







Construction Management Appendix

-  *Proposed Arena Construction Costs*
-  *Commercial Construction Loan Calculator*
-  *Facilities Maintenance Strategy*
-  *Calculated Operations Costs*
-  *CIP Member Identification*
-  *R.S. Means Costs Association*

Tabulated Arena Construction Costs

(NBA Arena) Sports Facilities Hard Construction

Site Location (Market)	Cleveland, OH (Quick & Loans Arena)		Miami, FL (American Airlines Arena)		San Antonio, TX (AT&T Center)	
	\$ / SF	Hard Cost	\$ / SF	Hard Cost	\$ / SF	Hard Cost
Demolition & Site Clearing	\$0.00	\$0	\$0.29	\$230,000	\$0.00	\$0
Utility Relocation and New Services	\$0.00	\$0	\$0.00	\$0	\$0.00	\$0
Excavation and Foundations	\$18.38	\$13,730,000	\$12.18	\$9,635,000	\$17.78	\$13,335,000
Structural Frame	\$41.21	\$30,784,000	\$67.23	\$53,179,000	\$50.05	\$37,538,000
Roofing and Waterproofing	\$2.98	\$2,227,000	\$3.31	\$2,619,000	\$1.54	\$1,155,000
Exterior Wall	\$19.85	\$14,828,000	\$21.37	\$16,904,000	\$12.18	\$9,135,000
Interior Finishes	\$50.78	\$37,933,000	\$40.49	\$32,028,000	\$34.41	\$25,808,000
FF&E	\$3.43	\$2,563,000	\$4.74	\$3,750,000	\$5.95	\$4,463,000
Scoreboard	\$7.44	\$5,558,000	\$6.85	\$5,419,000	\$7.93	\$5,948,000
Ice Floor Package	\$3.29	\$2,458,000	\$2.16	\$1,709,000	\$1.59	\$1,193,000
Equipment	\$4.12	\$3,078,000	\$4.67	\$3,694,000	\$2.08	\$1,560,000
Food Service Equipment	\$13.05	\$9,749,000	\$12.62	\$9,983,000	\$11.89	\$8,918,000
Seating	\$8.32	\$6,216,000	\$9.84	\$7,784,000	\$8.32	\$6,240,000
Vertical Transportation	\$4.86	\$3,631,000	\$5.72	\$4,525,000	\$4.24	\$3,180,000
Plumbing	\$7.53	\$5,625,000	\$6.71	\$5,308,000	\$8.43	\$6,323,000
Fire Protection	\$3.41	\$2,548,000	\$2.05	\$1,622,000	\$2.87	\$2,153,000
HVAC	\$28.15	\$21,029,000	\$19.75	\$15,623,000	\$23.00	\$17,250,000
Electrical	\$30.85	\$23,045,000	\$29.66	\$23,462,000	\$22.46	\$16,845,000
Audio/ Visual	\$7.59	\$5,670,000	\$2.11	\$1,670,000	\$4.16	\$3,120,000
Plaza and Site	\$11.67	\$8,718,000	\$12.43	\$9,833,000	\$20.29	\$15,218,000
Direct Work SubTotal		\$199,390,000		\$208,977,000		\$179,382,000
(\$ Indirect Costs)		\$15,609,000		\$24,145,000		\$19,455,000
(\$ Hard Costs)		\$214,999,000		\$233,122,000		\$198,837,000
Gross Square Feet		747,000		791,000		750,000
(\$ Cost Per Square Feet)		\$287.82		\$294.72		\$265.12
Fixed Seats		20,562		21,000		18,399
Cost per Seat		\$10,456		\$11,101		\$10,807

Costs courtesy of Turner Construction

Site Location (Market)	Indianapolis, IN (Conceco Fieldhouse)		Memphis, TN (FedEX Forum)		Average		Scaled Down Average Centre Project Sears	
	\$ / SF	Hard Cost	\$ / SF	Hard Cost	\$ / SF	Hard Cost	\$ / SF	Hard Cost
Demolition & Site Clearing	\$0.00	\$0	\$1.53	\$1,235,000	\$0.36	\$280,000	\$0.00	\$0
Utility Relocation and New Services	\$0.27	\$203,000	\$0.00	\$0	\$0.05	\$42,000	\$0.03	\$8,000
Excavation and Foundations	\$11.63	\$8,723,000	\$30.54	\$24,644,000	\$18.10	\$13,921,000	\$10.43	\$2,545,000
Structural Frame	\$60.96	\$45,720,000	\$59.98	\$48,400,000	\$55.89	\$42,976,000	\$32.19	\$7,855,000
Roofing and Waterproofing	\$2.74	\$2,055,000	\$4.72	\$3,809,000	\$3.06	\$2,352,000	\$1.76	\$430,000
Exterior Wall	\$17.67	\$13,253,000	\$8.80	\$7,101,000	\$15.97	\$12,284,000	\$9.20	\$2,246,000
Interior Finishes	\$40.20	\$30,150,000	\$46.48	\$37,506,000	\$42.47	\$32,661,000	\$24.46	\$5,970,000
FF&E	\$3.36	\$2,520,000	\$3.02	\$2,437,000	\$4.10	\$3,153,000	\$2.36	\$577,000
Scoreboard	\$6.42	\$4,815,000	\$16.11	\$13,000,000	\$8.95	\$6,883,000	\$5.16	\$1,258,000
Ice Floor Package	\$2.38	\$1,785,000	\$2.78	\$2,244,000	\$2.44	\$1,877,000	\$3.29	\$803,000
Equipment	\$4.92	\$3,690,000	\$9.84	\$7,941,000	\$5.13	\$3,942,000	\$2.95	\$721,000
Food Service Equipment	\$9.82	\$7,365,000	\$9.70	\$7,828,000	\$11.42	\$8,779,000	\$6.58	\$1,605,000
Seating	\$6.45	\$4,838,000	\$6.31	\$5,092,000	\$7.85	\$6,035,000	\$4.52	\$1,103,000
Vertical Transportation	\$3.51	\$2,633,000	\$2.94	\$2,373,000	\$4.25	\$3,272,000	\$2.45	\$598,000
Plumbing	\$7.01	\$5,258,000	\$11.15	\$8,998,000	\$8.17	\$6,280,000	\$4.70	\$1,148,000
Fire Protection	\$1.82	\$1,365,000	\$2.94	\$2,373,000	\$2.62	\$2,014,000	\$1.51	\$368,000
HVAC	\$21.29	\$15,968,000	\$26.08	\$21,045,000	\$23.65	\$18,190,000	\$13.62	\$3,325,000
Electrical	\$22.21	\$16,658,000	\$29.19	\$23,554,000	\$26.87	\$20,666,000	\$15.48	\$3,777,000
Audio/ Visual	\$5.76	\$4,320,000	\$8.06	\$6,504,000	\$5.54	\$4,258,000	\$3.19	\$779,000
Plaza and Site	\$2.01	\$1,502,000	\$5.04	\$4,067,000	\$10.29	\$7,912,000	\$2.25	\$549,000
Direct Work SubTotal		\$172,821,000		\$230,151,000		\$197,777,000		\$35,665,000
(\$ Indirect Costs)		\$14,765,000		\$28,064,000		\$20,407,600		\$11,754,778
(\$ Hard Costs)		\$187,586,000		\$258,215,000		\$218,184,600		\$47,420,000
							Size Factor	
Gross Square Feet		750,000		806,920		768,984	0.5760	244,000
(\$ Cost Per Square Feet		\$250.11		\$320.00		\$283.73		\$194.34
Fixed Seats		18,345		18,194		19,300		9,000
Cost per Seat		\$10,225		\$14,192		\$11,305		\$5,269

Commercial Construction Loan Structure

30 Year Treasury Note Interest

Vs.

30 Year Mortgage Interest

Rate Repayment (t) =

$$\frac{(PLA') * [1 + (IR + BPP)]^{(NPC)} * (IR + BPP)}{[1 + (IR + BPP)]^{(NPC)} - 1}$$

(t) = Time Cycle

(1) BPP or bps is equal to .01% of 1 Percentage Point "1 BPP → .0001 added to indexed interest rate

<u>Equation Terms</u>	<u>Abbreviation</u>	<u>Actual Amounts</u>	<u>Indicator(s)</u>
Principal Loan Amount	PLA'	\$50,000,000.00	
Interest Rate (Yr.) ("Treasury Note Rates")	IR(yr)	0.0466	
Interest Rate (Yr.) ("Treasury Note Rates")	IR(mo)	0.0039	(BPP) _{Base Percentage Points}
Base Percentage Point ("Value/100")	BPP	237	Base Point Converter
Number of Loans in Payment Cycle (For yearly payments * 12)	NPC = $\frac{\text{Cycle Duration (Yrs)/(Months)}}{\text{Number of \$ Payments}}$	0.0000	10,000
Yearly Interest Rate ("Treasury Notes Rates")	$Y_{IR} = IR$	4.66 %	Yearly Payments
Monthly Interest Rate ("Treasury Note Rates")	$M_{IR} = (Y_{IR} / 12)$	0.39 %	Monthly Payments
			Payments

PLA' = \$50,000,000.00

Monthly Payback Computation

(IR + BPP) = 0.0059
 1 + (IR + BPP) = 1.0059
 NPC = 600
 [1 + (IR + BPP)]^(NPC) = 33.2729

Yearly Payback Computation

(IR + BPP) = 0.0703
 1 + (IR + BPP) = 1.0703
 NPC = 50
 [1 + (IR + BPP)]^(NPC) = 29.8728

Rate Repayment (t) =

\$301,992.90

\$181,195,741.22

\$ Δ₁₂ = (\$131,195,741.22)

(12) = Monthly Cycle

Annuity Payment (Monthly)

Sum Totals of Annuity Payments

Total Loan Difference

Rate Repayment (t) =

\$3,636,740.78

\$181,837,038.93

\$ Δ₁ = (\$131,837,038.93)

(1) = Yearly Cycle

Annuity Payment (Yearly)

