E L E M E N T R E P O R T S
SIGN CONVENTION : BEAM DESIGNERS

ELEM NO	LOAD COMB	NODE NO	AXIAL	SHEAR	MOMENT	MAX MOM/DEFL	DIST
22	1	12	-93.7049	8.3527	-97.2839		
		17	-93.7049	8.3527	111.5340	-0.0408	18.91
	2	12	-140.5170	13.4737	-148.9036		
		17	-140.5170	11.4337	162.4401	-0.0628	18.78
23	1	13	-146.1892	8.5388	-105.4681		
		18	-146.1892	8.5388	108.0031	-0.0322	19.57
	2	13	-219.3067	13.8150	-162.2331		
		18	-219.3067	11.7750	157.6425	-0.0495	19.45
24	1	14	23.8376	-6.4838	75.3663		
		19	23.8376	-6.4838	-86.7290	0.0319	18.89
	2	14	35.5629	-8.7170	110.2263		
		19	35.5629	-10.7570	-133.1996	0.0446	19.15
25	1	15	180.9478	-10.5047	104.2604		
		16	180.9478	-4.2407	-57.9394	-0.0209	4.50
	2	15	260.0549	-15.5250	153.5004		
		16	261.8501	-6.1290	-84.6937	-0.0304	4.47
26	1	16	170.4498	-11.5244	80.6351	-46.1339	11.00
		17	170.4498	3.3356	-9.4428	0.0346	12.92
	2	16	247.1511	-17.0860	118.7580	-69.1878	11.00
		17	248.9463	5.2040	-11.9436	0.0517	12.86
27	1	17	162.0971	-16.8694	102.0912	-83.4721	11.00
		18	162.0971	12.3176	52.0216	0.0518	11.57
	2	17	237.5125	-25.0629	150.4965	-125.1957	11.00
		18	239.3077	18.7176	80.6975	0.0776	11.53
28	1	18	153.5582	-32.2516	160.0247	-194.7431	11.00
		19	153.5582	25.5884	86.7290	0.1526	11.35
	2	18	227.5327	-48.1591	238.3399	-291.4102	11.00
		19	229.3279	38.6009	133.1996	0.2277	11.34

E L E M E N T R E P O R T S

SIGN CONVENTION : BEAM DESIGNERS

EM NO	LOAD COMB	NODE NO	AXIAL	SHEAR	MOMENT	MAX MOM/DEFL	DIST
1	1	1	-777.7683	0.0000	0.0000		
		4	-777.7683	0.0000	0.0000		
	2	1	-1166.8075	0.0000	0.0000		
		4	-1166.8075	0.0000	0.0000		
3	1	4	-685.5667	0.0000	0.0000		
		8	-685.5667	0.0000	0.0000		
	2	4	-1028.5992	0.0000	0.0000		
		8	-1028.5992	0.0000	0.0000		
7	1	8	-505.6851	0.0000	0.0000		
		13	-505.6851	0.0000	0.0000		
	2	8	-758.8514	0.0000	0.0000		
		13	-758.8514	0.0000	0.0000		
9	1	13	-242.2574	0.0000	0.0000		
		19	-242.2574	0.0000	0.0000		
	2	13	-363.4193	0.0000	0.0000		
		19	-363.4193	0.0000	0.0000		

R E A C T I O N S

ODE NO	LOAD COMB	PX	PY	MOMENT
	Units :	K	K	K -Ft
1	1	595.2086	527.8877	0.0000
	2	893.1576	795.5709	0.0000
3	1	12.7828	-56.2323	-0.0000
	2	19.0966	-75.5168	-0.0000

AD COMBINATIONS:

MB 1 : 1.00 X CASE 1

MB 2 : 1.50 X CASE 1
+ 1.20 X CASE 2

R E A C T I O N S

NODE NO	LOAD COMB	PX	PY	MOMENT
6	1	13.6629	-114.7914	0.0000
	2	20.4753	-159.6186	0.0000
10	1	14.7820	-168.3410	0.0000
	2	22.1571	-236.2768	0.0000
15	1	27.7647	-188.5231	0.0000
	2	41.4150	-270.4659	0.0000

SIGN OPTION: 1
EMENTS: 1-28
DE: DESIGN

A I S C - O U T P U T S U M M A R Y

EM O	SHAPE	Fv	Pu / Pn	Mux / Mnx	Muv / Mnv	STRESS RATIO	GOVN CRIT
		K /In ^2	K	K -Ft	K -Ft		
1	W16x36	36.00	-13.36	150.49	0.00	0.96	H1-1b
			74.97	172.80	29.16		
1	W18x50	36.00	-13.36	150.49	0.00	0.61	H1-1b
			122.52	272.70	44.82		
	W21x57	36.00	-13.36	150.49	0.00	0.50	H1-1b
			93.17	348.30	39.96		
1	W24x55	36.00	-13.36	150.49	0.00	0.54	H1-1b
			89.05	323.15	35.91		
	W27x84	36.00	-13.36	150.49	0.00	0.25	H1-1b
			322.32	658.80	89.64		
2	W16x36	36.00	0.00	-150.49	0.00	0.95	H1-1b
			324.36	158.02	29.16		
	W18x40	36.00	0.00	-150.49	0.00	0.96	H1-1b
			361.08	156.85	26.86		
	W21x44	36.00	0.00	-150.49	0.00	0.87	H1-1b
			397.80	172.68	27.54		
2	W24x55	36.00	0.00	-150.49	0.00	0.57	H1-1b
			495.72	266.23	35.91		
	W27x84	36.00	0.00	-150.49	0.00	0.16	H1-1b
			758.88	946.09	89.64		
3	W16x36	36.00	-7.82	140.33	0.00	0.96	H1-1b
			58.06	158.02	29.16		
	W18x50	36.00	-7.82	139.62	0.00	0.55	H1-1b
			94.88	272.70	44.82		
	W21x62	36.00	-7.82	139.26	0.00	0.39	H1-1b
			135.92	388.80	58.59		
3	W24x68	36.00	-7.82	139.11	0.00	0.31	H1-1b
			166.63	477.90	66.15		
	W27x84	36.00	-7.82	138.97	0.00	0.23	H1-1b
			251.92	658.80	89.64		
4	W16x40	36.00	74.82	202.78	0.00	0.95	H1-1b
			382.32	238.99	34.29		
	W18x46	36.00	74.82	202.78	0.00	0.94	H1-1b
			437.40	237.91	31.59		
4	W21x50	36.00	74.82	202.78	0.00	0.84	H1-1b
			476.28	264.95	32.94		
4	W24x55	36.00	74.82	202.78	0.00	0.70	H1-1b
			524.88	323.15	35.91		
	W27x84	36.00	74.82	202.78	0.00	0.35	H1-1b
			803.52	658.80	89.64		

PROGRAM : Steel Beam-Column Design v1.72 PAGE NO.
BPLW. INC. TIME : Wed Feb 26 14:19:06 199
JOB : GSA - 517 GOLD - EXTERIOR FRAME JOB NO. : 1
RUN : 1 DESIGNED BY: _____ CHECKED BY: _____

A I S C - O U T P U T S U M M A R Y

ELEM NO	SHAPE	Fv	Pu / Pn	Mux / Mnx	Muv / Mnv	STRESS RATIO	GOVN CRIT
5	W16x45	36.00	-10.93	186.32	0.00	0.89	H1-1b
			100.36	222.21	39.15		
5	W18x50	36.00	-10.93	186.32	0.00	0.73	H1-1b
			122.52	272.70	44.82		
5	W21x57	36.00	-10.93	186.32	0.00	0.59	H1-1b
			93.17	348.30	39.96		
5	W24x55	36.00	-10.93	186.32	0.00	0.64	H1-1b
			89.05	323.15	35.91		
5	W27x84	36.00	-10.93	186.32	0.00	0.30	H1-1b
			322.32	658.80	89.64		
6	W16x36	36.00	0.00	96.30	0.00	0.61	H1-1b
			324.36	158.02	29.16		
6	W18x35	36.00	0.00	96.30	0.00	0.83	H1-1b
			315.18	116.12	21.76		
6	W21x44	36.00	0.00	96.30	0.00	0.56	H1-1b
			397.80	172.68	27.54		
6	W24x55	36.00	0.00	96.30	0.00	0.36	H1-1b
			495.72	266.23	35.91		
6	W27x84	36.00	0.00	96.30	0.00	0.10	H1-1b
			758.88	946.09	89.64		
7	W16x67	36.00	-97.43	-171.92	0.00	0.79	H1-1a
			275.53	351.00	95.85		
7	W18x76	36.00	-97.43	-168.87	0.00	0.63	H1-1a
			340.38	440.10	113.94		
7	W21x68	36.00	-97.43	-168.10	0.00	0.98	H1-1a
			153.62	432.00	65.88		
7	W24x68	36.00	-97.43	-166.82	0.00	0.90	H1-1a
			166.63	477.90	66.15		
7	W27x84	36.00	-97.43	-164.91	0.00	0.61	H1-1a
			251.92	658.80	89.64		
8	W16x36	36.00	-1.55	110.05	0.00	0.71	H1-1b
			58.06	158.02	29.16		
8	W18x50	36.00	-1.55	109.97	0.00	0.41	H1-1b
			94.88	272.70	44.82		
8	W21x62	36.00	-1.55	109.92	0.00	0.29	H1-1b
			135.92	388.80	58.59		
8	W24x68	36.00	-1.55	109.90	0.00	0.23	H1-1b
			166.63	477.90	66.15		
8	W27x84	36.00	-1.55	109.89	0.00	0.17	H1-1b
			251.92	658.80	89.64		
9	W16x50	36.00	162.42	207.41	0.00	0.87	H1-1a
			476.28	346.62	44.01		
9	W18x50	36.00	162.42	207.41	0.00	0.86	H1-1a
			476.28	358.05	44.82		
9	W21x57	36.00	162.42	207.41	0.00	0.83	H1-1a
			541.08	349.46	39.96		
9	W24x55	36.00	162.42	207.41	0.00	0.88	H1-1a
			524.88	323.15	35.91		
9	W27x84	36.00	162.42	207.41	0.00	0.48	H1-1a
			803.52	658.80	89.64		

