

AGATE, INC.  
P.O. BOX 117  
SCOTTSDALE, AZ 85252-0117

API  
GILA C  
PERM  
DATE:

STRUCTURAL DESIGN CALCULATIONS  
FOR  
GILA COUNTY  
5515 S APACHE AVE  
GLOBE, AZ

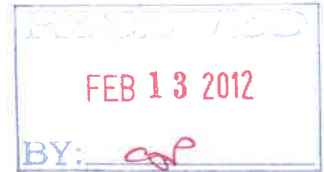
GILA COUNTY  
5515 S APACHE AVE  
GLOBE, AZ 85501  
M11013A



I-CODES  
APPROVED FIELD COPY  
GILA COUNTY COMMUNITY DEVELOPMENT

PERMIT #: G1105-019  
DATE: 2-21-12 BY: [signature]

BUILDING DATA  
Width (ft) = 30.0  
Length (ft) = 40.0  
Eave Height (ft) = 12.0/ 12.0  
Roof Slope (rise/12 ) = 1.00/ 1.00  
Dead Load (psf ) = 2.0  
Live Load (psf ) = 20.0  
Collat. Load (psf ) = 0.0  
Snow Load (psf ) = 20.0  
Wind Speed(mph ) = 90.0  
Wind Code = IBC 06  
Closed/Open = C  
Exposure = C  
Internal Wind Coeff = -0.18, +0.18  
Importance - Wind = 1.00  
Importance - Seismic = 1.00  
Seismic Ss=37%g S1=10%g Soil Class "D"  
Use Grp "II" Design Cat "C"



Designer = BEN  
-----

2/ 7/12



EXPIRES 03/31/2013

1/129

Conterminous 48 States  
2003 NEHRP Seismic Design Provisions  
Latitude = 33.4085  
Longitude = -110.8186  
Spectral Response Accelerations Ss and S1  
Ss and S1 = Mapped Spectral Acceleration Values  
Site Class B - Fa = 1.0 ,Fv = 1.0  
Data are based on a 0.05 deg grid spacing

Period	Sa
(sec)	(g)
0.2	0.371 (Ss, Site Class B)
1.0	0.101 (S1, Site Class B)

Conterminous 48 States  
2003 NEHRP Seismic Design Provisions  
Latitude = 33.4085  
Longitude = -110.8186  
Spectral Response Accelerations SMs and SM1  
SMs = Fa x Ss and SM1 = Fv x S1  
Site Class D - Fa = 1.503 ,Fv = 2.394

Period	Sa
(sec)	(g)
0.2	0.557 (SMs, Site Class D)
1.0	0.243 (SM1, Site Class D)

Conterminous 48 States  
2003 NEHRP Seismic Design Provisions  
Latitude = 33.4085  
Longitude = -110.8186  
Design Spectral Response Accelerations SDs and SD1  
SDs = 2/3 x SMs and SD1 = 2/3 x SM1  
Site Class D - Fa = 1.503 ,Fv = 2.394

Period	Sa
(sec)	(g)
0.2	0.371 (SDs, Site Class D)
1.0	0.162 (SD1, Site Class D)

IA

### IBC 2006 LOADING

SEISMIC: Ss= 37.1 % g  
S1= 10.1 % g

Soil Class D  
Modified  
Sms= 55.7 % g  
Sm1= 24.3 % g  
Design spectral response parameters  
Sds= 37.1 % g  
Sd1= 16.2 % g

Seismic Use Group 2

Seismic Design Category C  
or C

R = 3.5  
Cs = 0.1061 W  
Ie = 1  
R = 3.25  
Cs = 0.1143 W

Using Working Stress Design

V = Cs\*W/1.4  
V = 0.0758 W  
V = 0.0816 W

WIND: 90 mph Exp C

Iw = 1

Height = 12 ft  
Kz = 0.85  
Kd = 0.85  
Kzt = 1.00  
qz = 15.0 psf

Roof Slope 1 :12

C1 = 0.22 C3 = -0.55  
C2 = -0.87 C4 = -0.47

Lateral load = 10.3 psf  
Uplift load = 13.0 psf

@RF  
W = 6 x 30 x 20 / 1000  
= 3.6k  
V = 3.6 (0.0758) = 0.27k  
x 1.4 / 2 = 0.19k / SIDE

@ SIDES  
W = 6 x 30 x 40 / 1000  
= 7.2k  
V = 0.0816 (7.2)  
= 0.6k

LB

TO REMOVE X-BRACE @ GRID C

WIND LONGITUDINAL  $V = 2330\#$

SEISMIC LONGITUDINAL  $V = 600\#$

IF EACH SIDE HAS SHEARWALL

$$V = 2330/2 = 1165\# / \text{EACH}$$

@ 126 PLF SHEAR CAPACITY

$$1165/126 = 9.25 \text{ WALL REQ'D}$$

HAVE 40' - 10' DOOR - 4' DOOR = 26' WALL OK

1C



M11013

Design Loads For Building Components: 2/ 7/12

3:55pm

FRONT SIDEWALL:

BASIC LOADS:

Basic	Wind_Load_Ratio		Zone	-----Edge_Strip_Ratio-----			Col/ Jamb
	Wind	Deflect		Factor	Width	Girt	
15.0	0.70	1.00	3.00	1.06	1.00	1.06	

WIND PRESSURE/SUCTION:

Wind	Wind	Wind	
Press	Suct	Long	
13.1	-14.3		.. Girt/Header
16.2	-21.5		.. Panel
13.1	-14.3		.. Jamb
22.5	-15.0		.. Parapet

BACK SIDEWALL:

BASIC LOADS:

Basic	Wind_Load_Ratio		Zone	-----Edge_Strip_Ratio-----			Col/ Jamb
	Wind	Deflect		Factor	Width	Girt	
15.0	0.70	1.00	3.00	1.06	1.00	1.06	

WIND PRESSURE/SUCTION:

Wind	Wind	Wind	
Press	Suct	Long	
13.1	-14.3		.. Girt/Header
16.2	-21.5		.. Panel
13.1	-14.3		.. Jamb
22.5	-15.0		.. Parapet

LEFT ENDWALL:

BASIC LOADS:

Dead	Collat	Live	Snow	Basic	Wind_Load_Ratio		Zone	-----Edge_Strip_Ratio-----			Col/ Jamb
					Wind	Deflect		Factor	Width	Girt	
2.0	0.0	20.0	20.0	15.0	0.70	1.00	3.00	1.06	1.00	1.06	

BASIC LOADS AT EAVE:

Seis	---Torsion---	
Load	Wind	Seismic
0.46	1.85	0.23

WIND PRESSURE/SUCTION:

Wind	Wind	
Press	Suct	
13.1	-14.3	.. Column
13.1	-14.3	.. Girt/Header
13.1	-14.3	.. Jamb
16.2	-21.5	.. Panel
22.5	-15.0	.. Parapet

WIND COEFFICIENTS:

Surf Id	Column/Rafter Wind_1		Rafter Wind_2		Column/Brace Wind_2		Long Wind	Surface Friction
	Left	Right	Left	Right	Left	Right		
1	0.00	0.00	0.00	0.00	0.34	-0.56	0.00	0.00
2	-1.06	-0.63	-0.70	-0.27	-1.06	-0.63	-0.87	0.00
3	-0.63	-1.06	-0.27	-0.70	-0.63	-1.06	-0.87	0.00
4	0.00	0.00	0.00	0.00	-0.56	0.34	0.00	0.00

COLUMN & BRACING DESIGN LOADS:

Load	---Live---				--Add_Snow--				Wind_1		Wind_2		Long_Wind		Column_Wind	
Long No.	Tran Id	Aux_Load Id	Roof Coef	Floor	Snow	Drift	Slide	Left	Right	Left	Right	1	2	Press	Suct	
28	1	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0	0.00													
2	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0	0.00													
3	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0	0.00													
4	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0	0.00													
5	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.75	
0.00	0.00	0	0.00													
6	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.75	
0.00	0.00	0	0.00													
7	1.00	1.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.75	
0.00	0.00	0	0.00													
8	1.00	1.00	0.00	0.00	0.75	0.75	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.75	
0.00	0.00	0	0.00													
9	1.00	1.00	0.00	0.00	0.75	0.00	0.75	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.75	
0.00	0.00	0	0.00													
10	1.00	1.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.75	
0.00	0.00	0	0.00													
11	1.00	1.00	0.00	0.00	0.75	0.75	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.75	
0.00	0.00	0	0.00													
12	1.00	1.00	0.00	0.00	0.75	0.00	0.75	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.75	
0.00	0.00	0	0.00													
13	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	
0.00	0.00	0	0.00													
14	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	
0.00	0.00	0	0.00													
15	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	
0.00	0.00	0	0.00													
16	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	
0.00	0.00	0	0.00													
17	0.60	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	
0.00	0.00	0	0.00													
18	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	
0.00	0.00	0	0.00													
19	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	
0.00	0.00	0	0.00													
20	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	
0.00	0.00	0	0.00													
21	1.03	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.70	0	0.00													
22	1.03	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	-0.70	0	0.00													

IS  
ELI  
TY DE

S.3

BY:3

198

100

-B2

4.1.1.5

2

198

23	1.02	1.02	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.52	0	0.00													
24	1.02	1.02	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	-0.52	0	0.00													
25	1.02	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.52	0	0.00													
26	1.02	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	-0.52	0	0.00													
27	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.70	0	0.00													
28	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	-0.70	0	0.00													

RAFTER DESIGN LOADS:

Load		--Add_Snow--						Wind_1		Wind_2		Long		Aux_Load	
No	Id	Dead	Coll	Live	Snow	Drift	Slide	Left	Right	Left	Right	Wind	Seis	Id	Coef
22	1	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	2	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	3	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	4	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	5	0.60	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	6	0.60	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0	0.00
	7	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0	0.00
	8	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0	0.00
	9	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	3	1.00
	10	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	4	1.00
	11	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5	1.00
	12	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6	1.00
	13	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0	0.00
	14	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.70	0	0.00
	15	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0	0.00
	16	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.52	0	0.00
	17	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0	0.00
	18	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.52	0	0.00
	19	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0	0.00
	20	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.70	0	0.00
	21	1.00	1.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1	1.00
	22	1.00	1.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2	1.00

AUXILIARY LOADS:

No.	Aux	Aux	No.	Add_Load
Aux	Id	Name	Load	Id Coeff
6	1	ELPAT_LL_1	1	1 0.50
	2	ELPAT_LL_2	1	2 0.50
	3	LWIND1_L	1	3 1.00
	4	LWIND1_R	1	4 1.00
	5	LWIND2_L	1	3 1.00
	6	LWIND2_R	1	4 1.00

ADDITIONAL LOADS:

No.	Add	Loc	Basic	Load	Fx	Fy	Mom	X	Y	.. Conc
Add	Id	Id	Load	Type	W1	W2	Co	Dl1	Dl2	.. Dist
8	1	2	-----	D	-0.20	-0.20	0.08	0.00	15.05	
	2	3	-----	D	-0.20	-0.20	-0.08	0.00	15.05	
	3	2	U_WIND	D	0.06	0.06	0.00	0.00	6.00	
	4	3	U_WIND	D	0.06	0.06	0.00	9.05	15.05	
	5	2	WINDL1	D	-0.08	-0.08	0.00	15.00	15.05	
	6	2	WINDL2	D	-0.08	-0.08	0.00	15.00	15.05	
	7	3	WINDR1	D	-0.08	-0.08	0.00	0.00	0.05	
	8	3	WINDR2	D	-0.08	-0.08	0.00	0.00	0.05	





13	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00
0.00	0.00	0	0.00													
14	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00
0.00	0.00	0	0.00													
15	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00
0.00	0.00	0	0.00													
16	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
0.00	0.00	0	0.00													
17	0.60	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
0.00	0.00	0	0.00													
18	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
0.00	0.00	0	0.00													
19	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
0.00	0.00	0	0.00													
20	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
0.00	0.00	0	0.00													
21	1.03	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.70	0	0.00													
22	1.03	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	-0.70	0	0.00													
23	1.02	1.02	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.52	0	0.00													
24	1.02	1.02	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	-0.52	0	0.00													
25	1.02	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.52	0	0.00													
26	1.02	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	-0.52	0	0.00													
27	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.70	0	0.00													
28	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	-0.70	0	0.00													

RAFTER DESIGN LOADS:

Load				--Add_Snow--			Wind_1		Wind_2		Long		Aux_Load		
No	Id	Dead	Coll	Live	Snow	Drift	Slide	Left	Right	Left	Right	Wind	Seis	Id	Coef
22	1	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	2	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	3	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	4	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	5	0.60	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0	0.00
	6	0.60	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0	0.00
	7	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0	0.00
	8	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0	0.00
	9	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	3	1.00
	10	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	4	1.00
	11	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5	1.00
	12	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6	1.00
	13	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0	0.00
	14	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.70	0	0.00
	15	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0	0.00
	16	1.00	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.52	0	0.00
	17	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0	0.00
	18	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.52	0	0.00
	19	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0	0.00
	20	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.70	0	0.00
	21	1.00	1.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1	1.00
	22	1.00	1.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2	1.00

AUXILIARY LOADS:

No. Aux	Aux Id	Aux Name	No. Load	Add_Load Id	Coeff
6	1	E2PAT_LL_1	1	1	0.50
	2	E2PAT_LL_2	1	2	0.50
	3	LWIND1_L	1	3	1.00
	4	LWIND1_R	1	4	1.00
	5	LWIND2_L	1	3	1.00
	6	LWIND2_R	1	4	1.00

ADDITIONAL LOADS:

No. Add	Add Id	Loc Id	Basic Load	Load Type	Fx W1	Fy W2	Mom Co	X D11	Y D12	Conc Dist
8	1	2	-----	D	-0.20	-0.20	0.08	0.00	15.05	
	2	3	-----	D	-0.20	-0.20	-0.08	0.00	15.05	
	3	2	U_WIND	D	0.06	0.06	0.00	0.00	6.00	
	4	3	U_WIND	D	0.06	0.06	0.00	9.05	15.05	
	5	2	WINDL1	D	-0.08	-0.08	0.00	15.00	15.05	
	6	2	WINDL2	D	-0.08	-0.08	0.00	15.00	15.05	
	7	3	WINDR1	D	-0.08	-0.08	0.00	0.00	0.05	
	8	3	WINDR2	D	-0.08	-0.08	0.00	0.00	0.05	

ROOFDES:

BASIC LOADS:

Dead Load	Collat Load	Live Load	Snow Load	Basic Wind	Wind_Load_Ratio Deflect	Surface Factor	Friction	Seis Factor	% Snow
2.0	0.0	20.0	20.0	15.0	0.70	1.00	0.00	1.000	0.00

WIND PRESSURE/SUCTION:

Wind Press	Wind Suct	Wind Suct_Roof	
10.0	-16.2		.. Purlins
0.0	-25.0		.. Gable Extensions
10.0	-17.7		.. Panels
6.0	-4.3	-10.3	.. Long Bracing, Building
9.1	-6.4		.. Long Bracing, Wall Edge Zone
22.5	-15.0	12.0	.. Long Bracing, Facia/Parapet

EDGE & CORNER ZONE WIND:

Wind Id	Surf Id	No. Zone	Zone Id	Width	Length	--Purlin--		---Panel---	
Id	Id	Zone	Id	Width	Length	Press	Suct	Press	Suct
1	2	6	1	0.00	0.00	1.00	1.00	1.00	1.00
			3	0.00	3.00	1.00	1.18	1.00	1.68
			4	3.00	0.00	1.00	1.18	1.00	1.68
			5	0.00	3.00	1.00	1.18	1.00	1.68
			7	3.00	3.00	1.00	1.18	1.00	2.53
			8	3.00	3.00	1.00	1.18	1.00	2.53
	3	6	1	0.00	0.00	1.00	1.00	1.00	1.00
			3	0.00	3.00	1.00	1.18	1.00	1.68
			5	0.00	3.00	1.00	1.18	1.00	1.68
			6	3.00	0.00	1.00	1.18	1.00	1.68
			9	3.00	3.00	1.00	1.18	1.00	2.53
			10	3.00	3.00	1.00	1.18	1.00	2.53
2	2	1	1	0.00	0.00	1.00	1.00	1.00	1.00
	3	1	1	0.00	0.00	1.00	1.00	1.00	1.00



0.00	43	1.02	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52
0.00	0	0.00														
0.00	44	1.02	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.52
0.00	0	0.00														
0.00	45	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70
0.00	0	0.00														
0.00	46	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.70
0.00	0	0.00														
0.00	47	1.03	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.00
0.00	0	0.00														
0.00	48	1.03	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.70	0.00
0.00	0	0.00														
0.00	49	1.02	1.02	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00
0.00	0	0.00														
0.00	50	1.02	1.02	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.52	0.00
0.00	0	0.00														
0.00	51	1.02	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00
0.00	0	0.00														
0.00	52	1.02	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.52	0.00
0.00	0	0.00														
0.00	53	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.00
0.00	0	0.00														
0.00	54	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.70	0.00
0.00	0	0.00														

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AUXILIARY LOADS:

No. Aux	Aux Id	Aux Name	No. Load	Add_Load Id	Coeff
4	1	LWIND1_L2E	1	1	1.00
	2	LWIND1_R2E	1	2	1.00
	3	LWIND2_L2E	1	1	1.00
	4	LWIND2_R2E	1	2	1.00

ADDITIONAL LOADS:

No. Add	Add Id	Surf Id	Basic Type	Load Type	Fx W1	Fy W2	Mom Co	Dx D11	Dy D12	.. Conc .. Dist
6	1	2	U_WIND	D	0.14	0.14	0.000	0.00	6.00	
	2	3	U_WIND	D	0.14	0.14	0.000	9.05	15.05	
	3	2	WINDL1	D	-0.12	-0.12	0.000	15.00	15.05	
	4	2	WINDL2	D	-0.12	-0.12	0.000	15.00	15.05	
	5	3	WINDR1	D	-0.12	-0.12	0.000	0.00	0.05	
	6	3	WINDR2	D	-0.12	-0.12	0.000	0.00	0.05	

M11013 Reactions, Anchor Bolts, & Base Plates: 2/ 7/12 3:55pm

Frame Line	Col Line	Foundation_Loads(k)						Anc. Bolt		Base Plate		
		Max_Pos_Val		Max_Neg_Val		No.	Diam	Width	Len	Thick		
		Id	Horz	Vert	Id	Horz	Vert					
1	A	6	0.6	-0.9	7	-0.5	-0.6	2	0.755	8.00	8.14	0.375
		1	0.0	1.5	6	0.6	-0.9					
1	B	8	1.2	-2.0	7	-1.1	-2.0	1	0.500	6.00	6.50	0.188
		1	0.0	4.2	8	1.2	-2.0					
1	C	9	0.6	-0.9	7	-0.5	-0.6	2	0.755	8.00	8.14	0.375
		1	0.0	1.5	9	0.6	-0.9					
3	C	6	0.6	-1.1	7	-0.6	-0.9	1	0.500	6.00	6.50	0.188
		1	0.0	1.8	6	0.6	-1.1					

3	B	8	1.2	-1.7	7	-1.1	-1.7	1	0.500	6.00	6.50	0.188
		1	0.0	3.3	8	1.2	-1.7					
3	A	9	0.6	-1.1	7	-0.6	-0.9	1	0.500	6.00	6.50	0.188
		1	0.0	1.8	9	0.6	-1.1					
2	A	1	2.7	8.6	2	-2.6	-2.5	4	0.750	8.00	12.75	0.375
					3	-1.0	-6.9					
2	C	4	2.6	-2.5	1	-2.7	8.6	4	0.750	8.00	12.75	0.375
		1	-2.7	8.6	5	1.0	-5.7					

LOAD COMBINATIONS:

Id	Combination
1	DL+CL+SL+Slide
2	0.60DL+WL2
3	0.60DL+LnWnd1+LWIND1_L2E
4	0.60DL+WR2
5	0.60DL-LnWnd1+LWIND1_R2E
6	0.60DL+WL2+WS
7	0.60DL+WP+LnWnd1
8	0.60DL+WS+LnWnd1
9	0.60DL+WR2+WS

M11013 Bracing Reactions Report: 2/ 7/12 3:55pm

BUILDING BRACING REACTIONS:

---Wall--	Col	-----Reactions(k)-----				Panel	
Loc	Line	---Wind---	--Seismic--		Shear		
Line	Line	Horz	Vert	Horz	Vert	(lb/ft)	
L_EW	1					61.67	
F_SW	C	Torsional Bracing Used!					
R_EW	3					38.14	
B_SW	A	2	,1	2.33	1.21	0.30	0.16

M11013 Additional Reactions Report: 2/ 7/12 3:55pm

Rigid Frame Column Reactions

Frame	Col	---Dead---		---Live---		---Snow---		-Wind_L1--		-Wind_R1--	
Line	Line	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert
2	A	0.3	1.1	2.4	7.5	2.4	7.5	-2.6	-5.2	0.7	-2.8
2	C	-0.3	1.1	-2.4	7.5	-2.4	7.5	-0.7	-2.8	2.6	-5.2

Frame Line	Col Line	-Wind_L2--		-Wind_R2--		-LnWind_1-		-LnWind_2-		Seismic_L-	
		Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert
2	A	-2.8	-3.1	0.5	-0.8	-1.1	-6.8	0.5	-3.4	-0.2	-0.2
2	C	-0.5	-0.8	2.8	-3.1	-0.6	-4.2	1.2	-3.6	-0.2	0.2

Frame Line	Col Line	Seismic_R-		Ln_Seismic		LWIND1_L2E		LWIND1_R2E		LWIND2_L2E	
		Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert
2	A	0.2	0.2	-0.5	-0.8	0.0	-0.8	-0.1	-0.1	0.0	-0.8
2	C	0.2	-0.2	-0.5	0.4	0.1	-0.1	0.0	-0.8	0.1	-0.1

Frame Line	Col Line	LWIND2_R2E	
		Horz	Vert
2	A	-0.1	-0.1
2	C	0.0	-0.8

-----  
Endwall Column Reactions  
-----

Frame Line	Col Line	Dead Vert	Live Vert	Snow Vert	Wind_L1	Wind_R1	Wind_L2	Wind_R2	Wind_P
					Vert	Vert	Vert	Vert	Horz
1	A	0.3	1.2	1.2	-1.0	-0.5	-1.0	-0.5	-0.5
1	B	0.6	3.7	3.7	-2.3	-2.3	-2.3	-2.3	-1.1
1	C	0.3	1.2	1.2	-0.5	-1.0	-0.5	-1.0	-0.5

Frame Line	Col Line	Wind_S	LnWind1	LnWind2	Seis_L	Seis_R	-E1PAT_LL_1-	
		Horz	Vert	Vert	Vert	Vert	Horz	Vert
1	A	0.6	-0.8	-0.5			0.0	0.7
1	B	1.2	-2.4	-1.4			0.0	0.9
1	C	0.6	-0.8	-0.5			0.0	-0.1

Frame Line	Col Line	-E1PAT_LL_2-		--LWIND1_L--		--LWIND1_R--		--LWIND2_L--	
		Horz	Vert	Horz	Vert	Horz	Vert	Horz	Vert
1	A	0.0	-0.1	0.0	-0.3	0.0	0.0	0.0	-0.3
1	B	0.0	0.9	0.0	-0.1	0.0	-0.1	0.0	-0.1
1	C	0.0	0.7	0.0	0.0	0.0	-0.3	0.0	0.0

Frame Line	Col Line	--LWIND2_R--	
		Horz	Vert
1	A	0.0	0.0
1	B	0.0	-0.1
1	C	0.0	-0.3

Frame Line	Col Line	Dead Vert	Live Vert	Snow Vert	Wind_L1	Wind_R1	Wind_L2	Wind_R2	Wind_P
					Vert	Vert	Vert	Vert	Horz
3	C	0.2	1.6	1.6	-1.3	-0.8	-1.3	-0.8	-0.6
3	B	0.4	2.9	2.9	-1.8	-1.8	-1.8	-1.8	-1.1
3	A	0.2	1.6	1.6	-0.8	-1.3	-0.8	-1.3	-0.6

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Frame Line	Col Line	Wind_S Horz	LnWind1 Vert	LnWind2 Vert	Seis_L Vert	Seis_R Vert	-E2PAT_LL_1- Horz	-E2PAT_LL_1- Vert
3	C	0.6	-1.0	-0.6			0.0	0.8
3	B	1.2	-1.9	-1.1			0.0	0.7
3	A	0.6	-1.0	-0.6			0.0	0.0

Frame Line	Col Line	-E2PAT_LL_2- Horz	-E2PAT_LL_2- Vert	--LWIND1_L-- Horz	--LWIND1_L-- Vert	--LWIND1_R-- Horz	--LWIND1_R-- Vert	--LWIND2_L-- Horz	--LWIND2_L-- Vert
3	C	0.0	0.0	0.0	-0.3	0.0	0.0	0.0	-0.3
3	B	0.0	0.7	0.0	-0.1	0.0	-0.1	0.0	-0.1
3	A	0.0	0.8	0.0	0.0	0.0	-0.3	0.0	0.0

Frame Line	Col Line	--LWIND2_R-- Horz	--LWIND2_R-- Vert
3	C	0.0	0.0
3	B	0.0	-0.1
3	A	0.0	-0.3

M11013 Design Code 2/ 7/12 3:55pm

STRUCTURAL CODE:

Design Basis : WS - Working Stress  
Hot Rolled Steel : AISC05  
Cold Formed Steel : NAUS01

BUILDING CODE:

Wind Code : IBC 06  
Seismic Zone : C

MODULUS OF ELASTICITY

Hot Rolled Steel : 29000 (ksi )  
Cold Formed Steel : 29500 (ksi )

M11013 Purlin Layout (Surface= 2) 2/ 7/12 3:55pm

SURFACE LAYOUT:

Surface Id	Length	No. Row	Peak Space
2	15.052	3	1.000

PURLIN LOCATION:

Purlin Id	Surf Offset	Space	Load Width	Dead Load	Edge Wind	Show Report	-----Max_Load----- Id UC Report
1	3.996	3.996	4.498	0.71			5 0.77 Mom+Shr
2	8.996	5.000	5.000	0.64		Y	5 0.86 Mom+Shr
3	13.996	5.000	3.556	0.89			5 0.61 Mom+Shr
	15.052	1.056					

Average= 0.73



PURLIN LAYOUT:

Bay Id	Purlin Part	Design Length	---Lap(ft)-- Left Right		No. Brace	Unit Weight	Total Weight
LExt	8X25Z16	0.33			0	1.0	2.9
1	8X25Z16	19.67		2.00	0	62.6	187.9
2	8X25Z16	19.33	2.00		0	61.7	185.0
RExt	8X25Z16	0.67			0	1.9	5.8
Total (lb)=						127.2	381.5

SPECIAL LOADS:

Load Start	Location End	Load Type
0.000	3.000	Edge Zone Wind

M11013 Purlin(Surface= 2, Id= 2) 2/ 7/12 3:55pm

ROOF PURLIN  
 Surface Id = 2  
 Purlin Id = 2  
 Offset = 9.00

PURLIN LAYOUT: (Purlin Id= 2)

Bay Id	Purlin Part	Design Length (ft)	---Lap(ft)--		Load Width	No. Brace	Available Reduction Factor	
			Left	Right			Out	In
LExt	8X25Z16	0.33			5.00	0	0.00	0.70
1	8X25Z16	19.67		2.00	5.00	0	0.00	0.70
2	8X25Z16	19.33	2.00		5.00	0	0.00	0.70
RExt	8X25Z16	0.67			5.00	0	0.00	0.70

LOAD COMBINATION # 1 : DL+CL+LL

PURLIN ANALYSIS:

Bay Id	---Shear(k)---				---Moment(f-k)---						
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	MidSpan Loc	Right Lap	Right Sup	
LExt	0.00			-0.04	0.00		0.00	0.00		0.01	
1	0.78		-1.15	-1.37	0.01		-2.76	7.11	3.33	5.86	
2	1.36	1.14		-0.75	5.86	3.36	-2.58	12.43		0.02	
RExt	0.07			0.00	0.02		0.00	0.67		0.00	

STRENGTH/DEFLECTION:

Bay Id	---Shear(k)---				---Moment(f-k)---				-Mom+Shr-		Deflect(in)	
	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.04	2.69	0.01	RSup	0.01	5.21	0.00	LSup	0.00	0.04	
1	RLap	-1.15	2.69	0.43	RLap	3.33	5.21	0.64	RLap	0.77	-0.54	
2	LLap	1.14	2.69	0.42	LLap	3.36	5.21	0.65	LLap	0.77	-0.47	
RExt	LSup	0.07	2.69	0.03	LSup	0.02	5.21	0.00	LSup	0.00	0.07	

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LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307 )

Bay	-----Left_Lap-----				-----Right_Lap-----			
Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.73	2.21	2.03	0.36
2	0.73	2.21	2.03	0.36				

LOAD COMBINATION # 2 : DL+CL+SL

PURLIN ANALYSIS:

Bay	-----Shear(k)-----				-----Moment(f-k)-----					
	Left	Left	Right	Right	Left	Left	MidSpan		Right	Right
Id	Sup	Lap	Lap	Sup	Sup	Lap	Mom	Loc	Lap	Sup
LExt	0.00			-0.04	0.00		0.00	0.00		0.01
1	0.78		-1.15	-1.37	0.01		-2.76	7.11	3.33	5.86
2	1.36	1.14		-0.75	5.86	3.36	-2.58	12.43		0.02
RExt	0.07			0.00	0.02		0.00	0.67		0.00

STRENGTH/DEFLECTION:

Bay	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)		
	Id	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.04	2.69	0.01	RSup	0.01	5.21	0.00	LSup	0.00		0.04	
1	RLap	-1.15	2.69	0.43	RLap	3.33	5.21	0.64	RLap	0.77		-0.54	
2	LLap	1.14	2.69	0.42	LLap	3.36	5.21	0.65	LLap	0.77		-0.47	
RExt	LSup	0.07	2.69	0.03	LSup	0.02	5.21	0.00	LSup	0.00		0.07	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307 )

Bay	-----Left_Lap-----				-----Right_Lap-----			
Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.73	2.21	2.03	0.36
2	0.73	2.21	2.03	0.36				

LOAD COMBINATION # 3 : DL+CL+SL+Drift

PURLIN ANALYSIS:

Bay	-----Shear(k)-----				-----Moment(f-k)-----					
	Left	Left	Right	Right	Left	Left	MidSpan		Right	Right
Id	Sup	Lap	Lap	Sup	Sup	Lap	Mom	Loc	Lap	Sup
LExt	0.00			-0.04	0.00		0.00	0.00		0.01
1	0.78		-1.15	-1.37	0.01		-2.76	7.11	3.33	5.86
2	1.36	1.14		-0.75	5.86	3.36	-2.58	12.43		0.02
RExt	0.07			0.00	0.02		0.00	0.67		0.00

STRENGTH/DEFLECTION:

Bay	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)		
	Id	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.04	2.69	0.01	RSup	0.01	5.21	0.00	LSup	0.00		0.04	
1	RLap	-1.15	2.69	0.43	RLap	3.33	5.21	0.64	RLap	0.77		-0.54	
2	LLap	1.14	2.69	0.42	LLap	3.36	5.21	0.65	LLap	0.77		-0.47	
RExt	LSup	0.07	2.69	0.03	LSup	0.02	5.21	0.00	LSup	0.00		0.07	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307 )

Bay	-----Left_Lap-----				-----Right_Lap-----				
	Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1						0.73	2.21	2.03	0.36
2	0.73	2.21	2.03	0.36					

LOAD COMBINATION # 4 : DL+CL+SL+Slide

PURLIN ANALYSIS:

Bay	-----Shear(k )-----				-----Moment(f-k )-----						
	Id	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	MidSpan Loc	Right Lap	Right Sup
LExt	0.00				-0.04	0.00		0.00	0.00		0.01
1	0.78			-1.15	-1.37	0.01		-2.76	7.11	3.33	5.86
2	1.36	1.14			-0.75	5.86	3.36	-2.58	12.43		0.02
RExt	0.07				0.00	0.02		0.00	0.67		0.00

STRENGTH/DEFLECTION:

Bay	Id	Loc	-----Shear(k )-----			-----Moment(f-k )-----				-Mom+Shr-		Deflect(in)	
			Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup		-0.04	2.69	0.01	RSup	0.01	5.21	0.00	LSup	0.00		0.04
1	RLap		-1.15	2.69	0.43	RLap	3.33	5.21	0.64	RLap	0.77		-0.54
2	LLap		1.14	2.69	0.42	LLap	3.36	5.21	0.65	LLap	0.77		-0.47
RExt	LSup		0.07	2.69	0.03	LSup	0.02	5.21	0.00	LSup	0.00		0.07

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307 )

Bay	-----Left_Lap-----				-----Right_Lap-----				
	Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1						0.73	2.21	2.03	0.36
2	0.73	2.21	2.03	0.36					

LOAD COMBINATION # 5 : DL+CL+0.75LL+0.75WP1

PURLIN ANALYSIS:

Bay	-----Shear(k )-----				-----Moment(f-k )-----						
	Id	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	MidSpan Loc	Right Lap	Right Sup
LExt	0.00				-0.04	0.00		0.00	0.00		0.01
1	0.87			-1.29	-1.53	0.01		-3.08	7.11	3.72	6.54
2	1.52	1.27			-0.84	6.54	3.75	-2.88	12.43		0.03
RExt	0.08				0.00	0.03		0.00	0.67		0.00

STRENGTH/DEFLECTION:

Bay	Id	Loc	-----Shear(k )-----			-----Moment(f-k )-----				-Mom+Shr-		Deflect(in)	
			Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup		-0.04	2.69	0.02	RSup	0.01	5.21	0.00	LSup	0.00		0.04
1	RLap		-1.29	2.69	0.48	RLap	3.72	5.21	0.71	RLap	0.86		-0.61
2	LLap		1.27	2.69	0.47	LLap	3.75	5.21	0.72	LLap	0.86		-0.53
RExt	LSup		0.08	2.69	0.03	LSup	0.03	5.21	0.01	LSup	0.00		0.08

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LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307 )

Bay	Left_Lap				Right_Lap				
	Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1						0.82	2.21	2.03	0.40
2	0.82	2.21	2.03	0.40					

LOAD COMBINATION # 6 : DL+CL+0.75SL+0.75WP1

PURLIN ANALYSIS:

Bay	Shear(k )				Moment(f-k )					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	MidSpan Loc	Right Lap	Right Sup
LExt	0.00			-0.04	0.00		0.00	0.00		0.01
1	0.87		-1.29	-1.53	0.01		-3.08	7.11	3.72	6.54
2	1.52	1.27		-0.84	6.54	3.75	-2.88	12.43		0.03
RExt	0.08			0.00	0.03		0.00	0.67		0.00

STRENGTH/DEFLECTION:

Bay	Shear(k )				Moment(f-k )				-Mom+Shr-		Deflect(in)		
	Id	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.04	2.69	0.02	RSup	0.01	5.21	0.00	LSup	0.00		0.04	
1	RLap	-1.29	2.69	0.48	RLap	3.72	5.21	0.71	RLap	0.86		-0.61	
2	LLap	1.27	2.69	0.47	LLap	3.75	5.21	0.72	LLap	0.86		-0.53	
RExt	LSup	0.08	2.69	0.03	LSup	0.03	5.21	0.01	LSup	0.00		0.08	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307 )

Bay	Left_Lap				Right_Lap				
	Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1						0.82	2.21	2.03	0.40
2	0.82	2.21	2.03	0.40					

LOAD COMBINATION # 7 : DL+CL+0.75SL+0.75WP1+0.75Drift

PURLIN ANALYSIS:

Bay	Shear(k )				Moment(f-k )					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	MidSpan Loc	Right Lap	Right Sup
LExt	0.00			-0.04	0.00		0.00	0.00		0.01
1	0.87		-1.29	-1.53	0.01		-3.08	7.11	3.72	6.54
2	1.52	1.27		-0.84	6.54	3.75	-2.88	12.43		0.03
RExt	0.08			0.00	0.03		0.00	0.67		0.00

STRENGTH/DEFLECTION:

Bay	Shear(k )				Moment(f-k )				-Mom+Shr-		Deflect(in)		
	Id	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.04	2.69	0.02	RSup	0.01	5.21	0.00	LSup	0.00		0.04	
1	RLap	-1.29	2.69	0.48	RLap	3.72	5.21	0.71	RLap	0.86		-0.61	
2	LLap	1.27	2.69	0.47	LLap	3.75	5.21	0.72	LLap	0.86		-0.53	
RExt	LSup	0.08	2.69	0.03	LSup	0.03	5.21	0.01	LSup	0.00		0.08	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307 )

Bay	-----Left_Lap-----				-----Right_Lap-----				
	Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1						0.82	2.21	2.03	0.40
2	0.82	2.21	2.03	0.40					

LOAD COMBINATION # 8 : DL+CL+0.75SL+0.75WP1+0.75Slide

PURLIN ANALYSIS:

Bay	-----Shear(k )-----				-----Moment(f-k )-----						
	Id	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	MidSpan Loc	Right Lap	Right Sup
LExt	0.00				-0.04	0.00		0.00	0.00		0.01
1	0.87		-1.29	-1.53	0.01		-3.08	7.11	3.72	6.54	
2	1.52	1.27		-0.84	6.54	3.75	-2.88	12.43		0.03	
RExt	0.08			0.00	0.03		0.00	0.67		0.00	

STRENGTH/DEFLECTION:

Bay	-----Shear(k )-----				-----Moment(f-k )-----				-Mom+Shr-		Deflect(in)		
	Id	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.04	2.69	0.02	RSup	0.01	5.21	0.00	LSup	0.00		0.04	
1	RLap	-1.29	2.69	0.48	RLap	3.72	5.21	0.71	RLap	0.86		-0.61	
2	LLap	1.27	2.69	0.47	LLap	3.75	5.21	0.72	LLap	0.86		-0.53	
RExt	LSup	0.08	2.69	0.03	LSup	0.03	5.21	0.01	LSup	0.00		0.08	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307 )

Bay	-----Left_Lap-----				-----Right_Lap-----				
	Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1						0.82	2.21	2.03	0.40
2	0.82	2.21	2.03	0.40					

LOAD COMBINATION # 9 : 0.6DL+WS1

PURLIN ANALYSIS:

Bay	-----Shear(k )-----				-----Moment(f-k )-----						
	Id	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	MidSpan Loc	Right Lap	Right Sup
LExt	0.00				0.03	0.00		0.00	0.00		0.00
1	-0.57		0.80	0.95	0.00		1.92	7.08	-2.30	-4.05	
2	-0.94	-0.79		0.55	-4.05	-2.33	1.79	12.45		-0.02	
RExt	-0.06			0.00	-0.02		0.00	0.67		0.00	

STRENGTH/DEFLECTION:

