Glidden, Melissa

From:	Tina Stanislaski <tstanislaski@hmfh.com>
Sent:	Sunday, August 16, 2015 11:22 AM
To:	Carrier, Robert; Gagnon, Jason
Cc:	Glidden, Melissa; Laura Wernick; Bobby Williams; Picoraro, Joseph
Subject:	FW: Construction Cost comparison with state allowable costs
Attachments:	15027 Dover HS Option 3 Estimate - Excludes sitework - site util - kitchen equip.pdf; Detailed Pricing Breakout 14AUG15.pdf; maximumallowablecosts2015.pdf
Categories:	DHS-CTC JBC

Bob and Jason,
Please see the attached document called "maximum allowable costs" from the DOE website. I found this document as I was re-reading the state documents on school project reimbursement. Although we are not receiving any state aid beyond the CTC portion of the building, I thought that this document would be very relevant given the multiple discussions at City Council and School Committee meetings about RS Means averages and how they compare to the cost per SF of this project. Currently the construction cost for the new Dover high school and CTC option is $234/SF but that number includes site work, utilities, and kitchen equipment which the state's $222/SF does not. I asked PC Construction to undertake an exercise to pull those categories out of our estimate so we could show an apples to apples comparison which they did on Friday. These documents are also attached. Without site, utilities or kitchen equipment the Dover project comes in at $219/SF.
Hope this is helpful.
Have a good weekend.

TINA STANISLASKI AIA LEED AP BD+C
Senior Associate I 617.844.2118

HMFH Architects, Inc.
130 Bishop Allen Drive, Cambridge, MA 02139 I 617.492.2200
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From: Picoraro, Joseph [mailto:JPicoraro@pcconstruction.com]
Sent: Friday, August 14, 2015 12:05 PM
To: Tina Stanislaski
Subject: Fwd: Construction Cost comparison with state allowable costs

Tina,

As requested, the two breakdown estimates are attached.

Thanks,

Joe

Sent from my iPhone

Begin forwarded message:

> **From:** "Nolin, Kyle" <knolin@pcconstruction.com>
> **To:** "Picoraro, Joseph" <JPicoraro@pcconstruction.com>
> **Cc:** "Eastman, Scott" <seastman@pcconstruction.com>
> **Subject: RE: Construction Cost comparison with state allowable costs**
>
> Joe, I have attached two pdfs:

1) Estimate breakout of the sitework, site utilities and kitchen equipment (includes mark-ups). The building excavation was not included in this breakout.
2) A revised estimate omitting sitework (excluding bldg. ex), site utilities and kitchen equipment.

Please let me know if you need anything else.

Thanks! Kyle

Kyle Nolin, LEED® AP
Senior Estimator | PC Construction Company
193 Tilley Drive, South Burlington, VT 05403
802.651.1303 T | 802.419.4857 F | www.pcconstruction.com
100% EMPLOYEE OWNED

From: Picoraro, Joseph
Sent: Friday, August 14, 2015 9:23 AM
To: Nolin, Kyle <knolin@pcconstruction.com>
Cc: Eastman, Scott <seastman@pcconstruction.com>
Subject: FW: Construction Cost comparison with state allowable costs

Kyle,

Could you please read the note below from HMFH regarding Dover High School, and send me a breakout from our last cost estimate (for option 3 – new school) the breakout of the items Tina listed (including markups), so that we can get a $/sf to compare to the NH State Aid chart.

Please call me if you have questions.

Thanks,

Joe

Joseph Picoraro, PE, LEED AP
Vice President
PC Construction Company
131 Presumpscot Street, Portland, Maine 04103
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AT PC WE GO ABOVE AND BEYOND ON EVERY JOB, PERIOD.

From: Tina Stanislaski [mailto:tstanislaski@hmfh.com]
Sent: Friday, August 14, 2015 9:12 AM
To: Picoraro, Joseph <JPicoraro@pcconstruction.com>
Cc: Bobby Williams <rwilliams@hmfh.com>; Laura Wernick <lwernick@hmfh.com>
Subject: Construction Cost comparison with state allowable costs

Joe,
Please see attached document from DOE website for maximum allowable costs for school construction for 2015. We are not receiving any state aid beyond the CTC portion of the building but I thought that this document would be very relevant given the multiple discussions at City Council and School Committee meetings about RS Means and the cost per SF of this project. Currently PC's construction cost is $234/SF but it includes site work, utilities, and kitchen equipment which the state's $222/SF does

not. Would you be able to pull those categories out of your estimate so we could show an apples to apples comparison?
The state is using a smaller school with a CTC program so the Dover project has other reasons for being a bit higher but I think this exercise will show that we are fairly close in cost.
Let me know if this is possible.
Thanks.

TINA STANISLASKI AIA LEED AP BD+C
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MAXIMUM ALLOWABLE COSTS FOR SCHOOL CONSTRUCTION - 2015

In accordance with RSA 198:15-b VII(a) the table below provides the maximum allowable cost per square foot for the purpose of calculating School Building Aid for projects which begin construction between April 1, 2015 and March 31, 2016. These cost limits apply to the gross building size of the school facility measured from exterior surface to exterior surface. Costs include the cost to erect the building from the foundation upwards including all building system equipment. The costs of land, site work, utilities, planning and design, legal and administrative fees, kitchen equipment, furniture, fixtures, and other equipment which is not part of a building system are not included.

Costs are derived from data from the R.S. Means Company. Costs are based on a 1200 pupil high school, an 800 pupil middle school and a 400 pupil elementary school located at the county seat in each county. Cost limits are approximately 2.6% higher than last year.

School districts, designers, and construction firms should understand these costs to be the upper limit for the payment of school building aid. They are not intended to be an accurate estimate for the actual cost of construction for a particular design in current or future market conditions. Project budgets should be developed independent of these cost limits. Bidders should not assume that these limits represent the budget available for a particular project.

County	Seat	Zip	High School $/SF	Middle School $/SF	Elementary School $/SF
Belknap	Laconia	03246	221	201	200
Carroll	Ossipee	03864	222	212	204
Cheshire	Keene	03431	198	179	172
Coos	Stewartstown	03597	198	179	172
Grafton	Haverhill	03774	198	179	172
Hillsborough	Manchester	03101	225	212	205
Merrimack	Concord	03301	221	203	200
Rockingham	Exeter	03833	222	212	204
Strafford	Dover	03820	222	212	204
Sullivan	Newport	03773	198	179	172

OPTION 3 - All New Construction

ESTIMATE SUMMARY

Project #: 15027
Building GSF: 304,514

			Totals
Direct Cost		%	$ 61,084,716
	Material Sales Tax (N/A)	0.00%	$ -
	Labor & Material Escalation	0.00%	$ -
Gross Cost			**$ 61,084,716**
	Building Permit - by Owner	0.00%	$ -
	Builder's Risk insurance	0.07%	$ 45,552
	Liability Insurance	0.75%	$ 500,250
	Construction Manager's Contingency	5.00%	$ 3,054,236
	P & P Bond ($5.83 per $1,000)		$ 388,861
	Sub Total		**$ 65,073,614**
	CM Fee	**2.50%**	**$ 1,626,840**
Total			**$ 66,700,000**
Total Cost per square foot			**$ 219**

*Excludes site work, site utilities and kitchen equipment.

Schematic Estimate Option 3: All New Construction

CONSTRUCTION

Job #: 15027
Project Size: 304514 SF
Recap - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
Group 1: School Options
Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
	Option 3 - All New Construction				
	A10 - FOUNDATIONS				4,510,422
	B10 - SUPERSTRUCTURE				8,364,713
	B20 - EXTERIOR CLOSURE				7,774,394
	B30 - ROOFING				1,886,518
	C10 - INTERIOR CONSTRUCTION				5,378,566
	C20 - STAIRCASES				362,660
	C30 - INTERIOR FINISHES				4,469,534
	D10 - CONVEYING SYSTEMS				253,253
	D20 - PLUMBING				2,728,183
	D30 - HVAC				8,281,029
	D40 - FIRE PROTECTION				971,111
	D50 - ELECTRICAL				7,230,576
	E10 - EQUIPMENT				468,918
	E20 - FURNISHINGS				308,132
	F20 - SELECTIVE BUILDING DEMOLITION				1,623,129
	G10 - SITE PREPARATION				286,328
	G20 - SITE IMPROVEMENTS				27,473
	Z10 - GENERAL				4,500,611
	Z20 - MAJOR CUSTOM PROGRAM ELEMENTS				1,659,166
	* Total Option 3 - All New Construction				61,084,716
	Total Estimate				61,084,716

*Excludes site work, site utilities and kitchen equipment.

