

Bench Mark: Chiseled "□" on wing wall @ N.E. corner of bridge S.N. 094-0001 U.S. 67 over Toms Creek Station 73+30 Elev. 642.47

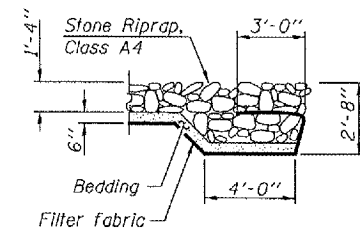
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 310	SECTION (101BY) BR	COUNTY WARREN	SHEET 97	POST 35	SHEET NO. 1 16 SHEETS
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Contract #88798

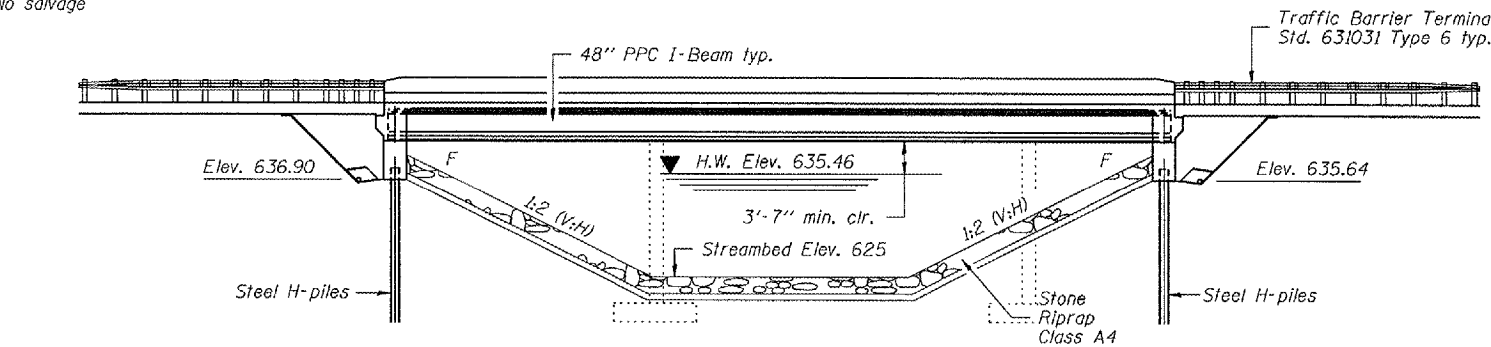
Existing Structure: S.N. 094-0001; Built in 1927 as S.B.I. 85, Section A-101 at Station 73+09  
Existing structure is a single span RC deck girder bridge on closed abutments and widened in 1971 with prestressed deck beams, 43'-0" bk. to bk. abutments, 32'-8" out to out of deck. Structure is to be removed and replaced with a single span PPC I-beam bridge.  
One lane of traffic is to be maintained using stage construction.