Bay	-----Shear(k )-----				-----Moment(f-k )-----				-Mom+Shr-		Deflect(in)		
	Id	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	0.03	2.69	0.01	RSup	0.00	5.21	0.00	LSup	0.00		-0.03	
1	RLap	0.80	2.69	0.30	MidS	1.92	3.64	0.53	RLap	0.53		0.38	
2	LLap	-0.79	2.69	0.29	MidS	1.79	3.64	0.49	LLap	0.53		0.33	
RExt	LSup	-0.06	2.69	0.02	LSup	-0.02	5.21	0.00	LSup	0.00		-0.05	

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LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307 )

Bay	-----Left_Lap-----				-----Right_Lap-----			
Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.51	2.21	2.03	0.25
2	0.51	2.21	2.03	0.25				

LOAD COMBINATION # 10 : DL+CL+SL/2+AUX3

PURLIN ANALYSIS:

Bay	-----Shear(k)-----				-----Moment(f-k)-----					
	Left	Left	Right	Right	Left	Left	MidSpan	Right	Right	
Id	Sup	Lap	Lap	Sup	Sup	Lap	Mom	Loc	Lap	Sup
LExt	0.00			-0.04	0.00		0.00	0.00		0.01
1	0.78		-1.15	-1.37	0.01		-2.76	7.11	3.33	5.86
2	1.36	1.14		-0.75	5.86	3.36	-2.58	12.43		0.02
RExt	0.07			0.00	0.02		0.00	0.67		0.00

STRENGTH/DEFLECTION:

Bay	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)		
	Id	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.04	2.69	0.01	RSup	0.01	5.21	0.00	LSup	0.00		0.04	
1	RLap	-1.15	2.69	0.43	RLap	3.33	5.21	0.64	RLap	0.77		-0.54	
2	LLap	1.14	2.69	0.42	LLap	3.36	5.21	0.65	LLap	0.77		-0.47	
RExt	LSup	0.07	2.69	0.03	LSup	0.02	5.21	0.00	LSup	0.00		0.07	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307 )

Bay	-----Left_Lap-----				-----Right_Lap-----			
Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1					0.73	2.21	2.03	0.36
2	0.73	2.21	2.03	0.36				

LOAD COMBINATION # 11 : DL+CL+SL/2+AUX1

PURLIN ANALYSIS:

Bay	-----Shear(k)-----				-----Moment(f-k)-----					
	Left	Left	Right	Right	Left	Left	MidSpan	Right	Right	
Id	Sup	Lap	Lap	Sup	Sup	Lap	Mom	Loc	Lap	Sup
LExt	0.00			-0.04	0.00		0.00	0.00		0.01
1	0.84		-1.09	-1.31	0.01		-3.24	7.71	2.17	4.56
2	0.81	0.69		-0.34	4.56	3.06	-0.96	13.61		0.01
RExt	0.04			0.00	0.01		0.00	0.67		0.00

STRENGTH/DEFLECTION:

Bay	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)		
	Id	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup	-0.04	2.69	0.01	RSup	0.01	5.21	0.00	LSup	0.00		0.05	
1	RLap	-1.09	2.69	0.40	MidS	-3.24	5.21	0.62	RLap	0.58		-0.77	
2	LLap	0.69	2.69	0.26	LLap	3.06	5.07	0.60	LLap	0.64		-0.02	
RExt	LSup	0.04	2.69	0.01	LSup	0.01	5.21	0.00	LSup	0.00		0.02	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307 )

Bay	-----Left_Lap-----				-----Right_Lap-----				
	Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1						0.57	2.21	2.03	0.28
2	0.57	2.21	2.03	0.28					

LOAD COMBINATION # 12 : DL+CL+SL/2+AUX2

PURLIN ANALYSIS:

Bay	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	MidSpan Mom	MidSpan Loc	Right Lap	Right Sup
LExt	0.00			-0.02	0.00		0.00	0.00		0.00
1	0.36		-0.70	-0.81	0.00		-1.07	6.01	2.98	4.49
2	1.29	1.07		-0.83	4.49	2.13	-3.09	11.78		0.02
RExt	0.07			0.00	0.02		0.00	0.67		0.00

STRENGTH/DEFLECTION:

Bay	-----Shear(k)-----				-----Moment(f-k)-----				-Mom+Shr-		Deflect(in)		
	Id	Loc	Calc	Limit	UC	Loc	Calc	Limit	UC	Loc	UC	Calc	Limit
LExt	RSup		-0.02	2.69	0.01	RSup	0.00	5.21	0.00	LSup	0.00	0.01	
1	RLap		-0.70	2.69	0.26	RLap	2.98	5.13	0.58	RLap	0.63	-0.07	
2	LLap		1.07	2.69	0.40	MidS	-3.09	5.21	0.59	LLap	0.57	-0.70	
RExt	LSup		0.07	2.69	0.03	LSup	0.02	5.21	0.00	LSup	0.00	0.09	

LAP BOLT SHEAR/BEARING:

Bolt = 0.500 (A307 )

Bay	-----Left_Lap-----				-----Right_Lap-----				
	Id	Calc	Shear	Bear	UC	Calc	Shear	Bear	UC
1						0.56	2.21	2.03	0.28
2	0.56	2.21	2.03	0.28					

DEFLECTION:

LOAD COMBINATION # 1 : LL

Bay	DEFLECTION(in)			
	Id	Calc	Limit	Ratio
LExt		0.04		
1		-0.49	1.31	0.38
2		-0.43	1.29	0.33
RExt		0.06		

LOAD COMBINATION # 2 : SL

Bay	DEFLECTION(in)			
	Id	Calc	Limit	Ratio
LExt		0.04		
1		-0.49	1.31	0.38
2		-0.43	1.29	0.33
RExt		0.06		

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LOAD COMBINATION # 3 : SL

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Bay Id	DEFLECTION(in)		
	Calc	Limit	Ratio
LExt	0.04		
1	-0.49	1.31	0.38
2	-0.43	1.29	0.33
RExt	0.06		

LOAD COMBINATION # 4 : SL

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Bay Id	DEFLECTION(in)		
	Calc	Limit	Ratio
LExt	0.04		
1	-0.49	1.31	0.38
2	-0.43	1.29	0.33
RExt	0.06		

LOAD COMBINATION # 5 : 0.75LL+0.52WP1

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Bay Id	DEFLECTION(in)		
	Calc	Limit	Ratio
LExt	0.04		
1	-0.50	1.97	0.26
2	-0.44	1.93	0.23
RExt	0.06		

LOAD COMBINATION # 6 : 0.75SL+0.52WP1

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Bay Id	DEFLECTION(in)		
	Calc	Limit	Ratio
LExt	0.04		
1	-0.50	1.97	0.26
2	-0.44	1.93	0.23
RExt	0.06		

LOAD COMBINATION # 7 : 0.75SL+0.52WP1

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Bay Id	DEFLECTION(in)		
	Calc	Limit	Ratio
LExt	0.04		
1	-0.50	1.97	0.26
2	-0.44	1.93	0.23
RExt	0.06		

LOAD COMBINATION # 8 : 0.75SL+0.52WP1

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Bay Id	DEFLECTION(in)		
	Calc	Limit	Ratio
LExt	0.04		
1	-0.50	1.97	0.26
2	-0.44	1.93	0.23
RExt	0.06		



LOAD COMBINATION # 9 : 0.7WS1

Bay Id	DEFLECTION(in)		
	Calc	Limit	Ratio
LExt	-0.02		
1	0.28	1.97	0.14
2	0.25	1.93	0.13
RExt	-0.04		

LOAD COMBINATION # 10 : SL/2+AUX3

Bay Id	DEFLECTION(in)		
	Calc	Limit	Ratio
LExt	0.04		
1	-0.49	1.31	0.38
2	-0.43	1.29	0.33
RExt	0.06		

LOAD COMBINATION # 11 : SL/2+AUX1

Bay Id	DEFLECTION(in)		
	Calc	Limit	Ratio
LExt	0.05		
1	-0.72	1.31	0.55
2	0.02	1.29	0.01
RExt	0.01		

LOAD COMBINATION # 12 : SL/2+AUX2

Bay Id	DEFLECTION(in)		
	Calc	Limit	Ratio
LExt	0.01		
1	-0.02	1.31	0.01
2	-0.66	1.29	0.51
RExt	0.08		

M11013 Roof Panel Summary 2/ 7/12 3:55pm

PANEL LAYOUT:

Surf Id	Part	Type	Gage	Yield	Surface Length	No. Purlin	Max Space	Rotation Stiffness
2	26 PBR	PBR	26.00	80.0	15.05	3	5.000	0.00
3	26 PBR	PBR	26.00	80.0	15.05	3	5.000	0.00

PANEL STRENGTH:

Surf Id	Area	Load Id	-----Support-----				-----Midspan-----			
			Offset	Calc	Limit	Ratio	Offset	Calc	Limit	Ratio
2	Left	1	9.0	54.7	130.8	0.42	11.9	-36.5	116.1	0.31
		2	9.0	54.7	130.8	0.42	11.9	-36.5	116.1	0.31
		3	9.0	54.7	130.8	0.42	11.9	-36.5	116.1	0.31

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MENT



		4	9.0	54.7	130.8	0.42	11.9	-36.5	116.1	0.31
		5	9.0	61.1	130.8	0.47	11.9	-40.7	116.1	0.35
		6	9.0	-68.6	116.1	0.59	1.7	53.4	130.8	0.41
2	Center	1	9.0	54.7	130.8	0.42	11.9	-36.5	116.1	0.31
		2	9.0	54.7	130.8	0.42	11.9	-36.5	116.1	0.31
		3	9.0	54.7	130.8	0.42	11.9	-36.5	116.1	0.31
		4	9.0	54.7	130.8	0.42	11.9	-36.5	116.1	0.31
		5	9.0	61.1	130.8	0.47	11.9	-40.7	116.1	0.35
		6	4.0	-41.1	116.1	0.35	1.8	35.4	130.8	0.27
2	Right	1	9.0	54.7	130.8	0.42	11.9	-36.5	116.1	0.31
		2	9.0	54.7	130.8	0.42	11.9	-36.5	116.1	0.31
		3	9.0	54.7	130.8	0.42	11.9	-36.5	116.1	0.31
		4	9.0	54.7	130.8	0.42	11.9	-36.5	116.1	0.31
		5	9.0	61.1	130.8	0.47	11.9	-40.7	116.1	0.35
		6	9.0	-68.6	116.1	0.59	1.7	53.4	130.8	0.41
-----										
3	Left	1	6.1	54.7	130.8	0.42	3.2	-36.5	116.1	0.31
		2	6.1	54.7	130.8	0.42	3.2	-36.5	116.1	0.31
		3	6.1	54.7	130.8	0.42	3.2	-36.5	116.1	0.31
		4	6.1	54.7	130.8	0.42	3.2	-36.5	116.1	0.31
		5	6.1	61.1	130.8	0.47	3.2	-40.7	116.1	0.35
		6	6.1	-68.6	116.1	0.59	13.3	53.4	130.8	0.41
3	Center	1	6.1	54.7	130.8	0.42	3.2	-36.5	116.1	0.31
		2	6.1	54.7	130.8	0.42	3.2	-36.5	116.1	0.31
		3	6.1	54.7	130.8	0.42	3.2	-36.5	116.1	0.31
		4	6.1	54.7	130.8	0.42	3.2	-36.5	116.1	0.31
		5	6.1	61.1	130.8	0.47	3.2	-40.7	116.1	0.35
		6	11.1	-41.1	116.1	0.35	13.3	35.4	130.8	0.27
3	Right	1	6.1	54.7	130.8	0.42	3.2	-36.5	116.1	0.31
		2	6.1	54.7	130.8	0.42	3.2	-36.5	116.1	0.31
		3	6.1	54.7	130.8	0.42	3.2	-36.5	116.1	0.31
		4	6.1	54.7	130.8	0.42	3.2	-36.5	116.1	0.31
		5	6.1	61.1	130.8	0.47	3.2	-40.7	116.1	0.35
		6	6.1	-68.6	116.1	0.59	13.3	53.4	130.8	0.41

PANEL DEFLECTION:

Surf Id	Area	Load Id	-----Deflection(in)-----			
			Offset	Calc	Limit	Ratio
2	Left	7	11.5	-0.09	0.33	0.28
		8	11.5	-0.09	0.33	0.28
		9	11.5	-0.09	0.33	0.28
		10	11.5	-0.09	0.33	0.28
		11	11.5	-0.05	0.50	0.09
		12	11.5	0.13	0.50	0.26
2	Center	7	11.5	-0.09	0.33	0.28
		8	11.5	-0.09	0.33	0.28
		9	11.5	-0.09	0.33	0.28
		10	11.5	-0.09	0.33	0.28
		11	11.5	-0.05	0.50	0.09
		12	11.5	0.09	0.50	0.17
2	Right	7	11.5	-0.09	0.33	0.28
		8	11.5	-0.09	0.33	0.28
		9	11.5	-0.09	0.33	0.28
		10	11.5	-0.09	0.33	0.28
		11	11.5	-0.05	0.50	0.09
		12	11.5	0.13	0.50	0.26

3	Left	7	3.6	-0.09	0.33	0.28
		8	3.6	-0.09	0.33	0.28
		9	3.6	-0.09	0.33	0.28
		10	3.6	-0.09	0.33	0.28
		11	3.6	-0.05	0.50	0.09
		12	3.6	0.13	0.50	0.26
3	Center	7	3.6	-0.09	0.33	0.28
		8	3.6	-0.09	0.33	0.28
		9	3.6	-0.09	0.33	0.28
		10	3.6	-0.09	0.33	0.28
		11	3.6	-0.05	0.50	0.09
		12	3.6	0.09	0.50	0.17
3	Right	7	3.6	-0.09	0.33	0.28
		8	3.6	-0.09	0.33	0.28
		9	3.6	-0.09	0.33	0.28
		10	3.6	-0.09	0.33	0.28
		11	3.6	-0.05	0.50	0.09
		12	3.6	0.13	0.50	0.26

LOAD COMBINATION:

Load Id	Description
1	DL+LL
2	DL+SL
3	DL+SL+Drift
4	DL+SL+Slide
5	DL+0.75SL+0.75WP1
6	0.6DL+WS1
7	LL
8	SL
9	SL+Drift
10	SL+Slide
11	WP1
12	WS1

M11013                      Roof Diagonal Bracing                      2/ 7/12 3:55pm

PANEL SHEAR:

Limit = 0.0  
 Calc  
 Wind = 41.7  
 Seismic = 15.4

DIAGONAL BRACING:

Bay Id	Brace_Loc.		Diag_Brace			Brace_Tension(k )				Max UC	KL/R
	Start	End	Type	Size	Part	Wind Calc	Wind Limit	Seismic Calc	Seismic Limit		
1	0.00	15.00	C	0.313	0.31_CBL	2.09	4.20	0.54	4.20	0.50	
	15.00	30.00	C	0.313	0.31_CBL	0.83	4.20	0.22	4.20	0.20	

TORSIONAL BRACING MOMENT:

Wind = 34.99  
 Seismic = 12.91

M11013

Sidewall Diagonal Bracing

2/ 7/12 3:55pm

PANEL SHEAR:

Wall Id	Base Length	Wind Calc	Seismic Calc	Limit
2	30.0	0.0	0.0	75.0
4	30.0	77.8	28.7	75.0

DIAGONAL BRACING:

Wall Id	Bay Id	Brace_Loc		Diag_Brace Type	Diag_Brace Size Part	Brace_Tension(k)		Max UC	KL/R	
		Bot	Top			Wind Calc Limit	Seismic Calc Limit			
2	Torsional bracing used!									
4	2	0.0	12.0	C	0.313 0.31_CBL	2.63	4.20	0.97	4.20	0.63

BASE REACTIONS:

Wall Id	Bay Id	Col Id	Wind_Max		Seismic_Max	
			Horz	Vert(+/-)	Horz	Vert(+/-)
4	2	2	-2.33	1.21	-0.60	0.31
4	2	3	2.33	1.21	0.60	0.31

M11013

Purlin Strut, Longitudinal Load

2/ 7/12 3:55pm

Surf Id	Brace Locate	Purl Id	Bay Id	Purlin Part	Load Id	Axial(k)			Moment(f-k)			Axl+Mom	
						Calc	Limit	UC	Calc	Limit	UC	Loc	UC
2	15.0	3	1	8X25Z16	1	0.62	11.16	0.06	1.25	5.21	0.24	RLap	0.27
					2	0.62	11.16	0.06	1.25	5.21	0.24	RLap	0.27
					3	0.62	11.16	0.06	1.25	5.21	0.24	RLap	0.27
					4	0.62	11.16	0.06	1.25	5.21	0.24	RLap	0.27
					5	0.62	11.16	0.06	1.25	5.21	0.24	RLap	0.27
					6	0.62	11.16	0.06	1.25	5.21	0.24	RLap	0.27
					7	0.62	11.16	0.06	0.82	3.64	0.22	MidS	0.25
					8	0.62	11.16	0.06	0.82	3.64	0.22	MidS	0.25
					9	0.21	11.16	0.02	0.22	5.21	0.04	RLap	0.06
					10	0.15	11.16	0.01	1.84	5.21	0.35	RLap	0.32
					11	0.15	11.16	0.01	1.84	5.21	0.35	RLap	0.32
					12	0.15	11.16	0.01	1.84	5.21	0.35	RLap	0.32
					13	0.15	11.16	0.01	1.84	5.21	0.35	RLap	0.32
					14	0.21	11.16	0.02	0.12	5.21	0.02	RLap	0.04
2	15.0	3	2	8X25Z16	1	-0.21	29.01	0.01	1.26	5.21	0.24	LLap	0.24
					2	0.29	11.30	0.03	1.26	5.21	0.24	LLap	0.23
					3	-0.21	29.01	0.01	1.26	5.21	0.24	LLap	0.24
					4	0.29	11.30	0.03	1.26	5.21	0.24	LLap	0.23
					5	-0.21	29.01	0.01	1.26	5.21	0.24	LLap	0.24
					6	0.29	11.30	0.03	1.26	5.21	0.24	LLap	0.23
					7	-0.21	29.01	0.01	0.76	3.64	0.21	MidS	0.20
					8	0.29	11.30	0.03	0.76	3.64	0.21	MidS	0.21
					9	0.06	11.30	0.01	0.22	5.21	0.04	LLap	0.04
					10	0.05	11.30	0.00	1.85	5.21	0.36	LLap	0.31
					11	0.05	11.30	0.00	1.85	5.21	0.36	LLap	0.31

12	0.05	11.30	0.00	1.85	5.21	0.36	LLap	0.31
13	0.05	11.30	0.00	1.85	5.21	0.36	LLap	0.31
14	0.06	11.30	0.01	0.12	5.21	0.02	LLap	0.03

Surf Id	Brace Locate	Purl Id	Bay Id	Purlin Part	Load Id	----Axial(k)----			--Moment(f-k)--			Axl+Mom	
						Calc	Limit	UC	Calc	Limit	UC	Loc	UC
=====													
3	15.0	1	1	8X25Z16	1	0.62	11.16	0.06	1.25	5.21	0.24	RLap	0.27
					2	0.62	11.16	0.06	1.25	5.21	0.24	RLap	0.27
					3	0.62	11.16	0.06	1.25	5.21	0.24	RLap	0.27
					4	0.62	11.16	0.06	1.25	5.21	0.24	RLap	0.27
					5	0.62	11.16	0.06	1.25	5.21	0.24	RLap	0.27
					6	0.62	11.16	0.06	1.25	5.21	0.24	RLap	0.27
					7	0.62	11.16	0.06	0.82	3.64	0.22	MidS	0.25
					8	0.62	11.16	0.06	0.82	3.64	0.22	MidS	0.25
					9	0.21	11.16	0.02	0.22	5.21	0.04	RLap	0.06
					10	0.15	11.16	0.01	1.84	5.21	0.35	RLap	0.32
					11	0.15	11.16	0.01	1.84	5.21	0.35	RLap	0.32
					12	0.15	11.16	0.01	1.84	5.21	0.35	RLap	0.32
					13	0.15	11.16	0.01	1.84	5.21	0.35	RLap	0.32
					14	0.21	11.16	0.02	0.12	5.21	0.02	RLap	0.04
3	15.0	1	2	8X25Z16	1	-0.21	29.01	0.01	1.26	5.21	0.24	LLap	0.24
					2	0.29	11.30	0.03	1.26	5.21	0.24	LLap	0.23
					3	-0.21	29.01	0.01	1.26	5.21	0.24	LLap	0.24
					4	0.29	11.30	0.03	1.26	5.21	0.24	LLap	0.23
					5	-0.21	29.01	0.01	1.26	5.21	0.24	LLap	0.24
					6	0.29	11.30	0.03	1.26	5.21	0.24	LLap	0.23
					7	-0.21	29.01	0.01	0.76	3.64	0.21	MidS	0.20
					8	0.29	11.30	0.03	0.76	3.64	0.21	MidS	0.21
					9	0.06	11.30	0.01	0.22	5.21	0.04	LLap	0.04
					10	0.05	11.30	0.00	1.85	5.21	0.36	LLap	0.31
					11	0.05	11.30	0.00	1.85	5.21	0.36	LLap	0.31
					12	0.05	11.30	0.00	1.85	5.21	0.36	LLap	0.31
					13	0.05	11.30	0.00	1.85	5.21	0.36	LLap	0.31
					14	0.06	11.30	0.01	0.12	5.21	0.02	LLap	0.03
=====													

M11013 Eave Strut, Longitudinal Load(Wall= 2) 2/ 7/12 3:55pm

Wall Id	Bay Id	Eave Part	Bay Width	Axial_Calc Wind	Seis	Axial Limit	Axial Ratio	Max KL/r
2	1	8ES1-14	20.00	0.39	0.23	21.71	0.02	0
2	2	8ES1-14	20.00	0.39	0.12	21.71	0.02	0

M11013 Eave Strut, Longitudinal Load(Wall= 4) 2/ 7/12 3:55pm

Wall Id	Bay Id	Eave Part	Bay Width	Axial_Calc Wind	Seis	Axial Limit	Axial Ratio	Max KL/r
4	2	8ES1-14	20.00	2.06	0.85	21.71	0.09	0
4	1	8ES1-14	20.00	0.39	0.12	21.71	0.02	0

DPI  
ACC  
RMIT  
DATE:--



-----  
 GIRT: LEVEL # 1 ; SPAN # 2  
 -----

## GIRT LAYOUT:

Bay Id	Girt Part	Bay Width	--Lap(ft)--		Girt Locate	Load Width	No. Brace	Girt Weight	Available Reduction Factor	
			Left	Right					Out	In
1	8X25Z16	2.63			7.3333	5.7	0	7.6	0.00	0.70
2	8X25Z16	20.00			7.3333	5.7	0	57.8	0.00	0.70
									----- 65.4	

## WIND PRESSURE :

## GIRT ANALYSIS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	Mid-Span Mom	Mid-Span Loc	Right Lap	Right Sup
1	-0.84			-1.04	0.00		1.17	1.31		2.47
2	0.87			-0.62	2.47		-2.58	11.66		0.00

## STRENGTH/DEFLECTION:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----				Mom+Shr		Deflection(in)	
	Loc	Calc	Allow	UC	Loc	Calc	Allow	UC	Loc	UC	Calc	Allow
1	RS	-1.04	2.69	0.39	RS	2.47	5.21	0.47	RS	0.61	0.08	
2	LS	0.87	2.69	0.32	MS	-2.58	5.21	0.50	LS	0.57	-0.48	2.67

## WIND SUCTION :

## GIRT ANALYSIS:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----					
	Left Sup	Left Lap	Right Lap	Right Sup	Left Sup	Left Lap	Mid-Span Mom	Mid-Span Loc	Right Lap	Right Sup
1	0.92			1.13	0.00		-1.28	1.31		-2.70
2	-0.95			0.69	-2.70		2.83	11.57		0.00

## STRENGTH/DEFLECTION:

Bay Id	-----Shear(k)-----				-----Moment(f-k)-----				Mom+Shr		Deflection(in)	
	Loc	Calc	Allow	UC	Loc	Calc	Allow	UC	Loc	UC	Calc	Allow
1	RS	1.13	2.69	0.42	RS	-2.70	5.21	0.52	RS	0.67	-0.09	
2	LS	-0.95	2.69	0.35	MS	2.83	3.64	0.78	LS	0.63	0.53	2.67

M11013

Sidewall Jamb/Header Summary

2/ 7/12 3:55pm

JAMB/HEADER LAYOUT:

Open Id	Bay Id	Member Locate	Member Part	Member Length	Member Weight
2	1	Jamb-L	8X25C16	11.33	32.8
		Jamb-R	8X25C16	11.33	32.8
		Header	8X25C16	10.00	28.9

STRENGTH/DEFLECTION:

Open Id	Member Locate	Id	----Shear(k)----			---Moment(f-k)---			Mom+ Shear	Deflect (in)	
			Calc	Vn/sf	UC	Calc	Mn/sf	UC		Calc	Limit
2	Jamb-L	WP	-0.50	2.69	0.18	-1.52	5.02	0.30	0.00	-0.10	1.51
		WS	0.54	2.69	0.20	1.67	3.97	0.42	0.00	0.11	1.51
	Jamb-R	WP	-0.39	2.69	0.15	1.33	3.97	0.34	0.30	0.05	1.51
		WS	0.43	2.69	0.16	-1.46	5.02	0.29	0.33	-0.06	1.51
Header	WP	0.04	2.69	0.02	-0.11	2.66	0.04	0.00	-0.01	1.33	
	WS	0.05	2.69	0.02	0.12	3.26	0.04	0.00	0.01	1.33	

M11013

Wall Panel Report (Bay= 2)

2/ 7/12 3:55pm

PANEL DATA:

Bay	Part	Type	Gage	Yield	Rotation Stiffness	Panel Height
2	26 PBR	PBR	26.00	80.0	0.00	11.33

MOMENTS & DEFLECTION:

Span Id	Span (ft)	LD Id	-----Moment (ft-lb/ft)-----						---Deflect (in)---		
			Support			Midspan			Calc	Allow	UC
1	7.33	WP	81.9	130.8	0.63	-71.8	116.1	0.62	-0.33	0.98	0.34
		WS	-108.7	116.1	0.94	95.3	130.8	0.73	0.44	0.98	0.45
2	4.00	WP	81.9	130.8	0.63	-4.4	116.1	0.04	0.03	0.53	0.05
		WS	-108.7	116.1	0.94	5.8	130.8	0.04	-0.04	0.53	0.07

M11013

Endwall Design Code

2/ 7/12 3:55pm

STRUCTURAL CODE:

Design Basis : WS  
Hot Rolled Steel : AISC05  
Cold Formed Steel : NAUS01

BUILDING CODE:

Wind Code : IBC 06  
Seismic Zone : C

MODULUS OF ELASTICITY

Hot Rolled Steel : 29000 (ksi )  
 Cold Formed Steel : 29500 (ksi )

M11013

Column & Rafter Design

2/ 7/12 3:55pm

MEMBER SIZES:

Member Id	Member Locate	Member Part	---Web_Size--- Depth	Thick	-Flange_Size- Width	Thick	Member Length	Member Weight
Col-1	0.7	W8X10	7.48	0.170	3.94	0.205	10.7	107.2
Col-2	15.0	8X25C16	8.00	16ga	2.50	16ga	11.9	34.4
Col-3	29.3	W8X10	7.48	0.170	3.94	0.205	10.7	107.2
Raf-1		W8X10	7.48	0.170	3.94	0.205	15.1	150.5
Raf-2		W8X10	7.48	0.170	3.94	0.205	15.1	150.5
Total=								549.82

DESIGN ACTIONS/STRENGTH:

Mem Id	Load Id	---Axial (k )-- Calc Pn/sf		---Shear (k )-- Calc Vn/sf		-Moment (f-k )- Calc Mn/sf	
Col-1	1	1.51	39.59	0.00	26.83	0.00	15.15
Col-1	2	1.51	39.59	0.00	26.83	0.00	15.15
Col-1	3	1.51	39.59	0.00	26.83	0.00	15.15
Col-1	4	1.51	39.59	0.00	26.83	0.00	15.15
Col-1	5	0.43	39.59	-0.46	26.83	1.23	15.15
Col-1	6	0.81	39.59	-0.46	26.83	1.23	15.15
Col-1	7	0.43	39.59	-0.46	26.83	1.23	15.15
Col-1	8	0.43	39.59	-0.46	26.83	1.23	15.15
Col-1	9	0.43	39.59	-0.46	26.83	1.23	15.15
Col-1	10	0.81	39.59	-0.46	26.83	1.23	15.15
Col-1	11	0.81	39.59	-0.46	26.83	1.23	15.15
Col-1	12	0.81	39.59	-0.46	26.83	1.23	15.15
Col-1	13	-0.69	86.44	0.55	26.83	-1.47	15.15
Col-1	14	-0.36	86.44	0.55	26.83	-1.47	15.15
Col-1	15	-0.69	86.44	-0.61	26.83	1.65	15.15
Col-1	16	-0.36	86.44	-0.61	26.83	1.65	15.15
Col-1	17	-0.92	86.44	-0.61	26.83	1.65	15.15
Col-1	18	-0.41	86.44	-0.61	26.83	1.65	15.15
Col-1	19	-0.92	86.44	-0.61	26.83	1.65	15.15
Col-1	20	-0.41	86.44	-0.61	26.83	1.65	15.15
Col-1	21	0.31	39.59	0.00	26.83	0.00	15.15
Col-1	22	0.32	39.59	0.00	26.83	0.00	15.15
Col-1	23	1.22	39.59	0.00	26.83	0.00	15.15
Col-1	24	1.23	39.59	0.00	26.83	0.00	15.15
Col-1	25	0.30	39.59	0.00	26.83	0.00	15.15
Col-1	26	0.31	39.59	0.00	26.83	0.00	15.15
Col-1	27	0.17	39.59	0.00	26.83	0.00	15.15
Col-1	28	0.19	39.59	0.00	26.83	0.00	15.15
Col-2	1	4.24	8.57	0.00	2.69	0.00	5.02
Col-2	2	4.24	8.57	0.00	2.69	0.00	5.02
Col-2	3	4.24	8.57	0.00	2.69	0.00	5.02
Col-2	4	4.24	8.57	0.00	2.69	0.00	5.02
Col-2	5	1.59	8.57	-0.92	2.69	2.73	3.97



Col-2	6	1.59	8.57	-0.92	2.69	2.73	3.97
Col-2	7	1.59	8.57	-0.92	2.69	2.73	3.97
Col-2	8	1.59	8.57	-0.92	2.69	2.73	3.97
Col-2	9	1.59	8.57	-0.92	2.69	2.73	3.97
Col-2	10	1.59	8.57	-0.92	2.69	2.73	3.97
Col-2	11	1.59	8.57	-0.92	2.69	2.73	3.97
Col-2	12	1.59	8.57	-0.92	2.69	2.73	3.97
Col-2	13	-2.05	29.01	1.12	2.69	-3.33	3.97
Col-2	14	-1.06	29.01	1.12	2.69	-3.33	3.97
Col-2	15	-2.05	29.01	-1.22	2.69	3.64	3.97
Col-2	16	-1.06	29.01	-1.22	2.69	3.64	3.97
Col-2	17	-1.98	29.01	-1.22	2.69	3.64	3.97
Col-2	18	-1.98	29.01	-1.22	2.69	3.64	3.97
Col-2	19	-1.98	29.01	-1.22	2.69	3.64	3.97
Col-2	20	-1.98	29.01	-1.22	2.69	3.64	3.97
Col-2	21	0.57	8.57	0.00	2.69	0.00	5.02
Col-2	22	0.57	8.57	0.00	2.69	0.00	5.02
Col-2	23	3.32	8.57	0.00	2.69	0.00	5.02
Col-2	24	3.32	8.57	0.00	2.69	0.00	5.02
Col-2	25	0.57	8.57	0.00	2.69	0.00	5.02
Col-2	26	0.57	8.57	0.00	2.69	0.00	5.02
Col-2	27	0.30	8.57	0.00	2.69	0.00	5.02
Col-2	28	0.30	8.57	0.00	2.69	0.00	5.02
Col-3	1	1.51	39.59	0.00	26.83	0.00	15.15
Col-3	2	1.51	39.59	0.00	26.83	0.00	15.15
Col-3	3	1.51	39.59	0.00	26.83	0.00	15.15
Col-3	4	1.51	39.59	0.00	26.83	0.00	15.15
Col-3	5	0.81	39.59	-0.46	26.83	1.23	15.15
Col-3	6	0.43	39.59	-0.46	26.83	1.23	15.15
Col-3	7	0.81	39.59	-0.46	26.83	1.23	15.15
Col-3	8	0.81	39.59	-0.46	26.83	1.23	15.15
Col-3	9	0.81	39.59	-0.46	26.83	1.23	15.15
Col-3	10	0.43	39.59	-0.46	26.83	1.23	15.15
Col-3	11	0.43	39.59	-0.46	26.83	1.23	15.15
Col-3	12	0.43	39.59	-0.46	26.83	1.23	15.15
Col-3	13	-0.69	86.44	0.55	26.83	-1.47	15.15
Col-3	14	-0.36	86.44	0.55	26.83	-1.47	15.15
Col-3	15	-0.69	86.44	-0.61	26.83	1.65	15.15
Col-3	16	-0.36	86.44	-0.61	26.83	1.65	15.15
Col-3	17	-0.41	86.44	-0.61	26.83	1.65	15.15
Col-3	18	-0.92	86.44	-0.61	26.83	1.65	15.15
Col-3	19	-0.41	86.44	-0.61	26.83	1.65	15.15
Col-3	20	-0.92	86.44	-0.61	26.83	1.65	15.15
Col-3	21	0.32	39.59	0.00	26.83	0.00	15.15
Col-3	22	0.31	39.59	0.00	26.83	0.00	15.15
Col-3	23	1.23	39.59	0.00	26.83	0.00	15.15
Col-3	24	1.22	39.59	0.00	26.83	0.00	15.15
Col-3	25	0.31	39.59	0.00	26.83	0.00	15.15
Col-3	26	0.30	39.59	0.00	26.83	0.00	15.15
Col-3	27	0.19	39.59	0.00	26.83	0.00	15.15
Col-3	28	0.17	39.59	0.00	26.83	0.00	15.15
Raf-1	1	-0.17	86.44	-2.08	26.83	5.98	20.53
Raf-1	2	-0.17	86.44	-2.08	26.83	5.98	20.53
Raf-1	3	-0.17	86.44	-2.08	26.83	5.98	20.53
Raf-1	4	-0.17	86.44	-2.08	26.83	5.98	20.53
Raf-1	5	-0.02	86.44	1.23	26.83	2.41	8.08
Raf-1	6	-0.06	86.44	0.76	26.83	-2.85	18.50

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Raf-1	7	0.03	59.82	0.74	26.83	1.62	7.57
Raf-1	8	-0.03	86.44	0.27	26.83	-1.44	18.50
Raf-1	9	-0.07	86.44	1.10	26.83	2.12	9.01
Raf-1	10	-0.08	86.44	1.04	26.83	-3.15	18.50
Raf-1	11	0.01	59.82	-0.14	26.83	0.27	5.92
Raf-1	12	0.01	59.82	-0.15	26.83	-0.34	18.50
Raf-1	13	0.14	59.82	-0.28	26.83	0.78	20.67
Raf-1	14	0.33	59.82	-0.26	26.83	0.78	20.37
Raf-1	15	0.09	59.82	-1.63	26.83	4.68	20.55
Raf-1	16	0.32	59.82	-1.63	26.83	4.68	20.51
Raf-1	17	0.10	59.82	-0.28	26.83	0.78	20.64
Raf-1	18	0.25	59.82	-0.27	26.83	0.78	20.41
Raf-1	19	0.15	59.82	-0.17	26.83	0.47	20.77
Raf-1	20	0.32	59.82	-0.16	26.83	0.47	11.96
Raf-1	21	0.11	59.82	-1.99	26.83	4.68	21.18
Raf-1	22	-0.10	86.44	-1.27	26.83	4.68	18.54
Raf-2	1	-0.17	86.44	2.08	26.83	5.98	20.53
Raf-2	2	-0.17	86.44	2.08	26.83	5.98	20.53
Raf-2	3	-0.17	86.44	2.08	26.83	5.98	20.53
Raf-2	4	-0.17	86.44	2.08	26.83	5.98	20.53
Raf-2	5	-0.06	86.44	-0.76	26.83	-2.85	18.50
Raf-2	6	-0.02	86.44	-1.23	26.83	2.41	8.08
Raf-2	7	-0.03	86.44	-0.27	26.83	-1.44	18.50
Raf-2	8	0.03	59.82	-0.74	26.83	1.62	7.57
Raf-2	9	-0.08	86.44	-1.04	26.83	-3.14	18.50
Raf-2	10	-0.07	86.44	-1.10	26.83	2.12	9.01
Raf-2	11	0.01	59.82	0.15	26.83	-0.34	18.50
Raf-2	12	0.01	59.82	0.14	26.83	0.27	5.92
Raf-2	13	0.33	59.82	0.26	26.83	0.78	20.37
Raf-2	14	0.14	59.82	0.28	26.83	0.78	20.67
Raf-2	15	0.32	59.82	1.63	26.83	4.68	20.51
Raf-2	16	0.09	59.82	1.63	26.83	4.68	20.55
Raf-2	17	0.25	59.82	0.27	26.83	0.78	20.41
Raf-2	18	0.10	59.82	0.28	26.83	0.78	20.64
Raf-2	19	0.32	59.82	0.16	26.83	0.47	11.96
Raf-2	20	0.15	59.82	0.17	26.83	0.47	20.77
Raf-2	21	-0.10	86.44	1.27	26.83	4.68	18.54
Raf-2	22	0.11	59.82	1.99	26.83	4.68	21.18

STRESS RATIO:

Mem	Load						Control
Id	Id	Axial	Shear	Moment	Axl+Mom	Shr+Mom	UC
Col-1	1	0.04	0.00	0.00	0.04		0.04
Col-1	2	0.04	0.00	0.00	0.04		0.04
Col-1	3	0.04	0.00	0.00	0.04		0.04
Col-1	4	0.04	0.00	0.00	0.04		0.04
Col-1	5	0.01	0.02	0.08	0.08		0.08
Col-1	6	0.02	0.02	0.08	0.09		0.09
Col-1	7	0.01	0.02	0.08	0.08		0.08
Col-1	8	0.01	0.02	0.08	0.08		0.08
Col-1	9	0.01	0.02	0.08	0.08		0.08
Col-1	10	0.02	0.02	0.08	0.09		0.09
Col-1	11	0.02	0.02	0.08	0.09		0.09
Col-1	12	0.02	0.02	0.08	0.09		0.09
Col-1	13	0.01	0.02	0.10	0.08		0.08
Col-1	14	0.00	0.02	0.10	0.07		0.07
Col-1	15	0.01	0.02	0.11	0.08		0.08



