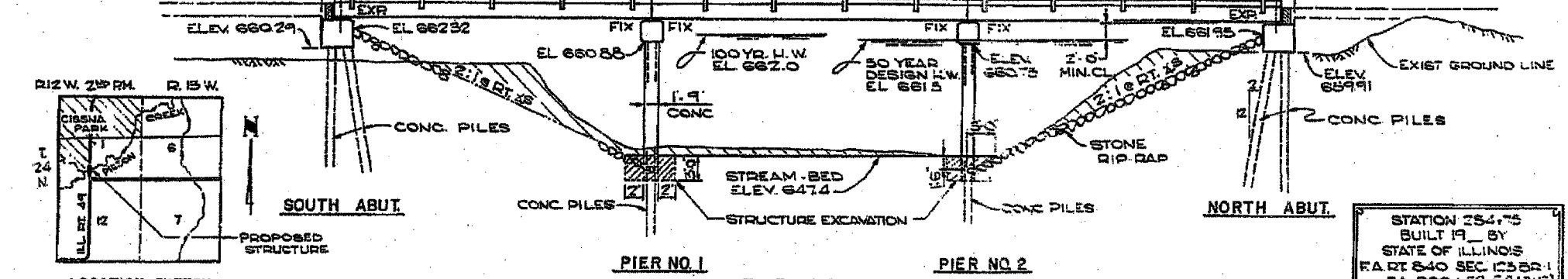


BENCH MARK: N.W. WING OF EXIST. BRIDGE ELEV 663.96 (BM Y24 USC165)

EXISTING BRIDGE  
A ONE SPAN STEEL TRUSS 150' 24" WIDE ON CLOSED CONC ABUTS. BUILT 1926 AS SECTION 123-C TO BE REMOVED AFTER COMPLETION OF NEW STRUCTURE. STRUCT. NO. 038-0096 NO SALVAGE

