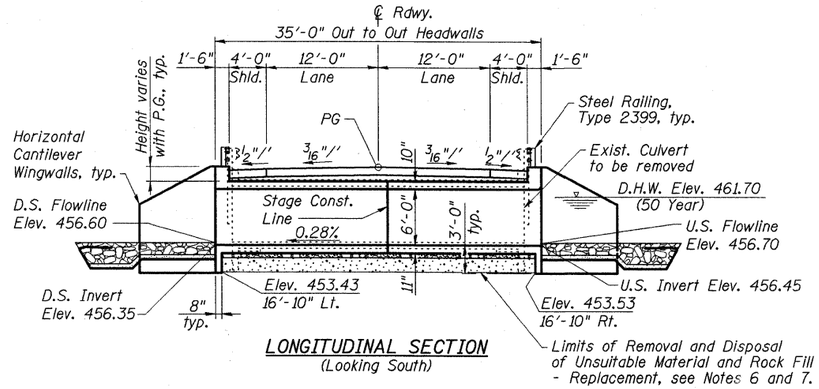
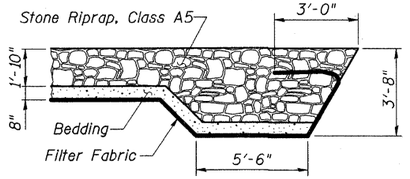
BENCHMARK: BM 200-Chiseled square on top of south end of west headwall of existing SN 076-2005, Elev. 464.18

EXISTING STRUCTURE:
SN 076-2005 was originally built in 1923 as Route 34, Section 3A. It is a double barrel 10'S by 6'R reinforced concrete box culvert with L-Type wing walls and side mounted steel railing. In 2008 a new concrete slab was poured on top of the existing culvert. The barrel length is 31'-4" o. to o. headwalls. The length along centerline roadway is 22'-6". There is no skew. Traffic shall be maintained utilizing stage construction.

No salvage.



LONGITUDINAL SECTION
(Looking South)



SECTION A-A

STATION 635+63.50
BUILT 20__ BY
STATE OF ILLINOIS
F.A. RT. 778 SEC. 3B-2
LOADING HS20-44
STR. NO. 076-2007

NAME PLATE
(See Hwy. Std. 515001)

STRUCTURE INDEX OF SHEETS

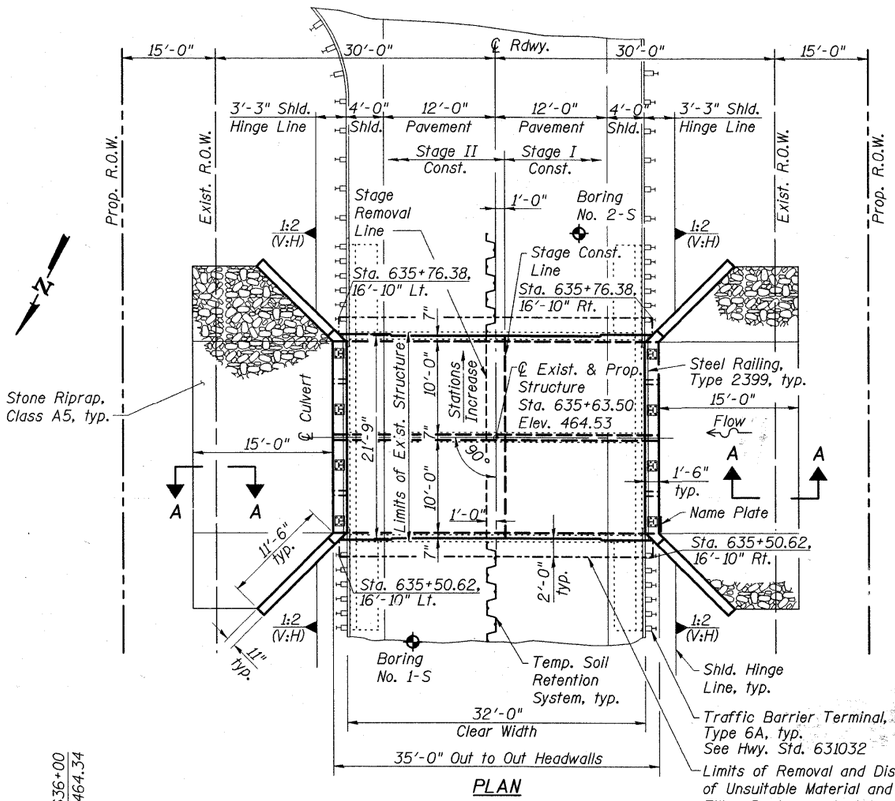
GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A 615 Gr 60. See Special Provisions.
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 7 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.
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.

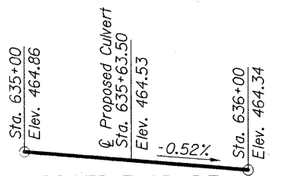
TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Porous Granular Embankment	Cu. Yd.	190
Stone Riprap, Class A5	Sq. Yd.	114
Filter Fabric	Sq. Yd.	114
Removal of Existing Structures No. 2	Each	1
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	74
Reinforcement Bars, Epoxy Coated	Pound	16,340
Bar Splicers	Each	110
Steel Railing, Type 2399	Foot	44
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	84.7
Temporary Soil Retention System, (Location 2)	Sq. Ft.	167
Rock Fill - Replacement	Ton	151

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



PLAN



PROFILE GRADE
(Along ℄ Roadway)

DESIGN SCOUR ELEVATION TABLE

	Downstream	Upstream
Design Scour Elevation (Ft.)	453.35	453.45

WATERWAY INFORMATION

Drainage Area = 0.73 Sq. Mi.
Exist. Low Grade Elev. = 463.36 Ft. @ Sta. 637+70
Prop. Low Grade Elev. = 463.36 Ft. @ Sta. 637+70

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.
	10	538	83.6	88.4	461.1	1.1	0.4	462.2	461.5
Design	50	822	95.6	100.4	461.7	1.5	0.6	463.2	462.3
Base	100	937	99.6	104.4	461.9	1.6	1.0	463.5	462.9
Exist. Overtopping	100	937	99.6	-	461.9	1.6	-	463.5	
Prop. Overtopping	300	1115	-	106.4	462.0	-	1.4	-	463.4

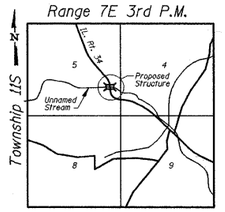
10 year velocity = 8.0 fps (Exist.); 6.1 fps (Prop.)

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.)



LOCATION SKETCH

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
MICHAEL T. DOOLEY
No. 5661
LICENSED STRUCTURAL ENGINEER
EXPIRES 11-30-2012
SIGNATURE
12-30-2010
DATE

GENERAL PLAN
IL 34 OVER UNNAMED STREAM
FAP ROUTE 778 SECTION 3B-2
POPE COUNTY
STATION 635+63.50
STRUCTURE NO. 076-2007

FILE NAME = 0762007-98854-01-GenPln.dgn	USER NAME = HAS	DESIGNED - MTD 06/10	REVISED -	
		CHECKED - MJW 09/10	REVISED -	
	PLOT SCALE = 01 '1' / IN.	DRAWN - DWH 07/10	REVISED -	
	PLOT DATE = 12/27/2010 10:09:11 PM	CHECKED - MTD 12/10	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3B-2	POPE	50	21
		CONTRACT NO. 98854		
	ILLINOIS	FED. AID PROJECT AID		