

Water Quality Certificate (Section 401):

This proposed project will require a 401 Water Quality Certificate (WQC) if filling of any Bordering Vegetated Wetlands (BVW) that is considered to be an Outstanding Resource Water (ORW). BVW on the site is considered to be ORW because it ultimately drains to a surface water supply (Wachusett Reservoir). It should be noted that there are additional triggers requiring a 401 WQC filing, but they do not appear to apply to this project.

Massachusetts Endangered Species Act (MESA):

The MESA Regulations require that no project may be permitted that will have any adverse effect on specified habitat sites of rare vertebrate or invertebrate species, as identified by procedures set forth at 310 CMR 10.59. As of the date of this Permitting Assessment, a review of the *Massachusetts Natural Heritage Atlas*, 13th edition, Priority Habitats and Estimated Habitats, Worcester North Quadrangle, valid from October 1, 2008, indicates there are no Certified Vernal Pools on or in the immediate vicinity of the site. However, the site is located within an Estimated Habitat and a Priority Habitat. A copy of this map is attached. The Wetland Regulations at 310 CMR 10.59 state that projects proposed within an Estimated Habitat as indicated on the most recent map published by the Natural Heritage and Endangered Species Program (NHESP) require a fully completed copy of any required Notice of Intent filed under the Act and Regulations (including all plans, reports, and other required materials) to be submitted to the Natural Heritage and Endangered Species Program no later than the date of filing with the Conservation Commission. In addition, in July 2005, the Massachusetts Endangered Species Act (M.G.L. Ch. 131A; "MESA") regulations (321 CMR 10.00 *et seq.*; the "MESA Regulations") were revised to provide formal review procedures for projects and activities proposed within a Priority Habitat. For nonexempt projects or activities proposed within a Priority Habitat, an additional filing beyond that required under the Wetlands Regulations for a project proposed within an Estimated Habitat, or a consolidated filing that meets the requirements under 321 CMR 10.20 and 310 CMR 10.59, must be made with the NHESP to allow the project or activity to be reviewed under MESA or under MESA and the Wetland Act, respectively.

Based upon recent permitting experience in the area, EcoTec believes that the rare species mapping on the site is due to the presence of the Blanding's Turtle. The proposed emergency access road appears to bisect the northern tip of the mapped habitat. As such, a filing will be required to be made with the NHESP. EcoTec recommends that the proponent make a request with the NHESP to determine/confirm the species of concern and meet with the NHESP to preliminarily discuss the project to determine the likelihood of permitting success and any specific restrictions or mitigation that might be required to permit the proposed project.

Massachusetts Environmental Policy Act (MEPA):

The Massachusetts Environmental Policy Act is an administrative review process to provide meaningful opportunities for public review of the potential environmental impacts of projects for which a state agency action (i.e. 401 Water Quality Certificate, DCR Variance, etc.) is required, and to assist each agency in using all feasible means to avoid damage to the environment or, to

the extent damage to the environment cannot be avoided, to minimize and mitigate damage to the environment to the maximum extent practicable. MEPA is structured with a two-level review process that considers a wide array of issues:

1. An Environmental Notification Form (ENF) is required for projects which exceed specified environmental impact thresholds; and
2. An Environmental Impact Report (EIR) is required for projects which exceed other specified impact thresholds, or for which during review of an ENF, MEPA determines that an EIR is required.

This project appears to require several State permits and likely exceeds the following MEPA thresholds:

- Fill of 1,000 square feet or more of ORW; and
- Watershed Protection Act Variance not associated with a single family house.

As such, the proposed project would require an ENF to be prepared and filed with the Executive Office of Energy and Environmental Affairs (EOEEA) MEPA Office. It is unclear at this time whether any mandatory Environmental Impact Report (EIR) thresholds would be triggered, or in the absence of such triggers whether ENF review would result in the need for an EIR. It should be noted that no State permit can be issued until the EOEEA has issued a certificate stating that the project adequately and properly complies with MEPA.

Clean Water Act (Section 404 Permit):

The U.S. Army Corps of Engineers (ACOE) regulates the discharge of dredged or fill materials into Waters of the United States and secondary impacts/ alterations under the Massachusetts General Permit (GP). Based upon review of the current (2010) General Permit (GP), it appears that a Category II filing under the GP would not be required unless the project exceeds impacts to 25% of the land area within 750 feet of the off site potential vernal pool.

Based upon a review of the 2008 *Massachusetts Natural Heritage Atlas*, 13th edition, Worcester North quadrangle, there are no mapped Certified Vernal Pools on the site. There are no mapped Certified Vernal Pools located within approximately 750 feet of the site. Certified Vernal Pools are Outstanding Resource Waters (“ORWs”) under the Massachusetts water quality regulations. Based upon a review of the Spring 2001 *Massachusetts Aerial Photo Survey of Potential Vernal Pools*, there is one mapped Potential Vernal Pool to the north of the site. Under the January 21, 2010 Massachusetts General Permit issued by the Army Corps of Engineers under the U.S. Clean Water Act, once Corps jurisdiction is established, any proposed work within the vernal pool or within 100 feet of the vernal pool and any existing impact plus proposed impact between 100 and 750 feet of the pool has the potential to elevate a Category 1 (self-certification) project to at least Category 2 review by the Corps.

National Pollutant Discharge Elimination System (NPDES): Construction General Permit (CGP):

Due to the proposed project size, it would presumably result in land disturbance of greater than 1 acre; a Stormwater Pollution Prevention Plan (SWPPP) must be prepared under the NPDES Program of the US Environmental Protection Agency (USEPA). The NPDES CGP Program is a

self-reporting program whereby a project proponent and contractor must certify that a compliant SWPPP has been prepared and will be implemented during construction, including required inspections and record-keeping

It is worth noting that because the site requires a SWPPP and contains wetlands that are ORW's as detailed above, a BRP Form WM-09 application to the Massachusetts Department of Environmental Protection is required. This application provides review and approval of the SWPPP, by the Department of Environmental Protection and is reviewed by the Department of Conservation and Recreation.

Permitting Timeline: *

The following rough permitting time table is provided as a general guide only and permit applications can be reviewed simultaneously with the exception that no State permit can be issued until MEPA has issued a final certificate on the ENF or EIR, if required.

Permit	Expected Timeline to obtain permit	Notes
ENF Filing and Review: (assumes no further filing requirements)	3 months	Assumes that a Draft and Final Environmental Impact Report are not required
Wetlands Protection Act/ Wetlands Bylaw	3 months	
401 Water Quality Cert	2 months	
404 Permit	3 months	May not be required
NPDES	1 month	Filing requirement but no permit issued
WM-09	3 months	
Watershed Protection Act Variance	2 months	
NHESP	2 months	Assumes that project would be eligible for a conditional "no take" letter and a Conservation and Management Permit is no required

* This is an approximate timeline that does not include time associated with any engineering and permit application preparation, or with appeals, which could significantly lengthen the permitting timeline.

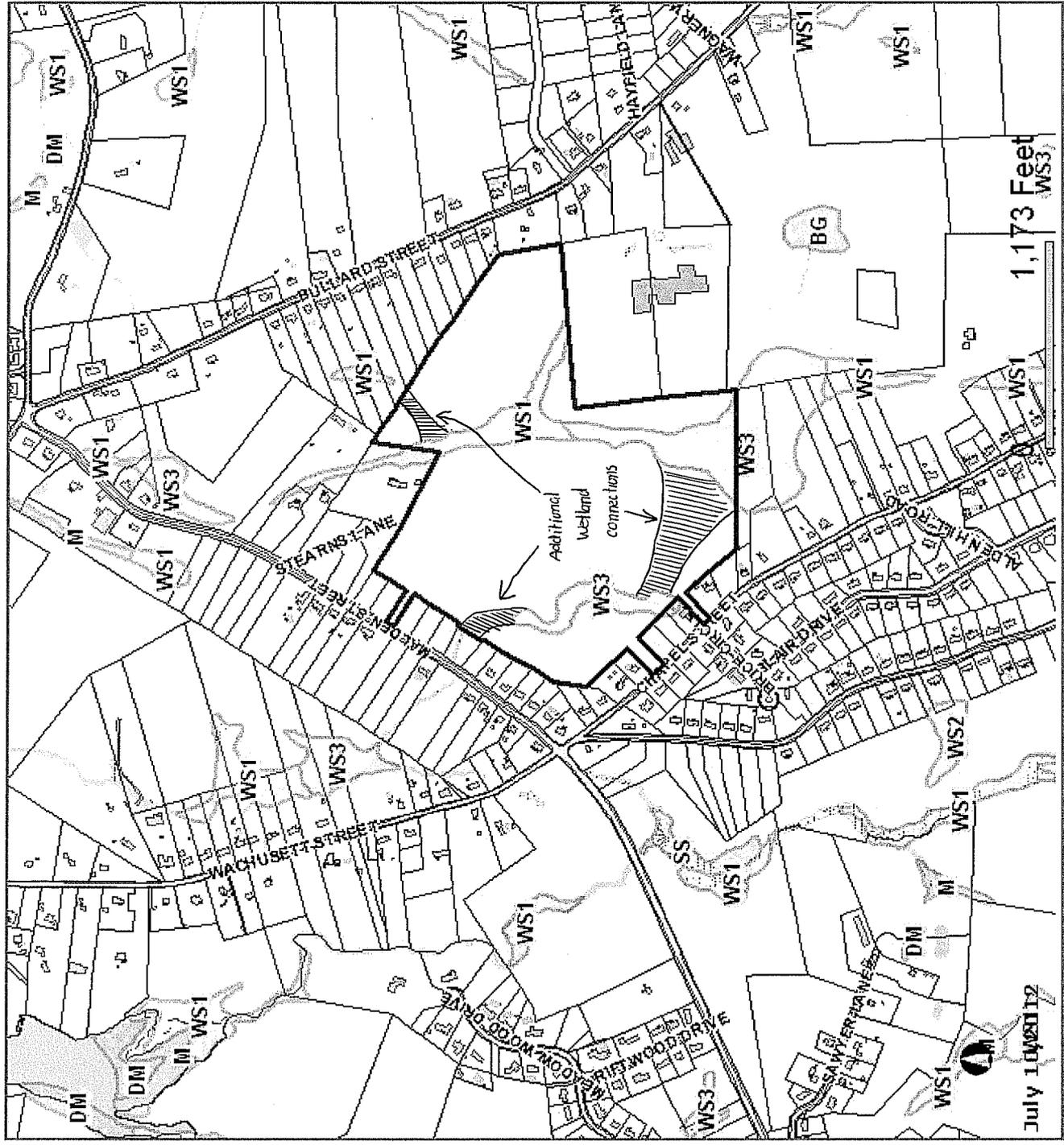
Summary:

Based upon a review of the site and permitting requirements and assumption that the proposed school and athletic field will be constructed within upland, portions of the 100 foot Buffer Zone, and outside of the Estimated and Priority Habitat under the Massachusetts Endangered Species Act (MESA) it appears that the site could be permitted to construct a school and athletic fields, but until all required permits are granted no assurances can be made. The access road connection between Malden Street and the existing Mayo School will likely require a variance from the Watershed Protection Act and a review by the Natural Heritage and Endangered Species Program. The alternative access point off Malden Street on Map 150, parcel 40 would avoid constructing an access roadway between the two adjacent newly constructed homes. Regulators

will likely require the existing access to be utilized because it is a greater distance from BVW and the mapped tributary stream. Given the numerous environmental permitting constraints it is EcoTec's recommendation that preliminary plans be provided to the Natural Heritage and Endangered Species Program and the Department of Conservation and Recreation for initial review and input prior to expending significant time and money to design the proposed project. This will allow feedback as to whether or not these agencies will likely approve or prohibit this access roadway connection and other aspects of the project.

If you have any questions, please do not hesitate to contact the authors at any time.

EcoTec Sketch to show
Wetland connections based
upon preliminary site
inspection



Holder, MA, shall have no liability for the data or lack thereof, or any decision made or action taken or not taken in reliance upon any of the data.

July 10, 2012



Priority Habitats and Estimated Habitats - Effective October 1, 2008

Priority Habitats for use with the MA Endangered Species Act Regulations (321 CMR 10)

Estimated Habitats for use with the MA Wetlands Protection Act Regulations (310 CMR 10)

Produced by the Natural Heritage & Endangered Species Program

website: www.nhesp.org



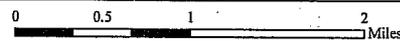
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Priority Habitat of Rare Species

 **Priority Habitat of Rare Species and also Estimated Habitat of Rare Wildlife**

*** Certified Vernal Pool (as of July 31, 2008)**



Worcester North Quad





Nitsch Engineering

Traffic Impact & Access Study (Alternate Site)

Mountview Middle School
Holden, MA

August, 2012

Prepared for:

Lamoureux Pagano Associates
108 Grove Street, Suite 300
Worcester, MA 01605

Submitted by:

Nitsch Engineering
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Boston, MA 02111

Nitsch Engineering Project #9111.2

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INTRODUCTION

Nitsch Engineering has been retained by Lamoureux Pagano Associates to prepare a preliminary assessment of the existing conditions at four (4) possible driveway locations related to a new Middle School site in Holden, Massachusetts. The analysis and recommendations in this report are based upon review of aerial photogrammetry and conditions observed at the site during a field review conducted in August 2012. Further analysis and review may need to be conducted based upon ground survey and current traffic data that was not available at the time this report was prepared.

PROPOSED NEW MIDDLE SCHOOL LOCATION

An alternative to expanding the existing Middle School location, is building a new Middle School behind the existing Leroy Mayo Elementary School on Bullard Street. This location will require either the addition of new access and egress driveways to the school, or consolidating the Middle School driveways with the existing Leroy Mayo School's driveway. Figure 1 shows the proposed Middle School location and the streets surrounding it.

Figure 1 – Proposed Middle School Location



Nitsch Engineering has analyzed each of the following proposed locations for the new Middle School's driveways: new driveways on Malden Street, new driveways on Chapel Street, and consolidation with the existing Leroy Mayo School's driveway. Each option is described below.

MALDEN STREET

The possible location for a new driveway on Malden Street will be located on the easterly side of the roadway, between addresses 378 and 354 Malden Street. Malden Street is 26 feet in width, excluding sidewalks, and the surrounding land-use is primarily residential. The pavement is in good condition, with no cracks or rutting in the vicinity of the proposed driveway. The only pavement marking on the roadway is a solid yellow center line. There are no posted speed limits on Malden Street; therefore, in accordance with MGL Chapter 90, Sec. 17, for a roadway of this type, a reasonable and proper speed should not exceed 30 miles per hour (mph).

Malden Street has a varying vertical alignment with multiple crests and valleys along the roadway. The location of the proposed driveway is located on a relatively flat section of the roadway, with the nearest crests at 400 Malden Street and 319 Malden Street.



Looking west from Malden Street Location



Looking east from Malden Street Location

Nitsch Engineering completed a preliminary sight distance analysis at the approximate location for the proposed driveways on Malden Street. The sight distances measured during the August, 2012 site visit are as shown in Table 1.

Table 1 – Malden Street Sight Distance Evaluation

Intersection	Speed Limit	Stopping Sight Distance (SSD)		Intersection Sight Distance (ISD)		
	Speed ¹ (mph)	Recommended ² (Feet)	Available ³ (Feet)	Recommended ² (Feet)	Looking west Available ³ (Feet)	Looking east Available ³ (Feet)
Malden Street/Proposed School Dwy						
Malden Street Eastbound (Upgrade ~2%)	20 (30)	115 (200)	>500			
Malden Street Westbound (Downgrade ~ 2%)	20 (30)	116 (205)	>500			
Left turn from Proposed Dwy	20 (30)			225 (335)	>500	>500
Right turn from Proposed Dwy	20 (30)			195 (290)	>500	>500

1.Speed based on reduced speed limit of 20 mph for a School Zone. At other times, speed is based on 30 mph prima facie speed limit and is shown in parenthesis;
 2.Recommended SSD and ISD from Project Development and Design Guide, 2006. 3. Available SSD and ISD are approximations only.

Table 1 above indicates that the available SSD and ISD dimensions for each movement greatly exceed the dimension that is recommended by the MassDOT Design Guide. It should be noted that there is no existing driveway on Malden Street for the proposed school and that the available dimension was obtained by observations made while standing on the edge of the pavement on Malden Street and not in a location that would be typical for a stopped vehicle waiting to enter onto Malden Street. While the table above lists different recommended dimensions depending upon various grades and design speeds, Nitsch Engineering recommends that the designers should propose clear sight triangles bordered by the location of the stop line on the driveway, the centerline intersection of Malden Street and the driveway, and a point along the center of the travel lane a distance of 335 feet in either direction from the driveway on Malden Street.

CHAPEL STREET

There are two (2) locations that have been identified on Chapel Street as potential Middle School driveway locations; the northerly location between addresses 424 and 412 Chapel Street, and the southerly location between addresses 396 and 384 Chapel Street. Chapel Street ranges in width from 23 feet with a 4.5-foot sidewalk to 27 feet within the project limits. The only pavement marking on the roadway is a solid yellow center line. The pavement is in fair condition, with cracks and patches, and the pavement markings are faded in some areas.



Looking south from Chapel Street North Location



Looking north from Chapel Street North Location



Looking south from Chapel Street South Location



Looking north from Chapel Street South Location

Table 2 – Chapel Street Sight Distance Evaluation

Intersection	Speed Limit	Stopping Sight Distance (SSD)		Intersection Sight Distance (ISD)		
	Speed ¹ (mph)	Recommended ² (Feet)	Available ³ (Feet)	Recommended ² (Feet)	Looking South Available ³ (Feet)	Looking North Available ³ (Feet)
Chapel Street/Proposed School Dwy (North)						
Chapel Street Northbound (Downgrade~ 3%)	20 (30)	116 (205)	>500			
Chapel Street Southbound (Upgrade~9%)	20 (30)	104 (184)	250			
Left turn from Proposed Dwy	20 (30)			225 (335)	>500	215
Right turn from Proposed Dwy	20 (30)			195 (261)	>500	215
Chapel Street/Proposed School Dwy (South)						
Chapel Street Northbound (Downgrade ~8%)	20 (30)	120 (215)	345			
Chapel Street Southbound (Upgrade~4%)	20 (30)	109 (200)	>500			
Left turn from Proposed Dwy	20 (30)			248 (369)	345	465
Right turn from Proposed Dwy	20 (30)			195 (290)	345	465

1.Speed based on reduced speed limit of 20 mph for a School Zone. At other times, speed is based on 30 mph prima facie speed limit and is shown in parenthesis;
2.Recommended SSD and ISD from Project Development and Design Guide, 2006. 3. Available SSD and ISD are approximations only.

Table 2 above indicates that the available SSD and ISD dimensions for each movement are greater than the dimension that is recommended by the Massachusetts Department of Transportation (MassDOT) Design Guide, except for one (1). The northern school driveway alternative has substandard sight distance looking north along Chapel Street from the driveway location. It should be noted that there is no existing driveway on Chapel Street for the proposed school and that the available dimension was obtained by observations made while standing on the edge of the pavement on Chapel Street and not in a location that would be typical for a stopped vehicle waiting to enter onto Chapel Street. While the table above lists different recommended dimensions depending upon various grades and design speeds, Nitsch Engineering recommends that the designers should propose clear sight triangles bordered by the location of the stop line on the driveway, the centerline intersection of Chapel Street and the driveway, and a point along the center of the travel lane, a distance of 369 feet in either direction from the driveway on Chapel Street.

BULLARD STREET

The existing Mayo Elementary School has its entrance from Bullard Street. One (1) of the alternatives for site access to the Middle School is to use the existing driveway of Mayo and extend an access driveway to the proposed Middle School. Bullard Street is approximately 26 feet wide with a 4.5-foot sidewalk along the school side. Pavement marking on the roadway includes a solid yellow center line and a pavement imprint indicating ‘yield to pedestrians’ ahead of the crosswalk located 170 feet on south of the driveway. The pavement is in good condition, with little to no visible cracks and patches, and the pavement markings are faded in some areas.



Looking north from Mayo driveway



Looking south from Mayo driveway

Table 3 – Bullard Street Sight Distance Evaluation

Intersection	Speed Limit	Stopping Sight Distance (SSD)		Intersection Sight Distance (ISD)		
	Speed ¹ (mph)	Recommended ² (Feet)	Available ³ (Feet)	Recommended ² (Feet)	Looking South Available ³ (Feet)	Looking North Available ³ (Feet)
Bullard Street/Existing School Dwy						
Bullard Street NB (Upgrade~ 1%)	20 (30)	115 (200)	>500			
Bullard Street SB (Downgrade ~1%)	20 (30)	116 (205)	300			
Left turn from Existing Dwy	20 (30)			225 (335)	65 [>500]*	160 [370]
Right turn from Existing Dwy	20 (30)			195 (290)	65 [>500]*	160 [370]

1. Speed based on reduced speed limit of 20 mph for a School Zone. At other times, speed is based on 30 mph prima facie speed limit and is shown in parenthesis; 2. Recommended SSD and ISD from Project Development and Design Guide, 2006. 3. Available SSD and ISD are approximations only. * ISD measured from stop line [ISD measured from approx.. 10' behind the edge of pavement]

Table 3 above indicates that the available SSD dimension for each movement is greater than the dimension that is recommended by the MassDOT Design Guide. As seen in Table 3, the available ISD at the proposed driveway intersection is lower than the required minimum in both the northbound and southbound directions on Bullard Street when the ISD is measured from the existing stop line. The existing stop line on the school driveway is located farther from the edge of the curb than normal, in order to accommodate school bus turns into the site. Vehicles have to pull up near the curb line on Bullard Street to have the sight distance listed in parentheses in Table 3. While the table above lists different recommended dimensions depending upon grades and design speeds, Nitsch Engineering recommends that the designers should propose clear sight triangles bordered by the location of the stop line on the driveway, the centerline intersection of Bullard Street and the driveway, and a point along the center of the travel lane a distance of 335 feet in either direction from the stop line of the existing driveway.

INTERSECTIONS

In addition to the traffic impacts on Malden Street, Chapel Street, and Bullard Street, Nitsch Engineering identified the intersections that would be impacted by the trips to the proposed Middle School site. Nitsch Engineering previously noted during our site visit to the Mountview Middle School that a majority of drop-off traffic during the morning peak hour headed towards Doyle Road and possibly to I-190. With the new location, traffic from the center of town would come through the intersections of Malden Street at Chapel Street, or on the north from Malden Street and Bullard Street. Traffic from the south and east side of the Mountview Middle School would come through the intersections of Chapel Street and Shrewsbury Street and Bullard Street and Shrewsbury Street. Traffic exiting the school and towards the interstate would go through the intersections of Chapel at Shrewsbury Street, or Bullard Street at Shrewsbury Street, depending on where the exit driveway would be located.

The intersection at Bullard and Shrewsbury Street is unsignalized with STOP control on the Bullard Street movement. The intersections at Chapel and Malden Street, and Malden and Bullard Street are all-way stop controlled intersections. The intersection at Chapel and Shrewsbury Street is signalized.

Below, we review the existing configurations of the intersections including lane widths, pavement markings, intersection control, and turns lanes.

BULLARD STREET AND SHREWSBURY STREET

Shrewsbury Street approaches from the east and west, and Bullard Street approaches from the north. Shrewsbury Street is the free movement and Bullard Street traffic is controlled by a STOP sign. Shrewsbury Street has two-way travel with 12-foot lanes in each direction and a 2.5-foot shoulder. A 4-foot-wide sidewalk is present on the northerly side of Shrewsbury Street to the west of the intersection. Pavement markings include a double yellow center line and single white edge lines. Bullard Street has two-way travel with 11-foot lanes in each direction. Pavement markings include a single yellow center line and a stop line (not recommended by the Manual on Uniform Traffic Control Devices [MUTCD]). An advisory speed limit of 25 mph is posted for the northbound traffic on Bullard Street. The pavement condition is good with minor cracking and some pothole repair.



From Shrewsbury Street, looking east



From Bullard Street, looking south

CHAPEL STREET AND MALDEN STREET

Malden Street approaches from the east and west, Chapel Street approaches from the south and Wachusett Street from the north. All the movements are controlled by individual STOP signs. Malden Street has two-way travel with 12- and 17.5-foot lanes west of the intersection and 11- and 13-foot lanes east of the intersection. Five-foot-wide shoulders are present on the northeast, southeast and southwest corners of the intersection. Chapel Street consists of 13.5-foot lanes in each direction and Wachusett Street consists of 11-foot lanes in each direction and a 1.5-foot shoulder on the east side. Pavement markings are consistent on all the movements with single yellow center lines and white stop lines. Shoulders are separated by single white edge lines from the travelled way. Speed limit signs of 30 mph are posted for northbound and southbound traffic on Wachusett and Chapel Streets. The pavement is in good to excellent condition.



From Wachusett Street, looking south



From Malden Street, looking east

MALDEN STREET AND BULLARD STREET

Malden Street approaches from the east and west, and Bullard Street approaches from the north and south. All the movements are controlled by individual STOP signs. Vehicles from Malden Street eastbound have to make a sharp right turn to access Bullard Street southbound. Malden Street has two-way travel with 14-foot lanes west of the intersection and 11- and 13.5-foot lanes east of the intersection. Bullard Street consists of 10-foot lanes in each direction north of the intersection, and 12.5- and 11.5-foot lanes south of the intersection. Approximately 1.5 foot shoulders are also present north of the intersection. Pavement markings are consistent on all the movements with single yellow center lines and white stop lines. Shoulders are separated by single white edge lines from the travelled way. A speed limit sign of 35 mph is posted east of the intersection on Malden Street. The pavement is in fair condition with minor cracking.



From Malden Street, east of intersection



From Bullard Street, south of intersection

CHAPEL STREET AND SHREWSBURY STREET

Shrewsbury Street approaches from the east and west and Chapel, and Holden Street approach from the north and south, respectively. All the movements allow two-way travel. This intersection operates as a three-phase signalized intersection, one (1) phase for the Shrewsbury Street approaches, one (1) for the Chapel Street and Holden Street approaches, and one (1) exclusive pedestrian phase. Channelizing islands separate right turning vehicles from through/left turning vehicles on Chapel and Holden Streets. Pavement markings include double yellow center lines on Shrewsbury Street and Holden Street, and a single yellow center line on Chapel Street. Shoulders on Shrewsbury Street are separated from the travelled way by single white edge lines. Sidewalks are present along both sides of Shrewsbury Street, to the easterly side of Chapel Street and to the westerly side of Holden Street. The pavement is in fair condition with moderate cracking and rutting.



From Shrewsbury Street, looking east



From Chapel Street, intersection view

CONCLUSIONS AND RECOMMENDATIONS

Based on the existing conditions at the Mountview Middle School, the following are Nitsch Engineering's recommendations for the future conditions:

1. Conduct a detailed traffic analysis at the intersections of Malden and Chapel Street, Malden and Bullard Street, Bullard and Shrewsbury Street, and Chapel and Shrewsbury Street to estimate traffic impacts and the need for potential geometric modifications and/or signalization;
2. Provide 'School Zone' signs to alert through traffic adjacent to the school;
3. Provide 'End School Zone' signs for traffic in both directions of neighboring streets;
4. Provide sufficient queuing space onsite to avoid spillover onto neighboring streets;
5. Provide pavement markings and signs conforming to the MUTCD and Americans with Disabilities Act (ADA) requirements; and
6. Provide recommended sight distance to vehicles exiting the site drives.

New Construction- Alternate Site

We have reviewed the “New Construction- Alternate Site” option presented for the Mountview Middle School feasibility study by Lamoureux Pagano and Associates, and will present a description of the structural system. The “New Construction- Alternate Site” option consists of building an entirely new 3-story school on the same site as the existing school, using standard construction methods and materials.

Structural Systems:

- Foundations:
 - Interior concrete spread footings
 - Continuous reinforced concrete frost wall and footing at exterior walls
 - Foundation systems are assumed based on existing conditions and must be verified by a qualified Geotechnical Engineer
- Columns:
 - Wide flange steel column (W8) or steel tube column (HSS6x6)
- Framed Floors:
 - Wide flange composite steel beams
 - Composite metal deck
 - Concrete fill
- Roof:
 - Wide flange steel beams
 - Metal roof deck
- Lateral Force Resisting System:
 - Ordinary steel moment frames and concentrically braced steel frames

The “New Construction” option is the most flexible option, from a structural point of view. This option will also allow for increased life safety and more opportunity for sustainable design, compared to the “Addition and Renovation” option. Construction materials and systems will be designed in compliance with the current Massachusetts State Building Code. Since the new building would be constructed on an alternate site, the new structure can be built prior to the demolition of the existing building.

Christopher Tutlis, PE
Bolton & DiMartino, Inc.

Mount View Middle School Holden, Ma.
Final Evaluation of New Building on Malden St – Fire Protection
9-4-12

BUILDING DESCRIPTION

General: The Mount View Middle School is located at 270 Shrewsbury St, Holden, Ma. It is a 3-level, 3-wing building of non-combustible, steel, concrete and brick construction with flat roofs. Gross building area is 91,137 square feet (including the original, 1967 building and a 1989 addition).

For additional comments on the existing layout, hazards, school flammability standards, and storage issues, see the Existing Conditions – Preliminary Design Program report, dated 6-27-12

CONSTRUCTION OPTIONS:

Based on the preliminary design program submission, the school and MSBA have concurred that 3 options should be evaluated in more detail. These are:

1. A full renovation of the existing building (including enclosure of the existing, 5,171 sqft courtyard) with a 52,087 sqft addition (Renovation-Addition)
2. Demolition of the existing building, with construction of a new, 128,000 sqft building on the existing site,
3. Construction of a new, 128,000 sqft building on a town-owned parcel on Malden St. The fate of the existing school to be determined by the Town.

This document discusses a new-building at the Malden St Option.

New Construction – Malden St. site

All new Educational use buildings over 12,000 sqft must meet all current FP code requirements, including a new NFPA 13 fire protection system through-out the building. Fire Protection work for this option includes:

1. *New FP:* Provide a new, NFPA 13 fire protection system thru-out the new construction.
2. *Standpipes:* The projected 3rd level height above grade is between 28'7" and 29'2". Stairwell standpipes will only be required if site conditions result in the 3rd level being 30' or more above grade at any fire dept. access point. Stairwell standpipes require a much higher water-pressure and flow than a sprinkler system. Thus, if standpipes became a necessity, it is possible fire pumps would also be required.

New stage standpipe hose-stations will be required, but this system is permitted to be a "manual" stand-pipe, fed from the fire dept. pumper. Thus stage standpipes have minimal impact on whether fire pumps are required or not.

3. *Fire Dept. Connection FDC):* 4" Storz, with a site hydrant within 100' of the FDC

Mount View Middle School Holden, Ma.
Final Evaluation of New Building on Malden St – Fire Protection
9-4-12

4. *Fire Pump*: A flow test will be required to confirm available water pressure and flow (and fire pump status) at the site. It is likely that no fire pump will be required unless the building height triggers a need for stairwell stand-pipes.

RECOMMENDATIONS AND COSTS

The fire protection requirements for this option are summarized above, and budget costs are shown in Table 1 - based on building square-footage.

The following “other” general recommendations apply to *all options* being considered:

- renovation-addition,
- new-construction-existing site, and
- new-construction-alternate site.

- **Flow test:** Prior to schematic design, provide a flow-test.

- **General Storage issues:** Plan for all storage heights to be less than 12’. Review available storage areas and storage needs. Organize storage to keep it confined to designated storage rooms, with appropriate FP coverage.

- **Special Storage Issues:** Provide listed flammable storage cabinets for the storage of all flammable or combustible liquids or chemicals. Do not permit any plastic shelving. Metal shelving has the best fire resistance, wood shelving is acceptable.

- **Flammability Standards:** Ensure that all (existing and) new furniture and window coverings meet 527 CMR flammability standards.

- **Fire Signaling:** Connect all new FP system alarms to a new central Fire Alarm Control Panel (FACP - provided under electrical).

- **Maintenance Training and inspections:** Train in-house personnel, and provide required monthly inspections using in-house inspectors

- **FP Maintenance Contract:** Provide additional code-required maintenance and testing of FP systems alarms and flow via maintenance contract.

**Table 1 - Mt. View Middle School Fire Protection
PSR Cost Estimates**

	Major Renovation with Addition	New Construction Existing site	New Construction Alternate Site
ITEM	Budget Cost	Budget Cost	Budget Cost
Total Square Ft. Renovation <i>NO</i> Exist FP	57,308	0	0
Total Square Ft. Renovation w/ Exist FP	39,000	0	0
Total Square Footage - New Construction	52,087	128,000	128,000
Budget FP Cost per Sqft - No Exist FP	\$5.78	0	0
Budget FP Cost per Sqft - W/ Exist FP *	\$5.78	0	0
Budget FP Cost per Sqft - New Constr.	\$4.19	\$4.19	\$4.19
Budget FP Total Installed Cost	\$774,654	\$536,000	\$536,000
<i>Increase in Annual Maintenance Costs **</i>	\$5,010	\$7,040	\$7,040
* Per Architect - Existing FP to be removed and replaced in its entirety due to conflicts with proposed HVAC			
* Maint. Cost per sqft assumed:	0.055		



Date: September 4, 2012

To: William Senecal – Architect

Co: Lamoureux-Pagano Assoc. Architects, Inc. (via email)

From: Kevin Seaman. P.E. LEED® AP

Re: Mountview Middle School: **Feasibility Study HVAC & Plumbing Narrative – New Construction Malden Street Site Option**

The following narrative describes the proposed scope of work pertaining to the heating, ventilation and air conditioning (HVAC) systems and the plumbing systems at the Mountview Middle School for the New Construction Malden Street Site option.

HVAC

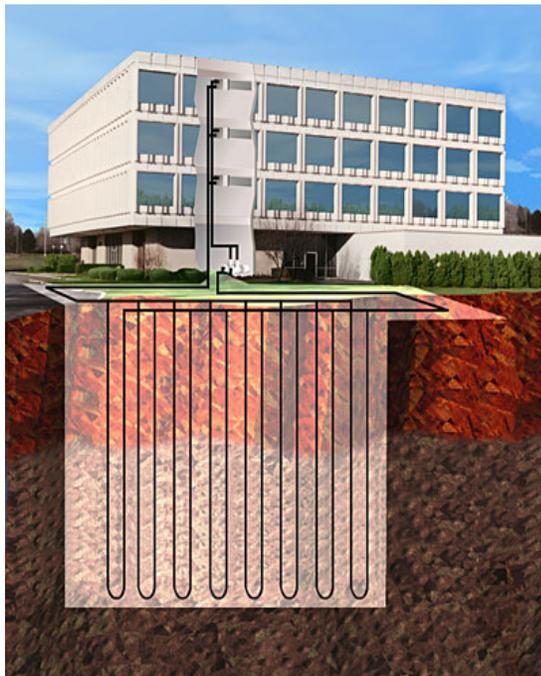
Central Heating/Cooling Plant:

Natural gas is not available to the site. As such, we highly recommend a hybrid system be used which incorporates both air source and/or geothermal based heat pumps. The air source and geothermal based plant shall supplement a high efficiency LP gas boiler plant. Final selection and implementation of geothermal well field type shall require further soil analysis as well as a life cycle costing to verify economic viability.

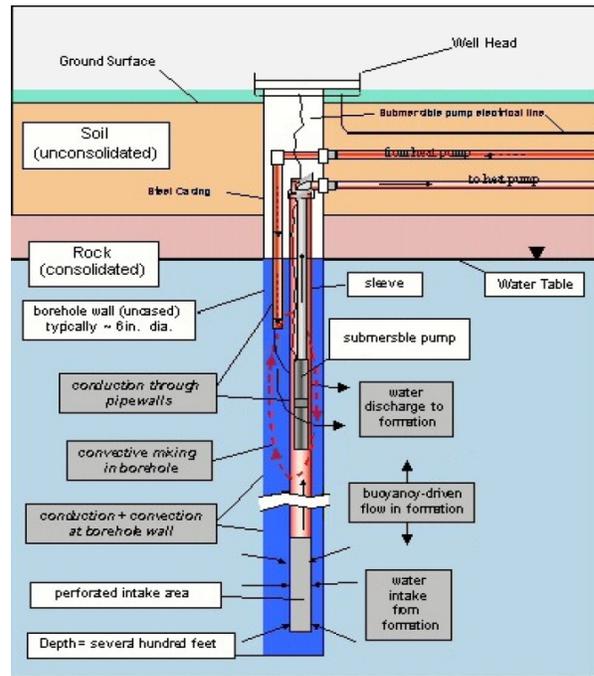
1. Provide a modular geothermal chiller/heater plant which shall be sized to support the cooling needs of the systems specified for comfort cooling (i.e. offices, media, etc...). This plant shall also tie into the buildings hydronic heating loop to provide primary heating while supplementing the LP gas boilers. The geothermal chiller/heaters shall be coupled to a geothermal field consisting of either multiple standing column wells or a closed loop well field. Chiller/heater plant have a nominal 100-ton cooling capacity and shall be similar to that manufactured by MultiTherm, Climate Master or approved equal.
2. The buildings heating requirements would be satisfied via high efficiency (93%+) LP gas-fired condensing hot water boiler plant. Maximum design hot water supply temperature of 130°F shall be utilized obtain maximum boiler efficiency. Pending final load calculations and system design, initially the boiler plant shall consist of two (2) new gas-fired condensing fire-tube style boilers each with a gross input capacity of 3,500,000 BTUH similar to Lochinvar Crest or equal by Aerco or Viessman.
3. Provide 2-pipe hydronic hot water system complete with end-suction system pumps as manufactured by Taco or Bell & Gossett rated for 500 GPM. Hydronic system shall connect to 2-pipe fan coil units, unit heaters, coils and fin-tube radiation located throughout the building. All new terminals connected to the new system shall be designed to operate with a maximum water temperature of 130°F to maximize plant capacity and to take full advantage

of the chiller/heater. Pumps shall have premium efficient motors and be fitted with variable speed drives so that pump energy matches system flow demand.

4. Provide chilled water system complete with end-suction system pumps as manufactured by Taco or Bell & Gossett rated for 200 GPM. Chilled water system shall connect to air handlers and fan coil units located throughout the comfort cooled areas of the building. Pumps shall have premium efficient motors and be fitted with variable speed drives so that pump energy matches system flow demand.
5. Provide condenser water system tied to a geothermal well field. If a standing column well field is utilized, provide a plate & frame style heat exchanger to separate the well field water from the building condenser water. For a closed loop field no additional heat exchanger is required. Provide condenser water end-suction system pumps as manufactured by Taco or Bell & Gossett rated for 300 GPM. Pumps shall have premium efficient motors and be fitted with variable speed drives so that pump energy matches system chiller/heater flow demand.



Closed loop Field



Standing Column Well

Distribution and Ventilation:

Proposed Air Distribution and Ventilation Systems are as follows:

1. To support most all classroom spaces, provide high efficiency packaged rooftop units to provide outdoor air and exhaust to the classroom spaces. Units shall utilize variable speed compressor technology for dehumidification control coupled with hot gas DX reheat and hot water coils tied to the central boiler plant. Units shall also be equipped with total energy recovery (ERU) wheels to utilize waste exhaust to temper incoming fresh air. In addition, units shall be provided with variable speed drive (VSD) supply fans which can modulate

based on room ventilation demand. Air distribution to the classroom spaces shall be via displacement style diffusers. Units shall be as manufactured by Aaon, McQuay or Trane.

2. Each classroom system shall be rated to provide the minimum amount of outside air required for all the spaces supported. Units shall be ducted to supply and exhaust air from each space with each space having its own VAV control box on the supply branch and zone damper on the return/exhaust branch. Distribution shall connect to displacement style diffusers in each classroom space. Units shall provide tempered and dehumidified air to all the classroom spaces.
3. For other area as noted below rooftop air handling units are proposed to facilitate ease of service and economy. For areas requiring cooling, provide rooftop air handlers complete with chilled water coils and hot water coils tied to the central boiler and chiller/heater plant. Units supporting high occupancy areas shall be equipped with ERU wheels to utilize waste exhaust to temper incoming fresh air. In addition units shall be provided with variable speed drive (VSD) supply fans which can modulate based on load and ventilation demand. Units shall be as manufactured by Aaon, McQuay or Trane. Areas supported by such equipment shall be as follows:
 - Cafeteria – Unit with VSD and ERU (option for high efficiency cooling)
 - Media Center – Unit with VSD and ERU and high efficiency cooling
 - Gymnasium – Unit with VSD
 - Office – Unit with VSD with high efficiency cooling (option for ERU) supporting variable air volume boxes with reheat coils.
4. The computer classrooms as well as the MDF room shall be cooled via high efficiency ductless split units (one per room) with fan coil mounted within ceiling and condensing unit on roof.
5. In all classrooms, exterior offices, etc... provide multi-tier high output fin-tube radiation in each room. Radiation shall be piped and controlled so that each room shall have its own temperature control zone.
6. For the locker rooms areas provide two (2) total energy recovery ventilators, one for the girls locker room and one for the boys locker room to support ventilation of these areas as manufactured by Greenheck model ERCH or equal by Aaon or McQuay. Units shall come complete with supply and exhaust fans, total energy recovery wheel, electric frost preheater and hot water coil. Units shall be ducted to exhaust and supply air to the respective locker room areas.
7. All other bathrooms not supported by these systems shall be exhausted by roof mounted centrifugal exhaust fans and/or local exhaust fans controlled by space occupancy sensors.
8. The kitchen hood system(s) shall include energy saving smoke/heat detection system coupled to variable speed fan(s). These systems shall be interlocked to new roof mounted make-up air system(s) which shall also have the ability reset make-up air system volume in unison with kitchen hood demand.

Controls:

Proposed Energy Management Controls are as follows:

1. The school shall incorporate a direct digital control (DDC) energy management system (EMS) that monitors and controls the HVAC equipment for efficient use. The system is designed on PC based architecture and adjustments are made on a graphics based presentation of building systems. The system also supports maintenance and record keeping needs of the facility. Occupancy of the school is based on the standard school year with occupied/unoccupied conditions based on current school day practice. This is an adjustable feature that can be made to reflect additional operating needs and use of the school building by staff or others.
2. The HVAC systems are generally operated on a school day basis coinciding with the occupied/unoccupied schedule of the standard 180-day school year. Adjustments can be made through the DDC system to allow for usage during periods other than the usual school operating periods.
3. Space temperature is monitored by individual space sensors that transmit data to the central monitoring and control station. Space conditions are adjustable through DDC system and can be modified to meet individual needs. Local control of space conditions is limited to predefined adjustments in space temperature and to facilitate a 3-hour occupied override feature.
4. All classroom systems shall incorporate space occupancy sensors to reset ventilation levels when room is unoccupied during a regularly scheduled occupied period. Systems serving high occupancy areas such as the cafetorium and library also include carbon dioxide (CO₂) indoor air quality (IAQ) sensors which optimize the fresh outdoor air ventilation levels in response to variations in space occupancies.
5. The building shall be connected to emergency power source for operation of heating boilers, pumps and other systems determined to be critical during loss of primary power.

Sustainable Opportunities:

Many of the proposed system and control sequences noted above minimize energy consumption however, further optimization may be obtained by investigating the use of more advanced efficient equipment.

Two solar based options to consider would be passive solar wall design using air passing through a wall assembly facing South to preheat air and/or vacuum tube thermal solar panels mounted on the roof to directly supplement the building heating and domestic hot water systems.

Plumbing

Distribution & Conveying Systems

Proposed Distribution Systems are as follows:

1. The new distribution system would consist of copper piping and lead-free fittings and products. Approved non-metallic potable water distribution products are currently on and/or entering the market and shall also be considered for further evaluation.
2. Sanitary and storm system mains will discharge to outside of the building envelope. It is anticipated that on-site storm water retention shall be implemented. All waste from the science labs generating acidic waste shall be run through a passive acid neutralizing tank with outflow PH monitor.
3. All waste from the kitchen shall be piped to a large (1,000 gallon+/-) exterior grease trap prior to discharge to the municipal sewer system. This exterior trap is in addition to the interior grease traps required by the plumbing code.

Domestic Hot Water

Proposed Domestic Hot Water System is as follows:

1. A high efficiency (93%+) LP gas-fired condensing boiler/water heaters shall be used to support the buildings domestic hot water needs. Water heater(s) shall be located in a central boiler room and be direct vented to the exterior of the building. In addition a preheat coil shall be provided coupled to the chiller/heater to preheat the potable water supply from the waste heat from the chiller/heater.
2. Dual water tempering valve stations shall be provided at the water heater to maintain water heater temperatures above 140°F to prevent bacterial growth in the tank while delivering 125°F water to service fixtures for sanitation and 110°F hot water to public lavatory sinks and other student and public use fixtures to prevent scalding.
3. A recirculating 70°F tempered water loop shall be provided to support the emergency shower eyewash fixtures in the science and chemistry labs.

Fixtures

To achieve improved MA-CHPS compliance and further water savings we highly recommend ultra low flush water closets and urinals be utilized throughout the building. The ultra low flush water closets use 1.28 gallons per flush as opposed to the 1.6 gallon per flush allowed by today's code and the urinals use 1 pint (0.13 gallons) per flush as opposed to the current 1 gallon per flush allowed. The combination of these two can result in substantial savings overtime.