Sum Totals of Annuity Payments

Total Loan Difference

\$ Δ₁₂ - \$ Δ₁ = \$641,297.71

Calculated Facilities Maintenance Costs Strategies

Sears Centre HVAC Maintenance Strategies

Equipment Items	Task Description	# of Units	Lab Hours/ Unit	Times/ (Yr)	Cost/ Hour	Annual Cost/ (Yearly Cost)
Note: Inflation Conversion Rate \$ 1.00 ₍₁₉₉₃₎ ≈ \$1.31 ₍₂₀₀₅₎						
30,000 CFM Walk-in Air Handling Units Roof Top Units	Replace AHU Filters	8	0.75	4	\$39.00	\$936.00
	Clean Unit Components	8	1.5	0.5	\$39.00	\$234.00
	Lub and Lubricate Fan Bearings	8	0.15	1	\$39.00	\$46.80
	Grease Fan Bearings	8	1	1	\$12.34	\$98.72
	Adjust/ Replace Belts	8	0.5	2	\$39.00	\$312.00
	Two month Bearing inspection	8	1	6	\$9.74	\$467.52
	Three month Damper inspection	8	1	4	\$12.99	\$415.68
	Three month AHU Inspection	8	1	4	\$9.74	\$311.68
	Quarterly Inspection	8	1	1	\$37.61	\$300.88
	Six month inspection	8	1	2	\$32.14	\$514.24
Yearly Inspectoin	8	1	1	\$9.74	\$77.92	
Fan Coil Units	Replace Filters	16	0.75	4	\$39.00	\$1,872.00
	Clean Unit Components	16	1.5	0.5	\$39.00	\$468.00
	Lub and Lubricate	16	0.1	1	\$39.00	\$62.40
Chiller(s)	Weekly Checks	2	0.5	54	\$44.54	\$2,405.16
	Spring Commissioning	2	15	1	\$44.54	\$1,336.20
	Fall Decommissioning	2	7.5	1	\$44.54	\$668.10
Base BD Radiators	Clean and Adjust	13	0.75	0.5	\$44.54	\$217.13
Heat Exchangers	Clean	2	2	0.5	\$44.54	\$89.08
Pumps	Clean	4	0.25	2	\$22.27	\$44.54
	Align	4	0.25	2	\$22.27	\$44.54
	Check Brngs/ Package	4	0.25	2	\$22.27	\$44.54
	Lube	4	0.1	1	\$22.27	\$8.91
Exhaust Fans	Lube	12	0.25	1	\$22.27	\$66.81
	Clean	12	0.25	1	\$22.27	\$66.81
Relief Vents	Lube	4	0.15	1	\$39.00	\$23.40
	Clean	4	1.5	0.5	\$39.00	\$117.00
Steam Traps	Adjust & Clean	35	0.5	1	\$22.27	\$389.73
ATC Controls	Adjust & Clean	240	0.25	2	\$27.51	\$3,301.20
Fire Alarm	Operational Check	44	0.1	4	\$52.40	\$922.24
Fire Exting	Check/ Recharge	50	0.5	2	\$23.58	\$1,179.00
	Sprinkler Inspection	2	4	1	\$157.20	\$1,257.60
Kitchen Equipment	Check Hoods	24	0.25	2	\$41.92	\$503.04
	Oven, P.M.	10	1.5	4	\$19.65	\$1,179.00
	Fryers	24	0.5	4	\$19.65	\$943.20
	Refer Equipment Check	28	0.25	52	\$22.27	\$8,106.28
Elevator Inspections	Hydraulic Elevators Inspections	4	1	0.25	\$30.00	\$30.00
Total Preventative Maintenance	Preventative Annual	Maint.	--	--	--	\$29,061.35

Bryce Jordan Energy Accounting System/ Sears Centre Arena Maintenance Costs Baseline

Month	Facility Electricity Usage	Steam Usage	H ₂ O Usage	Sanitary	Size Factor	Monthly Costs
July	\$32,381.60	\$8,917.06	\$1,548.80	\$2,087.25	0.60	\$35,000.00
August	\$29,932.22	\$9,181.33	\$1,560.60	\$1,981.80	0.60	\$33,000.00
September	\$32,160.16	\$8,870.99	\$1,748.45	\$2,220.35	0.60	\$35,000.00
October	\$30,274.22	\$11,294.54	\$1,575.05	\$2,000.15	0.60	\$34,000.00
November	\$26,664.22	\$17,731.46	\$1,156.00	\$1,468.00	0.60	\$34,000.00
December	\$21,074.22	\$21,519.98	\$881.45	\$1,119.35	0.60	\$32,000.00
January	\$19,797.62	\$31,208.90	\$751.40	\$954.20	0.60	\$37,000.00
February	\$21,391.72	\$40,421.79	\$881.45	\$1,119.35	0.60	\$44,000.00
March	\$21,469.00	\$40,217.96	\$823.65	\$1,045.95	0.60	\$44,000.00
April	\$25,638.56	\$19,618.49	\$1,040.40	\$1,321.20	0.60	\$35,000.00
May	\$25,704.91	\$10,347.74	\$1,083.75	\$1,376.25	0.60	\$30,000.00
June	\$21,863.76	\$7,528.38	\$693.60	\$880.80	0.60	\$25,000.00

Year to Date Costs	\$308,352.21	\$226,858.62	\$13,744.60	\$17,574.65		\$418,000.00
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Total Yearly Maintenance Cost(s)	\$448,000
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Adjusted Facilities Operations Budget

Proposed Operations Budget for Sears Centre (240,000 SF "Convention Centre") Hoffman Estates [Chicago], IL
 Baseline provided by the San Diego Convention Center (255,000 SF) San Diego, CA

Size Factor (SC/SDC) = (244,000/ 255,000) = CPI (San Diego) = 220.6 CPI (Chicago) = 194.3	Correction Factors 0.9569 220.6 194.3
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CPI Correction Factor = 0.8808

	FY 2005 Budget	FY 2006 Budget
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Proposed Revenue and Expense Statement

BEGINNING BALANCE AND RESERVE

Balance from Previous Year	\$ -	
Continuing Appropriations	\$ 688,602	\$ 426,020
TOTAL BALANCE	\$ 688,602	\$ 426,020

REVENUE

Additional Allocations	\$ 252,836	\$ 294,975
Transfer from Transient Occupancy Tax Fund	\$ 3,537,911	\$ 3,537,911
TOTAL REVENUE	\$ 3,790,747	\$ 3,832,886

TOTAL BALANCE AND RESERVE	\$ 4,479,349	\$ 4,258,906
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OPERATING EXPENSE

Administration/ Staff and Overhead	\$ 600,000	\$ 600,000
City Expense in Support of Facility	\$ 42,139	\$ 42,139
Convention Center Corporation Allocation	\$ 3,495,772	\$ 3,495,772
TOTAL OPERATING EXPENSE	\$ 3,495,772	\$ 3,495,772

TOTAL EXPENSE	\$ 4,137,911	\$ 4,137,911
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RESERVE

Reserve for Continuing Apportions	\$ 688,602	\$ 688,602
TOTAL RESERVE	\$ 688,602	\$ 688,602

TOTAL RESERVE	\$ 688,602	\$ 688,602
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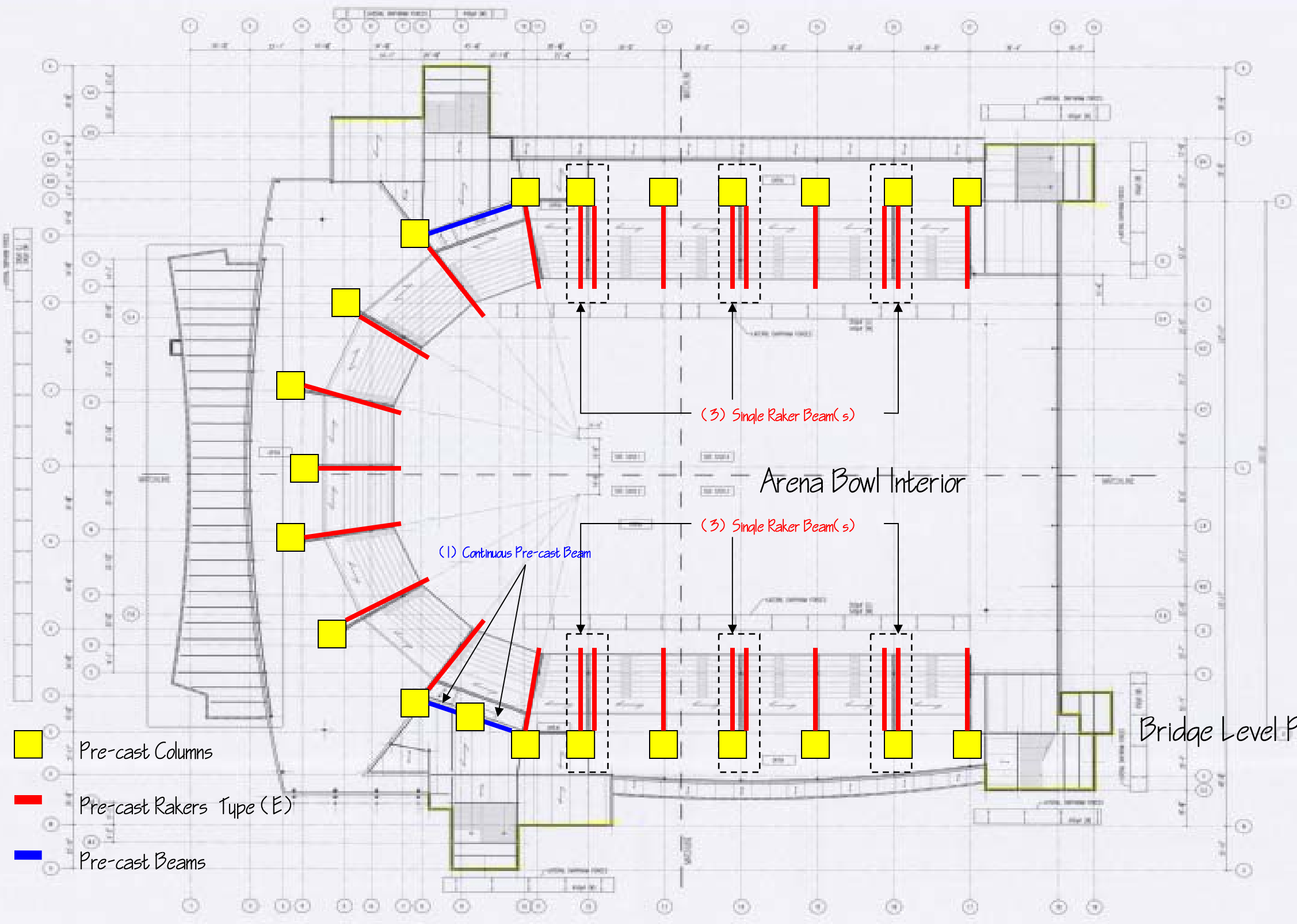
BALANCE

	\$ -	\$ -
TOTAL EXPENSE, RESERVE AND BALANCE	\$ 4,479,349	\$ 4,258,906

Complete (Yr) Opps + Maintenace Costs =	\$	4,927,800
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CIP Member Evaluation Identification

