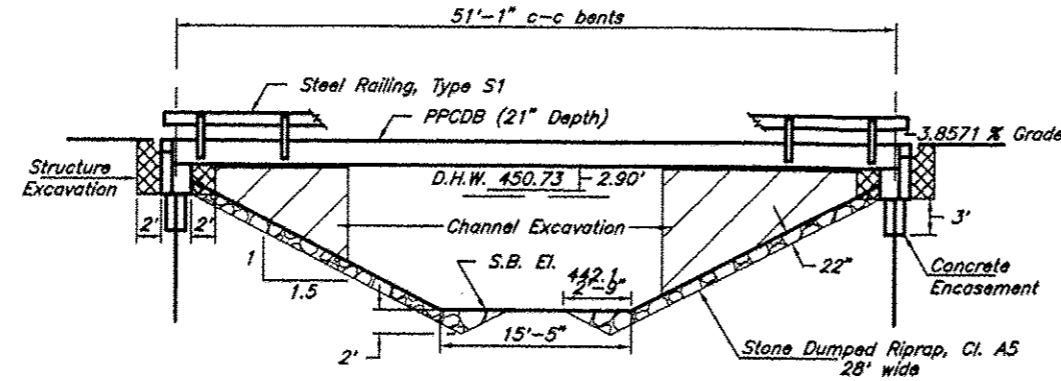


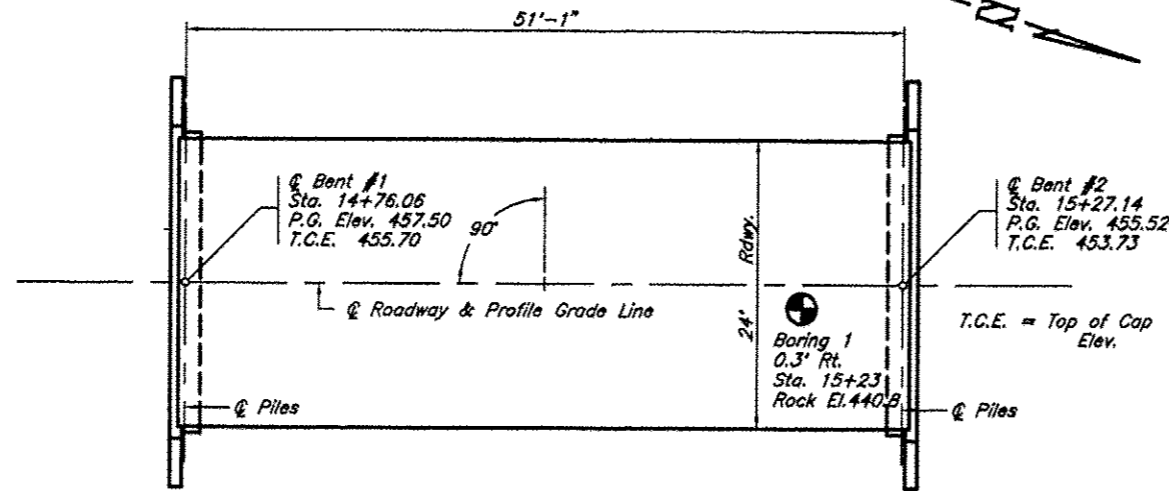
B.M. - Dbl. nail in Telephone Pole  
20' Lt. Station 15+25  
Assumed Elev. 455.00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR BBA	10-01197-00-BR	UNION	12	3
PROJECT NO. BROS-181(55)			CONTRACT NO. 99480	



ELEVATION

Existing Structure - Timber deck with steel stringers on one timber and one concrete closed abutment. 14.8' wide x 27.3' long



PLAN

GENERAL NOTES

- Steel H piles shall meet AASHTO M270 Grade 50 specifications.
- See special provisions for boring logs.
- A Corrosion inhibitor, as covered in the Standard Specifications, shall be used in the precast prestressed concrete deck beams.

