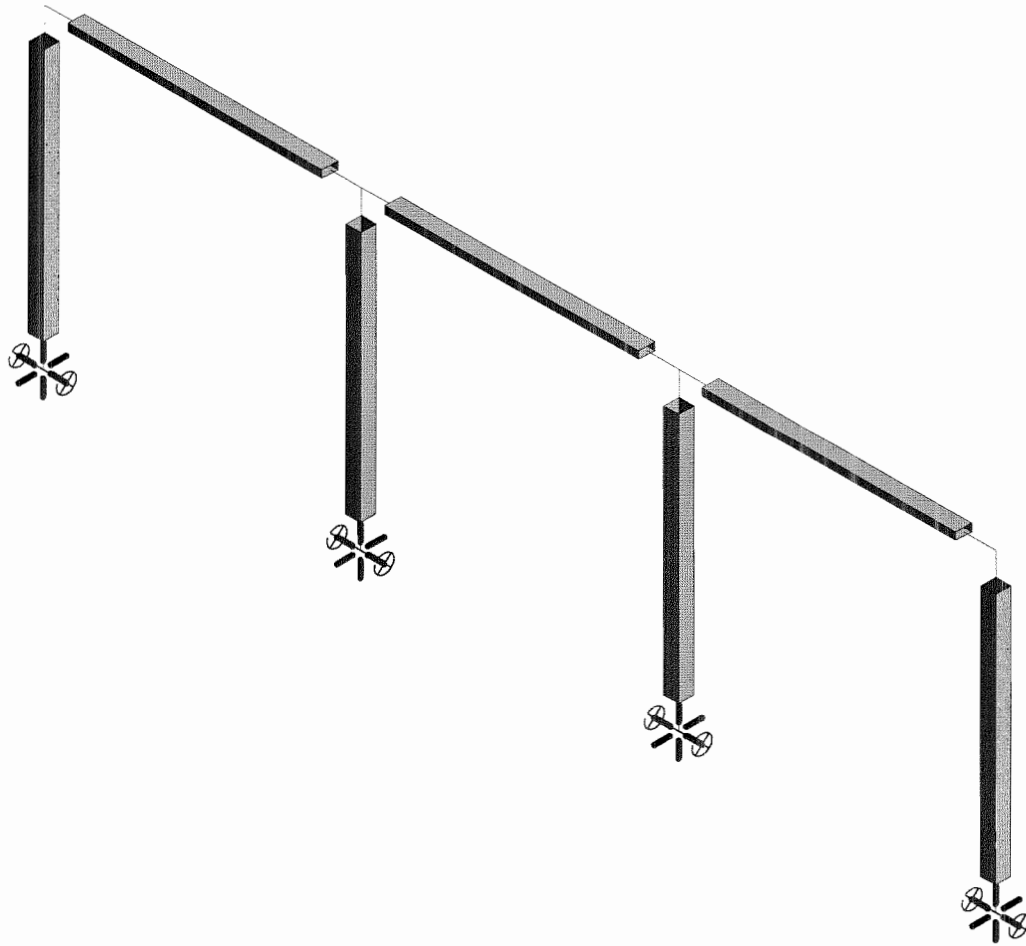
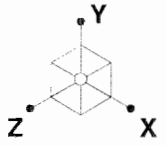


D8—2" SQ TUBE x 42-1/2" HIGH RAIL WITH 2"x1" RECT TOP RAIL WITHOUT BOTTOM RAIL

Building Code:	2006 <i>International Building Code</i> 2007 <i>California Building Code</i> AISC <i>Steel Construction Manual</i> , 13th ed—ASD
Material:	Carbon Steel, A500, Grade B, Fy = 42 ksi Carbon Steel, A36, Fy = 36 ksi (Bar) Stainless Steel, A554, Grade MT-304 or MT-316, Fy = 30 ksi
Height:	42.5"
Anchor Post:	Carbon Steel: 2"x2" Square Bar Stainless Steel: 2"x2" Square Bar
Intermediate Posts:	Carbon Steel: HSS 2x2x1/8 Tube Stainless Steel: 2"x2"x0.120" Tube
Top Rail:	Carbon Steel: HSS 2x1x1/8 Tube Stainless Steel: 2"x1"x0.120" Tube
Bottom Rail:	None
Number of Cables:	12
Cable Spacing:	3.19"



Disclaimer: Analysis and Structural Certification DOES NOT include base plates or anchorage to supporting structure. Where required by the Local Building Official, these shall be reviewed and designed by the project Structural Engineer of Record.



Ferrari Shields & Associates

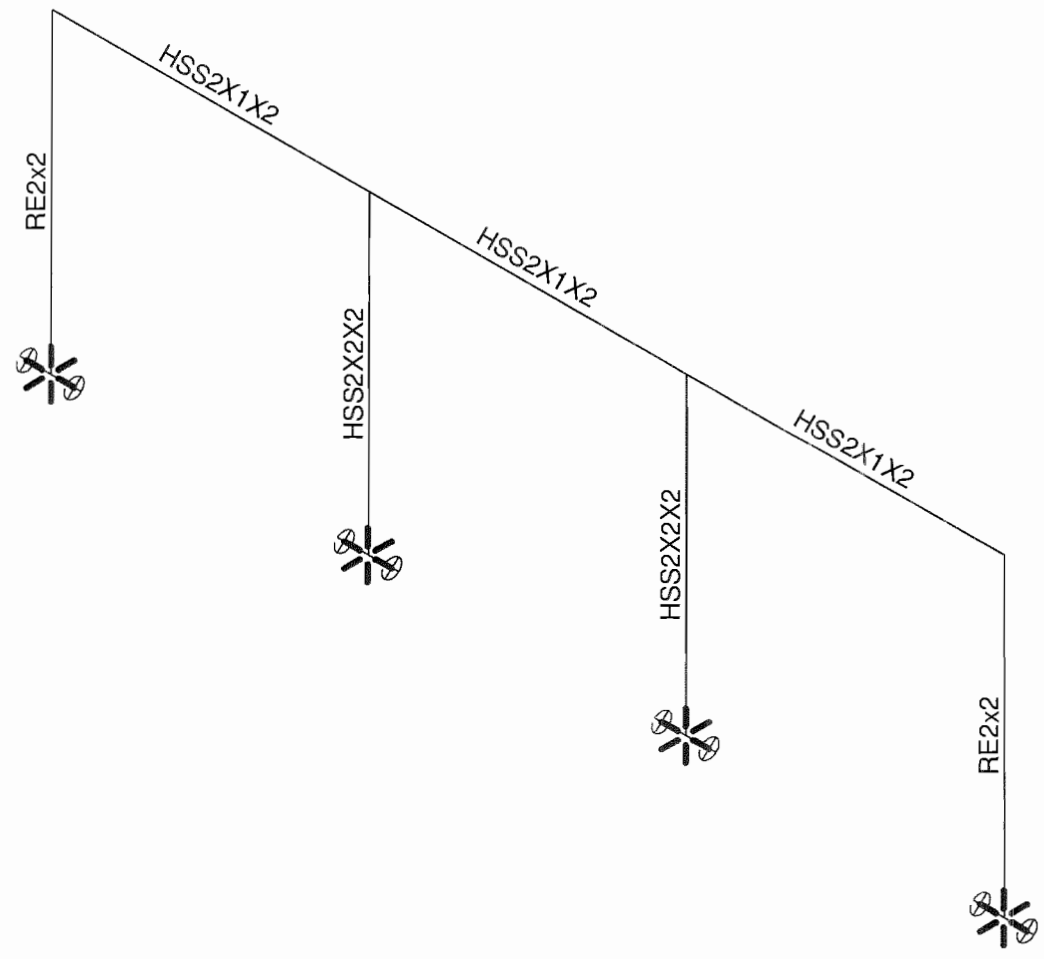
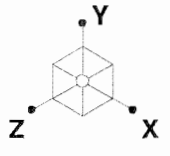
D. O'Connor

