

With the proposed design, the following objectives were achieved

- Reduce construction schedule
- Reduce construction confusions
- Increase bay sizes to allow more open interior spaces
- Reduce building's overall weight and torsion
- Reduce seismic load
- Reduce annual energy cost

Appendices

Appendix A: Wind Load Calculations

Level	Elevation (ft)	Kz	qz (psf)
1st	0.00	1.03	20.88
2nd	18.21	1.06	21.49
3rd	36.42	1.20	24.32
4th	54.63	1.29	26.15
Roof	72.83	1.35	27.36

Level	Windward	Leeward	Side Wall
1st	14.20	-11.63	-16.28
2nd	14.61	-11.63	-16.28
3rd	16.54	-11.63	-16.28
4th	17.78	-11.63	-16.28
Roof	18.61	-11.63	-16.28

Roof	Cp		
0 to h	-0.90	-20.93	
h to 2h	-0.50	-11.63	
> 2h	-0.30	-6.98	
Windward	0.80		
Leeward	-0.50		
Side Wall	-0.70		

Wind Pressures for all directions							
Wall	Floor	Distances (ft)	Wind Pressure (psf)	Internal Pressure (psf)		Net Pressure (psf)	
				0.18	-0.18	0.18	-0.18
Windward Wall	1	0.00	14.20	4.93	-4.93	9.27	19.12
	2	18.21	14.61	4.93	-4.93	9.68	19.54
	3	36.42	16.54	4.93	-4.93	11.61	21.47
	4	54.63	17.78	4.93	-4.93	12.85	22.71
	Roof	72.83	18.61	4.93	-4.93	13.68	23.53
Leeward Walls	All	All	-11.63	4.93	-4.93	-16.56	-6.70
Side Walls	All	All	-16.28	4.93	-4.93	-21.21	-11.36
Roof	0 to h		-20.93	4.93	-4.93	-25.86	-16.01
	h to 2h		-11.63	4.93	-4.93	-16.56	-6.70
	> 2h		-6.98	4.93	-4.93	-11.90	-2.05

Wind Forces N-S direction							
Floor	Elevation	Length (ft)	Tributary Height	Area (ft ²)	Story Forces (k)	Overturning Moment (k-ft)	
1	0.00	237.92	9.10	2166.06	30.75	0.00	
2	18.21	237.92	18.21	4332.13	63.29	1152.47	
3	36.42	237.92	18.21	4332.13	71.65	2609.36	
4	54.63	237.92	18.21	4332.13	77.03	4207.59	
Roof	72.83	237.92	9.10	2166.06	40.30	2935.52	
Total Base Shear =					283.03		
					Overturning Moment =	10904.93	

Wind Forces E-W direction							
Floor	Elevation	Length (ft)	Tributary Height	Area (ft ²)	Story Forces (k)	Overturning Moment (k-ft)	
1	0.00	217.92	9.10	1983.98	28.17	0.00	
2	18.21	217.92	18.21	3967.96	57.97	1055.59	
3	36.42	217.92	18.21	3967.96	65.63	2390.01	
4	54.63	217.92	18.21	3967.96	70.55	3853.89	
Roof	72.83	217.92	9.10	1983.98	36.92	2688.76	
Total Base Shear =					259.24		
					Overturning Moment =	9988.24	

Appendix B: Seismic Load Calculations

Level	Story Weight, Wx (k)	Story Height, hx (ft)	W ^x hx ² k	Cvx	Story Force (k)	Story Shear (k)	Overturning Moment (k-ft)
1.00	2190.28	0.00	0.00	0.00	0.00	446.89	0.00
2.00	2459.70	18.21	57822.74	0.10	42.64	446.89	776.46
3.00	2459.70	36.42	122919.08	0.20	90.64	219.46	3301.19
4.00	1504.46	54.63	116870.74	0.19	86.18	133.28	4708.13
Roof	2903.54	72.83	308405.10	0.51	227.42	42.64	16563.15
sum	11517.67		606017.65		446.89		25348.93

k = 1.09 for T = 0.676 (eq 12.8-12)

Level	Preimeter (ft)	Tributary Height (ft)	Area (ft ²)	Weight (kips)	Column Weight	Assume W14x44	Tributary Height (ft)	Weight (kips)
1.00	1028.70	8.00	8229.60	246.89	1.00	64.00	8.00	22.53
2.00	1028.70	16.00	16459.20	493.78	2.00	64.00	16.00	45.06
3.00	1028.70	16.00	16459.20	493.78	3.00	64.00	16.00	45.06
4.00	795.60	16.00	12729.60	381.89	4.00	64.00	16.00	45.06
Roof	1028.70	8.00	8229.60	246.89	Roof	64.00	8.00	22.53
								180.22

Facade Weight = 30 psf

Level	11 Braced frames	Weight (kips)	Assume 26x60 HSS	Slab Weight	Floor Area (ft ²)	Slab Weight=35	Weight (kips)
1.00	11.00	52.80		1.00	33964.80	35.00	1188.77
2.00	11.00	52.80		2.00	33964.80	35.00	1188.77
3.00	11.00	52.80		3.00	33964.80	35.00	1188.77
4.00	11.00	52.80		4.00	18631.20	35.00	652.09
Roof	11.00	52.80		Roof	33964.80	56.00	1902.03

Braces Weight

Level	Superimposed Dead Load = 20psf	Floor Area (ft ²)	Weight (kips)	Total Weight per Level	Weight (kips)	Weight (psf)
1.00	33964.80	679.30		1.00	2190.28	64.49
2.00	33964.80	679.30		2.00	2459.70	72.42
3.00	33964.80	679.30		3.00	2459.70	72.42
4.00	18631.20	372.62		4.00	1504.46	80.75
Roof	33964.80	679.30		Roof	2903.54	85.49
				Total Weight	11517.67	
				V	446.89	
				Existing	1040	

Superimposed Dead Load = 20psf

Appendix C: Center of Rigidity and Center of Mass Calculations

	δ (in)	k (kip/in)	kx	ky	X position (in)	Y position (in)	ki*xi	ki*yi	Weight	Wi*xi	Wi*yi
Brace1	8.98	111.37	43.43	102.46	2759.90	4031.86	282782.58	175122.55	16644.00	45935717.35	67106277.84
Brace2	8.66	115.42	106.19	45.01	1655.94	3263.88	74540.35	346580.06	16644.00	27561506.97	54324018.72
Brace3	7.65	130.75	50.99	120.29	749.05	1247.96	90105.69	63638.13	16644.00	12467229.81	20771046.24
Brace4	6.36	157.23	144.65	61.32	1221.24	2885.88	74887.51	417454.34	16644.00	20326360.17	48032586.72
Brace5	7.03	142.21	55.46	130.83	883.17	3108.26	115544.97	172386.43	16644.00	14699406.58	51733879.44
Brace6	2.08	481.23	442.73	187.68	693.16	2793.37	130093.06	1236718.19	32105.00	22253982.06	89681143.85
Brace7	2.63	379.94	0.00	379.94	726.80	737.00	276139.82	0.00	24966.00	18145288.80	18399942.00
Brace8	7.03	142.25	0.00	142.25	567.81	985.00	80769.91	0.00	16644.00	9450671.25	16394340.00
Brace9	9.13	109.51	109.51	0.00	217.35	1115.00	0.00	122098.12	16644.00	3617573.40	18558060.00
Brace10	8.36	119.59	119.59	0.00	217.35	611.00	0.00	73068.64	16644.00	3617573.40	10169484.00
Total			1072.56	1169.79			1124863.89	2607066.46	5310023.00	6076084909.79	12436940378.81

Center of Rigidity (Top Left of Brace 8 as reference point)			Center of Mass (Top Left of Brace as reference point)			e (ft)	
x=	1048.77 in	2.05	x=	1144.27 in	-4.10		
y=	2228.67 in	1.80	y=	2342.16 in	1.83		
ETABS x=	1070.25 in		ETABS x=	1097.34 in		-2.26	
ETABS y=	2268.76 in		ETABS y=	2300.09 in		2.61	

Slab Weight	
x=	5119800.00
y=	1152.00
	2352.00

Appendix E: Wind Load Distribution Calculation

Torsion Calculation							
	k (kip/in)	kx	ky	dix	diy	kiy*dix^2	kix*diy^2
Brace1	111.37	43.43	102.46	1689.64	-1763.10	292515918.88	135017337.95
Brace2	115.42	106.19	45.01	585.69	-995.12	15441146.98	105152244.60
Brace3	130.75	50.99	120.29	-321.20	1020.80	12410665.71	53137332.90
Brace4	157.23	144.65	61.32	150.99	-617.12	1397961.57	55089285.51
Brace5	142.21	55.46	130.83	-187.09	-839.50	4579342.76	39086346.40
Brace6	481.23	442.73	187.68	-377.09	-524.61	26687786.22	121846231.65
Brace7	379.94	0.00	379.94	-343.45	1531.76	44817876.18	0.00
Brace8	142.25	0.00	142.25	-502.44	1283.76	35910022.89	0.00
Brace9	109.51	109.51	0.00	-852.90	1153.76	0.00	145769464.81
Brace10	119.59	119.59	0.00	-852.90	1657.76	0.00	328650424.38
Total		1072.56	1169.79			1417509389.38	

Case 1 NS				
p=	-86.18	kip (↑)		
ex=	-27.09	in		
Torsional Shear x (k)	Torsional Shear y (k)	Direct Shear (k)	Total Shear (k)	
Brace1	-0.13	0.29	-7.55	-7.39
Brace2	-0.17	0.04	-3.32	-3.45
Brace3	0.09	-0.06	-8.86	-8.84
Brace4	-0.15	0.02	-4.52	-4.65
Brace5	-0.08	-0.04	-9.64	-9.76
Brace6	-0.38	-0.12	-13.83	-14.33
Brace7	0.00	-0.21	-27.99	-28.21
Brace8	0.00	-0.12	-10.48	-10.60
Brace9	0.21	0.00	0.00	0.21
Brace10	0.33	0.00	0.00	0.33

Case 2 NS+e				
p=	-86.18	kip (↑)		
ex=	409.26	in		
Torsional Shear x (k)	Torsional Shear y (k)	Direct Shear (k)	Total Shear (k)	
Brace1	1.91	-4.31	-7.55	-9.95
Brace2	2.63	-0.66	-3.32	-1.34
Brace3	-1.30	0.96	-8.86	-9.20
Brace4	2.22	-0.23	-4.52	-2.53
Brace5	1.16	0.61	-9.64	-7.87
Brace6	5.78	1.76	-13.83	-6.29
Brace7	0.00	3.25	-27.99	-24.74
Brace8	0.00	1.78	-10.48	-8.70
Brace9	-3.14	0.00	0.00	-3.14
Brace10	-4.93	0.00	0.00	-4.93

Case 2 NS-e				
p=	-86.18	kip (↑)		
ex=	463.44	in		
Torsional Shear x (k)	Torsional Shear y (k)	Direct Shear (k)	Total Shear (k)	
Brace1	2.16	-4.88	-7.55	-10.27
Brace2	2.98	-0.74	-3.32	-1.08
Brace3	-1.47	1.09	-8.86	-9.24
Brace4	2.52	-0.26	-4.52	-2.26
Brace5	1.31	0.69	-9.64	-7.64
Brace6	6.54	1.99	-13.83	-5.29
Brace7	0.00	3.68	-27.99	-24.31
Brace8	0.00	2.01	-10.48	-8.47
Brace9	-3.56	0.00	0.00	-3.56
Brace10	-5.59	0.00	0.00	-5.59

Case 1 EW				
p=	-86.18	kip (→)		
ey=	31.33	in		
Torsional Shear x (k)	Torsional Shear y (k)	Direct Shear (k)	Total Shear (k)	
Brace1	0.15	-0.33	-3.49	-3.67
Brace2	0.20	-0.05	-8.53	-8.38
Brace3	-0.10	0.07	-4.10	-4.12
Brace4	0.17	-0.02	-11.62	-11.47
Brace5	0.09	0.05	-4.46	-4.32
Brace6	0.44	0.13	-35.57	-35.00
Brace7	0.00	0.25	0.00	0.25
Brace8	0.00	0.14	0.00	0.14
Brace9	-0.24	0.00	-8.80	-9.04
Brace10	-0.38	0.00	-9.61	-9.99

