

13 Construction Estimate

During this Schematic Design phase, OMR and JLA performed concurrent cost estimates to establish the Total Project Costs. D G Jones International (DGJ) of Woburn and Project Management & Cost (PMC) of Hingham were our respective consultants. Attached you will find the full estimate package from DGJ and the summary page for PMC. These estimates have been reconciled and have been value engineered based on the previous value engineering information shown in the Manual.

Going forward, the continuation of the design phase will include a cost estimating reconciliation and value engineering period during Design Development, and a constructability review, cost estimating reconciliation, and budget validation period during the Construction Document phase, to ensure the project remains within the approved budget.

The estimated Construction Cost is shown in the attached DGJ estimate dated 11 February 2010.



Longmeadow High School Longmeadow, MA

SD Cost Estimate

**Prepared for:
The Office of Michael Rosenfeld, Inc., Architects**

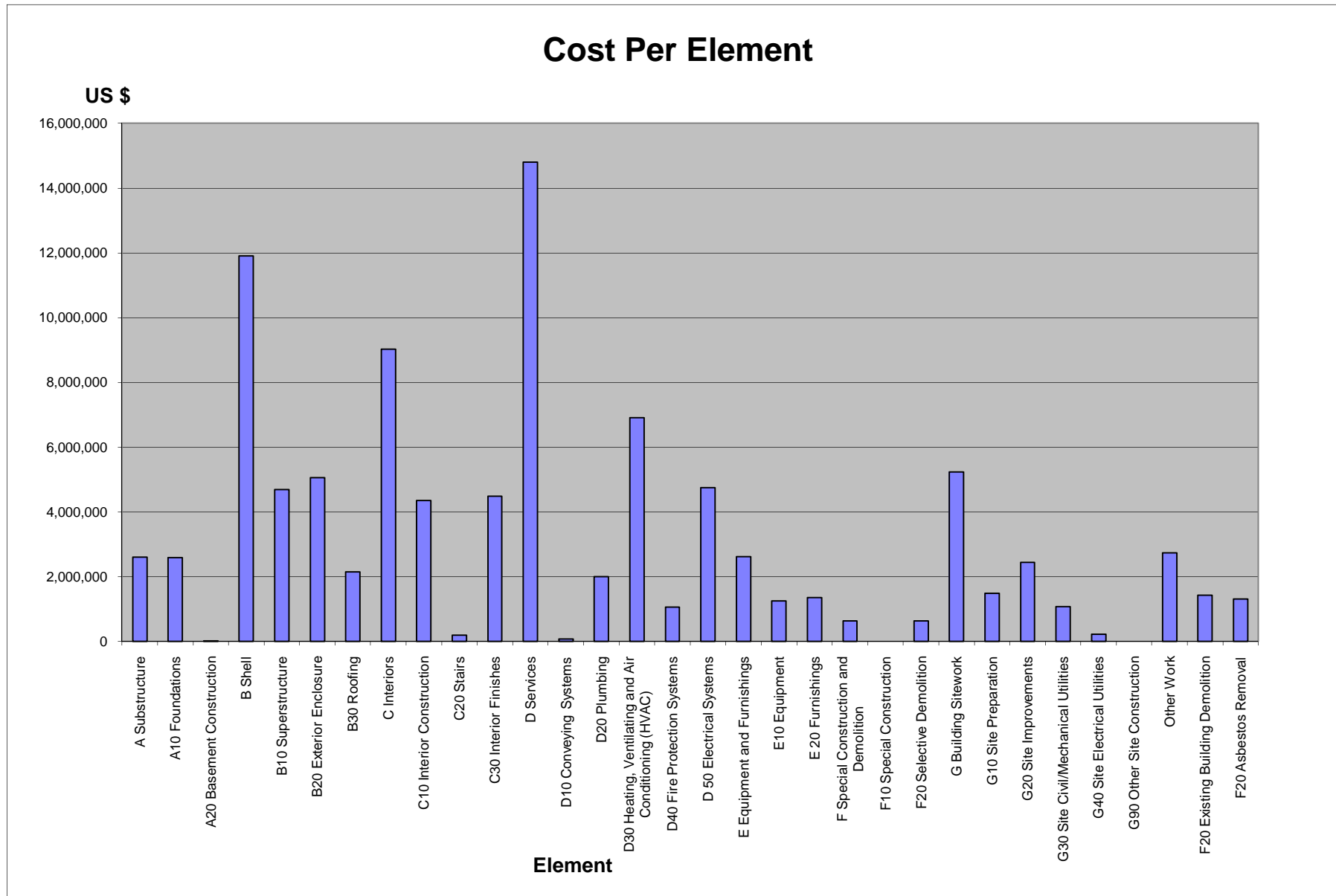
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February 11, 2010

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SUMMARY

	Consolidated			Addition			Renovation		
	Elements (\$)	236,410 \$/sf	%	Elements (\$)	184,365 \$/sf	%	Elements (\$)	52,045 \$/sf	%
Gross Floor Area (sf) =									
<u>A Substructure</u>	2,611,338	11.05	5.27%	2,578,175	13.98	5.91%	33,164	0.64	0.55%
A10 Foundations	2,598,608	10.99	5.24%	2,565,444	13.92	5.88%	33,164	0.64	0.55%
A20 Basement Construction	12,730	0.05	0.03%	12,730	0.07	0.03%	0	0.00	0.00%
<u>B Shell</u>	11,913,236	50.39	24.03%	10,809,145	58.63	24.79%	1,104,091	21.21	18.47%
B10 Superstructure	4,695,522	19.86	9.47%	4,645,128	25.20	10.65%	50,394	0.97	0.84%
B20 Exterior Enclosure	5,060,467	21.41	10.21%	4,067,119	22.06	9.33%	993,348	19.09	16.62%
B30 Roofing	2,157,246	9.13	4.35%	2,096,897	11.37	4.81%	60,349	1.16	1.01%
<u>C Interiors</u>	9,032,217	38.21	18.22%	7,508,856	40.73	17.22%	1,523,362	29.27	25.49%
C10 Interior Construction	4,353,102	18.41	8.78%	3,689,112	20.01	8.46%	663,990	12.76	11.11%
C20 Stairs	195,221	0.83	0.39%	158,928	0.86	0.36%	36,293	0.70	0.61%
C30 Interior Finishes	4,483,894	18.97	9.04%	3,660,815	19.86	8.40%	823,079	15.81	13.77%
<u>D Services</u>	14,797,517	62.59	29.85%	12,184,603	66.09	27.95%	2,612,914	50.20	43.71%
D10 Conveying Systems	78,079	0.33	0.16%	78,079	0.42	0.18%	0	0.00	0.00%
D20 Plumbing	2,003,686	8.48	4.04%	1,721,003	9.33	3.95%	282,684	5.43	4.73%
D30 Heating, Ventilating and Air Conditioning (HVAC)	6,906,466	29.21	13.93%	5,741,537	31.14	13.17%	1,164,928	22.38	19.49%
D40 Fire Protection Systems	1,063,178	4.50	2.14%	821,083	4.45	1.88%	242,095	4.65	4.05%
D 50 Electrical Systems	4,746,108	20.08	9.57%	3,822,901	20.74	8.77%	923,208	17.74	15.44%
<u>E Equipment and Furnishings</u>	2,614,464	11.06	5.27%	2,542,961	13.79	5.83%	71,504	1.37	1.20%
E10 Equipment	1,259,991	5.33	2.54%	1,247,937	6.77	2.86%	12,054	0.23	0.20%
E 20 Furnishings	1,354,474	5.73	2.73%	1,295,024	7.02	2.97%	59,450	1.14	0.99%
<u>F Special Construction and Demolition</u>	382,355	1.62	0.77%	0	0.00	0.00%	382,355	7.35	6.40%
F10 Special Construction	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%
F20 Selective Demolition	382,355	1.62	0.77%	0	0.00	0.00%	382,355	7.35	6.40%
<u>G Building Sitework</u>	5,239,914	22.16	10.57%	5,239,914	28.42	12.02%	0	0.00	0.00%
G10 Site Preparation	1,488,114	6.29	3.00%	1,488,114	8.07	3.41%	0	0.00	0.00%
G20 Site Improvements	2,444,590	10.34	4.93%	2,444,590	13.26	5.61%	0	0.00	0.00%
G30 Site Civil/Mechanical Utilities	1,080,704	4.57	2.18%	1,080,704	5.86	2.48%	0	0.00	0.00%
G40 Site Electrical Utilities	226,506	0.96	0.46%	226,506	1.23	0.52%	0	0.00	0.00%
G90 Other Site Construction	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%
<u>Other Work</u>	2,987,467	12.64	6.03%	2,737,467	14.85	6.28%	250,000	1.36	0.57%
F20 Existing Building Demolition	1,426,967	6.04	2.88%	1,426,967	0.00	0.00%	0	0.00	0.00%
F20 Asbestos Removal	1,560,500	6.60	3.15%	1,310,500	0.00	0.00%	250,000	0.00	0.00%
Sub Total Construction	49,578,508	209.71	100.00%	43,601,119	236.49	100.00%	5,977,390	111.40	96.39%
General Requirements/General Conditions	3,164,200	13.38		2,782,711	15.09		381,489	7.33	
Bonds	586,000	2.48		515,349	2.80		70,651	1.36	
Insurance	1,230,600	5.21		1,082,234	5.87		148,366	2.85	
Escalation to mid point of construction 1Q2012	4.04%	2,002,972	8.47	1,761,485	9.55		241,487	4.64	
Estimating Contingency	10.00%	5,656,228	23.93	4,974,290	26.98		681,938	13.10	
CM/OMP Fee	2.50%	1,555,463	6.58	1,367,930	7.42		187,533	3.60	
Permit Fee		Excluded		Excluded			Excluded		
Construction Contingency		By Owner		By Owner			By Owner		
Total Construction Cost	63,773,971	269.76		56,085,118	304.21		7,688,854	144.29	



Notes

1. Brief project description:-
 - New 2 storey High School Building Addition & renovation of extg building w/associated sitework/utilities.
2. The estimate is based on the following:-
 - Prevailing wage.
 - GC type project.
 - Receipt of 3# bona fide bids for each sub-contract.
 - Single contract.
 - Bid date of 1Q2011.
 - 24 month construction period.
3. The gross floor areas are based on the following:-
 - Measurement is taken to the outside face of the exterior wall, measured through all stair wells, elevator shafts and ducts.
 - GFA provided by OMR.
4. Story heights:-
 - Varies.
5. General Requirements/General Conditions ia calculated later in this document.
6. Special Conditions for this project are included with General Requirements/General Conditions.
7. Escalation to mid point of construction 1Q2012 is compounded per annum at the following:-
 - All years at 2%
 - Note: Escalation is taken on the Sub Total Construction cost only.
8. Estimating Contingency is an allowance for future design modifications/additions, which alter the cost of the building as the design progresses, this percentage reduces as the design develops. It is based on a percentage of the sum of Sub-Total Construction, General Requirements/Special Conditions and Escalation. For this level of estimate the following has been included:-
 - 10.00%
9. Construction Contingency is an allowance for scope/design modifications made by the owner during construction and also for any unforeseen circumstances. It is based on a percentage of the sum of Sub-Total Construction, General Requirements/Special Conditions, Escalation and Design Contingency. The following has been included:-
 - By Owner

Notes (Cont'd)

10. This estimate has been prepared from the following design information:-
 - Drawing set dated 01/22/2010.
 - Specification document dated 01/22/2010.
 - Telephone conversations and meeting with OMR.

11. The estimate includes the following:-
 - See estimate.
 - Third-party building Commissioning.
 - Excavation in rock.
 - Telephone/data wiring.

12. The estimate excludes the following:-
 - Utility company backcharges.
 - Sales tax.
 - Building permit fees.
 - Design consultants fees.
 - Loose furniture, fittings and equipment.
 - Fixed furniture, fittings and equipment (except as detailed in the estimate).

13. Allowances:-
 - See Estimate.

14. Assumptions:-
 - None.

15. Estimates by other firms:-
 - See Estimate.

Notes (Cont'd)

16. Common abbreviations included in this estimate:-
- cd = construction documents.
 - cf = cubic foot.
 - cte = connect to existing.
 - cy = cubic yard.
 - dd = design development.
 - ea = each.
 - eo = extra over
 - extg = existing
 - flr = floor.
 - gfa = gross floor area
 - lb = pound.
 - lf = linear foot.
 - ls = lump sum.
 - ly = linear yard.
 - mg = make good.
 - opg = opening.
 - rsr = riser.
 - sd = schematic design.
 - sf = square foot.
 - sy = square yard.
 - tn = ton.
17. Builders work in connection (BWIC) with conveying, mechanical and electrical systems includes the following:-
- Drilling and coring.
 - Chasing.
 - Cutting and patching.

Description	Qty	Unit	Rate	Amount
Summary				
<u>A Substructure</u>				
A10 Foundations				2,565,444
A20 Basement Construction				12,730
<u>B Shell</u>				
B10 Superstructure				4,645,128
B20 Exterior Enclosure				4,067,119
B30 Roofing				2,096,897
<u>C Interiors</u>				
C10 Interior Construction				3,689,112
C20 Stairs				158,928
C30 Interior Finishes				3,660,815
<u>D Services</u>				
D10 Conveying Systems				78,079
D20 Plumbing				1,721,003
D30 Heating, Ventilating and Air Conditioning (HVAC)				5,741,537
D40 Fire Protection Systems				821,083
D 50 Electrical Systems				3,822,901
<u>E Equipment and Furnishings</u>				
E10 Equipment				1,247,937
E 20 Furnishings				1,295,024
<u>F Special Construction and Demolition</u>				
F10 Special Construction				0
F20 Selective Demolition				0
<u>G Building Sitework</u>				
G10 Site Preparation				0
G20 Site Improvements				0
G30 Site Civil/Mechanical Utilities				0
G40 Site Electrical Utilities				0
G90 Other Site Construction				0
Sub-Total Building				35,623,738
A10 Foundations				
Excavation				
Excavate & stockpile material on site for:-				
- depressed sloping sog at auditorium	370	cy	17.64	6,527
- column footings	1,439	cy	17.64	25,384
- perimeter foundation wall & interior wall	1,285	cy	17.64	22,667
- elevator pit, chiller, neutralization & grease trap pits	136	cy	17.64	2,399
- EO for rock, allow 5% of excavated material	162	cy	49.00	7,938
Water removal during excavation work	1	ls	7,350.00	7,350
Temporary support to exposed face of excavation - allow	1	ls	4,900.00	4,900
Filling around foundations with excavated material - allow	1,615	cy	5.88	9,496
Structural filling to make up level under sog			Included in section G1030 Site Earthwork	
12" compacted sand/gravel below sog	2,480	sf	1.13	2,795
Perimeter drainage system	2,920	lf	14.70	Not Required
Underslab drainage system (basement level only)	2,480	sf	4.90	12,152
Concrete				
Foundation footings:-				
- typical perimeter frost wall footing, 2' wide x 12" deep	156	cy	156.80	24,461
- retaining wall footing, 7' 6" wide x 1' 8" deep	592	cy	156.80	92,826

