

EXECUTIVE SUMMARY

Introduction

This Feasibility Study is intended to provide a review of the current and future educational program and to determine the long-term disposition of four existing school facilities: Hanover High School, Sylvester Elementary School, Salmond School and Curtis School.

While Hanover has improved and upgraded most of the Town's school facilities over the last few years, these four buildings have remained untouched. At the outset, the Hanover School Building Needs Committee charged Dore and Whittier, Inc. with providing a comprehensive study and potential options that would address not only the issues related to the buildings and sites but also take into consideration the educational programming and long term educational plan that would be in the best interest of Hanover.

Both the Sylvester Elementary School and Hanover High School facilities have served the community well over the years but age, overcrowding and antiquated systems have taken their toll and as a result, safety concerns are apparent. In addition, the educational program needed to bring the facilities into the 21st century does not match the existing school configuration.

Over the next 2 to 5 years, the community will need to expend significant funds just to maintain the physical components of the existing buildings. Additionally the educational space within the buildings is sub-standard and inefficient. To be a viable long-term investment, any expenditure of resources should address both the physical and educational needs of the schools.

The Need

According to the criteria established by the Board of Education for determining priority of school projects applying for state reimbursement, we believe that this project meets those requirements and clearly establishes a high level of need for the Town of Hanover Public Schools.

1. To Replace Or Renovate A Building Which Is Structurally Unsound Or Otherwise In A Condition Seriously Jeopardizing The Health And Safety Of School Children Where No Alternative Exists.

Sylvester Elementary School

Below are a few of the issues discovered at the 70-year-old school during the Feasibility Study. Current codes are based on life safety concerns and not meeting these codes presents a health and safety concern.

- a) The use of wood floor and roof construction does not meet Mass. Building Code requirements. The auditorium, cafeteria and library do not have the required 2-hour fire rating

to meet current code. A substantial renovation project will require extensive structural framing replacement and fireproofing upgrades to the structure.

- b) The cafeteria has not been given a certificate of occupancy by the local building inspector.
- c) The existing structure would need to be assessed in accordance with seismic requirements.
- d) The basement level does not meet current code requirements for classrooms due to the height of windows above finish floor.
- e) Many items throughout the building do not meet current life safety code requirements.

2. To Eliminate Existing Severe Overcrowding and Prevent Continued Overcrowding based on Planned Enrollments.

Sylvester Elementary School

The Sylvester Elementary School is approximately 33,210 sf and home to 235 students. Considering that 40% of the building cannot be used for education, the School is severely overcrowded taking into consideration the following:

- a) The building is obsolete, 70 years old, and has an inefficient design for 21st century educational program and requirements.
- b) Although areas of the basement level are currently used for educating students, any future programs could not be located there due to Life Safety code requirements.
- c) There is inadequate space to provide Music, Art and Gym programs. Students must walk to nearby Center Elementary School every day for these programs.
- d) Portions of the building have been converted for use by mandated programs such as Special Education, technology, and collaborative spaces, leaving limited amount of space for the 115 sf/student as outlined by SBA guidelines. The integration of these programs into the school has had an impact on the available space for other classrooms. These programs need space for small group instruction and related support areas.

Sylvester Elementary and Hanover High School

- a) Projected enrollments – Grades K-12: Documented 22.8% increase from 1990 – 2000. Expected 19.2% growth rate through 2011.

- b) Enrollment Pressure

- ?? Hanover resident population grew by 10.5% (U.S. census bureau) or 12.7% (Town of Hanover) over the decade of 1990 – 2000.

- ?? The State of Massachusetts population grew by 5.53% over the same period.

- ?? There is a higher percentage and a higher number of school age children now than 10 years ago.
- ?? Building activity is steady, evidenced by building permits and the number of developments under review by local boards.
- ?? Growth appears poised to continue at a steady pace – higher growth rates are not anticipated.

