Existing Structure: The existing structure is a ±36'-6" 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 275+75.

Salvage: None

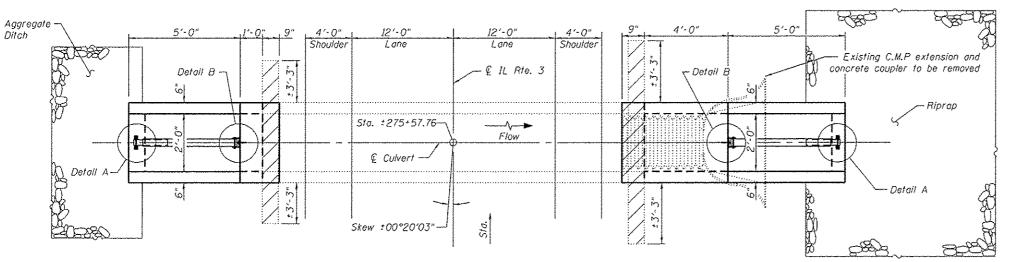
±51'-6" ±18'-0" 9'-0" 6'-0" ±18'-6" 5'-0" 5'-0" 1'-0" 4'-0" 4'-0" 4'-0" Shoulde Lane Shoulder Flow Line r € IL Rte. 3 Elev. 666.23 PG Elev. . Earth Slope Invert 669.08 Elev. 666.35 Invert Elev. 665.98 Existing Earth Slope 4 at Rt L's 4 of Rt L's Existing Invert -Elev. 666.05 Existing Invert Slope 0.74% Elev. 666.31 Existing C.M.P extension and concrete coupler to be removed 5'-4" 8'-4"

ELEVATION

Indicates Limits of Concrete Removal

-7-

LEFT EXTENSION



LEFT EXTENSION

PLAN SHOWING OUTLINES

RIGHT EXTENSION

RIGHT EXTENSION

PLAN SHOWING OUTLINES

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

SHEET NO. 1 OF 3 SHEETS

## 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

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

GENERAL NOTES

Plan dimensions and details relative to the existing structure have been taken

Expansion bolts shall be according to Standard Specification Article 1006.09.

Precast alternative not allowed at this site.

For Riprap and Aggregate Ditch details and quantities see Roadway Plans. Calculated max. soll pressure under barrel = 3,361 psf.

Partial Removal of the exsiting 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 and shall be paid for as Removal of Existing Structures, see Roadway Plans.

For Total Bill of Material see sheet 3 of 3.

The minimum edge distance from the center of a hole to the free edge of a structural shape or plate shall be  $\mathbf{1}^{l}_{Z}$ " 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 ½ turn on the interior nut at final installation. Cost included with Traversable Pipe Grate.

## 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

fy = 40,000 psi f'c = 3,000 psi fy = 60,000 psi f'c = 3,500 psi

GENERAL PLAN & ELEVATION

ILLINOIS ROUTE 3

F.A.S. RTE. 752 - SEC. 101-2RS-1

JERSEY COUNTY

STATION 275+57.76

LOCHMUELLER GROUP STREAMAGER BESCHORE THOSE ALSO STREET

EXP. 11-30-2014

C	luck Fresty 8/0	14/14				
	USER NAME : jdinkelmann	DESIGNED	`	JD	REVISED	*
R P	Illinois Design Firm Number 184.001670	CHECKED	-	68	REVISED	-
	PLOT SCALE :	DRAWN	-	EW	REVISED	-
	PLOT DATE + 6/8/2014	CHECKED	-	CJF	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION