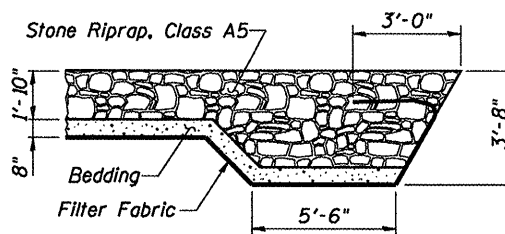
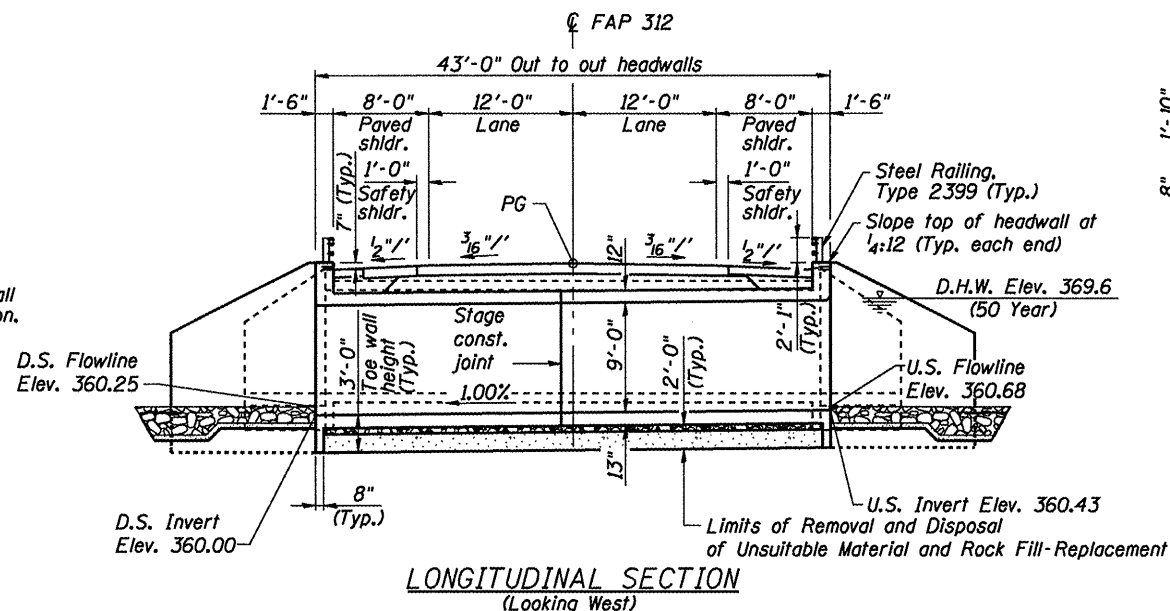




BENCHMARK: BM 1010 -  
Top of exposed rebar on  
the northwest corner of  
headwall of SN 039-2001,  
Elev. 371.48

EXISTING STRUCTURE:  
SN 039-2001 was originally built  
in 1933 as Route 150, Section 123.  
It is a double barrel 12'-5" by 8'-6" R  
reinforced concrete box culvert with  
L-Type wing walls and side mounted  
steel railing. The barrel length is  
41'-4" o. to o. headwalls. The length  
along centerline roadway is 26'-6".  
There is a 10 degree skew. Traffic shall  
be maintained utilizing stage construction.

No salvage.



SECTION A-A

STATION 476+15  
BUILT 20\_\_ BY  
STATE OF ILLINOIS  
F.A. RT. 312 SEC. 123B-3  
LOADING HS20-44  
STR. NO. 039-2028

NAME PLATE  
(See Hwy. Std. 515001)

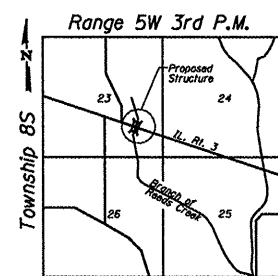
- GENERAL NOTES
1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.
  2. Reinforcement bars designated (E) shall be epoxy coated.
  3. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
  4. For backfilling and embankment, see Standard Specifications. Backfill culvert excavation with Porous Granular Embankment, except the outer 3' at each end of the culvert shall be backfilled with impervious material. See sheet 2 of 10 for limits of PGE.
  5. Precast alternate is not allowed.
  6. The limits and quantities of removal and replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.
  7. The Rock Fill shall be capped with 6 in. of CA 7 and satisfy the Standard Specifications unless otherwise indicated in the Special Provisions. The cost of the capping material shall be included in the pay item for Rock Fill - Replacement. Rock fill shall be composed of Stone Riprap, Class A1.
  8. Modify existing channel to match culvert at each end as directed by the Engineer, cost included in the pay item for Stone Riprap, Class A5.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Porous Granular Embankment	Cu. Yd.	411
Stone Riprap, Class A5	Sq. Yd.	137
Filter Fabric	Sq. Yd.	137
Removal of Existing Structures No. 1	Each	1
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	103
Reinforcement Bars, Epoxy Coated	Pound	28,180
Bar Splicers	Each	154
Steel Railing, Type 2399	Foot	56
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	173.7
Temporary Soil Retention System, (Location 1)	Sq. Ft.	415
Temporary Support System, Location 1	Each	1
Rock Fill - Replacement	Ton	212

See Roadway Plans for quantities of Temporary Concrete Barrier, Earth Excavation, and Pavement Removal.

