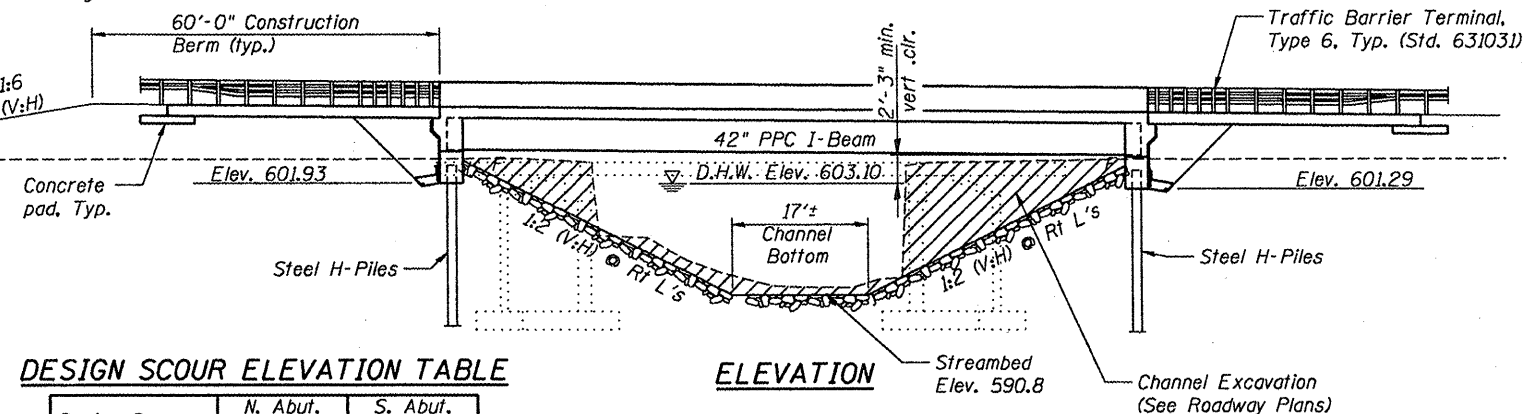


B.M. - Chiseled "□" on NE corner of bridge approach deck of existing structure.
Elev. 605.42

Existing Structure - S.N. 036-0012 is a single span, 17" PPC Deck Beam superstructure on closed, reinforced concrete abutments. Structure is 38'-0" back to back and 33'-0" out to out. The Structure was rebuilt as F.A. Rte 534, Section 109-BR-1, Sta. 301+61.00 in 1977. Traffic shall be detoured.

Salvage - All structural steel supports under the existing deck beams shall be salvaged and delivered by the contractor to the Henderson Co. yard in Stronghurst. Cost shall be included in Removal of Existing Structures.



DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (Ft.)	N. Abut.	S. Abut.
	601.93	601.29

ELEVATION

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications

LOADING HL-93

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

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Bedrock Acceleration Coefficient (A) = 0.038g
Site Coefficient (S) = 1.5

DESIGN STRESSES
FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (reinforcement)

