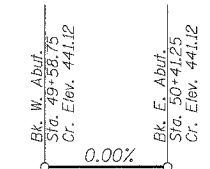
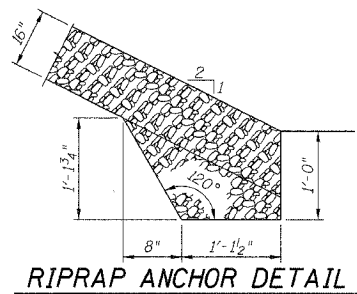
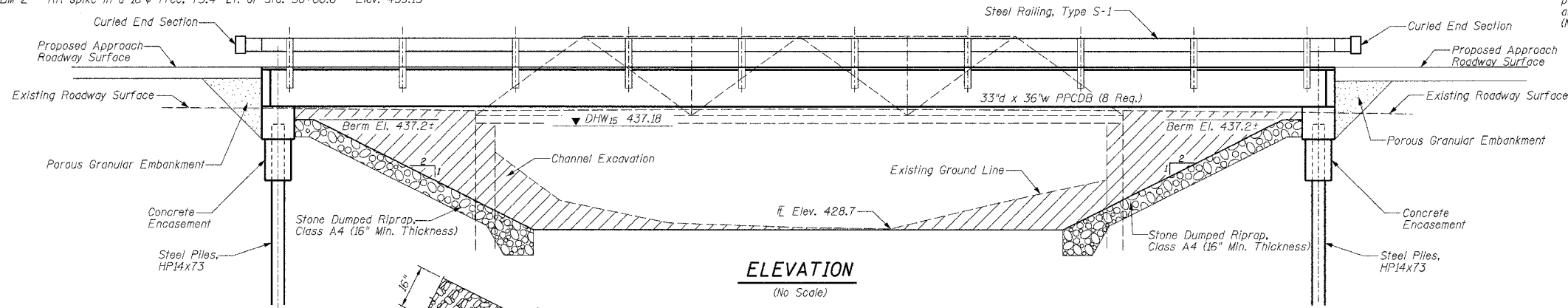


TBM 1 - RR spike in a 30" Tree, 90.8' Rt. of Sta. 49+50.5 - Elev. 438.21
 TBM 2 - RR spike in a 18" Tree, 75.4' Lt. of Sta. 50+86.6 - Elev. 439.15

Existing Structure, Str. No. 013-3083; Single span steel pony truss bridge with timber deck and concrete abutments and wingwalls, 50'-0" Long x 14'-0" wide, No Skew. (No salvage. See Special Provisions)

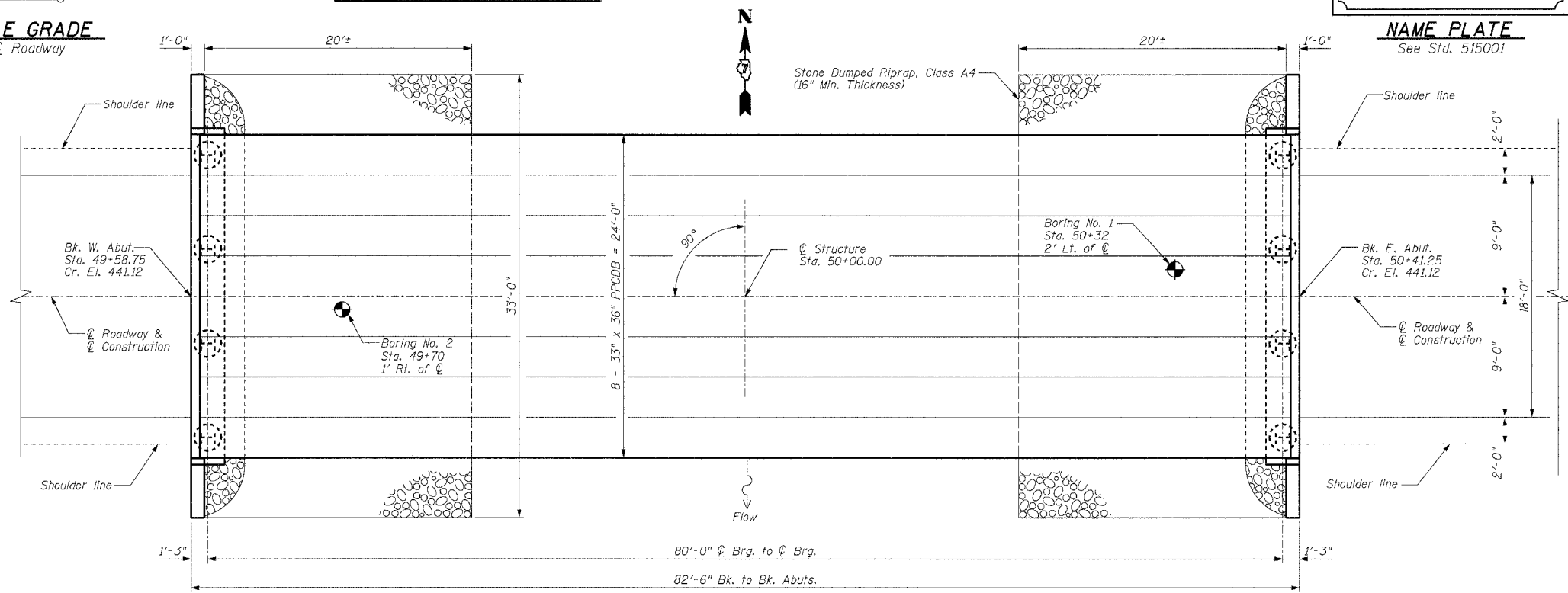
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 179	85-09110-01-BR	CLAY	9	6
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 95450				



