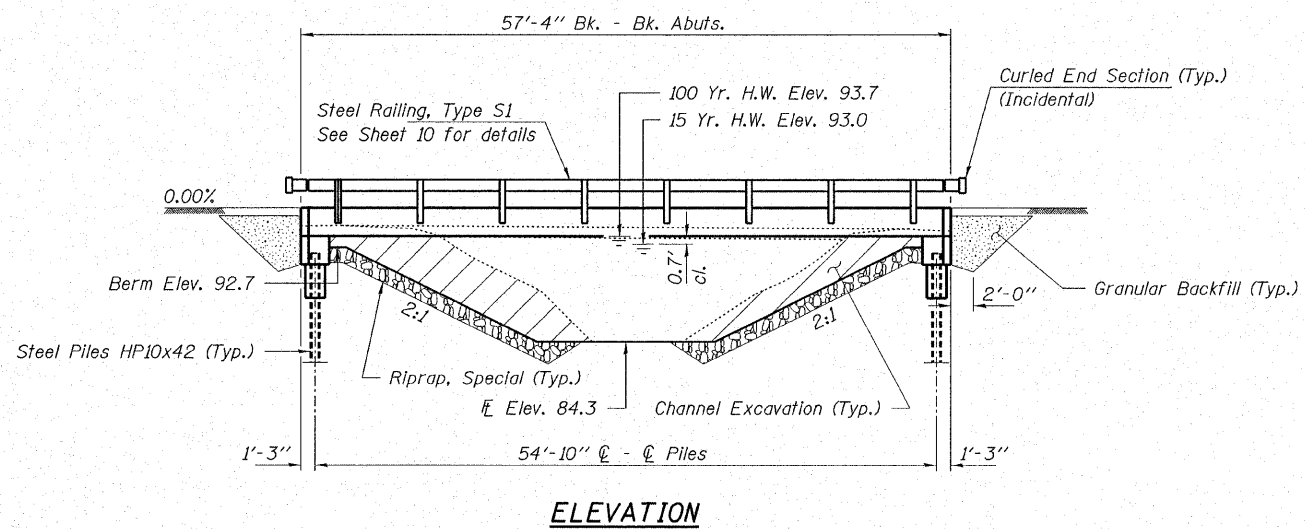


ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
T.R. 49	02-07119-00-BR	PERRY	12	8

CONTRACT NO. 99250

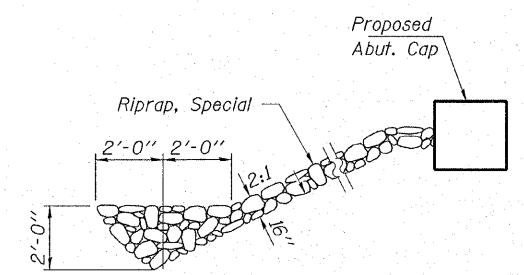
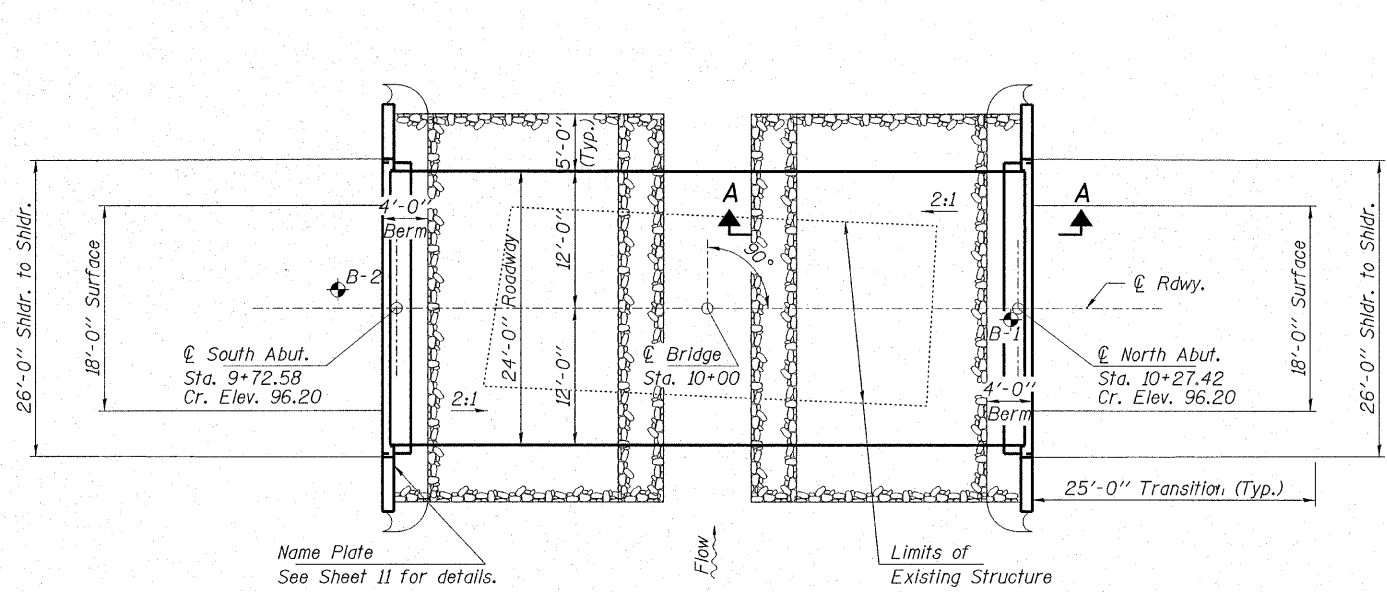