08196

D8 - 2" SQ TUBE x 42.5" HIGH RAIL W/ 2"x1" TOP RAIL W/O BTM RAIL

Dec 10, 2008 at 10:49 AM

D8.R3D



Ferrari Shields & Associates

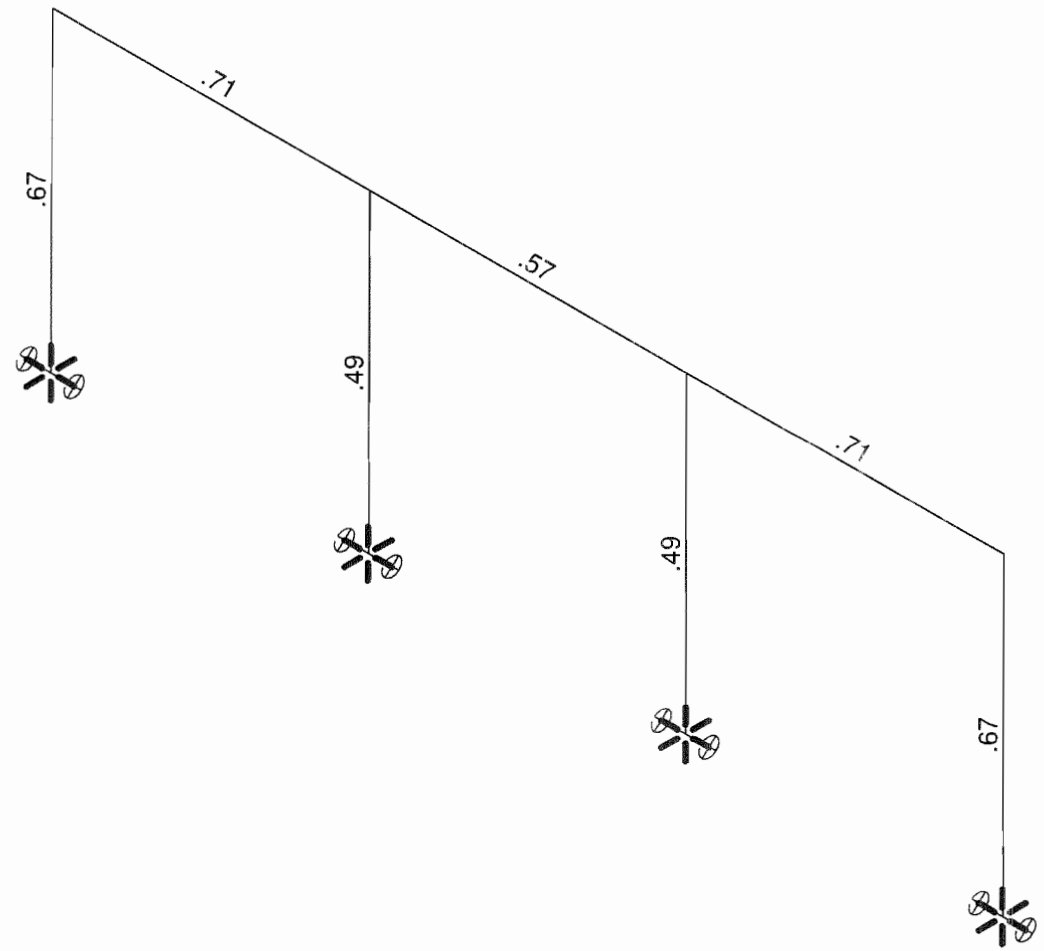
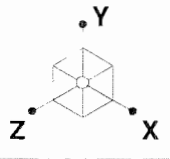
D. O'Connor

08196

D8 - 2" SQ TUBE x 42.5" HIGH RAIL W/ 2"x1" TOP RAIL W/O BTM RAIL

Dec 10, 2008 at 10:49 AM

D8.R3D



Member Code Checks Displayed
Solution: Envelope

Ferrari Shields & Associates

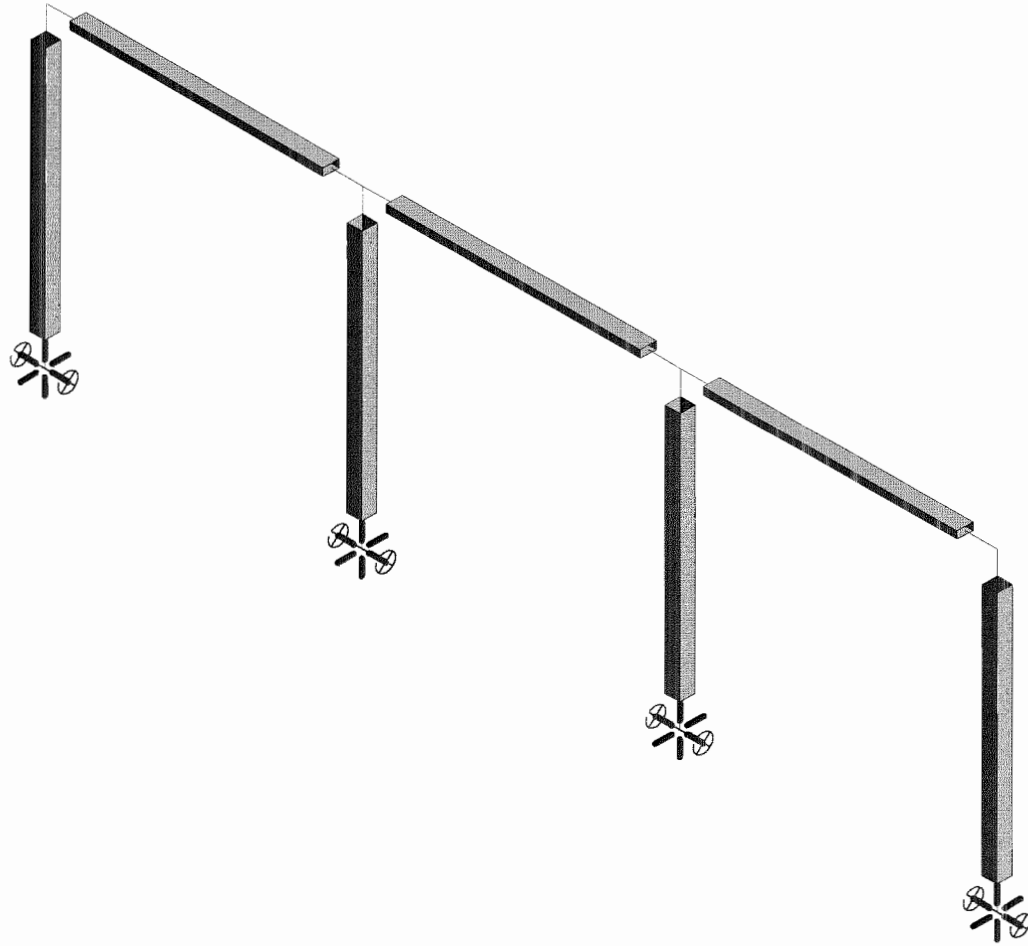
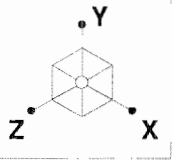
D8 - 2" SQ TUBE x 42.5" HIGH RAIL W/ 2"x1" TOP RAIL W/O BTM RAIL

D. O'Connor

Dec 10, 2008 at 10:49 AM

08196

D8.R3D



Ferrari Shields & Associates

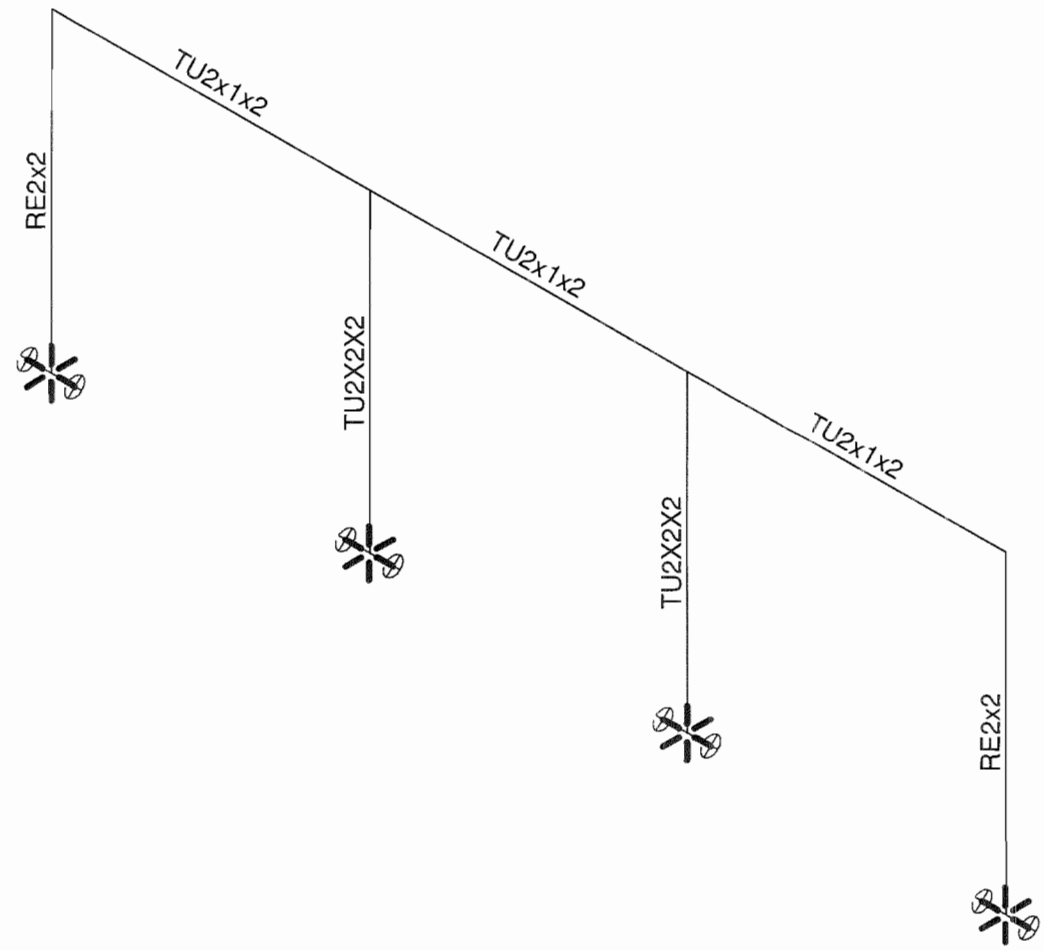
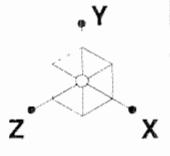
D8 (SS) - 2" SQ TUBE x 42.5" HIGH RAIL W/ 2"x1" TOP RAIL W/O BTM RAIL