Col-3	18	0.01	0.02	0.11	0.09	0.09
Col-3	19	0.00	0.02	0.11	0.08	0.08
Col-3	20	0.01	0.02	0.11	0.09	0.09
Col-3	21	0.01	0.00	0.00	0.01	0.01
Col-3	22	0.01	0.00	0.00	0.01	0.01
Col-3	23	0.03	0.00	0.00	0.03	0.03
Col-3	24	0.03	0.00	0.00	0.03	0.03
Col-3	25	0.01	0.00	0.00	0.01	0.01
Col-3	26	0.01	0.00	0.00	0.01	0.01
Col-3	27	0.00	0.00	0.00	0.00	0.00
Col-3	28	0.00	0.00	0.00	0.00	0.00
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Raf-1	1	0.00	0.08	0.29	0.29	0.29
Raf-1	2	0.00	0.08	0.29	0.29	0.29
Raf-1	3	0.00	0.08	0.29	0.29	0.29
Raf-1	4	0.00	0.08	0.29	0.29	0.29
Raf-1	5	0.00	0.05	0.30	0.30	0.30
Raf-1	6	0.00	0.03	0.15	0.15	0.15
Raf-1	7	0.00	0.03	0.21	0.21	0.21
Raf-1	8	0.00	0.01	0.08	0.07	0.07
Raf-1	9	0.00	0.04	0.24	0.23	0.23
Raf-1	10	0.00	0.04	0.17	0.16	0.16
Raf-1	11	0.00	0.01	0.05	0.04	0.04
Raf-1	12	0.00	0.01	0.02	0.02	0.02
Raf-1	13	0.00	0.01	0.04	0.04	0.04
Raf-1	14	0.01	0.01	0.04	0.04	0.04
Raf-1	15	0.00	0.06	0.23	0.23	0.23
Raf-1	16	0.01	0.06	0.23	0.23	0.23
Raf-1	17	0.00	0.01	0.04	0.04	0.04
Raf-1	18	0.00	0.01	0.04	0.04	0.04
Raf-1	19	0.00	0.01	0.02	0.02	0.02
Raf-1	20	0.01	0.01	0.04	0.04	0.04
Raf-1	21	0.00	0.07	0.22	0.22	0.22
Raf-1	22	0.00	0.05	0.25	0.25	0.25
Raf-2	1	0.00	0.08	0.29	0.29	0.29
Raf-2	2	0.00	0.08	0.29	0.29	0.29
Raf-2	3	0.00	0.08	0.29	0.29	0.29
Raf-2	4	0.00	0.08	0.29	0.29	0.29
Raf-2	5	0.00	0.03	0.15	0.15	0.15
Raf-2	6	0.00	0.05	0.30	0.30	0.30
Raf-2	7	0.00	0.01	0.08	0.07	0.07
Raf-2	8	0.00	0.03	0.21	0.21	0.21
Raf-2	9	0.00	0.04	0.17	0.16	0.16
Raf-2	10	0.00	0.04	0.24	0.23	0.23
Raf-2	11	0.00	0.01	0.02	0.02	0.02
Raf-2	12	0.00	0.01	0.05	0.04	0.04
Raf-2	13	0.01	0.01	0.04	0.04	0.04
Raf-2	14	0.00	0.01	0.04	0.04	0.04
Raf-2	15	0.01	0.06	0.23	0.23	0.23
Raf-2	16	0.00	0.06	0.23	0.23	0.23
Raf-2	17	0.00	0.01	0.04	0.04	0.04
Raf-2	18	0.00	0.01	0.04	0.04	0.04
Raf-2	19	0.01	0.01	0.04	0.04	0.04
Raf-2	20	0.00	0.01	0.02	0.02	0.02
Raf-2	21	0.00	0.05	0.25	0.25	0.25
Raf-2	22	0.00	0.07	0.22	0.22	0.22

COLUMN REACTIONS:

Mem Id	Load Id	-----Reaction(k)-----		
		Horz(OP)	Vert	Horz(IP)
Col-1	1	0.00	1.51	0.00
Col-1	2	0.00	1.51	0.00
Col-1	3	0.00	1.51	0.00
Col-1	4	0.00	1.51	0.00
Col-1	5	0.46	0.43	0.00
Col-1	6	0.46	0.81	0.00
Col-1	7	0.46	0.43	0.00
Col-1	8	0.46	0.43	0.00
Col-1	9	0.46	0.43	0.00
Col-1	10	0.46	0.81	0.00
Col-1	11	0.46	0.81	0.00
Col-1	12	0.46	0.81	0.00
Col-1	13	-0.55	-0.63	0.00
Col-1	14	-0.55	-0.30	0.00
Col-1	15	0.61	-0.63	0.00
Col-1	16	0.61	-0.30	0.00
Col-1	17	0.61	-0.86	0.00
Col-1	18	0.61	-0.35	0.00
Col-1	19	0.61	-0.86	0.00
Col-1	20	0.61	-0.35	0.00
Col-1	21	0.00	0.31	0.00
Col-1	22	0.00	0.32	0.00
Col-1	23	0.00	1.22	0.00
Col-1	24	0.00	1.23	0.00
Col-1	25	0.00	0.30	0.00
Col-1	26	0.00	0.31	0.00
Col-1	27	0.00	0.17	0.00
Col-1	28	0.00	0.19	0.00
Col-2	1	0.00	4.24	0.00
Col-2	2	0.00	4.24	0.00
Col-2	3	0.00	4.24	0.00
Col-2	4	0.00	4.24	0.00
Col-2	5	0.92	1.59	0.00
Col-2	6	0.92	1.59	0.00
Col-2	7	0.92	1.59	0.00
Col-2	8	0.92	1.59	0.00
Col-2	9	0.92	1.59	0.00
Col-2	10	0.92	1.59	0.00
Col-2	11	0.92	1.59	0.00
Col-2	12	0.92	1.59	0.00
Col-2	13	-1.12	-2.03	0.00
Col-2	14	-1.12	-1.04	0.00
Col-2	15	1.22	-2.03	0.00
Col-2	16	1.22	-1.04	0.00
Col-2	17	1.22	-1.96	0.00
Col-2	18	1.22	-1.96	0.00
Col-2	19	1.22	-1.96	0.00
Col-2	20	1.22	-1.96	0.00
Col-2	21	0.00	0.57	0.00
Col-2	22	0.00	0.57	0.00
Col-2	23	0.00	3.32	0.00
Col-2	24	0.00	3.32	0.00
Col-2	25	0.00	0.57	0.00

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Col-2	26	0.00	0.57	0.00
Col-2	27	0.00	0.30	0.00
Col-2	28	0.00	0.30	0.00
Col-3	1	0.00	1.51	0.00
Col-3	2	0.00	1.51	0.00
Col-3	3	0.00	1.51	0.00
Col-3	4	0.00	1.51	0.00
Col-3	5	0.46	0.81	0.00
Col-3	6	0.46	0.43	0.00
Col-3	7	0.46	0.81	0.00
Col-3	8	0.46	0.81	0.00
Col-3	9	0.46	0.81	0.00
Col-3	10	0.46	0.43	0.00
Col-3	11	0.46	0.43	0.00
Col-3	12	0.46	0.43	0.00
Col-3	13	-0.55	-0.63	0.00
Col-3	14	-0.55	-0.30	0.00
Col-3	15	0.61	-0.63	0.00
Col-3	16	0.61	-0.30	0.00
Col-3	17	0.61	-0.35	0.00
Col-3	18	0.61	-0.86	0.00
Col-3	19	0.61	-0.35	0.00
Col-3	20	0.61	-0.86	0.00
Col-3	21	0.00	0.32	0.00
Col-3	22	0.00	0.31	0.00
Col-3	23	0.00	1.23	0.00
Col-3	24	0.00	1.22	0.00
Col-3	25	0.00	0.31	0.00
Col-3	26	0.00	0.30	0.00
Col-3	27	0.00	0.19	0.00
Col-3	28	0.00	0.17	0.00

COLUMN MEMBER DEFLECTIONS:

Mem	Load	Deflection(in)	
		Calc	Allow
Id	Id		
Col-1	1	0.00	0.71
Col-1	2	0.00	0.71
Col-1	3	0.00	0.71
Col-1	4	0.00	0.71
Col-1	5	0.02	0.71
Col-1	6	0.02	0.71
Col-1	7	0.02	0.71
Col-1	8	0.02	0.71
Col-1	9	0.02	0.71
Col-1	10	0.02	0.71
Col-1	11	0.02	0.71
Col-1	12	0.02	0.71
Col-1	13	-0.02	0.71
Col-1	14	-0.02	0.71
Col-1	15	0.03	0.71
Col-1	16	0.03	0.71
Col-1	17	0.03	0.71
Col-1	18	0.03	0.71
Col-1	19	0.03	0.71
Col-1	20	0.03	0.71
Col-1	21	0.00	0.71

Col-1	22	0.00	0.71
Col-1	23	0.00	0.71
Col-1	24	0.00	0.71
Col-1	25	0.00	0.71
Col-1	26	0.00	0.71
Col-1	27	0.00	0.71
Col-1	28	0.00	0.71
Col-2	1	0.00	0.79
Col-2	2	0.00	0.79
Col-2	3	0.00	0.79
Col-2	4	0.00	0.79
Col-2	5	0.21	0.79
Col-2	6	0.21	0.79
Col-2	7	0.21	0.79
Col-2	8	0.21	0.79
Col-2	9	0.21	0.79
Col-2	10	0.21	0.79
Col-2	11	0.21	0.79
Col-2	12	0.21	0.79
Col-2	13	-0.26	0.79
Col-2	14	-0.26	0.79
Col-2	15	0.28	0.79
Col-2	16	0.28	0.79
Col-2	17	0.28	0.79
Col-2	18	0.28	0.79
Col-2	19	0.28	0.79
Col-2	20	0.28	0.79
Col-2	21	0.00	0.79
Col-2	22	0.00	0.79
Col-2	23	0.00	0.79
Col-2	24	0.00	0.79
Col-2	25	0.00	0.79
Col-2	26	0.00	0.79
Col-2	27	0.00	0.79
Col-2	28	0.00	0.79
Col-3	1	0.00	0.71
Col-3	2	0.00	0.71
Col-3	3	0.00	0.71
Col-3	4	0.00	0.71
Col-3	5	0.02	0.71
Col-3	6	0.02	0.71
Col-3	7	0.02	0.71
Col-3	8	0.02	0.71
Col-3	9	0.02	0.71
Col-3	10	0.02	0.71
Col-3	11	0.02	0.71
Col-3	12	0.02	0.71
Col-3	13	-0.02	0.71
Col-3	14	-0.02	0.71
Col-3	15	0.03	0.71
Col-3	16	0.03	0.71
Col-3	17	0.03	0.71
Col-3	18	0.03	0.71
Col-3	19	0.03	0.71
Col-3	20	0.03	0.71
Col-3	21	0.00	0.71
Col-3	22	0.00	0.71
Col-3	23	0.00	0.71

Col-3	24	0.00	0.71
Col-3	25	0.00	0.71
Col-3	26	0.00	0.71
Col-3	27	0.00	0.71
Col-3	28	0.00	0.71

RAFTER MEMBER DEFLECTIONS:

Mem Id	Load Id	Deflection(in)	
		Calc	Allow
Raf-1	1	-0.10	1.00
Raf-1	2	-0.10	1.00
Raf-1	3	-0.10	1.00
Raf-1	4	-0.10	1.00
Raf-1	5	0.06	1.00
Raf-1	6	0.01	1.00
Raf-1	7	0.04	1.00
Raf-1	8	-0.01	1.00
Raf-1	9	0.04	1.00
Raf-1	10	0.03	1.00
Raf-1	11	0.00	1.00
Raf-1	12	-0.01	1.00
Raf-1	13	-0.01	1.00
Raf-1	14	-0.01	1.00
Raf-1	15	-0.08	1.00
Raf-1	16	-0.08	1.00
Raf-1	17	-0.01	1.00
Raf-1	18	-0.01	1.00
Raf-1	19	-0.01	1.00
Raf-1	20	-0.01	1.00
Raf-1	21	-0.13	1.00
Raf-1	22	-0.02	1.00
Raf-2	1	-0.10	1.00
Raf-2	2	-0.10	1.00
Raf-2	3	-0.10	1.00
Raf-2	4	-0.10	1.00
Raf-2	5	0.01	1.00
Raf-2	6	0.06	1.00
Raf-2	7	-0.01	1.00
Raf-2	8	0.04	1.00
Raf-2	9	0.03	1.00
Raf-2	10	0.04	1.00
Raf-2	11	-0.01	1.00
Raf-2	12	0.00	1.00
Raf-2	13	-0.01	1.00
Raf-2	14	-0.01	1.00
Raf-2	15	-0.08	1.00
Raf-2	16	-0.08	1.00
Raf-2	17	-0.01	1.00
Raf-2	18	-0.01	1.00
Raf-2	19	-0.01	1.00
Raf-2	20	-0.01	1.00
Raf-2	21	-0.02	1.00
Raf-2	22	-0.13	1.00



M11013 Rafter Splice Report 2/ 7/12 3:55pm

Splice Id	-Surface- Type	-Surface- Locate	---Plate---		-----Design_Load-----				----Bolts (A325 )----			
			Width	Thick	Id	Axl	Shr	Mom	Row	Diam	Space	Gage
1	M	3 0.0	6.0	0.375	1	0.2	2.1	6.0	2	0.500	3.50	3.00
					10	0.1	1.1	-3.1	2	0.500	3.50	3.00

LOAD COMBINATIONS:

- 1 - DL+CL+LL
- 10 - 0.6DL+LW1+LWIND1\_R

M11013 Base Plate & Anchor Bolt Design 2/ 7/12 3:55pm

Base Plate Yield = 50.00 (ksi )  
Concrete Bearing = 1.05 (ksi )

BASE SIZE:

Column Id	Base Depth	--Plate Size(in)--			-Bolts (A307 )-		
		Width	Length	Thick	Row	Diam	Gage
Col-1	7.9	8.0	8.1	0.375	1	0.755	4.00
Col-2	8.0				1	0.500	4.00
Col-3	7.9	8.0	8.1	0.375	1	0.755	4.00

BASE REACTIONS:

Column Id	-Max_Comp-		-Max_Tens-		-Max_Shear		Max_Tension+Shear	
	Ld	Fy(k )	Ld	Fy(k )	Ld	Fx(k )	Ld	Fy(k ) Fx(k )
Col-1	1	1.5	17	-0.9	15	0.6	17	-0.9 0.6
Col-2	1	4.2	13	-2.0	15	1.2	15	-2.0 1.2
Col-3	1	1.5	18	-0.9	15	0.6	18	-0.9 0.6

LOAD COMBINATIONS:

- 1 - DL+CL+LL
- 13 - 0.6DL+WP+LW1
- 15 - 0.6DL+WS+LW1
- 17 - 0.6DL+W1+WS
- 18 - 0.6DL+WR1+WS

M11013 Flush Girt Design Report 2/ 7/12 3:55pm

GIRT LOCATION:

Bay Id	No. Girt	Girt Id
1	1	7.333
2	1	7.333

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GIRT SPAN:

Bay Id	No. Girt	Girt Id
1	1	13.294
2	1	13.294

GIRT SIZE:

Bay Id	No. Girt	Girt Id
1	1	8X25Z16
2	1	8X25Z16

GIRT INSIDE FLANGE BRACE:

No. Brace	Bay
1	2
0	0

GIRT ACTIONS:

Bay Id	Girt Id	Ld Id	---Shear(k)---			--Moment(f-k)--			Mom+ Shear	---Deflect(in)--			-Unbraced-	
			Calc	Allow	UC	Calc	Allow	UC		Calc	Allow	UC	Minor	Cb
1	1	WP	0.54	2.69	0.20	-1.79	5.21	0.34	0.28	-0.17	1.77	0.10	0.0	1.00
		WS	-0.60	2.69	0.22	1.96	3.38	0.58	0.30	0.19	1.77	0.11	13.3	1.00
2	1	WP	0.54	2.69	0.20	-1.79	5.21	0.34	0.28	-0.17	1.77	0.10	0.0	1.00
		WS	0.60	2.69	0.22	1.96	3.38	0.58	0.30	0.19	1.77	0.11	13.3	1.00

M11013 Endwall Diagonal Bracing Summary 2/ 7/12 3:55pm

PANEL SHEAR WITH NO BRACING:

Base Length	--Transverse--		---Torsion---		Allow
	Wind	Seismic	Wind	Seismic	
30.00	38.1	6.0	61.7	15.3	75.0

BRACING NOT REQUIRED

M11013 Wall Panel Report 2/ 7/12 3:55pm

PANEL DATA:

Bay	Part	Type	Gage	Yield	Rotation		Panel Height
					Stiffness	Stiffness	
1	26 PBR	PBR	26.00	80.0	0.00	0.00	12.36

MOMENTS & DEFLECTION:

Span Id	Span (ft)	LD Id	-----Moment (ft-lb/ft)-----						---Deflect(in)--		
			Support			Midspan			Calc	Allow	UC
			Calc	Mn/sf	UC	Calc	Mn/sf	UC			
1	7.33	WP	85.4	130.8	0.65	-70.4	116.1	0.61	-0.32	0.98	0.33
		WS	-113.4	116.1	0.98	93.4	130.8	0.71	0.42	0.98	0.43
2	5.03	WP	85.4	130.8	0.65	-17.4	116.1	0.15	0.00	0.67	0.00
		WS	-113.4	116.1	0.98	23.1	130.8	0.18	0.00	0.67	0.00

M11013

Endwall Design Code

2/ 7/12 3:55pm

## STRUCTURAL CODE:

Design Basis : WS  
 Hot Rolled Steel : AISC05  
 Cold Formed Steel : NAUS01

## BUILDING CODE:

Wind Code : IBC 06  
 Seismic Zone : C

## MODULUS OF ELASTICITY

Hot Rolled Steel : 29000 (ksi )  
 Cold Formed Steel : 29500 (ksi )

M11013

Column &amp; Rafter Design

2/ 7/12 3:55pm

## MEMBER SIZES:

Member Id	Member Locate	Member Part	---Web Size--- Depth	Thick	-Flange Size- Width	Thick	Member Length	Member Weight
Col-1	0.7	8X25C16	8.00	16ga	2.50	16ga	11.0	31.7
Col-2	15.0	8X25C16	8.00	16ga	2.50	16ga	12.2	35.2
Col-3	29.3	8X25C16	8.00	16ga	2.50	16ga	11.0	31.7
Raf-1		10X35C14	10.00	14ga	3.50	14ga	15.1	69.8
Raf-2		10X35C14	10.00	14ga	3.50	14ga	15.1	69.8

Total= 238.23

## DESIGN ACTIONS/STRENGTH:

Mem Id	Load Id	---Axial(k)--- Calc Pn/sf		---Shear(k)--- Calc Vn/sf		-Moment(f-k)- Calc Mn/sf	
Col-1	1	1.81	8.63	0.00	2.69	0.00	5.02
Col-1	2	1.81	8.63	0.00	2.69	0.00	5.02
Col-1	3	1.81	8.63	0.00	2.69	0.00	5.02
Col-1	4	1.81	8.63	0.00	2.69	0.00	5.02
Col-1	5	0.47	8.63	-0.47	2.69	1.29	3.97
Col-1	6	0.85	8.63	-0.47	2.69	1.29	3.97
Col-1	7	0.47	8.63	-0.47	2.69	1.29	3.97
Col-1	8	0.47	8.63	-0.47	2.69	1.29	3.97
Col-1	9	0.47	8.63	-0.47	2.69	1.29	3.97
Col-1	10	0.85	8.63	-0.47	2.69	1.29	3.97
Col-1	11	0.85	8.63	-0.47	2.69	1.29	3.97
Col-1	12	0.85	8.63	-0.47	2.69	1.29	3.97
Col-1	13	-0.92	29.01	0.56	2.69	-1.54	3.97
Col-1	14	-0.49	29.01	0.56	2.69	-1.54	3.97
Col-1	15	-0.92	29.01	-0.63	2.69	1.72	3.97
Col-1	16	-0.49	29.01	-0.63	2.69	1.72	3.97
Col-1	17	-1.14	29.01	-0.63	2.69	1.72	3.97
Col-1	18	-0.64	29.01	-0.63	2.69	1.72	3.97
Col-1	19	-1.14	29.01	-0.63	2.69	1.72	3.97
Col-1	20	-0.64	29.01	-0.63	2.69	1.72	3.97
Col-1	21	0.24	8.63	0.00	2.69	0.00	5.02
Col-1	22	0.24	8.63	0.00	2.69	0.00	5.02

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Col-1	23	1.42	8.63	0.00	2.69	0.00	5.02
Col-1	24	1.43	8.63	0.00	2.69	0.00	5.02
Col-1	25	0.23	8.63	0.00	2.69	0.00	5.02
Col-1	26	0.24	8.63	0.00	2.69	0.00	5.02
Col-1	27	0.13	8.63	0.00	2.69	0.00	5.02
Col-1	28	0.14	8.63	0.00	2.69	0.00	5.02
Col-2	1	3.33	8.55	0.00	2.69	0.00	5.02
Col-2	2	3.33	8.55	0.00	2.69	0.00	5.02
Col-2	3	3.33	8.55	0.00	2.69	0.00	5.02
Col-2	4	3.33	8.55	0.00	2.69	0.00	5.02
Col-2	5	1.21	8.55	-0.93	2.69	2.84	3.97
Col-2	6	1.21	8.55	-0.93	2.69	2.84	3.97
Col-2	7	1.21	8.55	-0.93	2.69	2.84	3.97
Col-2	8	1.21	8.55	-0.93	2.69	2.84	3.97
Col-2	9	1.21	8.55	-0.93	2.69	2.84	3.97
Col-2	10	1.21	8.55	-0.93	2.69	2.84	3.97
Col-2	11	1.21	8.55	-0.93	2.69	2.84	3.97
Col-2	12	1.21	8.55	-0.93	2.69	2.84	3.97
Col-2	13	-1.68	29.01	1.14	2.69	-3.47	3.97
Col-2	14	-0.90	29.01	1.14	2.69	-3.47	3.97
Col-2	15	-1.68	29.01	-1.25	2.69	3.79	3.97
Col-2	16	-0.90	29.01	-1.25	2.69	3.79	3.97
Col-2	17	-1.63	29.01	-1.25	2.69	3.79	3.97
Col-2	18	-1.63	29.01	-1.25	2.69	3.79	3.97
Col-2	19	-1.63	29.01	-1.25	2.69	3.79	3.97
Col-2	20	-1.63	29.01	-1.25	2.69	3.79	3.97
Col-2	21	0.40	8.55	0.00	2.69	0.00	5.02
Col-2	22	0.40	8.55	0.00	2.69	0.00	5.02
Col-2	23	2.60	8.55	0.00	2.69	0.00	5.02
Col-2	24	2.60	8.55	0.00	2.69	0.00	5.02
Col-2	25	0.40	8.55	0.00	2.69	0.00	5.02
Col-2	26	0.40	8.55	0.00	2.69	0.00	5.02
Col-2	27	0.22	8.55	0.00	2.69	0.00	5.02
Col-2	28	0.22	8.55	0.00	2.69	0.00	5.02
Col-3	1	1.81	8.63	0.00	2.69	0.00	5.02
Col-3	2	1.81	8.63	0.00	2.69	0.00	5.02
Col-3	3	1.81	8.63	0.00	2.69	0.00	5.02
Col-3	4	1.81	8.63	0.00	2.69	0.00	5.02
Col-3	5	0.85	8.63	-0.47	2.69	1.29	3.97
Col-3	6	0.47	8.63	-0.47	2.69	1.29	3.97
Col-3	7	0.85	8.63	-0.47	2.69	1.29	3.97
Col-3	8	0.85	8.63	-0.47	2.69	1.29	3.97
Col-3	9	0.85	8.63	-0.47	2.69	1.29	3.97
Col-3	10	0.47	8.63	-0.47	2.69	1.29	3.97
Col-3	11	0.47	8.63	-0.47	2.69	1.29	3.97
Col-3	12	0.47	8.63	-0.47	2.69	1.29	3.97
Col-3	13	-0.92	29.01	0.56	2.69	-1.54	3.97
Col-3	14	-0.49	29.01	0.56	2.69	-1.54	3.97
Col-3	15	-0.92	29.01	-0.63	2.69	1.72	3.97
Col-3	16	-0.49	29.01	-0.63	2.69	1.72	3.97
Col-3	17	-0.64	29.01	-0.63	2.69	1.72	3.97
Col-3	18	-1.14	29.01	-0.63	2.69	1.72	3.97
Col-3	19	-0.64	29.01	-0.63	2.69	1.72	3.97
Col-3	20	-1.14	29.01	-0.63	2.69	1.72	3.97
Col-3	21	0.24	8.63	0.00	2.69	0.00	5.02
Col-3	22	0.24	8.63	0.00	2.69	0.00	5.02
Col-3	23	1.43	8.63	0.00	2.69	0.00	5.02
Col-3	24	1.42	8.63	0.00	2.69	0.00	5.02

Col-3	25	0.24	8.63	0.00	2.69	0.00	5.02
Col-3	26	0.23	8.63	0.00	2.69	0.00	5.02
Col-3	27	0.14	8.63	0.00	2.69	0.00	5.02
Col-3	28	0.13	8.63	0.00	2.69	0.00	5.02
Raf-1	1	0.14	17.72	1.63	4.12	-5.85	9.25
Raf-1	2	0.14	17.72	1.63	4.12	-5.85	9.25
Raf-1	3	0.14	17.72	1.63	4.12	-5.85	9.25
Raf-1	4	0.14	17.72	1.63	4.12	-5.85	9.25
Raf-1	5	-0.03	46.52	-1.06	4.12	3.78	4.62
Raf-1	6	-0.07	46.52	-0.58	4.12	2.09	4.62
Raf-1	7	0.02	17.72	-0.66	4.12	2.37	4.62
Raf-1	8	-0.04	46.52	-0.19	4.12	0.68	4.62
Raf-1	9	-0.09	46.52	-1.10	4.12	3.46	4.63
Raf-1	10	-0.10	46.52	-0.85	4.12	3.03	4.62
Raf-1	11	0.01	17.72	-0.15	4.12	0.24	4.61
Raf-1	12	0.01	17.72	0.11	4.12	-0.38	9.25
Raf-1	13	0.05	17.72	0.18	4.12	-0.65	9.25
Raf-1	14	0.14	17.72	0.18	4.12	-0.63	9.25
Raf-1	15	0.11	17.72	1.27	4.12	-4.55	9.25
Raf-1	16	0.20	17.72	1.27	4.12	-4.54	9.25
Raf-1	17	0.03	17.72	0.18	4.12	-0.65	9.25
Raf-1	18	0.11	17.72	0.18	4.12	-0.63	9.25
Raf-1	19	0.05	17.72	0.11	4.12	-0.39	9.25
Raf-1	20	0.13	17.72	0.11	4.12	-0.38	9.25
Raf-1	21	0.14	17.72	1.63	4.12	-5.85	9.25
Raf-1	22	0.08	17.72	0.91	4.12	-3.24	9.25
Raf-2	1	0.14	17.72	-1.63	4.12	-5.85	9.25
Raf-2	2	0.14	17.72	-1.63	4.12	-5.85	9.25
Raf-2	3	0.14	17.72	-1.63	4.12	-5.85	9.25
Raf-2	4	0.14	17.72	-1.63	4.12	-5.85	9.25
Raf-2	5	-0.07	46.52	0.58	4.12	2.09	4.62
Raf-2	6	-0.03	46.52	1.06	4.12	3.78	4.62
Raf-2	7	-0.04	46.52	0.19	4.12	0.68	4.62
Raf-2	8	0.02	17.72	0.66	4.12	2.37	4.62
Raf-2	9	-0.10	46.52	0.85	4.12	3.03	4.62
Raf-2	10	-0.09	46.52	1.10	4.12	3.46	4.63
Raf-2	11	0.01	17.72	-0.11	4.12	-0.38	9.25
Raf-2	12	0.01	17.72	0.15	4.12	0.24	4.68
Raf-2	13	0.14	17.72	-0.18	4.12	-0.63	9.25
Raf-2	14	0.05	17.72	-0.18	4.12	-0.65	9.25
Raf-2	15	0.20	17.72	-1.27	4.12	-4.54	9.25
Raf-2	16	0.11	17.72	-1.27	4.12	-4.55	9.25
Raf-2	17	0.11	17.72	-0.18	4.12	-0.63	9.25
Raf-2	18	0.03	17.72	-0.18	4.12	-0.65	9.25
Raf-2	19	0.13	17.72	-0.11	4.12	-0.38	9.25
Raf-2	20	0.05	17.72	-0.11	4.12	-0.39	9.25
Raf-2	21	0.08	17.72	-0.91	4.12	-3.24	9.25
Raf-2	22	0.14	17.72	-1.63	4.12	-5.85	9.25

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STRESS RATIO:

Mem Id	Load Id	Axial	Shear	Moment	Axl+Mom	Shr+Mom	Control UC
Col-1	1	0.21	0.00	0.00	0.21		0.21
Col-1	2	0.21	0.00	0.00	0.21		0.21
Col-1	3	0.21	0.00	0.00	0.21		0.21
Col-1	4	0.21	0.00	0.00	0.21		0.21

Col-1	5	0.05	0.18	0.33	0.38	0.21	0.38
Col-1	6	0.10	0.18	0.33	0.42	0.21	0.42
Col-1	7	0.05	0.18	0.33	0.38	0.21	0.38
Col-1	8	0.05	0.18	0.33	0.38	0.21	0.38
Col-1	9	0.05	0.18	0.33	0.38	0.21	0.38
Col-1	10	0.10	0.18	0.33	0.42	0.21	0.42
Col-1	11	0.10	0.18	0.33	0.42	0.21	0.42
Col-1	12	0.10	0.18	0.33	0.42	0.21	0.42
Col-1	13	0.03	0.21	0.39	0.36	0.25	0.36
Col-1	14	0.02	0.21	0.39	0.37	0.25	0.37
Col-1	15	0.03	0.23	0.43	0.40	0.28	0.40
Col-1	16	0.02	0.23	0.43	0.42	0.28	0.42
Col-1	17	0.04	0.23	0.43	0.39	0.28	0.39
Col-1	18	0.02	0.23	0.43	0.41	0.28	0.41
Col-1	19	0.04	0.23	0.43	0.39	0.28	0.39
Col-1	20	0.02	0.23	0.43	0.41	0.28	0.41
Col-1	21	0.03	0.00	0.00	0.03		0.03
Col-1	22	0.03	0.00	0.00	0.03		0.03
Col-1	23	0.16	0.00	0.00	0.16		0.16
Col-1	24	0.17	0.00	0.00	0.17		0.17
Col-1	25	0.03	0.00	0.00	0.03		0.03
Col-1	26	0.03	0.00	0.00	0.03		0.03
Col-1	27	0.02	0.00	0.00	0.02		0.02
Col-1	28	0.02	0.00	0.00	0.02		0.02
Col-2	1	0.39	0.00	0.00	0.39		0.39
Col-2	2	0.39	0.00	0.00	0.39		0.39
Col-2	3	0.39	0.00	0.00	0.39		0.39
Col-2	4	0.39	0.00	0.00	0.39		0.39
Col-2	5	0.14	0.35	0.72	0.85	0.46	0.85
Col-2	6	0.14	0.35	0.72	0.85	0.46	0.85
Col-2	7	0.14	0.35	0.72	0.85	0.46	0.85
Col-2	8	0.14	0.35	0.72	0.85	0.46	0.85
Col-2	9	0.14	0.35	0.72	0.85	0.46	0.85
Col-2	10	0.14	0.35	0.72	0.85	0.46	0.85
Col-2	11	0.14	0.35	0.72	0.85	0.46	0.85
Col-2	12	0.14	0.35	0.72	0.85	0.46	0.85
Col-2	13	0.06	0.42	0.87	0.82	0.56	0.82
Col-2	14	0.03	0.42	0.87	0.84	0.56	0.84
Col-2	15	0.06	0.46	0.95	0.90	0.61	0.90
Col-2	16	0.03	0.46	0.95	0.92	0.61	0.92
Col-2	17	0.06	0.46	0.95	0.90	0.61	0.90
Col-2	18	0.06	0.46	0.95	0.90	0.61	0.90
Col-2	19	0.06	0.46	0.95	0.90	0.61	0.90
Col-2	20	0.06	0.46	0.95	0.90	0.61	0.90
Col-2	21	0.05	0.00	0.00	0.05		0.05
Col-2	22	0.05	0.00	0.00	0.05		0.05
Col-2	23	0.30	0.00	0.00	0.30		0.30
Col-2	24	0.30	0.00	0.00	0.30		0.30
Col-2	25	0.05	0.00	0.00	0.05		0.05
Col-2	26	0.05	0.00	0.00	0.05		0.05
Col-2	27	0.03	0.00	0.00	0.03		0.03
Col-2	28	0.03	0.00	0.00	0.03		0.03
Col-3	1	0.21	0.00	0.00	0.21		0.21
Col-3	2	0.21	0.00	0.00	0.21		0.21
Col-3	3	0.21	0.00	0.00	0.21		0.21
Col-3	4	0.21	0.00	0.00	0.21		0.21
Col-3	5	0.10	0.18	0.33	0.42	0.21	0.42
Col-3	6	0.05	0.18	0.33	0.38	0.21	0.38

Col-3	7	0.10	0.18	0.33	0.42	0.21	0.42
Col-3	8	0.10	0.18	0.33	0.42	0.21	0.42
Col-3	9	0.10	0.18	0.33	0.42	0.21	0.42
Col-3	10	0.05	0.18	0.33	0.38	0.21	0.38
Col-3	11	0.05	0.18	0.33	0.38	0.21	0.38
Col-3	12	0.05	0.18	0.33	0.38	0.21	0.38
Col-3	13	0.03	0.21	0.39	0.36	0.25	0.36
Col-3	14	0.02	0.21	0.39	0.37	0.25	0.37
Col-3	15	0.03	0.23	0.43	0.40	0.28	0.40
Col-3	16	0.02	0.23	0.43	0.42	0.28	0.42
Col-3	17	0.02	0.23	0.43	0.41	0.28	0.41
Col-3	18	0.04	0.23	0.43	0.39	0.28	0.39
Col-3	19	0.02	0.23	0.43	0.41	0.28	0.41
Col-3	20	0.04	0.23	0.43	0.39	0.28	0.39
Col-3	21	0.03	0.00	0.00	0.03		0.03
Col-3	22	0.03	0.00	0.00	0.03		0.03
Col-3	23	0.17	0.00	0.00	0.17		0.17
Col-3	24	0.16	0.00	0.00	0.16		0.16
Col-3	25	0.03	0.00	0.00	0.03		0.03
Col-3	26	0.03	0.00	0.00	0.03		0.03
Col-3	27	0.02	0.00	0.00	0.02		0.02
Col-3	28	0.02	0.00	0.00	0.02		0.02
-----							
Raf-1	1	0.01	0.40	0.63	0.63	0.51	0.63
Raf-1	2	0.01	0.40	0.63	0.63	0.51	0.63
Raf-1	3	0.01	0.40	0.63	0.63	0.51	0.63
Raf-1	4	0.01	0.40	0.63	0.63	0.51	0.63
Raf-1	5	0.00	0.26	0.82	0.82	0.33	0.82
Raf-1	6	0.00	0.14	0.45	0.45	0.18	0.45
Raf-1	7	0.00	0.16	0.51	0.44	0.21	0.44
Raf-1	8	0.00	0.05	0.15	0.15	0.06	0.15
Raf-1	9	0.00	0.27	0.75	0.75	0.32	0.75
Raf-1	10	0.00	0.21	0.66	0.65	0.27	0.65
Raf-1	11	0.00	0.04	0.05	0.05		0.05
Raf-1	12	0.00	0.03	0.04	0.04	0.03	0.04
Raf-1	13	0.00	0.04	0.07	0.07	0.06	0.07
Raf-1	14	0.01	0.04	0.07	0.06	0.06	0.06
Raf-1	15	0.01	0.31	0.49	0.49	0.40	0.49
Raf-1	16	0.01	0.31	0.49	0.49	0.40	0.49
Raf-1	17	0.00	0.04	0.07	0.07	0.06	0.07
Raf-1	18	0.01	0.04	0.07	0.06	0.06	0.06
Raf-1	19	0.00	0.03	0.04	0.04	0.03	0.04
Raf-1	20	0.01	0.03	0.04	0.04	0.03	0.04
Raf-1	21	0.01	0.40	0.63	0.63	0.51	0.63
Raf-1	22	0.00	0.22	0.35	0.35	0.29	0.35
Raf-2	1	0.01	0.40	0.63	0.63	0.51	0.63
Raf-2	2	0.01	0.40	0.63	0.63	0.51	0.63
Raf-2	3	0.01	0.40	0.63	0.63	0.51	0.63
Raf-2	4	0.01	0.40	0.63	0.63	0.51	0.63
Raf-2	5	0.00	0.14	0.45	0.45	0.18	0.45
Raf-2	6	0.00	0.26	0.82	0.82	0.33	0.82
Raf-2	7	0.00	0.05	0.15	0.15	0.06	0.15
Raf-2	8	0.00	0.16	0.51	0.44	0.21	0.44
Raf-2	9	0.00	0.21	0.66	0.65	0.27	0.65
Raf-2	10	0.00	0.27	0.75	0.75	0.32	0.75
Raf-2	11	0.00	0.03	0.04	0.04	0.03	0.04
Raf-2	12	0.00	0.04	0.05	0.04		0.04
Raf-2	13	0.01	0.04	0.07	0.06	0.06	0.06

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Raf-2	14	0.00	0.04	0.07	0.07	0.06	0.07
Raf-2	15	0.01	0.31	0.49	0.49	0.40	0.49
Raf-2	16	0.01	0.31	0.49	0.49	0.40	0.49
Raf-2	17	0.01	0.04	0.07	0.06	0.06	0.06
Raf-2	18	0.00	0.04	0.07	0.07	0.06	0.07
Raf-2	19	0.01	0.03	0.04	0.04	0.03	0.04
Raf-2	20	0.00	0.03	0.04	0.04	0.03	0.04
Raf-2	21	0.00	0.22	0.35	0.35	0.29	0.35
Raf-2	22	0.01	0.40	0.63	0.63	0.51	0.63

COLUMN REACTIONS:

