

# APPENDIX C

## Area 1

<b>First Floor Beams (CONCRETE BUILDING)</b>				
Number of beams	Shape	Weight (lb/ft)	Span (ft)	Total Weight (lb)
1	18X56	1050	115	120750
1	18x40	750	115	86250
				<b>207000</b>

<b>Second Floor Beams (CONCRETE BUILDING)</b>				
Number of beams	Shape	Weight (lb/ft)	Span (ft)	Total Weight (lb)
1	20x56	1166.667	115	134166.705
1	20x40	833.333	115	95833.295
				<b>230000</b>

<b>Floor Weight (CONCRETE BUILDING)</b>				
Floor	Area (ft <sup>2</sup> )	Weight Concrete (lb/ft <sup>3</sup> )	Thickness Of Slab (ft)	Total Weight (lb)
2	3700	150	0.92	510600
1	4285	150	0.83	533483
				<b>1044083</b>

<b>Column Weight (CONCRETE BUILDING)</b>				
Number	Size	Weight (lb/ft)	First Floor	Second Floor
10	24x24	600	<b>72000</b>	<b>90000</b>

<b>Other Loads</b>					
Floor	Area	Partitions (lb/ft <sup>2</sup> )	Finishes (lb/ft <sup>2</sup> )	M/E/P (lb/ft <sup>2</sup> )	Total Weight (lb)
1	4428	20	5	10	154980
2	3925	20	5	10	137375
					<b>292355</b>

**Area 2**

<b>First Floor Beams (CONCRETE BUILDING)</b>				
Number of beams	Shape	Weight (lb/ft)	Span (ft)	Total Weight (lb)
1	18X60	1125	121	136125
1	18x40	750	121	90750
				<b>226875</b>

<b>Second Floor Beams (CONCRETE BUILDING)</b>				
Number of beams	Shape	Weight (lb/ft)	Span (ft)	Total Weight (lb)
1	20x60	1250	121	151250
1	20x40	833.333	121	100833.293
				<b>252083.293</b>

<b>Third Floor Beams (CONCRETE BUILDING)</b>				
Number of beams	Shape	Weight (lb/ft)	Span (ft)	Total Weight (lb)
1	20x60	1250	121	151250
1	20x40	833.333	121	100833.293
				<b>252083.293</b>

<b>Fourth Floor Beams (CONCRETE BUILDING)</b>				
Number of beams	Shape	Weight (lb/ft)	Span (ft)	Total Weight (lb)
1	20x60	1250	121	151250
1	20x40	833.333	121	100833
				<b>252083</b>

<b>Floor Weight (CONCRETE BUILDING)</b>				
Floor	Area (ft <sup>2</sup> )	Weight Concrete (lb/ft <sup>3</sup> )	Thickness Of Slab (ft)	Total Weight (lb)
1	5055.4	150	0.83	629397
2	4868.87	150	0.92	671904
3	4868.87	150	0.92	671904
4	4785.88	150	0.92	660451
Roof	3256			130240
				<b>2763897</b>

Roof Beams (STEEL)				
Number of beams	Shape	Weight (lb/ft)	Span (ft)	Total Weight (lb)
7	W10x12	12	5	420
8	W10x12	12	6	576
2	W10x12	12	7.5	180
1	W10x12	12	9	108
2	W10x12	12	12	288
6	W10x12	12	13	936
10	W12x14	14	5	700
6	W12x14	14	13	1092
4	W12x14	14	14	784
4	W12x14	14	24	1344
1	W12x19	19	8.5	161.5
1	W12x19	19	13	247
1	W12x19	19	15	285
1	W12x26	26	12	312
2	W12x26	26	24	1248
1	W12x58	58	24	1392
2	W12x65	65	38	4940
1	W14x22	22	10	220
1	W16x31	31	24	744
1	W16x36	36	25	900
1	W18x35	35	37	1295
1	W18x40	40	24.5	980
1	W18x40	40	30.5	1220
3	W18x40	40	37	4440
1	W18x46	46	18.5	851
1	W21x44	44	30.5	1342
1	HSS6x6x3/8	27.41	24	657.84
2	HSS8x8x3/8	37.61	24	1805.28
				<b>29468.62</b>

Column Weight (STEEL BUILDING)							
Number	Size	Weight (lb/ft)	First Level	Second Level	Third Level	Fourth Level	Roof Level
12	24x24	600	<b>50400</b>	<b>109800</b>	<b>109800</b>	<b>109800</b>	<b>7668.0775</b>

Other Loads					
Floor	Area	Partitions (lb/ft <sup>2</sup> )	Finishes (lb/ft <sup>2</sup> )	M/E/P (lb/ft <sup>2</sup> )	Total Weight (lb)
1	5055.4	20	5	10	176939
2	4868.87	20	5	10	170410.45
3	4868.87	20	5	10	170410.45
4	4785.88	20	5	10	167505.8
					<b>685265.7</b>