D. O'Connor

Nov 4, 2008 at 3:32 PM

08196

D8-ss.R3D



Ferrari Shields & Associates

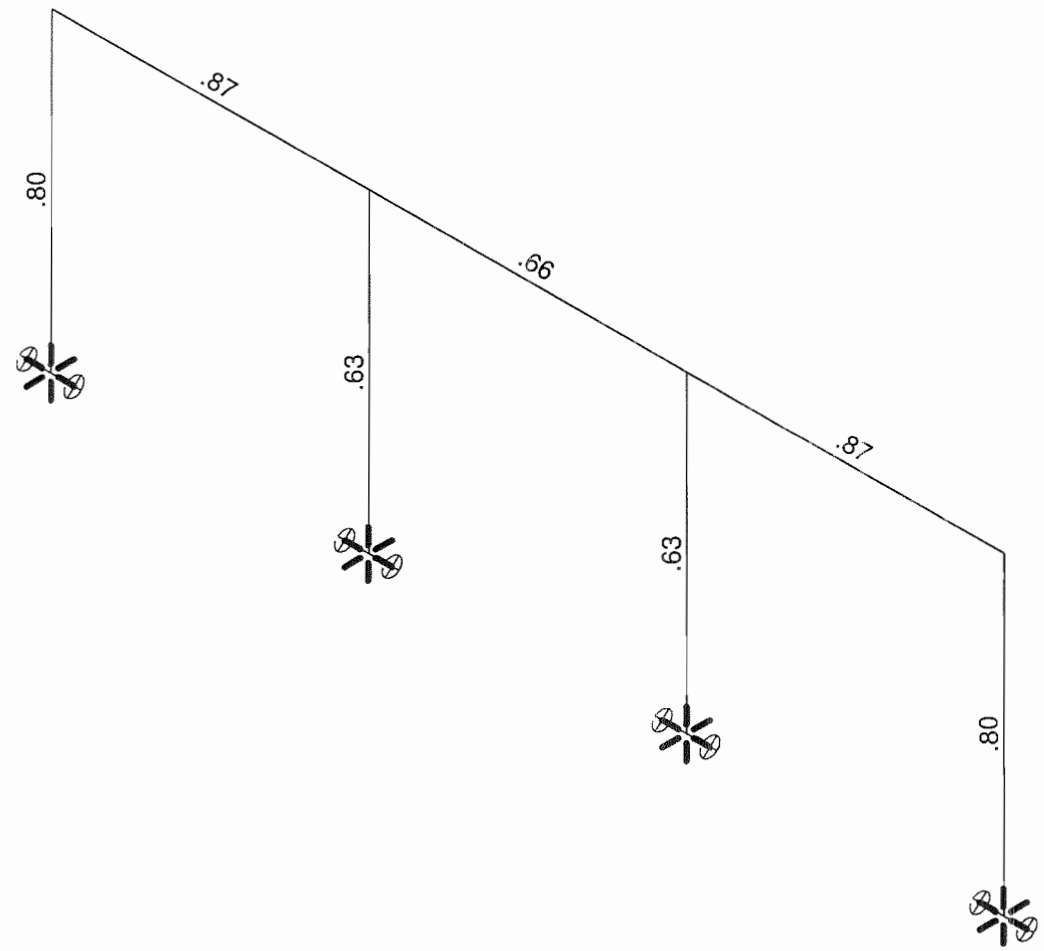
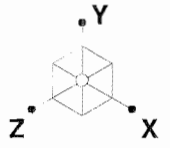
D8 (SS) - 2" SQ TUBE x 42.5" HIGH RAIL W/ 2"x1" TOP RAIL W/O BTM RAIL

D. O'Connor

Nov 4, 2008 at 3:32 PM

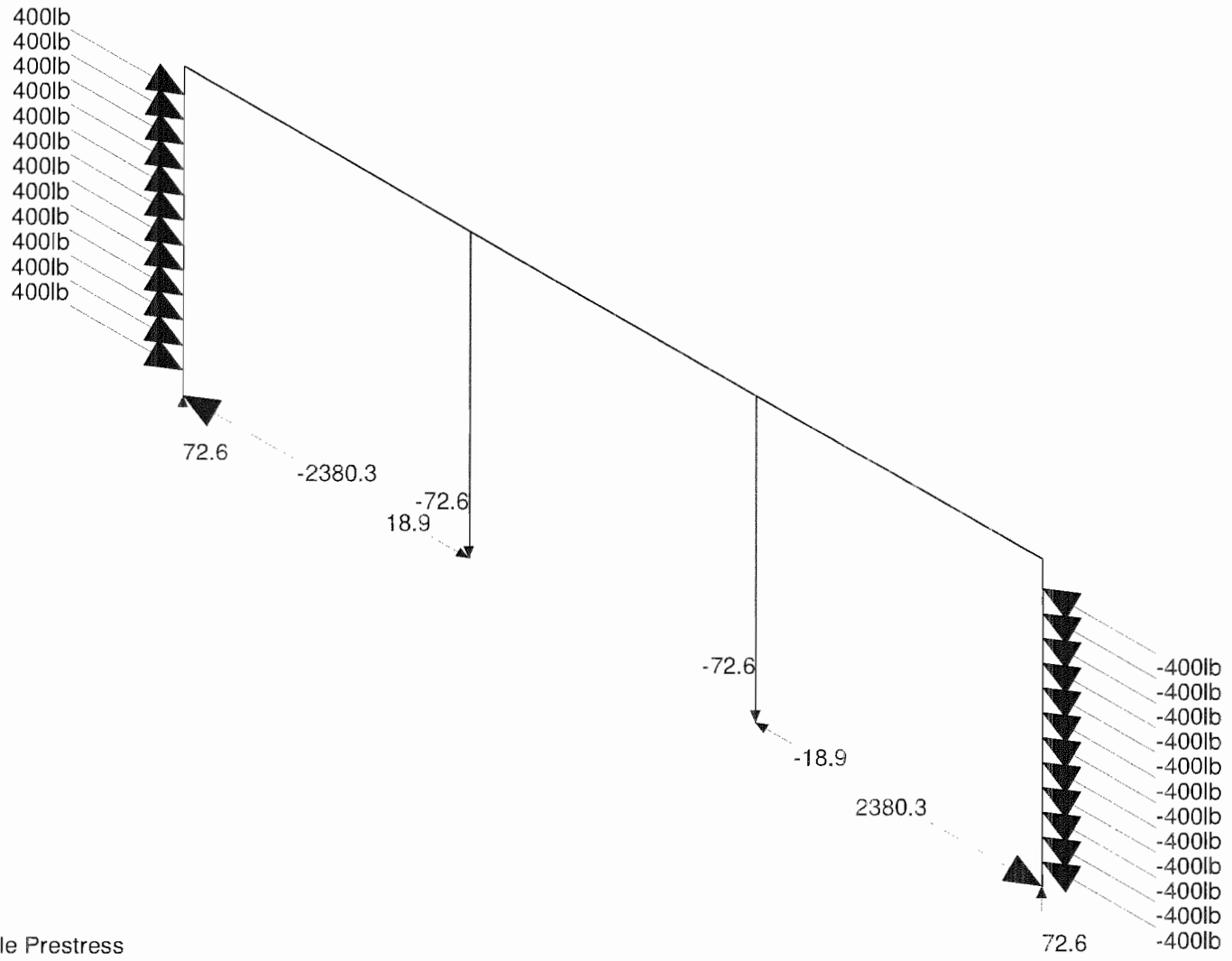
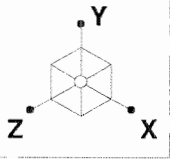
08196