Mem Id	Load Id	-----Reaction(k)-----		
		Horz (OP)	Vert	Horz (IP)
Col-1	1	0.00	1.81	0.00
Col-1	2	0.00	1.81	0.00
Col-1	3	0.00	1.81	0.00
Col-1	4	0.00	1.81	0.00
Col-1	5	0.47	0.47	0.00
Col-1	6	0.47	0.85	0.00
Col-1	7	0.47	0.47	0.00
Col-1	8	0.47	0.47	0.00
Col-1	9	0.47	0.47	0.00
Col-1	10	0.47	0.85	0.00
Col-1	11	0.47	0.85	0.00
Col-1	12	0.47	0.85	0.00
Col-1	13	-0.56	-0.90	0.00
Col-1	14	-0.56	-0.47	0.00
Col-1	15	0.63	-0.90	0.00
Col-1	16	0.63	-0.47	0.00
Col-1	17	0.63	-1.13	0.00
Col-1	18	0.63	-0.62	0.00
Col-1	19	0.63	-1.13	0.00
Col-1	20	0.63	-0.62	0.00
Col-1	21	0.00	0.24	0.00
Col-1	22	0.00	0.24	0.00
Col-1	23	0.00	1.42	0.00
Col-1	24	0.00	1.43	0.00
Col-1	25	0.00	0.23	0.00
Col-1	26	0.00	0.24	0.00
Col-1	27	0.00	0.13	0.00
Col-1	28	0.00	0.14	0.00
Col-2	1	0.00	3.33	0.00
Col-2	2	0.00	3.33	0.00
Col-2	3	0.00	3.33	0.00
Col-2	4	0.00	3.33	0.00
Col-2	5	0.93	1.21	0.00
Col-2	6	0.93	1.21	0.00
Col-2	7	0.93	1.21	0.00
Col-2	8	0.93	1.21	0.00
Col-2	9	0.93	1.21	0.00
Col-2	10	0.93	1.21	0.00
Col-2	11	0.93	1.21	0.00
Col-2	12	0.93	1.21	0.00
Col-2	13	-1.14	-1.66	0.00
Col-2	14	-1.14	-0.88	0.00





Col-1	11	0.08	0.73
Col-1	12	0.08	0.73
Col-1	13	-0.10	0.73
Col-1	14	-0.10	0.73
Col-1	15	0.11	0.73
Col-1	16	0.11	0.73
Col-1	17	0.11	0.73
Col-1	18	0.11	0.73
Col-1	19	0.11	0.73
Col-1	20	0.11	0.73
Col-1	21	0.00	0.73
Col-1	22	0.00	0.73
Col-1	23	0.00	0.73
Col-1	24	0.00	0.73
Col-1	25	0.00	0.73
Col-1	26	0.00	0.73
Col-1	27	0.00	0.73
Col-1	28	0.00	0.73
Col-2	1	0.00	0.81
Col-2	2	0.00	0.81
Col-2	3	0.00	0.81
Col-2	4	0.00	0.81
Col-2	5	0.23	0.81
Col-2	6	0.23	0.81
Col-2	7	0.23	0.81
Col-2	8	0.23	0.81
Col-2	9	0.23	0.81
Col-2	10	0.23	0.81
Col-2	11	0.23	0.81
Col-2	12	0.23	0.81
Col-2	13	-0.28	0.81
Col-2	14	-0.28	0.81
Col-2	15	0.30	0.81
Col-2	16	0.30	0.81
Col-2	17	0.30	0.81
Col-2	18	0.30	0.81
Col-2	19	0.30	0.81
Col-2	20	0.30	0.81
Col-2	21	0.00	0.81
Col-2	22	0.00	0.81
Col-2	23	0.00	0.81
Col-2	24	0.00	0.81
Col-2	25	0.00	0.81
Col-2	26	0.00	0.81
Col-2	27	0.00	0.81
Col-2	28	0.00	0.81
Col-3	1	0.00	0.73
Col-3	2	0.00	0.73
Col-3	3	0.00	0.73
Col-3	4	0.00	0.73
Col-3	5	0.08	0.73
Col-3	6	0.08	0.73
Col-3	7	0.08	0.73
Col-3	8	0.08	0.73
Col-3	9	0.08	0.73
Col-3	10	0.08	0.73
Col-3	11	0.08	0.73
Col-3	12	0.08	0.73



Raf-2	15	-0.28	1.00
Raf-2	16	-0.28	1.00
Raf-2	17	-0.04	1.00
Raf-2	18	-0.04	1.00
Raf-2	19	-0.02	1.00
Raf-2	20	-0.02	1.00
Raf-2	21	-0.20	1.00
Raf-2	22	-0.36	1.00

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M11013                      Rafter Splice Report                      2/ 7/12 3:55pm

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Splice Id	Type	-Surface- Id	Locate	---Plate--- Width	Thick	-----Design_Load----- Id	Axl	Shr	Mom	----Bolts(A325 )---- Row	Diam	Space	Gage
1	S	3	0.0		0.250	22	0.1	1.6	0.0	2	0.500	4.00	11.8

LOAD COMBINATIONS:

-----

22 - DL+CL+SL/2+E2PAT\_LL\_2

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M11013                      Base Plate & Anchor Bolt Design                      2/ 7/12 3:55pm

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Base Plate Yield = 50.00 (ksi )  
Concrete Bearing = 1.05 (ksi )

BASE SIZE:

Column Id	Base Depth	--Plate_Size(in)-- Width	Length	Thick	-Bolts(A307 )- Row	Diam	Gage
Col-1	8.0				1	0.500	4.00
Col-2	8.0				1	0.500	4.00
Col-3	8.0				1	0.500	4.00

BASE REACTIONS:

Column Id	-Max_Comp- Ld	Fy(k )	-Max_Tens- Ld	Fy(k )	-Max_Shear Ld	Fx(k )	Max_Tension+Shear Tens Ld	Fy(k )	Shear Fx(k )
Col-1	1	1.8	17	-1.1	15	0.6	17	-1.1	0.6
Col-2	1	3.3	13	-1.7	15	1.2	15	-1.7	1.2
Col-3	1	1.8	18	-1.1	15	0.6	18	-1.1	0.6

LOAD COMBINATIONS:

-----

1 - DL+CL+LL  
13 - 0.6DL+WP+LW1  
15 - 0.6DL+WS+LW1  
17 - 0.6DL+WL1+WS  
18 - 0.6DL+WR1+WS

M11013

Flush Girt Design Report

2/ 7/12 3:55pm

GIRT LOCATION:

Bay Id	No. Girt	Girt Id
1	1	7.333
2	1	7.333

GIRT SPAN:

Bay Id	No. Girt	Girt Id
1	1	13.458
2	1	13.458

GIRT SIZE:

Bay Id	No. Girt	Girt Id
1	1	8X25Z16
2	1	8X25Z16

GIRT INSIDE FLANGE BRACE:

No.	Brace/Bay
1	2
0	0

GIRT ACTIONS:

Bay Id	Girt Id	Ld Id	---Shear(k)---			--Moment(f-k)--			Mom+ Shear	---Deflect(in)--			-Unbraced-	
			Calc	Allow	UC	Calc	Allow	UC		Calc	Allow	UC	Minor	Cb
1	1	WP	0.54	2.69	0.20	-1.83	5.21	0.35	0.28	-0.18	1.79	0.10	0.0	1.00
		WS	-0.60	2.69	0.22	2.01	3.38	0.59	0.31	0.20	1.79	0.11	13.5	1.00
2	1	WP	0.54	2.69	0.20	-1.83	5.21	0.35	0.28	-0.18	1.79	0.10	0.0	1.00
		WS	0.60	2.69	0.22	2.01	3.38	0.59	0.31	0.20	1.79	0.11	13.5	1.00

M11013

Endwall Diagonal Bracing Summary

2/ 7/12 3:55pm

PANEL SHEAR WITH NO BRACING:

Base Length	--Transverse--		---Torsion---		Allow
	Wind	Seismic	Wind	Seismic	
30.00	38.1	6.0	0.0	0.0	75.0

BRACING NOT REQUIRED

PY ENT



M11013

Wall Panel Report

2/ 7/12 3:55pm

PANEL DATA:

Bay	Part	Type	Gage	Yield	Rotation Stiffness	Panel Height
1	26 PBR	PBR	26.00	80.0	0.00	12.36

MOMENTS & DEFLECTION:

Span Id	Span (ft)	LD Id	-----Moment (ft-lb/ft)-----						---Deflect (in)---		
			Support			Midspan			Calc	Allow	UC
			Calc	Mn/sf	UC	Calc	Mn/sf	UC			
1	7.33	WP	85.4	130.8	0.65	-70.4	116.1	0.61	-0.32	0.98	0.33
		WS	-113.4	116.1	0.98	93.4	130.8	0.71	0.42	0.98	0.43
2	5.03	WP	85.4	130.8	0.65	-17.4	116.1	0.15	0.00	0.67	0.00
		WS	-113.4	116.1	0.98	23.1	130.8	0.18	0.00	0.67	0.00

```

=====
*M11013                Rigid Frame Design Input Echo                2/ 7/12  3:55pm
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*( 1)JOBID:
   'M11013

```

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*( 2)DESIGN OPTIONS:

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*Frame Frame Stress Frame No_Of End_Conn Splice Web_Stiffener
* Id   Type   Space Space Cycle Lt   Rt   Fix Use Ratio Side P-Delta
   1   'RF'   5.00 25.00  7   'P' 'P'  1.00 'N' 0.00 'Y'  'EL'

```

```

*( 3)OPTIMIZATION OPTIONS:

```

```

*Plate Depth Frame L_Col_Dep_Opt(in) R_Col_Dep_Opt(in) Rafter_Dep_Opt(in)
* Opt   Opt   Sym   Typ   Min   Max   Typ   Min   Max   Typ   Min   Max
  'N'   'N'   'Y'   'R' 12.00 18.00 'R' 12.00 18.00 'R' 10.00 58.00

```

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*( 4)DESIGN CODE:

```

```

*Design ---Steel_Code---          ---Build---   Code   Seismic
* Code  Cold   Hot   Country Code   Year   Label   Zone
  'WS'  'NAUS01' 'AISC05' '----' 'IBC' '06' 'IBC 06' 'C'

```

```

*( 5)DESIGN CONSTANTS:

```

```

*          ---Strength_Factor---
* ----Stress_Ratio----          ---Seismic---
* Frame Col  EP  BP   Wind  Frame SpcEP
   1.00 1.00 1.00 1.00  1.0000 1.0000 1.0000

```

```

*( 6)STEEL YIELDS:

```

```

* Web  Flg  C_Sec  W_Sec  R_Sec  P_Sec  T_Sec  U_Sec  EP  BP
  36.0 50.0  57.0  50.0  50.0  35.0  46.0  50.0 50.0 50.0

```

```

*( 7)DEFLECTION LIMITS:

```

```

* --Vertical-- -----Horizontal----- Weak
* Live Total Total Seis Crane Floor Axis
  180.0  0.0  60.0  0.0  0.0  0.0  60.0

```

```

*( 8)REPORTS:

```

```

* Input Design End Base Revise Action Sec Flange Segment Unbrc Floor Cable
* Echo Summary Plate Plate Input Stress Prop Brace Displ. Len React React
  'Y'  'Y'  'Y'  'Y'  'Y'  'Y'  'N'  'N'  'N'  'N'  'N'  'N'

```

```

*( 9)SURFACE SHAPE:

```

```

* No.   X_Coord   Y_Coord   Offset
*Surf   (ft)      (ft)      (in)
   4     0.0000   12.0000   8.000
        15.0000   13.2500   8.000
        30.0000   12.0000   8.000
        30.0000    0.0000   8.000

```

```

*(10)MEMBER DEPTHS:

```

```

*Surf   Depth(in)   No.   Interior_Depth
* Id    Start      End   Dep   Loc(ft)  Depth(in)
   1    11.500    11.500  0
   2    11.400    11.400  0
   3    11.400    11.400  0
   4    11.500    11.500  0

```

\*(11)MEMBER SPLICES:

*Surf	No.	Splice	Splice
* Id	Splice	Loc(ft)	Type
1	0		
2	1	0.0000	'VEE '
3	1	0.0000	'-EE '
4	1	0.0000	'VEE '

\*(12)SEGMENT PLATES:

*No.	Surf	Mem	Seg	Seg	Member	Flange	Plate_Thickness(in)			
*Seg	Id	Id	Id	Len(ft)	Part	Width(in)	Web	OS_Flg	IS_Flg	
4	1	1	1	0.0000	'W12X16 '	3.990	0.2200	0.2650	0.2650	
	2	2	2	0.0000	'W12X14 '	3.970	0.1880	0.2250	0.2250	
	3	3	3	0.0000	'W12X14 '	3.970	0.1880	0.2250	0.2250	
	4	4	4	0.0000	'W12X16 '	3.990	0.2200	0.2650	0.2650	

\*(13)INTERIOR COLUMNS:

* No.	Col	Col	Col	Col	Col	Connection	Rafter	Unbrace_Length	Col	Col	
* Col	Id	Typ	Rot	Loc	Bot	Top	Opt	Major	Minor	Set	Size
0											

\*(14)TAPERED INTERIOR COLUMNS:

*Col	Col	---Depth---	No.	Start	---Web_Depth---	Web	Flg	OS_Flg	IS_Flg		
* Id	Shape	Min	Max	Mem	Locate	Start	End	Thick	Width	Thick	Thick

\*(15)BASE ELEVATION/WALL OPTIONS:

*Base	Base	Frame	Open
* Id	Elev	Space	Height
1	0.0000	25.0000	0.0000
2	0.0000	25.0000	0.0000

\*(16)BASE DISPLACEMENT:

*Base	Displace		
* Id	Opt	Dir	(in)
0	'-'	'-'	0.000

\*(17)BASE SPRINGS:

* No.	Base	---Spring_Constants---		
*Base	Id	Elev	Horz	Vert Rotate
0				

\*(18)WALL GIRT:

*Surf	Bay No.								
* Id	Type	Part	Depth	Proj	Lap	Id	Girt	Location(ft)	
1	'ZB'	'8X25Z16 '	8.000	0.000	1.0000	2	1	7.3333	
4	'ZB'	'8X25Z16 '	8.000	0.000	1.0000	2	1	7.3333	

\*(19)ROOF PURLIN:

*Surf	No. Peak Set_Of -Set_Space									
* Id	Type	Part	Depth	Proj	Lap	Purlin	Space	Space	Space	No.
2	'ZB'	'8X25Z16 '	8.000	0.000	2.0000	3	1.0000	1	5.0000	3
3	'ZB'	'8X25Z16 '	8.000	0.000	2.0000	3	1.0000	1	5.0000	3

\*(20)FLANGE BRACE:

*Surf	No.	Flange_Brace_At
* Id	Brace	Girt/Purlin Number
1	1	1
2	2	1 3
3	2	1 3
4	1	1



\*(21) SIDEWALL EXTENSIONS:

*Surf No	Ext	-----Extension_Size-----				----Facia_Size----			Load	
* Id	Ext	Id	Type	Elev	Width	Slope	Elev	Height	Slope	Width
1	0									
4	0									

\*(22) EXTENSION LOADS:

*Ext Id	Dead psf	Collat psf	Live psf	Snow psf	Wind1_Coeff Left	Wind2_Coeff Right	Long_Wind 1	Facia_Wind 2	Seis k

\*(23) BASIC LOADS:

* Dead psf	Live psf	Snow psf	Collat psf	Wind psf	---Deflection---			Temperature Change
					Snow	Wind	Seis	
2.00	20.00	20.00	0.00	14.98	1.00	0.70	1.00	0.0

\*(24) BASIC LOAD AT EAVE:

* Seismic Load k	Weak_Axis_L Wind k	Seis k	Weak_Axis_R Wind k	Seis k	--Torsion-- Wind k		Seis k	-EW_Brace-- Wind k		Seis k
0.19	0.00	0.00	0.00	0.00	1.75	0.92	0.00	0.00	0.00	0.00

\*(25) WIND COEFFICIENT:

*Surf Id	--Wind_1---		--Wind_2---		Long_Wind		Surface Friction
	Left	Right	Left	Right	1	2	
1	0.25	-0.52	0.65	-0.12	-0.63	-0.27	0.00
2	-0.87	-0.55	-0.51	-0.19	-0.87	-0.51	0.00
3	-0.55	-0.87	-0.19	-0.51	-0.87	-0.51	0.00
4	-0.52	0.25	-0.12	0.65	-0.63	-0.27	0.00

\*(26) LONGITUDINAL BRACING LOAD:

*---Wind---		---Seismic---			
Horz	Vert	Horz	Vert	Left	Right
2.33	1.21	0.86	0.45	Column	Column
0.00	0.00	0.00	0.00	Column	Column

\*(27) DESIGN LOADS: Strength

*Load Seismic--	-----Load_Coefficients-----														
	---Live---				-Add_Snow-			--Wind_1--		--Wind_2--		Long_Wind -			
*No. Tran	Id	Dead	Coll	Roof	Floor	Snow	Drift	Slide	Lt	Rt	Lt	Rt	1	2	Long
54	1	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0	0.00												
0.00	2	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0	0.00												
0.00	3	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0	0.00												
0.00	4	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0	0.00												
0.00	5	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0	0.00												
0.00	6	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0	0.00												
0.00	7	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0	0.00												
0.00	8	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0	0.00												

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0.00	38	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-1.00	0.00
0.70	39	1.03	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-0.70	40	1.03	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.52	41	1.02	1.02	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-0.52	42	1.02	1.02	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.52	43	1.02	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-0.52	44	1.02	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.70	45	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-0.70	46	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	47	1.03	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70
0.00	48	1.03	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.70
0.00	49	1.02	1.02	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52
0.00	50	1.02	1.02	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.52
0.00	51	1.02	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52
0.00	52	1.02	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.52
0.00	53	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70
0.00	54	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.70

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\*(28) DESIGN LOADS:Deflection

		-----Load_Coefficients-----														
		---Live---		-Add_Snow-			--Wind_1--		--Wind_2--		Long_Wind					
*Load	Seismic--	Aux_Load		Roof	Floor	Snow	Drift	Slide	Lt	Rt	Lt	Rt	1	2	Long	
*No.	Id	Dead	Coll	Temp	Id	Coef										
Tran	Temp	Id	Coef													
0																

\*(29) DESIGN LOADS:Special

		-----Load_Coefficients-----														
		---Live---		-Add_Snow-			--Wind_1--		--Wind_2--		Long_Wind					
*Load	Long_Wind	-Seismic--	Aux_Loa		Dead	Coll	Roof	Floor	Snow	Drift	Slide	Lt	Rt	Lt	Rt	
*No.	Id	Use	Code	Temp	Id	Coef										
1	2	Long	Tran	Temp	Id	Coef										
0.00	4	55	'EP'	'-----'	1.24	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	3.00	0.00	0	0.0									
0.00	0.00	56	'EP'	'-----'	1.24	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	-3.00	0.00	0.00	0	0.0									
0.00	0.00	57	'EP'	'-----'	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	3.00	0.00	0.00	0	0.0									
0.00	0.00	58	'EP'	'-----'	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	-3.00	0.00	0.00	0	0.0									

\*(30)AUXILARY LOAD:

*No.	Aux	Aux	No._Add	Add_Comb	
*Aux	Id	Name	Loads	Id	Coeff
4	1	'LWIND1_L2E'	1	1	1.00
	2	'LWIND1_R2E'	1	2	1.00
	3	'LWIND2_L2E'	1	1	1.00
	4	'LWIND2_R2E'	1	2	1.00

\*(31)ADDITIONAL LOADS:

*No.	Add	Loc	Basic	Load	Fx	Fy	Mom	Dx	Dy	..	Conc
*Add	Id	Id	Load	Type	W1	W2	Co	D11	D12	..	Dist
6	1	2	'U_WIND	'D'	0.142	0.142	0.00	0.0000	6.0000		
	2	3	'U_WIND	'D'	0.142	0.142	0.00	9.0520	15.0520		
	3	2	'WINDL1	'D'	-0.120	-0.120	0.00	15.0000	15.0520		
	4	2	'WINDL2	'D'	-0.120	-0.120	0.00	15.0000	15.0520		
	5	3	'WINDR1	'D'	-0.120	-0.120	0.00	0.0000	0.0520		
	6	3	'WINDR2	'D'	-0.120	-0.120	0.00	0.0000	0.0520		

\*(32)FLOOR BEAMS:

*Bay	No.	Beam	Beam	Con_Type	Con_Loc	Beam Properties
* Id	Beam	Id	Ht	Lt	Rt	Area Ixx
1	0					

\*(33)CABLES:

*Bay	No.	Cable	Cable	Cable	Cable
* Id	Cable	Id	Level	Type	Area
1	0				

\*(34)CRANE BRACKET:

*Crane	BayId	Crane	Crane	----Beam----	----Offset----	-----Bracket-----	Col_Sup									
Load	No	Lt	Rt	Type	Height	Depth	Width	Left	Right	Type	Opt	Select	Lt	Rt	(k	
	0															

\*(35)FRAME OPTIONS/FRAMELINES:

*Moment	Frame	Frame	No.	
*Frame	Option	Option_Id	Line	Frame_Line_Id
'OMF'	'-'	'	1	2

M11013

Design Code

2/ 7/12 3:55pm

STRUCTURAL CODE:

Design Basis : WS - Working Stress  
 Hot Rolled Steel : AISC05  
 Cold Formed Steel : NAUS01

BUILDING CODE:

Wind Code : IBC 06  
 Seismic Zone : C

MODULUS OF ELASTICITY

Hot Rolled Steel : 29000 (ksi )  
 Cold Formed Steel : 29500 (ksi )

Base Plate Yield = 50.00 (ksi )  
 Concrete Bearing = 1.05 (ksi )  
 Bolt Shear Stress= 12.00 (ksi )

BASE PLATE & BOLT SIZE:

--Column_Base--		--Plate_Size(in)--				--Bolts(A307 )-			-Shear(k )-	
Loc.	Typ	Depth	Width	Length	Thick	Row	Dia	Gage	Limit	UC
Left	P	12.0	8.0	12.75	0.375	2	0.750	4.00	21.2	0.13
Right	P	12.0	8.0	12.75	0.375	2	0.750	4.00	21.2	0.13

BASE REACTIONS:

Column Loc.	-Max_Comp-		Max_Tension+Shear			-Max_Shear		Max_Shear+Tension		
	Ld	Fy(k )	Ld	Tens Fy(k )	Shear Fx(k )	Ld	Fx(k )	Ld	Shear Fx(k )	Tens Fy(k )
Left	2	8.6	31	-6.9	2.5	1	2.7	29	2.6	-2.5
Right	1	8.6	34	-5.7	1.0	1	2.7	30	2.6	-2.5

WELDS:

Base Id	Outside_Flange_To_Base				Inside_Flange_To_Base				-----Web_To_Base-----			
	Size	Typ	Calc	Shear(k/in ) Rn/sf	Size	Typ	Calc	Shear(k/in ) Rn/sf	Size	Typ	Calc	Shear(k/in ) Rn/sf
Left	0.188	F2	0.43	2.78	0.188	F2	0.43	2.78	0.188	F1	0.23	1.86
Right	0.188	F2	0.35	2.78	0.188	F2	0.35	2.78	0.188	F1	0.23	1.86

LOAD COMBINATIONS:

- 1 - DL+CL+LL
- 2 - DL+CL+LL
- 29 - 0.60DL+WL2
- 30 - 0.60DL+WR2
- 31 - 0.60DL+LW1+LWIND1\_L2E
- 34 - 0.60DL-LW1+LWIND1\_R2E

Splice Yield = 50.00 (ksi )

PLATE SIZE:

Splice Id	Member Type	Member Locate	Web Depth	Splice(in)		-----Bolts(A325 )-----							
				Width	Thick	Dia	Gage	Gage2	RowT	SpaceT	RowB	SpaceB	RowI
1	VEE	1- 2	11.40	6.0	0.500	0.750	3.50	3.50	2	3.50	2	3.50	0
2	-EE	2- 3	11.44	6.0	0.375	0.750	3.50	3.50	2	3.50	2	3.50	0
3	VEE	3- 4	11.40	6.0	0.500	0.750	3.50	3.50	2	3.50	2	3.50	0

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PLATE DESIGN:

Splice Id	Ten Typ	Loc	-----Max_Moment-----			-----Max_Shear-----			Req Thick	Req Dia	Bolt UC		
			Load Id	Axial (k)	Shear (k)	Moment (f-k)	Load Id	Axial (k)				Shear (k)	Moment (f-k)
1	VEE	Top	2	2.7	7.6	26.6	2	2.7	7.6	26.6	0.394	0.469	0.39
		Bot	32	-3.0	-4.6	-23.1	31	-3.0	-5.1	-22.3	0.369	0.454	0.37
2	-EE	Top	32	-3.4	-0.7	9.6	33	-3.4	0.8	9.6	0.237	0.292	0.15
		Bot	1	2.7	-0.1	-21.9	47	0.3	-0.3	-2.5	0.358	0.441	0.35
3	VEE	Top	1	2.7	-7.6	26.6	1	2.7	-7.6	26.6	0.394	0.469	0.39
		Bot	33	-3.0	4.6	-23.2	34	-3.0	5.1	-22.3	0.369	0.455	0.37

WELDS:

Splice Id	Side	Outside_Flange_To_Bep				Inside_Flange_To_Bep				-----Web_To_Bep-----			
		Size	Typ	Calc	Rn/sf	Size	Typ	Calc	Rn/sf	Size	Typ	Calc	Rn/sf
1	L	0.188	F2	2.08	2.78	0.188	F2	2.05	2.78	0.125	F1	0.67	1.86
1	R	0.188	F2	2.54	2.78	0.188	F2	2.22	2.78	0.125	F1	0.67	1.86
2	L	0.188	F2	0.91	2.78	0.188	F2	2.08	2.78	0.125	F1	0.07	1.86
2	R	0.188	F2	0.91	2.78	0.188	F2	2.08	2.78	0.125	F1	0.07	1.86
3	L	0.188	F2	2.54	2.78	0.188	F2	2.22	2.78	0.125	F1	0.67	1.86
3	R	0.188	F2	2.08	2.78	0.188	F2	2.06	2.78	0.125	F1	0.67	1.86

LOAD COMBINATIONS:

- 1 - DL+CL+LL
- 2 - DL+CL+LL
- 31 - 0.60DL+LW1+LWIND1\_L2E
- 32 - 0.60DL+LW1+LWIND1\_R2E
- 33 - 0.60DL-LW1+LWIND1\_L2E
- 34 - 0.60DL-LW1+LWIND1\_R2E
- 47 - 1.03DL+1.03CL+0.70LSEIS

M11013 Bearing Stiffeners 2/ 7/12 3:55pm

Stiffener Yield = 50.0 (ksi )  
 Corner Cut = 0.50 (in)

STIFFENER SIZE:

Location	Stiffener No.	--Web(in)--		--Stiffener_Size(in)--		
		Depth	Thick	Width	Thick	Length
Left Col	1	11.50	0.220	2.50	0.188	11.50
Right Col	1	11.50	0.220	2.50	0.188	11.50

STIFFENER DESIGN:

Stiffener Location	---Tension(k)---			-Compression(k)--			Max UC
	Load	Calc	Pn/sf	Load	Calc	Pn/sf	
Left Col	32	18.4	22.5	2	20.9	58.7	0.82
Right Col	33	18.4	22.5	1	20.9	58.7	0.82

WELDS:

Stiffener Location	---Stiff_To_Flg/EP---				-----Stiff_To_Web-----			
	Size	Typ	Calc	Rn/sf	Size	Typ	Calc	Rn/sf
Left Col	0.188	F2	2.30	2.78	0.188	F2	0.48	1.86
Right Col	0.188	F2	2.30	2.78	0.188	F2	0.48	1.86

LOAD COMBINATIONS:

- 1 - DL+CL+LL
- 2 - DL+CL+LL
- 32 - 0.60DL+LW1+LWIND1\_R2E
- 33 - 0.60DL-LW1+LWIND1\_L2E

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M11013                      Actions & Strength                      2/ 7/12 3:55pm  
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LOAD COMBINATION : 1 DL+CL+LL

Sn	Id	WORKING LOAD (k , f-k )			ALLOWABLE STRENGTH (k , f-k )				UNITY_CHECKS Axl+Bend			
		Axial	Shear	Moment	Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
		Pr	Vr	Mr	Pn/sf	Vn/sf	MnO/sf	MnI/sf	UcA	UcV	UcO	UcI
1	1	8.59	-2.65	0.0	54.6	52.9	49.2	49.2	0.16	0.05	0.08	0.16
1	2	8.54	-2.65	9.3	54.6	52.9	49.2	49.2	0.16	0.05	0.03	0.24
1	3	8.48	-2.65	18.5	54.6	52.9	49.2	49.2	0.16	0.05	0.22	0.42
1	4	8.43	-2.65	27.8	106.2	52.9	49.2	49.2	0.08	0.05	0.49	0.60
2	5	3.29	7.31	26.0	89.2	39.1	41.1	41.1	0.04	0.19	0.59	0.65
2	6	3.08	4.82	-1.1	70.9	39.1	41.1	41.1	0.04	0.12	0.04	0.02
2	7	2.87	2.33	-17.0	70.9	39.1	37.9	41.1	0.04	0.06	0.47	0.37
2	8	2.66	-0.17	-21.9	90.9	39.1	41.1	41.1	0.03	0.00	0.55	0.50
3	9	2.67	0.12	-21.9	90.9	39.1	41.1	41.1	0.03	0.00	0.55	0.50
3	10	2.88	-2.37	-16.9	70.9	39.1	38.1	41.1	0.04	0.06	0.46	0.37
3	11	3.08	-4.86	-0.7	70.9	39.1	41.1	41.1	0.04	0.12	0.04	0.03
3	12	3.29	-7.35	26.6	89.2	39.1	41.1	41.1	0.04	0.19	0.61	0.66
4	13	8.47	2.70	28.4	106.2	52.9	49.2	49.2	0.08	0.05	0.50	0.61
4	14	8.53	2.70	18.9	54.6	52.9	49.2	49.2	0.16	0.05	0.23	0.43
4	15	8.58	2.70	9.5	54.6	52.9	49.2	49.2	0.16	0.05	0.04	0.24
4	16	8.63	2.70	0.0	54.6	52.9	49.2	49.2	0.16	0.05	0.16	0.08

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LOAD COMBINATION : 2 DL+CL+LL

Sn	Id	WORKING_LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	8.63	-2.70	0.0	54.6	52.9	49.2	49.2	0.16	0.05	0.08	0.16
1	2	8.58	-2.70	9.5	54.6	52.9	49.2	49.2	0.16	0.05	0.04	0.24
1	3	8.53	-2.70	18.9	54.6	52.9	49.2	49.2	0.16	0.05	0.23	0.43
1	4	8.47	-2.70	28.4	106.2	52.9	49.2	49.2	0.08	0.05	0.50	0.61
2	5	3.29	7.35	26.6	89.2	39.1	41.1	41.1	0.04	0.19	0.61	0.66
2	6	3.08	4.86	-0.7	70.9	39.1	41.1	41.1	0.04	0.12	0.04	0.03
2	7	2.88	2.37	-16.9	70.9	39.1	38.1	41.1	0.04	0.06	0.46	0.37
2	8	2.67	-0.12	-21.9	90.9	39.1	41.1	41.1	0.03	0.00	0.55	0.50
3	9	2.66	0.17	-21.9	90.9	39.1	41.1	41.1	0.03	0.00	0.55	0.50
3	10	2.87	-2.33	-17.0	70.9	39.1	37.9	41.1	0.04	0.06	0.47	0.37
3	11	3.08	-4.82	-1.1	70.9	39.1	41.1	41.1	0.04	0.12	0.04	0.02
3	12	3.29	-7.31	26.0	89.2	39.1	41.1	41.1	0.04	0.19	0.59	0.65
4	13	8.43	2.65	27.8	106.2	52.9	49.2	49.2	0.08	0.05	0.49	0.60
4	14	8.48	2.65	18.5	54.6	52.9	49.2	49.2	0.16	0.05	0.22	0.42
4	15	8.54	2.65	9.3	54.6	52.9	49.2	49.2	0.16	0.05	0.03	0.24
4	16	8.59	2.65	0.0	54.6	52.9	49.2	49.2	0.16	0.05	0.16	0.08

LOAD COMBINATION : 3 DL+CL+SL

Sn	Id	WORKING_LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	8.59	-2.65	0.0	54.6	52.9	49.2	49.2	0.16	0.05	0.08	0.16
1	2	8.54	-2.65	9.3	54.6	52.9	49.2	49.2	0.16	0.05	0.03	0.24
1	3	8.48	-2.65	18.5	54.6	52.9	49.2	49.2	0.16	0.05	0.22	0.42
1	4	8.43	-2.65	27.8	106.2	52.9	49.2	49.2	0.08	0.05	0.49	0.60
2	5	3.29	7.31	26.0	89.2	39.1	41.1	41.1	0.04	0.19	0.59	0.65
2	6	3.08	4.82	-1.1	70.9	39.1	41.1	41.1	0.04	0.12	0.04	0.02
2	7	2.87	2.33	-17.0	70.9	39.1	37.9	41.1	0.04	0.06	0.47	0.37
2	8	2.66	-0.17	-21.9	90.9	39.1	41.1	41.1	0.03	0.00	0.55	0.50
3	9	2.67	0.12	-21.9	90.9	39.1	41.1	41.1	0.03	0.00	0.55	0.50
3	10	2.88	-2.37	-16.9	70.9	39.1	38.1	41.1	0.04	0.06	0.46	0.37
3	11	3.08	-4.86	-0.7	70.9	39.1	41.1	41.1	0.04	0.12	0.04	0.03
3	12	3.29	-7.35	26.6	89.2	39.1	41.1	41.1	0.04	0.19	0.61	0.66



4	13	8.47	2.70	28.4	106.2	52.9	49.2	49.2	0.08	0.05	0.50	0.61
4	14	8.53	2.70	18.9	54.6	52.9	49.2	49.2	0.16	0.05	0.23	0.43
4	15	8.58	2.70	9.5	54.6	52.9	49.2	49.2	0.16	0.05	0.04	0.24
4	16	8.63	2.70	0.0	54.6	52.9	49.2	49.2	0.16	0.05	0.16	0.08

LOAD COMBINATION : 4 DL+CL+SL

Sn	Id	WORKING LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	8.63	-2.70	0.0	54.6	52.9	49.2	49.2	0.16	0.05	0.08	0.16
1	2	8.58	-2.70	9.5	54.6	52.9	49.2	49.2	0.16	0.05	0.04	0.24
1	3	8.53	-2.70	18.9	54.6	52.9	49.2	49.2	0.16	0.05	0.23	0.43
1	4	8.47	-2.70	28.4	106.2	52.9	49.2	49.2	0.08	0.05	0.50	0.61
2	5	3.29	7.35	26.6	89.2	39.1	41.1	41.1	0.04	0.19	0.61	0.66
2	6	3.08	4.86	-0.7	70.9	39.1	41.1	41.1	0.04	0.12	0.04	0.03
2	7	2.88	2.37	-16.9	70.9	39.1	38.1	41.1	0.04	0.06	0.46	0.37
2	8	2.67	-0.12	-21.9	90.9	39.1	41.1	41.1	0.03	0.00	0.55	0.50
3	9	2.66	0.17	-21.9	90.9	39.1	41.1	41.1	0.03	0.00	0.55	0.50
3	10	2.87	-2.33	-17.0	70.9	39.1	37.9	41.1	0.04	0.06	0.47	0.37
3	11	3.08	-4.82	-1.1	70.9	39.1	41.1	41.1	0.04	0.12	0.04	0.02
3	12	3.29	-7.31	26.0	89.2	39.1	41.1	41.1	0.04	0.19	0.59	0.65
4	13	8.43	2.65	27.8	106.2	52.9	49.2	49.2	0.08	0.05	0.49	0.60
4	14	8.48	2.65	18.5	54.6	52.9	49.2	49.2	0.16	0.05	0.22	0.42
4	15	8.54	2.65	9.3	54.6	52.9	49.2	49.2	0.16	0.05	0.03	0.24
4	16	8.59	2.65	0.0	54.6	52.9	49.2	49.2	0.16	0.05	0.16	0.08

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LOAD COMBINATION : 5 DL+CL+SL+Drift

Sn	Id	WORKING LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	8.63	-2.70	0.0	54.6	52.9	49.2	49.2	0.16	0.05	0.08	0.16
1	2	8.58	-2.70	9.5	54.6	52.9	49.2	49.2	0.16	0.05	0.04	0.24
1	3	8.53	-2.70	18.9	54.6	52.9	49.2	49.2	0.16	0.05	0.23	0.43
1	4	8.47	-2.70	28.4	106.2	52.9	49.2	49.2	0.08	0.05	0.50	0.61
2	5	3.29	7.35	26.6	89.2	39.1	41.1	41.1	0.04	0.19	0.61	0.66
2	6	3.08	4.86	-0.7	70.9	39.1	41.1	41.1	0.04	0.12	0.04	0.03
2	7	2.88	2.37	-16.9	70.9	39.1	38.1	41.1	0.04	0.06	0.46	0.37
2	8	2.67	-0.12	-21.9	90.9	39.1	41.1	41.1	0.03	0.00	0.55	0.50

3	9	2.66	0.17	-21.9	90.9	39.1	41.1	41.1	0.03	0.00	0.55	0.50
3	10	2.87	-2.33	-17.0	70.9	39.1	37.9	41.1	0.04	0.06	0.47	0.37
3	11	3.08	-4.82	-1.1	70.9	39.1	41.1	41.1	0.04	0.12	0.04	0.02
3	12	3.29	-7.31	26.0	89.2	39.1	41.1	41.1	0.04	0.19	0.59	0.65
4	13	8.43	2.65	27.8	106.2	52.9	49.2	49.2	0.08	0.05	0.49	0.60
4	14	8.48	2.65	18.5	54.6	52.9	49.2	49.2	0.16	0.05	0.22	0.42
4	15	8.54	2.65	9.3	54.6	52.9	49.2	49.2	0.16	0.05	0.03	0.24
4	16	8.59	2.65	0.0	54.6	52.9	49.2	49.2	0.16	0.05	0.16	0.08

LOAD COMBINATION : 6 DL+CL+SL+Drift

Sn	Id	WORKING_LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	8.63	-2.70	0.0	54.6	52.9	49.2	49.2	0.16	0.05	0.08	0.16
1	2	8.58	-2.70	9.5	54.6	52.9	49.2	49.2	0.16	0.05	0.04	0.24
1	3	8.53	-2.70	18.9	54.6	52.9	49.2	49.2	0.16	0.05	0.23	0.43
1	4	8.47	-2.70	28.4	106.2	52.9	49.2	49.2	0.08	0.05	0.50	0.61
2	5	3.29	7.35	26.6	89.2	39.1	41.1	41.1	0.04	0.19	0.61	0.66
2	6	3.08	4.86	-0.7	70.9	39.1	41.1	41.1	0.04	0.12	0.04	0.03
2	7	2.88	2.37	-16.9	70.9	39.1	38.1	41.1	0.04	0.06	0.46	0.37
2	8	2.67	-0.12	-21.9	90.9	39.1	41.1	41.1	0.03	0.00	0.55	0.50
3	9	2.66	0.17	-21.9	90.9	39.1	41.1	41.1	0.03	0.00	0.55	0.50
3	10	2.87	-2.33	-17.0	70.9	39.1	37.9	41.1	0.04	0.06	0.47	0.37
3	11	3.08	-4.82	-1.1	70.9	39.1	41.1	41.1	0.04	0.12	0.04	0.02
3	12	3.29	-7.31	26.0	89.2	39.1	41.1	41.1	0.04	0.19	0.59	0.65
4	13	8.43	2.65	27.8	106.2	52.9	49.2	49.2	0.08	0.05	0.49	0.60
4	14	8.48	2.65	18.5	54.6	52.9	49.2	49.2	0.16	0.05	0.22	0.42
4	15	8.54	2.65	9.3	54.6	52.9	49.2	49.2	0.16	0.05	0.03	0.24
4	16	8.59	2.65	0.0	54.6	52.9	49.2	49.2	0.16	0.05	0.16	0.08

