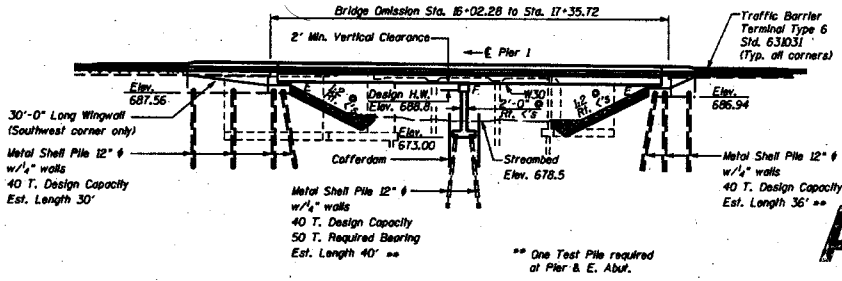
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1513	5BR-1	CHAMPAIGN	1	1
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EXISTING STRUCTURE: S.N. 010-0133 to be removed. Built in 1955 as S.B.I. Route 10 Section 5BR at Sta. 16+69. 3 span structure, continuous RC Slab 62'-1" Bt. to Bt. of Abutments and 34'-4" O. to O. and skewed 50 degrees left forward with closed Abuts. and Pile Bent Piers.

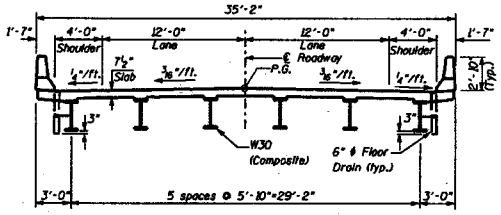
Existing Structure to be removed and Replaced. Traffic to be detoured during construction.

No salvage.

B.M. 4604-02 Elev. 694.25' Chiseled "□" on top of Northwest wing wall S.N. 010-0133

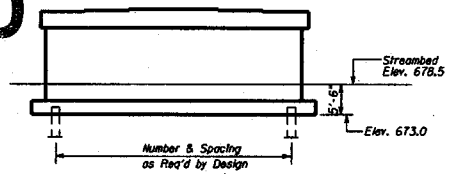


ELEVATION



PROPOSED CROSS SECTION

(Looking East)

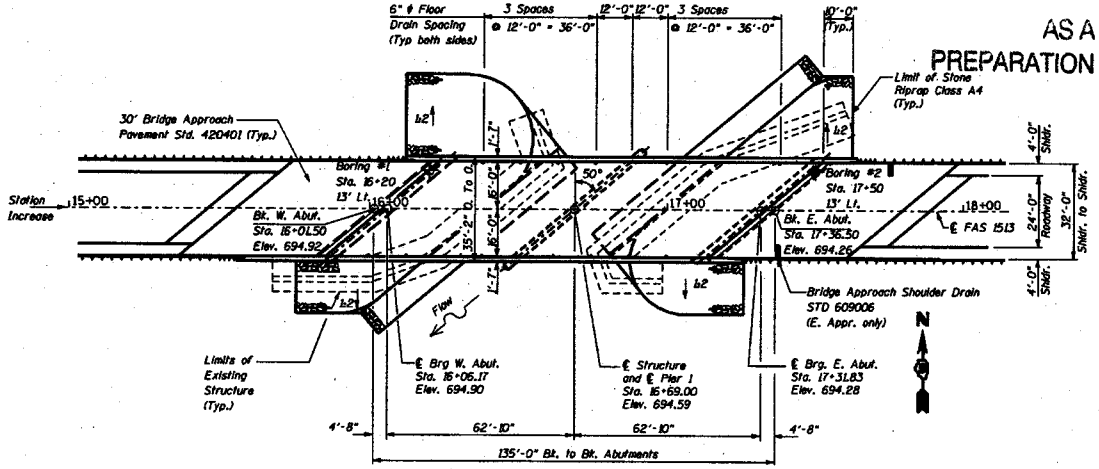


SKETCH-PIER 1

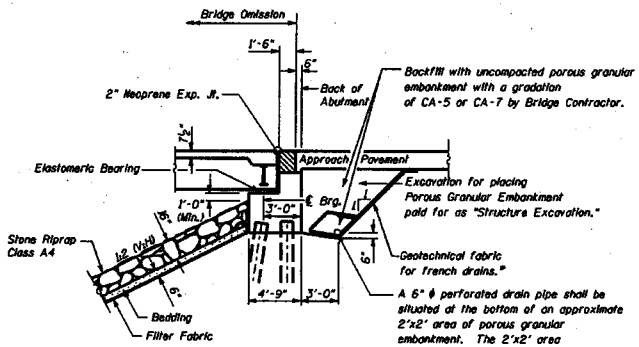
APPROVED

AUG 27 2002

AS A BASIS FOR PREPARATION OF DETAILED PLANS

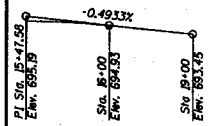


PLAN



SECTION THRU PILE BENT ABUTMENT

(at Rt. <'s)



PROFILE GRADE

Along ℄ Roadway

WATERWAY INFORMATION

Drainage Area = 19.2 Sq. Mi. Low Grade Elev. 691.8 Ft. @ Sta. 11+00

Flood	Freq. Yr.	Q CFS	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E. Ft.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater Elev. - Ft. Exist.	Headwater Elev. - Ft. Prop.
Design	50	2131	337	445	688.8	0.6	0.1	689.4	688.9
Base	100	2446	351	480	689.3	0.8	0.2	690.1	689.5
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	3200	390	560	690.5	1.3	0.4	691.8	690.9

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
f_y = 60,000 psi (Reinf.)
F_y = 50,000 psi (M270 Grade 50W)

HIGHWAY CLASSIFICATION

FAS Route 1513 (IL 10)
Class: Major Collector
A.D.T.: 2900 (1999) 3500 (2019)
ADTT=140 (2019)
D.H.V.: 400 (2019)
Design Speed: 55 mph
Posted Speed: 55 mph

DESIGN SPECIFICATIONS

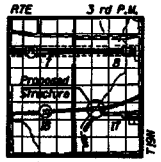
AASHTO 1996 with 1997, Thru 2002 Interims

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.048 g
Site Coefficient (S) = 1.2

LOADING HS20-44

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



LOCATION SKETCH

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN
IL ROUTE 10 OVER CAMP CREEK
FAS ROUTE 1513 SECTION 5BR-1
STA. 16+69.00
CHAMPAIGN COUNTY STR. 010-0275

SCALE: 1"=20' DRAWN BY LP
DATE APRIL 2002 CHECKED BY MJS