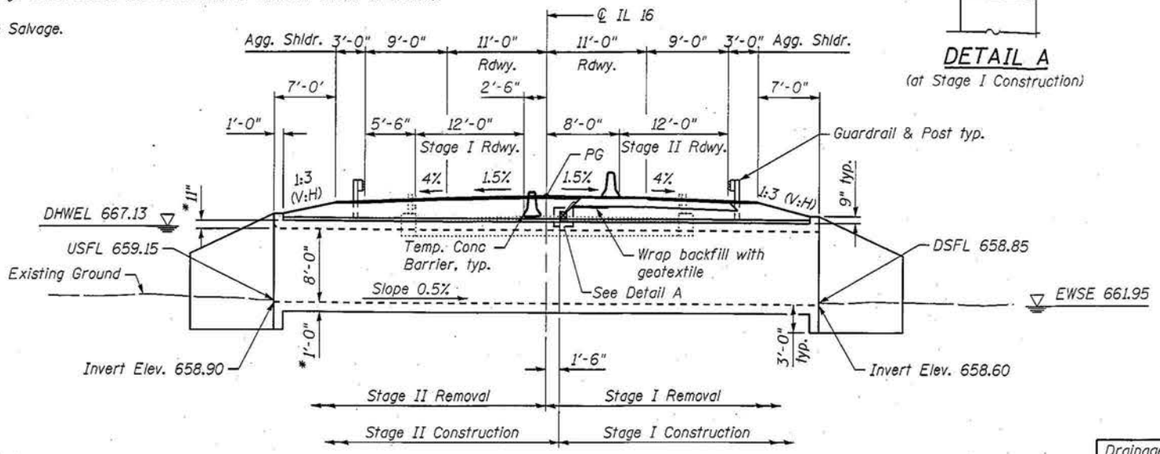
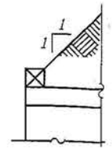
Benchmark: Chiseled square on top N.W. wingwall SN 068-0016. Elev. 668.87

Existing Structure: SN 068-0016 at Sta. 143+00 was built in 1923 as SBI 16, Section 18.
The HMA overlay was replaced in 1973 and in 2002 the bridge rail was replaced. The Structure is a single span concrete deck slab on closed abutments, 26'-0" bk. to bk. of abutments and 32'-2" out to out deck, no skew.
Stage construction will be utilized to maintain 1 lane of traffic.

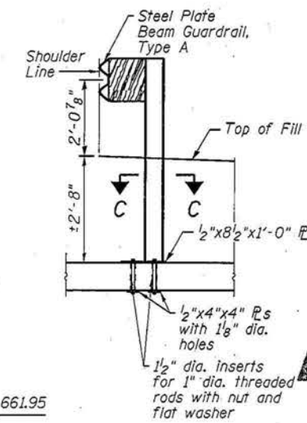
No Salvage.



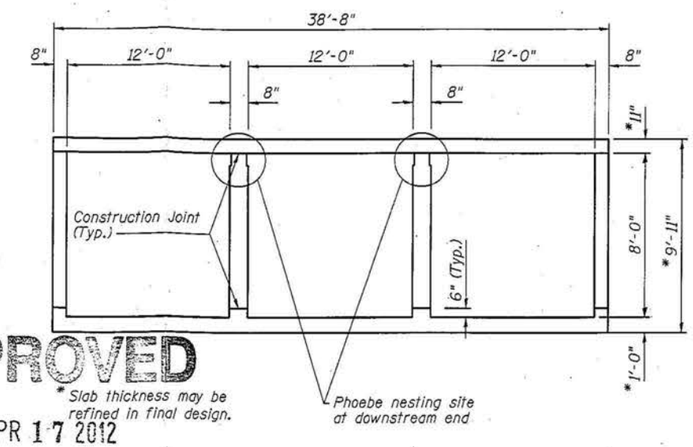
ELEVATION



DETAIL A
(at Stage I Construction)



GUARDRAIL CONNECTION DETAIL



SECTION THRU BARREL

APPROVED
APR 17 2012
AS A BASIS FOR
PREPARATION OF DETAILED PLANS

WATERWAY INFORMATION

Drainage Area = 1.9 sq. mi. Exist. Overtopping Elev. 668.52 ft. @ Sta. 143+00.00
Prop. Overtopping Elev. 669.11 ft. @ Sta. 137+00.00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	640	124	240	665.88	1.2	0.6	667.11	666.48
Design	50	1080	144/20	290	667.12	1.9	0.7	668.97	667.80
Base	100	1280	144/90	290	667.49	2.0	0.8	669.48	668.29
OVT (E)	<50								
OVT (P)	>100								
Max. Calc.	500	1780	144/180	290	667.99	2.3	1.9	670.33	669.88

10 yr velocity thru Existing Structure = 5.19 fps
10 yr velocity thru Proposed Structure = 2.42 fps

HIGHWAY CLASSIFICATION

F.A.P. Rte. 325 IL. Rte. 16
Functional Class: Other Principal Arterial
ADT: 1400 (2011); 2300 (2031)
ADTT: 23%
DHV: 230
Design Speed: 55 m.p.h.
Posted Speed: 55 m.p.h.
2 -Way Traffic
Directional Distribution: 50/50

