ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 256	06-11116-00-BR	MACON	14	10
FED. ROAD DIST. NO.	ILLINOIS	PROJECT: BROS-115(63)		

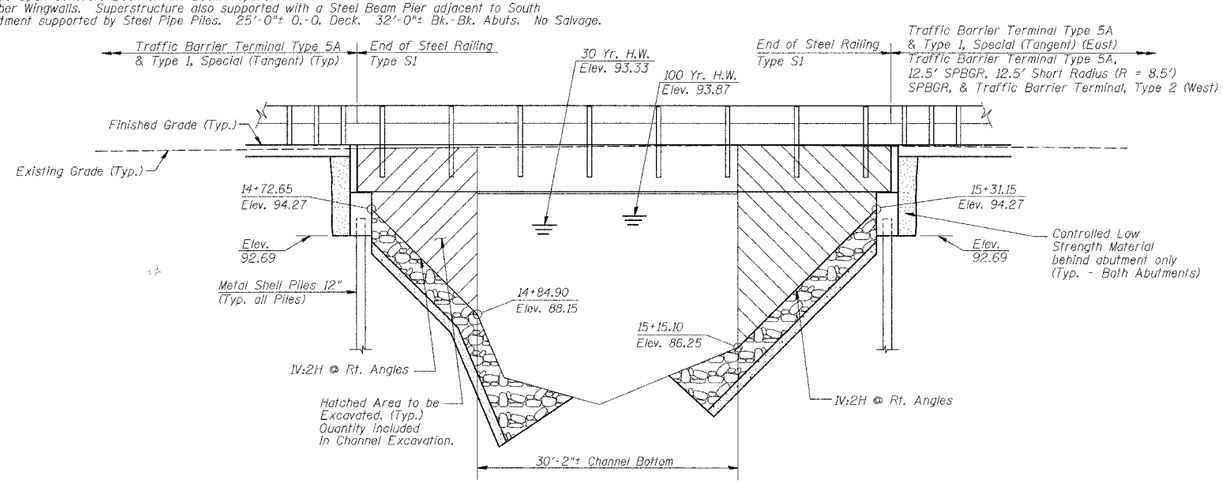
CONTRACT NO. 95530

BENCHMARK:

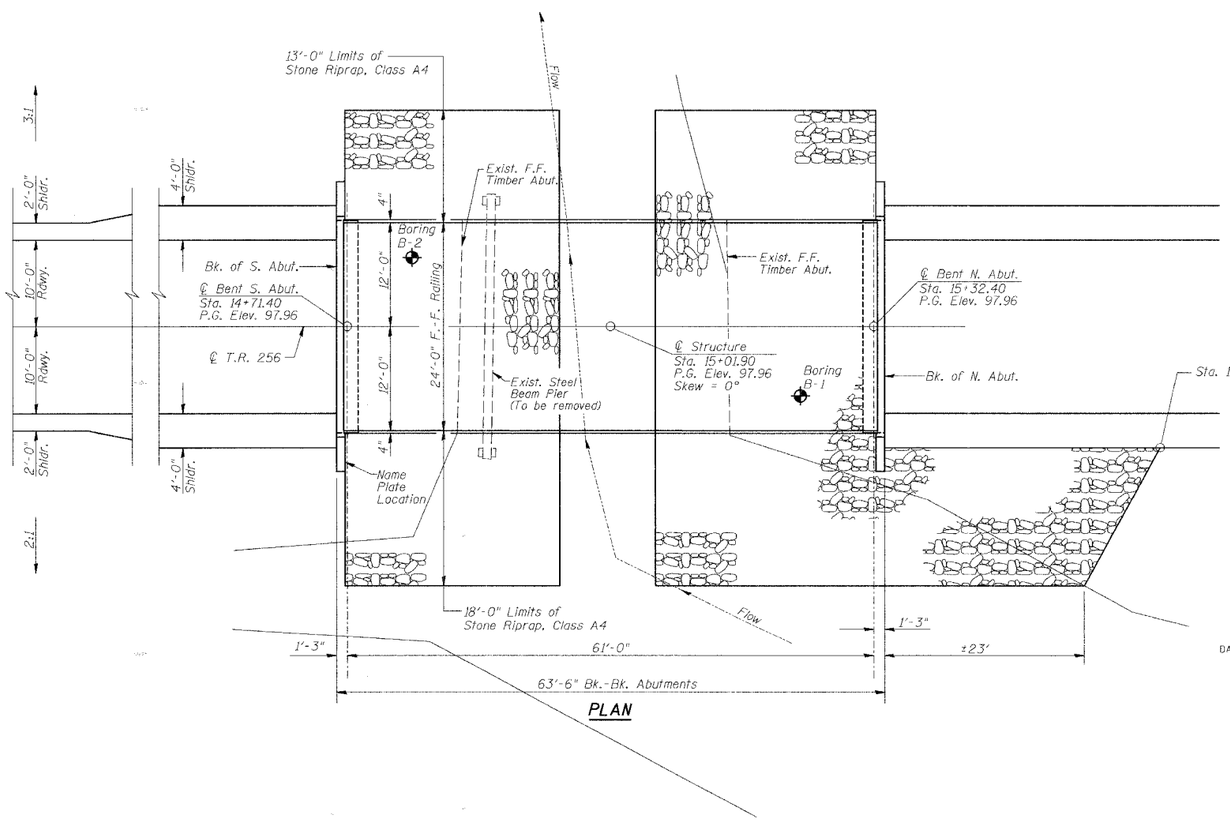
"M" In Mueller on Fire Hydrant Sta. 17+86.78, 19.2' Lt.
Elevation = 100.00

