

Bench Mark:

Existing Structure: S.N. 050-0061 was originally constructed in 1947. The existing structure is a 40' wide cast-in-place reinforced concrete slab bridge on closed concrete abutments. The structure measures 24'-2" long.

Staging shall be used during construction of the proposed triple box culvert.

No Salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.P. 311	*	LaSalle	66	21
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

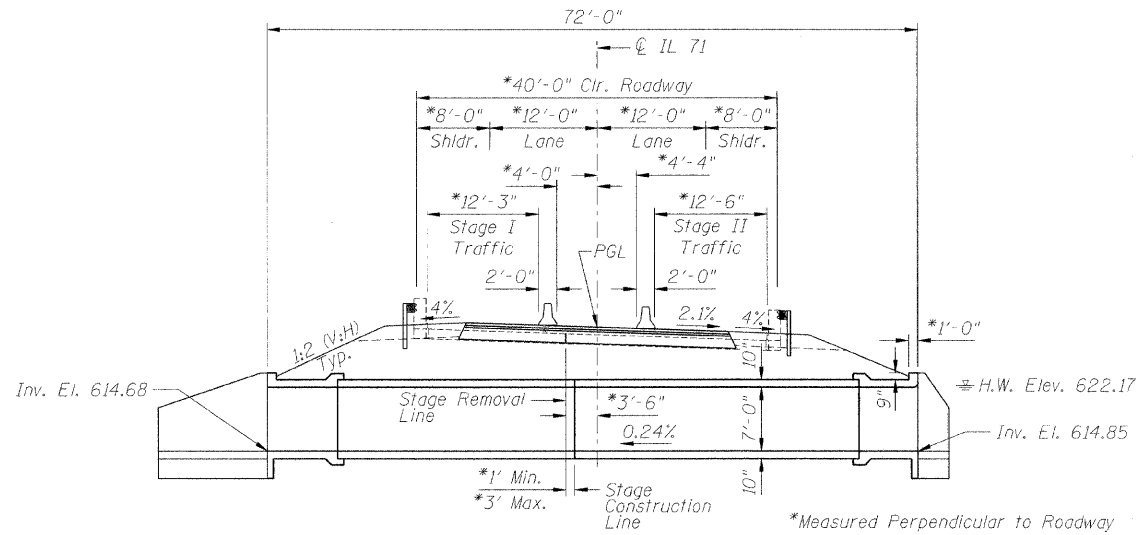
*(3)BR-1,2,3 & (4)BR Contract #66741

GENERAL NOTES

1. Precast Concrete Box Culvert sections shall conform to the requirements of Article 540.06 of the Standard Specifications and the applicable requirements of AASHTO M. 259.
2. Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60 (IL Modified). See Special Provisions.
3. Reinforcement bars designated (E) shall be epoxy coated.
4. Lifting holes shall be filled with concrete plugs and mastic after box sections are in place.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal of Existing Structures	Each	1
Reinforcement Bars	Pound	13,280
Reinforcement Bars (Epoxy Coated)	Pound	430
Temporary Soil Retention System	Sq. Ft.	456
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	91.0
Precast Concrete Box Culvert 10'x7'	Foot	173
Sheet Waterproofing Membrane System	Sq. Yd.	748



LONGITUDINAL SECTION

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.
Design Fill Hl. > 2'

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

PRECAST

$f'_c = 5,000$ psi
 $f_y = 65,000$ psi (welded wire fabric)