Schematic Estimate Option 3: All New Construction

CONSTRUCTION

Job #: 15027
Project Size: 304514 SF
Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
Group 1: School Options
Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
	Option 3 - All New Construction				
	A10 - FOUNDATIONS				
2210.205	Structure Excavation	6,500	CY	12.13	78,829
2210.205	Structure Excavation (Barn Addition)	300	CY	12.13	3,638
2220.332	Crushed Stone Under Slab - 8"	5,600	CY	37.51	210,056
2220.335	BF Frost Wall w/ Crushed Stone	4,300	CY	37.51	161,293
2220.340	BF Frost Wall w/ On Site Matl	3,600	CY	17.51	63,036
2492.105	Aggregate Piers - 8' Grid: 836 @ 20' Deep	16,720	LF	17.01	284,407
2492.105	Aggregate Piers - 8' Grid: 836 @ 20' Deep	16,720	LF	80.00	1,337,600
3250.451	15 Mil Stego Wrap Under Slab Vapor Barrier - Taped Seams	199,167	SF	0.71	141,986
3250.451	15 Mil Stego Wrap Under Slab Vapor Barrier - Taped Seams (Barn Addition)	6,710	SF	0.71	4,784
3300.006	4" SOG (Non pile/pier areas)	122,967	SF	6.55	805,901
3300.008	5" SOG - (Agg Pier Areas)	50,222	SF	7.40	371,834
3300.008	5" SOG - (Barn Addition)	6,100	SF	7.40	45,163
3300.010	8" x 16" Continuous Footing (Barn Addition)	294	LF	32.30	9,496
3300.014	1' x 3' Continuous Footing	3,113	LF	44.20	137,595
3300.016	1' x 3' Continuous Footing (Auditorium)	450	LF	44.20	19,890
3300.016	1' x 5' Continuous Footing (Auditorium)	450	LF	55.25	24,862
3300.016	1' x 5' Continuous Footing (Site Retaining Wall)	405	LF	55.25	22,376
3300.018	3' x 3' x 1' Isolated Footing	52	EA	242.25	12,597
3300.040	8" x 5' Frost Wall (Barn Addition)	294	LF	105.40	30,988
3300.045	12" x 5' Frost Wall	1,441	LF	128.35	184,952
3300.128	12" x 8' Foundation Wall	1,624	LF	191.25	310,590
3300.148	12" x 13' Site Retaining Wall	405	LF	350.20	141,831
3300.152	18" x 4' Concrete Pier with 2' x 2' x 1' Footing (50' Dia Riding RIng)	14	EA	273.63	3,831
3300.156	1' x 1' - 5' Pilaster	66	EA	178.50	11,781
7110.100	Damproof Frost Wall	20,197	SF	1.50	30,295
7110.100	Damproof Frost Wall (Barn Addition)	1,323	SF	1.50	1,985
7200.105	Rigid Insulation - 2" Frost Wall	20,197	SF	2.08	42,087
7200.105	Rigid Insulation - 2" Frost Wall (Barn Addition)	1,323	SF	2.08	2,757
7200.108	Rigid Insulation - 2" Underslab (Barn Addition)	6,710	SF	2.08	13,982
** Total A10 - FOUNDATIONS					**4,510,422**
	B10 - SUPERSTRUCTURE				
3000.015	Trowel Finish	124,281	SF	0.56	69,237
3000.200	Protect & Cure	124,281	SF	0.10	12,030
3200.052	Re-Steel @ Slabs On Metal Deck	49,367	LB	0.79	39,000
3200.315	6x6 4/4 Wwf	136,709	SF	0.78	106,633
3200.350	Wire Mesh Accessories	124,281	SF		
3300.033	Slab On Metal Deck Concrete	1,975	CY	36.57	72,217
3300.115	3000 Psi Concrete	1,975	CY	98.00	193,519
3300.200	Concrete Pumping	1,975	CY	8.00	15,797
5010.050	Structural Steel at Addition - 12 lbs/ sf	1,783	TON	3,100.00	5,527,300
5200.100	Steel Joists (2 lbs/ SF)	161	TON	1,800.00	289,800
5200.100	Steel Joists (2 lbs/ SF) CTC		TON	1,800.00	
5300.205	1-1/2"X20ga Galv Mtl Deck	198,912	SF	1.70	338,150
5300.205	1-1/2"X20ga Galv Mtl Deck CTC		SF	1.70	
5300.605	2"X20ga Painted Mtl Deck	136,709	SF	1.95	266,583
5500.000	Miscellaneous Metals (Angle at Roof Curb)	1	LS	20,000.00	20,000
6000.000	Roof edge blocking	8,400	LF	7.78	65,311
6000.500	Roof Trusses w/ sheathing (Barn Addition)	6,100	SF	8.00	48,800
6000.510	Pavilion Framing (50' Dia Riding Ring)	3,300	SF	18.38	60,657
7530.004	Entrance Canopy	2	EA	45,000.00	90,000
7530.004	Entrance Canopy	2	EA	50,000.00	100,000
7850.001	Spray Fireproofing - Roof Deck	172,967	SF	1.50	259,451
7850.001	Spray Fireproofing - Structural Steel	316,091	SF	2.50	790,228

Job #: 15027
Project Size: 304514 SF
Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
Group 1: School Options
Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
	** Total B10 - SUPERSTRUCTURE				8,364,713
	B20 - EXTERIOR CLOSURE				
4070.200	Brick Veneer (70% Envelope)	104,260	SF	24.00	2,502,240
6100.612	2x6 Partitions w/ 1/2" OSB Sheathing - 12' Ht (Barn Addition)	3,880	SF	4.60	17,836
6200.300	Sliding Barn Door (Barn Addition)	3	EA	1,788.76	5,366
6200.512	T&G Siding - Red Cedar (6" Exposure) (Barn Addition)	3,880	SF	8.00	31,036
7210.806	3" Spray Foam Insulation (R-21)	104,260	SF	3.00	312,780
7260.120	Air Infiltration Barrier - Fluid Applied	104,260	SF	2.50	260,650
8010.010	3070 Exterior Door	21	EA	1,404.76	29,500
8010.010	3070 HM Door (Barn Additon)	8	EA	1,104.76	8,838
8010.020	6070 Exterior Door	17	EA	2,065.16	35,108
8300.100	Overhead Door	2	EA	8,000.00	16,000
8300.100	Overhead Door (AT, AC, BT)	6	EA	8,000.00	48,000
8800.800	Curtainwall (30% Envelope)	42,753	SF	5.00	213,765
8800.800	Curtainwall (30% Envelope)	42,753	SF	70.00	2,992,710
8800.840	Barn Windows (Barn Addition)	10	EA	600.00	6,000
9280.051	6" LGS Stud w/ 5/8" GWB and 5/8" Densglass - Ext Partitions	104,260	SF	12.42	1,294,565
	**** Total B20 - EXTERIOR CLOSURE**				**7,774,394**
	B30 - ROOFING				
5550.162	4' Sq Hatch Cover - Stainless Steel	3	EA	7,349.20	22,048
7200.015	12" Batt Insulation (R38) (Barn Addition)	8,020	SF	1.15	9,217
7310.015	Asphalt Single Roof (50' Dia Riding Ring)	3,300	SF	5.79	19,119
7310.015	Asphalt Single Roof (Barn Addition)	8,020	SF	5.79	46,465
7530.026	Thermoplastic Membrane Roof	172,967	SF	10.00	1,729,670
7530.030	Entrance Canopy Roof	2	EA	30,000.00	60,000
	**** Total B30 - ROOFING**				**1,886,518**
	C10 - INTERIOR CONSTRUCTION				
4020.205	8" CMU Partitions - 14' Ht (Gym)	6,720	SF	10.00	67,200
5500.000	Miscellaneous Metals (Angle at CMU Partitions)	1	LS	18,000.00	18,000
6010.000	In Wall Blocking	1	LS	50,000.00	50,000
6010.000	In Wall Blocking	1	LS	24,437.84	24,438
6400.000	6'-0" Laminated Maple Bench	20	EA	992.58	19,852
6400.004	Base Cabinets (Classrooms)	886	LF	266.10	235,768
6400.052	Full Height Cabinets (Classrooms)	391	LF	306.10	119,687
6400.052	Wall Cabinets (Classrooms)	651	LF	191.10	124,409
6400.054	Full Height Cabinets (Mail Room)	24	LF	306.10	7,346
6400.102	Restroom Wood Apron at Solid Surface	288	LF	159.92	46,057
6400.300	Solid Surface Restroom Counter w/ integral sink	288	LF	221.90	63,908
6400.308	Countertops-Solid Surface (Classrooms)	886	LF	191.10	169,318
6400.308	Wall Mount Solid Surface Counter (Mail/Work Room)	71	LF	216.10	15,343
6400.315	Countertops - Epoxy Resin	546	LF	161.64	88,254
6400.348	Solid Surface Window Sill and Apron (New Const Only)	2,205	LF	64.26	141,688
6401.052	Wall Cabinets - Solid Surface (Science Labs)	410	LF	161.65	66,275
6401.054	Full Height Cabinets - Solid Surface (Science Labs)	410	LF	255.73	104,848
6405.006	Wood Cubbies - Mail Room	24	LF	251.10	6,026
6405.008	Casework Allowance (Misc)	1	LS	231,000.00	231,000
6405.010	Closet Shelving	1	LS	10,000.00	10,000
6408.000	*** DESK MILLWORK***				
6408.080	Admin/Guidance Front Desk	31	LF	441.10	13,674
6408.100	Library Desk	78	LF	491.10	38,306

