APPENDIX A

30% DRAWINGS

8/31/2021
ENSURING THE STABILITY OF STEEL TRUSS DURING ALL PHASES OF ERECTION AS NOTED IN THE BRIDGE. THE CONTRACTOR MAY CHOOSE AN ALTERNATIVE STEEL TRUSS ERECTION SEQUENCE TO THE SUGGESTED STEEL TRUSS ERECTION SEQUENCE SHOWN IN THESE PLANS IS INTENDED FOR THE BRIDGE CONTRACTOR MAY SHOP DRAWING ANY CONNECTION IF APPROVED BY EOR THAT IS SHOWN ON THESE PLANS. ALL CONNECTIONS SHOWN ON THESE PLANS ARE BASED ON NOMINAL DIMENSIONS UNLESS NOTED OTHERWISE IN THE TEXT. THESE BRIDGE PLANS LABEL ALL REINFORCING STEEL WITH ENGLISH NOTATION (5A1 IS 5/8 INCH STAINLESS). STAINLESS STEEL REBAR SHALL BE SHIPPED, HANDLED, AND PLACED SUCH THAT CARBON STEEL REINFORCEMENT UNLESS OTHERWISE NOTED OR SHOWN. COVER STAINLESS STEEL REBAR WITH TARPS DURING OUTSIDE STORAGE. USE WOODEN SPACERS TO SEPARATE BUNDLES OF STAINLESS STEEL REBAR FROM OTHER TYPES OF REBAR. USE "TIME AND PLACE" LATERAL DEFLECTION AND ROTATION OF EXTERIOR BEAMS MAY RESULT IN THIN DECKS AND AN UPWARDS SHIFT IN BAR MATS WHICH CAN DECREASE CONCRETE COVER. PARTIALLY OR FULLY DEFORMED REINFORCEMENT UNLESS OTHERWISE NOTED OR SHOWN. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE SUFFICIENT TEMPORARY BRACING TO MINIMIZE SLIPFORMING OF THE BARRIER RAILS IS NOT PERMITTED. CAST-IN-PLACE BARRIER RAILS ARE TO BE ADDED IF SUBSTRUCTURE REQUIRES AESTHETIC TREATMENT. FORM LINERS: GENERAL NOTES FOR TEXTURED CONCRETE: REINFORCING STEEL IN ACCORDANCE WITH AASHTO LRFD SECTION 5, TYPE 2, DEFORMED, GRADE 60 OR 75 FOR STAINLESS. PRESTRESSING STEEL IN ACCORDANCE WITH AASHTO LRFD SECTION 5, TYPE 2, DEFORMED, GRADE 150. STRUCTURAL CONCRETE (4500 PSI OR GREATER) IN ACCORDANCE WITH ARTICLE 1105.03, OF THE STANDARD SPECIFICATIONS. HIGH PERFORMANCE CONCRETE FOR STRUCTURES MAY ALSO BE USED IN ACCORDANCE WITH THE CURRENT IOWA BRIDGE DESIGN MANUAL. DESIGN STRESSES: GENERAL NOTES FOR CONCRETE RUSTIFICATION: CONCRETE BARRIER RAILS, SLIPFORM METHOD, CONCRETE CLASS: GENERAL NOTES FOR TEXTURED CONCRETE FORM LINERS: TO BE ADDED IF SUBSTRUCTURE REQUIRES AESTHETIC TREATMENT. GENERAL NOTES FOR CONCRETE RUSTIFICATION:
PLAN NOTES:

- ALL UNITS ARE IN FEET UNLESS NOTED OTHERWISE.
- TOP OF DECK ELEVATIONS AT X ARE OUTSIDE OF THE FILL TO ACCOUNT FOR STREAM RUNNING.
- VERTICAL DATUM NAVD 88.
- CLASS E REVETMENT STONE IS EMBEDDED.
- THE BRIDGE WILL BE DESIGNED TO WITHSTAND THE APPARENT EFFECTS OF 45° 16'.
- FOR LOCATIONS OF DECK DRAINS, SEE DESIGN SHEET X.

