STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 885	111BR-1	Johnson	94	76
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
10 SHEETS

Contract #78030

B.M. Chiseld '□' on N.W. Wingwall of bridge 16' Lt. of Sta. 512+65.00 Elev. 363.62

Existing Structure: #022-0022 Built in 1928 as S.B.I. Rt. 146, Sec. 111-B, at Sta. 513+00.00. 2 Span R.C. deck girder, R.C. closed abutments and solid concrete pier. Out to Out of waterfacle = 20'-3". Bk. to Bk. of Abutments = 66'-0". The contractor shall remove the existing superstructure and replace it with 2 span P.P.C. deck beams. Existing substructure shall be widened as necessary.

Use stage construction to maintain traffic at all times.

No Salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

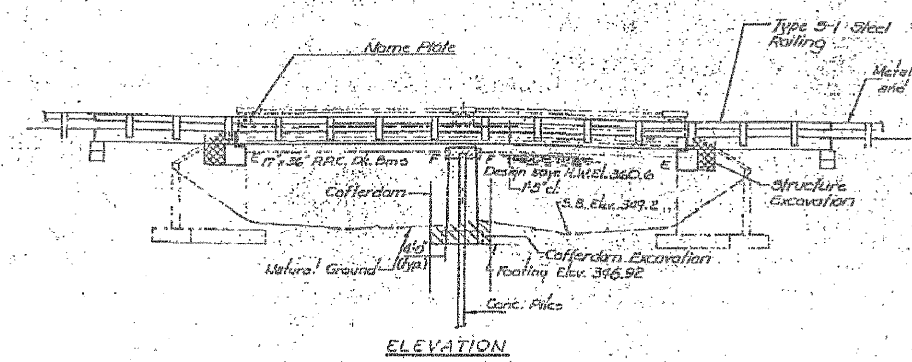
S.N. 044-0022

SHEET NO. 1
10 SHEETS

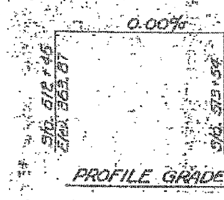
STATION 513+00
REBUILT 199_ BY
STATE OF ILLINOIS
F.A. RT. 885 SEC. 111B-DR-3
PROJ. No. 84-F-885(14)
LOADING HS20
STR. NO.

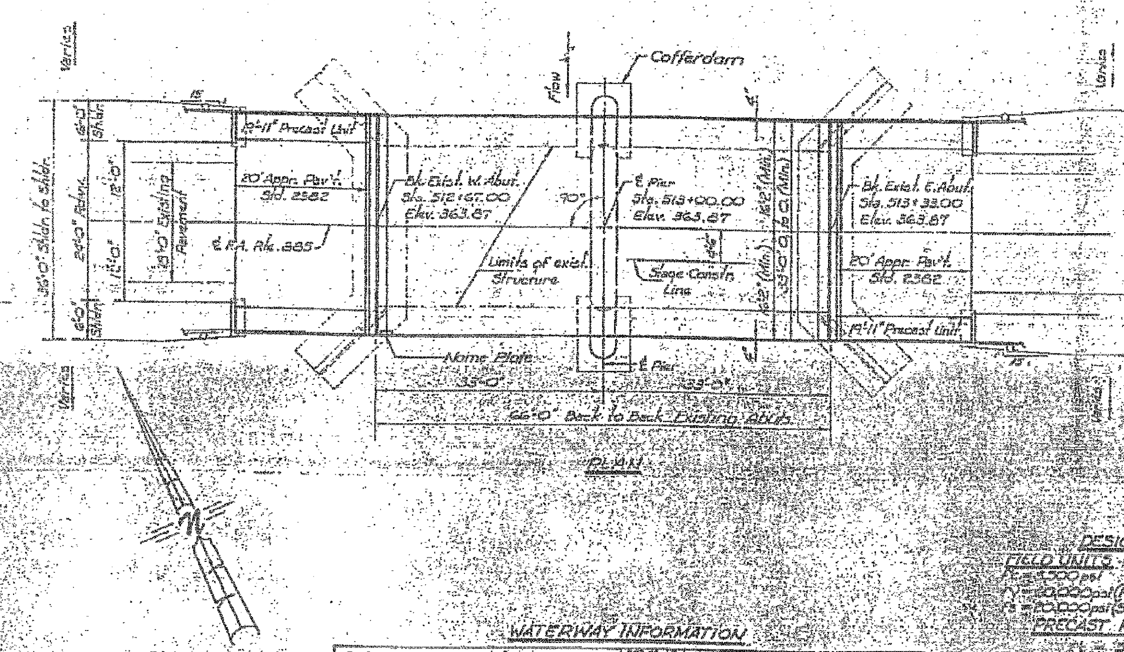
NAME PLATE
(See Std. 2115)

Structure Number to be supplied by District.



