

X. APPENDIX C: CONSTRUCTION MANAGEMENT BREADTH CALCULATIONS



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CONSTRUCTION MANAGEMENT BREADTH

ROUGH COST ESTIMATES - RS MEANS SQUARE FOOT COSTS

DATA 2007
 - OFFICE 6 STORY
 TOTAL FLOOR AREA = $5(11138\text{ FT}^2) + 2929\text{ FT}^2 = 58619\text{ FT}^2$
 TOTAL FLOOR PERIMETER = $2(116') + 2(134') = 500\text{ FT}$
 STORY HEIGHT = 14'
 - FACE BRICK WITH CONCRETE BLOCK BACK-UP
 - STEEL FRAME = $(\$141.88 + 1.03(\$8.74) + 2.00(\$2.72) + \$31.95)$
 $= (\$188.27)(58619\text{ FT}^2) = \$11,039,199 (0.10) \approx \$1,104,000$
 $\$19,400,000 + 4(\$46,000) = \$10,584,000$

REINFORCED CONCRETE FRAME = $\$134.39 + 1.03(\$8.74) + 2.00(\$2.72) + \31.95
 $= (\$180.78)(58619\text{ FT}^2) = \$10,584,000$
 BASE ADDITIONAL PERIMETER ADDITIONAL HEIGHT BASEMENT
 + $\$31.95 = (\$180.78)(58619\text{ FT}^2)$
 BASEMENT SUPERSTRUCTURE ONLY
 $= \$11,007,576 (0.10) \approx \$1,101,000$

FINAL COST ESTIMATES - RS MEANS BUILDING CONSTRUCTION COST DATA 2007
 SITE WORK & LANDSCAPING COST DATA 2007

ASSUMPTIONS FOR CONCRETE PLACING & FORMS

CONTINUOUS FOOTINGS, PILE CAPS & PIERS

- PUMPED

- 1 USE

SLAB ON GRADE

- DIRECT CHUTE

- EDGE FORM

ELEVATED FLAT SLAB WITH DROP PANELS 1ST FLOOR - 5TH FLOOR

- CRANE & BUCKET

- 4 USE

ELEVATED FLAT SLAB WITH DROP PANELS - 6TH FLOOR

- 1 USE

- CRANE & BUCKET

COLUMNS

- CRANE & BUCKET

- 4 USE

WALL

- CRANE & BUCKET

- EXTERIOR WALL

- 4 USE

BEAMS

- CRANE & BUCKET

- 1 USE

ASSUMPTIONS FOR STEEL

- ADJUSTED FOR TONNAGE FOR COLUMNS & BEAMS

- 0.845 TONS = 1 FT³



FINAL SCHEDULE ESTIMATES - CONSTRUCTION SCHEDULING WITH
PRIMAVERA PROJECT PLANNER

ASSUMPTIONS

- START DATE: JUNE 2, 2003
- WORK DATES: MONDAY - FRIDAY
- FABRICATION & SHIPPING DELAYS FROM START OF PROJECT:
 - BASEPLATES: 20 DAYS
 - STEEL MEMBERS: 50 DAYS
 - FORMWORK: 15 DAYS
 - REBAR: 25 DAYS
- LAGS:
 - +2 FOR CONCRETE CURING BETWEEN PLACING & STRIPING
 - 1/3 FORMING → STRIPING



i. Cost Estimate Comparison

Existing Steel Structural System Cost Estimate

Item No.	Item	Item Breakdown	Detailed Item Breakdown
1	Concrete Piles	Concrete	
2		Reinforcement	
3	Concrete Pile Caps	Material	
4		Forms	Square, Rectangular
5			Triangular
6		Placing	$x < 5$
7			$5 < x < 10$
8		Reinforcement	#4-#7
9			#8-#18
10	Concrete Continuous Footings	Material	
11		Forms	
12		Placing	
13	Concrete Slab on Grade	Material	
14		Forms	
15		Placing	
16		Welded Wire Fabric	
17	Concrete Piers	Material	
18		Forms	
19		Placing	
20	Steel Baseplates	Baseplates	
21		Anchor Bolts	
22	Steel Columns	Columns	W12x50
23			W12x87
24			W12x120
25			HSS 4x4x1/4
26		Fireproofing	
27	Steel Beams	Beams	W8x21
28			W8x24
29			W10x12
30			W12x14



Item No.	Item	Item Breakdown	Detailed Item Breakdown
31			W12x26
32			W14x26
33			W16x26
34			W16x31
35			W16x40
36			W18x35
37			W18x40
38			W18x76
39			W21x44
40			W24x55
41			W24x68
42			W24x76
43			W27x84
44		Open Web Steel Joists	18K5
45		Cold Formed Roof Trusses	9:12 to 12:12 Pitch
46		Studs	
47		Fireproofing	
48		Flange Moment Connections	1/4" Weld
49			3/4" Weld
50		Web Moment Connections	1/4" Weld
51			3/4" Weld
52	Composite Steel Deck	Deck	
53		Material	
54		Placing	
55		Welded Wire Fabric	
56		Fireproofing	
57	Roof Steel Deck	Deck	
58		Fireproofing	
59	Subtotal		
60	20% Miscellaneous Steel Increase		
61	Total		



