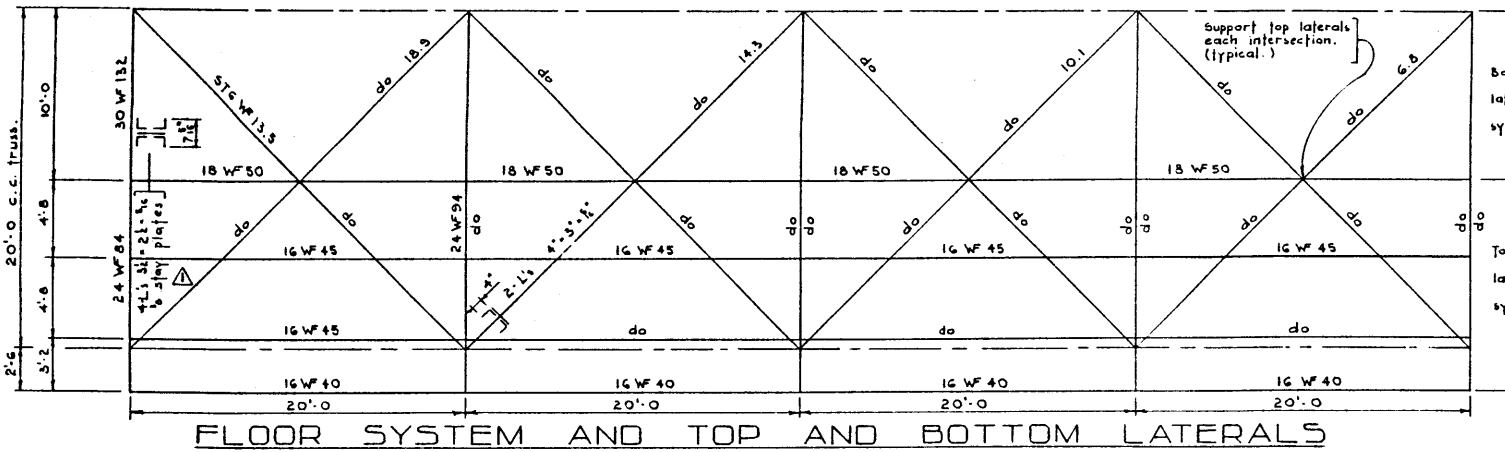
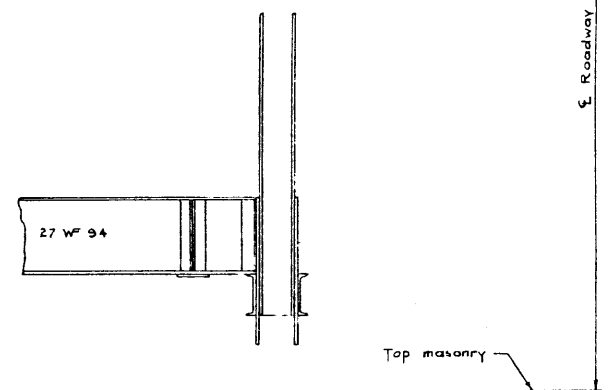


TRUSS DESIGN



FLOOR SYSTEM AND TOP AND BOTTOM LATERALS

FOR DETAILS OF INTERMEDIATE AND END SECTIONS SEE DWG. S-728 EXCEPT AS SHOWN.



DESIGNED BY: Henry H. Hendrickson
 CHECKED BY: Bogdan W. Sawicki
 DATE: September 18, 1960
 DATE: October 15, 1960
 DATE: October 15, 1960

JACKING BEAM

Jacking load = 210 k
 Moment = 210 x 2.5 = 525 ft-k
 S req'd = 15.4 + 1.5 = 273 cu.in.
 30 WF 108
 S = 299.2 cu.in.
 b = 22.5

INTERIOR FLOOR BEAM

Shear D.L. = 27 k
 L.L. + 1 = 87 k = 11 k.s.i. = 7.64 sq.in.
 Moment D.L. = 26 ft-k
 L.L. + 1 = 87 ft-k
 S req'd = 234 ft-k = 18 k.s.i. = 189 cu.in.
 24 WF 84
 web area = 12.4 sq.in.
 section mod. = 220.5 cu.in.
 L.L. deflection = 0.24 in.