HYDRAULIC DATA:

- ORANGE AREA = 6750.50 SQ. FT.
- SPECIFIC SLOPE = 0.05 FT/FVL
- AVERAGE WATER STAGE = 650.0
- Q= 157,200 CFS
- STAGE = 655.9
- REGULAR LOW ELEV. 650.0
- BACKSET = 3.2
- OFFSTREAM ELEV. 646.40
- Q= 125,100 CFS
- STAGE = 647.9
- REGULAR LOW ELEV. 645.0
- BACKSET = 4.2
- OFFSTREAM ELEV. 640.60
- ROADWAY OVERTOP ELEV. 634.0
- STAGE = 634.0
- EXTREME LOW ELEV. 634.0
- DATE = 04/24/1965

GENERAL PLAN:

- CURVE DATA:
  - RADIUS = 13,000 FT
  - L = 1000
  - E = 0
  - F = 0

- LOCATION:
  - IA 9 OVER MISSISSIPPI RIVER
  - TINN - 1CM

- TRAFFIC ESTIMATE:
  - 2025 ADT: 2400 VPD
  - 2040 ADT: 3000 VPD
  - TRUCKS: 8 %

- SITUATION PLAN - 1

- 1350' x 40' STEEL THROUGH-TRUSS
- 205'-0 & 367'-0 END SPANS
- 778'-0 INTERIOR SPAN
- 105 + 00 TO ABUTMENT BEARINGS

- 119 + 00 TO 365 + 2

- BRIDGE END DRAIN

- 115 + 00 TO 255 + 0

- GENERAL PLAN W/ ACTUAL VARIOUS BEARINGS

- NEW PROPOSED PROFILE GRADE VS. EXISTING PROFILE GRADE

- PROPOSED PROFILE GRADE VS. EXISTING PROFILE GRADE

- PROPOSED PROFILE GRADE VS. EXISTING PROFILE GRADE
Design for 0° skew
Longitudinal section along IA 9

Prototype pile W10 x 86
Profile grade line

Normal pool elevation: 619.3 (NAVD88)
Proposed pool elevation: 620.0 MSL 1912

Mississippi River Flow

---

Existing Missouri River Bridge Limits of existing revetment

---

Steel sheet pile dolphin

---

Existing revetment

---

Steel through-truss

---

Proposed pile W10 x 86

---

For Information Only

---

Existing riverbed

---

Elev. 672.11

---

BM Brass disk marked 503 in N. side bridge abut., IA end Miss. River Bridge

---

For Information Only

---

1350'-10 x 40'-0 Steel Through-Truss

---

Situation Plan - 3

---

Allamakee County

---

Iowa DOT - Transportation Development Division

---

Design NO. 126

---

Design NO. 154

---

Design NO. 224

---

Design NO. 412

---

Design NO. 512

---

Design NO. 949

---

Design NO. 999

---

FOR INFORMATION ONLY
**BANK STABILIZATION LOCATION TABLE**

<table>
<thead>
<tr>
<th>Location</th>
<th>Left Elev</th>
<th>Right Elev</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pier 1</td>
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<td></td>
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</tbody>
</table>

**REVIEW SLOPE LOCATION TABLE**

<table>
<thead>
<tr>
<th>Location</th>
<th>Left Elev</th>
<th>Right Elev</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pier 1</td>
<td></td>
<td></td>
<td></td>
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</table>

**ESTIMATED BANK STABILIZATION QUANTITIES**

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<tr>
<th>Location</th>
<th>Excavation Quan.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pier 1</td>
<td></td>
</tr>
</tbody>
</table>