D8-ss.R3D



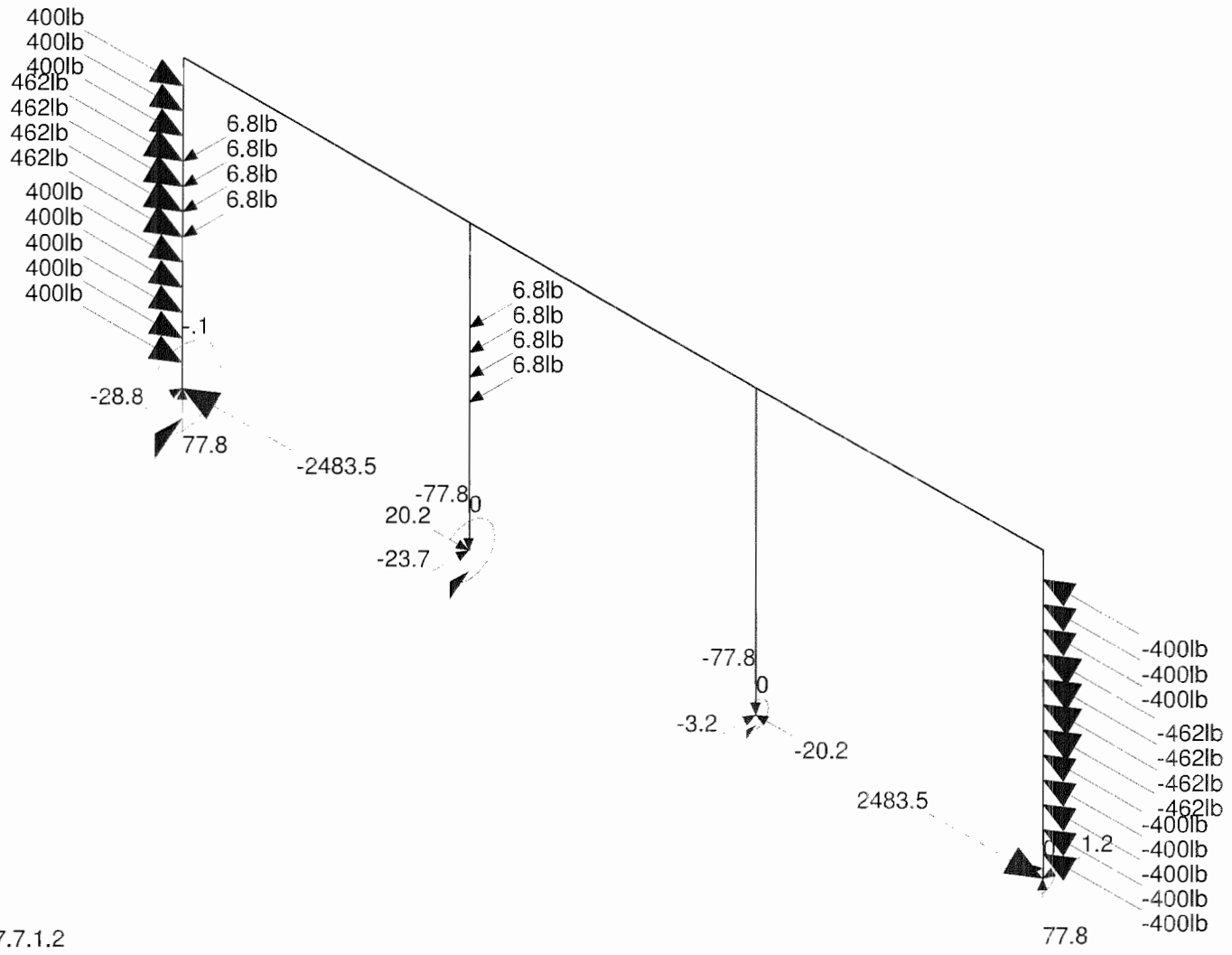
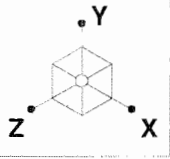
Member Code Checks Displayed
Solution: Envelope
Reaction units are lb and k-ft

Ferrari Shields & Associates	D8 (SS) - 2" SQ TUBE x 42.5" HIGH RAIL W/ 2"x1" TOP RAIL W/O BTM RAIL	Nov 4, 2008 at 3:32 PM
D. O'Connor		D8-ss.R3D
08196		



Loads: LC 1, Cable Prestress
 Results for LC 1, Cable Prestress
 Reaction units are lb and k-ft

Ferrari Shields & Associates	D8 - 2" SQ TUBE x 42.5" HIGH RAIL W/ 2"x1" TOP RAIL W/O BTM RAIL	Dec 10, 2008 at 10:50 AM
D. O'Connor		D8.R3D
08196		



Loads: LC 2, 1607.7.1.2
 Results for LC 2, 1607.7.1.2
 Reaction units are lb and k-ft

Ferrari Shields & Associates

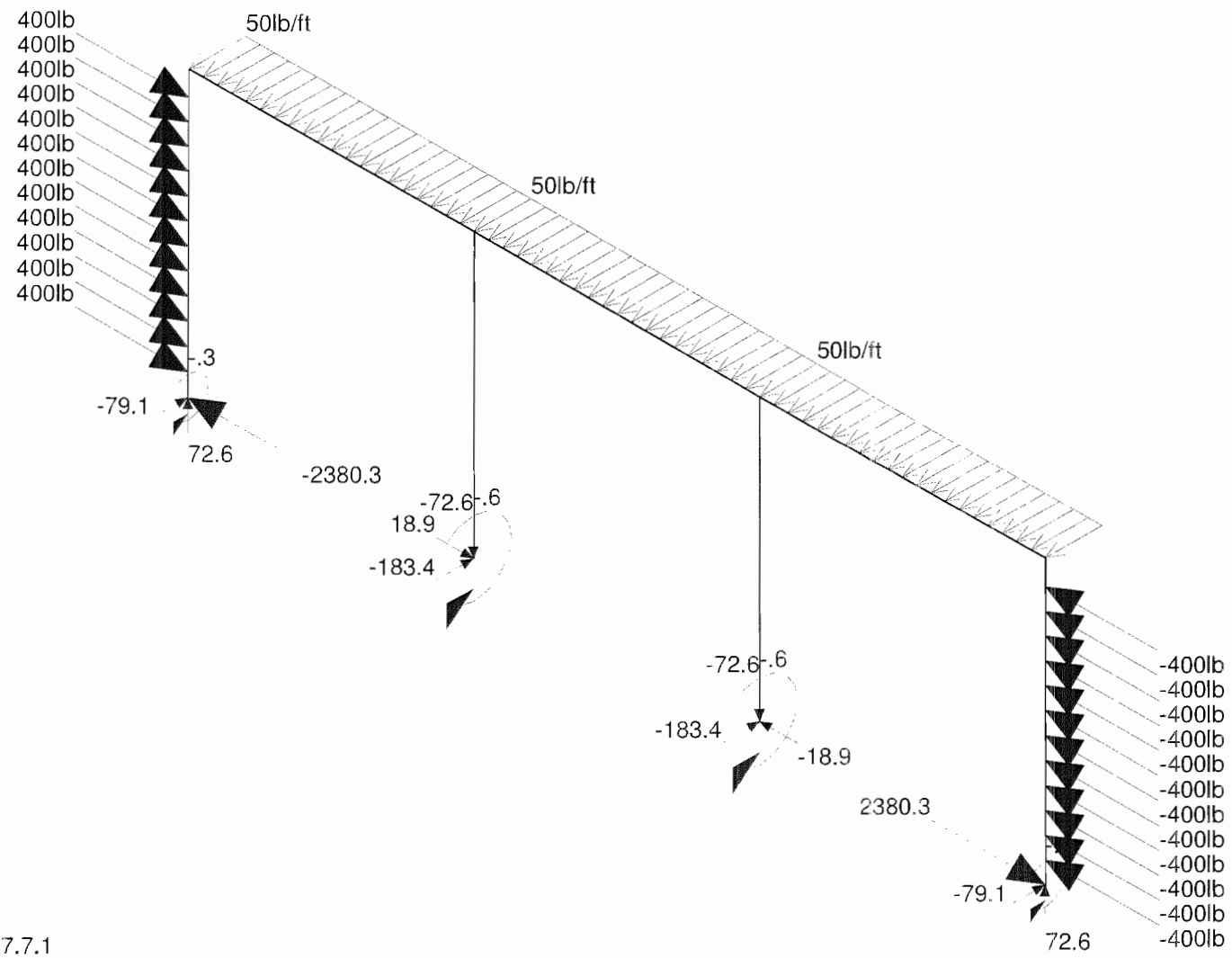
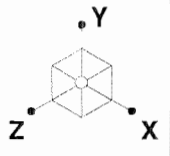
D8 - 2" SQ TUBE x 42.5" HIGH RAIL W/ 2"x1" TOP RAIL W/O BTM RAIL

D. O'Connor

Dec 10, 2008 at 10:50 AM

08196

D8.R3D



Loads: LC 3, 1607.7.1
 Results for LC 3, 1607.7.1
 Reaction units are lb and k-ft