Lavatory faucets shall be of the low flow metered type controlled by either a wired or battery powered sensor operated faucet. Use of these faucets promotes good hygiene as well as water conservation.

Sustainable Opportunities:

Many of the proposed fixtures and control sequences noted above minimize water usage and conserve energy however, further optimization may be obtained by investigating the use of storm water recovery systems. These systems collect, filter and utilize storm water to supply water to water closets and urinals throughout the building. A life cycle evaluation must be performed to ascertain the initial first costs, annual operating costs and projected savings associated with such a system.

End of Narrative

Attached:

- Proposed Chiller/Heater Type
- Proposed Heating Boiler Type
- Proposed ERU Unit Type
- Proposed Displacement Diffuser Types



ART Engineering Corp.

ELECTRICAL ENGINEERS

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T. 508.797.0333 F. 508.797.5130

**Recommendations – Electrical Systems
New Building on Alternate Site “Malden Street” Option
Mountview Middle School
Holden, MA**

Date: August 28, 2012
Prepared by: Azim Rawji, P.E.

1. New Building on Alternate Site “Malden Street”:

a. Electrical Service:

- i. ART is unaware of any deficiencies related to power or telecommunications availability at the site.
- ii. Provide electrical primary and telecommunications underground duct system.
- iii. Provide new electrical service and provide new main switchgear and distribution equipment.

b. Emergency Power:

- i. Provide new emergency/standby generator, transfer and power equipment. Emergency equipment must be separated from normal and standby power equipment per the Massachusetts Electrical Code.
- i. All emergency equipment and feeders must be installed in 2-hour rated rooms or must be 2-hour rated.

c. Lighting:

- i. Provide new egress lighting and exit signage.
- ii. Provide new light fixtures with high efficient fluorescent and LED lamps.
- iii. Provide new lighting control system including occupancy sensors and daylight harvesting.
- iv. Integrate lighting controls with HVAC system to optimize energy performance of the building.

d. Fire Alarm:

- i. Provide new voice evacuation fire alarm system.
- ii. Provide new public safety radio distributed antenna system.

e. Data Communications:

- i. Provide new telecommunications cabling infrastructure per the BICSI standards. Utilize Category 6 cabling infrastructure. Install telecommunications equipment in dedicated rooms.
- ii. Provide new wired and wireless data communications equipment.
- iii. Provide new VoIP telephone system.
- f. Audio-Video Systems:
 - i. Provide new public address and clock systems.
 - ii. Provide new media distribution system.
 - iii. Provide new audio-video systems in classrooms and common areas.
 - iv. Provide new sound system in the gym/cafetorium.
- g. Security Systems:
 - i. Provide new video surveillance, access control and intrusion detection systems.

**MA-CHPS Criteria 2009 Edition
Project Checklist - New Construction**

MA-CHPS Project Numbers (Must be consistent throughout the application)

Project Name: **Mountview Middle School**
Project Address: 270 Shrewsbury Street, Holden, MA
Date Updated: 21-Aug-12

Bldg Area:	
Parking:	
Site Area:	
FTE:	
Students:	
Visitors:	

Yes	Maybe	No	TOTAL
51	42	32	

4	6	0	Integration & Innovation - need 2 points NC, 1 point Ren.		Points	Abridged Requirements
Y			II.p1	Integrated Design	Required	Conduct a min of 2 integrated design team workshops (1 in SD, 1 prior to CD) that identify the project's high performance goals
Y			II.p2	Educational Display	Required	Provide a permanent display on the school site that describes the high performance features that are part of the school's design.
1			II.c1	Demonstration Areas	1	Create demonstration areas for 3 out of the 5 major MACHPS categories: Site, Water, Energy, Materials & IAQ
2	2		II.c2	Innovation	1-4	Points are awarded for highly innovative or creative actions or measure that are not already contained in MACHPS OR exceptional performance in an existing credit.
	3		II.c3	Life Cycle Cost Analysis	3	As part of the design process, perform a life cycle cost analysis showing net present value over 30 yrs of the major building systems considered for the project that are anticipated to consume significant amount of energy, water or other natural resources.
	1		II.c4	School Garden	1	1) Provide a site on campus for one or more school gardens with a min of 100sf four every 4 classrooms. 2) Provide signage to designate the areas as a school garden. 3) Develop a long-term maintenance plan. 4) For existing sites the soil must be tested to ensure there are no contaminants.
1			II.c5	School Master Plan	1	Develop a School Master Plan for the site and facilities of an individual school in collaboration with school board members and community stakeholders that: 1) Supports the continued compliance with high performance strategies. 2) Assess and plan for future transportation impacts. 3) Assess and plan for possible change in student enrollment. 4) Assess using the school for emergency preparedness. 5) Ass and plan for future high performance upgrades and renovations by documenting the life cycle of major materials and systems.

10	13	0	Indoor Environmental Quality - need 5 points NC, 3 points Ren.		Points	Abridged Requirements
Y			EQ.p1	HVAC Design - ASHRAE 62.1	Required	EQp1.1 Minimum OA Ventilation Requirement - Design all spaces to meet ASHRAE 62.1-2007 Section 6.2 outdoor air requirements. In areas having significant pollutants shall be exhausted directly to the outside and not re-circulated. HVAC systems and equipment shall meet the requirements of ASHRAE 62.1 Section 5. EQp1.2 To maintain clean ducts and avoid particulate accumulation and/or mold in the ductwork, duct liners must meet the ASTM standards C1071 or UL 181 for surface erosion resistance and ASTM standards C 1104 or C 209 for water vapor sorption.
Y			EQ.p2	Construction IAQ Management	Required	EQp2.1 During construction meet the recommended Design Approaches of the SMACNA IAQ Guidelines for Occupied Building Under Construction, 2007, Chapter 3. EQp2.2 If installing a new duct system, follow SMACNA guidelines for "Duct Cleanliness for New Construction Guidelines" according to advanced levels of cleanliness. EQp2.3 Building Flush Out - Develop a plan and include it in the specification to flush out the building with OA
Y			EQ.p3	Pollutant & Chemical Source Control	Required	EQp3.1 Off-Gassing - Where chemical use occurs use deck-to-deck partitions with dedicated outside exhaust at a rate of at least 0.50 cubic feet/min/sd. Doors to these areas must be secured with self-locking and closing mechanisms. EQp3.2 Walk off Mats - Provide a 2 part walk-off mat system for all high volume entryways. EQp3.3 Electric Ignitions for Gas-Fired Equipment - Specify electric ignitions for water heaters, boilers, AHUs and cooking stoves. EQp3.4 Air intake locations shall follow ASHRAE 62.1-2007. All intakes must be 6 ft above landscaped grade. EQp3.5 No Mobile Fossil-Fuel Power Equipment Indoors.
Y			EQ.p4	Moisture Management	Required	EQp4.1 Drainage - Design surface grades to slope away from the building. Evaporation drip pans are prohibited for HVAC systems. EQp4.2 Lawn irrigation shall be designed to prevent spray on building. EQp4.3 Mold Prevention - Building materials shall be kept dry.
Y			EQ.p5	Minimum Filtration	Required	Replace filtration media immediately prior to occupancy. Filtration media shall be MERV 10 or higher, excluding unit ventilators, which can have MERV 7.
Y			EQ.p6	Thermal Comfort - ASHRAE 55	Required	Comply with the current ASHRAE 55 thermal comfort standards.
Y			EQ.p7	View Windows, 70%	Required	Provide direct line of site to view glazing from 70% of the combined floor areas of classrooms, library and administration areas. View glazing area shall be =>7% of floor area.
Y			EQ.p8	Eliminate Glare	Required	Design spaces to optimize daylight while preventing glare by controlling direct sunlight ingress. Unoccupied classrooms must meet: 1) Classroom and core learning spaces must have reverberation time meets ANSI S12.60. 2) All walls, roof-ceiling and floor-ceiling assemblies must meet the STC ANSI S12.60-2002. 3) For enclosed core learning areas the exterior windows may comprise no more than 25% of the area of the partition. Floor-ceiling assemblies over classrooms must meet ICC of 50.
Y			EQ.p10	Minimum Low Emitting Materials	Required	EQp10.1 Paints & Coatings - All paints and architectural coatings totaling 90% or more of the total volume of such products applied shall meet SCAQMD Rule 1113 & comply with Safe Drinking Water & Toxic Enforcement Act of 1986. EQp10.2 Composite Wood - At least 90% by area of the composite wood shall meet either or both CARB ATCM Sections 93120-93120.12 and shall have no added formaldehyde.
	2		EQ.c1	View Windows, 80-90%	1-2	Provide direct line of site to view glazing for at least 80% of the combined floor area of the classrooms and admin areas.
3	3		EQ.c2	Daylighting in Classrooms	1-6	For all classroom spaces choose Multiple Point in Time Approach average fc requirements OR Daylight Autonomy Approach (1-4points). For support spaces choose Multiple Point in Time Approach average fc requirements OR Daylight Autonomy Approach (1-2points)
2	2		EQ.c3	Advanced Low-Emitting Materials	1-4	EQc3.1 (1 point) All adhesives and sealants used in quantities of 2.5 gal or more and totaling 90% or more of the total shall meet SCAQMD Rule 1168 or CDPH Standard Practice. EQc3.2 (1 point) Flooring Systems totaling 90% or more of the total floor area shall be tested following CDPH Standard Practice. EQc3.3 (1 point) Ceiling and Wall Systems totaling 90% or more of the total area of such systems shall be tested following CDPH Standard Practice. EQc3.4 Furniture and Furnishings totaling 90% or more of the total shall meet ANSI/BIFMA M7.1-2007
1			EQ.c4	Ducted Returns	1	Install ducted HVAC returns throughout the school in occupied spaces to avoid dust and microbial growth issues.
1			EQ.c5	Enhanced Filtration	1	Design HVAC system with particle arrestance filtration rate MERV 13.
1			EQ.c6	Post-Construction IAQ	1	EQc6.1 Vacuum carpeted and soft surfaces with a HEPA filter vacuum that meets CRI Seal of Approval/Green Label Vacuum. EQc6.2 Prior to flushout, filters must be replaced with MERV 10.
	4		EQ.c7	Enhanced Acoustical Performance	1-4	EQc7.1 (1 point) Classrooms and core learning spaces with volumes greater than 20,000 cubic feet must have a 1.5 second reverberation time max. EQc7.2 (2 points) Unoccupied classrooms must have a max background noise level of no more than 35 dBA Leq. EQc7.3 (1 point) Add to school commissioning requirements (in Eep2) that background HVAC noise is tested to reqs of EQ.p9 and EQc7.2.
2			EQ.c8	Controllability of Systems	1-2	EQc8.1 (1 point) 90% of all classrooms shall have a minimum of one operable window that is accessible to occupants. EQc8.2 (1 point) Provide separate temperature and ventilation controls for each classroom or provide each classroom with an independent temp sensor that automatically adjust to the conditions. And provide lighting controls for each classroom.
	1		EQ.c9	Duct Access & Cleaning	1	Provide access doors for cleaning all supply and return ductwork and execute a plan for cleaning ductwork prior to occupancy.
	1		EQ.c10	Electric Lighting	1	EQc10.1 Provide multi-scene indirect/direct lighting systems for all classrooms. EQc10.2 The lighting system shall operate in general illumination and A/V modes. EQc10.3 In general illumination mode, achieve an avg illumination at desk level of 35 to 50 fc w/ min of 25fc at any point more than 3ft from any wall. EQc10.4 In A/V mode achieve a avg illumination at desk level of between 10 and 20 fc. EQc10.5 In indirect mode, controls shall provide at least two levels of uniform lighting both at night and when daylight is available.

Yes	Maybe	No				
13	6	17	Energy - need 10 points NC, 7 points Ren.		Points	Abridged Requirements
Y			EE.p1	Minimum Energy Performance, 20%	Required	Follow the current MA Stretch Energy Code (780 CMR Appendix 120 AA, Chapter 5) to achieve energy savings either through the Performance based approach (20% better than the current ASHRAE 90.1 on an energy cost basis) OR the Prescriptive based approach as explained in the reference guide.
Y			EE.p2	Commissioning	Required	Implement ALL of the fundamental best practice commissioning procedures, as described in the reference guide and contained in the Massachusetts School Building Authority's Standard Scope of Commissioning Services.
Y			EE.p3	Facility Staff & Occupant Training	Required	<u>EE.P3.1</u> Facility Staff Training: Facility staff must receive training and operation and maintenance documentation on all building systems included in the commissioning scope of work. <u>EE.P3.2</u> Teacher/Administrative Staff Training: Teachers, administrators, and support staff must be offered training on operations of lighting, heating, and cooling systems in classrooms, offices, gyms, auditoriums etc. A User's Guide, explaining basic systems operations, should be developed and posted in each room of the school.
0	0	11	EE.c1(A)	Superior Energy Performance (Performance)	2-15	Performance approach: Utilize the Performance Approach from Energy Prerequisite EE.P1 for quantifying energy cost savings. Points are awarded according the percentage saved over a baseline building.
4			EE.c1(B)	Superior Energy Performance (Prescriptive)	2-4	Prescriptive approach: Meet the requirements of EQ.C2, Daylighting in Classrooms AND ensure that 40% of the installed electrical lighting wattage throughout the school is dimmed or turned off when sufficient natural light is present. (2 points) Install an energy recovery ventilation (ERV) system to recover waste heat into the incoming fresh air stream. (2 points)
2	1		EE.c2	Minimize Air Conditioning	1-3	1 Point: Design and install a dehumidification system, which tempers air but does not act as a full air conditioning system. Spaces such as computer classrooms and server rooms are exempt. 2 Points: Design 80% of permanent classrooms without air conditioning. 3 Points: Design 90% of permanent classrooms without air conditioning.
4	2	6	EE.c3	Renewable Energy	1-12	EE.C3.1: Use renewable energy sources for electricity production that are on-site or allocated to the school facility through net metering. EE.C3.2: Use on-site renewable energy sources for heating/cooling.
	1		EE.c4	Plug Load Reduction & ENERGYSTAR Equipment	1	Pass a resolution to require ENERGY STAR equipment and appliances, where available, for all new purchases for the school and to prohibit the purchase of low efficiency products. Develop a plug load reduction plan that identifies all potential plug loads in the school. Plug loads identified should be incorporated into the energy model in EE.P1 Minimum Energy Performance, if the performance option is followed.
2	1		EE.c5	Energy Management System & Sub metering	1-3	<u>EE.C5.1</u> : Install an energy management system (EMS) to monitor and trend the energy consumed by the following systems throughout the school: Lighting (interior and exterior), HVAC, and Domestic hot water systems. Meter all energy sources provided by utility sources and trend the data against outside air temperature. Provide a plan addressing trendlogging, operator training, and data analysis. <u>EE.C5.2</u> : During design, circuit the electric loads to designated lighting and general power panels so that a true energy measurement of these systems can be achieved. Take either approach for two points: Submeter Major Electrical Equipment Loads OR Boiler System.
1	1		EE.c6	Flex Energy	1-2	Design the school so that the following technologies can be easily incorporated: 1) Photovoltaic electricity systems, 2) Solar thermal systems, 3) Electric vehicles. 1 Point: Identify the locations where one or more of these technologies can be incorporated and what steps must be taken to make them possible. 2 Points: Identify the locations that will be constructed to be ready for one or more of these technologies.
8	3	5	Water - need 5 points NC, 3 points Ren.		Points	Abridged Requirements
Y			WE.p1	Irrigation System Performance on Recreational Fields	Required	Any in-ground irrigation systems used for recreational fields must have soil moisture meters, weather station, or ET controllers.
Y			WE.p2	Indoor Water Use Reduction, 20%	Required	Employ strategies that, in aggregate, reduce potable water use by 20% beyond the baseline calculated for the building after meeting EPA 1992 fixture requirements.
1	1	1	WE.c1	Indoor Water Use Reduction, 30-50%	1-3	Exceed the potable water use reduction beyond the calculated baseline determined in WE.p2
		4	WE.c2	Reduce Potable Water Use for Sewage Conveyance	4	Reduce the use of potable water for building sewage conveyance by a minimum of 50% through the utilization of water-efficient fixtures, use of rainwater catchment systems, or both.
3			WE.c3	No Potable Water Use for Non-Recreational Landscaping Areas	3	Do not install permanent irrigation systems for watering non-playing field landscaped areas AND specify drought tolerant plants or grasses in these areas.
2			WE.c4	Reduce Potable Water Use for Recreational Landscaping Areas	2	Reduce the irrigation needs of athletic fields by specifying appropriate soils and drought tolerant grasses for all sports fields. Specify soils and seed mixes that meet requirements.
1			WE.c5	Irrigation System Commissioning	1	Create an irrigation commissioning plan and complete installation review during construction, performance testing after installation, and documentation for ongoing operations and maintenance.
1	2		WE.c6	Water Management System	1-3	WEc6.1 (1 point) Install a Water Management System to monitor water for any equipment or system that exceeds 20% of the total amount of water used. At a minimum submeter domestic water and exterior irrigation. WEc6.2 (3 points) Install a Water Management System to monitor water use of all indoor and outdoor water uses. Water meters should have a pulsed output for AMR. Submeter: all indoor water usage except gyms with showers, gyms with showers, landscaping irrigation, recreation irrigation, swimming pool, cooling tower.
10	3	3	Site - need 5 points NC, 3 points Ren.		Points	Abridged Requirements
Y			SS.p1	Joint Use of Facilities & Parks	Required	Design, with community involvement onr ore more spaces (2,500sf min) for use by community or other appropriate organization. Share park or recreation space with the community.
5			SS.c1	Sustainable Site Selection	1-5	SSc1.1 (1 point) So not modify land with prior to project was public parkland, conservation land, or land acquired for water supply protection. SSc1.2 (1 point) Do not develop on land lower than 5' above the 100 yr flood elevation. SSc1.3 (1 point) Do not develop school site that are within wetland resource areas. SSc1.4 (1 point) Do not develop on greenfields.
		1	SS.c2	Central Location/Smart Growth	1	Site the school with 1/2 mile of at least 8 basic services OR verify that municipality has a current Commonwealth Capital score
1			SS.c3	Reduced Building Footprint	1	Increase the FAR of the school to be at least 1.4.
	1		SS.c4	Building Layout & Microclimates	1	Implement four of the following: 1) Orient the building to maximize daylighting 2) Consider prevailing winds. 3) Take advantage of existing formations to provide shelter from extreme weather. 4) Plant appropriate trees in appropriate areas. 5) Minimize importation of non-native soils. 6) Create physical connections to bike paths, natural features or adjacent buildings. 7) Site building to maximize opportunities for renewable technology.
1			SS.c5	Public Transportation	1	Locate building within 1/2 mile of a commuter rail, light rail or subway OR within 1/4 mile of one or more bus lines.
1		1	SS.c6	Pedestrian/Bike/Human Powered Transportation	2	SSc6.1 (1 point) Provide sidewalks and bike lanes that extend at least to the school entrance AND provide lanes that connect to residential areas at least 1/4 mile from the school entrance AND provide suitable means to secure bicycles for 5% or more of the building occupants. For elementary schools, count only students in the 4th grade and above as building occupants. SSc6.2 (1 point) Provide bike lanes that extend at least 2 miles into neighboring communities
		1	SS.c7	Parking Minimization	1	New Construction: Size parking capacity 1) to meet, but not exceed, local zoning OR 2) not to exceed a) HS - 2.25 spaces per classroom plus parking for 20% of students b) Elementary & Middle - 3 spaces per classroom. Major Renovations: Add no new parking AND provide preferred parking spaces for 52% of total parking for carpools and LEFE vehicles.
1			SS.c8	Post-Construction Stormwater Management	1	Exceed the MA Stormwater Standards by implementing a stormwater management plan that results in a 25% decrease in stormwater runoff volumen for existing conditions.

	1			SS.c9	Reduce Heat Islands - Landscaping	1	Provide shade (within 5 yrs) on at least 20% of non-roof, impervious surfaces on site OR use light colored (SRI 29) materials for 20% of the impervious area. OR use a combination.
1				SS.c10	Reduce Heat Islands - Cool Roofs	1	Use roofing materials that have a SRI of 78 low-sloped roof, 29 steep-sloped roof for a minimum of 75% of roof area.
	1			SS.c11	Light Pollution Reduction	1	Meet the Uplight, light trespass and glare requirements as described in sections SS.c11.2-11.3
Yes	Maybe	No					
3	6		5	Materials & Waste Management - need 5 points NC, 3 points Ren.			
						Points	Abridged Requirements
Y				MW.p1	Storage & Collection of Recyclables	Required	Meet local ordinances for recycling space, and provide both an easily accessible areas dedicated to the separation collection and storage of recyclables. Provide a plan for the removal of these recyclables.
Y				MW.p2	Minimum Construction Site Waste Management, 75%	Required	Recycle, reuse, and/or salvage at least 75% (by weight) of non-hazardous construction and demolition waste, not including land clearing and associated debris.
	1			MW.c1	Minimum Construction Site Waste Management, 90%	1	Recycle, reuse, and/or salvage an additional 15% for a total of 90% (by weight) of non-hazardous construction and demolition waste, not including land clearing and associated debris.
1	1			MW.c2	Single Attribute - Recycled Content Materials	1-2	Prescriptive: Specify and install at least four major materials from Table 15-Minimum Recycled Content Levels for 1 point, or eight major materials for 2 points. Performance: The weighted average recycled-content value is at least 10% (post-consumer + 1/2 secondary), or at least 20% for 2 points.
	1			MW.c3	Single Attribute - Rapidly Renewable Materials	1	Use rapidly renewable materials, excluding wood fiber, for 2.5% of the total value of all products used in the project. OR Specify rapidly renewable materials for 50% of the major interior finishes or structural material listed in criteria.
	1			MW.c4	Single Attribute - Certified Wood	1	Specify that a minimum of 50% of the wood-based materials are FSC Certified.
1	1			MW.c5	Single Attribute - Regional Materials	1-2	Specify that a minimum of 10% of building materials (based on cost) that are extracted, and manufactured regionally for 1 point. 2 points for 20%.
	1			MW.c6	Materials Reuse	1	Performance: Specify re-used, salvaged or refurbished materials obtained off-site for 5% of building materials. Prescriptive: Specify re-used, salvaged or refurbished materials for 25% of one of the following major finish materials: Flooring, casework, acoustical ceiling tiles, wall finishes, tile, roofing materials.
1				MW.c7	Durable & Low Maintenance Flooring	1	Choose flooring products for 50% of the interior surface that are: Impermeable to moisture and air, 15 year non-prorated life time warranty. Provide documentation showing life cycle (15 year) initial costs and maintenance needs of all flooring in the project have been assessed.
			4	MW.c8	Building Reuse - Exterior	1-4	Reuse large portions of existing structure during renovation or redevelopment projects. 50% - 1 point. 65% - 2 points, 80% - 3 points, 95% - 4 points.
			1	MW.c9	Building Reuse - Interior	1	Maintain 50% non-structural elements (walls, floor coverings and ceiling systems).
Yes	Maybe	No					
3	5		2	Operations & Maintenance			
						Points	Abridged Requirements
Y				OM.p1	Maintenance Plan	Required	The district must create a school maintenance plan that includes an inventory of all equipment (electrical, mechanical, plumbing and envelope) in the school and its preventative and routine maintenance needs.
Y				OM.p2	Anti-Idling Measures	Required	Adopt a no idling policy that applies to all school buses operating in the school district and all vehicles operating in the school zone.
Y				OM.p3	Green Cleaning	Required	The school committee must pass a resolution adopting a comprehensive green cleaning policy that ensures only environmentally preferable cleaning products and practices are used.
1				OM.c1	Work Order & Maintenance Management System	1	The school district shall develop or purchase a work order and maintenance management system (MMS)
	2		1	OM.c2	Indoor Environmental Management Plan	1-3	Option 1 (3 points) Implement EPA's Tools for Schools Program or equivalent. Option 2 (2 points) Custodial/Facility Staff Training using MA Facility Admin. Ass. Modules on IAQ, IPM, radon, drinking water and "Cleaning for Health". Option 3 (1 point) Arrange a presentation on Tools for Schools or MA Healthy Schools Checklist to the school committee.
	1			OM.c3	Green Power	1	Commit to purchasing RECs or a power through a PPA equivalent to 15% of the projected annual electricity needs.
			1	OM.c4	Climate Change Action: Diesel Bus Retrofit	1	Retrofit buses by participating in the DEP MassCleanDiesel Initiative.
	1			OM.c5	Carbon Footprint Reporting	1	Join the Climate Action Registry to commit to calculate, report and verify annual GHG emissions using The Climate Action Registry online tool.
2	1			OM.c6	Energy Benchmarking	3	OMc6.1 (2 points) The school must adopt a policy of benchmarking its energy use over time to track building performance. OMc6.2 (1 point) Commit to conduct a post-occupancy analysis of the building's performance after 1-2 yrs or recommissioning after 2-5 yrs.
Yes	Maybe	No					
51	42		32	TOTAL			

125

Total Possible Points=125

Eligibility Levels**New Construction MA-CHPS Verified - 40 points - REQUIRED****New Construction MA-CHPS Verified Leader - 50 points - 2% reimbursement****Renovation MA-CHPS Verified - 35 points - REQUIRED****Renovation MA-CHPS Verified Leader - 45 points - 2% reimbursement**

Mountview Middle School
Holden, MA
Study Cost Estimate
 31-Aug-12

NEW CONSTRUCTION - NEW SITE

	GSF		COST PER S.F.	TOTAL
NEW CONSTRUCTION	128,000	GSF	\$231.75	\$29,663,979
RENOVATION		N/A		
BUILDING DEMOLITION		N/A		
SITWORK				\$4,352,299
TEMPORARY TRAILORS				n/a
HAZARDOUS WASTE REMOVAL				n/a

		TOTAL DIRECT COST		\$34,016,278
GENERAL CONDITIONS	24	MOS	\$77,500	\$1,860,000
GENERAL REQUIREMENTS		3%		\$1,076,288
P&P BOND & INSURANCE		2%		\$739,051
FEE		3%		\$1,130,749
DESIGN CONTINGENCY		12%		\$4,658,684
GMP CONTINGENCY		3%		\$1,304,431
ESCALATION (summer 2013)		7%		\$3,043,673

		TOTAL CONSTRUCTION COST		\$47,829,155
		COST PER SF		\$373.67

PROJECT: Mountview Middle School
 LOCATION: Holden, MA
 CLIENT: Lamoureux - Pagano Associates, Architects
 DATE: 31-Aug-12

NO. OF SQ. FT.: 128,000
 COST PER SQ. FT.: \$231.75

**NEW CONSTRUCTION
 MIDDLE SCHOOL**

No.: 12043

SUMMARY

	<u>TOTAL</u>	<u>PERCENT OF PROJECT</u>	<u>COST PER SF</u>
A. SUBSTRUCTURE			
A10 - FOUNDATIONS			
A1010 STANDARD FOUNDATIONS	651,364	2%	5.09
A1020 SPECIAL FOUNDATIONS	0	0%	0.00
A1030 SLAB ON GRADE	582,685	2%	4.55
A20 - BASEMENT CONSTRUCTION			
A2010 BASEMENT EXCAVATION	0	0%	0.00
A2020 BASEMENT WALLS	0	0%	0.00
B. SHELL			
B10 - SUPERSTRUCTURE			
B1010 FLOOR CONSTRUCTION	2,317,108	8%	18.10
B1020 ROOF CONSTRUCTION	2,347,210	8%	18.34
B20 - EXTERIOR ENCLOSURE			
B2010 EXTERIOR WALLS	4,889,711	16%	38.20
B2020 EXTERIOR WINDOWS	1,312,653	4%	10.26
B2030 EXTERIOR DOORS	79,956	0%	0.62
B30 - ROOFING			
B3010 ROOF COVERINGS	1,292,040	4%	10.09
B3020 ROOF OPENINGS	28,700	0%	0.22
C. INTERIORS			
C10 - INTERIOR CONSTRUCTION			
C1010 PARTITIONS	1,795,662	6%	14.03
C1020 INTERIOR DOORS	255,485	1%	2.00
C1030 FITTINGS	636,380	2%	4.97
C20 - STAIRS			
C2010 STAIR CONSTRUCTION	199,030	1%	1.55
C2020 STAIR FINISHES	18,600	0%	0.15
C30 - INTERIOR FINISHES			
C3010 WALL FINISHES	643,515	2%	5.03
C3020 FLOOR FINISHES	940,877	3%	7.35
C3030 CEILING FINISHES	791,724	3%	6.19
D. SERVICES			
D10 - CONVEYING			
D1010 ELEVATORS & LIFTS	115,500	0%	0.90
D1010 ESCALATORS & MOVING WALKS	0	0%	0.00
D1090 OTHER CONVEYING SYSTEMS	0	0%	0.00
D20 - PLUMBING			
D2010 PLUMBING	1,344,000	5%	10.50

Mountview Middle School - New Construction

	<u>TOTAL</u>	<u>PERCENT OF PROJECT</u>	<u>COST PER SF</u>
D30 - HVAC			
D3010 HVAC	3,712,000	13%	29.00
D40 - FIRE PROTECTION			
D4010 SPRINKLERS	611,000	2%	4.77
D4020 STANDPIPES	0	0%	0.00
D4030 FIRE PROTECTION SPECIALTIES	0	0%	0.00
D4090 OTHER FIRE PROTECTION SYSTEMS	0	0%	0.00
D50 - ELECTRICAL			
D5010 ELECTRICAL SERVICE & DISTRIBUTION	3,328,000	11%	26.00
D5020 LIGHTING & BRANCH WIRING	0	0%	0.00
D5030 COMMUNICATION & SECURITY	0	0%	0.00
D5090 OTHER ELECTRICAL SYSTEMS	0	0%	0.00
E. EQUIPMENT & FURNISHINGS			
E10 - EQUIPMENT			
E1010 COMMERCIAL EQUIPMENT	450,000	2%	3.52
E1020 INSTITUTIONAL EQUIPMENT	0	0%	0.00
E1030 VEHICULAR EQUIPMENT	0	0%	0.00
E1090 OTHER EQUIPMENT	355,150	1%	2.77
E20 - FURNISHINGS			
E 2010 FIXED FURNISHINGS	905,030	3%	7.07
E2020 MOVABLE FURNISHINGS	0	0%	0.00
F. SPECIAL CONSTRUCTION & DEMOLITION			
F10 - SPECIAL CONSTRUCTION			
F1010 SPECIAL STRUCTURES	0	0%	0.00
F1020 INTEGRATED CONSTRUCTION	0	0%	0.00
F1030 SPECIAL CONSTRUCTION SYSTEMS	0	0%	0.00
F1040 SPECIAL FACILITIES	0	0%	0.00
F1050 SPECIAL CONTROLS & INSTRUMENTATION	0	0%	0.00
F20 - SELECTIVE BUILDING DEMOLITION			
F2010 BUILDING ELEMENTS DEMOLITION	0	0%	0.00
F2020 HAZARDOUS COMPONENTS ABATEMENT	0	0%	0.00
G. BUILDING SITEWORK			
G10 - SITE PREPARATION			
G1010 SITE CLEARING	10,000	0%	0.08
G1020 SITE DEMOLITION & RELOCATIONS	0	0%	0.00
G1030 SITE EARTHWORK	0	0%	0.00
G1040 HAZARDOUS WASTE REMEDIATION	0	0%	0.00
G20 - SITE IMPROVEMENTS			
G2010 ROADWAYS	0	0%	0.00
G2020 PARKING LOTS	0	0%	0.00
G2030 PEDESTRIAN PAVING	0	0%	0.00
G2040 SITE DEVELOPMENT	35,100	0%	0.27
G2050 LANDSCAPING	2,500	0%	0.02

Mountview Middle School - New Construction

	<u>TOTAL</u>	<u>PERCENT OF PROJECT</u>	<u>COST PER SF</u>
G30 - SITE MECHANICAL UTILITIES			
G3010 WATER SUPPLY	0	0%	0.00
G3020 SANITARY SEWER	8,500	0%	0.07
G3030 STORM SEWER	0	0%	0.00
G3040 HEATING DISTRIBUTION	0	0%	0.00
G3050 COOLING DISTRIBUTION	0	0%	0.00
G3060 FUEL DISTRIBUTION	0	0%	0.00
G3090 OTHER SITE MECHANICAL UTILITIES	0	0%	0.00
G40 - SITE ELECTRICAL UTILITIES			
G4010 ELECTRICAL DISTRIBUTION	4,500	0%	0.04
G4020 SITE LIGHTING	0	0%	0.00
G4030 SITE COMMUNICATIONS & SECURITY	0	0%	0.00
G4090 OTHER SITE ELECTRICAL UTILITIES	0	0%	0.00
G90 - OTHER SITE CONSTRUCTION			
G9010 SERVICE AND PEDESTRIAN TUNNELS	0	0%	0.00
G9090 OTHER SITE SYSTEMS	0	0%	0.00
TOTAL DIRECT COST	----- 29,663,979	----- 100%	----- 231.75

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
<u>A. SUBSTRUCTURE</u>				
A10 - FOUNDATIONS				
A1010 STANDARD FOUNDATIONS				
<u>033000 CAST IN PLACE CONCRETE</u>				
Wall Footing 1' X 3' (1636 LF):				
4000 psi, NW, (incl. placement)	182	CY	146.00	26,572
Formwork	3,272	SFCA	6.50	21,268
Rebar	12,285	LBS	1.09	13,391
	<i>*unit cost \$336.43</i>			
Column Footing (122 ea):				
4000 psi, NW, (incl. placement)	352	CY	148.00	52,096
Formwork	5,184	SFCA	8.00	41,472
Rebar	16,340	LBS	1.09	17,811
	<i>*unit cost \$316.42</i>			
Foundation Frost Wall 1'-4" x 4'0" Deep (1636 LF):				
4000 psi, NW, (incl. placement)	322	CY	155.00	49,910
Formwork	13,088	SFCA	11.00	143,968
Brick shelf	1,636	LF	12.00	19,632
Reinforcing steel	43,470	LBS	1.09	47,382
	<i>*unit cost \$810.22</i>			
16" Elevator Mat	6	CY	575.00	3,450
Elevator Pit Wall	6	CY	775.00	4,650
Elev. sump pit	1	LS	1,500.00	1,500
Piers & pilasters	35	CY	775.00	27,125
Equipment pads	1	LS	4,000.00	4,000
Interior wall footing 1' x 2'	15	CY	345.00	5,175
Interior found. wall	32	CY	800.00	25,600
Stage stair (2 flts)	36	LFR	85.00	3,060
Stage ramp	200	SF	6.00	1,200
<u>072100 INSULATION</u>				
2" Rigid ext. found. insul w/prot.bd	6,544	SF	2.60	17,014
<u>071000 DAMPPROOF., WATERPROOF. & CAULKING*</u>				
Dampproof frost wall	6,544	SF	1.90	12,434
Elev. pit waterproofing	1	LS	4,100.00	4,100
<u>310000 EARTHWORK</u>				
Foundation Earthwork:				
Foundation excavation	2,600	CY	7.00	18,200

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Foundation backfill (on site mat'l)	1,500	CY	8.00	12,000
Perimeter foundation drain	1,636	LF	26.50	43,354
Ledge removal - allow	1	LS	25,000.00	25,000
Misc. Earthwork	1	LS	10,000.00	10,000

				651,364

A1030 SLAB ON GRADE

310000 EARTHWORK

12" Gravel base @SOG	2,349	CY	22.00	51,678
Excavate plumbing trenches	1	LS	5,000.00	5,000

033000 CAST IN PLACE CONCRETE

5" Slab on Grade:				
4000 psi, NW, (incl. placement)	987	CY	146.00	144,102
6x6 W1.4 X W1.4	63,414	SF	1.02	64,682
Control Joint	3,171	LF	3.10	9,829
Trowel Finish	63,414	SF	1.25	79,268
*unit cost \$4.70				

Thicken slab @ cols & CMU	50	CY	225.00	11,250
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072100 INSULATION

2" Rigid Slab Insul.	63,414	SF	2.92	185,169
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072616 BELOW GRADE VAPOR RETARDER

Stegro vapor barrier	63,414	SF	0.50	31,707

				582,685

TOTAL A10 FOUNDATIONS				1,234,048
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A20 - BASEMENT CONSTRUCTION

A2010 BASEMENT EXCAVATION		N/A		
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0

TOTAL A20 - BASEMENT CONSTRUCTION				0
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B. SHELL

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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B10 - SUPERSTRUCTURE

B1010 FLOOR CONSTRUCTION

051200 STRUCTURAL STEEL

T.S. brace frame (1 lbs/sf)	35	TONS	3,950.00	138,250
T.S. column (2 lbs/sf)	71	TONS	3,600.00	255,600
Wide flange beam (10 lbs/sf)	352	TONS	3,400.00	1,196,800
H.S.S. beam	10	TONS	3,600.00	36,000
Moment connection	50	EA	750.00	37,500
Shear stud (10/100)	7,036	EA	5.30	37,291

033000 CAST IN PLACE CONCRETE

3 1/2" NW Deck fill	70,362	SF	3.85	270,894
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053100 STEEL DECKING

2" x 20 Ga. comp deck	70,362	SF	2.70	189,977
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072100 INSULATION

Spray on fireproofing	70,362	SF	2.20	154,796
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2,317,108

B1020 ROOF CONSTRUCTION

051200 STRUCTURAL STEEL

T.S. brace frame (1 lbs/sf)	38	TONS	3,950.00	150,100
T.S. column (2 lbs/sf)	76	TONS	3,600.00	273,600
Wide flange beam (10 lbs/sf)	380	TONS	3,400.00	1,292,000
H.S.S. beam	22	TONS	3,600.00	79,200
Moment connection	30	EA	750.00	22,500
Galv. RTU dunnage - allow	10	TONS	3,150.00	31,500
Galv. TS roof screen support	25	TONS	3,300.00	82,500
Entry canopy frame	2,500	SF	20.00	50,000

033000 CAST IN PLACE CONCRETE

3 1/2" NW Conc. Deck fill -roof	1,500	SF	6.00	9,000
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053100 STEEL DECKING

1 1/2" x 20 Ga Typ. Flat roof deck	58,400	SF	2.55	148,920
2" x 20 Ga. Comp deck	1,500	SF	2.70	4,050
3" x 18 Ga acoustical roof deck - gym	7,600	SF	7.15	54,340

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
1 1/2" x 20 Ga canopy roof deck	2,500	SF	2.25	5,625
<u>072100 INSULATION</u>				
Spray-on Fireproofing	59,500	SF	2.25	133,875
<u>090007 PAINTING*</u>				
Paint steel canopy structure	2,500	SF	4.00	10,000

				2,347,210
TOTAL B10 SUPERSTRUCTURE				4,664,318

B20 - EXTERIOR ENCLOSURE

B2010 EXTERIOR WALLS

040001 MASONRY*

12" CMU backup - gym	5,051	SF	22.00	111,122
Masonry Veneer:				
Brick veneer - 60% of exterior	38,625	SF	30.00	1,158,750
Precast window head	2,050	LF	65.00	133,250
Precast window sill - typ	1,950	LF	45.00	87,750
Precast trim allowance	1	LS	150,000.00	150,000
Misc. Masonry detailing	1	LS	50,000.00	50,000
Masonry flashing	2,400	LF	9.00	21,600
Building staging - 100%	65,000	SF	2.00	130,000

054000 COLD FORMED METAL FRAMING

3" Soffit framing	3,500	SF	5.25	18,375
1/2" Dens glass sheathing -soffit	3,500	SF	3.00	10,500
8" x 16 Ga stud @ typ	59,325	SF	9.80	581,385
1/2" Dens glass sheathing-ext. wall	59,352	SF	2.75	163,218

050001 MISCELLANEOUS & ORNAMENTAL IRON*

Downspout boot - canopy	4	EA	650.00	2,600
Galv, loose lintel	2,050	LF	32.00	65,600
*Relieving angle carried w/Structure				

071000 DAMPPROOF., WATERPROOF. & CAULKING*

Control joint - allow	500	LF	9.50	4,750
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071326 AIR & VAPOR BARRIERS

Adhered air & vapor barrier - wall	59,352	SF	3.10	183,991
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DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Adhered air & vapor barrier - soffit	3,500	SF	3.10	10,850
<u>072100 INSULATION</u>				
3" Icyene - wall	59,352	SF	3.20	189,926
3" Rigid Insul - wall	59,352	SF	2.85	169,153
*Excludes soffit insulation				
<u>074213 PERFORMED CLADDING</u>				
Alum. Panel:				
Canopy ceiling	2,500	SF	25.00	62,500
Soffit panel - typical - 12"	3,500	SF	25.00	87,500
Wall panel - 40% ext.	24,350	SF	55.00	1,339,250
Equip roof screen	1,500	SF	32.00	48,000
<u>092116 GYPSUM WALLBOARD</u>				
1 Lyr 5/8" gyp @ ext. wall	50,000	SF	2.05	102,500
<u>101400 IDENTIFYING DEVICES (EXT. BLD MTD SIGNAGE)</u>				
24" Alum bldg mtd letter - allow	21	EA	340.00	7,140

				4,889,711
<u>B2020 EXTERIOR WINDOWS</u>				
<u>061000 ROUGH CARPENTRY</u>				
P.T. - perim blocking	10,500	LF	4.10	43,050
<u>071326 AIR & VAPOR BARRIERS</u>				
Flex flashing - perim	10,500	LF	7.50	78,750
<u>071000 DAMPPROOF., WATERPROOF. & CAULKING*</u>				
Exterior sealants - perim.	10,500	LF	6.25	65,625
<u>080001 METAL WINDOWS*</u>				
Curtain wall - 7"	3,500	SF	88.00	308,000
Typ. alum. window - 4 1/2"	10,958	SF	66.00	723,228
<u>109000 MISCELLANEOUS SPECIALTIES</u>				

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Alum louvers - allow	200	SF	65.00	13,000
Sun screen (3'6")	300	LF	195.00	58,500
Int. light shelf	150	LF	150.00	22,500

				1,312,653
 B2030 EXTERIOR DOORS				
<u>061000 ROUGH CARPENTRY</u>				
P.T. - perim blocking - HM open	160	LF	4.10	656
<u>071000 DAMPPROOF., WATERPROOF. & CAULKING*</u>				
Exterior sealants - perim. HM open	160	LF	6.25	1,000
<u>080001 METAL WINDOWS*</u>				
7' Alum. Doors (Incl. Hardware):				
Main entry - dbl	2	PR	7,150.00	14,300
Rear lobby - dbl	1	EA	7,150.00	7,150
Café - dbl	2	PR	7,150.00	14,300
Stair hall egress - dbl	2	PR	7,150.00	14,300
Auto opener - allow	1	PR	4,200.00	4,200
Classroom - sgl		N/A		
<u>081113 HOLLOW METALWORK</u>				
Insulated HM Doors and Frame (Incl. Hdw):				
Roof stair - sgl	2	EA	1,800.00	3,600
Receiving - dbl	1	EA	2,400.00	2,400
Elec/mech rm - sgl	1	EA	950.00	950
Elec/mech rm - dbl	1	EA	2,000.00	2,000
Storage- sgl	1	EA	950.00	950
Storage - dbl	1	EA	2,000.00	2,000
Gym - dbl	2	EA	5,500.00	11,000
<u>083323 SPECIAL DOORS</u>				
OH Doors		N/A		
<u>087100 DOOR HARDWARE</u>				
		With Doors		
<u>090007 PAINTING*</u>				
Paint HM Door & frame - sgl	4	EA	100.00	400
Paint HM Door & frame - dbl	5	EA	150.00	750

				79,956

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
TOTAL B20 - EXTERIOR ENCLOSURE				6,282,320

B30 - ROOFING

B3010 ROOF COVERINGS

061000 ROUGH CARPENTRY

Typ. Flat roof edge blocking (3 BF/LF)	7,200	BF	3.20	23,040
Base flashing blocking (3 BF/LF)	2,250	BF	3.20	7,200
Mechanical equip blocking	1	LS	10,000.00	10,000

070002 ROOFING AND FLASHING*

PVC roof - canopy	2,500	SF	10.00	25,000
PVC roof w/ 6" rigid insul	70,000	SF	11.85	829,500
Green roof sys.		n/a		
1/2" Gyp prot. bd w/glass mat facing	70,000	SF	1.55	108,500
Poly vapor barrier	70,000	SF	0.35	24,500
Tapered insul premium - allow	10,000	SF	4.00	40,000
Base flashing	750	LF	32.00	24,000
Membrane flashing	1	LS	25,000.00	25,000
Walkway paver (2'x2')	200	EA	24.00	4,800
Aluminum Trim & Flashing:				
Canopy roof fascia	300	LF	35.00	10,500
Typical roof fascia and projection	2,500	LF	50.00	125,000
Misc. flashing	1	LS	35,000.00	35,000

