



Minuteman Regional Vocational Technical High School
Lexington, MA

August 15, 2013

Base Options Estimate

Architect:

Kaestle Boos Associates, Inc
325 Foxborough Blvd.
Foxborough, MA 02035
(508) 549-9906

Cost Estimator:

Daedalus Projects Incorporated
112 South Street, Boston, MA 02111
161 Exchange Street, Pawtucket, RI 02860
(617) 451 2717 (401) 721 0811

INTRODUCTION

Project Description:

- The project consists of the necessary upgrade of the existing High School building.

Project Particulars:

- Study drawings dated May 1, 2013, and narrative received on July 22, 2012 from by Kaestle Boos Associates, Inc.
- Detailed quantity takeoff from these documents where possible
- Daedalus Projects, Inc. experience with similar projects of this nature

Project Assumptions:

- The project will be publicly bid to no less than three (3) General Contractors under Chapter 149
- Our costs assume that there will be at least three subcontractors submitting unrestricted bids in each sub-trade
- The total construction cost reflects fair construction value of this project in a competitive bidding market
- Unit rates are based on current dollars
- An allowance for escalation to start of construction at a rate of 3.5% per year has been carried in the main summary
- Subcontractor's markups have been included in each unit rate. Markups cover the cost of field overhead, home office and subcontractor's profit
- General Conditions and Requirements cover for: site office and/or overheads, personnel, final cleaning, etc.
- Fee is calculated on a percentage basis of direct construction cost
- Design and Pricing Contingency is an allowance for unforeseen design issues, design detail development and specification clarifications

Project Exclusions:

- Design fees and other soft costs
- Interest expense
- Owner's project administration
- Construction of temporary facilities
- Relocation expenses
- AV equipment excluded
- Printing and advertising
- Site or existing condition surveys and investigations
- Utility company back charges during construction
- Work beyond the boundary of the site
- Testing & commissioning
- Specialties, loose furnishings, fixtures and equipment beyond those noted
- LEED Certification submission and process
- Hazardous Waste Abatement



Minuteman Regional Vocational Technical High School

Lexington, MA

311,390 GSF

MAIN SUMMARY

	TOTAL	COST/SF
Site for Accessible Route and Parking	\$115,829	\$0.37
Bathroom Upgrade	\$1,093,858	\$3.51
Stair Handrails Replacement	\$268,154	\$0.86
Stair Encasement At Top Level To Roof	\$194,204	\$0.62
Roof Replacement	\$4,436,859	\$14.25
Fire Protection / Plumbing / HVAC	\$7,996,559	\$25.68
Electrical	\$7,526,221	\$24.17
Additional Renovation	\$16,152,305	\$51.87
Estimated Construction Cost Total	\$37,783,989	\$121.34

MAIN SUMMARY WITH MARKUP

				TOTAL	COST/SF
Site for Accessible Route and Parking				\$83,500	\$0.27
Bathroom Upgrade				\$788,553	\$2.53
Stair Handrails Replacement				\$193,310	\$0.62
Stair Encasement At Top Level To Roof				\$140,000	\$0.45
Roof Replacement				\$3,198,490	\$10.27
Fire Protection / Plumbing / HVAC				\$5,764,645	\$18.51
Electrical				\$5,425,582	\$17.42
Additional Renovation				\$11,644,045	\$37.39
Direct Trade Cost Subtotal				\$27,238,124	\$87.47
Design and Pricing Contingency	12.00%	\$27,238,124		\$3,268,575	\$10.50
Trade Cost Subtotal				\$30,506,699	\$97.97
General Conditions and Markups					
General Conditions and Requirements	12.00%	\$30,506,699		\$3,660,804	\$11.76
Insurance	1.10%	\$34,167,503		\$375,843	\$1.21
GC Bonds	0.65%	\$34,543,346		\$224,532	\$0.72
Fee	5.00%	\$34,767,878		\$1,738,394	\$5.58
Estimated Construction Cost Total				\$36,506,271	\$117.24
Escalation to Fall 2014	3.50%	\$36,506,271		\$1,277,719	\$4.10
Estimated Construction Cost Total, Including Escalation				\$37,783,991	\$121.34