Job #: 15027
Project Size: 304514 SF
Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
Group 1: School Options
Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
6510.919	FRP Panels 10' ht - Kitchen	3,518	SF	7.14	25,133
6510.919	FRP Panels 8' ht - at Janitorial sinks only	1,510	SF	7.14	10,789
6510.921	FRP Panels - Art Rooms	80	SF	7.14	572
8012.010	3070 Interior Door	482	EA	1,204.76	580,694
8012.020	6070 Interior Door	82	EA	1,765.16	144,743
8014.000	Corridor Lock Down Hardware	1	LS	50,000.00	50,000
8014.020	Interior Borrowed Lites	57	EA	609.52	34,743
8800.000	Glazed Partitions	2,200	SF	60.00	132,000
9270.001	Tape Gypsum Walls - Level 4 (String coat, 2 finish coats, sanding)	484,380	SF	0.75	363,285
9280.030	Classroom Fit Up (Barn Addition) 2 - Classrooms	450	SF	30.00	13,500
9285.005	LGS Partitions w/ 5/8" GWB, Sound Batt - Interior	160,400	SF	8.61	1,381,220
9285.013	LGS Furred Partition - Interior	21,100	SF	5.09	107,479
9285.023	Fire Stopping	1	LS	15,000.00	15,000
9285.023	Fire Stopping	1	LS	60,000.00	60,000
9288.039	Misc Drywall Work	1	LS	40,000.00	40,000
9288.039	Misc Drywall Work	1	LS	10,000.00	10,000
10180.102	Toilet Partitions W/ Door - Phenolic	42	EA	430.52	18,082
10180.103	Urinal Screen - Phenolic	10	EA	305.52	3,055
10180.204	Shower Door	18	EA	277.76	5,000
10180.206	Locker Room Bench	80	LF	80.28	6,422
10191.100	Privacy Curtain: Track W/Supports (No Curtain) - Nurse	64	LF	22.50	1,440
10195.101	Display & Trophy Case Allowance	1	LS	40,000.00	40,000
10410.150	Sigange	1	LS	10,000.00	10,000
10410.150	Sigange	1	LS	78,000.00	78,000
10500.002	Staff Lockers - Single Tier (3' X 15" X 15") - Kitchen	15	EA	180.55	2,708
10500.002	Staff Lockers - Single Tier (3' X 15" X 15") - Staff	100	EA	180.55	18,055
10500.004	Lockers - Double Tier (6' X 18" X 18") - Student	1,500	EA	270.55	405,819
10500.006	Lockers - Double Tier - Locker Rooms (100 per Room)	200	EA	270.55	54,109
10500.006	Lockers - Double Tier - Student Athletic	50	EA	270.55	13,527
10520.000	Fire Extinguishers	102	EA	125.46	12,797
10520.050	Fire Ext Cabinets	102	EA	302.76	30,882
10649.102	Operable Wall Partition (57' L x 28' HT)		SF	99.95	
10800.106	Grab Bar	38	EA	101.38	3,852
10800.151	Surface Mtd Double Roll Tph	38	EA	197.38	7,500
10800.174	Surface Mounted SND	20	EA	377.38	7,548
10800.202	Surf Mtd Waste Receptacle	23	EA	282.38	6,495
10800.400	Liquid Soap Dispenser	23	EA	177.38	4,080
10800.602	Folding Shower Seat	18	EA	301.38	5,425
10800.610	Electric Hand Dryer	20	EA	301.38	6,028
10810.100	30"x30" Framed Mirror	34	EA	211.38	7,187
**** Total C10 - INTERIOR CONSTRUCTION**					**5,378,566**
C20 - STAIRCASES					
4020.205	8" CMU Partitions - 14' Ht (Stair Shafts)	15,344	SF	10.00	153,440
5510.000	****Metal Stairs****		****		
5510.050	Metal Pan Stair - Standard	240	TRD	433.27	103,984
5510.052	Metal Pan Stair Landing - Standard	600	SF	71.60	42,958
5520.000	*** Handrails & Railings ***		****		
5520.050	Hand Rail - Standard Metal Picket	336	LF	119.42	40,126
5520.072	Steel Wallrail - Standard	336	LF	65.93	22,153
**** Total C20 - STAIRCASES**					**362,660**
C30 - INTERIOR FINISHES					

Job #: 15027
Project Size: 304514 SF
Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
Group 1: School Options
Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
6200.040	Wood Wall Finish - Auditorium	11,200	SF	25.00	280,000
9285.037	Gypsum Ceiling: Suspended drywall grid 5/8" type X GWB (1 layer), taped (lvl 4)	17,990	SF	5.31	95,475
9285.039	Misc Drywall Soffits	1	LS	119,999.73	120,000
9285.039	Misc Drywall Soffits	1	LS	29,999.96	30,000
9300.105	Tile Base	871	LF	10.00	8,710
9300.200	Tile Wainscot - 4' AFF (Corridors)	23,840	SF	10.00	238,400
9300.202	Tile Wainscot - 4' AFF (Town Square)	7,680	SF	10.00	76,800
9300.204	Tile Wainscot - 4' AFF (Toilet Rooms)	5,830	SF	10.00	58,300
9300.204	Tile Wainscot - Premium for 5' AFF everywhere including stairwells	9,338	SF	10.00	93,380
9330.000	Quarry Tile Floors - Culinary	2,000	SF	15.00	30,000
9330.000	Quarry Tile Floors - Kitchen	3,300	SF	15.00	49,500
9330.005	Quarry Tile Base	760	LF	12.00	9,120
9332.000	Porecelain Tile Floor - Culinary	950	SF	15.00	14,250
9400.005	Mosaic Tile - Bath, Locker Rooms	12,230	SF	12.00	146,760
9500.100	ACT - Restaurant	7,380	SF	8.00	59,040
9500.102	ACT	196,410	SF	3.00	589,230
9500.104	ACT(Cleanable) - Kitchen	5,330	SF	8.00	42,640
9500.200	24x24x5/8 Lay-In (Barn Addition)	900	SF	3.00	2,700
9500.390	Acoustical Wood Clouds - Auditorium	2	LS	40,000.00	80,000
9500.612	Tectum Ceilng Panels - 2"	6,870	SF	8.00	54,960
9550.100	Wood Floor - Gym	13,740	SF	18.00	247,320
9550.120	Wood Floor - Stage	2,620	SF	16.00	41,920
9650.010	Linoleum	185,040	SF	6.00	1,110,240
9650.025	Rubber Base	35,167	LF	1.85	65,059
9650.032	Rubber Treads & Risers	5,760	SF	14.00	80,640
9680.000	Carpet - Auditorium	820	SY	35.00	28,700
9690.000	Carpet Tile	1,200	SY	35.00	42,000
9760.011	Rubber Sports Flooring	4,934	SF	12.45	61,415
9760.126	Moisture Mitigation	4,934	SF	4.00	19,736
9760.126	Moisture Mitigation	-4,934	SF	8.00	-39,472
9900.100	Paint Interior Walls (Barn Addition)	3,528	SF	0.82	2,893
9900.100	Paint Walls	484,380	SF	0.85	411,723
9900.110	Paint Ceilings	29,190	SF	0.85	24,812
9900.120	Paint Exposed Ceiling Structure	49,800	SF	1.75	87,150
9900.205	Misc Painting - Door Frames, Misc Metals	1	LS	10,000.00	10,000
9900.205	Misc Painting - Door Frames, Misc Metals	1	LS	40,000.00	40,000
9900.400	Sealed Concrete	44,180	SF	1.50	66,270
9900.400	Sealed Concrete (Barn Addition)	12,200	SF	1.50	18,300
9900.506	Paint Gym Floor Logo	1	LS	3,000.00	3,000
9900.625	Paint exposed ceiling - Gym	13,740	SF	2.00	27,480
12671.103	Walk-Off Foot Grilles (Alum Grid W/ Frame & Pan)	570	SF	72.08	41,085
**** Total C30 - INTERIOR FINISHES**					**4,469,534**
D10 - CONVEYING SYSTEMS					
3300.008	12" Base Slab	128	SF	14.42	1,846
3300.025	12" x 5' Foundation Wall	72	LF	128.35	9,241
4020.205	Drywall Partitions - 14' Ht (Elevator)	3,854	SF	10.00	38,540
5530.122	Elevator Pit Misc Metals	2	EA	1,813.09	3,626
14200.115	Hydraulic Passenger Elevator (1 Ea)	5	STOP	40,000.00	200,000
**** Total D10 - CONVEYING SYSTEMS**					**253,253**
D20 - PLUMBING					
15401.320	Domestic Water Heater, Residential Gas-Fired (NG/P) Atmospheric, Foam Lined Tank, Vent Not Included, 100 Gal.	2	EA	1,846.55	3,693

