

BENCHMARK: P.K. Nail in Power Pole, ±80' Lt., Sta. 5+40, Elev. 418.38

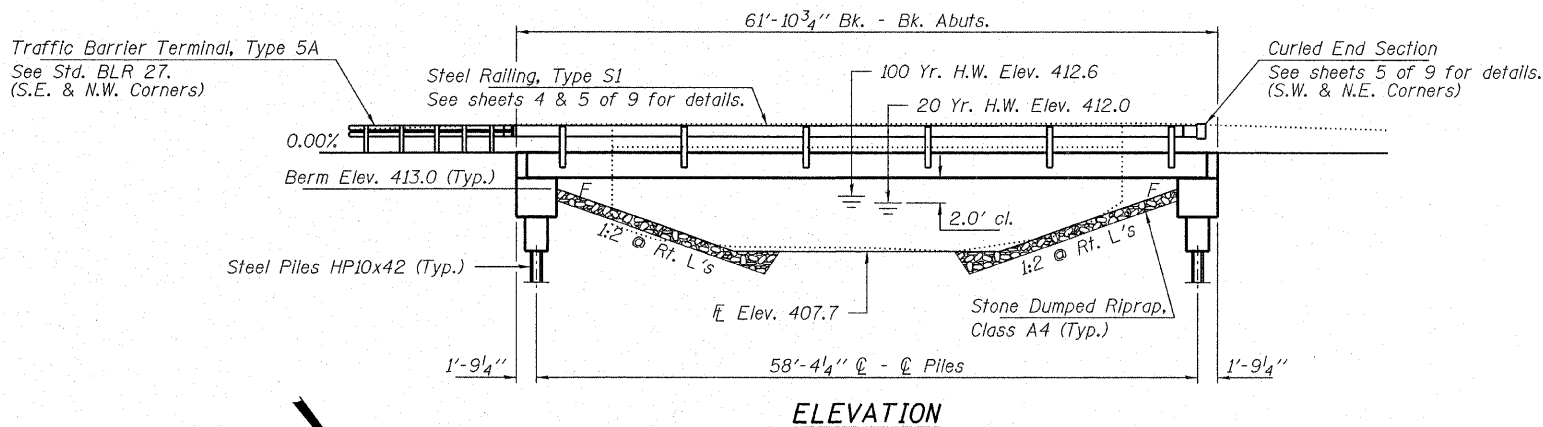
EXISTING STRUCTURE NO. 051-3030: I-Beam bridge with closed concrete abutments, concrete deck & wingwalls, single span @ 45°, Skew = 40°, 22' Rdwy. Structure closed to traffic. No Salvage

GENERAL NOTES

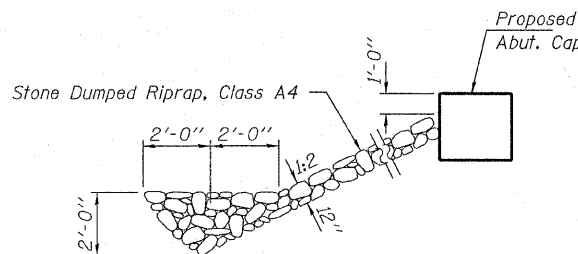
Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
 The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at South Abutment or approved by the Engineer before ordering the remainder of piles. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. 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 8 & 9 of 9 for Borings.

