STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

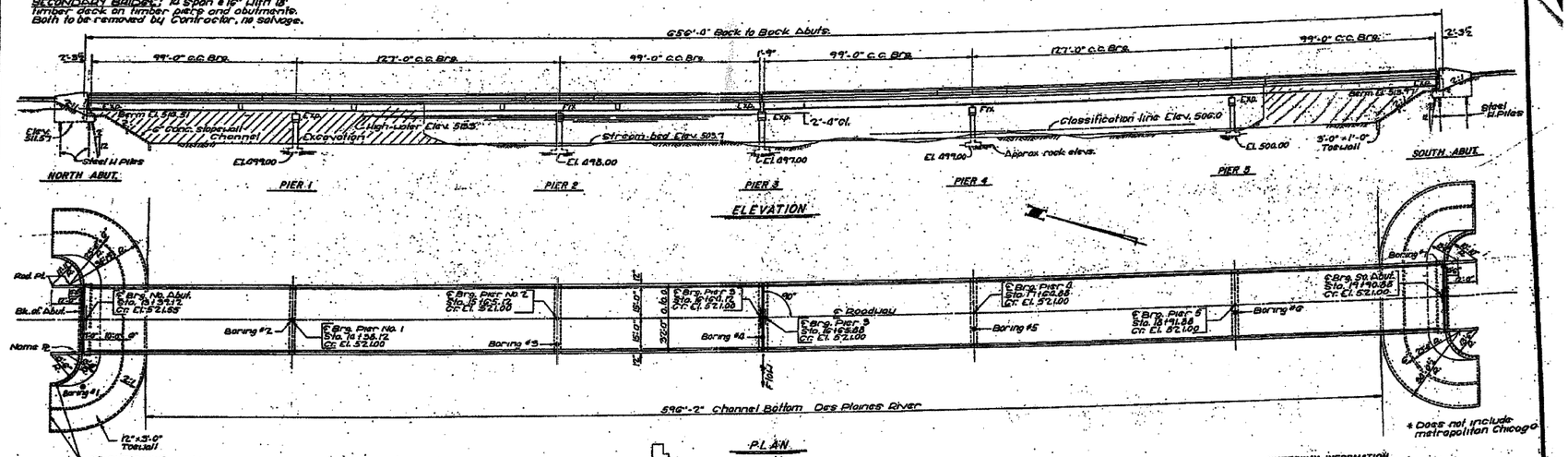
SECTION	ROUTE No.
82B-2-MFT	C.H. 42
COUNTY Will	ROAD DIST.

EXISTING STRUCTURES: 3 steel truss spans (129'-8"; 145'-0"; 145'-0") on stone masonry piers and abutments, over main channel. Built 1927, 13" timber deck repaired in 1956 as Sec. 82-B1-15d Will County.

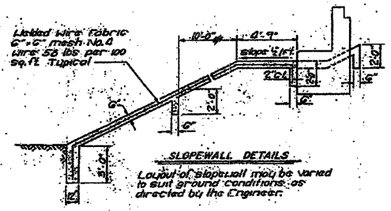
SECONDARY BRIDGE: 10 Span @ 16' with 18" timber deck on timber piers and abutments. Both to be removed by Contractor, no salvage.

Bench Mark
Chis "a" at N.E. Cor. West Curb of North end of Canal Bridge
Elev. 520.23

Bench Mark
N.E. Cor. Signal base on North side of tracks 11' Pl. sta. 21 166
Elev. 522.55



* Does not include metropolitan Chicago



SLOPEWALL DETAILS

Layout of slopewall may be varied to suit around conditions as directed by the Engineer.

BRANDON ROAD
DES PLAINES RIVER
BUILT 1927 BY
WILL COUNTY
SEC. 82B-2-MFT
LOADING-HS 20

NAMEPLATE LETTERING
see std. 2115-1

WATERWAY INFORMATION
DRAINAGE AREA ....970 sq. mi.*
REQUIRED OPENING ....5800 Sq. Ft.
EXISTING OPENING ....5388 Sq. Ft.
PROPOSED OPENING ....5800 Sq. Ft. (50 yr.)

