

Maynard High School MSBA Statement of Interest, January 2007

The New England Association of Schools & Colleges addressed this letter to the High School Principal on January 31, 2006, “The Commission on Public Secondary Schools, at its January 8-9, 2006 meeting, reviewed the Combined Special Progress Report and Report of a Commission Directed Visit of Maynard High School and **voted to place the school on probation because of significant deficiencies...**”

Just one month later School Committee voted to initiate a facilities study of the High School. The Committee understood that the High School facilities issues were significant and complex, necessitating professional assistance and analysis. Late in the summer of 2006 the firm Tappe’ Associates was hired to assist the Facilities Advisory Council (FAC), a citizens group appointed by the School Committee. The Facilities Advisory Committee, with Tappe’ Associates, has extensively studied the High School facility; this Statement of Interest attempts to ‘capture’ their findings. (The full report is available to the MSBA upon request.)

Maynard High School opened in 1962, and totals about 84,000 sq. ft. In the fall of 1992, the cafeteria and the auditorium were rebuilt due to a fire the previous summer. Forty + years later many systems in the facility have now outlived their expected service life. After months of investigation and study, on January 10, 2007 the Facilities Advisory Council voted to recommend to the School Committee that the HS building should not be renovated/added to, but newly constructed. Given the costs of renovation/addition the FAC concluded that new construction is necessary to produce a facility to educate students for the 21st century. An initial, significant MSBA contribution, through its new process, might be to assist in resolving the community debate between difficult, costly renovations versus building a new high school.

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.

The Facilities Advisory Council has identified the HS HVAC system as that area most in need of renovation to protect the health of students and staff. Significant variances in winter classroom temperatures are common; in the past some classes have necessarily been moved because of cold rooms. During the heating season, or on a hot day, even a visitor can recognize the inadequate ventilation in the building. On such days classroom conditions are both uncomfortable and unhealthy. Yet, we now understand even on a 'pleasant' fall day, our classrooms are not receiving adequate ventilation. The District is now necessarily taking action to address this problem –even though it would be more economical to await the complete renovation/rebuilding of the facility.

Engineers identified the following systemic HVAC problems that explain the poor air quality perceived by building users:

Heating and Ventilation

1. Automatic Temperature Control: 40+ year old pneumatic design; antiquated distribution system is *beyond repair* and largely dysfunctional. Repair is not economical; whole system must be replaced.
2. Exterior Windows: predominantly hung w/aluminum curtain wall –single glazed units, no thermo break, and therefore terribly inefficient.
3. Roof mounted exhaust fans: 40+ years old; many are inoperative. Code required ventilation air is not being provided. All fans need to be replaced and balanced to meet code amounts of ventilation.
4. Wall mounted exhaust fans: majority are 40+ years old, intended to remove outside air introduced by classroom unit ventilators; many of which are not operating. Code required ventilation air is not being provided in classrooms. All fans need to be replaced.
5. Classroom unit ventilators: 40+ years old and not upgraded over the period. Units are antiquated, soiled, and have failing automatic controls; parts are unavailable. Failed systems also cause excessive energy consumption.
6. HVAC – Auditorium: served by two, 40+ year old air-handling units in the ceiling. Units are undersized and can not provide adequate code required air ventilation.
7. HVAC –Gym: served by two, 40+ year old, ceiling hung air-handling units. Both are in poor condition. The amount of ventilated air is undersized and inadequate, limiting the use of the gym in late spring, e.g. graduation, summer and early fall. And the exhaust fans in the gym are inoperable.
8. Locker room unit ventilators: 40+ year old, in poor condition. Exhaust fans are inoperable; adequate ventilation is not provided.
9. Kitchen exhaust system: 40+ years old; fan operates, but does not exhaust code compliant amount of air. Hood is inadequate; does not contain all

cooking equipment. Make-up for fan/hood deficiencies is 100% outside air vent, located in the adjacent food storage room –susceptible to freezing-up.

Roof: 10-15 years old, patched in several locations. Rain water and snow melt pool on surface. Leaks have saturated some underlying insulation. Dysfunctional flashing allows snow and water into the masonry. Roofing contractors, independent of this study, have advised the District that *the entire roof must be replaced*. Continued patching is costly and wasteful.

Sprinkler System: None; the building has no sprinkler system.

