

Sutton Public Schools

Sutton, Massachusetts



Feasibility Report
August 16, 2006

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I. Executive Summary

1. Existing Conditions Summary

A) Buildings

The Early Learning Center (ELC) and Elementary School buildings are both in very good condition. A list of items that should be addressed in these two buildings has been created and prioritized (see Part VI of this report). Since it is unlikely that the new MSBA will reimburse for repairs and upgrades to these two buildings, it is recommended that this work be separated from the middle and high school projects where State funding is very likely.

The Middle School (MS), High School (HS), and Core Buildings are generally in fair to poor condition, with the Core Building being the best of the three. The costs to renovate the Middle and High School Buildings will approach, if not exceed, the cost of new construction due to the extensive work and phasing required. Since the Core Building (with the existing gym, cafeteria, and kitchen) is in the best condition of the 3 buildings, options that renovate this building should be seriously considered.

B) Site

The existing site has limited area on which to create an addition or new building. Almost all existing land is currently taken up by athletic fields, roadways and parking. In addition to this limitation, there are two 250' radius protected "Zone I" areas around the existing wells that essentially are "no build" zones. If these existing wells are kept in use, these protected areas will need to be avoided without any new construction, roadways, or fields.

Another option is to look at capping the existing wells and connecting the sewer and water lines to a municipal system on Boston Road. This would add significant initial costs to the project, but in the long run, there would be a pay back due to reduced operating costs of the existing wells, water treatment, and the on-site sewage treatment facility. A "cost benefit" analysis for this has been prepared in Part II-D of this report. This new sewer and water system also has the advantage of allowing better options for expanding or replacing the Middle and High School Buildings. In addition, the roadways, parking, and fields could be expanded.

It is important to note that the DEP has stipulated that the well water (if kept) must be processed through a filtration and treatment system to reduce corrosivity by Jan 2008. The existing piping, fixtures and plumbing equipment in the schools are currently being substantially corroded by this water.

In summary, there are several options for expansion or new construction if the existing wells are left in place, but there are more options with better opportunities for fields and parking if the wells are capped off. These options and costs are in Part V of this report.

2. Enrollment Projections Summary

The New England School Development Council (NESDEC) has prepared an extensive report on enrollment projections in the Sutton school system (see part III of this report). Their study has taken into account births, historical enrollments, demographics, in/out migration, cohort survival, housing developments and other factors to arrive at a 10 year and 20 year projection of students at each grade level. Their conclusion is that there will be a modest increase in enrollment over the next 10 years and then a leveling out of enrollments between 10 years and 20 years. Their report emphasizes that although the 10 year projection is fairly reliable, the 20 year projection should not be heavily relied upon due to the increased

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level of unknown.

Also, the new MSBA only utilizes the 10 year projection when calculating the allowable size of schools and how much funding will be provided.

The following chart is a summary of current and projected enrollments showing 10 and 20 years estimates.

Grades	Current '05-'06 Enrolment	Projected '15-'16 No Enhanced Facilities	Projected '15- '16 W/enhanced Facilities	Projected '25- '26 W/Enhanced Facilities
PK-5	910	932	935	932
6-8	406	434	438	446
9-12	402	453	517	515
Totals	1,718	1,819	1,890	1,893

The enrollment projections with the “enhanced facility” have been used in this report since these are the projected numbers with a new or improved Middle/High School facility. The 10-year enrollment projection is what the MSBA allows for calculating space requirements, total square footage, and ultimately reimbursement dollars.

3. Educational Program Summary

A) ELC & Elementary Schools

The ELC & Elementary Schools currently have sufficient classroom space to accommodate all of the 10-year projected enrollment for the Pre-K through 5th grades. Assuming 22 children per classroom in grades 1-5, a total of 7 classrooms per grade will be needed which totals 35 classrooms. In addition, 8 K's and 4 Pre-K's are needed with 15-19 students per classroom. There are a total of 16 general classrooms in the ELC and 31 in the Elementary school for a total of 47 which is adequate for Pre-K - 5th Grade.

Required General Classrooms PK-5

Grade	10 Year Projection	Required CR
Pre-K	55 (3 Full Day + 2 Half Day) *	4
K	143/19 = 7.5	8
1	145/22 = 6.6	7
2	145/22 = 6.6	7
3	145/22 = 6.6	7
4	148/22 = 6.7	7
5	154/22 = 7.0	7
		<u>47 Total Required</u>

*Although the 10 year projection shows 55 in Pre-K, the Principal has stated that there is a need for 3 full day and 2 half day Pre-K sessions requiring 4 classrooms.

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Existing General Classrooms in the ELC and Elementary School

	<u>CR's</u>
ELC	16
Elementary School	31
	<u>47 Total Existing</u>

Therefore, there are sufficient classrooms in these two buildings for grades PK-5 for the 10-year projected needs, but the 6th grade, which currently occupies 6 classrooms, will need to move back to the Middle School.

The cafeteria, gym, media center, and other spaces are also adequate for this projected number of students:

	<u>Space Needed</u>	<u>Existing Space</u>
<u>Cafeteria (2 seatings)</u>		
K-1 $288/2 = 144 \times 15 \text{ s.f.} =$	2,160 s.f.	2,912 s.f.
2-5 $592/2 = 296 \times 15 \text{ s.f.} =$	4,440 s.f.	5,815 s.f.
Gym	5,815 s.f.	5,815 s.f.
Media Center	3,000 s.f.	3,100 s.f.

B) Middle/High School

The program for the Middle and High School are combined since they will share “core” facilities. The projected total of 955 students in grades 6-12 will require approximately 150,000 gsf of space according to the program developed in Part IV-C of this report. The current Middle and High School contain approximately 133,000 gsf; which is about 17,000 gsf too small. Also, since the old High School contains a 14,563 gsf basement without windows, there is a total 31,500 gsf shortage.

The following chart shows a summary of the existing spaces in the Middle and High School along with the 10 year projected need:

	Existing Net Sq. Ft.	10 Yr. Need Net Sq. Ft.
M.S. Classrooms (6-8)	12 @ 850 sf * 6 @ 850 sf	18 @ 850 sf
H.S. Classrooms (9-12)	14 @ 750 sf	20 @ 750 sf
Media Center	2,604 sf	5,300 sf
Cafeteria/Kitchen	7,700 sf	7,735 sf
Auditorium/Stage	2,936 sf	9,000 sf
Art & Storage	4,030 sf	2,730 sf
Music	1,587 sf	5,300 sf
Science Labs Science CR	4 @ 1,300 sf 2 @ 800 sf	6 @ 1,200 sf
Gym & Lockers	15,680 sf	15,485 sf
Old Gym/Stage	4,790 sf	0 sf
SPED	2,300 sf	5,450 sf
TV/Voc/Comp Labs	7,600 sf	5,100 sf
Teacher Planning	840 sf	2,800 sf
Admin Offices/Health/Guidance	6,026 sf	4,300 sf

* 6-6th grade classrooms are currently located in the Elementary School building but need to move into new space in the Middle school to allow for increased space needs at the Elementary School.

** These are net sq. ft spaces. In order to convert to gross sq. ft., they need to be multiplied by 1.5 and add custodial spaces.

The new educational program is based on the old SBA space guidelines since the new MSBA guidelines are not yet finalized. Recently the MSBA released draft space guidelines that would likely allow even more square footage, although this has not been finalized yet.

4. Planning Options

Eight design options have been developed in Part V of this report. They involve “renovation only” schemes as well as “renovations with additions” and “all new construction.” They have been ordered from the lowest cost of \$25 million to the highest cost of \$45.6 million (construction costs only). The less expensive options do not entirely resolve the educational programmatic needs and therefore may not be State fundable. A comparison matrix shows the advantages and disadvantages of the options in Part VII of this report.

All options are based on the educational program developed in Part IV of this report, with the exception of option 8. Option 8 assumes a potentially larger program of 180,000 gsf which is the estimated maximum size that the new DRAFT space guidelines from the MSBA may allow. This maximum size cannot be fully determined until the new space guidelines are finalized and clarified by the State.

5. Cost Estimates

There are cost estimates for each of the eight design options in Part VI of the report. These estimates show construction cost only and are escalated out to an estimated earliest start date of January 2008. This date may shift further out depending on when MSBA approval is received and when it is decided to proceed with construction. In order to calculate full project costs, approximately 25% should be added to the construction costs to cover fees, testing, furniture, equipment, technology, and other project costs. This results in a range of \$31M to \$57M for total project costs.

6. Summary and Recommendations

Part VII of this report is a summary of design option comparisons and recommendations. Under the new MSBA regulations, a “Statement of Interest” form must be submitted to them before they will review the proposed project. This form has been prepared and voted on by the School Committee and Board of Selectmen and has been submitted to the MSBA. A copy of this form is included in Part VII.

Since the MSBA now wants to be involved in the entire process, including which design options are pursued, the recommended next step is to meet with them and review the options. The MSBA may then want further information and they will help narrow down which options they will support. Subsequently, the Town can move forward with developing a consensus of which option should be put forth for a vote at the Town meeting.

There are several steps that the MSBA now requires in their new regulations which will need to be prepared prior to a formal application for State funding at the earliest on July 1, 2007. See Part VIII of this report for a draft outline of this new MSBA process which is subject to change as they finalize the new

regulations.

Feasibility Report General Information

Flansburgh Associates, Inc. and their consultants were provided with the following documents which were used to prepare this report:

1. Partial Civil Site Plan (except HS)
2. Floor Plan (ES & ELC)
3. Site Utilities Plan (ES)
4. Power Plan (ES)
5. Floor Plan (ES)
6. HVAC Plan (ES)
7. Assessors Map
8. HVAC Plan (ES & ELC)
9. Plumbing Plan (ES & ELC)
10. Foundation Plan (ES & ELC)
11. Window Plan (ES & ELC)
12. Casework Plan (ES & ELC)
13. Casework Plan (ES & ELC)
14. Reduced Floor & Site Plans
15. Site Plan (Prior to Core Building)
16. Architectural Plan/1972 ES (now ELC)
17. Architectural Plan/1972 ES (now ELC)
18. Misc. Specifications/ 1972 ES (now ELC)
19. Architectural Plan/1972 ES (now ELC)
20. 1972 Survey
21. 1990 Site Improvements
22. 1990 Site Utilities with Fire Protection Plans
23. Complete Plan Set (ES & ELC)
24. Core Building Plan
25. 1972 Renovation Plan of 1949 HS
26. Misc. Plans (HS, Core Building & MS)
27. Waste Water Treatment System Plan
28. Core Building Plan with some HS Information
29. Site Plan (overall)
30. Floor Plan 1949 HS
31. Misc. Site Plans
32. Complete Plan Set (ES & ELC)
33. Renovation Plan (Domestic Water System)
34. Asbestos Reports (MS)
35. Source Water Assessment Program Report
36. Waste Water Systems Operating Reports (11.11.05)
37. Potable Water Lead & Copper Analysis (05.22.05)

Project Team

The project team consisted of the following:

Flansburgh Associates, Inc.	Architect
Garcia, Galuska, DeSousa, Inc.	Mechanical, Electrical, Plumbing and Civil Engineering
Boston Building Consultants	Structural Engineer
NESDEC	Enrollment Projections
Costpro, Inc.	Cost Estimates

II. Existing Conditions

A. General Description

The Sutton School System is located on 159.4 acres near the town center of rural Sutton. It is located on a relatively flat site that slopes down to the Southeast. The site is bounded by Boston Road, Putnam Hill Road, adjacent farmland, and wetlands to the Southeast. The site includes five school buildings all physically connected, as well as the school athletic play fields.

Access is provided by Boston Road. The school campus is located on the Southeastern side of that road. The main entry for the Middle and High Schools is located off this road and has a bus drop off loop which provides entry access to these two schools which consist of three buildings. A second distinct access way to the Early Learning Center (ELC) and the Elementary School occurs farther down the road to the West.

The first building erected on the site was the High School Building. Constructed in 1949, it contains three floors and a gymnasium/auditorium wing. The second structure, built in 1955, was the original Elementary School which is currently the Middle School. In 1973 the Early Learning Center was constructed. An addition connects the Middle and High School buildings known as the "Core" Building that was built 1989. In 1999 the Elementary School was constructed for grades 2-5, and the ELC became the home for the pre-K through first grade students. The Elementary School is the most recent of the five buildings built, and allows an individual to walk internally from one end of the campus to the other without needing to exit a building. The history of relocation of students is noteworthy, and in fact, the current Middle School was once temporarily the High School and vice versa.

There are shared functions within the facilities and it is not uncommon to see older students intermingled with younger ones. Examples are the Elementary School where students share the ELC's Cafeteria, Gymnasium, and Auditorium. High and Middle School students hold Band and Choral functions in the Elementary School. The Core Building houses the Science Laboratories, Cafeteria, and Gymnasium which are shared by the higher grade levels. The Middle School also houses a small Auditorium which is shared with the High School.

There is a great discrepancy between the condition of the most recent built buildings and the those erected more than fifty years ago. This observation is evident on both the interior and exterior of the buildings. The ELC was renovated in 1999 when the Elementary School opened and is in excellent condition. The Middle School has had replacement windows installed in all of the classrooms but not throughout. The High School was renovated in 1989, most likely on a cosmetic level only. Neither the Middle nor the High School meet current ADA/CMR 521 handicap accessibility requirements, with the High School having the more severe violations of the two. These deficiencies would have to be remedied at a substantial cost if renovation of these facilities is considered.

The site has two well locations that the school system uses as a resource for potable water (refer to Site Utilities in this section). There is a wastewater treatment plant in the rear of the site that processes all of the wastewater from the schools. This report will investigate the potential option for connecting the facilities to new town water and sewer lines from Boston Road.

Structural:

Boston Building Consultants (BBC) conducted a preliminary structural evaluation of the Sutton Public School complex in Sutton, MA in accordance with Chapter 34 of the Massachusetts State Building Code CMR 780. BBC toured the facility on March 23, 2006. The investigation was limited to elements visible without any removal of finishes. Available documentation was also reviewed. Buildings included in the

Existing Conditions

investigation were the Early Learning Center, Elementary School, Middle School, High School and Core Building. All school buildings appear to be in relatively good structural condition given their respective ages in regards to their overall structure. Obvious signs of structural distress, such as sagging floors and roofs or significant cracking of the wall and/or ceiling finishes were not noted during our brief tour of the complex. Therefore, it is reasonable to conclude that the floors, roofs and foundations are competent for their current use.

The scope of the proposed renovations are unknown at this time; however, renovation work should be structurally straightforward provided there is no change in the building use and there are no significant alterations to lateral-force resisting elements. Minor reinforcements to the as-built structure, such as adding restraints to the tops of unrestrained masonry partition walls, will be required by code if the total cost of alterations exceeds 50% of the building's assessed value. As-built floors and roof structures will need to be evaluated and reinforced if their current use is changed, such as from a classroom to a flexible open plan area or library or if new mechanical roof top units or new roofing systems are a part of the proposed project.

New additions should be structurally isolated via an expansion joint to avoid difficult and costly reinforcements of the as-built building to conform to the current seismic and wind load requirements of the State Code for new construction. New roofs of adjacent additions should be set at the same level or lower than the adjacent, existing roofs, thereby eliminating costly reinforcement of the as-built roof structures to support potential drifting snow loads.

Plumbing:

The school complex is served by an on-site public water supply currently fed from two bedrock wells, one located to the North-East of the High School and one well in the High School basement.

While the raw water is safe for drinking, it is corrosive and hard. Currently domestic water is pumped from these two wells and distributed through the (5) buildings for domestic purposes. The 1999 project for the Elementary School and Early Learning Center included a gray water system which recycles waste water from the tertiary treatment plant for the purpose of flushing the toilets.

The quality of water from both of these sources is seriously degrading the plumbing systems. Corrosion is evident in all areas including cast iron drainage piping, copper piping and equipment which uses the well water. Due to extensive servicing of flush valves in the Early Learning Center and Elementary School, the flush valves chrome plating is being deteriorated and valves are being replaced.

It is strongly recommended that treatment of the well water be implemented as soon as possible so as to mitigate the deterioration of the plumbing infrastructure.

The plumbing fixtures appear to represent three distinct eras. The 1950's construction of the Middle School has the oldest fixtures which have more than served their useful life. These fixtures are non-accessible and non-water conserving.

The High School fixtures appear to have been replaced during the Core Building construction in 1989. Due to code changes, these fixtures (water closets) are not water conserving and do not fully meet current MAAB Handicap Standards.

The Elementary and Early Childhood fixtures appear to comply with water conservation standards and generally comply with MAAB standards except at the Pre-K and K classrooms.

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In terms of the water conservation fixtures, their use is governed by the provisions of the Plumbing and Building Code. Essentially, the Code does not require these fixtures be upgraded, but, where new fixtures are installed, as may be required by other codes or concerns, the new fixtures would need to be water conserving types.

The question of accessibility is somewhat more complex. The impact on the plumbing is fairly simple but can be rather expensive. The Mass. Architectural Access Board Regulations (521 CMR) require the following for plumbing:

The level of Plumbing Code Compliance is determined by the value of total work being performed.

- A. If the total work is less than \$100,000.00 and if this work were to include any plumbing, then only the proposed new plumbing work would need to comply.
- B. If the total work is over \$100,000.00 and less than 30% of the full and fair cash value of the building, then an accessible toilet and drinking fountain must be part of the work.
- C. If the cost of the work exceeds 30%, then all of the existing and new plumbing facilities need to be accessible.

The school plumbing systems could continue to be used with maintenance and replacement of failed components. However, other non-dependent decisions will likely force the plumbing upgrade.

Fire Protection:

During the 1989 renovation fire protection systems were required in schools by Mass General Laws Ch. 148 Section 26G but only where a public water supply was available. Therefore, the Core Building did not require a sprinkler system. When the Mass. Building Code adopted the 6th edition in 1997, sprinklers were mandated by Code even where municipal water was not available.

The 1999 construction and renovation included a diesel driven fire pump installed in a pump house built over a retention pond. The retention pond forms the on-site fire water storage.

Recommendations:

Massachusetts code requires that any new school building or “substantially renovated” school building that is 12,000 s.f. or more must be sprinklered. This complex will meet those thresholds and will need a complete new sprinkler system for any new construction or further renovations to the Middle and High School.

B. Site

1. Site Organization

Administration

The site is controlled by the Sutton School Department. While the school clears walks and the bus loop, general snow removal, salting, and sandings are provided through the Town's Department of Public Works. Sutton does not have a dedicated Town Parks and Recreation Department. Consequently, it is the School Maintenance Department which bears responsibility for upkeep of the play fields and site landscape.

Use

In addition to the school use, with associated recess and physical education programs, the site is used by a number of other groups. The play fields host town sponsored soccer, softball and baseball. The site supports four hard surface tennis courts, two baseball fields for various age groups and levels, a softball field, two hard surface basketball courts, and Varsity soccer fields. The softball outfield doubles as a practice field for soccer. The varsity baseball field doubles as the field hockey and JV soccer field.



Aerial View of Campus

2. Parking and Vehicular Access

Summary

The following is a list of various constraints and opportunities at the school related to traffic, parking, and access. It is based on several assumptions:

- The school system needs to provide additional parking for faculty, staff, students, visitors, and emergency vehicles for the Middle and High Schools. The ELC and Elementary Schools share parking facilities and have more than adequate parking for the number of faculty, staff, and visitors. There are currently 35 student vehicles parked off site at the St. Marks Church, approximately 1/4 mile walk to the High School.

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- Parking is required for faculty, staff, and visitors and High School Students of driving age. Populations and Spaces are as follows:

Early Learning Center

Grades: Pre-K, K & 1

Faculty and Staff: 45

Students: 328

- Combined parking spaces provided for ELC & ES: 223
- Combined HC parking spaces provided ELC & ES: 9

Elementary School

Grades: 2,3,4,5 & 6

Faculty and Staff: 40

Students: 701

Middle School Building

Grades: 7 & 8

Faculty and Staff: 40

Students: 287

- Combined parking spaces provided for MS & HS: 178
- Combined HC parking spaces provided MS & HS: 4

High School Building

Grades: 9,10,11, &12

Faculty and Staff : 51

Students: 402

Note:

The ELC and Elementary Schools share a common parking lot together, as do the Middle and High Schools.

- There are 14 buses for the ELC/ES and 12 buses for the HS/MS. All students are assigned to a bus.
- There are numerous Parent Volunteers who assist with student supervision for the ELC & ES who also park their vehicles on site on a daily basis.
- Outside normal hours, the school is used for town basketball, community education, various meetings, and evening performances.

Roadway

- Access to all school buildings is provided from Boston Road. The main entry for the Middle and High Schools has a bus drop off loop which provides entry access to the two schools through the 'Core' Building Addition. The turnaround loop has radius limitations making it difficult for the full size buses to negotiate. Plowing of this loop is also difficult and the concrete curbing in this area is damaged and has deteriorated as a direct result.



MS & HS Bus Drop Off / Pick Up Loop

- A second distinctly separate access way to the Early Learning Center (ELC) and the Elementary School occurs farther down Boston Road to the West. The bus pick up/drop off area occurs in front of the main lobby of the ELC. Elementary School students either travel through the vestibule connector or exit the main lobby entry out to the exterior for access to the drop off/pick up area. A paved fire lane drive extends around the rear of the school campus, providing emergency vehicle access from Putnam Hill Road.
- The parking areas and playing fields are essentially flat with the MS/HS bus loop gradually sloping from the Northwest to the Southeast

Parking

- The ELC/ES parking area provides 223 parking spaces of which 9 are HC accessible. The MS/HS parking area provides 178 parking spaces of which 4 are HC accessible. These spaces are clearly lined and appropriate accessibility signage is in place with the exception of the two spaces at the rear of the ES which need signage. Historically, there have never been HC accessible spaces in the front of the HS because entries are not at grade. It was reported that the HS/MS parking area capacity is insufficient, which was confirmed at each of our visits. There are a few spaces to the rear of the Core Building, but access from this location is remote from the public entry for either HS/MS building.

Vehicular Access

- There are two main points of entry as previously identified. A continuous fire lane loop road exists around the site with a locked access gate at the rear of the ELC. There is additional parking for the HS in the front with one-way access from Putnam Hill Road and discharging onto Boston Road. Additional parking in the rear of the 'Core' Building is again accessed from Putnam Hill Road.

Pedestrian Travel

- Paved pedestrian walks connect the parking lots to the other site facilities and the five campus buildings. Asphalt paths connect the ELC and ES buildings to the parking facilities. A concrete entry plaza provides access to each of the Core Building access/egress doors serving the MS and HS. The ELC has a concrete exterior plaza at the two major entries. It is possible to traverse the campus from one end to the other by means of paved exterior walking surfaces or through the internal connector corridor.
- Curbs between roadway and pedestrian walks are precast concrete. Curbs along the MS/HS access road have been chipped by snow plows and are in fair to poor condition. The parking areas are curbed with cape cod berm bituminous concrete in this area. The access road and parking facilities for the ELC/ES generally do not have perimeter edging with the exception at the ELC main entry sidewalk in the front of the building. This is where bus drop off/pick up occurs, and the condition is maintained.
- Building access to all five buildings is problematic for the maintenance staff. There are too many master keys and too many exterior doors that need to be secured. Many of these doors are required by code for emergency egress purposes. Door lock systems are archaic in some locations. Key card access and camera monitors at the main entries would improve security conditions which have been a concern.

ADA / MAAB

- The majority of the site and its facilities appear to be in compliance with accessibility codes and regulations. Handicapped pedestrian accessible parking is adequate in number with appropriate signage. These parking spaces have level access to an accessible route to the main entries of the ELC, rear entry of the ES, and Core Building entries serving the MS & HS. There is a long pedestrian route to the main entry of the ES from the designated HC parking area. While this walk appears to meet requirements for access, the asphalt surface has cracked and deteriorated in some locations and remediation should be addressed. The school is in the process of installing signage for the two HC parking spaces at the rear of the ES.

3. Site Facilities

A. Site Lighting

- The site lighting for the roadways, access paths, exterior access/egress doors, and parking is adequate and there are no reported problems. The basketball courts have high pole mounted floodlights. There is no lighting of the play fields or tennis courts. The emergency vehicle access road in the rear is lit as well.

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B. Landscaping

- This review was compiled during the winter months when grass, trees, and shrubbery is in a dormant stage. There is overcrowding of evergreen trees flanking the two ELC entries and at the rear play areas. The interior courtyard at the Elementary School is seldom used due to the large grass covered earth mound and sporadic tree placement.

C. Playfield and Playgrounds

- The Baseball and Soccer Playfields reportedly have major drainage issues with ponding occurring particularly in the spring months. There have been instances when games had to be rescheduled due to the wet field conditions. The baseball infield is the exception due to a recent renovation. Lawn mowing has been delayed into June as a result. Fertilization of the fields is prohibited due to the proximity to well water locations. Most of the playfields have been funded and maintained by local sports groups. Due to Town and School use of the fields throughout the year, it is difficult to grow grass in some locations.

D. Summertime Programs

- The Early Learning Center also functions as a recreational camp and summer school facility for town residents.

4. Site Utilities

Storm Drainage

- The Sutton School Complex storm drainage is directed to an underground piping system that leads to a stormwater retention pond at the rear of the campus facilities.
- The roof drains from all of the existing school buildings are collected by an underground site drainage system that connects to a retention pond at the rear of the site. This pond is the water source that is used to feed the fire protection sprinkler system for the ELC and Elementary School.
- The Town of Sutton School Department indicated that to the best of their knowledge there have been no problems with the storm drainage line exiting the buildings. However, there are areas of concern such as the maintenance of the retention pond and pump.



Water Retention Pond

Water Service

- Water service is provided from two drilled bedrock wells located in the front lawn of the HS near Putnam Hill Road (Well #1) and the basement of the High School Gymnasium (Well #2). Well #1 pumps at 16 GPM or 23,040 GPD and Well #2 pumps 14 GPM or 20,160 GPD. A third well in close proximity to the soccer goal post in the playing fields has been taken offline due to contaminants. A fourth well located in the rear near the facilities maintenance services department has been capped and abandoned. Finally, a fifth well was abandoned when the Elementary School was built in 1999 due to a locational conflict with the building. There are two hydropneumatic storage tanks, one in the Middle School and one in the High School. The School has under consideration a corrective plan prepared by Blue Leaf Incorporated which would enhance the delivery capability of the system. As stipulated by the DEP, the well water must be processed through a filtration and treatment system to reduce corrosivity by 2008. Currently there is not a filtration system in service for any of the wells.

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- The water pumped from these wells has been identified as ‘hard’ and corrosive. When hard water is heated, the carbonates precipitate out of the solution, forming scale in pipes. In addition to narrowing and potentially clogging the pipes, scale prevents efficient heat transfer. The aged mechanical system and plumbing pipes in the High School have deteriorated due to the effects of this hard water condition.
- For the past 4 months, the maintenance staff has monitored the meters on the two wells. Over that period, the average quantity delivered by the two wells was 24,000 gallons/week. Based on a 5-day per week occupancy, the average daily use is therefore approximately 4,800 gallons.
- The projected increase in population can be accommodated by the existing well system provided that the system is upgraded and treatment is added. There are, however, limitations to what can be built near these wells which need to be presented, reviewed, and approved by the DEP. The limitations are the Zone I and Zone II requirements.
- Virtually the entire site appears on the DEP website as an Interim Well Head Protection Area (IWPA). In addition, there needs to be established the well head protective radius. These areas are regulated under 310 CMR 22.00 the Guidelines for Public Water Supply.
- Zone I for this site will likely be a 250 foot (possibly 300 foot) radius drawn around Wells #1 and #2. Essentially this is a “no-build” zone.
- The remainder of the site will be treated as a Zone 2 “Nitrogen Sensitive Zone”. The development within this area will include best management practices to mitigate nitrate loadings and will include treatment of the storm water runoff.
- As the site is currently developed with construction within Zone I of the existing wells, the well head protection area will likely be restricted so that there can not be any increases in impervious cover beyond what exists.

Wastewater:

- The site is served by an on-site wastewater treatment plant with a 10,000 GPD capacity and a 5,000 GPD average daily flow. The plant can accommodate the proposed increased enrollments and building expansion.
- Through an underground sewer line, sanitary water is transported to an on-site Wastewater Treatment Facility where it is processed and then dispersed to the leaching fields located in close proximity.
- The Town of Millbury has subterranean sewer and water lines that extend up to the Sutton Town line on Singletary Avenue. There is a second location for a new sewer and water connection under consideration emanating from Route 146. (Refer to Section II-D for analysis and breakdown).
- The school complex is served by an on-site public water supply and an on-site wastewater tertiary treatment plant.
- The school complex consists of the Early Learning Center Serving 328 Children; Elementary School Building serving 701 Children, Middle School Building serving 287 Children and the High School Building serving 402 Children for a total of 1718 Students.



Waste Water Treatment Facility

Existing Conditions

- The tertiary treatment plant treats wastewater from all 4 schools and reuses wastewater for the flushing of toilets in the Early Learning Center and Elementary School. These buildings were recently renovated and constructed.

Off-site sewer and water options are as follows:

Sewer:

The Town of Sutton has a town-owned public sewer system that only serves the South Sutton and Manchaug areas. Connection to this system has not been pursued due to its distance from the schools.

There exists legislation for sewers to cross town boundaries. Currently the Town of Millbury provides conveyance piping into the Wilkinsville section of Sutton. Millbury in turn pumps their sewage to Worcester for treatment and disposal.

There are sewer lines in Millbury at Singletary Avenue as well. Currently, there are plans in the approval process for extension of sewer and water from the Millbury line as part of a development for the North-east intersection of Boston Road and Singletary Avenue. There could very well be both sewer and water available at this intersection. This option 'Option 1' would require a new sewage lift station and a run of 3500 L.F. of 6" force main from the school to the intersection.

Currently Millbury provides sewerage to the Villas project at Pleasant Valley Country Club, and there is a manhole located on Boston Road at Clubhouse Drive. This manhole is (based on G.I.S. maps) a distance of 8500 linear feet from a proposed pump station which would be required at the location of the main sewer manhole at the Wastewater Treatment Building adjacent to the school. This is Option 2.

Wilkinsonville Water Company provides water service to the Villas on Boston Road and the Pleasant Valley Country Club.

Hawthorn Partners of Woburn, MA (Scott Cohen 781-939-5777) is proceeding with their development plans, and they are looking at water and sewer extensions from both locations and intend to fully cooperate with the Town to provide water and sewer.

Water:

Water is provided to the Millbury/Sutton lines on Singletary Road by the Aquarion Water Company. Aquarion is aware of discussions to extend the water to Sutton, however no commitments have been made. Aquarion has commissioned a study of its system to determine if there is adequate supply to extend.

Off-Site Options (Costs):

We have received an updated plan prepared by Martinage Engineering Associates, probably as part of the Elementary School project, which indicated a preliminary road and sewer/water profile with indications of refusal (presumably ledge) from the school site all the way to West Main Street in Millbury. Refusal is predominant and varies from 3' to about 9' with most being over 6'. This seems to indicate that a water main extension and a sewer force main extension could be done with a moderate amount of ledge removal.

In establishing a cost comparison, it is assumed that a lift station will be provided at the school and a 6" sewer force main will be provided for Option 1.

Because of the existing hydraulic condition, a domestic water pumping system will be required to provide adequate water pressure at the schools.

Existing Conditions

C . Building Existing Conditions

The following issues are of chief concern and are in poor condition in the buildings. Consistent themes emerge with the Early Learning Center/Elementary School/Core Building and the aging Middle/High Schools.

1. Early Learning Center

Interior

- Ceilings generally are in good/ maintained condition with some failures in the connection vestibule to the Elementary School
- Bathroom walls have damaged and cracked ceramic tiles
- Vertical blinds are damaged and not functional in all Classrooms
- No public phone
- Drinking fountains adjacent to the Gymnasium are off line and not in service
- Carpet in Corridors has seam failures
- Poorly lit Gymnasium



Inoperable Drinking Fountains



Needs Non slip Ramp Surfaces

ADA/MAAB Non Compliance/Deficiencies

- Classroom sinks are not HC accessible
- The Auditorium's stage is not handicapped accessible
- Ramps and stairs off entry lobbies do not have slip resistant surfaces (ceramic tile)
- Dedicated HC Restrooms off the Auditorium Lobby meet ADA/MAAB standards, however the Faculty HC Restrooms have clearance inadequacies (incorrectly identified with HC signage)

Exterior

- Roof membrane adhesion (bubbles) and seam failures with water ponding were observed in some locations
- Curtainwall window and door glazing in classrooms is single glazed/uninsulated



Main Entry



Connection Vestibule Ceiling Failures / Water Damage

Existing Conditions

- Some minor cracking of masonry was observed around roof parapets
- Mature evergreen trees are too close to building and crowd entries
- Sealant failures at classroom curtainwall glazing
- Entry door hardware operation malfunctions
- Operable hopper window units do not have insect screens
- The exterior façade of the ELC is masonry tile with random window openings and a wide variety of flat and sloping roofs of different elevations. Original structural drawings were not available for review; however, the single story building appears to be a structural steel frame of beam, bar joists and columns supporting a metal roof deck. Lateral stability to resist wind and seismic forces appears to be provided by the interior and exterior masonry infill walls. No obvious signs of distress were noted during my tour of the facility.

Plumbing:

- The Early Learning Center was fully renovated in 1999. Presently, the plumbing systems serving the ELC School are cold water, hot water, sanitary waste and storm drain piping; the toilets and urinals are flushed using recycled wastewater.
- The School is serviced by an on-site wastewater treatment plant and well water. Storm drainage from flat roof areas is disposed of by a system of roof drains and rain water conductors.

Fixtures:

- Water closets are generally wall hung, flush valve vitreous china, with elongated bowls.
- Urinals are wall hung with flush valves.
- Flush valves are extensively serviced due to water quality since they utilize recycled “gray” water.
- Lavatories are generally wall hung vitreous china with self closing faucets.
- Janitor’s sinks are standard mounted cast iron enameled sinks with vacuum breakers on the faucets.
- Classrooms are fitted with classroom sinks. Sinks are stainless steel with gooseneck faucets and bubblers.
- Kitchen area fixtures are in good condition. The pot and pan sink is fitted with a grease trap.
- Drinking fountains are stainless steel. The drinking fountain at the gymnasium has failed due to corrosion.

Drainage Systems:

- Cast iron is used for sanitary and storm drainage, and no issues were noted.

Water Systems:

- Domestic water piping is copper that is generally insulated.
- Water is fed from the well water pumping systems in the High School.
- Domestic hot water for the Early Learning Center is provided by an oil fired, 225 gallon capacity hot water heater. There are thermostatic water temperature controllers, however they are severely corroded and are not working.

Plumbing Remedial Recommendations (modifications requiring improvement categorized by priority):

A) Code Required Improvements:

1. Replace thermostatic mixer at water heater.
2. Replace failed drinking fountain at the gymnasium.

B) Highly Recommended Improvements (although not code required):

1. Provide HC accessible toilets at Pre-K/K classrooms.

Existing Conditions

2. Provide HC accessible sinks in classrooms.
3. Provide additional filtration for the gray water system.

C) Recommended Improvements (low priority): None

Fire Protection:

- The Early Learning Center is fully sprinklered which is fed from the fire pump and service in the Elementary School.

Fire Protection (modifications requiring improvement categorized by priority): No issues.

Electrical:

Power Distribution System:

- Primary service runs overhead at rear of school which in turn feeds a pad mounted transformer which is locally metered. It appears that this transformer is common to the Early Learning Center and the Elementary School.
- The secondary service runs underground between the pad mounted transformer and a 1600 ampere, 277/480V, 3Ø, 4W switchboard.
- The switchboard was installed in 2004. The manufacturer is Square D, QED series with rear access.
- This installation is in violation as it requires (2) doors at the rear of the switchboard at opposite ends. Doors need to swing out and be provided with panic hardware. Also, the front of the switchboard requires twice the working space since there is only one door out. This door is a double door and currently swings into the room. The door needs to swing out and be provided with panic hardware. The entire room ceiling is covered with HVAC ducts running through the room at approximately 3'-4' above the switchboard, which is also a violation. The switchboard is in good condition.
- Most panels installed during the 1973 original construction are General Electric NHB series and appear to be in fair to poor condition.
- Panelboards installed during the 2000 renovation are General Electric A series and appear to be in good condition.
- The switchboard being Square D and the panels being General Electric, it is clear that the system is not Series Rated since that would require a single manufacturer.
- It is unclear whether a fault current and coordination study was performed when the switchboard was installed. Some current limiting breaks may be required.
- It is recommended that the switchboard manufacturer or an independent organization perform a fault current and coordination study.
- Transformers installed during the 2000 renovation feeding power panels are K-Rated to mitigate harmonics and are in good condition.

General Wiring:

- General building wiring consists mainly of EMT tubing and MC cable where concealed.

Exterior Lighting:

- The exterior lighting generally consists of HID type luminaires on 20' square poles. Fixtures are of the shoe box type.
- Lighting is time clock controlled.
- There are also some building mounted fixtures that are generally at egress doors.
- Lighting appears to be in good condition.

Interior Lighting:

- Interior lighting consists mainly of 1' x 4', 6 cell recessed parabolics with (2) T8 lamps and electronic ballast in lobby areas and 8' up/down wall mounted 6" square fixtures in corridors also with (2) T8 lamps/electronic ballasts. Corridors are locally switched. Corridors harvest a fair amount of natural

Existing Conditions

- daylight and appear well lit.
- Classrooms have 2' x 4' recessed, 12-cell parabolics with (2) T8 lamps and electronic ballasts. One single switch exists for each half of the classroom, and a third switch controls a center recessed row of older lights with T12 lamps.
- Fixtures are in good condition with the exception of the T12 lamp fixtures which are in poor condition and appear to be of the original vintage.
- Cafeteria lighting consists of same parabolics as classrooms, locally switched.
- Gymnasium lighting consists of continuous rows of indirect 6" square fixtures locally switched. Gym appears dimly lit.
- Kitchen lighting consists of 2' x 4' prismatic lensed troffers.
- No central lighting control system observed.
- Toilets are locally switched.

Electrical Remedial Recommendations (modifications requiring improvement categorized by priority):

A) Code Required Improvements:

1. Provide double doors at opposite ends behind switchboard. Doors should swing out and be provided with panic hardware.
2. Fault current and coordination study should be performed for switchboard and downstream panels of different manufactures.
3. Upgrade emergency generator system with possibly an exterior generator with (2) transfer switches in each building (ELC and Elementary School).

B) Highly Recommended Improvements (although not code required):

1. Replace center row of old fixtures in classrooms.
2. Provide security system.
3. Provide card access system.
4. Provide CCTV system.

C) Recommended Improvements (low priority): None

Fire Alarm System:

- The fire alarm system consists of an addressable system with voice evacuation. The system is ADA compliant. The manufacturer is Gamewell. FACP, fire alarm control panel was locked.
- Transmission to the fire department is via a Silent Knight digital communicator connected with telephone lines to a remote central station.
- FACP is located in the gym electric room. A remote annunciator exists at the gym lobby.
- System was installed in 2000 and is in good condition.
- One speaker/strobe typically installed in each classroom and also in multigang toilets.
- Smoke detectors exist in corridors.
- Various storage rooms have smoke detectors with LED indicators outside.
- Pull stations exist at egress ways.

Emergency System:

- The generator is a diesel unit, Kohler #30R081, 25 kw, 120/208V, 3Ø, 4 wire, 104 amps. The unit is located in a generator room adjacent to the main electric room.
- A 275-gallon single wall fuel oil tank is also in the same room.
- The intake louver was blocked with a pipe.
- The emissions exhaust pipe runs through an intake air duct serving the boiler room. It is unclear whether pipe wrapping contains asbestos. It is recommended that the wrapping be tested.
- The unit feeds one automatic transfer switch rated at 150 amps, 120/208V, 3Ø, 4W.

Existing Conditions

- System is in violation of current codes as there is no separation of stand-by systems from emergency systems.
- A step-up 30kva transformer has been installed and may serve the Elementary School.
- A system of normally-off lights exist in corridors and come on only when normal power fails and the generator comes on.
- An area protection relay cabinet exists in the generator room to monitor normal lighting panels.
- The emergency system appears to be of the 1973 vintage and is in poor condition.
- Classrooms typically have (1) light fixture with a built-in emergency ballast.
- Exit signs are of the cast aluminum stencil face and appear to be in good condition.

Miscellaneous:

- There appears to be fair coverage of receptacles in classrooms.
- GFI receptacles at counters with sinks.
- Receptacles do not appear to be of the tamper resistant type in Pre-K and kindergarten areas.
- A Lehigh dimming system is located in the auditorium electric room. System is rated at 160 amps. A 4 breaker emergency lighting transfer cabinet also exists and has fire alarm input. System is in good condition.

HVAC System Deficiencies:

- Boiler burner unit provided with low high off firing control.
- No day tank provided for fuel oil system.
- Single combustion air duct located high within room is oversized for application. Also, second code compliant louver is not installed low in space.
- Under floor supply air distribution contributes to compromised indoor air-quality conditions due to moisture in earth as well as breakdown of the floor ductwork over time.
- Pressure relief from air handling units is discharging into boiler room which could change space pressure affecting combustion control of the boilers.
- Condensate drains from air handling units are not insulated.
- Surface soiling and contamination on compressed air storage tank.
- Antiquated pneumatic automatic temperature control system.
- Circulation of the airflow throughout the entire building is contributing to a very high positive pressure which could be related to poor placement of return air registers feeding the perimeter supply air system.
- Each space is served by the under floor system which generally provides air to the perimeter of the spaces all of which are controlled by a single wall mounted thermostat. This condition will contribute to uneven heating and cooling conditions.
- In addition to the above, each space is also served by an overhead distribution system, each of which is controlled by a single wall mounted thermostat. In combination the individual thermostats will tend to fight one another and create widely varying space temperatures.
- Floor diffusers associated with the under floor distribution system are located on the floor and will collect debris from the spaces which potentially could accumulate in the floor distribution system and contribute to compromised indoor air-quality.
- It appears that the overhead distribution system is a combination of ceiling mounted diffusers and high wall mounted registers and due to their general location to one another is short-circuiting a percentage of the supply air and is not encouraging effective ventilation control.
- Total supply air provided to the gymnasium appears undersized for the area and volume served.
- The air handling unit serving the gymnasium also provides air to the kitchen. Since one thermostat provides the temperature control for both spaces, one of which has a very high heat gain, it is contributing to extremely uneven temperatures that occur in both spaces.
- At main entrance there is no vestibule interlock installed and no door heaters installed as well.

Existing Conditions

- Air handling unit which feeds auditorium also feeds various classrooms all from one space thermostat. This condition will contribute to widely varying and uncomfortable space temperatures.
- Under floor return air system serving auditorium could become contaminated and contribute to poor indoor air-quality conditions resulting from deterioration of under floor system.
- No sound lining in supply air ductwork serving auditorium will result in noisy space conditions.
- No pressure relief in ductwork when auditorium air handling unit goes into economizer control.
- Return air system serving auditorium area is undersized for space served.
- Stage area is not provided with code required ventilation air.
- Severe surface soiling on auditorium return air registers. With the registers located behind architectural wall finishes, they are impossible to clean.

HVAC Remedial Recommendations (modifications requiring improvement categorized by priority)

A) Code Required Improvements:

1. Provide additional combustion air intake louver which must be ducted to within 18 inches of floor.
2. Provide exhaust ductwork in boiler room from discharge of each air handling unit directly to exterior of building.
3. Provide ventilation air for stage area.

B) Highly Recommended Improvements (although not code required):

1. Modify fuel oil burners to provide low/high/low firing control.
2. Provide day tank for fuel oil system in boiler room.
3. Provide new direct digital automatic temperature control system.
4. Clean interior areas of floor distribution systems.
5. Provide additional control to separate kitchen area from gymnasium distribution system.
6. Provide pressure relief duct work in auditorium for economizer control.

C) Recommended Improvements (low priority):

1. Insulate condensate drains from each air handling unit.
2. Clean surface soiling on compressed air storage tank.
3. Provide vestibule interlocks at each exterior door.
4. Surface clean auditorium return air registers.

Existing Conditions

2. Elementary School

Interior

- Ceilings are generally in good/maintained condition with some failures in the connection vestibule to the Early Learning Center
- No public phone
- Entry Lobby wall sconce lamps are not functioning
- Carpet in corridors has seam failures
- Elevator pit in the basement flooded due to high water table

ADA/MAAB Non Compliance/Deficiencies

- Rear entry is handicapped accessible but bottom concrete ramp landing has deteriorated and does not meet code as a flat level surface minimum 5'x5'. Dedicated HC parking is not identified at this location even though this is the primary accessible entry that is provided to this school building.
- Front entry appears to be handicap accessible, but the asphalt surface is cracked and deteriorated
- Non Complaint Drinking Fountains due to recessed access in some corridor locations

Exterior

- Roof membrane adhesion (bubbles) and seam failures, water ponding in some locations
- Main Entry exterior has brick paving damage due to a malfunctioned unit ventilator in the Vestibule
- Exterior steel guardrails are peeling due to painting over aged galvanization



Elementary School Main Entry



Brick Paving Damage at the Main Entry



Non Compliant Ramp Landing in Rear



Carpet Seam Failures

Existing Conditions

Structural:

- The Elementary School is a two story building with a flat roof. The exterior façade is brick masonry with punched window openings. The building structure is a steel frame of beams, bar joists and columns. The steel frame supports a concrete metal deck floor and a metal deck roof. The building appears to have been built under the requirements of the current State Building Code (sixth edition). Lateral stability of the structure to resist wind and seismic forces is provided by a series of steel rigid moment frames and diagonal steel tube tension cross bracing. Obvious signs of structural distress were not noted during our tour of the building's interior and exterior.

Plumbing:

- The Elementary School is a new building constructed in 1999. Presently, the plumbing systems serving the Elementary School are cold water, hot water, sanitary waste, storm drain piping, and a non-potable gray water system using recycled wastewater for flushing the toilets and urinals in this Building and the Early Learning Center.
- The School is serviced by an on-site wastewater treatment plant and well water. Storm drainage from flat roof areas is disposed of by a system of roof drains, and rainwater conductors.

Fixtures:

- Water closets are generally wall hung, flush valve vitreous china, with elongated bowls.
- Urinals are wall hung with flush valves.
- Apparently due to the quality of the flushing gray water, the valves are extensively serviced. Chrome plating is damaged.
- Lavatories are generally wall hung vitreous china with self closing metering faucets. Corrosion is evident on the toilet stops.
- Janitor's sinks are standard mounted cast iron enameled sinks. There are vacuum breakers on the faucets.
- Classrooms are fitted with classroom sinks. Sinks are stainless steel with gooseneck faucets and bubblers.
- Drinking fountains are stainless steel recessed units in some areas and hi-low accessible units in other areas.

Drainage Systems:

- Cast iron is used for sanitary and storm drainage, and because of its relatively new condition, no issues were noted.

Water Systems:

- Domestic water piping is insulated copper.
- Water is fed from the well water pumping systems located in the High School.
- Domestic hot water for the Elementary School is provided by an oil fired 85-gallon capacity hot water heater. There is a thermostatic water temperature controller.

Plumbing Remedial Recommendations (modifications requiring improvement categorized by priority):

A) Code Required Improvements:

1. Replace failed water coolers throughout.

B) Highly Recommended Improvements (although not code required):

1. Provide HC accessible sinks in classrooms.
2. Add expansion tanks at domestic water heater.

Existing Conditions

C) Recommended Improvements (low priority): None

Fire Protection:

- The Elementary School appears to be fully protected with a (3) zone sprinkler system. All areas appear to be protected with code compliant fire sprinklers.

Fire Protection (modifications requiring improvement categorized by priority): No issues.

Electrical:

Power Distribution System:

- Primary service runs overhead at rear of school that in turn feeds a pad mounted transformer locally metered. It appears this transformer is common to the Early Learning Center and the Elementary School.
- The secondary service runs underground between the pad mounted transformer and a 2000 ampere, 277/480V, 3Ø, 4W switchboard.
- The manufacturer is General Electric. The switchboard is front accessible. Currently storage material is blocking access-working space.
- A double-throw disconnect switch exists adjacent to switchboard and is not labeled. Switch is possibly for the fire pump in the pump house.
- A fire pump monitor panel is located in main electric room at lower level. Panel is also monitored by fire alarm system.
- Switchgear appears to be in good condition.

General Wiring:

- General building wiring consists of mainly EMT tubing and MC cable where concealed.

Exterior Lighting:

- The exterior lighting generally consists of HID type luminaries on 20' square poles. Fixtures are of the shoebox type.
- Lighting is time clock controlled.
- There are also some building mounted fixtures generally at egress doors.
- Lighting appears to be in good condition.
- Lower height pedestrian poles exist at front of school.

Interior Lighting:

- Interior lighting consists mainly of 1' x 4', 6 cell recessed parabolics with (2) T8 lamps and electronic ballast in corridors.
- Classrooms have 2' x 4' recessed, 12 cell parabolics with (2) T8 lamps and electronic ballasts on one single switch.
- An occupancy sensor is also utilized in classrooms to turn lights off when room is unoccupied.
- Fixtures are in good condition
- No central lighting control system observed.
- Recessed compact fluorescent cans exist in stairwells with (1) lamp.

A) Code Required Improvements:

1. Provide (2) new transfer switches for this school to separate emergency loads from optional standby loads.
2. School may share common generator with ELC or provide dedicated generator.

Existing Conditions

B) Highly Recommended Improvements (although not code required):

1. Provide security system.
2. Provide card access system.
3. Provide CCTV system.

C) Recommended Improvements (low priority): None

Fire Alarm System:

- The fire alarm system consists of an addressable system with horn/strobes. The system is ADA compliant. The manufacturer is Gamewell. FACP, fire alarm control panel was locked.
- Transmission to the fire department is via a Silent Knight digital communicator connected with telephone lines to a remote central station.
- FACP is located in the main electric room.
- System is in good condition.
- One horn/strobe typically installed in each classroom.
- Smoke detectors exist in corridors.
- Pull stations exist at egress ways.
- Elevator is interlocked with fire alarm system.
- An exterior flush mounted municipal master box is located at the front of the school but used only as a pull station.
- A flush mounted knox box also exists at the front entrance.

Emergency System:

- The emergency system appears to consist of a step-up 20kva transformer located in the Early Learning Center generator room used to feed normal/emergency panels.
- Exit signs are of the cast aluminum stencil face and are in good condition.
- Since the normal/emergency system originates at the Early Learning Center and since that system is in violation, it also places this system in violation.

Miscellaneous:

- There appears to be fair coverage of receptacles in classrooms.
- GFI receptacles exist at counters with sinks.

Security/Card Access/CCTV Systems:

- None observed.

HVAC System Deficiencies:

- Boiler burner unit not provided with low/high/low control.
- This boiler room is not provided with day tank for fuel oil system.
- Chimney is not of proper height resulting in downdraft condition of combustion gases.
- Surface contamination on all hydronic pumps. Two of the pumps are suffering from extensive breakdown of the insulation on the pump impeller.
- No seismic snubbers on boilers or pumps.
- No vibration isolation under any pump.
- No glycol for freeze protection installed in chilled water system requiring chiller to be drained and isolated at the conclusion of each cooling season.
- Extensive surface contamination on boiler jackets which appear to be the result of combustion gas leaks inside of cast-iron sections.
- Exhaust registers in classrooms are located in ceiling and are minimizing effective ventilation control throughout occupied area.

Existing Conditions

- Surface soiling on all ceiling and transfer registers.
- Various intake louvers for classroom unit ventilators are installed within 12 inches of vegetative growth.
- It appears that pressure relief grills have been installed in each classroom ceiling to assist in pressure relief during economizer control; however, no smoke or fire dampers are installed in the transfer duct which could contribute to a smoke hazard during a fire emergency.
- It appears that all outside air dampers have been disconnected for all air handling equipment, and therefore, code required ventilation air seems to be compromised.
- There is no heat installed in any public toilet areas.
- There is no makeup air provided for exhaust systems in public toilet areas.

HVAC Remedial Recommendations (modifications requiring improvement categorized by priority)

A) Code Required Improvements:

1. Extend height of chimney by approximately 20 feet.
2. Provide seismic snubbers on boiler and pumps.
3. Provide glycol for freeze protection in hot water and chilled water system.
4. Eliminate pressure relief grills in each classroom ceiling and patch block wall communicating between classroom and corridor above ceiling.
5. Reconnect all outside air ventilation dampers in all classroom unit ventilators and rebalance to code conditions.
6. Provide heat at all public toilet areas.
7. Provide door louvers for make up air in all toilet areas.
8. Repair insulation on each distribution pump.
9. Remove vegetative growth in front of outside air intake louvers at each classroom unit ventilator and provide stone base.

B) Highly Recommended Improvements (although not code required):

1. Modify fuel oil burners to provide low/high/low firing control.
2. Provide day tank for fuel oil system in boiler room.
3. Provide new direct digital automatic temperature control system.

C) Recommended Improvements (low priority)

1. Surface clean all exhaust registers in each classroom.
2. Investigate interior section of each boiler to determine burned stains on boiler jackets.