SITE FOR ACCESSIBLE ROUTE AND PARKING DETAIL

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
7	02-SITEWORK				
8					
9	02 41 00 Demolition				
10	Abandoned underground oil tanks to be investigated / removed	1	LS	\$35,000.00	\$35,000
11	02 41 00 Demolition Total				\$35,000
12					
13	32 14 00 Pavement				
14	ADA accessible entrance / parking upgrade	1	LS	\$30,000.00	\$30,000
15	32 14 00 Pavement Total				\$30,000
16					
17	33 10 00 Water Utilities				
18	8" CLDI	100	LF	\$85.00	\$8,500
19	33 10 00 Water Utilities Total				\$8,500
20					
21	33 40 00 Storm Drainage Utilities				
22	Re-doing the existing catch basins to meet the new stormwater management regs	1	AL	\$10,000.00	\$10,000
23	33 40 00 Storm Drainage Utilities Total				\$10,000
24					
25					
26	Direct Trade Cost Subtotal				\$83,500
27					
28	Design and Pricing Contingency	12.00%		\$83,500	\$10,020
29					
30	Trade Cost Subtotal				\$93,520
31					
32	General Conditions and Markups				
33	General Conditions and Requirements	12.00%		\$93,520	\$11,222
34	Insurance	1.10%		\$104,742	\$1,152
35	GC Bonds	0.65%		\$105,895	\$688
36	Fee	5.00%		\$106,583	\$5,329
37					
38	Estimated Construction Cost Total				\$111,912
39					
40	Escalation to Fall 2014	3.50%		\$111,912	\$3,917
41					
42	Estimated Construction Cost Total, Including Escalation				\$115,829

BATHROOM UPGRADE DETAIL

ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
8 02 41 19 Selective Structure Demolition				
9 R & D existing bathroom	6,949	SF	\$6.50	\$45,169
10 R & D toilet compartments				Included
11 R & D existing janitor floor	877	SF	\$1.00	\$877
12 Remove single door allowance	7	EA	\$120.00	\$840
13 Demo existing partitions	3,550	SF	\$3.50	\$12,425
14 Cut & patch	1	LS	\$15,000.00	\$15,000
15 Miscellaneous demolition other than above	1	LS	\$7,500.00	\$7,500
16 02 41 19 Selective Structure Demolition Total				\$81,811
17				
18 03 30 00 Concrete				
19 Allowance for concrete leveling	7,826	SF	\$3.75	\$29,348
20 03 30 00 Concrete Total				\$29,348
21				
22 06 10 00 Rough Carpentry				
23 Rough carpentry allowance	7,826	SF	\$3.00	\$23,478
24 06 10 00 Rough Carpentry Total				\$23,478
25				
26 06 40 00 Architectural Woodwork				
27 Bathroom countertop	120	LF	\$220.00	\$26,400
28 06 40 00 Architectural Woodwork Total				\$26,400
29				
30 07 92 00 Joint Sealants				
31 Interior caulking and sealants	1	LS	\$5,000.00	\$5,000
32 07 92 00 Joint Sealants Total				\$5,000
33				
34 08 14 16 Flush Wood Doors				
35 Single wood door and HM frame (hardware included) allowance	1	LS	\$35,000.00	\$35,000
36 08 14 16 Flush Wood Doors Total				\$35,000
37				
38 08 31 00 Access Doors and Panels				
39 Access doors allowance	48	EA	\$350.00	\$16,800
40 08 31 00 Access Doors and Panels Total				\$16,800
41				
42 09 20 00 Gypsum Wallboard Systems				
43 New partition wall	2,530	SF	\$12.00	\$30,360
44 Infill door opening	147	SF	\$20.00	\$2,940
45 Allowance for soffit	1	LS	\$7,500.00	\$7,500
46 09 20 00 Gypsum Wallboard Systems Total				\$40,800
47 09 30 00 Tile				

BATHROOM UPGRADE DETAIL

ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
48 Ceramic tile floor allowance	6,949	SF	\$15.00	\$104,235
49 Ceramic tile wall (4'-6" High) allowance	9,045	SF	\$15.00	\$135,675
50 Ceramic tile base allowance	2,010	LF	\$10.00	\$20,100
51 Threshold	41	EA	\$150.00	\$6,150
52 09 30 00 Tile Total				\$266,160
53				
54 09 51 00 Acoustical Ceiling				
55 Acoustic ceiling tile, moisture resistant, Toilets	6,949	SF	\$5.00	\$34,745
56 09 51 00 Acoustical Ceiling Total				\$34,745
57				
58 09 65 00 Resilient Flooring				
59 VCT flooring janitor	877	SF	\$4.00	\$3,508
60 Resilient base	336	LF	\$2.50	\$840
61 09 65 00 Resilient Flooring Total				\$4,348
62				
63 09 90 00 Paints and Coatings				
64 Paint bathroom allowance	6,949	SF	\$3.50	\$24,322
65 Paint janitor allowance	877	SF	\$2.50	\$2,193
66 09 90 00 Paints and Coatings Total				\$26,514
67				
68 10 21 13 Toilet Compartments				
69 Toilet partition stall allowance	25	EA	\$1,100.00	\$27,500
70 Toilet partition stall, ADA allowance	15	EA	\$1,400.00	\$21,000
71 Urinal screen allowance	26	EA	\$650.00	\$16,900
72 10 21 13 Toilet Compartments Total				\$65,400
73				
74 10 14 00 Signage				
75 Building signage allowance - based on floor area	7,826	SF	\$0.75	\$5,870
76 10 14 00 Signage Total				\$5,870
77				
78 10 28 13 Toilet Accessories				
79 Toilet room accessories and compartments - gang	15	EA	\$7,500.00	\$112,500
80 Toilet room accessories - private	18	EA	\$750.00	\$13,500
81 Janitor mop shelf	8	EA	\$110.00	\$880
82 10 28 13 Toilet Accessories Total				\$126,880
83				
84 22 00 00 Plumbing				
85 Fixtures: (New fixtures)				
86 Water Closet WC-A	7	EA	\$4,800.00	See MEP
87 Urinal UR-A	3	EA	\$4,800.00	See MEP
88 Lavatory LAV-A	6	EA	\$4,800.00	See MEP

