

November 15, 2017

RE: Base Repair / Base Reno comparison Wixon School – Perkins Eastman / KBA Architects.

Line 11 below shows the TPC for the KBA work scope if escalated to 2020 and with the appropriate soft costs, professional fees, contingencies and other factors accounted for to produce a true comparative number between the 2 estimated scopes of work. The (3) pages following this memo review the items in the KBA estimate in further detail highlighting the following –

- Scope with significant variation in pricing due to unit / quantity or both
- Scope PE feels should be included in the base cost and is not

Perkins Eastman  
Architects DPC

Factoring these scope items in would add \$12,584,537 to the KBA base scope arriving at a TPC of \$38,050,236 which is \$2,248,778 less than the PE Base Repair cost of \$40,299,014.

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#### GENERAL NOTES –

- 1) KBA total estimate for construction is \$10,541,645 set in 2014 dollars, using historic data and industry accepted escalation factors the KBA value set at 2020 would be \$14,545,583.
- 2) It appears that KBA assumes the project(s) will be bid chapter 149 (DBB), as it is all occupied renovation PE assumes it will be chapter 149A (CMAR)
- 3) Below the line costs KBA carries
  - a. Overhead and profit at 10%
  - b. General Conditions at 10%
- 4) Below the line costs PE Carries
  - a. General Conditions at 12%
  - b. CM Fee at 3%
  - c. Phasing and Logistics (building is occupied with students, staff and visitors during construction process) at 7%
  - d. CM Contingency at 3.5%
  - e. Bond at 1%
  - f. Insurance at 1.5%
- 5) Soft Costs carried by KBA
  - a. Architectural Fee at 10%
  - b. Administrative fee at .5%, it is unclear what this includes
- 6) Soft Costs accounted for and carried by PE

Boston  
Charlotte  
Chicago  
Dallas  
Dubai  
Guayaquil  
Los Angeles  
Mumbai  
New York  
Pittsburgh  
San Francisco  
Shanghai  
Stamford  
Toronto  
Washington DC

A/E Feasibility Study

*A/E Full Services[1]*

Site Survey

Geotechnical Investigation & Design (structural & environmental)

Site Environmental Remediation Design & Bid Documents

Site Environmental Remediation Construction Monitoring

Hazardous Materials Investigation, Design & Bid Documents

Hazardous Materials and Air Quality Construction

Monitoring

Permit Submissions & Hearings

Furniture, Equip, & Ed Tech Design & Procure

Progress Printing & Plotting

Bid Set Printing

**Other Project Expenses**

Project Manager[2]

Clerk of Works

Construction Testing

Commissioning

Building Permits

Utility Company Service Charges

Moving, storage & relocation expenses

Bond Costs

Insurance, Legal & Accounting Expenses

Owners Contingency

- 7) The KBA report does not include design contingency – as the project is not currently “designed” it is customary to include a contingency for items that are as yet to be drawn – at feasibility level it is recommended to carry 15% - this would increase the KBA estimate to \$16,727,420.
- 8) The KBA report does not include a bidding contingency – it is industry standard to carry a contingency for potential fluctuations that may occur on bid day – we carry a 3% contingency – this would increase the KBA estimate to \$17,229,243.
- 9) The KBA report does not carry a construction contingency – for a renovation / repair project built in the early 1970’s we would suggest a minimum of 7.5%. This would increase the KBA estimate to \$18,521,436.
- 10) Phased renovations require swing space – although it is possible to “phase” the construction within the existing building it is potentially faster and more efficient to construct a number of temporary classrooms – for this project

we suggest a wing by wing approach – this would require construction of 8 modular classrooms at a cost of approximately \$942,000

- 11) If you take the revised cost of \$18,521,436 and add the FFE, soft costs and professional fees of approximately \$6,002,263 and the modular cost the TPC is \$25,465,699.
- 12) The back-up sheet attached details the major cost differences

As requested the excerpt from the Architectural Access Board Regulations

521 CMR section 3.3.1

- If the work being performed amounts to less than 30% of the full and fair cash value of the building and
  - a. If the work costs less than \$100,000- then only the work being performed must comply
  - or
  - b. If the work costs more than \$100,000 but less the 30% - then the work being done and in addition an accessible entrance, toilet room, telephone and drinking fountain shall also be provided.

Exception: General Maintenance and on-going upkeep do not trigger upgrades unless the project cost exceeds \$500,000.

Exception: Whether performed alone or in combination with each other, the following type of alterations are not subject to 521 CMR 3.3.1 unless the cost exceeds \$500,000.

- a. Curb cuts
- b. Alteration work which is related solely to Electrical, Mechanical or Plumbing systems, hazardous materials abatement or retrofit of sprinklers.
- c. Roof repair or replacement, window repair or replacement, repointing masonry repair work.
- d. Septic System Repairs.

ADA / AAB Scope

- All bathrooms are non-compliant – rooms and fixture locations are not accessible, rooms must be enlarged to be brought into compliance with current code, masonry walls need to be removed and re-built and entire areas reconfigured. KBA report carries 50K, the cost for full compliance is roughly 40K or greater per location.

- Access to the stage – Current AAB requires that access to a platform or stage be provided within the Auditorium, a lift would be required.
- Accessible seats at bleachers and auditorium – accessible areas for seating to be provided at the assembly areas
- Install accessible drinking fountains, both reports have this line item
- Make classroom sinks accessible – both reports have this line item
- New signage – KBA does not carry, it is required
- Kitchen servery, library circulation desk, main admin (breakroom, desk, mailboxes), science lab casework and other misc. items are not accessible – Not in KBA estimate – in PE estimate

## COMPARISON - KBA 2013 CAPITAL UPDATE AND PERKINS EASTMAN 2017 BASE REPAIR (WIXON)

NOTES:

- 1) The KBA report outlines the thresholds for AAB compliance on page 3 of the report - it states that the threshold projects of more than 30% of the FMV assessed value of the project over a 36 month period, excluding window replacement, roofing and masonry repairs  
 2) Yellow Highlighted are not included in total, they are included in line 10 of memo

SECTION	SCOPE	KBA COST	PE COST	DELTA	COMMENTS
SITework	Misc Site repairs, sidewalks, parking areas, additional curb cuts etc	\$1,439,925	\$990,817	\$449,108	The KBA report carries significant funds for tennis court and running track repair but does not address the antiquated septic system - the PE report includes replacing septic but does not assume the track/field or tennis courts to be critical to the base repair
HAZARDOUS MATERIALS - BUILDING	Removal of hazardous materials, including asbestos tile, insulation and fittings as well as addressing potential PCB contamination	\$0	\$1,406,790	-\$1,406,790	Not addressed or included in KBA report
HAZARDOUS MATERIALS - SITE	Removal of contaminated soils, abandoned or non-compliant underground tanks found during the Phase 1 site environmental study	\$0	\$67,500	-\$67,500	Not addressed or included in KBA report
DEMOLITION	Misc work required to complete the scopes of work noted within the report, for example replacement of toilet fixtures and drinking fountains requires the disconnection, removal and carting away of the items -	\$0	\$897,927	-\$897,927	Not addressed or included in KBA report
WINDOWS AND DOORS		\$704,000	\$1,651,209	-\$947,209	KBA report retains window systems installed in the 1990 renovation, PE estimate carries full window replacement throughout - window systems could be retained but the Town would be retaining a 30 Year old window system in a fully renovated building a cost benefit analysis would need to be performed - the KBA escalated window replacement is 891K -
ROOFING	Replacement of the PVC roofing system	\$1,630,800	\$2,176,135	-\$545,335	Both estimates assume full roof replacement - the PE estimate carries a design contingency of 15% and a slightly higher unit cost which would be reflected in the escalation factor from 2014 to 2020
INTERIOR FINISHES	See below				
	1) Flooring replacement - VCT and Carpet	\$19,520	\$629,492	-\$609,972	The KBA report does not carry replacement of any flooring or base -
	2) Painting	\$219,400	\$231,176	-\$11,776	Reports agree that re-painting would be required
	3) Refinish wood floor	\$24,000	\$21,000	\$3,000	Reports agree that only small gym floor requires refinish
	4) Auditorium Seating	\$0	\$159,950	-\$159,950	KBA report does not carry costs for replacing seats

	5) New rigging for auditorium	\$0	\$180,000	-\$180,000	Not Included in KBA report
	6) Replace Casework - most in non-accessible and perimeter casework is supplied by the Unit Vent manufacturer when changes are made to mechanical the casework will be effected	\$0	\$342,450	-\$342,450	Not Included in KBA report - perimeter cabintry at Wixon was originally provided by the UV and Fan unit manufacturer and is sized and tailored to fit the current HVAC equipment scheduled by both estimates to be replaced
	7) ACT ceiling	\$544,500	\$409,752	\$134,748	
	8) Replacement of the following, Lockers, Toilet Partitions, FE cabinets, Fume Hoods, Appliances, Marker and Tack, display cases	\$113,000	\$433,202	-\$320,202	KBA report carries cost for future locker replacement only
	9) Interior doors and hardware	\$212,500	\$187,065	\$25,435	KBA report only carries a minimal amount for repairs to doors and frames and a very small amount for hardware, PE included replacemnt and upgrade of all doors and hardware throughout for security and continuity
	10) Stair Handrails and Nosings	\$0	\$179,832	-\$179,832	Replacement of the handrials and upgrades to guradrails would be required by code, adjustments to the stair nosings would also be required.
	11) Accessibility	\$332,500			KBA notes several items specifically for ADA/AAB including drinking fountains, toilet room revisions, elevator revisions, classroom sinks, egress doors, hardware, and addition of a wheelchair lift at the stage - PE includes all of these items and several more in the base cost of renovation
EQUIPMENT	Kitchen equipment and serving lines	\$0	\$550,480	-\$550,480	KBA report does not address Kitchen Equipment
FIRE PROTECTION	Fully sprinkler building	\$614,000	\$675,625	-\$61,625	Agree this must be done per MGL section 26G
PLUMBING	Replace all fixtures and piping	\$88,500	\$865,337	-\$776,837	KBA report leaves 50 year old distribution in place
HVAC	replace all systems and controls	\$3,582,000	\$2,452,978	\$1,129,022	Agree this must be done
ELECTRICAL	replace all systems and infrastructure - add tech/data and security	\$772,750	\$4,570,128	-\$3,797,378	KBA report leaves 50 year old distribution in place

