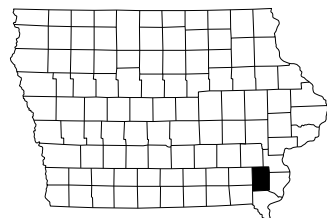
Design No. 227
FHWA No. 33251

Lee County Location Map

Not To Scale



Design No. 127
FHWA No. 28431

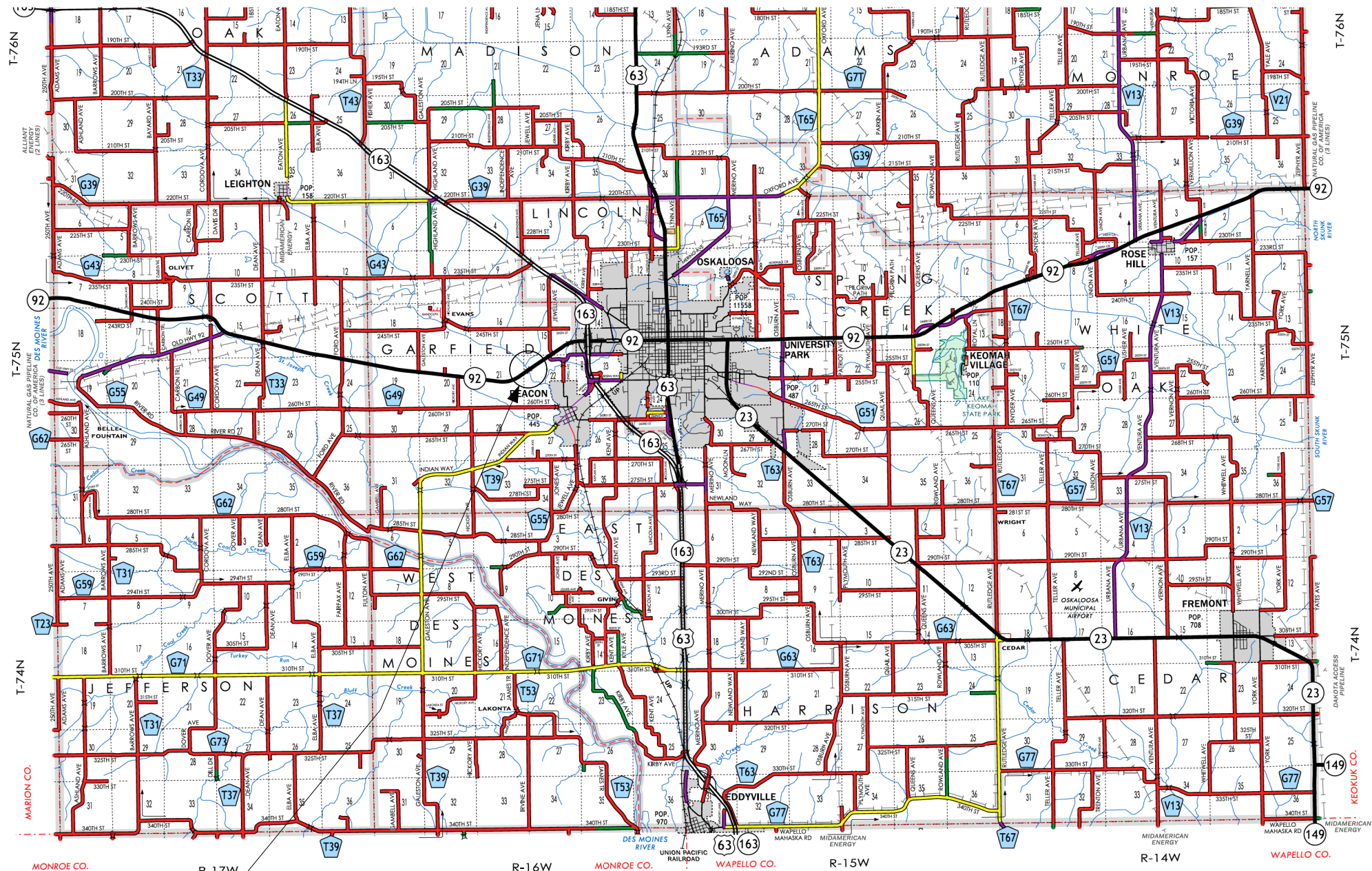


Henry County Location Map

Not To Scale

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
- UNINCORPORATED PLACE
- STATE PARKS
- STATE INSTITUTIONS
- FEDERAL LAND



Design No. 427
FHWA No. 34981

Mahaska County Location Map

Not To Scale

LEGEND

INTERSTATE HIGHWAY

PRIMARY HIGHWAY-DIVIDED

PRIMARY HIGHWAY

PORTLAND CEMENT CONCRETE ROAD

ASPHALT ROAD

BITUMINOUS ROAD

GRAVEL ROAD

EARTHEN ROAD

80

65

237

327

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

UNINCORPORATED PLACE

+

+

+

+

+

STATE PARKS

STATE INSTITUTIONS

FEDERAL LAND

+

+

+

+

+

FILE NO. 32891	ENGLISH	DESIGN TEAM Foth	STATEWIDE COUNTY	PROJECT NUMBER BRFN-000-T(462)--39-00	SHEET NUMBER A.7
3:09:18 PM	4/14/2026	JAE	pw:\\projectwise.dot.int.lan:PWM\\Main\\Documents\\Projects\\0000017026\\Bridge\\(462)_Bridge Repair\\SHT_00000462_FOTH_127-427_46261-34981_Z12-Z09.dgn		

Estimate Bridge Repair Quantities and Reference Notes - Design #127					
Item No.	Item Code	Item	Unit	Quantities Estimated Design No. 127	Estimate Reference Notes
1	2533-4980005	MOBILIZATION	LS	1	----
2	2599-9999006	FURNISH HMWM BRIDGE DECK TREATMENT MATERIAL	GAL	65	Includes furnishing HMWM deck treatment in accordance with the application rates stated in the Special Provisions for High Molecular Weight Methacrylate Resin Bridge Deck Treatment.
3	2599-9999014	BRIDGE DECK SEALING, HMWM	SF	5520	Includes surface preparation and application of HMWM in accordance with Special Provisions for High Molecular Weight Methacrylate Resin Bridge Deck Treatment.
4	2599-9999014	BRIDGE RAIL SEALING	SF	1215	Includes cleaning existing barriers, furnishing and placing concrete sealer in accordance with Article 2403.03,P,3, of the Standard Specifications.

General Notes:

This design is for repairs to the existing 135'-0" x 40'-0" Pretensioned Prestressed Concrete Beam Bridge on US 169 over Middle Fork Grand River. Electronic copies of original design plans are available to the Contractor as part of the e-files supplied with the contract documents.

See Design Sheet No. 2 for list of repair items.

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

Faint lines on plans indicate existing portions of the bridge.

Utility companies whose facilities are shown on the plans or known to be within the construction limits shall be notified by the Bridge Contractor of the starting date.

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. If new sections of rail are constructed, the new sections shall not be sealed. All costs associated with cleaning and sealing of the concrete rails shall be included in the unit price bid item "Bridge Rail Sealing".

Construction shall be done in stages with at least one lane traffic maintained at all times in accordance with "Traffic Control Plan" note.

Construction Stages 1 & 2 as detailed on these plans may be reversed at the Contractor's option subject to the Engineer's approval.

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, including:

- Special provisions for High Molecular Weight Methacrylate Resin Bridge Deck Treatment

Design Stresses:

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

Roadway Quantities shown elsewhere in these plans.

Traffic Control Plan

The roadway will be open to thru traffic. Refer to the Traffic Control Plan shown elsewhere in these plans.

Design History at this Site	
(Includes this Design)	
Des. No.	Type of Work
4929	Original Design
6851	Reconstruction
187	Deck Repair
399	Retrofit Barrier Rail
312	Scour Countermeasure
121	Bridge Replacement - PPCB
127	Bridge Repair

Design For Repair To 0 Degree Skew

135'-0" x 40'-0" Pretensioned Prestressed Concrete Beam Bridge

135'-0" Single Span

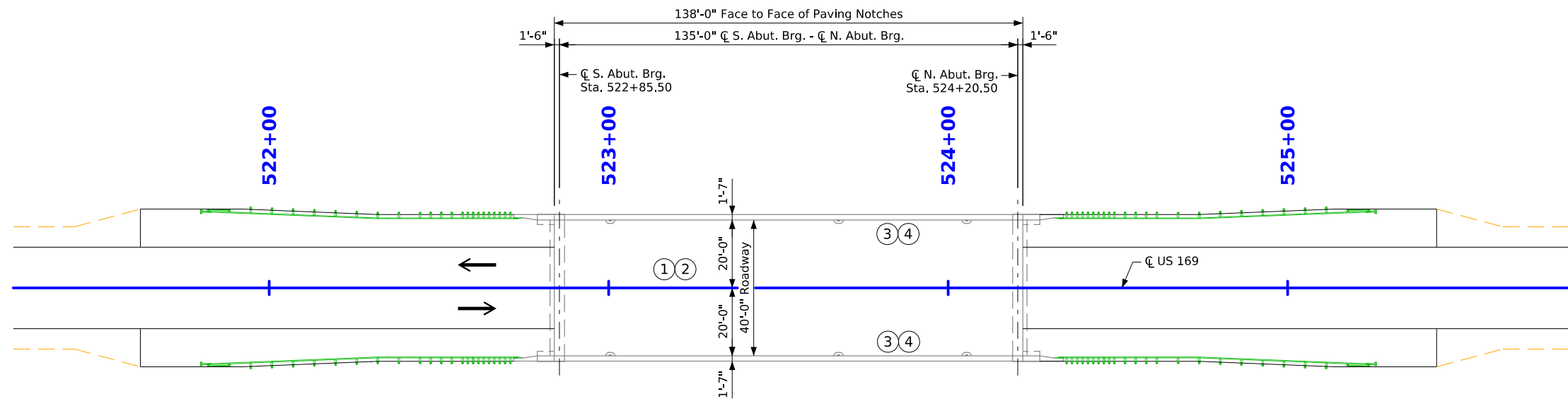
General Notes & Quantities

STA. 523+53.00 (US 169)Turn-in Date: May 2026

Ringgold County

IOWA DEPARTMENT OF TRANSPORTATION

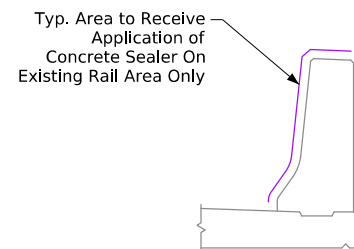
Design No. 127Design Sheet No. 1 of 4FHWA No. 46261



Situation Plan

Repairs Shall Consist of:

- ① Clean and prepare existing bridge deck.
- ② Apply High Molecular Weight Methacrylate (HMWM) sealer to the existing bridge deck.
- ③ Clean and prepare existing barrier rails.
- ④ Apply sealer to the existing barrier rails.



Detail of Concrete Sealer Area

Traffic Estimate

2024 AADT	460 V.P.D.
2041 AADT	520 V.P.D.
TRUCKS	15 %

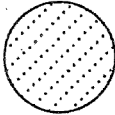
Location

US 169 over Middle Fork Grand River
T-67N R-30W
Sections 2 & 3
Middle Fork Township
Ringgold County
FHWA No. 46261
Bridge Maint. No. 8009.85169
Latitude 40.637453°
Longitude -94.280981°

Design For Repair To 0 Degree Skew
**135'-0" x 40'-0" Pretensioned
Prestressed Concrete Beam Bridge**
135'-0" Single Span
Situation Plan
STA. 523+53.00 (US 169) Turn-in Date: May 2026
Ringgold County
IOWA DEPARTMENT OF TRANSPORTATION
Design No. 127 Design Sheet No. 2 of 4 FHWA No. 46261


LEGEND

NOTE: Cracks Are Hairline Unless Otherwise Noted

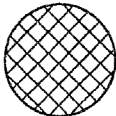


- Scale

L - Light (up to 1/4")
M - Moderate (1/4" to 1/2")
H - Heavy (1/2" to 1")
S - Severe (over 1")




- AC Patch




- Spall

I.E.

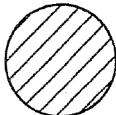
- Areas Injected With Epoxy




- Exposed Reinforcing




- Leaching




- Delaminated Concrete



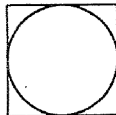
- Stalactite



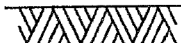
- PC Patch



- Map Cracking



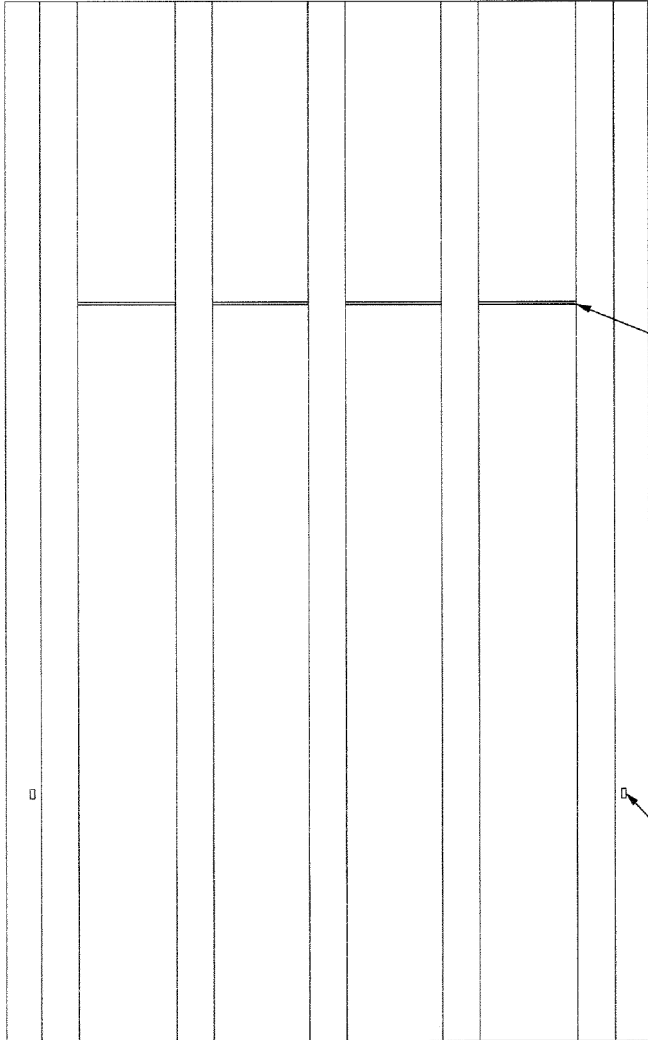
- Retrofitted Fatigue Crack



Ground Line Measured From Bridge Seat Unless Noted

SCALE	BRIDGE NO.	8009.8S169	SKETCH BY	CHANGE SINCE LAST INSP.	DATE	PAGE
100	SKETCH OF:	BOTTOM OF DECK, NEAR HALF	Lehman	Initial	8-2-23	B-6
			Lehman	No Chg.	8-4-25	

MATCHLINE



NEAR ABUTMENT

DIAPHRAGM (TYP.)

DECK DRAIN (TYP.)

Bottom of Deck Inspection Sketches

(For Information Only)

Note:
Total estimated crack length on bottom of deck based on the 2025 inspection sketches is 0 L.F.
This measurement is provided for information only.

Design For Repair To 0 Degree Skew
135'-0" x 40'-0" Prestressed
Prestressed Concrete Beam Bridge
135'-0" Single Span
Inspection Sketches
STA. 523+53.00 (US 169) Turn-in Date: May 2026
Ringgold County
IOWA DEPARTMENT OF TRANSPORTATION
Design No. 127 Design Sheet No. 3 of 4 FHWA No. 46261

FILE NO. 32891

ENGLISH

DESIGN TEAM Foth

3:09:42 PM 4/14/2026 JAE

pw:\\projectwise.dot.int.lan:PWM\\Main\\Documents\\Projects\\0000017026\\Bridge\\(462)_Bridge Repair\\SHT_00000462_FOTH_127-427_46261-34981_Z12-Z09.dgn

Ringgold COUNTY

PROJECT NUMBER BRFN-000-T(462)--39-00

SHEET NUMBER V.3

SCALE	BRIDGE NO.	8009.85169	SKETCH BY	CHANGE SINCE LAST INSP.	DATE	PAGE
100	SKETCH OF:	BOTTOM OF DECK, FAR HALF	Lehman	Initial	8-2-23	B-7
			Lehman	No Ch	8-4-25	

FAR ABUTMENT

DECK DRAIN (TYP.)

DIAPHRAGM (TYP.)

MATCHLINE

Bottom of Deck Inspection Sketch
(For Information Only)

Design For Repair To 0 Degree Skew

135'-0" x 40'-0" Pretensioned
Prestressed Concrete Beam Bridge

135'-0" Single Span

Inspection Sketches

STA. 523+53.00 (US 169)Turn-In Date: May 2026

Ringgold County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 127Design Sheet No. 4 of 4FHWA No. 46261

Estimate Bridge Repair Quantities and Reference Notes - Design #127					
Item No.	Item Code	Item	Unit	Quantities Estimated Design No. 127	Estimate Reference Notes
1	2533-4980005	MOBILIZATION	LS	1	----
2	2599-9999006	FURNISH HMWM BRIDGE DECK TREATMENT MATERIAL	GAL	78	Includes furnishing HMWM deck treatment in accordance with the application rates stated in the Special Provisions for High Molecular Weight Methacrylate Resin Bridge Deck Treatment.
3	2599-9999014	BRIDGE DECK SEALING, HMWM	SF	6638	Includes surface preparation and application of HMWM in accordance with Special Provisions for High Molecular Weight Methacrylate Resin Bridge Deck Treatment.
4	2599-9999014	BRIDGE RAIL SEALING	SF	1209	Includes cleaning existing barriers, furnishing and placing concrete sealer in accordance with Article 2403.03,P,3, of the Standard Specifications.

General Notes:

This design is for repairs to the existing 150'-0" x 44'-0" Continuous Concrete Slab Bridge on IA 5 over Drainage Ditch. Electronic copies of original design plans are available to the Contractor as part of the e-files supplied with the contract documents.

See Design Sheet No. 2 for list of repair items.

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

Faint lines on plans indicate existing portions of the bridge.

Utility companies whose facilities are shown on the plans or known to be within the construction limits shall be notified by the Bridge Contractor of the starting date.

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. If new sections of rail are constructed, the new sections shall not be sealed. All costs associated with cleaning and sealing of the concrete rails shall be included in the unit price bid item "Bridge Rail Sealing".

Construction shall be done in stages with at least one lane traffic maintained at all times in accordance with "Traffic Control Plan" note.

Construction Stages 1 & 2 as detailed on these plans may be reversed at the Contractor's option subject to the Engineer's approval.

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, including:

- Special provisions for High Molecular Weight Methacrylate Resin Bridge Deck Treatment

Design Stresses:

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

Roadway Quantities shown elsewhere in these plans.

