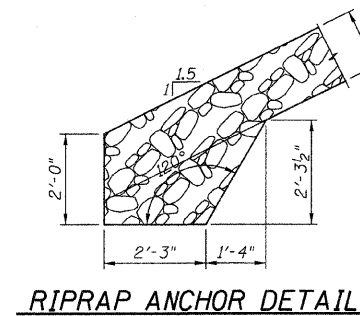
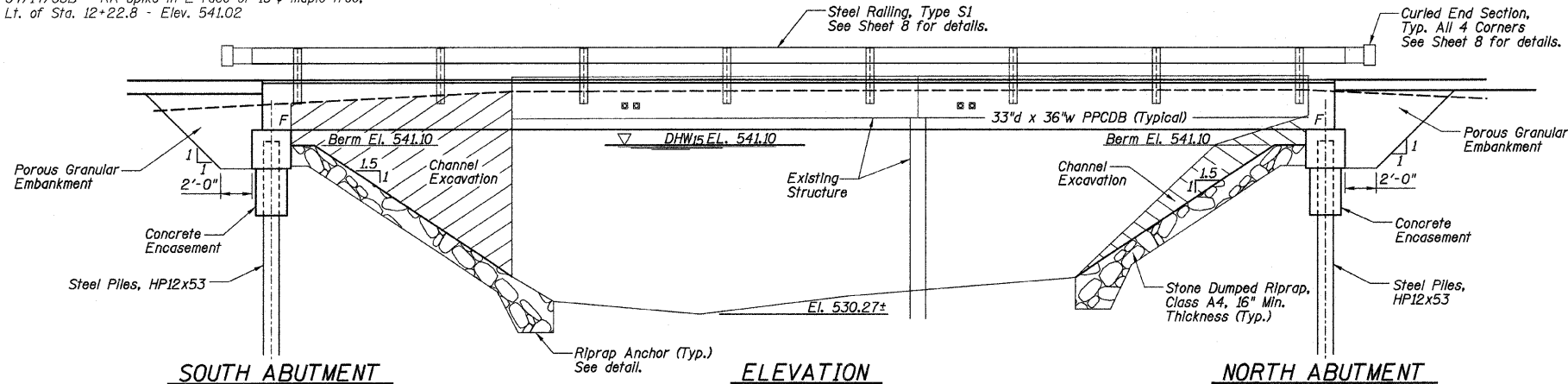


TBM 04/15/08D - RR spike in NE face of 30" ash tree, 85.6' Lt. of Sta. 9+30.2 - Elev. 540.46

TBM 04/14/08B - RR spike in E face of 18" maple tree, 17.1' Lt. of Sta. 12+22.8 - Elev. 541.02

Existing Structure: Two-span bridge with precast concrete deck slabs on closed timber abutments and timber pier with concrete caps. 52' Bk. to Bk. abutments, 22.5' Out to Out of deck. Existing Structure Number 026-3313. To be removed. See Special Provisions.

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 518	08-08122-00-BR	FAYETTE	11	5
FED. ROAD DIST. NO. 7 ILLINOIS				
CONTRACT NO. 95576				



**BILL OF MATERIALS (BRIDGE ONLY)**

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu Yd	-	270	270
Porous Granular Embankment	Ton	-	76	76
Stone Dumped Riprap, Class A4	Ton	-	125	125
Removal of Existing Structures	Each	-	-	1
Concrete Structures	Cu Yd	-	21.0	21.0
Concrete Encasement	Cu Yd	-	2.8	2.8
PPCDB (33" Depth)	Sq Ft	1648	-	1648
Reinforcement Bars	Pound	-	3420	3420
Steel Railing, Type S1	Foot	140	-	140
Furnishing Steel Piles HP12x53	Foot	-	243	243
Driving Piles	Foot	-	243	243
Test Pile Steel HP12x53	Each	-	1	1
Name Plates	Each	-	1	1

**GENERAL NOTES**

See Section 502 of the Standard Specifications for Structural Excavation.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

Channel excavation shall be excavated as shown within the limits of the proposed bridge, then tapered to the existing channel at the ROW line. If the Engineer deems the material satisfactory, it may be used to construct the roadway embankment.

