

Benchmark: Chisled Square on North Headwall Station 1004+79.95
 Offset 257.86 LT Elev. 816.72

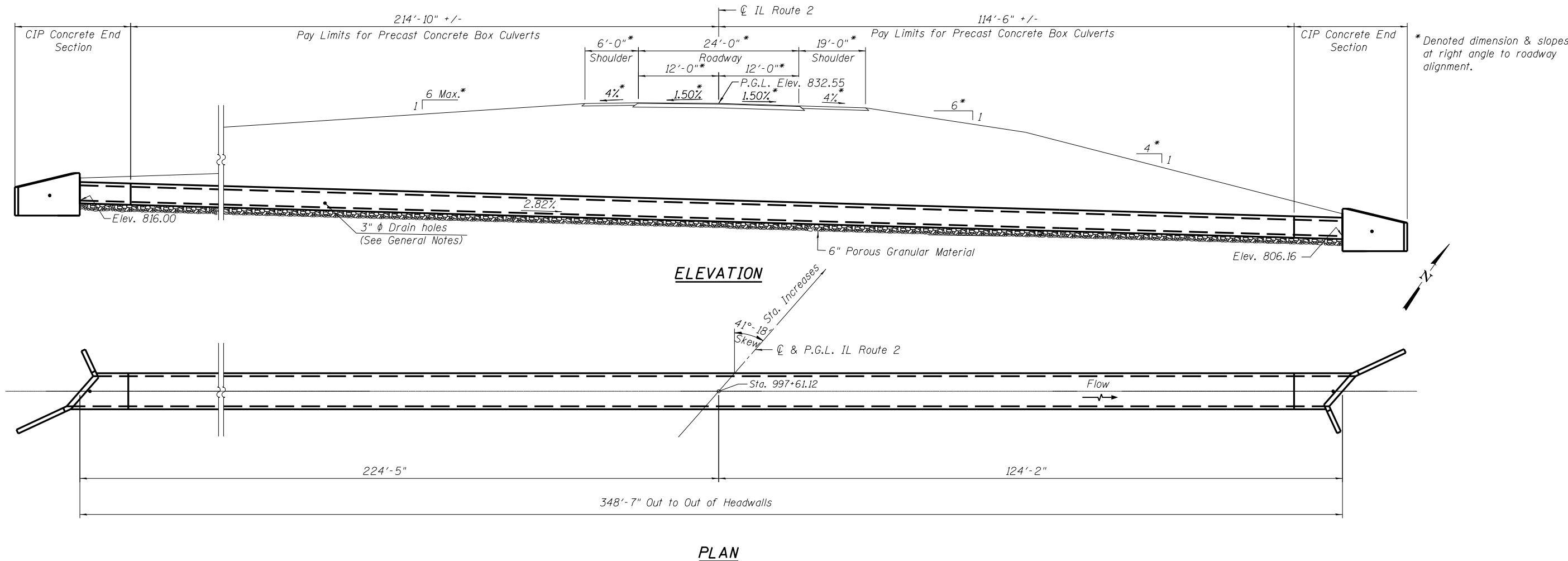
Existing Structure: None

INDEX OF SHEETS

1. General Plan and Elevation
2. Culvert Details
3. Culvert Details

GENERAL NOTES

The design fill height for this box is 20 feet. The precast box culvert sections shall conform to the requirements of AASHTO C 1577.
 Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard Specification.
 The 6 in. thick layer of porous granular material required for the precast concrete box culvert per Art. 540.06 of the Standard Specifications shall also apply to the end sections. Cost of the porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required.
 Nonwoven geotextile fabric shall conform to the requirements of Art. 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.



TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Box Culverts	Cu. Yd.	16.6
Reinforcement Bars	Pound	3600
Precast Concrete Box Culverts, 6 x 3	Foot	330

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications
 5th Edition with 2010 Interims

LOADING HL-93

Allow 50psf for Future Wearing Surface

DESIGN STRESSES

PRECAST UNITS

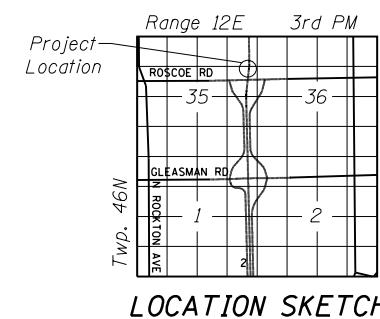
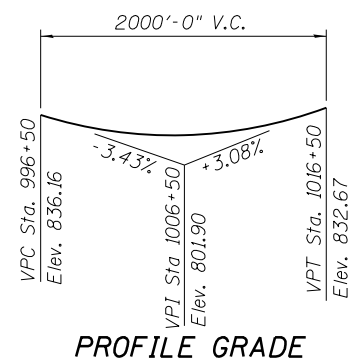
f'c = 5,000 psi
 fy = 65,000 psi (Welded Wire Fabric)

FIELD UNITS

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

WATERWAY INFORMATION

Drainage Area = 37.1 Acres		Low Grade Elev. 831.43 @ Sta. 997+61		Head - Ft.		Headwater El.			
Flood Yr.	Freq. Q C.F.S.	Opening Sq. Ft. Exist. Prop.	Nat. H.W.E.	Exist.	Prop.	Exist.	Prop.		
Design	50	50.5	-	0	815.99	-	1.81	-	817.8
Base	100	57.8	-	0.3	816.05	-	1.95	-	818.0
Overtopping		319.09	-	6.6	817.10	-	14.33	-	831.43
Max. Calc.	500								



FILE NAME =	USER NAME =	DESIGNED - SB	REVISED -
ei:\pw\work\p\idot\undbladerr\d0331860	Precast Culvert 997+61 Gr C.dgn	DRAWN - SB	REVISED -
	PLOT SCALE =	CHECKED - JAN	REVISED -
	PLOT DATE =	DATE - 8/24/12 ?	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
 CULVERT AT STATION 997+61

SCALE: 1"=50' SHEET NO. 1 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
734	77R-1	WINNEBAGO	179	89
CONTRACT NO. 64H70				
ILLINOIS FED. AID PROJECT				