3. Middle School

Interior

- Classroom ceilings at first glance appear to be in good condition due to what appears to be a recent installation. However, many stains are visible due to roof leaks above. Upon further investigation, it was disclosed that these ceilings were hung below an existing ceiling that is atypical in renovations
- Corridor acoustic ceiling tiles have stains due to roof leaks above
- Some Classroom unit ventilators are inoperable
- Public phone is located in the Core Building Addition
- Carpet in Corridors has seam failures
- Corridor walls have building settlement stress cracks
- Deficiencies in Auditorium HVAC, Sound Systems, and Seating
- Operable windows do not have insect screens
- Building does not have a fire protection sprinkler system
- Building is not air-conditioned (individual unit ventilator heating only)
- Operable window malfunctions
- Some windows do not have insulated glazing



Water Damaged Classroom Ceilings



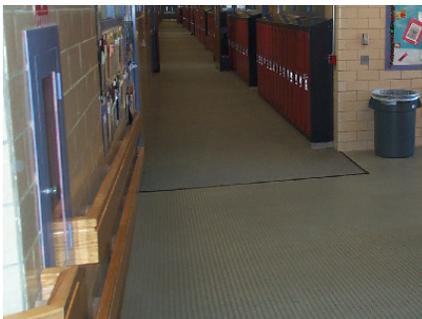
Water Damage in Main Corridor Ceiling



Failed Windows & Unit Ventilators

ADA/MAAB Non Compliance/Deficiencies

- Corridor ramps off Lobbies do not meet ADA requirements for level landings and handrail extensions
- Drinking Fountains re not working.
- No dedicated handicap Restrooms.
- Handicap stalls do not have the required handrails
- Restroom sinks are not working.
- Restroom sink hot water and drain piping exposed and not insulated or guarded
- Restroom mirrors mounted 31" above the floor, which is too high for HC children
- Not all doors have lever hardware, some older doors are still equipped with non compliant knobs
- Not all doors have proper push/pull clearances
- The Auditorium's stage is not handicap accessible
- No designated handicap accessible lockers in Corridors
- Stairwell down to Basement Level Facilities Maintenance does not meet code (handrail extensions)



Non Compliant Ramp Landings and Railings



Non Compliant Toilet Stalls



Non Accessible Auditorium Stage

3. Middle School (Continued)

Exterior

- Cracking in the concrete foundation walls
- Non complaint exterior door hardware at Facilities Maintenance Department
- Major and numerous roof membrane failures with ponding in some locations
- Original copper roof flashing failures
- Original single glazed steel frame windows broken and inoperable, incurred energy losses
- Several replacement windows in classrooms are inoperable/broken
- Entry doors are not equipped with weather-stripping
- Rotted wooden fascia in disrepair
- Restroom exterior wall has building settlement stress cracks
- Heaved exterior landings and steps at entry/egress doors
- Canopy damage and rot
- Brick masonry damage and spalling
- Operable hopper window units do not have insect screens



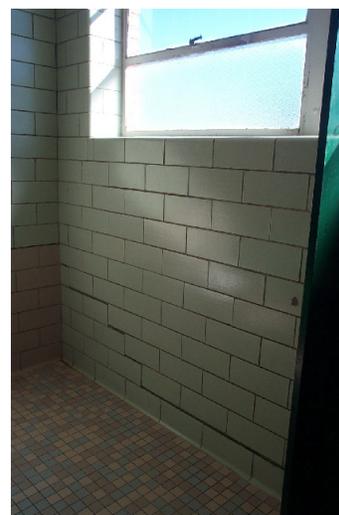
Foundation Walls Cracking



Entry Doors & Canopies / Single Glazed Windows



Failed Roof Membrane & Ponding



Failed Exterior Walls

Existing Conditions

Structural

- The exterior façade of the Middle School is brick masonry with strip windows. Original structural drawings were not available for review; however, the Middle School is a single storey structure with a partial basement occupied by mechanical and facility maintenance rooms. The exterior façade is brick masonry with strip windows. The building structure appears to be a structural steel frame of beams and columns with infill concrete masonry units (CMU). The steel frame appears to support a concrete metal deck first floor above the basement and a metal deck roof. Lateral stability to resist wind and seismic forces is provided by the interior masonry CMU infill walls. There were no obvious signs of structural distress.

Plumbing:

- Presently, the plumbing systems serving the Middle School are cold water, hot water, sanitary waste and storm drain piping.
- The School is serviced by an on-site treatment plant and well water. Storm drainage from flat roof areas is disposed of by a system of roof drains, & rain water conductors.

Fixtures:

- Water closets are generally wall hung with flush valves and are vitreous china, with elongated bowls. They appear to be original to the construction in the 50's.
- Urinals are wall hung with flush valves.
- Lavatories are generally wall hung, vitreous china with back and two handle center set faucets.
- Janitors' sinks are standard mounted cast iron enameled sinks. There are no vacuum breakers on the faucets.
- Classrooms are fitted with classroom sinks. Sinks are 8" deep stainless steel with gooseneck faucets.
- Fixtures are generally non-accessible and non-water conserving.

Drainage Systems:

- Cast iron is used for sanitary and storm drainage. Exposed cast iron in the crawl space that is used for the sanitary system recently underwent significant replacement probably due to corrosion.

Water Systems:

- Domestic water piping is copper, generally insulated although there are significant portions of bare copper piping.
- Water is fed from the well water pumping systems. There is an abandoned well in the boiler room. A hydro pneumatic tank is located in the boiler room.
- A 45-gallon capacity hot water heater provides domestic hot water for the Middle School with boiler water as its heat source. There is a thermostatic water temperature controller. The tank was installed roughly two years ago and is on the verge of failure probably due to corrosive water.

Plumbing Remedial Recommendations (modifications requiring improvement categorized by priority):

A) Code Required Improvements: None

B) Highly Recommended Improvements (although not code required):

1. Provide new fixtures throughout for water conservation and HC accessibility compliance.
2. Replace the domestic hot water tank before failure occurs.

C) Recommended Improvements (low priority): None

Existing Conditions

Fire Protection:

- There is no Fire Protection in the Middle School

Fire Protection (modifications requiring improvement categorized by priority):

A) Code Required Improvements: None

B) Highly Recommended Improvements (although not code required):

1. Install complete fire sprinkler system.

C) Recommended Improvements (low priority): None

Electrical:

Power Distribution System:

- The incoming service for the Middle School has been removed. The building is currently subfed from the Core Building switchboard with a 600 ampere feeder at 120/208V, 3Ø, 4 wire. The sub feeding occurred during the 1989 construction of the Core Building.
- The original service switchgear is located in the boiler room and is in very poor condition. This equipment was originally manufactured by Westinghouse. The electric meter has been removed.
- The building is not sub metered, consumption is part of the Core Building meter.
- Panelboards throughout the building are generally in poor condition.

General Wiring:

- General building wiring consists of mainly EMT tubing and MC cable where concealed.

Exterior Lighting:

- Exterior lighting consists of HID pole mounted shoe boxes and building mounted fixtures.

Interior Lighting:

- Corridor lighting consists of recessed 2' x 4' prismatic troffers with (2) T8 lamps and electronic ballasts. Corridor lighting is controlled locally with key switches.
- Classroom lighting consists of (12) 2' x 4' recessed troffers with prismatic lens with (2) T8 lamps and electronic ballasts. All lights are controlled by a single switch. Occupancy motion sensor to control lights has typically been disabled.
- Auditorium lighting consists of 2' x 2' surface modular troffers with prismatic lens. Lights are breaker controlled with a small local panel by the door.
- Stage lights consist of semi-recessed incandescent fixtures breaker controlled.
- Theatrical lighting consist of connector strips with screw-in incandescent bulbs also breaker controlled with small local stage panel.
- Office area lights, generally 2' x 4' prismatic troffers with occasional parabolics. Offices are generally single switched.
- No central lighting control system observed.
- Chorus room lighting consists of 2' x 4' prismatic troffers and theatrical pipe mounted fixtures. Space is multiswitched.

Fire Alarm System:

- The fire alarm system for the Middle School is an extension of the Core Building as zone 6, designated as "1 story building extension".
- System consist of horn/strobes in corridors with no horn/strobes in classrooms.
- System is not ADA compliant in either strobe intensity or mounting heights.

Existing Conditions

- Smoke detectors in corridors have been raised and located approximately 6” above ceiling tiles behind a 3/4” square microcube egg crate louver to prevent units from being vandalized due to low height ceilings.
- One (1) heat detector is typically located in each classroom. Heat detectors also observed in offices.
- Smoke detectors observed in auditorium and stage.
- Magnetic door holders exist in corridor doors.
- Pull stations exist at egress doors.
- Fire alarm system is obsolete and no longer manufactured. Parts are hard to come by and are no longer sold as new.

Emergency System:

- Emergency lights for the Middle School are fed from the Core Building normal/emergency system.
- Exit signs are generally old and in many instances not functional.
- Emergency system is in violation of current codes. There is no separation between emergency loads and stand-by loads.

Miscellaneous:

- Generally receptacle coverage in classrooms is inadequate.
- Receptacles at counters with sinks generally have no GFI protection.
- Some fan coils in classrooms being fed with extension cords.

Security/Card Access/CCTV Systems: None observed.

HVAC System Deficiencies

- Piping installed in front of combustion air louver susceptible to freezing.
- Breeching not insulated.
- No backup pumps provided in circulation systems.
- Fuel oil piping is laid on floor unprotected and susceptible to tripping.
- It does not appear that burner is provided with low/high/low firing control.
- Incinerator breeching connection to chimney should be blanked off.
- Old fuel oil piping has been abandoned in-place and should be removed.
- It appears that the fuel oil day tank is not piped correctly and is not maintaining proper pressure control between storage tank and burner.
- No standby fuel oil pump.
- Check valves and balancing valves not provided in multiple return lines which tie into return header at rear of boiler.
- Extensive surface soiling on compressor storage tank.
- No backup compressor or motor for compressed air system serving automatic temperature control system.
- No condensate receptor at compressed a storage tank.
- Automatic temperature control board extremely antiquated.
- It does not appear that the automatic temperature control system is provided with dual pressures allowing for day/night control.
- Vapor-barrier not provided in dirt crawl space area. Ventilation shafts are provided, but they do not appear to be open. There are a limited number of tunnels, which are provided with concrete floors.
- Air handling units serving auditorium have reached their maximum serviceable life and are in need of replacement. Much piping insulation missing. Three-way valves on hot water coil with high amounts of outside air associated with space could potentially freeze hot water coils in air handling units.
- Stage area not provided with code required ventilation air.

Existing Conditions

- Very poor distribution patterns of supply air in the space which is compromising overall effective ventilation air control.
- Wall mounted pneumatic thermostats serving air handling equipment are extremely antiquated.
- Secondary exits within building corridors are not provided with vestibule interlocks and not provided with forceflow cabinet heaters.
- Classroom unit ventilators throughout all classrooms within Middle School building are soiled, slightly damaged, extremely antiquated and have reached their maximum serviceable life.
- Roof-mounted exhaust fans are serving central exhaust systems and are extremely antiquated. More than likely, they are not balanced to maintain proper ventilation air control.
- Outside air dampers in classroom unit ventilators do not appear to be operating and are not maintaining minimum code required ventilation air.
- Automatic temperature controls in classrooms are extremely antiquated and do not appear to be operating, causing spaces to become very warm. They appear to be recirculating the entire volume of air.
- Surface soiling on exhaust registers primarily on opposed blade dampers at rear of register. All registers are extremely antiquated.
- Heating and communicating corridors appears to be inadequate.
- Extensive surface soiling on exhaust registers in public toilet areas.
- No make up air provided for the toilet exhaust systems.

Existing Conditions

4. 'Core' Building

Interior

- Acoustic ceilings tiles (ACT) are sagging in the open traffic areas such as Corridors and in the Cafeteria areas, possibly indicating a humidity and moisture problem in these spaces. Many of the black tiles in Cafeteria are chipped and damaged
- Corridor & Classroom ACT have stains due to roof leaks above.
- Carpet in Corridors has seam failures
- Stairwells are in disrepair with rubber tread and riser adhesion failures
- Hard water corrosion of Boys and Girls Locker Room showers
- Building does not have a fire protection sprinkler system



Stairwell Tread & Riser Failures

ADA/MAAB Non Compliance/Deficiencies

- Ramp handrails are not mounted at the stipulated heights (19"/34")
- Room signage does not meet accessibility standards and requirements
- Elevator does not have a functioning two-way communication system
- Drinking fountains have non complaint knobs & recesses
- 30" deep depressed floor in the Cafeteria is not HC compliant (no access ramp/chairlift)
- Stairwell handrails do not extend far enough on the bottom landings/levels
- Restroom sink hot water and drain piping is exposed and not insulated or guarded
- Public phones at the MS Entry Lobby and by the exterior HS Entry are not an accessible (TTY) Text Telephones



Non Accessible Cafeteria Seating Pit

Exterior

- Major and numerous roof membrane failures with ponding in some locations
- Aluminum flashing and Roof Top Units (RTU) curbing failures causing leaks
- Aluminum entry doors are showing signs of wear with the potential for failure
- Metal cladding missing at Science Laboratories
- Operable windows do not have insect screens
- Damaged/deteriorated brick at the building entries



Exterior Cladding Failures



Ballasted Roof Membrane Failures



Masonry Deterioration / Door Wear

Existing Conditions

Structural:

- The Core Building connects the Middle School to the original High School. Original building drawings were available for the Core Building and reviewed. According to the drawings, this two story building structure is a steel frame of beams, bar joists and columns. The steel frame supports a concrete metal deck floor and a metal deck roof. Lateral stability to resist wind and seismic forces is resisted by reinforced CMU masonry infill shear walls. No obvious signs of distress were noted during our building tour.

Plumbing:

- The Core Building was constructed in 1989 and provides a connection between the Middle School and High School.
- Presently, the plumbing systems serving the Core Building are cold water, hot water, sanitary waste and vent system, gas piping, storm drain piping, special waste and vent systems, and LP gas piping.
- The Core Building is serviced by an on-site treatment plant and well water. Storm drainage from flat roof areas is disposed of by a system of roof drains, and rain water conductors.

Fixtures:

- Water closets are generally wall hung with flush valve and are vitreous china, with elongated bowls. Kitchen staff toilet has floor outlet model.
- Urinals are wall hung with flush valve. HC accessible height urinals are not provided.
- Lavatories are generally wall hung, slab type vitreous china with self closing faucets.
- Janitor sinks are standard mounted cast iron enameled sinks. There are vacuum breakers on the faucets at these sinks.
- Sciences classrooms are generally fitted with acid resisting piping connected to a neutralizer tank located on the lower level. One classroom does not have acid piping.
- There are emergency shower/eye washes in the science classroom. Two of these have floor drains, one does not.
- Kitchen area fixtures are well maintained, no interior grease traps, and one dedicated, not HC accessible toilet for kitchen staff.
- Stainless steel drinking fountains are used. In general, the Core Building fixtures do not fully meet current MAAB standards nor do they meet the current water conservation standards.

Drainage Systems:

- Cast iron is used for sanitary and storm drainage. The limited amount of exposed cast iron appeared to be in satisfactory condition.

Water Systems:

- Domestic water piping is copper, generally insulated. Valves and trim show signs of corrosion.
- Water is fed from the well water pumping systems located in the High School.
- Domestic hot water for the Core Building is provided by two Aldridge indirect oil fired water heaters in combination with (4) 200 gallon water storage tanks. There is a pair of thermostatic water temperature controllers. The water was stored at 140°F and out at 120°F. The system requires a cold water check valve and expansion tank to control cross feeding of hot water.
- Science area sinks require vacuum breakers on the gooseneck spouts.

Gas Piping:

- There is an LP gas system in the building.
- LP gas is piped to the science laboratories. A locked gas valve in a cabinet should be provided in every laboratory.

Existing Conditions

Plumbing Remedial Recommendations (modifications requiring improvement categorized by priority):

A) Code Required Improvements: None

B) Highly Recommended Improvements (although not code required):

1. Install expansion tank on water heater.

C) Recommended Improvements (low priority):

1. Install tempering valve for emergency shower/eye wash.
2. Install lockable gas valves in the cabinets in each laboratory.

Fire Protection:

- There is no water based Fire Protection in the Core Building. There is however an extinguishing system in the cooking hoods.

Fire Protection Recommendations (modifications requiring improvement categorized by priority):

No issues.

Electrical:

Power Distribution System:

- Primary service runs overhead on Putnam Hill road where it then runs underground between utility pole and a pad mounted transformer adjacent to the building. The pad mounted transformer appears to be rated at 750 kva.
- Secondary service originates at pad mounted transformer where it runs underground into a 3000 ampere switchboard rated at 120/208V, 3Ø, 4 wire. The switchboard manufacturer is Siemens, FC-I series, built in 8/88. The 3000 ampere main disconnect is a Pringle switch, electrically operated. Switchboard has (2) distribution sections with a few spaces for smaller breakers.
- Switchboard in addition to feeding core building, also has (2) 600 ampere breakers to backfeed the High School building and the Middle School building.
- The service is secondary metered with the meter located in the main electric room.
- The panelboards are Siemens CDP-7 series.
- The switchgear is in good condition.
- Electric room only has one door into the room where two are required. Door does not have panic hardware.

General Wiring:

- General building wiring consists of mainly EMT tubing and MC cable where concealed.

Exterior Lighting:

- The exterior lighting generally consists of HID type luminaires on 20' square poles. Fixtures are of the shoe box type.
- Lighting is time clock controlled.
- There are also some building mounted fixtures generally at egress doors.
- Lighting appears to be in good condition.

Interior Lighting:

- Corridor lighting consists of 2' x 4' recessed prismatic troffers with (2) T8 lamps and electronic ballasts.
- Cafeteria lighting consists of 2' x 2' recessed prismatic troffers with (2) T8 lamps and electronic

Existing Conditions

- ballasts. Incandescent recessed down lights exist in portions of the cafeteria.
- Locker room lights consist of 1' x 4' vapor tight fluorescent fixtures with (2) T8 lamps.
- Toilets, 2' x 4' prismatic troffers with wall mounted prismatic fixture over mirrors.
- Open channel strips used in mechanical rooms.
- Metal halide high bays with aluminum reflector used in Gymnasium. Fixtures do not have required Quartz restrike ballast/lamp for instant on lighting.
- Gym fixtures are switch controlled from storage room across corridor and are fed from normal/emergency panel.
- Art room, 2' x 4', 3 lamp, T8 prismatic troffers, multi-switched. Track lighting also exists.
- Lighting occupancy sensors typically tapped over, disabled, in labs.
- Tech/engine shop, continuous rows of industrial strips with (2) T8 lamps individually switched by row.
- Kitchen, 2' x 4', 4 lamp prismatic troffers.
- Lighting is generally in good condition.

Fire Alarm System:

- The fire alarm system consists of a conventional (non-addressable) system, 24-zone, with (9) active zones as follows:

Zone 1 Level I Core Building

Zone 2 Level II Core Building

Zone 3 Gym Core Building

Zone 4 Cafetorium Core Building

Zone 5 New Library Addition

Zone 6 1 Story Building Ext.

Zone 7 Level 1, 3 Story Building

Zone 8 Level II, 3 Story Building

Zone 9 Level III, 3 Story Building

- The fire alarm control panel located in the emergency electric room was manufactured by Gamewell, Zans 400.
- Remote test stations, key operated for duct smokes are located adjacent to control panel.
- Transmission of alarms to fire department is via a digital communicator, Silent Knight 5129, connected with telephone lines to a remote central station.
- A key depository box exists at the exterior of the boiler room door.
- System is not ADA compliant.
- Smoke detectors exist in corridors raised behind egg crate louvers.
- No strobes in toilets. Heat detectors observed.
- Smoke detectors exist at egress doorways in locker rooms. Horn/strobes observed. Heat detectors also exist in locker rooms.
- Horn/strobe in tech/shop.
- Hood fire suppression system in kitchen. Heat detectors in kitchen.
- Fire alarm system is obsolete and no longer is manufactured. Parts are hard to come by and are no longer sold as new.

Emergency System:

- The generator located outside and adjacent to the transformer is a 100kw/125kva, 120/208V, 3Ø, 4W, diesel-fired, housed in a weatherproof enclosure. The enclosure is not sound attenuated. The manufacturer is Superior. The unit has (1) 400 ampere breaker. A 275-gallon upright fuel tank is housed in same enclosure. Tank does not appear to be double wall with leak detection alarms.
- There is no barrier, such as a concrete wall, between the transformer and the generator to minimize loss

Existing Conditions

- of both systems through failure of one system mainly a fire/explosion of the transformer.
- The feeder between the generator and the automatic transfer switch ATS inside runs underground. The ATS is located in the emergency electric room adjacent to the main electric room. The manufacturer is ASCO #C940340049. The ATS feeds a 400-amp distribution panel in same room. Panel has no directory. This panel feeds sub-panels and other equipment for the Core Building, Middle School and High School.
- The entire system is fed via (1) automatic transfer switch. There is no separation between the emergency life safety loads and other stand-by loads. Therefore, the system does not meet current codes.
- Remote emergency panels are not housed in dedicated fire-rated closets or fed with fire rated feeders required by code.
- Equipment is generally in fair to good condition.

Miscellaneous:

- Emergency power off, (EPO) stations exist in the tech/engine shop by the doors.
- Receptacles in locker rooms not GFI.
- Some receptacles near counter sinks not GFI in Art room.
- No emergency power off stations observed in kitchen.
- Fire suppression pull station apparently also kills power to equipment under hood.

Security/Card Access/CCTV Systems: None observed.

HVAC System Deficiencies

- It does not appear that low/high/low firing control is provided for boilers.
- Barometric damper not provided in boiler breeching system.
- Impeller bearings on one base mounted pump appear defective.
- Combustion air louver is undersized for powerplant served, and system should be provided with two louvers of equal size to meet building code requirements.
- Expansion tank volume appears to be excessive considering size of building.
- It appears that underground fuel oil tank is not of the double wall design and is not installed with leak monitoring system.
- Seismic snubbers not provided for boiler or pumps.
- Rooftop units serving the media center have had outside air dampers disconnected, and presently, mechanical ventilation is not being provided to the space which is not code compliant.
- Heating hot water coil is installed in a roof mounted air handling unit which is not protected with glycol or any means of freeze protection. Piping located in rooftop unit is also uninsulated.
- Superintendent's area is provided with separate rooftop heating and ventilating unit which has had its outside air dampers disconnected. Presently, mechanical ventilation is not being provided to space which is non-code compliant.
- Entire superintendent's area is one zone of temperature control which serves both interior and exterior spaces.
- Superintendent's area is provided with window mounted air-conditioning units which are undersized to maintain reasonable automatic temperature control throughout.
- It appears that the area over the superintendent's space is provided with a return air plenum; however no return air grills were provided to allow air to circulate from occupied space to area of ceiling.
- Wiring above superintendent's area should be confirmed to be plenum-rated cable.
- Business office and music room are served by a common rooftop unit controlled by one single thermostat which contributes to very uneven and inconsistent temperatures.
- In music area, supply diffusers and return registers are both located at ceiling which is short-circuiting a percentage of the ventilation and total air provided to the space.

Existing Conditions

- Vestibule interlocks not provided at main entrance.
- Insufficient amount of heat located at main vestibule and location of heaters is very poor.
- Rooftop unit feeding main lobby and office area have had their outside air dampers disconnected and are presently operating with no mechanical ventilation air which is non code compliant.
- Rooftop units serving cafeteria have had their outside air dampers disconnected and are presently operating with no mechanical ventilation air which is non code compliant.
- One rooftop unit serving cafeteria has two burned-out compressors and is not capable of providing air-conditioning at this time.
- In cafeteria area it appears that all return air is through the lighting fixture which is not providing adequate free area to return proper amounts of air. With supply diffusers and return registers both located at ceiling supply air is short-circuiting a percentage of the ventilation and total air provided to the space.
- In toilet areas heating convectors are located in exterior wall which could subject the heating elements and piping to freezing.
- Inadequate amount of exhaust air provided for public toilet areas.
- Inadequate amount of exhaust air provided over copy machines in teaches work room.
- No mechanical supply ventilation air provided to teachers' work room. Operable windows are provided; however, they are undersized to meet the natural ventilation requirement of the building code.
- Air handling unit feeding the locker areas is not provided with adequate access and maintenance space.
- Air handling unit feeding locker areas utilizes 100% outside air design and uses a control valve that is allowing for the potential of the coil and piping to freeze due to cold outside air.
- Since both locker areas are served from a common air handling unit only one thermostat is provided which will contribute to poor temperature control in the area.
- Fire safeing of piping through corridor wall in storage room housing locker air handling unit is very poor.
- Various sections of pipe insulation not installed in storage room housing locker air handling unit.
- It does not appear that the total amount of the air provided to each locker area is maintaining minimum "engineering standard" air changes within spaces served.
- In each locker area, supply and exhaust registers are located at ceiling which are short-circuiting a percentage of the ventilation and total air provided to each space. It also appears that the amount of exhaust provided is inadequate to maintain balanced conditions with the supply air.
- Mold formation was noted to be occurring on various ceiling tile areas in each locker room.
- No seismic restraints provided for locker room air handling unit.
- Each air handling unit located within the gymnasium is located at the ceiling and with the supply and return in close proximity to each other is short cycling a large percentage of the total and outside ventilation air to space.
- Outside air intake louver for each air handling unit in gymnasium is not designed for economizer control.
- Supply diffusers on both air handling units in gymnasium are not installed.
- Various sections of hot water piping insulation missing.
- No economizer relief at roof of gymnasium to allow for pressure relief.
- Surface soiling on all ceiling diffusers providing ventilation to corridor areas.
- Classroom unit ventilator provided in room is installed in extreme corner of the space which is preventing adequate effective ventilation control throughout space.
- Classroom unit ventilator located in art room has surface soiling and slight damage.
- Exhaust register in art classroom is located in ceiling and is not providing or contributing to effective ventilation control.
- It does not appear that the outside air dampers in the classroom unit ventilators are operating and appear to be in the closed position.

Existing Conditions

- Air handling unit feeding vocational area is of the 100% outside air design and with control valve installed is allowing for the potential of the coil and piping to freeze due to cold outside conditions.
 - Discharge air from dust collection unit in technology area is venting to storage room and not the actual shop area where the exhaust air originates. This is creating a positive pressure in the storage room and a negative pressure in the shop area.
 - No exhaust system provided for heating and ventilation system for occasional area.
 - In finishing room of technology area, no backdraft damper provided in gravity exhaust stack.
 - No mechanical exhaust provided in finishing room of technology area.
 - Kitchen area is not provided with mechanical ventilation system other than what is provided directly to hood as makeup air.
 - Main kitchen exhaust hood is not of proper size for cooking area served.
-
- On the second floor of the academic area, one large classroom was subdivided into three classrooms which resulted in one classroom not being provided with any source of heat and ventilation air. This condition is not code compliant.
 - Generally, all classroom unit ventilators had slight surface soiling and slight damage.
 - Computer classrooms are not provided with air-conditioning.
 - In many classrooms, it was noted that the unit ventilators were poorly placed within the space causing sections of the occupied spaces to receive little or no ventilation air.
 - Exhaust registers in general classrooms are located adjacent to ceiling in wall and are not providing or contributing to effective ventilation control.
 - In one science classroom, a fume hood was installed; however adequate exhaust makeup was not provided.
 - In the science prep room, there was no heat or ventilation provided in the space.

5. High School

Interior

- Tectum ceilings in Basement Level Classrooms are failing and in disrepair
- Second and third floor corridor metal ceilings are damaged and in disrepair
- Poor lighting in Corridors and Basement Level Classrooms
- Carpet in corridors has seam failures
- Fire doors rating label missing
- Door type, hardware, style, and finish inconsistent throughout and needs replacement
- Building does not have a fire protection sprinkler system
- Building is not air conditioned (individual unit ventilator heating only)



Corridor Ceiling Failures



Classroom Ceiling Failures



Gym Ceiling Failures / Non Accessible Stage

ADA/MAAB Non Compliance/Deficiencies

- Majority of doors do not have proper push/pull clearances
- Not all doors have lever hardware, some older doors are still equipped with non compliant knobs
- Restroom sinks do not have ADA compliant lever handles
- Restroom sink hot water and drain piping exposed and not insulated or guarded
- Stairwell handrails do not extend far enough at landings/levels
- Stairwell treads and risers do not meet dimensional criteria (treads 7" or less, 11" minimum treads)
- Stairs do not have non slip treads
- No drinking fountains on each floor level (non compliant fountains in Core Building Addition)
- No dedicated handicap bathrooms (compliant restrooms in Core Building Addition)
- Designated HC stalls are missing partition doors
- Room signage does not meet HC accessibility standards and requirements
- The gymnasium's stage is not handicap accessible
- No designated handicap accessible lockers in corridors, lockers are damaged and in disrepair
- Public phone at the exterior 'Core' Building HS Entry is not an accessible (TTY) Text Telephone



Non Compliant Door Hardware



Non Compliant Stairwells



Drinking Fountains Offline

Existing Conditions

5. High School (Continued)

Exterior

- Cracking in the concrete foundation walls
- Brick masonry damage and spalling particularly noticeable at window locations
- Entry doors are not equipped with weather-stripping
- Original single glazed steel frame windows broken and inoperable, incurred energy losses, and excessive heat gain from sun
- Original concrete exterior window sills have failed (potential for water infiltration into wall system)
- Perimeter sealant failures around exterior windows (potential for water infiltration into wall system)
- Several roof membrane failures reported and observed
- Heaved exterior landings and steps at former main entrance
- Wooden fascia rotted and peeling
- Damaged and corroded mechanical louvers
- No window screens for operable windows



Foundation Walls and Window Failures



Broken Gymnasium Windows with Non Insulated Glazing



Exterior Step & Landing Failures

Site Issues

- Playfield parking barrier damaged and in disrepair
- Inadequate parking with curbing failures
- Inadequate bus and car drop off / pick up clearances



Inadequate Sized Bus/Car Drop Off / Pick Up Loop



Deterioration of Curbing & Playfield Barrier Fencing

Existing Conditions

Structural

- The exterior façade is brick masonry with strip windows. Original structural drawings were not available for review; however, the building structure appears to be a structural steel frame of beams and columns with infill interior and exterior brick masonry walls. The steel frame supports a concrete metal deck floor and a metal deck roof. Lateral stability to resist wind and seismic forces is provided by the brick masonry infill walls. There were no obvious signs of structural distress other than limited cracking of the concrete foundations and exterior brick that appears to be due to the lack of expansion/contraction relief joints.

Plumbing:

- Presently, the plumbing systems serving the High School are cold water, hot water, sanitary waste and storm drain piping.
- The School is serviced by an on-site treatment plant and well water. Storm drainage from flat roof areas is disposed of by a system of roof drains, and rain water conductors.

Fixtures:

- During the Core Building Construction, the High School toilet areas were renovated.
- Water closets are generally floor mounted with flush valve and are vitreous china, with elongated bowls and appear to be non-water conserving.
- Urinals are wall hung with flush valve; none are mounted at HC accessible height.
- Lavatories are generally wall hung vitreous china slab lavatories with two handle spread faucets – non – self closing.
- Janitor sinks are standard mounted cast iron enameled sinks. There are vacuum breakers on the faucets.
- Stainless steel drinking fountains.
- Generally HC non-accessible and non-water conserving.

Drainage Systems:

- Cast iron is used for sanitary and storm drainage. Exposed cast iron in the boiler room appears to have been replaced due to corrosion issues.
- The boiler room has staining on the floor due to flooding issues.

Water Systems:

- Domestic water piping is copper, generally insulated although there is bare copper piping in the boiler room. There is extensive corrosion visible in old piping within the boiler room.
- The well water pumping systems and hydropneumatic tank are located in a well room adjacent to the boiler room.
- Domestic hot water for the High School is provided by a tankless heater in each of the two boilers in combination with a 500-gallon horizontal mounted storage tank. There is a water temperature mixer, however, it is not a thermostatic type.

Plumbing Remedial Recommendations (modifications requiring improvement categorized by priority):

A) Code Required Improvements:

1. Add thermostatic mixing valve on domestic water heater.
2. Provide summertime water heater.

B) Highly Recommended Improvements (although not code required): None

C) Recommended Improvements (low priority): None.

Fire Protection:

Existing Conditions

- There is no Fire Protection in the High School.

Fire Protection Recommendations (modifications requiring improvement categorized by priority):

A) Code Required Improvements: None

B) Highly Recommended Improvements (although not code required):

1. Install complete fire sprinkler system.

C) Recommended Improvements (low priority): None

Electrical:

Power Distribution System:

- The High School distribution system is currently subfed from the Core Building switchboard with a 600 ampere feeder.
- The panelboards range from fair to poor condition.
- The building is not sub-metered, consumption is part of the Core Building meter.

General Wiring:

- General building wiring consists of mainly EMT tubing and MC cable where concealed.

Exterior Lighting:

- The exterior lighting generally consists of HID type luminaires on 20' square poles. Fixtures are of the shoe box type.
- Lighting is time clock controlled.
- There are also some building mounted fixtures generally at egress doors.
- Lighting appears to be in good condition.

Interior Lighting:

- Lower corridor lighting consists of 6" x 4' surface fixtures with (2) T8 lamps and electronic ballasts. Lights are locally switched all on or all off.
- Old Gymnasium lights consist of recessed metal halide, some without wireguards. Fixtures have Quartz restrike ballast and halogen lamps for instant on lighting but are not functional. Lights are breaker controlled with local panel by door.
- Platform lighting consists of incandescent track lights, breaker controlled with local panel in platform.
- Classroom lighting consists of 2' x 4' prismatic recessed troffers on a single switch. An occupancy sensor also exists.
- Lower level classrooms have suspended wraparound fixtures.
- Upper level corridors have wall mounted 6" x 8' fixtures with prismatic lens with (1) T8 lamp in cross section.
- Fixtures apparently have had an occasional meltdown of the end caps according to the Facilities Department.
- Corridors are locally switched.
- Fixtures are in fair to poor condition.

Fire Alarm System:

- The fire alarm system for the High School is an extension of the Core Building system connected to Zones 7, 8 & 9. Zones are designed as "Level 1 – 3 Story Building, Level II – 3 Story Building, Level III – 3 Story Building".

Existing Conditions

- System notification appliances consist of horn/strobe units.
- Corridors in lower level have smoke detectors protected with acrylic slotted guards.
- Corridor smoke detectors on upper levels have been pulled above the ceiling metal slots and are not properly attached to structure. However, units appear connected and functional.
- Facilities reported that they have been experiencing problems with smoke detectors.
- Fire alarm annunciator of the LED type flush-mounted at elevator lobby. Annunciator displays all nine zones reflecting control panel for all (3) buildings.
- Heat detectors with wire guards exist in old gymnasium.
- No horn/strobes in classrooms. Heat detectors observed in classrooms.
- Smoke detectors observed in stairwells.
- Pull stations exist at egress ways.
- Fire alarm system is obsolete and no longer manufactured. Parts are hard to come by and are no longer sold as new.

Emergency System:

- Emergency system for the High School is subfed from the system at the Core Building.
- A system of normally-off emergency lights was observed in upper level corridors, old gym, etc. none observed in lower level corridor.
- Exit signs are generally old and inefficient and flush mounted in original construction locations.

Miscellaneous:

- Generally receptacle coverage in classrooms is inadequate.

Security/Card Access/CCTV Systems: None observed.

HVAC System Deficiencies:

- It does not appear that either boiler is provided with low/high/low control.
- Boiler feed water tank is not insulated.
- Condensate receiver tank appears undersized for size of boiler it is serving.
- Indications of pipe perforation and leakage in condensate return system.
- Many sections of condensate piping not insulated.
- Containment vessel of fuel oil storage tank has severe surface contamination.
- Distribution fuel oil pump is located within containment vessel and could present a fire hazard.
- No barometric damper provided in boiler breeching.
- One combustion air duct provided discharging approximately 8 feet above floor and is not provided with motor operated damper. Current code requires two individual openings of equal size both provided with dampers.
- Two air handling units provided on mezzanine mechanical space above stage which are extremely antiquated and have reached their maximum serviceable life.
- Stage area not provided with ventilation air.
- Fin tube radiation located throughout auditorium area is extremely antiquated, has surface soiling, and damage.
- Surface soiling on discharge grille in wall adjacent to stage.
- Extremely poor distribution patterns with supply air located adjacent to stage does not provide effective ventilation control throughout entire space.
- No pressure relief grilles located at ceiling of auditorium to relieve higher amounts of outside air.
- Condensate piping running along the floor of lower level is not protected from potential damage.
- Outside air ductwork at rear of lower level horizontal classroom unit ventilators is not insulated.
- With classroom unit ventilators located at ceiling and exhaust registers on opposite side also located at ceiling effective ventilation control is not being maintained.
- Convectors are located in stairways which may not be adequate in providing necessary heat during frequent use of doors.

- Exhaust fans associated with classroom exhaust systems are extremely antiquated and may not be providing a minimum code required ventilation air.
- Outside air dampers in classroom unit ventilators may have been manipulated to be in the closed position and may not be providing a minimum code required ventilation air.
- Exhaust register and opposed blade dampers are extremely soiled.
- No makeup air provided for communicating corridors.
- Cast iron radiation located in administrative area is extremely antiquated.
- Exhaust registers in public toilet areas were installed directly to partition and do not appear properly size for application.
- Cast iron radiators located in toilet areas are extremely antiquated.
- No makeup air provided for toilet exhaust systems.
- No heat provided in corridor at second floor level.

D.) Water and Sewer Report

The school complex is served by an on-site public water supply and an on-site wastewater tertiary treatment plant.

The complex consists of the Early Learning Center Serving 328 Children (grades PK-1); Elementary School serving 701 Children (grades 2-6), Middle School serving 287 Children (grades 7-8) and the High School serving 402 Children (grades 9-12) for a total of 1718 Students.

The tertiary treatment plant treats wastewater from all 4 schools and reuses wastewater for the flushing of toilets in the Early Learning Center and Elementary School. The Early Learning Center and Elementary Schools were recently renovated and constructed.

As part of this renovation project there were three significant water and sewer events.

- a. A new well was driven in the North end of the soccer fields along with a new storage tank and pumping station that are located underground to the west of the Elementary School Building. Due to elevated levels of uranium and other radionuclides, the well was not brought on-line and neither was the pump station.
- b. The tertiary treatment plant further treats the wastewater generated in the complex and this “gray” water is recycled to flush toilets and urinals in the Early Learning Center and Elementary School.
- c. Because of the Building Code mandate to provide an automatic fire suppression system, a fire pump system was constructed utilizing a storm water retention pond as its source of water supply. This pump provides sprinkler protection for the Early Learning Center and Elementary School.

Well Water:

The complex is served by two bedrock wells; Well #1 which pumps at 16 GPM or 23,040 GPD located in the field to the north of the High School and Well #2 which pumps 14 GPM or 20,160 GPD located in the basement of the High School. There are two hydropneumatic storage tanks, one in the Middle School and one in the High School. The School Department has under consideration a corrective plan prepared by Blue Leaf Incorporated which would enhance the delivery capability of the system.

Existing Conditions

This plan developed by Blue Leaf is dated January 31, 2006 and was prepared as a partial fulfillment of a requirement by the state Board of Accreditation. The complex is also mandated in a January 28, 2004 directive to implement a corrosion control treatment system by January 2008.

For the past 4 months, the maintenance staff has monitored the meters on the two wells. Over that period the water volume delivered by the two wells was 24,000 gallons/week which when evaluated on a 5 day /week occupancy is an average daily use of 4,800 gallons/day.

The projected increase in population can be accommodated by the existing well system provided that the system is upgraded and treatment is added. There are, however, limitations in development which need to be presented, reviewed, and approved by DEP. The limitations are the Zone I and Zone II areas around the two wells.

Virtually the entire site appears on the DEP website as an Interim Well Head Protection Area (IWPA). In addition, there needs to be established the well head protective radius. These areas are regulated under 310 CMR 22.00 the Guidelines for Public Water Supply.

The Zone I for this site will likely be a 250-foot (possibly 300 foot) radius drawn around Wells #1 and #2. Essentially this is a “no-build” zone.

The remainder of the site will be treated as a Zone 2 “Nitrogen Sensitive Zone”. The development within this area will include best management practices to mitigate nitrate loadings and will include treatment of the storm water runoff.

As the site is currently developed with construction within Zone I of the existing wells, the wellhead protection area will likely be restricted so that there is no increase in impervious cover beyond what exists.

A preliminary telephone discussion regarding this study was had with the DEP Engineer, Paul T. Anderson.

- a. This is a grandfathered non-conforming facility and technically no expansion of the facility is categorically permitted although creative solutions which may reduce the areas of non-conformance may be considered.
- b. The client should be encouraged to pursue connection to the public water supply.

Wastewater:

The site is served by an on-site wastewater treatment plant with a 10,000 GPD capacity and a 5,700 GPD average flow. The plant can accommodate the increased school population within its permit limits.

The plant is currently operated under a service agreement with a licensed wastewater treatment operation at an annual cost of \$83,900.00 for services plus equipment replacement cost. A pump was recently replaced for a cost of \$5,000.00.

Off-Site Options:

As part of the study we looked at available options for off-site sewer and water extensions. The Town of Sutton has a Municipal System in Manchaug. That option was not pursued as the distance would be

Existing Conditions

too great. There is a possibility that the Town could operate the School Treatment Facility. That option is considered beyond the scope of this study.

Sewer:

- The Town of Sutton only has a town-owned public sewer system serving the South Sutton and Manchuag sections of town. Connection to this system has not been pursued due to its distance from the schools.
- There exists legislation for sewers to cross Town boundaries. Currently, the Town of Millbury provides conveyance piping into Sutton. Millbury, in turn, pumps their sewage to Worcester for treatment and disposal.
- There are sewer lines in Millbury at Singletary Avenue. Currently there are plans in the approval process for extension of sewer and water from the Millbury line as part of a development for the Northeast intersection of Boston Road and Singletary Avenue. There could well be both sewer and water at this intersection. This is Option 1 and would include a sewage lift station and a run of 3500 L.F. of 6" force main from the schools to the intersection.
- Currently Millbury provides sewerage to the Villas project at Pleasant Valley Country Club, and there is a manhole located on Boston Road at Clubhouse Drive. This manhole is (based on G.I.S. maps) a distance of 8500 linear feet from a proposed pump station which would be required at the location of the main sewer manhole at the Wastewater Treatment Building next to the schools. This is Option 2.

Water:

- Wilkinsonville Water Company provides service to the Villas on Boston Road and the Pleasant Valley Country Club.
- Hawthorn Partners of Woburn, MA (Scott Cohen 781-939-5777) is proceeding with their development plans and they are looking at water and sewer extensions from both locations.
- Water is provided to the Millbury/Sutton lines on Singletary Road by the Aquarion Water Company. Aquarion is aware of discussions to extend the water to Sutton, however no commitments have been made. Aquarion has commissioned a study of its water system to determine if there is adequate supply to extend.

Off-Site Options (Costs):

- We have received an updated plan prepared by Martinage Engineering Associates probably as part of the Elementary School project which indicated a preliminary road and sewer/water profile with indications of refusal (presumably ledge) from the school site all the way to West Main Street in Millbury. Refusal is predominant and varies from 3' to about 9' with most being over 6'. This seems to indicate that a water main extension and a sewer force main extension could be installed with a moderate amount of ledge removal.
- In establishing a cost comparison, it is assumed that a lift station will be provided at the school and a 6" force main will be provided for Option 1.
- Because of the existing hydraulic condition, a domestic pumping system will be required to provide adequate flow and pressure for the domestic and Fire Protection systems at the schools. This pumping

Existing Conditions

system could either be part of the Water Company system or could be provided at the school. The cost of a system at the school is included.

On-Site Option:

Wastewater Treatment:

Estimated Annual Operating Cost:	\$83,900.00
Estimated Equipment Replacement: (assume 10% of operation)	\$8,400.00
Total Estimated Annual Costs	\$92,300.00/year

Water Treatment:

Estimated Capital Cost:

Piping Improvements (Blue Leaf) Treatment System	\$30,000.00 \$90,000.00
Total	\$120,000.00

Estimated Annual Operating Cost: \$22,000.00/year

Total Estimated Annual Sewer and Water costs using “on site” option.....\$114,300/year

Off-Site Options

Estimated Water Costs:*

Annual Fire Service Fee	\$3,500.00
Annual Meter Fee	\$1,500.00
Water Usage	\$2,500.00**
Total Estimated Annual Costs	\$7,500.00/year

*Based on Aquarion Rate Structure

**Water usage will increase somewhat if the “gray water” recycling system is abandoned.

Sewer Costs:

Total Annual Usage Costs: \$6,000.00***

***Based on current rate of \$5.00/1000 gal; 6,000 GPD; 200 days.

Total Estimated Annual Sewer and Water cost using “off site” option.....\$13,500/year

Estimated New Sewer and Water Capital Costs:

Option 1 (from Town Hall)	\$1,773,000.00
Option 2 (from Villas)	\$3,742,000.00

III. Enrollment Projections



New England School Development Council

**DEMOGRAPHY AND
Pre-K-12
ENROLLMENT PROJECTIONS**

SUTTON, MASSACHUSETTS

May, 2006

**New England School Development Council
28 Lord Road
Marlborough, MA 01752**

PROJECT TEAM

Ellen W. Kelly, Ed.M., Projections

Charles H. Ferris, Jr., Ed.D., Data Collection

Arthur L. Bettencourt, Ed.D., NESDEC Assistant Executive Director

John R. Sullivan, Jr., Ed. D., NESDEC Executive Director

INTRODUCTION AND EXECUTIVE SUMMARY

The New England School Development Council (NESDEC) was asked by the Flansburgh Associates, working with the Town of Sutton School Building Committee, to develop a demographic report and ten-year enrollment projection for Sutton students, PreK-12. Notable points of the Report are these:

- Since 1995, Sutton PreK-12 school enrollments have increased by 360 students, from 1,358 to 1,718 students.
- Based upon historical trends, the Pre-K-12 enrollment, conservatively, is expected to increase by 71 students to 1,789 pupils by 2010-11, and then continue to increase slightly (30 pupils) to 1,819 students in 2015-16, for a total enrollment increase of 101 pupils. The projected high school enrollment for 2015-16 is 453 pupils. The projected Middle School enrollment (grades 6-8) is 434.
- The New England Association of Schools and Colleges (2004) has provided Sutton with a list of recommendations for the high school. Due to fiscal constraints, the Sutton Schools have experienced cut-backs in personnel and programs. These events (and the publicity surrounding them) appear to raise questions among families with children about the town's willingness to sustain the high quality of the schools. This combination of factors may be contributing to the declining number of students currently enrolled in the high school.
- Sutton school enrollments are driven by a combination of factors including strong in-migration of students in Kindergarten (32% above the number of births five years earlier), and out-migration of students at the beginning of high school (approximately 20%).
- The number of building permits issued has averaged 55 over the past five years; 63 over the past ten years. During the past three years, a significant number of the permits issued have been for condos. The range of known projects (both permitted and in the planning process) appears to be similar to the recent past.
- The declining number of women of child-bearing age (-11% between 1990 and 2000) is a reason to expect that the number of births will not increase substantially.

- Sutton's population in the 65+ range has increased by only 7.5% in the last decade; this factor combined with the small percentage (3%) of residents in the 60-64 age cohort does not suggest a large potential for increased housing turnover in the near future.
- 55% of households have lived in their present homes fewer than ten years, another factor which suggests less potential for housing turnover.

The second set of projections in this Report is based upon the building of a new high school and restoring portions of the program which have been cut. With less out-migration of students in grades 9 through 12, the projected enrollment for 2015-16 is 1,890 students; that is, 172 additional students in grades Pre-K-12. The projected high school enrollment for 2015-16 is 517 pupils.

In using the second set of projections we issue a caution. An exception in the historical pattern for in-migration between birth and Kindergarten occurred this year. In-migration to Kindergarten for the 2005-06 school was only 9% (versus an average of 32% in the past 10 ten years). Pre-registration for 2006-07 Kindergarten indicates the enrollment will be close to the historical ratio. However, it is possible the district will experience lower in-migration again which would decrease the enrollment projections.

Sutton deserves to be commended for commissioning this study. The town is engaged in thoughtful, data-based planning and prudent use of available resources. Planning for municipal and school needs begins with a firm grounding in community data and accurate forecasting of future population and school enrollments.

I. DEMOGRAPHY AND ENROLLMENT PROJECTIONS

A. TOWN-RELATED FACTORS

The preparation of enrollment forecasts is an integral part of the long-range planning process. Some of the factors to be considered in this effort pertain to the Town of Sutton—specifically, the population size and age composition, growth and nature of housing units, number of births to residents, and in/out migration patterns.

Unless otherwise noted, the statistical information in Tables 1-7 is from the 2000 Federal Census, augmented and brought up-to-date by estimates. Census data provide useful snapshots that can be compared across time and across communities. These data are buttressed by information from the Town Office, Building Department, School Department, School Building Committee and town records, as well as the Central Massachusetts Regional Planning Council, Massachusetts Department of Public Health, Community Planning Initiative of the Massachusetts Executive Office of Environmental Affairs, and The Warren Group, *Banker and Tradesman*. Sue Rothermich, Lyn Dahlin and Jen Hager provided valuable information. Also helpful were conversations with area realtors and a visual inspection of several Sutton neighborhoods.

Population Size - Tables 1, 1A, 1B

Located in a scenic, semi-rural area, Sutton is an historic town founded in 1704, and is a part of a section of Worcester County called the "Blackstone Valley" which runs from Worcester south to Rhode Island. The town consists of five villages: Sutton Center, Manchaug, Wilkinsonville, West Sutton, and South Sutton, served by Routes 146 and 122A. As Table 1 and the accompanying graph demonstrate, 16.5% growth took place in Sutton between 1980 and 1990, a gain of 969 residents. The pace of growth accelerated to 20.9% between 1990 and 2000 with an increase of 1,426 residents. Sutton's population growth in the 1990's occurred at a time

when Worcester County and the state were experiencing growth of about 5%.

TABLE 1: TOTAL POPULATION

STATE OF MASSACHUSETTS:

	POPULATION	NO. CHANGE	%CHANGE
1980	5,737,037		
1990	6,016,425	279,388	4.9%
2000	6,349,097	332,672	5.5%

WORCESTER COUNTY:

	POPULATION	NO. CHANGE	%CHANGE
1980	646,352		
1990	709,705	63,353	9.8%
2000	750,963	41,258	5.8%

TOWN OF SUTTON:

	POPULATION	NO. CHANGE	% CHANGE
1980	5,855		
1990	6,824	969	16.5%
2000	8,250	1,426	20.9%

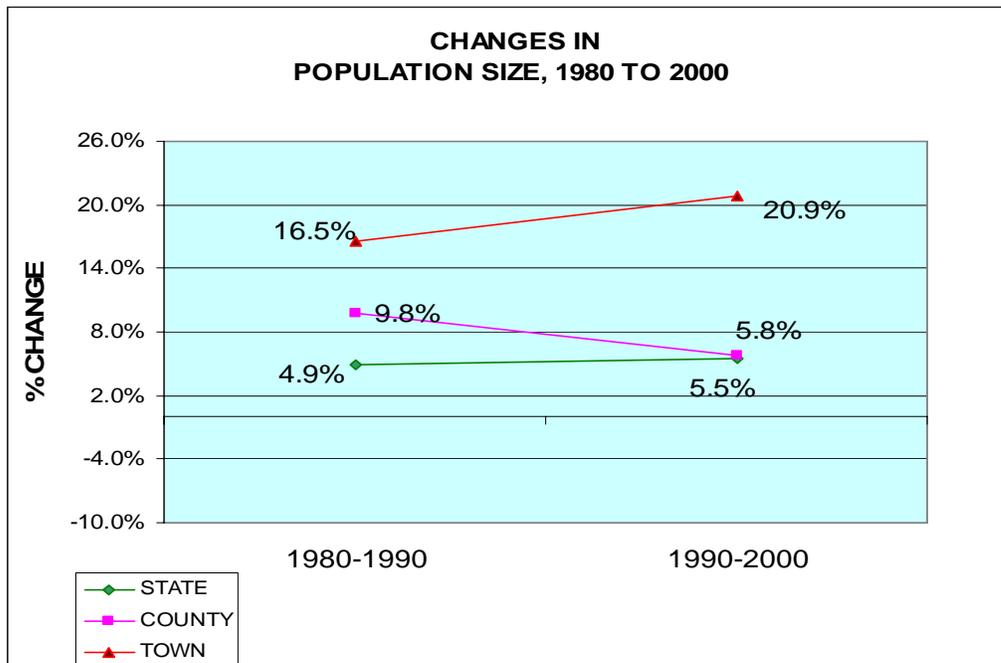


Table 1A
Displays the Growth in Sutton since 1940

T A B L E 1 A : S U T T O N P O P U L A T I O N		
	U . S . C E N S U S	P e r c e n t a g e G r o w t h
1 9 4 0	2 , 7 4 9	
1 9 5 0	3 , 1 0 2	1 2 . 8 0 %
1 9 6 0	3 , 6 3 8	1 7 . 3 0 %
1 9 7 0	4 , 5 9 0	2 6 %
1 9 8 0	5 , 8 5 5	2 7 . 6 0 %
1 9 9 0	6 , 8 2 4	1 6 . 5 0 %
2 0 0 0	8 , 2 5 0	2 0 . 9 0 %

In Table 1B we see a comparison of Sutton population figures using data from the US Census (published estimates) and from the Sutton Town Clerk. While the numbers do not agree, we gain information about the rate of growth from both charts. Massachusetts Institute for Social and Economic Research (MISER) at UMass-Amherst predicted continued growth in the region in the decades from 2000 to 2020, anticipating 19.9% growth (+1,586) in total population by 2020.

