

B.M.: RR Spike in Power Pole  
Sta. 39+75, 17' Rt.  
Elev. 555.83

RR Spike in Power Pole  
Sta. 49+81, 10' Rt.  
Elev. 543.41

**Existing Structure:**

Single span riveted steel Pratt thru truss with a timber deck on a concrete closed abutment on the west end and a concrete pile bent abutment on the east end. The structure is ±104' back to back of abutments, ±21'-8" out to out of deck and is not skewed. Str. No. 075-3155

Salvage: None

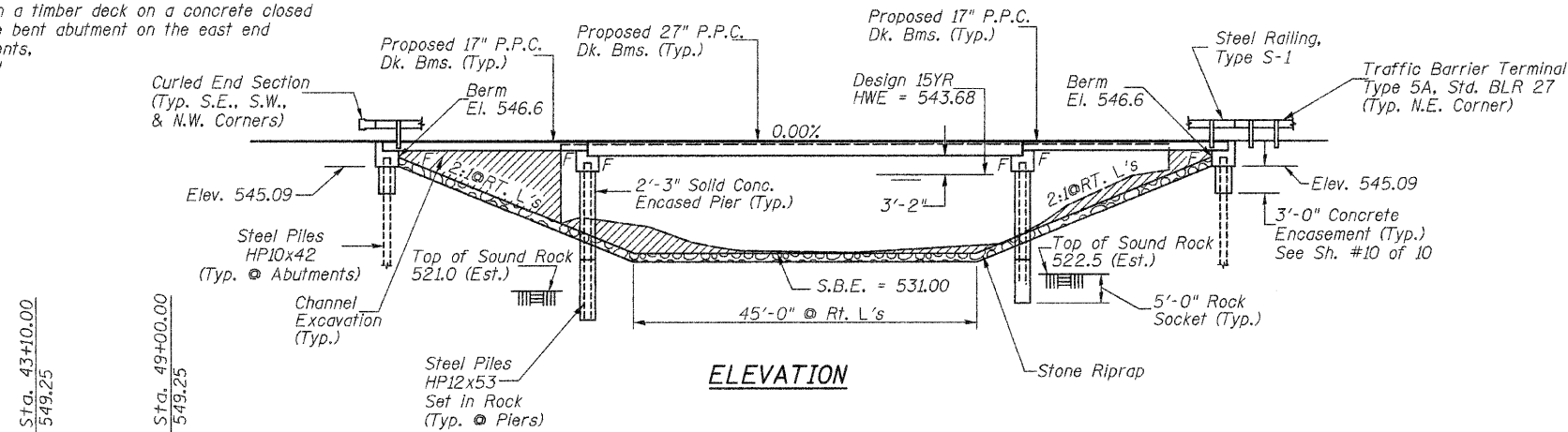
Road to be closed to traffic during construction.

**HONEY CREEK  
BUILT 20L BY  
HARDIN ROAD DISTRICT  
PIKE COUNTY  
SEC. 09-11113-00-BR  
T.R. 359 STATION 43+90.00  
F.A. PROJ. BROS-0149041  
STR. NO. 075-3318 LOADING HL-93**

**NAME PLATE**

Locate Name Plate at S.W. Wingwall  
Corner of Bridge (See Std. 515001)

**PROFILE GRADE**



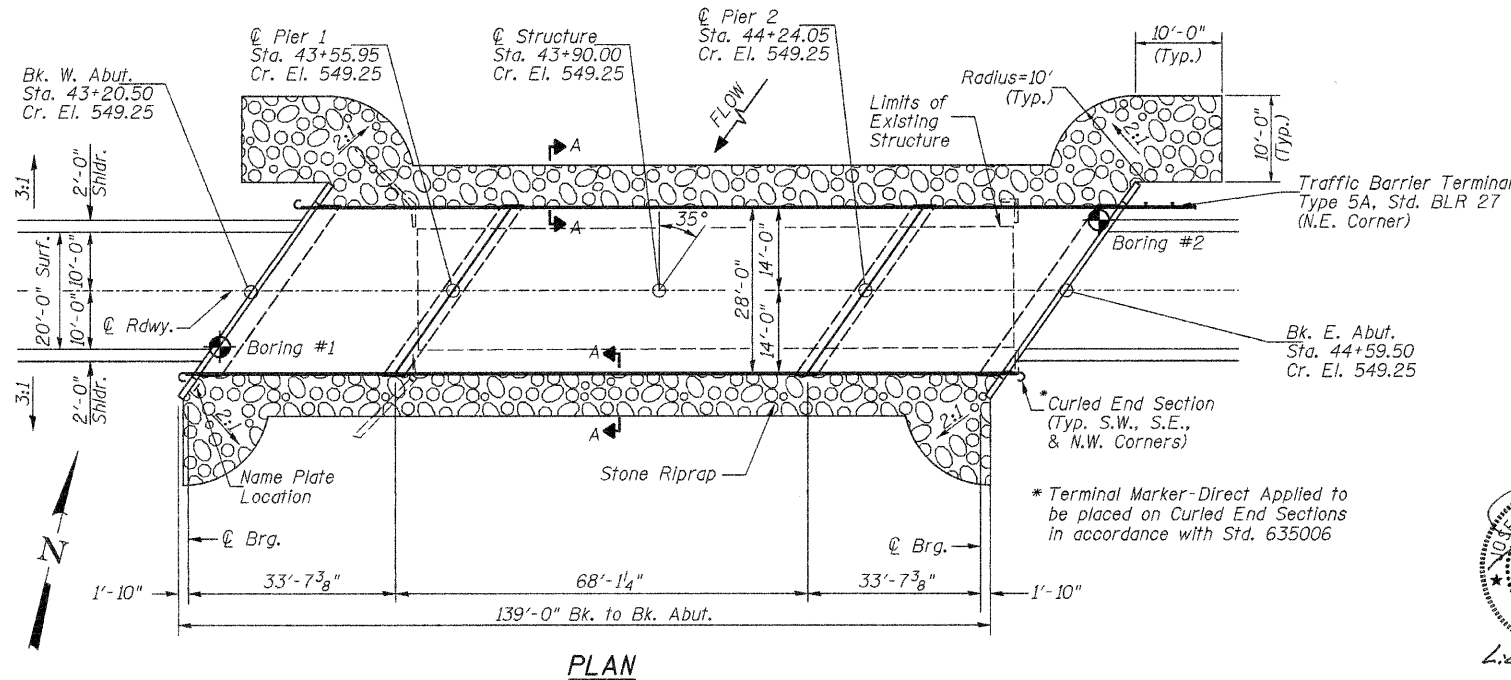
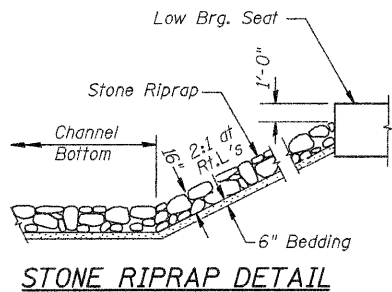
**GENERAL NOTES**

