

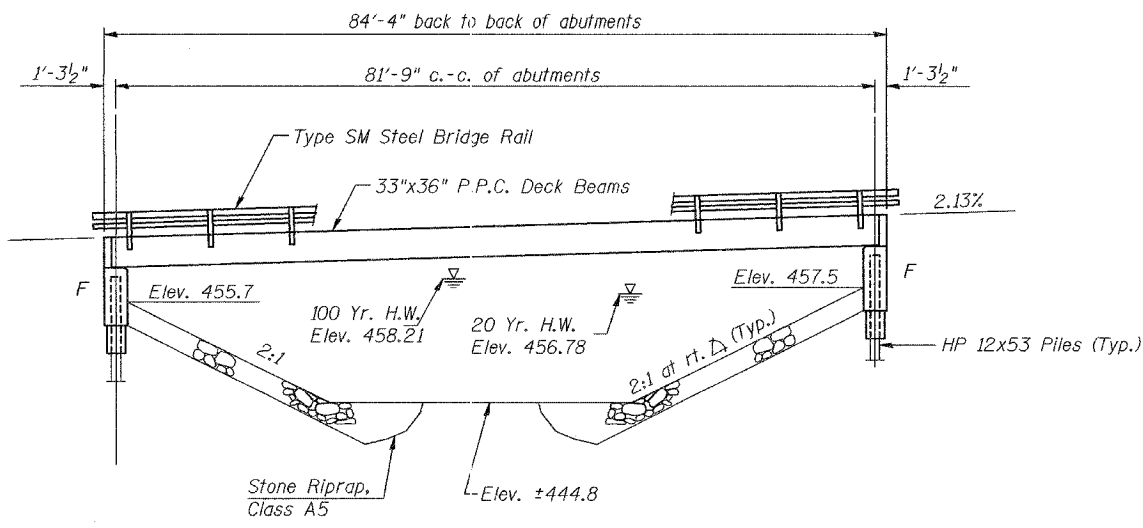
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1926	04-00093-00-BR	UNION	22	10
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 1
5 SHEETS

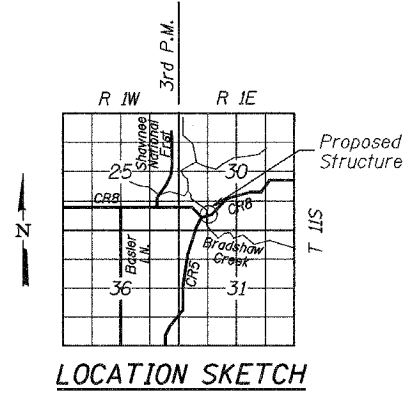
BENCHMARK:
Mag. nail over washers on Northeast wingwall of the existing bridge over Bradshaw Creek. Elev. 464.19'

EXISTING STRUCTURE:
The existing bridge is a single span timber deck structure, 57.8' back to back of closed concrete abutments, 19.7' out to out of deck.

SALVAGE:
Existing structural steel beams to be stock piled for pick-up by the County.



ELEVATION



LOCATION SKETCH

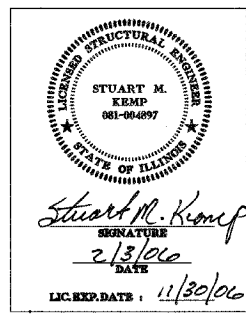
NOTES:

- The Contractor shall drive 2 test piles (1 at each abutment) in a permanent location as directed by the Engineer before ordering the remainder of piles.
- A Calcium Nitrite Corrosion inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.
- Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- The top surface of the beams shall be finished according to Article 504.06 of the Standard Specifications. The finished surface shall be free of depressions or high spots with sharp corners, and the top edge of keys shall be rounded or chamfered a min. of 1/4".
- All construction joints shall be bonded.

BRADSHAW CREEK
BUILT 200_ BY
UNION COUNTY
SEC. 04-00093-00-BR
F.A.S. RT. 1926 STA. 11+80
STR. NO. 091-3220 LOADING HS20

NAME PLATE

Locate Name Plate at Southeast Corner of Bridge (See Std. 515001-02)