Traffic Control Plan

The roadway will be open to thru traffic. Refer to the Traffic Control Plan shown elsewhere in these plans.

Design History at this Site (Includes this Design)	
Des. No.	Type of Work
247	Original Design
187	Overlay and Bridge Repair
211	Countermeasure Repair
116	Retrofit End Section
120	Bridge Replacement - CCS
127	Bridge Repair

Design For Repair To 15 Degree Skew LA

150'-0" x 44'-0" Continuous Concrete Slab Bridge

45'-6" End Spans59'-0" Interior Span

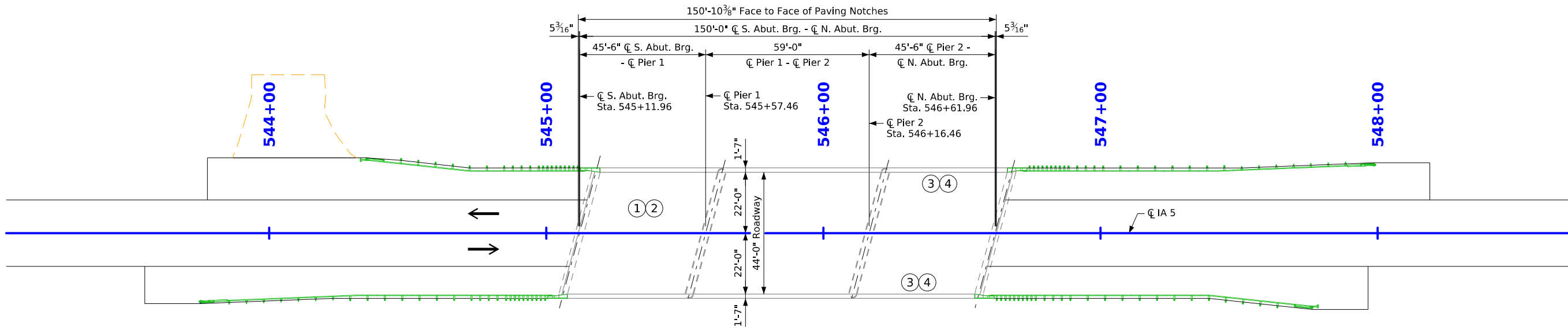
General Notes & Quantities

STA. 545+86.96 (IA 5)Turn-in Date: May 2026

Appanoose County

IOWA DEPARTMENT OF TRANSPORTATION

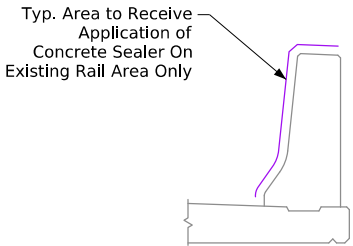
Design No. 127Design Sheet No. 1 of 4FHWA No. 13901



Situation Plan

Repairs Shall Consist of:

- 1 Clean and prepare existing bridge slab.
- 2 Apply High Molecular Weight Methacrylate (HMWM) sealer to the existing bridge slab.
- 3 Clean and prepare existing barrier rails.
- 4 Apply sealer to the existing barrier rails.



Detail of Concrete Sealer Area

Traffic Estimate

2024 AADT	2150 V.P.D.
2036 AADT	2200 V.P.D.
TRUCKS	11 %

Location

IA 5 over Drainage Ditch
T-68N R-18W
Section 36
Pleasant Township
Appanoose County
FHWA No. 13901
Bridge Maint. No. 0407.6S005
Latitude 40.648507°
Longitude -92.876049°

Design For Repair To 15 Degree Skew LA

150'-0" x 44'-0" Continuous Concrete Slab Bridge

45'-6" End Spans59'-0" Interior Span

Situation Plan

STA. 545+86.96 (IA 5)Turn-in Date: May 2026

Appanoose County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 127Design Sheet No. 2 of 4FHWA No. 13901

0407.65005

Legend

Sketch By	Date	Supervisor	Page
Team #3	6/14/22	Initial	B-1
Team 3	6-11-24	RTN	B-
			B-
			B-
			B-
			B-

Sealing

Hollow

Spalled

Leaching

Stalactite

Staining

Mapcracking

Reinl. Steel

Cracks-hairline or noted

80

Bottom of Slab

Span #1

2022 notes

Bottom of Slab

several faint random cracks

All spans

Pier #1

Near Abutment

Bottom of Slab Inspection Sketches

(For Information Only)

Note:

Minor hairline cracking on the underside of the slab, in all spans, was noted in the 2024 inspection sketches. The total estimated crack length cannot be quantified based on these sketches.

Design For Repair To 15 Degree Skew LA

150'-0" x 44'-0" Continuous Concrete Slab Bridge

45'-6" End Spans59'-0" Interior Span

Inspection Sketches

STA. 545+86.96 (IA 5)Turn-In Date: May 2026

Appanoose County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 127Design Sheet No. 3 of 4FHWA No. 13901

FILE NO. 32891

ENGLISH

DESIGN TEAM Foth

Appanoose COUNTY

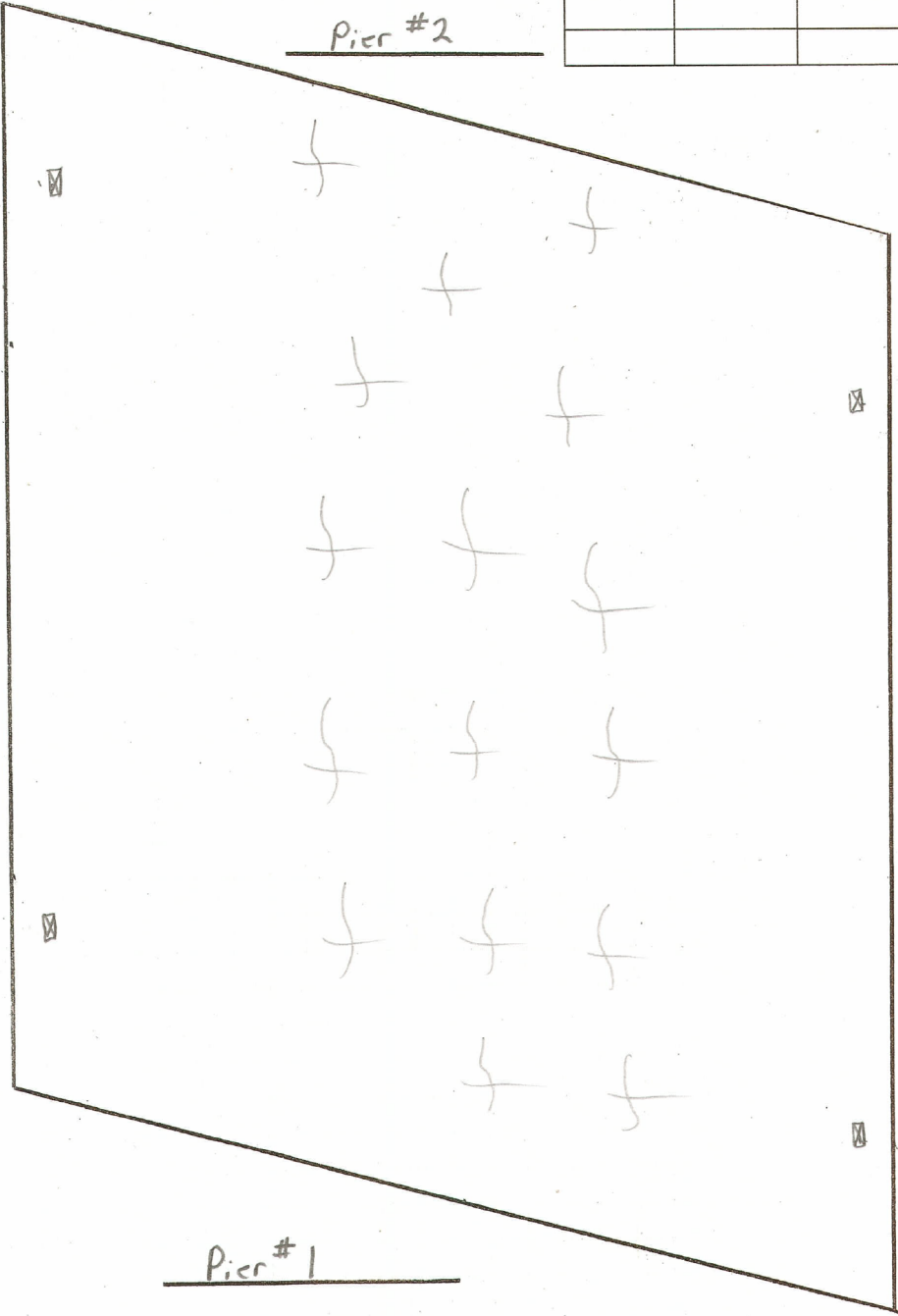
PROJECT NUMBER BRFN-000-T(462)--39-00

SHEET NUMBER V.7

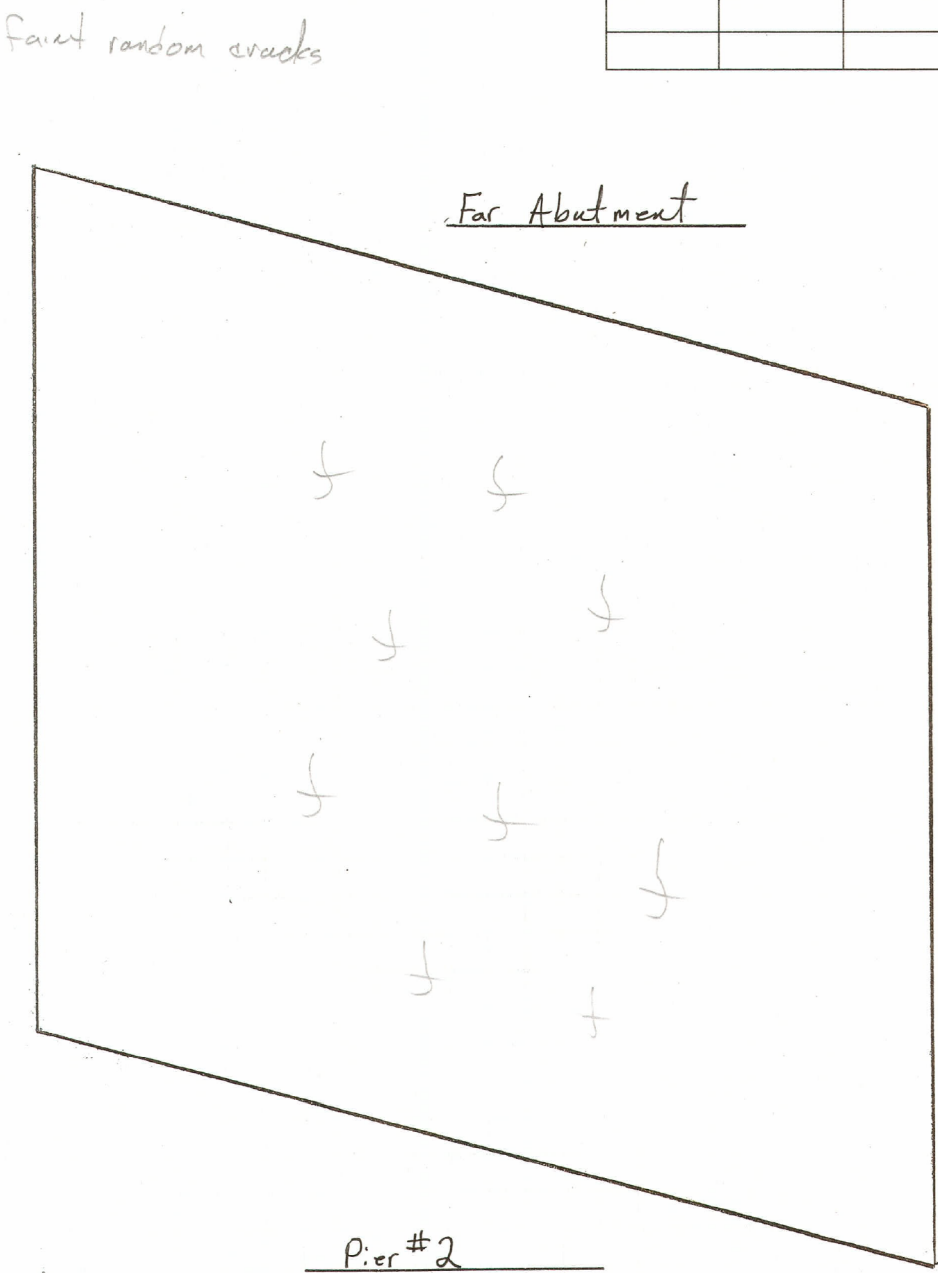
3:09:46 PM 4/14/2026 JAE

pw:\\projectwise.dot.int.lan:PWMMain\\Documents\\Projects\\0000017026\\Bridge\\(462)_Bridge Repair\\SHT_00000462_FOTH_127-427_46261-34981_Z12-Z09.dgn

Scale	Bridge No. 0407.65005	Sketch by	Change since last insp.	Date	Page
80	Sketch of: Bottom of Slab Span #2	Team #3	Initial	6/14/22	B- 11
		SDN	RTN	6-11-24	B-
					B- -
					B-
					B-



Scale	Bridge No. 0407.65005	Sketch by	Change since last insp.	Date	Page
80	Sketch of: Bottom of Slab Span #3	Team #3	Initial	6/14/22	B- 12
		SDN	RTN	6-11-24	B-
					B- -
					B-
					B-



Bottom of Slab Inspection Sketches
(For Information Only)

Design For Repair To 15 Degree Skew LA
150'-0" x 44'-0" Continuous
Concrete Slab Bridge
45'-6" End Spans 59'-0" Interior Span
Inspection Sketches
STA. 545+86.96 (IA 5) Turn-in Date: May 2026
Appanoose County
IOWA DEPARTMENT OF TRANSPORTATION
Design No. 127 Design Sheet No. 4 of 4 FHWA No. 13901

Estimate Bridge Repair Quantities and Reference Notes - Design #127					
Item No.	Item Code	Item	Unit	Quantities Estimated Design No. 127	Estimate Reference Notes
1	2533-4980005	MOBILIZATION	LS	1	----
2	2599-9999006	FURNISH HMWM BRIDGE DECK TREATMENT MATERIAL	GAL	177	Includes furnishing HMWM deck treatment in accordance with the application rates stated in the Special Provisions for High Molecular Weight Methacrylate Resin Bridge Deck Treatment.
3	2599-9999014	BRIDGE DECK SEALING, HMWM	SF	15,048	Includes surface preparation and application of HMWM in accordance with Special Provisions for High Molecular Weight Methacrylate Resin Bridge Deck Treatment.
4	2599-9999014	BRIDGE RAIL SEALING	SF	2746	Includes cleaning existing barriers, furnishing and placing concrete sealer in accordance with Article 2403.03,P,3, of the Standard Specifications.

General Notes:

This design is for repairs to the existing 339'-0" x 44'-0" Pretensioned Prestressed Concrete Beam Bridge on US 63 over Soap Creek. Electronic copies of original design plans are available to the Contractor as part of the e-files supplied with the contract documents.

See Design Sheet No. 2 for list of repair items.

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

Faint lines on plans indicate existing portions of the bridge.

Utility companies whose facilities are shown on the plans or known to be within the construction limits shall be notified by the Bridge Contractor of the starting date.

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. If new sections of rail are constructed, the new sections shall not be sealed. All costs associated with cleaning and sealing of the concrete rails shall be included in the unit price bid item "Bridge Rail Sealing".

Construction shall be done in stages with at least one lane traffic maintained at all times in accordance with "Traffic Control Plan" note.

Construction Stages 1 & 2 as detailed on these plans may be reversed at the Contractor's option subject to the Engineer's approval.

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, including:

- Special provisions for High Molecular Weight Methacrylate Resin Bridge Deck Treatment

Design Stresses:

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

Roadway Quantities shown elsewhere in these plans.

Traffic Control Plan

The roadway will be open to thru traffic. Refer to the Traffic Control Plan shown elsewhere in these plans.

Design History at this Site	
(Includes this Design)	
Des. No.	Type of Work
662	Original Design
113	Bridge Replacement - PPCB
127	Bridge Repair

Design For Repair To 0 Degree Skew

339'-0" x 44'-0" Pretensioned Prestressed Concrete Beam Bridge

101'-0" End Spans137'-0" Interior Span

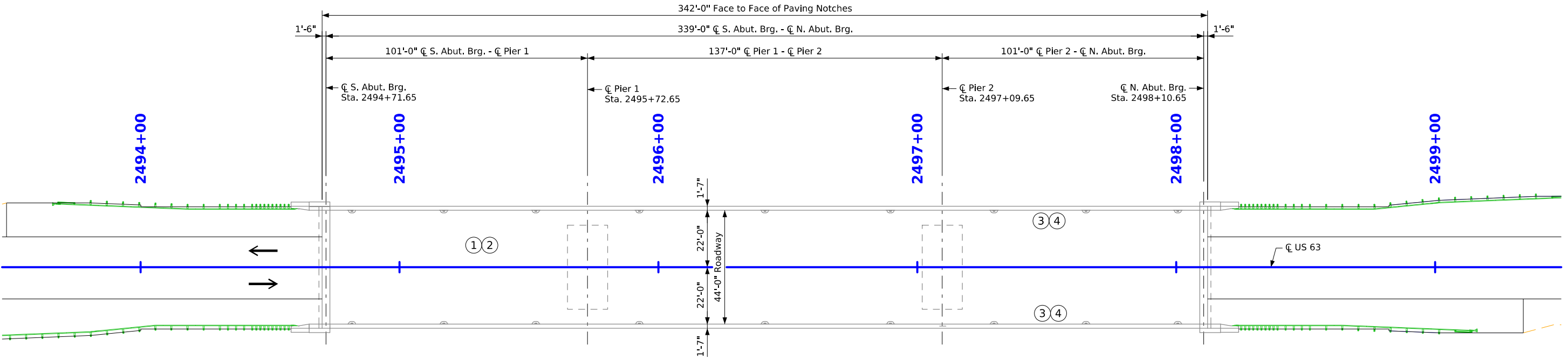
General Notes & Quantities

STA. 2496+41.15 (US 63)Turn-in Date: May 2026

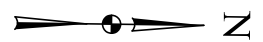
Davis County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 127Design Sheet No. 1 of 6FHWA No. 22561

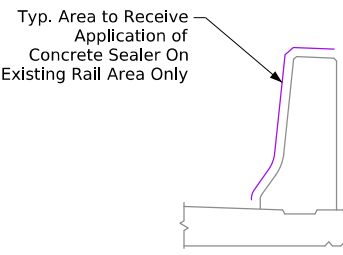


Situation Plan



Repairs Shall Consist of:

- ① Clean and prepare existing bridge deck.
- ② Apply High Molecular Weight Methacrylate (HMWM) sealer to the existing bridge deck.
- ③ Clean and prepare existing barrier rails.
- ④ Apply sealer to the existing barrier rails.



