

Westwood Hanlon Elementary School

790 Gay Street
Westwood, MA

January 17, 2022

60% Construction Document Estimate

Construction Manager:

Compass Project Management, Inc.
A Vertex Company
One Edgewater Drive, Suite 204
Norwood, MA 02062

Architect:

Dore + Whittier
260 Merrimac Street
Newburyport, MA 01950
(978) 499-2999

Estimator:

Miyakoda Consulting Inc.
PO Box 120731
Boston, MA 02111
(617) 799-5832

Westwood Hanlon Elementary School

Westwood, MA

INTRODUCTION

Description:

- 1** Construction of Westwood Hanlon Elementary School project
- 2** GSF for this building is 113,141 GSF
- 3** Site utility infrastructure, Site improvements and soft landscaping
- 4** Hazardous material abatement of existing 1 story brick building

Particulars:

- 1** Drawings and Project Manual received from Dore + Whittier dated December 21, 2021
- 2** Detailed quantity takeoff from these documents where possible
- 3** Experience with similar projects of this nature

Assumptions:

- 1** The Project will be a DBB Chapter 149 bid package
- 2** Our costs assume that there will be at least three subcontractors submitting unrestricted bids in each sub-trade
- 3** Unit rates are based on current dollars
- 4** Subcontractor's markups have been included in each unit rate. Markups cover the cost of field overhead home office overhead and subcontractor's profit
- 5** General Conditions and Requirements value covers Sub-Contractor's bond, site office overheads, and building permit applications
- 6** Fee markup is calculated on a percentage basis of direct construction costs. The value covers Contractor's bond, insurance and profit
- 7** Design and Pricing Contingency markup is an allowance for unforeseen design issues, design detail development and specification clarifications
- 8** Escalation is based on 4% per Annum. We have escalated by 6 months.

Exclusions:

- 1** Design fees and other soft costs
- 2** Owner's project administration
- 3** Construction of temporary facilities
- 4** Relocation expenses
- 5** Printing and advertising
- 6** Existing condition surveys and investigations
- 7** Work beyond the boundary of the site
- 8** Testing
- 9** Specialties, loose furnishings, fixtures and equipment beyond those noted
- 10** Preconstruction Fee
- 11** Construction Contingency
- 12** Traffic Improvements

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113,141 GSF

MAIN SUMMARY - NEW CONSTRUCTION CHAPTER 149

<u>DESCRIPTION</u>			<u>TOTAL</u>	<u>COST/SF</u>
1 Direct Trade Costs With Site				
2 New Construction	113,141 GSF		\$49,006,552	\$433.15
Building Demolition			\$273,884	
3 Site Development			\$10,252,070	
Hazardous Waste			\$750,000	\$6.63
9 Direct Trade Cost SubTotal			\$60,282,506	\$532.81
10 Design and Pricing Contingency	2.00%	\$60,282,506	\$1,205,650	\$10.66
11 Trade Cost SubTotal			\$61,488,156	\$543.46
12 General Conditions	3.25%	\$61,488,156	\$1,998,365	\$17.66
13 General Requirements	3.00%	\$63,486,521	\$1,904,596	\$16.83
14 Insurance	1.40%	\$65,391,117	\$915,476	\$8.09
15 Bond	1.00%	\$66,306,592	\$663,066	\$5.86
16 Permit	Waived	\$66,969,658		
17 Fee	3.00%	\$66,969,658	\$2,009,090	\$17.76
18 Estimated Construction Cost Total			\$68,978,748	\$609.67
19 Escalation	2.00%	\$68,978,748	\$1,379,575	\$12.19
20 (Assume August 2022 Start of Construction)				
21 Estimated Construction Cost Total			\$70,358,324	\$621.86

Westwood Hanlon Elementary SchoolWestwood, MA
113,141 GSF**DIRECT COST SUMMARY**

<u>ELEMENT</u>	<u>TOTAL</u>	<u>COST/SF</u>
9		
10 A10 FOUNDATIONS	\$3,406,776	\$30.11
11		
12 A20 BASEMENT	\$0	\$0.00
13		
14 B10 STRUCTURE	\$5,484,540	\$48.48
15		
16 B20 EXTERIOR CLOSURE	\$8,031,680	\$70.99
17		
18 B30 ROOFING	\$2,295,884	\$20.29
19		
20 C10 INTERIOR CONSTRUCTION	\$5,007,976	\$44.26
21		
22 C20 STAIRCASES	\$267,403	\$2.36
23		
24 C30 INTERIOR FINISHES	\$2,889,093	\$25.54
25		
26 D10 CONVEYING SYSTEMS	\$146,850	\$1.30
27		
28 D2020 PLUMBING	\$2,096,019	\$18.53
29		
30 D3010 HVAC	\$8,952,182	\$79.12
31		
32 D4010 FIRE PROTECTION	\$684,179	\$6.05
33		
34 D50 ELECTRICAL	\$5,412,938	\$47.84
35		
36 E10 EQUIPMENT	\$981,620	\$8.68
37		
38 E20 FURNISHINGS	\$1,202,557	\$10.63
39		
40 F10 SPECIAL CONSTRUCTION	\$2,146,855	\$18.98
41		
42 F30 DEMOLITION	\$0	\$0.00
43		
44 TOTAL	<u>\$49,006,552</u>	<u>\$433.15</u>
45		
46		

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113,141 GSF

DETAILED ESTIMATE - NEW CONSTRUCTION

<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>RATE/UNIT</u>	<u>TOTAL</u>
10 A10 FOUNDATIONS				
11				
12 A1010 FOUNDATIONS				
13 Continuous footing	2,388	LF		
14 Concrete; material	234	CY	\$150.00	\$35,100
15 Concrete; place (combination of pumping/trucking)	234	CY	\$110.00	\$25,740
16 Reinforcement	17,550	LB	\$2.00	\$35,100
17 Formwork	4,776	SF	\$22.00	\$105,072
18 Spread footings:	161	EA		
19 Concrete; material	752	CY	\$150.00	\$112,800
20 Concrete; place	752	CY	\$110.00	\$82,720
21 Reinforcement (85#/cy)	63,920	LB	\$2.00	\$127,840
22 Formwork	9,897	SF	\$25.00	\$247,425
23 Piers	116	EA		
24 Concrete; material	44	CY	\$150.00	\$6,600
25 Concrete; place	44	CY	\$110.00	\$4,840
26 Reinforcement (200#/cy)	8,800	LB	\$2.00	\$17,600
27 Formwork	16,126	SF	\$25.00	\$403,150
28 Foundation walls	4,949	SF		
29 Concrete; material	419	CY	\$150.00	\$62,850
30 Concrete; place	419	CY	\$110.00	\$46,090
31 Reinforcement	62,850	LB	\$2.00	\$125,700
32 Formwork	9,897	SF	\$18.00	\$178,146
33 Brick/ Stone shelf	2,083	LF	\$8.00	\$16,664
34 Elevator pits	1	EA		
35 Concrete; material	14	CY	\$150.00	\$2,100
36 Concrete; place	14	CY	\$110.00	\$1,540
37 Reinforcement	408	LB	\$2.00	\$816
38 Formwork	103	SF	\$25.00	\$2,563
39 Elevator shaft walls	186	SF		
40 Concrete; material	7	CY	\$150.00	\$1,050
41 Concrete; place	7	CY	\$110.00	\$770
42 Reinforcement	1,050	LB	\$2.00	\$2,100
43 Formwork	372	SF	\$22.00	\$8,184
44				
45 Anchor bolts	644	SET	\$42.00	\$27,048
46				
47 Thermal & Moisture Protection				
48 2" Insulation at foundation walls	4,949	SF	\$2.85	\$14,103
49 Waterproofing elevator pit	204	SF	\$22.00	\$4,488
50 Damp proofing to foundation walls	4,949	SF	\$6.00	\$29,691



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DETAILED ESTIMATE - NEW CONSTRUCTION

51					
52	Dewatering during excavation	1	LS	\$20,000.00	\$20,000
53	A1010 FOUNDATIONS TOTAL				\$1,747,890
54					
55	A1030 SLAB ON GRADE				
56	<i>Earthwork</i>				
57	Continuous footing w/foundation wall	2,388	LF		
58	Excavation	1,456	CY	\$12.00	\$17,472
59	Backfill from import	803	CY	\$25.00	\$20,075
60	Spread footings	134	EA		
61	Excavation	1,482	CY	\$12.00	\$17,784
62	Backfill from import	730	CY	\$25.00	\$18,250
63	Elevator pits; cut and fill	1	EA	\$3,500.00	\$3,500
64					
65	Building slab excavation				
66	Soil cut and fill	13,861	CY	\$16.00	\$221,776
67	Structural Soil Import	9,891	CY	\$30.00	\$296,730
68	12" base course sand & gravel below slab on grade	3,157	CY	\$38.00	\$119,966
69	Miscellaneous earthwork	1	LS	\$75,000.00	\$75,000
70					
71	<i>Concrete</i>				
72	Slab on grade; 5" thick,	77,330	SF		
73	Concrete; material	1,255	CY	\$150.00	\$188,250
74	Concrete; place & finish	77,330	SF	\$3.00	\$231,990
75	premium slopes and finishes	3,860	SF	\$1.50	\$5,790
76	Reinforcement (6x6 mesh)	88,930	SF	\$1.50	\$133,394
77	Interior concrete ramp	512	SF	\$25.00	\$12,800
78	Slab depressions	125	LF	\$18.00	\$2,250
79	Slab isolation joints	6,190	LF	\$8.00	\$49,520
80					
81	<i>Miscellaneous</i>				
82	Mitigation barrier	1,255	CY	\$75.00	\$94,125
83	Housekeeping & mechanical equipment pads	1	LS	\$10,000.00	\$10,000
84					
85	<i>Thermal & Moisture Protection</i>				
86	Slab on grade; vapor barrier, 15% laps	89,518	SF	\$1.50	\$134,277
87	2" Rigid insulation under slab on grade	77,842	SF	\$2.85 NIC	
88	2" Insulation to perimeter	2,083	SF	\$2.85	\$5,937
89	A1030 SLAB ON GRADE TOTAL				\$1,658,886
90					
91	A10 FOUNDATIONS TOTAL				\$3,406,776
92					
93					



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DETAILED ESTIMATE - NEW CONSTRUCTION

94	A20 BASEMENT			
95				
96	No anticipated work			
97				
98	TOTAL SYSTEM A20 BASEMENT			\$0
99				
100				
101	B10 STRUCTURE			
102				
103	B1010 UPPER FLOOR CONSTRUCTION			
104	Concrete			
105	Slab topping on 2" mtl deck; 4 1/2" total thickness	36,885	SF	
106	Concrete Light weight material	512	CY	\$158.00
107	Upper level premium	512	CY	\$10.00
108	Reinforcement (6x6 mesh)	40,574	SF	\$1.10
109	Rebar at corners and openings	1,189	LBS	\$2.00
110	Concrete; place & finish	36,885	SF	\$3.00
111				
112	Structural steel framing	306	TNS	
113	HSS shape beam	9	TNS	\$5,500.00
114	WF shape beam	119	TNS	\$5,150.00
115	WF shape beam >100#/LF	12	TNS	\$5,400.00
116	HSS shape column	131	TNS	\$5,500.00
117	Braced framing	20	TNS	\$5,500.00
118	Misc. steel	15	TNS	\$4,800.00
119	Base Plates	161	EA	\$75.00
120	Moment connections	132	EA	\$800.00
121	Shear studs	7,377	EA	\$7.00
122	AESS allowance	1	AL	\$25,000.00
123	2" deep x 20ga galv composite floor deck	36,885	SF	\$3.95
124				
125	Misc. Metals			
126	Misc. steel framing	114,384	SF	\$0.25
127				
128	Thermal & Moisture Protection			
129	Fireproof	1	LS	\$25,000.00
130	Floor Construction Firestopping	114,384	GSF	\$0.35
131	B1010 UPPER FLOOR CONSTRUCTION TOTAL			\$2,307,019
132				
133	B1020 ROOF CONSTRUCTION			
134	Concrete			
135	Slab topping on 2" mtl deck; 6" total thickness @ RTU	2,660	SF	



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DETAILED ESTIMATE - NEW CONSTRUCTION

136	Concrete NWT material	49	CY	\$158.00	\$7,783
137	Reinforcement (6x6 mesh)	2,926	SF	\$1.10	\$3,219
138	Concrete; place & finish	2,660	SF	\$3.00	\$7,980
139					
140	<i>Structural steel framing</i>	382	TNS		
141	HSS shape beam	27	TNS	\$5,500.00	\$148,500
142	WF shape beam	223	TNS	\$5,150.00	\$1,148,450
143	WF shape beam >100#/LF	43	TNS	\$5,400.00	\$232,453
144	Open wet joists	61	TNS	\$5,700.00	\$347,700
145	Misc. steel	28	TNS	\$5,000.00	\$140,000
146	Moment connections	118	EA	\$750.00	\$88,500
147	shear studs	530	EA	\$7.00	\$3,710
148	HSS hanger from cafe roof	1	EA	\$650.00	\$650
149	3" deep, 20 ga type "B" galv metal roof deck	62,636	SF	\$4.25	\$266,203
150	Galv acoustic roof deck; Gym	12,325	SF	\$8.50	\$104,763
151	Other misc plates, connections	74,961	SF	\$2.00	\$149,922
152	Rough blocking to roof	74,961	SF	\$0.50	\$37,481
153	Formed metal panel roof screen, 8' high	79	LF	\$800.00	\$63,200
154					
155	<i>Canopy roof</i>	0	SF		
156	CLT decking	4,720	SF	\$42.00	\$198,240
157					
158	<i>Misc. Metals</i>				
159	Misc. steel framing	114,384	SF	\$2.00	\$228,768
160	B1020 ROOF CONSTRUCTION TOTAL				\$3,177,521
161					
162	TOTAL SYSTEM B10 SUPERSTRUCTURE				\$5,484,540
163					
164					
165	B20 EXTERIOR CLOSURE				
166					
167	B2010 EXTERIOR WALLS	72,557	SF		
168					
169	<i>Exterior wall</i>	72,557	SF		
170	Staging, scaffolding, hoists, related equipment	72,557	SF	\$3.25	\$235,810
171	Brick veneer	31,688	SF	\$38.00	\$1,204,144
172	Natural stone veneer	4,490	SF	\$75.00	\$336,750
173	Cast stone sill	565	SF	\$60.00	\$33,900
174	Terracotta cladding	16,872	SF	\$80.00	\$1,349,760
175	Terracotta projections	4,516	SF	\$80.00	\$361,280
176	MCP panel system	2,242	SF	\$75.00	\$168,150
177	8" CMU backup wall	12,184	SF	\$24.00	\$292,416
178	12" CMU backup wall	10,563	SF	\$28.50	\$301,046



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DETAILED ESTIMATE - NEW CONSTRUCTION

179	6" metal stud	35,094	SF	\$8.00	\$280,754
180	3" rigid insulation	36,743	SF	\$4.50	\$165,344
181	Mineral fiberglass batt	19,114	SF	\$2.50	\$47,785
182	Air vapor barrier	72,557	SF	\$6.50	\$471,621
183	Gyp BD-5 sheathing	35,094	SF	\$2.75	\$96,509
184	5/8 GWB	35,094	SF	\$3.25	\$114,056
185	Fin metal edge trim	2,602	LF	\$25.00	NIC
186	Caulking and sealants	72,557	SF	\$1.00	\$72,557
187					
188	<i>Miscellaneous</i>				
189	Sills	1,814	LF	\$75.00	\$136,044
190	Makerspace tube steel	1	LS	\$35,000.00	\$35,000
191	Fixed rated expansion joint	35	LF	\$65.00	\$2,275
192	Loose galv steel lintel @ doors, windows & louvers	1,088	LF	\$140.00	\$152,320
193	Through wall sheet mtl flashing sheathing & rigid insul.	2,083	LF	\$25.00	\$52,075
194	Dimensional characters; School name	1	LS	\$12,800.00	\$12,800
195	Mockup; allow	1	LS	\$30,000.00	\$30,000
196	B2010 EXTERIOR WALLS TOTAL				\$5,952,395
197					
198	B2020 EXTERIOR WINDOWS	13,415	SF		
199	Curtain wall	9,290	SF	\$125.00	\$1,161,250
200	Translucent glass at gym	1,565	SF	\$130.00	\$203,450
201	Windows	4,125	SF	\$95.00	\$391,875
202	Blocking for windows	4,125	LF	\$5.50	\$22,688
203	Premium for school guard glazing	1	LS	\$50,000.00	\$50,000
204	Add premium for ballastic glazing	1	LS	\$25,000.00	\$25,000
205	Sunshades	258	LF	\$150.00	\$38,700
206	Backer rod	1	LS	\$35,000.00	\$35,000
207	<i>Thermal & Moisture Protection</i>				
208	Window caulking	5,915	LF	\$1.50	\$8,873
209	B2020 EXTERIOR WINDOWS TOTAL				\$1,936,835
210					
211	B2050 EXTERIOR DOORS AND GRILLES				
212	<i>Aluminum entry doors including hardware</i>				
213	Alum FG door; 6'-0 3/4"x7'-0"	6	PR	\$8,000.00	\$48,000
214	Alum FG door; 6'-0"x7'-0"	1	PR	\$8,000.00	\$8,000
215	Alum FG door; 6'-2 1/2"x7'-2 3/4"	3	PR	\$8,000.00	\$24,000
216	Alum FG door; 6'x7'-2 3/4"	3	PR	\$8,000.00	\$24,000
217	Alum G door; 6'-0"x7'-0"	1	PR	\$7,500.00	\$7,500
218	Auto controls	3	SETS	\$2,500.00	\$7,500
219	Premium for school guard glazing	5	PR	\$500.00	\$2,500
220	Premium for Bullet resistant glazing	2	PR	\$500.00	\$1,000