Description	Qty	Unit	Rate	Amount
- typical perimeter column footing, 5' 0" x 5' 0" x 1' 6" deep	139	cy	156.80	21,795
- typical interior column footing, 6' 6" x 6' 6" x 1' 8" deep	378	cy	156.80	59,270
Foundation walls:-				
- typical perimeter frost wall, 14" thick	319	cy	161.70	51,582
- retaining wall, 14" thick (Site seat wall)	86	cy	161.70	13,906
- retaining wall, 14" thick (average height 187.83 - 192.0)	27	cy	161.70	4,366
- retaining wall, 14" thick (average height 187.83 - 191.83)	105	cy	161.70	16,979
- retaining wall, 14" thick (average height 184.47 - 190.0)	7	cy	161.70	1,132
- retaining wall, 14" thick (average height 184.47 - 188.5)	40	cy	161.70	6,468
- retaining wall, 14" thick (average height 183.83 - 192.0)	39	cy	161.70	6,306
- retaining wall, 14" thick (average height 183.83 - 187.83)	26	cy	161.70	4,204
- retaining wall, 14" thick (above exterior grade level)	135	cy	161.70	21,830
Pier/plaster, 22" square x 3' high	91	cy	161.70	14,715
HC ramp wall, 14" thick (average height 183.83 - 185.83)	19	cy	161.70	3,072
HC ramp wall footing, 3' 6" wide x 1' 8" deep	31	cy	161.70	5,013
Auditorium foundations:-				
- auditorium retaining wall, 14" thick (3' 0" high)	1	cy	161.70	162
- auditorium retaining wall, 14" thick (1' 6" average height)	6	cy	161.70	970
- auditorium retaining wall footing, 2' wide x 12" deep	11	cy	161.70	1,779
Formwork				
Foundation footings:-				
- typical perimeter frost wall footing, 2' wide x 12" deep	4,215	sf	9.60	40,481
- retaining wall footing, 7' 6" wide x 1' 8" deep	4,265	sf	9.60	40,961
- typical perimeter column footing, 5' 0" x 5' 0" x 1' 6" deep	3,000	sf	9.60	28,812
- typical interior column footing, 6' 6" x 6' 6" x 1' 8" deep	6,283	sf	9.60	60,342
Foundation walls:-				
- typical perimeter frost wall, 14" thick	14,757	sf	9.60	141,726
- retaining wall, 14" thick (Site seat wall)	3,988	sf	9.60	38,301
- retaining wall, 14" thick (average height 187.83 - 192.0)	1,264	sf	9.60	12,139
- retaining wall, 14" thick (average height 187.83 - 191.83)	4,877	sf	9.60	46,839
- retaining wall, 14" thick (average height 184.47 - 190.0)	327	sf	9.60	3,141
- retaining wall, 14" thick (average height 184.47 - 188.5)	1,850	sf	9.60	17,767
- retaining wall, 14" thick (average height 183.83 - 192.0)	1,813	sf	9.60	17,412
- retaining wall, 14" thick (average height 183.83 - 187.83)	1,190	sf	9.60	11,429
- retaining wall, 14" thick (above exterior grade level)	6,242	sf	9.60	59,948
Pier/plaster, 22" square x 3' high	5,390	sf	9.60	51,766
HC ramp wall, 14" thick (average height 183.83 - 185.83)	867	sf	9.60	8,327
HC ramp wall footing, 3' 6" wide x 1' 8" deep	484	sf	9.60	4,648
Auditorium foundations:-				
- auditorium retaining wall, 14" thick (3' 0" high)	28	sf	9.60	269
- auditorium retaining wall, 14" thick (1' 6" average height)	292	sf	9.60	2,804
- auditorium retaining wall footing, 2' wide x 12" deep	307	sf	9.60	2,948
Concrete Reinforcement				
Foundation footings:-				
- typical perimeter frost wall footing, 2' wide x 12" deep	42,150	lb	0.91	38,416
- retaining wall footing, 7' 6" wide x 1' 8" deep	127,950	lb	0.91	116,614
- typical perimeter column footing, 5' 0" x 5' 0" x 1' 6" deep	35,000	lb	0.91	31,899
- typical interior column footing, 6' 6" x 6' 6" x 1' 8" deep	50,750	lb	0.91	46,254
Foundation walls:-				
- typical perimeter frost wall, 14" thick	59,028	lb	0.91	53,798
- retaining wall, 14" thick (Site seat wall)	31,904	lb	0.91	29,077
- retaining wall, 14" thick (average height 187.83 - 192.0)	10,112	lb	0.91	9,216
- retaining wall, 14" thick (average height 187.83 - 191.83)	39,016	lb	0.91	35,559
- retaining wall, 14" thick (average height 184.47 - 190.0)	2,616	lb	0.91	2,384
- retaining wall, 14" thick (average height 184.47 - 188.5)	14,800	lb	0.91	13,489
- retaining wall, 14" thick (average height 183.83 - 192.0)	14,504	lb	0.91	13,219

Description	Qty	Unit	Rate	Amount
- retaining wall, 14" thick (average height 183.83 - 187.83)	9,520	lb	0.91	8,677
- retaining wall, 14" thick (above exterior grade level)	49,936	lb	0.91	45,512
Pier/plaster, 22" square x 3' high	25,725	lb	0.91	23,446
HC ramp wall, 14" thick (average height 183.83 - 185.83)	3,872	lb	0.91	3,529
HC ramp wall footing, 3' 6" wide x 1' 8" deep	3,872	lb	0.91	3,529
Auditorium foundations:-				
- auditorium retaining wall, 14" thick (3' 0" high)	112	lb	0.91	102
- auditorium retaining wall, 14" thick (1' 6" average height)	1,168	lb	0.91	1,065
- auditorium retaining wall footing, 2' wide x 12" deep	1,540	lb	0.91	1,404
Concrete slab-on-grade:-				
- sog, 5" thick 1st floor	136,996	sf	2.11	288,651
- sog, 5" thick sloping @ auditorium 1st floor	5,160	sf	2.64	13,603
- WWF 6 x 6 W2.9 x W2.9	142,156	sf	0.98	139,313
- formwork to day & isolation joint - allow	14,216	lf	2.45	34,828
- fill @ isolation joint in sog	7,108	lf	1.96	13,931
- finish to sog	142,156	sf	0.54	76,622
- 3/8" pre-formed filler at edge of sog	2,920	lf	2.94	8,585
Thickened slab-on-grade - non shown - allow	1	ls	2,450.00	2,450
Vapor barrier under sog	142,156	sf	0.34	48,760
Rigid insulation under sog	142,156	sf	1.72	243,798
Dampproofing to exterior face for foundation wall	7,379	sf	2.70	19,885
Rigid insulation to face of foundation wall	7,379	sf	1.62	11,931
1" metallic waterproofing to: -				
- retaining walls	10,936	sf	9.80	107,173
- basement slab w/mud slab	2,480	sf	11.03	27,342
- interior of elevator pit	907	sf	9.80	8,884
A10 Foundations	Total			2,565,444
A20 Basement Construction				
Elevator pit foundation system				
Concrete:-				
- pit walls 12" thick (allow 6' high)	9	cy	166.60	1,499
- pit 18" reinforced concrete foundation mate	4	cy	166.60	666
Formwork:-				
- pit walls 12" thick (allow 6' high)	494	sf	9.60	4,744
- pit 18" reinforced concrete foundation mate	108	sf	9.60	1,037
Concrete Reinforcement:-				
- pit walls 12" thick (allow 6' high)	3,952	lb	0.91	3,602
- pit 18" reinforced concrete foundation mate	1,296	lb	0.91	1,181
A20 Basement Construction	Total			12,730
B10 Superstructure				
B1010 Floor Construction				
Estimated total weight of structural steel for second floor construction (based on 46,000 sf gross floor area) including beams, columns, bracing, angles, relieving angles, miscellaneous frames, connections, etc is 315+/- tons				

Description	Qty	Unit	Rate	Amount
(Foley Buhl Roberts & Ass, Inc.)	307	ton	2,548.00	783,230
Allow for structural steel connections, fittings, etc. allow 7.5% of structural steel			Included in Allowance	
Shear studs (assume 23 shear connectors per 100 sf)	1,844	ea	2.89	5,331
Moment connection	369	ea	637.00	235,053
Base plate	245	ea	343.00	84,035
2" deep, 18 gauge composite galvanized steel floor deck (6" total thickness)	49,032	sf	3.23	158,569
4" normal weight concrete topping to metal deck	49,032	sf	3.70	181,634
Addition 0.75" of additional concrete required over structural bays	24,516	sf	0.56	13,695
WWF 6 x 6 W2.9 x W2.9 to floor deck	49,032	sf	0.78	38,441
Temporary prop to previous item	1	ls	1,470.00	1,470
Floor deck edge closure pour stop	1,057	lf	3.43	3,626
EO for shop paint and field touch-up paint after erection	1	ls	5,000.00	5,000
B1020 Roof Construction				
Estimated total weight of structural steel for the various roof areas (based on 139,000 sf gross floor area) including beams, columns, bracing, angles, plates relieving angles, miscellaneous frames, connections, etc is 740+/- tons				
(Foley Buhl Roberts & Ass, Inc.)	740	ton	2,548.00	1,885,520
Estimated weight of longspan steel joists & accessories (Foley Buhl Roberts & Ass, Inc.)	130	ton	2,744.00	356,720
Allow for structural steel connections, fittings, etc. allow 7.5% of structural steel			Included in Allowance	
Flat roof decks:-				
- 1 1/2", type WR, 18 ga galvanized steel roof deck - horizontal	101,356	sf	2.70	273,154
- 3" deep 20 ga gal type NIA acoustic metal roof deck w/acoustic bats (auditorium)	11,745	sf	7.84	92,081
Sloped roof deck:-				
- 3" deep 20/20 ga gal type NCA cellular acoustic metal roof deck w/acoustic mats (sports hall, sloped)	4,154	sf	8.82	36,638
- sloped metal roof at Entry	11,652	sf	5.39	62,804
- sloped metal roof at Classroom wing	5,515	sf	5.39	29,726
Concrete topping to metal roof decks				Not Required
Roof deck edge steel angle closure - welded			Included in steel allowance above	
Allow for:-				
- loose steel to elevator hoistway, allow	2,500	lb	2.45	6,125
- additional steel to theater rigging	5	ton	2,744.00	13,720
- steel supports for mechanical equipment	9	ton	2,744.00	24,696
- miscellaneous steel frames, assemblies, etc	5	ton	2,940.00	14,700
- relieving angles at exterior wall	21	ton	2,744.00	57,624
- expansion joint (walls)	81	lf	49.00	3,952
- expansion joint (floors)	446	lf	49.00	21,854
B1030 Structural Fireproofing				
Allow for:-				
- fire protection to Part B of new building only (Type 1B Construction)	85,943	sf	2.45	210,560
- firestopping (gfa)	184,365	sf	0.25	45,169
B10 Superstructure	Total			4,645,128
B20 Exterior Enclosure				
B2010 Exterior Wall				
Exterior wall backup system:-				
- 16 ga metal stud back-up	56,338	sf	6.37	358,873
- 5/8" densglass sheathing	56,338	sf	2.16	121,465
- air/vapor barrier	56,338	sf	4.17	234,648
- insulation system:-				
- R=10 extruded polystyrene foamed plastic	56,338	sf	2.45	138,028

Description	Qty	Unit	Rate	Amount
- R=19 Fiberglass batts	56,338	sf	0.93	52,451
- vapor retarder	56,338	sf	0.34	19,324
- 5/8" gwb	56,338	sf	2.16	121,465
Exterior wall finish (back-up system included above):-				
- exterior wall assembly type1 (Brick masonry veneer)	46,648	sf	29.40	1,371,451
- exterior wall assembly type2 (senergy cement board stucco)	3,409	sf	7.35	25,056
- exterior wall assembly type3 (Standing seam metal cladding)	6,281	sf	29.40	184,661
Brick finish to retaining walls	5,661	sf	29.40	166,433
Cap to retaining walls	827	lf	34.30	28,366
Allow for:-				
- EO for curved areas:-				
- brick area	5,696	sf	4.90	27,910
- metal panel area	4,336	sf	4.90	21,246
- brick detailing, allow 10% of brick cost	1	ls	134,402.10	134,402
- miscellaneous exterior work	1	ls	17,404.80	17,405
- louver system complete w/framing	150	sf	73.50	11,025
VE Item 4b accepted (See VE list for detail)	1	ls	-256,403.40	-256,403
B2020 Exterior Window				
Exterior window system complete w/glazing:-				
- continuous butt glazed transom at West Part B area (2' high)	361	sf	68.60	24,765
- aluminum storefront	2,456	sf	58.80	144,413
- aluminum glazing openings	5,670	sf	67.13	380,627
- aluminum glazing opening (frosted glass at locker room)	449	sf	68.60	30,801
- aluminum glazing opening (roof monitor)	1,816	sf	63.70	115,679
- aluminum clerestory:-				
- at sloped metal roof area, 6' high	1,206	sf	63.70	76,822
- at sloped metal roof area (side walls), 3' high	293	sf	63.70	18,664
- at Main Entry area, 2' high	301	sf	63.70	19,174
- at Gym, 5' 0" high	1,779	sf	63.70	113,322
Exterior sun shade	1,125	lf	161.70	181,913
VE Item 9 accepted (See VE list for detail)	1	ls	-13,600.00	-13,600
Exterior Doors				
Exterior door complete w/glazing, hardware, etc:-				
- double leaf	8	ea	2,214.80	17,718
- double leaf (glazed)	6	ea	3,449.60	20,698
- single leaf	3	ea	1,342.60	4,028
- single leaf (glazed)	2	ea	1,960.00	3,920
Overhead coiling door complete:-				
- OH1, 8' 0" x 10' 0" high	1	ea	3,528.00	3,528
Steel in Enclosure				
Lintel as support over openings	2,688	lf	14.70	39,514
Flashings				
Base flashing w/cavity drainage	2,920	lf	6.86	20,031
Band course flashing at band course w/cavity drainage	2,920	lf	4.90	14,308
Lintel flashing w/cavity drainage	2,688	lf	4.90	13,171
Sill flashing	2,539	lf	6.86	17,418
Window/door jamb flashing	5,090	lf	3.43	17,459
Blocking	5,090	lf	2.70	13,718
Sealant				
Window & door frames	5,090	lf	2.21	11,223

