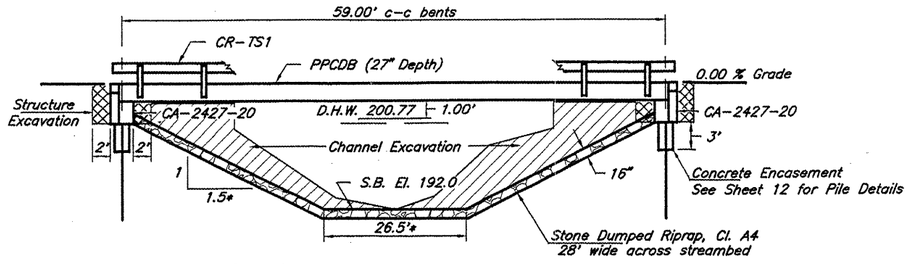
B.M. – RR spike in Power Pole
26' Lt. of Station 15+80
Assumed Elev. 200.00

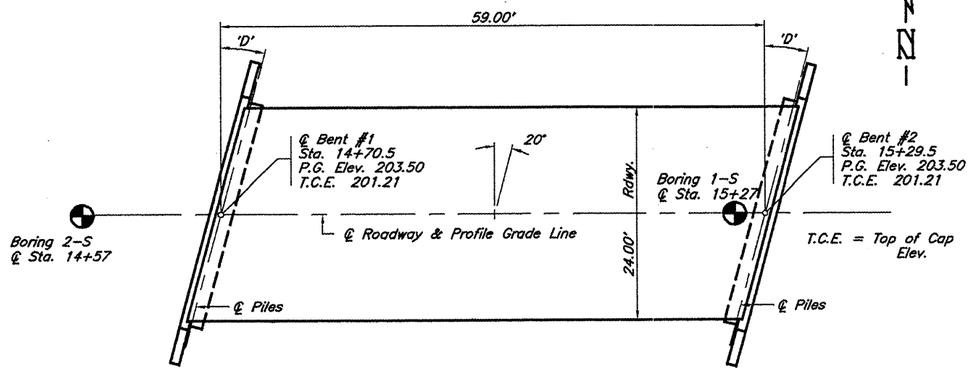
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 95	94-01166-00-BR	PULASKI	13	3
PROJECT NO. BROS-153(30)		CONTRACT NO. 99327		



* Normal to Channel

ELEVATION

Existing Structure – Timber deck with steel stringers on concrete abutments. 16.2' W x 36.0' L



PLAN

Skew Angle "D" = 20° Left Forward

GENERAL NOTES

1. Metal Shell piles shall meet ASTM A 252 Grade 3 specifications.
2. Test Piles shall be driven to 110% of the Nominal Required Bearing indicated in the pile data.
3. The Contractor shall drive one test pile, as specified, in a permanent location as directed by the Engineer before ordering the remaining piles.
4. See special provisions for boring logs.
5. A Corrosion inhibitor, as covered in the Standard Specifications, shall be used in the precast prestressed concrete deck beams.
6. The Bituminous Concrete Surface Course and the Waterproofing Membrane System shown on the plans shall not be provided.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub. Piers	Sub. Abuts.	Total
Removal of Existing Structures	Each				1
Concrete Structures	Cu. Yds.			19.4	19.4
P.P. Conc. Dk. Bm. 27" Dp.	Sq. Ft.	1440			1440
Steel Railing, Type S1	Foot	120			120
Reinforcement Bars	Pound			2440	2440
Furnishing Metal Shell Piles 12"	Foot			479	479
Driving Pile	Foot			479	479
Test Pile Metal Shell	Each			1	1
Concrete Encasement	Cu. Yds.			2.1	2.1
Name Plates	Each			1	1
Structure Excavation	Cu. Yds.			11	11
Channel Excavation	Cu. Yds.			360	360
Stone Dumped Riprap, Class A4	Tons			189	189

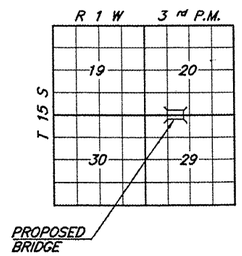
PILE DATA (2-ABUTS.)

Type & Size : Metal Shell 12" ø x 0.25" Walls
Nominal Required Bearing : 279 kips
Allowable Resistance Available : 93 kips
Estimated Length : 65 Feet Bent #1, 71 Feet Bent #2
Number Required : 8 (Includes 1 Test Pile located in Bent #1)

PULASKI SLOUGH
SEC. 94-01166-00-BR BUILT 20___
COUNTY UNIT ROAD DISTRICT
PULASKI COUNTY
LOADING HS20
STR. NO. 077-3126

LETTERING FOR NAME PLATE

Locate Name Plate at southwest Corner of Bridge (See Std. CN)



LOCATION SKETCH

"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 the requirements of the current AASHTO Standard Specifications for Highway Bridges. The capacity of the pile foundation, hydraulics and quantities were determined by Others and are not covered by this certification. As directed by the Local Agency, liquefaction potential of the sub-grade has not been considered in the structural design."

STATE OF ILLINOIS
SCOTT D. SANFORD
081-005468
SPRINGFIELD
LICENSED STRUCTURAL ENGINEER
11-6-08
Exp. 11-30-2010

"I certify that to the best of my knowledge, information and belief, the capacity of the pile foundation, the hydraulics calculations for the waterway opening and the estimated quantities for this structure have been designed useing standard engineering methods in accordance with the policies and proceedures of the Illinois Department of Transportation."

Edward W. Miller
PROFESSIONAL ENGINEER
#062-025277
EXPIRES NOV. 30, 2009
10-1-08

EDWARD W. MILLER, SR.
25277
REGISTERED PROFESSIONAL ENGINEER
OF
ILLINOIS

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications – 17 th ed.

LOADING HS20-44

Allow 25#/sq. ft. for future wearing surface

SEISMIC DATA

Seismic Performance Category (SPC) = B
Bedrock Acceleration Coefficient (A) = 18.0%
Site Coefficient (S) = 1.5

WATERWAY INFORMATION

Drainage Area = 13.636 Sq. Mi. Low Grade Elev. = 201.26 At Sta. 17+72

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	15	2,050	111.5*	347.6	200.77	0.06	0.50	200.83	201.27
Base	100	2,990	111.5*	400.5*	201.77	0.02	0.54	201.79	202.31
Overtopping	<2	403	82.8		197.86	0.76		198.62	
Max. Calc.	500								

$Q_{(15)}$ $Q_{(100)}$ $Q_{(100)}$

*Over Road Flow (Sq Ft): Exist. 614.3 1,153.6 Prop. 168.5
**Note: Flow area of proposed structure augmented with a 36" CMP.
Overtopping of proposed road occurs at ±$Q_{(15)}$.

GENERAL PLAN & ELEVATION
TOWNSHIP ROUTE 95
PULASKI SLOUGH
SECTION 94-01166-00-BR
PULASKI COUNTY
STATION 15+00