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DETAILED ESTIMATE - NEW CONSTRUCTION

221	<i>HM doors including hardware</i>				
222	HM F door; 7x7	1	PR	\$3,250.00	\$3,250
223	HM F door; 6x7	4	PR	\$3,200.00	\$12,800
224	Door caulking	1	LS	\$1,900.00	\$1,900
225	B2050 EXTERIOR DOORS AND GRILLES TOTAL				\$140,450
226					
227	B2070 EXTERIOR LOUVERS AND VENTS				
228	Fixed aluminum louvers; allow	20	SF	\$100.00	\$2,000
229	B2070 EXTERIOR LOUVERS AND VENTS TOTAL				\$2,000
230					
231	B2080 EXTERIOR WALL APPURTENANCES				
232	Exterior alum. sun control devices (part of glazing system)				w/ glazing
233	B2080 EXTERIOR WALL APPURTENANCES TOTAL				\$0
234					
235	TOTAL SYSTEM B20 EXTERIOR CLOSURE				\$8,031,680
236					
237					
238	B30 ROOFING				
239					
240	B3010 ROOF COVERINGS				
241	<i>Roofing</i>				
242	PVC membrane roofing system, 60 mil	74,961	SF	\$6.60	\$494,743
243	1/2" cover board	74,961	SF	\$5.00	\$374,805
244	R-60 insulation	74,961	SF	\$6.00	\$449,766
245	Vapor retarder	74,961	SF	\$1.00	\$74,961
246	1/2" substrate board	74,961	SF	\$4.65	\$348,569
247	Tapered insulation	15,294	SF	\$1.50	\$22,941
248	<i>Canopy roof</i>				
249	PVC membrane roofing system, 60 mil	4,720	SF	\$6.60	\$31,152
250	1/2" cover board	4,720	SF	\$5.00	\$23,600
251	Vapor retarder	4,720	SF	\$1.00	\$4,720
252	Membrane to the parapet	1	LS	\$50,000.00	\$50,000
253					
254	Alum. roof edge/facias roof edge/high performance paint	2,806	LF	\$50.00	\$140,300
255	<i>Roofing Accessories</i>				
256	Walkway pads	1,470	SF	\$8.00	\$11,760
257	Terracotta cladding equipment at roof	521	SF	\$82.00	\$42,722
258	Roof access hatch 36"x36"	3	EA	\$5,500.00	\$16,500
259	Roof access hatch 36"x54"	1	EA	\$5,500.00	\$5,500
260	Expansion joint covers	1	LS	\$10,000.00	\$10,000
261					
262	<i>Mechanical roof top equipment</i>				

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DETAILED ESTIMATE - NEW CONSTRUCTION

263	Roof ladders	4	EA	\$1,800.00	\$7,200
264					
265	Miscellaneous roof accessories	1	LS	\$25,000.00	\$25,000
266	B3010 ROOF COVERINGS TOTAL				\$2,134,238
267					
268	B 3020 ROOF APPURTONANCES				
269	Roof Drain/ overflow drain w/ insula sump	28	EA	\$750.00	\$21,000
270	EF flashing	7	EA	\$150.00	\$1,050
271	Roof and wall flashing	422	LF	\$18.00	\$7,596
272	Misc. flashing	1	LS	\$50,000.00	\$50,000
273	B 3020 ROOF APPURTONANCES TOTAL				\$79,646
274					
275	B 3060 HORIZONTAL OPENINGS				
276	Skylights	328	SF	\$250.00	\$82,000
277	B 3060 HORIZONTAL OPENINGS TOTAL				\$82,000
278					
279	TOTAL SYSTEM B30 ROOFING				\$2,295,884
280					
281					
282	C10 INTERIOR CONSTRUCTION				
283					
284	C1010 PARTITIONS				
285					
286	Masonry partitions	23,480	SF		
287	Staging, scaffolding, hoists, related equipment	23,480	SF	\$3.50	\$82,180
288	4" CMU	187	SF	\$18.00	\$3,366
289	Type HF8; 6" CMU, 7/8" Hat channel, 5/8" GWB	670	SF	\$24.00	\$16,080
290	Type E, E1; 8" CMU wall	12,965	SF	\$22.00	\$285,219
291	Type E2; 8" CMU wall -2 hr	601	SF	\$24.50	\$14,736
292	8" CMU elevator wall	1,056	SF	\$24.50	\$25,872
293	10" CMU	1,232	SF	\$25.50	\$31,416
294	Type G; 12" CMU	6,769	SF	\$29.00	\$196,301
295	Gypsum board partitions	123,423	SF		
296	Type A; 6" Metal studs, 5/8" GWB both sides, sound insulation	18,619	SF	\$14.50	\$269,976
297	Type A1A; 6" Metal studs, 2 layer 5/8" GWB both sides, sound insulation	697	SF	\$19.50	\$13,592
298	Type A2, 6" Metal studs, 5/8" GWB both sides, sound insulation	779	SF	\$14.50	\$11,296
299	Type A2A; 6" Metal studs, (2) 5/8" GWB both sides, sound insulation	20,532	SF	\$19.50	\$400,374
300	3-5/8" Metal studs, 5/8" GWB both sides	3,808	SF	\$12.00	\$45,696



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301	Type B; 3-5/8" Metal studs, 5/8" GWB both sides, sound insulation	1,799	SF	\$13.50	\$24,287
302	Type C; 8" Metal studs, 5/8" GWB both sides, sound insulation	6,767	SF	\$15.75	\$106,580
303	Type F; 2-1/2" Metal studs, 5/8" GWB, sound insulation	246	SF	\$8.75	\$2,153
304	Type F4; 3-5/8" Metal studs, 5/8" GWB, sound insulation	13,882	SF	\$10.50	\$145,761
305	Type F6; 6" Metal studs, 5/8" GWB, sound insulation	30,785	SF	\$11.75	\$361,724
306	Type F6a; 6" Metal studs, 5/8" GWB, Non-rated acoustic barrier	957	SF	\$12.00	\$11,483
307	Type F8; 7/8" Furring channel, 5/8" GWB	627	SF	\$6.00	\$3,762
308	Type M; 6" Metal studs, (2) 5/8" GWB both sides, sound insulation	2,925	SF	\$19.50	\$57,038
309	Premium for abuse resistant walls	1	LS	\$75,000.00	\$75,000
310	Rough carpentry internal partitions and ceilings	226,609	SF	\$1.50	\$339,914
311	Misc. metals for interior masonry (lintels, restraint)	2,348	LF	\$35.00	\$82,180
312					
313	<i>08 80 00 Glazing</i>				
314	Interior window	119	SF	\$85.00	\$10,115
315	Interior storefront	1,964	SF	\$150.00	\$294,600
316					
317	<i>Operable partition</i>				
318	Paired panel system	1	LS	\$18,000.00	\$18,000
319					
320	<i>Interior penetration firestopping</i>				
321	Interior caulking	114,384	GSF	\$1.25	\$142,980
322	Top-of-partition firestopping	114,384	GSF	\$0.65	\$74,350
323	C1010 PARTITIONS TOTAL				\$3,146,028
324					
325	C1020 INTERIOR DOORS, FRAMES & HARDWARE				
326	<i>08 11 13 Hollow Metal Doors and Frames</i>				
327	Type F HM door; 3'-0"x7'-0"	3	EA	\$300.00	\$900
328	Type F HM door; 5'-0"x7'-0"	1	PR	\$600.00	\$600
329	Type F HM door; 6'-0"x7'-0"	1	PR	\$1,200.00	\$1,200
330	<i>Door Frames</i>				
331	Type 1 HM frame; single	67	EA	\$245.00	\$16,415
332	Type 1 HM frame; double	18	EA	\$299.00	\$5,382
333	Type 2 HM frame; Double	4	EA	\$299.00	\$1,196
334	Type 3 HM frame; single	17	EA	\$961.00	\$16,337
335	Type 4 HM frame; single	25	EA	\$761.00	\$19,025
336	Type 4 HM frame; Double	10	EA	\$1,277.00	\$12,770



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337	Type 5 HM frame; single	27	EA	\$1,889.00	\$51,003
338	Type 5 AL frame; single	3	EA	\$2,077.90	\$6,234
339	Type 7 HM fame; single	8	EA	\$5,172.00	\$41,376
340	45 min fire rate	1	EA	\$75.00	\$75
341	60 min fire rate	7	EA	\$100.00	\$700
342	90 min fire rate	7	EA	\$125.00	\$875
343	<i>08 14 16 Flush Wood Doors</i>				
344	Type F wood door; 3'-0"x7'-0"	131	EA	\$350.00	\$45,850
345	Type F wood door; 3'-6"x7'-0"	1	EA	\$350.00	\$350
346	Type F wood door; 4'-0"x7'-0"	4	PR	\$550.00	\$2,200
347	Type F wood door; 6'-0"x7'-0"	10	PR	\$700.00	\$7,000
348	Type FG wood door; 6'-0"x7'-0"	2	PR	\$1,285.00	\$2,570
349	Type G wood door ; 3'-0"x7'-0"	3	EA	\$496.25	\$1,489
350	Type G wood door ; 6'-0"x7'-0"	2	PR	\$642.50	\$1,285
351	Type G wood door; 7'-0"x7'-0"	1	PR	\$642.50	\$643
352	Type N wood door; 6'-0"x7'-0"	6	PR	\$700.00	\$4,200
353	Type V wood door; 3'-0"x7'-0"	2	EA	\$415.00	\$830
354	Type V wood door; 6'-0"x7'-0"	1	PR	\$830.00	\$830
355	Premium cost for acoustical doors	1	LS	\$5,250.00	\$5,250
356	Premium cost to fully gasketed	1	LS	\$450.00	\$450
357	Premium cost for Bullet resistant glazing	1	LS	\$7,800.00	\$7,800
358	<i>08 41 13 Aluminum Framed Entrances, Storefront</i>				
359	Type G glass door ;3'-0"x7'-0"	5	EA	\$3,500.00	\$17,500
360	Type G glass door ; 6'-0"x7'-0"	5	PR	\$7,000.00	\$35,000
361	Type G glass door ; 7'-0"x7'-0"	1	PR	\$7,000.00	\$7,000
362	Type FG alum door ; 3'- 1 3/4"x7'-2 3/4"	1	EA	\$4,000.00	\$4,000
363	Type FG alum door ; 3'- 0"x7'-0"	4	EA	\$4,000.00	\$16,000
364	Type FG alum door ; 3'-0"x7'-2 3/4"	1	EA	\$4,000.00	\$4,000
365	Type FG alum door ; 3'-6-1/4"x7'-2 3/4"	2	EA	\$4,000.00	\$8,000
366	Type FG alum door ; 6'-0"x7'-0"	2	PR	\$8,000.00	\$16,000
367	Type FG alum door ; 7'-0"x7'-0"	1	PR	\$8,000.00	\$8,000
368	<i>08 33 23 Coiling and Overhead Doors</i>				
369	Overhead door: 10'-0"x10'-0"	1	EA	\$8,500.00	\$8,500
370	Overhead door: 13'-0"x9'-6"	1	EA	\$10,497.50	\$10,498
371	Overhead door: 8'-0"x8'-0"	2	EA	\$5,440.00	\$10,880
372	<i>08 3 1 00 Access Doors & Panels</i>				
373	Access doors	34	EA	\$350.00	\$11,900
374	<i>08 80 00 Glazing</i>				
375	Door sidelights - See door frame				Included
376	Glazing to door - See door				Included
377					
378	Glass pocket door ; 8'-0"x7'-0"	27	EA	\$11,200.00	\$302,400
379	Alum door ; 3' -3-1/2"x6'-11 1/2"	24	EA	\$3,500.00	\$84,000



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380				
381	<i>08 71 00 Door Hardware</i>			
382	Hardware	223	SET	\$850.00 \$189,550
383	Powered door openers	2	LOC	\$3,000.00 \$6,000
384	Paint door frames	179	EA	\$85.00 \$15,215
385	Paint door	7	EA	\$70.00 \$490
386	Blocking at doors	3,139	LF	\$3.50 \$10,987
387	Door Installation	223	EA	\$250.00 \$55,750
388	C1020 INTERIOR DOORS, FRAMES & HARDWARE TOTAL			\$1,076,503
389				
390	C1030 FITTINGS			
391	<i>Miscellaneous Metals</i>			
392	<i>Miscellaneous metals</i>	114,384	SF	\$1.00 \$114,384
393	Glass infill railing	174	LF	\$445.00 \$77,430
394				
395	<u><i>Finish Carpentry</i></u>			
396	Countertop support work	1	LS	\$15,440.00 \$15,440
397	Misc. millwork standing and running trim	114,384	SF	\$0.25 \$28,596
398	<i>Markerboards and tackboards</i>			
399	MB 14460 at Adaptive PE	1	EA	\$1,200.00 \$1,200
400	MB 14460 at Art Classroom	1	EA	\$1,200.00 \$1,200
401	MB 7260 at Art Classroom	1	EA	\$600.00 \$600
402	MB 12084 at Extended Learning	2	EA	\$1,680.00 \$3,360
403	MB 14484 at Extended Learning	3	EA	\$1,680.00 \$5,040
404	MB 4860 at Extended Learning	1	EA	\$400.00 \$400
405	MB 14460 at Focus Program Room	2	EA	\$1,200.00 \$2,400
406	MB 12060 at General Classroom	20	EA	\$1,000.00 \$20,000
407	MB 4860 at General Classroom	20	EA	\$400.00 \$8,000
408	MB 14460 at Kindergarten Classroom	5	EA	\$1,200.00 \$6,000
409	MB 9660 at Kindergarten Classroom	5	EA	\$800.00 \$4,000
410	MB 12084 at Media Center	2	EA	\$1,680.00 \$3,360
411	MB 14460 at Music classroom	3	EA	\$1,200.00 \$3,600
412	MB 9648 at Music classroom	1	EA	\$640.00 \$640
413	MB 9660 at Resource Room	4	EA	\$800.00 \$3,200
414	MB 14460 at STE Room	1	EA	\$1,200.00 \$1,200
415	MB 14460 at WABA Upper	1	EA	\$1,200.00 \$1,200
416	MB 14460 at WABA lower	0	EA	\$1,200.00 \$0
417	TB 6060 at Extended Learning	2	EA	\$450.00 \$900
418	TB 4848 at General Classroom	20	EA	\$288.00 \$5,760
419	TB 9648 at General Classroom	20	EA	\$576.00 \$11,520
420	TB 3660 at Kindergarten Classroom	5	EA	\$270.00 \$1,350
421	TB 7248 at Kindergarten Classroom	5	EA	\$432.00 \$2,160
422	TB 9648 at Kindergarten Classroom	5	EA	\$576.00 \$2,880



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DETAILED ESTIMATE - NEW CONSTRUCTION

423	TB 7248 at Music classroom	2	EA	\$432.00	\$864
424	TB 4860 at Resource Room	2	EA	\$360.00	\$720
425	TB 6036 at Speech	2	EA	\$270.00	\$540
426	TB 4848 at STE Room	1	EA	\$288.00	\$288
427	Misc. markerboard/tackboard	1	LS	\$15,000.00	\$15,000
428	<i>Interior guardrails</i>				
429	Handrail at ramp	122	LF	\$250.00	\$30,500
430	<i>Signage</i>				
431	Display case cabinet	6	EA	\$3,500.00	\$21,000
432	Metal top trim	1	LS	\$1,600.00	\$1,600
433	Art display rail	1	LS	\$1,200.00	\$1,200
434	Building wayfinding signage	1	LOC	\$7,500.00	\$7,500
435	Framed signs	1	LS	\$2,500.00	\$2,500
436	Miscellaneous signage	114,384	GSF	\$0.50	\$57,192
437	<i>Wall & corner guards</i>				
438	Stainless steel corner guards	1	LS	\$5,760.00	\$5,760
439	<i>Toilet compartments (Solid Polymer)</i>				
440	Toilet compartments	18	EA	\$1,250.00	\$22,500
441	Toilet compartments - ADA	8	EA	\$1,500.00	\$12,000
442	Urinal screen	9	EA	\$750.00	\$6,750
443	<i>Metal lockers</i>				
444	Kitchen staff lockers	3	EA	\$500.00	\$1,500
445	Locker at Ext. Day stor.	3	EA	\$500.00	\$1,500
446	<i>Toilet accessories</i>				
447	Paper towel dispenser and soap dispenser @ classrooms	31	SET	\$135.00	\$4,185
448	Gang bathroom	6	EA	\$3,500.00	\$21,000
449	Single user bathroom	20	EA	\$750.00	\$15,000
450	Mop holder w/shelf (Janitors)	4	EA	\$200.00	\$800
451	<i>Fire extinguisher cabinets</i>				
452	Fully recessed/non-rated	11	EA	\$550.00	\$6,291
453	Semi-recessed/non-rated	6	EA	\$200.00	\$1,200
454					
455	General office service desk	16	LF	\$1,200.00	\$19,200
456	Sills	1,325	LF	\$55.00	\$72,875
457	Custom window seat-w/storage	200	LF	\$250.00	\$50,000
458					
459	Trash receptacles	26	LF	\$500.00	\$13,000
460					
461	Interior expansion	1	LS	\$15,000.00	\$15,000
462					
463	<i>Miscellaneous</i>				
464	Curtain and track at Nurse office	34	LF	\$120.00	\$4,080
465	Curtain and track at Extended Learning	359	LF	\$120.00	\$43,080