GENERAL CONDITIONS		\$1,051,165	\$2,428,873	<b>-\$1,377,708</b>	KBA carries 10% - PMA and PE suggest 12% for GC's
PHASING	Cost incurred to work in an occupied building, includes temp walls, fire watches, shut downs, overtime etc.	\$0	\$1,586,864	<b>-\$1,586,864</b>	KBA carries no phasing costs or premiums
BOND & INSURANCE		\$0	\$506,015	<b>-\$506,015</b>	KBA carries no bonds or insurance costs
OPM / Clerk	Professional fees for Owners Project Manager and on -site daily site supervision during construction	\$0	\$1,304,055	<b>-\$1,304,055</b>	KBA carries no OPM costs or Clerk of the Works as required by MGL
SOFT COSTS	There are a number of "soft costs" associated with a construction project such as, legal, bonding agents, insurance (builders risk), printing, air monitoring, construction testing, permits, moving, storage, utility service back charges - etc	\$0	\$597,955	<b>-\$597,955</b>	KBA carries no soft costs in their estimates
FFE	<b>Furniture</b> (classrooms, offices, library etc - all non-fixed furniture), <b>Fixtures</b> (Appliances), <b>Equipment</b> (Science lab accessories, gym equipment, phones, projectors, computers etc) & Professional Fees for design and procurement	\$0	\$1,374,778	<b>-\$1,374,778</b>	KBA does not address furniture or equipment

**-\$12,584,537 TOTAL**

**Dennis Yarmouth Regional  
Wixon Innovation School**

11/15/17

FS Base Repair Estimate

SF 117,500  
PSF \$342.97

<b>A. CONSTRUCTION</b>		<b>TOTAL</b>
Foundations		\$85,882
Superstructure		\$8,280
Exterior Closure		\$14,743
Windows & Doors		\$1,184,786
Roofing		\$2,176,135
Interior Construction		\$1,078,938
Stairs		\$179,832
Millwork		\$727,552
Interior Finishes		\$1,653,901
Specialities		\$240,000
Furnishings & Equipment		\$998,752
Conveying Systems		\$32,200
Fire Protection		\$675,625
Plumbing		\$865,337
HVAC		\$2,452,987
Electrical		\$4,570,128
<b>SUBTOTAL</b>		<b>\$16,945,078</b>
<b>B. SITE IMPROVEMENTS</b>		
Demolition		\$897,927
Hazardous Materials Remediation		\$1,406,790
Septic		\$361,270
Site Work		\$514,547
Site Improvements		\$115,000
<b>C. TOTAL TRADE COST</b>		<b>\$20,240,612</b>
General Conditions	12.0%	\$2,428,873
CM Fee	3.0%	\$680,085
Phasing	7.0%	\$1,586,864
CM Contingency	3.5%	\$708,421
Bond	1.0%	\$202,406
Insurance	1.5%	\$303,609
<b>D. SUBTOTAL CONSTRUCTION MANAGERS COST</b>		<b>\$26,150,871</b>
Escalation to 3/20 (midpoint)	10.8%	\$2,824,294
<b>E. TOTAL CONSTRUCTION MANAGERS COST</b>		<b>\$28,975,165</b>
Bidding Contingency	3.0%	\$869,255
<b>F. TOTAL ESTIMATED GMP</b>		<b>\$29,844,420</b>
Construction Contingency	7.5%	\$2,238,331
<b>G. TOTAL ESTIMATED CONSTRUCTION COST</b>		<b>\$32,082,751</b>
Owners Soft Costs		\$6,002,263
Relocatable Classrooms (8)		\$942,000
Fixtures, Furniture and Equipment	530 Students	\$1,272,000
<b>J. TOTAL PROJECT COST</b>		<b>\$40,299,014</b>

NOTE DESIGN AND PRICING CONTINGENCY INCLUDED AT 15%

**INDIRECT EXPENSES****A/E Services**

A/E Feasibility Study		\$530,000
A/E Full Services/[1]	ECC X 9.0%	\$2,612,791
Site Survey		incl
Geotechnical Investigation & Design (structural & environmental)		\$20,000
Site Environmental Remediation Design & Bid Documents		\$20,000
Site Environmental Remediation Construction Monitoring		\$20,000
Hazardous Materials Investigation, Design & Bid Documents		\$133,600
Hazardous Materials and Air Quality Construction Monitoring		w/ above
Permit Submissions & Hearings		\$10,000
Furniture, Equip, & Ec	ECC X 8.0%	\$102,778
Progress Printing & Plotting		\$20,000
Bid Set Printing		\$20,000

Subtotal A/E services 

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**Other Project Expenses**

Project Manager/[2]	ECC X 3.5%	\$1,016,085
Clerk of Works	\$10,000 X 26 months	\$260,000
Construction Testing		\$75,000
Commissioning		\$0
Building Permits		\$25,000
Utility Company Service Charges		\$45,000
Moving, storage & relocation expenses		\$50,000
Bond Costs		\$20,000
Insurance, Legal & Accounting Expenses		\$25,000
Owners Contingency	3%	\$870,930

Subtotal Other Expenses 

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**TOTAL INDIRECT EXPENSES**

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**\$5,876,184**

[1] Includes architectural, interior, food service, lighting, acoustical, and landscape design; structural, mechanical, electrical, plumbing, fire protection, civil and traffic engineering; and cost estimating.

[2] Pre-construction phase includes coordinating Owner's activities, inventory of existing food service equipment, FFE & ed technology to be reused and cost estimates. Construction phase includes coordinating Owner's activities, supervise clerk of works, coordinate Contractors' activities, coordinate food service, FFE and Ed Tech installations, and coordinate Owner occupancy.



## **Feasibility Study Estimate**

# **Wixon Middle School Renovations**

Dennis, MA

### **PM&C LLC**

20 Downer Avenue, Suite 1c  
Hingham, MA 02043

(T) 781-740-8007

(F) 781-740-1012

Prepared for:

**Perkins Eastman**

August 30, 2017



**Wixon Middle School**  
Renovations  
Dennis, MA

30-Aug-17

**Feasibility Study Estimate**

**MAIN CONSTRUCTION COST SUMMARY**

	<b>Gross Floor Area</b>	<b>\$/sf</b>	<b>Estimated Construction Cost</b>
<b>RENOVATIONS</b>			
RENOVATIONS TO EXISTING MIDDLE SCHOOL	116,090	\$128.25	\$14,888,631
GENERAL REQUIREMENTS			\$595,545
REMOVE HAZARDOUS MATERIALS			TBD
<b>SUB-TOTAL</b>	<b>116,090</b>	<b>\$133.38</b>	<b>\$15,484,176</b>
ESCALATION TO START DATE MARCH 2019 - (assumed 4% PA)	6.33%		\$980,148
DESIGN AND PRICING CONTINGENCY	15%		\$2,322,626
<b>SUB-TOTAL</b>	<b>116,090</b>	<b>\$161.83</b>	<b>\$18,786,950</b>
GENERAL CONDITIONS	12.00%		\$2,254,434
PHASING LOGISTICS	5.00%		\$939,348
BONDS	1.15%		\$216,050
INSURANCE	2.00%		\$375,739
PERMIT			Waived
CM FEE	5.0%		\$1,128,626
CM CONTINGENCY	3.5%		\$657,543
<b>TOTAL OF ALL CONSTRUCTION</b>	<b>116,090</b>	<b>\$209.83</b>	<b>\$24,358,690</b>



## **Wixon Middle School**

Renovations

Dennis, MA

30-Aug-17

### **Feasibility Study Estimate**

This cost estimate was produced from Feasibility Design drawings and narratives, received August 16, 2017, prepared by Perkins and Eastman and their design team.

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

Bidding conditions are expected to be public bidding under 149a of the Massachusetts General Laws to pre-qualified construction managers, and pre-qualified sub-contractors, open specifications for materials and manufacturers.

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

### **ITEMS NOT CONSIDERED IN THIS ESTIMATE**

Items not included in this estimate are:

- All professional fees and insurance
- Building Permit costs
- Land acquisition, feasibility, and financing costs
- All Furnishings, Fixtures and Equipment
- Items identified in the design as Not In Contract (NIC)
- Items identified in the design as by others
- Owner supplied and/or installed items (e.g. draperies, furniture and equipment)
- Rock excavation; special foundations (unless indicated by design engineers)
- Utility company back charges, including work required off-site
- Work to City streets and sidewalks, (except as noted in this estimate)



**CONSTRUCTION COST SUMMARY**

<i>BUILDING SYSTEM</i>		SubTotal	TOTAL	\$/SF	%
<b>RENOVATION</b>					
<b>A10 FOUNDATIONS</b>					
A1030	Lowest Floor Construction	\$74,680	<b>\$74,680</b>	\$0.64	0.5%
<b>B10 SUPERSTRUCTURE</b>					
B1010	Upper Floor Construction	\$7,200	<b>\$7,200</b>	\$0.06	0.0%
<b>B20 EXTERIOR CLOSURE</b>					
B2010	Exterior Walls	\$12,820			
B2020	Windows	\$892,669			
B2030	Exterior Doors	\$137,580	<b>\$1,043,069</b>	\$8.99	7.0%
<b>B30 ROOFING</b>					
B3010	Roof Coverings	\$1,829,291			
B3020	Roof Openings	\$0	<b>\$1,829,291</b>	\$15.76	12.3%
<b>C10 INTERIOR CONSTRUCTION</b>					
C1010	Partitions	\$477,217			
C1020	Interior Doors	\$460,990			
C1030	Specialties/Millwork	\$632,654	<b>\$1,570,861</b>	\$13.53	10.6%
<b>C20 STAIRCASES</b>					
C2010	Stair Construction	\$110,720			
C2020	Stair Finishes	\$45,656	<b>\$156,376</b>	\$1.35	1.1%
<b>C30 INTERIOR FINISHES</b>					
C3010	Wall Finishes	\$199,146			
C3020	Floor Finishes	\$734,222			
C3030	Ceiling Finishes	\$504,807	<b>\$1,438,175</b>	\$12.39	9.7%
<b>D10 CONVEYING SYSTEMS</b>					
D1010	Elevator	\$28,000	<b>\$28,000</b>	\$0.24	0.2%
<b>D20 PLUMBING</b>					
D20	Plumbing	\$752,467	<b>\$752,467</b>	\$6.48	5.1%
<b>D30 HVAC</b>					
D30	HVAC	\$2,133,022	<b>\$2,133,022</b>	\$18.37	14.3%
<b>D40 FIRE PROTECTION</b>					
D40	Fire Protection	\$232,180	<b>\$232,180</b>	\$2.00	1.6%
<b>D50 ELECTRICAL</b>					
D5010	Service & Distribution	\$1,008,721			
D5020	Lighting & Power	\$1,328,773			



<b>CONSTRUCTION COST SUMMARY</b>					
<i>BUILDING SYSTEM</i>		SubTotal	TOTAL	\$/SF	%
<b>RENOVATION</b>					
D5030	Communication & Security Systems	\$1,224,751			
D5040	Other Electrical Systems	\$411,779	<b>\$3,974,024</b>	\$34.23	26.7%
<b>E10 EQUIPMENT</b>					
E10	Equipment	\$318,000	<b>\$318,000</b>	\$2.74	2.1%
<b>E20 FURNISHINGS</b>					
E2010	Fixed Furnishings	\$550,480			
E2020	Movable Furnishings	NIC	<b>\$550,480</b>	\$4.74	3.7%
<b>F20 HAZMAT REMOVALS</b>					
F2010	Building Elements Demolition	\$780,806			
F2020	Hazardous Components Abatement	\$0	<b>\$780,806</b>	\$6.73	5.2%
<b>TOTAL DIRECT COST (Trade Costs)</b>			<b>\$14,888,631</b>	\$128.25	100.0%