BATHROOM UPGRADE DETAIL

ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
89 Fixtures: (replace existing fixture with new)				See MEP
90 Water Closet WC-A	40	EA	\$2,300.00	See MEP
91 Urinal UR-A	26	EA	\$2,300.00	See MEP
92 Lavatory LAV-A	40	EA	\$2,300.00	See MEP
93 Mop sink MR-A	1	EA	\$2,300.00	See MEP
94 Water Cooler EWC-A	8	EA	\$3,200.00	See MEP
95 Floor Drains:				See MEP
96 - FD-1	2	EA	\$1,500.00	See MEP
97 Demolition	1	LS	\$20,000.00	See MEP
98 Cap of existing piping	1	LS	\$7,500.00	See MEP
99 Shut down and drain system	1	LS	\$3,500.00	See MEP
100 Coring & sleeves	1	LS	\$10,000.00	See MEP
101 Valves and specialties	1	LS	\$8,500.00	See MEP
102 Seismic Restraints	1	LS	\$6,250.00	See MEP
103 Testing	1	LS	\$9,500.00	See MEP
104 Shop Drawing	1	LS	\$8,500.00	See MEP
105 22 00 00 Plumbing Total				\$0
106				
107 26 00 00 Electrical				
108 Electrical allowance	7,826	SF	\$17.25	See MEP
109 26 00 00 Electrical Total				\$0
110				
111 Direct Trade Cost Subtotal				\$788,553
112				
113 Design and Pricing Contingency	12.00%	\$788,553		\$94,626
114				
115 Trade Cost Subtotal				\$883,179
116				
117 General Conditions and Markups				
118 General Conditions and Requirements	12.00%	\$883,179		\$105,981
119 Insurance	1.10%	\$989,160		\$10,881
120 GC Bonds	0.65%	\$1,000,041		\$6,500
121 Fee	5.00%	\$1,006,541		\$50,327
122				
123 Estimated Construction Cost Total				\$1,056,868
124				
125 Escalation to Fall 2014	3.50%	\$1,056,868		\$36,990
126				
127 Estimated Construction Cost Total, Including Escalation				\$1,093,858

STAIR HANDRAIL REPLACEMENT DETAIL

ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
8 024100 - Demolition				
9 Remove existing stair railing allowance	3,128	LF	\$15.00	\$46,920
10 024100 - Demolition Total				\$46,920
11				
12 05 50 00 Metal Fabrications				
13 New steel railing at stair #1	3	FLT	\$2,600.00	\$7,800
14 New steel railing at stair #2	3	FLT	\$2,600.00	\$7,800
15 New steel railing at stair #3, #4, #5	6	FLT	\$4,200.00	\$25,200
16 New steel railing at stair #6	2	FLT	\$4,500.00	\$9,000
17 New steel railing at stair #6A	2	FLT	\$2,500.00	\$5,000
18 New steel railing at stair #7	2	FLT	\$4,500.00	\$9,000
19 New steel railing at stair #7A	2	FLT	\$2,500.00	\$5,000
20 New steel railing at stair #8	2	FLT	\$4,850.00	\$9,700
21 New steel railing at stair #8A	2	FLT	\$2,500.00	\$5,000
22 New steel railing at stair # 9	2	FLT	\$4,200.00	\$8,400
23 New steel railing at stair # 9A	1	FLT	\$2,000.00	\$2,000
24 New steel railing at stair #10	2	FLT	\$5,000.00	\$10,000
25 New steel railing at stair #10A	1	FLT	\$1,980.00	\$1,980
26 New steel railing at stair #11	3	FLT	\$2,600.00	\$7,800
27 New steel railing at stair #12	3	FLT	\$2,600.00	\$7,800
28 New steel railing at stair #13 & #14	2	FLT	\$3,060.00	\$6,120
29 New steel railing at stair #15	1	FLT	\$4,760.00	\$4,760
30 New steel railing at stair #16	1	FLT	\$2,700.00	\$2,700
31 New steel railing at stair #17	1	FLT	\$1,530.00	\$1,530
32 New steel railing at stair #18	1	FLT	\$2,000.00	\$2,000
33 New steel railing at stair #19,20,21,22,23 & 23	6	FLT	\$1,300.00	\$7,800
34 05 50 00 Metal Fabrications Total				\$146,390
35				
36 Direct Trade Cost Subtotal				\$193,310
37				
38 Design and Pricing Contingency	12.00%	\$193,310		\$23,197
39				
40 Trade Cost Subtotal				\$216,507
41				
42 General Conditions and Markups				
43 General Conditions and Requirements	12.00%	\$216,507		\$25,981
44 Insurance	1.10%	\$242,488		\$2,667
45 GC Bonds	0.65%	\$245,155		\$1,594
46 Fee	5.00%	\$246,749		\$12,337
47 Estimated Construction Cost Total				\$259,086