Item No.	Unit	Quantity	Material Unit Cost	Material Cost	Labor Unit Cost	Labor Cost
1	VLF	2869.90	\$17.75	\$50,940.73	\$6.35	\$18,223.87
2	LB	9881.67	\$0.90	\$8,893.50	\$0.00	\$0.00
3	CY	182.94	\$114.00	\$20,855.10	\$0.00	\$0.00
4	SFCA	2595.60	\$2.46	\$6,385.18	\$3.83	\$0.00
5	SFCA	927.00	\$2.90	\$2,688.30	\$4.94	\$9,941.15
6	CY	120.11	\$0.00	\$0.00	\$18.05	\$2,167.98
7	CY	62.83	\$0.00	\$0.00	\$9.95	\$625.16
8	TON	0.10	\$850.00	\$83.96	\$630.00	\$62.23
9	TON	5.51	\$805.00	\$4,438.93	\$365.00	\$2,012.68
10	CY	34.73	\$114.00	\$3,958.79	\$0.00	\$0.00
11	SFCA	15849.13	\$2.64	\$41,841.70	\$2.96	\$46,913.42
12	CY	34.73	\$0.00	\$0.00	\$13.25	\$460.12
13	CY	139.98	\$114.00	\$15,957.19	\$0.00	\$0.00
14	SFCA	164.73	\$0.29	\$47.77	\$1.85	\$304.76
15	CY	139.98	\$0.00	\$0.00	\$13.20	\$1,847.67
16	CSF	113.38	\$19.80	\$2,244.92	\$23.00	\$2,607.74
17	CY	35.58	\$108.00	\$3,842.56	\$0.00	\$0.00
18	SFCA	1921.28	\$2.57	\$4,937.69	\$5.85	\$11,239.49
19	CY	35.58	\$0.00	\$0.00	\$21.50	\$764.95
20	SF	76.50	\$32.00	\$2,448.00	\$0.00	\$0.00
21	EA	136.00	\$4.04	\$549.44	\$23.50	\$3,196.00
22	LF	864.69	\$62.15	\$53,740.48	\$2.19	\$1,893.67
23	LF	923.35	\$107.80	\$99,537.13	\$2.30	\$2,123.71
24	LF	318.68	\$148.50	\$47,323.98	\$2.35	\$748.90
25	EA	25.00	\$185.90	\$4,647.50	\$39.00	\$975.00
26	SF	6320.16	\$0.50	\$3,160.08	\$0.66	\$4,171.31
27	LF	153.36	\$23.50	\$3,603.96	\$3.77	\$578.17
28	LF	76.68	\$27.00	\$2,070.36	\$4.11	\$315.15
29	LF	577.12	\$13.55	\$7,819.98	\$3.77	\$2,175.74
30	LF	1380.96	\$15.80	\$21,819.17	\$2.57	\$3,549.07



Item No.	Unit	Quantity	Material Unit Cost	Material Cost	Labor Unit Cost	Labor Cost
31	LF	216.06	\$29.50	\$6,373.77	\$2.57	\$555.27
32	LF	47.68	\$29.50	\$1,406.56	\$2.28	\$108.71
33	LF	2604.35	\$29.50	\$76,828.33	\$2.26	\$5,885.83
34	LF	3135.73	\$35.00	\$109,750.55	\$2.51	\$7,870.68
35	LF	55.34	\$45.00	\$2,490.30	\$2.82	\$156.06
36	LF	1285.66	\$39.50	\$50,783.57	\$3.40	\$4,371.24
37	LF	1321.84	\$45.00	\$59,482.80	\$3.40	\$4,494.26
38	LF	100.02	\$85.50	\$8,551.71	\$3.63	\$363.07
39	LF	195.68	\$49.50	\$9,686.16	\$3.07	\$600.74
40	LF	2131.71	\$62.00	\$132,166.02	\$2.94	\$6,267.23
41	LF	479.92	\$76.50	\$36,713.88	\$2.94	\$1,410.96
42	LF	192.86	\$85.50	\$16,489.53	\$2.94	\$567.01
43	LF	359.06	\$94.50	\$33,931.17	\$2.75	\$987.42
44	LF	876.12	\$5.50	\$4,818.66	\$1.63	\$1,428.08
45	EA	46.00	\$181.00	\$8,326.00	\$98.00	\$4,508.00
46	EA	6737.00	\$0.49	\$3,301.13	\$0.72	\$4,850.64
47	SF	50099.11	\$0.45	\$22,544.60	\$0.49	\$24,548.56
48	LF	856.00	\$0.60	\$513.60	\$6.95	\$5,949.20
49	LF	214.00	\$2.58	\$552.12	\$29.00	\$6,206.00
50	LF	792.00	\$0.60	\$475.20	\$6.95	\$5,504.40
51	LF	396.00	\$2.58	\$1,021.68	\$29.00	\$11,484.00
52	SF	58735.00	\$1.63	\$95,738.05	\$0.37	\$21,731.95
53	CY	906.40	\$108.00	\$97,891.67	\$0.00	\$0.00
54	CY	906.40	\$0.00	\$0.00	\$24.00	\$21,753.70
55	CSF	587.35	\$15.40	\$9,045.19	\$21.50	\$12,628.03
56	SF	67796.00	\$0.45	\$30,508.20	\$0.49	\$33,220.04
57	SF	9061.00	\$1.82	\$16,491.02	\$0.35	\$3,171.35
58	SF	9061.00	\$2.82	\$25,552.02	\$1.35	\$12,232.35
59				\$1,275,269.87		\$319,752.71
60				\$255,053.97		\$63,950.54
61				\$1,530,323.84		\$383,703.25



Item No.	Equipment Unit Cost	Equipment Cost	Total Unit Cost	Total Cost
1	\$14.60	\$41,900.54	\$38.70	\$111,065.13
2	\$0.00	\$0.00	\$0.90	\$8,893.50
3	\$0.00	\$0.00	\$114.00	\$20,855.10
4	\$0.00	\$0.00	\$6.29	\$16,326.32
5	\$0.00	\$0.00	\$7.84	\$7,267.68
6	\$6.85	\$822.75	\$24.90	\$2,990.73
7	\$3.76	\$236.24	\$13.71	\$861.40
8	\$0.00	\$0.00	\$1,480.00	\$146.19
9	\$0.00	\$0.00	\$1,170.00	\$6,451.61
10	\$0.00	\$0.00	\$114.00	\$3,958.79
11	\$0.00	\$0.00	\$5.60	\$88,755.13
12	\$5.00	\$173.63	\$18.25	\$633.75
13	\$0.00	\$0.00	\$114.00	\$15,957.19
14	\$0.00	\$0.00	\$2.14	\$352.53
15	\$0.39	\$54.59	\$13.59	\$1,902.26
16	\$0.00	\$0.00	\$42.80	\$4,852.66
17	\$0.00	\$0.00	\$108.00	\$3,842.56
18	\$0.00	\$0.00	\$8.42	\$16,177.18
19	\$8.15	\$289.97	\$29.65	\$1,054.93
20	\$0.00	\$0.00	\$32.00	\$2,448.00
21	\$0.00	\$0.00	\$27.54	\$3,745.44
22	\$1.50	\$1,297.04	\$65.84	\$56,931.19
23	\$1.57	\$1,449.66	\$111.67	\$103,110.49
24	\$1.61	\$513.07	\$152.46	\$48,585.95
25	\$26.50	\$662.50	\$251.40	\$6,285.00
26	\$0.11	\$695.22	\$1.27	\$8,026.60
27	\$2.58	\$395.67	\$29.85	\$4,577.80
28	\$2.81	\$215.47	\$33.92	\$2,600.99
29	\$2.58	\$1,488.97	\$19.90	\$11,484.69
30	\$1.76	\$2,430.49	\$20.13	\$27,798.72



