
SECTION ONE EXECUTIVE SUMMARY

INTRODUCTION

The following final report summarizes the work of Symmes Maini & McKee Associates (SMMA), and the Weston Field School Feasibility Study Committee.

The report documents both the process and the resulting options and costs for dealing with Field School. Numerous meetings of the Committee were held to discuss the issues and options.

Based on the educational, enrollment and infrastructure needs, conceptual planning options were developed for: renovations only (no programmatic educational upgrades); renovations with programmatic upgrades; renovation and addition; and new construction.

EXISTING BUILDING EVALUATIONS

The building evaluation process (the first task undertaken) was to evaluate and document findings for all major systems and physical components of the existing buildings and site.

This provided a basis for guiding the decisions and recommendations that were presented as part of the overall Feasibility Study. Several options were presented following the evaluation and the information gathered helped to inform the design options.

Summary

Civil

Field School is one of four Town buildings in a campus setting sharing vehicular circulation, parking, open space, and a recently installed septic system.

- Storm drainage system and site utilities appear to be in fair condition.
- Curbing is in fair to poor condition and will require replacement.
- Stairs and ramps leading to the buildings are in fair condition but will require some replacement and renovation.
- Play areas surrounding the school consist of one small basketball court and three additional areas with basketball hoops and play structure areas all in fair condition.

Architectural

Field School is a three story masonry building constructed in the early 1950s. The main entrance faces School Street to the East and enters at the first floor with a second, handicap accessible entrance on the same level that enters from the North side. There is a second handicap accessible entrance on the West side of the building which enters from the playground area on the ground floor level. This entrance was part of the small elevator addition that was constructed in 1995 to provide handicap accessibility and to re-open the building for school use after an off-line period where the building was used for other Town functions.

- The exterior of the building is clad in brick masonry with limestone banding and accents.
- The East and West elevations have large spans of single glazed window wall and glass block. The windows leak and the glass block has a history of breaking under solar heating loads and other building stresses.
- There are cracks visible in the exterior masonry walls that telegraph through to the interior.
- The roof is an EPDM, single-ply membrane over tapered insulation and is in fair condition.
- The interior finishes for the building are in generally fair to good repair.
- There has been new carpet installed in all of the classrooms within the past few years.
- Ceiling tiles show signs of leaks both past and present, as many tiles have been replaced with a non-matching brand of tile.
- There is an acoustic spray-applied type of material on the gym ceiling which has begun to fail and peel away.

Structural

There is little of the existing structural framing of the building exposed to view. From the limited views of the structure, it appears to be in sound working condition.

- The roof deck of the gym should be reviewed further, as the reason for the sprayed-on ceiling finish is unknown.
- The exterior brick walls with limestone features are showing signs of water infiltration and need a fair amount of repointing and repair.
- All of the exterior lintels are rusting and most probably need to be replaced.
- The steel exterior curtain wall frames are in need of replacement.

WESTON FIELD SCHOOL FEASIBILITY STUDY

- The glass block, in particular, is failing due to rusting of the support frame.
- The front entry stairs, piers, and landings need some repair work as several inches of settlement has occurred there and most of the mortar between stones has washed out.

Plumbing

Similar to structural, there is limited piping exposed to view. That which is visible appeared to be in average to good condition and of adequate capacity.

- Most plumbing fixtures and classroom sinks appear to have been replaced throughout during the mid-1990s renovation and were in good condition.
- Accessible fixtures were also installed prior to the 1995 reopening. The water heater appears to be in good condition.
- Gas service was confined to the boilers and water heaters.

Fire Protection

The building is partially protected by sprinklers. Only the Library, north side of the basement, and most of the storage rooms have sprinkler heads.

Mechanical

The majority of the central HVAC components were replaced in 1995 but a significant portion of the original equipment still remains, mostly in the form of terminal units, distribution piping and ductwork.

- The low-pressure steam heating plant consisting of two cast iron sectional boilers that were updated in 1995 but sections in one boiler are leaking.
- Classrooms are heated and ventilated through steam heated "classroom type" unit ventilators with additional heat provided by steam type, fin tube radiation - all original to the 1950 construction.
- Classroom exhaust is provided via roof mounted exhaust fans, replaced/installed in 1995.
- Administration offices are heated and cooled by a combination of finned tube radiation and residential type window air conditioning units.
- The pneumatic temperature control system was installed or replaced during various intervals over the past 50 years and contains components from a variety of manufacturers. The control panels are obsolete and in some cases inoperable.

Due to the age and condition of the heating, ventilating and air conditioning equipment it is doubtful that these systems are capable of meeting current Massachusetts State Code or American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) minimum ventilation requirements. It is also doubtful that the buildings and systems are capable of meeting minimum Massachusetts State Energy Code requirements.

Electrical

A small portion of the electrical systems are original and appear to be in fair condition. The electrical service and switchboard are approximately ten years old.

- The original panels and associated original wiring should be replaced.
- All lighting had been retrofitted in an earlier energy conservation program, but remains inadequate in some classrooms and the gym.
- Corridor lighting is fairly dim in the upper floors.
- The exit light fixtures are in disrepair and should be removed and replaced with new low voltage type fixtures.
- The emergency/standby generator is not working and will need to be repaired and relocated to a two-hour rated room or located outside of the building.
- The master clock system is inoperable and has been abandoned.
- The security system is recent, but should be tested to determine if additional motion detectors are needed.
- The building does not have a full automatic fire detection system and additional smoke/heat detector coverage would be required to meet the current building code.
- The fire alarm audio/visual coverage should be re-evaluated to provide better visual signal effectiveness.