Ferrari Shields & Associates

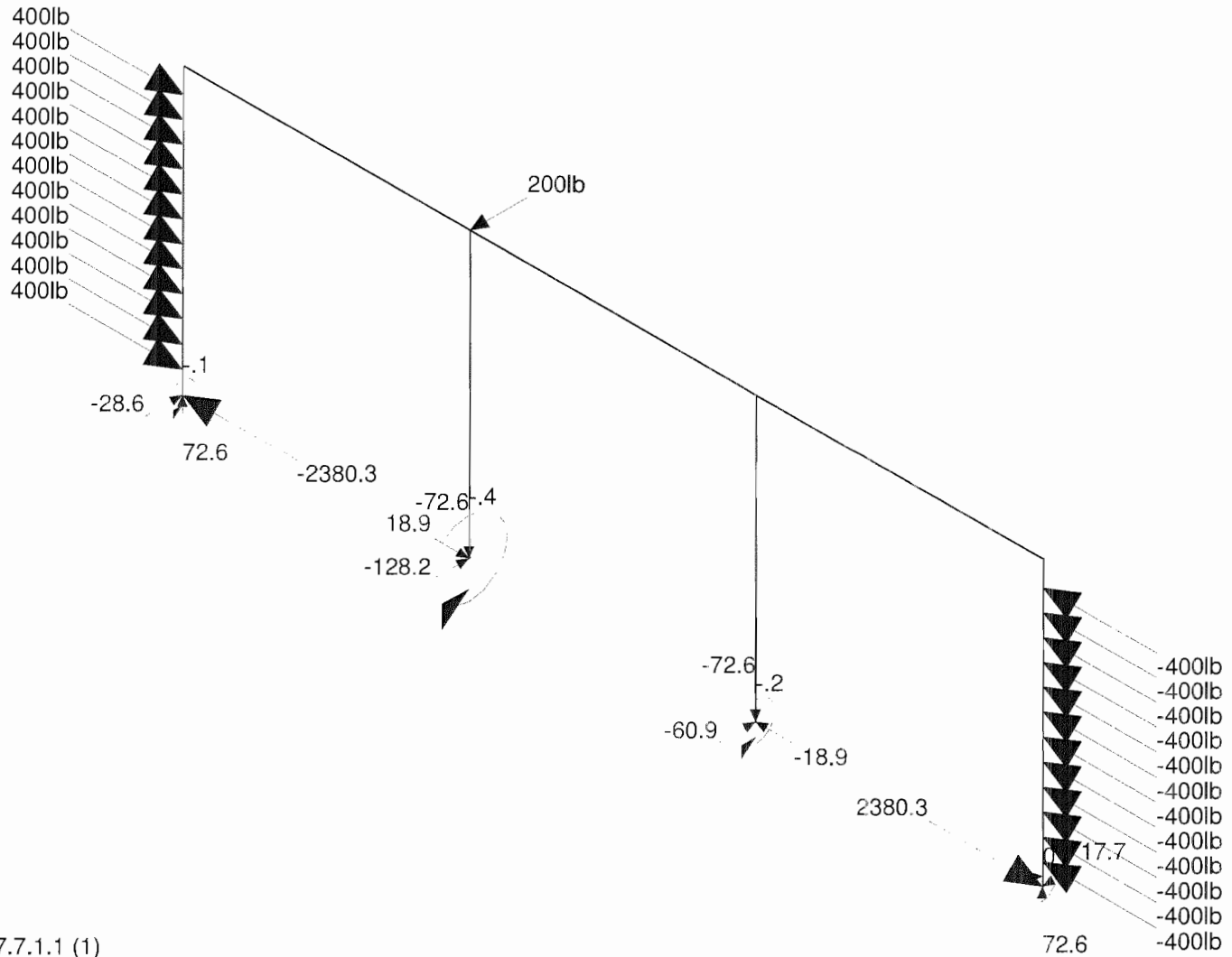
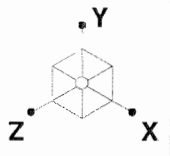
D8 - 2" SQ TUBE x 42.5" HIGH RAIL W/ 2"x1" TOP RAIL W/O BTM RAIL

D. O'Connor

Dec 10, 2008 at 10:51 AM

08196

D8.R3D



Loads: LC 4, 1607.7.1.1 (1)
 Results for LC 4, 1607.7.1.1 (1)
 Reaction units are lb and k-ft

Ferrari Shields & Associates

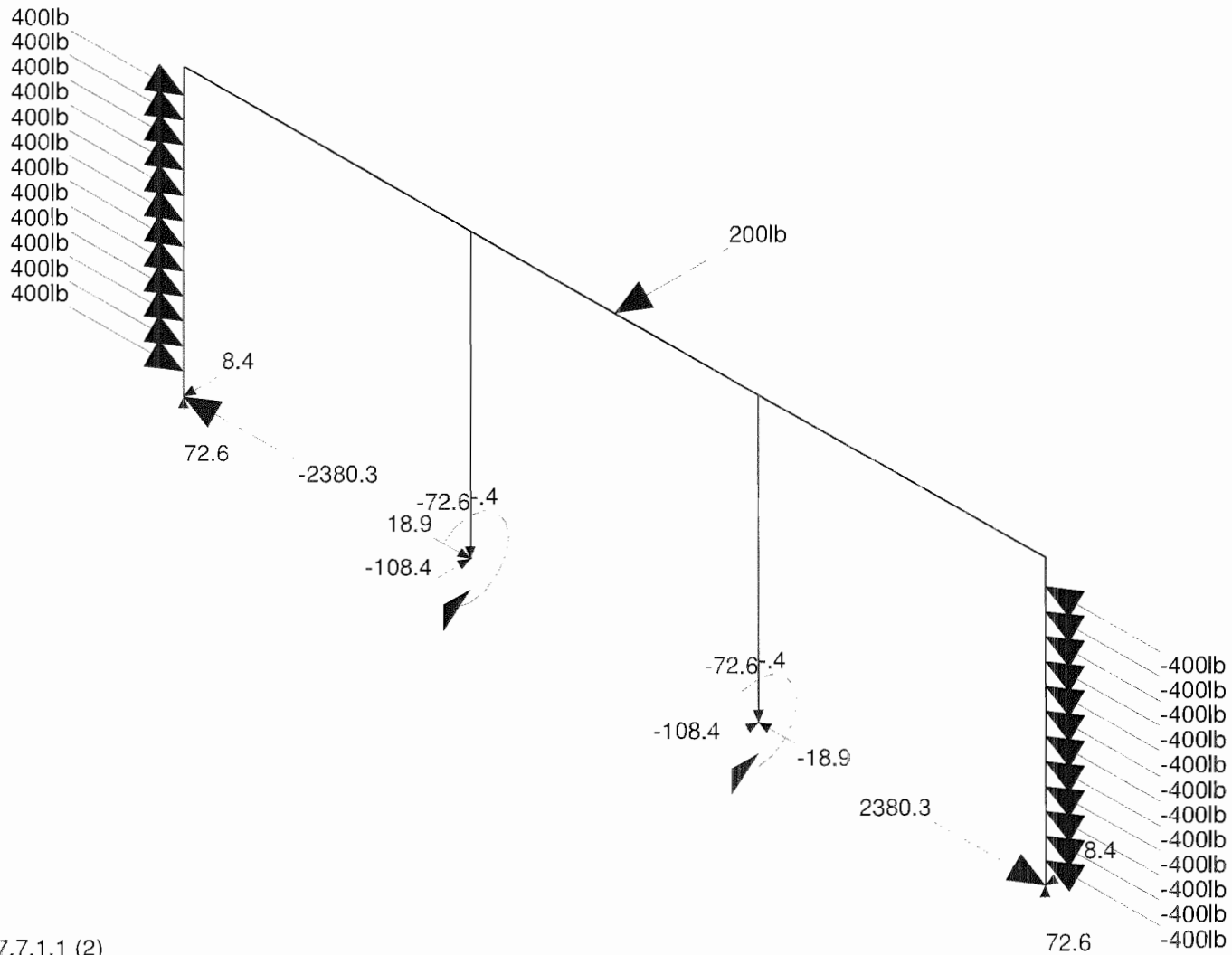
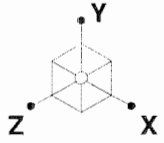
D8 - 2" SQ TUBE x 42.5" HIGH RAIL W/ 2"x1" TOP RAIL W/O BTM RAIL

D. O'Connor

Dec 10, 2008 at 10:51 AM

08196

D8.R3D



Loads: LC 5, 1607.7.1.1 (2)
 Results for LC 5, 1607.7.1.1 (2)
 Reaction units are lb and k-ft