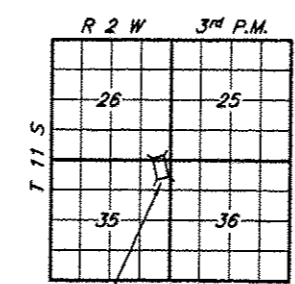
TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.		Total
			Piers	Abuts.	
Channel Excavation	Cu. Yds.			111	111
Stone Dumped Riprap, Cl. A5	Tons			172	172
Removal of Existing Structures	Each				1
Structure Excavation	Cu. Yds.			55	55
Concrete Structures	Cu. Yds.			22.7	22.7
Concrete Encasement	Cu. Yds.			2.7	2.7
P.P. Conc. Dk. Bm. 21" Dp.	Sq. Ft.	1248			1248
Reinforcement Bars	Pound			2690	2690
Steel Railing, Type S1	Foot	106			106
Furnishing Steel Piles HP10X42	Foot			112	112
Setting Piles in Rock	Each			8	8
Name Plates	Each			1	1

TRIBUTARY TO CLEAR CREEK  
SEC. 10-01197-00-BR BUILT 20\_\_\_\_  
COUNTY UNIT ROAD DISTRICT  
UNION COUNTY  
LOADING HL-93  
STR. NO. 091-3237

LETTERING FOR NAME PLATE

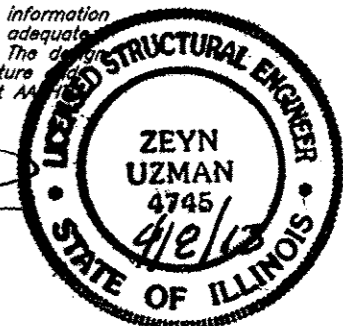
Locate Name Plate at southeast Corner of Bridge (See Sheet 8)



LOCATION SKETCH

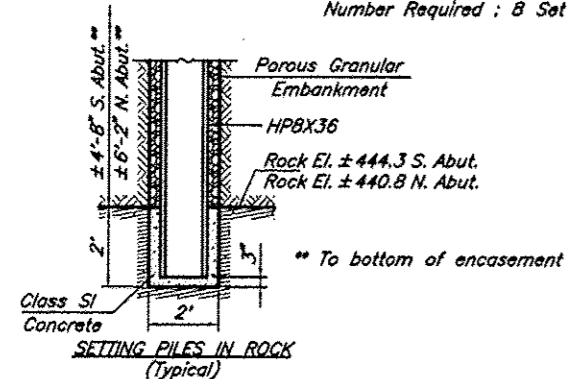
I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the type of structure and complies with the requirements of the current AASHTO LRFD Specifications.

Zeyn B. Uzman  
S.E. #81-0745  
Expires Nov. 30, 2014



PILE DATA (2-ABUTS.)

Type & Size : HP10X42  
Nominal Required Bearing : 267 kips  
Factored Resistance Available : 147 kips  
Estimated Length : 13 Feet Bent #1, 15 Feet Bent #2  
Number Required : 8 Set in Rock



DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications and all applicable interims.

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface

SEISMIC DATA

Soil Site Class = D  
Design Spectral Acceleration at 0.2 sec. (S<sub>gs</sub>) = 1.017  
Design Spectral Acceleration at 1.0 sec. (S<sub>p1</sub>) = 0.438  
Seismic Performance Zone (SPZ) = 3

WATERWAY INFORMATION

Drainage Area = 3.38 Sq. Mi.		Low Grade Elev. = 454.23		At Sta. 15+92		
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	1880	195.6 244.1	450.73	1.74 0.30	452.47 451.03
Base	100	2980	237.8 333.3	452.75	1.89 0.70	454.64 453.45
Overtopping	±175	3346		453.30		454.23
Max. Calc.	500					

Over Road Flow (Sq Ft): Exist. 145.1

GENERAL PLAN & ELEVATION  
TOWNSHIP ROUTE BBA (BARTSCH LANE)  
TRIBUTARY TO CLEAR CREEK  
SECTION 10-01197-00-BR  
UNION COUNTY  
STRUCTURE NO. 091-3237