**TABLE 1B: SUTTON POPULATION:
Beyond 2000**

	US Census Estimates	Percentage Growth	Data from Town Clerk	Percentage Growth	MISER Projections
2001	8,554				
2002	8,712	1.80%			
2003	8,863	1.70%	8,969		
2004	8,878	0.00%	9,259	3.20%	
2005			9,388	1.40%	
2006			9,458*	1.8%*	
2010			9,900**		9,067
2020			11,880**		9,836

*Town clerk data as of 4/26/06. Percentage pro-rated.

**Estimates

Table 1C places the town in a regional context. Sutton experienced 20.9% growth during the 90's. Only Douglas (29.6%) and Millville (21.8%) displayed more growth than Sutton on a percentage basis. Three communities, Upton (20.6%), Charlton (18%) and Grafton (14.3%) experienced more than 10% growth; two communities, Southbridge and Northbridge, shrank in population during the 1990's on a percentage basis. Surrounding towns, Millbury, Webster, and Hopedale grew by very modest amounts, less than 5%; while Dudley, Oxford, Uxbridge, Auburn and Blackstone grew between 5% and 10%. Thus the towns surrounding Sutton represent a region of diverse issues with respect to growth.

TABLE 1C
Regional Population Growth 1990 – 2000
(change in persons and percentage)

Sutton +1426 +20.9%	Northbridge -189 -1.4%	Grafton +1,859 +14.3%	Douglas +1,607 +29.6%
Oxford +764 +6%	Millbury +556 +4.5%	Uxbridge +741 +7.1%	Webster +219 +1%
Auburn +896 +6%	Upton +965 +20.6%	Millville +488 +21.8%	Charlton +1,687 +18%
Southbridge -602 -3%	Dudley +496 +5%	Hopedale +241 +4.3%	Blackstone +781 +9.7%

Age Composition – Tables 2, 3, 4, 5

Table 2 and the following graphs indicate that the number and percentage of Sutton residents under the age of 18 increased slightly from 28.3% to 29.4% between 1990 and 2000, a percentage somewhat higher than for Worcester County and the state as a whole. Meanwhile the median age in Sutton rose from 30.3 in 1980 to 33.5 in 1990 and to 36.5 in 2000 (mirroring the

rise for the county and state).

TABLE 2: PERCENTAGE OF POPULATION UNDER THE AGE OF 18 AND MEDIAN AGE

STATE OF MASSACHUSETTS:

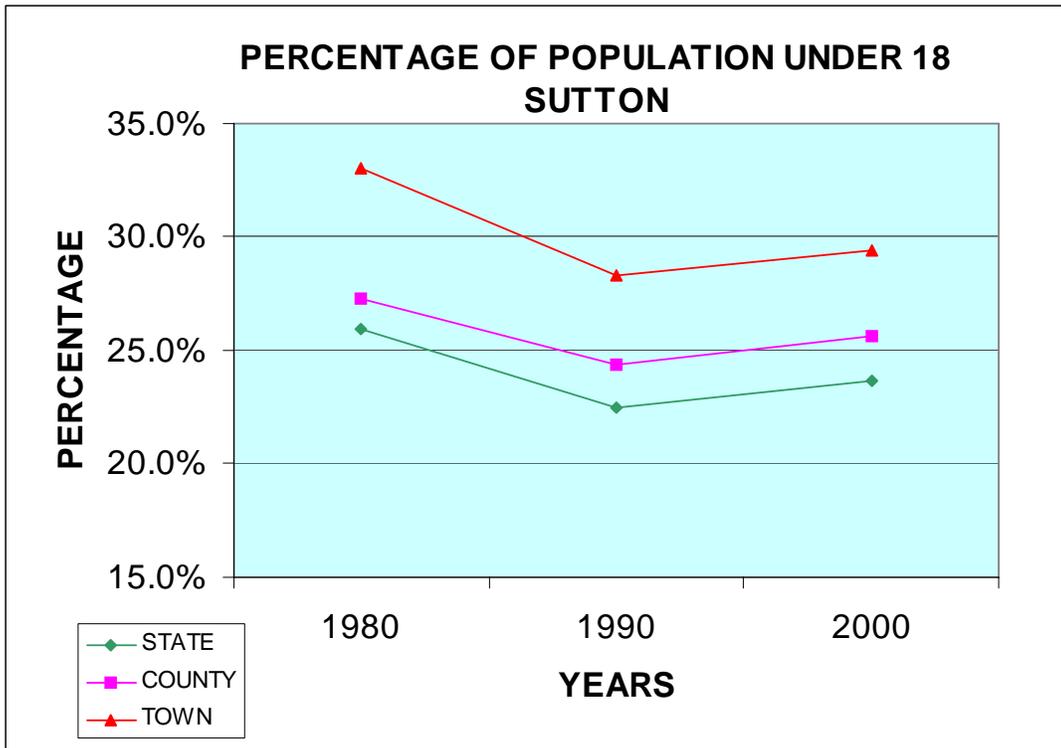
	NO. UNDER 18	% UNDER 18	MEDIAN AGE
1980	1,490,389	26.0%	31.1
1990	1,353,075	22.5%	33.6
2000	1,500,064	23.6%	36.5

WORCESTER COUNTY:

	NO. UNDER 18	% UNDER 18	MEDIAN AGE
1980	176,240	27.3%	30.9
1990	173,199	24.4%	33.1
2000	192,448	25.6%	36.3

TOWN OF SUTTON:

	NO. UNDER 18	% UNDER 18	MEDIAN AGE
1980	1,932	33.0%	30.3
1990	1,931	28.3%	33.5
2000	2,429	29.4%	36.5



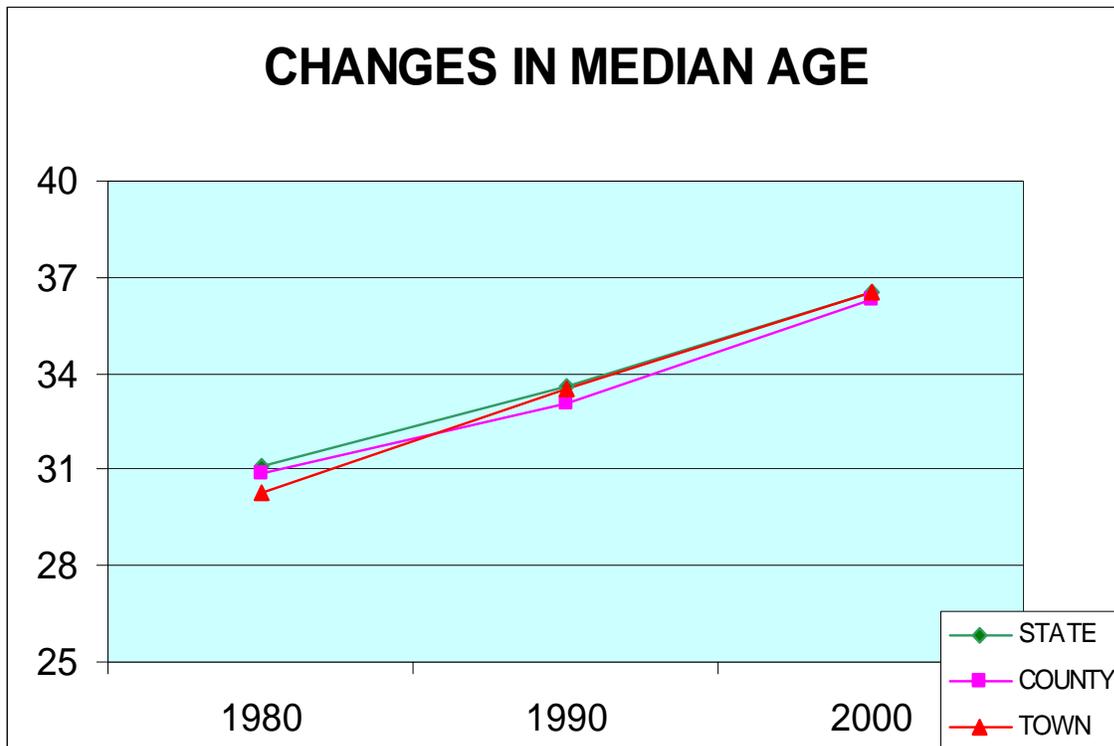


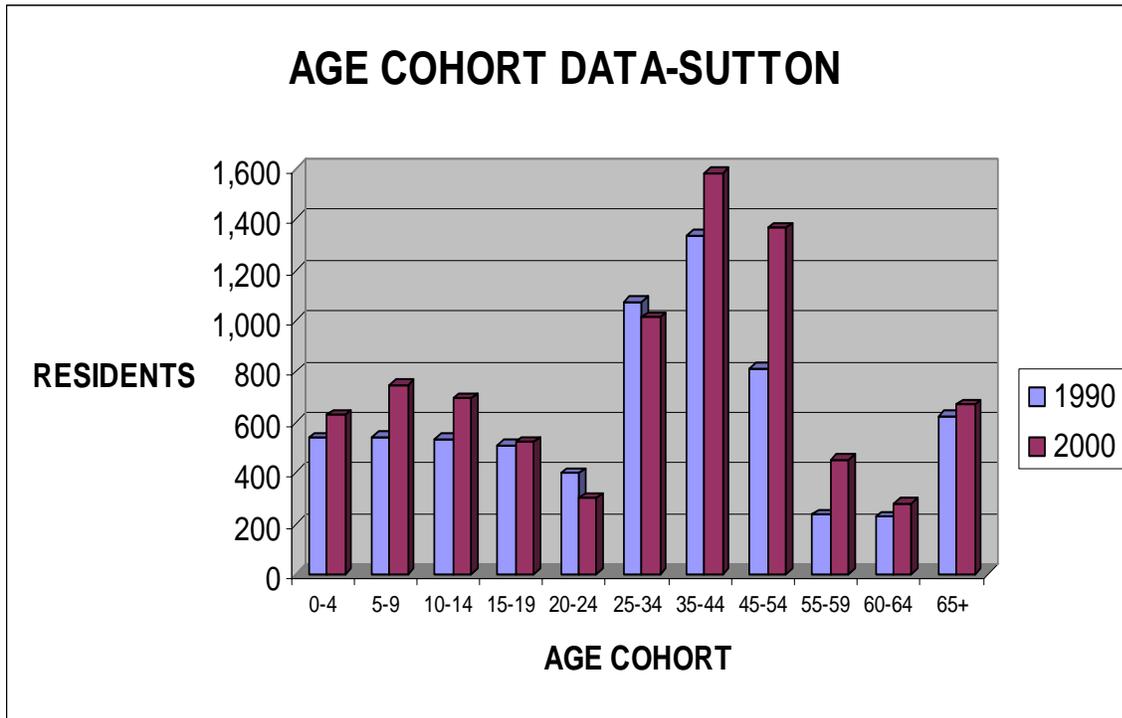
Table 3 and the following graph provide valuable information for helping to project the potential for future births, as well as the potential for future turnover of housing units. It is crucial in understanding the dynamics of growth in Sutton during the 1990's to realize that although the overall population totals increased by 1,426 persons, there were some dramatic shifts in the age cohorts. The population from age 0-34 grew by 9% (+307 persons), whereas the age 35+ group increased by 35% (+477 persons). Children in the age 0-14 cohort increased by 28% (+455) as compared to the number in 1990 (1,612 children in 1990 v. 2,067 in 2000); in 2006, these are the 5-18 year olds who currently impact the school enrollment. The cohorts from ages 20-34, taken together, shrank from 1,470 persons in 1990 to 1,312 persons in 2000, a loss of -158 persons (-11%) and it is the size of these cohorts which have the greatest impact on future births. The age cohort from 35-44 grew by +246 persons (18.4%). Although, anecdotally we know of women in this latter age range now giving birth, the numbers of births to this age group remain statistically much smaller than the number of births to younger women (88% of births to the younger group v. 12% of births to the older group). Although some professional women do choose to have children in the older age range, others choose to have none. The *Age-Specific Fertility Rates* graph displays the national statistics.

**TABLE 3
AGHE COHORT DATA – SUTTON, MA**

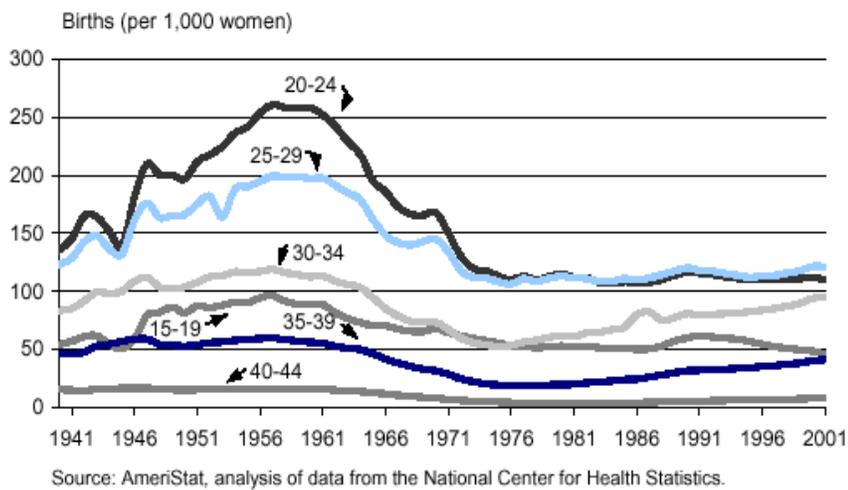
AGE	SIZE OF COHORT			% CHANGE, 1990 TO 2000
	1980	1990	2000	
0-4	439	537	629	17.1%
5-9	533	541	744	37.5%
10-14	621	534	694	30.0%
15-19	508	511	521	2.0%
20-24	363	398	300	-24.6%
25-34	1,015	1,072	1,012	-5.6%
35-44	819	1,339	1,585	18.4%
45-54	497	811	1,366	68.4%
55-59	298	233	450	93.1%
60-64	228	225	279	24.0%
65+	534	623	670	7.5%
TOTAL:	5,855	6,824	8,250	20.9%

**Age cohort 20-34
Decreased -158**

**Age cohort 35-65+
Increased +1,119**



Age-Specific Fertility Rates, 1940–2001



In the 1990's, the number of residents age 65 and above increased by only 47 persons (7.5%) but the community experienced a 24% increase in the 60-64 age cohort and a 93.1% increase in the 55-59 cohort. A community can grow in population through the turnover of existing housing stock from families with no young children (the “empty nesters”) to families with young children. Although the percentage increase in these age cohorts, now 60-64 and 65+, was high, the absolute numbers are not as great, suggesting that the potential for increased property turnover is not high during the next ten years.

Table 4 and the related graph indicate a K-12 Sutton public school population that shrank by 129 students through the 1980's, and then rose by 465 students during the 1990's. However, it should be noted that the US Census figures do not include choice-in students. The Pre-K-12 student population, including choice students, in the public schools for the 2005-06 school year is 1,718.

**TABLE 4
PERCENTAGE OF K-12 ENROLLMENT IN POPULATION**

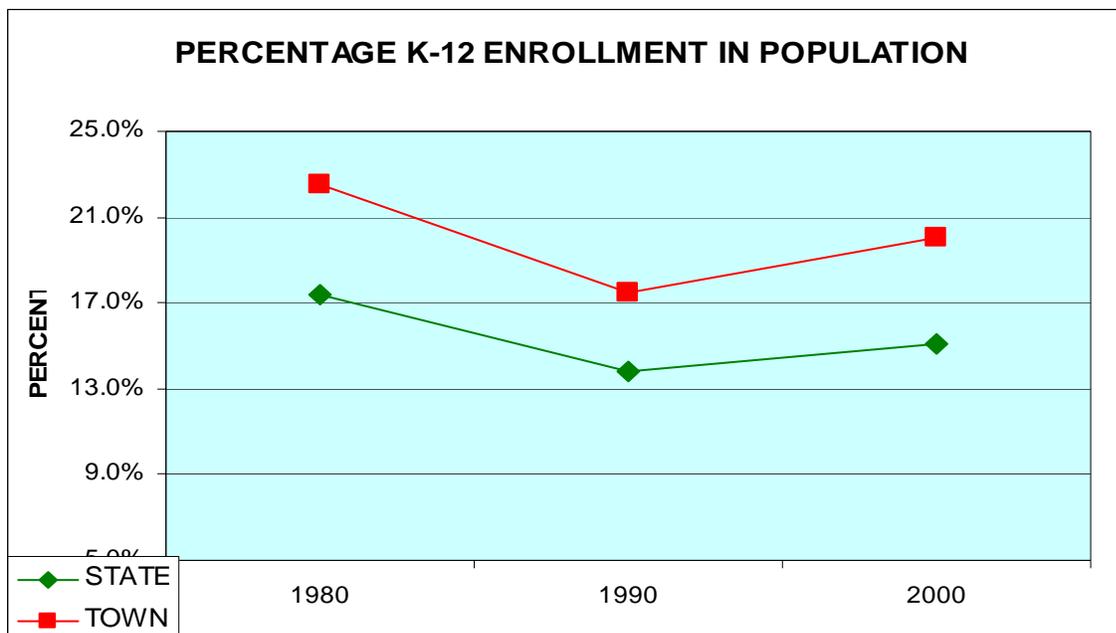
STATE OF MASSACHUSETTS:

	POPULATION	PUBLIC K-12 ENROLLMENT*	% K-12 ENR. IN POPULATION
1980	5,737,037	999,818	17.4%
1990	6,016,425	828,816	13.8%
2000	6,349,097	959,655	15.1%

* Source: Massachusetts Department of Education

TOWN OF SUTTON:

	POPULATION	PUBLIC ENROLLMENT	% K-12 ENR. POPULATION
1980	5,855	1,319	22.5%
1990	6,824	1,190	17.4%
2000	8,250	1,595	19.3%



**TABLE 5
POPULATION BY RACE AND HISPANIC ORIGIN**

STATE OF MASSACHUSETTS:

	WHITE	BLACK	ASIAN	OTHER	% NON-WHITE	HISPANIC ORIGIN (of any race)	% HISPANIC
1980	5,362,836	221,279	49,501	103,421	6.5%	141,043	2.5%
1990	5,405,374	300,130	143,392	167,259	10.2%	287,549	4.8%
2000	5,367,286	343,454	238,124	400,233	15.5%	428,729	6.8%

WORCESTER COUNTY:

	WHITE	BLACK	ASIAN	OTHER	% NON-WHITE	HISPANIC ORIGIN (of any race)	% HISPANIC
1980	626,890	8,724	2,840	7,898	3.0%	14,217	2.2%
1990	665,768	15,096	11,439	17,402	6.2%	32,940	4.6%
2000	672,915	20,498	19,700	37,850	10.4%	50,864	6.8%

TOWN OF SUTTON:

	WHITE	BLACK	ASIAN	OTHER	% NON-WHITE	HISPANIC ORIGIN (of any race)	% HISPANIC
1980	5,842	1	16	26	0.7%	35	0.6%
1990	6,784	3	20	17	0.6%	22	0.3%
2000	8,100	23	49	33	1.3%	58	0.7%

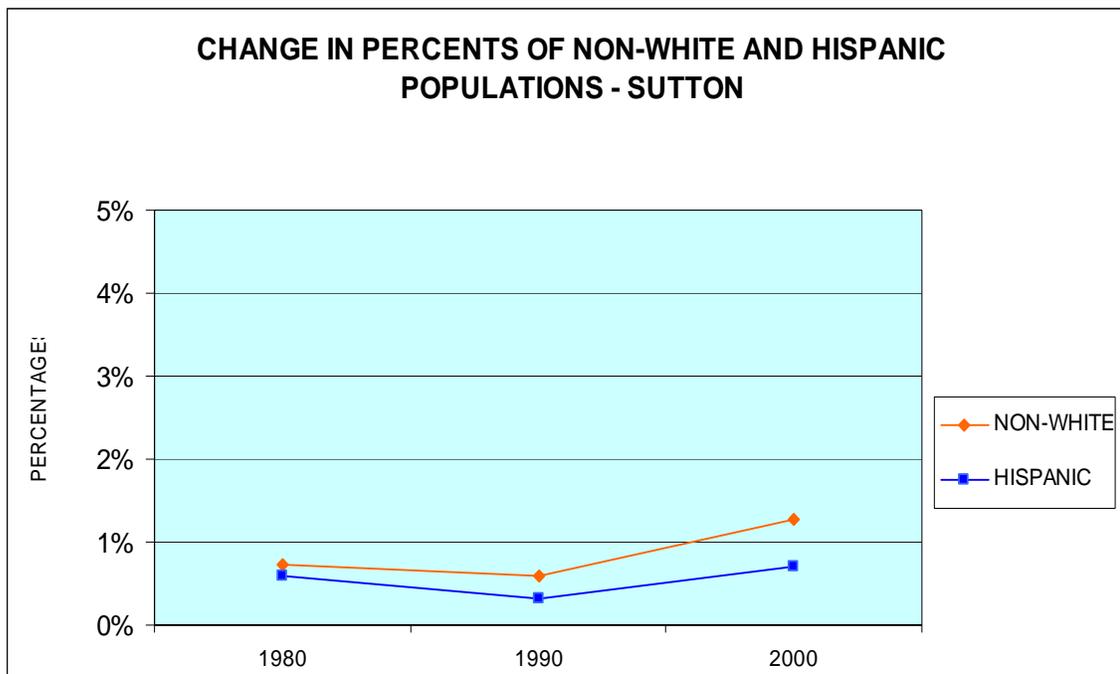
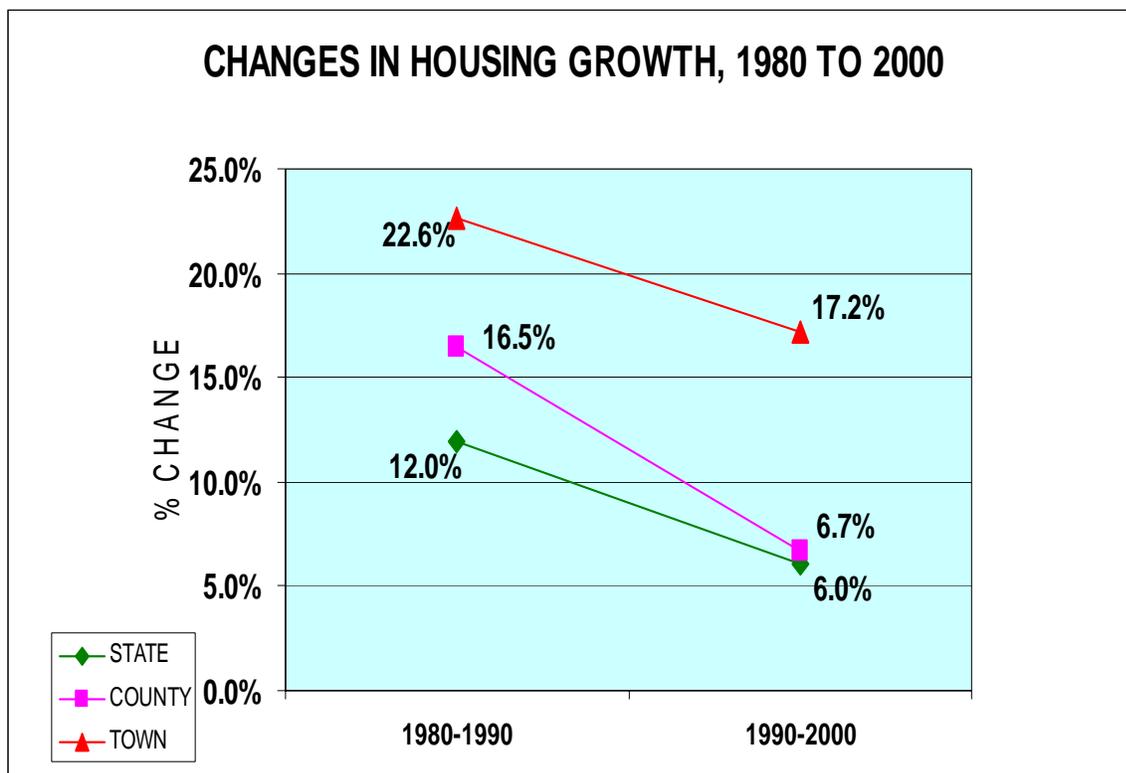


Table 5 and the related graph display the Population by Race and Hispanic Origin. These figures indicate a lack of diversity in the town of Sutton in comparison to growth through the 1990's in the non-white population in Worcester County and in the state as a whole.

The 2000 Census reported 205 residents born outside the United States. Of the 67 persons reporting that they speak English less than “very well”, 64 speak Spanish. When persons were asked to identify their ancestry, 2,718 persons reported French/French Canadian; 2,394 persons reported Irish or Scots-Irish; 1,474 reported English/Scottish/Welsh; 1,094 reported Italian; and 701 Polish; to note the largest groups.

Housing Growth – Tables 6, 6A-E

According to the 2000 Census, Sutton increased by 433 dwelling units during the relatively affluent decade of the 1990's, compared with 464 units added during the 1980's. The 1990 Census listed 2,517 dwellings (including 67 mobile homes), compared with 2,950 dwellings (including 8 mobile homes) in 2000. Thus, during the 1990's, 59 mobile homes were replaced with permanent dwellings for a total of 492 (433 + 59) units constructed over the decade. As land becomes more expensive, the number of mobile homes often decreases. At the time of the 2000 Census, 95% of all dwellings were occupied. Of these, 89% were owner-occupied and 11% renter-occupied. Less than 1% of the housing is identified as affordable. Thus the town could be a candidate in the future for the construction of affordable housing under Chapter 40B.



According to the 1990 Census, 550 households were added (24%) in that decade; that is, 2,811 households in 2000 v. 2,261 in 1990. In the vocabulary of the Census Bureau, a “household” is an occupied dwelling.

Table 6B documents the fluctuations in the number of building permits over the past 20 years. For the past ten years (1996-2005) the average number of housing permits was 63. The five year permit average was 55, an indication that the pace of building new homes is not accelerating. It should be noted that condos have made up an increasing number of the housing permits: 2003: 42 permits (8 condos included); 2004: 45 permits (20 condos included); and 2005: 62 permits (33 condos included). As of March 2006, 10 of the 13 permits issues are for condos.

The lag from permitting to occupancy to full impact upon school enrollment is described below. In addition to new homes, there are a number of additions or remodelings each year. The number of persons per unit (currently 2.8 persons) has increased only slightly. Sutton’s residents per household have been somewhat above the state average which reflects statewide rentals and single-parent families.

**TABLE 6A
HOUSING DETAIL 1990 V. 2000**

1990 Dwellings	Occupied	Vacant	2000 Dwellings	Occupied	Vacant
Total 2517	2261	256	Total 2950	2811	139
		Seasonal			Seasonal
1 unit detached	Owner	169	1 unit detached	Owner	81
2103	1,944		2571	2,498	
	86%			89%	
1 unit attached	Rental		1 unit attached	Rental	
26	317		63	313	
	14%			11%	
2-4 units			2-4 units		
247			217		
5-9 units			5-9 units		
51			45		
10 or more			10 or more		
23			16		
Mobile - 67			Mobile - 8		

Source: U.S. Census, Tables DP-1, 4

**TABLE 6A (continued)
SUTTON HOUSING DETAIL**

YEAR STRUCTURE BUILT		
	Number	Percent
1990's (to 3/2000)	690	24%
1980's	436	15%
1970's	422	14%
1960's	330	11%
1940's/50's	361	12%
Prior to 1940	711	24%
ROOMS (6.8 rooms median)		
1-3 rooms	104	3%
4 rooms	200	7%
5 rooms	347	12%
6 rooms	636	22%
7 rooms	583	20%
8 rooms	656	22%
9 or more rooms	424	14%
YEAR HOUSEHOLDER MOVED INTO UNIT		
1995 to March 2000	930	33%
1990 to 1994	490	22%
1980 to 1989	521	19%
1970 to 1979	387	14%
1969 or earlier	483	17%

**TABLE 6B
SUTTON BUILDING PERMITS**

Year	Units		Year	Units	
	S-F	Multi		S-F	Multi
1986	56		1996	50	
1987	80		1997	57	
1988	86		1998	68	24
1989	51		1999	101	28
1990	18		2000	79	
1991	39		2001	60	
1992	46		2002	64	
1993	62		2003	42	
1994	97		2004	45	
1995	47		2005	62	

Average 1986-95 = 58

Average 1996-2005 = 63

The rising cost of houses can be seen in Tables 6C and 6D. In 2003, 110 single-family properties (median price \$320,000) were sold in Sutton. Also sold in 2003 were 15 condominiums (median price of \$239,000). In 2005 there were 100 single family properties, with a median price of \$364,500, and 41 condos, with a median price of \$315,000, sold in

Sutton. During the past ten years, the number of single-family home sales since 1996 has averaged 115 per year. However, between 2001 and 2005, the average number of home sales was slightly less, averaging 107 per year. A survey of 70 single-family properties recently on the market revealed only 7 homes priced below \$300,000; 11 were advertised in the \$300-400,000 range; 17 in the \$400-500,000 range; 14 in the \$500-600,000 range; 10 in the \$600-700,000 and 11 properties above \$700,000. Of 21 condos recently advertised, 4 were in the \$200-300,000 range; 8 in the \$300-400,000 range and 9 condos were in the \$600,000 to \$1 million range. Sutton also had one multi-family residence on the market.

TABLE 6C
2003 MEDIAN PROPERTY SALES
(single-family median above; # sales in paren; condo median sales below)

Sutton \$320,000 (110) C \$239,000 (15)	Northbridge \$280,000 (183) C \$139,500 (32)	Grafton \$319,500 (210) C \$234,000 (106)	Douglas \$263,500 (114) C \$182,000 (15)
Oxford \$201,000 (190) C \$129,000 (42)	Millbury \$240,000 (164) C \$252,000 (50)	Uxbridge \$275,000 (151) C \$209,500 (78)	Webster \$199,000 (195) C \$170,000 (19)
Auburn \$217,500 (240) C \$175,000 (34)	Upton \$387,000 (110)	Millville \$227,500 (42) C \$179,500 (16)	Charlton \$247,500 (182) C \$154,000 (15)
Southbridge \$165,000 (134) C \$107,000 (26)	Dudley \$230,000 (113) C \$67,000 (13)	Hopedale \$318,000 (59) C \$216,500 (37)	Blackstone \$253,000 (88) C \$210,000 (29)

Source: Warren Group, *The Commercial Record*, Banker and Tradesman

TABLE 6D
2005 MEDIAN PROPERTY SALES
(single-family median above; # sales in paren; condo median sales below)

Sutton \$364,450 (100) C \$315,000 (41)	Northbridge \$308,500 (159) C \$105,000 (115)	Grafton \$400,000 (191) C \$315,000 (217)	Douglas \$310,000 (120) C \$217,000 (15)
Oxford \$250,000 (156) C \$188,250 (50)	Millbury \$296,500 (115) C \$295,900 (64)	Uxbridge \$315,000 (147) C \$267,000 (104)	Webster \$230,000 (188) C \$210,000 (43)
Auburn \$261,000 (253) C \$219,500 (36)	Upton \$415,000 (97) C \$290,000 (13)	Millville \$301,000 (37) C \$193,000 (11)	Charlton \$297,000 (170) C \$212,450 (14)
Southbridge \$250,000 (156) C \$188,250 (50)	Dudley \$254,000 (151) C \$154,500 (25)	Hopedale \$340,000 (71) C \$261,500 (42)	Blackstone \$288,500 (90) C \$247,000 (47)

Source: Warren Group, *The Commercial Record*, Banker and Tradesman

A survey of local realtors revealed that the housing market has slowed. However, high-end condos are still selling. Sutton has 2-acre zoning which has a limiting effect on the number of subdivisions. Realtors believe that the opening of a new interchange with the Mass Pike from Route 146 in Millbury has increased the value and attractiveness of Sutton—both commercially and residentially. Realtors report that, despite low mortgage rates, some families with young children are finding it difficult to afford a house in Sutton at the current asking prices on the market, and consequently, the number of persons with school-age children inquiring about residential purchase in Sutton is down.

Thirteen parcels of land are currently advertised, starting at \$135,000 for a 2.55 acre parcel and ranging up to \$3.8 million for 16 acres. Two parcels were listed below \$200,000, and 6 parcels were listed between \$225,000 and \$300,000. Larger parcels of land ranged between \$700,000 and \$3.8 million. It is clear that land is available for development, if economic conditions are favorable. Although Sutton has two acre zoning, it is possible for a developer, under the state guidelines from Chapter 40B, to construct affordable housing, by-passing the

local zoning by-law, due to the lack of affordable housing in Sutton.

**TABLE 6F
SUTTON, MA PROPERTY = RECENT ASKING PRICES**

Single-Family Residences (70)
\$200 - \$299,900 = 7 properties
\$300 - \$399,900 = 11 properties
\$400 - \$499,900 = 17 properties
\$500 - \$599,900 = 14 properties
\$600 - \$699,900 = 10 properties
\$700 - \$1M = 11 properties

Condominiums (21)
\$200 - \$299,900 = 4 properties
\$300 - \$399,900 = 8 properties
\$600 - \$980,000 = 9 properties

Land (various) 13 parcels
Range from \$135,000 for 2.55 acre to \$3.8M for 16 acres

In addition to new construction, property turnover can increase school enrollments. As seniors seek to downsize, their properties come on the market for potential purchase by young families. The addition of age-restricted housing often triggers an “echo effect”, as families with school-age children purchase the vacated larger homes. Occasionally somewhat younger empty-nesters will sell their homes, not waiting until they become senior citizens. Sometimes re-valuation causes homes to come on the market, as large increases in assessments cause owners to place properties on the market in order to realize the financial gain. Spikes in market prices sometimes have the same effect in causing owners to place property on the market...a “buy low-sell high” effect.

A review of special housing issues, housing for 55+ as well as Chapter 40B housing, with Town Planner, Jen Hager, did not indicate additional impact on school enrollment. After considering current projects and yet-to-be files projects, the “Echo” impact upon the school system from increased 55+ housing appears to be negligible. In reviewing proposals which include Chapter 40B housing under consideration, these proposals address housing for the 55+ population rather than families with children, and also appear not to be a factor in the Sutton school enrollment projections.

The turnover rate in Sutton has averaged 107 per year for the past 5 years, and 115 per year for the past 10 years, indicating the turnover has been somewhat lower since 2000. The 2000 Census documented that 930 households (33%) had moved into their Sutton dwelling between 1995 and March 2000; 490 households (22%) moved in from 1990 to 1994; and 521 households (19%) moved in from 1980 to 1989; 387 households (14%) from 1970 to 1979 and 483 households (17%) moved into their dwellings in 1969 or earlier. These data indicate significant turnover in the past 10 years (55%). The above data, combined with the smaller percentages of the population (only 8.8%) in the 59-64 and 65+ age cohorts, suggest the potential is not great for an increased number of turnover homes to come on the market in the next decade, and the impact on enrollment figures will follow recent patterns.

The Community Preservation Initiative of the MA Office of Environmental Affairs estimated that in 2000, Sutton stood at about 38% of build-out. Based upon current zoning, the State estimated that Sutton could grow to 7,797 units at build-out (v. 2,950 units in 2000...thereby adding 4,847 dwellings!); to an estimated build-out population of 25,699 persons (v. 8,250 residents in 2000). By 2005, about 273 dwellings had been added since 2000. It can be questioned whether Sutton ever will reach these build-out totals, yet the point seems clear that substantial growth is possible. Sutton is comprised of 69.5% forest, wetlands, and open space, 9% agricultural, 14.1% residential, 3% commercial, industrial, transportation and 4.4% water.

Sutton is located in the Blackstone River Valley, which is situated between Interstates 90, 395 and 495, providing good highway access to Worcester, Providence and Boston. With the opening, of the Massachusetts Turnpike—Route 20, Route 146 Interchange, Sutton anticipates both residential and commercial growth. At the time of this report, Sutton does not have public transportation available to its residents. Sutton is a member of the Worcester Regional Transit Authority but does not receive service. Residents must leave Sutton to find shopping malls or large stores.

Other Economic Factors – Table 7

As reported in the 2000 Census, the Sutton median family income was \$81,000. “Management/Professional” (47%); “Sales and Office Occupations” (24%); “Service Occupations” (11%) and “Production, transportation, and material moving” (11%) were the largest occupations. “Education/Health/Social Services” (28%); “Manufacturing” (15%); “Retail” (11%); and “Professional/Scientific/Management” (8%) provided a large number of jobs. These were followed by “Finance/Insurance” (7%); “Wholesale Trade” (7%); “Construction” (5%); “Transportation and warehousing” (5%); “Public Administration” (4%); “Arts/Entertainment/Recreation” (4%) and “Other Services” (4%). In 2000, less than 1% of the family incomes were below the poverty level. Of the 79 families living below poverty level, 66 had children under 18 years of age, and 42 families had children under five years of age.

Table 7 and graph display the number of K-12 Sutton public school students per dwelling. This statistic, 0.64 students per dwelling unit in 1980, was substantially higher than the state figures. By 1990 the K-12 students per unit ratio had shrunk to .47. Sutton experienced an increase in this ratio during the 90’s reaching .54 in 2000. In 2005, there are approximately .49 students per dwelling (1,574 Sutton students in grades K-12 v. 3,223 estimated dwellings). Roughly speaking, every ten Sutton dwellings will yield about five public school students in grades K-12, a statistic higher than the state as a whole (.37 public school K-12 students per dwelling unit). The number of Sutton households with individuals under the age of 18 was (29.4%) in 2000. These latter numbers include students in public, private, parochial, and vocational school, school dropouts, and those too young for school.

TABLE 7
NUMBER OF K-12 STUDENTS PER DWELLING UNIT

STATE OF MASSACHUSETTS:

	# OF DWELLING UNITS	PUBLIC K-12 ENROLLMENT	K-12 STUDENTS PER UNIT
1980	2,208,146	999,818	0.45
1990	2,472,711	828,816	0.34
2000	2,621,989	959,655	0.37

2000 Number of Households with individuals under 18: 804,940
 2000 Percentage of Households with individuals under 18: 32.9%

	# OF DWELLINGS UNITS	PUBLIC K-12 ENROLLMENT	K-12 STUDENTS PER UNIT
1980	2,053	1,319	0.64
1990	2,517	1,190	0.47
2000	2,950	1,595	0.54
2005	3,223	1,574	0.49

Births– Table 8

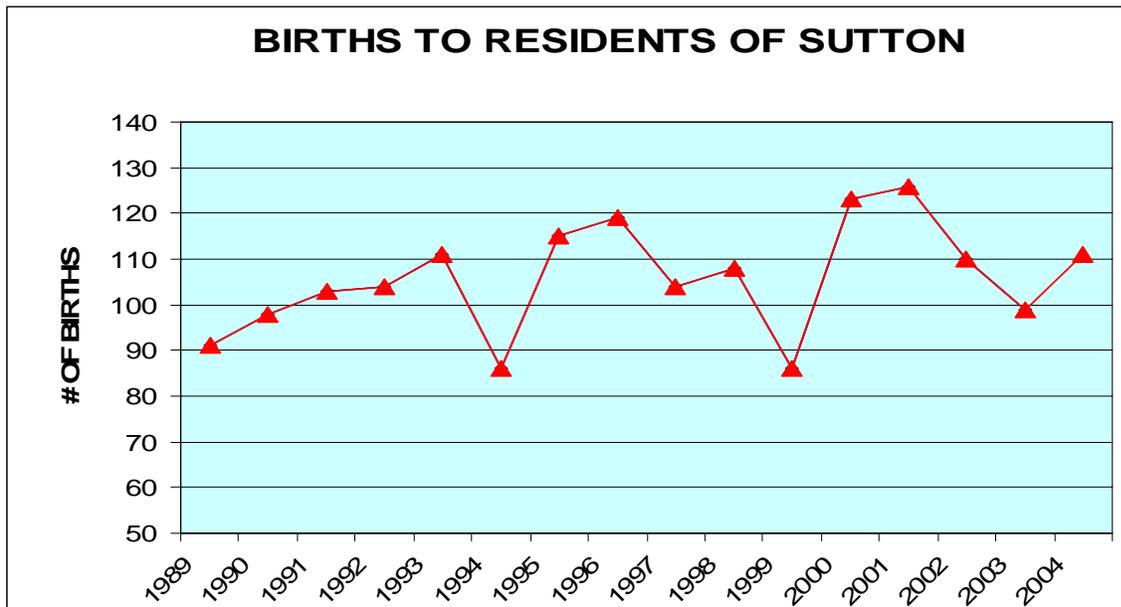
Table 8 and the accompanying graph display the annual number of Sutton births from 1989 to 2004. Birth data is obtained from the Massachusetts Department of Public Health. This data is available from town clerks or town reports, although such numbers tend to be incomplete, as not all births, particularly from remote hospitals, are reported to local officials. In the past 15 years, the number of Sutton births has increased from an average of 101 in 1989-93; to 106 in 1994-98; and 109 in 1999 to 2003. The more recent birth data for 2004 shows an increase in the number of births to 111. Given the shrinking number of persons in the 20-34 age cohort described in Table 3, there appears to be little potential for the annual number of births to current residents to rise significantly above 108-112 in the near term.

TABLE 8

LIVE BIRTHS TO RESIDENTS OF SUTTON

YEAR	# OF BIRTHS	AVERAGE	% CHANGE
1989	91	101	4.9%
1990	98		
1991	103		
1992	104		
1993	111		
1994	86	106	2.3%
1995	115		
1996	119		
1997	104		
1998	108		
1999	86	109	
2000	123		
2001	126		
2002	110		
2003	99		
2004	111		

Source: MA Department of Public Health



B. HISTORICAL ENROLLMENT

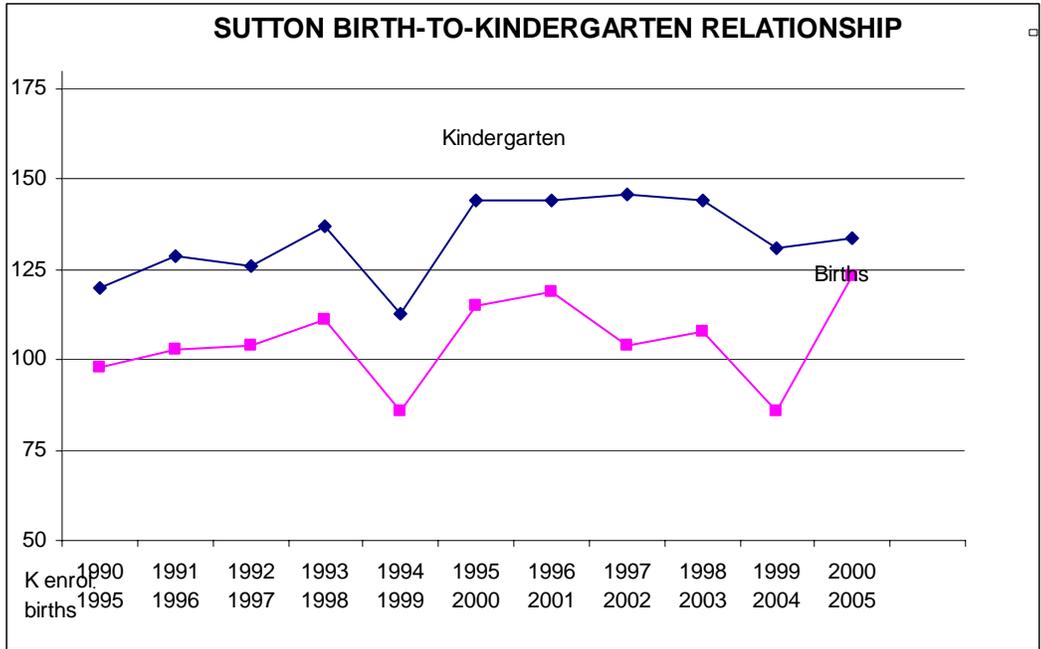
Historical Enrollment – Public Schools – Tables 9, 10

The Pre-K-12 historical enrollment for Sutton students over the past eleven years is shown in Table 9 and in the following graph, and in Table 10 in grade combinations. Choice students are included in the historical enrollment figures. From 1995-2005, the Sutton Public Schools increased by 216 students (1,358 K-12 students in 1995-96 v. 1,718 students in 2005-06). Students registered in public Kindergarten, on average, have represented about 132% of the Sutton births to residents five years previous; following Table 10, see the graph illustrating the Birth to Kindergarten relationship. For fall 2005, however, the Kindergarten registration represented only 109% of the Sutton births to residents five years previously. This is the lowest rate of in-migration in the past ten years and is display in chart below showing the birth to Kindergarten ratio.

The 2005 B-K ratio of 109% is a significant change from previous years and may be an anomaly. This ratio will need to be monitored in the years following this report to determine whether a new in-migration trend between birth and Kindergarten may occur. Given that the registration numbers for the 2006 Kindergarten are at 132% of the births, Sutton may have experienced the “hold-back” phenomenon, when parents decide to delay their child’s entry into Kindergarten, in the 2005-06 school year.

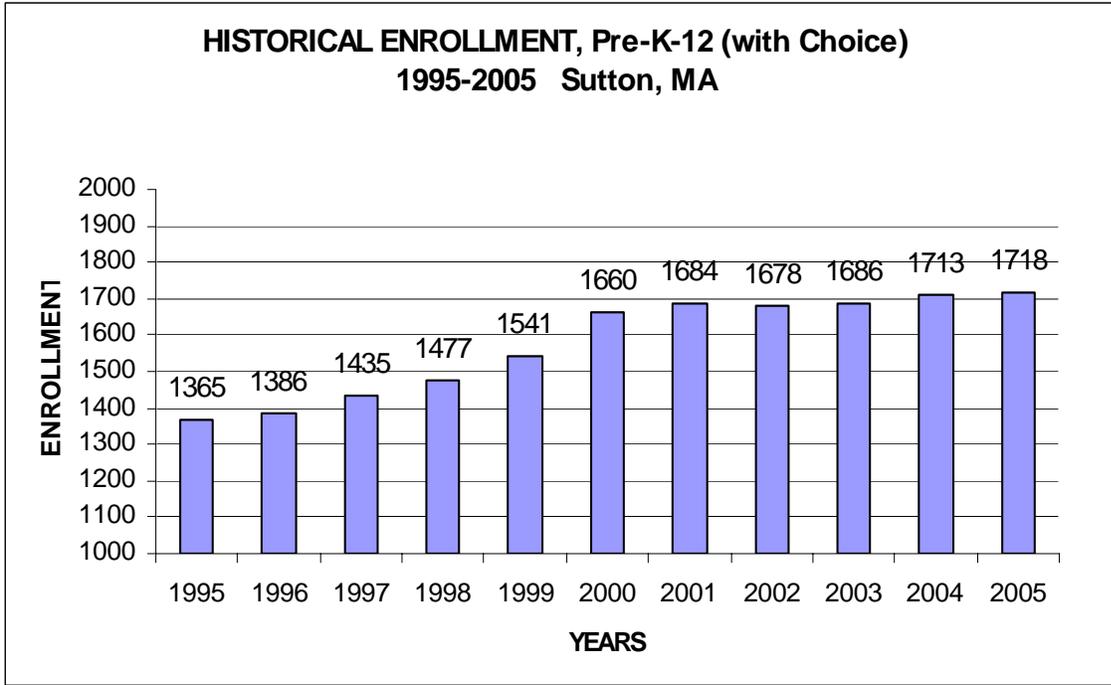
TABLE 8A
BIRTH TO KINDERGARTEN RATIOS

School Year	Birth/K %
1999	131%
2000	125%
2001	121%
2002	140%
2003	133%
2004	152%
2005	109%



Sutton does offer full-day Kindergarten so we do not see any significant in-migration between Kindergarten and first grade.

The progress of a class from Kindergarten through the grades can be traced by drawing a diagonal line from Kindergarten, dropping in the following year to grade 1 then to grade 2, etc. Sutton classes generally have grown by close to 1% per year in grades 1-5, (approximately 4-5%). Limited out-migration occurs in the middle school grades (5% for grades 6-8). At the high school, significant out-migration occurs at grade 9, as many students leave to attend non-public schools (approximately 20%). This is followed by lower out-migration in grades 10-12 (approximately 8%).



**TABLE 9:
SUTTON HISTORICAL ENROLLMENTS (with Choice)
BY GRADES PRE-K-12**

SCHOOL YEAR	Pre-K	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
1995-96		120	131	110	126	123	124	99	113	101	70	88	68	85	1358
1996-97		129	129	133	116	133	119	117	97	108	76	72	81	69	1379
1997-98		126	134	121	126	120	133	123	123	97	83	83	76	87	1432
1998-99		137	135	137	123	132	113	128	122	125	79	85	84	76	1476
1999-00		113	145	133	141	137	128	119	127	127	117	83	90	81	1541
2000-01	65	144	118	143	141	145	134	138	121	126	110	117	76	82	1660
2001-02	66	144	140	119	144	140	145	133	133	120	115	95	103	87	1684
2002-03	44	146	135	143	120	151	144	147	125	133	88	107	89	106	1678
2003-04	41	144	148	131	148	126	154	146	147	116	109	92	104	80	1686
2004-05	49	131	146	149	134	148	120	145	147	148	100	105	92	99	1713
2005-06	63	134	131	147	149	137	149	119	139	148	110	101	101	90	1718

Table 10
SUTTON HISTORICAL ENROLLMENTS (with Choice)
GRADE COMBINATIONS

SCHOOL					
YEAR	K-2	3-5	6-8	K-8	9-12
1995-96	361	373	313	1047	311
1996-97	391	368	322	1081	298
1997-98	381	379	343	1103	329
1998-99	409	368	375	1152	324
1999-00	391	406	373	1170	371
2000-01	405	420	385	1210	385
2001-02	403	429	386	1218	400
2002-03	424	415	405	1244	390
2003-04	423	428	409	1260	385
2004-05	426	402	440	1268	396
2005-06	412	435	406	1253	402

Historical Enrollment – Choice-in: Table 11

The historical enrollments in Tables 9 and 10 were calculated with the inclusion of school choice students. Sutton has seven years of historical data which show the number of Choice-in students in each grade. The students are factored into the ratios. However, since the district can decide at any point, not to bring in any additional students to the district under the School Choice program, no new Choice-in students are added into the projections. Choice-in students currently in the schools remain in the projections. As Table 11 displays, the average number of Choice-in students per grade level is 5, with fluctuations from grade to grade.

**TABLE 11
SCHOOL CHOICE-IN STUDENTS: SUTTON, MA**

SCHOOL YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
1999-00	3	4	3	4	6	0	2	6	3	4	5	5	3	48
2000-01	4	3	3	4	3	5	2	11	5	4	8	6	9	67
2001-02	6	3	4	7	2	6	4	3	10	7	5	9	8	74
2002-03	9	6	2	4	4	2	8	4	6	7	5	4	8	69
2003-04	3	4	4	2	7	4	4	12	2	7	8	5	5	67
2004-05	4	4	5	5	2	7	4	2	11	2	7	10	8	71
2005-06	4	4	4	7	6	2	4	4	4	7	1	8	10	65

Non-public School Enrollments: Table 12

The Massachusetts Department of Education does not track these enrollments, thus the data are derived from a commendable annual survey by the Sutton School Department, yet the data displayed in Table 12 may be incomplete. However, the following observations can be made: since Sutton provides full-day Kindergarten, the public Kindergarten enrollment has remained fairly constant, with a comparable number of children entering first grade as were enrolled in the previous year's Kindergarten. The number of (known) grade 1-5 students in non-public schools appears to remain 10 or less per grade. In grades 6-8, the number of students in non-public (independent and parochial) schools increases, reaching as high as 25 students per grade level out of the system. Sutton has always had a substantial number of students enrolled in private and parochial high schools. In the past two years over 100 students attended non-public high school, a substantial rise in number of students leaving the system.

TABLE 12
NON-PUBLIC SCHOOL ENROLLMENT SUTTON

SCHOOL YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	K-12 TOTAL
1995-96	6	3	9	4	8	2	5	12	11	28	15	31	16	150
1996-97	9	6	4	9	5	11	8	10	13	25	30	14	29	173
1997-98	6	12	8	4	10	8	14	8	10	21	22	25	20	168
1998-99	10	10	12	7	4	8	13	15	10	21	21	19	24	174
1999-00	7	11	9	11	7	4	8	12	15	15	12	21	17	149
2000-01	11	11	16	17	12	9	7	14	22	19	16	14	19	187
2001-02	6	6	7	13	8	11	9	11	9	25	26	20	15	166
2002-03	5	8	6	7	13	9	13	21	14	18	28	24	17	183
2003-04	5	5	8	6	7	13	9	16	25	28	18	27	24	191
2004-05	10	3	6	9	8	9	16	14	16	34	30	18	26	199
2005-06	5	6	4	9	11	7	10	23	18	34	28	23	18	196

Decisions to attend private or parochial schools are driven by a number of factors, including family tradition, economics, and relative satisfaction/dissatisfaction with various schools, public and private. Some Sutton parents may have chosen to enroll their children in non-public schools for family reasons unrelated to the public schools. However, with publicity regarding the findings contained in the 2004 New England Association of Schools and Colleges Report for the Sutton High School facility and program, and the fiscal issues for the school department, it is felt these factors may have contributed to a higher number of students in non-public schools. A policy question which needs to be asked is: what would be our plans if the numbers of Sutton students in grades K-12 currently attending private/parochial schools should begin to shrink? As new numbers become available each fall, the trend in the non-public percentages at each school level will provide additional planning insights.