Item No.	Equipment Unit Cost	Equipment Cost	Total Unit Cost	Total Cost
31	\$1.76	\$380.27	\$33.83	\$7,309.31
32	\$1.56	\$74.38	\$33.34	\$1,589.65
33	\$1.55	\$4,036.74	\$33.31	\$86,750.90
34	\$1.72	\$5,393.46	\$39.23	\$123,014.69
35	\$1.93	\$106.81	\$49.75	\$2,753.17
36	\$1.73	\$2,224.19	\$44.63	\$57,379.01
37	\$1.73	\$2,286.78	\$50.13	\$66,263.84
38	\$1.85	\$185.04	\$90.98	\$9,099.82
39	\$1.56	\$305.26	\$54.13	\$10,592.16
40	\$1.50	\$3,197.57	\$66.44	\$141,630.81
41	\$1.50	\$719.88	\$80.94	\$38,844.72
42	\$1.50	\$289.29	\$89.94	\$17,345.83
43	\$1.40	\$502.68	\$98.65	\$35,421.27
44	\$0.89	\$779.75	\$8.02	\$7,026.48
45	\$0.00	\$0.00	\$279.00	\$12,834.00
46	\$0.32	\$2,155.84	\$1.53	\$10,307.61
47	\$0.08	\$4,007.93	\$1.02	\$51,101.09
48	\$2.30	\$1,968.80	\$9.85	\$8,431.60
49	\$9.60	\$2,054.40	\$41.18	\$8,812.52
50	\$2.30	\$1,821.60	\$9.85	\$7,801.20
51	\$9.60	\$3,801.60	\$41.18	\$16,307.28
52	\$0.03	\$1,762.05	\$2.03	\$119,232.05
53	\$0.00	\$0.00	\$108.00	\$97,891.67
54	\$11.80	\$10,695.57	\$35.80	\$32,449.27
55	\$0.00	\$0.00	\$36.90	\$21,673.22
56	\$0.08	\$5,423.68	\$1.02	\$69,151.92
57	\$0.03	\$271.83	\$2.20	\$19,934.20
58	\$1.03	\$9,332.83	\$5.20	\$47,117.20
59		\$116,404.03		\$1,716,005.98
60		\$23,280.81		\$343,201.20
61		\$139,684.83		\$2,059,207.18



Proposed Concrete Structural System Cost Estimate

Item No.	Item	Item Breakdown	Detailed Item Breakdown
1	Concrete Piles	Concrete	
2		Reinforcement	
3	Concrete Pile Caps	Material	
4		Forms	Square, Rectangular
5			Triangular
6		Placing	$x < 5$
7			$5 < x < 10$
8			$x > 10$
9		Reinforcement	
10	Concrete Continuous Footings	Material	
11		Forms	
12		Placing	
13	Concrete Slab on Grade	Material	
14		Forms	
15		Placing	
16		Welded Wire Fabric	
17	Concrete Two-Way Flat Slabs	Material	
18		Forms	
19		Placing	
20		Reinforcement	
21	Concrete One-Way Slabs	Material	
22		Forms	
23		Placing	
24		Reinforcement	
25	Concrete Columns	Material	
26		Forms	
27		Placing	
28		Reinforcement	
29	Concrete Shear Walls	Material	
30		Forms	



Item No.	Item	Item Breakdown	Detailed Item Breakdown
31		Placing	
32		Reinforcement	
33	Concrete Beams	Material	
34		Forms	Exterior
35			Interior
36		Placing	
37		Reinforcement	
38	Steel Columns	HSS 4x4x1/4	
39	Steel Beams	W12x14	
40		W14x26	
41		W16x26	
42		W16x31	
43		W18x76	
44		W24x55	
45		Open Web Steel Joists	18K5
46		Cold Formed Roof Trusses	9:12 to 12:12 Pitch
47		Fireproofing	
48	Roof Steel Deck	Deck	
49		Fireproofing	
50	Total		



Item No.	Unit	Quantity	Material Unit Cost	Material Cost	Labor Unit Cost	Labor Cost
1	VLF	3600.42	\$17.75	\$63,907.46	\$6.35	\$22,862.67
2	LB	12397.00	\$0.90	\$11,157.30	\$0.00	\$0.00
3	CY	242.76	\$114.00	\$27,674.92	\$0.00	\$0.00
4	SFCA	2700.66	\$2.46	\$6,643.62	\$3.83	\$0.00
5	SFCA	973.35	\$2.90	\$2,822.72	\$4.94	\$10,343.53
6	CY	22.43	\$0.00	\$0.00	\$18.05	\$404.88
7	CY	174.55	\$0.00	\$0.00	\$9.95	\$1,736.81
8	CY	45.78	\$0.00	\$0.00	\$8.30	\$379.96
9	TON	10.35	\$805.00	\$8,329.50	\$365.00	\$3,776.73
10	CY	34.73	\$114.00	\$3,958.79	\$0.00	\$0.00
11	SFCA	15849.13	\$2.64	\$41,841.70	\$2.96	\$46,913.42
12	CY	34.73	\$0.00	\$0.00	\$13.25	\$460.12
13	CY	139.98	\$114.00	\$15,957.19	\$0.00	\$0.00
14	SFCA	164.73	\$0.29	\$47.77	\$1.85	\$304.76
15	CY	139.98	\$0.00	\$0.00	\$13.20	\$1,847.67
16	CSF	113.38	\$19.80	\$2,244.92	\$23.00	\$2,607.74
17	CY	2131.42	\$114.00	\$242,981.85	\$0.00	\$0.00
18	SF	55806.00	\$1.60	\$89,289.60	\$3.15	\$175,788.90
19	CY	2131.42	\$0.00	\$0.00	\$17.35	\$36,980.13
20	TON	106.07	\$950.00	\$100,770.25	\$455.00	\$48,263.65
21	CY	108.48	\$114.00	\$12,366.89	\$0.00	\$0.00
22	SF	2929.00	\$4.93	\$14,439.97	\$3.82	\$11,188.78
23	CY	108.48	\$0.00	\$0.00	\$17.35	\$1,882.15
24	TON	2.14	\$950.00	\$2,028.69	\$455.00	\$971.63
25	CY	349.43	\$114.00	\$39,835.26	\$0.00	\$0.00
26	SFCA	20018.67	\$0.84	\$16,815.68	\$4.67	\$93,487.17
27	CY	349.43	\$0.00	\$0.00	\$32.50	\$11,356.54
28	TON	49.12	\$895.00	\$43,962.84	\$575.00	\$28,244.28
29	CY	296.15	\$114.00	\$33,761.21	\$0.00	\$0.00
30	SFCA	11994.12	\$0.66	\$7,916.12	\$4.34	\$52,054.46



