

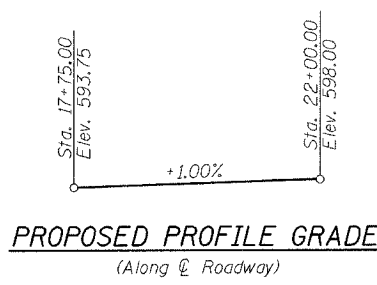
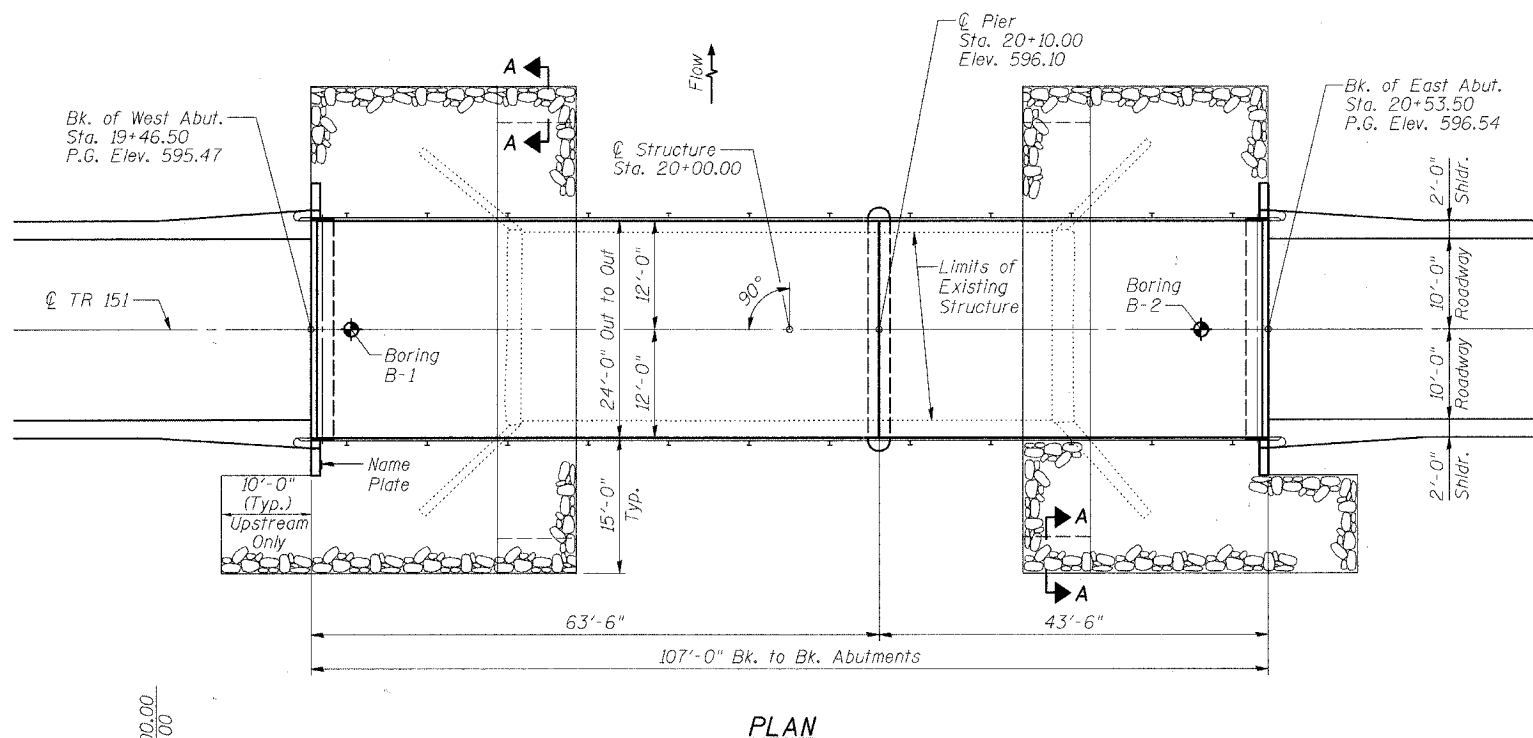
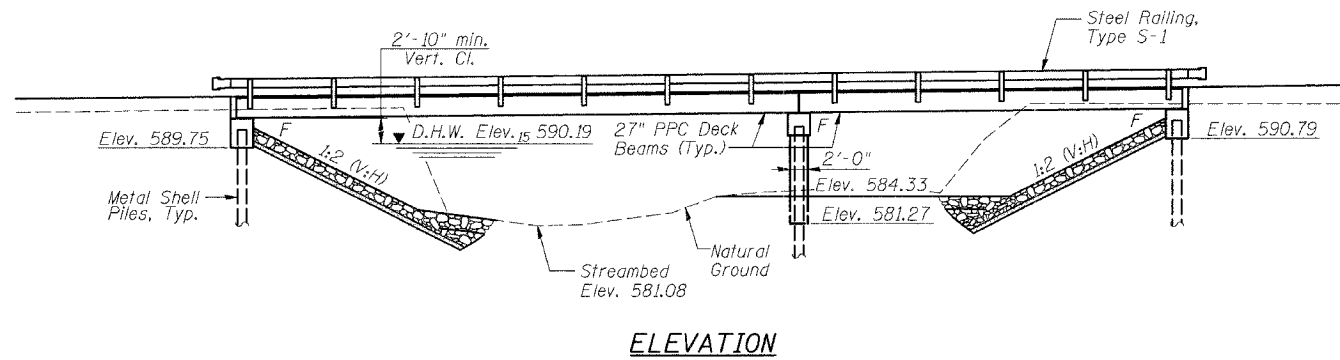
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
TR 151	*	CHRISTIAN	20	5
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT-				
* 93-08107-00-BR				