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DETAILED ESTIMATE - NEW CONSTRUCTION

466	Hoist beam	1	EA	\$5,000.00	\$5,000
467	C1030 FITTINGS TOTAL				\$785,445
468					
469	TOTAL SYSTEM C10 INTERIOR CONSTRUCTION				\$5,007,976
470					
471					
472	C20 STAIRCASES				
473					
474	C2010 STAIRCASES				
475	<i>Interior stairs</i>				
476	Concrete fill egress stairs	5	FLT	\$3,500.00	\$17,500
477	Egress stairs	3	FLT	\$25,000.00	\$75,000
478	Open/monumental stairs	1	FLT	\$75,000.00	\$75,000
479	Media center stairs	1	FLT	\$3,000.00	\$3,000
480	Wood stair at Cafeteria	52	LF	\$150.00	\$7,800
481	Ramp to stage	1	LS	\$12,000.00	\$12,000
482	Paint stairs	1	LS	\$15,000.00	\$15,000
483	<i>Stair finishes</i>				
484	Carpet at stair	116	SF	\$20.00	\$2,320
485	Raised rubber tile	2,391	SF	\$25.00	\$59,783
486	C2010 STAIRCASES TOTAL				\$267,403
487					
488	TOTAL C20 STAIRCASES				\$267,403
489					
490					
491	C30 INTERIOR FINISHES				
492					
493	C3010 WALL FINISHES				
494	Tile walls at bathroom, kitchen and Jan	9,018	SF	\$26.50	\$238,977
495	Tile walls at corrido, cafeteria and water fountain	896	SF	\$26.50	\$23,744
496	Linoleum wall covering at corridor	2,010	SF	\$18.00	\$36,180
497					
498	Acoustic wall panels	5,045	SF	\$28.00	\$141,260
499	Custom graphic wall covering	275	SF	\$15.00	\$8,460
500	DWP-1	472	SF	\$25.00	\$11,800
501	4x4 Custom PEG board system	1	EA	\$448.00	\$448
502	Wall slats	830	SF	\$55.00	\$45,650
503	Finish to Prescinium	50	LF	\$300.00	\$15,000
504	Wall pad at Adaptive PE	268	SF	\$20.00	\$5,360
505	Wall safety pads at Gym	585	SF	\$20.00	\$11,700
506	Removable wall pads	364	SF	\$25.00	\$9,100
507	Acoustical CMU, paint at GYM	2,880	SF	\$1.50	\$4,320
508	Paint CMU Walls	44,612	SF	\$1.15	\$51,304



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DETAILED ESTIMATE - NEW CONSTRUCTION

509	Paint to GWB	183,771	SF	\$1.00	\$183,771
510	Misc. paint	114,384	GSF	\$0.50	\$57,192
511	C3010 WALL FINISHES TOTAL				\$844,266
512					
513	C3020 FLOOR FINISHES	114,384			
514	<i>Tile:</i>				
515	QT	1,670	SF	\$26.50	\$44,255
516	QT base	212	LF	\$18.00	\$3,816
517	Stone threshold	20	EA	\$175.00	\$3,500
518	Tile at bathroom	2,436	SF	\$24.50	\$59,682
519	Tile base	760	LF	\$16.00	\$12,160
520	<i>Flooring</i>				
521	Wood stage floor	958	SF	\$25.00	\$23,950
522	Wood athletic flooring	11,342	SF	\$25.00	\$283,550
523	Carpet	796	SY	\$54.00	\$42,984
524	FTF; Flocked tile flooring;	27,435	SF	\$8.00	\$219,480
525	Linoleum	20,588	SF	\$7.00	\$144,116
526	Linoleum at corridor, mixer	17,715	SF	\$8.00	\$141,720
527	Lin at bathroom	1,366	SF	\$7.00	\$9,562
528	Rubber athletic	1,698	SF	\$18.00	\$30,564
529	Ramp finish	212	SF	\$10.00	\$2,120
530	Rubber base	1	LS	\$25,525.00	\$25,525
531	<i>Painting</i>				
532	Sealed concrete	6,186	SF	\$2.00	\$12,372
533	C3020 FLOOR FINISHES TOTAL				\$1,059,356
534					
535	C3030 CEILING FINISHES				
536	Acoustical ceilings; ACP 1A, 3A,4A -2x2	44,803	SF	\$8.00	\$358,424
537	Acoustical ceilings; ACP 1A, 2A -2x2 > 10'-0" A.F.F.	21,604	SF	\$9.75	\$210,639
538	Acoustical ceilings ACP 5A at bathroom	3,508	SF	\$9.00	\$31,572
539	Acoustical ceilings; ACP 7A -2x2'	4,562	SF	\$11.00	\$50,182
540	Acoustic ceiling; ACP9 20'-0" AFF	642	SF	\$12.50	\$8,025
541	Absorptive panels	1	LS	\$35,000.00	\$35,000
542	GWB ceilings	8,195	SF	\$15.00	\$122,925
543	GWB soffit	1,238	SF	\$25.00	\$30,950
544	Metal ceiling; MCM	548	SF	\$60.00	\$32,880
545	Acoustic wood baffles; WD-1	882	SF	\$38.00	\$33,516
546	2"x2" Decorative wood fins-wall to ceiling application; WD-1	308	SF	\$48.00	\$14,784
547	Paint exposed ceiling	4,445	SF	\$2.15	\$9,557
548	5'x5' Convex curved panels (kine tics ovations)	142	SF	\$55.00	\$7,810
549	GYM exposed ceiling - see Acoustical deck	11,350	SF	\$2.00	\$22,700
550	Illuminated light panel @ 12'-6" AFF	288	SF		Electrical
551	Paint GWB ceilings	9,433	SF	\$1.75	\$16,508



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DETAILED ESTIMATE - NEW CONSTRUCTION

552	C3030 CEILING FINISHES TOTAL				\$985,472
553					
554	TOTAL SYSTEM C30 INTERIOR FINISHES				\$2,889,093
555					
556					
557	D10 CONVEYING SYSTEMS				
558					
559	D1010 CONVEYING SYSTEMS				
560	Elevator pit ladder	1	EA	\$1,500.00	\$1,500
561	Sill angles	2	EA	\$175.00	\$350
562	Elevators; 2 stops	1	EA	\$145,000.00	\$145,000
563	D1010 CONVEYING SYSTEMS TOTAL				\$146,850
564					
565	TOTAL SYSTEM D10 CONVEYING SYSTEMS				\$146,850
566					
567					
568	D15 MECHANICAL				
569					
570	D2020 PLUMBING				
571	<u>Storm Piping Under slab</u>				
572	15" Sv Wt Cast Iron Pipe	10	LF	\$352.03	\$3,520
573	12" Sv Wt Cast Iron Pipe	170	LF	\$215.86	\$36,696
574	10" Sv Wt Cast Iron Pipe	260	LF	\$122.17	\$31,764
575	8" Sv Wt Cast Iron Pipe	210	LF	\$93.92	\$19,723
576	6" Sv Wt Cast Iron Pipe	220	LF	\$64.25	\$14,135
577	4" Sv Wt Cast Iron Pipe	110	LF	\$41.43	\$4,557
578	Sv Wt Cast Iron Fittings	123	EA	\$527.13	\$64,574
579	Floor Cleanouts	13	EA	\$334.15	\$4,344
580	Exterior Wall Sleeves	2	EA	\$485.00	\$970
581	Excavation, Bedding, and Backfill		By Others	LF	\$26.40
582	Gaskets, Lubricants, Etc.	1	LS	\$4,100.00	\$4,100
583					
584	<u>Sanitary Waste and Vent Piping Underslab</u>				
585	6" Sv Wt Cast Iron Pipe	60	LF	\$64.25	\$3,855
586	5" Sv Wt Cast Iron Pipe	310	LF	\$53.18	\$16,486
587	4" Sv Wt Cast Iron Pipe	1,680	LF	\$41.43	\$69,602
588	2" Sv Wt Cast Iron Pipe	440	LF	\$24.26	\$10,674
589	Sv Wt Cast Iron Fittings	311	EA	\$139.33	\$43,366
590	Floor Cleanouts	17	EA	\$334.15	\$5,681
591	FD 1 Floor Drains	4	EA	\$322.90	\$1,292
592	FD 2 Floor Sinks	11	EA	\$775.88	\$8,535
593	Exterior Wall Sleeves	2	EA	\$265.00	\$530
594	Excavation, Bedding, and Backfill		By Others	LF	\$26.40



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595	Gaskets, Lubricants, Etc.	1	LS	\$4,100.00	\$4,100
596					
597	<u>Rain Leaders</u>				
598	8": No Hub Cast Iron Pipe	420	LF	\$73.56	\$30,895
599	6" No Hub Cast Iron Pipe	540	LF	\$49.28	\$26,611
600	5" No Hub Cast Iron Pipe	1,040	LF	\$41.16	\$42,806
601	4" No Hub Cast Iron Pipe	650	LF	\$33.39	\$21,704
602	No Hub Cast Iron Fittings	331	EA	\$214.85	\$71,169
603	Hangers	331	EA	\$93.00	\$30,806
604	Roof Drains	29	EA	\$645.06	\$18,707
605	Overflow Drains	27	EA	\$628.45	\$16,968
606	Wall Scuppers	14	EA	\$427.63	\$5,987
607	Floor Sleeves	44	EA	\$136.00	\$5,984
608	Fiberglass Pipe Insulation	2,235	LF	\$16.30	\$36,431
609	Drain Sump Insulation	56	EA	\$275.00	\$15,400
610	Exterior Wall Sleeves	14	EA	\$285.00	\$3,990
611	No Hub Couplings, Etc.	1	LS	\$6,400.00	\$6,400
612					
613	<u>Sanitary Waste and Vent Piping Above Slab</u>				
614	4" No Hub Cast Iron Pipe	2,440	LF	\$33.39	\$81,472
615	3" No Hub Cast Iron Pipe	720	LF	\$25.62	\$18,446
616	2" No Hub Cast Iron Pipe	3,640	LF	\$19.16	\$69,742
617	2" Galvanized Stl Pipe Sch 40 T&C	63	LF	\$28.74	\$1,811
618	No Hub Cast Iron Fittings	850	EA	\$81.63	\$69,386
619	Galvanized Drainage Pattern Fittings	8	EA	\$129.13	\$1,017
620	Hangers	858	EA	\$93.00	\$79,782
621	150# Bronze Gate Valves	1	EA	\$252.06	\$252
622	150# Bronze Check Valves	1	EA	\$350.83	\$351
623	Lavatory Carriers	38	EA	\$392.67	\$14,921
624	Double Water Closet Carriers	10	EA	\$1,185.96	\$11,860
625	Water Closet Carriers	31	EA	\$730.60	\$22,649
626	Urinal Carriers	12	EA	\$392.67	\$4,712
627	FD 1 Floor Drains	4	EA	\$322.90	\$1,292
628	Roof Flashings	4	EA	\$285.00	\$1,140
629	Floor Sleeves	85	EA	\$136.00	\$11,560
630	No Hub Couplings ,Etc.	1	LS	\$7,400.00	\$7,400
631					
632	<u>Domestic Water Piping</u>				
633	6" Ductile Iron Pipe	18	LF	\$31.22	\$562
634	Mech Joint Fittings	1	EA	\$297.05	\$297
635	Excavation, Bedding and Backfill	18	LF	\$21.00	\$378
636	Thrust Block	1	EA	\$512.00	\$512
637	Exterior Wall Sleeve	1	EA	\$196.00	\$196



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638	6" L Copper Tubing	60	LF	\$178.79	\$10,727
639	4" L Copper Tubing	360	LF	\$93.21	\$33,556
640	3" L Copper Tubing	640	LF	\$58.29	\$37,306
641	2 1/2" L Copper Tubing	620	LF	\$40.23	\$24,943
642	2" L Copper Tubing	1,160	LF	\$24.48	\$28,397
643	1 1/2" L Copper Tubing	1,100	LF	\$17.52	\$19,272
644	1 1/4" L Copper Tubing	820	LF	\$15.27	\$12,521
645	1" L Copper Tubing	1,120	LF	\$13.22	\$14,806
646	3/4" L Copper Tubing	2,260	LF	\$9.31	\$21,041
647	1/2" L Copper Tubing	2,180	LF	\$7.33	\$15,979
648	1/2" K Copper Tubing	240	LF	\$8.40	\$2,016
649	Wrought Copper Fittings	1,290	EA	\$125.00	\$161,250
650	Hangers	1,290	EA	\$93.00	\$119,970
651	125# Cast Iron Gate Valves	6	EA	\$945.00	\$5,670
652	150# Bronze Ball Valves	150	EA	\$142.00	\$21,300
653	150# Bronze Drain Valves	20	EA	\$102.02	\$2,040
654	125# Cast Iron Check Valves	4	EA	\$1,064.39	\$4,258
655	150# Bronze Check Valves	10	EA	\$154.60	\$1,546
656	150# Bronze Balancing Valves	28	EA	\$267.45	\$7,489
657	125# Cast Iron Strainers	1	EA	\$1,589.95	\$1,590
658	125# Cast Iron Reduced Pressure Zone Backflow Preventors	1	EA	\$4,580.25	\$4,580
659	150# Bronze Reduced Pressure Zone Backflow Preventors	9	EA	\$388.15	\$3,493
660	Water Meter	1	EA	\$3,145.00	\$3,145
661	Pressure Reducing Valves	1	EA	\$1,975.00	\$1,975
662	Large Water Hammer Arrestors	12	EA	\$361.00	\$4,332
663	Water Hammer Arrestors	24	EA	\$121.81	\$2,923
664	Trap Primers	6	EA	\$214.81	\$1,289
665	Non Freeze Wall Hydrants	2	EA	\$351.77	\$704
666	HB 1 Interior Hosebibbs	11	EA	\$115.71	\$1,273
667	Thermometers	5	EA	\$202.94	\$1,015
668	Pressure Gauges	4	EA	\$167.13	\$669
669	Vacuum Breakers	2	EA	\$197.63	\$395
670	Fiberglass Pipe Insulation	10,320	LF	\$7.10	\$73,272
671	Solder, Flux, Gas, Etc.	1	LS	\$5,600.00	\$5,600
672					
673	<u>Natural Gas Piping</u>				
674	No Work Required		LF		\$0
675					
676	<u>Radon Mitigation</u>				
677	4" Perforated PVC Pipe w/ Ftgs		LF	\$21.60	\$0
678	4" PVC Pipe w/ Ftgs, Hgrs		LF	\$34.90	\$0
679	Radon Fans		EA	\$1,475.00	\$0
680	Geo Textile		SF	\$1.86	\$0



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DETAILED ESTIMATE - NEW CONSTRUCTION