Job #: 15027
Project Size: 304514 SF
Detail - With Taxes and Insurance

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Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
15401.338	Domestic Water Heater, Commercial Gas-Fired (NG/P) Atmospheric, Std. Controls, Vent Not Included, 250 MBH Input, 245 GPH	2	EA	20,161.00	40,322
15401.554	Potable Water Storage Tank, Indoor, Glass-Lined PE, 605 Gal., 48" OD, 87" Long	1	EA	14,258.38	14,258
15401.556	Round, Stainless Steel, 26 ga., 8" OD - Water Heater Vent	120	LF	28.30	3,396
15402.452	Sump Pump, Wet-Pit Mounted, Vertical, Single Stage, 25 GPM, 1 HP, 1-1/2" Disch.	2	EA	4,055.67	8,111
15410.208	Comm. Water Closet, Floor Mounted VC, Flush Valve, Bowl only, incl. Seat, w/Floor Outlet 1.28 gpf ADA	80	EA	753.67	60,294
15410.210	Rough-In, Supply, Waste and Vent for Comm. Floor Mounted WC	80	EA	562.00	44,960
15410.404	Urinal, Wall Hung VC w/ Hanger and Valve, Water Saving 0.5 gpf	16	EA	843.38	13,494
15410.406	Rough-In, Supply, Waste and Vent for Wall Hung Urinal	16	EA	705.00	11,280
15410.640	Rough-In, Supply, Waste and Vent for Res. Vanity Top Lavatories	96	EA	547.00	52,512
15410.640	Rough-In, Supply, Waste and Vent for Salon Lavatories (no fixture)	10	EA	547.00	5,470
15410.698	Sink w/Faucet and Drain, SS Self Rimming, 43"x22" Double Bowl	30	EA	1,286.48	38,595
15410.702	Rough-In, Supply, Waste and Vent for Sinks	30	EA	702.00	21,060
15410.826	Laboratory Sink, Corrosion Resistant, 12"x12"x8" Sink, 14.5"x14.5" OD	44	EA	471.80	20,759
15410.832	Rough-In, Supply, Waste and Vent for Laboratory Sinks	44	EA	461.00	20,284
15410.834	Laboratory Faucet, Gooseneck Spout, Wrist Handles	44	EA	235.80	10,375
15410.840	Service Sink, Floor (Corner), PE, 28"x28" w/Rim Guard	15	EA	1,233.66	18,505
15410.844	Rough-In, Supply, Waste and Vent for Floor Service Sink	15	EA	1,827.00	27,405
15411.101	Hose Bibb, Exterior Freeze-Proof, Lockable	29	EA	105.40	3,056
15411.314	Stall Shower, One-Piece Fiberglass w/Three Walls, Drain Only, 32" Square	18	EA	645.94	11,627
15411.326	Thermostatic Valve for Shower	18	EA	585.00	10,530
15411.328	Rough-In, Supply, Waste and Vent for Shower	18	EA	818.00	14,724
15411.901	Emergency Shower, Single Head, Drench, Ball Valve, Pull Style, Freestanding, No Rough-In	8	EA	573.80	4,590
15411.908	Emergency Eyewash Fountain, SS Bowl, Pedestal Mount, No Rough-In	8	EA	533.80	4,270
15412.222	Electric Water Cooler, Wall Mounted, Full Recessed, SS, Bi-Level	27	EA	1,871.46	50,530
15412.236	Rough-In, Supply, Waste and Vent for Electric Water Cooler	27	EA	504.00	13,608
15412.434	Floor Drain, Heavy Ducty, Galvanized w/Sediment Bucket, 12" OD Grate, 2"-6" Pipe Size	22	EA	1,131.14	24,885
15412.730	Roof Drain, Integral Expansion Joint, Galvanized, 12" Dome, 4" Pipe Size	87	EA	1,074.20	93,455
15412.730	Roof Drain, Integral Expansion Joint, Galvanized, 12" Dome, 4" Pipe Size - Emergency	87	EA	1,074.20	93,455
15414.104	Water Meter, UL/FM Approved, 4" Main x 2" By-Pass, 700 GPM	1	EA	7,535.08	7,535
15414.126	Water Meter, Bronze, Comm./Dom., Flanged, 4" OD, 320 GPM	2	EA	5,366.82	10,734

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15420.106	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3/4" OD	11,075	LF	10.64	117,797
15420.108	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1" OD	8,525	LF	14.02	119,480
15420.114	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 2" OD	5,000	LF	31.93	159,632
15420.118	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3" OD	1,200	LF	76.22	91,458
15420.122	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 4" OD	300	LF	125.23	37,570
15421.104	Fiberglass 1" Insulation With All Service Jacket 3/4" Pipe	11,075	LF	3.96	43,885
15421.106	Fiberglass 1" Insulation With All Service Jacket 1" Pipe	8,525	LF	4.16	35,471
15421.204	Fiberglass 1-1/2" Insulation With All Service Jacket 2" Pipe	5,000	LF	5.87	29,355
15421.208	Fiberglass 1-1/2" Insulation With All Service Jacket 3" Pipe	1,200	LF	6.58	7,894
15421.212	Fiberglass 1-1/2" Insulation With All Service Jacket 4" Pipe	300	LF	7.78	2,335
15421.500	Valves and Accessories	1	LS	500.00	500
15421.500	Valves and Accessories	1	LS	145,000.00	145,000
15440.028	UG Hub & Spigot, CI, No Hangers, 6" Pipe	1,500	LF	52.21	78,321
15440.052	Casty Iron SW&V, Hangers 5' OC, 1-1/2" Pipe	8,075	LF	18.61	150,292
15440.054	Casty Iron SW&V, Hangers 5' OC, 2" Pipe	5,050	LF	22.45	113,373
15440.058	Casty Iron SW&V, Hangers 5' OC, 4" Pipe	2,040	LF	31.69	64,650
15440.382	Corrosion Resistant Pipe, Sch. 40 Polypropylene, No Coupling/Hangers, 2" OD - GW	2,000	LF	24.95	49,900
15440.386	Corrosion Resistant Pipe, Sch. 40 Polypropylene, No Coupling/Hangers, 4" OD - GW	1,000	LF	45.25	45,248
15440.500	Limestone Chip Acid Neutralizer - 200 Gallon	2	EA	17,500.00	35,000
15450.410	Sch40 PVC W/Couplings and Hangers, 10ft OC, 4" OD	2,000	LF	24.48	48,968
15450.412	Sch40 PVC W/Couplings and Hangers, 10ft OC, 6" OD	500	LF	37.11	18,557
15460.100	Black Steel, Schedule 40, Threaded W/Couplings And Hangers, 10ft OC, 2" OD - NG	6,000	LF	21.06	126,375
15460.102	Black Steel, Schedule 40, Threaded W/Couplings And Hangers, 10ft OC, 1-1/4" OD - NG	6,000	LF	14.47	86,826
15460.200	Valves and Accessories	1	LS	55,000.00	55,000
15470.100	Air Compressor, Reciprocating, Air-Cooled, Tank Mounted, Two Stage, 3 Phase, 105 CFM @ 125 PSI, 25 HP, 250 Gal. Tank	2	EA	14,100.00	28,200
15470.100	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3/4" OD - CA	1,200	LF	10.64	12,764
15470.102	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1" OD	600	LF	14.02	8,409
15470.212	Compressed Air Outlet, Recessed Wall, Single	80	EA	123.75	9,900
15495.000	Kitchen Rough-In	2	LS	15,000.00	30,000
15495.004	Commissioning Support	1	LS	1,000.00	1,000
15495.004	Commissioning Support	1	LS	60,000.00	60,000
15495.006	Coordination & Management	1	LS	1,000.00	1,000
15495.006	Coordination & Management	1	LS	75,000.00	75,000
15495.008	Coring & Patching & Firestopping	1	LS	500.00	500
15495.008	Coring & Patching & Firestopping	1	LS	30,000.00	30,000
15495.010	Flushing & Sanitizing	1	LS	250.00	250

