

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

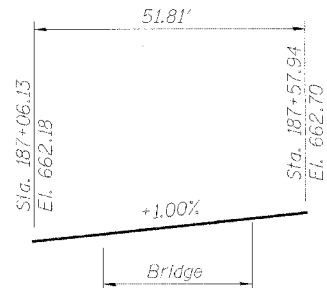
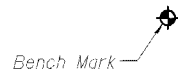
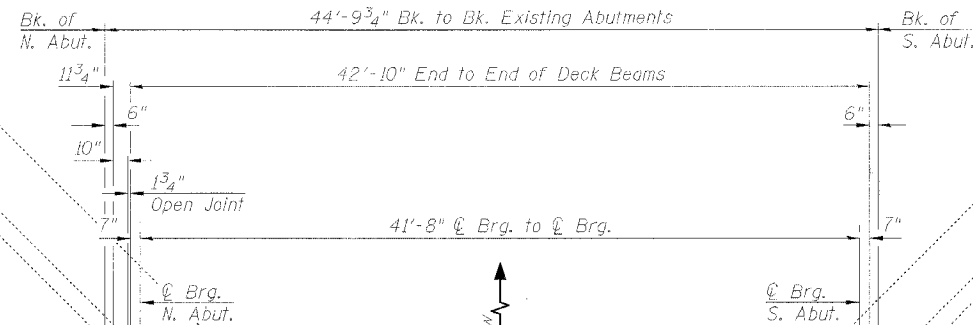
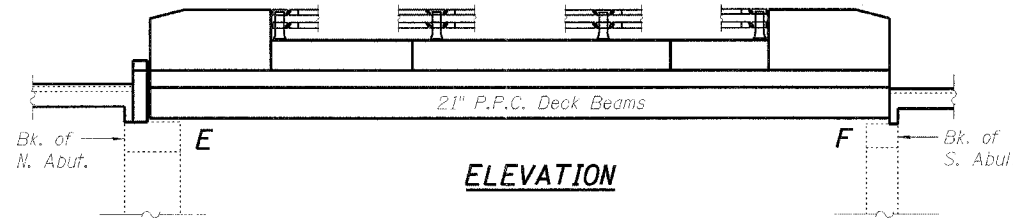
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	AR-B	KANE	43	17
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract #60C23

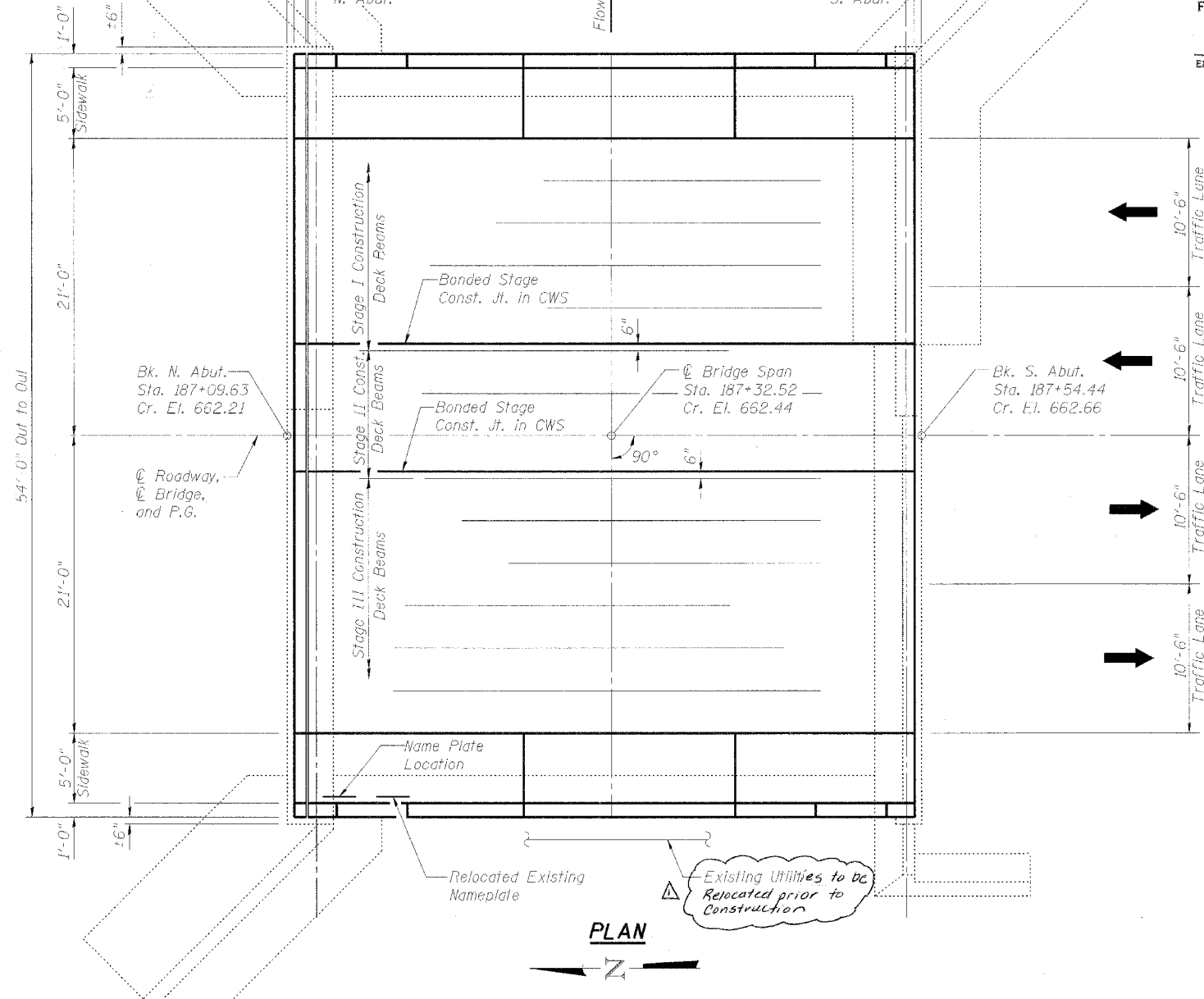
**Benchmark:**  
Existing benchmark could not be found on N.E. wingwall. Top of N.E. wingwall was assumed at El. 661.84 (original benchmark elevation). Elevation was transferred to temporary benchmark which is railroad spike in west side of power pole, El. 662.23.

