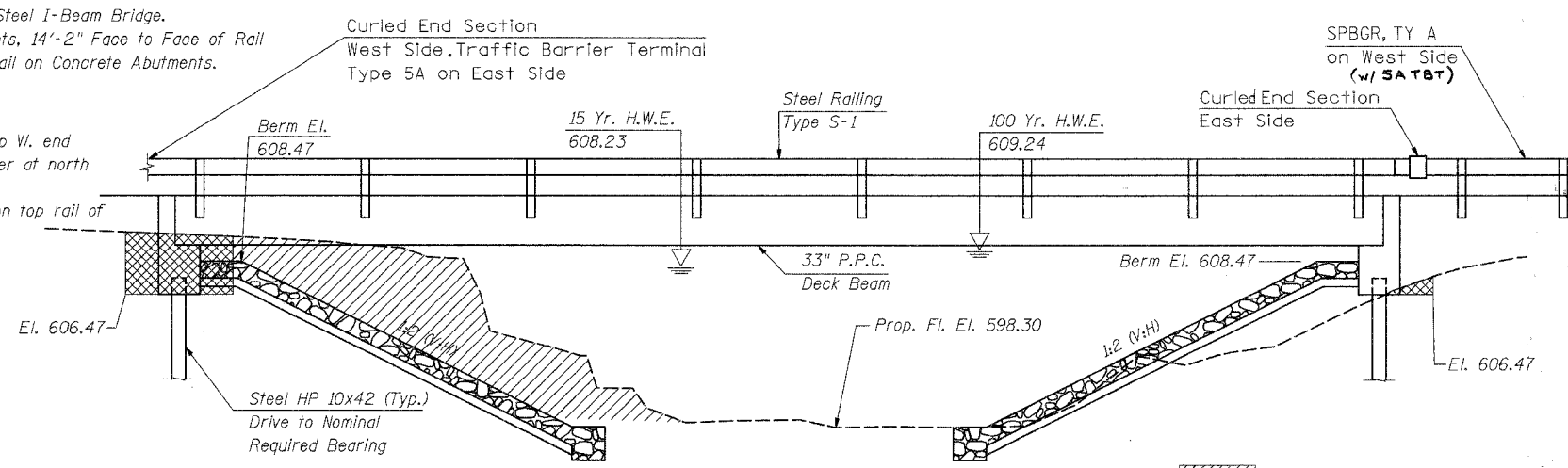


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 50		CHRISTIAN SHELBY	20	11
FED. ROAD DIST. NO.			ILLINOIS PROJECT	
04-12112-00-BR			SHEET 1 OF 5	

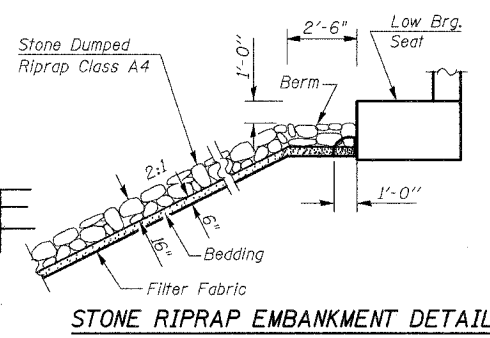
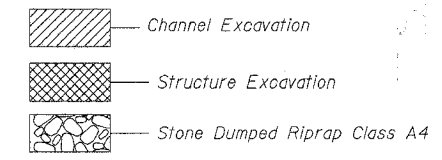
EXISTING STRUCTURE:
 S.N. 087-3285, Single Span Steel I-Beam Bridge.
 49'-6" Bk. to Bk. of Abutments, 14'-2" Face to Face of Rail
 Timber Deck with Steel Handrail on Concrete Abutments.

