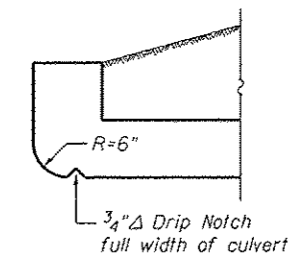
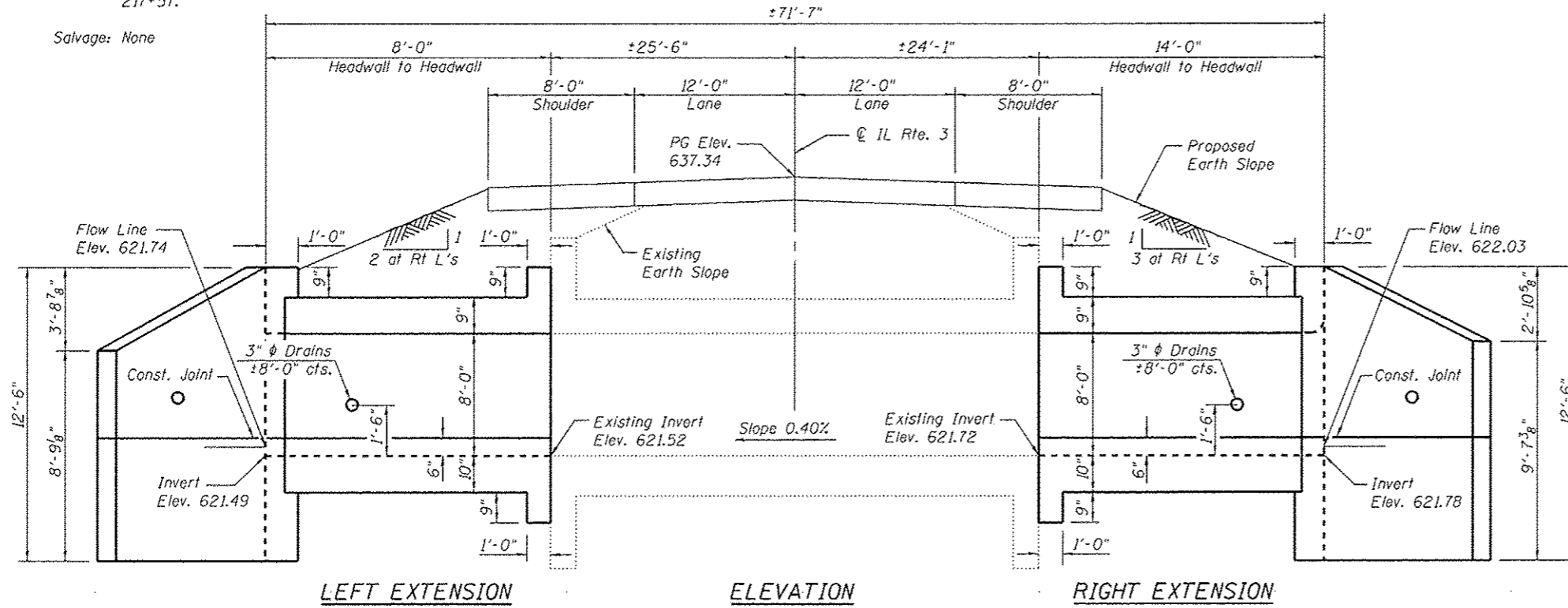


Existing Structure: The existing structure, SN 042-2471, is a  $\pm 49'-7"$  long reinforced cast-in-place concrete box culvert with a  $8'-0"$  x  $8'-0"$  opening. The original structure was constructed as S.B.I. Route 109 Construction Section 101-A at the original station of 217+57.

