* 03-00122-00-BR

TOTAL BILL OF MATERIAL

ltem		Super	Sub	Total 2114
Channel Excavation	Cu. Yd.			
Stone Dumped Riprap, Class A5	Ton			1293
Filter Fabric	Sq. Yd.			1390
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.			254
Concrete Structures	Cu, Yd.		189.1	189.1
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	4365		4365
Reinforcement Bars	Pound		14240	142 40
Steel Railing Type S1	Foot	316		316
Furnishing Steel Piles HP 10x42	Foot		827	827
Driving Piles	Foot		827	827
Test Pile, Steel HP 10 x 42	Each		2	2
Name Plates	Each	1		1
Waterproofing Membrane System	Sq. Yd.	492		492
Portland Cement Mortar Fairing Course	Foot	936		936
Hot Mix Asphalt Surface Course, Mix "C" N50	Ton			62
Underwater Structure Excavation Protection — Location 1	Each			1
Underwater Structure Excavation Protection - Location 2	Each			1

WATERWAY INFORMATION

Drainage Area = 62.6 Sq. Miles Low Grade Elev. =						99.33 @ Sta. 3+00			
Class	Freq.	Q	Opening	Sq. Ft.	Nat.	Head-Ft.		Headwater El.	
Flood	Yr.	C.F.S.	Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
Design	25	5668	743	1228	96.8	0.8	0.2	97.6	97.0
Base	100	7486	743	1313	97.6	1.5	0.4	99.1	98.0
Exist. Overtop.	65								
Prop. Overtop.	Greater than 500 Years								
Max. Calc.	500	9618	743	1334	98.3	2.5	1.2	100.8	99.5

DESIGN STRESSES

FIELD UNITS fc = 1400 psi

fs = 24000 psi

PRECAST PRESTRESSED UNITS

f'c = 5000 psi f'ci = 4000 psi

 $^{1}2$ "ø Strands < f's = 270000 psi f'si = 201960 psi

GENERAL NOTES

See Proposal for Boring Data.

See Proposal for Boring Data.
Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60 (IL Modified). See Special Provisions. This note supersede notes on Abutment and Pier Sheets.
The layout of the riprap slopewall may be varied to suit conditions in the field as determined by the engineer.
The contractor shall drive one test pile in a permanent location at the East Abutment and at Pier 1 as directed by the Engineer in the field. The contractor shall drive test piles 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 piles.

DESIGN SPECIFICATIONS

2002 A.A.S.H.T.O. Specifications and 2003 & 2004 Interim Specifications.

LOADING HS 20-44
Allow 50#/sq. ft. for Future Wearing Surface.



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".

Marka Benduna 2/22/07 Expiration Date 11/30/2008

GENERAL PLAN & ELEVATION F.A.S. 1746 (COFFEEN ROAD) OVER EAST FORK SHOAL CREEK SECTION 03-00122-00-BR MONTGOMERY COUNTY

Construction Permits: IDNR/Office of Water Resources has issued Permit DS2005004 for the construction of this project.

> EAST FORK SHOAL CREEK
> BUILT 200 BY
> MONTGOMERY COUNTY
> SECTION 03-00122-00-BR PROJECT BRS-1746 (107)

STA. 6+06.00 STR. NO. 068-3352 LOADING HS20 NAME PLATE (Standard 515001)