---

**SITE PLAN**

*For information only*
SUBSTRUCTURE LAYOUT

West Abutment shown is carry-over from D3 plans

BRIDGE COORDINATES

<table>
<thead>
<tr>
<th>LEFT EDGE OF DECK</th>
<th>E, NAGE, ORG</th>
<th>E, PIER 1</th>
<th>E, PIER 2</th>
<th>E, PIER 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>STA. 104+13.17</td>
<td>X=13495488.870, Y=9435062.603</td>
<td>X=13495497.903, Y=9435042.909</td>
<td>X=13495506.936, Y=9435023.215</td>
<td>X=13495514.027, Y=9435001.031</td>
</tr>
<tr>
<td>STA. 106+19.00</td>
<td>X=13495488.870, Y=9435062.603</td>
<td>X=13495497.903, Y=9435042.909</td>
<td>X=13495506.936, Y=9435023.215</td>
<td>X=13495514.027, Y=9435001.031</td>
</tr>
</tbody>
</table>

NOTES:
- AN ELECTRONIC FILE CONTAINING THE BRIDGE COORDINATE DATA IS AVAILABLE AS PART OF THE E-FILES SUPPLIED WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL VERIFY THESE COORDINATES WITH THE PROJECT HORIZONTAL CONTROL INFORMATION PROVIDED IN THE ROAD PLANS.
- THE E-FILES SUPPLIED WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL VERIFY THESE COORDINATES WITH THE PROJECT HORIZONTAL CONTROL INFORMATION PROVIDED IN THE ROAD PLANS.
TRUSS SECTION A-A (LOOKING UPSTATION)

NOTES:
1. SEE TRUSS GEOMETRY SHEET FOR THE LOCATIONS OF SWAY STRUTS.

1350'-10" x 40'-0" STEEL THROUGH-TRUSS
205'-10" & 367'-0" END SPANS
778'-0" INTERIOR SPAN
TRUSS TYPICAL SECTION
M-9 STA 112+72.71 MONTH 2022

DESIGN FOR 0° SKEW
(LOOKING UPSTATION)

4'-0" DECK WIDTH
2% SLOPE

FOR INFORMATION ONLY
ELEV. 619.3' (NAVD88)
NORMAL POOL
ELEV. 631.0' (NAVD88)
TOP OF FOOTING
ELEV. 617.0' (NAVD88)
BOTTOM OF FOOTING

BEVELED KEYWAY

PLAN

SIDE ELEVATION

ELEVATION

PIER 2 DETAILS

1350'-10 x 40'-0 STEEL THROUGH-TRUSS
205'-10 & 367'-0 END SPANS
778'-0 INTERIOR SPAN

ALLAMAKEE COUNTY
IOWA DOT - TRANSPORTATION DEVELOPMENT DIVISION

DESIGN SHEET NO. 124
DESIGN NO. 24
FILE NO. 1153
PROJECT NUMBER STP-009-9(84)--2C-03
SHEET NUMBER 25

FOR INFORMATION ONLY
NOTES:
1. ALL DIMENSIONS SHOWN ARE HORIZONTAL, UNLESS NOTED OTHERWISE.
2. THE TRUSS VERTICALS ARE PERPENDICULAR TO PROFILE GRADE.
3. L5-L8, B1-B2, B2-B3, B3-L5, L17-B4, B4-B5, B5-B6, B6-L19 ARE SECONDARY MEMBERS.

FOR INFORMATION ONLY
1. All dimensions shown are horizontal unless noted otherwise.
2. Truss member lengths shown are from panel point to panel point without camber or temperature corrections.
3. Parallel member and bolted built-up member details are shown for information only to demonstrate fabrication and construction aspects in case primary members are utilized in final design.