Feasibility Study Estimate

GFA 116,090

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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RENOVATION

**GROSS FLOOR AREA CALCULATION**

Ground Floor	36,340
First Floor	79,750

<b>TOTAL GROSS FLOOR AREA (GFA)</b>	<b>116,090 sf</b>
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**A10 FOUNDATIONS**

**A1030 LOWEST FLOOR CONSTRUCTION**

033000 CONCRETE

Allowance to create depression in slab for wheelchair lifts	25	sf	80.00	2,000	
General slab patching	36,340	sf	2.00	72,680	
SUBTOTAL					74,680

<b>TOTAL - FOUNDATIONS</b>	<b>\$74,680</b>
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**B10 SUPERSTRUCTURE**

**B1010 FLOOR CONSTRUCTION**

033000 CONCRETE

CIP curb at edge of flat area in auditorium	15	lf	80.00	1,200	
4" CIP curb at library ramp	75	lf	80.00	6,000	
SUBTOTAL					7,200

<b>TOTAL - SUPERSTRUCTURE</b>	<b>\$7,200</b>
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**B20 EXTERIOR CLOSURE**

**B2010 EXTERIOR WALLS**

042000 MASONRY

Clean brick at base of wall	200	sf	10.00	2,000	
Clean concrete façade	20	sf	10.00	200	
Create opening in brick for new louvers	35	sf	20.00	700	
Repair damaged brick at north and south elevation, approx. 2x2 per loc	2	loc	600.00	1,200	

070001 WATERPROOFING, DAMPPROOFING AND CAULKING

Strip and replace sealants at brick control joint	10	lf	12.00	120	
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090007 PAINTING

Scrape, prep and paint exposed steel structure at entrance canopy	400	sf	20.00	8,000	
Scrape, prep and paint exposed steel lintel at recessed entry ways	40	lf	15.00	600	
SUBTOTAL					12,820

**B2020 WINDOWS**



Feasibility Study Estimate

GFA

116,090

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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**RENOVATION**

52							
53	061000	<i>ROUGH CARPENTRY</i>					
54		Allowance for wood blocking at openings	3,232	lf	8.00	25,856	
55							
56	070001	<i>WATERPROOFING, DAMPPROOFING AND CAULKING</i>					
57		Backer rod & double sealant at windows, metal panels and kalwall	3,232	lf	9.00	29,088	
58							
59	080001	<i>METAL WINDOWS</i>					
60		Remove and replace all existing storefront	245	sf	100.00	24,500	
61		Remove and replace all existing windows	5,785	sf	95.00	549,575	
62		Remove and replace all existing metal panel within window frames	2,590	sf	85.00	220,150	
63		Remove and replace all existing kalwall	410	sf	70.00	28,700	
64							
65	089000	<i>LOUVERS</i>					
66		Remove and replace existing louvers	120	sf	100.00	12,000	
67		New louvers	35	sf	80.00	2,800	
68							
69	101400	<i>SIGNAGE</i>					
70		No items in this section					
71		SUBTOTAL				892,669	
72							
73	<b>B2030</b>	<b>EXTERIOR DOORS</b>					
74							
75	061000	<i>ROUGH CARPENTRY</i>					
76		Wood blocking at replacement doors	339	lf	11.00	3,729	
77							
78	079200	<i>JOINT SEALANTS</i>					
79		Backer rod & double sealant at replacement doors	339	lf	9.00	3,051	
80							
81	081110	<i>HOLLOW METAL</i>					
82		Glazed entrance door, frame and hardware; single	7	ea	4,900.00	34,300	
83		Glazed entrance doors including hardware at replaced storefront; double	11	pr	8,500.00	93,500	
84		Add auto opener at exterior single door	1	ea	3,000.00	3,000	
85		SUBTOTAL				137,580	
86							
87		<b>TOTAL - EXTERIOR CLOSURE</b>					<b>\$1,043,069</b>

**B30 ROOFING**

**B3010 ROOF COVERINGS**

94	070002	<i>ROOFING AND FLASHING</i>					
95		<u>Sloped roofing</u>					
96		Demo and remove existing membrane roof	83,878	sf	3.00	251,634	
97		PVC roofing system, 60 mil on 1/2" protection board, 6" rigid insulation on vapor barrier	83,878	sf	17.00	1,425,926	
98		Additional roof cricket insulation	250	sf	2.00	500	
98		Remove and replace rough blocking	1,988	lf	12.00	23,856	
99		Pre-fabricated roof edge and 12" brake metal fascia panel w/ continuous cleat	1,988	lf	30.00	59,640	



Feasibility Study Estimate

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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**RENOVATION**

100	<u>Miscellaneous Roofing</u>							
101	Remove and replace gutters	845	lf	40.00	33,800			
102	Remove and replace downspouts	400	lf	35.00	14,000			
103	Remove and replace tectum panels at roof overhang soffit	266	sf	35.00	9,310			
103	Roof to wall flashing	485	lf	10.00	4,850			
104	Expansion joint flashing	90	lf	10.00	900			
104	Flashing at fresh air intake	5	ea	75.00	375			
104	Flashing at vent pipe	31	ea	75.00	2,325			
105	Flashing at exhaust fan	29	ea	75.00	2,175			
106	SUBTOTAL					1,829,291		
108	<b>TOTAL - ROOFING</b>							<b>\$1,829,291</b>

**C10 INTERIOR CONSTRUCTION**

**C1010 PARTITIONS**

114	<i>040001 MASONRY</i>						
116	6" CMU	312	sf	20.00	6,240		
117	8" CMU	2,448	sf	23.00	56,304		
118	8" CMU at classroom entrance wing wall	220	sf	28.00	6,160		
120	<i>050001 MISCELLANEOUS METALS</i>						
121	Seismic clips	62	ea	140.00	8,680		
122	Miscellaneous metals to masonry	2,980	sf	1.50	4,470		
124	<i>061000 ROUGH CARPENTRY</i>						
125	Rough blocking	1,166	lf	6.00	6,996		
127	<i>070001 WATERPROOFING, DAMPPROOFING AND CAULKING</i>						
128	Sealants & caulking at partitions	1,166	lf	4.00	4,664		
130	<i>080002 GLASS AND GLAZING</i>						
131	Borrowed lights	54	sf	65.00	3,510		
132	Replace interior storefront	150	sf	90.00	13,500		
134	<i>092900 GYPSUM BOARD ASSEMBLIES</i>						
135	Plumbing chase wall	189	sf	15.00	2,835		
136	Standard	13,797	sf	14.00	193,158		
137	Patch wall after removal of observation window	16	sf	25.00	400		
139	<i>102200 OPERABLE PARTITIONS</i>						
140	Replace operable partitions	2,620	sf	65.00	170,300		
141	SUBTOTAL					477,217	
143	<b>C1020 INTERIOR DOORS</b>						
146	<i>061000 ROUGH CARPENTRY</i>						
147	Wood blocking at openings	3,350	lf	4.00	13,400		



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
<b>RENOVATION</b>							
149	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
150	Backer rod & double sealant	3,350	lf	6.00	20,100		
151	08110 DOORS AND FRAMES						
152							
153	Flush wood doors, frames and hardware at classrooms single	36	ea	1,640.00	59,040		
154	Flush wood door, frame and hardware - single	112	ea	1,640.00	183,680		
155	Flush wood door, frame and hardware- double	39	pr	3,280.00	127,920		
156	Relocate existing single door and frame	1	ea	600.00	600		
157	Relocate existing double door and frame	1	pr	1,100.00	1,100		
158	Sliding glass door, frame and hardware - single	1	ea	3,600.00	3,600		
159	Change swing of single door to opposite side	1	ea	150.00	150		
160	Glazed aluminum storefront door, frame and hardware, double	2	pr	8,000.00	16,000		
161	083110 ACCESS DOORS AND FRAMES						
162							
163	Access doors	1	ls	1,500.00	1,500		
164	090007 PAINTING						
165							
166	Finish new doors and HM frames	226	ea	150.00	33,900		
167	SUBTOTAL					460,990	
168							
169	<b>C1030 SPECIALTIES / MILLWORK</b>						
170							
171	055000 MISCELLANEOUS METALS						
172	Replace guardrail at areaway	85	lf	220.00	18,700		
173	Miscellaneous metals throughout building	116,090	sf	0.50	58,045		
174	064020 INTERIOR ARCHITECTURAL WOODWORK						
175							
176	New desk at health class	15	lf	900.00	13,500		
177	New desk at library	12	lf	900.00	10,800		
178	Desk at admin	30	lf	900.00	27,000		
179	Built in computer desk at library	28	lf	600.00	16,800		
180	Serving counter at kitchen	55	lf	500.00	27,500		
181	Maple bench at locker room	35	lf	90.00	3,150		
182	Refinish display case	1	loc	500.00	500		
183	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
184							
185	Miscellaneous sealants throughout building	116,090	sf	1.25	145,113		
186	101100 VISUAL DISPLAY SURFACES						
187							
188	Markerboard	2,363	sf	22.00	51,986		
189	Tackboard	1,197	sf	20.00	23,940		
190	102110 TOILET COMPARTMENTS						
191							
192	<u>Phenolic toilet partitions</u>						
193	ADA	18	ea	1,800.00	32,400		
194	Standard	20	ea	1,400.00	28,000		
195	Urinal screens	5	ea	650.00	3,250		
196	Miscellaneous support at toilet partitions	43	loc	500.00	21,500		
197							



Feasibility Study Estimate

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>RENOVATION</b>								
198	102800 TOILET ACCESSORIES							
199	Gang bathrooms	19	rms	2,500.00	47,500			
200	Individual bathrooms	7	rms	600.00	4,200			
201	Janitor's closet	2	rms	300.00	600			
202								
203	104400 FIRE PROTECTION SPECIALTIES							
204	Fire extinguisher cabinets	11	ea	350.00	3,850			
205								
206	105000 LOCKERS							
207	Lockers at corridor, single tier	378	ea	200.00	75,600			
208	Locker room lockers double tier	104	ope	180.00	18,720			
209	SUBTOTAL					632,654		
210								
211	<b>TOTAL - INTERIOR CONSTRUCTION</b>							<b>\$1,570,861</b>
212								
213								
214	<b>C20 STAIRCASES</b>							
215								
216	<b>C2010 STAIR CONSTRUCTION</b>							
217								
218	055000 MISCELLANEOUS METALS							
219	Replace guardrails at library ramp	56	lf	220.00	12,320			
220	Replace handrails at library ramp	24	lf	120.00	2,880			
221	Replace handrails at egress stairs	336	lf	120.00	40,320			
222	Replace guardrails at egress stairs	174	lf	220.00	38,280			
223	Weld misc. metal plate to edge of stair stringer	174	lf	80.00	13,920			
224	Handrails at corridor to auditorium stairs	15	lf	120.00	1,800			
225	Handrails at stage steps	10	lf	120.00	1,200			
226	SUBTOTAL					110,720		
227								
228	<b>C2020 STAIR FINISHES</b>							
229								
230	090005 RESILIENT FLOORS							
231	Rubber treads & risers at egress stairs	1,320	lfr	22.00	29,040			
232	Rubber treads & risers at auditorium steps	28	lfr	22.00	616			
233	VCT at stair landings	1,000	sf	8.00	8,000			
234								
235	090007 PAINTING							
236	Paint to egress staircases	4	flt	2,000.00	8,000			
237	SUBTOTAL					45,656		
238								
239	<b>TOTAL - STAIRCASES</b>							<b>\$156,376</b>
240								
241								
242	<b>C30 INTERIOR FINISHES</b>							
243								
244	<b>C3010 WALL FINISHES</b>							
245								
246	042000 MASONRY							
247	Clean exposed brick	540	sf	10.00	5,400			
248								
249	064020 INTERIOR ARCHITECTURAL WOODWORK							
250	Refinish maple wood wainscot at library	844	sf	25.00	21,100			
251	Refinish wood wall at vestibule	230	sf	25.00	5,750			