Case 2 EW+e				
p=	-86.18	kip (→)		
ey=	532.45	in		
Torsional Shear x (k)	Torsional Shear y (k)	Direct Shear (k)	Total Shear (k)	
Brace1	2.48	-5.60	-3.49	-6.62
Brace2	3.42	-0.85	-8.53	-5.96
Brace3	-1.69	1.25	-4.10	-4.53
Brace4	2.89	-0.30	-11.62	-9.03
Brace5	1.51	0.79	-4.46	-2.16
Brace6	7.52	2.29	-35.57	-25.76
Brace7	0.00	4.22	0.00	4.22
Brace8	0.00	2.31	0.00	2.31
Brace9	-4.09	0.00	-8.80	-12.89
Brace10	-6.42	0.00	-9.61	-16.03

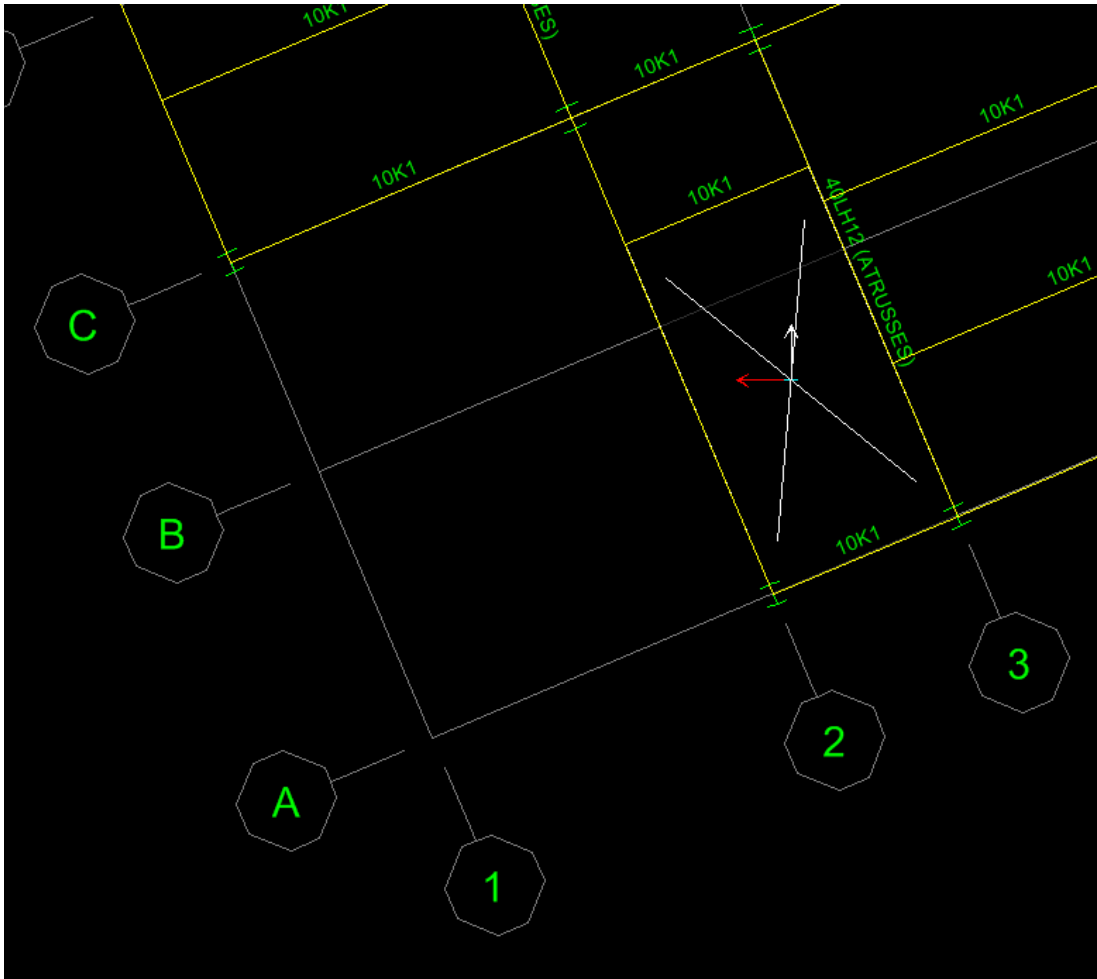
Case 2 EW-e				
p=	-86.18	kip (→)		
ey=	469.79	in		
Torsional Shear x (k)	Torsional Shear y (k)	Direct Shear (k)	Total Shear (k)	
Brace1	2.19	-4.94	-3.49	-6.25
Brace2	3.02	-0.75	-8.53	-6.27
Brace3	-1.49	1.10	-4.10	-4.48
Brace4	2.55	-0.26	-11.62	-9.34
Brace5	1.33	0.70	-4.46	-2.43
Brace6	6.63	2.02	-35.57	-26.92
Brace7	0.00	3.73	0.00	3.73
Brace8	0.00	2.04	0.00	2.04
Brace9	-3.61	0.00	-8.80	-12.41
Brace10	-5.66	0.00	-9.61	-15.27

Case 4 +NSE+EWE	Case 4 +NSE-EWE	Case 4 -NSE+EWE	Case 4 -Nse-EWE	Case 3
Total Shear				Total Shear (k)
-12.44	-12.16	-12.67	-12.40	-8.30
-5.49	-5.71	-5.29	-5.52	-8.87
-10.30	-10.27	-10.34	-10.30	-9.72
-8.68	-8.91	-8.48	-8.71	-12.09
-7.53	-7.73	-7.35	-7.55	-10.56
-24.06	-24.93	-23.31	-24.18	-36.99
-15.40	-15.78	-15.08	-15.45	-20.97
-4.80	-5.00	-4.62	-4.82	-7.85
-12.03	-11.67	-12.35	-11.99	-6.62
-15.73	-15.17	-16.22	-15.66	-7.25

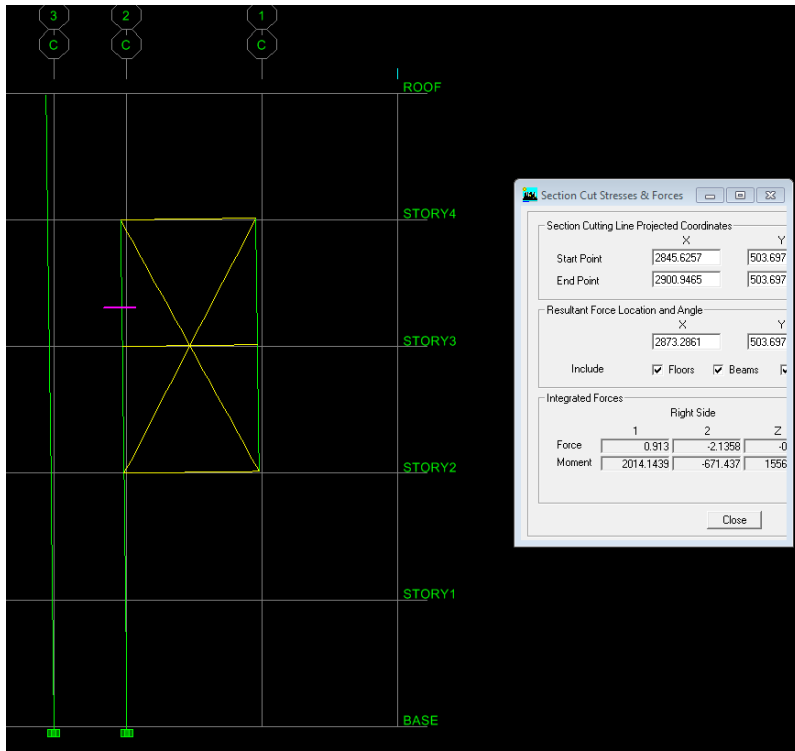
Controlling Force		
Brace1	-3.67	Case 1 EW
Brace2	-8.38	Case 1 EW
Brace3	-8.84	Case 1 N5
Brace4	-4.65	Case 1 N5
Brace5	-9.76	Case 1 N5
Brace6	-14.33	Case 1 N5
Brace7	-28.21	Case 1 N5
Brace8	0.14	Case 1 EW
Brace9	-9.04	Case 1 EW
Brace10	-9.99	Case 1 EW

Appendix D: Spot checks

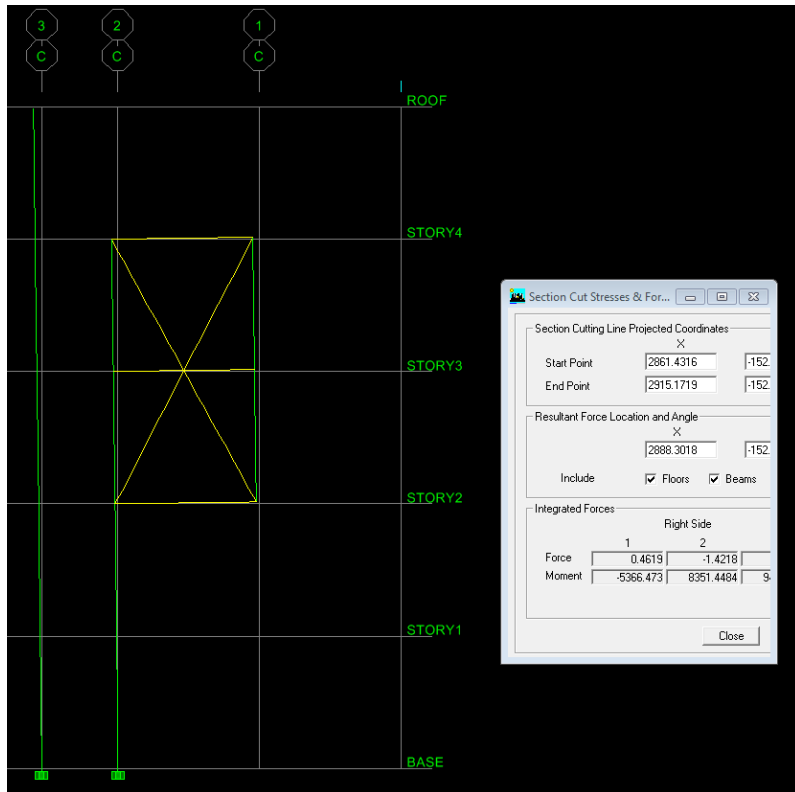
Column C-2 check



Pu of Column C-2



Mu of column C-2



Selected member is a W14 x 132

$$\left. \begin{array}{l} P_u = 913 \text{ k} \\ M_u = 5367 \text{ kip-in} \end{array} \right\} \text{obtained from ETABS.}$$

From AISI 14th Edition

$$\phi P_n = 1370 \text{ k} \quad r_x/r_y = 1.67 \quad r_y = 3.76 \text{ in}$$

$$LC: 1.2D + 1.6W$$

$$\frac{P_u}{\phi P_n} = \frac{.913 \times 1.2}{1370} < 0.2$$

$$B_1 = C_m (1 - \alpha P_r / P_e1)^{-1}$$

$$\begin{aligned} P_e1 &= \frac{\pi^2 \times 29000}{(kL)^2} \\ &= \frac{43800 \times 10^4}{(18.2 \times 12)^2} = 9183 \end{aligned}$$

$$\text{Assume } C_m = 1.0$$

$$\alpha = 1.0$$

$$B_1 = 1 (1 - 1/9183) = 0.99$$

$$\frac{P_r}{2P_e} + \left(\frac{M_r}{M_c} \right) \leq 1.0 \quad ; \quad M_c = 840 \text{ k-ft} \quad \text{Table 3-10}$$

$$M_u = 5367/12 \times 1.6 = 715.6 \text{ k-ft}$$

$$\frac{1.1}{2(1370)} + \left(\frac{715.6}{840} \right) = 0.85 \leq 1.0$$

Column C-2 is adequate.