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

- Over the past several years attempts have been made to effect partial repairs to the following items:
 - Automatic Temperature Controls: components replaced over time – yet the system is minimally functional
 - Roof Mounted Exhaust Fans – Approximately 50% of the fans are now operational; units are beyond normal life span.
 - Wall Mounted Exhaust Fans – Approximately 10% of the fans are operational; cost of repairs has limited efforts.
 - Unit Ventilators – The majority of thermostats and many fan motors have been replaced. Most are functional; but inadequate. Units are beyond normal life span; replacement parts are increasingly difficult to obtain.
 - Kitchen Exhaust System: attempts at repairs have been made, but system is structurally inadequate. Needs replacement.
 - Roof Patching: there have been continual patching efforts over time.
- Essentially no repairs have been made to the following items:
 - Exterior Windows
 - HVAC Auditorium/Gym

The cost of replacing windows and frames w/energy saving is simply beyond the District's ability. As bad as is the gym air exchange system, relative to other priorities, repair is unaffordable.

Priority 3

Prevention of loss of accreditation.

Detailed description of the **facility-related** issues that are threatening accreditation.

The most direct, concise response to this priority is to quote from two letters from the New England Association of Schools & Colleges; these excerpts describe Maynard High School's initial warning and its eventual probation status.

NEASC letter to Principal, John Lent, November 12, 2002, p. 2:

“The Commission also had expressed concerns regarding the facilities deficiencies and funding inadequacies, particularly as they affect teaching and learning. Concerns include, but are not limited to, the following: inadequate library space...inadequate storage space for audiovisual materials...the outdated design of science rooms...limited guidance space; inadequate storage space for and access to music classes; inadequate and outdated technology; inadequate funding for long range plans for building and site management; and the need for appropriate measures to ensure that all entrances are secure.

Given these concerns, **the Commission voted to place the school on warning** for the Standards on...Community Resources for Learning.”

NEASC letter to Principal, John Lent, January 31, 2006:

We have chosen to include a copy of the entire **NEASC probation letter** rather than quote a numerous and lengthy excerpts. Consequently, MSBA will better understand both the gravity of the HS facility problem and the District's response, to seek professional guidance as to how to address the facilities challenge.

Please review the attached NEASC letter of January 31, 2006. NB this historical summary letter includes significant non-facilities issues, **all of which have been resolved** over the last several years. *Maynard High School is on probation due to facilities deficiencies.*

**NEW ENGLAND ASSOCIATION OF SCHOOLS & COLLEGES, INC.
COMMISSION ON PUBLIC SECONDARY SCHOOLS**

January 31, 2006

John Lent
Principal
Maynard High School
1 Tiger Drive
Maynard, MA 01754

Dear Mr. Lent:

The Commission on Public Secondary Schools, at its January 8-9, 2006 meeting, reviewed the Combined Special Progress Report and Report of a Commission Directed Visit of Maynard High School and **voted to place the school on probation** because of significant deficiencies in its adherence to the Commission's Standards for Accreditation on Curriculum, School Resources for Learning, and Community Resources for Learning.

School officials have the opportunity to show cause why the school should not be placed on probation. If Maynard High School elects to show cause, it should file a written submission of its case by March 1, 2006 providing information, beyond that contained in the school's Special Progress Report, which demonstrates that the problems cited either do not exist or have been resolved. Review of such a response would take place at the next Commission meeting on March 26-27, 2006. If the school chooses not to show cause, it should so inform the Commission in writing by March 1, 2006. Failure to show cause is an indication to the Commission that in the view of the school the concerns cited are accurate. Correspondence from the school should be sent to the Commission office by certified mail, return receipt requested.

Because a request for a show-cause response is a serious matter, the Commission has asked that I review the communications between the school and the Commission since the last evaluation visit in April 2002. Since the school's decennial evaluation in April 2002 the Commission has reviewed three progress reports from the school, specifically a routine Two-Year Progress Report and two Special Progress Reports, **one of which was combined with a Directed Visit by a commission member and a staff member**. A summary of each report follows.

