

TBM 10-14-98"C - Chiseled square on East end of 15" RCP,  
29.70' Rt. of Sta. 29+29.96 - Elev. 457.51

TBM 10-14-98"D - Double 60d nails in South face of power pole,  
34.88' Lt. of Sta. 38+62.96 - Elev. 463.44

Existing Structure: 48" RCP culvert x 52' long,  
To be removed and stored on County  
R.O.W. Cost incidental to Channel  
Excavation.

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 227	98-11120-00-BR	JEFFERSON	35	19
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 95437				

**BILL OF MATERIAL (BRIDGE ONLY)**

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu Yd	-	1148	1148
Stone Dumped Riprap, Class A4	Ton	-	270	270
Concrete Structures	Cu Yd	-	18.4	18.4
PPCDB (33" Depth)	Sq Ft	1924	-	1924
Steel Railing, Type S-1	Foot	164	-	164
Reinforcement Bars	Pound	-	2700	2700
Furnishing Steel Piles HP12x53	Foot	-	352	352
Driving Steel Piles	Foot	-	352	352
Test Pile Steel HP12x53	Each	-	1	1
Name Plates	Each	-	1	1
Controlled Low-Strength Materials (CLSM)	Cu Yd	-	21.6	21.6

**GENERAL NOTES**

See Section 502 of the Standard Specifications for Structure Excavation.  
The Contractor shall drive one (1) Steel HP12x53 Test Pile in a permanent location at the East Abutment as directed by the Engineer before ordering the remainder of the piles.  
Reinforcement bars shall conform to the requirements of AASHTO M-31 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 toe of the proposed embankment as directed by the Engineer. 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.  
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.

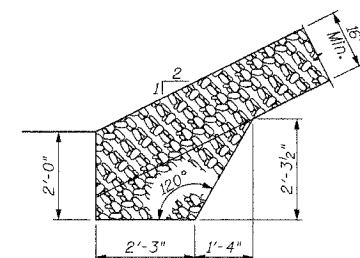
**OVERFLOW TO CASEY FORK  
BUILT 200 BY  
JEFFERSON COUNTY  
SEC. 98-11120-00-BR  
LOADING HS 20  
STRUCTURE NO. 041-3733**

**NAME PLATE**

(See State Standard 515001 for details)