Bench Mark:

Existing Structure: Structure Number 011-3111. Single span reinforced concrete thru girder on closed, reinforced concrete abutments. 63'-9" back to back abutments. ±21'-0" out to out deck. Existing bridge to be removed and replaced with a two span, PPC deck beam bridge. Road to be closed during construction.

No Salvage.



WATERWAY INFORMATION

Drainage Area = 30.72 Sq. Mi.		Exist. Low Grade Elev. 592.73 @ Sta. 18+00.00		Prop. Low Grade Elev. 593.45 @ Sta. 17+15.12	
Flood Yr.	Q C.F.S.	Opening Exist.	Opening Prop.	Nat. H.W.E.	Head - Ft. Exist. Prop. Exist. Prop.
10	1860	403.9	488.3	590.00	0.25 0.15 590.25 590.15
Design	15	2045	417.5	505.4	590.19 0.29 0.17 590.48 590.36
Base	100	3265	500.9	612.8	591.32 0.62 0.34 591.94 591.66
Overtopping	-	-	-	-	- - - -
Max. Calc.	500	4265	560	694	592.12 0.97 0.49 593.09 592.61

NAME PLATE
See Std. 515001

BRUSHY BRANCH CREEK
BUILT 20... BY
MAY ROAD DISTRICT
CHRISTIAN COUNTY
SECTION 93-08107-00-BR
STA. 20+00.00
STR. NO. 011-3405 LOADING HS20

LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface

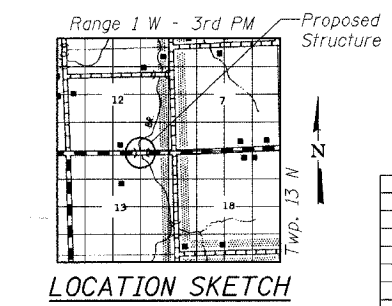
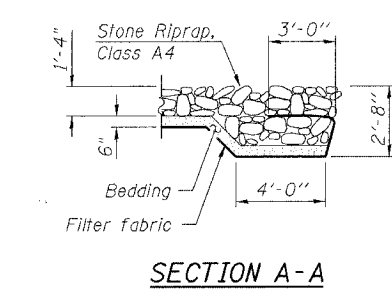
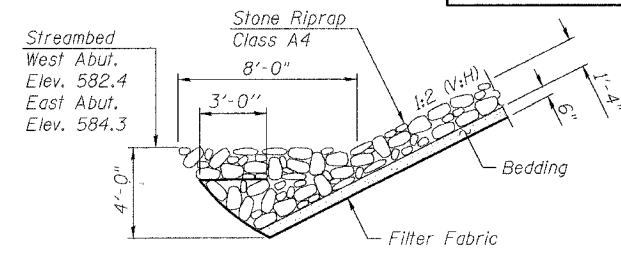
DESIGN SPECIFICATIONS
2002 AASHTO

DESIGN STRESSES

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

PRECAST PRESTRESSED UNITS
 $f'_c = 5,000$ psi
 $f'_{ci} = 4,000$ psi
 $f'_s = 270,000$ psi ($\frac{1}{2}$ " low lax strands)
 $f'_{si} = 202,000$ psi ($\frac{1}{2}$ " low lax strands)

SEISMIC DATA
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.06
Site Coefficient (S) = 1.5



GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.
Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
The Contractor shall drive one test pile in a permanent location at West Abutment and at Pier as directed by the Engineer before ordering the remainder of piles.
All joints shall be bonded.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq. Yd.		384	384
Filter Fabric	Sq. Yd.		384	384
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		40	40
Concrete Structures	Cu. Yd.		44.2	44.2
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	2534		2534
Reinforcement Bars, Epoxy Coated	Pound		4840	4840
Steel Railing, Type S-1	Foot	214		214
Furnishing Metal SHELL PILES 12"	Foot		392	392
Driving Piles	Foot		392	392
Test Pile Metal Shells	Each		2	2
Name Plates	Each	1		1
Underwater Structure Excavation Protection Location 1 (Pier)	Each		1	1



Expires: 11/30/06

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 A.A.S.H.T.O. Standard Specifications for Highway Bridges.

Michael J. Trello
Signed
8/15/06
Dated

REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN AND ELEVATION

TR 151 OVER BRUSHY BRANCH CREEK
SECTION 93-08107-00-BR
CHRISTIAN COUNTY
STATION 20+00.00
S.N. 011-3405

SCALE: VERT. DATE: 4/8/06
DRAWN BY: LANDREY
DESIGNED BY: MATHUR
CHECKED BY: TRELLO

COMPUTER FILE NO. SN0113405:01
PROJECT 05228
6/27/06-MML

GREENE & BRADFORD, INC.
CONSULTING ENGINEERS
OF ILLINOIS
PROFESSIONAL ENGINEERS
PROFESSIONAL SURVEYORS
PROFESSIONAL LAND SURVEYORS
PROFESSIONAL ARCHITECTS
PROFESSIONAL ELECTRICAL ENGINEERS
PROFESSIONAL MECHANICAL ENGINEERS
PROFESSIONAL CHEMICAL ENGINEERS
PROFESSIONAL CIVIL ENGINEERS
PROFESSIONAL INDUSTRIAL ENGINEERS
PROFESSIONAL METALLURGICAL ENGINEERS
PROFESSIONAL NUCLEAR ENGINEERS
PROFESSIONAL PETROLEUM ENGINEERS
PROFESSIONAL SAFETY ENGINEERS
PROFESSIONAL THERMAL ENGINEERS
PROFESSIONAL WIND ENGINEERS

FILE NAME = J:\05228\DRAWINGS\SN0113405\SN0113405.dgn
PLOT SCALE = 0.0833 / 1
PLOT DATE = 8/14/2006
CJOB NAME = 2002386.PM
OPERATOR = mctrelle