Detail of Concrete Sealer Area

Traffic Estimate

2024 AADT	4690	V.P.D.
2039 AADT	5900	V.P.D.
2035 DHV	850	V.P.H.
TRUCKS	12	%

Location

US 63 over Soap Creek
T-70N R-13W
Section 7
Lick Creek Township
Davis County
FHWA No. 22561
Bridge Maint. No. 2625.8S063
Latitude 40.885054°
Longitude -92.409248°

Design For Repair To 0 Degree Skew

339'-0" x 44'-0" Prestressed

Prestressed Concrete Beam Bridge

101'-0" End Spans 137'-0" Interior Span

Situation Plan

STA. 2496+41.15 (US 63) Turn-in Date: May 2026

Davis County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 127 Design Sheet No. 2 of 6 FHWA No. 22561

810040

Scale	Bridge No. 2625.85063	Sketch By	Date	Change Since Last Inspection	Page
	Sketch of: Legend's	Team 3	3-4-25	Routine	B- 1
					B-
					B-
					B-
					B-
					B-

Scaling

Hollow

Spalled

Leaching

Stalactite

Staining

Mapcracking

Reinf. Steel

Cracks - hairline or noted

Form 810040 08-01

Scale	Bridge No. 2625.85063	Sketch by	Change since last insp.	Date	Page
80	Sketch of: Bottom of Deck Span # 1.	JAG	Initial	11/8/22	B- 14
		JAG	NSC	3/1/23	B-
		DRJ	NSC	3/19/25	B-
					B-
					B-

NEAR HALF

Mid-Point

Near Abutment

Bottom of Deck Inspection Sketches

(For Information Only)

Note:
Total estimated crack length on bottom of deck based on the 2025 inspection sketches is 0 L.F.
This measurement is provided for information only.

Design For Repair To 0 Degree Skew

339'-0" x 44'-0" Prestensioned
Prestressed Concrete Beam Bridge

101'-0" End Spans137'-0" Interior Span

Inspection Sketches

STA. 2496+41.15 (US 63)Turn-in Date: May 2026

Davis County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 127Design Sheet No. 3 of 6FHWA No. 22561

FILE NO. 32891

ENGLISH

DESIGN TEAM Foth

Davis COUNTY

PROJECT NUMBER BRFN-000-T(462)--39-00

SHEET NUMBER V.11

3:09:52 PM

4/14/2026

JAE

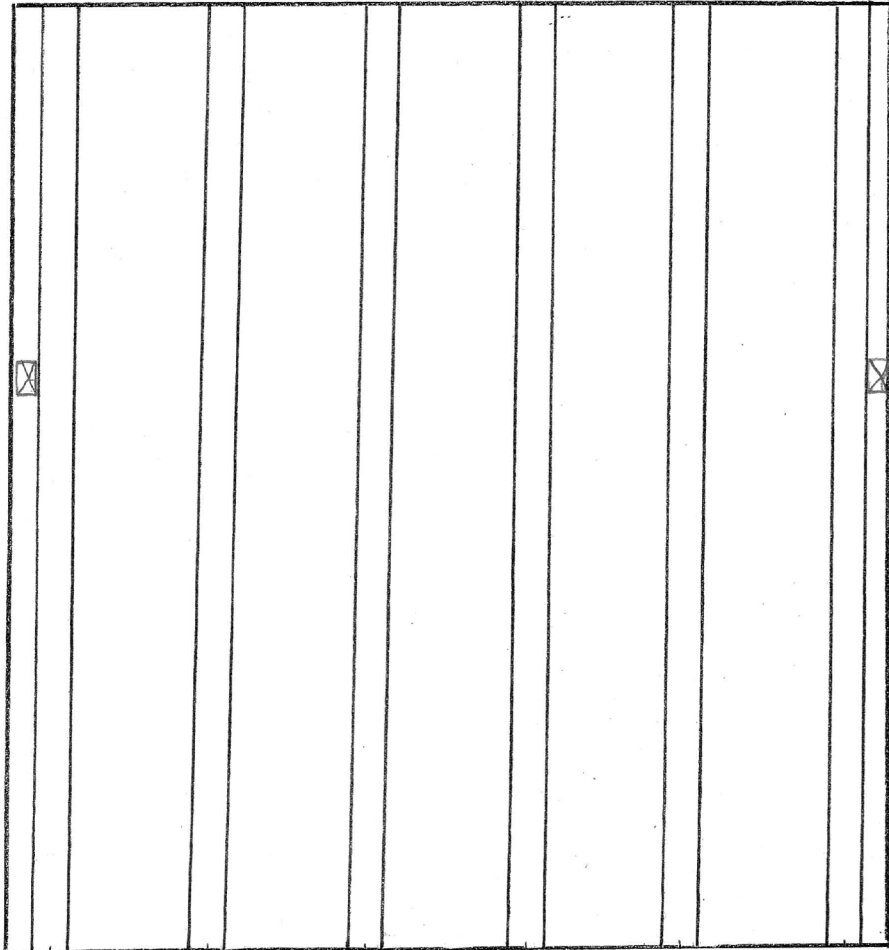
pw:\\projectwise.dot.int.lan:PWMMain\Documents\Projects\0000017026\Bridge\462\Bridge Repair\SHT_00000462_FOTH_127-427_46261-34981_Z12-Z09.dgn

Form 810040 08-01

Scale	Bridge No. <u>2625.85063</u>	Sketch by	Change since last insp.	Date	Page
80	Sketch of: <u>Bottom of Deck Span # 1</u>	JAG	Initial	11/8/22	B- 15
		JAG	N/C	3/1/23	B-
		DRJ	N/C	3/4/25	B-
					B-
					B-

FAR HALF

Pier # 1



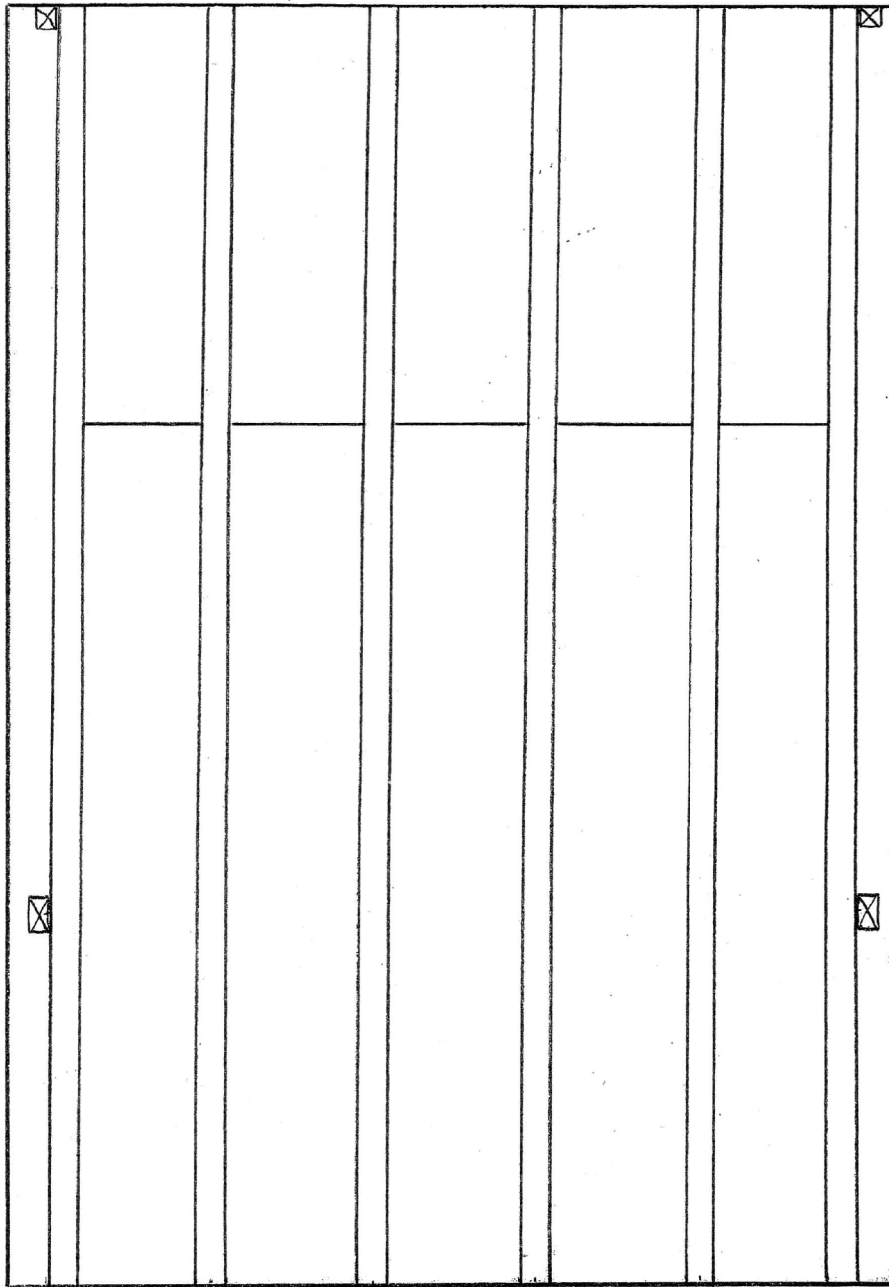
Mid-Point

Form 810040 08-01

Scale	Bridge No. <u>2625.85063</u>	Sketch by	Change since last insp.	Date	Page
80	Sketch of: <u>Bottom of Deck Span # 2</u>	JAG	Initial	11/8/22	B- 16
		JAG	N/C	3/1/23	B-
		DRJ	N/C	3/4/25	B-
					B-
					B-

NEAR HALF

Mid-Point



Pier # 1

Bottom of Deck Inspection Sketches
(For Information Only)

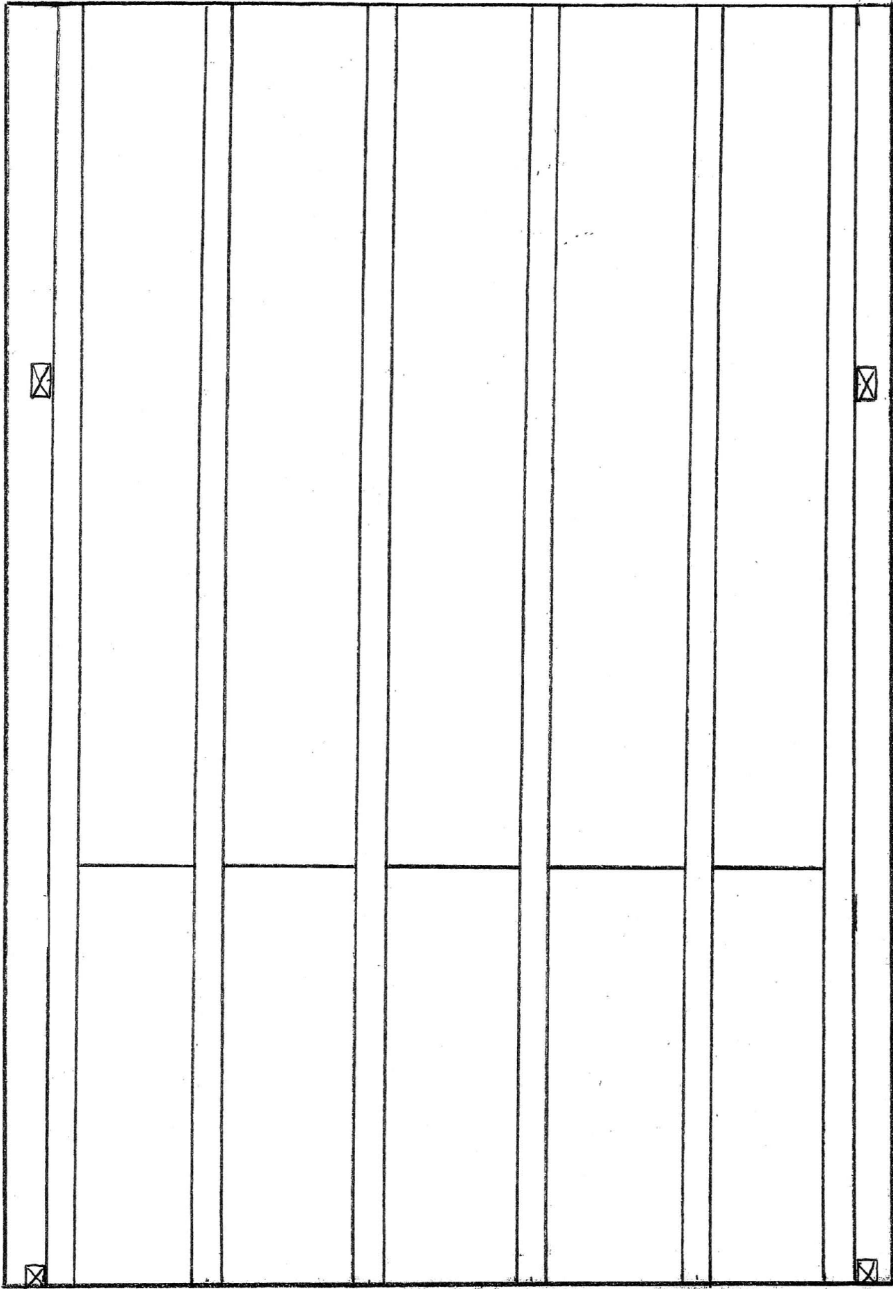
Design For Repair To 0 Degree Skew
**339'-0" x 44'-0" Prestensioned
Prestressed Concrete Beam Bridge**
101'-0" End Spans 137'-0" Interior Span
Inspection Sketches
STA. 2496+41.15 (US 63) Turn-in Date: May 2026
Davis County
IOWA DEPARTMENT OF TRANSPORTATION
Design No. 127 Design Sheet No. 4 of 6 FHWA No. 22561

Form 810040 08-01

Scale	Bridge No. <u>2625.85063</u>	Sketch by	Change since last insp.	Date	Page
80	Sketch of: <u>Bottom of Deck Span # 2</u>	JAG	Initial	11/8/22	B- 17
		JAG	Nsc	3/1/23	B-
		DRJ	Nsc	3/4/25	B-
					B-
					B-

FAR HALF

Pier # 2



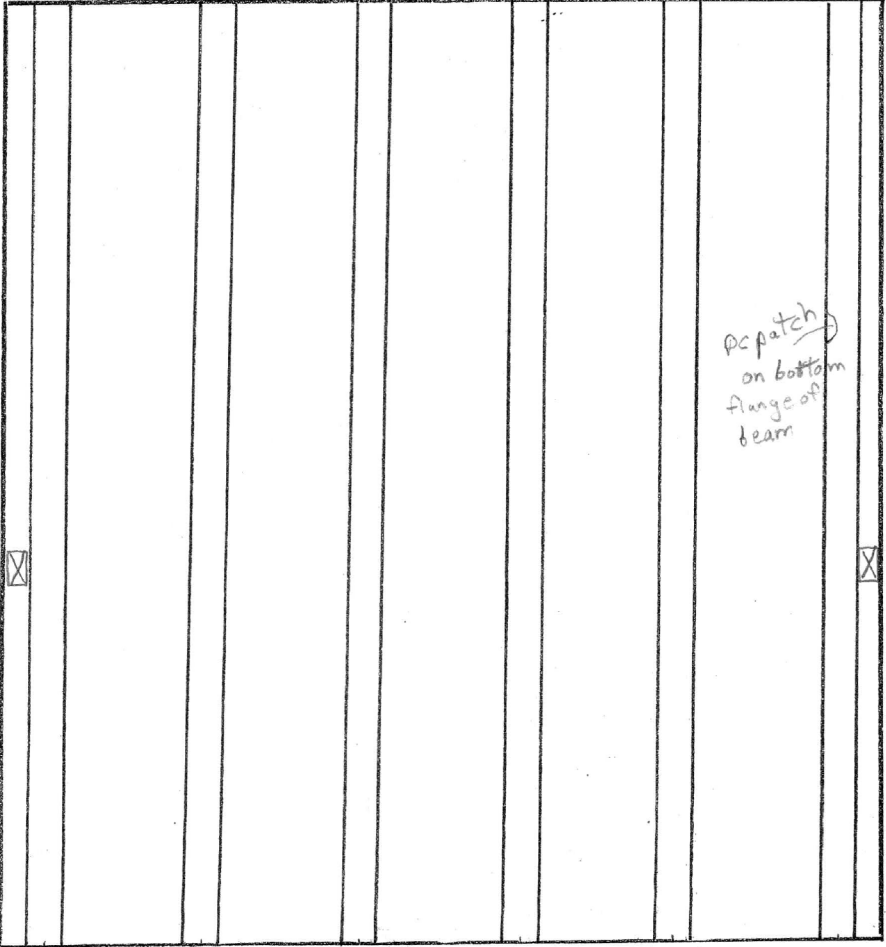
Mid-Point

Form 810040 08-01

Scale	Bridge No. <u>2625.85063</u>	Sketch by	Change since last insp.	Date	Page
80	Sketch of: <u>Bottom of Deck Span # 3</u>	JAG	Initial	11/8/22	B- 18
		JAG	Nsc	3/1/23	B-
		DRJ	MC	3/4/25	B-
					B-
					B-

NEAR HALF

Mid point



Pier # 2

Bottom of Deck Inspection Sketches

(For Information Only)

Design For Repair To 0 Degree Skew

339'-0" x 44'-0" Prestensioned

Prestressed Concrete Beam Bridge

101'-0" End Spans137'-0" Interior Span

Inspection Sketches

STA. 2496+41.15 (US 63)Turn-In Date: May 2026

Davis County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 127Design Sheet No. 5 of 6FHWA No. 22561