1,292,040

B3020 ROOF OPENINGS

077200 ROOF ACCESSORIES

Elevator vent	1	EA	500.00	500
Roof guardrail		NIC		

*Mechanical equip screen is included with B1020 & B2010

075423 ROOFING & FLASHING*

Skylights	1	LS	25,000.00	25,000
Roof hatch	1	EA	3,200.00	3,200
Stage vent		N/A		

28,700

TOTAL B30 ROOFING				1,320,740
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DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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C. INTERIORS

C10 - INTERIOR CONSTRUCTION

C1010 PARTITIONS

040001 MASONRY*

8" CMU elev. shaft wall	1,656	SF	22.00	36,432
8" CMU - 14' kitchen/mech	3,500	SF	18.00	63,000

050001 MISCELLANEOUS & ORNAMENTAL IRON*

CMU angle brace frame - 4' 0C	150	EA	75.00	11,250
Loose lintels	200	LF	22.00	4,400

061000 ROUGH CARPENTRY

Interior blocking	128,000	GSF	0.50	64,000
Misc. rough carpentry	128,000	GSF	0.50	64,000

072100 INSULATION

Firestopping	128,000	GSF	0.35	44,800
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081113 HOLLOW METALWORK

Interior H.M Windows, Sidelites and Transoms :

Classroom sidelight (50 ea)	700	SF	35.00	24,500
Admin sidelight (10 ea)	70	SF	35.00	2,450
7' sidelight -allow	200	SF	35.00	7,000
4' window -allow	300	SF	35.00	10,500
Misc. window/sidelight & transom	300	SF	35.00	10,500

083323 SPECIAL DOORS

Access panels	1	LS	15,000.00	15,000
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080002 GLASS AND GLAZING*

Glass & Glazing - HM Frame:

Classroom sidelight	700	SF	14.00	9,800
Admin sidelight	70	SF	14.00	980
7' sidelight -allow	200	SF	14.00	2,800
4' window -allow	300	SF	14.00	4,200
Misc. window/sidelight & transom	300	SF	14.00	4,200

*Excludes fire rated stair hall glazing

090007 PAINTING*

Paint window/sidelight & transom	1,570	SF	5.00	7,850
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092116 GYPSUM WALLBOARD

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
1 Lyr 5/8" gyp @ ext. wall frame Drywall partitions and assemblies *Partitions include sound attenuation, tape & joint compound finish	128,000	w/B2010 GSF	11.00	1,408,000
				----- 1,795,662

C1020 INTERIOR DOORS

081113 HOLLOW METALWORK081416 WOOD AND PLASTIC DOORS

Interior Door, Frame, Hds., Glass & Glazing:

Media ctr - dbl	2	EA	2,500.00	5,000
Typ. classroom - sgl	50	EA	1,100.00	55,000
Interconnecting classroom - sgl	31	EA	850.00	26,350
Storage - sgl	12	EA	700.00	8,400
Storage - dbl	6	EA	1,250.00	7,500
Toilet rm - sgl user	9	EA	950.00	8,550
Locker rm - sgl	4	EA	950.00	3,800
Stair/corridor - dbl	9	EA	3,500.00	31,500
Mech/elec. - sgl	8	EA	800.00	6,400
Mech/elec. - dbl	2	EA	1,600.00	3,200
Office - sgl	8	EA	1,100.00	8,800
Kitchen - sgl	2	EA	1,200.00	2,400
Kitchen - dbl	2	EA	2,250.00	4,500
Music class - sgl	2	EA	1,500.00	3,000
Stage - sgl	1	EA	1,800.00	1,800
Stage - dbl	1	EA	3,600.00	3,600
Gym - dbl	2	EA	3,600.00	7,200

087100 DOOR HARDWARE

With Doors

080001 METAL WINDOWS*

Aluminum (Frame, Door, Glass, Glazing and Hdw):

Vest - dbl	2	PR	6,500.00	13,000
Main office -sgl	2	EA	3,200.00	6,400

Aluminum Storefront:

Vestibule 10'	200	SF	70.00	14,000
Main office 7'	300	SF	70.00	21,000

083323 SPECIAL DOORS

Dish drop window		N/A		
Servery grille		N/A		
Main office security grate		N/A		

090007 PAINTING*

Paint door frame - sgl	105	EA	75.00	7,875
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DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Paint door frame - dbl	46	EA	135.00	6,210

				255,485

C1030 FITTINGS

050001 MISCELLANEOUS & ORNAMENTAL IRON*

Gym equip. support & frame	1	LS	5,000.00	5,000
OT/PT swing support	1	LS	1,500.00	1,500
Misc. metals	128,000	GSF	0.50	64,000

062000 FINISH CARPENTRY

Utility & closet shelving	1	LS	7,500.00	7,500
Typ. window sill/apron (nic cw-gym)	1,826	LF	30.00	54,780
Built - in corridor benches - allow	50	LF	300.00	15,000
Proscenium trim @ stage front panel	1	LS	10,000.00	10,000
Misc. wood trim	128,000	GSF	0.50	64,000

Custom Casework:

Admin desk	1	LS	7,500.00	7,500
Circulation desk	1	LS	10,000.00	10,000

102113 COMPARTMENTS & CUBICLES

Solid Plastic Toilet Rm. Partitions (8 Rms):

Std. partition	8	EA	1,150.00	9,200
HC partition	8	EA	1,350.00	10,800
Urinal screen	8	EA	275.00	2,200

Locker Rm Partitions (2 RMS):

Std. partition	2	EA	1,150.00	2,300
HC partition	2	EA	1,350.00	2,700
Urinal screen	2	EA	275.00	550

Changing stall w/bench

Changing stall w/bench	5	EA	1,500.00	7,500
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102813 TOILET & BATH ACCESSORIES

Toilet Accessories	1	LS	45,000.00	45,000
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Janitor shelf	3	EA	200.00	600
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*Excludes classroom accessories

101100 MARKERBOARDS & TACKBOARDS

5' Smart board		NIC		
Markerboards 4' h	3,600	SF	18.00	64,800
Tackboards 4' h	3,600	SF	13.00	46,800
Display cases - allow	1	LS	20,000.00	20,000
Class/mtg space flag pole - allow	50	EA	35.00	1,750

105113 METAL LOCKERS

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Locker rm bench	7	EA	800.00	5,600
Gym lockers	100	EA	270.00	27,000
Student Mtl corridor locker	450	EA	245.00	110,250
Kitchen staff locker - allow	6	EA	225.00	1,350
<u>109000 MISCELLANEOUS SPECIALTIES</u>				
Wall & corner guards - allow	1	LS	5,000.00	5,000
Fire extinguisher and cab - allow	8	EA	450.00	3,600
Cubicle curtain track w/ curtain - health off.	2	EA	1,200.00	2,400
<u>101400 IDENTIFYING DEVICES</u>				
Building directory - allow	1	EA	5,000.00	5,000
Dedication plaque	1	EA	3,500.00	3,500
Door signage plaque	128,000	GSF	0.15	19,200
<u>106000 OPERABLE PARTITION</u>				
		N/A		
				----- 636,380
TOTAL C10 - INTERIOR CONSTRUCTION				2,687,527

C20 - STAIRS

C2010 STAIR CONSTRUCTION

050001 MISCELLANEOUS & ORNAMENTAL IRON*

Metal Pan Stair w/Rails:

Roof access - allow	1	FLT	25,000.00	25,000
Monumental lobby	2	FLT	28,000.00	56,000
Stair hall switch back	4	FLT	25,000.00	100,000
Roof access stair gate	1	EA	1,500.00	1,500

Interior Rails:

Stage ramp wall rail	20	LF	95.00	1,900
Stage ramp guard rail	20	LF	225.00	4,500
Lobby guardrail		N/A		
Stage stairs wall rail	12	LF	115.00	1,380

033000 CAST IN PLACE CONCRETE

Conc stair pan fill	7	FLTS	1,250.00	8,750
				----- 199,030

C2020 STAIR FINISHES

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
<u>090005 RESILIENT FLOORING*</u>				
Rubber treads and risers - full flt.	7	FLT	1,100.00	7,700
Rubber stair landing tile	300	SF	6.00	1,800
<u>062000 FINISH CARPENTRY</u>				
<u>090007 PAINTING*</u>				
Paint stair & rails	7	FLTS	1,300.00	9,100

				18,600
TOTAL C20 - STAIRS				217,630

C30 - INTERIOR FINISHES

C3010 WALL FINISHES

071000 DAMPPROOF., WATERPROOF. & CAULKING*

Joint sealants - interior	128,000	GSF	0.55	70,400
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098400 ACOUSTICAL WALL TREATMENT

Tectum Wall Panel: 2" Gymnasium	1,400	SF	20.00	28,000
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Fabric Wrapped Acoustical Panels - Allow:

Stage	500	SF	27.00	13,500
Café	750	SF	27.00	20,250
Corridor	500	SF	27.00	13,500
Music class rm	500	SF	27.00	13,500
Music practice rm		N/A		
IMC	300	SF	27.00	8,100

090002 TILE*

Ceramic Wall Tile:				
8' toilet rm	4,360	SF	14.00	61,040
4' Wainscot janitor closet @ mop sink	300	SF	14.00	4,200
7'4" Wainscot corridor/stair hall - allow	12,000	SF	16.00	192,000

090007 PAINTING*

Vinyl wall covering		NIC		
Interior painting- walls	128,000	GSF	1.55	198,400

092116 GYPSUM WALLBOARD

FRP Panel: Kitchen - 10'	2,500	SF	8.25	20,625
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DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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*Includes Section 09770

643,515

C3020 FLOOR FINISHES

033000 CAST IN PLACE CONCRETE

Sealed Concrete	1,406	SF	0.95	1,336
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090002 TILE*

Kitchen:

Quarry floor tile - mud set	4,642	SF	17.00	78,914
Quarry tile base	275	LF	8.00	2,200

Toilet Room (sgl user):

Ceramic floor tile - thin set	750	SF	15.00	11,250
Ceramic base	379	LF	6.00	2,274
Waterproof - upper floor	500	SF	7.00	3,500
Marble threshold	12	EA	50.00	600

Toilet Room (multi user):

Ceramic floor tile - thin set	1,766	SF	15.00	26,490
Ceramic base	545	LF	6.00	3,270
Waterproof - upper floor	754	SF	7.00	5,278
Marble threshold /saddle	55	LF	30.00	1,650

Locker/Toilet Room:

Ceramic floor tile - thin set	1,463	SF	15.00	21,945
Ceramic base	228	LF	6.00	1,368
Marble threshold /saddle	2	EA	65.00	130

Janitor Closet (3 EA):

Ceramic floor tile - thin set	93	SF	15.00	1,395
Ceramic base	55	LF	6.00	330
Waterproof - upper floor	93	SF	7.00	651
Marble threshold	3	EA	50.00	150

Porcelain Tile:

Entry / lobby tile	5,214	SF	18.00	93,852
Porcelain base	482	LF	7.00	3,374

090005 RESILIENT FLOORING*

Gym base	352	LF	2.50	880
Resilient sports floor at gym	7,569	SF	19.00	143,811
Café linoleum sheet-hvy duty	728	SY	82.00	59,696
Linoleum sheet - corridor	2,224	SY	82.00	182,368
Linoleum tile - classroom	7,180	SF	5.75	41,285
Rubber base	15,500	LF	2.20	34,100
Concrete moisture barrier	128,000	SF	1.00	128,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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095000 WOOD FLOOR

Stage wood flooring - maple *Includes 6 mil poly, resilient pads, sealant & finish	1,700	SF	15.00	25,500
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096800 CARPET

Admin carpet	399	SY	42.00	16,758
Media ctr carpet	941	SY	42.00	39,522

124813 MATS

Main Entry: Recessed alum entrance mat	200	SF	45.00	9,000
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940,877

C3030 CEILING FINISHES

092116 GYPSUM WALLBOARD

Gyp ceiling - toilet rm	2,516	SF	8.00	20,128
2 Hr. gyp ceiling	1,500	SF	13.00	19,500
Typ. gyp ceiling	5,000	SF	8.00	40,000
Stage acoustical reflector	750	SF	25.00	18,750
Gyp soffits & light coves	1	LS	50,000.00	50,000

090003 ACOUSTICAL TILE*

Ceiling System:				
Music classroom	2,000	SF	5.50	11,000
2x2 ACT typical	104,863	SF	4.75	498,099
MR Kitchen	4,642	SF	5.00	23,210
Cafeteria ceiling system	6,552	SF	10.00	65,520

090007 PAINTING*

Paint gyp ceiling	9,016	SF	0.85	7,664
Paint gyp soffits & light coves	1	LS	25,000.00	25,000
Paint exposed structure - gym	7,569	SF	1.50	11,354
Paint exposed structure - mech/elec.	1,500	SF	1.00	1,500

791,724

TOTAL C30 - INTERIOR FINISHES				2,376,116
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D. SERVICES

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DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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D10 - CONVEYING

D1010 ELEVATORS & LIFTS

140001 ELEVATORS*

Stage lift		N/A		
Passenger elevator	3	STOP	37,000.00	111,000

050001 MISCELLANEOUS & ORNAMENTAL IRON*

Elev. framing	1	EA	3,000.00	3,000
Elev. pit ladder	1	EA	1,500.00	1,500

115,500

TOTAL D10 - CONVEYING				115,500
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D20 - PLUMBING

D2010 PLUMBING

220001 PLUMBING*

Plumbing	128,000	GSF	10.50	1,344,000
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1,344,000

TOTAL D20 - PLUMBING		/SF		1,344,000
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D30 - HVAC

D3010 HVAC

230001 HVAC*

HVAC	128,000	GSF	29.00	3,712,000
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3,712,000

TOTAL D30 - HVAC		\$29.00 /sf		3,712,000
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D40 - FIRE PROTECTION

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
D4010 SPRINKLERS				
<u>210001 FIRE SUPPRESSION*</u>				
Fire pump	1	LS	75,000.00	75,000
8" Check valve assembly	1	LS	8,600.00	8,600
6" Wet valve alarm assembly	1	EA	4,500.00	4,500
4" Check valve	1	EA	2,200.00	2,200
Siamese connection	1	EA	1,200.00	1,200
Sprinkler sys - wet	128,000	GSF	4.00	512,000
Test , drawings, misc gc	1	LS	7,500.00	7,500

				611,000

TOTAL D40 - FIRE PROTECTION			\$4.77 /sf	611,000
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D50 - ELECTRICAL

D5010 ELECTRICAL SERVICE & DISTRIBUTION

260001 ELECTRICAL*

Electrical	128,000	GSF	26.00	3,328,000

				3,328,000

TOTAL D50 - ELECTRICAL			\$26.00 /sf	3,328,000
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E. EQUIPMENT & FURNISHINGS

E10 - EQUIPMENT

E1010 COMMERCIAL EQUIPMENT

114000 FOOD SERVICE EQUIPMENT

Kitchen equipment & casework	1	LS	450,000.00	450,000

				450,000

E1090 OTHER EQUIPMENT

113100 APPLIANCES

Gym laundry appliances	1	RM	2,500.00	2,500
Teacher work rm appliances	2	RM	2,500.00	5,000
Health office appliances	1	LS	2,500.00	2,500

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Teachers dining appliances	1	LS	2,500.00	2,500
Life Skill Rm/Care Classroom - Allow:				
Dishwasher		NIC		
Refrigerator		NIC		
Range		NIC		
Range hood		NIC		
<u>116600 ATHLETIC & SPORTS EQUIPMENT</u>				
Basketball backstops - electric	6	EA	9,500.00	57,000
Wall padding - 6'	1,250	SF	15.00	18,750
Motorized gym divider curtain	1,900	SF	18.00	34,200
Volley ball court equip.	1	EA	700.00	700
Scoreboard		w/Electrical		
Folding bleachers	1	LS	40,000.00	40,000
PT floor mats		NIC		
<u>116143 STAGE DRAPERY</u>				
Stage curtains	1	LS	30,000.00	30,000
<u>115213 PROJECTION SCREENS</u>				
Projection screen - stage	1	EA	10,000.00	10,000
<u>119000 MISC. EQUIPMENT</u>				
Metal storage shelving		NIC		
Book security equipment		NIC		
Kiln	1	LS	3,500.00	3,500
<u>116100 THEATRE EQUIPMENT</u>				
Audio & video	1	LS	30,000.00	30,000
Dimming, stage, rigging	1	LS	40,000.00	40,000
<u>115300 LABORATORY EQUIPMENT</u>				
Science Lab equipment	5	EA	7,500.00	37,500
Science Prep rm appliance	3	EA	5,000.00	15,000
Science fume hood	4	EA	6,500.00	26,000

				355,150
TOTAL E10 - EQUIPMENT				805,150

E20 - FURNISHINGS

E 2010 FIXED FURNISHINGS

129000 MISC. FURNISHINGS

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Meco shade - manual	10,958	SF	5.25	57,530
Int. office/class window shades	1	LS	7,500.00	7,500
<u>123553 CLASSROOM CASEWORK</u>				
Architectural casework	128,000	SF	2.50	320,000
Casework (Epoxy Counter w/Wood Cabinets):				
Art room	2	EA	20,000.00	40,000
Science room	6	EA	60,000.00	360,000
Prep room	3	EA	15,000.00	45,000
Tech room	5	EA	15,000.00	75,000

				905,030
E2020 MOVABLE FURNISHINGS		NIC		

				0
TOTAL E20 - FURNISHINGS				905,030

PROJECT: Mountview Middle School
 LOCATION: Holden, MA
 CLIENT: Lamoureux - Pagano Associates, Architects
 DATE: 31-Aug-12

No.: 11100

**NEW BUILDING
 NEW SITE - SITEWORK**

SUMMARY

	<u>TOTAL</u>	<u>PERCENT OF PROJECT</u>	<u>COST PER SF</u>
G. BUILDING SITEWORK			
G10 - SITE PREPARATION			
G1010 SITE CLEARING	84,225	2%	0.00
G1020 SITE DEMOLITION & RELOCATIONS	226,375	5%	0.00
G1030 SITE EARTHWORK	527,890	12%	0.00
G1040 HAZARDOUS WASTE REMEDIATION	0	0%	0.00
G20 - SITE IMPROVEMENTS			
G2010 ROADWAYS	915,902	21%	0.00
G2020 PARKING LOTS	0	0%	0.00
G2030 PEDESTRIAN PAVING	135,723	3%	0.00
G2040 SITE DEVELOPMENT	439,225	10%	0.00
G2050 LANDSCAPING	485,000	11%	0.00
G30 - SITE MECHANICAL UTILITIES			
G3010 WATER SUPPLY	211,345	5%	0.00
G3020 SANITARY SEWER	132,554	3%	0.00
G3030 STORM SEWER	846,550	19%	0.00
G3040 HEATING DISTRIBUTION	0	0%	0.00
G3050 COOLING DISTRIBUTION	0	0%	0.00
G3060 FUEL DISTRIBUTION	51,250	1%	0.00
G3090 OTHER SITE MECHANICAL UTILITIES	0	0%	0.00
G40 - SITE ELECTRICAL UTILITIES			
G4010 ELECTRICAL DISTRIBUTION	167,160	4%	0.00
G4020 SITE LIGHTING	94,100	2%	0.00
G4030 SITE COMMUNICATIONS & SECURITY	35,000	1%	0.00
G4090 OTHER SITE ELECTRICAL UTILITIES	0	0%	0.00
G90 - OTHER SITE CONSTRUCTION			
G9010 SERVICE AND PEDESTRIAN TUNNELS	0	0%	0.00
G9090 OTHER SITE SYSTEMS	0	0%	0.00
TOTAL	4,352,299	100%	0.00

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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G. BUILDING SITEWORK

G10 - SITE PREPARATION

G1010 SITE CLEARING

311000 SITE PREPARATION & CLEARING

Erosion control	6,500	LF	3.65	23,725
Drain inlet protection - allow	10	EA	50.00	500
Construction entrance and staging	1	LS	10,000.00	10,000
Misc. site preparation	1	LS	50,000.00	50,000

				84,225

G1020 SITE DEMOLITION & RELOCATIONS

311000 SITE PREPARATION & CLEARING

Site Preparation	905,500	SF	0.25	226,375

				226,375

G1030 SITE EARTHWORK

310000 EARTHWORK

Cut and Fill	50,000	CY	7.00	350,000
Site Rough Grading	100,600	SY	0.65	65,390
Ledge Removal - allowance	2,500	CY	45.00	112,500

*Site utilities include excavation & backfill

527,890

G1040 HAZARDOUS WASTE REMEDIATION N/A

0

TOTAL G10 - SITE PREPARATION				838,490
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G20 - SITE IMPROVEMENTS

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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G2010 ROADWAYS

320000 PAVEMENT, CURBING & EDGING

4 1/2" Vehicular Bituminous Pavement:

New Parking and drive	18,842	SY	26.00	489,892
12" Gravel base @ drive	6,280	CY	19.50	122,460
Granite curb - straight	7,840	LF	29.50	231,280
Granite curb - radial	1,960	LF	29.50	57,820
Tactile warning paver at HC Cut	6	EA	325.00	1,950
Traffic signage	1	LS	5,000.00	5,000
Misc. pavement markings	1	LS	7,500.00	7,500

				915,902

G2020 PARKING LOTS

*Included with G2010

0

G2030 PEDESTRIAN PAVING

320000 PAVEMENT, CURBING & EDGING

4" Concrete pavement	15,000	SF	4.25	63,750
8" Gravel base @ walk	370	CY	21.00	7,770
3" Bituminous walk	1,500	SY	23.00	34,500
8" Gravel base @ walk	333	CY	21.00	6,993
Specially Entry Pavement	3,500	SF	6.00	21,000
8" Gravel base @ walk	90	CY	19.00	1,710

				135,723

G2040 SITE DEVELOPMENT

323100 SITE IMPROVEMENTS

6" Concrete dumpster pad	500	SF	10.00	5,000
Dumpster enclosure	85	LF	65.00	5,525
Dumpster gate	1	EA	2,500.00	2,500
Baseball Field	1	EA	65,000.00	65,000
Softball Field	1	EA	65,000.00	65,000
Tennis court	2	EA	55,000.00	110,000
Basketball court	1	EA	40,000.00	40,000
Fencing	1	LS	60,000.00	60,000
Bollards @ transformer/generator	6	EA	550.00	3,300

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Vehicular access gate	2	EA	2,200.00	4,400
Bike rack - allow	5	EA	450.00	2,250
Bench - allow	10	EA	1,800.00	18,000
Trash receptacle - allow	3	EA	1,250.00	3,750
Flag pole	1	EA	4,500.00	4,500
Misc. site improvements	1	LS	50,000.00	50,000

				439,225

G2050 LANDSCAPING

329000 LANDSCAPING

Landscaping - allow	1	LS	100,000.00	100,000
Loam and Seed disturbed area	70,000	SY	5.50	385,000
Irrigation system		NIC		

				485,000

TOTAL G20 - SITE IMPROVEMENTS				1,975,850
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G30 - SITE MECHANICAL UTILITIES

G3010 WATER SUPPLY

330000 UTILITIES

Site connection	1	LS	7,500.00	7,500
4" Domestic	25	LF	51.00	1,275
6" Fire service line	200	LF	58.00	11,600
10" Main	1,500	LF	89.00	133,500
Hydrant	5	EA	1,850.00	9,250
10" Gate valve	4	EA	1,150.00	4,600
6" Gate valve	2	EA	850.00	1,700
4" Gate valve	1	EA	670.00	670
Ledge removal	750	CY	55.00	41,250

				211,345

G3020 SANITARY SEWER

330000 UTILITIES

Grease trap (5,000 gal)	1	EA	7,000.00	7,000
8" PVC Sanitary main	1,500	LF	48.00	72,000
6" Cast Iron	42	LF	62.00	2,604
Sanitary manhole	3	EA	2,500.00	7,500
Clean out	4	EA	550.00	2,200
Ledge removal	750	CY	55.00	41,250

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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132,554

G3030 STORM SEWER

330000 UTILITIES

Storm Sewer:

Site Drainage :

Area drain	7	EA	1,250.00	8,750
Drainage manhole	20	EA	2,250.00	45,000
Catch basin	30	EA	2,250.00	67,500
24" RCP	1,800	LF	56.00	100,800
12" RCP	3,000	LF	38.00	114,000
18" RCP	2,500	LF	46.00	115,000
15" RCP	1,000	LF	42.00	42,000
Water quality structure	3	EA	12,000.00	36,000
Wet land crossing	1	LS	30,000.00	30,000

Detention Systems	7,500	SF	20.00	150,000
Ledge removal - allow	2,500	CY	55.00	137,500

846,550

G3060 FUEL DISTRIBUTION

330000 UTILITIES

Fuel Distribution:

Gas main trenching and backfill	1,500	LF	25.00	37,500
Ledge removal	250	CY	55.00	13,750

51,250

G3090 OTHER SITE MECHANICAL UTILITIES

N/A

0

TOTAL G30 - SITE MECHANICAL UTILITIES				1,241,699
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G40 - SITE ELECTRICAL UTILITIES

G4010 ELECTRICAL DISTRIBUTION

260000 ELECTRICAL*

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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SPARE OR EMPTY RACEWAYS

PVC Underground:

4"	5,000	LF	14.20	71,000
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GROUNDING:

Ground rod 3/4"x10'

1	EA	77.00	77
---	----	-------	----

Bare copper wire #1/0

25	LF	3.30	83
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330000 UTILITIES

Transformer pad	1	EA	2,000.00	2,000
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Emergency generator pad (15'x30')	1	EA	2,500.00	2,500
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Conc. ductbank	1,500	LF	42.00	63,000
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Tele/data duct bank	750	LF	38.00	28,500
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*Primary cabling - By Others

167,160

G4020 SITE LIGHTING

260000 ELECTRICAL*

Parking light pole	20	EA	3,500.00	70,000
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Pedestrian lighting	12	EA	1,800.00	21,600
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Flag pole lighting	1	LS	2,500.00	2,500
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94,100

G4030 SITE COMMUNICATIONS & SECURITY

330000 UTILITIES

Security Cameras	10	EA	3,500.00	35,000
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35,000

G4090 OTHER SITE ELECTRICAL UTILITIES

N/A

0

0

TOTAL G40 - SITE ELECTRICAL UTILITIES**296,260****G90 - OTHER SITE CONSTRUCTION**

N/A

TOTAL G90 - OTHER SITE CONSTRUCTION**0**

Mountview Middle School - New Site

NEW SITEWORK

8/31/2012

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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3.3.2.3 FINAL EVALUATION OF ALTERNATIVES

- E. Cost Comparison Chart:
Table 1

Mountview Middle School

270 Shrewsbury Street, Holden, MA 01520

3.3.2.3 FINAL EVALUATION OF ALTERNATIVES

FEASIBILITY STUDY

E. Cost Comparison Chart: Table 1

Option (Description)	Total Gross Square Feet	Square Feet of Renovated Space (cost*/sf)	Square Feet of New Construction (cost*/sf)	Site, Building Takedown, Hazmat Cost*	Estimated Total Construction** (cost*/sf)	Estimated Total Project Costs
Renovation/ Addition Option		96,308 sf @ \$150.84/sf = \$14,527,098.	52,087 sf @ \$237.88/sf = \$12,390,456.	Building Demo = \$200,190.	\$46,632,016.	\$58,290,075.
				Sitework = \$3,290,622.		
				Temporary Classrooms = \$1,500,000.		
				Hazmat = \$745,000.		
New Construction Existing Site Option ***	128,000	NA	128,000 sf @ \$231.75/sf = \$29,664,000.	Building Demo = \$475,685.	\$49,236,977.	\$61,546,221.
				Sitework = \$3,630,110.		
				Temporary Classroom = N/A		
				Hazmat = \$1,070,000.		
New Construction New Site "Malden Street" Option	128,000	NA	128,000 sf @ \$231.75/sf = \$29,664,000.	Building Demo = NA	\$47,829,155.	\$59,786,443.
				Sitework = \$4,352,299.		
				Hazmat = NA		

*Marked Up Construction Costs

**Does not include Construction Contingency

***District's Preferred Solution



3.3.2.4 PREFERRED SOLUTION

- A. Educational Program Narrative
- B. Revised Space Summary
- C. Building Floor Plans
- D. MA-CHPS Scorecard, Charrette Memo & Designer Statement
- E. Site Plan
- F. Budget Narrative
- G. Updated Project Schedule

3.3.2.4 PREFERRED SOLUTION

A. Educational Program Narrative

MOUNTVIEW MIDDLE SCHOOL

270 Shrewsbury Street, Holden, MA 01520

3.3.2.4 PREFERRED SOLUTION

A. Educational Program Narrative

FEASIBILITY STUDY

Construction of a new school on the existing site option provided for the following component of the WRSD Middle School Educational Program:

- Classroom size is typically 900 SF to maximize flexibility in educational delivery.
- The physical layout of spaces supports the District's Team Teaching approach to educational delivery. Two-3 story classroom wings support the school's six teams (two teams per wing) for the four primary divisions (ELA, Science, History/Geography and Math), Science Labs and SPED Resource Rooms. Each floor includes Technology and Art rooms as well as additional SPED classrooms and teacher workrooms. Physical Education and Music are located in areas that are easily accessible to the public and community.
- Community/public and academic areas are separated; with the capability to use either one (or both) at any time.
- Combined Gymnasium/Stage assembly space with seating capacity (on telescopic bleachers) for the entire student body at one time.
- Stage area has the flexibility and capability to be closed off (by a movable partition) to allow the Stage to be utilized as a Music classroom.
- The Gymnasium includes a regulation-sized basketball court for School Team use and is sized for three teaching stations per the district's educational program.
- Bus and parent pick-up vehicular traffic is divided, by the double-sided Lobby, into separate areas of the site.
- The Main Lobby is of sufficient size and has direct visual exposure to parent pick-up area to allow use as a queuing space during afternoon school release.
- A secure main entry vestibule, with direct connection to General Office, is provided; this will allow staff to visually monitor and control access into the building.
- The School Nurse is adjacent to the Administration area and adjacent to one of the three self contained SPED classrooms.
- HVAC system provides dehumidification to all classrooms.



MOUNTVIEW MIDDLE SCHOOL

270 Shrewsbury Street, Holden, MA 01520

3.3.2.4 PREFERRED SOLUTION

FEASIBILITY STUDY

A. Educational Program Narrative

For the District, one of the most important features of this option is that it allows the existing Educational Program at the Mountview Middle School to be virtually unaffected by construction activities. The Addition/Renovation option would adversely impact educational delivery for the duration of construction activities.

The Development of the “Malden Street” site option proved to be too costly to complete and the “what to do with” question concerning the abandonment of the existing school, both contributed to the final preferred solution of building new on the existing site.



3.3.2.4 PREFERRED SOLUTION

B. Revised Space Summary

Revised Space Summary -Mountview Middle School

Mountview Middle School			
ROOM TYPE	Existing Conditions		
	ROOM NFA ¹	# OF RMS	area totals
CORE ACADEMIC SPACES			25,145
<i>(List classrooms of different sizes separately)</i>			
Classroom - General			
Classroom - General			
Classroom - General 100,112, 200, 300, 315	846	5	4,230
Classroom - General 101	860	1	860
Classroom - General 111,201,301,314	861	4	3,444
Classroom - General 103,109,303,313	719	4	2,876
Classroom - General 102,110,202,312	838	4	3,352
Classroom - General 203	714	1	714
Classroom - General 207,208	725	2	1,450
Classroom - General 311	1,148	1	1,148
Classroom - General 210	635	1	635
Small Group Seminar (20-30 seats) / Resource 106	1,120	1	1,120
Science Classroom / Lab			0
Science Classroom / Lab 105	695	1	695
Science Classroom / Lab 108	632	1	632
Science Classroom / Lab 206	842	1	842
Science Classroom / Lab 209	844	1	844
Science Classroom / Lab 308	1,033	1	1,033
Science Classroom / Lab 309	1,032	1	1,032
Prep Room/Storage 213	161	1	161
Storage 212	77	1	77
SPECIAL EDUCATION			2,671
<i>(List classrooms of different sizes separately)</i>			
Self-Contained SPED			
Self-Contained SPED			
SPED 104	635	1	635
SPED 204	553	1	553
SPED 310	551	1	551
Resource Rooms	90	3	270
Resource Rooms	56	1	56
Psychologist 306	606	1	606
Self-Contained SPED Toilet			
Resource Room			
Resource Room			
Small Group Room / Reading			
ART & MUSIC			4,423
Art Classroom 307	856	1	856
Art Workroom 305	1,165	1	1,165
Chorus 213	1,143	1	1,143
Orchestra	351	1	351
Band			
Instrument Storage	62	1	62
Music Practice / Ensemble 212	846	1	846
Music (behind caf)	351	1	351
VOCATIONS & TECHNOLOGY			1,655
Tech Clrm. - (E.G. Drafting, Business)			
Tech 107	1,342	1	1,342
Tech Shop - (E.G. Consumer, Wood)	313	1	313
HEALTH & PHYSICAL EDUCATION			10,653
Gymnasium			
Mini Gymnasium	2,244	1	2,244
Gymnasium	4,619	1	4,619
Gym Storeroom	167	2	334
Health Instructor's Office w/ Shower & Toilet	122	1	122
Health Instructors Office-Boys			
Health Instructor's Office -Girls	102	1	102

PROPOSED								
Existing to Remain/Renovated			New			Total		
ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals
		0			35,325			35,325
0	0	0	900	27	24,300		27	24,300
0	0	0	960	3	2,880		3	2,880
0	0	0	0	0	0		0	0
0	0	0	0	0	0		0	0
0	0	0	0	0	0		0	0
0	0	0	0	0	0		0	0
0	0	0	0	0	0		0	0
0	0	0	0	0	0		0	0
0	0	0	0	0	0		0	0
0	0	0	0	0	0		0	0
0	0	0	0	0	0		0	0
0	0	0	0	0	0		0	0
0	0	0	1,200	6	7,200		6	7,200
0	0	0	0	0	0		0	0
0	0	0	0	0	0		0	0
0	0	0	0	0	0		0	0
0	0	0	0	0	0		0	0
0	0	0	0	0	0		0	0
0	0	0	315	3	945		3	945
0	0	0	0	0	0		0	0
		0			10,400			10,400
0	0	0	1,060	4	4,240		4	4,240
0	0	0	1,090	1	1,090		1	1,090
0	0	0	0	0	0		0	0
0	0	0	0	0	0		0	0
0	0	0	0	0	0		0	0
0	0	0	0	0	0		0	0
0	0	0	0	0	0		0	0
0	0	0	60	5	300		5	300
0	0	0	690	2	1,380		2	1,380
0	0	0	630	3	1,890		3	1,890
0	0	0	500	3	1,500		3	1,500
		0			8,300			8,300
0	0	0	1,400	3	4,200		3	4,200
0	0	0	140	3	420		3	420
0	0	0	1,200	1	1,200		1	1,200
0	0	0	830	1	830		1	830
0	0	0	1,400	1	1,400		1	1,400
0	0	0	250	1	250		1	250
0	0	0	0	0	0		0	0
0	0	0	0	0	0		0	0
		0			4,500			4,500
0	0	0	1,500	1	1,500		1	1,500
0	0	0	0	0	0		0	0
0	0	0	1,500	2	3,000		2	3,000
		0			12,700			12,700
0	0	0	7,700	1	7,700		1	7,700
0	0	0	0	0	0		0	0
0	0	0	0	0	0		0	0
0	0	0	680	1	680		1	680
0	0	0	0	0	0		0	0
0	0	0	125	1	125		1	125
0	0	0	125	1	125		1	125

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
		36,560	
950	28	26,600	850 SF min - 950 SF max
500	2	1,000	
1,200	7	8,400	1 period / day / student
80	7	560	
		9,060	
950	6	5,700	assumed 8% of pop. in self-contained SPED
60	6	360	
500	4	2,000	1/2 size Genl. Clrm.
500	2	1,000	1/2 size Genl. Clrm.
		4,400	
1,200	2	2,400	assumed use - 50% population 2 times / week
150	2	300	
1,500	1	1,500	assumed use - 50% population 2 times / week
200	1	200	
		6,400	
1,200	2	2,400	Assumed use - 25% Population - 5 times/week
2,000	2	4,000	Assumed use - 25% Population - 5 times/week
		8,400	
6,000	1	6,000	
150	1	150	
250	1	250	

Revised Space Summary -Mountview Middle School

Mountview Middle School	Existing Conditions		
ROOM TYPE	ROOM NFA ¹	# OF RMS	area totals
Other (Specify)			
Network / Telecom Room	116	1	116
Total Building Net Floor Area (NFA)			58,605
Proposed Student Capacity / Enrollment			
Total Building Gross Floor Area (GFA) ²			91,137
Grossing factor (GFA/NFA)			1.56

PROPOSED								
Existing to Remain/Renovated			New			Total		
ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals	ROOM NFA ¹	# OF RMS	area totals
							0	0
				1	200		1	200
		0			91,424			91,424
					127,994			127,994
					1.40			1.40

MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM NFA ¹	# OF RMS	area totals	Comments
200	1	200	
		86,552	
		800	
		128,000	
		1.48	

¹ Individual Room Net Floor Area (NFA)

Specific spaces assigned to a particular program area including such spaces as non-communal toilets and storage rooms.

² Total Building Gross Floor Area (GFA)

Footage measured from the outside face of exterior walls

Architect Certification
<p>I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies of the Massachusetts School Building Authority to the best of my knowledge and belief. A true statement, made under the penalties of perjury.</p> <p style="text-align: center;">Name of Architect Firm: <u>Lamoureux Pagano & Associates, Inc.</u></p> <p style="text-align: center;">Name of Principal Architect: <u>Michael A. Pagano</u></p> <p style="text-align: center;">Signature of Principal Architect: _____</p> <p style="text-align: center;">Date: <u>17-Sep-12</u></p>

3.3.2.4 PREFERRED SOLUTION

C. Building Floor Plans

Mountview Middle School

270 Shrewsbury Street, Holden, MA 01520

FEASIBILITY STUDY

3.3.2.4 PREFERRED SOLUTION

C. New Facility Existing Site Option - First Floor Plan

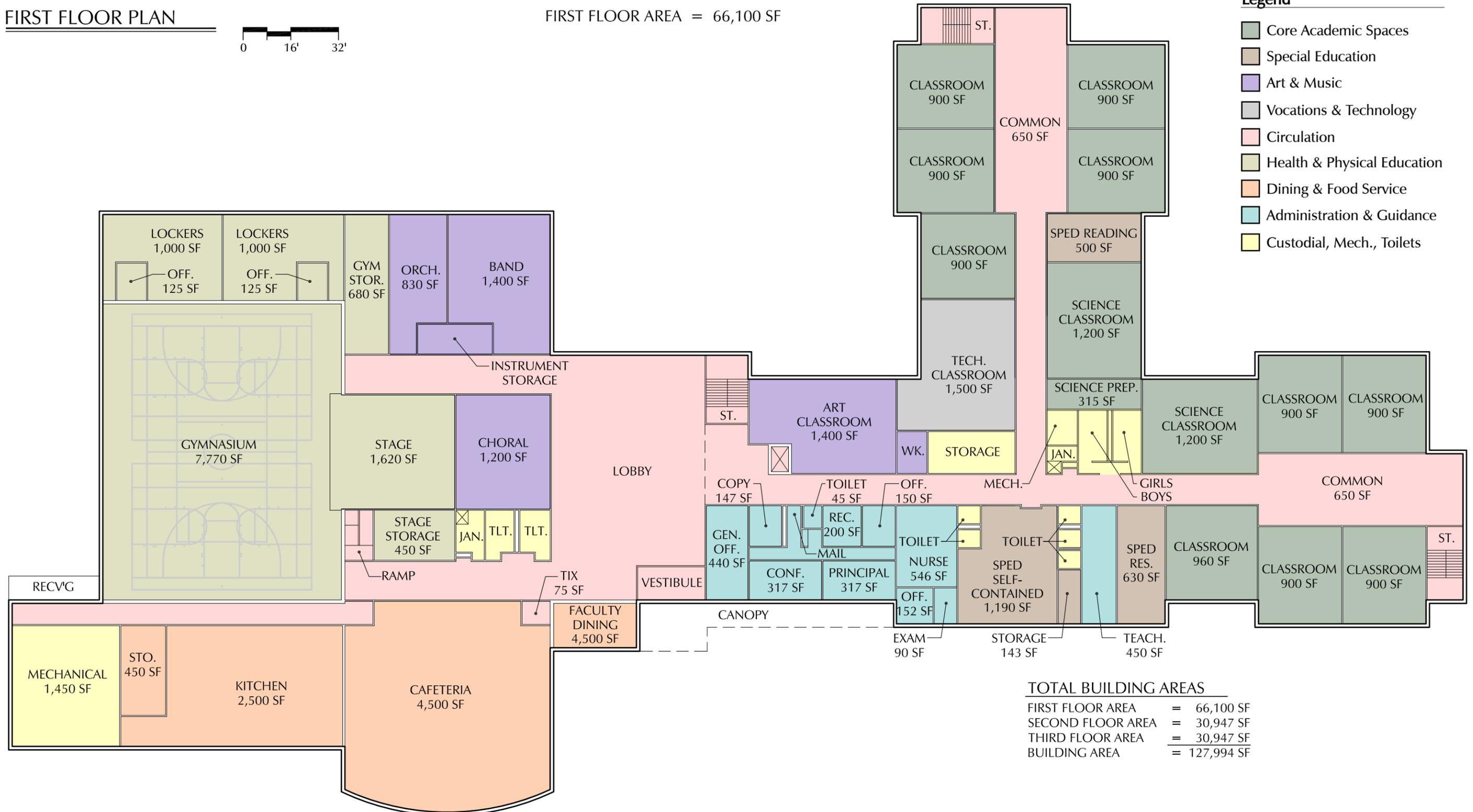
FIRST FLOOR PLAN

FIRST FLOOR AREA = 66,100 SF



Legend

- Core Academic Spaces
- Special Education
- Art & Music
- Vocations & Technology
- Circulation
- Health & Physical Education
- Dining & Food Service
- Administration & Guidance
- Custodial, Mech., Toilets



TOTAL BUILDING AREAS	
FIRST FLOOR AREA	= 66,100 SF
SECOND FLOOR AREA	= 30,947 SF
THIRD FLOOR AREA	= 30,947 SF
BUILDING AREA	= 127,994 SF

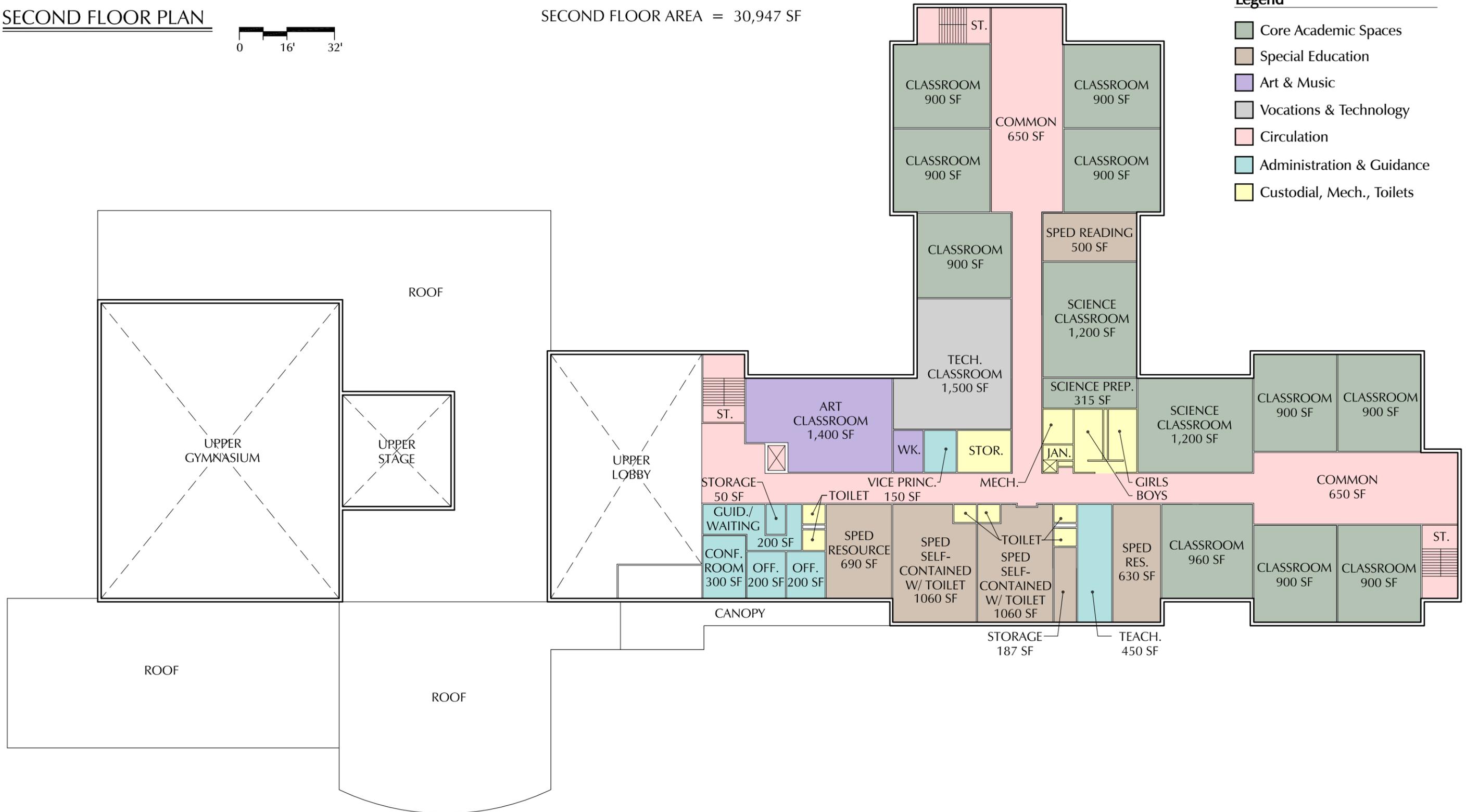
SECOND FLOOR PLAN



SECOND FLOOR AREA = 30,947 SF

Legend

- Core Academic Spaces
- Special Education
- Art & Music
- Vocations & Technology
- Circulation
- Administration & Guidance
- Custodial, Mech., Toilets



