Massachusetts School Building Authority

Next Steps to Finalize Submission of your FY 2021 Statement of Interest

Thank you for submitting your FY 2021 Statement of Interest (SOI) to the MSBA electronically. **Please note, the District's submission is not yet complete**. The District is required to mail all required supporting documentation, which is described below.

VOTES: Each SOI must be submitted with the proper vote documentation. This means that (1) the required governing bodies have voted to submit each SOI, (2) the specific vote language required by the MSBA has been used, and (3) the District has submitted a record of the vote in the format required by the MSBA.

- **School Committee Vote:** Submittal of all SOIs must be approved by a vote of the School Committee.
  - For documentation of the vote of the School Committee, Minutes of the School Committee meeting at which the vote was taken must be submitted with the original signature of the Committee Chairperson. The Minutes must contain the actual text of the vote taken which should be substantially the same as the MSBA's SOI vote language.
- **Municipal Body Vote:** SOIs that are submitted by cities and towns must be approved by a vote of the appropriate municipal body (e.g., City Council/ Aldermen/Board of Selectmen) in addition to a vote of the School Committee.
  - Regional School Districts do not need to submit a vote of the municipal body.
  - For the vote of the municipal governing body, a copy of the text of the vote, which shall be substantially the same as the MSBA's SOI vote language, must be submitted with a certification of the City/Town Clerk that the vote was taken and duly recorded, and the date of the vote must be provided.

ADDITIONAL DOCUMENTATION FOR SOI PRIORITIES #1 AND #3: If a District selects Priority #1 and/or Priority #3, the District is required to submit additional documentation with its SOI.

- If a District selects Priority #1, Replacement or renovation of a building which is structurally unsound or otherwise in a condition seriously jeopardizing the health and safety of the school children, where no alternative exists, the MSBA requires a hard copy of the engineering or other report detailing the nature and severity of the problem and a written professional opinion of how imminent the system failure is likely to manifest itself. The District also must submit photographs of the problematic building area or system to the MSBA.
- If a District selects Priority #3, Prevention of a loss of accreditation, the SOI will not be considered complete unless and until a summary of the accreditation report focused on the deficiency as stated in this SOI is provided.

ADDITIONAL INFORMATION: In addition to the information required above, the District may also provide any reports, pictures, or other information they feel will give the MSBA a better understanding of the issues identified at a facility.

If you have any questions about the SOI process please contact the MSBA at 617-720-4466 or SOI@massschoolbuildings.org.

Massachusetts School Building Authority

School District Millis

District Contact Terry L Wiggin TEL: (508) 376-7000

Name of School Millis High School

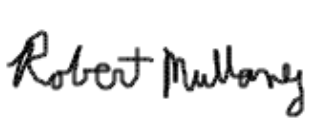
Submission Date 6/25/2021

SOI CERTIFICATION

To be eligible to submit a Statement of Interest (SOI), a district must certify the following:

- The district hereby acknowledges and agrees that this SOI is NOT an application for funding and that submission of this SOI in no way commits the MSBA to accept an application, approve an application, provide a grant or any other type of funding, or places any other obligation on the MSBA.
- The district hereby acknowledges that no district shall have any entitlement to funds from the MSBA, pursuant to M.G.L. c. 70B or the provisions of 963 CMR 2.00.
- The district hereby acknowledges that the provisions of 963 CMR 2.00 shall apply to the district and all projects for which the district is seeking and/or receiving funds for any portion of a municipally-owned or regionally-owned school facility from the MSBA pursuant to M.G.L. c. 70B.
- The district hereby acknowledges that this SOI is for one existing municipally-owned or regionally-owned public school facility in the district that is currently used or will be used to educate public PreK-12 students and that the facility for which the SOI is being submitted does not serve a solely early childhood or Pre-K student population.
- After the district completes and submits this SOI electronically, the district must mail hard copies of the required documentation described under the "Vote" tab, on or before the deadline.
- The district will schedule and hold a meeting at which the School Committee will vote, using the specific language contained in the "Vote" tab, to authorize the submission of this SOI. This is required for cities, towns, and regional school districts.
- Prior to the submission of the SOI, the district will schedule and hold a meeting at which the City Council/Board of Aldermen or Board of Selectmen/equivalent governing body will vote, using the specific language contained in the "Vote" tab, to authorize the submission of this SOI. This is not required for regional school districts.
- On or before the SOI deadline, the district will submit the minutes of the meeting at which the School Committee votes to authorize the Superintendent to submit this SOI. The District will use the MSBA's vote template and the vote will specifically reference the school and the priorities for which the SOI is being submitted. The minutes will be signed by the School Committee Chair. This is required for cities, towns, and regional school districts.
- The district has arranged with the City/Town Clerk to certify the vote of the City Council/Board of Aldermen or Board of Selectmen/equivalent governing body to authorize the Superintendent to submit this SOI. The district will use the MSBA's vote template and submit the full text of this vote, which will specifically reference the school and the priorities for which the SOI is being submitted, to the MSBA on or before the SOI deadline. This is not required for regional school districts.
- The district hereby acknowledges that this SOI submission will not be complete until the MSBA has received all of the required vote documentation in a format acceptable to the MSBA. If Priority 1 is selected, your SOI will not be considered complete unless and until you provide the required engineering (or other) report, a professional opinion regarding the problem, and photographs of the problematic area or system. If Priority 3 is selected, your SOI will not be considered complete unless and until you provide a summary of the accreditation report focused on the deficiency as stated in this SOI.

LOCAL CHIEF EXECUTIVE OFFICER/DISTRICT SUPERINTENDENT/SCHOOL COMMITTEE CHAIR
(E.g., Mayor, Town Manager, Board of Selectmen)

Chief Executive Officer *	**School Committee Chair**	**Superintendent of Schools**
Mike Guzinski	Robyn Briggs	Robert Mullaney
Town Administrator		
		
(signature)	(signature)	(signature)
Date	Date	Date
6/23/2021 12:06:59 PM	6/24/2021 1:10:42 PM	6/24/2021 10:34:51 AM

* Local chief executive officer: In a city or town with a manager form of government, the manager of the municipality; in other cities, the mayor; and in other towns, the board of selectmen unless, in a city or town, some other municipal office is designated to the chief executive office under the provisions of a local charter. Please note, in districts where the Superintendent is also the Local Chief Executive Officer, it is required for the same person to sign the Statement of Interest Certifications twice.

Massachusetts School Building Authority

School District Millis

District Contact Terry L Wiggin TEL: (508) 376-7000

Name of School Millis High School

Submission Date 6/25/2021

Note

The following Priorities have been included in the Statement of Interest:

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.
2. ☒ Elimination of existing severe overcrowding.
3. ☐ Prevention of the loss of accreditation.
4. ☒ Prevention of severe overcrowding expected to result from increased enrollments.
5. ☒ Replacement, renovation or modernization of school facility systems, such as roofs, windows, boilers, heating and ventilation systems, to increase energy conservation and decrease energy related costs in a school facility.
6. ☐ Short term enrollment growth.
7. ☒ Replacement of or addition to obsolete buildings in order to provide for a full range of programs consistent with state and approved local requirements.
8. ☐ Transition from court-ordered and approved racial balance school districts to walk-to, so-called, or other school districts.

SOI Vote Requirement

☒ I acknowledge that I have reviewed the MSBA's vote requirements for submitting an SOI which are set forth in the Vote Tab of this SOI. I understand that the MSBA requires votes from specific parties/governing bodies, in a specific format using the language provided by the MSBA. Further, I understand that the MSBA requires certified and signed vote documentation to be submitted with the SOI. I acknowledge that my SOI will not be considered complete and, therefore, will not be reviewed by the MSBA unless the required accompanying vote documentation is submitted to the satisfaction of the MSBA.

SOI Program: Core **Potential Project Scope:** Renovation/ Addition
Is this a Potential Consolidation? YES

If 'YES', Please describe Potential Consolidation that is anticipated at the school.

The Millis High School and the Millis Middle School are within one physical structure. The work contemplated in this SOI will impact and improve conditions for both schools.