Description	Qty	Unit	Rate	Amount
B20 Exterior Enclosure	Total			4,067,119
B30 Roofing				
B3000 Roof Coverings				
Standing seam metal roof system (at sloped roofs):-				
- standing seam metal roof	21,321	sf	14.70	313,419
- plywood sheathing	21,321	sf	1.62	34,476
- nailable composite insulated panel	21,321	sf	3.92	83,578
- protection barrier (vapor)	21,321	sf	0.34	7,313
Thermoplastic Polyolefin based sheet roofing:-				
- TPO roof finish complete w/insulation	113,101	sf	6.71	759,247
- plywood sheathing	113,101	sf	1.62	182,884
- EO for tapered rigid insulation	16,965	sf	4.17	70,660
- vapor barrier	113,101	sf	0.34	38,794
Mechanical roof screens complete w/framing				Not Required
Exterior Entry canopy complete w/framing & finish	524	sf	147.00	77,028
VE Item 14b accepted (See VE list for detail)	1	ls	-83,463.45	-83,463
Allow for:-				
- ridge detail at sloped roof	390	lf	24.50	9,555
- perimeter detail (sloped roof)	1,449	lf	19.60	28,400
- perimeter detail (flat roof)	2,593	lf	19.60	50,823
- hip & valley detail at sloped roof	427	lf	17.64	7,532
- connection between sloped roof & slope skylight	438	lf	11.76	5,151
- connection between flat roof & slope skylight	1,263	lf	11.76	14,853
- connection between flat roof & exterior wall	1,475	lf	11.76	17,346
- PC pavers to ditto w/pedestals, allow	2,500	sf	5.88	14,700
- flashing @ MEP items - allow	903	lf	7.84	7,080
- mechanical equipment roof curbs	903	lf	24.50	22,124
- miscellaneous flashings/upstands	200	lf	14.70	2,940
Roof Openings				
Aluminum Skylight:-				
- sloped glazing/skylight at gym	1	ea	124,097.40	124,097
- sloped glazing/skylight at auditorium	1	ea	200,666.47	200,666
VE Item 17 accepted (See VE list for detail)	1	ls	-40,857.65	-40,858
Roof access hatch, 4' 0" x 4' 0", 12"high prefabricated w/insulated curb & integral counterflashing w/ladder	2	ea	931.00	1,862
Smoke hatch to elevator complete	1	ea	490.00	490
Roof ladder	3	ea	1,225.00	3,675
Sealant				
Flashing to roof	8,035	lf	7.84	62,994
Sealant	8,035	lf	1.81	14,567
Blocking	24,105	lf	2.70	64,963
B30 Roofing	Total			2,096,897
C10 Interior Construction				
Partitions				
Interior drywall partitions:-				
- Type 1	29,838	sf	5.93	176,908
- Type 1C	12,126	sf	7.40	89,720

Description	Qty	Unit	Rate	Amount
- Type 2	22,433	sf	9.21	206,654
- Type 2B	3,715	sf	7.69	28,581
- Type 12	4,928	sf	32.34	159,365
- Type 12A	5,637	sf	33.32	187,835
- Type 13	31,876	sf	13.82	440,461
- wet wall	9,636	sf	8.23	79,326
- shaft walls	4,207	sf	14.70	61,843
- column enclosure	25,480	sf	4.61	117,361
EO for:-				
- fire wall between Parts B and C (Level 1)	1,659	sf	7.84	13,007
- fire wall between Parts A and B	2,232	sf	7.84	17,499
Window sill	2,688	lf	14.70	39,514
Lintel @ openings	2,566	lf	6.37	16,345
Caulking @ wall head	22,554	lf	0.64	14,367
Sealant top & bottom both sides of all partition	45,108	lf	0.34	15,472
Metal deflection track assembly, fire rated to top of partition	22,554	lf	1.72	38,680
Blocking top & bottom	22,554	lf	2.60	58,573
Interior Doors				
Interior door complete w/frame, door, hardware, paint, etc.				
- double leaf, 6' x 7' high	21	ea	1,871.80	39,308
- double leaf, 8' 6" x 7' high (Fire doors on hold-opens)	4	ea	2,606.80	10,427
- double leaf, 6' x 7' high (glazed)	15	ea	2,900.80	43,512
- single leaf, 3' x 7' high	181	ea	1,157.38	209,486
- single leaf, 3' x 7' high (glazed)	9	ea	1,671.88	15,047
- (2) 30" pocket door	8	ea	1,813.00	14,504
Interior glazing complete w/glass:-				
- at 1st floor corridor	186	sf	53.90	10,025
- at 2nd floor corridor	186	sf	53.90	10,025
- at Room B000	524	sf	53.90	28,244
- at Room B133	365	sf	53.90	19,674
- at Room B156	769	sf	53.90	41,449
- at Room B168	95	sf	53.90	5,121
- at Room B169/170	94	sf	53.90	5,067
- at Room B171	96	sf	53.90	5,174
- at Room B172	766	sf	53.90	41,287
- at Room B175	228	sf	53.90	12,289
- at Room B185	1,605	sf	53.90	86,510
- at Room C150	67	sf	53.90	3,611
- at Room C151	65	sf	53.90	3,504
- at Room C250	765	sf	53.90	41,234
- at Room C267	765	sf	53.90	41,234
- interior side light, 2' x 8' high	105	ea	862.40	90,552
- interior transom (not shown on drawings, allow)	2,940	sf	53.90	158,448
Fittings				
Visual display boards, allow:-				
- smart boards	44	ea	1,960.00	86,240
- marker boards	49	ea	1,317.12	64,539
- tack boards	49	ea	1,034.88	50,709
Metal Lockers 18" x 12" x 72", 2# tier at:-				
- Locker Room (A191)	146	ea	294.00	42,924
- Locker Room (A194)	146	ea	294.00	42,924
- Locker Room (B151)	146	ea	294.00	42,924
- Locker Room (B154)	146	ea	294.00	42,924
- Men's official (A195)	15	ea	294.00	4,410

Description	Qty	Unit	Rate	Amount
- Women's official (A195)	15	ea	294.00	4,410
- Class room wing corridor (level 1)	256	ea	294.00	75,264
- Class room wing corridor (level 2)	276	ea	294.00	81,144
Cubicle curtain at Exam room (B140)	46	lf	16.66	766
Cubicle curtain at Training Room (A190)	35	lf	16.66	583
Shower rod for curtain	15	lf	16.66	250
Shower, enclosure (HC)	2	ea	931.00	1,862
Shower, enclosure (regular)	4	ea	833.00	3,332
Toilet enclosure, HC	12	ea	1,127.00	13,524
Toilet enclosure, regular	26	ea	1,029.00	26,754
Urinal screen	5	ea	539.00	2,695
Guard rail at loading dock retaining wall	25	lf	147.00	3,675
Guard rail at second floor void	445	lf	343.00	152,635
	2	ea	39,200.00	78,400
Signage:-				
- interior signage, allow \$85/door	238	ea	83.30	19,825
- interior entrance directory	2	ls	6,370.00	12,740
- miscellaneous interior signage	1	ls	14,700.00	14,700
- signage attached to building, allow	1	ls	19,600.00	19,600
Bathroom accessories:-				
- shower/toilet room	2	ea	2,695.00	5,390
- shower/toilet room, single	2	ea	931.00	1,862
- multiple bathroom	10	ea	1,960.00	19,600
- single bathroom	5	ea	735.00	3,675
Fire extinguisher complete w/cabinet & mounting hardware, allow	6	ea	112.70	676
Fire extinguisher complete w/ mounting hardware, allow	10	ea	83.30	833
Science lab fire blanker cabinet	11	ea	147.00	1,617
Other casework:-				
- countertop complete w/supports at Office (B177)	5	lf	147.00	735
- countertop complete w/supports at Work Room (B185G)	28	lf	147.00	4,116
- low bookcase (millwork) at Media Center (B185)	34	lf	245.00	8,330
- reception desk at Media Center, curved (B185)	27	lf	637.00	17,199
- toilet base cabinet complete w/countertop at Room A191B	47	lf	132.30	6,218
- toilet base cabinet complete w/countertop at Room B192	12	lf	132.30	1,588
- toilet base cabinet complete w/countertop at Room B193	15	lf	132.30	1,985
- allow for casework at cafeteria area (B158)	1	ls	24,500.00	24,500
Sealant				
Sealant at openings				Included above
Sealant at sanitary appliances & counters	2,347	lf	1.62	3,795
Blocking at openings				Included above
C10 Interior Construction	Total			3,689,112
C20 Stairs				
Main Lobby area, 8' wide, 24# riser (w/8' long landing)	1	flr	42,336.00	42,336
Classroom wing stair 5' 2" wide, 26# riser (w/11' long landing)	2	flr	15,149.13	30,298
Classroom wing stair 5' 9" wide, 26# riser (w/4' long landing)	2	flr	16,848.65	33,697
Concrete step at class room wing area, 5' 6" wide, 12# riser	2	ea	2,994.45	5,989
Concrete step at Locker room area, 12' wide, 5# riser	2	ea	2,722.22	5,444
Guard railings to (Concrete step at class room wing area)	21	lf	112.70	2,367
Guard railings to (Concrete step at Locker room area)	27	lf	112.70	3,043
Wall railings to (Concrete step at class room wing area)	20	lf	53.90	1,078
Wall railings to (Concrete step at Locker room area)	27	lf	53.90	1,455

Description	Qty	Unit	Rate	Amount
Roof access ladder w/paint, 14' 0"	1	ls	1,225.00	1,225
Ladder to elevator pit w/paint	1	ea	490.00	490
Stair Finishes				
Paint stairs & railing (high performance costing)	9	flr	1,225.00	11,025
Rubber finish to stair landing	224	sf	11.76	2,631
Rubber tile & nosings to treads & risers	1,012	lf	17.64	17,849
C20 Stairs	Total			158,928
C30 Interior Finishes				
C3020 Floor Finish:-				
Interior floor finish:-				
- ceramic tile	3,184	sf	14.70	46,805
- carpet	43,146	sf	4.14	178,529
- seamless fluid applied (epoxy floor)	13,062	sf	6.37	83,205
- porcelain paver tile	21,564	sf	15.68	338,124
- resilient sheet floor (type 1)	62,076	sf	8.82	547,510
- resilient sheet floor (type 2)	2,972	sf	8.82	26,213
- resilient tile floor	14,343	sf	5.39	77,309
- sealed Concrete	2,041	sf	1.32	2,700
- multipurpose athletic floor, allow				Included Renovation
- wood floor to:-				
- stage	1,672	sf	15.68	26,217
- gymnasium	11,700	sf	14.70	171,990
Surface prep - leveling & patching compounds	175,760	sf	0.49	86,122
Ceiling Finish				
Ceiling finish:-				
- ACT	126,412	sf	3.92	495,535
- ACT-2	8,973	sf	4.41	39,571
- Exposed ceiling (paint structure)	23,922	sf	1.23	29,304
- GWB Ceiling	16,453	sf	8.33	137,053
- acoustical ceiling clouds at lobby & breakout/seminar, 12' x 12' complete w/framing	5	ea	4,165.00	20,825
- acoustical ceiling clouds at auditorium, 12' x 12' complete w/framing	20	ea	4,165.00	83,300
VE Item 6 accepted (See VE list for detail)	1	ls	-78,501.85	-78,502
VE Item 12 accepted (See VE list for detail)	1	ls	207,000.00	207,000
Allow for vertical soffit detail at ceilings:-				
- Basement level				Not Required
- 1st floor	2,500	sf	9.31	23,275
- 2nd floor	1,250	sf	9.31	11,638
Base				
Interior base finish:-				
- ceramic tile	1,044	lf	15.68	16,370
- porcelain paver tile	1,743	lf	17.64	30,747
- epoxy base	1,743	lf	2.94	5,124
- rubber	19,462	lf	3.77	73,430
- wood w/paint	1,005	lf	8.82	8,864
Wall Finish				
Interior wall finish:-				
- ceramic tile	8,374	sf	15.68	131,304
- wood panel	2,949	sf	32.83	96,816
- paint to drywall partitions	212,817	sf	0.83	177,277

Description	Qty	Unit	Rate	Amount
- epoxy paint at locker rooms	15,066	sf	2.94	44,294
- manufactured resilient panel, allow	1,828	sf	7.84	14,332
Allow for:-				
- door casing	3,808	lf	7.84	29,855
- window casing	5,090	lf	7.84	39,906
- wood trim	6,249	lf	11.76	73,491
Additional acoustical treatment (E-mail received from OMR 01/29/2010):-				
- full gasket doors (SL)	7	ea	980.00	6,860
- full gasket doors (DL)	5	ea	1,960.00	9,800
- double glazed door at practice room	3	ea	274.40	823
- cellular acoustical deck at band & choral room	3,556	sf	4.90	17,424
- double stud wall with sound insulation	13,008	sf	2.45	31,870
- fabric covered acoustic panels to walls of gym (6' high)	2,619	sf	6.37	16,683
- fabric covered acoustic panels to walls of band & choral room	3,366	sf	6.37	21,441
- fabric covered acoustic panels to walls of Art rooms	4,823	sf	6.37	30,723
- acoustic wall panel (AWP) to choral room (allow 30% of wall area)	486	sf	7.84	3,810
- acoustic wall panel (AWP) to band room (allow 40% of wall area)	703	sf	7.84	5,512
- acoustic wall panel (AWP) to art rooms (allow 30% of wall area)	1,849	sf	7.84	14,496
- acoustic wall panel (AWP) at practice room	1,646	sf	7.84	12,905
09922 Interior Painting				
Paint to:-				
- walls				Included above
- ceiling				Included above
- paint exposed ceiling				Included above
- soffit areas	3,750	sf	1.47	5,513
- metal pan stair complete w/stringers, railings, handrails, etc	9	flr	588.00	5,292
- guard railings to (Concrete step at class room wing area)	21	lf	4.90	103
- guard railings to (Concrete step at Locker room area)	27	lf	4.90	132
- wall railings to (Concrete step at class room wing area)	20	lf	3.43	69
- wall railings to (Concrete step at Locker room area)	27	lf	3.43	93
- interior guard-rail/railing	445	lf	6.86	3,053
- exterior guard rail at retaining wall	25	lf	7.35	184
- window sill	2,688	lf	2.94	7,903
- door casing	3,808	lf	3.43	13,061
- window casing	5,090	lf	3.43	17,459
- wood trim	6,249	lf	1.96	12,249
- wood panels	2,949	sf	1.47	4,335
- HM SL door & frame (per side) - exterior	5	ea	63.70	319
- HM DL door & frame (per side) - exterior	14	ea	63.70	892
- HM SL door & frame (per side) - interior	190	ea	58.80	11,172
- HM DL door & frame (per side) - interior	40	ea	58.80	2,352
- interior windows	11,196	sf	4.90	54,859
General				
Allow for blocking	1	ls	24,500.00	24,500
Allow for sealant	1	ls	12,250.00	12,250
Allow for access panels	1	ls	7,350.00	7,350
Allow for standing/running trim	1	ls	9,800.00	9,800
C30 Interior Finishes	Total			3,660,815
D10 Conveying Systems				
Hydraulic Elevators				

