

supporting

the

innovation

agenda

COST ESTIMATE

Martin Luther King, Jr. School
Construction Project

JULY 31, 2012

Cambridge City Council Members

Mayor – Henrietta Davis
Vice Mayor – E. Denise Simmons
Leland Cheung
Marjorie C. Decker
Craig Kelley
David P. Maher
Kenneth E. Reeves
Timothy J. Toomey, Jr.
Minka vanBeuzekom

City of Cambridge

City Manager – Robert W. Healy
Deputy City Manager – Richard C. Rossi
Construction Project Manager – Michael J. Black

Cambridge School Committee

Mayor – Henrietta Davis
Alfred B. Fantini
Richard Harding
Marc McGovern
Patricia M. Nolan
Mervan F. Osborne
Alice Turkel

Cambridge Public Schools

Superintendent of Schools – Dr. Jeffrey Young
Deputy Superintendent – Dr. Carolyn L. Turner
Chief Operating Officer – James Maloney



City of Cambridge

Perkins Eastman

On behalf of the Perkins Eastman Team we would like to acknowledge and thank the leadership team identified on the cover of this Volume as well as those listed below, who participated and made the timely completion of the Feasibility Study for the Martin Luther King, Jr. School Construction Project possible. Many others, too numerous to name them all, also contributed to this document that will provide the appropriate framework for completing the design, documentation and construction that will transform the Martin Luther King, Jr. School into a true 21st century learning environment.

Cambridge Public Schools

City of Cambridge Public School staff and administrators

Cambridge Human Services Department:

City of Cambridge Human Services Department staff and administrators.

Perkins Eastman Architects PC: Architecture, Educational Specification / Visioning, and FF&E:

Sean O'Donnell, John Pears, Jana Silsby, Alicia Caritano, Erik Dalen, and Jill Garzik

The Entire Design Consultant Team:

Acentech – Acoustics and Audiovisual
AKF – Mechanical, Electrical, Plumbing and Fire Protection Engineering
Boyes-Watson Architects – Community Outreach
Crabtree McGrath – Foodservice
Davis Langdon – Cost Estimating
Foley Buhl Roberts & Associates – Structural Engineering
Fuss & O'Neil EnviroScience, LLC – Hazardous Materials
In Posse – Net Zero
Linnean Solutions – Embodied Energy
Nitsch Engineering – Civil Engineering, Land Survey, and Traffic Engineering
School Scheduling Associates – Scheduling

Owner's Consultants:

CDM Smith – Environmental and Geotechnical Engineering
Stephen Turner Inc. – Commissioning



Volume 4 – Cost Estimate

Section

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**FEASIBILITY STUDY
COST ESTIMATE-PI OPTION**

for

**CITY OF CAMBRIDGE
Martin Luther King Jr. School**

June 28, 2012



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June 28, 2012

Alicia Caritano
Perkins Eastman
50 Franklin Street
Suite #402
Boston, MA 2110

CITY OF CAMBRIDGE

Dear Alicia:

Please find enclosed our Construction Cost Estimate for the above referenced project based on Concept Design information dated May 17, 2012 and subsequent data provided June 22nd.

	Const. Start	Gross Floor	\$/sf	Estimated Cost
Pi Option (including AV and Hazmat abatement***)	Dec-13	175,898	\$351.46	\$61,820,270

Alternates:

Photovoltaic systems

Pi, based on approximate physical capacity 47,000 SF. 38,505 SF
Roof mounted, 4,905 SF Wall mounted, 3,600 SF site structure. \$5,529,938

Pi, based on present need to achieve net zero energy target. Based
on need for 1530 KW & 82,250 SF. This calculation assumes \$11,046,625
38,505 SF roof mounted, 4,905 SF Wall mounted, 38,840 SF site
mounted.

This estimate includes all direct construction costs, construction manager's overhead and profit and design contingency. Cost escalation assumes start dates indicated above.

Excluded from the estimate are: construction contingency, loose furnishings and equipment, architect's and engineer's fees, moving, administrative and financing costs.

Bidding conditions are expected to reflect one construction manager with competitive bidding for sub-contractors, open specifications for materials and manufacturers.

*** Worst case scenario for the hazardous material abatement according to the "Visual" report could be \$5,700,000. Estimate currently includes \$2,240,000.

Audio-visual systems are also included in the above total at \$2,342,000.

The estimate is based on prevailing rates for construction in this market and represents a reasonable opinion of cost. It is not a prediction of the successful bid from a contractor as bids will vary due to fluctuating market conditions, errors and omissions, proprietary specifications, lack or surplus of bidders, perception of risk, etc. Consequently the estimate is expected to fall within the range of bids from a number of competitive contractors or subcontractors, however we do not warrant that bids or negotiated prices will not vary from the final construction cost estimate.

If you have any questions or require further analysis please do not hesitate to contact us.

Sincerely,



Scott Cullen, MRICS
Director of Operations

Davis Langdon 051-01360

Enclosures

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BASIS OF COST ESTIMATE-PI OPTION

<u>Cost Estimate-Pi Option Prepared From</u>	Dated	Received
Drawings issued for		
Feasibility Study (and subsequent narratives and sketches received 6-22-12)	05/14/12	05/14/12
Outline Specification		
Discussions with the Project Architect and Engineers		
<u>Conditions of Construction</u>		

The pricing is based on the following general conditions of construction

- A start date of December 2013
- A construction period of 20 months (Occupy September 2015)
- The general contract will be competitively bid to qualified general and main subcontractors
- There will not be small business set aside requirements
- The contractor will be required to pay prevailing wages
- There are no phasing requirements
- The general contractor will have full access to the site during normal business hours

INCLUSIONS

This project in Cambridge, Massachusetts comprises the study of one option for Martin Luther King Jr School, the preferred scheme- Pi Option. This Pi option is new construction requiring the full demolition of the existing building and new construction of 175,898 sf. The option includes provision of an additional 60 spaces below the building.

Site work includes roadways, parking for , loading bay, pedestrian walkways, basketball court, structured playgrounds, other hardscape play areas, together with all associated hard and soft landscaping.

The Cost Plan is based on the following conditions:

The costs in this report covers construction costs only calculated at current bidding price level (reflecting the current projected construction schedule) with a separate allowance for cost escalation.

Cost escalation is included to the mid point of the construction schedule. Unit rates in the body of the report include appropriate escalation allowances to deliver specific trades within the prescribed schedule if the project were to commence today.

Cost associated with additional escalation required for future start date are included as a below the line markup. This report has included this additional escalation to the scheduled start date of construction noted in this report.

Bidding Process - Market Conditions

This document is based on the measurement and pricing of quantities wherever information is provided and/or reasonable assumptions for other work not covered in the drawings or specifications, as stated within this document. Unit rates have been obtained from historical records and/or discussion with contractors. The unit rates reflect current bid costs in the area. All unit rates relevant to subcontractor work include the subcontractors overhead and profit unless otherwise stated. The mark-ups cover the costs of field overhead, home office overhead and profit and range from 10% to 20% of the cost for a particular item of work.

Pricing reflects probable construction costs obtainable in the project locality on the date of this statement of probable costs. This estimate is a determination of fair market value for the construction of this project. It is not a prediction of low bid. Pricing assumes competitive bidding for every portion of the construction work for all subcontractors and general contractors, with a minimum of 5 bidders for all items of work. Experience and research indicates that a fewer number of bidders may result in higher bids, conversely an increased number of bidders may result in more competitive bids.

Since Davis Langdon has no control over the cost of labor, material, equipment, or over the contractor's method of determining prices, or over the competitive bidding or market conditions at the time of bid, the statement of probable construction cost is based on industry practice, professional experience and qualifications, and represents Davis Langdon's best judgment as professional construction consultant familiar with the construction industry. However, Davis Langdon cannot and does not guarantee that the proposals, bids, or the construction cost will not vary from opinions of probable cost prepared by them.

EXCLUSIONS

- Owner supplied and installed furniture, fixtures and equipment
- Loose furniture and equipment except as specifically identified
- Security equipment and devices
- Audio visual equipment (excluded from the trade costs - included below the total estimated construction costs sub-total)
- Hazardous material handling, disposal and abatement (excluded from the trade costs - included below the total estimated construction costs sub-total)
- Compression of schedule, premium or shift work, and restrictions on the contractor's working hours
- Design, testing, inspection or construction management fees
- Architectural and design fees
- Scope change and post contract contingencies
- Assessments, taxes, finance, legal and development charges
- Environmental impact mitigation
- Builder's risk, project wrap-up and other owner provided insurance program
- Land and easement acquisition
- Specialty Contractor parking requirements
- Cost escalation beyond a start date of December 2013

OVERALL SUMMARY

		Pi Option
A10	FOUNDATIONS	\$2,838,000
A20	BASEMENT CONSTRUCTION	\$179,000
B10	SUPERSTRUCTURE	\$4,957,000
B20	EXTERIOR CLOSURE	\$5,597,000
B30	ROOFING	\$2,680,000
C10	INTERIOR CONSTRUCTION	\$2,697,000
C20	STAIRCASES	\$310,000
C30	FINISHES	\$3,780,000
D10	CONVEYING SYSTEMS	\$317,000
D20	PLUMBING	\$1,721,000
D30	HVAC	\$6,524,000
D40	FIRE PROTECTION	\$703,000
D50	ELECTRICAL	\$3,909,000
E10	EQUIPMENT	\$573,000
E20	FURNISHINGS	\$1,157,000
F10	SPECIAL CONSTRUCTION	\$0
F20	SELECTIVE BUILDING DEMOLITION	\$0
Total Building Construction		\$37,942,000
G10	SITE PREPARATION	\$1,908,000
G20	SITE IMPROVEMENTS	\$838,000
G30	SITE MECHANICAL UTILITIES	\$280,000
G40	SITE ELECTRICAL	\$55,000
G90	OTHER SITE CONSTRUCTION	\$0
Total Site Construction		\$3,081,000
TOTAL BUILDING & SITE		\$41,023,000
MARKUPS		\$5,748,000
	General conditions and project requirements	7.5% \$3,074,107
	Bond and Insurance	1.5% \$660,933
	Building Permit	excluded
	General contractor's head office overhead and profit	4.5% \$2,012,541
SUBTOTAL		Jun-12 \$46,771,000
CONTINGENCIES/ESCALATION		\$10,467,000
	Design Contingency	12.00% \$5,608,282
	GMP Contingency	3.00% \$1,570,319
	Escalation	6.10% \$3,288,771
SUBTOTAL		Dec-13 \$57,238,000
OTHER COSTS		
	Audiovisual systems	\$2,342,270
	Hazardous Material Abatement***	\$2,240,000
ESTIMATED CONSTRUCTION COST		\$61,820,270
		GFA 175,898
		\$/sf \$351.46
ALTERNATES		
	Photovoltaics	Add: \$5,529,938

*** Worst case scenario is that the hazardous material abatement according to the "Visual" report could be \$5,700,000

PI OPTION - AREAS & CONTROL QUANTITIES

Areas	SF	SF	SF
Enclosed Areas			
Ground	43,720		
Level 1	42,178		
Level 2	35,730		
Level 3	34,670		
 SUBTOTAL, Enclosed Area	<hr/>	156,298	
Covered area			
 SUBTOTAL, Covered Area @ ½ Value	<hr/>		
 TOTAL GROSS FLOOR AREA			<hr/> 156,298
Parking Garage			19,600
 TOTAL GROSS FLOOR AREA INCLUDING GARAGE			 175,898

PI OPTION - COMPONENT SUMMARY

		GFA, BUILDING &	175,898
	Total	\$/sf	%
A10 Foundations	\$2,838,399	\$16.14	6.07%
A1010 Foundations	\$1,374,587	\$7.81	2.94%
A1020 Special Foundations	\$400,000	\$2.27	0.86%
A1020 Slab on Grade	\$1,063,812	\$6.05	2.27%
A20 Basement Construction	\$179,484	\$1.02	0.38%
A2010 Basement Earthwork	\$0	\$0.00	0.00%
A2020 Basement Walls	\$179,484	\$1.02	0.38%
B10 Superstructure	\$4,957,377	\$28.18	10.60%
B1010 Floor Construction	\$3,159,252	\$17.96	6.75%
B1020 Roof Construction	\$1,798,125	\$10.22	3.84%
B20 Exterior Closure	\$5,597,138	\$31.82	11.97%
B2010 Exterior Walls	\$3,063,712	\$17.42	6.55%
B2020 Windows	\$2,469,356	\$14.04	5.28%
B2030 Exterior Doors	\$64,070	\$0.36	0.14%
B30 Roofing	\$2,680,381	\$15.24	5.73%
B3010 Roof Covering	\$1,775,131	\$10.09	3.80%
B3020 Roof Openings	\$905,250	\$5.15	1.94%
C10 Interior Construction	\$2,696,706	\$15.33	5.77%
C1010 Partitions	\$1,688,432	\$9.60	3.61%
C1020 Interior Doors	\$337,560	\$1.92	0.72%
C1030 Specialties	\$670,715	\$3.81	1.43%
C20 Staircases	\$309,780	\$1.76	0.66%
C2010 Stair Construction	\$270,680	\$1.54	0.58%
C2020 Stair Finishes	\$39,100	\$0.22	0.08%
C30 Finishes	\$3,779,525	\$21.49	8.08%
C3010 Wall Finishes	\$595,532	\$3.39	1.27%
C3020 Floor Finishes	\$2,147,645	\$12.21	4.59%
C3030 Ceiling Finishes	\$1,036,349	\$5.89	2.22%
D10 Conveying Systems	\$316,600	\$1.80	0.68%
D1010 Elevators and Lifts	\$316,600	\$1.80	0.68%
D1020 Escalators and Moving Walkways	\$0	\$0.00	0.00%
D1030 Other Conveying Systems	\$0	\$0.00	0.00%
D20 Plumbing	\$1,721,299	\$9.79	3.68%
D2010 Plumbing Complete	\$1,721,299	\$9.79	3.68%
D30 Heating, Ventilation and Air Conditioning	\$6,524,364	\$37.09	13.95%
D3010 HVAC, Complete	\$6,524,364	\$37.09	13.95%
D40 Fire Protection	\$703,341	\$4.00	1.50%
D4010 Fire Protection, Complete	\$703,341	\$4.00	1.50%
D50 Electrical	\$3,908,998	\$22.22	8.36%
D5010 Electrical, Complete	\$3,908,998	\$22.22	8.36%
E10 Equipment	\$573,105	\$3.26	1.23%
E1010 Commercial Equipment	\$0	\$0.00	0.00%
E1020 Institutional Equipment	\$75,000	\$0.43	0.16%
E1030 Vehicular Equipment	\$12,000	\$0.07	0.03%
E1090 Other Equipment	\$486,105	\$2.76	1.04%
E20 Furnishings	\$1,156,788	\$6.58	2.47%
E2010 Fixed Furnishings	\$1,156,788	\$6.58	2.47%
E2020 Loose Furnishings	\$0	\$0.00	0.00%

PI OPTION - COMPONENT SUMMARY

		Total	GFA, BUILDING & \$/sf	175,898 %
F10 Special Construction		\$0	\$0.00	0.00%
F1010 Special Structures		\$0	\$0.00	0.00%
F1020 Integrated Construction		\$0	\$0.00	0.00%
F1030 Special Construction Systems and Facilities		\$0	\$0.00	0.00%
F20 Selective Building Demolition		\$0	\$0.00	0.00%
F2010 Building Elements Demolition		\$0	\$0.00	0.00%
F2020 Hazardous Components Abatement		\$0	\$0.00	0.00%
TOTAL BUILDING CONSTRUCTION		\$37,943,285	\$215.71	81.13%
G10 Site Preparation		\$1,907,635	\$10.85	4.08%
G1010 Site Clearing and Demolition		\$1,665,860	\$9.47	3.56%
G1030 Site Earthwork		\$241,775	\$1.37	0.52%
G1040 Hazardous Waste Remediation		\$0	\$0.00	0.00%
G20 Site Improvement		\$837,521	\$4.76	1.79%
G2010 Roadways and Parking Lots		\$138,150	\$0.79	0.30%
G2030 Pedestrian Paving		\$219,435	\$1.25	0.47%
G2040 Site Development		\$388,386	\$2.21	0.83%
G2050 Landscaping		\$91,550	\$0.52	0.20%
G30 Site Mechanical		\$280,374	\$1.59	0.60%
G3010 Mechanical Utilities		\$280,374	\$1.59	0.60%
G40 Site Electrical		\$54,700	\$0.31	0.12%
G4010 Electrical Utilities and Site Lighting		\$54,700	\$0.31	0.12%
G90 Other Site Construction		\$0	\$0.00	0.00%
G9010 Service and Pedestrian Tunnels		\$0	\$0.00	0.00%
G9090 Other Site Systems		\$0	\$0.00	0.00%
Total Site Construction		\$3,080,230	\$17.51	6.59%
TOTAL BUILDING & SITE		\$41,023,515	\$233.22	87.71%
Markups		\$5,747,582	\$32.68	12.29%
General Conditions				
General conditions and project requirements	7.5%	\$3,074,107	\$17.48	6.57%
Bond and Insurance	1.5%	\$660,933	\$3.76	1.41%
Building Permit	0.0%	excluded		
Overhead and profit				
General contractor's head office	4.5%	\$2,012,541	\$11.44	4.30%
PLANNED CONSTRUCTION COST	Jun-12	\$46,771,097	\$265.90	100.00%
Contingencies/Escalation		\$10,467,372	\$59.51	
Contingencies				
Design and Pricing Contingency	12.0%	\$5,608,282	\$31.88	
GMP Contingency	3.0%	\$1,570,319	\$8.93	
Escalation				
Escalation to Midpoint (October 2014)	6.1%	\$3,288,771	\$18.70	
ESTIMATED CONTRACT AWARD	Dec-13	\$57,238,469	\$325.41	

Description	Quantity	Unit	Rate	Total
<u>PI OPTION - ESTIMATE DETAIL</u>				
<u>A1010 FOUNDATIONS</u>				
Strip footings at exterior				
Excavation	2,361	CY	12.00	28,332
Remove off site	2,361	CY	18.00	42,498
Backfill with gravel	2,214	CY	28.00	61,992
Formwork	3,185	SF	12.00	38,220
Reinforcement	13,230	LB	1.10	14,553
Concrete	147	CY	161.25	23,704
Strip footings at interior				
Excavation	81	CY	12.00	972
Remove off site	81	CY	18.00	1,458
Backfill with gravel	58	CY	28.00	1,624
Formwork	486	SF	12.00	5,832
Reinforcement	2,070	LB	1.10	2,277
Concrete	23	CY	161.25	3,709
Strip footings at elevation changes				
Excavation	47	CY	12.00	564
Remove off site	47	CY	18.00	846
Backfill with gravel	34	CY	28.00	952
Formwork	280	SF	12.00	3,360
Reinforcement	1,170	LB	1.10	1,287
Concrete	13	CY	161.25	2,096
Strip footings at basement/retaining wall				
Excavation	201	CY	12.00	2,412
Remove off site	201	CY	18.00	3,618
Backfill with gravel	111	CY	28.00	3,108
Formwork	651	SF	12.00	7,812
Reinforcement	13,020	LB	1.10	14,322
Concrete	90	CY	161.25	14,513
Column footings at exterior				
Excavation	2,160	CY	12.00	25,920
Remove excavated material off site	2,160	CY	18.00	38,880
Backfill with gravel	1,852	CY	28.00	51,856
Formwork	3,696	SF	12.00	44,352
Reinforcement	42,000	LB	1.10	46,200
Concrete	308	CY	161.25	49,665
Column footings at interior				
Excavation	1,495	CY	12.00	17,940
Remove excavated material off site	1,495	CY	18.00	26,910
Backfill with gravel	855	CY	28.00	23,940
Formwork	5,760	SF	12.00	69,120
Reinforcement	81,600	LB	1.10	89,760
Concrete	640	CY	161.25	103,200
Foundation walls				
Formwork	15,924	SF	12.00	191,088
Reinforcement	39,810	LB	1.10	43,791
Concrete	392	CY	165.75	64,974
Waterproofing, mastic	7,962	SF	1.50	11,943
Insulation	7,962	SF	1.25	9,953
Elevation changes				
Formwork	1,400	SF	12.00	16,800
Reinforcement	2,800	LB	1.10	3,080
Concrete	26	CY	165.75	4,310

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Waterproofing, mastic	7,962	SF	1.50	11,943
Insulation	7,962	SF	1.25	9,953
Miscellaneous				
Allowance for piers/pilasters	104	EA	500.00	52,000
Set base plates	104	EA	40.00	4,160
Miscellaneous concrete costs - premium for pump grade concrete mix and pump	1,743	CY	17.50	30,503
Perimeter foundation drainage, including gravel and f	1,592	LF	14.00	22,288
Foundations at parking	1	LS	30,000.00	30,000
<i>SUBTOTAL</i>				\$1,374,587

A1020 SPECIAL FOUNDATIONS

Allowance for mini piles/rammed aggregate piers/temporary lateral support and vibration monitoring(scope TBD)	1	LS	400,000.00	400,000
<i>SUBTOTAL</i>				\$400,000

A1030 SLAB ON GRADE

Standard slab on grade				
Gravel fill	2,242	CY	28.00	62,776
Rigid insulation under slab on grade	60,536	SF	2.00	121,072
Vapor barrier	60,536	SF	0.35	21,188
Mesh reinforcing 15% lap	69,616	SF	0.75	52,212
Concrete in slab, complete	942	CY	156.75	147,659
Finishing and curing	60,536	SF	0.38	23,004
Control and construction joints	60,536	SF	0.45	27,241
Isolation joints at columns	384	LF	3.00	1,152
Perimeter joints	2,575	LF	2.00	5,150
Slab on grade, at loading dock				
Gravel fill	11	CY	28.00	308
Vapor barrier	300	SF	0.35	105
Mesh reinforcing 15% lap	345	SF	0.75	259
Concrete in slab, complete	5	CY	156.75	784
Finishing and curing	300	SF	0.38	114
Control and construction joints	300	SF	0.45	135
Elevator/Escalator pit				
Excavation	73	CY	12.00	876
Remove excavated material off site	73	CY	18.00	1,314
Backfill with gravel	33	CY	28.00	924
Formwork to slab edge	108	SF	12.00	1,296
Reinforcement in slab	810	LB	1.10	891
Concrete in slab	9	CY	161.25	1,451
Formwork to pit walls	360	SF	12.00	4,320
Reinforcement	900	LB	1.10	990
Concrete in pit walls	13	CY	165.75	2,155
Cementitious waterproofing to elevator pit	522	SF	12.00	6,264
Miscellaneous				

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Miscellaneous concrete costs - premium for pump grade concrete mix and pump	969	CY	17.50	16,958
Barrier one in concrete mix	60,536	SF	2.00	121,072
Below slab drainage	60,536	SF	4.00	242,144
Slab at Parking	1	LS	200,000.00	200,000
<i>SUBTOTAL</i>				\$1,063,812