Appendix E: Construction Cost Estimation

Code	Description	Quantity	Take off	Unit	Cost/Unit	Amount	Material Cost/Unit	Material Amount	Other Cost/Unit	Other Amount	Total Cost/Unit	Total Amount
MF-2004	General Requirements	159000									4.5 /GSF	715500
03-00-00	Concrete											
	Formwork Wall Footings	4167.41	/SF	5.17	/SF	21546	1.52	/SF	6334	6.69	/SF	27879.9729
	Formwork Spread Footings	7456.31	/SF	5.99	/SF	44663	1.52	/SF	11334	7.51	/SF	55996.8881
	Formwork Foundation Wall	45489.46	/SF	5.81	/SF	264294	1.52	/SF	69144	7.33	/SF	333437.7418
	Formwork Exterior Cip Wall	906.69	/SF	9.51	/SF	8623	2.59	/SF	2348	12.1	/SF	10970.949
	Formwork Lightweight Slab	142878.5										
	Cip Floor Edgework	11303.15		3.93		44421	1.73		19554	5.66		63975.829
	Slab On Grade Edgework	3123.01		3.93		12273	1.73		5403	5.66		17676.2366
	Control Joint Filler	3646.61		0.69		2723	0.9		3552	1.59		5798.1099
	Strip Footer Waterstop - PVC	1867.51		2.01		3754	8		3639	10.01		18693.7751
	Foundation Wall Waterstop - PVC	454.9		2.01		914	8		3639	10.01		4533.549
	Rebar Wall Footings	21.09		773.12		16305	983.25		20737	1756.37		37041.8433
	Rebar Spread Footings	24.09		773.12		18624	983.25		23866	1756.37		42310.9833
	Rebar Foundation Wall	12933		773.12		100374	983.25		127655	1756.37		228029.5171
	Rebar Exterior Cip Wall	0.69		773.12		533	983.26		678	1756.38		1211.9022
	Rebar Lightweight Slab	0.08		773.1		62	983.3		79	1756.4		140.512
	Fiber Reinforcement - S.O.G	17699.98					1.18		20886	1.18		20885.9764
	Monolithic Interior Stair	97.5		66.34		6136	45.64		1647	111.98		10358.15
	C.I.P Interior Stairs	390.65		66.34		25916	45.64		17829	111.98		43744.987
	Tiered Floors	940		61.21		57537	45.64		42302	106.85		100439
	Normal Weight Fill @ Metal Floor Deck	58.17	CY	133.5	/CY	7766	92	/CY	5352	225.5		13117.335
	Concrete Fill Metal Pan Stair	5.03		556.06		2797	90		453	646.06		3249.6818
	Sawcut Concrete Control Joint	3946.61		0.79		3118	0.36		1421	1.15		4538.6015
	Concrete Wall Footings	337.43		48.91		16504	90		31369	138.91		46871.4013
	Concrete Spread Footings	926.41		44.81		41512	90		83377	134.81		124689.3321
	Concrete Foundation Wall	1180.25		58.07		68937	90		106223	148.07		174759.6175
	Concrete Exterior Cip Wall	7.93		73.75		585	90		714	168.75		1298.5375
	Concrete S.O.G	740.57		45.31		33555	90		66651	135.31		100206.5267
	Concrete Lightweight Slab						0.5		19733	0.69		27231.6159
	Concrete sealer - Slab on Grade	39466.11		0.19		7499						23285.0049
	Concrete sealer - Lightweight Slab	142878.5		0.59		23285						843.5972
	Finish Concrete Slab	39466.11		0.79		644						643.5972
	Finish Metal Pan Stair	814.68										
	Finish Lightweight Slab	142878.5		0.48		18944	0.24		9472	0.72		28415.5992
	Cure and Protect Concrete	814.68		0.91		741	0.3		244	1.21		985.7628
	PC Wall Panel	15656.84		24.51		383749	12.15		190231	36.66		573979.7544
	Prest Concrete Soffit	223846		19.63		43941	18.94		42396	38.57		86337.4022
	SFC - 1:Sherrwin Williams - Armorsal 1000HS	337		10.73		3616	3		1011	13.73		4627.01
03-00-00	Concrete	159000		3.89		618168	7.18		1141364	11.07		2237583.673
04-00-00	Masonry											1760130

Appendix F: Construction Schedule

ID	Task Mode	Task Name	Duration	Start	Finish	2011	2012	2013
1		Post Abatement Notifications	10 days	Mon 1/3/11	Fri 1/14/11	I		
2		Contract Execution	0 days	Mon 1/3/11	Mon 1/3/11	I	◆ 1/3	
3		Abate Steam Tunnel - Chemical Storage	7 days	Mon 1/17/11	Tue 1/25/11	I		
4		Perform Abatement - Chemical Storage	8 days	Mon 1/17/11	Wed 1/26/11	I		
5		Abate Steam Tunnel - Green House	7 days	Mon 1/17/11	Tue 1/25/11	I		
6		Perform Abatement - Green house	10 days	Mon 1/17/11	Fri 1/28/11	I		
7		Abate/Remove STM UTL and Structures - North	5 days	Thu 1/20/11	Wed 1/26/11	I		
8		Demo Chemical Storage (Post Abatement)	5 days	Thu 1/20/11	Wed 1/26/11	I		
9		Demo Green House (Post Abatement)	5 days	Wed 1/26/11	Tue 2/1/11	I		
10		Abate/Remove STM UTL and Structures - East	5 days	Wed 1/26/11	Tue 2/1/11	I		
11		Abate Underground electric Utilities - East	2 days	Thu 1/27/11	Fri 1/28/11	I		
12		Abatement of Green House & Storage Tank	2 days	Thu 1/27/11	Fri 1/28/11	I		
13		Abate/Remove windows - south elevation	0 days	Mon 1/31/11	Mon 1/31/11	I	◆ 1/31	
14		abate/remove stm utl and structures - south	4 days	Mon 1/31/11	Thu 2/3/11	I		
15		abate underground electric Utilities - South	5 days	Mon 1/31/11	Fri 2/4/11	I		
16		Backfill/Grade at Green house & chemical	5 days	Wed 2/2/11	Tue 2/8/11	I		
17		Abate/remove windows - east elevation	5 days	Fri 2/4/11	Thu 2/10/11	I		
18		demo of green house & storage tank	4 days					
19		foundation underpinning	0 days	Wed 2/9/11	Wed 2/9/11	I	◆ 2/9	
20		basement mass excavation	30 days	Wed 2/9/11	Tue 3/22/11	I		
21		perform asbestos abatement at existing	30 days	Thu 2/10/11	Wed 3/23/11	I		
22		demo lower level enties and foundations	4 days	Thu 2/10/11	Tue 2/15/11	I		
23		install temporary protection at lower level	4 days	Thu 2/10/11	Tue 2/15/11	I		
24		remove exterior wall/brick at south atrium	2 days	Mon 2/14/11	Tue 2/15/11	I		
25		abatement/demo of Pier Hall	5 days					
26		submission of submittal schedule	0 days					◆ 2/25
27		strip footing excavation	0 days	Wed 3/9/11	Wed 3/9/11	I	◆ 3/9	
28		FRP column footings	10 days	Wed 3/16/11	Tue 3/29/11	I		

Task Inactive Summary

Split Manual Task

Milestone Duration-only

Summary Manual Summary Rollup

Project Summary Manual Summary

External Tasks Start-only

External Milestone Finish-only

Inactive Task Deadline

Inactive Milestone Progress

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ID	Task Mode	Task Name	Duration	Start	Finish	2011	2012	2013
29		slab stone subbase	12 days	Fri 4/1/11	Mon 4/18/11	I		
30		underslab plumbing rough - in	13 days	Wed 4/20/11	Fri 5/6/11	I		
31		underslab electrical rough - in	10 days	Wed 5/4/11	Tue 5/17/11	I		
32		FRP interior slab on Grade	4 days	Mon 5/9/11	Thu 5/12/11	I		
33		footings/SOG/Foundations complete	10 days	Mon 5/9/11	Fri 5/20/11	I		
34		form suspended slab - pour 1	10 days	Mon 5/23/11	Fri 6/3/11	I		
35		form suspended slab - pour 2	10 days					
36		Base Mat Slab rebar - pour 1	0 days	Mon 6/6/11	Mon 6/6/11	I	◆ 6/6	
37		MEP Slab rough-in first level - pour 1	6 days	Tue 6/14/11	Tue 6/21/11	I		
38		top mat slab rebar - pour 1	6 days	Tue 6/14/11	Tue 6/21/11	I		
39		base mat slab rebar - pour 2	2 days	Thu 6/16/11	Fri 6/17/11	I		
40		form suspended slab - pour 3	3 days	Tue 6/21/11	Thu 6/23/11	I		
41		place and finish slab pour 1	2 days	Wed 6/22/11	Thu 6/23/11	I		
42		mep slab rough-in - first level - pour 2	2 days	Wed 6/22/11	Thu 6/23/11	I		
43		frp columns/shear walls - first level - pour 1	6 days	Thu 6/23/11	Thu 6/30/11	I		
44		top mat slab rebar - pour 2	2 days	Fri 6/24/11	Mon 6/27/11	I		
45		form suspended slab pour 4	3 days	Mon 6/27/11	Wed 6/29/11	I		
46		base mat slab rebar - pour 3	8 days	Wed 6/29/11	Fri 7/8/11	I		
47		place and finish slab - pour 2	2 days	Thu 6/30/11	Fri 7/1/11	I		
48		mep slab rough-in - first level pour 3	6 days	Thu 6/30/11	Thu 7/7/11	I		
49		frp columns/shear walls - first level - pour 2	2 days	Fri 7/1/11	Mon 7/4/11	I		
50		top mat slab rebar - pour 3	2 days	Mon 7/4/11	Tue 7/5/11	I		
51		form suspended slab - pour 1	3 days	Tue 7/5/11	Thu 7/7/11	I		
52		base mat slab rebar - pour 4	8 days	Thu 7/7/11	Mon 7/18/11	I		
53		place and finish slab - pour 3	2 days	Thu 7/7/11	Fri 7/8/11	I		
54		mep slab rough - in - first level - pour 4	6 days	Fri 7/8/11	Fri 7/15/11	I		
55		frp columns/shear walls - first level pour 3	2 days	Mon 7/11/11	Tue 7/12/11	I		
56		top mat slab rebar - pour 4	2 days	Tue 7/12/11	Wed 7/13/11	I		

Task Inactive Summary

Split Manual Task

Milestone Duration-only

Summary Manual Summary Rollup

Project Summary Manual Summary

External Tasks Start-only

External Milestone Finish-only

Inactive Task Deadline

Inactive Milestone Progress

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ID	Task Mode	Task Name	Duration	Start	Finish	2011	2012	2013
57		form suspended slab - pour 2	3 days	Wed 7/13/11	Fri 7/15/11	I		
58		base mat slab rebar - pour 1	8 days	Fri 7/15/11	Tue 7/26/11	I		
59		place and finish slab - pour 4	2 days	Fri 7/15/11	Mon 7/18/11	I		
60		mep slab rough - in - second level - pour 1	6 days	Fri 7/15/11	Fri 7/22/11	I		
61		frp columns/shear walls - first level - pour 4	2 days	Tue 7/19/11	Wed 7/20/11	I		
62		top mat slab rebar - pour 1	2 days	Tue 7/19/11	Wed 7/20/11	I		
63		base mat slab rebar - pour 2	3 days	Thu 7/21/11	Mon 7/25/11	I		
64		form suspended slab - pour 3	8 days	Fri 7/22/11	Tue 8/2/11	I		
65		place and finish slab - pour 1	2 days	Mon 7/25/11	Tue 7/26/11	I		
66		mep slab rough - in - second level - pour 2	2 days	Mon 7/25/11	Tue 7/26/11	I		
67		frp columns/shear walls - second level - pour 1	6 days	Tue 7/26/11	Tue 8/2/11	I		
68		top mat slab rebar - pour 2	2 days	Wed 7/27/11	Thu 7/28/11	I		
69		form suspended slab - pour 4	3 days	Thu 7/28/11	Mon 8/1/11	I		
70		base mat slab rebar - pour 3	8 days	Mon 8/1/11	Wed 8/10/11	I		
71		place and finish slab - pour 2	2 days	Tue 8/2/11	Wed 8/3/11	I		
72		mep slab rough-in second level - pour 3	6 days	Tue 8/2/11	Tue 8/9/11	I		
73		frp columns/shearwalls - second level pour 2	2 days	Wed 8/3/11	Thu 8/4/11	I		
74		top mat slab rebar - pour 3	2 days	Thu 8/4/11	Fri 8/5/11	I		
75		form suspended slab - pour 1	3 days	Fri 8/5/11	Tue 8/9/11	I		
76		base mat slab rebar - pour 4	8 days	Tue 8/9/11	Thu 8/18/11	I		
77		place and finish slab - pour 3	2 days	Tue 8/9/11	Wed 8/10/11	I		
78		mep slab rough - in - second level - pour 4	6 days	Wed 8/10/11	Wed 8/17/11	I		
79		frp columns/shear walls - second level - pour 3	2 days	Thu 8/11/11	Fri 8/12/11	I		
80		top mat slab rebar - pour 4	2 days	Fri 8/12/11	Mon 8/15/11	I		
81		form suspended slab - pour 4	3 days	Mon 8/15/11	Wed 8/17/11	I		
82		form suspended slab - pour 2	8 days	Wed 8/17/11	Fri 8/26/11	I		
83		place and finish slab - pour 4	2 days	Wed 8/17/11	Thu 8/18/11	I		