TYPE II T SECTIONS
BOLTED BUILT-UP MEMBER
**PARALLEL T SECTIONS WITH PT BARS**

**DESIGN FOR SD 205-5 STEEL THROUGH-TRUSS**
**1350'-10 x 40'-0 STEEL THROUGH-TRUSS**
205-40 & 505-40 END SPANS
776'-0 INTERIOR SPAN
TRUSS GEOMETRY - 2A
ALLAMAKEE COUNTY
IOWA DOT - TRANSPORTATION DEVELOPMENT DIVISION
REV. SHEET NO. 121, M. 112, PL. 121, SHEET NO. 41A
1350'-10 x 40'-0 STEEL THROUGH-TRUSS
205'-10 & 367'-0 END SPANS
778'-0 INTERIOR SPAN

UPPER LATERAL BRACING PLAN

NOTES:
1. ALL DIMENSIONS SHOWN ARE HORIZONTAL, UNLESS NOTED OTHERWISE.
2. DESIGN IS GOVERNED BY THE FOLLOWING CONCURRENT LOADS:
   - LIVE LOADS
   - LIVE EFFECTS DUE TO ASYMMETRY OF THE TRUSS DEAD LOAD
   - WIND EFFECTS TO PROVIDE BRACING TO UPPER TRUSS CHORDS
3. THE UPPER TRUSS CHORDS (DEFINED AS 1% OF THE MAXIMUM COMPRESSIVE LOAD IN
   THE UPPER TRUSS CHORDS)

FOR INFORMATION ONLY
1. All dimensions shown are horizontal, unless noted otherwise.
2. Design is governed by the following concurrent loads:
   - Wind loading
   - Force effects due to asymmetry of the truss dead load
   - Force effects to provide bracing to lower truss chords (defined as 1% of the maximum compressive load in the lower truss chords)
3. Service limit state connection design force is as per AASHTO LRFD Clause 6.13.2.11.

NOTES:

- Design for 0° skew
- 1350'-10 x 40'-0 steel through-truss
- 205'-10 & 367'-0 end spans
- 778'-0 interior span
- Lower lateral bracing plan

DESIGN FOR 0° SKEW
1350'-10 x 40'-0 STEEL THROUGH-TRUSS
205'-10 & 367'-0 END SPANS
778'-0 INTERIOR SPAN
LOWER LATERAL BRACING PLAN
M. 5 STA. - 112+72.71
ALLAMAKEE COUNTY
IOWA DOT - TRANSPORTATION DEVELOPMENT DIVISION

FOR INFORMATION ONLY
ELEVATION VIEW - UPPER CONNECTION

NOTES:

1. FOR TRUSS GEOMETRY ON TYPE, GEOMETRY AND SIZES OF THE DIAGONALS, VERTICAL AND UPPER CHORDS, SEE SHEET 4.

2. BOLTED CONNECTIONS SHALL BE 1 INCH DIAMETER GRADE 5 BOLTS WITH SELF-NEUTRALIZED BOLTS.

3. SLIP-CRITICAL CONNECTIONS ARE DESIGNED FOR CLASS B SURFACE CONDITIONS IN ACCORDANCE WITH ARTICLE 6.13.2.8 OF THE AASHTO LRFD SPECIFICATIONS.

4. PARALLEL MEMBER AND BOLTED BUILT-UP MEMBER DETAILS ARE SHOWN FOR INFORMATION ONLY TO DEMONSTRATE FABRICATION AND CONSTRUCTION ASPECTS IN CASE PARALLEL MEMBERS ARE UTILIZED IN FINAL DESIGN.

1350'-10 x 40'-0 STEEL THROUGH-TRUSS

TRUSS JOINT UPPER NODE - I

ALLAMAKEE COUNTY
KINGDOM DOT - TRANSPORTATION DEVELOPMENT DIVISION

FOR INFORMATION ONLY
ELEVATION VIEW - UPPER CONNECTION

SEE TRUSS GEOMETRY FOR TYPE, GEOMETRY AND SIZES OF THE DIAGONALS, VERTICAL AND UPPER CHORDS.

1. BOLTED CONNECTIONS SHALL BE 1 INCH DIAMETER GRADE A325 HIGH STRENGTH BOLTS WITH A563 NUTS AND F436 WASHERS. HOLES SHALL BE 1/8 INCH LARGER THAN THE NOMINAL DIAMETER OF THE BOLTS.

2. SLIP-CRITICAL CONNECTIONS ARE DESIGNED FOR CLASS D SURFACE CONDITIONS IN ACCORDANCE WITH ARTICLE 6.13.2.8 OF THE AASHTO LRFD SPECIFICATIONS.