PRECAST PRESTRESSED UNITS

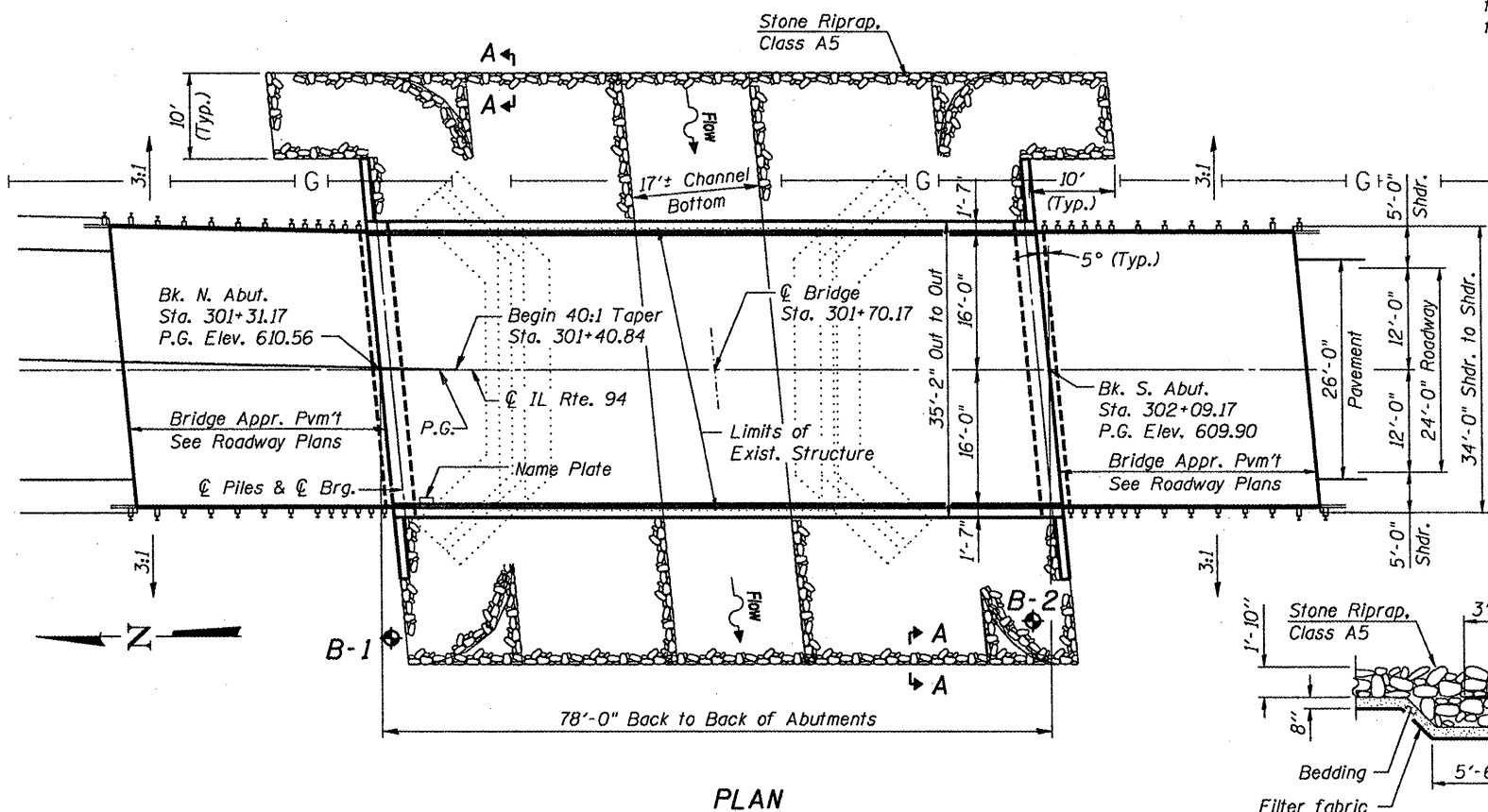
f'c = 7,000 psi
f'ci = 6,000 psi
fpu = 270,000 psi (1/2" low lax. strands)
fpbt = 201,960 psi (1/2" low lax. strands)

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions
Reinforcement bars designated (E) shall be epoxy coated.
The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.
Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
Slipforming of the parapets is not allowed.