3. To Keep Accreditation at Hanover High School

The New England Association of Schools and Colleges prepared an evaluation report in the Fall of 2001. According to their report, their recommendations, as follows, must be addressed within the next two to five years or the high school could lose its accreditation:

- c) Develop and implement a plan to address future facility needs. Develop and implement a plan to alleviate space and storage needs throughout the facility.
- d) Address critical lack of classroom instruction, office, meeting areas, support services and general storage.
- e) Expand the size and capacity of the library media center to meet the needs of the students served by the school
- f) Establish a foreign language lab
- g) Correct deficiencies within core facility including: heating and ventilation system, windows, kitchen and food service area, and parking areas.
- h) Correct all facility concerns related to safety.
- i) Provide additional support for technology.

4. To Address Safety Concerns, Building Deficiencies, Building Codes and Handicap Accessibility Codes.

Sylvester Elementary School

Built in 1927, with an addition in 1960, the Sylvester Elementary School has effectively outlived its usefulness as a school. As with the High School, single pane windows are a source of extreme heat loss, are difficult to open or close and are a safety hazard. The entire building is not handicapped accessible. The critical building systems (heating, plumbing, electrical) are original or obsolete, making them unreliable and expensive to maintain. Lack of proper ventilation in many rooms creates poor air quality issues. The building has non-compliance with egress and other serious life safety code conditions that need to be resolved in addition to lead paint and asbestos containing materials. Technology infrastructure is limited. Limited parking and vehicular circulation create a

safety concern for pedestrians.

Hanover High School

Originally built in 1958 with an addition in 1962, Hanover High School faces several critical issues. The population of the school has continued to grow causing overcrowding to be a serious concern.

The building has floor to ceiling window walls with single pane glass and metal panels. The window units are in such a deteriorated state that they have become a safety hazard as well as the source of a large amount of heat loss. The current roofing system is inappropriate and is prone to leaking. The heating and ventilation system is over forty years old, parts and components are difficult to find and become increasing more costly to maintain. The emergency lighting system is extremely antiquated and poses a life safety concern. Asbestos and other hazardous materials are present in the building and should be removed.

5. To Provide a Full Range of Programs and Proper Use of Space to Meet State And Local Educational Program Requirements.

A few general comments are outlined here:

Sylvester Elementary School

- a) The school does not have adequate space for Art, Music and Gym programs, forcing students and staff to walk to the Center School for these classes.
- b) The auditorium and stage are currently used for administrative work-space and school supply storage.
- c) Over the last seventy years, increasing state mandates for space to accommodate special education, remedial assistance, occupational and physical therapy, technology etc. have had an impact on the amount of classroom space available.
- d) Expansion of curriculum and educational programs is limited due to current lack of space.

Hanover High School

- a) There is a lack of storage space for general use and classroom use.
- b) Over the last forty years, increasing state mandates for space to accommodate special education, remedial assistance, occupational and physical therapy, technology etc. have had an impact on the amount of classroom and library space available.
- c) Nurse's room is very small and offers almost no privacy for exams and personal discussion with the nurse.
- d) Auditorium stage wings are small; inadequate space for storage or sets.
- e) Library/Media Center space is inadequate resulting in limited number of books, narrow

aisle widths that do not meet code and restricted space for reading and studying.

- f) Industrial Arts programs have changed since 1960 as have the level of technology related jobs that are demanded of high school and college graduates. This requires a shift in the type of industrial arts and technology programs that are offered so that students may compete in the constantly changing world of technology.
- g) The kitchen dishwashing area is located directly in the middle of the kitchen; this results in an inefficient/less than ideal work area for food preparation and food serving. Kitchen dry storage space and freezer storage space is limited.
- h) Expansion of curriculum and educational programs is limited due to current lack of space

Options Studied and Rationale for the Selected Option

As a part of this review a number of options were developed to work towards satisfying the desired educational specification approved by the School District. The objective of the design studies was to try to utilize existing facilities, as much as possible while satisfying the educational specifications. As the design studies developed it became apparent that in order to meet the desired program, major reconstruction would be required to modify the existing building layouts to achieve this goal. Each option was put through a process where the Committee, the design team and community members reviewed and discussed: the site and building assessments, proposed designs, impact to students, as well as financial impact.