No salvage

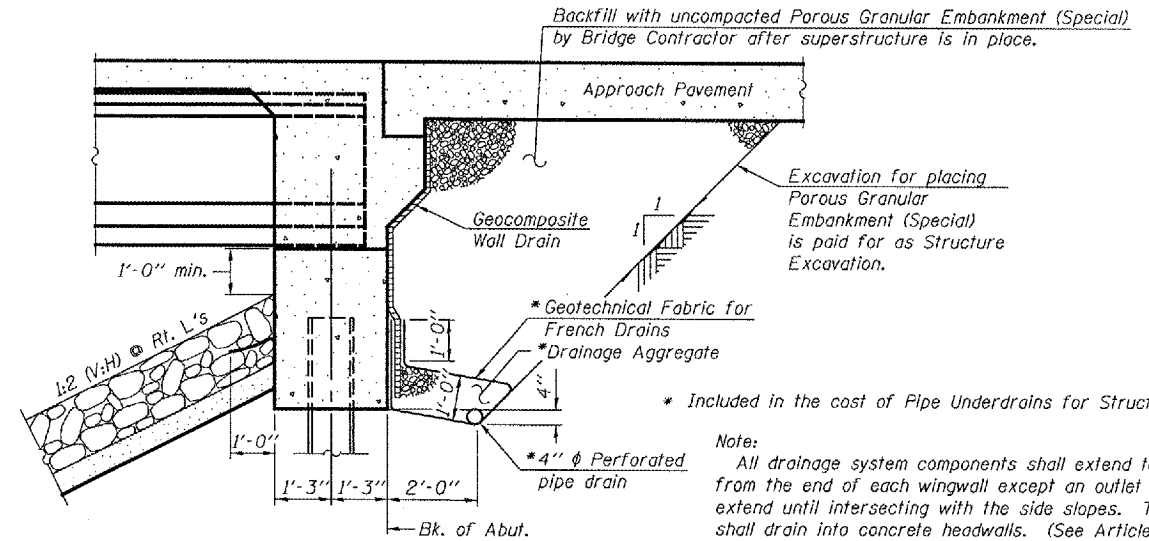


SECTION A-A

**GENERAL NOTES**  
Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60 (IL Modified). See Special Provisions.  
Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.  
Reinforcement bars designated (E) shall be epoxy coated.  
Excavation behind existing abutment walls shall be done before removing the existing superstructure. The contractor shall saw cut the existing abutments at the stage removal line before Stage I removal.