END FLOOR BEAM

Shear D.L. = 14 k
 L.L. + 1 = 54 k = 11 k.s.i. = 6.5 sq.in.
 Moment D.L. = 13 ft-k
 L.L. + 1 = 87 ft-k
 S req'd = 232 ft-k = 18 k.s.i. = 185 cu.in.
 24 WF 84
 web area = 11.3 sq.in.
 section mod. = 156.3 cu.in.
 L.L. deflection = 0.26 in.

INTERIOR STRINGERS

Shear D.L. = 4.6 k
 L.L. + 1 = 23.0 k = 11 k.s.i. = 2.5 sq.in.
 Moment D.L. = 23.4 ft-k
 L.L. + 1 = 87 ft-k
 S req'd = 170.0 ft-k = 18 k.s.i. = 73.4 cu.in.
 16 WF 45
 web area = 9.5 sq.in.
 section mod. = 72.4 cu.in.

NOTE: Make centre stringer 18 WF 90 (flange hole for one 1/2" hanger bolt.)

EXTERIOR STRINGERS

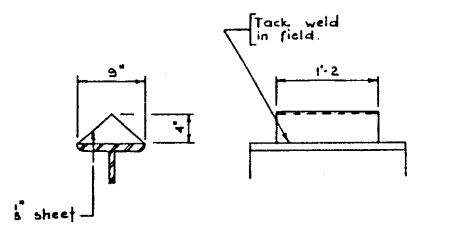
Shear D.L. = 2.3 k
 L.L. + 1 = 23.0 k = 11 k.s.i. = 2.3 sq.in.
 Moment D.L. = 11.3 ft-k
 L.L. + 1 = 87 ft-k
 S req'd = 98.3 ft-k = 18 k.s.i. = 65.1 cu.in.
 A7-16 WF 40
 web area = 4.9 sq.in.
 section mod. = 64.4 cu.in.

BEARING

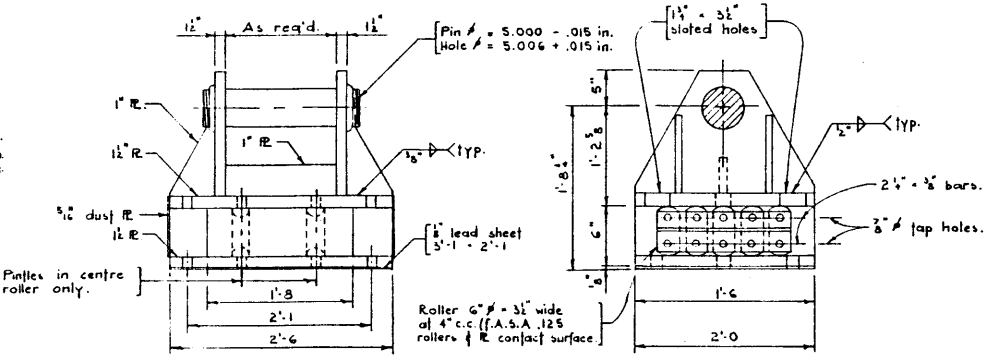
Reaction D.L. = 210 k
 L.L. + 1 = 110 k = 11 k.s.i. = 7.64 sq.in.
 Bearing R = 320 k
 6" rollers = 320 k = 90 in.in. req'd.