681	Crushed Stone		YDS	\$17.52	\$0
682					
683	<u>Plumbing Fixtures and Equipment</u>				
684	Flushometers	46	EA	\$995.46	\$45,791
685	P1 B Child Water Closets	5	EA	\$789.63	\$3,948
686	P2A Wall Hung Lavatories w/ Sensor Operated Faucets	38	EA	\$950.95	\$36,136
687	P3,3A Wall Hung Urinals w/ Sensor Operated Faucets	12	EA	\$1,110.36	\$13,324
688	P4,4 A Classroom Sink	55	EA	\$850.70	\$46,789
689	P5 Hand Sinks	34	EA	\$850.70	\$28,924
690	P6 Bilevel Electric Water Coolers	7	EA	\$2,974.00	\$20,818
691	P7 Mop Receptors	7	EA	\$1,045.00	\$7,315
692	P8,8A Art Room Sink w/ Solids Interceptors	4	EA	\$1,623.69	\$6,495
693	P9 Emergency Eyewash	1	EA	\$1,326.70	\$1,327
694	P10 Refrigerator Condensate Pump	3	EA	\$615.36	\$1,846
695	P11 Shower Module	1	EA	\$2,612.80	\$2,613
696	P12 Washing Machine Box	2	EA	\$425.00	\$850
697	P13 Dishwasher	1	INSTALI	\$285.00	\$285
698	Commercial Kitchen Hand Sinks	1	INSTALI	\$205.00	\$205
699	Commercial Kitchen 3 Bay Sink	1	INSTALI	\$685.00	\$685
700	Commercial Kitchen Prep Sinks	2	INSTALI	\$489.00	\$978
701	Commercial Kitchen Ware Wash	1	INSTALI	\$489.00	\$489
702	Commercial Kitchen Hose Reel	1	INSTALI	\$205.00	\$205
703	DWH 1,2 Electric Water Heaters 36 KW 150 GPH, 119 Gallon	2	EA	\$29,874.00	\$59,748
704	XT 1,2 Expansion Tanks 8 Gallon Acceptance	2	EA	\$1,312.00	\$2,624
705	RCP 1 Hot Water Recirculation Pump 5 GPM @ 20 FT	1	EA	\$684.00	\$684
706	GI 1 Grease Interceptor 127 LBS	1	EA	\$6,845.00	\$6,845
707	GI 2 Grease Interceptor 50 LBS	1	EA	\$3,296.00	\$3,296
708	Solids Interceptors	4	EA	\$425.00	\$1,700
709	Leak Detection	1	EA	\$4,978.00	\$4,978
710	DMV 1 House Antiscald Valve 85 GPM	1	EA	\$11,450.00	\$11,450
711					
712	<u>Miscellaneous</u>				
713	Coordination Drawings, As Builts, Submittals, O&M's	1	LS	\$29,450.00	\$29,450
714	Rigging, Hoisting, and Scaffolding	1	LS	\$3,812.00	\$3,812
715	Flushing and Sanitizing	1	LS	\$4,945.00	\$4,945
716	Concrete Housekeeping Pads	2	EA	\$712.00	\$1,424
717	Drip Pans w/ Leak Detection	2	EA	\$1,574.00	\$3,148
718	Valve Tags, Pipe Identification	1	LS	\$10,450.00	\$10,450
719	D2020 PLUMBING TOTAL				\$2,096,019
720					
721	D3010 HVAC				
722	<u>Sheetmetal</u>				
723	Galvanized Ductwork	77,451	LBS	\$11.80	\$913,922



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DETAILED ESTIMATE - NEW CONSTRUCTION

724					
725	<u>Sheetmetal Accessories</u>				
726	Displacement Diffusers	156	EA	\$225.00	\$35,100
727	Supply Air Grilles	6	EA	\$275.00	\$1,650
728	Supply Air Diffusers	7	EA	\$185.00	\$1,295
729	Return Air Grilles	118	EA	\$319.00	\$37,642
730	Exhaust Air Grilles	36	EA	\$241.00	\$8,676
731	Cafeteria Supply Diffusers	5	EA	\$525.00	\$2,625
732	Gym Supply Air Grilles	24	EA	\$684.00	\$16,416
733	Gym Return Air Grilles	4	EA	\$1,185.00	\$4,740
734	Canvas Flexible Connections	43	EA	\$1,675.00	\$72,025
735	Flexible Duct Preinsulated	163	EA	\$46.00	\$7,498
736	Volume Dampers	381	EA	\$125.00	\$47,625
737	Fire Dampers		ALLOW	\$26,000.00	\$0
738	Fire Smoke Dampers		ALLOW	\$20,000.00	\$0
739					
740	<u>Insulation</u>				
741	2" Thk Fiberglass Duct Wrap	47,662	SF	\$5.30	\$252,609
742					
743	<u>Indoor Geothermal Piping</u>				
744	Hgrs (CS Stan Wt)	126	LF	\$421.38	\$53,094
745	Geothermal Drop Piping to Heat Pumps w/ Ftgs, Hgrs	210	LF	\$230.26	\$48,355
746	Valving, Specialties at Pipe Entrance	1	LS	\$22,450.00	\$22,450
747	Valving, Specialties at Geothermal Circulators	3	EA	\$36,159.00	\$108,477
748	Valving, Specialties at Heat Pumps	5	EA	\$12,850.00	\$64,250
749	Fiberglass Insulation	336	LF	\$25.90	\$8,702
750					
751	<u>Heating Hot/ Dual Temperature Water Piping</u>				
752	Heating Hot Main Piping w/ Ftgs, Hgrs (CS Sch 40)	3,297	LF	\$149.21	\$491,945
753	Heating Hot Water Runout Piping to AHU w/ Ftgs, Hgrs	840	LF	\$77.99	\$65,512
754	Hgrs (L Copper)	15,700	LF	\$28.22	\$443,054
755	Valving, Specialties at Heat Pumps	6	EA	\$6,059.00	\$36,354
756	Valving, Specialties at Circulators	2	EA	\$16,577.00	\$33,154
757	Valving, Specialties at Air Handling Units	12	EA	\$3,581.00	\$42,972
758	Valving, Specialties at Terminal Units	287	EA	\$826.00	\$237,062
759	Fiberglass Insulation	19,837	EA	\$8.10	\$160,680
760					
761	<u>Chilled Water Piping</u>				
762	Chilled Water Main Piping w/ Ftgs, Hgrs (CS Stan Wt)	3,297	LF	\$318.29	\$1,049,402
763	Chilled Water Runout Piping to AHU's W/ Ftgs, Hgrs	840	LF	\$114.82	\$96,449
764	Valving, Specialties at Heat Pumps	6	EA	\$8,290.00	\$49,740
765	Valving, Specialties at Circulators	2	EA	\$27,862.00	\$55,724
766	Valving, Specialties at AHU	12	EA	\$5,767.00	\$69,204



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DETAILED ESTIMATE - NEW CONSTRUCTION

767	Fiberglass Insulation	4,137	LF	\$15.60	\$64,537
768					
769	<u>Geothermal Field</u>				
770	Geothermal Piping to Field w/ Ftgs (HDPE)	900	LF		F10 SPECIAL CONSTRUCTION
771	Geothermal Runout Piping in Field w/ Ftgs	7,440	LF		F10 SPECIAL CONSTRUCTION
772	Geothermal Well Piping	50,120	LF		F10 SPECIAL CONSTRUCTION
773	Geothermal Wells w/ Grouting	80	EA		F10 SPECIAL CONSTRUCTION
774	Geothermal Piping in Vault w/ Ftgs, Hgrs, Valving, Specialties	1	LS		F10 SPECIAL CONSTRUCTION
775	Excavation, Bedding and Backfill	8,340	LF		F10 SPECIAL CONSTRUCTION
776	Machine Rental, Misc.	1	LS		F10 SPECIAL CONSTRUCTION
777					
778	<u>Refrigerant Piping</u>				
779	Refrigerant Suction Piping w/ Ftgs, Hgrs (ACR Tubing)	1,200	LF	\$37.63	\$45,156
780	Refrigerant Liquid Piping w/ Ftgs, Hgrs	1,200	LF	\$26.38	\$31,656
781	Specialties at Condensing Units	12	EA	\$1,171.00	\$14,052
782	Purging and Charging	12	EA	\$900.00	\$10,800
783	Elastomeric Insulation	1,200	LF	\$5.10	\$6,120
784					
785	<u>Air Conditioning Condensate Piping</u>				
786	(L Copper)	240	LF	\$52.64	\$12,634
787	Ftgs, Hgrs	3,680	LF	\$33.30	\$122,544
788	Fiberglass Pipe Insulation	3,680	LF	\$8.30	\$30,544
789					
790	<u>Equipment</u>				
791	Heating	6	EA	\$161,450.00	\$968,700
792	Heating Hot Water Circulators	2	EA	\$4,175.00	\$8,350
793	Air Separators	5	EA	\$4,896.00	\$24,480
794	Expansion Tanks	3	EA	\$4,012.00	\$12,036
795	Chilled Water Circulators	2	EA	\$6,752.00	\$13,504
796	Compensated Chilled Water Circulators	2	EA	\$1,125.00	\$2,250
797	Geothermal Circulators	2	EA	\$9,875.00	\$19,750
798	EF 1,5,9,10,11 Roof Fans 600 CFM @ .8", 1/4 HP	5	EA	\$2,275.00	\$11,375
799	EF 2,12 Roof Fans 680 CFM @ .8" 1/2 HP	2	EA	\$2,612.00	\$5,224
800	EF 3,7 Roof Fans 1,170 CFM @ .8", 3/4 HP	2	EA	\$2,975.00	\$5,950
801	EF 4 ,6 Roof Fans 300 CFM @ .8", 1/6 HP	2	EA	\$2,100.00	\$4,200
802	EF 8,13 Roof Fans 75 CFM @ .8", 1/15 HP	2	EA	\$1,985.00	\$3,970
803	EF 14 Roof Fan 250 CFM @ .3", 1/10 HP	1	EA	\$2,045.00	\$2,045
804	KEF 1 Roof Fan 1,750 CFM @ 1.5", 1 HP	1	EA	\$6,890.00	\$6,890
805	Kiln Exhaust Hood	1	EA	\$3,312.00	\$3,312
806	Kitchen Hood w/ Fire Suppression	1	EA	\$22,150.00	\$22,150
807	Split Air Conditioners w/ Condensing Units 18 MBH	10	EA	\$5,875.00	\$58,750
808	Split Air Conditioners 18 MBH	2	EA	\$2,975.00	\$5,950
809	Split Air Conditioner 24 MBH w/ Condensing Unit	1	EA	\$6,975.00	\$6,975



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810	VRF Condensing Unit 36 MBH	1	EA	\$5,600.00	\$5,600
811	Hydronic Unit Heaters 8.7 MBH	5	EA	\$1,450.00	\$7,250
812	Hydronic Unit Heaters 9.7 MBH	2	EA	\$1,575.00	\$3,150
813	Hydronic Unit Heaters 28.7 MBH	1	EA	\$2,063.00	\$2,063
814	Hydronic Unit Heaters 20.1 MBH	6	EA	\$1,845.00	\$11,070
815	Hydronic Unit Heaters 16.5 MBH	2	EA	\$1,712.00	\$3,424
816	Hydronic Unit Heater 12 MBH	1	EA	\$1,645.00	\$1,645
817	Hydronic Unit Heater 57.5 MBH	1	EA	\$2,975.00	\$2,975
818	Glycol Feed Units 18 GPM @ 70 PSI, 1/2 HP	3	EA	\$5,400.00	\$16,200
819	Buffer Tank 500 Gallon	1	EA	\$20,870.00	\$20,870
820	7,055 CFM	4	EA	\$54,660.00	\$218,640
821	8,025 CFM	2	EA	\$96,450.00	\$192,900
822	6,455 CFM	1	EA	\$75,125.00	\$75,125
823	10,435 CFM	1	EA	\$126,125.00	\$126,125
824	18,935 CFM	2	EA	\$215,630.00	\$431,260
825	3,000 CFM	1	EA	\$31,250.00	\$31,250
826	Makeup Air Unit w/ HW, CHW Coils 1,500 CFM	1	EA	\$9,645.00	\$9,645
827	36" Wide Radiant Ceiling Panels	3,483	LF	\$58.96	\$205,358
828	24" Wide Radiant Ceiling Panels	428	LF	\$36.45	\$15,601
829	Panel Radiation	145	LF	\$198.63	\$28,801
830	Heat Exchanger 2,526 MBH	1	EA	\$16,125.00	\$16,125
831	Heat Exchanger 511 MBH	1	EA	\$6,512.00	\$6,512
832	Air Conditioning Condensate Pumps	12	EA	\$185.00	\$2,220
833	Sound Attenuators	20	EA	\$3,612.00	\$72,240
834	Variable Volume Boxes 16" Inlet	1	EA	\$1,386.00	\$1,386
835	Variable Volume Boxes 14" Inlet	1	EA	\$1,212.00	\$1,212
836	Variable Volume Boxes 12" Inlet	5	EA	\$1,085.00	\$5,425
837	Variable Volume Boxes 10" Inlet	2	EA	\$986.00	\$1,972
838	Variable Volume Boxes 9" Inlet	2	EA	\$945.00	\$1,890
839	Variable Volume Boxes 8" Inlet	2	EA	\$912.00	\$1,824
840	Variable Volume Boxes 7" Inlet	34	EA	\$868.00	\$29,512
841	Variable Volume Boxes 6" Inlet	6	EA	\$845.00	\$5,070
842	Variable Volume Boxes 5" Inlet	15	EA	\$812.00	\$12,180
843	Variable Volume Boxes 4" Inlet	31	EA	\$745.00	\$23,095
844	Variable Frequency Drives	8	EA	\$3,400.00	\$27,200
845	Magnetic Motor Starters	15	EA	\$1,125.00	\$16,875
846					
847	<u>Automatic Temperature Controls</u>				
848	Heating		PTS	\$565.00	\$0
849	Heating Hot Water Circulators		PTS	\$565.00	\$0
850	Chilled Water Circulators		PTS	\$565.00	\$0
851	Compensated Chilled Water Circulators		PTS	\$565.00	\$0
852	Geothermal Circulators		PTS	\$565.00	\$0



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DETAILED ESTIMATE - NEW CONSTRUCTION

853	EF 1,5,9,10,11 Roof Fans 600 CFM @ .8", 1/4 HP	15	PTS	\$565.00	\$8,475
854	EF 2,12 Roof Fans 680 CFM @ .8" 1/2 HP	6	PTS	\$565.00	\$3,390
855	EF 3,7 Roof Fans 1,170 CFM @ .8", 3/4 HP	6	PTS	\$565.00	\$3,390
856	EF 4 ,6 Roof Fans 300 CFM @ .8", 1/6 HP	6	PTS	\$565.00	\$3,390
857	EF 8,13 Roof Fans 75 CFM @ .8", 1/15 HP	6	PTS	\$565.00	\$3,390
858	EF 14 Roof Fan 250 CFM @ .3", 1/10 HP	3	PTS	\$565.00	\$1,695
859	KEF 1 Roof Fan 1,750 CFM @ 1.5", 1 HP	3	PTS	\$565.00	\$1,695
860	Kiln Exhaust Hood	1	PTS	\$565.00	\$565
861	Kitchen Hood w/ Fire Suppression	1	PTS	\$565.00	\$565
862	Split Air Conditioners w/ Condensing Units 18 MBH	50	PTS	\$565.00	\$28,250
863	Split Air Conditioners 18 MBH	3	PTS	\$565.00	\$1,695
864	Split Air Conditioner 24 MBH w/ Condensing Unit	5	PTS	\$565.00	\$2,825
865	VRF Condensing Unit 36 MBH	2	PTS	\$565.00	\$1,130
866	Hydronic Unit Heaters 8.7 MBH	15	PTS	\$565.00	\$8,475
867	Hydronic Unit Heaters 9.7 MBH	6	PTS	\$565.00	\$3,390
868	Hydronic Unit Heaters 28.7 MBH	3	PTS	\$565.00	\$1,695
869	Hydronic Unit Heaters 20.1 MBH	18	PTS	\$565.00	\$10,170
870	Hydronic Unit Heaters 16.5 MBH	6	PTS	\$565.00	\$3,390
871	Hydronic Unit Heater 12 MBH	3	PTS	\$565.00	\$1,695
872	Hydronic Unit Heater 57.5 MBH	3	PTS	\$565.00	\$1,695
873	Glycol Feed Units 18 GPM @ 70 PSI, 1/2 HP	6	PTS	\$565.00	\$3,390
874	Buffer Tank 500 Gallon	2	PTS	\$565.00	\$1,130
875	7,055 CFM	120	PTS	\$565.00	\$67,800
876	8,025 CFM	60	PTS	\$565.00	\$33,900
877	6,455 CFM	30	PTS	\$565.00	\$16,950
878	10,435 CFM	30	PTS	\$565.00	\$16,950
879	18,935 CFM	60	PTS	\$565.00	\$33,900
880	3,000 CFM	18	PTS	\$565.00	\$10,170
881	Makeup Air Unit w/ HW, CHW Coils 1,500 CFM	18	PTS	\$565.00	\$10,170
882	36" Wide Radiant Ceiling Panels	586	PTS	\$565.00	\$331,090
883	24" Wide Radiant Ceiling Panels	155	PTS	\$565.00	\$87,575
884	Panel Radiation	12	PTS	\$565.00	\$6,780
885	Heat Exchanger 2,526 MBH	4	PTS	\$565.00	\$2,260
886	Heat Exchanger 511 MBH	4	PTS	\$565.00	\$2,260
887	Variable Volume Boxes 16" Inlet	3	PTS	\$565.00	\$1,695
888	Variable Volume Boxes 14" Inlet	3	PTS	\$565.00	\$1,695
889	Variable Volume Boxes 12" Inlet	15	PTS	\$565.00	\$8,475
890	Variable Volume Boxes 10" Inlet	6	PTS	\$565.00	\$3,390
891	Variable Volume Boxes 9" Inlet	6	PTS	\$565.00	\$3,390
892	Variable Volume Boxes 8" Inlet	6	PTS	\$565.00	\$3,390
893	Variable Volume Boxes 7" Inlet	102	PTS	\$565.00	\$57,630
894	Variable Volume Boxes 6" Inlet	18	PTS	\$565.00	\$10,170
895	Variable Volume Boxes 5" Inlet	45	PTS	\$565.00	\$25,425