LOAD COMBINATION : 7 DL+CL+SL+Slide

Sn	Id	WORKING_LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	8.63	-2.70	0.0	54.6	52.9	49.2	49.2	0.16	0.05	0.08	0.16
1	2	8.58	-2.70	9.5	54.6	52.9	49.2	49.2	0.16	0.05	0.04	0.24
1	3	8.53	-2.70	18.9	54.6	52.9	49.2	49.2	0.16	0.05	0.23	0.43
1	4	8.47	-2.70	28.4	106.2	52.9	49.2	49.2	0.08	0.05	0.50	0.61

2	5	3.29	7.35	26.6	89.2	39.1	41.1	41.1	0.04	0.19	0.61	0.66
2	6	3.08	4.86	-0.7	70.9	39.1	41.1	41.1	0.04	0.12	0.04	0.03
2	7	2.88	2.37	-16.9	70.9	39.1	38.1	41.1	0.04	0.06	0.46	0.37
2	8	2.67	-0.12	-21.9	90.9	39.1	41.1	41.1	0.03	0.00	0.55	0.50
3	9	2.66	0.17	-21.9	90.9	39.1	41.1	41.1	0.03	0.00	0.55	0.50
3	10	2.87	-2.33	-17.0	70.9	39.1	37.9	41.1	0.04	0.06	0.47	0.37
3	11	3.08	-4.82	-1.1	70.9	39.1	41.1	41.1	0.04	0.12	0.04	0.02
3	12	3.29	-7.31	26.0	89.2	39.1	41.1	41.1	0.04	0.19	0.59	0.65
4	13	8.43	2.65	27.8	106.2	52.9	49.2	49.2	0.08	0.05	0.49	0.60
4	14	8.48	2.65	18.5	54.6	52.9	49.2	49.2	0.16	0.05	0.22	0.42
4	15	8.54	2.65	9.3	54.6	52.9	49.2	49.2	0.16	0.05	0.03	0.24
4	16	8.59	2.65	0.0	54.6	52.9	49.2	49.2	0.16	0.05	0.16	0.08

LOAD COMBINATION : 8 DL+CL+SL+Slide

Sn	Id	WORKING LOAD (k , f-k )			ALLOWABLE STRENGTH (k , f-k )				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	8.63	-2.70	0.0	54.6	52.9	49.2	49.2	0.16	0.05	0.08	0.16
1	2	8.58	-2.70	9.5	54.6	52.9	49.2	49.2	0.16	0.05	0.04	0.24
1	3	8.53	-2.70	18.9	54.6	52.9	49.2	49.2	0.16	0.05	0.23	0.43
1	4	8.47	-2.70	28.4	106.2	52.9	49.2	49.2	0.08	0.05	0.50	0.61
2	5	3.29	7.35	26.6	89.2	39.1	41.1	41.1	0.04	0.19	0.61	0.66
2	6	3.08	4.86	-0.7	70.9	39.1	41.1	41.1	0.04	0.12	0.04	0.03
2	7	2.88	2.37	-16.9	70.9	39.1	38.1	41.1	0.04	0.06	0.46	0.37
2	8	2.67	-0.12	-21.9	90.9	39.1	41.1	41.1	0.03	0.00	0.55	0.50
3	9	2.66	0.17	-21.9	90.9	39.1	41.1	41.1	0.03	0.00	0.55	0.50
3	10	2.87	-2.33	-17.0	70.9	39.1	37.9	41.1	0.04	0.06	0.47	0.37
3	11	3.08	-4.82	-1.1	70.9	39.1	41.1	41.1	0.04	0.12	0.04	0.02
3	12	3.29	-7.31	26.0	89.2	39.1	41.1	41.1	0.04	0.19	0.59	0.65
4	13	8.43	2.65	27.8	106.2	52.9	49.2	49.2	0.08	0.05	0.49	0.60
4	14	8.48	2.65	18.5	54.6	52.9	49.2	49.2	0.16	0.05	0.22	0.42
4	15	8.54	2.65	9.3	54.6	52.9	49.2	49.2	0.16	0.05	0.03	0.24
4	16	8.59	2.65	0.0	54.6	52.9	49.2	49.2	0.16	0.05	0.16	0.08

LOAD COMBINATION : 9 DL

Sn	Id	WORKING LOAD (k , f-k )			ALLOWABLE STRENGTH (k , f-k )				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	1.11	-0.29	0.0	54.6	52.9	49.2	49.2	0.02	0.01	0.01	0.02
1	2	1.06	-0.29	1.0	54.6	52.9	49.2	49.2	0.02	0.01	0.00	0.03

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1	3	1.00	-0.29	2.0	54.6	52.9	49.2	49.2	0.02	0.01	0.02	0.05
1	4	0.95	-0.29	3.1	106.2	52.9	49.2	49.2	0.01	0.01	0.05	0.07
2	5	0.36	0.81	2.9	89.2	39.1	41.1	41.1	0.00	0.02	0.07	0.07
2	6	0.34	0.53	-0.1	70.9	39.1	41.1	41.1	0.00	0.01	0.01	0.00
2	7	0.32	0.26	-1.9	70.9	39.1	37.9	41.1	0.00	0.01	0.05	0.04
2	8	0.29	-0.02	-2.4	90.9	39.1	41.1	41.1	0.00	0.00	0.06	0.06
3	9	0.30	0.01	-2.4	90.9	39.1	41.1	41.1	0.00	0.00	0.06	0.06
3	10	0.32	-0.26	-1.9	70.9	39.1	38.1	41.1	0.00	0.01	0.05	0.04
3	11	0.34	-0.54	-0.1	70.9	39.1	41.1	41.1	0.00	0.01	0.00	0.00
3	12	0.36	-0.81	2.9	89.2	39.1	41.1	41.1	0.00	0.02	0.07	0.07
4	13	0.96	0.30	3.1	106.2	52.9	49.2	49.2	0.01	0.01	0.05	0.07
4	14	1.01	0.30	2.1	54.6	52.9	49.2	49.2	0.02	0.01	0.02	0.05
4	15	1.06	0.30	1.0	54.6	52.9	49.2	49.2	0.02	0.01	0.00	0.03
4	16	1.11	0.30	0.0	54.6	52.9	49.2	49.2	0.02	0.01	0.02	0.01

LOAD COMBINATION : 10 DL

Sn	Id	WORKING_LOAD			ALLOWABLE STRENGTH				UNITY_CHECKS			
		(k, f-k)			(k, f-k)				Axl+Bend			
		Axial	Shear	Moment	Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
	Pr	Vr	Mr	Pn/sf	Vn/sf	MnO/sf	MnI/sf	UcA	UcV	UcO	UcI	
1	1	1.11	-0.30	0.0	54.6	52.9	49.2	49.2	0.02	0.01	0.01	0.02
1	2	1.06	-0.30	1.0	54.6	52.9	49.2	49.2	0.02	0.01	0.00	0.03
1	3	1.01	-0.30	2.1	54.6	52.9	49.2	49.2	0.02	0.01	0.02	0.05
1	4	0.96	-0.30	3.1	106.2	52.9	49.2	49.2	0.01	0.01	0.05	0.07
2	5	0.36	0.81	2.9	89.2	39.1	41.1	41.1	0.00	0.02	0.07	0.07
2	6	0.34	0.54	-0.1	70.9	39.1	41.1	41.1	0.00	0.01	0.00	0.00
2	7	0.32	0.26	-1.9	70.9	39.1	38.1	41.1	0.00	0.01	0.05	0.04
2	8	0.30	-0.01	-2.4	90.9	39.1	41.1	41.1	0.00	0.00	0.06	0.06
3	9	0.29	0.02	-2.4	90.9	39.1	41.1	41.1	0.00	0.00	0.06	0.06
3	10	0.32	-0.26	-1.9	70.9	39.1	37.9	41.1	0.00	0.01	0.05	0.04
3	11	0.34	-0.53	-0.1	70.9	39.1	41.1	41.1	0.00	0.01	0.01	0.00
3	12	0.36	-0.81	2.9	89.2	39.1	41.1	41.1	0.00	0.02	0.07	0.07
4	13	0.95	0.29	3.1	106.2	52.9	49.2	49.2	0.01	0.01	0.05	0.07
4	14	1.00	0.29	2.0	54.6	52.9	49.2	49.2	0.02	0.01	0.02	0.05
4	15	1.06	0.29	1.0	54.6	52.9	49.2	49.2	0.02	0.01	0.00	0.03
4	16	1.11	0.29	0.0	54.6	52.9	49.2	49.2	0.02	0.01	0.02	0.01

LOAD COMBINATION : 11 DL+CL+0.75LL+0.75WL1

Sn	Id	WORKING LOAD (k , f-k )			ALLOWABLE STRENGTH (k , f-k )				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	2.86	-0.09	0.0	54.6	52.9	49.2	49.2	0.05	0.00	0.03	0.05
1	2	2.80	-0.33	0.7	54.6	52.9	49.2	49.2	0.05	0.01	0.04	0.04
1	3	2.75	-0.58	2.3	54.6	52.9	49.2	49.2	0.05	0.01	0.00	0.06
1	4	2.70	-0.82	4.8	106.2	52.9	49.2	49.2	0.03	0.02	0.07	0.11
2	5	1.10	2.30	4.2	89.2	39.1	41.1	41.1	0.01	0.06	0.09	0.11
2	6	0.94	1.45	-4.2	70.9	39.1	41.1	41.1	0.01	0.04	0.11	0.09
2	7	0.78	0.61	-8.8	70.9	39.1	35.4	41.1	0.01	0.02	0.25	0.20
2	8	0.62	-0.24	-9.6	90.9	39.1	41.1	41.1	0.01	0.01	0.24	0.23
3	9	0.66	-0.20	-9.6	90.9	39.1	41.1	41.1	0.01	0.01	0.24	0.23
3	10	0.82	-1.45	-5.9	70.9	39.1	41.1	41.1	0.01	0.04	0.15	0.13
3	11	0.98	-2.70	3.4	70.9	39.1	41.1	28.6	0.01	0.07	0.07	0.12
3	12	1.14	-3.95	18.2	89.2	39.1	41.1	41.1	0.01	0.10	0.43	0.45
4	13	4.48	1.07	19.3	106.2	52.9	49.2	49.2	0.04	0.02	0.35	0.41
4	14	4.53	1.58	14.6	54.6	52.9	49.2	49.2	0.08	0.03	0.21	0.32
4	15	4.59	2.09	8.2	54.6	52.9	49.2	49.2	0.08	0.04	0.08	0.19
4	16	4.64	2.60	0.0	54.6	52.9	49.2	49.2	0.08	0.05	0.08	0.04

LOAD COMBINATION : 12 DL+CL+0.75LL+0.75WR1

Sn	Id	WORKING LOAD (k , f-k )			ALLOWABLE STRENGTH (k , f-k )				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	4.64	-2.60	0.0	54.6	52.9	49.2	49.2	0.08	0.05	0.08	0.04
1	2	4.59	-2.09	8.2	54.6	52.9	49.2	49.2	0.08	0.04	0.08	0.19
1	3	4.53	-1.58	14.6	54.6	52.9	49.2	49.2	0.08	0.03	0.21	0.32
1	4	4.48	-1.07	19.3	106.2	52.9	49.2	49.2	0.04	0.02	0.35	0.41
2	5	1.14	3.95	18.2	89.2	39.1	41.1	41.1	0.01	0.10	0.43	0.45
2	6	0.98	2.70	3.4	70.9	39.1	41.1	28.6	0.01	0.07	0.07	0.12
2	7	0.82	1.45	-5.9	70.9	39.1	41.1	41.1	0.01	0.04	0.15	0.13
2	8	0.66	0.20	-9.6	90.9	39.1	41.1	41.1	0.01	0.01	0.24	0.23
3	9	0.62	0.24	-9.6	90.9	39.1	41.1	41.1	0.01	0.01	0.24	0.23
3	10	0.78	-0.61	-8.8	70.9	39.1	35.4	41.1	0.01	0.02	0.25	0.20
3	11	0.94	-1.45	-4.2	70.9	39.1	41.1	41.1	0.01	0.04	0.11	0.09
3	12	1.10	-2.30	4.2	89.2	39.1	41.1	41.1	0.01	0.06	0.09	0.11

2	5	1.10	2.30	4.2	89.2	39.1	41.1	41.1	0.01	0.06	0.09	0.11
2	6	0.94	1.45	-4.2	70.9	39.1	41.1	41.1	0.01	0.04	0.11	0.09
2	7	0.78	0.61	-8.8	70.9	39.1	35.4	41.1	0.01	0.02	0.25	0.20
2	8	0.62	-0.24	-9.6	90.9	39.1	41.1	41.1	0.01	0.01	0.24	0.23
3	9	0.66	-0.20	-9.6	90.9	39.1	41.1	41.1	0.01	0.01	0.24	0.23
3	10	0.82	-1.45	-5.9	70.9	39.1	41.1	41.1	0.01	0.04	0.15	0.13
3	11	0.98	-2.70	3.4	70.9	39.1	41.1	28.6	0.01	0.07	0.07	0.12
3	12	1.14	-3.95	18.2	89.2	39.1	41.1	41.1	0.01	0.10	0.43	0.45
4	13	4.48	1.07	19.3	106.2	52.9	49.2	49.2	0.04	0.02	0.35	0.41
4	14	4.53	1.58	14.6	54.6	52.9	49.2	49.2	0.08	0.03	0.21	0.32
4	15	4.59	2.09	8.2	54.6	52.9	49.2	49.2	0.08	0.04	0.08	0.19
4	16	4.64	2.60	0.0	54.6	52.9	49.2	49.2	0.08	0.05	0.08	0.04

LOAD COMBINATION : 17 DL+CL+0.75SL+0.75WL1+0.75Slide

Sn	Id	WORKING LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	2.86	-0.09	0.0	54.6	52.9	49.2	49.2	0.05	0.00	0.03	0.05
1	2	2.80	-0.33	0.7	54.6	52.9	49.2	49.2	0.05	0.01	0.04	0.04
1	3	2.75	-0.58	2.3	54.6	52.9	49.2	49.2	0.05	0.01	0.00	0.06
1	4	2.70	-0.82	4.8	106.2	52.9	49.2	49.2	0.03	0.02	0.07	0.11
2	5	1.10	2.30	4.2	89.2	39.1	41.1	41.1	0.01	0.06	0.09	0.11
2	6	0.94	1.45	-4.2	70.9	39.1	41.1	41.1	0.01	0.04	0.11	0.09
2	7	0.78	0.61	-8.8	70.9	39.1	35.4	41.1	0.01	0.02	0.25	0.20
2	8	0.62	-0.24	-9.6	90.9	39.1	41.1	41.1	0.01	0.01	0.24	0.23
3	9	0.66	-0.20	-9.6	90.9	39.1	41.1	41.1	0.01	0.01	0.24	0.23
3	10	0.82	-1.45	-5.9	70.9	39.1	41.1	41.1	0.01	0.04	0.15	0.13
3	11	0.98	-2.70	3.4	70.9	39.1	41.1	28.6	0.01	0.07	0.07	0.12
3	12	1.14	-3.95	18.2	89.2	39.1	41.1	41.1	0.01	0.10	0.43	0.45
4	13	4.48	1.07	19.3	106.2	52.9	49.2	49.2	0.04	0.02	0.35	0.41
4	14	4.53	1.58	14.6	54.6	52.9	49.2	49.2	0.08	0.03	0.21	0.32
4	15	4.59	2.09	8.2	54.6	52.9	49.2	49.2	0.08	0.04	0.08	0.19
4	16	4.64	2.60	0.0	54.6	52.9	49.2	49.2	0.08	0.05	0.08	0.04

LOAD COMBINATION : 18 DL+CL+0.75SL+0.75WR1

Sn	Id	WORKING LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	4.64	-2.60	0.0	54.6	52.9	49.2	49.2	0.08	0.05	0.08	0.04
1	2	4.59	-2.09	8.2	54.6	52.9	49.2	49.2	0.08	0.04	0.08	0.19

1	3	4.53	-1.58	14.6	54.6	52.9	49.2	49.2	0.08	0.03	0.21	0.32
1	4	4.48	-1.07	19.3	106.2	52.9	49.2	49.2	0.04	0.02	0.35	0.41
2	5	1.14	3.95	18.2	89.2	39.1	41.1	41.1	0.01	0.10	0.43	0.45
2	6	0.98	2.70	3.4	70.9	39.1	41.1	28.6	0.01	0.07	0.07	0.12
2	7	0.82	1.45	-5.9	70.9	39.1	41.1	41.1	0.01	0.04	0.15	0.13
2	8	0.66	0.20	-9.6	90.9	39.1	41.1	41.1	0.01	0.01	0.24	0.23
3	9	0.62	0.24	-9.6	90.9	39.1	41.1	41.1	0.01	0.01	0.24	0.23
3	10	0.78	-0.61	-8.8	70.9	39.1	35.4	41.1	0.01	0.02	0.25	0.20
3	11	0.94	-1.45	-4.2	70.9	39.1	41.1	41.1	0.01	0.04	0.11	0.09
3	12	1.10	-2.30	4.2	89.2	39.1	41.1	41.1	0.01	0.06	0.09	0.11
4	13	2.70	0.82	4.8	106.2	52.9	49.2	49.2	0.03	0.02	0.07	0.11
4	14	2.75	0.58	2.3	54.6	52.9	49.2	49.2	0.05	0.01	0.00	0.06
4	15	2.80	0.33	0.7	54.6	52.9	49.2	49.2	0.05	0.01	0.04	0.04
4	16	2.86	0.09	0.0	54.6	52.9	49.2	49.2	0.05	0.00	0.03	0.05

ROV  
COUNTY

#: \_\_\_\_\_

2-2

By \_\_\_\_\_

LOAD COMBINATION : 19 DL+CL+0.75SL+0.75WR1+0.75Drift

Sn	Id	WORKING LOAD (k , f-k )			ALLOWABLE STRENGTH (k , f-k )				UNITY_CHECKS			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	Axl+Bend O-f UcO	I-f UcI
1	1	4.64	-2.60	0.0	54.6	52.9	49.2	49.2	0.08	0.05	0.08	0.04
1	2	4.59	-2.09	8.2	54.6	52.9	49.2	49.2	0.08	0.04	0.08	0.19
1	3	4.53	-1.58	14.6	54.6	52.9	49.2	49.2	0.08	0.03	0.21	0.32
1	4	4.48	-1.07	19.3	106.2	52.9	49.2	49.2	0.04	0.02	0.35	0.41
2	5	1.14	3.95	18.2	89.2	39.1	41.1	41.1	0.01	0.10	0.43	0.45
2	6	0.98	2.70	3.4	70.9	39.1	41.1	28.6	0.01	0.07	0.07	0.12
2	7	0.82	1.45	-5.9	70.9	39.1	41.1	41.1	0.01	0.04	0.15	0.13
2	8	0.66	0.20	-9.6	90.9	39.1	41.1	41.1	0.01	0.01	0.24	0.23
3	9	0.62	0.24	-9.6	90.9	39.1	41.1	41.1	0.01	0.01	0.24	0.23
3	10	0.78	-0.61	-8.8	70.9	39.1	35.4	41.1	0.01	0.02	0.25	0.20
3	11	0.94	-1.45	-4.2	70.9	39.1	41.1	41.1	0.01	0.04	0.11	0.09
3	12	1.10	-2.30	4.2	89.2	39.1	41.1	41.1	0.01	0.06	0.09	0.11
4	13	2.70	0.82	4.8	106.2	52.9	49.2	49.2	0.03	0.02	0.07	0.11
4	14	2.75	0.58	2.3	54.6	52.9	49.2	49.2	0.05	0.01	0.00	0.06
4	15	2.80	0.33	0.7	54.6	52.9	49.2	49.2	0.05	0.01	0.04	0.04
4	16	2.86	0.09	0.0	54.6	52.9	49.2	49.2	0.05	0.00	0.03	0.05

LOAD COMBINATION : 20 DL+CL+0.75SL+0.75WR1+0.75Slide

Sn	Id	WORKING LOAD (k , f-k )			ALLOWABLE STRENGTH (k , f-k )				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	4.64	-2.60	0.0	54.6	52.9	49.2	49.2	0.08	0.05	0.08	0.04
1	2	4.59	-2.09	8.2	54.6	52.9	49.2	49.2	0.08	0.04	0.08	0.19
1	3	4.53	-1.58	14.6	54.6	52.9	49.2	49.2	0.08	0.03	0.21	0.32
1	4	4.48	-1.07	19.3	106.2	52.9	49.2	49.2	0.04	0.02	0.35	0.41
2	5	1.14	3.95	18.2	89.2	39.1	41.1	41.1	0.01	0.10	0.43	0.45
2	6	0.98	2.70	3.4	70.9	39.1	41.1	28.6	0.01	0.07	0.07	0.12
2	7	0.82	1.45	-5.9	70.9	39.1	41.1	41.1	0.01	0.04	0.15	0.13
2	8	0.66	0.20	-9.6	90.9	39.1	41.1	41.1	0.01	0.01	0.24	0.23
3	9	0.62	0.24	-9.6	90.9	39.1	41.1	41.1	0.01	0.01	0.24	0.23
3	10	0.78	-0.61	-8.8	70.9	39.1	35.4	41.1	0.01	0.02	0.25	0.20
3	11	0.94	-1.45	-4.2	70.9	39.1	41.1	41.1	0.01	0.04	0.11	0.09
3	12	1.10	-2.30	4.2	89.2	39.1	41.1	41.1	0.01	0.06	0.09	0.11
4	13	2.70	0.82	4.8	106.2	52.9	49.2	49.2	0.03	0.02	0.07	0.11
4	14	2.75	0.58	2.3	54.6	52.9	49.2	49.2	0.05	0.01	0.00	0.06
4	15	2.80	0.33	0.7	54.6	52.9	49.2	49.2	0.05	0.01	0.04	0.04
4	16	2.86	0.09	0.0	54.6	52.9	49.2	49.2	0.05	0.00	0.03	0.05

LOAD COMBINATION : 21 DL+CL+0.75SL+0.75WL2

Sn	Id	WORKING LOAD (k , f-k )			ALLOWABLE STRENGTH (k , f-k )				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	4.37	0.06	0.0	54.6	52.9	49.2	49.2	0.08	0.00	0.04	0.08
1	2	4.32	-0.58	0.9	54.6	52.9	49.2	49.2	0.08	0.01	0.06	0.06
1	3	4.26	-1.22	4.1	54.6	52.9	49.2	49.2	0.08	0.02	0.00	0.11
1	4	4.21	-1.86	9.4	106.2	52.9	49.2	49.2	0.04	0.04	0.15	0.21
2	5	2.44	3.55	8.7	89.2	39.1	41.1	41.1	0.03	0.09	0.19	0.23
2	6	2.27	2.25	-4.2	70.9	39.1	41.1	41.1	0.03	0.06	0.12	0.07
2	7	2.11	0.95	-11.4	70.9	39.1	35.8	41.1	0.03	0.02	0.33	0.25
2	8	1.95	-0.34	-12.8	90.9	39.1	41.1	41.1	0.02	0.01	0.32	0.29
3	9	1.99	-0.11	-12.7	90.9	39.1	41.1	41.1	0.02	0.00	0.32	0.29
3	10	2.15	-1.81	-8.4	70.9	39.1	40.4	41.1	0.03	0.05	0.22	0.17
3	11	2.31	-3.51	3.5	70.9	39.1	41.1	28.3	0.03	0.09	0.05	0.14
3	12	2.47	-5.21	22.9	89.2	39.1	41.1	41.1	0.03	0.13	0.53	0.57
4	13	6.00	2.12	24.1	106.2	52.9	49.2	49.2	0.06	0.04	0.43	0.52
4	14	6.06	2.24	16.5	54.6	52.9	49.2	49.2	0.11	0.04	0.22	0.37



4	15	6.11	2.36	8.5	54.6	52.9	49.2	49.2	0.11	0.04	0.06	0.21
4	16	6.16	2.47	0.0	54.6	52.9	49.2	49.2	0.11	0.05	0.11	0.06

LOAD COMBINATION : 22 DL+CL+0.75SL+0.75WL2+0.75Drift

Sn	Id	WORKING_LOAD (k , f-k )			ALLOWABLE STRENGTH (k , f-k )				UNITY_CHECKS			
		Axial	Shear	Moment	Axial	Shear	Bend-O	Bend-I	Axial	Shear	Axl+Bend	
		Pr	Vr	Mr	Pn/sf	Vn/sf	MnO/sf	MnI/sf	UcA	UcV	UcO	UcI
1	1	4.37	0.06	0.0	54.6	52.9	49.2	49.2	0.08	0.00	0.04	0.08
1	2	4.32	-0.58	0.9	54.6	52.9	49.2	49.2	0.08	0.01	0.06	0.06
1	3	4.26	-1.22	4.1	54.6	52.9	49.2	49.2	0.08	0.02	0.00	0.11
1	4	4.21	-1.86	9.4	106.2	52.9	49.2	49.2	0.04	0.04	0.15	0.21
2	5	2.44	3.55	8.7	89.2	39.1	41.1	41.1	0.03	0.09	0.19	0.23
2	6	2.27	2.25	-4.2	70.9	39.1	41.1	41.1	0.03	0.06	0.12	0.07
2	7	2.11	0.95	-11.4	70.9	39.1	35.8	41.1	0.03	0.02	0.33	0.25
2	8	1.95	-0.34	-12.8	90.9	39.1	41.1	41.1	0.02	0.01	0.32	0.29
3	9	1.99	-0.11	-12.7	90.9	39.1	41.1	41.1	0.02	0.00	0.32	0.29
3	10	2.15	-1.81	-8.4	70.9	39.1	40.4	41.1	0.03	0.05	0.22	0.17
3	11	2.31	-3.51	3.5	70.9	39.1	41.1	28.3	0.03	0.09	0.05	0.14
3	12	2.47	-5.21	22.9	89.2	39.1	41.1	41.1	0.03	0.13	0.53	0.57
4	13	6.00	2.12	24.1	106.2	52.9	49.2	49.2	0.06	0.04	0.43	0.52
4	14	6.06	2.24	16.5	54.6	52.9	49.2	49.2	0.11	0.04	0.22	0.37
4	15	6.11	2.36	8.5	54.6	52.9	49.2	49.2	0.11	0.04	0.06	0.21
4	16	6.16	2.47	0.0	54.6	52.9	49.2	49.2	0.11	0.05	0.11	0.06

LOAD COMBINATION : 23 DL+CL+0.75SL+0.75WL2+0.75Slide

Sn	Id	WORKING_LOAD (k , f-k )			ALLOWABLE STRENGTH (k , f-k )				UNITY_CHECKS			
		Axial	Shear	Moment	Axial	Shear	Bend-O	Bend-I	Axial	Shear	Axl+Bend	
		Pr	Vr	Mr	Pn/sf	Vn/sf	MnO/sf	MnI/sf	UcA	UcV	UcO	UcI
1	1	4.37	0.06	0.0	54.6	52.9	49.2	49.2	0.08	0.00	0.04	0.08
1	2	4.32	-0.58	0.9	54.6	52.9	49.2	49.2	0.08	0.01	0.06	0.06
1	3	4.26	-1.22	4.1	54.6	52.9	49.2	49.2	0.08	0.02	0.00	0.11
1	4	4.21	-1.86	9.4	106.2	52.9	49.2	49.2	0.04	0.04	0.15	0.21
2	5	2.44	3.55	8.7	89.2	39.1	41.1	41.1	0.03	0.09	0.19	0.23
2	6	2.27	2.25	-4.2	70.9	39.1	41.1	41.1	0.03	0.06	0.12	0.07
2	7	2.11	0.95	-11.4	70.9	39.1	35.8	41.1	0.03	0.02	0.33	0.25
2	8	1.95	-0.34	-12.8	90.9	39.1	41.1	41.1	0.02	0.01	0.32	0.29
3	9	1.99	-0.11	-12.7	90.9	39.1	41.1	41.1	0.02	0.00	0.32	0.29
3	10	2.15	-1.81	-8.4	70.9	39.1	40.4	41.1	0.03	0.05	0.22	0.17

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3	11	2.31	-3.51	3.5	70.9	39.1	41.1	28.3	0.03	0.09	0.05	0.14
3	12	2.47	-5.21	22.9	89.2	39.1	41.1	41.1	0.03	0.13	0.53	0.57
4	13	6.00	2.12	24.1	106.2	52.9	49.2	49.2	0.06	0.04	0.43	0.52
4	14	6.06	2.24	16.5	54.6	52.9	49.2	49.2	0.11	0.04	0.22	0.37
4	15	6.11	2.36	8.5	54.6	52.9	49.2	49.2	0.11	0.04	0.06	0.21
4	16	6.16	2.47	0.0	54.6	52.9	49.2	49.2	0.11	0.05	0.11	0.06

LOAD COMBINATION : 24 DL+CL+0.75SL+0.75WR2

Sn	Id	WORKING_LOAD (k , f-k )			ALLOWABLE STRENGTH (k , f-k )				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	6.16	-2.47	0.0	54.6	52.9	49.2	49.2	0.11	0.05	0.11	0.06
1	2	6.11	-2.36	8.5	54.6	52.9	49.2	49.2	0.11	0.04	0.06	0.21
1	3	6.06	-2.24	16.5	54.6	52.9	49.2	49.2	0.11	0.04	0.22	0.37
1	4	6.00	-2.12	24.1	106.2	52.9	49.2	49.2	0.06	0.04	0.43	0.52
2	5	2.47	5.21	22.9	89.2	39.1	41.1	41.1	0.03	0.13	0.53	0.57
2	6	2.31	3.51	3.5	70.9	39.1	41.1	28.3	0.03	0.09	0.05	0.14
2	7	2.15	1.81	-8.4	70.9	39.1	40.4	41.1	0.03	0.05	0.22	0.17
2	8	1.99	0.11	-12.7	90.9	39.1	41.1	41.1	0.02	0.00	0.32	0.29
3	9	1.95	0.34	-12.8	90.9	39.1	41.1	41.1	0.02	0.01	0.32	0.29
3	10	2.11	-0.95	-11.4	70.9	39.1	35.8	41.1	0.03	0.02	0.33	0.25
3	11	2.27	-2.25	-4.2	70.9	39.1	41.1	41.1	0.03	0.06	0.12	0.07
3	12	2.44	-3.55	8.7	89.2	39.1	41.1	41.1	0.03	0.09	0.19	0.23
4	13	4.21	1.86	9.4	106.2	52.9	49.2	49.2	0.04	0.04	0.15	0.21
4	14	4.26	1.22	4.1	54.6	52.9	49.2	49.2	0.08	0.02	0.00	0.11
4	15	4.32	0.58	0.9	54.6	52.9	49.2	49.2	0.08	0.01	0.06	0.06
4	16	4.37	-0.06	0.0	54.6	52.9	49.2	49.2	0.08	0.00	0.08	0.04

LOAD COMBINATION : 25 DL+CL+0.75SL+0.75WR2+0.75Drift

Sn	Id	WORKING_LOAD (k , f-k )			ALLOWABLE STRENGTH (k , f-k )				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	6.16	-2.47	0.0	54.6	52.9	49.2	49.2	0.11	0.05	0.11	0.06
1	2	6.11	-2.36	8.5	54.6	52.9	49.2	49.2	0.11	0.04	0.06	0.21
1	3	6.06	-2.24	16.5	54.6	52.9	49.2	49.2	0.11	0.04	0.22	0.37
1	4	6.00	-2.12	24.1	106.2	52.9	49.2	49.2	0.06	0.04	0.43	0.52
2	5	2.47	5.21	22.9	89.2	39.1	41.1	41.1	0.03	0.13	0.53	0.57
2	6	2.31	3.51	3.5	70.9	39.1	41.1	28.3	0.03	0.09	0.05	0.14

2	7	2.15	1.81	-8.4	70.9	39.1	40.4	41.1	0.03	0.05	0.22	0.17
2	8	1.99	0.11	-12.7	90.9	39.1	41.1	41.1	0.02	0.00	0.32	0.29
3	9	1.95	0.34	-12.8	90.9	39.1	41.1	41.1	0.02	0.01	0.32	0.29
3	10	2.11	-0.95	-11.4	70.9	39.1	35.8	41.1	0.03	0.02	0.33	0.25
3	11	2.27	-2.25	-4.2	70.9	39.1	41.1	41.1	0.03	0.06	0.12	0.07
3	12	2.44	-3.55	8.7	89.2	39.1	41.1	41.1	0.03	0.09	0.19	0.23
4	13	4.21	1.86	9.4	106.2	52.9	49.2	49.2	0.04	0.04	0.15	0.21
4	14	4.26	1.22	4.1	54.6	52.9	49.2	49.2	0.08	0.02	0.00	0.11
4	15	4.32	0.58	0.9	54.6	52.9	49.2	49.2	0.08	0.01	0.06	0.06
4	16	4.37	-0.06	0.0	54.6	52.9	49.2	49.2	0.08	0.00	0.04	0.08

LOAD COMBINATION : 26 DL+CL+0.75SL+0.75WR2+0.75Slide

Sn	Id	WORKING LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	6.16	-2.47	0.0	54.6	52.9	49.2	49.2	0.11	0.05	0.11	0.06
1	2	6.11	-2.36	8.5	54.6	52.9	49.2	49.2	0.11	0.04	0.06	0.21
1	3	6.06	-2.24	16.5	54.6	52.9	49.2	49.2	0.11	0.04	0.22	0.37
1	4	6.00	-2.12	24.1	106.2	52.9	49.2	49.2	0.06	0.04	0.43	0.52
2	5	2.47	5.21	22.9	89.2	39.1	41.1	41.1	0.03	0.13	0.53	0.57
2	6	2.31	3.51	3.5	70.9	39.1	41.1	28.3	0.03	0.09	0.05	0.14
2	7	2.15	1.81	-8.4	70.9	39.1	40.4	41.1	0.03	0.05	0.22	0.17
2	8	1.99	0.11	-12.7	90.9	39.1	41.1	41.1	0.02	0.00	0.32	0.29
3	9	1.95	0.34	-12.8	90.9	39.1	41.1	41.1	0.02	0.01	0.32	0.29
3	10	2.11	-0.95	-11.4	70.9	39.1	35.8	41.1	0.03	0.02	0.33	0.25
3	11	2.27	-2.25	-4.2	70.9	39.1	41.1	41.1	0.03	0.06	0.12	0.07
3	12	2.44	-3.55	8.7	89.2	39.1	41.1	41.1	0.03	0.09	0.19	0.23
4	13	4.21	1.86	9.4	106.2	52.9	49.2	49.2	0.04	0.04	0.15	0.21
4	14	4.26	1.22	4.1	54.6	52.9	49.2	49.2	0.08	0.02	0.00	0.11
4	15	4.32	0.58	0.9	54.6	52.9	49.2	49.2	0.08	0.01	0.06	0.06
4	16	4.37	-0.06	0.0	54.6	52.9	49.2	49.2	0.08	0.00	0.04	0.08

LOAD COMBINATION : 27 0.60DL+W1

Sn	Id	WORKING LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	-4.47	2.44	0.0	139.1	52.9	49.2	49.2	0.03	0.05	0.03	0.03
1	2	-4.50	2.11	-8.0	139.1	52.9	49.2	49.2	0.03	0.04	0.13	0.19

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1	3	-4.53	1.78	-14.8	139.1	52.9	49.2	49.2	0.03	0.03	0.27	0.33
1	4	-4.57	1.45	-20.4	139.1	52.9	49.2	49.2	0.03	0.03	0.38	0.45
2	5	-1.72	-4.01	-19.5	117.7	39.1	41.1	41.1	0.01	0.10	0.46	0.49
2	6	-1.74	-2.72	-4.4	117.7	39.1	41.1	41.1	0.01	0.07	0.09	0.12
2	7	-1.75	-1.43	4.9	117.7	39.1	41.1	32.3	0.01	0.04	0.13	0.13
2	8	-1.77	-0.14	8.4	117.7	39.1	41.1	41.1	0.02	0.00	0.22	0.19
3	9	-1.72	-0.38	8.4	117.7	39.1	41.1	41.1	0.01	0.01	0.22	0.19
3	10	-1.71	0.38	8.4	117.7	39.1	41.1	18.3	0.01	0.01	0.22	0.43
3	11	-1.70	1.13	5.0	117.7	39.1	41.1	18.3	0.01	0.03	0.14	0.25
3	12	-1.68	1.89	-1.7	117.7	39.1	41.1	41.1	0.01	0.05	0.03	0.06
4	13	-2.26	-1.21	-2.0	139.1	52.9	49.2	49.2	0.02	0.02	0.03	0.06
4	14	-2.23	-0.53	1.0	139.1	52.9	49.2	35.5	0.02	0.01	0.04	0.01
4	15	-2.20	0.15	1.7	139.1	52.9	49.2	35.5	0.02	0.00	0.05	0.03
4	16	-2.17	0.83	0.0	139.1	52.9	49.2	35.5	0.02	0.02	0.02	0.02

LOAD COMBINATION : 28 0.60DL+WR1

Sn	Id	WORKING_LOAD			ALLOWABLE STRENGTH				UNITY_CHECKS			
		(k, f-k)			(k, f-k)				Ax1+Bend			
		Axial	Shear	Moment	Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
		Pr	Vr	Mr	Pn/sf	Vn/sf	MnO/sf	MnI/sf	UcA	UcV	UcO	UcI
1	1	-2.17	-0.83	0.0	139.1	52.9	49.2	35.5	0.02	0.02	0.02	0.02
1	2	-2.20	-0.15	1.7	139.1	52.9	49.2	35.5	0.02	0.00	0.05	0.03
1	3	-2.23	0.53	1.0	139.1	52.9	49.2	35.5	0.02	0.01	0.04	0.01
1	4	-2.26	1.21	-2.0	139.1	52.9	49.2	49.2	0.02	0.02	0.03	0.06
2	5	-1.68	-1.89	-1.7	117.7	39.1	41.1	41.1	0.01	0.05	0.03	0.06
2	6	-1.70	-1.13	5.0	117.7	39.1	41.1	18.3	0.01	0.03	0.14	0.25
2	7	-1.71	-0.38	8.4	117.7	39.1	41.1	18.3	0.01	0.01	0.22	0.43
2	8	-1.72	0.38	8.4	117.7	39.1	41.1	41.1	0.01	0.01	0.22	0.19
3	9	-1.77	0.14	8.4	117.7	39.1	41.1	41.1	0.02	0.00	0.22	0.19
3	10	-1.75	1.43	4.9	117.7	39.1	41.1	32.3	0.01	0.04	0.13	0.13
3	11	-1.74	2.72	-4.4	117.7	39.1	41.1	41.1	0.01	0.07	0.09	0.12
3	12	-1.72	4.01	-19.5	117.7	39.1	41.1	41.1	0.01	0.10	0.46	0.49
4	13	-4.57	-1.45	-20.4	139.1	52.9	49.2	49.2	0.03	0.03	0.38	0.45
4	14	-4.53	-1.78	-14.8	139.1	52.9	49.2	49.2	0.03	0.03	0.27	0.33
4	15	-4.50	-2.11	-8.0	139.1	52.9	49.2	49.2	0.03	0.04	0.13	0.19
4	16	-4.47	-2.44	0.0	139.1	52.9	49.2	49.2	0.03	0.05	0.03	0.03