When the Commission reviewed Maynard High School's decennial evaluation report at its meeting of March 2002 and continued the school's accreditation, the school was commended for the reflective and inclusive process with which the school developed its mission statement and its expectations for student learning, the collegiality and informal

collaboration among the faculty, the positive school climate, and the faculty and staff's commitment to student well-being. However, the school was placed on warning for the Standards of Accreditation on Mission and Expectations for Student Learning, Curriculum, and Community Resources for Learning. The Commission expressed concern over the lack of definition regarding the meaning of school-wide learning goals, the lack of emphasis placed on the achievement of school-wide expectations for student learning, inadequate library space, an inadequate print collection, inadequate storage space for AV materials, outdated science equipment and the outdated design of the science rooms, limited guidance space, inadequate and outdated technology, and inadequate funding for long-range plans for building and site management. The Commission asked the school to report in a Special Progress Report the following: develop and implement a plan to fund and address all facilities deficiencies, in particular ensuring the resolution of problems with library, science, guidance, and music space, storage space, and inadequate technology; budget for necessary resources for the library media center to include updating the technology, hardware, and software in the library media center; and provide funding to replace outdated textbooks and provide appropriate science equipment, among other items.

The Commission reviewed the school's Special Progress Report in September 2003. It commended the school for the considerable work done to create and define measurable school-wide academic expectations for all students, the upgrading of safety and security protocols at school entrances, the additional attention given in the budget to the need to replace inadequate equipment and instructional materials, and the replacement of outdated chemistry textbooks, among others. In addition the Commission asked the school to report on the following: continue to monitor and assess the impact of the \$400 activity fee on student participation, clarify the school's process for assessing the achievement by each student in the school of each of the academic expectations in the mission, using school-wide rubrics; report the completion of curriculum maps; submit the findings of the School Facilities Committee related to Maynard High School along with a timeline and explanation of funding for the resolution of all school facilities deficiencies; increase student access to technology throughout the building; fully integrate the library media program into the curriculum; confirm that a full-time certified library media specialist has been hired to serve the students of the school; and provide an update on and assess the adequacy of financial support to address the current programs, staffing, and technology needs..

At its January 2005 meeting the Commission reviewed the Two-Year Progress Report and commended the work of the School Facilities Standing Committee to gain approval of funds to upgrade the science labs, the development of a five-year capital plan to guide funding for the facility's needs, the effective reorganization and improved use of the library, existing storage spaces and parking areas, the upgrading of library resources and services and enhancement of communication and climate to meet student and faculty needs, the increased professional development for integration of technology into the curriculum and the improvement in library resources and opportunities for student research-based learning. In addition, the Commission removed the Standard on Mission and Expectations for Student Learning from the school's warning status. However, the

Commission asked the school to submit the report of the findings of the School Facilities Committee, to provide a plan and a timeline to address all facility deficiencies identified in the Five-Year Capital Plan as well as those identified by the School Facilities Committee, to confirm that the school will have a certified or provisionally certified library media specialist for the 2005-2006 school year, and to confirm the school has a full-time nurse.

The Commission reviewed the school's Special Progress Report at its September 2005 meeting and voted to defer action pending a visit by a Commission member and a Commission staff person. At that time the Commission expressed concern regarding the deficiencies in the facility, including health and safety concerns and the ability of the facility to support and enhance the delivery of the curriculum. In addition, the Commission was concerned about the provision for the renovation and repair of the facility should the community decide not to fund major projects. Finally, the Commission remained concerned that the school did not have a certified library/media specialist.

As a result of the Commission Directed visit the Commission acknowledged some limited progress including a curriculum line item in the district budget in the amount of \$260,000 of which the high school was the main recipient for the replacement of textbooks over a three-year period; a district technology plan, funded through the curriculum line item, a technology department budget, and grant monies; the addition of nine computers to the library (instead of one at the time of the accreditation visit) and a variety of on-line reference tools; biology labs with new lab tables and sinks with running water; and the expenditure of \$10,000-15,000 on the repair of the roof over the last several years (eliminating leaks).

However, the Commission expressed continued concern that there has been no resolution to a myriad of facilities problems such as the following:

- missing hardware on many windows, leaving just one to pull open the window
- faulty locks on many classrooms, making it difficult to access classrooms and storage
- rows of desks original to the building stacked in hallways and waiting to be refurbished
- a paucity of current or new science equipment
- the outdated design of the science rooms
- the absence of computers for student use in many classrooms, including science and mathematics rooms
- cluttered classrooms with books and materials stacked on windowsills and unit ventilators
- a lack of storage throughout the school, including the AV storage area
- a chemistry lab in which only half the sinks and gas jets are operable, impacting the teacher's ability to provide adequate opportunities for the authentic application of knowledge and skills and to provide depth of understanding in the curriculum
- the original boiler, still working, but identified by the principal and business manager as the number one priority for funding
- outdated wiring, with clocks missing in some rooms and an open hole exposed