FILE NO. 32891

ENGLISH

DESIGN TEAM Foth

JAE

3:09:58 PM 4/14/2026

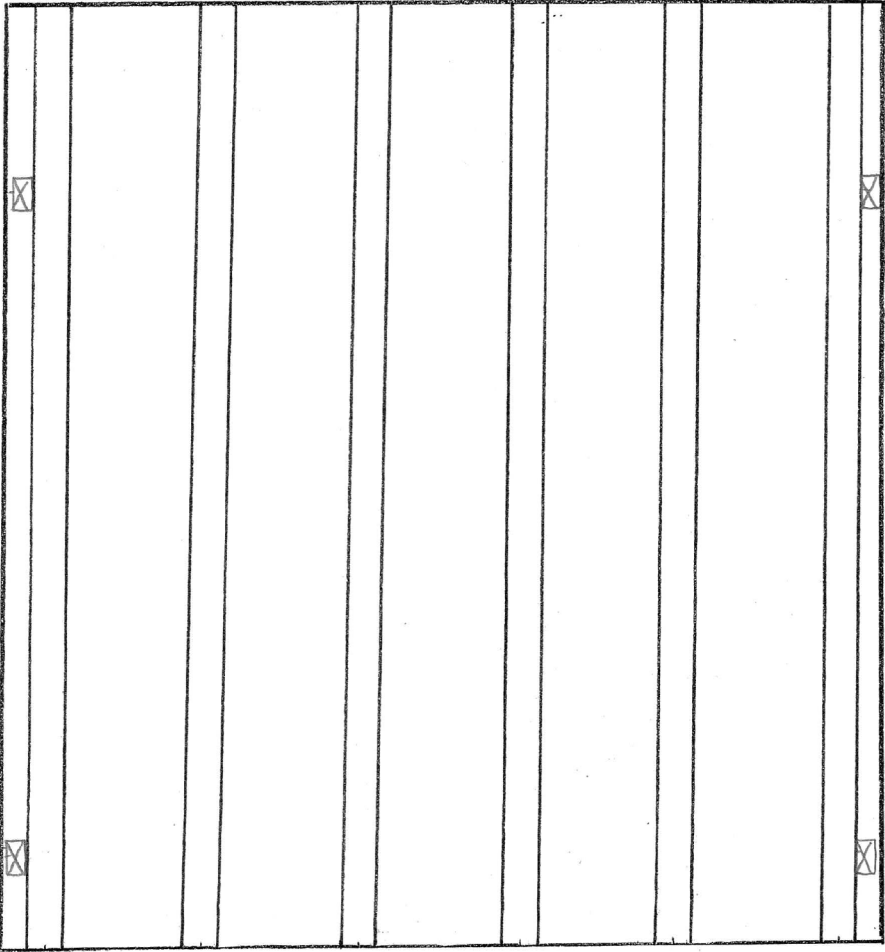
pw:\\projectwise.dot.int.lan:PWMMain\Documents\Projects\0000017026\Bridge\462_Bridge Repair\SHT_00000462_FOTH_127-427_46261-34981_Z12-Z09.dgn

Davis COUNTY

PROJECT NUMBER BRFN-000-T(462)--39-00

SHEET NUMBER V.13

Form 810940 08-01

Scale	Bridge No. <u>2625.BS063</u>	Sketch by	Change since last insp.	Date	Page
80	Sketch of: <u>Bottom of Deck Span # 3</u>	JAG	Initial	11/8/22	B- 19
<div>FAR HALF</div> <div>FAR Abutment</div> <div></div> <div>Mid - Point</div>		JAG	NSC	3/1/23	B-
		DRJ	NSC	3/4/25	B-
					B-
					B-

Bottom of Deck Inspection Sketch
(For Information Only)

Design For Repair To 0 Degree Skew

339'-0" x 44'-0" Pretensioned
Prestressed Concrete Beam Bridge

101'-0" End Spans137'-0" Interior Span

Inspection Sketches

STA. 2496+41.15 (US 63)Turn-in Date: May 2026

Davis County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 127Design Sheet No. 6 of 6FHWA No. 22561

Estimate Bridge Repair Quantities and Reference Notes - Design #227					
Item No.	Item Code	Item	Unit	Quantities Estimated Design No. 227	Estimate Reference Notes
1	2533-4980005	MOBILIZATION	LS	1	----
2	2599-9999006	FURNISH HMWM BRIDGE DECK TREATMENT MATERIAL	GAL	97	Includes furnishing HMWM deck treatment in accordance with the application rates stated in the Special Provisions for High Molecular Weight Methacrylate Resin Bridge Deck Treatment.
3	2599-9999014	BRIDGE DECK SEALING, HMWM	SF	8280	Includes surface preparation and application of HMWM in accordance with Special Provisions for High Molecular Weight Methacrylate Resin Bridge Deck Treatment.
4	2599-9999014	BRIDGE RAIL SEALING	SF	1658	Includes cleaning existing barriers, furnishing and placing concrete sealer in accordance with Article 2403.03,P,3, of the Standard Specifications.

General Notes:

This design is for repairs to the existing 204'-0" x 40'-0" Pretensioned Prestressed Concrete Beam Bridge on IA 2 over Sugar Creek. Electronic copies of original design plans are available to the Contractor as part of the e-files supplied with the contract documents.

See Design Sheet No. 2 for list of repair items.

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

Faint lines on plans indicate existing portions of the bridge.

Utility companies whose facilities are shown on the plans or known to be within the construction limits shall be notified by the Bridge Contractor of the starting date.

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. If new sections of rail are constructed, the new sections shall not be sealed. All costs associated with cleaning and sealing of the concrete rails shall be included in the unit price bid item "Bridge Rail Sealing".

Construction shall be done in stages with at least one lane traffic maintained at all times in accordance with "Traffic Control Plan" note.

Construction Stages 1 & 2 as detailed on these plans may be reversed at the Contractor's option subject to the Engineer's approval.

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, including:

- Special provisions for High Molecular Weight Methacrylate Resin Bridge Deck Treatment

Design Stresses:

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

Roadway Quantities shown elsewhere in these plans.

Traffic Control Plan

The roadway will be open to thru traffic. Refer to the Traffic Control Plan shown elsewhere in these plans.

Design History at this Site	
(Includes this Design)	
Des. No.	Type of Work
257	Original Design
221	Bridge Replacement - PPCB
227	Bridge Repair

Design For Repair To 0 Degree Skew

204'-0" x 40'-0" Pretensioned Prestressed Concrete Beam Bridge

51'-0" End Spans102'-0" Interior Span

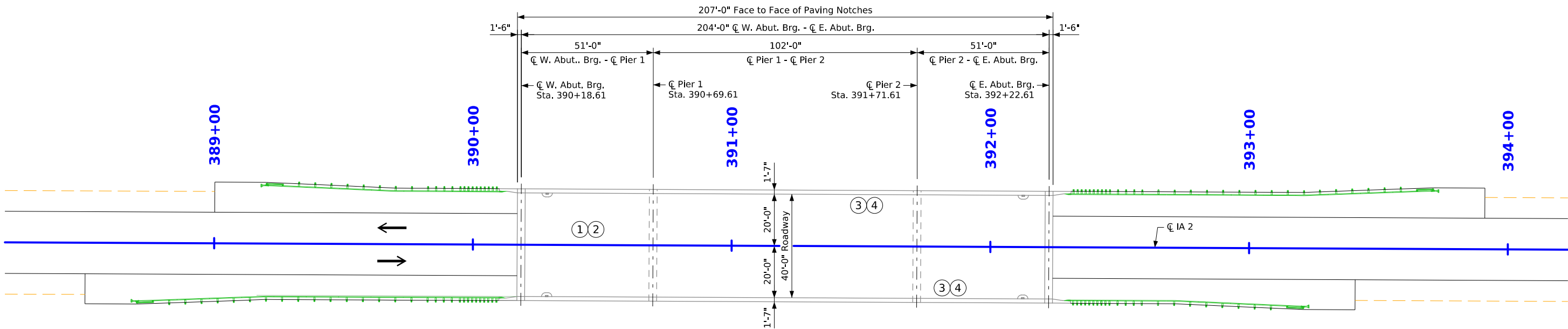
General Notes & Quantities

STA. 391+20.61 (IA 2)Turn-in Date: May 2026

Lee County

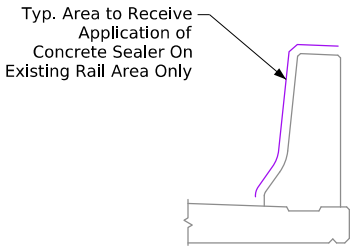
IOWA DEPARTMENT OF TRANSPORTATION

Design No. 227Design Sheet No. 1 of 5FHWA No. 33251



Repairs Shall Consist of:

- ① Clean and prepare existing bridge deck.
- ② Apply High Molecular Weight Methacrylate (HMWM) sealer to the existing bridge deck.
- ③ Clean and prepare existing barrier rails.
- ④ Apply sealer to the existing barrier rails.



Detail of Concrete Sealer Area

Traffic Estimate

2024 AADT	1670 V.P.D.
2041 AADT	2100 V.P.D.
TRUCKS	11 %

Location

IA 2 over Sugar Creek
T-68N R-6W
Section 31
Franklin Township
Lee County
FHWA No. 33251
Bridge Maint. No. 5646.9S002
Latitude 40.639035°
Longitude -91.591528°

Design For Repair To 0 Degree Skew

204'-0" x 40'-0" Prestressed Concrete Beam Bridge

51'-0" End Spans 102'-0" Interior Span

Situation Plan

Lee County

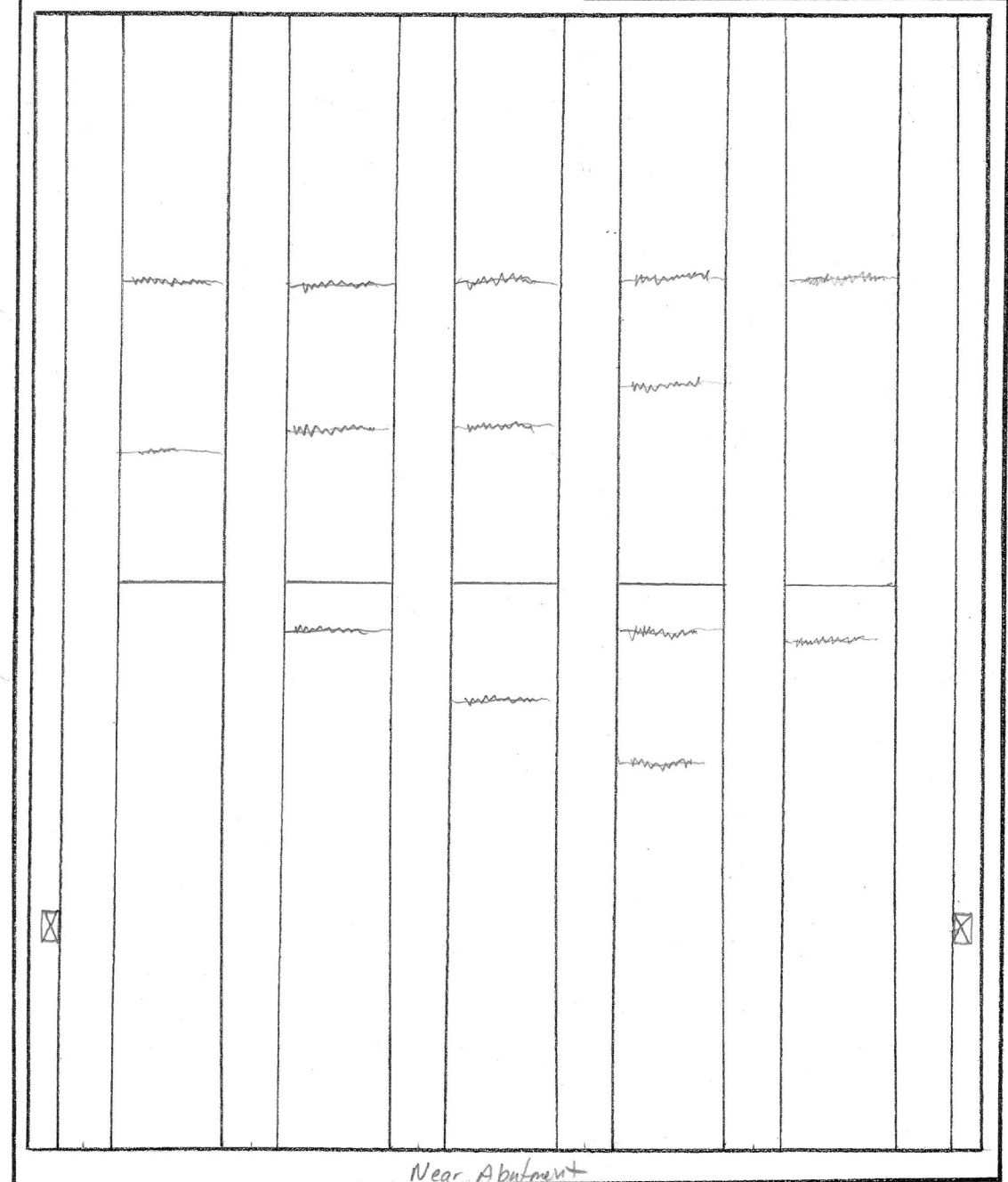
IOWA DEPARTMENT OF TRANSPORTATION

Design No. 227 Design Sheet No. 2 of 5 FHWA No. 33251

Turn-in Date: May 2026

-  Scaling
-  Hollow
-  Spalled
-  Leaching
-  Stalactite
-  Staining
-  Mapcracking
-  Reinf. Steel

Cracks - hairline or noted



Lee County
IOWA DEPARTMENT OF TRANSPORTATION

Design No. 227 Design Sheet No. 3 of 5 FHWA No. 33251

Form 810040 08-01

Scale	Bridge No. 5646-95002	Sketch by	Change since last insp.	Date	Page
60	Sketch of: Bottom of Deck Span # 2	JAG	Initial	1-3-22	B- 15
	Near Half	JAG	Nsc	5-10-23	B-
		DRJ	mc	5/7/25	B-
					B-
					B-

Mid-Span

Pier # 1

Form 810040 08-01

Scale	Bridge No. 5646-95002	Sketch by	Change since last insp.	Date	Page
60	Sketch of: Bottom of Deck Span # 2	JAG	Initial	1-3-22	B- 16
	Far Half	JAG	Nsc	5-10-23	B-
		DRJ	mc	5/7/25	B-
					B-
					B-

Pier # 2

Mid-Span

Bottom of Deck Inspection Sketches
(For Information Only)

Design For Repair To 0 Degree Skew
204'-0" x 40'-0" Pretensioned
Prestressed Concrete Beam Bridge
51'-0" End Spans 102'-0" Interior Span
Inspection Sketches
STA. 391+20.61 (IA 2) Turn-in Date: May 2026
Lee County
IOWA DEPARTMENT OF TRANSPORTATION
Design No. 227 Design Sheet No. 4 of 5 FHWA No. 33251

Form B 10040 08-01

Scale	Bridge No. 5646.95002	Sketch by	Change since last Insp.	Date	Page
60	Sketch of: Bottom of Deck Span # 3	JAG	Initial	1-3-22	B- 17
		JAG	MSL	5-10-23	B-
		DRJ	MC	5/7/25	B-
					B-
					B-

Far Abutment

Pier # 2

Bottom of Deck Inspection Sketch
(For Information Only)

Design For Repair To 0 Degree Skew

204'-0" x 40'-0" Prestensioned
Prestressed Concrete Beam Bridge

51'-0" End Spans102'-0" Interior Span

Inspection Sketches

STA. 391+20.61 (IA 2)Turn-In Date: May 2026

Lee County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 227Design Sheet No. 5 of 5FHWA No. 33251

Estimate Bridge Repair Quantities and Reference Notes - Design #127					
Item No.	Item Code	Item	Unit	Quantities Estimated Design No. 127	Estimate Reference Notes
1	2533-4980005	MOBILIZATION	LS	1	----
2	2599-9999006	FURNISH HMWM BRIDGE DECK TREATMENT MATERIAL	GAL	264	Includes furnishing HMWM deck treatment in accordance with the application rates stated in the Special Provisions for High Molecular Weight Methacrylate Resin Bridge Deck Treatment.
3	2599-9999014	BRIDGE DECK SEALING, HMWM	SF	22,453	Includes surface preparation and application of HMWM in accordance with Special Provisions for High Molecular Weight Methacrylate Resin Bridge Deck Treatment.
4	2599-9999014	BRIDGE RAIL SEALING	SF	4424	Includes cleaning existing barriers, furnishing and placing concrete sealer in accordance with Article 2403.03,P,3, of the Standard Specifications.

General Notes:

This design is for repairs to the existing 556'-0" x 40'-0" Pretensioned Prestressed Concrete Beam Bridge on E.B. US 34/E.B. IA 163 over Skunk River. Electronic copies of original design plans are available to the Contractor as part of the e-files supplied with the contract documents.

See Design Sheet No. 2 for list of repair items.

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

Faint lines on plans indicate existing portions of the bridge.

Utility companies whose facilities are shown on the plans or known to be within the construction limits shall be notified by the Bridge Contractor of the starting date.

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. If new sections of rail are constructed, the new sections shall not be sealed. All costs associated with cleaning and sealing of the concrete rails shall be included in the unit price bid item "Bridge Rail Sealing".

Construction shall be done in stages with at least one lane traffic maintained at all times in accordance with "Traffic Control Plan" note.

Construction Stages 1 & 2 as detailed on these plans may be reversed at the Contractor's option subject to the Engineer's approval.

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, including:

- Special provisions for High Molecular Weight Methacrylate Resin Bridge Deck Treatment

Design Stresses:

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

Roadway Quantities shown elsewhere in these plans.

Traffic Control Plan

The roadway will be open to thru traffic. Refer to the Traffic Control Plan shown elsewhere in these plans.

Design History at this Site	
(Includes this Design)	
Des. No.	Type of Work
2756	Original Design
220	Bridge Replacement - PPCB
127	Bridge Repair

Design For Repair To 20 Degree Skew RA

556'-0" x 40'-0" Pretensioned Prestressed Concrete Beam Bridge

141'-0" & 131'-0" End Spans142'-0" Interior Spans

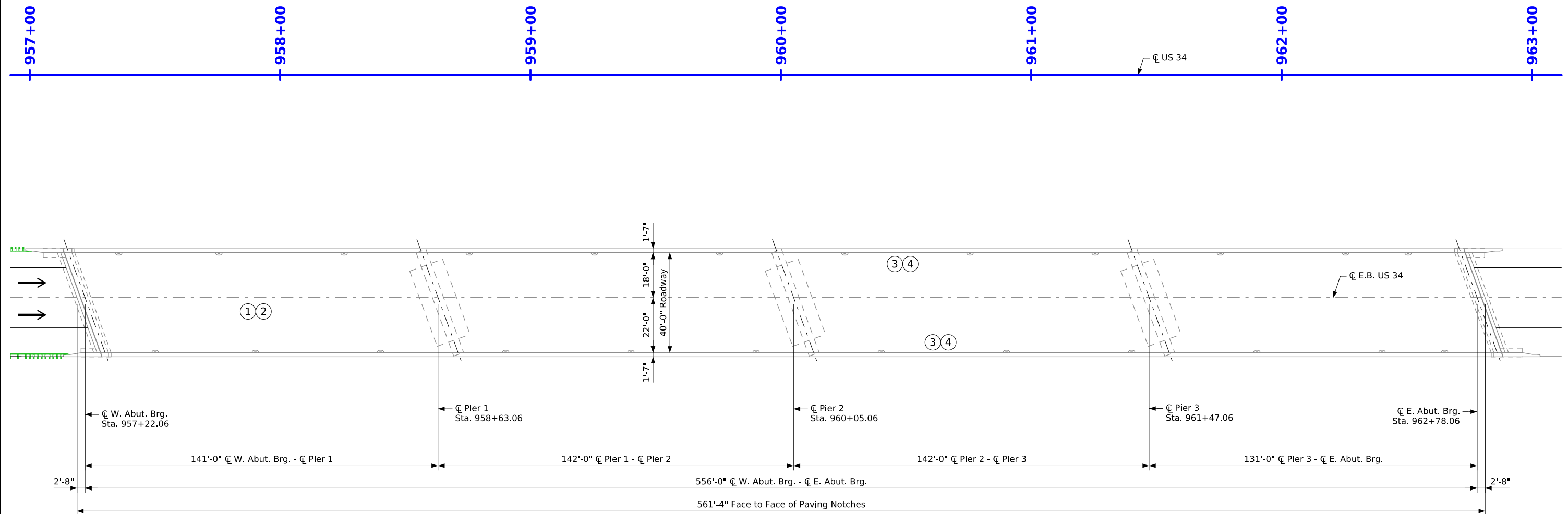
General Notes & Quantities

STA. 960+00.06, 89.00' Rt. (E.B. US 34)Turn-in Date: May 2026

Henry County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 127Design Sheet No. 1 of 9FHWA No. 28431



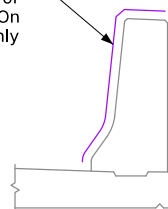
Situation Plan



Repairs Shall Consist of:

- ① Clean and prepare existing bridge deck.
- ② Apply High Molecular Weight Methacrylate (HMWM) sealer to the existing bridge deck.
- ③ Clean and prepare existing barrier rails.
- ④ Apply sealer to the existing barrier rails.