Task		Inactive Summary	
Split		Manual Task	
Milestone		Duration-only	
Summary		Manual Summary Rollup	
Project Summary		Manual Summary	
External Tasks		Start-only	
External Milestone		Finish-only	
Inactive Task		Deadline	
Inactive Milestone		Progress	

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ID	Task Mode	Task Name	Duration	Start	Finish	2011	2012	2013
84		frp columns/shear walls - second level - pour 4	6 days	Fri 8/19/11	Fri 8/26/11	I		
85		form suspended slab - pour 3	2 days	Tue 8/23/11	Wed 8/24/11	I		
86		form suspended slab - pour 4	8 days	Thu 8/25/11	Mon 9/5/11	I		
87		base mat slab rebar - pour 4	6 days	Fri 9/2/11	Fri 9/9/11	I		
88		mep slab rough-in third level - pour 4	6 days	Mon 9/12/11	Mon 9/19/11	I		
89		top mat slab rebar - pour 4	2 days	Wed 9/14/11	Thu 9/15/11	I		
90		place and finish slab - pour 4	3 days	Mon 9/19/11	Wed 9/21/11	I		
91		core suspended slab - pour 4	2 days	Wed 9/21/11	Thu 9/22/11	I		
92		reshore slab - third level - pour 4	2 days	Fri 9/23/11	Mon 9/26/11	I		
93		structural steel framing - second level, area A	7 days	Tue 10/4/11	Wed 10/12/11	I		
94		Structural steel framing - exist level 3, area A	2 days	Thu 10/6/11	Fri 10/7/11	I		
95		structural steel framing - third level, area "a"	10 days	Thu 10/20/11	Wed 11/2/11	I		
96		structural steel framing - third level, atrium	10 days	Thu 11/3/11	Wed 11/16/11	I		
97		structural steel framing - third level, area "b"	10 days	Thu 11/17/11	Wed 11/30/11	I		
98		steel decking third level, area "b" existing	10 days	Thu 12/1/11	Wed 12/14/11	I		
99		mep hangers	10 days	Thu 12/15/11	Wed 12/28/11	I		
100		spray fireproofing - third level area B	10 days	Thu 12/29/11	Wed 1/11/12	I		
101		Spray fireproofing - third level area A	10 days	Thu 1/12/12	Wed 1/25/12	I		
102		HVAC Duct above ceiling rough - in	10 days	Thu 1/26/12	Wed 2/8/12	I		
103		sprinkler above ceiling rough - in	10 days	Thu 2/9/12	Wed 2/22/12	I		
104		chemical waste and ven popping above ceiling	15 days	Thu 3/1/12	Wed 3/21/12	I		
105		Plumbing Piping Above Ceiling Rough-In	10 days	Thu 3/15/12	Wed 3/28/12	I		
106		Electrical Above Ceiling Rough In	20 days	Thu 3/29/12	Wed 4/25/12	I		
107		Temp Control Above Ceiling Rough-In	25 days	Thu 4/12/12	Wed 5/16/12	I		
108		Interior Partition Framing	10 days	Thu 5/10/12	Wed 5/23/12	I		
109		Permanent HVAC Systems for Construction Use	0 days	Thu 6/14/12	Thu 6/14/12		6/14	
110		HVAC Duct In-Wall Rough-In	10 days	Thu 6/21/12	Wed 7/4/12	I		
111		Chemical Waste and Vent Piping in-wall Rough-in	10 days	Thu 6/28/12	Wed 7/11/12	I		

Task		Inactive Summary	
Split		Manual Task	
Milestone		Duration-only	
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Project Summary		Manual Summary	
External Tasks		Start-only	
External Milestone		Finish-only	
Inactive Task		Deadline	
Inactive Milestone		Progress	

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ID	Task Mode	Task Name	Duration	Start	Finish	2011	2012	2013
112	✔	Electrical in Wall-Rough-in	10 days	Thu 7/12/12	Wed 7/25/12			I
113	✔	Temp control in-wall rough-in	18 days	Thu 7/26/12	Mon 8/20/12			I
114	✔	GYP board Walls	30 days	Thu 8/9/12	Wed 9/19/12			I
115	✔	GYP board Walls	15 days	Tue 9/4/12	Mon 9/24/12			I
116	✔	GYP board Walls	7 days	Tue 10/16/12	Wed 10/24/12			I
117	✔	Tape/finish Walls	15 days	Tue 11/6/12	Mon 11/26/12			I
118	✔	Top of wall firestopping	9 days	Thu 11/15/12	Tue 11/27/12			I
119	✔	GYP board ceilings	3 days	Thu 12/6/12	Mon 12/10/12			I
120	✔	Tape/finish ceiling	2 days	Wed 12/19/12	Thu 12/20/12			I
121	✔	prime/first coat ceilings	6 days	Mon 12/24/12	Mon 12/31/12			I
122	✔	prime/first coat walls	4 days	Wed 12/26/12	Mon 12/31/12			I
123	✔	prime/first coat HM frames	6 days	Thu 1/3/13	Thu 1/10/13			I
124	✔	Lab casework	6 days	Wed 1/9/13	Wed 1/16/13			I
125	✔	fume hoods	10 days	Thu 1/17/13	Wed 1/30/13			I
126	✔	fume hood controls	10 days	Fri 1/25/13	Thu 2/7/13			I
127	✔	fume hood testing	3 days	Fri 2/8/13	Tue 2/12/13			I
128	✔	controls testing	20 days	Fri 2/22/13	Thu 3/21/13			I
129	✔	substantial completion/c of o	25 days	Wed 2/27/13	Tue 4/2/13			I
130	✔	punch list	0 days	Wed 2/27/13	Wed 2/27/13			I
131	✔	systems training	20 days	Wed 4/3/13	Tue 4/30/13			I
132	✔	final completion	20 days	Wed 4/3/13	Tue 4/30/13			I
133	✔	campus ff&e complete	0 days	Wed 5/1/13	Wed 5/1/13			I
134	✔	project mobilization	0 days					I
135	✔	install temporary protection at windows	0 days					I
136	✔	testing training and commissioning complete	6 days	Mon 1/31/11	Mon 2/7/11			I
137	✔	equipment & specialties complete	0 days					I
138	✔	FRP columns - lower level	0 days	Wed 4/20/11	Wed 4/20/11			I
139	✔	FRP interior foundation walls	10 days	Wed 4/20/11	Tue 5/3/11			I

Task		Inactive Summary	
Split		Manual Task	
Milestone		Duration-only	
Summary		Manual Summary Rollup	
Project Summary		Manual Summary	
External Tasks		Start-only	
External Milestone		Finish-only	
Inactive Task		Deadline	
Inactive Milestone		Progress	

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ID	Task Mode	Task Name	Duration	Start	Finish	2011	2012	2013
140	✔	Top track/layout	10 days	Tue 10/4/11	Mon 10/17/11			I
141	✔	Top track/layout	5 days	Tue 10/11/11	Mon 10/17/11			I
142	✔	Top track/layout	5 days	Tue 10/18/11	Mon 10/24/11			I
143	✔	Top track/layout	2 days	Thu 10/20/11	Fri 10/21/11			I
144	✔	HVAC duct above ceiling rough - in	5 days	Thu 10/27/11	Wed 11/2/11			I
145	✔	Sprinkler above ceiling rough-in	15 days	Thu 11/17/11	Wed 12/7/11			I
146	✔	chemical waste and vent piping above ceiling	10 days	Thu 12/1/11	Wed 12/14/11			I
147	✔	plumbing piping above ceiling rough-in	10 days	Thu 12/15/11	Wed 12/28/11			I
148	✔	electrical above ceiling rough-in	10 days	Thu 12/29/11	Wed 1/11/12			I
149	✔	temp control above ceiling rough-in	20 days	Thu 1/26/12	Wed 2/22/12			I
150	✔	interior partition framing	25 days	Thu 3/1/12	Wed 4/4/12			I
151	✔	HVAC duct in-wall rough-in	10 days	Thu 3/15/12	Wed 3/28/12			I
152	✔	chemical waste and vent piping in-wall rough-in	10 days	Thu 3/29/12	Wed 4/11/12			I
153	✔	plumbing piping in-wall rough-in	10 days	Thu 4/12/12	Wed 4/25/12			I
154	✔	temp control in-wall rough-in	10 days	Thu 4/26/12	Wed 5/9/12			I
155	✔	electrical in-wall rough-in	20 days	Thu 4/26/12	Wed 5/23/12			I
156	✔	GYP board walls	18 days	Thu 5/24/12	Mon 6/18/12			I
157	✔	GYP board walls	7 days	Thu 6/14/12	Fri 6/22/12			I
158	✔	Tape/finish walls	6 days	Mon 6/25/12	Mon 7/2/12			I
159	✔	top of wall firestopping	2 days	Tue 7/3/12	Wed 7/4/12			I
160	✔	GYP board ceilings	1 day	Thu 7/5/12	Thu 7/5/12			I
161	✔	tape/finish ceilings	3 days	Fri 7/6/12	Tue 7/10/12			I
162	✔	prime/first coat ceilings	2 days	Wed 7/11/12	Thu 7/12/12			I
163	✔	prime/first coat walls	4 days	Fri 7/13/12	Wed 7/18/12			I
164	✔	accoustical ceiling grid	6 days	Thu 7/19/12	Thu 7/26/12			I
165	✔	sprinkler heads	10 days	Fri 7/27/12	Thu 8/9/12			I
166	✔	install lighting fixtures	10 days	Fri 8/10/12	Thu 8/23/12			I
167	✔	lighting controls - elec RM 1057	10 days	Fri 8/24/12	Thu 9/6/12			I

Task		Inactive Summary	
Split		Manual Task	
Milestone		Duration-only	
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External Tasks		Start-only	
External Milestone		Finish-only	
Inactive Task		Deadline	
Inactive Milestone		Progress	

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ID	Task Mode	Task Name	Duration	Start	Finish	2011	2012	2013
168		install lighting controls	7 days	Fri 8/24/12	Mon 9/3/12			
169		finish paint walls	3 days	Fri 9/7/12	Tue 9/11/12			
170		water coolers	5 days	Wed 9/12/12	Tue 9/18/12			
171		water coolers	10 days	Wed 9/19/12	Tue 10/2/12			
172		water coolers	10 days	Wed 10/3/12	Tue 10/16/12			
173		plumbing fixture carriers - toilet 3083	10 days	Wed 10/17/12	Tue 10/30/12			
174		submit/review environmental & abatement	15 days	Tue 12/28/10	Mon 1/17/11			
175		subit/review concrete submittals	15 days	Mon 1/3/11	Fri 1/21/11			
176		submission of critical submittals	0 days					
177		GYP board soffits	5 days	Mon 6/25/12	Fri 6/29/12			
178		tape/finish soffits	6 days	Mon 7/2/12	Mon 7/9/12			
179		building mass excavation complete	0 days					
180		install R-2 roofing system - main roof	25 days	Thu 3/1/12	Wed 4/4/12			
181		install skylights - main roof	15 days	Thu 4/5/12	Wed 4/25/12			
182		building enclosure/watertight	0 days					
183		accoustical ceiling grid	8 days	Thu 1/17/13	Mon 1/28/13			
184		sprinkler heads	10 days	Sun 1/29/12	Thu 2/9/12			
185		install lighting fixtures	20 days	Tue 2/12/13	Mon 3/11/13			
186		install lighting controls	10 days	Tue 3/12/13	Mon 3/25/13			
187		GYP board soffits	5 days	Thu 12/6/12	Wed 12/12/12			
188		acid neutralization pits	2 days	Mon 5/23/11	Tue 5/24/11			
189		sewage ejector pit	2 days	Mon 5/23/11	Tue 5/24/11			
190		sump pit	2 days	Mon 5/23/11	Tue 5/24/11			
191		base mat slab rebar - pour 1	2 days	Wed 8/17/11	Thu 8/18/11			
192		mep slab rough-in third level - pour 1	3 days	Fri 8/19/11	Tue 8/23/11			
193		top mat slab rebar - pour 1	2 days	Wed 8/24/11	Thu 8/25/11			
194		base mat slab rebar - pour 2	2 days	Thu 8/25/11	Fri 8/26/11			
195		place and finish slab - pour 1	2 days	Sun 8/28/11	Mon 8/29/11			

