

085-0025

6-52, 171

Bench Mark: Chiseled "a" on N.W. wingwall of bridge over Williams Creek 16.0 feet left of Sta. 142+27.00, Elev. 594.10 -

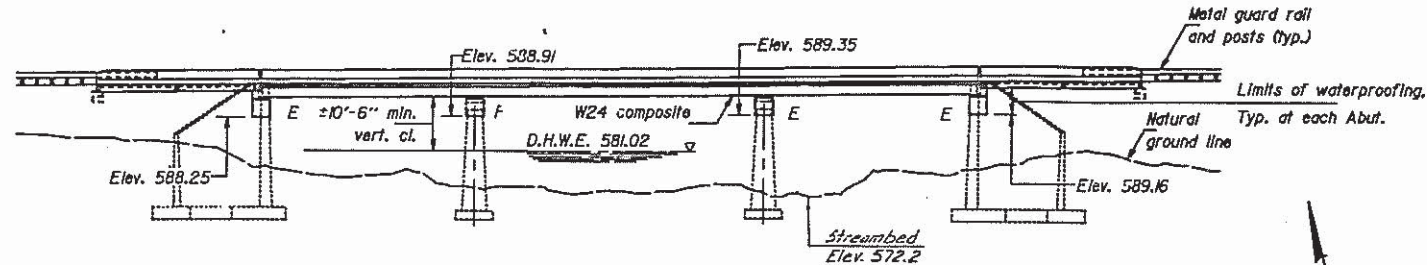
Existing Structure: #085-0025 Built as S.B.I. Rte. 101, Section 119-B at Station 143+00 in 1928. The existing (3 simple spans) R.C.D.G. superstructure 24'-8" wide by 144'-0" long shall be removed and the existing substructure modified to carry a new widened W24 beam superstructure. Stage construction shall be utilized so as to maintain one way traffic during reconstruction. No salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

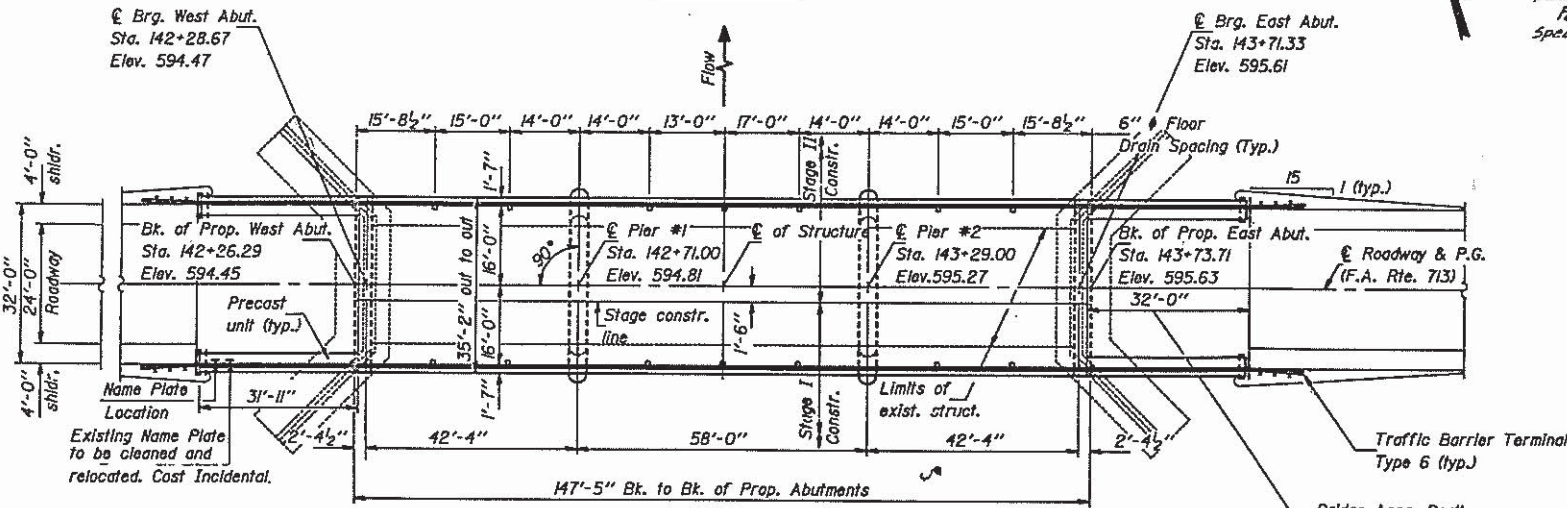
DATE	BY	NO.	REV.	SHEET NO.
11/26/88	SCOTT, J.E.	36	0	16 SHEETS