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at the substructures specified or approved by the Engineer before ordering the remainder of the piles.  
For Soil Boring Logs. See Special Provisions.  
A Corrosion Inhibitor shall be used in the concrete for Precast Prestressed Concrete Deck Beams according to Article 1020.05(b)(12) of the Standard Specifications.  
Reinforcement Bars shall conform to the requirements of ASTM A706 Grade 60. Reinforcement Bars designated (E) shall be epoxy coated.  
Layout of the slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.  
Excavation behind existing closed abutment walls shall be done before removing existing Superstructure.  
The existing structural steel coating may contain lead. The contractor should take appropriate precautions to deal with the presence of lead on this project.  
The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	CU YD	---	550	550
① Stone Riprap, Class B4 (Special)	TON	---	510	510
① Removal of Existing Structures	EACH	---	1	1
Structure Excavation	CU YD	---	180	180
Concrete Structures	CU YD	---	137.7	137.7
① Precast Prestressed Concrete Deck Beams (17" Depth)	SQ FT	1,918	---	1,918
① Precast Prestressed Concrete Deck Beams (27" Depth)	SQ FT	1,904	---	1,904
① Reinforcement Bars	POUND	---	10,770	10,770
Steel Railing, Type S1	FOOT	278	---	278
① Furnishing Steel Piles HP10x42	FOOT	---	196	196
① Furnishing Steel Piles HP12x53	FOOT	---	406	406
① Driving Piles	FOOT	---	196	196
① Test Pile Steel HP10x42	EACH	---	2	2
① Pile Shoes	EACH	---	10	10
① Setting Piles in Rock	EACH	---	14	14
Concrete Encasement	CU YD	---	16.9	16.9
Name Plates	EACH	---	1	1
① Underwater Structure Excavation Protection, Location 1 (Pier #1)	EACH	---	1	1
① Underwater Structure Excavation Protection, Location 2 (Pier #2)	EACH	---	1	1
① Bituminous Surface Treatment, A-2 Special	SQ YD	433	---	433

① See Special Provisions



**PLAN**

**DESIGN SCOUR TABLE**

Location	W. Abut	Pier 1	Pier 2	E. Abut
Design Scour Elevation	545.09	527.00	527.00	545.09

**WATERWAY INFORMATION**

Drainage Area = 22.36 Sq. Mi. Low Grade Elev. = 547.79 @ Sta. 52+03.49

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	15	4,519	732	852	543.68	0.18	0.00	543.86	543.68
Base	100	7,350	841	981	545.06	0.77	0.40	545.83	545.46

Construction of this project complies with IDNR,  
Office of Water Resources Statewide Permit No. 2

**DESIGN SPECIFICATIONS**

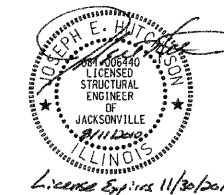
2007 AASHTO (LRFD) & Interims

**DESIGN STRESSES**

(FIELD UNITS) (PRECAST PRESTRESSED UNITS)  
f'c = 3,500 p.s.i. f'c = 6,000 p.s.i.  
fy = 60,000 p.s.i. (Rein.) f'ci = 5,000 p.s.i.  
f's = 270,000 p.s.i. (1/2" Strands)  
f'si = 201,960 p.s.i. (1/2" Strands)

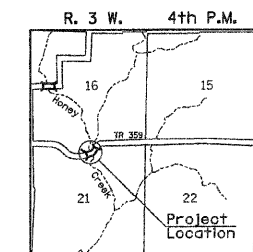
**LOADING HL-93**

Allow 50#/sq. ft. 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 Specification for Highway Bridges. This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

*Joseph E. Harty*  
Illinois Structural No. 6440  
Expires 11/30/2010



**LOCATION SKETCH**

**GENERAL PLAN & ELEVATION**

PIKE COUNTY

SECTION 09-11113-00-BR  
T.R. 359 OVER HONEY CREEK

DESIGNED	C.T.M.
CHECKED	J.E.H.
DRAWN	C.T.M.
CHECKED	J.E.H.

SHEET NO. 1	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10 SHEETS	TR 359	09-11113-00-BR	PIKE	28	7
		S.N. 075-3318		CONTRACT NO. 93540	
	FED. ROAD DIST. NO. 7	ILLINOIS		FED. AID PROJECT BROS-0149041	