

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 36	07-00045-03-BR	McLEAN	27	13
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 91388	

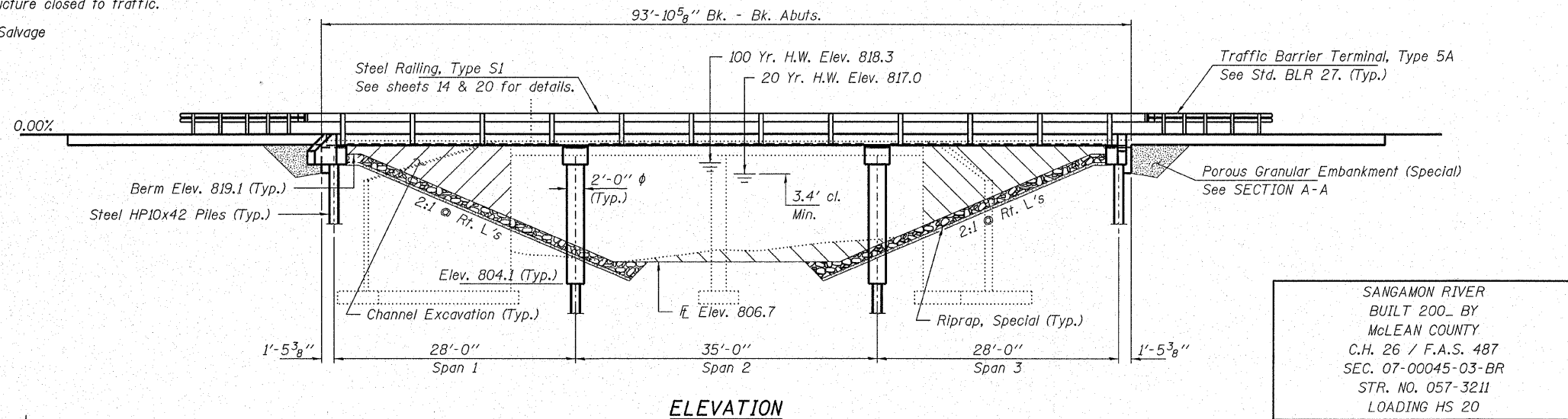
BENCHMARK: Spike Nail in South face of power pole, 39' Lt., Sta. 12+01, Elev. 819.58

EXISTING STRUCTURE: Station 10+00 - Two span cast in place concrete bridge with concrete parapets on closed concrete abutments and wingwalls. 47.90' fc.-fc. Abuts; 32.72' o.-o. Deck Structure closed to traffic.

No Salvage

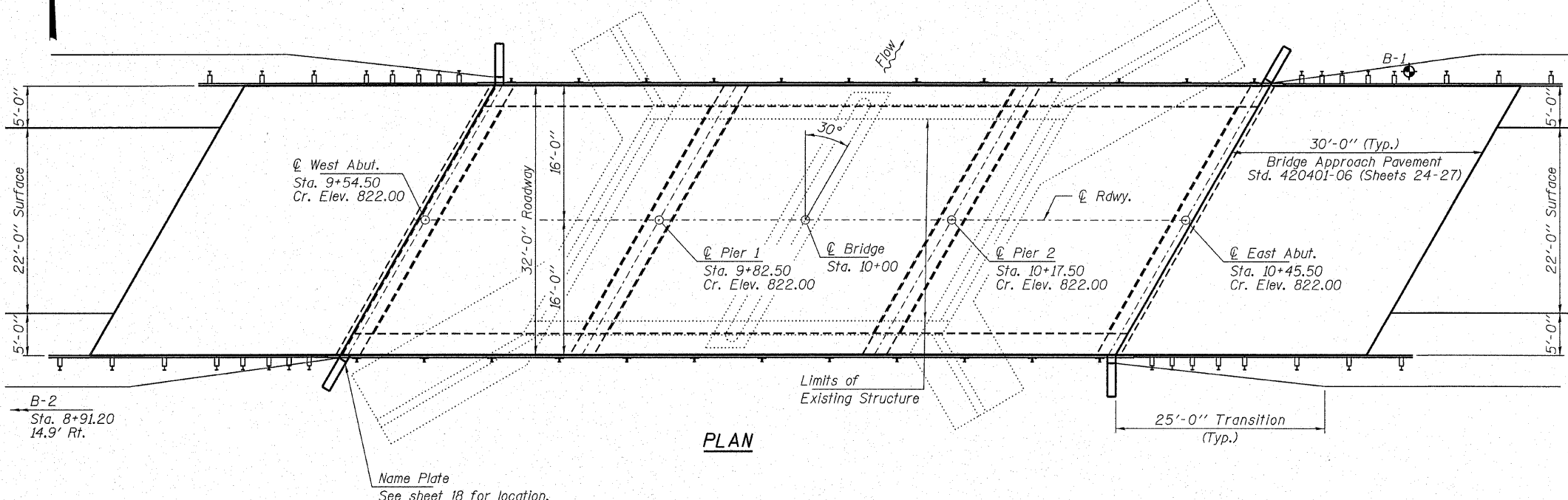
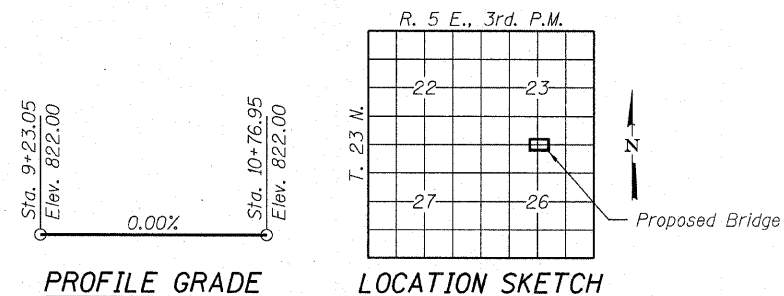
GENERAL NOTES

