

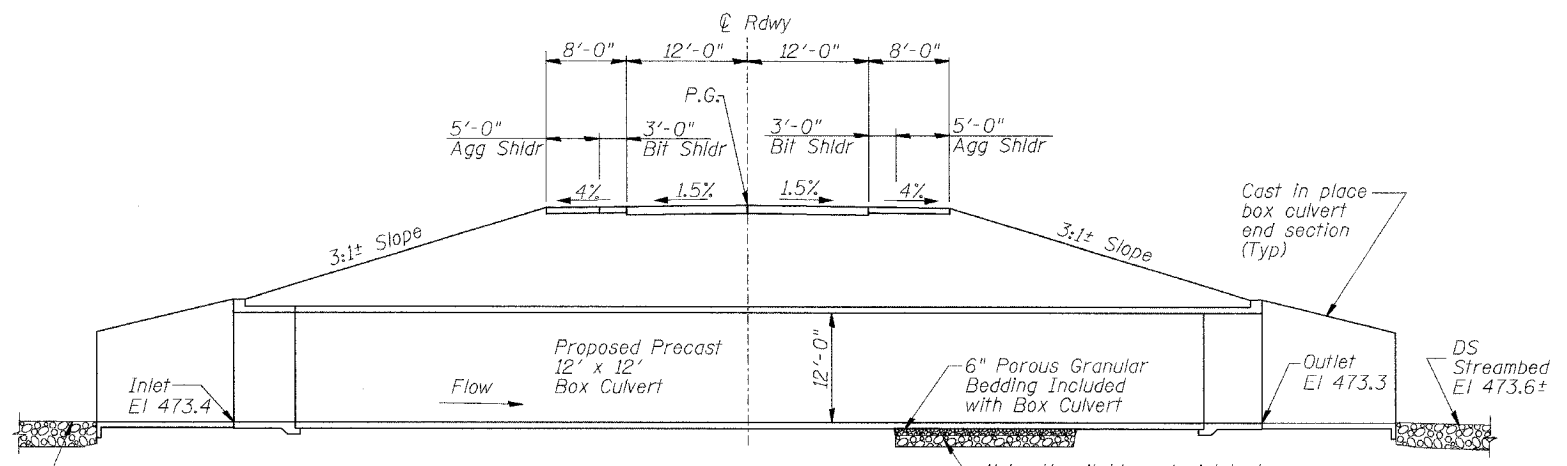
Bench Mark: B.M. #16 Sta 1048+90.00 Rt 62.2'  
Chiseled square in east headwall of RC Box  
125' south of Q Twp Rd 975/1650 El 487.81

Existing Structure: None  
Salvage: None

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
328	5R, Y, RS-1	CLAY	376	87
STA		TO STA		
ILLINOIS		US 45		

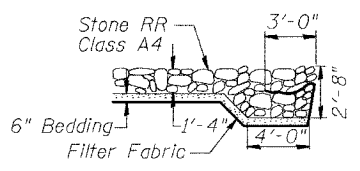
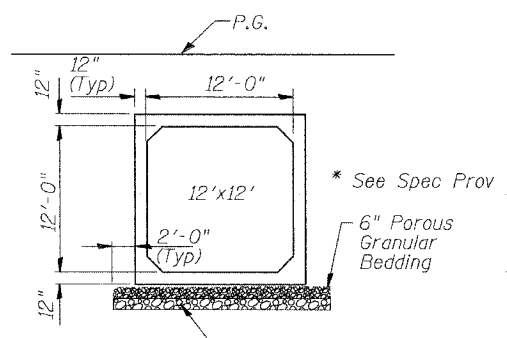
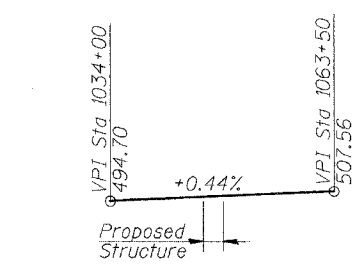
SHEET 1 OF 4  
CONTRACT No 94367



Note: Portions of an existing culvert east headwall on the existing alignment may need to be removed to construct the proposed culvert end section (west).

Note: Unsuitable material to be replaced with Rockfill Replacement from El 470.0± to bottom of Porous Granular Bedding or as directed by the Engineer

**PROFILE GRADE**



**GENERAL NOTES**

Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42, or M-53 Grade 60.  
All exposed edges shall have 1" chamfer.  
For back filling and embankment see Standard Specifications.  
This box culvert has a fill height of 11 feet. The precast concrete box culvert shall conform to the requirements of AASHTO M 259.  
Class SI Concrete shall be used for cast in place concrete. Precast end sections are not allowed.