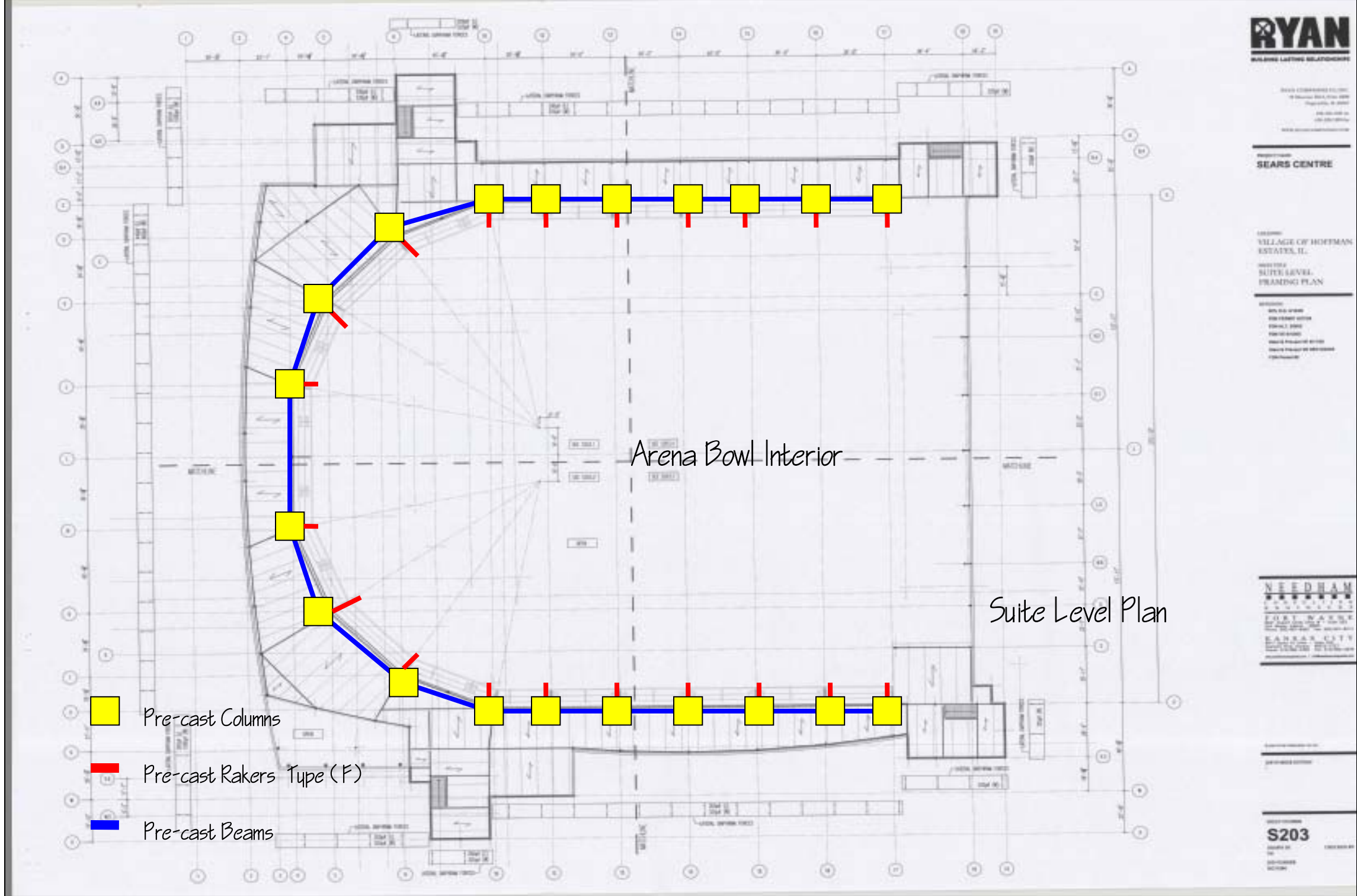
- PRE-CAST COLUMNS
- PRE-CAST RAKERS
- PRE-CAST BEAMS
- PRE-CAST RAKERS TYPE (E)
- PRE-CAST BEAMS
- PRE-CAST RAKERS TYPE (E)
- PRE-CAST BEAMS
- PRE-CAST RAKERS TYPE (E)
- PRE-CAST BEAMS



- Pre-cast Columns
- Pre-cast Rakers Type (E)
- Pre-cast Beams

Arena Bowl Interior

Bridge Level Plan



R.S. Means Costs Associations

R.S. Means Basic Equations/ Construction Labor Adjustments

Base Labor Computation		Crew Discription			
Labor-Hour Crew Costs	x	Labor-Hour Units		=	Labor Costs
Example		Example			Example
\$ 33.85	x	32	HR	=	\$ 1,083.20

Equation Used for Computing Labor Hours per Task (Task Duration)

$$\frac{\text{Labor Output per Unit by Means (LH)}}{\text{Daily Output}} \times \text{Desired Quantity} = \text{Task Duration}$$

Base Equipment Costs		Crew Discription			
Equipment Costs Dependent on	x	Labor-Hour Units		=	Equipment Costs
Example		Example			Example
\$ 33.85	x	32	HR	=	\$ 1,083.20

Equation Used for Computing Billing Rate for Teams

$$\text{Task Duration} \div 8 \text{ hour/ Day} = \text{Crew Billing Rate}$$

Note: RS. Means reflect Chicago Labor Relation Adjustments

CIP Formwork Scope (Beams)

QTY	Crew Designation	C-14	H/WD		Base Costs		Cost plus Overhead & Protection		Pre-Labor Costs					
					Daily Costs	Hourly Costs	Daily Costs	Hourly Costs	Base Costs	with O & P Factored				
1	Carp. Foreman	8	/HR	\$	400.16	\$ 50.02	\$	567.36	\$	70.92	\$	35.61	\$	55.83
16	Carpenters	8	/HR	\$	6,082.56	\$ 47.52	\$	8,757.76	\$	68.42				
4	Rod Men	8	/HR	\$	1,264.00	\$ 39.50	\$	1,932.80	\$	60.40				
2	Laborers	8	/HR	\$	661.92	\$ 41.37	\$	996.32	\$	62.27				
1	Cement Finishers	8	/HR	\$	382.88	\$ 47.86	\$	550.08	\$	68.76				
1	Equip. Operators	8	/HR	\$	430.24	\$ 53.78	\$	597.44	\$	74.68				
1	Gas Engine Vibrators	1	/HR	\$	21.70	\$ 21.70	\$	42.60	\$	42.60				
1	Concrete Pump Truck	1	/HR	\$	1,800.00	\$ 700.60	\$	721.50	\$	721.50	\$	3.61	\$	3.97
	202	Daily	/HR	\$	11,043.46		/HR	\$	14,165.86	\$	39.22	\$		59.80

Note: RS. Means reflect Chicago Labor Relation Adjustments

Masonry/ Brickette Panel Assembly Scope

QTY	Crew Designation	C-8	H/WD		Base Costs		Cost plus Overhead & Protection		Pre-Labor Costs					
					Daily Costs	Hourly Costs	Daily Costs	Hourly Costs	Base Costs	with O & P Factored				
3	Brick Layers	8	/HR	\$	1,171.44	\$ 48.81	\$	1,673.04	\$	69.71	\$	32.15	\$	48.45
2	Brick Helpers	8	/HR	\$	700.96	\$ 43.81	\$	1,035.36	\$	64.71	\$	-	\$	-
	40	Daily	/HR	\$	1,872.40		/HR	\$	2,708.40	\$	32.15	\$		48.45

Note: RS. Means reflect Chicago Labor Relation Adjustments

CIP Formwork Scope (Columns)

QTY	Crew Designation	C-14 A	H/WD		Base Costs		Cost plus Overhead & Protection		Pre-Labor Costs			
					Daily Costs	Hourly Costs	Daily Costs	Hourly Costs	Base Costs	with O & P Factored		
1	Carp. Foreman	8	/HR	\$	400.16	\$ 50.02	/HR	\$	567.36	\$ 70.92	\$ 35.61	\$ 55.83
4	Carpenters	8	/HR	\$	1,520.64	\$ 47.52	/HR	\$	2,189.44	\$ 68.42		
1	Laborers	8	/HR	\$	330.96	\$ 41.37	/HR	\$	498.16	\$ 62.27		
	48	Daily	/HR	\$	2,251.76		/HR	\$	3,254.96		\$ 35.61	\$ 55.83

Note: RS. Means reflect Chicago Labor Relation Adjustments

Pre-cast/ Masonry Panel Errection Crew

QTY	Crew Designation	C-11	H/WD		Base Costs		Cost plus Overhead & Protection		Pre-Labor Costs			
					Daily Costs	Hourly Costs	Daily Costs	Hourly Costs	Base Costs	with O & P Factored		
1	Struc. Steel Form	8	/HR	\$	415.60	\$ 51.95	/HR	\$	582.80	\$ 72.85	\$ 35.61	\$ 55.83
6	Stl. Workers	8	/HR	\$	2,373.60	\$ 49.45	/HR	\$	3,376.80	\$ 70.35		
2	Laborers	8	/HR	\$	661.92	\$ 41.37	/HR	\$	996.32	\$ 62.27		
1	Cement Finishers	8	/HR	\$	382.88	\$ 47.86	/HR	\$	550.08	\$ 68.76		
1	Equip. Operators	8	/HR	\$	430.24	\$ 53.78	/HR	\$	597.44	\$ 74.68		
1	Equip. Oiler	8	/HR	\$	297.60	\$ 37.20	/HR	\$	464.80	\$ 58.10		
1	1 Truck Crane 300 T	1	/HR	\$	2,200.00	\$ 2,200.00	/HR	\$	2,220.90	\$ 2,220.90	\$ 3.61	\$ 3.97
	97	Daily	/HR	\$	6,761.84		/HR	\$	8,789.14		\$ 39.22	\$ 59.80

Sears Centre Superstructure System Quantity Takeoff

Ref Sheet SHT: S400

Column Height Determination

	Elev.	Floor Height	Column Notes:
Below Grade Slab:	75.33 LF	-- LF	Assume Column Fabrication in 24'-0" Sections
Finish Floor Grade	100.00 LF	24.67 LF	
Top of Low Lobby Roof	114.67 LF	14.67 LF	Assume Typical Column Length 24 LF
Bridge Level	123.67 LF	9.00 LF	
Suite Level	133.17 LF	9.50 LF	
Top of Wall	145.50 LF	12.33 LF	

