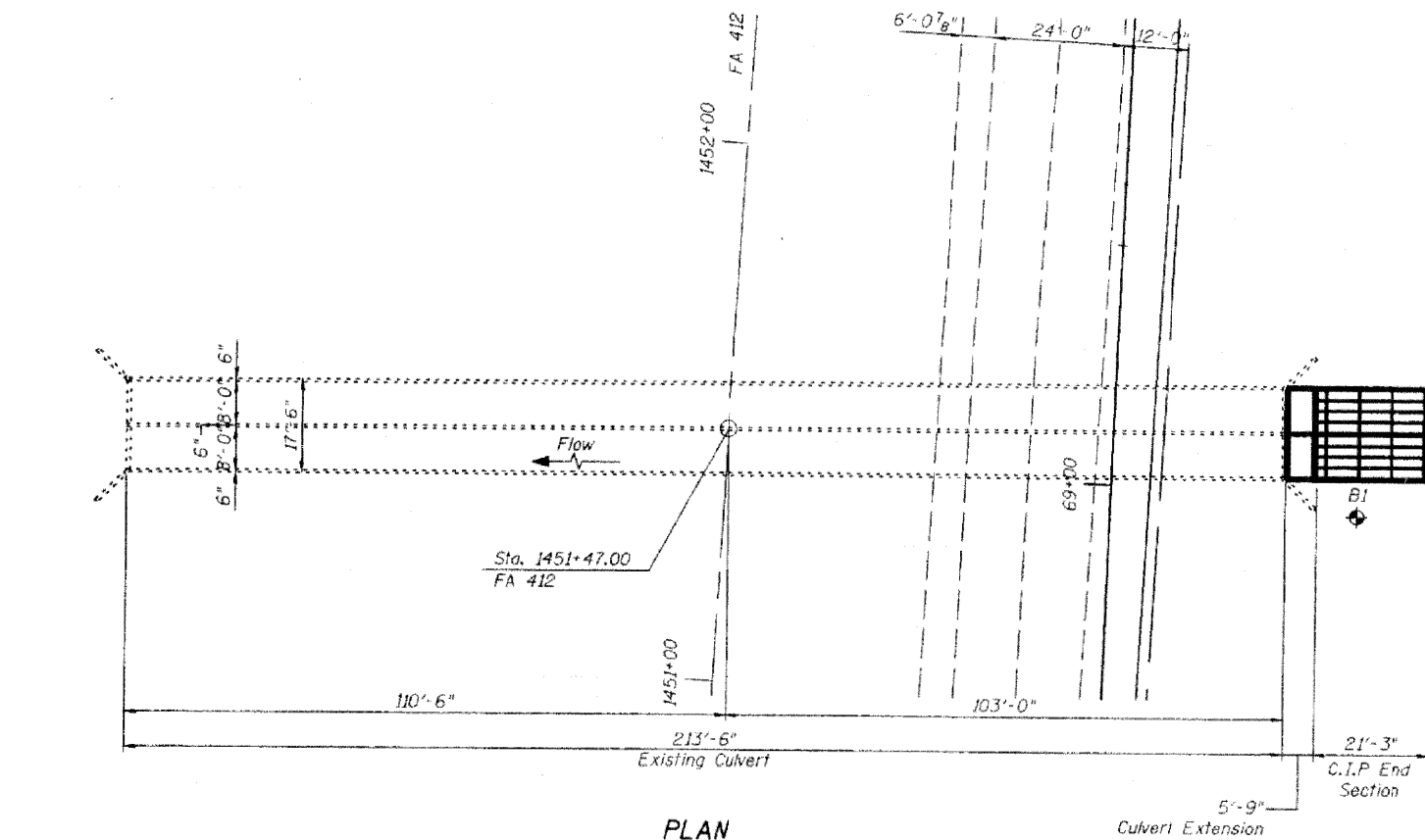
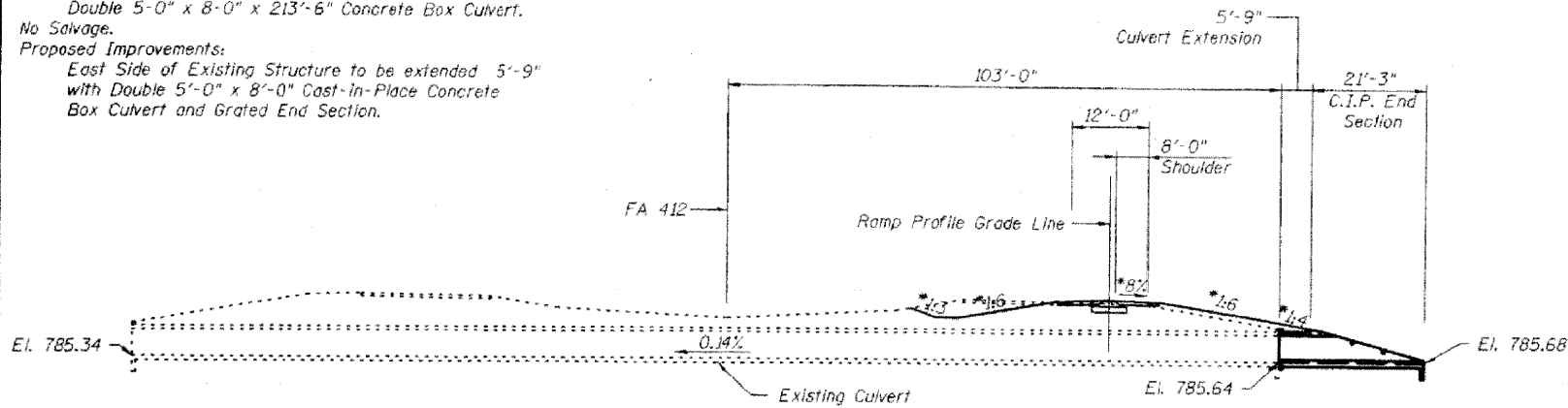


