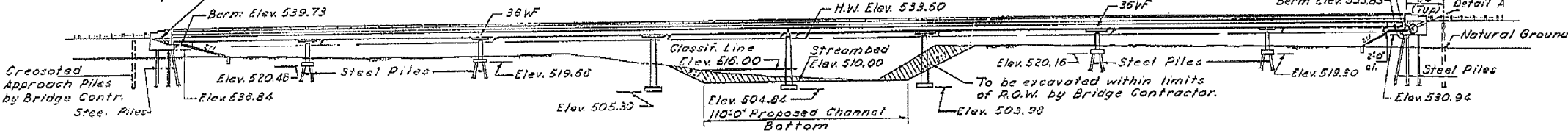


STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

NAME NO.	FORM	EDITION	REVISED	SHEET NO.
18-47	18	1	29	5
CUMBERLAND				19 SHEETS
PROJ. F-16-70-4(51)107				

B.M.: Boat Spike in top of 20' oak stump 290' Lt. of Sta. 156+25
West Bank of Embarras River. Elev. 531.54

Backfill by Bridge Contr.
after Abuts. are in place.

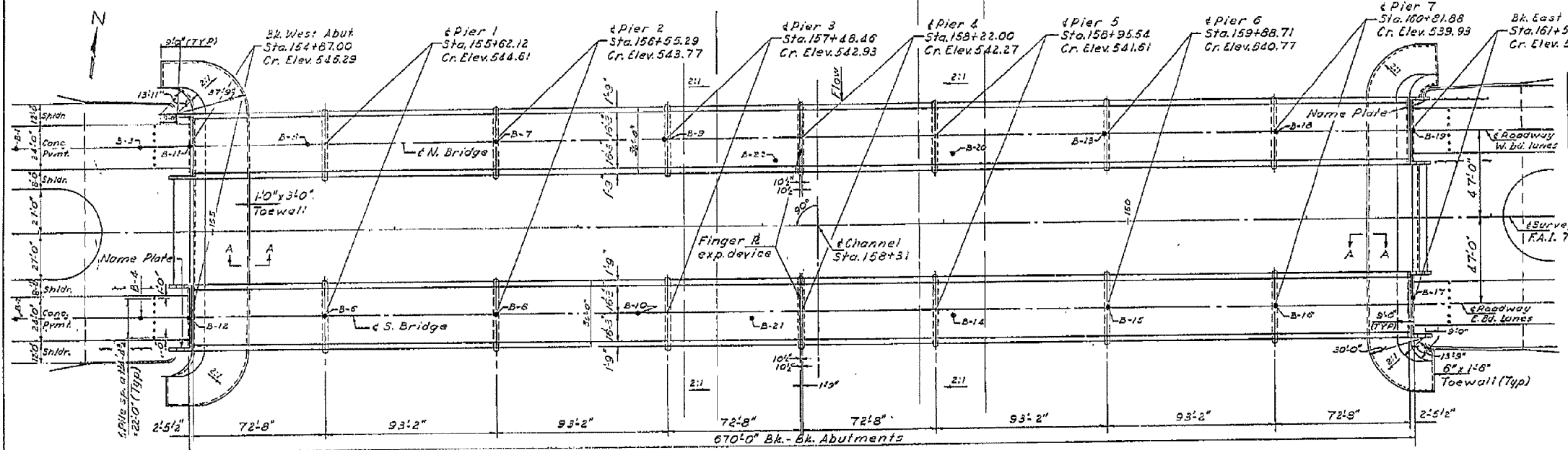


ELEVATION

APPR. PILE DATA

Type: Cressed
Length: 20ft.
No: 24

Note:
Excavation for portions
of structures in the
embankments shall
not be classified.

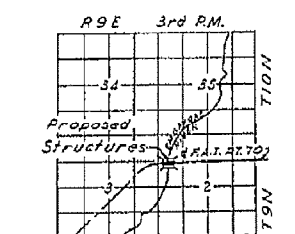


PLAN

STATION 158+31
BUILT 196 BY
STATE OF ILLINOIS
F.A.I. RT. TO SEC. 18-47B
F.A. PROJ. F-16-70-4(51)
LOADING HS20&ALT.

NAME PLATE

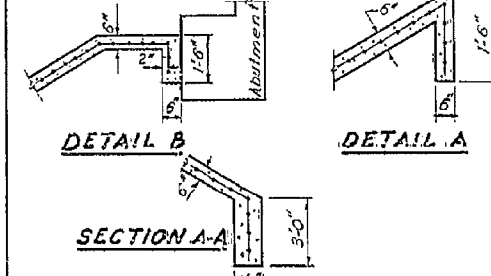
(See Std. 2113-1)



LOCATION SKETCH

WATERWAY INFORMATION

Drainage Area 650,000 acres
Character rolling, hilly, wooded, cult. varies
Required Opening (50 yr Fl.) 6800 sq. ft.
Present Opening None
Proposed Opening 6800 sq. ft.
Ordinary water elev. 522.0
Low water elev. 510.0



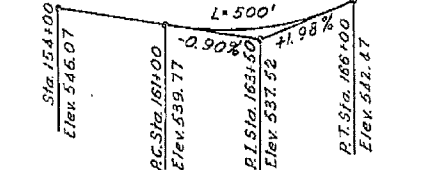
DESIGNED	C. W. Kessler	EXAMINED	C. W. Kessler
CHECKED	J. Engler	PASSED	
DRAWN	J. Kessler	APPROVED	
CHECKED	S. E.		