Task		Inactive Summary	
Split		Manual Task	
Milestone		Duration-only	
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External Tasks		Start-only	
External Milestone		Finish-only	
Inactive Task		Deadline	
Inactive Milestone		Progress	

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ID	Task Mode	Task Name	Duration	Start	Finish	2011	2012	2013
196		mep slab rough-in third level - pour 2	3 days	Mon 8/29/11	Wed 8/31/11			
197		frp column/shear walls - third level - pour 1	8 days	Tue 8/30/11	Thu 9/8/11			
198		top mat slab rebar - pour 2	2 days	Thu 9/1/11	Fri 9/2/11			
199		base mat slab rebar - pour 3	2 days	Fri 9/2/11	Mon 9/5/11			
200		place and finish slab - pour 2	2 days	Mon 9/5/11	Tue 9/6/11			
201		mep slab rough-in - third level pour 3	3 days	Tue 9/6/11	Thu 9/8/11			
202		frp columns/shear walls - third level - pour 2	8 days	Wed 9/7/11	Fri 9/16/11			
203		top mat slab rebar - pour 3	2 days	Fri 9/9/11	Mon 9/12/11			
204		form suspended slab - pour 1	6 days	Fri 9/9/11	Fri 9/16/11			
205		place and finish slab - pour 3	2 days	Tue 9/13/11	Wed 9/14/11			
206		frp columns/shear walls - third level - pour 3	8 days	Thu 9/15/11	Mon 9/26/11			
207		form suspended slab - pour 2	6 days	Mon 9/19/11	Mon 9/26/11			
208		frp column/shear walls - third level - pour 4	8 days	Fri 9/23/11	Tue 10/4/11			
209		form suspended slab - pour 3	6 days	Tue 9/27/11	Tue 10/4/11			
210		form suspended slab - pour 4	6 days	Wed 10/5/11	Wed 10/12/11			
211		base mat slab rebar - pour 4	2 days	Thu 10/13/11	Fri 10/14/11			
212		mep slab rough-in fourth level - pour 4	3 days	Mon 10/17/11	Wed 10/19/11			
213		top mat slab rebar - pour 4	2 days	Thu 10/20/11	Fri 10/21/11			
214		place and finish slab - pour 4	2 days	Mon 10/24/11	Tue 10/25/11			
215		cure suspended slab - pour 4	7 days	Wed 10/26/11	Thu 11/3/11			
216		reshore slab - fourth level - pour 4	2 days	Fri 11/4/11	Mon 11/7/11			
217		architectural precast - north elevation	5 days	Tue 11/8/11	Mon 11/14/11			
218		architectural precast - east elevation	10 days	Tue 11/15/11	Mon 11/28/11			
219		spray insulation - east elevation	5 days	Tue 11/29/11	Mon 12/5/11			
220		exterior cold metal framing - east elevation	20 days	Thu 10/6/11	Wed 11/2/11			
221		exterior cold metal framing - south elevation	30 days	Tue 1/3/12	Mon 2/13/12			
222		exterior cold metal framing - west elevation	20 days	Tue 2/14/12	Mon 3/12/12			
223		spray insulation masonry - west elevation	5 days	Tue 3/13/12	Mon 3/19/12			

Task		Inactive Summary	
Split		Manual Task	
Milestone		Duration-only	
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External Tasks		Start-only	
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Inactive Task		Deadline	
Inactive Milestone		Progress	

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ID	Task Mode	Task Name	Duration	Start	Finish	2011	2012	2013
224		terra cotta - west elevation	25 days	Tue 3/20/12	Mon 4/23/12			
225		metal pan ceiling grid	6 days	Thu 1/17/13	Thu 1/24/13			
226		telecomm in-wall rough-in	15 days	Thu 4/26/12	Wed 5/16/12			
227		metal pan ceiling grid	1 day	Thu 7/19/12	Thu 7/19/12			
228		tape/finish soffits	6 days	Thu 12/13/12	Thu 12/20/12			
229		excavation protection	25 days	Wed 2/23/11	Tue 3/29/11			
230		base mat slab rebar - pour 1	2 days	Mon 9/19/11	Tue 9/20/11			
231		mep slab rough-in fourth level - pour 1	3 days	Wed 9/21/11	Fri 9/23/11			
232		top mat slab rebar - pour 1	2 days	Mon 9/26/11	Tue 9/27/11			
233		place and finish slab - pour 1	2 days	Wed 9/28/11	Thu 9/29/11			
234		frp columns/shear walls - fourth level - pour 1	8 days	Fri 9/30/11	Tue 10/11/11			
235		form suspended slab - pour 1	8 days	Wed 10/12/11	Fri 10/21/11			
236		form suspended slab - pour 2	8 days	Mon 10/24/11	Wed 11/2/11			
237		form suspended slab - pour 3	8 days	Thu 11/3/11	Mon 11/14/11			
238		form suspended slab - pour 4	8 days	Tue 11/15/11	Thu 11/24/11			
239		base mat slab rebar - pour 4	2 days	Fri 11/25/11	Mon 11/28/11			
240		top mat slab rebar - pour 4	2 days	Tue 11/29/11	Wed 11/30/11			
241		steel decking - third level, atrium	10 days	Thu 12/1/11	Wed 12/14/11			
242		place and finish slab - pour 4	2 days	Thu 12/1/11	Fri 12/2/11			
243		cure suspended slab - pour 4	7 days	Mon 12/5/11	Tue 12/13/11			
244		reshore slab - roof level - pour 4	1 day	Wed 12/14/11	Wed 12/14/11			
245		structural steel framing - truss	10 days	Thu 12/15/11	Wed 12/28/11			
246		telecom & security above ceiling rough-in	15 days	Thu 5/10/12	Wed 5/30/12			
247		fire alarm above ceiling rough-in	15 days	Thu 5/10/12	Wed 5/30/12			
248		GYP board walls	7 days	Thu 12/6/12	Fri 12/14/12			
249		tape/finish walls	6 days	Mon 12/17/12	Mon 12/24/12			
250		top of wall firestopping	2 days	Tue 12/25/12	Wed 12/26/12			
251		GYP board ceilings	1 day	Thu 12/27/12	Thu 12/27/12			

Task		Inactive Summary	
Split		Manual Task	
Milestone		Duration-only	
Summary		Manual Summary Rollup	
Project Summary		Manual Summary	
External Tasks		Start-only	
External Milestone		Finish-only	
Inactive Task		Deadline	
Inactive Milestone		Progress	

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ID	Task Mode	Task Name	Duration	Start	Finish	2011	2012	2013
252		tape/finish ceilings	3 days	Fri 12/28/12	Tue 1/1/13			
253		prime/first coat ceilings	2 days	Wed 1/2/13	Thu 1/3/13			
254		prime/fire coat walls	4 days	Fri 1/4/13	Wed 1/9/13			
255		prime/first coat HM frames	4 days	Thu 1/10/13	Tue 1/15/13			
256		lab casework	10 days	Wed 1/16/13	Tue 1/29/13			
257		fume hoods	5 days	Wed 1/30/13	Tue 2/5/13			
258		fume hood controls	2 days	Wed 2/6/13	Thu 2/7/13			
259		tape/finish walls	9 days	Tue 11/6/12	Fri 11/16/12			
260		top of wall firestopping	3 days	Mon 11/19/12	Wed 11/21/12			
261		GYP board ceilings	2 days	Thu 11/22/12	Fri 11/23/12			
262		tape/finish ceilings	6 days	Mon 11/26/12	Mon 12/3/12			
263		prime/first coat ceilings	4 days	Tue 12/4/12	Fri 12/7/12			
264		prime/first coat walls	6 days	Mon 12/10/12	Mon 12/17/12			
265		GYP board soffits	5 days	Mon 12/17/12	Fri 12/21/12			
266		acoustical ceiling grid	8 days	Tue 12/18/12	Thu 12/27/12			
267		tape/finish soffits	6 days	Mon 12/24/12	Mon 12/31/12			
268		sprinkler heads	10 days	Fri 12/28/12	Thu 1/10/13			
269		install lighting fixtures	20 days	Fri 1/11/13	Thu 2/7/13			
270		install lighting controls	10 days	Fri 2/8/13	Thu 2/21/13			
271		install lighting controls	7 days	Fri 2/22/13	Mon 3/4/13			
272		cure suspended slab - pour 1	7 days	Mon 6/27/11	Tue 7/5/11			
273		cure suspended slab - pour 2	7 days	Tue 7/5/11	Wed 7/13/11			
274		reshore slab - first level - pour 1	2 days	Wed 7/6/11	Thu 7/7/11			
275		cure suspended slab - pour 3	7 days	Wed 7/13/11	Thu 7/21/11			
276		reshore slab - first level - pour 2	2 days	Thu 7/14/11	Fri 7/15/11			
277		cure suspended slab - pour 4	7 days	Thu 7/21/11	Fri 7/29/11			
278		reshore slab - first level - pour 3	2 days	Fri 7/22/11	Mon 7/25/11			
279		reshore slab - first level - pour 4	2 days	Mon 8/1/11	Tue 8/2/11			

Task		Inactive Summary	
Split		Manual Task	
Milestone		Duration-only	
Summary		Manual Summary Rollup	
Project Summary		Manual Summary	
External Tasks		Start-only	
External Milestone		Finish-only	
Inactive Task		Deadline	
Inactive Milestone		Progress	

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ID	Task Mode	Task Name	Duration	Start	Finish	2011	2012	2013
280		base mat slab rebar - pour 2	2 days	Tue 9/27/11	Wed 9/28/11			
281		mep slab rough-in fourth-level - pour 2	3 days	Thu 9/29/11	Mon 10/3/11			
282		top mat slab rebar - pour 2	2 days	Tue 10/4/11	Wed 10/5/11			
283		place and finish slab - pour 2	2 days	Thu 10/6/11	Fri 10/7/11			
284		frp columns/shear walls - fourth level - pour 2	8 days	Mon 10/10/11	Wed 10/19/11			
285		GYP board walls	15 days	Mon 6/25/12	Fri 7/13/12			
286		GYP board walls	7 days	Mon 7/16/12	Tue 7/24/12			
287		tape/finish walls	6 days	Wed 7/25/12	Wed 8/1/12			
288		top of wall firestopping	2 days	Thu 8/2/12	Fri 8/3/12			
289		GYP board ceilings	1 day	Mon 8/6/12	Mon 8/6/12			
290		tape/finish ceilings	3 days	Tue 8/7/12	Thu 8/9/12			
291		prime/first coat ceilings	2 days	Fri 8/10/12	Mon 8/13/12			
292		prime/first coat walls	4 days	Tue 8/14/12	Fri 8/17/12			
293		prime/first coat HM frames	4 days	Mon 8/20/12	Thu 8/23/12			
294		Lab casework	10 days	Fri 8/24/12	Thu 9/6/12			
295		lab plumbing fixtures	10 days	Fri 9/7/12	Thu 9/20/12			
296		lab plumbing fixtures	10 days	Fri 9/21/12	Thu 10/4/12			
297		plumbing fixtures carriers - toilet 3081	10 days	Fri 10/5/12	Thu 10/18/12			
298		resilient flooring	3 days	Fri 2/8/13	Tue 2/12/13			
299		Carpeting	3 days	Wed 2/13/13	Fri 2/15/13			
300		metal pan ceilings tiles	3 days	Tue 3/12/13	Thu 3/14/13			
301		air balancing	1 day	Fri 3/15/13	Fri 3/15/13			
302		GYP board soffits	5 days	Wed 7/25/12	Tue 7/31/12			
303		tape/finish soffits	6 days	Wed 8/1/12	Wed 8/8/12			
304		metal pan ceiling grid	6 days	Tue 12/18/12	Tue 12/25/12			
305		accoustical ceiling tiles	3 days	Tue 3/12/13	Thu 3/14/13			
306		frp strip footings	24 days	Wed 3/16/11	Mon 4/18/11			
307		base mat slab rebar - pour 3	2 days	Wed 10/5/11	Thu 10/6/11			