Item No.	Unit	Quantity	Material Unit Cost	Material Cost	Labor Unit Cost	Labor Cost
31	CY	296.15	\$0.00	\$0.00	\$28.00	\$8,292.23
32	TON	36.84	\$850.00	\$31,316.20	\$440.00	\$16,210.74
33	CY	12.35	\$114.00	\$1,407.69	\$0.00	\$0.00
34	SFCA	266.72	\$2.76	\$736.15	\$6.45	\$1,720.34
35	SFCA	400.08	\$2.82	\$1,128.23	\$5.35	\$2,140.43
36	CY	12.35	\$0.00	\$0.00	\$50.00	\$617.41
37	TON	0.37	\$895.00	\$334.22	\$539.00	\$201.28
38	EA	18.00	\$338.00	\$6,084.00	\$78.00	\$1,404.00
39	LF	304.72	\$23.70	\$7,221.86	\$3.21	\$978.91
40	LF	76.68	\$44.25	\$3,393.09	\$2.85	\$218.54
41	LF	374.72	\$44.25	\$16,581.36	\$2.83	\$1,058.58
42	LF	197.36	\$52.50	\$10,361.40	\$3.14	\$619.22
43	LF	100.02	\$128.25	\$12,827.57	\$4.54	\$453.84
44	LF	161.36	\$93.00	\$15,006.48	\$3.68	\$593.00
45	LF	876.12	\$5.50	\$4,818.66	\$1.63	\$1,428.08
46	EA	46.00	\$181.00	\$8,326.00	\$98.00	\$4,508.00
47	SF	4252.01	\$0.50	\$2,126.01	\$0.66	\$2,806.33
48	SF	9061.00	\$1.82	\$16,491.02	\$0.35	\$3,171.35
49	SF	9061.00	\$2.82	\$25,552.02	\$1.35	\$12,232.35
50				\$952,466.19		\$610,510.62



Item No.	Equipment Unit Cost	Equipment Cost	Total Unit Cost	Total Cost
1	\$14.60	\$52,566.13	\$38.70	\$139,336.25
2	\$0.00	\$0.00	\$0.90	\$11,157.30
3	\$0.00	\$0.00	\$114.00	\$27,674.92
4	\$0.00	\$0.00	\$6.29	\$16,987.15
5	\$0.00	\$0.00	\$7.84	\$7,631.06
6	\$6.85	\$153.65	\$24.90	\$558.53
7	\$3.76	\$656.32	\$13.71	\$2,393.13
8	\$3.13	\$143.28	\$11.43	\$523.24
9	\$0.00	\$0.00	\$1,170.00	\$12,106.23
10	\$0.00	\$0.00	\$114.00	\$3,958.79
11	\$0.00	\$0.00	\$5.60	\$88,755.13
12	\$5.00	\$173.63	\$18.25	\$633.75
13	\$0.00	\$0.00	\$114.00	\$15,957.19
14	\$0.00	\$0.00	\$2.14	\$352.53
15	\$0.39	\$54.59	\$13.59	\$1,902.26
16	\$0.00	\$0.00	\$42.80	\$4,852.66
17	\$0.00	\$0.00	\$114.00	\$242,981.85
18	\$0.00	\$0.00	\$4.75	\$265,078.50
19	\$8.60	\$18,330.21	\$25.95	\$55,310.34
20	\$0.00	\$0.00	\$1,405.00	\$149,033.90
21	\$0.00	\$0.00	\$114.00	\$12,366.89
22	\$0.00	\$0.00	\$8.75	\$25,628.75
23	\$8.60	\$932.94	\$25.95	\$2,815.09
24	\$0.00	\$0.00	\$1,405.00	\$3,000.32
25	\$0.00	\$0.00	\$114.00	\$39,835.26
26	\$0.00	\$0.00	\$5.51	\$110,302.85
27	\$16.00	\$5,590.91	\$48.50	\$16,947.46
28	\$0.00	\$0.00	\$1,470.00	\$72,207.13
29	\$0.00	\$0.00	\$114.00	\$33,761.21
30	\$0.00	\$0.00	\$5.00	\$59,970.58