A2010 BASEMENT EARTHWORK

No work anticipated

SUBTOTAL **\$0**

A2020 BASEMENT WALLS

Retaining wall				
Formwork to walls	6,510	SF	14.00	91,140
Reinforcement	26,040	LB	1.10	28,644
Concrete in walls	160	CY	165.75	26,520
Waterproofing, membrane, including protection board	3,255	SF	7.00	22,785
Insulation	3,255	SF	2.00	6,510
Miscellaneous				
Water stops	217	LF	5.00	1,085
Miscellaneous concrete costs - premium for pump grade concrete mix and pump	160	CY	17.50	2,800
<i>SUBTOTAL</i>				\$179,484

B1010 FLOOR CONSTRUCTION

Steel construction				
Columns				
W section	120	T	3,000.00	360,000
Shear/brace frames				
Tube/pipe	48	T	3,000.00	144,000
Floor framing				
W sections	479	T	3,000.00	1,437,000
Shear studs	19,152	EA	3.00	57,456
Bent plate in pour stop	3,600	LF	12.00	43,200
Metal decking				
Metal decking, standard	95,762	SF	2.85	272,922
Concrete construction				
Concrete topping to floors				
Mesh reinforcing 15% lap	110,126	SF	0.75	82,595
Concrete topping	1,490	CY	156.75	233,558
Finishing and curing	95,762	SF	0.38	36,390
Control and construction joints	95,762	SF	0.45	43,093
Miscellaneous concrete costs				
Premium for pump grade concrete mix and pump	1,490	CY	17.50	26,075
Barrier one in concrete mix		SF	2.00	

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Masonry wall - load bearing Included in Partitions Load Transfer over Existing Structure at parking- allowance	1	LS	200,000.00	200,000
Miscellaneous				
Fireproofing steel	95,762	SF	2.00	191,524
Fire stopping	95,762	SF	0.25	23,941
Equipment pads	500	SF	15.00	7,500
<i>SUBTOTAL</i>				\$3,159,252

B1020 ROOF CONSTRUCTION

Steel construction				
Columns				
W section	70	T	3,200.00	224,000
Shear/brace frames				
Tube/pipe	28	T	3,200.00	89,600
Steel members in roof framing				
W sections incl AESS	280	T	3,400.00	952,000
Bent plate in pour stop	1,200	LF	12.00	14,400
Metal decking				
Metal decking, standard	55,996	SF	2.85	159,589
Concrete topping to roof				
Mesh reinforcing 15% lap	64,395	SF	0.75	48,296
Concrete topping	871	CY	156.75	136,529
Finishing and curing	55,996	SF	0.38	21,278
Control and construction joints	55,996	SF	0.45	25,198
Miscellaneous concrete costs				
Premium for pump grade concrete mix and pump	871	CY	17.50	15,243
Masonry wall - load bearing Included in partitions				
Miscellaneous				
Fireproofing steel	55,996	SF	2.00	111,992
<i>SUBTOTAL</i>				\$1,798,125

B2010 EXTERIOR WALL

Interior backup - metal stud				
Metal stud framing 6" x 18 gauge	40,520	SF	6.00	243,120
Denshield or similar to exterior face of stud backup	40,520	SF	2.50	101,300
Insulation	40,520	SF	7.00	283,640
Air barrier	40,520	SF	3.00	121,560
Drywall lining to interior face of stud backup	40,520	SF	2.50	101,300
Exterior skin - Trespas				
General areas	9,725	SF	55.00	534,875
Exterior skin - terracotta				
General areas	11,345	SF	70.00	794,150
Exterior skin - metal panel				
General areas	7,294	SF	50.00	364,700
Soffits @ building overhang	2,336	SF	30.00	70,080

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Light gauge metal support to soffit	2,336	SF	8.00	18,688
Plywood sheathing at eaves	2,336	SF	3.00	7,008
Insulation at soffit and air barrier	1,984	SF	6.00	11,904
Insulation at parking structure	1	LS	50,000.00	50,000
Miscellaneous				
Relieving angles to brickwork	4,213	LF	20.00	84,260
Staging to exterior wall	70,885	SF	3.00	212,655
Flashing, thru wall, at parapet	1,592	LF	15.00	23,880
Control joints in exterior wall (1#/30LF)	2,537	LF	4.00	10,148
Wood blocking	10,148	LF	3.00	30,444
<i>SUBTOTAL</i>				<i>\$3,063,712</i>

B2020 WINDOWS

Aluminum windows and glazing				
Windows, glazed				
Complete	17,366	SF	68.00	1,180,888
Aluminum curtain wall				
Curtain wall	13,000	SF	90.00	1,170,000
Ancillaries				
Backer rod and double sealant	16,924	LF	4.00	67,696
Wood blocking at openings	16,924	LF	3.00	50,772
<i>SUBTOTAL</i>				<i>\$2,469,356</i>

B2030 EXTERIOR DOORS

Hollow metal doors, frame and hardware				
Single leaf				
Complete	4	EA	1,500.00	6,000
Double leaf				
Complete	9	PR	2,000.00	18,000
Aluminum doors				
Single leaf				
Complete	2	EA	3,500.00	7,000
Double leaf				
Complete	4	PR	6,000.00	24,000
Specialty doors				
Overhead doors	80	SF	65.00	5,200
Miscellaneous				
Paint to door and frame	18	EA	75.00	1,350
Backer rod and double sealant	18	EA	70.00	1,260
Wood blocking at openings	18	EA	70.00	1,260
<i>SUBTOTAL</i>				<i>\$64,070</i>

B3010 ROOF COVERING

Greenroof - sedum	55,996	SF	22.00	1,231,912
Abutment of flat roof with adjacent walls	4,222	LF	8.00	33,776

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Allowance for working membrane roofing around pipe and duct penetrations	1	LS	37,970.64	37,971
Rough blocking	12,666	LF	3.00	37,998
Canopy roofing system				
Metal roofing	150	SF	22.00	3,300
Plywood sheathing	150	SF	3.00	450
Rough blocking	150	SF	0.45	68
Strapping	113	LF	3.00	339
Waterproofing of parking deck	1	LS	80,000.00	80,000
Miscellaneous roofing				
Trim at eaves/fascia to roof - In exterior wall				
Flashings	4,222	LF	10.00	42,220
Edge trim/stop	4,222	LF	14.00	59,108
Parapet coping	4,222	LF	45.00	189,990
Roof pavers	1,000	SF	18.00	18,000
Rail	100	LF	400.00	40,000
SUBTOTAL				\$1,775,131

B3020 ROOF OPENINGS

Skylight system, complete	6,925	SF	130.00	900,250
Roof hatch/ vents	2	LS	2,500.00	5,000
SUBTOTAL				\$905,250

C1010 PARTITIONS

Partitions, drywall				
Standard	68,922	SF	9.70	668,543
Partitions masonry				
8" CMU, reinforced	15,624	SF	18.00	281,232
Window walls and borrowed lights				
Glass partition aluminum	3,600	SF	70.00	252,000
Glass partition - glass	1,900	SF	20.00	38,000
Folding partitions				
Fabric, acoustic	420	SF	60.00	25,200
Column covers				
GWB column covers	290	EA	1,000.00	290,000
Rails and handrails, painted metal				
Rails at access ramps	50	LF	400.00	20,000
Handrails at access ramps	50	LF	60.00	3,000
Rails at area open to below	36	LF	400.00	14,400
Miscellaneous				
Sealants and caulking at partitions	156,298	SF	0.35	54,704
Rough blocking	13,784	LF	3.00	41,352
SUBTOTAL				\$1,688,432

C1020 INTERIOR DOORS

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Hollow metal doors				
Single leaf				
Complete	25	EA	1,600.00	40,000
Double leaf				
Complete	9	PR	2,800.00	25,200
Wood doors				
Single leaf				
Complete	90	EA	1,700.00	153,000
Double leaf				
Complete	10	PR	2,800.00	28,000
Aluminum doors				
Single leaf door				
Complete	4	EA	3,500.00	14,000
Double leaf door				
Complete	4	EA	7,000.00	28,000
Specialty doors				
Coiling doors, complete	100	SF	60.00	6,000
Allowance for miscellaneous access doors	31	EA	400.00	12,400
Miscellaneous				
Paint to door and frame	144	EA	75.00	10,800
Sealants and caulking	144	EA	70.00	10,080
Wood blocking at openings	144	EA	70.00	10,080
<i>SUBTOTAL</i>				\$337,560

C1030 SPECIALTIES

Specialties				
Toilet partitions, handicapped	8	EA	1,200.00	9,600
Toilet partitions, regular	24	EA	1,000.00	24,000
Toilet partitions, urinal screens	8	EA	450.00	3,600
Miscellaneous metal to ceiling supported toilet partitic	14	EA	225.00	3,150
Vanity counters				
Solid surface	72	LF	150.00	10,800
Toilet accessories				
Large toilet	8	RM	2,500.00	20,000
Small toilet	2	RM	1,500.00	3,000
Mop and broom holder	4	EA	100.00	400
Marker boards and tack boards	100	LF	75.00	7,500
Blackboard	564	LF	65.00	36,660
Benches - allowance	20	LF	70.00	1,400
Lockers, single tie allowance	100	EA	200.00	20,000
Lockers, double tie allowance	225	EA	150.00	33,750
Signage/Directories	156,298	SF	0.40	62,519
Corner guards	15	EA	72.00	1,080
Wall guards	60	LF	18.00	1,080
Fire extinguishers and cabinets	45	EA	375.00	16,875
Miscellaneous				
Miscellaneous shelving	4	LS	1,500.00	6,000
Backer panels in electrical closets	4	LS	500.00	2,000
Allowance for miscellaneous metals not identifiable at this stage	156,298	SF	2.00	312,596
Miscellaneous sealants throughout building	156,298	SF	0.35	54,704

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Fitout of parking	1	LS	40,000.00	40,000
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SUBTOTAL **\$670,715**

C2010 STAIR CONSTRUCTION

Feature staircase				
Feature stair	72	RSR	1,500.00	108,000
Handrail to feature staircase	83	LF	60.00	4,980
Rail/balustrade to feature staircase	83	LF	400.00	33,200
Egress/Internal circulation staircases				
Egress staircase, including rails and handrails	7	FLT	16,000.00	112,000
Miscellaneous steps and ladders				
Steps at mechanical room	1	LS	3,000.00	3,000
Steps at loading dock	1	LS	3,000.00	3,000
Steps at stage	2	LS	3,000.00	6,000
Access ladder to roof	1	EA	500.00	500

SUBTOTAL **\$270,680**

C2020 STAIR FINISHES

Stair finishes				
Allowance for feature staircase	72	RSR	300.00	21,600
Paint and sealer to egress staircases	7	FLT	2,500.00	17,500

SUBTOTAL **\$39,100**

C3010 WALL FINISHES

Wall finishes				
Painted CMU	15,624	SF	1.00	15,624
Painted GWB	117,350	SF	0.75	88,013
Ceramic tile	3,264	SF	15.00	48,960
Wood paneling to walls	3,000	SF	45.00	135,000
Paint to wood paneling	3,000	SF	1.00	3,000
Acoustical wood paneling to walls	6,143	SF	45.00	276,435
Wood trim	1,500	LF	18.00	27,000
Paint/Stain to wood trim	1,500	LF	1.00	1,500

SUBTOTAL **\$595,532**

C3020 FLOOR FINISHES

Floors				
Rubber flooring	4,597	SF	9.00	41,373
Linoleum flooring	57,732	SF	7.00	404,124
Terrazzo flooring	37,335	SF	32.00	1,194,720
Vinyl composition tile	395	SF	3.00	1,185
Epoxy flooring	4,025	SF	3.00	12,075
Carpet	2,137	SY	45.00	96,165

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Ceramic tile	4,104	SF	15.00	61,560
Theatrical wood and 3/4" plywood sub-floor	700	SF	20.00	14,000
Concrete sealer	13,190	SF	0.75	9,893
Gym wood flooring	8,345	SF	14.00	116,830
Marble thresholds @ bathrooms	8	EA	60.00	480
Bases to floors				
Allowance	1	LS	195,240.45	195,240

SUBTOTAL **\$2,147,645**

C3030 CEILING FINISHES

Ceiling Finishes				
Drywall ceilings, on light gauge framing support system	3,121	SF	8.00	24,968
Vertical drywall soffits	1,500	LF	20.00	30,000
Acoustical ceiling tile 2' x 2'	17,559	SF	5.50	96,575
Acoustical ceiling tile auditorium	7,007	SF	25.00	175,175
Custom wood ceiling grid 4'x4' in classroom	55,941	SF	12.00	671,292
Exposed structure , paint	2,545	SF	1.00	2,545
Exposed structure , paint for gym	9,469	SF	3.50	33,142
Paint to drywall ceiling	3,121	SF	0.85	2,653

SUBTOTAL **\$1,036,349**

D1010 ELEVATORS AND LIFTS

Passenger elevators				
Passenger elevator, 4 stop	1	EA	135,000.00	135,000
Elevator cab finish	1	EA	10,000.00	10,000
Pit ladders	1	EA	500.00	500
Sill angles	12	LF	25.00	300
Service elevators				
Passenger elevator, 4 stop	1	EA	160,000.00	160,000
Elevator cab finish	1	EA	10,000.00	10,000
Pit ladders	1	EA	500.00	500
Sill angles	12	LF	25.00	300

SUBTOTAL **\$316,600**

D1020 ESCALATORS AND MOVING WALKS

No work anticipated

SUBTOTAL **\$0**

D1030 OTHER CONVEYING SYSTEMS

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

No work anticipated

SUBTOTAL **\$0**

D2010 PLUMBING

Plumbing, complete

Storm water systems	156,298	SF	1.90	296,966
Soil, waste & vent systems including acid waste	156,298	SF	2.00	312,596
Condensate waste	1	LS	18,000.00	18,000
Domestic hot water	156,298	SF	1.80	281,336
Domestic cold water	156,298	SF	2.40	375,115
Grey water system	1	LS	120,000.00	120,000
Natural gas	156,298	SF	0.20	31,260
Sanitary fixtures	156,298	SF	1.65	257,892
Testing, shop drawings, etc.	156,298	SF	0.18	28,134

SUBTOTAL **\$1,721,299**

D3010 HVAC

Hvac

Geothermal system, water to water heat pumps, total 540 tons cooling	540	T	5,500.00	2,970,000
Heating equipment, including boiler and associated treatment systems	6,600	MBH	35.00	231,000
Primary air distribution - roof mounted hvac units, including heat recovery and associated equipment and exhaust systems	30,000	CFM	12.00	360,000
Secondary air distribution equipment - dedicated outdoor air units (19,000 cfm of supply air)	100	UNITS	1,500.00	150,000
Air distribution including ductwork and ancillaries	156,298	SF	6.00	937,788
Water distribution	156,298	SF	5.00	781,490
Building management and control	156,298	SF	6.00	937,788
Testing, commissioning, rigging, shop drawings, etc.	156,298	SF	1.00	156,298

SUBTOTAL **\$6,524,364**

D4010 FIRE PROTECTION

Sprinkler installation
 Complete

156,298	SF	4.50	703,341
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SUBTOTAL **\$703,341**

D5010 ELECTRICAL

Electrical installation

Normal power distribution	156,298	SF	3.00	468,894
Emergency power distribution	156,298	SF	1.40	218,817
Equipment power	156,298	SF	1.85	289,151

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Lighting and control	156,298	SF	8.00	1,250,384
Small power	156,298	SF	2.68	418,879
Fire alarm	156,298	SF	1.60	250,077
Public address and master clock	1	LS	50,000.00	50,000
Tele/Data	156,298	SF	2.16	337,604
Audio/visual rough-in	156,298	SF	0.70	109,409
Security	156,298	SF	1.30	203,187
Lightning protection	156,298	SF	0.50	78,149
Testing, temporary power, shop drawings, etc.	156,298	SF	1.50	234,447
Photovoltaic systems	SEE BELOW THE LINE COSTS			

SUBTOTAL **\$3,908,998**

E1010 COMMERCIAL EQUIPMENT

No work anticipated

SUBTOTAL **\$0**

E1020 INSTITUTIONAL EQUIPMENT

Theater and stage equipment

Stage curtains and all associated miscellaneous
 metals for prop supports

1	LS	75,000.00	75,000
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Audio-visual equipment

Equipment - allowance (from report 5/14/20112)

See below the line costs

SUBTOTAL **\$75,000**

E1030 VEHICULAR EQUIPMENT

Loading dock equipment

Dock leveler and bumpers

1	LS	12,000.00	12,000
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SUBTOTAL **\$12,000**

E1090 OTHER EQUIPMENT

Food service equipment

Complete

1	LS	359,535.00	359,535
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Residential equipment

Refrigerator

3	EA	2,500.00	7,500
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Demonstration cooktop with vent

1	EA	3,500.00	3,500
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Range

1	EA	1,500.00	1,500
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Oven

1	EA	1,000.00	1,000
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Hood

1	EA	450.00	450
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Microwave

3	EA	500.00	1,500
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Athletic equipment

Scoreboard

1	EA	8,000.00	8,000
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Motorized basketball backboard

4	EA	10,000.00	40,000
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Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Fixed basketball backboard	2	EA	6,000.00	12,000
Safety padding	2,160	SF	12.00	25,920
Gym divider net/curtain	1,680	SF	15.00	25,200

SUBTOTAL **\$486,105**

E2010 FIXED FURNISHINGS

Millwork

Classrooms	43	RMS	10,000.00	430,000
Dining	4,627	SF	3.00	13,881
Kitchen	3,077	SF	2.00	6,154
Office		FF&E		
Staff break room	2	EA	3,000.00	6,000
Change/Locker room	2	EA	1,500.00	3,000
Servery	1	EA	15,000.00	15,000
Office/Lunchroom	606	SF	8.00	4,848
General storage	1,504	SF	2.00	3,008
Supply Storage/Receiving	2,204	SF	3.00	6,612
Distributed storage	1	EA	1,000.00	1,000
Lobby	1	EA	15,000.00	15,000
Projection/Control room	1	EA	15,000.00	15,000
Scene & Prop Shop/Storage	1	EA	20,000.00	20,000
Dressing room	1	EA	13,000.00	13,000
Green Room		FF&E		
LS General Music	1,392	SF	5.00	6,960
US chorus & General music	1,266	SF	5.00	6,330
US Band & Orchestra	1	EA	15,000.00	15,000
Instrument Storage	1	EA	3,000.00	3,000
Practice Rooms	1	EA	3,000.00	3,000
Theater Classroom	1	EA	5,000.00	5,000
Vo-Tech Lab	1,000	SF	4.00	4,000
Flexible Instructional Space		FF&E		
Small Group Room		FF&E		
Multimedia Studio	1	LS	25,000.00	25,000
Information/Central Circulation	1	LS	30,000.00	30,000
Workroom/Storage	6	EA	1,500.00	9,000
Office	5	EA	2,500.00	12,500
IT workroom/office	1	EA	2,500.00	2,500
Entry mat				
Entry mat and frame	150	SF	45.00	6,750
Window treatment				
Mecho shades	8,683	SF	15.00	130,245
Seating				
Auditorium seating	450	EA	400.00	180,000
Bleachers - allowance	1	LS	50,000.00	50,000
Library shelving				
Double sided library shelving units - 7 shelves high	300	LF	175.00	52,500
Single sided library shelving - 7 shelves high	250	LF	150.00	37,500
Wood end panels to library shelving	50	EA	500.00	25,000

SUBTOTAL **\$1,156,788**

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

E2020 LOOSE FURNISHINGS

Loose furnishings
 By owner

SUBTOTAL				\$0
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F1010 SPECIAL STRUCTURES

No work anticipated

SUBTOTAL				\$0
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F1020 INTEGRATED CONSTRUCTION

No work anticipated

SUBTOTAL				\$0
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F1030 SPECIAL CONSTRUCTION SYSTEMS AND FACIL

No work anticipated

SUBTOTAL				\$0
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F2010 BUILDING ELEMENTS DEMOLITION

No work anticipated

SUBTOTAL				\$0
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F2020 HAZARDOUS COMPONENTS ABATEMENT

No work anticipated

Excluded

SUBTOTAL				\$0
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G1010 SITE CLEARING AND DEMOLITION

Clearing and grubbing

Allowance for site clearance

3 ACRE

3,000.00

9,998

Site construction fence/barricades

3,000 LF

8.00

24,000

General building demolition

Demolish existing building, including foundations

2,468,410

CF

0.60

1,481,046

Site demolition

Pavement demolition

Bituminous concrete

45,000

SF

1.00

45,000

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Concrete paving	3,960	SF	1.50	5,940
Remove granite or concrete curbs	646	LF	6.00	3,876
Saw cut existing paving	200	LF	5.00	1,000
Miscellaneous site components				
Fencing	1	LS	10,000.00	10,000
Playgrounds	1	LS	10,000.00	10,000
Planter/seat walls	1	LS	20,000.00	20,000
Benches and site ancillaries	1	LS	5,000.00	5,000
Site utilities	1	LS	50,000.00	50,000

SUBTOTAL **\$1,665,860**

G1030 SITE EARTHWORK

Site earthwork				
Strip topsoil, store	1,675	CY	5.00	8,375
Site cut to fill	1,675	CY	5.00	8,375
Site fill	10,000	CY	22.00	220,000
Fine grading	10,050	SY	0.50	5,025

SUBTOTAL **\$241,775**

G1040 HAZARDOUS WASTE REMEDIATION

No work anticipated See below the line costs

SUBTOTAL **\$0**

G2010 ROADWAYS AND PARKING LOTS

Bituminous concrete paving in patches				
Excavation to reduce levels	19	CY	15.00	285
Remove off site	19	CY	18.00	342
Gravel base	19	CY	35.00	665
Bituminous concrete patch	500	SF	4.00	2,000
Bituminous concrete paving				
Excavation to reduce levels	1,176	CY	10.00	11,760
Remove off site	1,176	CY	18.00	21,168
Gravel base	1,176	CY	25.00	29,400
Bituminous concrete	609	T	90.00	54,810
Curbing				
Vertical granite curb	472	LF	35.00	16,520
Pavement markings				
Single solid lines, 4" thick	10	SPCE	30.00	300
Handicap parking hatching	2	LOC	75.00	150
Crosswalk hatching	2	LOC	125.00	250
Road signage	1	EA	500.00	500

SUBTOTAL **\$138,150**

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

G2030 PEDESTRIAN PAVING

Concrete paving				
Excavation to reduce levels	93	CY	10.00	930
Remove off site	93	CY	18.00	1,674
Gravel base	93	CY	25.00	2,325
Concrete paving, ? thick	2,500	SF	5.00	12,500
Pavers				
Excavation to reduce levels	19	CY	10.00	190
Remove off site	19	CY	18.00	342
Gravel base	19	CY	25.00	475
Concrete	500	SF	4.00	2,000
Precast pavers	500	SF	18.00	9,000
Safety surfacing				
Excavation to reduce levels	333	CY	10.00	3,330
Remove off site	333	CY	18.00	5,994
Gravel base	333	CY	25.00	8,325
Bituminous concrete	115	T	90.00	10,350
Safety surfacing - poured in place	9,000	SF	18.00	162,000