Feasibility Study Estimate

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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**RENOVATION**

252							
253	090002	TILE					
254		Full height ceramic tile at bathroom wet walls	2,790	sf	22.00	61,380	
255	098413	SOUND ABSORBING PANELS					
256		Acoustic wall panels at auditorium 8x12	2	loc	2,880.00	5,760	
258							
259	090007	PAINTING					
260		Clean exposed brick wall	550	sf	5.00	2,750	
261		Paint existing walls	67,330	sf	1.00	67,330	
262		Paint to new GWB	27,783	sf	0.80	22,226	
263		Paint to new CMU	5,960	sf	1.25	7,450	
264		SUBTOTAL					199,146
265							
266	<b>C3020</b>	<b>FLOOR FINISHES</b>					
267							
268	033000	CONCRETE					
269		Painted concrete floor at boiler room	2,100	sf	2.50	5,250	
270							
271	064020	WOOD FLOORING					
272		Refinish wood flooring at gym	3,000	sf	7.00	21,000	
273							
274	090002	Tile					
275		Ceramic tile at bathrooms	2,810	sf	23.00	64,630	
276		Tile base	955	lf	20.00	19,100	
277							
278	090005	RESILIENT FLOORS					
279		Linoleum tile	9,938	sf	8.00	79,504	
280		Linoleum tile at classroom	23,440	sf	8.00	187,520	
281		VCT	48,045	sf	5.00	240,225	
282		Rubber flooring at ramps	405	sf	12.00	4,860	
283		Vinyl Base	13,822	lf	2.50	34,555	
284							
285	094000	TERRAZZO FLOORING					
286		Terrazzo tile at vestibule	440	sf	12.00	5,280	
287							
288	096810	CARPETING					
289		Carpet tile at library, music and offices	5,098	sf	5.00	25,490	
290		Carpet tile at classrooms	6,832	sf	5.00	34,160	
291		Broadloom carpet at Auditorium	2,373	sf	5.33	12,648	
292		SUBTOTAL					734,222
293							
294	<b>C3030</b>	<b>CEILING FINISHES</b>					
295							
296	090003	ACOUSTICAL TILE					
297		ACT ceilings; 2' x 2'	125	sf	5.00	625	
298		ACT ceilings; 2' x 4'	91,056	sf	4.50	409,752	
299							
300	092900	GYPSUM BOARD ASSEMBLIES					
301		GWB ceiling, 1 hr rated at stairs	2,080	sf	18.00	37,440	
302		GWB ceiling, moisture resistant	1,560	sf	16.00	24,960	
303							
304	090007	PAINTING					



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
<b>RENOVATION</b>							
305	Paint to GWB ceilings	3,640	sf	1.25	4,550		
306	Paint to exposed at gym	3,000	sf	2.50	7,500		
307	Paint to exposed tectum and bar joist at OT/PT	1,810	sf	3.00	5,430		
308	Paint to tectum and steel deck at cafeteria	4,850	sf	3.00	14,550		
309	SUBTOTAL					504,807	
<b>TOTAL - INTERIOR FINISHES</b>							<b>1,438,175</b>
<b>D10 CONVEYING SYSTEMS</b>							
<b>D1010 ELEVATOR</b>							
142000	ELEVATOR						
319	Wheelchair lift at Auditorium, one stop	1	ea	28,000.00	28,000		
320	SUBTOTAL					28,000	
<b>TOTAL - CONVEYING SYSTEMS</b>							<b>\$28,000</b>
<b>D13 SPECIAL CONSTRUCTION</b>							
<b>D1313 SPECIAL CONSTRUCTION</b>							
No work in this section							
SUBTOTAL							
<b>TOTAL - SPECIAL CONSTRUCTION</b>							
<b>D20 PLUMBING</b>							
<b>D20 PLUMBING, GENERALLY</b>							
335	Modify existing / add new fixtures as per marked up plans	95	ea	5,000.00	475,000		
336	Modify existing / add new floor drains; allow	15	ea	2,500.00	37,500		
337	Allowance to renovate plumbing scope to / in kitchen	1	ls	30,000.00	30,000		
338	Allowance for misc. plumbing scope	116,090	sf	1.50	174,135		
339	Plumbing sub-contract general conditions / requirements	1	ls	35,831.75	35,832		
340	SUBTOTAL					752,467	
<b>TOTAL - PLUMBING</b>							<b>\$752,467</b>
<b>D30 HVAC</b>							
<b>D30 HVAC, GENERALLY</b>							
<u>Replace unit ventilators</u>							
349	Allowance to replace all unit ventilators c/w adjusting pipework as required	116,090	sf	1.30	150,917		
<u>Replace existing boilers</u>							
351	Allowance for new condensing boilers	13,712	MBH	25.00	342,800		
352	Allowance for controls to new boilers	1	ls	20,000.00	20,000		
353	Allowance to modify pipework / hook-up new boilers	1	ls	25,000.00	25,000		



Feasibility Study Estimate

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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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**RENOVATION**

354	<u>Replace expansion tanks / air separators</u>						
355	Allowance to replace HHW expansion tank & air separator; incl. modification of pipework as required	1	ls	20,000.00	20,000		
356	<u>Replace back-up and older pumps / provide VFD's on back-ups pumps</u>						
357	Allowance to replace back-up and older pumps. Provide VFD's on back-up pumps. Modify pipework as required; assumed to only impact pump P-6	1	ls	12,500.00	12,500		
358	<u>Replace pneumatic controls with DDC controls</u>						
359	Allowance to replace existing pneumatic controls with DDC controls	116,090	sf	4.00	464,360		
360	<u>Replace terminal units</u>						
361	Allowance to replace terminal units incl. modifying pipework as required	116,090	sf	0.60	69,654		
362	<u>Replace fans</u>						
363	Allowance to replace existing rooftop fans	116,090	sf	0.60	69,654		
364	<u>Replace H&amp;V AHU's to gym, auditorium and</u>						
365	Allowance to replace gym, auditorium & corridor H&V AHU's	116,090	sf	1.90	220,571		
366	<u>Provide new compensating kitchen exhaust hood and dedicated MAU</u>						
367	Allowance for new exhaust hood & gas fired MAU c/w gas pipework, ductwork, etc.	1	ls	100,000.00	100,000		
368	<u>Clean / seal ductwork</u>						
369	Allowance to clean / seal any ductwork that is remaining in place	116,090	sf	0.20	23,218		
370	<u>Provide ventilation to corridors &amp; areas with inadequate ventilation</u>						
371	Allowance to provide ventilation to corridors and other areas as required	116,090	sf	1.00	116,090		
372	<u>Re-route fin tube radiation pipework</u>						
373	Allowance to move underslab pipework to be above ceiling with drops in concealed chases	116,090	sf	1.25	NIC		
374	<u>Cooling to Admin</u>						
375	Allowance to provide cooling to main admin area	1	ls	65,000.00	65,000		
376	<u>Miscellaneous</u>						
377	Allowance for selective demolition	116,090	sf	1.00	116,090		
378	Allowance for misc. HVAC such as reworking of lockers rooms, installation of ceiling, etc.	116,090	sf	2.00	232,180		
379	HVAC sub-contract general conditions / requirements	1	ls	84,988.20	84,988		
380	SUBTOTAL					2,133,022	

**TOTAL - HVAC**

**\$2,133,022**

**D40 FIRE PROTECTION**

**D40 FIRE PROTECTION, GENERALLY**

388	Allowance for modifying existing / adding new sprinklers as required	116,090	sf	2.00	232,180		
389	SUBTOTAL					232,180	

**TOTAL - FIRE PROTECTION**

**\$232,180**

**D50 ELECTRICAL**



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GFA 116,090

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
<b>RENOVATION</b>							
396	<b>D5010 SERVICE &amp; DISTRIBUTION</b>						
397	<b>Gear &amp; Distribution</b>						
398	Allowance to replace switchgear, panelboards, feeders, etc.	116,090	sf	5.40	626,886		
399	<u>Equipment Feeds &amp; Connections</u>						
400	<u>Replace unit ventilators</u>						
401	Allowance to disconnect old unit and reconnect new unit incl. amending wiring as required	116,090	sf	0.25	29,023		
402	<u>Replace existing boilers</u>						
403	Allowance for modifying existing / providing new feeders to boilers	1	ls	20,000.00	20,000		
404	<u>Replace back-up and older pumps / provide VFD's on back-ups pumps</u>						
405	Allowance for modifying existing / providing new feeders to pump	1	ls	5,000.00	5,000		
406	<u>Replace pneumatic controls with DDC controls</u>						
407	Allowance for electrical scope associated with DDC controls	116,090	sf	0.45	52,241		
408	<u>Replace terminal units</u>						
409	Allowance for modifying existing / providing new feeders as required	116,090	sf	0.20	23,218		
410	<u>Replace fans</u>						
411	Allowance for modifying existing / providing new feeders as required	116,090	sf	0.20	23,218		
412	<u>Replace H&amp;V AHU's to gym, auditorium and corridors</u>						
413	Allowance for modifying existing / providing new feeders as required	1	ls	20,000.00	20,000		
414	<u>Provide new compensating kitchen exhaust hood and dedicated MAU</u>						
415	Allowance for electrical scope	1	ls	25,000.00	25,000		
416	<u>Provide ventilation to corridors &amp; areas with inadequate ventilation</u>						
417	Allowance for electrical scope	116,090	sf	0.50	58,045		
418	<u>Cooling to Admin</u>						
419	Allowance for electrical scope	1	ls	10,000.00	10,000		
420	Allowance for misc. equipment feeds & connections	116,090	sf	1.00	116,090		
421	SUBTOTAL					1,008,721	
422							
423	<b>D5020 LIGHTING &amp; POWER</b>						
424	Allowance for new lighting	116,090	sf	6.75	783,608		
425	Allowance for new site lighting	1	ls	75,000.00	75,000		
426	Allowance for lighting controls	116,090	sf	1.80	208,962		
427	Allowance for branch power	116,090	sf	2.25	261,203		
428	SUBTOTAL					1,328,773	
429							
430	<b>D5030 COMMUNICATION &amp; SECURITY SYSTEMS</b>						
431	Allowance for addressable fire detection & alarm system	116,090	sf	2.25	261,203		
432	Allowance for DAS	116,090	sf	0.45	52,241		
433	Allowance for wireless master clock system	116,090	sf	0.15	17,414		
434	Allowance for new voice & data incl IP based intercom system	116,090	sf	3.60	417,924		
435	Allowance for access control / security system	116,090	sf	1.60	185,744		
436	Allowance for new AV system	116,090	sf	2.50	290,225		