PIN BEARING

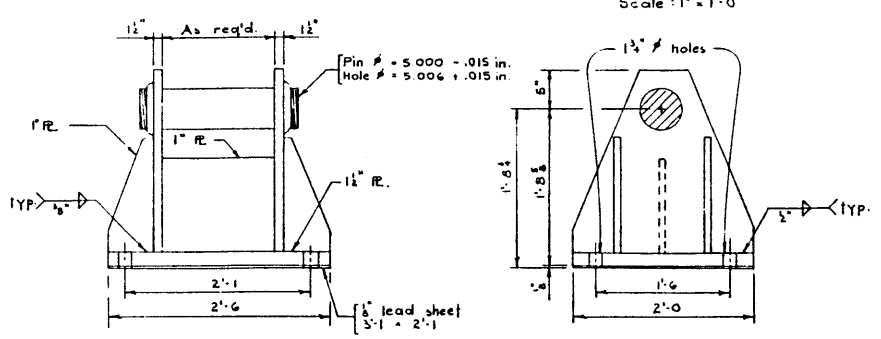
Bearing A req'd = 320 / 24 = 13.4 sq.in.
 A supplied = 15.0 sq.in.
 Shear A req'd = 320 / 15.572 = 11.8 sq.in.



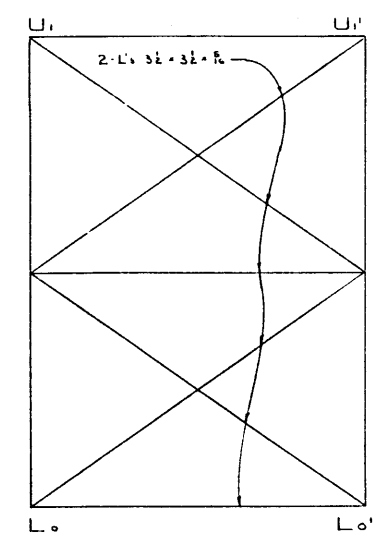
DEFLECTOR DETAIL
Scale: 1" = 1'-0"



EXPANSION BEARING DETAILS
Scale: 1" = 1'-0"



FIXED BEARING DETAIL
Scale: 1" = 1'-0"



SECTION A-A
Scale: 3/4" = 1'-0"

- GENERAL NOTES**
- Specifications - A.A.S.H.O. - 1957
 - Live load - H20-516-44
 - Dead load - asphalt and concrete 1.710
 - floor steel and connections 260
 - handrail 35
 - truss and bracing 625
 - Wind load - 350 lbs./ft. for top chords, 2650 lbs./ft./truss.
 - 200 lbs./ft. for bottom chords.
 - Connections:
 - Shop - all main components to have 3" rivets.
 - all bracing to have 1/2" rivets.
 - Field - all main components to have 3/4" high strength bolts.
 - all bracing to have 1/2" high strength bolts.
 - Bolts, nuts and washers shall conform to A.S.T.M. - A325 - 55 T.
 - Gussets - 1/2" min. for main members only.
 - 3/4" min. for bracing members only.
 - Shop paint: all steel, except surfaces in contact with steel or concrete and machined surfaces to receive one coat red lead, iron oxide, oil alkyd type paint conforming to the requirements of the Canadian Government Specifications Board: Spec. 1-GP-140 A.
 - Camber - camber for full D.L. + L.L.
 - Bearings - welded using the metal arc process.
 - Steel shall conform to A.A.S.H.O. - M165-571 (A.S.T.M. - A573 - 56 T) where welding req'd.
 - Steel in pins and rollers shall conform to A.A.S.H.O. - M102-57-1 (A.S.T.M. - A235) (Class C1).
 - Structural steel shall conform to A.A.S.H.O. - M94-57-1 (A.S.T.M. - A7 - 56 T.)

160' DECK TRUSS
STRESSES - SECTIONS - DETAILS
(A-7 STEEL)

GOVERNMENT OF THE PROVINCE OF ALBERTA
DEPARTMENT OF HIGHWAYS
BRIDGE BRANCH, EDMONTON

FILE NO.	HWY. NO.	DWG. NO.
LOCATION	SCALE Shown	S-730
STREAM	SHEET OF	

NO.	DATE	DESCRIPTION	BY
4			
3			
2			
1	25 Nov 1960	Change to splay plates.	H.H.H.

REVISIONS