SUBTOTAL **\$219,435**

G2040 SITE DEVELOPMENT

Concrete retaining walls				
Footing				
Excavation for footing	104	CY	12.00	1,248
Backfill with selected excavated material	93	CY	8.00	744
Remove off site	11	CY	18.00	198
Formwork to footing	600	SF	12.00	7,200
Concrete in footing	11	CY	161.25	1,774
Wall				
Formwork to wall	2,000	SF	12.00	24,000
Reinforcement in wall	5,000	LB	1.10	5,500
Concrete in wall	49	CY	165.75	8,122
Finishing				
Facing to retaining walls, brick	600	SF	30.00	18,000
Cap to retaining wall, precast	100	LF	45.00	4,500
Foundation drainage	100	LF	14.00	1,400
Fencing				
Chain link fence	300	LF	22.00	6,600
Chain link double gate	1	EA	1,000.00	1,000
Fence at playgrounds	440	LF	150.00	66,000
Ornamental fence at entrance	59	LF	200.00	11,800
Slide gate at entrance	1	EA	20,000.00	20,000
Site furnishings				
Flagpole including base	3	EA	2,500.00	7,500
Bench, 6' length	6	EA	2,000.00	12,000
Trash receptacles	6	EA	600.00	3,600
Playground equipment				
Tot lot	1	LS	25,000.00	25,000
Kindergarden	1	LS	25,000.00	25,000
General	1	LS	50,000.00	50,000

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Basketball court	1	LS	40,000.00	40,000
Bike racks	1	LS	30,000.00	30,000
Tree grates	6	EA	800.00	4,800
Bollards	6	EA	400.00	2,400
Site sign	2	EA	5,000.00	10,000

SUBTOTAL **\$388,386**

G2050 LANDSCAPING

Topsoil/planting medium				
New topsoil	750	CY	40.00	30,000
Trees				
Type ?	30	EA	1,500.00	45,000
Shrubs				
Type ?	50	EA	75.00	3,750
Ground cover				
Type ?	400	EA	20.00	8,000
Grass/lawn				
Seeding to lawn areas	24,000	SF	0.20	4,800

SUBTOTAL **\$91,550**

G3010 MECHANICAL UTILITIES

Water supply				
DI piping	584	LF	50.00	29,200
Water hydrant	1	EA	2,500.00	2,500
Connect to existing	7	EA	2,250.00	15,750
Excavation/trenching	346	CY	12.00	4,152
Bedding	87	CY	25.00	2,175
Backfill	259	CY	18.00	4,662
Sanitary sewer				
Sewer piping	111	LF	28.00	3,108
Manhole	1	EA	4,000.00	4,000
Grease trap	1	EA	2,000.00	2,000
Connect to existing	1	EA	2,500.00	2,500
Excavation/trenching	49	CY	12.00	588
Bedding	12	CY	25.00	300
Backfill	37	CY	18.00	666
Storm drainage				
Piping	280	LF	25.00	7,000
Manhole	1	EA	4,000.00	4,000
Catch basin	2	EA	3,500.00	7,000
Water storage tank and filtration system	1	EA	125,000.00	125,000
Connect to existing	1	EA	2,000.00	2,000
Excavation and trenching	622	CY	12.00	7,464
Bedding	41	CY	25.00	1,025
Backfill	581	CY	18.00	10,458
Underground storm water detention				
Piping, CCP, 48" diameter	500	LF	65.00	32,500
Excavation and trenching	229	CY	12.00	2,748

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Bedding	69	CY	25.00	1,725
Backfill	160	CY	18.00	2,880
Filter fabric	1,425	SF	1.00	1,425
Miscellaneous hardware	1	LS	2,500.00	2,500
Gas distribution				
Gas connection piping		By Utilities Company		
Connect to existing		By Utilities Company		
Excavation/trenching	34	CY	12.00	408
Bedding	4	CY	25.00	100
Backfill	30	CY	18.00	540
SUBTOTAL				\$280,374

G4010 ELECTRICAL UTILITIES AND SITE LIGHTING

Electrical service				
Primary electrical service duct bank	100	LF	60.00	6,000
Secondary electrical service duct bank	50	LF	140.00	7,000
Manhole	1	EA	4,000.00	4,000
Transformer pad	1	EA	1,500.00	1,500
Site lighting				
20' Light poles @ parking lots	5	EA	2,300.00	11,500
12' Light poles @ walkways lots	3	EA	2,500.00	7,500
Pole base	8	EA	500.00	4,000
Circuitry	400	LF	3.00	1,200
Site communication				
Communication service duct bank	100	LF	80.00	8,000
Manhole	1	EA	4,000.00	4,000
SUBTOTAL				\$54,700

G9010 SERVICE AND PEDESTRIAN TUNNELS

No work anticipated

SUBTOTAL **\$0**

G9090 OTHER SITE SYSTEMS

No work anticipated

SUBTOTAL **\$0**

MARKUPS

General conditions and project requirements				
General conditions and requirements	7.50%		40,988,100	3,074,107
Bond and Insurance	1.50%		44,062,207	660,933
Building permit	0.00%		44,723,140	excluded
Overhead and Profit				

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Contractors overhead and profit (Fee)	4.50%		44,723,140	2,012,541
SUBTOTAL				\$5,747,582

CONTINGENCIES/ESCALATION

Contingencies				
Design contingency	12.00%		46,735,682	5,608,282
GMP contingency	3.00%		52,343,963	1,570,319
Escalation				
Escalation to Midpoint (October 2014)	6.10%		53,914,282	3,288,771
SUBTOTAL				\$10,467,372

May 31, 2012

Alicia Caritano
Perkins Eastman
50 Franklin Street
Suite #402
Boston, MA 2110

CITY OF CAMBRIDGE - Martin Luther King Jr. School, Cambridge, MA

Dear Alicia:

Please find enclosed our Construction Cost Estimate for the above referenced project based on Concept Design information dated May 17, 2012.

	Const. Start	Gross Floor	\$/sf	Estimated Cost
Existing Modified	Dec-13	157,960	\$396.73	\$62,667,270
Clover Option	Dec-13	157,425	\$405.43	\$63,825,270
Pi Option	Dec-13	156,298	\$401.35	\$62,730,270

Alternates:

Photovoltaic systems				
Existing modified				\$8,993,500
Clover				\$8,132,750
Pi				\$8,369,000
Parking Structure (New Options)				\$665,000

This estimate includes all direct construction costs, construction manager's overhead and profit and design contingency. Cost escalation assumes start dates indicated above.

Excluded from the estimate are: construction contingency, hazardous waste removal, loose furnishings and equipment, architect's and engineer's fees, moving, administrative and financing costs.

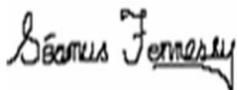
Bidding conditions are expected to reflect one construction manager with competitive bidding for sub-contractors, open specifications for materials and manufactures.

*** Worse case scenario the hazardous material abatement according to the 'Visual' report could be \$5,700,000

The estimate is based on prevailing rates for construction in this market and represents a reasonable opinion of cost. It is not a prediction of the successful bid from a contractor as bids will vary due to fluctuating market conditions, errors and omissions, proprietary specifications, lack or surplus of bidders, perception of risk, etc. Consequently the estimate is expected to fall within the range of bids from a number of competitive contractors or subcontractors, however we do not warrant that bids or negotiated prices will not vary from the final construction cost estimate.

If you have any questions or require further analysis please do not hesitate to contact us.

Sincerely,



Seamus Fennessy MRICS
Associate Director

Davis Langdon 051-01360

Enclosures

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Parking Option	

BASIS OF COST ESTIMATE

<u>Cost Estimate Prepared From</u>	Dated	Received
Drawings issued for		
Feasibility Study	05/14/12	05/14/12
Outline Specification		
Discussions with the Project Architect and Engineers		

Conditions of Construction

The pricing is based on the following general conditions of construction

- A start date of December 2013
- A construction period of 20 months (Occupy September 2015)
- The general contract will be competitively bid to qualified general and main subcontractors
- There will not be small business set aside requirements
- The contractor will be required to pay prevailing wages
- There are no phasing requirements
- The general contractor will have full access to the site during normal business hours

INCLUSIONS

This project in Cambridge, Massachusetts comprises the study of three (3) options for Martin Luther King Jr. School. Existing Modified Option of approximately 157,960 sf, demolish existing building exterior/interior wall to structure. The other two (2) option is a new construction school, Clover Option with approximately 157,425 sf, and Pi Option of approximately 156,298 sf.

Site work includes roadways, parking for 49 vehicles on grade, loading bay, pedestrian walkways, basketball court, structured playgrounds, other hardscape play areas, together with all associated hard and soft landscaping.

The Cost Plan is based on the following conditions:

The costs in this report covers construction costs only calculated at current bidding price level (reflecting the current projected construction schedule) with a separate allowance for cost escalation.

Cost escalation is included to the mid point of the construction schedule. Unit rates in the body of the report include appropriate escalation allowances to deliver specific trades within the prescribed schedule if the project were to commence today.

Cost associated with additional escalation required for future start date are included as a below the line markup. This report has included this additional escalation to the scheduled start date of construction noted in this report.

Bidding Process - Market Conditions

This document is based on the measurement and pricing of quantities wherever information is provided and/or reasonable assumptions for other work not covered in the drawings or specifications, as stated within this document. Unit rates have been obtained from historical records and/or discussion with contractors. The unit rates reflect current bid costs in the area. All unit rates relevant to subcontractor work include the subcontractors overhead and profit unless otherwise stated. The mark-ups cover the costs of field overhead, home office overhead and profit and range from 10% to 20% of the cost for a particular item of work.

Pricing reflects probable construction costs obtainable in the project locality on the date of this statement of probable costs. This estimate is a determination of fair market value for the construction of this project. It is not a prediction of low bid. Pricing assumes competitive bidding for every portion of the construction work for all subcontractors and general contractors, with a minimum of 5 bidders for all items of work. Experience and research indicates that a fewer number of bidders may result in higher bids, conversely an increased number of bidders may result in more competitive bids.

Since Davis Langdon has no control over the cost of labor, material, equipment, or over the contractor's method of determining prices, or over the competitive bidding or market conditions at the time of bid, the statement of probable construction cost is based on industry practice, professional experience and qualifications, and represents Davis Langdon's best judgment as professional construction consultant familiar with the construction industry. However, Davis Langdon cannot and does not guarantee that the proposals, bids, or the construction cost will not vary from opinions of probable cost prepared by them.

EXCLUSIONS

- Owner supplied and installed furniture, fixtures and equipment
- Loose furniture and equipment except as specifically identified
- Security equipment and devices
- Audio visual equipment
- Hazardous material handling, disposal and abatement
- Compression of schedule, premium or shift work, and restrictions on the contractor's working hours
- Design, testing, inspection or construction management fees
- Architectural and design fees
- Scope change and post contract contingencies
- Assessments, taxes, finance, legal and development charges
- Environmental impact mitigation
- Builder's risk, project wrap-up and other owner provided insurance program
- Land and easement acquisition
- Specialty Contractor parking requirements
- Cost escalation beyond a start date of December 2013

OVERALL SUMMARY

		Existing Modified	Clover Option	Pi Option
A10 FOUNDATIONS		\$1,384,000	\$2,646,000	\$2,209,000
A20 BASEMENT CONSTRUCTION		\$0	\$264,000	\$179,000
B10 SUPERSTRUCTURE		\$4,881,000	\$5,117,000	\$5,053,000
B20 EXTERIOR CLOSURE		\$5,621,000	\$4,955,000	\$5,628,000
B30 ROOFING		\$1,987,000	\$3,227,000	\$2,600,000
C10 INTERIOR CONSTRUCTION		\$2,739,000	\$2,919,000	\$2,719,000
C20 STAIRCASES		\$268,000	\$229,000	\$310,000
C30 FINISHES		\$3,935,000	\$3,897,000	\$3,846,000
D10 CONVEYING SYSTEMS		\$317,000	\$317,000	\$317,000
D20 PLUMBING		\$1,738,000	\$1,733,000	\$1,721,000
D30 HVAC		\$6,554,000	\$6,545,000	\$6,524,000
D40 FIRE PROTECTION		\$711,000	\$708,000	\$703,000
D50 ELECTRICAL		\$3,950,000	\$3,937,000	\$3,909,000
E10 EQUIPMENT		\$573,000	\$573,000	\$573,000
E20 FURNISHINGS		\$1,181,000	\$1,155,000	\$1,157,000
F10 SPECIAL CONSTRUCTION		\$0	\$0	\$0
F20 SELECTIVE BUILDING DEMOLITION		\$3,202,000	\$0	\$0
Total Building Construction		\$39,041,000	\$38,222,000	\$37,448,000
G10 SITE PREPARATION		\$506,000	\$2,895,000	\$2,895,000
G20 SITE IMPROVEMENTS		\$790,000	\$849,000	\$838,000
G30 SITE MECHANICAL UTILITIES		\$345,000	\$280,000	\$280,000
G40 SITE ELECTRICAL		\$55,000	\$55,000	\$55,000
G90 OTHER SITE CONSTRUCTION		\$0	\$0	\$0
Total Site Construction		\$1,696,000	\$4,079,000	\$4,068,000
TOTAL BUILDING & SITE		\$40,737,000	\$42,301,000	\$41,516,000
MARKUPS		\$5,883,000	\$6,104,000	\$5,990,000
General conditions and project requirements	10.0%	\$4,073,513	\$4,226,521	\$4,148,187
Bond and Insurance	1.5%	\$672,130	\$697,376	\$684,451
Building Permit		Excluded	excluded	excluded
General contractor's head office overhead and profit	2.5%	\$1,137,019	\$1,179,728	\$1,157,863
SUBTOTAL	May-12	\$46,620,000	\$48,405,000	\$47,506,000
CONTINGENCIES/ESCALATION		\$11,465,000	\$10,838,000	\$10,642,000
Design Contingency	14-12%	\$6,526,492	\$5,804,261	\$5,696,684
GMP Contingency	3.00%	\$1,594,329	\$1,625,193	\$1,595,071
Escalation	6.12%	\$3,343,970	\$3,408,705	\$3,350,299
SUBTOTAL	Dec-13	\$58,085,000	\$59,243,000	\$58,148,000
OTHER COSTS				
Audiovisual systems		\$2,342,270	\$2,342,270	\$2,342,270
Hazardous Material Abatement***		\$2,240,000	\$2,240,000	\$2,240,000
ESTIMATED CONSTRUCTION COST		\$62,667,270	\$63,825,270	\$62,730,270
	GFA	157,960	157,425	156,298
	\$/sf	\$396.73	\$405.43	\$401.35
ALTERNATES				
Photovoltaics		\$8,993,500	\$8,132,750	\$8,369,000
Parking Structure		\$0	\$665,000	\$665,000

*** Worse case scenario the hazardous material abatement according to the "Visual" report could be \$5,700,000

EXISTING MODIFIED - AREAS & CONTROL QUANTITIES

Areas

	SF Existing	SF New	SF Total
Enclosed Areas			
Basement			
Ground	26,999	30,373	57,372
Level 1	32,067	13,374	45,441
Level 2	20,447	12,554	33,001
Level 3	19,324	2,822	22,146
Level 4			
 SUBTOTAL, Enclosed Area	<hr/> 98,837	<hr/> 59,123	
 Covered area			
 SUBTOTAL, Covered Area @ ½ Value		<hr/>	
 TOTAL GROSS FLOOR AREA			<hr/> 157,960

EXISTING MODIFIED - COMPONENT SUMMARY

	Total	\$/sf	GFA 157,960 %
A10 Foundations	\$1,383,643	\$8.76	2.97%
A1010 Foundations	\$740,788	\$4.69	1.59%
A1020 Special Foundations	\$0	\$0.00	0.00%
A1020 Slab on Grade	\$642,855	\$4.07	1.38%
A20 Basement Construction	\$0	\$0.00	0.00%
A2010 Basement Earthwork	\$0	\$0.00	0.00%
A2020 Basement Walls	\$0	\$0.00	0.00%
B10 Superstructure	\$4,881,378	\$30.90	10.47%
B1010 Floor Construction	\$2,873,565	\$18.19	6.16%
B1020 Roof Construction	\$2,007,813	\$12.71	4.31%
B20 Exterior Closure	\$5,620,617	\$35.58	12.06%
B2010 Exterior Walls	\$3,016,341	\$19.10	6.47%
B2020 Windows	\$2,560,111	\$16.21	5.49%
B2030 Exterior Doors	\$44,165	\$0.28	0.09%
B30 Roofing	\$1,986,550	\$12.58	4.26%
B3010 Roof Covering	\$1,479,100	\$9.36	3.17%
B3020 Roof Openings	\$507,450	\$3.21	1.09%
C10 Interior Construction	\$2,738,923	\$17.34	5.88%
C1010 Partitions	\$1,695,466	\$10.73	3.64%
C1020 Interior Doors	\$396,500	\$2.51	0.85%
C1030 Specialties	\$646,957	\$4.10	1.39%
C20 Staircases	\$267,700	\$1.69	0.57%
C2010 Stair Construction	\$223,300	\$1.41	0.48%
C2020 Stair Finishes	\$44,400	\$0.28	0.10%
C30 Finishes	\$3,935,451	\$24.91	8.44%
C3010 Wall Finishes	\$617,309	\$3.91	1.32%
C3020 Floor Finishes	\$2,269,653	\$14.37	4.87%
C3030 Ceiling Finishes	\$1,048,490	\$6.64	2.25%
D10 Conveying Systems	\$316,600	\$2.00	0.68%
D1010 Elevators and Lifts	\$316,600	\$2.00	0.68%
D1020 Escalators and Moving Walkways	\$0	\$0.00	0.00%
D1030 Other Conveying Systems	\$0	\$0.00	0.00%
D20 Plumbing	\$1,738,135	\$11.00	3.73%
D2010 Plumbing Complete	\$1,738,135	\$11.00	3.73%
D30 Heating, Ventilation and Air Conditioning	\$6,554,280	\$41.49	14.06%
D3010 HVAC, Complete	\$6,554,280	\$41.49	14.06%
D40 Fire Protection	\$710,820	\$4.50	1.52%
D4010 Fire Protection, Complete	\$710,820	\$4.50	1.52%
D50 Electrical	\$3,950,032	\$25.01	8.47%
D5010 Electrical, Complete	\$3,950,032	\$25.01	8.47%
E10 Equipment	\$573,105	\$3.63	1.23%
E1010 Commercial Equipment	\$0	\$0.00	0.00%
E1020 Institutional Equipment	\$75,000	\$0.47	0.16%
E1030 Vehicular Equipment	\$12,000	\$0.08	0.03%
E1090 Other Equipment	\$486,105	\$3.08	1.04%
E20 Furnishings	\$1,180,746	\$7.47	2.53%
E2010 Fixed Furnishings	\$1,180,746	\$7.47	2.53%
E2020 Loose Furnishings	\$0	\$0.00	0.00%

EXISTING MODIFIED - COMPONENT SUMMARY

		Total	\$/sf	GFA	157,960
					%
F10 Special Construction		\$0	\$0.00		0.00%
F1010 Special Structures		\$0	\$0.00		0.00%
F1020 Integrated Construction		\$0	\$0.00		0.00%
F1030 Special Construction Systems and Facilities		\$0	\$0.00		0.00%
F20 Selective Building Demolition		\$3,201,605	\$20.27		6.87%
F2010 Building Elements Demolition		\$3,201,605	\$20.27		6.87%
F2020 Hazardous Components Abatement		\$0	\$0.00		0.00%
TOTAL BUILDING CONSTRUCTION		\$39,039,586	\$247.15		83.74%
G10 Site Preparation		\$505,946	\$3.20		1.09%
G1010 Site Clearing and Demolition		\$472,206	\$2.99		1.01%
G1030 Site Earthwork		\$33,740	\$0.21		0.07%
G1040 Hazardous Waste Remediation		\$0	\$0.00		0.00%
G20 Site Improvement		\$789,952	\$5.00		1.69%
G2010 Roadways and Parking Lots		\$120,227	\$0.76		0.26%
G2030 Pedestrian Paving		\$239,109	\$1.51		0.51%
G2040 Site Development		\$357,786	\$2.27		0.77%
G2050 Landscaping		\$72,830	\$0.46		0.16%
G30 Site Mechanical		\$344,951	\$2.18		0.74%
G3010 Mechanical Utilities		\$344,951	\$2.18		0.74%
G40 Site Electrical		\$54,700	\$0.35		0.12%
G4010 Electrical Utilities and Site Lighting		\$54,700	\$0.35		0.12%
G90 Other Site Construction		\$0	\$0.00		0.00%
G9010 Service and Pedestrian Tunnels		\$0	\$0.00		0.00%
G9090 Other Site Systems		\$0	\$0.00		0.00%
Total Site Construction		\$1,695,549	\$10.73		3.64%
TOTAL BUILDING & SITE		\$40,735,134	\$257.88		87.38%
Markups		\$5,882,663	\$37.24		12.62%
General Conditions					
General conditions and project requirements	10.0%	\$4,073,513	\$25.79		8.74%
Bond and Insurance	1.5%	\$672,130	\$4.26		1.44%
Building Permit	1.0%	Excluded			
Overhead and profit					
General contractor's head office overhead and profit	2.5%	\$1,137,019	\$7.20		2.44%
PLANNED CONSTRUCTION COST	May-12	\$46,617,797	\$295.12		100.00%
Contingencies/Escalation		\$11,464,790	\$72.58		
Contingencies					
Design and Pricing Contingency	14.0%	\$6,526,492	\$41.32		
GMP Contingency	3.0%	\$1,594,329	\$10.09		
Escalation					
Escalation to Midpoint (October 2014)	6.1%	\$3,343,970	\$21.17		
ESTIMATED CONTRACT AWARD	Dec-13	\$58,082,587	\$367.70		

