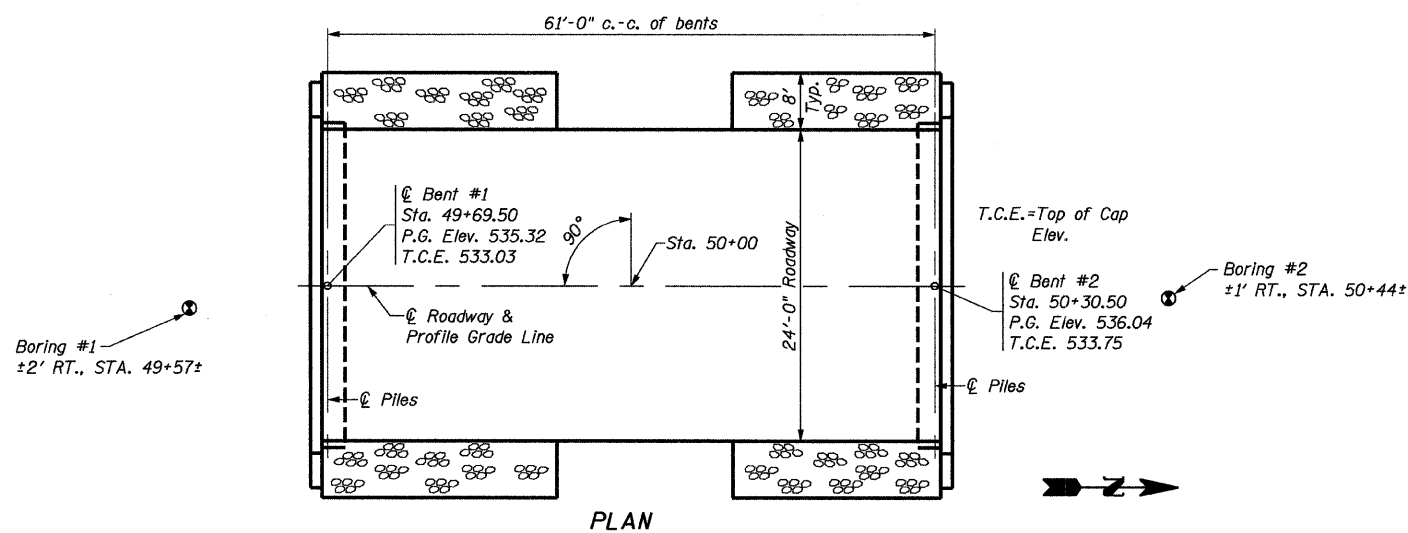
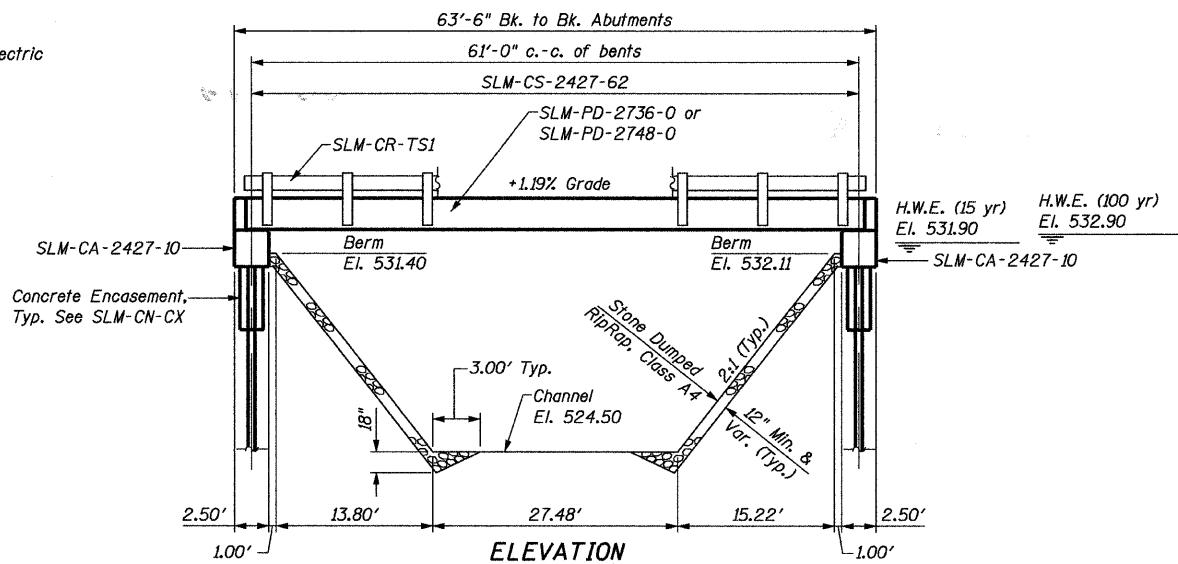


B.M. - B.M. #1 R.R. spike in Power Pole, 26.9' RT., STA. 49+37.76, EL. 533.34  
 B.M. #2 R.R. spike in 10" tree, 28.5' LT., STA. 50+35.37, EL. 533.06

Existing Structure - The existing structure is two span concrete beams on timber caps and timber piles with steel railing and concrete curbs. There is also existing concrete abutment, wingwalls, and steel piles from an older bridge to be removed.

