F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(I-1) BR & I	LA SALLE	1	1
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

Benchmarks: 1.) Top of guardrail post on the South side of IL Rte. 71 @ back center of 10th post East from the West end of the rail @ Station 414+12.06/14.26' RT., Elevation = 579.06.

2.) Bolt on backside of wood end post of guardrail on the North side of IL Rte. 71 approximately 8' West from end of guardrail @ Station 417+35.07/13.66' LT., Elevation = 570.33.

Existing Structure: Existing Culvert #10, built 1922. Section I-1 At Station 416+44.62 and carries F.A.P. 627 (IL 71) over tributary to Illinois River. Consists of a single barrel 12'x6' reinforced concrete box culvert with wingwalls parallel to the roadway and the out to out of headwall length = 74'-4". Traffic will be maintained during construction via detour routes. No salvage.

DESIGN SPECIFICATIONS

AASHTO 2002

LOADING HS20-44

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

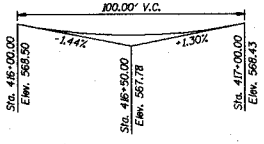
DESIGN STRESSES

CAST IN PLACE CONCRETE (FIELD UNITS)
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

PRECAST UNITS
f'c = 4,000 psi
fy = 60,000 psi (Reinforcement)
fy = 65,000 psi (Welded Wire Fabric)

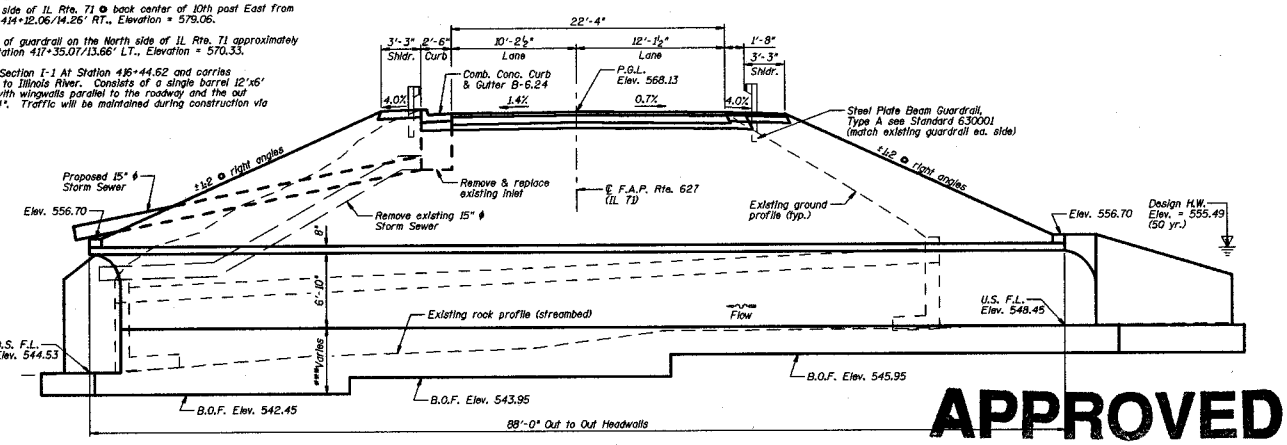
HIGHWAY CLASSIFICATION

F.A.P. Route 627 - IL Rte. 71
Class: Minor Arterial (Rural)
A.D.T.: 1325 (2000) 1740 (2015)
D.H.V.: 132 (2000) 174 (2015)
Design Speed: 35 M.P.H.
Posted Speed: 25 M.P.H.



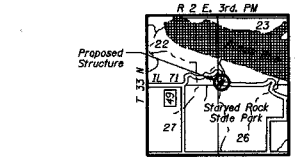
PROFILE GRADE IL RTE. 71

F.A.P. Rte. 627 (IL 71) (Along ℄ Roadway)

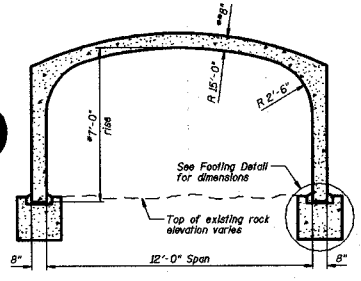


LONGITUDINAL SECTION

(Looking East @ ℄ of Structure, roadway dimensions @ right angles to roadway)

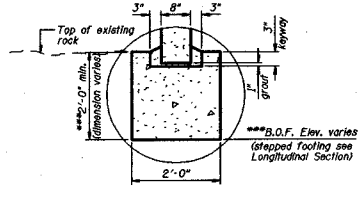


LOCATION SKETCH



SECTION THRU STRUCTURE

* Based on Con Span sections that have a minimum rise of 1'-0".
** Slab and wall thicknesses may vary as per manufacturer's design.