C. PROJECTED ENROLLMENT

Methodology

The forecast immediately below is based upon the “status quo”, that is, without the impact of accelerated development or program changes in the schools. The cohort survival technique is the most frequently used method of preparing school enrollment forecasts. NESDEC, indeed, uses this technique, but modifies it in order to move away from forecasts that are wholly computer or formula driven. Such modification permits the incorporation of important and current town-specific information into the generation of the enrollment forecasts. Basically, percentages are calculated from the historical enrollment data to determine a reliable percentage of increase or decrease in enrollment between any two grades. For example, if 100 students enrolled in grade 1 in 2004-05 and the class increased to 110 students in grade 2 in 2005-06, the percentage of survival would have been 110%, or a ratio of 1.10. Such ratios are calculated between each pair of grades or years in school over several recent years.

Assuming the accuracy of the data provided, the ratios used then become the key factors in the reliability. The strength of the ratios lies in the fact that each ratio encompasses **collectively** the variables that could possibly account for an increase or decrease in the size of a grade enrollment as it moves on to the next grade. Each ratio, then, represents the cumulative effect of the factors below, listed in order of significance for the town of Sutton.

1. Migration, in or out, of the schools
2. Changes in school program
3. Housing patterns: growth, turnover and cost of housing
4. Age cohorts of the residents and number of births

This order will vary, depending upon conditions in each individual community.

Based upon a reasonable set of assumptions in regard to each of these factors, ratios most indicative of present/future trends are determined for each pair of grades or years. To project for the future, the ratios thus selected are applied to the present enrollment statistics for a predetermined number of years. In the case of Sutton, the assumptions, based upon historical patterns, are these:

1. The annual number of births to Sutton residents through 2010 will remain in the range of 108-112 per year;
2. The rate of housing growth over the next ten years will continue at approximately the same rate as that of the past ten years (about 63 units per year);
3. The pattern and numbers involved in the turnover of existing housing stock will not change appreciably from the recent past, 107-115 units per year;
4. Public Kindergarten will continue at about 132% of births five years previous. A Sutton class will grow by close to 1% per year in grades 1-5 (4-5%); and then decline by 3% in grades 6 through 8.
5. Out-migration at grade 9 will continue at approximately 20% per year. Some out-migration will occur in grades 10 through 12 in the range of 8% per year.
6. The percentage of Sutton students in non-public schools and in home-schooling will remain at present levels.

If any of these assumptions needs to be altered in the future, so, too, will the projections. It is important to note that NESDEC annually updates projections for affiliated school Districts at no cost. This provides an opportunity for the District to plan adequately for any changes that might occur.

Reliability of Projections

While the reliability of projections, in general, rests upon the soundness of the assumptions upon which they are based, there are degrees of reliability over the grades and the ten-year period shown. **The enrollment projection in Table 13 can be divided into three sections. The top and largest section represents the projections based on students who are already enrolled in the Sutton Public Schools. This projection has the highest reliability. The projections based on children who have been born, but are not yet in school are somewhat less reliable. The projections for students who are not yet born are the least reliable projections.**

A ten-year projection (which drops in reliability after the 5th year) is a very small window into the future. The “leveling” of the elementary enrollment which occurs in years 6-10 of the projections is caused by holding the births stable during that period. If the births should increase during that period, the Kindergarten class will increase, thereby causing growth, which would

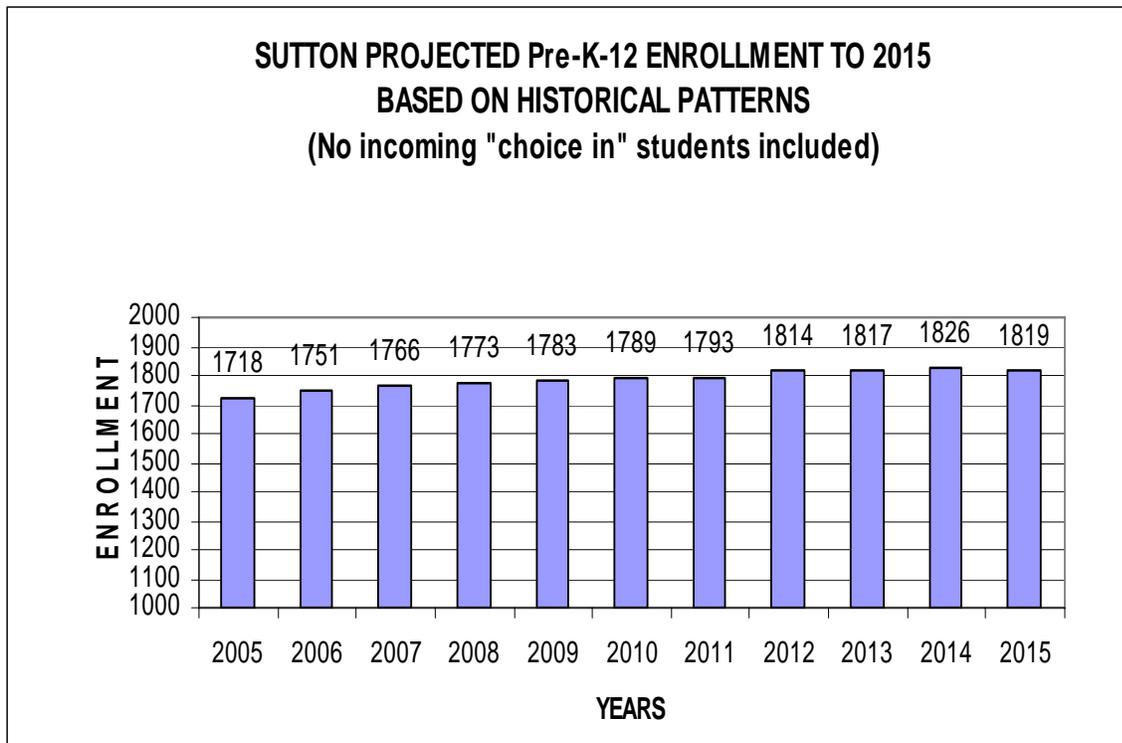
ultimately spread to all the elementary grades. If the rate of housing growth were to increase dramatically from past levels (or if property turnover increased markedly), the projections would rise. At all grade levels, improved programs/facilities could lead to additional Sutton residents attending (or remaining in) the public schools. Ten-year enrollment projections are just that – projections; they are not guarantees. Whatever the School Committee chooses to do in making plans, it should take into account the possibility of a 10% swing either way in terms of enrollment at all grade levels. In other words, the School Committee should be prepared to respond to the questions: “How will the space be used if 10% **fewer** students materialize?”, and “How will the space be provided if 10% **more** students materialize?”

Projections (2005-2014) - Table 13, 14 – Based upon Recent Historical Patterns

Total public school enrollment, Pre-K-12, (as displayed in Table 13 by grade level, and in Table 14 in grade combinations), is projected to increase by 101 students to 1,819 from its present level of 1,718, without considering the impact of proposed changes in the school program and facilities or residential construction accelerating to a greater rate than at present. The following graph displays Sutton’s past and future (to 2015-16), noting a continued small increase in enrollment, not as rapid as in the late 90’s.

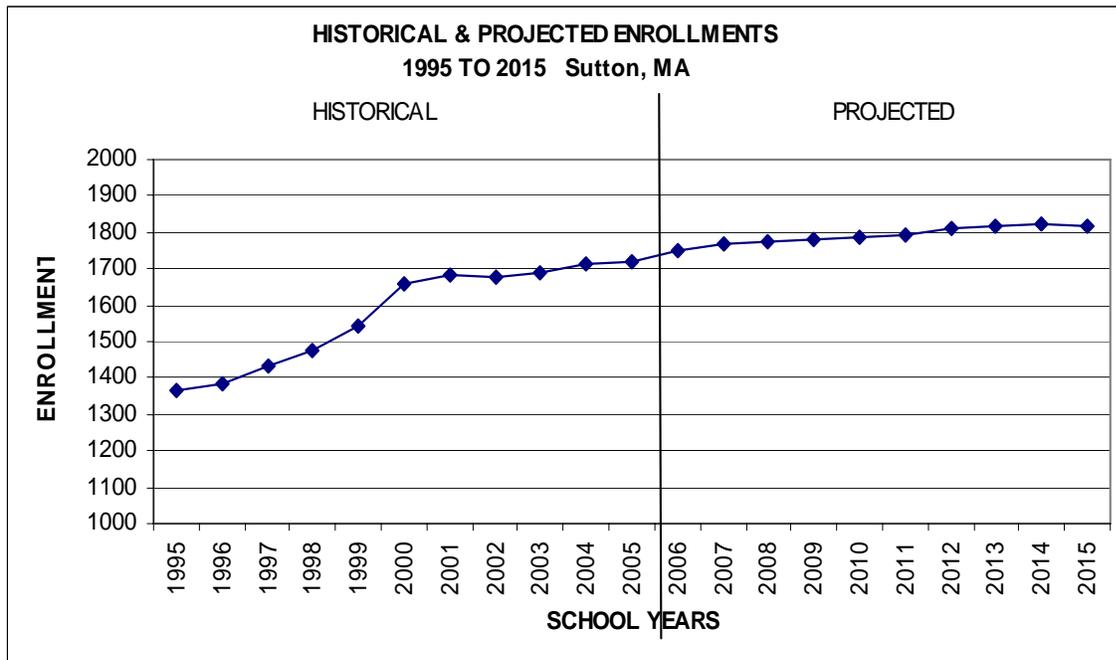
**TABLE 13
SUTTON ENROLLMENT PROJECTIONS BY GRADE
HISTORICAL PATTERN
(No "choice-in" students included)**

SCHOOL YEAR	Pre-K	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
2005-06	63	134	131	147	149	137	149	119	139	148	110	101	101	90	1718
2006-07	55	166	135	131	148	152	138	149	117	138	118	109	98	97	1751
2007-08	55	145	168	135	132	151	153	138	146	116	110	117	106	94	1766
2008-09	55	131	146	168	136	135	152	153	135	145	93	109	113	102	1773
2009-10	55	147	132	146	170	139	136	152	150	134	116	92	106	108	1783
2010-11	55	147	148	132	147	173	140	136	149	149	107	115	89	102	1789
2011-12	55	142	148	148	133	150	174	140	133	148	119	106	112	85	1793
2012-13	55	142	143	148	149	136	151	174	137	132	118	118	103	108	1814
2013-14	55	144	143	143	149	152	137	151	171	136	106	117	114	99	1817
2014-15	55	144	145	143	144	152	153	137	148	169	109	105	113	109	1826
2015-16	55	143	145	145	144	147	153	153	134	147	135	108	102	108	1819



**TABLE 14
PROJECTIONS IN GRADE COMBINATIONS
HISTORICAL PATTERNS**

SCHOOL YEAR	Pre-K-2	3-5	6-8	Pre-K-8	9-12
2005-06	475	435	406	1316	402
2006-07	487	438	404	1329	422
2007-08	503	436	400	1339	427
2008-09	500	423	433	1356	417
2009-10	480	445	436	1361	422
2010-11	482	460	434	1376	413
2011-12	493	457	421	1371	422
2012-13	488	436	443	1367	447
2013-14	485	438	458	1381	436
2014-15	487	449	454	1390	436
2015-16	488	444	434	1366	453



Projections (2005-2014) - Table 15, 16 – With Improved High School program and facilities

The Sutton School district is studying the recommendations contained in the NEASC Report of the Visiting Committee in March of 2004 (See Appendix B). If the community acts upon the recommendations to improve both the high school facility and program, this may impact the enrollment projections, particularly for the high school.

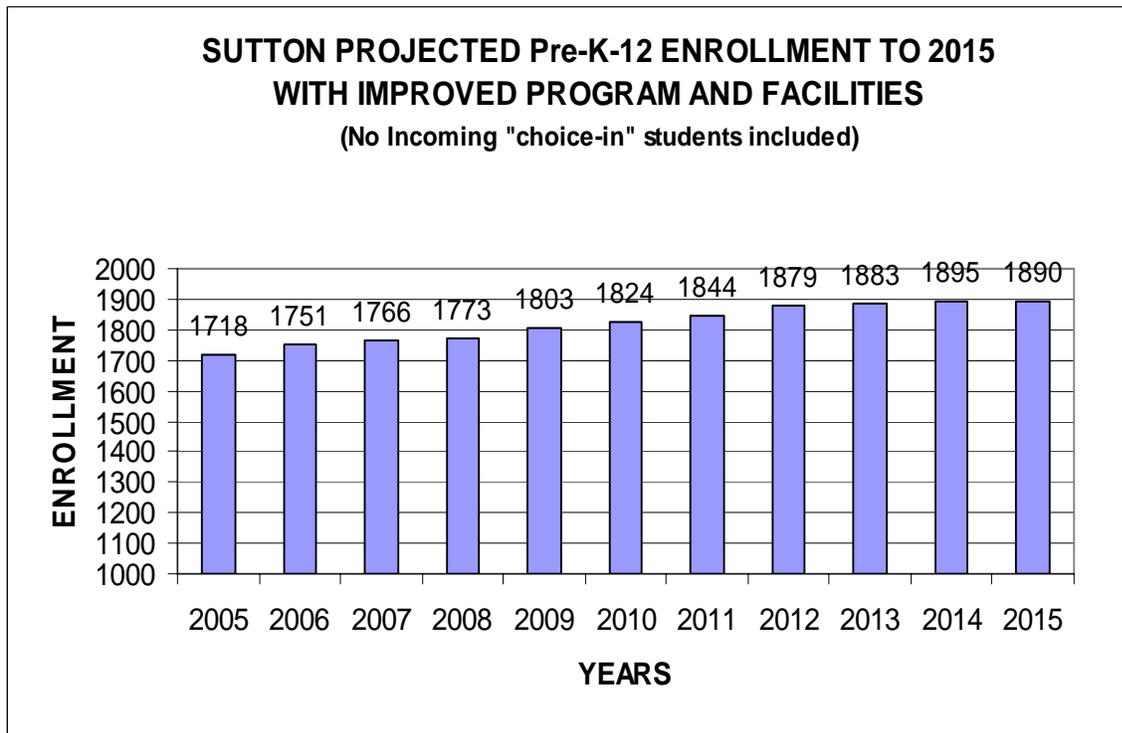
A second set of projections has been calculated based upon the following assumptions:

1. Annual number of births through 2010 will remain in the range of 108-112.
2. The rate of single family housing growth over next ten years will remain at approximately 63 units per year.
3. Housing turnover will continue in the 107-115 range per year.
4. Public Kindergarten will continue at about 132% of births five years previous. A Sutton class will grow by close to 1% per year in grades 1-5 (4-5%); and then decline by 3% in grades 6 through 8.
5. With NEASC recommendations addressed through program and building improvements, out-migration at the high school level will drop to approximately 10% at grade 9 and 6% through grades 10-12.
6. The percentage of Sutton students in non-public schools and home schooling will remain at present levels.

Total public school enrollment, Pre-K-12, (as displayed in Table 15 by grade level, and in Table 16 in grade combinations at the high school level), is projected to increase by 172 students to 1,890 from its present level of 1,718, with the impact of proposed changes in the school program and facilities. Table 16 displays the high school enrollment which is projected to increase by 119 students (from the current 402 to 517 in the 2015-16 school year). The following graph displays Sutton's past and future (to 2015-16), noting a continued increase in enrollment, more closely paced with the enrollment increases in the late 90's. These projections contain the Choice-in students currently enrolled in the school district. However, no additional "Choice-in" students have been included in the projections.

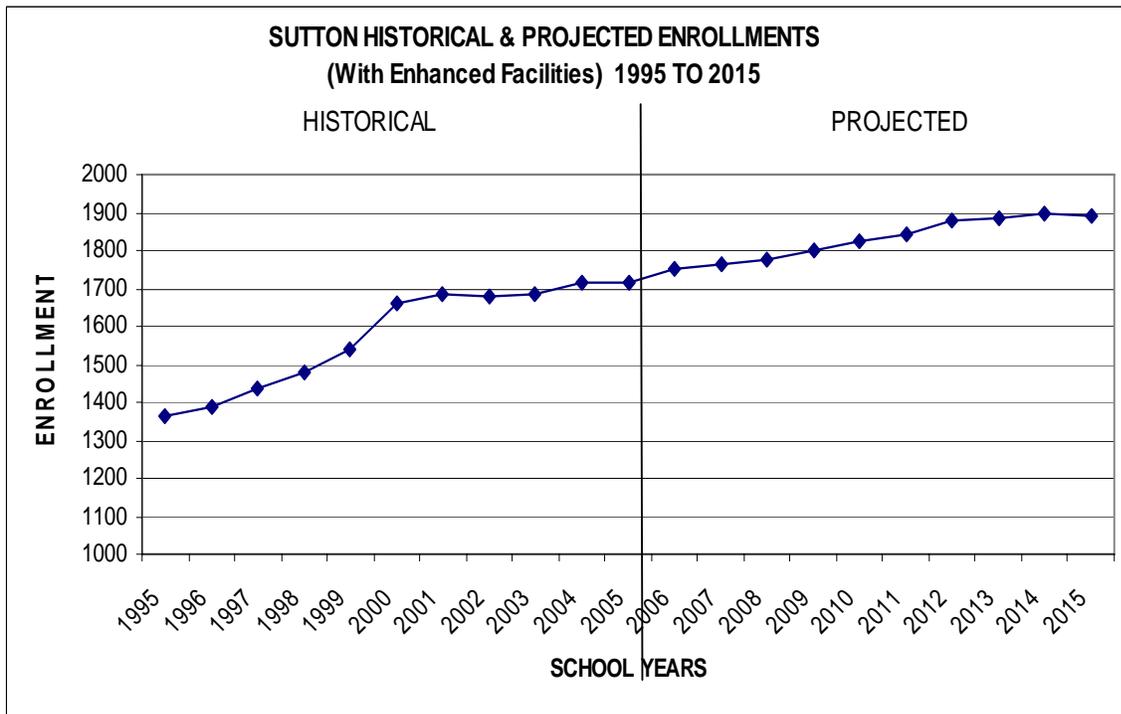
**TABLE 15
ENROLLMENT PROJECTIONS BY GRADE WITH IMPROVED
PROGRAM AND FACILITIES
(No incoming "choice-in" students included)**

SCHOOL YEAR	Pre-K	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
2005-06	63	134	131	147	149	137	149	119	139	148	110	101	101	90	1718
2006-07	55	166	135	131	148	152	138	149	117	138	118	109	98	97	1751
2007-08	55	145	168	135	132	151	153	138	146	116	110	117	106	94	1766
2008-09	55	131	146	168	136	135	152	153	135	145	93	109	113	102	1773
2009-10	55	147	132	146	171	139	136	152	150	135	131	93	106	110	1803
2010-11	55	147	148	132	148	174	140	136	149	150	122	130	90	103	1824
2011-12	55	142	148	148	134	151	175	140	133	149	135	121	126	87	1844
2012-13	55	142	143	148	150	137	152	175	137	133	134	134	117	122	1879
2013-14	55	144	143	143	150	153	138	152	172	137	120	133	130	113	1883
2014-15	55	144	145	143	145	153	154	138	149	172	123	119	129	126	1895
2015-16	55	143	145	145	145	148	154	154	135	149	155	122	115	125	1890



**TABLE 16
PROJECTIONS: IMPACT OF ENHANCED FACILITIES
GRADE COMBINATIONS**

SCHOOL					9-12	
YEAR		9	10	11	12	TOTAL
2005-06		110	101	101	90	402
2006-07		118	109	98	97	422
2007-08		110	117	106	94	427
2008-09		93	109	113	102	417
2009-10		131	93	106	110	440
2010-11		122	130	90	103	445
2011-12		135	121	126	87	469
2012-13		134	134	117	122	507
2013-14		120	133	130	113	496
2014-15		123	119	129	126	497
2015-16		155	122	115	125	517



It must be pointed out that significant land for development is available in Sutton. Depending upon community support for the school department to continue curriculum and program improvement initiatives as well as the economic climate of the region, a higher number of families with school-age children may move to Sutton in the future.

These factors bear careful watching. As new information is obtained, it can be used to further illuminate and/or modify the enrollment projections for Sutton. For example, by tracking building permits and property sales, future enrollments can be forecast which will update or modify these projections. Given the availability of land, it is clear that the potential for growth including the number of students is possible in Sutton.

Sutton's Capacity for Additional Growth

A well-managed town with good amenities and a reputation for quality of life and good schools can experience additional school enrollments. The “student yield”, calculated across the entire town was 0.54 public school K-12 students per dwelling in 2000, well above the state average of .37 students per dwelling. In 2005, it is estimated that the number of public school students per dwelling has dropped to about 0.49. (See calculation above related to Table 7). For new subdivisions, the “student yield” can be as high as double that local statistic: $0.49 \times 2 = 0.98$ students per dwelling. The time lag from issuance of building permits to occupancy often is 12-36 months. The effect upon school enrollments frequently occurs in three stages: a) at initial occupancy, there may be slight effect on the schools, as some of the children may be toddlers; b) within 2-3 years, many of the children will be in school; and c) by 5-6 years after occupancy, a development usually has maximum impact upon enrollments. The impact felt in the schools, in the early years of ownership developments, usually is about 70% in new elementary enrollments, 20% middle school, and 10% at the high school level. In rental properties, the grade-distribution skew varies widely but often is about 60% elementary, 20% middle school, and 20% high school. Extremely high prices also can lead to fewer lower grade students (and a higher percentage in the middle grades). Accelerated turnover in housing (above the current average 107 homes and 21 condos per year) also could contribute to additional school enrollments. By doing annual enrollment projections, a free service for NESDEC affiliates, the District can have substantial time to plan for increasing enrollments.

As described above, the Massachusetts Office of Environmental Affairs estimated in 2000 that Sutton could add 4,847 additional units before reaching build-out. This build-out could result in over 17,449 new residents and over 6,000 new school children. The Sutton Town planner, however, points out that there are many limiting factors to reaching the build-out figure. These factors include limited water and sewer availability, wetlands, forest and conservation and state land.

Recent Pre-K-12 enrollment totals in Sutton have been sustained, in part, by the addition of an average of 63 new dwellings per year for the past ten years. It should be noted that the number of permits issued for the construction of new single family homes has dropped and more permits for 2 bedroom condos are being issued. The impact of this type of housing growth will be significantly less on the school enrollment projections. Town officials also note the financial constraints currently impacting the school program. The cuts in programs, services and personnel which have been made or are proposed may decrease the enrollment projections figures in the future.

A list of development projects obtained from Town Planner, Jennifer Hager, is provided below:

Projects that are in or have completed the hearing process:

1. Leland Hill: 60 units 10% affordable 55+
2. Bridle Path 37 homes (4 BR – very high end)
3. Local Initiative Project – 60-90 units 2 BR condos; 25% affordable
4. South Cove Way – 7 3 and 4 BR's – high end
5. Lakey Dam Estates – 19 lots 3 and 4 BR

Projects getting ready to file:

1. De Witt – open space project – 57 three and four BR homes
2. Colonial Road 100 units – 55+ community
3. Pleasant Valley Retirement Village – 190 units – 1 and 2 BR – high end
4. Central Turnpike subdivision – 14 lots – 3 and 4 BR

Projects in discussion – “down the road”

1. 40B project (25%) Pleasantdale – 100 units

It is anticipated that the pace of permitting and construction will fit within the historical patterns for the town. Thus, we expect the current pace of housing growth to continue.

Table 1B indicated a Sutton population of 8,878 in 2004, as estimated by the U.S. Census Bureau. Also in Table 1B, the Massachusetts Institute for Social and Economic Research (MISER) anticipates that Sutton may grow to 9,067 residents in 2010 and increase to 9,836 in 2020. **This suggests that the build-out in Sutton will be very gradual and continue for an undetermined number of years into the future.**

NESDEC was asked to provide projections for 2020 and 2025. We have relied upon the MISER population estimates to calculate the data found in Tables 17 and 18.

In Table 17 the 2010-11 enrollment projections calculated by NESDEC, using school data, and using MISER population figures are compared. The higher K-5 numbers presented by NESDEC are based upon the historical patterns which show significant in-migration from birth to Kindergarten (132%). The higher 9-12 numbers for MISER do not reflect the out-migration the district is experiencing at this level. The totals for 2010-11 enrollment projections also reflect the choice-in students, not included in any MISER estimates.

**Table 17:
Competing Enrollment Projections – 2010
NESDEC and MISER**

Grade	Available	% used to	MISER	NESDEC
Combination	Residents	Calculate students	% of total	Sutton PS*
			2010-11	2010-11
K-5	742	99%	735	887
6-8	470	92.50%	435	434
9-12	583	85.20%	497	413
TOTAL	1795		1667	1734**

* Historical pattern

** Includes Choice

Tables 18 and 19 display several sets of enrollment projections. These projections assume a new high school facility will be built which will allow the district to restore programs. The percentages used to calculate the number of student residents who would be expected to attend public school are adjusted upwards.

**Table 18:
Enrollment Projections: 2020 MISER
New School, Restored Program,
Present Pace of Town Growth**

Grade Combination	Available Residents	% used to Calculate students	MISER % of total
			2020-21
K-5	786	99%	778
6-8	437	95.00%	415
9-12	481	90.00%	433
TOTAL	1704		1626

Enrollment Projections: 2020-21 and 2025-26

At the request of the School Department, NESDEC has calculated the two additional sets of enrollment projections, for the years 2020-21 and 2025-26. A word of caution is in order. When projections are extended to 20 years beyond the known number of births, we are making projections based upon a projected number of births, thereby introducing an additional variable. Although trends can be suggested, the reader should not place substantial weight on these projections due to the increased number of variables.

**Table 19
NESDEC Enrollment Projections to 2025
New School, Restored Program,
Present Pace of Town Growth**

Grade Combination	NESDEC Sutton PS 2010-11	NESDEC Sutton PS 2015-16	NESDEC Sutton PS 2020-21	NESDEC Sutton PS 2025-26
Pre-K-5	944	935	933	932
6-8	435	438	445	446
9-12	445	517	510	515
TOTAL Pre-K-12	1,824	1,890	1888	1893

School Facilities and Changing Educational Programs:

A final word about the effect upon school facilities of changing educational programs: **due to changes in educational programs over recent decades, the student capacity of older school buildings across America has been reduced...**making them less able to serve as many additional students as in the past. Four “Then-Now” charts are included below which describe these factors which affect Sutton as well as many other Massachusetts communities.

APPENDIX A SPECIAL HOUSING ISSUES:

Housing for 55+: Several conversations were held with the Sutton Town Planner, Jen Hager, to review the 55+ housing status. After considering permitted projects and yet to be filed projects, we feel the impact upon the school from the “Echo effect” will be negligible. If 20% (a high ratio) of all 55+ housing was occupied by Sutton residents, this could add an additional 82 students (the “echo effect”) with the sale of existing homes. This figure is within the 10% margin for the number of students accepted by the state.

Chapter 40B: Sutton has less than 1% of affordable housing. Projects which include Chapter 40B housing under consideration are for the 55+ population. This is not a factor for Sutton school enrollment.

“Then-Now”

Four “Then-Now” charts are included to display the educational program factors which have combined to reduce the student capacity of older school buildings. Many schools were designed and built when desks were in straight rows; there were few, if any, special education services, and no use of computers. Such buildings served well the programs for which they were designed. Little storage space for educational materials was required. Twenty-First Century schools, however, are expected to provide a broader program to a more comprehensive spectrum of students. Thus, a school which once housed 500 students a generation ago now may be overcrowded at 400 students. The “Then-Now” charts provide detail in describing this phenomenon, in which new educational programs have decreased the student capacity of older school buildings.

GRADES 7-8: THEN**GRADES 5-8: NOW**

Jr. High Departments, Students move <u>throughout building</u>	MS Teams, Students <u>remain in home base wing</u> for most classes
500-600 sq. ft. classrooms	900-1000 sq. ft. student projects, <u>In-class computers/library</u>
Science Labs in one area	Lab in each team area
SPED in separate room, few students	Included in regular classes, small instruction rooms, parent conferences required
Library a depository for books	Books plus computers and other media; major curric. support; Lib. Sci. instruction

HIGH SCHOOLS: THEN**NOW**

Technology	None	<u>In classrooms</u> and Comp. Lab
Labs	Ind. Arts; Home Ec. Demonstration in Sciences	Tech Ed; Fam/Consumer Sci. Active projects in Sciences
Special Educ.	Possibly separate classroom, few students in school	Included in regular classes, plus many small instruction rooms
Handicapped-Accessibility	Little or no accommodations were made	All areas of the school must be handicapped-accessible
Library	Depository for books	Books, computers, media Major curr. support; Lib. Sci. instruction
Security	Buildings unlocked; not a major concern	Schools are secured; outside phones for parent and emergency calls
Storage	Little needed	Schools use many educational materials; space required

APPENDIX B PROJECTING KINDERGARTEN

The Kindergarten year is the most difficult to project in any school District. Some school systems commit additional resources in order to strengthen the accuracy of their Kindergarten forecast. The four principle tools for projecting Kindergarteners are described below:

1. Birth-to-Kindergarten ratio: almost every school District uses this method, which counts local births in the birth-reference year (5 years previous to Kindergarten entry), multiplying by a factor which reflects the in-migration/out-migration experienced by the District in recent years. In the case of Sutton, there has been an historic pattern of significant in-migration with the exception of the 2005-06 school year. Kindergarten registration has averaged approximately 132% of the births five-years previous. Fluctuations above and below the 132% have been within a 22% range as indicated by the numbers for the past eleven years (145%, 122%, 121%, 125%, 123%, 131%, 125%, 121%, 140%, 133%, 152% and 109%) with the exception of the 2005-06 school year which saw Kindergarten enrollments at only 109% of the births five years previously. Using the historical pattern we continue to project Kindergarten enrollment at 132% of the births five years earlier.
2. Town Census: some communities obtain additional information from the January 1 Town Census, the results of which are available in the spring. The actual names and addresses of four-year olds sometimes are used by school Districts to begin a master check list of potential members of the incoming class. It is important to understand the local Town Clerk's methodology: it is virtually impossible for the census to be complete as Clerks frequently lack the resources for 100% follow-up for the households which fail to reply. Also, additional families will move out/in between January 1 and September 1. Nonetheless, the Town Census, properly used, can provide an extra resource.
3. Preschool Contacts: A number of Kindergarteners probably attended several preschools. Some school Districts double check the names and addresses of future Kindergarteners by utilizing their contacts with the preschools. This is potentially a means of learning who will be attending private, rather than public Kindergarten.

4. Child Find/Kindergarten Registration: Almost all school Districts conduct springtime "Kindergarten Registration" events, and are required to engage in "Child Find" activities for children with special needs. However, some Districts make an extraordinary effort in attempting to obtain 100% participation, utilizing personal phone calls to sign up appointments; offering childcare for other siblings; conducting various screenings (speech and language, nurse/physician, etc.); meeting teachers, counselor, secretary, principal; touring the school and seeing the Kindergarten rooms in the neighborhood school; offering a packet of at-home activities; climbing into a bus and meeting a driver, etc. Often these Districts schedule a "make-up", personally inviting the families who could not attend on the initial dates (or who moved in later). These Districts sometimes obtain additional data from families by phone...and sometimes data from realtors on new arrivals.

The Districts that utilize steps 2, 3, and 4 often depend upon school secretaries, nurses, parent volunteers, and realtors to carry out many of the extra details, and to distribute "Welcome Packets."

APPENDIX C: NEASC RECOMMENDATIONS

New England Association of Schools and Colleges

Report of Visiting Committee

March 2004

Recommendations

1. Develop, implement, and fund a plan to provide an adequate number of additional classrooms for the increasing enrollments expected in the high school.
2. Provide adequate science laboratories that have the necessary and modern equipment, facilities, and safety devices to conduct appropriate learning activities.
3. Provide a more appropriate space for the excellent video production program.
4. Provide an appropriate band room in the high school facility.
5. Provide adequate space for all classrooms to allow for best instructional practices so students will be more actively involved in the learning process.
6. Increase the available space and collection in the media center so students can make more effective use of that valuable learning resource.
7. Provide appropriate facilities in which students can develop, practice and demonstrate vital technological literacy and skills.
8. Develop, implement, and adequately fund a staffing plan that addresses the increasing needs of an increasing student body.
9. Restore lost but important educational programs/courses.
10. Provide more privacy for medical examinations and consultation by the school nurse.
11. Develop, implement, and fund a long-range technology plan that addresses the need to maintain, replace and update equipment on a regular basis.
12. Provide the necessary technology personnel to properly maintain, upgrade, and service the school's technology and media resources.
13. Provide adequate funding for planned and ongoing maintenance and to meet unexpected needs in an aging and out of date facility.
14. Improve the overall appearance of the corridors, classrooms, and cafeteria.

15. Develop and implement a plan that involves more community and higher education resources as partners in the school and in the education of individual students.
16. Provide a conventional system for individuals to enter the building after all the doors are locked.

■ IV. Education and Space Needs

A. Inventory of Existing School Space

The following reports are a summary of the existing spaces in the Sutton Schools showing room quantities and square footages. The current enrollments are also indicated, as well as the total gross square footage for each building. The forms used are those published by the Department of Education, School Building Assistance.

**DEPARTMENT OF EDUCATION
School Building Assistance**

**Inventory of Existing School Space Under The Jurisdiction
Of The Local School Committee**

The information provided on this sheet will be used for priority ranking of capital school project applications for School Building Assistance. All complete applications submitted to the Department during a given fiscal year between July 1 and June 1 will be ranked for possible approval in the next following fiscal year. It is important to provide accurate information so that we may calculate your rank correctly.

Please fill out one form for each school building currently in use or available for use as a schoolhouse for the grade levels to be served by the project or grade levels where overcrowding is to be relieved. Please indicate which space is less than 7'6" headroom with an (*). Include a separate sheet for modular or lease spaces. If possible, please provide a photo of the outside of your building.

School District: Sutton Public Schools /Code: _____

School Building: Sutton Early Learning Center /Code: _____

Date of Construction: 1973 Date(s) of Addition or Renovation(s): 1999

Building Capacity: 310* Current Enrollment: 328

Type of Construction: Original building: Steel frame with masonry veneer and back-up. Both masonry and GWB interior wall construction

Grade Levels NOW served in THIS building (circle all that apply):

← PreK K 1 2 3 4 5 6 7 8 9 10 11 12 →

Modular _____ Lease _____ (please use separate sheet for these spaces)

I. Gross Square Footage Use all <u>OUTSIDE</u> dimensions of school building to determine the following information:			
	A. Gross Square Feet	B. Education Square Feet	
Basement (below grade level)			Efficiency Factor B/A 76 %
Ground Floor	68,166	51,581	
All Upper Floors			
TOTAL	68,166	51,581	

Person Completing Form: Valerie M. Curtis Date: April 26, 2006

Title: Flansburgh Associates, Inc. Phone: 617-367-3970

*Capacity

PK 3 Full Day x 15= 45

K 7 Full Day x 19= 133

1 6 CR x 22= 132

310 Total

II. Inventory of Educational Spaces

For each of the educational spaces listed, calculate the gross square footage using the **INSIDE** dimensions of each area. Include any self contained bathrooms, supply space, and teacher/staff space in each space listed. In Column "C" insert the letter that applies for each space: **B = Basement; G = Ground Floor; U = Upper Floors.**

	A	B	C	D
DESCRIPTION	NUMBER	SQUARE FEET	B G U	Date of Recent Work
Grades PK – 1 General Classrooms	16	18,932	G	1999
Science Classrooms	1	540	G	
Computer Laboratory	0			
Science Laboratories	0			
Chapter 74 Vocational	0			
Arts and Crafts	1	1,560	G	
Music	1	1,127	G	1999
Special Education	7	4,273	G	1999
Remedial	0			
Bilingual Education	0			
Physical Education	1	5,962	G	1999
Collaborative	0			
Library/Media Center	0			
Other	0			
Total - Basic Educational Space		32,394Sq. ft.		
DESCRIPTION	NUMBER	SQUARE FEET	B G U	Recent Work
Cafeteria / Cafetorium / Stage	1	4,076	G	1999
Kitchen	1	1,856	G	1999
Auditorium/Stage	1	4,836	G	1999
Health Suite	0			
Guidance Suite	0			
Administration	9	2,338	G	1999
Teacher Planning/Dining	3	1,619	G	1999
Phys. Ed. Lockers/Showers				
Other (<u>Custodial, storage.</u>)	12	4,462	G	1999
Total Misc. Education Space		19,187 Sq. ft.		
Total Educational Space-Bld.		51,581 Sq. ft.		

**DEPARTMENT OF EDUCATION
School Building Assistance**

**Inventory of Existing School Space Under The Jurisdiction
Of The Local School Committee**

The information provided on this sheet will be used for priority ranking of capital school project applications for School Building Assistance. All complete applications submitted to the Department during a given fiscal year between July 1 and June 1 will be ranked for possible approval in the next following fiscal year. It is important to provide accurate information so that we may calculate your rank correctly.

Please fill out one form for each school building currently in use or available for use as a schoolhouse for the grade levels to be served by the project or grade levels where overcrowding is to be relieved. Please indicate which space is less than 7'6" headroom with an (*). Include a separate sheet for modular or lease spaces. If possible, please provide a photo of the outside of your building.

School District: Sutton Public Schools /Code: _____

School Building: Sutton Elementary School /Code: _____

Date of Construction: 1999 **Date(s) of Addition or Renovation(s):** _____

Building Capacity: 31 CR x 22 = 682 **Current Enrollment:** 701

Type of Construction: Original building: Steel structure with masonry veneer and masonry back up. Masonry and drywall interior construction.

Grade Levels **NOW** served in **THIS** building (circle all that apply):

PreK K 1 **2 3 4 5 6** 7 8 9 10 11 12

Modular _____ **Lease** _____ (please use separate sheet for these spaces)

I. Gross Square Footage Use all <u>OUTSIDE</u> dimensions of school building to determine the following information:			
	A. Gross Square Feet	B. Education Square Feet	
Basement (below grade level)	4,008	0	Efficiency Factor B/A 66 %
Ground Floor	50,700	32,990	
All Upper Floors	29,321	22,609	
TOTAL	84,029	55,509	

Person Completing Form: Valerie M. Curtis **Date:** April 26, 2006

Title: Flansburgh Associates, Inc. **Phone:** 617-367-3970

II. Inventory of Educational Spaces

For each of the educational spaces listed, calculate the gross square footage using the **INSIDE** dimensions of each area. Include any self contained bathrooms, supply space, and teacher/staff space in each space listed. In Column "C" insert the letter that applies for each space: **B = Basement; G = Ground Floor; U = Upper Floors.**

	A	B	C	D
DESCRIPTION	NUMBER	SQUARE FEET	B G U	Date of Recent Work
Grades 2 – 6 General Classrooms	31	30,513	G, U	
Science Classrooms	2	2,151	U	
Computer Laboratory	1	927	G	
Science Laboratories	0			
Title One	1	324	U	
Arts and Crafts	1	1,008	U	
Music	9	4,977	G	
Special Education	8	6,034	G, U	
Remedial	0			
Bilingual Education	0			
Physical Education	0			
Collaborative	0			
Library/Media Center	4	4,811	G	
Other, World Languages	1	900	G	
Total - Basic Educational Space		<u>51,645</u> Sq. ft.		
DESCRIPTION	NUMBER	SQUARE FEET	B G U	Recent Work
Cafeteria / Cafetorium / Stage	0			
Kitchen	0			
Auditorium/Stage	0			
Health Suite	1	571	G	
Guidance Suite	0			
Administration Suite	1	1,469	G	
Teacher Planning/Dining	2	1,156	G, U	
Phys. Ed. Lockers/Showers	0			
Other (<u>Custodial, storage</u>)	6	668	G, U	
Total Misc. Education Space		<u>3,864</u> Sq. ft.		
Total Educational Space-Bld.		<u>55,509</u> Sq. ft.		

**DEPARTMENT OF EDUCATION
School Building Assistance**

**Inventory of Existing School Space Under The Jurisdiction
Of The Local School Committee**

The information provided on this sheet will be used for priority ranking of capital school project applications for School Building Assistance. All complete applications submitted to the Department during a given fiscal year between July 1 and June 1 will be ranked for possible approval in the next following fiscal year. It is important to provide accurate information so that we may calculate your rank correctly.

Please fill out one form for each school building currently in use or available for use as a schoolhouse for the grade levels to be served by the project or grade levels where overcrowding is to be relieved. Please indicate which space is less than 7'6" headroom with an (*). Include a separate sheet for modular or lease spaces. If possible, please provide a photo of the outside of your building.

School District: Sutton Public Schools /Code: _____

School Building: Sutton Middle School /Code: _____

Date of Construction: 1955 Date(s) of Addition or Renovation(s): Core Addition 1989

Building Capacity: 264 Current Enrollment: 287

Type of Construction: Original building: Steel Structure with masonry veneer and masonry back up. Masonry interior walls.

Grade Levels NOW served in THIS building (circle all that apply):

PreK K 1 2 3 4 5 6 7 8 9 10 11 12

Modular _____ Lease _____ (please use separate sheet for these spaces)

I. Gross Square Footage Use all <u>OUTSIDE</u> dimensions of school building to determine the following information:			
	A. Gross Square Feet	B. Education Square Feet	
Basement (below grade level)	4,723	0	Efficiency Factor B/A 61 %
Ground Floor	30,994	21,954	
All Upper Floors	0	0	
TOTAL	35,717	21,954	

Person Completing Form: Valerie M. Curtis Date: April 26, 2006

Title: Flansburgh Associates, Inc. Phone: 617-367-3970

II. Inventory of Educational Spaces

For each of the educational spaces listed, calculate the gross square footage using the **INSIDE** dimensions of each area. Include any **self contained** bathrooms, supply space, and teacher/staff space in each space listed. In Column "C" insert the letter that applies for each space: **B = Basement; G = Ground Floor; U = Upper Floors.**

	A	B	C	D
DESCRIPTION	NUMBER	SQUARE FEET	B G U	Date of Recent Work
Grades 7 – 8 General Classrooms	12	10,216	G	
Science Classrooms	0			
Computer Laboratory	0			
Science Laboratories	0			
Chapter 74 Vocational	0			
Arts and Crafts	0			
Music	1	1,587	G	1989
Special Education	0			
Remedial	0			
Bilingual Education	0			
Physical Education	0			
Collaborative	0			
Library/Media Center	1	2,604	G	
Other				
Total - Basic Educational Space		<u>14,407</u> Sq. ft.		
DESCRIPTION	NUMBER	SQUARE FEET	B G U	Recent Work
Cafeteria / Cafetorium / Stage	0			
Kitchen	0			
Auditorium/Stage	1	2,936	G	
Health Suite	1	353	G	
Guidance Suite	0			
Administration	1	3,198	G	
Teacher Planning/Dining	1	220	G	
Phys. Ed. Lockers/Showers	0			
Other (<u>Custodial, storage</u>)	6	840	G	
Total Misc. Education Space		<u>7,547</u> Sq. ft.		
Total Educational Space-Bld.		<u>21,954</u> Sq. ft.		

DEPARTMENT OF EDUCATION
School Building Assistance

Inventory of Existing School Space Under The Jurisdiction
Of The Local School Committee

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Please fill out one form for each school building currently in use or available for use as a schoolhouse for the grade levels to be served by the project or grade levels where overcrowding is to be relieved. Please indicate which space is less than 7'6" headroom with an (*). Include a separate sheet for modular or lease spaces. If possible, please provide a photo of the outside of your building.

School District: Sutton Public Schools /Code: _____

School Building: Sutton Core Building for Middle School and High School /Code: _____

Date of Construction: 1989 Date(s) of Addition or Renovation(s): _____

Building Capacity: (Core Building) Current Enrollment: (Core Building)

Type of Construction: Original building: Steel Structure with masonry veneer and masonry back up. Masonry interior walls.

Grade Levels NOW served in THIS building (circle all that apply):

PreK K 1 2 3 4 6 7 8 9 10 11 12

Modular _____ Lease _____ (please use separate sheet for these spaces)

I. Gross Square Footage Use all <u>OUTSIDE</u> dimensions of school building to determine the following information:			
	A. Gross Square Feet	B. Education Square Feet	
Basement (below grade level)	0		Efficiency Factor B/A 73 %
Ground Floor	46,690	34,074	
All Upper Floors	16,588	12,422	
TOTAL	63,278	46,496	

Person Completing Form: Valerie M. Curtis Date: April 26, 2006

Title: Flansburgh Associates, Inc. Phone: 617-367-3970

II. Inventory of Educational Spaces

For each of the educational spaces listed, calculate the gross square footage using the **INSIDE** dimensions of each area. Include any **self contained** bathrooms, supply space, and teacher/staff space in each space listed. In Column "C" insert the letter that applies for each space: **B = Basement; G = Ground Floor; U = Upper Floors.**

	A	B	C	D
DESCRIPTION	NUMBER	SQUARE FEET	B G U	Date of Recent Work
Grades 6 – 12 General Classrooms	3	5,028	U	
Science Classrooms	1	1,129	U	
Computer Laboratory	1	1,300	U	
Science Laboratories	3	4,237	U	
Chapter 74 Vocational	1	2,704	G	
Arts and Crafts	2	4,031	G	
Music	0			
Special Education	0			
Remedial	0			
Bilingual Education	0			
Physical Education	1	10,982	G	
Collaborative	0			
Library/Media Center	0			
Other				
Total - Basic Educational Space		<u>29,411</u> Sq. ft.		
DESCRIPTION	NUMBER	SQUARE FEET	B G U	Recent Work
Cafeteria / Cafetorium / Stage	1	7,211	G	
Kitchen	1	2,829	G	
Auditorium/Stage	0			
Health Suite	0			
Guidance Suite	0			
Administration	1	710	U	
Teacher Planning/Dining	2	474	G	
Phys. Ed. Lockers/Showers	2	4,698	G	
Other (Custodial, storage)	6	1,163	G	
Total Misc. Education Space		<u>17,085</u> Sq. ft.		
Total Educational Space-Bld.		<u>46,496</u> Sq. ft.		

**DEPARTMENT OF EDUCATION
School Building Assistance**

**Inventory of Existing School Space Under The Jurisdiction
Of The Local School Committee**

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School District: Sutton Public Schools /Code: _____

School Building: Sutton High School /Code: _____

Date of Construction: 1949 Date(s) of Addition or Renovation(s): Core Building added 1989

Building Capacity: 384 Current Enrollment: 402

Type of Construction: Original building: Steel Structure with masonry veneer and masonry back up. Masonry interior walls.

Grade Levels NOW served in THIS building (circle all that apply):

PreK K 1 2 3 4 5 6 7 8 9 10 11 12

Modular _____ Lease _____ (please use separate sheet for these spaces)

I. Gross Square Footage Use all <u>OUTSIDE</u> dimensions of school building to determine the following information:			
	A. Gross Square Feet	B. Education Square Feet	
Basement (below grade level)	14,563	8,583	Efficiency Factor B/A 66 %
Ground Floor	9,664	5,101	
All Upper Floors	9,730	8,731	
TOTAL	33,957	22,415	

Person Completing Form: Valerie M. Curtis Date: April 26, 2006

Title: Associate, Flansburgh Associates, Inc. Phone: 617-367-3970

II. Inventory of Educational Spaces

For each of the educational spaces listed, calculate the gross square footage using the **INSIDE** dimensions of each area. Include any self contained bathrooms, supply space, and teacher/staff space in each space listed. In Column "C" insert the letter that applies for each space: **B = Basement; G = Ground Floor; U = Upper Floors.**

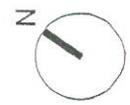
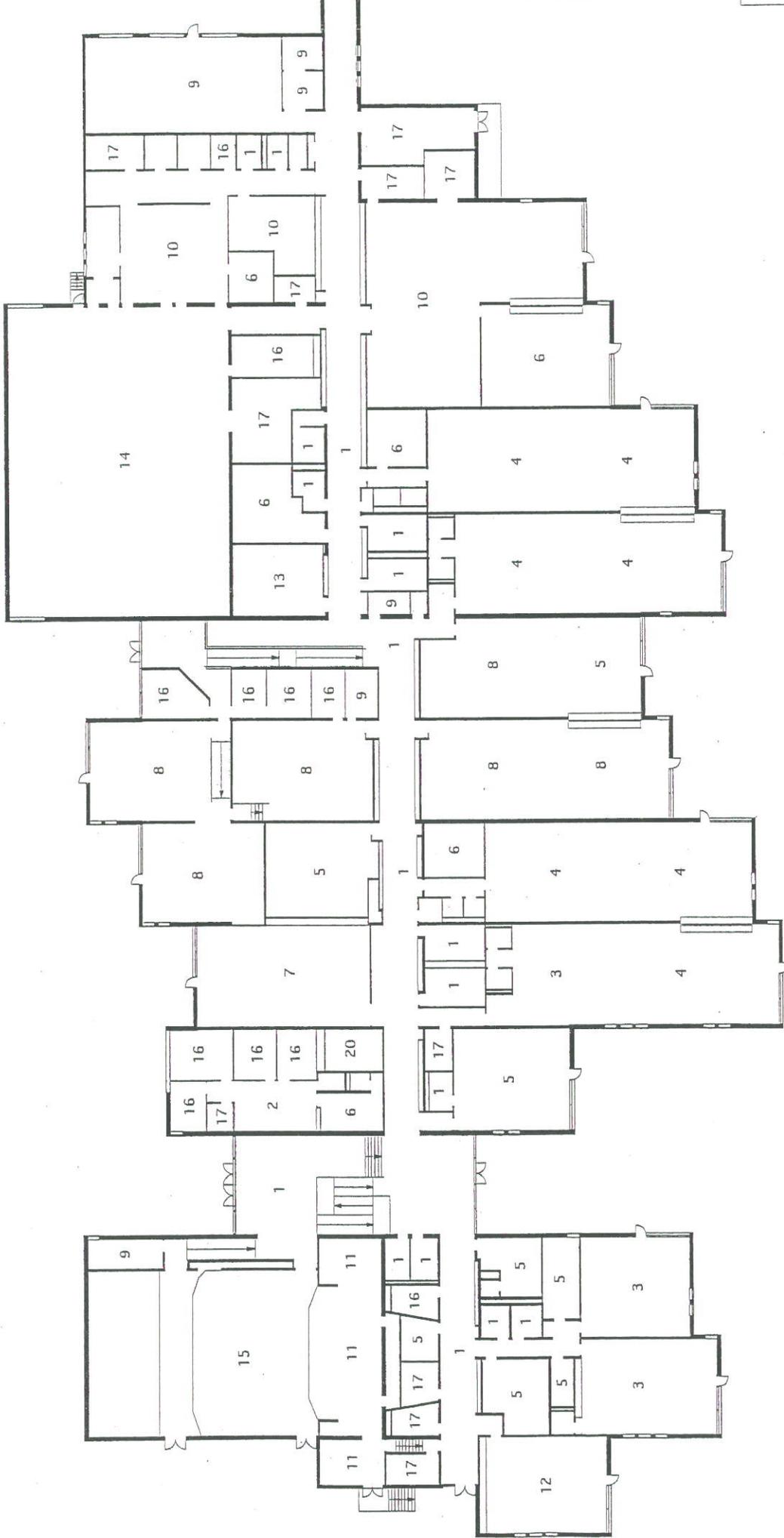
	A	B	C	D
DESCRIPTION	NUMBER	SQUARE FEET	B G U	Date of Recent Work
Grades 9 – 12 General Classrooms	14	10,686	B,G,U	
Science Classrooms	2	1,672	B,U	
Computer Laboratory	0			
Science Laboratories	0			
Chapter 74 Vocational	0			
Arts and Crafts	0			
Music	0		G	1989
Special Education	3	2,297	B,G	
Remedial	0			
Bilingual Education	0			
Physical Education	1	4,089	B	
Collaborative				
Library/Media Center	0			
Other				
Total - Basic Educational Space		<u>18,744</u> Sq. ft.		
DESCRIPTION	NUMBER	SQUARE FEET	B G U	Recent Work
Cafeteria / Cafetorium / Stage	0			
Kitchen	0			
Auditorium/Stage	1	702	B	
Health Suite	0			
Guidance Suite	1	667	G	
Administration	4	1,098	G	
Teacher Planning/Dining	1	144	G	
Phys. Ed. Lockers/Showers	0			
Other (<u>Custodial, storage</u>)	6	1,060	B,G,U	
Total Misc. Education Space		<u>3,671</u> Sq. ft.		
Total Educational Space-Bld.		<u>22,415</u>Sq. ft.		