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GFA 116,090

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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**RENOVATION**

437 SUBTOTAL 1,224,751

438  
439 **D5040 OTHER ELECTRICAL SYSTEMS**

440	Allowance for selective demolition	116,090	sf	1.00	116,090		
441	Grounding & bonding	116,090	sf	0.65	75,459		
442	Replace / repair lightning protection as required	116,090	sf	0.15	17,414		
443	Temporary power & lighting	116,090	sf	0.75	87,068		
444	Electrical general conditions & requirements	1	ls	115,748.28	115,748		

445 SUBTOTAL 411,779

<b>TOTAL - ELECTRICAL</b>						<b>\$3,974,024</b>
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450 **E10 EQUIPMENT**

451 **E10 EQUIPMENT, GENERALLY**

452  
453 111000 EQUIPMENT

455	11400 Kiln	1	ls	3,000.00	3,000		
456	11400 Spray booth at art storage	1	ea	15,000.00	15,000		

457  
458 111620 THEATRICAL EQUIPMENT

459	Theatrical Equipment Stage curtains and rigging	1	ls	180,000.00	180,000		
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460  
461 116600 ATHLETIC EQUIPMENT

462	Gym wall pads	900	sf	12.00	10,800		
463	Basketball backstops	6	ea	9,800.00	58,800		
464	Retractable bleachers	360	seats	140.00	50,400		

465 SUBTOTAL 318,000

<b>TOTAL - EQUIPMENT</b>						<b>\$318,000</b>
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469  
470 **E20 FURNISHINGS**

471  
472 **E2010 FIXED FURNISHINGS**

473	Walk off carpet	150	sf	12.00	1,800		
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474  
475 123553 CASEWORK

476	Arts base cabinet/counter	14	lf	450.00	6,300		
477	Arts island w/ base cabinet 5' wide	7	lf	600.00	4,200		
478	Crafts island w/ base cabinet 5' wide	23	lf	600.00	13,800		
479	Base cabinet/counter	479	lf	350.00	167,650		
480	Perimeter base cabinets and counter at science classes	116	lf	425.00	49,300		
481	Goggle cabinet	1	loc	220.00	220		
482	Science student tables 6x6	8	ea	2,500.00	20,000		
483	Tall cabinets at science	16	lf	600.00	9,600		
484	GS 36"	3	ea	1,900.00	5,700		
485	TW 36"	14	ea	2,200.00	30,800		
486	Wall cabinets	9	lf	290.00	2,610		
487	Shelving at storage rooms	45	lf	150.00	6,750		



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CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>RENOVATION</b>								
488	Wood shelving at classroom	93	lf	240.00	22,320			
489	Rack at storage 9'-0"	1	loc	2,400.00	2,400			
490	IT Rack	1	loc	800.00	800			
491								
492	122100 WINDOW TREATMENT							
493	Mecho shades at exterior windows	5,785	sf	8.00	46,280			
494								
495	126000 THEATRICAL SEATING							
496	New Auditorium Seating	457	ea	350.00	159,950			
497	SUBTOTAL					550,480		
498								
499	<b>E2020 MOVABLE FURNISHINGS</b>							
500	All movable furnishings to be provided and installed by owner							
501	SUBTOTAL						NIC	
502								
503	<b>TOTAL - FURNISHINGS</b>							<b>\$550,480</b>

**F20 SELECTIVE BUILDING DEMOLITION**

507							
508	<b>F2010 BUILDING ELEMENTS DEMOLITION</b>						
509	Create opening in interior partition for borrowed lite	3	ea	675.00	2,025		
510	Demolish base cabinet/counter	535	lf	10.00	5,350		
511	Demolish ceiling finish	104,481	sf	2.00	208,962		
512	Demolish floor base	172	lf	1.00	172		
513	Demolish floor finishes	104,481	sf	1.75	182,842		
514	Demolish science casework	7	lf	10.00	70		
515	Demolish shelving at classroom	93	lf	10.00	930		
516	Demolish wing wall at classroom entrance	220	sf	5.00	1,100		
517	Demolish interior partition	1,660	sf	4.00	6,640		
518	Remove folding partitions	2,900	sf	2.00	5,800		
519	Remove and dispose doors and frames - double	38	pr	100.00	3,800		
520	Remove and dispose doors and frames - single	148	ea	75.00	11,100		
521	Remove desk at health	15	lf	10.00	150		
522	Remove desk at library	12	lf	10.00	120		
523	Remove guardrail at areaway	85	lf	20.00	1,700		
524	Remove guardrails at library stairs	56	lf	10.00	560		
525	Remove handrails at library stairs	24	lf	10.00	240		
526	Remove gym bleachers	360	seats	15.00	5,400		
527	Remove kiln	1	ea	500.00	500		
528	Remove basketball backstop	6	ea	900.00	5,400		
529	Remove walk off mat	151	sf	5.00	755		
530	Remove gym wall pads	900	sf	5.00	4,500		
531	Remove observation window	16	sf	10.00	160		
532	Remove interior storefront	119	sf	10.00	1,190		
533	Remove interior storefront doors -single	2	ea	125.00	250		
534	Remove projector - return to owner	32	ea	75.00	2,400		
535	Remove rigging	1	ea	2,000.00	2,000		
536	Remove smart board - return to owner	32	ea	50.00	1,600		
537	Remove toilet accessories single	2	ea	250.00	500		
538	Remove TV	24	ea	50.00	1,200		



Feasibility Study Estimate

GFA 116,090

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>RENOVATION</b>								
539	Remove exterior door and frame - single	7	ea	150.00	1,050			
540	Remove exterior door and frame - double	11	pr	175.00	1,925			
541	Remove existing acoustic wall panels at auditorium	2	loc	50.00	100			
542	Remove existing window shades	5,785	sf	2.00	11,570			
543	Remove existing auditorium seating	463	ea	40.00	18,520			
544	MEP demolition; cut and cap in trades	116,090	gsf	1.00	116,090			
545	Miscellaneous demolition and dust control	116,090	gsf	1.50	174,135			
546	SUBTOTAL					780,806		
547								
548	<b>F2020 HAZARDOUS COMPONENTS ABATEMENT</b>							
549	See main summary for HazMat allowance				See Summary			
550	SUBTOTAL							
551	<b>TOTAL - SELECTIVE BUILDING DEMOLITION</b>							<b>\$780,806</b>
552								

**INDIRECT EXPENSES****A/E Services**

A/E Feasibility Study		\$530,000
A/E Full Services/[1]	ECC X 9.0%	\$2,612,791
Site Survey		incl
Geotechnical Investigation & Design (structural & environmental)		\$20,000
Site Environmental Remediation Design & Bid Documents		\$20,000
Site Environmental Remediation Construction Monitoring		\$20,000
Hazardous Materials Investigation, Design & Bid Documents		\$133,600
Hazardous Materials and Air Quality Construction Monitoring		w/ above
Permit Submissions & Hearings		\$10,000
Furniture, Equip, & Ec	ECC X 8.0%	\$102,778
Progress Printing & Plotting		\$20,000
Bid Set Printing		\$20,000

Subtotal A/E services 

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**Other Project Expenses**

Project Manager/[2]	ECC X 3.5%	\$1,016,085
Clerk of Works	\$10,000 X 26 months	\$260,000
Construction Testing		\$75,000
Commissioning		\$0
Building Permits		\$25,000
Utility Company Service Charges		\$45,000
Moving, storage & relocation expenses		\$50,000
Bond Costs		\$20,000
Insurance, Legal & Accounting Expenses		\$25,000
Owners Contingency	3%	\$870,930

Subtotal Other Expenses 

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**TOTAL INDIRECT EXPENSES**

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**\$5,876,184**

[1] Includes architectural, interior, food service, lighting, acoustical, and landscape design; structural, mechanical, electrical, plumbing, fire protection, civil and traffic engineering; and cost estimating.

[2] Pre-construction phase includes coordinating Owner's activities, inventory of existing food service equipment, FFE & ed technology to be reused and cost estimates. Construction phase includes coordinating Owner's activities, supervise clerk of works, coordinate Contractors' activities, coordinate food service, FFE and Ed Tech installations, and coordinate Owner occupancy.



## **Feasibility Study Estimate**

# **Wixon Middle School Renovations**

Dennis, MA

### **PM&C LLC**

20 Downer Avenue, Suite 1c  
Hingham, MA 02043

(T) 781-740-8007

(F) 781-740-1012

Prepared for:

**Perkins Eastman**

August 30, 2017



**Wixon Middle School**  
Renovations  
Dennis, MA

30-Aug-17

**Feasibility Study Estimate**

**MAIN CONSTRUCTION COST SUMMARY**

	<b>Gross Floor Area</b>	<b>\$/sf</b>	<b>Estimated Construction Cost</b>
<b>RENOVATIONS</b>			
RENOVATIONS TO EXISTING MIDDLE SCHOOL	116,090	\$128.25	\$14,888,631
GENERAL REQUIREMENTS			\$595,545
REMOVE HAZARDOUS MATERIALS			TBD
<b>SUB-TOTAL</b>	<b>116,090</b>	<b>\$133.38</b>	<b>\$15,484,176</b>
ESCALATION TO START DATE MARCH 2019 - (assumed 4% PA)	6.33%		\$980,148
DESIGN AND PRICING CONTINGENCY	15%		\$2,322,626
<b>SUB-TOTAL</b>	<b>116,090</b>	<b>\$161.83</b>	<b>\$18,786,950</b>
GENERAL CONDITIONS	12.00%		\$2,254,434
PHASING LOGISTICS	5.00%		\$939,348
BONDS	1.15%		\$216,050
INSURANCE	2.00%		\$375,739
PERMIT			Waived
CM FEE	5.0%		\$1,128,626
CM CONTINGENCY	3.5%		\$657,543
<b>TOTAL OF ALL CONSTRUCTION</b>	<b>116,090</b>	<b>\$209.83</b>	<b>\$24,358,690</b>



## **Wixon Middle School**

Renovations

Dennis, MA

30-Aug-17

### **Feasibility Study Estimate**

This cost estimate was produced from Feasibility Design drawings and narratives, received August 16, 2017, prepared by Perkins and Eastman and their design team.

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

Bidding conditions are expected to be public bidding under 149a of the Massachusetts General Laws to pre-qualified construction managers, and pre-qualified sub-contractors, open specifications for materials and manufacturers.