STAIR HANDRAIL REPLACEMENT DETAIL

Lexington, MA

311,390 GSF

ELEMENT		QUANTITY	UNIT	UNIT RATE	COST
48					
49	Escalation to Fall 2014	3.50%	\$259,086		\$9,068
50					
51	Estimated Construction Cost Total, Including Escalation				<u>\$268,154</u>

STAIR ENCASEMENT AT TOP LEVEL TO ROOF DETAIL

ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
8 09 20 00 Gypsum Wallboard Systems				
9 New wall for stair encasement at top level to roof at stair #1	1	LS	\$35,000.00	\$35,000
10 New wall for stair encasement at top level to roof at stair #2	1	LS	\$35,000.00	\$35,000
11 New wall for stair encasement at top level to roof at stair #11	1	LS	\$35,000.00	\$35,000
12 New wall for stair encasement at top level to roof at stair #12	1	LS	\$35,000.00	\$35,000
13 09 20 00 Gypsum Wallboard Systems Total				\$140,000
14				
15				
16 Direct Trade Cost Subtotal				\$140,000
17				
18 Design and Pricing Contingency	12.00%	\$140,000		\$16,800
19				
20 Trade Cost Subtotal				\$156,800
21				
22 General Conditions and Markups				
23 General Conditions and Requirements	12.00%	\$156,800		\$18,816
24 Insurance	1.10%	\$175,616		\$1,932
25 GC Bonds	0.65%	\$177,548		\$1,154
26 Fee	5.00%	\$178,702		\$8,935
27				
28 Estimated Construction Cost Total				\$187,637
29				
30 Escalation to Fall 2014	3.50%	\$187,637		\$6,567
31				
32 Estimated Construction Cost Total, Including Escalation				\$194,204

ROOF REPLACEMENT DETAIL

ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
8 042100-Masonry Repairs				
9 Masonry repair allowance	1	AL	\$15,000.00	\$15,000
10 042100-Masonry Repairs Total				\$15,000
11				
12 07 50 00-Roofing				
13 Roof area	122,295	SF		
14 Remove and dispose of existing roof down to deck	122,295	SF	\$2.50	\$305,738
15 New PVC membrane, over new R20 roof insulation	122,295	SF	\$10.00	\$1,222,950
16 Bituminous vapor retarder	122,295	SF	\$3.25	\$397,459
17 New 5/8" recovery board,	122,295	SF	\$2.25	\$275,164
18 New Flashing	1	AL	\$65,000.00	\$65,000
19 Prefabricated fascias UL tested for 165 mph wind speed	3,650	LF	\$25.00	\$91,250
20 07 50 00-Roofing Total				\$2,357,560
21				
22 08 63 00-Metal Framed Skylights				
23 Skylights area	8,160	SF		
24 Remove and dispose of existing skylight	8,160	SF	\$3.00	\$24,480
25 Install of Skylights	8,160	SF	\$95.00	\$775,200
26 Install 6 Bi-function cast iron pipe overflow drain	350	LF	\$75.00	\$26,250
27 08 63 00-Metal Framed Skylights Total				\$825,930
28				
29				
30 Direct Trade Cost Subtotal				\$3,198,490
31				
32 Design and Pricing Contingency	12.00%	\$3,198,490		\$383,819
33				
34 Trade Cost Subtotal				\$3,582,309
35				
36 General Conditions and Markups				
37 General Conditions and Requirements	12.00%	\$3,582,309		\$429,877
38 Insurance	1.10%	\$4,012,186		\$44,134
39 GC Bonds	0.65%	\$4,056,320		\$26,366
40 Fee	5.00%	\$4,082,686		\$204,134
41				
42 Estimated Construction Cost Total				\$4,286,820
43				
44 Escalation to Fall 2014	3.50%	\$4,286,820		\$150,039
45				
46 Estimated Construction Cost Total, Including Escalation				\$4,436,859