Precast Columns SHT S 200.1													Quantities for CIP Conversion						
Width (ft)	Height (ft)	Length (ft)	Thickness (ft)	Area (SF)	SFCA	(SF)	Member Wt	Quantity	Cubic Feet	Cubic Yards	Column Type	Column Pieces (ea)	Column Ty	Reference SHT					
2.00 LF	2.00 LF	70.17 LF	-- LF	4.00 SF	1684.08 SF	600.00 PLF	6.00 ea.	1684.08 CF	62.3733 CY	C17-C20	3 ea	Pre-cast	SHT S507						
2.00 LF	2.00 LF	70.17 LF	-- LF	4.00 SF	421.02 SF	600.00 PLF	2.00 ea.	561.36 CF	20.7911 CY	C17	3 ea	Pre-cast	SHT S 507						
2.00 LF	2.00 LF	70.17 LF	-- LF	4.00 SF	421.02 SF	600.00 PLF	2.00 ea.	561.36 CF	20.7911 CY	C18	3 ea	Pre-cast	SHT S 508						
2.00 LF	2.00 LF	70.17 LF	-- LF	4.00 SF	421.02 SF	600.00 PLF	1.00 ea.	280.68 CF	10.3956 CY	C19	3 ea	Pre-cast	SHT S 509						
2.00 LF	2.00 LF	70.17 LF	-- LF	4.00 SF	421.02 SF	600.00 PLF	1.00 ea.	280.68 CF	10.3956 CY	C20	3 ea	Pre-cast	SHT S 510						
									SUM CHECK	62.3733 CY									
1.33 LF	1.33 LF	70.17 LF	-- LF	1.77 SF	279.98 SF	265.34 PLF	1.00 ea.	124.12 CF	4.5972 CY	C22	3 ea	Pre-cast	SHT S507						
2.00 LF	2.00 LF	34.63 LF	-- LF	2.25 SF	1246.68 SF	337.50 PLF	6.00 ea.	467.51 CF	17.3150 CY	C1-C6	2 ea	Pre-cast	SHT S507						
2.00 LF	2.00 LF	34.63 LF	-- LF	2.25 SF	207.78 SF	337.50 PLF	1.00 ea.	77.92 CF	2.8858 CY	C1	2 ea	Pre-cast	SHT S 507						
2.00 LF	2.00 LF	34.63 LF	-- LF	2.25 SF	207.78 SF	337.50 PLF	1.00 ea.	77.92 CF	2.8858 CY	C2	2 ea	Pre-cast	SHT S 507						
2.00 LF	2.00 LF	34.63 LF	-- LF	2.25 SF	207.78 SF	337.50 PLF	1.00 ea.	77.92 CF	2.8858 CY	C3	2 ea	Pre-cast	SHT S 507						
2.00 LF	2.00 LF	34.63 LF	-- LF	2.25 SF	207.78 SF	337.50 PLF	1.00 ea.	77.92 CF	2.8858 CY	C4	2 ea	Pre-cast	SHT S 507						
2.00 LF	2.00 LF	34.63 LF	-- LF	2.25 SF	207.78 SF	337.50 PLF	1.00 ea.	77.92 CF	2.8858 CY	C5	2 ea	Pre-cast	SHT S 507						
2.00 LF	2.00 LF	34.63 LF	-- LF	2.25 SF	207.78 SF	337.50 PLF	1.00 ea.	77.92 CF	2.8858 CY	C6	2 ea	Pre-cast	SHT S 507						
									SUM CHECK	17.3150 CY									
1.50 LF	1.50 LF	11.96 LF	-- LF	2.25 SF	322.92 SF	337.50 PLF	6.00 ea.	161.46 CF	5.9800 CY	C9-C14	1 ea	Pre-cast	SHT S507						
1.50 LF	1.50 LF	11.96 LF	-- LF	2.25 SF	53.82 SF	337.50 PLF	1.00 ea.	26.91 CF	0.9967 CY	C9	1 ea	Pre-cast	SHT S 507						
1.50 LF	1.50 LF	11.96 LF	-- LF	2.25 SF	53.82 SF	337.50 PLF	1.00 ea.	26.91 CF	0.9967 CY	C10	1 ea	Pre-cast	SHT S 507						
1.50 LF	1.50 LF	11.96 LF	-- LF	2.25 SF	53.82 SF	337.50 PLF	1.00 ea.	26.91 CF	0.9967 CY	C11	1 ea	Pre-cast	SHT S 507						
1.50 LF	1.50 LF	11.96 LF	-- LF	2.25 SF	53.82 SF	337.50 PLF	1.00 ea.	26.91 CF	0.9967 CY	C12	1 ea	Pre-cast	SHT S 507						
1.50 LF	1.50 LF	11.96 LF	-- LF	2.25 SF	53.82 SF	337.50 PLF	1.00 ea.	26.91 CF	0.9967 CY	C13	1 ea	Pre-cast	SHT S 507						
1.50 LF	1.50 LF	11.96 LF	-- LF	2.25 SF	53.82 SF	337.50 PLF	1.00 ea.	26.91 CF	0.9967 CY	C14	1 ea	Pre-cast	SHT S 507						
									SUM CHECK	5.9800 CY									
1.50 LF	1.50 LF	5.57 LF	-- LF	2.25 SF	25.07 SF	337.50 PLF	6.00 ea.	75.20 CF	2.7850 CY	PC Stub	1 ea	Pre-cast	SHT S507						
Sub Total		635.96 LF			3558.72 Total SF		25.00 ea.	2512.36 CF	93.05 CY		34.00 ea								
Precast Columns SHT S 200.2																			
Width (ft)	Height (ft)	Length (ft)	Thickness (ft)	Area (SF)	SFCA	(SF)	Member Wt	Quantity	Cubic Feet	Cubic Yards	Column Type	Column Pieces (ea)	Column Ty	Reference SHT					
2.00 LF	2.00 LF	70.17 LF	-- LF	4.00 SF	1684.08 SF	600.00 PLF	8.00 ea.	2245.44 CF	83.1644 CY	C17-C20	3 ea	Pre-cast	SHT S507						
2.00 LF	2.00 LF	70.17 LF	-- LF	4.00 SF	421.02 SF	600.00 PLF	2.00 ea.	561.36 CF	20.7911 CY	C17	3 ea	Pre-cast	SHT S 507						
2.00 LF	2.00 LF	70.17 LF	-- LF	4.00 SF	421.02 SF	600.00 PLF	2.00 ea.	561.36 CF	20.7911 CY	C18	3 ea	Pre-cast	SHT S 508						
2.00 LF	2.00 LF	70.17 LF	-- LF	4.00 SF	421.02 SF	600.00 PLF	2.00 ea.	561.36 CF	20.7911 CY	C19	3 ea	Pre-cast	SHT S 509						
2.00 LF	2.00 LF	70.17 LF	-- LF	4.00 SF	421.02 SF	600.00 PLF	2.00 ea.	561.36 CF	20.7911 CY	C20	3 ea	Pre-cast	SHT S 510						
									SUM CHECK	83.1644 CY									
1.33 LF	1.33 LF	70.17 LF	-- LF	1.77 SF	265.34 SF	265.34 PLF	1.00 ea.	124.12 CF	4.5972 CY	C22	3 ea	Pre-cast	SHT S507						
1.50 LF	1.50 LF	34.63 LF	-- LF	2.25 SF	623.34 SF	337.50 PLF	7.00 ea.	545.42 CF	20.2008 CY	C1-C7	2 ea	Pre-cast	SHT S507						
1.50 LF	1.50 LF	34.63 LF	-- LF	2.25 SF	155.84 SF	337.50 PLF	1.00 ea.	77.92 CF	2.8858 CY	C1	2 ea	Pre-cast	SHT S 507						
1.50 LF	1.50 LF	34.63 LF	-- LF	2.25 SF	155.84 SF	337.50 PLF	1.00 ea.	77.92 CF	2.8858 CY	C2	2 ea	Pre-cast	SHT S 507						
1.50 LF	1.50 LF	34.63 LF	-- LF	2.25 SF	155.84 SF	337.50 PLF	1.00 ea.	77.92 CF	2.8858 CY	C3	2 ea	Pre-cast	SHT S 507						
1.50 LF	1.50 LF	34.63 LF	-- LF	2.25 SF	155.84 SF	337.50 PLF	1.00 ea.	77.92 CF	2.8858 CY	C4	2 ea	Pre-cast	SHT S 507						
1.50 LF	1.50 LF	34.63 LF	-- LF	2.25 SF	155.84 SF	337.50 PLF	1.00 ea.	77.92 CF	2.8858 CY	C5	2 ea	Pre-cast	SHT S 507						
1.50 LF	1.50 LF	34.63 LF	-- LF	2.25 SF	155.84 SF	337.50 PLF	1.00 ea.	77.92 CF	2.8858 CY	C6	2 ea	Pre-cast	SHT S 507						
1.50 LF	1.50 LF	34.63 LF	-- LF	2.25 SF	155.84 SF	337.50 PLF	1.00 ea.	77.92 CF	2.8858 CY	C7	2 ea	Pre-cast	SHT S 507						
									SUM CHECK	20.2008 CY									
1.50 LF	1.50 LF	11.96 LF	-- LF	2.25 SF	215.28 SF	337.50 PLF	7.00 ea.	188.37 CF	6.9767 CY	C9-C15	1 ea	Pre-cast	SHT S507						
1.50 LF	1.50 LF	11.96 LF	-- LF	2.25 SF	53.82 SF	337.50 PLF	1.00 ea.	26.91 CF	0.9967 CY	C9	1 ea	Pre-cast	SHT S 507						
1.50 LF	1.50 LF	11.96 LF	-- LF	2.25 SF	53.82 SF	337.50 PLF	1.00 ea.	26.91 CF	0.9967 CY	C10	1 ea	Pre-cast	SHT S 507						
1.50 LF	1.50 LF	11.96 LF	-- LF	2.25 SF	53.82 SF	337.50 PLF	1.00 ea.	26.91 CF	0.9967 CY	C11	1 ea	Pre-cast	SHT S 507						
1.50 LF	1.50 LF	11.96 LF	-- LF	2.25 SF	53.82 SF	337.50 PLF	1.00 ea.	26.91 CF	0.9967 CY	C12	1 ea	Pre-cast	SHT S 507						