3. BOLTED CONNECTIONS SHALL BE 1 INCH DIAMETER GRADE A325 HIGH STRENGTH BOLTS WITH A563 NUTS AND F436 WASHERS. HOLES SHALL BE 1/8 INCH LARGER THAN THE NOMINAL DIAMETER OF THE BOLTS.

4. SLIP-CRITICAL CONNECTIONS ARE DESIGNED FOR CLASS D SURFACE CONDITIONS IN ACCORDANCE WITH ARTICLE 6.13.2.8 OF THE AASHTO LRFD SPECIFICATIONS.

5. PARALLEL MEMBER AND BOLTED BUILT-UP MEMBER DETAILS ARE SHOWN FOR INFORMATION ONLY TO DEMONSTRATE FABRICATION AND CONSTRUCTION ASPECTS IN CASE PARALLEL MEMBERS ARE UTILIZED IN FINAL DESIGN.
1. See truss geometry for type, geometry and sizes of the diagonals, vertical and upper chords.

2. Bolted connections shall be 1 inch diameter grade A325 high strength bolts with A563 nuts and F436 washers. Holes shall be ≥ 1 inch larger than the nominal diameter of the bolts.

3. Slip-critical connections are designed for Class B surface conditions in accordance with Article 6.13.2.8 of the AASHTO LRFD Specifications.

4. Parallel members and bolted built-up member details are shown for information only to demonstrate fabrication and construction aspects in case parallel members are utilized in final design.

NOTES:

1. See truss geometry for type, geometry and sizes of the diagonals, vertical and upper chords.

2. Bolted connections shall be 1 inch diameter grade A325 high strength bolts with A563 nuts and F436 washers. Holes shall be ≥ 1 inch larger than the nominal diameter of the bolts.

3. Slip-critical connections are designed for Class B surface conditions in accordance with Article 6.13.2.8 of the AASHTO LRFD Specifications.

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NOTES:

1. See truss geometry for type, geometry and sizes of the diagonals, vertical and upper chords.

2. Bolted connections shall be 1 inch diameter grade A325 high strength bolts with A563 nuts and F436 washers. Holes shall be ≥ 1 inch larger than the nominal diameter of the bolts.

3. Slip-critical connections are designed for Class B surface conditions in accordance with Article 6.13.2.8 of the AASHTO LRFD Specifications.

4. Parallel members and bolted built-up member details are shown for information only to demonstrate fabrication and construction aspects in case parallel members are utilized in final design.
ELEVATION VIEW - LOWER CONNECTION
(TYPICAL CONNECTION AT VERTICAL CHORD)

SECTION A-A

SECTION B-B

NOTES:
1. SEE TRUSS GEOMETRY FOR DIAGONAL TYPE, GEOMETRY, AND SIZES.
2. SEE TRUSS MEMBER DETAILS - FOR TYPICAL MEMBER SECTIONS.
3. BOLTED CONNECTIONS SHALL BE 1 INCH DIAMETER GRADE A325 HIGH STRENGTH BOLTS WITH BOLTS AND NUTS AND PAIR NUMBERS, RISERS SHALL BE 1 INCH LONGER THAN THE NOMINAL DIAMETER OF THE BOLTS.
4. SLIP-CRITICAL CONNECTIONS ARE DESIGNED FOR CLASS B SURFACE CONDITIONS IN ACCORDANCE WITH ARTICLE 6.13.2.8 OF THE AASHTO LRFD SPECIFICATIONS.
5. PARALLEL MEMBER AND BOLTED BUILT-UP MEMBER DETAILS ARE SHOWN FOR INSTRUCTION ONLY TO DEMONSTRATE FABRICATION AND CONSTRUCTION ASPECTS IN CASE PARALLEL MEMBERS ARE UTILIZED IN FINAL DESIGN.
1. Parallel member and bolted built-up member details are shown for information only to demonstrate fabrication and construction aspects in case of triangle members.