PROFILE GRADE
Along Roadway

WET WEATHER CREEK
 BUILT 200_ BY CLAY COUNTY
 TR 179
 SEC. 85-09110-01-BR
 STR. NO. 013-3194
 LOADING HS 20

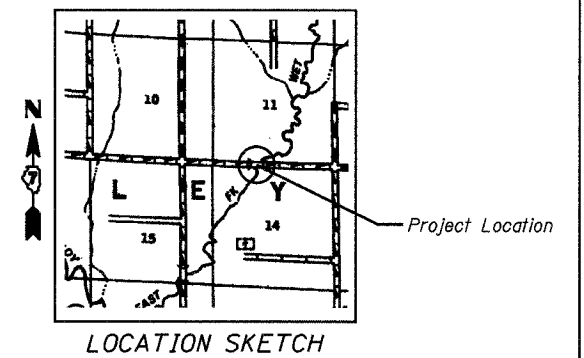
NAME PLATE
See Std. 515001



PLAN
(No Scale)

Note: Buried Fiber Optic Cable located on South side of existing bridge at time plans were being prepared.

I certify that to the best of my information, knowledge, and belief, this bridge is structurally adequate for the design loading shown on plans. The design is an economical one for the structure and complies with requirements of the current AASHTO Standard Specifications for Highway Bridges.



WATERWAY DATA

Drainage Area = 26.94 Sq. Mi. Low Grade Elev. 436.10 @ Sta. 57+00						
Flood Yr.	Freq.	Q	Opening Sq. Ft.		Natural Head - Ft.	Headwater El.
			Exist.	Prop.	Exist.	Prop.
Design	15	3165	313	448	4.37.18	0.77 0.42 437.95 437.60
Base	100	4995	322	532	4.38.03	0.39 0.42 438.42 438.45
Max. Calc.	500	6469	340	548	4.38.61	0.21 0.25 438.82 438.86

DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi
 PRECAST PRESTRESSED UNITS
 $f'_c = 6,000$ psi
 $f_{ci} = 5,000$ psi
 $f'_s = 270,000$ psi ($\frac{1}{2}$ " ϕ strands)(Low Relaxation)
 $f'_{si} = 202,500$ psi ($\frac{1}{2}$ " ϕ strands)(Low Relaxation)

DESIGN SPECIFICATIONS

AASHTO - 2002, 17th Edition
 LOADING HS20-44
 Allow 25#/sq. ft. for future wearing surface.



Gary L. Hahn 10.18.05

Gary L. Hahn
 Centralia, Illinois
 Illinois Licensed Structural
 Engineer No. 81-4853
 Expires Nov. 30, 2006

BILL OF MATERIALS (BRIDGE ONLY)

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu Yd	-	201	201
Porous Granular Embankment	Ton	-	46	46
Stone Dumped Riprap, Class A4	Ton	-	126	126
Removal of Existing Structures	Each	-	1	1
Concrete Structures	Cu Yd	-	18.2	18.2
PPCDB (33" Depth)	Sq Ft	1948	-	1948
Reinforcement Bars	Pound	-	2980	2980
Steel Railing, Type S-1	Foot	165	-	165
Furnishing Steel Piles HP14x73	Foot	-	150	150
Driving Steel Piles	Foot	-	150	150
Test Pile Steel HP14x73	Each	-	2	2
Name Plates	Each	-	1	1
Terminal Marker - Direct Applied	Each	4	-	4

GENERAL NOTES

- Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42, or M-53 grade 60.
- 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.
- See Section 502 of the Standard Specifications for Structural Excavation.
- The Contractor shall drive one (1) Steel HP14x73 Test Pile in a permanent location at both the East and West abutments as directed by the Engineer before ordering the remainder of the piles.
- The Contractor is hereby advised that very stiff soils will be encountered prior to the location of anticipated refusal. See the Soil Borings for further information.
- 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.

GENERAL PLAN AND ELEVATION
 PROPOSED BRIDGE OVER
 WET WEATHER CREEK
 TR 179
 SECTION 85-09110-01-BR
 CLAY COUNTY, ILLINOIS