1.50	LF	1.50	LF	11.96	LF	--	LF	2.25	SF	53.82	SF	337.50	PLF	1.00	ea.	26.91	CF	0.9967	CY	C13	1	ea	Pre-cast	SHT S 507
1.50	LF	1.50	LF	11.96	LF	--	LF	2.25	SF	53.82	SF	337.50	PLF	1.00	ea.	26.91	CF	0.9967	CY	C14	1	ea	Pre-cast	SHT S 507
1.50	LF	1.50	LF	11.96	LF	--	LF	2.25	SF	53.82	SF	337.50	PLF	1.00	ea.	26.91	CF	0.9967	CY	C15	1	ea	Pre-cast	SHT S 507
																				SUM CHECK	6.9767	CY		
1.50	LF	1.50	LF	5.57	LF	--	LF	2.25	SF	25.07	SF	337.50	PLF	6.00	ea.	75.20	CF	2.7850	CY	PC Stub	1	ea	Pre-cast	SHT S507
Sub Total				682.55	LF					2547.77	SF			29.00	ea.	3178.55	CF	117.72	CY		37.00	ea		
Precast Columns SHT S 200.3																								
Width (ft)		Height (ft)		Length (ft)		Thickness (ft)		Area (SF)		SFCA	(SF)	Member Wt		Quantity		Cubic Feet		Cubic Yards		Column Type	Column Pieces (ea)	Column Ty	Reference SHT	
2.00	LF	2.00	LF	70.17	LF	--	LF	4.00	SF	1684.08	SF	600.00	PLF	4.00	ea.	1122.72	CF	41.5822	CY	C17,C20	3	ea	Pre-cast	SHT S507
2.00	LF	2.00	LF	70.17	LF	--	LF	4.00	SF	421.02	SF	600.00	PLF	1.00	ea.	280.68	CF	10.3956	CY	C17	3	ea	Pre-cast	SHT S507
2.00	LF	2.00	LF	70.17	LF	--	LF	4.00	SF	421.02	SF	600.00	PLF	1.00	ea.	280.68	CF	10.3956	CY	C18	3	ea	Pre-cast	SHT S507
2.00	LF	2.00	LF	70.17	LF	--	LF	4.00	SF	421.02	SF	600.00	PLF	1.00	ea.	280.68	CF	10.3956	CY	C19	3	ea	Pre-cast	SHT S507
2.00	LF	2.00	LF	70.17	LF	--	LF	4.00	SF	421.02	SF	600.00	PLF	1.00	ea.	280.68	CF	10.3956	CY	C20	3	ea	Pre-cast	SHT S507
																				SUM CHECK	41.5822	CY		
1.50	LF	1.50	LF	34.63	LF	--	LF	2.25	SF	473.13	SF	337.50	PLF	5.00	ea.	389.59	CF	14.4292	CY	C1,C8	2	ea	Pre-cast	SHT S507
1.50	LF	1.50	LF	34.63	LF	--	LF	2.25	SF	155.84	SF	337.50	PLF	3.00	ea.	233.75	CF	8.6575	CY	C1	2	ea	Pre-cast	SHT S507
1.50	LF	1.50	LF	34.63	LF	--	LF	2.25	SF	155.84	SF	337.50	PLF	2.00	ea.	155.84	CF	5.7717	CY	C8	2	ea	Pre-cast	SHT S507
																				SUM CHECK	14.4292	CY		
1.50	LF	1.50	LF	11.96	LF	--	LF	2.25	SF	161.46	SF	337.50	PLF	6.00	ea.	161.46	CF	5.9800	CY	C9,C16,C26	1	ea	Pre-cast	SHT S507
1.50	LF	1.50	LF	11.96	LF	--	LF	2.25	SF	53.82	SF	337.50	PLF	2.00	ea.	53.82	CF	1.9933	CY	C9	1	ea	Pre-cast	SHT S507
1.50	LF	1.50	LF	11.96	LF	--	LF	2.25	SF	53.82	SF	337.50	PLF	2.00	ea.	53.82	CF	1.9933	CY	C16	1	ea	Pre-cast	SHT S507
1.50	LF	1.50	LF	11.96	LF	--	LF	2.25	SF	53.82	SF	337.50	PLF	2.00	ea.	53.82	CF	1.9933	CY	C26	1	ea	Pre-cast	SHT S507
																				SUM CHECK	5.9800	CY		
1.50	LF	1.50	LF	5.57	LF	--	LF	2.25	SF	25.07	SF	337.50	PLF	5.00	ea.	62.66	CF	2.3208	CY	PC Stub	1	ea	Pre-cast	SHT S507
Sub Total				391.39	LF					2343.74	SF			20.00	ea.	1736.43	CF	64.31	CY		20.00	ea		
Precast Columns SHT S 200.4																								
Width (ft)		Height (ft)		Length (ft)		Thickness (ft)		Area (SF)		SFCA	(SF)	Member Wt		Quantity		Cubic Feet		Cubic Yards		Column Type	Column Pieces (ea)	Column Ty	Reference SHT	
2.00	LF	2.00	LF	70.17	LF	--	LF	4.00	SF	1684.08	SF	600.00	PLF	4.00	ea.	1122.72	CF	41.5822	CY	C17,C20	3	ea	Pre-cast	
2.00	LF	2.00	LF	70.17	LF	--	LF	4.00	SF	421.02	SF	600.00	PLF	1.00	ea.	280.68	CF	10.3956	CY	C17	3	ea	Pre-cast	SHT S507
2.00	LF	2.00	LF	70.17	LF	--	LF	4.00	SF	421.02	SF	600.00	PLF	1.00	ea.	280.68	CF	10.3956	CY	C18	3	ea	Pre-cast	SHT S507
2.00	LF	2.00	LF	70.17	LF	--	LF	4.00	SF	421.02	SF	600.00	PLF	1.00	ea.	280.68	CF	10.3956	CY	C19	3	ea	Pre-cast	SHT S507
2.00	LF	2.00	LF	70.17	LF	--	LF	4.00	SF	421.02	SF	600.00	PLF	1.00	ea.	280.68	CF	10.3956	CY	C20	3	ea	Pre-cast	SHT S507
																				SUM CHECK	41.5822	CY		
1.50	LF	1.50	LF	34.63	LF	--	LF	2.25	SF	473.13	SF	337.50	PLF	5.00	ea.	389.59	CF	14.4292	CY	C1,C8	2	ea	Pre-cast	
1.50	LF	1.50	LF	34.63	LF	--	LF	2.25	SF	155.84	SF	337.50	PLF	3.00	ea.	233.75	CF	8.6575	CY	C1	2	ea	Pre-cast	SHT S507
1.50	LF	1.50	LF	34.63	LF	--	LF	2.25	SF	155.84	SF	337.50	PLF	2.00	ea.	155.84	CF	5.7717	CY	C8	2	ea	Pre-cast	SHT S507
																				SUM CHECK	14.4292	CY		
1.50	LF	1.50	LF	11.96	LF	--	LF	2.25	SF	161.46	SF	337.50	PLF	6.00	ea.	161.46	CF	5.9800	CY	C9,C16,C26	1	ea	Pre-cast	
1.50	LF	1.50	LF	11.96	LF	--	LF	2.25	SF	53.82	SF	337.50	PLF	2.00	ea.	53.82	CF	1.9933	CY	C9	1	ea	Pre-cast	SHT S507
1.50	LF	1.50	LF	11.96	LF	--	LF	2.25	SF	53.82	SF	337.50	PLF	2.00	ea.	53.82	CF	1.9933	CY	C16	1	ea	Pre-cast	SHT S507
1.50	LF	1.50	LF	11.96	LF	--	LF	2.25	SF	53.82	SF	337.50	PLF	2.00	ea.	53.82	CF	1.9933	CY	C26	1	ea	Pre-cast	SHT S507
																				SUM CHECK	5.9800	CY		
1.50	LF	1.50	LF	5.57	LF	--	LF	2.25	SF	25.07	SF	337.50	PLF	5.00	ea.	62.66	CF	2.3208	CY	PC Stub	1	ea	Pre-cast	
Sub Total				391.39	LF					2343.74	SF			20.00	ea.	1736.43	CF	64.31	CY		20.00	ea		
Precast Beams SHT S 201.1 - S 201.4 Main Concourse																								
Width (ft)		Height (ft)		Length (ft)		Thickness (ft)		Area (SF)		SFCA	(SF)	Member Wt		Quantity		Cubic Feet		Cubic Yards		Beam Type		Beam Type	Reference SHT	
1.33	LF	2.33	LF	34.32	LF	--	LF	3.10	SF	205.58	SF	464.84	PLF	2.00	ea.	212.71	CF	7.8781	CY	1B1	--	ea	A	SHT S505
1.00	LF	2.00	LF	22.57	LF	--	LF	2.00	SF	112.85	SF	300.00	PLF	2.00	ea.	90.28	CF	3.3437	CY	1B3	--	ea	A	SHT S505
1.50	LF	2.50	LF	36.80	LF	--	LF	3.75	SF	956.80	SF	562.50	PLF	12.00	ea.	1656.00	CF	61.3333	CY	1B4-1B7	--	ea	A	SHT S505
1.50	LF	2.50	LF	36.80	LF	--	LF	3.75	SF	239.20	SF	562.50	PLF	3.00	ea.	414.00	CF	15.3333	CY	1B4	--	ea	A	SHT S505
1.50	LF	2.50	LF	36.80	LF	--	LF	3.75	SF	239.20	SF	562.50	PLF	3.00	ea.	414.00	CF	15.3333	CY	1B5	--	ea	A	SHT S505
1.50	LF	2.50	LF	36.80	LF	--	LF	3.75	SF	239.20	SF	562.50	PLF	3.00	ea.	414.00	CF	15.3333	CY	1B6	--	ea	A	SHT S505
1.50	LF	2.50	LF	36.80	LF	--	LF	3.75	SF	239.20	SF	562.50	PLF	3.00	ea.	414.00	CF	15.3333	CY	1B7	--	ea	A	SHT S505
																				SUM CHECK	61.3333	CY		
1.33	LF	3.00	LF	44.84	LF	--	LF	3.99	SF		SF	598.50	PLF	2.00	ea.	357.82	CF	13.2527	CY	1B8	--	ea	A	SHT S505
1.50	LF	3.00	LF	42.36	LF	--	LF	4.50	SF	790.00	SF	675.00	PLF	2.00	ea.	381.24	CF	14.1200	CY	1B9/1B10	--	ea	A	SHT S505
1.50	LF	3.00	LF	42.36	LF	--	LF	4.50	SF	317.70	SF	675.00	PLF	1.00	ea.	190.62	CF	7.0600	CY	1B9	--	ea	A	SHT S505
1.50	LF	3.00	LF	42.36	LF	--	LF	4.50	SF	317.70	SF	675.00	PLF	1.00	ea.	190.62	CF	7.0600	CY	1B10	--	ea	A	SHT S505
																				SUM CHECK	14.1200	CY		
1.00	LF	2.00	LF	30.92	LF	--	LF	2.00	SF	154.60	SF	300.00	PLF	4.00	ea.	247.36	CF	9.1615	CY	1B19	--	ea	A	SHT S505
1.50	LF	2.00	LF	30.92	LF	--	LF	3.00	SF	170.06	SF	450.00	PLF	2.00	ea.	185.52	CF	6.8711	CY	1B21	--	ea	A	SHT S505

