

BENCHMARK: Top of concrete beam, 11' Lt., Sta. 9+71, Elev. 429.38

EXISTING STRUCTURE NO. 041-3012: Sta. 10+00 - Three span precast prestressed concrete deck beam bridge on closed timber abutments and wingwalls and timber pile bent piers. 58.8' Fc.-Fc. Abuts.; 20.5' o.-o. Deck Structure closed to traffic.

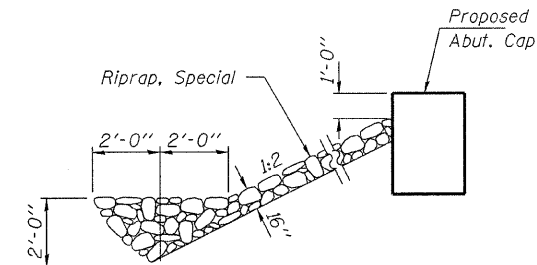
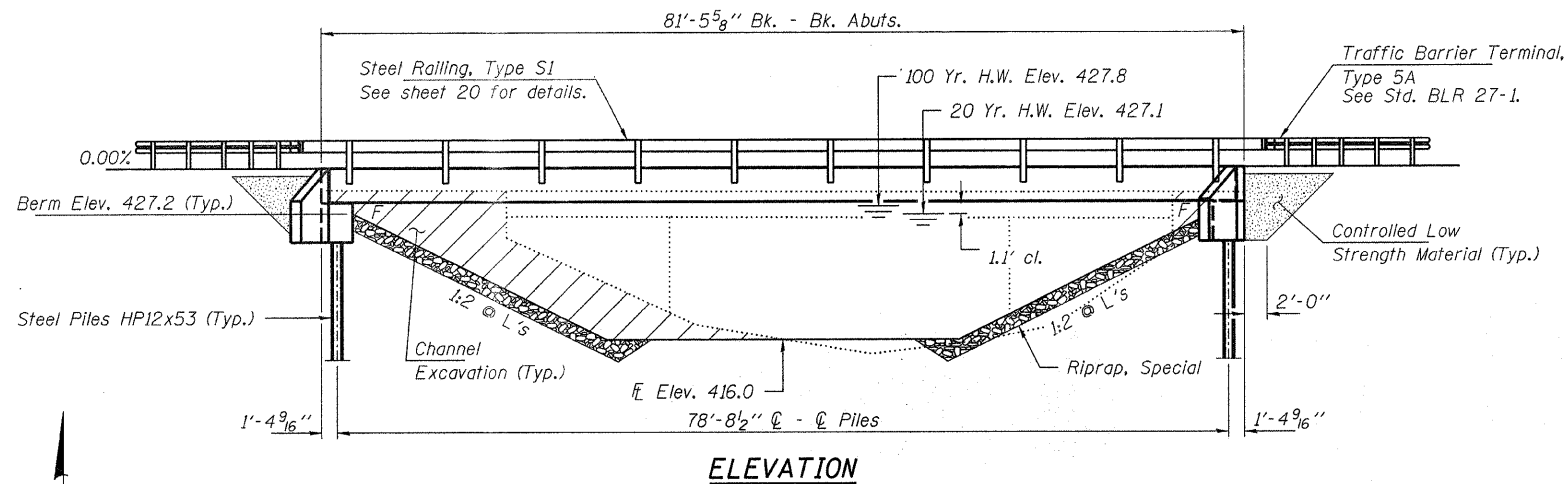
No Salvage

GENERAL NOTES

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
 Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
 Excavation required to construct the Abutments shall be included in the cost of Concrete Structures. No additional compensation will be allowed for Structure Excavation.
 All proposed construction activities shall be in accordance with Nationwide Permit number 14 of the Department of the Army authorized under Section 404 of the Clean Water Act. The IEPA has issued Section 401 Water Quality Certification for this activity. See Special Provisions for conditions. See Sheets 23 for Borings.