ELEVATION





PLAN

GENERAL NOTES

See Proposal for Boring Data.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The top surface of the beams shall be finished in accordance with Article 505.06 of the Standard Specification except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners, and the top edge of keys shall be rounded or chamfered a minimum of ¼".

Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-53 Grade 60, except as noted.

All structural steel shall be shop painted with two coats of basic lead silico chromate paint.

Expansion guards which are not cast in the precast unit shall be fabricated and erected in accordance with Article 503.07(c) of the Standard Specifications and are included in quantity of structural steel.

The contractor shall drive 1 (one) concrete test pile in a permanent location of the pier as directed by the Engineer before ordering the remainder of piles.

Expansion bolts shall consist of approved expansion anchors, providing certified minimum proof load 4,080 lbs., and ¾"⌀ x 12" hooked bolts.

A Calcium Nitrite Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

TOTAL BILL OF MATERIAL

Item	Unit	Super.	Sub.	Total
Bituminous Concrete Surface Course, Class I	Ton	20		20
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yd.		11	11
Expansion Bolts ¾"	Each		136	136
Structure Excavation	Cu. Yd.		31	31
Cofferdam Excavation	Cu. Yd.		51	51
Cofferdams	Each		2	2
Class X Concrete	Cu. Yd.	3.1	54.5	57.6
Temporary Bridge Rail	Lin. Ft.	108		108
Precast Concrete Bridge Slab	Sq. Ft.	299		299
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	2156		2156
Structural Steel	Pound	4630		4630
Steel Railing, Type S-1	Lin. Ft.	215		215
Reinforcement Bars	Pound	230	3880	4110
Concrete Piles	Lin. Ft.		765	765
Test Pile Concrete	Each		1	1
Name Plates	Each	1		1
Portland Cement Mortar Fairing Course	Lin. Ft.	537		537
Preformed Joint Seal (2½")	Lin. Ft.	66		66
Waterproofing Membrane System	Sq. Yd.	243		243

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 20,000 psi (Reinf.)
fs = 20,000 psi (Struct.)

PRECAST UNITS
f'c = 4,500 psi
fc = 18,000 psi
fs = 20,000 psi

PRECAST PRESTRESSED UNITS
f'c = 5,000 psi
f'ci = 4,000 psi
f's = 270,000 psi (½" ⌀ Strands)
fsi = 189,000 psi (½" ⌀ Strands)

LOADING HS 20-44

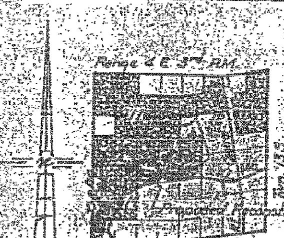
Design Specifications: 1977 AASHTO, 1978, 1979 and 1980 Interim Specifications.

Allow 25#/sq. ft. for future wearing surface.

WATERWAY INFORMATION

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.
Drainage Area - 3.20 sq. mi.	Low Grade Elev. 363.48 (Exist.) 363.11 (Prop.)								
Design	50	2840	663	663	360.6	1.61	1.61	362.21	362.21
Base	100	3260	677	693	361.1	0.54	1.86	361.64	362.96
Overtopping									
Max. Calc.	500	4245	677	745	362.2	0.95	0.79	363.15	362.99

* Local Q is less than the overflow



LOCATION SKETCH

GENERAL PLAN & ELEVATION
F.A. Rte. 885 Over BELL POND
F.A. Rte. 885 - Section 111B-DR-3
JOHNSON COUNTY
Sta. 513+00

DESIGNED Robert K. Peters
CHECKED Dale F. Schaub
DRAWN Paul Sid Ferchow
CHECKED Dale F. Schaub

October 28, 1981
EXAMINED
PASSED
APPROVED

Rev: RLP 05-17-83

HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400
ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-52-0007-i	DATE: 04/02/08	
DESIGNED: P.S.L.	CHECKED: M.D.C.	DRAWN: D.T.M.

EXISTING STRUCTURE PLANS

IL. ROUTE 146 OVER BELL POND
F.A.P. ROUTE 885 / SECTION 111BR-1
JOHNSON COUNTY
STATION 513+00
STRUCTURE NO. 044-0022