Sub Total				395.49	LF					2389.89	SF			26.00	ea.	3130.93	CF	115.96	CY						
Precast Raker Beams SHT S 201.1 - S 201.4 Main Concourse																									
Width (ft)		Height (ft)		Length (ft)		Thickness (ft)		Area (SF)		SFCA	(SF)	Member Wt		Quantity		Cubic Feet		Cubic Yards		Beam Type		Raker Beam	Reference	SHT	
1.50	LF	3.00	LF	30.15	LF	--	LF	4.50	SF	904.50	SF	675.00	PLF	14.00	ea.	1899.45	CF	70.3500	CY	1RB1-1RB6	--	ea	D	SHT S506	
1.50	LF	3.00	LF	30.15	LF	--	LF	4.50	SF	226.13	SF	675.00	PLF	2.00	ea.	271.35	CF	10.0500	CY	1RB1	--	ea	D	SHT S506	
1.50	LF	3.00	LF	30.15	LF	--	LF	4.50	SF	226.13	SF	675.00	PLF	2.00	ea.	271.35	CF	10.0500	CY	1RB2	--	ea	D	SHT S506	
1.50	LF	3.00	LF	30.15	LF	--	LF	4.50	SF	226.13	SF	675.00	PLF	2.00	ea.	271.35	CF	10.0500	CY	1RB3	--	ea	D	SHT S506	
1.50	LF	3.00	LF	30.15	LF	--	LF	4.50	SF	226.13	SF	675.00	PLF	4.00	ea.	542.70	CF	20.1000	CY	1RB4	--	ea	D	SHT S506	
1.50	LF	3.00	LF	30.15	LF	--	LF	4.50	SF	226.13	SF	675.00	PLF	2.00	ea.	271.35	CF	10.0500	CY	1RB5	--	ea	D	SHT S506	
1.50	LF	3.00	LF	30.15	LF	--	LF	4.50	SF	226.13	SF	675.00	PLF	2.00	ea.	271.35	CF	10.0500	CY	1RB6	--	ea	D	SHT S506	
																SUM CHECK		70.3500	CY						
1.50	LF	2.00	LF	17.83	LF	--	LF	3.00	SF	392.26	SF	450.00	PLF	28.00	ea.	1497.72	CF	55.4711	CY	1RB8-1RB13	--	ea	D	SHT S506	
1.50	LF	2.00	LF	17.83	LF	--	LF	3.00	SF	98.07	SF	450.00	PLF	4.00	ea.	213.96	CF	7.9244	CY	1RB8	--	ea	D	SHT S506	
1.50	LF	2.00	LF	17.83	LF	--	LF	3.00	SF	98.07	SF	450.00	PLF	4.00	ea.	213.96	CF	7.9244	CY	1RB9	--	ea	D	SHT S506	
1.50	LF	2.00	LF	17.83	LF	--	LF	3.00	SF	98.07	SF	450.00	PLF	4.00	ea.	213.96	CF	7.9244	CY	1RB10	--	ea	D	SHT S506	
1.50	LF	2.00	LF	17.83	LF	--	LF	3.00	SF	98.07	SF	450.00	PLF	8.00	ea.	427.92	CF	15.8489	CY	1RB11	--	ea	D	SHT S506	
1.50	LF	2.00	LF	17.83	LF	--	LF	3.00	SF	98.07	SF	450.00	PLF	4.00	ea.	213.96	CF	7.9244	CY	1RB12	--	ea	D	SHT S506	
1.50	LF	2.00	LF	17.83	LF	--	LF	3.00	SF	98.07	SF	450.00	PLF	4.00	ea.	213.96	CF	7.9244	CY	1RB13	--	ea	D	SHT S506	
																SUM CHECK		55.4711	CY						
1.50	LF	2.00	LF	30.15	LF	--	LF	3.00	SF	663.30	SF	450.00	PLF	14.00	ea.	1266.30	CF	46.9000	CY	1RB1-1RB8	--	ea	D	SHT S506	
1.50	LF	2.00	LF	30.15	LF	--	LF	3.00	SF	165.83	SF	450.00	PLF	1.00	ea.	90.45	CF	3.3500	CY	1RB1	--	ea	D	SHT S506	
1.50	LF	2.00	LF	30.15	LF	--	LF	3.00	SF	165.83	SF	450.00	PLF	2.00	ea.	180.90	CF	6.7000	CY	1RB2	--	ea	D	SHT S506	
1.50	LF	2.00	LF	30.15	LF	--	LF	3.00	SF	165.83	SF	450.00	PLF	2.00	ea.	180.90	CF	6.7000	CY	1RB3	--	ea	D	SHT S506	
1.50	LF	2.00	LF	30.15	LF	--	LF	3.00	SF	165.83	SF	450.00	PLF	2.00	ea.	180.90	CF	6.7000	CY	1RB4	--	ea	D	SHT S506	
1.50	LF	2.00	LF	30.15	LF	--	LF	3.00	SF	165.83	SF	450.00	PLF	2.00	ea.	180.90	CF	6.7000	CY	1RB5	--	ea	D	SHT S506	
1.50	LF	2.00	LF	30.15	LF	--	LF	3.00	SF	165.83	SF	450.00	PLF	2.00	ea.	180.90	CF	6.7000	CY	1RB6	--	ea	D	SHT S506	
1.50	LF	2.00	LF	30.15	LF	--	LF	3.00	SF	165.83	SF	450.00	PLF	2.00	ea.	180.90	CF	6.7000	CY	1RB7	--	ea	D	SHT S506	
1.50	LF	2.00	LF	30.15	LF	--	LF	3.00	SF	165.83	SF	450.00	PLF	1.00	ea.	90.45	CF	3.3500	CY	1RB8	--	ea	D	SHT S506	
																SUM CHECK		46.9000	CY						
Sub Total				529.08	LF					1960.06	SF			56.00	ea.	4663.47	CF	172.72	CY						
Precast Beams SHT S 202.1 - S 202.4 Bridge Level																									
Width (ft)		Height (ft)		Length (ft)		Thickness (ft)		Area (SF)		SFCA	(SF)	Member Wt		Quantity		Cubic Feet		Cubic Yards		Beam Type		Beam Type	Reference	SHT	
1.50	LF	3.00	LF	29.07	LF	--	LF	4.50	SF	218.03	SF	675.00	PLF	4.00	ea.	523.26	CF	19.3800	CY	2B1	--	ea	A	SHT S505	
1.50	LF	3.00	LF	49.16	LF	--	LF	4.50	SF	368.70	SF	675.00	PLF	2.00	ea.	442.44	CF	16.3867	CY	2B2	--	ea	A	SHT S506	
1.50	LF	3.00	LF	45.14	LF	--	LF	4.50	SF	338.55	SF	675.00	PLF	4.00	ea.	812.52	CF	30.0933	CY	2B3	--	ea	A	SHT S507	
1.50	LF	2.00	LF	49.16	LF	--	LF	3.00	SF	270.38	SF	450.00	PLF	2.00	ea.	294.96	CF	10.9244	CY	2B9	--	ea	A	SHT S508	
Sub Total				172.53	LF					1195.66	SF			12.00	ea.	2073.18	CF	76.78	CY						
Precast Raker Beams SHT S 202.1 - S 202.4 Bridge Level																									
Width (ft)		Height (ft)		Length (ft)		Thickness (ft)		Area (SF)		SFCA	(SF)	Member Wt		Quantity		Cubic Feet		Cubic Yards		Beam Type		Raker Beam	Reference	SHT	
1.50	LF	3.00	LF	40.92	LF	--	LF	4.50	SF	838.86	SF	675.00	PLF	22.00	ea.	4051.08	CF	150.0400	CY	2RB1,2RB2					
1.50	LF	2.50	LF	40.92	LF	--	LF	4.50	SF	265.98	SF	675.00	PLF	11.00	ea.	2025.54	CF	75.0200	CY	2RB1	--	ea	E	SHT S506	
1.50	LF	2.50	LF	40.92	LF	--	LF	4.50	SF	265.98	SF	675.00	PLF	11.00	ea.	2025.54	CF	75.0200	CY	2RB2	--	ea	E	SHT S506	
																SUM CHECK		150.0400	CY						
1.50	LF	3.00	LF	40.92	LF	--	LF	4.50	SF	306.90	SF	675.00	PLF	2.00	ea.	368.28	CF	13.6400	CY	2RB3		ea	E	SHT S506	
Sub Total				122.76	LF					1145.76	SF			24.00	ea.	4419.36	CF	163.68	CY						
Precast Beams SHT S 203.1 - S 203.4 Suite Level																									
Width (ft)		Height (ft)		Length (ft)		Thickness (ft)		Area (SF)		SFCA	(SF)	Member Wt		Quantity		Cubic Feet		Cubic Yards		Beam Type		Beam Type	Reference	SHT	
1.50	LF	3.00	LF	35.40	LF	--	LF	4.50	SF	1062.00	SF	675.00	PLF	9.00	ea.	1433.70	CF	53.1000	CY	3B1-3B7					
1.50	LF	3.00	LF	35.40	LF	--	LF	4.50	SF	265.50	SF	675.00	PLF	2.00	ea.	318.60	CF	11.8000	CY	3B1	--	ea	A	SHT S505	
1.50	LF	3.00	LF	35.40	LF	--	LF	4.50	SF	265.50	SF	675.00	PLF	1.00	ea.	159.30	CF	5.9000	CY	3B2	--	ea	A	SHT S505	
1.50	LF	3.00	LF	35.40	LF	--	LF	4.50	SF	265.50	SF	675.00	PLF	1.00	ea.	159.30	CF	5.9000	CY	3B3	--	ea	A	SHT S505	
1.50	LF	3.00	LF	35.40	LF	--	LF	4.50	SF	265.50	SF	675.00	PLF	1.00	ea.	159.30	CF	5.9000	CY	3B4	--	ea	A	SHT S505	
1.50	LF	3.00	LF	35.40	LF	--	LF	4.50	SF	265.50	SF	675.00	PLF	1.00	ea.	159.30	CF	5.9000	CY	3B5	--	ea	A	SHT S505	
1.50	LF	3.00	LF	35.40	LF	--	LF	4.50	SF	265.50	SF	675.00	PLF	1.00	ea.	159.30	CF	5.9000	CY	3B6	--	ea	A	SHT S505	
1.50	LF	3.00	LF	35.40	LF	--	LF	4.50	SF	265.50	SF	675.00	PLF	2.00	ea.	318.60	CF	11.8000	CY	3B7	--	ea	A	SHT S505	
																SUM CHECK		53.1000	CY						

Uniformat Number	Item Name	Crew Designation	Daily Work/ Unit Output
03110.410.6000	16" Wide Structural CIP Column Forms	C-14	185
03110.410.6300	18" Wide Structural CIP Column Forms	C-14	187
03110.410.6500	24" Wide Structural CIP Column Forms	C-14	190
03110.405.1000	18" Wide Structural CIP Beam Forms	C-14	250
03310.220.0300	Material Costs for 4,000 PSI Concrete	C-14	1
03310.800.0781	16" x 32" Bent Raker Form Rental @ 10 Risers (21 QTY)	C11	3
03310.800.0781	16" x 32" Bent Raker Form Rental @ 8 Risers (21 QTY)	C11	3
03310.800.0781	16" x 32" Bent Raker Form Rental @ 2 Risers (21 QTY)	C11	3
03310.700.0800	Concrete for Beams and Column placed by Pump Truck (assumed use for Beam thickness of 24")	C-14	70
03310.700.0800	Concrete for Beams and Column placed by Pump Truck (assumed use for Beam thickness of 24") Raker Placement	C-14	70

Means Cost Data

Unit	Labor Output per Unit	HR	Requeste Project Quantity	Unit	Total Crew Hours (HR)		Total Crew Days (D)	
SFCA	0.173	HR	279.98	SFCA	0.2618	HR	0.03	D
SFCA	0.17	HR	2530.98	SFCA	2.3009	HR	0.29	D
SFCA	0.168	HR	7983.00	SFCA	7.0587	HR	0.88	D
SFCA	0.192	HR	5565.82	SFCA	4.2746	HR	0.53	D
CY	1	HR	1089.63	CY	1089.6300	HR	136.20	D
ea.	0.25	HR	381.92	CY	31.8267	HR	3.98	D
ea.	0.25	HR	163.68	CY	13.6400	HR	1.71	D
ea.	0.25	HR	121.92	CY	10.1600	HR	1.27	D
CY	1.029	HR	641.53	CY	9.4305	HR	1.18	D
CY	1.029	HR	448.16	CY	6.5880	HR	0.82	D
			Sum Total Duration		521.3930	HR	65.17	D