B.M. No. 5 - Chiseled "□" top W. end concrete wingwall at SE corner at north bridge. Elev. 607.58
 B.M. No. 6 - Chiseled "X" on top rail of NW Wingwall of south bridge. Elev. 610.43

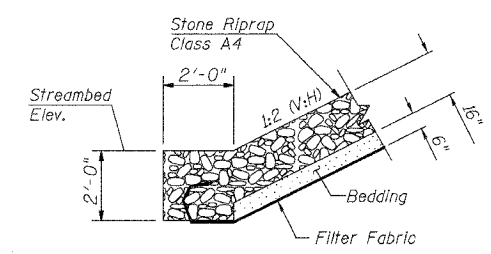


ELEVATION

NOTE:
 Location of watermain is approximate. Contractor shall dig test pits to locate prior to driving piles. See Special Provisions



STONE RIPRAP EMBANKMENT DETAIL



TOE OF STONE RIPRAP TREATMENT

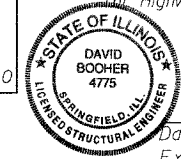
GENERAL NOTES

See Proposal for Boring Data.
 The Steel H-Piles shall be according to AASHTO M270 Grade 50.
 The Contractor shall drive one Test Pile at a permanent location at each Abutment. The Test Pile shall be driven to 110% of the Nominal Required Bearing specified in production locations at the substructures specified or approved by the Engineer before ordering the remainder of the piles.
 Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60 See special provisions.

BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.		230	230
Stone Dumped Riprap, Class A4	Ton		541	541
Filter Fabric	Sq. Yd.		579	579
Removal Of Existing Structures No. 1	Each		1	1
Structure Excavation	Cu. Yd.		41	41
Concrete Structures	Cu. Yd.		26.8	26.8
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	1,742		1,742
Reinforcement Bars	Pound		3,210	3,210
Steel Railing, Type S1	Foot		148	148
Furnishing Steel Piles HP10X42	Foot		204	204
Driving Piles	Foot		204	204
Test Pile Steel HP10X42	Each		2	2
Name Plates	Each	1		1
Pipe Underdrain for Structures 6"	Foot		122	122
Concrete Encasement	Cu. Yd.		2.8	2.8

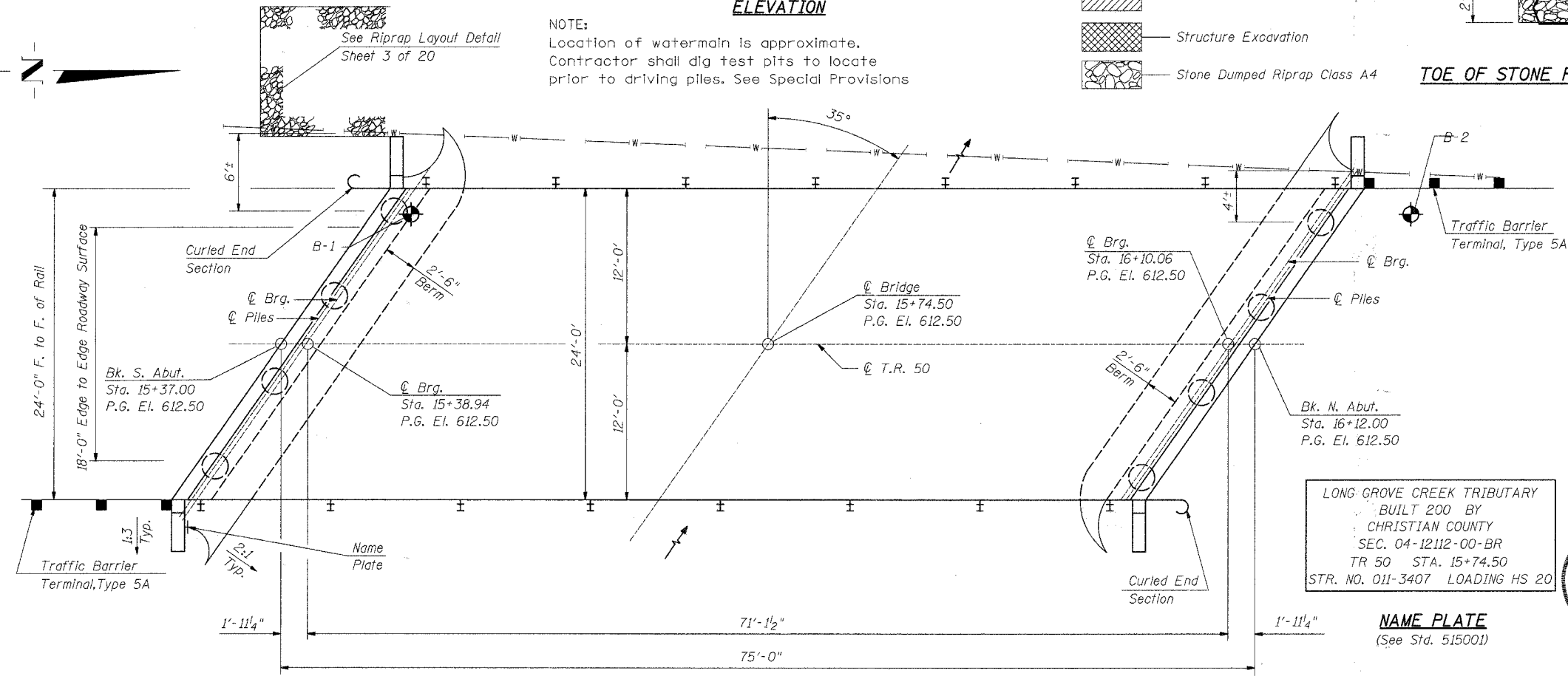
I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specifications for Highway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