A I S C - O U T P U T S U M M A R Y

EM O	SHAPE	Fv	Pu / Pn	Mux / Mnx	Muv / Mnv	STRESS RATIO	GOVN CRIT
10	W16x45	36.00	165.87	156.31	0.00	0.96	H1-1a
			430.92	241.31	39.15		
	W18x50	36.00	165.87	156.31	0.00	0.81	H1-1a
			476.28	300.09	44.82		
	W21x50	36.00	165.87	156.31	0.00	0.97	H1-1a
			476.28	222.06	32.94		
10	W24x55	36.00	165.87	156.31	0.00	0.83	H1-1a
			524.88	270.84	35.91		
	W27x84	36.00	165.87	156.31	0.00	0.42	H1-1a
			803.52	658.80	89.64		
11	W16x50	36.00	-6.37	225.33	0.00	0.94	H1-1b
			113.77	248.40	44.01		
	W18x50	36.00	-6.37	225.33	0.00	0.85	H1-1b
			122.52	272.70	44.82		
11	W21x57	36.00	-6.37	225.33	0.00	0.81	H1-1b
			93.17	289.19	39.96		
11	W24x55	36.00	-6.37	225.33	0.00	0.88	H1-1b
			89.05	267.41	35.91		
	W27x84	36.00	-6.37	225.33	0.00	0.35	H1-1b
			322.32	658.80	89.64		
12	W16x36	36.00	0.00	-111.11	0.00	0.70	H1-1b
			324.36	158.02	29.16		
	W18x35	36.00	0.00	-111.11	0.00	0.96	H1-1b
			315.18	116.12	21.76		
12	W21x44	36.00	0.00	-111.11	0.00	0.64	H1-1b
			397.80	172.68	27.54		
12	W24x55	36.00	0.00	-111.11	0.00	0.42	H1-1b
			495.72	266.23	35.91		
	W27x84	36.00	0.00	-111.11	0.00	0.12	H1-1b
			758.88	946.09	89.64		
13	W16x67	36.00	-89.11	-159.63	0.00	0.73	H1-1a
			275.53	351.00	95.85		
	W18x71	36.00	-89.11	-157.93	0.00	0.98	H1-1a
			142.51	391.50	66.69		
13	W21x68	36.00	-89.11	-156.40	0.00	0.90	H1-1a
			153.62	432.00	65.88		
	W24x68	36.00	-89.11	-155.31	0.00	0.82	H1-1a
			166.63	477.90	66.15		
	W27x84	36.00	-89.11	-153.68	0.00	0.56	H1-1a
			251.92	658.80	89.64		
14	W16x77	36.00	-167.60	-152.67	0.00	0.86	H1-1a
			318.09	405.00	110.97		
	W18x76	36.00	-167.60	-150.56	0.00	0.80	H1-1a
			340.38	440.10	113.94		
14	W21x93	36.00	-167.60	-146.91	0.00	0.98	H1-1a
			219.11	596.70	93.69		
	W24x84	36.00	-167.60	-146.10	0.00	0.97	H1-1a
			222.66	604.80	88.02		
	W27x84	36.00	-167.60	-145.17	0.00	0.86	H1-1a
			251.92	658.80	89.64		

PROGRAM : Steel Beam-Column Design v1.72 PAGE NO.
SPLW. INC. TIME : Wed Feb 26 14:19:09 199
JOB : GSA - 517 GOLD - EXTERIOR FRAME JOB NO. : 1
RUN : 1 DESIGNED BY: _____ CHECKED BY: _____

A I S C - O U T P U T S U M M A R Y

ELEM NO	SHAPE	Fv	Pu / Pn	Mux / Mnx	Muv / Mnv	STRESS RATIO	GOVN CRIT
15	W16x26	36.00	10.21	57.30	0.00	0.90	H1-1b
			248.83	65.35	14.80		
15	W18x35	36.00	10.21	57.30	0.00	0.51	H1-1b
			333.72	116.12	21.76		
15	W21x44	36.00	10.21	57.30	0.00	0.34	H1-1b
			421.20	172.68	27.54		
15	W24x55	36.00	10.21	57.30	0.00	0.22	H1-1b
			524.88	266.23	35.91		
15	W27x84	36.00	10.21	57.30	0.00	0.07	H1-1b
			803.52	946.09	89.64		
16	W16x67	36.00	241.37	230.60	0.00	0.96	H1-1a
			638.28	351.00	95.85		
16	W18x55	36.00	241.37	230.60	0.00	0.94	H1-1a
			524.88	424.71	49.95		
16	W21x62	36.00	241.37	230.60	0.00	0.77	H1-1a
			592.92	558.66	58.59		
16	W24x62	36.00	241.37	230.60	0.00	0.92	H1-1a
			589.68	400.72	42.39		
16	W27x84	36.00	241.37	230.60	0.00	0.61	H1-1a
			803.52	658.80	89.64		
17	W16x67	36.00	249.04	182.36	0.00	0.85	H1-1a
			638.28	351.00	95.85		
17	W18x50	36.00	249.04	182.36	0.00	0.99	H1-1a
			476.28	347.67	44.82		
17	W21x57	36.00	249.04	182.36	0.00	0.94	H1-1a
			541.08	339.33	39.96		
17	W24x55	36.00	249.04	182.36	0.00	0.99	H1-1a
			524.88	313.78	35.91		
17	W27x84	36.00	249.04	182.36	0.00	0.56	H1-1a
			803.52	658.80	89.64		
18	W16x67	36.00	255.08	189.12	0.00	0.88	H1-1a
			638.28	351.00	95.85		
18	W18x60	36.00	255.08	189.12	0.00	1.00	H1-1a
			570.24	306.73	55.62		
18	W21x62	36.00	255.08	189.12	0.00	0.91	H1-1a
			592.92	348.56	58.59		
18	W24x68	36.00	255.08	189.12	0.00	0.78	H1-1a
			651.24	438.40	66.15		
18	W27x84	36.00	255.08	189.12	0.00	0.57	H1-1a
			803.52	657.46	89.64		
19	W16x67	36.00	6.92	282.20	0.00	0.81	H1-1b
			638.28	351.00	95.85		
19	W18x60	36.00	6.92	282.20	0.00	0.96	H1-1b
			570.24	296.18	55.62		
19	W21x62	36.00	6.92	282.20	0.00	0.84	H1-1b
			592.92	336.57	58.59		
19	W24x68	36.00	6.92	282.20	0.00	0.67	H1-1b
			651.24	423.32	66.15		
19	W27x84	36.00	6.92	282.20	0.00	0.45	H1-1b
			803.52	634.84	89.64		

A I S C - O U T P U T S U M M A R Y

EM ID	SHAPE	Fv	Pu / Pn	Mux / Mnx	Muv / Mnv	STRESS RATIO	GOVN CRIT
20	W16x36	36.00	0.00	153.50	0.00	0.97	H1-1b
			324.36	158.02	29.16		
[redacted]	W18x40	36.00	0.00	153.50	0.00	0.98	H1-1b
			361.08	156.85	26.86		
[redacted]	W21x44	36.00	0.00	153.50	0.00	0.89	H1-1b
			397.80	172.68	27.54		
20	W24x55	36.00	0.00	153.50	0.00	0.58	H1-1b
			495.72	266.23	35.91		
[redacted]	W27x84	36.00	0.00	153.50	0.00	0.16	H1-1b
			758.88	946.09	89.64		
21	W16x67	36.00	-79.03	212.49	0.00	0.82	H1-1a
			275.53	351.00	95.85		
[redacted]	W18x76	36.00	-79.03	209.86	0.00	0.66	H1-1a
			340.38	440.10	113.94		
[redacted]	W21x68	36.00	-79.03	209.19	0.00	0.94	H1-1a
			153.62	432.00	65.88		
[redacted]	W24x68	36.00	-79.03	208.07	0.00	0.86	H1-1a
			166.63	477.90	66.15		
[redacted]	W27x84	36.00	-79.03	206.39	0.00	0.59	H1-1a
			251.92	658.80	89.64		
22	W16x67	36.00	-140.52	174.31	0.00	0.95	H1-1a
			275.53	351.00	95.85		
[redacted]	W18x76	36.00	-140.52	170.78	0.00	0.76	H1-1a
			340.38	440.10	113.94		
[redacted]	W21x93	36.00	-140.52	167.70	0.00	0.89	H1-1a
			219.11	596.70	93.69		
[redacted]	W24x76	36.00	-140.52	167.63	0.00	0.99	H1-1a
			195.76	540.00	77.22		
[redacted]	W27x84	36.00	-140.52	166.23	0.00	0.78	H1-1a
			251.92	658.80	89.64		
23	W16x89	36.00	-219.31	-175.96	0.00	0.92	H1-1a
			373.37	472.50	129.87		
[redacted]	W18x76	36.00	-219.31	-175.62	0.00	1.00	H1-1a
			340.38	440.10	113.94		
[redacted]	W21x101	36.00	-219.31	-169.33	0.00	0.64	H1-1a
			517.09	683.10	166.59		
[redacted]	W24x103	36.00	-219.31	-167.91	0.00	0.97	H1-1a
			284.46	756.00	112.05		
[redacted]	W27x94	36.00	-219.31	-167.42	0.00	0.94	H1-1a
			295.14	750.60	104.76		
24	W16x36	36.00	35.56	-133.20	0.00	0.89	H1-1b
			343.44	158.02	29.16		
[redacted]	W18x40	36.00	35.56	-133.20	0.00	0.90	H1-1b
			382.32	156.85	26.86		
24	W21x44	36.00	35.56	-133.20	0.00	0.81	H1-1b
			421.20	172.68	27.54		
[redacted]	W24x55	36.00	35.56	-133.20	0.00	0.53	H1-1b
			524.88	266.23	35.91		
[redacted]	W27x84	36.00	35.56	-133.20	0.00	0.16	H1-1b
			803.52	946.09	89.64		