Is this SOI the District Priority SOI? YES

School name of the District Priority SOI: 2021 Millis High School

Is this part of a larger facilities plan? YES

If "YES", please provide the following:

Facilities Plan Date: 1/1/2001

Planning Firm: Tetra Tech of Framingham MA

Please provide a brief summary of the plan including its goals and how the school facility that is the subject of this SOI fits into that plan:

The Master Plan and Building Facilities Study, addresses the main points of student enrollment projections, condition of the physical plant, circulation, traffic, programmatic needs, special education, technology, space needs and the evaluation of building systems and components that are failing or need replacing or updating. Included in the plan are recommendations and options to solve various problems and shortfalls for delivering educational services in an appropriate, safe, and comfortable environment. Included is a master capital plan listing systems or components of the school district. The capital plan for the elementary school was in essence completed when the new Clyde Brown Elementary School opened in the fall of 2019. This leaves the capital plan for the Millis Middle High School as the portion of the plan that is most active currently, though our plan does anticipate the ongoing needs and long range needs for the elementary school as well. The Capital plan displays the condition of individual items, their useful life and the cost of replacement, adjusted for inflation, with designated years for replacement. The strategy of the plan is to earmark tasks the school department can address on its own and to call out options available to solve overcrowding, programmatic, or other issues by building additions and/or renovation.

Please provide the current student to teacher ratios at the school facility that is the subject of this SOI: 16 students per teacher

Please provide the originally planned student to teacher ratios at the school facility that is the subject of this SOI: 12 students per teacher

Does the District have a Master Educational Plan that includes facility goals for this building and all school buildings in District? YES

If "YES", please provide the author and date of the District's Master Educational Plan.

Master Plan and Building Facilities Study completed on February 25, 2014 and authored by Garrett Hamlin, Director of Architecture and Dr. Kevin S. Baughman. Educational planner for the firm of Tetra Tech, Tetra Tech Architects and Engineers, One Grant Street Framingham MA 01702. Portions updated July 31, 2020 by CBI Consulting LLC, 250 Dorchester Avenue, Boston Massachusetts, 02127. Both parts incorporated into the Town of Millis Capital Improvement Plan beginning in 2018.

Is there overcrowding at the school facility? YES

If "YES", please describe in detail, including specific examples of the overcrowding.

Currently there are not enough general classrooms, lab, special education classrooms, cafeteria, gym and locker room space at the Millis Middle High School Building. The building is undersized and overcrowded, with no STEAM facilities for MS and HS students, and students often doing work in hallways. Three teachers must teach from carts. Many classrooms are undersized based on current educational facility standards. Many ancillary and storage spaces are being used for instructional spaces, and most of these spaces are not properly ventilated. Lunch starts at 10:30 and runs to 12:45 because the cafeteria is not big enough to accommodate students at the appropriate time. Even with the expanded times, many students eat outside of the cafeteria. The District has started a locker replacement program to expand and replace lockers, but that has been stalled due to budget pressures due to COVID-19. There is not enough space or lockers in the locker rooms.

Has the district had any recent teacher layoffs or reductions? NO

If "YES", how many teaching positions were affected? 0

At which schools in the district?

Please describe the types of teacher positions that were eliminated (e.g., art, math, science, physical education, etc.).

Has the district had any recent staff layoffs or reductions? YES

If "YES", how many staff positions were affected? 16

At which schools in the district? At the Clyde Brown Elementary School Extended Day Program

Please describe the types of staff positions that were eliminated (e.g., guidance, administrative, maintenance, etc.).

The positions furloughed included the Director of the extended Day Program; the Administrative Assistant for said program, and all staff for said program. The furloughs were Covid-19 related.

Please provide a description of the program modifications as a consequence of these teacher and/or staff reductions, including the impact on district class sizes and curriculum.

There is no impact on class size or curriculum. The closure of the before and after school program did impact before and after school assistance provided primarily to K-5 students who attended the program and either sought or were referred for assistance.

Please provide a description of the local budget approval process for a potential capital project with theMSBA. Include schedule information (i.e. Town Meeting dates, city council/town council meetings dates, regional school committee meeting dates). Provide, if applicable, the District's most recent budget approval process that resulted in a budget reduction and the impact of the reduction to the school district (staff reductions, discontinued programs, consolidation of facilities).

The process begins with a goal of achieving a level services budget that is a 4% increase or less. The next step is to establish salaries for the ensuing fiscal year, which to the maximum extent possible means determining collective bargaining increases or individual contractual increases for every known employee, possible lane changes for employees where lane changes might apply, and possible retirement savings if it is determined they may exist. This year due to COVID-19 it also included absorbing some salaries that previously had been paid from revolving funds. We then look at individual expense lines other than tuition and consulting to see what lines may need to increase above 2%. For example, as next year is a negotiating year, legal services is one such item. This determines a preliminary budget, almost always in excess of 4%. We then reexamine every line to see if there are items duplicated, or items that can be reduced, and we also look to the current year to see if we feel we will generate a fund balance that can be used to pre-pay tuition, thus lowering the proposed budget. Our budget reductions this year were small, and did not impact class size or educational program in any way. Most of our savings will be achieved through the prepayment of tuition. When our budget is presented to the Town Finance Committee, we always make them aware of items that would enhance educational programs or improve student learning. This year (for FY 22) we presented a number of positions that would assist in helping fill some of the gaps created during COVID-19. We also twice annually present our Capital Plan to the Town's Capital Planning Committee. In addition to the feasibility study for this project, it includes a number of items that would impact school facilities including roof replacement and HVAC replacement.

General Description

BRIEF BUILDING HISTORY: Please provide a detailed description of when the original building was built, and the date(s) and project scopes(s) of any additions and renovations (maximum of 5000 characters).

The Millis Middle High school building was originally built in 1960 as a Jr Sr High School for grades 7 through 12. In 1966 there was a 24 classroom addition and an increase in the size of the cafeteria and locker rooms to accommodate a great increase of the student population. The building is a two story brick and mortar structure of 125,000 square feet. In 1999 the building was renovated. No additions were constructed. In 1986 Grade 6 was added at the Middle School and in 2000 Grade 5 was added to the Middle School to avoid overcrowding at the elementary school. In 2019, Grade 5 was moved back to the elementary school upon the completion of the new Clyde Brown Elementary School.

TOTAL BUILDING SQUARE FOOTAGE: Please provide the original building square footage PLUS the square footage of any additions.

125000

SITE DESCRIPTION: Please provide a detailed description of the current site and any known existing conditions that would impact a potential project at the site. Please note whether there are any other buildings, public or private, that share this current site with the school facility. What is the use(s) of this building(s)? (maximum of 5000 characters).

The single school building sits on a 21 acre site. The building shares the site with two small wood frame storage buildings, a small wood frame snack stand and a small wood frame press box structure. The site also currently houses two 40 X 40 tents and six storage containers, and has been forced to temporarily house the district's 77-84 passenger bus fleet. The site also has an aging and outdated natural turf football field and with a stone dust track that is not approved for competition. The site has a recently renovated but undersized baseball field and two parking lots. The site is fairly level except for a drop-off in grade where a small brook runs through the property. There is no ledge. Traffic accesses the site from Route 115 and exits onto Spring Street. At one end of Spring Street is Route 109 and at the other is Route 115. There is room to increase the size of the building without procuring land or impacting other land owners. Ball fields and parking areas may have to be relocated on site or changed in orientation.

ADDRESS OF FACILITY: Please type address, including number, street name and city/town, if available, or describe the location of the site. (Maximum of 300 characters)

Millis Middle High School, 245 Plain Street, Millis, MA 02054
The site is located just off routes 109 and 115, near the center of town. This building anchors a campus style setting with the elementary school next door, a town park, and the Town municipal offices.

BUILDING ENVELOPE: Please provide a detailed description of the building envelope, types of construction materials used, and any known problems or existing conditions (maximum of 5000 characters).