DESIGN STRESSES
fc Deck: 1,200 p.s.i.
fc Substr. 1,200 p.s.i.
fs Reinf. 20,000 p.s.i.
fs Struct. St. 22,000 p.s.i.
n 10
Includes 25 lbs. per sq. ft. future wearing surface.

36 ksi

LOADING HS 20-44
Live Load Defl. L/1200

GENERAL NOTES:

All reinforcement bars shall be lapped 24 dia. unless otherwise shown.

Fasteners shall be high strength bolts. Bolts ⅞"ø; open holes 15/16", unless otherwise noted.

Calculated weight of structural steel = 712,770 lbs.

Roadway expansion guards shall be assembled in the proper position with the ends in place and shall be left assembled for shop inspection.

The basic lead silica chromate paint system shall be used for shop and field painting of structural steel (see Special Provisions)

Field welding of construction accessories will not permitted to the bottom flange of girders nor to the top flange for a distance equal to one-fourth the span length each way from 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.

Class A Excavation for structures includes excavation for slope wall.

The Contractor shall drive one (1) HP 10x42 test pile in a permanent location at each abutment as directed by the Engineer before ordering the remainder of piles.

The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection.

The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.

Protective Coat shall not be applied to surfaces to which Coal Tar Interlayer Protective Coat is applied.

BILL OF MATERIAL - BRIDGE

ITEM	UNIT	SUB.	SUPER.	TOTAL
Removal of Existing Structures No. 1	Each			1
Removal of Existing Structures No. 2	Each			1
Class A Excavation for Structures	Cu. Yd.	690		690
Class B Excavation for Structures	Cu. Yd.	90		90
Coffer dam Excavation	Cu. Yd.	260		260
Rock Excavation for Structures	Cu. Yd.	55		55
Coffer dams	Each	5		5
Protective Coat	Sq. Yd.		510	510
Class X Concrete	Cu. Yd.	3286	6886.2	9172
Furnishing and Erecting Structural Steel	Lump Sum		1	1
Furnishing and Erecting Structural Steel	Lin. Ft.		1306	1306
Aluminum Railing	Pound	26,890	152,540	179,430
Reinforcement Bars	Lin. Ft.	250		250
Furnishing Steel Piles HP 10x42	Lin. Ft.	250		250
Driving Steel Piles	Each	2		2
Test Piles Steel HP 10x42	Each		1	1
Name Plates	Each			2
Slope Wall 6"	Sq. Yd.	970		970
Bridge Seal Sealant	Lump Sum	1		1
Bridge Seal Sealant	Sq. Yd.		2,050	2,050
Coal Tar Interlayer Protective Coat	Sq. Yd.		192	192
Bituminous Concrete Surface Course, Class I	Ton			

GENERAL PLAN & ELEVATION
BRANDON ROAD BRIDGE
OVER DES PLAINES RIVER
SEC. 82B-2-MFT C.H. NO. 42
WILL COUNTY

Detailed by D. Hoffman Checked by M. Hill
Designed by R. Bhoyle Checked by D. Thompson
Approved by

PREPARED BY
WILLETT, HOFMANN & ASSOCIATES INC.
CONSULTING ENGINEERS
JOLIET, ILLINOIS

PLAN NO. SHEET NO. OF SHEETS

DESIGNED -	JLS
CHECKED -	MRB
DRAWN -	VH
CHECKED -	MRB

FOR INFORMATION ONLY

benesch
alfred benesch & company
Engineers • Surveyors • Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 3808.02

EXISTING PLAN INFORMATION
STRUCTURE NO. 099-3298

SHEET NO. S36	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S47 SHEETS	341	04-00090-07-BR	WILL	57	44
			CONTRACT NO. 63442		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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