PROGRAM : Steel Beam-Column Design v1.72 PAGE NO.
BPLW. INC. TIME : Wed Feb 26 14:19:12 199
JOB : GSA - 517 GOLD - EXTERIOR FRAME JOB NO. : 1
RUN : 1 DESIGNED BY: _____ CHECKED BY: _____

A I S C - O U T P U T S U M M A R Y

ELEM NO	SHAPE	Fv	Pu / Pn	Mux / Mnx	Muv / Mnv	STRESS RATIO	GOVN CRIT
25	W16x50	36.00	260.05	153.50	0.00	0.94	H1-1a
			476.28	346.62	44.01		
25	W18x50	36.00	260.05	153.50	0.00	0.93	H1-1a
			476.28	358.05	44.82		
25	W21x57	36.00	260.05	153.50	0.00	0.87	H1-1a
			541.08	349.46	39.96		
25	W24x55	36.00	260.05	153.50	0.00	0.92	H1-1a
			524.88	323.15	35.91		
25	W27x84	36.00	260.05	153.50	0.00	0.53	H1-1a
			803.52	658.80	89.64		
26	W16x50	36.00	247.15	118.76	0.00	0.90	H1-1a
			476.28	280.10	44.01		
26	W18x50	36.00	247.15	118.76	0.00	0.88	H1-1a
			476.28	289.34	44.82		
26	W21x57	36.00	247.15	118.76	0.00	0.83	H1-1a
			541.08	282.40	39.96		
26	W24x55	36.00	247.15	118.76	0.00	0.88	H1-1a
			524.88	261.14	35.91		
26	W27x84	36.00	247.15	118.76	0.00	0.47	H1-1a
			803.52	658.80	89.64		
27	W16x67	36.00	237.51	150.50	0.00	0.75	H1-1a
			638.28	351.00	95.85		
27	W18x60	36.00	237.51	150.50	0.00	0.91	H1-1a
			570.24	272.16	55.62		
27	W21x62	36.00	237.51	150.50	0.00	0.83	H1-1a
			592.92	309.26	58.59		
27	W24x68	36.00	237.51	150.50	0.00	0.71	H1-1a
			651.24	388.98	66.15		
27	W27x84	36.00	237.51	150.50	0.00	0.52	H1-1a
			803.52	583.34	89.64		
28	W16x89	36.00	228.43	-291.41	0.00	0.91	H1-1a
			848.88	402.37	129.87		
28	W18x86	36.00	228.43	-291.41	0.00	0.89	H1-1a
			819.72	421.98	130.68		
28	W21x83	36.00	228.43	-291.41	0.00	1.00	H1-1a
			787.32	366.46	82.35		
28	W24x84	36.00	228.43	-291.41	0.00	0.91	H1-1a
			800.28	416.18	88.02		
28	W27x84	36.00	228.43	-291.41	0.00	0.85	H1-1a
			803.52	458.15	89.64		

SIGN OPTION: 2
ENTS: 29-32
DE: DESIGN

A I S C - O U T P U T S U M M A R Y

EM ID	SHAPE	Fv	Pu / Pn	Mux / Mnx	Muv / Mnv	STRESS RATIO	GOVN CRIT
		K /In ^2	K	K -Ft	K -Ft		
29	W12x136	50.00	-1166.81	0.00	0.00	0.92	H1-1a
			1265.95	772.41	367.50		
[illegible]	W14x120	50.00	-1166.81	0.00	0.00	0.96	H1-1a
			1217.69	771.63	382.50		
[illegible]	W12x120	50.00	-1028.60	0.00	0.00	0.92	H1-1a
			1113.71	667.56	320.25		
30	W14x109	50.00	-1028.60	0.00	0.00	0.93	H1-1a
			1102.62	696.80	347.62		
[illegible]	W12x87	50.00	-758.85	0.00	0.00	0.95	H1-1a
			798.23	465.30	226.50		
31	W14x90	50.00	-758.85	0.00	0.00	0.83	H1-1a
			909.99	566.22	283.50		
[illegible]	W16x100	50.00	-758.85	0.00	0.00	0.97	H1-1a
			786.19	659.56	205.88		
[illegible]	W12x53	50.00	-363.42	0.00	0.00	0.88	H1-1a
			412.48	254.51	109.13		
32	W14x61	50.00	-363.42	0.00	0.00	0.78	H1-1a
			467.80	330.46	123.00		
[illegible]	W16x67	50.00	-363.42	0.00	0.00	0.70	H1-1a
			516.87	415.77	133.13		

BPLW

Architects & Engineers, Inc.

2400 Louisiana Blvd. NE
AFC #5 Suite 400
Albuquerque, NM 87110
(505) 881-2759

63 East Main Street
Suite 602
Mesa, AZ 85201
(602) 827-2759

Project _____

Subject _____

Project No. _____ Date _____ By _____

- ☐ Memorandum
- ☐ Telephone record
- ☐ Note to the file
- ☐ Minutes of meeting
- ☐ To be typed
- ☐ _____

DESIGN FDN FOR MRF

REACTIONS ON PILES

MAIN PILE $P = 550^k$ (4)
OTHERS $P = 200^k$ (22)

MAIN PILE - ASSUME 2500 psf ALLOWABLE

MAIN PILE 5' ϕ x 35'
4.33' ϕ x 40'
4' ϕ x 45' ← USE

OTHER PILES 3' ϕ 35' DEEP

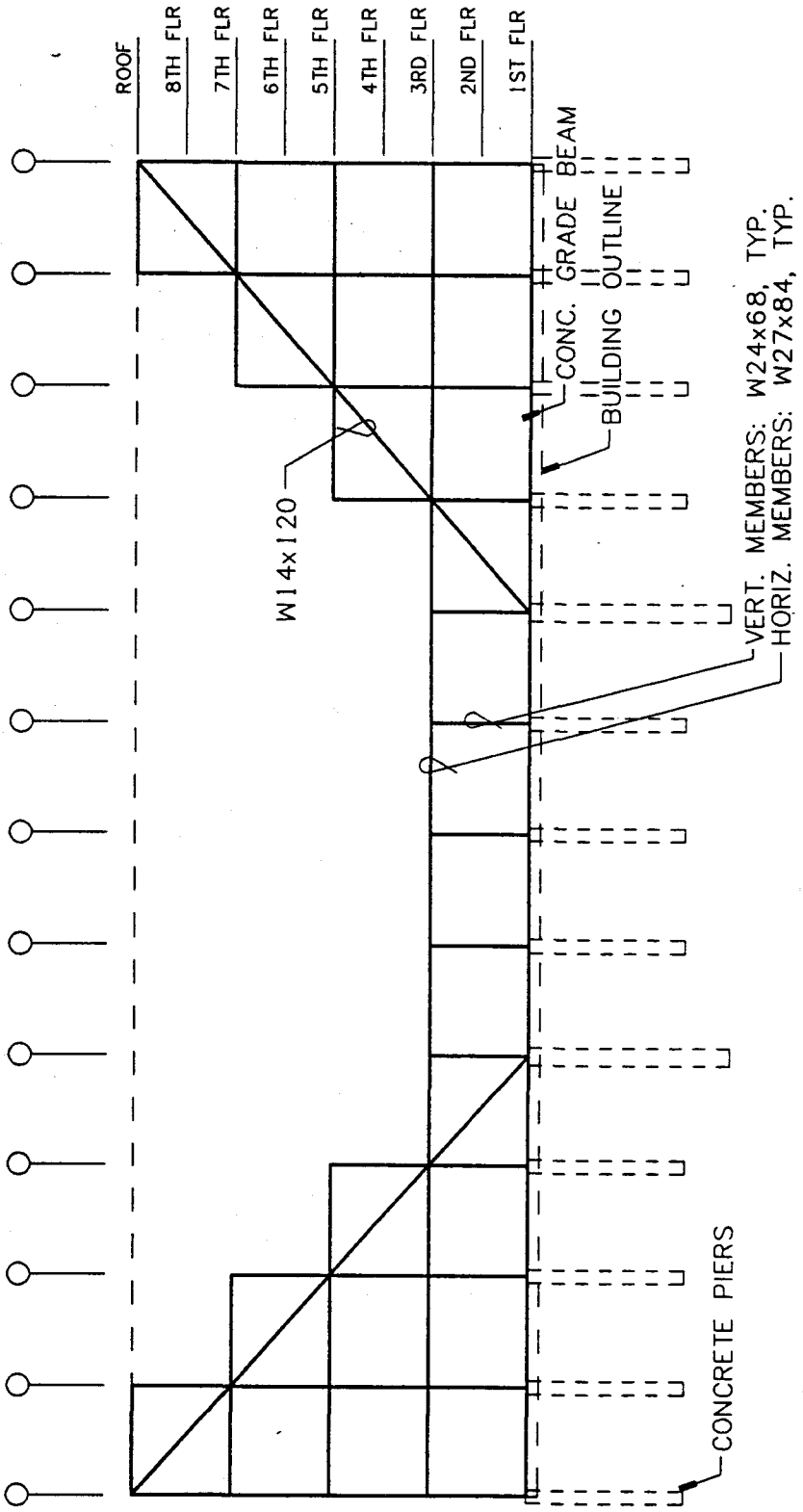
Copies to:

Page of

BPLW
Architects & Engineers, Inc.