After a thorough review of the all the findings, and the advantages and disadvantages of each of the potential options, the Hanover School Building Needs Committee unanimously recommended to consolidate the Sylvester and Center Elementary Schools by constructing an addition to the Center Elementary School and building a new high school on the current high school site.

Sylvester Elementary School

The Building Committee reviewed numerous options ranging from a maintenance and code upgrade option to constructing a totally new school on an existing site. Although the building has historical character, the large amount of deficiencies coupled with the fact that the existing building is 70 years old and is wood frame construction proved to increase the costs beyond an acceptable limit in comparison to other options.

Maintaining the existing facility in its current configuration is not recommended for the following reasons.

?? A project option to simply maintain the existing facility does not satisfy the educational plan and is not eligible for State aid. It would cost taxpayers more than a comprehensive plan to rebuild the school (with 57% State aid).

?? Maintaining the existing building layout will not address the spatial or educational deficiencies inherent in the present facility.

- ?? Energy usage is extremely inefficient with the current building construction; no insulation in walls, oversized single pane windows, cast iron steam radiators.
- ?? Extent of work required to bring the building up to code for life safety, handicap accessibility and building codes is extensive, costly and invasive. The renovation work would be required to be done in numerous phases while students are in school causing a disruptive learning environment or students would be relocated into portable classroom trailers at an expense that has no long-term value.

The proposed solution would prove to make the most sense educationally and financially; consolidating the Sylvester and Center School programs by adding 24,430 sf to the Center School to house 286 additional students with an estimated project cost of \$5,171,709.

Hanover High School

A number of options were thoroughly studied to achieve the option best suited to address the current building deficiencies and long-term educational goals. The Building Committee reviewed addition/renovation options as well as new construction. Although the cost of renovating the existing building is less than new construction, the difference in the actual impacts to taxpayers was small, while the advantages to new construction were significant.

Maintaining the existing facility in its current configuration is not recommended for the following reasons.

- ?? A project option to simply maintain the existing facility does not satisfy the educational plan and is not eligible for State aid. The cost for this option (A.1) was extremely high in comparison to the other options.
- ?? Maintaining the existing building layout will not address the spatial or educational deficiencies inherent in the present facility. The change in technology education as noted previously is one example.
- ?? Energy usage is extremely inefficient with the current building construction; full height, two-story, single pane window walls and inadequate heating/ventilation system are two examples.
- ?? Extent of work required to bring the building up to code for life safety, handicap accessibility and building codes is extensive, costly and invasive. The renovation work would be required to be done in numerous phases while students are in school causing a disruptive learning environment or students would be relocated into portable classroom trailers over a 3 to 4 year period at an expense that has no long-term value.

The Building Needs Committee unanimously voted to select the new high school option. The selected

option consists of 154,077 sf housing 846 students in grades 9-12 at an estimated cost of \$31,465,984.

Current Status

The School Building Needs Committee is conducting an initial site investigation at the existing high school site to have a better understanding on the new high school option; that it can be reasonably located at the existing high school site. The investigation includes geotechnical exploration and wetlands delineation. The geotechnical report completed of one area on the site is attached in the appendix. The wetlands delineation is currently underway. Preliminary results found that while the land as outlined in the proposed scheme does not appear to be ideal, additional land on the northern portion of the site has promising attributes. Additional investigation is needed.

Salmond and Curtis Schools

The Salmond School is currently a temporary home to the Public Library until the construction for the new library is complete. Due to the lack of educational space combined with the lack of core facilities and the amount of work needed to bring the building up to code, the Building Needs Committee determined that it was not feasible to locate additional students to this building.

The Curtis School is home to the superintendent's office. Although the building has local historic significance, it has not been maintained with respect to its historic value. In addition, it is not well suited for the public nature of its current use. Significant improvements would be required to bring the building up to current codes. If it is determined to make such improvements, it is recommended that the improvements utilize quality materials and respect the historic nature of the building.