The exterior of the building is red brick faced over concrete masonry units. Most of the building is on slab. The roof is EPDM over fiberglass insulation board. The windows are Kynar frames with double pane glass windows. Water penetrates the roof and certain areas of the brick and window system during heavy rain weather or during snow melting after heavy storms. The reason for the roof penetration has been attributed to age of the roof; the brick and glass leakage has never been determined. The entire roof was evaluated and determined to be in need of replacement in 2020.

Has there been a Major Repair or Replacement of the EXTERIOR WALLS? NO
Year of Last Major Repair or Replacement:(YYYY) 1966
Description of Last Major Repair or Replacement:

Addition to primary construction in 1960.

Roof Section A
Is the District seeking replacement of the Roof Section? YES
Area of Section (square feet) 78545
Type of ROOF (e.g., PVC, EPDM, Shingle, Slate, Tar & Gravel, Other (please describe)
EPDM of GoodYear Rubber over new fiberglass insulation over the original building which was built in 1960.
Age of Section (number of years since the Roof was installed or replaced) 22
Description of repairs, if applicable, in the last three years. Include year of repair:
The newer roof replaced a ballasted membrane system that was in very bad shape. The system on the original building built in 1960 was completely demolished and replaced by a new fully adhered rubber membrane, and while the roof was exposed further insulation was added. The entire roof was not addressed as the roofing system over the 1966 addition had been replaced in 1991, which makes this portion of the roof 30 years.

Window Section A
Is the District seeking replacement of the Windows Section? NO
Windows in Section (count) 194
Type of WINDOWS (e.g., Single Pane, Double Pane, Other (please describe))
194 Window Panes, 135 windows that can open, all double pane insulated glass replaced in 1999
Age of Section (number of years since the Windows were installed or replaced) 22
Description of repairs, if applicable, in the last three years. Include year of repair:
Frames have been caulked and sealed in the last three years using funds from a Green Communities Grant.

MECHANICAL and ELECTRICAL SYSTEMS: Please provide a detailed description of the current mechanical and electrical systems and any known problems or existing conditions (maximum of 5000 characters).

The current electrical system is a 1,600 ampere, 3 phase four wire, wye 120/208-volt system. The main switch gear and many of its load centers are over 60 years old, with the manufacturer of the equipment (Federal) having been out of business for over 30 years. The service was considered at capacity in 2014, but given current brownouts and other issues that limit the ability of the District to upgrade other areas requiring electrical service, in truth the building has exceeded the 1,600 ampere capacity. Some electrical sub panels were added in 1999, however all the original sub distribution panels are still in place and functioning. Branch circuit wiring was for the most part updated and replaced.
The HVAC System is based primarily on a 21 year old unit ventilator system in classrooms, while office settings and large group areas using a more conventional radiation system or roof-top air handlers.. This leads to an inability to use advanced air filtration in the entire building, forcing the district to supplement the system with 84 portable air purification units. The building is also susceptible to extreme temperatures, particularly heat, in the fall and spring. The current energy management system is not functioning and that system is being manually adjusted daily. Cooling is provided by split systems to administrative areas and computer labs. There are several window electric units for spaces such as the nurse's office and Student Services. Fresh air is introduced to the building through roof mounted make up air units and ducted to common, assembly, and selected areas such as locker rooms.

Boiler Section 1
Is the District seeking replacement of the Boiler? YES
Is there more than one boiler room in the School? YES
What percentage of the School is heated by the Boiler? 100
Type of heating fuel (e.g., Heating Oil, Natural Gas, Propane, Other)
Natural Gas with a #2 Heating Oil back-up. The original concept was to be able to switch fuels based upon the price at the time.
Age of Boiler (number of years since the Boiler was installed or replaced) 22
Description of repairs, if applicable, in the last three years. Include year of repair:
There have been repairs to gaskets and seals over the past two years.

Has there been a Major Repair or Replacement of the HVAC SYSTEM? YES
Year of Last Major Repair or Replacement:(YYYY) 1999
Description of Last Major Repair or Replacement:
The entire HVAC System with the exception of the air handlers for the Gymnasium and Auditorium were replaced. Some forced hot water piping was reused after inspection and found to be in acceptable shape.

Has there been a Major Repair or Replacement of the ELECTRICAL SERVICES AND DISTRIBUTION SYSTEM? NO
Year of Last Major Repair or Replacement:(YYYY) 1960
Description of Last Major Repair or Replacement:
The current electrical system is a 1,600 ampere 3 phase, four wire, wye, 120/208 volt system. The main switch gear and many of the load centers throughout the building are over 60 years old and from a manufacturer who has been out of business for more than 30 years (Federal). The service was considered at capacity in 2014, but given current brown outs and other issues that limit the ability of the District to upgrade other areas requiring electrical service, in truth the building has exceeded the 1,600 ampere capacity. Some electrical subpanels were added in 1999, however all of the original sub distribution panels are still in place and in use. Branch circuit wiring for the most part was updated and replaced in 1999.

BUILDING INTERIOR: Please provide a detailed description of the current building interior including a description of the flooring systems, finishes, ceilings, lighting, etc. (maximum of 5000 characters).

Most of the building has resilient floors in the hallways and classrooms. Significant floor cracks can be seen every six to 20 feet while walking through the school. Locker rooms, bathrooms, and weight rooms have either ceramic tile or concrete floors. Administrative areas and the library have carpet floors, the latter having recently been replaced. The auditorium is a mix of carpeting in the seating area with a hardwood flooring stage. The gymnasium is also a natural hardwood flooring. For the most part interior walls are 5/8” fire resistant wallboard with a finish coat of plaster. In other areas such as the gym, locker rooms, bathrooms, and main corridors the walls are made of concrete masonry units. In Kitchen, bathrooms, and locker rooms the ceilings are wallboard and plaster. In all other areas the ceilings are a suspended ceiling style in a grid layout with flame resistant treated composition lay in tiles. All walls are painted except with the exception of glazed tile bricks in hallways and wall tile installed in select other areas. Lighting for the most part is of T-8 LED tubes in lay in troughers. There are many 6-inch round recessed light fixtures in key areas, also recently converted to LED bulbs . Gymnasium lighting has also been replaced in the last year with LED fixtures. All interior doors are made of wood and have a plain sliced finish. Doors providing egress to assembly areas have the appropriate NFPA fire rating and are affixed with door closers. The finish colors are low key and soft and were selected by the staff at the time of the renovation.

PROGRAMS and OPERATIONS: Please provide a detailed description of the current grade structure and programs offered and indicate whether there are program components that cannot be offered due to facility constraints, operational constraints, etc. (maximum of 5000 characters).

Millis Middle and High Schools share a building and have a combined total of 607 students. 'l'he Middle School (275 students in grades 6-8) occupies most of the second floor of the building. The high school (332 students in grades 9-12) occupies the first floor and four classrooms on the second floor. Both schools share the cafeteria, auditorium, library, gymnasium, locker rooms, 'I'V production studio, music rooms, bus loading area, and athletic fields. The high school also uses a computer lab on the second floor during the morning hours and the middle school uses the lab in the afternoon hours (the computer science teacher is shared between schools). Currently there are two teachers in the high school and one teacher in the middle school who must travel to multiple classrooms during the school day as there is no room for them. Obviously, this impacts those teachers who are moving rooms, but also the teachers in the classrooms that host these teachers. Student learning time is lost as traveling teachers need additional time to set up and provision classes. Our school resource officer and special education team chair have cramped offices that were once storage rooms and our middle school adjustment counselor is in a windowless area that used to house the school’s copier. Although the movement of grade 5 students to the new Clyde Brown School in 2019-2020 has opened up more space, the middle-high school building is still overcrowded, impacting programming, scheduling, and safety.

Millis Middle School and High School offer high quality college preparatory and career readiness programs, but lack of space significantly impacts our ability to continue to deliver classes, programs, and experiences for crucial twenty-first century learning.