2400 Louisiana Blvd. NE
AFC #5 Suite 400
Albuquerque, New Mexico 87110
(505) 881-2759

63 East Main Street
Suite 602
Mesa, Arizona 85201
(602) 827-2759



OPTION 2A
FRAMING ELEVATION
N.T.S.

BPLW

Architects & Engineers, Inc.

2400 Louisiana Blvd. NE
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Albuquerque, NM 87110
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63 East Main Street
Suite 602
Mesa, AZ 85201
(602) 827-2759

Project _____

Subject _____

Project No. _____ Date _____ By _____

- ☐ Memorandum
- ☐ Telephone record
- ☐ Note to the file
- ☐ Minutes of meeting
- ☐ To be typed
- ☐ _____

OPTION 2B

SEISMIC ANALYSIS

Copies to:

June 1990

Designing to Shape the Future

	10	20	30	40	50	60	70	80	90	100	110	120	130
9	18 9 27	36 19 45	54 29 63	72 39 81	90 49 99	108 59 117	126 69 135	144 79 153	162 89 171	180 99 189	198 109 207	216 119 225	129
8	17 8 26	35 18 44	53 28 62	71 38 80	89 48 98	107 58 116	125 68 134	143 78 152	161 88 170	179 98 188	197 108 206	215 118 224	128
7	16 7 25	34 17 43	52 27 61	70 37 79	88 47 97	106 57 115	124 67 133	142 77 151	160 87 168	178 97 187	196 107 205	214 117 223	127
6	15 6 24	33 16 42	51 26 60	69 36 78	87 46 96	105 56 114	123 66 132	141 76 150	159 86 168	177 96 186	195 106 204	213 116 222	126
5	14 5 23	32 15 41	50 25 59	68 35 77	86 45 95	104 55 113	122 65 131	140 75 149	158 85 167	176 95 185	194 105 203	212 115 221	125
4	13 4 22	31 14 40	49 24 58	67 34 76	85 44 94	103 54 112	121 64 130	139 74 148	157 84 166	175 94 184	193 104 202	211 114 220	124
3	12 3 21	30 13 39	48 23 57	66 33 75	84 43 93	102 53 111	120 63 129	138 73 147	156 83 165	174 93 183	192 103 201	210 113 219	123
2	11 2 20	29 12 38	47 22 56	65 32 74	83 42 92	101 52 110	119 62 128	137 72 146	155 82 164	173 92 182	191 102 200	209 112 218	122

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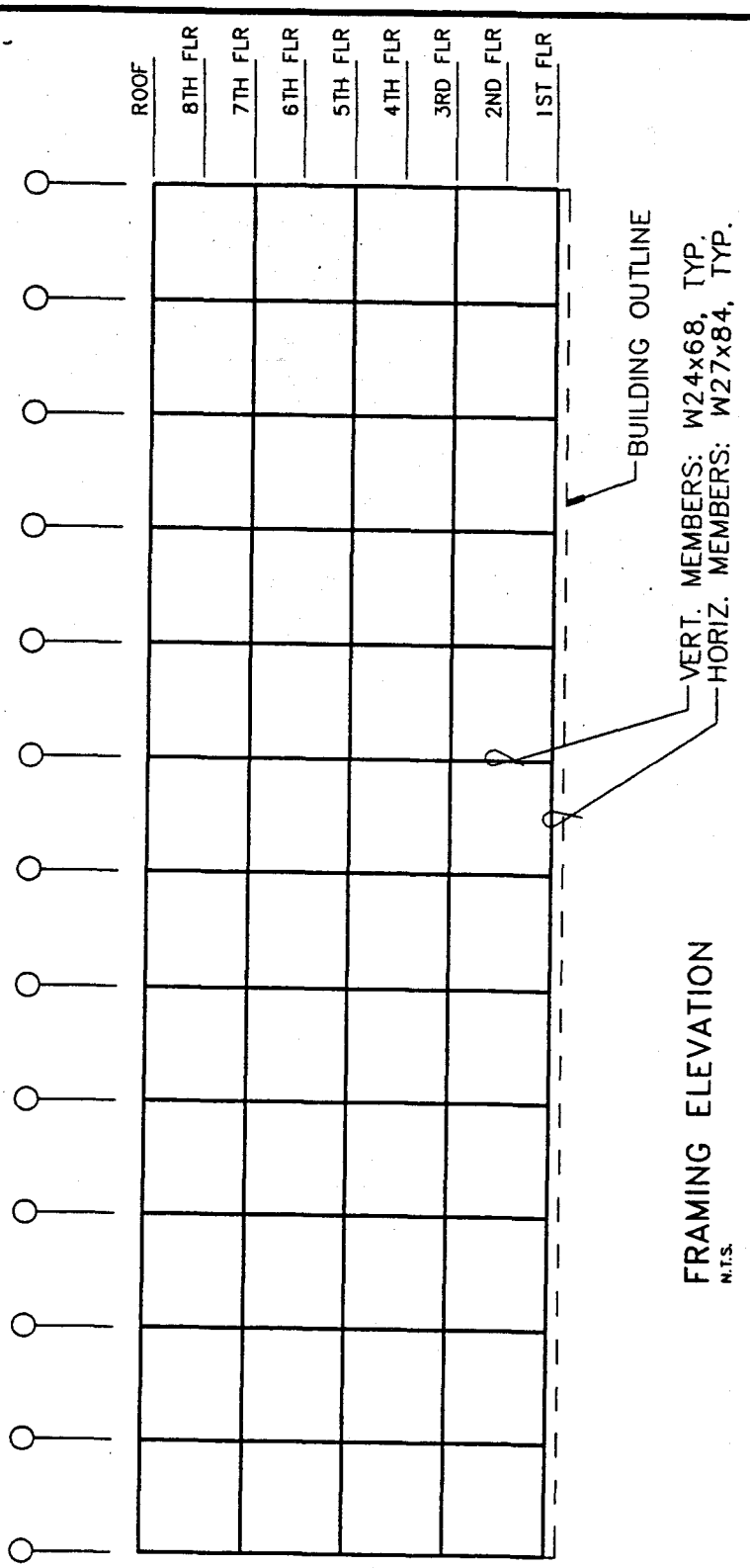

FRAMING ELEVATION

N.T.S.

N O D A L I N F O R M A T I O N

NODE NO	NODAL COORDINATES X	Y	SUPPORT CONDITIONS CODE	PX STIFF	PY STIFF	M STIFF
Units :	Ft	Ft		K /In	K /In	K -In /Deg
2	0.000	13.500	F			
3	0.000	24.500				
4	0.000	35.500				
5	0.000	46.500				
6	0.000	57.500				
7	0.000	68.500				
8	0.000	79.500				
9	0.000	90.500				
10	0.000	101.500				
12	25.000	13.500	F			
13	25.000	24.500				
14	25.000	35.500				
15	25.000	46.500				
16	25.000	57.500				
17	25.000	68.500				
18	25.000	79.500				
19	25.000	90.500				
20	25.000	101.500				
22	50.000	13.500	F			
23	50.000	24.500				
24	50.000	35.500				
25	50.000	46.500				
26	50.000	57.500				
27	50.000	68.500				
28	50.000	79.500				
29	50.000	90.500				
30	50.000	101.500				
32	75.000	13.500	F			
33	75.000	24.500				
34	75.000	35.500				
35	75.000	46.500				
36	75.000	57.500				
37	75.000	68.500				
38	75.000	79.500				
39	75.000	90.500				
40	75.000	101.500				
42	100.000	13.500	F			
43	100.000	24.500				
44	100.000	35.500				
45	100.000	46.500				
46	100.000	57.500				
47	100.000	68.500				
48	100.000	79.500				
49	100.000	90.500				
50	100.000	101.500				
52	125.000	13.500	F			
53	125.000	24.500				

N O D A L I N F O R M A T I O N

NODE NO	NODAL COORDINATES X	Y	SUPPORT CONDITIONS CODE	PX STIFF	PY STIFF	M STIFF
54	125.000	33.500				
55	125.000	46.500				
56	125.000	57.500				
57	125.000	68.500				
58	125.000	79.500				
59	125.000	90.500				
60	125.000	101.500				
62	150.000	13.500	F			
63	150.000	24.500				
64	150.000	35.500				
65	150.000	46.500				
66	150.000	57.500				
67	150.000	68.500				
68	150.000	79.500				
69	150.000	90.500				
70	150.000	101.500				
72	175.000	13.500	F			
73	175.000	24.500				
74	175.000	35.500				
75	175.000	46.500				
76	175.000	57.500				
77	175.000	68.500				
78	175.000	79.500				
79	175.000	90.500				
80	175.000	101.500				
82	200.000	13.500	F			
83	200.000	24.500				
84	200.000	35.500				
85	200.000	46.500				
86	200.000	57.500				
87	200.000	68.500				
88	200.000	79.500				
89	200.000	90.500				
90	200.000	101.500				
92	225.000	13.500	F			
93	225.000	24.500				
94	225.000	35.500				
95	225.000	46.500				
96	225.000	57.500				
97	225.000	68.500				
98	225.000	79.500				
99	225.000	90.500				
100	225.000	101.500				
102	250.000	13.500	F			
103	250.000	24.500				
104	250.000	35.500				
105	250.000	46.500				
106	250.000	57.500				
107	250.000	68.500				
108	250.000	79.500				

N O D A L I N F O R M A T I O N

NODE ID	NODAL COORDINATES X	Y	SUPPORT CONDITIONS CODE	PX STIFF	PY STIFF	M STIFF
109	250.000	90.500				
0	250.000	101.500				
2	275.000	13.500	F			
113	275.000	24.500				
4	275.000	35.500				
5	275.000	46.500				
116	275.000	57.500				
7	275.000	68.500				
8	275.000	79.500				
19	275.000	90.500				
120	275.000	101.500				
2	300.000	13.500	F			
3	300.000	24.500				
124	300.000	35.500				
5	300.000	46.500				
6	300.000	57.500				
127	300.000	68.500				
8	300.000	79.500				
9	300.000	90.500				
0	300.000	101.500				