Job #: 15027
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15495.010	Flushing & Sanitizing	1	LS	20,000.00	20,000
15495.018	Fees & Permits	1	LS	500.00	500
15495.018	Fees & Permits	1	LS	30,000.00	30,000
**** Total D20 - PLUMBING**					**2,728,183**
D30 - HVAC					
15620.000	Custom, 20" High, Insulated Roof Curb	24	EA	1,200.00	28,800
15620.323	Outdoor, MAU, Indirect Gas-Fired (NG), Gravity Vent, SS Exchanger, 70degF Rise, 550 MBH Input	2	EA	18,086.92	36,174
15620.421	RTU 1-6, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 42.5 Ton Dx Cooling, 530 MBH Heating, Heat Wheel, 12000 CFM	6	EA	2,907.71	17,446
15620.422	RTU 7, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 17.5 Ton Dx Cooling, 200 MBH Heating, Heat Wheel, 4500 CFM	1	EA	2,907.71	2,908
15620.423	RTU 8, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 30 Ton Dx Cooling, 350 MBH Heating, Heat Wheel, 8000 CFM	1	EA	2,907.71	2,908
15620.424	RTU 9, 10, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 22 Ton Dx Cooling, 320 MBH Heating, 6500 CFM	2	EA	2,907.71	5,815
15620.425	RTU 11, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 7.5 Ton Dx Cooling, 130 MBH Heating, 2500 CFM	1	EA	2,907.71	2,908
15620.426	RTU 12, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 6.5 Ton Dx Cooling, 120 MBH Heating, 2000 CFM	1	EA	2,907.71	2,908
15620.427	RTU 13, 14, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 10 Ton Dx Cooling, 200 MBH Heating, 3200 CFM	2	EA	2,907.71	5,815
15620.428	RTU 15, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 35 Ton Dx Cooling, 480 MBH Heating, 10000 CFM	1	EA	2,907.71	2,908
15620.429	RTU 16, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 10 Ton Dx Cooling, 180 MBH Heating, 4000 CFM	1	EA	2,907.71	2,908
15620.430	RTU 17, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 15 Ton Dx Cooling, 200 MBH Heating, 3500 CFM	1	EA	2,907.71	2,908
15620.431	RTU 18, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 35 Ton Dx Cooling, 550 MBH Heating, Heat Wheel, 12500 CFM	1	EA	2,907.71	2,908
15620.432	RTU 19, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 300 MBH Heating, Heat Wheel, 6000 CFM	1	EA	2,907.71	2,908
15620.433	RTU 20, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 300 MBH Heating, Heat Wheel, 6000 CFM	1	EA	2,907.71	2,908
15620.434	RTU 21, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 200 MBH Heating, Heat Wheel, 3500 CFM	1	EA	2,907.71	2,908
15620.435	RTU 22, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 400 MBH Heating, Heat Wheel, 8000 CFM	1	EA	2,907.71	2,908
15620.436	RTU 23, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 300 MBH Heating, Heat Wheel, 6000 CFM	1	EA	2,907.71	2,908

CONSTRUCTION

Job #: 15027
Project Size: 304514 SF
Detail - With Taxes and Insurance

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Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
15620.437	RTU 24, Stnd Controls, Curb, Econ., Multi-Zone, Gas Heat, 300 MBH Heating, Heat Wheel, 6200 CFM	1	EA	2,907.71	2,908
15620.500	Daikin Rebel / Maverick II RTU's - VFD's, Extended Warranties	1	LS	1,100,000.00	1,100,000
15624.003	Split System, Ductless, Cooling Only, Wall Mount, Single Zone, 1-1/2 Ton	5	EA	6,013.00	30,065
15630.220	Single Bathroom Exhaust Fan, 100 CFM	7	EA	403.45	2,824
15630.226	Bathroom Exhaust Fan, 1000 CFM	10	EA	1,680.56	16,806
15630.228	Exhaust Fan, 1500 CFM	3	EA	2,180.56	6,542
15630.416	Kitchen Exhaust Fan, Centrifugal, 4000 CFM	2	EA	4,215.33	8,431
15640.112	Hot Water Condensing Boiler, Packaged w/Controls/Circulator/Trim, NG, 330 MBH Output	3	EA	10,214.00	30,642
15640.114	Hot Water Condensing Boiler, Packaged w/Controls/Circulator/Trim, NG, 2500 MBH Output	4	EA	47,814.00	191,256
15650.002	Glycol Treatment System	1	LS	8,000.00	8,000
15651.005	Chiller, Air Cooled, High Efficiency, 50 Ton	1	EA	42,927.00	42,927
15660.000	Fume Hood, Fan, Ductwork	2	EA	5,500.00	11,000
15660.002	Vehicle Exhaust System, 2000 CFM	1	LS	15,000.00	15,000
15660.004	Vehicle Exhaust System, 5000 CFM	1	LS	25,000.00	25,000
15660.006	Paint Booth Exhaust System, 12000 CFM	1	LS	25,000.00	25,000
15660.008	Dust Collection System, 4000 CFM	1	LS	65,000.00	65,000
15660.010	Duct Collection System, 6000 CFM	1	LS	87,000.00	87,000
15660.202	Chilled Water Pump, Centrifugal, Base Mounted, End Suction, 105 gpm w/VFD	2	EA	4,096.31	8,193
15660.206	Hot Water Pump, Centrifugal, Base Mounted, End Suction, 100 gpm w/VFD	2	EA	3,994.33	7,989
15660.206	Hot Water Pump, Centrifugal, Base Mounted, End Suction, 680 gpm w/VFD	2	EA	17,994.33	35,989
15680.040	Displacement Ventilation System (per Classroom)	95	EA	1,250.00	118,750
15680.042	Sound Attenuator Device / Double Wall Ductwork (per RTU)	24	EA	2,500.00	60,000
15680.112	Galvanized Ductwork, > 5000 LB	252,000	LB	7.50	1,889,975
15684.102	Duct Insulation, Blanket Type, Fiberglass, FSK, 1.0Lb Density, 1-1/2" Thick	217,000	SF	2.53	549,661
15688.014	Gas Vent, Double Wall, Galvanized Steel, UL Listed, 12" Dia.	700	LF	48.66	34,064
15690.102	Fin Tube Radiation, Wall Hung, 14" Slope Top, 1-1/4" Cu Tube, 4-1/4" Aluminum Fin	3,630	LF	64.10	232,683
15691.004	Cabinet Unit Heater, Horizontal, Floor Mount, 60 MBH	32	EA	1,617.26	51,752
15691.312	Unit Heater, Hot Water, Horizontal, 47 MBH	17	EA	717.26	12,193
15692.210	Variable Air Volume Box, PI, w/Damper, Actuator, T-Stat, 1000 CFM	125	EA	890.00	111,250
15699.000	Chilled Beam	640	LF	100.00	64,000
15700.106	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3/4" OD	22,000	LF	10.64	233,999
15700.112	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 1-1/2" OD	11,000	LF	22.40	246,362
15700.118	Copper Type L, Solder Joint W/Couplings And Hangers 10ft OC, 3" OD	2,400	LF	62.36	149,656
15700.316	Black Steel, Schedule 40, Welded W/Couplings And Hangers, 10ft OC, 4" OD	400	LF	45.02	18,010
15704.104	Fiberglass 1" Insulation With All Service Jacket 3/4" Pipe	22,000	LF	3.96	87,175
15704.202	Fiberglass 1-1/2" Insulation With All Service Jacket 1-1/2" Pipe	11,000	LF	5.49	60,390