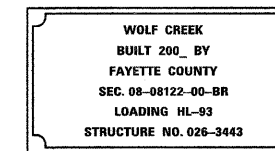
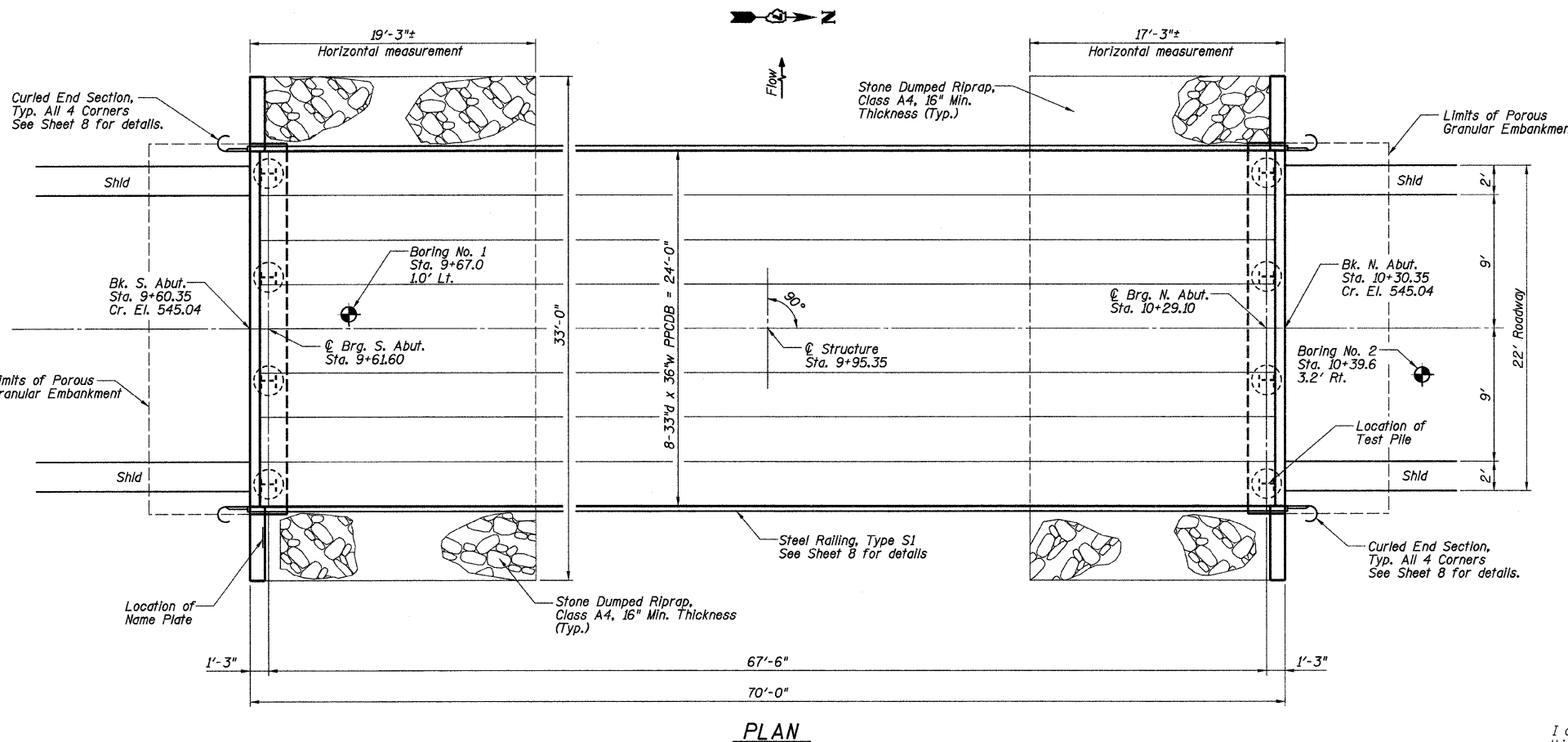
See Specifications for Soil Borings.