TOTAL BILL OF MATERIAL

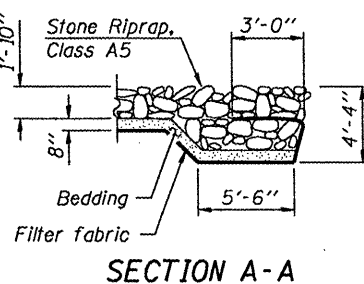
ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.	-	163	163
Stone Riprap, Class A5	Sq. Yd.	-	-	699
Filter Fabric	Sq. Yd.	-	-	699
Removal of Existing Structures	Each	-	-	1
Structure Excavation	Cu. Yd.	-	194	194
Concrete Structures	Cu. Yd.	-	37.4	37.4
Concrete Superstructure	Cu. Yd.	114.9	-	114.9
Bridge Deck Grooving	Sq. Yd.	260	-	260
Concrete Encasement	Cu. Yd.	-	4.2	4.2
Protective Coat	Sq. Yd.	343	-	343
Furnishing and Erecting Precast Prestressed Concrete I Beams, 42"	Foot	462	-	462
Reinforcement Bars, Epoxy Coated	Pound	21300	5040	26340
Bar Splicers	Each	64	-	64
Furnishing Steel Piles HP 12x53	Foot	-	906	906
Driving Piles	Foot	-	906	906
Test Pile Steel HP 12x53	Each	-	1	1
Name Plates	Each	1	-	1
Geocomposite Wall Drain	Sq. Yd.	-	77	77
Pipe Underdrains for Structures, 4"	Foot	-	180	180
Asbestos Bearing Pad Removal	Each	-	-	22



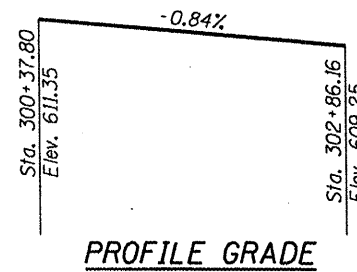
PLAN

INDEX OF SHEETS

- 1 General Plan and Elevation
- 2-3 Top of Slab Elevations
- 4-5 Top of Approach Slab Elevations
- 6-7 Superstructure Details
- 8 Diaphragm Details
- 9 Framing Plan
- 10-11 42" PPC I-Beam
- 12-13 Abutments
- 14 Foundation Details
- 15 Bar Splicer Assembly Details
- 16-17 Soil Boring Logs



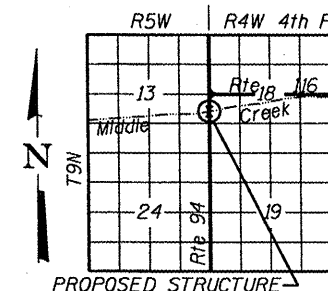
SECTION A-A



PROFILE GRADE

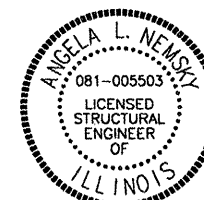
STATION 301+70.17
BUILT 200 BY
STATE OF ILLINOIS
F.A.P. RT. 534 SECTION 109BR-2
LOADING HL93
STR. NO. 036-0069

NAME PLATE
See Std. 515001



LOCATION SKETCH

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



1/22/2009
Angela L. Nemsky
EXPIRES 11-30-2010

GENERAL PLAN & ELEVATION
IL RTE. 94 OVER MIDDLE CREEK
STATION 301+70.17
STRUCTURE NO. 036-0069

WATERWAY INFORMATION

Drainage Area = 7.17 sq. mi. Ex. Low Grade Elev. = 605.8 @ Sta. 300+10.97
Pr. Low Grade Elev. = 608.7 @ Sta. 304+18.62

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	2755	287	449	602.2	0.5	0.3	602.7	602.5
Base	100	3248	319	507	603.1	2.6	0.7	605.7	603.8
Overtopping	70	2900	322	-	603.2	2.6	-	605.8	-
Max. Calc.	500	4452	-	582	604.2	-	1.5	-	605.7

DESIGNED	ALN
CHECKED	MJJ
DRAWN	MJJ
CHECKED	ALN

THOUVENOT, WADE & MOERCHEN, INC.
SWANSEA • WATERLOO • EDWARDSVILLE • CARBONDALE • ST. CHARLES

CORPORATE OFFICE
4940 Old Collinsville Road
Swansea, Illinois 62226
Tel: 618.624.4488
Fax: 618.624.6688



SHEET NO. 1
SHEETS 17

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-2	HENDERSON	490	428
CONTRACT NO. 88773				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

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