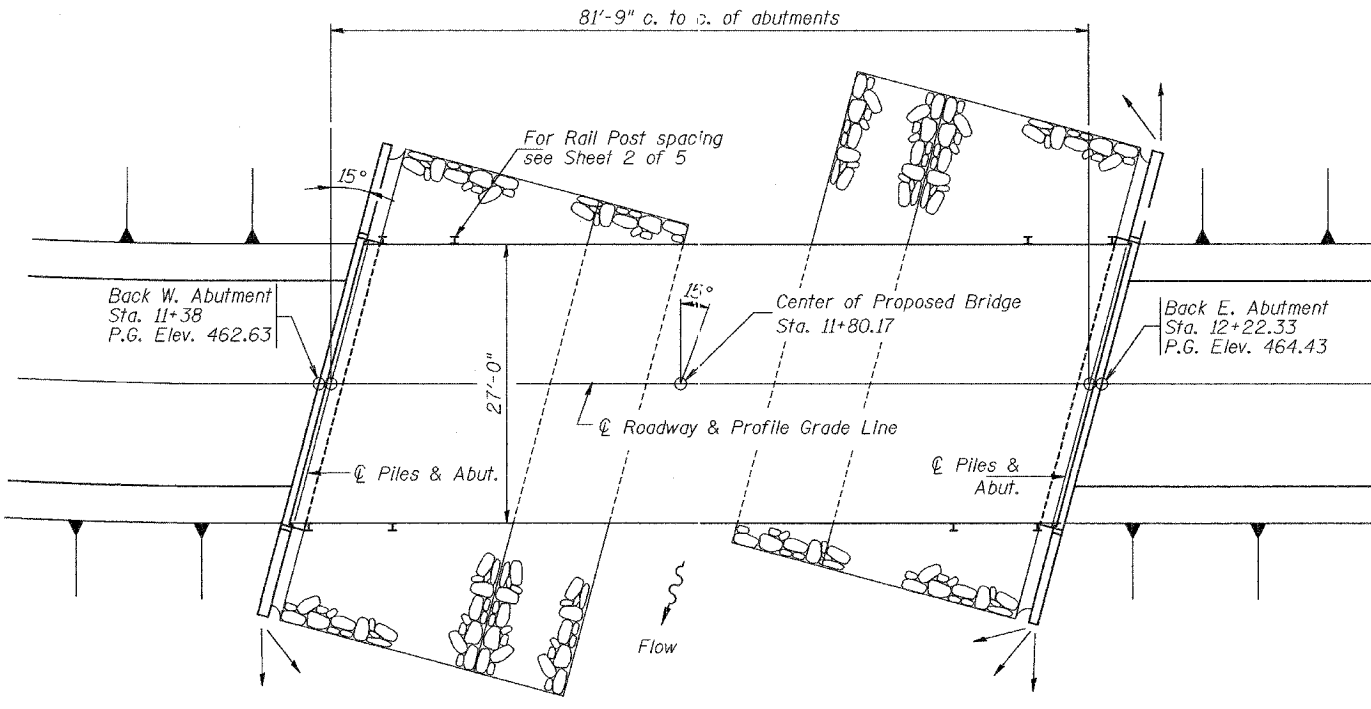
"I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current 'AASHTO Standard Specifications for Highway Bridges.'"

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A5	Ton	—	567	567
Removal of Existing Structures	Each	—	—	1
Concrete Structures	Cu. Yd.	—	51.2	51.2
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	2232	—	2232
Steel Bridge Railing, Type SM	Foot	169	—	169
Reinforcement Bars, Epoxy Coated	Pound	—	5020	5020
Furnishing Steel Piles HP 12 x 53	Foot	—	160	160
Driving Steel Piles	Foot	—	160	160
Test Pile Steel HP 12 x 53	Each	—	2	2
Metal Shoes	Each	—	10	10
Name Plates	Each	—	—	1
Structure Excavation	Cu. Yd.	—	46	46
Set Piles in Rock	Each	—	5	5

INDEX OF SHEETS

- General Plan and Elevation
- P.P.C. Deck Beam Superstructure
- P.P.C. Deck Beam Details
- Type SM Steel Rail
- Pile Bent Abutments



PLAN

DESIGN STRESSES

Super: $f'_c = 6,000$ p.s.i.
 $f'_{ci} = 5,000$ p.s.i.
 $f'_s = 270,000$ p.s.i. (1/2" ϕ Strand)
 $f'_{si} = 201,960$ p.s.i. (1/2" ϕ Strand)
 $f_y = 60,000$ p.s.i.

LOADING HS20

Sub: $f'_c = 3,500$ p.s.i.
 $f_y = 60,000$ p.s.i.
25 psf allowance for future wearing surface.

SEISMIC DATA

Seismic Performance Category (SPC) = B
Bedrock Acceleration Coefficient (A) = 0.15g
Site Coefficient (S) = 1.0

DESIGN SPECIFICATIONS

2002 (17th Edition) AASHTO Standard Specifications for Highway Bridges

WATERWAY INFORMATION

Drainage Area = 8.63 Sq Mi. Low Grade Elev. 462.63 @ Sta. 11+38

Flood	Freq. Yr.	Q		Opening Sq. Ft.		Nat. H.W.E.		Head - Ft.		Headwater El.	
		C.F.S.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	20	3250	519	560	456.96	456.78	0.18	-0.06	457.14	456.72	
Base	100	4587	628	604	458.21	458.12	0.47	0.13	458.68	458.25	

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.S. 1926
SECTION 04-00093-00-BR
UNION COUNTY
COUNTY HIGHWAY 8 OVER BRADSHAW CREEK
GENERAL PLAN AND ELEVATION
SCALE: VERT. -
HORIZ. -
DATE 02/03/06
DRAWN BY MGM
CHECKED BY SMK

HANSON Professional Services Inc.
 LAYOUT: SMK 12/01/04
 DRAWN: MGM 01/19/05
 REVIEWED: SMK 01/19/05
 1:104 jobs 04-2005-Struct/bridge plans.dgn