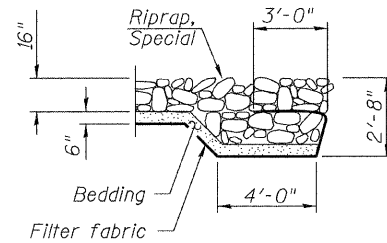


B.M.: RR Spike in PP Sta. 66+62, 28' Rt. Elev. 572.91  
 B.M.: Top of R.O.W. Marker Sta. 72+03, 30' Lt. Elev. 573.83

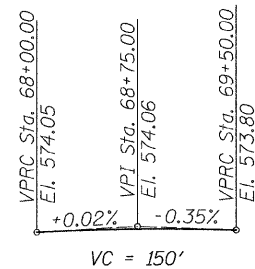
Existing Structure:  
 Triple 8'x3.5' reinforced concrete box culvert.  
 The structure is 31'-3" out to out, and is not skewed.  
 Str. No. 054-3903

Salvage: None

Road to be closed to traffic during construction.



SECTION A-A

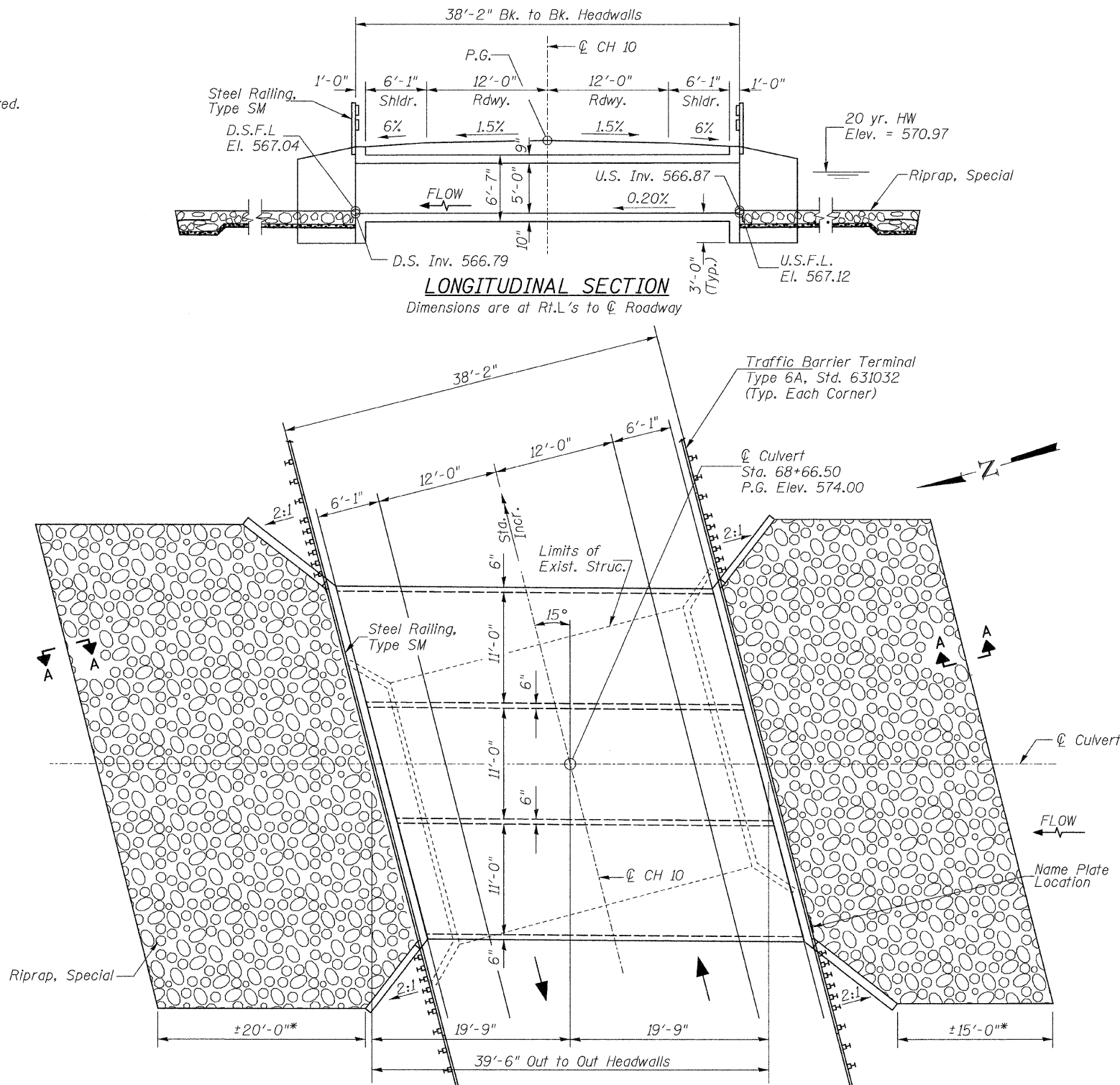


PROPOSED PROFILE GRADE

LAKE FORK CREEK TRIBUTARY  
 BUILT 20 BY  
 LOGAN COUNTY  
 SEC. 09-00119-00-BR  
 C.H. 10 STATION 68+66.50  
 F.A. PROJ. BRS-0566(107)  
 STR. NO. 054-3922 LOADING HS20-44

**NAME PLATE**

Locate Name Plate at South Headwall  
 S.W. Corner of Culvert (See Std. 51500.1)



**LONGITUDINAL SECTION**

Dimensions are at Rt.L.'s to C Roadway

**PLAN**

\* Riprap dimensions are for estimating quantities only

**DESIGN SPECIFICATIONS**

2002 AASHTO & Interims

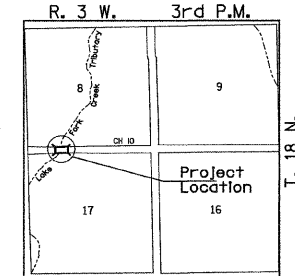
**DESIGN STRESSES**

**FIELD UNITS**

$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)

**LOADING HS20-44**

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



LOCATION SKETCH

**GENERAL NOTES**

Reinforcement Bars shall conform to the requirements of ASTM A 706 Grade 60.  
 See Special Provisions for Soil Boring Logs.  
 For backfilling and embankment see Standard Specifications.  
 All construction joints shall be bonded.  
 Exposed concrete edges shall have a 3/4" chamfer unless otherwise noted.  
 Precast culvert option will not be allowed.  
 Layout of stone riprap may be varied in the field to suit ground conditions as directed by the Engineer.  