**GENERAL NOTES**

Layout of riprap may be varied in the field to suit ground conditions as directed by the Engineer.  
 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.  
 The Contractor shall backfill behind the abutments as shown on the plans. The backfill shall be placed 2 feet outside the limits of the Aggregate Surface Course. Cost of excavation for backfill considered included in Granular Backfill.  
 See Sheet 12 for Borings.

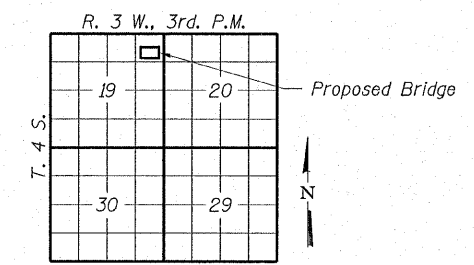
BUILT 200\_ BY  
 PERRY COUNTY  
 SEC. 02-07119-00-BR  
 FA. PROJ. BROS.-145(33)  
 STR. NO. 073-3178  
 LOADING HS 20

**NAME PLATE**  
 See Std. 515001



**SECTION A-A**

Note: See Special Provisions for Riprap, Special.



**LOCATION SKETCH**

**SEISMIC DATA**

Seismic Performance Category (SPC) = B  
 Bedrock Acceleration Coefficient (A) = 0.12g  
 Site Coefficient (S) = 1.5

**WATERWAY INFORMATION**

Drainage Area = 3.0 Sq. Mi.		Low Grade Elev. 93.5 @ Sta. 12+50							
Flood	Freq. Yr.	Q C.F.S.	Opening Exst.	Sq. Ft. Prop.	Natural H.W.E.	Head - Ft. Exst.	Head - Ft. Prop.	Headwater El. Exst.	Headwater El. Prop.
Design	15	1230	125	290	93.0	0.0	0.0	93.0	93.0
Base	100	1950	125(1)	325	93.7	0.9	0.7	94.6	94.4
Overtopping									
Max. Calc.	500	2540	125(2)	325(3)	94.2	1.0	0.6	95.2	94.8

Approach Flow  
 ① 210 Sq. Ft.  
 ② 355 Sq. Ft.  
 ③ 65 Sq. Ft.

**DESIGN STRESSES**

**FIELD UNITS**

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

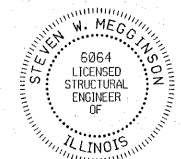
**PRECAST PRESTRESSED UNITS**

f'c = 5,000 psi  
 f'ci = 4,000 psi  
 f's = 270,000 psi (1/2" low lax. strands)  
 f'si = 201,960 psi (1/2" low lax. strands)  
 fy = 60,000 psi (Reinf.)

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

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 10-23-06  
 ILLINOIS STRUCTURAL NO. 6064



Expires 11-30-08

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1,344		1,344
Concrete Structures	Cu. Yd.		18.2	18.2
Reinforcement Bars	Pound		2,430	2,430
Steel Railing, Type S1	Foot	113		113
Name Plates	Each		1	1
Riprap, Special	Ton			140
Steel Piles HP10x42	Foot		360	360
Concrete Encasement	Cu. Yd.		2.0	2.0
Granular Backfill	Ton		70	70
Stud Shear Connectors	Each		16	16

**HAMPTON, LENZINI & RENWICK, INC.**  
 CIVIL & STRUCTURAL ENGINEERS

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

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-74-0006-1 DATE: 10/20/06  
 DESIGNED: T.P.L. CHECKED: S.W.M. DRAWN: D.T.M.

**GENERAL PLAN AND ELEVATION**

SECTION 02-07119-00-BR  
 ROAD DISTRICT NO. 4-3  
 PERRY COUNTY  
 STR. NO. 073-3178 / STATION 10+00