- an intercom system which does not work in the music room or cafeteria and is in need of repair or replacement
- faded exterior paint
- cracks in door frames and window frames
- the bell system in need of repair and/or replacement
- inadequate and dirty locker rooms, filled with old sneakers, trash and unused clothing

In addition to the facilities issues noted above, the Commission's concerns regarding the Library/Media Center have prompted it to add the Standard for School Resources for Learning to the probationary status of the school due to the following:

- a limited library print collection
- the lack of a full-time certified library/media specialist
- an undersized library, slightly less than the size of a double classroom, unable to support a rigorous curriculum and meaningful research

The Commission wishes to remind the Maynard community that the Commission has been monitoring Maynard High School's progress resolving its facilities needs since April 2002. During that time period the school has reported efforts to explore and fund various plans, and it has taken some steps to address some facilities issues. Beyond continued use of the existing budget to whittle away at small projects maintaining current conditions, and beyond a five-year plan to continue to address technology and textbook needs through the relatively healthy curriculum line item, there is no guarantee of any town monies to make additional progress on facilities deficiencies for the upcoming year, let alone to fully resolve them through a comprehensive plan that is approved and funded with a firm timeline for completion. Even more importantly, there appears to be little will on the part of the town to address and resolve the problems of the facility which is tired, outdated, and in need of major renovations and upgrades in order to meet the academic needs of students in the 21st century. As a result the long unaddressed physical deficiencies will continue to impair teaching and learning at Maynard High School for the foreseeable future. These concerns prompt the Commission's recommendations for probation.

The Commission wishes to acknowledge the efforts of the superintendent and School Committee in trying to resolve the facilities needs of the high school. However, continued membership in the Association carries with it a responsibility to address fully all identified needs in a timely manner. Such progress has not been demonstrated by the Maynard community.

The Commission wishes to be clear that it will not dictate to the community a particular resolution to Maynard High School's facilities problems. That is the responsibility of the leadership of the school system and the community. Once the school is placed on probation it will remain in that status until it can demonstrate that the facility deficiencies have been fully resolved. In order for probation not to deteriorate to a recommendation for termination the school community will have to demonstrate reasonable progress resolving facilities needs through regular reports to the Commission.

We have enclosed copies of the Association's Policy and Procedure for Appeal of Adverse Action and Policy on Release of Information for your review as well as an explanation of the Commission's show-cause procedures. Should you have any questions about the Commission action or information that has been requested, please contact the Commission office.

Sincerely,

Pamela Gray-Bennett

PGB/rt

Enclosures

cc: Mark Masterson, Superintendent, Maynard Public Schools

Anne Pratt, Chair, Maynard School Committee

Martin Gray, Chair, Commission on Public Secondary Schools

Measures taken to mitigate the NEASC identified problems:

Following the NEASC report the HS administration embarked on a series of clean-up efforts, reducing classroom “clutter”. Additionally, old chairs and some desks were disposed of; some door locks have been replaced over time. The reality is that the school lacks storage space, not simply to be overcome with add-on cabinets, shelves, etc. The NEASC report has identified a fundamental design problem; little thought was given to storage, e.g. simple classroom supplies, texts, musical instruments, art productions, theatre scenery, etc., etc. Only renovation will address this global issue of inadequate storage. In summary those “maintenance” issues identified by NEASC that could be economically addressed have been.

Priority 5

Replacement, renovation or modernization of the heating system in a schoolhouse to increase energy conservation and decrease energy related costs.

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

A recent engineering study identified the following systemic problems:

a. Power Plant: *beyond life service.* Components of the system: boilers, pumps, piping with insulation, breeching, and chimney are 40+ years old and have reached their maximum serviceable life; the cost of repairing the equipment is an uneconomical choice.

b. Fuel tank: single wall design, buried adjacent to the boiler room; supply lines appear to also be single wall design. The level gauge is antiquated and the entire system is approximately 40+ years old. With proper installation the maximum serviceable life of the entire system is approximately 25 years. The system needs be *completely replaced.*

c. Domestic water heater: generated from two sources located in the boiler room, a water storage tank connected to the boilers and two gas-fired water heaters. There are no thermostatic mixing valves at the heaters.