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15704.308	Fiberglass 2" Insulation With All Service Jacket 3" Pipe	2,400	LF	8.10	19,428
15704.312	Fiberglass 2" Insulation With All Service Jacket 4" Pipe	400	LF	9.71	3,883
15705.004	Air Separator w/Strainer, 2-1/2" Dia.	1	EA	1,439.16	1,439
15705.008	Air Separator w/Strainer, 4" Dia.	1	EA	3,098.60	3,099
15706.206	Expansion Tank, Steel, ASME, Rubber Diaphragm, 61 Gal. Accep. Vol.	1	EA	3,786.82	3,787
15706.214	Expansion Tank, Steel, ASME, Rubber Diaphragm, 211 Gal. Accep. Vol.	1	EA	6,573.73	6,574
15708.106	ARC Tubing, Type L Copper, Hard Tempered, No Couplings/Hangers, 5/8"	1,000	LF	7.11	7,110
15708.112	ARC Tubing, Type L Copper, Hard Tempered, No Couplings/Hangers, 1-1/8"	1,000	LF	10.84	10,840
15708.500	Valves & Accessories	1	LS	200,000.00	200,000
15780.000	DDC Controls	302,514	SF	5.50	1,663,827
15780.000	DDC Controls	2,000	SF	7.50	15,000
15780.010	CO2 Sensor	167	EA	85.00	14,195
15792.001	Air & Water Balance	304,514	SF	0.50	152,257
15801.501	Coordination & Management	1	LS	1,000.00	1,000
15801.501	Coordination & Management	1	LS	200,000.00	200,000
15801.502	Commissioning Support	1	LS	500.00	500
15801.502	Commissioning Support	1	LS	65,000.00	65,000
15801.503	Coring, Patching & Firestopping	1	LS	250.00	250
15801.503	Coring, Patching & Firestopping	1	LS	40,000.00	40,000
15801.504	Seismic Restraint	1	LS	500.00	500
15801.504	Seismic Restraint	1	LS	25,000.00	25,000
15801.505	Fees & Permits	1	LS	75,000.00	75,000
**** Total D30 - HVAC**					**8,281,029**
D40 - FIRE PROTECTION					
15502.002	Fire Service Main - 6" Ductile Iron, Mech. Joint	150	LF	29.06	4,358
15502.024	6" Double Check Backflow Preventer W/OS&Y Valves, 4 Test Cocks	2	EA	5,847.73	11,695
15502.110	FDC - Two Way Siamese - 3x3x6	2	EA	1,541.40	3,083
15502.116	4" Zone Flow Control Valve W/Trim And Gauges	8	EA	6,009.14	48,073
15502.128	Tamper Switch	8	EA	153.65	1,229
15502.202	Sprinkler Main Sch 40 BS - 4", Grooved Joint, W/Hangers 10 Ft O.C.	8,860	LF	39.75	352,181
15502.222	Sprinkler Branch Sch 40 BS - 1" Threaded W/ Hangers 10 Ft O.C.	17,770	LF	12.53	222,655
15502.226	Sprinkler Branch Sch 40 BS - 1-1/2" Threaded W/ Hangers 10 Ft O.C.	8,760	LF	16.39	143,576
15502.400	Sprinkler Heads - Standard Pendant, 1/2" NPT, 1/2" Orifice	2,670	EA	36.43	97,255
15505.006	2" Dry Pipe Valve With Trim And Gauges	1	EA	2,507.80	2,508
15505.012	30 Gal., 1 HP Comp Air Sys For Fire Protection	1	EA	1,093.23	1,093
15505.202	Sprinkler Main Sch 40 BS - 4", Grooved Joint, W/Hangers 10 Ft O.C. - RR	115	LF	39.75	4,571
15505.222	Sprinkler Branch Sch 40 BS - 1" Threaded W/ Hangers 10 Ft O.C. - RR	190	LF	12.53	2,381
15505.400	Sprinkler Heads - Standard Upright, 1/2" NPT, 1/2" Orifice - RR	20	EA	36.43	729
15525.004	Sprinkler Main Sch 40 BS - 4", Grooved Joint, W/Hangers 10 Ft O.C.	300	LF	39.75	11,925
15525.102	Fd Standpipe Angle Valve, 2-1/2", Brass, W/Wheel, Handle Chain And Cap	8	EA	287.34	2,299
15535.002	Coordination & Management	1	LS	20,000.00	20,000

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15535.010	Hydraulic Calculations	1	LS	12,000.00	12,000
15535.016	Coring & Patching & Firestopping	1	LS	17,500.00	17,500
15535.024	Fees & Permits	1	LS	12,000.00	12,000
**** Total D40 - FIRE PROTECTION**					**971,111**
D50 - ELECTRICAL					
16020.210	350 kW NG Emergency Generator w/Sound Attenuated Enclosure	1	EA	169,146.07	169,146
16020.212	Emergency Power Equipment and Distribution	302,514	SF	1.50	453,771
16020.214	Emergency Generator - Testing	1	LS	5,000.00	5,000
16030.000	4000 Amp Switchgear, 480/277V	1	EA	90,000.00	90,000
16030.004	Transformer / Primary / Conduit ** ALLOWANCE **	1	LS	50,000.00	50,000
16040.006	Panel Feeders	64	EA	2,500.00	160,000
16040.008	Primary Conduit Only - (1) 4"	800	LF	4.40	3,520
16040.010	Secondary Feeder - (8) 4" Conduits	800	LF	4.40	3,520
16040.011	Secondary Feeder - #600 MCM Conductor	3,200	LF	34.35	109,920
16040.060	Grounding/Bonding	1	LS	10,000.00	10,000
16040.200	20 KW UPS	2	EA	20,000.00	40,000
16040.218	Panel 277/480V 100A - Lighting	16	EA	1,664.44	26,631
16040.218	Panel 277/480V 100A - Mechanical	16	EA	1,664.44	26,631
16040.224	Panel 277/480V 400A - Distribution	16	EA	3,328.57	53,257
16040.228	Triple Tub Panel 120/208V 250 Amp	16	EA	9,795.00	156,720
16040.300	Transformer Dry Type, Three Phase, 30kVA	16	EA	4,928.89	78,862
16040.302	Transformer Dry Type, Three Phase, 75kVA	16	EA	7,194.29	115,109
16050.100	Branch Devices	304,514	SF	1.00	304,514
16050.102	Power and Branch Circuitry	302,514	SF	3.50	1,058,799
16060.414	RTU Feeder	24	EA	2,706.00	64,944
16060.416	Boiler Feeder	7	EA	1,401.75	9,812
16060.418	Pump Feeder	7	EA	1,965.75	13,760
16060.420	Chiller Feeder	1	EA	8,336.00	8,336
16080.008	2x4 Flourescent - MER	30	EA	340.25	10,208
16080.010	Recessed LED's - Classrooms/Offices	1,316	EA	290.25	381,969
16080.012	Direct LED's - Gymnasium	20	EA	1,080.50	21,610
16080.014	Linear Indirect LED's - Corridor	500	EA	440.25	220,125
16080.016	Pendant Mount / Indirect Flourescent - Cafeteria	58	EA	728.25	42,239
16080.018	2x2 LED Panels - Kitchen/Servery	36	EA	603.25	21,717
16080.020	Direct Recessed LED's - Library	36	EA	290.25	10,449
16080.022	Dimmable Flourescent - Auditorium	70	EA	2,090.25	146,317
16080.024	Exterior Wall Mount - LED	42	EA	628.25	26,387
16080.026	Exterior Pole Fixture - Custom LED	35	EA	4,000.00	140,000
16080.030	Exterior Pendant - LED - RR	15	EA	628.25	9,424
16081.100	Lighting Circuitry	2,000	SF	1.25	2,500
16081.100	Lighting Circuitry	302,514	SF	2.00	605,028
16081.102	Lighting Controls	304,514	SF	1.25	380,642
16081.104	Lighting Controls & Panels - Testing	1	LS	1,000.00	1,000
16081.104	Lighting Controls & Panels - Testing	1	LS	25,000.00	25,000
16081.150	Stage Lights / Sound System / Dimmer Rack ** ALLOWANCE **	1	LS	375,000.00	375,000
16100.000	Sound System - Cafeteria	1	LS	20,000.00	20,000
16100.001	Sound System - Gymnasium	1	LS	20,000.00	20,000
16100.002	Sound System - Music Room	1	LS	10,000.00	10,000
16110.020	Bi-Directional Antennae	1	LS	50,000.00	50,000
16110.100	Tel/ Data/ CATV	304,514	SF	1.75	532,899
16170.100	Card Reader System - Head End Equipment	1	EA	9,000.00	9,000
16170.101	Card Readers - Swipes/Wires	25	EA	1,700.00	42,500
16180.000	Master Clock	304,514	SF	0.35	106,580
16180.001	Intercom	304,514	SF	0.60	182,708
16180.100	Communications - Testing	1	LS	20,000.00	20,000