GENERAL NOTES

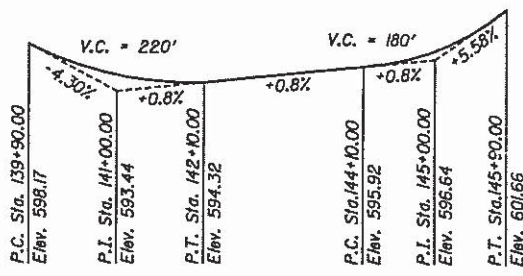
Fasteners shall be high strength bolts. Bolts 7/8" open holes 5/8".
unless otherwise noted.
Calculated weight of Structural Steel M-183 = 15,150 Lbs.
M-223 = 75,400 Lbs.
The Zinc-silicate and vinyl paint system shall be used for shop and field painting of Structural Steel except where otherwise noted.
The structural steel bearing plates of the Elastomeric Bearing Assembly and the Fixed Bearing shall conform to the requirements of AASHTO M-223, G-50.
The back face of Closed Abutments shall be waterproofed according to Article 503.11 of the Standard Specifications.
Field welding of construction accessories will not be permitted to the bottom flange of beams nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.
Anchor bolts shall be set before bolting diaphragms over supports.
The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These Components are the wide flange beams (W24x84) and all splice plate material of the wide flange beams.
Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-53 Grade 60.
Shoulder transition to wingwall shall be shaped with broken concrete. Cost incidental.
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.
Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/4 inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/2" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. For Type I Elastomeric Bearings, shims of the dimensions of top plate shall be provided and placed as detailed.
Expansion bolts shall consist of approved expansion anchors, providing minimum certified proof load = 4,000 lbs. and 3/4" x 12" hooked bolts.



ELEVATION



PLAN



PROFILE GRADE
(11. Route 101 - F.A. Route 713)

STATION 143+00.00
BUILT 198 BY
STATE OF ILLINOIS
F.A. RTE. 713 SEC. 119BR
F.A. PROJ.
LOADING HS20
STR. NO. 085-0025
NAME PLATE
See Std. 213

WATERWAY INFORMATION

Drainage Area = 30.0 sq. mi., Low Grade Elev. 594.24 @ Sta. 142+00										
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Nat. H.W.E.	Head - Ft.	Headwater El.	Exist.	Prop.	Exist.	Prop.
Design	50	4635	836	836	581.0	0.02	0.02	581.02	581.02	581.6
Base	100	5306	916	916	581.6	0.0	0.0	581.63	581.6	581.6
Overtopping										
Max. Calc.	500	6867		1076	582.8		0.0			582.8

DESIGN STRESSES

Field Units
f'c = 3,500 p.s.i.
fy = 60,000 p.s.i. (reinf.)
fy = 50,000 p.s.i. (struct. steel) AASHTO M-223-Grade 50
fy = 36,000 p.s.i. (struct. steel) AASHTO M-183
Precast Units
f'c = 4,500 p.s.i.
fc = 1,800 p.s.i.
fs = 20,000 p.s.i. n=8

DESIGN SPECIFICATIONS

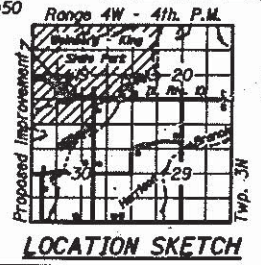
AASHTO 1983, 1984 & 1995 Interims

LOADING HS20-44

(New Construction)
Allow 25#/sq. ft. for future wearing surfaces.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Class X Concrete	Cu. Yd.		58.3	58.3
Reinforcement Bars	Lbs.		6920	6920
Reinforcement Bars (Epoxy Coated)	Lbs.	39310	40	39350
Temporary Bridge Roll	Lin. Ft.	144		144
Elastomeric Bearing Assembly, Type I	Each		12	12
Elastomeric Bearing Assembly, Type II	Each		6	6
Floor Drains	Each	14		14
Name Plates	Each	1		1
Stud Shear Connectors	Each	2232		2232
Preformed Joint Seal 2 1/2"	Lin. Ft.	35		35
Preformed Joint Seal 4"	Lin. Ft.	35		35
Protective Coat	Sq. Yd.	117		117
Epoxy Crack Sealing	Lin. Ft.		73	73
Removal of Existing Superstructure	Each	1		1
Structure Excavation	Cu. Yd.		34	34
Concrete Removal	Cu. Yd.		25	25
Structural Steel	L.S.	1		1
Precast Concrete Bridge Slab	Sq. Ft.	479		479
Expansion Bolts (3/4")	Each		96	96
Furnishing Steel Piles HP8x36	Lin. Ft.		26	26
Bridge Seat Sealer	L.S.		1	1
Class X Concrete Superstructure	Cu. Yd.	170.0		170.0



GENERAL PLAN
ILLINOIS ROUTE 101 OVER
WILLIAMS CREEK
F.A. ROUTE 713 SECTION 119BR
SCHUYLER COUNTY
STATION 143+00.00
STRUCTURE NO. 085-0025

DESIGNED: [Signature]
CHECKED: [Signature]
DRAWN: [Signature]
CHECKED: [Signature]

EXPANDED: [Signature]
PASSED: [Signature]
APPROVED: [Signature]

JUNE 6 1986

AS REVISED: 7-20-88 R.E.A.