RS Means Source Data				Quantity Weighted Cost			
Mat'l Costs	Labor Costs	Equipment Costs	Total Costs	Mat'l	Labor	Equipment Costs	Total
\$ 2.23	\$ 5.80	\$ -	\$ 8.03	\$ 624.35	\$ 1.52	\$ -	\$ 625.87
\$ 2.39	\$ 5.88	\$ -	\$ 8.27	\$ 6,049.04	\$ 13.53	\$ -	\$ 6,062.57
\$ 2.54	\$ 5.65	\$ -	\$ 8.19	\$ 20,276.82	\$ 39.88	\$ -	\$ 20,316.70
\$ 3.32	\$ 6.65	\$ -	\$ 9.97	\$ 18,478.53	\$ 28.43	\$ -	\$ 18,506.95
\$ 91.00	\$ -	\$ -	\$ 91.00	\$ 99,156.33	\$ -	\$ -	\$ 99,156.33
\$ -	\$ -	\$63,757.17	\$ 73,320.74	\$ -	\$ -	\$ 83,738.40	\$ 83,738.40
\$ -	\$ -	\$51,005.73	\$ 58,656.59	\$ -	\$ -	\$ 62,228.36	\$ 62,228.36
\$ -	\$ -	\$31,500.00	\$ 36,225.00	\$ -	\$ -	\$ 37,868.06	\$ 37,868.06
\$ -	\$ -	\$ 1,800.00	\$ 1,800.00	\$ -	\$ -	\$ 2,121.86	\$ 2,121.86
\$ -	\$ -	\$ 1,800.00	\$ 1,800.00	\$ -	\$ -	\$ 1,482.29	\$ 1,482.29
Sum Total Cost:				\$ 332,107.40			

Raker Bent Form Rental Costs (*Raker form for beam servicing 18 Risers*)

Base Line Rate (Baltimore, MD) = **\$ 3,500/ 28 Days**

Baltimore-Wash

CPI Index 126.3

Chicago CPI Index 197.2

Chicago (CPI) /
Baltimore (CPI) = 1.5614

Adjusted Raker Rental Rate/ 28 Days **\$ 5,464.90**

Raker Type D (10 Risers) **\$3,036.06** / 28 Days
 Raker Type D (8 Risers) **\$2,428.84** / 28 Days
 Raker Type D (2 Risers) **\$1,500.00** / 28 Days

Analysis of Crane Erection Duration (For Placing Bent Forms)

Project Tasks	Crew Discriptions	Proposed Duration	Total Costs
Main course Raker	C11/ (6) Workers, (2) Laborers, (1) Foreman, (1) Operator, (1) Oiler (1) 300 TON Tower Crane	8 Days	\$ 70,791.52
Bridge Level Raker	C11/ (6) Workers, (2) Laborers, (1) Foreman, (1) Operator, (1) Oiler (1) 300 TON Tower Crane	4 Days	\$ 35,395.76
Suite Raker	C11/ (6) Workers, (2) Laborers, (1) Foreman, (1) Operator, (1) Oiler (1) 300 TON Tower Crane	4 Days	\$ 35,395.76
CIP Beam Form Install and Concr. Finish	C14/ (16) Carpenters, (4) Rodmen, (1) Pump Truck Operator, (1) Forman, (2) Laborers, etc.	6 Day	\$ 85,353.96
CIP Column Form Install and Concr. Finish	C14/ (16) Carpenters, (4) Rodmen, (1) Pump Truck Operator, (1) Forman, (2) Laborers, etc.	2 Day	\$ 28,451.32
CIP Raker Form Install and Concr. Finish	C14/ (16) Carpenters, (4) Rodmen, (1) Pump Truck Operator, (1) Forman, (2) Laborers, etc.	2 Day	\$ 28,451.32
Sub Total	Total Labor/ Work	34 Days	\$ 283,839.64
Sum Total of CIP Superstructure		\$	615,947.04

Alternative Pre-caster Assessment

Precast Columns SHT S 200.1									
Width (ft)		Height (ft)		Length (ft)		Unit Price	Line Total	Quantity	
2.00	LF	2.00	LF	70.17	LF	\$ 900.00	\$ 5,400.00	6.00	ea.
2.00	LF	2.00	LF	70.17	LF	\$ 900.00	\$ 1,800.00	2.00	ea.
2.00	LF	2.00	LF	70.17	LF	\$ 900.00	\$ 1,800.00	2.00	ea.
2.00	LF	2.00	LF	70.17	LF	\$ 900.00	\$ 900.00	1.00	ea.
2.00	LF	2.00	LF	70.17	LF	\$ 900.00	\$ 900.00	1.00	ea.
1.33	LF	1.33	LF	70.17	LF	\$ 900.00	\$ 900.00	1.00	ea.
2.00	LF	2.00	LF	34.63	LF	\$ 600.00	\$ 3,600.00	6.00	ea.
2.00	LF	2.00	LF	34.63	LF	\$ 600.00	\$ 600.00	1.00	ea.
2.00	LF	2.00	LF	34.63	LF	\$ 600.00	\$ 600.00	1.00	ea.
2.00	LF	2.00	LF	34.63	LF	\$ 600.00	\$ 600.00	1.00	ea.
2.00	LF	2.00	LF	34.63	LF	\$ 600.00	\$ 600.00	1.00	ea.
2.00	LF	2.00	LF	34.63	LF	\$ 600.00	\$ 600.00	1.00	ea.
2.00	LF	2.00	LF	34.63	LF	\$ 600.00	\$ 600.00	1.00	ea.
1.50	LF	1.50	LF	11.96	LF	\$ 300.00	\$ 1,800.00	6.00	ea.
1.50	LF	1.50	LF	11.96	LF	\$ 300.00	\$ 300.00	1.00	ea.
1.50	LF	1.50	LF	11.96	LF	\$ 300.00	\$ 300.00	1.00	ea.
1.50	LF	1.50	LF	11.96	LF	\$ 300.00	\$ 300.00	1.00	ea.
1.50	LF	1.50	LF	11.96	LF	\$ 300.00	\$ 300.00	1.00	ea.
1.50	LF	1.50	LF	11.96	LF	\$ 300.00	\$ 300.00	1.00	ea.
1.50	LF	1.50	LF	5.57	LF	\$ 300.00	\$ 1,800.00	6.00	ea.
Sub Total				635.96	LF		\$ 10,800.00	25.00	ea.
Precast Columns SHT S 200.2									
Width (ft)		Height (ft)		Length (ft)		Unit Price	Line Total	Quantity	
2.00	LF	2.00	LF	70.17	LF	\$ 900.00	\$ 7,200.00	8.00	ea.
2.00	LF	2.00	LF	70.17	LF	\$ 900.00	\$ 1,800.00	2.00	ea.
2.00	LF	2.00	LF	70.17	LF	\$ 900.00	\$ 1,800.00	2.00	ea.
2.00	LF	2.00	LF	70.17	LF	\$ 900.00	\$ 1,800.00	2.00	ea.
2.00	LF	2.00	LF	70.17	LF	\$ 900.00	\$ 1,800.00	2.00	ea.
1.33	LF	1.33	LF	70.17	LF	\$ 900.00	\$ 900.00	1.00	ea.
1.50	LF	1.50	LF	34.63	LF	\$ 600.00	\$ 4,200.00	7.00	ea.
1.50	LF	1.50	LF	34.63	LF	\$ 600.00	\$ 600.00	1.00	ea.
1.50	LF	1.50	LF	34.63	LF	\$ 600.00	\$ 600.00	1.00	ea.
1.50	LF	1.50	LF	34.63	LF	\$ 600.00	\$ 600.00	1.00	ea.
1.50	LF	1.50	LF	34.63	LF	\$ 600.00	\$ 600.00	1.00	ea.
1.50	LF	1.50	LF	34.63	LF	\$ 600.00	\$ 600.00	1.00	ea.
1.50	LF	1.50	LF	34.63	LF	\$ 600.00	\$ 600.00	1.00	ea.
1.50	LF	1.50	LF	11.96	LF	\$ 300.00	\$ 2,100.00	7.00	ea.

1.50	LF	1.50	LF	11.96	LF	\$	300.00	\$	300.00	1.00	ea.
1.50	LF	1.50	LF	11.96	LF	\$	300.00	\$	300.00	1.00	ea.
1.50	LF	1.50	LF	11.96	LF	\$	300.00	\$	300.00	1.00	ea.
1.50	LF	1.50	LF	11.96	LF	\$	300.00	\$	300.00	1.00	ea.
1.50	LF	1.50	LF	11.96	LF	\$	300.00	\$	300.00	1.00	ea.
1.50	LF	1.50	LF	11.96	LF	\$	300.00	\$	300.00	1.00	ea.
1.50	LF	1.50	LF	11.96	LF	\$	300.00	\$	300.00	1.00	ea.
1.50	LF	1.50	LF	5.57	LF	\$	300.00	\$	1,800.00	6.00	ea.
Sub Total				682.55				\$	29,700.00	29.00	ea.

Precast Columns SHT S 200.3

Width (ft)		Height (ft)		Length (ft)					Quantity		
2.00	LF	2.00	LF	70.17	LF	\$	900.00	\$	3,600.00	4.00	ea.
2.00	LF	2.00	LF	70.17	LF	\$	900.00	\$	900.00	1.00	ea.
2.00	LF	2.00	LF	70.17	LF	\$	900.00	\$	900.00	1.00	ea.
2.00	LF	2.00	LF	70.17	LF	\$	900.00	\$	900.00	1.00	ea.
2.00	LF	2.00	LF	70.17	LF	\$	900.00	\$	900.00	1.00	ea.
1.50	LF	1.50	LF	34.63	LF	\$	600.00	\$	3,000.00	5.00	ea.
1.50	LF	1.50	LF	34.63	LF	\$	600.00	\$	1,800.00	3.00	ea.
1.50	LF	1.50	LF	34.63	LF	\$	600.00	\$	1,200.00	2.00	ea.
1.50	LF	1.50	LF	11.96	LF	\$	300.00	\$	1,800.00	6.00	ea.
1.50	LF	1.50	LF	11.96	LF	\$	300.00	\$	600.00	2.00	ea.
1.50	LF	1.50	LF	11.96	LF	\$	300.00	\$	600.00	2.00	ea.
1.50	LF	1.50	LF	11.96	LF	\$	300.00	\$	600.00	2.00	ea.
1.50	LF	1.50	LF	5.57	LF	\$	300.00	\$	1,500.00	5.00	ea.
Sub Total				391.39				\$	9,900.00	20.00	ea.

