

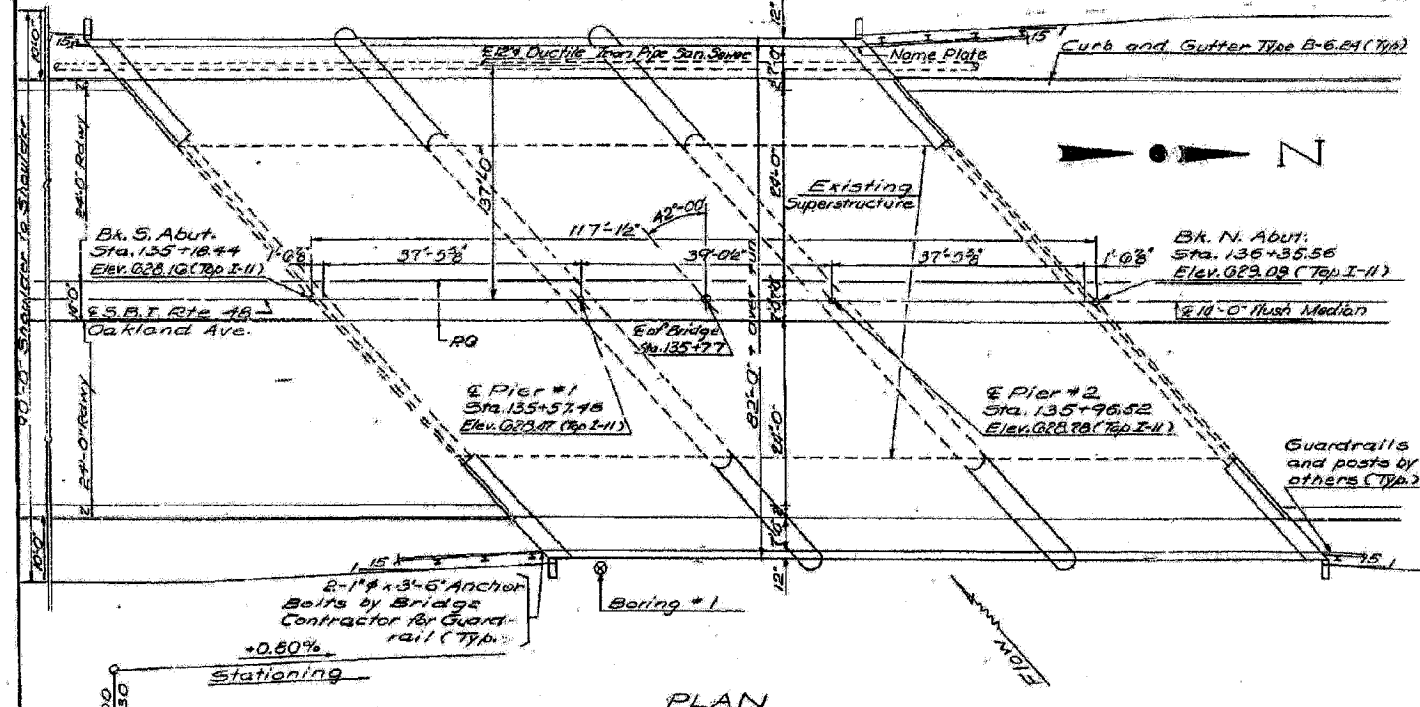
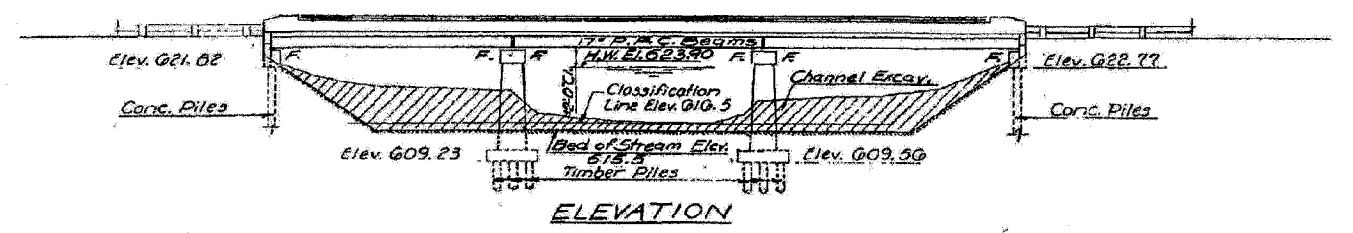


FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
716	(130BR-1)BR	MACON	22	12
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT AID		

B.M. #17 Chis. & End E. Par. Wall on Existing Bridge over Spring Creek. Elev. 628.80  
 Existing Structure @ Sta. 135+77 Built in 1932 as S.B.I. Rte. 48 Sec. 130 B. Existing superstructure to be removed utilizing stage construction so as to maintain traffic over the bridge at all times. Existing Piers and Abutments to be widened.