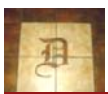


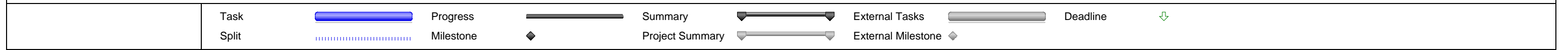
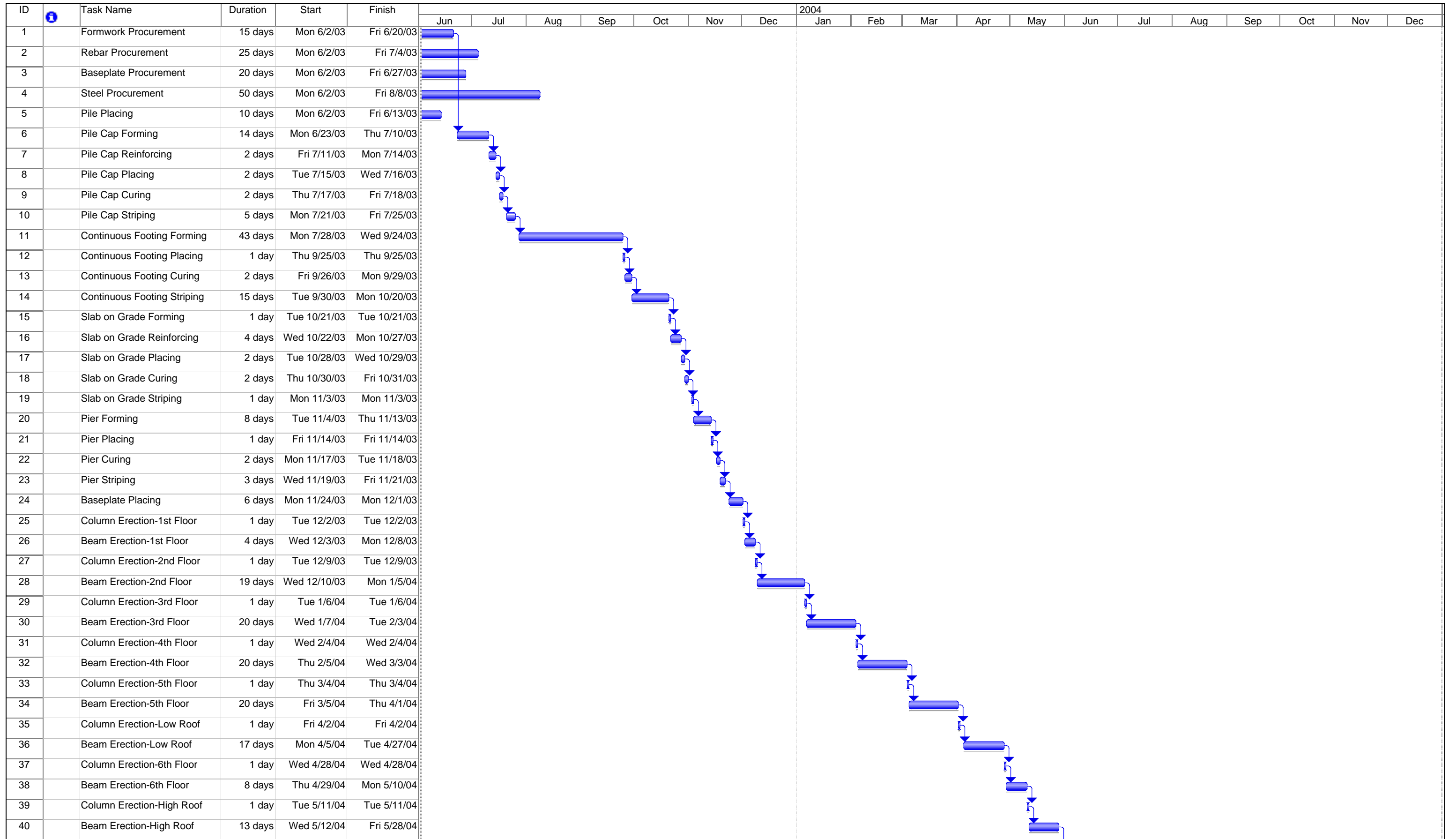
Item No.	Equipment Unit Cost	Equipment Cost	Total Unit Cost	Total Cost
31	\$14.00	\$4,146.11	\$42.00	\$12,438.34
32	\$0.00	\$0.00	\$1,290.00	\$47,526.94
33	\$0.00	\$0.00	\$114.00	\$1,407.69
34	\$0.00	\$0.00	\$9.21	\$2,456.49
35	\$0.00	\$0.00	\$8.17	\$3,268.65
36	\$25.00	\$308.70	\$75.00	\$926.11
37	\$0.00	\$0.00	\$1,434.00	\$535.50
38	\$26.50	\$477.00	\$442.50	\$7,965.00
39	\$1.76	\$536.31	\$28.67	\$8,737.08
40	\$1.56	\$119.62	\$48.66	\$3,731.25
41	\$1.55	\$580.82	\$48.63	\$18,220.76
42	\$1.72	\$339.46	\$57.36	\$11,320.08
43	\$1.85	\$185.04	\$134.64	\$13,466.44
44	\$1.50	\$242.04	\$98.18	\$15,841.52
45	\$0.89	\$779.75	\$8.02	\$7,026.48
46	\$0.00	\$0.00	\$279.00	\$12,834.00
47	\$0.11	\$467.72	\$1.27	\$5,400.05
48	\$0.03	\$271.83	\$2.20	\$19,934.20
49	\$1.03	\$9,332.83	\$5.20	\$47,117.20
50		\$96,388.90		\$1,664,174.06



