



Dead Load:-
 Concrete (and asphalt) 1877 #/ft truss
 Floor steel and fence 422 " "
 Truss and bracing 764 " "
 Total 3063 #/ft truss

Live Load:-
 On roadway - for floor - 1 Std. H-20-44 Truck per load lane
 - for truss - 640 #/lineal foot of load lane
 combined with conc. load of 18,000 # per lane
 for moment or 28,000 # per lane for shear
 On future - for floor - 85 #/ft²
 sidewalks - for truss - 43 #/ft²

Wind Load:-
 210 #/lineal ft on top chord
 370 # " " " bottom chord
 200 # " " " moving load 6ft above roadway.

Unit Stresses:-
 Tension 18,000 #/in²
 Compression 15,000 - 1/4 (1/2)²
 Unit Stresses increased 25% for DL+L.L.+Impact+Wind.

Specifications:-
 A.A.S.H.O. 1949 Standard Specifications for Highway Bridges

Notes:-
 Rivets 3/8"
 Gussets 3/8" thick minimum except 1/2" for lateral and sway bracing.
 Minimum thickness of metal 1/8" except webs of rolled shapes min. thickness 0.25"

SIDEWALK STRINGER - INSIDE

	S.F.	M.
DL.	3,000	16,900
L.L.	2,400	13,400
I	5,400*	30,300*
10"W@21"	S = 21.5 in ³	
f = 30,300 x 12 ÷ 21.5 = 16,900 #/in ²		

ROADWAY STRINGER

	S.F.	M.
DL.	7,500	42,100
L.L.	17,700	99,000
I	5,300*	29,700*
21"W@62"	S = 126.4 in ³	
f (allow) = 18,000 - 5 (11.62) ² = 17,740 #/in ²		
f = 170,800 x 12 ÷ 126.4 = 16,200 #/in ²		

FLOOR BEAM - INTERMEDIATE

	S.F.	M.
DL.	39,700	303,500
L.L.	37,900	325,000
I	11,400	97,500
33"W@152"	S = 486.4 in ³	
f (allow) = 18,000 - 5 (11.62) ² = 17,840 #/in ²		
f = 726,000 x 12 ÷ 486.4 = 17,900 #/in ²		

SIDEWALK STRINGER - OUTSIDE

	S.F.	M.
DL.	2,200	13,600
L.L.	2,400	13,400
I	4,600*	27,000*
10"W@21"	S = 21.5 in ³	
f = 27,000 x 12 ÷ 21.5 = 15,000 #/in ²		

FLOOR BEAM - END

	S.F.	M.
DL.	326,000*	978,000
L.L.	37,900	325,000
I	11,400	97,500
33"W@152"	S = 486.4 in ³	
f (allow) = 18,000 - 5 (11.62) ² = 17,840 #/in ²		
f = (978,000 + 37,900) x 12 ÷ 486.4 = 24,200 #/in ²		

Estimated weight of steelwork including drains, pier members, & roadway fences = 505,000 lbs

**CRANBROOK DISTRICT
 KOOTENAY - COLUMBIA HIGHWAY
 SPRINGBROOK BRIDGE
 225 FT. TRUSS - DESIGN SHEET**

REVISIONS			
Rev.	Particulars	Init.	Date
A	Deck slab as built. Section @ e	J.P.	Oct 21-57

GOVT. OF BRITISH COLUMBIA
 DEPT. OF PUBLIC WORKS
 BRIDGE ENGINEERS' OFFICE

Drawn by	Init.	Date	DRAWING No.
Z.H.O.		Oct 9/53	
Checked by	Init.	Date	
a.B.B.		Nov. 2/53	

Approved: *[Signature]*
 Cancel prints bearing earlier letter