Description	Quantity	Unit	Rate	Total
<u>EXISTING MODIFIED - ESTIMATE DETAIL</u>				
<u>A1010 FOUNDATIONS</u>				
Strip footings at exterior				
Excavation	1,653	CY	12.00	19,836
Remove off site	1,653	CY	18.00	29,754
Backfill with gravel	1,550	CY	28.00	43,400
Formwork	2,230	SF	12.00	26,760
Reinforcement	9,270	LB	1.10	10,197
Concrete	103	CY	161.25	16,609
Strip footings at interior				
Excavation	150	CY	12.00	1,800
Remove off site	150	CY	18.00	2,700
Backfill with gravel	108	CY	28.00	3,024
Formwork	900	SF	12.00	10,800
Reinforcement	3,780	LB	1.10	4,158
Concrete	42	CY	161.25	6,773
Strip footings at elevation changes				
Excavation	47	CY	12.00	564
Remove off site	47	CY	18.00	846
Backfill with gravel	34	CY	28.00	952
Formwork	280	SF	12.00	3,360
Reinforcement	1,170	LB	1.10	1,287
Concrete	13	CY	161.25	2,096
Column footings at exterior				
Excavation	1,582	CY	12.00	18,984
Remove excavated material off site	1,582	CY	18.00	28,476
Backfill with gravel	1,314	CY	28.00	36,792
Formwork	3,216	SF	12.00	38,592
Reinforcement	30,750	LB	1.10	33,825
Concrete	268	CY	161.25	43,215
Column footings at interior				
Excavation	668	CY	12.00	8,016
Remove excavated material off site	668	CY	18.00	12,024
Backfill with gravel	383	CY	28.00	10,724
Formwork	2,564	SF	12.00	30,768
Reinforcement	34,000	LB	1.10	37,400
Concrete	285	CY	161.25	45,956
Foundation walls				
Formwork	6,059	SF	12.00	72,708
Reinforcement	12,118	LB	1.10	13,330
Concrete	149	CY	165.75	24,697
Waterproofing, mastic	3,030	SF	2.00	6,060
Insulation	3,030	SF	1.25	3,788
Walls at elevation change				
Formwork	1,400	SF	12.00	16,800
Reinforcement	2,800	LB	1.10	3,080
Concrete	26	CY	165.75	4,310
Waterproofing, mastic	3,030	SF	1.50	4,545
Insulation	3,030	SF	1.25	3,788
Miscellaneous				
Allowance for piers/pilasters	61	EA	500.00	30,500
Set base plates	61	EA	40.00	2,440

Description	Quantity	Unit	Rate	Total
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EXISTING MODIFIED - ESTIMATE DETAIL

Miscellaneous concrete costs - premium for pump grade concrete mix and pump	947	CY	17.50	16,573
Perimeter foundation drainage, including gravel and f	606	LF	14.00	8,484

<i>SUBTOTAL</i>				\$740,788
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A1020 SPECIAL FOUNDATIONS

No work anticipated

<i>SUBTOTAL</i>				\$0
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A1030 SLAB ON GRADE

Standard slab on grade				
Gravel fill	1,192	CY	28.00	33,376
Rigid insulation under slab on grade	96,528	SF	2.00	193,056
Vapor barrier	32,176	SF	0.60	19,306
Mesh reinforcing 15% lap	37,002	SF	0.75	27,752
Concrete in slab, complete	501	CY	156.75	78,532
Finishing and curing	32,176	SF	0.38	12,227
Control and construction joints	32,176	SF	0.45	14,479
Isolation joints at columns	160	LF	3.00	480
Perimeter joints	1,297	LF	2.00	2,594
Standard slab on grade - patching in existing building				
Gravel fill	19	CY	28.00	532
Rigid insulation under slab on grade		SF	2.00	
Vapor barrier	500	SF	0.60	300
Mesh reinforcing 15% lap	575	SF	0.75	431
Dowel to existing	500	EA	35.00	17,500
Concrete in slab, complete	8	CY	156.75	1,254
Finishing and curing	500	SF	0.38	190
Control and construction joints	500	SF	0.45	225
Slab on grade, at loading dock				
Gravel fill	11	CY	28.00	308
Vapor barrier	300	SF	0.35	105
Mesh reinforcing 15% lap	345	SF	0.75	259
Concrete in slab, complete	5	CY	156.75	784
Finishing and curing	300	SF	0.38	114
Control and construction joints	300	SF	0.45	135
Elevator pits				
Excavation	73	CY	12.00	876
Remove excavated material off site	73	CY	18.00	1,314
Backfill with gravel	33	CY	28.00	924
Formwork to slab edge	108	SF	12.00	1,296
Reinforcement in slab	810	LB	1.10	891
Concrete in slab	9	CY	161.25	1,451
Formwork to pit walls	360	SF	12.00	4,320
Reinforcement	900	LB	1.10	990
Concrete in pit walls	13	CY	165.75	2,155
Cementitious waterproofing to elevator pit	522	SF	12.00	6,264

Description	Quantity	Unit	Rate	Total
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EXISTING MODIFIED - ESTIMATE DETAIL

Miscellaneous

Miscellaneous concrete costs - premium for pump grade concrete mix and pump	536	CY	17.50	9,380
Barrier one in concrete mix	32,676	SF	2.00	65,352
Repair to existing concrete slab	1	LS	15,000.00	15,000
Below slab drainage	32,176	SF	4.00	128,704

SUBTOTAL				\$642,855
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A2010 BASEMENT EARTHWORK

No work anticipated

SUBTOTAL				\$0
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A2020 BASEMENT WALLS

No work anticipated

SUBTOTAL				\$0
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B1010 FLOOR CONSTRUCTION

Steel construction

Columns				
W section	56	T	3,200.00	179,200
Shear/brace frames				
Tube/pipe	12	T	3,600.00	43,200
Floor framing				
W sections	205	T	3,200.00	656,000
Shear studs	7,470	EA	3.00	22,410
Bent plate in pour stop	1,105	LF	12.00	13,260

Metal decking

Metal decking, standard	26,947	SF	2.85	76,799
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Concrete construction

Concrete topping to floors				
Mesh reinforcing 15% lap	30,989	SF	0.75	23,242
Concrete topping	419	CY	156.75	65,678
Finishing and curing	26,947	SF	0.38	10,240
Control and construction joints	26,947	SF	0.45	12,126
Miscellaneous concrete costs				
Premium for pump grade concrete mix and pump	419	CY	17.50	7,333
Barrier one in concrete mix	26,947	SF	2.00	53,894

Masonry wall - load bearing

Included in Partitions

Miscellaneous

Fireproofing steel	26,947	SF	2.00	53,894
Fire stopping	157,960	SF	0.25	39,490
Equipment pads	300	SF	15.00	4,500

Description	Quantity	Unit	Rate	Total
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EXISTING MODIFIED - ESTIMATE DETAIL

Seismic joints	150	LF	18.00	2,700
Repair to existing concrete floor	1	LS	30,000.00	30,000
Seismic upgrade to existing building	157,960	SF	10.00	1,579,600

SUBTOTAL **\$2,873,565**

B1020 ROOF CONSTRUCTION

Steel construction				
Columns				
W section	91	T	3,200.00	291,200
Shear/brace frames				
Tube/pipe	30	T	3,600.00	108,000
Steel members in roof framing				
W sections	335	T	3,200.00	1,072,000
Metal decking				
Metal decking, standard	60,834	SF	2.85	173,377
Concrete construction				
Concrete topping to roof				
Mesh reinforcing 15% lap	34,980	SF	0.75	26,235
Concrete topping	946	CY	156.75	148,286
Finishing and curing	60,834	SF	0.38	23,117
Control and construction joints	60,834	SF	0.45	27,375
Miscellaneous concrete costs				
Premium for pump grade concrete mix and pump	946	CY	17.50	16,555
Masonry wall - load bearing				
Included in partitions				
Miscellaneous				
Fireproofing steel	60,834	SF	2.00	121,668

SUBTOTAL **\$2,007,813**

B2010 EXTERIOR WALL

Interior backup - metal stud				
Metal stud framing 6" x 18 gauge	43,411	SF	8.00	347,288
Denshield or similar to exterior face of stud backup	43,411	SF	2.50	108,528
Insulation	43,411	SF	7.00	303,877
Air barrier	43,411	SF	3.00	130,233
Drywall lining to interior face of stud backup	43,411	SF	2.50	108,528
Exterior skin -Trespa				
General areas	10,419	SF	55.00	573,045
Exterior skin - Terracotta				
General areas	12,155	SF	70.00	850,850
Exterior skin - metal panel				
General areas	7,814	SF	50.00	390,700
Soffits @ building overhang	1,405	SF	35.00	49,175
Light gauge metal support to soffit	1,405	SF	8.00	11,240
Plywood sheathing at eaves	1,405	SF	3.00	4,215
Insulation at soffit and air barrier	1,405	SF	6.00	8,430

Description	Quantity	Unit	Rate	Total
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EXISTING MODIFIED - ESTIMATE DETAIL

Miscellaneous				
Staging to exterior wall	43,411	SF	3.00	130,233
<i>SUBTOTAL</i>				\$3,016,341

B2020 WINDOWS

Aluminum windows and glazing				
Windows, glazed				
Complete	18,605	SF	68.00	1,265,140
Aluminum curtain wall				
Curtain wall	13,000	SF	90.00	1,170,000
Ancillaries				
Backer rod and double sealant	17,853	LF	4.00	71,412
Wood blocking at openings	17,853	LF	3.00	53,559
<i>SUBTOTAL</i>				\$2,560,111

B2030 EXTERIOR DOORS

Hollow metal doors, frame and hardware				
Single leaf				
Complete	6	EA	1,500.00	9,000
Double leaf				
Complete	3	PR	2,000.00	6,000
Aluminum doors				
Single leaf				
Complete	2	EA	3,500.00	7,000
Double leaf				
Complete	2	PR	6,000.00	12,000
Specialty doors				
Overhead doors	120	SF	65.00	7,800
Miscellaneous				
Paint to door and frame	11	EA	75.00	825
Backer rod and double sealant	11	EA	70.00	770
Wood blocking at openings	11	EA	70.00	770
<i>SUBTOTAL</i>				\$44,165

B3010 ROOF COVERING

Greenroof - sedum	56,969	SF	22.00	1,253,318
Abutment of flat roof with adjacent walls	5,792	LF	8.00	46,336
Allowance for working membrane roofing around				
pipe and duct penetrations	1	LS	38,989.62	38,990
Rough blocking	6,210	LF	3.00	18,630
Canopy roofing system				
Metal roofing	150	SF	22.00	3,300
Plywood sheathing	150	SF	3.00	450
Rough blocking	150	SF	0.45	68
Strapping	113	LF	3.00	339

Description	Quantity	Unit	Rate	Total
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EXISTING MODIFIED - ESTIMATE DETAIL

Miscellaneous roofing

Trim at eaves/fascia to roof - In exterior wall

Edge trim/stop	1,080	LF	14.00	15,120
Parapet coping	990	LF	45.00	44,550
Roof pavers	1,000	SF	18.00	18,000
Rail	100	LF	400.00	40,000

SUBTOTAL **\$1,479,100**

B3020 ROOF OPENINGS

Skylight system, complete

3,865 SF 130.00 502,450

Roof hatch/ vents

2 LS 2,500.00 5,000

SUBTOTAL **\$507,450**

C1010 PARTITIONS

Partitions, drywall

Standard 73,554 SF 9.70 713,474

Partitions masonry

8" CMU, reinforced 16,210 SF 22.00 356,620

Window walls and borrowed lights

Glass partition framing, aluminum framed 3,600 SF 70.00 252,000

Folding partitions

Fabric, acoustic 840 SF 60.00 50,400

Column covers

GWB column covers 183 EA 1,000.00 183,000

Rails and handrails, painted metal

Rails at access ramps 50 LF 400.00 20,000

Handrails at access ramps 50 LF 60.00 3,000

Rails at area open to below 36 LF 400.00 14,400

Miscellaneous

Sealants and caulking at partitions 157,960 SF 0.35 55,286

Rough blocking 15,762 LF 3.00 47,286

SUBTOTAL **\$1,695,466**

C1020 INTERIOR DOORS

Hollow metal doors

Single leaf Complete 30 EA 1,600.00 48,000

Double leaf Complete 50 PR 2,800.00 140,000

Wood doors

Single leaf Complete 60 EA 1,700.00 102,000

Double leaf Complete 10 PR 2,800.00 28,000

Description	Quantity	Unit	Rate	Total
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EXISTING MODIFIED - ESTIMATE DETAIL

Aluminum doors				
Single leaf door				
Complete	2	EA	3,500.00	7,000
Double leaf door				
Complete	2	EA	7,000.00	14,000
Specialty doors				
Coiling doors, complete	100	SF	60.00	6,000
Allowance for miscellaneous access doors	32	EA	400.00	12,800
Miscellaneous				
Paint to door and frame	180	EA	75.00	13,500
Sealants and caulking	180	EA	70.00	12,600
Wood blocking at openings	180	EA	70.00	12,600
SUBTOTAL				\$396,500

C1030 SPECIALTIES

Specialties				
Toilet partitions, handicapped	10	EA	1,200.00	12,000
Toilet partitions, regular	24	EA	1,000.00	24,000
Toilet partitions, urinal screens	6	EA	450.00	2,700
Miscellaneous metal to ceiling supported toilet partitions	34	EA	225.00	7,650
Vanity counters				
Solid surface	144	LF	150.00	21,600
Toilet accessories				
Large toilet	8	RM	2,500.00	20,000
Small toilet	2	RM	1,500.00	3,000
Mop and broom holder	4	EA	100.00	400
Marker boards and tack boards -allowance	120	LF	75.00	9,000
Blackboard - allowance	564	LF	65.00	36,660
Benches - allowance	20	LF	70.00	1,400
Lockers, single tier- allowance	50	EA	200.00	10,000
Lockers, double tier- allowance	225	EA	150.00	33,750
Signage/Directories	157,960	SF	0.40	63,184
Corner guards	6	EA	72.00	432
Wall guards	200	LF	18.00	3,600
Fire extinguishers and cabinets	45	EA	375.00	16,875
Miscellaneous				
Miscellaneous shelving	5	LS	1,500.00	7,500
Backer panels in electrical closets	4	LS	500.00	2,000
Allowance for miscellaneous metals not identifiable at this stage	157,960	SF	2.00	315,920
Miscellaneous sealants throughout building	157,960	SF	0.35	55,286
SUBTOTAL				\$646,957

C2010 STAIR CONSTRUCTION

Feature staircase				
Feature stair	73	RSR	1,500.00	109,500
Handrail to feature staircase	80	LF	60.00	4,800

Description	Quantity	Unit	Rate	Total
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EXISTING MODIFIED - ESTIMATE DETAIL

Rail/balustrade to feature staircase	80	LF	400.00	32,000
Egress/Internal circulation staircases				
Egress staircase, including rails and handrails	4	FLT	16,000.00	64,000
Miscellaneous steps and ladders				
Steps at mechanical room	1	LS	3,000.00	3,000
Steps at loading dock	1	LS	3,000.00	3,000
Steps at stage	2	LS	3,000.00	6,000
Access ladder to roof	2	EA	500.00	1,000

SUBTOTAL **\$223,300**

C2020 STAIR FINISHES

Stair finishes				
Allowance to feature staircase	73	RSR	300.00	21,900
Paint and sealer to egress staircases	9	FLT	2,500.00	22,500

SUBTOTAL **\$44,400**

C3010 WALL FINISHES

Wall finishes				
Painted CMU	32,420	SF	1.00	32,420
Painted GWB	125,432	SF	0.75	94,074
Ceramic tile	3,288	SF	15.00	49,320
Acoustical wood paneling to walls	6,111	SF	45.00	274,995
Wood panels	3,000	SF	45.00	135,000
Paint/Stain to wood	3,000	SF	1.00	3,000
Wood trim	1,500	LF	18.00	27,000
Paint/Stain to wood trim	1,500	LF	1.00	1,500

SUBTOTAL **\$617,309**

C3020 FLOOR FINISHES

Floors				
Rubber flooring	4,597	SF	9.00	41,373
Linoleum flooring	57,732	SF	8.00	461,856
Terrazzo flooring	38,997	SF	32.00	1,247,904
Vinyl composition tile	395	SF	3.00	1,185
Epoxy flooring	4,025	SF	3.00	12,075
Carpet	2,137	SY	45.00	96,165
Ceramic tile	4,104	SF	15.00	61,560
Theatrical wood and 3/4" plywood sub-floor	700	SF	20.00	14,000
Concrete sealer	13,190	SF	0.75	9,893
Gym wood flooring	8,345	SF	14.00	116,830
Marble thresholds @ bathrooms	8	EA	60.00	480

Description	Quantity	Unit	Rate	Total
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EXISTING MODIFIED - ESTIMATE DETAIL

Bases to floors Allowance	1	LS	206,332.05	206,332
<i>SUBTOTAL</i>				\$2,269,653

C3030 CEILING FINISHES

Ceiling Finishes				
Drywall ceilings, on light gauge framing support system	3,121	SF	8.00	24,968
Vertical drywall soffits	1,500	LF	22.00	33,000
Acoustical ceiling tile 2' x 2'	19,221	SF	5.50	105,716
Acoustical ceiling tile auditorium	7,007	SF	25.00	175,175
Custom wood ceiling grid 4'x4' in classroom	55,941	SF	12.00	671,292
Exposed structure , paint	2,545	SF	1.00	2,545
Exposed structure , paint for gym	9,469	SF	3.50	33,142
Paint to drywall ceiling	3,121	SF	0.85	2,653
<i>SUBTOTAL</i>				\$1,048,490

D1010 ELEVATORS AND LIFTS

Passenger elevators				
Passenger elevator, 4 stop	1	EA	135,000.00	135,000
Elevator cab finish	1	EA	10,000.00	10,000
Pit ladders	1	EA	500.00	500
Sill angles	12	LF	25.00	300
Service elevators				
Passenger elevator, 4 stop	1	EA	160,000.00	160,000
Elevator cab finish	1	EA	10,000.00	10,000
Pit ladders	1	EA	500.00	500
Sill angles	12	LF	25.00	300
<i>SUBTOTAL</i>				\$316,600

D1020 ESCALATORS AND MOVING WALKS

No work anticipated				
<i>SUBTOTAL</i>				\$0

D1030 OTHER CONVEYING SYSTEMS

No work anticipated				
<i>SUBTOTAL</i>				\$0

Description	Quantity	Unit	Rate	Total
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EXISTING MODIFIED - ESTIMATE DETAIL

D2010 PLUMBING

Plumbing, complete				
Storm water systems	157,960	SF	1.90	300,124
Soil, waste & vent systems including acid waste	157,960	SF	2.00	315,920
Condensate waste	1	LS	18,000.00	18,000
Domestic hot water	157,960	SF	1.80	284,328
Domestic cold water	157,960	SF	2.40	379,104
Grey water system	1	LS	120,000.00	120,000
Natural gas	157,960	SF	0.20	31,592
Sanitary fixtures	157,960	SF	1.65	260,634
Testing, shop drawings, etc.	157,960	SF	0.18	28,433

SUBTOTAL **\$1,738,135**

D3010 HVAC

Hvac				
Geothermal system, water to water heat pumps, total 540 tons cooling	540	T	5,500.00	2,970,000
Heating equipment, including boiler and associated treatment systems	6,600	MBH	35.00	231,000
Primary air distribution - roof mounted hvac units, including heat recovery and associated equipment and exhaust systems	30,000	CFM	12.00	360,000
Secondary air distribution equipment - dedicated outdoor air units (19,000 cfm of supply air)	100	UNITS	1,500.00	150,000
Air distribution including ductwork and ancillaries	157,960	SF	6.00	947,760
Water distribution	157,960	SF	5.00	789,800
Building management and control	157,960	SF	6.00	947,760
Testing, commissioning, rigging, shop drawings, etc.	157,960	SF	1.00	157,960

SUBTOTAL **\$6,554,280**

D4010 FIRE PROTECTION

Sprinkler installation Complete	157,960	SF	4.50	710,820
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SUBTOTAL **\$710,820**

D5010 ELECTRICAL

Electrical installation				
Normal power distribution	157,960	SF	3.00	473,880
Emergency power distribution	157,960	SF	1.40	221,144
Equipment power	157,960	SF	1.85	292,226
Lighting and control	157,960	SF	8.00	1,263,680
Small power	157,960	SF	2.68	423,333
Fire alarm	157,960	SF	1.60	252,736
Public address and master clock	1	LS	50,000.00	50,000

Description	Quantity	Unit	Rate	Total
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EXISTING MODIFIED - ESTIMATE DETAIL

Tele/Data	157,960	SF	2.16	341,194
Audio/visual rough-in	157,960	SF	0.70	110,572
Security	157,960	SF	1.30	205,348
Lightning protection	157,960	SF	0.50	78,980
Testing, temporary power, shop drawings, etc.	157,960	SF	1.50	236,940
Photovoltaic systems	SEE BELOW THE LINE COSTS			

SUBTOTAL				\$3,950,032
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E1010 COMMERCIAL EQUIPMENT

No work anticipated

SUBTOTAL				\$0
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E1020 INSTITUTIONAL EQUIPMENT

Theater and stage equipment				
Stage curtains and all associated miscellaneous metals for prop supports	1	LS	75,000.00	75,000
Audio-visual equipment				
Equipment - allowance (from report 5/14/20112)			See below the line costs	

SUBTOTAL				\$75,000
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E1030 VEHICULAR EQUIPMENT

Loading dock equipment				
Dock leveler and bumpers	1	LS	12,000.00	12,000

SUBTOTAL				\$12,000
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E1090 OTHER EQUIPMENT

Food service equipment				
Complete	1	LS	359,535.00	359,535
Residential equipment				
Refrigerator	3	EA	2,500.00	7,500
Demonstration cooktop with vent	1	EA	3,500.00	3,500
Range	1	EA	1,500.00	1,500
Oven	1	EA	1,000.00	1,000
Hood	1	EA	450.00	450
Microwave	3	EA	500.00	1,500
Athletic equipment				
Scoreboard	1	EA	8,000.00	8,000
Motorized basketball backboard	4	EA	10,000.00	40,000
Fixed basketball backboard	2	EA	6,000.00	12,000

Description	Quantity	Unit	Rate	Total
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EXISTING MODIFIED - ESTIMATE DETAIL

Safety padding	2,160	SF	12.00	25,920
Gym divider net/curtain	1,680	SF	15.00	25,200

