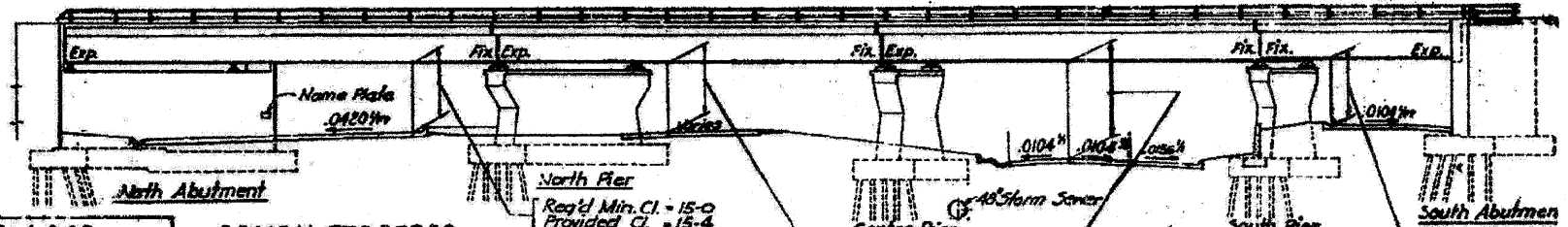


B.M. No. 13
East side of Bowman Ave.
South side of 8th St.
Iron pin on S.E. corner
of 8th St. & Bowman Ave.
Elev. 413.38

SECTION	82-10M	COUNTY	ST. CLAIR
DATE	7-10-60	PROJECT	FAI 70 SEC. 82-2SB

GENERAL NOTES

Material and workmanship shall be in accordance with "Standard Specifications for Road and Bridge Construction," State of Illinois, adopted January 2, 1958.
DESIGN: A.B.A. current specifications, except as noted below and shown on drawings.
LIVE LOAD: Cooper, E72.
CONCRETE: Class "X" concrete shall be used throughout. All exposed edges and corners of concrete shall be chamfered 90°.
STRUCTURAL STEEL shall be fabricated in accordance with A.B.A. Specifications for Steel Railway Bridges (current), except as noted on drawings.
MATERIAL: Open hearth structural and rivet steel, A.S.T.M. A7 and A141 current, except bearings shall be of cast steel annealed as noted.
RIVETS: 1 1/2"; open holes 1 1/8".
FIELD CONNECTIONS to be riveted.
COVER PLATES: Universal Mill Plates with both edges rolled shall be used for cover plates. Bottoms of end stiffener angles and their fills shall be milled to bear on bottom flange angles. The stiffener angles shall be ground to fit the fillets of the flange angles.
The backs of the bottom flange angles of end bearings shall be in a true plane (perpendicular to center line of web) for the full width of the flange and the full length of the sole plate, so the flange angles will have a full bearing on the sole plate or cover plate.
Diaphragm webs shall be flush with the backs of the top and bottom diaphragm angles to avoid grooves that will hold water.
No welding of steel will be permitted except as noted.
REAMING: All holes in cover plates, flange angles, web plates, web splice plates and end stiffeners (except OSL) and their fills shall be sub-punched 1/16" and reamed to 1/16" while assembled. Notes in laterals, lateral plates, diaphragms, int stiffeners and their fills, and OSL of end stiffeners may be punched to 1/16".
ANCHOR BOLTS: 1 1/2"; 12" in masonry; 10" swedge.
PAINT: See Article 55.1 to 55.3 inclusive of the Standard Specifications.
Shop Paint: One coat Red Lead and Linseed Oil except for finished surfaces of pedestal which shall be coated with White Lead and Tallow applied hot as soon as the surfaces have been finished and accepted by the Inspector.
Field Paint: First and second field coats shall be Aluminum paint.
All paint shall be furnished and applied by the contractor involved.
All roller pins, bearing plates, pintles and anchor bolts shall be fabricated and set in accordance with A.B.A. Specifications for Steel Railway Bridges (current) and are included for payment as Structural Steel. Estimated Weight, 48,750 lbs.
All steel expansion devices between slabs and of piers and abutments and the perforated drainage angles shall be fabricated and set in accordance with Standard Specifications and are included for payment as Structural Steel. Estimated Weight, 39,460 lbs.