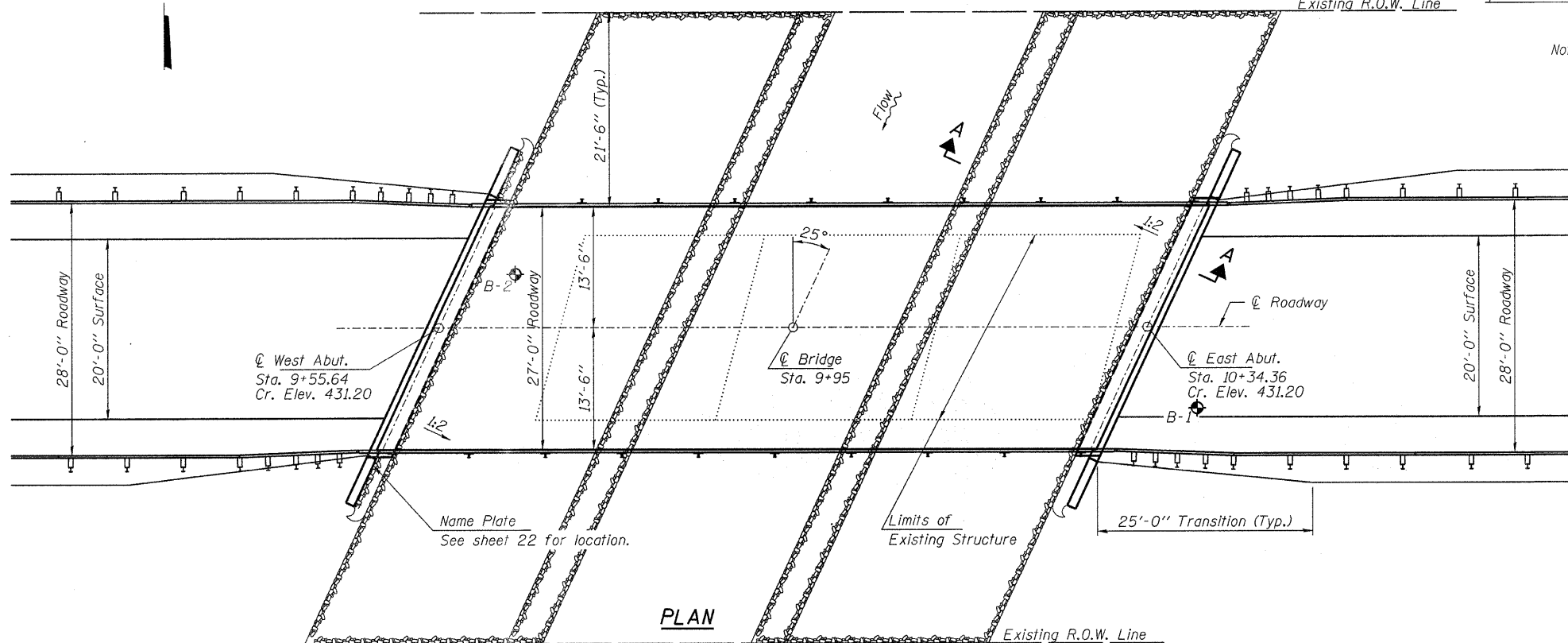
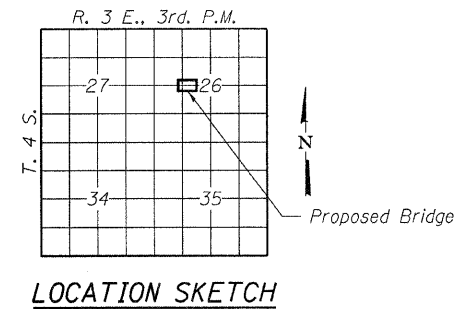
GUN CREEK
 BUILT 200_ BY
 JEFFERSON COUNTY
 SEC. 05-00183-00-BR
 F.A.S. 824 / C.H. 42
 STR. NO. 041-3743
 LOADING HL-93

NAME PLATE
 See Std. 515001



SECTION A-A

Note: See Special Provisions for Riprap, Special.



TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.		165	165
Riprap, Special	Ton			360
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.	30.6		30.6
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	2,160		2,160
Reinforcement Bars	Pound		2,650	2,650
Steel Railing, Type S1	Foot	170		170
Furnishing Steel Piles HP12x53	Foot		275	275
Driving Piles	Foot		275	275
Name Plates	Each		1	1
Controlled Low Strength Material	Cu. Yd.			75

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
 fy = 60,000 psi (Reinf.)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
 f'ci = 5,000 psi
 fpu = 270,000 psi (1/2" low lax. strands)
 fpbt = 201,960 psi (1/2" low lax. strands)
 fy = 60,000 psi (Reinf.)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 3
 Design Spectral Acceleration at 1.0 sec. (SD1) = 0.468g
 Design Spectral Acceleration at 0.2 sec. (SD5) = 0.872g
 Soil Site Class = E

WATERWAY INFORMATION

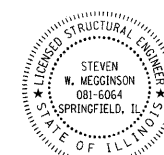
Drainage Area = 13.8 Sq. Mi. Existing Low Grade Elev. 427.1 @ Sta. 6+00
 Proposed Low Grade Elev. 427.1 @ Sta. 6+00

Flood	Freq. Yr.	Q C.F.S.	Opening	Natural	Head - Ft.	Headwater El.
			Exist.	Prop.	Exist.	Prop.
Design	20	3080	450	510	427.1	1.0 428.1
Base	100	4590	450	560	427.8	1.0 428.8
Max. Calc.	500	6260	450	590	428.5	0.8 429.3

20 Year Velocity through Existing Bridge = 6.2 fps 20 Year Velocity through Proposed Bridge = 5.9 fps

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 LRFD Specifications."

Steven W. Maggison 2/10/2009
 ILLINOIS STRUCTURAL NO. 081-6064



Expires 11-30-2010

**GENERAL PLAN AND ELEVATION
 STRUCTURE NO. 041-3743**

DESIGNED - A.S.L.
CHECKED - S.M.S.
DRAWN - D.T.M.
CHECKED - D.A.B.

LOADING HL-93

Design Specifications: 2007 AASHTO LRFD with all applicable Interims.
 50#/Sq. Ft. included in dead load for future wearing surface.

HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS
HLR 3085 STEVENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62703
 (217) 548-3400
 PROJECT NUMBER: 08.0128.130 DATE: 02/08/09

FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
824	05-00183-00-BR	JEFFERSON	23	16
CONTRACT NO. 99361				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				