**Existing Structure:**  
Original Bridge S.N. 045-0020 was built as R.C. Deck Girder with Closed Abutments next to thru steel girder Railroad Bridge in early 1900's. Railroad Bridge was removed and Highway Bridge was widened in kind, abutments modified, in 1935. This structure was rebuilt in 1978. Superstructure was removed and replaced with PPC Deck Beams. Abutments were modified for deck beams and repaired as required. The existing PPC Deck Beams, Sidewalk, and Parapets shall be removed and replaced utilizing stage construction. Existing brass name plate has SN 025-0020 imprinted rather than SN 045-0020.

**Salvage:**  
Remove and re-erect existing aluminum railing. Relocate existing name plate.



**PROFILE GRADE**  
at @ Roadway  
(For Bridge Only)



**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY

*Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

**INDEX OF SHEETS**

1. General Plan & Elevation
2. General Notes and Total Bill of Material
3. Stage I Construction
4. Stage II Construction
5. Stage III Construction
6. Temporary Concrete Barrier
7. Superstructure Details
8. Sections and Bearing Details
9. Strip Seal Joint Details
10. Concrete Wearing Surface
11. Sidewalk & Parapet Details
12. Parapet Details
13. Bar Splicer Assembly Details
14. Re-erected Aluminum Railing
15. North Abutment Details
16. Substructure Repairs

**LOADING HS20-44**

No Allowance for future wearing surface

**DESIGN SPECIFICATIONS**

2002 AASHTO Standard Specifications

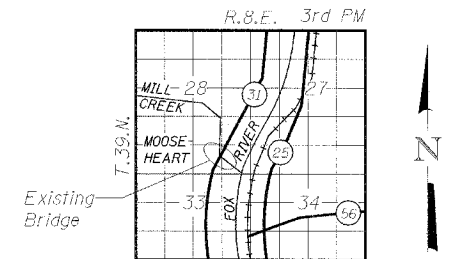
**DESIGN STRESSES**

FIELD UNITS

$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 5,000$  psi  
 $f'_{ci} = 4,000$  psi  
 $f'_s = 270,000$  psi (1/2"  $\phi$  low lax strands)  
 $f'_{si} = 201,960$  psi (1/2"  $\phi$  low lax strands)



**LOCATION SKETCH**

**GENERAL PLAN & ELEVATION**

F.A.U. 3887 (IL 31)

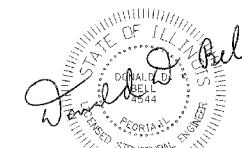
OVER MILL CREEK

SECTION AR-B

KANE COUNTY STA. 187+31.80

STRUCTURE NO. 045-0020

DESIGNED	LLV
CHECKED	DDB
DRAWN	MGM
CHECKED	LLV



License Expires: 11/30/08  
Date Signed: 11-2-07

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IL Design Firm Reg. No. 184-001518

Rev. 1-8-08