

Existing Structure: The existing structure is a ±35'-9" long reinforced cast-in-place concrete box culvert with a 2'-0" x 1'-6" opening. The original structure was constructed as S.B.I. Route 109 Construction Section 101-A at the original station of 388+00.

Salvage: None

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.

For Riprap details and quantities see Roadway Plans.

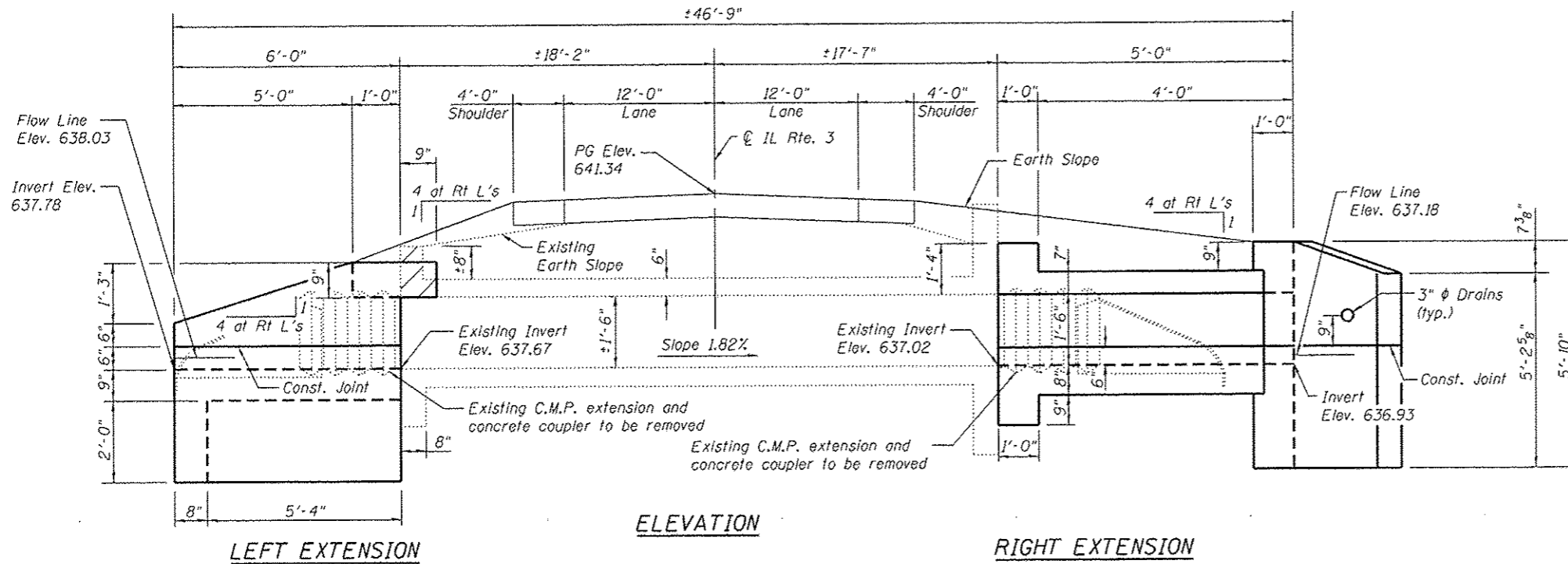
Calculated max. soil pressure under barrel = 3,473 psf.

Partial Removal of the existing structure during construction shall be completed according to Section 501.05 of the Standard Specifications.

Existing C.M.P. extension and concrete coupler to be removed shall be paid for as Removal of Existing Structures, see Roadway Plans.

The minimum edge distance from the center of a hole to the free edge of a structural shape or plate shall be 1 1/2" unless noted otherwise.

The Contractor may install the thru bolts using drilling and grouting in lieu of providing a formed hole using steel pipe. Installation shall be in accordance with Article 509.06 using a method that results in the annulus surrounding the bolt being completed filled with adhesive. The method of drilling shall not result in spalled concrete at the exit face. Epoxy grouted thru bolts shall be snug tightened followed by an additional 1/3 turn on the interior nut at final installation. Cost included with Traversable Pipe Grate.