Needed:

1. Replace all existing boilers, pumps, piping with insulation, expansion tanks, breeching, chimney, and combustion air system with new cast iron sectional boilers, each sized at 50% of the overall building capacity, a primary and standby base mounted end suction hot water pump controlled with a variable frequency drive, diaphragm expansion tanks, double wall positive pressure breeching with chimney, and combustion air louvers provided with motor operated dampers. All boiler room piping must be replaced with new fiberglass insulation.
2. Upgrade the entire fuel burning system to natural gas.
3. Water heating system should be replaced with a gas-fired, atmospheric water heater and storage tank.

While the facilities study report is not yet final, one obvious result is the HS boilers must be replaced immediately.

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

Lighting upgrade:

A building lighting upgrade was completed in March 2006 which replaced all of the T12 fixtures with T8 fixtures. Resultant energy savings are approximately \$16,000 per year.

Heating plant:

Plans are underway to advance a power plant article on the Maynard May '07 Town Meeting warrant –even though making such a replacement as part of a strategic facilities plan would be more economical.

Estimated energy savings by replacing the existing equipment would be approximately \$10,000 to \$15,000 per year based upon historical consumption data.

And the District has investigated adding a photovoltaic, electrical generating system on new roofs.

HS 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.

Several specific HS facilities are obsolete and must be substantially renovated/newly constructed to support a 21st Century educational effort:

- Media-Center: The current HS library consists of a double class sized room, with inadequate storage capacity, inadequate work space for students and teachers, inadequate stack-space for books and reference material –cf NEASC Report in Priority #3. The space can not serve the needs of whole classes; there is no room for ‘special needs’ space, study group areas, needed computers or study carrels. Whereas a HS library should be the school center of research and study, at best this is a overstuffed, double-classroom, about 1/3 the total square feet recommended by the Mass. Library Media Association.
- Science Classrooms. Gas/Water/Drains: Science classrooms have no dedicated water systems; the ‘special’ waste piping connects untreated water to the sanitary piping. The natural gas connections lack code-required, manual shutoff valves. It is generous to describe these classrooms as ‘science rooms’; they are at best antiquated, cf NEASC Report.
- Locker Rooms: both the bathrooms and the changing areas are in very poor condition, cf. NEASC report. They do not meet current ADA or MAAB standards. The entire area needs a total renovation w/new fixtures, equipment, area finishes and accessibility requirements.
- Music room: accessible only by stairs; needs an elevator (a ramp would bisect the classroom); does not meet ADA requirements. Additionally, the area needs ‘practice rooms’ and significant additional storage areas, cf NEASC Report.
- Kitchen equipment: stove, ovens, garbage disposal, serving counters, etc do not function adequately and are all past their expected service life. Additionally there are space needs for dry storage and the walk-in cooler/freezer. The entire facility needs closer access to loading/recycling areas.
- Storage: Every discipline area of the school needs additional storage space: stage, music, art, gym, science, etc., cf NEASC Report.
- Conference rooms: guidance & counseling, teachers, particularly special needs teachers, and Principals all need access to conference rooms.
- Special Needs: alternative classrooms need minor food preparation areas, and bathroom facilities.
- Stage: requires improved access, additional, code compliant costume and scenery storage, a control room with complete view of the stage.
- Cardio/weight room: **None**; our HS students have no aerobic area, free weights, circuit machines, etc. As our Health curriculum moves to ‘wellness’, we are limited by a ‘50’s facility.
- Custodial/Building storage: the building lacks storage for basic custodial supplies, an adequate loading dock, and non-consumable storage, e.g. lawn mowers, furniture, etc.

Maynard High School was designed in the late 50's and constructed in the early 60's. The problem is more severe than systems that are beyond their life-expectancies; however severe those infrastructure needs. The challenge is to construct a 21st century facility that will serve our students now and for future decades.

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

- Media Center – The furnishings/materials within the library were rearranged to make more efficient use of the available space. Some computers have been added.
- Science Classrooms – Two rooms have been upgraded with new work tables and chairs. Additionally sinks have been repaired in two rooms.
- Locker Rooms – Thermostats and a sink have been replaced; ventilating unit has been improved. Minimal corrective action is possible without major renovation.
- Music Room - Given the split-level entry, no corrective action is possible without major renovation.
- Kitchen Equipment – continual repair/replacement of component parts.