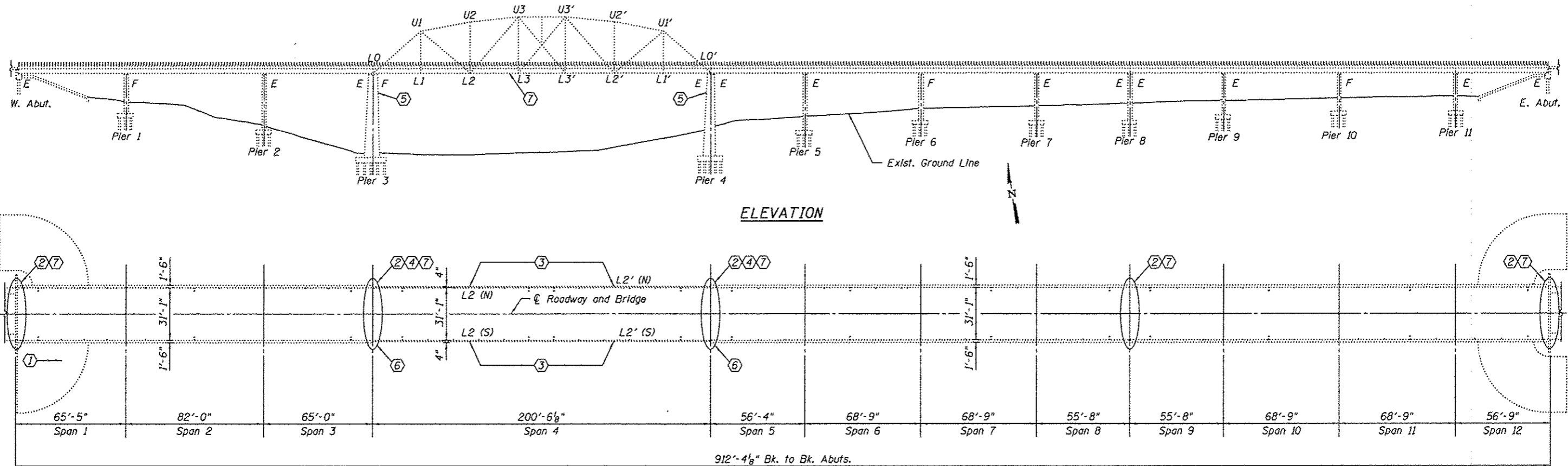


Benchmark: Not Required

Existing Structure: Structure No. 082-0077. Constructed in 1946; 12 spans, 11 approach spans and 1 thru truss span on pile supported concrete abutments and piers. Complete deck replacement with misc. steel, truss, and substructure repairs in 1990. Total length = 912'-4 1/8" back to back abuts. 31'-1" roadway. Bridge to be repaired utilizing stage construction.

Salvage: Truss Bearing Assemblies will be salvaged for reuse. See sheet 22 of 28 for details.



ELEVATION

PLAN

INDEX OF SHEETS

TOTAL BILL OF MATERIAL

| ITEM | UNIT | TOTAL |
|--|---------|--------|
| Concrete Removal | Cu. Yd. | 35.9 |
| Concrete Structures | Cu. Yd. | 2.6 |
| Concrete Superstructure | Cu. Yd. | 33.7 |
| Protective Coat | Sq. Yd. | 98.8 |
| Reinforcement Bars, Epoxy Coated | Pound | 6,220 |
| Bar Splicers | Each | 94 |
| Mechanical Splicers | Each | 676 |
| Preformed Joint Strip Seal | Foot | 165.5 |
| Anchor Bolts, 1 1/4" | Each | 8 |
| Epoxy Crack Injection | Foot | 73 |
| Structural Steel Repair | Pound | 18,780 |
| Containment and Disposal of Lead | L. Sum | 1 |
| Point Cleaning Residues No. 1 | L. Sum | 1 |
| Cleaning and Painting Steel Bridge No. 1 | L. Sum | 1 |
| Structural Repair of Concrete (Depth > 5") | Sq. Ft. | 943.5 |
| Deck Slab Repair (Partial) | Sq. Yd. | 36.2 |
| Temporary Shoring and Cribbing | Each | 10 |
| Temporary Support System | Each | 2 |
| Remove and Reinstall Existing Bearings | Each | 2 |