Typ. Area to Receive
Application of
Concrete Sealer On
Existing Rail Area Only



Detail of Concrete Sealer Area

Traffic Estimate

2024 AADT	6900 V.P.D.
2041 AADT	11,800 V.P.D.
TRUCKS	23 %

Location

E.B. US 34 over Skunk River
T-71N R-7W
Sections 4 & 5
Tippecanoe Township
Henry County
FHWA No. 28431
Bridge Maint. No. 028431
Latitude 40.975053°
Longitude -91.677947°

Design For Repair To 20 Degree Skew RA

**556'-0" x 40'-0" Pretensioned
Prestressed Concrete Beam Bridge**

141'-0" & 131'-0" End Spans 142'-0" Interior Spans

Situation Plan

STA. 960+00.06, 89.00' Rt. (E.B. US 34) Turn-in Date: May 2026

Henry County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 127 Design Sheet No. 2 of 9 FHWA No. 28431

810040

Scale	Bridge No. 4426.7R034	Sketch by	Date	Page
	Sketch of: Legend's	Team 3	4-17-23	B-1
		Team 3	4-7-25	

Scaling

Hollow

Spalled

Leaching

Stalactite

Staining

Mapcracking

Reinf. Steel

Cracks - hairline or noted

Form 810040 08-01

Scale	Bridge No. 4426.7R034	Sketch by	Change since last insp.	Date	Page
80	Sketch of: Bottom of Deck Span 1	JAG	Initial	4-17-23	B- 18
		DRJ	N/C	4/7/25	B-
					B-
					B-
					B-

1/3 point Matchline

Near Abutment

Bottom of Deck Inspection Sketches

(For Information Only)

Note:
Total estimated crack length on bottom of deck based on the 2025 inspection sketches is 658.1 L.F. This measurement is provided for information only.

Design For Repair To 20 Degree Skew RA

556'-0" x 40'-0" Pretensioned Prestressed Concrete Beam Bridge

141'-0" & 131'-0" End Spans142'-0" Interior Spans

Inspection Sketches

STA. 960+00.06, 89.00' Rt. (E.B. US 34)Turn-in Date: May 2026

Henry County

IOWA DEPARTMENT OF TRANSPORTATION

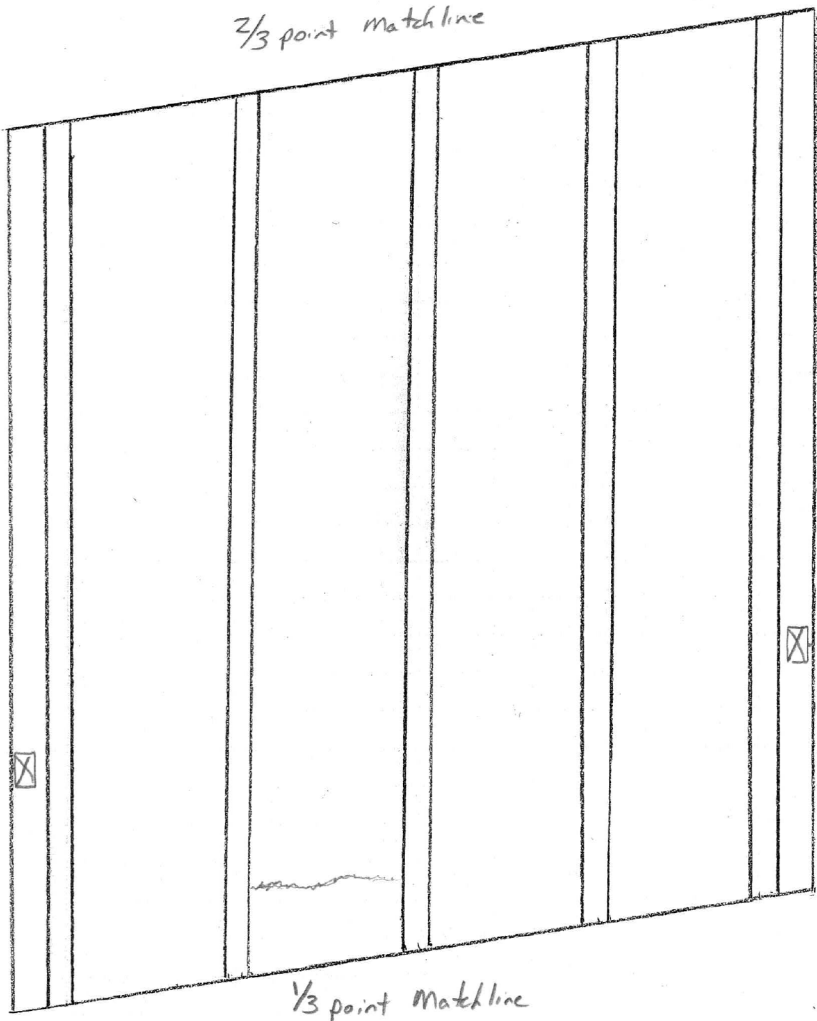
Design No. 127Design Sheet No. 3 of 9FHWA No. 28431

FILE NO. 32891	ENGLISH	DESIGN TEAM Foth	Henry COUNTY	PROJECT NUMBER BRFN-000-T(462)--39-00	SHEET NUMBER V.22
----------------	---------	------------------	--------------	---------------------------------------	-------------------

3:10:14 PM4/14/2026JAEpw:\\projectwise.dot.int.lan:PWMMain\\Documents\\Projects\\0000017026\\Bridge\\(462)_Bridge Repair\\SHT_00000462_FOTH_127-427_46261-34981_Z12-Z09.dgn

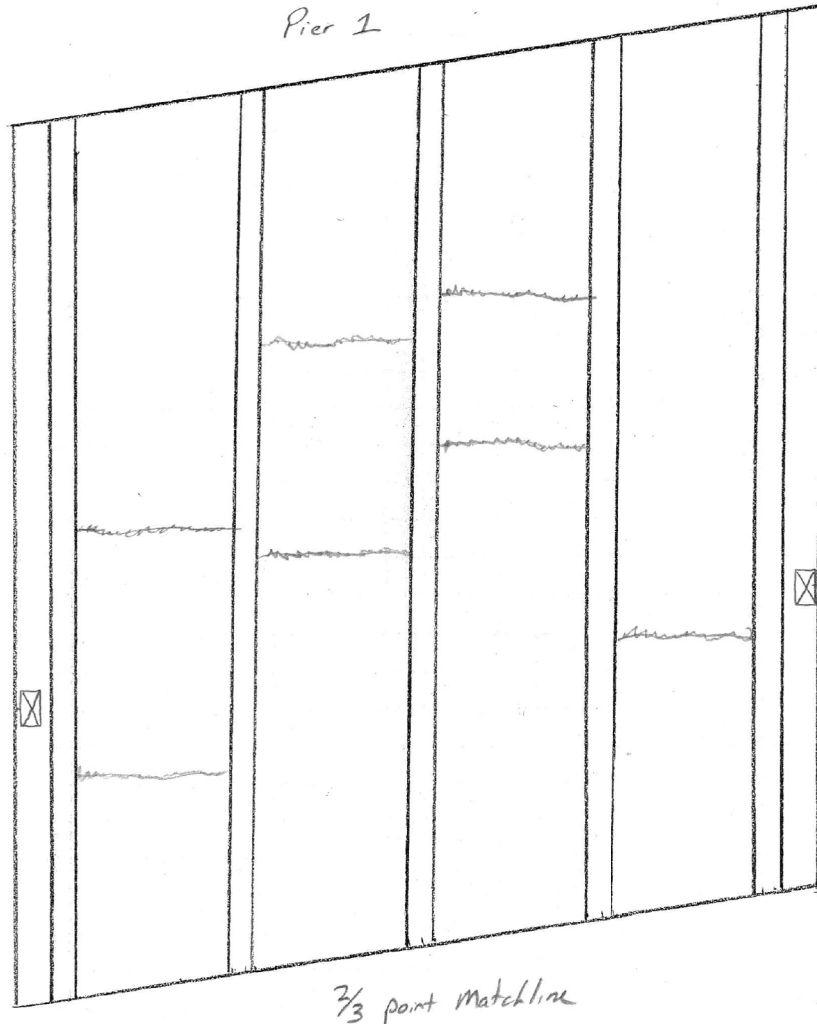
Form 810040 08-01

Scale	Bridge No. <u>4426.7 R O 34</u>	Sketch by	Change since last insp.	Date	Page
<u>80</u>	Sketch of: <u>Bottom of Deck Span 1</u>	JAG	Initial	4-17-23	B- 19
		DRJ	N/C	4/17/25	B-
					B-
					B-
					B-



Form 810040 08-01

Scale	Bridge No. <u>4426.7 R O 34</u>	Sketch by	Change since last insp.	Date	Page
<u>80</u>	Sketch of: <u>Bottom of Deck Span 1</u>	JAG	Initial	4-17-23	B- 20
		DRJ	N/C	4/17/25	B-
					B-
					B-
					B-

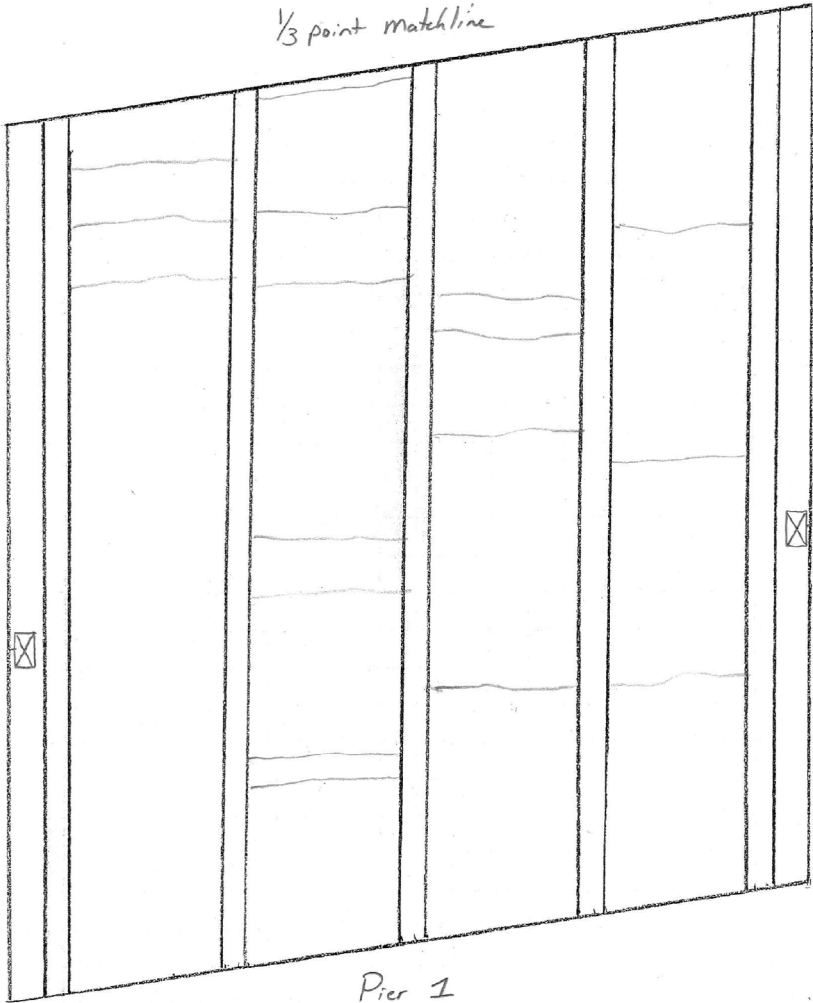


Bottom of Deck Inspection Sketches
(For Information Only)

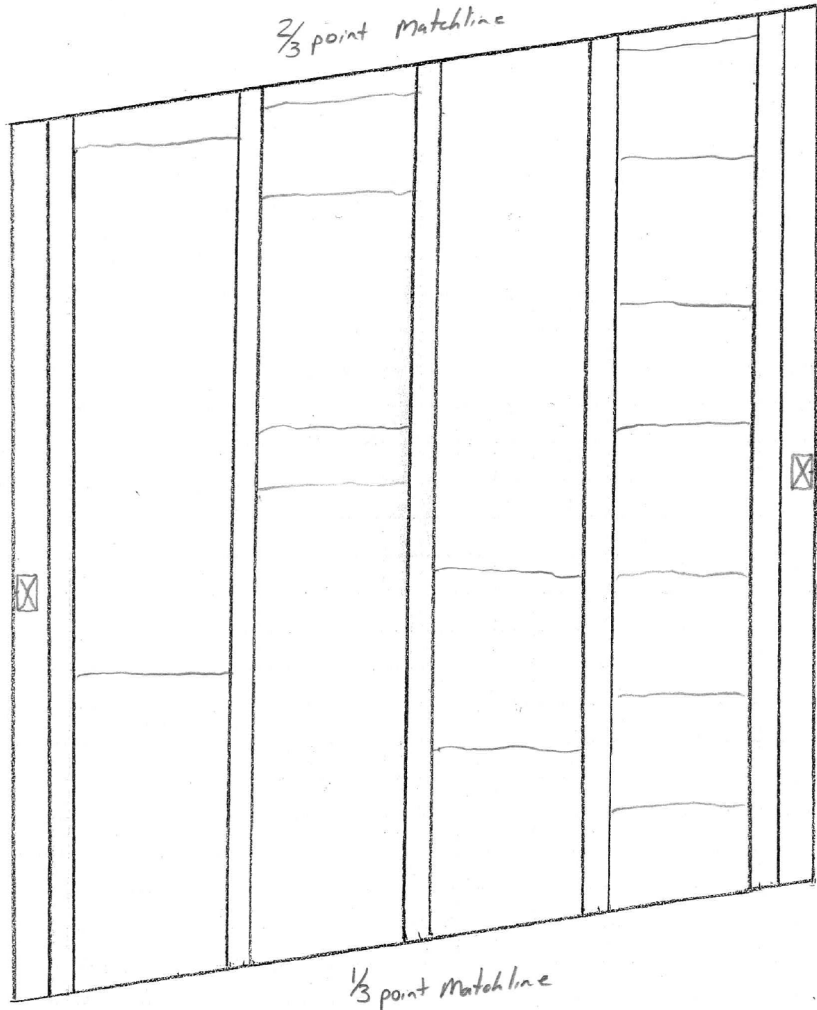
Design For Repair To 20 Degree Skew RA
**556'-0" x 40'-0" Prestensioned
Prestressed Concrete Beam Bridge**
141'-0" & 131'-0" End Spans 142'-0" Interior Spans
Inspection Sketches
STA. 960+00.06, 89.00' Rt. (E.B. US 34) Turn-in Date: May 2026
Henry County
IOWA DEPARTMENT OF TRANSPORTATION
Design No. 127 Design Sheet No. 4 of 9 FHWA No. 28431

Form 810040 08-01

Scale	Bridge No.	Sketch by	Change since last insp.	Date	Page
80	4426.7RQ34	JAG	Initial	4-17-23	B- 21
	Sketch of: Bottom of Deck Span 2	DRJ	N/C	4/7/25	B-
					B-
					B-
					B-



Scale	Bridge No.	Sketch by	Change since last insp.	Date	Page
80	4426.7RQ34	JAG	Initial	4-17-23	B- 22
	Sketch of: Bottom of Deck Span 2	DRJ	N/C	4/7/25	B-
					B-
					B-
					B-

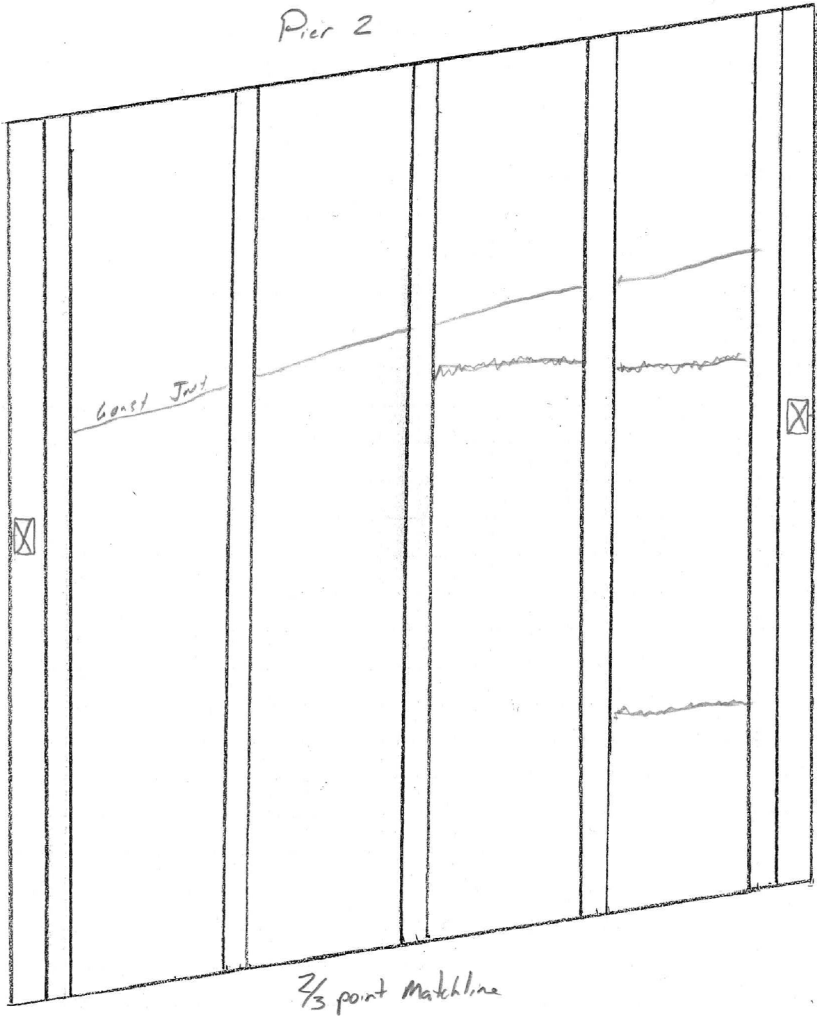


Bottom of Deck Inspection Sketches
(For Information Only)