APPROVED  
For Structural Adequacy Only  
*J. Carl Pigg*  
Engineer of Bridges & Structures



LOCATION SKETCH



EXPIRES 11-30-2012

*R. D. P.*  
SIGNATURE

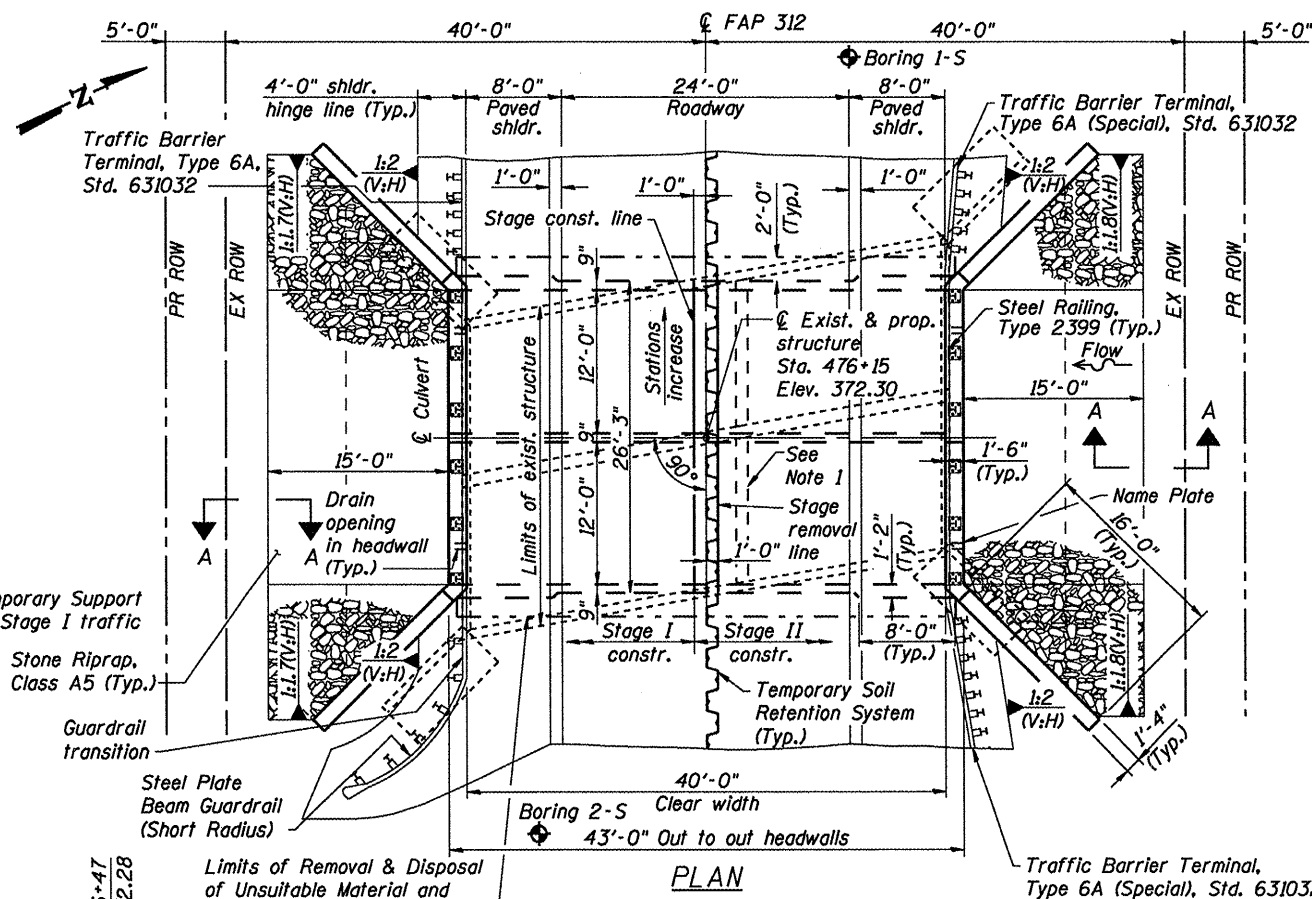
08-15-2011  
DATE

IL 3 OVER BRANCH OF REEDS CREEK  
FAP ROUTE 312 - SECTION 123B-3  
JACKSON COUNTY  
STATION 476+15

GENERAL PLAN  
STRUCTURE NO. 039-2028

SHEET NO. 1 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-3	JACKSON	58	37
CONTRACT NO. 78197				
[ILLINOIS] FED. AID PROJECT				



WATERWAY INFORMATION

Drainage Area = 1.12 Sq. Mi.		Exist. Low Grade Elev. = 371.69 Ft. @ Sta. 479+00	
		Prop. Low Grade Elev. = 371.69 Ft. @ Sta. 479+00	
Flood	Freq. Yr.	Opening-Sq. Ft.	Nat. Head-Ft.
	0	Exist. Prop.	Exist. Prop.
Design	10	772 149 192	368.0 0.2 0.1 368.2 368.1
Base	50	1310 187 216	369.6 0.7 0.3 370.3 369.9
Overtopping	100	1570 199 216	370.1 1.2 1.0 371.3 371.1
Overtopping	140	1720 202 -	370.2 1.5 - 371.7 -
Overtopping	150	1745 - 216	370.2 - 1.5 - 371.7 -

10 year velocity through existing culvert = 5.6 ft/s  
10 year velocity through proposed culvert = 4.7 ft/s

DESIGN SPECIFICATIONS  
2002 AASHTO

LOADING HS20-44  
Allow 50 psf for future wearing surface.

DESIGN STRESSES  
FIELD UNITS

f'c = 3,500 psi  
fy = 60,000 psi (Reinf.)

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

USER NAME = HAS	DESIGNED - RDP 09/11	REVISED -
ESCA PROJECT NO. 988.88	CHECKED - JTS 09/11	REVISED -
PLOT SCALE = 1/2" = 1' / IN.	DRAWN - DWH 11/11	REVISED -
PLOT DATE = 11/9/2011	CHECKED - RDP 11/11	REVISED -

