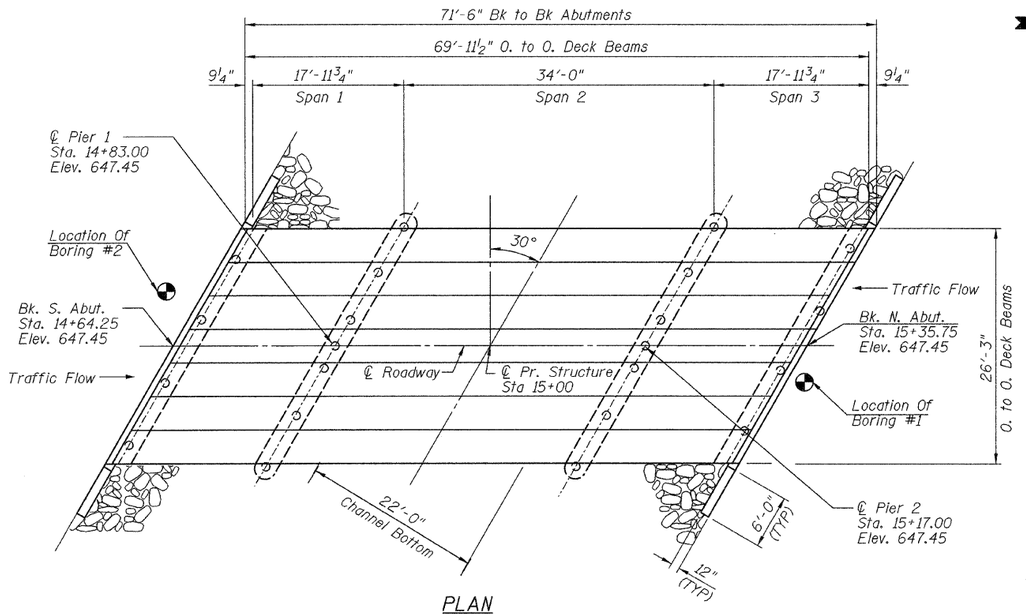
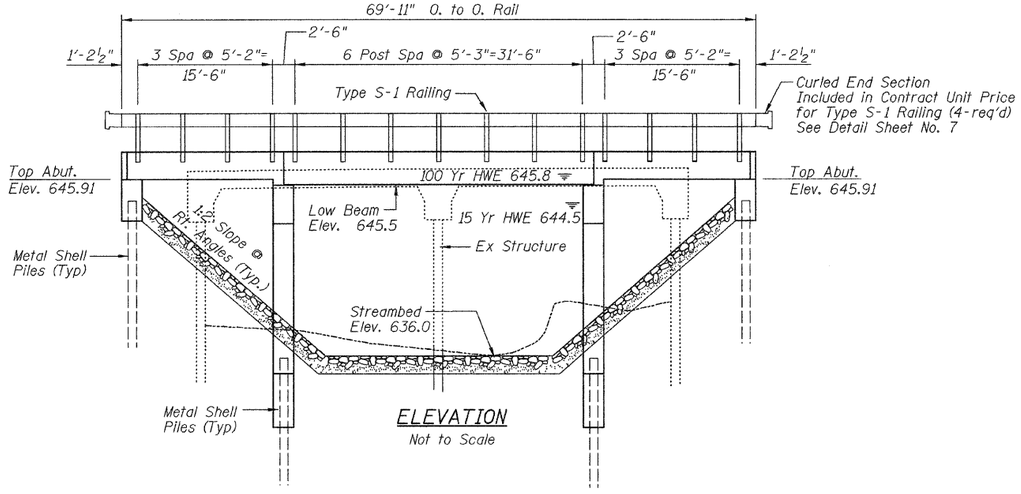


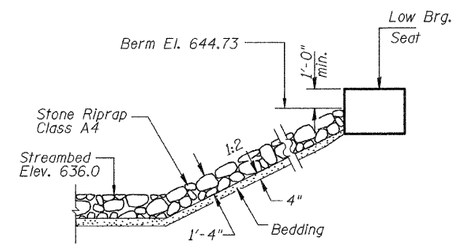
PLAN

Not to Scale



ELEVATION

Not to Scale



STONE RIPRAP DETAIL

Not to Scale

DESIGN STRESSES:

SUBSTRUCTURE

fy = 60,000 p.s.i. (Reinforcement)
f'c = 3,500 p.s.i.

SUPERSTRUCTURE

fy = 60,000 p.s.i. (Reinforcement)
f'c = 4,500 p.s.i.

DESIGN LOADING

HL 93

DESIGN SPECIFICATIONS

2007 LRFD AASHTO 4th Edition

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.

GENERAL NOTES

1. The contractor shall drive (2) test piles of the nominal required bearing specified in production locations at substructures specified or approved by the engineer before ordering the remainder of the piles.
2. Boring data is shown in the special provisions only as a guide to the bidders in estimating soil conditions that may be encounted.
3. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provision.
4. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the engineer.
5. Reinforcement bars designated (E) shall be epoxy coated.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Ton		409	409
Filter Fabric	Sy. Yd.		610	610
Removal of Existing Structures	Each		1	1
Structure Excavation	Cu. Yd.		135	135
Concrete Structures	Cu. Yd.		86	86
Concrete Encasement	Cu. Yd.		7.6	7.6
Precast Concrete Bridge Slab	Sq. Ft.	1831		1831
Reinforcement Bars, Epoxy Coated	Pound		6720	6720
Steel Railing, Type S-1	Foot	140		140
Furnishing Metal Shell Piles, 12"x0.250"	Foot		442	442
Driving Piles	Foot		442	442
Test Pile Metal Shells	Each		2	2
Name Plate	Each		1	1
Underwater Structure Excavation Protection Special, Location 1	Each		1	1
Underwater Structure Excavation Protection Special, Location 2	Each		1	1

TWO MILE BRANCH
BUILT 20__ BY
MOULTRIE COUNTY
JONATHAN CREEK TOWNSHIP
SEC. 03-03126-00-BR
STATION 15+00 PRJECT NO ___
STR. NO. 070-4334 LOADING HL-93

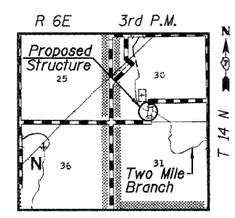
LETTERING FOR NAME PLATE

LOCATE ON THE SE WINGWALL

WATERWAY INFORMATION

Drainage Area = 12.5 Sq. Mi. - Pr. Low Grade Elev. = 647.35 @ Sta. 15+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	15	1069	326	367	644.5	0.2	0.2	644.7	644.6
Base	100	1835	359	422	645.8	0.6	0.4	646.4	646.2
Overtopping									
Max. Calc.	500	2439	359	422	646.6	1.2	0.7	647.8	647.3



LOCATION SKETCH

MARTIN J. SILVESTER
081-004873
LICENSED STRUCTURAL ENGINEER OF ILLINOIS

02-10-2011

MARTIN SILVESTER, S.E.
LICENSE EXP. DATE 11-30-12

THE UPCHURCH GROUP, INC.

GENERAL PLAN & ELEVATION
TR 99A OVER TWO MILE BRANCH
SECTION 03-01326-00-BR
STATION 15+00
MOULTRIE COUNTY
STRUCTURE NO. 070-4334

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR99A	03-03126-00-BR	MOULTRIE	14	4
		CONTRACT NO. 95636		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

TUG PROJ. NO.: 6107065 PLOT DATE: 2/10/2011 10:28:06 AM FILE NAME: ...\0704334-004-GenPlan.dgn