

BASIC STRESSES

CHORDS

$F_y = 50,000$  psi  
 $F_c = 30,000$  psi  
 $F_a = \left[1 - \frac{(L/c)^2}{2C_c}\right] F_y / F.S.$  psi

WEBS

$F_y = 36,000$  psi  
 $F_c = 22,000$  psi  
 $F_a = \left[1 - \frac{(L/c)^2}{2C_c}\right] F_y / F.S.$  psi ( $1/2 < L/c < 126$ )  
 $F_a = 49,000 \text{ OR } (1/4) F_y$  psi ( $200 > L/c > 126$ )

GENERAL NOTE: END BEARINGS WILL BE SO PROPORTIONED THAT THE BEARING PRESSURE ON MASONRY OF 250 PSI WILL NOT BE EXCEEDED.

JOIST DESIGNATION	RESISTING MOMENT INCH-POUNDS	REACTION POUNDS	OVERALL DEPTH D INCHES	TOP CHORD SECTION NO.	BOTTOM CHORD SECTION NO.	WEB W/ ONE BAR END BAR	WEB W/ ONE BAR AT END STRUT	E, INCHES	G, INCHES	H, INCHES	MIN F, VARIES WITH SPAN INCHES	MAX INCHES	P, TYPICAL PANEL LENGTH INTERIOR IN.	EFFECTIVE DEPTH D, INCHES	TOP CHORD				BOTTOM CHORD		END BAR, TENSION W/			END STRUT, COMPRESSION W/			BOTTOM CHORD IN COMPRESSION				INTERIOR WEB, STRUT W/				OTHER DIMENSIONS					MINIMUM EQUIVALENT LENGTH OF 18" FILLER WELD									
															L, INCHES	RADIUS OF GYRATION I, IN.	L/C	ALLOWABLE STRESS F <sub>a</sub> , PSI	RESISTING MOMENT (A)(F <sub>y</sub> )(S) INCH POUNDS	AREA, AB, IN <sup>2</sup>	RESISTING MOMENT (A)(F <sub>c</sub> )(S) INCH POUNDS	B1	PANEL SHEAR POUNDS	FORCE IN BAR POUNDS	STRESS FORCE/AREA, PSI	CLEAR DEPTH D1, INCHES	B2	PANEL SHEAR POUNDS	FORCE IN STRUT POUNDS	ALLOWABLE STRESS F <sub>a</sub> , PSI	STRESS FORCE/AREA, PSI	P/E <sub>2</sub>	ALLOWABLE STRESS F <sub>a</sub> , PSI	MOMENT KIP-IN	LATERAL STIFFNESS BOTTOM CHORD (I <sub>1</sub> )(F <sub>y</sub> )(S) (I <sub>2</sub> )(F <sub>y</sub> )(S) (I <sub>3</sub> )(F <sub>y</sub> )(S) (I <sub>4</sub> )(F <sub>y</sub> )(S)	ALLOWABLE STRESS F <sub>a</sub> , PSI	MOMENT KIP-IN	B3	PANEL SHEAR POUNDS	FORCE IN STRUT POUNDS	ALLOWABLE STRESS F <sub>a</sub> , PSI	STRESS FORCE/AREA, PSI	LATERAL STIFFNESS TOP CHORD (I <sub>1</sub> )(F <sub>y</sub> )(S) (I <sub>2</sub> )(F <sub>y</sub> )(S) (I <sub>3</sub> )(F <sub>y</sub> )(S) (I <sub>4</sub> )(F <sub>y</sub> )(S)	E <sub>1</sub> , IN	G <sub>1</sub> , IN	H <sub>1</sub> , IN	E <sub>2</sub> , IN (MIN)	E <sub>3</sub> , IN (MAX)	R1, INCHES
8H2	73000	2000	8	2	2	1/2	NONE	22	14	8	11	20	7.40	0.46	20	30	667	21,540	13,300	0.46	102,100	60	45	1700	3400	19,700	14,860	13,900	100	147	50.00	140	7.67	26.00	1260	19.80	14,600	15,180	140	36	44	43	43	1.3	1/2	2H2	3 1/2	1 1/2	2 1/2