SCOPE OF WORK

- ① Partial Deck Slab Repairs.
- ② Install New Strip Seal Expansion Joints at each Abutment, Pier 3, Pier 4, and Pier 8.
- ③ Strengthen Truss Bottom Chord Splice at (4) Panel Points: L2 (N), L2 (S), L2' (N), and L2' (S).
- ④ Remove and replace End Floorbeams in Span 4.
- ⑤ Perform Structural Repair of Concrete at Pier 3 and Pier 4.
- ⑥ Jack and temporarily support South end of Truss at Pier 3 and Pier 4 for Pier Cap Repairs. Removal and installation of Truss Bearings is required.
- ⑦ Clean and Paint structural steel in designated areas.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications
17th Edition

DESIGN STRESSES

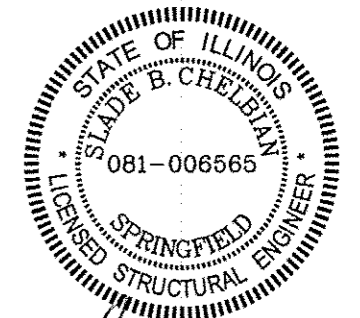
FIELD UNITS (EXIST. CONST.)

f'c = 3,500 psi (Deck and Approach Pavement)
f'c = 3,000 psi (Substructure)
fy = 60,000 psi (Deck and Approach Pavement Reinforcement)
fy = 40,000 psi (Substructure Reinforcement)
fy = 36,000 psi (1990 Structural Steel)
fy = 33,000 psi (1944 Structural Steel)

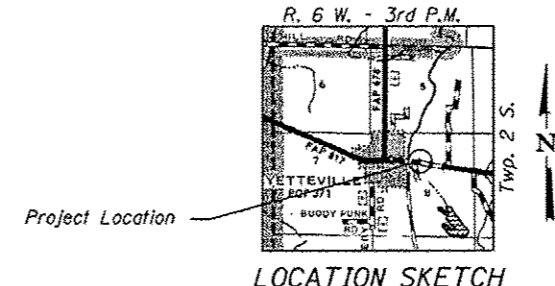
FIELD UNITS (NEW CONST.)

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (Structural Steel)

- 1. General Plan and Elevation
- 2. General Notes & Details
- 3. Temporary Concrete Barrier for Stage Construction
- 4.-6. Deck Repair Details
- 7.-8. Abutment Joint Replacement Details
- 9.-10. Pier 3 Joint Replacement Details
- 11.-12. Pier 4 Joint Replacement Details
- 13. Pier 8 Joint Replacement Details
- 14. Preformed Joint Strip Seal
- 15. Truss Bottom Chord Splice Strengthening Details
- 16.-18. Floorbeam Replacement Details
- 19.-21. Pier Repair Details
- 22. Truss Bearing Removal and Reinstallation Details
- 23. Bar Splicer Assembly and Mechanical Splicer Details
- 24.-28. Existing Plans (For Information Only)



Slade B. Chelebian 11/14/12
Expires: 11/30/2014



GENERAL PLAN & ELEVATION
IL ROUTES 4 & 15 OVER KASKASKIA RIVER
"PUBLIC WATERS"
F.A. RTE. 817 - SEC. 421 BR
ST. CLAIR COUNTY
STATION 132+53.67
STRUCTURE NO. 082-0077

Design firm no. 184001036



| USER NAME | DESIGNED | REVISIONS |
|----------------------------|----------|-----------|
| *OPERATOR* | FLL/SBC | REVISED |
| 0820077-08000.dgn | CWC/SBC | REVISED |
| PLOT SCALE = 8x2 1/2" = 1" | FLL/DLH | REVISED |
| PLOT DATE = 11/14/2012 | CWC | REVISED |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 28 SHEETS

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|-----------|--------------|-----------|
| 817 | 421 BR | ST. CLAIR | 43 | 16 |
| | | | CONTRACT NO. | 76-175 |
| ILLINOIS FED. AID PROJECT | | | | |