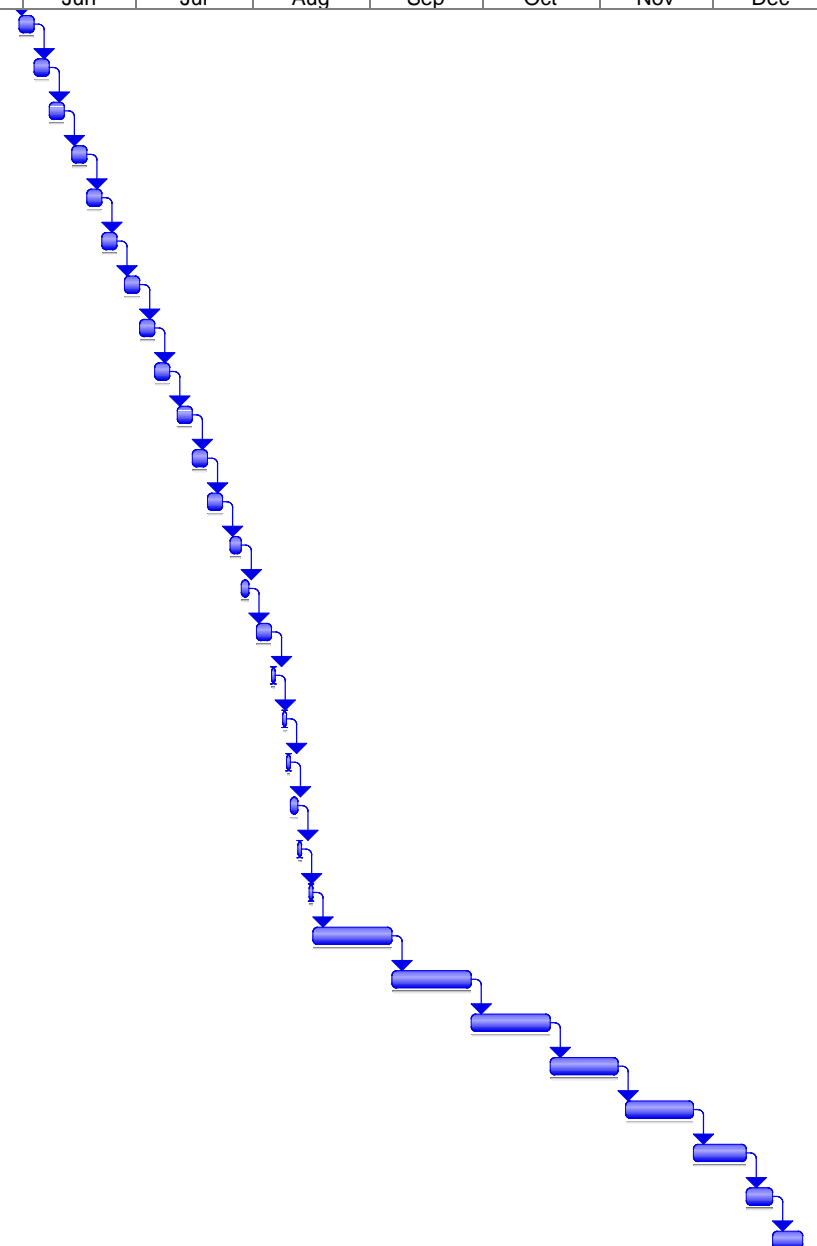
ii. Schedule Estimate Comparison

Refer to the following Microsoft Project schedules, Existing Steel & Proposed Concrete Structural System schedule estimates, respectively.

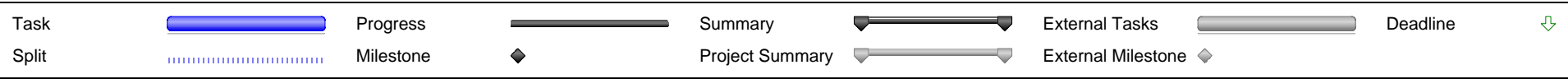
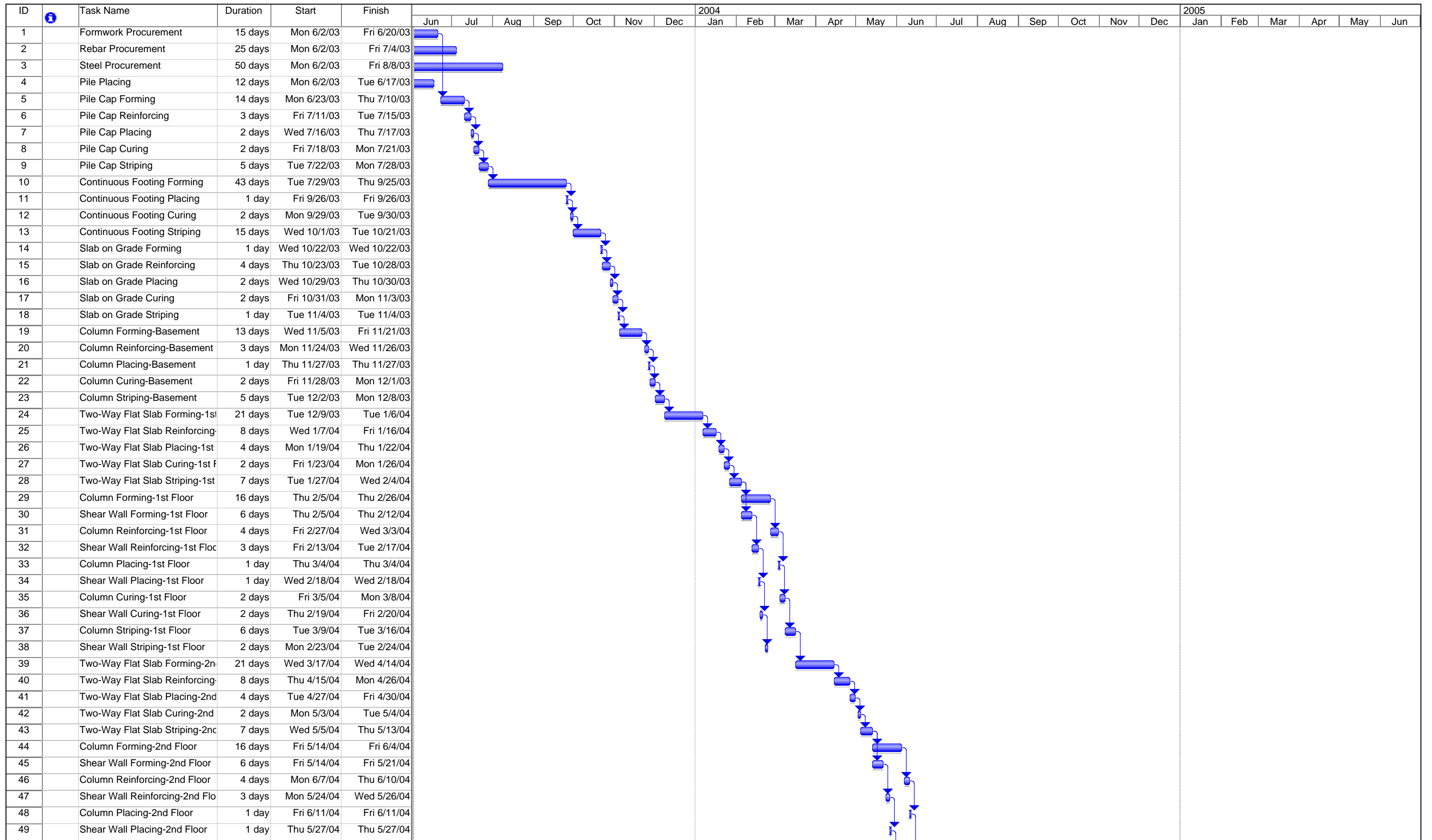