Over the last several years Millis Public Schools has endeavored to bring more engineering and STEAM related curriculum to our students. At the middle and high schools, this curriculum must be delivered in traditional classroom spaces which do not necessarily have the equipment nor room design to effectively and efficiently implement the curriculum. There are no dedicated STEAM rooms, engineering labs, or maker-spaces where projects and materials can be accessed and stored. For example, in the high school engineering class that is conducted in a mathematics classroom, students waste valuable learning time each class period gathering their materials at the beginning of class and then collecting them at the end to store them in the back of the classroom. Classes involving designing and prototyping must move into the hallways to have adequate space to conduct tests and demonstrations. A number of STEAM electives cannot be offered in our building and students desiring these types of courses must take them online, using their own homes as their labs.

Millis Public Schools has a unique and outstanding Spanish Immersion program in grades 1-12. These as well as all of our Spanish classes are also taught in traditional classrooms. There are no language labs or dedicated spaces for students to practice speaking and listening. This makes conducting the Advanced Placement Spanish Language Exam particularly challenging (students actually use walkmen for the speaking and listening section of the test).

Lack of space in our middle-high school building has limited our ability for
project and inquiry-based learning. We do not have a multi-purpose room or other space that could serve as a project room, multiple class meeting room, or demonstration area. The building currently lacks up to date Science labs. The TV Production studio is a converted maintenance area, and the music and art rooms are inadequate to support the programming we would like to offer. There is one gymnasium with overcrowded locker room facilities. Due to overcrowding, there are times in the afternoon where two middle school classes and one high school class have to share the gym. Physical education electives are limited by the lack of space. The library must accommodate students of all grades (6-12). Some middle school unified arts classes as well as EL classes must be held in the library. In order to offer a wider range of electives for our students, we would love to add some type of shop elective (wood, metal, or auto, etc.), but in our current building that is impossible.

The building size also creates scheduling challenges. There are numerous periods during the day when all classrooms are in use and no other classes can be scheduled. As a result, classes have been scheduled in inadequate spaces such as the auditorium and the art room.

With student population in the middle and high school projected to increase over the next ten years, and to ensure the current population of Millis Middle and High School students receive a rigorous and high quality level of programs and services, it is crucial that inadequacies in the middle-high school building are addressed.

EDUCATIONAL SPACES: Please provide a detailed description of the Educational Spaces within the facility, a description of the number and sizes (in square feet) of classrooms, a description of science rooms/labs including ages and most recent updates, a description of the cafeteria, gym and/or auditorium and a description of the media center/library (maximum of 5000 characters).

Core educational spaces are 32 general classrooms, 5 science labs, 2 computer labs, 1 band room, 1 music room, 1 TV Studio, 2 Art Rooms, and 1 life skills room. 11 Middle School classrooms are 784 square feet and 8 classrooms are 992 square feet. 2 High School Classrooms are 810 square feet, and 11 are 784 square feet. The Middle School Science Lab is 1,148 square feet and the High School science labs are 1,320 square feet. Both computer labs are 784 square feet. The Life Skills room is 1,288 square feet. The High School Art Room is 1,200 square feet and the Middle School art room is 1,288 square feet. Band is a shared room at 1,824 square feet. Chorus is also a shared space at 1,824 square feet. The TV Studio is 774 square feet. The Gymnasium is 6,528 square feet, the Auditorium is 4,376 square feet, and the Cafeteria is 7,744 square feet. The library is 4,800 square feet including a work room and office. It includes an area with a white

Board and ceiling-mounted projector for use in presentations. The general classrooms have resilient floors, wallboard/plaster walls and suspended ceilings. Other common spaces have flooring, walls, and ceilings appropriate to their use as described previously. There are four general purpose electrical outlets. Each general classroom has two white boards for teacher instruction and two bulletin boards to post work upon. Each classroom has a ceiling-mounted projector for instructional used with the teacher's laptop computer. There is a coax cable to each room from a main distribution room. Additionally, the entire building had its hard-wire network rewired with fiber optic cable. Science labs have sink positions with natural gas cocks and electrical outlets at each station. The Chemistry Room has a vent hood specific to experiments. High School Labs have a teacher prep area with storage for materials and chemicals. Band room does not have risers, only open areas for instruction and live playing of instruments. Chorus room has open area and risers for music instruction. Both rooms have two storage areas, but one storage area in each room has been repurposed as a private practice area.. All specialty classrooms have the same general purpose electrical and coax outlets as well as projectors that can be used for class instruction. The building has wireless internet access throughout the building. The ages of the classrooms are 55 to 61 years old. The common areas (Library, Gymnasium, Auditorium, and Cafeteria) are shared by the Middle School and High School as well as the community.

CAPACITY and UTILIZATION: Please provide the original design capacity and a detailed description of the current capacity and utilization of the school facility. If the school is overcrowded, please describe steps taken by the administration to address capacity issues. Please also describe in detail any spaces that have been converted from their intended use to be used as classroom space (maximum of 5000 characters).

The building was built to house grades six through 12. The fifth grade, moved into the middle-high school many years ago, was moved out in the fall of 2019 with the opening of the New Clyde Brown School. The current population of 607 students is comprised as follows: 104 Grade Six, 77 Grade Seven, 94 Grade Eight, 93 Grade Nine, 73 Grade 10, 73 Grade 11 and 93 Grade 12. Additionally, there are seven students in an 18-22 year old Transition Program, required by federal law, that the district rents space for off-site. Three non-instructional spaces have been converted to special educational instructional spaces in this building. Two teachers (Math and Spanish) teach from carts in the high school as they have no instructional space. One teacher (Spanish Immersion) teaches from a cart in the Middle School. One storage space has been converted into an administrative office. The current square footage of the building is 125,000 square feet. The Middle High School is 10 to 15% undersized. An additional five to 10 classrooms are needed to accommodate existing and desired educational programming and to accommodate future student populations. Core facilities such as the cafeteria and gymnasium also need expansion to accommodate the current and future student population. Lunch times have been added to accommodate the current student population and more will be needed as the population increases. 188 student lockers were added well over a decade ago, and a plan to replace and expand lockers over a five-year period has been stalled in recent years due to a lack of funds and the pandemic. Common areas such as the Auditorium, the Gymnasium, and the Library are shared by the Middle and High School. Specialty areas such as music, chorus, and TV production are also shared by both schools which leads to difficult scheduling schemes and does not achieve optimal instructional time as a result.

MAINTENANCE and CAPITAL REPAIR: Please provide a detailed description of the district's current maintenance practices, its capital repair program, and the maintenance program in place at the facility that is the subject of this SOI. Please include specific examples of capital repair projects undertaken in the past, including any override or debt exclusion votes that were necessary (maximum of 5000 characters).

Maintenance of buildings and grounds are through Operations using a centralized program. The custodians in this building are responsible for a certain assigned area. In addition to cleaning and disinfecting they are responsible for minor maintenance. If there are maintenance issues that are beyond the capabilities of the custodians, they are to report the issue to their supervisor. This will generate a work order for the maintenance person. All faculty and non-instructional staff have access to e-mail and can generate a request for maintenance through simple e-mails. All requests are considered and converted into a work order for the maintenance person. All responses and repairs are recorded and the documentation is stored for ten years. Maintenance issues that require specific trades or technical training or are too large in scope to be handled by school staff are outsourced to the proper vendors. Issues that cannot be addressed through the operating budget that are not emergencies are put on a deferred list and if appropriate, added to the District's Capital Plan. These

items are assessed and are placed on a long term list for consideration of available funds. All maintenance expenses are tracked either through the budget line item process or the Town Meeting Warrant process, depending upon the source of the funding. There is data that goes back to 2002 in a previously used accounting software package used by the school called RDA; in FY 21 however the school district converted to MUNIS and the Town and School developed a new Chart of Accounts. This data tracks the upkeep of the building and the funds spend in this effort. The District has a Capital Plan, updated twice annually, forecasting out ten years of items that need to be replaced or procured. Expenditures that are $5,000 or more and have a useful life of more than one year are placed before town committees for consideration. Lighting upgrades and other energy conservation measures have been accomplished through grants and power company programs. Computer wiring has been upgraded in recent years through e-rate funding, and wireless networks have also been added in recent years. Security has been enhanced with a card access system and a multi-camera DVR system. A number of major maintenance items have been achieved in recent years through Town warrant articles. The last debt exclusion override was for a renovation of the plant in 1999.