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896	Variable Volume Boxes 4" Inlet	93	PTS	\$565.00	\$52,545
897	Miscellaneous Monitoring Points	10	PTS	\$565.00	\$5,650
898	Operators Work Station	1	LS	\$26,450.00	\$26,450
899					
900	<u>Miscellaneous</u>				
901	Coordination Drawings, Submittals, As Builts, O&M's	1	LS	\$78,450.00	\$78,450
902	Rigging, Hoisting, and Scaffolding	1	LS	\$94,125.00	\$94,125
903	Valve Tags, Pipe Identification	1	LS	\$23,450.00	\$23,450
904	Seismic Restraint , Certification	1	LS	\$22,560.00	\$22,560
905	Concrete Housekeeping Pads	27	EA	\$1,075.00	\$29,025
906	Testing and Balancing	644	MH	\$145.00	\$93,380
907	D3010 HVAC TOTAL				\$8,952,182
908					
909	D4010 FIRE PROTECTION				
910	<u>Service from Site</u>				
911	6" Ductile Iron Pipe	18	LF	\$60.14	\$1,083
912	Mechanical Joint Fittings	1	EA	\$625.00	\$625
913	Thrust Blocks	1	EA	\$625.00	\$625
914	Exterior Wall Sleeves	1	EA	\$286.00	\$286
915	Excavation, Bedding, and Backfill	18	LF	\$23.00	\$414
916					
917	<u>Bulk Mains and Riser Piping</u>				
918	6" Blk Stl Pipe Stan Wt Grooved	924	LF	\$70.58	\$65,216
919	4" Blk Stl Pipe Sch 40 Grooved	168	LF	\$44.09	\$7,407
920	2 1/2" Blk Stl Pipe Sch 40 Grooved	105	LF	\$27.28	\$2,864
921	2" Blk Stl Pipe Sch 40 T&C	168	LF	\$24.01	\$4,034
922	Grooved Fittings	150	EA	\$430.31	\$64,385
923	125# Cast Iron Fittings	21	EA	\$133.70	\$2,808
924	Hangers	171	EA	\$93.00	\$15,868
925	Valving, Specialties at Service Entrance	1	LS	\$7,799.00	\$7,799
926	Siamese Fire Department Connection w/ Valving	1	EA	\$3,580.00	\$3,580
927	Roof Manifold	3	EA	\$2,075.00	\$6,225
928	Fire Hose Valves	6	EA	\$278.41	\$1,670
929	Riser Control Valves	4	EA	\$1,324.76	\$5,299
930	Floor Control Valves	5	EA	\$3,045.00	\$15,225
931					
932	<u>Sprinkler Heads and Branch Piping</u>				
933	165 Degree Concealed Heads w/ Branch Piping	804	EA	\$520.00	\$418,080
934	165 Degree Upright Heads w/ Branch Piping	129	EA	\$275.00	\$35,475
935					
936	<u>Miscellaneous</u>				
937	Coordination Drawings, Hydraulic Calculations, As Builts, Etc.	1	LS	\$13,750.00	\$13,750
938	Spare Head Cabinets	4	EA	\$526.00	\$2,104



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939	Valve Tags, Pipe Identification	1	LS	\$3,412.00	\$3,412
940	Seismic Restraints, Certification	1	LS	\$5,945.00	\$5,945
941	D4010 FIRE PROTECTION TOTAL				\$684,179
942					
943	TOTAL SYSTEM D15 MECHANICAL				\$11,732,380
944					
945					
946	D50 ELECTRICAL				
947					
948	D5010 ELECTRICAL				
949	Light Fixtures				
950	Type EL	1	EA	\$248.17	\$248
951	Type LK22	22	EA	\$325.49	\$7,161
952	Type LP4	17	EA	\$444.68	\$7,559
953	Type LP8	216	EA	\$837.93	\$180,992
954	Type LP10	2	EA	\$1,034.55	\$2,069
955	Type LP16	4	EA	\$1,675.85	\$6,703
956	Type LPG Hi-Bay	48	EA	\$471.90	\$22,651
957	Type LR22	57	EA	\$211.27	\$12,042
958	Type LR24	4	EA	\$235.47	\$942
959	Type LR14	22	EA	\$235.47	\$5,180
960	Type LR4	8	EA	\$393.25	\$3,146
961	Type LR10	4	EA	\$983.13	\$3,933
962	Type LS4	38	EA	\$248.05	\$9,426
963	Type LS4B	14	EA	\$248.05	\$3,473
964	Type LS8	30	EA	\$496.10	\$14,883
965	Type PC1	4	EA	\$541.48	\$2,166
966	Type PC2	15	EA	\$541.48	\$8,122
967	Type PC3	5	EA	\$541.48	\$2,707
968	Type PC4	5	EA	\$541.48	\$2,707
969	Type PD1	5	EA	\$638.28	\$3,191
970	Type PD2	5	EA	\$928.68	\$4,643
971	Type PD3	5	EA	\$1,173.70	\$5,869
972	Type PD5	6	EA	\$638.28	\$3,830
973	Type RC1	215	EA	\$296.45	\$63,737
974	Type RC2	170	EA	\$296.45	\$50,397
975	Type RC3	58	EA	\$296.45	\$17,194
976	Type RC4	40	EA	\$296.45	\$11,858
977	Type RCW	9	EA	\$306.13	\$2,755
978	Type RD4	1	EA	\$931.70	\$932
979	Type SD1	46	EA	\$541.48	\$24,908
980	Type SL4	16	EA	\$544.50	\$8,712
981	Type SL5	6	EA	\$544.50	\$3,267



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DETAILED ESTIMATE - NEW CONSTRUCTION

982	Type Exit	53	EA	\$323.68	\$17,155
983	Type LPS	58	LF	\$122.51	\$7,106
984	Type LRS	838	LF	\$98.31	\$82,386
985	Type LWD	164	LF	\$98.31	\$16,123
986	Type LWS	102	LF	\$98.31	\$10,028
987	Type LWSA	76	LF	\$98.31	\$7,472
988	Type RPS	188	LF	\$83.79	\$15,753
989	Type SL7	134	LF	\$157.00	\$21,038
990	Type TR1 Track	50	LF	\$44.77	\$2,239
991	Type TH1 Track Lt	14	EA	\$170.91	\$2,393
992	Type TH2 Track Lt	6	EA	\$170.91	\$1,025
993	Type TH3 Track Lt	15	EA	\$170.91	\$2,564
994	Type Exterior Canopy Cnlt	6	EA	\$405.35	\$2,432
995					
996	Branch Circuitry				
997	<i>Branch Circuitry</i>				
998	3/4" Emt, 4#12	4,147	LF	\$13.84	\$57,370
999	MC Cable	37,320	LF	\$6.50	\$242,406
1000	3/4" Emt, 4#10	570	LF	\$15.93	\$9,078
1001	1" Emt, 4#8	120	LF	\$23.57	\$2,828
1002	Plenum Cable	12,960	LF	\$1.59	\$20,543
1003					
1004	Switches	14	EA	\$78.65	\$1,101
1005	Momentary Contact Switches	6	EA	\$124.03	\$744
1006	OS, PS Power Pack	81	EA	\$181.50	\$14,702
1007	Local Switch/Dimming Station L	116	EA	\$151.25	\$17,545
1008	Touch Screen LTS	2	EA	\$701.80	\$1,404
1009	Master Station M	2	EA	\$701.80	\$1,404
1010	Occupancy Sensor	192	EA	\$202.68	\$38,914
1011	Photo Sensor	52	EA	\$202.68	\$10,539
1012					
1013	<i>Wiring Devices</i>				
1014	Receptacles	136	EA	\$75.63	\$10,285
1015	Junc Boxes, Misc	39	EA	\$63.53	\$2,477
1016	Receptacles GFI	80	EA	\$93.78	\$7,502
1017	Receptacles Quad	43	EA	\$124.63	\$5,359
1018	Floor Power Outlet	9	EA	\$387.20	\$3,485
1019	Receptacles GFI WP	27	EA	\$245.03	\$6,616
1020	Receptacles w/ I/O Module	266	EA	\$134.31	\$35,726
1021	Receptacles GFI w/ I/O Module	100	EA	\$152.46	\$15,246
1022	Receptacles Quad w/ I/O Module	134	EA	\$193.60	\$25,942
1023	Install Door Controller FBO w/ Disc	6	EA	\$302.50	\$1,815
1024	Door Pushplate	12	EA	\$248.05	\$2,977



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DETAILED ESTIMATE - NEW CONSTRUCTION

1025	Key Switch	2	EA	\$107.69	\$215
1026	Install Motor Logic Controller MLC FBO w/ Disc	30	EA	\$302.50	\$9,075
1027	Motorized Shade Conn	109	EA	\$151.25	\$16,486
1028	Motorized Shade Switch	22	EA	\$163.35	\$3,594
1029	EPO Pushbutton	3	EA	\$223.85	\$672
1030	20/2 Amp Receptacle, Kitch	1	EA	\$101.64	\$102
1031	20/3 Amp Receptacle, Kitch	3	EA	\$101.64	\$305
1032	20/2 Amp Receptacle Tw Lk	24	EA	\$101.64	\$2,439
1033	30 Amp Receptacle, misc	3	EA	\$130.08	\$390
1034	30 Amp Receptacle Tw Lk	17	EA	\$130.08	\$2,211
1035	30 Amp Receptacle Kitch	9	EA	\$130.08	\$1,171
1036	40/3 Amp Receptacle Kitch	2	EA	\$257.13	\$514
1037	60 Amp Receptacle		EA	\$257.13	
1038					
1039	Theatrical Lighting and Controls	1	LS	\$98,736.00	\$98,736
1040	Kitchen Hood Wiring	1	LS	\$1,125.30	\$1,125
1041					
1042	Power Circuitry				
1043	MC Cable #12	768	LF	\$6.74	\$5,174
1044	3/4" Emt, 4#12	3,044	LF	\$14.50	\$44,147
1045	3/4" Emt, 4#10	2,100	LF	\$15.93	\$33,445
1046	1" Emt, Controls	600	LF	\$21.78	\$13,068
1047	1" Emt, 4#8	1,200	LF	\$23.57	\$28,285
1048	1" Emt, 4#6	10	LF	\$26.04	\$260
1049	1 1/4" Emt, 4#4	450	LF	\$34.13	\$15,360
1050	1 1/4" Emt, 4#2	2,460	LF	\$40.14	\$98,734
1051	1 1/2" Emt, 4#1	1,240	LF	\$48.16	\$59,722
1052	2" Emt, 3#1, 3/0,2#6	120	LF	\$55.90	\$6,708
1053	2" Emt, 4 1/0	120	LF	\$53.94	\$6,473
1054	2" Emt, 4 2/0	900	LF	\$59.80	\$53,818
1055	2" Emt, 4 3/0	690	LF	\$68.22	\$47,072
1056	2 1/2" Emt, 4 250Mcm	380	LF	\$87.29	\$33,170
1057	3" Emt, 4 350Mcm	840	LF	\$109.57	\$92,035
1058	3 1/2" Emt, 4 500 Mcm	80	LF	\$146.68	\$11,734
1059	4" Emt, 4 600 Mcm	1,740	LF	\$170.83	\$297,240
1060	3" EMT Cdt, PV, empty	200	LF	\$31.75	\$6,350
1061	1" Pvc, EG Ctrls	240	LF	\$16.79	\$4,030
1062	2" Pvc, 4#1	80	LF	\$39.32	\$3,146
1063	2" Pvc, 4 3/0	100	LF	\$60.29	\$6,029
1064					
1065	4C#6 MI Cable	1,200	LF	\$61.60	\$73,921
1066	1C#1 MI Cable	1,760	LF	\$50.20	\$88,357
1067					



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1068	Air Terminal	233	EA	\$142.18	\$33,127
1069	Eqpt Bond/Conn	33	EA	\$169.40	\$5,590
1070	Through-Roof Conn	32	EA	\$568.70	\$18,198
1071	Ground Rod	21	EA	\$338.80	\$7,115
1072	LP Cable Cu	5,230	LF	\$8.98	\$46,961
1073	1" PVC CDT	630	LF	\$7.18	\$4,525
1074	Service Grounding	1	LS	\$5,033.60	\$5,034
1075					
1076	Power Equipment				
1077	<i>Switchgear, Panelboards, Transformers</i>				
1078	3000/2500 Amp Main Switchboard	1	LS	\$95,367.36	\$95,367
1079	Meter Pan	1	EA	\$738.10	\$738
1080	Electronic Submeter	23	EA	\$1,294.70	\$29,778
1081	SPD @ Switchboard	1	EA	\$2,855.60	\$2,856
1082	SPD @ Panelboard	30	EA	\$1,113.20	\$33,396
1083	100 Amp Panel Board	7	EA	\$3,625.16	\$25,376
1084	225 Amp Panel Board	8	EA	\$6,083.88	\$48,671
1085	225 Amp Panel Board, 2-Section	1	EA	\$11,122.32	\$11,122
1086	225 Amp Panel Board, 3-Section	3	EA	\$17,206.20	\$51,619
1087	225 Amp Panel Board, 4-Section	1	EA	\$23,290.08	\$23,290
1088	400 Amp Panel Board, 2-Section	1	EA	\$14,036.00	\$14,036
1089	400 Amp Panel Board, 3-Section	1	EA	\$21,707.40	\$21,707
1090	600 Amp Distr Board	1	EA	\$10,962.60	\$10,963
1091	800 Amp Distr Board	2	EA	\$14,229.60	\$28,459
1092	30 Kva Transformer K13	1	EA	\$9,631.60	\$9,632
1093	45 Kva Transformer K13	12	EA	\$11,737.00	\$140,844
1094	112 Kva Transformer K13	2	EA	\$21,296.00	\$42,592
1095	100 Amp Disconnect @ Xfmr	3	EA	\$1,633.50	\$4,901
1096					
1097	<i>Emergency Generator</i>				
1098	500 Kw Emergency Generator, Gas, Custom Encl	1	EA	\$328,853.80	\$328,854
1099	200 Kw Load Bank	1	EA	\$17,787.00	\$17,787
1100	200 Amp Encl Ckt Brkr	2	EA	\$1,923.90	\$3,848
1101	600 Amp Encl Ckt Brkr	1	EA	\$5,771.70	\$5,772
1102	Autotransfer Sw 200A	1	EA	\$8,639.40	\$8,639
1103	Autotransfer Sw 600A	1	EA	\$17,653.90	\$17,654
1104	Storm Switch 200A	1	EA	\$7,260.00	\$7,260
1105	Generator Annunciator	1	EA	\$1,621.40	\$1,621
1106					
1107	<i>Motors:</i>				
1108	Heat Trace Controller, 30' Cable	2	EA	\$1,468.94	\$2,938
1109	Manual Snap Switch Starter VAV	67	EA	\$181.50	\$12,161
1110	Manual Snap Switch Starter Misc	32	EA	\$181.50	\$5,808



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DETAILED ESTIMATE - NEW CONSTRUCTION

1111	Manual Snap Switch Starter WP	5	EA	\$338.80	\$1,694
1112	20/2 Amp Disconnect, Motorized Backboard Conns	6	EA	\$907.50	\$5,445
1113	20/2 Amp Disconnect	12	EA	\$580.80	\$6,970
1114	30 Amp Disconnect, Gym Eqpt	5	EA	\$774.40	\$3,872
1115	30/2 Amp Disconnect	12	EA	\$580.80	\$6,970
1116	30 Amp Disconnect	4	EA	\$774.40	\$3,098
1117	60 Amp Disconnect	12	EA	\$1,318.90	\$15,827
1118	100 Amp Disconnect	3	EA	\$1,437.48	\$4,312
1119	100 Amp Disconnect, Elev	1	EA	\$1,437.48	\$1,437
1120	200 Amp Disconnect WP	6	EA	\$2,244.55	\$13,467
1121	Elev CP Terms	1	LS	\$774.40	\$774
1122	Install <10HP VFD FBO	9	EA	\$1,367.30	\$12,306
1123	Install 20-30HP VFD FBO	10	EA	\$2,081.20	\$20,812
1124	Chiller Module CP Conn's	6	EA	\$931.70	\$5,590
1125					
1126	Special Systems				
1127	Fire Alarm				
1128	Teflon MC Cable	16,040	LF	\$7.38	\$118,391
1129	3" Rigid, Riser Cables	60	LF	\$114.95	\$6,897
1130	FATC	2	EA	\$798.60	\$1,597
1131	Pull Station	22	EA	\$229.90	\$5,058
1132	Audible/Visual, MNS	73	EA	\$347.88	\$25,395
1133	Smoke Detector	121	EA	\$387.20	\$46,851
1134	Heat Detector	1	EA	\$387.20	\$387
1135	CO Detector	33	EA	\$387.20	\$12,778
1136	Strobe A clg	42	EA	\$229.90	\$9,656
1137	Strobe A wall	42	EA	\$229.90	\$9,656
1138	Strobe F clg	42	EA	\$229.90	\$9,656
1139	Strobe F wall	46	EA	\$229.90	\$10,575
1140	WP Beacon, Strobe	2	EA	\$287.38	\$575
1141	Duct Detector	9	EA	\$889.35	\$8,004
1142	Door Release	6	EA	\$514.25	\$3,086
1143	Cent Eqpt FACP, testing, Voice Command DVC	1	LS	\$28,162.75	\$28,163
1144	MNS Electronic Message Board	5	EA	\$1,403.60	\$7,018
1145	FCPS Booster Power Supply	1	EA	\$3,291.20	\$3,291
1146	Ansul Conn's	1	LS	\$895.40	\$895
1147	Annunciator Panel	1	EA	\$2,323.20	\$2,323
1148	Misc Connections, Relays	18	EA	\$272.25	\$4,901
1149	Master Box Radio w/ Antenna, cables	1	LS	\$8,397.40	\$8,397
1150	Knox Box	4	EA	\$520.30	\$2,081
1151					
1152	Emergency Responder Radio System BDA	1	LS	\$60,000.00	\$60,000
1153					