 A distance of half the length of the wingwall, but not less than 6 feet of the barrel shall be poured monolithically with the wingwall.  
 All excavation / backfilling required for construction of the culvert in accordance with the Standard Specifications shall be included in the cost of Concrete Box Culverts.  
 Precast culvert option will not be allowed.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Concrete Box Culverts	CU YD	107.7
① Reinforcement Bars	POUND	25,250
① Removal of Existing Structures	EACH	1
Name Plates	EACH	1
① Riprap, Special	TON	200
① Filter Fabric	SQ YD	250
Steel Railing, Type SM	FOOT	73

① See Special Provisions

**DESIGN SCOUR TABLE**

Location	Upstream	Downstream
Design Scour Elevation	566.87	566.79

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specification for Highway Bridges.  
 This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

*Benjamin A. Neri* 1/20/2010

Illinois Structural No. 6527  
 Expires 11/30/2010



**GENERAL PLAN & ELEVATION**

LOGAN COUNTY  
 SECTION 09-00119-00-BR  
 COUNTY HIGHWAY 10 OVER  
 LAKE FORK CREEK TRIBUTARY  
 STATION 68+66.50  
 STRUCTURE NO. 054-3922

DESIGNED	CTM
CHECKED	BAN
DRAWN	CTM
CHECKED	JEH/BAN

**WATERWAY INFORMATION**

Drainage Area = 2.77 Sq. Mi.		Low Grade Elev. = 573.49 @ Sta. 71+00.00							
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Nat. H.W.E.	Head - Ft.	Headwater El.			
		Exist.	Prop.	Exist.	Exist.	Prop.			
Design	20	588	68	138	570.97	1.55	0.49	572.52	571.46
Base	100	869	73	145	571.18	2.58	0.92	573.76	572.10

SHEET NO. 1	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4 SHEETS	CH 10	09-00119-00-BR	LOGAN	17	7
S.N. 054-3922			CONTRACT NO. 93525		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0566(107)		