Task		Inactive Summary	
Split		Manual Task	
Milestone		Duration-only	
Summary		Manual Summary Rollup	
Project Summary		Manual Summary	
External Tasks		Start-only	
External Milestone		Finish-only	
Inactive Task		Deadline	
Inactive Milestone		Progress	

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ID	Task Mode	Task Name	Duration	Start	Finish	2011	2012	2013
308		mep slab rough-in - fourth level - pour 3	3 days	Fri 10/7/11	Tue 10/11/11			
309		top mat slab rebar - pour 3	2 days	Wed 10/12/11	Thu 10/13/11			
310		place and finish slab - pour 3	2 days	Fri 10/14/11	Mon 10/17/11			
311		frp columns/shear walls - fourth level - pour 3	8 days	Tue 10/18/11	Thu 10/27/11			
312		telecom & security above ceiling rough-in	15 days	Thu 1/26/12	Wed 2/15/12			
313		fire alarm above ceiling rough-in	15 days	Thu 1/26/12	Wed 2/15/12			
314		plumbing fixture carriers - toilet 1016	10 days	Thu 3/15/12	Wed 3/28/12			
315		plumbing fixture carriers - toilet 1015	10 days	Thu 3/15/12	Wed 3/28/12			
316		fire alarm in-wall rough-in	10 days	Thu 4/26/12	Wed 5/9/12			
317		prime/first coat HM frames	4 days	Thu 7/19/12	Tue 7/24/12			
318		lab casework	10 days	Wed 7/25/12	Tue 8/7/12			
319		lab plumbing fixtures	10 days	Wed 8/8/12	Tue 8/21/12			
320		lab plumbing fixtures	10 days	Wed 8/22/12	Tue 9/4/12			
321		tape/finish walls	9 days	Mon 7/16/12	Thu 7/26/12			
322		top of wall firestopping	3 days	Fri 7/27/12	Tue 7/31/12			
323		GYP board ceilings	2 days	Wed 8/1/12	Thu 8/2/12			
324		tape/finish walls	6 days	Fri 8/3/12	Fri 8/10/12			
325		prime/first coat ceilings	4 days	Mon 8/13/12	Thu 8/16/12			
326		prime/first coat walls	6 days	Fri 8/17/12	Fri 8/24/12			
327		prime/first coat HM frames	6 days	Mon 8/27/12	Mon 9/3/12			
328		lab casework	10 days	Tue 9/4/12	Mon 9/17/12			
329		telecomm in-wall rough-in	15 days	Tue 9/4/12	Mon 9/24/12			
330		lab plumbing fixtures	10 days	Wed 1/30/13	Tue 2/12/13			
331		lab plumbing fixtures	10 days	Wed 2/13/13	Tue 2/26/13			
332		lab gas testing	10 days	Wed 2/27/13	Tue 3/12/13			
333		frp columns/shear walls - fourth level - pour 4	8 days	Wed 10/26/11	Fri 11/4/11			
334		spray insulation precast - north elevation	2 days	Tue 11/15/11	Wed 11/16/11			
335		exterior cold metal framing - north elevation	5 days	Thu 11/17/11	Wed 11/23/11			

Task		Inactive Summary	
Split		Manual Task	
Milestone		Duration-only	
Summary		Manual Summary Rollup	
Project Summary		Manual Summary	
External Tasks		Start-only	
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Inactive Task		Deadline	
Inactive Milestone		Progress	

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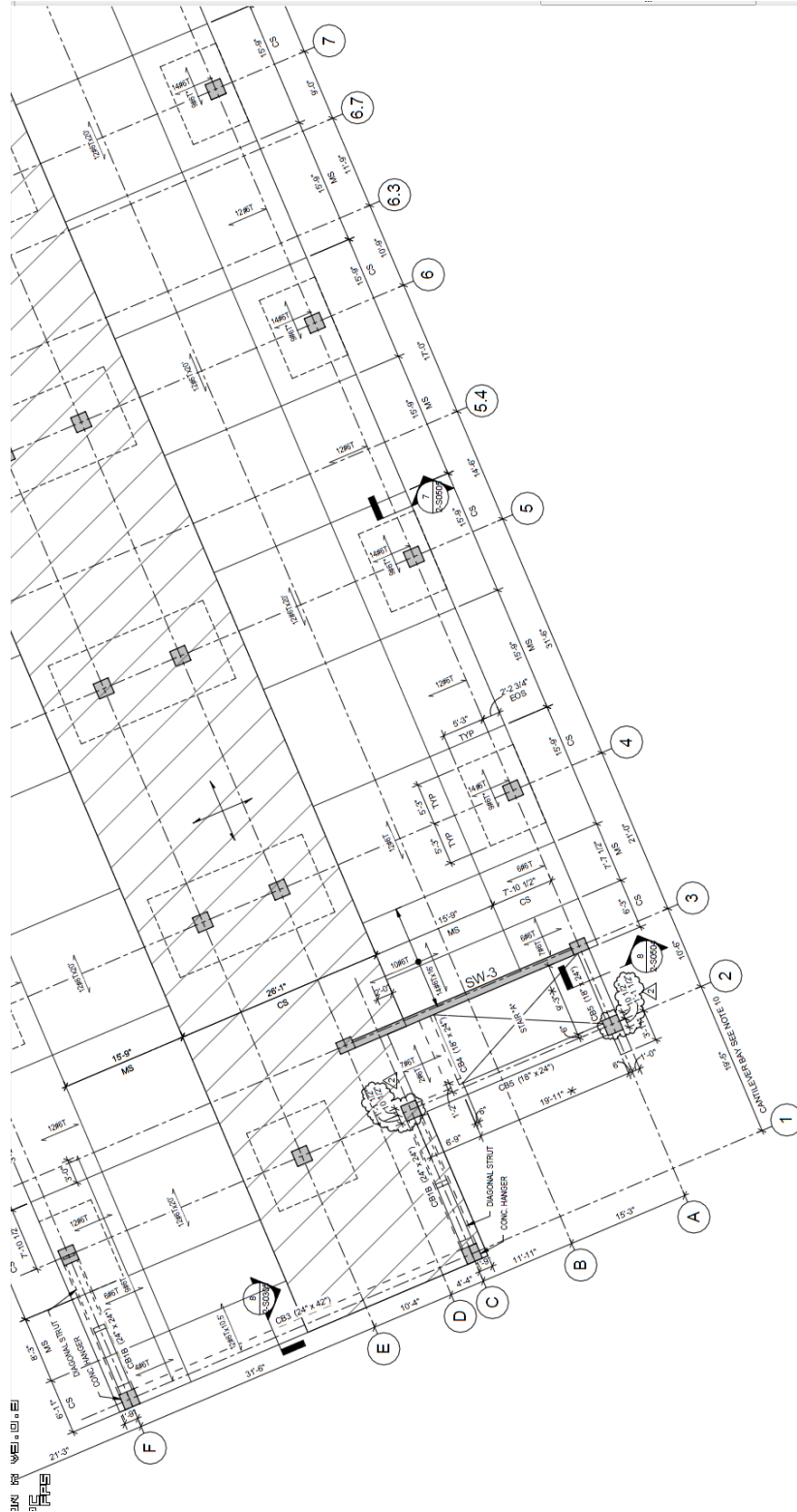
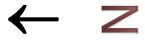
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336		accoustical ceiling grid	6 days	Thu 1/10/13	Thu 1/17/13			
337		sprinkler heads	10 days	Fri 1/18/13	Thu 1/31/13			
338		install lighting fixtures	10 days	Fri 2/1/13	Thu 2/14/13			
339		tape/finish walls	9 days	Thu 6/14/12	Tue 6/26/12			
340		top of wall firestopping	3 days	Wed 6/27/12	Fri 6/29/12			
341		GYP board ceilings	2 days	Mon 7/2/12	Tue 7/3/12			
342		tape/finish ceilings	6 days	Wed 7/4/12	Wed 7/11/12			
343		prime/first coat ceilings	4 days	Wed 7/18/12	Mon 7/23/12			
344		prime/first coat walls	6 days	Thu 7/26/12	Thu 8/2/12			
345		prime/first coat HM frames	6 days	Fri 8/3/12	Fri 8/10/12			
346		Lab casework	10 days	Tue 11/29/11	Mon 12/12/11			
347		architectural precast - south elevation	5 days	Tue 12/6/11	Mon 12/12/11			
348		spray insulation - south elevation	10 days	Mon 8/27/12	Fri 9/7/12			
349		architectural woodwork	10 days	Mon 9/10/12	Fri 9/21/12			
350		finish paint walls	3 days	Tue 11/6/12	Thu 11/8/12			
351		GYP board soffits	5 days	Tue 12/18/12	Mon 12/24/12			
352		prime/first coat HM frames	6 days	Wed 12/26/12	Wed 1/2/13			
353		lab casework	10 days	Wed 1/9/13	Tue 1/22/13			
354		fume hoods	10 days	Wed 1/23/13	Tue 2/5/13			
355		fume hood controls	2 days	Wed 3/23/11	Thu 3/24/11			
356		frp shear walls - lower level	10 days	Wed 3/23/11	Tue 4/5/11			