Description	Qty	Unit	Rate	Amount
Holeless hydraulic elevator, 2500lb, 75 fpm, 2 stop front entry	1	ea	75,804.96	75,805
Stage lift				Not Required
Sub-Contractor Bid	Total			75,805
Builders work in connection with Conveying @ 3%	1	ls	2,274.15	2,274
General Contractor's overhead and profit @ 5%			CM Fee Carried in Summary	
D10 Conveying Systems	Total			78,079
D20 Plumbing				
Plumbing fixtures w/piping, accessories, cte, etc:-				
- WC, regular	27	ea	3,150.00	85,050
- WC, HC	16	ea	2,950.00	47,200
- Lav, wall hung	31	ea	3,000.00	93,000
- Lav, countermounted	17	ea	2,750.00	46,750
- Urinal	12	ea	2,750.00	33,000
- Shower, regular	6	ea	2,550.00	15,300
- Shower, HC	2	ea	2,900.00	5,800
- Mop sink	4	ea	2,850.00	11,400
- Floor drain (toile/shower rooms)	12	ea	750.00	9,000
- Floor drain (showers)	6	ea	550.00	3,300
- Floor drain (locker rooms)	4	ea	800.00	3,200
- Floor drain (HVAC/Electrical/maintenance rooms)	2	ea	850.00	1,700
- Sink to:-				
- teachers desk at Physics Lab (C237)	1	ea	3,000.00	3,000
- teachers desk at Physics Lab (C139)	1	ea	3,000.00	3,000
- teachers desk at Physics Lab (C135)	1	ea	3,000.00	3,000
- teachers desk at Biology Lab (C234)	1	ea	3,000.00	3,000
- teachers desk at Biology Lab (C220)	1	ea	3,000.00	3,000
- teachers desk at Biology Lab (C218)	1	ea	3,000.00	3,000
- teachers desk at Biology Lab (C216)	1	ea	3,000.00	3,000
- teachers desk at Biology Lab (C133)	1	ea	3,000.00	3,000
- teachers desk at Biology Lab (C119)	1	ea	3,000.00	3,000
- teachers desk at Biology Lab (C117)	1	ea	3,000.00	3,000
- teachers desk at Biology Lab (C115)	1	ea	3,000.00	3,000
- casework at Biology Lab (C234)	6	ea	2,900.00	17,400
- casework at Biology Lab (C220)	6	ea	2,900.00	17,400
- casework at Biology Lab (C218)	6	ea	2,900.00	17,400
- casework at Biology Lab (C216)	6	ea	2,900.00	17,400
- casework at Biology Lab (C133)	6	ea	2,900.00	17,400
- casework at Biology Lab (C119)	6	ea	2,900.00	17,400
- casework at Biology Lab (C117)	6	ea	2,900.00	17,400
- casework at Biology Lab (C115)	6	ea	2,900.00	17,400
- Training room (A190)	1	ea	2,850.00	2,850
- Teacher Center (C267)	1	ea	2,850.00	2,850
- Teacher Center (C250)	1	ea	2,850.00	2,850
- Teacher Center (C172)	1	ea	2,850.00	2,850
- Teacher Center (C156)	1	ea	2,850.00	2,850
- Sped wait/sec. Office (C151)	1	ea	2,850.00	2,850
- Sped Life Skill (C249)	1	ea	2,850.00	2,850
- Paint/Print (B174)	10	ea	2,850.00	28,500
- Lab Prep (C235)	1	ea	2,950.00	2,950
- Lab Prep (C220A)	1	ea	2,950.00	2,950
- Lab Prep (C217)	1	ea	2,950.00	2,950

Description	Qty	Unit	Rate	Amount
- Lab Prep (C136)	1	ea	2,950.00	2,950
- Lab Prep (C133A)	1	ea	2,950.00	2,950
- Lab Prep (C119A)	1	ea	2,950.00	2,950
- Lab Prep (C116)	1	ea	2,950.00	2,950
- Exam Room (B140)	1	ea	2,950.00	2,950
- Choral Room (B171)	1	ea	2,850.00	2,850
- Ceramics Classroom (B176)	3	ea	2,850.00	8,550
- Band Room (B168)	1	ea	2,850.00	2,850
- Clean out	12	ea	850.00	10,200
- Wall Hydrant	5	ea	1,250.00	6,250
- HB	18	ea	1,250.00	22,500
RP-1	1	ea	2,500.00	2,500
TMV-A	1	ea	6,500.00	6,500
TMV-B	1	ea	6,500.00	6,500
Water heater	1	ea	42,500.00	42,500
Expansion tank	1	ea	1,500.00	1,500
New domestic water service	1	ls	7,500.00	7,500
Domestic water meter assembly	1	ls	2,000.00	2,000
Emergency tempering valve	1	ea	2,500.00	2,500
Tempered water system to locker/science rooms	1	ls	40,000.00	40,000
Non-potable water system to science labs	1	ls	45,000.00	45,000
Domestic water service into building	1	ls	10,000.00	10,000
Valves				Included above
Reduced pressure backflow preventer	1	ea	6,500.00	6,500
3-way solenoid valve	1	ea	3,000.00	3,000
Thermostatic mixing valve @ kitchen	1	ea	5,000.00	5,000
Grease interceptor				Included in Site Work
Acid waste & vent system including PH neutralization, allow	1	ls	230,456.25	230,456
Underground Piping, allow	1,500	lf	85.00	127,500
Rainwater leader above grade, fittings etc:-				
- piping	1,018	lf	80.00	81,440
- roof drain	19	ea	500.00	9,425
Gas piping to science laboratories, kitchen and mechanical equipment	184,365	sf	0.75	138,274
Allow for plumbing services to Kitchen	1	ls	85,000.00	85,000
Allow for plumbing services to fume hood	6	ea	4,500.00	27,000
VE Item 27 accepted (See VE list for detail)	1	ls	58,631.50	58,632
General:-				
- hydrants, clean outs, etc	1	ls	5,000.00	5,000
- allow for seismic restraint & vibration isolation	1	ls	15,000.00	15,000
- permit fees				Not Required
- test & balance	1	ls	60,000.00	60,000
Sub Bid	Total			1,670,877
Builders work in connection with Plumbing @ 3%	1	ls	50,126.30	50,126
General Contractor's overhead and profit @ 5%				CM Fee Carried in Summary
D20 Plumbing	Total			1,721,003
D 30 Heating, Ventilating, and Air Conditioning (HVAC)				
<u>Equipment</u>				
Rooftop Unit:-				
- RTU-1, 10000 cfm, 35ton DX cooling, 400 mbh gas fired heating	1	ea	70,125.00	70,125
- RTU-2, 10000 cfm, 35ton DX cooling, 400 mbh gas fired heating	1	ea	70,125.00	70,125
- RTU-3, 8000 cfm, 10ton DX cooling, 200 mbh gas fired heating	1	ea	56,100.00	56,100

Description	Qty	Unit	Rate	Amount
- RTU-4, 3000 cfm, 10ton DX cooling, 200 mbh gas fired heating	1	ea	21,038.00	21,038
- RTU-5, 3000 cfm, 10ton DX cooling, 200 mbh gas fired heating	1	ea	21,038.00	21,038
- RTU-6, 4000 cfm, 15ton DX cooling, 175 mbh gas fired heating	1	ea	28,050.00	28,050
- RTU-7, 3000 cfm, 12.5ton DX cooling, 200 mbh gas fired heating	1	ea	21,038.00	21,038
- RTU-8, 1200 cfm, 35ton DX cooling, 550 mbh gas fired heating	1	ea	8,415.00	8,415
- RTU-9, 4000 cfm, 12.5ton DX cooling, 300 mbh gas fired heating	1	ea	28,050.00	28,050
Energy recovery unit:-				
- Roof energy recovery ventilation unit w/gas-fired heating (3000 cfm), ERV-2	1	ea	24,863.00	24,863
- Roof energy recovery ventilation unit w/gas-fired heating (3000 cfm), ERV-1	1	ea	24,863.00	24,863
Make-up Air Unit:-				
- MAU-1, 4000 cfm	1	ea	30,600.00	30,600
Air cooled liquid chiller, ACC-1, 60 ton cooled air chiller	1	ea	49,725.00	49,725
Boiler, gas fired:-				
- B-1, 1,800,000 btuh	1	ea	26,880.00	26,880
- B-2, 1,800,000 btuh	1	ea	26,880.00	26,880
Pumps:-				
- P-1, 145 gpm (w/vfd for chilled water system)	1	ea	8,000.00	8,000
- P-2, 145 gpm (w/vfd for chilled water system)	1	ea	8,000.00	8,000
- other pumps, allow	1	ea	25,000.00	25,000
Heating & ventilation unit w/750mbh gas fired heating:-				
- HV-1, 4000 cfm	1	ea	17,850.00	17,850
- HV-2, 12,500 cfm	1	ea	55,781.00	55,781
- HV-3, 12,500 cfm	1	ea	55,781.00	55,781
Ceiling mounted induction units:-				
- IU-1	42	ea	2,723.24	114,376
- IU-2	35	ea	2,723.24	95,313
Exhaust fan:-				
- EF-D	3	ea	2,500.00	7,500
- dishwasher exhaust fan	1	ea	5,500.00	5,500
- other exhaust fans, allow	15	ea	3,500.00	52,500
Expansion tank:-				
- ET-1 (no size shown)	1	ea	3,000.00	3,000
Wall mounted displacement diffusing unit, 200cfm	145	ea	950.00	137,750
Electric cabinet unit heater, allow	8	ea	1,250.00	10,000
Roof intake & relief vent	1	ea	1,150.00	1,150
Cabinet Unit Heater, allow	5	ea	1,250.00	6,250
Horizontal Unit Heater, allow	5	ea	1,550.00	7,750
Finned Tube Radiator	2,226	lf	85.00	189,210
Missing HVAC equipment, allow 15% of equipment cost	1	ls	40,761.00	40,761
<u>Ductwork</u>				
Galvanized steel ductwork w/accessories, fittings, hangers, etc (22ga):-				
- supply/return/exhaust	184,365	lb	8.15	1,502,575
Insulation to supply/return duct, allow	92,183	sf	4.50	414,824
EO for stainless steel ductwork	1	ls	25,000.00	25,000
EO for black steel to Kitchen ductwork	1	ls	35,000.00	35,000
Allow for breeching from boilers	74	lf	65.00	4,810
Diffusers/grilles/registers:-				
- Return Grills	184	ea	165.00	30,420
- Supply Grills	184	ea	165.00	30,420
- Exhaust Grills	92	ea	165.00	15,210
- Return Grills (Liner grill)	25	ea	275.00	6,875
- Supply Grills (Liner grill)	25	ea	275.00	6,875
Dampers, allow:-				
- volume	511	ea	150.00	76,637
- fire	50	ea	250.00	12,500
- smoke, allow	50	ea	850.00	42,500

Description	Qty	Unit	Rate	Amount
Pipework				
Piping, allow	184,365	sf	5.00	921,825
Automatic Control System				
ATC System, allow	1	ls	894,575.00	894,575
General				
Commissioning by Third Party	1	ls	25,000.00	25,000
Allow for seismic restraint & vibration isolation	1	ls	30,000.00	30,000
Test & balance	1	ls	150,000.00	150,000
Sub Bid	Total			5,574,308
Builders work in connection with HVAC @ 3%	1	ls	167,229.25	167,229
General Contractor's overhead and profit @ 5%			CM Fee Carried in Summary	
D 30 Heating, Ventilating, and Air Conditioning (HVAC)	Total			5,741,537
D40 Fire Protection Systems				
Wet sprinkler system (gfa)	184,365	sf	4.00	737,460
EO for Ordinary hazard areas (group 1)	20,001	sf	0.75	15,001
EO for Ordinary hazard areas (group 2)	5,957	sf	1.00	5,957
Double check valve assembly	1	ea	1,400.00	1,400
Fire service	10	lf	90.00	900
Alarm check valve	1	ea	450.00	450
Water motor gong	1	ea	300.00	300
Fire department connection	1	ea	450.00	450
Allow for seismic restraint	1	ls	1,250.00	1,250
Permit fees				Not Required
Test and balance	1	ls	34,000.00	34,000
Sub Bid	Total			797,168
Builders work in connection with F. Protection @ 3%	1	ls	23,915.03	23,915
General Contractor's overhead and profit @ 5%			CM Fee Carried in Summary	
D40 Fire Protection Systems	Total			821,083
D50 Electrical Systems				
Equipment, Panelboards, etc.				
Natural gas fuel generator, 300KW, 375kva, 0.8PF, 277/480, phase, 4W	1	ea	115,500.00	115,500
MSB 3,000A 277/480v	1	ea	30,000.00	30,000
4DP1A, 800A	1	ea	8,000.00	8,000
4DP1C, 800A	1	ea	8,000.00	8,000
Panels, allow 225A:-				
- EBHPB	1	ea	2,250.00	2,250
- EBPPB	1	ea	2,250.00	2,250
- ELP1A	1	ea	2,250.00	2,250
- ELP1A2	1	ea	2,250.00	2,250
- ELP1B	1	ea	2,250.00	2,250
- ELP1C	1	ea	2,250.00	2,250
- ELP2B	1	ea	2,250.00	2,250

Description	Qty	Unit	Rate	Amount
- ELP2C	1	ea	2,250.00	2,250
- ELPB	1	ea	2,250.00	2,250
- KPP1B (sec 1 an 2)	1	ea	2,250.00	2,250
- LP1A	1	ea	2,250.00	2,250
- LP1A2	1	ea	2,250.00	2,250
- LP1B	1	ea	2,250.00	2,250
- LP1C	1	ea	2,250.00	2,250
- LP2C	1	ea	2,250.00	2,250
- LP2C	1	ea	2,250.00	2,250
- LPB	1	ea	2,250.00	2,250
- MHP1A	1	ea	2,250.00	2,250
- MHP1A2	1	ea	2,250.00	2,250
- MHP1B	1	ea	2,250.00	2,250
- MHP1C	1	ea	2,250.00	2,250
- MHP2B	1	ea	2,250.00	2,250
- MHP2C	1	ea	2,250.00	2,250
- MHPB	1	ea	2,250.00	2,250
- MP1A (sec 1 an 2)	1	ea	2,250.00	2,250
- MP1A2	1	ea	2,250.00	2,250
- MP1B (sec 1 and 2)	1	ea	2,250.00	2,250
- MP1C (sec 1 an 2)	1	ea	2,250.00	2,250
- MP2B (sec 1 and 2)	1	ea	2,250.00	2,250
- MP2C (sec 1 and 2)	1	ea	2,250.00	2,250
- MPB (sec 1 an 2)	1	ea	2,250.00	2,250
- PP1A (spd sec 1 an 2)	1	ea	2,250.00	2,250
- PP1A2 (spd sec 1 an 2)	1	ea	2,250.00	2,250
- PP1B (spd sec 1, 2 and 3)	1	ea	2,250.00	2,250
- PP1c (spd sec 1,2 and 3)	1	ea	2,250.00	2,250
- PP2B (spd sec 1, 2 and 3)	1	ea	2,250.00	2,250
- PP2C (spd sec 1,2 and 3)	1	ea	2,250.00	2,250
- PPB (spd sec1 an 2)	1	ea	2,250.00	2,250
- TEP1 (sec 1 an 2)	1	ea	2,250.00	2,250
- TEP2 (sec 1 and 2)	1	ea	2,250.00	2,250
SPD	1	ea	1,250.00	1,250
ATS-LS (400)	1	ea	20,000.00	20,000
ATS-OS (150)	1	ea	12,500.00	12,500
Dimming rack 1, SDPH (Aux rack 400A)	1	ea	2,700.00	2,700
Dimming rack 2, SDPH (Aux rack 200A)	1	ea	2,700.00	2,700
Nema 1 500At/600At	1	ea	4,250.00	4,250
Transformer:-				
- T-5, 45kva	5	ea	4,500.00	22,500
- T-5, 45kva	2	ea	4,500.00	9,000
- T-5, 45kva	1	ea	4,500.00	4,500
- T-5, K13, 45kva	1	ea	4,500.00	4,500
- T-6, K13 (75kva)	4	ea	6,000.00	24,000
- T-6, K13 (75kva)	1	ea	6,000.00	6,000
- T6-6 K13 (75kva)	2	ea	6,000.00	12,000
- T-8, K13 (150kva)	1	ea	9,000.00	9,000
TR-1	1	ea	By Electrical Company	
UPS - Provide 12kw, 15kva 0.8PF UPS w/ 8min battery backup 208v 3dia	1	ea	13,200.00	13,200
UPS - provide 12kw, 8PF w/ 8 minute battery backup. 208v, 3 dia, 4w input	1	ea	13,200.00	13,200
VE Item 36 accepted (See VE list for detail)	1	ls	-36,225.00	-36,225
VE Item 38 accepted (See VE list for detail)	1	ls	-31,050.00	-31,050
Feeders				
Allow for feeders (gfa)	184,365	sf	1.00	184,365
Small Power				