FIRE PROTECTION, PLUMBING & HVAC DETAIL

ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
8 21 00 00 Fire Protection				
9 Sprinkler Coverage	311,390	SF	\$3.25	\$1,012,018
10 8" Alarm Valve w/ trim	1	EA	\$4,850.00	\$4,850
11 8" Backflow Preventer	1	EA	\$9,500.00	\$9,500
12 8" Water Service	1	EA	\$3,000.00	\$3,000
13 Zone control w/ standpipe	9	EA	\$3,250.00	\$29,250
14 FDV w/ standpipe	6	EA	\$1,850.00	\$11,100
15 FDV Cabinet	2	EA	\$685.00	\$1,370
16 Pumper connection	1	EA	\$2,500.00	\$2,500
17 Main piping:				
18 - 6"	550	LF	\$55.65	\$30,608
19 Seismic Restraints	1	EA	\$9,500.00	\$9,500
20 Coring & sleeves	1	LS	\$10,000.00	\$10,000
21 Shop drawings/hydraulic calculations	1	LS	\$15,000.00	\$15,000
22 Permits & Fees	1	LS	\$5,000.00	\$5,000
23 Lifts	1	LS	\$12,500.00	\$12,500
24 21 00 00 Fire Protection Total				\$1,156,195
25				
26 22 00 00 Plumbing				
27 Fixtures: (New fixtures)				
Water Closet WC-A	7	EA	\$4,800.00	\$33,600
Urinal UR-A	3	EA	\$4,800.00	\$14,400
30 Lavatory LAV-A	6	EA	\$4,800.00	\$28,800
31 Fixtures: (replace existing fixture with new)				
32 Water Closet WC-A	40	EA	\$2,300.00	\$92,000
33 Urinal UR-A	26	EA	\$2,300.00	\$59,800
34 Lavatory LAV-A	40	EA	\$2,300.00	\$92,000
35 Mop sink MR-A	1	EA	\$2,300.00	\$2,300
36 Water Cooler EWC-A	8	EA	\$3,200.00	\$25,600
37 Floor Drains:				
38 - FD-1	2	EA	\$1,500.00	\$3,000
39 Demolition	1	LS	\$20,000.00	\$20,000
40 Cap of existing piping	1	LS	\$7,500.00	\$7,500
41 Shut down and drain system	1	LS	\$3,500.00	\$3,500
42 Coring & sleeves	1	LS	\$10,000.00	\$10,000
43 Valves and specialties	1	LS	\$8,500.00	\$8,500
44 Seismic Restraints	1	LS	\$6,250.00	\$6,250
45 Testing	1	LS	\$9,500.00	\$9,500
46 Shop Drawing	1	LS	\$8,500.00	\$8,500
47 22 00 00 Plumbing Total				\$425,250

FIRE PROTECTION, PLUMBING & HVAC DETAIL

Lexington, MA

311,390 GSF

ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
48 23 00 00 HVAC				
49 Air Handling Units: (energy recovery)				
50 - ERU-1 19,110 CFM	1	EA	\$152,880.00	\$152,880
51 - ERU-2 18,410 CFM	1	EA	\$147,280.00	\$147,280
52 - ERU-3 8,300 CFM	1	EA	\$66,400.00	\$66,400
53 - ERU-4 8,100 CFM	1	EA	\$64,800.00	\$64,800
54 - ERU-5 7,900 CFM	1	EA	\$63,200.00	\$63,200
55 - ERU-6 12,300 CFM	1	EA	\$98,400.00	\$98,400
56 - ERU-7 10,000 CFM	1	EA	\$80,000.00	\$80,000
57 - ERU-8 14,500 CFM	1	EA	\$116,000.00	\$116,000
58 - ERU-9 3,000 CFM	1	EA	\$24,000.00	\$24,000
59 - ERU-10 9,000 CFM	1	EA	\$72,000.00	\$72,000
60 - ERU-11 9,000 CFM	1	EA	\$72,000.00	\$72,000
61 - ERU-12 13,000 CFM	1	EA	\$104,000.00	\$104,000
62 Pool Dehumidifier:				
63 - PD-1	1	EA	\$175,000.00	\$175,000
64 VAV Boxes:				
65 - VAV	187	EA	\$1,050.00	\$196,350
66 Cabinet & Unit Heaters:				
67 - CUH/UH	30	EA	\$980.00	\$29,400
68 Fin-tube Radiators (pool area)				
69 - FTR-1	200	LF	\$90.00	\$18,000
70 Exhaust Fans	1	LS	\$7,500.00	\$7,500
71 Pump	1	EA	\$5,000.00	\$5,000
72 Upgrade of exhaust systems for trades	1	LS	\$100,000.00	\$100,000
73 (auto, welding & wood shops)				
74 Misc. Duct Accessories	1	LS	\$12,000.00	\$12,000
75 Galvanized duct (rework existing duct)	50,000	LBS	\$9.50	\$475,000
76 Duct Wrap	35,000	SF	\$3.65	\$127,750
77 Duct Sealant	5,000	LF	\$1.40	\$7,000
78 Hot & Chilled Water Piping : (rework existing piping	1	LS	\$100,000	\$100,000
79 existing piping)				
80 Insulation Hot & Chilled Water Piping :	1	LS	\$33,000	\$33,000
81 Equipment Hook-ups:				
82 - 2" 2-Way Coils	12	EA	\$3,250.00	\$39,000
83 - 2-1/2" 2-Way Coils	8	EA	\$5,850.00	\$46,800
84 - 3" 2-Way Coils	4	EA	\$8,750.00	\$35,000
85 - VAV	175	EA	\$965.00	\$168,875
86 - UH/CUH	25	EA	\$955.00	\$23,875
87 - Pump	1	EA	\$9,500.00	\$9,500

