

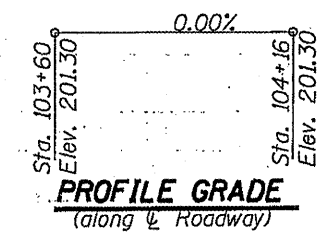
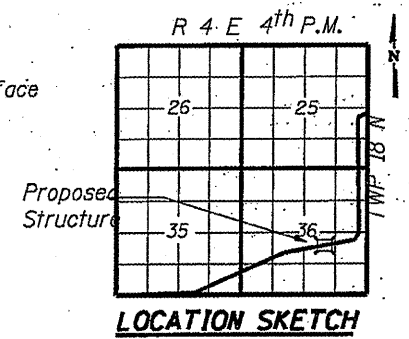
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 20	06-00146-00-BR	HENRY	9	4
STA.	TO STA.			
F.H.W.A. REG.	ILLINOIS PROJECT			

85439

DESIGN STRESSES
 $f_c = 3,500$ psi (Concrete)
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (M270 GRADE 50W)

DESIGN SPECIFICATIONS
 2007 AASHTO LRFD & applicable Interims.

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



WATERWAY DATA

Drainage Area	23	Sq. Mi.
Existing Opening (20 Year)	2.10	Sq. Ft.
Required Opening (20 Year)	2.17	Sq. Ft.
Proposed Opening (20 Year)	2.17	Sq. Ft.
Design Discharge (20 Year)	706	C.F.S.
Computed Discharge (100 Year)	1016	C.F.S.

STRUCTURE NO. 037-3362
 SEC. 06-00146-00-BR BUILT 20XX
 COUNTY HIGHWAY 20
 HENRY COUNTY
 LOADING HL-93

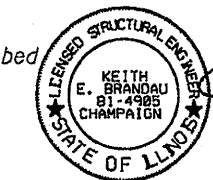
NAME PLATE
 See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures	Each	1		1
Concrete Structures	Cu. Yd.		25.9	25.9
Reinforcement Bars	Pound		3,190	3,190
Name Plates	Each	1		1
Structure Excavation	Cu. Yd.		116	116
Portland Cement Mortar Fairing Course	Foot	746		746
Precast Prestressed Concrete Deck Beams (33" depth)	Sq. Ft.		2279	2279
Waterproofing Membrane System	Sq. Yd.	254		254
Furnishing Steel Piles, HP 10x42	Foot		558	558
Driving Steel Piles	Foot		558	558
Test Pile Steel HP 10X42	Each		2	2
Stone Dumped Riprap, Class A4	Cu. Yd.		293	293
Steel Railing Type S-1	Foot	152		152
Concrete Encasement	Cu. Yd.		3.8	3.8
Pile Shoes	Each		12	12

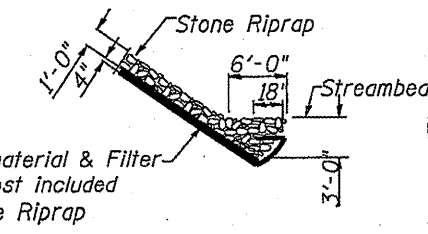
"This structure has been designed to be stable for scour conditions in accordance with the FHWA Technical Advisory - T 5140.23, "Evaluating Scour at Bridges" and Hydraulic Engineering Circular 18 - Evaluating Scour at Bridges.

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the 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".



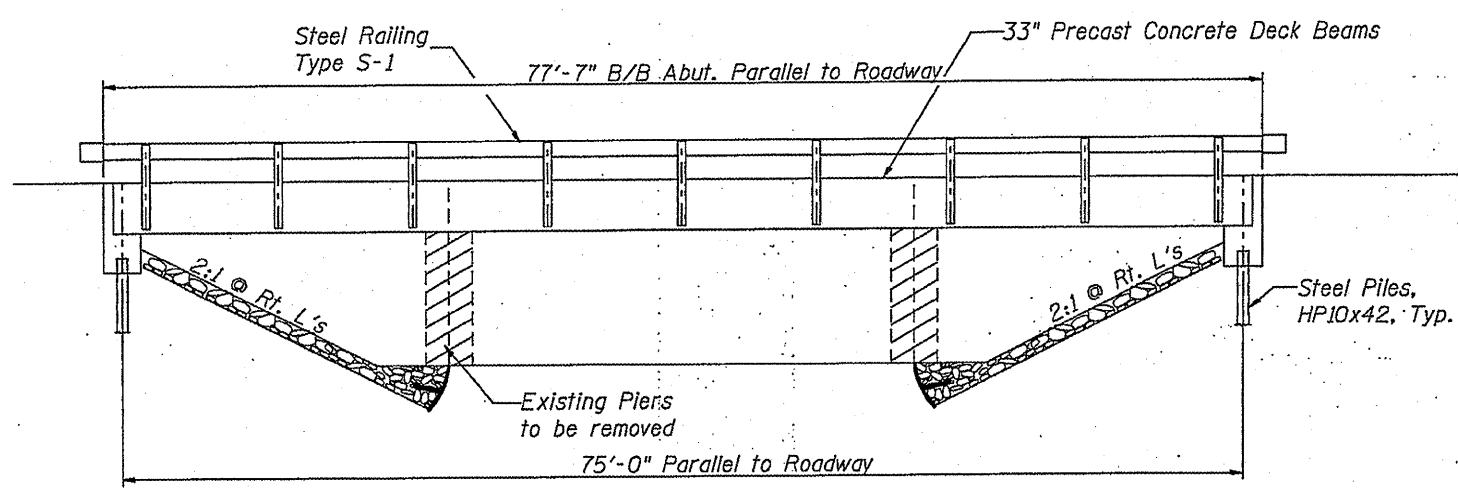
Keith E. Brandau 04/02/08
 KEITH E. BRANDAU DATE
 Illinois Licensed Structural Engineer Number 4905
 License Expires 11/30/08

T.C.E. = Top of Cap Elev.