Job #: 15027
Project Size: 304514 SF
Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
Group 1: School Options
Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
16200.000	Security System - Head End Equipment	1	LS	35,000.00	35,000
16200.002	Fixed Interior CCTV Cameras	25	EA	3,000.00	75,000
16200.004	Pan-Tilt-Zoom Exterior CCTV Cameras	10	EA	5,000.00	50,000
16300.102	Fire Alarm	304,514	SF	1.50	456,771
16300.104	Fire Alarm Testing	1	LS	750.00	750
16300.104	Fire Alarm Testing	1	LS	7,500.00	7,500
16400.002	Lightning Protection	1	LS	30,000.00	30,000
16400.100	Commissioning	1	LS	60,000.00	60,000
16400.102	Firestopping	1	LS	20,000.00	20,000
16400.104	Identification	1	LS	7,500.00	7,500
16400.106	Seismic Restraint	1	LS	12,500.00	12,500
16400.108	Fees & Permits	1	LS	50,000.00	50,000
**** Total D50 - ELECTRICAL**					**7,230,576**
E10 - EQUIPMENT					
11160.034	12" Dock Seal - OH Doors	1	EA	1,585.04	1,585
11160.043	Rubber Dock Bumper 4 1/2"x14"x12"	2	EA	166.38	333
11480.006	OUTDOOR SCOREBOARDS - NOT INCLUDED				
11480.008	Gym Bleachers (One Side Only)	1	LS	25,000.00	25,000
11480.014	Gym Divider Curtain - Existing to remain		LF	160.00	
11480.020	Basketball Hoop - Existing to remain		EA	5,333.33	
11480.030	Volley Ball Net w/ Floor Inserts		EA	1,900.00	
11480.040	Score Board - Existing to remain		EA	8,500.00	
11480.060	Upgrade Motorized Retraction System for Existing Bleachers		LS	20,000.00	
11480.062	Plastic Telescoping Stands - Hussey Maxam 26 Motorized Bleachers		EA	110.00	
11480.065	Gym Wall Padding - 6' Ht	470	LF	100.00	47,000
11480.080	Temporarily Relocate Existing Bleachers for Floor Replacement	1	LS	20,000.00	20,000
11650.000	Stage Set Fastening Equipment - In Line set Allowance				
11651.000	Lecture Hall Tables - 18" X 5'		EA	1,085.15	
11653.000	Auditorium Seating - Quattro By Hussey Seating	800	EA	250.00	200,000
11654.000	Line Sets & Shell Allowance - Auditorium	1	LS	175,000.00	175,000
**** Total E10 - EQUIPMENT**					**468,918**
E20 - FURNISHINGS					
10000.020	Smart Boards - N/A per HMFH		EA	2,677.73	
10100.004	Marker Board W/ Alum Trim - Classrooms & Labs	3,048	SF	15.63	47,648
10100.006	Tack Board W/O Trim	3,048	SF	8.32	25,348
12500.010	Hunter Douglas Roller Shades (50% of glazing)	21,376	SF	11.00	235,136
**** Total E20 - FURNISHINGS**					**308,132**
F20 - SELECTIVE BUILDING DEMOLITION					
2022.100	Mass Demolition - High School	270,000	SF	6.00	1,620,000
2032.310	Demo Entrance Canopy	4,600	SF	0.68	3,129
**** Total F20 - SELECTIVE BUILDING DEMOLITION**					**1,623,129**
G10 - SITE PREPARATION					
2013.240	Demo Bit Conc Pvmt - Large Area	230,562	SF	0.16	37,927
2013.240	Demo Bit Conc Pvmt - Large Area (For Animal Barn)	6,000	SF	0.16	987
2013.280	Demo Conc Walk	11,800	SF	0.63	7,414
2200.905	Granular Fill (M) (Demolished Wing)	20,000	CY	10.00	200,000
2300.155	Dewatering	1	LS	40,000.00	40,000

Job #: 15027
Project Size: 304514 SF
Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
Group 1: School Options
Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
	** Total G10 - SITE PREPARATION				286,328
	G20 - SITE IMPROVEMENTS				
5520.060	Steel Handrail - Site Retaining Wall	405	LF	62.21	25,195
10000.010	Flag Pole	1	EA	2,277.73	2,278
	**** Total G20 - SITE IMPROVEMENTS**				**27,473**
	Z10 - GENERAL				
0080.100	***DESIGN & ENGINEERING FEES BY CITY OF DOVER***				
0100.000	Mobilize / Demobilize	1	LS	28,000.00	28,000
0100.020	Office Supplies	155	WK	275.00	42,625
0100.030	Office Furniture / Systems	1	LS	48,000.00	48,000
0100.040	Engineer's Furniture / Equipment - N/A		LS		
0100.041	Engineer's Computer / Software - N/A		LS		
0100.045	Project Kiosk 30" - Purchase	4	EA	5,000.00	20,000
0100.060	Janitorial Services	155	WK	150.00	23,250
0100.064	Temporary Wiring	1	LS	3,000.00	3,000
0100.065	Electrical Energy Costs	35	MO	350.00	12,250
0100.066	Water Usage Costs	35	MO	200.00	7,000
0100.100	Telephone / Communication	35	MO	1,000.00	35,000
0100.110	Sanitary / Facilities	35	MO	1,500.00	52,500
0110.080	Security / Watchman		WK		
0110.120	Photographs		MO		
0110.160	Documents & Reproductions	1	LS	15,000.00	15,000
0120.002	Estimating - GMP	1	LS	50,000.00	50,000
0120.003	Officer in Charge		MW	7,000.00	
0120.005	Construction Executive	15	MW	5,400.00	81,000
0120.008	Senior Project Manager	56	MW	4,720.00	264,320
0120.010	Project Manager	128	MW	3,800.00	486,400
0120.018	Senior Project Engineer		MW	2,880.00	
0120.020	Project Engineer	155	MW	2,400.00	372,000
0120.022	Office Engineer	115	MW	1,920.00	220,800
0120.024	Senior Superintendent	137	MW	4,720.00	646,640
0120.025	Project Superintendent	149	MW	3,720.00	554,280
0120.034	Construction Coordination - SCP	37	MW	2,400.00	88,800
0120.050	Scheduling Engineer		MW	2,280.00	
0120.058	Safety Manager		MW	3,720.00	
0120.060	Safety Engineer (2 Days/Week)	62	MW	2,280.00	141,360
0120.220	Administration	132	MW	1,720.00	227,040
0130.000	Living Allowance - Management	310	MWK	300.00	93,000
0130.005	Living Allowance - Foremen		MWK	125.00	
0130.020	Travel and Expenses	35	MO	600.00	21,000
0140.000	Scheduling	1	WK	2,280.00	2,280
0140.200	Permit's & Fee's		LS		
0140.205	Building Permit		LS		
0140.300	Design (Means & Methods)		LS		
0140.800	Professional Services		LS		
0150.200	Equipment Trucking		WK		
0150.250	Off - Site Parking		WK		
0150.500	Personnel Elevator		MO		
0150.520	Field Office	35	TM	1,200.00	42,000
0150.540	Engineer / Architect Office		TM	400.00	
0150.560	Storage Trailers (2 Trailers)	70	TM	150.00	10,500
0160.300	Sub Bonds (Include w/ Subs)		LS		
0180.010	Gross Receipts Tax		LS		
0180.020	Sales Tax		LS		
0200.010	Materials Testing		LS		
0200.040	Snow Removal	1	LS	40,000.00	40,000
0200.110	Field Engineering	4	WK	5,000.00	20,000