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

### **ITEMS NOT CONSIDERED IN THIS ESTIMATE**

Items not included in this estimate are:

- All professional fees and insurance
- Building Permit costs
- Land acquisition, feasibility, and financing costs
- All Furnishings, Fixtures and Equipment
- Items identified in the design as Not In Contract (NIC)
- Items identified in the design as by others
- Owner supplied and/or installed items (e.g. draperies, furniture and equipment)
- Rock excavation; special foundations (unless indicated by design engineers)
- Utility company back charges, including work required off-site
- Work to City streets and sidewalks, (except as noted in this estimate)



**CONSTRUCTION COST SUMMARY**

<i>BUILDING SYSTEM</i>		SubTotal	TOTAL	\$/SF	%
<b>RENOVATION</b>					
<b>A10 FOUNDATIONS</b>					
A1030	Lowest Floor Construction	\$74,680	<b>\$74,680</b>	\$0.64	0.5%
<b>B10 SUPERSTRUCTURE</b>					
B1010	Upper Floor Construction	\$7,200	<b>\$7,200</b>	\$0.06	0.0%
<b>B20 EXTERIOR CLOSURE</b>					
B2010	Exterior Walls	\$12,820			
B2020	Windows	\$892,669			
B2030	Exterior Doors	\$137,580	<b>\$1,043,069</b>	\$8.99	7.0%
<b>B30 ROOFING</b>					
B3010	Roof Coverings	\$1,829,291			
B3020	Roof Openings	\$0	<b>\$1,829,291</b>	\$15.76	12.3%
<b>C10 INTERIOR CONSTRUCTION</b>					
C1010	Partitions	\$477,217			
C1020	Interior Doors	\$460,990			
C1030	Specialties/Millwork	\$632,654	<b>\$1,570,861</b>	\$13.53	10.6%
<b>C20 STAIRCASES</b>					
C2010	Stair Construction	\$110,720			
C2020	Stair Finishes	\$45,656	<b>\$156,376</b>	\$1.35	1.1%
<b>C30 INTERIOR FINISHES</b>					
C3010	Wall Finishes	\$199,146			
C3020	Floor Finishes	\$734,222			
C3030	Ceiling Finishes	\$504,807	<b>\$1,438,175</b>	\$12.39	9.7%
<b>D10 CONVEYING SYSTEMS</b>					
D1010	Elevator	\$28,000	<b>\$28,000</b>	\$0.24	0.2%
<b>D20 PLUMBING</b>					
D20	Plumbing	\$752,467	<b>\$752,467</b>	\$6.48	5.1%
<b>D30 HVAC</b>					
D30	HVAC	\$2,133,022	<b>\$2,133,022</b>	\$18.37	14.3%
<b>D40 FIRE PROTECTION</b>					
D40	Fire Protection	\$232,180	<b>\$232,180</b>	\$2.00	1.6%
<b>D50 ELECTRICAL</b>					
D5010	Service & Distribution	\$1,008,721			
D5020	Lighting & Power	\$1,328,773			



<b>CONSTRUCTION COST SUMMARY</b>					
<i>BUILDING SYSTEM</i>		SubTotal	TOTAL	\$/SF	%
<b>RENOVATION</b>					
D5030	Communication & Security Systems	\$1,224,751			
D5040	Other Electrical Systems	\$411,779	<b>\$3,974,024</b>	\$34.23	26.7%
<b>E10 EQUIPMENT</b>					
E10	Equipment	\$318,000	<b>\$318,000</b>	\$2.74	2.1%
<b>E20 FURNISHINGS</b>					
E2010	Fixed Furnishings	\$550,480			
E2020	Movable Furnishings	NIC	<b>\$550,480</b>	\$4.74	3.7%
<b>F20 HAZMAT REMOVALS</b>					
F2010	Building Elements Demolition	\$780,806			
F2020	Hazardous Components Abatement	\$0	<b>\$780,806</b>	\$6.73	5.2%
<b>TOTAL DIRECT COST (Trade Costs)</b>			<b>\$14,888,631</b>	\$128.25	100.0%



Feasibility Study Estimate

GFA 116,090

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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RENOVATION

**GROSS FLOOR AREA CALCULATION**

Ground Floor	36,340
First Floor	79,750

<b>TOTAL GROSS FLOOR AREA (GFA)</b>	<b>116,090 sf</b>
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**A10 FOUNDATIONS**

**A1030 LOWEST FLOOR CONSTRUCTION**

**033000 CONCRETE**

Allowance to create depression in slab for wheelchair lifts	25	sf	80.00	2,000	
General slab patching	36,340	sf	2.00	72,680	
SUBTOTAL					74,680

<b>TOTAL - FOUNDATIONS</b>	<b>\$74,680</b>
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**B10 SUPERSTRUCTURE**

**B1010 FLOOR CONSTRUCTION**

**033000 CONCRETE**

CIP curb at edge of flat area in auditorium	15	lf	80.00	1,200	
4" CIP curb at library ramp	75	lf	80.00	6,000	
SUBTOTAL					7,200

<b>TOTAL - SUPERSTRUCTURE</b>	<b>\$7,200</b>
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**B20 EXTERIOR CLOSURE**

**B2010 EXTERIOR WALLS**

**042000 MASONRY**

Clean brick at base of wall	200	sf	10.00	2,000	
Clean concrete façade	20	sf	10.00	200	
Create opening in brick for new louvers	35	sf	20.00	700	
Repair damaged brick at north and south elevation, approx. 2x2 per loc	2	loc	600.00	1,200	

**070001 WATERPROOFING, DAMPPROOFING AND CAULKING**

Strip and replace sealants at brick control joint	10	lf	12.00	120	
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**090007 PAINTING**

Scrape, prep and paint exposed steel structure at entrance canopy	400	sf	20.00	8,000	
Scrape, prep and paint exposed steel lintel at recessed entry ways	40	lf	15.00	600	
SUBTOTAL					12,820

**B2020 WINDOWS**



Feasibility Study Estimate

GFA

116,090

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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**RENOVATION**

52							
53	061000	<i>ROUGH CARPENTRY</i>					
54		Allowance for wood blocking at openings	3,232	lf	8.00	25,856	
55							
56	070001	<i>WATERPROOFING, DAMPPROOFING AND CAULKING</i>					
57		Backer rod & double sealant at windows, metal panels and kalwall	3,232	lf	9.00	29,088	
58							
59	080001	<i>METAL WINDOWS</i>					
60		Remove and replace all existing storefront	245	sf	100.00	24,500	
61		Remove and replace all existing windows	5,785	sf	95.00	549,575	
62		Remove and replace all existing metal panel within window frames	2,590	sf	85.00	220,150	
63		Remove and replace all existing kalwall	410	sf	70.00	28,700	
64							
65	089000	<i>LOUVERS</i>					
66		Remove and replace existing louvers	120	sf	100.00	12,000	
67		New louvers	35	sf	80.00	2,800	
68							
69	101400	<i>SIGNAGE</i>					
70		No items in this section					
71		SUBTOTAL				892,669	
72							
73	<b>B2030</b>	<b>EXTERIOR DOORS</b>					
74							
75	061000	<i>ROUGH CARPENTRY</i>					
76		Wood blocking at replacement doors	339	lf	11.00	3,729	
77							
78	079200	<i>JOINT SEALANTS</i>					
79		Backer rod & double sealant at replacement doors	339	lf	9.00	3,051	
80							
81	081110	<i>HOLLOW METAL</i>					
82		Glazed entrance door, frame and hardware; single	7	ea	4,900.00	34,300	
83		Glazed entrance doors including hardware at replaced storefront; double	11	pr	8,500.00	93,500	
84		Add auto opener at exterior single door	1	ea	3,000.00	3,000	
85		SUBTOTAL				137,580	
86							
87		<b>TOTAL - EXTERIOR CLOSURE</b>					<b>\$1,043,069</b>

**B30 ROOFING**

**B3010 ROOF COVERINGS**

94	070002	<i>ROOFING AND FLASHING</i>					
95		<i>Sloped roofing</i>					
96		Demo and remove existing membrane roof	83,878	sf	3.00	251,634	
97		PVC roofing system, 60 mil on 1/2" protection board, 6" rigid insulation on vapor barrier	83,878	sf	17.00	1,425,926	
98		Additional roof cricket insulation	250	sf	2.00	500	
98		Remove and replace rough blocking	1,988	lf	12.00	23,856	
99		Pre-fabricated roof edge and 12" brake metal fascia panel w/ continuous cleat	1,988	lf	30.00	59,640	



Feasibility Study Estimate

GFA 116,090

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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**RENOVATION**

100	<u>Miscellaneous Roofing</u>							
101	Remove and replace gutters	845	lf	40.00	33,800			
102	Remove and replace downspouts	400	lf	35.00	14,000			
103	Remove and replace tectum panels at roof overhang soffit	266	sf	35.00	9,310			
103	Roof to wall flashing	485	lf	10.00	4,850			
104	Expansion joint flashing	90	lf	10.00	900			
104	Flashing at fresh air intake	5	ea	75.00	375			
104	Flashing at vent pipe	31	ea	75.00	2,325			
105	Flashing at exhaust fan	29	ea	75.00	2,175			
106	SUBTOTAL					1,829,291		
108	<b>TOTAL - ROOFING</b>							<b>\$1,829,291</b>

**C10 INTERIOR CONSTRUCTION**

**C1010 PARTITIONS**

114	<i>040001 MASONRY</i>						
116	6" CMU	312	sf	20.00	6,240		
117	8" CMU	2,448	sf	23.00	56,304		
118	8" CMU at classroom entrance wing wall	220	sf	28.00	6,160		
120	<i>050001 MISCELLANEOUS METALS</i>						
121	Seismic clips	62	ea	140.00	8,680		
122	Miscellaneous metals to masonry	2,980	sf	1.50	4,470		
124	<i>061000 ROUGH CARPENTRY</i>						
125	Rough blocking	1,166	lf	6.00	6,996		
127	<i>070001 WATERPROOFING, DAMPPROOFING AND CAULKING</i>						
128	Sealants & caulking at partitions	1,166	lf	4.00	4,664		
130	<i>080002 GLASS AND GLAZING</i>						
131	Borrowed lights	54	sf	65.00	3,510		
132	Replace interior storefront	150	sf	90.00	13,500		
134	<i>092900 GYPSUM BOARD ASSEMBLIES</i>						
135	Plumbing chase wall	189	sf	15.00	2,835		
136	Standard	13,797	sf	14.00	193,158		
137	Patch wall after removal of observation window	16	sf	25.00	400		
139	<i>102200 OPERABLE PARTITIONS</i>						
140	Replace operable partitions	2,620	sf	65.00	170,300		
141	SUBTOTAL					477,217	
143	<b>C1020 INTERIOR DOORS</b>						
146	<i>061000 ROUGH CARPENTRY</i>						
147	Wood blocking at openings	3,350	lf	4.00	13,400		