2. Bolts with a diameter grade A325 high strength bolts are utilized in final design.

3. Slip-critical connections are designed for Class B surface conditions in accordance with Article 6.13.2.8 of the AASHTO LRFD Specifications.

ELEVATION VIEW - LOWER CONNECTION

SECTION A-A

SECTION B-B

NOTES:

1. Parallel member and bolted built-up member details are shown for information only to demonstrate fabrication and construction aspects in case of triangle members.

2. Bolts with a diameter grade A325 high strength bolts are utilized in final design.

3. Slip-critical connections are designed for Class B surface conditions in accordance with Article 6.13.2.8 of the AASHTO LRFD Specifications.
GUSSET PLATE

<table>
<thead>
<tr>
<th>VERTICAL CHORD &amp; FLOOR BEAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIAGONAL</td>
</tr>
<tr>
<td>DIAGONAL</td>
</tr>
<tr>
<td>LOWER CHORD</td>
</tr>
</tbody>
</table>

GUSSET PLATE

| LOWER CHORD WEB               |
| FLOOR BEAM WEB                |

GUSSET PLATE

| LOWER CHORD WEB               |
| FLOOR BEAM                    |

ELEVATION VIEW - LOWER CONNECTION

SECTION A-A

SECTION B-B

NOTES:

1. See truss geometry for diagonal type, geometry, and steel.
2. See truss member details - 1 for typical member sections.
3. Bolted connections shall be 1-inch diameter grade A255 high strength bolts with alloy nuts and five-millimeter holes shall be a 1/4-inch larger than the nominal diameter of the bolts.
4. Slip-critical connections are designed for class B surface conditions in accordance with article 6.13.2.8 of the AASHTO LRFD specifications.
5. Parallel members and bolted built-up member details are shown for information only to demonstrate fabrication and construction aspects in case parallel members are utilized in final design.

1. See truss geometry for diagonal type, geometry, and steel.
2. See truss member details - 1 for typical member sections.
3. Bolted connections shall be 1-inch diameter grade A255 high strength bolts with alloy nuts and five-millimeter holes shall be a 1/4-inch larger than the nominal diameter of the bolts.
4. Slip-critical connections are designed for class B surface conditions in accordance with article 6.13.2.8 of the AASHTO LRFD specifications.
5. Parallel members and bolted built-up member details are shown for information only to demonstrate fabrication and construction aspects in case parallel members are utilized in final design.

1350'-10 x 40'-0 STEEL THROUGH-TRUSS

205'-10 & 367'-0 END SPANS

778'-0 INTERIOR SPAN

TRUSS JOINT LOWER NODE - 3

ALLAMAKEE COUNTY

IOWA DOT - TRANSPORTATION DEVELOPMENT DIVISION

DESIGN FOR 0° SKEW

ELEVATION VIEW - LOWER CONNECTION

(L6 SHOWN, L14 AND L16 SIMILAR)

B

B

A

A

ASPECTS IN CASE IRM/SRM MEMBERS ARE UTILIZED IN FINAL DESIGN.

INFORMATION ONLY TO DEMONSTRATE FABRICATION AND CONSTRUCTION ASPECTS IN CASE IRM/SRM MEMBERS ARE UTILIZED IN FINAL DESIGN.

PARALLEL MEMBER AND BOLTED BUILT-UP MEMBER DETAILS ARE SHOWN FOR

INFORMATION ONLY TO DEMONSTRATION FABRICATION AND CONSTRUCTION ASPECTS IN CASE PARALLEL MEMBERS ARE UTILIZED IN FINAL DESIGN.

SLIP-CRITICAL CONNECTIONS ARE DESIGNED FOR CLASS B SURFACE CONDITIONS

IN ACCORDANCE WITH ARTICLE 6.13.2.8 OF THE AASHTO LRFD SPECIFICATIONS.