Indicates Limits of Concrete Removal

DESIGN SPECIFICATIONS

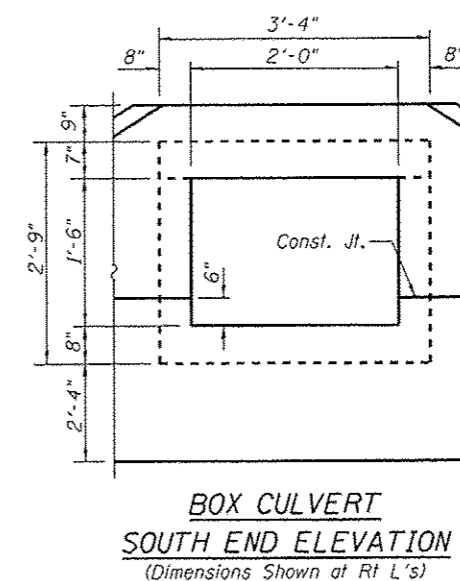
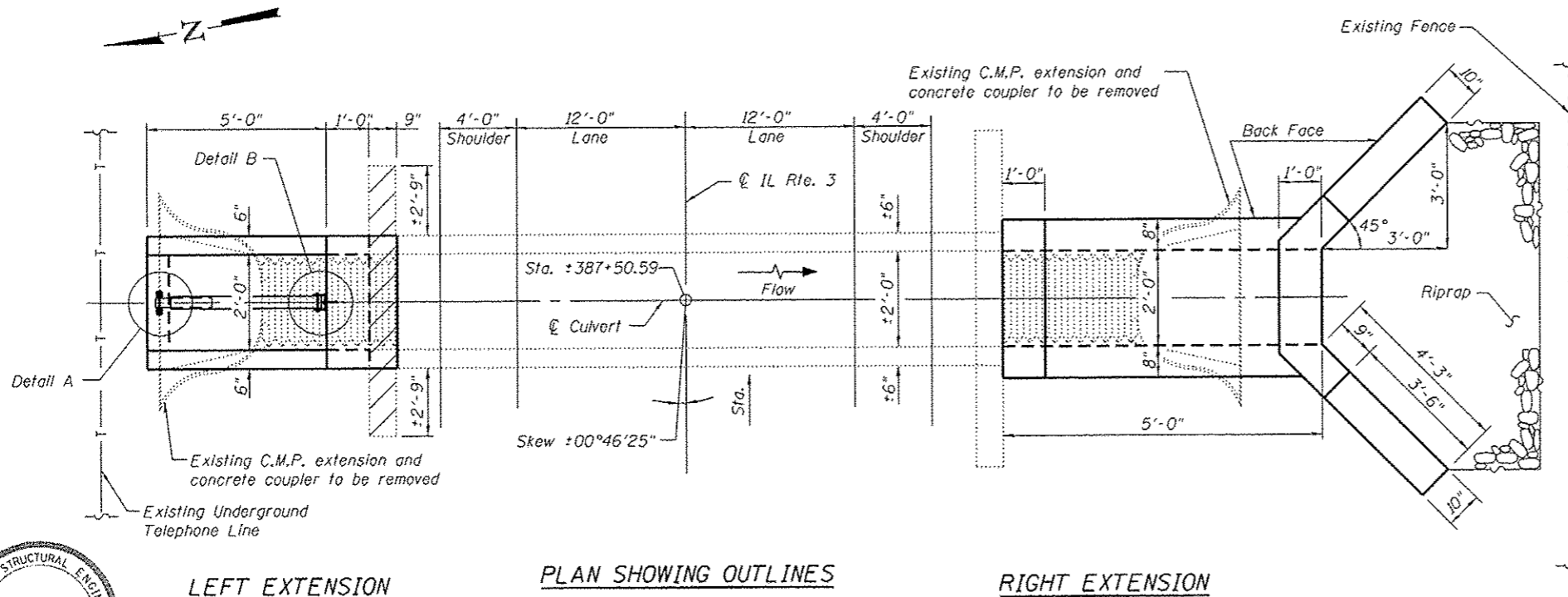
2002 AASHTO Standard Specifications for Highway Bridges

LOADING HS 20-44

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

DESIGN STRESSES

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



GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 3
F.A.S. RTE. 752 - SEC. 101-2RS-1
JERSEY COUNTY
STATION 387+50.59

Note:
For Details A and B see sheet 3 of 3.



Grand Freeway 8/8/14

FILE NAME = 387+50.59-76789-001.dgn



USER NAME = jdinkelmann	DESIGNED - JD	REVISD -
Illinois Design Firm Number 184.001670	CHECKED - BB	REVISD -
PLOT SCALE =	DRAWN - EW	REVISD -
PLOT DATE = 8/8/2014	CHECKED - CJF	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 3 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
752	101-2RS-1	JERSEY	438	263
CONTRACT NO. 76789				
ILLINOIS FED. AID PROJECT				