Priority 2

Question 1: Please describe the existing conditions that constitute severe overcrowding.

Millis Middle High School, now that it no longer houses the fifth grade, is at the lowest population it can expect to see in the next ten years. Currently, even with this low population, two teachers are teaching from carts in the high school and one teacher is teaching from a cart in the middle school, three non-instructional spaces are being used as classrooms, and there is no space currently for STEAM labs, Unified Arts, or Engineering courses, all in demand from our students.

The Millis High and Middle School share common facilities such as auditorium, cafeteria, library, gymnasium, music, video production, and athletic fields. Due to the **current** student population we have added lunch periods and rented tents for use for outdoor eating as weather permits. We cannot accommodate all of the physical education classes during inclement weather as multiple classes from both schools end up being scheduled in the same, single gymnasium. Scheduling electives is limited by the space available in these rooms.

A Space Needs Study conducted by Tetra Tech Architects and Engineers found that the Millis Middle/High School needs five general classrooms and additional space for small group and special education instruction. Since that study, the need for STEAM labs at the Middle School and High School level to continue what begins at the Clyde Brown Elementary School has become programmatically important, as has the addition of additional "hands on" spaces for engineering and other types of educational instruction. A second gymnasium is needed as well as an expansion of the cafeteria.

Three high school classes must use rooms on the Middle School level, and another two classes (health and computer technology) are shared between the Middle and High School but also taught on the Middle School level. Due to the differing schedules, this means that high school students are often interacting with middle school students. The mixing of age groups is not ideal and parents are not happy with younger students being exposed to older students' behaviors.

The past installation of an additional 188 lockers has impacted hallway space. The projected additional enrollment, which may result in additional locker needs, may further impact this space.

While moving the fifth grade to the new elementary school was a logical and timely move, it will not solve the long-term needs of the Millis Middle High School.

Priority 2

Question 2: Please describe the measures the School District has taken to mitigate the problem(s) described above.

The School District, through its Middle High School Administrative Team, has engaged in creative scheduling to maximize the number of courses, and especially electives, provided to students. Partitions have been used to create office space and partitioned areas have been converted to small group special education purposes. Picnic tables have been purchased and tents rented to allow students to eat outside during warm weather to reduce overcrowding in the cafeteria. A screen divider was purchased and installed to divide the gymnasium into two smaller spaces so that more classes can share the gym space at the same time since both the Middle School and High School Physical Education classes are in session concurrently. An Outdoor Pursuits class was developed so that Physical Education can occur outdoors in the winter as well. Among other accomplishments, this class designed and built ice skating rinks on town park tennis courts for use by students in Physical Education and also by the community.

Art rooms are used as classrooms as well, with materials set to the side when in use by core academic teachers. A mini computer lab has been set up in the library for use by students who are taking on-line courses. On-line electives are necessary for many students due to the lack of space to offer electives in-house.

Over the past ten years we have had to take two classrooms back from use by Collaborative programs (ACCEPT and TEC collaboratives) that were using a classroom for Special Education programming that was benefiting Millis students. These students now must be transported out of district to collaborative programs housed in other districts, increasing the cost to the Millis Public Schools.

The Millis Middle High School is severely undersized for our current and future student population.

Priority 2

Question 3: Please provide a detailed explanation of the impact of the problem described in this priority on your district's educational program. Please include specific examples of how the problem prevents the district from delivering the educational program it is required to deliver and how students and/or teachers are directly affected by the problem identified.

The District wishes to provide students with a full complement of educational programming, but cannot due to space constraints. Science labs are outdated with little storage for materials. There are no "project" rooms, interdisciplinary or hands-on learning and team projects. There are no STEAM labs or rooms for engineering courses. In fact, hallways are often the only available space for video filming, physics simulations, or small group tutoring sessions. Robotics and engineering projects are limited by space constraints. The Auditorium is the only performance space in the Town of Millis and is overbooked for after school uses. Demand for computer labs is high and each school only has one. This makes it impossible for teachers to bring classes to labs for projects as the labs are booked for classes every period. Computer labs are used for such things as teaching graphic arts in the high school and robotics in the middle school. Chromebooks are simply not powerful enough for these sophisticated needs.

Students in the high school are not able to take a full selection of electives except via on-line offerings, due to the lack of space. There is no space for small group and special education instruction or tutoring. This makes it extremely difficult to provide services for students identified with disabilities. The nurses office, which serves both the Middle and High School students, is at times overflowing with students seeking assistance. Due to COVID-19, the District was forced to create an isolation room within this office, creating further constraints on the space available to serve students.

The teachers who must travel from classroom to classroom must bring all instructional materials on carts and have no place to plan lessons other than sitting in another teacher's classroom while that teacher is teaching.

Space shortage also creates problems for IEP meetings which are sometimes held in the faculty dining room with the cooking staff preparing meals just steps away.

Please also provide the following:

Cafeteria Seating Capacity: 224

Number of lunch seatings per day: 4

Are modular units currently present on-site and being used for classroom space?: NO

If "YES", indicate the number of years that the modular units have been in use:

Number of Modular Units:

Classroom count in Modular Units:

Seating Capacity of Modular classrooms:

What was the original anticipated useful life in years of the modular units when they were installed?:

Have non-traditional classroom spaces been converted to be used for classroom space?: YES

If "YES", indicate the number of non-traditional classroom spaces in use: 5

Please provide a description of each non-traditional classroom space, its originally-intended use and how it is currently used (maximum of 1000 characters).:

Art Rooms are being used for core academic classes. Library space has been converted into a mini-computer lab. English Language Learner services are held in a back room of the library or occasionally in the library itself. A meeting room, faculty room, and office space and parts of hallways are being used for both regular and special education. An area used by maintenance has been converted to the TV production studio. A storage area in the building is now used for educational purposes.

Please explain any recent changes to the district's educational program, school assignment polices, grade configurations, class size policy, school closures, changes in administrative space, or any other changes that impact the district's enrollment capacity (maximum of 5000 characters).:

With the opening of the new Clyde Brown Elementary School in the fall of 2019, we were able to move the fifth grade out of the middle-high school building to the new facility. This has created more room in our middle-high school building, but has not totally alleviated the overcrowding issues in the building. The five classrooms vacated by the fifth grade were divided between middle and high school usage. The high school took control of three classrooms on the second floor while the middle school repurposed two classrooms. The high school was able to provide classrooms to two traveling teachers. The high school also repurposed one high school classroom to expand our special education spaces when we created a Bridge Program to support students with physical and mental health issues. Two high school teachers remain on carts traveling from room to room. The middle school was able to provide rooms to two teachers who were formerly traveling teachers but still have one teacher on a cart.

Millis has seen a significant growth in our EL population over the last five years (0.4% in 2016 to 2.2% in 2021). Currently small groups of EL students receive services in a small office in the library and larger groups must meet in the library itself while other students access the library for research, online course work, and independent study. As the EL population in Millis continues to grow, more permanent and appropriate learning spaces will need to be identified.

The school nurse's office was expanded to meet student health needs. This resulted in a middle school adjustment counselor's office moving to a space on the second floor that was formerly used by the School Resource Officer. The SRO's office was then moved to a former storage closet that had been cleaned out. We currently have a Special Education Team Leader and the SRO in windowless spaces that were formerly used for storage.

The middle-high school building has a severe lack of storage space and currently has six 50-foot storage containers located on campus to store furniture, equipment, and supplies that cannot be stored in the building. Some central office files are located in an outdoor locked garage area.

What are the district's current class size policies (maximum of 500 characters)?:

The District strives for class sizes of 15 but will tolerate lass sizes of up to 30 with certain exceptions. No Science class is expected to exceed 25 students, and Advance Placement Classes may have as few as five students.

Priority 4

Question 1: Please describe the conditions within the community and School District that are expected to result in increased enrollment.

Millis High School has 36% more students than it had in 1991 (332 vs 244); Millis Middle School has also grown during that 20-year time by 7.4% (275 vs 256). Perhaps what is most important however, is that according to NESDEC, the 20-21 school year was the bottom of the valley for the Millis Public Schools. While both the Middle and High School populations remain relatively stable over the next five to seven years, they then start to grow, initially at the Middle School Level and then at the High School Level.