Ferrari Shields & Associates

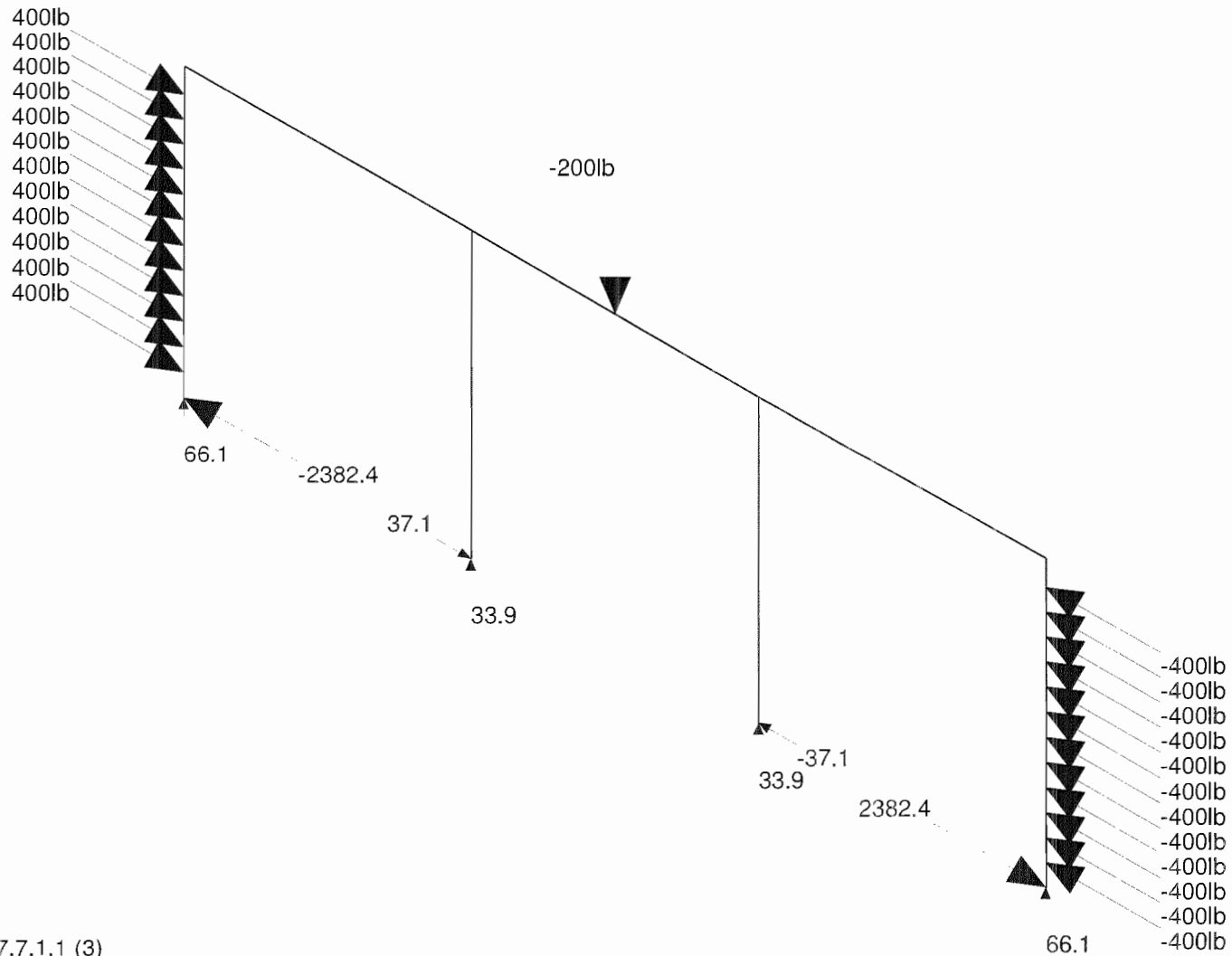
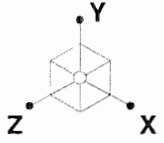
D. O'Connor

08196

D8 - 2" SQ TUBE x 42.5" HIGH RAIL W/ 2"x1" TOP RAIL W/O BTM RAIL

Dec 10, 2008 at 10:51 AM

D8.R3D



Loads: LC 6, 1607.7.1.1 (3)
 Results for LC 6, 1607.7.1.1 (3)
 Reaction units are lb and k-ft

Ferrari Shields & Associates

D8 - 2" SQ TUBE x 42.5" HIGH RAIL W/ 2"x1" TOP RAIL W/O BTM RAIL

D. O'Connor

Dec 10, 2008 at 10:51 AM

08196

D8.R3D

Global

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation	Yes
Include Warping	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Vertical Axis	Y

Hot Rolled Steel Code	AISC : ASD 13th
Cold Formed Steel Code	AISI 01: ASD
Wood Code	NDS 2005: ASD
Wood Temperature	< 100F
Concrete Code	ACI 2005

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	PCA Load Contour
Parame Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections	Yes
Bad Framing Warnings	No
Unused Force Warnings	Yes

Hot Rolled Steel Properties

	Label	E [ksj]	G [ksj]	Nu	Therm (1E5 F)	Density[k/ft^3]	Yield[ksj]
1	A500Gr42	29000	11154	.3	.65	.49	42
2	A36	29000	11154	.3	.65	.49	36

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	RAIL	HSS2X1X2	Beam	Tube	A500Gr42	Typical	.609	.092	.28	.238
2	EPOST	RE2x2	Column	Tube	A36	Typical	4	1.333	1.333	1.973
3	IPOST	HSS2X2X2	Column	Tube	A500Gr42	Typical	.841	.487	.487	.797

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area (Mem...	Surface (Pl...
1	Cable Prestress	None				24				
2	1607.7.1.2	None				16				
3	1607.7.1	None						3		
4	1607.7.1.1 (1)	None				1				
5	1607.7.1.1 (2)	None					1			
6	1607.7.1.1 (3)	None					1			

Load Combinations

	Description	Solve PDelta	SR...	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor
1	Cable Prestress	Yes	C	1	1						

Load Combinations (Continued)

	Description	Solve	PDelta	SR...	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor
2	1607.7.1.2	Yes	C		1	1	2	1				
3	1607.7.1	Yes	C		1	1	3	1				
4	1607.7.1.1 (1)	Yes	C		1	1	4	1				
5	1607.7.1.1 (2)	Yes	C		1	1	5	1				
6	1607.7.1.1 (3)	Yes	C		1	1	6	1				

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N1	N2		90	EPOST	Column	Tube	A36	Typical
2	M2	N3	N4		90	IPOST	Column	Tube	A500Gr42	Typical
3	M3	N2	N4		90	RAIL	Beam	Tube	A500Gr42	Typical
4	M4	N4	N8		90	RAIL	Beam	Tube	A500Gr42	Typical
5	M5	N5	N6		90	EPOST	Column	Tube	A36	Typical
6	M6	N7	N8		90	IPOST	Column	Tube	A500Gr42	Typical
7	M7	N8	N6		90	RAIL	Beam	Tube	A500Gr42	Typical

Envelope Joint Reactions

	Joint		X [lb]	lc	Y [lb]	lc	Z [lb]	lc	MX [k-ft]	lc	MY [k-ft]	lc	MZ [k-ft]	lc
1	N1	max	-2380.31	4	77.771	2	8.449	5	0	5	0	1	0	1
2		min	-2483.458	2	66.073	6	-79.132	3	-.318	3	0	1	0	1
3	N3	max	37.087	6	33.925	6	0	1	0	1	0	1	0	1
4		min	18.857	1	-77.771	2	-183.368	3	-.601	3	0	1	0	1
5	N5	max	2483.458	2	77.771	2	17.694	4	.042	4	0	1	0	1
6		min	2380.31	5	66.072	6	-79.132	3	-.318	3	0	1	0	1
7	N7	max	-18.857	1	33.93	6	0	1	0	1	0	1	0	1
8		min	-37.089	6	-77.771	2	-183.368	3	-.601	3	0	1	0	1
9	Totals:	max	0	4	200	6	0	1						
10		min	0	3	0	2	-525	3						

Envelope Member Section Forces

	Member	Sec		Axial[lb]	lc	y Shear[lb]	lc	z Shear[lb]	lc	Torque[k-ft]	lc	y-y Moment[...]	lc	z-z Moment[...]	lc
1	M1	1	max	77.771	2	8.449	5	-2381.437	1	0	1	0	1	0	5
2			min	66.073	6	-79.15	3	-2484.745	2	0	1	0	1	-.318	3
3		2	max	77.771	2	8.448	5	-1181.053	1	0	1	-1.671	1	0	1
4			min	66.073	6	-79.245	3	-1284.312	2	0	1	-1.761	2	-.249	3
5		3	max	77.771	2	8.444	5	19.656	4	0	1	-2.198	1	0	1
6			min	66.073	6	-79.319	3	-21.501	2	0	1	-2.369	2	-.179	3
7		4	max	77.771	2	8.438	5	1365.313	2	0	1	-1.581	1	0	1
8			min	66.073	6	-79.371	3	1218.25	6	0	1	-1.695	2	-.11	3
9		5	max	77.771	2	8.429	5	2565.736	2	0	1	.192	2	0	1
10			min	66.073	6	-79.401	3	2418.588	6	0	1	.172	6	-.04	3
11	M2	1	max	33.925	6	0	1	37.116	6	0	1	0	1	0	1
12			min	-77.771	2	-183.368	3	18.857	1	0	1	0	1	-.601	3
13		2	max	33.925	6	0	1	37.116	6	0	1	.032	6	0	1
14			min	-77.771	2	-183.368	3	18.857	1	0	1	.016	1	-.441	3
15		3	max	33.925	6	0	1	37.094	6	0	1	.065	6	0	1
16			min	-77.771	2	-183.368	3	18.857	1	0	1	.033	1	-.28	3
17		4	max	33.925	6	3.525	2	37.035	6	0	1	.097	6	.004	2

Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	lc	y Shear[lb]	lc	z Shear[lb]	lc	Torque[k-ft]	lc	y-y Moment[...]	lc	z-z Moment[...]	lc	
18		min	-77.771	2	-183.368	3	18.857	1	0	1	.049	1	-.12	3	
19	5	max	33.925	6	3.525	2	37.035	6	0	1	.13	6	.044	4	
20		min	-77.771	2	-183.368	3	18.857	1	0	1	.066	1	0	1	
21	M3	1	max	2564.542	2	0	1	-66.077	6	0	1	.192	2	0	1
22		min	2417.639	6	-100.305	3	-77.751	2	-.04	3	.172	6	0	1	
23	2	max	2564.542	2	0	1	-66.077	6	0	1	.124	2	.069	3	
24		min	2417.639	6	-56.555	3	-77.751	2	-.04	3	.114	6	0	1	
25	3	max	2564.542	2	0	1	-66.077	6	0	1	.056	6	.099	3	
26		min	2417.639	6	-43.913	4	-77.751	2	-.04	3	.052	1	0	1	
27	4	max	2564.542	2	30.945	3	-66.077	6	0	1	-.002	6	.115	4	
28		min	2417.639	6	-43.913	4	-77.751	2	-.04	3	-.012	2	0	1	
29	5	max	2564.542	2	74.695	3	-66.077	6	0	1	-.06	6	.154	4	
30		min	2417.639	6	-43.913	4	-77.751	2	-.04	3	-.08	2	0	1	
31	M4	1	max	2584.745	2	51.536	4	0	1	.015	4	.07	6	.154	4
32		min	2438.546	1	-100	5	-99.998	6	0	1	-.01	2	0	1	
33	2	max	2584.745	2	51.536	4	0	1	.015	4	-.009	1	.112	5	
34		min	2438.546	1	-100	5	-99.998	6	0	1	-.017	6	0	1	
35	3	max	2584.745	2	100	5	100.002	6	.015	4	-.009	1	.199	5	
36		min	2438.546	1	0	1	0	1	0	1	-.105	6	0	1	
37	4	max	2584.745	2	100	5	100.002	6	.015	4	-.009	1	.112	5	
38		min	2438.546	1	0	1	0	1	0	1	-.017	6	0	2	
39	5	max	2584.745	2	100	5	100.002	6	.015	4	.07	6	.045	3	
40		min	2438.546	1	0	1	0	1	0	1	-.01	2	-.027	4	
41	M5	1	max	77.771	2	17.697	4	2484.745	2	0	1	0	1	.042	4
42		min	66.072	6	-79.15	3	2381.437	1	0	1	0	1	-.318	3	
43	2	max	77.771	2	17.708	4	1284.312	2	0	1	1.761	2	.027	4	
44		min	66.072	6	-79.245	3	1181.053	1	0	1	1.671	1	-.249	3	
45	3	max	77.771	2	17.714	4	21.501	2	0	1	2.369	2	.011	4	
46		min	66.072	6	-79.319	3	-19.656	5	0	1	2.198	1	-.179	3	
47	4	max	77.771	2	17.716	4	-1218.248	6	0	1	1.695	2	0	2	
48		min	66.072	6	-79.371	3	-1365.313	2	0	1	1.581	1	-.11	3	
49	5	max	77.771	2	17.712	4	-2418.586	6	0	1	-.172	6	0	1	
50		min	66.072	6	-79.401	3	-2565.736	2	0	1	-.192	2	-.04	3	
51	M6	1	max	33.93	6	0	1	-18.857	1	0	1	0	1	0	1
52		min	-77.771	2	-183.368	3	-37.085	6	0	1	0	1	-.601	3	
53	2	max	33.93	6	0	1	-18.857	1	0	1	-.016	1	0	1	
54		min	-77.771	2	-183.368	3	-37.085	6	0	1	-.032	6	-.441	3	
55	3	max	33.93	6	0	1	-18.857	1	0	1	-.033	1	0	1	
56		min	-77.771	2	-183.368	3	-37.085	6	0	1	-.065	6	-.28	3	
57	4	max	33.93	6	0	1	-18.857	1	0	1	-.049	1	0	1	
58		min	-77.771	2	-183.368	3	-37.085	6	0	1	-.097	6	-.12	3	
59	5	max	33.93	6	0	1	-18.857	1	0	1	-.066	1	.04	3	
60		min	-77.771	2	-183.368	3	-37.085	6	0	1	-.13	6	0	1	
61	M7	1	max	2564.542	2	6.873	5	77.751	2	.04	3	-.06	6	.045	3
62		min	2417.638	6	-74.695	3	66.076	6	0	1	-.08	2	-.027	4	
63	2	max	2564.542	2	6.873	5	77.751	2	.04	3	-.002	6	.091	3	
64		min	2417.638	6	-30.945	3	66.076	6	0	1	-.012	2	-.02	4	
65	3	max	2564.542	2	12.805	3	77.751	2	.04	3	.056	6	.099	3	
66		min	2417.638	6	-7.624	4	66.076	6	0	1	.052	1	-.013	4	
67	4	max	2564.542	2	56.555	3	77.751	2	.04	3	.124	2	.069	3	
68		min	2417.638	6	-7.624	4	66.076	6	0	1	.114	6	-.007	4	
69	5	max	2564.542	2	100.305	3	77.751	2	.04	3	.192	2	0	1	
70		min	2417.638	6	-7.624	4	66.076	6	0	1	.172	6	0	1	

Envelope AISC 13th ASD Steel Code Checks

	Member	Shape	Code Check	Loc[in]	lc	Shear ...	Loc[in]	Dir	lc	Pnc/om [lb]	Pnt/om [lb]	Mnyy/om [k-ft]	Mnzz/om ...	Cb LRFD E...
1	M1	RE2x2	.666	19.25	3	.050	38.5	z	2	65260.614	86227.545	3.593	3.593	1... H1-1b
2	M2	HSS2X2X2	.492	0	3	.032	22.75	y	3	17542.558	21154.469	1.227	1.227	1... H1-1b
3	M3	HSS2X1X2	.707	0	2	.160	0	z	3	7484.423	15307.164	.468	.768	1... H1-1a
4	M4	HSS2X1X2	.573	21	5	.047	0	z	4	7484.423	15307.164	.468	.768	1... H1-1a
5	M5	RE2x2	.666	19.25	3	.050	38.5	z	2	65260.614	86227.545	3.593	3.593	1... H1-1b
6	M6	HSS2X2X2	.492	0	3	.032	0	y	3	17542.558	21154.469	1.227	1.227	1... H1-1b
7	M7	HSS2X1X2	.707	42	2	.160	0	z	3	7484.423	15307.164	.468	.768	1... H1-1a

Global

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation	Yes
Include Warping	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Vertical Axis	Y

Hot Rolled Steel Code	AISC : ASD 13th
Cold Formed Steel Code	AISI 01: ASD
Wood Code	NDS 2005: ASD
Wood Temperature	< 100F
Concrete Code	ACI 2005

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	PCA Load Contour
Parame Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections	Yes
Bad Framing Warnings	No
Unused Force Warnings	Yes

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (1E5 F)	Density[k/ft^3]	Yield[ksi]
1	A500Gr42	29000	11154	.3	.65	.49	42
2	SS316	28000	11154	.3	.65	.49	30

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	RAIL	TU2x1x2	Beam	Tube	SS316	Typical	.662	.102	.321	.238
2	EPOST	RE2x2	Column	Tube	SS316	Typical	4	1.333	1.333	1.973
3	IPOST	TU2X2X2	Column	Tube	SS316	Typical	.902	.534	.534	.797

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area (Mem...	Surface (Pl...
1	Cable Prestress	None				24				
2	1607.7.1.2	None				16				
3	1607.7.1	None						3		
4	1607.7.1.1 (1)	None				1				
5	1607.7.1.1 (2)	None					1			
6	1607.7.1.1 (3)	None					1			

Load Combinations

	Description	Solve PDelta	SR...	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor
1	Cable Prestress	Yes	C	1	1						

Load Combinations (Continued)

	Description	Solve	PDelta	SR...	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor
2	1607.7.1.2	Yes	C		1	1	2	1					
3	1607.7.1	Yes	C		1	1	3	1					
4	1607.7.1.1 (1)	Yes	C		1	1	4	1					
5	1607.7.1.1 (2)	Yes	C		1	1	5	1					
6	1607.7.1.1 (3)	Yes	C		1	1	6	1					

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N1	N2		90	EPOST	Column	Tube	SS316	Typical
2	M2	N3	N4		90	IPOST	Column	Tube	SS316	Typical
3	M3	N2	N4		90	RAIL	Beam	Tube	SS316	Typical
4	M4	N4	N8		90	RAIL	Beam	Tube	SS316	Typical
5	M5	N5	N6		90	EPOST	Column	Tube	SS316	Typical
6	M6	N7	N8		90	IPOST	Column	Tube	SS316	Typical
7	M7	N8	N6		90	RAIL	Beam	Tube	SS316	Typical