B. Building Floor Plans

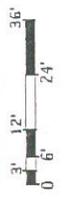
The following are floor plans of the Early Learning Center, the Elementary School, the Middle School, the “Core” Building, and the High School that are current as of July 2006. The existing building sizes are as follows:

Early Learning Center:	68,166 gsf
Elementary School:	84,029 gsf
Middle School:	35,717 gsf
“Core” Building:	63,278 gsf
<u>High School:</u>	<u>33,957 gsf</u>
	Total: 285,147 gsf

Early Learning Center



First Level Floor Plan

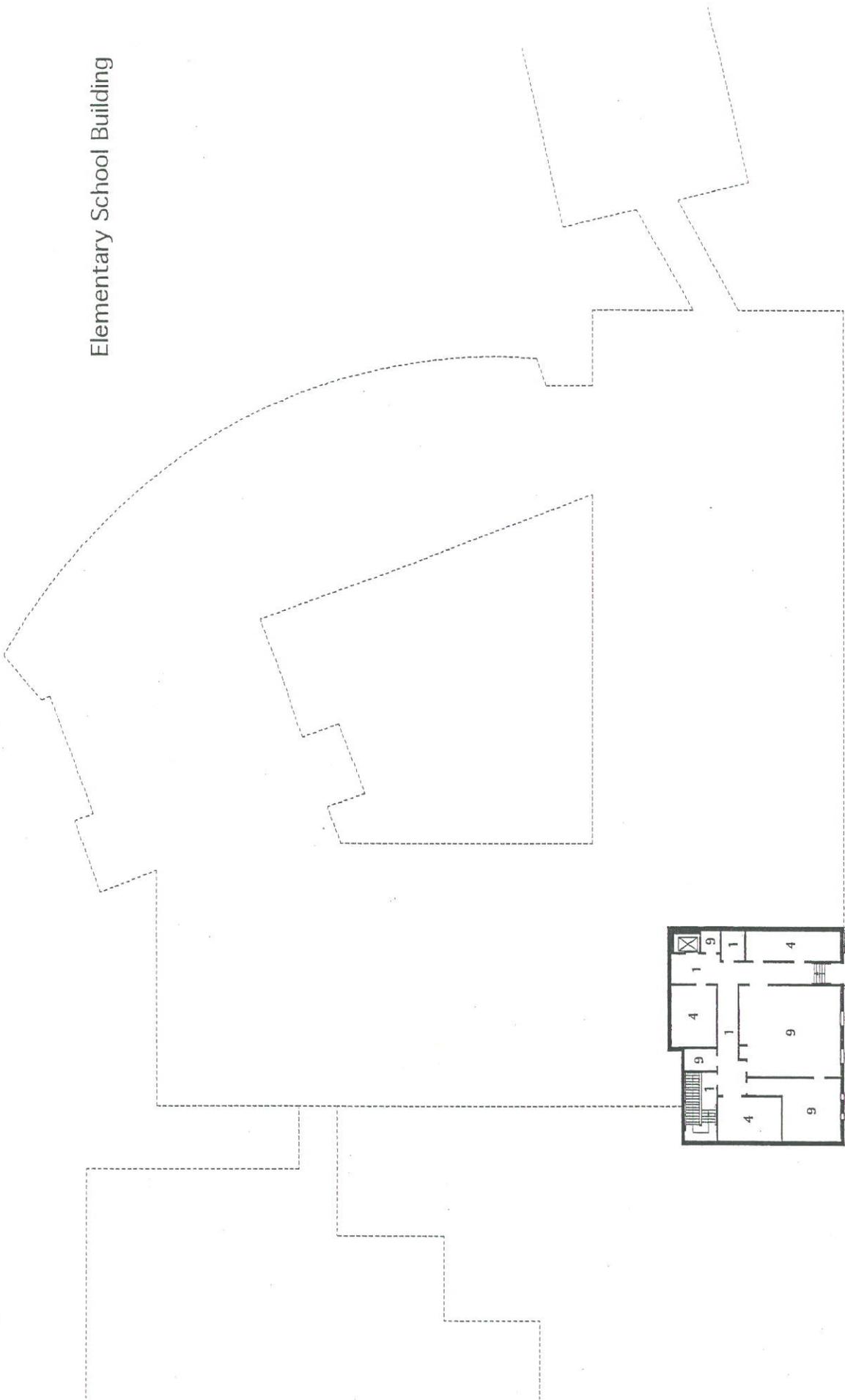


Total Floor Area: 66,166 GSF

Key

- | | | | | | | | |
|---|---------------------|----|---------------------|----|------------|----|----------------------|
| 1 | Stairs/Corr/Toilets | 6 | Teacher Work/Dining | 11 | Stage | 16 | Office |
| 2 | Administration | 7 | Art | 12 | Music | 17 | Storage |
| 3 | Pre-Kindergarten | 8 | Classroom | 13 | Science | 18 | Computer Lab |
| 4 | Kindergarten | 9 | Mechanical/Janitor | 14 | Gymnasium | 19 | Library/Media Center |
| 5 | Special Education | 10 | Cafeteria/Kitchen | 15 | Auditorium | 20 | Conference |

Elementary School Building

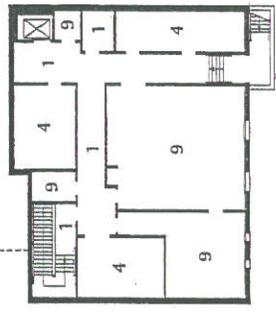


Basement Level Floor Plan

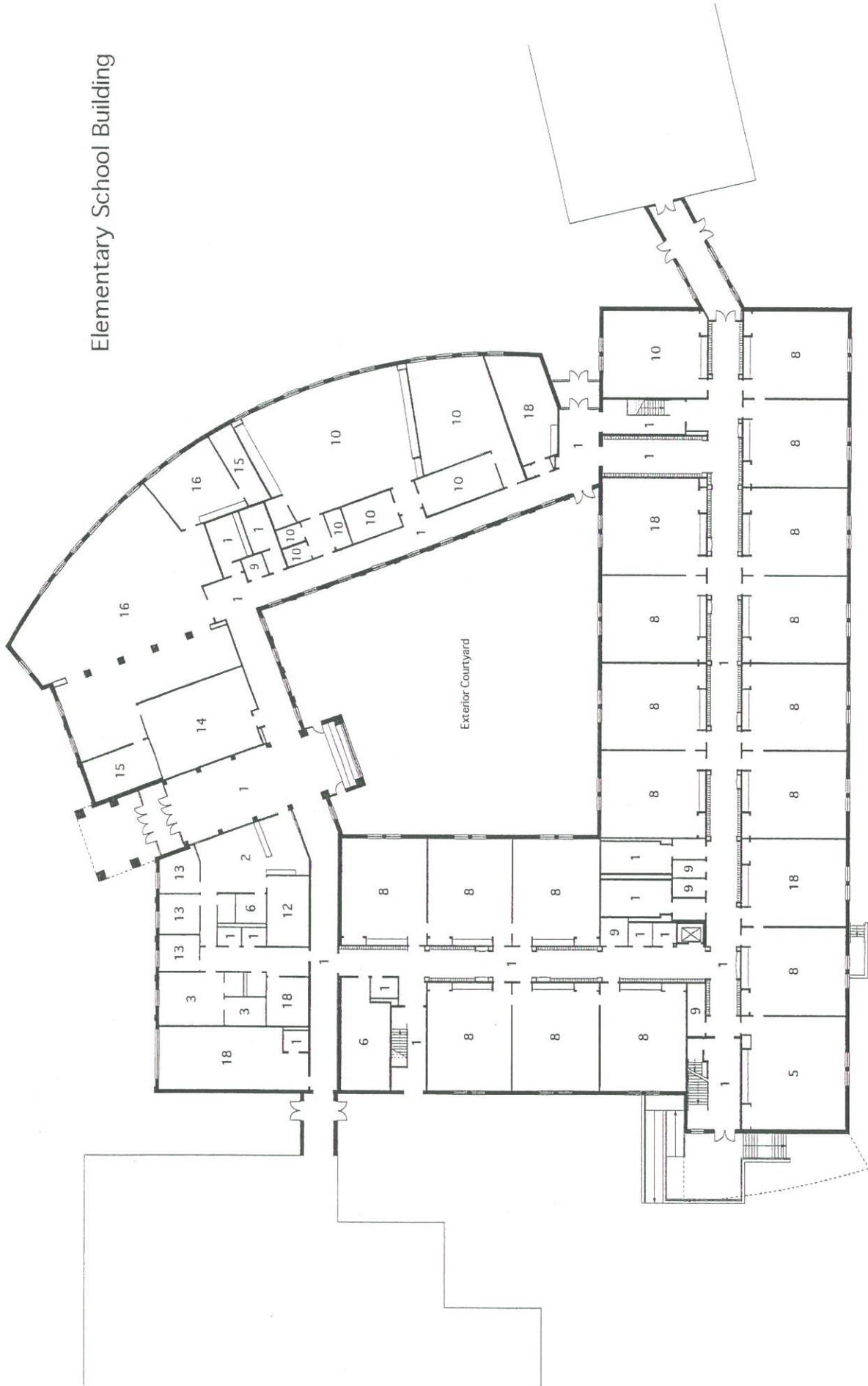


Elementary School Basement Floor Level: 4,008 GSF
 Elementary School First Floor Level: 50,700 GSF
 Elementary School Second Floor Level: 29,321 GSF
 Total Combined Area: 84,029 GSF

Key	
1 Stair/Corr/Toilets	13 Office
2 Administration	14 Computer Laboratory
3 Child Health Care	15 Head End/AV
4 Storage	16 Library/Media Center
5 Science	17 Title One
6 Teacher Work/Dining	18 Special Education
7 Art	
8 Classroom	
9 Mechanical/Janitor	
	10 Music/Band
	11 Science
	12 Conference Room



Elementary School Building



First Level Floor Plan



Elementary School Basement Floor Level: 4,008 GSF
 Elementary School First Floor Level: 50,700 GSF
 Elementary School Second Floor Level: 28,321 GSF
 Total Combined Area: 84,029 GSF

1 Stair/Corr./Toilets	13 Office	16 Library/Media Center
2 Administration	14 Computer Laboratory	17 Title One
3 Child Health Care	15 Conference Room	18 Special Education
4 Storage	10 Music/Band	
5 Language	11 Science	
6 Teacher Work/Dining	12 Conference Room	
7 Art	9 Mechanical/Janitor	
8 Classroom		
9 Mechanical/Janitor		

ey

Elementary School Building



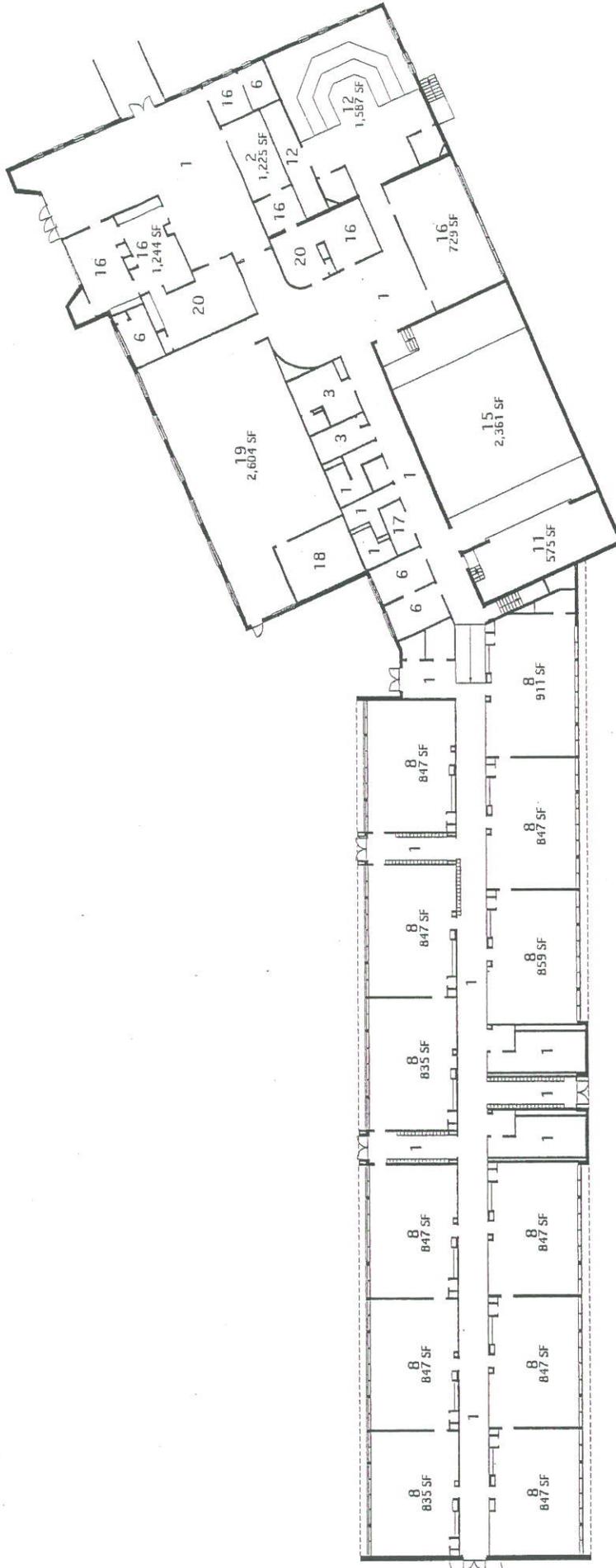
Key

- 1 Stair/Corr/Toilets
- 2 Administration
- 3 Child Health Care
- 4 Storage
- 5 Language
- 6 Teacher Work/Dining
- 7 Art
- 8 Classroom
- 9 Mechanical/Janitor
- 10 Music/Band
- 11 Science
- 12 Conference Room
- 13 Office
- 14 Computer Laboratory
- 15 Head End/AV
- 16 Library/Media Center
- 17 Title One
- 18 Special Education

Elementary School Basement Floor Level: 4,008 GSF
 Elementary School First Floor Level: 50,700 GSF
 Elementary School Second Floor Level: 29,321 GSF
 Total Combined Area: 84,029 GSF

Second Level Floor Plan

Middle School Building



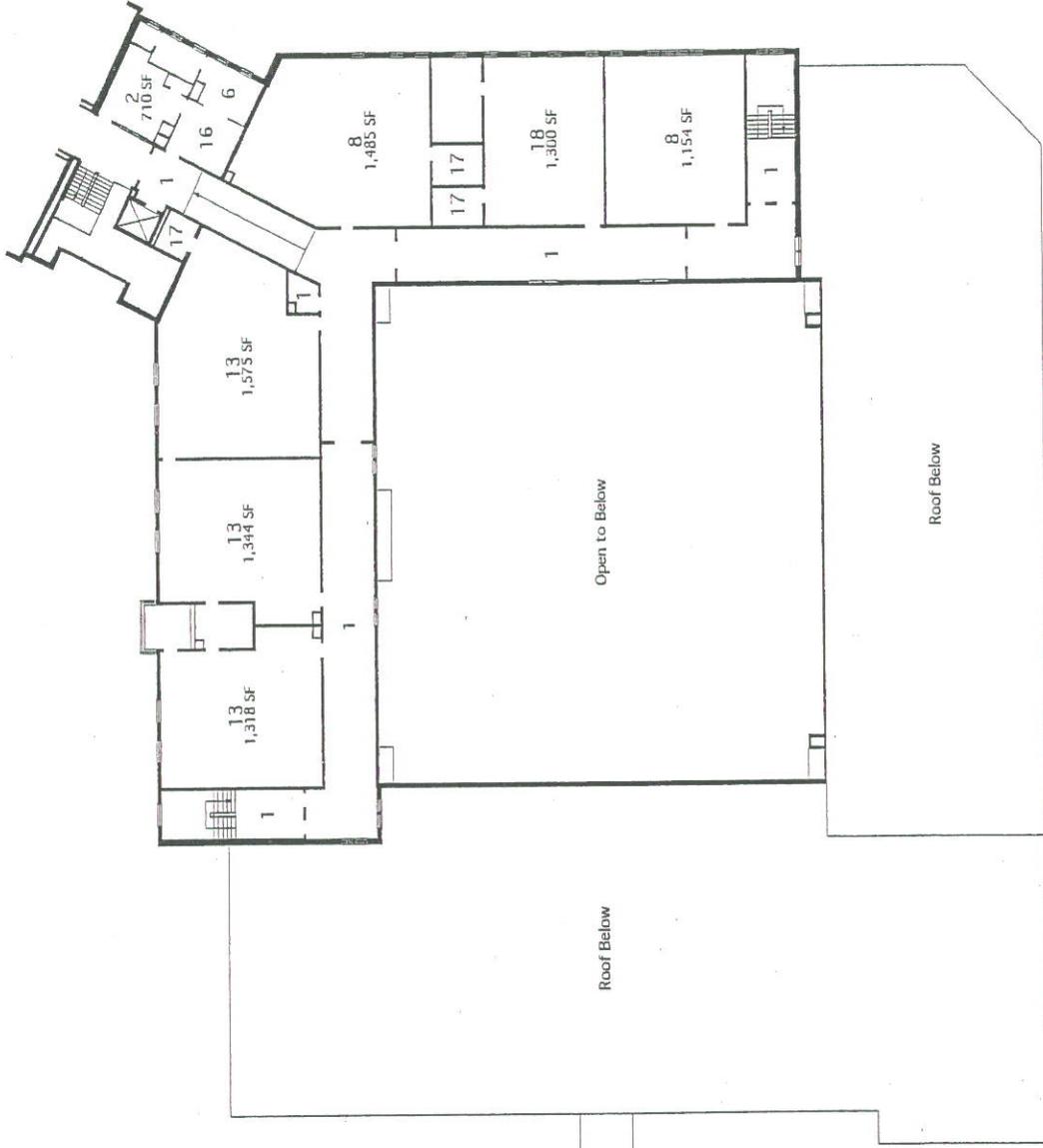
First Level Floor Plan

Middle School Basement Floor Level: 4,723 GSF*
 Middle School First Floor Level: 22,591 GSF
 Middle School Core Addition: 8,403 GSF
 Total Combined Area: 35,717 GSF
 * Estimated; Insufficient documentation to confirm

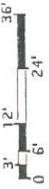
Key

- | | | | | | | | |
|---|--------------------|----|---------------------|----|------------|----|----------------------|
| 1 | Stair/Corr/Toilets | 6 | Teacher Work/Dining | 11 | Stage | 16 | Office |
| 2 | Administration | 7 | Art | 12 | Music | 17 | Storage |
| 3 | Child Health Care | 8 | Classroom | 13 | Science | 18 | Audio-Visual Room |
| 4 | Athletics | 9 | Mechanical/Janitor | 14 | Gymnasium | 19 | Library/Media Center |
| 5 | Special Education | 10 | Cafeteria/Kitchen | 15 | Auditorium | 20 | Conference Room |

Core Building



Second Level Floor Plan

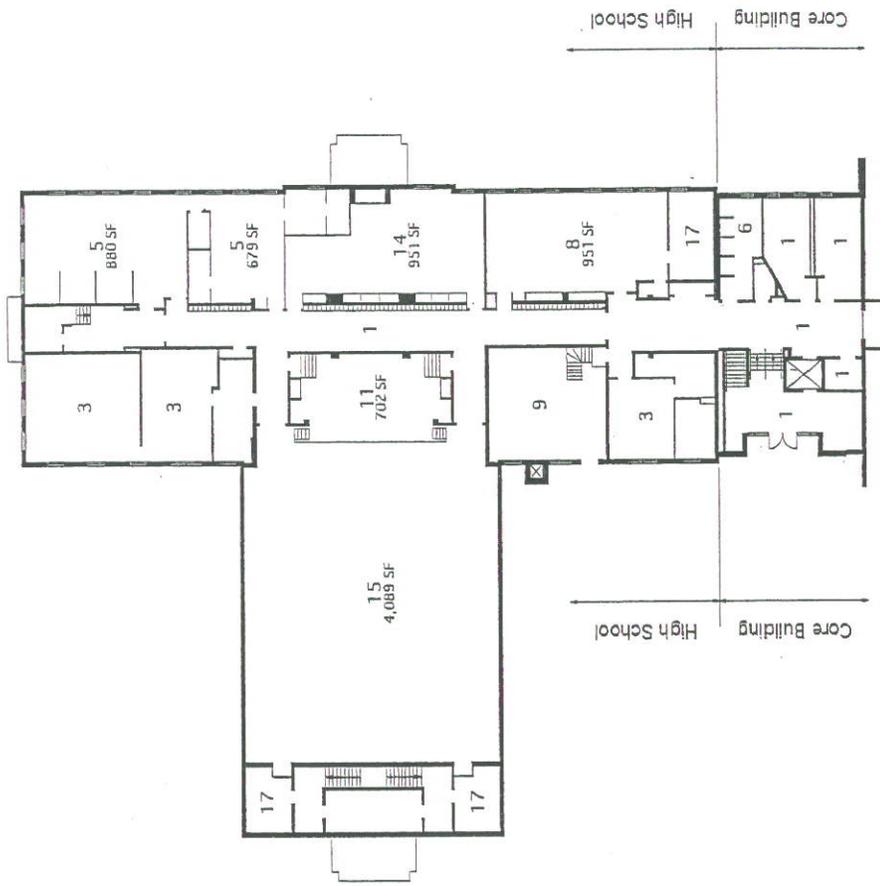


First Floor Level: 46,680 GSF
 Second Floor Level: 14,623 GSF
 Third Floor Level (See High School): 1,965
 Total Combined Area: 63,278 GSF

Key

1	Stairs/Corr/Toilets	11	Stage	16	Office
2	Administration	12	Music	17	Storage
3	Locker Room	13	Science Laboratory	18	Computer Laboratory
4	Athletics	14	Science Classroom	19	Library/Media Center
5	Special Education	15	Gymnasium	20	Conference Room

High School Building



Key

1	Stairs/Corr/Toilets	6	Teacher Work/Dining	11	Stage
2	Administration	7	Art/Workshop	12	Music
3	Locker Room	8	Classroom	13	Science Laboratory
4	Athletics	9	Mechanical/Janitor	14	Science Classroom
5	Special Education	10	Cafeteria/Kitchen	15	Gymnasium
		16	Office		
		17	Storage		
		18	Computer Laboratory		
		19	Library/Media Center		
		20	Conference Room		

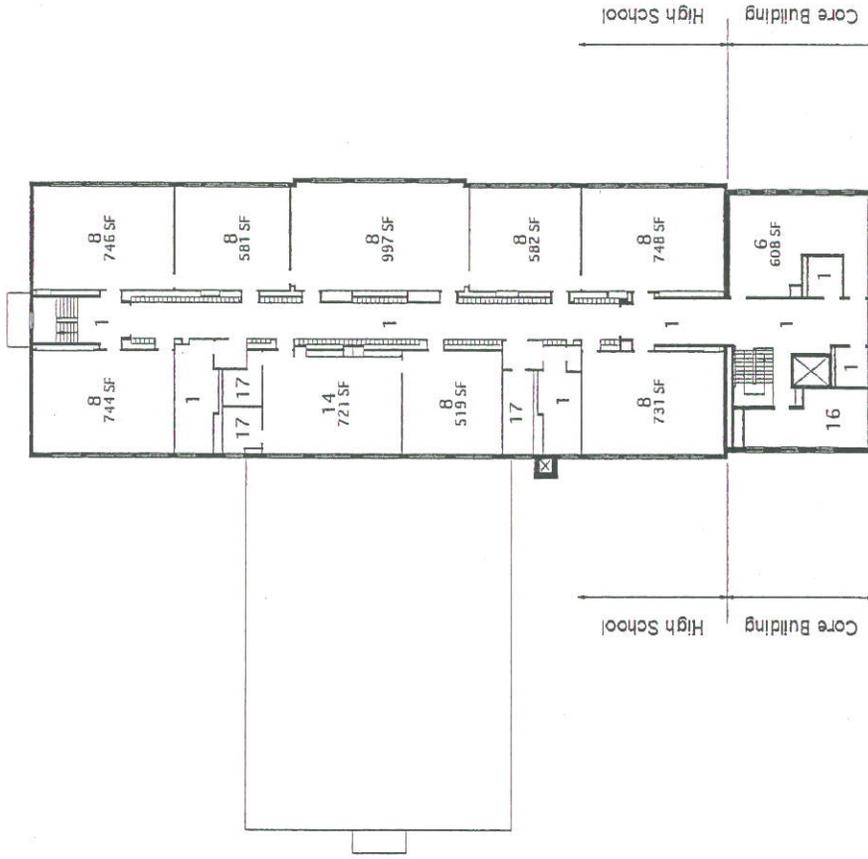
High School Basement Floor Level: 14,563 GSF
 High School First Floor Level: 9,664 GSF
 High School Second Floor Level: 9,730 GSF
 Total Combined Area: 33,957 GSF



Basement Level Floor Plan



High School Building



Key

- | | | | | | | | |
|---|---------------------|----|---------------------|----|--------------------|----|----------------------|
| 1 | Stairs/Corr/Toilets | 6 | Teacher Work/Dining | 11 | Stage | 16 | Office |
| 2 | Administration | 7 | Art/Workshop | 12 | Music | 17 | Storage |
| 3 | Locker Room | 8 | Classroom | 13 | Science Laboratory | 18 | Computer Laboratory |
| 4 | Athletics | 9 | Mechanical/Janitor | 14 | Science Classroom | 19 | Library/Media Center |
| 5 | Special Education | 10 | Cafeteria/Kitchen | 15 | Gymnasium | 20 | Conference Room |

High School Basement Floor Level: 14,563 GSF
 High School First Floor Level: 9,664 GSF
 High School Second Floor Level: 9,730 GSF
 Total Combustible Area: 33,957 GSF

Second Level Floor Plan



C. Middle/High School Program

The following program has been developed to respond to the current and projected space needs for the Middle and High School. It is assumed that there will be shared “core” facilities such as the cafeteria, media center, gymnasium, auditorium, and other spaces. The spaces required are based on the ten-year NESDEC enrollment projections in Section III of this report.

Although the current 6th grade is located in the Elementary School building, the six classrooms currently occupied will be needed for the expanding elementary grades and SPED requirements over the next ten years. The 6th grade is therefore included in the Middle School, which also meets the requirement for a middle school with a 6-8 grade combination.

Following the educational program are notes that summarize meetings held with the Superintendent, the Principals, Director of IT, Director of SPED, Science Chair and Music Director. The program spaces are based on these stated needs and the original State educational program space standards and guidelines. When the new 2006 MSBA space standards are finalized, this program should be reviewed and possibly revised to comply with any changes.

PRELIMINARY EDUCATIONAL PROGRAM SUTTON MIDDLE/HIGH SCHOOL

State required space calculations:

A Subject	B Projected Students per Class	C Class Size	D Sections	E Sessions per Week	F Total Sessions	G Periods per Week	H Total Stations Required	I Stations Available	J Sq. Ft. each Station	K Total Area Available	L New Stations Required	M Sq. Ft. each Station	N Total Area New

Step 1: Sections

$$\frac{B}{C} = D$$

Step 2: Total Sessions

$$D \times E = F$$

Step 3: Stations Required

$$\frac{F}{G} = H$$

Step 4: New Stations Required

$$H - I = L$$

Step 5: Total Area Available

$$I \times J = K$$

Step 6: Total New Area to be built

$$L \times M = N$$

Sutton High School
 Preliminary Program
 7 period day x 6 sessions per week = 42 periods/week

645-5M/S										
TABLE I - BASIC EDUCATIONAL SPACE FOR PLANNED PROGRAM WORKSHEET										
A	B	C	D	E	F	G	H	J	N	
Subject	Projected Students per Class	Class Size	Sections	Sessions per Week	Total Sessions	Periods per Week	Total Stations Required	Avg. Sq. Ft. each Station	Total Area Required	
GENERAL CLASSROOMS (6 - 8 GRADES)										
	N/A	N/A	N/A				16	800	12,800	
ENGLISH (9 - 12)										
English 1 Honors	54	20	3	6	18	42	0.4		0	
English 1 Level 1	82	20	4	6	24	42	0.6		0	
English 1 Skills	15	15	1	6	6	42	0.1		0	
English 2 Honors	39	20	2	6	12	42	0.3		0	
English 2 Level 1	57	20	3	6	18	42	0.4		0	
English 2 Skills	16	20	1	6	6	42	0.1		0	
Brdest Jour Lev. 1	50	20	3	6	18	42	0.4		0	
English 3 Honors	51	20	2	6	12	42	0.3		0	
English 3 Lev 1'	51	20	3	6	18	42	0.4		0	
English 4 Honors	39	20	2	6	12	42	0.3		0	
English 4 Level 1	43	20	2	6	12	42	0.3		0	
Shakespeare Alive	9	10	1	6	6	42	0.1		0	
AP Eng Lit/Comp	9	10	1	6	6	42	0.1		0	
Speech/Debate	22	24	1	6	6	42	0.1		0	
					174	42	5	750	3,750	
SOCIAL STUDIES (9 - 12)										
Criminal Justice	25	25	1	6	6	42	0.1		0	
World History 1 Honors	59	20	3	6	18	42	0.4		0	

Sutton : /High School
 Preliminary Program
 7 period day x 6 sessions per week = 42 periods/week

A Subject	B Projected Students per Class	C Class Size	D Sections	E Sessions per Week	F Total Sessions	G Periods per Week	H Total Stations Required	J Avg. Sq.Ft. each Station	N Total Area Required
World History L1	94	20	5	6	30	42	0.7		0
US History 1 Honors	34	20	2	6	12	42	0.3		0
US History 1 L1	79	20	3	6	18	42	0.4		0
AP US History	15	20	1	6	6	42	0.1		0
Pre US History	12	20	1	6	6	42	0.1		0
US History 2 Honors	40	20	2	6	12	42	0.3		0
US History 2 L1	60	20	3	6	18	42	0.4		0
Amer. Govt Honors	57	20	2	6	12	42	0.3		0
American Govt Lev 1	57	20	3	6	18	42	0.4		0
Behavioral Science	45	20	2	6	12	42	0.3		0
MATHEMATICS (9 - 12)						156	5	750	3,750
Integ Math L1	10	20	1	6	6	42	0.1		0
Integ Math L2	26	20	2	6	12	42	0.3		0
Algebra I	80	20	4	6	24	42	0.6		0
Algebra 1A	22	20	1	6	6	42	0.1		0
Algebra 1B	20	20	1	6	6	42	0.1		0
Geometry Honors	18	20	1	6	6	42	0.1		0
Geometry Level I	53	20	3	6	18	42	0.4		0
Fund. Geometry	22	20	1	6	6	42	0.1		0
Algebra 2 Honors	15	20	1	6	6	42	0.1		0
Algebra 2 Level I	71	20	4	6	24	42	0.6		0

Sutton /High School
 Preliminary Program
 7 period day x 6 sessions per week = 42 periods/week

A	B	C	D	E	F	G	H	J	N
Subject	Projected Students per Class	Class Size	Sections	Sessions per Week	Total Sessions	Periods per Week	Total Stations Required	Avg. Sq.Ft. each Station	Total Area Required
Algebra 3 Level I	35	20	2	6	12	42	0.3		0
Pre-Calculus Honors	18	20	1	6	6	42	0.1		0
Pre Calc. Level I	25	20	2	6	12	42	0.3		0
Calculus Honors	15	20	1	6	6	42	0.1		0
150									
WORLD LANGUAGES (9-12)									
French 1 L1	3	5	1	6	6	42	0.1		
French 2 L1	24	20	1	6	6	42	0.1		
French 3	13	20	1	6	6	42	0.1		
French 4 Honors	3	5	1	6	6	42	0.1		
Spanish 1A	10	20	1	6	6	42	0.1		
Spanish 1B	10	20	1	6	6	42	0.1		
Spanish 1 L1	10	20	1	6	6	42	0.1		
Spanish 2 L1	134	20	7	6	42	42	1.0		
Spanish 3 Honors	20	20	1	6	6	42	0.1		
Spanish 3 L1	41	20	2	6	12	42	0.3		
Spanish 4 Honors	11	20	1	6	6	42	0.1		
Spanish 4 L1	13	20	1	6	6	42	0.1		
Spanish 5 Honors	5	5	1	6	6	42	0.1		
Latin I	10	20	1	6	6	42	0.1		
Latin 2 Tutorial	1	5	1	6	6	42	0.1		
132							3	750	2,250

Sutton High School
 Preliminary Program
 7 period day x 6 sessions per week = 42 periods/week

A	B	C	D	E	F	G	H	J	N
Subject	Projected Students per Class	Class Size	Sections	Sessions per Week	Total Sessions	Periods per Week	Total Stations Required	Avg. Sq.Ft. each Station	Total Area Required
OTHER (9 - 12)									
Health	100	24	4	6	24	42	0.6		
Study Halls/Remedial/Tutorial	146	20	7	6	42	42	1.0		
						66	2	750	1,500
SUBTOTAL GENERAL CLASSROOMS						36			27,800
SPECIALIZED TEACHING STATIONS (GRADES 6-12)									
Art Room (6th - 8th)	175	20					1.0	1,000	1,000
Art Storage							1.0	200	200
Art Room (9th - 12th)	175	20					1.0	1,000	1,000
Dark room							1.0	150	150
Art Storage							1.0	280	280
Kiln Room							1.0	100	100
									2,730
MUSIC (GRADES 6 - 12)									
Choral/Band Rooms	323	50					2.0	1,500	3,000
Practice rooms							5.0	100	500
MIDI Lab							1.0	1,000	1,000
Office							1.0	200	200
Storage							2.0	300	600
									5,300
PHYSICAL EDUCATION (GRADES 6 - 12)									
Gym MS/HS	918	25	37	6	220	42	1.0		10,985
Gymnasium Support Spaces									4500
							1.0		15,485

Sutton e/High School
 Preliminary Program
 7 period day x 6 sessions per week = 42 periods/week

A	B	C	D	E	F	G	H	J	N
Subject	Projected Students per Class	Class Size	Sections	Sessions per Week	Total Sessions	Periods per Week	Total Stations Required	Avg. Sq.Ft. each Station	Total Area Required
SCIENCE (6 - 12)									
Science Rooms (6 - 8)							2.0	900	1,800
Anatomy/Health	70	20	4	6	24	42	0.6		0
Physical Science LI	151	20	8	6	48	42	1.1		0
Environmental Science	45	20	2	6	12	42	0.3		0
Biology Honors	36	16	2	6	12	42	0.3		0
Biology LI	71	20	4	6	24	42	0.6		0
Chemistry Honors	50	16	3	6	18	42	0.4		0
Chemistry LI	41	24	2	6	12	42	0.3		0
Chemistry in Community	17	20	2	6	12	42	0.3		0
Physics Honors	40	16	3	6	18	42	0.4		0
Physics LI	21	24	1	6	6	42	0.1		0
					210		6.0	1,200	9,000
SPECIAL INSTRUCTION (GRADES 6 - 12)									
OT/PT	10	5		6			1.0	800	800
Life Skills Classroom	20	10		6			2.0	1,000	2,000
Academic Support	73	12		6			2.0	750	1,500
Language Based Program	15	10		6			1.0	750	750
Small SPED Classroom	45	10		6			1.0	400	400
									5,450
OTHER (COMPUTER STUDIES, ENGINEERING, T.V. STUDIO)									
Community Access Cable T.V./ Broadcast Journalism Studio	60	24					1.0	1,200	1,200

Sutton /High School
 Preliminary Program
 7 period day x 6 sessions per week = 42 periods/week

A	B	C	D	E	F	G	H	J	N
Subject	Projected Students per Class	Class Size	Sections	Sessions per Week	Total Sessions	Periods per Week	Total Stations Required	Avg. Sq.Ft. each Station	Total Area Required
Health Suite							1.0		850
Guidance Suite							1.0		1,200
SUBTOTAL MISCELLANEOUS EDUCATIONAL									29,135

GENERAL CLASSROOMS (6TH - 12TH) 27,800
 SPECIALIZED EDUCATIONAL SPACE (6TH - 12TH) 43,065
 MISCELLANEOUS EDUCATIONAL SPACE (6TH - 12TH) 29,135

100,000 NSF
 X 1.5
 150,000 GSF

TOTAL EDUCATIONAL SPACE NEEDED
 State Allowable Gross Square Footage
 Middle School (6-8) 438 students x 187 sf = 81,906 gsf
 High School (9-12) 517 students x 205 sf = 105,985 sf
 187,891 gsf

Meeting Notes

DATE: March 7, 2006

PROJECT: Sutton Feasibility Study

PROJECT NO: 2517.00

PRESENT:	Cecilia DiBella	Superintendent
	Bill Harper	Middle School, Principal
	Joanne Irish	Elementary School, Principal
	Claudia Simonian	Early Learning Center, Principal
	Gail Van Buren	High School, Principal
	Valerie M. Curtis	FAI, Educational Programmer

DISTRIBUTION: Attendees, D. McClelland, J. Highum

Individual meetings with the Superintendent and with each school principal were held on March 7, 2006. I received a detailed tour of each facility and learned about the salient issues gripping the system. The following is an initial overview of what I learned.

Meeting and tour with Superintendent, Cecilia DiBella:

- The schools are generally lacking in science and technology, auditorium and gymnasium space.
- Facilities, or lack thereof may affect accreditation.
- Over the past several years Sutton has spent below the state average on a per pupil bases. In FY 2004 it spent \$161. less than state average. Based on the enrollment that year, the school system was underfunded by \$2.5 M. Monies have gone into preserving programs whenever possible and building maintenance has suffered.
- The Town rejected several million dollar operational budget overrides over the past several years. As a result the system has been forced to reduce several programs and impose substantial fees.
- The library is greatly undersized. Serves 885 students plus teachers. There are 10,000 volumes and very low currency. AV equipment is 10+ years old. Library is open school hours only, no opportunity for students to study there after school. There are 22 computers with 1 printer, need 30 – 35 in training room adjacent to library for students and teachers. Too hot in library. Workroom is being used as a storeroom for AV equipment. Cable connection and IT substation are located in the workroom as well, no proper ventilation. Shelving is not accessible in general. No space to save and store faculty books/collections/reserves.

Meeting with Bill Harper:

- The middle school was originally built as the elementary school, hence as I observed, the corridors are too small to accommodate the physical size of middle schoolers and their need for locker access, changing classrooms, etc.
- There is a team approach to teaching. There are teams of 3 instructors, in three adjacent classrooms that teach a group of students. Students do change classrooms each period.
- The entire 6th grade is housed at the elementary, (3rd– 5th), school. In addition the elementary school houses the only music lab and Band/choral room for the MS and HS.

- Science rooms are makeshift. The only unique feature is the added sink. Should have 5-6 dedicated science classrooms. The MS is using the 2 science labs in the elementary school.
- Art is non-existent in MS as a specialty class.
- SPED classrooms should have 6 – 8 computer drops, technology augments instruction. Need a life skills class.
- The nurse's office serves 885 students, (MS & HS) and is greatly undersized. There is only one cot, toilet not accessible. Needs a screening room.
- Choral music program in the middle school is limited because it shares a space with the community access TV broadcast room. Size is too small. Program limited.
- There is no auditorium or large lecture hall to accommodate the entire MS or HS student body. the current auditorium, in need of renovation as it is, is too small for either the HS or MS and has very limited access as it is used as a chorus classroom.
- There is no MS faculty/production room.

Meeting and tour with Joanne Irish:

- Elementary schools would like to use the spaces occupied by the MS. It leaves the ES instructors with no science or music rooms and SPED instructors, in some cases 5 instructors sharing a classroom.
- Need for more conference/meeting spaces and testing room.
- Auditorium now shared with MS. Not good.
- ES houses grades 3, 4, 5 with 6 classrooms per grade.

Meeting and tour with Claudia Simonian, Principal of the Early Learning Center, (ELC)

- There are (7) full day kindergarten classrooms, (6) 1st grade classrooms, and (6) 2nd grade classrooms, (in elementary building and (3) pre-school classrooms, 5 sessions total, 3 full day
- There is 1 self contained intensive SPED room, 1 PT room, 1 OT room, (2 CODAS, 1 FT OT), and 2 speech rooms. Services are for Pre-K through 2nd grade.
- All 4 HVAC roof top units were replaced 4 years ago.
- The auditorium is used system wide. It seats 350 and has a full stage.

Meeting and tour with Gail Van Buren, principal of the high school:

- Science: there are 3 good labs built in the 1989 core building. Good size, good benches, adequate room for lecture and lab in one classroom. Physics, chemistry and biology taught there. A converted home economics room serves as another biology lab. A second physics and a health/anatomy course are taught in converted classrooms instead of proper labs. One more lab is needed for a total of 7 labs. Storage of chemicals needs to be addressed, prep rooms need to be secured. Fume hoods are not working.
- SPED: 1 life skills classroom is in a divided large room, another SPED room is in a partitioned, inadequate space.
- Journalism, Band and Chorus: These courses should be in the high school building. Presently in the MS and ES.
- Academics: 80% of the teachers have their own classroom. The ideal would be for every teacher to have their own classroom with department chairs having an office. Departments are: world language, math science, English, social studies, music, art, SPED.
- Need for departmentalized book storage adjacent to chairs office.

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- HS Administration: need principal and vice principal suite, 1 large conference area, and space for storage of supplies, records and a workroom with copier and a small “kitchen” area. Need a safe, now about 40 sf.
- Guidance: Now have, 2 offices, 1 secy, 1 storage area, and one small resource area. Need a suite that includes 3 counselor offices with meeting space for 4-6 people, 1 secy space, 1 library, 1 record storage area, 1 social worker office, 1 conference room for 18 – 20 with screen for visiting college presentations.
- Health office is shared with the MS. Very inadequate for the 885 students served.
- Toilet rooms in general are very poor. Accessibility a big issue with the multiple levels within the school.
- Teacher workrooms: need one on each floor, with satellite workrooms per department.
- Need a large space for faculty meetings.
- Faculty dining area for 30-40 people
- Separate HS cafeteria, seating 175, 3 lunches, and a specially designed kitchen to attract this age group.
- SPED: Kristen Esposito is the K-12 SPED director. SPED needs a suite of offices/rooms for their services, speech therapy, O.T. Room, P.T. room.
- Athletics: Need visiting team room, referee room, ski club equipment storage, shower rooms, and an A.D. office with small meeting area and secy space. Physical therapy room, coaches’ space, adequate locker rooms, and fitness training equipment room are badly needed as well.

At the next meeting, FAI will meet with specialists throughout the system to get specifics on the educational and space requirements. Particularly important are directors of IT, SPED, Tech Ed, Athletics, Performing Arts, Fine Arts, and Science. Most of our meeting time should concentrate on the MS and HS needs. Dr. DiBella and Linda Sadowsky will assist in scheduling meetings for Valerie Curtis, FAI.

[File Pathname/initials]

Meeting Notes

DATE: March 21, 2006

PROJECT: Sutton Feasibility Study

PROJECT NO: 2517.00

PRESENT: Eric Bouvier Director of IT – Sutton Public Schools X1113
Valerie Curtis FAI

DISTRIBUTION: Attendees
Cecilia DiBella Sutton Public Schools
Duncan McClelland FAI
Jim Highum FAI
Dmitri Kapalis FAI

1. District Wide Status

- Network is located in Elementary Library
- 2 Main file servers run whole district.
- 9 Wiring closets throughout; they are interconnected thru fiber.
- Every computer has internet access.
- District wide 795 total computers (7 years old to new).
- Phone systems are a nightmare – not linked to computers, but share head-end room.

2. High School Status

- Has the newest computers
- One on each teachers' desk, a few student desktop computers in some classrooms
- 2 Student computer labs
- 3 Wireless laptop labs are shared
 - English
 - Social Studies
 - Science
- Networked printers/floor – need to leave classroom to retrieve printing.
- Labs have printers both wireless and student labs.
- Each classroom has T.V. networked with computer.
 - United streaming – “Discovery based” T.V. show
 - 30” screens on wall of computer lab with 2 VDP and smart board.
(Prefer VDP with smart board and document camera)

3. Middle School Status

- “Done Piecemeal”
- Old computers, hand-me-downs
- Teachers all have updated computers at desk
- No T.V.'s in Middle School classrooms- check out from library.

- Recently wired regular classroom in Elementary School for Middle School computer lab. The lab curriculum includes:
 - Web page design
 - Microsoft office
 - Researching.
- Printers: Print to library.
 - 6th grade (At Elementary School) has printers in room.
- 3 Wireless labs in Middle School.
- Library: 18 computers and a printer in library. Document cameras, DVD players are stored there and distributed on a sign-out basis. Library is shared with High School.
- Library Instruction: Often there are 2 Middle School groups in library. Too Small, too noisy.
- 28 Station MIDI lab (in Elementary School, but belongs to Middle School); required curriculum.

4. Elementary School Status

- Each classroom has 5 student computers, 1 teacher computer, and 1 networked printer.
- T.V. mounted on wall in each classroom.
- Computer Lab is adjacent to the library and has 25 computers for 1st, 2nd, and 5th grades, with VD projector and smart board.
- In the Library: There are another 25 computers in an open area of library. Too many.

5. ELC Status

- Mixed bag, but better off than Middle School
- (5) Student computers/(1) Teacher computer per classroom

FUTURE NEEDS

6. District Needs

- Network demands are growing; need more servers.
- Student/parent access to school
- School management systems place great demand on network.
- Internet line bandwidth was just updated, but will need to expand more.
- Classes also place high demand on network.
- Infrastructure needs attention
 - Switching upgrade
 - Replacement cycle needed
- Need to be able to maintain a group of computers that are all alike, parity across the district.
- Phone system very bad – this is district wide. Should be linked and updateable via the computer system for better management.
- Wireless throughout new building a must, particularly in common areas: Cafeteria, Library, Corridors.
- Projectors with smart boards; document cameras are preferred in classrooms.
- ELC and Elementary just fine model of 5 +1+printer = great!

7. Middle School Needs an Overhaul

- (1) Teacher computer
- (3) Desktops in each class
- (1) Wireless lab per level is ideal
- (1) Instructional Lab, 28 student computers

8. High School Needs

- Ideal is 4 wireless labs
- (2) Instructional labs: (1) business, (1) graphics.
- General Classroom:
 - 1 Teacher Computer with projector smart board.
 - Students Computers: 1 to 2 per room.
 - Ideal World: Laptops for teachers.
- World Language: Language Lab? (ask World Language Department).
- School webpage design:
 - Increasingly popular
 - Flash animations very popular
 - Graphic design lab would support this program.
- MIDI for H.S. – 14 stations
- Broadcast Journalism: Needs dedicated space. The existing space is good, but should NOT be shared.
 - 3-4 Classes; 15 Students per class.
 - Is also community access T.V. hub; 4-7pm public access T.V. is being filmed.
 - Editing Stations: Need 6 stations with updated equipment. The four existing are not adequate/too simple.

Meeting Notes

DATE: March 21, 2006

PROJECT: Sutton Feasibility Study

PROJECT NO: 2517.00

PRESENT: Dr. Kirsten Esposito Director of SPED Services–Sutton Public Schools x1156
Valerie Curtis Flansburgh Associates

DISTRIBUTION: Attendees
Cecilia DiBella Sutton Public Schools
Duncan McClelland Flansburgh Associates
Jim Highum Flansburgh Associates
Dmitri Kapalis Flansburgh Associates

High School Status

<u>Classes</u>	<u># of Students Served</u>
• (1) Life Skills Class	9-11
• (1) Academic Support (Part of Students' Schedule)	30

Total Students = 40 +/-

- H.S. students come to ELC for OT/PT.
- Old gym used for A (adaptive) P.E.
- There is 1 accessible toilet room in basement.

Middle School Status

<u>Classes</u>	<u># of Students Served</u>
• Language based program (in 6 th grade area; 2 nd floor science classroom)	12
• Life Skills Class Room (6 th grade area of Elementary School) • If there is baking/cooking they need to go to H.S. basement room	2
• Half-Classroom: Academic Support, Testing • 2 teachers assigned to each room. • Operates like a “revolving door” – students attend as part of their day when they need support	35

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- Speech Academic Support, Reading, Instructional Room
 - 4 staff assigned to one room in Elementary School building.

of Students Served

SLP = 30 – 50 STUDENTS	READING = 20 STUDENTS
ACADEMIC SUPPORT = 18 STUDENTS	
DIAGRAM OF HOW ROOM IS SHARED	

Acad.
OT/PT

60-70 Kids
15 +/-

Elementary School

3 RD GRADE RESOURCE ROOM	5 TH GRADE
	4 TH GRADE

- 3 staff members assigned to one room
- Testing
- Reading Instruction
- Small Group
- Math Labs
- 1/2 Hour/student

Language Based Classroom

- Serve grades 2-5
- Located in Elementary School with bathroom in room.
- Serves 16 students total; 10-12 at one time
- Kids go for a block of time
- 3 teachers, (1 Head, 2 Support)

Speech Therapist

- 2nd floor Elementary School (good)
- Title One Room (good)

35-40 Kids Grades 2-4

ELC

- (3) ½ Classrooms/ (1) Full classroom
- Room 3:
 - Lifeskills with bathroom, AC, and swing (functional academic intensive support) with stove, sink, and fridge – empty now, but next year will be used heavily

10 – 12 Children

FLANSBURGH ASSOCIATES

- | | |
|---|-----------------------------|
| • K, 1 st , 2 nd | <u># of Students Served</u> |
| • Support in blocks of day | |
| • Early intervention program | |
| • <u>SPED Support Room</u> | |
| • Pull- Out Room, Resource room | 15-20 Students |
| • <u>P.T. Room</u> : 1 person | 15-20 Students |
| • <u>O.T. Room Houses</u> : | |
| • 2 staff full time | |
| • Certified CODAs registered O.T.R. – with office | |
| • OTR Office is shared with school psychologist’s testing room. | |
| • (3) SPED Pre-School Classrooms | |
| • 2 have toilet rooms, 1 has air conditioning | |
| • 1 is attached to kindergarten room | |
| • 15 students per class maximum | |
| • 1 Full day pre-K, four half-day sessions, 5 session total | |

Offices:

- Team Chair – ELC Office
- 2 school psychologists in Elementary School (2 Offices)
- Director of SPED in ELC
- 2 secretaries for SPED in ELC

Conference Rooms (All Shared)

- (1) ELC
- (1) E.S.

P.E.

- Adaptive P.E. uses old gym or ELC faculty room.

FUTURE NEEDS

High School

- (1) Conference Room
- (2) Life Skills classrooms (can be attached)
 - 14-18 years old
 - 18-20 years old
 - Every Life Skills should have A.C. because they are 12-month programs.
- (2) Academic Support Classrooms
- Accessible toilet rooms
- (1) Nurses suite
- OT/PT room large enough for Hoyer lift.
- (1) Testing room
- (1) Adjustment counselor.

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- (1) Team chair office

Vocational Area (Gail to Identify)

- Language based class room

Middle School

- (1) Life Skills Classroom
 - Every Life Skills should have A.C. because they are 12-month programs.
- (1) Language based classroom.
- (3) SPED classrooms for 15-20 students each
- (1) Speech room (conference room size) 300sf
- (1) OT/PT (could be shared with H.S.)
- (1) Testing room (could be shared with H.S.)
- (1) Conference Room (could be shared with H.S.)
- (1) SPED Office in main office: could be a flexible space for SPED team use

Elementary School

- (4) Half-classrooms
- (2) Language based classrooms full size (K-2)/(3-5).
- (1) Speech, O.K. as is.
- OT/PT shared with ELC is O.K.
- Testing room to support psychologist
- (2) Psychologists offices – 2 now are O.K.
- (1) Team chair office at Elementary School or ELC, present office is O.K.

ELC

- All rooms and programs at ELC are good
- Need A.C. in life skills classes, since they are in use 12 months of year.
- Stair lifts on all stairs.
- These spaces are taxed because in some cases Middle Schools and High Schools need to use the ELC facilities.

Meeting Notes

DATE: March 21, 2006

PROJECT: Sutton Feasibility Study

PROJECT NO: 2517.00

PRESENT: Lucille DiLeo Science Chair – Sutton Public Schools x 1152
Valerie Curtis FAI

DISTRIBUTION: Attendees
Cecilia DiBella Sutton Public Schools
Duncan McClelland FAI
Jim Highum FAI
Dmitri Kapalis FAI

Science Curriculum District Goals

- K-12 curriculum continuity
- More communication throughout the grades
- 2010 class will need to pass science MCAS in order to graduate H.S., 1st year this will be required.
- In science, 24 students is a good size. Keep class size low for MCAS and safety.

High School Status

There are (6) Teachers total; (3) proper science labs in Core Building, other classrooms for H.S. science are makeshift spaces

- Health + Anatomy – Basement class room.
(6) Sections Total (1) teacher teaches 5, another teacher teaches 1 section
- Physical Science (Intro to Physics): General Science room in Core Building
(6) Sections total
(5) Sections 1 teacher (1) teacher 1
- Physics Lab (2nd floor H.S.) remodeled room; too small, no storage, very hot.
2 Physics classes
2 Physical Science classes
1 Virtual H.S. course (on-line)
- Biology (renovated Home Economics next to Art) lower level of Core Building
(3) Sections of Biology
- Biology: Core Building; too dark in room; has plant room.
(2) Sections of Biology
(1) Section of Health

(2) Sections of Environmental Science

- Chemistry: Core Building; newer room; too Small/no storage
(5) Sections, 24+/class
17 @ Chemistry in community

Middle School

Science classrooms at Middle School have serious leaks and shortage of storage. Classrooms do not support science curriculum. Teachers teach 3 sections of science and 1 or 2 sections of other subjects as well. Classrooms accommodate both.

- 8th Grade Science Lab 1
(3) Sections Earth/Physical Science with 20-27 students.
(1) History
(1) Critical Thinking
- 8th Grade Science Lab 2
(3) Sections of Science
(1) Social Studies class
- 7th Grade Science Lab 1
(3) Sections of Science with 27 students/class
(1) Social Studies class
- 7th Grade Science Lab 2
(3) Science classes with 25-26 students
(1) Social Studies
- 6th Grade Science Lab
 - Located in science labs at the new Elementary School.

Meeting Notes

DATE: March 21, 2006

PROJECT: Sutton Feasibility Study

PROJECT NO: 2517.00

PRESENT: Mark Smith Music Director – Sutton Public Schools x 3127
Valerie Curtis FAI

DISTRIBUTION: Attendees
Cecilia DiBella Sutton Public Schools
Duncan McClelland FAI
Jim Highum FAI
Dmitri Kapalis FAI

Status of Music Department District Wide

Core Building: Houses choral room

- Chorus room for high school
- Choral room is shared with T.V. Studio, very limiting
- Acoustics are O.K., but room is too small to support both programs. HVAC noise is too loud.

Elementary Building: Houses band, practice rooms and MIDI lab for district

- Band room is wrong shape and too small.
- Band has up to 93 students (High School/Middle School)
- Rm. 119 in Elementary School is used as general music classroom for grades 3 and 4. Good space.