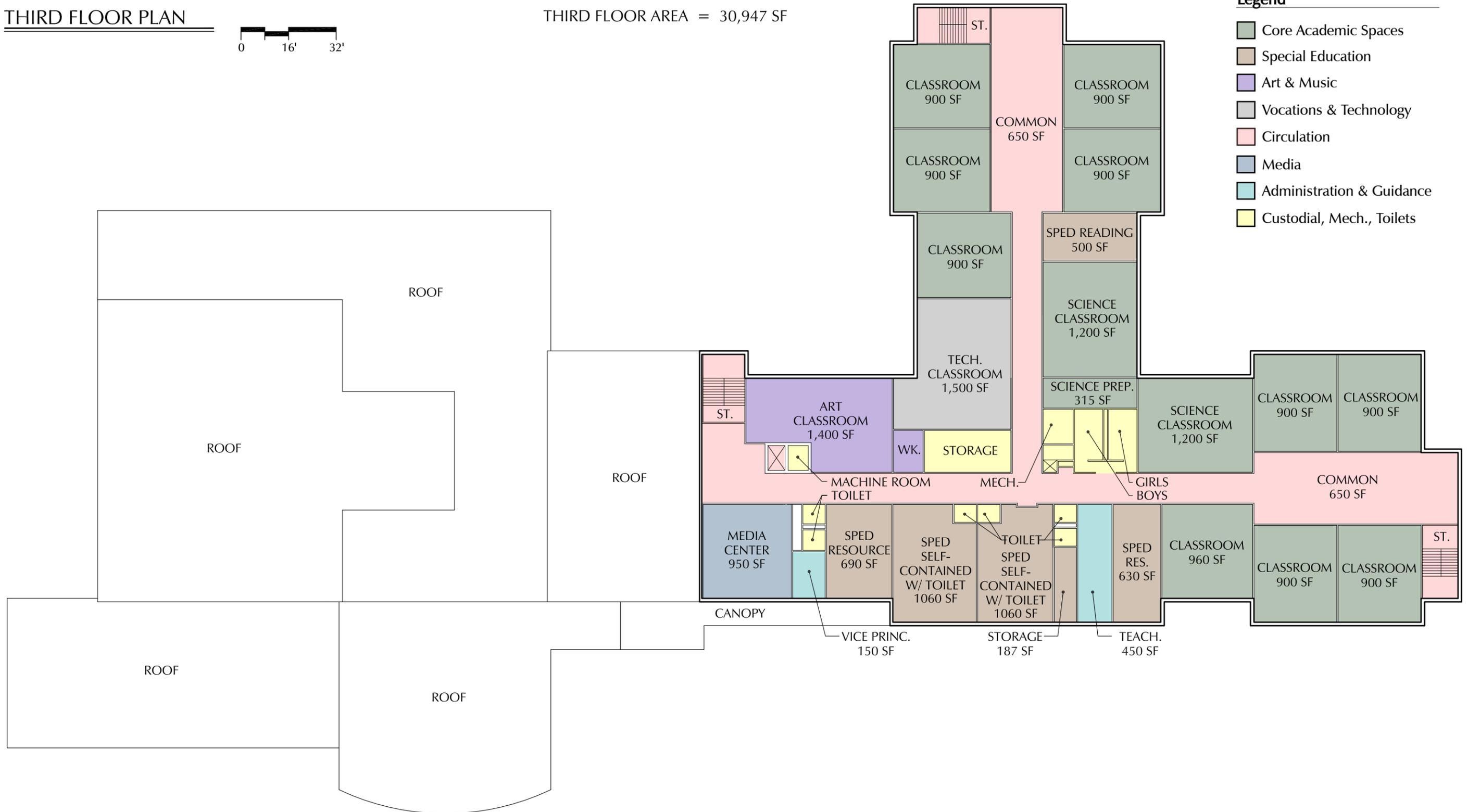
THIRD FLOOR PLAN



THIRD FLOOR AREA = 30,947 SF

Legend

- Core Academic Spaces
- Special Education
- Art & Music
- Vocations & Technology
- Circulation
- Media
- Administration & Guidance
- Custodial, Mech., Toilets



3.3.2.4 PREFERRED SOLUTION

- D. MA-CHPS Scorecard,
Charrette Memo and
Designer Statement

**MA-CHPS Criteria 2009 Edition
Project Checklist - New Construction**

MA-CHPS Project Numbers (Must be consistent throughout the application)

Project Name: **Mountview Middle School**
Project Address: 270 Shrewsbury Street, Holden, MA
Date Updated: 21-Aug-12

Bldg Area:	
Parking:	
Site Area:	
FTE:	
Students:	
Visitors:	

Yes	Maybe	No	TOTAL
51	42	32	

4	6	0	Integration & Innovation - need 2 points NC, 1 point Ren.		Points	Abridged Requirements
Y			II.p1	Integrated Design	Required	Conduct a min of 2 integrated design team workshops (1 in SD, 1 prior to CD) that identify the project's high performance goals
Y			II.p2	Educational Display	Required	Provide a permanent display on the school site that describes the high performance features that are part of the school's design.
1			II.c1	Demonstration Areas	1	Create demonstration areas for 3 out of the 5 major MACHPS categories: Site, Water, Energy, Materials & IAQ
2	2		II.c2	Innovation	1-4	Points are awarded for highly innovative or creative actions or measure that are not already contained in MACHPS OR exceptional performance in an existing credit.
	3		II.c3	Life Cycle Cost Analysis	3	As part of the design process, perform a life cycle cost analysis showing net present value over 30 yrs of the major building systems considered for the project that are anticipated to consume significant amount of energy, water or other natural resources.
	1		II.c4	School Garden	1	1) Provide a site on campus for one or more school gardens with a min of 100sf four every 4 classrooms. 2) Provide signage to designate the areas as a school garden. 3) Develop a long-term maintenance plan. 4) For existing sites the soil must be tested to ensure there are no contaminants.
1			II.c5	School Master Plan	1	Develop a School Master Plan for the site and facilities of an individual school in collaboration with school board members and community stakeholders that: 1) Supports the continued compliance with high performance strategies. 2) Assess and plan for future transportation impacts. 3) Assess and plan for possible change in student enrollment. 4) Assess using the school for emergency preparedness. 5) Ass and plan for future high performance upgrades and renovations by documenting the life cycle of major materials and systems.

10	13	0	Indoor Environmental Quality - need 5 points NC, 3 points Ren.		Points	Abridged Requirements
Y			EQ.p1	HVAC Design - ASHRAE 62.1	Required	EQp1.1 Minimum OA Ventilation Requirement - Design all spaces to meet ASHRAE 62.1-2007 Section 6.2 outdoor air requirements. In areas having significant pollutants shall be exhausted directly to the outside and not re-circulated. HVAC systems and equipment shall meet the requirements of ASHRAE 62.1 Section 5. EQp1.2 To maintain clean ducts and avoid particulate accumulation and/or mold in the ductwork, duct liners must meet the ASTM standards C1071 or UL 181 for surface erosion resistance and ASTM standards C 1104 or C 209 for water vapor sorption.
Y			EQ.p2	Construction IAQ Management	Required	EQp2.1 During construction meet the recommended Design Approaches of the SMACNA IAQ Guidelines for Occupied Building Under Construction, 2007, Chapter 3. EQp2.2 If installing a new duct system, follow SMACNA guidelines for "Duct Cleanliness for New Construction Guidelines" according to advanced levels of cleanliness. EQp2.3 Building Flush Out - Develop a plan and include it in the specification to flush out the building with OA
Y			EQ.p3	Pollutant & Chemical Source Control	Required	EQp3.1 Off-Gassing - Where chemical use occurs use deck-to-deck partitions with dedicated outside exhaust at a rate of at least 0.50 cubic feet/min/sd. Doors to these areas must be secured with self-locking and closing mechanisms. EQp3.2 Walk off Mats - Provide a 2 part walk-off mat system for all high volume entryways. EQp3.3 Electric Ignitions for Gas-Fired Equipment - Specify electric ignitions for water heaters, boilers, AHUs and cooking stoves. EQp3.4 Air intake locations shall follow ASHRAE 62.1-2007. All intakes must be 6 ft above landscaped grade. EQp3.5 No Mobile Fossil-Fuel Power Equipment Indoors.
Y			EQ.p4	Moisture Management	Required	EQp4.1 Drainage - Design surface grades to slope away from the building. Evaporation drip pans are prohibited for HVAC systems. EQp4.2 Lawn irrigation shall be designed to prevent spray on building. EQp4.3 Mold Prevention - Building materials shall be kept dry.
Y			EQ.p5	Minimum Filtration	Required	Replace filtration media immediately prior to occupancy. Filtration media shall be MERV 10 or higher, excluding unit ventilators, which can have MERV 7.
Y			EQ.p6	Thermal Comfort - ASHRAE 55	Required	Comply with the current ASHRAE 55 thermal comfort standards.
Y			EQ.p7	View Windows, 70%	Required	Provide direct line of site to view glazing from 70% of the combined floor areas of classrooms, library and administration areas. View glazing area shall be =>7% of floor area.
Y			EQ.p8	Eliminate Glare	Required	Design spaces to optimize daylight while preventing glare by controlling direct sunlight ingress. Unoccupied classrooms must meet: 1) Classroom and core learning spaces must have reverberation time meets ANSI S12.60. 2) All walls, roof-ceiling and floor-ceiling assemblies must meet the STC ANSI S12.60-2002. 3) For enclosed core learning areas the exterior windows may comprise no more than 25% of the area of the partition. Floor-ceiling assemblies over classrooms must meet ICC of 50.
Y			EQ.p10	Minimum Low Emitting Materials	Required	EQp10.1 Paints & Coatings - All paints and architectural coatings totaling 90% or more of the total volume of such products applied shall meet SCAQMD Rule 1113 & comply with Safe Drinking Water & Toxic Enforcement Act of 1986. EQp10.2 Composite Wood - At least 90% by area of the composite wood shall meet either or both CARB ATCM Sections 93120-93120.12 and shall have no added formaldehyde.
	2		EQ.c1	View Windows, 80-90%	1-2	Provide direct line of site to view glazing for at least 80% of the combined floor area of the classrooms and admin areas.
3	3		EQ.c2	Daylighting in Classrooms	1-6	For all classroom spaces choose Multiple Point in Time Approach average fc requirements OR Daylight Autonomy Approach (1-4points). For support spaces choose Multiple Point in Time Approach average fc requirements OR Daylight Autonomy Approach (1-2points)
2	2		EQ.c3	Advanced Low-Emitting Materials	1-4	EQc3.1 (1 point) All adhesives and sealants used in quantities of 2.5 gal or more and totaling 90% or more of the total shall meet SCAQMD Rule 1168 or CDPH Standard Practice. EQc3.2 (1 point) Flooring Systems totaling 90% or more of the total floor area shall be tested following CDPH Standard Practice. EQc3.3 (1 point) Ceiling and Wall Systems totaling 90% or more of the total area of such systems shall be tested following CDPH Standard Practice. EQc3.4 Furniture and Furnishings totaling 90% or more of the total shall meet ANSI/BIFMA M7.1-2007
1			EQ.c4	Ducted Returns	1	Install ducted HVAC returns throughout the school in occupied spaces to avoid dust and microbial growth issues.
1			EQ.c5	Enhanced Filtration	1	Design HVAC system with particle arrestance filtration rate MERV 13.
1			EQ.c6	Post-Construction IAQ	1	EQc6.1 Vacuum carpeted and soft surfaces with a HEPA filter vacuum that meets CRI Seal of Approval/Green Label Vacuum. EQc6.2 Prior to flushout, filters must be replaced with MERV 10.
	4		EQ.c7	Enhanced Acoustical Performance	1-4	EQc7.1 (1 point) Classrooms and core learning spaces with volumes greater than 20,000 cubic feet must have a 1.5 second reverberation time max. EQc7.2 (2 points) Unoccupied classrooms must have a max background noise level of no more than 35 dBA Leq. EQc7.3 (1 point) Add to school commissioning requirements (in Eep2) that background HVAC noise is tested to reqs of EQ.p9 and EQc7.2.
2			EQ.c8	Controllability of Systems	1-2	EQc8.1 (1 point) 90% of all classrooms shall have a minimum of one operable window that is accessible to occupants. EQc8.2 (1 point) Provide separate temperature and ventilation controls for each classroom or provide each classroom with an independent temp sensor that automatically adjust to the conditions. And provide lighting controls for each classroom.
	1		EQ.c9	Duct Access & Cleaning	1	Provide access doors for cleaning all supply and return ductwork and execute a plan for cleaning ductwork prior to occupancy.
	1		EQ.c10	Electric Lighting	1	EQc10.1 Provide multi-scene indirect/direct lighting systems for all classrooms. EQc10.2 The lighting system shall operate in general illumination and A/V modes. EQc10.3 In general illumination mode, achieve an avg illumination at desk level of 35 to 50 fc w/ min of 25fc at any point more than 3ft from any wall. EQc10.4 In A/V mode achieve a avg illumination at desk level of between 10 and 20 fc. EQc10.5 In indirect mode, controls shall provide at least two levels of uniform lighting both at night and when daylight is available.

Yes	Maybe	No				
13	6	17	Energy - need 10 points NC, 7 points Ren.		Points	Abridged Requirements
Y			EE.p1	Minimum Energy Performance, 20%	Required	Follow the current MA Stretch Energy Code (780 CMR Appendix 120 AA, Chapter 5) to achieve energy savings either through the Performance based approach (20% better than the current ASHRAE 90.1 on an energy cost basis) OR the Prescriptive based approach as explained in the reference guide.
Y			EE.p2	Commissioning	Required	Implement ALL of the fundamental best practice commissioning procedures, as described in the reference guide and contained in the Massachusetts School Building Authority's Standard Scope of Commissioning Services.
Y			EE.p3	Facility Staff & Occupant Training	Required	<u>EE.P3.1</u> Facility Staff Training: Facility staff must receive training and operation and maintenance documentation on all building systems included in the commissioning scope of work. <u>EE.P3.2</u> Teacher/Administrative Staff Training: Teachers, administrators, and support staff must be offered training on operations of lighting, heating, and cooling systems in classrooms, offices, gyms, auditoriums etc. A User's Guide, explaining basic systems operations, should be developed and posted in each room of the school.
0	0	11	EE.c1(A)	Superior Energy Performance (Performance)	2-15	Performance approach: Utilize the Performance Approach from Energy Prerequisite EE.P1 for quantifying energy cost savings. Points are awarded according the percentage saved over a baseline building.
4			EE.c1(B)	Superior Energy Performance (Prescriptive)	2-4	Prescriptive approach: Meet the requirements of EQ.C2, Daylighting in Classrooms AND ensure that 40% of the installed electrical lighting wattage throughout the school is dimmed or turned off when sufficient natural light is present. (2 points) Install an energy recovery ventilation (ERV) system to recover waste heat into the incoming fresh air stream. (2 points)
2	1		EE.c2	Minimize Air Conditioning	1-3	1 Point: Design and install a dehumidification system, which tempers air but does not act as a full air conditioning system. Spaces such as computer classrooms and server rooms are exempt. 2 Points: Design 80% of permanent classrooms without air conditioning. 3 Points: Design 90% of permanent classrooms without air conditioning.
4	2	6	EE.c3	Renewable Energy	1-12	EE.C3.1: Use renewable energy sources for electricity production that are on-site or allocated to the school facility through net metering. EE.C3.2: Use on-site renewable energy sources for heating/cooling.
	1		EE.c4	Plug Load Reduction & ENERGYSTAR Equipment	1	Pass a resolution to require ENERGY STAR equipment and appliances, where available, for all new purchases for the school and to prohibit the purchase of low efficiency products. Develop a plug load reduction plan that identifies all potential plug loads in the school. Plug loads identified should be incorporated into the energy model in EE.P1 Minimum Energy Performance, if the performance option is followed.
2	1		EE.c5	Energy Management System & Sub metering	1-3	<u>EE.C5.1</u> : Install an energy management system (EMS) to monitor and trend the energy consumed by the following systems throughout the school: Lighting (interior and exterior), HVAC, and Domestic hot water systems. Meter all energy sources provided by utility sources and trend the data against outside air temperature. Provide a plan addressing trendlogging, operator training, and data analysis. <u>EE.C5.2</u> : During design, circuit the electric loads to designated lighting and general power panels so that a true energy measurement of these systems can be achieved. Take either approach for two points: Submeter Major Electrical Equipment Loads OR Boiler System.
1	1		EE.c6	Flex Energy	1-2	Design the school so that the following technologies can be easily incorporated: 1) Photovoltaic electricity systems, 2) Solar thermal systems, 3) Electric vehicles. 1 Point: Identify the locations where one or more of these technologies can be incorporated and what steps must be taken to make them possible. 2 Points: Identify the locations that will be constructed to be ready for one or more of these technologies.
8	3	5	Water - need 5 points NC, 3 points Ren.		Points	Abridged Requirements
Y			WE.p1	Irrigation System Performance on Recreational Fields	Required	Any in-ground irrigation systems used for recreational fields must have soil moisture meters, weather station, or ET controllers.
Y			WE.p2	Indoor Water Use Reduction, 20%	Required	Employ strategies that, in aggregate, reduce potable water use by 20% beyond the baseline calculated for the building after meeting EPA 1992 fixture requirements.
1	1	1	WE.c1	Indoor Water Use Reduction, 30-50%	1-3	Exceed the potable water use reduction beyond the calculated baseline determined in WE.p2
		4	WE.c2	Reduce Potable Water Use for Sewage Conveyance	4	Reduce the use of potable water for building sewage conveyance by a minimum of 50% through the utilization of water-efficient fixtures, use of rainwater catchment systems, or both.
3			WE.c3	No Potable Water Use for Non-Recreational Landscaping Areas	3	Do not install permanent irrigation systems for watering non-playing field landscaped areas AND specify drought tolerant plants or grasses in these areas.
2			WE.c4	Reduce Potable Water Use for Recreational Landscaping Areas	2	Reduce the irrigation needs of athletic fields by specifying appropriate soils and drought tolerant grasses for all sports fields. Specify soils and seed mixes that meet requirements.
1			WE.c5	Irrigation System Commissioning	1	Create an irrigation commissioning plan and complete installation review during construction, performance testing after installation, and documentation for ongoing operations and maintenance.
1	2		WE.c6	Water Management System	1-3	WEc6.1 (1 point) Install a Water Management System to monitor water for any equipment or system that exceeds 20% of the total amount of water used. At a minimum submeter domestic water and exterior irrigation. WEc6.2 (3 points) Install a Water Management System to monitor water use of all indoor and outdoor water uses. Water meters should have a pulsed output for AMR. Submeter: all indoor water usage except gyms with showers, gyms with showers, landscaping irrigation, recreation irrigation, swimming pool, cooling tower.
10	3	3	Site - need 5 points NC, 3 points Ren.		Points	Abridged Requirements
Y			SS.p1	Joint Use of Facilities & Parks	Required	Design, with community involvement onr ore more spaces (2,500sf min) for use by community or other appropriate organization. Share park or recreation space with the community.
5			SS.c1	Sustainable Site Selection	1-5	SSc1.1 (1 point) So not modify land with prior to project was public parkland, conservation land, or land acquired for water supply protection. SSc1.2 (1 point) Do not develop on land lower than 5' above the 100 yr flood elevation. SSc1.3 (1 point) Do not develop school site that are within wetland resource areas. SSc1.4 (1 point) Do not develop on greenfields.
		1	SS.c2	Central Location/Smart Growth	1	Site the school with 1/2 mile of at least 8 basic services OR verify that municipality has a current Commonwealth Capital score
1			SS.c3	Reduced Building Footprint	1	Increase the FAR of the school to be at least 1.4.
	1		SS.c4	Building Layout & Microclimates	1	Implement four of the following: 1) Orient the building to maximize daylighting 2) Consider prevailing winds. 3) Take advantage of existing formations to provide shelter from extreme weather. 4) Plant appropriate trees in appropriate areas. 5) Minimize importation of non-native soils. 6) Create physical connections to bike paths, natural features or adjacent buildings. 7) Site building to maximize opportunities for renewable technology.
1			SS.c5	Public Transportation	1	Locate building within 1/2 mile of a commuter rail, light rail or subway OR within 1/4 mile of one or more bus lines.
1		1	SS.c6	Pedestrian/Bike/Human Powered Transportation	2	SSc6.1 (1 point) Provide sidewalks and bike lanes that extend at least to the school entrance AND provide lanes that connect to residential areas at least 1/4 mile from the school entrance AND provide suitable means to secure bicycles for 5% or more of the building occupants. For elementary schools, count only students in the 4th grade and above as building occupants. SSc6.2 (1 point) Provide bike lanes that extend at least 2 miles into neighboring communities
		1	SS.c7	Parking Minimization	1	New Construction: Size parking capacity 1) to meet, but not exceed, local zoning OR 2) not to exceed a) HS - 2.25 spaces per classroom plus parking for 20% of students b) Elementary & Middle - 3 spaces per classroom. Major Renovations: Add no new parking AND provide preferred parking spaces for 52% of total parking for carpools and LEFE vehicles.
1			SS.c8	Post-Construction Stormwater Management	1	Exceed the MA Stormwater Standards by implementing a stormwater management plan that results in a 25% decrease in stormwater runoff volumen for existing conditions.

	1			SS.c9	Reduce Heat Islands - Landscaping	1	Provide shade (within 5 yrs) on at least 20% of non-roof, impervious surfaces on site OR use light colored (SRI 29) materials for 20% of the impervious area. OR use a combination.
1				SS.c10	Reduce Heat Islands - Cool Roofs	1	Use roofing materials that have a SRI of 78 low-sloped roof, 29 steep-sloped roof for a minimum of 75% of roof area.
	1			SS.c11	Light Pollution Reduction	1	Meet the Uplight, light trespass and glare requirements as described in sections SS.c11.2-11.3

Yes Maybe No

3 6 5

Materials & Waste Management - need 5 points NC, 3 points Ren.				Points	Abridged Requirements		
Y				MW.p1	Storage & Collection of Recyclables	Required	Meet local ordinances for recycling space, and provide both an easily accessible areas dedicated to the separation collection and storage of recyclables. Provide a plan for the removal of these recyclables.
Y				MW.p2	Minimum Construction Site Waste Management, 75%	Required	Recycle, reuse, and/or salvage at least 75% (by weight) of non-hazardous construction and demolition waste, not including land clearing and associated debris.
	1			MW.c1	Minimum Construction Site Waste Management, 90%	1	Recycle, reuse, and/or salvage an additional 15% for a total of 90% (by weight) of non-hazardous construction and demolition waste, not including land clearing and associated debris.
1	1			MW.c2	Single Attribute - Recycled Content Materials	1-2	Prescriptive: Specify and install at least four major materials from Table 15-Minimum Recycled Content Levels for 1 point, or eight major materials for 2 points. Performance: The weighted average recycled-content value is at least 10% (post-consumer + 1/2 secondary), or at least 20% for 2 points.
	1			MW.c3	Single Attribute - Rapidly Renewable Materials	1	Use rapidly renewable materials, excluding wood fiber, for 2.5% of the total value of all products used in the project. OR Specify rapidly renewable materials for 50% of the major interior finishes or structural material listed in criteria.
	1			MW.c4	Single Attribute - Certified Wood	1	Specify that a minimum of 50% of the wood-based materials are FSC Certified.
1	1			MW.c5	Single Attribute - Regional Materials	1-2	Specify that a minimum of 10% of building materials (based on cost) that are extracted, and manufactured regionally for 1 point. 2 points for 20%.
	1			MW.c6	Materials Reuse	1	Performance: Specify re-used, salvaged or refurbished materials obtained off-site for 5% of building materials. Prescriptive: Specify re-used, salvaged or refurbished materials for 25% of one of the following major finish materials: Flooring, casework, acoustical ceiling tiles, wall finishes, tile, roofing materials.
1				MW.c7	Durable & Low Maintenance Flooring	1	Choose flooring products for 50% of the interior surface that are: Impermeable to moisture and air, 15 year non-prorated life time warranty. Provide documentation showing life cycle (15 year) initial costs and maintenance needs of all flooring in the project have been assessed.
			4	MW.c8	Building Reuse - Exterior	1-4	Reuse large portions of existing structure during renovation or redevelopment projects. 50% - 1 point. 65% - 2 points, 80% - 3 points, 95% - 4 points.
			1	MW.c9	Building Reuse - Interior	1	Maintain 50% non-structural elements (walls, floor coverings and ceiling systems).

Yes Maybe No

3 5 2

Operations & Maintenance				Points	Abridged Requirements		
Y				OM.p1	Maintenance Plan	Required	The district must create a school maintenance plan that includes an inventory of all equipment (electrical, mechanical, plumbing and envelope) in the school and its preventative and routine maintenance needs.
Y				OM.p2	Anti-Idling Measures	Required	Adopt a no idling policy that applies to all school buses operating in the school district and all vehicles operating in the school zone.
Y				OM.p3	Green Cleaning	Required	The school committee must pass a resolution adopting a comprehensive green cleaning policy that ensures only environmentally preferable cleaning products and practices are used.
1				OM.c1	Work Order & Maintenance Management System	1	The school district shall develop or purchase a work order and maintenance management system (MMS)
	2	1		OM.c2	Indoor Environmental Management Plan	1-3	Option 1 (3 points) Implement EPA's Tools for Schools Program or equivalent. Option 2 (2 points) Custodial/Facility Staff Training using MA Facility Admin. Ass. Modules on IAQ, IPM, radon, drinking water and "Cleaning for Health". Option 3 (1 point) Arrange a presentation on Tools for Schools or MA Healthy Schools Checklist to the school committee.
	1			OM.c3	Green Power	1	Commit to purchasing RECs or a power through a PPA equivalent to 15% of the projected annual electricity needs.
			1	OM.c4	Climate Change Action: Diesel Bus Retrofit	1	Retrofit buses by participating in the DEP MassCleanDiesel Initiative.
	1			OM.c5	Carbon Footprint Reporting	1	Join the Climate Action Registry to commit to calculate, report and verify annual GHG emissions using The Climate Action Registry online tool.
2	1			OM.c6	Energy Benchmarking	3	OMc6.1 (2 points) The school must adopt a policy of benchmarking its energy use over time to track building performance. OMc6.2 (1 point) Commit to conduct a post-occupancy analysis of the building's performance after 1-2 yrs or recommissioning after 2-5 yrs.

Yes Maybe No

51 42 32

TOTAL				125
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Total Possible Points=125

Eligibility Levels
New Construction MA-CHPS Verified - 40 points - REQUIRED
New Construction MA-CHPS Verified Leader - 50 points - 2% reimbursement
Renovation MA-CHPS Verified - 35 points - REQUIRED
Renovation MA-CHPS Verified Leader - 45 points - 2% reimbursement

**MA-CHPS Criteria 2009 Edition
Project Checklist - Renovation/Addition**

MA-CHPS Project Numbers (Must be consistent throughout the application)

Project Name: **Mountview Middle School**
Project Address: 270 Shrewsbury Street, Holden, MA
Date Updated: 21-Aug-12

Bldg Area:	
Parking:	
Site Area:	
FTE:	
Students:	
Visitors:	

Yes	?	No	
48	46	31	TOTAL

4	6	0
Y		
Y		
1		
2	2	
	3	
	1	
1		

Integration & Innovation - need 2 points NC, 1 point Ren.		Points	Abridged Requirements
Y	II.p1	Required	Conduct a min of 2 integrated design team workshops (1 in SD, 1 prior to CD) that identify the project's high performance goals
Y	II.p2	Required	Provide a permanent display on the school site that describes the high performance features that are part of the school's design.
1	II.c1	1	Create demonstration areas for 3 out of the 5 major MACHPS categories: Site, Water, Energy, Materials & IAQ
2	II.c2	1-4	Points are awarded for highly innovative or creative actions or measure that are not already contained in MACHPS OR exceptional performance in an existing credit.
	II.c3	3	As part of the design process, perform a life cycle cost analysis showing net present value over 30 yrs of the major building systems considered for the project that are anticipated to consume significant amount of energy, water or other natural resources.
	II.c4	1	1) Provide a site on campus for one or more school gardens with a min of 100sf four every 4 classrooms. 2) Provide signage to designate the areas as a school garden. 3) Develop a long-term maintenance plan. 4) For existing sites the soil must be tested to ensure there are no contaminants.
1	II.c5	1	Develop a School Master Plan for the site and facilities of an individual school in collaboration with school board members and community stakeholders that: 1) Supports the continued compliance with high performance strategies. 2) Assess and plan for future transportation impacts. 3) Assess and plan for possible change in student enrollment. 4) Assess using the school for emergency preparedness. 5) Assess and plan for future high performance upgrades and renovations by documenting the life cycle of major materials and systems.

Yes	?	No	
7	12	4	

Indoor Environmental Quality - need 5 points NC, 3 points Ren.		Points	Abridged Requirements
Y	EQ.p1	Required	EQp1.1 Minimum OA Ventilation Requirement - Design all spaces to meet ASHRAE 62.1-2007 Section 6.2 outdoor air requirements. In areas having significant pollutants shall be exhausted directly to the outside and not re-circulated. HVAC systems and equipment shall meet the requirements of ASHRAE 62.1 Section 5. EQp1.2 To maintain clean ducts and avoid particulate accumulation and/or mold in the ductwork, duct liners must meet the ASTM standards C1071 or UL 181 for surface erosion resistance and ASTM standards C 1104 or C 209 for water vapor sorption.
Y	EQ.p2	Required	EQp2.1 During construction meet the recommended Design Approaches of the SMACNA IAQ Guidelines for Occupied Building Under Construction, 2007, Chapter 3. EQp2.2 If installing a new duct system, follow SMACNA guidelines for "Duct Cleanliness for New Construction Guidelines" according to advanced levels of cleanliness. EQp2.3 Building Flush Out - Develop a plan and include it in the specification to flush out the building with OA
Y	EQ.p3	Required	EQp3.1 Off-Gassing - Where chemical use occurs use deck-to-deck partitions with dedicated outside exhaust at a rate of at least 0.50 cubic feet/min/sd. Doors to these areas must be secured with self-locking and closing mechanisms. EQp3.2 Walk off Mats - Provide a 2 part walk-off mat system for all high volume entryways. EQp3.3 Electric Ignitions for Gas-Fired Equipment - Specify electric ignitions for water heaters, boilers, AHUs and cooking stoves. EQp3.4 Air intake locations shall follow ASHRAE 62.1-2007. All intakes must be 6 ft above landscaped grade. EQp3.5 No Mobile Fossil-Fuel Power Equipment Indoors.
Y	EQ.p4	Required	EQp4.1 Drainage - Design surface grades to slope away from the building. Evaporation drip pans are prohibited for HVAC systems. EQp4.2 Lawn irrigation shall be designed to prevent spray on building. EQp4.3 Mold Prevention - Building materials shall be kept dry.
Y	EQ.p5	Required	Replace filtration media immediately prior to occupancy. Filtration media shall be MERV 10 or higher, excluding unit ventilators, which can have MERV 7.
Y	EQ.p6	Required	Comply with the current ASHRAE 55 thermal comfort standards.
Y	EQ.p7	Required	Provide direct line of site to view glazing from 70% of the combined floor areas of classrooms, library and administration areas. View glazing area shall be =>7% of floor area.
Y	EQ.p8	Required	Design spaces to optimize daylight while preventing glare by controlling direct sunlight ingress. Unoccupied classrooms must meet: 1) Classroom and core learning spaces must reverberation time meets ANSI S12.60. 2) All walls, roof-ceiling and floor-ceiling assemblies must meet the STC ANSI S12.60-2002. 3) For enclosed core learning areas the exterior windows may comprise no more than 25% of the area of the partition. Floor-ceiling assemblies over classrooms must meet ICC of 50.
Y	EQ.p10	Required	EQp10.1 Paints & Coatings - All paints and architectural coatings totaling 90% or more of the total volume of such products applied shall meet SCAQMD Rule 1113 & comply with Safe Drinking Water & Toxic Enforcement Act of 1986. EQp10.2 Composite Wood - At least 90% by area of the composite wood shall meet either or both CARB ATCM Sections 93120-93120.12 and shall have no added formaldehyde.
	EQ.c1	1-2	Provide direct line of site to view glazing for at least 80% of the combined floor area of the classrooms and admin areas.
	EQ.c2	1-6	For all classroom spaces choose Multiple Point in Time Approach average fc requirements OR Daylight Autonomy Approach (1-4points). For support spaces choose Multiple Point in Time Approach average fc requirements OR Daylight Autonomy Approach (1-2points)
2	EQ.c3	1-4	EQc3.1 (1 point) All adhesives and sealants used in quantities of 2.5 gal or more and totaling 90% or more of the total shall meet SCAQMD Rule 1168 or CDPH Standard Practice. EQc3.2 (1 point) Flooring Systems totaling 90% or more of the total floor area shall be tested following CDPH Standard Practice. EQc3.3 (1 point) Ceiling and Wall Systems totaling 90% or more of the total area of such systems shall be tested following CDPH Standard Practice. EQc3.4 Furniture and Furnishings totaling 90% or more of the total shall meet ANSI/BIFMA M7.1-2007
1	EQ.c4	1	Install ducted HVAC returns throughout the school in occupied spaces to avoid dust and microbial growth issues.
1	EQ.c5	1	Design HVAC system with particle arrestance filtration rate MERV 13.
1	EQ.c6	1	EQc6.1 Vacuum carpeted and soft surfaces with a HEPA filter vacuum that meets CRI Seal of Approval/Green Label Vacuum. EQc6.2 Prior to flushout, filters must be replaced with MERV 10.
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2	EQ.c8	1-2	EQc8.1 (1 point) 90% of all classrooms shall have a minimum of one operable window that is accessible to occupants. EQc8.2 (1 point) Provide separate temperature and ventilation controls for each classroom or provide each classroom with an independent temp sensor that automatically adjust to the conditions. And provide lighting controls for each classroom.
	EQ.c9	1	Provide access doors for cleaning all supply and return ductwork and execute a plan for cleaning ductwork prior to occupancy.
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Yes	?	No			
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			Points	Abridged Requirements	
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Y			WE.p2	Indoor Water Use Reduction, 20%	Required Employ strategies that, in aggregate, reduce potable water use by 20% beyond the baseline calculated for the building after meeting EPA 1992 fixture requirements.
1	1	1	WE.c1	Indoor Water Use Reduction, 30-50%	1-3 Exceed the potable water use reduction beyond the calculated baseline determined in WE.p2
		4	WE.c2	Reduce Potable Water Use for Sewage Conveyance	4 Reduce the use of potable water for building sewage conveyance by a minimum of 50% through the utilization of water-efficient fixtures, use of rainwater catchment systems, or both.
3			WE.c3	No Potable Water Use for Non-Recreational Landscaping Areas	3 Do not install permanent irrigation systems for watering non-playing field landscaped areas AND specify drought tolerant plants or grasses in these areas.
2			WE.c4	Reduce Potable Water Use for Recreational Landscaping Areas	2 Reduce the irrigation needs of athletic fields by specifying appropriate soils and drought tolerant grasses for all sports fields. Specify soils and seed mixes that meet requirements.
1			WE.c5	Irrigation System Commissioning	1 Create an irrigation commissioning plan and complete installation review during construction, performance testing after installation, and documentation for ongoing operations and maintenance.
1	2		WE.c6	Water Management System	1-3 WEC6.1 (1 point) Install a Water Management System to monitor water for any equipment or system that exceeds 20% of the total amount of water used. At a minimum submeter domestic water and exterior irrigation. WEC6.2 (3 points) Install a Water Management System to monitor water use of all indoor and outdoor water uses. Water meters should have a pulsed output for AMR. Submeter: all indoor water usage except gyms with showers, gyms with showers, landscaping irrigation, recreation irrigation, swimming pool, cooling tower.
10	3	3	Site - need 5 points NC, 3 points Ren.		
			Points	Abridged Requirements	
Y			SS.p1	Joint Use of Facilities & Parks	Required Design, with community involvement on one or more spaces (2,500sf min) for use by community or other appropriate organization. Share park or recreation space with the community.
5			SS.c1	Sustainable Site Selection	1-5 SSc1.1 (1 point) Do not modify land with prior to project was public parkland, conservation land, or land acquired for water supply protection. SSc1.2 (1 point) Do not develop on land lower than 5' above the 100 yr flood elevation. SSc1.3 (1 point) Do not develop school site that are within wetland resource areas. SSc1.4 (1 point) Do not develop on greenfields.
		1	SS.c2	Central Location/Smart Growth	1 Site the school with 1/2 mile of at least 8 basic services OR verify that municipality has a current Commonwealth Capital score
1			SS.c3	Reduced Building Footprint	1 Increase the FAR of the school to be at least 1.4.
	1		SS.c4	Building Layout & Microclimates	1 Implement four of the following: 1) Orient the building to maximize daylighting 2) Consider prevailing winds. 3) Take advantage of existing formations to provide shelter from extreme weather. 4) Plant appropriate trees in appropriate areas. 5) Minimize importation of non-native soils. 6) Create physical connections to bike paths, natural features or adjacent buildings. 7) Site building to maximize opportunities for renewable technology.
1			SS.c5	Public Transportation	1 Locate building within 1/2 mile of a commuter rail, light rail or subway OR within 1/4 mile of one or more bus lines.
1		1	SS.c6	Pedestrian/Bike/Human Powered Transportation	2 SSc6.1 (1 point) Provide sidewalks and bike lanes that extend at least to the school entrance AND provide lanes that connect to residential areas at least 1/4 mile from the school entrance AND provide suitable means to secure bicycles for 5% or more of the building occupants. For elementary schools, count only students in the 4th grade and above as building occupants. SSc6.2 (1 point) Provide bike lanes that extend at least 2 miles into neighboring communities
		1	SS.c7	Parking Minimization	1 New Construction: Size parking capacity 1) To meet, but not exceed, local zoning OR 2) not to exceed a) HS - 2.25 spaces per classroom plus parking for 20% of students b) Elementary & Middle - 3 spaces per classroom. Major Renovations: Add no new parking AND provide preferred parking spaces for 52% of total parking for carpools and LEFE vehicles.
1			SS.c8	Post-Construction Stormwater Management	1 Exceed the MA Stormwater Standards by implementing a stormwater management plan that results in a 25% decrease in stormwater runoff volume for existing conditions.

	1	SS.c9	Reduce Heat Islands - Landscaping	1	Provide shade (within 5 yrs) on at least 20% of non-roof, impervious surfaces on site OR use light colored (SRI 29) materials for 20% of the impervious area. OR use a combination.
1		SS.c10	Reduce Heat Islands - Cool Roofs	1	Use roofing materials that have a SRI of 78 low-sloped roof, 29 steep-sloped roof for a minimum of 75% of roof area.
	1	SS.c11	Light Pollution Reduction	1	Meet the Uplight, light trespass and glare requirements as described in sections SSC11.2-11.3

Yes ? No

5 9 0

Materials & Waste Management - need 5 points NC, 3 points Ren. Points **Abridged Requirements**

Y		MW.p1	Storage & Collection of Recyclables	Required	Meet local ordinances for recycling space, and provide both an easily accessible areas dedicated to the separation collection and storage of recyclables. Provide a plan for the removal of these recyclables.
Y		MW.p2	Minimum Construction Site Waste Management, 75%	Required	Recycle, reuse, and/or salvage at least 75% (by weight) of non-hazardous construction and demolition waste, not including land clearing and associated debris.
	1	MW.c1	Minimum Construction Site Waste Management, 90%	1	Recycle, reuse, and/or salvage an additional 15% for a total of 90% (by weight) of non-hazardous construction and demolition waste, not including land clearing and associated debris.
1	1	MW.c2	Single Attribute - Recycled Content Materials	1-2	Prescriptive: Specify and install at least four major materials from Table 15-Minimum Recycled Content Levels for 1 point, or eight major materials for 2 points. Performance: The weighted average recycled-content value is at least 10% (post-consumer + 1/2 secondary), or at least 20% for 2 points.
	1	MW.c3	Single Attribute - Rapidly Renewable Materials	1	Use rapidly renewable materials, excluding wood fiber, for 2.5% of the total value of all products used in the project. OR Specify rapidly renewable materials for 50% of the major interior finishes or structural material listed in criteria.
	1	MW.c4	Single Attribute - Certified Wood	1	Specify that a minimum of 50% of the wood-based materials are FSC Certified.
1	1	MW.c5	Single Attribute - Regional Materials	1-2	Specify that a minimum of 10% of building materials (based on cost) that are extracted, and manufactured regionally for 1 point. 2 points for 20%.
	1	MW.c6	Materials Reuse	1	Performance: Specify re-used, salvaged or refurbished materials obtained off-site for 5% of building materials. Prescriptive: Specify re-used, salvaged or refurbished materials for 25% of one of the following major finish materials: Flooring, casework, acoustical ceiling tiles, wall finishes, tile, roofing materials.
1		MW.c7	Durable & Low Maintenance Flooring	1	Chose flooring products for 50% of the interior surface that are: Impermeable to moisture and air, 15 year non-prorated life time warranty, Provide documentation showing life cycle (15 year) initial costs and maintenance needs of all flooring in the project have been assessed.
2	2	MW.c8	Building Reuse - Exterior	1-4	Reuse large portions of existing structure during renovatin or redevelopment projects. 50% - 1 point, 65% - 2 points, 80% - 3 points, 95% - 4 points.
	1	MW.c9	Building Reuse - Interior	1	Maintain 50% non-structural elements (walls, floor coverings and ceiling systems).

Yes ? No

3 5 2

Operations & Maintenance **Points** **Abridged Requirements**

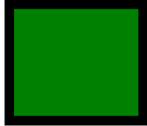
Y		OM.p1	Maintenance Plan	Required	The district must create a school maintenance plan that includes an inventory of all equipment (electrical, mechanical, plumbing and envelope) in the school and its preventative and routine maintenance needs.
Y		OM.p2	Anti-Idling Measures	Required	Adopt a no idling policy that applies to all school buses operating in the school district and all vehicles operating in the school zone.
Y		OM.p3	Green Cleaning	Required	The school committee must pass a resolution adopting a comprehensive green cleaning policy that ensures only environmentally preferable cleaning products and practices are used.
1		OM.c1	Work Order & Maintenance Management System	1	The school district shall develop or purchase a work order and maintenance management system (MMS)
	2	OM.c2	Indoor Environmental Management Plan	1-3	Option 1 (3 points) Implement EPA's Tools for Schools Program or equivalent. Option 2 (2 points) Custodial/Facility Staff Training using MA Facility Admin. Ass. Modules on IAQ, IPM, radon, drinking water and "Cleaning for Health". Option 3 (1 point) Arrange a presentation on Tools for Schools or MA Healthy Schools Checklist to the school committee.
	1	OM.c3	Green Power	1	Commit to purchasing RECs or a power through a PPA equivalent to 15% of the projected annual electricity needs.
	1	OM.c4	Climate Change Action: Diesel Bus Retrofit	1	Retrofit buses by participating in the DEP MassCleanDiesel Initiative.
	1	OM.c5	Carbon Footprint Reporting	1	Join the Climate Action Registry to commit to calculate, report and verify annual GHG emissions using The Climate Action Registry online tool.
2	1	OM.c6	Energy Benchmarking	3	OMc6.1 (2 points) The school must adopt a policy of benchmarking its energy use over time to track building performance. OMc6.2 (1 point) Commit to conduct a post-occupancy analysis of the building's performance after 1-2 yrs or recommissioning after 2-5 yrs.

Yes ? No

48 46 31

TOTAL 125

Total Possible Points=125
Eligibility Levels
 New Construction MA-CHPS Verified - 40 points - REQUIRED
 New Construction MA-CHPS Verified Leader - 50 points - 2% reimbursement
 Renovation MA-CHPS Verified - 35 points - REQUIRED
 Renovation MA-CHPS Verified Leader - 45 points - 2% reimbursement



From: Carrie Havey, LEED AP
To: Bill Senecal
Date: August 21, 2012
Re: Follow-up Meeting – MA-CHPS Scorecard
Project: Mountview Middle School

On August 21, 2012 the Mountview Middle School conducted a follow-up meeting to discuss how MA-CHPS points will be achieved. Each credit in the scorecard was discussed and credits were assigned a 'Yes', 'Maybe', or 'No'. At this point, the project is targeting 51 'Yes', 42 'Maybe', and 32 'No'. Because the project site has not yet been determined, two scorecards have been created: a New Construction scorecard and a Renovation/Addition scorecard.