**TOTAL BILL OF MATERIAL**

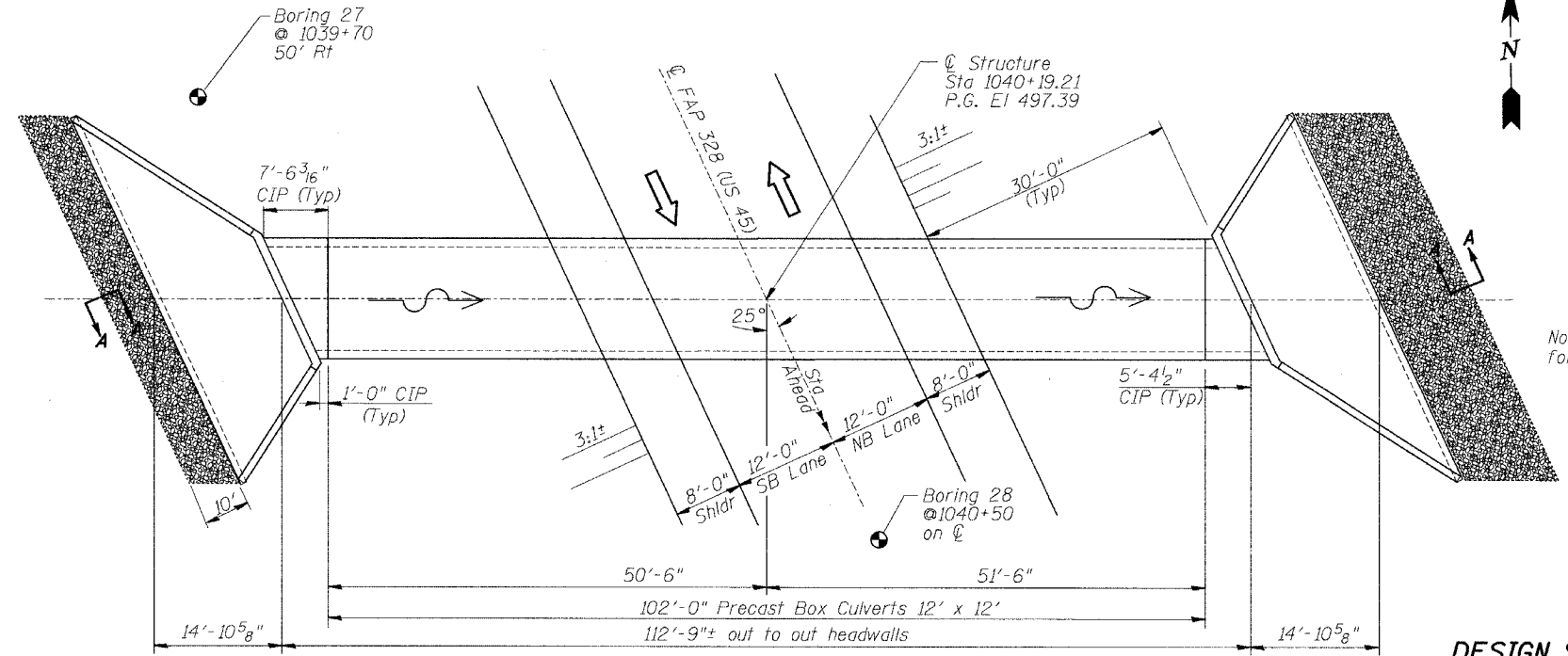
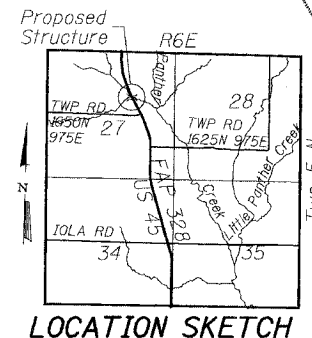
ITEM	UNIT	TOTAL
Removal and Disposal of Unsuitable Material	Cu Yd	263
** Stone Riprap, Class A4	Sq Yd	652
** Filter Fabric For Use With Riprap	Sq Yd	652
Box Culvert End Sections	Each	2
Precast Concrete Box Culvert 12' x 12'	Foot	102
* Rockfill Replacement	Ton	278

\* See Special Provisions  
\*\* See Plan and Profile Sheets



*John S. Peradotti*  
John S. Peradotti  
Licensed Structural Engineer  
in Illinois No. 81-005671  
License expires 11/30/06

**GENERAL PLAN & ELEVATION**  
FAP 328 (US 45) OVER  
TRIB TO LITTLE WABASH  
SECTION 5R, Y, RS-1  
CLAY COUNTY STA 1040+19.21



Note: See plan and profile sheets for additional riprap limits @ outlet.

**DESIGN SPECIFICATIONS**

1996 AASHTO with 1997, 1998 and 2001 Interims

**LOADING HS 20**

Allow 50 lb/sf for Future Wearing Surface.

**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
Acceleration Coefficient (A) = 0.04  
Site Coefficient (S) = 1.0

**DESIGN STRESSES**

**FIELD UNITS**  
f<sub>c</sub> = 3,500 psi  
f<sub>y</sub> = 60,000 psi (Reinf)

**PRECAST UNITS**  
f<sub>c</sub> = 5,000 psi  
f<sub>y</sub> = 65,000 psi (Welded Wire Fabric)

**WATERWAY INFORMATION**

Drainage Area = 1.078 Sq mi Low Grade El 495.47 @ Sta 1035+04

Flood	Freq Yr	Q cfs	Opening sq ft		Nat HWE	Head - ft		Headwater El	
			Exist	Prop		Exist	Prop	Exist	Prop
Design	50	702	144	144	N/A	8.13	8.15	481.81	481.55
Base	100	811	144	144	N/A	8.95	8.96	482.63	482.36
Overtopping	--	--	--	--	N/A	--	--	--	--
Max Calc	500	1074	144	144	N/A	--	10.82	484.49	484.21

**HR** HURST-ROSCHKE ENGINEERS, INC.  
CONSULTING ENGINEERS & ARCHITECTS  
1400 E. TREMONT ST.  
HILLSBORO, ILLINOIS 62049

DESIGNED	JLG
CHECKED	RPB
DRAWN	BAD
CHECKED	RPB