Precast Columns SHT S 200.4

Width (ft)		Height (ft)		Length (ft)					Quantity		
2.00	LF	2.00	LF	70.17	LF	\$	900.00	\$	3,600.00	4.00	ea.
2.00	LF	2.00	LF	70.17	LF	\$	900.00	\$	900.00	1.00	ea.
2.00	LF	2.00	LF	70.17	LF	\$	900.00	\$	900.00	1.00	ea.
2.00	LF	2.00	LF	70.17	LF	\$	900.00	\$	900.00	1.00	ea.
2.00	LF	2.00	LF	70.17	LF	\$	900.00	\$	900.00	1.00	ea.
1.50	LF	1.50	LF	34.63	LF	\$	600.00	\$	3,000.00	5.00	ea.
1.50	LF	1.50	LF	34.63	LF	\$	600.00	\$	1,800.00	3.00	ea.
1.50	LF	1.50	LF	34.63	LF	\$	600.00	\$	1,200.00	2.00	ea.
1.50	LF	1.50	LF	11.96	LF	\$	300.00	\$	1,800.00	6.00	ea.
1.50	LF	1.50	LF	11.96	LF	\$	300.00	\$	600.00	2.00	ea.
1.50	LF	1.50	LF	11.96	LF	\$	300.00	\$	600.00	2.00	ea.
1.50	LF	1.50	LF	11.96	LF	\$	300.00	\$	600.00	2.00	ea.
1.50	LF	1.50	LF	5.57	LF	\$	300.00	\$	1,500.00	5.00	ea.

Sub Total				391.39			\$	9,900.00	20.00	ea.
Precast Beams SHT S 201.1 - S 201.4 Main Concourse										
Width (ft)		Height (ft)		Length (ft)					Quantity	
1.33	LF	2.33	LF	34.32	LF	\$	260.00	\$	520.00	2.00 ea.
1.00	LF	2.00	LF	22.57	LF	\$	260.00	\$	520.00	2.00 ea.
1.50	LF	2.50	LF	36.80	LF	\$	260.00	\$	3,120.00	12.00 ea.
1.50	LF	2.50	LF	36.80	LF	\$	260.00	\$	780.00	3.00 ea.
1.50	LF	2.50	LF	36.80	LF	\$	260.00	\$	780.00	3.00 ea.
1.50	LF	2.50	LF	36.80	LF	\$	260.00	\$	780.00	3.00 ea.
1.50	LF	2.50	LF	36.80	LF	\$	260.00	\$	780.00	3.00 ea.
1.33	LF	3.00	LF	44.84	LF	\$	260.00	\$	520.00	2.00 ea.
1.50	LF	3.00	LF	42.36	LF	\$	260.00	\$	520.00	2.00 ea.
1.50	LF	3.00	LF	42.36	LF	\$	260.00	\$	260.00	1.00 ea.
1.50	LF	3.00	LF	42.36	LF	\$	260.00	\$	260.00	1.00 ea.
1.00	LF	2.00	LF	30.92	LF	\$	260.00	\$	1,040.00	4.00 ea.
1.50	LF	2.00	LF	30.92	LF	\$	260.00	\$	520.00	2.00 ea.
Sub Total				395.49			\$	6,760.00	26.00	ea.
Precast Raker Beams SHT S 201.1 - S 201.4 Main Concourse										
Width (ft)		Height (ft)		Length (ft)					Quantity	
1.50	LF	3.00	LF	30.15	LF	\$	320.00	\$	4,480.00	14.00 ea.
1.50	LF	3.00	LF	30.15	LF	\$	320.00	\$	640.00	2.00 ea.
1.50	LF	3.00	LF	30.15	LF	\$	320.00	\$	640.00	2.00 ea.
1.50	LF	3.00	LF	30.15	LF	\$	320.00	\$	640.00	2.00 ea.
1.50	LF	3.00	LF	30.15	LF	\$	320.00	\$	1,280.00	4.00 ea.
1.50	LF	3.00	LF	30.15	LF	\$	320.00	\$	640.00	2.00 ea.
1.50	LF	3.00	LF	30.15	LF	\$	320.00	\$	640.00	2.00 ea.
1.50	LF	2.00	LF	17.83	LF	\$	320.00	\$	8,960.00	28.00 ea.
1.50	LF	2.00	LF	17.83	LF	\$	320.00	\$	1,280.00	4.00 ea.
1.50	LF	2.00	LF	17.83	LF	\$	320.00	\$	1,280.00	4.00 ea.
1.50	LF	2.00	LF	17.83	LF	\$	320.00	\$	1,280.00	4.00 ea.
1.50	LF	2.00	LF	17.83	LF	\$	320.00	\$	2,560.00	8.00 ea.
1.50	LF	2.00	LF	17.83	LF	\$	320.00	\$	1,280.00	4.00 ea.
1.50	LF	2.00	LF	17.83	LF	\$	320.00	\$	1,280.00	4.00 ea.
1.50	LF	2.00	LF	30.15	LF	\$	320.00	\$	4,480.00	14.00 ea.
1.50	LF	2.00	LF	30.15	LF	\$	320.00	\$	320.00	1.00 ea.
1.50	LF	2.00	LF	30.15	LF	\$	320.00	\$	640.00	2.00 ea.
1.50	LF	2.00	LF	30.15	LF	\$	320.00	\$	640.00	2.00 ea.
1.50	LF	2.00	LF	30.15	LF	\$	320.00	\$	640.00	2.00 ea.
1.50	LF	2.00	LF	30.15	LF	\$	320.00	\$	640.00	2.00 ea.
1.50	LF	2.00	LF	30.15	LF	\$	320.00	\$	640.00	2.00 ea.
1.50	LF	2.00	LF	30.15	LF	\$	320.00	\$	640.00	2.00 ea.
1.50	LF	2.00	LF	30.15	LF	\$	320.00	\$	640.00	2.00 ea.
1.50	LF	2.00	LF	30.15	LF	\$	320.00	\$	320.00	1.00 ea.
Sub Total				529.08	LF		\$	17,920.00	56.00	ea.

Precast Beams SHT S 202.1 - S 202.4 Bridge Level										
Width (ft)		Height (ft)		Length (ft)				Quantity		
1.50	LF	3.00	LF	29.07	LF	\$	260.00	\$	1,040.00	4.00 ea.
1.50	LF	3.00	LF	49.16	LF	\$	260.00	\$	520.00	2.00 ea.
1.50	LF	3.00	LF	45.14	LF	\$	260.00	\$	1,040.00	4.00 ea.
1.50	LF	2.00	LF	49.16	LF	\$	260.00	\$	520.00	2.00 ea.
Sub Total				172.53	LF	\$		\$	3,120.00	12.00 ea.
Precast Raker Beams SHT S 202.1 - S 202.4 Bridge Level										
Width (ft)		Height (ft)		Length (ft)				Quantity		
1.50	LF	3.00	LF	40.92	LF	\$	341.00	\$	7,502.00	22.00 ea.
1.50	LF	2.50	LF	40.92	LF	\$	341.00	\$	3,751.00	11.00 ea.
1.50	LF	2.50	LF	40.92	LF	\$	341.00	\$	3,751.00	11.00 ea.
1.50	LF	3.00	LF	40.92	LF	\$	341.00	\$	682.00	2.00 ea.
Sub Total				122.76	LF	\$		\$	8,184.00	24.00 ea.
Precast Beams SHT S 203.1 - S 203.4 Suite Level										
Width (ft)		Height (ft)		Length (ft)				Quantity		
1.50	LF	3.00	LF	35.40	LF	\$	260.00	\$	2,340.00	9.00 ea.
1.50	LF	3.00	LF	35.40	LF	\$	260.00	\$	520.00	2.00 ea.
1.50	LF	3.00	LF	35.40	LF	\$	260.00	\$	260.00	1.00 ea.
1.50	LF	3.00	LF	35.40	LF	\$	260.00	\$	260.00	1.00 ea.
1.50	LF	3.00	LF	35.40	LF	\$	260.00	\$	260.00	1.00 ea.
1.50	LF	3.00	LF	35.40	LF	\$	260.00	\$	260.00	1.00 ea.
1.50	LF	3.00	LF	35.40	LF	\$	260.00	\$	260.00	1.00 ea.
1.50	LF	3.00	LF	35.40	LF	\$	260.00	\$	260.00	1.00 ea.
1.50	LF	3.00	LF	35.40	LF	\$	260.00	\$	520.00	2.00 ea.
1.50	LF	2.00	LF	33.24	LF	\$	260.00	\$	1,300.00	5.00 ea.
1.50	LF	2.00	LF	33.24	LF	\$	260.00	\$	260.00	1.00 ea.
1.50	LF	2.00	LF	33.24	LF	\$	260.00	\$	260.00	1.00 ea.
1.50	LF	2.00	LF	33.24	LF	\$	260.00	\$	260.00	1.00 ea.
1.50	LF	2.00	LF	33.24	LF	\$	260.00	\$	260.00	1.00 ea.
1.50	LF	2.00	LF	33.24	LF	\$	260.00	\$	260.00	1.00 ea.
1.50	LF	2.00	LF	34.00	LF	\$	260.00	\$	2,600.00	10.00 ea.
Sub Total				448.00	LF	\$		\$	3,640.00	24.00 ea.
Precast Raker Beams SHT S 203.1 - S 203.4 Suite Level										
Width (ft)		Height (ft)		Length (ft)				Quantity		
1.50	LF	3.00	LF	30.48	LF	\$	590.00	\$	12,980.00	22.00 ea.
1.50	LF	3.00	LF	30.48	LF	\$	590.00	\$	6,490.00	11.00 ea.
1.50	LF	3.00	LF	30.48	LF	\$	590.00	\$	6,490.00	11.00 ea.
1.50	LF	3.00	LF	30.48	LF	\$	590.00	\$	1,180.00	2.00 ea.
Sub Total				91.44	LF	\$		\$	14,160.00	24.00 ea.

<i>Page Totals</i>					Total Num. Pieces
Cubic Yards of Concrete =	1099.81	CY	Total Base Costs	\$ 115,884.00	260.00 ea.

Total Errection Costs = \$ 260,000.00
 Number of Truck Loads = 214
 Procurement Costs & Travel to Site = \$ 214,000.00

Sum Total for High Concrete Precast **\$ 921,022.37**

Total Duration 17.33 *Crew Day(s)*

Pre-cast/ CIP Cost / Benefit Analysis

Crew Duration	System Costs	Time Costs/ Benefit	\$ Cost / Savings
		(Day) = days saved Day = days added	\$ (Cost Overrun) \$ Cost Savings

Spancrete <small>Current Method</small>	96	DAYS	\$ 989,866	--	DAY	--
High Concrete <small>Alternate Precaster</small>	107	DAYS	\$ 921,022	11	DAY	\$ 68,844
CIP/ Method <small>Evaluated Method</small>	131	DAYS	\$ 615,947	35	DAY	\$ 373,919