CAST-IN-PLACE

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

HORIZONTAL CURVE DATA

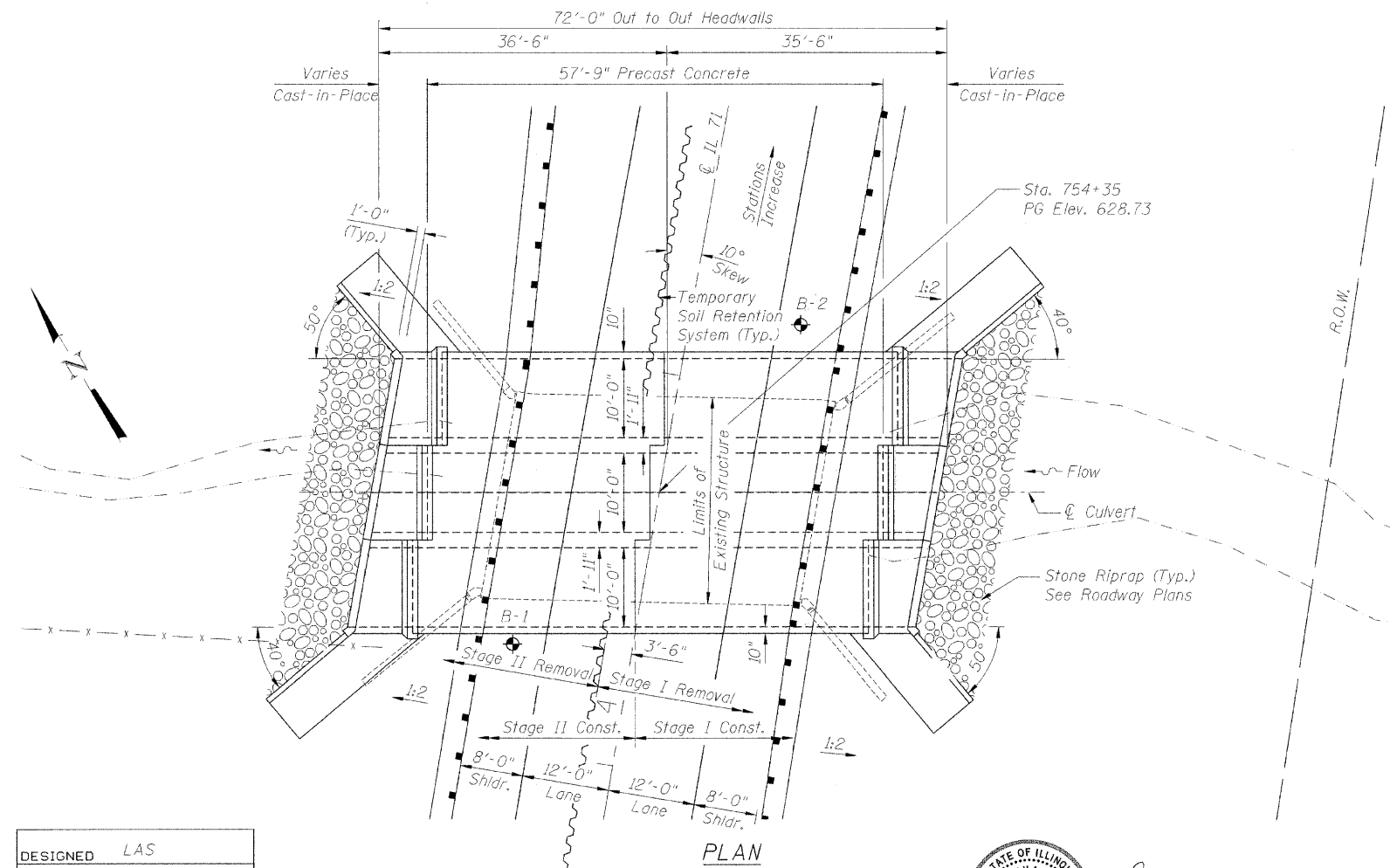
PI Sta. = 753+60.06
 $\Delta = 22^\circ 59' 32''$ (RT)
 $D = 1^\circ 00' 00''$
 $R = 5,729.85'$
 $T = 1165.34'$
 $L = 2,299.32'$
 $E = 117.30'$
S.E. 2.1%
P.C. Sta. = 741+94.72
P.T. Sta. = 764+94.04

WATERWAY INFORMATION

Drainage Area = 3.85 Sq. Mi.				Exist. Low Grade El. = 628.22 @ Sta. 754+35					
				Prop. Low Grade El. = 628.22 @ Sta. 754+35					
Flood	Freq. Year	Q cfs	Opening Sq. Ft.		Nat. H.W.E.	Head - Foot		Headwater Elev. (ft)	
			Existing	Proposed		Existing	Proposed	Existing	Proposed
Design	50	669	138	210	622.6	0.4	0.0	623.0	622.60
Base	100	760	143	210	622.8	0.6	0.1	623.4	622.90
Overtopping									
Max. Calc.	500	981	157	210	623.4	0.8	0.2	624.2	623.60

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	612.00	612.00

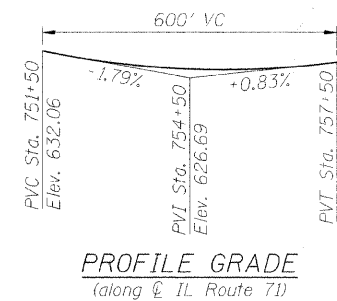


PLAN

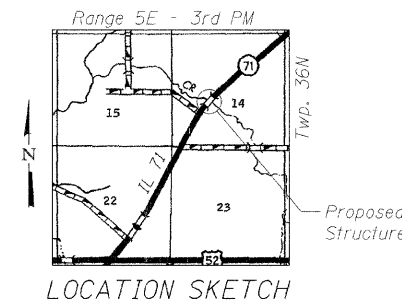
DESIGNED	LAS
CHECKED	JLA
DRAWN	SAW
CHECKED	LAS



Signature: *Dustin J. Johnson*
Date: 9-30-09
November 30, 2010
Expires



PROFILE GRADE
(along IL Route 71)



LOCATION SKETCH

GENERAL PLAN
IL 71 OVER MISSION CREEK
FAP ROUTE 311
SECTION (3)BR-1,2,3 & (4)BR
LASALLE COUNTY
STA. 754+35
S.N. 050-2047