EXISTING STRUCTURE (SN 058-3168):

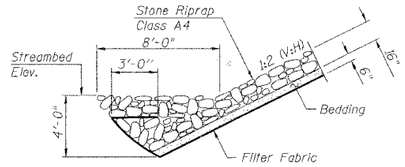
Single Span Concrete Deck on WF Beam Superstructure on Closed Timber Abutments with Timber Wingwalls. Superstructure also supported with a Steel Beam Pier adjacent to South Abutment supported by Steel Pipe Piles. 25'-0"± O.-O. Deck. 32'-0"± Bk.-Bk. Abuts. No Salvage.



ELEVATION LOOKING DOWNSTREAM



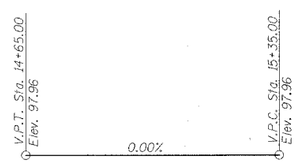
PLAN



STONE RIPRAP ANCHOR DETAIL

BIG CREEK
BUILT 200_, BY MACON COUNTY
PROJECT NO. BROS-115(63)
SECTION 06-11116-00-BR
T.R. 256 STA. 15+01.90
STR. NO. 058-3389 LOADING HS-20
FORT DANIEL BRIDGE

NAME PLATE
(See Std. 515001)



℄ PROFILE T.R. 256

GENERAL NOTES

Layout of Riprap Slopes may be varied in the field to suit ground conditions as directed by the Engineer.

See Proposal for Boring Data.

Reinforcement Bars shall conform to the requirements of ASTM A 706 (IL MOD), Grade 60.

The Contractor shall drive one Metal Shell Test Pile in a permanent location at the North Abutment as directed by the Engineer before ordering the remainder of piles.

Excavation required for abutment construction shall be included in the cost of Concrete Structures. No additional compensation will be provided for Structure Excavation.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures	Each			1
P.P.C Deck Beams (27" Depth)	Sq. Ft.	1484		1484
Concrete Structures	Cu. Yd.		18.6	18.6
Reinforcement Bars, Epoxy Coated	Pound		2320	2320
Furnishing Metal Shell Piles 12"	Foot		206	206
Driving Piles	Foot		206	206
Test Pile Metal Shells	Each		1	1
Channel Excavation	Cu. Yd.		189	189
Stone Riprap, Class A4	Sq. Yd.		372	372
Filter Fabric	Sq. Yd.		372	372
Name Plates	Each		1	1
Steel Railing Type S1	Foot	124		124
Portland Cement Mortar Fairing Course	Foot	433		433
Waterproofing Membrane System	Sq. Yd.	165		165
Hot Mix Asphalt Surface Course, Mixture C, N50	Ton	19		19
Controlled Low-Strength Material	Cu. Yd.		16.2	16.2

DESIGN SPECIFICATIONS

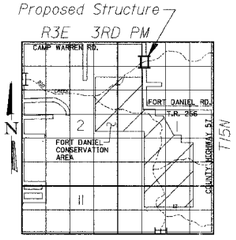
2002 AASHTO

LOADING HS20-44

Allowed 50#/sq. ft. for future wearing surface.

DESIGN STRESSES

FIELD UNITS	PPC UNITS
f'c = 3,500 p.s.i.	f'ci = 4,000 p.s.i.
fy = 60,000 p.s.i.	f'c = 5,000 p.s.i.
n = 9	f's = 270,000 p.s.i.
	f'si = 201,960 p.s.i.



LOCATION SKETCH

WATERWAY INFORMATION

Drainage Area = 6.8 Sq. Mi. Existing Low Grade Elev. 97.38 @ Sta. 12+50.00
Proposed Low Grade Elev. 97.41 @ Sta. 12+85.00

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	30	1499	271	345	93.33	0.09	0.01	93.42	93.34
Base	100	2021	290	376	93.87	0.18	0.01	94.05	93.88
Overtopping									
Max. Calc.	500	2707	314	410	94.47	0.38	0.02	94.85	94.49

Low Beam Elev. (Prop.) = 95.27

DATE: Nov. 5, 2007
Keith W. Benting
KEITH W. BENTING
ILL. STRUCTURAL NO. 4777

KEITH W. BENTING STATE OF ILLINOIS 4777 REGISTERED STRUCTURAL ENGINEER Exp 11/30/08

"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'."

GENERAL PLAN AND ELEVATION

Date	Designed MJP	T.R. 256 OVER BIG CREEK SECTION 06-11116-00-BR MACON COUNTY STA. 15+01.90 PROP. STR. NO. 058-3389	Sheet No. 1 of 5
Revisions	Drawn BKN		
	Checked KWB		
	Approved KWB		
Prepared by: URS 345 East Ash Avenue Decatur, Il. 62526			URS Job No. 36431783