Integration and Innovation:

- II.c1: Demonstration Areas is being targeted as one point 'Yes'. The school will create demonstration areas for 3 out of the 5 major MACHPS categories.
- II.c2: Innovation is being targeted as two points 'Yes' and two points 'Maybe'. Innovation credits have not been determined yet, but the project's goal is to achieve at least two of these credits.
- II.c3: Life Cycle Cost Analysis is being considered as three points 'Maybe'. This credit will depend on cost.
- II.c4: School Garden was discussed. Possibilities include growing food could be for a community food pantry, and involving the Garden Club in the summer when school is not in session. Currently this credit is a 'Maybe'.
- II.c5: School Master Plan is being targeted as 'Yes'. The school already has a master plan in place, and the components of this credit can be integrated into the existing plan.

Indoor Environmental Quality:

- EQ.c1: View Windows, 80-90% is being shown as two points 'Maybe'. It is too early into design to determine these points.
- EQ.c2: Daylighting will be easier to achieve with a new construction project than a renovation/addition project. Three points are shown as a 'Yes' in the new construction scorecard, while all six points remain a 'Maybe' for a renovation/addition.
- To be conservative, for EQ.c3: Advanced Low-Emitting Materials we are showing two points as 'Yes' (EQc3.1 and EQc3.2) and two points as 'Maybe' (EQc3.3 and EQc3.4).
- EQc4: Ducted Returns, EQc5: Enhanced Filtration, EQc6: Post-Construction Indoor Air Quality, and EQc8: Controllability of Systems are all being shown as 'Yes' in both new construction and renovation/addition. We will achieve these credits.
- EQ.c7: Enhanced Acoustical Performance will not be achievable in renovation/addition, and is currently a 'Maybe' for new construction.



- At this time EQ.c9: Duct Access & Cleaning and EQ.c10: Electric Lighting are 'Maybes'. It is too early into design to determine if the project can meet the lighting requirements or if duct assess will be provided.

Energy:

- For EE.c1: Superior Energy Performance the project is going to be using the prescriptive path (option B) and is targeting a 27.5% reduction in total energy cost for a new construction project and a 22.5% reduction in total energy cost for a renovation/addition project.
- The rest of the Energy credits will be the same for a renovation/addition or a new construction.
- EE.c2: Minimize Air Conditioning will be achievable, but at this time it is not determined if 80% or 90% of classrooms will be designed without air conditioning.
- EE.c3: Renewable Energy is of interest to the school. At this time we are targeting four points as 'Yes', and will be researching the different ways in which this credit can best be achieved.
- EE.c4: Plug Load Reduction & ENERGYSTAR Equipment. At this time the project is targeting use of Energy Star equipment, but the plug load reduction plan is still a maybe. At this time the credit will remain a 'Maybe'.
- EE.c5: Energy Management System & Sub metering has two parts. The first part is EE.C5.2, which involves circuiting the electric loads to designated lighting and power panels so that a true energy measurement of the systems can be achieved. This part of the credit is being targeted as 'Yes'. EE.C5.1, the second part of the credit, involves installing an energy management system to monitor and trend the energy consumed. This part of the credit is a 'Maybe'.
- EE.c6: Flex Energy is being targeted as one point 'Yes' and one point 'Maybe'. The roof will be able to support photovoltaics or solar thermal, but at this time identifying the locations for these technologies cannot be determined. Please note, this credit is about designing a school to be able to support photovoltaic electricity systems or solar thermal systems but does not require installing these systems.

Water Efficiency:

- Water efficiency credits will be the same for both new construction and a renovation/addition.
- The project is targeting a 36% water use reduction for credit WE.c1: Indoor Water Use Reduction, which is worth one point. If the project meets the 40% water use reduction threshold, an extra point can be achieved.
- WE.c2: Reduce Potable Water Use for Sewage Conveyance is not being attempted. This is a very difficult credit to get and requires either reducing the use of potable water for building sewage conveyance by a minimum of 50% through the utilization of water-efficient fixtures, use of rainwater catchment systems, or both.
- WE.c3: No Potable Water Use for Non-Recreational Landscaping Areas and WE.c4: Reduce Potable Water Use for Recreational Landscaping Areas are both being targeted as 'Yes'. The project will not install permanent irrigation systems for non-playing field landscaped areas and will reduce the irrigation needs of athletic fields.



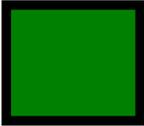
- WE.c5: Irrigation System Commissioning is being shown as a 'Yes'. This credit can be achieved.
- WE.c6: Water Management System is being shown as a 'Yes'. The project will install a Water Management System to monitor water for any equipment or system that exceeds 20% of the total amount of water used. It is not yet know if the additional two points can be achieved.

Sustainable Sites:

- On the site of the existing school, all five points can be achieved for SS.c1: Sustainable Site Selection. On the alternate site, four points can be achieved.
- S.c2: Central Location/Smart Growth and SS.c7: Parking Minimization will not be achievable.
- SS.c10: Reduce Heat Islands - Cool Roofs requires choosing roofing materials that meet the required SRI value and can be achieve. One point 'Yes'.
- SS.c8: Post-Construction Stormwater Management and SS.c3: Reduced Building Footprint are credits that can be achieved on either site.
- SS.c4: Building Layout & Microclimates is a 'Maybe' at this time because design features of the building and site have not been determined yet.
- SS.c5: Public Transportation. On the existing site this credit is a 'Yes', there is access to public transportation. On the alternate site this credit is a 'No'.
- SS.c6: Pedestrian/Bike/Human Powered Transportation is a 'Yes' on the existing site and a 'No' on the alternate site. There are sidewalks that extend to a residential area on the existing site, but not on the alternate site.
- SS.c11: Light Pollution Reduction and SS.c9: Reduce Heat Islands – Landscaping are both 'Maybes' at this time. It is too early into design to determine if these points are achievable.

Materials & Waste Management:

- Many of the Materials and Waste Management credits are impossible to determine at this time. It won't be until the end of construction that the project team will know if they have hit the thresholds for these credits. The specifications will incorporate the goals for achieving these credits and preferences for materials that have recycled content, regional materials, and FSC wood will be specified.
- MW.c1: Minimum Construction Site Waste Management, 90% is being targeted as a 'Maybe'. The project's goal is to recycle, reuse, and/or salvage at least 90% of non-hazardous construction and demolition waste.
- MW.c2: Single Attribute - Recycled Content Materials is being targeted one point 'Yes' and one point 'Maybe'. The project goals include specifying materials with recycled-content for 20% of the total project cost.
- MW.c4: Single Attribute - Certified Wood is being shown as a 'Maybe'. The project goals include specifying at least 50% of the wood-based materials in the project as FSC Certified wood.
- MW.c5: Single Attribute - Regional Materials is being targeted one point 'Yes' and one point 'Maybe'. The project goals include specifying building materials or products that have been extracted, harvested or recovered, as well as



manufactured, within 500 miles of the project site for 20% (based on cost) of the total materials value.

- MW.c3: Single Attribute - Rapidly Renewable Materials and MW.c6: Materials Reuse are credits that are being shown as a 'Maybe'. It is too early in design to know if we will have rapidly renewable materials in the project or if the project will reuse materials.
- MW.c8: Building Reuse – Exterior is being targeted as two points 'Yes' and two points 'Maybe' for a renovation/addition project. If the renovation/addition option is chosen, the project will reuse large portions of existing structure. This credit is a 'No' for a new construction project.
- MW.c9: Building Reuse – Interior is being shown as one point 'Maybe'. It is possible that the project will be able to maintain 50% non-structural elements (walls, floor coverings and ceiling systems) in a renovation/addition. This credit is a 'No' for a new construction project.

Operations and Maintenance:

- OM.c1: Work Order & Maintenance Management System is being targeted as one point 'Yes'. The school district will develop a work order and maintenance management system.
- OM.c2: Indoor Environmental Management Plan is being shown as two points 'Maybe' and one point 'No'. Options 2 and 3 are being considered.
- OM.c3: Green Power is being targeted as a 'Maybe'. It is too early to determine if the school is going to commit to purchasing Renewable Energy Certificates (RECs).
- OM.c4: Climate Change Action: Diesel Bus Retrofit is a 'No'. This credit is not an option for the school.
- OM.c5: Carbon Footprint Reporting is being targeted as a 'Maybe'. This credit requires joining the Climate Action Registry and committing to calculating, reporting and verifying annual GHG emissions using The Climate Action Registry online tool. Further research needs to be done in order to determine if this credit is feasible.
- OM.c6: Energy Benchmarking is being targeted as two points 'Yes' and one point 'Maybe'. The school will adopt a policy for benchmarking its energy use over time to track building performance. The school may commit to conducting a post-occupancy analysis of the building's performance after 1-2 years or recommissioning after 2-5 years.

MOUNTVIEW MIDDLE SCHOOL

270 Shrewsbury Street, Holden, MA 01520

3.3.2.4 PREFERRED SOLUTION

FEASIBILITY STUDY

D. MA-CHPS Designer Statement

This is an acknowledgement that the Wachusett Regional School District has identified a goal of 2% additional reimbursement from the MSBA High Efficiency Green School Program. As their Designer, I have submitted a completed MA-CHPS scorecard showing a minimum of fifty (50) attempted points, which will meet that goal.

The scope of work for this project will include the construction elements and performance tasks to achieve that goal, and all subsequent documents, including but not limited to, specifications, drawings and cost estimates will match the scope of work indicated in the submitted scorecard.

Michael A. Pagano, AIA

Lamoureux Pagano Associates Architects



Town of Holden, MA
Wachusett Regional School District

 LAMOUREUX · PAGANO
ASSOCIATES, ARCHITECTS

3.3.2.4 PREFERRED SOLUTION

E. Site Plan

FEASIBILITY STUDY

3.3.2.4 PREFERRED SOLUTION
E. Site Plan



3.3.2.4 PREFERRED SOLUTION

F. Budget Narrative



Nancy T. Galkowski
Town Manager

Town of Holden
MASSACHUSETTS
OFFICE OF THE TOWN MANAGER

September 12, 2012

Ms. Diane Sullivan
Senior Capital Program Manager
40 Broad Street
Boston, MA 02109

Dear Ms. Sullivan:

The enclosed materials are being provided to supplement the Town of Holden
Mountview Middle School Project MSBA filing scheduled for September 27, 2012.

Estimated Funding Capacity:

The Town plans to fund the Mountview Middle School Project through a debt exclusion
where debt and interest obligations will be raised through taxation outside of the levy.
The project approval, borrowing authorization, and subsequent debt exclusion vote is
scheduled for spring 2013 following actions and approvals of the MSBA.

List of other large Municipal Projects Underway:

At this time there are no other major capital projects underway or planned in the near
future. The Town annually approves a capital improvement program to support town
department operations which is funded through a combination of tax levy, sewer-water
enterprise, and bond proceeds. Attachment A is the Town's approved 5-Year Capital
Plan.

Very truly yours,

Nancy T. Galkowski
Town Manager

ATTACHMENT A

Capital Budget and Five-Year Capital Plan

The Holden Capital Plan for FY 2013-2017 is the second year of the new capital planning process. The Capital Planning Committee was created in March of 2010. Its purpose is to make recommendations to the Town Manger on the priority and planning of the maintenance and improvement of the Town's Capital assets and infrastructure.

The Committee is charged to:

- 1) review, plan and coordinate capital improvements so as to promote a systematic, organized replacement and acquisition schedule.
- 2) insure that, given limited resources, the capital needs of the community are met.
- 3) present a sound financial plan so as to stabilize and level out the debt of the Town. It should assure timely planning for the most economical method of financing capital improvements.
- 4) insure wider community participation in the planning of projects and to reduce the pressure to fund a project which may not present as great a need as another project.
- 5) promote a more effective administration and coordination of capital projects to reduce scheduling problems, and conflicting or overlapping projects not only among town departments but also among other local and state agencies and private enterprises such as the gas and telephone companies.
- 6) take into consideration in its deliberations the goals established under the 2008 Master Plan; develop evaluation criteria to accomplish goals.

The Committee structure includes a representative of the Finance Committee, the Master Plan Implementation Committee, the Assistant Town Manager and four citizens.

The Committee met in the fall of 2011 to begin developing the FY 2013 Capital Budget and FY 2013-2017 Capital Plan recommendations. The following are definitions for inclusion of items in the Capital plan:

CAPITAL ASSET: An item that is available to, controlled by, or acquired by the Town, has a useful life of at least two (2) years, and has a purchase cost of at least \$5,000. Examples include equipment, land, buildings, and vehicles. All capital assets are included in the Capital Planning Program.

OPERATIONAL ASSET: An item that is available to, controlled by, or acquired by the Town, has a useful life of at least two (2) years, and has a purchase cost of more than \$100 and less than \$5,000. These assets are not included in the Capital Planning Program, except when the request is for a multiple number of the same items and the total cost exceeds \$25,000.

CAPITAL OUTLAY: An expenditure to (a) acquire a capital asset through a purchase, lease or rental agreement; and (b) improve, restore, or renovate a capital asset in a manner that extends its useful life. A capital outlay also includes engineering and other studies. However, it excludes expenditures for ordinary and routine maintenance that are necessary to preserve the asset and keep it functioning, and which do not materially increase its value or extend its useful life.

ACQUISITION COST: The sum of all expenditures necessary to obtain a capital asset and place it in service, including, but not limited to, purchase price or total lease-purchase price, delivery, installation, and site preparation.

Departments assigned a priority to each capital request. The Committee used the following guidelines for reviewing and evaluating requests:

1. Imminent threat to the health and safety of citizens and/or property
2. Required maintenance of an asset or program that must be made to avoid costly replacement at a future date. This would not include ordinary maintenance but rather maintenance that will sustain current service levels through the improvement of a capital asset.
3. Requirement of state or federal law or regulation
4. Improvement of the infrastructure
5. Improvement or productivity
6. Alleviation of an over-taxed or over-burdened situation

The Capital Budget for FY 2013 recommends the expenditure of \$795,897 in cash and bonding \$310,000. An additional \$998,000 is recommended for acquisition which will be funded from other sources such as Chapter 90, the Water/Sewer Enterprise Fund and the Recreation Revolving Fund. The total investment for Capital acquisitions and improvements is \$1,764,383.

The goal of the Capital Plan is to provide 4-5% of our resources for investment into our infrastructure and capital assets. The Capital Plan presented here expends approximately 4.48% over a five-year period from FY 2013 to FY 2017. Total investment during that period is \$8,020,412. The Capital Plan is a fluid document which will provide us with the opportunity to plan our investments and to react to changes from year to year.

TOWN OF HOLDEN

FY 2013 CAPITAL BUDGET

DEPARTMENT	PROGRAM	EXPENDITURE	BOND	CASH	OTHER	Grand Total
FIRE	DEPARTMENTAL PROJECT	Thermal Imaging Camera		12,500		12,500
	EQUIPMENT REPLACEMENT	PPE - Personal Protective Equip.		25,000		25,000
		Rebuild Fire Pumps		20,000		20,000
	INFRASTRUCTURE IMPROVEMENT	Chaffins Station Building Improvement		20,000		20,000
	VEHICLE REPLACEMENT	Utility Truck/ Vehicle		47,500		47,500
FIRE-EMS	EQUIPMENT REPLACEMENT	Defibrillator Replacement		5,000		5,000
HISTORIC DISTRICT COM	DEPARTMENTAL PROJECT	Signs for Historic District		15,000		15,000
LIBRARY	PUBLIC BUILDING MAINTENANCE	Building Maintenance-Repair		25,000		25,000
POLICE	VEHICLE REPLACEMENT	Cruiser Repl. @ 2		68,000		68,000
PUBLIC WORKS ADMINISTRATION	DEPARTMENTAL PROJECT	Fuel Pump Reporting System		30,500		30,500
	INFRASTRUCTURE IMPROVEMENT	Town Hall Repair/ Resurfacing		10,000		10,000
PUBLIC WORKS B & G	EQUIPMENT REPLACEMENT	Mower-Leaf Vac		70,000		70,000
	VEHICLE REPLACEMENT	1-Ton Truck w/ Plow	100,000			100,000
PUBLIC WORKS ENGINEERING	DEPARTMENTAL PROJECT	Newell Road Culvert (Ch 90)			150,000	150,000
PUBLIC WORKS HIGHWAY DIVISION	ROADS AND PATHS INFRASTRUCTURE	Collector Roads Ch 90			442,000	442,000
		Crack Sealing		25,000		25,000
	Local Roads		225,000			225,000
	VEHICLE REPLACEMENT	1-Ton Truck w/ Plow		62,500		62,500
		4X4 Truck w/ Plow		50,000		50,000
		Dump w/ Plow/Spreader	210,000			210,000
PUBLIC WORKS MECH	VEHICLE REPLACEMENT	4X4 Truck w/ Plow		42,500		42,500
PUBLIC WORKS WATER/SEWER DIVISION	INFRASTRUCTURE IMPROVEMENT	I/I - Sewer System/ Pump Stations			105,000	105,000
		Sewer Pump Station Improvements			105,000	105,000
	Water System Improvement			5,000		5,000
	VEHICLE REPLACEMENT	4X4 Truck w/ Plow			85,000	85,000
		Backhoe/Loader			85,000	85,000
RECREATION	FIELDS	Field Maintenance			15,000	15,000
	PARKS & PLAYGROUNDS	Playground Resurf/Equip			6,000	6,000
SENIOR CENTER	DEPARTMENTAL PROJECT	Replace Chairs		6,250		6,250
TOWN CLERK	EQUIPMENT REPLACEMENT	Voting Equipment		7,535		7,535
TOWN MANAGER	INFRASTRUCTURE IMPROVEMENT	Reconfigure Fiber Optic		25,000		25,000
	PHOTOCOPIER PROGRAM	Photocopier Lease		3,612		3,612
Grand Total			310,000	795,897	998,000	2,103,897

**Town of Holden
Five Year Capital Plan FY2013- FY2017**

DEPARTMENT	PROGRAM	EXPENDITURE	2013	2014	2015	2016	2017	Grand Total	
FIRE	DEPARTMENTAL PROJECT	Opticom Traffic Sys.		\$64,000	\$34,000	\$34,000		\$132,000	
		Thermal Imaging Camera	\$12,500					\$12,500	
	EQUIPMENT REPLACEMENT	PPE - Personal Protective Equip.	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$125,000	
		Rebuild Fire Pumps	\$20,000					\$20,000	
	INFRASTRUCTURE IMPROV	Chaffins Station Building Improvement	\$20,000	\$25,000				\$45,000	
	PUBLIC BUILDING MAINTEN	PS Facility Maintenance			\$18,000			\$18,000	
VEHICLE REPLACEMENT	Utility Truck/ Vehicle	\$47,500	\$45,000		\$25,000		\$117,500		
	Engine/ Squad Replace-Refurb			\$100,000	\$500,000	\$250,000	\$850,000		
FIRE			\$125,000	\$159,000	\$177,000	\$584,000	\$275,000	\$1,320,000	
FIRE-EMS	EQUIPMENT REPLACEMENT	Defibrillator Replacement	\$5,000	\$25,000	\$25,000	\$25,000		\$80,000	
	VEHICLE REPLACEMENT	Ambulance		\$300,000				\$300,000	
FIRE-EMS			\$5,000	\$325,000	\$25,000	\$25,000		\$380,000	
HISTORIC DISTRICT COM	DEPARTMENTAL PROJECT	Signs for Historic District	\$15,000					\$15,000	
HISTORIC DISTRICT COM			\$15,000					\$15,000	
LIBRARY	MAJOR REPAIRS	Repair Stone Walls - Exterior					\$7,500	\$7,500	
	PUBLIC BUILDING MAINTENANCE	Public service desks		\$40,000				\$40,000	
		Building Maintenance-Repair	\$25,000			\$30,000		\$55,000	
LIBRARY			\$25,000	\$40,000		\$30,000	\$7,500	\$102,500	
POLICE	VEHICLE REPLACEMENT	Cruiser Repl. @ 2	\$68,000	\$68,000	\$68,000	\$68,000	\$68,000	\$340,000	
POLICE			\$68,000	\$68,000	\$68,000	\$68,000	\$68,000	\$340,000	
PUBLIC WORKS ADMINISTRATION	DEPARTMENTAL PROJECT	Fuel Pump Reporting System	\$30,500					\$30,500	
	INFRASTRUCTURE IMPROV	New DPW Facility-Design					\$200,000	\$200,000	
		Town Hall Repair/ Resurfacing	\$10,000	\$130,000	\$50,000			\$190,000	
PUBLIC WORKS ADMINISTRATION			\$40,500	\$130,000	\$50,000		\$200,000	\$420,500	
PUBLIC WORKS B & G	EQUIPMENT REPLACEMENT	Mower-Leaf Vac	\$70,000		\$60,000			\$130,000	
	VEHICLE REPLACEMENT	Sidewalk Plow/ Blower		\$120,000				\$120,000	
		4X4 Truck w/ Plow		\$50,000				\$50,000	
		1-Ton Truck w/ Plow	\$100,000		\$70,000			\$170,000	
PUBLIC WORKS B & G			\$170,000	\$170,000	\$130,000			\$470,000	
PUBLIC WORKS ENGINEERING	DEPARTMENTAL PROJECT	Newell Road Culvert (Ch 90)	\$150,000					\$150,000	
PUBLIC WORKS ENGINEERING			\$150,000					\$150,000	
PUBLIC WORKS HIGHWAY DIVISION	ROADS AND PATHS INFRA	Local Roads	\$225,000	\$225,000	\$225,000	\$225,000	\$225,000	\$1,125,000	
		Crack Sealing	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$125,000	
		Collector Roads Ch 90	\$442,000	\$585,700	\$585,700	\$585,700	\$585,700	\$2,784,800	
	VEHICLE REPLACEMENT	Loader w/ Wing Plow		\$225,000					\$225,000
		Utility Vehicle		\$25,000					\$25,000
		4X4 Truck w/ Plow	\$50,000			\$50,000		\$100,000	
		Dump w/ Plow/Spreader	\$210,000		\$100,000	\$225,000		\$535,000	
		1-Ton Truck w/ Plow	\$62,500		\$62,500		\$131,225	\$256,225	
		Street Sweepers			\$170,000		\$170,000	\$340,000	
		Sidewalk Plow/Sweeper		\$120,000				\$120,000	
PUBLIC WORKS HIGHWAY DIVISION			\$1,014,500	\$1,205,700	\$1,168,200	\$1,110,700	\$1,136,925	\$5,636,025	

**Town of Holden
Five Year Capital Plan FY2013- FY2017**

DEPARTMENT	PROGRAM	EXPENDITURE	2013	2014	2015	2016	2017	Grand Total
PUBLIC WORKS MECH	VEHICLE REPLACEMENT	4X4 Truck w/ Plow	\$42,500			\$55,000		\$97,500
PUBLIC WORKS MECH			\$42,500			\$55,000		\$97,500
PUBLIC WORKS WATER/SEWER DIVISION	INFRASTRUCTURE IMPROVEMENT	I/I - Sewer System/ Pump Stations	\$105,000	\$50,000	\$50,000	\$50,000	\$50,000	\$305,000
		Sewer Pump Station Improvements	\$105,000	\$50,000	\$50,000	\$50,000		\$255,000
		Water Storage Tank Improvements		\$525,000				\$525,000
		Water Main Replacement		\$250,000	\$500,000	\$2,850,000		\$3,600,000
		Water System Improvement	\$5,000					\$5,000
	PUBLIC BUILDING MAINTEN	Spring St. Garage Repair/Maint.		\$45,000			\$300,000	\$345,000
		SCADA System Improvements		\$20,000				\$20,000
	VEHICLE REPLACEMENT	4X4 Truck w/ Plow	\$85,000		\$52,250	\$60,000		\$197,250
		Backhoe/Loader	\$85,000					\$85,000
		1-Ton Truck w/ Plow		\$70,000			\$172,000	\$242,000
PUBLIC WORKS WATER/SEWER DIVISION			\$385,000	\$1,010,000	\$652,250	\$3,010,000	\$522,000	\$5,579,250
RECREATION	FIELDS	Field Maintenance	\$15,000	\$15,000			\$25,000	\$55,000
		Field Renovation			\$28,000			\$28,000
	INFRASTRUCTURE IMPROV	Pool - Replace Caulking					\$14,000	\$14,000
	PARKS & PLAYGROUNDS	Court Maintenance		\$20,000		\$15,000		\$35,000
		Kimball Park Reconstruction				\$175,000		\$175,000
		Playground Resurf/Equip	\$6,000		\$10,000			\$16,000
RECREATION			\$21,000	\$35,000	\$38,000	\$190,000	\$39,000	\$323,000
SENIOR CENTER	DEPARTMENTAL PROJECT	Replace Chairs	\$6,250	\$6,250				\$12,500
	PUBLIC BUILDING MAINTEN	Senior Center Carpeting			\$20,000			\$20,000
	VEHICLE REPLACEMENT	Replace Town COA Van		\$20,000				\$20,000
SENIOR CENTER			\$6,250	\$26,250	\$20,000			\$52,500
TOWN CLERK	DEPARTMENTAL PROJECT	Records Storage/ Archiving System		\$30,000	\$5,000	\$5,000	\$5,000	\$45,000
	EQUIPMENT REPLACEMENT	Voting Equipment	\$7,535					\$7,535
	INFRASTRUCTURE IMPROV	Storage Shelving			\$15,000			\$15,000
TOWN CLERK			\$7,535	\$30,000	\$20,000	\$5,000	\$5,000	\$67,535
TOWN MANAGER	INFRASTRUCTURE IMPROV	Reconfigure Fiber Optic	\$25,000					\$25,000
	PHOTOCOPIER PROGRAM	Photocopier Lease	\$3,612					\$3,612
TOWN MANAGER			\$28,612					\$28,612
Grand Total			\$2,103,897	\$3,198,950	\$2,348,450	\$5,077,700	\$2,253,425	\$14,982,422

FUNDING SOURCE	2013	2014	2015	2016	2017	Grand Total
BOND	\$310,000	\$1,540,000	\$870,000	\$3,750,000	\$1,092,000	\$7,562,000
CASH	\$795,897	\$803,250	\$702,500	\$567,000	\$486,725	\$3,355,372
OTHER	\$998,000	\$855,700	\$775,950	\$760,700	\$674,700	\$4,065,050
Grand Total	\$2,103,897	\$3,198,950	\$2,348,450	\$5,077,700	\$2,253,425	\$14,982,422

**Town of Holden
Five Year Capital Plan FY2013- FY2017**

DEPARTMENT	PROGRAM	EXPENDITURE	2013	2014	2015	2016	2017	Grand Total
		Fiscal Year	2013	2014	2015	2016	2017	Total
	Tax Burden	Prior Non-Exempt Debt	\$327,024	\$278,537	\$268,637	\$263,985	\$254,260	\$1,392,442
		Cash	\$795,897	\$803,250	\$702,500	\$567,000	\$486,725	\$3,355,372
		New Debt Service	\$6,200	\$118,533	\$387,470	\$629,365	\$950,435	\$2,092,003
		Total Non-Exempt Tax Burden	\$1,129,121	\$1,200,320	\$1,358,607	\$1,460,350	\$1,691,420	\$6,839,817
		Total New Non-Exempt Debt	\$310,000	\$1,540,000	\$870,000	\$3,750,000	\$1,092,000	\$7,562,000
		New Water-Sewer Non-Exempt Debt		\$775,000	\$500,000	\$2,850,000	\$472,000	\$4,597,000
		Net Borrowings	\$310,000	\$765,000	\$370,000	\$900,000	\$620,000	\$2,965,000
		Adjust for Rec. Revolving						
		Adjust for IIF	\$383,775	\$391,014	\$398,614	\$406,595	\$414,975	\$1,994,973
		Adjust for Fire Vehicle Stabilization func	\$133,600	\$42,400				\$176,000
		Adjust for DPW Depreciation Fund	\$19,192	\$19,192				\$38,384
		Adjust for Water Sewer Enterprise Fund		(\$15,500)	(\$79,750)	(\$184,450)	(\$407,450)	(\$687,150)
		Net Non-Exempt Plan	\$1,665,688	\$1,637,426	\$1,677,471	\$1,682,495	\$1,698,945	\$8,362,024
		Pro Forma Budget	\$ 35,651,863	\$ 36,235,403	\$ 37,146,922	\$ 38,189,142	\$ 39,297,883	\$186,521,213
		Budget for Plan at 4.3%	\$1,533,030	\$1,558,122	\$1,597,318	\$1,642,133	\$1,689,809	\$8,020,412
		Plan as % of Pro Forma Budget	4.67%	4.52%	4.52%	4.41%	4.32%	4.48%
		Variance From Budget	(\$132,657)	(\$79,303)	(\$80,153)	(\$40,362)	(\$9,136)	(\$341,612)

Category	FY09 2008-2009		FY10 2009-2010		FY11 2010-2011		Change from Previous Year		Post-Construction Budget		New Facility vs. Current	
	Staff (FTE)	Expenditure	Staff (FTE)	Expenditure	Staff	Expenditure	Staff (FTE)	Expenditure	Staff	Budget	Staff (FTE)	Budget
Salaries												
Administration												
Admin. Secretary	8.60	318,335	8.60	318,335	8.60	328,797	0.00	10,462	8.60	348,821	0.00	20,024
Assistant Principal	16.00	1,325,555	16.00	1,304,206	19.00	1,512,721	3.00	208,515	19.00	1,604,845	0.00	92,125
Business Office (Business Manager)	1.00	101,555	1.00	100,105	1.00	103,152	0.00	3,047	1.00	109,434	0.00	6,282
Curriculum Director/Coord.	1.00	94,661	1.00	95,988	1.00	98,664	0.00	2,676	1.00	104,672	0.00	6,009
Custodians/Maintenance Staff	0.00	2,536,960	0.00	2,483,628	0.00	2,630,232	0.00	146,604	0.00	2,790,413	0.00	160,181
Executive Secretary	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Facilities Manager	2.00	113,722	2.00	113,722	2.00	116,652	0.00	2,930	2.00	123,756	0.00	7,104
Guidance	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Adjustment Counselor	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Guidance Counselors	7.00	440,522	7.00	456,362	7.00	482,689	0.00	26,327	7.00	512,085	0.00	29,396
Guidance Director	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Legal	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Nurse	13.60	656,737	11.60	635,745	11.60	702,410	0.00	66,665	11.60	745,187	0.00	42,777
Other	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Principal	11.00	1,099,718	12.00	1,172,171	12.00	1,243,262	0.00	71,091	12.00	1,318,977	0.00	75,715
Special Education Admin	1.00	91,197	1.00	91,197	1.00	95,000	0.00	3,803	1.00	100,786	0.00	5,786
Superintendent/Asst. Superintendent/Director	4.00	523,978	4.00	514,650	3.50	440,722	-0.50	(73,929)	3.50	467,561	0.00	26,840
Transportation	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Treasurer	1.00	12,631	1.00	12,630	1.00	12,630	0.00	-	1.00	13,399	0.00	769
Total Administration	66.20	7,315,571	65.20	7,298,740	67.70	7,766,931	2.50	468,191	67.70	8,239,937	0.00	473,006
Instruction - Teaching Services												
Arts	18.00	1,148,636	18.00	1,163,888	19.00	1,249,380	1.00	85,492	19.00	1,325,467	0.00	76,087
Business	3.00	191,497	3.00	193,787	3.00	202,638	0.00	8,851	3.00	214,979	0.00	12,341
Communications	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Coping Instructor (includes Title 1)	4.50	223,523	3.00	145,452	8.00	431,041	5.00	285,589	8.00	457,291	0.00	26,250
Culinary Arts	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
ELL	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
English Language	41.00	2,549,363	38.00	2,369,403	38.00	2,404,845	0.00	35,442	38.00	2,551,300	0.00	146,455
Family Consumer Services	6.00	431,396	4.00	301,224	4.00	279,209	0.00	(22,015)	4.00	296,213	0.00	17,004
Foreign Language	30.00	1,880,418	24.00	1,511,174	26.00	1,692,235	2.00	181,061	26.00	1,795,292	0.00	103,057
Health Services	2.00	147,768	3.00	226,846	2.00	130,214	-1.00	(96,632)	2.00	138,144	0.00	7,930
History & Social Science	32.00	1,927,483	30.00	1,831,395	33.00	2,064,408	3.00	233,013	33.00	2,190,130	0.00	125,722
Instructional Assistant/Paraprofessionals	0.00	4,520,264	0.00	5,336,608	0.00	6,366,029	0.00	1,029,421	0.00	6,753,720	0.00	387,691
Library/Media	1.00	47,181	1.00	47,616	1.00	51,930	0.00	4,314	1.00	55,093	0.00	3,163
Mathematics	34.00	2,014,824	34.00	2,073,389	34.00	2,156,140	0.00	82,751	34.00	2,287,449	0.00	131,309
MCAS	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Music	18.00	1,103,342	18.00	1,139,346	19.00	1,250,689	1.00	111,343	19.00	1,326,856	0.00	76,167
Other (Pre-School, Kindergarten, Elementary)	168.00	10,072,964	163.50	9,887,306	167.50	10,559,757	4.00	672,451	167.50	11,202,846	0.00	643,089
Physical Education	21.00	1,317,125	21.00	1,328,679	20.00	1,293,825	-1.00	(34,854)	20.00	1,372,619	0.00	78,794
Reading	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
School Adjustment Counselor (School Psychologists)	13.60	902,922	12.00	806,691	12.00	832,432	0.00	25,741	12.00	883,127	0.00	50,695
Science	24.00	1,522,598	24.00	1,571,446	25.00	1,731,121	1.00	159,675	25.00	1,836,546	0.00	105,425
Biology	4.00	192,098	3.00	146,640	4.00	209,967	1.00	63,327	4.00	222,754	0.00	12,787
Botany	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Chemistry	4.00	207,100	4.00	204,193	5.00	257,803	1.00	53,610	5.00	273,503	0.00	15,700
Geology	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-
Physics	3.00	171,132	3.00	172,647	3.00	182,656	0.00	10,009	3.00	193,780	0.00	11,124
Special Education (Special Education, OT/PT/Speech Therapists)	70.60	4,597,250	72.80	4,674,921	71.80	4,759,972	-1.00	85,051	71.80	5,049,854	0.00	289,882
Substitute Teachers	0.00	421,874	0.00	393,906	0.00	434,484	0.00	40,578	0.00	460,944	0.00	26,460
Technology	6.00	340,953	6.00	344,975	6.00	371,338	0.00	26,363	6.00	393,952	0.00	22,614
Vocational Tech.	1.00	68,402	1.00	69,008	1.00	72,338	0.00	3,330	1.00	76,743	0.00	4,405

Category	2008-2009		2009-2010		2010-2011		Change from Previous Year		Post-Construction Budget		New Facility vs. Current	
	Staff (FTE)	Expenditure	Staff (FTE)	Expenditure	Staff	Expenditure	Staff (FTE)	Expenditure	Staff	Budget	Staff (FTE)	Budget
Other (Extraordinary)		-		-		-		-		-		-
Site Maintenance (Grounds)		359,123		416,385		312,356		(104,029)		-		(312,356)
Technology		113,122		84,589		84,982		393		-		(84,982)
Trash Removal		-		-		-		-		-		-
Natural Gas		-		-		-		-		-		-
Snow Removal		-		-		-		-		-		-
Telephone		-		-		-		-		-		-
Water/Sewer		-		-		-		-		-		-
Total Facility Costs		4,246,214		3,438,029		3,194,925		(243,104)		-		(3,194,925)
Capital Improvements												
Capital Improvements		-		-		-		-		-		-
Total Facility Costs & Capital Improvements		4,246,214		3,438,029		3,194,925		(243,104)		-		(3,194,925)
Debt Service												
Short-term		20,100,000		29,200,000		13,800,000		(15,400,000)		-		(13,800,000)
Long-term		920,000		1,260,000		1,439,000		179,000		-		(1,439,000)
Total Debt Service		21,020,000		30,460,000		15,239,000		(15,221,000)		-		(15,239,000)
Total Budget & Staff	570.90	87,489,513	551.50	96,824,812	570.00	85,333,939	19	(11,844,902)	570	60,988,608	0	(24,345,330)

Massachusetts Department of Elementary and Secondary Education

Total School District Expenditures, All Funds, By Function, FY09 to FY11

MASSACHUSETTS TOTAL

		FY09	FY10	pct chg 09-10	FY11	pct chg 10-11
Administration		406,049,941	414,108,450	2.0	413,117,013	-0.2
8300	School Committee (1110)	18,243,186	23,642,740		20,294,494	
8305	Superintendent (1210)	71,920,331	71,258,182		72,992,559	
8310	Assistant Superintendents (1220)	23,667,374	22,689,011		24,620,098	
8315	Other District-Wide Administration (1230)	26,258,019	31,324,528		26,409,446	
8320	Business and Finance (1410)	147,902,153	142,863,115		147,836,785	
8325	Human Resources and Benefits (1420)	32,906,566	30,439,310		31,650,043	
8330	Legal Service For School Committee (1430)	16,426,586	16,800,556		17,618,493	
8335	Legal Settlements (1435)	2,919,258	2,929,853		2,533,058	
8340	District-wide Information Mgmt and Tech (1450)	65,806,468	72,161,155		69,162,037	
Instructional Leadership		767,380,009	762,452,814	-0.6	769,743,647	1.0
8345	Curriculum Directors (Supervisory) (2110)	158,285,820	160,611,505		155,826,664	
8350	Department Heads (Non-Supervisory) (2120)	19,577,240	20,314,368		20,621,522	
8355	School Leadership-Building (2210)	451,030,521	445,171,693		444,282,407	
8360	Curriculum Leaders/Dept Heads-Building Level (67,122,944	66,289,191		66,030,738	
8365	Building Technology (2250)	29,762,291	28,908,952		35,350,427	
8380	Instructional Coordinators and Team Leaders (2:	41,601,193	41,157,105		47,631,889	
Classroom and Specialist Teachers		4,559,035,594	4,600,881,125	0.9	4,649,560,732	1.1
8370	Teachers, Classroom (2305)	4,097,530,398	4,110,756,130		4,153,087,332	
8375	Teachers, Specialists (2310)	461,505,196	490,124,995		496,473,400	
Other Teaching Services		871,808,330	889,343,061	2.0	917,510,755	3.2
8385	Medical/ Therapeutic Services (2320)	197,756,667	205,500,078		204,609,345	
8390	Substitute Teachers (2325)	96,865,316	99,102,919		104,383,101	
8395	Non-Clerical Paraprofs./Instructional Assistants (503,131,354	511,307,484		536,791,830	
8400	Librarians and Media Center Directors (2340)	74,054,993	73,432,580		71,726,479	
Professional Development		207,980,280	209,398,378	0.7	220,016,885	5.1
8405	Professional Development Leadership (2351)	23,464,007	17,560,176		16,630,788	
8410	Teacher/Instructional Staff-Professional Days (2:	58,719,388	59,414,424		59,228,276	
8415	Substitutes for Instructional Staff at Prof. Dev. (2	4,342,085	5,733,599		5,224,150	
8420	Prof. Dev. Stipends, Providers and Expenses (2	121,454,800	126,690,179		138,933,671	

Massachusetts Department of Elementary and Secondary Education

Total School District Expenditures, All Funds, By Function, FY09 to FY11

MASSACHUSETTS TOTAL

			pct chg		pct chg
	FY09	FY10	09-10	FY11	10-11
Instructional Materials, Equipment and Technology	332,035,365	365,323,721	10.0	392,259,158	7.4
8425 Textbooks & Related Software/Media/Materials (67,332,911	76,513,789		68,192,854	
8430 Other Instructional Materials (2415)	45,843,295	53,076,383		59,858,622	
8435 Instructional Equipment (2420)	27,727,073	29,838,832		26,484,827	
8440 General Supplies (2430)	67,359,907	66,681,429		77,862,297	
8445 Other Instructional Services (2440)	78,662,420	72,957,261		88,972,268	
8450 Classroom Instructional Technology (2451)	30,824,208	45,908,137		50,023,561	
8455 Other Instructional Hardware (2453)	7,417,853	12,508,393		10,181,813	
8460 Instructional Software (2455)	6,867,698	7,839,497		10,682,916	
Guidance, Counseling and Testing	327,949,846	337,169,032	2.8	344,487,705	2.2
8465 Guidance and Adjustment Counselors (2710)	224,354,776	231,188,621		233,242,992	
8470 Testing and Assessment (2720)	12,014,478	11,258,852		12,755,565	
8475 Psychological Services (2800)	91,580,592	94,721,559		98,489,148	
Pupil Services	1,086,565,116	1,079,082,591	-0.7	1,109,630,054	2.8
8485 Attendance and Parent Liaison Services (3100)	15,553,770	14,425,914		15,808,326	
8490 Medical/Health Services (3200)	121,481,386	126,702,516		131,088,646	
8495 In-District Transportation (3300)	431,615,630	421,231,431		434,818,487	
8500 Food Salaries and Other Expenses (3400)	318,151,811	312,748,766		318,776,784	
8505 Athletics (3510)	118,056,678	121,493,497		122,898,337	
8510 Other Student Body Activities (3520)	54,910,810	55,433,064		58,017,127	
8515 School Security (3600)	26,795,031	27,047,403		28,222,347	
Operations and Maintenance	1,022,348,319	971,642,870	-5.0	986,820,334	1.6
8520 Custodial Services (4110)	335,083,287	333,785,294		334,232,592	
8525 Heating of Buildings (4120)	140,061,874	109,483,836		118,871,321	
8530 Utility Services (4130)	229,126,913	220,428,958		223,836,476	
8535 Maintenance of Grounds (4210)	41,891,283	43,122,411		46,486,071	
8540 Maintenance of Buildings (4220)	199,354,622	192,394,134		187,590,831	
8545 Building Security System (4225)	2,435,151	2,271,566		2,015,621	
8550 Maintenance of Equipment (4230)	22,481,305	21,575,964		23,288,939	
8555 Extraordinary Maintenance (4300)	24,280,545	22,527,226		24,345,900	
8560 Networking and Telecommunications (4400)	13,871,567	13,947,960		14,691,286	

Massachusetts Department of Elementary and Secondary Education

Total School District Expenditures, All Funds, By Function, FY09 to FY11

MASSACHUSETTS TOTAL

		FY09	FY10	pct chg 09-10	FY11	pct chg 10-11
8565	Technology Maintenance (4450)	13,761,772	12,105,521		11,461,297	
Insurance, Retirement Programs and Other		2,056,623,858	2,042,613,604	-0.7	2,124,155,349	4.0
8570	Employer Retirement Contributions (5100)	395,299,463	332,626,709		346,148,640	
8575	Insurance for Active Employees (5200)	1,226,954,471	1,248,716,336		1,304,614,218	
8580	Insurance for Retired School Employees (5250)	344,254,790	365,802,185		379,922,976	
8585	Other Non-Employee Insurance (5260)	45,537,359	48,266,832		46,402,816	
8590	Rental Lease of Equipment (5300)	4,752,060	5,736,989		6,273,378	
8595	Rental Lease of Buildings (5350)	6,398,998	5,756,697		5,110,553	
8600	Short Term Interest RAN's (5400)	536,966	348,865		339,868	
8610	Crossing Guards, Inspections, Bank Charges (5450)	32,889,751	35,358,991		35,342,900	
Payments To Out-Of-District Schools		1,175,469,948	1,200,688,671	2.1	1,228,149,528	2.3
	Tuition To Other Schools (9000)	1,075,963,135	1,091,650,282		1,124,229,952	
	Out-of-District Transportation (3300)	99,506,813	109,038,389		103,919,576	
TOTAL EXPENDITURES		12,813,246,606	12,872,704,317	0.5	13,155,451,160	2.2
Membership						
	in-district fte average membership	928,996.92	928,555.50		924,977.90	
	out-of-district fte average membership	56,168.40	57,652.40		59,604.00	
Total average membership, in and out of district		985,165.32	986,207.90	0.1	984,581.90	-0.2
TOTAL EXPENDITURE PER PUPIL		13,006	13,053	0.4	13,361	2.4

3.3.2.4 PREFERRED SOLUTION

G. Updated Project Schedule

3.3.2.5 LOCAL ACTIONS AND APPROVAL

- A. Narrative
- B. Local Actions and Approvals

3.3.2.5 LOCAL ACTIONS AND APPROVAL

A. Narrative

Mountview Middle School

270 Shrewsbury Street, Holden, MA 01520

3.3.2.5 LOCAL ACTIONS AND APPROVAL

FEASIBILITY STUDY

A. Narrative

The Owner and OPM have taken a proactive approach to involve the local community in the Feasibility Study process since submission of the PDP to MSBA. See attached Mountview Middle School Community Outreach Efforts. Key steps include the following:

- SBC Meetings: All SBC meetings have been conducted in accordance with the state’s open meeting law and posted on the town website.
- Wachusett Regional School District updates on the status of the project at their televised meetings and covered by the media.
- Joint meetings of SBC, Town Selectmen, Finance Committee and the public televised on the Town’s local cable channel.
- Green Charrette Meeting was held and open to the public, published in local newspapers.
- Building Committee held public meeting for project update of PSR’s three options which was advertised in local newspaper, Town LED message board, and town and district websites.
- Informational booth with handouts at annual Town Fair “Holden Days”.