Design For Repair To 20 Degree Skew RA
556'-0" x 40'-0" Pretensioned
Prestressed Concrete Beam Bridge
141'-0" & 131'-0" End Spans 142'-0" Interior Spans
Inspection Sketches
STA. 960+00.06, 89.00' Rt. (E.B. US 34) Turn-in Date: May 2026
Henry County
IOWA DEPARTMENT OF TRANSPORTATION
Design No. 127 Design Sheet No. 5 of 9 FHWA No. 28431

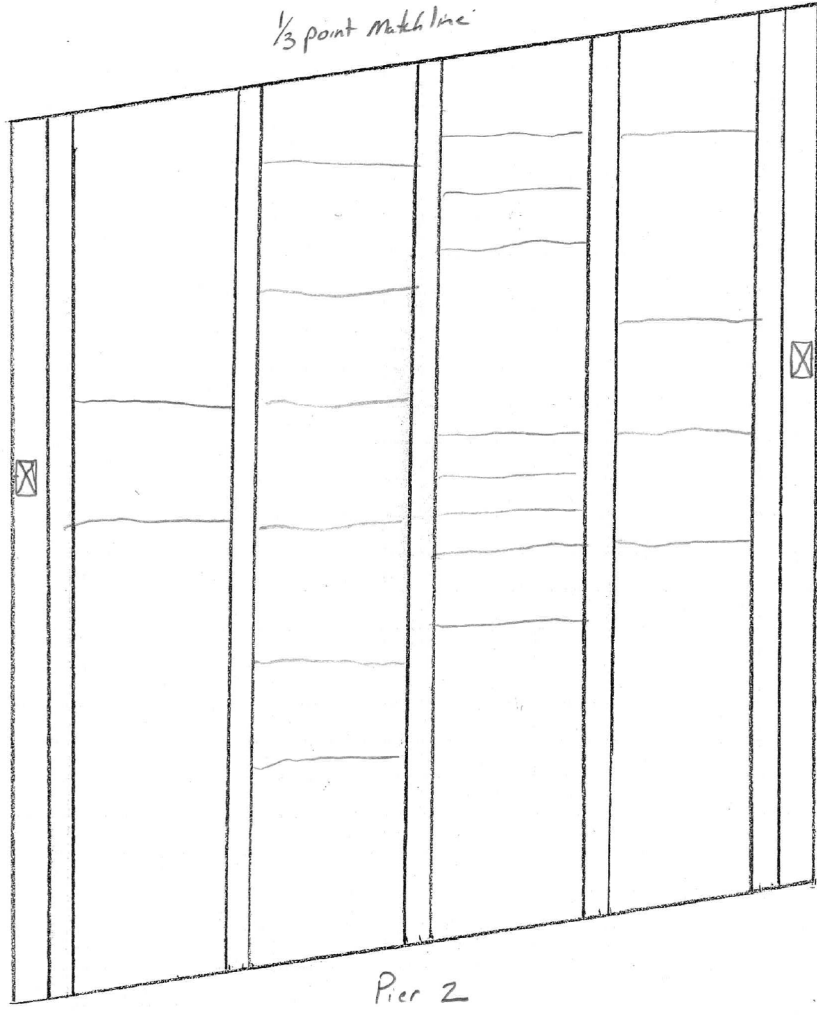
Form B10040 08-01

Scale	Bridge No.	Sketch by	Change since last insp.	Date	Page
80	4426.7 R O 3 4	JAG	Initial	4-17-23	B- 23
	Sketch of: Bottom of Deck Span 2	DRJ	NSC	4/7/25	B-
					B-
					B-
					B-



Form B10040 08-01

Scale	Bridge No.	Sketch by	Change since last insp.	Date	Page
80	4426.7 R O 3 4	JAG	Initial	4-17-23	B- 24
	Sketch of: Bottom of Deck Span 3				B-
					B-
					B-
					B-

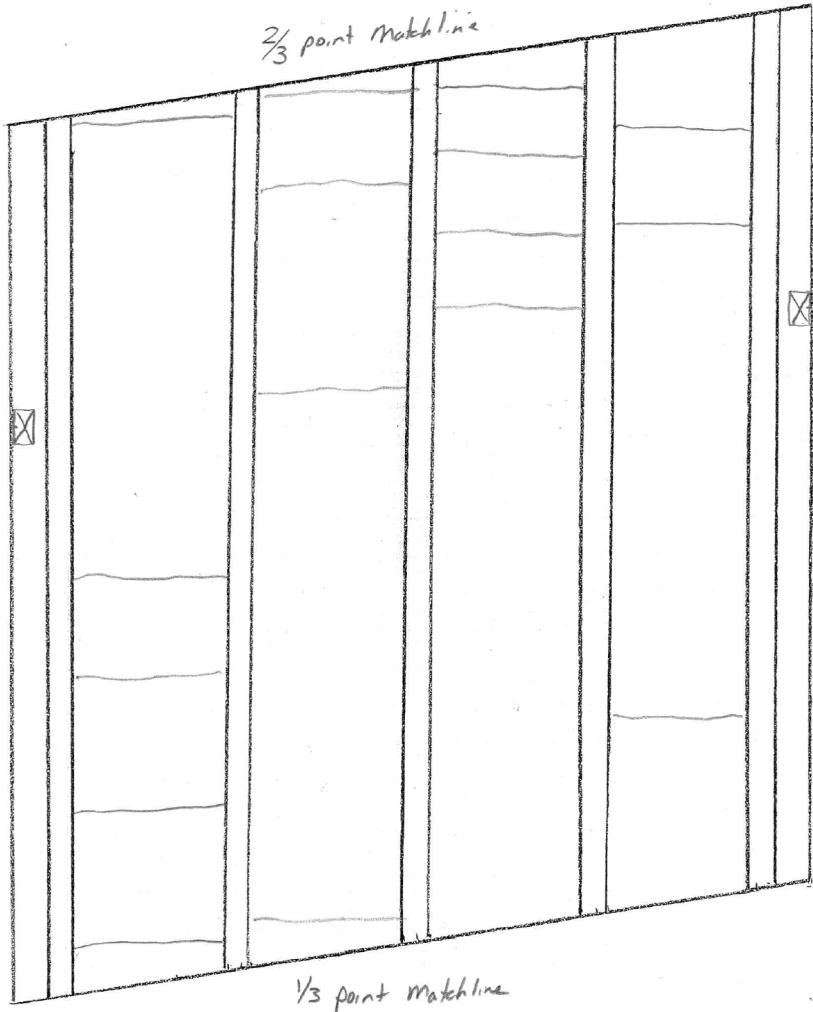


Bottom of Deck Inspection Sketches
(For Information Only)

Design For Repair To 20 Degree Skew RA
**556'-0" x 40'-0" Prestensioned
Prestressed Concrete Beam Bridge**
141'-0" & 131'-0" End Spans 142'-0" Interior Spans
Inspection Sketches
STA. 960+00.06, 89.00' Rt. (E.B. US 34) Turn-in Date: May 2026
Henry County
IOWA DEPARTMENT OF TRANSPORTATION
Design No. 127 Design Sheet No. 6 of 9 FHWA No. 28431

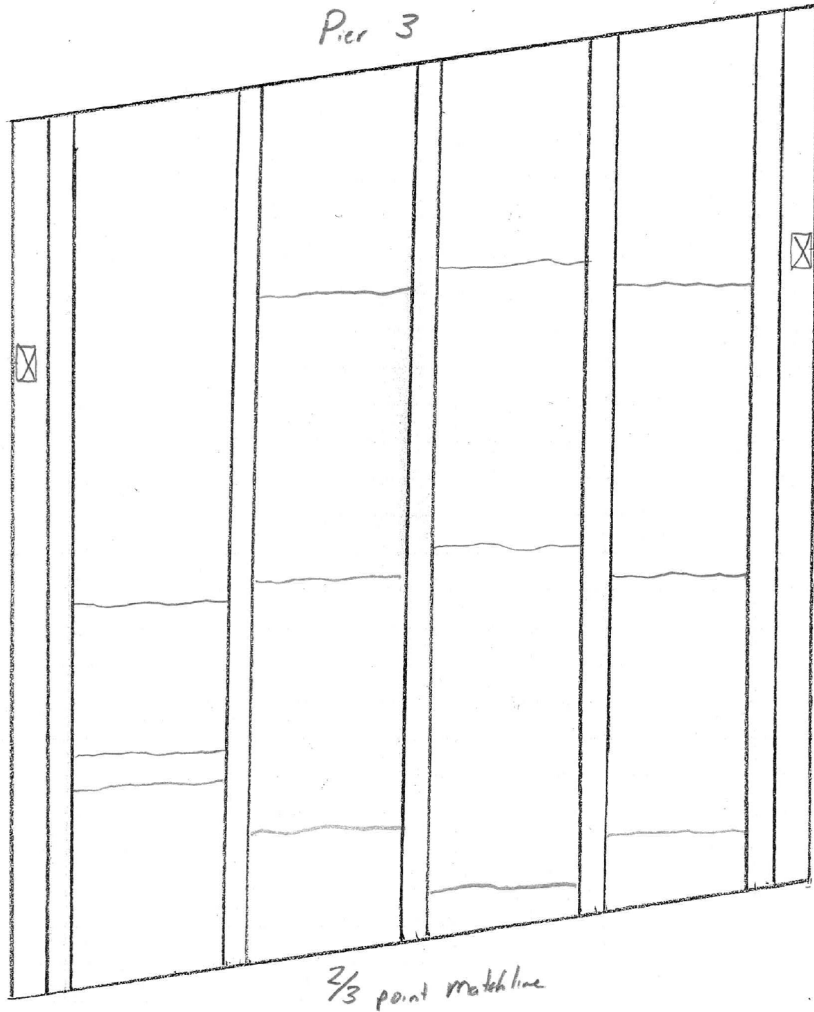
Form 810040 08-01

Scale	Bridge No.	Sketch by	Change since last insp.	Date	Page
80	4426.7 RQ 34	JAG	Initial	4-17-23	B- 25
Sketch of: Bottom of Deck Span 3					B-
					B-
					B-
					B-
					B-



Form 810040 08-01

Scale	Bridge No.	Sketch by	Change since last insp.	Date	Page
80	4426.7 RQ 34	JAG	Initial	4-17-23	B- 26
Sketch of: Bottom of Deck Span 3					B-
					B-
					B-
					B-
					B-

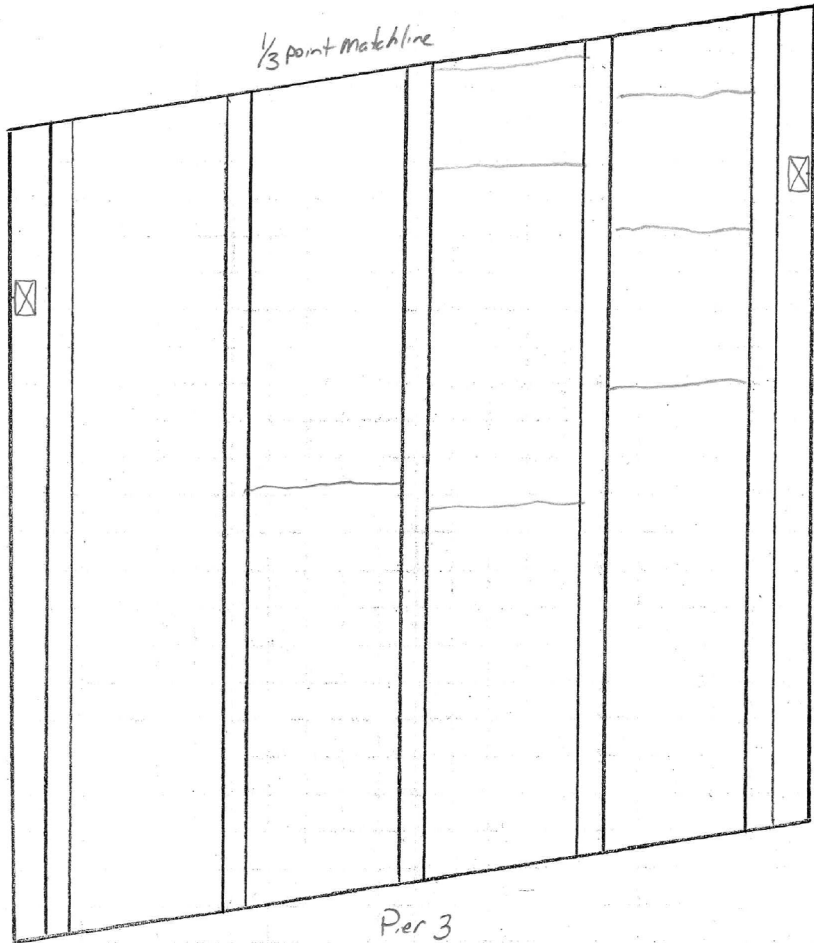


Bottom of Deck Inspection Sketches
(For Information Only)

Design For Repair To 20 Degree Skew RA
556'-0" x 40'-0" Prestensioned
Prestressed Concrete Beam Bridge
141'-0" & 131'-0" End Spans 142'-0" Interior Spans
Inspection Sketches
STA. 960+00.06, 89.00' Rt. (E.B. US 34) Turn-in Date: May 2026
Henry County
IOWA DEPARTMENT OF TRANSPORTATION
Design No. 127 Design Sheet No. 7 of 9 FHWA No. 28431

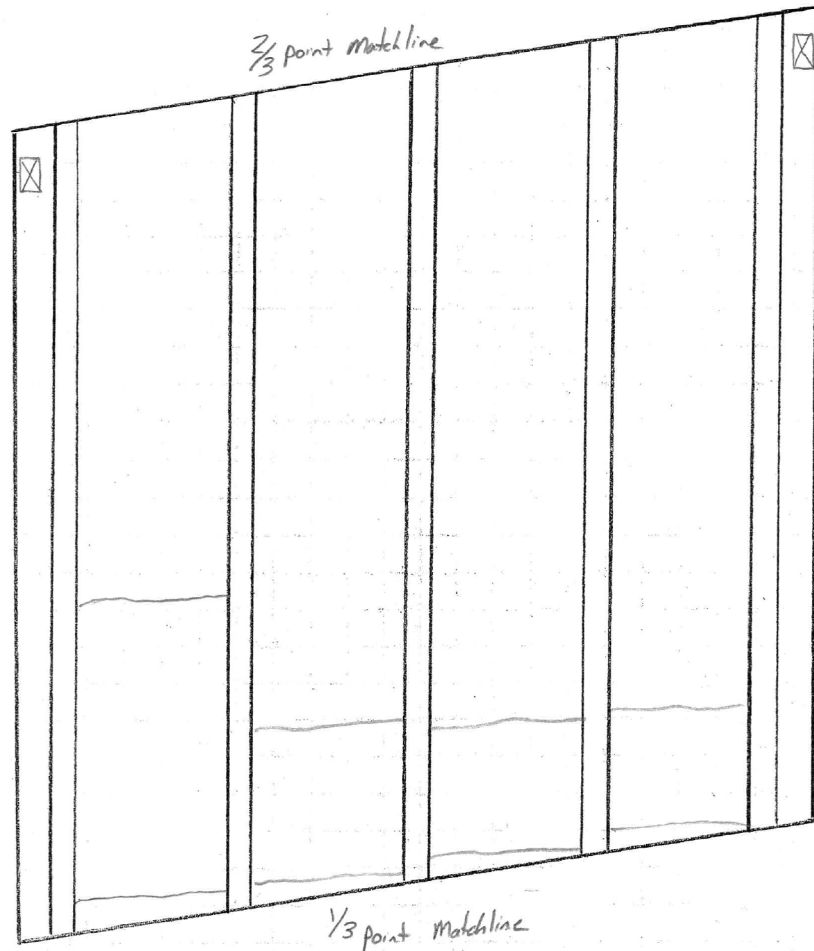
Form 810(04) 08-01

Scale	Bridge No.	Sketch by	Change since last insp.	Date	Page
80	4426.7R034	JAG	Initial	4-17-23	B- 27
	Sketch of: Bottom of Deck Span 4	DRJ	NSC	4/7/25	B-
					B-
					B-
					B-



Form 810(04) 08-01

Scale	Bridge No.	Sketch by	Change since last insp.	Date	Page
80	4426.7R034	JAG	Initial	4-17-23	B- 28
	Sketch of: Bottom of Deck Span 4	DRJ	NSC	4/7/25	B-
					B-
					B-
					B-

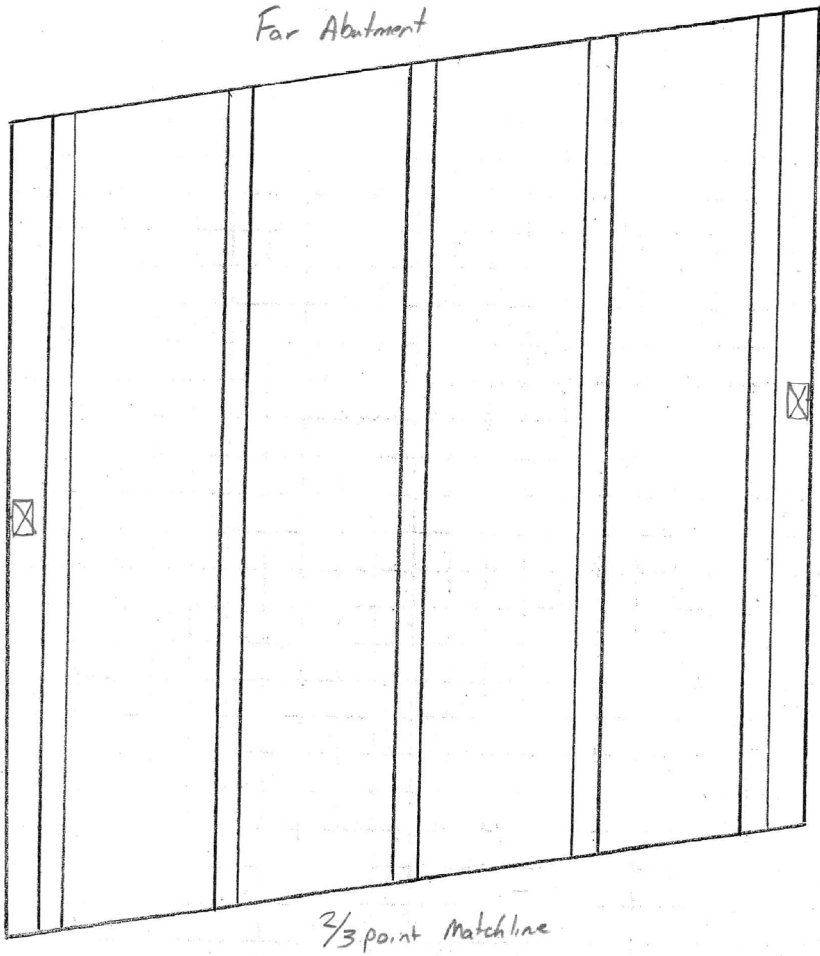


Bottom of Deck Inspection Sketches
(For Information Only)

Design For Repair To 20 Degree Skew RA
556'-0" x 40'-0" Prestensioned
Prestressed Concrete Beam Bridge
141'-0" & 131'-0" End Spans 142'-0" Interior Spans
Inspection Sketches
STA. 960+00.06, 89.00' Rt. (E.B. US 34) Turn-in Date: May 2026
Henry County
IOWA DEPARTMENT OF TRANSPORTATION
Design No. 127 Design Sheet No. 8 of 9 FHWA No. 28431

Form B 100-40 08-01

Scale	Bridge No.	Sketch by	Change since last insp.	Date	Page
80	4426.7 R 034	JAG	Initial	4-17-23	B- 29
	Sketch of: Bottom of Deck Span 4	DRJ	NSC	4/7/25	B-
					B-
					B-
					B-



Bottom of Deck Inspection Sketch
(For Information Only)

Design For Repair To 20 Degree Skew RA

556'-0" x 40'-0" Prestensioned
Prestressed Concrete Beam Bridge

141'-0" & 131'-0" End Spans142'-0" Interior Spans

Inspection Sketches

STA. 960+00.06, 89.00' Rt. (E.B. US 34)Turn-in Date: May 2026

Henry County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 127Design Sheet No. 9 of 9FHWA No. 28431

Estimate Bridge Repair Quantities and Reference Notes - Design #427					
Item No.	Item Code	Item	Unit	Quantities Estimated Design No. 427	Estimate Reference Notes
1	2533-4980005	MOBILIZATION	LS	1	----
2	2599-9999006	FURNISH HMWM BRIDGE DECK TREATMENT MATERIAL	GAL	120	Includes furnishing HMWM deck treatment in accordance with the application rates stated in the Special Provisions for High Molecular Weight Methacrylate Resin Bridge Deck Treatment.
3	2599-9999014	BRIDGE DECK SEALING, HMWM	SF	10,201	Includes surface preparation and application of HMWM in accordance with Special Provisions for High Molecular Weight Methacrylate Resin Bridge Deck Treatment.
4	2599-9999014	BRIDGE RAIL SEALING	SF	1936	Includes cleaning existing barriers, furnishing and placing concrete sealer in accordance with Article 2403.03,P,3, of the Standard Specifications.