Description	Qty	Unit	Rate	Amount	
Small power:-					
- special receptacle, TL	6	ea	185.00	1,110	
- special receptacle, EPO	1	ea	180.00	180	
- special receptacle	1	ea	180.00	180	
- duplex receptacle, WP	7	ea	155.00	1,085	
- duplex receptacle, REF	4	ea	150.00	600	
- duplex receptacle, intended for computer use IG	3	ea	140.00	420	
- duplex receptacle, intended for computer use (recessed floor box)	2	ea	145.00	290	
- duplex receptacle, intended for computer use (clg mounted)	50	ea	155.00	7,750	
- duplex receptacle, GFI	20	ea	130.00	2,600	
- duplex receptacle, GFC	76	ea	130.00	9,880	
- duplex receptacle, C	7	ea	125.00	875	
- duplex receptacle	472	ea	120.00	56,640	
- double duplex receptacle, intended for computer use GFC	100	ea	125.00	12,500	
- double duplex receptacle, intended for computer use (flush floor mounted)	24	ea	150.00	3,600	
- double duplex receptacle, intended for computer use	270	ea	140.00	37,800	
- disconnect switch, unfused	4	ea	170.00	680	
- disconnect switch, fused	2	ea	180.00	360	
- USB, wall mtd	1	ea	250.00	250	
- USB, recessed	2	ea	250.00	500	
- J - typ junction box	8	ea	185.00	1,480	
Electrical power to:-					
- elevator	1	ea	3,500.00	3,500	
- stage extension system	1	ea	1,750.00	1,750	
- HVAC equipment, large	18	ea	3,000.00	54,000	
- HVAC equipment, small	450	ea	425.00	191,038	
- commercial kitchen equipment, allow	46	ea	200.00	9,200	
- Scoreboard	1	ea	3,500.00	3,500	
- Projection screen	1	ea	2,500.00	2,500	
- Power assist motors	4	ea	1,500.00	6,000	
- Gym Motor	7	ea	1,750.00	12,250	
- Control station (typ)	2	ea	1,250.00	2,500	
- Control panel for power assist motors	2	ea	1,250.00	2,500	
- shot clock	4	ea	1,250.00	5,000	
- Single gang wp outlet provide 3/4" cond. to sim. panel-clear com	1	ea	300.00	300	
- Stage hoist control furnished w/hoist installed and wired by e.c	1	ea	500.00	500	
Lighting					
Stage Lighting (allowance by <i>Don Hirsch design studio</i>):-					
- light fixtures	}	1	ls	60,375.00	60,375
- dimming - 96 dimmers					
- dimming controls console					
Distribution (by Sub contractor)	184,365	sf	0.65	119,837	
Light fixtures w/lamps, conduit, wiring, etc complete:-					
- F24	6	ea	511.50	3,069	
- FC4	28	ea	456.50	12,782	
- FC6	4	ea	511.50	2,046	
- FC8	243	ea	566.50	137,660	
- FP4	5	ea	511.50	2,558	
- FP8	597	ea	731.50	436,706	
- FP8D	48	ea	324.50	15,576	
- FS8	16	ea	324.50	5,192	
- I8	35	ea	319.00	11,165	
- JC6	30	ea	401.50	12,045	
- JC6D	6	ea	621.50	3,729	
- K	16	ea	330.00	5,280	
- L8	24	ea	374.00	8,976	
- L8	24	ea	374.00	8,976	

Description	Qty	Unit	Rate	Amount
- P24	12	ea	1,061.50	12,738
- PFS8	57	ea	401.50	22,886
- RC1	230	ea	291.50	67,045
- RC1D	6	ea	401.50	2,409
- RC2	12	ea	313.50	3,762
- SL4	2	ea	621.50	1,243
- TD5	26	ea	357.50	9,295
- EB - emergency battery unit with lighting heads	143	ea	456.50	65,280
- Exit sign WG, single face	10	ea	346.50	3,465
- Exit sign, double face	20	ea	396.00	7,920
- Exit sign, single face	20	ea	374.00	7,480
EO for emergency ballast, allow 15% of fixtures	214	ea	65.00	13,910
Switches:-				
- Os-p	139	ea	350.00	48,650
- PS	19	ea	250.00	4,750
- S	9	ea	125.00	1,125
- Sa	48	ea	145.00	6,960
- Sb	46	ea	150.00	6,900
- Sc	6	ea	155.00	930
- daylight harvesting sensor system	184,365	sf	0.65	119,837
Allow for Lighting & switches not shown on drawings	1	ls	110,619.00	110,619
Fire Alarm				
Fire alarm system:-				
- fire alarm control panel	1	ea	15,000.00	15,000
- annunciator	1	ea	6,500.00	6,500
- manual pull station	7	ea	325.00	2,275
- smoke detector	114	ea	350.00	39,900
- speaker/Visual	139	ea	425.00	59,075
- visual 'ADA' compliant signal	12	ea	500.00	6,000
- Ts - tamper switch sprinkler system	1	ea	350.00	350
Cable tray at corridors, allow	1,750	lf	50.00	87,500
Security system (fully cabled system)				
Security system:-				
- DC, tyo for ext doors	2	ea	350.00	700
- CR (card reader), WP	2	ea	650.00	1,300
- CP	8	ea	400.00	3,200
- CCTV, PTZ WP	10	ea	1,250.00	12,500
- CCTV	34	ea	1,150.00	39,100
- C	4	ea	350.00	1,400
- M - motion detector	48	ea	500.00	24,000
- IC, WP	1	ea	450.00	450
PA system (fully cabled system)				
PA system:-				
- A - volume control for wall speaker, allow	35	ea	350.00	12,250
- C - clock outlet	124	ea	250.00	31,000
- CB - call box, allow	89	ea	350.00	31,150
- M - Wall mounted microphone outlet, allow	15	ea	375.00	5,625
- S - speaker	14	ea	350.00	4,900
- SP - ceiling mounted speaker	239	ea	375.00	89,625
- VCS - video control station	2	ea	10,000.00	20,000
- VES - video entry station	2	ea	8,500.00	17,000
- auditorium sound system	1	ls	75,000.00	75,000
- gym sound system	1	ls	50,000.00	50,000
- cafeteria sound system	1	ls	50,000.00	50,000

Description	Qty	Unit	Rate	Amount	
Telecommunications system (fully cabled system)					
Tel/data system (fully cabled system)					
- ceiling mounted data1 location	50	ea	550.00	27,500	
- ceiling mounted wireless data1 location	70	ea	1,500.00	105,000	
- data1 location	4	ea	450.00	1,800	
- data1/data2 location	136	ea	800.00	108,800	
- desk phone	57	ea	475.00	27,075	
- floor mounted data1/data2 location	18	ea	800.00	14,400	
- wall phone	10	ea	450.00	4,500	
- wireless data1 location	11	ea	1,250.00	13,750	
- wall mounted wall phone voice1 location	10	ea	500.00	5,000	
- T3	49	ea	1,500.00	73,500	
General					
VE Item 36 accepted (See VE list for detail)	1	ls	-38,163.56	-38,164	
VE Item 48 accepted (See VE list for detail)	1	ls	12,937.50	12,938	
Allow for:-					
- lightning protection (gfa)	184,365	sf	0.50	92,183	
- grounding (gfa)	184,365	sf	0.25	46,091	
- seismic bracing	1	ls	25,000.00	25,000	
- commissioning by Third Party	1	ls	20,000.00	20,000	
- permit fees				Not Required	
- testing	1	ls	160,000.00	160,000	
Sub Bid	Total			3,711,554	
Builders work in connection with Electrical @ 3%	1	ls	111,346.63	111,347	
General Contractor's overhead and profit @ 5%			CM Fee Carried in Summary		
D50 Electrical Systems	Total			3,822,901	
E10 Equipment					
111300 Loading Dock Equipment					
Allow for loading dock equipment, allow	1	ls	12,500.00	12,500	
11063 Stage Equipment					
None shown on drawings - (allowance by Don Hirsch design studio):-					
- stage curtain & hardware (installed)	}	1	ea	281,500.00	281,500
- stage rigging (installed):-					
- 23# manual line sets					
- 5 automated manual line sets					
- production communication system					
- assisted listening system					
- stage extension system					
Note:Theatrical Lighting Allowance of is included in Elect Estimate					
111132 Projector Screens					
None shown on drawings - allow as follows:-					
- auditorium, electric	1	ea	4,900.00	4,900	
- Media Center, electric	1	ea	4,900.00	4,900	
- classrooms & laboratories, manual, allow	40	ea	1,715.00	68,600	
11400 Food Service Equipment					
Food Service Equipment, budget by Colburn & Guyette Consulting					

Description	Qty	Unit	Rate	Amount
Partners, Inc. incl. GC's O&P	1	ls	548,161.76	548,162
11451 Residential Appliances				
None shown on drawings - allow as follows:-				
- electric range/oven	2	ea	735.00	1,470
- range hood	2	ea	637.00	1,274
- conventional oven				Not Required
- microwave oven	2	ea	392.00	784
- dishwasher	2	ea	539.00	1,078
- refrigerator	2	ea	1,176.00	2,352
115313 Laboratory Fume Hoods				
laboratory fume hood, single sided to:-				
- Lab Prep (C116)	1	ea	8,330.00	8,330
- Lab Prep (C119A)	1	ea	8,330.00	8,330
- Lab Prep (C133A)	1	ea	8,330.00	8,330
- Lab Prep (C217)	1	ea	8,330.00	8,330
- Lab Prep (C220A)	1	ea	8,330.00	8,330
- Lab Prep (C235)	1	ea	8,330.00	8,330
116623 Gymnasium Equipment				
Gymnasium Equipment:-				
- motorized basketball hoop & backboard	6	ea	6,615.00	39,690
- padded wall panels, 6' high	1,314	sf	8.82	11,589
- gymnasium separator curtain complete w/track & accessories, solid to 8', mesh above, electrical	3,285	sf	17.64	57,947
- electronic scoreboard w/shot clock	1	ea	4,900.00	4,900
- line markings	1	ls	7,350.00	7,350
12760 Telescoping Stands				
Wall attached telescoping bleacher stand, motorized (200# seats)	4	ea	37,240.00	148,960
E10 Equipment	Total			1,247,937
E20 Furnishings				
12494 Roller Shades				
Shade to exterior windows, manual	15,456	sf	7.84	121,175
Casework				
Lab Casework:-				
- base cabinet complete w/countertop at Biology Lab (C115)	75	lf	637.00	47,775
- base cabinet complete w/countertop at Biology Lab (C117)	74	lf	637.00	47,138
- base cabinet complete w/countertop at Biology Lab (C119)	74	lf	637.00	47,138
- base cabinet complete w/countertop at Biology Lab (C133)	74	lf	637.00	47,138
- base cabinet complete w/countertop at Biology Lab (C216)	75	lf	637.00	47,775
- base cabinet complete w/countertop at Biology Lab (C218)	74	lf	637.00	47,138
- base cabinet complete w/countertop at Biology Lab (C220)	74	lf	637.00	47,138
- base cabinet complete w/countertop at Biology Lab (C234)	74	lf	637.00	47,138
- base cabinet complete w/countertop at Lab Prep (C116)	17	lf	637.00	10,829
- base cabinet complete w/countertop at Lab Prep (C119A)	6	lf	637.00	3,822
- base cabinet complete w/countertop at Lab Prep (C133A)	6	lf	637.00	3,822
- base cabinet complete w/countertop at Lab Prep (C136)	17	lf	637.00	10,829
- base cabinet complete w/countertop at Lab Prep (C217)	17	lf	637.00	10,829
- base cabinet complete w/countertop at Lab Prep (C220A)	6	lf	637.00	3,822

Description	Qty	Unit	Rate	Amount
- base cabinet complete w/countertop at Lab Prep (C235)	18	lf	637.00	11,466
- base cabinet complete w/countertop at Physics Lab (C135)	74	lf	637.00	47,138
- base cabinet complete w/countertop at Physics Lab (C139)	74	lf	637.00	47,138
- base cabinet complete w/countertop at Physics Lab (C237)	70	lf	637.00	44,590
- center island, 7' long x 5' wide at Biology Lab (C115)	6	lf	735.00	4,410
- center island, 7' long x 5' wide at Biology Lab (C117)	6	lf	735.00	4,410
- center island, 7' long x 5' wide at Biology Lab (C119)	6	lf	735.00	4,410
- center island, 7' long x 5' wide at Biology Lab (C133)	6	lf	735.00	4,410
- center island, 7' long x 5' wide at Biology Lab (C216)	6	lf	735.00	4,410
- center island, 7' long x 5' wide at Biology Lab (C218)	6	lf	735.00	4,410
- center island, 7' long x 5' wide at Biology Lab (C220)	6	lf	735.00	4,410
- center island, 7' long x 5' wide at Biology Lab (C234)	6	lf	735.00	4,410
- Teachers table at Biology Lab (C115)	8	lf	931.00	7,448
- Teachers table at Biology Lab (C117)	8	lf	931.00	7,448
- Teachers table at Biology Lab (C119)	8	lf	931.00	7,448
- Teachers table at Biology Lab (C133)	8	lf	931.00	7,448
- Teachers table at Biology Lab (C216)	8	lf	931.00	7,448
- Teachers table at Biology Lab (C218)	8	lf	931.00	7,448
- Teachers table at Biology Lab (C220)	8	lf	931.00	7,448
- Teachers table at Biology Lab (C234)	8	lf	931.00	7,448
- Teachers table at Physics Lab (C135)	8	lf	931.00	7,448
- Teachers table at Physics Lab (C139)	8	lf	931.00	7,448
- Teachers table at Physics Lab (C237)	8	lf	931.00	7,448
- wall cabinet complete w/supports at Lab Prep (C116)	17	lf	343.00	5,831
- wall cabinet complete w/supports at Lab Prep (C119A)	6	lf	343.00	2,058
- wall cabinet complete w/supports at Lab Prep (C133A)	6	lf	343.00	2,058
- wall cabinet complete w/supports at Lab Prep (C136)	17	lf	343.00	5,831
- wall cabinet complete w/supports at Lab Prep (C217)	17	lf	343.00	5,831
- wall cabinet complete w/supports at Lab Prep (C220A)	6	lf	343.00	2,058
- wall cabinet complete w/supports at Lab Prep (C235)	19	lf	343.00	6,517
Other casework				
- base cabinet complete w/countertop at Band Room (B168)	12	lf	387.10	4,645
- base cabinet complete w/countertop at Ceramics Classroom (B176)	23	lf	387.10	8,903
- base cabinet complete w/countertop at Choral Room (B171)	12	lf	387.10	4,645
- base cabinet complete w/countertop at Copy Room (C150)	12	lf	387.10	4,645
- base cabinet complete w/countertop at DI Classroom (B175)	16	lf	387.10	6,194
- base cabinet complete w/countertop at Exam room (B140)	5	lf	387.10	1,936
- base cabinet complete w/countertop at Paint/Print Classroom (B174)	50	lf	387.10	19,355
- base cabinet complete w/countertop at Sped Life Skill (C249)	11	lf	387.10	4,258
- base cabinet complete w/countertop at Sped wait/Sec. Office (C151)	11	lf	387.10	4,258
- base cabinet complete w/countertop at Teachers Center (C156)	6	lf	387.10	2,323
- base cabinet complete w/countertop at Teachers Center (C172)	5	lf	387.10	1,936
- base cabinet complete w/countertop at Teachers Center (C250)	6	lf	387.10	2,323
- base cabinet complete w/countertop at Teachers Center (C267)	5	lf	387.10	1,936
- base cabinet complete w/countertop at Training Room (A190)	17	lf	387.10	6,581
- wall cabinet complete w/supports at Ceramics Classroom (B176)	8	lf	191.10	1,529
- wall cabinet complete w/supports at Copy Room (C150)	12	lf	191.10	2,293
- wall cabinet complete w/supports at Paint/Print Classroom (B174)	22	lf	191.10	4,204
- wall cabinet complete w/supports at Sped Life Skill (C249)	12	lf	191.10	2,293
- wall cabinet complete w/supports at Sped wait/Sec. Office (C151)	12	lf	191.10	2,293
- wall cabinet complete w/supports at Teacher Center (C156)	6	lf	191.10	1,147
- wall cabinet complete w/supports at Teacher Center (C172)	5	lf	191.10	956
- wall cabinet complete w/supports at Teacher Center (C250)	6	lf	191.10	1,147
- wall cabinet complete w/supports at Teacher Center (C267)	5	lf	191.10	956
- typical millwork at classrooms	974	lf	147.00	143,178
12610 Fixed Audience Seating				
Fixed audience seat w/self rising seat mechanism,				