ID	Task Name	Duration	Start	Finish	2004																	
					Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
41	Composite Deck Erection-1st F	4 days	Mon 5/31/04	Thu 6/3/04																		
42	Composite Deck Reinforcing-1s	2 days	Fri 6/4/04	Mon 6/7/04																		
43	Composite Deck Placing-1st Fl	4 days	Tue 6/8/04	Fri 6/11/04																		
44	Composite Deck Erection-2nd F	4 days	Mon 6/14/04	Thu 6/17/04																		
45	Composite Deck Reinforcing-2r	2 days	Fri 6/18/04	Mon 6/21/04																		
46	Composite Deck Placing-2nd Fl	4 days	Tue 6/22/04	Fri 6/25/04																		
47	Composite Deck Erection-3rd F	4 days	Mon 6/28/04	Thu 7/1/04																		
48	Composite Deck Reinforcing-3r	2 days	Fri 7/2/04	Mon 7/5/04																		
49	Composite Deck Placing-3rd Fl	4 days	Tue 7/6/04	Fri 7/9/04																		
50	Composite Deck Erection-4th F	4 days	Mon 7/12/04	Thu 7/15/04																		
51	Composite Deck Reinforcing-4t	2 days	Fri 7/16/04	Mon 7/19/04																		
52	Composite Deck Placing-4th Fl	4 days	Tue 7/20/04	Fri 7/23/04																		
53	Composite Deck Erection-5th F	3 days	Mon 7/26/04	Wed 7/28/04																		
54	Composite Deck Reinforcing-5t	2 days	Thu 7/29/04	Fri 7/30/04																		
55	Composite Deck Placing-5th Fl	4 days	Mon 8/2/04	Thu 8/5/04																		
56	Composite Deck Erection-6th F	1 day	Fri 8/6/04	Fri 8/6/04																		
57	Composite Deck Reinforcing-6t	1 day	Mon 8/9/04	Mon 8/9/04																		
58	Composite Deck Placing-6th Fl	1 day	Tue 8/10/04	Tue 8/10/04																		
59	Roof Deck Erection-Low Roof	2 days	Wed 8/11/04	Thu 8/12/04																		
60	Roof Deck Erection-High Roof	1 day	Fri 8/13/04	Fri 8/13/04																		
61	Fireproofing-Basement	1 day	Mon 8/16/04	Mon 8/16/04																		
62	Fireproofing-1st Floor	15 days	Tue 8/17/04	Mon 9/6/04																		
63	Fireproofing-2nd Floor	15 days	Tue 9/7/04	Mon 9/27/04																		
64	Fireproofing-3rd Floor	15 days	Tue 9/28/04	Mon 10/18/04																		
65	Fireproofing-4th Floor	14 days	Tue 10/19/04	Fri 11/5/04																		
66	Fireproofing-5th Floor	14 days	Mon 11/8/04	Thu 11/25/04																		
67	Fireproofing-Low Roof	10 days	Fri 11/26/04	Thu 12/9/04																		
68	Fireproofing-6th Floor	5 days	Fri 12/10/04	Thu 12/16/04																		
69	Fireproofing-High Roof	6 days	Fri 12/17/04	Fri 12/24/04																		



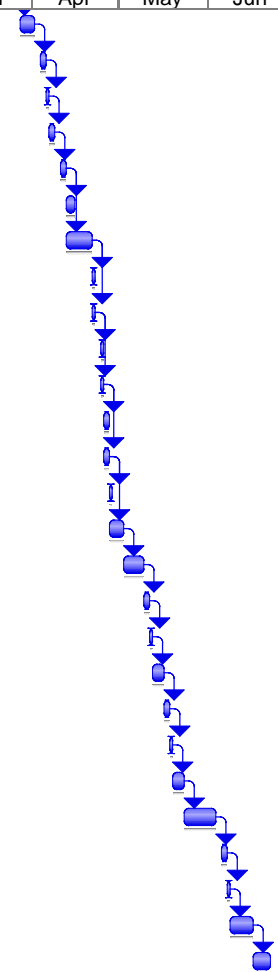
Task		Progress		Summary		External Tasks		Deadline	
Split		Milestone		Project Summary		External Milestone			