General Notes:

This design is for repairs to the existing 230'-0" x 44'-0" Continuous Welded Girder Bridge on IA 92 over Muchakinock Creek. Electronic copies of original design plans are available to the Contractor as part of the e-files supplied with the contract documents.

See Design Sheet No. 2 for list of repair items.

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

Faint lines on plans indicate existing portions of the bridge.

Utility companies whose facilities are shown on the plans or known to be within the construction limits shall be notified by the Bridge Contractor of the starting date.

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. If new sections of rail are constructed, the new sections shall not be sealed. All costs associated with cleaning and sealing of the concrete rails shall be included in the unit price bid item "Bridge Rail Sealing".

Construction shall be done in stages with at least one lane traffic maintained at all times in accordance with "Traffic Control Plan" note.

Construction Stages 1 & 2 as detailed on these plans may be reversed at the Contractor's option subject to the Engineer's approval.

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, including:

- Special provisions for High Molecular Weight Methacrylate Resin Bridge Deck Treatment

Design Stresses:

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

Roadway Quantities shown elsewhere in these plans.

Traffic Control Plan

The roadway will be open to thru traffic. Refer to the Traffic Control Plan shown elsewhere in these plans.

Design History at this Site (Includes this Design)	
Des. No.	Type of Work
1522	Original Design
1264	Bridge Replacement - PPCB
120	Bridge Replacement - PPCB
427	Bridge Repair

Design For Repair To 0 Degree Skew

230'-0" x 44'-0" Continuous Welded Girder Bridge

115'-0" End Spans

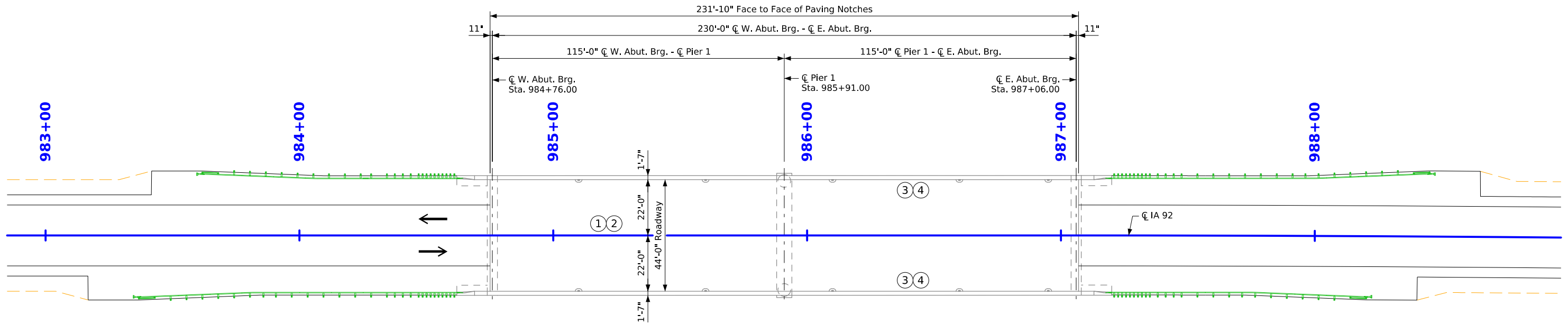
General Notes & Quantities

STA. 985+91.00 (IA 92)Turn-in Date: May 2026

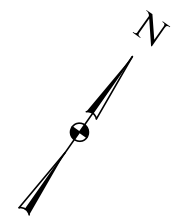
Mahaska County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 427Design Sheet No. 1 of 5FHWA No. 34981



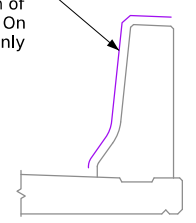
Situation Plan



Repairs Shall Consist of:

- 1 Clean and prepare existing bridge deck.
- 2 Apply High Molecular Weight Methacrylate (HMWM) sealer to the existing bridge deck.
- 3 Clean and prepare existing barrier rails.
- 4 Apply sealer to the existing barrier rails.

Typ. Area to Receive Application of Concrete Sealer On Existing Rail Area Only



Detail of Concrete Sealer Area

Traffic Estimate

2024 AADT	2910	V.P.D.	
2041 AADT	3900	V.P.D.	
TRUCKS		%	21

Location

IA 92 over Muchakinock Creek
T-75N R-16W
Section 22
Garfield Township
Mahaska County
FHWA No. 34981
Bridge Maint. No. 6278.0S092
Latitude 41.288295°
Longitude -92.696725°

Design For Repair To 0 Degree Skew
230'-0" x 44'-0" Continuous
Welded Girder Bridge
115'-0" End Spans

Situation Plan

STA. 985+91.00 (IA 92) Turn-in Date: May 2026

Mahaska County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 427 Design Sheet No. 2 of 5 FHWA No. 34981

Scale	Bridge No.	6278.05092	Sketch by	Change since last insp.	Date	Page
	80	Sketch of: Bottom of Deck Span 2	JAG	Initial	8-23-22	B- 14
			DRJ	Rtn	8-5-24	B-
						B-
						B-
						B-

Pier 1

Match line

Scale	Bridge No.	6278.05092	Sketch by	Change since last insp.	Date	Page
	80	Sketch of: Bottom of Deck Span 2	JAG	Initial	8-23-22	B- 15
			DRJ	Rtn	8-5-24	B-
						B-
						B-
						B-

Match line

Pier 1

Bottom of Deck Inspection Sketches

(For Information Only)

Design For Repair To 0 Degree Skew

230'-0" x 44'-0" Continuous Welded Girder Bridge

115'-0" End Spans

Inspection Sketches

STA. 985+91.00 (IA 92)

Mahaska County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 427

Design Sheet No. 4 of 5

FHWA No. 34981

Turn-in Date: May 2026

FILE NO. 32891	ENGLISH	DESIGN TEAM Foth	Mahaska COUNTY	PROJECT NUMBER BRFN-000-T(462)--39-00	SHEET NUMBER V.32
----------------	---------	------------------	----------------	---------------------------------------	-------------------

3:10:36 PM

4/14/2026

JAE

pw:\\projectwise.dot.int.lan:PWMMain\\Documents\\Projects\\0000017026\\Bridge\\(462)_Bridge Repair\\SHT_00000462_FOTH_127-427_46261-34981_Z12-Z09.dgn

Form 810040 08-01

Scale	Bridge No. <u>6278.05092</u>	Sketch by	Change since last insp.	Date	Page
<u>80</u>	Sketch of: <u>Bottom of Deck Span 2</u>	<u>JAG</u>	<u>Initial</u>	<u>8-23-22</u>	B- <u>16</u>
		<u>DRJ</u>	<u>Rtn</u>	<u>8-5-24</u>	B-
					B-
					B-
					B-

Far Abutment

Match line

Bottom of Deck Inspection Sketch
(For Information Only)

Design For Repair To 0 Degree Skew

230'-0" x 44'-0" Continuous
Welded Girder Bridge

115'-0" End Spans

Inspection Sketches

STA. 985+91.00 (IA 92) Turn-In Date: May 2026

Mahaska County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 427 Design Sheet No. 5 of 5 FHWA No. 34981

ESTIMATED PROJECT QUANTITES													100-01C Modified
Item No.	Item Code	Item	Unit	Quantities									
				Ringgold 127	Appanoose 127	Davis 127	Lee 227	Henry 127	Mahaska 427	Total	As Built		
1	2527-9263181	PAVEMENT MARKINGS REMOVED	STA	17.29	15.53	35.16	16.74		18.23	102.95			
2	2527-9263209	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED	STA	17.29	15.53	35.16	16.74	12.51	18.23	115.46			
3	2527-9263231	REMOVABLE TAPE MARKINGS, WET RETROREFLECTIVE	STA	0.96	0.96	0.96	0.96		0.96	4.80			
4	2528-8400256	TEMPORARY TRAFFIC SIGNALS	EA	1	1	1	1		1	5			
5	2528-8445110	TRAFFIC CONTROL	LS	0.167	0.167	0.167	0.167	0.167	0.167	1			
6	2528-8445113	FLAGGERS	EA	8	8	8	8		8	40			

PROJECT DESCRIPTION - RINGGOLD 127					100-01D Modified
This project is for the roadway plans for the bridge repair and the associated traffic control for US 169 over Middle Fork Grand River, 5.3 miles south of south Jct. IA 2 in Ringgold County.					

ESTIMATED PROJECT QUANTITES						100-01A Modified
Item No.	Item Code	Item	Unit	Total	As-Built Quantity	
1	2527-9263181	PAVEMENT MARKINGS REMOVED	STA	17.29		
2	2527-9263209	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED	STA	17.29		
3	2527-9263231	REMOVABLE TAPE MARKINGS, WET RETROREFLECTIVE	STA	0.96		
4	2528-8400256	TEMPORARY TRAFFIC SIGNALS	EA	1		
5	2528-8445110	TRAFFIC CONTROL	LS	0.167		
6	2528-8445113	FLAGGERS	EA	8		

STANDARDS			105-04 Modified
The following Standards apply to construction work on this project.			
NUMBER	DATE	TITLE	
PM-110	10-15-24	Line Types	
SI-881	04-16-19	Special Signs for Workzones	
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)	
TC-213	04-18-23	Lane Closure with Flaggers	
TC-216	04-18-23	Lane Closure with Signals	
TC-233	10-17-17	Pavement Marking Operations Two-Lane	

INDEX OF TABULATIONS			111-25 Modified
Tabulation	Tabulation Title	Sheet No.	
C Sheets			
100-1A	Estimated Project Quantities	C.2	
100-1D	Project Description	C.2	
105-4	Standard Road Plans	C.2	
108-22	Pavement Marking Line Types	C.2	
111-25	Index of Tabulations	C.2	
J Sheets			
108-23A	Traffic Control Plan	J.1	
108-26A	Staging Notes	J.1	
108-28	Temporary Traffic Signals	J.1	

PAVEMENT MARKING LINE TYPES											108-22 Modified
Road Identification	Station		Direction Of Travel	Side	Marking Type	Length	Line Type	Factor	Factored Quantity	Remarks	
	Begin	End				STA					
US 169	520+15.50	522+25.50	NB	Center	Waterborne/Solvent Paint	2.1	No Passing Zone Line Yellow (NPY6)	1.25	2.63	Pavement Marking Removal Limits, per TC-216	
US 169	522+25.50	526+90.50	NB	Center	Waterborne/Solvent Paint	4.65	Broken Centerline Yellow (BCY6)	0.25	1.16	Pavement Marking Removal Limits, per TC-216	
US 169	520+15.50	526+90.50	SB	Left	Waterborne/Solvent Paint	6.75	Edge Line Right White (ELW6)	1.00	6.75	Pavement Marking Removal Limits, per TC-216	
US 169	520+15.50	526+90.50	NB	Right	Waterborne/Solvent Paint	6.75	Edge Line Right White (ELW6)	1.00	6.75	Pavement Marking Removal Limits, per TC-216	
US 169	520+15.50		NB		Wet Retroreflective Removable Tape	0.12	Stop Line White (SLW2)	4.00	0.48	Temporary Stop Bar, per TC-216	
US 169	526+90.50		SB		Wet Retroreflective Removable Tape	0.12	Stop Line White (SLW2)	4.00	0.48	Temporary Stop Bar, per TC-216	
								TOTAL	17.29	Pavement Markings Removed	
									17.29	Waterborne/Solvent Paint	
									0.96	Removable Tape Markings, Wet Retroreflective	

PROJECT DESCRIPTION - APPANOOSE 127					100-01D Modified
This project is for the roadway plans for the bridge repair and the associated traffic control for IA 5 over drainage ditch 0.6 miles south of Secondary Road T30 in Appanoose County.					

ESTIMATED PROJECT QUANTITES						100-01A Modified
Item No.	Item Code	Item	Unit	Total	As-Built Quantity	
1	2527-9263181	PAVEMENT MARKINGS REMOVED	STA	15.53		
2	2527-9263209	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED	STA	15.53		
3	2527-9263231	REMOVABLE TAPE MARKINGS, WET RETROREFLECTIVE	STA	0.96		
4	2528-8400256	TEMPORARY TRAFFIC SIGNALS	EA	1		
5	2528-8445110	TRAFFIC CONTROL	LS	0.167		
6	2528-8445113	FLAGGERS	EA	8		

STANDARDS			105-04 Modified
The following Standards apply to construction work on this project.			
NUMBER	DATE	TITLE	
PM-110	10-15-24	Line Types	
SI-881	04-16-19	Special Signs for Workzones	
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)	
TC-213	04-18-23	Lane Closure with Flaggers	
TC-216	04-18-23	Lane Closure with Signals	
TC-233	10-17-17	Pavement Marking Operations Two-Lane	

INDEX OF TABULATIONS			111-25 Modified
Tabulation	Tabulation Title	Sheet No.	
C Sheets			
100-1A	Estimated Project Quantities	C.3	
100-1D	Project Description	C.3	
105-4	Standard Road Plans	C.3	
108-22	Pavement Marking Line Types	C.3	
111-25	Index of Tabulations	C.3	
J Sheets			
108-23A	Traffic Control Plan	J.2	
108-26A	Staging Notes	J.2	
108-28	Temporary Traffic Signals	J.2	

PAVEMENT MARKING LINE TYPES											108-22 Modified
Road Identification	Station		Direction Of Travel	Side	Marking Type	Length	Line Type	Factor	Factored Quantity	Remarks	
	Begin	End				STA					
IA 5	542+42.00	549+32.00	NB	Center	Waterborne/Solvent Paint	6.90	Broken Centerline Yellow (BCY6)	0.25	1.73	Pavement Marking Removal Limits, per TC-216	
IA 5	542+42.00	549+32.00	SB	Left	Waterborne/Solvent Paint	6.90	Edge Line Right White (ELW6)	1.00	6.90	Pavement Marking Removal Limits, per TC-216	
IA 5	542+42.00	549+32.00	NB	Right	Waterborne/Solvent Paint	6.90	Edge Line Right White (ELW6)	1.00	6.90	Pavement Marking Removal Limits, per TC-216	
IA 5	542+42.00		NB		Wet Retroreflective Removable Tape	0.12	Stop Line White (SLW2)	4.00	0.48	Temporary Stop Bar, per TC-216	
IA 5	549+32.00		SB		Wet Retroreflective Removable Tape	0.12	Stop Line White (SLW2)	4.00	0.48	Temporary Stop Bar, per TC-216	
								TOTAL	15.53	Pavement Markings Removed	
									15.53	Waterborne/Solvent Paint	
									0.96	Removable Tape Markings, Wet Retroreflective	

						APPANOOSE 127
FILE NO. 32891	ENGLISH	DESIGN TEAM Foth	APPANOOSE COUNTY	PROJECT NUMBER BRFN-000-T(462)--39-00	SHEET NUMBER C.3	

100-01D Modified	PROJECT DESCRIPTION - DAVIS 127
This project is for the roadway plans for the bridge repair and the associated traffic control for US 63 over Soap Creek 2.5 miles north of junction of Secondary Road J15 in Davis County.	