GENERAL NOTES

Coarse aggregate to be used in parapet handrails and end post must be free of chert, flint, limonite, lignite and soft sandstone.
The concrete floor slab shall be finished in accordance with Art. 5119 of the Standard Specifications.
Slope Wall shall be reinforced with welded wire fabric 6"x6" mesh, weighing 58# per 100 sq. ft.
Layout of slope walls may be varied to suit ground conditions in the field as directed by the Engineer.
All reinforcement bars shall be lapped 30 dia unless otherwise shown.
Rivets 3/4", open holes 1 1/2", unless otherwise noted.
Anchor bolts shall be set before fastening diaphragms over supports.
Exposed surfaces of the expansion devices, inaccessible after erection, shall receive two shop coats of red lead paint. All other surfaces shall be given one shop coat of red lead paint. Anchor studs shall not be painted.
Exp. devices are included in the quantity of struct. steel, Est. Wt. 15080 Lbs. Shear studs shall not be painted.
Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint and two field coats of aluminum paint. See Art. 56.1 to 56.5 inclusive of the Standard Specifications.
Permanent forms will not be permitted in forming the concrete floor slab.
The Contractor shall drive four steel test piles, one each at the W. Abut., So. Bridge; E. Abut., No. Bridge; Pier 2, No. Bridge; and Pier 6, So. Bridge; each in a permanent location as directed by the Engineer, before covering the remainder of the piles.
Steel piles shall be driven to refusal.
STD SHEAR CONNECTORS ON THE BEAM FLANGES SHALL BE PLACED IN THE FIELD AFTER THE STEEL HAS BEEN PLACED AND THE DECK FORMS ARE IN PLACE.
FIELD WELDING OF CONSTRUCTION ACCESSORIES TO THE BOTTOM FLANGES OR FOR A DISTANCE OF 2' OF THE SPAN EACH WAY FROM PIER SUPPORTS ON THE TOP FLANGES OF BEAMS OR GIRDERS WILL NOT BE PERMITTED. FIELD WELDING IN THESE AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Class A Excav. for Structures	Cu. Yds.		855	855
Rock Excav. for Structures	Cu. Yds.		123	123
Class A Concrete	Cu. Yds.		1597.0	1597.0
Class X Concrete	Cu. Yds.	1207.4	155.5	1351.9
Protective Coat	Sq. Yds.	5650		5650
Structural Steel	Lbs.	1686960		1686960
Aluminum Handrail	Lip. Ft.	2666		2666
Reinforcement Bars	Lbs.	358030	76120	434150
Cressed Piles (up to 20')	Lip. Ft.		460	460
Steel Piles (B&P36)	Lip. Ft.		3977	3977
Test Piles Steel (B&P36)	Ea.		4	4
Name Plates	Ea.		2	2
Slope Wall (6")	Sq. Yds.		1670	1670
Cofferdams (Pier 3)	Ea.		2	2
Cofferdams (Pier 4)	Ea.		2	2
Cofferdams (Pier 5)	Ea.		2	2
Cofferdam Excavation	Cu. Yds.		1757	1757
Bridge Seat Sealant	L.S.		0.25	0.25



VERTICAL CURVE

DESIGN STRESSES

f_c = 1400 psi (slab); 1400 psi all other
f_s = 20,000 psi (Reinf.)
f_s = 20,000 psi (Struct.)
v = 75 psi (Figs)
n = 10
Max Fty. Pressure P-3, 5.10 ksi
P-4, 4.33 ksi P-5, 4.82 ksi
1/4" rebar Composite
1/4" 1000 Non-Composite
LOADING HS20-24 & ALT.

GENERAL PLAN & ELEVATION
F.A.I. RT. TO OVER EMBARRAS RIVER

PROJ. F-16-70-4(51)107
F.A.I. RT. TO SEC. 18-47B
CUMBERLAND COUNTY
STATION 158+31

Rev. 9-1-67 JWC. Changed 114' of concrete from 1655.5 Cu. Yds. to 1597.0 Cu. Yds. Changed Protective Coat from 6000 Sq. Yds. to 5650 Sq. Yds. Changed Structural Steel from 1686960 Lbs. to 1686960 Lbs. Changed Reinforcement Bars from 405010 Lbs. to 434150 Lbs. Deleted Channel & Barr. Exc. Quantities n.m.d. 9/7/77

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

USER NAME =	DESIGNED PBB
	CHECKED MCB
PLOT SCALE =	DRAWN MLO
PLOT DATE =	CHECKED MCB

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS
STRUCTURE NO. 018-0049(W.B.) & 0050(E.B.)

SHEET NO. 35 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	(18-47-VBK (18-47B, 18-47HB)BR	CUMBERLAND	147	127
CONTRACT NO. 74466			ILLINOIS FED. AID PROJECT	