LOAD COMBINATION : 29 0.60DL+WL2

Sn	Id	WORKING LOAD (k , f-k )			ALLOWABLE STRENGTH (k , f-k )				UNITY_CHECKS Axl+Bend			
		Axial	Shear	Moment	Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
		Pr	Vr	Mr	Pn/sf	Vn/sf	MnO/sf	MnI/sf	UcA	UcV	UcO	UcI
1	1	-2.46	2.63	0.0	139.1	52.9	46.9	49.2	0.02	0.05	0.02	0.02
1	2	-2.49	1.78	-7.7	139.1	52.9	46.9	49.2	0.02	0.03	0.15	0.17
1	3	-2.52	0.93	-12.5	139.1	52.9	46.9	49.2	0.02	0.02	0.25	0.27
1	4	-2.55	0.08	-14.2	139.1	52.9	48.9	49.2	0.02	0.00	0.27	0.31
2	5	0.05	-2.35	-13.4	89.2	39.1	41.1	41.1	0.00	0.06	0.33	0.33
2	6	0.04	-1.66	-4.5	70.9	39.1	41.1	41.1	0.00	0.04	0.11	0.11
2	7	0.03	-0.97	1.4	70.9	39.1	41.1	41.1	0.00	0.02	0.03	0.03
2	8	0.01	-0.28	4.2	90.9	39.1	41.1	41.1	0.00	0.01	0.10	0.10
3	9	0.06	-0.26	4.2	90.9	39.1	41.1	41.1	0.00	0.01	0.10	0.10
3	10	0.07	-0.11	5.1	70.9	39.1	41.1	16.3	0.00	0.00	0.12	0.31
3	11	0.08	0.05	5.2	70.9	39.1	41.1	16.3	0.00	0.00	0.12	0.32
3	12	0.10	0.20	4.6	89.2	39.1	41.1	41.1	0.00	0.01	0.11	0.11
4	13	-0.23	0.19	4.5	139.1	52.9	49.2	49.2	0.00	0.00	0.09	0.09
4	14	-0.20	0.35	3.5	139.1	52.9	49.2	49.1	0.00	0.01	0.07	0.07
4	15	-0.16	0.50	2.0	139.1	52.9	49.2	49.1	0.00	0.01	0.04	0.04
4	16	-0.13	0.66	0.0	139.1	52.9	49.1	49.2	0.00	0.01	0.00	0.00

LOAD COMBINATION : 30 0.60DL+WR2

Sn	Id	WORKING LOAD (k , f-k )			ALLOWABLE STRENGTH (k , f-k )				UNITY_CHECKS Axl+Bend			
		Axial	Shear	Moment	Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
		Pr	Vr	Mr	Pn/sf	Vn/sf	MnO/sf	MnI/sf	UcA	UcV	UcO	UcI
1	1	-0.13	-0.66	0.0	139.1	52.9	49.2	49.1	0.00	0.01	0.00	0.00
1	2	-0.16	-0.50	2.0	139.1	52.9	49.2	49.1	0.00	0.01	0.04	0.04
1	3	-0.20	-0.35	3.5	139.1	52.9	49.2	49.1	0.00	0.01	0.07	0.07
1	4	-0.23	-0.19	4.5	139.1	52.9	49.2	49.2	0.00	0.00	0.09	0.09
2	5	0.10	-0.20	4.6	89.2	39.1	41.1	41.1	0.00	0.01	0.11	0.11
2	6	0.08	-0.05	5.2	70.9	39.1	41.1	16.3	0.00	0.00	0.12	0.32
2	7	0.07	0.11	5.1	70.9	39.1	41.1	16.3	0.00	0.00	0.12	0.31
2	8	0.06	0.26	4.2	90.9	39.1	41.1	41.1	0.00	0.01	0.10	0.10
3	9	0.01	0.28	4.2	90.9	39.1	41.1	41.1	0.00	0.01	0.10	0.10
3	10	0.03	0.97	1.4	70.9	39.1	41.1	41.1	0.00	0.02	0.03	0.03
3	11	0.04	1.66	-4.5	70.9	39.1	41.1	41.1	0.00	0.04	0.11	0.11
3	12	0.05	2.35	-13.4	89.2	39.1	41.1	41.1	0.00	0.06	0.33	0.33
4	13	-2.55	-0.08	-14.2	139.1	52.9	48.9	49.2	0.02	0.00	0.27	0.31
4	14	-2.52	-0.93	-12.5	139.1	52.9	46.9	49.2	0.02	0.02	0.25	0.27

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4	15	-2.49	-1.78	-7.7	139.1	52.9	46.9	49.2	0.02	0.03	0.15	0.17
4	16	-2.46	-2.63	0.0	139.1	52.9	49.2	46.9	0.02	0.05	0.02	0.02

LOAD COMBINATION : 31 0.60DL+LW1+LWIND1\_L2E

Sn	Id	WORKING LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	-5.65	0.94	0.0	139.1	52.9	49.2	49.2	0.04	0.02	0.04	0.04
1	2	-5.68	1.76	-4.7	139.1	52.9	49.2	49.2	0.04	0.03	0.06	0.14
1	3	-5.71	2.59	-12.3	139.1	52.9	49.2	49.2	0.04	0.05	0.21	0.29
1	4	-5.75	3.41	-22.8	139.1	52.9	49.2	49.2	0.04	0.06	0.42	0.51
2	5	-3.40	-4.84	-22.3	117.7	39.1	41.1	41.1	0.03	0.12	0.51	0.57
2	6	-3.42	-2.92	-4.9	117.7	39.1	41.1	41.1	0.03	0.07	0.09	0.15
2	7	-3.43	-1.63	5.2	117.7	39.1	41.1	32.8	0.03	0.04	0.16	0.12
2	8	-3.44	-0.34	9.6	117.7	39.1	41.1	41.1	0.03	0.01	0.26	0.21
3	9	-3.35	-0.82	9.6	117.7	39.1	41.1	41.1	0.03	0.02	0.26	0.21
3	10	-3.33	0.47	10.4	117.7	39.1	41.1	18.5	0.03	0.01	0.28	0.50
3	11	-3.32	1.76	5.5	117.7	39.1	41.1	18.5	0.03	0.04	0.16	0.24
3	12	-3.31	3.05	-5.3	117.7	39.1	41.1	41.1	0.03	0.08	0.10	0.16
4	13	-3.73	-1.79	-5.8	139.1	52.9	49.2	49.2	0.03	0.03	0.09	0.14
4	14	-3.70	-0.97	-1.0	139.1	52.9	49.2	49.2	0.03	0.02	0.03	0.05
4	15	-3.67	-0.14	1.0	139.1	52.9	49.2	49.2	0.03	0.00	0.05	0.03
4	16	-3.64	0.69	0.0	139.1	52.9	49.2	49.2	0.03	0.01	0.03	0.03

LOAD COMBINATION : 32 0.60DL+LW1+LWIND1\_R2E

Sn	Id	WORKING LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	-4.97	1.00	0.0	139.1	52.9	49.2	49.2	0.04	0.02	0.04	0.04
1	2	-5.00	1.83	-5.0	139.1	52.9	49.2	49.2	0.04	0.03	0.07	0.14
1	3	-5.04	2.65	-12.8	139.1	52.9	49.2	49.2	0.04	0.05	0.22	0.30
1	4	-5.07	3.48	-23.5	139.1	52.9	49.2	49.2	0.04	0.07	0.44	0.51
2	5	-3.41	-4.38	-23.1	117.7	39.1	41.1	41.1	0.03	0.11	0.54	0.59
2	6	-3.43	-3.09	-6.5	117.7	39.1	41.1	41.1	0.03	0.08	0.13	0.19
2	7	-3.44	-1.80	4.4	117.7	39.1	41.1	36.1	0.03	0.05	0.14	0.09
2	8	-3.45	-0.51	9.6	117.7	39.1	41.1	41.1	0.03	0.01	0.26	0.21
3	9	-3.33	-0.99	9.6	117.7	39.1	41.1	41.1	0.03	0.03	0.26	0.21
3	10	-3.32	0.30	11.2	117.7	39.1	41.1	17.8	0.03	0.01	0.30	0.57



2	7	-3.34	-0.46	10.4	117.7	39.1	41.1	18.5	0.03	0.01	0.28	0.50
2	8	-3.35	0.83	9.6	117.7	39.1	41.1	41.1	0.03	0.02	0.26	0.21
3	9	-3.45	0.34	9.6	117.7	39.1	41.1	41.1	0.03	0.01	0.26	0.21
3	10	-3.43	1.63	5.2	117.7	39.1	41.1	32.9	0.03	0.04	0.16	0.12
3	11	-3.42	2.92	-5.0	117.7	39.1	41.1	41.1	0.03	0.07	0.09	0.15
3	12	-3.41	4.85	-22.3	117.7	39.1	41.1	41.1	0.03	0.12	0.51	0.57
4	13	-5.75	-3.42	-22.9	139.1	52.9	49.2	49.2	0.04	0.06	0.42	0.51
4	14	-5.72	-2.59	-12.4	139.1	52.9	49.2	49.2	0.04	0.05	0.21	0.29
4	15	-5.69	-1.77	-4.7	139.1	52.9	49.2	49.2	0.04	0.03	0.06	0.14
4	16	-5.65	-0.94	0.0	139.1	52.9	49.2	49.2	0.04	0.02	0.04	0.04

LOAD COMBINATION : 35 0.60DL+LW2+LWIND2\_L2E

Sn	Id	WORKING LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	-2.28	-0.67	0.0	139.1	52.9	49.2	39.6	0.02	0.01	0.02	0.02
1	2	-2.31	-0.31	1.7	139.1	52.9	49.2	39.6	0.02	0.01	0.05	0.02
1	3	-2.35	0.04	2.2	139.1	52.9	49.2	39.6	0.02	0.00	0.06	0.03
1	4	-2.38	0.40	1.4	139.1	52.9	49.2	49.2	0.02	0.01	0.05	0.01
2	5	-1.60	-1.82	2.0	117.7	39.1	41.1	41.1	0.01	0.05	0.06	0.03
2	6	-1.62	-0.50	7.1	117.7	39.1	41.1	16.5	0.01	0.01	0.19	0.40
2	7	-1.63	0.20	7.8	117.7	39.1	41.1	16.5	0.01	0.00	0.20	0.44
2	8	-1.65	0.88	5.4	117.7	39.1	41.1	41.1	0.01	0.02	0.14	0.12
3	9	-1.77	0.64	5.3	117.7	39.1	41.1	41.1	0.02	0.02	0.14	0.12
3	10	-1.76	1.33	0.9	117.7	39.1	41.1	39.6	0.01	0.03	0.04	0.01
3	11	-1.75	2.02	-6.5	117.7	39.1	41.1	41.1	0.01	0.05	0.14	0.17
3	12	-1.73	2.70	-17.1	117.7	39.1	41.1	41.1	0.01	0.07	0.40	0.43
4	13	-3.06	-2.18	-17.3	139.1	52.9	49.2	49.2	0.02	0.04	0.33	0.37
4	14	-3.03	-1.82	-10.3	139.1	52.9	49.2	49.2	0.02	0.03	0.19	0.23
4	15	-2.99	-1.47	-4.5	139.1	52.9	49.2	49.2	0.02	0.03	0.07	0.11
4	16	-2.96	-1.12	0.0	139.1	52.9	49.2	49.2	0.02	0.02	0.02	0.02

LOAD COMBINATION : 36 0.60DL+LW2+LWIND2\_R2E

Sn	Id	WORKING LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	-1.61	-0.60	0.0	139.1	52.9	49.2	38.3	0.01	0.01	0.01	0.01
1	2	-1.64	-0.24	1.5	139.1	52.9	49.2	38.3	0.01	0.00	0.04	0.02



1	3	-1.67	0.11	1.7	139.1	52.9	49.2	38.3	0.01	0.00	0.05	0.03
1	4	-1.70	0.46	0.7	139.1	52.9	49.2	49.2	0.01	0.01	0.03	0.00
2	5	-1.62	-1.35	1.1	117.7	39.1	41.1	41.1	0.01	0.03	0.04	0.01
2	6	-1.64	-0.66	5.6	117.7	39.1	41.1	16.6	0.01	0.02	0.15	0.30
2	7	-1.65	0.02	7.0	117.7	39.1	41.1	16.6	0.01	0.00	0.18	0.39
2	8	-1.66	0.71	5.4	117.7	39.1	41.1	41.1	0.01	0.02	0.14	0.12
3	9	-1.76	0.47	5.3	117.7	39.1	41.1	41.1	0.01	0.01	0.14	0.12
3	10	-1.75	1.16	1.7	117.7	39.1	41.1	41.1	0.01	0.03	0.06	0.03
3	11	-1.73	1.85	-5.0	117.7	39.1	41.1	41.1	0.01	0.05	0.11	0.14
3	12	-1.72	3.17	-16.2	117.7	39.1	41.1	41.1	0.01	0.08	0.38	0.41
4	13	-3.73	-2.11	-16.6	139.1	52.9	49.2	49.2	0.03	0.04	0.31	0.36
4	14	-3.70	-1.76	-9.8	139.1	52.9	49.2	49.2	0.03	0.03	0.17	0.23
4	15	-3.67	-1.40	-4.3	139.1	52.9	49.2	49.2	0.03	0.03	0.06	0.11
4	16	-3.64	-1.05	0.0	139.1	52.9	49.2	49.2	0.03	0.02	0.03	0.03

LOAD COMBINATION : 37 0.60DL-LW2+LWIND2\_L2E

Sn	Id	WORKING LOAD (k , f-k )			ALLOWABLE STRENGTH (k , f-k )				UNITY_CHECKS			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	Ax1+Bend O-f I-f UcO UcI	
1	1	-2.43	1.05	0.0	139.1	52.9	49.2	49.2	0.02	0.02	0.02	0.02
1	2	-2.46	1.41	-4.3	139.1	52.9	49.2	49.2	0.02	0.03	0.07	0.11
1	3	-2.49	1.76	-9.8	139.1	52.9	49.2	49.2	0.02	0.03	0.18	0.22
1	4	-2.53	2.11	-16.6	139.1	52.9	49.2	49.2	0.02	0.04	0.32	0.36
2	5	-1.72	-3.17	-16.2	117.7	39.1	41.1	41.1	0.01	0.08	0.38	0.41
2	6	-1.73	-1.85	-5.0	117.7	39.1	41.1	41.1	0.01	0.05	0.11	0.14
2	7	-1.75	-1.16	1.7	117.7	39.1	41.1	41.1	0.01	0.03	0.06	0.03
2	8	-1.76	-0.47	5.3	117.7	39.1	41.1	41.1	0.01	0.01	0.14	0.12
3	9	-1.66	-0.71	5.4	117.7	39.1	41.1	41.1	0.01	0.02	0.14	0.12
3	10	-1.65	-0.03	7.0	117.7	39.1	41.1	16.6	0.01	0.00	0.18	0.39
3	11	-1.63	0.66	5.6	117.7	39.1	41.1	16.6	0.01	0.02	0.15	0.31
3	12	-1.62	1.35	1.1	117.7	39.1	41.1	41.1	0.01	0.03	0.04	0.01
4	13	-1.70	-0.46	0.7	139.1	52.9	49.2	49.2	0.01	0.01	0.03	0.00
4	14	-1.67	-0.11	1.7	139.1	52.9	49.2	38.4	0.01	0.00	0.05	0.03
4	15	-1.63	0.25	1.5	139.1	52.9	49.2	38.4	0.01	0.00	0.04	0.02
4	16	-1.60	0.60	0.0	139.1	52.9	38.4	49.2	0.01	0.01	0.01	0.01

LOAD COMBINATION : 38 0.60DL-LW2+LWIND2\_R2E

Sn	Id	WORKING_LOAD			ALLOWABLE STRENGTH				UNITY_CHECKS			
		(k, f-k)			(k, f-k)				Axl+Bend			
		Axial	Shear	Moment	Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
Pr	Vr	Mr	Pn/sf	Vn/sf	MnO/sf	MnI/sf	UcA	UcV	UcO	UcI		
1	1	-1.76	1.12	0.0	139.1	52.9	49.2	49.2	0.01	0.02	0.01	0.01
1	2	-1.79	1.48	-4.5	139.1	52.9	49.2	49.2	0.01	0.03	0.08	0.11
1	3	-1.82	1.83	-10.3	139.1	52.9	49.2	49.2	0.01	0.03	0.20	0.22
1	4	-1.85	2.18	-17.3	139.1	52.9	49.2	49.2	0.01	0.04	0.34	0.37
2	5	-1.73	-2.71	-17.1	117.7	39.1	41.1	41.1	0.01	0.07	0.40	0.43
2	6	-1.74	-2.02	-6.6	117.7	39.1	41.1	41.1	0.01	0.05	0.15	0.17
2	7	-1.76	-1.33	0.9	117.7	39.1	41.1	39.6	0.01	0.03	0.04	0.01
2	8	-1.77	-0.64	5.3	117.7	39.1	41.1	41.1	0.02	0.02	0.14	0.12
3	9	-1.64	-0.89	5.4	117.7	39.1	41.1	41.1	0.01	0.02	0.14	0.12
3	10	-1.63	-0.20	7.8	117.7	39.1	41.1	16.5	0.01	0.01	0.20	0.44
3	11	-1.61	0.49	7.2	117.7	39.1	41.1	16.5	0.01	0.01	0.19	0.40
3	12	-1.60	1.81	2.0	117.7	39.1	41.1	41.1	0.01	0.05	0.06	0.04
4	13	-2.37	-0.39	1.5	139.1	52.9	49.2	49.2	0.02	0.01	0.05	0.01
4	14	-2.34	-0.04	2.2	139.1	52.9	49.2	39.8	0.02	0.00	0.06	0.04
4	15	-2.31	0.32	1.7	139.1	52.9	49.2	39.8	0.02	0.01	0.05	0.02
4	16	-2.28	0.67	0.0	139.1	52.9	39.8	49.2	0.02	0.01	0.02	0.02

LOAD COMBINATION : 39 1.03DL+1.03CL+0.70SEIS

Sn	Id	WORKING_LOAD			ALLOWABLE STRENGTH				UNITY_CHECKS			
		(k, f-k)			(k, f-k)				Axl+Bend			
		Axial	Shear	Moment	Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
Pr	Vr	Mr	Pn/sf	Vn/sf	MnO/sf	MnI/sf	UcA	UcV	UcO	UcI		
1	1	1.04	-0.17	0.0	54.6	52.9	49.2	49.2	0.02	0.00	0.01	0.02
1	2	0.99	-0.17	0.6	54.6	52.9	49.2	49.2	0.02	0.00	0.01	0.02
1	3	0.93	-0.17	1.2	54.6	52.9	49.2	49.2	0.02	0.00	0.01	0.03
1	4	0.88	-0.17	1.8	106.2	52.9	49.2	49.2	0.01	0.00	0.03	0.04
2	5	0.37	0.73	1.6	89.2	39.1	41.1	41.1	0.00	0.02	0.03	0.04
2	6	0.34	0.44	-1.0	70.9	39.1	41.1	41.1	0.00	0.01	0.03	0.02
2	7	0.32	0.16	-2.4	70.9	39.1	35.0	41.1	0.00	0.00	0.07	0.05
2	8	0.29	-0.12	-2.5	90.9	39.1	41.1	41.1	0.00	0.00	0.06	0.06
3	9	0.31	-0.09	-2.5	90.9	39.1	41.1	41.1	0.00	0.00	0.06	0.06
3	10	0.34	-0.37	-1.5	70.9	39.1	41.1	41.1	0.00	0.01	0.04	0.03
3	11	0.36	-0.66	0.8	70.9	39.1	41.1	29.2	0.01	0.02	0.02	0.03
3	12	0.38	-0.94	4.4	89.2	39.1	41.1	41.1	0.00	0.02	0.10	0.11
4	13	1.09	0.44	4.6	106.2	52.9	49.2	49.2	0.01	0.01	0.08	0.10
4	14	1.14	0.44	3.1	54.6	52.9	49.2	49.2	0.02	0.01	0.04	0.07

4 15	1.20	0.44	1.5	54.6	52.9	49.2	49.2	0.02	0.01	0.01	0.04
4 16	1.25	0.44	0.0	54.6	52.9	49.2	49.2	0.02	0.01	0.02	0.01

LOAD COMBINATION : 40 1.03DL+1.03CL-0.70SEIS

Sn Id	WORKING LOAD (k , f-k )			ALLOWABLE STRENGTH (k , f-k )				UNITY_CHECKS			
	Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	Axl+Bend I-f UcI
1 1	1.25	-0.44	0.0	54.6	52.9	49.2	49.2	0.02	0.01	0.02	0.01
1 2	1.20	-0.44	1.5	54.6	52.9	49.2	49.2	0.02	0.01	0.01	0.04
1 3	1.14	-0.44	3.1	54.6	52.9	49.2	49.2	0.02	0.01	0.04	0.07
1 4	1.09	-0.44	4.6	106.2	52.9	49.2	49.2	0.01	0.01	0.08	0.10
2 5	0.38	0.94	4.4	89.2	39.1	41.1	41.1	0.00	0.02	0.10	0.11
2 6	0.36	0.66	0.8	70.9	39.1	41.1	29.2	0.01	0.02	0.02	0.03
2 7	0.34	0.37	-1.5	70.9	39.1	41.1	41.1	0.00	0.01	0.04	0.03
2 8	0.31	0.09	-2.5	90.9	39.1	41.1	41.1	0.00	0.00	0.06	0.06
3 9	0.29	0.12	-2.5	90.9	39.1	41.1	41.1	0.00	0.00	0.06	0.06
3 10	0.32	-0.16	-2.4	70.9	39.1	35.0	41.1	0.00	0.00	0.07	0.05
3 11	0.34	-0.44	-1.0	70.9	39.1	41.1	41.1	0.00	0.01	0.03	0.02
3 12	0.37	-0.73	1.6	89.2	39.1	41.1	41.1	0.00	0.02	0.03	0.04
4 13	0.88	0.17	1.8	106.2	52.9	49.2	49.2	0.01	0.00	0.03	0.04
4 14	0.93	0.17	1.2	54.6	52.9	49.2	49.2	0.02	0.00	0.01	0.03
4 15	0.99	0.17	0.6	54.6	52.9	49.2	49.2	0.02	0.00	0.01	0.02
4 16	1.04	0.17	0.0	54.6	52.9	49.2	49.2	0.02	0.00	0.02	0.01

LOAD COMBINATION : 41 1.02DL+1.02CL+0.75LL+0.52SEIS

Sn Id	WORKING LOAD (k , f-k )			ALLOWABLE STRENGTH (k , f-k )				UNITY_CHECKS			
	Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	Axl+Bend I-f UcI
1 1	6.68	-1.98	0.0	54.6	52.9	49.2	49.2	0.12	0.04	0.06	0.12
1 2	6.62	-1.98	6.9	54.6	52.9	49.2	49.2	0.12	0.04	0.02	0.18
1 3	6.57	-1.98	13.9	54.6	52.9	49.2	49.2	0.12	0.04	0.16	0.32
1 4	6.52	-1.98	20.8	106.2	52.9	49.2	49.2	0.06	0.04	0.36	0.45
2 5	2.56	5.64	19.4	89.2	39.1	41.1	41.1	0.03	0.14	0.44	0.49
2 6	2.40	3.69	-1.4	70.9	39.1	41.1	41.1	0.03	0.09	0.05	0.00
2 7	2.23	1.75	-13.6	70.9	39.1	37.6	41.1	0.03	0.04	0.38	0.30
2 8	2.07	-0.20	-17.1	90.9	39.1	41.1	41.1	0.02	0.00	0.43	0.39
3 9	2.09	0.03	-17.0	90.9	39.1	41.1	41.1	0.02	0.00	0.43	0.39
3 10	2.25	-1.91	-12.8	70.9	39.1	38.4	41.1	0.03	0.05	0.35	0.28

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1	3	0.47	-0.03	0.2	54.6	52.9	49.2	49.2	0.01	0.00	0.00	0.01
1	4	0.44	-0.03	0.4	106.2	52.9	49.2	49.2	0.00	0.00	0.00	0.01
2	5	0.20	0.36	0.2	89.2	39.1	41.1	41.1	0.00	0.01	0.00	0.01
2	6	0.19	0.20	-1.0	70.9	39.1	41.1	41.1	0.00	0.01	0.03	0.02
2	7	0.17	0.04	-1.5	70.9	39.1	34.3	41.1	0.00	0.00	0.05	0.03
2	8	0.16	-0.11	-1.4	90.9	39.1	41.1	41.1	0.00	0.00	0.03	0.03
3	9	0.18	-0.10	-1.4	90.9	39.1	41.1	41.1	0.00	0.00	0.03	0.03
3	10	0.19	-0.25	-0.6	70.9	39.1	41.1	41.1	0.00	0.01	0.02	0.01
3	11	0.20	-0.41	0.9	70.9	39.1	41.1	36.0	0.00	0.01	0.02	0.03
3	12	0.22	-0.57	3.1	89.2	39.1	41.1	41.1	0.00	0.01	0.07	0.08
4	13	0.65	0.30	3.2	106.2	52.9	49.2	49.2	0.01	0.01	0.06	0.07
4	14	0.68	0.30	2.1	54.6	52.9	49.2	49.2	0.01	0.01	0.03	0.05
4	15	0.71	0.30	1.1	54.6	52.9	49.2	49.2	0.01	0.01	0.01	0.03
4	16	0.74	0.30	0.0	54.6	52.9	49.2	49.2	0.01	0.01	0.01	0.01

LOAD COMBINATION : 46 0.57DL-0.70SEIS

Sn	Id	WORKING_LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	0.74	-0.30	0.0	54.6	52.9	49.2	49.2	0.01	0.01	0.01	0.01
1	2	0.71	-0.30	1.1	54.6	52.9	49.2	49.2	0.01	0.01	0.01	0.03
1	3	0.68	-0.30	2.1	54.6	52.9	49.2	49.2	0.01	0.01	0.03	0.05
1	4	0.65	-0.30	3.2	106.2	52.9	49.2	49.2	0.01	0.01	0.06	0.07
2	5	0.22	0.57	3.1	89.2	39.1	41.1	41.1	0.00	0.01	0.07	0.08
2	6	0.20	0.41	0.9	70.9	39.1	41.1	36.0	0.00	0.01	0.02	0.03
2	7	0.19	0.25	-0.6	70.9	39.1	41.1	41.1	0.00	0.01	0.02	0.01
2	8	0.18	0.10	-1.4	90.9	39.1	41.1	41.1	0.00	0.00	0.03	0.03
3	9	0.16	0.11	-1.4	90.9	39.1	41.1	41.1	0.00	0.00	0.03	0.03
3	10	0.17	-0.04	-1.5	70.9	39.1	34.3	41.1	0.00	0.00	0.05	0.03
3	11	0.19	-0.20	-1.0	70.9	39.1	41.1	41.1	0.00	0.01	0.03	0.02
3	12	0.20	-0.36	0.2	89.2	39.1	41.1	41.1	0.00	0.01	0.00	0.01
4	13	0.44	0.03	0.4	106.2	52.9	49.2	49.2	0.00	0.00	0.00	0.01
4	14	0.47	0.03	0.2	54.6	52.9	49.2	49.2	0.01	0.00	0.00	0.01
4	15	0.50	0.03	0.1	54.6	52.9	49.2	49.2	0.01	0.00	0.01	0.01
4	16	0.53	0.03	0.0	54.6	52.9	49.2	49.2	0.01	0.00	0.00	0.01

LOAD COMBINATION : 47 1.03DL+1.03CL+0.70LSEIS

Sn	Id	WORKING LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS Ax1+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	0.89	0.02	0.0	54.6	52.9	49.2	49.2	0.02	0.00	0.01	0.02
1	2	0.83	0.02	-0.1	54.6	52.9	49.2	49.2	0.02	0.00	0.01	0.01
1	3	0.78	0.02	-0.1	54.6	52.9	49.2	49.2	0.01	0.00	0.01	0.01
1	4	0.73	0.02	-0.2	106.2	52.9	49.2	49.2	0.01	0.00	0.01	0.00
2	5	0.35	0.58	-0.4	89.2	39.1	41.1	41.1	0.00	0.01	0.01	0.01
2	6	0.33	0.29	-2.4	70.9	39.1	39.0	41.1	0.00	0.01	0.06	0.05
2	7	0.31	0.01	-3.1	70.9	39.1	34.5	41.1	0.00	0.00	0.09	0.07
2	8	0.28	-0.27	-2.5	90.9	39.1	41.1	41.1	0.00	0.01	0.06	0.06
3	9	0.32	-0.24	-2.5	90.9	39.1	41.1	41.1	0.00	0.01	0.06	0.06
3	10	0.35	-0.52	-0.8	70.9	39.1	41.1	41.1	0.00	0.01	0.02	0.01
3	11	0.37	-0.81	2.2	70.9	39.1	41.1	41.1	0.01	0.02	0.05	0.06
3	12	0.40	-1.09	6.4	89.2	39.1	41.1	41.1	0.00	0.03	0.15	0.16
4	13	1.24	0.63	6.6	106.2	52.9	49.2	49.2	0.01	0.01	0.12	0.14
4	14	1.29	0.63	4.4	54.6	52.9	49.2	49.2	0.02	0.01	0.07	0.10
4	15	1.35	0.63	2.2	54.6	52.9	49.2	49.2	0.02	0.01	0.02	0.05
4	16	1.40	0.63	0.0	54.6	52.9	49.2	49.2	0.03	0.01	0.01	0.03

LOAD COMBINATION : 48 1.03DL+1.03CL-0.70LSEIS

Sn	Id	WORKING LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS Ax1+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	1.72	-0.63	0.0	54.6	52.9	49.2	49.2	0.03	0.01	0.03	0.02
1	2	1.66	-0.63	2.2	54.6	52.9	49.2	49.2	0.03	0.01	0.01	0.05
1	3	1.61	-0.63	4.4	54.6	52.9	49.2	49.2	0.03	0.01	0.06	0.10
1	4	1.55	-0.63	6.6	106.2	52.9	49.2	49.2	0.01	0.01	0.12	0.14
2	5	0.39	1.09	6.4	89.2	39.1	41.1	41.1	0.00	0.03	0.15	0.16
2	6	0.37	0.81	2.2	70.9	39.1	41.1	41.1	0.01	0.02	0.05	0.06
2	7	0.35	0.52	-0.8	70.9	39.1	41.1	41.1	0.00	0.01	0.02	0.01
2	8	0.32	0.24	-2.5	90.9	39.1	41.1	41.1	0.00	0.01	0.06	0.06
3	9	0.28	0.27	-2.5	90.9	39.1	41.1	41.1	0.00	0.01	0.06	0.06
3	10	0.31	-0.01	-3.1	70.9	39.1	34.5	41.1	0.00	0.00	0.09	0.07
3	11	0.33	-0.29	-2.4	70.9	39.1	39.0	41.1	0.00	0.01	0.06	0.05
3	12	0.35	-0.58	-0.4	89.2	39.1	41.1	41.1	0.00	0.01	0.01	0.01
4	13	0.73	-0.02	-0.2	106.2	52.9	49.2	49.2	0.01	0.00	0.01	0.00
4	14	0.78	-0.02	-0.1	54.6	52.9	49.2	49.2	0.01	0.00	0.01	0.01

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4	15	0.83	-0.02	-0.1	54.6	52.9	49.2	49.2	0.02	0.00	0.01	0.01
4	16	0.89	-0.02	0.0	54.6	52.9	49.2	49.2	0.02	0.00	0.01	0.02

LOAD COMBINATION : 49 1.02DL+1.02CL+0.75LL+0.52LSEIS

Sn	Id	WORKING LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	6.56	-1.84	0.0	54.6	52.9	49.2	49.2	0.12	0.03	0.06	0.12
1	2	6.51	-1.84	6.4	54.6	52.9	49.2	49.2	0.12	0.03	0.01	0.17
1	3	6.45	-1.84	12.8	54.6	52.9	49.2	49.2	0.12	0.03	0.14	0.30
1	4	6.40	-1.84	19.3	106.2	52.9	49.2	49.2	0.06	0.03	0.33	0.42
2	5	2.55	5.52	17.8	89.2	39.1	41.1	41.1	0.03	0.14	0.40	0.45
2	6	2.39	3.58	-2.5	70.9	39.1	41.1	41.1	0.03	0.09	0.07	0.03
2	7	2.23	1.63	-14.1	70.9	39.1	37.0	41.1	0.03	0.04	0.39	0.31
2	8	2.06	-0.31	-17.1	90.9	39.1	41.1	41.1	0.02	0.01	0.43	0.39
3	9	2.10	-0.08	-17.0	90.9	39.1	41.1	41.1	0.02	0.00	0.43	0.39
3	10	2.26	-2.03	-12.3	70.9	39.1	39.0	41.1	0.03	0.05	0.33	0.27
3	11	2.42	-3.97	1.1	70.9	39.1	41.1	27.1	0.03	0.10	0.01	0.05
3	12	2.58	-5.92	23.2	89.2	39.1	41.1	41.1	0.03	0.15	0.53	0.58
4	13	6.80	2.34	24.5	106.2	52.9	49.2	49.2	0.06	0.04	0.43	0.53
4	14	6.85	2.34	16.4	54.6	52.9	49.2	49.2	0.13	0.04	0.21	0.37
4	15	6.90	2.34	8.2	54.6	52.9	49.2	49.2	0.13	0.04	0.04	0.21
4	16	6.96	2.34	0.0	54.6	52.9	49.2	49.2	0.13	0.04	0.13	0.06

LOAD COMBINATION : 50 1.02DL+1.02CL+0.75LL-0.52LSEIS

Sn	Id	WORKING LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	7.19	-2.34	0.0	54.6	52.9	49.2	49.2	0.13	0.04	0.13	0.07
1	2	7.14	-2.34	8.2	54.6	52.9	49.2	49.2	0.13	0.04	0.04	0.21
1	3	7.08	-2.34	16.4	54.6	52.9	49.2	49.2	0.13	0.04	0.20	0.37
1	4	7.03	-2.34	24.5	106.2	52.9	49.2	49.2	0.07	0.04	0.43	0.53
2	5	2.58	5.92	23.2	89.2	39.1	41.1	41.1	0.03	0.15	0.53	0.58
2	6	2.42	3.97	1.1	70.9	39.1	41.1	27.1	0.03	0.10	0.01	0.05
2	7	2.26	2.03	-12.3	70.9	39.1	39.1	41.1	0.03	0.05	0.33	0.27
2	8	2.10	0.08	-17.0	90.9	39.1	41.1	41.1	0.02	0.00	0.43	0.39
3	9	2.06	0.31	-17.1	90.9	39.1	41.1	41.1	0.02	0.01	0.43	0.39
3	10	2.22	-1.63	-14.1	70.9	39.1	37.0	41.1	0.03	0.04	0.39	0.31

3	11	2.39	-3.58	-2.5	70.9	39.1	41.1	41.1	0.03	0.09	0.07	0.03
3	12	2.55	-5.52	17.8	89.2	39.1	41.1	41.1	0.03	0.14	0.40	0.45
4	13	6.40	1.83	19.3	106.2	52.9	49.2	49.2	0.06	0.03	0.33	0.42
4	14	6.45	1.83	12.8	54.6	52.9	49.2	49.2	0.12	0.03	0.14	0.30
4	15	6.51	1.83	6.4	54.6	52.9	49.2	49.2	0.12	0.03	0.01	0.17
4	16	6.56	1.83	0.0	54.6	52.9	49.2	49.2	0.12	0.03	0.12	0.06

LOAD COMBINATION : 51 1.02DL+1.02CL+0.52LSEIS

Sn	Id	WORKING_LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	0.94	-0.06	0.0	54.6	52.9	49.2	49.2	0.02	0.00	0.01	0.02
1	2	0.89	-0.06	0.2	54.6	52.9	49.2	49.2	0.02	0.00	0.01	0.01
1	3	0.84	-0.06	0.4	54.6	52.9	49.2	49.2	0.02	0.00	0.01	0.02
1	4	0.78	-0.06	0.6	106.2	52.9	49.2	49.2	0.01	0.00	0.01	0.02
2	5	0.35	0.64	0.4	89.2	39.1	41.1	41.1	0.00	0.02	0.01	0.01
2	6	0.33	0.36	-1.8	70.9	39.1	41.1	41.1	0.00	0.01	0.05	0.04
2	7	0.31	0.07	-2.8	70.9	39.1	34.3	41.1	0.00	0.00	0.08	0.06
2	8	0.28	-0.21	-2.5	90.9	39.1	41.1	41.1	0.00	0.01	0.06	0.06
3	9	0.32	-0.17	-2.5	90.9	39.1	41.1	41.1	0.00	0.00	0.06	0.06
3	10	0.34	-0.45	-1.1	70.9	39.1	41.1	41.1	0.00	0.01	0.03	0.02
3	11	0.36	-0.73	1.6	70.9	39.1	41.1	36.2	0.01	0.02	0.03	0.05
3	12	0.39	-1.02	5.5	89.2	39.1	41.1	41.1	0.00	0.03	0.13	0.14
4	13	1.16	0.54	5.7	106.2	52.9	49.2	49.2	0.01	0.01	0.10	0.12
4	14	1.22	0.54	3.8	54.6	52.9	49.2	49.2	0.02	0.01	0.05	0.08
4	15	1.27	0.54	1.9	54.6	52.9	49.2	49.2	0.02	0.01	0.02	0.05
4	16	1.32	0.54	0.0	54.6	52.9	49.2	49.2	0.02	0.01	0.02	0.01

LOAD COMBINATION : 52 1.02DL+1.02CL-0.52LSEIS

Sn	Id	WORKING_LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	1.56	-0.54	0.0	54.6	52.9	49.2	49.2	0.03	0.01	0.03	0.01
1	2	1.50	-0.54	1.9	54.6	52.9	49.2	49.2	0.03	0.01	0.01	0.05
1	3	1.45	-0.54	3.8	54.6	52.9	49.2	49.2	0.03	0.01	0.05	0.09
1	4	1.40	-0.54	5.7	106.2	52.9	49.2	49.2	0.01	0.01	0.10	0.12
2	5	0.39	1.02	5.5	89.2	39.1	41.1	41.1	0.00	0.03	0.13	0.14
2	6	0.36	0.73	1.6	70.9	39.1	41.1	36.2	0.01	0.02	0.03	0.05

