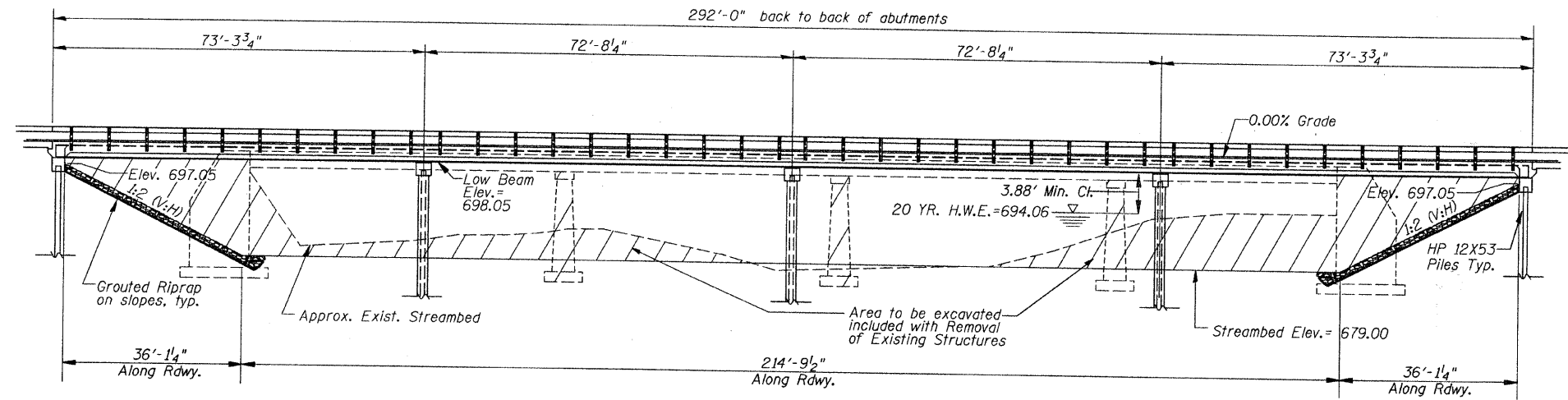
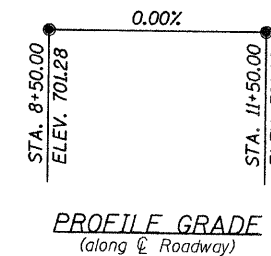


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	11
STA. TO STA.		F.H.W.A. REG. ILLINOIS PROJECT		

Benchmark 06117-1: Chrome spike in north side of Power Pole 5' above ground. First pole west of bridge north side of roadway, Elev. 703.38
 Vertical Datum derived from NGS N 24 Reset 1959 NAVD 88
 Existing Structure-Four span, reinforced concrete beam and slab, on closed concrete abutments and concrete piers. No salvage.

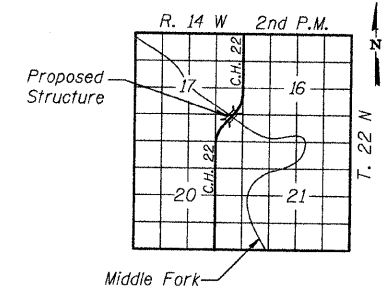


ELEVATION



STATION 10+00
 MIDDLE FORK VERMILION RIVER
 SEC. 05-00907-00-BR BUILT 20
 CHAMPAIGN COUNTY
 LOADING HL-93
 STR. NO. 010-4525