BOLTED CONNECTIONS SHALL BE 1 INCH DIAMETER GRADE A325 HIGH STRENGTH

BOLTS WITH A563 NUTS AND F436 WASHERS. HOLES SHALL BE 1/4 INCH LARGER

BOLTED CONNECTIONS SHALL BE 1 INCH DIAMETER GRADE A325 HIGH STRENGTH

BOLTS WITH A563 NUTS AND F436 WASHERS. HOLES SHALL BE 1/4 INCH LARGER
1350'-10 x 40'-0 STEEL THROUGH-TRUSS
205'-10 & 367'-0 END SPANS
778'-0 INTERIOR SPAN
FLOOR SYSTEM FRAMING PLAN - 3

ALLAMAKEE COUNTY
IOWA DOT - TRANSPORTATION DEVELOPMENT DIVISION

SHEET NUMBER 79
FLOOR SYSTEM FRAMING PLAN

1350'-10 x 40'-0 STEEL THROUGH-TRUSS
205'-10 & 367'-0 END SPANS
778'-0 INTERIOR SPAN

FLOOR SYSTEM FRAMING PLAN - 4

ALLAMAKEE COUNTY
IOWA DOT - TRANSPORTATION DEVELOPMENT DIVISION
DESIGN SHEET NO. 30 - Rev. B - SCALE 1"=20'-0"
DATE: JUNE 20XX

DESIGN TEAM
PARCONS

FOR INFORMATION ONLY
FLOOR BEAM ELEVATION

NOTES:

- SHEAR STUDS ON THE TOP FLANGE OF THE FLOOR BEAMS SHALL BE INSTALLED IN THE FIELD.
- ROWS OF SHEAR CONNECTORS SHALL BE ALIGNED PARALLEL TO THE LONGITUDINAL STRINGERS.
- SHEAR CONNECTORS TO PROJECT A MINIMUM OF 2" INTO DECK STRUCTURAL SLABS. IN NO CASE SHALL SHEAR CONNECTORS PROJECT CLOSER THAN 3" TO THE TOP OF DECK STRUCTURAL SLABS. ENGINEER TO FIELD VERIFY FLOOR BEAM ELEVATIONS AND AUTHORITY STUD LENGTH.
- FOR LOWER LATERAL BRACING AND LONGITUDINAL STRINGERS, SEE SHEET XXX.
- FOR FLOOR BEAM DEFLECTION AND CAMBER DIAGRAM, SEE SHEET XXX.
- FOR DETAIL x and y, SEE SHEET XXX.

1350'-10 x 40'-0 STEEL THROUGH-TRUSS

DESIGN FOR 0° SKEW

209'-10 & 367'-0 END SPANS

778'-0 INTERIOR SPAN

FLOOR BEAM - 1

ALLAMAKEE COUNTY

DESIGN TEAM

SM/EAJ/SC

STATE NO.

IOWA DOT - TRANSPORTATION DEVELOPMENT DIVISION
STEEL ERECTION SEQUENCE (STAGES 1A AND 1B CAN BE DONE CONCURRENTLY)

1. INSTALL SHORE TOWERS FOR SPAN 1.
2. ERECT SPAN 1 TRUSS STEEL INCLUDING FLOOR BEAMS, LONGITUDINAL STRINGERS, AND BRACING.
3. INSTALL TEMPORARY CONTINUITY CONNECTIONS.
4. UNLOAD TOWERS AND PLACE LOAD ON PERMANENT BEARINGS AT PIER 1.

STAGE 1B (STREEL BASED CRANE)
1. INSTALL SHORE TOWERS FOR SPAN 2.
2. ERECT SPAN 2 TRUSS STEEL INCLUDING FLOOR BEAMS, LONGITUDINAL STRINGERS, AND BRACING.
3. INSTALL TEMPORARY CONTINUITY CONNECTION.
4. UNLOAD TEMPORARY TOWERS AND PLACE LOAD ON PERMANENT BEARINGS AT PIER 2.