The Local Actions and Certifications form, signed by the Town Manager, Superintendent of Schools, and School Committee Chairperson is included in this section.



3.3.2.5 LOCAL ACTIONS AND APPROVAL

B. Local Actions and Approvals

PROGRESS ON MOUNTVIEW MIDDLE SCHOOL

August 12, 2012

In July the Mountview School Building Committee made some important decisions on the project and held a widely attended public hearing to get public input. We also scheduled a second public hearing and meeting to decide on which project to propose to the state. This month's activities included:

- On July 17, the Committee organized a public hearing on the project held at Mountview School. The Board of Selectmen, Finance Committee and School Committee were invited to participate in an open discussion about the project and the public asked questions and gave input on the project.

Chairman Paul Challenger gave an overview of the early stages of the project, the naming of the Committee, hiring of the OPM and the selection of LPA as Designer. Then Mike Pagano, Principal Architect from LPA, gave a presentation on the status of the project, the alternatives being explored and the timing of future milestones.

After the formal presentations, Chairman Challenger lead a question and answer session with the various committee members in attendance. The discussion covered a range of topics, including

- Why is it necessary to do this project now? Chairman Challenger said that the state has many projects in line to be funded. Currently we are at the top of the list and the state is working with us. If we withdraw, we will fall off the funding list and have to restart the project from scratch at some later date, with no guarantee that we could get back to the top of the list again.

- What would be the feasibility of just doing minimal improvements now and putting off tackling the entire project to a later date when the economy was better? Holden's Director of Growth Management, Dennis Lipka, discussed the regulations that control major renovations. Once renovations exceed 30% of the fair value of the school (which is currently \$8.0M), state building codes will require the entire building be brought into compliance. This means that if we tried to just fix the windows, heating and ventilating and roof, and the cost exceeded \$2.4M, which it would, we would also be required to make the school compliant with many other codes, including handicap access, hallway and stairway widths, entrance and egress controls, fire suppression and more. None of these costs would be reimbursable by the state, since the finished project would not meet state educational guidelines, since it would not have added the appropriate amount of classroom space for the projected 800 student population. So minimal renovations would trigger more substantial code improvements, and we would wind up with an expensive repair project, all Holden funded and still not have addressed the space issue.

- How many school choice student were at the school, and could we avoid building a larger school by limiting the number of school choice students attending? Principal Githmark said that the school was designed for 600 students and that there are

currently 770 students attending Mountview, of whom about 20 were school choice. So eliminating school choice would have a minimal impact on the size of the project.

-What were the plans for the media center? Superintendent Pandiscio explained that with the current state of technology, there was no longer any need to have a few computers in one place for the students to visit once a week. Technology needs to be in the classroom with the students at all time. Therefore, a large media center is not an efficient use of taxpayer money. The plan is to use the square footage removed from the media center and build areas into each classroom group to allow group meetings, a concept used in other district schools with great success.

- What is the state share of the cost? While not finalized yet, it is anticipated that the state funding will be approximately 53%.

- What happens if the MSBA rejects our filing and wants a different project. Mr. Pagano said that was very unlikely since LPA, the MSBA and the Committee are in frequent contact and no issues have come up yet. However, if it did happen, the Committee and LPA would need to address the concerns of the MSBA and resubmit the documentation for a second review. This would push back the timing of the rest of the project, but not jeopardize the overall project.

- Can we change the Agreement to give the WRSD more incentive to maintain the schools so we don't need to replace them frequently? The Committee responded that Mountview is not being replaced because it has been poorly maintained. It is being replaced because it has become too small and its mechanical systems have outlived their useful lives. The school is 45 years old, so it is not being replaced "frequently". The BOS, FinCom and School Comm can address this issue any time they like, but it is not within the authority of the Building Committee to tackle this issue.

After the discussion among the committees, the floor was opened to public comments and questions, which included

-Who makes the final decision on what form the project will take? The MSBC is solely responsible for this decision.

- Have we considered joining with Princeton in a regional middle school? Princeton was given an opportunity at the very beginning of the project and they declined.

-There were comments asking that the committee consider energy efficient designs and equipment, remove the hazardous materials, and consider traffic flow. All these will be considered during the process.

- Suggestions for "selling" the project were made, from including citizens in the decision process, explaining the failings of the current school and the advantages of a new school or renovation. The Committee accepted the recommendations and made sure everyone knows we meet twice a month in open session the second and fourth Tuesday at the Light Department at 6PM, and more frequently as needed. Those meetings have a public comment period and the Committee welcomes public input.

At its meeting on July 24, the Committee reviewed the draft of the PDP prepared by LPA, which included construction cost estimates for the various options.

- Minimum renovation \$733,243

- Moderate renovation \$10,126,913

- Renovation and addition \$39,518,682
- New construction on the existing site \$47,929,966
- New construction on a new site \$47,724,822

The Committee was reminded that these are very preliminary estimates of just the construction costs, not the full project costs. There will be 5 different cost estimations done during the feasibility stage, each more detailed and precise, as the project gets refined over the next few months.

During the discussion it was noted that the estimates did not include the cost of staging a renovation project or finding room to educate students during the renovation. Additionally, site preparation costs are capped at 8% of project costs, so these costs will need to be quantified in relation to reimbursement rates. LPA, the Committee and the WRSD will be working on adding these costs to the analysis to come up with comparable full project costs

After extensive discussion, the committee voted to eliminate the minimum renovation and moderate renovation options from future consideration since they would not achieve the educational standard of the WRSD or the MSBA.

There was discussion about the current media center plans and how they might impact the schedule if MSBA rejects the concept. If this scenario occurs, then the PSR filing would need to be revised and resubmitted, meaning we would miss the November MSBA BOD meeting and the schedule would slip several months. The OPM has been in frequent touch with the MSBA and has provided all the requested information. To date, the MSBA has not said anything against the concept, but it is new to them and will need to be discussed at length. Ultimately, the Committee decided to move ahead with the plans as proposed and work to get them approved. The WRSDC Education Subcommittee is meeting on August 15 to discuss the concept. The results of this meeting will be included in the PSR.

On August 28, there will be a public hearing at Mountview, including the local committees, to discuss the status of the PSR and the various options being considered. Senator Chandler and Representative Ferguson have been invited as well.

At the September 4 meeting, the Committee will need to decide which of the 3 remaining options will be submitted to the state in the PSR. This will be the final decision on which project to support.

The Committee set a future meeting schedule of
8/14 - Update from OPM and discussion of public outreach effort
8/20 - Not a meeting, but a presentation to the School Committee by Vice Chair Dave White and Mike Pagano at the High School
8/25 - Booth at Holden Day

8/28 - Public hearing at Mountview. BOS, FinCom and School Comm invited, as well as Senator Chandler and Representative Ferguson. Public address audio and visuals will be better this time.

9/4 - Update from LPA and OPM and decide which option to include in the PSR filing.

There may be additional meetings as needed. All meetings are held at 6PM at the Light Department (except as noted), are posted and are open to the public.

For additional information, contact Chairman Paul Challenger at (774) 364-2364 or Vice Chairman David White at (508) 450-3920.

Appendix 3D

September 27, 2012

Ms. Diane Sullivan
Senior Capital Program Manager
Massachusetts School Building Authority
40 Broad Street
Boston, MA 02109

Dear Ms. Sullivan:

The Town of Holden School Building Committee (SBC) has completed its review of the Feasibility Study Preliminary Design Program for the Mountview Middle School project (the Project), and on July 31, 2012, the SBC voted to approve and authorize the Owner's Project Manager to submit the Feasibility Study related materials to the MSBA for its consideration. A certified copy of the SBC meeting minutes, which includes the specific language of the vote and the number of votes in favor, opposed, and abstained, are attached.

Since the MSBA's Board of Directors approved the District to proceed with the Feasibility Study/Schematic Design on February 22, 2012, the SBC has held ten (17) meetings regarding the Project, in compliance with the State Open Meeting Law. All meetings are posted on the Town website, Town Clerk's office, and Police Station. These meetings include:

SBC Meeting February 28, 2012 – Held at the Holden Light Department – 6PM

The Committee reviewed the 10 schematic design bid proposals which were received by the Town on February 24, 2012. The bid proposals will be sent to the MSBA in mid-March in preparation for MSBA's Design Review Panel meeting on March 27, 2012.

SBC Meeting April 10, 2012 – Held at the Holden Light Department – 6PM

SBC Chairman Paul Challenger announced that the MSBA had ranked Lamoureux-Pagano as the top architectural firm for the Feasibility and Schematic Design phase of the project. Mr. Michael Pagano and Mr. Bill Senecal from LPA were introduced to members of the SBC. The Town is conducting contract negotiations with LPA. The group reviewed the Feasibility Study Draft Work Plan. The group reviewed and discussed the MSBA's proposed schedule of project completions dates, the ability to meet the dates, and when to schedule a Town Meeting. The Committee agreed that the F&SD phase is an important process and it is important to make educated and informed decisions for the proper school to be built. School Superintendent Pandiscio said that school staff/administration would be introduced to the design process in May or June 2012.

SBC Meeting April 24, 2012 – Held at the Holden Light Department – 6PM

SBC Chairman Challenger noted that a Contract for Designer Services had been reached with Lamoureux-Pagano for \$475,000. The Committee voted unanimously to approve the contract. OPM Gary Kaczmarek reported he met with the Director of Facilities for the School District to review the Mountview School's original building plans. The Committee discussed possible ways to conduct community outreach efforts in order to involve the public in the design process. A subcommittee consisting of Chairman Challenger and Committee members Mike Sherman and Chris Lucchesi will reach out to the Shrewsbury MA School Building Committee and the Ashburnham MA School Building Committees to research community outreach plans. Other methods of community outreach discussed were the involvement of the PTO/SIMCO groups, creation of a website and the new media.

SBC Meeting May 22, 2012 – Held at the Holden Light Department – 6PM

The Committee reviewed the Module 3 Feasibility Study Guideline Checklist. LPA and the OPM are currently working on completing the PDP which is due to the MSBA on July 12, 2012. The PSR is due to the MSBA on August, 9, 2012. Soil borings and geotechnical reports have been ordered for the current school site. The OPM is reviewing potential building sites in town to determine if there is enough land to select an alternative building site. Subcontractors will begin evaluating the school on May 24, 2012. The SBC Chairman spoke at the May 21, 2012 Annual Town Meeting about the efforts of the Committee. He will address the School Committee on May 23, 2012 and begin writing a monthly summary of committee efforts as a press release for Community Outreach purposes.

SBC Meeting June 5, 2012 – Held at the Holden Light Department – 6PM

LPA is working with the School District to conduct a room summary. Discussion was held about the maximum square footage allowed for an education plan for an approved enrollment of 800 students. Soil boring reports came back and a traffic study will be conducted on June 7, 2012. A hazardous materials survey of the school is ongoing. The SBC discussed alternative school building sites. Approximately 8 building sites have been identified that have enough land to support a school. LPA is currently evaluating all potential sites. SBC unanimously voted to have LPA pursue building on the current site, the Chapel/Bullard Street site, and the Zottoli site. LPA will set up a walk through of the Sherwood Middle School in Shrewsbury, MA for the Committee. The school is currently under construction. LPA will schedule a Green Engineer Charette for later in June. The public will be notified via the Town website and the press and are encouraged to attend. Members of the Community Outreach subcommittee met with members of the Shrewsbury, MA Middle School Public Outreach Committee. The Town and LPA conducted an educational input community outreach discussion on June 5, 2012.

SBC Meeting June 12, 2012 – Held at the Holden Light Department – 6PM

The Green Charette will be held on June 21, 2012 and is open to school staff and the public. LPA will meet with the Superintendent on June 21, 2012 to complete the Room Summary. The Committee discussed when to present the PSR to the School Committee for submission to the MSBA by August 9, 2012. OPM Gary Kaczmarek will hold a meeting with members from Town Departments to review potential building sites and receive town input on June 13, 2012. LPA and the Committee participated in a site review of potential building sites. SBC unanimously voted to eliminate the Zottoli property from building consideration due to the high number of abutters and the high cost to acquire the land. The Committee unanimously voted to direct LPA to continue evaluation of the Malden Street land as a potential building site.

SBC Meeting June 26, 2012 – Held at the Holden Light Department – 6PM

LPA confirmed that hazardous materials had been found in the school and the hygienist has recommended a sizeable budget for remediation: \$1M for new and \$750K for renovation. PCB's were found in windows. The EPA has been notified. LPA and the District have completed the room summary. The District has asked for 30 rooms vs. 28 dictated by the MSBA, and the elimination of the media center. The District is in the process of writing a written defense of the request. An evaluation of the alternative building site has begun. The Green Charette was held on June 21, 2012. A "Stakeholder" meeting will be held on July 10, 2012 at 5PM at Mountview School. The public will be invited to attend a walk through to see its current conditions and attend the SBC meeting at 6PM. The Community Outreach subcommittee met with members of the Ashburnham School Building Committee. The SBC voted on options for LPA to include in the PDP due July 12, 2012. The SBC reviewed an updated Summary of Deliverables Schedule provided by LPA. After discussion of a tight meeting schedule, the SBC directed the OPM to discuss an extension of the reporting deadline with the MSBA and extend the filing into September 2012. The OPM informed the SBC that he was in the process of hiring an OPM consultant to help with the project on a short term basis. SBC unanimously voted to support hiring an OPM consultant as necessary. The SBC unanimously voted to support the following project options in the PDP: 1. no build; 2. renovation minimum, medium or heavy; 3. build new on existing site; 4. building new on alternate site; 6. consider other options consistent with MSBA guidelines and expectations. The SBC unanimously voted to include public comment as part of its regular meeting agenda.

SBC Meeting July 10, 2012 – Held at the Holden Light Department 6PM

LPA and the Committee prepared for the July 17, 2012 Community Outreach Tour of Mountview Middle School and the Joint Meeting with Town Officials and the Public immediately after the tour.

SBC Public Meeting and Tour of Mountview Middle School July 17, 2012

The Committee provided tours to the public of the Mountview Middle School. After the tours, the public was invited to attend the Committee's weekly meeting at 6PM at the school. Members of the Board of Selectmen, Finance Committee, Town Committees, Department Heads, and the School Committee were in attendance. LPA provided a power point presentation on the history of the project, the progress to date, and MSBA objectives. A Q&A session with the public occurred. Questions from the public included what type of building to build, who makes the final building decision, costs, educational quality, condition of current school, and how to involve the public in the process. Over 50 people were in attendance at the meeting.

SBC Meeting July 31, 2012 – Held at the Holden Light Department 6PM

SBC and Lamoureux-Pagano discuss all of the building alternatives in order to narrow the building options down to three choices to submit for the PDP. SBC unanimously voted to remove the minimum renovation from consideration, unanimously voted to move the option of doing nothing from consideration and unanimously voted to remove a moderation renovation from consideration. The SBC unanimously voted to include an addition/renovation building option, constructing a new building on the existing site, and constructing a new building on an alternative site in the PDP. The SBC voted 7-0-1 with 1 abstention to endorse the PDP as written on July 24, 2012 and to allow for minor edits and corrections until submittal on August 15, 2012. The Committee agreed to hold a second SBC meeting and public tour of the school on August 28, 2012. Tom Curran, a member of the public spoke during the public comment portion of the meeting adding he hoped the public becomes more involved at the August 28th meeting.

SBC Meeting August 14, 2012 – Held at the Holden Light Department 6PM

Mr. Kaczmarek, OPM reported that the PDP had been sent overnight to the MSBC. LPA reported that work on the Preferred Schematic Report (PSR) has begun. The Committee unanimously voted to pursue a MA-CHPS green certification for the project. The Committee unanimously voted to not pursue acquisition/road development of Chapel Lane as a secondary egress to the school. Committee member Chris Lucchesi reported on upcoming Community Outreach efforts. These include attending Holden Days on August 25, 2012, holding a second Green Charette meeting on August 21, 2012, and conducting a second Public Meeting/Tour of the Middle School on August 28, 2012. Additionally, Mr. Lucchesi has made contact with local PTO's and will make presentations to them starting in September 2012. Committee member Mike Sherman reported he is creating a flyer to inform the public about the Committee's efforts to date. The flyer will be available to hand out at Holden Days.

SBC Meeting August 21, 2012 – Held at the Mountview Middle School 6PM

Engineering Staff from The Green Engineer, a green building and design consulting firm, discussed achieving green goals for the MA-CHPS project with the SBC.

SBC Meeting August 28, 2012 – Held at the Mountview Middle School 5PM

The Committee provided tours to the public of the Mountview Middle School. After the tours, the public was invited to attend the Committee's weekly meeting at 6PM at the school. Members of the Board of Selectmen, Finance Committee, the School Committee, and members of the press were in attendance. The three building options were presented. A Q&A session with the public occurred.

SBC Meeting September 5, 2012 – Held at the Mountview Middle School 6PM

The SBC reviewed cost estimations from LPA's cost estimator, Fogerty. LPA presented the three PSR building options, including their advantages and disadvantages to the SBC. Committee members expressed concern about site development costs associated with the new site location (Malden Street). These costs are projected to be greater than the 8% the MSBA will reimburse the project. The SBC asked LPA to generate off-site work and costs associated with this site. The results from the Green Charette meeting were discussed. The SBC reviewed the MA-CHPS scorecard results and a memo from Ms. Carrie Havey, the Green Engineer. Comments from the PDP submittal on August 15, 2012 have not been received by the MSBA. The Committee discussed its commitment to incorporating renewable/sustainable energy source(s) in whichever option is selected.

SBC Meeting September 11, 2012 – Held at the HMLD 6PM

The SBC reviewed the three building plan options for the PSR: Option 1.: Add/Reno; Option 2.: Build new on existing site; and Option 3.: Build new on alternate site. LPA presented estimates for off-site work and costs associated with the development of Option 3. The Committee unanimously voted to adopt Option 2 for the PSR solution for the Mountview School project. The Committee unanimously voted to authorize LPA to proceed with Schematic Design. Mr. Kaczmarek will present a power point presentation on CM@Risk and the Committee will discuss MA-CHPS alternative energy features at the next two meetings.

Board of Selectmen Meeting September 17, 2012 – Held at Memorial Hall – 7PM.

SBC Chairman Paul Challenger attends televised Board of Selectmen Meeting to review work ongoing work of SBC to date. Mr. Challenger announces that after two years of research, planning, and deliberation, the Committee unanimously voted to endorse the construction of a new middle school on the existing school site at its September 11, 2012 meeting.

SBC Meeting September 18, 2012 – Held at the HMLD – 6PM

SBC meets to begin incorporating MA-CHPS into schematic design of project. Mr. Kaczmarek provides power point presentation on CM@Risk.

In addition to the SBC meetings listed above, the OPM/School District held five (5) public meetings, which were posted in state Open Meeting Law, at which the Project was discussed. All meetings are posted on Town website, Town Clerk's office and Police Station. These meetings included:

OPM Meeting Minutes May 14, 2012 – Held at the Mountview Middle School– 10AM

Members of the SBC, LPA, School District, and Town Administration met with Mr. Chris Alles of the MSBA to kick-off the Feasibility and Schematic Design process. The first stage of the schematic design will be due mid-July or early August. The entire Feasibility and Schematic Design report will be due to the MSBA in January 2013. Mr. Alles said that changes to the reporting schedule were possible as it is important to get the right project to the street. Mr. Pagano discussed potential problems with the current school site. LPA suggests that the SBC look into an alternative building site. Changes to the MSBA 8 modules concept, and meeting dates were discussed.

OPM Meeting May 24, 2012 – Held at the Mountview Middle School– 2:30PM

OPM Gary Kaczmarek toured the Mountview Middle School with engineering subcontractors for HVAC, Fire Suppression, and Structural Engineering.

OPM Meeting June 5, 2012 – Held at the Mountview Middle School – 3PM

OPM Gary Kaczmarek and LPA conducted an Educational Input Discussion that was open to the public and school department staff.

OPM Meeting June 13, 2012 – Town Hall, Holden, MA– 8:30AM

OPM Gary Kaczmarek and LPA met with Town officials to conduct a site assessment meeting.

OPM/Green Charette Meeting June 21, 2012 – Held at the School District Offices – 9AM

OPM and Committee hold Green Charette Meeting on June 21, 2012. Meeting is advertised in [The Landmark](#), [The Holden Daily Voice](#), Town LED message board, Town website and District website.

The presentation materials for each meeting, meeting minutes, and summary materials related to the Project are available locally for public review at the Town Clerk’s Office, 1196 Main Street, Holden, MA 01520.

To the best of my knowledge and belief, each of the meetings listed above complied with the requirements of the Open Meeting Law, M.G.L. c. 30A, 18-25 and 940 CMR 29 *et seq.*

If you have any questions or require any additional information, please contact, Thomas Pandiscio, Superintendent of Schools, Wachusett Regional School District, 1750 Main Street, Holden, MA 01520 508-829-1670.

By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.


By: Nancy Galkowski

Title: Chief Executive Officer

Date: 7/10/2012

By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.


By: Thomas G. Pandiscio

Title: Superintendent of Schools

Date: 6/27/2012

By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.


By: Duncan Leith

Title: Chair of the School Committee

Date: 6/27/2012

Mountview School Building Committee
Meeting Minutes
July 10, 2012

6PM

HMLD Building

Present: Vice-Chair David White, Gary Kaczmarek, Margaret Watson, Nancy Galkowski, Jacquie Kelly, Peter Brennan

Absent: Chairman Paul Challenger, Erik Githmark, Chris Lucchesi, Mike Sherman, Tom Pandiscio, Elizabeth Helder, Recording Secretary

Others Present: Bill Senecal, LPA

1. OPM/Architect Update

Bill Senecal with LPA explained to the Committee that the MSBA allowed the Committee to adjust the due dates for the PDP and the PSR. Mr. Senecal explained to the Committee and the press how these new dates will adjust the Summary of Deliverables. LPA will present a slide show at the public meeting scheduled on July 17th at Mountview School to explain MSBA Modules 1-8, and the project's timeline, milestones and work completed to date. Margaret Watson said that she felt that the presentation should also point out the flaws and problems with the current building.

Gary Kaczmarek explained the District's proposed use of the media center space. Ms. Watson added that the District's "rearrangement" of the square footage in media space stems from a movement across the District for educational programming purposes. Taking square footage from one giant library and using the space to create more library/media/pod space in classrooms supports the District's Literacy Program. This type of educational programming has generated higher MCAS scores.

David White suggested that LPA articulate during its presentation how the Committee was formed and why members were chosen to serve on the Committee. Additionally, it will be important to emphasize during the presentation how the current school is out of building code compliance in regards to stairways, corridors, classroom sizes, doorways, fire protection, and safety issues. Ms. Watson added that one of the largest issues with the high school renovation was how out of code the building was. It created many costly unforeseen situations during the renovation.

Dave White also asked LPA to explain that the MSBA will not fund a project unless the project meets MSBA guidelines. Additionally, the public must understand that the MSBA has been restructured, has different guidelines, and operates under a different process than when the high school was renovated.

Nancy Galkowski suggested that the Public Comment section for the July 17th meeting should come after the presentations and Q&A among the Selectmen and Finance Committee.

Gary Kaczmarek asked what the game plan was for touring the school. What areas were available and what points should be discussed. Dave White said that was a very good question and thought we would do groups of 20 people or so pending how many attended. Suggested that principal Eric Githmark, Head custodian Dennis Hyson, and OPM Gary Kaczmarek would lead groups if needed.

A motion for adjournment was not considered because the Committee did not have a quorum. The meeting concluded at 7:15PM.

**Mountview School Building Committee
Community Outreach Meeting Minutes
July 17, 2012**

6PM

Mountview School

Present: Chairman Paul Challenger, David White, Gary Kaczmarek, Margaret Watson, Nancy Galkowski, Erik Githmark, Chris Lucchesi, Mike Sherman, Jacquie Kelly, Peter Brennan, Tom Pandiscio

Absent: Peter Brennan

Others Present: Mike Pagano, LPA, Bill Senecal, LPA, Elizabeth Helder, Recording Secretary, Alan Berg, FinCom, Marilyn Foley, FinCom, Karl Makela, FinCom, Jim Dunn, Fin Com, Dennis Lipka, Director, Growth Management, Anthony Renzoni, Selectman, Mark Ferguson, Selectman, Ken Lipka, Selectman, Steve Hammond, Ken Mills, Stacey Jackson, Cynthia Bazinet, Duncan Leith, Wachusett Regional School Committee Representatives

Prior to the start of the meeting, members from the Building Committee and Lamoureux-Pagano conducted tours of the school for the public.

1. Project Update

Chairman Paul Challenger informed those present that the public meeting was being held to inform the public about how the school building committee had been formed, a history of the project to date, and where the project was going. The State approved Mountview Middle School for reimbursement in 2008. He asked all in attendance to sign in on the sign-in sheet. He encouraged anyone interested in helping out with the project to indicate it on the sign-in sheet. Copies of the power point presentation were distributed to the audience.

Mike Pagano with Lamoureux-Pagano Architects (LPA) provided a summary of the Massachusetts School Building Authority (MSBA) and how the MSBA has changed since the Town built its elementary schools and renovated the high school. The MSBA has been revamped and is a highly organized and controlled building process. LPA has been hired to conduct a Feasibility Schematic Design Study of the project. The results of the study will be presented to the MSBA in March 2013. The project is in the first phase of the study: Preliminary Design Program (PDP). This portion of the study will analyze every available building option/alternative for the school. Mr. Pagano broke the MSBA Building Process down step by step. Alternatives being evaluated include 1. No Build; 2. Tuition Agreements with other Districts; 3. Existing Building Acquisition; 4. Base Repair 5. Renovation (A. Minimum – Fix What is broken, B. Medium – No Reconfiguration, C. Heavy – Blow out walls/new addition); 6. Build new on existing site; 7. Build new on alternate site. The conditions of the school are evaluated during the PDP process, including how the school supports state education programming requirements. Mr. Pagano stated that the school is poorly insulated, and an energy hog; however, the brick façade of the school is relatively sound. However, most of the building is out of Massachusetts Building Code and ADA code. Science labs are limited in plumbing and significantly undersized. The general classrooms are all undersized. Hazardous Materials have been identified within the school. The current square footage of the school is 91,000. Total proposed square footage is 128,000, which is the MSBA square footage allotment for an enrollment of 800 students.

**Mountview School Building Committee
Community Outreach Meeting Minutes cont.**

July 17, 2012

Alternative site selections were presented. There are only four alternative building sites in Town which contain the minimum 15-acres required to build a middle school. Three of the sites were excluded from consideration by the Building Committee due to cost, topography, abutters, lack of infrastructure, and wetlands. The only alternative site deemed appropriate by the committee is a site abutting the Mayo School on Malden Street. This is town owned land. Mr. Pagano stated that the Committee and MSBA are only studying options; no decisions have been made. LPA is looking at two different development options for the Malden Street site.

The Schematic Design will be submitted to the MSBA in January 2013. The MSBA will approve the entire Feasibility Study and offer the Town a Fund Agreement in March 2013. The Town will have 120-days to approve funding for the approved project. The Design Development phase will occur from July 2013 – March 2014. Construction is anticipated from September 2015 to August 2016.

Mr. Challenger said the Town will have one shot at achieving funding for the project. There are many schools on the State Reimbursement list waiting for money and the Town will not have two or three chances to achieve approval/funding. If the funding mechanism fails the first time, the Town will have lost the \$600,000 used for the Design phase.

Mr. White added that the said the final PDP report created by LPA and the Committee and submitted to the MSBA will be 800 to 1000 pages. It is a thorough, comprehensive, well-thought out design proposal. The project must be designed within MSBA guidelines in order to qualify for \$20M of funding.

Mr. Challenger opened up discussion to the Committee's in attendance.

Ms. Bazinet said that she and most of the School Committee support the project and are anxious for it to begin. She inquired if there will be advocacy and support for the project at the ballot? Mr. Challenger said that the public needs to be involved in selling the project at the ballot. No Town money may be spent on selling the project; but the Building Committee will provide advice/information to anyone interested in becoming involved in getting the project sold.

Mr. Berg asked how many of the students currently enrolled at Mountview are school choice students and how many are residents. Mr. Githmark said that there are 20 school choice children currently enrolled at the school and the total enrollment is currently 770 students. Enrollment projections are anticipated to increase to a peak of 850 students within the next several years.

Mr. Berg said the District says it has space and technology needs; what are the reasons for doing a renovation or building new. Mr. Challenger said that the all the buildings mechanical systems are failing and that building is riddled with hazardous materials and State and ADA code violations. If a certain amount of money is spent upgrading these some of the buildings deficiencies, it triggers a level of ADA code requirements that the District must meet, which will cost more money to be spent on the building to upgrade other systems (mandatory sprinkler installation). It is a giant domino effect that keeps growing and money is spent on making renovations, which in the end are always more costly than building new.

**Mountview School Building Committee
Community Outreach Meeting Minutes cont.**

July 17, 2012

Growth Management Director Dennis Lipka also responded by saying that code and safety requirement changes occur every year and the code requirements have even changed since the construction of the elementary schools and the high school. Mountview School is so out of code that even small upgrades/renovations will create a Code 3 requirement which is essentially a complete renovation of the school, which can be the same cost as a new building. There is no savings in doing a minimal repair to the school.

Mr. Challenger said that sprinkler installation would be impossible in the current building because there is no space between floors to install the piping and ductwork required to meet compliance.

Mr. Hammond discussed the reduction of central media space for use in other smaller media centers in the building.

Mr. Challenger said that conceptually, 4 or 5 classrooms would be built around common space or pods used by the classrooms. He said that in meetings with staff, they have said this is their preferred method of teaching and interacting with students in preparation for future educational requirements.

Mr. Makela asked what the State's percentage of the total cost. Mr. Challenger explained that the State will reimburse the project for 53% of eligible construction. Building green gets more reimbursement. There are incentives with the MSBA that get more money for the project: the State reimburses different costs for different things. Land acquisition is 100% of the Town's cost. The project will be built to maximize the return for the Town.

Ms. Jackson asked if was possible that the MSBA will reject LPA's recommendation? If so, what happens next?

Mr. Challenger and Mr. Pagano said it is possible but very unlikely. Three options must be submitted to the MSBA for feedback purposes in August for the formal PSR proposal submission in September. There is a lot of give and take between the MSBA, the Committee and LPA during the review process to allow for feedback.

Mr. Berg asked if it was an appropriate time for the School Committee to reopen and revise the Regional Agreement to raise the maintenance threshold (\$50,000) amount that the Town's are required to pay for maintenance to school buildings. He added that the Town's are dis-incentivized to do any maintenance based on the current Regional Agreement. He is concerned that with a 50-year design and no serious maintenance plan, now is the time to make changes to the agreement to what is fair and reasonable.

Mr. Lucchesi said maintenance comes at a cost: operating costs. Maintenance is sacrificed to pay for teaching. What is the point of opening up the Regional Agreement if there is no money to pay for maintenance in the first place. The operating budget would have to be increased by sacrificing education. Maintenance isn't even funded now. What's going to change?

**Mountview School Building Committee
Community Outreach Meeting Minutes cont.**

July 17, 2012

Mr. White said that Mr. Berg's question is fair. The issues with the building are not due to lack of maintenance or deferred maintenance. The building is simply old and outdated. The building has single paned windows, asbestos, and is 200 students over its capacity, has a lack of a sprinkler system, and endless State and ADA code violations. The building is old, tired, under sized, antiquated, and has out lived its useful life. He said that as a tax payer, the Town is going to hold the student's hostage until a political agreement is reached.

Is the Finance Committee not going to fund the school because it is unhappy with the Regional Agreement? Don't mix apples and oranges. While he agrees that changes needed to be made to the RA, but now is not the time to do it.

Mr. Challenger said that the RA is not an issue for the Building Committee. That issues lies with the Finance Committee, Selectmen, Town, School Committee members and District. The BC has been charged to fix the problem at Mountview.

Mr. Challenger opened up the discussion to public comment. He reminded residents that the BC meets weekly on Tuesdays at 6PM at the Light Department and encouraged the public to attend and contribute to the process.

Mr. Bill Turgeon, 177 Fox Hill Drive, inquired who makes the final decision regarding what is built. Mr. Pagano said that when the PSR is filed, THE SOLUTION will be filed and the decision will be made by the Town Manager, the District Super indent, and the Building Committee. Mr. Turgeon asked if the Committee had considered joining together with the Town of Princeton which is facing declining middle school enrollment. Dr. Pandiscio said that the Town of Princeton rejected the Committee's request to combine the two middle schools.

Ms. Linda Ridlon, 152 Pilgrim Drive, asked if renovated, would the school's ventilation system be brought up to ADA standards. Yes. Hazardous Materials remediation would also have to occur to achieve occupancy.

Mr. David Ridlon, 152 Pilgrim Drive, inquired what the quality of the building is on a scale of 1-10 (10 being the best). Mr. Challenger said the State determined that the building is desperate need of help by placing the Town at the top of the reimbursement list. Mr. Pagano said the brick exterior is a 9. Windows are a 2. Mechanical, Electrical and Plumbing have exceeded their useful life are a 2. He added that he felt the building has been well maintained, given its age. The problems can always be changed but at what cost? Fundamentally a sound building; it's just worn out.

Ms. Mary Jude Pigsley, Newell Road, asked how set is the schedule. Are the dates presented really a schedule to rely on? Mr. Challenger said that the MSBA can tell the BC to go back and make reconsiderations and that may cause the schedule to slip. However, the MSBA process is very planned and thorough and does not allow for much slippage.

Mr. Glenn Gaudette, Jennifer Drive, thanked the members of the Committee. He said that no one could hear during the meeting (due to poor acoustics) and that he couldn't read the power point presentation. What are the benefits of the new space. He said it was important for the BC to inform the Committee how the new space is going to move the educational process into the 21st century?

**Mountview School Building Committee
Community Outreach Meeting Minutes cont.**

July 17, 2012

Mr. Ben Woodbury, Bancroft Road, asked if this was improving the Town. He asked the Committee to include the residents in the process in the next 9 weeks.

Committee member Dave White said that LPA and the Committee have spent 100's of hours on the process to date. He encouraged the public to come to the meetings and become involved. The Committee wants to build what the town wants.

Ms. Christina Smith, Sterling Road, wants a building that is accessible to taxpayers. Make features that the whole town can use.

Liz Helder, 33 Steppingstone Drive, encouraged residents to go online and read the previous minutes, become informed, attend meetings, tell friends, and get involved. In the two years she has been serving as the Secretary for the Committee, not one resident has attended the Building Committee's meetings. It's your money; use it.

Mr. Makela asked what's going to happen if a new school is built on a different site, what will happen to the old building. Mr. Challenger said that it has not been addressed. Hazardous materials remediation has been estimated at 1M. The State will pay for some of this remediation if the work is done during the lifespan of the project. If the building is saved, the State will not come back and pay for demolition/remediation 5 years down the road.

Mr. Mills asked if all options will be presented to the MSBA. The Committee will analyze all its options and their pros and cons.

Ms. Shira McWaters, Harris Street, made suggestions regarding heating and energy costs and what a new building would cost and compare the two. Will energy efficient options be considered? Mr. Challenger said that the Committee is considering green options. A Green Charette was held on June 21st to kick off green building considerations. The MSBA insists on making schools as energy efficient as possible.

The meeting concluded at 7:48PM.

**Mountview School Building Committee
Meeting Minutes
July 31, 2012**

6PM

HMLD Building

Present: Chairman Paul Challenger, David White, Gary Kaczmarek, Margaret Watson, Nancy Galkowski, Erik Githmark, Chris Lucchesi, Mike Sherman, Jacquie Kelly, Tom Pandiscio, Joel Wolk

Others Present: Mike Pagano, LPA, Bill Senecal, LPA

1. Architect/OPM/Project Update

OPM Gary Kaczmarek introduced Mr. Joel Wolk to the Committee. Mr. Wolk has been hired as part of Mr. Kaczmarek's OPM assistance team.

Mr. Pagano informed the Committee that the PDP was due on August 15, 2012. He reported that Fogerty, the architect's cost estimator, had completed the cost estimating on the PDP. Mr. Senecal updated the Summary of Deliverable's timeline. Mr. Pagano said the Committee must determine and vote on the three options that are the best for the project. He reviewed the three criteria to help the Committee make the best informed building decision for the project. The three criteria are 1. must meet MSBA guidelines; 2. must meet school department guidelines; and 3. must be a 50-year building.

Chris Lucchesi said it was important to review all the materials before removing options from consideration. He asked if there were any narrative variances with the PDP that might cause a problem with the MSBA. Mr. Pagano said that the Superintendent's decision to create a smaller media center and divert the square footage into other areas of the educational design is a new concept for the MSBA to consider. The MSBA might send back review notes on the PDP and request additional information on a reduced media center. However, these comments will not back it back to the Committee until the end of September. This gamble might cause the project to lose design time if the MSBA rejects the alternative use of the media center. Mr. Kaczmarek said he had spoken with Chris Alles with the MSBA concerning some of the variances in the PDP. If an add/renovation option is the final choice, it will cause the building to be larger than the MSBA's allotted 128,000 sf. This is because the building is currently so educationally inefficient and the building is so deficient in sf. The add/renovation option will also include a reduced sf. Media Center and space allocated to pods.

Mike Sherman suggested having the media center concept reviewed by the WRSD School Committee's Education Subcommittee. Margaret Watson said that the Education Subcommittee only meets twice a year and would not have the opportunity to review it prior the PDP submission. Dr. Pandiscio said that he had looked for similar projects and could not find a comparable one. However, there is a lot of discussion among the educational community about decentralizing media centers. Dave White suggested that there was an appropriation of \$625,000 for the Feasibility Study and some money could be spent on conducting additional design fees.

Mr. Senecal commented that another narrative variance issue might involve the proposed size of the gym/stage in the gym instead of the cafeteria.

Mr. Sherman inquired how LPA determines that their work is correct and complete. Mr. Pagano said that he and his staff have extensive experience in school construction. His reports and designs have been recognized by the MSBA as high quality. Mr. White commented that he felt impressed with the quality of work done to date.

The Committee discussed the 30% rule and code compliance. The building does not comply with any current building codes. There will be additional costs for an add/renovation while the building is occupied.

The Committee discussed all six building options for the project. Mr. Lucchesi said that he did not think that a minimum renovation was viable.

Motion by Chris Lucchesi, seconded by David White, it was **UNANIMOUSLY VOTED TO REMOVE A MINIMUM RENOVATION OF THE MOUNTVIEW MIDDLE SCHOOL FROM THE PROJECT CONSIDERATION.**

Motion by Chris Lucchesi, seconded by David White, it was **UNANIMOUSLY VOTED TO REMOVE A MODERATE RENOVATION OF THE MOUNTVIEW MIDDLE SCHOOL FROM THE PROJECT CONSIDERATION.**

Motion by Chris Lucchesi, seconded by David White, it was **UNANIMOUSLY VOTED TO REMOVE DOING NOTHING TO THE MOUNTVIEW MIDDLE SCHOOL FROM THE PROJECT CONSIDERATION.**

Motion by Chris Lucchesi, seconded by David White, it was **UNANIMOUSLY VOTED TO CONSIDER THE THREE REMAINING PROJECT OPTIONS FOR THE MOUNTVIEW MIDDLE SCHOOL: 1. ADD/RENOVATE; 2. BUILD A NEW SCHOOL ON EXISTING SITE; AND 3. BUILD A NEW SCHOOL ON A NEW SITE.**

Margaret Watson said she intended to abstain from the vote to endorse the PDP because she had not had an opportunity to review the document.

Motion by Chris Lucchesi, seconded by David White, it was **VOTED 7-0-1 WITH 1 ABSTAINED TO ENDORSE THE PDP DATED 7/24/12 AS WRITTEN AND ALLOW FOR MINOR EDITS AND CORRECTIONS AS NECESSARY. (ABSTAINED: WATSON.)**

The Committee agreed to meet on August 14, 2012.

LPA left the meeting at 8:22PM.

2. Community Outreach

Chairman Challenger said he would present the PDP to the School Committee at their August 20th meeting.

The Committee agreed to conduct another public tour of the middle school and hold a Committee meeting on August 28, 2012. All Town Committees and State Legislators will be invited to attend.

3. Approval of Previous Minutes

Motion by David White, seconded by Chris Lucchesi, it was **UNANIMOUSLY VOTED TO APPROVE THE MEETING MINUTES OF JUNE 26, 2012 AS PRESENTED.**

Motion by David White, seconded by Chris Lucchesi, it was **UNANIMOUSLY VOTED TO APPROVE THE MEETING MINUTES OF JULY 17, 2012 AS PRESENTED.**

4. Adjournment

Motion by Margaret Watson, seconded by Dave White, it was **UNANIMOUSLY VOTED TO ADJOURN THE JULY 31, 2012 MEETING AT 9:04PM.**

APPROVED:

**Mountview School Building Committee
Meeting Minutes
August 14, 2012**

6PM

HMLD Building

Present: Chairman Paul Challenger, David White, Gary Kaczmarek, Margaret Watson, Nancy Galkowski, Erik Githmark, Chris Lucchesi (arrived 6:19PM), Mike Sherman, Jacquie Kelly, Tom Pandiscio (arrived 6:19PM)

Others Present: Bill Senecal, LPA

1. Architect/OPM/Project Update

OPM Gary Kaczmarek reported that LPA delivered the PDP to him on Monday, August 13th. After reviewing and approving the document, Mr. Kaczmarek that the PDP and a CD were sent overnight to the MSBA on Monday afternoon. Mr. Kaczmarek handed a hardcopy of the PDP and a CD to Chairman Challenger. A third copy of the PDP will be available at the library for public viewing.

Mr. Senecal has begun working on the PSR. Mr. Senecal said that nothing is available on line at the WRSD website or the Mountview website. Information on the efforts of the Committee is available at www.holdenma.gov and the building committee's website.

A draft of the PSR will be available to the Committee at their September 4th meeting.

A copy of the presentation that will be made to the school committee on August 20th was presented by Mike Sherman. Mr. Sherman will email Rebecca Peterson in the District's office to let her know that the Committee will require technology to run a power point presentation at the meeting.

Ms. Galkowski said that the Selectmen are scheduled to meet at their regular meeting on September 4th. This will conflict with the MSBC's meeting, which is also scheduled for September 4th, to review and vote on the PSR. Town Manager Galkowski suggested that the MSBC could come before the Board on 9/4 to make a presentation and ask for an endorsement vote from the Selectmen at that meeting. Chairman Challenger said he thought that the Board of Selectmen had been invited to attend the public meeting on August 28th to participate in discussion and vote their support of the project then. The Manager reminded the Committee that she cannot sign the PSR without the approval of the Board. Dave White reminded the Committee that only three of the Selectmen attended the July 17th public meeting. Chairman Challenger will contact the Chair of the Board and the Chair of the Finance Committee to confirm their participation at the August 28th meeting.

LPA will provide extra CD's of the PDP to the Administration to distribute to members of the Board and Finance Committee.

The Committee agreed to reschedule its meeting to September 5th.

Mr. Kaczmarek said that the Selectmen will require good project costs on the three options in order to vote on endorsing the project.

Mr. Senecal said that LPA is currently narrowing down the architectural plans for the renovation/addition on the old site and the build new options: building new on the north end of the existing site and on property off Malden Street. They are currently exploring emergency access options via Chapel Lane to make current site work. Currently no land acquisition will be necessary. Designer cost estimations are on going: as the scope of the plan becomes narrower, the estimations will firm up. A traffic study is set to begin on August 15th or 16th.

The Committee discussed the Public Meeting on August 28th: All three options and the relative pros and cons of each one will be presented. Dave White suggested more words on a screen rather than spreadsheets. Less details, more bullets. Mr. Githmark is arranging for a sound system to be available. Mr. Sherman suggested having each option on a separate easel for viewing in order to help focus the audience to the three choices. Chairman Challenger said that he anticipated some local legislators to attend the beginning of the meeting.

Mr. Lucchesi suggested using the Connect-Ed phone system to reminded parents that the public meeting is the being held on August 28th which also happens to be the first day of school. Mr. Githmark will look into scheduling this call.

Mr. Kaczmarek mentioned that the Green Charette meeting on August 21st at 6PM at Mountview is also very important for the project. The meeting is being displayed on the Town LED Electronic Sign and more information can be found on the Town website. Mr. Senecal concurred. The Committee is posted for the meeting at Mountview. Ms. Galkowski expressed concerns about the heat factor at the school. Mr. White said he would bring extra fans. Water will be provided.

The Committee will need to determine whether it is going to pursue LEEDS or MA-CHPS for its green building option. Mr. Senecal and Mr. Kaczmarek said they would recommend choosing the MA-CHPS Certification program.