The full existing conditions report can be found in Section Two of this report. There are also reports on lead based paints; PCBs and mercury-containing components.

ENROLLMENT PROJECTIONS / PLANNED ENROLLMENT

The enrollment projections are anticipated to remain constant, with a slight decline ten years out. Field Elementary School shall be planned to accommodate approximately 380 pupils based on enrollment projections for the period 2000-2010.

EDUCATIONAL PROGRAM

The Field School Master plan preserves Weston’s traditional grade structure with the Field school designed to accommodate grades 4 and 5.

Although class sizes will always have some variation, the following *optimum* class sizes, as defined by the Weston School Committee, have been used to project the number of classrooms needed to accommodate the above enrollments.

Grades 4–5	22 pupils/class
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The Educational Specification (Ed Spec), also known as the Educational Program, is the listing of all basic educational and support spaces to be included in the design of the building, together with their square foot area and quantity. For the Field School Feasibility study three Ed. Specs have been developed to reflect a broad range of options available to the community for consideration:

- Option 1: Building Renovations Only
- Option 2: Building Renovations with Partial Program Upgrades
- Option 3: Additions and Renovations with Program Upgrades
- Option 4: New Construction – Field School Site, Full Program Upgrades

(Options 3 and 4 share a common Ed Spec with minor variations)

Although the projected population of Field School and its grade distribution has been identified, a detailed programming process is required to identify the educational goals for the school, the specific program of spaces, and the interrelationship of these spaces to best facilitate the learning process for both pupils and teachers.

The Program Recommendations are a listing of each of the program spaces needed within the school, along with design criteria for those spaces. They are intended to set the functional needs of the school.

The Program Recommendations can be found in Section 3.3 of this report.

PROGRAM DEFICIENCIES

SMMA compared the existing room sizes to those recommended by the MSBA in their “guideline” for new construction. Although there is no requirement to meet the guidelines when renovating a building, it does provide a comparison to the accepted standards for educational spaces today.

Colored floor plans in Section 3.2 of this report indicate the recommended size and actual size of all program spaces.

OPTIONS EXPLORED

The four options explored represent significantly different approaches to Field School. They include significantly different scopes of work and vary in the satisfying of the goals set before the committee.

OPTION 1: Code and Building Renovations Only

The scope of this option includes the replacement of all systems for HVAC; electrical and plumbing, and the addition of an automatic fire protection system. Architectural upgrades include: accessibility needs, replacement of window walls and roofs and all surfaces disrupted by the installation of the engineering systems.

This option does not alter interior wall locations and therefore does not increase classroom sizes. This option includes minimum site work to upgrade drop off and pick up areas for improved safety.

This option assumes all students vacate the building for the construction duration. Students would be relocated to modular classrooms on other school sites within the town.

This option does not meet the educational goals set out by the School Committee and Study Committee.

Building Size (As Current)	Cost	Construction Duration
61,200 GSF	\$11.4M	12 months

OPTION 2: Renovations Only to the Existing School

The scope of this option includes a comprehensive “gut” renovation including upgrades to all systems (per Option 1) but will expand to include certain improvements to the Educational Program. This will include moving of some walls that allow the program to be better satisfied.

This option assumes all students vacate the building for the construction duration. Students would be relocated to modular classrooms on other school sites within the town.

This option does not meet all of the educational goals set out by the School Committee and Study Committee.

Building Size	Cost	Construction Duration
63,200 GSF	\$19.0M	18 months

OPTION 3: Renovations and Additions to the Existing School

The scope of this option includes the comprehensive “gut” renovation of the existing school **and** includes building additions to satisfy all of the educational needs defined in the Educational Program.

This option assumes all students vacate the building for the construction duration. Students would be relocated to modular classrooms on other school sites within the town.

This option does meet most of the educational goals set out by the School Committee and Study Committee. The relocation of students during the construction period may disrupt the educational process.

Building Size	Cost	Construction Duration
75,500 GSF	\$23.5 M	22 months

OPTION 4: New School on the Existing Field School Site

This option is for a replacement school to be located west of the Town Library along Alphabet lane. Once the new school building is constructed, the existing Field School building would be demolished and the site reconstructed for play fields, parking, and new septic/leeching fields.

This option assumes that the students would remain in the existing Field School building for the duration of the building construction.

This option meets all of the educational goals set out by the School Committee and Study Committee.

Building Size	Cost	Construction Duration
74,340 GSF	\$31.3 M	24 months

MASSACHUSETTS SCHOOL BUILDING AUTHORITY (MSBA)

The Needs Surveys for all schools can be found in Appendix A of this report.

Leading up to the spring of 2006, MSBA conducted a review of all school buildings within the Commonwealth. The intent of this effort was to develop baseline data about the general physical condition of the school facilities. The results of the study were published in April of this year.

Schools were rated from 1 to 4.

Rating	Building Condition Description
Rating 1	Building in good condition with few or no building systems needing attention
Rating 2	The building is generally in good condition, however a few building systems may need attention
Rating 3	The building is in fair to poor condition and some building systems may need to be repaired or replaced
Rating 4	The building is in poor condition and a possible candidate for major renovation or replacement

The Weston Field School was rated 3.

STATEMENT OF INTEREST FORM (SOI)

The MSBA has established the Statement of Interest Form as the first step in the Application Process. The purpose of the SOI is to ascertain from communities whether they believe they have any deficiencies in their school facility that meets one or more of the statutory priorities.

The priorities are as follows:

- (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 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 judgments of the Authority;
- (8.) Transition from court-ordered and board approved racial balance school districts to walk-to, so-called, or other school districts; as determined in the judgment of the Authority.