FIRE PROTECTION, PLUMBING & HVAC DETAIL

ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
88 - Fin-tube Radiators	1	EA	\$940.00	\$940
89 - Dehumidifier	1	EA	\$15,000.00	\$15,000
90 Replace Fume Hoods	1	LS	\$30,000.00	\$30,000
91 Coring & Cutting	1	LS	\$3,500.00	\$3,500
92 Commissioning	1	LS	\$5,000.00	\$5,000
93 Misc. Valves & specialties	1	LS	\$10,000.00	\$10,000
94 Controls	1	LS	\$1,240,000	\$1,240,000
95 Demolition	1	LS	\$95,000.00	\$95,000
96 Testing & balance	1	LS	\$15,000.00	\$15,000
97 Cap of existing piping	1	LS	\$2,000.00	\$2,000
98 Rigging & Lifting	1	LS	\$85,000.00	\$85,000
99 Shut down and drain system	1	LS	\$3,250.00	\$3,250
100 Shop drawings	1	LS	\$8,500.00	\$8,500
101 23 00 00 HVAC Total				\$4,183,200
102				
103				
104 Direct Trade Cost Subtotal				\$5,764,645
105				
106 Design and Pricing Contingency	12.00%	\$5,764,645		\$691,757
107				
108 Trade Cost Subtotal				\$6,456,402
109				
110 General Conditions and Markups				
111 General Conditions and Requirements	12.00%	\$6,456,402		\$774,768
112 Insurance	1.10%	\$7,231,170		\$79,543
113 GC Bonds	0.65%	\$7,310,713		\$47,520
114 Fee	5.00%	\$7,358,233		\$367,912
115				
116				
117 Estimated Construction Cost Total				\$7,726,144
118				
119 Escalation to Fall 2014	3.50%	\$7,726,144		\$270,415
120				
121 Estimated Construction Cost Total, Including Escalation				\$7,996,559

ELECTRICAL DETAIL.

ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
8 26 00 00 Electrical				
9 <i>Interior Electrical</i>				
10				
11 <i>Gear & Distribution</i>				
12 Normal Power				
13 Electrical distribution system (panelboards & feeders)				
14 utilizing existing service & main switchboard	311,390	SF	\$2.00	\$622,780
15				
16 Generator Power				
17 Stand by generator and associated electrical distribution	311,390	SF	\$1.50	\$467,085
18				
19 <i>Equipment Wiring</i>				
20 Allow for equipment wiring not yet defined	311,390	SF	\$1.00	\$311,390
21				
22 <i>Lighting & Branch Power</i>				
23 Lighting excluding cafeteria, Gymnasium &				
24 shop area	269,436	SF	\$3.50	\$943,026
25 Lighting controls excluding cafeteria, gymnasium &				
26 shop area	269,436	SF	\$1.00	\$269,436
27 Branch devices	269,436	SF	\$0.25	\$67,359
28 Branch circuitry	269,436	SF	\$3.00	\$808,308
29				
30 <i>Fire Alarm</i>				
31 Fire alarm system	311,390	SF	\$2.00	\$622,780
32				
33 <i>Telephone/Data/CATV</i>				
34 Communications rough-in, devices, wiring & backbone	311,390	SF	\$3.00	\$934,170
35				
36				
37 <i>Master clock/Public Address System</i>				
38 Classroom intercom & wireless master clock system	50,000	SF	\$1.00	\$50,000
39				
40 <i>Audio Visual</i>				
41 Classroom AV - Rough-in and power connections	50,000	SF	\$0.50	\$25,000
42				
43 <i>Assembly Space Sound System</i>				
44 Assembly space local sound system (rough-in, power,				
45 cabling, volume controls & speakers)	1	LS	\$25,000.00	\$25,000
46				
47 <i>Lightning Protection</i>				