SUBTOTAL **\$486,105**

E2010 FIXED FURNISHINGS

Millwork

Classrooms	43	RMS	10,000.00	430,000
Dining	4,627	SF	3.00	13,881
Kitchen	3,077	SF	2.00	6,154
Office		FF&E		
Staff break room	2	EA	3,000.00	6,000
Change/Locker room	2	EA	1,500.00	3,000
Servery	1	EA	15,000.00	15,000
Food lab	2,443	SF	6.00	14,658
Office/Lunchroom	606	SF	8.00	4,848
General storage	1,504	SF	2.00	3,008
Supply Storage/Receiving	2,204	SF	3.00	6,612
Distributed storage	1	EA	1,000.00	1,000
Lobby	1	EA	15,000.00	15,000
Projection/Control room	1	EA	15,000.00	15,000
Scene & Prop Shop/Storage	1	EA	20,000.00	20,000
Dressing room	1	EA	13,000.00	13,000
Green Room		FF&E		
LS General Music	1,392	SF	5.00	6,960
US chorus & General music	1,266	SF	5.00	6,330
US Band & Orchestra	1	EA	15,000.00	15,000
Instrument Storage	1	EA	3,000.00	3,000
Practice Rooms	1	EA	3,000.00	3,000
Theater Classroom	1	EA	5,000.00	5,000
Vo-Tech Lab	1,000	SF	4.00	4,000
Flexible Instructional Space		FF&E		
Small Group Room		FF&E		
Multimedia Studio	1	LS	25,000.00	25,000
Information/Central Circulation	1	LS	30,000.00	30,000
Workroom/Storage	6	EA	1,500.00	9,000
Office	5	EA	2,500.00	12,500
IT workroom/office	1	EA	2,500.00	2,500
Entry mat				
Entry mat and frame	150	SF	45.00	6,750
Window treatment				
Mecho shades	9,303	SF	15.00	139,545
Seating				
Auditorium seating	450	EA	400.00	180,000
Bleachers - allowance	1	LS	50,000.00	50,000
Library shelving				
Double sided library shelving units - 7 shelves high	300	LF	175.00	52,500
Single sided library shelving - 7 shelves high	250	LF	150.00	37,500
Wood end panels to library shelving	50	EA	500.00	25,000

SUBTOTAL **\$1,180,746**

Description	Quantity	Unit	Rate	Total
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EXISTING MODIFIED - ESTIMATE DETAIL

E2020 LOOSE FURNISHINGS

Loose furnishings
 By owner

SUBTOTAL				\$0
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F1010 SPECIAL STRUCTURES

No work anticipated

SUBTOTAL				\$0
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F1020 INTEGRATED CONSTRUCTION

No work anticipated

SUBTOTAL				\$0
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F1030 SPECIAL CONSTRUCTION SYSTEMS AND FACIL

No work anticipated

SUBTOTAL				\$0
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F2010 BUILDING ELEMENTS DEMOLITION

Interior demolition				
Remove partitions and doors	96,598	SF GFA	3.00	289,794
Remove floor and ceiling finishes	96,598	SF GFA	2.00	193,196
Remove casework and specialties	96,598	SF GFA	1.00	96,598
Remove MEP systems	96,598	SF GFA	4.00	386,392
Roof demolition				
Remove membrane roofing	24,010	SF	2.50	60,025
Exterior demolition				
Remove exterior façade to structure	64,622	SF	30.00	1,938,660
Structural demolition				
Allowance	157,960	SF	1.50	236,940

SUBTOTAL				\$3,201,605
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F2020 HAZARDOUS COMPONENTS ABATEMENT

No work anticipated

See below the line costs

SUBTOTAL				\$0
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Description	Quantity	Unit	Rate	Total
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EXISTING MODIFIED - ESTIMATE DETAIL

G1010 SITE CLEARING AND DEMOLITION

Clearing and grubbing				
Allowance for site clearance	3	ACRE	3,000.00	9,998
Site construction fence/barricades	3,000	LF	8.00	24,000
General building demolition				
Demolish existing building, including foundations	287,392	CF	1.00	287,392
Site demolition				
Pavement demolition				
Bituminous concrete	45,000	SF	1.00	45,000
Concrete paving	3,960	SF	1.50	5,940
Remove granite or concrete curbs	646	LF	6.00	3,876
Saw cut existing paving	200	LF	5.00	1,000
Miscellaneous site components				
Fencing	1	LS	10,000.00	10,000
Playgrounds	1	LS	10,000.00	10,000
Planter/seat walls	1	LS	20,000.00	20,000
Benches and site ancillaries	1	LS	5,000.00	5,000
Site utilities	1	LS	50,000.00	50,000

SUBTOTAL **\$472,206**

G1030 SITE EARTHWORK

Site earthwork				
Strip topsoil, store	1,687	CY	10.00	16,870
Site cut to fill	1,687	CY	7.00	11,809
Fine grading	10,122	SY	0.50	5,061

SUBTOTAL **\$33,740**

G1040 HAZARDOUS WASTE REMEDIATION

No work anticipated

SUBTOTAL **\$0**

G2010 ROADWAYS AND PARKING LOTS

Bituminous concrete paving in patches				
Excavation to reduce levels	19	CY	15.00	285
Remove off site	19	CY	18.00	342
Gravel base	19	CY	35.00	665
Bituminous concrete patch	500	SF	4.00	2,000
Bituminous concrete paving				
Excavation to reduce levels	995	CY	10.00	9,950
Remove off site	995	CY	18.00	17,910
Gravel base	995	CY	25.00	24,875
Bituminous concrete	515	T	90.00	46,350

Description	Quantity	Unit	Rate	Total
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EXISTING MODIFIED - ESTIMATE DETAIL

Curbing				
Vertical granite curb	450	LF	35.00	15,750
Pavement markings				
Single solid lines, 4" thick	40	SPCE	30.00	1,200
Handicap parking hatching	2	LOC	75.00	150
Crosswalk hatching	2	LOC	125.00	250
Road signage	1	EA	500.00	500

<i>SUBTOTAL</i>				\$120,227
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G2030 PEDESTRIAN PAVING

Concrete paving				
Excavation to reduce levels	116	CY	10.00	1,160
Remove off site	116	CY	18.00	2,088
Gravel base	116	CY	25.00	2,900
Concrete paving, ? thick	3,134	SF	5.00	15,670
Bituminous concrete paving				
Excavation to reduce levels	74	CY	10.00	740
Remove off site	74	CY	18.00	1,332
Gravel base	74	CY	25.00	1,850
Bituminous concrete	38	T	110.00	4,180
Pavers				
Excavation to reduce levels	30	CY	10.00	300
Remove off site	30	CY	18.00	540
Gravel base	30	CY	25.00	750
Concrete	800	SF	4.00	3,200
Precast pavers	800	SF	18.00	14,400
Safety surfacing				
Excavation to reduce levels	333	CY	10.00	3,330
Remove off site	333	CY	18.00	5,994
Gravel base	333	CY	25.00	8,325
Bituminous concrete	115	T	90.00	10,350
Safety surfacing - poured in place	9,000	SF	18.00	162,000

<i>SUBTOTAL</i>				\$239,109
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G2040 SITE DEVELOPMENT

Fencing				
Chain link fence	500	LF	22.00	11,000
Chain link double gate	1	EA	1,000.00	1,000
Fence at playgrounds	440	LF	150.00	66,000
Concrete retaining walls				
Footing				
Excavation for footing	104	CY	12.00	1,248
Backfill with selected excavated material	93	CY	8.00	744
Remove off site	11	CY	18.00	198
Formwork to footing	600	SF	12.00	7,200
Concrete in footing	11	CY	161.25	1,774

Description	Quantity	Unit	Rate	Total
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EXISTING MODIFIED - ESTIMATE DETAIL

Manhole	1	EA	4,000.00	4,000
Grease trap	1	EA	2,000.00	2,000
Connect to existing	1	EA	2,500.00	2,500
Excavation/trenching	76	CY	12.00	912
Bedding	19	CY	25.00	475
Backfill	57	CY	18.00	1,026
Storm drainage				
Piping	580	LF	25.00	14,500
Manhole	4	EA	4,000.00	16,000
Catch basin	5	EA	3,500.00	17,500
Water storage tank and filtration system	1	EA	125,000.00	125,000
Connect to existing	2	EA	2,000.00	4,000
Excavation and trenching	1,289	CY	12.00	15,468
Bedding	86	CY	25.00	2,150
Backfill	1,203	CY	18.00	21,654
Underground storm water detention				
Piping, CCP, 48" diameter	400	LF	65.00	26,000
Excavation and trenching	347	CY	12.00	4,164
Bedding	104	CY	25.00	2,600
Backfill	243	CY	18.00	4,374
Filter fabric	2,153	SF	1.00	2,153
Miscellaneous hardware	1	LS	2,500.00	2,500
Gas distribution				
Gas connection piping		By Utilities Company		
Connect to existing		By Utilities Company		
Excavation/trenching	45	CY	12.00	540
Bedding	5	CY	25.00	125
Backfill	40	CY	18.00	720

SUBTOTAL **\$344,951**

G4010 ELECTRICAL UTILITIES AND SITE LIGHTING

Electrical service				
Primary electrical service duct bank	100	LF	60.00	6,000
Secondary electrical service duct bank	50	LF	140.00	7,000
Manhole	1	EA	4,000.00	4,000
Transformer pad	1	EA	1,500.00	1,500
Site lighting				
20' Light poles @ parking lots	5	EA	2,300.00	11,500
12' Light poles @ walkways lots	3	EA	2,500.00	7,500
Pole base	8	EA	500.00	4,000
Circuitry	400	LF	3.00	1,200
Site communication				
Communication service duct bank	100	LF	80.00	8,000
Manhole	1	EA	4,000.00	4,000

SUBTOTAL **\$54,700**

Description	Quantity	Unit	Rate	Total
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EXISTING MODIFIED - ESTIMATE DETAIL

G9010 SERVICE AND PEDESTRIAN TUNNELS

No work anticipated

SUBTOTAL				\$0
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G9090 OTHER SITE SYSTEMS

No work anticipated

SUBTOTAL				\$0
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MARKUPS

General conditions and project requirements

General conditions and requirements	10.00%	40,735,134	4,073,513
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Bond and Insurance	1.50%	44,808,648	672,130
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Building permit	1.00%	45,480,777	Excluded
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Overhead and Profit

Contractors overhead and profit (Fee)	2.50%	45,480,777	1,137,019
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SUBTOTAL				\$5,882,663
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CONTINGENCIES/ESCALATION

Contingencies

Design contingency	14.00%	46,617,797	6,526,492
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GMP contingency	3.00%	53,144,288	1,594,329
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Escalation

Escalation to Midpoint (October 2014)	6.11%	54,738,617	3,343,970
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SUBTOTAL				\$11,464,790
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CLOVER OPTION - AREAS & CONTROL QUANTITIES

Areas	SF	SF	SF
Enclosed Areas			
Ground	56,734		
Level 1	44,368		
Level 2	43,809		
Level 3	12,514		
 SUBTOTAL, Enclosed Area	<hr/>	157,425	
Covered area			
 SUBTOTAL, Covered Area @ ½ Value	<hr/>		
 TOTAL GROSS FLOOR AREA			<hr/> 157,425

CLOVER OPTION - COMPONENT SUMMARY

		GFA	157,425
	Total	\$/sf	%
A10 Foundations	\$2,645,918	\$16.81	5.47%
A1010 Foundations	\$1,328,150	\$8.44	2.74%
A1020 Special Foundations	\$0	\$0.00	0.00%
A1020 Slab on Grade	\$1,317,769	\$8.37	2.72%
A20 Basement Construction	\$263,957	\$1.68	0.55%
A2010 Basement Earthwork	\$0	\$0.00	0.00%
A2020 Basement Walls	\$263,957	\$1.68	0.55%
B10 Superstructure	\$5,116,910	\$32.50	10.57%
B1010 Floor Construction	\$2,968,374	\$18.86	6.13%
B1020 Roof Construction	\$2,148,536	\$13.65	4.44%
B20 Exterior Closure	\$4,954,938	\$31.47	10.24%
B2010 Exterior Walls	\$2,587,522	\$16.44	5.35%
B2020 Windows	\$2,305,201	\$14.64	4.76%
B2030 Exterior Doors	\$62,215	\$0.40	0.13%
B30 Roofing	\$3,227,438	\$20.50	6.67%
B3010 Roof Covering	\$2,109,638	\$13.40	4.36%
B3020 Roof Openings	\$1,117,800	\$7.10	2.31%
C10 Interior Construction	\$2,919,122	\$18.54	6.03%
C1010 Partitions	\$1,936,243	\$12.30	4.00%
C1020 Interior Doors	\$348,285	\$2.21	0.72%
C1030 Specialties	\$634,594	\$4.03	1.31%
C20 Staircases	\$228,780	\$1.45	0.47%
C2010 Stair Construction	\$201,880	\$1.28	0.42%
C2020 Stair Finishes	\$26,900	\$0.17	0.06%
C30 Finishes	\$3,896,960	\$24.75	8.05%
C3010 Wall Finishes	\$600,592	\$3.82	1.24%
C3020 Floor Finishes	\$2,250,821	\$14.30	4.65%
C3030 Ceiling Finishes	\$1,045,547	\$6.64	2.16%
D10 Conveying Systems	\$316,600	\$2.01	0.65%
D1010 Elevators and Lifts	\$316,600	\$2.01	0.65%
D1020 Escalators and Moving Walkways	\$0	\$0.00	0.00%
D1030 Other Conveying Systems	\$0	\$0.00	0.00%
D20 Plumbing	\$1,732,715	\$11.01	3.58%
D2010 Plumbing Complete	\$1,732,715	\$11.01	3.58%
D30 Heating, Ventilation and Air Conditioning	\$6,544,650	\$41.57	13.52%
D3010 HVAC, Complete	\$6,544,650	\$41.57	13.52%
D40 Fire Protection	\$708,413	\$4.50	1.46%
D4010 Fire Protection, Complete	\$708,413	\$4.50	1.46%
D50 Electrical	\$3,936,823	\$25.01	8.13%
D5010 Electrical, Complete	\$3,936,823	\$25.01	8.13%
E10 Equipment	\$573,105	\$3.64	1.18%
E1010 Commercial Equipment	\$0	\$0.00	0.00%
E1020 Institutional Equipment	\$75,000	\$0.48	0.15%
E1030 Vehicular Equipment	\$12,000	\$0.08	0.02%
E1090 Other Equipment	\$486,105	\$3.09	1.00%
E20 Furnishings	\$1,154,631	\$7.33	2.39%
E2010 Fixed Furnishings	\$1,154,631	\$7.33	2.39%
E2020 Loose Furnishings	\$0	\$0.00	0.00%

CLOVER OPTION - COMPONENT SUMMARY

	Total	\$/sf	GFA	157,425
				%
F10 Special Construction	\$0	\$0.00		0.00%
F1010 Special Structures	\$0	\$0.00		0.00%
F1020 Integrated Construction	\$0	\$0.00		0.00%
F1030 Special Construction Systems and Facilities	\$0	\$0.00		0.00%
F20 Selective Building Demolition	\$0	\$0.00		0.00%
F2010 Building Elements Demolition	\$0	\$0.00		0.00%
F2020 Hazardous Components Abatement	\$0	\$0.00		0.00%
TOTAL BUILDING CONSTRUCTION	\$38,220,960	\$242.79		78.96%
G10 Site Preparation	\$2,894,999	\$18.39		5.98%
G1010 Site Clearing and Demolition	\$2,653,224	\$16.85		5.48%
G1030 Site Earthwork	\$241,775	\$1.54		0.50%
G1040 Hazardous Waste Remediation	\$0	\$0.00		0.00%
G20 Site Improvement	\$848,875	\$5.39		1.75%
G2010 Roadways and Parking Lots	\$138,150	\$0.88		0.29%
G2030 Pedestrian Paving	\$231,389	\$1.47		0.48%
G2040 Site Development	\$387,786	\$2.46		0.80%
G2050 Landscaping	\$91,550	\$0.58		0.19%
G30 Site Mechanical	\$280,374	\$1.78		0.58%
G3010 Mechanical Utilities	\$280,374	\$1.78		0.58%
G40 Site Electrical	\$54,700	\$0.35		0.11%
G4010 Electrical Utilities and Site Lighting	\$54,700	\$0.35		0.11%
G90 Other Site Construction	\$0	\$0.00		0.00%
G9010 Service and Pedestrian Tunnels	\$0	\$0.00		0.00%
G9090 Other Site Systems	\$0	\$0.00		0.00%
Total Site Construction	\$4,078,948	\$25.91		8.43%
TOTAL BUILDING & SITE	\$42,299,908	\$268.70		87.39%
Markups	\$6,103,625	\$38.77		12.61%
General Conditions				
General conditions and project requirements	10.0%	\$4,226,521	\$26.85	8.73%
Bond and Insurance	1.5%	\$697,376	\$4.43	1.44%
Building Permit	1.0%	excluded		
Overhead and profit				
General contractor's head office	2.5%	\$1,179,728	\$7.49	2.44%
PLANNED CONSTRUCTION COST	May-12	\$48,403,533	\$307.47	100.00%
Contingencies/Escalation		\$10,838,159	\$68.85	
Contingencies				
Design and Pricing Contingency	12.0%	\$5,804,261	\$36.87	
GMP Contingency	3.0%	\$1,625,193	\$10.32	
Escalation				
Escalation to Midpoint (October 2014)	6.1%	\$3,408,705	\$21.65	
ESTIMATED CONTRACT AWARD	Dec-13	\$59,241,692	\$376.32	

Description	Quantity	Unit	Rate	Total
<u>CLOVER OPTION - ESTIMATE DETAIL</u>				
<u>A1010 FOUNDATIONS</u>				
Strip footings at exterior				
Excavation	2,313	CY	12.00	27,756
Remove off site	2,313	CY	18.00	41,634
Backfill with gravel	2,169	CY	28.00	60,732
Formwork	3,120	SF	12.00	37,440
Reinforcement	12,960	LB	1.10	14,256
Concrete	144	CY	161.25	23,220
Strip footings at interior				
Excavation	127	CY	12.00	1,524
Remove off site	127	CY	18.00	2,286
Backfill with gravel	92	CY	28.00	2,576
Formwork	760	SF	12.00	9,120
Reinforcement	3,150	LB	1.10	3,465
Concrete	35	CY	161.25	5,644
Strip footings at basement/retaining wall				
Excavation	297	CY	12.00	3,564
Remove off site	297	CY	18.00	5,346
Backfill with gravel	163	CY	28.00	4,564
Formwork	963	SF	12.00	11,556
Reinforcement	19,260	LB	1.10	21,186
Concrete	134	CY	161.25	21,608
Strip footings at elevation changes				
Excavation	47	CY	12.00	564
Remove off site	47	CY	18.00	846
Backfill with gravel	34	CY	28.00	952
Formwork	280	SF	12.00	3,360
Reinforcement	1,170	LB	1.10	1,287
Concrete	13	CY	161.25	2,096
Column footings at exterior				
Excavation	2,045	CY	12.00	24,540
Remove excavated material off site	2,045	CY	18.00	36,810
Backfill with gravel	1,698	CY	28.00	47,544
Formwork	4,160	SF	12.00	49,920
Reinforcement	39,750	LB	1.10	43,725
Concrete	347	CY	161.25	55,954
Column footings at interior				
Excavation	1,535	CY	12.00	18,420
Remove excavated material off site	1,535	CY	18.00	27,630
Backfill with gravel	880	CY	28.00	24,640
Formwork	5,896	SF	12.00	70,752
Reinforcement	78,200	LB	1.10	86,020
Concrete	655	CY	161.25	105,619
Foundation walls				
Formwork	15,600	SF	12.00	187,200
Reinforcement	31,200	LB	1.10	34,320
Concrete	307	CY	165.75	50,885
Waterproofing, mastic	7,800	SF	1.50	11,700
Insulation	7,800	SF	2.00	15,600
Elevation changes				
Formwork	1,400	SF	12.00	16,800
Reinforcement	2,800	LB	1.10	3,080
Concrete	26	CY	165.75	4,310

Description	Quantity	Unit	Rate	Total
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CLOVER OPTION - ESTIMATE DETAIL

Miscellaneous

Allowance for piers/pilasters	99	EA	500.00	49,500
Set base plates	99	EA	40.00	3,960
Miscellaneous concrete costs - premium for pump grade concrete mix and pump	1,760	CY	17.50	30,800
Perimeter foundation drainage, including gravel and f	1,560	LF	14.00	21,840

SUBTOTAL				\$1,328,150
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A1020 SPECIAL FOUNDATIONS

No work anticipated

SUBTOTAL				\$0
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A1030 SLAB ON GRADE

Standard slab on grade

Gravel fill	2,645	CY	28.00	74,060
Rigid insulation under slab on grade	214,206	SF	2.00	428,412
Vapor barrier	71,402	SF	0.60	42,841
Mesh reinforcing 15% lap	82,112	SF	0.75	61,584
Concrete in slab, complete	1,111	CY	156.75	174,149
Finishing and curing	71,402	SF	0.38	27,133
Control and construction joints	71,402	SF	0.45	32,131
Isolation joints at columns	368	LF	3.00	1,104
Perimeter joints	2,921	LF	2.00	5,842

Slab on grade, at loading dock

Gravel fill	11	CY	28.00	308
Vapor barrier	300	SF	0.35	105
Mesh reinforcing 15% lap	345	SF	0.75	259
Concrete in slab, complete	5	CY	156.75	784
Finishing and curing	300	SF	0.38	114
Control and construction joints	300	SF	0.45	135

Elevator/Escalator pit

Excavation	73	CY	12.00	876
Remove excavated material off site	73	CY	18.00	1,314
Backfill with gravel	33	CY	28.00	924
Formwork to slab edge	108	SF	12.00	1,296
Reinforcement in slab	810	LB	1.10	891
Concrete in slab	9	CY	161.25	1,451
Formwork to pit walls	360	SF	12.00	4,320
Reinforcement	900	LB	1.10	990
Concrete in pit walls	13	CY	165.75	2,155
Cementitious waterproofing to elevator pit	522	SF	12.00	6,264

Miscellaneous

Miscellaneous concrete costs - premium for pump grade concrete mix and pump	1,138	CY	17.50	19,915
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Description	Quantity	Unit	Rate	Total
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CLOVER OPTION - ESTIMATE DETAIL

Barrier one in concrete mix	71,402	SF	2.00	142,804
Below slab drainage	71,402	SF	4.00	285,608

SUBTOTAL **\$1,317,769**

A2010 BASEMENT EARTHWORK

No work anticipated

SUBTOTAL **\$0**

A2020 BASEMENT WALLS

Basement walls				
Formwork to walls	9,630	SF	14.00	134,820
Reinforcement	38,520	LB	1.10	42,372
Concrete in walls	237	CY	165.75	39,283
Waterproofing, membrane, including protection board	4,815	SF	7.00	33,705
Insulation	4,815	SF	2.00	9,630
Miscellaneous				
Water stops		LF	5.00	
Miscellaneous concrete costs - premium for pump grade concrete mix and pump	237	CY	17.50	4,148

SUBTOTAL **\$263,957**

B1010 FLOOR CONSTRUCTION

Steel construction				
Columns				
W section	108	T	3,200.00	345,600
Shear/brace frames				
Tube/pipe	43	T	3,600.00	154,800
Floor framing				
W sections	430	T	3,200.00	1,376,000
Shear studs	17,205	EA	3.00	51,615
Bent plate in pour stop	3,613	LF	12.00	43,356
Metal decking				
Metal decking, standard	86,023	SF	2.85	245,166
Concrete construction				
Concrete topping to floors				
Mesh reinforcing 15% lap	98,926	SF	0.75	74,195
Concrete topping	1,338	CY	156.75	209,732
Finishing and curing	86,023	SF	0.38	32,689
Control and construction joints	86,023	SF	0.45	38,710
Miscellaneous concrete costs				
Premium for pump grade concrete mix and pump	1,338	CY	17.50	23,415
Barrier one in concrete mix	86,023	SF	2.00	172,046
Masonry wall - load bearing				
Included in Partitions				