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DETAILED ESTIMATE - NEW CONSTRUCTION**1154 Communications System**

1155 MDF Rack, PP's, Terms	1	EA	\$14,762.00	\$14,762
1156 IDF Rack, PP's, Terms	3	EA	\$7,381.00	\$22,143
1157 Misc Rack Enclosures	15	EA	\$580.80	\$8,712
1158 Voice Demarc	1	LS		
1159 CATV Demarc	1	LS		
1160 4" Floor Sleeves	21	EA	\$229.90	\$4,828
1161 4" Wall Sleeves	21	EA	\$229.90	\$4,828
1162 Main Ground Bar	1	EA	\$1,476.20	\$1,476
1163 Tel Ground Bar	3	EA	\$738.10	\$2,214
1164 #3/0G Wire	600	LF	\$9.19	\$5,511
1165 25 Pair CAT 5E Cable	900	LF	\$4.40	\$3,964
1166 12 Strand Multi-Mode Fiber	900	LF	\$6.18	\$5,565
1167 6 Strand Multi-Mode Fiber	900	LF	\$4.30	\$3,866
1168 18" Cable Tray	180	LF	\$39.45	\$7,100
1169 4" EMT Cdt	600	LF	\$34.64	\$20,785
1170 Cat 6A Cable	86,700	LF	\$1.71	\$147,919
1171 WAP Outlet 2c, Eqpt+D295	49	EA	\$713.90	\$34,981
1172 Tel, Data Outlet 1c	53	EA	\$72.60	\$3,848
1173 Data FP Outlet 1c	8	EA	\$72.60	\$581
1174 Data PC Outlet 1c	2	EA	\$72.60	\$145
1175 CB Call Button Outlet 1c	39	EA	\$125.84	\$4,908
1176 Tel/Data Outlet 2c	135	EA	\$89.54	\$12,088
1177 Tel/Data Outlet Pro 2c	52	EA	\$89.54	\$4,656
1178 Tel/Data Outlet 4c	1	EA	\$139.15	\$139
1179 CAT 6A Cable	24,600	LF	\$1.65	\$40,631
1180 HDMI Cable	9,000	LF	\$1.53	\$13,776
1181 Audio Cable	9,000	LF	\$1.41	\$12,687
1182 AV FP Low Video Presentation Outlet (1C,H,A)	8	EA	\$211.75	\$1,694
1183 AV Pro High Video Presentation Outlet (3C,H,A)	52	EA	\$332.75	\$17,303
1184 Network Switches Allowance	1	LS	\$270,000.00	\$270,000
1185				
1186 Clock/ Public Address System:				
1187 2 1/2" Emt, Riser Cables	50	LF	\$66.74	\$3,337
1188 Comm Cable	9,450	LF	\$1.25	\$11,778
1189 Main Sound Rack	1	LS	\$54,934.00	\$54,934
1190 Local Sound System Rack	1	EA	\$7,792.40	\$7,792
1191 Clock C, LV	72	EA	\$254.10	\$18,295
1192 S1 Speaker	2	EA	\$290.40	\$581
1193 S2 Speaker	6	EA	\$290.40	\$1,742
1194 S3 Speaker	8	EA	\$290.40	\$2,323
1195 HS Speaker, horn	4	EA	\$254.10	\$1,016
1196 S Speaker, flush	218	EA	\$254.10	\$55,394



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DETAILED ESTIMATE - NEW CONSTRUCTION

1197	Microphone	5	EA	\$459.80	\$2,299
1198	Master Clock GPS	1	EA	\$5,711.20	\$5,711
1199	Clock Antenna	1	EA	\$1,863.40	\$1,863
1200					
1201	Security Access Control System				
1202	3/4" Emt, 4#12	90	LF	\$13.84	\$1,245
1203	Signal Cable	14,800	LF	\$1.25	\$18,445
1204	Access Control Panel, PS's	3	LS	\$6,921.20	\$20,764
1205	Card Reader	37	EA	\$810.70	\$29,996
1206	Keypad	7	EA	\$810.70	\$5,675
1207	Panic Button	2	EA	\$199.65	\$399
1208	Door Contact	70	EA	\$187.55	\$13,129
1209	Motion Sensor PIR	52	EA	\$465.85	\$24,224
1210	AI Video Intercom/Door Release	6	EA	\$798.60	\$4,792
1211	Electric Transfer Hinge (Allow), stubup	37	EA	\$66.55	\$2,462
1212	Pushbar w/ REX (FBO), stubup	37	EA	\$66.55	\$2,462
1213					
1214	CCTV Security System:				
1215	Central Monitoring/Recording Eqpt	1	LS	\$37,153.05	\$37,153
1216	CAT 6E Cable	13,800	LF	\$1.75	\$24,212
1217	CCTV Camera , Fixed	45	EA	\$1,276.55	\$57,445
1218	CCTV Camera , WP	24	EA	\$1,863.40	\$44,722
1219					
1220	Audio Visual/ IPTV System				
1221	3/4" Emt, 4#12	60	LF	\$14.50	\$870
1222	AV Rack	2	EA	\$1,040.60	\$2,081
1223	AV Backbox, stubup, misc	56	EA	\$72.60	\$4,066
1224	AV Sound System Eqpt Package, Cafet	1	LS	\$75,000.00	\$75,000
1225	AV Sound System Eqpt Package Gym	1	LS	\$30,000.00	\$30,000
1226					
1227	Intercom Systems:				
1228	1" Emt, Cables	300	LF	\$21.27	\$6,382
1229	3/4" Emt, Cables	300	LF	\$16.01	\$4,802
1230	VMS Video Monitor Handset Master Station	3	EA	\$1,452.00	\$4,356
1231	VES Video Entrance Station	1	EA	\$574.75	\$575
1232	AES Audio Entrance Station	1	EA	\$574.75	\$575
1233	Remote Annunciator	1	EA	\$1,621.40	\$1,621
1234	Power Supply	1	EA	\$459.80	\$460
1235					
1236	Speech Reinforcement System				
1237	Classroom SR System	43	RM	\$2,250.60	\$96,776
1238					
1239	Temp Power and Lighting	114,384	SF	\$0.50	\$57,192



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DETAILED ESTIMATE - NEW CONSTRUCTION

1240 D50 ELECTRICAL TOTAL				5,412,938
1241				
1242 TOTAL SYSTEM D50 ELECTRICAL				\$5,412,938
1243				
1244				
1245 E10 EQUIPMENT				
1246				
1247 E1020 INSTITUTIONAL EQUIPMENT				
1248 Time capsules	1	LS	\$7,800.00	\$7,800
1249 Projection screens	8	EA	\$15,000.00	\$120,000
1250 Stage Curtains	1	LS	\$50,000.00	\$50,000
1251 Gymnasium equipment	1	LS	\$75,000.00	\$75,000
1252 Wall pads	1	LS	\$10,000.00	\$10,000
1253 Bleacher	350	EA	\$250.00	\$87,500
1254 Kiln	1	EA	\$3,500.00	\$3,500
1255 Refrigerator/ Freezer	4	EA	\$2,000.00	\$8,000
1256 Undercounter refrigerator	4	EA	\$1,500.00	\$6,000
1257 Coffee Make	2	EA	\$300.00	\$600
1258 Microwave	2	EA	\$800.00	\$1,600
1259 Dishwasher	3	EA	\$1,200.00	\$3,600
1260 Washer	1	EA	\$1,250.00	\$1,250
1261 Dryer	1	EA	\$1,250.00	\$1,250
1262 Healthcare equipment	1	LS	\$15,000.00	\$15,000
1263 Food service equipment				
1264 Kitchen Food Service; budget provided	1	LS	\$590,520.00	\$590,520
1265 E1020 INSTITUTIONAL EQUIPMENT TOTAL				\$981,620
1266				
1267 TOTAL SYSTEM E10 FITTINGS & EQUIPMENT				\$981,620
1268				
1269				
1270 E20 FURNISHINGS				
1271				
1272 E2020 SPECIALTIES / MILLWORK				
1273 STE Room	1	EA		
1274 Upper cabinet	18	LF	\$200.00	\$3,600
1275 Plastic countertop	44	LF	\$225.00	\$9,900
1276 ABA / CBA Barrier free knee space cabinet	3	LF	\$250.00	\$750
1277 Base cabinet	15	LF	\$240.00	\$3,600
1278 Kindergarten	5	EA		
1279 Upper cabinet	55	LF	\$200.00	\$11,000
1280 ABA / CBA Barrier free knee space cabinet	15	LF	\$250.00	\$3,750
1281 Base cabinet	40	LF	\$200.00	\$8,000
1282 Open book case	45	LF	\$150.00	\$6,750



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DETAILED ESTIMATE - NEW CONSTRUCTION

1283	Plastic countertop	60	LF	\$225.00	\$13,500
1284	Custom window seat-w/storage	50	LF	\$250.00	\$12,500
1285	TSO	15	LF	\$180.00	\$2,700
1286	TS-3684-M; Tall storage double door	5	EA	\$1,500.00	\$7,500
1287	General Classroom	20	EA		
1288	Upper cabinet	220	LF	\$200.00	\$44,000
1289	ABA / CBA Barrier free knee space cabinet	60	LF	\$250.00	\$15,000
1290	Base cabinet	160	LF	\$250.00	\$40,000
1291	Plastic countertop	220	LF	\$225.00	\$49,500
1292					
1293	TSO	40	LF	\$180.00	\$7,200
1294	TS-3684-M; Tall storage double door	20	EA	\$1,500.00	\$30,000
1295	BC01 / ABC018 / DBC01 open bookcase unit	120	LF	\$200.00	\$24,000
1296	Open book case	240	LF	\$150.00	\$36,000
1297	Art Classroom	1	EA		
1298	Upper cabinet	8	LF	\$200.00	\$1,600
1299	Plastic countertop	48	LF	\$225.00	\$10,800
1300	ABA / CBA Barrier free knee space cabinet	8	LF	\$250.00	\$2,000
1301	Base cabinet	6	LF	\$240.00	\$1,440
1302	ABC012-54 Cubbies	22	LF	\$360.00	\$7,920
1303	Media Center	1	EA		
1304	BC01 / ABC018 / DBC01 open bookcase unit	140	LF	\$200.00	\$28,000
1305	Service counter	20	LF	\$1,200.00	\$24,000
1306	Plastic countertop	15	LF	\$225.00	\$3,375
1307	TBO-3684 tall book storage open shelves	57	LF	\$180.00	\$10,260
1308	TSC-30 -1 Tall student cubbies	2	EA	\$980.00	\$1,960
1309	TS-3684-M; Tall storage double door	3	EA	\$1,500.00	\$4,500
1310	<i>Extended learning</i>	6	EA		
1311	AB (Base cabinet ,sink)	12	LF	\$240.00	\$2,880
1312	ABA / CBA Barrier free knee space cabinet	36	LF	\$250.00	\$9,000
1313	Solid surface countertop	48	LF	\$340.00	\$16,320
1314	TBO-3684 tall book storage open shelves	6	LF	\$180.00	\$1,080
1315	TSC-36K-1 Tall student cubbies	104	EA	\$980.00	\$101,920
1316	TSO-3384-15	2	EA	\$750.00	\$1,500
1317	<i>Resource room</i>	2	EA		
1318	AB (Base cabinet ,sink)	36	LF	\$240.00	\$8,640
1319	Open book case	12	LF	\$150.00	\$1,800
1320	Plastic countertop	48	LF	\$225.00	\$10,800
1321	TW -3684 Teacher wardrobe unit	2	EA	\$1,500.00	\$3,000
1322	<i>Learning Center</i>	2	EA		
1323	Base cabinet & countertop	12	LF	\$420.00	\$5,040
1324	TW -3684 Teacher wardrobe unit	4	EA	\$1,500.00	\$6,000
1325	Custom window seat-w/storage	24	LF	\$250.00	\$6,000

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1326	Plastic countertop	7	LF	\$180.00	\$1,260
1327	TS- 3684-M Tall storage cabinet at Coaches Store	11	EA	\$1,500.00	\$16,500
1328	<i>ELL</i>	1	EA		
1329	Plastic countertop	9	LF	\$225.00	\$2,025
1330	Base cabinet	5	LF	\$240.00	\$1,200
1331	Open book case	3	LF	\$150.00	\$450
1332	Nurse Office	1	EA		
1333	Upper cabinet	10	LF	\$200.00	\$2,000
1334	Base cabinet	13	LF	\$240.00	\$3,120
1335	Plastic countertop	37	LF	\$225.00	\$8,325
1336	TS 308418- Tall storage double door cabinet	6	EA	\$1,250.00	\$7,500
1337	TS- 3684-M Tall storage double door cabinet	1	EA	\$1,500.00	\$16,500
1338	Focus program	1	EA		
1339	Plastic countertop	21	LF	\$225.00	\$4,725
1340	AB (Base cabinet ,sink)	3	LF	\$240.00	\$720
1341	ABA / CBA Barrier free knee space cabinet	13	LF	\$200.00	\$2,600
1342	TS 308418- Tall storage double door cabinet	2	EA	\$1,250.00	\$2,500
1343	<i>Staff Lunch workroom</i>	2	EA		
1344	Plastic countertop	24	LF	\$225.00	\$5,400
1345	AB (Base cabinet ,sink)	12	LF	\$240.00	\$2,880
1346	ABA / CBA Barrier free knee space cabinet	6	LF	\$200.00	\$1,200
1347	TS 328418- Tall storage double door cabinet	4	EA	\$1,300.00	\$5,200
1348	Upper cabinet	24	LF	\$200.00	\$4,800
1349	<i>Music classroom</i>	2	EA		
1350	Plastic countertop	12	LF	\$225.00	\$2,700
1351	ABA / CBA Barrier free knee space cabinet	6	LF	\$200.00	\$1,200
1352	Open book case	58	LF	\$150.00	\$8,700
1353	TS 308418- Tall storage double door cabinet	2	EA	\$1,250.00	\$2,500
1354	Upper cabinet	22	LF	\$200.00	\$4,400
1355	<i>Music storage</i>	1	EA		
1356	Standard music storage cabinets	1	EA	\$2,500.00	\$2,500
1357	M15-28x29	9	LF	\$250.00	\$2,250
1358	Mailboxes slot	1	EA	\$4,900.00	\$4,900
1359					
1360	WABA Upper	1	EA		
1361	Plastic countertop	19	LF	\$225.00	\$4,275
1362	AB. Base cabinet	17	LF	\$240.00	\$4,080
1363	Upper cabinet	8	LF	\$200.00	\$1,600
1364	WO2-3036	3	LF	\$180.00	\$540
1365	TS 368418- Tall storage double door cabinet	13	EA	\$1,500.00	\$19,500
1366	TSC-36K-1 Tall student cubbies	3	EA	\$980.00	\$2,940
1367	WABA Lower	1	EA		
1368	Plastic countertop	19	LF	\$225.00	\$4,275