123 RT 840  
123 BR-1  
840 IROQUOIS 22.11

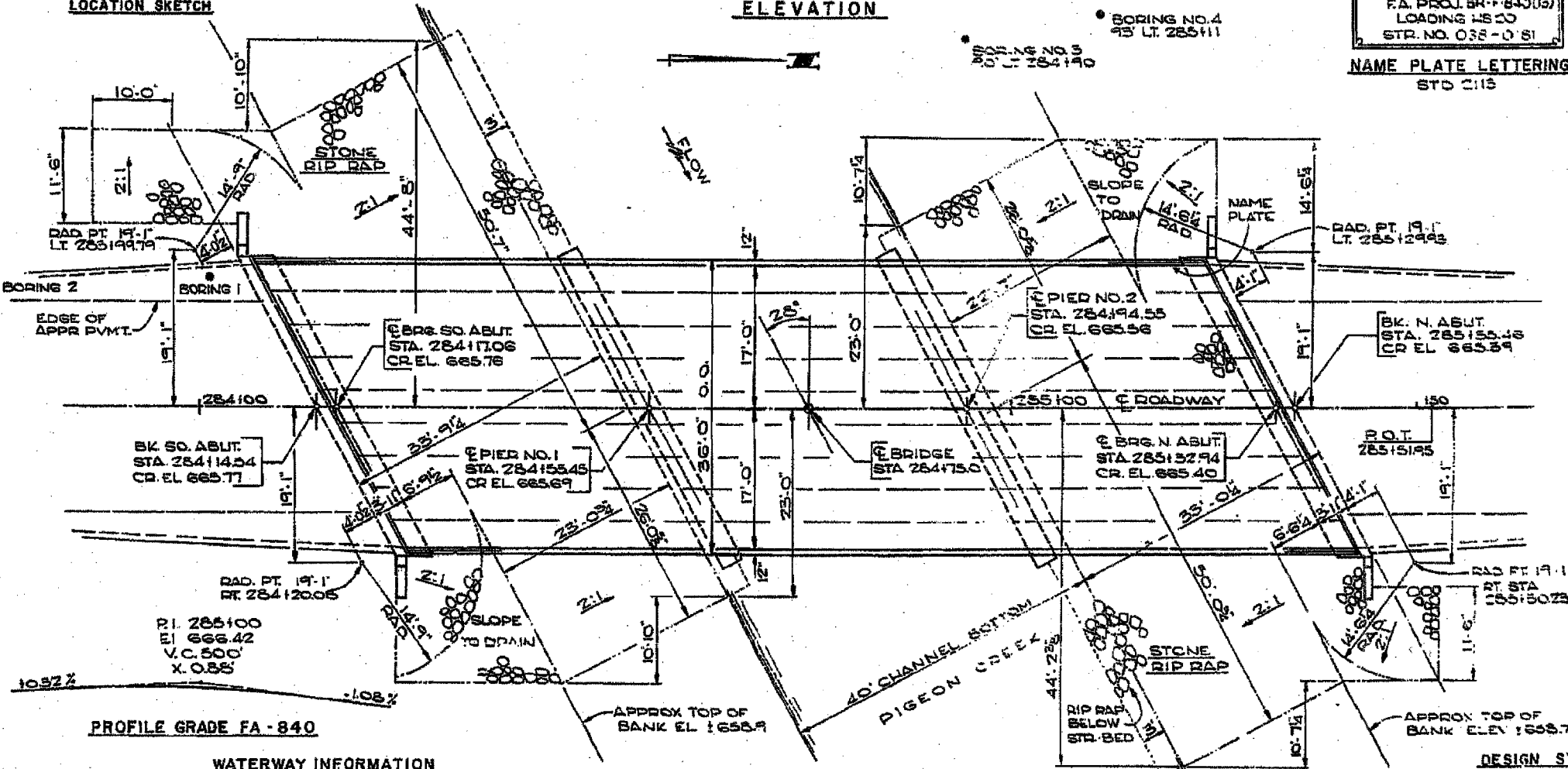


**GENERAL NOTES**

- SEE PROPOSAL FOR BORING DATA.
- ALL STRUCTURAL STEEL SHALL BE AASHTO M 183 AND SLOP PAINTED WITH TWO COATS OF BASIC LEAD SILICO CHROMATE PAINT
- EXPANSION GUARDS WHICH ARE NOT CAST IN THE PRECAST UNITS SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH ARTICLE 50307 (C) OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN QUANTITY OF STRUCTURAL STEEL.
- LAYOUT OF SLOPE PROTECTION MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL DRIVE ONE CONCRETE TEST PILE AT THE NORTH ABUTMENT AND ONE CONCRETE TEST PILE AT PIER NO. 1 IN PERMANENT LOCATIONS AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF PILES.
- THE TOP SURFACE OF THE BEAMS SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 50506 OF THE STANDARD SPECIFICATIONS EXCEPT THAT THE SURFACE SHALL NOT BE DOUGHED BY BROOMING THE FINISHED SURFACE SHALL BE FREE OF DEPRESSIONS OR HIGH SPOTS WITH SHARP CORNERS
- PROTECTIVE COAT SHALL NOT BE APPLIED TO SURFACES TO WHICH WATERPROOFING MEMBRANE SYSTEM IS APPLIED.
- REINFORCEMENT BARS SHALL CONFORM TO AASHTO M-31 OR M-53, GRADE 60.
- A CALCIUM NITRITE CORROSION INHIBITOR AS COVERED IN THE SPECIAL SPEC. SHALL BE USED IN THE CONCRETE FOR PRECAST PRESTRESSED CONCRETE DECK BEAMS.

STATION 284.75  
BUILT 19 BY  
STATE OF ILLINOIS  
F.A. RT 840 SEC. 123 BR-1  
F.A. PROJ. BR-1-84(15)  
LOADING HS 20  
STR. NO. 038-0081

NAME PLATE LETTERING  
STD 2113



**BILL OF MATERIAL - BRIDGE**

ITEM	UNIT	SUB.	SUPER.	TOTAL
CHANNEL EXCAVATION	CU.YDS.			52.7
REMOVAL OF EXISTING STRUCTURES	EACH			1
PROTECTIVE COAT	SQ.YDS.		56	56
CLASS X CONCRETE	CU.YDS.	144.2	9.3	153.5
PRECAST PRESTRESSED CONC. DECK BMS. (17')	SQ. FT.		4212	4212
STRUCTURAL STEEL	LBS.		5330	5330
STEEL RAILING, TYPE T	LIN. FT.		234	234
REINFORCEMENT BARS	LBS.	10820	640	11460
CONCRETE PILES	LIN. FT.	1266		1266
TEST PILES (CONCRETE)	EACH	2		2
NAME PLATES	EACH			1
STONE RIPRAP	SQ.YDS.			674
PORTLAND CEMENT MORTAR FAIRING COURSE	LIN. FT.		936	936
PREFORMED JOINT SEALER 2 1/2	LIN. FT.		80	80
WATERPROOFING MEMBRANE SYSTEM	SQ.YDS.		443	443
STRUCTURE EXCAVATION	CU.YDS.			50
BITUMINOUS CONC. SLUR COURSE CL. 2, MIXTURE D	TONS		44	44

NOTE  
STRUCTURE DESIGNED USING AASHTO SPECS. DATED 1977 AND INTERIM SPECS. DATED 1978 & 1979.

F.A. PROJECT F-840 (9)  
F.A. RT. 840 (ILL. RT. 49) SEC. 123 BR-1  
IROQUOIS COUNTY

**GENERAL PLAN & ELEVATION**

**WATERWAY INFORMATION**

DRAINAGE AREA	49.4 SQ. MILES
DESIGN DISCHARGE (50YR.)	4550 C.F./S.
EXISTING OPENING	472 SQ. FT.
REQUIRED OPENING	420 SQ. FT.
PROPOSED OPENING	420 SQ. FT.
CREATED HEAD (50YR.)	0.8 FOOT
100YR. DISCHARGE	5200 C.F./S.
CREATED HEAD (100YR.)	0.4 FOOT
HIGH WATER ELEV. (100YR.)	662.0

**DESIGN STRESSES**

FIELD UNITS	PRESTRESSED UNITS
f <sub>s</sub> = 22,000 p.s.i.	f <sub>c</sub> = 5,000 p.s.i.
f <sub>r</sub> = 1,400 p.s.i.	f <sub>ci</sub> = 4,300 p.s.i.
v = 56 p.s.i.	f <sub>s</sub> = 270,000 p.s.i.
n = 9	f <sub>si</sub> = 189,000 p.s.i.

ALLOWANCE FOR 25 P.S.F. FUTURE WEARING SURFACE

APPROVED  
*Carl E. Hoffman*  
CONSULTING ENGINEER

LOADING HS 20-44

DESIGNED BY  
B. THOMPSON  
DATE: MAY 1979  
CHECKED BY  
D. E. HOFFMAN  
DATE: JUNE 1979  
APPROVED BY  
DATE:

**WILLET  
HOFFMAN &  
ASSOCIATES, Inc.**  
Consulting Engineers