E L E M E N T I N F O R M A T I O N

ELEM NO	NE NODE	PE NODE	ELEM LENGTH	BETA ANGLE	PROP TYPE	ELEM TYPE	NE HINGE	PE HINGE
			Units : Ft	Deg				
2	2	3	11.000	90.00	1	BEAM		
3	3	4	11.000	90.00	1	BEAM		
4	4	5	11.000	90.00	1	BEAM		
5	5	6	11.000	90.00	1	BEAM		
6	6	7	11.000	90.00	1	BEAM		
7	7	8	11.000	90.00	1	BEAM		
8	8	9	11.000	90.00	1	BEAM		
9	9	10	11.000	90.00	1	BEAM		
10	2	12	25.000	0.00	3	BEAM		
11	3	13	25.000	0.00	2	BEAM		
12	4	14	25.000	0.00	2	BEAM		
13	5	15	25.000	0.00	2	BEAM		
14	6	16	25.000	0.00	2	BEAM		
15	7	17	25.000	0.00	2	BEAM		
16	8	18	25.000	0.00	2	BEAM		
17	9	19	25.000	0.00	2	BEAM		
18	10	20	25.000	0.00	2	BEAM		
0	12	13	11.000	90.00	1	BEAM		
1	13	14	11.000	90.00	1	BEAM		
22	14	15	11.000	90.00	1	BEAM		
3	15	16	11.000	90.00	1	BEAM		

E L E M E N T I N F O R M A T I O N

ELEM NO	NE NODE	PE NODE	ELEM LENGTH	BETA ANGLE	PROP TYPE	ELEM TYPE	NE HINGE	PE HINGE
24	16	17	11.000	90.00	1	BEAM		
25	17	18	11.000	90.00	1	BEAM		
26	18	19	11.000	90.00	1	BEAM		
27	19	20	11.000	90.00	1	BEAM		
28	12	22	25.000	0.00	3	BEAM		
29	13	23	25.000	0.00	2	BEAM		
30	14	24	25.000	0.00	2	BEAM		
31	15	25	25.000	0.00	2	BEAM		
32	16	26	25.000	0.00	2	BEAM		
33	17	27	25.000	0.00	2	BEAM		
34	18	28	25.000	0.00	2	BEAM		
35	19	29	25.000	0.00	2	BEAM		
36	20	30	25.000	0.00	2	BEAM		
38	22	23	11.000	90.00	1	BEAM		
39	23	24	11.000	90.00	1	BEAM		
40	24	25	11.000	90.00	1	BEAM		
41	25	26	11.000	90.00	1	BEAM		
42	26	27	11.000	90.00	1	BEAM		
43	27	28	11.000	90.00	1	BEAM		
44	28	29	11.000	90.00	1	BEAM		
45	29	30	11.000	90.00	1	BEAM		
46	22	32	25.000	0.00	3	BEAM		
47	23	33	25.000	0.00	2	BEAM		
48	24	34	25.000	0.00	2	BEAM		
49	25	35	25.000	0.00	2	BEAM		
50	26	36	25.000	0.00	2	BEAM		
51	27	37	25.000	0.00	2	BEAM		
52	28	38	25.000	0.00	2	BEAM		
53	29	39	25.000	0.00	2	BEAM		
54	30	40	25.000	0.00	2	BEAM		
56	32	33	11.000	90.00	1	BEAM		
57	33	34	11.000	90.00	1	BEAM		
58	34	35	11.000	90.00	1	BEAM		
59	35	36	11.000	90.00	1	BEAM		
60	36	37	11.000	90.00	1	BEAM		
61	37	38	11.000	90.00	1	BEAM		
62	38	39	11.000	90.00	1	BEAM		
63	39	40	11.000	90.00	1	BEAM		
64	32	42	25.000	0.00	3	BEAM		
65	33	43	25.000	0.00	2	BEAM		
66	34	44	25.000	0.00	2	BEAM		
67	35	45	25.000	0.00	2	BEAM		
68	36	46	25.000	0.00	2	BEAM		
69	37	47	25.000	0.00	2	BEAM		
70	38	48	25.000	0.00	2	BEAM		
71	39	49	25.000	0.00	2	BEAM		
72	40	50	25.000	0.00	2	BEAM		
74	42	43	11.000	90.00	1	BEAM		
75	43	44	11.000	90.00	1	BEAM		
76	44	45	11.000	90.00	1	BEAM		

E L E M E N T I N F O R M A T I O N

ELEM NO	NE NODE	PE NODE	ELEM LENGTH	BETA ANGLE	PROP TYPE	ELEM TYPE	NE HINGE	PE HINGE
77	45	46	11.000	90.00	1	BEAM		
78	46	47	11.000	90.00	1	BEAM		
79	47	48	11.000	90.00	1	BEAM		
80	48	49	11.000	90.00	1	BEAM		
81	49	50	11.000	90.00	1	BEAM		
82	42	52	25.000	0.00	3	BEAM		
83	43	53	25.000	0.00	2	BEAM		
84	44	54	25.000	0.00	2	BEAM		
85	45	55	25.000	0.00	2	BEAM		
86	46	56	25.000	0.00	2	BEAM		
87	47	57	25.000	0.00	2	BEAM		
88	48	58	25.000	0.00	2	BEAM		
89	49	59	25.000	0.00	2	BEAM		
90	50	60	25.000	0.00	2	BEAM		
92	52	53	11.000	90.00	1	BEAM		
93	53	54	11.000	90.00	1	BEAM		
94	54	55	11.000	90.00	1	BEAM		
95	55	56	11.000	90.00	1	BEAM		
96	56	57	11.000	90.00	1	BEAM		
97	57	58	11.000	90.00	1	BEAM		
98	58	59	11.000	90.00	1	BEAM		
99	59	60	11.000	90.00	1	BEAM		
100	52	62	25.000	0.00	3	BEAM		
101	53	63	25.000	0.00	2	BEAM		
102	54	64	25.000	0.00	2	BEAM		
103	55	65	25.000	0.00	2	BEAM		
104	56	66	25.000	0.00	2	BEAM		
105	57	67	25.000	0.00	2	BEAM		
106	58	68	25.000	0.00	2	BEAM		
107	59	69	25.000	0.00	2	BEAM		
108	60	70	25.000	0.00	2	BEAM		
110	62	63	11.000	90.00	1	BEAM		
111	63	64	11.000	90.00	1	BEAM		
112	64	65	11.000	90.00	1	BEAM		
113	65	66	11.000	90.00	1	BEAM		
114	66	67	11.000	90.00	1	BEAM		
115	67	68	11.000	90.00	1	BEAM		
116	68	69	11.000	90.00	1	BEAM		
117	69	70	11.000	90.00	1	BEAM		
118	62	72	25.000	0.00	3	BEAM		
119	63	73	25.000	0.00	2	BEAM		
120	64	74	25.000	0.00	2	BEAM		
121	65	75	25.000	0.00	2	BEAM		
122	66	76	25.000	0.00	2	BEAM		
123	67	77	25.000	0.00	2	BEAM		
124	68	78	25.000	0.00	2	BEAM		
125	69	79	25.000	0.00	2	BEAM		
126	70	80	25.000	0.00	2	BEAM		
128	72	73	11.000	90.00	1	BEAM		
129	73	74	11.000	90.00	1	BEAM		

E L E M E N T I N F O R M A T I O N

ELEM NO	NE NODE	PE NODE	ELEM LENGTH	BETA ANGLE	PROP TYPE	ELEM TYPE	NE HINGE	PE HINGE
130	74	75	11.000	90.00	1	BEAM		
131	75	76	11.000	90.00	1	BEAM		
132	76	77	11.000	90.00	1	BEAM		
133	77	78	11.000	90.00	1	BEAM		
134	78	79	11.000	90.00	1	BEAM		
135	79	80	11.000	90.00	1	BEAM		
136	72	82	25.000	0.00	3	BEAM		
137	73	83	25.000	0.00	2	BEAM		
138	74	84	25.000	0.00	2	BEAM		
139	75	85	25.000	0.00	2	BEAM		
140	76	86	25.000	0.00	2	BEAM		
141	77	87	25.000	0.00	2	BEAM		
142	78	88	25.000	0.00	2	BEAM		
143	79	89	25.000	0.00	2	BEAM		
144	80	90	25.000	0.00	2	BEAM		
146	82	83	11.000	90.00	1	BEAM		
147	83	84	11.000	90.00	1	BEAM		
148	84	85	11.000	90.00	1	BEAM		
149	85	86	11.000	90.00	1	BEAM		
150	86	87	11.000	90.00	1	BEAM		
151	87	88	11.000	90.00	1	BEAM		
152	88	89	11.000	90.00	1	BEAM		
153	89	90	11.000	90.00	1	BEAM		
154	82	92	25.000	0.00	3	BEAM		
155	83	93	25.000	0.00	2	BEAM		
156	84	94	25.000	0.00	2	BEAM		
157	85	95	25.000	0.00	2	BEAM		
158	86	96	25.000	0.00	2	BEAM		
159	87	97	25.000	0.00	2	BEAM		
160	88	98	25.000	0.00	2	BEAM		
161	89	99	25.000	0.00	2	BEAM		
162	90	100	25.000	0.00	2	BEAM		
164	92	93	11.000	90.00	1	BEAM		
165	93	94	11.000	90.00	1	BEAM		
166	94	95	11.000	90.00	1	BEAM		
167	95	96	11.000	90.00	1	BEAM		
168	96	97	11.000	90.00	1	BEAM		
169	97	98	11.000	90.00	1	BEAM		
170	98	99	11.000	90.00	1	BEAM		
171	99	100	11.000	90.00	1	BEAM		
172	92	102	25.000	0.00	3	BEAM		
173	93	103	25.000	0.00	2	BEAM		
174	94	104	25.000	0.00	2	BEAM		
175	95	105	25.000	0.00	2	BEAM		
176	96	106	25.000	0.00	2	BEAM		
177	97	107	25.000	0.00	2	BEAM		
178	98	108	25.000	0.00	2	BEAM		
179	99	109	25.000	0.00	2	BEAM		
180	100	110	25.000	0.00	2	BEAM		
182	102	103	11.000	90.00	1	BEAM		