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2	7	0.34	0.45	-1.1	70.9	39.1	41.1	41.1	0.00	0.01	0.03	0.02
2	8	0.32	0.17	-2.5	90.9	39.1	41.1	41.1	0.00	0.00	0.06	0.06
3	9	0.28	0.21	-2.5	90.9	39.1	41.1	41.1	0.00	0.01	0.06	0.06
3	10	0.31	-0.07	-2.8	70.9	39.1	34.3	41.1	0.00	0.00	0.08	0.06
3	11	0.33	-0.35	-1.8	70.9	39.1	41.1	41.1	0.00	0.01	0.05	0.04
3	12	0.35	-0.64	0.4	89.2	39.1	41.1	41.1	0.00	0.02	0.01	0.01
4	13	0.78	0.06	0.6	106.2	52.9	49.2	49.2	0.01	0.00	0.01	0.02
4	14	0.84	0.06	0.4	54.6	52.9	49.2	49.2	0.02	0.00	0.01	0.02
4	15	0.89	0.06	0.2	54.6	52.9	49.2	49.2	0.02	0.00	0.01	0.01
4	16	0.94	0.06	0.0	54.6	52.9	49.2	49.2	0.02	0.00	0.01	0.02

LOAD COMBINATION : 53 0.57DL+0.70LSEIS

Sn	Id	WORKING LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	0.38	0.15	0.0	54.6	52.9	49.2	49.2	0.01	0.00	0.00	0.01
1	2	0.35	0.15	-0.5	54.6	52.9	49.2	49.2	0.01	0.00	0.01	0.00
1	3	0.32	0.15	-1.1	54.6	52.9	49.2	49.2	0.01	0.00	0.02	0.02
1	4	0.29	0.15	-1.6	106.2	52.9	49.2	49.2	0.00	0.00	0.03	0.03
2	5	0.19	0.21	-1.8	89.2	39.1	41.1	41.1	0.00	0.01	0.04	0.04
2	6	0.17	0.05	-2.3	70.9	39.1	34.3	41.1	0.00	0.00	0.07	0.05
2	7	0.16	-0.11	-2.2	70.9	39.1	37.5	41.1	0.00	0.00	0.06	0.05
2	8	0.15	-0.26	-1.4	90.9	39.1	41.1	41.1	0.00	0.01	0.03	0.03
3	9	0.19	-0.25	-1.4	90.9	39.1	41.1	41.1	0.00	0.01	0.03	0.03
3	10	0.20	-0.40	0.1	70.9	39.1	41.1	37.8	0.00	0.01	0.00	0.00
3	11	0.21	-0.56	2.2	70.9	39.1	41.1	37.8	0.00	0.01	0.05	0.06
3	12	0.23	-0.72	5.1	89.2	39.1	41.1	41.1	0.00	0.02	0.12	0.12
4	13	0.80	0.49	5.2	106.2	52.9	49.2	49.2	0.01	0.01	0.10	0.11
4	14	0.83	0.49	3.4	54.6	52.9	49.2	49.2	0.02	0.01	0.05	0.07
4	15	0.86	0.49	1.7	54.6	52.9	49.2	49.2	0.02	0.01	0.02	0.04
4	16	0.89	0.49	0.0	54.6	52.9	49.2	49.2	0.02	0.01	0.02	0.01

LOAD COMBINATION : 54 0.57DL-0.70LSEIS

Sn	Id	WORKING LOAD (k, f-k)			ALLOWABLE STRENGTH (k, f-k)				UNITY_CHECKS Axl+Bend			
		Axial Pr	Shear Vr	Moment Mr	Axial Pn/sf	Shear Vn/sf	Bend-O MnO/sf	Bend-I MnI/sf	Axial UcA	Shear UcV	O-f UcO	I-f UcI
1	1	1.20	-0.49	0.0	54.6	52.9	49.2	49.2	0.02	0.01	0.02	0.01
1	2	1.17	-0.49	1.7	54.6	52.9	49.2	49.2	0.02	0.01	0.01	0.04



1	3	1.14	-0.49	3.4	54.6	52.9	49.2	49.2	0.02	0.01	0.05	0.08
1	4	1.11	-0.49	5.2	106.2	52.9	49.2	49.2	0.01	0.01	0.09	0.11
2	5	0.23	0.72	5.1	89.2	39.1	41.1	41.1	0.00	0.02	0.12	0.12
2	6	0.21	0.56	2.2	70.9	39.1	41.1	37.8	0.00	0.01	0.05	0.06
2	7	0.20	0.40	0.1	70.9	39.1	41.1	37.8	0.00	0.01	0.00	0.00
2	8	0.19	0.25	-1.4	90.9	39.1	41.1	41.1	0.00	0.01	0.03	0.03
3	9	0.15	0.26	-1.4	90.9	39.1	41.1	41.1	0.00	0.01	0.03	0.03
3	10	0.16	0.11	-2.2	70.9	39.1	37.5	41.1	0.00	0.00	0.06	0.05
3	11	0.17	-0.05	-2.3	70.9	39.1	34.3	41.1	0.00	0.00	0.07	0.05
3	12	0.19	-0.21	-1.8	89.2	39.1	41.1	41.1	0.00	0.01	0.04	0.04
4	13	0.29	-0.16	-1.6	106.2	52.9	49.2	49.2	0.00	0.00	0.03	0.03
4	14	0.32	-0.16	-1.1	54.6	52.9	49.2	49.2	0.01	0.00	0.02	0.02
4	15	0.35	-0.16	-0.5	54.6	52.9	49.2	49.2	0.01	0.00	0.01	0.00
4	16	0.38	-0.16	0.0	54.6	52.9	49.2	49.2	0.01	0.00	0.01	0.00

LOAD COMBINATION : 1 DL+CL+LL

Sn	Id	SERVICE LOAD (k , f-k )			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		Axial P	Shear V	Moment M								
1	1	8.6	-2.6	0.0								
1	2	8.5	-2.6	9.3								
1	3	8.5	-2.6	18.5								
1	4	8.4	-2.6	27.8								
2	5	3.3	7.3	26.0								
2	6	3.1	4.8	-1.1								
2	7	2.9	2.3	-17.0								
2	8	2.7	-0.2	-21.9								
3	9	2.7	0.1	-21.9								
3	10	2.9	-2.4	-16.9								
3	11	3.1	-4.9	-0.7								
3	12	3.3	-7.4	26.6								
4	13	8.5	2.7	28.4								
4	14	8.5	2.7	18.9								
4	15	8.6	2.7	9.5								
4	16	8.6	2.7	0.0								

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## LOAD COMBINATION : 2 DL+CL+LL

Sn	Id	SERVICE LOAD (k, f-k)			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		P	V	M								
1	1	8.6	-2.7	0.0								
1	2	8.6	-2.7	9.5								
1	3	8.5	-2.7	18.9								
1	4	8.5	-2.7	28.4								
2	5	3.3	7.4	26.6								
2	6	3.1	4.9	-0.7								
2	7	2.9	2.4	-16.9								
2	8	2.7	-0.1	-21.9								
3	9	2.7	0.2	-21.9								
3	10	2.9	-2.3	-17.0								
3	11	3.1	-4.8	-1.1								
3	12	3.3	-7.3	26.0								
4	13	8.4	2.6	27.8								
4	14	8.5	2.6	18.5								
4	15	8.5	2.6	9.3								
4	16	8.6	2.6	0.0								

## LOAD COMBINATION : 3 DL+CL+SL

Sn	Id	SERVICE LOAD (k, f-k)			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		P	V	M								
1	1	8.6	-2.6	0.0								
1	2	8.5	-2.6	9.3								
1	3	8.5	-2.6	18.5								
1	4	8.4	-2.6	27.8								
2	5	3.3	7.3	26.0								
2	6	3.1	4.8	-1.1								
2	7	2.9	2.3	-17.0								
2	8	2.7	-0.2	-21.9								
3	9	2.7	0.1	-21.9								
3	10	2.9	-2.4	-16.9								
3	11	3.1	-4.9	-0.7								
3	12	3.3	-7.4	26.6								
4	13	8.5	2.7	28.4								
4	14	8.5	2.7	18.9								

1	3	1.14	-0.49	3.4	54.6	52.9	49.2	49.2	0.02	0.01	0.05	0.08
1	4	1.11	-0.49	5.2	106.2	52.9	49.2	49.2	0.01	0.01	0.09	0.11
2	5	0.23	0.72	5.1	89.2	39.1	41.1	41.1	0.00	0.02	0.12	0.12
2	6	0.21	0.56	2.2	70.9	39.1	41.1	37.8	0.00	0.01	0.05	0.06
2	7	0.20	0.40	0.1	70.9	39.1	41.1	37.8	0.00	0.01	0.00	0.00
2	8	0.19	0.25	-1.4	90.9	39.1	41.1	41.1	0.00	0.01	0.03	0.03
3	9	0.15	0.26	-1.4	90.9	39.1	41.1	41.1	0.00	0.01	0.03	0.03
3	10	0.16	0.11	-2.2	70.9	39.1	37.5	41.1	0.00	0.00	0.06	0.05
3	11	0.17	-0.05	-2.3	70.9	39.1	34.3	41.1	0.00	0.00	0.07	0.05
3	12	0.19	-0.21	-1.8	89.2	39.1	41.1	41.1	0.00	0.01	0.04	0.04
4	13	0.29	-0.16	-1.6	106.2	52.9	49.2	49.2	0.00	0.00	0.03	0.03
4	14	0.32	-0.16	-1.1	54.6	52.9	49.2	49.2	0.01	0.00	0.02	0.02
4	15	0.35	-0.16	-0.5	54.6	52.9	49.2	49.2	0.01	0.00	0.01	0.00
4	16	0.38	-0.16	0.0	54.6	52.9	49.2	49.2	0.01	0.00	0.01	0.00

LOAD COMBINATION : 1 DL+CL+LL

Sn	Id	SERVICE LOAD (k , f-k )			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		Axial P	Shear V	Moment M								
1	1	8.6	-2.6	0.0								
1	2	8.5	-2.6	9.3								
1	3	8.5	-2.6	18.5								
1	4	8.4	-2.6	27.8								
2	5	3.3	7.3	26.0								
2	6	3.1	4.8	-1.1								
2	7	2.9	2.3	-17.0								
2	8	2.7	-0.2	-21.9								
3	9	2.7	0.1	-21.9								
3	10	2.9	-2.4	-16.9								
3	11	3.1	-4.9	-0.7								
3	12	3.3	-7.4	26.6								
4	13	8.5	2.7	28.4								
4	14	8.5	2.7	18.9								
4	15	8.6	2.7	9.5								
4	16	8.6	2.7	0.0								

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LOAD COMBINATION : 2 DL+CL+LL

Sn	Id	SERVICE_LOAD			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		(k , f-k )	Axial P	Shear V								
1	1	8.6	-2.7	0.0								
1	2	8.6	-2.7	9.5								
1	3	8.5	-2.7	18.9								
1	4	8.5	-2.7	28.4								
2	5	3.3	7.4	26.6								
2	6	3.1	4.9	-0.7								
2	7	2.9	2.4	-16.9								
2	8	2.7	-0.1	-21.9								
3	9	2.7	0.2	-21.9								
3	10	2.9	-2.3	-17.0								
3	11	3.1	-4.8	-1.1								
3	12	3.3	-7.3	26.0								
4	13	8.4	2.6	27.8								
4	14	8.5	2.6	18.5								
4	15	8.5	2.6	9.3								
4	16	8.6	2.6	0.0								

LOAD COMBINATION : 3 DL+CL+SL

Sn	Id	SERVICE_LOAD			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		(k , f-k )	Axial P	Shear V								
1	1	8.6	-2.6	0.0								
1	2	8.5	-2.6	9.3								
1	3	8.5	-2.6	18.5								
1	4	8.4	-2.6	27.8								
2	5	3.3	7.3	26.0								
2	6	3.1	4.8	-1.1								
2	7	2.9	2.3	-17.0								
2	8	2.7	-0.2	-21.9								
3	9	2.7	0.1	-21.9								
3	10	2.9	-2.4	-16.9								
3	11	3.1	-4.9	-0.7								
3	12	3.3	-7.4	26.6								
4	13	8.5	2.7	28.4								
4	14	8.5	2.7	18.9								

4 15 8.6 2.7 9.5  
 4 16 8.6 2.7 0.0

LOAD COMBINATION : 4 DL+CL+SL

Sn	Id	SERVICE LOAD (k, f-k)			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		P	V	M								
1	1	8.6	-2.7	0.0								
1	2	8.6	-2.7	9.5								
1	3	8.5	-2.7	18.9								
1	4	8.5	-2.7	28.4								
2	5	3.3	7.4	26.6								
2	6	3.1	4.9	-0.7								
2	7	2.9	2.4	-16.9								
2	8	2.7	-0.1	-21.9								
3	9	2.7	0.2	-21.9								
3	10	2.9	-2.3	-17.0								
3	11	3.1	-4.8	-1.1								
3	12	3.3	-7.3	26.0								
4	13	8.4	2.6	27.8								
4	14	8.5	2.6	18.5								
4	15	8.5	2.6	9.3								
4	16	8.6	2.6	0.0								

LOAD COMBINATION : 5 DL+CL+SL+Drift

Sn	Id	SERVICE LOAD (k, f-k)			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		P	V	M								
1	1	8.6	-2.7	0.0								
1	2	8.6	-2.7	9.5								
1	3	8.5	-2.7	18.9								
1	4	8.5	-2.7	28.4								
2	5	3.3	7.4	26.6								
2	6	3.1	4.9	-0.7								
2	7	2.9	2.4	-16.9								
2	8	2.7	-0.1	-21.9								
3	9	2.7	0.2	-21.9								
3	10	2.9	-2.3	-17.0								

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3	11	3.1	-4.8	-1.1
3	12	3.3	-7.3	26.0
4	13	8.4	2.6	27.8
4	14	8.5	2.6	18.5
4	15	8.5	2.6	9.3
4	16	8.6	2.6	0.0

LOAD COMBINATION : 6 DL+CL+SL+Drift

Sn	Id	SERVICE LOAD			Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
		(k	,f-k	)								
		P	V	M								
1	1	8.6	-2.7	0.0								
1	2	8.6	-2.7	9.5								
1	3	8.5	-2.7	18.9								
1	4	8.5	-2.7	28.4								
2	5	3.3	7.4	26.6								
2	6	3.1	4.9	-0.7								
2	7	2.9	2.4	-16.9								
2	8	2.7	-0.1	-21.9								
3	9	2.7	0.2	-21.9								
3	10	2.9	-2.3	-17.0								
3	11	3.1	-4.8	-1.1								
3	12	3.3	-7.3	26.0								
4	13	8.4	2.6	27.8								
4	14	8.5	2.6	18.5								
4	15	8.5	2.6	9.3								
4	16	8.6	2.6	0.0								

LOAD COMBINATION : 7 DL+CL+SL+Slide

Sn	Id	SERVICE LOAD			Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
		(k	,f-k	)								
		P	V	M								
1	1	8.6	-2.7	0.0								
1	2	8.6	-2.7	9.5								
1	3	8.5	-2.7	18.9								
1	4	8.5	-2.7	28.4								
2	5	3.3	7.4	26.6								
2	6	3.1	4.9	-0.7								

2	7	2.9	2.4	-16.9
2	8	2.7	-0.1	-21.9
3	9	2.7	0.2	-21.9
3	10	2.9	-2.3	-17.0
3	11	3.1	-4.8	-1.1
3	12	3.3	-7.3	26.0
4	13	8.4	2.6	27.8
4	14	8.5	2.6	18.5
4	15	8.5	2.6	9.3
4	16	8.6	2.6	0.0

LOAD COMBINATION : 8 DL+CL+SL+Slide

Sn	Id	SERVICE LOAD (k, f-k)			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		Axial P	Shear V	Moment M								
1	1	8.6	-2.7	0.0								
1	2	8.6	-2.7	9.5								
1	3	8.5	-2.7	18.9								
1	4	8.5	-2.7	28.4								
2	5	3.3	7.4	26.6								
2	6	3.1	4.9	-0.7								
2	7	2.9	2.4	-16.9								
2	8	2.7	-0.1	-21.9								
3	9	2.7	0.2	-21.9								
3	10	2.9	-2.3	-17.0								
3	11	3.1	-4.8	-1.1								
3	12	3.3	-7.3	26.0								
4	13	8.4	2.6	27.8								
4	14	8.5	2.6	18.5								
4	15	8.5	2.6	9.3								
4	16	8.6	2.6	0.0								

LOAD COMBINATION : 9 DL

Sn	Id	SERVICE LOAD (k, f-k)			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		Axial P	Shear V	Moment M								
1	1	1.1	-0.3	0.0								
1	2	1.1	-0.3	1.0								

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1	3	1.0	-0.3	2.0
1	4	1.0	-0.3	3.1
2	5	0.4	0.8	2.9
2	6	0.3	0.5	-0.1
2	7	0.3	0.3	-1.9
2	8	0.3	0.0	-2.4
3	9	0.3	0.0	-2.4
3	10	0.3	-0.3	-1.9
3	11	0.3	-0.5	-0.1
3	12	0.4	-0.8	2.9
4	13	1.0	0.3	3.1
4	14	1.0	0.3	2.1
4	15	1.1	0.3	1.0
4	16	1.1	0.3	0.0

LOAD COMBINATION : 10 DL

Sn	Id	SERVICE LOAD (k, f-k)			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		Axial P	Shear V	Moment M								
1	1	1.1	-0.3	0.0								
1	2	1.1	-0.3	1.0								
1	3	1.0	-0.3	2.1								
1	4	1.0	-0.3	3.1								
2	5	0.4	0.8	2.9								
2	6	0.3	0.5	-0.1								
2	7	0.3	0.3	-1.9								
2	8	0.3	0.0	-2.4								
3	9	0.3	0.0	-2.4								
3	10	0.3	-0.3	-1.9								
3	11	0.3	-0.5	-0.1								
3	12	0.4	-0.8	2.9								
4	13	1.0	0.3	3.1								
4	14	1.0	0.3	2.0								
4	15	1.1	0.3	1.0								
4	16	1.1	0.3	0.0								



LOAD COMBINATION : 11 DL+CL+0.75LL+0.52WL1

Sn	Id	SERVICE LOAD			Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f								
		(k, f-k)											Pr	Vr	MrO	MrI	Ucp	Ucv	Uco	Uci
		P	V	M																
1	1	4.0	-0.7	0.0																
1	2	4.0	-0.9	2.7																
1	3	3.9	-1.0	6.0																
1	4	3.9	-1.2	9.9																
2	5	1.5	3.3	9.0																
2	6	1.4	2.1	-3.2																
2	7	1.2	1.0	-10.1																
2	8	1.1	-0.2	-11.8																
3	9	1.1	-0.1	-11.8																
3	10	1.2	-1.6	-8.1																
3	11	1.4	-3.0	2.2																
3	12	1.6	-4.5	18.9																
4	13	5.1	1.4	20.1																
4	14	5.2	1.7	14.6																
4	15	5.2	2.1	7.9																
4	16	5.3	2.4	0.0																

LOAD COMBINATION : 12 DL+CL+0.75LL+0.52WR1

Sn	Id	SERVICE LOAD			Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f								
		(k, f-k)											Pr	Vr	MrO	MrI	Ucp	Ucv	Uco	Uci
		P	V	M																
1	1	5.3	-2.4	0.0																
1	2	5.2	-2.1	7.9																
1	3	5.2	-1.7	14.6																
1	4	5.1	-1.4	20.1																
2	5	1.6	4.5	18.9																
2	6	1.4	3.0	2.2																
2	7	1.2	1.6	-8.1																
2	8	1.1	0.1	-11.8																
3	9	1.1	0.2	-11.8																
3	10	1.2	-1.0	-10.1																
3	11	1.4	-2.1	-3.2																
3	12	1.5	-3.3	9.0																
4	13	3.9	1.2	9.9																
4	14	3.9	1.0	6.0																

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4 15 4.0 0.9 2.7  
 4 16 4.0 0.7 0.0

LOAD COMBINATION : 13 DL+CL+0.75LL+0.52WL2

Sn	Id	SERVICE_LOAD			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		Axial P	Shear V	Moment M								
1	1	5.1	-0.6	0.0								
1	2	5.0	-1.0	2.8								
1	3	5.0	-1.5	7.2								
1	4	4.9	-1.9	13.1								
2	5	2.5	4.2	12.2								
2	6	2.3	2.7	-3.2								
2	7	2.2	1.2	-11.9								
2	8	2.0	-0.3	-14.0								
3	9	2.0	0.0	-14.0								
3	10	2.2	-1.8	-9.9								
3	11	2.3	-3.6	2.2								
3	12	2.5	-5.4	22.2								
4	13	6.2	2.1	23.4								
4	14	6.2	2.2	15.9								
4	15	6.3	2.3	8.1								
4	16	6.3	2.4	0.0								

LOAD COMBINATION : 14 DL+CL+0.75LL+0.52WR2

Sn	Id	SERVICE_LOAD			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		Axial P	Shear V	Moment M								
1	1	6.3	-2.4	0.0								
1	2	6.3	-2.3	8.1								
1	3	6.2	-2.2	15.9								
1	4	6.2	-2.1	23.4								
2	5	2.5	5.4	22.2								
2	6	2.3	3.6	2.2								
2	7	2.2	1.8	-9.9								
2	8	2.0	0.0	-14.0								
3	9	2.0	0.3	-14.0								
3	10	2.2	-1.2	-11.9								

3 11	2.3	-2.7	-3.2
3 12	2.5	-4.2	12.2
4 13	4.9	1.9	13.1
4 14	5.0	1.5	7.2
4 15	5.0	1.0	2.8
4 16	5.1	0.6	0.0

LOAD COMBINATION : 15 DL+CL+0.75SL+0.52WL1

Sn Id	SERVICE_LOAD (k , f-k )			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
	P	V	M								
1 1	4.0	-0.7	0.0								
1 2	4.0	-0.9	2.7								
1 3	3.9	-1.0	6.0								
1 4	3.9	-1.2	9.9								
2 5	1.5	3.3	9.0								
2 6	1.4	2.1	-3.2								
2 7	1.2	1.0	-10.1								
2 8	1.1	-0.2	-11.8								
3 9	1.1	-0.1	-11.8								
3 10	1.2	-1.6	-8.1								
3 11	1.4	-3.0	2.2								
3 12	1.6	-4.5	18.9								
4 13	5.1	1.4	20.1								
4 14	5.2	1.7	14.6								
4 15	5.2	2.1	7.9								
4 16	5.3	2.4	0.0								

LOAD COMBINATION : 16 DL+CL+0.75SL+0.52WL1+0.75Drift

Sn Id	SERVICE_LOAD (k , f-k )			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
	P	V	M								
1 1	4.0	-0.7	0.0								
1 2	4.0	-0.9	2.7								
1 3	3.9	-1.0	6.0								
1 4	3.9	-1.2	9.9								
2 5	1.5	3.3	9.0								
2 6	1.4	2.1	-3.2								

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2	7	1.2	1.0	-10.1
2	8	1.1	-0.2	-11.8
3	9	1.1	-0.1	-11.8
3	10	1.2	-1.6	-8.1
3	11	1.4	-3.0	2.2
3	12	1.6	-4.5	18.9
4	13	5.1	1.4	20.1
4	14	5.2	1.7	14.6
4	15	5.2	2.1	7.9
4	16	5.3	2.4	0.0

LOAD COMBINATION : 17 DL+CL+0.75SL+0.52WL1+0.75Slide

Sn	Id	SERVICE_LOAD			Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
		(k, f-k)										
		P	V	M								
1	1	4.0	-0.7	0.0								
1	2	4.0	-0.9	2.7								
1	3	3.9	-1.0	6.0								
1	4	3.9	-1.2	9.9								
2	5	1.5	3.3	9.0								
2	6	1.4	2.1	-3.2								
2	7	1.2	1.0	-10.1								
2	8	1.1	-0.2	-11.8								
3	9	1.1	-0.1	-11.8								
3	10	1.2	-1.6	-8.1								
3	11	1.4	-3.0	2.2								
3	12	1.6	-4.5	18.9								
4	13	5.1	1.4	20.1								
4	14	5.2	1.7	14.6								
4	15	5.2	2.1	7.9								
4	16	5.3	2.4	0.0								

LOAD COMBINATION : 18 DL+CL+0.75SL+0.52WR1

Sn	Id	SERVICE_LOAD			Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
		(k, f-k)										
		P	V	M								
1	1	5.3	-2.4	0.0								
1	2	5.2	-2.1	7.9								



LOAD COMBINATION : 20 DL+CL+0.75SL+0.52WR1+0.75Slide

Sn	Id	SERVICE LOAD (k , f-k )			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		P	V	M								
1	1	5.3	-2.4	0.0								
1	2	5.2	-2.1	7.9								
1	3	5.2	-1.7	14.6								
1	4	5.1	-1.4	20.1								
2	5	1.6	4.5	18.9								
2	6	1.4	3.0	2.2								
2	7	1.2	1.6	-8.1								
2	8	1.1	0.1	-11.8								
3	9	1.1	0.2	-11.8								
3	10	1.2	-1.0	-10.1								
3	11	1.4	-2.1	-3.2								
3	12	1.5	-3.3	9.0								
4	13	3.9	1.2	9.9								
4	14	3.9	1.0	6.0								
4	15	4.0	0.9	2.7								
4	16	4.0	0.7	0.0								

LOAD COMBINATION : 21 DL+CL+0.75SL+0.52WL2

Sn	Id	SERVICE LOAD (k , f-k )			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		P	V	M								
1	1	5.1	-0.6	0.0								
1	2	5.0	-1.0	2.8								
1	3	5.0	-1.5	7.2								
1	4	4.9	-1.9	13.1								
2	5	2.5	4.2	12.2								
2	6	2.3	2.7	-3.2								
2	7	2.2	1.2	-11.9								
2	8	2.0	-0.3	-14.0								
3	9	2.0	0.0	-14.0								
3	10	2.2	-1.8	-9.9								
3	11	2.3	-3.6	2.2								
3	12	2.5	-5.4	22.2								
4	13	6.2	2.1	23.4								
4	14	6.2	2.2	15.9								

4 15 6.3 2.3 8.1  
 4 16 6.3 2.4 0.0

LOAD COMBINATION : 22 DL+CL+0.75SL+0.52WL2+0.75Drift

Sn	Id	SERVICE LOAD			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		(k , f-k )	Axial P	Shear V								
1	1	5.1	-0.6	0.0								
1	2	5.0	-1.0	2.8								
1	3	5.0	-1.5	7.2								
1	4	4.9	-1.9	13.1								
2	5	2.5	4.2	12.2								
2	6	2.3	2.7	-3.2								
2	7	2.2	1.2	-11.9								
2	8	2.0	-0.3	-14.0								
3	9	2.0	0.0	-14.0								
3	10	2.2	-1.8	-9.9								
3	11	2.3	-3.6	2.2								
3	12	2.5	-5.4	22.2								
4	13	6.2	2.1	23.4								
4	14	6.2	2.2	15.9								
4	15	6.3	2.3	8.1								
4	16	6.3	2.4	0.0								

LOAD COMBINATION : 23 DL+CL+0.75SL+0.52WL2+0.75Slide

Sn	Id	SERVICE LOAD			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		(k , f-k )	Axial P	Shear V								
1	1	5.1	-0.6	0.0								
1	2	5.0	-1.0	2.8								
1	3	5.0	-1.5	7.2								
1	4	4.9	-1.9	13.1								
2	5	2.5	4.2	12.2								
2	6	2.3	2.7	-3.2								
2	7	2.2	1.2	-11.9								
2	8	2.0	-0.3	-14.0								
3	9	2.0	0.0	-14.0								
3	10	2.2	-1.8	-9.9								

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3 11	2.3	-3.6	2.2
3 12	2.5	-5.4	22.2
4 13	6.2	2.1	23.4
4 14	6.2	2.2	15.9
4 15	6.3	2.3	8.1
4 16	6.3	2.4	0.0

LOAD COMBINATION : 24 DL+CL+0.75SL+0.52WR2

Sn	Id	SERVICE_LOAD			Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
		(k, f-k)										
		P	V	M								
1	1	6.3	-2.4	0.0								
1	2	6.3	-2.3	8.1								
1	3	6.2	-2.2	15.9								
1	4	6.2	-2.1	23.4								
2	5	2.5	5.4	22.2								
2	6	2.3	3.6	2.2								
2	7	2.2	1.8	-9.9								
2	8	2.0	0.0	-14.0								
3	9	2.0	0.3	-14.0								
3	10	2.2	-1.2	-11.9								
3	11	2.3	-2.7	-3.2								
3	12	2.5	-4.2	12.2								
4	13	4.9	1.9	13.1								
4	14	5.0	1.5	7.2								
4	15	5.0	1.0	2.8								
4	16	5.1	0.6	0.0								

LOAD COMBINATION : 25 DL+CL+0.75SL+0.52WR2+0.75Drift

Sn	Id	SERVICE_LOAD			Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
		(k, f-k)										
		P	V	M								
1	1	6.3	-2.4	0.0								
1	2	6.3	-2.3	8.1								
1	3	6.2	-2.2	15.9								
1	4	6.2	-2.1	23.4								
2	5	2.5	5.4	22.2								
2	6	2.3	3.6	2.2								



2	7	2.2	1.8	-9.9
2	8	2.0	0.0	-14.0
3	9	2.0	0.3	-14.0
3	10	2.2	-1.2	-11.9
3	11	2.3	-2.7	-3.2
3	12	2.5	-4.2	12.2
4	13	4.9	1.9	13.1
4	14	5.0	1.5	7.2
4	15	5.0	1.0	2.8
4	16	5.1	0.6	0.0

LOAD COMBINATION : 26 DL+CL+0.75SL+0.52WR2+0.75Slide

Sn Id	SERVICE LOAD (k, f-k)			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
	P	V	M								
1	1	6.3	-2.4	0.0							
1	2	6.3	-2.3	8.1							
1	3	6.2	-2.2	15.9							
1	4	6.2	-2.1	23.4							
2	5	2.5	5.4	22.2							
2	6	2.3	3.6	2.2							
2	7	2.2	1.8	-9.9							
2	8	2.0	0.0	-14.0							
3	9	2.0	0.3	-14.0							
3	10	2.2	-1.2	-11.9							
3	11	2.3	-2.7	-3.2							
3	12	2.5	-4.2	12.2							
4	13	4.9	1.9	13.1							
4	14	5.0	1.5	7.2							
4	15	5.0	1.0	2.8							
4	16	5.1	0.6	0.0							

LOAD COMBINATION : 27 0.60DL+0.70WL1

Sn Id	SERVICE LOAD (k, f-k)			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
	P	V	M								
1	1	-2.9	1.7	0.0							
1	2	-3.0	1.4	-5.4							

1	3	-3.0	1.2	-10.0
1	4	-3.0	1.0	-13.8
2	5	-1.1	-2.7	-13.2
2	6	-1.2	-1.8	-3.2
2	7	-1.2	-1.0	3.0
2	8	-1.2	-0.1	5.4
3	9	-1.2	-0.3	5.4
3	10	-1.1	0.2	5.6
3	11	-1.1	0.7	3.5
3	12	-1.1	1.2	-0.6
4	13	-1.4	-0.8	-0.8
4	14	-1.4	-0.3	1.1
4	15	-1.3	0.2	1.4
4	16	-1.3	0.6	0.0

LOAD COMBINATION : 28 0.60DL+0.70WR1

Sn	Id	SERVICE LOAD			Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
		(k	,f-k	)								
		P	V	M								
1	1	-1.3	-0.6	0.0								
1	2	-1.3	-0.2	1.4								
1	3	-1.4	0.3	1.1								
1	4	-1.4	0.8	-0.8								
2	5	-1.1	-1.2	-0.6								
2	6	-1.1	-0.7	3.5								
2	7	-1.1	-0.2	5.6								
2	8	-1.2	0.3	5.4								
3	9	-1.2	0.1	5.4								
3	10	-1.2	1.0	3.0								
3	11	-1.2	1.8	-3.2								
3	12	-1.1	2.7	-13.2								
4	13	-3.0	-1.0	-13.8								
4	14	-3.0	-1.2	-10.0								
4	15	-3.0	-1.4	-5.4								
4	16	-2.9	-1.7	0.0								



4 15 -1.6 -1.2 -5.2  
 4 16 -1.5 -1.8 0.0

LOAD COMBINATION : 31 0.60DL+0.70LW1+LWIND1\_L2E

Sn	Id	SERVICE_LOAD			Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
		(k	,f-k	)								
		P	V	M								
1	1	-3.8	0.6	0.0								
1	2	-3.8	1.2	-3.1								
1	3	-3.8	1.8	-8.3								
1	4	-3.9	2.3	-15.5								
2	5	-2.3	-3.3	-15.1								
2	6	-2.3	-2.0	-3.5								
2	7	-2.3	-1.1	3.3								
2	8	-2.4	-0.2	6.3								
3	9	-2.3	-0.6	6.3								
3	10	-2.3	0.3	7.0								
3	11	-2.3	1.1	3.9								
3	12	-2.2	2.0	-3.1								
4	13	-2.4	-1.2	-3.4								
4	14	-2.4	-0.6	-0.3								
4	15	-2.4	0.0	0.9								
4	16	-2.3	0.5	0.0								

LOAD COMBINATION : 32 0.60DL+0.70LW1+LWIND1\_R2E

Sn	Id	SERVICE_LOAD			Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
		(k	,f-k	)								
		P	V	M								
1	1	-3.3	0.7	0.0								
1	2	-3.3	1.2	-3.3								
1	3	-3.4	1.8	-8.6								
1	4	-3.4	2.4	-16.0								
2	5	-2.3	-2.9	-15.8								
2	6	-2.3	-2.1	-4.6								
2	7	-2.4	-1.2	2.7								
2	8	-2.4	-0.4	6.3								
3	9	-2.3	-0.7	6.3								
3	10	-2.3	0.2	7.5								

3 11	-2.2	1.0	4.9
3 12	-2.2	2.3	-2.5
4 13	-2.9	-1.1	-2.9
4 14	-2.9	-0.6	0.1
4 15	-2.8	0.0	1.0
4 16	-2.8	0.6	0.0

LOAD COMBINATION : 33 0.60DL-0.70LW1+LWIND1\_L2E

Sn Id	SERVICE_LOAD (k , f-k )			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
	P	V	M								
1 1	-2.0	-0.6	0.0								
1 2	-2.0	0.0	1.1								
1 3	-2.0	0.6	0.1								
1 4	-2.1	1.1	-2.9								
2 5	-2.2	-2.3	-2.5								
2 6	-2.3	-1.0	4.9								
2 7	-2.3	-0.2	7.5								
2 8	-2.3	0.7	6.3								
3 9	-2.4	0.4	6.3								
3 10	-2.4	1.2	2.7								
3 11	-2.3	2.1	-4.6								
3 12	-2.3	2.9	-15.8								
4 13	-3.4	-2.4	-16.0								
4 14	-3.4	-1.8	-8.7								
4 15	-3.3	-1.2	-3.3								
4 16	-3.3	-0.7	0.0								

LOAD COMBINATION : 34 0.60DL-0.70LW1+LWIND1\_R2E

Sn Id	SERVICE_LOAD (k , f-k )			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
	P	V	M								
1 1	-1.5	-0.5	0.0								
1 2	-1.5	0.0	0.9								
1 3	-1.6	0.6	-0.3								
1 4	-1.6	1.2	-3.4								
2 5	-2.2	-2.0	-3.1								
2 6	-2.3	-1.1	3.9								

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2	7	-2.3	-0.3	7.0
2	8	-2.3	0.6	6.3
3	9	-2.4	0.2	6.3
3	10	-2.3	1.1	3.3
3	11	-2.3	2.0	-3.5
3	12	-2.3	3.3	-15.2
4	13	-3.9	-2.3	-15.5
4	14	-3.8	-1.8	-8.3
4	15	-3.8	-1.2	-3.1
4	16	-3.8	-0.6	0.0

LOAD COMBINATION : 35 0.60DL+0.70LW2+LWIND2\_L2E

Sn	Id	SERVICE LOAD			Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
		(k, f-k)										
		P	V	M								
1	1	-1.4	-0.5	0.0								
1	2	-1.4	-0.3	1.4								
1	3	-1.5	0.0	1.9								
1	4	-1.5	0.2	1.6								
2	5	-1.1	-1.1	1.9								
2	6	-1.1	-0.2	5.0								
2	7	-1.1	0.2	5.1								
2	8	-1.1	0.6	3.3								
3	9	-1.2	0.5	3.3								
3	10	-1.2	0.9	0.3								
3	11	-1.2	1.3	-4.6								
3	12	-1.1	1.8	-11.5								
4	13	-2.0	-1.5	-11.6								
4	14	-1.9	-1.2	-6.9								
4	15	-1.9	-1.0	-3.0								
4	16	-1.9	-0.7	0.0								

LOAD COMBINATION : 36 0.60DL+0.70LW2+LWIND2\_R2E

Sn	Id	SERVICE LOAD			Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
		(k, f-k)										
		P	V	M								
1	1	-0.9	-0.5	0.0								
1	2	-1.0	-0.2	1.2								

1	3	-1.0	0.0	1.6
1	4	-1.0	0.3	1.1
2	5	-1.1	-0.8	1.3
2	6	-1.1	-0.4	3.9
2	7	-1.1	0.1	4.6
2	8	-1.1	0.5	3.3
3	9	-1.2	0.3	3.3
3	10	-1.2	0.8	0.8
3	11	-1.2	1.2	-3.5
3	12	-1.1	2.1	-10.9
4	13	-2.4	-1.4	-11.1
4	14	-2.4	-1.2	-6.5
4	15	-2.4	-0.9	-2.8
4	16	-2.3	-0.7	0.0

LOAD COMBINATION : 37 0.60DL-0.70LW2+LWIND2\_L2E

Sn	Id	SERVICE LOAD (k, f-k)			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		Axial P	Shear V	Moment M								
1	1	-1.5	0.7	0.0								
1	2	-1.5	0.9	-2.8								
1	3	-1.6	1.2	-6.5								
1	4	-1.6	1.4	-11.1								
2	5	-1.1	-2.1	-10.9								
2	6	-1.2	-1.2	-3.6								
2	7	-1.2	-0.8	0.8								
2	8	-1.2	-0.3	3.3								
3	9	-1.1	-0.5	3.3								
3	10	-1.1	-0.1	4.6								
3	11	-1.1	0.4	3.9								
3	12	-1.1	0.8	1.3								
4	13	-1.0	-0.3	1.1								
4	14	-1.0	0.0	1.6								
4	15	-1.0	0.2	1.2								
4	16	-0.9	0.5	0.0								

## LOAD COMBINATION : 38 0.60DL-0.70LW2+LWIND2\_R2E

Sn	Id	SERVICE_LOAD			Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
		(k	,f-k	)								
		P	V	M								
1	1	-1.0	0.7	0.0								
1	2	-1.1	1.0	-3.0								
1	3	-1.1	1.2	-6.9								
1	4	-1.1	1.5	-11.6								
2	5	-1.1	-1.8	-11.5								
2	6	-1.2	-1.3	-4.6								
2	7	-1.2	-0.9	0.3								
2	8	-1.2	-0.5	3.3								
3	9	-1.1	-0.6	3.3								
3	10	-1.1	-0.2	5.1								
3	11	-1.1	0.2	5.0								
3	12	-1.1	1.1	2.0								
4	13	-1.5	-0.2	1.6								
4	14	-1.5	0.0	1.9								
4	15	-1.4	0.3	1.4								
4	16	-1.4	0.5	0.0								