Envelope Joint Reactions

	Joint		X [lb]	lc	Y [lb]	lc	Z [lb]	lc	MX [k-ft]	lc	MY [k-ft]	lc	MZ [k-ft]	lc
1	N1	max	-2375.235	4	85.482	2	6.77	5	0	1	0	1	0	1
2		min	-2478.022	2	73.256	6	-81.23	3	-322	3	0	1	0	1
3	N3	max	38.907	6	26.743	6	0	1	0	1	0	1	0	1
4		min	20.716	1	-85.482	2	-181.27	3	-597	3	0	1	0	1
5	N5	max	2478.022	2	85.482	2	16.801	4	.04	4	0	1	0	1
6		min	2375.235	4	73.255	6	-81.23	3	-322	3	0	1	0	1
7	N7	max	-20.716	1	26.747	6	0	1	0	1	0	1	0	1
8		min	-38.909	6	-85.482	2	-181.27	3	-597	3	0	1	0	1
9	Totals:	max	0	3	200	6	0	1						
10		min	0	4	0	3	-525	3						

Envelope Member Section Forces

	Member	Sec		Axial[lb]	lc	y Shear[lb]	lc	z Shear[lb]	lc	Torque[k-ft]	lc	y-y Moment[...]	lc	z-z Moment[...]	lc
1	M1	1	max	85.482	2	6.77	5	-2376.51	1	0	1	0	1	0	1
2			min	73.256	6	-81.251	3	-2479.478	2	0	1	0	1	-322	3
3		2	max	85.482	2	6.767	5	-1176.074	1	0	1	-1.666	1	0	1
4			min	73.256	6	-81.361	3	-1278.987	2	0	1	-1.756	2	-251	3
5		3	max	85.482	2	6.762	5	24.73	4	0	1	-2.189	1	0	1
6			min	73.256	6	-81.445	3	-16.067	2	0	1	-2.359	2	-.18	3
7		4	max	85.482	2	6.755	5	1370.855	2	0	1	-1.568	1	0	1
8			min	73.256	6	-81.504	3	1223.419	6	0	1	-1.681	2	-.108	3
9		5	max	85.482	2	6.746	5	2571.329	2	0	1	.211	2	0	1
10			min	73.256	6	-81.537	3	2423.802	6	0	1	.19	6	-.037	3
11	M2	1	max	26.743	6	0	1	38.93	6	0	1	0	1	0	1
12			min	-85.482	2	-181.27	3	20.716	1	0	1	0	1	-597	3
13		2	max	26.743	6	0	1	38.93	6	0	1	.034	6	0	1
14			min	-85.482	2	-181.27	3	20.716	1	0	1	.018	1	-.439	3
15		3	max	26.743	6	0	1	38.913	6	0	1	.068	6	0	1
16			min	-85.482	2	-181.27	3	20.716	1	0	1	.036	1	-.28	3
17		4	max	26.743	6	3.573	2	38.867	6	0	1	.102	6	.004	2

Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	lc	y Shear[lb]	lc	z Shear[lb]	lc	Torque[k-ft]	lc	y-y Moment[...]	lc	z-z Moment[...]	lc	
18		min	-85.482	2	-181.27	3	20.716	1	0	1	.054	1	-.122	3	
19	5	max	26.743	6	3.573	2	38.867	6	0	1	.136	6	.04	4	
20		min	-85.482	2	-181.27	3	20.716	1	0	1	.073	1	0	1	
21	M3	1	max	2569.978	2	0	-73.258	6	0	1	.211	2	0	1	
22		min	2422.719	6	-100.624	3	-85.461	2	-.037	3	.19	6	0	1	
23	2	max	2569.978	2	0	1	-73.258	6	0	1	.136	2	.069	3	
24		min	2422.719	6	-56.874	3	-85.461	2	-.037	3	.125	6	0	1	
25	3	max	2569.978	2	0	1	-73.258	6	0	1	.061	6	.1	3	
26		min	2422.719	6	-44.474	4	-85.461	2	-.037	3	.057	1	0	1	
27	4	max	2569.978	2	30.626	3	-73.258	6	0	1	-.003	6	.117	4	
28		min	2422.719	6	-44.474	4	-85.461	2	-.037	3	-.014	2	0	1	
29	5	max	2569.978	2	74.376	3	-73.258	6	0	1	-.067	6	.156	4	
30		min	2422.719	6	-44.474	4	-85.461	2	-.037	3	-.088	2	0	1	
31	M4	1	max	2592.173	2	51.728	4	0	.014	4	.069	6	.156	4	
32		min	2445.481	1	-100	5	-99.999	6	0	1	-.011	2	0	1	
33	2	max	2592.173	2	51.728	4	0	1	.014	4	-.01	1	.114	5	
34		min	2445.481	1	-100	5	-99.999	6	0	1	-.018	6	0	1	
35	3	max	2592.173	2	100	5	100.001	6	.014	4	-.01	1	.201	5	
36		min	2445.481	1	0	1	0	1	0	1	-.106	6	0	1	
37	4	max	2592.173	2	100	5	100.001	6	.014	4	-.01	1	.114	5	
38		min	2445.481	1	0	1	0	1	0	1	-.018	6	0	2	
39	5	max	2592.173	2	100	5	100.001	6	.014	4	.069	6	.046	3	
40		min	2445.481	1	0	1	0	1	0	1	-.011	2	-.025	4	
41	M5	1	max	85.482	2	16.804	4	2479.478	2	0	1	0	.04	4	
42		min	73.255	6	-81.251	3	2376.51	1	0	1	0	1	-.322	3	
43	2	max	85.482	2	16.816	4	1278.987	2	0	1	1.756	2	.025	4	
44		min	73.255	6	-81.361	3	1176.074	1	0	1	1.666	1	-.251	3	
45	3	max	85.482	2	16.823	4	16.067	2	0	1	2.359	2	.011	4	
46		min	73.255	6	-81.445	3	-24.73	4	0	1	2.189	1	-.18	3	
47	4	max	85.482	2	16.824	4	-1223.418	6	0	1	1.681	2	0	2	
48		min	73.255	6	-81.504	3	-1370.855	2	0	1	1.568	1	-.108	3	
49	5	max	85.482	2	16.821	4	-2423.8	6	0	1	-.19	6	0	1	
50		min	73.255	6	-81.537	3	-2571.329	2	0	1	-.211	2	-.037	3	
51	M6	1	max	26.747	6	0	-20.716	1	0	1	0	1	0	1	
52		min	-85.482	2	-181.27	3	-38.906	6	0	1	0	1	-.597	3	
53	2	max	26.747	6	0	1	-20.716	1	0	1	-.018	1	0	1	
54		min	-85.482	2	-181.27	3	-38.906	6	0	1	-.034	6	-.439	3	
55	3	max	26.747	6	0	1	-20.716	1	0	1	-.036	1	0	1	
56		min	-85.482	2	-181.27	3	-38.906	6	0	1	-.068	6	-.28	3	
57	4	max	26.747	6	0	1	-20.716	1	0	1	-.054	1	0	1	
58		min	-85.482	2	-181.27	3	-38.906	6	0	1	-.102	6	-.122	3	
59	5	max	26.747	6	0	1	-20.716	1	0	1	-.073	1	.037	3	
60		min	-85.482	2	-181.27	3	-38.906	6	0	1	-.136	6	0	1	
61	M7	1	max	2569.978	2	7.531	5	85.461	2	.037	3	-.067	6	.046	3
62		min	2422.718	6	-74.376	3	73.257	6	0	1	-.088	2	-.025	4	
63	2	max	2569.978	2	7.531	5	85.461	2	.037	3	-.003	6	.092	3	
64		min	2422.718	6	-30.626	3	73.257	6	0	1	-.014	2	-.019	4	
65	3	max	2569.978	2	13.124	3	85.461	2	.037	3	.061	6	.1	3	
66		min	2422.718	6	-7.254	4	73.257	6	0	1	.057	1	-.013	4	
67	4	max	2569.978	2	56.874	3	85.461	2	.037	3	.136	2	.069	3	
68		min	2422.718	6	-7.254	4	73.257	6	0	1	.125	6	-.006	4	
69	5	max	2569.978	2	100.624	3	85.461	2	.037	3	.211	2	0	1	
70		min	2422.718	6	-7.254	4	73.257	6	0	1	.19	6	0	1	

Envelope AISC 13th ASD Steel Code Checks

	Member	Shape	Code Check	Loc[in]	lc	Shear ...	Loc[in]	Dir	lc	Pnc/om [lb]	Pnt/om [lb]	Mnyy/om [k-ft]	Mnzz/om ...	Cb	LRFD E...
1	M1	RE2x2	.797	19.25	3	.060	38.5	z	2	56498.209	71856.287	2.994	2.994	1...	H1-1b
2	M2	TU2X2X2	.629	0	3	.043	25.813	y	3	14156.312	16210.778	.954	.954	1...	H1-1b
3	M3	TU2x1x2	.872	0	2	.210	0	z	3	7068.776	11892.216	.368	.615	1...	H1-1a
4	M4	TU2x1x2	.661	21	5	.061	0	z	4	7068.776	11892.216	.368	.615	1...	H1-1a
5	M5	RE2x2	.797	19.25	3	.060	38.5	z	2	56498.209	71856.287	2.994	2.994	1...	H1-1b
6	M6	TU2X2X2	.629	0	3	.043	0	y	3	14156.312	16210.778	.954	.954	1...	H1-1b
7	M7	TU2x1x2	.872	42	2	.210	0	z	3	7068.776	11892.216	.368	.615	1...	H1-1a

*** End of Calculations ***