**PROFILE GRADE  
ACROSS STRUCTURE**

Along Centerline of Roadway

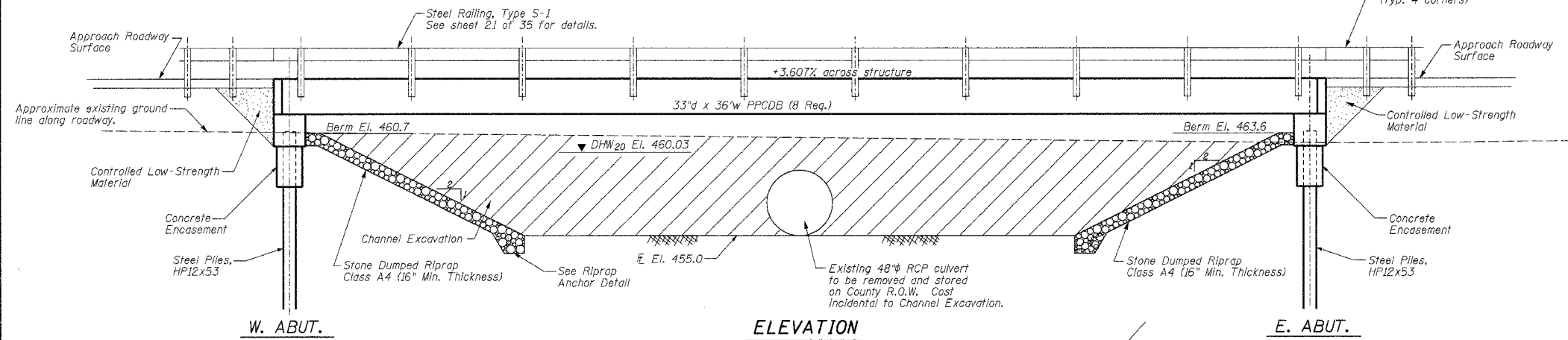


**RIPRAP ANCHOR DETAIL**

**GENERAL PLAN AND ELEVATION  
PROPOSED OVERFLOW BRIDGE  
FOR CASEY FORK**

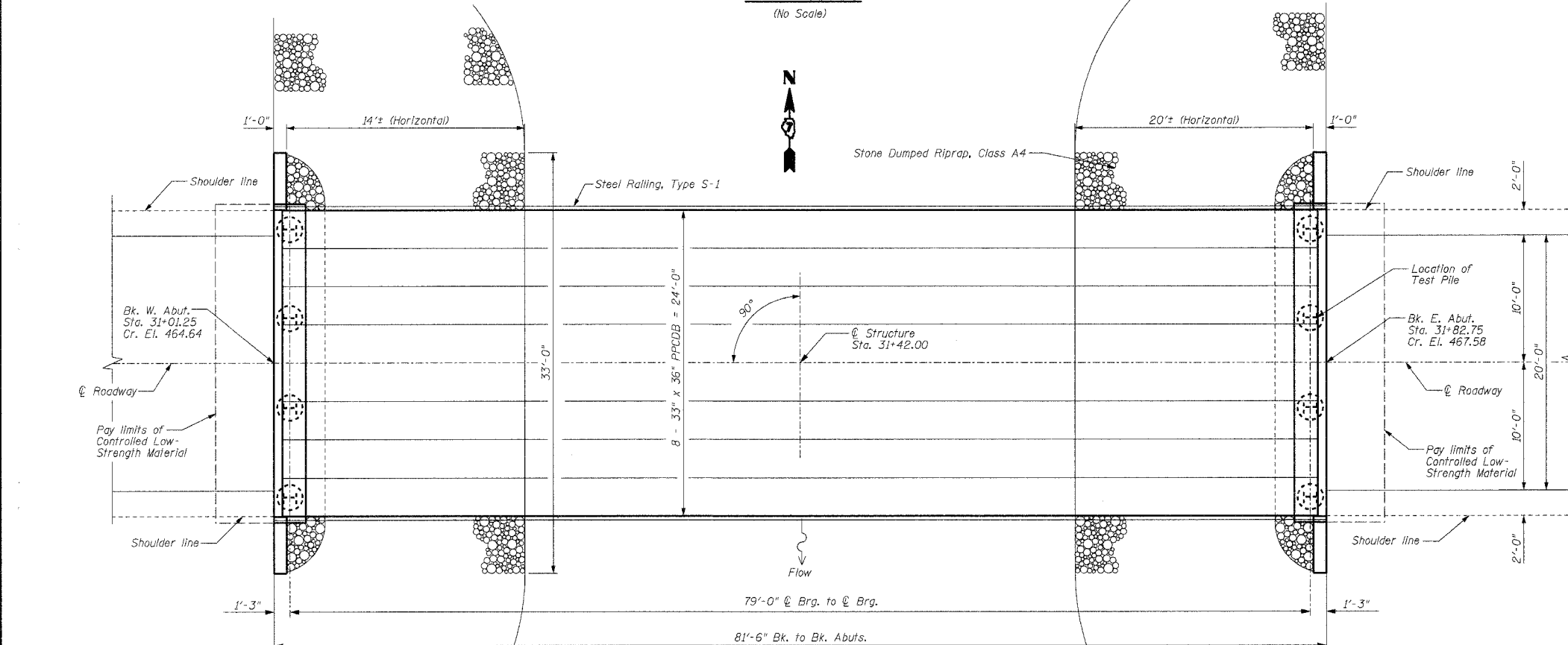
TR 227 / STA. 31+42.00  
SECTION 98-11120-00-BR  
JEFFERSON COUNTY, ILLINOIS

Sheet  
19  
of 35  
Job No. 52303



**ELEVATION**

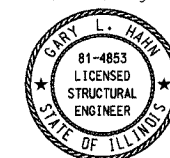
(No Scale)



**PLAN**

(No Scale)

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.



Gary L. Hahn 5/25/05

**SEISMIC DESIGN**

Seismic Performance Category (SPC) = B  
Bedrock Acceleration Coefficient (A) = 0.10g  
Site Coefficient (S) = 1.5

**DESIGN SPECIFICATIONS**

AASHTO - 2002 17th Edition

**LOADING HS 20-44**

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

**DESIGN STRESSES**

FIELD UNITS  
f'c = 3,500 psi  
fy = 60,000 psi

**PRECAST PRESTRESSED UNITS**

f'c = 6,000 psi  
f'ci = 5,000 psi  
fs = 270,000 psi (1/2" strands/Low Relaxation)  
fsi = 202,500 psi (1/2" strands/Low Relaxation)

**WATERWAY DATA**

See Sheet 24 of 35

RHUTASEL and ASSOCIATES, INC.  
CONSULTING ENGINEERS • LAND SURVEYORS  
CENTRALIA, ILLINOIS FREEBURG, ILLINOIS

05/24/2005