Description	Qty	Unit	Rate	Amount
molded plastic seat with upholstered insert to:-				
- auditorium	667	ea	294.00	196,098
xxxx Entry Mats				
Entry mat:-				
- 55' 0" x 12' 0" - Main Entry	1	ea	14,905.80	14,906
- 20' 0" x 8' 0" - East Entry	1	ea	3,959.20	3,959
- other entry areas	5	ea	980.00	4,900
<u>E20 Furnishings</u>	<u>Total</u>			1,295,024
<u>F10 Special Construction</u>				
No work in this Element				
<u>F10 Special Construction</u>	<u>Total</u>			0
<u>F20 Selective Demolition</u>				
No work in this Element				
<u>F20 Selective Demolition</u>	<u>Total</u>			0

Description	Qty	Unit	Rate	Amount
Summary				
<u>A Substructure</u>				
A10 Foundations				33,164
A20 Basement Construction				0
<u>B Shell</u>				
B10 Superstructure				50,394
B20 Exterior Enclosure				993,348
B30 Roofing				60,349
<u>C Interiors</u>				
C10 Interior Construction				663,990
C20 Stairs				36,293
C30 Interior Finishes				823,079
<u>D Services</u>				
D10 Conveying Systems				0
D20 Plumbing				282,684
D30 Heating, Ventilating and Air Conditioning (HVAC)				1,164,928
D40 Fire Protection Systems				242,095
D 50 Electrical Systems				923,208
<u>E Equipment and Furnishings</u>				
E10 Equipment				12,054
E 20 Furnishings				59,450
<u>F Special Construction and Demolition</u>				
F10 Special Construction				0
F20 Selective Demolition				632,355
<u>G Building Sitework</u>				
G10 Site Preparation				0
G20 Site Improvements				0
G30 Site Civil/Mechanical Utilities				0
G40 Site Electrical Utilities				0
G90 Other Site Construction				0
Sub-Total Building				5,977,390
A10 Foundations				
Excavation				
Excavate & stockpile material on site for:-				
- perimeter foundation wall & interior wall	140	cy	17.64	2,462
- EO for rock, allow 5% of excavated material	7	cy	49.00	343
Water removal during excavation work	1	ls	490.00	490
Filling around foundations with excavated material - allow	70	cy	5.88	412
Perimeter drainage system	157	lf	14.70	2,308
Concrete				
Foundation footings:-				
- typical perimeter frost wall footing, 2' wide x 12" deep	12	cy	156.80	1,882
Foundation walls:-				
- typical perimeter frost wall, 14" thick	24	cy	161.70	3,881
Formwork				
Foundation footings:-				
- typical perimeter frost wall footing, 2' wide x 12" deep	315	sf	9.60	3,025
Foundation walls:-				
- typical perimeter frost wall, 14" thick	1,099	sf	9.60	10,555

Description	Qty	Unit	Rate	Amount
Concrete Reinforcement				
Foundation footings:-				
- typical perimeter frost wall footing, 2' wide x 12" deep	1,570	lb	0.91	1,431
Foundation walls:-				
- typical perimeter frost wall, 14" thick	4,396	lb	0.91	4,007
Dampproofing to exterior face for foundation wall	550	sf	2.70	1,481
Rigid insulation to face of foundation wall	550	sf	1.62	889
A10 Foundations	Total			33,164
A20 Basement Construction				
No Work in this Element				
A20 Basement Construction	Total			0
B10 Superstructure				
Allow for:-				
- miscellaneous structural steel	3	ton	2,744.00	8,232
- steel supports for mechanical equipment	3	ton	2,744.00	8,232
- miscellaneous steel frames, assemblies, etc	1	ton	2,940.00	2,940
- relieving angles at exterior wall	2	ton	2,744.00	5,488
- expansion joint (walls)				Included in Addition
- expansion joint (floors)				Included in Addition
B1030 Structural Fireproofing				
Allow for:-				
- fire protection (repair work due to construction), allow	52,045	sf	0.34	17,851
- firestopping (repair work due to construction), allow	52,045	sf	0.15	7,651
B10 Superstructure	Total			50,394
B20 Exterior Enclosure				
B2010 Exterior Wall				
Exterior wall backup system:-				
- 16 ga metal stud back-up	3,083	sf	6.37	19,639
- 5/8" densglass sheathing	3,083	sf	2.16	6,647
- air/vapor barrier	3,083	sf	4.17	12,841
- insulation system:-				
- R=10 extruded polystyrene foamed plastic	3,083	sf	2.45	7,553
- R=19 Fiberglass batts	3,083	sf	0.93	2,870
- vapor retarder	3,083	sf	0.34	1,057
- 5/8" gwb	3,083	sf	2.16	6,647
Exterior wall finish (back-up system included above):-				
- exterior wall assembly type1 (Masonry veneer)	3,083	sf	29.40	90,640
VE Item 20 accepted (See VE list for detail)	1	ls	443,077.69	443,078
VE Item 21 accepted (See VE list for detail)	1	ls	147,072.38	147,072
Allow for:-				

Description	Qty	Unit	Rate	Amount
- brick detailing, allow 10% of brick cost	1	ls	8,882.72	8,883
- miscellaneous exterior work	1	ls	1,470.00	1,470
- louver system complete w/framing	218	sf	73.50	16,023
B2020 Exterior Window				
Exterior window system complete w/glazing:-				
- aluminum storefront	120	sf	58.80	7,056
- aluminum glazing openings	2,086	sf	67.13	140,033
Exterior sun shade	292	lf	161.70	47,136
Exterior Doors				
Exterior door complete w/glazing, hardware, etc:-				
- double leaf	2	ea	2,214.80	4,430
- double leaf (glazed)	4	ea	3,449.60	13,798
Flashings				
Base flashing w/cavity drainage	575	lf	6.86	3,945
Band course flashing at band course w/cavity drainage	575	lf	4.90	2,818
Lintel flashing w/cavity drainage				Not Required
Sill flashing				Not Required
Window/door jamb flashing	1,166	lf	3.43	3,999
Blocking	1,166	lf	2.70	3,142
Sealant				
Window & door frames	1,166	lf	2.21	2,571
B20 Exterior Enclosure	Total			993,348
B30 Roofing				
B3000 Roof Coverings				
Thermoplastic Polyolefin based sheet roofing:-				
- PVC roof finish complete w/insulation				Not required
- plywood sheathing				Not required
- EO for tapered rigid insulation				Not required
- vapor barrier				Not required
Allow for:-				
- PC pavers to ditto w/pedestals, allow	850	sf	9.80	8,330
- flashing @ MEP items - allow	350	lf	7.84	2,744
- mechanical equipment roof curbs	350	lf	24.50	8,575
- miscellaneous flashings/upstands	200	lf	14.70	2,940
Allow for roof penerations & repairs	1	ls	8,330.00	8,330
Allow for connection between new & extg roof	310	lf	24.50	7,595
Sealant				
Flashing to roof	1,231	lf	7.84	9,651
Sealant	1,231	lf	1.81	2,232
Blocking	3,693	lf	2.70	9,953
B30 Roofing	Total			60,349
C10 Interior Construction				

Description	Qty	Unit	Rate	Amount
Partitions				
Interior drywall partitions:-				
- Type 1	10,917	sf	5.93	64,727
- Type 1B	1,200	sf	7.20	8,644
- Type 1C	4,239	sf	6.57	27,833
- Type 1E	1,626	sf	6.91	11,234
- Type 1G	8,931	sf	8.18	73,082
- wet wall	786	sf	8.23	6,470
- column enclosure	1,344	sf	4.61	6,190
Window sill				Not Required
Lintel @ openings				Not Required
Caulking @ wall head	4,363	lf	0.64	2,779
Sealant top & bottom both sides of all partition	8,726	lf	0.34	2,993
Metal deflection track assembly, fire rated to top of partition	4,363	lf	1.72	7,482
Blocking top & bottom	4,363	lf	2.60	11,330
Interior Doors				
Interior door complete w/frame, door, hardware, paint, etc.				
- double leaf, 6' x 7' high	23	ea	1,871.80	43,051
- double leaf, 10' 0" x 7' high	5	ea	2,079.56	10,398
- single leaf, 3' x 7' high	73	ea	1,157.38	84,489
- 20' Roll-up Door	1	ea	7,056.00	7,056
Interior glazing complete w/glass:-				
- interior glazing	1,112	sf	53.90	59,937
- interior side light, 2' x 8' high	5	ea	862.40	4,312
- interior transom (not shown on drawings, allow)	554	sf	53.90	29,861
Fittings				
Visual display boards, allow:-				
- marker boards	10	ea	1,317.12	13,171
- tack boards	10	ea	1,034.88	10,349
Metal Lockers 18" x 12" x 72", 2# tier:-				
- locker room (A180)	150	ea	294.00	44,100
- locker room (A186)	150	ea	294.00	44,100
Shower rod for curtain	6	lf	16.66	100
Shower, enclosure (HC)	6	ea	931.00	5,586
Shower, enclosure (regular)	26	ea	833.00	21,658
Toilet enclosure, HC	2	ea	1,127.00	2,254
Toilet enclosure, regular	15	ea	1,029.00	15,435
Urinal screen	3	ea	539.00	1,617
Signage:-				
- interior signage, allow \$85/door	102	ea	83.30	8,497
- interior entrance directory	1	ls	4,900.00	4,900
- miscellaneous interior signage	1	ls	4,900.00	4,900
- signage attached to building, allow	1	ls	7,350.00	7,350
Bathroom accessories:-				
- shower/toilet room	2	ea	2,695.00	5,390
- shower/toilet room, single	2	ea	931.00	1,862
- multiple bathroom	4	ea	1,960.00	7,840
- single bathroom	2	ea	735.00	1,470
Fire extinguisher complete w/cabinet & mounting hardware, allow	2	ea	112.70	225
Fire extinguisher complete w/ mounting hardware, allow	5	ea	83.30	417
Sealant				
Sealant at openings				Included above
Sealant at sanitary appliances & counters	557	lf	1.62	901

Description	Qty	Unit	Rate	Amount
Blocking at openings				Included above
C10 Interior Construction	Total			663,990
C20 Stairs				
Concrete step at PE area, 11' wide, 10# riser	1	ea	9,163.00	9,163
Ramp construction at PE area, 5' wide x 82' long	1	ea	6,027.00	6,027
Guard railings to (Concrete step)	13	lf	112.70	1,488
Guard railings to (ramp)	90	lf	112.70	10,166
Wall railings to (Concrete step)	26	lf	53.90	1,423
Wall railings to (ramp)	90	lf	53.90	4,862
Roof access ladder w/paint	1	ls	1,225.00	1,225
Ladder to elevator pit w/paint				Not Required
Stair Finishes				
Paint to:-				
- guard rail	103	lf		Included below
- wall railing	117	lf		Included below
Rubber tile & nosings to treads & risers	110	lf	17.64	1,940
C20 Stairs	Total			36,293
C30 Interior Finishes				
C3020 Floor Finish:-				
Interior floor finish:-				
- ceramic tile	3,973	sf	14.70	58,403
- carpet	6,695	sf	4.14	27,702
- seamless fluid applied (epoxy floor)	2,048	sf	6.37	13,046
- resilient sheet floor (type 1)	18,145	sf	8.82	160,039
- resilient sheet floor (type 2)	5,884	sf	8.82	51,897
- sealed Concrete	763	sf	1.32	1,009
- multipurpose athletic floor	2,503	sf	11.76	29,435
- refinish extg finish at Natatorium	8,053	sf	2.94	ETR
Surface prep - leveling & patching compounds	40,011	sf	0.49	19,605
Ceiling Finish				
Ceiling finish:-				
- ACT	27,485	sf	3.92	107,741
- ACT-2	6,021	sf	4.41	26,553
- Exposed ceiling (paint structure)	7,034	sf	1.23	8,617
- GWB Ceiling				Not Required
- refinish/repair extg finish at Natatorium	8,053	sf		Not Required
Allow for vertical soffit detail at ceilings	850	sf	9.31	7,914
Base				
Interior base finish:-				
- ceramic tile	636	lf	15.68	9,972
- epoxy base	257	lf	2.94	756
- rubber	6,246	lf	3.77	23,566
- refinish/repair extg finish at Natatorium	359	lf	8.82	3,166
Wall Finish				

Description	Qty	Unit	Rate	Amount
Interior wall finish:-				
- ceramic tile	3,864	sf	15.68	60,595
- paint to drywall partitions	65,593	sf	0.83	54,639
- epoxy paint at locker rooms	6,872	sf	2.94	20,205
- wood panel, allow	1,418	sf		Not Required
- manufactured resilient panel, allow				Not Required
Allow for:-				
- door casing	1,632	lf		Not Required
- window casing	1,166	lf		Not Required
- wood trim	1,875	lf	11.76	22,044
09922 Interior Painting				
VE Item 22 accepted (See VE list for detail)	1	ls	74,270.15	74,270
Paint to:-				
- walls				Included above
- ceiling				Included above
- paint exposed ceiling				Included above
- soffit areas	850	sf	1.47	1,250
- metal pan stair complete w/stringers, railings, handrails, etc				Not Required
- guard railings to (Concrete step)	13	lf	4.90	65
- guard railings to (ramp)	90	lf	4.90	442
- wall railings to (Concrete step)	26	lf	3.43	91
- wall railings to (ramp)	90	lf	3.43	309
- window sill				Not Required
- door casing				Not Required
- window casing				Not Required
- wood trim	1,875	lf	1.96	3,674
- wood panels				Not Required
- HM SL door & frame (per side) - exterior	2	ea	63.70	127
- HM DL door & frame (per side) - exterior	6	ea	63.70	382
- HM SL door & frame (per side) - interior	73	ea	58.80	4,292
- HM DL door & frame (per side) - interior	28	ea	58.80	1,646
- interior windows	1,746	sf	4.90	8,555
General				
Allow for blocking	1	ls	4,900.00	4,900
Allow for sealant	1	ls	3,430.00	3,430
Allow for access panels	1	ls	2,940.00	2,940
Allow for standing/running trim	1	ls	9,800.00	9,800
C30 Interior Finishes	Total			823,079
D10 Conveying Systems				
No work in this Element				
D10 Conveying Systems	Total			0
D20 Plumbing				
Plumbing fixtures w/piping, accessories, cte, etc:-				
- WC, regular	17	ea	3,150.00	53,550
- WC, HC	4	ea	2,950.00	11,800