Motion by Dave White, seconded by Chris Lucchesi, it was **UNANIMOUSLY VOTED TO PURSUE A MA-CHPS GREEN CERTIFICATION FOR THE MOUNTVIEW SCHOOL.**

Mr. Senecal said he would have the green engineers prepare documentation to for the MA-CHPS program. HVAC, Plumbing and Electrical Engineering consultants from LPA will attend the meeting to provide their input in the process. They will be scheduled on the agenda first.

Mr. Senecal revisited the emergency access situation via Chapel Lane. The challenges to use this road include: not town owned land, acquisition costs, and road improvement/development costs. The Zottoli family has indicated that a small portion of land owned by the family could be acquired at no cost in order to make the road work. However, Mr. Senecal cautioned that costs for road development could exceed \$500,000. He asked the Committee what they wanted to do.

Mr. White said he felt that exploring multiple egress access roads on the current site was burning a lot of horsepower that is not necessary. He pointed out that many buildings in town (high school, fire, police, DPW) enter and exit off a very busy road (122A) and make it work. He said he did not think the secondary access road was necessary nor should the committee take away money that could be used for the students. Ms. Galkowski concurred that there is no cost benefit to the road.

Motion by Dave White, seconded by Chris Lucchesi, it was **UNANIMOUSLY VOTED NOT TO PURSUE LAND ACQUISITION/ROAD DEVELOPMENT OF CHAPEL LANE AS A SECONDARY EGRESS TO THE SCHOOL.**

Mr. Senecal said that while the option to build new on the site does not currently require additional land, he said he wanted to keep the offer from the Zottoli family open.

Mr. Senecal updated the Committee on citing the schools' on their respective properties. The farther west and north you go on the Shrewsbury Street site, the deeper the fill. The Malden Street site uses the same floor plan as Shrewsbury Street, but has considerable wetlands. He added that the existing school rehab/renovation has grown considerably since last presented to the Committee. Because of the structural inefficiencies of the current building, the renovation option has grown to approximately 147,000 sq.ft. Mr. White said it is important to articulate at the August 28th meeting why the renovated sq. ft. option is so much bigger and what that means to the project. Renovating the school could end up costing as much as a new building. A bullet proof case needs to be made that costs are being driven higher by the current envelope of the building and the temporary housing needs for the students. The project will cost more because premium wages are required to pay workers to work in the building when the students are not occupying it (i.e. second and third shifts). Mr. White also said there are risks associated with a renovation: unforeseen changes to the schedule cost money and the MSBA will not pay for these additional charges. In a phasing project and there is greater risk. A renovation is not always cheaper and easier.

Ms. Galkowski addressed the reimbursement schedule. Renovations get more reimbursement money and MA-CHPS gives extra points for renovations. This issue needs to be considered when presenting at the public meeting. What level of cost estimation accuracy will the Committee have at this stage? Mr. Senecal said that the MSBC really won't have final costs until the MSBC votes in 2013. Mr. Challenger said he was interested in what is going to cost the town in order to calculate tax rates/impact. People need to be financially educated. Mr. Senecal said he would let Mr. Pagano know that the presentation needs to be minimalist and cover potential financial impacts to the Town.

Mr. Sherman said it would be nice to compare operating costs of the old building vs. a new building. Is there anyway to quantify these costs as part of the presentation? Mr. Senecal said at this stage, there are just generalities.

Mr. Lucchesi said it is ok for the Committee to talk in generalization for reimbursement at this phase. Mr. Challenger said he would like to say "It's a \$50M building that the Town is going to pay \$20M for" – that's the sort of thing he wants to be able to explain. Additionally, Mr. Lucchesi said that the Committee needs to address the fact that operating costs are going to go up. Period. There is more going on in these new buildings – yes, they are more efficient, but a bigger building just costs more.

Dave White asked when the right time to talk about where the money is coming from to the public. Where is the reimbursement coming from? It does not come out of income taxes. It is a revenue stream that already exists in the State that they are willing to give you. It is an opportunity to get some of your money back. If Holden doesn't take the money, it will go to another Town.

Ms. Watson asked if FF&E is reimbursed from the State. Certain items are not reimbursed (demolition, books, computers, land). FF&E: Furniture, Fixtures and Equipment are.

Mr. White said that the Committee should meet on September 5th to hear the PSR presentation from LPA and then meet on September 11th to vote on a final design.

Mr. Kaczmarek again stressed that the upcoming Green Charette meeting is important. He will scan in the MA-CHPS score card and email it to the Committee for review prior to the meeting on 8/21. Committee members should come to the meeting prepared to discuss what green options they want to see implemented in the building.

Mr. Pandiscio will help facilitate getting WRSD Chairman Leith's signature for the documentation purposes.

Mr. Kaczmarek said he has received a draft of what the Town of Auburn did for their phase of the PSR. He emailed educational documentation for the PSR for the Superintendent to complete.

The School Committee's Education subcommittee meets on August 15th to review the PSR options.

Mr. Senecal left the meeting at 7:50PM.

2. New Business/Community Outreach

The Committee discussed the current school budget crisis. Mr. Lucchesi said people are trying to lump the current budgetary problems being faced by the School District in with the Mountview Project. He addressed the School Committee at their recent meeting to help separate/create some distance between the two: funding a capital project in town has nothing to do with the District budget. It is an educational choice the town is making in conjunction with the State. It is an obligation to the citizen's from their town government to help meet the town's goals. It's about educating the kids. This is how the Town of Shrewsbury successfully sold its new middle school project to its residents. This is the message the Committee needs to generate to the public when asked.

Upcoming Community Outreach efforts include Chairman Challenger making a presentation to the School Committee on August 20th, the Committee conducting a Green Charette on August 21st, having a booth at Holden Days on August 25th, and conducting a second Public Meeting/Tour of the Middle School on August 28th. The Committee agreed it would be nice to have the Committee review LPA's August 28th presentation prior to the public meeting.

Mike Sherman said the August 28th presentation is the only chance the committee will have to demonstrate what work went into the process. The Committee discussed other possibilities to educate the public that would include running the presentation on local cable and handouts at the meeting. The Committee discussed adding some pictures to the presentation to compare/contrast the existing conditions in a current classroom at Mountview and its deficiencies with a modern, educationally updated classroom. The Committee discussed taking turns giving the presentation on 8/28. After some discussion, the Committee agreed on a presentation format for the meeting. It was agreed to split the sections of the presentation up and then hold discussion with those present after each section is presented. Chairman Challenger and Vice Chairman White will take turns making the presentation.

The Committee will have a booth at Holden Days. Chairman Challenger said it is important to get the message out: Something's coming and it's going to be great. Mr. Lucchesi will provide tables and chairs. Mr. Lucchesi shared ideas for handouts at the booth. A condensed version of the proposed space survey: where we are today vs. today's MSBA's guidelines, existing conditions vs. MSBA guidelines presented on an easel board, examples (pictures) of a science classroom built within the last two years comparing it to a current science classroom at the school. A sign up sheet will be offered for interested residents to provide contact information. The handout will also include a message to alert residents about the public meeting on August 28th. Mr. Lucchesi offered to run a slideshow on his laptop. Mr. Sherman will prepare the artwork for the flyer and public meeting announcement card. Printing informational materials are a reimbursable expense.

Mr. Githmark said that the local cable crew has offered to tape a walkthrough of the school. The Committee agreed to hold off on the video until later in the fall.

Margaret Watson will confirm the technical arrangements for the School Committee presentation on August 20th.

Mr. Pandiscio left the meeting at 8:32PM.

Mr. Lucchesi said he has made some initial contact with some PTO's. It is important to raise general awareness of the project and generate some volunteer interest. Dave White said it is important to communicate that the Committee needs their help. Their children are the ones that are going to benefit from the project. If it's going to get done, they have to get active. After some discussion, it was decided that Mr. Lucchesi will hold a meeting of concerned citizens at the end of September to help raise awareness. The project must move forward and gain momentum because the Town is in the MSBA pipeline.

3. Public Comment

No one from the public was present to participate in the public comment agenda item.

4. Approval of Previous Minutes

Motion by Chris Lucchesi, seconded by Dave White, it was **UNANIMOUSLY VOTED TO APPROVE THE MEETING MINUTES OF JULY 31, 2012 AS PRESENTED.**

5. Adjournment

Motion by Margaret Watson, seconded by Dave White, it was **UNANIMOUSLY VOTED TO ADJOURN THE AUGUST 14, 2012 MEETING AT 8:54PM.**

APPROVED:

**Mountview School Building Project
Green Engineering Charette Meeting Minutes
August 21, 2012**

6PM

Mountview Middle School

Present: Gary Kaczmarek, OPM, Mike Pagano, LPA, Matt Brassard, Brassard Design & Engineering, Site Planners, Erik Githmark, Principal, Mountview School/MSBC, Carrie Havey, The Green Engineer, Nancy Galkowski, Town Manager/MSBC, Jacquie Kelly, Assistant Town Manager/MSBC, Margaret Watson, MSBC/School Committee, Kevin Seaman, Seaman Engineering, Elizabeth Helder, Recording Secretary

1. Green Engineer Charette

Mr. Pagano introduced Carrie Havey, Project Engineer with the Green Engineer, LLP, a green building design consulting firm. The benefits of a green school include a healthy, productive learning environment, improved teacher retention, financial savings hands on learning, while being friendly to the environment. While incremental costs are 1.5 to 2.4% higher to build green, green building benefits are up to 8 times higher over a 20 year period. Mr. Pagano said that the Building Committee unanimously voted on August 14, 2012 to build a MA-CHPS green building. MA-CHPS = Massachusetts Collaborative for High Performance Schools green certification program. The program has been tailored for MA schools to design a green building and incorporate green policies in the whole building (green building + green teaching + green cleaning, etc.). He said the MA-CHPS process is very straightforward. The client picks the objectives or "points" the project wants to achieve and the project is built to those standards.

Ms. Havey discussed green goals for the MA-CHPS project; some goals are required and some are optional. Points are earned for completing various green requirements; reimbursement eligibility is achieved by reaching certain point levels. Ms. Havey reviewed the MA-CHPS Project Checklist Matrix, which lists areas where points can be achieved. They included Integration and Innovation, Indoor Environmental Quality, Energy, Water, Site, Materials & Waste Management, and Operations & Maintenance. For a new construction project, a minimum of MA-CHPS 40 verified eligibility points are required for minimum reimbursement. 50 points achieve 2% financing. For a renovation project, a minimum of MA-CHPS 35 verified points are required for minimum reimbursement. 45 MA-CHPS points achieve a 2% financing. It is important to keep a 5-point contingency for each building option.

Mr. Seaman said that it would be possible with some reconfiguration/upgrades to reuse the air-handlers on the roof. The cost to conduct a 30-year Life Cycle was unknown. Ms. Havey said she would investigate an answer. Mr. Kaczmarek said he felt that it was a good selling point for the building to achieve this standard. The installation of a school garden was discussed. Mr. Githmark said he has seen these gardens turn into beds of weeds after 5-years; they require volunteer maintenance, which during the summer months is difficult. The possibility of turning the garden into a community garden for the food pantry was discussed. Other discussion centered around green energy options. Mr. White said it would be foolish not to consider renewable energy for the project. This type of energy can range from LED lighting, photo voltaic, or geothermal. Mr. White said the project said it should strive as much as possible to achieve as many points in this category as possible. Mr. Pagano cautioned that any number of points is achievable if enough money is spent. Mr. Sherman said that as much foresight the Committee can have towards incorporating renewable energy into the design can only benefit the building in the future.

**Mountview School OPM Meeting
Green Engineer Meeting cont.**

August 21, 2012

Mr. Sherman said the District has an aggressive energy management system program which has helped reduce millions from the schools buildings to date. He felt the criteria would be easy to achieve.

Mr. Pagano said that most of the playing fields, whether under a new construction or renovated plan would be unusable during construction and would have to be rebuilt/landscaped.

A MA-CHPS scorecard will be submitted to the MSBA in the PSR by September 15th. However the final report not be finished until the schematic design is filed in December.

2. New Business

The Committee agreed to meet at Mountview School for the September 5th meeting.

3. Adjournment

Motion by Dave White, seconded by Chris Lucchesi, it was **UNANIMOUSLY VOTED TO ADJOURN THE MEETING AT 7:55PM.**

APPROVED:

**Mountview School Building Committee
Public Hearing Meeting Minutes
August 28, 2012**

6PM

Mountview School

Present: Chairman Paul Challenger, David White, Gary Kaczmarek, Margaret Watson, Nancy Galkowski, Erik Githmark, Chris Lucchesi, Mike Sherman, Jacquie Kelly

Absent: Tom Pandiscio

Others Present: Mike Pagano, LPA, Bill Senecal, LPA, Joel Wolk, OPM Consultant, Elizabeth Helder, Recording Secretary, Alan Berg, FinCom, Don Mancini, FinCom, Karl Makela, FinCom, Jim Dunn, Fin Com, Anthony Renzoni, Selectman, Steve Hammond, Ken Mills, Wachusett Regional School Committee Representatives

1. Project Update

Chairman Paul Challenger said the public hearing was being held to update the community and receive input from the public. The meeting will discuss the current project status and the next steps being taken by the Committee. He said the Committee is considering three building options: 1. Renovating the existing building, 2. Building new on the current site and 3. Building new on an alternate site. Each option must meet MSBA guidelines, reflect the Wachusett educational program, and produce a 50-year building for 800 students. No other option will be approved by the MSBA. He asked all in attendance to sign in on the sign-in sheet. He encouraged anyone interested in helping out with the project to indicate it on the sign-in sheet.

The PSR will be filed with the MSBA on September 27th. The MSBA will vote on the Committees' proposed solution on November 4, 2012. The State will reimburse 52.9% and some factors can increase final reimbursement including adopting green building standard and measures. The exact reimbursement rate will not be approved until the final project is approved by the MSBA until March 2013. There are currently 764 students enrolled in the 96,000 sq. foot building.

Mr. Dave White presented a summary of the renovation/addition option. This option will add 53,000 square feet behind the school to the North to create a 147,000 sq.ft building. It will take a minimum of three school years to complete and will include a significant amount of haz-mat remediation. This option is the lowest cost to Holden (by about \$2.0M) and will use the current structure. Drawbacks include a significant impact on students, temporary classrooms (modulars), higher contingencies, a longer, more complicated project schedule, some teaching spaces will be substandard, and will incur higher operating costs. Preliminary cost estimates are between \$51 - \$54M, the town's share will be \$34M-\$35M, and will impact the taxpayer by about \$20/month over a 20-year period.

Ms. Julie Currier asked how efficient the new school would be. Mr. White said that all of the building options include more efficient lighting, heating, and teaching areas.

Mr. Ben Woodbury asked about the final cost impact to taxpayers. Mr. White said that the numbers being presented were only rough estimates and that the final impact to taxpayers could not be determined yet.

Ms. Julie Toll inquired about changes to the flow of traffic on to the site. Mr. White said that traffic studies are being considered and will be improved.

**Mountview School Building Committee
Public Hearing Cont.**

August 28, 2012

Ms. Sandy Kartono inquired how much more the town would be reimbursed for a renovation option. Mr. Pagano said the MSBA allows for the project to achieve additional percentage points towards a reimbursement. Points are awarded on a 1-5 scale. The maximum 5 points are awarded for a renovation project that does not include an addition. An addition of the size being proposed for Mountview might earn the Town an additional 1 or 2 points towards the final reimbursement. The percentage will not be known until March 2013. Right now, the building is just a thought on a piece of paper. Mr. White said that no building plans were available for the public to view. Plans are still in development.

Ms. Dineen Barkley inquired if the renovation would allow the building to be upgraded – wireless, new science labs, new technology and resources. All of the building options will allow for all new educational upgrades to the building.

This addition/renovation project would be on a similar scale that LPA conducted at Leominster High School.

Mr. Challenger presented the option of building a new building on an alternative site. A new 128,000 square foot building is being considered on Town owned land behind Mayo school off Malden Street. It has sufficient acreage, but contains wetlands. The current Mountview site and building would remain town property. The advantages include optimal building design for education, lower risk of unforeseen conditions, no construction impact on students, lower on going operating cost (smaller building, modern materials/technologies), relieves traffic on Shrewsbury Street, shortest construction timeline, and preservation of the Mountview building and site for alternate uses. Drawbacks include the most expensive option (\$38/year more than reno/add, more costly site development), wetlands pose permitting obstacles and an uncertain schedule, increases traffic on Malden Street, no reimbursement for haz-mat at Mountview or for Mountview demolition. Total cost would be \$59-\$62M (does not include haz-mat/demo), the town's share would be \$28-\$29M, and the annual cost to the average house would be \$267 to \$276. Construction is anticipated to be 36 months.

Mr. Karl Makela, Finance Committee, suggested that if the MSBC decides on the Malden Street option, the Mountview School would be a good site to house all of the Town offices.

Mr. Alan Berg, Finance Committee said that someone should come up with costs associated with maintaining the Mountview School on a long term basis and these numbers should be presented to taxpayers prior to a vote at Town Meeting. He said he was not impressed with the Malden Street site because of issues with wetlands and site excavation and the unknown costs associated with the development of this site. Mr. White commented that the State will only reimburse for 8% of the site work and the Town will end up spending 3-4M to develop the site. Mr. Challenger said that if this option were chosen, many of these unknown costs would not be known until early in 2013.

**Mountview School Building Committee
Public Hearing Cont.**

August 28, 2012

Mr. White presented the option of building new on the existing site. It would be a 128,000 sq foot building situated on the north of the property. The existing building would remain during construction. The site would be reimbursed for remediation of haz-mat, it would be an optimal building design for education, lower cost than new site (\$19) have the least risk for unforeseen conditions, a simpler schedule than an add/reno, have lower on going operating costs (smaller building), use the current site, the neighborhood is used to the school, and there would be no change in traffic patterns. Drawbacks include some impact on students, construction working around school operations (longer than Malden Street), and loss of playing fields during construction. Total costs would be \$56-\$58M, Town's share would be \$26-\$28M, \$248-\$257 to taxpayers annual

Mr. Berg commented that taxpayers should be made aware of costs to demo the building and costs to continue to maintain it. Mr. Berg said it would be a shame to destroy the school. Mr. White commented that it has been estimated that it will cost over 1M in haz-mat remediation. Mr. Makela concurred with Mr. Berg. He suggested that a new school be built in the back and Mountview should be kept for municipal use. Mr. White said that he did not think that would work. He said the DPW should not be working on the same site as children and playing field space would have to be used for parking for teachers and employees. Additionally, removing Town offices from the center of town would not work well for residents. Mr. Berg said he felt that practicality should prevail and that the current town offices were undersized and outdated and that real estate was a premium.

Don Mancini, Finance Committee, inquired what the commercial appraisal/value of the Mountview School was for resale purposes. Would this be something the Town should consider? Mr. White said these were all things to consider. The Committee only consideration is what the best option for the students and residents is; not what is in the best interest of the municipal employees.

Mr. White shared that Holden Youth Sports had the Malden Street site evaluated for playing fields and determined that the property would be too costly to develop due to the wetlands and topography.

Ms. Julie Currier said she was concerned hearing that the Town might consider using the site for commercial/municipal space. She said as an abutter/neighbor to the property, she did not want to see it commercially developed nor could she see spending money upgrading the building for this purpose. She felt the meeting was losing its focus.

Mr. White concurred agreeing that the purpose of the meeting was to discuss what the three best educational options are for the Town.

Mr. Lucchesi said is there a way to set up the design of the building to expand in the future to accept an additional 200 students. Mr. White said the MSBA set the student population figure, and that they are only going to reimburse a building for 800 students, and approve a plan for 800 students. The building cannot be built larger to accommodate more students down the road in a partnership with the MSBA. The cafeteria/gym would have to be built for 1000 students now to accommodate this possibility and the MSBA will not reimburse the project for this plan.

**Mountview School Building Committee
Public Hearing Cont.**

August 28, 2012

Ms. Dineen Barkley asked if the entire building would be renovated and if the building options (reno/add and new) are essentially apples to apples. Mr. White said essentially yes; however, the add/reno will be more costly and longer.

Mr. Challenger said that additional information on the project can be found at www.holdenbuildingproject.net or on www.holdenma.gov.

Mr. Mike Sherman said that public comment can also be made at www.holdenbuildingproject.net.

The Committee will meet on Wednesday, September 5th at 6PM in the cafeteria at Mountview and on Tuesday, September 11th at 6PM at HMLD.

The meeting ended at 7:14PM.

**Mountview School Building Committee
Public Hearing Meeting Minutes
September 5, 2012**

6PM

Mountview School

Present: Chairman Paul Challenger, David White, Gary Kaczmarek, Margaret Watson, Erik Githmark, Chris Lucchesi, Mike Sherman, Jacquie Kelly

Absent: Tom Pandiscio, Nancy Galkowski

Others Present: Mike Pagano, LPA, Bill Senecal, LPA, Elizabeth Helder, Recording Secretary, Matt Brassard, Brassard Engineering, Kevin Seaman, Seaman Engineering, Azim Rawji, ART Electrical Engineering

1. Public Comment

Mr. Ben Woodbury said he had feedback for the PDP. He said he felt the next 8 days were the most important in the project. After reviewing the PDP, he said building on a new site will cost the Town approximately 15% more to build. This increase in costs will come from lack of natural gas on site, and wetlands. The renovating/addition option may cost just as much as to build new and may still leave the building lacking in educational services. It will also have the highest operating costs of all the solutions. The build new on the existing site option suffers from a perception of value of the existing building. Residents will feel that the building is solid and something should be done with it. He felt saving the school for reuse could only be "sold" to abutters as a use for another school. The building is too large to use the building for municipal office space and it will cost too much to renovate and remove hazardous materials. He said he would support building a new building on the existing site and felt the Committee will choose this option. He encouraged the Committee to find a new entrance to the school. He said the Committee should expect that residents will want to renovate the school; however, it can be proved and explained to taxpayers that it is not the best financial option for the Town.

2. OPM/Architect Update

Mr. Kaczmarek put together a total budget cost across the board and the Committee reviewed the spreadsheet. These numbers are based on the Fogerty estimates (Architect Cost Estimator) and include a 10% CM @ Risk contingency. Mr. Lucchesi said the Committee should differentiate between project costs and construction costs. Mr. Kaczmarek said he had received the preliminary costs estimates from Daedalus, the Owner's Cost Estimator. He will review the information and email a summary to the Committee.

Mr. White said he did not believe the Fogerty estimates were accurate. He said he felt the site estimates for the Malden Street site were very low and in his opinion, he did not trust the entire document. He also said that he felt that some of the other estimates were too high and must come down. He said he expected that as more clarity on the project is available, the costs would be reduced.

Chairman Challenger said the Committee must determine if the project will be a CM @ Risk project. Mr. Kaczmarek said the Design Development Contingency would be reduced as more information became available. Mr. Pagano cautioned that this theory was not necessarily true. He said that the Committee should not vote primarily on the total cost of the project; the ultimate decision should be made on the scope of the work and the final product achieved.

Mr. Sherman asked if that based on these estimates, if a variable were applied, would one choice behave differently than the others. Mr. Pagano said not really. It is possible in the add/reno that the District might want to change the programs (room sizes) and that will change costs during the construction phase, but it is such a small factor, it does not weigh heavily. The Fogerty estimates provide enough information enough for the Committee to weigh a final outcome on the three choices. The only costs not included in the estimates are outside the scope of work i.e. running natural gas lines etc.

Margaret Watson inquired about modular buildings during an add/reno; will the MSBA reimburse for the purchase of the units. Mr. Pagano said that the use of modular units are guaranteed during an add/reno choice. The State will reimburse to a point but not fully.

Mr. Pagano said LPA has not heard from the MSBA on the PDP filing that was made in August. The presentation being made is a status update on the PSR. The Committee will then have one week to review the PSR and make a recommendation to LPA on September 11th on which Preferred Schematic Solution it will choose. The PSR must be printed on September 21st.

Existing Site: Add/Reno

This option includes a 52,000 addition behind the school, new additions to the gym and cafeteria, an upgrade to all building systems, and haz-mat remediation. The cost estimates for the total project are \$55.9 to \$58.3M (includes cost to remediate haz-mat and purchase of modules). The construction phase would be a minimum of 30 months (3 summers and 2 academic years). It is critical that the contract be awarded in late winter 2013/early 2014 to allow the contractor time to prepare to come on site June 2014. The final building would be 148,000 sq. ft. in order to meet MABA educational requirements. The basic field layout, parking and entrance/exits would remain the same. Additional parking would be added to the back of the building.

Mr. Senecal presented the proposed addition/renovated floor plans. Mr. Pagano said that LPA worked very hard to make the add/reno solution a viable, usable solution. It is not a "throw away" solution. It is the lowest project cost and uses the existing structure. Disadvantages include a higher risk of change orders due to unforeseen conditions, higher contingencies, a longer, more complicated project schedule, severe impact on students and operations during construction, use of modular units, and some teaching spaces will be undersized. The building will have the highest long-term annual operating costs. This option assumes the use of natural gas.

Mr. Sherman suggested that one of the solutions to the construction inconvenience of the project would be to adjust the school year. Mr. Pagano said LPA has encountered this type of solution before and while it might gain and additional 2 or 3 weeks, the pushback from the community is not favorable. Additionally, any time gained is never enough time to actually make a large dent in the construction process i.e. not enough time to built a wing. Ms. Watson said that any type of adjustment to the school year would have to be negotiated with the Teacher's Union/School Bus Company, which would cost the District more money.

Existing Site: New

Construction would be located behind existing building and would create a new, 128,000 sq. ft. school. Mountview would be in use during construction, with no change to the volume of traffic on Shrewsbury Street. However, a new relocated/reconfigured entrance when the school is finished would help to eliminate traffic issues that currently exist at the school. Parents and buses would have their own loop around the school. Some athletic fields would be relocated and costs for haz-mat remediation would be reimbursable. A small portion of land would need to be acquired from the Zottoli family. Public spaces would be divided from educational space. A lobby would be centrally located in the middle of the building to divide the two spaces. This is an optimal building designed for WRSD educational programming with a minimum risk for unforeseen conditions and simplified construction. It will have lower annual operating costs because it will be a smaller building containing the best materials/technologies, have a lower site development cost, and have better traffic circulation and parking on site. Drawbacks include the most expensive solution due to haz-mat remediation and demolition, loss of playing fields during construction, some impact to students and school operations during construction. Cost estimates are 59.3M to 61.8M (including demo and haz-mat remediation) with a construction phase of 27 months. The contract would probably be awarded in late winter 2013/early 2014 to allow the contractor time to prepare to come on site June 2014.

New Site: New Construction

Mr. White commented that there are significant grade/elevation changes on site that will drive up the cost of excavation on this site. Soil conditions and wetlands will also cause problems. He expressed concerns over site preparation at the Malden Street location. Mr. Pagano concurred adding that site costs over 8% are not reimbursed by the MSBA. Costs to develop this site will be greater than 8%. Mr. White said this fact was a reality check for this option.

Mr. Senecal said that the same design would be built at the Malden Street location that was proposed at the current site. Buses and parents would have their own entrances/exits to the property. It would connect the property with the Mayo School. Mr. White said that connecting these two buildings would create a cut through from Bullard Street (Mayo School) to Malden Street (Mountview) and encourage increased traffic and speeding. Mr. Lucchesi concurred that people will use it like people on Bailey Road use Dawson School as a cut through to Salisbury Street (and vice versa). Both agreed that this was not a good plan. Mr. Senecal said that wetland issues prohibited another option. Sewer pumping capacity was discussed. Mr. White questioned whether the plan as presented would work. Mr. White asked about some cost estimations for installing the type of plumbing required to pump the sewage. Mr. Pagano said off site engineering is not included in the proposed estimate and is not part of the scope of LPA's work. Mr. Pagano said that he would speak to Mr. Brassard about the concerns. Mr. Brassard said there were elements at this stage that are easy to cost identify. However, there are elements with this design that are difficult to estimate (earth moving). It will be tough to zero in and be accurate on some of these concerns. Mr. White asked Mr. Brassard about earth moving and site prep: will it be a significant undertaking? Mr. Brassard said yes, there would be a substantially more site work involved with this property. Mr. White said storm water management would also have to be considered in the cost. This property will require a major part of the costs during construction and with the final building. Mr. Brassard said that as a new site, it would be smaller than the existing site and would offer more options. It will still be substantial.

Mr. Sherman said that the estimates do not need to be within \$100,000. However, due diligence must be done and if the costs are in the millions, then it is significant.

Chairman Challenger said that the formula used to provide cost estimates used 47% across the board to calculate Holden's share of the project and that is now untrue because most of the extensive site work will have to be paid out of pocket.

Advantages will be a short construction timeline. Costs to build: 57.4M – 59.8M excludes costs of off site improvements, demo and remediation of haz-mat at Mountview, which are not reimbursable. Construction timeline is 24 months. All estimated costs include construction costs, and grossing factors (fees, testing, FF&E, etc. Nothing in the proposals exceeds the expectations of the MSBA).

Mr. Pagano reviewed a summary of MSBA space variances. Any variances must be justified to the MSBA. Mr. Pagano said the project is getting what it needs. Mr. Githmark will follow up with Dr. Pandiscio regarding the District's approval of the space variances. Mr. Kaczmarek reported that he received a response from Dr. Pandiscio regarding the media center variances today. Mr. Senecal said he needed a District response for all the space variances for the PSR. Ms. Watson will see that the Educational Subcommittee will approve their August meeting minutes for submission to the PSR.

Mr. Pagano discussed the MA-CHPS scorecard. The Committee should begin to think about decisions on which green building design options it would like to include in the design. However, these decisions do not have to be made until the schematic design phase. Mr. Senecal handed out a follow-up MA-CHPS Scorecard memo from Carrie Havey with the Green Engineer. The memo summarized the discussed from the August 21, 2012 Green Engineer Charette. The Committee also reviewed two memos from Electrical Engineer Azim Rawji regarding renewable energy options and obtaining MA-CHPS points with electrical systems. Mr. Senecal said that 51 "yes", 42 "maybe" and 32 "no" choices were selected at the Charette on August 21st. 50 MA-CHPS points earn the project an additional reimbursement from the MSBA.

Mr. Pagano said he was very interested to see the comments from the MSBA on the PDP. Hopefully the MSBA will return them prior to the PSR filing in late September.

Mr. Seaman said some green drawbacks to the Malden Street site would be lack of natural gas; although geothermal could be an option.

Mr. White commented on the electrical engineering and green engineer memos. He said the Committee will be crucified (and rightly so) if the building does not have a renewable/sustainable energy source. He spoke highly of incorporating the installation of photovoltaic power at whatever option is selected. Mr. Rawji said the estimated cost for this type of installation would be \$750,000 with a payback period of 9 years which is very reasonable considering the building is being built as a 50-year building.

Chairman Challenger spoke of passive solar use – angling the building to obtain maximum solar use. Mr. Pagano agreed that photovoltaic was an attractive solution. He also discussed wood pellet power.

Mr. Kaczmarek said he has received requests from the community about what it is going to cost to operate the add/reno option and new building option. This will be helpful for the Committee to consider when making a final decision. Mr. Kaczmarek said he had the current operational costs for the school. Mr. White estimated that it will be an additional 20% in operating costs to operate the add/reno option due to its age and projected size.

Chairman Challenger said the Administration should consider whether it will want to reuse the school if a build new option is selected.

Mr. Kaczmarek said he had placed calls for a commercial appraisal quote of the building. These services are estimated to cost \$4,000. Mr. White commented that a finance committee member has said they would have a hard time tearing the building down because it is a valuable building. He said he would like to have an appraisal to help quantify what a "valuable building" is. He said it would nice to have an appraisal sooner than later. He also suggested that Jim Robinson with the Light Department could provide an estimate to bring power to the Malden Street location.

Mr. Lucchesi said whatever the value of the building is, who ever buys the building had better be prepared to put 10M into the building to make it a viable building. Does that make it a valuable building? He said it is really not the job of the Committee to show a reuse for the school.

Ms. Kelly firmly stated that the Town has no plans to put municipal offices in the building.

Mr. Sherman again reiterated that due diligence must be done.

Mr. Pagano reviewed the remaining completion dates for the Feasibility Study Schedule.

3. Approval of Minutes

Motion by David White, seconded by Chris Lucchesi, it was **UNANIMOUSLY VOTED TO APPROVE THE AUGUST 14, 2012 MEETING MINUTES AS APPROVED.**

Motion by David White, seconded by Mike Sherman, it was **UNANIMOUSLY VOTED TO APPROVE THE AUGUST 28, 2012 MEETING MINUTES WITH AN AMENDMENT TO INCLUDE A SENTENCE IN THE PARAGRAPH ON PAGE TWO: "8% OF THE TOTAL PROJECT COST FOR SITE WORK."**

Ms. Watson commented that the WRSD Educational Subcommittee meets twice during April through September and meets monthly for the remainder of the year.

5. Adjournment

Motion by Dave White, seconded by Mike Sherman, it was **UNANIMOUSLY VOTED TO ADJOURN THE SEPTEMBER 5, 2012 MEETING AT 9:07PM.**

APPROVED:

**Mountview School Building Committee
Public Hearing Meeting Minutes
September 11, 2012**

6PM

HMLD

Present: Chairman Paul Challenger, David White, Gary Kaczmarek, Margaret Watson, Erik Githmark, Chris Lucchesi, Mike Sherman, Jacquie Kelly

Absent: Tom Pandiscio, Nancy Galkowski

Others Present: Mike Pagano, LPA, Bill Senecal, LPA, Elizabeth Helder, Recording Secretary,

1. Public Comment

No one came forward to address the Committee.

2. OPM/Architect Update

The Committee reviewed the three building plan options: Option 1: Add/Reno; Option 2: Build new on existing site; Option 3: Build new on alternate site.

Mr. Kaczmarek handed out owner's construction estimates from Daedalus. The Committee discussed the variances between the Fogerty (Architect Cost Estimator) and Daedalus (Owner's Cost Estimator) estimates. The Daedalus quotes do not include a 10% CM @ Risk, which might explain the 3.5M delta on the estimations.

Mr. Pagano said that one of the similarities in the estimates is that both quotes consider building at the alternate site (Option 3) to be slightly cheaper than building new on the existing site (Option 2). Option 3 does not include any money for demolition of the existing school because it is not a reimbursable expense from the MSBA. Mr. Lucchesi said he was not encouraged or discouraged by the cost estimating quotes.

Mr. Pagano said that neither quote is an exact number; those numbers become more refined as an option is chosen and schematic design process continues. The project should be sold as a high a number as possible because if the project is bid low and finishes high, the Town will be on the hook for the difference and it will be the Town's responsibility to make up the difference. The next round of cost estimating will much more refined and costs associated with contingency will go down.

The Committee reviewed a LPA memo regarding off site work required on all three sites and a cost comparison for each option.

Off site work for Option 3 includes installing a driveway (\$35,000), sanitary (\$154,000), and power/communications (\$137,500) for a total direct cost of \$326,500 + a total of indirect cost (+.33%) of \$107,745 for a total non reimbursable cost of \$434,245. This site will not have any natural gas available to the site. Site work is only reimbursable to 8% of construction costs.

Based on this calculation, total estimates for non-reimbursable costs for each option would be: Option 1 - \$678,357; Option 2 - \$842,926; Option 3 - \$2,065,242.

These estimates need to be added to the total cost estimates for each option. Mr. Pagano said none of the construction estimates include alternate heating/cooling renewable energy options (geothermal etc.).

Mr. White he was prepared to make a motion for discussion purposes.

Mr. Sherman asked if there were any differences in the two sites that would be more advantageous for alternate energy choices.

Mr. Senecal said nothing would compete with natural gas for heating and there was no point in drilling for geothermal. However, the Malden Street site will not be able to access natural gas so it makes sense to drill for geothermal.

Mr. Sherman asked if there was any way to "guesstimate" costs associated with heating with natural gas and heating with geothermal. The Committee discussed operational costs associated with different heating/cooling options. Mr. Lucchesi said it is important that the Committee always evaluate ongoing operating costs for which ever option is chosen.

The MSBA must be invited by the State to become a Model School in the Model School program.

A motion by Dave White was seconded by Margaret Watson to discuss adopting Option 2 for the PSR.

Mr. White said that expensive site improvements and lack of natural gas were two big factors not to consider the Malden Street site (Option 3). He said that his instincts tell him that the cost estimates for site preparation at this site are low and in the end, will be significantly higher. Additionally, he said that while the add/reno option was slightly less expensive, building new on the site will save approximately \$50,000/per year in operating costs. Additionally, he said he did not want to put the students through a renovation project: there is an educational cost to this option. Building new will be a better value.

Ms. Watson concurred with Mr. White's comments. She said she was also troubled by Option 3 site issues: rocks and water make the risk extremely problematic. Academic intrusion involved by the add/reno option is too great. The high school project is a good example of how an add/reno can disrupt the teacher's and student's education process. Option 2 runs the risk of the fewest problems.

Ms. Kelly said Option 2 is the best value for the Town's dollars. Mr. Githmark said Option 2 is already a community resource and he was not looking forward to maneuvering around an add/reno option.

Mr. Sherman said that while he was in favor of the motion, but would like to play devil's advocate. He was surprised that LPA presented such a good add/reno option. However, at the end of the day, the building is not just a building; it is a system and which option is going to provide the best system? He asked Mr. Githmark for his opinion.

Mr. Githmark said an add/reno would have still limited many of the classrooms in their size and created a poor flow through the buildings for the students.

Mr. Lucchesi said the cost delta from the lowest to the highest option was 4M. He said it was important to maximize the taxpayer dollar. Educators make the education of children and while a building doesn't provide the education of the children, it is incumbent for the people to provide a building that is conducive to learning. This building has deficiencies that staff has had to overcome. Option 2 provides a solution to all of the problems. The PSR document will have a high level of evaluation on all three options and the Committee has evaluated information for over a year to come to this choice. He encouraged residents to read the PSR and decide for themselves.

Mr. Githmark said that Dr. Pandiscio did not have an opinion one way for another. Ms. Kelly said Town Manager Galkowski supported the Committee's decision.

Chairman Challenger commented that he felt the permitting process with Option 3 would be very lengthy. Additionally, he did not like leaving the existing school empty for the Town to dispose of. He said Option 3 was a riskier option. Option 1 would leave the Town with little room/a less flexible structure to work with in the future. Having a daughter that went through the renovation project at the high school, he could not imagine putting the middle school kids through Option 1. A new building will allow for a better educationally designed school.

Motion by Dave White, seconded by Margaret Watson, it was **UNANIMOUSLY VOTED THAT THE COMMITTEE ADOPT OPTION 2 FOR THE PSR SOLUTION FOR THE MOUNTVIEW SCHOOL BUILDING PROJECT.**

LPA needs authorization to begin the schematic design process even though the MSBA has not yet voted on a building design option. Mr. Pagano said that he felt the MSBA will support without hesitation to proceed with the Committee's decision. While the risk to proceed is minimal, the risk to wait is greater. The MSBA will push back on some of the variances (media center), but these changes will be minor. LPA cannot begin work without the Committee's authorization.

Motion by Dave White, seconded by Chris Lucchesi, it was **UNANIMOUSLY VOTED TO AUTHORIZE LPA TO PROCEED WITH THE SCHEMATIC DESIGN.**

Mr. Pagano said the Committee needs to debate which delivery method it will chose to use: 149 vs. 149a. A decision needs to be made by early November. It was decided that the Committee will deliberate this decision in October.

The Committee agreed to meet on September 18th and 25th.

Mr. Kaczmarek will present a Power Point presentation to the Committee on CM @ Risk and the Committee will discuss MA-CHPS alternative energy features at the next two meetings.

The Committee reviewed the Summary of Deliverables. All owner items must be completed by September 18th to be included in the PSR.

3. New Business

Margaret Watson presented the approved meeting minutes of the WRSD Education Subcommittee. The subcommittee endorsed decentralized research and collaborative education spaces.

4. Minutes

Motion by Dave White, seconded by Mike Sherman, it was **VOTED 6-0-1 WITH 1 ABSTAINED TO APPROVE THE AUGUST 21, 2012 GREEN CHARETTE MEETING MINUTES AS PRESENTED. (ABSTAINED: CHALLENGER.)**

5. Adjournment

Motion by Dave White, seconded by Chris Lucchesi, it was **UNANIMOUSLY VOTED TO ADJOURN THE SEPTEMBER 11, 2012 MEETING AT 7:38PM.**

APPROVED:

**Mountview School Building Committee
Meeting Minutes
September 18, 2012**

6PM

HMLD

Present: Vice Chairman David White, Gary Kaczmarek, Margaret Watson, Erik Githmark, Chris Lucchesi, Mike Sherman, Jacquie Kelly

Absent: Chairman Paul Challenger, Tom Pandiscio, Nancy Galkowski

Others Present: Mike Pagano, LPA, Bill Senecal, LPA, Carrie Havey, The Green Engineer, Joel Wolk, OPM Consultant, Kevin Seaman, Seaman Engineering, Azim Rawji, ART Electrical Engineering, Elizabeth Helder, Recording Secretary,

1. Approval of Previous Minutes

Motion by Chris Lucchesi, seconded by Mike Sherman, it was **UNANIMOUSLY VOTED TO APPROVE THE MEETING MINUTES OF SEPTEMBER 5, 2012 AS PRESENTED.**

Motion by Chris Lucchesi, seconded by Mike Sherman, it was **UNANIMOUSLY VOTED TO APPROVE THE MEETING MINUTES OF SEPTEMBER 11, 2012 AS PRESENTED.**

Mike Sherman asked that all approved committee minutes be forwarded to Kelley Gangi to post on the WRSD website. Liz Helder will send the minutes to Ms. Gangi.

2. Public Comment

No one came forward to address the Committee.

3. MA-CHPS Discussion

Mr. Pagano with LPA, Carrie Havey, The Green Engineer, and the Committee reviewed the MA-CHPS project checklist, credits, and costs associated with achieving the credits (some credits will assume additional costs).

Mr. Pagano said the building design assumes the installation of ducted returns. Mr. White suggested that the ductwork access doors would be an achievable credit that should be given full consideration. LPA will include them in the design; they are easy to remove from the design at a later date.

Mr. Rawji said that it would cost approximately \$1500/classroom for lighting controls to achieve the 1-point credit (a \$75,000 total additional cost to the project). Additionally, this up-charge is only to control the AV lighting feature. Day-lighting and occupancy controls already exist within the design. The Committee agreed not to seek this credit due to the high cost.

Renewable Energy is worth 1-12 credits depending on which options are chosen. Mr. Lucchesi said the Committee had already determined that the community will expect that some type of renewable energy options are installed in the building. However, he would prefer that the majority of the money be spent on educating the children rather than powering the building. It should be used as a supplemental power system. Mr. White said he felt that the project should install some level of photovoltaic panels on the roof. Mr. Pagano discussed the installation of some type of photovoltaic installation at semi-ground level (on top of a covered walkway etc.). Design plans and the buildings' electrical usage will be determined during the schematic phase. The Committee agreed to maximize the use of photovoltaic energy as much as financially possible. Ms. Kelly recommended that the architect discuss the installation and use of photovoltaic energy with Mr. Jim Robinson, Manager of the Holden Municipal Light Department. The HMLD has installed this type of renewable energy at the Senior Center and the Public Safety Building.

Mr. Senecal said he felt that the project could achieve 2-points by designing 80% of permanent classrooms without air conditioning. However, some classrooms (SPED) will require air conditioning.

The Committee agreed to pursue a credit point for Plug Load Reduction and Through The Installation of Energy Star Equipment. Mr. Githmark said this would be an achievable goal for the school to attain.

The Committee discussed Energy Management System and Sub-Metering credits. Mr. Seaman felt that the 5.2 credit would be the easier credit to achieve by installing a gas meter on the boiler (2-points). The project will keep the 5.1 credit in the plan for future consideration (1-point).

Flex energy was determined to achieve 1-point (photovoltaic) and possibly 2-points. Ms. Havey will investigate further. Mr. Rawji added that it is also easy to earn an additional 1-point by identifying electric vehicle charging locations at the building.

Indoor and outdoor water reduction credits will be determined by costs. Ms. Havey said some of the credits would be low cost (types of drought resistant grasses in the playing fields) to the installation of a Water Management System (higher). Mr. Seaman said it would be easy to monitor outdoor water usage. Since there aren't student showering facilities in the plan that will require monitoring, Mr. Seaman felt that it would be easy to achieve 3-points in this category.

There will be minimal cost associated with achieving credits under the Site credit section. LPA asked Ms. Havey to investigate if the project will qualify for achieving 1-point in the Building Layout & Microclimate category.

Ms. Havey said she was still evaluating Durable, Low-Maintenance Flooring costs. Options include rubber flooring and low-PVC flooring. There may be some up front costs associated with this credit. Mr. Pagano said the Shrewsbury Middle School is using linoleum that meets this credit specification.

Mr. Githmark said the school currently uses the "School Dude" Program, a Work Order and Maintenance Management System, which will qualify the project for a credit point. While there are many "maybes" that remain in this category, Ms. Havey said it is still early in the process to determine cost estimates for the project.