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SECTION	PROJECT	TOTAL SHEETS	SHEET NO.
130BR	MACON ST	22	12



PROFILE SBI RTE. 48  
 (Inside Edge Part)

DESIGNED	SMITH, T. Desai	DATE	SEPTEMBER 10, 1970
CHECKED	JAMES B. BENTLEY	EXAMINED	W. J. HARRIS
DRAWN	JACOB	APPROVED	W. J. HARRIS
CHECKED	J.P.		

**WATERWAY INFORMATION**  
 Drainage Area 26.3 sq. mi.  
 Character: Suburban & Farm, level to rolling, over one half in grass and woods. Rest farm land & some parking lots & streets.  
 Required Opening (50 Years Reg.) 659 sq. ft.  
 Present Opening 408.7 sq. ft.  
 Proposed Opening 659 sq. ft.  
 Ordinary Water Elev. 617.7  
 Low Water Elev. 616.0  
 Design H.W. El. 623.7  
 $G_{50} = 4.108 cfs$

**PRECAST PRESTRESSED UNITS**

$f_c = 5000$  p.s.i.  
 $f_t = 4000$  p.s.i.  
 $f_s = 248,000$  p.s.i. Strands (#6)  
 $f_s = 173,600$  p.s.i. Strands (#6)

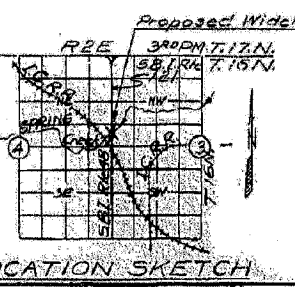
**DESIGN STRESSES FIELD UNITS**

$f_c = 1,400$  p.s.i.  
 $f_s = 23,000$  p.s.i. (Reinf.)  
 $f_s = 20,000$  p.s.i. (Struct.)  
 $f_c = 75$  p.s.i. (Footings)  
 $n = 10$   
 Allow 25% for additional future wearing surface loading HS 20-44  
 Design Specifications: AASHTO 1969 as applicable

**GENERAL NOTES**  
 All reinforcement bars shall be lapped 24 diameters unless otherwise shown.  
 It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.  
 An alternate strand pattern using Extra High Strength Prestressing strand (270 ksi) is permitted.  
 Expansion bolts shall consist of self-drilling expansion anchors and 3/4" hooked bolts. Hooked bolts shall extend a minimum of 12" into new concrete unless otherwise shown.  
 Limits of Coat for Interlayer Protective Coat shall be back to back of abutments and out to out of deck.  
 Protective Coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.  
 The parapet and sidewalk shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.  
 The Contractor shall drive 2 test piles in a permanent location, one timber test pile at Pier 2 and one conc. test pile at North Abut., as directed by the Engineer before ordering the remainder of piles.

**TOTAL BILL OF MATERIAL**

Item	Unit	Super	Sub	Total
Bituminous Conc. Surface, C&G, Class I	Tons	56		56
Concrete Removal	Cu. Yds.		24	24
Expansion Bolts (3/4")	Each		390	390
Structure Excavation	Cu. Yds.		388	388
Protective Coat	Sq. Yds.	267		267
Class A Concrete	Cu. Yds.		3127	3127
Class X Concrete	Cu. Yds.	223	518	741
Precast Prestressed Conc. Dh. Bms. (U)	Sq. Ft.	9220		9220
Aluminum Railing, Type L	Lin. Ft.	195		195
Steel Railing, Type M	Lin. Ft.	195		195
Reinforcement Bars	Lbs.	9790	11060	20850
Untreated Piles (Up to 30 Ft.)	Lin. Ft.		1075	1075
Test Pile (Timber)	Each		1	1
Concrete Piles	Lin. Ft.		722	722
Test Pile (Concrete)	Each		1	1
Name Plates	Each	1		1
Temporary Guardrail	Lin. Ft.			116
Waterproofing Membrane System	Sq. Yds.	640		640
Removal of Existing Superstructures	Each			1
Preformed Joint Sealer 1 1/2"	Lin. Ft.			46



PROJECT U-160(23)  
 GENERAL PLAN & ELEVATION  
 SBI RTE 48 OVER SPRING CREEK  
 SBI RTE 48 SECTION 130 BR.  
 MACON COUNTY  
 STA 135+77.00

**ESCA**  
 CONSULTANTS, INC.

DESIGNED BY:	ELH	02/07
DRAWN BY:	JPC	02/07
CHECKED BY:	ELH	02/07
APPROVED BY:	RDP	02/07

EXISTING BRIDGE PLANS  
 FAP ROUTE 716 (IL 48)  
 OAKLAND AVENUE  
 SECTION (130BR-1)BR  
 MACON COUNTY  
 SN 058-0056