Description	Quantity	Unit	Rate	Total
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CLOVER OPTION - ESTIMATE DETAIL

Miscellaneous				
Fireproofing steel	86,023	SF	2.00	172,046
Fire stopping	86,023	SF	0.25	21,506
Equipment pads	500	SF	15.00	7,500
<i>SUBTOTAL</i>				\$2,968,374

B1020 ROOF CONSTRUCTION

Steel construction				
Columns				
W section	86	T	3,200.00	275,200
Shear/brace frames				
Tube/pipe	35	T	3,600.00	126,000
Steel members in roof framing				
W sections	346	T	3,200.00	1,107,200
Metal decking				
Metal decking, standard	69,185	SF	2.85	197,177
Concrete construction				
Concrete topping to roof				
Mesh reinforcing 15% lap	79,563	SF	0.75	59,672
Concrete topping	1,076	CY	156.75	168,663
Finishing and curing	69,185	SF	0.38	26,290
Control and construction joints	69,185	SF	0.45	31,133
Miscellaneous concrete costs				
Premium for pump grade concrete mix and pump	1,076	CY	17.50	18,830
Masonry wall - load bearing				
Included in partitions				
Miscellaneous				
Fireproofing steel	69,185	SF	2.00	138,370
<i>SUBTOTAL</i>				\$2,148,536

B2010 EXTERIOR WALL

Interior backup - metal stud				
Metal stud framing 6" x 18 gauge	35,291	SF	8.00	282,328
Denshield or similar to exterior face of stud backup	35,291	SF	2.50	88,228
Insulation	35,291	SF	7.00	247,037
Air barrier	35,291	SF	3.00	105,873
Drywall lining to interior face of stud backup	35,291	SF	2.50	88,228
Exterior skin - Trespas				
General areas	8,470	SF	55.00	465,850
Exterior skin -Terracotta				
General areas	9,881	SF	70.00	691,670
Exterior skin - metal panel				
General areas	6,352	SF	50.00	317,600
Miscellaneous				
Relieving angles to brickwork	3,688	LF	20.00	73,760
Staging to exterior wall	63,415	SF	3.00	190,245

Description	Quantity	Unit	Rate	Total
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CLOVER OPTION - ESTIMATE DETAIL

Control joints in exterior wall (1#/30LF)	2,294	LF	4.00	9,176
Wood blocking	9,176	LF	3.00	27,528

SUBTOTAL **\$2,587,522**

B2020 WINDOWS

Aluminum windows and glazing				
Windows, glazed				
Complete	15,125	SF	68.00	1,028,500
Aluminum curtain wall				
Curtain wall	13,000	SF	90.00	1,170,000
Ancillaries				
Backer rod and double sealant	15,243	LF	4.00	60,972
Wood blocking at openings	15,243	LF	3.00	45,729

SUBTOTAL **\$2,305,201**

B2030 EXTERIOR DOORS

Hollow metal doors, frame and hardware				
Single leaf				
Complete	3	EA	1,500.00	4,500
Double leaf				
Complete	12	PR	2,000.00	24,000
Aluminum doors				
Double leaf				
Complete	4	PR	6,000.00	24,000
Specialty doors				
Overhead doors	80	SF	65.00	5,200
Miscellaneous				
Paint to door and frame	21	EA	75.00	1,575
Backer rod and double sealant	21	EA	70.00	1,470
Wood blocking at openings	21	EA	70.00	1,470

SUBTOTAL **\$62,215**

B3010 ROOF COVERING

Greenroof - sedum	69,185	SF	22.00	1,522,070
Abutment of flat roof with adjacent walls	3,988	LF	8.00	31,904
Allowance for working membrane roofing around				
pipe and duct penetrations	1	LS	46,619.22	46,619
Rough blocking	11,964	LF	3.00	35,892
Canopy roofing system				
Metal roofing	150	SF	22.00	3,300
Plywood sheathing	150	SF	3.00	450
Rough blocking	150	SF	0.45	68
Strapping	113	LF	3.00	339
Soffits @ building overhang	3,982	SF	35.00	139,370
Light gauge metal support to soffit	3,982	SF	8.00	31,856

Description	Quantity	Unit	Rate	Total
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CLOVER OPTION - ESTIMATE DETAIL

Plywood sheathing at eaves	3,982	SF	3.00	11,946
Insulation at soffit and air barrier	1,414	SF	6.00	8,484
Miscellaneous roofing				
Trim at eaves/fascia to roof - In exterior wall				
Flashings	3,988	LF	10.00	39,880
Parapet coping	3,988	LF	45.00	179,460
Roof pavers	1,000	SF	18.00	18,000
Rail	100	LF	400.00	40,000
<i>SUBTOTAL</i>				\$2,109,638

B3020 ROOF OPENINGS

Skylight system, complete	8,560	SF	130.00	1,112,800
Roof hatch/ vents	2	LS	2,500.00	5,000
<i>SUBTOTAL</i>				\$1,117,800

C1010 PARTITIONS

Partitions, drywall				
Standard	68,355	SF	9.70	663,044
Partitions masonry				
8" CMU, reinforced	25,704	SF	22.00	565,488
Window walls and borrowed lights				
Glass partition framing, aluminum	3,600	SF	70.00	252,000
Folding partitions				
Fabric, acoustic	420	SF	60.00	25,200
Column covers				
GWB column covers	297	EA	1,000.00	297,000
Rails and handrails, painted metal				
Rails at access ramps	50	LF	400.00	20,000
Handrails at access ramps	50	LF	60.00	3,000
Rails at area open to below	36	LF	400.00	14,400
Miscellaneous				
Sealants and caulking at partitions	157,425	SF	0.35	55,099
Rough blocking	13,671	LF	3.00	41,013
<i>SUBTOTAL</i>				\$1,936,243

C1020 INTERIOR DOORS

Hollow metal doors				
Single leaf				
Complete	25	EA	1,600.00	40,000
Double leaf				
Complete	21	PR	2,800.00	58,800
Wood doors				
Single leaf				
Complete	87	EA	1,700.00	147,900

Description	Quantity	Unit	Rate	Total
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CLOVER OPTION - ESTIMATE DETAIL

Double leaf Complete	10	PR	2,800.00	28,000
Aluminum doors				
Single leaf door Complete	2	EA	3,500.00	7,000
Double leaf door Complete	2	EA	7,000.00	14,000
Specialty doors				
Coiling doors, complete	100	SF	60.00	6,000
Allowance for miscellaneous access doors	31	EA	400.00	12,400
Miscellaneous				
Paint to door and frame	159	EA	75.00	11,925
Sealants and caulking	159	EA	70.00	11,130
Wood blocking at openings	159	EA	70.00	11,130

SUBTOTAL **\$348,285**

C1030 SPECIALTIES

Specialties				
Toilet partitions, handicapped	8	EA	1,200.00	9,600
Toilet partitions, regular	24	EA	1,000.00	24,000
Toilet partitions, urinal screens	8	EA	450.00	3,600
Miscellaneous metal to ceiling supported toilet partitic	14	EA	225.00	3,150
Vanity counters				
Solid surface	72	LF	150.00	10,800
Toilet accessories				
Large toilet	8	RM	2,500.00	20,000
Small toilet	2	RM	1,500.00	3,000
Mop and broom holder	4	EA	100.00	400
Marker boards and tack boards	100	LF	75.00	7,500
Blackboard	576	LF	65.00	37,440
Benches - allowance	20	LF	70.00	1,400
Lockers, single tie allowance	100	EA	200.00	20,000
Lockers, double tie allowance	225	EA	150.00	33,750
Signage/Directories	157,425	SF	0.40	62,970
Corner guards	15	EA	72.00	1,080
Wall guards	60	LF	18.00	1,080
Fire extinguishers and cabinets	45	EA	375.00	16,875
Miscellaneous				
Miscellaneous shelving	4	LS	1,500.00	6,000
Backer panels in electrical closets	4	LS	500.00	2,000
Allowance for miscellaneous metals not identifiable at this stage	157,425	SF	2.00	314,850
Miscellaneous sealants throughout building	157,425	SF	0.35	55,099

SUBTOTAL **\$634,594**

Description	Quantity	Unit	Rate	Total
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CLOVER OPTION - ESTIMATE DETAIL

C2010 STAIR CONSTRUCTION

Feature staircase				
Feature stair	23	RSR	1,500.00	34,500
Handrail to feature staircase	53	LF	60.00	3,180
Rail/balustrade to feature staircase	58	LF	400.00	23,200
Egress/Internal circulation staircases				
Egress staircase, including rails and handrails	8	FLT	16,000.00	128,000
Miscellaneous steps and ladders				
Steps at mechanical room	1	LS	3,000.00	3,000
Steps at loading dock	1	LS	3,000.00	3,000
Steps at stage	2	LS	3,000.00	6,000
Access ladder to roof	2	EA	500.00	1,000
SUBTOTAL				\$201,880

C2020 STAIR FINISHES

Stair finishes				
Allowance to feature staircase	23	RSR	300.00	6,900
Paint and sealer to egress staircases	8	FLT	2,500.00	20,000
SUBTOTAL				\$26,900

C3010 WALL FINISHES

Wall finishes				
Painted CMU	25,704	SF	1.00	25,704
Painted GWB	116,357	SF	0.75	87,268
Ceramic tile	3,264	SF	15.00	48,960
Wood paneling to walls	3,000	SF	45.00	135,000
Paint to wood paneling	3,000	SF	1.00	3,000
Acoustical wood paneling to walls	6,048	SF	45.00	272,160
Wood trim	1,500	LF	18.00	27,000
Paint/Stain to wood trim	1,500	LF	1.00	1,500
SUBTOTAL				\$600,592

C3020 FLOOR FINISHES

Floors				
Rubber flooring	4,597	SF	9.00	41,373
Linoleum flooring	57,732	SF	8.00	461,856
Terrazzo flooring	38,462	SF	32.00	1,230,784
Vinyl composition tile	395	SF	3.00	1,185
Epoxy flooring	4,025	SF	3.00	12,075
Carpet	2,137	SY	45.00	96,165
Ceramic tile	4,104	SF	15.00	61,560
Theatrical wood and 3/4" plywood sub-floor	700	SF	20.00	14,000
Concrete sealer	13,190	SF	0.75	9,893
Gym wood flooring	8,345	SF	14.00	116,830

Description	Quantity	Unit	Rate	Total
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CLOVER OPTION - ESTIMATE DETAIL

Marble thresholds @ bathrooms	8	EA	60.00	480
Bases to floors				
Allowance	1	LS	204,620.05	204,620
<i>SUBTOTAL</i>				\$2,250,821

C3030 CEILING FINISHES

Ceiling Finishes				
Drywall ceilings, on light gauge framing support system	3,121	SF	8.00	24,968
Vertical drywall soffits	1,500	LF	22.00	33,000
Acoustical ceiling tile 2' x 2'	18,686	SF	5.50	102,773
Acoustical ceiling tile auditorium	7,007	SF	25.00	175,175
Custom wood ceiling grid 4'x4' in classroom	55,941	SF	12.00	671,292
Exposed structure , paint	2,545	SF	1.00	2,545
Exposed structure , paint for gym	9,469	SF	3.50	33,142
Paint to drywall ceiling	3,121	SF	0.85	2,653
<i>SUBTOTAL</i>				\$1,045,547

D1010 ELEVATORS AND LIFTS

Passenger elevators				
Passenger elevator, 4 stop	1	EA	135,000.00	135,000
Elevator cab finish	1	EA	10,000.00	10,000
Pit ladders	1	EA	500.00	500
Sill angles	12	LF	25.00	300
Service elevators				
Passenger elevator, 4 stop	1	EA	160,000.00	160,000
Elevator cab finish	1	EA	10,000.00	10,000
Pit ladders	1	EA	500.00	500
Sill angles	12	LF	25.00	300
<i>SUBTOTAL</i>				\$316,600

D1020 ESCALATORS AND MOVING WALKS

No work anticipated				
<i>SUBTOTAL</i>				\$0

D1030 OTHER CONVEYING SYSTEMS

No work anticipated				
<i>SUBTOTAL</i>				\$0

Description	Quantity	Unit	Rate	Total
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CLOVER OPTION - ESTIMATE DETAIL

D2010 PLUMBING

Plumbing, complete				
Storm water systems	157,425	SF	1.90	299,108
Soil, waste & vent systems including acid waste	157,425	SF	2.00	314,850
Condensate waste	1	LS	18,000.00	18,000
Domestic hot water	157,425	SF	1.80	283,365
Domestic cold water	157,425	SF	2.40	377,820
Grey water system	1	LS	120,000.00	120,000
Natural gas	157,425	SF	0.20	31,485
Sanitary fixtures	157,425	SF	1.65	259,751
Testing, shop drawings, etc.	157,425	SF	0.18	28,337
SUBTOTAL				\$1,732,715

D3010 HVAC

Hvac				
Geothermal system, water to water heat pumps, total 540 tons cooling	540	T	5,500.00	2,970,000
Heating equipment, including boiler and associated treatment systems	6,600	MBH	35.00	231,000
Primary air distribution - roof mounted hvac units, including heat recovery and associated equipment and exhaust systems	30,000	CFM	12.00	360,000
Secondary air distribution equipment - dedicated outdoor air units (19,000 cfm of supply air)	100	UNITS	1,500.00	150,000
Air distribution including ductwork and ancillaries	157,425	SF	6.00	944,550
Water distribution	157,425	SF	5.00	787,125
Building management and control	157,425	SF	6.00	944,550
Testing, commissioning, rigging, shop drawings, etc.	157,425	SF	1.00	157,425
SUBTOTAL				\$6,544,650

D4010 FIRE PROTECTION

Sprinkler installation Complete	157,425	SF	4.50	708,413
SUBTOTAL				\$708,413

D5010 ELECTRICAL

Electrical installation				
Normal power distribution	157,425	SF	3.00	472,275
Emergency power distribution	157,425	SF	1.40	220,395
Equipment power	157,425	SF	1.85	291,236
Lighting and control	157,425	SF	8.00	1,259,400
Small power	157,425	SF	2.68	421,899
Fire alarm	157,425	SF	1.60	251,880
Public address and master clock	1	LS	50,000.00	50,000

Description	Quantity	Unit	Rate	Total
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CLOVER OPTION - ESTIMATE DETAIL

Tele/Data	157,425	SF	2.16	340,038
Audio/visual rough-in	157,425	SF	0.70	110,198
Security	157,425	SF	1.30	204,653
Lightning protection	157,425	SF	0.50	78,713
Testing, temporary power, shop drawings, etc.	157,425	SF	1.50	236,138
Photovoltaic systems	SEE BELOW THE LINE COSTS			

SUBTOTAL **\$3,936,823**

E1010 COMMERCIAL EQUIPMENT

No work anticipated

SUBTOTAL **\$0**

E1020 INSTITUTIONAL EQUIPMENT

Theater and stage equipment

Stage curtains and all associated miscellaneous metals for prop supports

1 LS 75,000.00 75,000

Audio-visual equipment

Equipment - allowance (from report 5/14/20112)

See below the line costs

SUBTOTAL **\$75,000**

E1030 VEHICULAR EQUIPMENT

Loading dock equipment

Dock leveler and bumpers

1 LS 12,000.00 12,000

SUBTOTAL **\$12,000**

E1090 OTHER EQUIPMENT

Food service equipment

Complete

1 LS 359,535.00 359,535

Residential equipment

Refrigerator

3 EA 2,500.00 7,500

Demonstration cooktop with vent

1 EA 3,500.00 3,500

Range

1 EA 1,500.00 1,500

Oven

1 EA 1,000.00 1,000

Hood

1 EA 450.00 450

Microwave

3 EA 500.00 1,500

Athletic equipment

Scoreboard

1 EA 8,000.00 8,000

Motorized basketball backboard

4 EA 10,000.00 40,000

Fixed basketball backboard

2 EA 6,000.00 12,000

Description	Quantity	Unit	Rate	Total
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CLOVER OPTION - ESTIMATE DETAIL

Safety padding	2,160	SF	12.00	25,920
Gym divider net/curtain	1,680	SF	15.00	25,200

<i>SUBTOTAL</i>				\$486,105
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E2010 FIXED FURNISHINGS

Millwork

Classrooms	43	RMS	10,000.00	430,000
Dining	4,627	SF	3.00	13,881
Kitchen	3,077	SF	2.00	6,154
Office		FF&E		
Staff break room	2	EA	3,000.00	6,000
Change/Locker room	2	EA	1,500.00	3,000
Servery	1	EA	15,000.00	15,000
Food lab	2,443	SF	6.00	14,658
Office/Lunchroom	606	SF	8.00	4,848
General storage	1,504	SF	2.00	3,008
Supply Storage/Receiving	2,204	SF	3.00	6,612
Distributed storage	1	EA	1,000.00	1,000
Lobby	1	EA	15,000.00	15,000
Projection/Control room	1	EA	15,000.00	15,000
Scene & Prop Shop/Storage	1	EA	20,000.00	20,000
Dressing room	1	EA	13,000.00	13,000
Green Room		FF&E		
LS General Music	1,392	SF	5.00	6,960
US chorus & General music	1,266	SF	5.00	6,330
US Band & Orchestra	1	EA	15,000.00	15,000
Instrument Storage	1	EA	3,000.00	3,000
Practice Rooms	1	EA	3,000.00	3,000
Theater Classroom	1	EA	5,000.00	5,000
Vo-Tech Lab	1,000	SF	4.00	4,000
Flexible Instructional Space		FF&E		
Small Group Room		FF&E		
Multimedia Studio	1	LS	25,000.00	25,000
Information/Central Circulation	1	LS	30,000.00	30,000
Workroom/Storage	6	EA	1,500.00	9,000
Office	5	EA	2,500.00	12,500
IT workroom/office	1	EA	2,500.00	2,500
Entry mat				
Entry mat and frame	150	SF	45.00	6,750
Window treatment				
Mecho shades	7,562	SF	15.00	113,430
Seating				
Auditorium seating	450	EA	400.00	180,000
Bleachers - allowance	1	LS	50,000.00	50,000
Library shelving				
Double sided library shelving units - 7 shelves high	300	LF	175.00	52,500
Single sided library shelving - 7 shelves high	250	LF	150.00	37,500
Wood end panels to library shelving	50	EA	500.00	25,000

<i>SUBTOTAL</i>				\$1,154,631
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Description	Quantity	Unit	Rate	Total
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CLOVER OPTION - ESTIMATE DETAIL

E2020 LOOSE FURNISHINGS

Loose furnishings
 By owner

SUBTOTAL				\$0
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F1010 SPECIAL STRUCTURES

No work anticipated

SUBTOTAL				\$0
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F1020 INTEGRATED CONSTRUCTION

No work anticipated

SUBTOTAL				\$0
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F1030 SPECIAL CONSTRUCTION SYSTEMS AND FACIL

No work anticipated

SUBTOTAL				\$0
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F2010 BUILDING ELEMENTS DEMOLITION

No work anticipated

SUBTOTAL				\$0
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F2020 HAZARDOUS COMPONENTS ABATEMENT

No work anticipated

Excluded

SUBTOTAL				\$0
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G1010 SITE CLEARING AND DEMOLITION

Clearing and grubbing

Allowance for site clearance

3	ACRE	3,000.00	9,998
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Site construction fence/barricades

3,000	LF	8.00	24,000
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General building demolition

Demolish existing building, including foundations

2,468,410	CF	1.00	2,468,410
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Site demolition

Pavement demolition

Bituminous concrete

45,000	SF	1.00	45,000
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Concrete paving

3,960	SF	1.50	5,940
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Description	Quantity	Unit	Rate	Total
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CLOVER OPTION - ESTIMATE DETAIL

Remove granite or concrete curbs	646	LF	6.00	3,876
Saw cut existing paving	200	LF	5.00	1,000
Miscellaneous site components				
Fencing	1	LS	10,000.00	10,000
Playgrounds	1	LS	10,000.00	10,000
Planter/seat walls	1	LS	20,000.00	20,000
Benches and site ancillaries	1	LS	5,000.00	5,000
Site utilities	1	LS	50,000.00	50,000
<i>SUBTOTAL</i>				\$2,653,224

G1030 SITE EARTHWORK

Site earthwork				
Strip topsoil, store	1,675	CY	5.00	8,375
Site cut to fill	1,675	CY	5.00	8,375
Site fill	10,000	CY	22.00	220,000
Fine grading	10,050	SY	0.50	5,025
<i>SUBTOTAL</i>				\$241,775

G1040 HAZARDOUS WASTE REMEDIATION

No work anticipated			See below the line costs	
<i>SUBTOTAL</i>				\$0

G2010 ROADWAYS AND PARKING LOTS

Bituminous concrete paving in patches				
Excavation to reduce levels	19	CY	15.00	285
Remove off site	19	CY	18.00	342
Gravel base	19	CY	35.00	665
Bituminous concrete patch	500	SF	4.00	2,000
Bituminous concrete paving				
Excavation to reduce levels	1,176	CY	10.00	11,760
Remove off site	1,176	CY	18.00	21,168
Gravel base	1,176	CY	25.00	29,400
Bituminous concrete	609	T	90.00	54,810
Curbing				
Vertical granite curb	472	LF	35.00	16,520
Pavement markings				
Single solid lines, 4" thick	10	SPCE	30.00	300
Handicap parking hatching	2	LOC	75.00	150
Crosswalk hatching	2	LOC	125.00	250
Road signage	1	EA	500.00	500
<i>SUBTOTAL</i>				\$138,150

Description	Quantity	Unit	Rate	Total
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CLOVER OPTION - ESTIMATE DETAIL

G2030 PEDESTRIAN PAVING

Concrete paving				
Excavation to reduce levels	93	CY	10.00	930
Remove off site	93	CY	18.00	1,674
Gravel base	93	CY	25.00	2,325
Concrete paving, ? thick	2,500	SF	5.00	12,500
Pavers				
Excavation to reduce levels	37	CY	10.00	370
Remove off site	37	CY	18.00	666
Gravel base	37	CY	25.00	925
Concrete	1,000	SF	4.00	4,000
Precast pavers	1,000	SF	18.00	18,000
Safety surfacing				
Excavation to reduce levels	333	CY	10.00	3,330
Remove off site	333	CY	18.00	5,994
Gravel base	333	CY	25.00	8,325
Bituminous concrete	115	T	90.00	10,350
Safety surfacing - poured in place	9,000	SF	18.00	162,000