David Booher, Illinois S.E. 081-004775
 Date 4-2-08
 Expires 11-30-2008

LONG GROVE CREEK TRIBUTARY
 BUILT 200 BY
 CHRISTIAN COUNTY
 SEC. 04-12112-00-BR
 TR 50 STA. 15+74.50
 STR. NO. 011-3407 LOADING HS 20

NAME PLATE
 (See Std. 515001)



PLAN

WATERWAY INFORMATION

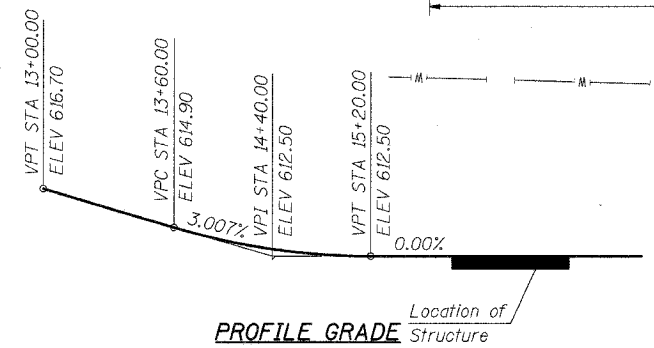
Drainage Area	1.81	Sq. Mi.
Required Opening (15yr.)	391	Sq. Ft.
Provided Opening	391	Sq. Ft.
Present Opening	332	Sq. Ft.
15yr. Discharge	450	cfs
100yr. Discharge	749	cfs
Created Head at Bridge (100yr.)	<1.0	Ft.
Created Head 1000' Upstream (100yr.)	<0.5	Ft.

DESIGN STRESSES

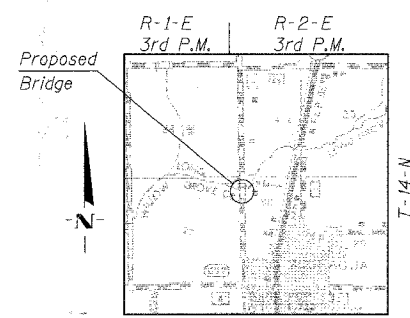
Precast Unit
 f'c = 5,000 psi
 f'cl = 4,000 psi
 f's = 270,000 psi
 f'si = 189,000 psi

Cast-in-Place Unit
 f'c = 3,500 psi
 f's = 60,000 psi
 n = 9

LOADING HS 20
 DESIGN SPECIFICATION:
 AASHTO 2002 Standard Specifications for Highway Bridges.
 FUTURE WEARING SURFACE: 50 psf



PROFILE GRADE
 Location of Structure



LOCATION MAP

GENERAL PLAN & ELEVATION
T.R. 50 OVER LONG GROVE CREEK TRIB.
SECTION 04-12112-00-BR
CHRISTIAN COUNTY
S.N. 011-3407
STA. 15+74.50

ie consultants
 DESIGNED: SCD CHECKED: DRB
 DRAWN: TRF DATE: FEB. 2008

FILE \$