High School Auditorium: In Middle School building

- Middle School chorus meets there.
- Bad acoustics (not designed for music)
- Not accessible
- Too hot, poor ventilation
- Too small
 - Constant schedule conflicts

Music Lab

- Great – 28 Stations is fine for Middle School.
- Support music composition and how it works. This is a mandatory program at Middle School.
- High School needs only 14 stations, elective course.

Music Department Office

- Not enough storage space
- Located in Elementary School adjacent to band room

(1) Large Practice Room

- Too Small for ensemble room
- Good large practice room

Band Room

- Band – 82 Students this year, 93 students last year. Too small for growing band participants.
- Now 1843 sf, should be larger
- Small storage 50 sf – too small
- (3) Small Practice Rooms are good; large ensemble room is not large enough.

Auditorium @ ELC

- Stage too small
- Accommodates 360 in fixed seats.
- Primary performance space for district.
- A 500-seat auditorium would be ideal to support H.S., M.S. and district wide functions.

ELC

- Music room accommodates Grades 1, 2 , 5
- Good space for the program

Enrollment

- 5th Grade Level: 80 to 100 usually
(Because of budget cutting, no instrumental music this year)
- 6-8 Chorus: 70-90
- 6-8 Band: 140
- 9-12 Chorus: 50
- 9-12 Band: 82-93

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Eventually there will be non performances classes offered at the high school level. They will need to be accommodated with a standard size classroom. This could be the MIDI lab space too.

Mark Smith x 3127

smithm@suttonschool.net

FAI RAID:FAI Projects:2005 Projects:2517.00 Sutton Study:03 MEETING NOTES:3-21-06 mtg - Music Director.doc

V. Planning Options

The following 8 Conceptual Design options have been developed for the Middle/High School to satisfy the educational program needs as outlined in section IV-C of this report. The options are numbered from least expensive to most and they involve renovation only, additions and renovations, and all new construction.

Each scheme includes a phasing diagram that generally shows how the construction might be phased in order to keep the school buildings in use during construction. Temporary, portable classrooms are also suggested for some options to allow classrooms to be shifted out of the buildings while they are being renovated.

Cost estimates and construction time periods are also analyzed and section VI of this report includes the detailed cost estimates for each option.

The following is a summary description of the eight options followed by drawings of each.

Design Option Summaries

Option 0

HIGH SCHOOL ONLY - Renovation without any new space. Does not address program and space needs. \$22 million

Option 1

HIGH SCHOOL ONLY - Minimal scheme includes renovation of old High School plus core. Missing several program elements, \$25 million

Option 2

HIGH SCHOOL ONLY - Demolish old high school. Build new addition to rear of core for new High School, including all program elements and auditorium. \$30.3 million

Option 3

FULL RENOVATION, LIMITED ADDITIONS - Keep and renovate all buildings, includes Middle School renovation. Missing some program elements, missing auditorium. \$32.9 million

Option 4

NEW MIDDLE/HIGH ADDITION, KEEP CORE ONLY - New Middle School on one floor linked to Elementary School. New High School addition behind core. Includes all program elements. Old Middle School and High School Demolished. \$38.1 million

Option 5

KEEP CORE, MIDDLE, AND HIGH SCHOOL, SMALLER ADDITION - This scheme keeps and renovates all buildings and adds a new auditorium/cafeteria addition. \$38.5 million

Option 6

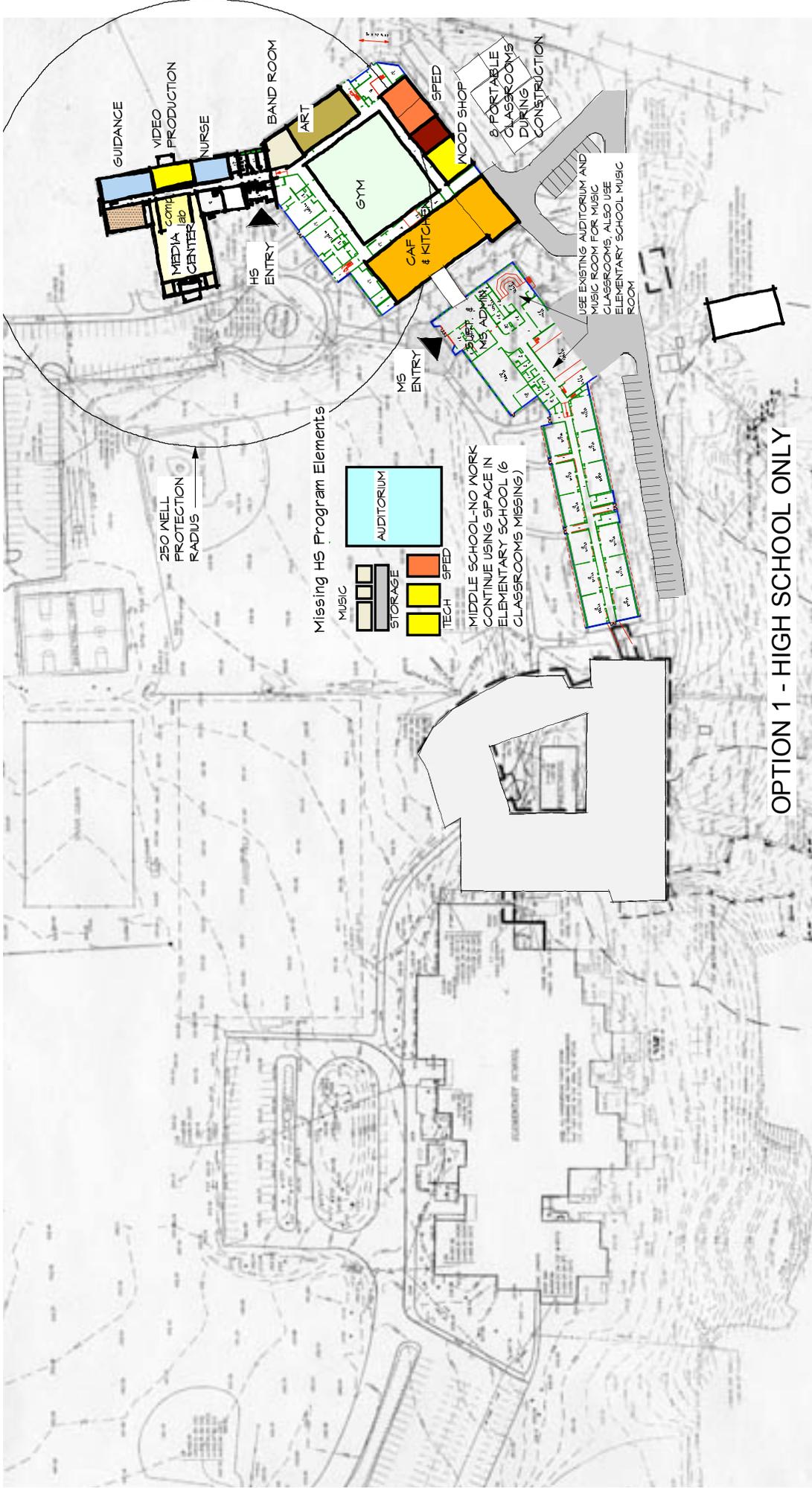
ALL NEW MIDDLE/HIGH SCHOOL - All new building near Elementary School, entire Middle School and High School building and core are demolished. \$39.5 million

Option 7

NEW MIDDLE SCHOOL/HIGH SCHOOL ADDITION IN SINGLE BLOCK NEXT TO CORE - This addition is a simplified version of Option 4, cleaning up the addition to make a more efficient, compact school. The Core building is renovated. \$41.7 million

Option 8

ALL NEW MIDDLE/HIGH SCHOOL - Same as Option 6 above, but modified to reflect proposed new state standards which allow more space. \$45.6 million



OPTION 1 - HIGH SCHOOL ONLY

School Feasibility Study
 Sutton Public Schools
 Sutton, Massachusetts

FLANSBURGH ASSOCIATES
 77 North Washington Street
 Boston, Massachusetts 02114

- middle sch. classrooms
- language
- english
- social st
- math
- other classroom
- admin/health
- mech/support
- music
- faculty
- science
- sped
- technology, tech ed etc.
- media center
- caf & kitchen
- auditorium
- gymnasium

PROS

LESS COSTLY
NO DISTURBANCE OF ATHLETIC FIELDS
TOWN SEWER, WATER NOT ESSENTIAL

CONS

SPLIT MEDIA CENTER; EXISTING FOR MIDDLE SCHOOL, NEW HS MEDIA CTR. DOES NOTE MEET REQUIRED PROGRAM -

PROGRAM AREAS MISSING:
 AUDITORIUM (9000 s.f.)
 SPED ACADEMIC SUPPORT (750 s.f.)
 VIRTUAL HIGH SCHOOL/STUDY HALL (800 s.f.)
 BAND/CHORUS PRACTICE ROOMS, OFFICE & STORAGE (1000 s.f.)
 DEPARTMENTAL STORAGE (800 s.f.)

MUSIC DEPT IS SPREAD IN 3 BUILDINGS

UNDERSIZED ROOMS:

- 2 HISTORY CR < 50 S.F. EACH
- 1 LANGUAGE CR < 150 S.F.

GUIDANCE, NURSE IN BASEMENT

PORTABLE CLASSROOMS REQUIRED DURING CONSTRUCTION



SECOND AND THIRD FLOOR PLANS

97235 S.F. RENOVATED
 9800 S.F. ADDITIONS (INCLUDES INSERTION OF EXTRA 2ND FLOOR SPACE AT HIGH SCHOOL)
 107,035 S.F. TOTAL SQUARE FOOTAGE
 NEW MSBA GUIDELINES ALLOW 205 GSF/STUDENT, 517 X 205 S.F. = 105,485 S.F.
 35 NEW PARKING SPACES

OPTION 1 - HIGH SCHOOL ONLY

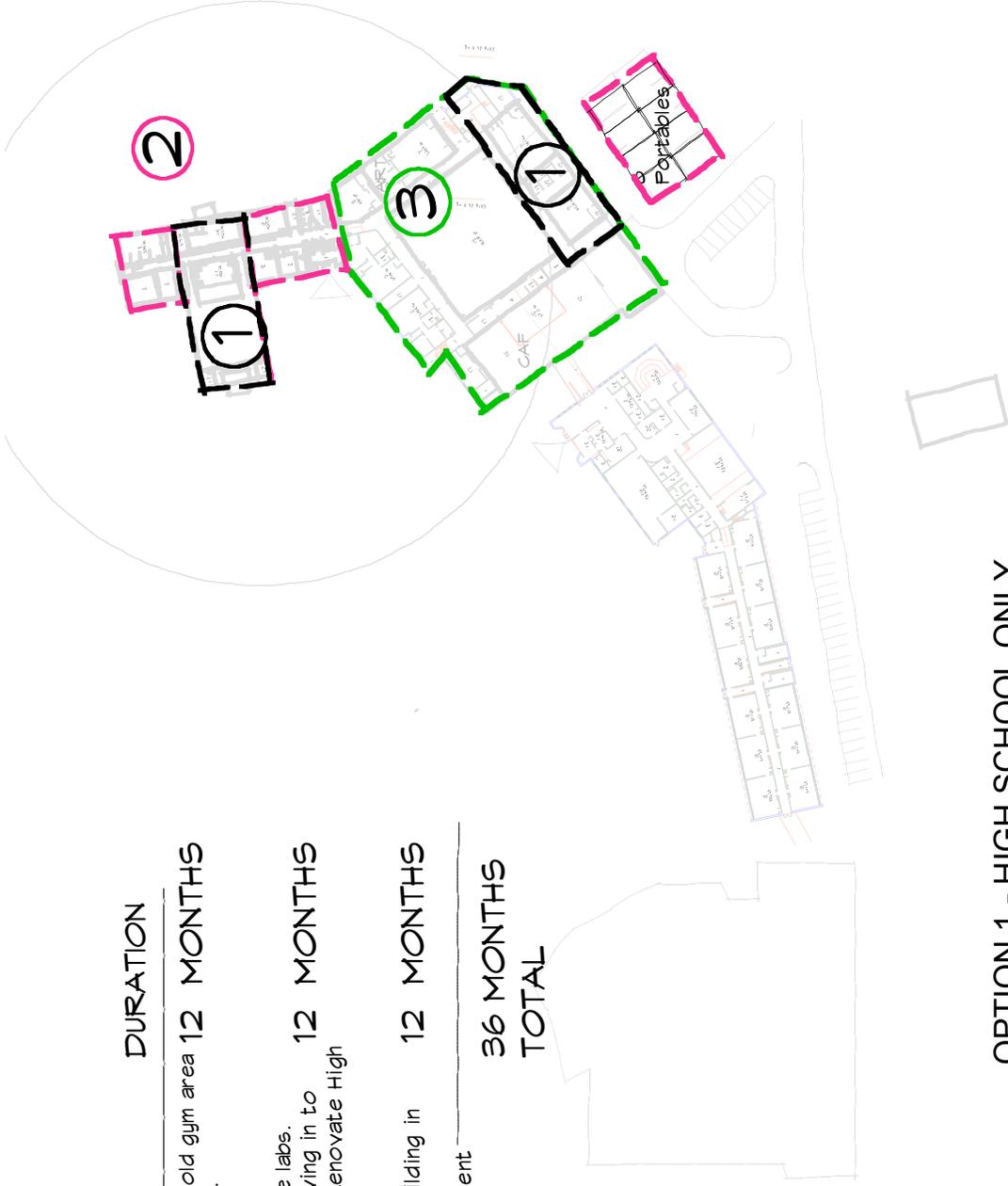
ESTIMATED COST: \$ 25 Million

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 Sutton Public Schools
 Sutton, Massachusetts

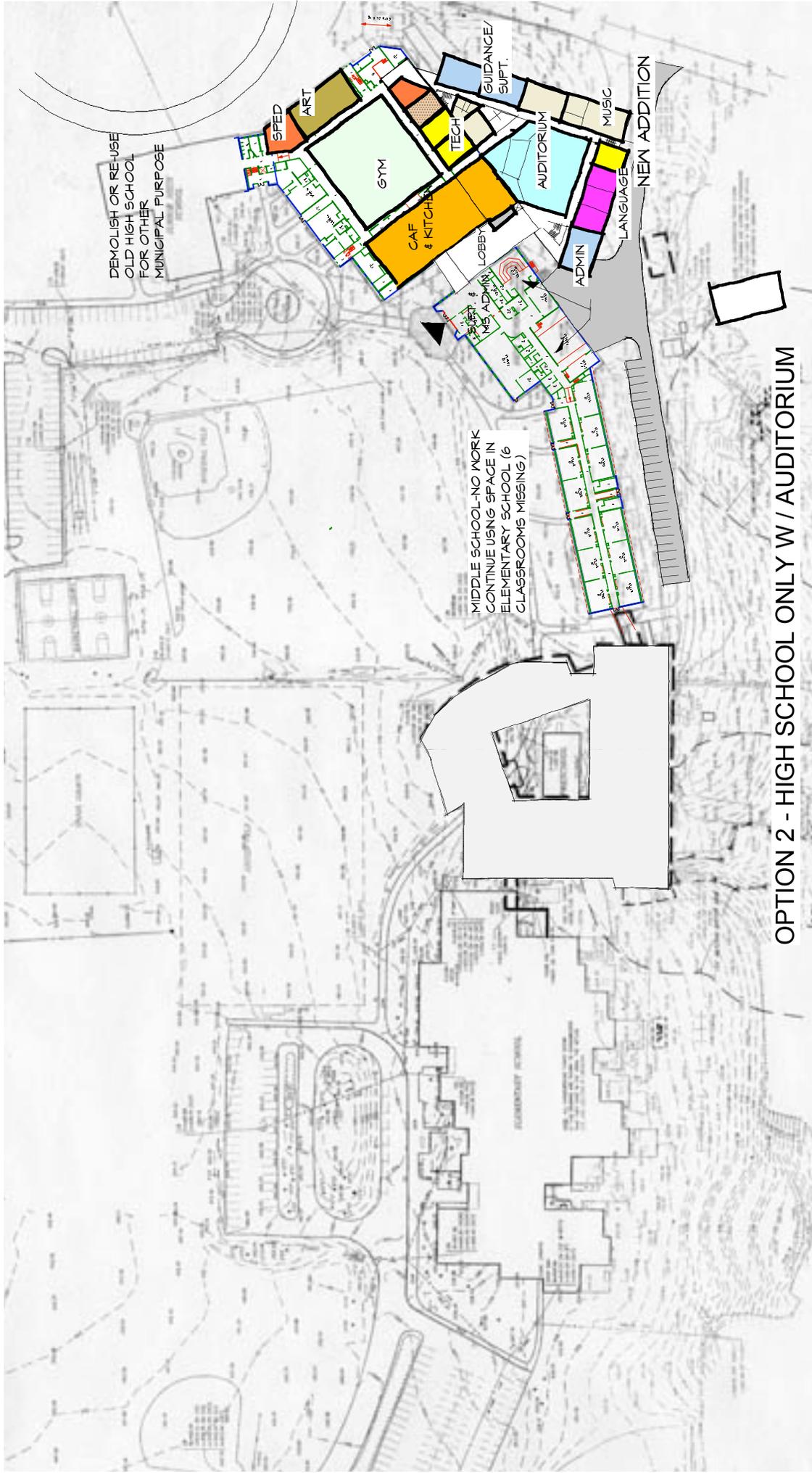
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 Boston, Massachusetts 02114

PHASING DIAGRAM

PHASE	WORK	DURATION
①	Build addition at 2nd floor core building, renovate old gym area into HS Media center. Results in 7 new classrooms.	12 MONTHS
②	Obtain 3 portable classrooms. At least 4 should be labs. Move out of 1st & 2nd floor of High School, moving in to portables plus 7 new spaces in core addition. Renovate High school.	12 MONTHS
③	Move back in to high school. Renovate core building in sub phases. Renovate remaining areas of High school basement	12 MONTHS
36 MONTHS TOTAL		



OPTION 1 - HIGH SCHOOL ONLY



OPTION 2 - HIGH SCHOOL ONLY W / AUDITORIUM

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 Sutton Public Schools
 Sutton, Massachusetts

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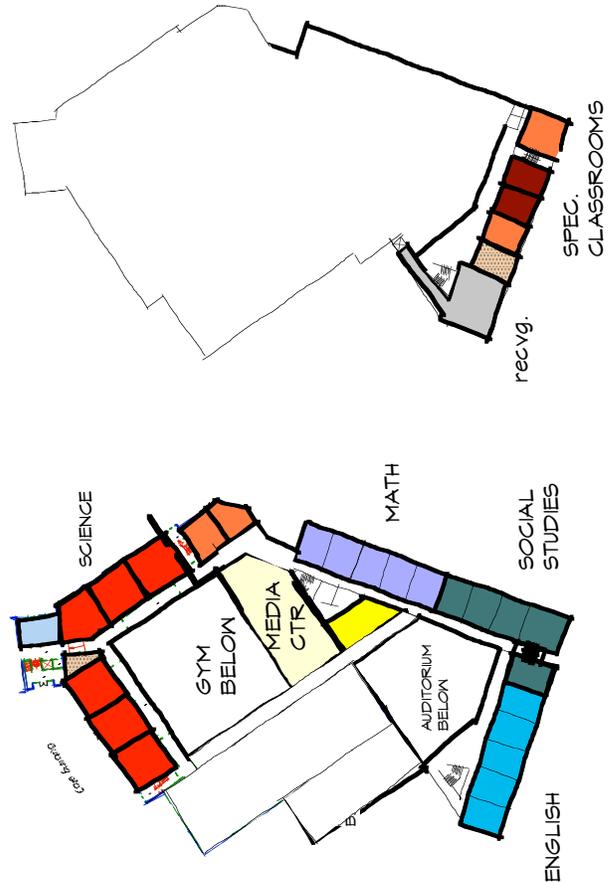
- middle sch. classrooms
- language
- english
- social st
- math
- other classroom
- admin/health
- mech/support
- music
- faculty
- science
- sped
- technology, tech ed etc.
- media center
- caf & kitchen
- auditorium
- gymnasium

PROS

NO DISTURBANCE OF ATHLETIC FIELDS
 TOWN SEWER, WATER NOT ESSENTIAL
 MEETS FULL PROGRAM
 PORTABLE CLASSROOMS NOT REQUIRED; BUILD NEW WING FIRST

CONS

SPLIT MEDIA CENTER; EXISTING FOR MIDDLE SCHOOL, NEW HS MEDIA CTR.
 DOES NOT ADDRESS MIDDLE SCHOOL SPACE NEEDS



63,800. RENOVATED
 60,200 S.F. ADDITIONS

124,000 s.f. TOTAL SQUARE FOOTAGE
 NEW MSBA GUIDELINES ALLOW 205 GSF/STUDENT, 517 X 205 S.F = 105,985 S.F.

35 NEW PARKING SPACES

2ND FLOOR

LOWER LEVEL

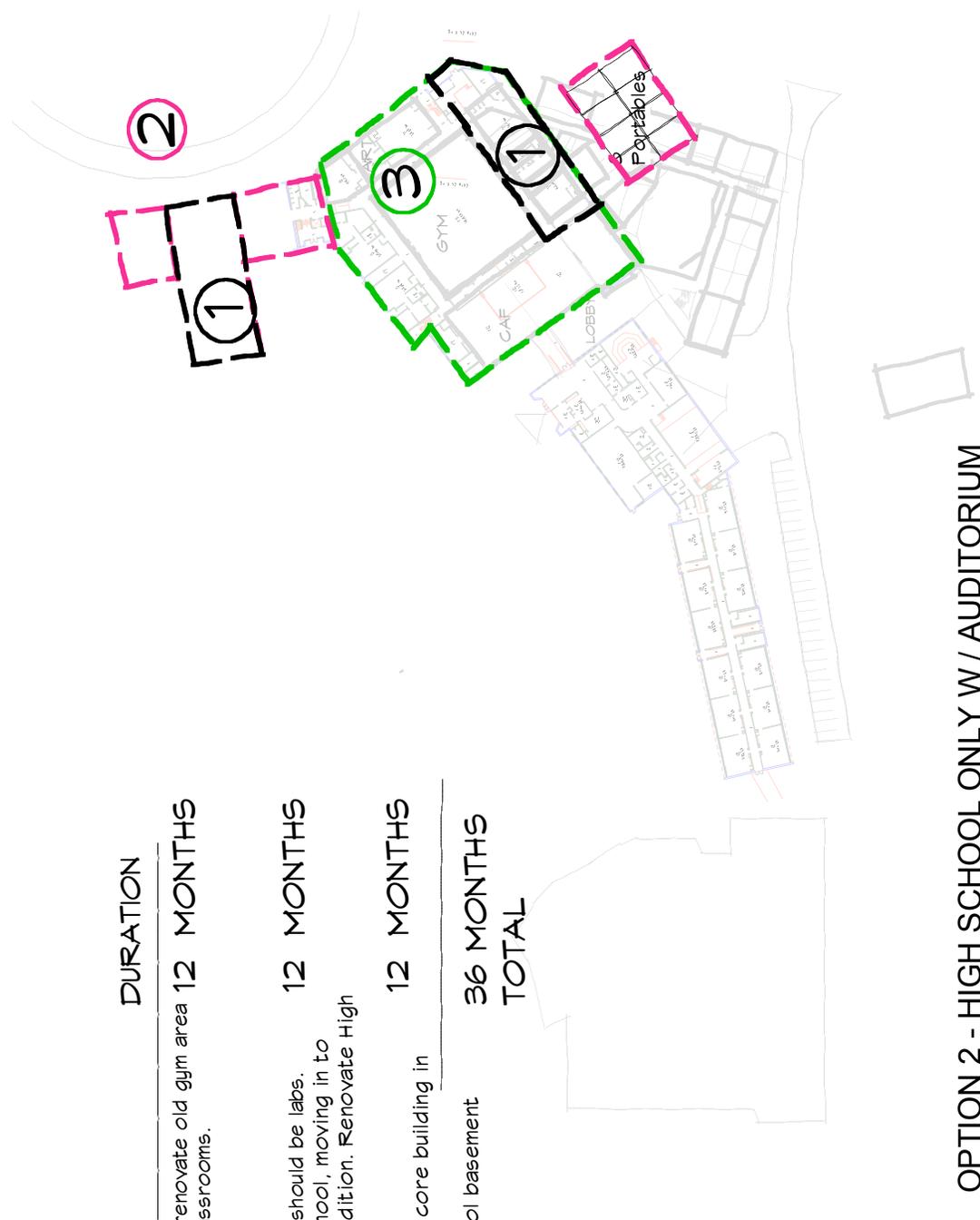
OPTION 2 - HIGH SCHOOL ONLY W/ AUDITORIUM ESTIMATED COST: 30.3 Million

School Feasibility Study
 Sutton Public Schools
 Sutton, Massachusetts

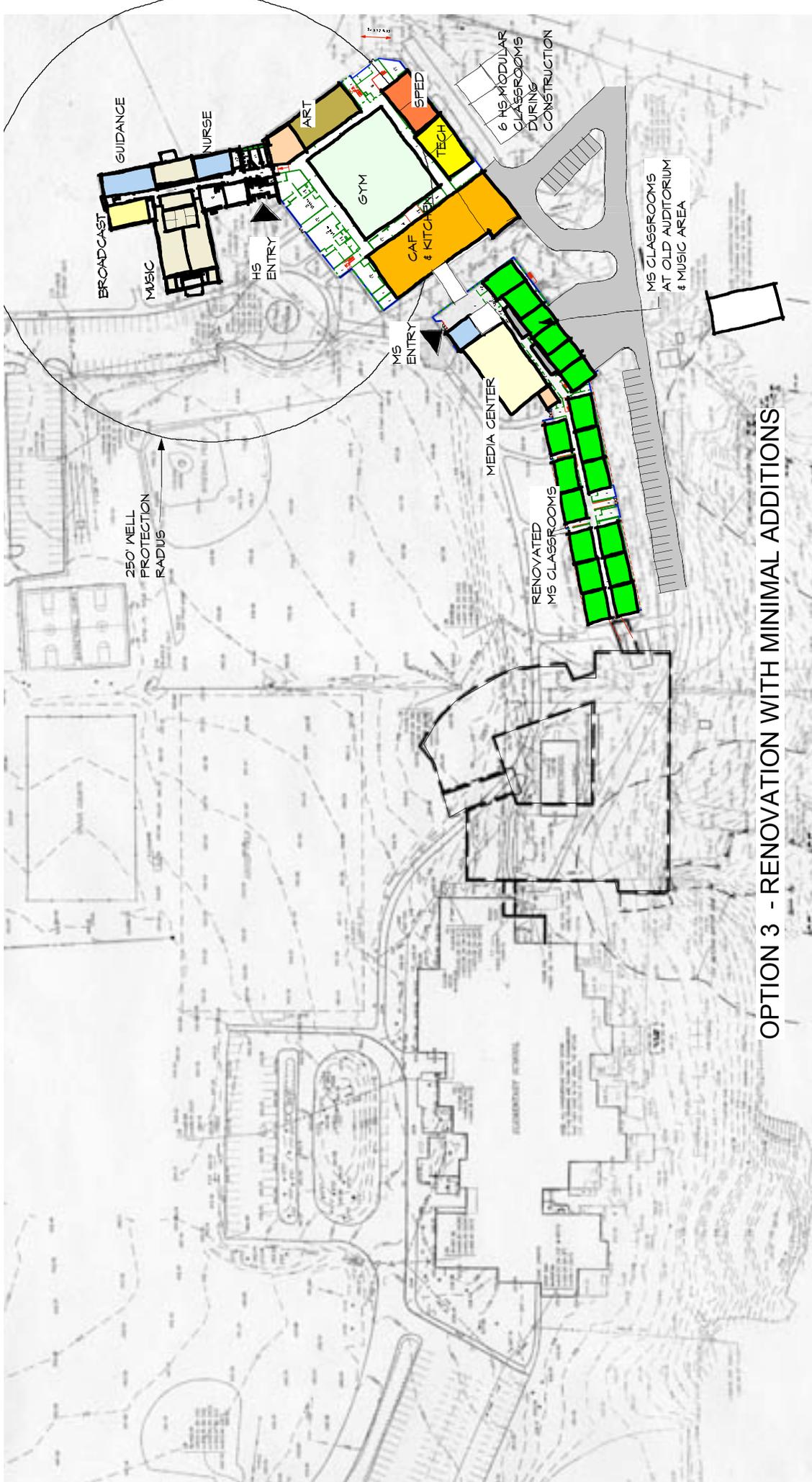
FLANSBURGH ASSOCIATES
 77 North Washington Street
 Boston, Massachusetts 02114

PHASING DIAGRAM

PHASE	WORK	DURATION
①	Build addition at 2nd floor core building, renovate old gym area into HS Media center. Results in 7 new classrooms.	12 MONTHS
②	Obtain 8 portable classrooms. At least 4 should be labs. Move out of 1st & 2nd floor of High School, moving in to portables plus 7 new spaces in core addition. Renovate High school.	12 MONTHS
③	Move back in to high school. Renovate core building in sub phases. Renovate remaining areas of High school basement	12 MONTHS
	36 MONTHS TOTAL	



OPTION 2 - HIGH SCHOOL ONLY W / AUDITORIUM



OPTION 3 - RENOVATION WITH MINIMAL ADDITIONS

FLANSBURGH ASSOCIATES
 77 North Washington Street
 Boston, Massachusetts 02114

School Feasibility Study
 Sutton Public Schools
 Sutton, Massachusetts

	middle sch. classrooms		music
	language		faculty
	english		science
	social st		sped
	math		technology, tech ed etc.
	other classroom		media center
	admin/health		caf & kitchen
	mech/support		auditorium
			gymnasium

PROS

NO DISTURBANCE OF ATHLETIC FIELDS
TOWN SEWER, WATER NOT ESSENTIAL

CONS

DOES NOT MEET REQUIRED PROGRAM

PROGRAM AREAS MISSING:

NO AUDITORIUM

NO STUDY HALL/TUTORIAL, VIRTUAL HIGH SCHOOL, ACADEMIC SUPPORT

UNDERSIZED ROOMS:

- CHORUS & BAND <100 S.F. EACH
- 2 HISTORY CR <50 S.F. EACH
- 1 LANGUAGE CR <150 S.F.
- MEDIA CENTER < 500 SQUARE FEET
- SUPERINTENDENT'S OFFICE <300 S.F.

GUIDANCE, NURSE IN BASEMENT

OPTION 3 - RENOVATION WITH MINIMAL ADDITIONS

ESTIMATED COST: \$ 32.9 Million



SECOND AND THIRD FLOOR PLANS

192,900 S.F. RENOVATED

9800 S.F. ADDITIONS (INCLUDES INSERTION OF EXTRA 2ND FLOOR SPACE AT HIGH SCHOOL 6YM)

142,700 s.f. TOTAL SQUARE FOOTAGE (NOT INCLUDING +/-5,000 S.F. OF UNUSED HS BASEMENT)
THIS SCHEME HAS NO AUDITORIUM

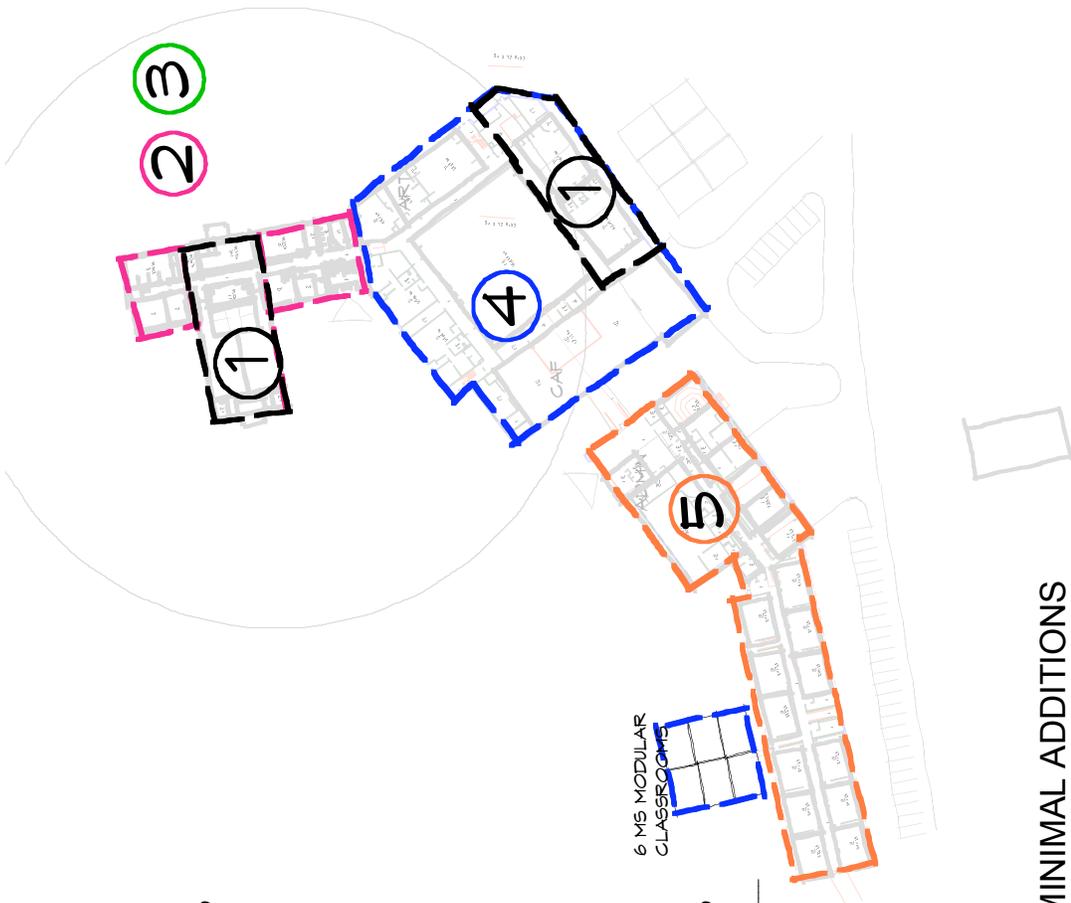
35 NEW PARKING SPACES

School Feasibility Study
Sutton Public Schools
Sutton, Massachusetts

FLANSBURGH ASSOCIATES
77 North Washington Street
Boston, Massachusetts 02114

PHASING DIAGRAM

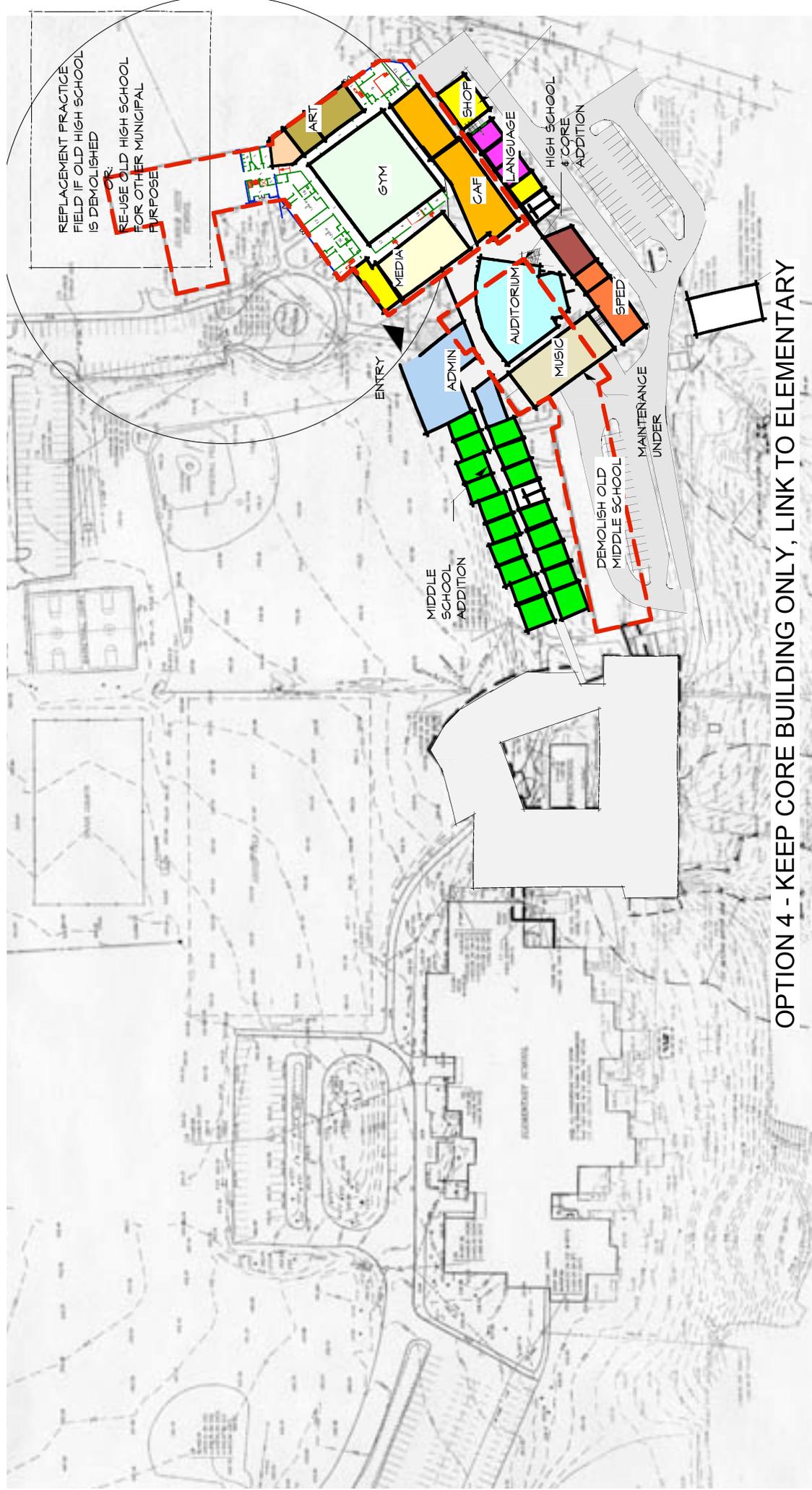
PHASE	WORK	DURATION
1	Build addition at 2nd floor core, renovate old gym area into new music department. Results in 7 new classrooms plus new music dept.	12 MONTHS
2	Move out of 2nd floor of High School. Renovate it as well as remaining basement areas.	8 MONTHS
3	Move out of 3rd floor of High School. Renovate it.	8 MONTHS
4	Obtain 6 portable classrooms. Move out of core classrooms and renovate. Do as much of cafeteria/Kitchen renovation over the summer as possible. Alternative arrangements for Caf/ Kitchen will be required for part of a school year.	8 MONTHS
5	Move out of middle school to portables plus new spaces created in previous phases. Renovate Middle School	12 MONTHS
		48 MONTHS TOTAL



OPTION 3 - RENOVATION WITH MINIMAL ADDITIONS

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Sutton Public Schools
Sutton, Massachusetts

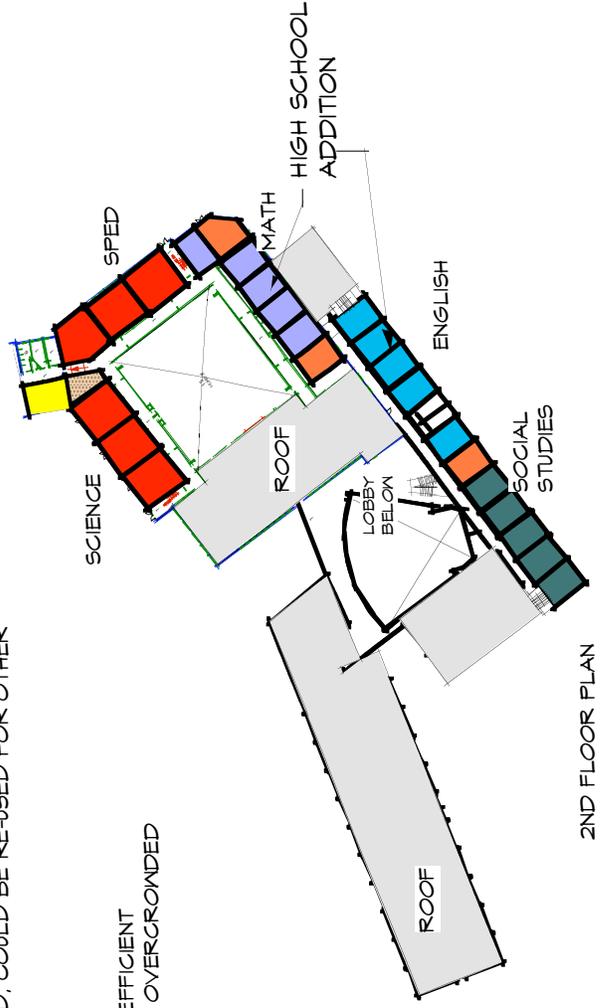
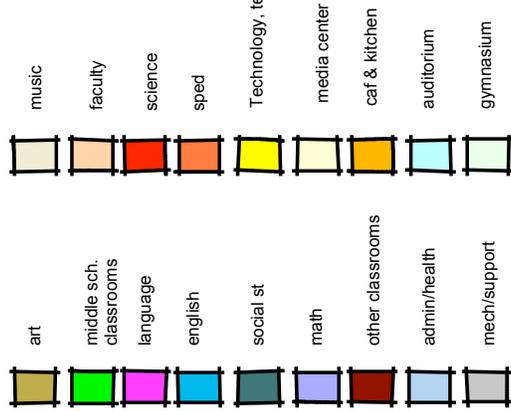
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Boston, Massachusetts 02114



OPTION 4 - KEEP CORE BUILDING ONLY, LINK TO ELEMENTARY

PROS:
 NO INTERFERENCE WITH WELLS, TOWN WATER NOT REQUIRED
 NO PORTABLE CLASSROOMS NEEDED
 FEWER PHASES, SHORTER SCHEDULE
 MEETS ALL PROGRAM REQUIREMENTS
 OLD HIGH SCHOOL IS ABANDONED, COULD BE RE-USED FOR OTHER MUNICIPAL PURPOSES

CONS:
 LAYOUT IS VERY SPREAD OUT, INEFFICIENT
 LONG CORRIDORS MAY BECOME OVERCROWDED



68,300 S.F. RENOVATED IN CORE
 41,800 SQUARE FEET ADDITION
 155,200 SQUARE FEET TOTAL

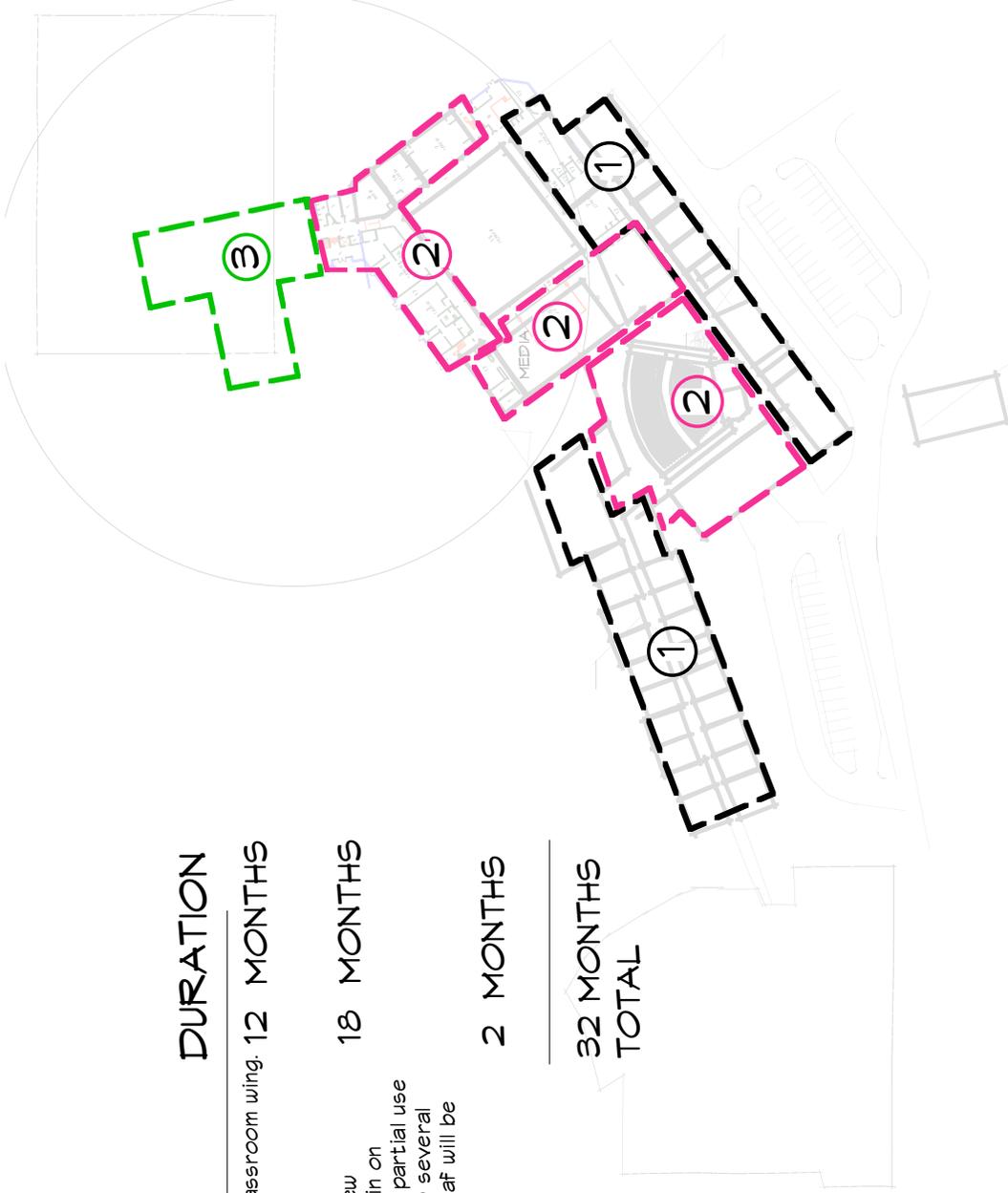
PLUS +/- 2000 SQUARE FOOT MAINTENANCE AREA IN BASEMENT

87 EXISTING PARKING SPACES (HIGH SCHOOL)
 47 NEW PARKING SPACES

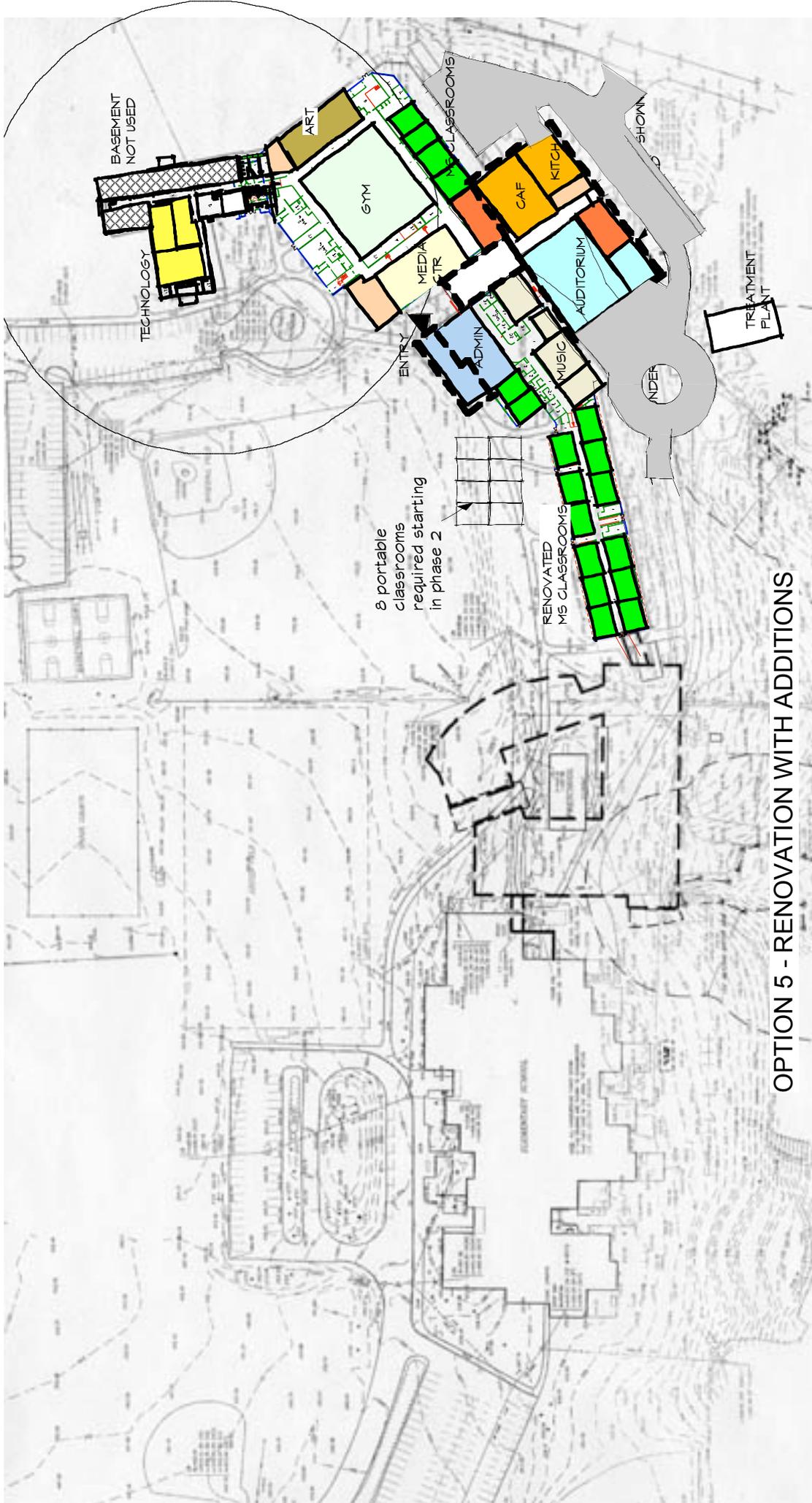
OPTION 4 - KEEP CORE BUILDING ONLY, LINK TO ELEMENTARY **ESTIMATED COST: \$38.1 Million**

PHASING DIAGRAM

PHASE	WORK	DURATION
①	Build New Middle School classroom wing and rear classroom wing. This will create 24 new classroom spaces.	12 MONTHS
②	Move out of old Middle school, Demolish it. Build new Auditorium block. At the same time, work could begin on renovation of core building classrooms. To maintain partial use of this building, this work would be broken down into several sub-phases. Alternative arrangements for Kitchen/caf will be required for part of a school year.	18 MONTHS
③	Demolish Old High school.	2 MONTHS
		32 MONTHS TOTAL



OPTION 4 - KEEP CORE BUILDING ONLY, LINK TO ELEMENTARY



OPTION 5 - RENOVATION WITH ADDITIONS

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 Sutton, Massachusetts

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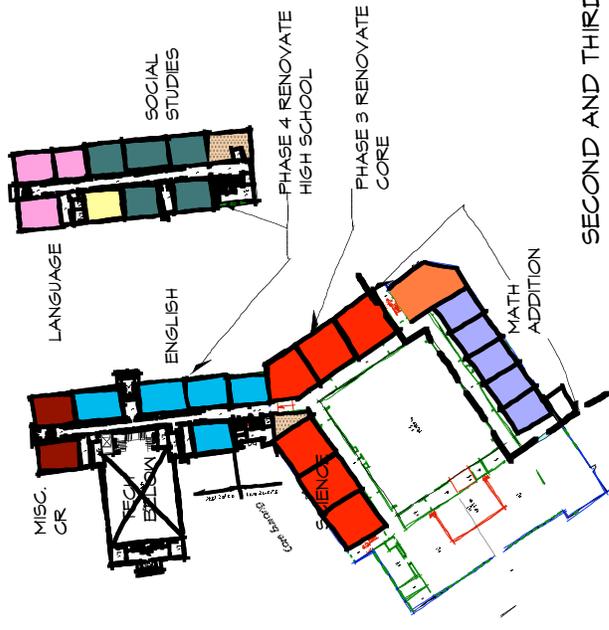
- art
- middle sch. classrooms
- language
- english
- social st
- math
- other classroom
- admin/health
- mech/support
- music
- faculty
- science
- sped
- technology, tech ed etc.
- media center
- caf & kitchen
- auditorium
- gymnasium

PROS:

NO INTERFERENCE WITH WELLS, TOWN WATER NOT REQUIRED
 NO INTERFERENCE WITH ATHLETIC FIELDS
 MEETS ALL PROGRAM REQUIREMENTS

CONS:

MULTIPLE PHASES, LONG SCHEDULE
 REQUIRES PORTABLE CLASSROOMS DURING CONSTRUCTION



SECOND AND THIRD FLOOR PLANS

30,000 S.F. ADDITION 1ST (AUDITORIUM, CAF, KITCHEN SPED, BROADCAST STUDIO)
 8400 S.F. ADDITION 2ND FLOOR CORE (6 CLASSROOMS)
 121,600 S.F. RENOVATED