SUBTOTAL **\$231,389**

G2040 SITE DEVELOPMENT

Concrete retaining walls				
Footing				
Excavation for footing	104	CY	12.00	1,248
Backfill with selected excavated material	93	CY	8.00	744
Remove off site	11	CY	18.00	198
Formwork to footing	600	SF	12.00	7,200
Concrete in footing	11	CY	161.25	1,774
Wall				
Formwork to wall	2,000	SF	12.00	24,000
Reinforcement in wall	5,000	LB	1.10	5,500
Concrete in wall	49	CY	165.75	8,122
Finishing				
Facing to retaining walls, brick	600	SF	30.00	18,000
Cap to retaining wall, precast	100	LF	45.00	4,500
Foundation drainage	100	LF	14.00	1,400
Fencing				
Chain link fence	500	LF	22.00	11,000
Chain link double gate	1	EA	1,000.00	1,000
Fence at playgrounds	440	LF	150.00	66,000
Ornamental fence at entrance	59	LF	200.00	11,800
Slide gate at entrance	1	EA	20,000.00	20,000
Site furnishings				
Flagpole including base	3	EA	2,500.00	7,500
Bench, 6' length	6	EA	2,000.00	12,000
Trash receptacles	6	EA	600.00	3,600
Playground equipment				
Tot lot	1	LS	25,000.00	25,000
Kindergarden	1	LS	25,000.00	25,000
General	1	LS	50,000.00	50,000

Description	Quantity	Unit	Rate	Total
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CLOVER OPTION - ESTIMATE DETAIL

Basketball court	1	LS	40,000.00	40,000
Bike racks	1	LS	30,000.00	30,000
Tree grates	6	EA	800.00	4,800
Bollards	6	EA	400.00	2,400
Site sign	1	EA	5,000.00	5,000

SUBTOTAL **\$387,786**

G2050 LANDSCAPING

Topsoil/planting medium				
New topsoil	750	CY	40.00	30,000
Trees				
Type ?	30	EA	1,500.00	45,000
Shrubs				
Type ?	50	EA	75.00	3,750
Ground cover				
Type ?	400	EA	20.00	8,000
Grass/lawn				
Seeding to lawn areas	24,000	SF	0.20	4,800

SUBTOTAL **\$91,550**

G3010 MECHANICAL UTILITIES

Water supply				
DI piping	584	LF	50.00	29,200
Water hydrant	1	EA	2,500.00	2,500
Connect to existing	7	EA	2,250.00	15,750
Excavation/trenching	346	CY	12.00	4,152
Bedding	87	CY	25.00	2,175
Backfill	259	CY	18.00	4,662
Sanitary sewer				
Sewer piping	111	LF	28.00	3,108
Manhole	1	EA	4,000.00	4,000
Grease trap	1	EA	2,000.00	2,000
Connect to existing	1	EA	2,500.00	2,500
Excavation/trenching	49	CY	12.00	588
Bedding	12	CY	25.00	300
Backfill	37	CY	18.00	666
Storm drainage				
Piping	280	LF	25.00	7,000
Manhole	1	EA	4,000.00	4,000
Catch basin	2	EA	3,500.00	7,000
Water storage tank and filtration system	1	EA	125,000.00	125,000
Connect to existing	1	EA	2,000.00	2,000
Excavation and trenching	622	CY	12.00	7,464
Bedding	41	CY	25.00	1,025
Backfill	581	CY	18.00	10,458
Underground storm water detention				
Piping, CCP, 48" diameter	500	LF	65.00	32,500
Excavation and trenching	229	CY	12.00	2,748

Description	Quantity	Unit	Rate	Total
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CLOVER OPTION - ESTIMATE DETAIL

Bedding	69	CY	25.00	1,725
Backfill	160	CY	18.00	2,880
Filter fabric	1,425	SF	1.00	1,425
Miscellaneous hardware	1	LS	2,500.00	2,500
Gas distribution				
Gas connection piping		By Utilities Company		
Connect to existing		By Utilities Company		
Excavation/trenching	34	CY	12.00	408
Bedding	4	CY	25.00	100
Backfill	30	CY	18.00	540
<i>SUBTOTAL</i>				\$280,374

G4010 ELECTRICAL UTILITIES AND SITE LIGHTING

Electrical service				
Primary electrical service duct bank	100	LF	60.00	6,000
Secondary electrical service duct bank	50	LF	140.00	7,000
Manhole	1	EA	4,000.00	4,000
Transformer pad	1	EA	1,500.00	1,500
Site lighting				
20' Light poles @ parking lots	5	EA	2,300.00	11,500
12' Light poles @ walkways lots	3	EA	2,500.00	7,500
Pole base	8	EA	500.00	4,000
Circuitry	400	LF	3.00	1,200
Site communication				
Communication service duct bank	100	LF	80.00	8,000
Manhole	1	EA	4,000.00	4,000
<i>SUBTOTAL</i>				\$54,700

G9010 SERVICE AND PEDESTRIAN TUNNELS

No work anticipated				
<i>SUBTOTAL</i>				\$0

G9090 OTHER SITE SYSTEMS

No work anticipated				
<i>SUBTOTAL</i>				\$0

Description	Quantity	Unit	Rate	Total
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CLOVER OPTION - ESTIMATE DETAIL

MARKUPS

General conditions and project requirements				
General conditions and requirements	10.00%		42,265,213	4,226,521
Bond and Insurance	1.50%		46,491,734	697,376
Building permit	1.00%		47,189,110	excluded
Overhead and Profit				
Contractors overhead and profit (Fee)	2.50%		47,189,110	1,179,728
<i>SUBTOTAL</i>				\$6,103,625

CONTINGENCIES/ESCALATION

Contingencies				
Design contingency	12.00%		48,368,838	5,804,261
GMP contingency	3.00%		54,173,099	1,625,193
Escalation				
Escalation to Midpoint (October 2014)	6.11%		55,798,292	3,408,705
<i>SUBTOTAL</i>				\$10,838,159

PI OPTION - AREAS & CONTROL QUANTITIES

Areas

	SF	SF	SF
Enclosed Areas			
Ground	43,720		
Level 1	42,178		
Level 2	35,730		
Level 3	34,670		
 SUBTOTAL, Enclosed Area	<hr/>	156,298	
 Covered area			
 SUBTOTAL, Covered Area @ ½ Value	<hr/>		
 TOTAL GROSS FLOOR AREA		<hr/>	156,298

PI OPTION - COMPONENT SUMMARY

GFA 156,298

	Total	\$/sf	%
A10 Foundations	\$2,209,436	\$14.14	4.65%
A1010 Foundations	\$1,345,624	\$8.61	2.83%
A1020 Special Foundations	\$0	\$0.00	0.00%
A1020 Slab on Grade	\$863,812	\$5.53	1.82%
A20 Basement Construction	\$179,484	\$1.15	0.38%
A2010 Basement Earthwork	\$0	\$0.00	0.00%
A2020 Basement Walls	\$179,484	\$1.15	0.38%
B10 Superstructure	\$5,052,701	\$32.33	10.64%
B1010 Floor Construction	\$3,299,376	\$21.11	6.94%
B1020 Roof Construction	\$1,753,325	\$11.22	3.69%
B20 Exterior Closure	\$5,628,178	\$36.01	11.85%
B2010 Exterior Walls	\$3,094,752	\$19.80	6.51%
B2020 Windows	\$2,469,356	\$15.80	5.20%
B2030 Exterior Doors	\$64,070	\$0.41	0.13%
B30 Roofing	\$2,600,381	\$16.64	5.47%
B3010 Roof Covering	\$1,695,131	\$10.85	3.57%
B3020 Roof Openings	\$905,250	\$5.79	1.91%
C10 Interior Construction	\$2,719,202	\$17.40	5.72%
C1010 Partitions	\$1,750,928	\$11.20	3.69%
C1020 Interior Doors	\$337,560	\$2.16	0.71%
C1030 Specialties	\$630,715	\$4.04	1.33%
C20 Staircases	\$309,780	\$1.98	0.65%
C2010 Stair Construction	\$270,680	\$1.73	0.57%
C2020 Stair Finishes	\$39,100	\$0.25	0.08%
C30 Finishes	\$3,846,031	\$24.61	8.10%
C3010 Wall Finishes	\$595,532	\$3.81	1.25%
C3020 Floor Finishes	\$2,211,150	\$14.15	4.65%
C3030 Ceiling Finishes	\$1,039,349	\$6.65	2.19%
D10 Conveying Systems	\$316,600	\$2.03	0.67%
D1010 Elevators and Lifts	\$316,600	\$2.03	0.67%
D1020 Escalators and Moving Walkways	\$0	\$0.00	0.00%
D1030 Other Conveying Systems	\$0	\$0.00	0.00%
D20 Plumbing	\$1,721,299	\$11.01	3.62%
D2010 Plumbing Complete	\$1,721,299	\$11.01	3.62%
D30 Heating, Ventilation and Air Conditioning	\$6,524,364	\$41.74	13.73%
D3010 HVAC, Complete	\$6,524,364	\$41.74	13.73%
D40 Fire Protection	\$703,341	\$4.50	1.48%
D4010 Fire Protection, Complete	\$703,341	\$4.50	1.48%
D50 Electrical	\$3,908,998	\$25.01	8.23%
D5010 Electrical, Complete	\$3,908,998	\$25.01	8.23%
E10 Equipment	\$573,105	\$3.67	1.21%
E1010 Commercial Equipment	\$0	\$0.00	0.00%
E1020 Institutional Equipment	\$75,000	\$0.48	0.16%
E1030 Vehicular Equipment	\$12,000	\$0.08	0.03%
E1090 Other Equipment	\$486,105	\$3.11	1.02%
E20 Furnishings	\$1,156,788	\$7.40	2.43%
E2010 Fixed Furnishings	\$1,156,788	\$7.40	2.43%
E2020 Loose Furnishings	\$0	\$0.00	0.00%

PI OPTION - COMPONENT SUMMARY

		Total	GFA \$/sf	156,298 %
F10 Special Construction		\$0	\$0.00	0.00%
F1010 Special Structures		\$0	\$0.00	0.00%
F1020 Integrated Construction		\$0	\$0.00	0.00%
F1030 Special Construction Systems and Facilities		\$0	\$0.00	0.00%
F20 Selective Building Demolition		\$0	\$0.00	0.00%
F2010 Building Elements Demolition		\$0	\$0.00	0.00%
F2020 Hazardous Components Abatement		\$0	\$0.00	0.00%
TOTAL BUILDING CONSTRUCTION		\$37,449,687	\$239.60	78.83%
G10 Site Preparation		\$2,894,999	\$18.52	6.09%
G1010 Site Clearing and Demolition		\$2,653,224	\$16.98	5.58%
G1030 Site Earthwork		\$241,775	\$1.55	0.51%
G1040 Hazardous Waste Remediation		\$0	\$0.00	0.00%
G20 Site Improvement		\$837,521	\$5.36	1.76%
G2010 Roadways and Parking Lots		\$138,150	\$0.88	0.29%
G2030 Pedestrian Paving		\$219,435	\$1.40	0.46%
G2040 Site Development		\$388,386	\$2.48	0.82%
G2050 Landscaping		\$91,550	\$0.59	0.19%
G30 Site Mechanical		\$280,374	\$1.79	0.59%
G3010 Mechanical Utilities		\$280,374	\$1.79	0.59%
G40 Site Electrical		\$54,700	\$0.35	0.12%
G4010 Electrical Utilities and Site Lighting		\$54,700	\$0.35	0.12%
G90 Other Site Construction		\$0	\$0.00	0.00%
G9010 Service and Pedestrian Tunnels		\$0	\$0.00	0.00%
G9090 Other Site Systems		\$0	\$0.00	0.00%
Total Site Construction		\$4,067,594	\$26.02	8.56%
TOTAL BUILDING & SITE		\$41,517,281	\$265.63	87.39%
Markups		\$5,990,500	\$38.33	12.61%
General Conditions				
General conditions and project requirements	10.0%	\$4,148,187	\$26.54	8.73%
Bond and Insurance	1.5%	\$684,451	\$4.38	1.44%
Building Permit	1.0%	excluded		
Overhead and profit				
General contractor's head office	2.5%	\$1,157,863	\$7.41	2.44%
PLANNED CONSTRUCTION COST	May-12	\$47,507,781	\$303.96	100.00%
Contingencies/Escalation		\$10,642,055	\$68.09	
Contingencies				
Design and Pricing Contingency	12.0%	\$5,696,684	\$36.45	
GMP Contingency	3.0%	\$1,595,071	\$10.21	
Escalation				
Escalation to Midpoint (October 2014)	6.1%	\$3,345,528	\$21.40	
ESTIMATED CONTRACT AWARD	Dec-13	\$58,149,836	\$372.04	

Description	Quantity	Unit	Rate	Total
<u>PI OPTION - ESTIMATE DETAIL</u>				
<u>A1010 FOUNDATIONS</u>				
Strip footings at exterior				
Excavation	2,361	CY	12.00	28,332
Remove off site	2,361	CY	18.00	42,498
Backfill with gravel	2,214	CY	28.00	61,992
Formwork	3,185	SF	12.00	38,220
Reinforcement	13,230	LB	1.10	14,553
Concrete	147	CY	161.25	23,704
Strip footings at interior				
Excavation	81	CY	12.00	972
Remove off site	81	CY	18.00	1,458
Backfill with gravel	58	CY	28.00	1,624
Formwork	486	SF	12.00	5,832
Reinforcement	2,070	LB	1.10	2,277
Concrete	23	CY	161.25	3,709
Strip footings at elevation changes				
Excavation	47	CY	12.00	564
Remove off site	47	CY	18.00	846
Backfill with gravel	34	CY	28.00	952
Formwork	280	SF	12.00	3,360
Reinforcement	1,170	LB	1.10	1,287
Concrete	13	CY	161.25	2,096
Strip footings at basement/retaining wall				
Excavation	201	CY	12.00	2,412
Remove off site	201	CY	18.00	3,618
Backfill with gravel	111	CY	28.00	3,108
Formwork	651	SF	12.00	7,812
Reinforcement	13,020	LB	1.10	14,322
Concrete	90	CY	161.25	14,513
Column footings at exterior				
Excavation	2,160	CY	12.00	25,920
Remove excavated material off site	2,160	CY	18.00	38,880
Backfill with gravel	1,908	CY	28.00	53,424
Formwork	3,024	SF	12.00	36,288
Reinforcement	42,000	LB	1.10	46,200
Concrete	252	CY	161.25	40,635
Column footings at interior				
Excavation	1,602	CY	12.00	19,224
Remove excavated material off site	1,602	CY	18.00	28,836
Backfill with gravel	918	CY	28.00	25,704
Formwork	6,152	SF	12.00	73,824
Reinforcement	81,600	LB	1.10	89,760
Concrete	684	CY	161.25	110,295
Foundation walls				
Formwork	15,924	SF	12.00	191,088
Reinforcement	39,810	LB	1.10	43,791
Concrete	392	CY	165.75	64,974
Waterproofing, mastic	7,962	SF	1.50	11,943
Insulation	7,962	SF	1.25	9,953
Elevation changes				
Formwork	1,400	SF	12.00	16,800
Reinforcement	2,800	LB	1.10	3,080
Concrete	26	CY	165.75	4,310

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Waterproofing, mastic	7,962	SF	1.50	11,943
Insulation	7,962	SF	1.25	9,953
Miscellaneous				
Allowance for piers/pilasters	104	EA	500.00	52,000
Set base plates	104	EA	40.00	4,160
Miscellaneous concrete costs - premium for pump grade concrete mix and pump	1,731	CY	17.50	30,293
Perimeter foundation drainage, including gravel and f	1,592	LF	14.00	22,288
<i>SUBTOTAL</i>				\$1,345,624

A1020 SPECIAL FOUNDATIONS

No work anticipated

SUBTOTAL **\$0**

A1030 SLAB ON GRADE

Standard slab on grade				
Gravel fill	2,242	CY	28.00	62,776
Rigid insulation under slab on grade	60,536	SF	2.00	121,072
Vapor barrier	60,536	SF	0.35	21,188
Mesh reinforcing 15% lap	69,616	SF	0.75	52,212
Concrete in slab, complete	942	CY	156.75	147,659
Finishing and curing	60,536	SF	0.38	23,004
Control and construction joints	60,536	SF	0.45	27,241
Isolation joints at columns	384	LF	3.00	1,152
Perimeter joints	2,575	LF	2.00	5,150
Slab on grade, at loading dock				
Gravel fill	11	CY	28.00	308
Vapor barrier	300	SF	0.35	105
Mesh reinforcing 15% lap	345	SF	0.75	259
Concrete in slab, complete	5	CY	156.75	784
Finishing and curing	300	SF	0.38	114
Control and construction joints	300	SF	0.45	135
Elevator/Escalator pit				
Excavation	73	CY	12.00	876
Remove excavated material off site	73	CY	18.00	1,314
Backfill with gravel	33	CY	28.00	924
Formwork to slab edge	108	SF	12.00	1,296
Reinforcement in slab	810	LB	1.10	891
Concrete in slab	9	CY	161.25	1,451
Formwork to pit walls	360	SF	12.00	4,320
Reinforcement	900	LB	1.10	990
Concrete in pit walls	13	CY	165.75	2,155
Cementitious waterproofing to elevator pit	522	SF	12.00	6,264
Miscellaneous				
Miscellaneous concrete costs - premium for pump grade concrete mix and pump	969	CY	17.50	16,958

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Barrier one in concrete mix	60,536	SF	2.00	121,072
Below slab drainage	60,536	SF	4.00	242,144

SUBTOTAL **\$863,812**

A2010 BASEMENT EARTHWORK

No work anticipated

SUBTOTAL **\$0**

A2020 BASEMENT WALLS

Retaining wall				
Formwork to walls	6,510	SF	14.00	91,140
Reinforcement	26,040	LB	1.10	28,644
Concrete in walls	160	CY	165.75	26,520
Waterproofing, membrane, including protection board	3,255	SF	7.00	22,785
Insulation	3,255	SF	2.00	6,510
Miscellaneous				
Water stops	217	LF	5.00	1,085
Miscellaneous concrete costs - premium for pump grade concrete mix and pump	160	CY	17.50	2,800

SUBTOTAL **\$179,484**

B1010 FLOOR CONSTRUCTION

Steel construction				
Columns				
W section	120	T	3,200.00	384,000
Shear/brace frames				
Tube/pipe	48	T	3,600.00	172,800
Floor framing				
W sections	479	T	3,200.00	1,532,800
Shear studs	19,152	EA	3.00	57,456
Bent plate in pour stop	3,600	LF	12.00	43,200
Metal decking				
Metal decking, standard	95,762	SF	2.85	272,922
Concrete construction				
Concrete topping to floors				
Mesh reinforcing 15% lap	110,126	SF	0.75	82,595
Concrete topping	1,490	CY	156.75	233,558
Finishing and curing	95,762	SF	0.38	36,390
Control and construction joints	95,762	SF	0.45	43,093
Miscellaneous concrete costs				
Premium for pump grade concrete mix and pump	1,490	CY	17.50	26,075
Barrier one in concrete mix	95,762	SF	2.00	191,524
Masonry wall - load bearing				
Included in Partitions				

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Miscellaneous				
Fireproofing steel	95,762	SF	2.00	191,524
Fire stopping	95,762	SF	0.25	23,941
Equipment pads	500	SF	15.00	7,500
<i>SUBTOTAL</i>				\$3,299,376

B1020 ROOF CONSTRUCTION

Steel construction				
Columns				
W section	70	T	3,200.00	224,000
Shear/brace frames				
Tube/pipe	28	T	3,600.00	100,800
Steel members in roof framing				
W sections	280	T	3,200.00	896,000
Bent plate in pour stop	1,200	LF	12.00	14,400
Metal decking				
Metal decking, standard	55,996	SF	2.85	159,589
Concrete topping to roof				
Mesh reinforcing 15% lap	64,395	SF	0.75	48,296
Concrete topping	871	CY	156.75	136,529
Finishing and curing	55,996	SF	0.38	21,278
Control and construction joints	55,996	SF	0.45	25,198
Miscellaneous concrete costs				
Premium for pump grade concrete mix and pump	871	CY	17.50	15,243
Masonry wall - load bearing				
Included in partitions				
Miscellaneous				
Fireproofing steel	55,996	SF	2.00	111,992
<i>SUBTOTAL</i>				\$1,753,325

B2010 EXTERIOR WALL

Interior backup - metal stud				
Metal stud framing 6" x 18 gauge	40,520	SF	8.00	324,160
Denshield or similar to exterior face of stud backup	40,520	SF	2.50	101,300
Insulation	40,520	SF	7.00	283,640
Air barrier	40,520	SF	3.00	121,560
Drywall lining to interior face of stud backup	40,520	SF	2.50	101,300
Exterior skin - Trespa				
General areas	9,725	SF	55.00	534,875
Exterior skin - terracotta				
General areas	11,345	SF	70.00	794,150
Exterior skin - metal panel				
General areas	7,294	SF	50.00	364,700
Soffits @ building overhang	2,336	SF	30.00	70,080
Light gauge metal support to soffit	2,336	SF	8.00	18,688
Plywood sheathing at eaves	2,336	SF	3.00	7,008
Insulation at soffit and air barrier	1,984	SF	6.00	11,904

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Miscellaneous

Relieving angles to brickwork	4,213	LF	20.00	84,260
Staging to exterior wall	70,885	SF	3.00	212,655
Flashing, thru wall, at parapet	1,592	LF	15.00	23,880
Control joints in exterior wall (1#/30LF)	2,537	LF	4.00	10,148
Wood blocking	10,148	LF	3.00	30,444

<i>SUBTOTAL</i>				\$3,094,752
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B2020 WINDOWS

Aluminum windows and glazing

Windows, glazed				
Complete	17,366	EA	68.00	1,180,888

Aluminum curtain wall

Curtain wall	13,000	SF	90.00	1,170,000
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Ancillaries

Backer rod and double sealant	16,924	LF	4.00	67,696
Wood blocking at openings	16,924	LF	3.00	50,772

<i>SUBTOTAL</i>				\$2,469,356
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B2030 EXTERIOR DOORS

Hollow metal doors, frame and hardware

Single leaf				
Complete	4	EA	1,500.00	6,000

Double leaf				
Complete	9	PR	2,000.00	18,000

Aluminum doors

Single leaf				
Complete	2	EA	3,500.00	7,000

Double leaf				
Complete	4	PR	6,000.00	24,000

Specialty doors

Overhead doors	80	SF	65.00	5,200
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Miscellaneous

Paint to door and frame	18	EA	75.00	1,350
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Backer rod and double sealant	18	EA	70.00	1,260
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Wood blocking at openings	18	EA	70.00	1,260
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<i>SUBTOTAL</i>				\$64,070
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B3010 ROOF COVERING