Salvage - None.

Existing Known Utilities - Overhead Electric



**GENERAL NOTES**

- The contractor shall drive 1 test pile, as specified, in a permanent location as directed by the Engineer before ordering the remaining piles.
- See Special Provisions for boring logs.
- A Calcium Nitrite Corrosion inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

**TOTAL BILL OF MATERIAL**

Item	Unit	Super	Sub.		Total
			Piers	Abuts.	
Removal of Existing Structures	Each				1
Concrete Structures	Cu. Yd.			18.2	18.2
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1488			1488
Steel Railing, Type S-1	Foot	124			124
Reinforcement Bars	Pound			2300	2300
Furnishing Steel Pile HP 10x42	Foot			182	182
Driving Piles	Foot			182	182
Test Pile Steel HP 10x42	Each			1	1
Name Plates	Each			1	1
Concrete Encasement	Cu. Yd.			2.1	2.1



Date: July 28, 2009

Date of License: 11-30-2010

Signature: William D. Licking

I certify that to the best of knowledge, information and belief, this bridge/box culvert 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.

**DESIGN SPECIFICATIONS**

2007 AASHTO LRFD Bridge Design Specifications with 2008 Interims

**LOADING HL-93**

Allow 50# / Sq. Ft. for Future Wearing Surface.

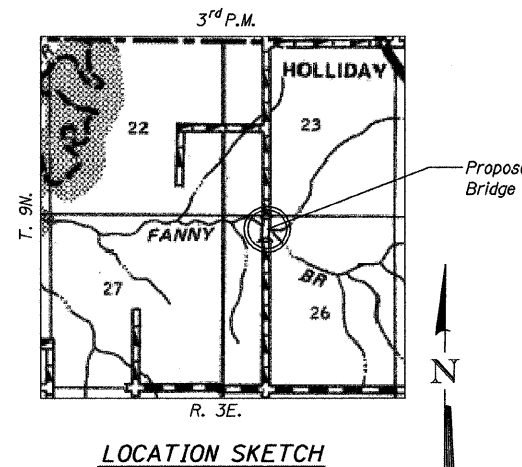
**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 2  
 Design Spectral Acceleration at 1.0 sec. ( $S_{D1}$ ) = 2.15  
 Design Spectral Acceleration at 0.2 sec. ( $S_{D5}$ ) = 47  
 Soil Site Class = D

STATION 50+00  
 FANNY BROOK  
 SEC. 08-08123-00-BR BUILT 20  
 PROJECT NO. BROS-051 (087)  
 FAYETTE COUNTY  
 LOADING HL93  
 STR. NO. 026-3446

**LETTERING FOR NAME PLATE**

Locate Name Plate at Northeast Corner of Bridge (See SLM-CN-CX)



**WATERWAY INFORMATION**

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E. Ft.	Head - Ft.		Headwater Elev. - Ft.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	15	1864	256	317	531.90	0.88	0.26	532.78	532.16
Base	100	3306	305	375	532.90	2.41	0.97	535.31	533.87
Overtopping									
Max. Calc.	500								

**PILE DATA (2-ABUTS.)**

Pile Type and Size: Steel Piles, HP10x42  
 Nominal Required Bearing: 297 kips  
 Allowable Resistance Available: 99 kips  
 Estimated Pile Length: 26 Feet Bent #1, 26 Feet Bent #2  
 Number of Production Piles: 7  
 Number of Test Piles: 1 (located in Bent #1)

**INDEX OF SHEETS**

- General Plan & Elevation
- SLM-CS-2427-62
- SLM-PD-2736-0
- SLM-PD-2736-0D
- SLM-PD-2748-0
- SLM-PD-2748-0D
- SLM-CA-2427-10
- SLM-CR-TS1
- SLM-CN-CX

<b>AECOM</b> 2524 S. Broadway Salem, Illinois 62881 618.548.3500 IL Design Firm Reg. No. 184-003706 www.aecom.com	<b>GENERAL PLAN &amp; ELEVATION</b> <b>TR 512</b> <b>OVER FANNY BROOK</b>
	<b>SECTION 08-08123-00-BR</b> <b>FAYETTE COUNTY</b> <b>STATION 50+00</b>
Date: 07/27/09 Design: MRQ Drawn: BLT Job No.: 200804643	