100-01A Modified	ESTIMATED PROJECT QUANTITES				
Item No.	Item Code	Item	Unit	Total	As-Built Quantity
1	2527-9263181	PAVEMENT MARKINGS REMOVED	STA	35.16	
2	2527-9263209	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED	STA	35.16	
3	2527-9263231	REMOVABLE TAPE MARKINGS, WET RETROREFLECTIVE	STA	0.96	
4	2528-8400256	TEMPORARY TRAFFIC SIGNALS	EA	1	
5	2528-8445110	TRAFFIC CONTROL	LS	0.167	
6	2528-8445113	FLAGGERS	EA	8	

105-04 Modified	STANDARDS		
The following Standards apply to construction work on this project.			
NUMBER	DATE	TITLE	
PM-110	10-15-24	Line Types	
SI-881	04-16-19	Special Signs for Workzones	
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)	
TC-213	04-18-23	Lane Closure with Flaggers	
TC-216	04-18-23	Lane Closure with Signals	
TC-233	10-17-17	Pavement Marking Operations Two-Lane	

111-25 Modified	INDEX OF TABULATIONS		
Tabulation	Tabulation Title	Sheet No.	
C Sheets			
100-1A	Estimated Project Quantities	C.4	
100-1D	Project Description	C.4	
105-4	Standard Road Plans	C.4	
108-22	Pavement Marking Line Types	C.4	
111-25	Index of Tabulations	C.4	
J Sheets			
108-23A	Traffic Control Plan	J.3	
108-26A	Staging Notes	J.3	
108-28	Temporary Traffic Signals	J.3	

108-22 Modified	PAVEMENT MARKING LINE TYPES									
Road Identification	Station		Direction Of Travel	Side	Marking Type	Length	Line Type	Factor	Factored Quantity	Remarks
	Begin	End				STA				
US 63	2492+02.00	2500+81.00	NB	Center	Waterborne/Solvent Paint	8.79	Double Centerline Yellow (DCY6)	2.00	17.58	Pavement Marking Removal Limits, per TC-216
US 63	2492+02.00	2500+81.00	SB	Left	Waterborne/Solvent Paint	8.79	Edge Line Right White (ELW6)	1.00	8.79	Pavement Marking Removal Limits, per TC-216
US 63	2492+02.00	2500+81.00	NB	Right	Waterborne/Solvent Paint	8.79	Edge Line Right White (ELW6)	1.00	8.79	Pavement Marking Removal Limits, per TC-216
US 63	2492+02.00		NB		Wet Retroreflective Removable Tape	0.12	Stop Line White (SLW2)	4.00	0.48	Temporary Stop Bar, per TC-216
US 63	2500+81.00		SB		Wet Retroreflective Removable Tape	0.12	Stop Line White (SLW2)	4.00	0.48	Temporary Stop Bar, per TC-216
								TOTAL	35.16	Pavement Markings Removed
									35.16	Waterborne/Solvent Paint
									0.96	Removable Tape Markings, Wet Retroreflective

					DAVIS 127				
FILE NO. 32891	ENGLISH	DESIGN TEAM Foth	DAVIS COUNTY		PROJECT NUMBER BRFN-000-T(462)--39-00	SHEET NUMBER C.4			

PROJECT DESCRIPTION - LEE 227					100-01D Modified
This project is for the roadway plans for the bridge repair and the associated traffic control for IA 2 over Sugar Creek, 1.9 miles west of US 218 in Lee County.					

ESTIMATED PROJECT QUANTITES						100-01A Modified
Item No.	Item Code	Item	Unit	Total	As-Built Quantity	
1	2527-9263181	PAVEMENT MARKINGS REMOVED	STA	16.74		
2	2527-9263209	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED	STA	16.74		
3	2527-9263231	REMOVABLE TAPE MARKINGS, WET RETROREFLECTIVE	STA	0.96		
4	2528-8400256	TEMPORARY TRAFFIC SIGNALS	EA	1		
5	2528-8445110	TRAFFIC CONTROL	LS	0.167		
6	2528-8445113	FLAGGERS	EA	8		

STANDARDS			105-04 Modified
The following Standards apply to construction work on this project.			
NUMBER	DATE	TITLE	
PM-110	10-15-24	Line Types	
SI-881	04-16-19	Special Signs for Workzones	
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)	
TC-213	04-18-23	Lane Closure with Flaggers	
TC-216	04-18-23	Lane Closure with Signals	
TC-233	10-17-17	Pavement Marking Operations Two-Lane	

INDEX OF TABULATIONS			111-25 Modified
Tabulation	Tabulation Title	Sheet No.	
C Sheets			
100-1A	Estimated Project Quantities	C.5	
100-1D	Project Description	C.5	
105-4	Standard Road Plans	C.5	
108-22	Pavement Marking Line Types	C.5	
111-25	Index of Tabulations	C.5	
J Sheets			
108-23A	Traffic Control Plan	J.4	
108-26A	Staging Notes	J.4	
108-28	Temporary Traffic Signals	J.4	

PAVEMENT MARKING LINE TYPES											108-22 Modified
Road Identification	Station		Direction Of Travel	Side	Marking Type	Length	Line Type	Factor	Factored Quantity	Remarks	
	Begin	End				STA					
IA 2	387+49.00	394+93.00	EB	Center	Waterborne/Solvent Paint	7.44	Broken Centerline Yellow (BCY6)	0.25	1.86	Pavement Marking Removal Limits, per TC-216	
IA 2	387+49.00	394+93.00	WB	Left	Waterborne/Solvent Paint	7.44	Edge Line Right White (ELW6)	1.00	7.44	Pavement Marking Removal Limits, per TC-216	
IA 2	387+49.00	394+93.00	EB	Right	Waterborne/Solvent Paint	7.44	Edge Line Right White (ELW6)	1.00	7.44	Pavement Marking Removal Limits, per TC-216	
IA 2	387+49.00		EB		Wet Retroreflective Removable Tape	0.12	Stop Line White (SLW2)	4.00	0.48	Temporary Stop Bar, per TC-216	
IA 2	394+93.00		WB		Wet Retroreflective Removable Tape	0.12	Stop Line White (SLW2)	4.00	0.48	Temporary Stop Bar, per TC-216	
								TOTAL	16.74	Pavement Markings Removed	
									16.74	Waterborne/Solvent Paint	
									0.96	Removable Tape Markings, Wet Retroreflective	

PROJECT DESCRIPTION - HENRY 127						100-01D Modified
This project is for the roadway plans for the bridge repair and the associated traffic control for EB US 34 over Skunk River, 3.8 miles east of Secondary Road W40 in Henry County.						

ESTIMATED PROJECT QUANTITES						100-01A Modified
Item No.	Item Code	Item	Unit	Total	As-Built Quantity	
1	2527-9263209	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED	STA	12.51		
2	2528-8445110	TRAFFIC CONTROL	LS	0.167		

STANDARDS			105-04 Modified
The following Standards apply to construction work on this project.			
NUMBER	DATE	TITLE	
PM-110	10-15-24	Line Types	
SI-881	04-16-19	Special Signs for Workzones	
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)	
TC-402	04-18-23	Work Within 15 ft of Traveled Way	
TC-418	04-18-23	Lane Closure on Divided Highway	
TC-433	10-17-17	Pavement Marking Operations	

INDEX OF TABULATIONS			111-25 Modified
Tabulation	Tabulation Title	Sheet No.	
C Sheets			
100-1A	Estimated Project Quantities	C.6	
100-1D	Project Description	C.6	
105-4	Standard Road Plans	C.6	
108-22	Pavement Marking Line Types	C.6	
111-25	Index of Tabulations	C.6	
J Sheets			
108-23A	Traffic Control Plan	J.5	
108-26A	Staging Notes	J.5	

PAVEMENT MARKING LINE TYPES											108-22 Modified
Road Identification	Station		Direction Of Travel	Side	Marking Type	Length	Line Type	Factor	Factored Quantity	Remarks	
	Begin	End				STA					
EB US 34	957+22.00	962+78.00	EB	Center	Waterborne/Solvent Paint	5.56	Broken Lane Line White (BLW6)	0.25	1.39		
EB US 34	957+22.00	962+78.00	EB	Left	Waterborne/Solvent Paint	5.56	Edge Line Left Yellow (ELY6)	1.00	5.56		
EB US 34	957+22.00	962+78.00	EB	Right	Waterborne/Solvent Paint	5.56	Edge Line Right White (ELW6)	1.00	5.56		
								TOTAL	12.51		

HENRY 127											
FILE NO. 32891	ENGLISH	DESIGN TEAM Foth	HENRY COUNTY				PROJECT NUMBER BRFN-000-T(462)--39-00	SHEET NUMBER C.6			

TRAFFIC CONTROL PLAN - RINGGOLD 127		108-23A Modified
Traffic will be maintained on US 169 over Middle Fork Grand River at all times. Construction will be performed in 2 stages of single lane closures per the J-sheets, according to Standard Road Plan TC-213, Lane Closures with Flaggers, OR TC-216, Lane Closure with Signals. Contractor shall have the option to utilize either traffic control approach. The chosen traffic control plan shall be communicated to the Engineer and coordinated with the DOT. See J-sheets for staging details.		
Consider longer traffic signal timing to accomodate Amish buggy carts on the roadway.		

TEMPORARY TRAFFIC SIGNALS						108-28 Modified
No.	Location Station	Type			Remarks	
		One Lane Traffic	Haul Road	Intersection		
1	521+15.50	x			NB traffic	
1	525+90.50	x			SB traffic	

STAGING NOTES		108-26A Modified
STAGE 1 (Southbound Lane Construction)		
Traffic: 1. Close the SB lane of US 169 and maintain one-lane alternating traffic in the NB lane using Standard Road Plan TC-213 (Flaggers) or TC-216 (Temporary Traffic Signals).		
Construction: 1. Clean and prepare existing barrier rail adjacent to the SB lane. 2. Apply concrete sealer to prepared existing barrier rail. 3. Clean and prepare existing bridge deck, SB lane. 4. Apply High Molecular Weight Methacrylate (HMWM) sealer to existing bridge deck, SB lane		
STAGE 2 (Northbound Lane Construction)		
Traffic: 1. Close the NB lane of US 169 and maintain one-lane alternating traffic in the SB lane using Standard Road Plan TC-213 (Flaggers) or TC-216 (Temporary Traffic Signals).		
Construction: 1. Clean and prepare existing barrier rail adjacent to the NB lane. 2. Apply concrete sealer to prepared existing barrier rail. 3. Clean and prepare existing bridge deck, NB lane. 4. Apply HMWM sealer to existing bridge deck, NB lane		
FINAL		
Traffic: 1. Open all lanes to traffic. 2. Complete pavement marking operations in accordance with Standard Road Plan TC-233.		
Construction: 1. Complete final pavement markings.		

108-23A
Modified

TRAFFIC CONTROL PLAN - APPANOOSE 127

Traffic will be maintained on IA 5 over drainage ditch at all times. Construction will be performed in 2 stages of single lane closures per the J-sheets, according to Standard Road Plan TC-213 Lane Closures with Flaggers, OR TC-216, Lane Closure with Signals. Contractor shall have the option to utilize either traffic control approach. The chosen traffic control plan shall be communicated to the Engineer and coordinated with the DOT. See J-sheets for staging details.

TEMPORARY TRAFFIC SIGNALS					
No.	Location Station	Type			Remarks
		One Lane Traffic	Haul Road	Intersection	
1	543+42	x			NB traffic
1	548+32	x			SB traffic

108-26A
Modified

STAGING NOTES

STAGE 1 (Southbound Lane Construction)

Traffic:

1. Close the SB lane of IA 5 and maintain one-lane alternating traffic in the NB lane using Standard Road Plan TC-213 (Flaggers) or TC-216 (Temporary Traffic Signals).

Construction:

1. Clean and prepare existing barrier rail adjacent to the SB lane.
2. Apply concrete sealer to prepared existing barrier rail.
3. Clean and prepare existing bridge deck, SB lane.
4. Apply High Molecular Weight Methacrylate (HMWM) sealer to existing bridge deck, SB lane

STAGE 2 (Northbound Lane Construction)

Traffic:

1. Close the NB lane of IA 5 and maintain one-lane alternating traffic in the SB lane using Standard Road Plan TC-213 (Flaggers) or TC-216 (Temporary Traffic Signals).

Construction:

1. Clean and prepare existing barrier rail adjacent to the NB lane.
2. Apply concrete sealer to prepared existing barrier rail.
3. Clean and prepare existing bridge deck, NB lane.
4. Apply HMWM sealer to existing bridge deck, NB lane

FINAL

Traffic:

1. Open all lanes to traffic.
2. Complete pavement marking operations in accordance with Standard Road Plan TC-233.

Construction:

1. Complete final pavement markings.

TRAFFIC CONTROL PLAN - DAVIS 127		108-23A Modified
Traffic will be maintained on US 63 over Soap Creek at all times. Construction will be performed in 2 stages of single lane closures per the J-sheets, according to Standard Road Plan TC-213 Lane Closures with Flaggers, OR TC-216, Lane Closure with Signals. Contractor shall have the option to utilize either traffic control approach. The chosen traffic control plan shall be communicated to the Engineer and coordinated with the DOT. See J-sheets for staging details.		

TEMPORARY TRAFFIC SIGNALS						108-28 Modified
No.	Location Station	Type			Remarks	
		One Lane Traffic	Haul Road	Intersection		
1	2493+02	x			NB traffic	
1	2499+81	x			SB traffic	

STAGING NOTES		108-26A Modified
STAGE 1 (Southbound Lane Construction)		
Traffic: 1. Close the SB lane of US 63 and maintain one-lane alternating traffic in the NB lane using Standard Road Plan TC-213 (Flaggers) or TC-216 (Temporary Traffic Signals).		
Construction: 1. Clean and prepare existing barrier rail adjacent to the SB lane. 2. Apply concrete sealer to prepared existing barrier rail. 3. Clean and prepare existing bridge deck, SB lane. 4. Apply High Molecular Weight Methacrylate (HMWM) sealer to existing bridge deck, SB lane		
STAGE 2 (Northbound Lane Construction)		
Traffic: 1. Close the NB lane of US 63 and maintain one-lane alternating traffic in the SB lane using Standard Road Plan TC-213 (Flaggers) or TC-216 (Temporary Traffic Signals).		
Construction: 1. Clean and prepare existing barrier rail adjacent to the NB lane. 2. Apply concrete sealer to prepared existing barrier rail. 3. Clean and prepare existing bridge deck, NB lane. 4. Apply HMWM sealer to existing bridge deck, NB lane		
FINAL		
Traffic: 1. Open all lanes to traffic. 2. Complete pavement marking operations in accordance with Standard Road Plan TC-233.		
Construction: 1. Complete final pavement markings.		

108-23A
Modified

TRAFFIC CONTROL PLAN - LEE 227

Traffic will be maintained on IA 2 over Sugar Creek at all times. Construction will be performed in 2 stages of single lane closures per the J-sheets, according to Standard Road Plan TC-213 Lane Closures with Flaggers, OR TC-216, Lane Closure with Signals. Contractor shall have the option to utilize either traffic control approach. The chosen traffic control plan shall be communicated to the Engineer and coordinated with the DOT. See J-sheets for staging details.

TEMPORARY TRAFFIC SIGNALS					
No.	Location Station	Type			Remarks
		One Lane Traffic	Haul Road	Intersection	
1	388+49	x			EB traffic
1	393+93	x			WB traffic

108-26A
Modified

STAGING NOTES

STAGE 1 (Westbound Lane Construction)

Traffic:

- Close the WB lane of IA 2 and maintain one-lane alternating traffic in the EB lane using Standard Road Plan TC-213 (Flaggers) or TC-216 (Temporary Traffic Signals).

Construction:

- Clean and prepare existing barrier rail adjacent to the WB lane.
- Apply concrete sealer to prepared existing barrier rail.
- Clean and prepare existing bridge deck, WB lane.
- Apply High Molecular Weight Methacrylate (HMWM) sealer to existing bridge deck, WB lane.

STAGE 2 (Eastbound Lane Construction)

Traffic:

- Close the EB lane of IA 2 and maintain one-lane alternating traffic in the WB lane using Standard Road Plan TC-213 (Flaggers) or TC-216 (Temporary Traffic Signals).

Construction:

- Clean and prepare existing barrier rail adjacent to the EB lane.
- Apply concrete sealer to prepared existing barrier rail.
- Clean and prepare existing bridge deck, EB lane.
- Apply HMWM sealer to existing bridge deck, EB lane.

FINAL

Traffic:

- Open all lanes to traffic.
- Complete pavement marking operations in accordance with Standard Road Plan TC-233.

Construction:

- Complete final pavement markings.

108-23A Modified	TRAFFIC CONTROL PLAN - HENRY 127
Traffic will be maintained on eastbound US 34 over Skunk River at all times. Construction will be performed in 2 stages of single lane closures per the J-sheets, according to Standard Road Plan TC-418, Lane Closure on Divided Highway. See J-sheets for staging details.	

108-26A Modified	STAGING NOTES
<p>STAGE 1</p> <p>Traffic:</p> <ul style="list-style-type: none">1. Close the left lane of EB US 34 and maintain one-lane traffic in the right lane using Standard Road Plan TC-418. <p>Construction:</p> <ul style="list-style-type: none">1. Clean and prepare existing left barrier rail.2. Apply concrete sealer to left existing barrier rail.3. Clean and prepare existing bridge deck from left rail face to centerline of EB US 34.4. Apply High Molecular Weight Methacrylate (HMWM) sealer to left lane of existing bridge deck. <p>STAGE 2</p> <p>Traffic:</p> <ul style="list-style-type: none">1. Close the right lane of EB US 34 and maintain one-lane traffic in the left lane using Standard Road Plan TC-418. <p>Construction:</p> <ul style="list-style-type: none">1. Clean and prepare existing right barrier rail.2. Apply concrete sealer to right existing barrier rail.3. Clean and prepare existing bridge deck from right rail face to centerline of EB US 34.4. Apply HMWM sealer to right lane of existing bridge deck. <p>FINAL</p> <p>Traffic:</p> <ul style="list-style-type: none">1. Open all lanes to traffic.2. Complete pavement marking operations in accordance with Standard Road Plan TC-433. <p>Construction:</p> <ul style="list-style-type: none">1. Complete final pavement markings.	

HENRY 127

108-23A
Modified

TRAFFIC CONTROL PLAN - MAHASKA 427

Traffic will be maintained on IA 92 over Muchaknock Creek at all times. Construction will be performed in 2 stages of single lane closures per the J-sheets, according to Standard Road Plan TC-213 Lane Closures with Flaggers, OR TC-216, Lane Closure with Signals. Contractor shall have the option to utilize either traffic control approach. The chosen traffic control plan shall be communicated to the Engineer and coordinated with the DOT. See J-sheets for staging details.

TEMPORARY TRAFFIC SIGNALS					
No.	Location Station	Type			Remarks
		One Lane Traffic	Haul Road	Intersection	
1	983+06	x			EB traffic
1	988+76	x			WB traffic

108-26A
Modified

STAGING NOTES

STAGE 1 (Westbound Lane Construction)

Traffic:

1. Close the WB lane of IA 92 and maintain one-lane alternating traffic in the EB lane using Standard Road Plan TC-213 (Flaggers) or TC-216 (Temporary Traffic Signals).

Construction:

1. Clean and prepare existing barrier rail adjacent to the WB lane.

2. Apply concrete sealer to prepared existing barrier rail.

3. Clean and prepare existing bridge deck, WB lane.

4. Apply High Molecular Weight Methacrylate (HMWM) sealer to existing bridge deck, WB lane.

STAGE 2 (Eastbound Lane Construction)

Traffic:

1. Close the EB lane of IA 92 and maintain one-lane alternating traffic in the WB lane using Standard Road Plan TC-213 (Flaggers) or TC-216 (Temporary Traffic Signals).

Construction:

1. Clean and prepare existing barrier rail adjacent to the EB lane.

2. Apply concrete sealer to prepared existing barrier rail.

3. Clean and prepare existing bridge deck, EB lane.

4. Apply HMWM sealer to existing bridge deck, EB lane.

FINAL

Traffic:

1. Open all lanes to traffic.

2. Complete pavement marking operations in accordance with Standard Road Plan TC-233.

Construction:

1. Complete final pavement markings.

MAHASKA 427