Greenroof - sedum	55,996	SF	22.00	1,231,912
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Abutment of flat roof with adjacent walls	4,222	LF	8.00	33,776
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Allowance for working membrane roofing around pipe and duct penetrations	1	LS	37,970.64	37,971
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Rough blocking	12,666	LF	3.00	37,998
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Description	Quantity	Unit	Rate	Total
<u>PI OPTION - ESTIMATE DETAIL</u>				
Double leaf Complete	9	PR	2,800.00	25,200
Wood doors				
Single leaf Complete	90	EA	1,700.00	153,000
Double leaf Complete	10	PR	2,800.00	28,000
Aluminum doors				
Single leaf door Complete	4	EA	3,500.00	14,000
Double leaf door Complete	4	EA	7,000.00	28,000
Specialty doors				
Coiling doors, complete	100	SF	60.00	6,000
Allowance for miscellaneous access doors	31	EA	400.00	12,400
Miscellaneous				
Paint to door and frame	144	EA	75.00	10,800
Sealants and caulking	144	EA	70.00	10,080
Wood blocking at openings	144	EA	70.00	10,080
<i>SUBTOTAL</i>				\$337,560

C1030 SPECIALTIES

Specialties				
Toilet partitions, handicapped	8	EA	1,200.00	9,600
Toilet partitions, regular	24	EA	1,000.00	24,000
Toilet partitions, urinal screens	8	EA	450.00	3,600
Miscellaneous metal to ceiling supported toilet partitic	14	EA	225.00	3,150
Vanity counters				
Solid surface	72	LF	150.00	10,800
Toilet accessories				
Large toilet	8	RM	2,500.00	20,000
Small toilet	2	RM	1,500.00	3,000
Mop and broom holder	4	EA	100.00	400
Marker boards and tack boards	100	LF	75.00	7,500
Blackboard	564	LF	65.00	36,660
Benches - allowance	20	LF	70.00	1,400
Lockers, single tie allowance	100	EA	200.00	20,000
Lockers, double tie allowance	225	EA	150.00	33,750
Signage/Directories	156,298	SF	0.40	62,519
Corner guards	15	EA	72.00	1,080
Wall guards	60	LF	18.00	1,080
Fire extinguishers and cabinets	45	EA	375.00	16,875
Miscellaneous				
Miscellaneous shelving	4	LS	1,500.00	6,000
Backer panels in electrical closets	4	LS	500.00	2,000
Allowance for miscellaneous metals not identifiable at this stage	156,298	SF	2.00	312,596
Miscellaneous sealants throughout building	156,298	SF	0.35	54,704
<i>SUBTOTAL</i>				\$630,715

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

C2010 STAIR CONSTRUCTION

Feature staircase				
Feature stair	72	RSR	1,500.00	108,000
Handrail to feature staircase	83	LF	60.00	4,980
Rail/balustrade to feature staircase	83	LF	400.00	33,200
Egress/Internal circulation staircases				
Egress staircase, including rails and handrails	7	FLT	16,000.00	112,000
Miscellaneous steps and ladders				
Steps at mechanical room	1	LS	3,000.00	3,000
Steps at loading dock	1	LS	3,000.00	3,000
Steps at stage	2	LS	3,000.00	6,000
Access ladder to roof	1	EA	500.00	500
SUBTOTAL				\$270,680

C2020 STAIR FINISHES

Stair finishes				
Allowance for feature staircase	72	RSR	300.00	21,600
Paint and sealer to egress staircases	7	FLT	2,500.00	17,500
SUBTOTAL				\$39,100

C3010 WALL FINISHES

Wall finishes				
Painted CMU	15,624	SF	1.00	15,624
Painted GWB	117,350	SF	0.75	88,013
Ceramic tile	3,264	SF	15.00	48,960
Wood paneling to walls	3,000	SF	45.00	135,000
Paint to wood paneling	3,000	SF	1.00	3,000
Acoustical wood paneling to walls	6,143	SF	45.00	276,435
Wood trim	1,500	LF	18.00	27,000
Paint/Stain to wood trim	1,500	LF	1.00	1,500
SUBTOTAL				\$595,532

C3020 FLOOR FINISHES

Floors				
Rubber flooring	4,597	SF	9.00	41,373
Linoleum flooring	57,732	SF	8.00	461,856
Terrazzo flooring	37,335	SF	32.00	1,194,720
Vinyl composition tile	395	SF	3.00	1,185
Epoxy flooring	4,025	SF	3.00	12,075
Carpet	2,137	SY	45.00	96,165
Ceramic tile	4,104	SF	15.00	61,560
Theatrical wood and 3/4" plywood sub-floor	700	SF	20.00	14,000
Concrete sealer	13,190	SF	0.75	9,893
Gym wood flooring	8,345	SF	14.00	116,830

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Marble thresholds @ bathrooms	8	EA	60.00	480
Bases to floors				
Allowance	1	LS	201,013.65	201,014
<i>SUBTOTAL</i>				\$2,211,150

C3030 CEILING FINISHES

Ceiling Finishes				
Drywall ceilings, on light gauge framing support system	3,121	SF	8.00	24,968
Vertical drywall soffits	1,500	LF	22.00	33,000
Acoustical ceiling tile 2' x 2'	17,559	SF	5.50	96,575
Acoustical ceiling tile auditorium	7,007	SF	25.00	175,175
Custom wood ceiling grid 4'x4' in classroom	55,941	SF	12.00	671,292
Exposed structure , paint	2,545	SF	1.00	2,545
Exposed structure , paint for gym	9,469	SF	3.50	33,142
Paint to drywall ceiling	3,121	SF	0.85	2,653
<i>SUBTOTAL</i>				\$1,039,349

D1010 ELEVATORS AND LIFTS

Passenger elevators				
Passenger elevator, 4 stop	1	EA	135,000.00	135,000
Elevator cab finish	1	EA	10,000.00	10,000
Pit ladders	1	EA	500.00	500
Sill angles	12	LF	25.00	300
Service elevators				
Passenger elevator, 4 stop	1	EA	160,000.00	160,000
Elevator cab finish	1	EA	10,000.00	10,000
Pit ladders	1	EA	500.00	500
Sill angles	12	LF	25.00	300
<i>SUBTOTAL</i>				\$316,600

D1020 ESCALATORS AND MOVING WALKS

No work anticipated				
<i>SUBTOTAL</i>				\$0

D1030 OTHER CONVEYING SYSTEMS

No work anticipated				
<i>SUBTOTAL</i>				\$0

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

D2010 PLUMBING

Plumbing, complete

Storm water systems	156,298	SF	1.90	296,966
Soil, waste & vent systems including acid waste	156,298	SF	2.00	312,596
Condensate waste	1	LS	18,000.00	18,000
Domestic hot water	156,298	SF	1.80	281,336
Domestic cold water	156,298	SF	2.40	375,115
Grey water system	1	LS	120,000.00	120,000
Natural gas	156,298	SF	0.20	31,260
Sanitary fixtures	156,298	SF	1.65	257,892
Testing, shop drawings, etc.	156,298	SF	0.18	28,134

SUBTOTAL **\$1,721,299**

D3010 HVAC

Hvac

Geothermal system, water to water heat pumps, total 540 tons cooling	540	T	5,500.00	2,970,000
Heating equipment, including boiler and associated treatment systems	6,600	MBH	35.00	231,000
Primary air distribution - roof mounted hvac units, including heat recovery and associated equipment and exhaust systems	30,000	CFM	12.00	360,000
Secondary air distribution equipment - dedicated outdoor air units (19,000 cfm of supply air)	100	UNITS	1,500.00	150,000
Air distribution including ductwork and ancillaries	156,298	SF	6.00	937,788
Water distribution	156,298	SF	5.00	781,490
Building management and control	156,298	SF	6.00	937,788
Testing, commissioning, rigging, shop drawings, etc.	156,298	SF	1.00	156,298

SUBTOTAL **\$6,524,364**

D4010 FIRE PROTECTION

Sprinkler installation

Complete	156,298	SF	4.50	703,341
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SUBTOTAL **\$703,341**

D5010 ELECTRICAL

Electrical installation

Normal power distribution	156,298	SF	3.00	468,894
Emergency power distribution	156,298	SF	1.40	218,817
Equipment power	156,298	SF	1.85	289,151
Lighting and control	156,298	SF	8.00	1,250,384
Small power	156,298	SF	2.68	418,879
Fire alarm	156,298	SF	1.60	250,077
Public address and master clock	1	LS	50,000.00	50,000

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Tele/Data	156,298	SF	2.16	337,604
Audio/visual rough-in	156,298	SF	0.70	109,409
Security	156,298	SF	1.30	203,187
Lightning protection	156,298	SF	0.50	78,149
Testing, temporary power, shop drawings, etc.	156,298	SF	1.50	234,447
Photovoltaic systems	SEE BELOW THE LINE COSTS			

SUBTOTAL				\$3,908,998
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E1010 COMMERCIAL EQUIPMENT

No work anticipated

SUBTOTAL				\$0
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E1020 INSTITUTIONAL EQUIPMENT

Theater and stage equipment				
Stage curtains and all associated miscellaneous metals for prop supports	1	LS	75,000.00	75,000
Audio-visual equipment				
Equipment - allowance (from report 5/14/20112)			See below the line costs	

SUBTOTAL				\$75,000
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E1030 VEHICULAR EQUIPMENT

Loading dock equipment				
Dock leveler and bumpers	1	LS	12,000.00	12,000

SUBTOTAL				\$12,000
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E1090 OTHER EQUIPMENT

Food service equipment				
Complete	1	LS	359,535.00	359,535
Residential equipment				
Refrigerator	3	EA	2,500.00	7,500
Demonstration cooktop with vent	1	EA	3,500.00	3,500
Range	1	EA	1,500.00	1,500
Oven	1	EA	1,000.00	1,000
Hood	1	EA	450.00	450
Microwave	3	EA	500.00	1,500
Athletic equipment				
Scoreboard	1	EA	8,000.00	8,000
Motorized basketball backboard	4	EA	10,000.00	40,000
Fixed basketball backboard	2	EA	6,000.00	12,000

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Safety padding	2,160	SF	12.00	25,920
Gym divider net/curtain	1,680	SF	15.00	25,200

SUBTOTAL **\$486,105**

E2010 FIXED FURNISHINGS

Millwork

Classrooms	43	RMS	10,000.00	430,000
Dining	4,627	SF	3.00	13,881
Kitchen	3,077	SF	2.00	6,154
Office		FF&E		
Staff break room	2	EA	3,000.00	6,000
Change/Locker room	2	EA	1,500.00	3,000
Servery	1	EA	15,000.00	15,000
Office/Lunchroom	606	SF	8.00	4,848
General storage	1,504	SF	2.00	3,008
Supply Storage/Receiving	2,204	SF	3.00	6,612
Distributed storage	1	EA	1,000.00	1,000
Lobby	1	EA	15,000.00	15,000
Projection/Control room	1	EA	15,000.00	15,000
Scene & Prop Shop/Storage	1	EA	20,000.00	20,000
Dressing room	1	EA	13,000.00	13,000
Green Room		FF&E		
LS General Music	1,392	SF	5.00	6,960
US chorus & General music	1,266	SF	5.00	6,330
US Band & Orchestra	1	EA	15,000.00	15,000
Instrument Storage	1	EA	3,000.00	3,000
Practice Rooms	1	EA	3,000.00	3,000
Theater Classroom	1	EA	5,000.00	5,000
Vo-Tech Lab	1,000	SF	4.00	4,000
Flexible Instructional Space		FF&E		
Small Group Room		FF&E		
Multimedia Studio	1	LS	25,000.00	25,000
Information/Central Circulation	1	LS	30,000.00	30,000
Workroom/Storage	6	EA	1,500.00	9,000
Office	5	EA	2,500.00	12,500
IT workroom/office	1	EA	2,500.00	2,500
Entry mat				
Entry mat and frame	150	SF	45.00	6,750
Window treatment				
Mecho shades	8,683	SF	15.00	130,245
Seating				
Auditorium seating	450	EA	400.00	180,000
Bleachers - allowance	1	LS	50,000.00	50,000
Library shelving				
Double sided library shelving units - 7 shelves high	300	LF	175.00	52,500
Single sided library shelving - 7 shelves high	250	LF	150.00	37,500
Wood end panels to library shelving	50	EA	500.00	25,000

SUBTOTAL **\$1,156,788**

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

E2020 LOOSE FURNISHINGS

Loose furnishings
 By owner

SUBTOTAL				\$0
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F1010 SPECIAL STRUCTURES

No work anticipated

SUBTOTAL				\$0
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F1020 INTEGRATED CONSTRUCTION

No work anticipated

SUBTOTAL				\$0
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F1030 SPECIAL CONSTRUCTION SYSTEMS AND FACIL

No work anticipated

SUBTOTAL				\$0
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F2010 BUILDING ELEMENTS DEMOLITION

No work anticipated

SUBTOTAL				\$0
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F2020 HAZARDOUS COMPONENTS ABATEMENT

No work anticipated

Excluded

SUBTOTAL				\$0
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G1010 SITE CLEARING AND DEMOLITION

Clearing and grubbing				
Allowance for site clearance	3	ACRE	3,000.00	9,998
Site construction fence/barricades	3,000	LF	8.00	24,000
General building demolition				
Demolish existing building, including foundations	2,468,410	CF	1.00	2,468,410
Site demolition				
Pavement demolition				
Bituminous concrete	45,000	SF	1.00	45,000
Concrete paving	3,960	SF	1.50	5,940

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Remove granite or concrete curbs	646	LF	6.00	3,876
Saw cut existing paving	200	LF	5.00	1,000
Miscellaneous site components				
Fencing	1	LS	10,000.00	10,000
Playgrounds	1	LS	10,000.00	10,000
Planter/seat walls	1	LS	20,000.00	20,000
Benches and site ancillaries	1	LS	5,000.00	5,000
Site utilities	1	LS	50,000.00	50,000
<i>SUBTOTAL</i>				\$2,653,224

G1030 SITE EARTHWORK

Site earthwork				
Strip topsoil, store	1,675	CY	5.00	8,375
Site cut to fill	1,675	CY	5.00	8,375
Site fill	10,000	CY	22.00	220,000
Fine grading	10,050	SY	0.50	5,025
<i>SUBTOTAL</i>				\$241,775

G1040 HAZARDOUS WASTE REMEDIATION

No work anticipated			See below the line costs	
<i>SUBTOTAL</i>				\$0

G2010 ROADWAYS AND PARKING LOTS

Bituminous concrete paving in patches				
Excavation to reduce levels	19	CY	15.00	285
Remove off site	19	CY	18.00	342
Gravel base	19	CY	35.00	665
Bituminous concrete patch	500	SF	4.00	2,000
Bituminous concrete paving				
Excavation to reduce levels	1,176	CY	10.00	11,760
Remove off site	1,176	CY	18.00	21,168
Gravel base	1,176	CY	25.00	29,400
Bituminous concrete	609	T	90.00	54,810
Curbing				
Vertical granite curb	472	LF	35.00	16,520
Pavement markings				
Single solid lines, 4" thick	10	SPCE	30.00	300
Handicap parking hatching	2	LOC	75.00	150
Crosswalk hatching	2	LOC	125.00	250
Road signage	1	EA	500.00	500
<i>SUBTOTAL</i>				\$138,150

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

G2030 PEDESTRIAN PAVING

Concrete paving				
Excavation to reduce levels	93	CY	10.00	930
Remove off site	93	CY	18.00	1,674
Gravel base	93	CY	25.00	2,325
Concrete paving, ? thick	2,500	SF	5.00	12,500
Pavers				
Excavation to reduce levels	19	CY	10.00	190
Remove off site	19	CY	18.00	342
Gravel base	19	CY	25.00	475
Concrete	500	SF	4.00	2,000
Precast pavers	500	SF	18.00	9,000
Safety surfacing				
Excavation to reduce levels	333	CY	10.00	3,330
Remove off site	333	CY	18.00	5,994
Gravel base	333	CY	25.00	8,325
Bituminous concrete	115	T	90.00	10,350
Safety surfacing - poured in place	9,000	SF	18.00	162,000

SUBTOTAL				\$219,435
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G2040 SITE DEVELOPMENT

Concrete retaining walls				
Footing				
Excavation for footing	104	CY	12.00	1,248
Backfill with selected excavated material	93	CY	8.00	744
Remove off site	11	CY	18.00	198
Formwork to footing	600	SF	12.00	7,200
Concrete in footing	11	CY	161.25	1,774
Wall				
Formwork to wall	2,000	SF	12.00	24,000
Reinforcement in wall	5,000	LB	1.10	5,500
Concrete in wall	49	CY	165.75	8,122
Finishing				
Facing to retaining walls, brick	600	SF	30.00	18,000
Cap to retaining wall, precast	100	LF	45.00	4,500
Foundation drainage	100	LF	14.00	1,400
Fencing				
Chain link fence	300	LF	22.00	6,600
Chain link double gate	1	EA	1,000.00	1,000
Fence at playgrounds	440	LF	150.00	66,000
Ornamental fence at entrance	59	LF	200.00	11,800
Slide gate at entrance	1	EA	20,000.00	20,000
Site furnishings				
Flagpole including base	3	EA	2,500.00	7,500
Bench, 6' length	6	EA	2,000.00	12,000
Trash receptacles	6	EA	600.00	3,600
Playground equipment				
Tot lot	1	LS	25,000.00	25,000
Kindergarden	1	LS	25,000.00	25,000
General	1	LS	50,000.00	50,000

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Basketball court	1	LS	40,000.00	40,000
Bike racks	1	LS	30,000.00	30,000
Tree grates	6	EA	800.00	4,800
Bollards	6	EA	400.00	2,400
Site sign	2	EA	5,000.00	10,000

SUBTOTAL **\$388,386**

G2050 LANDSCAPING

Topsoil/planting medium				
New topsoil	750	CY	40.00	30,000
Trees				
Type ?	30	EA	1,500.00	45,000
Shrubs				
Type ?	50	EA	75.00	3,750
Ground cover				
Type ?	400	EA	20.00	8,000
Grass/lawn				
Seeding to lawn areas	24,000	SF	0.20	4,800

SUBTOTAL **\$91,550**

G3010 MECHANICAL UTILITIES

Water supply				
DI piping	584	LF	50.00	29,200
Water hydrant	1	EA	2,500.00	2,500
Connect to existing	7	EA	2,250.00	15,750
Excavation/trenching	346	CY	12.00	4,152
Bedding	87	CY	25.00	2,175
Backfill	259	CY	18.00	4,662
Sanitary sewer				
Sewer piping	111	LF	28.00	3,108
Manhole	1	EA	4,000.00	4,000
Grease trap	1	EA	2,000.00	2,000
Connect to existing	1	EA	2,500.00	2,500
Excavation/trenching	49	CY	12.00	588
Bedding	12	CY	25.00	300
Backfill	37	CY	18.00	666
Storm drainage				
Piping	280	LF	25.00	7,000
Manhole	1	EA	4,000.00	4,000
Catch basin	2	EA	3,500.00	7,000
Water storage tank and filtration system	1	EA	125,000.00	125,000
Connect to existing	1	EA	2,000.00	2,000
Excavation and trenching	622	CY	12.00	7,464
Bedding	41	CY	25.00	1,025
Backfill	581	CY	18.00	10,458
Underground storm water detention				
Piping, CCP, 48" diameter	500	LF	65.00	32,500
Excavation and trenching	229	CY	12.00	2,748

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

Bedding	69	CY	25.00	1,725
Backfill	160	CY	18.00	2,880
Filter fabric	1,425	SF	1.00	1,425
Miscellaneous hardware	1	LS	2,500.00	2,500
Gas distribution				
Gas connection piping		By Utilities Company		
Connect to existing		By Utilities Company		
Excavation/trenching	34	CY	12.00	408
Bedding	4	CY	25.00	100
Backfill	30	CY	18.00	540
SUBTOTAL				\$280,374

G4010 ELECTRICAL UTILITIES AND SITE LIGHTING

Electrical service				
Primary electrical service duct bank	100	LF	60.00	6,000
Secondary electrical service duct bank	50	LF	140.00	7,000
Manhole	1	EA	4,000.00	4,000
Transformer pad	1	EA	1,500.00	1,500
Site lighting				
20' Light poles @ parking lots	5	EA	2,300.00	11,500
12' Light poles @ walkways lots	3	EA	2,500.00	7,500
Pole base	8	EA	500.00	4,000
Circuitry	400	LF	3.00	1,200
Site communication				
Communication service duct bank	100	LF	80.00	8,000
Manhole	1	EA	4,000.00	4,000
SUBTOTAL				\$54,700

G9010 SERVICE AND PEDESTRIAN TUNNELS

No work anticipated

SUBTOTAL **\$0**

G9090 OTHER SITE SYSTEMS

No work anticipated

SUBTOTAL **\$0**

Description	Quantity	Unit	Rate	Total
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PI OPTION - ESTIMATE DETAIL

MARKUPS

General conditions and project requirements				
General conditions and requirements	10.00%		41,481,866	4,148,187
Bond and Insurance	1.50%		45,630,053	684,451
Building permit	1.00%		46,314,503	excluded
Overhead and Profit				
Contractors overhead and profit (Fee)	2.50%		46,314,503	1,157,863
SUBTOTAL				\$5,990,500

CONTINGENCIES/ESCALATION

Contingencies				
Design contingency	12.00%		47,472,366	5,696,684
GMP contingency	3.00%		53,169,050	1,595,071
Escalation				
Escalation to Midpoint (October 2014)	6.11%		54,764,121	3,345,528
SUBTOTAL				\$10,637,283

Quantity Unit Rate Total

ALTERNATES

Alternate: Existing Modified PV Solar panels

PV solar panel - roof mounted	24,300	SF	90.00	2,187,000
PV solar panel - wall mounted	10,428	SF	100.00	1,042,800
PV Solar panels on site structure	30,500	SF	130.00	3,965,000
Markups	25%		7,194,800	1,798,700
				8,993,500

Alternate: Clover PV Solar panels

PV solar panel - roof mounted	35,000	SF	90.00	3,150,000
PV solar panel - wall mounted	6,912	SF	100.00	691,200
PV Solar panels on site structure	20,500	SF	130.00	2,665,000
Markups	25%		6,506,200	1,626,550
				8,132,750

Alternate: Pi PV Solar panels

PV solar panel - roof mounted	34,300	SF	90.00	3,087,000
PV solar panel - wall mounted	10,342	SF	100.00	1,034,200
PV Solar panels on site structure	19,800	SF	130.00	2,574,000
Markups	25%		6,695,200	1,673,800
				8,369,000

Alternate: Parking Structure

Additional dept to foundations	1	LS	30,000.00	30,000
New slab on grade poured over existing slab on grade, including insulation'	20,000	SF	10.00	200,000
Load transfer over existing structure	20,000	SF	10.00	200,000
Insulation to exterior wall	7,000	SF	15.00	105,000
Interior fit-out of parking space	2,000	SF	20.00	40,000
Waterproofing above exposed roof deck	8,000	SF	10.00	80,000
Credit for fill material not required	(10,000)	CY	22.00	(220,000)
Markups	40%		575,000	230,000
				665,000

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City of Cambridge

Perkins Eastman