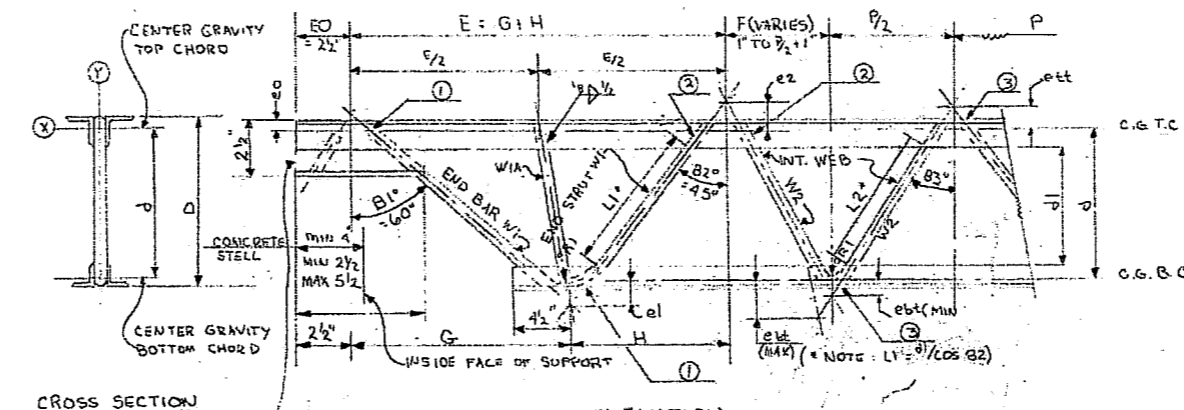
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NOTE: TOP CHORD FILLERS SHALL BE PROVIDED AT THE MID-POINTS OF ALL PANELS LOCATED BETWEEN THE 1st & 3rd POINT OF SPAN LENGTHS, AND IN END PANELS.

CHORD PROPERTIES

SECTION NUMBER	SIZE TWO ANGLES	AREA IN <sup>2</sup>	K <sub>1</sub>	d <sub>t</sub> IN	W MIN IN	I <sub>ABT</sub> X-X IN <sup>4</sup>	I <sub>ABT</sub> Y-Y IN <sup>4</sup>	r <sub>ABT</sub> X-X IN	r <sub>ABT</sub> Y-Y IN	r <sub>ABT</sub> Z-Z IN
2	1 x 1 x 1/8	0.16	0.10	0.30	2 1/8	0.04	0.17	0.30	0.60	0.20
3	1 1/2 x 1 1/2 x 1/8	0.60	0.09	0.36	3	0.08	0.30	0.38	0.71	0.25
4	1 1/2 x 1 1/2 x 3/16	0.72	1.08	0.42	3 1/2	0.16	0.48	0.46	0.82	0.30
4-A	1 x 1 x 3/16	0.68	0.68	0.32	2 3/4	0.06	0.30	0.30	0.67	0.19
5	1 1/2 x 1 1/2 x 3/16	0.86	0.81	0.38	3 3/4	0.12	0.57	0.38	0.81	0.24
6	1 3/4 x 1 3/4 x 3/16	1.06	1.06	0.44	3 3/4	0.22	0.71	0.46	0.83	0.29
7	1 3/4 x 1 3/4 x 1/2	1.24	1.24	0.51	4 3/8	0.36	1.07	0.34	0.94	0.34
5-A	1 1/2 x 1 1/2 x 3/16	0.81	1.07	0.43	3 3/4	0.18	0.54	0.47	0.82	0.30
5-B	1 1/2 x 1 1/2 x 3/16	0.89	1.07	0.43	3 3/4	0.19	0.60	0.46	0.82	0.30
6-A	1 1/2 x 1 1/2 x 1/2	0.97	1.07	0.43	3 3/4	0.20	0.66	0.46	0.82	0.29
7-A	1 3/4 x 1 3/4 x 1/2	1.14	1.25	0.50	4 1/8	0.38	1.00	0.34	0.94	0.34

A FOR SINGLE ANGLE  
 X-X BOTTOM CHORDS ONLY.



\*\*\*1. These moment capacity values may be increased by the use of fillers in bottom chords or by the closer spacing of bridging.  
 2. If bottom chords are in compression due to uplift increase moment capacity values (see F<sub>a</sub>) above by 1/3.

GRADE STEEL		 ATLANTIC POMPANO BEACH, FLA. REINFORCING STEEL DETAILS	
CLEARANCE TO MAIN REINF.			
COLL.	DRAWING		
SLABS	JOB		
BEAMS	LOCATION		
SPICES		CUSTOMER	
COLL.	REVISIONS	DRAWN BY	DRAWING NO.
SLABS		DATE	
BEAMS		APPROVED	
WALLS			