CONTRACT NO. 78023

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1	HARDIN	69	25
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 — 6 SHEETS (F.A. 778, 3B-DR-1, Hardin, 14, 6)

B.M.: R.R. Spike in power pole Rt. Sta. 808+54.00 - Elev. 402.16.
Existing structure № 035-0005, built as S.B.I. Rte. 34, Sec. 3B in 1924 2 spans R.C. thru girder on R.C. closed abutments & pier. The contractor shall remove the existing superstructure in stages and provide a new wider superstructure with P.P.C. Deck Bms. Widen the substructure. Repair the pier as required. Traffic shall be maintained at all time using stage constr.
No salvage.

GENERAL NOTES

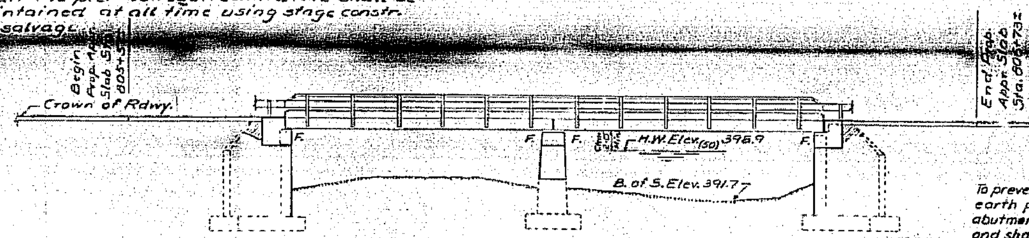
It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.

The top surface of the beams shall be finished in accordance with Article 505.06 of the Standard Specifications except that the surface shall not be roughened by ... The finished surface shall ... of high spots with sharp corners.

Expansion bolts shall consist of self drilling expansion anchors and 3/4"φ x 12" hooked bolts.

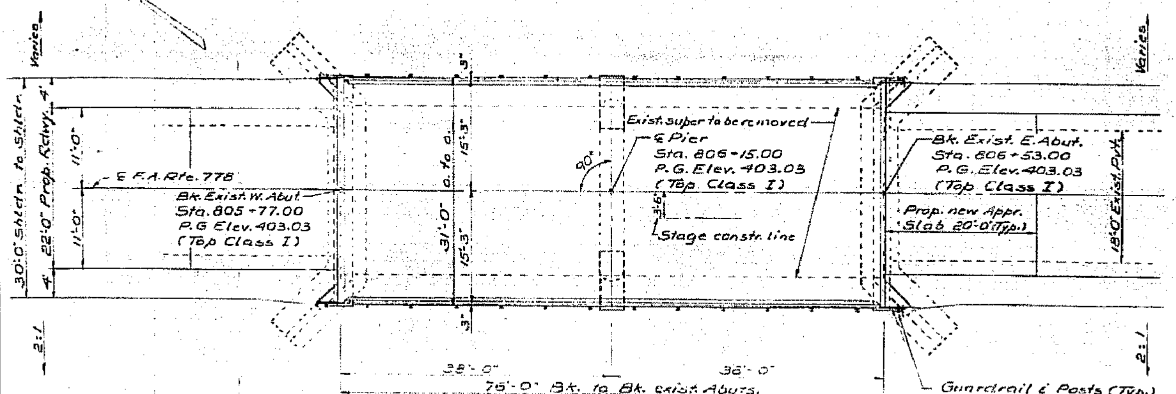
Reinforcement bars shall conform to the requirements of AASHTO M 31 Grade 60

Protective coat shall not be applied to surfaces to which waterproofing membrane system is applied



To prevent damage to the abutments from unrestrained earth pressure, adequate struts shall be placed at the abutments before the existing superstructure is removed and shall remain in place until the new superstructure has been erected.
Cost incidental.

ELEVATION



PLAN

TOTAL BILL OF MATERIALS

Item	Units	Super	Sub	Total
Class X Concrete	Cu. Yds.	4.7	28.6	33.3
Reinforcement bars	Lbs.		2560	2560
Name Plate	Ea.		1	1
P.P.C. Deck Beams (17)	Sq. Ft.	2333		2333
P.C. Mortar Fairing Crse.	Lin. Ft.	678		678
Bit. Concr. Surf. Cse. Cl. I	Tons	23		23
Rem. of Exist. Super Struct.	Ea.	1		1
Waterproofing Mem. Sys.	Sq. Yds.	259		259
*Temporary Support Sys	L. Sum.		1	1
Temporary Guardrail	Lin. Ft.	76		76
Protective Coat	Sq. Yds.	25		25
Concrete Removal	Cu. Yds.		18.3	18.3
Steel Railing Type "T"	Lin. Ft.	151		151
Expansion Bolts 3/4"φ	Ea.	90		90

*See Special Provisions

STATION 806+15.00
REBUILT 197_ BY
STATE OF ILLINOIS
F.A. RTE. 778 SEC. 3B-DR-1
LOADING HS-20
STRUCTURE NO. 035-0005

NAME PLATE
See Std. 2113

0.00%
Sta. Increase
Sta. 805+50
Elev. 403.03

PROP. GRADE PROFILE F.A. RTE. 778
(E Rdwy.)

DESIGN STRESSES
PRECAST PRESTRESSED UNITS

$f'c$ = 5,000 psi
$f'ci$ = 4,000 psi
$f's$ = 270,000 psi (1/2" φ Strands)
fsi = 189,000 psi (1/2" φ Strands)

FIELD UNITS

$f'c$ = 3,500 psi
fy = 60,000 psi (Reinf.)
fs = 20,00 psi (Struct.)

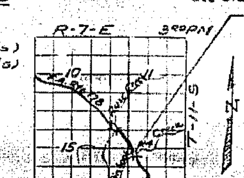
Loading HS20-44
Design Specifications: 1973 AASHTO, 1974, 1975, 1976 and 1977 Interim Specifications.
Allow 25#/□' for future wearing surface

WATERWAY INFORMATION

Drainage Area	5.4 Sq. Miles
Existing Opening	360 Sq. Ft.
Required Opening	360 Sq. Ft.
Proposed Opening (Below 50-yr H.W.E.)	360 Sq. Ft.

H.W.E.(50) = 398.9'
Q(50) = 2168 cfs
Created Head = 0.63'

H.W.E.(100) = 399.3'
Q(100) = 2555 cfs
Created Head = 0.83'



LOCATION SKETCH

DESIGNED	DR Gathard	EXAMINED	January 19 1978
CHECKED	[signature]	PASSED	
DRAWN	V.H.	APPROVED	
CHECKED	HB		

GENERAL PLAN & ELEVATION
F.A. RTE. 778 OVER PINHOOK CREEK
F.A. RTE. 778 SECTION 3B-DR-1
HARDIN COUNTY
STA. 806+15.00

PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
USER NAME = $USER$

MODJESKI and MASTERS
Consulting Engineers
SINCE 1893
10/04/07

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
F.A.P. ROUTE 778 (IL ROUTE 34)
SECTION 3BR-1
HARDIN COUNTY