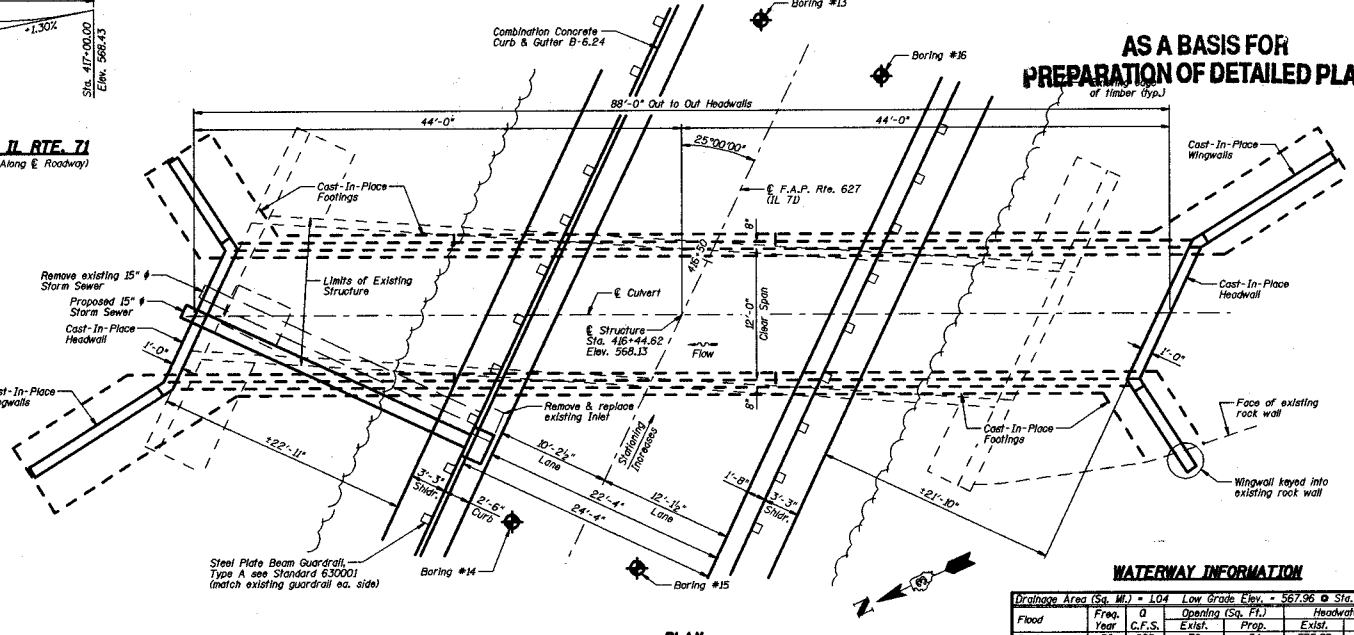
FOOTING DETAIL

***Subject to refinement during final design. Allowable Bearing Pressure for Footings = 6.0 tsf

APPROVED

MAR 21 2003

AS A BASIS FOR PREPARATION OF DETAILED PLANS



PLAN

WATERWAY INFORMATION

Drainage Area (Sq. Mi.) = 1.04			Low Grade Elev. = 567.96 @ Sta. 416+44.62			
Flood	Freq. Year	Q C.F.S.	Opening (Sq. Ft.) Exist.	Opening (Sq. Ft.) Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	665	72	84	555.99	555.49
Base	100	768	72	84	557.14	556.55
Overtopping						
Max. Calc.	500	1015	72	84	560.32	559.30

NOTES:

1.) Dimensions for 3-sided precast are for a Con Span section. Hy-span and Tri-span bridge sections are also acceptable, but dimensions may vary.
2.) B.O.F. denotes Bottom Of Footing.
3.) P.G.L. denotes Profile Grade Line.
4.) The footing shall be keyed into rock a minimum of 2'-0".
5.) Footings should be poured against in-place rock, i.e. no forms.
6.) Any roadway work that is performed is to match the existing roadway conditions.

GENERAL PLAN
IL ROUTE 71
OVER TRIBUTARY TO ILLINOIS RIVER
F.A.P. ROUTE 627 - SEC. (I-1) BR & I
LA SALLE COUNTY
STATION 416+44.62
STRUCTURE NO. 050-C804

DESIGNED BY		FILE NO.
J.M.L.		24-6772
DRAWN BY D.J.M.		DATE 12-10-01
CHECKED BY M.S.W.		SHEET NO. 1 of 1

Revised: 03-12-03