Benchmark: D2129 Sign
Sta. 62+73.66, 22.1141' Rt. Elev. 794.5490

Existing Structure: No. 071-1091
IL 39 Section (14-1) M-1. Constructed 1978
Double 5'-0" x 8'-0" x 213'-6" Concrete Box Culvert.
No Salvage.

Proposed Improvements:
East Side of Existing Structure to be extended 5'-9"
with Double 5'-0" x 8'-0" Cast-in-Place Concrete
Box Culvert and Grated End Section.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DLZ ILLINOIS, INC.
85 W. Algonquin Rd. Ste. 220
Arlington Heights, IL 60005
Signed: *[Signature]*
Date: 2-23-2009
Expiration Date: 11/30/10



DESIGN SPECIFICATIONS

AASHTO 2002 Specifications.

LOADING HS20-44

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

DESIGN STRESSES

$f_c = 3,500$ PSI
 $f_y = 60,000$ PSI (Reinforcement)

GENERAL NOTES

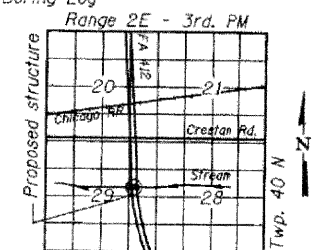
- Reinforcement bars shall conform to the requirements of ASTM 706 Gr. 60. See Special Provisions.
- Cast-in-Place barrel shall be poured monolithically with Cast in Place (C.I.P.) End Section.
- Exposed edges shall have a $\frac{3}{4}$ " chamfer.
- In accordance with Article 540.04 of the standard specifications, it shall be the responsibility of the contractor to divert stream flow during construction in order to keep the construction areas free of water. The method of water diversion shall be subject to the approval of the engineer and the cost shall be included with "Concrete Box Culvert". Clean fill (granular) material will only be allowed.
- Plan Dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

INDEX OF DRAWINGS

Sheet No.	Sheet Title
1.	General Plan & Elevation
2.	Culvert Extension Plan and Elevation
3.	Grating for Concrete Box Culvert
4.	Soil Boring Log

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Box Culvert	Cu. Yd.	24.0
Reinforcement Bars	Pound	4,430
Expansion Bolts $\frac{3}{4}$ Inch	Each	36



WATERWAY INFORMATION

Drainage Area = 573 Acres

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	555	71	80	-	1.0	-	-	-
Base	100	723	-	-	-	1.87	-	-	-
Max. Calc.	500	-	-	-	-	-	-	-	-

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Cut Off Wall
783.34	

DESIGNED PRD
CHECKED WAT
DRAWN CJS
CHECKED PRD

GENERAL PLAN & ELEVATION
FA RTE. 412 OVER DOUBLE 8'X5' CULVERT
FA RTE. 412 - SEC. (14-1) M-1
OGLE COUNTY
STATION 1451+47.00
STRUCTURE NO. 071-1091

SHEET NO. 1	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4	412	(141-1) M-1	OGLE	82	35
FED. ROAD DIST. NO.			ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 64E60					

DLZ 85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005