Millis High School and Millis Middle School share common facilities such as auditorium, cafeteria, library, gymnasium, music, video production, and athletic fields. Due to the overcrowding that currently exists we have had to add extra lunch periods and students eat outside at picnic tables when weather permits. We cannot accommodate all of the Physical Education classes during inclement weather and the scheduling of electives is limited by the space available in those rooms. At least three teachers do not have their own classrooms and must travel between classrooms with carts which impacts their effectiveness and the materials they are able to use.

A Space Needs Study completed by Tetra Tech Architects and Engineers found that that the Middle/High School needs five general classrooms and additional space for small group and special education instruction. This study did not anticipate nor include the need for Middle School and High School STEAM classrooms, a space to teach engineering specifically, and at least one “project-based” room in each school for hands on and interdisciplinary instruction. Office space is also in very short supply. Storage space is non-existent as it has all been converted to office or instructional space. A second gymnasium is needed as well as an expansion of the cafeteria.

Three high school classes must use Middle School classrooms upstairs in the building due to a lack of space downstairs in the High School. The mixing of the two age groups is not ideal and parents are not happy with younger students being exposed to older students’ behaviors.

The additional 188 lockers installed some time ago impact hallway space.

While the fifth grade has been moved to the new Clyde Brown Elementary School, it has only reduced a problem, it has not eliminated it.

Priority 4

Question 2: 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.

The School District, through its Middle High School Administrative Team, has engaged in creative scheduling to maximize the number of courses, and especially electives, provided to students. Partitions have been used to create office space and partitioned areas have been converted to small group special education purposes. Picnic tables have been purchased and tents rented to allow students to eat outside during warm weather to reduce overcrowding in the cafeteria. A screen divider was purchased and installed to divide the gymnasium into two smaller spaces so that more classes can share the gym space at the same time since both the Middle School and High School Physical Education classes are in session concurrently. An Outdoor Pursuits class was developed so that Physical Education can occur outdoors in the winter as well. Among other accomplishments, this class designed and built ice skating rinks on town park tennis courts for use by students in Physical Education and also by the community.

Art rooms are used as classrooms as well, with materials set to the side when in use by core academic teachers. A mini computer lab has been set up in the library for use by students who are taking on-line courses. English Language Learner services are held in a back room of the library or occasionally in the library itself. On-line electives are necessary for many students due to the lack of space to offer electives in-house.

Over the past ten years we have had to take two classrooms back from use by Collaborative programs (ACCEPT and TEC collaboratives) that were using a classroom for Special Education programming that was benefiting Millis students. These students now must be transported out of district to collaborative programs housed in other districts, increasing the cost to the Millis Public Schools.

The Millis Middle High School is severely undersized for our current and future student population.

Priority 4

Question 3: Please provide a detailed explanation of the impact of the problem described in this priority on your district's educational program. Please include specific examples of how the problem prevents the district from delivering the educational program it is required to deliver and how students and/or teachers are directly affected by the problem identified.

The District wishes to provide students with a full complement of educational programming, but cannot due to space constraints. Science labs are outdated with little storage for materials. There are no "project" rooms interdisciplinary or hands-on learning and team projects. There are no STEAM labs or rooms for engineering courses. In fact, hallways are often the only available space for video filming, physics simulations, or small group tutoring sessions. Robotics and engineering projects are limited by space constraints. The Auditorium is the only performance space in the Town of Millis and is overbooked for after school uses.

Students in the high school are not able to take a full selection of electives except via on-line offerings, due to the lack of space. There is no space for small group and special education instruction or tutoring. This makes it extremely difficult to provide services for students identified with disabilities. The nurses office, which serves both the Middle and High School students, is at times overflowing with students seeking assistance. Due to COVID-19, the District was forced to create an isolation room within this office, creating further constraints on the space available to serve students.

The teachers who must travel from classroom to classroom must bring all instructional materials on carts and have no place to plan lessons other than sitting in another teacher's classroom while that teacher is teaching.

Space shortage also creates problems for IEP meetings which are sometimes held in the faculty dining room with the cooking staff preparing meals just steps away.

Please also provide the following:

Cafeteria Seating Capacity: 224

Number of lunch seatings per day: 4

Are modular units currently present on-site and being used for classroom space?: NO

If "YES", indicate the number of years that the modular units have been in use:

Number of Modular Units:

Classroom count in Modular Units:

Seating Capacity of Modular classrooms:

What was the original anticipated useful life in years of the modular units when they were installed?:

Have non-traditional classroom spaces been converted to be used for classroom space?: YES

If "YES", indicate the number of non-traditional classroom spaces in use: 5

Please provide a description of each non-traditional classroom space, its originally-intended use and how it is currently used (maximum of 1000 characters).:

Art Rooms are being used for core academic classes. Library space has been converted into a mini-computer lab. English Language Learner services are held in a back room of the library or occasionally in the library itself. A meeting room, faculty room, and office space and parts of hallways are being used for both regular and special education. An area used by maintenance has been converted to the TV production studio. A storage area in the building is now used for educational purposes.

Please explain any recent changes to the district's educational program, school assignment polices, grade configurations, class size policy, school closures, changes in administrative space, or any other changes that impact the district's enrollment capacity (maximum of 5000 characters). :

Millis Middle and High Schools share a building and have a combined total of 607 students. 'l'he Middle School (275 students in grades 6-8) occupies most of the second floor of the building. The high school (332 students in grades 9-12) occupies the first floor and four classrooms on the second floor. Both schools share the cafeteria, auditorium, library, gymnasium, locker rooms, 'I'V production studio, music rooms, bus loading area, and athletic fields. The high school also uses a computer lab on the second floor during the morning hours and the middle school uses the lab in the afternoon hours (the computer science teacher is shared between schools). Currently there are two teachers in the high school and one teacher in the middle school who must travel to multiple classrooms during the school day as there is no room for them. Obviously, this impacts those teachers who are moving rooms, but also the teachers in the classrooms that host these teachers. Student learning time is lost as traveling teachers need additional time to set up and provision classes. Our school resource officer and special education team chair have cramped offices that were once storage rooms and our middle school adjustment counselor is in a windowless area that used to house the school's copier. Although the movement of grade 5 students to the new Clyde Brown School in 2019-2020 has opened up more space, the middle-high school building is still overcrowded, impacting programming, scheduling, and safety.

Millis Middle School and High School offer high quality college preparatory and career readiness programs, but lack of space significantly impacts our ability to continue to deliver classes, programs, and experiences for crucial twenty-first century learning.

Over the last several years Millis Public Schools has endeavored to bring more engineering and STEAM related curriculum to our students. At the middle and high schools, this curriculum must be delivered in traditional classroom spaces which do not necessarily have the equipment nor room design to effectively and efficiently implement the curriculum. There are no dedicated STEAM rooms, engineering labs, or maker-spaces where projects and materials can be accessed and stored. For example, in the high school engineering class that is conducted in a mathematics classroom, students waste valuable learning time each class period gathering their materials at the beginning of class and then collecting them at the end to store them in the back of the classroom. Classes involving designing and prototyping must move into the hallways to have adequate space to conduct tests and demonstrations. A number of STEAM electives cannot be offered in our building and students desiring these types of courses must take them online, using their own homes as their labs.

Millis Public Schools has a unique and outstanding Spanish Immersion program in grades 1-12. These as well as all of our Spanish classes are also taught in traditional classrooms. There are no language labs or dedicated spaces for students to practice speaking and listening. This makes conducting the Advanced Placement Spanish Language Exam particularly challenging (students actually use walkmen for the speaking and listening section of the test).

Lack of space in our middle-high school building has limited our ability for
project and inquiry-based learning. We do not have a multi-purpose room or other space that could serve as a project room, multiple class meeting room, or demonstration area. The building currently lacks up to date Science labs. The TV Production studio is a converted maintenance area, and the music and art rooms are inadequate to support the programming we would like to offer. There is one gymnasium with overcrowded locker room facilities. Due to overcrowding, there are times in the afternoon where two middle school classes and one high school class have to share the gym. Physical education electives are limited by the lack of space. The library must accommodate students of all grades (6-12). Some middle school unified arts classes as well as EL classes must be held in the library. In order to offer a wider range of electives for our students, we would love to add some type of shop elective (wood, metal, or auto, etc.), but in our current building that is impossible.