ELECTRICAL DETAIL

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
48	Modifications to existing lightning protection system, allow	1	LS	\$50,000.00	\$50,000
49					
50	<i>Reimbursable</i>				
51	Fees & Permits	1	LS	\$55,000.00	\$55,000
52	Demo & make safe	311,390	SF	\$0.30	\$93,417
53	Temp power & lights	269,436	SF	\$0.30	\$80,831
54	26 00 00 Electrical Total				\$5,425,582
55					
56					
57	Direct Trade Cost Subtotal				\$5,425,582
58					
59	Design and Pricing Contingency	12.00%	\$5,425,582		\$651,070
60					
61	Trade Cost Subtotal				\$6,076,652
62					
63	General Conditions and Markups				
64	General Conditions and Requirements	12.00%	\$6,076,652		\$729,198
65	Insurance	1.10%	\$6,805,850		\$74,864
66	GC Bonds	0.65%	\$6,880,714		\$44,725
67	Fee	5.00%	\$6,925,439		\$346,272
68					
69					
70	Estimated Construction Cost Total				\$7,271,711
71					
72	Escalation to Fall 2014	3.50%	\$7,271,711		\$254,510
73					
74	Estimated Construction Cost Total, Including Escalation				\$7,526,221

ADDITION RENOVATION DETAIL

ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
8 02 41 19 Selective Structure Demolition				
9 R & D existing ceiling allowance	249,112	SF	\$1.50	\$373,668
10 Remove exterior single door	17	EA	\$120.00	\$2,040
11 Remove exterior double door	13	EA	\$150.00	\$1,950
12 Remove exterior window and storefront	28,776	SF	\$4.50	\$129,492
13 Remove exterior CorTen sidings at 3rd floor	14,651	SF	\$3.50	\$51,279
14 Cut & patch	1	LS	\$10,000.00	\$10,000
15 Miscellaneous demolition other than above	1	LS	\$20,000.00	\$20,000
16 02 41 19 Selective Structure Demolition Total				\$588,429
17				
18 02 50 00 Abatement				
19 Abatement	1	LS	\$820,000.00	\$820,000
20 02 50 00 Abatement Total				\$820,000
21				
22 04 23 00 Masonry Repair				
23 Masonry rebuilt at stairwells allowance	1	LS	\$50,000.00	\$50,000
24 04 23 00 Masonry Repair Total				\$50,000
25				
26				
27 05-METALS				
28				
29 05 12 00 Structural Steel Framing				
Insertion of 8-10 steel braced frames or moment frames along				
30 exterior wall lines moment frames along exterior wall lines allowance	1	LS	\$850,000.00	\$850,000
31 Reinforce 24 columns that support the mezzanine floor	1	LS	\$350,000.00	\$350,000
Provide seismic anchorage and bracing for critical				
32 equipment(to include main fire protection lines, emergency electrical equipment, major suspended equipment that could be a life safety hazard)	330,000	SF	\$2.50	\$825,000
Provide seismic anchorage and bracing for suspended				
33 components that could be a life safety hazard, anchors for filing cabinets and tall shelving	330,000	SF	\$2.25	\$742,500
Install new steel clip angles at top of walls to underside of				
34 structure, or steel bracing from top of wall to structure as required.	330,000	SF	\$3.50	\$1,155,000
35 Cut away existing restraint to thermal expansion and install new expansion joint at floors and roofs.	1,100	LF	\$65.00	\$71,500