E L E M E N T I N F O R M A T I O N

ELEM NO	NE NODE	PE NODE	ELEM LENGTH	BETA ANGLE	PROP TYPE	ELEM TYPE	NE HINGE	FE HINGE
183	103	104	11.000	90.00	1	BEAM		
184	104	105	11.000	90.00	1	BEAM		
185	105	106	11.000	90.00	1	BEAM		
186	106	107	11.000	90.00	1	BEAM		
187	107	108	11.000	90.00	1	BEAM		
188	108	109	11.000	90.00	1	BEAM		
189	109	110	11.000	90.00	1	BEAM		
190	102	112	25.000	0.00	3	BEAM		
191	103	113	25.000	0.00	2	BEAM		
192	104	114	25.000	0.00	2	BEAM		
193	105	115	25.000	0.00	2	BEAM		
194	106	116	25.000	0.00	2	BEAM		
195	107	117	25.000	0.00	2	BEAM		
196	108	118	25.000	0.00	2	BEAM		
197	109	119	25.000	0.00	2	BEAM		
198	110	120	25.000	0.00	2	BEAM		
200	112	113	11.000	90.00	1	BEAM		
201	113	114	11.000	90.00	1	BEAM		
202	114	115	11.000	90.00	1	BEAM		
203	115	116	11.000	90.00	1	BEAM		
204	116	117	11.000	90.00	1	BEAM		
205	117	118	11.000	90.00	1	BEAM		
206	118	119	11.000	90.00	1	BEAM		
207	119	120	11.000	90.00	1	BEAM		
208	112	122	25.000	0.00	3	BEAM		
209	113	123	25.000	0.00	2	BEAM		
210	114	124	25.000	0.00	2	BEAM		
211	115	125	25.000	0.00	2	BEAM		
212	116	126	25.000	0.00	2	BEAM		
213	117	127	25.000	0.00	2	BEAM		
214	118	128	25.000	0.00	2	BEAM		
215	119	129	25.000	0.00	2	BEAM		
216	120	130	25.000	0.00	2	BEAM		
218	122	123	11.000	90.00	1	BEAM		
219	123	124	11.000	90.00	1	BEAM		
220	124	125	11.000	90.00	1	BEAM		
221	125	126	11.000	90.00	1	BEAM		
222	126	127	11.000	90.00	1	BEAM		
223	127	128	11.000	90.00	1	BEAM		
224	128	129	11.000	90.00	1	BEAM		
225	129	130	11.000	90.00	1	BEAM		

P R O P E R T Y I N F O R M A T I O N

PROP NO	SECTION NAME	MODULUS	AREA	I	DIST
	Units :	K /In 2	In2	In4	Ft

P R O P E R T Y I N F O R M A T I O N

PROP NO	SECTION NAME	MODULUS	AREA	I	DIST
1	W21X62	2.9e+004	18.3	1.33e+003	
2	W27X84	2.9e+004	24.8	2.85e+003	
3	18X36 GRADE BEAM	3.6e+003	648	7e+004	

E L E M E N T L O A D I N F O R M A T I O N

REC NO	LOAD CASE	LOAD TYPE	LOAD SYS	DIST SPEC		DIST	PX	PY	M
					Units :	Ft	K /Ft	K /Ft	Ft-K /Ft
Description : DL MEMBERS									
Element List : 1-225									
1	1	UNIF	GLO	FRAC	B	0.00	0.00	-0.04	0.00
					E	1.00	0.00	-0.04	0.00
Description : DL SKIN									
Element List : 11-18.29-36.47-54.65-72.83-90.101-108.119-126									
2	1	UNIF	GLO	FRAC	B	0.00	0.00	-0.33	0.00
					E	1.00	0.00	-0.33	0.00
Description : DL SKIN									
Element List : 137-144.155-162.173-180.191-198.209-216									
3	1	UNIF	GLO	FRAC	B	0.00	0.00	-0.33	0.00
					E	1.00	0.00	-0.33	0.00

N O D A L L O A D I N F O R M A T I O N

REC NO	LOAD CASE	LOAD TYPE	PX DX	PY DY	M BETA
		Units :	K Ft	K Ft	Ft-K Deg
Description : SEISMIC					
Node List : 2					
1	3	FORCE	34.52	0.00	0.00
Description : SEISMIC					
Node List : 3					
2	3	FORCE	62.64	0.00	0.00
Description : SEISMIC					
Node List : 4					
3	3	FORCE	90.76	0.00	0.00

N O D A L L O A D I N F O R M A T I O N

E N	LOAD CASE	LOAD TYPE	PX DX	PY DY	M BETA
scription : SEISMIC					
de List : 5					
4	3	FORCE	118.88	0.00	0.00
scription : SEISMIC					
de List : 6					
5	3	FORCE	147.00	0.00	0.00
scription : SEISMIC					
de List : 7					
6	3	FORCE	175.13	0.00	0.00
scription : SEISMIC					
de List : 8					
7	3	FORCE	203.25	0.00	0.00
scription : SEISMIC					
de List : 9					
8	3	FORCE	231.37	0.00	0.00
scription : SEISMIC					
de List : 10					
9	3	FORCE	264.88	0.00	0.00

N O D A L D I S P L A C E M E N T S

NODE NO	LOAD COMB	DX	DY	ROTATION
	Units :	In	In	Deg

LOAD COMBINATIONS:

COMB 1 : 1.00 X CASE 1
+ 1.00 X CASE 3

COMB 2 : 1.20 X CASE 1
+ 1.50 X CASE 3

122	1	0.0000	0.0000	0.0000
	2	0.0000	0.0000	0.0000
123	1	0.7117	-0.0675	-0.2918
	2	1.0672	-0.0980	-0.4388
124	1	1.6857	-0.1224	-0.2949
	2	2.5283	-0.1775	-0.4435
125	1	2.6123	-0.1648	-0.2737
	2	3.9183	-0.2386	-0.4118
126	1	3.4465	-0.1957	-0.2422
	2	5.1696	-0.2829	-0.3647
127	1	4.1608	-0.2165	-0.2025
	2	6.2411	-0.3126	-0.3052
128	1	4.7306	-0.2291	-0.1551
	2	7.0960	-0.3302	-0.2342
129	1	5.1324	-0.2353	-0.1004
	2	7.6989	-0.3387	-0.1522
130	1	5.3561	-0.2374	-0.0545
	2	8.0360	-0.3415	-0.0849

E L E M E N T F O R C E S

LOAD NO	LOAD COMB	NODE NO	AXIAL	SHEAR	MOMENT
		Units :	K	K	K -Ft

A COMBINATIONS:

M 1 : 1.00 X CASE 1
+ 1.00 X CASE 3

M 2 : 1.20 X CASE 1
+ 1.50 X CASE 3

2	1	2	208.6945	86.9713	-622.6912
		3	209.1785	86.9713	333.9929
	2	2	326.1096	130.7881	-935.3729
		3	326.6904	130.7881	503.2956
3	1	3	162.7986	61.2686	-332.8877
		4	163.2826	61.2686	341.0671
	2	3	255.7374	92.4201	-502.1643
		4	256.3182	92.4201	514.4564
4	1	4	118.9900	54.8885	-291.8469
		5	119.4740	54.8885	311.9263
	2	4	188.4413	82.8933	-440.8045
		5	189.0221	82.8933	471.0214
5	1	5	80.6835	47.8286	-249.5755
		6	81.1675	47.8286	276.5394
	2	5	129.3541	72.3499	-377.6641
		6	129.9349	72.3499	418.1846
6	1	6	48.6666	39.8491	-202.4431
		7	49.1506	39.8491	235.8970
	2	6	79.6652	60.4168	-307.1697
		7	80.2460	60.4168	357.4150
7	1	7	23.8171	30.6903	-148.7748
		8	24.3011	30.6903	188.8189

E L E M E N T F O R C E S

ELEM NO	LOAD COMB	NODE NO	AXIAL	SHEAR	MOMENT
	2	7	40.6998	46.7069	-226.8167
		8	41.2806	46.7069	286.9591
8	1	8	7.1118	20.3720	-88.4986
		9	7.5958	20.3720	135.5933
	2	8	13.9336	31.2351	-136.4436
		9	14.5144	31.2351	207.1422
9	1	9	-0.4817	6.9303	-20.6035
		10	0.0023	6.9303	55.6293
	2	9	0.8389	11.1865	-34.5844
		10	1.4197	11.1865	88.4676
10	1	2	0.0000	0.5500	-2.2917
		12	0.0000	-0.5500	-2.2917
	2	2	0.0000	0.6600	-2.7500
		12	0.0000	-0.6600	-2.7500
11	1	3	-36.9373	-46.3799	666.8806
		13	-36.9373	-55.7299	-609.4919
	2	3	-55.5920	-70.9530	1005.4599
		13	-55.5920	-82.1730	-908.6154
12	1	4	-84.3799	-44.2926	632.9140
		14	-84.3799	-53.6426	-591.2766
	2	4	-126.6132	-67.8769	955.2609
		14	-126.6132	-79.0969	-881.9112
13	1	5	-111.8202	-38.7905	561.5019
		15	-111.8202	-48.1405	-525.1358
	2	5	-167.7766	-59.6681	848.6855
		15	-167.7766	-70.8881	-783.2660
14	1	6	-139.0205	-32.5009	478.9825
		16	-139.0205	-41.8509	-450.4140