160,000 s.f. TOTAL SQUARE FOOTAGE (NOT INCLUDING +/-5,000 S.F. OF UNUSED HS BASEMENT)
 35 NEW PARKING SPACES

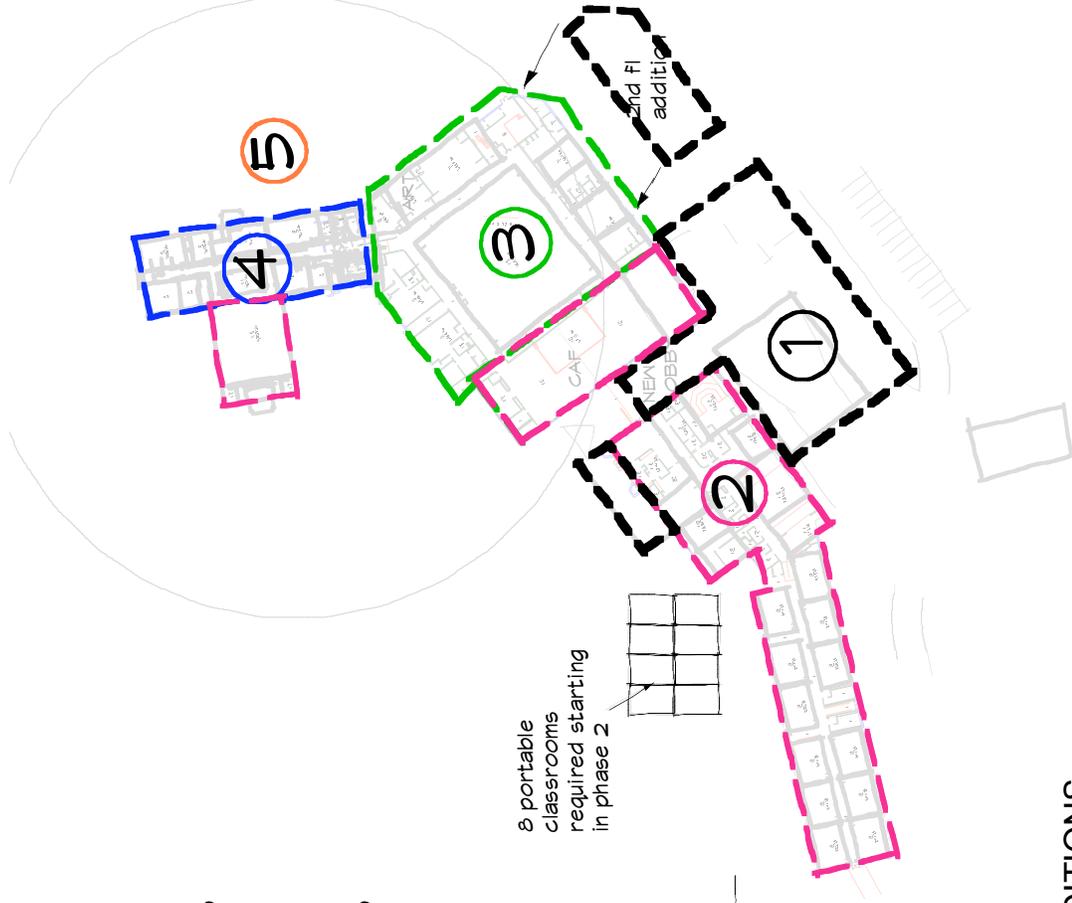
OPTION 5 - RENOVATION WITH ADDITIONS

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 Sutton Public Schools
 Sutton, Massachusetts

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 77 North Washington Street
 Boston, Massachusetts 02114

PHASING DIAGRAM

PHASE	WORK	DURATION
1	Build New Cafeteria and Auditorium Block, and 2nd Floor classrooms at rear of core building. This creates 6+ new classrooms. (band/chorus can use new auditorium stage as temporary classroom once it is completed.)	12 MONTHS
2	Obtain 8 portable classrooms. Move out of old Middle school, renovate it. Renovate old Cafeteria into media center. Renovate old HS gym into tech-ed area.	12 MONTHS
3	Renovate first floor core areas for art, general classrooms. Renovate 2nd floor core areas for science, sped. Sub-phases may allow for certain areas to be completed over the summer.	8 MONTHS
4	Move out of 2nd floor of High School. Renovate it.	8 MONTHS
5	Move out of 3rd floor of High School. Renovate it. Portable classrooms eliminated upon completion.	8 MONTHS
		48 MONTHS TOTAL

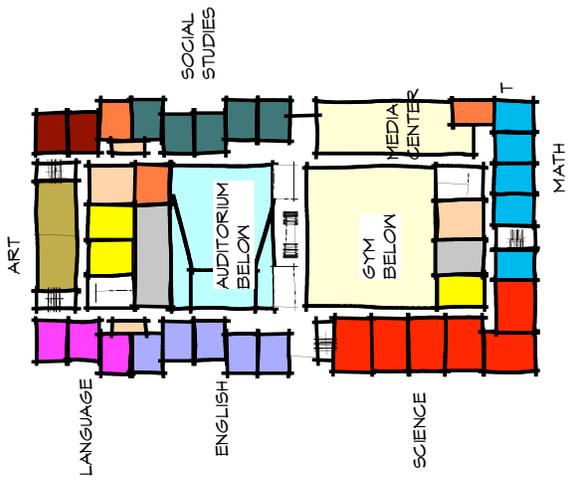


OPTION 5 - RENOVATION WITH ADDITIONS

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Sutton, Massachusetts

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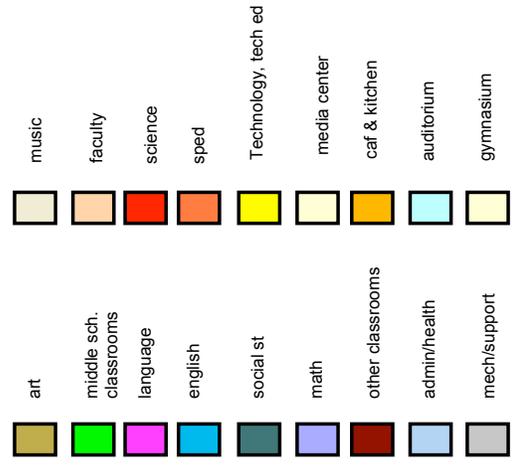
150,000 SQUARE FEET NEW
140 PARKING SPACES

PROS:

- Meets full program
- No disruption to existing schools during construction
- No temporary classrooms required
- Compact scheme allows for athletic fields
- Can be built without disruption to 250' well zone
- All new building provides for efficient use of space
- Construction time is minimized, no phasing
- New construction is energy efficient

CONS:

- Cost is higher than renovation schemes



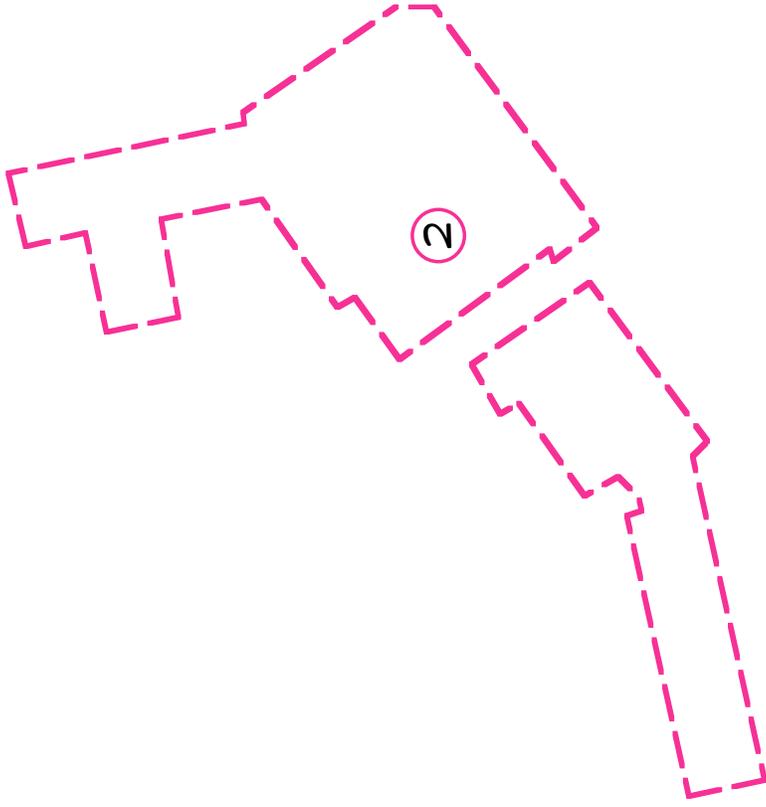
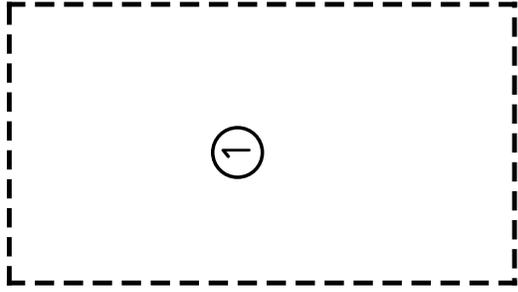
OPTION 6 - ALL NEW MIDDLE/HIGH SCHOOL

ESTIMATED COST: \$39.5 Million

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Sutton Public Schools
Sutton, Massachusetts

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77 North Washington Street
Boston, Massachusetts 02114

PHASING DIAGRAM



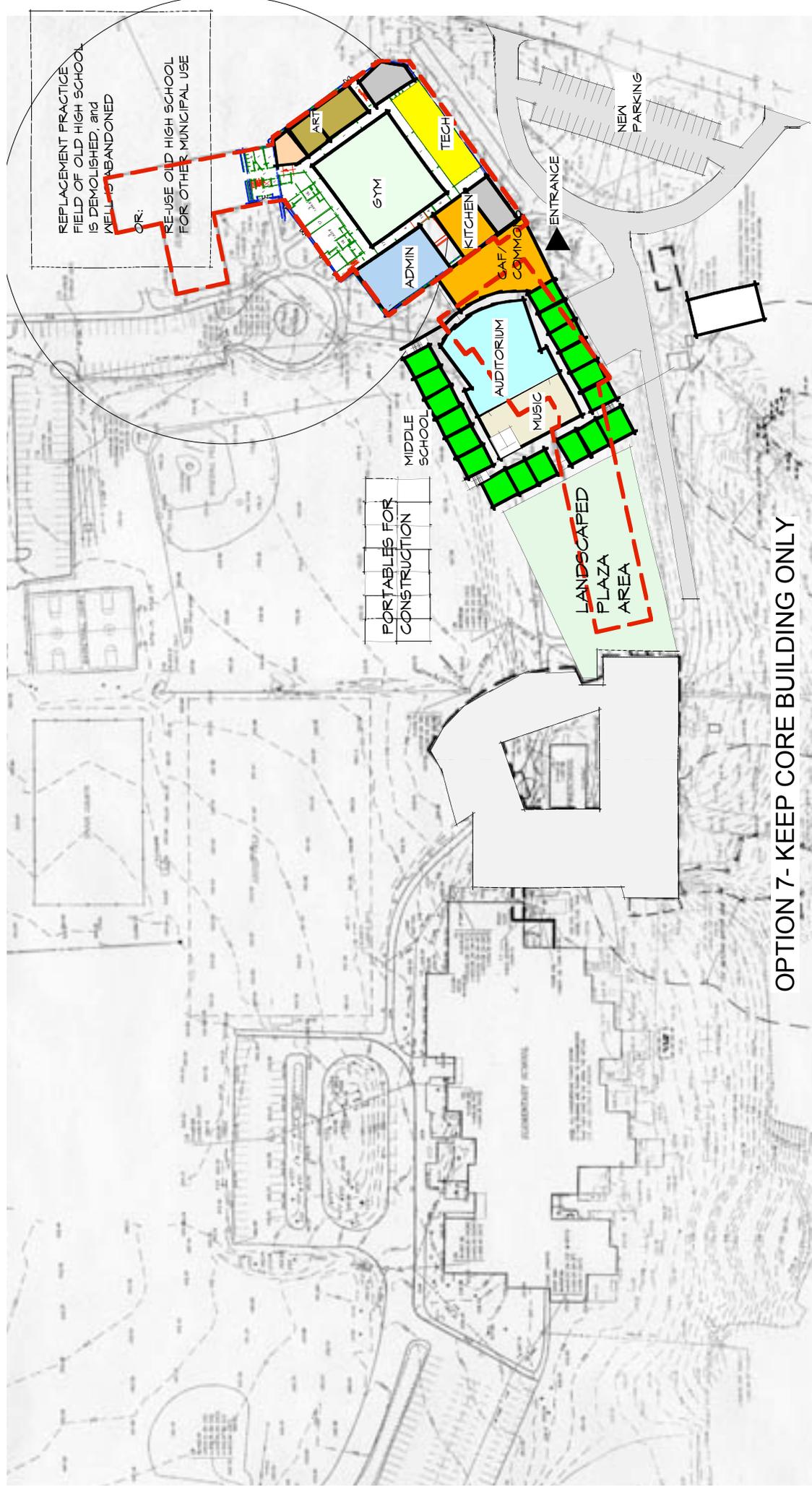
PHASE	WORK	DURATION
①	Build new Middle/High School on open land in front of existing schools.	18 MONTHS
②	Move out of old Middle High School. Demolish these buildings and build replacement athletic fields and parking.	4 MONTHS
		22 MONTHS TOTAL

NOTE: THIS SCHEME REQUIRES
CAPPING EXISTING WELLS.

OPTION 6 - ALL NEW MIDDLE / HIGH SCHOOL

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Sutton Public Schools
Sutton, Massachusetts

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Boston, Massachusetts 02114



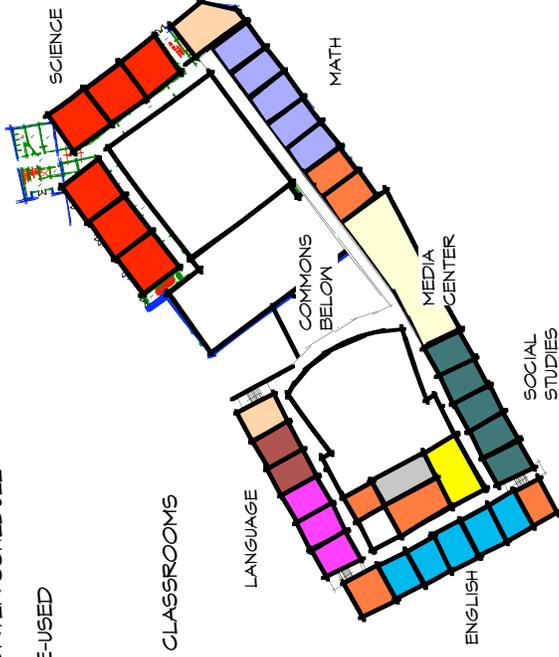
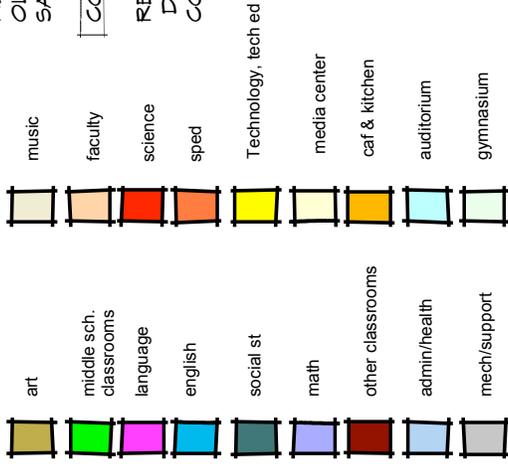
OPTION 7- KEEP CORE BUILDING ONLY

PROS:

NO INTERFERENCE WITH WELLS, TOWN WATER NOT REQUIRED
 LAYOUT IS EFFICIENT.
 FEWER PHASES THAN SOME OPTIONS, SHORTER SCHEDULE
 MEETS ALL PROGRAM REQUIREMENTS
 OLD HIGH SCHOOL IS ABANDONED OR RE-USED
 SAVES EXISTING CORE BUILDING

CONS:

REQUIRES LARGE NUMBER OF PORTABLE CLASSROOMS
 DURING CONSTRUCTION
 COST IS HIGHER THAN ALL-NEW OPTION



63,300 S.F. RENOVATED IN CORE
 40,000 SQUARE FEET ADDITION
 153,300 SQUARE FEET TOTAL

87 EXISTING PARKING SPACES (HIGH SCHOOL)
 40 NEW PARKING SPACES

OPTION 7 - KEEP CORE BUILDING ONLY

ESTIMATED COST: \$41.7 Million

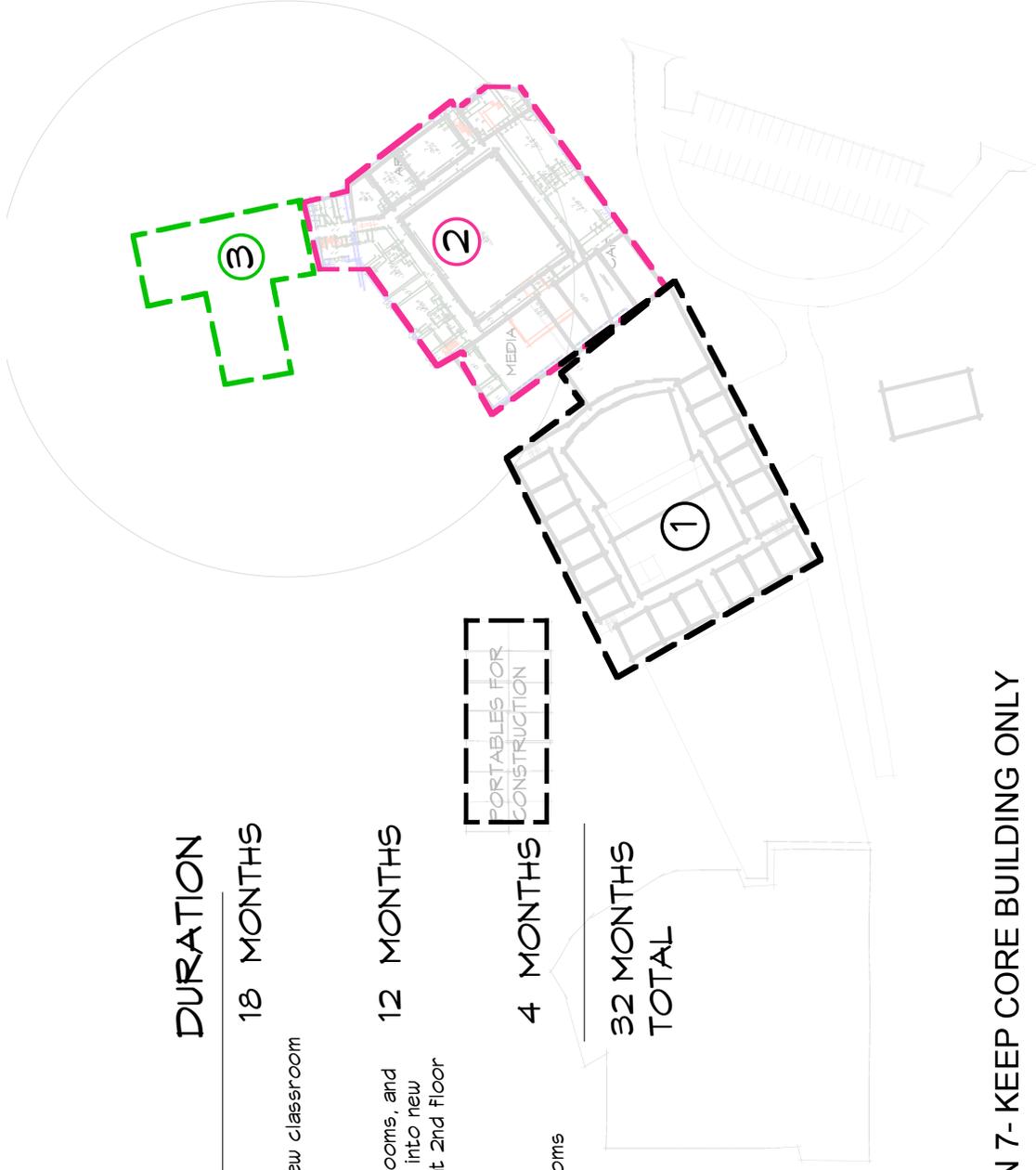
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 Sutton Public Schools
 Sutton, Massachusetts

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 Boston, Massachusetts 02114

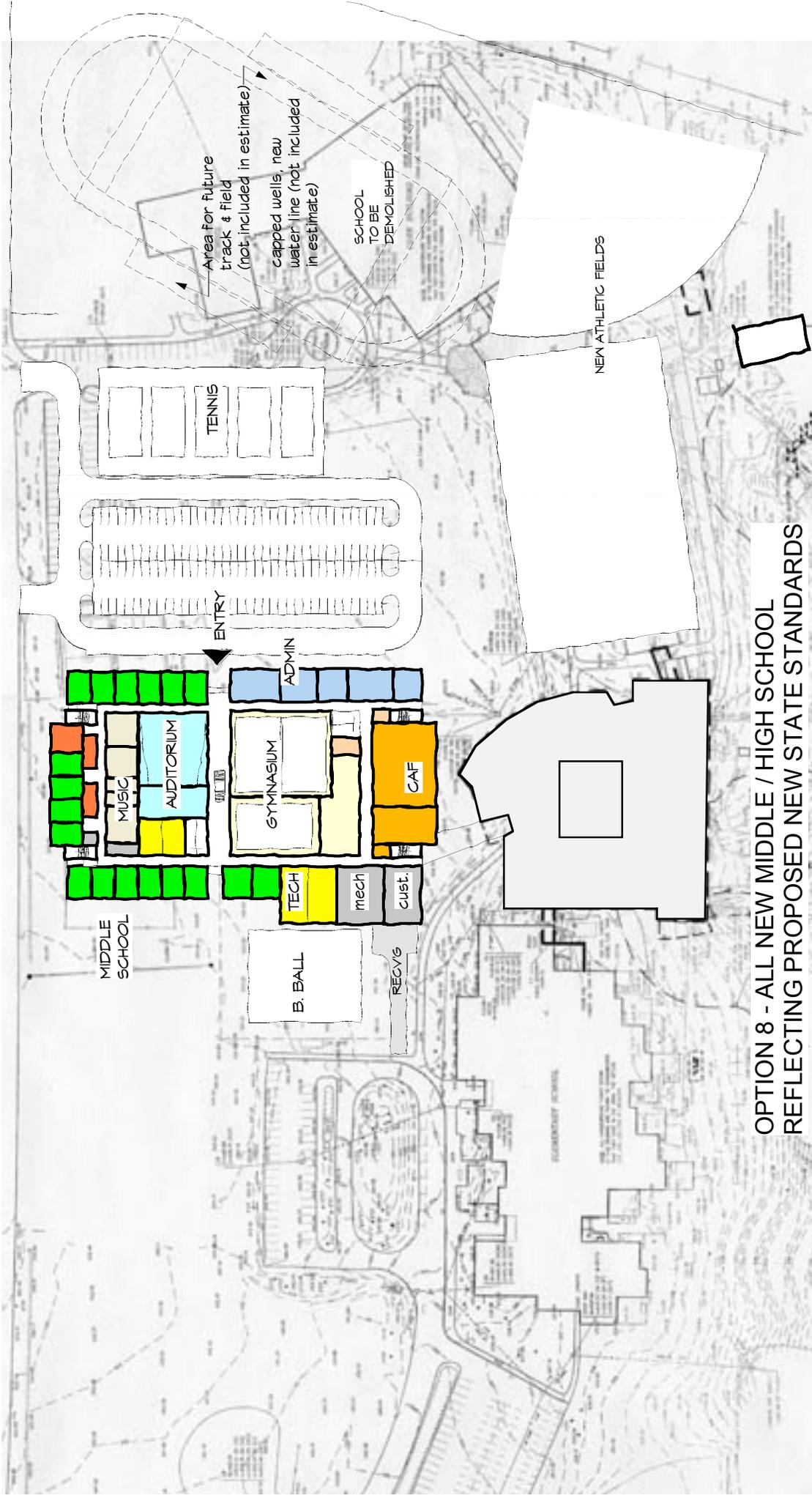
PHASING DIAGRAM

PHASE	WORK	DURATION
1	Install 14 modular classrooms. Move out of old Middle school, Demolish it. Build new classroom wing on old middle school site.	18 MONTHS
2	Once new wing is complete, move out of core classrooms, and renovate them. Move out of cafeteria and renovate into new administration area and kitchen. Build new addition at 2nd floor of core building.	12 MONTHS
3	Demolish Old High school. Remove modular classrooms	4 MONTHS
		32 MONTHS TOTAL

PORTABLES FOR CONSTRUCTION



OPTION 7- KEEP CORE BUILDING ONLY

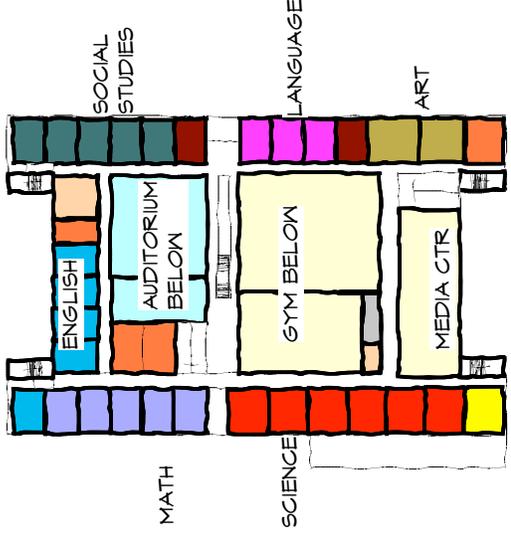


**OPTION 8 - ALL NEW MIDDLE / HIGH SCHOOL
REFLECTING PROPOSED NEW STATE STANDARDS**

School Feasibility Study
Sutton Public Schools
Sutton, Massachusetts

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77 North Washington Street
Boston, Massachusetts 02114

art	music
middle sch. classrooms	faculty
language	science
english	sped
social st	Technology, tech ed
math	media center
other classrooms	caf & kitchen
admin/health	auditorium
mech/support	gymnasium



180,000 SQUARE FEET NEW
140 PARKING SPACES

PROS:

- Meets full program
- No disruption to existing schools during construction
- No temporary classrooms required
- Compact scheme allows for athletic fields
- All new building provides for efficient use of space
- Construction time is minimized, no phasing
- New construction is energy efficient

CONS:

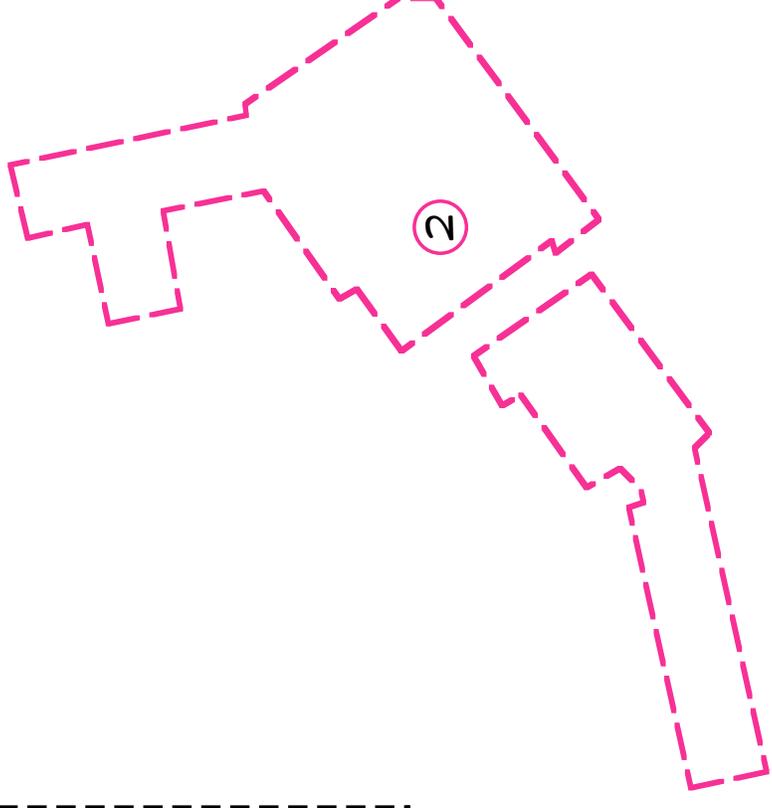
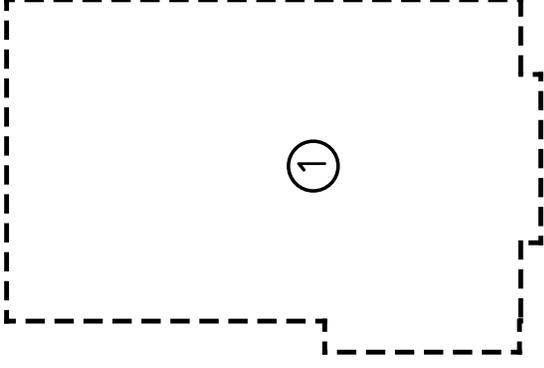
- Most expensive option

**OPTION 8 - ALL NEW MIDDLE / HIGH SCHOOL
REFLECTING PROPOSED NEW STATE STANDARDS**

ESTIMATED COST: \$45.6 Million

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Sutton Public Schools
Sutton, Massachusetts

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77 North Washington Street
Boston, Massachusetts 02114



PHASING DIAGRAM

PHASE	WORK	DURATION
1	Build new Middle/High School on open land in front of existing schools.	18 MONTHS
2	Move out of old Middle High School. Demolish these buildings and build replacement athletic fields and parking.	4 MONTHS
		22 MONTHS TOTAL

NOTE: THIS SCHEME REQUIRED CAPPING EXISTING WELLS.

OPTION 8 - ALL NEW MIDDLE / HIGH SCHOOL REFLECTING PROPOSED NEW STATE STANDARDS

VI. Cost Estimates

Cost Estimates

The following cost estimates show projected costs for the ELC and Elementary School improvements as well as the Middle/High School options 1-8. These are construction costs only and reflect an escalation to a bid date of January 2008. If the approval of funding by the MSBA is delayed beyond this date, or the project is otherwise delayed, additional escalation costs will need to be added.

In order to estimate total project costs, an additional 25% needs to be added to each option for fees, testing, furniture, equipment, technology and other project costs.

The ELC and Elementary School recommended improvements are not state fundable because these are considered maintenance issues, and the SBA recently funded the two buildings. Therefore, these should be considered separately from the Middle/High School project and funded by a school capital improvements or maintenance program.

The cost estimate for the 8 design options for the Middle/High School are broken into construction phases because the renovation schemes must be phased so that the buildings may remain occupied during construction. This phasing (and in some cases temporary portable classrooms) adds significant construction costs to these options. The “all new” school options involve only two phases, since they can be built without interrupting ongoing school use. This shortens construction time, minimizes impact on the school operations, and reduces construction cost extras for extended construction periods.

ELC and Elementary School Cost Estimates

PROJECT: SUTTON SCHOOLS
EARLY LEARNING CENTER
SUTTON, MA

GAA: 68,166 SF

Code	Item Description	Unit Price	Total	Code		
				A Required Improvements	B Highly Recommended Improvements	C Recommended Improvements (Low Priority)
SCOPE OF WORK OPTIONS - ESTIMATED COST						
<u>SITWORK</u>						
1.00000	Trees too close to entries	\$0.04 /SF	2,561			2,561
<u>EXTERIOR ENVELOPE</u>						
1.00000	Classroom curtainwall window & door glazing	\$2.18 /SF	148,697		148,697	
2.00000	Classroom curtainwall sealant failures	\$0.15 /SF	9,898		9,898	
3.00000	Entry door hardware	\$0.37 /SF	25,332		25,332	
<u>BUILDING INTERIOR</u>						
1.00000	Repair ceiling at Elementary connection	\$0.05 /SF	3,509		3,509	
2.00000	Repair cracked & damaged bathroom wall tiles	\$0.13 /SF	8,796		8,796	
3.00000	Repair damaged classroom blinds	\$0.17 /SF	11,905		11,905	
4.00000	Repair carpet seams in corridors	\$0.88 /SF	60,069		60,069	
5.00000	Auditorium stage not ADA accessible	\$0.40 /SF	27,561	27,561		
6.00000	Entry lobby stairs & ramps rubber floor	\$0.13 /SF	9,016	9,016		
<u>FURNITURE & EQUIPMENT</u>						
1.00000	No work required	\$0.00 /SF	0			
<u>STRUCTURAL</u>						
1.00000	No work required	\$0.00 /SF	0			
<u>ASBESTOS</u>						
1.00000	No work required	\$0.00 /SF	0			
<u>FIRE PROTECTION</u>						

PROJECT: SUTTON SCHOOLS
EARLY LEARNING CENTER
SUTTON, MA

GAA: 68,166 SF

Code	Item Description	Unit Price	Total	Code		
				A Required Improvements	B Highly Recommended Improvements	C Recommended Improvements (Low Priority)
1.00000	No work required	\$0.00 /SF	0			
	<u>MECHANICAL</u>					
1.00000	Additional combustion air louver & duct	\$0.10 /SF	7,085	7,085		
2.00000	Exhaust duct in boiler room	\$0.09 /SF	6,348	6,348		
3.00000	Ventilation air for stage	\$0.21 /SF	14,232	14,232		
4.00000	Modify oil burners	\$0.15 /SF	10,219		10,219	
5.00000	Day tank	\$0.25 /SF	16,878		16,878	
6.00000	DDC control system	\$4.72 /SF	321,553		321,553	
7.00000	Clean floor distribution system	\$0.18 /SF	12,082		12,082	
8.00000	Additional kitchen/gym controls	\$0.15 /SF	10,347		10,347	
9.00000	Pressure relief duct in auditorium	\$0.27 /SF	18,644		18,644	
10.00000	Insulate condensate drains	\$0.06 /SF	4,426			4,426
11.00000	Clean soiled compressed air tank	\$0.01 /SF	712			712
12.00000	Vestibule interlocks at exterior doors	\$2.41 /SF	164,168			164,168
13.00000	Clean auditorium return registers	\$0.03 /SF	1,921			1,921
	<u>PLUMBING</u>					
1.00000	Replace water heater thermostatic mixer	\$0.04 /SF	2,974	2,974		
2.00000	Replace failed water cooler	\$0.04 /SF	3,031	3,031		
3.00000	Accessible toilets at pre-K/K classrooms	\$2.84 /SF	193,739		193,739	
4.00000	Classroom sinks not ADA	\$1.54 /SF	104,964		104,964	
5.00000	Additional gray water filtration	\$0.31 /SF	21,347		21,347	
6.00000	Gym drinking fountains	\$0.09 /SF	5,991	5,991		
	<u>ELECTRICAL</u>					
1.00000	Switchboard doors	\$0.12 /SF	7,970	7,970		
2.00000	Double doors reverse swing & hardware	\$0.08 /SF	5,763	5,763		
3.00000	Fault current and coordination study	\$0.21 /SF	14,232	14,232		
4.00000	Upgrade generator system	\$2.61 /SF	177,891	177,891		
5.00000	Replace center row classroom fixtures	\$0.46 /SF	31,451	31,451		

PROJECT: SUTTON SCHOOLS
 EARLY LEARNING CENTER
 SUTTON, MA

GAA: 68,166 SF

Code	Item Description	Unit Price	Total	Code		
				A	B	C
6.00000	Security system	\$0.78 /SF	53,354		53,354	
7.00000	Card access system	\$0.64 /SF	43,654		43,654	
8.00000	CCTV system	\$0.71 /SF	48,503		48,503	
		\$23.63 /SF	<u>\$1,610,823</u>	<u>\$282,094</u>	<u>\$1,146,145</u>	<u>\$182,584</u>

Note: Items are priced on an individual basis. Savings can be made if similar work is done at the same time under the same contract. Total general requirements and design and price reserve should be re-evaluated after a definite confirmed scope of work has been identified for an entire construction contract.

PROJECT: SUTTON SCHOOLS
 ELEMENTARY SCHOOL
 SUTTON, MA

GAA: 84,029 SF

Code	Item Description	Unit Price	Total	Code		
				A Required Improvements	B Highly Recommended Improvements	C Recommended Improvements (Low Priority)
SCOPE OF WORK OPTIONS - ESTIMATED COST						
<u>SITework</u>						
1.00000	Rear entry ramp landing repair	\$0.07 /SF	5,836	5,836		
2.00000	HC parking identification	\$0.00 /SF	0	By Owner		
3.00000	Front entry asphalt repair	\$0.05 /SF	3,806	3,806		
4.00000	Main entry brick paving repair	\$0.01 /SF	1,139	1,139		
5.00000	Repaint exterior steel railings	\$0.10 /SF	8,511			8,511
<u>EXTERIOR ENVELOPE</u>						
1.00000	No work required	\$0.00 /SF	0			
<u>BUILDING INTERIOR</u>						
1.00000	Entry lobby wall sconce lamps	\$0.00 /SF	0	Maintenance		
2.00000	Repair carpet seams in corridors	\$1.46 /SF	122,757		122,757	
3.00000	Elevator pit flooding	\$0.00 /SF	0	By Owner		
<u>FURNITURE & EQUIPMENT</u>						
1.00000	No work required	\$0.00 /SF	0			
<u>STRUCTURAL</u>						
1.00000	No work required	\$0.00 /SF	0			
<u>ASBESTOS</u>						
1.00000	No work required	\$0.00 /SF	0			
<u>FIRE PROTECTION</u>						
1.00000	No work required	\$0.00 /SF	0			

PROJECT: SUTTON SCHOOLS
ELEMENTARY SCHOOL
SUTTON, MA

GAA: 84,029 SF

Code	Item Description	Unit Price	Total	Code		
				A	B	C
				Required Improvements	Highly Recommended Improvements	Recommended Improvements (Low Priority)
<u>MECHANICAL</u>						
1.00000	Extend chimney height 200"	\$0.45 /SF	37,998	37,998		
2.00000	Seismic snubbers on boilers & pumps	\$0.07 /SF	5,508	5,508		
3.00000	Glycol system	\$0.25 /SF	21,347	21,347		
4.00000	Infill pressure relief grilles	\$0.36 /SF	30,612	30,612		
5.00000	Reconnect U/V dampers & rebalance	\$0.47 /SF	39,669	39,669		
6.00000	Heat public toilet areas	\$0.70 /SF	58,917	58,917		
7.00000	Door louvers in toilet areas	\$0.12 /SF	10,460	10,460		
8.00000	Repair pump insulation	\$0.02 /SF	1,965	1,965		
9.00000	Remove vegetation at U/Vs and provide stone base	\$0.19 /SF	15,569	15,569		
10.00000	Modify oil burners	\$0.06 /SF	5,175	5,175		
11.00000	Day tank	\$0.01 /SF	1,240	1,240		
12.00000	New DDC control system	\$4.73 /SF	397,472	397,472		
13.00000	Surface clean classroom registers	\$0.07 /SF	6,255		6,255	
14.00000	Investigate boiler jacket stains	\$0.08 /SF	7,116		7,116	
<u>PLUMBING</u>						
1.00000	Replace failed water coolers throughout	\$0.13 /SF	10,987	10,987		
2.00000	Classroom sinks not ADA compliant	\$3.12 /SF	262,411	262,411		
3.00000	Add expansion tanks at water heater	\$0.17 /SF	14,232	14,232		
<u>ELECTRICAL</u>						
1.00000	New transfer switches	\$0.17 /SF	14,232	14,232		
2.00000	Upgrade generator system	\$2.54 /SF	213,469	213,469		
3.00000	Security system	\$0.78 /SF	65,771		65,771	
4.00000	Card access system	\$0.64 /SF	53,813		53,813	
5.00000	CCTV system	\$0.71 /SF	59,793		59,793	
		\$17.57 /SF	\$1,476,060	\$471,514	\$982,664	\$21,882

**Middle/High School
Design Options Cost Estimates**

PROJECT: SUTTON SCHOOLS
 OPTION 1
 SUTTON, MA

GAA: 107,050 SF

Code	Item Description	Quantity	Unit Price	Total
SCOPE OF WORK OPTIONS - ESTIMATED COST				\$
OPTION 1 <u>RENOVATE HIGH SCHOOL ONLY</u>				
1.00000	Phase 1 - Duration 12 months		\$227.30 /SF	3,909,512
2.00000	Phase 2 - Duration 12 months		\$269.62 /SF	7,158,526
3.00000	Phase 3 - Duration 12 months		\$220.96 /SF	13,986,968
TOTAL COST			\$234.05 /SF	<u>\$25,055,006</u>
Phase 1 - Duration 12 months				\$
1.00000	New addition - second floor classrooms	8,400 sf	155.56	1,306,704
2.00000	New addition - mezzanine at old gym	1,400 sf	200.00	280,000
3.00000	Renovation - gym into media center	Gut 7,400 sf	153.04	1,132,496
4.00000	Pre-demolition abatement	allowance 7,400 sf	3.00	22,200
General Requirements			12.50%	342,675
Design & Price Reserve			15.00%	462,611
Escalation to Bid Date			Jan-08 10.23%	362,826
TOTAL COST				<u>\$3,909,512</u>
Phase 2 - Duration 12 months				\$
1.00000	Portable classrooms	by owner 8 ea	74,000.00	592,000
1.00000	Renovation - high school L1	Gut 9,700 sf	153.04	1,484,488
2.00000	Renovation - basement	Gut 7,150 sf	153.04	1,094,236
3.00000	Renovation - high school L2	Gut 9,700 sf	153.04	1,484,488
4.00000	Pre-demolition abatement	allowance 26,550 sf	3.00	79,650
General Requirements			12.50%	591,858
Design & Price Reserve			15.00%	799,008
Escalation to Phase Commencement Dat			Jan-09 16.86%	1,032,798
TOTAL COST				<u>\$7,158,526</u>
Phase 3 - Duration 12 months				\$
1.00000	Renovation - core, classrooms, labs, art	Major 53,300 sf	153.62	8,187,946
2.00000	Modify HVAC at gym	Minor 10,000 sf	35.00	350,000
3.00000	Pre-demolition abatement	allowance 63,300 sf	3.00	189,900
General Requirements			12.50%	1,090,981
Design & Price Reserve			15.00%	1,472,824
Escalation to Phase Commencement Dat			Jan-10 23.87%	2,695,317
TOTAL COST				<u>\$13,986,968</u>

PROJECT: SUTTON SCHOOLS
 OPTION 2
 SUTTON, MA

GAA: 125,806 SF

Code	Item Description	Quantity	Unit Price	Total
SCOPE OF WORK OPTIONS - ESTIMATED COST				\$
OPTION 2 <u>RENOVATE HIGH SCHOOL ONLY</u>				
1.00000	Phase 1 - Duration 12 months		\$267.95 /SF	16,748,453
2.00000	Phase 2 - Duration 12 months		\$208.46 /SF	13,195,423
3.00000	Phase 3 - Duration 2 months		\$4.49 /SF	391,812
TOTAL COST			\$241.13 /SF	<u>\$30,335,688</u>

Phase 1 - Duration 12 months

\$

1.00000	New addition - second floor classrooms	8,400 sf	155.56	1,306,704
2.00000	New addition - rear of core	34,106 sf	170.05	5,799,725
3.00000	New addition - auditorium	20,000 sf	231.89	4,637,800
	General Requirements		12.50%	1,468,029
	Design & Price Reserve		15.00%	1,981,839
	Escalation to Bid Date	Jan-08	10.23%	1,554,356
TOTAL COST				<u>\$16,748,453</u>

Phase 2 - Duration 12 months

\$

1.00000	Renovation - core, classrooms, labs, art	Major	53,300 sf	153.62	8,187,946
3.00000	Modify HVAC at gym	Minor	10,000 sf	35.00	350,000
4.00000	Pre-demolition abatement	allowance	63,300 sf	3.00	189,900
	General Requirements		12.50%	1,090,981	
	Design & Price Reserve		15.00%	1,472,824	
	Escalation to Phase Commencement Dat	Jan-09	16.86%	1,903,772	
TOTAL COST				<u>\$13,195,423</u>	

Phase 3 - Duration 2 months

\$

PROJECT: SUTTON SCHOOLS
 OPTION 3
 SUTTON, MA

GAA: 142,750 SF

Code	Item Description	Quantity	Unit Price	Total
SCOPE OF WORK OPTIONS - ESTIMATED COST				\$
OPTION 3 <u>RENOVATION WITH ADDITIONS</u>				
1.00000	Phase 1 - Duration 12 months		\$227.30 /SF	3,909,512
2.00000	Phase 2 - Duration 8 months		\$235.91 /SF	3,975,137
3.00000	Phase 3 - Duration 8 months		\$245.24 /SF	2,378,827
4.00000	Phase 4 - Duration 8 months		\$222.72 /SF	14,097,883
5.00000	Phase 5 - Duration 12 months		\$238.93 /SF	8,529,689
TOTAL COST			\$230.41 /SF	<u>\$32,891,048</u>
Phase 1 - Duration 12 months				\$
1.00000	New addition - second floor classrooms	8,400 sf	155.56	1,306,704
2.00000	New addition - mezzanine at old gym	1,400 sf	200.00	280,000
3.00000	Renovation - gym into music Gut	7,400 sf	153.04	1,132,496
4.00000	Pre-demolition abatement allowance	7,400 sf	3.00	22,200
	General Requirements		12.50%	342,675
	Design & Price Reserve		15.00%	462,611
	Escalation to Bid Date	Jan-08	10.23%	362,826
TOTAL COST				<u>\$3,909,512</u>
Phase 2 - Duration 8 months				\$
1.00000	Renovation - high school L1 Gut	9,700 sf	153.04	1,484,488
2.00000	Renovation - basement Gut	7,150 sf	153.04	1,094,236
3.00000	Pre-demolition abatement allowance	16,850 sf	3.00	50,550
	General Requirements		12.50%	328,659
	Design & Price Reserve		15.00%	443,690
	Escalation to Phase Commencement Dat	Jan-09	16.86%	573,514
TOTAL COST				<u>\$3,975,137</u>
Phase 3 - Duration 8 months				\$
1.00000	Renovation - high school L2 Gut	9,700 sf	153.04	1,484,488
2.00000	Pre-demolition abatement allowance	9,700 sf	3.00	29,100
	General Requirements		12.50%	189,199
	Design & Price Reserve		15.00%	255,418
	Escalation to Phase Commencement Dat	Sep-09	21.48%	420,622
TOTAL COST				<u>\$2,378,827</u>

PROJECT: SUTTON SCHOOLS
 OPTION 3
 SUTTON, MA

GAA: 142,750 SF

Code	Item Description		Quantity	Unit Price	Total
Phase 4 - Duration 8 months					\$
1.00000	Portable classrooms	by owner	6 ea	70,000.00	420,000
2.00000	Renovation - core, classrooms, labs, art	Major	53,300 sf	153.62	8,187,946
3.00000	Modify HVAC at gym	Minor	10,000 sf	35.00	350,000
4.00000	Pre-demolition abatement	allowance	63,300 sf	3.00	189,900
	General Requirements			12.50%	1,143,481
	Design & Price Reserve			15.00%	1,543,699
	Escalation to Phase Commencement Dat	May-09		19.12%	2,262,857
TOTAL COST					<u><u>\$14,097,883</u></u>
Phase 5 - Duration 12 months					\$
1.00000	Renovation - middle school	Gut	35,700 sf	146.09	5,215,413
2.00000	Pre-demolition abatement	allowance	35,700 sf	3.00	107,100
	General Requirements			12.50%	665,314
	Design & Price Reserve			15.00%	898,174
	Escalation to Phase Commencement Dat	Jan-10		23.87%	1,643,688
TOTAL COST					<u><u>\$8,529,689</u></u>

PROJECT: SUTTON SCHOOLS
 OPTION 4
 SUTTON, MA

GAA: 155,100 SF

Code	Item Description	Quantity	Unit Price	Total
SCOPE OF WORK OPTIONS - ESTIMATED COST				\$
OPTION 4 <u>KEEP CORE BUILDING ONLY</u>				
1.00000	Phase 1 - Duration 12 months	\$237.26	/SF	14,662,922
2.00000	Phase 2 - Duration 18 months	\$247.05	/SF	23,050,078
3.00000	Phase 3 - Duration 4 months	\$2.60	/SF	403,294
TOTAL COST		\$245.75	/SF	<u>\$38,116,294</u>
Phase 1 - Duration 12 months				\$
1.00000	New addition - middle school wing one story	21,000	sf	3,408,720
2.00000	New addition - second floor at core	8,400	sf	1,363,488
3.00000	New addition - high school wing one story	32,400	sf	5,509,620
	General Requirements		12.50%	1,285,229
	Design & Price Reserve		15.00%	1,735,059
	Escalation to Bid Date	Jan-08	10.23%	1,360,806
TOTAL COST				<u>\$14,662,922</u>
Phase 2 - Duration 18 months				\$
1.00000	Demolish old middle school	35,717	sf	150,011
2.00000	Pre-demolition abatement allowance	35,717	sf	107,151
3.00000	New addition - auditorium/music rooms	30,000	sf	6,261,000
4.00000	Renovation - core, classrooms, labs, art Major	53,300	sf	8,187,946
5.00000	Modify HVAC at gym Minor	10,000	sf	350,000
6.00000	Pre-demolition abatement allowance	63,300	sf	189,900
	General Requirements		12.50%	1,905,751
	Design & Price Reserve		15.00%	2,572,764
	Escalation to Phase Commencement Dat	Jan-09	16.86%	3,325,555
TOTAL COST				<u>\$23,050,078</u>
Phase 3 - Duration 4 months				\$
1.00000	Demolish old high school	33,957	sf	142,619
2.00000	Pre-demolition abatement allowance	33,957	sf	101,871
	General Requirements		12.50%	30,561
	Design & Price Reserve		15.00%	41,258
	Escalation to Phase Commencement Dat	Jul-10	27.50%	86,985
TOTAL COST				<u>\$403,294</u>

PROJECT: SUTTON SCHOOLS
 OPTION 5
 SUTTON, MA

GAA: 156,400 SF

Code	Item Description	Quantity	Unit Price	Total
SCOPE OF WORK OPTIONS - ESTIMATED COST				\$
OPTION 5 <u>RENOVATION WITH ADDITIONS</u>				
1.00000	Phase 1 - Duration 12 months	\$281.60	/SF	10,813,630
2.00000	Phase 2 - Duration 12 months	\$243.45	/SF	10,955,433
3.00000	Phase 3 - Duration 8 months	\$212.97	/SF	10,648,745
4.00000	Phase 4 - Duration 8 months	\$259.96	/SF	2,989,502
5.00000	Phase 5 - Duration 8 months	\$270.19	/SF	3,107,207
TOTAL COST			\$246.26 /SF	<u>\$38,514,517</u>
Phase 1 - Duration 12 months				\$
1.00000	New addition - rear one story auditorium and cafeteria	27,000	sf	5,773,950
2.00000	New addition - second floor classrooms	8,400	sf	1,298,556
3.00000	New addition - front one story	3,000	sf	510,150
General Requirements			12.50%	947,832
Design & Price Reserve			15.00%	1,279,573
Escalation to Bid Date			Jan-08	10.23%
Escalation to Bid Date				1,003,569
TOTAL COST				<u>\$10,813,630</u>
Phase 2 - Duration 12 months				\$
1.00000	Portable classrooms	by owner	8 ea	848,000
2.00000	Renovation - middle school	Gut	31,000 sf	4,528,790
3.00000	Renovation - café into media center	Major	11,000 sf	1,275,340
4.00000	Renovation - gym into tech ed	Gut	3,000 sf	459,120
5.00000	Pre-demolition abatement	allowance	45,000 sf	135,000
General Requirements			12.50%	905,781
Design & Price Reserve			15.00%	1,222,805
Escalation to Phase Commencement Dat			Jan-09	16.86%
Escalation to Phase Commencement Dat				1,580,597
TOTAL COST				<u>\$10,955,433</u>
Phase 3 - Duration 8 months				\$
1.00000	Portable classrooms	by owner	8 ea	0
2.00000	Renovation - core, classrooms, labs, art	Major	40,000 sf	6,144,800
3.00000	Modify HVAC at gym	Minor	10,000 sf	350,000
4.00000	Pre-demolition abatement	allowance	50,000 sf	150,000
General Requirements			12.50%	830,600
Design & Price Reserve			15.00%	1,121,310
Escalation to Phase Commencement Dat			Jan-10	23.87%
Escalation to Phase Commencement Dat				2,052,035

PROJECT: SUTTON SCHOOLS
 OPTION 5
 SUTTON, MA

GAA: 156,400 SF

Code	Item Description		Quantity	Unit Price	Total
TOTAL COST					<u>\$10,648,745</u>
Phase 4 - Duration 8 months					\$
1.00000	Portable classrooms	by owner	8 ea	0.00	0
2.00000	Renovation - 2nd floor classrooms	Gut	11,500 sf	153.04	1,759,960
3.00000	Pre-demolition abatement	allowance	11,500 sf	3.00	34,500
	General Requirements			12.50%	224,308
	Design & Price Reserve			15.00%	302,815
	Escalation to Phase Commencement Dat	Sep-10		28.77%	667,919
TOTAL COST					<u>\$2,989,502</u>
Phase 5 - Duration 8 months					\$
1.00000	Portable classrooms	by owner	8 ea	0.00	0
2.00000	Renovation - 3rd floor classrooms	Gut	11,500 sf	153.04	1,759,960
3.00000	Pre-demolition abatement	allowance	11,500 sf	3.00	34,500
	General Requirements			12.50%	224,308
	Design & Price Reserve			15.00%	302,815
	Escalation to Phase Commencement Dat	May-11		33.84%	785,624
TOTAL COST					<u>\$3,107,207</u>

PROJECT: SUTTON SCHOOLS
 OPTION 6
 SUTTON, MA

GAA: 150,200 SF

Code	Item Description	Quantity	Unit Price	Total
SCOPE OF WORK OPTIONS - ESTIMATED COST				\$
OPTION 6 <u>ALL NEW MIDDLE/HIGH SCHOOL</u>				
1.00000	Phase 1 - Duration 12 months	\$249.47	/SF	37,469,820
2.00000	Phase 2 - Duration 18 months	\$13.55	/SF	2,034,586
TOTAL COST			\$263.01 /SF	<u>\$39,504,406</u>
Phase 1 - Duration 12 months				\$
1.00000	New middle/high school	130,200	sf	21,636,636
2.00000	New addition - auditorium	20,000	sf	4,637,681
	General Requirements		12.50%	3,284,290
	Design & Price Reserve		15.00%	4,433,791
	Escalation to Bid Date	Jan-08	10.23%	3,477,422
TOTAL COST				<u>\$37,469,820</u>
Phase 2 - Duration 18 months				\$
1.00000	Demolish old middle school, high school and core	132,952	sf	558,398
2.00000	Pre-demolition abatement allowance	132,952	sf	398,856
3.00000	Replacement athletic fields allowance	1	ls	350,000
	General Requirements		12.50%	163,407
	Design & Price Reserve		15.00%	220,599
	Escalation to Phase Commencement Dat	Jul-09	20.30%	343,326
TOTAL COST				<u>\$2,034,586</u>

PROJECT: SUTTON SCHOOLS
 OPTION 7
 SUTTON, MA

GAA: 161,700 SF

Code	Item Description	Quantity	Unit Price	Total
SCOPE OF WORK OPTIONS - ESTIMATED COST				\$
OPTION 7 <u>KEEP CORE BUILDING ONLY</u>				
1.00000	Phase 1 - Duration 18 months			
2.00000	Phase 2 - Duration 12 months			
3.00000	Phase 3 - Duration 4 months			
	TOTAL COST	\$257.73 /SF		<u>\$41,674,289</u>
Phase 1 - Duration 18 months				\$
1.00000	Portable classrooms	14 ea	100,000.00	1,400,000
2.00000	Demolish old middle school	35,717 sf	4.20	150,011
3.00000	Pre-demolition abatement allowance	35,717 sf	3.00	107,151
4.00000	New addition - middle/high school wing two story	70,000 sf	166.18	11,632,600
5.00000	New addition - auditorium	20,000 sf	231.88	4,637,681
	General Requirements		12.50%	2,240,930
	Design & Price Reserve		15.00%	3,025,256
	Escalation to Bid Date	Jan-08	10.23%	2,372,708
	TOTAL COST			<u>\$25,566,337</u>
Phase 2 - Duration 12 months				\$
1.00000	New addition - second floor at core	8,400 sf	162.32	1,363,488
2.00000	Renovation - core, classrooms, labs, art	53,300 sf	153.62	8,187,946
3.00000	Modify HVAC at gym	10,000 sf	35.00	350,000
4.00000	Pre-demolition abatement allowance	63,300 sf	3.00	189,900
	General Requirements		12.50%	1,261,417
	Design & Price Reserve		15.00%	1,702,913
	Escalation to Phase Commencement Dat	Jul-09	20.29%	2,648,994
	TOTAL COST			<u>\$15,704,658</u>
Phase 3 - Duration 4 months				\$
1.00000	Demolish old high school	33,957 sf	4.20	142,619
2.00000	Pre-demolition abatement allowance	33,957 sf	3.00	101,871
	General Requirements		12.50%	30,561
	Design & Price Reserve		15.00%	41,258
	Escalation to Phase Commencement Dat	Jul-10	27.50%	86,985
	TOTAL COST			<u>\$403,294</u>

PROJECT: SUTTON SCHOOLS
 OPTION 8
 SUTTON, MA

GAA: 180,000 SF

Code	Item Description	Quantity	Unit Price	Total
SCOPE OF WORK OPTIONS - ESTIMATED COST				\$
OPTION 8 <u>ALL NEW MIDDLE/HIGH SCHOOL</u>				
1.00000	Phase 1 - Duration 12 months	\$406.72	/SF	43,538,853
2.00000	Phase 2 - Duration 18 months	\$19.32	/SF	2,068,204
TOTAL COST		\$426.04	/SF	<u>45,607,057</u>

Phase 1 - Duration 12 months

\$

1.00000	New middle/high school	170,000	sf	166.00	28,220,000
2.00000	New addition - auditorium	10,000	sf	231.00	2,310,000
	General Requirements			12.50%	3,816,250
	Design & Price Reserve			15.00%	5,151,938
	Escalation to Bid Date	Jan-08		10.23%	4,040,665
TOTAL COST					<u>\$43,538,853</u>

Phase 2 - Duration 18 months

\$

1.00000	Demolish old middle school, high school and core	135,952	sf	4.20	570,998
2.00000	Pre-demolition abatement allowance	135,952	sf	3.00	407,856
3.00000	Replacement athletic fields allowance	1	ls	350,000.00	350,000
	General Requirements			12.50%	166,107
	Design & Price Reserve			15.00%	224,244
	Escalation to Phase Commencement Dat	Jul-09		20.30%	348,999
TOTAL COST					<u>\$2,068,204</u>



VII. Conclusions and Recommendations

Conclusions and Recommendations

A. General

The ELC and Elementary Schools both need improvements as listed in the existing conditions report in Part II of this study. Since these projects were recently State funded and the work required is mostly maintenance and upgrade issues, it is recommended that these two buildings be separated from the Middle/High School project which is State fundable. The listed items in the Cost Estimates for these two Elementary School buildings are prioritized and it is recommended that the work be done out of a capital improvements or maintenance budget which can be phased over time if desired.