OTTER POND DITCH
 BUILT 200_ BY
 LAWRENCE COUNTY
 SEC. 05-00102-00-BR
 STR. NO. 051-3283
 LOADING HL-93

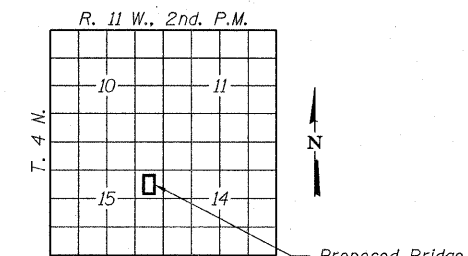
NAME PLATE
 See Std. 515001



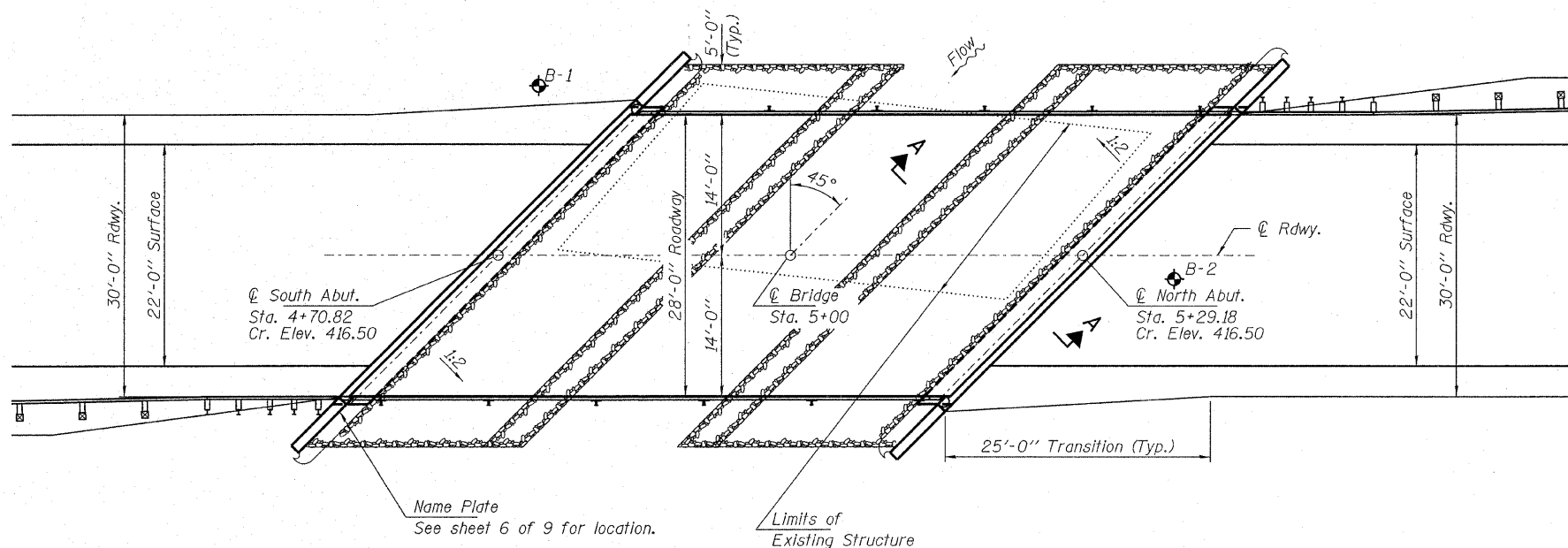
ELEVATION



SECTION A-A



LOCATION SKETCH



PLAN

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Dumped Riprap, Class A4	Ton			120
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		37.8	37.8
Concrete Encasement	Cu. Yd.		4.0	4.0
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1,680		1,680
Reinforcement Bars	Pound		3,810	3,810
Steel Railing, Type S1	Foot	118		118
Furnishing Steel Piles HP10x42	Foot		495	495
Driving Piles	Foot		495	495
Test Pile Steel HP10x42	Each		1	1
Name Plates	Each		1	1

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.)

LOADING HL-93

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

SEISMIC DATA

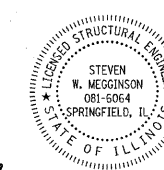
Seismic Performance Zone (SPZ) = 2
 Design Spectral Acceleration at 1.0 sec. (SD1) = 0.217g
 Design Spectral Acceleration at 0.2 sec. (SDS) = 0.493g
 Soil Site Class = D

WATERWAY DATA

Drainage Area..... 0.35 Sq. Mi.
 Existing Opening (20 yr)..... 102 Sq. Ft.
 Req'd Opening (20 yr)..... 85 Sq. Ft.
 Proposed Opening (20 yr)..... 85 Sq. Ft.
 Design Discharge (20 yr)..... 97 C.F.S.
 Created Head (20 yr)..... 0.0 Ft.
 100 Yr. Discharge..... 139 C.F.S.
 100 Yr. Created Head..... 0.1 Ft.

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".

Steven W. Megginson 1/15/2009
 ILLINOIS STRUCTURAL NO. 081-6064



Expires 11-30-10

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 051-3283

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

HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS HLR 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400 PROJECT NUMBER: 08.0148.130 DATE: 01/15/09	SHEET NO. 1 9 SHEETS	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		17	05-00102-00-BR	LAWRENCE	12	4
		CONTRACT NO. 95581		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		