Feasibility Study Estimate

GFA 116,090

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
<b>RENOVATION</b>							
149	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
150	Backer rod & double sealant	3,350	lf	6.00	20,100		
151	081110 DOORS AND FRAMES						
152							
153	Flush wood doors, frames and hardware at classrooms single	36	ea	1,640.00	59,040		
154	Flush wood door, frame and hardware - single	112	ea	1,640.00	183,680		
155	Flush wood door, frame and hardware- double	39	pr	3,280.00	127,920		
156	Relocate existing single door and frame	1	ea	600.00	600		
157	Relocate existing double door and frame	1	pr	1,100.00	1,100		
158	Sliding glass door, frame and hardware - single	1	ea	3,600.00	3,600		
159	Change swing of single door to opposite side	1	ea	150.00	150		
160	Glazed aluminum storefront door, frame and hardware, double	2	pr	8,000.00	16,000		
161	083110 ACCESS DOORS AND FRAMES						
162							
163	Access doors	1	ls	1,500.00	1,500		
164	090007 PAINTING						
165							
166	Finish new doors and HM frames	226	ea	150.00	33,900		
167	SUBTOTAL					460,990	
168							
169	<b>C1030 SPECIALTIES / MILLWORK</b>						
170							
171	055000 MISCELLANEOUS METALS						
172	Replace guardrail at areaway	85	lf	220.00	18,700		
173	Miscellaneous metals throughout building	116,090	sf	0.50	58,045		
174	064020 INTERIOR ARCHITECTURAL WOODWORK						
175							
176	New desk at health class	15	lf	900.00	13,500		
177	New desk at library	12	lf	900.00	10,800		
178	Desk at admin	30	lf	900.00	27,000		
179	Built in computer desk at library	28	lf	600.00	16,800		
180	Serving counter at kitchen	55	lf	500.00	27,500		
181	Maple bench at locker room	35	lf	90.00	3,150		
182	Refinish display case	1	loc	500.00	500		
183	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
184							
185	Miscellaneous sealants throughout building	116,090	sf	1.25	145,113		
186	101100 VISUAL DISPLAY SURFACES						
187							
188	Markerboard	2,363	sf	22.00	51,986		
189	Tackboard	1,197	sf	20.00	23,940		
190	102110 TOILET COMPARTMENTS						
191							
192	<u>Phenolic toilet partitions</u>						
193	ADA	18	ea	1,800.00	32,400		
194	Standard	20	ea	1,400.00	28,000		
195	Urinal screens	5	ea	650.00	3,250		
196	Miscellaneous support at toilet partitions	43	loc	500.00	21,500		
197							



Feasibility Study Estimate

GFA 116,090

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>RENOVATION</b>								
198	102800 TOILET ACCESSORIES							
199	Gang bathrooms	19	rms	2,500.00	47,500			
200	Individual bathrooms	7	rms	600.00	4,200			
201	Janitor's closet	2	rms	300.00	600			
202								
203	104400 FIRE PROTECTION SPECIALTIES							
204	Fire extinguisher cabinets	11	ea	350.00	3,850			
205								
206	105000 LOCKERS							
207	Lockers at corridor, single tier	378	ea	200.00	75,600			
208	Locker room lockers double tier	104	ope	180.00	18,720			
209	SUBTOTAL					632,654		
210								
211	<b>TOTAL - INTERIOR CONSTRUCTION</b>							<b>\$1,570,861</b>
212								
213								
214	<b>C20 STAIRCASES</b>							
215								
216	<b>C2010 STAIR CONSTRUCTION</b>							
217								
218	055000 MISCELLANEOUS METALS							
219	Replace guardrails at library ramp	56	lf	220.00	12,320			
220	Replace handrails at library ramp	24	lf	120.00	2,880			
221	Replace handrails at egress stairs	336	lf	120.00	40,320			
222	Replace guardrails at egress stairs	174	lf	220.00	38,280			
223	Weld misc. metal plate to edge of stair stringer	174	lf	80.00	13,920			
224	Handrails at corridor to auditorium stairs	15	lf	120.00	1,800			
225	Handrails at stage steps	10	lf	120.00	1,200			
226	SUBTOTAL					110,720		
227								
228	<b>C2020 STAIR FINISHES</b>							
229								
230	090005 RESILIENT FLOORS							
231	Rubber treads & risers at egress stairs	1,320	lfr	22.00	29,040			
232	Rubber treads & risers at auditorium steps	28	lfr	22.00	616			
233	VCT at stair landings	1,000	sf	8.00	8,000			
234								
235	090007 PAINTING							
236	Paint to egress staircases	4	flt	2,000.00	8,000			
237	SUBTOTAL					45,656		
238								
239	<b>TOTAL - STAIRCASES</b>							<b>\$156,376</b>
240								
241								
242	<b>C30 INTERIOR FINISHES</b>							
243								
244	<b>C3010 WALL FINISHES</b>							
245								
246	042000 MASONRY							
247	Clean exposed brick	540	sf	10.00	5,400			
248								
249	064020 INTERIOR ARCHITECTURAL WOODWORK							
250	Refinish maple wood wainscot at library	844	sf	25.00	21,100			
251	Refinish wood wall at vestibule	230	sf	25.00	5,750			



Feasibility Study Estimate

GFA

116,090

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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**RENOVATION**

252							
253	090002	TILE					
254		Full height ceramic tile at bathroom wet walls	2,790	sf	22.00	61,380	
255	098413	SOUND ABSORBING PANELS					
256		Acoustic wall panels at auditorium 8x12	2	loc	2,880.00	5,760	
258							
259	090007	PAINTING					
260		Clean exposed brick wall	550	sf	5.00	2,750	
261		Paint existing walls	67,330	sf	1.00	67,330	
262		Paint to new GWB	27,783	sf	0.80	22,226	
263		Paint to new CMU	5,960	sf	1.25	7,450	
264		SUBTOTAL					199,146
265							
266	<b>C3020</b>	<b>FLOOR FINISHES</b>					
267							
268	033000	CONCRETE					
269		Painted concrete floor at boiler room	2,100	sf	2.50	5,250	
270							
271	064020	WOOD FLOORING					
272		Refinish wood flooring at gym	3,000	sf	7.00	21,000	
273							
274	090002	Tile					
275		Ceramic tile at bathrooms	2,810	sf	23.00	64,630	
276		Tile base	955	lf	20.00	19,100	
277							
278	090005	RESILIENT FLOORS					
279		Linoleum tile	9,938	sf	8.00	79,504	
280		Linoleum tile at classroom	23,440	sf	8.00	187,520	
281		VCT	48,045	sf	5.00	240,225	
282		Rubber flooring at ramps	405	sf	12.00	4,860	
283		Vinyl Base	13,822	lf	2.50	34,555	
284							
285	094000	TERRAZZO FLOORING					
286		Terrazzo tile at vestibule	440	sf	12.00	5,280	
287							
288	096810	CARPETING					
289		Carpet tile at library, music and offices	5,098	sf	5.00	25,490	
290		Carpet tile at classrooms	6,832	sf	5.00	34,160	
291		Broadloom carpet at Auditorium	2,373	sf	5.33	12,648	
292		SUBTOTAL					734,222
293							
294	<b>C3030</b>	<b>CEILING FINISHES</b>					
295							
296	090003	ACOUSTICAL TILE					
297		ACT ceilings; 2' x 2'	125	sf	5.00	625	
298		ACT ceilings; 2' x 4'	91,056	sf	4.50	409,752	
299							
300	092900	GYPSUM BOARD ASSEMBLIES					
301		GWB ceiling, 1 hr rated at stairs	2,080	sf	18.00	37,440	
302		GWB ceiling, moisture resistant	1,560	sf	16.00	24,960	
303							
304	090007	PAINTING					



Feasibility Study Estimate

GFA 116,090

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>RENOVATION</b>								
305	Paint to GWB ceilings	3,640	sf	1.25	4,550			
306	Paint to exposed at gym	3,000	sf	2.50	7,500			
307	Paint to exposed tectum and bar joist at OT/PT	1,810	sf	3.00	5,430			
308	Paint to tectum and steel deck at cafeteria	4,850	sf	3.00	14,550			
309	SUBTOTAL					504,807		
310								
311	<b>TOTAL - INTERIOR FINISHES</b>						<b>1,438,175</b>	
312								
313								
314	<b>D10 CONVEYING SYSTEMS</b>							
315								
316	<b>D1010 ELEVATOR</b>							
317								
318	142000 ELEVATOR							
319	Wheelchair lift at Auditorium, one stop	1	ea	28,000.00	28,000			
320	SUBTOTAL					28,000		
321								
322	<b>TOTAL - CONVEYING SYSTEMS</b>						<b>\$28,000</b>	
323								
324	<b>D13 SPECIAL CONSTRUCTION</b>							
325								
326	<b>D1313 SPECIAL CONSTRUCTION</b>							
327	No work in this section							
328	SUBTOTAL							
329								
330	<b>TOTAL - SPECIAL CONSTRUCTION</b>							
331								
332	<b>D20 PLUMBING</b>							
333								
334	<b>D20 PLUMBING, GENERALLY</b>							
335	Modify existing / add new fixtures as per marked up plans	95	ea	5,000.00	475,000			
336	Modify existing / add new floor drains; allow	15	ea	2,500.00	37,500			
337	Allowance to renovate plumbing scope to / in kitchen	1	ls	30,000.00	30,000			
338	Allowance for misc. plumbing scope	116,090	sf	1.50	174,135			
339	Plumbing sub-contract general conditions / requirements	1	ls	35,831.75	35,832			
340	SUBTOTAL					752,467		
341								
342	<b>TOTAL - PLUMBING</b>						<b>\$752,467</b>	
343								
344								
345	<b>D30 HVAC</b>							
346								
347	<b>D30 HVAC, GENERALLY</b>							
348	Replace unit ventilators							
349	Allowance to replace all unit ventilators c/w adjusting pipework as required	116,090	sf	1.30	150,917			
350	Replace existing boilers							
351	Allowance for new condensing boilers	13,712	MBH	25.00	342,800			
352	Allowance for controls to new boilers	1	ls	20,000.00	20,000			
353	Allowance to modify pipework / hook-up new boilers	1	ls	25,000.00	25,000			



Feasibility Study Estimate

GFA 116,090

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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**RENOVATION**