The Middle and High School buildings are in much worse condition as indicated in the existing conditions report and there is overcrowding and lack of required educational space as listed in part IV of this report. The shared “Core Building” with the gym and cafeteria is in the best condition of the three, but it still requires substantial upgrading, particularly the HVAC systems which are not providing adequate fresh air ventilation. The old High School and Middle School buildings need even more work and should be considered for demolition or re-use for other purposes since the cost to upgrade them will be close to the cost of building new.

Another significant issue with the entire school campus is that the water quality from two on-site wells is very poor and is corroding the piping, fixtures, and equipment in the five school buildings. A DEP report has mandated that this corrosivity issue be treated or resolved by January 2008. This study has investigated the costs of bringing new municipal water and sewer lines to the site and the conclusion is that the estimated capital costs of \$1.77 million for this would be offset by reduced operating costs of approximately \$100,000 per year. (The difference between \$114,300/year for on site costs vs. \$13,500/year for off site annual costs.) This results in a 17 year payback; assuming that water and sewer are brought to the center of town by another party. The other option is to pay for an “on site” water treatment system which is estimated to cost approximately \$120,000 with an operating cost of about \$22,000 per year.

One of the key issues for the High School is that there are several facility related issues that are threatening the High School’s accreditation status. In October, 2004, NEASC placed the Sutton High School on “Warning” status due to the lack of adequate classroom space, inadequate science labs, spaces for media production, the band room, inadequate library space, and technology facilities. Until space issues are addressed, the High School will remain in “Warning” status or, if there is no progress overall, the High School could be placed on “probation” by the NEASC.

Given the 10 year projected increase in enrollments in the NESDEC report (see section III of this report) the Middle School is projected to grow from 406 students to 438 and the High School is projected to increase from 402 to 517 students. These increases will place an even greater demand on the spaces and the facility, particularly at the High School.

To resolve these enrollment, space, and building condition issues, it is recommended that the new program of 150,000 gsf outlined in section IV of this report be developed and built for the Middle/High School as soon as possible. This will not only resolve overcrowding issues but will provide the proper educational spaces to resolve the High School accreditation issues.

B. Option Comparison Matrix

The eight design options that have been developed to accommodate the new 150,000 gsf educational program (see section V) have various advantages and disadvantages. The following matrix shows how they compare based on several criteria.

Option Comparison Matrix

	0	1	2	3	4	5	6	7	8
New SF	0 KSF	9.8 KSF	60.2 KSF	9.8 KSF	91.8 KSF	38.4 KSF	150 KSF	90 KSF	180 KSF
Renovation SF	97.2 KSF	97.2 KSF	63.8 KSF	132.9 KSF	63.3 KSF	121.6 KSF	0 KSF	63.3 KSF	0 KSF
Total SF	97.2 KSF	107 KSF	124 KSF	142.7 KSF	155.1 KSF	160 KSF	150 KSF	153.3 KSF	180 KSF
Meets H.S. Space Requirements			✓		✓	✓	✓	✓	✓
Meets M.S. Space Requirements					✓	✓	✓	✓	✓
Long Term Option			H.S. Only		✓	✓	✓	✓	✓
Efficient Plan layout							✓	✓	✓
Energy Efficient			✓		✓		✓	✓	✓
Avoids Portable classrooms			✓		✓		✓		✓
Opportunity for add'l fields (if new Water)							✓		✓
Years of Construction and Disruption	3	3	3	4	2.6	4	1.8	2.6	1.8
Est. Construction Costs **	\$22.0M	\$25 M	\$30.3 M	\$32.9 M	\$38.1 M	\$38.5 M	\$39.5 M	\$41.7 M	\$45.6 M
Est. Total Project Costs	\$27.5M	\$31.2 M	\$37.9 M	\$41.1 M	\$47.6 M	\$48.1 M	\$49.4 M	\$52.1 M	\$57 M
Est. Cost After MSBA Funding (assumes 40%***)	??	??	??	??	\$19.0 M	\$19.2 M	\$19.8 M	\$20.8 M	\$22.8 M

**Costs are escalated for a hypothetical construction start of Jan 2008

***MSBA funding is estimated at 60%. This is not finalized yet.

Conclusions and Recommendations

Options 1 and 2 only respond to High School space issues. Options 3, 4, 5, and 7 are renovation/addition schemes. Options 6 and 8 are all new construction schemes.

Given that Options 1 and 3 do not meet the full educational program and they may not be State funded, it is recommended that these options be eliminated. Options 4 -7 result in almost equal costs of ~ \$19 million (after state funding). Of these, Option 6 has the shortest construction period with the most criteria met making it a highly recommended choice. If there were a strong desire to keep the existing “core” building (or if the MSBA requires it), Option 7 would be the next best recommended choice.

As previously stated, these options should be reviewed with the MSBA to determine what they will support.

C. MSBA Draft Regulations

The following is an abbreviated outline of the new MSBA Draft regulations showing the steps involved in getting state funding. These steps are under review and are subject to change. Step 1, the Statement of Interest, is now complete. The remaining steps need to be discussed with the MSBA since much of the information needed is already prepared in this report. It is anticipated that a meeting with the MSBA in September 2006 will help clarify the next steps required.

Draft Outline of the Process for MSBA Approval of Projects (as of 5/22/06):

1. Statement of interest w/vote and enrollment projections (SOI)
 - Complete
2. Initial Compliance Certification (ICC)
 - Must be on MSBA form (not available yet)
3. MSBA review of SOI and ICC forms
 - MSBA to notify applicant if eligible to proceed
4. Form School Building Committee
 - Obtain approval from MSBA of membership.
5. Design, Educational Program and Budget Statement
 - Submit to MSBA for approval
6. Ed. Facilities Master Plan
 - Long and short term plan for facilities with space inventory.
7. Scope and Budget meeting w/MSBA
 - Review preliminary scope and costs.
8. Facilities Assessment (paid by MSBA)
 - Conducted by firm hired by MSBA if required.
9. Feasibility Study (paid by MSBA)
 - Design options and solutions for deficiencies with cost estimates and schedule.
10. Final Scope, Budget Conference, and Agreement
 - Meeting with MSBA to finalize scope and budget.
11. Local approval and votes by Town
 - Town votes on project.
12. Funding Agreement w/MSBA
 - Execute a “Project Funding Agreement” with MSBA.

D. Statement of Interest Form

The “Statement of Interest Form” is included at the end of this section to show what was submitted to the MSBA in July 2006. This project meets priority 2 (severe overcrowding), priority 3 (loss of accreditation), priority 4 (overcrowding from increased enrollments), priority 5 (replacement of heating systems to increase energy efficiency), and priority 7 (replacement or addition to obsolete buildings to provide a full range of programs). This form is the first step in initiating the MSBA grant application process. It is recommended that a meeting be set up with the MSBA, preferably in September, 2006, to discuss the next steps for the project.

Massachusetts School Building Authority

Statement of Interest Form

The purpose of this Statement of Interest Form (the “Form”) is to ascertain from cities, towns, and regional school districts whether they believe they have any deficiencies in their respective school facilities (1) that meet one or more of the statutory priorities set forth in M.G.L. c. 70B, § 8 **and** (2) for which they anticipate filing an application for funding with the Massachusetts School Building Authority (the “Authority”). This Form is **NOT** intended to obtain information about any plans or designs of any construction or renovation project that a city, town or regional school district may be considering, and no such information should be included in or submitted with this Form.

The Authority anticipates a multi-phase approach to the planning and submission of applications for funding. A critical element of this initial phase is for the city, town or regional school district, through this Statement of Interest Form, to clearly and concisely identify what they believe are deficiencies in a school facility. After July 1, 2007, the new school building assistance program will require that the Authority and the city, town or regional school district agree first on the problem necessitating a solution and then on the solution to the problem. Receipt of funding from the Authority will require a collaborative effort throughout all stages of a project, beginning with the identification of deficiencies in school facilities.

Pursuant to M.G.L. c. 70B, § 8, the Authority shall consider applications for school construction and renovation projects in accordance with the priorities listed below:

- (1.) Replacement or renovation of a building which is structurally unsound or otherwise in a condition seriously jeopardizing the health and safety of school children, where no alternative exists, as determined in the judgment of the Authority;
- (2.) Elimination of existing severe overcrowding, as determined in the judgment of the Authority;
- (3.) Prevention of loss of accreditation, as determined in the judgment of the Authority;
- (4.) Prevention of severe overcrowding expected to result from increased enrollments, which must be substantiated, as determined in the judgment of the Authority;
- (5.) Replacement, renovation or modernization of the heating system in any schoolhouse to increase energy conservation and decrease energy related costs in the schoolhouse, as determined in the judgment of the Authority;
- (6.) Short term enrollment growth, as determined in the judgment of the Authority;
- (7.) Replacement or addition to obsolete buildings in order to provide a full range of programs consistent with state and approved local requirements, as determined in the judgment of the Authority; and
- (8.) Transition from court-ordered and approved racial balance school districts to walk-to, so-called, or other school districts, as determined in the judgment of the Authority.

*This Form is **NOT** an application for funding. Submission of this Form in no way commits the Authority to accept an application, approve an application, provide a grant or any other type of funding, or places any other obligation or requirement upon the Authority.*

The application will be a separate document(s) that must be completed and submitted to the Authority for consideration for a grant pursuant to M.G.L. c. 70B and the Authority’s regulations and policies. The Authority will not consider any project for funding without a properly filed application. The Authority will not accept any applications for funding until after July 1, 2007, or such later date as may be determined by the Authority.

Submission of this Form does not commit a city, town or regional school district to filing an application for funding with the Authority.

Instructions for submission of this Statement of Interest Form:

This Form must be completed by a city, town or regional school district and submitted to the Authority **BEFORE** filing an application with the Authority pursuant to M.G.L. c. 70B and the Authority's regulations and policies. This Form will be a prerequisite for presenting an application to the Authority.

The Authority expects that this Form can be completed at no cost to the city, town or regional school district. The Authority will **NOT** reimburse for any expenses that may be incurred in connection with the completion of this Form.

A separate Statement of Interest Form should be submitted for each school for which the city, town or regional school district may have an interest in applying to the Authority for funding. Please identify the priority category(s) for which you are expressing interest, provide a brief description of any deficiencies, and provide any readily available supporting documentation. More than one priority may be checked off for each school.

In the case of a city, **majority votes** of both (1) the City Council/Board of Aldermen **AND** (2) the School Committee, authorizing the Superintendent to submit this Statement of Interest Form to the Massachusetts School Building Authority, taken in accordance with the local charter, by-laws, or ordinances, are required. In the case of a town, **majority votes** of both (1) the Board of Selectmen or the equivalent governing body **AND** (2) the School Committee, authorizing the Superintendent to submit this Statement of Interest Form to the Massachusetts School Building Authority, taken in accordance with the local charter, by-laws, and ordinances, are required. If the school district is a regional school district, a vote of the Regional School Committee authorizing the Superintendent to submit this Statement of Interest Form to the Massachusetts School Building Authority is required. A form of each vote required is set forth on page 12 of this Form. Proper documentation of each vote must be submitted with this Form, as described on page 12.

Additionally, this Form must be **signed and certified** by (1) the Local Chief Executive Officer*, (2) the Chairperson of the School Committee, and (3) the Superintendent. Certification information can be found on page 13 of this Form.

* Pursuant to M.G.L. c. 7, § 4 and c. 31A, § 2, Local Chief Executive Officer means: in a city or town with a manager form of government, the manager of that municipality; in other cities, the mayor; and towns, the board of selectmen, unless the town has designated some other office. Regional School Districts are exempt from the Local Chief Executive Officer signature and certification requirement.

Please do NOT submit applications, design documents, plans, schematics, or drawings with this Form. This Form is NOT an application for funding. The Authority will not accept any applications or design documents, plans, schematics, or drawings prior to July 1, 2007 or such later date as may be determined by the Authority.

Please note that, in some cases, the Authority may need to clarify the contents of this Form with the city, town or regional school district. The Authority reserves the right to request and obtain additional, follow-up information from the city, town or regional school district.

This Form, as signed and certified, along with the local vote described herein, must be returned to:

**Massachusetts School Building Authority
3 Center Plaza
Suite 430
Boston, MA 02108**

School District Sutton Public Schools
 Name of School Middle + High Schools

District Contact Cecilia DiBella
 Date 6/23/06

Enrollment Projections

Please provide the following enrollment information for EACH school building within a district if this Statement of Interest Form is intended to describe conditions associated with Priority 2 (existing severe overcrowding), Priority 4 (future overcrowding) or Priority 6 (short term enrollment growth).

Existing Enrollment (FTE)

School Year	K	1	2	3	4	5	6	7	8	9	10	11	12
2006	134	131	147	149	137	149	119	139	148	110	101	101	90

Projected Enrollments (FTE)

School Year	K	1	2	3	4	5	6	7	8	9	10	11	12
2007	166	135	131	148	152	138	149	117	138	118	109	98	97
2008	145	168	135	132	151	153	138	146	116	110	117	106	94
2009	131	146	168	136	135	152	153	135	145	93	109	113	102
2010	147	132	146	171	139	136	152	150	135	131	93	106	110
2011	147	148	132	148	174	140	136	149	150	122	130	90	103
2012	142	148	148	134	151	175	140	133	149	135	121	126	87
2013	142	143	148	150	137	152	175	137	133	134	134	117	122
2014	144	143	143	150	153	138	152	172	137	120	133	130	113
2015	144	145	143	145	153	154	138	149	172	123	119	129	126
2016	143	145	145	145	148	154	154	135	149	155	122	115	125

Attachment 1: NESDEC Enrollment Projection

Priority 1

- Replacement or renovation of a building which is structurally unsound or otherwise in a condition seriously jeopardizing the health and safety of school children, where no alternative exists.***

Please provide a detailed description of the perceived health and safety problems below. Attach copies of orders or citations from state and/or local building and/or health officials.

Please describe the measures the School District has taken to mitigate the problem(s) described above.

Priority 2

Elimination of existing severe overcrowding.

Please describe the existing conditions that constitute severe overcrowding.

The Sutton Middle School includes grades 6, 7, and 8. Severe overcrowding has forced the district to relocate all sixth grade classes to the second floor of the elementary school. At the high school, program expansion in special education and needed new AP courses have been prohibited due to lack of space. Square footage for existing instructional programs at the middle and high school are far below current standards. In addition, shortages in classroom space have resulted in large class sizes at both the middle and high school.

At the middle school, classrooms average 850sf compared to the new MSBA standard of 950sf. At the high school, classroom sizes average 590sf to 740sf, which are well below the 950sf MSBA standard and result in overcrowded classrooms. Also, some of these classrooms are located in the basement with no views to the outside.

The total FTE number of students currently in the Sutton Middle School is 406, with 402 at the high school. Using the new MSBA standard of 190sf/student for middle schools and 205sf/student for high schools, the middle/high school with shared “core” facilities should be 159,550gsf. Currently, the Middle/high School has a total of 132,952gsf that results in a shortage of 26,598gsf. This shortage is the primary cause of the current space problems and increases to a bigger shortage with the 10-year enrollment projection.

Please describe the measures the School District has taken to mitigate the problem(s) described above.

An undesirable consequence of overcrowding is that the district has had to reduce “Special Subjects” to free up general classroom space, particularly at the middle school. At the high school in 2005, two larger classrooms were divided to create two additional classrooms. No other possibilities exist without expanding the size of the schools.

Priority 3

Prevention of the loss of accreditation.

Please provide a detailed description of the ***facility-related*** issues that are threatening accreditation.

In October, 2004, NEASC placed Sutton High School in “Warning” status, due in large part to the following facility-related findings:

- (1) Provide an adequate number of additional classrooms for increasing enrollments.
- (2) Provide adequate science laboratories that have the necessary and modern equipment, facilities, and safety devices to conduct appropriate learning activities.
- (3) Provide appropriate space for the Media Production program.
- (4) Provide an appropriate band room.
- (5) Provide adequate space for all classrooms to allow for best instructional practices.
- (6) Provide increased space in the media center
- (7) Provide appropriate technology facilities for students.

Until space issues are addressed, the High School will remain in Warning Status or, if there is no progress overall, the High School could be placed on “Probation” by the NEASC.

Please describe the measures the School District has taken to mitigate the problem(s) described above.

1. Appropriation of \$65,000 for a school improvements feasibility study.
2. Science room renovations.

Attachment 2: NEASC Report of Visiting Committee, 2004

Attachment 3: NEASC Response to Sutton High School Progress Report, 10/6/2005

Priority 4

Prevention of severe overcrowding expected to result from increased enrollments.

Please describe the conditions within the community and School District that are expected to result in increased enrollment.

The projected increasing enrollments over the next 10 years shows the middle school (grades 6-8) increasing from 406 to 438. This increase will require at least 1 more classroom plus other spaces. Two more classrooms will be required in 2013-14 when the total is projected to reach 461.

The high school 10 year projected enrollments (grades 9-12) are expected to increase from the current 402 to 517. This 28% increase will have a fairly significant impact on the space needs for classrooms and other High School spaces.

The current overcrowding and lack of space will be further impacted by this projected increase in students, particularly at the High School.

Please describe the measures the School District has taken or is planning to take in the immediate future to mitigate the problem(s) described above.

Priority 5

- | |
|--|
| <input checked="" type="checkbox"/> <i>Replacement, renovation or modernization of the heating system in a schoolhouse to increase energy conservation and decrease energy related costs in the schoolhouse.</i> |
|--|

Please provide a detailed description of the energy conservation measures that are needed and include an estimation of resultant energy savings as compared to the historic consumption.

The steam heating system in the Sutton High School is fifty-seven years old. As a result, the system has numerous problems and should be replaced. There are old cast iron radiators, fin tube radiation, unit ventilators, exhaust fans, and old air handling units that are all antiquated and have reached the end of their useful life.

In the "core building," the HVAC systems are not as old as the 1949 High School systems, but there are still numerous problems with inadequate ventilation, poor temperature control, failed compressors, and air handling units that are not operating properly.

The 1955 middle school HVAC system has fifty-one year old unit ventilators in the classrooms, and an antiquated temperature control system, inadequate ventilation and air circulation systems, and roof exhaust fans that all should be replaced. This will improve code required ventilation and energy efficiency for the buildings.

Please describe the measures the School District has already taken to reduce energy consumption.

HVAC systems have been replaced and repaired when required, but none of this has fully addressed the antiquated systems in the High School and Middle School.

Attachment 4: Existing Conditions Report – Flansburgh Associates, 2006

Priority 6

Short term enrollment growth.

Please describe the conditions within the community and School District that are expected to result in increased enrollment and describe why these conditions are only expected to exist in the short term.

Please describe the measures the School District has taken or is planning to take in the immediate future to mitigate the problem(s) described above.

Priority 7

Replacement or addition to obsolete buildings in order to provide for a full range of programs consistent with state and approved local requirements.

Please provide a detailed description of the programs not currently available due to facility constraints, the state or local requirement for such programs and the facility limitations precluding the programs from being offered.

The NEASC report and Flansburgh Feasibility study document program and instructional limitations that result in diminished and below standard educational offerings in science, music, video production, broadcasting, media center, and technology. Space restrictions also prevent expansion of in-district SPED programs, necessitating costly out-of-district placements. In addition, the Mass Department of Education’s Coordinated Program Review, conducted in June 2006, cited the district for holding regular and SPED classes in Sub-basement rooms in violation of state standards. There is no space available to relocate these classes.

The following spaces and programs are lacking or are too small in the middle and high school using the 10-year enrollment projections.

	Existing	Needs	Shortage
Classrooms (6-8)	12 @ 850sf	18 @ 950sf	6,900sf
Classrooms (9-12)	14 @ 760sf	20 @ 950sf	8,360sf
Music	1 @ 1,500sf	3 @ 1,700sf	3,600sf
Special Ed.	3 @ 760sf	7 @ 800sf	3,320sf
Media Center	1 @ 2,600sf	1 @ 6,500sf	3,900sf
Auditorium	1 @ 2,940sf	1 @ 10,000sf	7,060sf
Science	4 @ 1,300sf	6 @ 1,300sf	2,600sf

Please describe the measures the School District has taken to mitigate the problem(s) described above.

The 6th grade has been temporarily moved into 6 classrooms in the Elementary School. Three of these 6 classrooms will be needed for SPED programs in the Elementary School and the other 3 will be needed for other Elementary grade classrooms as enrollments increase in K-5 over the next 10 years. This will force the 6th grade to return to the middle school where there is currently no more space.

Priority 8

Transition from court-ordered and approved racial balance school districts to walk-to, so-called, or other school districts.

Please provide a copy of the court-ordered and board of education approved racial balance school districts plan.

Please provide a copy of the redistricting plan.

AUTHORIZATION REQUIREMENTS

In the case of a city, **majority votes** of both (1) the City Council/Board of Aldermen **AND** (2) the School Committee, authorizing the Superintendent to submit this Statement of Interest Form to the Massachusetts School Building Authority, taken in accordance with the local charter, by-laws, or ordinances, are required. In the case of a town, **majority votes** of both (1) the Board of Selectmen or the equivalent governing body* **AND** (2) the School Committee, authorizing the Superintendent to submit this Statement of Interest Form to the Massachusetts School Building Authority, taken in accordance with the local charter, by-laws, and ordinances, are required. If the school district is a regional school district, a vote of the Regional School Committee authorizing the Superintendent to submit this Statement of Interest Form to the Massachusetts School Building Authority is required.

*A Town Meeting vote is not required to authorize the Superintendent to submit this Form.

Documentation of each vote must be submitted as follows: For the vote of the City Council/Board of Aldermen or Board of Selectmen/equivalent governing body, a copy of the text of the vote with a certification of the City/Town Clerk that the vote was duly recorded and the date of the vote. For the vote of the School Committee, Minutes of the School Committee meeting at which the vote was taken, signed by the Committee Chairperson.

Form of Vote required from both City Council/Board of Aldermen, Board of Selectmen/equivalent governing body **AND** the School Committee. If a regional school district, a vote of the Regional School Committee is required.

Resolved: Having convened in an open meeting on _____, the Board of Selectmen and School Committee of Sutton, MA, in accordance with its charter, by-laws, and ordinances, has voted to authorize the Superintendent to submit to the Massachusetts School Building Authority the Statement of Interest Form dated 6/23/06 for the Sutton Middle and High School located at Boston Road, Sutton, MA which describes and explains the following deficiencies and the priority category(s) for which an application may be submitted to the Massachusetts School Building Authority in the future: Priority 2, existing overcrowding; Priority 3, loss of accreditation; Priority 4, overcrowding due to increased enrollments; Priority 5, replacement of heating systems; Priority 7, obsolete buildings to provide full range of programs, and hereby further specifically acknowledges that by submitting this Statement of Interest Form, the Massachusetts School Building Authority in no way guarantees the acceptance or the approval of an application, the awarding of a grant or any other funding commitment from the Massachusetts School Building Authority, or commits the City/Town/Regional School District to filing an application for funding with the Massachusetts School Building Authority.

CERTIFICATIONS

The undersigned hereby certifies that, to the best of his/her knowledge, information and belief, the statements and information contained in this Statement of Interest and attached hereto are true and accurate and that this Statement of Interest has been prepared under the direction of the district school committee and the undersigned is duly authorized to submit this Statement of Interest to the Massachusetts School Building Authority. The Undersigned also hereby acknowledges and agrees to provide the Massachusetts School Building Authority, upon request by the Authority, any additional information relating to this Statement of Interest that may be required by the Authority.

LOCAL CHIEF EXECUTIVE OFFICER
(E.g., Mayor, Town Manager, Board of Selectmen)

Kevin Geraghty, Chair
(print name)

By _____
(signature)

Date _____

DISTRICT SUPERINTENDENT

Cecilia M. DiBella, Ed.D.
(print name)

By _____
(signature)

Date _____

SCHOOL COMMITTEE CHAIR

Wendy Head, Esq.
(print name)

By _____
(signature)

Date _____

NEW ENGLAND ASSOCIATION OF SCHOOLS AND COLLEGES

COMMISSION ON PUBLIC SECONDARY SCHOOLS

REPORT OF THE VISITING COMMITTEE

Sutton Memorial High School

Sutton, Massachusetts

March 21-24, 2004

Edmund C. Higgins, Chair

Jane Obshatkin, Assistant Chair

Gail Van Buren, Principal

SUTTON MEMORIAL HIGH SCHOOL'S SCHOOL AND COMMUNITY PROFILE

Sutton, Massachusetts, located in the Blackstone Valley region of south-central Massachusetts, was founded in 1704 and settled in 1716. Originally the town included Millbury as well as parts of Auburn and Grafton. Sutton now covers an area of 34 square miles. There is close proximity to major highways. Route 146, which connects Worcester and Providence, passes through Sutton on the east. Route 395, which runs from Worcester to New London, Connecticut, is near the western town boundary. The new Worcester interchange to the Massachusetts Turnpike makes Springfield and Boston both approximately an hour away. Sutton is increasingly becoming a suburban bedroom community because of its attractive country setting and accessibility to major New England cities. Sutton has three lakes offering year-round recreation. Several farms are still active providing a variety of fruits, vegetables, and milk for market.

In 2000, the population of Sutton was 8,250, and in January 2003, the population had increased to 8,960. The total school age population of Sutton in January 2003 was 1,843.

According to the 2000 United States Census, the majority of workers in Sutton is in management, professional, sales, and related areas (47%). There is a number of service workers (11%). Construction, extraction, and maintenance workers total 7%; and production, transportation, and material-moving workers comprise about 11% of the working community. Farming represents less than 1% of the total occupations. The median family income is \$81,000 with 3.4% of families below the poverty level. Sutton has an unemployment rate of 2 to 3%

Compared with surrounding communities, Sutton is a town with little industry and business. However, business along Route 146 has increased and continues to grow. Local businesses include United Van Lines, Pleasant Valley Country Club, Blackstone Valley Golf Course, Vaillancourt Folk Art, Eaton Farms Candy, Poly Vinyl Films, several small car dealerships, two banks, two small strip malls, restaurants, medical service providers, beauty shops, veterinarians, day care providers, and many other very small businesses.

Sutton Memorial High School is located on a parcel of land approximately one mile from Sutton Center and is surrounded by residential homes. School buildings include an early learning center, elementary school, middle school, and high school, which are all connected as the result of a recent building project. A wastewater plant was added with the latest building project and gray water is recycled into some schools to use for non-potable purposes. The grounds include athletic fields, tennis courts, lighted basketball courts, a playground, and a nature trail available for the community use.

In the 2000-2001 school year, the state per pupil expenditure was \$7,874 compared with Sutton's per pupil expenditure of \$5,873 (\$2,001 below state average), and in the 2001-2002 school year the state per pupil expenditure was \$7,450 compared with Sutton's per pupil expenditure of \$6,168 (\$1,282 below state average). In 2000-2001, school expenditures represented 58% of the town's tax base, and in 2001-2002 school expenditures represented 54% of the tax base. Despite Sutton being increasingly a 'bedroom' community, it ranks 281st out of 287 communities in Massachusetts for its per pupil funding.

Sutton Memorial High School includes grades nine through twelve and has a current enrollment of 388 students. There are one hundred and nine students in grade nine; ninety-three students in grade ten; one hundred and three students in grade eleven; and eighty-three students

in grade twelve. Eighty-seven (16.6%) high school age students living in Sutton attend private schools; ten attend other local schools under school choice; fifty-nine attend Blackstone Valley Vocational Technical High School; and seven Sutton residents are home schooled. Sutton Memorial High School is the receiving district for twenty-three students from other towns under the school choice program.

There is little racial diversity at Sutton Memorial High School. No single, identifiable minority group represents more than 1% of the school population. Ninety-nine percent of students are Caucasian. Occasionally Sutton Memorial High School will host a foreign exchange student for one year. There have been no significant changes in the ethnic, racial, or cultural composition of the student body. Most students who enter as ninth graders matriculate and graduate from Sutton Memorial High School.

There are twenty-six full-time teachers and seven part-time teachers presently teaching at Sutton Memorial High School with an attendance rate of 95%. Average teacher to student ratio is 1:19 with an average student load for teachers of one hundred students per day. Sutton Memorial High School has one full-time principal and one part-time assistant principal with one secretary. There are two full-time guidance counselors with one secretary, and one part-time psychologist. The present schedule follows a six day rotation with seven periods per day. The first period of the day is seventy-five minutes long with all others forty-five minutes in duration. Students can select from advanced placement, honors, level one, or level two classes. There is no common planning time for high school teachers though an effort is made to schedule common periods by department.

The principal feeder school for Sutton Memorial High School is Sutton Middle School, although occasionally students who have been in private schools will transfer to Sutton Memorial High School. Sutton Memorial High School has an average daily attendance rate 94.23% and dropout rate of 2.1%.

Students are recognized for their accomplishments several times during the year. Annually, student awards include approximately two hundred academic awards on Student Recognition Night and approximately three hundred athletic awards presented at the athletic banquet. Student Spotlight Night, which is well attended by the community, highlights work from each student. Student work is exhibited throughout the school building in each subject area; the chorus performs; the band plays throughout the evening; National Honor Society members serve as guides; and other groups such as Peer Mediation have displays providing explanations of their work. Graduates receive many scholarships annually from the Sutton Teachers' Association as well as other community organizations. Scholarships in June of 2001 totaled \$34,350 from thirty-nine community organizations, and in June of 2002, scholarships totaled \$42,100 from forty-one community organizations.

The average SAT score for 2002 was 525 in math and 540 in verbal while the state average score was 513 in math and 511 in verbal, and the national score was 514 in math and 505 in verbal. The average SAT score for 2003 was 545 in math and 544 in verbal while the state average score was 515 in math and 514 in verbal, and the national score was 515 in math and 506 in verbal. Sutton's increase in scores was above the state and national increases in both school years.

There are no graduation requirements beyond Carnegie units and required courses. Seven percent of Sutton Memorial High School students receives special education services. There are

SUPPORT STANDARD

COMMUNITY RESOURCES FOR LEARNING

CONCLUSION

Sutton Memorial High School engages students and their families as partners in the students' education. Nearly sixty-eight per cent of teachers indicates that the school actively invites parents into the school and classroom activities. Parents report that they do feel welcome at the school and that teachers and administrators work hard to keep open communications between the school and home. Parents are sent report cards on a quarterly basis, with progress reports going home at the midterm of the quarter. Parents also receive the bimonthly newsletter, *Reflections*. A parent-teacher organization is active in the school, as are recently formed booster clubs for athletic teams. These two organizations provide advice for the school and its programs as well as needed financial support. Parents have been active in the revision of the school handbook and in the New England Association of Schools and Colleges accreditation process. Parents report feeling a newfound sense of welcome and participation in their children's educational lives and credit the principal and staff for building more bridges between the school and the home. (parents, teacher, self-study)

Both business and higher education partnerships are limited at Sutton High School. A lack of businesses within the immediate community has made school-business partnerships difficult. Due to a rotating schedule, students find it difficult to participate in a Quinsigamond Community College program that allowed seniors to do part of their senior year at the college. Sutton High School students are also eligible to participate in the Massachusetts Academy at Worcester Polytechnic Institute. This program allows students to study there and to finish their last two years of high school in an accelerated manner. Students do, however, engage in community-based learning opportunities such as service learning, creating a virtual town museum, sponsoring blood drives, and working on the town of Sutton's tercentennial celebration. Groups such as the peer leadership team and the future teachers association perform many community services. (self-study, teachers, student shadowing, panel presentation)

Sutton High School is comprised of the original 1949 high school building renovated in 1979 and a facility built in 1989 that is shared with the middle school. The size of the current high school facility is currently adequate but will quickly become inadequate as larger and larger classes move up from the elementary and middle school. The high school enrollment is projected to increase by 49% within the next five years, going from the present 383 students to 570 students. Even now only one of the science classes is a fully equipped lab that meets state standards. The former home economics kitchen, with little refurbishing, has now become a science lab. Ventilation and drainage problems were mentioned by students and teachers as areas of concern. The video production class currently shares space with the choral music program, causing problems with both programs. The band room is located in the new elementary school at the extreme opposite end of the very long, one-building campus. The travel time to and from band takes away several minutes of instructional time on either end of the period. The library, in need of a serious boost in both the quantity and quality of its collection, is also constrained by serious space limitations. Hallways are well lit but are narrow, and class exchanges requires a great deal of patience and courtesy on the part of students trying to maneuver through the

crowded corridors. Recently, after school activities had to be cancelled as a result of the loss of water pressure, and a major water leak in the boys' locker room on another day.. (classroom observations, self-study, facility tour, survey, school board, parents)

The self-study reports a critical need of learning space. In general, classrooms are small, some to the point where any non-traditional configuration of desks is impossible. Classroom furniture is a mixture of old and fairly recent but, in general, is visually unappealing and is probably uncomfortable for students of above average height or weight. The restrooms are clean and well supplied. Student services and administration are spread over the building. There is no line of direct sight from any classroom or office to the main entrance for high school causing a problem after school starts as the front doors are locked to avoid intruders or unauthorized people to enter the building. Anyone who wishes to enter must bang on the glass door until someone passing by in the hallway hears the noise and opens the door. The carpeting in the hallways, while clean and free of loose debris, is stained and worn, detracting from the overall neat appearance of the school. The skid-resistant coverings on the stairs are also clean but are not of uniform color or condition, and some are missing on the riser resulting in a negative impression of the school's condition. Several special warrant articles that include capital improvements are on the docket for this spring's town meeting, and, if approved, will add to the overall quality and functioning of the physical plant and its core operational systems. A school building commission explored the possibility of a high school regionalization but none of the neighboring communities was interested. The commission is currently exploring the alternatives of renovations or a new, more up-to-date school facility that would enable Sutton High School to fulfill its mission and its students to achieve the school's expectations for student learning. (self-study, observations, facility tour)

The amount and upkeep of educational equipment is of concern to all stakeholders at Sutton High School. The self-study reflects that the "unreliability of technology resources...interferes with instructional practices, communication, and administrative functions." Only about fourteen percent of students and sixteen percent of parents agree that equipment is adequate, maintained, and replaced when necessary. Almost no teachers, three percent, agree that equipment meets the standard. Parent, teacher, and student interviews all indicate that the acquisition, use, and upkeep of technological equipment are of particular concern. As a result of last year's warrant, an additional infusion of \$250,000 in the technology served to provide more computer and network access for students through the purchase of eighty-five desktop computers, three wireless mobile labs, and two new servers for the district. In the eyes of teachers, students, and parents even this purchase did not bring the amount of needed equipment or the ability to keep the equipment running consistently to an acceptable level for effective use in the teaching-learning process. (survey data, parents, students, teachers, self-study)

Given the age and the wear and tear on the school building, it is a very clean place and does meet local and state standards for safety although there are concerns over hazardous materials data sheets and protocols for chemical safety. Regular inspections by the Sutton Fire Chief are conducted to insure student safety. Custodians and maintenance personnel report that they have the supplies and the budget to do their job of creating a clean and safe space for teaching and learning. Requests from staff and feedback in the area of maintenance and cleaning are done on an informal basis, which seems to work for this small school community. A recent upgrade and replacement of part of the heating system has improved the comfort level in the building. An ongoing planned program of building repair and maintenance is evident, and in general, the

adults and young adults who work and learn here are satisfied with the cleanliness and upkeep of the building itself. (staff, facility tour, observations)

Given the national and state-wide financial crisis of the past couple of years, long-term planning in the best of situations is difficult because of the shortage of the necessary funding to carry out long-range plans. Given the space and equipment constraints of the school, Sutton High School has certainly been planning for the eventuality of increased enrollment. However, the needed commitment by the town to provide funding to carry out the plans is not present and undermines the ability of the school to adequately provide needed staffing, address facility needs, and provide for capital improvements. Unfortunately, much of the long-term planning has had to be ignored in order to deal with the reality of eliminating programs and teaching positions. (self-study, parent, central office administrators, leadership team)

While it was asserted that there was a current written technology plan, no plan was made available. However, conversations with the technology director indicate that there is certainly a vision for the use of technology in the building. Again, the lack of financial support has eroded the ability to purchase and maintain hardware, software, and other technological tools needed for improved student learning. A lack of funding has made the delivery of a rich technology curriculum to all students impossible and has made in-service training for teachers on how use and better integrate technology into the teaching-learning process unattainable. From the perspective of all involved parties, the real technology plan of Sutton High School seems to be to do as much as possible for as many as possible with very resources. All in all, most stakeholders agree that the lack of adequate technology resources, including the personnel to maintain the technology system, as well as the lack of a technology-based educational program for students and professional development for teachers harms Sutton High School students and undermines the futures of Sutton graduates. (teacher, parent, self-study, leadership team)

The major frustration on the part of every stakeholder interviewed during the accreditation visit was the lack of financial support from the town of Sutton. This frustration was not expressed in the form of blaming but rather in the reality that Sutton is essentially a rural residential area with very little business or industry included in the tax base. New home developments consisting of single family houses generally cost the town more in services, both municipal and educational, than is returned by the new residents in tax dollars. Current student outcomes are good in terms of SATs and MCAS scores, but the eventuality of increasing enrollments, reduced educational programs, an aging building, and a dearth of equipment is beginning to erode the excellence this community expects of its students and schools. (self-study, teacher, school committee, parents, central office administrators, leadership team)

It is evident in nearly every aspect of Sutton High School that the lack of appropriate funding is creating an increasingly difficult environment in which to educate young men and women. Courses have been cut, positions eliminated or not filled, graduation requirements reduced, schedules changed, and programs under-funded. Students at Sutton High School suffer from a lack of technological resources, training, and course offerings. Students who represent the school community on athletic teams must pay a fee of at least \$125 to participate. After school activities and clubs have been reduced and the late bus eliminated. The maintenance and replacement of equipment is done when financially feasible, not necessarily when it is educationally prudent. Parents put energy into fundraising, not for enrichment, but rather for bare necessities. Teachers spend valuable time writing grants and depend on needed funding from organizations like the parent-teacher association and the local educational foundation for

classroom needs. As a result, while test scores and college acceptance rates remain high, students attending Sutton High School are receiving a substandard educational program and an inadequate learning experience. One parent commented that her children were "being harmed" by the town's unwillingness to provide revenues above the minimum required funding. This is not to say that there are not many examples of excellence in Sutton High School, but these examples rest on the shoulders of teachers, students, parents, and administrators who are creating excellence in spite of serious budget shortfalls. Recently, because the budget approval process is dependent on the recommendation of the town manager who is responsible to the town's selectmen and for the town's side of the budget, two override attempts proposed by the Sutton School Committee failed to pass at town meeting. Despite Sutton's relatively high average family income of nearly \$81,000 compared to Massachusetts' median income just over \$50,000 in 2000, the town's per pupil spending on education was \$5,692 in 2001, compared to a state average of \$7,562. This per pupil spending ranks 281st out of 287 Commonwealth communities. The locality needs to be more responsive and responsible for the funding of the education for its children. (teachers, panel presentation, school committee, parents, central office administrators, leadership team, self-study)

There is a clear sense that the staff and faculty at Sutton High School are active participants in the formation of the annual budget, and that building level administrators, working collaboratively with their staffs, are the primary architects of the final school budget. School personnel and school committee members are sensitive to student achievement and learning needs when formulating and approving the budget as well as aware of the limited resources available from the community. There is evidence that in matters of budget, the staff, administrators, and school committee are of one voice. Equally evident, however, is that the school community does not receive the needed support for their mission from some town officials who have consistently recommended the minimum mandated amount of local funding for the schools while increasing the town's side of the budget. It is the recommendations of the town officials on which the citizens of Sutton vote each year and without increased citizen support of the school budget, Sutton High School will not be able to fulfill its mission. (teachers, central office administrators, self-study, school committee, leadership team)

School committee policies do promote the mission and learning expectations of Sutton High School. The school committee strives to provide for a safe, clean, and healthy learning environment. Staff development is ongoing and meaningful. However, the school committee is limited in its capacity by the financial constraints of the minimum town funding.

COMMENDATIONS

1. The current administration and staff for consistent efforts to promote parental involvement in the school and in their student's education
2. The support of the Sutton School Committee for the educational program and improved student learning
3. The custodial and maintenance staffs for doing an extraordinary job of keeping the building and grounds neat, clean, and safe
4. The entire Sutton educational community for creating and maintaining a genuine culture of high expectations for its students in spite of serious under-funding
5. The administration's renewed focus on insuring equitable funding for programs and teachers

6. The Sutton Memorial High School Parent Teacher Organization, the newly formed athletic boosters clubs, and the Sutton Education Foundation for very significant fundraising efforts that support the students, staff, and mission of Sutton High School
7. The demonstration to the town of Sutton that the \$250,000 warrant for technology would not increase the tax rate
8. The commitment by the local bank to provide funds for needed library resources at the rate of \$10,000 a year for the next three years

RECOMMENDATIONS

1. Develop, implement, and fund a plan to provide an adequate number of additional classrooms for the increasing enrollments expected in the high school
2. Provide adequate science laboratories that have the necessary and modern equipment, facilities, and safety devices to conduct appropriate learning activities
3. Provide a more appropriate space for the excellent video production program
4. Provide an appropriate band room in the high school facility
5. Provide adequate space for all classrooms to allow for best instructional practices so students will be more actively involved in the learning process
6. Increased the available space and collection in the media center so students can make more effective use of that valuable learning resource
7. Provide appropriate facilities in which students can develop, practice and demonstrate vital technological literacy and skills
8. Develop, implement, and adequately fund a staffing plan that addresses the increasing needs of an increasing student body
9. Restore lost but important educational programs/courses
10. Provide more privacy for medical examinations and consultation by the school nurse
11. Develop, implement, and fund a long-range technology plan that addresses the need to maintain, replace and update equipment on a regular basis.
12. Provide the necessary technology personnel to properly maintain, upgrade, and service the school's technology and media resources
13. Provide adequate funding for planned and ongoing maintenance and to meet unexpected needs in an aging and out of date facility
14. Improve the overall appearance of the corridors, classrooms, and cafeteria
15. Develop and implement a plan that involves more community and higher education resources as partners in the school and in the education of individual students
16. Provide a convenient system for individuals to enter the building after all the doors are locked

The Commission was pleased with our responses to their recommendations:
(July 2005)

105-106
2 New
6-8 New

- ✓ The efforts made to expand staff and course offerings
- ✓ The appropriation of \$65,000 for building feasibility study
- ✓ Renovations to provide a new science classroom, remove old plumbing, and asbestos flooring
- ✓ The efforts to address adequate water pressure
- ✓ The creation of five professional development days devoted to curriculum development
- ✓ The efforts to define the rubrics used to measure the academic expectations for student learning
- ✓ The development of a three-year plan to bring the library up-to-date and the initial funding for some books and materials

However, we remain on warning status on *curriculum and Community Resources for Learning*. We must address the following recommendations for our Two -Year Progress Report: (October, 2006)

1. Report the outcome of the Fall 2005 override as it impacts operating costs
2. Provide a copy of the building feasibility study
3. Provide an updated timeline to fund and resolve facility needs
4. Fund and implement a three-year library improvement plan
5. Confirm that increase staffing will continue into 2006-2007
6. Report progress implementing new courses
7. Report progress reducing participation fees



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NEW ENGLAND ASSOCIATION OF SCHOOLS & COLLEGES, INC.
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October 6, 2005

Gail Van Buren
Principal
Sutton Memorial High School
383 Boston Road
Sutton, MA 01590

Dear Ms. Van Buren:

The Commission on Public Secondary Schools, at its September 18-19, 2005 meeting, reviewed the Progress Report of Sutton Memorial High School and continued the school's accreditation. While the Commission acknowledges that progress has been made, until all concerns have been satisfactorily resolved the school remains on warning for the Standards for Accreditation on Curriculum and Community Resources for Learning.

The Commission was pleased to learn of the following:

- efforts made to expand the staff and the effect on course offerings for students
- the process used and the development of the new Program of Studies in order to provide more curricular offerings to meet student needs
- the appropriation of \$65,000 for a building feasibility study
- the renovations and improvements made to a science classroom, including new lab tables, the removal of old plumbing, and the removal of asbestos tile flooring
- the efforts made to address adequate water pressure and performance
- the creation of five professional development days devoted to curriculum development
- the efforts to define the rubrics used to measure the academic expectations in the mission
- the development of a three-year plan to bring the library up-to-date and the initial funding for some books and materials

In addition to responding to the six (6) recommendations highlighted in the Commission's October 12, 2004 notification letter, the school's Two-Year Progress Report, due October 1, 2006, could provide detailed information on action taken to address the following:

- report the outcome of the fall 2005 override vote and its impact on operating costs at the high school, particularly as they relate to staffing, technology support and equipment, and updating the library print and non-print collection

no bilingual or English as a second language (ESL) classes. Thirty-two percent of the students at Sutton Memorial High School participates in honors or advanced placement classes.

In 2002, seventy-seven students graduated from Sutton Memorial High School. Sixty-one percent went to four-year colleges. Thirty-one percent went on to two-year colleges, and eight percent entered military or the work force.

Nearby educational opportunities include Massachusetts Academy of Mathematics and Science, Quinsigamond Community College, Worcester State College Co-Operative Programs, Blackstone Valley Technical High School, Worcester Night Life Program, and Virtual High School (electronic classroom).

Recent school initiatives include increasing student achievement, providing a safe and healthy environment, supporting a high performance workforce, improving operations, encouraging continual improvement, and creating school and community partnerships. These initiatives have resulted in increased performance of students testing in the statewide MCAS assessment at the proficient level; increased communication among all segments of the learning community; alignment of the curricula to the Sutton High School Learning Expectations and state frameworks; revision and publicizing of the course handbook and student/parent handbooks to clarify the mission and expectations for faculty, students, and parents; improved class operations supported by professional development training in the Baldrige Method; expanded potential for partnerships as the school web site develops and encourages communication between stakeholders; continual financial support from both PTO and the booster clubs through mini grants.

There is an informal school business venture program at the present time. Some students have had the opportunity to gain school credit and experience in a local business. On another level, parents have volunteered their time to speak to classes about their particular personal business experience. Finally, SHS students may be afforded the opportunity to enhance school to business ventures through working with the community during the preparation of the Sutton Tercentennial Celebration.

Although there are no graduation requirements for community service, the National Honor Society requires twenty hours, and peer mediation volunteers are required to perform thirty hours of community service each year. Some student council members also perform community service, but there is no requirement.



VIII. Glossary

Glossary

The Following is a list of the abbreviations used in this report:

ACT	Acoustical Ceiling Tile
ADA	Americans with Disabilities Act
ATS	Automatic Transfer Switch
CCTV	Closed Circuit Television
CMR	Code of Massachusetts Regulations
CMU	Concrete Masonry Unit
DDC	Direct Digital Control
DEP	Department of Environmental Protection
ELC	Early Learning Center
EMT	Electrical metal tubing
EPO	Emergency Power Off
ES	Elementary School
ESF	Education Square Feet (Area of Basic plus Miscellaneous Educational space)
FACP	Fire Alarm Control Panel
GFI	Ground Fault Interrupter
GIS	Geographic Information System Map
GPD	Gallons per day
GPM	Gallons per minute
GSF	Gross Square Feet (Total area of building to outside)
HC	Handicap
HID	High Intensity Discharge (lighting)
HS	High School
HVAC	Heating, Ventilating and Air Conditionng
IT	Information Technology
IWPA	Interim Well Head Protection Area
KSF	Thousand Square Feet
KW	Kilowatts (Electricity)
LF	Linear feet
LP	Liquified Petroleum (Gas)
M	Million
MAAB	Massachusetts Architectural Access Board
MC	Armor metal cable
MGL	Massachusetts General Laws
MISER	Massachusetts Institute for Social and Economic Research
MS	Middle School
MSBA	Massachusetts School Building Authority
NEASC	New England Association of Schools and Colleges
NESDEC	New England School Development Council
OT/PT	Occupational Therapy/Physical Therapy
RTU	Roof Top Unit
SBA	School Building Assistance (Now MSBA)
SF	Square Feet (Area of a room or floor)
SPED	Special Education
TTY	Text Telephone
U/V	Unit Ventilator