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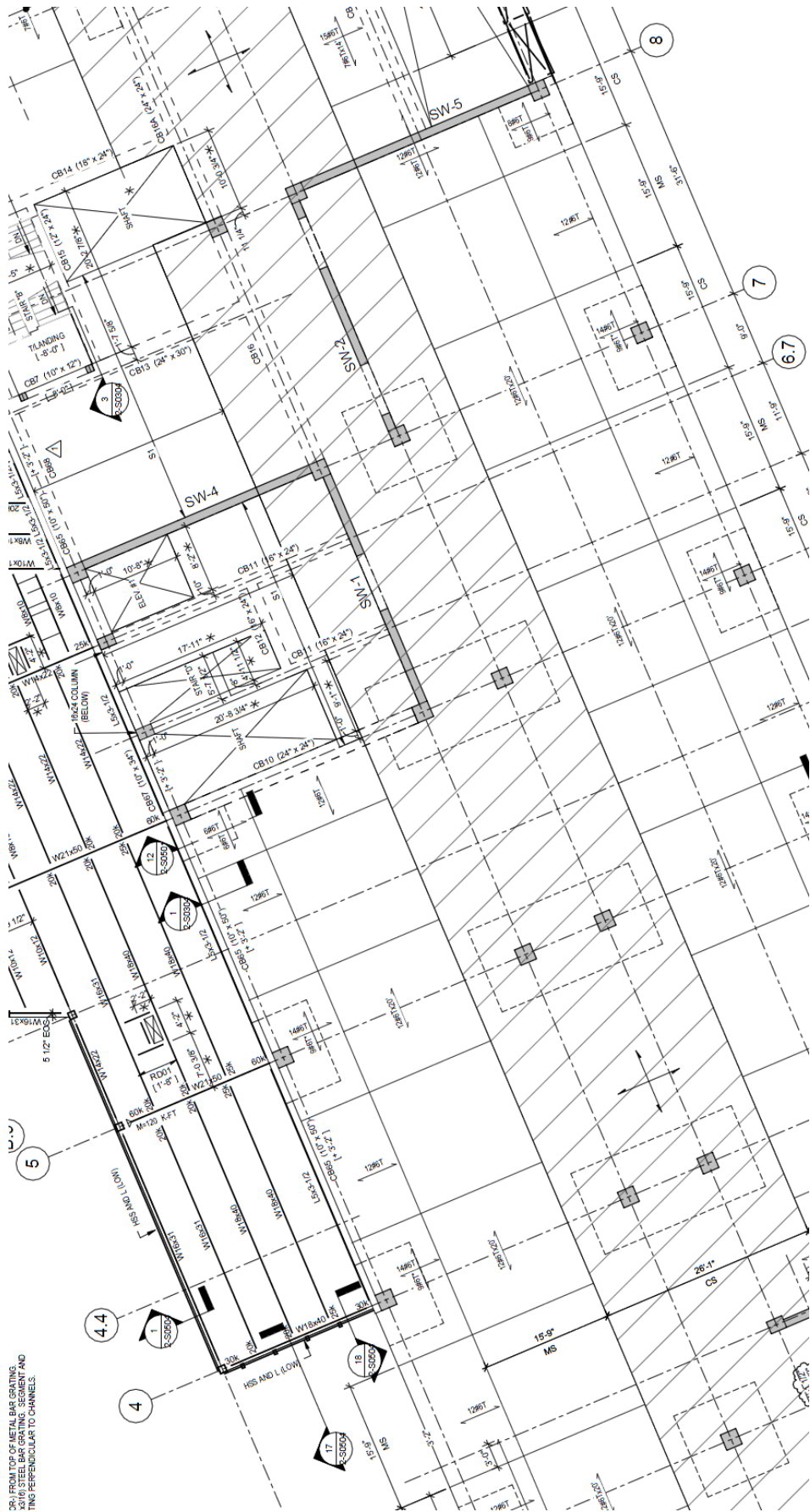
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Split		Manual Task	
Milestone		Duration-only	
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Project Summary		Manual Summary	
External Tasks		Start-only	
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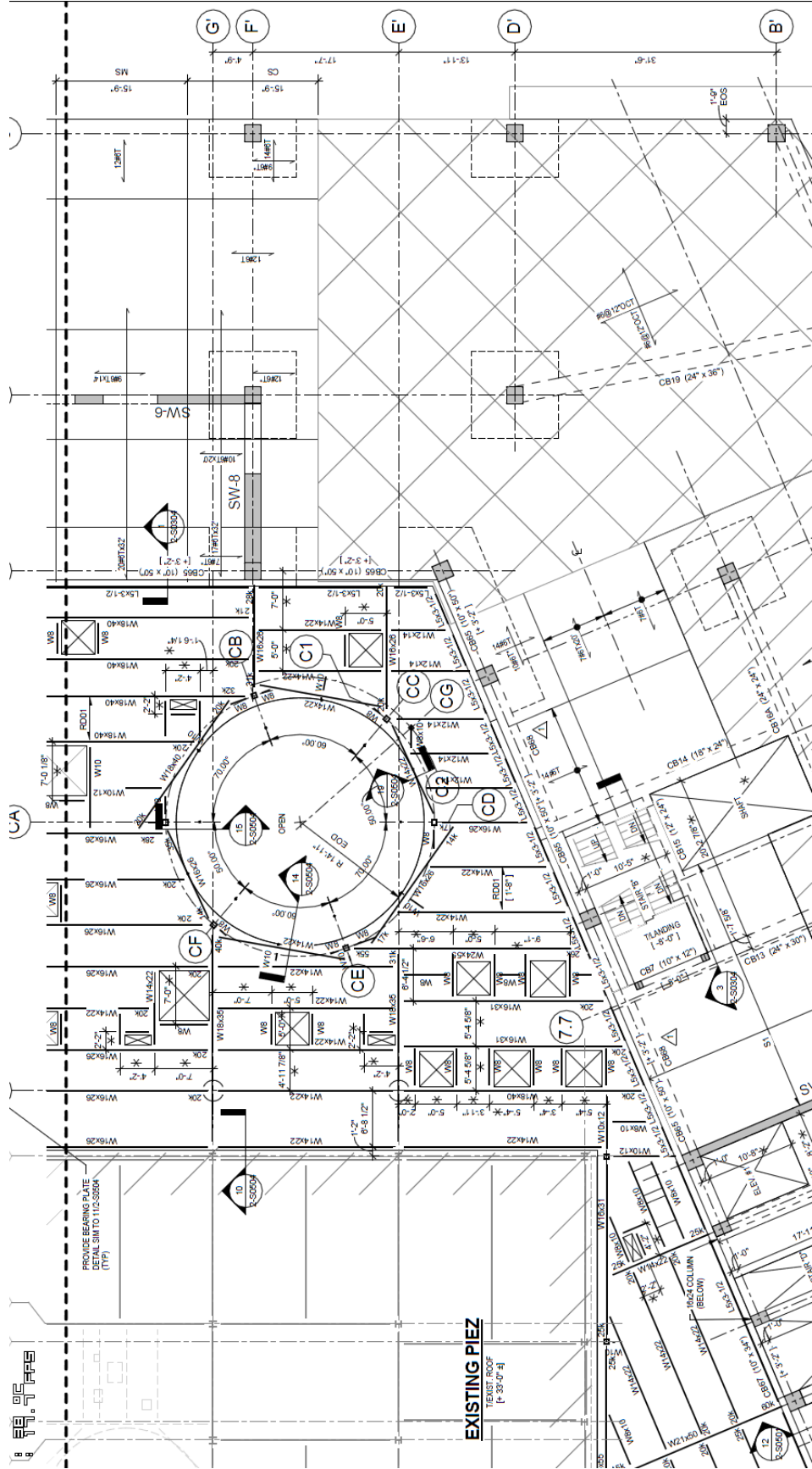
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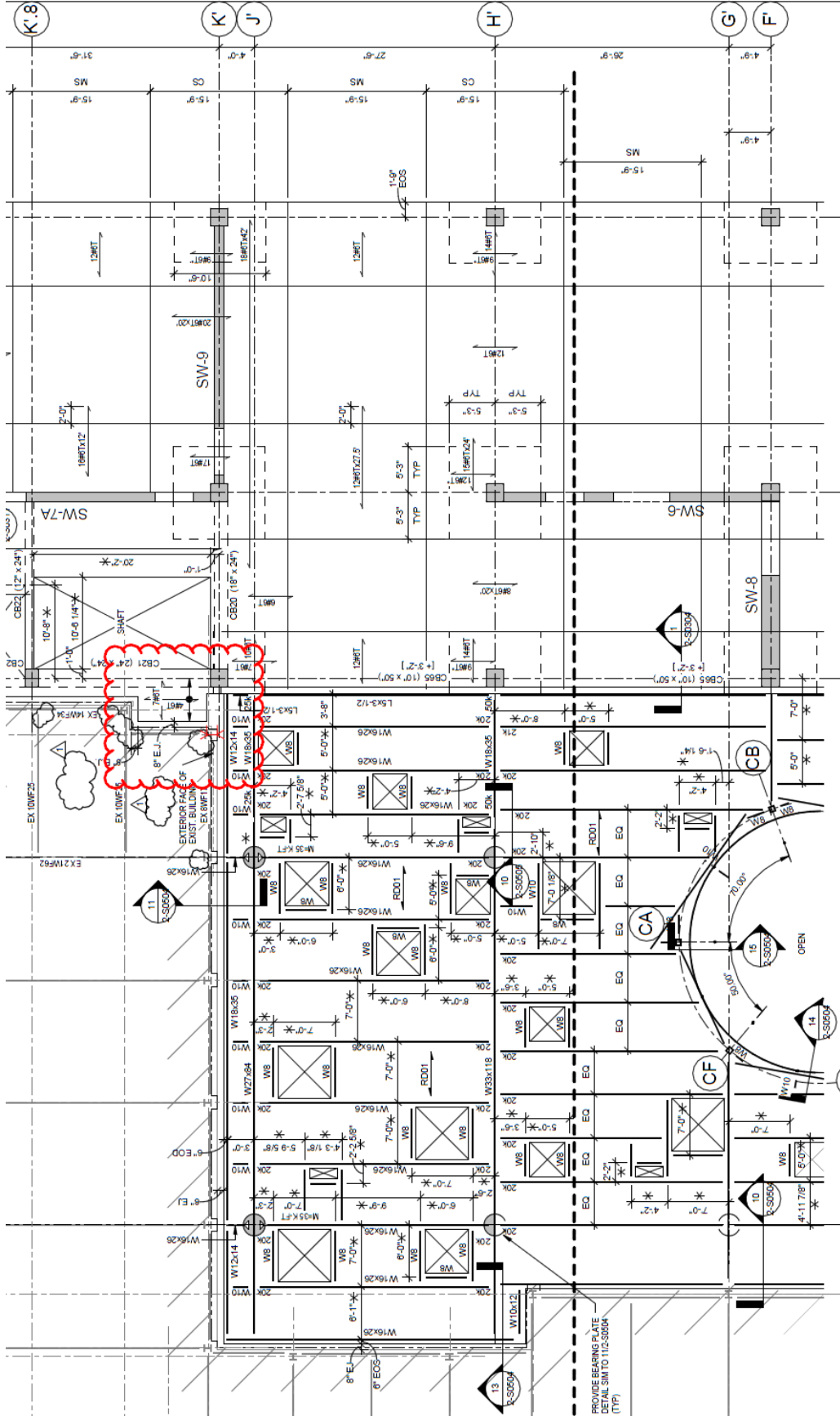
Appendix G: Typical Floor Plans



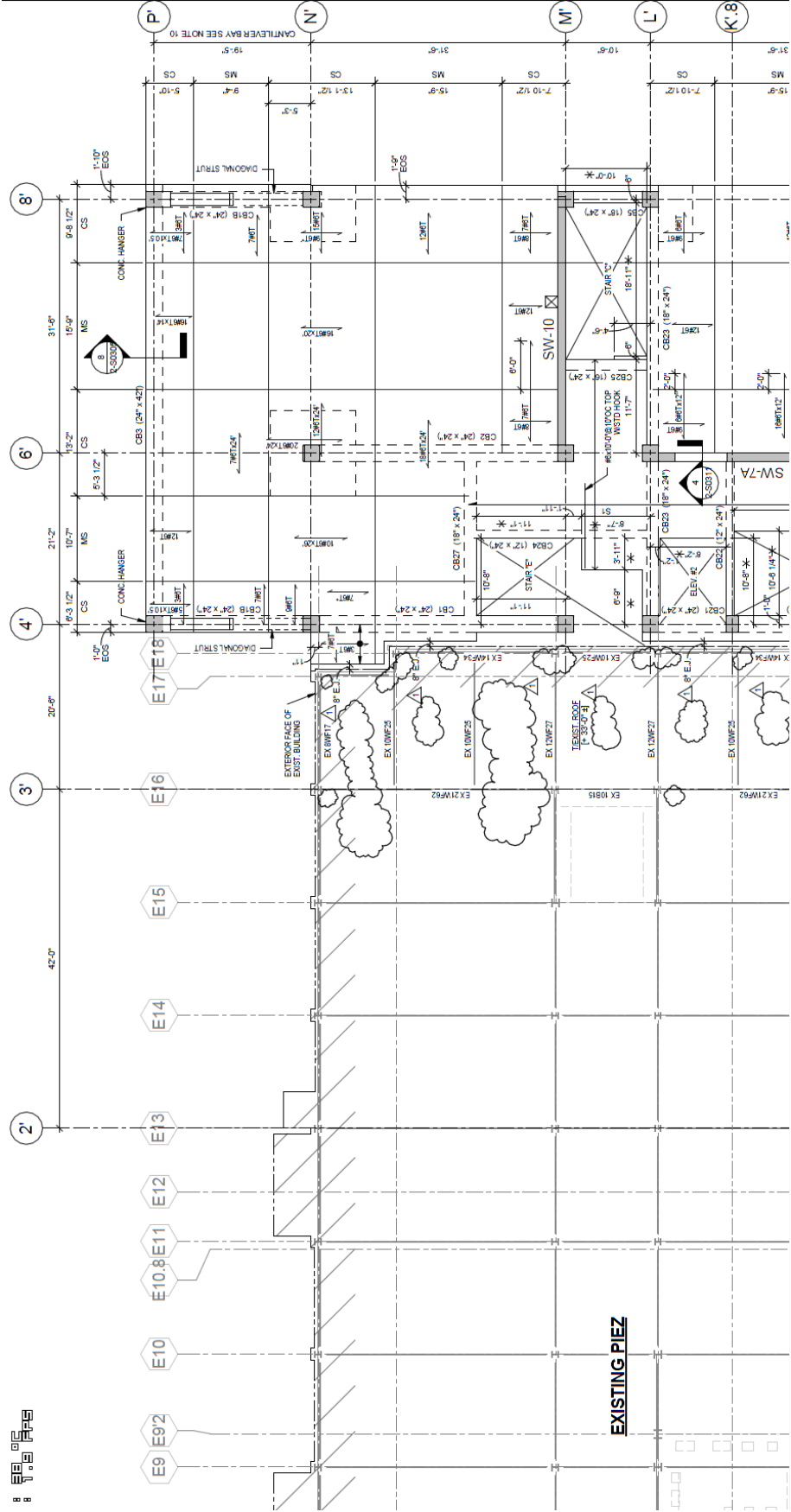
20' FROM TOP OF METAL BAR GRATING,
X3/16" STEEL BAR GRATING, SEGMENT AND
TING PERPENDICULAR TO CHANNELS.







