

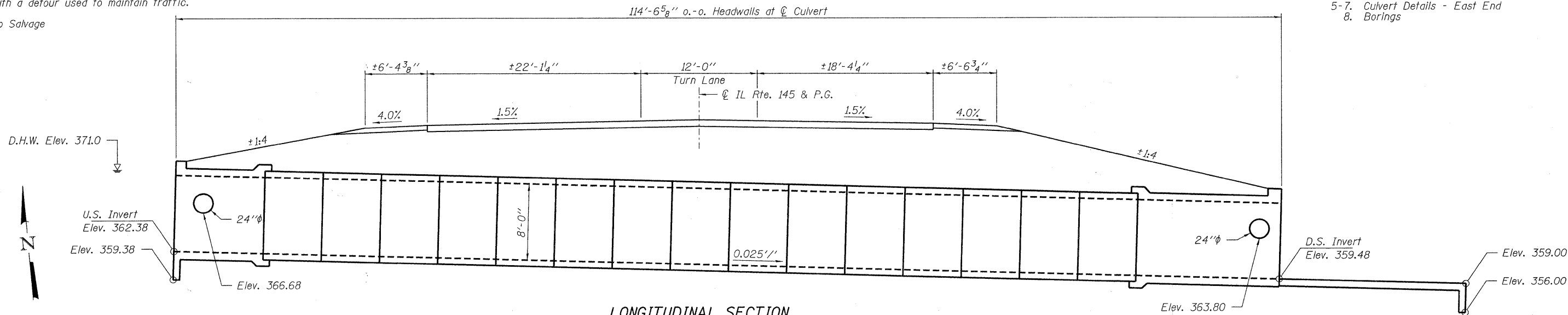
BENCHMARK: BM#7 Chiseled square on culvert headwall in S.E. corner. Sta. 310+42.15, Rt. 44.07', Elev. 373.50

EXISTING STRUCTURE NO. 064-7020: Originally constructed in 1933 as an RC double barrel 8'x8' box culvert. It was widened in 1975 and in 2003. The total length is 75'±. The culvert will be replaced using road closure with a detour used to maintain traffic.

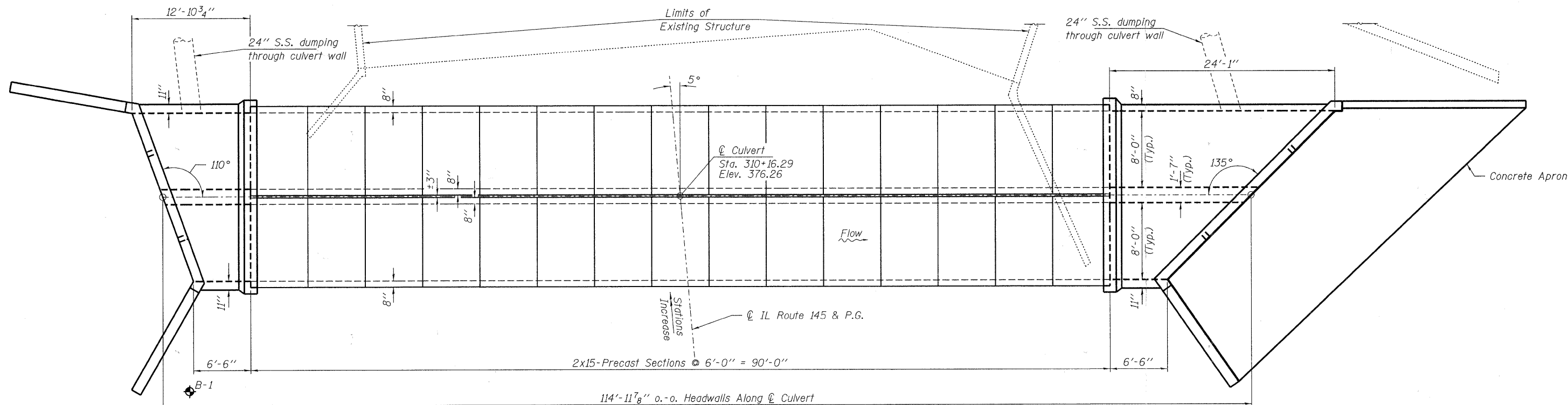
No Salvage

**INDEX OF STRUCTURE SHEETS**

1. General Plan
2. General Details
- 3-4. Culvert Details - West End
- 5-7. Culvert Details - East End
8. Borings



**LONGITUDINAL SECTION**  
(Dimensions are @ Rt. L's to the @ of Rdwy.)



**PLAN**

**LOADING HS20-44**

Allow 50#/Sq. Ft. for future wearing surface.

**DESIGN SPECIFICATIONS**

2002 AASHTO Standard Specifications

**DESIGN STRESSES**

**FIELD UNITS**

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

**PRECAST UNITS**

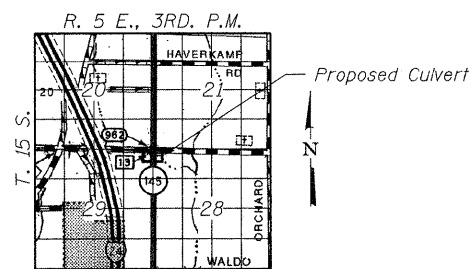
f'c = 5,000 psi  
fy = 65,000 psi (Welded Wire Fabric)

**DRAINAGE SCHEDULE**

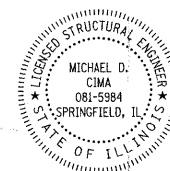
Drainage Area	1.03 Sq. Mi.
Design Waterway Opening	128 Sq. Ft.
Design Discharge (50 yr)	989 C.F.S.
Design Headwater Elevation	371.0 Ft.
100 Yr. Discharge	1140 C.F.S.
100 Yr. Headwater Elevation	371.8 Ft.
500 Yr. Discharge	1530 C.F.S.
500 Yr. Headwater Elevation	374.1 Ft.
Low Grade Elevation	376.11 @ Sta. 308+50

**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation (ft.)	Upstream	Downstream
	359.37	356.01



**LOCATION SKETCH**



*Michael D. Cima*  
ILLINOIS STRUCTURAL NO. 081-5984  
11-18-2010

Expires 11-30-2012

**GENERAL PLAN**  
**IL ROUTE 145**  
**OVER UNNAMED STREAM**  
**FAP ROUTE 132 - SECTION 102(N.L.)**  
**MASSAC COUNTY**  
**STATION 310+16.29**  
**STRUCTURE NO. 064-7043**

FILE NAME = 100260-shr-culvert.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN STRUCTURE NO. 064-7043 SHEET NO. 1 OF 8 SHEETS	IL	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
HAMPTON, LENZINI AND RENWICK, INC. 3008 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	CHECKED - D.W.T.	REVISED -			145	102 (N.L.)	MASSAC	77	28	
ILLINOIS PROFESSIONAL DESIGN FIRM L3 / PE / SE CORP. 184.000569	PLOT DATE = 11/18/2010	DRAWN - D.A.B.	REVISED -			CONTRACT NO. 78116					
		CHECKED - M.D.C.	REVISED -			ILLINOIS FED. AID PROJECT					