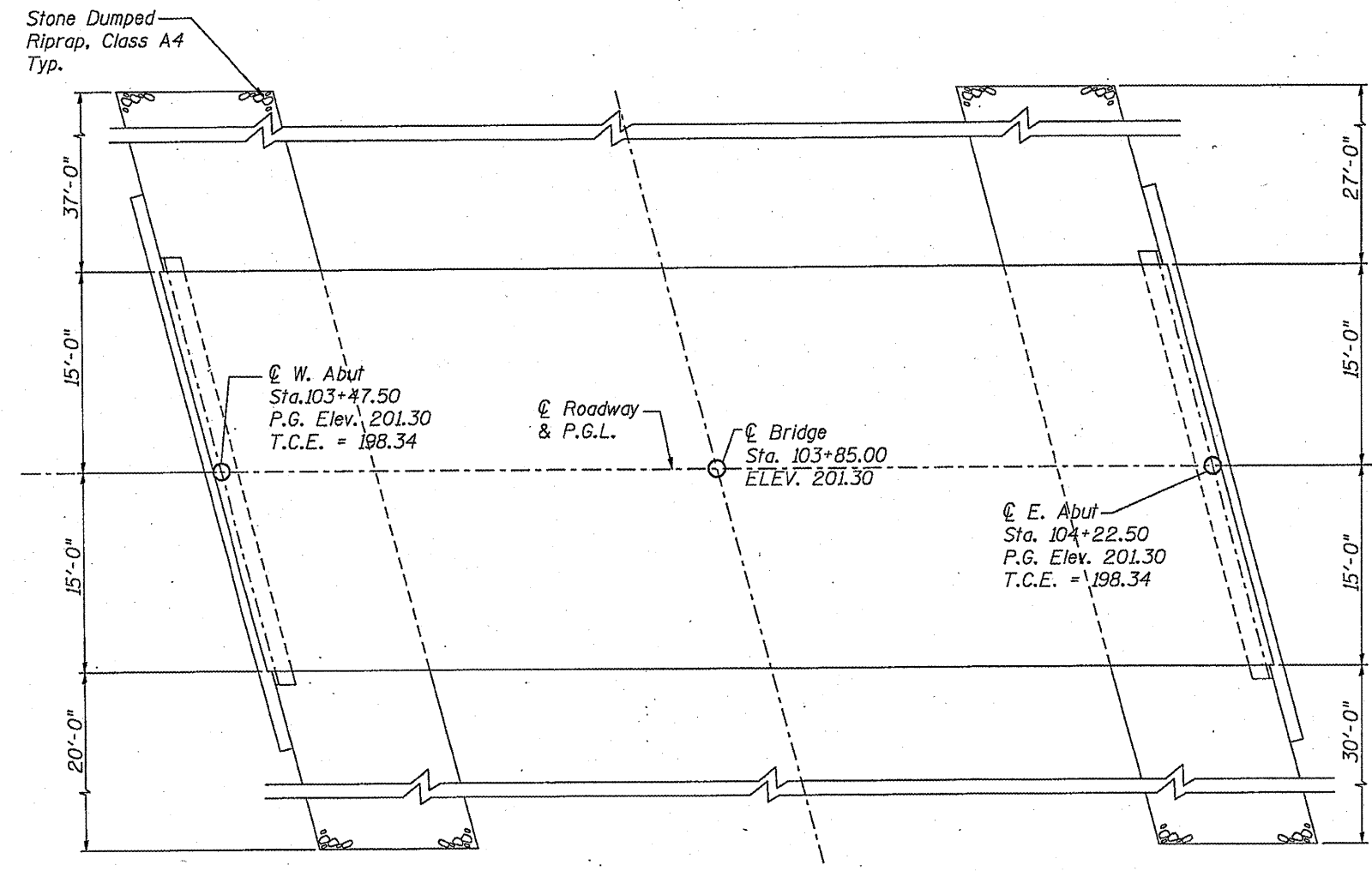


SECTION B-B THRU TOE OF RIPRAP
 R-0-W TO R-0-W

SECTION: 06-00146-00-BR
 HENRY COUNTY
 ψ STATION 103+85



ELEVATION



PLAN

PLAN SURVEYED BY DATE
 ALIGNED CHECKED
 RT. OF WAY CHECKED

PROFILE SURVEYED BY DATE
 PLOTTED CHECKED
 GRADES CHECKED
 STRUCTURE NOTATIONS CHKD