ID	Task Name	Duration	Start	Finish	2004												2005									
					Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
50	Column Curing-2nd Floor	2 days	Mon 6/14/04	Tue 6/15/04																						
51	Shear Wall Curing-2nd Floor	2 days	Fri 5/28/04	Mon 5/31/04																						
52	Column Striping-2nd Floor	6 days	Wed 6/16/04	Wed 6/23/04																						
53	Shear Wall Striping-2nd Floor	2 days	Thu 6/24/04	Fri 6/25/04																						
54	Two-Way Flat Slab Forming-3rd	21 days	Mon 6/28/04	Mon 7/26/04																						
55	Two-Way Flat Slab Reinforcing-	8 days	Tue 7/27/04	Thu 8/5/04																						
56	Two-Way Flat Slab Placing-3rd	4 days	Fri 8/6/04	Wed 8/11/04																						
57	Two-Way Flat Slab Curing-3rd	2 days	Thu 8/12/04	Fri 8/13/04																						
58	Two-Way Flat Slab Striping-3rd	7 days	Mon 8/16/04	Tue 8/24/04																						
59	Column Forming-3rd Floor	16 days	Wed 8/25/04	Wed 9/15/04																						
60	Shear Wall Forming-3rd Floor	6 days	Wed 8/25/04	Wed 9/1/04																						
61	Column Reinforcing-3rd Floor	4 days	Thu 9/16/04	Tue 9/21/04																						
62	Shear Wall Reinforcing-3rd Flo	3 days	Thu 9/2/04	Mon 9/6/04																						
63	Column Placing-3rd Floor	1 day	Wed 9/22/04	Wed 9/22/04																						
64	Shear Wall Placing-3rd Floor	1 day	Tue 9/7/04	Tue 9/7/04																						
65	Column Curing-3rd Floor	2 days	Thu 9/23/04	Fri 9/24/04																						
66	Shear Wall Curing-3rd Floor	2 days	Wed 9/8/04	Thu 9/9/04																						
67	Column Striping-3rd Floor	6 days	Mon 9/27/04	Mon 10/4/04																						
68	Shear Wall Striping-3rd Floor	2 days	Fri 9/10/04	Mon 9/13/04																						
69	Two-Way Flat Slab Forming-4th	21 days	Tue 10/5/04	Tue 11/2/04																						
70	Two-Way Flat Slab Reinforcing-	8 days	Wed 11/3/04	Fri 11/12/04																						
71	Two-Way Flat Slab Placing-4th	4 days	Mon 11/15/04	Thu 11/18/04																						
72	Two-Way Flat Slab Curing-4th	2 days	Fri 11/19/04	Mon 11/22/04																						
73	Two-Way Flat Slab Striping-4th	7 days	Tue 11/23/04	Wed 12/1/04																						
74	Column Forming-4th Floor	13 days	Thu 12/2/04	Mon 12/20/04																						
75	Shear Wall Forming-4th Floor	6 days	Thu 12/2/04	Thu 12/9/04																						
76	Column Reinforcing-4th Floor	6 days	Tue 12/21/04	Tue 12/28/04																						
77	Shear Wall Reinforcing-4th Flo	3 days	Fri 12/10/04	Tue 12/14/04																						
78	Column Placing-4th Floor	1 day	Wed 12/29/04	Wed 12/29/04																						
79	Shear Wall Placing-4th Floor	1 day	Wed 12/15/04	Wed 12/15/04																						
80	Column Curing-4th Floor	2 days	Thu 12/30/04	Fri 12/31/04																						
81	Shear Wall Curing-4th Floor	2 days	Thu 12/16/04	Fri 12/17/04																						
82	Column Striping-4th Floor	5 days	Mon 1/3/05	Fri 1/7/05																						
83	Shear Wall Striping-4th Floor	2 days	Mon 12/20/04	Tue 12/21/04																						
84	Two-Way Flat Slab Forming-5th	20 days	Mon 1/10/05	Fri 2/4/05																						
85	Two-Way Flat Slab Reinforcing-	8 days	Mon 2/7/05	Wed 2/16/05																						
86	Two-Way Flat Slab Placing-5th	4 days	Thu 2/17/05	Tue 2/22/05																						
87	Two-Way Flat Slab Curing-5th	2 days	Wed 2/23/05	Thu 2/24/05																						
88	Two-Way Flat Slab Striping-5th	7 days	Fri 2/25/05	Mon 3/7/05																						
89	Column Forming-5th Floor	9 days	Tue 3/8/05	Fri 3/18/05																						
90	Shear Wall Forming-5th Floor	6 days	Tue 3/8/05	Tue 3/15/05																						
91	Column Reinforcing-5th Floor	2 days	Mon 3/21/05	Tue 3/22/05																						
92	Shear Wall Reinforcing-5th Flo	3 days	Wed 3/16/05	Fri 3/18/05																						
93	Column Placing-5th Floor	1 day	Wed 3/23/05	Wed 3/23/05																						
94	Shear Wall Placing-5th Floor	1 day	Mon 3/21/05	Mon 3/21/05																						
95	Column Curing-5th Floor	2 days	Thu 3/24/05	Fri 3/25/05																						
96	Shear Wall Curing-5th Floor	2 days	Tue 3/22/05	Wed 3/23/05																						
97	Column Striping-5th Floor	3 days	Mon 3/28/05	Wed 3/30/05																						
98	Shear Wall Striping-5th Floor	2 days	Thu 3/24/05	Fri 3/25/05																						

Task  Progress  Summary  External Tasks  Deadline 
 Split  Milestone  Project Summary  External Milestone 

ID	Task Name	Duration	Start	Finish	2004												2005											
					Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
99	Shear Wall Forming-Low Roof	5 days	Mon 3/28/05	Fri 4/1/05																								
100	Shear Wall Reinforcing-Low Ro	2 days	Mon 4/4/05	Tue 4/5/05																								
101	Shear Wall Placing-Low Roof	1 day	Wed 4/6/05	Wed 4/6/05																								
102	Shear Wall Curing-Low Roof	2 days	Thu 4/7/05	Fri 4/8/05																								
103	Shear Wall Striping-Low Roof	2 days	Mon 4/11/05	Tue 4/12/05																								
104	Beam Forming-6th Floor	3 days	Wed 4/13/05	Fri 4/15/05																								
105	One-Way Slab Forming-6th Flo	7 days	Wed 4/13/05	Thu 4/21/05																								
106	Beam Reinforcing-6th Floor	1 day	Fri 4/22/05	Fri 4/22/05																								
107	One-Way Slab Reinforcing-6th	1 day	Fri 4/22/05	Fri 4/22/05																								
108	Beam Placing-6th Floor	1 day	Mon 4/25/05	Mon 4/25/05																								
109	One-Way Slab Placing-6th Flo	1 day	Mon 4/25/05	Mon 4/25/05																								
110	Beam Curing-6th Floor	2 days	Tue 4/26/05	Wed 4/27/05																								
111	One-Way Slab Curing-6th Floor	2 days	Tue 4/26/05	Wed 4/27/05																								
112	Beam Striping-6th Floor	1 day	Thu 4/28/05	Thu 4/28/05																								
113	One-Way Slab Striping-6th Flo	3 days	Thu 4/28/05	Mon 5/2/05																								
114	Column Forming-6th Floor	5 days	Tue 5/3/05	Mon 5/9/05																								
115	Column Reinforcing-6th Floor	2 days	Tue 5/10/05	Wed 5/11/05																								
116	Column Placing-6th Floor	1 day	Thu 5/12/05	Thu 5/12/05																								
117	Column Curing-6th Floor	2 days	Fri 5/13/05	Mon 5/16/05																								
118	Column Striping-6th Floor	2 days	Tue 5/17/05	Wed 5/18/05																								
119	Column Erection-Low Roof	1 day	Thu 5/19/05	Thu 5/19/05																								
120	Beam Erection-Low Roof	2 days	Fri 5/20/05	Mon 5/23/05																								
121	Beam Erection-High Roof	9 days	Tue 5/24/05	Fri 6/3/05																								
122	Roof Deck Erection-Low Roof	2 days	Mon 6/6/05	Tue 6/7/05																								
123	Roof Deck Erection-High Roof	1 day	Wed 6/8/05	Wed 6/8/05																								
124	Fireproofing-Low Roof	6 days	Thu 6/9/05	Thu 6/16/05																								
125	Fireproofing-High Roof	4 days	Fri 6/17/05	Wed 6/22/05																								



Task		Progress		Summary		External Tasks		Deadline	
Split		Milestone		Project Summary		External Milestone			