Description	Qty	Unit	Rate	Amount
- Lav, wall hung	16	ea	3,000.00	48,000
- Lav, countermounted	8	ea	2,750.00	22,000
- Urinal	1	ea	2,750.00	2,750
- Shower, regular	34	ea	2,550.00	86,700
- Mop sink	1	ea	2,850.00	2,850
- sink, allow	2	ea	2,850.00	5,700
VE Item 27 accepted (See VE list for detail)	1	ls	25,100.00	25,100
General:-				
- hydrants, clean outs,etc	1	ls	2,500.00	2,500
- allow for seismic restraint & vibration isolation	1	ls	5,000.00	5,000
- permit fees				Not Required
- test & balance	1	ls	8,500.00	8,500
Sub Bid	Total			274,450
Builders work in connection with Plumbing @ 3%	1	ls	8,233.50	8,234
General Contractor's overhead and profit @ 5%			CM Fee Carried in Summary	
D20 Plumbing	Total			282,684
D 30 Heating, Ventilating, and Air Conditioning (HVAC)				
<u>Equipment</u>				
Convert existing AHU:-				
- AHU-1	1	ea	15,000.00	15,000
- AHU-2	1	ea	15,000.00	15,000
- AHU-3	1	ea	15,000.00	15,000
New AHU's:-				
- AHU-4 (serving Natatorium, allow 10,000cfm)	1	ea	57,375.00	57,375
- AHU-5 (serving Locker room, allow 5,000 cfm)	1	ea	28,688.00	28,688
- AHU-6 (serving Locker room, allow 5,000 cfm)	1	ea	28,688.00	28,688
Boiler (gas fired)	1	ea	12,500.00	12,500
CT-1, 100ton	1	ea	15,938.00	15,938
CH-1 (secondary chiller, allow 100ton)	1	ea	89,250.00	89,250
CH-1 (extg to remain)	1	ea		ETR
HX-1	1	ea		Not Required
Pumps:-				
- P-5 standby base mounted pump w/VFD(chiller)	1	ea	8,000.00	8,000
- P-4, primary base mounted pump w/VFD (chiller)	1	ea	8,000.00	8,000
- P-3 (heating circulation pump)	1	ea	3,500.00	3,500
- P-2 (condenser)	1	ea	2,750.00	2,750
- P-1 (chilled water)	1	ea	2,750.00	2,750
Exhaust fans:-				
- EF-1				
- EF-2				
- EF-3				
- EF-4				
- EF-5				
- EF-6	1	ls	35,000.00	35,000
- EF-7				
- EF-8				
- EF-9				
- EF-10				
VAV terminal	22	ea	2,000.00	44,000
Chemical treatment system	1	ea	5,000.00	5,000
Ceiling mounted induction units, allow	20	ea	2,150.00	43,000

Description	Qty	Unit	Rate	Amount
Wall mounted displacement diffusing unit, 200cfm, allow	10	ea	950.00	9,500
Electric cabinet unit heater, allow	3	ea	1,250.00	3,750
Finned Tube Radiator, allow	123	lf	85.00	10,464
Missing HVAC equipment, allow 5% of equipment cost	1	ls	22,658.00	22,658
Ductwork				
Adapt & amend extg ductwork & grill to suite new lay out, gfa	52,045	sf	5.00	260,225
Pipework				
Adapt & amend extg piping to suite new lay out, gfa	52,045	sf	3.00	156,135
Automatic Control System				
ATC System, allow	1	ls	173,827.92	173,828
General				
Commissioning by Third Party	1	ls	10,000.00	10,000
Allow for seismic restraint & vibration isolation	1	ls	15,000.00	15,000
Test & balance	1	ls	40,000.00	40,000
Sub Bid	Total			1,130,998
Builders work in connection with HVAC @ 3%	1	ls	33,929.95	33,930
General Contractor's overhead and profit @ 5%			CM Fee Carried in Summary	
D 30 Heating, Ventilating, and Air Conditioning (HVAC)	Total			1,164,928
D40 Fire Protection Systems				
Wet sprinkler system (gfa)	52,045	sf	4.30	223,794
Double check valve assembly	1	ea	1,400.00	1,400
Fire service	10	lf	90.00	900
Alarm check valve	1	ea	450.00	450
Water motor gong	1	ea	300.00	300
Fire department connection	1	ea	450.00	450
Allow for seismic restraint	1	ls	1,250.00	1,250
Permit fees				Not Required
Test and balance	1	ls	6,500.00	6,500
Sub Bid	Total			235,044
Builders work in connection with F. Protection @ 3%	1	ls	7,051.31	7,051
General Contractor's overhead and profit @ 5%			CM Fee Carried in Summary	
D40 Fire Protection Systems	Total			242,095
D50 Electrical Systems				
Equipment, Panelboards, etc.				
Allow for electrical equipment	52,045	sf	0.75	39,034
Feeders				
Allow for feeders (gfa)	52,045	sf	0.60	31,227
Small Power				

Description	Qty	Unit	Rate	Amount
Small power:-				
- special receptacle, TL				Not Required
- special receptacle, EPO				Not Required
- special receptacle				Not Required
- duplex receptacle, WP	9	ea	155.00	1,395
- duplex receptacle, REF	1	ea	150.00	150
- duplex receptacle, intended for computer use IG	4	ea	140.00	560
- duplex receptacle, intended for computer use (recessed floor box)				Not Required
- duplex receptacle, intended for computer use (clg mounted)				Not Required
- duplex receptacle, GFI	12	ea	130.00	1,560
- duplex receptacle, GFC				Not Required
- duplex receptacle, C	4	ea	125.00	500
- duplex receptacle	173	ea	120.00	20,760
- double duplex receptacle, intended for computer use GFC	27	ea	125.00	3,375
- double duplex receptacle, intended for computer use (flush floor mounted)	4	ea	150.00	600
- double duplex receptacle, intended for computer use	47	ea	140.00	6,580
- disconnect switch, unfused				Not Required
- disconnect switch, fused				Not Required
- USB, wall mtd				Not Required
- USB, recessed				Not Required
- J - typ junction box	1	ea	185.00	185
Electrical power to:-				
- HVAC equipment, large	12	ea	3,000.00	36,000
- HVAC equipment, small	71	ea	850.00	60,570
Lighting				
Light fixtures w/lamps, conduit, wiring, etc complete:-				
- F24	6	ea	511.50	3,069
- FC4	7	ea	456.50	3,196
- FC6	4	ea	511.50	2,046
- FC8	126	ea	566.50	71,379
- FP4	3	ea	511.50	1,535
- FP8	190	ea	731.50	138,985
- FP8D	2	ea	324.50	649
- FS8	35	ea	324.50	11,358
- I8				Not Required
- JC6	40	ea	401.50	16,060
- JC6D	6	ea	621.50	3,729
- K	4	ea	330.00	1,320
- L8	48	ea	374.00	17,952
- L8				Not Required
- P24				Not Required
- PFS8				Not Required
- RC1	36	ea	291.50	10,494
- RC1D	6	ea	401.50	2,409
- RC2				Not Required
- SL4	13	ea	621.50	8,080
- V8	28	ea	357.50	10,010
- EB - emergency battery unit with lighting heads	55	ea	456.50	25,108
- Exit sign WG, single face	5	ea	346.50	1,733
- Exit sign, double face	10	ea	396.00	3,960
- Exit sign, single face	10	ea	374.00	3,740
EO for emergency ballast, allow 15% of fixtures	83	ea	65.00	5,395
Switches:-				
- Os-p #5 (2 pole)	1	ea	500.00	500
- Os-p	45	ea	350.00	15,750
- S	6	ea	125.00	750
- Sa	26	ea	125.00	3,250

Description	Qty	Unit	Rate	Amount
- Sb	28	ea	125.00	3,500
- S3a	6	ea	150.00	900
- S3b	2	ea	155.00	310
Fire Alarm				
Fire alarm system:-				
- fire alarm control panel			Included w/Addition	
- annunciator	1	ea	3,500.00	3,500
- manual pull station, WP	2	ea	400.00	800
- manual pull station	12	ea	325.00	3,900
- smoke detector	50	ea	350.00	17,500
- speaker/Visual	70	ea	425.00	29,750
- speaker/Visual, WP	6	ea	500.00	3,000
Cable tray at corridors, allow	800	lf	50.00	40,000
Security system (fully cabled system)				
Security system:-				
- DC, tyo for ext doors	2	ea	350.00	700
- CR (card reader), WP	5	ea	650.00	3,250
- CCTV, PTZ WP	3	ea	1,250.00	3,750
- CCTV	8	ea	1,150.00	9,200
- M - motion detector	6	ea	500.00	3,000
- IC, WP	2	ea	450.00	900
PA system (fully cabled system)				
PA system:-				
- A - volume control for wall speaker, allow	5	ea	350.00	1,750
- C - clock outlet	30	ea	250.00	7,500
- CB - call box, allow	10	ea	350.00	3,500
- M - Wall mounted microphone outlet	5	ea	375.00	1,875
- S - speaker	8	ea	350.00	2,800
- SP - ceiling mounted speaker	86	ea	375.00	32,250
Telecommunications system (fully cabled system)				
Tel/data system (fully cabled system)				
- ceiling mounted data1 location	2	ea	550.00	1,100
- ceiling mounted wireless data1 location	17	ea	1,500.00	25,500
- data1 location				Not Required
- data1/data2 location	36	ea	800.00	28,800
- desk phone	10	ea	475.00	4,750
- floor mounted data1/data2 location				Not Required
- wall phone	9	ea	450.00	4,050
- wireless data1 location	6	ea	1,250.00	7,500
- wall mounted wall phone voice1 location	9	ea	500.00	4,500
- T3				Not Required
General				
Allow for:-				
- lightning protection (gfa)	52,045	sf	0.50	26,023
- grounding (gfa)	52,045	sf	0.25	13,011
- seismic bracing	1	ls	7,500.00	7,500
- commissioning by Third Party	1	ls	10,000.00	10,000
- permit fees				Not Required
- testing	1	ls	25,000.00	25,000
Sub Bid	Total			896,318
Builders work in connection with Electrical @ 3%	1	ls	26,889.54	26,890

Description	Qty	Unit	Rate	Amount
General Contractor's overhead and profit @ 5%			CM Fee Carried in Summary	
D50 Electrical Systems	Total			923,208
E10 Equipment				
111132 Projector Screens	5	ea	1,715.00	8,575
None shown on drawings - allow				
11451 Residential Appliances				
None shown on drawings - allow as follows:-				
- electric range/oven	1	ea	735.00	735
- range hood	1	ea	637.00	637
- conventional oven				Not Required
- microwave oven	1	ea	392.00	392
- dishwasher	1	ea	539.00	539
- refrigerator	1	ea	1,176.00	1,176
E10 Equipment	Total			12,054
E20 Furnishings				
12494 Roller Shades				
Shade to exterior windows, manual	2,206	sf	7.84	17,295
Casework				
Casework:-				
- base cabinet complete w/countertop at Corridor (A169)	7	lf	387.10	2,710
- reception deck at weight Room (A151)	27	lf	637.00	17,199
- toilet base cabinet complete w/countertop at Room A183/184	25	lf	132.30	3,308
- bench to lockers	205	lf	63.70	13,059
- allow for other casework	1	ls	4,900.00	4,900
xxxxx Entry Mats				
Entry mat:-				
- 8' 0" x 4' 0" - East Entry	1	ea	980.00	980
E20 Furnishings	Total			59,450
F10 Special Construction				
No work in this Element				
F10 Special Construction	Total			0
F20 Selective Demolition				
Building demolition				
Remove extg:-				

Description	Qty	Unit	Rate	Amount
- interior partition	462	lf	1.62	747
- interior door (SL)	18	ea	63.70	1,147
- interior door (DL)	4	ea	83.30	333
- exterior door (DL)	6	ea	93.10	559
- stair & railing (3# riser)	76	lf	49.00	3,724
- metal locker	490	ea	53.90	26,411
- elevator	1	ea	1,960.00	1,960
- casework	43	lf	24.50	1,054
- bench	205	lf	14.70	3,014
Remove extg finishes:-				
- floor	52,045	sf	0.59	30,602
- ceiling	52,045	sf	0.64	33,153
- base	3,507	lf	0.98	3,437
Prepare extg interior partition for new finish	43,241	sf	0.10	4,238
Prepare extg exterior wall to become interior wall	3,415	sf	0.98	3,347
Remove extg plumbing fixtures	78	ea	147.00	11,466
Remove extg MEP systems:-				
- HVAC	52,045	sf	0.49	25,502
- electrical	52,045	sf	0.49	25,502
- fire protection				Not Required
Work to exterior wall:-				
- sawcut extg exterior wall	450	sf	8.33	3,749
- prepare edge of demolished wall for new wall system	450	sf	14.70	6,615
- demolish extg wall	3,083	sf	3.43	10,575
- remove extg:-				
- metal louver	218	sf	3.43	748
- exterior aluminum window	2,086	sf	4.90	10,221
- exterior aluminum storefront	120	sf	4.90	588
- prepare extg opening for new window/louver	1,291	lf	9.80	12,652
Remove extg roof finish down to structure				Not Required
Demolition of existing school buildings (during phase 1):-				
- demolish extg building	107,391	cf	0.36	38,661
- demolish & remove extg foundations	405	lf	25.00	10,125
- demolish & remove extg slab	8,707	sf	4.00	34,828
- temporary exterior wall at remaining building	1,110	sf	30.00	33,300
Allow for:-				
- patch/repair remaining interior partitions after demo work	1	ls	9,800.00	9,800
- temporary screens for noise & dust control	1	ls	12,250.00	12,250
- Asbestos/Hazardous material removal			Included in Site Work Estimate	
- miscellaneous demolition	1	ls	9,800.00	9,800
- remove rubbish off site	1	ls	12,250.00	12,250
F20 Selective Demolition	Total			382,355
F20 Asbestos Removal				
Cost for Hazmat abatement (by VATC Associates Inc.)	1	ls	250,000.00	250,000
F20 Asbestos Removal				250,000