## LOAD COMBINATION : 39 1.03DL+1.03CL+0.70SEIS

Sn	Id	SERVICE_LOAD			Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
		(k	,f-k	)								
		P	V	M								
1	1	1.0	-0.2	0.0								
1	2	1.0	-0.2	0.6								
1	3	0.9	-0.2	1.2								
1	4	0.9	-0.2	1.8								
2	5	0.4	0.7	1.6								
2	6	0.3	0.4	-1.0								
2	7	0.3	0.2	-2.4								
2	8	0.3	-0.1	-2.5								
3	9	0.3	-0.1	-2.5								
3	10	0.3	-0.4	-1.5								
3	11	0.4	-0.7	0.8								
3	12	0.4	-0.9	4.4								
4	13	1.1	0.4	4.6								
4	14	1.1	0.4	3.1								



4 15 1.2 0.4 1.5  
 4 16 1.3 0.4 0.0

LOAD COMBINATION : 40 1.03DL+1.03CL-0.70SEIS

Sn	Id	SERVICE_LOAD			Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
		(k	,f-k	)								
		P	V	M								
1	1	1.3	-0.4	0.0								
1	2	1.2	-0.4	1.5								
1	3	1.1	-0.4	3.1								
1	4	1.1	-0.4	4.6								
2	5	0.4	0.9	4.4								
2	6	0.4	0.7	0.8								
2	7	0.3	0.4	-1.5								
2	8	0.3	0.1	-2.5								
3	9	0.3	0.1	-2.5								
3	10	0.3	-0.2	-2.4								
3	11	0.3	-0.4	-1.0								
3	12	0.4	-0.7	1.6								
4	13	0.9	0.2	1.8								
4	14	0.9	0.2	1.2								
4	15	1.0	0.2	0.6								
4	16	1.0	0.2	0.0								

LOAD COMBINATION : 41 1.02DL+1.02CL+0.75LL+0.52SEIS

Sn	Id	SERVICE_LOAD			Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f
		(k	,f-k	)								
		P	V	M								
1	1	6.7	-2.0	0.0								
1	2	6.6	-2.0	6.9								
1	3	6.6	-2.0	13.9								
1	4	6.5	-2.0	20.8								
2	5	2.6	5.6	19.4								
2	6	2.4	3.7	-1.4								
2	7	2.2	1.7	-13.6								
2	8	2.1	-0.2	-17.1								
3	9	2.1	0.0	-17.0								
3	10	2.2	-1.9	-12.8								

3 11	2.4	-3.9	0.0
3 12	2.6	-5.8	21.6
4 13	6.7	2.2	23.0
4 14	6.7	2.2	15.3
4 15	6.8	2.2	7.7
4 16	6.8	2.2	0.0

LOAD COMBINATION : 42 1.02DL+1.02CL+0.75LL-0.52SEIS

Sn Id	SERVICE_LOAD (k , f-k )			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
	P	V	M								
1 1	6.8	-2.2	0.0								
1 2	6.8	-2.2	7.7								
1 3	6.7	-2.2	15.3								
1 4	6.7	-2.2	23.0								
2 5	2.6	5.8	21.6								
2 6	2.4	3.9	0.0								
2 7	2.2	1.9	-12.8								
2 8	2.1	0.0	-17.0								
3 9	2.1	0.2	-17.1								
3 10	2.2	-1.7	-13.6								
3 11	2.4	-3.7	-1.4								
3 12	2.6	-5.6	19.4								
4 13	6.5	2.0	20.8								
4 14	6.6	2.0	13.9								
4 15	6.6	2.0	6.9								
4 16	6.7	2.0	0.0								

LOAD COMBINATION : 43 1.02DL+1.02CL+0.52SEIS

Sn Id	SERVICE_LOAD (k , f-k )			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
	P	V	M								
1 1	1.1	-0.2	0.0								
1 2	1.0	-0.2	0.7								
1 3	0.9	-0.2	1.4								
1 4	0.9	-0.2	2.1								
2 5	0.4	0.7	1.9								
2 6	0.3	0.5	-0.8								

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2	7	0.3	0.2	-2.3
2	8	0.3	-0.1	-2.5
3	9	0.3	-0.1	-2.5
3	10	0.3	-0.3	-1.6
3	11	0.4	-0.6	0.6
3	12	0.4	-0.9	4.0
4	13	1.1	0.4	4.2
4	14	1.1	0.4	2.8
4	15	1.2	0.4	1.4
4	16	1.2	0.4	0.0

LOAD COMBINATION : 44 1.02DL+1.02CL-0.52SEIS

Sn	Id	SERVICE LOAD			Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f								
		(k, f-k)											Pr	Vr	MrO	MrI	Ucp	Ucv	Uco	Uci
		P	V	M																
1	1	1.2	-0.4	0.0																
1	2	1.2	-0.4	1.4																
1	3	1.1	-0.4	2.8																
1	4	1.1	-0.4	4.2																
2	5	0.4	0.9	4.0																
2	6	0.4	0.6	0.6																
2	7	0.3	0.3	-1.6																
2	8	0.3	0.1	-2.5																
3	9	0.3	0.1	-2.5																
3	10	0.3	-0.2	-2.3																
3	11	0.3	-0.5	-0.8																
3	12	0.4	-0.7	1.9																
4	13	0.9	0.2	2.1																
4	14	0.9	0.2	1.4																
4	15	1.0	0.2	0.7																
4	16	1.1	0.2	0.0																

LOAD COMBINATION : 45 0.57DL+0.70SEIS

Sn	Id	SERVICE LOAD			Axial	Shear	Bend-O	Bend-I	Axial	Shear	O-f	I-f								
		(k, f-k)											Pr	Vr	MrO	MrI	Ucp	Ucv	Uco	Uci
		P	V	M																
1	1	0.5	0.0	0.0																
1	2	0.5	0.0	0.1																

1	3	0.5	0.0	0.2
1	4	0.4	0.0	0.4
2	5	0.2	0.4	0.2
2	6	0.2	0.2	-1.0
2	7	0.2	0.0	-1.5
2	8	0.2	-0.1	-1.4
3	9	0.2	-0.1	-1.4
3	10	0.2	-0.3	-0.6
3	11	0.2	-0.4	0.9
3	12	0.2	-0.6	3.1
4	13	0.6	0.3	3.2
4	14	0.7	0.3	2.1
4	15	0.7	0.3	1.1
4	16	0.7	0.3	0.0

LOAD COMBINATION : 46 0.57DL-0.70SEIS

Sn	Id	SERVICE LOAD (k, F-k)			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		Axial P	Shear V	Moment M								
1	1	0.7	-0.3	0.0								
1	2	0.7	-0.3	1.1								
1	3	0.7	-0.3	2.1								
1	4	0.6	-0.3	3.2								
2	5	0.2	0.6	3.1								
2	6	0.2	0.4	0.9								
2	7	0.2	0.3	-0.6								
2	8	0.2	0.1	-1.4								
3	9	0.2	0.1	-1.4								
3	10	0.2	0.0	-1.5								
3	11	0.2	-0.2	-1.0								
3	12	0.2	-0.4	0.2								
4	13	0.4	0.0	0.4								
4	14	0.5	0.0	0.2								
4	15	0.5	0.0	0.1								
4	16	0.5	0.0	0.0								

LOAD COMBINATION : 47 1.03DL+1.03CL+0.70LSEIS

Sn	Id	SERVICE LOAD (k, f-k)			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		Axial P	Shear V	Moment M								
1	1	0.9	0.0	0.0								
1	2	0.8	0.0	-0.1								
1	3	0.8	0.0	-0.1								
1	4	0.7	0.0	-0.2								
2	5	0.4	0.6	-0.4								
2	6	0.3	0.3	-2.4								
2	7	0.3	0.0	-3.1								
2	8	0.3	-0.3	-2.5								
3	9	0.3	-0.2	-2.5								
3	10	0.3	-0.5	-0.8								
3	11	0.4	-0.8	2.2								
3	12	0.4	-1.1	6.4								
4	13	1.2	0.6	6.6								
4	14	1.3	0.6	4.4								
4	15	1.3	0.6	2.2								
4	16	1.4	0.6	0.0								

LOAD COMBINATION : 48 1.03DL+1.03CL-0.70LSEIS

Sn	Id	SERVICE LOAD (k, f-k)			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		Axial P	Shear V	Moment M								
1	1	1.7	-0.6	0.0								
1	2	1.7	-0.6	2.2								
1	3	1.6	-0.6	4.4								
1	4	1.6	-0.6	6.6								
2	5	0.4	1.1	6.4								
2	6	0.4	0.8	2.2								
2	7	0.3	0.5	-0.8								
2	8	0.3	0.2	-2.5								
3	9	0.3	0.3	-2.5								
3	10	0.3	0.0	-3.1								
3	11	0.3	-0.3	-2.4								
3	12	0.4	-0.6	-0.4								
4	13	0.7	0.0	-0.2								
4	14	0.8	0.0	-0.1								

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4 15 0.8 0.0 -0.1  
 4 16 0.9 0.0 0.0

LOAD COMBINATION : 49 1.02DL+1.02CL+0.75LL+0.52LSEIS

Sn	Id	SERVICE LOAD (k, f-k)			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		P	V	M								
1	1	6.6	-1.8	0.0								
1	2	6.5	-1.8	6.4								
1	3	6.5	-1.8	12.8								
1	4	6.4	-1.8	19.3								
2	5	2.5	5.5	17.8								
2	6	2.4	3.6	-2.5								
2	7	2.2	1.6	-14.1								
2	8	2.1	-0.3	-17.1								
3	9	2.1	-0.1	-17.0								
3	10	2.3	-2.0	-12.3								
3	11	2.4	-4.0	1.1								
3	12	2.6	-5.9	23.2								
4	13	6.8	2.3	24.5								
4	14	6.8	2.3	16.4								
4	15	6.9	2.3	8.2								
4	16	7.0	2.3	0.0								

LOAD COMBINATION : 50 1.02DL+1.02CL+0.75LL-0.52LSEIS

Sn	Id	SERVICE LOAD (k, f-k)			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		P	V	M								
1	1	7.2	-2.3	0.0								
1	2	7.1	-2.3	8.2								
1	3	7.1	-2.3	16.4								
1	4	7.0	-2.3	24.5								
2	5	2.6	5.9	23.2								
2	6	2.4	4.0	1.1								
2	7	2.3	2.0	-12.3								
2	8	2.1	0.1	-17.0								
3	9	2.1	0.3	-17.1								
3	10	2.2	-1.6	-14.1								

3 11	2.4	-3.6	-2.5
3 12	2.5	-5.5	17.8
4 13	6.4	1.8	19.3
4 14	6.5	1.8	12.8
4 15	6.5	1.8	6.4
4 16	6.6	1.8	0.0

LOAD COMBINATION : 51 1.02DL+1.02CL+0.52LSEIS

Sn Id	SERVICE_LOAD (k , f-k )			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
	P	V	M								
1 1	0.9	-0.1	0.0								
1 2	0.9	-0.1	0.2								
1 3	0.8	-0.1	0.4								
1 4	0.8	-0.1	0.6								
2 5	0.4	0.6	0.4								
2 6	0.3	0.4	-1.8								
2 7	0.3	0.1	-2.8								
2 8	0.3	-0.2	-2.5								
3 9	0.3	-0.2	-2.5								
3 10	0.3	-0.5	-1.1								
3 11	0.4	-0.7	1.6								
3 12	0.4	-1.0	5.5								
4 13	1.2	0.5	5.7								
4 14	1.2	0.5	3.8								
4 15	1.3	0.5	1.9								
4 16	1.3	0.5	0.0								

LOAD COMBINATION : 52 1.02DL+1.02CL-0.52LSEIS

Sn Id	SERVICE_LOAD (k , f-k )			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
	P	V	M								
1 1	1.6	-0.5	0.0								
1 2	1.5	-0.5	1.9								
1 3	1.5	-0.5	3.8								
1 4	1.4	-0.5	5.7								
2 5	0.4	1.0	5.5								
2 6	0.4	0.7	1.6								

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2	7	0.3	0.5	-1.1
2	8	0.3	0.2	-2.5
3	9	0.3	0.2	-2.5
3	10	0.3	-0.1	-2.8
3	11	0.3	-0.4	-1.8
3	12	0.4	-0.6	0.4
4	13	0.8	0.1	0.6
4	14	0.8	0.1	0.4
4	15	0.9	0.1	0.2
4	16	0.9	0.1	0.0

LOAD COMBINATION : 53 0.57DL+0.70LSEIS

Sn	Id	SERVICE LOAD (k , f-k )			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		P	V	M								
1	1	0.4	0.2	0.0								
1	2	0.3	0.2	-0.5								
1	3	0.3	0.2	-1.1								
1	4	0.3	0.2	-1.6								
2	5	0.2	0.2	-1.8								
2	6	0.2	0.0	-2.3								
2	7	0.2	-0.1	-2.2								
2	8	0.1	-0.3	-1.4								
3	9	0.2	-0.2	-1.4								
3	10	0.2	-0.4	0.1								
3	11	0.2	-0.6	2.2								
3	12	0.2	-0.7	5.1								
4	13	0.8	0.5	5.2								
4	14	0.8	0.5	3.4								
4	15	0.9	0.5	1.7								
4	16	0.9	0.5	0.0								

LOAD COMBINATION : 54 0.57DL-0.70LSEIS

Sn	Id	SERVICE LOAD (k , f-k )			Axial Pr	Shear Vr	Bend-O MrO	Bend-I MrI	Axial Ucp	Shear Ucv	O-f Uco	I-f Uci
		P	V	M								
1	1	1.2	-0.5	0.0								
1	2	1.2	-0.5	1.7								



1	3	1.1	-0.5	3.4
1	4	1.1	-0.5	5.2
2	5	0.2	0.7	5.1
2	6	0.2	0.6	2.2
2	7	0.2	0.4	0.1
2	8	0.2	0.2	-1.4
3	9	0.1	0.3	-1.4
3	10	0.2	0.1	-2.2
3	11	0.2	0.0	-2.3
3	12	0.2	-0.2	-1.8
4	13	0.3	-0.2	-1.6
4	14	0.3	-0.2	-1.1
4	15	0.3	-0.2	-0.5
4	16	0.4	-0.2	0.0

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M11013                      Flange Braces                      2/ 7/12 3:55pm

PROPERTIES:

Flange Brace Yield= 50.0 ksi  
Girt/Purlin Yield= 57.0 ksi  
Flange Brace Bolt = 0.500 (A307 ) (1 Washer )

FLANGE BRACE DESIGN:

Surf Id	No. Brace	Loc	Side	Part	Web Depth	Brace Dist	Load Id	Calc Force	-Brace Comp	UC Tens	Conn UC
1	1	1	1	L2X2X1/8	11.50	28.00	2	0.33	0.13	0.42	0.16
2	2	1	1	L2X2X1/8	11.40	28.00	25	0.18	0.07	0.23	0.09
		3	1	L2X2X1/8	11.40	28.00	33	0.17	0.07	0.22	0.09
3	2	1	1	L2X2X1/8	11.40	28.00	32	0.17	0.07	0.22	0.09
		3	1	L2X2X1/8	11.40	28.00	13	0.18	0.07	0.23	0.09
4	1	1	1	L2X2X1/8	11.50	28.00	1	0.33	0.13	0.42	0.16

LOAD COMBINATIONS:

- 1 - DL+CL+LL
- 2 - DL+CL+LL
- 13 - DL+CL+0.75LL+0.75WL2
- 25 - DL+CL+0.75SL+0.75WR2+0.75Drift
- 32 - 0.60DL+LW1+LWIND1\_R2E
- 33 - 0.60DL-LW1+LWIND1\_L2E

FLANGE PLATE: (a)

Locate	--Initial--		-Required--	
	Width (in)	Thick (in)	Width (in)	Thick (in)
Lt Col	4.0	0.265	6.0	0.375
Rt Col	4.0	0.265	6.0	0.375

WEB PLATE: (b)

Locate	-----Load-----			Shear Force (k)	---Initial--		--Required--	
	Id	Axial (k)	Moment (f-k)		Web Thick (in)	Shear Limit (k)	Web Thick (in)	Shear Limit (k)
Lt Col	2	3.3	26.6	26.3	0.220	32.72	0.220	32.72
Rt Col	1	3.3	26.6	26.3	0.220	32.72	0.220	32.72

REQUIRED WEB DESIGN:

Locate	H	Av	Kv	Cv
Lt Col	11.50	10.96	10.50	1.00
Rt Col	11.50	10.96	10.50	1.00

(a)DS\_BUILD(frame37)=3 .. see help.

(b)DS\_BUILD(frame36)=2 .. see help.

LOAD COMBINATIONS:

- 1 - DL+CL+LL
- 2 - DL+CL+LL

FRAME:

Id = 1  
 Type = RF  
 Line Id = 2  
 Load Width= 25.0

MEMBERS:

Mem Id	Seg Id	Flange		Web_Depth		Plate_Thickness			Max_UCV			Max_UCO			Max_UCI			Max KL/R
		Len	Wid	Strt	End	Web	O-flg	I-flg	Id	Ld	Ucv	Id	Ld	Uco	Id	Ld	Uci	
1	1	11.4	4.0	11.5	11.5	0.220	0.265	0.265	4	32	0.07	4	2	0.50	4	2	0.61	113
2	2	13.5	4.0	11.4	11.4	0.188	0.225	0.225	5	2	0.19	5	2	0.61	5	2	0.66	79
3	3	13.5	4.0	11.4	11.4	0.188	0.225	0.225	12	1	0.19	12	1	0.61	12	1	0.66	79
4	4	11.4	4.0	11.5	11.5	0.220	0.265	0.265	13	33	0.07	13	1	0.50	13	1	0.61	113

HOT ROLLED MEMBERS:

Surf Id	Member Id	Member Part
1	1	W12X16
2	2	W12X14
3	3	W12X14
4	4	W12X16

LOAD COMBINATIONS:

- 1#- DL+CL+LL
- 2#- DL+CL+LL
- 3 - DL+CL+SL
- 4 - DL+CL+SL
- 5 - DL+CL+SL+Drift
- 6 - DL+CL+SL+Drift
- 7 - DL+CL+SL+Slide
- 8 - DL+CL+SL+Slide
- 9 - DL
- 10 - DL
- 11 - DL+CL+0.75LL+0.75WL1
- 12 - DL+CL+0.75LL+0.75WR1
- 13 - DL+CL+0.75LL+0.75WL2
- 14 - DL+CL+0.75LL+0.75WR2
- 15 - DL+CL+0.75SL+0.75WL1
- 16 - DL+CL+0.75SL+0.75WL1+0.75Drift
- 17 - DL+CL+0.75SL+0.75WL1+0.75Slide
- 18 - DL+CL+0.75SL+0.75WR1
- 19 - DL+CL+0.75SL+0.75WR1+0.75Drift
- 20 - DL+CL+0.75SL+0.75WR1+0.75Slide
- 21 - DL+CL+0.75SL+0.75WL2
- 22 - DL+CL+0.75SL+0.75WL2+0.75Drift
- 23 - DL+CL+0.75SL+0.75WL2+0.75Slide
- 24 - DL+CL+0.75SL+0.75WR2
- 25 - DL+CL+0.75SL+0.75WR2+0.75Drift
- 26 - DL+CL+0.75SL+0.75WR2+0.75Slide
- 27 - 0.60DL+WL1
- 28 - 0.60DL+WR1
- 29 - 0.60DL+WL2
- 30 - 0.60DL+WR2
- 31 - 0.60DL+LW1+LWIND1\_L2E
- 32#- 0.60DL+LW1+LWIND1\_R2E
- 33#- 0.60DL-LW1+LWIND1\_L2E
- 34 - 0.60DL-LW1+LWIND1\_R2E
- 35 - 0.60DL+LW2+LWIND2\_L2E
- 36 - 0.60DL+LW2+LWIND2\_R2E
- 37 - 0.60DL-LW2+LWIND2\_L2E
- 38 - 0.60DL-LW2+LWIND2\_R2E
- 39 - 1.03DL+1.03CL+0.70SEIS
- 40 - 1.03DL+1.03CL-0.70SEIS
- 41 - 1.02DL+1.02CL+0.75LL+0.52SEIS
- 42 - 1.02DL+1.02CL+0.75LL-0.52SEIS
- 43 - 1.02DL+1.02CL+0.52SEIS
- 44 - 1.02DL+1.02CL-0.52SEIS
- 45 - 0.57DL+0.70SEIS
- 46 - 0.57DL-0.70SEIS

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47 - 1.03DL+1.03CL+0.70LSEIS  
 48 - 1.03DL+1.03CL-0.70LSEIS  
 49 - 1.02DL+1.02CL+0.75LL+0.52LSEIS  
 50 - 1.02DL+1.02CL+0.75LL-0.52LSEIS  
 51 - 1.02DL+1.02CL+0.52LSEIS  
 52 - 1.02DL+1.02CL-0.52LSEIS  
 53 - 0.57DL+0.70LSEIS  
 54 - 0.57DL-0.70LSEIS  
 55 - 1.24DL+1.24CL+3.00SEIS  
 56 - 1.24DL+1.24CL-3.00SEIS  
 57 - 0.86DL+3.00SEIS  
 58 - 0.86DL-3.00SEIS

FRAME AREA:

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 Frame Area = 49.41  
 Building Area= 378.75  
 Ratio= 0.13

REACTIONS: (Sidewall Columns)

Load Id	-----Left Column-----				-----Right Column-----			
	Fx(k)	Fy(k)	Fz(k)	M(f-k)	Fx(k)	Fy(k)	Fz(k)	M(f-k)
1	2.67	8.59	0.00	0.00	-2.67	8.63	0.00	0.00
2	2.67	8.63	0.00	0.00	-2.67	8.59	0.00	0.00
3	2.67	8.59	0.00	0.00	-2.67	8.63	0.00	0.00
4	2.67	8.63	0.00	0.00	-2.67	8.59	0.00	0.00
5	2.67	8.63	0.00	0.00	-2.67	8.59	0.00	0.00
6	2.67	8.63	0.00	0.00	-2.67	8.59	0.00	0.00
7	2.67	8.63	0.00	0.00	-2.67	8.59	0.00	0.00
8	2.67	8.63	0.00	0.00	-2.67	8.59	0.00	0.00
9	0.30	1.11	0.00	0.00	-0.30	1.11	0.00	0.00
10	0.30	1.11	0.00	0.00	-0.30	1.11	0.00	0.00
11	0.10	2.86	0.00	0.00	-2.58	4.64	0.00	0.00
12	2.58	4.64	0.00	0.00	-0.10	2.86	0.00	0.00
13	-0.04	4.37	0.00	0.00	-2.44	6.16	0.00	0.00
14	2.44	6.16	0.00	0.00	0.04	4.37	0.00	0.00
15	0.10	2.86	0.00	0.00	-2.58	4.64	0.00	0.00
16	0.10	2.86	0.00	0.00	-2.58	4.64	0.00	0.00
17	0.10	2.86	0.00	0.00	-2.58	4.64	0.00	0.00
18	2.58	4.64	0.00	0.00	-0.10	2.86	0.00	0.00
19	2.58	4.64	0.00	0.00	-0.10	2.86	0.00	0.00
20	2.58	4.64	0.00	0.00	-0.10	2.86	0.00	0.00
21	-0.04	4.37	0.00	0.00	-2.44	6.16	0.00	0.00
22	-0.04	4.37	0.00	0.00	-2.44	6.16	0.00	0.00
23	-0.04	4.37	0.00	0.00	-2.44	6.16	0.00	0.00
24	2.44	6.16	0.00	0.00	0.04	4.37	0.00	0.00
25	2.44	6.16	0.00	0.00	0.04	4.37	0.00	0.00
26	2.44	6.16	0.00	0.00	0.04	4.37	0.00	0.00
27	-2.47	-4.47	0.00	0.00	-0.84	-2.17	0.00	0.00
28	0.84	-2.17	0.00	0.00	2.47	-4.47	0.00	0.00
29	-2.65	-2.46	0.00	0.00	-0.66	-0.13	0.00	0.00
30	0.66	-0.13	0.00	0.00	2.65	-2.46	0.00	0.00
31	-0.97	-6.86	2.33	0.00	-0.71	-3.64	0.00	0.00
32	-1.04	-6.18	2.33	0.00	-0.78	-4.32	0.00	0.00
33	0.78	-3.10	0.00	0.00	1.04	-4.98	0.00	0.00
34	0.70	-2.43	0.00	0.00	0.98	-5.65	0.00	0.00

35	0.68	-3.49	2.33	0.00	1.14	-2.96	0.00	0.00
36	0.61	-2.82	2.33	0.00	1.07	-3.64	0.00	0.00
37	-1.07	-2.43	0.00	0.00	-0.61	-1.60	0.00	0.00
38	-1.13	-1.76	0.00	0.00	-0.69	-2.28	0.00	0.00
39	0.17	1.04	0.00	0.00	-0.44	1.25	0.00	0.00
40	0.44	1.25	0.00	0.00	-0.17	1.04	0.00	0.00
41	1.98	6.68	0.00	0.00	-2.18	6.84	0.00	0.00
42	2.18	6.84	0.00	0.00	-1.98	6.68	0.00	0.00
43	0.20	1.06	0.00	0.00	-0.40	1.21	0.00	0.00
44	0.40	1.21	0.00	0.00	-0.20	1.06	0.00	0.00
45	0.04	0.53	0.00	0.00	-0.30	0.74	0.00	0.00
46	0.30	0.74	0.00	0.00	-0.04	0.53	0.00	0.00
47	-0.02	0.57	0.60	0.00	-0.63	1.40	0.00	0.00
48	0.63	1.72	0.00	0.00	0.02	0.89	0.00	0.00
49	1.84	6.33	0.45	0.00	-2.32	6.96	0.00	0.00
50	2.32	7.19	0.00	0.00	-1.84	6.56	0.00	0.00
51	0.06	0.71	0.45	0.00	-0.54	1.32	0.00	0.00
52	0.54	1.56	0.00	0.00	-0.06	0.94	0.00	0.00
53	-0.15	0.06	0.60	0.00	-0.49	0.89	0.00	0.00
54	0.49	1.20	0.00	0.00	0.15	0.38	0.00	0.00

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DEFLECTIONS :

Load Id	Lateral Defl @ Top Of Col		Vert Defl @ Midspan
	Left	Right	
1	-0.05	0.09	-0.89
2	-0.09	0.05	-0.89
3	-0.05	0.09	-0.89
4	-0.09	0.05	-0.89
5	-0.09	0.05	-0.89
6	-0.09	0.05	-0.89
7	-0.09	0.05	-0.89
8	-0.09	0.05	-0.89
9	-0.01	0.01	-0.10
10	-0.01	0.01	-0.10
11	0.24	0.32	-0.48
12	-0.32	-0.24	-0.48
13	0.24	0.33	-0.57
14	-0.33	-0.24	-0.57
15	0.24	0.32	-0.48
16	0.24	0.32	-0.48
17	0.24	0.32	-0.48
18	-0.32	-0.24	-0.48
19	-0.32	-0.24	-0.48
20	-0.32	-0.24	-0.48
21	0.24	0.33	-0.57
22	0.24	0.33	-0.57
23	0.24	0.33	-0.57
24	-0.33	-0.24	-0.57
25	-0.33	-0.24	-0.57
26	-0.33	-0.24	-0.57
27	0.37	0.34	0.22
28	-0.34	-0.37	0.22
29	0.37	0.35	0.10

30	-0.35	-0.37	0.10
31	0.35	0.31	0.26
32	0.40	0.36	0.26
33	-0.36	-0.40	0.26
34	-0.31	-0.35	0.26
35	-0.38	-0.40	0.14
36	-0.32	-0.34	0.14
37	0.34	0.32	0.14
38	0.40	0.38	0.14
39	0.07	0.09	-0.10
40	-0.09	-0.07	-0.10
41	0.01	0.12	-0.70
42	-0.12	-0.01	-0.70
43	0.05	0.07	-0.10
44	-0.07	-0.05	-0.10
45	0.07	0.08	-0.06
46	-0.08	-0.07	-0.06
47	0.18	0.20	-0.10
48	-0.20	-0.18	-0.10
49	0.09	0.20	-0.70
50	-0.20	-0.09	-0.70
51	0.13	0.15	-0.10
52	-0.15	-0.14	-0.10
53	0.19	0.20	-0.06
54	-0.20	-0.19	-0.06

DEFLECTIONS RATIO:

Load Id	Lateral Defl @ Top Of Col		Vert Defl @ Midspan
	Left	Right	
1	2560	1587	403
2	1587	2560	403
3	2560	1587	403
4	1587	2560	403
5	1587	2560	403
6	1587	2560	403
7	1587	2560	403
8	1587	2560	403
9	24493	13934	3653
10	13935	24492	3653
11	560	427	747
12	427	560	747
13	569	416	630
14	416	569	630
15	560	427	747
16	560	427	747
17	560	427	747
18	427	560	747
19	427	560	747
20	427	560	747
21	569	416	630
22	569	416	630
23	569	416	630
24	416	569	630

25	416	569	630
26	416	569	630
27	364	400	1606
28	400	364	1606
29	368	387	3448
30	387	368	3448
31	393	440	1370
32	340	375	1370
33	374	339	1372
34	438	392	1372
35	363	344	2569
36	424	399	2570
37	398	423	2577
38	344	362	2576
39	1907	1562	3547
40	1562	1907	3547
41	18797	1177	517
42	1177	18800	517
43	2666	2041	3581
44	2041	2666	3581
45	1824	1632	6409
46	1632	1824	6409
47	739	681	3546
48	680	738	3541
49	1440	671	517
50	670	1436	517
51	1010	905	3581
52	904	1009	3577
53	728	695	6408
54	694	727	6391

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MAX DEFLECTION:

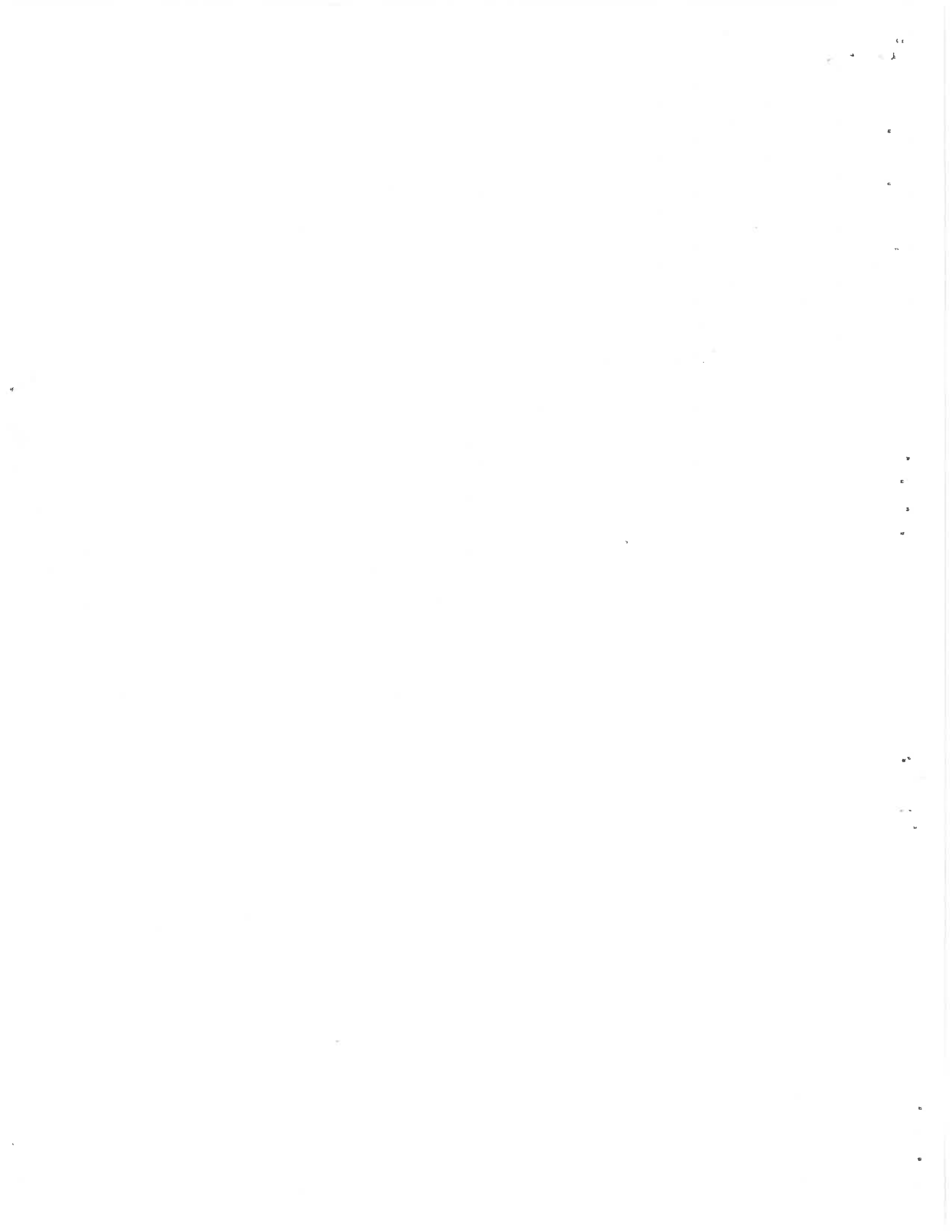
Type	Deflect	Span/Deflect	Limit
Live Vertical	-0.79	454.	180.
Horizontal Drift	-0.40	340.	60.

Horizontal Spring Constant= 3.37 k/in

P-DELTA CHECK: (Effective Length)

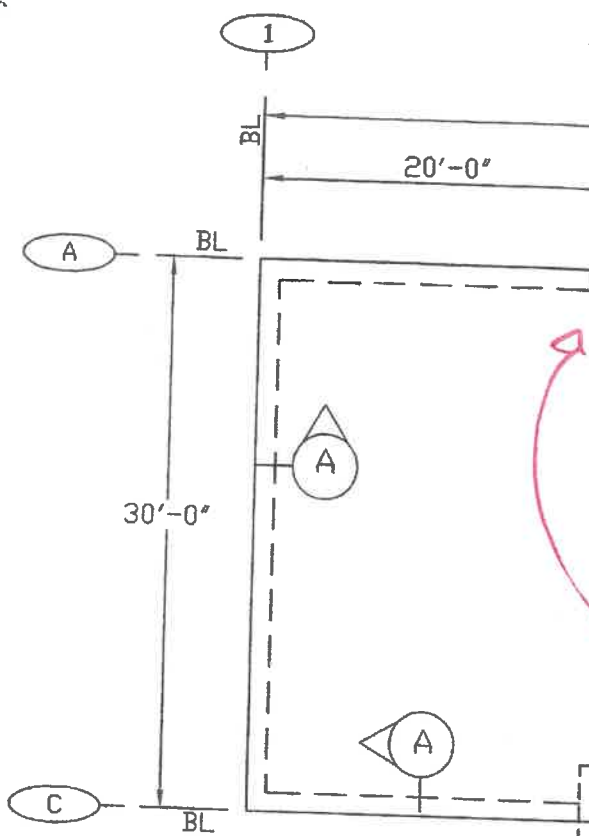
	Max Deflect Ratio
Left Column:	0.0486
Right Column:	0.0486

Max first order drift (in) = 0.59  
 Max second order drift (in) = 0.57  
 Ratio second/first = 0.97



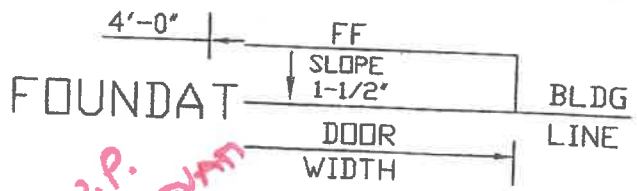


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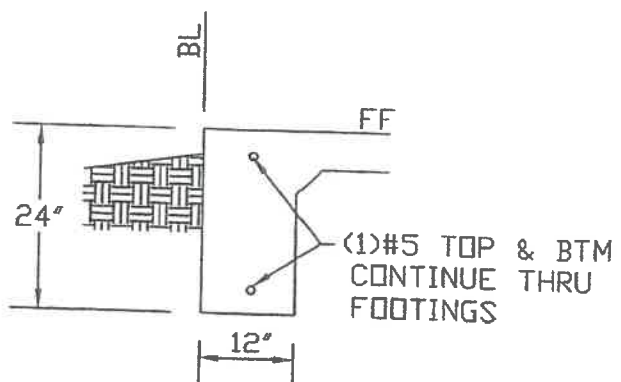
FOUNDATION NOTES PER IBC 2006  
 FOUNDATION TO BEAR ON FIRM NATURAL SOIL  
 AT LEAST 18" MIN. BELOW FINISH GRADE  
 SOIL PRESSURE = 1500 PSF.  
 FOUNDATION TO TEST AT 2500 PSI AT  
 ALL CORNERS AND SPLICES  
 CONCRETE GRADE 60 WITH 48 BAR DIAMETER  
 REINFORCING AT CORNERS AND SPLICES  
 UNIFORM LOADING:  
 100 KIP MAXIMUM VERTICAL D+L  
 10 KIP MAX HORZ D+L  
 10 KIP MAX UPLIFT D+W  
 ALL SLAB JOINTS ARE NOT  
 STRUCTURALLY REQ'D, THEY ARE  
 RECOMMENDED AT A MAXIMUM OF 13'  
 EITHER SAWED OR KEYS.  
 CONCRETE SLAB  
 WITH WIRE MESH  
 4" AGGREGATE BASE

**CODES**  
**APPROVED FIELD COPY**  
 GILA COUNTY COMMUNITY DEVELOPMENT  
 PERMIT #: G1105-019  
 DATE: 11-2-11 BY: SP

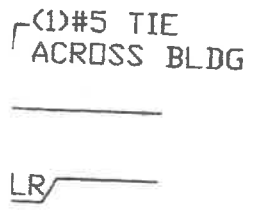


PLAN VIEW  
 OF DOOR OR OPENING  
 DETAIL

*SEE F.P.U.P.  
 CERTIFIED ELEVATION  
 REQUIRED*



**(A) SLAB TURNDOWN**  
 @ GRID 1,3,A,C



**TIE DET**  
 to 2

*2-21-12 PER PER  
 NO CHANGE TO  
 FOUNDATION PLAN.  
 SP.*



BY: BEN	DATE: 5-5-11	JOB# 211115	AG#M11013
SHEET F-1		OF 2	
FOUNDATION for GILA COUNTY CA&HS GLOBE, AZ 85501			
AGATE STEEL SCOTTSDALE, AZ			