Westwood Hanlon Elementary School

Westwood, MA

113,141 GSF

DETAILED ESTIMATE - NEW CONSTRUCTION

1369	AB. Base cabinet	17	LF	\$240.00	\$4,080
1370	Upper cabinet	8	LF	\$200.00	\$1,600
1371	WO2-3036	3	LF	\$180.00	\$540
1372	TS 368418- Tall storage double door cabinet	13	EA	\$1,500.00	\$19,500
1373	TSC-36K-1 Tall student cubbies	3	EA	\$980.00	\$2,940
1374	Coaches off/ storage	2	EA	\$3,000.00	\$6,000
1375	<i>Mother's room</i>	2	<i>ea</i>		
1376	Plastic countertop	16	LF	\$225.00	\$3,600
1377	TW3684- Teacher wardrobe unit	2	EA	\$1,800.00	\$3,600
1378	AB. Base cabinet	6	LF	\$240.00	\$1,440
1379	ABA / CBA Barrier free knee space cabinet	6	LF	\$200.00	\$1,200
1380	<i>School Psychology</i>	2	<i>ea</i>		
1381	Plastic countertop	12	LF	\$225.00	\$2,700
1382	AB. Base cabinet	4	LF	\$240.00	\$960
1383	Open book case	6	LF	\$150.00	\$900
1384	TS 308418- Tall storage double door cabinet	2	EA	\$1,250.00	\$2,500
1385	<i>Speech T14/AQ1.52</i>	2	<i>ea</i>		
1386	Plastic countertop	12	LF	\$225.00	\$2,700
1387	Open book case	6	LF	\$150.00	\$900
1388	Base cabinet	6	LF	\$240.00	\$1,440
1389	TS 308418- Tall storage double door cabinet	4	EA	\$1,250.00	\$5,000
1390	CT-SS at Secretary 152A	21	LF	\$1,000.00	\$21,000
1391	CT-PL-1 (countertop) at Secretary 152A	10	LF	\$180.00	\$1,800
1392	Furnishings miscellaneous metals	114,384	SF	\$0.50	\$57,192
1393	Rough carpentry	114,384	SF	\$0.75	\$85,788
1394	Store Shelving at Art Workroom	48	LF	\$75.00	\$3,600
1395	Store Shelving at GYM	96	LF	\$75.00	\$7,200
1396	Kitchen Dry store Shelf	24	LF	\$75.00	\$1,800
1397	WS2- Adjustable shelves at General Classroom	100	LF	\$150.00	\$15,000
1398	WS2- Adjustable shelves-Adaptive PE	6	LF	\$150.00	\$900
1399	WS2- Adjustable shelves at Art Classroom	19	LF	\$150.00	\$2,850
1400	WS2- Adjustable shelves at Nurse	5	LF	\$150.00	\$750
1401	WS2- Adjustable shelves at Kindergarten Classroom	25	LF	\$150.00	\$3,750
1402					
1403	<i>Entrance mats</i>				
1404	Walk of mat (WOM)	708	SF	\$45.00	\$31,860
1405	Walk of carpet (WOC)	352	SF	\$10.50	\$3,696
1406					
1407	Exterior Window treatment	14,980	SF	\$8.00	\$119,840
1408	Premium for motorized shades	1	LS	\$15,000.00	\$15,000
1409	Interior window treatment	2,083	SF	\$7.00	\$14,581
1410	E2020 SPECIALTIES / MILLWORK TOTAL				\$1,202,557
1411					



Westwood Hanlon Elementary School

Westwood, MA

113,141 GSF

DETAILED ESTIMATE - NEW CONSTRUCTION

1412 TOTAL SYSTEM E20 FURNISHINGS				\$1,202,557
1413				
1414				
1415 F10 SPECIAL CONSTRUCTION				
1416				
1417 F1010 SPECIAL CONSTRUCTION				
1418 Geothermal Field				
1419 Geothermal Piping to Field w/ Ftgs (HDPE)	900	LF	\$29.30	\$26,370
1420 Geothermal Runout Piping in Field w/ Ftgs	7,440	LF	\$21.30	\$158,472
1421 Geothermal Well Piping	50,120	LF	\$3.96	\$198,475
1422 Geothermal Wells w/ Grouting	80	EA	\$15,500.00	\$1,240,000
1423 Geothermal Piping in Vault w/ Ftgs, Hgrs, Valving, Specialties	1	LS	\$134,500.00	\$134,500
1424 Excavation, Bedding and Backfill	8,340	LF	\$23.00	\$191,820
1425 Machine Rental, Misc.	1	LS	\$5,600.00	\$5,600
1426 Valving, Specialties at Pipe Entrance	1	LS	\$22,450.00	\$22,450
1427 Valving, Specialties at Geothermal Circulators	2	EA	\$36,159.00	\$72,318
1428 Valving, Specialties at Heat Pumps	6	EA	\$12,850.00	\$77,100
1429 Geothermal Circulators	2	EA	\$9,875.00	\$19,750
1430 F1010 SPECIAL CONSTRUCTION TOTAL				\$2,146,855
1431				
1432 TOTAL SYSTEM F10 SPECIAL CONSTRUCTION				\$2,146,855
1433				
1434				
1435 F30 DEMOLITION				
1436				
1437 F2020 SELECTIVE DEMOLITION				
1438 See building demolition				
1439 F2020 SELECTIVE DEMOLITION TOTAL				\$0
1440				
1441 TOTAL SYSTEM F20 DEMOLITION				\$0
1442				
1443				
			TOTAL TO SUMMARY	\$49,006,552

Westwood Hanlon Elementary School

Westwood, MA
 113,141 GSF

DIRECT COST SITEWORK SUMMARY

<u>ELEMENT</u>	<u>TOTAL</u>
10 F20 FACILITY REMEDIATION	See main Sum.
11	
12 F30 DEMOLITION	See main Sum.
13	
14 G10 SITE PREPARATION	\$2,123,741
15	
16 G20 SITE IMPROVEMENTS	\$4,960,035
17	
18 G30 SITE CIVIL/MECHANICAL UTILITIES	\$2,643,201
19	
20 G40 SITE ELECTRICAL UTILITIES	\$525,093
21	
22	
23 SITWORK TOTAL	<u>\$10,252,070</u>
24	
25	

Westwood Handlon Elementary School
Westwood, MA

SITWORK DETAILED ESTIMATE

	<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT COST</u>	<u>TOTAL</u>
9	F20 FACILITY REMEDIATION				
10					
11	F2010 Hazardous Materials Remediation				
12	Hazmat abatement -Budget prvided	1	LS	\$750,000.00	See main Sum.
13	F20 FACILITY REMEDIATION TOTAL				See main Sum.
14					
15					
16	F30 DEMOLITION				
17					
18	F3010 Structure Demolition				
19	Building demolition	506,077	CF	\$0.35	See main Sum.
20	F30 DEMOLITION TOTAL				See main Sum.
21					
22					
23	G10 SITE PREPARATION				
24					
25	G1010 Site Clearing				
26	31 10 00 Site Clearing				
27	Site clearing	6	ACRES	\$3,500.00	\$21,000
28	R & D trees	10	ACRES	\$8,000.00	\$80,000
29	Construction fence Phase I, install, maintain, remove & rein	3,904	LF	\$16.00	\$62,464
30	Construction fence Phase II, install, maintain, remove & rei	1,930	LF	\$16.00	\$30,880
31	Construction fence Phase III, install, maintain, remove & rei	2,257	LF	\$16.00	\$36,112
32	Orange safety fence	1,932	LF	\$18.50	\$35,742
33	Phase 2 & 3 orange safety fence	528	LF	\$10.00	\$5,280
34	Phase 1 & 2 double construction gate	1	PR	\$2,800.00	\$2,800
35	Phase 3. Double construction gate	1	PR	\$2,800.00	\$2,800
36	Phase 1 & 2 Stabilized construction entrance	1,308	SF	\$7.50	\$9,810
37	Phase 3. Stabilized construction entrance	1,222	SF	\$7.50	\$9,165
38	<i>Contractor parking</i>				
39	Phase 1 & 2 temporary staging	2,778	SF	\$3.50	\$9,723
40	Phase 2 stage area	3,495	SF	\$3.50	\$12,233
41	Phase 3 stage area	4,505	SF	\$3.50	\$15,768
42	Temp signs	1	LS	\$3,000.00	\$3,000
43	Wash down/re-fueling/parking allowance	3,000	SF	\$2.00	\$6,000
44	31 23 19 Dewatering and Drainage				
45	Dewatering for sitework excavation; allow	1	LS	\$35,000.00	\$35,000
46	31 25 00 Erosion and Sedimentation Controls				
47	Erosion control	322	LF	\$12.00	\$3,864
48	Perimeter protection barrier B silt fence with wattles	3,512	LF	\$14.00	\$49,168
49	Inlet protection	48	EA	\$275.00	\$13,200
50	Phase 1 & 2. 6' Screened super silt fence	1,218	LF	\$14.00	\$17,052



Westwood Handlon Elementary School
Westwood, MA

SITWORK DETAILED ESTIMATE

	<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT COST</u>	<u>TOTAL</u>
51	Erosion control perimeter protection at Phase 2 temporary stockpile area	410	LF	\$12.00	\$4,920
52	Phase 3. 6' Screened super silt fence	2,670	LF	\$14.00	\$37,380
53	Phase 1 & 2 temporary sediment basin	88	CY	\$15.00	\$1,324
54	Stabilize low points and step slope with slope protection	25,395	SF	\$2.75	\$69,836
55					
56	G1020 Site Demolition and Relocation				
57	<i>02 41 00 Demolition</i>				
58	<i>33 05 05 Selective Site Utility Demolition</i>				
59	Saw cut existing pavement	375	LF	\$12.00	\$4,500
60	R & D asphalt pavement	34,636	SF	\$1.00	\$34,636
61	R & D asphalt sidewalk	16,713	SF	\$1.00	\$16,713
62	R & D curbing	433	LF	\$8.00	\$3,464
63	R & D sand playground	5,736	SF	\$1.50	\$8,604
64	R & D sport field	13,219	SF	\$1.50	\$19,829
65	R & D bike packs on bit concrete	358	SF	\$1.50	\$537
66	Existing playground equipment removed and discarded	1	AL	\$3,500.00	\$3,500
67	R & D stone wall	973	LF	\$35.00	\$34,055
68	Cut, cap and remove existing utility	1	AL	\$50,000.00	\$50,000
69	Misc. demolition other than above	1	AL	\$85,000.00	\$85,000
70					
71	<u>G1020.01 Building Demolition</u>				
72	<i>02 30 00 Building Demolition</i>				
73	Building demolition				See Above
74					
75	G1030 Site Earthwork				
76	Soils characterization and disposal; allowance	1	AL	\$75,000.00	\$75,000
77	Remove & stockpile topsoil	2,466	CY	\$10.00	\$24,659
78	Rock excavation; allow	4,366	CY	\$75.00	\$327,431
79	Cut and fill for building				See Building
80	Gravel base to building				See Building
81	Sitework cut and fill	22,215	CY	\$15.00	\$333,225
82	Roadways pavement cut and fill	7,632	CY	\$15.00	\$114,480
83	Pedestrian Paving cut and fill	1,783	CY	\$15.00	\$26,745
84	Stabilized stonedust detail 3/L4.01	2,055	SF	\$5.00	\$10,275
85	Dirt footpath 2' width	2,584	SF	\$8.00	\$20,672
86	10' Wide dirt fire access trail. scope includes brush, tree and	3,740	SF	\$2.75	\$10,285
87	Rough and fine grading	169,336	SF	\$1.50	\$254,004
88	Plumbing excavation, Bedding, and Backfill	3,470	LF	\$26.40	\$91,608
89	<i>G10 SITE PREPARATION TOTAL</i>				\$2,123,741
90					



Westwood Handlon Elementary School
Westwood, MA

SITWORK DETAILED ESTIMATE

	<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT COST</u>	<u>TOTAL</u>
91					
92	<u>G20 SITE IMPROVEMENTS</u>				
93					
94	G2020 Roadways				
95	32 12 00 Flexible Paving				
96	Bituminous concrete roadway detail 1/L4.01	83,533	SF	\$3.45	\$288,189
97	Bituminous concrete- Fire lane detail 1/L4.01	12,004	SF	\$3.45	\$41,414
98	Bituminous concrete 1/L4.01	10,517	SF	\$3.45	\$36,284
99	Patch existing pavement at street	300	SF	\$8.50	\$2,550
100	Porous pavement; parking lot	26,845	SF	\$6.50	\$174,493
101	Gravel base to roadway & parking lot	5,427	CY	\$38.00	\$206,226
102					
103	32 16 00 Curbs and Gutters				
104	Vertical granite curb detail 4/L4.01	7,162	LF	\$48.00	\$343,776
105	Flush granite curb detail 6/L4.01	170	LF	\$42.00	\$7,140
106	Vertical planter curb	102	LF	\$48.00	Alternate
107	Flush precast concrete curb detail 5/L4.01	373	LF	\$28.00	\$10,444
108					
109	32 17 00 Paving Specialties				
110	Painted crosswalk	1,933	SF	\$2.50	\$4,833
111	Striped pedestrian crossing	2,616	SF	\$2.50	\$6,540
112	Parking stall painting	143	EA	\$35.00	\$5,005
113	Parking stall painting; HC	4	EA	\$200.00	\$800
114	Misc. marking other than above	1	LS	\$3,900.00	\$3,900
115					
116	G2030 Pedestrian Paving				
117	32 13 10 Rigid Paving				
118	Concrete sidewalk detail 2/L4.01	19,568	SF	\$6.50	\$127,192
119	Bituminous concrete walk	3,265	SF	\$3.15	\$10,285
120	Concrete pad detail 2/L4.01	1,455	SF	\$10.00	\$14,550
121	Concrete entrance pavement	8,695	SF	\$8.50	\$73,908
122	Concrete pavement at Steam Porch	2,718	SF	\$10.00	\$27,180
123	Vehicular grade concrete pad for storage shed	82	SF	\$10.00	\$820
124	Curb cut Type 1	12	EA	\$450.00	\$5,400
125	Curb cut Type 2	9	EA	\$480.00	\$4,320
126	Concrete ramp	354	SF	\$15.00	\$5,310
127	Metal rails at concrete ramp	126	LF	\$260.00	\$32,760
128	Gravel base to concrete pavement	993	CY	\$38.00	\$37,734
129					
130	G2040 Site Development				
131	<u>G2040.01 Fences and Gates</u>				
132	32 31 00 Fences and Gates				
133	4' metal picket fence	767	LF	\$120.00	\$92,040



Westwood Handlon Elementary School
Westwood, MA

SITWORK DETAILED ESTIMATE

	<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT COST</u>	<u>TOTAL</u>
134	4' metal picket fence gate	2	EA	\$1,000.00	\$2,000
135	Emergency access gate	1	EA	\$5,500.00	\$5,500
136	Guardrail detail 9/L4.01	536	LF	\$55.00	\$29,480
137	8' Ht. Vinyl coated chain link fence detail 15/L4.01	208	LF	\$90.00	\$18,720
138	4" Black vinyl clad fence at playground	1,420	LF	\$36.00	\$51,120
139	Single gate - 4' Ht.	4	LEAF	\$550.00	\$2,200
140	Backstop at little league baseball field	1,140	SF	\$50.00	\$57,000
141	Sports barrier netting system behind each soccer equal to 20' Barrier	246	LF	\$200.00	\$49,200
142					
143					
144	<u>G2040.02 Site and Street Furnishes</u>				
145	Concrete stairs per riser	106	LFR	\$85.00	\$9,010
146	Concrete cheek wall	22	LF	\$240.00	\$5,280
147	Galvanized steel handrail at stair	42	LF	\$360.00	\$15,120
148	Storage shed	1	LS	\$4,100.00	\$4,100
149	Fence at dumpster pad	32	LF	\$75.00	\$2,400
150	Double gate at dumpster pad	2	EA	\$1,500.00	\$3,000
151	Bike racks	34	EA	\$450.00	\$15,300
152	Bench Type 1	2	EA	\$1,500.00	\$3,000
153	Bench Type 2	1	EA	\$2,500.00	\$2,500
154	Trash receptacle	1	AL	\$4,500.00	\$4,500
155	Concrete filled steel bollards	17	EA	\$750.00	\$12,750
156	Precast concrete bollard	14	EA	\$650.00	\$9,100
157	Raised planter	27	LF	\$150.00	\$4,050
158	Illuminated entry sign	2	EA	\$26,000.00	\$52,000
159	40' Flag pole w/ foundation	1	EA	\$7,500.00	\$7,500
160	Traffic signs	30	EA	\$480.00	\$14,400
161	Picnic table	2	EA	\$1,200.00	\$2,400
162	Square court	3	LS	\$375.00	\$1,125
163	Painted hopscotch	1	LS	\$350.00	\$350
164	Boulders set in lawn	34	EA	\$750.00	\$25,500
165	Colored nonsked coating at crossing	540	SF	\$3.50	\$1,890
166	Sand/Water play tables	2	EA	\$10,000.00	\$20,000
167					
168	<u>Versa-lok retaining wall detail 9/L4.01</u>	480	LF		
169	Excavation	107	CY	\$15.00	\$1,600
170	Gravel base to footing; 12" thick	39	CY	\$38.00	\$1,486
171	Remove of excavation material on site	107	CY	\$4.00	\$427
172	4" sub drain pipe	480	LF	\$18.00	\$8,640
173	3/4" Crushed stone backfill	141	CY	\$30.00	\$4,230
174	Backfill with stockpile soil	32	CY	\$10.00	\$320