Description	Qty	Unit	Rate	Amount
F20 Selective Demolition				
<u>Demolitions</u>				
Demolition of existing school buildings:-				
- demolish extg building	2,090,415	cf	0.36	752,549
- demolish & remove extg foundations	2,479	lf	25.00	61,975
- demolish & remove extg basement retaining walls	425	lf	56.25	23,906
- demolish & remove extg slab	123,908	sf	4.00	495,632
- loading & removing off site including dump fees	7,742	cy	12.00	92,904
Removal of asbestos & lead paint in existing school building & site (by VATC Associates Inc.)				
Asbestos Abatement:-				
- floor tile and mastic	75,000	sf	5.00	375,000
- pipe insulation	7,000	lf	20.00	140,000
- foundation waterproofing	1	ls	100,000.00	100,000
- asbestos contaminated block wall	17,000	sf	45.00	765,000
- window caulking & glazing compound	165	ea	200.00	33,000
- door window glazing compound	60	ea	100.00	6,000
- other miscellaneous ACM	1	ls	80,000.00	80,000
Lead Compliance:-				
- OSHA program	1	ea	4,500.00	4,500
Miscellaneous HAZMAT Items:-				
- PBC ballast/light/mercury switches	1	ea	8,000.00	8,000
- misc. oaint cans, oils, lab chemicals, etc.	1	ea	6,000.00	6,000
- electrical transformer	1	ea	2,500.00	2,500
- clean grease traps prior to disposal	1	ea	2,500.00	2,500
- oil water separator	1	ea	8,000.00	8,000
- hydraulic elevator decommissioning	1	ea	18,000.00	18,000
UST removal	1	ea	12,000.00	12,000
Deduct for Hazmat abatement included in Renovation section	1	ls	-250,000.00	-250,000
F20 Selective Demolition	Total			2,737,467
Overall Site Area = 1,045,503 sf				
Comprising:-				
New school building	136,996	sf		
Extg Building	52,045	sf		
Roads and Parking areas	211,186	sf		
Bit. Paving	6,846	sf		
Unit Pavers	19,680	sf		
Concrete sidewalks	46,426	sf		
Planting beds	101,544	sf		
Sod	77,994	sf	652,717	sf
Loam & seed areas		=	392,786	sf
G10 Site Preparation				
Construction fence, reuse extg for Phases 2 & 3	4,661	lf	3.00	13,983
EO DL gate	4	ea	1,500.00	6,000
EO SL gate	1	ea	850.00	850

Description	Qty	Unit	Rate	Amount
Construction site entrance	2	ea	15,000.00	30,000
Remove & dispose:-				
- demolish extg Bit. paving	179,503	sf	0.50	89,752
- demolish extg curb	6,001	lf	1.50	9,002
- demolish extg concrete paving	14,576	sf	1.50	21,864
- clear other site areas	666,764	sf	0.05	33,338
- maintain and protect exist drain line	1	ls	3,500.00	3,500
- plug drain line at manhole wall	1	ea	750.00	750
- coordinate w/ gas company for removal of gas meter	2	ea	500.00	1,000
- coordinate w/ landscape architect for removal of site lighting	1	ea	500.00	500
- R&D exist fire hydrant	2	ea	850.00	1,700
- R&D exist drain catch basin	13	ea	500.00	6,500
- R&D exist drain manhole	11	ea	500.00	5,500
- R&D exist monitoring well	1	ea	500.00	500
- R&D exist sewer manhole	2	ea	500.00	1,000
- R&D exist vault	1	ea	1,500.00	1,500
- abandon extg utility line	5,674	lf	2.00	11,348
Allow for:-				
- miscellaneous demolition	1	ls	15,000.00	15,000
- terminating & capping extg utilities	1	ls	5,000.00	5,000
- protecting & maintaining in operation extg fire main & hydrants serving existing school	1	ls	7,500.00	7,500
- removal of rubbish off site	1	ls	30,000.00	30,000
Earthwork				
Strip topsoil & store on site & later spread	1,045,503	sf	0.10	104,550
Excavate oversite to reduce site levels, store on site & later spread	40,670	cy	10.00	406,700
Imported structural fill material to raise levels	23,325	cy	25.00	583,125
Remove surplus excavated material from site				Not Required
Grade over entire site to achieve final levels	1,045,503	sf	0.05	52,275
Water removal during excavation works	1	ls	10,000.00	10,000
Erosion control hay bale & silt fence	3,797	lf	7.50	28,478
Inlet protection	46	ea	150.00	6,900
G10 Site Preparation	Total			1,488,114
G20 Site Improvements				
Roads and Parking				
1" bit conc top course, 2" bit conc base course, 6" sand/gravel fill base course & 6" granular fill subbase course	211,186	sf	3.20	675,795
Saw cut & match to extg bit conc	150	lf	10.00	1,500
Granite curb	9,718	lf	30.00	291,540
EO for transition at crosswalks	2	ea	175.00	350
EO for curved curbs	1	ls	5,000.00	5,000
Sidewalks				
VE Item 23 accepted (See VE list for detail)	1	ls	-61,106.40	-61,106
Bit Conc pavement pedestrian	6,846	sf	3.10	21,223
Terrace conc unit pavers	2,524	sf	10.00	25,240
Terrace conc unit pavers	7,739	sf	10.00	77,390
Concrete unit pavers	9,417	sf	10.00	94,170
Concrete pavement pedestrian	46,426	sf	7.00	324,982
Cape cod berm	1,264	lf	5.00	6,320

Description	Qty	Unit	Rate	Amount
Concrete pads for MEP items - allow	1,000	sf	15.00	15,000
Tree grate	23	ea	1,360.00	31,280
Stairs and Ramps				
Stair at loading dock, 6' wide x 8# risers, railing both sides	1	ea	6,675.00	6,675
HC curb cut ramp	65	ea	120.00	7,800
Accessible ramp at loading dock, elevated concrete sloping slab, 6' wide x 197' lg, railing both sides	1	ea	78,800.00	78,800
Site Furniture w/concrete footings etc				
Bollard	18	ea	180.00	3,240
Bike rack, type B, 9' 4" lg, allow	6	ea	425.00	2,550
Ornamental bench 7' 6" lg	12	ea	850.00	10,200
Ornamental litter receptacle, allow	6	ea	400.00	2,400
Flagpole 35' hi, allow	3	ea	4,500.00	13,500
Site Signs, Pavement Markings				
Site sign mounted on post w/footing, allow	1	ls	10,000.00	10,000
School main sign at site entry/with footing, allow	2	ea	2,500.00	5,000
Pavement markings, allow	1	ls	15,000.00	15,000
Site Retaining Walls				
Retaining walls				Included in new addition
Fencing				
Aluminum fence	135	lf	70.00	9,450
8' chain link fence	1,140	lf	18.00	20,520
Track and Field Sports Equipment & Structures				
Note - Bit conc surface is included elsewhere				
Shot Put - Concrete circle & toe board	1	ls	1,500.00	1,500
Discus - concrete/aluminum circle 10' x 10', barrier net	1	ls	4,475.00	4,475
Football - single-post football goal post	2	ea	2,850.00	5,700
Football - team bench, 8' lg with back, portable	6	ea	1,000.00	6,000
Sod, Seeding & Planting				
VE Item 24 accepted (See VE list for detail)	1	ls	-88,712.81	-88,713
Planting bed soil	101,544	sf	0.59	59,911
Sod (fields)	77,994	sf	0.58	45,237
Grass seed	392,786	sf	0.08	31,423
Plantings:-				
- evergreen tree	112	ea	800.00	89,600
- evergreen shrub	1,203	ea	50.00	60,150
- deciduous tree	310	ea	850.00	263,500
- deciduous shrub	2,285	ea	55.00	125,675
- planting	20,309	sf	1.00	20,309
- ground cover	20,309	sf	1.00	20,309
Maintenance of planting	1	ls	5,000.00	5,000
Irrigation to multipurpose field	77,994	sf	0.65	50,696
Irrigation to planting & grass seed areas - none shown on drawings - allowance	1	ls	50,000.00	50,000
G20 Site Improvements	Total			2,444,590
G30 Site Civil/Mechanical Utilities				

Description	Qty	Unit	Rate	Amount
Storm Drainage Systems				
Drain line, 24" CPP	34	lf	30.00	1,020
Drain line, 18" CPP	218	lf	25.00	5,450
Drain line, 15" CPP	130	lf	22.00	2,860
Drain line, 12" CPP	4,506	lf	20.00	90,120
Stormceptor 900 - STC	4	ea	16,500.00	66,000
DMH	25	ea	5,500.00	137,500
CB	14	ea	1,250.00	17,500
AD	8	ea	1,250.00	10,000
OCS	4	ea	2,000.00	8,000
DCB	3	ea	2,500.00	7,500
FES	1	ea	500.00	500
Bio retention area	21,034	sf	8.50	178,789
Storm detention basin	15,725	sf	7.50	117,938
Storm water infiltration bed	8,640	sf	10.50	90,720
Piping connection - drain line 18" to exist drain 21"	1	ea	1,250.00	1,250
Piping connection - drain line 18" to exist drain 21"	1	ea	1,250.00	1,250
Piping connection - drain line 12" to exist drain 12"	1	ea	1,250.00	1,250
Sanitary				
6" PVC Sewer (kitchen waste)	20	lf	22.00	440
6" PVC Sewer	57	lf	22.00	1,254
4" perforated pipe	666	lf	19.00	12,654
8" sanitary line	616	lf	29.00	17,864
SMH	4	ea	5,500.00	22,000
6,000 gal grease trap	1	ea	9,500.00	9,500
Piping connection - S to exist sewer w/ drop manhole	1	ea	2,000.00	2,000
Water/Fire Service				
8" water service	1,739	lf	75.00	130,425
6" water service	75	lf	65.00	4,875
4" Di domestic	44	lf	55.00	2,420
8" Fire service	45	lf	75.00	3,375
HYD	3	ea	2,500.00	7,500
6" x 8" tee	2	ea	1,150.00	2,300
8" valve	1	ea	1,500.00	1,500
4" valve	1	ea	950.00	950
Piping connection - W to 8" x 10" TS&V	2	ea	2,000.00	4,000
Gas				
Gas service, allow	1	ls	12,500.00	12,500
Miscellaneous Mechanical Utilities items				
Trench for mechanical utilities	8,150	lf	10.00	81,500
Street repairs after utility work (gas, sanitary, water 2#, storm)	5	ea	2,000.00	10,000
Police detail @ street for connection work	200	hour	80.00	16,000
G30 Site Civil/Mechanical Utilities	Total			1,080,704
G40 Site Electrical Utilities				
Electrical service:-				
- underground primary electrical feed, excavation, ductbank only	176	lf	45.00	7,920
- Underground secondary electrical feed	188	lf	243.00	45,684
- Tel/data feed from street, excavation, ductbank only	309	lf	35.00	10,815
- conduit by Utilities				By Others

Description	Qty	% of Time Allocated	Unit	Rate	Amount
<u>General Requirements</u>					
<i>Field personnel</i>					
Field personnel:-					
- project manager	104.00	100%	week	3,350.00	348,400
- project superintendent	130.00	125%	week	3,100.00	403,000
- field engineer	104.00	100%	week	3,000.00	312,000
- MEP coordinator	104.00	100%	week	3,000.00	312,000
- laborer	312.00	300%	week	2,750.00	858,000
Main office staff	130.00	125%	week	2,550.00	331,500
<i>Insurance & Bond Cost</i>					
Insurances (includes):-					
- builders risk					Included on Summary
- general liability					
- vehicle liability					
- pollution liability					
- workers compensation					Included in Labor
- umbrella coverage					
Performance bond.					Included on Summary
<i>Temporary Utilities & Services</i>					
Temporary utilities & services:-					
- temporary water & sewer service & distribution	104.00		week	200.00	20,800
- temporary water consumed	104.00		week	200.00	20,800
- temporary toilet rental & service	104.00		week	200.00	20,800
- temporary electricity consumed	104.00		week	200.00	20,800
- temporary heating system	104.00		week	200.00	20,800
- temporary heating fuel consumed	104.00		week	200.00	20,800
- emergency diesel generator fuel consumed	104.00		week	200.00	20,800
<i>Additional Categories</i>					
Preparation of progress schedules.	24.00		mth	500.00	12,000
Compilation/preparation of site survey data.	1.00		ls	6,500.00	6,500
Preparation of shop drawings.	1.00		ls	15,000.00	15,000
Construction photographs.	24.00		mth	100.00	2,400
Temporary construction.	104.00		week	125.00	13,000
Construction aids (safety nets, personnel protection equipment, partial scaffolding, etc)	104.00		week	200.00	20,800
Barriers and enclosures.	104.00		week	125.00	13,000
Security.	24.00		mth	850.00	20,400
Access roads.	104.00		week	150.00	15,600
Temporary controls.	104.00		week	150.00	15,600
Project signs.	24.00		mth	200.00	4,800
Field offices and sheds	30.00		mth	1,500.00	45,000
Field office expenses.	128.00		week	175.00	22,400
Equipment rental	1.00		ls	100,000.00	100,000
Snow removal (12 times)	12.00		ea	850.00	10,200
Winter protection	1.00		ls	65,000.00	65,000
Interim cleaning	104.00		week	500.00	52,000
Final cleaning	1.00		ls	20,000.00	20,000
<u>General Requirements</u>	<u>Total</u>				3,164,200

Gross Floor Areas

	<u>GFA (sf)</u>	<u>Perimeter (lf)</u>	<u>Height (lf)</u>
<u>New Addition</u>			
Basement Floor	2,480	197	10.00
1st Floor	136,996	2,920	13.40
2nd Floor	44,889	1,057	13.40
Total	<u><u>184,365</u></u>		
<u>Renovation</u>			
1st Floor	52,045	1,231	13.40
	<u><u>52,045</u></u>		



Longmeadow High School
 Renovations/Additions and Sitework Package
 Longmeadow, MA

11-Feb-10

Schematic Design Submission

MAIN CONSTRUCTION COST SUMMARY

	Construction Start	Gross Floor Area	\$/sf	Estimated Construction Cost New & Site	\$/sf	Estimated Construction Renovation	\$/sf	Estimated Construction Cost Total
NEW ADDITIONS TO HIGH SCHOOL		184,365	\$200.02	\$36,876,451				\$36,876,451
RENOVATIONS TO EXISTING HIGH SCHOOL		52,000	\$0.00			\$5,110,109		\$5,110,109
HAZARDOUS MATERIALS REMOVAL ¹				\$1,560,500				\$1,560,500
DEMOLITION IN FIRST PHASE		7,500	\$6.00			\$45,000		\$45,000
DEMOLITION OF EXISTING BUILDING (Except for 1971 Wing)		188,500	\$5.00			\$942,500		\$942,500
SITWORK				\$5,096,483				\$5,096,483
SUB-TOTAL	May-11	236,365	\$236.13	\$43,533,434	\$117.26	\$6,097,609	209.9763	\$49,631,043
GENERAL CONDITIONS	8.00%			\$3,482,675		\$487,809		\$3,970,483
BONDS	0.65%			\$282,967		\$39,634		\$322,602
INSURANCE	1.25%			\$587,701		\$82,318		\$670,019
PERMIT	1.00%			By Owner		By Owner		By Owner
CM FEE	3%			\$1,306,003		\$182,928		\$1,488,931
ESCALATION TO MID-POINT (2rd QTR 2012) - 3% per year	4%			\$1,741,337		\$243,904		\$1,985,242
DESIGN AND PRICING CONTINGENCY	10%			\$5,093,412		\$713,420		\$5,806,832
TOTAL OF ALL CONSTRUCTION		236,365	\$303.89	\$56,027,529	\$150.92	\$7,847,622	\$270.24	\$63,875,152

¹ Includes \$375,000 in VAT tile and mastic removal