Do not scale these drawings.

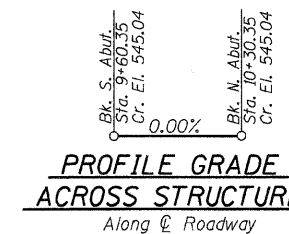
The Steel H-piles shall be according to AASHTO M270 Grade 50.

In addition to all other requirements of Section 512 of the Standard Specifications, splices for Steel H-piles shall develop the full capacity of the steel's cross sectional area of the pile for tension, shear and bending forces. One approved method of achieving this requirement is full penetration butt welding of the entire cross section. Other types of splices meeting the full capacity requirement may be allowed subject to the approval of the Engineer. Any proposal by the Contractor to use an alternate splice method must include adequate documentation demonstrating that the full tension, shear and bending capacities will be met. Appropriate welder qualifications will be required for the positions and processes used in splicing all piles. Nondestructive testing of completed welds will be limited to visual inspection.

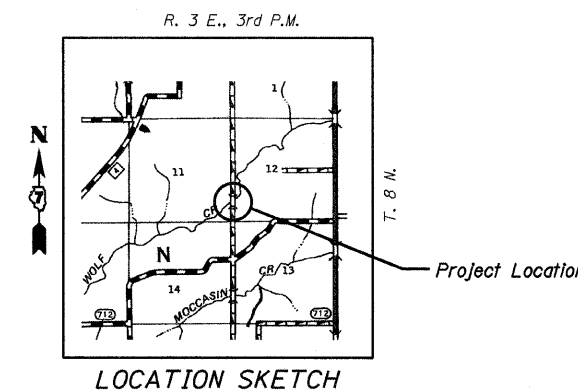
The abutment bearing seat surfaces for the precast prestressed concrete deck beams shall be adjusted by shimming to assure firm and even bearing. As required, 1/2" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.



**NAME PLATE**  
(See State Standard 515001 for details)



**PROFILE GRADE ACROSS STRUCTURE**  
Along @ Roadway



**GENERAL PLAN AND ELEVATION  
PROPOSED BRIDGE OVER  
WOLF CREEK  
TR 518  
SECTION 08-08122-00-BR  
FAYETTE COUNTY, ILLINOIS**

Sheet 5 of 11  
Job No. 50608

**WATERWAY DATA**

Drainage Area = 51.44 Sq. Mi. Low Grade Elev. 538.37 @ Sta. 6+69.97

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Natural H.W.E. Exist.	Prop.	Head - Ft. Exist.	Prop.	Headwater El. Exist.	Prop.
Design	15	6059	380	459	541.10	0.12	0.10	0.12	541.22	541.20
Base	100	9723	412	504	541.79	0.12	0.11	0.12	541.91	541.90
Max. Calc.	500	13011	438	524	542.35	0.12	0.00	0.12	542.47	542.35

**DESIGN STRESSES**

**FIELD UNITS**  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (reinforcement)

**PRECAST PRESTRESSED UNITS**  
 $f'_c = 6,000$  psi  
 $f'_{ci} = 5,000$  psi  
 $f_{pu} = 270,000$  psi ( $1/2'' \phi$  low lax. strands)  
 $f_{pbt} = 201,960$  psi ( $1/2'' \phi$  low lax. strands)  
 $f_y = 60,000$  psi (reinforcement)

**DESIGN SPECIFICATIONS**

2007 AASHTO LRFD with all applicable Interims

**LOADING HL-93**

25# / sq. ft. Included in dead load for future wearing surface.



Gary L. Hahn  
Centralia, Illinois  
Illinois Licensed Structural Engineer No. 81-4853  
Expires Nov. 30, 2010

02/09/2009