CONSTRUCTION

Job #: 15027
Project Size: 304514 SF
Detail - With Taxes and Insurance

Estimator: KN, JS, JB, MT, MP
Group 1: School Options
Group 2: Uniformat 1

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
0200.140	Temporary GWB Partitions	2,000	SF	7.80	15,600
0200.160	ICRA / ILSM - N/A		LS		
0200.180	Scaffolding - In COW		LS		
0200.200	OSHA / First Aid	155	WK	771.89	119,643
0200.300	Material Handling	155	WK	940.00	145,700
0200.310	Cranes - In COW		CM		
0200.320	Progress Cleanup (Labor & Dumpster)	155	WK	707.04	109,591
0200.360	Final Cleanup	304,514	SF	0.45	137,031
0200.400	Temporary Heat	1	LS	175,000.00	175,000
0200.410	Temporary Enclosure	1	LS	150,000.00	150,000
0200.970	Support Equipment		LS		
**** Total Z10 - GENERAL**					**4,500,611**
Z20 - MAJOR CUSTOM PROGRAM ELEMENTS					
0060.002	Precon Services - N/A (Included under separate contract)		LS	96,000.00	
2032.500	Asbestos Abatement Contract	1	LS	1,300,000.00	1,300,000
2032.505	Asbestos Abatement - 5% Increase per year	1	LS	359,166.00	359,166
**** Total Z20 - MAJOR CUSTOM PROGRAM ELEMENTS**					**1,659,166**
*** Total Option 3 - All New Construction**					**61,084,716**
Total Estimate					**61,084,716**

*Excludes site work, site utilities and kitchen equipment.

Schematic Estimate Option 3: All New Construction

CONSTRUCTION

Job #: 15027
Project Size: 304514 SF
Recap - With Taxes and Insurance ,Indirect Costs are Spread

Estimator: KN, JS, JB, MT, MP
Group 1: School Options
Group 2: email brk out

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
	Email Breakout Items				
	01 Sitework Break Out				3,715,851
	02 Site Utilities Break Out				622,551
	03 Kitchen Equipment Break Out				554,598
	* Total Email Breakout Items				4,893,000
	Total Gross Cost				4,893,000

*Includes all mark-ups

Dover High School Schematic Estimate Option 3: All New Construction

CONSTRUCTION

Job #: 15027
Project Size: 304514 SF
Detail - With Taxes and Insurance ,Indirect Costs are Spread

Estimator: KN, JS, JB, MT, MP
Group 1: School Options
Group 2: email brk out

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
	Option 3 - All New Construction				
	01 Sitework Break Out				
	02 - SITEWORK				
2100.022	50' Riding Ring w/ Fence (Roof in B10)	1	LS	10,919.44	10,919
2110.290	Misc Erosion Control	1	LS	65,516.64	65,517
2110.306	Site Access/Laydown	1	LS	38,218.04	38,218
2200.130	Site Excavation	20,000	CY	13.24	264,851
2200.160	Site Fill From Borrow (Demolished Wing) - FFE to be lowered to further balance site	20,000	CY	3.46	69,210
2220.330	Crushed Stone Under Slab - Kennel	20	CY	40.96	819
2220.332	4" SOG - Kennel	400	SF	8.42	3,368
2220.332	Crushed Stone Under Slab - 8" (Barn Addition)	200	CY	40.96	8,192
2220.335	BF Foundation Wall w/ Crushed Stone (Site Retaining Wall)	2,100	CY	40.96	86,014
2220.335	BF Frost Wall w/ Crushed Stone (Barn Addition)	180	CY	40.96	7,373
2220.340	BF Frost Wall w/ On Site Matl (Barn Addition)	180	CY	19.12	3,442
2600.050	Compact Road Subgrade	29,319	SY	0.25	7,415
2600.060	Fine Grade Road Subgrade	29,319	SY	1.14	33,360
2600.075	Stabilization Fabric-Medium	33,717	SY	1.43	48,120
2600.130	Install Road Base (L)	20,523	CY	4.33	88,775
2600.136	Base - Crushed Gravel (M)	20,523	CY	17.47	358,567
2600.200	Added 2" for Heavy Duty Paving - Lot C (33,891 SF)	418	TONS	120.11	50,208
2600.200	Bituminous Concrete P3.96g (4")	6,455	TON	103.73	669,648
2600.201	29319.22	1	EACH		
2600.210	**Paved Area**	58,195	SY		
2610.002	Grading For Curbs	4,500	LF	2.93	13,168
2610.060	Concrete Curbs 6" X 18"	4,500	LF	13.10	58,965
2610.175	4" Concrete Sidewalk	11,000	SF	3.28	36,034
2710.200	Landscaping	1	LS	163,791.60	163,792
2710.250	Landscaping - Courtyard	1	LS	163,791.60	163,792
2720.115	Chain Link Fence - Vinyl Coated 6' H - Kennel (10' x 10')	120	LF	24.02	2,883
2760.100	Tennis Court	6	EA	43,677.76	262,067
2762.100	Replace existing football field with turf	1	LS	818,958.00	818,958
2762.110	Baseball Field (Includes new drainage system)	1	EA	163,791.60	163,792
2762.115	Soccer Field Operlapping Baseball Field (Includes new drainage system)	1	EA	218,388.80	218,389
***** Total 02 - SITEWORK**					**3,715,851**
**** Total 01 Sitework Break Out**					**3,715,851**
	02 Site Utilities Break Out				
	02 - SITEWORK				
2500.110	4" PVC Footing Drains	6,800	LF	15.29	103,953
2500.790	Storm Drainage Line	4,000	LF	48.13	192,532
2510.507	4' Dia PC Catch Basin	40	EA	3,788.32	151,533
2540.110	Water Line	300	LF	59.05	17,716
2540.114	Sanitary Sewer	300	LF	56.87	17,061
2540.118	Prim/Sec Electrical/Telcom Trenching	300	LF	35.03	10,509
2540.122	Natural Gas Trenching	350	LF	35.03	12,260
2540.128	Alter Underdrain at existing ball field for new addition	1	LS	10,919.44	10,919
2540.130	Alter Underdrain at existing lacrosse field at north side of building due to const access	1	LS	10,919.44	10,919
2580.110	Elec Trench-Direct Burial (Site Lighting)	5,100	LF	8.78	44,774
2580.120	Elec Trench-Duct Bank (Secondary/Primary Under Roads)	140	LF	13.45	1,883
2580.130	Elec Ductbank Forms	560	SF	4.82	2,701

Job #: 15027
Project Size: 304514 SF
Detail - With Taxes and Insurance ,Indirect Costs are Spread

Estimator: KN, JS, JB, MT, MP
Group 1: School Options
Group 2: email brk out

Item Code	Description	Quantity	UM	Total UnitCost	Total Cost
2580.140	Elec Ductbank Concrete	49	CY	132.21	6,416
2580.300	Grease Interceptor, Steel, 50 GPM, 100 LB Fat Capacity	1	EA	10,878.60	10,879
2580.302	Grease Interceptor, Steel, 250 GPM, 500 LB Fat Capacity	1	EA	28,495.72	28,496
***** Total 02 - SITEWORK**					**622,551**
**** Total 02 Site Utilities Break Out**					**622,551**
03 Kitchen Equipment Break Out					
11 - EQUIPMENT					
11400.001	Kitchen Equipment	3,386	SF	163.79	554,598
***** Total 11 - EQUIPMENT**					**554,598**
**** Total 03 Kitchen Equipment Break Out**					**554,598**
*** Total Option 3 - All New Construction**					**4,893,000**
Total Estimate					**4,893,000**