NAME PLATE
 See Std. 515001



LOCATION SKETCH

DESIGN SPECIFICATIONS
 2007 AASHTO LRFD and applicable Interims

DESIGN LOADING

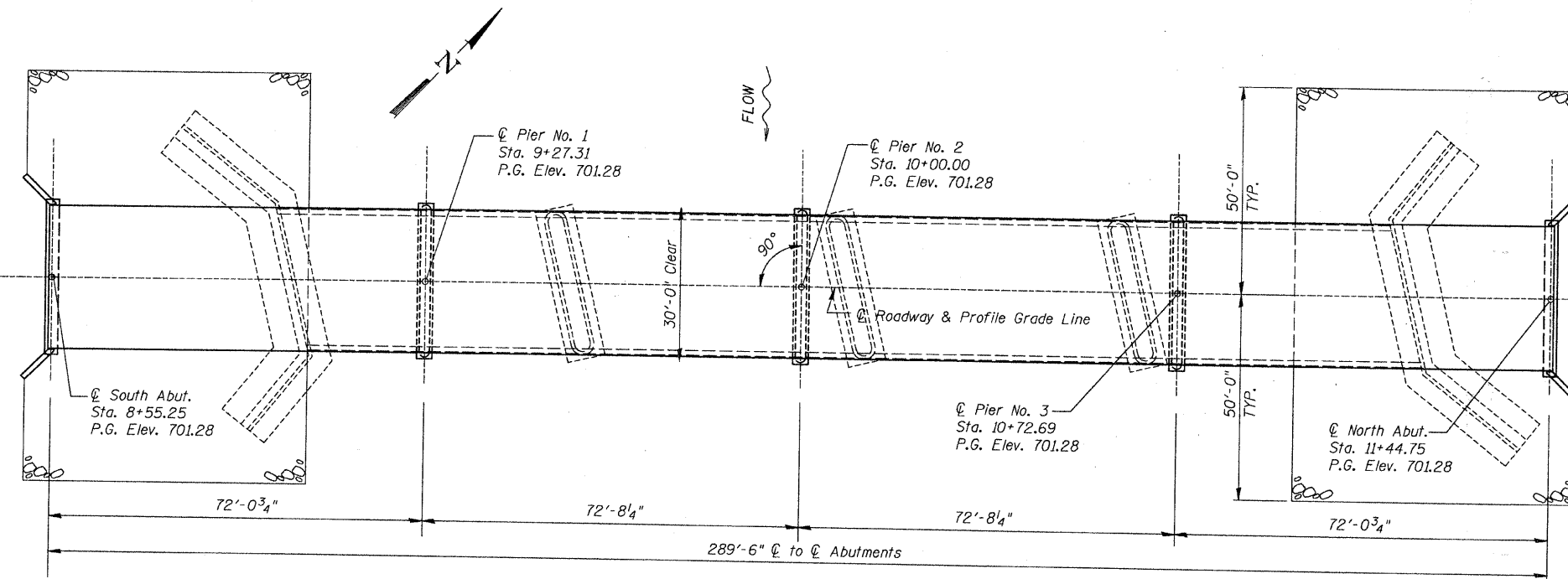
HL-93 and Allowance for
 25 P.S.F. Future Wearing Surface

DESIGN STRESSES

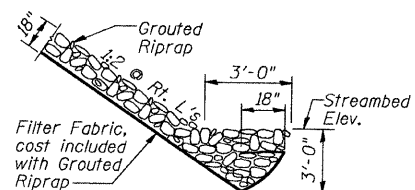
$f'_c = 3,500$ psi (Concrete)
 $f_y = 60,000$ psi (Reinforcement)

WATERWAY DATA

Drainage Area	230.8	Sq. Mi.
Existing Opening (20 Year)	2105	Sq. Ft.
Required Opening (20 Year)	2136	Sq. Ft.
Proposed Opening (20 Year)	2957	Sq. Ft.
Design Discharge (20 Year)	6208	C.F.S.
Computed Discharge (100 Year)	8505	C.F.S.
Created Head (20 Year)	0.01	Ft.
Created Head (100 Year)	0.02	Ft.



PLAN



SECTION B-B THRU TOE OF RIPRAP
 R-0-W TO R-0-W

"This structure has been designed to be stable for scour conditions in accordance with the FHWA Technical Advisory - T 5140.23, "Evaluating Scour at Bridges" and Hydraulic Engineering Circular 18 - Evaluating Scour at Bridges."

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



Keith E. Brandau
 Illinois Licensed Structural Engineer Number 4905
 License Expires 11/30/10

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.		Total
			Piers	Abuts.	
Removal of Existing Structures	Each				1
Concrete Structures	Cu. Yd.		169.4	20.4	189.8
Reinforcement Bars	Pound		11,190	2,230	13,420
Steel Bridge Rail Type S-1	Foot	584			584
Furnishing and Driving Steel Piles, HP12X53	Foot		1740	432	2172
Test Pile, Steel HP12X53	Each		1	2	3
Name Plates	Each				1
Concrete Cut-off Wall	Cu. Yd.			7.2	7.2
Controlled Low Strength Material	Cu. Yd.			51	51
Pile Shoes	Each		30	14	44
Structure Excavation	Cu. Yd.		94	125	219
Grouted Riprap	Sq. Yd.			1053	1053
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	8713			8713

GENERAL PLAN & ELEVATION
 SECTION: 05-00907-00-BR
 CHAMPAIGN COUNTY
 & STATION 10+00