After reviewing all the categories, the Committee determined it had added 4 more points to the "yes" checklist for a total of 56 "yesses" and 37 "maybes."

4. CM @ Risk vs. Design-Bid-Build Presentation

Gary Kaczmarek and Joel Wolk presented a power point presentation on the differences between a CM @ Risk (Ch. 149A) and Design-Bid-Build (Ch. 149) project.

The key differences between the two are that with a CM @ Risk project, the town would hire a professional service firm which builds buildings and with a Design-Bid-Build (DBB) project, the town would purchase a building in accordance with detailed plan specifications. A CM @ Risk project includes design phase services, starting before the design is completed, is selected based on their qualifications, a price is negotiated, and includes "open book" accounting. A DBB project includes no design phase services, a completed design, lowest responsive bidder (pre-qualified), lump sum payment, and the owner has no say on the team (except for prequalified FSB's). How does a project choose which method to build their project? Some projects are sufficiently "simple" so that the initial cost savings with DBB outweighs the value, and new construction on open, clean sites that are not time dependent. A CM @ Risk project is most appropriate for complex projects involving phasing, challenging logistics, and aggressive schedules.

In order to qualify as a CM @ Risk project, the Town must apply to the Inspector General's office for approval.

Mr. Lucchesi discussed what "risk" the project might undertake to qualify as a CM project. It certainly would be putting extra responsibilities on the OPM. The Committee would need to provide extra money to continue Mr. Wolk's employment as support to Mr. Kaczmarek and the project.

Ms. Kelly asked under what circumstances/criteria would the Committee choose the CM option. Mr. Wolk said the project would have better quality, end product, control, details, and would know the qualifications of people working on product. Additionally, the project would receive an additional 1% reimbursement from the MSBA.

Mr. White said that he felt the middle school project was a relatively low-risk project.

Ms. Watson asked if the high school project would have ended differently if it had been a CM @ Risk project. Mr. White said that the problem with the high school project was that it went out to bid with incomplete documents, which ultimately caused the extended problems on the project. Yes, it would have ended differently if it had been a CM @ Risk project because a CM project never would have gone to bid with incomplete documents. But, had the Superintendent managed the project better from the beginning, it would have turned out differently too.

Mr. Wolk said that applying for the CM @ Risk certification takes about 3 or 4 months. It will take approximately 10-12 hours to complete the application paperwork (\$1000.00)

Mr. Pagano said he agreed with a vast majority of the presentation. The greatest benefit to CM is that it is intended to draw out the best GC's to build schools – the "cream of the crop" (Gilbain, Turner etc.), and it makes the architect's job very easy. But you pay for that advantage. He concurred that some GC's in the DBB process can be brutal to work with. CM's come into the process early and can contribute significantly to the project. This can be helpful when not working with an experienced architect. LPA is currently working on three CM projects and is familiar with the process. However, there are some downsides to a CM project. A CM is more money for the benefits described. In his experience, the higher the project cost does not necessarily mean a high level of change orders. Good quality design documents will prevent this from occurring. The one advantage to a DBB project is to get the lowest possible cost. A CM project that does not use the entire contingency will return the money to the owner. Architects like the CM process: there are fewer problems reported to the owner and the GC has a better sense of ownership.

Mr. Sherman asked about the CM negotiation process? Town Counsel would be involved with the process.

Mr. Kaczmarek said he would like to start the CM @ Risk application process with the Inspector General's office sooner rather than later.

Mr. White said that each person needs to determine/think about whether there is a need to forge ahead with the CM process before determining whether the Committee even wants to do a CM project.

Mr. Lucchesi asked if the market was favorable to building. Mr. Pagano said that many owner benefits associated with the recession have disappeared primarily because there are so few CM GC's and more building projects. The recession has been so long that the supply side has shrunk; a lot of the GC's didn't survive the recession.

A motion was made by Mike Sherman and seconded for discussion by Chris Lucchesi to proceed with the CM @ Risk application.

Mr. Lucchesi said his gut was telling him to proceed with the DBB option. However, he would like to keep all his options open and \$1000 seems like a small investment to keep another building option on the table. Mr. Githmark concurred.

Mr. White said that personally, with his experience with LPA and the quality of their final documents, he doesn't feel that there is a need to pursue a CM @ Risk accreditation.

Mr. Lucchesi said he also had full confidence in LPA's design documents. He said he was still trying to figure out if there were any advantages to the CM process.

Motion by Mike Sherman, seconded by Chris Lucchesi, it was **VOTED 5-1 WITH 1 OPPOSED TO PROCEED WITH THE CM @ RISK APPLICATION. (Opposed: Dave White).**

5. New Business

Mr. Lucchesi will speak with the Mountview PTA on September 20th, and address the Dawson School PTA on October 9th and Davis Hill PTA on October 11th. All Committee members are encouraged to attend and participate in the presentations.

6. Adjournment

Motion by Erik Githmark, seconded by Chris Lucchesi, it was **UNANIMOUSLY VOTED TO ADJOURN THE SEPTEMBER 17, 2012 MEETING AT 8:42PM.**

APPROVED:

DRAFT

To the best of my knowledge and belief, each of the meetings listed above complied with the requirements of the Open Meeting Law, M.G.L. c. 30A, §§ 18-25 and 940 CMR 29 *et seq.*

If you have any questions or require any additional information, please contact Thomas G. Pandiscio, Ed.D., Superintendent of Schools, Wachusett Regional School District, 1745 Main Street, Jefferson, MA 01522 (508 829 1670).

By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.


By: Nancy Galkowski

Title: Chief Executive Officer

Date: September 18, 2012

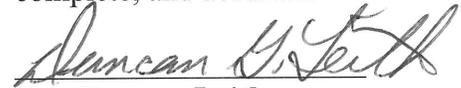
By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.


By: Thomas G. Pandiscio

Title: Superintendent of Schools

Date: September 18, 2012

By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.


By: Duncan Leith

Title: Chair of the School Committee

Date: September 18, 2012

Mountview School Building Committee Holden, MA Community Outreach

The Mountview School Building Committee undertook the following Community Outreach efforts during the Preliminary Design Program of Massachusetts School Building Authority Module 3 – Feasibility Study.

September 2010. Committee is formed to conduct study of Mountview Middle School. Committee meets bi-weekly and all meetings are posted on town website and are open to the public.

February 2012. Committee is approved for Designer Selection Process by MSBA.

April 2012. Town hires Lamoureux-Pagano Architects to conduct Feasibility and Schematic Design Process. Principal Erik Githmark contacts PTO's and SIMCO representatives to communicate status of project.

May 2012. Building Committee Chairman Paul Challenger speaks at May 21, 2012 Annual Town Meeting to provide update on Committee's efforts. Meeting is broadcast on local cable channel.

May 2012. BC Chairman Paul Challenger updates School Committee at their May 23, 2012 meeting. Mr. Challenger also begins writing a monthly summary of committee progress which will be sent to Selectmen and Town Committees. A press release of committee activities will also be sent to local press. All committee meeting minutes are available on Town website

June 2012. LPA and OPM conduct Educational Input Meeting with Staff on June 5, 2012.

June 2012. LPA and OPM meet with Town Department Heads to discuss alternative site availability.

June 2012. Chairman Paul Challenger and members Mike Sherman and Chris Lucchesi meet with Community Outreach volunteers from Shrewsbury, MA to discuss Shrewsbury's successful efforts to build the Sherwood Middle School.

June 2012. Chairman Paul Challenger and members Mike Sherman and Chris Lucchesi begin working on a website dedicated to the project.

June 2012. Chairman Paul Challenger and Mike Sherman meet with members of the Ashburnham, MA School Building Committee to discuss their school building project.

June 2012. Town posts notice of Green Charette Meeting being held on June 21, 2012 on Town's new LED message board, Town website and District website. Public is invited and encouraged to attend. Coverage of the event is published in The Landmark, Holden's weekly newspaper and The Holden Daily Voice, an online newspaper.

June 2012. Building Committee holds Green Charette on June 21, 2012 with members from Town Committees and Departments, School Officials and Staff, Engineering Subcontractors, members of the public and the press in attendance.

Mountview Middle School Community Outreach Efforts

July 2012. Building Committee holds public tour of Mountview School July 17, 2012. After tour, Public is invited to attend Building Committee meeting and LPA presents history of project to date, timelines, and activities of project. Town Selectmen, Finance Committee, Town Administration, and School Committee members are invited to attend. Meeting is advertised in [The Landmark](#), [The Holden Daily Voice](#), Town LED message board, Town website and District website. Over 50 people attend meeting.

July 2012. Building Committee meets on July 31, 2012 and endorses three options for PDP: 1. Add/Renovate; 2. Build new at existing site; 3. Build new at alternative site. Local press and public attend.

August 2012. Building Committee endorses MA-CHPS Certification for the school project at its August 14, 2012 meeting.

August 2012. Building Committee holds Green Engineering Charette Public Meeting on August 21, 2012. Meeting is advertised in [The Landmark](#), [The Holden Daily Voice](#), Town LED message board, Town website and District website.

August 2012. Building Committee Chairman Paul Challenger presents PDP to School Committee Representatives at their monthly meeting.

August 2012. Building Committee has booth at local "Holden Days" on August 25, 2012 where Committee members answer questions about the MSBA building process and provide updates on the activities of the Building Committee. Committee distributes a flyer to highlight the overcrowding, obsolete spaces, end-of-life systems, inefficiencies, and hazards that exist at the current school. Flyer outlines solutions currently being researched during the Feasibility Study by the Committee.

August 2012. Building Committee conducts a second public tour of Mountview School on August 28, 2012. Committee holds meeting after the tour. Town Selectmen, Finance Committee, Town Administration, and School Committee members attend. Meeting is advertised in [The Landmark](#), [The Holden Daily Voice](#), Town LED message board, Town website and District website.

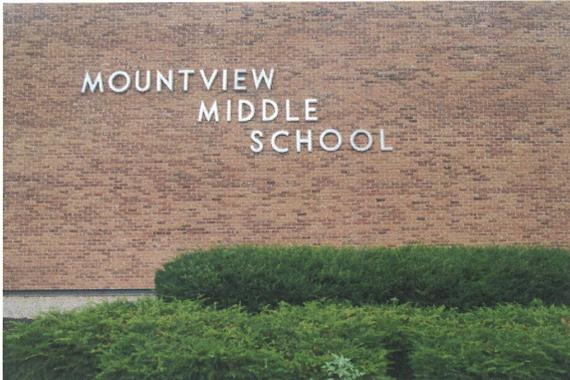
September 2012. Building Committee meets at Mountview School on September 5, 2012 to review final three building options, preliminary cost estimations, and results of August 21, 2012 Green Charette meeting. Public and press attend.

September 2012. Building Committee meets on September 11, 2012 and unanimously votes to endorse to construct a new school building on the existing site.

September 2012. SBC Chairman Paul Challenger attends televised Board of Selectmen Meeting on September 17, 2012 to review work ongoing work of SBC to date. Mr. Challenger announces that after two years of research, planning, and deliberation, the Committee unanimously voted to endorse the construction of a new middle school on the existing school site at its September 11, 2012 meeting.

Mountview Project Moves Forward As Green Project

by Daniel Castro News 06/22/12 Comments (10)



HOLDEN, Mass. — As the Mountview School Building Committee makes progress with the potential construction project, Thursday's charrette helped bring together ideas on how to proceed with a green foot forward and build the most efficient school for Holden.

Leading the discussion was Erik Ruoff and Carrie Havey, of [The Green Engineer, LLP](#) — a sustainable design consulting firm that specializes in solutions to design, build, and operate buildings with improved energy efficiency and reduced impact on the environment.

The consultants presented information about the possible options to take when pursuing a healthy, efficient school — from efficient layouts and design, to building materials, infrastructure (lights, heating, windows, etc.), traffic flow, and green spaces.

The charrette was the first of two that will take place before the committee's August 9 deadline from the MSBA, when they will have to come to a decision on whether the Mountview Middle School project will either not continue, move forward as a renovation with an addition or as an all-new building, and where a potential new school would be located.

Since Oct. 2010, the committee has been exploring the best course of action to take to address the longstanding issues with the 40 year old building.

Mountview Principal Erik Githmark said two of the most crucial problems are the inadequate classroom size and the air temperature and movement within the building.

Senecal said that a renovation would prove challenging structurally because about 80 percent of the building was built in 1964.

As an example, he said that adding equipment on the roof would be difficult as it is not designed to take on the new equipment.

"The other concern is that it's a very rigid school," he said, drawing attention to the brickwork of the old part of the school.

"Thankfully it is a steel structure, so we're not relying on masonry walls to hold up the next floor," he said. "There's also limited headroom. It looks like a lot until we start putting sprinkler systems in that are not there, and we put ducts and electrical. We'll run out of room very quickly — so it's a challenge. Any renovation job is challenge, and this one is no different."

"It's also a funny school. There's really a lack of windows," Senecal said, with Githmark adding that one of the comments he hears most from teachers and visitors to the school is that it is a really dark building.

In fact, one of Senecal's goals for a new facility is to have sunshine in every classroom.

In line with this, Ruoff said that, for the amount of time students spend indoors, it was important that the space is going to promote learning and being healthy.

"There are a lot of studies out there that show that there are increased test scores associated with designing with more daylight, more access to views, and using materials that don't off-gas as much," he said. "There's a lot of, not only test score increases, but also reduced absenteeism. You can retain your staff for longer, which is less turnover."

At present, the scope of the project considers a maximum enrollment of 800 students, so while the existing building is 92,000 sq. ft, the committee is looking for a new building to potentially be 128,000 in order to meet their objective.

While one option is to build a new facility on the current site, the committee is also looking at town owned property on Bullard Street, near Mayo Elementary. Senecal said the two parcels are separated by a wetland which has never been developed.

"There's plenty of land there to develop some new fields," said Senecal. "It's quite a bit of site work, as there's some pretty steep terrain, but it looks very doable as all the utilities are there except for natural gas. Sewer, electricity and water are there.

This location would actually put the new middle school on the adjacent property line to Mayo.

"As far as traffic is concerned, it has the ability to enter from Malden Street, whereas Mayo School enters off of Bullard," he added.

While no decisions were made at the charrette, the committee is under tight deadlines from the MSBA to plan its course of action and present the findings of its study in July and August for review.

The Mountview Building Committee holds public meetings at 6 p.m. every second and fourth Tuesday of each month at the Holden Municipal Light Department.

Holden Weighs Options For Mountview Middle School

by Daniel Castro Schools 08/29/12 Comments (16)

HOLDEN, Mass. — Should Holden renovate and add to Mountview Middle School, build a new school on the existing site or construct one on Malden Street? Those are the options the Mountview School Building Committee is weighing.

The committee will make its final decision at its Sept. 11 meeting at the Holden Municipal Light Department.

If the option were to renovate the building, the plan is to construct a 53,000-square-foot addition behind the school. Cost estimates range from \$51 million to \$54 million, which would include the costs of remediating hazardous materials and providing temporary classrooms. The town's share would be \$24 million to \$25 million, with the average cost per household of about \$229 to \$238.

This is the lowest cost option but would have the highest impact on students and would require modular classrooms on site, according to Vice Chairman David White. An addition/renovation could take 36 to 42 months to complete, but the new building options are expected to take 30 months to complete.

Another option is a new 128,000-square-foot building on town-owned land on Malden Street, behind Mayo Elementary School. The most costly option would come in at \$59 million to \$62 million, which would not include the cost of remediating hazardous materials or demolishing Mountview. The town's share would be \$28 million to \$29 million, with an annual cost per household of \$267 to \$276.

This would have no impact on students, would have a shorter construction timeline than a renovation and would preserve the Mountview building and site for other town uses.

In the last option, a 128,000-square-foot school would be constructed on Shrewsbury Street behind the existing building. This option would make the remediation of hazardous materials and demolition of Mountview reimbursable.

The total cost would be \$56 million to \$58 million. The town's share would be \$26 million to \$27 million, with the annual cost per average household at \$248 to \$257.

Although less intrusive than a renovation, this option would still have some impact on students, would take away the school's playing fields and construction would have to work around school operations.

Next spring, Holden voters will decide whether to move forward with the project, with more than 50 percent of the cost to be picked up by the Massachusetts School Building Authority.

A [video tour of Mountview Middle School](#) is available online to see the issues in the aging building.

Holden To Host Forum On Mountview School Project

by Daniel Castro Schools 07/02/12 Comments (1)



Holden is considering whether to renovate, expand or replace Mountview Middle School. Photo credit: *Daniel Castro*

HOLDEN, Mass. — To provide information about a possible Mountview Middle School building project in Holden, the Mountview Building Committee will hold a question-and-answer session and building tour July 17 at the school.

Since October 2010, the committee has been exploring options to address longstanding problems with the 40-year-old building.

The building committee had planned to decide by August if it would recommend moving forward with design and construction, but, in order to allow for more public input, the committee petitioned the Massachusetts School Building Authority (MSBA) for an extension.

The MSBA granted the request, and now the committee needs to file its Preferred Schematic Report by Sept. 27 to recommend what project the town wants to pursue.

"This means we have to weigh and evaluate a wide range of options, including renovations/additions and new buildings, different sites, sizes and features before then, so there are many important decisions to be made in the next few weeks," said committee chair Paul Challenger.

This revision will not change the date of expected final MSBA approval in March 2013. Challenger said the designer was asked to study and prepare cost estimates for six different scenarios:

- 1 - Do nothing. This is the base case required by the state for comparison purposes. It defines the advantages and disadvantages of doing nothing to the building.
- 2 - Minimum renovations - Do nothing except fix things that are broken or non-functional.
- 3 - Medium renovations - Fix broken things and make some improvements to basic infrastructure (heating, roof, windows, etc) of the school.
- 4- Heavy renovations and addition - Extensive renovation, moving walls, redesigning spaces and adding an addition. Also includes cost of relocating students during construction and impact on educational quality during project.

5 - Build a new school on the existing Mountview site.

6 - Build a new school on a parcel of town-owned land between Malden Street and Bullard Street, adjacent to the Mayo School property.

Additionally, a hazardous materials study on the existing building determined that the cost to remediate the identified hazmats will exceed \$1 million if the building is demolished, and will be somewhat less than that if the building is renovated.

The extent to which the state will reimburse for these costs is still being studied, said Challenger.

The July 17 meeting will be held in the cafetorium in Mountview Middle School. The building committee will provide tours of the building at 5 p.m. to anyone interested.

At the 6 p.m. meeting, the committee will make a presentation on the process so far, the current status and what needs to be done before the filing date. Then there will be discussion among the building committee, the Holden Finance Committee, Board of Selectmen and Wachusett Regional School Committee.

The meeting is open to the public and all interested citizens are encouraged to attend. There will be a public comment period at the beginning of the meeting.

For additional information, contact Chairperson Paul Challenger at (774) 364-2364 or Vice Chairperson David White at (508) 450-3920.

Holden Puts Mountview School Problems On Display

by Daniel Castro Schools 07/18/12 Comments (1)

HOLDEN, Mass. — As the Mountview Building Committee continues its study on a possible building project for the aging middle school, the public had the opportunity to get inside Tuesday night to see the deficiencies that face students and staff.

Members of the Holden Finance Committee, Board of Selectmen, Wachusett Regional School Committee and the general public were taken through the school classrooms and educational areas by Principal Erik Githmark and school custodian Dennis Hyson.

First built in 1968 with an addition in 1986, some of Mountview's issues include the large single-panel windows that contribute to extensive heat loss, a 41-year-old roof that leaks throughout the winter, jerry-rigged and antiquated communication systems, and constant power outages.

The committee has been working with the Massachusetts School Building Authority to move forward and anticipates the MSBA to cover 53 percent of the cost of the project, about \$20 million.

For the MSBA, the biggest issue was the building's inadequate size.

Building Committee chair Paul Challenger said that, as part of the process, the state also came to see Mountview and determined it was in desperate need of help.

"The state looks at hundreds of buildings, and they've assigned us to a top tier for a project," he said.

The architect, Mike Pagano of Lamoureux Pagano Associates, said that, while Mountview is a fundamentally sound building and was "a high quality building in its day," after many years it has been worn out, and "all of the major mechanical and plumbing systems are approaching or have exceeded their useful life."

"I think the building has been well-maintained," he said. "I do think that the problems with the existing building are all correctable. ... Ultimately, it's going to come down to comparing the cost of additions and renovations to replacement."

As part of the agreement with the Massachusetts School Building Authority, in September the committee will file a Preferred Schematic Report to recommend which of seven possible options they believe is the best choice for Holden. These include doing nothing, tuition buildings with other districts, minimum renovations, medium renovations, heavy renovations and an addition, building a new school on the existing site and building a new school on a new site.

The committee is still whittling down its options, but Challenger said the chances of the MSBA approving the minimum repairs was slim.

"Suppose we come in and say we decide want to replace the windows because they're very energy inefficient and the heating system desperately needs work and the roof needs work, and we do those three things and we'll live with the building. The MSBA won't approve that project because it doesn't address the space need," said Challenger.

If the MSBA were to back out at that point and Holden were to still move forward with only their own money, Challenger said those renovations would then trigger Americans with Disabilities Act rules, which would add to the cost.

"So now we're paying \$15-20 million to do a basic repair project, which is the same cost a new building would be or a full renovation and addition would cost us after the state participation, but instead we have an old small building that we've jerry-rigged," he said. "It cost us the same amount of money, but we haven't gotten anywhere."

The Mountview Building Committee holds public meetings at 6 p.m. every second and fourth Tuesday of each month at the Holden Municipal Light Department.

Attached: ([lpa_presentation-7-17-12.pdf](#))

Mountview Project Whittles Down To Three Options

by Daniel Castro News 08/22/12 Comments (18)



HOLDEN, Mass. — The Mountview School Building Committee continues to move forward with the potential middle school construction project, and has whittled down its options to a renovation and addition, or building new on either the existing site or on a new location.

According to Vice Chairman David White, every major system in the current middle school is "near, at or beyond its serviceable life," including the HVAC and plumbing, electrical systems, and roof and building envelope.

While White emphasized that people shouldn't be panic-stricken about the safety and environmental hazards in the old building, as it is "sustainable for the time being," he also stressed the needs to move forward with upgrades.

"This project offers the most cost-effective opportunity to deal with this liability," he said.

Because the Massachusetts School Building Authority potentially cost-sharing 50 to 54 percent of the project with Holden, it requires that the project conform to their strict guidelines, reflects and supports the educational program practices of the school district, and produces a 50-year building.

At its meeting on July 24, the committee reviewed preliminary construction cost estimates for the various options, which had a minimum renovation at \$733,243, moderate renovation at \$10,126,913, a renovation and addition at \$39,518,682, new construction on the existing site at \$47,929,966, and new construction on a new site at \$47,724,822.

Because they would not achieve the educational standard of the district or the Massachusetts School Building Authority, the committee voted to eliminate the minimum renovation and moderate renovation options from future consideration.

At 7 p.m. on Aug. 28, there will be a public hearing at Mountview to discuss data, findings, and recommendations of the Preliminary Design Program and prepare for the next phase in the the feasibility study.

Local committees and representatives have been invited to discuss the status of the Preliminary Schematic Report and the various options being considered.

At the Sept. 4 meeting, the committee will decide which of the three remaining options will be submitted to the state in the PSR. The project will not move forward unless the MSBA agrees with Holden's preferred solution.

Mountview Project To Move Forward As New Building

by Daniel Castro Schools 09/12/12 Comments (5)



The Mountview School Building Committee voted unanimously Tuesday night to go forward with a new middle school building on the existing Shrewsbury Street site. Photo credit: *Daniel Castro*

HOLDEN, Mass. — Holden's Mountview Middle School construction project will move forward with a new building on the existing site, after the Mountview School Building Committee voted unanimously Tuesday night to present this option to the Massachusetts School Building Authority.

After [weighing the costs and advantages between the three options](#) of an addition/renovation or a new building on either a proposed location on Malden Street or the existing site, the committee was in agreement on what it believed to be the best choice for Holden and the education of its students.

Cost-estimates provided by Daedalus Project Incorporated had construction costs for the addition/renovation at \$43,051,512, costs for new construction at the existing site at \$46,048,120, and new construction on a new site at \$44,389,285.

David White put forward the motion to select the 128,000-square-foot new school, which would be constructed on Shrewsbury Street behind the existing building.

Among the factors for his selection included the potentially high-cost of off-site improvements at the Malden Street location.

"I think that the Malden Street site, although it's an available piece of land and could be attractive for that reason, when you uncover everything and expose all the deficiencies, it will be the most expensive project without a doubt," he said.

Non-reimbursable costs for site work was estimated at \$678,357 for the renovation/addition, \$842,926 for a new building on the exiting site, and potentially \$1,630,997 with an additional \$434,245 for off-site work with the Malden Street option.

Furthermore, while he said the renovation/addition would be slightly less expensive than the new building by an order of magnitude of \$3 million, he added that, "we'll be saving \$50,000 a year just on operating costs by having a new building."

Another key factor in the committee's decision was the effect on students.

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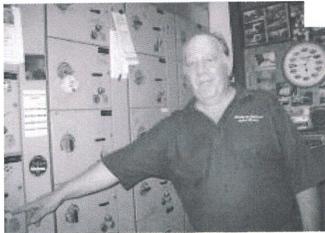
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Residents and officials tour crowded Mountview

BY PATRICIA ROY

PROY@HOLDENLANDMARK.COM

Dennis Hyson, head custodian at Mountview Middle School, points out deficient control panels for the school's electric system at a public tour of the school on July 17.

Patricia Roy photo

HOLDEN – From the outdated mechanical systems in the basement to the crowded and airless classrooms on the third floor, it's not hard to find a lot that needs to be improved at Mountview Middle School.

About 50 residents and town officials met at the school Tuesday, July 17, to tour the facility and hear what steps need to be taken so the town has a middle school that meets current state standards.

Principal Erik Githmark and head custodian Dennis Hyson led the tour through the facility that was built in 1967 and expanded 22 years later.

The school was built to house 600 students and currently has 770 enrolled.

Classrooms are small; most measure 850 square feet, and seat as many as 26 students. State guidelines call for a minimum of 950 square feet for classrooms, Githmark said. Crowding is also evident in the narrow corridors, single lockers shared by two students, a library that doubles as a computer lab and inadequate gym facilities. The science labs lack sinks and gas burners, with an inadequate 100 amp electrical system and a dearth of table space, he said.

Plumbing, heating and insulation also come up short. Cast iron boilers are beginning to crack and small plumbing problems can lead to building-wide shut-offs. Control panels meant to work automatically have to be hand-operated. Single-pane windows contribute to higher fuel costs for the school and the roof needs work.

The Mountview Building Committee has been meeting for 2 ½ years to develop an action plan for the school. The process the committee follows is set by the Massachusetts School Building Authority (MSBA). The town must adhere strictly to MSBA guidelines in order to qualify for state funding at the 53 percent maximum level.

There are six possibilities for the town to pursue relative to the middle school, said Paul Challenger, chairman of the Mountview Building Committee.

The town could choose not to build anything and pursue tuition agreements with other districts to address school overcrowding or an existing building could be acquired, though nothing suitable has been identified in town, he said.

The town also has the option to perform only base repairs on the school or fund a renovation/addition. The final two alternatives are new construction on the existing Mountview School site or new construction on an alternate site.

Before the town adopts any of these solutions, a preliminary design program (PDP) that could run as long as 1,000 pages will be assembled.

The reason for the front-heavy preparation is simple, according to Michael Pagano, of LPA Architectural Firm.

"The state is not keen on investing in a building that won't last 50 years," he told audience members.

The PDP considers what a middle school in Holden requires in terms of its educational programs. The program will examine current space conditions, projected space needs, site development requirements and alternatives.

About six engineers are on board to develop the PDP, Pagano said.

The middle school building is fundamentally sound, but needs some significant upgrades, Pagano said. The building has some features that will complicate upgrading it, such as ceilings that are too low to handle the installation of a sprinkler system.

An additional wrench in the works has turned out to be the discovery of hazardous material, including asbestos, on the school site that will cost about \$1 million to remediate.

Taking these into consideration, "the chances of coming in doing minor modifications are relatively slim," Challenger said.

Three fully vetted plans will be submitted to the state. By the end of September, a single, formal proposal will be submitted.

Challenger invited residents to attend the Mountview Building Committee meetings at 6 p.m. on Tuesdays at the Holden Municipal Light Department.

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Green charette for Mountview

The Mountview School Building Committee will host a "green charette" at 6 p.m. Tuesday, Aug. 21, in the Mountview Middle School cafeteria, 270 Shrewsbury St. The charette will discuss green technology and demonstrate how school construction can "go green."

The public is encouraged to attend and participate in the process.

To learn more about the Committee and the school project, visit holdenma.gov.

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News

Down to three choices for Mountview building/renovation project

Decision will be made Sept. 11

By L. L. Lehans

HOLDEN – Doing nothing is not an option when it comes to Mountview Middle School. Neither is doing minimal repairs and updates.

Built in 1967 for the town's 6th, 7th and 8th graders, the school was expanded in 1989 to serve a capacity of 675 students and this fall will be overcrowded with 764.

Mountview Middle School Building Committee vice chair David White presented a report to the school committee on Monday, on where the building committee stands on solving the school's deteriorating infrastructure and overcrowding problems.

White said the building is obsolete spaces that were designed for a 1960s curriculum, inefficiencies and hazards in the building, and has reached the end-of-life in its various heating/plumbing/electrical systems.

Classrooms and labs are undersized and don't meet today's minimum standards, he said, the roof and single-pane windows need replacing, and its various systems are so outdated that they can't get parts to repair them.

"The project is to offer the most cost-effective way to solve the problems," he said, and the town will realize substantial savings with updated heating, windows, insulation and light/electrical systems.

"It's still a safe environment for children, but it needs to be upgraded," White said.

He said architects Lamoureux Pagano Associates of Worcester has completed a 602-page Preliminary Design Program that has been submitted to the Massachusetts School Building Authority, which will evaluate each building alternative.

Their initial options were to do nothing, do minimal repairs, do moderate repairs and updates, do a full renovation and addition, build a new school on the present 12.7-acre site on Shrewsbury Street, or build a new school on another site in town.

The building is considering only the last three options, White said, and will hold a public hearing at 5 p.m. Tuesday, Aug. 28, when the public can tour the building, hear about the options and voice their opinions. Townspeople are also invited to all building committee meetings, held at 6 p.m. Tuesdays in the Light Department building on Holden Street.

“One solution will be adopted on Sept. 11,” White said. “It’s a very accelerated project.”

That final recommendation will be forwarded to the MSBA, which must endorse the choice in order for the project to move forward. White said the MSBA will fund approximately 50-54 percent of the project, with the remainder paid for by Holden taxpayers through a debt exclusion. He said the architects’ schematic designs and firm budgets for the project must be submitted to the MSBA by March. If voters approve, a new school designed for 800 students would likely be ready in fall 2017, and serve the town for the next 20 years and beyond.

“If voters don’t approve it in the spring, we get kicked aside from the SBA’s list and they give the money to somebody else,” White said, “and basically, we’ll have to start over.”

White said the building committee is testing town-owned land between Chapel and Bullard streets, contiguous to the Mayo Elementary School, to see if it is buildable – it now seems it has potential,” he said.

He said it also appears there is room to build a new school on the Mountview site.

School committee chair Duncan Leith, who chaired the Wachusett Regional High School Building Committee, said renovating that school proved very costly as they cut through walls and ceilings, having to basically gut the building in places and causing four years of disruption to students and staff.

“A renovation/addition is costly,” Leith said. “I hope they favor new construction.”

“Whatever it is,” White said, “we’re going to make it look good.”

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News

Mountview tours Aug. 28

The Mountview School Building Committee will host a public informational meeting Tuesday, Aug. 28, at Mountview Middle School, 270 Shrewsbury St., to discuss design options for the school project. Tours of the school begin at 5 p.m. The meeting starts at 6 p.m. in the school cafeteria.

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News

Down to 3 choices for Mountview project

Decision will be made Sept. 11

BY L. L. LEHANS

LLEHANS@

Doing nothing is not an option when it comes to Mountview Middle School. Neither is doing minimal repairs and updates.

Instead, members of the Mountview Middle School Building Committee have narrowed their choices to three: Doing a full renovation and addition, building a new school on the present 12.7-acre site on Shrewsbury Street or building a new school on another site in town.

Built in 1967 for the town's 6th, 7th and 8th graders, the school was expanded in 1989 to serve a capacity of 675 students and this fall will be overcrowded with 764.

Building Committee vice chairman David White presented a report to the school committee Monday, Aug. 20, on where the building committee stands on solving the school's deteriorating infrastructure and overcrowding problems.

White said the building is obsolete, with spaces that were designed for a 1960s curriculum, inefficiencies and hazards in the building, including various heating/plumbing/electrical systems that have reached the end of their usefulness.

Classrooms and labs are undersized and don't meet today's minimum standards, he said, the roof and single-pane windows need replacing, and its various systems are so outdated that they can't get parts to repair them.

The goal of the project is to offer the most cost-effective way to solve the problems, he said. The town will realize substantial savings with updated heating, windows, insulation and light/electrical systems.

"It's still a safe environment for children, but it needs to be upgraded," White said.

He said architects Lamoureux Pagano Associates of Worcester have completed a 602-page Preliminary Design Program that has been submitted to the Massachusetts School Building Authority, which will evaluate each building alternative.

A public hearing is scheduled on the school options at 5 p.m. Tuesday, Aug. 28. At that time, the public can tour the building, hear about the options and voice their opinions. Townspeople are also invited to all building committee meetings, which are held at 6 p.m. Tuesdays in the Light Department building on Holden Street.

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News

Three proposals presented for future of Mountview Middle School

BY PATRICIA ROY

PROY@HOLDENLANDMARK.COM

The town has three options for upgrading the aging Mountview Middle School. Each would add a couple of hundred dollars to the average tax bill.

The Mountview School Building committee outlined the options last week for Finance Committee members and the Board of Selectmen. The three plans have been developed to address the physical structure of the building, which is outmoded but sound, and to relieve overcrowding.

A 53,000 square-foot addition to the current school building is estimated to cost \$51-54 million, with the town paying \$24-25 million as its share and the rest being picked up by the state. The price tag includes the cost of temporary classrooms and hazardous materials remediation.

That project would bump up the real estate tax bill for the average home (assessed at \$269,000) by \$229-238 a year.

Drawbacks to the plan include moving students into temporary classrooms and other sub-par classroom spaces while the work is being done. As with the Wachusett Regional High School project, dealing with contingencies becomes more expensive when a school remains open during construction, officials said.

Benefits include the cost, which is \$2 million lower than other plans, and keeping the school in a neighborhood where traffic patterns won't be disrupted.

Two options remain for building a completely new, 128,000 square-foot school. A new school could be located behind Mayo Elementary School with an entrance on Malden Street or on the existing middle school property on Salisbury Street.

Building new would be less disruptive to students and would give the town a chance to optimize classroom design for current educational standards. With an environmentally friendly building, a new school could have lower operational costs and possibly qualify the town for higher reimbursement rates from the state.

The property near Mayo School is already owned by the town, but would require extensive site work since it encompasses some wetlands. This is the most expensive of the three options, at \$59-62 million, adding \$267-276 to the average residential tax bill.

The town would pay \$28-29 million as its share, with the state paying the remainder.

The third option would put a new school on the Mountview School site.

Moderate site development would be required for a new building. Total construction cost is estimated to be \$56- 58 million, with the town paying \$26-27 million.

Homeowners can expect to pay \$248- 257 yearly if this plan is adopted.

The exact rate of reimbursement from the state will not be known until the project gets its final approval from the Massachusetts School Building Authority in March. The building committee expects a reimbursement rate of at least 52.9 per cent.

If Mountview School needs to be demolished, the town cannot expect reimbursement for the cost of taking the building down or for the hazardous materials remediation that would need to be done prior to demolition.

The school building committee will accept public comment through Sept. 11. The design decision will be made on that day during a meeting of the School Building Committee.

Public comment can be sent to committee chairman Paul Challenger at paulchallenger22@gmail.com.

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Mountview solution unanimous – build new school behind the old one

By L. L. Lehans

llehans@holdenlandmark.com

HOLDEN – Keeping to its tight schedule, the Mountview School Building Committee Tuesday night decided on the option to recommend to the Massachusetts School Building Authority to solve overcrowding and facility problems at the 45-year-old middle school.

Committee members unanimously went with option 2 – build a new school to house 800 grades 6-8 students directly behind the school on Shrewsbury Street, and then demolish the old building when the new one is ready in September 2016.

Committee members rejected option 1 that would have constructed a 50,000-square-foot addition and upgraded the existing building, disrupting students and staff for more than four years. It also rejected option 3 that would have constructed a new school off Malden Street, because the site work would have been more expensive, and the area does not have access to natural gas lines for heating, which do run to Mountview School.

“We can’t get too wrapped up in these [building option construction] numbers – they’re all preliminary,” said building committee vice chairman David White Sr. Committee members noted that factoring in operating costs per year of the three options, a 20-year borrowing period, variations in reimbursable costs, unforeseen costs during a renovation and other considerations made option 2 the best choice. They noted that the option 1 renovation would result in a building without much flexibility for changing educational needs, and option 3 building off Malden Street would have left the town with an abandoned “ghost” building on Shrewsbury Street.

Committee members said a crucial factor in their recommendation is one that couldn’t be assigned a dollar value – the disruption in students’ education if they were forced to attend school in a construction site, as what happened with the four-year Wachusett Regional High School project.

“We started with seven options,” said committee member Christopher Lucchesi, and architects have already produced more than a 600-page document studying the options.

“I encourage people to look at the documents to see the amount of work that has gone into this decision,” Lucchesi said. “I think that people who look at the document will have a clear understanding of how we reached the decision.”

"What's wrong with Mountview?"

Many ask: Why should Holden do anything? Here's why...

Overcrowding

This year, 764 students will attend. Mountview's designed capacity is 600. Studies indicate enrollment will rise to more than 800 students in the next decade, level off, then decline slightly. A new or renovated middle school will be designed for 800 students. State guidelines and formulas for an 800-student middle school call for Mountview's size to increase approximately 40 percent (from 91k to 128k sq. ft.).

Obsolete Spaces

Classrooms and labs, designed nearly 50 years ago, fail to meet minimum standards today: » The number of classrooms and their sizes fall far short of state guidelines » Laboratories are too few, too small, and lack plumbing, electrical, and gas service » Many basic educational components of a current middle school are completely missing The project will upgrade these spaces to current standards, reconfiguring and equipping them to support teaching in the 21st-century.

End-of-life Systems

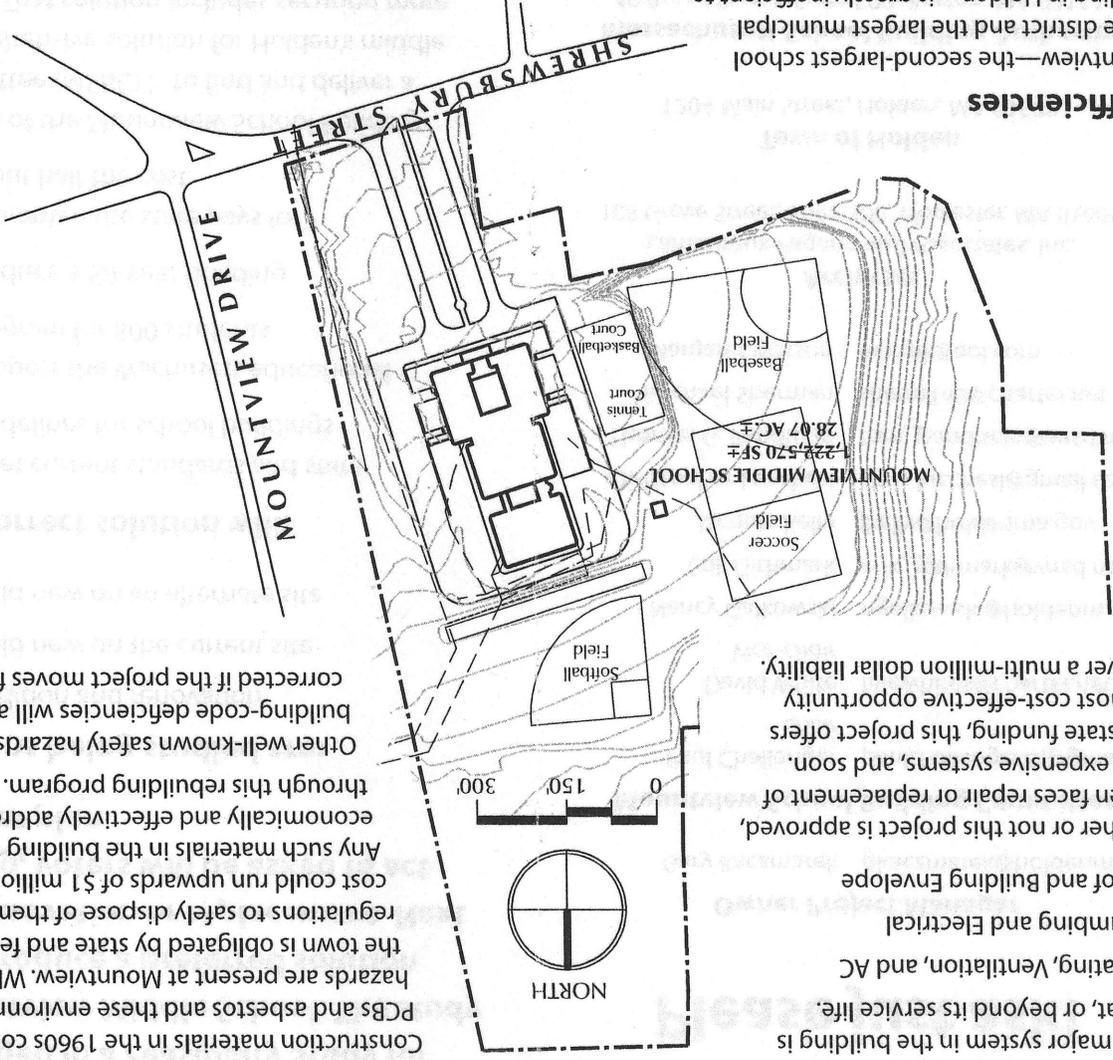
Every major system in the building is near, at, or beyond its service life. » Heating, Ventilation, and AC » Plumbing and Electrical » Roof and Building Envelope Whether or not this project is approved, Holden faces repair or replacement of these expensive systems, and soon. With state funding, this project offers the most cost-effective opportunity to cover a multi-million dollar liability.

Inefficiencies

Mountview—the second-largest school in the district and the largest municipal building in Holden—is grossly inefficient to operate. When complete, a new or renovated school will meet "green-building" performance standards. Annual operating costs per square foot will drop dramatically when... » A new boiler and HVAC system is in place » Single-pane windows are eliminated » New lighting/electrical systems are on line » Insulation performs at current standards.

Hazards

Construction materials in the 1960s contained PCBs and asbestos and these environmental hazards are present at Mountview. When the town is obligated by state and federal regulations to safely dispose of them, the cost could run upwards of \$1 million. Any such materials in the building will be economically and effectively addressed through this rebuilding program. Other well-known safety hazards and building-code deficiencies will also be corrected if the project moves forward.

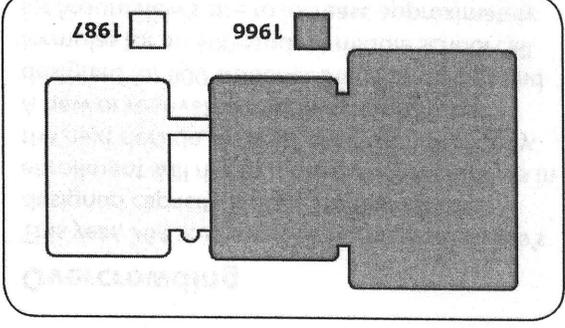


Next Spring, Holden voters will

choose whether or not to fix these issues, and to have 50 percent or more of the cost picked up by the state. *If the town chooses to do nothing, nothing will be done.*

Holden's Mountview Middle School

By any measure* the town's largest municipal building, a school for nearly 800 students, needs more than a little work.



*Information in this filer is derived from and supported by hundreds of pages of public documents and official reports.

To review them, please visit

holdenbuildingproject.net

Mountview School Building Committee

Holden Mass.

August, 2012

Questions? Please just ask!

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Wachusett Regional School District

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The Town of Holden is currently engaged in a Feasibility Study for Mountview Middle School. The study will produce a preferred solution for renovation or replacement. Next Spring, voters will be asked to act on that plan.

Options being studied are:

- » Addition and renovation
- » Build new on the current site
- » Build new on an alternate site

The correct solution will:

- » Meet current standards and state guidelines for school buildings
- » Support the Wachusett educational program for 800 students
- » Produce a 50-year building
- » Guarantee the state pays for about half the cost.

The job of the Mountview School Building Committee (MSBC) is to find and deliver a comprehensive solution for Holden's middle school. That solution includes securing more than \$20 million in state funds. The state (Massachusetts School Building Authority) requires the project team to follow a rigorous process to study every option, engage highly qualified specialists and engineers, and define complete plans for a carefully budgeted project.