E L E M E N T F O R C E S

LEM N	LOAD COMB	NODE NO	AXIAL	SHEAR	MOMENT
	2	6	-208.5669	-50.2696	725.3542
		16	-208.5669	-61.4896	-671.6380
15	1	7	-165.9712	-25.3335	384.6718
		17	-165.9712	-34.6835	-365.5408
	2	7	-248.9851	-39.5462	584.2317
		17	-248.9851	-50.7662	-544.6743
16	1	8	-192.9267	-17.1893	277.3175
		18	-192.9267	-26.5393	-269.2900
	2	8	-289.3957	-27.3471	423.4027
		18	-289.3957	-38.5671	-400.5236
17	1	9	-217.9283	-8.0775	156.1969
		19	-217.9283	-17.4275	-162.6162
	2	9	-327.0065	-13.6755	241.7266
		19	-327.0065	-24.8955	-240.4098
18	1	10	-257.9497	-0.0023	85.6293
		20	-257.9497	-9.3523	-61.3025
	2	10	-386.1335	-1.4197	88.4676
		20	-386.1335	-12.6397	-87.2748
20	1	12	-88.1076	111.7397	-707.8241
		13	-87.6236	111.7397	521.3121
	2	12	-109.3444	167.6571	-1062.0043
		13	-108.7636	167.6571	782.2241
21	1	13	-69.9509	108.4680	-600.8371
		14	-69.4669	108.4680	592.3106
	2	13	-85.0890	162.7335	-901.3479
		14	-84.5082	162.7335	888.7211
22	1	14	-55.1418	97.6859	-530.0283
		15	-54.6578	97.6859	544.5170

E L E M E N T F O R C E S

ELEM NO	LOAD COMB	NODE NO	AXIAL	SHEAR	MOMENT
	2	14	-65.7873	146.6232	-795.5245
		15	-65.2065	146.6232	817.3306
23	1	15	-42.3197	86.8660	-468.4160
		16	-41.8357	86.8660	487.1096
	2	15	-49.4203	130.4326	-703.3244
		16	-48.8395	130.4326	731.4345
24	1	16	-31.2009	73.9220	-394.8489
		17	-30.7169	73.9220	418.2933
	2	16	-35.5710	111.0500	-593.1619
		17	-34.9902	111.0500	628.3881
25	1	17	-21.6254	58.8213	-309.3831
		18	-21.1414	58.8213	337.6510
	2	17	-24.0071	88.4203	-465.0852
		18	-23.4263	88.4203	507.3386
26	1	18	-13.5238	41.2764	-211.1339
		19	-13.0398	41.2764	242.9062
	2	18	-14.6329	62.1222	-317.7574
		19	-14.0521	62.1222	365.5868
27	1	19	-7.0356	22.6108	-106.4508
		20	-6.5516	22.6108	142.2680
	2	19	-7.6565	33.9947	-160.0947
		20	-7.0757	33.9947	213.8465
28	1	12	0.0000	0.5500	-2.2917
		22	0.0000	-0.5500	-2.2917
	2	12	0.0000	0.6600	-2.7500
		22	0.0000	-0.6600	-2.7500
29	1	13	-33.6656	-38.0572	512.6572
		23	-33.6656	-47.4072	-555.6477

E L E M E N T F O R C E S

LEM N	LOAD COMB	NODE NO	AXIAL	SHEAR	MOMENT
	2	13	-50.6684	-58.4984	774.9566
		23	-50.6684	-69.7184	-827.7540
30	1	14	-73.5978	-39.3176	531.0623
		24	-73.5978	-48.6676	-568.7521
	2	14	-110.5028	-60.3759	802.3344
		24	-110.5028	-71.5959	-847.3141
31	1	15	-101.0002	-35.8024	487.7972
		25	-101.0002	-45.1524	-524.1366
	2	15	-151.5861	-55.1019	737.3890
		25	-151.5861	-66.3219	-780.4088
32	1	16	-126.0765	-31.2161	431.5445
		26	-126.0765	-40.5661	-465.7328
	2	16	-189.1843	-48.2211	652.9604
		26	-189.1843	-59.4411	-692.8171
33	1	17	-150.8705	-25.5920	362.1356
		27	-150.8705	-34.9420	-394.5389
	2	17	-226.3554	-39.7831	548.7990
		27	-226.3554	-51.0031	-586.0296
34	1	18	-175.3817	-18.9217	279.4949
		28	-175.3817	-28.2717	-310.4234
	2	18	-263.0975	-29.7737	424.7724
		28	-263.0975	-40.9937	-459.8193
35	1	19	-199.2627	-11.4233	186.7408
		29	-199.2627	-20.7733	-215.7171
	2	19	-298.8789	-18.4998	285.2718
		29	-298.8789	-29.7198	-317.4729
36	1	20	-235.3389	-2.8007	80.9654
		30	-235.3389	-12.1507	-105.9267

ELEMENT FORCES

ELEM NO	LOAD COMB	NODE NO	AXIAL	SHEAR	MOMENT
	2	20	-352.1388	-5.5640	126.5717
		30	-352.1388	-16.7840	-152.7790
38	1	22	-83.3664	107.7474	-688.0048
		23	-82.8824	107.7474	497.2162
	2	22	-101.4113	161.6546	-1032.1976
		23	-100.8305	161.6546	746.0035
39	1	23	-73.5580	104.3166	-575.1935
		24	-73.0740	104.3166	572.2889
	2	23	-89.6419	156.4737	-862.7731
		24	-89.0611	156.4737	858.4380
40	1	24	-63.3069	96.5102	-522.8456
		25	-62.8229	96.5102	538.7665
	2	24	-77.2167	144.7657	-784.2687
		25	-76.6359	144.7657	808.1535
41	1	25	-53.0477	86.8983	-467.4531
		26	-52.5637	86.8983	488.4283
	2	25	-64.7800	130.3495	-701.1897
		26	-64.1992	130.3495	732.6545
42	1	26	-42.6695	75.1166	-400.4725
		27	-42.1855	75.1166	425.8101
	2	26	-52.1658	112.6773	-600.7191
		27	-51.5850	112.6773	638.7307
43	1	27	-32.2049	60.9825	-320.4878
		28	-31.7209	60.9825	350.3198
	2	27	-39.4227	91.4749	-480.7271
		28	-38.8419	91.4749	525.4964
44	1	28	-21.6827	44.4818	-227.7285
		29	-21.1987	44.4818	261.5712

E L E M E N T F O R C E S

ELEM NO	LOAD COMB	NODE NO	AXIAL	SHEAR	MOMENT
	2	28	-26.5928	66.7122	-341.4931
		29	-26.0120	66.7122	392.3408
45	1	29	-10.9672	26.5186	-125.8144
		30	-10.4832	26.5186	165.8899
	2	29	-13.4834	39.6744	-188.1545
		30	-12.9026	39.6744	248.2634
46	1	22	0.0000	0.5500	-2.2917
		32	0.0000	-0.5500	-2.2917
	2	22	0.0000	0.6600	-2.7500
		32	0.0000	-0.6600	-2.7500
47	1	23	-30.2349	-38.0828	516.7620
		33	-30.2349	-47.4328	-552.1826
	2	23	-45.4875	-58.5298	781.0226
		33	-45.4875	-69.7498	-822.4714
48	1	24	-65.7914	-38.9005	526.3824
		34	-65.7914	-48.2505	-563.0045
	2	24	-98.7948	-59.7516	795.3926
		34	-98.7948	-70.9716	-838.6464
49	1	25	-91.3883	-35.3772	482.0830
		35	-91.3883	-44.7272	-519.2221
	2	25	-137.1699	-54.4660	728.9344
		35	-137.1699	-65.6860	-772.966[illegible]
50	1	26	-114.2948	-30.6719	423.168[illegible]
		36	-114.2948	-40.0219	-460.5038
	2	26	-171.5121	-47.4077	640.5568
		36	-171.5121	-58.6277	-684.8851
51	1	27	-136.7364	-24.9614	351.7589
		37	-136.7364	-34.3114	-389.1511

ELEMENT FORCES

ELEM NO	LOAD COMB	NODE NO	AXIAL	SHEAR	MOMENT
	2	27	-205.1531	-38.8409	533.4282
		37	-205.1531	-50.0609	-577.8440
52	1	28	-158.8810	-18.2335	267.6248
		38	-158.8810	-27.5835	-305.0867
	2	28	-238.3348	-28.7446	407.1702
		38	-238.3348	-39.9646	-451.6950
53	1	29	-181.2995	-10.5419	171.6685
		39	-181.2995	-19.8919	-208.7535
	2	29	-271.8411	-17.1912	263.0224
		39	-271.8411	-28.4112	-307.0064
54	1	30	-208.8204	-1.6674	59.9633
		40	-208.8204	-11.0174	-98.5977
	2	30	-312.4644	-3.8814	95.4844
		40	-312.4644	-15.1014	-141.8010
56	1	32	-82.3182	106.2327	-677.7980
		33	-81.8342	106.2327	490.7616
	2	32	-99.8487	159.3697	-1016.8194
		33	-99.2679	159.3697	736.2478
57	1	33	-71.7795	103.0310	-568.7597
		34	-71.2955	103.0310	564.5808
	2	33	-86.9908	154.5437	-853.1154
		34	-86.4100	154.5437	846.8658
58	1	34	-61.4060	95.5635	-517.9131
		35	-60.9220	95.5635	533.2857
	2	34	-74.3819	143.3420	-776.8511
		35	-73.8011	143.3420	799.9109
59	1	35	-51.1369	85.9711	-462.4576
		36	-50.6529	85.9711	483.2242