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications, 5th Edition, with 2010 Interims

LOADING HL-93

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

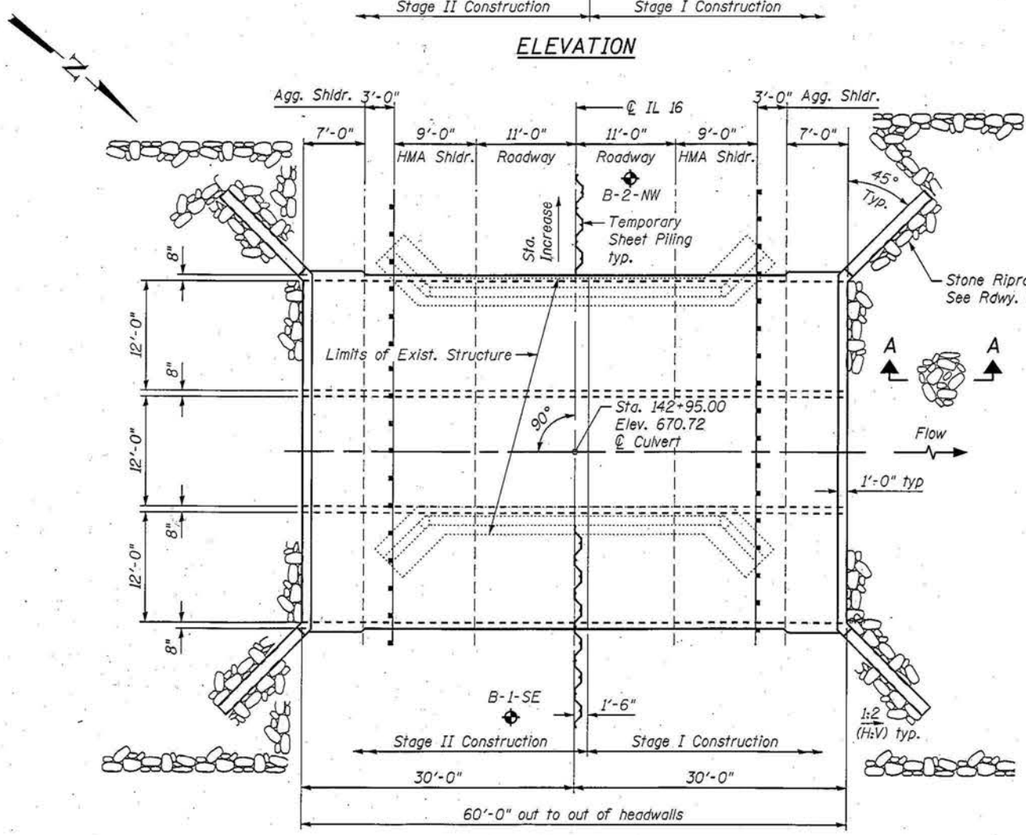
DESIGN STRESSES

FIELD UNITS

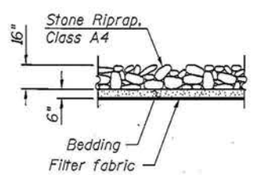
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

DESIGN SCOUR ELEVATION TABLE

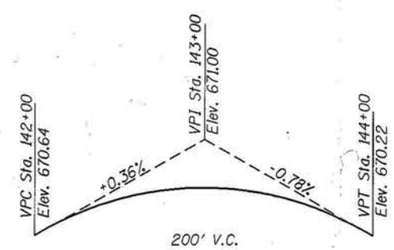
Design Scour Elevation (ft.)	Upstream	Downstream
	656.15	655.85



PLAN

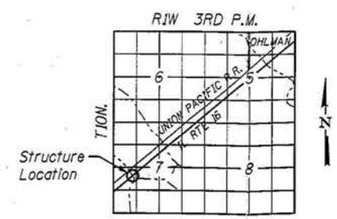


SECTION A-A



PROFILE GRADE
(along ℄ IL Rte. 16)

Notes:
Excavation behind the existing abutments shall be completed to balance front and back soil pressure before removing the existing superstructure. Existing abutments shall be removed to 2 ft below the proposed culvert barrel and backfilled with Rockfill (Special). Backfill for the culvert excavation shall consist of granular culvert backfill.
Precast option at this location is allowed.



LOCATION SKETCH

GENERAL PLAN
IL 16 OVER TRIBUTARY TO THE SOUTH FORK OF THE SANGAMON RIVER
FAP 325 SECTION 18(B-2, B-3)
MONTGOMERY COUNTY
STATION 142+95.00
STRUCTURE NO. 068-0508

FILE NAME = ...\0680508-72984-001-tsl.dgn	USER NAME = .MML.	DESIGNED - MCB	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE = 16:0.000000 '/ IN.	DRAWN - CFC	REVISED -
CB PROJECT NO 18005-2	PLOT DATE = 3/7/2012	CHECKED - MCB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 1 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
325	18(B-2, B-3)	MONTGOMERY		
		CONTRACT NO. 72984		
		ILLINOIS FED. AID PROJECT		