DESIGN STRESSES

$f_c = 1400$ p.s.i. (Superstructure)
 $f_c = 1000$ p.s.i. (Substructure with earth pressure)
 $f_s = 20,000$ p.s.i. (Reinforcement)
 $f_s = 18,000$ p.s.i. (Structural Steel)
 $R = 10$
 $V = 75$ p.s.i. (Footings)

GENERAL NOTES - Continued

REINFORCEMENT: All reinforcement shall be deformed bars (A305), new billet steel, intermediate grade ASTM-A15 (current).
PILES shall be concrete and timber with a minimum load capacity as shown on the plans.
TEST PILES: (concrete and timber), shall be driven in permanent locations shown on the plans as directed by the Engineer, before ordering remainder of piles.
BORING DATA is shown on the drawings as a guide to bidders in estimating soil conditions which may be encountered in the work.
The back and ends of abutment walls, wingwalls and retaining walls shall be water proofed from top of footing to ground surface in accordance with Article 51.21 of the Standard Specifications. The bitumen used shall be asphalt Membrane Water-proofing shall be in accordance with Section 53 of the Standard Specifications. The bitumen used shall be asphalt.
EARTH PRESSURE: The horizontal pressure shall be that of fluid weighing 40 p.c.f. and the vertical pressure in such instance that of a fill weighing 120 p.c.f. The live load surcharge shall be 1030 pounds p.s.f., 14 feet wide per track on a material with an angle of repose of 30°.
Provide 3 feet of porous granular embankment behind the shafts of the North and South abutments, and the stems of Wall N, Northeast Wing Wall, Walls 2" and 3", as called for on drawings.
The 8" Corrugated Metal Pipe, Perforated, shall be galvanized.

STA. 55+64.60
BUILT 19 BY
STATE OF ILLINOIS
FAI RT. 70 SEC. 82-2SB
FA PROJECT 70-1 (13)
LOADING E 72

TOTAL BILL OF MATERIAL FOR BRIDGE NO. 7, PIPE BRIDGE AND WALLS "N", "Q", "R" & "S"

UNIT	DESCRIPTION	SECTION 82-2SB		TOTAL
		SUPER STRUCTURE	SUB-STRUCTURE	
CY	SPECIAL EXCAVATION		61380	61380
CY	CLASS "A" EXCAVATION FOR STRUCTURES		4597	4597
CY	CLASS "X" CONCRETE	334	4166	4700
LB	REINFORCEMENT BARS	85365	363163	448528
LB	STRUCTURAL STEEL	2,154,240		2,154,240
LF	PIPE HANDRAIL (GALVANIZED)	629		629
Eg	TEST PILES (CONCRETE)		5	5
LF	FURNISHING CONCRETE PILES		14,643	14,643
LF	DRIVING CONCRETE PILES		14,643	14,643
Eg	TEST PILE (CREOSOTED)		11	11
LF	FURNISHING CREOSOTED PILES		27,642	27,642
LF	DRIVING TIMBER PILES		27,642	27,642
Eg	NAME PLATES		2	2
LF	5" C.M.P., PERFORATED, GALVANIZED		4288	4288
SF	MEMBRANE WATER PROOFING	9,170		9,170
Month	PUMPING		18	18
LS	WROUGHT IRON PIPE DRAIN SYSTEM			LUMP SUM
LS	TEMPORARY SHEETING & BRACING			LUMP SUM
LF	CHAIN LINE FENCE		737	737
CY	POROUS GRANULAR EMBANKMENT		365	365