Westwood Handlon Elementary School
Westwood, MA

SITWORK DETAILED ESTIMATE

	<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT COST</u>	<u>TOTAL</u>
175	Modular concrete units retaining wall	3,456	SF	\$60.00	\$207,360
176	<u>Double side natural stone wall with guardrail detail 8/L4.01</u>	147	LF		
177	Excavation	147	CY	\$15.00	\$2,205
178	Gravel base to footing; 18" thick	37	CY	\$38.00	\$1,406
179	Remove of excavation material on site	147	CY	\$4.00	\$588
180	Footing concrete strip footing CF4'-2"x18"	36	CY	\$155.00	\$5,580
181	Footing formwork	441	SF	\$12.00	\$5,292
182	Re-bar at footing	2,880	LBS	\$2.00	\$5,760
183	Place from truck & vibrate	36	CY	\$110.00	\$3,960
184	Concrete retaining wall	36	CY	\$155.00	\$5,580
185	Retaining wall formwork	1,617	SF	\$18.00	\$29,106
186	Re-bar at retaining wall	4,320	LBS	\$2.00	\$8,640
187	Place from truck & vibrate	36	CY	\$110.00	\$3,960
188	Nature stone face	1,323	SF	\$75.00	\$99,225
189	18" Metal guardrail on top of wall	147	LF	\$140.00	\$20,580
190					
191	32 18 00 Athletic and Recreational Surfacing				
192	<i>Little league baseball</i>	40,383	SF		
193	Rough/fine grading	40,383	SF	\$0.75	\$30,287
194	Cut and fill	1,750	CY	\$15.00	\$26,250
195	8" Stone base	1,097	CY	\$38.00	\$41,686
196	Sand base	274	CY	\$45.00	\$12,330
197	Underdrain	37,550	GSF	\$0.95	\$35,673
198	Infield surfacing; Engineered infield mix, 4" Depth	2,833	SF	\$2.75	\$7,791
199	Irrigation outfield	37,550	SF	\$1.50	\$56,325
200	Sod lawn	37,550	SF	\$2.50	\$93,875
201	5'x15' Aluminum bleacher	2	EA	\$13,650.00	\$27,300
202	Single gate at batting cage	2	EA	\$500.00	\$1,000
203	Removable foul poles	2	EA	\$5,135.00	\$10,270
204	Base plate	4	EA	\$370.00	\$1,480
205	Pitching rubber	1	EA	\$220.00	\$220
206	Team bench	2	EA	\$1,500.00	\$3,000
207	Scoreboard	1	EA		Electrical
208	<i>11 V 11 Soccer Field</i>	86,108	SF		
209	Rough/fine grading	86,108	SF	\$0.75	\$64,581
210	Cut and fill	3,731	CY	\$15.00	\$55,965
211	8" Stone base	2,339	CY	\$38.00	\$88,882
212	Sand base	585	CY	\$45.00	\$26,325
213	Underdrain	86,108	GSF	\$0.95	\$81,803
214	Irrigation at soccer field area only	74,250	SF	\$1.50	\$111,375
215	Sod lawn	74,250	SF	\$2.50	\$185,625
216	lawn	11,858	SF	\$0.50	\$5,929



Westwood Handlon Elementary School
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SITWORK DETAILED ESTIMATE

	<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT COST</u>	<u>TOTAL</u>
217	Soccer goal	1	LS	\$2,500.00	\$2,500
218	<i>Poured in place surfacing playground</i>	10,616	SF		
219	Rough/fine grading	10,616	SF	\$0.75	\$7,962
220	Cut and fill	460	CY	\$15.00	\$6,900
221	Stone base	360	CY	\$38.00	\$13,680
222	Rubber playground safety surface	10,616	SF	\$18.00	\$191,088
223	Swing set	2	EA	\$3,300.00	\$6,600
224	Accessible platform and stairs	1	LS	\$32,000.00	\$32,000
225	Double slide	1	LS	\$5,000.00	\$5,000
226	Activated slope with euroflex spheres and half spheres	1	LS	\$26,400.00	\$26,400
227	Landscape structures "Alpha link tower"	1	LS	\$75,000.00	\$75,000
228	Landscape structures "Crab trap"	1	LS	\$50,000.00	\$50,000
229	Miscellaneous play structures	1	LS	\$30,000.00	\$30,000
230	Flush perimeter concrete curb 6/L4.01	593	LF	\$28.00	\$16,604
231	<i>Asphalt basketball court</i>	2,025	SF		
232	Rough/fine grading	2,025	SF	\$0.75	\$1,519
233	Cut and fill - see earthwork	88	CY	\$15.00	\$1,320
234	12" Stone base	83	CY	\$38.00	\$3,154
235	Asphalt basketball court	2,025	SF	\$3.50	\$7,088
236	Basketball courts marking	2,025	SF	\$2.50	\$5,063
237	Basketball hoops	1	EA	\$2,950.00	\$2,950
238	Elec vehicle charging station				Electrical
239					
240	G2050.02 Lawns and Grasses				
241	<i>32 92 00 Turfs and Grasses</i>				
242	Respread topsoil, amended	2,466	CY	\$12.00	\$29,591
243	Topsoil for lawn	4,089	CY	\$25.00	\$102,225
244	Topsoil for planting beds, shrubs and perennials	2,677	CY	\$28.00	\$74,956
245	Mulch	454	CY	\$45.00	\$20,430
246	Loam and seed	215,421	SF	\$0.25	\$53,855
247	Seed mix #1: New England conservation / wildlife maix	29,963	SF	\$0.35	\$10,487
248	Seed mix #2: New England erosion control/ restoration mi:	8,002	SF	\$2.50	\$20,005
249	G2050.03 Trees, Plants and Ground Covers				
250	<i>32 93 00 Plants</i>				
251	Existing tree to remain and be protect	2	EA	\$350.00	\$700
252	<i>Deciduous Trees</i>	151	EA		
253	Red Maple 3" Cal	10	EA	\$1,250.00	\$12,500
254	Green mountain Sugar Maple 3" Cal	1	EA	\$1,250.00	\$1,250
255	Green mountain Sugar Maple 4" Cal	4	EA	\$1,500.00	\$6,000
256	River Birth 3" Cal	7	EA	\$1,250.00	\$8,750
257	Sweet Gum 3" Cal	27	EA	\$1,250.00	\$33,750
258	Black Gum 3" Cal	11	EA	\$1,250.00	\$13,750



Westwood Handlon Elementary School
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SITWORK DETAILED ESTIMATE

	<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT COST</u>	<u>TOTAL</u>
259	American Sycamore 4" Cal	23	EA	\$1,500.00	\$34,500
260	Pin Oak 4" Cal	5	EA	\$1,500.00	\$7,500
261	Red Oak 3" Cal	13	EA	\$1,250.00	\$16,250
262	Princeton Elm 4" Cal	16	EA	\$1,500.00	\$24,000
263	Red Maple 3" Cal	30	EA	\$1,250.00	\$37,500
264	Red Sunset Maple 3" Cal	4	EA	\$1,250.00	\$5,000
265	Ornamental Trees	29	EA		
266	Shadbush 10'Ht.	8	EA	\$950.00	\$7,600
267	Witch Hazel 10 Gal	14	EA	\$1,050.00	\$14,700
268	Sweetbay Magnolia 8'Ht.	7	EA	\$850.00	\$5,950
269	Evergreen Trees	38	EA		
270	White spruce 8' Ht.	16	EA	\$850.00	\$13,600
271	White Pine 8' Ht.	22	EA	\$850.00	\$18,700
272	Shrubs	2,544	EA		
273	Red Chokeberry 3 Gal	22	EA	\$150.00	\$3,300
274	Summersweet 5 Gal	128	EA	\$250.00	\$32,000
275	New Jersey Tea 3 Gal	171	EA	\$150.00	\$25,650
276	Sweet Fern 3 Gal	1,499	EA	\$150.00	\$224,850
277	Red Twig Dogwood 5 Gal	17	EA	\$250.00	\$4,250
278	Bush Honey Suckle 5 Gal	153	EA	\$250.00	\$38,250
279	Dwarf Fothergilla 5 Gal	16	EA	\$250.00	\$4,000
280	Inkberry 5 Gal	65	EA	\$250.00	\$16,250
281	Winterberry 5 Gal	75	EA	\$250.00	\$18,750
282	Spicebush 5 Gal	12	EA	\$250.00	\$3,000
283	Juniper 5 Gal	56	EA	\$250.00	\$14,000
284	Bayberry 5 Gal	9	EA	\$250.00	\$2,250
285	Fragrant Sumac 5 Gal	191	EA	\$250.00	\$47,750
286	Rosebay Rhododendron 3' Ht.	11	EA	\$150.00	\$1,650
287	Highbush Blueberry 5 Gal	48	EA	\$250.00	\$12,000
288	Arrowood Viburnum 5 Gal	9	EA	\$250.00	\$2,250
289	Cranberry Bush Viburnum 5 Gal	48	EA	\$250.00	\$12,000
290	Cranberry Bush 5 Gal	14	EA	\$250.00	\$3,500
291	Perennials	1,435	EA		
292	Coneflower 1 Gal	300	EA	\$12.50	\$3,750
293	Beebalm 1 Gal	25	EA	\$12.50	\$313
294	Narrow Leaf Mountain Mint 1Gal	50	EA	\$12.50	\$625
295	Moss Phlox 1Gal	75	EA	\$12.50	\$938
296	Coneflower 1Gal	385	EA	\$12.50	\$4,813
297	Ral	550	EA	\$12.50	\$6,875
298	Swamp Milkweed 1 Gal	25	EA	\$12.50	\$313
299	New England Aster 1 Gal	25	EA	\$12.50	\$313
300	Grasses and Sedges	2,648	EA		



Westwood Handlon Elementary School
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SITWORK DETAILED ESTIMATE

<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT COST</u>	<u>TOTAL</u>
301 Pennsylvania Sedge 1 QT	1,400	EA	\$7.00	\$9,800
302 Switch Grass 2 Gal	1,248	EA	\$15.00	\$18,720
303 Plant maintenance and guarantee	1	LS	\$12,000.00	\$12,000
304 <u>G20 SITE IMPROVEMENTS TOTAL</u>				<u>\$4,960,035</u>
305				
306				
307 <u>G30 SITE CIVIL/MECHANICAL UTILITIES</u>				
308				
309 G3010 Water Utilities				
310 33 10 00 Water Utilities				
311 8" Ductile Iron Pipe	1,188	LF	\$80.40	\$95,515
312 6" Ductile Iron Pipe	1,188	LF	\$64.33	\$76,426
313 4" Ductile Iron Pipe	54	LF	\$45.84	\$2,475
314 Ductile Iron Fittings	47	EA	\$844.47	\$39,690
315 Wet Taps	1	EA	\$5,382.00	\$5,382
316 Curb Cocks w/ Boxes	18	EA	\$2,412.73	\$43,429
317 Fire Hydrants	4	EA	\$4,696.44	\$18,786
318 Connection to Existing water line	1	AL	\$25,000.00	\$25,000
319 Excavation, Bedding, and Backfill	2,430	LF	\$25.56	\$62,111
320 Gaskets, Lubricants, Etc.	1	LS	\$6,720.00	\$6,720
321 Gate valves	17	EA	\$1,500.00	\$25,500
322 Thrust blocks	19	EA	\$800.00	\$15,200
323 Pressure testing & chlorinate	2,540	LF	\$5.00	\$12,700
324 Concrete encasement	95	SF	\$20.00	\$1,900
325				
326 G3020 Sanitary Sewerage Utilities				
327 33 31 00 Sanitary Sewerage				
328 8" SDR 35 Pipe	1,674	LF	\$20.74	\$34,719
329 Grease Interceptor, 5,000 Gallon	1	EA	\$32,450.00	\$32,450
330 Sanitary Manholes	10	EA	\$4,615.00	\$46,150
331 Connection to Existing Sanitary Manholes	1	EA	\$8,500.00	\$8,500
332 Excavation, Bedding, and Backfill	1,674	LF	\$25.56	\$42,787
333 Lubricant, Etc.	1	LS	\$1,875.00	\$1,875
334 Re-line existing sewer line in Gay St	1	LS	\$25,000.00	\$25,000
335 Pressure testing & video				Included
336 Concrete encasement	300	SF	\$20.00	\$6,000
337				
338 G3030 Storm Drainage Utilities				
339 33 41 00 Storm Utility Drainage				
340 24" Corrugated Polyethylene Pipe	198	LF	\$97.92	\$19,388
341 18" Corrugated Polyethylene Pipe	180	LF	\$67.20	\$12,096
342 15" Corrugated Polyethylene Pipe	882	LF	\$55.60	\$49,039
343 12" Corrugated Polyethylene Pipe	1,962	LF	\$52.45	\$102,907



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SITWORK DETAILED ESTIMATE

<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT COST</u>	<u>TOTAL</u>
344 10" Corrugated Polyethylene Pipe	54	LF	\$45.60	\$2,462
345 8" Corrugated Polyethylene Pipe	180	LF	\$32.90	\$5,922
346 6" Corrugated Polyethylene Pipe	252	LF	\$31.70	\$7,988
347 24" Perforated Pipe	198	LF	\$115.60	\$22,889
348 8" Perforated Pipe	324	LF	\$38.90	\$12,604
349 6" Perforated Pipe	3,942	LF	\$34.60	\$136,393
350 Catch Basins	16	EA	\$3,412.00	\$54,592
351 Drainage Manholes	36	EA	\$4,875.00	\$175,500
352 Outlet Control Structures	3	EA	\$30,450.00	\$91,350
353 Water Quality Units	11	EA	\$9,175.00	\$100,925
354 Collection Chambers	581	EA	\$1,245.00	\$723,345
355 Area Drains	12	EA	\$985.00	\$11,820
356 Trench Drain	20	LF	\$286.00	\$5,720
357 Grade Cleanouts	46	EA	\$625.00	\$28,750
358 Flare Ends	3	EA	\$784.00	\$2,352
359 30 MM Membrane	49,500	SF	\$1.26	\$62,370
360 Geo Textile	49,500	SF	\$1.95	\$96,525
361 Gravel	3,183	YDS	\$17.52	\$55,766
362 Excavation, Bedding, and Backfill	8,172	LF	\$25.56	\$208,876
363 Miscellaneous	1	LS	\$6,800.00	\$6,800
364				
365 G3044 Heating Distribution				
366 4" Ductile Iron Pipe	216	LF	\$43.09	\$9,307
367 4" Mechanical Joint 90	4	EA	\$423.38	\$1,694
368 4" Mechanical Joint 45	4	EA	\$408.75	\$1,635
369 Excavation, Bedding, and Backfill	216	LF	\$25.56	\$5,521
370 Miscellaneous	1	LS	\$350.00	\$350
371				
372 G3040 Gas Utilities				
373 33 50 00 Gas Service				
374 No work shown in this section				
375				
376 G30 SITE CIVIL/MECHANICAL UTILITIES TOTAL				\$2,643,201
377				
378				
379 G40 SITE ELECTRICAL UTILITIES				
380				
381 G4010 Site Electrical Utilities				
382 Site Lighting:				
383 Type SL1/3 Pole w/ 1-Fixt	21	EA	\$2,761.22	\$57,986
384 Type SL2/3 Pole w/ 2-Fixt	6	EA	\$4,673.02	\$28,038
385 Type SL1/PT Ped Lt Pole	19	EA	\$2,269.96	\$43,129
386 Type SL6 Uplight	3	EA	\$1,040.60	\$3,122



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SITWORK DETAILED ESTIMATE

<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT COST</u>	<u>TOTAL</u>
387 Type SL7 Uplight	4	EA	\$689.70	\$2,759
388 WP Junc Box, future signage	2	EA	\$447.70	\$895
389 1" Pvc, 4#8 UG	5,560	LF	\$16.41	\$91,226
390 Site Lighting Controls	1	LS	\$4,162.40	\$4,162
391 Electric Vehicle Charging Dual Stations	2	EA	\$8,131.20	\$16,262
392 1" Pvc, 4#8 UG	600	LF	\$16.41	\$9,845
393 1" Pvc, CAT 6 UG	600	LF	\$7.53	\$4,521
394 Pullbox PB	7	EA	\$2,686.20	\$18,803
395				
396 Site Utilities				
397 Utility Pole Riser	1	LS	\$4,162.40	\$4,162
398 Electric Manhole	1	EA	\$10,744.80	\$10,745
399 4" Pvc UG (Empty, Primary Service By Others)	1,760	LF	\$16.18	\$28,472
400 Utility Tranformer Pad (Xfmr by Others)	1	EA	\$4,162.40	\$4,162
401 Install Utility Metering Cabinet FBO	1	EA	\$1,984.40	\$1,984
402 4" Pvc, 4 600 Mcm UG (Sec Service)	300	LF	\$105.86	\$31,759
403 4" Pvc UG (Spare)	50	LF	\$16.18	\$809
404 Trench, Concrete, Backfill	1,000	LF	\$48.40	\$48,400
405 4" Pvc, (empty, 4x880' Telecom Service)	3,520	LF	\$16.18	\$56,943
406 Innderduct	2,640	LF	\$3.99	\$10,542
407 Comm Manhole	2	EA	\$7,453.60	\$14,907
408				
409 Site CCTV Security (per Engr):	NIC			
410				
411 Shed Electric - Feeder only	Shed Electri	1		
412				
413 Site Demo & Temp, Miscellaneous:				
414 Temp Power and Lighting	1	LS	\$14,520.00	\$14,520
415 Misc Site Demo	1	LS	\$10,890.00	\$10,890
416 Equipment Rentals	1	LS	\$6,050.00	\$6,050
417 <i>G40 SITE ELECTRICAL UTILITIES TOTAL</i>				<u>\$525,093</u>
418				
419				
420				
				<u>TOTAL SITWORK SUMMARY</u>
				<u>\$10,252,070</u>