STEEL ERECTION SEQUENCE (STAGES 2A AND 2B CAN BE DONE CONCURRENTLY)

STAGE 2A (WATER BASED CRANE)
1. INSTALL TEMPORARY TIEDOWNS AT WEST ABUTMENT.
2. ERECT CANTILEVER TRUSS STEEL (5 PANELS), INCLUDING FLOOR BEAMS, LONGITUDINAL STRINGERS, AND BRACING.
3. INSTALL TEMPORARY CONTINUITY CONNECTION.

STAGE 2B (WATER BASED CRANE)
1. INSTALL TEMPORARY TIEDOWNS AT WEST ABUTMENT.
2. ERECT CANTILEVER TRUSS STEEL (4 PANELS), INCLUDING FLOOR BEAMS, LONGITUDINAL STRINGERS, AND BRACING.
3. INSTALL TEMPORARY CONTINUITY CONNECTION.

SUGGESTED ERECTION SEQUENCE - I

STAGE 1A (LAND BASED CRANE)
1. INSTALL TEMPORARY CONTINUITY CONNECTION.
2. INSTALL TEMPORARY CONTINUITY CONNECTION.
3. INSTALL TEMPORARY CONTINUITY CONNECTION.
4. INSTALL TEMPORARY CONTINUITY CONNECTION.

STAGE 1B (LAND BASED CRANE)
1. INSTALL TEMPORARY CONTINUITY CONNECTION.
2. INSTALL TEMPORARY CONTINUITY CONNECTION.
3. INSTALL TEMPORARY CONTINUITY CONNECTION.
4. INSTALL TEMPORARY CONTINUITY CONNECTION.

STAGE 2A (WATER BASED CRANE)
1. INSTALL TEMPORARY CONTINUITY CONNECTION.
2. INSTALL TEMPORARY CONTINUITY CONNECTION.
3. INSTALL TEMPORARY CONTINUITY CONNECTION.
4. INSTALL TEMPORARY CONTINUITY CONNECTION.

STAGE 2B (WATER BASED CRANE)
1. INSTALL TEMPORARY CONTINUITY CONNECTION.
2. INSTALL TEMPORARY CONTINUITY CONNECTION.
3. INSTALL TEMPORARY CONTINUITY CONNECTION.
4. INSTALL TEMPORARY CONTINUITY CONNECTION.

FOR INFORMATION ONLY
IOWA DOT - TRANSPORTATION DEVELOPMENT DIVISION

1350'-10 x 40'-0 STEEL THROUGH-TRUSS

ALLAMAKEE COUNTY

PROJECT NUMBER   STP-009-9(84)--2C-03

MONTH, 202X

SUGGESTED ERECTION SEQUENCE

STAGE 3 (WATER BASED CRANE(S))
1. ADJUST VERTICAL ALIGNMENT, AT CANTILEVER TIPS AS NECESSARY.
2. ERECT DOWNSTREAM TRUSS CHORD (APPROXIMATELY 750 KIPS PICK)
3. ERECT UPSTREAM TRUSS CHORD.

STAGE 4 (WATER BASED CRANE(S))
1. FILL IN REMAINING LATERALS AND FLOORBEAMS FOR STAGE 3.
2. REMOVE TEMPORARY CONTINUITY CONNECTIONS.
3. ERECT UPSTREAM TRUSS CHORD.

FOR INFORMATION ONLY
ELEVATION - STAGE 5

PLAN - STAGE 5

CONCRETE SEQUENCE

STAGE 5
1. Pour concrete deck in span 1 and span 3.
2. Install permanent continuity at top of pier 2.
4. Install permanent continuity at top of pier 1.
5. Add barrier, utilities etc.

SUGGESTED ERECTION SEQUENCE - 3

1. Pour concrete deck in span 1 and span 3.
2. Install permanent continuity at top of pier 2.
4. Install permanent continuity at top of pier 1.
5. Add barrier, utilities etc.

DESIGN FOR 0° SKEW

1350'-10 x 40'-0 STEEL THROUGH-TRUSS

IOWA DOT - TRANSPORTATION DEVELOPMENT DIVISION

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