The building size also creates scheduling challenges. There are numerous periods during the day when all classrooms are in use and no other classes can be scheduled. As a result, classes have been scheduled in inadequate spaces such as the auditorium and the art room.

With student population in the middle and high school projected to increase over the next ten years, and to ensure the current population of Millis Middle and High School students receive a rigorous and high quality level of programs and

services, it is crucial that inadequacies in the middle-high school building are addressed.

What are the district's current class size policies (maximum of 500 characters)?:

The District strives for class sizes of 15 but has class sizes of up to 30. Science classes are not expected to exceed 25, and Advance Placement Classes may have as few as five students.

Priority 5

Question 1: Please provide a detailed description of the issues surrounding the school facility systems (e.g., roof, windows, boilers, HVAC system, and/or electrical service and distribution system) that you are indicating require repair or replacement. Please describe all deficiencies to all systems in sufficient detail to explain the problem.

While parts of the Millis Middle High School were renovated in 1999, 22 years ago, the core structure is over 60 years old. Part of the basic infrastructure that remains unchanged by and large is the main electrical service and is subsections. These original Federal Pacific parts have not been available for over 30 years, and to replace the switch alone would require the entire building to close for several weeks. Further, the 1,600 ampere service is too small to allow for other much needed health and safety improvements, let alone to service the needs of a 21st century school.

The COVID-19 pandemic pointed out to the District that while the 1999 replacement of the Unit Ventilator based HVAC system was better than many schools experienced, it was far shy of what was desirable to maintain a healthy air quality in the school building. We were forced to supplement the existing system by using manual overrides and 84 individual air purifiers. We kept and keep windows open even during the coldest weather.

The current HVAC system was not designed to mitigate excessive heat, particularly on the Middle School level. With new advice to not use large circulating fans, children will be placed under greater heat stress and/or the school will be forced to close for extreme temperature days more often.

While the current fire alarm system works and continues to meet standards, any replacement of the HVAC system would require a new alarm system which the electrical system cannot support.

The current membrane roof system is in year 22 of a 20 year life span. Major leaks have been occurring for a number of years, and TetraTech Architects and Engineers first recommended replacement in 2014. CBI Consulting did an independent evaluation in 2020 and came to the same conclusion; patching the roof was no longer an option, and the entire roofing system must be replaced.

Priority 5

Question 2: Please describe the measures the district has already taken to mitigate the problem/issues described in Question 1 above.

For electrical usage, we work very hard to eliminate extraneous electrical devices – personal appliances and the like. We have moved away from individual classroom printers to a more energy efficient secure-centralized printing model for most users. We encourage staff to take actions like recharging devices during off-peak hours. Generally, we look for any way possible to manage the buildings electrical load on an ongoing basis.

As stated above, in regards to HVAC we added independent air purifiers in every occupied space. Certain rooms have independent air conditioners (which does add stress to the electrical load). We manually have adjusted all unit ventilators so that even when not being used for heating they can assist with increasing the number of "turns" of air in a room. We have manually adjusted our roof top exhausts to help move air out of the building. We have opened windows.

For the roof, we station trash buckets in areas where we anticipate major leaks at this point or where new leaks are discovered. When a storm subsides, we call in our roofing vendor to try and discover the offending area on top of the roof and repair it. Our staff is very diligent to clean and disinfect after storms to prevent the development of mold.

Priority 5

Question 3: Please provide a detailed explanation of the impact of the problem/issues described in Question 1 above on your district's educational program. Please include specific examples of how the problem prevents the district from delivering the educational program it is required to deliver and how students and/or teachers are directly affected by the problem identified.

The electrical situation represents at best a possible unanticipated shutdown during which it is probable that no school, even remote education, could occur for weeks. At worst of course, the electrical system could fail in such a way as to cause a fire and the damage could be extended to other aspects of the building, again with the same educational result for over 500 students.

THE HVAC is not an imminent health threat, but CBI Consultants recommended that the entire system be replaced with a more state of the art installation that could take advantage of advanced filtering, circulation, and controls. While such a system would not "air condition" it would treat and circulate outside air in such a way that the inside temperature would remain more stable throughout the year, and the building in its entirety would remain in a highly filtered "bubble" with maximum air turnover rates. This would create a much safer and more stable teaching and learning environment for students and staff.

To say it is a distraction to students and teachers to have water coming down in a classroom should be an understatement. Moreover, leaks can damage electronic equipment, potentially create mold, and generate a host of other problems.

Priority 5

Question 4: Please describe how addressing the school facility systems you identified in Question 1 above will extend the useful life of the facility that is the subject of this SOI and how it will improve your district's educational program.

Addressing the electrical system will allow for two major issues to be addressed that will impact the educational program; the ability to use existing and expanded technology on a consistent and confident basis and to replace the HVAC system, improving the HVAC system from both a safety and an environmental comfort standard. A modern service of increased size will support the increased demands for technology in the building and will support an updated HVAC system and related needs such as an updated alarm system.

Modernizing the HVAC system likewise has multiple impacts. It creates an environmental "bubble" that children can learn in knowing the air is exchanged on a regular basis with the knowledge these exchanges are also highly filtered. Moreover, the temperature in the building, while not air conditioned, is still conditioned in such a way that the extremes of heat and cold are mitigated, and the likelihood of having to have a "temperature day" will no longer exist, insuring students spend more time in school with their teachers in a climate conducive to teaching and learning.

Leaking roofs are at a minimum a distraction to concentration and at a maximum a potential mold problem. Fixing the roofs would eliminate both these concerns, again improving the educational environment.

Please also provide the following:

Have the systems identified above been examined by an engineer or other trained building professional?:
YES

If "YES", please provide the name of the individual and his/her professional affiliation (maximum of 250 characters):

Tetra Tech Architects in 2014 and CBI consulting in 2020. BWI Eng. and Fuss & O'Neil Env. were part of the CBI Team in 2020. Garrett Hamlin, AIA, NCARB was the lead on the Tetra Tech Study. Arno Skaiski, Director of Building Technology for CBI.

The date of the inspection: 7/31/2020

A summary of the findings (maximum of 5000 characters):

CBI and its consultants performed visual review of the exterior roofing conditions and interior review of the roof structure and mechanical equipment, as well as review of the existing building materials that may be affected by any roofing or mechanical equipment replacement. With the assistance of Gibson Roofing of Hanover, MA, roofing test cuts (97 total) were taken in all single membrane roof areas.

Roofing

There are ten (10) roof areas ranging from approximately 10 feet to 25 feet in height that are all covered with a fully adhered unreinforced EPDM single-ply membrane roofing system with rigid polyisocyanurate insulation of varying thickness. There is an entrance canopy leading to the main entrance of the school that is a hip roof canopy structure covered with pre-finished standing seam metal roofing. There is a maintenance shed that is covered fiberglass asphalt shingles.

The age of the EPDM membrane roof covering varies amongst the different roof areas. It appears that during the 1998 renovations, Roof Areas A, B, C, part of D, E, F and G were replaced. The EPDM membrane in these areas appeared to be newer than at Roof Areas A1, a portion of D, D1 and H, as the seaming technique of the membrane sheets were made with a butyl tape as opposed to glued seam technology. In addition, the roofing test cuts revealed

that an older gravel surface 5-ply built-up roofing system (BUR) was left in place at Roof Areas A1, D, D1 and H rather than be removed when the EPDM membrane Roofing System at the time was installed. Most of the test cuts were found to be damp and wet in these roof areas. Despite damp to wet conditions found in the roofing test cuts both where the BUR does and does not exist, overall, the lightweight gypsum concrete was found to be in fair condition. However, some deterioration of the material is expected in areas where the roof was not cut open.