PROVIDE REBAR IN LITE
DETAIL S.M.T.O 113-3800A
(TYP)

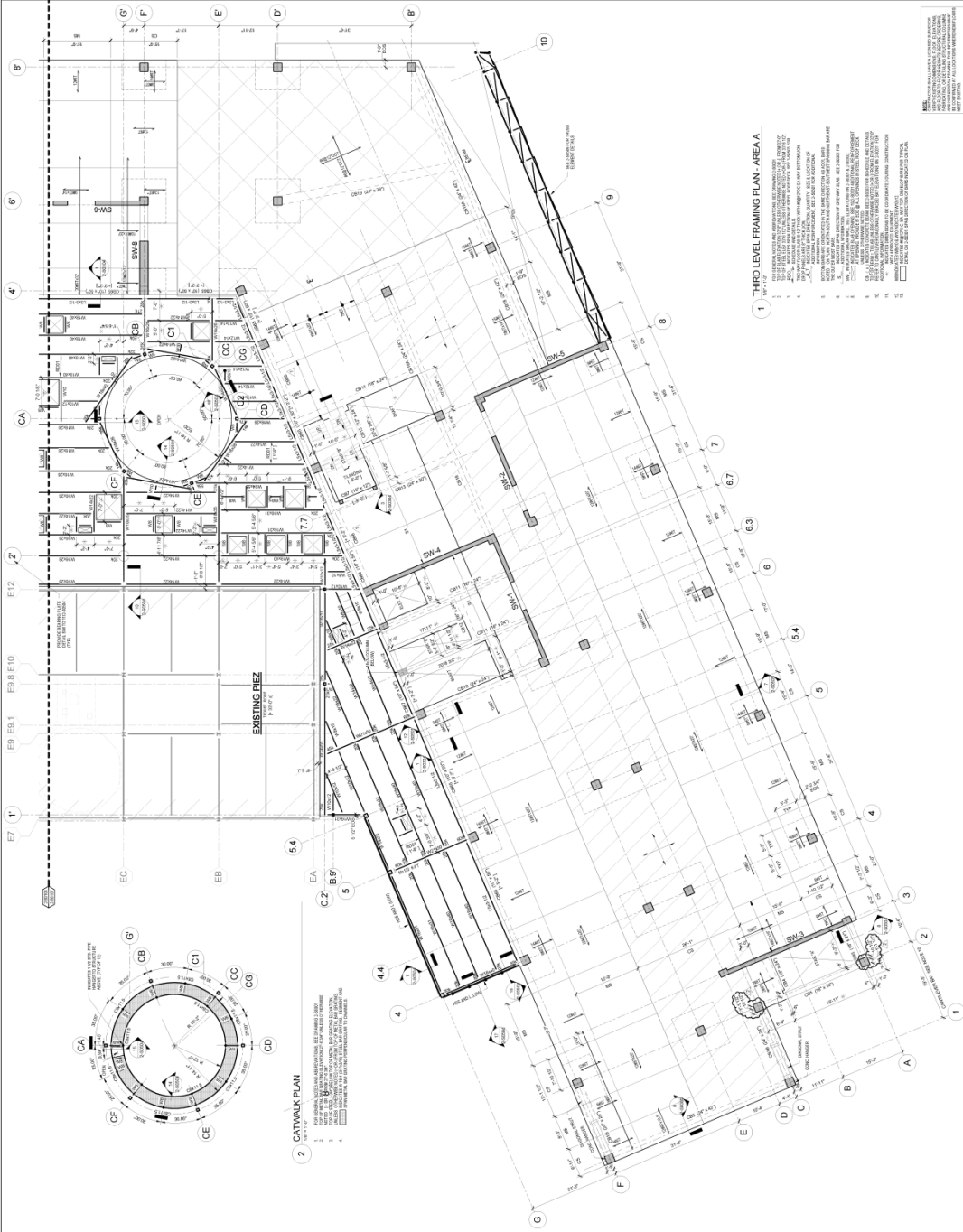
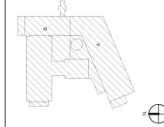


PIEZ HALL
ADDITION -
SCIENCE,
ENGINEERING &
TECHNOLOGIES
SUCF #10354



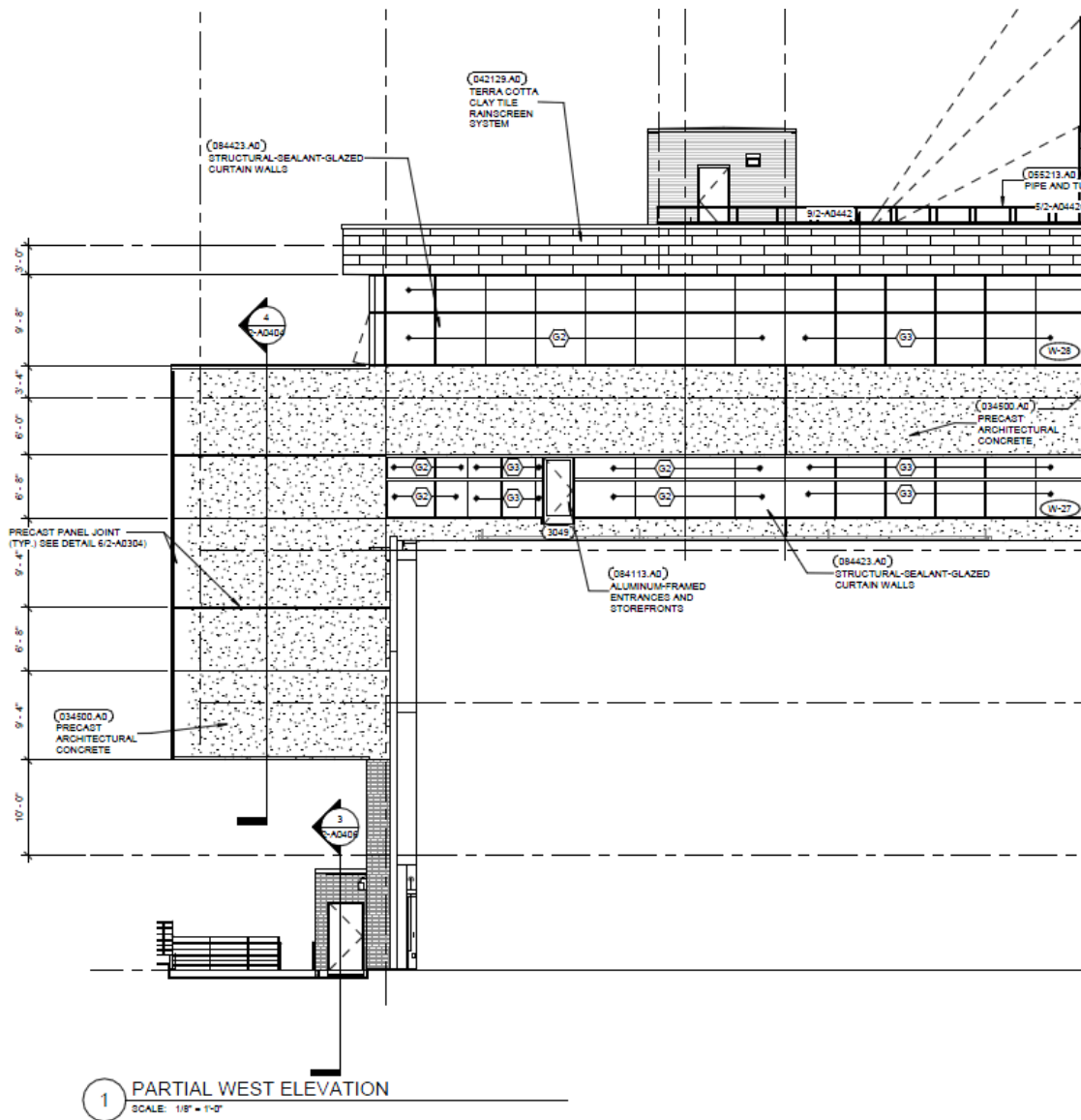
OSWEGO
CANNON DESIGN

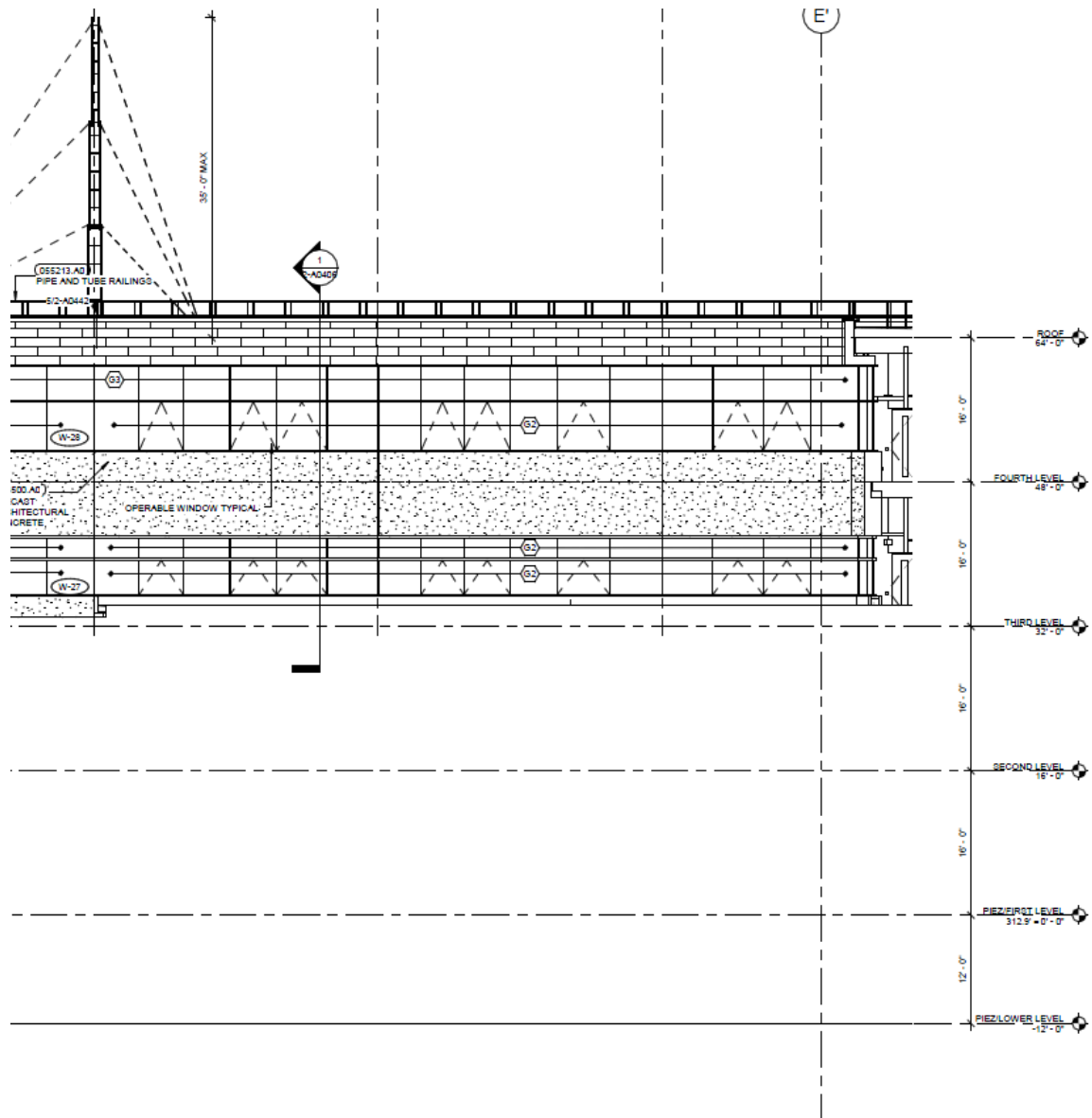
CONSTRUCTION FUND
45% 100%



- 1 THIRD LEVEL FRAMING PLAN - AREA A**
10/11/19
1. THIS DRAWING IS A PART OF THE THIRD LEVEL FRAMING PLAN FOR THE PIEZ HALL ADDITION - SCIENCE, ENGINEERING & TECHNOLOGIES. IT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ARCHITECTURAL RECORD DRAWINGS AND THE STRUCTURAL SPECIFICATIONS.
 2. ALL DIMENSIONS ARE IN FEET AND INCHES. DIMENSIONS ARE GIVEN TO THE CENTERLINE UNLESS OTHERWISE NOTED.
 3. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR.
 4. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR.
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 9. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR.
 10. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR.

2-S0107





References

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Special Thanks to Rachel Chicchi
from Cannon Design