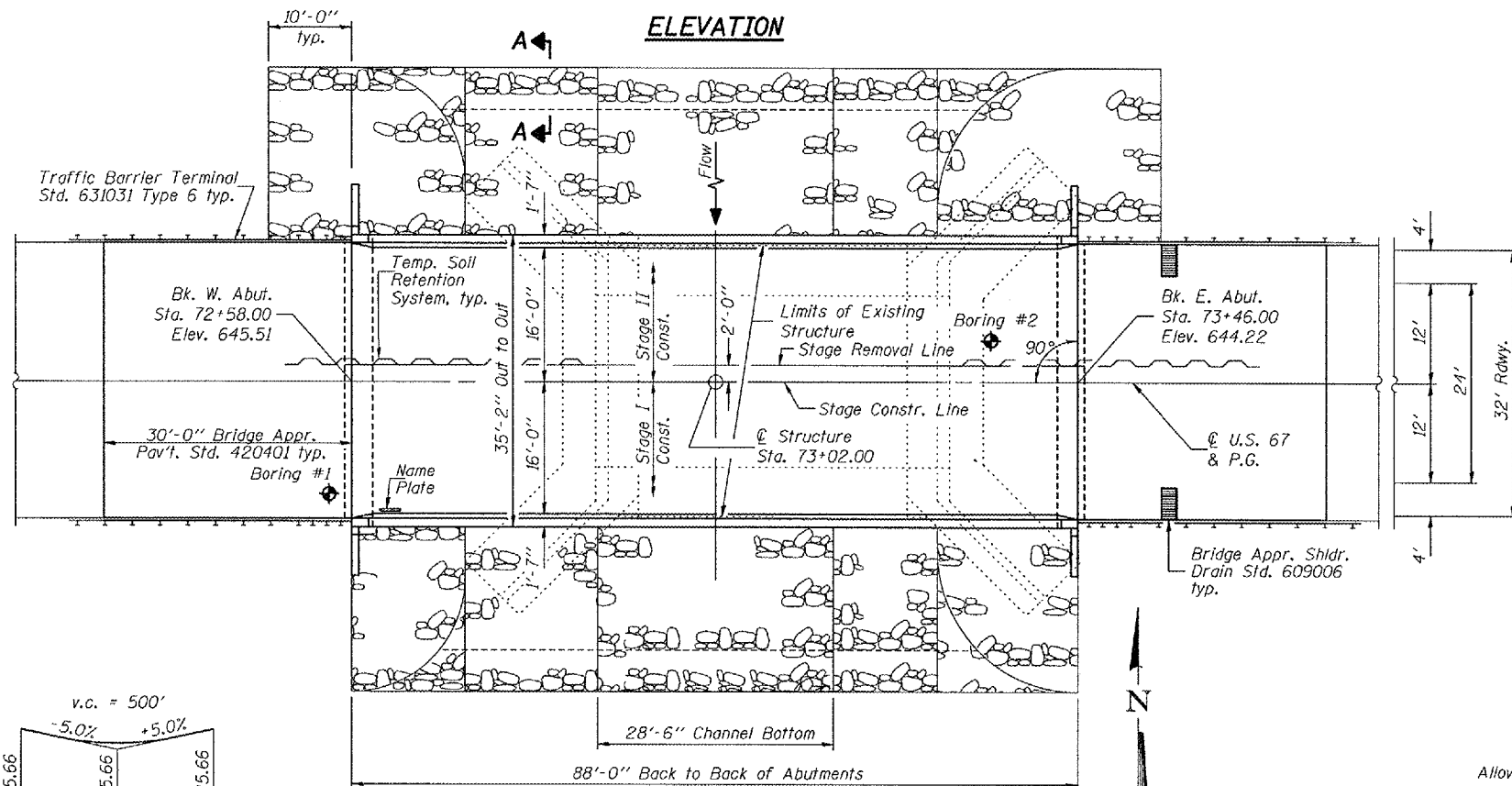


ELEVATION

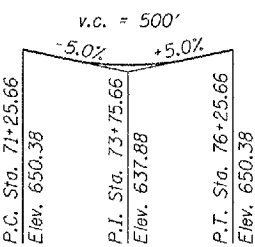


SECTION THRU INTEGRAL ABUTMENT  
(Horiz. dim. @ Rt. L's)

\* Included in the cost of Pipe Underdrains for Structures, 4".  
Note:  
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



PLAN



PROFILE GRADE  
(along @ roadway)

STATION 73+02.00  
BUILT 200 BY  
STATE OF ILLINOIS  
F.A.P. RT. 310 SECTION (101BY)BR  
LOADING HS20  
STR. NO. 094-0049  
**NAME PLATE**  
See Std. 515001

**LOADING HS20-44**  
Allow 50#/sq. ft. for future wearing surface.  
**DESIGN SPECIFICATIONS**  
1996 AASHTO with 1997, 1998 & 1999 Interims

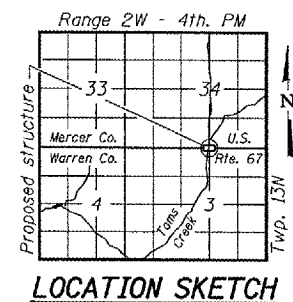
**DESIGN STRESSES**  
**FIELD UNITS**  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (reinforcement)

**PRECAST PRESTRESSED UNITS**  
 $f'_c = 6,000$  psi  
 $f'_t = 5,000$  psi  
 $f'_s = 270,000$  psi ( $1/2$ "  $\phi$  low lax strands)  
 $f_s = 201,960$  psi ( $1/2$ "  $\phi$  low lax strands)

**SEISMIC DATA**  
Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 3.6%  
Site Coefficient (S) = 1.0

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures	Each			1
Temporary Soil Retention System	Sq. Ft.		713	713
Furnishing Steel Piles HP 10x57	Foot		384	384
Driving Piles	Foot		384	384
Structure Excavation	Cu. Yd.		314	314
Concrete Structures	Cu. Yd.		33.3	33.3
Concrete Superstructure	Cu. Yd.	120.1		120.1
Bar Splicers	Each	287	18	305
Furnishing and Erecting Precast Prestressed Concrete I Beams, 48"	Foot	519		519
Reinforcement Bars, Epoxy Coated	Pound	20670	5300	25970
Bridge Deck Grooving	Sq. Yd.	292		292
Protective Coat	Sq. Yd.	385		385
Name Plates	Each	1		1
Stone Riprap, Class A4	Sq. Yd.		817	817
Filter Fabric	Sq. Yd.		817	817
Porous Granular Embankment (Special)	Cu. Yd.		190.4	190.4
Pipe Underdrain for Structures, 4"	Foot		145	145
Geocomposite Wall Drain	Sq. Yd.		83	83
Concrete Encasement	Cu. Yd.		4.2	4.2



LOCATION SKETCH

**GENERAL PLAN & ELEVATION**  
**U.S. ROUTE 67 OVER**  
**TOMS CREEK**  
**F.A.P. ROUTE 310 - SECTION (101BY)BR**  
**WARREN COUNTY**  
**STATION 73+02**  
**STRUCTURE NO. 094-0049**

**WATERWAY INFORMATION**

Drainage Area = 7.8 sq. mi. Low Grade Elev. 367.5 @ Sta. 73+02

Flood Yr.	Freq.	C.F.S.		Opening Sq. Ft.		Nat. Head - Ft.		Headwater El.	
		0	100	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	50	2426	261	517	635.46	0.13	0.07	635.59	635.52
Base	100	2674	277	545	635.86	0.98	0.89	636.18	636.08
Overtopping									
Max. Calc.	500	3080	325	635	637.07	1.12	0.72	638.18	637.79

DESIGNED	[Signature]
CHECKED	[Signature]
DRAWN	P.W. SWEET
CHECKED	[Signature]

EXAMINED [Signature]  
PASSED [Signature]  
ENGINEER OF BRIDGE DESIGN  
ENGINEER OF BRIDGES AND STRUCTURES

EXPIRES 11-30-2008