It is CBI's understanding that there are roof leaks that appear on regular basis and on all roof areas. The leaks can be attributable to cuts, punctures, open lap seams in the field membrane sheets and flashings. There were repair patches that were evident throughout all roof areas.

In general, CBI observed the following, at each roof area:

• The existing brick masonry on large boiler chimney is exhibiting mortar deterioration, as it appears debonded, cracked and eroded.
• The roof deck general slopes 1/8" per foot, and greater at walls and roof sumps.
• The existing roofing insulation installed over the existing BUR roofing system, were found to damp to wet, and as, result there are areas of buckled and warped insulation
• The existing insulations thermal R-Values range between an R-11 and R-15, well below the current building code minimum R-value of R-30.
• There are open membrane lap seams and flashing seams, as noted previously and are failing where they are glued together with adhesive.
• The copper through wall flashings are weathered and in poor condition.
• All existing sealants at penetrations, flashings, windows, louvers, and existing at other dissimilar materials are deteriorated and beyond their serviceable useful life expectancy.
• The existing skylights aged and weathered have repaired with sealant, mastic and flashings tapes, in what appears to be attempts to stop leaks. The polycarbonate domes are etched and crazed.
• Plumbing vent stacks are rust corroded.
• The roof drains are rust corroded.

Structural Review

CBI's analysis was based on the current building code Building 780 CMR - Massachusetts State Building Code 9th Edition, which is based on modified versions of the 2015 International Building Code (IBC) and in consideration of the building code of the time the building(s) were constructed. To perform the analysis, we used estimated weights of the roofs and attached finishes. Our analysis showed the steel beams supporting the deck and roof decking are adequate for the current code loading, but have limited reserve capacity, if any. For areas where the structure was not visible, CBI has interpolated these conditions as similar construction, thus having similar limited reserve capacity. Building Materials Review

The investigation and testing of building materials revealed that asbestos containing materials were found in the existing built-up roofing, as well as in the cement used to seal ductwork. Lead based paints were also assumed. These hazardous materials will need to be removed as part of the roofing replacement project.

Mechanical and Electrical

The existing fire protection system is over 20 years old, but is fair condition and does not require replacement.

The existing mechanical systems are in excess of 20 years old and at the end of their useful life expectancy.

The existing electrical switch and most subunits are original from the 1960 building. The 1600 amp service would need to be replaced to accommodate replacing the existing HVAC systems.

Priority 7

Question 1: 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 Millis Middle High school building was originally built in 1960 as a Jr Sr High School for grades 7 through 12. In 1966 there was a 24 classroom addition and an increase in the size of the cafeteria and locker rooms to accommodate a great increase of the student population. The building is a two story brick and mortar structure of 125,000 square feet. In 1999 the building was renovated. No additions were constructed. In 1986 Grade 6 was added at the Middle School.

In 2014, TetraTech Architects estimated that the building needed to add five regular classrooms just to give every teacher a teaching space and to fully separate the middle and high school. This did not include STEAM labs in both schools to extend the program that begins at the Clyde Brown Elementary School, a room to teach engineering in, at least one “project based” learning room, and expanded gymnasium, auditorium, and cafeteria spaces. Then there are the existing labs that should be brought up to current standards and almost every existing classroom is below current building standards for new Middle and High Schools, suggesting the entire building footprint needs revisiting. Additional small group instruction spaces and special education instruction space is needed, and while office and storage space is rarely a priority in such projects, both have been exhausted in the current configuration.

Priority 7

Question 2: Please describe the measures the district has taken or is planning to take in the immediate future to mitigate the problem(s) described above.

The School District, through its Middle High School Administrative Team, has engaged in creative scheduling to maximize the number of courses, and especially electives, provided to students. Partitions have been used to create office space and partitioned areas have been converted to small group special education purposes. Picnic tables have been purchased and tents rented to allow students to eat outside during warm weather to reduce overcrowding in the cafeteria. A screen divider was purchased and installed to divide the gymnasium into two smaller spaces so that more classes can share the gym space at the same time since both the Middle School and High School Physical Education classes are in session concurrently. An Outdoor Pursuits class was developed so that Physical Education can occur outdoors in the winter as well. Among other accomplishments, this class designed and built ice skating rinks on town park tennis courts for use by students in Physical Education and also by the community.

Art rooms are used as classrooms as well, with materials set to the side when in use by core academic teachers. A mini computer lab has been set up in the library for use by students who are taking on-line courses. On-line electives are necessary for many students due to the lack of space to offer electives in-house.

Over the past ten years we have had to take two classrooms back from use by Collaborative programs (ACCEPT and TEC collaboratives) that were using a classroom for Special Education programming that was benefiting Millis students. These students now must be transported out of district to collaborative programs housed in other districts, increasing the cost to the Millis Public Schools.

All of the above however merely keeps the status quo. We have no room to expand electives and other offerings, and no facilities to meet our students growing 21st century needs.

Priority 7

Question 3: Please provide a detailed explanation of the impact of the problem described in this priority on your district's educational program. Please include specific examples of how the problem prevents the district from delivering the educational program it is required to deliver and how students and/or teachers are directly affected by the problem identified.

The District wishes to provide students with a full complement of educational programming, but cannot due to space constraints. Science labs are outdated with little storage for materials. There are no “project” rooms for interdisciplinary or hands-on learning and team projects. There are no STEAM labs or rooms for engineering courses. In fact, hallways are often the only available space for video filming, physics simulations, or small group tutoring sessions. Robotics and engineering projects are limited by space constraints. The Auditorium is the only performance space in the Town of Millis and is overbooked for after school uses.

Students in the high school are not able to take a full selection of electives except via on-line offerings, due to the lack of space. There is no space for small group and special education instruction or tutoring. This makes it extremely difficult to provide services for students identified with disabilities. The nurses office, which serves both the Middle and High School students, is at times overflowing with students seeking assistance. Due to COVID-19, the District was forced to create an isolation room within this office, creating further constraints on the space available to serve students.

The teachers who must travel from classroom to classroom must bring all instructional materials on carts and have no place to plan lessons other than sitting in another teacher’s classroom while that teacher is teaching.

Space shortage also creates problems for IEP meetings which are sometimes held in the faculty dining room with the cooking staff preparing meals just steps away.

REQUIRED FORM OF VOTE TO SUBMIT AN SOI

REQUIRED VOTES

If the SOI is being submitted by a City or Town, a vote in the following form is required from both the City Council/Board of Aldermen **OR** the Board of Selectmen/equivalent governing body **AND** the School Committee.

If the SOI is being submitted by a regional school district, a vote in the following form is required from the Regional School Committee only. FORM OF VOTE Please use the text below to prepare your City's, Town's or District's required vote(s).

FORM OF VOTE

Please use the text below to prepare your City's, Town's or District's required vote(s).

Resolved: Having convened in an open meeting on _____, prior to the closing date, the _____*[City Council/Board of Aldermen, Board of Selectmen/Equivalent Governing Body/School Committee]* of _____*[City/Town]*, 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 dated _____ for the _____*[Name of School]* located at _____*[Address]* 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

_____

_____

_____

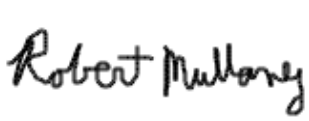
_____

_____

_____; *[Insert a description of the priority(s) checked off on the Statement of Interest Form and a brief description of the deficiency described therein for each priority];* 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.

Chief Executive Officer *	**School Committee Chair**	**Superintendent of Schools**
Mike Guzinski	Robyn Briggs	Robert Mullaney
Town Administrator		
		
(signature)	(signature)	(signature)
Date	Date	Date
6/23/2021 12:06:59 PM	6/24/2021 1:10:42 PM	6/24/2021 10:34:51 AM

* Local Chief Executive Officer: In a city or town with a manager form of government, the manager of the municipality; in other cities, the mayor; and in other towns, the board of selectmen unless, in a city or town, some other municipal office is designated to the chief executive office under the provisions of a local charter. Please note, in districts where the Superintendent is also the Local Chief Executive Officer, it is required for the same person to sign the Statement of Interest Certifications twice.