Salvage: None



**HEADWALL DETAILS AT UPSTREAM END**

**GENERAL NOTES**

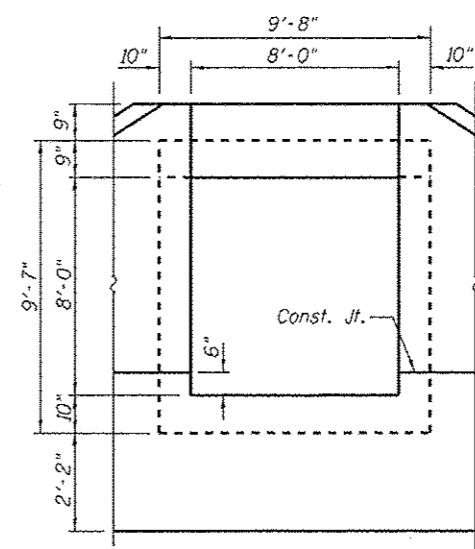
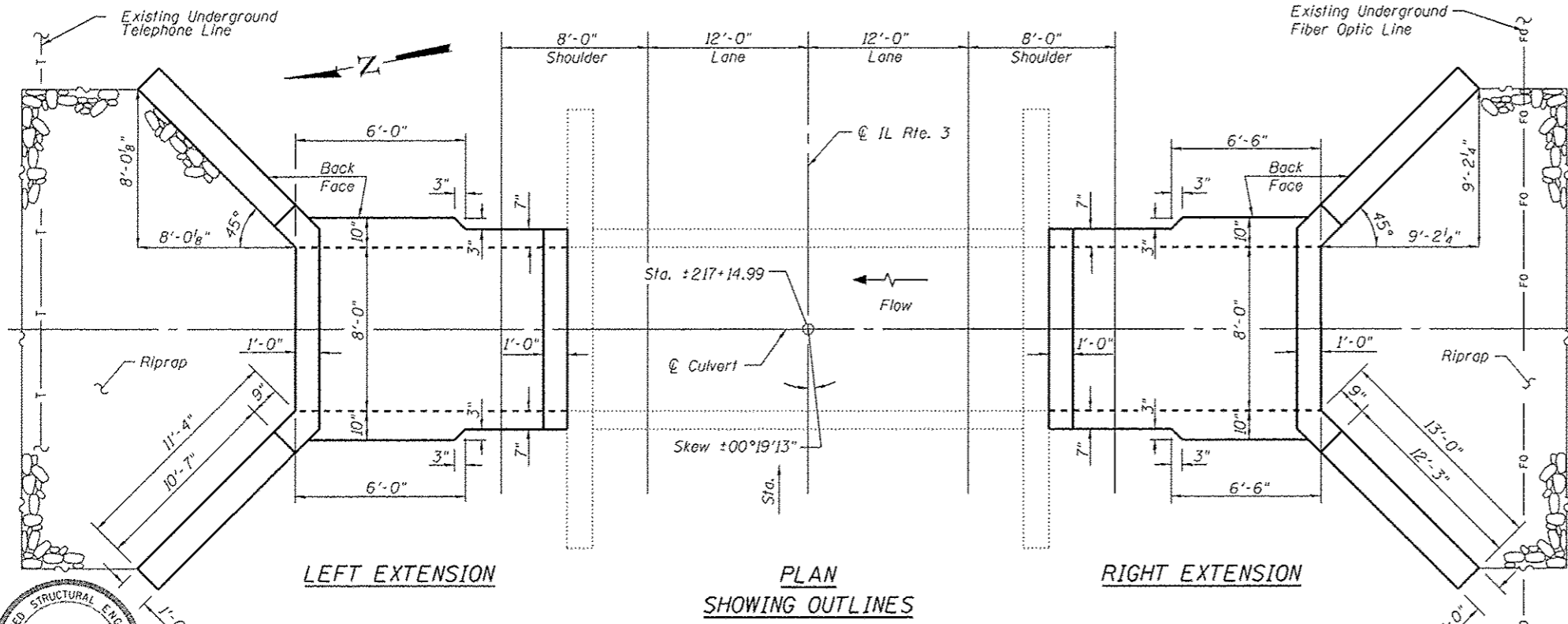
Plan dimensions and details relative to the existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of work, however, the Contractor will be paid for the quantity furnished at the unit price for the work.

The verification of allowable soil bearing pressure underlying the proposed box culvert shall be verified by a dynamic cone penetration (DCP) test or other acceptable measures as provided by the District Geotechnical and Field Engineers. The results of the test must exceed the calculated bearing pressures shown on the plans prior to placement of the Concrete Box Culvert. Tests failing to exceed the calculated bearing pressures as shown on the plans will require subsurface modification that must be coordinated with the District Geotechnical and Field Engineers.

Expansion bolts shall be according to Standard Specification Article 1006.09. Precast alternative not allowed at this site.

A distance half the length of the wingwall but not less than 6'-0" of the barrel shall be poured monolithically with the wingwalls.

Calculated max. soil pressure under barrel = 2,062 psf.  
 For Riprap details and quantities see Roadway Plans.  
 Epoxy Crack Injection shall be according to the Standard Specifications Section 590.  
 For Total Bill of Material see sheet 3 of 4.



**DESIGN SPECIFICATIONS**

2002 AASHTO Standard Specifications for Highway Bridges

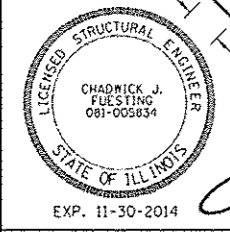
**LOADING HS 20-44**

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

**DESIGN STRESSES**

EXISTING CONSTRUCTION	NEW CONSTRUCTION
$f_y = 40,000$ psi	$f_y = 60,000$ psi
$f'_c = 3,000$ psi	$f'_c = 3,500$ psi

**GENERAL PLAN & ELEVATION**  
**ILLINOIS ROUTE 3**  
**F.A.S. RTE. 752 - SEC. 101-2RS-1**  
**JERSEY COUNTY**  
**STATION 217+14.99**  
**STRUCTURE NO. 042-2471**



*Checked Fuesting 8/8/14*

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

USER NAME	DESIGNED	CHECKED	REVISIONS
jdinkelmann	JD	BB	REVISED -
Illinois Design Firm Number 184.001670		WS	REVISED -
PLOT SCALE		CJF	REVISED -
PLOT DATE 8/8/2014			REVISED -

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
752	101-2RS-1	JERSEY	438	214
			CONTRACT NO. 76789	
ILLINOIS FED. AID PROJECT				