E L E M E N T F O R C E S

ELEM NO	LOAD COMB	NODE NO	AXIAL	SHEAR	MOMENT
	2	35	-61.9297	128.9534	-693.6689
		36	-61.3489	128.9534	724.8188
60	1	36	-40.8905	74.1551	-395.2145
		37	-40.4065	74.1551	420.4921
	2	36	-49.5119	111.2289	-592.7996
		37	-48.9311	111.2289	630.7187
61	1	37	-30.6426	60.0095	-315.1731
		38	-30.1586	60.0095	344.9313
	2	37	-37.0923	90.0083	-472.7190
		38	-36.5115	90.0083	517.3727
62	1	38	-20.3929	43.5747	-222.5394
		39	-19.9089	43.5747	236.7820
	2	38	-24.6711	65.3433	-333.6776
		39	-24.0903	65.3433	365.0989
63	1	39	-10.0768	24.8440	-117.4238
		40	-9.5928	24.8440	155.8580
	2	39	-12.1558	37.1898	-175.7265
		40	-11.5750	37.1898	233.3614
64	1	32	0.0000	0.5500	-2.2917
		42	0.0000	-0.5500	-2.2917
	2	32	0.0000	0.6600	-2.7500
		42	0.0000	-0.6600	-2.7500
65	1	33	-27.0331	-37.3781	507.3387
		43	-27.0331	-46.7281	-543.9894
	2	33	-40.6615	-57.4726	766.8918
		43	-40.6615	-68.6926	-810.1740
66	1	34	-58.3240	-38.3610	519.4894
		44	-58.3240	-47.7110	-556.4102

ELEMENT FORCES

ELEM NO	LOAD COMB	NODE NO	AXIAL	SHEAR	MOMENT
	2	34	-87.5930	-58.9434	785.0705
		44	-87.5930	-70.1634	-828.7650
67	1	35	-81.7959	-34.9420	476.5212
		45	-81.7959	-44.2920	-513.9045
	2	35	-122.7813	-53.8146	720.6138
		45	-122.7813	-65.0346	-765.0014
68	1	36	-102.4789	-30.2595	417.9349
		46	-102.4789	-39.6095	-455.4277
	2	36	-153.7876	-46.7907	632.7334
		46	-153.7876	-58.0107	-677.2849
69	1	37	-122.5908	-24.5475	346.5140
		47	-122.5908	-33.8975	-384.0490
	2	37	-183.9324	-38.2221	525.5937
		47	-183.9324	-49.4421	-570.2090
70	1	38	-142.4462	-17.8177	262.3840
		48	-142.4462	-27.1677	-299.9347
	2	38	-213.6698	-28.1241	399.3553
		48	-213.6698	-39.3441	-443.9979
71	1	39	-162.5688	-10.0597	165.4543
		49	-162.5688	-19.4097	-202.9144
	2	39	-243.6876	-16.4767	253.8190
		49	-243.6876	-27.6967	-298.3475
72	1	40	-183.9764	-1.4247	57.2603
		50	-183.9764	-10.7747	-95.2314
	2	40	-275.2746	-3.5265	91.5604
		50	-275.2746	-14.7465	-136.8508
74	1	42	-81.6213	104.6310	-667.7649
		43	-81.1373	104.6310	483.1760

PROGRAM : General Frame Analysis v1.58 TIME : Mon Mar 02 12:36:56 199
PLW. INC. JOB NO. : 1
CASE : GSA - 517 GOLD - EXTERIOR SMRF
LOAD : 1

E L E M E N T F O R C E S

ELEM NO	LOAD COMB	NODE NO	AXIAL	SHEAR	MOMENT
	2	42	-98.8155	156.9596	-1001.7246
		43	-98.2347	156.9596	724.8311
75	1	43	-71.2516	101.6612	-561.3694
		44	-70.7676	101.6612	556.9040
	2	43	-86.2099	152.4911	-842.0446
		44	-85.6291	152.4911	835.3579
76	1	44	-60.9531	94.6382	-513.0691
		45	-60.4691	94.6382	527.9511
	2	44	-73.7127	141.9554	-769.5923
		45	-73.1319	141.9554	791.9170
77	1	45	-50.7505	85.1144	-457.8039
		46	-50.2665	85.1144	478.4545
	2	45	-61.3595	127.6700	-686.6968
		46	-60.7787	127.6700	717.6728
78	1	46	-40.5727	73.3026	-390.5477
		47	-40.0887	73.3026	415.7805
	2	46	-49.0434	109.9519	-585.8099
		47	-48.4626	109.9519	623.6614
79	1	47	-30.4020	59.1617	-310.5185
		48	-29.9180	59.1617	340.2600
	2	47	-36.7382	88.7392	-465.7532
		48	-36.1574	88.7392	510.3779
80	1	48	-20.2332	42.7261	-217.8242
		49	-19.7492	42.7261	252.1628
	2	48	-24.4372	64.0757	-326.6453
		49	-23.8564	64.0757	378.1877
81	1	49	-10.0511	23.7659	-111.7674
		50	-9.5671	23.7659	149.6575

E L E M E N T F O R C E S

ELEM NO	LOAD COMB	NODE NO	AXIAL	SHEAR	MOMENT
	2	49	-12.1208	35.6031	-167.4036
		50	-11.5400	35.6031	224.2305
82	1	42	0.0000	0.5500	-2.2917
		52	0.0000	-0.5500	-2.2917
	2	42	0.0000	0.6600	-2.7500
		52	0.0000	-0.6600	-2.7500
83	1	43	-24.0634	-36.8425	500.5560
		53	-24.0634	-46.1925	-537.3804
	2	43	-36.1930	-56.6679	756.7017
		53	-36.1930	-67.8879	-800.2459
84	1	44	-51.3010	-37.8965	513.5629
		54	-51.3010	-47.2465	-550.7238
	2	44	-77.0573	-58.2470	776.1852
		54	-77.0573	-69.4670	-820.2397
85	1	45	-72.2721	-34.5735	471.8505
		55	-72.2721	-43.9235	-509.3612
	2	45	-108.4959	-53.2622	713.6124
		55	-108.4959	-64.4822	-758.1922
86	1	46	-90.6670	-29.9157	413.5744
		56	-90.6670	-39.2657	-451.1930
	2	46	-136.0696	-46.2755	626.1978
		56	-136.0696	-57.4955	-670.9394
87	1	47	-108.4499	-24.2108	342.2500
		57	-108.4499	-33.5608	-379.8942
	2	47	-162.7197	-37.7177	519.2056
		57	-162.7197	-48.9377	-563.9866
88	1	48	-126.0106	-17.4830	258.1496
		58	-126.0106	-26.8330	-295.8013

PROGRAM : General Frame Analysis v1.58
PLW. INC.
JOB : GSA - 517 GOLD - EXTERIOR SMRF
JOB NO. : 10
TIME : Mon Mar 02 12:36:58 1992

ELEMENT FORCES

ELEM NO	LOAD COMB	NODE NO	AXIAL	SHEAR	MOMENT
	2	48	-189.0064	-27.6239	393.0254
		58	-189.0064	-38.8439	-437.8233
89	1	49	-143.6086	-9.7116	161.0157
		59	-143.6086	-19.0616	-198.6491
	2	49	-215.2150	-15.9610	247.2438
		59	-215.2150	-27.1810	-292.0313
90	1	50	-160.2105	-1.2076	54.4261
		60	-160.2105	-10.5576	-92.6384
	2	50	-239.6715	-3.2065	87.3796
		60	-239.6715	-14.4265	-133.0320
92	1	52	-81.2159	103.2283	-658.9186
		53	-80.7319	103.2283	476.5930
	2	52	-98.2089	154.8488	-988.4150
		53	-97.6281	154.8488	714.9215
93	1	53	-70.9041	100.5120	-555.2273
		54	-70.4201	100.5120	550.4050
	2	53	-85.6902	150.7679	-832.5375
		54	-85.1094	150.7679	825.6096
94	1	54	-60.6683	93.8165	-508.7352
		55	-60.1843	93.8165	523.2462
	2	54	-73.2869	140.7238	-763.0973
		55	-72.7061	140.7238	784.8648
95	1	55	-50.5086	84.3765	-453.8029
		56	-50.0246	84.3765	474.3391
	2	55	-60.9979	126.5641	-680.7001
		56	-60.4171	126.5641	711.5045
96	1	56	-40.3730	72.5775	-386.5733
		57	-39.8890	72.5775	411.7790

E L E M E N T F O R C E S

ELEM NO	LOAD COMB	NODE NO	AXIAL	SHEAR	MOMENT
	2	56	-48.7451	108.8654	-579.8546
		57	-48.1643	108.8654	617.6643
97	1	57	-30.2434	58.4457	-306.5844
		58	-29.7594	58.4457	336.3179
	2	57	-36.5014	87.6668	-459.8643
		58	-35.9206	87.6668	504.4710
98	1	58	-20.1157	42.0100	-213.8763
		59	-19.6317	42.0100	248.2342
	2	58	-24.2622	63.0080	-320.7675
		59	-23.6814	63.0080	372.3209
99	1	59	-9.9940	22.9713	-107.7042
		60	-9.5100	22.9713	144.9805
	2	59	-12.0358	34.4353	-161.4395
		60	-11.4550	34.4353	217.3491
100	1	52	0.0000	0.5500	-2.2917
		62	0.0000	-0.5500	-2.2917
	2	52	0.0000	0.6600	-2.7500
		62	0.0000	-0.6600	-2.7500
101	1	53	-21.3471	-36.3646	494.4399
		63	-21.3471	-45.7146	-531.5508
	2	53	-32.1122	-55.9500	747.5131
		63	-32.1122	-67.1700	-791.4872
102	1	54	-44.6054	-37.4947	508.4163
		64	-44.6054	-46.8447	-545.8254
	2	54	-67.0132	-57.6444	768.4672
		64	-67.0132	-68.8644	-812.8938
103	1	55	-62.8321	-34.2478	467.6879
		65	-62.8321	-43.5978	-505.3829