ADDITION RENOVATION DETAIL

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
36	Cut away existing masonry from steel frames and install appropriate sealer to allow for independent movement. Also install adequate bracing for top of walls.	350	LF	\$125.00	\$43,750
37	Remove and reconstruct top floor of four existing masonry stair towers, including provision for addition of reinforcing steel in grouted cores.	1	LS	\$250,000.00	\$250,000
38	05 12 00 Structural Steel Framing Total				\$4,287,750
39					
40					
41	05 81 00-Expansion Joint Systems				
42	Repairs to expansion joints	1	LS	\$45,000.00	\$45,000
43	05 81 00-Expansion Joint Systems Total				\$45,000
44					
45	06 10 00 Rough Carpentry				
46	Rough carpentry allowance	311,390	SF	\$1.25	\$389,238
47	06 10 00 Rough Carpentry Total				\$389,238
48					
49	06 40 00 Architectural Woodwork				
50	Science lab casework to be modified allowance	1	AL	\$105,000.00	\$105,000
51	06 40 00 Architectural Woodwork Total				\$105,000
52					
53	07 30 00 Metal Siding				
54	New standing seam siding allowance	14,651	SF	\$20.00	\$293,020
55	Metal wall panel penthouses to be replace allowance	3,264	SF	\$50.00	\$163,200
56	07 30 00 Metal Siding Total				\$456,220
57					
236	08 11 13 Hollow Metal Doors and Frames				
236	<i>Exterior door:</i>				
236	Double HM door and Frames, hardware included	9	PR	\$3,000.00	\$27,000
236	Single HM door and Frames, hardware included	13	EA	\$1,500.00	\$19,500
236	<i>Interior door:</i>				
236	Single HM door	75	EA	\$350.00	\$26,250
64	Double HM door	10	PR	\$700.00	\$7,000
65	08 11 13 Hollow Metal Doors and Frames Total				\$79,750
66					
67	08 14 16 Flush Wood Doors				
68	Single wood door	174	EA	\$375.00	\$65,250
69	Double wood door	25	PR	\$750.00	\$18,750
70	08 14 16 Flush Wood Doors Total				\$84,000

ADDITION RENOVATION DETAIL

ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
71				
72 08 31 00 Access Doors and Panels				
73 Access doors see bathroom				Included
74 08 31 00 Access Doors and Panels Total				\$0
75				
76 08 43 13 Aluminum-Framed Storefronts				
77 Aluminum exterior storefront	330	SF	\$90.00	\$29,700
78 Aluminum interior storefront	320	SF	\$90.00	\$28,800
79 Aluminum Entry Doors Including Hardware:				
80 Exterior double aluminum entry doors including hardware	4	PR	\$7,000.00	\$28,000
81 Interior double aluminum entry doors including hardware	3	PR	\$7,000.00	\$21,000
82 08 43 13 Aluminum-Framed Storefronts Total				\$107,500
83				
288 08 44 13 Glazed Aluminum Curtain Walls				
288 No works anticipated in this section				\$0
289 08 44 13 Glazed Aluminum Curtain Walls Total				\$0
87				
88 08 51 13 Aluminum Windows				
89 Windows (assume 30% exterior)	28,446	SF	\$75.00	\$2,133,450
90 08 51 13 Aluminum Windows Total				\$2,133,450
91				
92 08 71 00 Door Hardware				
93 Hardware for new door	319	SET	\$600.00	\$191,400
94 Allow for card access	1	LS	\$5,000.00	\$5,000
95 08 71 00 Door Hardware Total				\$196,400
96				
97 08 80 00 Glazing				
98 Glazing in doors allowance	1	AL	\$3,500.00	\$3,500
321 08 80 00 Glazing Total				\$3,500
322				
101 09 20 00 Gypsum Wallboard Systems				
340 GWB ceiling (Assume 30% of total ceiling)	74,734	SF	\$10.50	\$784,703
341 Allowance for soffit	1	LS	\$15,000.00	\$15,000
342 09 20 00 Gypsum Wallboard Systems Total				\$799,703
342				
351 09 51 00 Acoustical Ceiling				
351 ACT ceilings (Assume 70% of total ceiling)	174,378	SF	\$4.50	\$784,703
353 09 51 00 Acoustical Ceiling Total				\$784,703
109				
110 09 90 00 Paints and Coatings				

ADDITION RENOVATION DETAIL

ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
111 Painting base on GFS	1	LS	\$311,000.00	\$311,000
112 09 90 00 Paints and Coatings Total				\$311,000
113				
114 10 14 00 Signage				
115 Building signage allowance - based on floor area	311,390	SF	\$0.65	\$202,404
116 10 14 00 Signage Total				\$202,404
117				
118 14 24 00-Hydraulic Elevators				
119 Elevator: replace cab, controls, hall controls and signals, and pumps/machinery for accessibility	2	LS	\$100,000.00	\$200,000
120 14 24 00-Hydraulic Elevators Total				\$200,000
121				
122				
123 Direct Trade Cost Subtotal				\$11,644,045
124				
125 Design and Pricing Contingency	12.00%		\$11,644,045	\$1,397,285
126				
127 Trade Cost Subtotal				\$13,041,331
128				
129 General Conditions and Markups				
130 General Conditions and Requirements	12.00%		\$13,041,331	\$1,564,960
131 Insurance	1.10%		\$14,606,290	\$160,669
132 GC Bonds	0.65%		\$14,766,959	\$95,985
133 Fee	5.00%		\$14,862,945	\$743,147
134				
135				
136 Estimated Construction Cost Total				\$15,606,092
137				
138 Escalation to Fall 2014	3.50%		\$15,606,092	\$546,213
139				
140 Estimated Construction Cost Total, Including Escalation				\$16,152,305
141				
142				