354	<u>Replace expansion tanks / air separators</u>						
355	Allowance to replace HHW expansion tank & air separator; incl. modification of pipework as required	1	ls	20,000.00	20,000		
356	<u>Replace back-up and older pumps / provide VFD's on back-ups pumps</u>						
357	Allowance to replace back-up and older pumps. Provide VFD's on back-up pumps. Modify pipework as required; assumed to only impact pump P-6	1	ls	12,500.00	12,500		
358	<u>Replace pneumatic controls with DDC controls</u>						
359	Allowance to replace existing pneumatic controls with DDC controls	116,090	sf	4.00	464,360		
360	<u>Replace terminal units</u>						
361	Allowance to replace terminal units incl. modifying pipework as required	116,090	sf	0.60	69,654		
362	<u>Replace fans</u>						
363	Allowance to replace existing rooftop fans	116,090	sf	0.60	69,654		
364	<u>Replace H&amp;V AHU's to gym, auditorium and</u>						
365	Allowance to replace gym, auditorium & corridor H&V AHU's	116,090	sf	1.90	220,571		
366	<u>Provide new compensating kitchen exhaust hood and dedicated MAU</u>						
367	Allowance for new exhaust hood & gas fired MAU c/w gas pipework, ductwork, etc.	1	ls	100,000.00	100,000		
368	<u>Clean / seal ductwork</u>						
369	Allowance to clean / seal any ductwork that is remaining in place	116,090	sf	0.20	23,218		
370	<u>Provide ventilation to corridors &amp; areas with inadequate ventilation</u>						
371	Allowance to provide ventilation to corridors and other areas as required	116,090	sf	1.00	116,090		
372	<u>Re-route fin tube radiation pipework</u>						
373	Allowance to move underslab pipework to be above ceiling with drops in concealed chases	116,090	sf	1.25	NIC		
374	<u>Cooling to Admin</u>						
375	Allowance to provide cooling to main admin area	1	ls	65,000.00	65,000		
376	<u>Miscellaneous</u>						
377	Allowance for selective demolition	116,090	sf	1.00	116,090		
378	Allowance for misc. HVAC such as reworking of lockers rooms, installation of ceiling, etc.	116,090	sf	2.00	232,180		
379	HVAC sub-contract general conditions / requirements	1	ls	84,988.20	84,988		
380	SUBTOTAL					2,133,022	

**TOTAL - HVAC**

**\$2,133,022**

**D40 FIRE PROTECTION**

**D40 FIRE PROTECTION, GENERALLY**

388	Allowance for modifying existing / adding new sprinklers as required	116,090	sf	2.00	232,180		
389	SUBTOTAL					232,180	

**TOTAL - FIRE PROTECTION**

**\$232,180**

**D50 ELECTRICAL**



Feasibility Study Estimate

GFA

116,090

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
<b>RENOVATION</b>							
396	<b>D5010 SERVICE &amp; DISTRIBUTION</b>						
397	<b>Gear &amp; Distribution</b>						
398	Allowance to replace switchgear, panelboards, feeders, etc.	116,090	sf	5.40	626,886		
399	<u>Equipment Feeds &amp; Connections</u>						
400	<u>Replace unit ventilators</u>						
401	Allowance to disconnect old unit and reconnect new unit incl. amending wiring as required	116,090	sf	0.25	29,023		
402	<u>Replace existing boilers</u>						
403	Allowance for modifying existing / providing new feeders to boilers	1	ls	20,000.00	20,000		
404	<u>Replace back-up and older pumps / provide VFD's on back-ups pumps</u>						
405	Allowance for modifying existing / providing new feeders to pump	1	ls	5,000.00	5,000		
406	<u>Replace pneumatic controls with DDC controls</u>						
407	Allowance for electrical scope associated with DDC controls	116,090	sf	0.45	52,241		
408	<u>Replace terminal units</u>						
409	Allowance for modifying existing / providing new feeders as required	116,090	sf	0.20	23,218		
410	<u>Replace fans</u>						
411	Allowance for modifying existing / providing new feeders as required	116,090	sf	0.20	23,218		
412	<u>Replace H&amp;V AHU's to gym, auditorium and corridors</u>						
413	Allowance for modifying existing / providing new feeders as required	1	ls	20,000.00	20,000		
414	<u>Provide new compensating kitchen exhaust hood and dedicated MAU</u>						
415	Allowance for electrical scope	1	ls	25,000.00	25,000		
416	<u>Provide ventilation to corridors &amp; areas with inadequate ventilation</u>						
417	Allowance for electrical scope	116,090	sf	0.50	58,045		
418	<u>Cooling to Admin</u>						
419	Allowance for electrical scope	1	ls	10,000.00	10,000		
420	Allowance for misc. equipment feeds & connections	116,090	sf	1.00	116,090		
421	SUBTOTAL					1,008,721	
422							
423	<b>D5020 LIGHTING &amp; POWER</b>						
424	Allowance for new lighting	116,090	sf	6.75	783,608		
425	Allowance for new site lighting	1	ls	75,000.00	75,000		
426	Allowance for lighting controls	116,090	sf	1.80	208,962		
427	Allowance for branch power	116,090	sf	2.25	261,203		
428	SUBTOTAL					1,328,773	
429							
430	<b>D5030 COMMUNICATION &amp; SECURITY SYSTEMS</b>						
431	Allowance for addressable fire detection & alarm system	116,090	sf	2.25	261,203		
432	Allowance for DAS	116,090	sf	0.45	52,241		
433	Allowance for wireless master clock system	116,090	sf	0.15	17,414		
434	Allowance for new voice & data incl IP based intercom system	116,090	sf	3.60	417,924		
435	Allowance for access control / security system	116,090	sf	1.60	185,744		
436	Allowance for new AV system	116,090	sf	2.50	290,225		



Feasibility Study Estimate

GFA 116,090

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
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RENOVATION

437 SUBTOTAL 1,224,751

438  
439 **D5040 OTHER ELECTRICAL SYSTEMS**

440	Allowance for selective demolition	116,090	sf	1.00	116,090		
441	Grounding & bonding	116,090	sf	0.65	75,459		
442	Replace / repair lightning protection as required	116,090	sf	0.15	17,414		
443	Temporary power & lighting	116,090	sf	0.75	87,068		
444	Electrical general conditions & requirements	1	ls	115,748.28	115,748		

445 SUBTOTAL 411,779

<b>TOTAL - ELECTRICAL</b>						<b>\$3,974,024</b>
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450 **E10 EQUIPMENT**

451 **E10 EQUIPMENT, GENERALLY**

452  
453 111000 EQUIPMENT

455	11400 Kiln	1	ls	3,000.00	3,000		
456	11400 Spray booth at art storage	1	ea	15,000.00	15,000		

457  
458 111620 THEATRICAL EQUIPMENT

459	Theatrical Equipment Stage curtains and rigging	1	ls	180,000.00	180,000		
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460  
461 116600 ATHLETIC EQUIPMENT

462	Gym wall pads	900	sf	12.00	10,800		
463	Basketball backstops	6	ea	9,800.00	58,800		
464	Retractable bleachers	360	seats	140.00	50,400		

465 SUBTOTAL 318,000

<b>TOTAL - EQUIPMENT</b>						<b>\$318,000</b>
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469  
470 **E20 FURNISHINGS**

471  
472 **E2010 FIXED FURNISHINGS**

473	Walk off carpet	150	sf	12.00	1,800		
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474  
475 123553 CASEWORK

476	Arts base cabinet/counter	14	lf	450.00	6,300		
477	Arts island w/ base cabinet 5' wide	7	lf	600.00	4,200		
478	Crafts island w/ base cabinet 5' wide	23	lf	600.00	13,800		
479	Base cabinet/counter	479	lf	350.00	167,650		
480	Perimeter base cabinets and counter at science classes	116	lf	425.00	49,300		
481	Goggle cabinet	1	loc	220.00	220		
482	Science student tables 6x6	8	ea	2,500.00	20,000		
483	Tall cabinets at science	16	lf	600.00	9,600		
484	GS 36"	3	ea	1,900.00	5,700		
485	TW 36"	14	ea	2,200.00	30,800		
486	Wall cabinets	9	lf	290.00	2,610		
487	Shelving at storage rooms	45	lf	150.00	6,750		



Feasibility Study Estimate

GFA 116,090

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>RENOVATION</b>								
488	Wood shelving at classroom	93	lf	240.00	22,320			
489	Rack at storage 9'-0"	1	loc	2,400.00	2,400			
490	IT Rack	1	loc	800.00	800			
491								
492	122100 WINDOW TREATMENT							
493	Mecho shades at exterior windows	5,785	sf	8.00	46,280			
494								
495	126000 THEATRICAL SEATING							
496	New Auditorium Seating	457	ea	350.00	159,950			
497	SUBTOTAL					550,480		
498								
499	<b>E2020 MOVABLE FURNISHINGS</b>							
500	All movable furnishings to be provided and installed by owner							
501	SUBTOTAL						NIC	
502								
503	<b>TOTAL - FURNISHINGS</b>							<b>\$550,480</b>

**F20 SELECTIVE BUILDING DEMOLITION**

507							
508	<b>F2010 BUILDING ELEMENTS DEMOLITION</b>						
509	Create opening in interior partition for borrowed lite	3	ea	675.00	2,025		
510	Demolish base cabinet/counter	535	lf	10.00	5,350		
511	Demolish ceiling finish	104,481	sf	2.00	208,962		
512	Demolish floor base	172	lf	1.00	172		
513	Demolish floor finishes	104,481	sf	1.75	182,842		
514	Demolish science casework	7	lf	10.00	70		
515	Demolish shelving at classroom	93	lf	10.00	930		
516	Demolish wing wall at classroom entrance	220	sf	5.00	1,100		
517	Demolish interior partition	1,660	sf	4.00	6,640		
518	Remove folding partitions	2,900	sf	2.00	5,800		
519	Remove and dispose doors and frames - double	38	pr	100.00	3,800		
520	Remove and dispose doors and frames - single	148	ea	75.00	11,100		
521	Remove desk at health	15	lf	10.00	150		
522	Remove desk at library	12	lf	10.00	120		
523	Remove guardrail at areaway	85	lf	20.00	1,700		
524	Remove guardrails at library stairs	56	lf	10.00	560		
525	Remove handrails at library stairs	24	lf	10.00	240		
526	Remove gym bleachers	360	seats	15.00	5,400		
527	Remove kiln	1	ea	500.00	500		
528	Remove basketball backstop	6	ea	900.00	5,400		
529	Remove walk off mat	151	sf	5.00	755		
530	Remove gym wall pads	900	sf	5.00	4,500		
531	Remove observation window	16	sf	10.00	160		
532	Remove interior storefront	119	sf	10.00	1,190		
533	Remove interior storefront doors -single	2	ea	125.00	250		
534	Remove projector - return to owner	32	ea	75.00	2,400		
535	Remove rigging	1	ea	2,000.00	2,000		
536	Remove smart board - return to owner	32	ea	50.00	1,600		
537	Remove toilet accessories single	2	ea	250.00	500		
538	Remove TV	24	ea	50.00	1,200		



Feasibility Study Estimate

GFA 116,090

CSI CODE	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST	
<b>RENOVATION</b>								
539	Remove exterior door and frame - single	7	ea	150.00	1,050			
540	Remove exterior door and frame - double	11	pr	175.00	1,925			
541	Remove existing acoustic wall panels at auditorium	2	loc	50.00	100			
542	Remove existing window shades	5,785	sf	2.00	11,570			
543	Remove existing auditorium seating	463	ea	40.00	18,520			
544	MEP demolition; cut and cap in trades	116,090	gsf	1.00	116,090			
545	Miscellaneous demolition and dust control	116,090	gsf	1.50	174,135			
546	SUBTOTAL					780,806		
547								
548	<b>F2020 HAZARDOUS COMPONENTS ABATEMENT</b>							
549	See main summary for HazMat allowance				See Summary			
550	SUBTOTAL							
551								
552	<b>TOTAL - SELECTIVE BUILDING DEMOLITION</b>							<b>\$780,806</b>