Layout of riprap may be varied in the field to suit existing ground conditions as directed by the Engineer.
 The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at West Abutment and Pier 2 or approved by the Engineer before ordering the remainder of piles.
 Excavation required to construct the Abutments shall be included in Concrete Structures. No additional compensation will be allowed for Structure Excavation.
 All proposed construction activity 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.
 Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
 The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection.
 Bridge deck grooving shall be completed on bridge deck and bridge approach pavement after HMA surface is in place. Rollers shall not be allowed on the bridge deck grooving.
 Protective Coat shall be applied to the entire top and edge surfaces of the bridge deck and bridge approach pavement.
 All construction joints shall be bonded.
 See Sheet 23 for Borings.



SANGAMON RIVER
 BUILT 200_ BY
 McLEAN COUNTY
 C.H. 26 / F.A.S. 487
 SEC. 07-00045-03-BR
 STR. NO. 057-3211
 LOADING HS 20

NAME PLATE
 See Std. 515001



TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu Yd			255
Porous Granular Embankment (Special)	Ton		105	105
Riprap, Special	Sq. Yd.			958
Bridge Approach Pavement	Sq. Yd.			214
Protective Coat	Sq. Yd.	544		544
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		31.7	31.7
Concrete Superstructure	Cu. Yd.	137.4		137.4
Bridge Deck Grooving	Sq. Yd.	523		523
Concrete Encasement	Cu. Yd.	16.3		16.3
Reinforcement Bars, Epoxy Coated	Pound	38,590		38,590
Bar Splacers	Each	66		66
Steel Railing, Type S1	Foot	194		194
Furnishing Steel Piles HPI0x42	Foot		1,080	1,080
Driving Piles	Foot		1,080	1,080
Test Pile Steel HPI0x42	Each		2	2
Name Plates	Each		1	1
Geocomposite Wall Drain	Sq. Ft.			36
Concrete Headwall for Pipe Drains	Each		4	4
Pipe Underdrains for Structures 4"	Foot			110

DESIGN STRESSES

FIELD UNITS

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

Loading HS 20-44
 Design Specifications: 2002 AASHTO & all applicable Interims.
 25#/Sq. Ft. included in dead load for future wearing surface.

SEISMIC DATA

Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = 0.045g
 Site Coefficient (S) = 1.2

WATERWAY INFORMATION

Drainage Area = 20.1 Sq. Mi. Low Grade Elev. 821.0 @ Sta. 9+50

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Natural H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	10	1482	350	360	816.1	0.8	0.9	816.9	817.0
Base	20	1841	390	420	817.0	0.9	0.9	817.9	817.9
Overtopping	100	2709	450	500	818.3	0.9	0.8	819.2	819.1
Max. Calc.	500	3608	490	550	819.0	1.5	0.7	820.5	819.7

10 Year Velocity through Existing Bridge = 5.0 fps
 10 Year Velocity through Existing Bridge = 4.6 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 Standard Specifications for Highway Bridges".

Steven Megginson 1/21/09
 ILLINOIS STRUCTURAL NO. 081-6064



HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS

HLR

3085 STEVENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62703
 (217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-59-0055-1 DATE: 01/22/09
 DESIGNED: P.S.L. CHECKED: S.W.M. DRAWN: D.A.B.

GENERAL PLAN AND ELEVATION

C.H. 36 / F.A.S. 487
 SECTION 07-00045-03-BR
 McLEAN COUNTY
 STRUCTURE NO. 057-3211 / STATION 10+00