

**WESTBROOK BOARD OF EDUCATION
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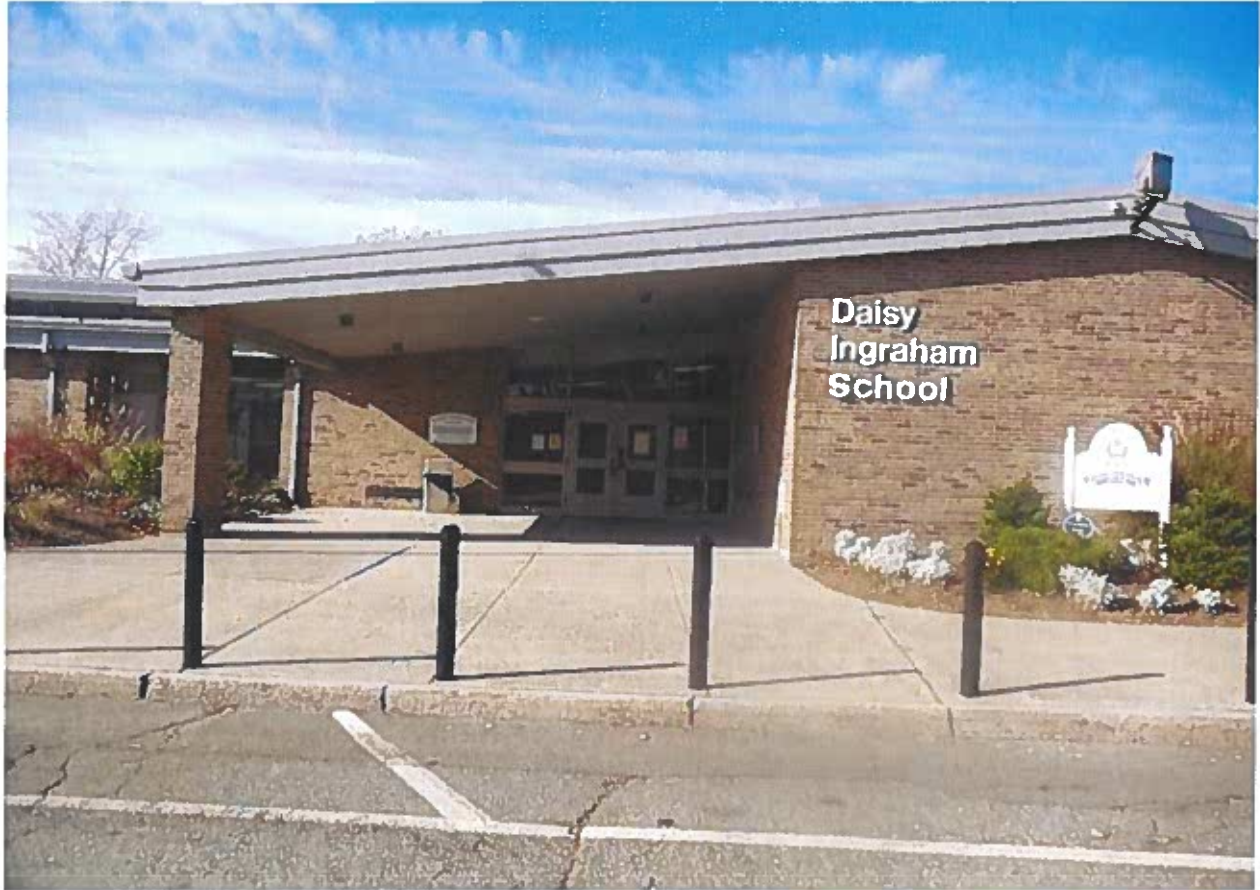
**WESTBROOK BOARD OF EDUCATION
Tuesday, January 9, 2024 @ @ 5:00 p.m.
Fiscal and Facilities Subcommittee
Superintendent's Office**

AGENDA

- I. Call to Order
- II. Election of Chairperson
- III. Review of Facilities Study
 - A. Daisy Ingraham - Enclosure 1
 - B. Westbrook Middle School – Enclosure 2
 - C. Westbrook High School – Enclosure 3
- IV. Draft of 10-Year Capital Plan
- V. Review of initial budget requests by school
- VI. Next meeting and possible topics
 - 1. January 23 @ 5 p.m. – Superintendent's Office
 - A. HVAC Update
 - B. Welding Lab Update
 - C. Electrical Upgrade Update
 - 2. February 6 @ 5 pm – Superintendent's Office
 - A. Review Facilities Study with R. LaFleur
 - B. Finalize Capital Plan
- VII. Adjourn

Subcommittee members: S. Greaves, A. Miesse, D. Perreault, H. Jalil, K. Walker (Ex-Officio)

: ENCLOSURE 1



2023 CAPITAL REPLACEMENT PLAN

Facility Assessment Study *Daisy Ingraham Elementary School*

105 Goodspeed Drive
Westbrook, CT 06498

Date of Report:

November 13, 2023

Prepared By:

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Table of Contents

| | |
|-----------------------------------------------|----|
| Introduction | 3 |
| Capital Replacement Plan | 4 |
| Capital Expenditures and Life Cycle Costing | 4 |
| Capital Reserve Analysis | 4 |
| Summary of Total Reserve Requirements | 4 |
| Facility Condition Report | 4 |
| Improvements Since Previous 2018 Report | 5 |
| Areas of Concern Since Previous 2018 Report | 5 |
| Replacement Reserves and Methodology | 5 |
| Utilities | 10 |
| Parking, Paving and Sidewalks | 11 |
| Topography and Landscaping | 11 |
| Building Architectural and Structural Systems | 13 |
| Exterior Windows and Doors | 14 |
| Common Areas and Corridors | 15 |
| Building Mechanical and Plumbing Systems | 15 |
| Building Electrical and Gas Distribution | 17 |
| Fire Protection and Security Systems | 18 |
| Interior Finishes | 19 |
| Commercial Kitchen Equipment | 19 |
| Appendix A – Photographs | 20 |
| Appendix B – Spreadsheet | |
| Appendix C – Roof Warranty | |
| Appendix D – Consumer Price Index | |

Introduction

In April 2023, the Westbrook Board of Education requested PM Resources to provide a proposal for a Facilities Audit for Westbrook's three school facilities. Beginning in May of 2023, PM Resources met with various staff of the three schools and conducted a series of inspections to begin gathering information about the facilities. The three main components of this facility audit include a Capital Replacement Plan, a Facility's Condition Report and Recommendations for Improvement. Previous reports and data were utilized along with numerous site visits and a thorough inspection of all building systems. The combination of research, data and inspections provides much of the basis for this plan.

Capital Replacement Plan

A Capital Replacement Plan is a budgeting tool as well as a planning tool and if properly maintained, allows for the replacement of large, expensive assets while minimizing their financial impact to a current budget. A strategic capital plan was developed using the data collected from several site inspections, current records and information provided from various staff members.

The three components to the plan are as follows:

- Capital Expenditures and Life Cycle Costing
- Capital Reserve Analysis
- Summary of Total Reserve Requirements

Capital Expenditures and Life Cycle Costing

The formulation of the cost estimates and the Life Cycle Costing for physical plant and building improvements were obtained from several sources. The assessment team consisted of professional facility personnel and a consultant familiar with school construction, building systems design and operations. R.S. Means "Construction Cost Data" was also utilized and information pertaining to useful life as provided in this report is referenced from the ASHRAE life Expectancy Table.

An inventory of the facility's major assets and components was developed, these are detailed on the two spreadsheets in Appendix B. This asset inventory identifies capital replacement expenditures that will be required within the next 15 years. The analysis is comprised of four components, they are as follows:

- Identification of the asset (make, model, age).
- Evaluation of its condition (good, fair or poor).
- Determination of its remaining life expectancy.
- A replacement value of the asset.

After completing these tasks, we reviewed the remaining life expectancy of the items and determined that few exceeded fifteen years of additional life expectancy. Consequently, the plan extends fifteen years out. The implication here is that by the year 2039, the majority of items currently listed, will have reached their full life expectancy and have been replaced or will be in need of replacement.

Capital Reserve Analysis

The financial component of this plan begins with an estimate of current replacement cost per item inclusive of labor and factors in an annual escalator of 2.78 percent. This percentage is derived by averaging the consumer price index over the past ten years and applying this historical data to predict future costs due to inflation, (to review this data, see Appendix C).

Table 1: Summary of Total Reserve Requirements

| Capital Item | Total Replacement Cost | Cost |
|----------------------|----------------------------------------------------------------|--------------------|
| Light Posts | Located on sidewalks and parking areas | \$60,000 |
| HVAC Equipment | See Spreadsheet for selected items, pg. 24 | 492,000 |
| Air Conditioning | Currently proposed pending grant application | \$550,000 |
| Kitchen Stove | Commercial electric to be replaced | \$5,000 |
| Dish Washer | Commercial Hobart to be replaced | \$18,000 |
| Electrical Equipment | Pending installation of AC | \$75,000 |
| Roofing | Eligible for Replacement in 2028, | \$2,185,000 |
| Window Blinds | Classrooms and ancillary rooms | \$25,000 |
| Exterior Doors | Scheduled for replacement in 2025, Estimated Cost (encumbered) | \$350,000 |
| TOTAL | | \$3,760,000 |

Facility Condition Report

Over all, Westbrook Public Schools has taken a proactive approach to securing reserves for all anticipated future expenses and capital upgrades. They have continued to incorporate recommended improvements/replacements since implementing a Capital Improvement Plan in 2007. The report documents the condition of all existing major assets and areas of expenditures.

Improvements Since Previous 2018 Report:

- Most significantly, all of the original classroom unit ventilators were replaced during the school years of 2020-21 & 2021-22
- Six (6) roof-mounted exhaust fans were replaced in 2021
- Two large HVAC units located in the vicinity of the media center in the ceiling plenum were replaced in 2019 and 2020 respectively
- The 20,000-gallon underground fuel oil tank was removed in 2018.
- Natural gas was installed in 2018
- The 200 kW Generator was replaced in 2018 and included the installation of two underground 1,000-gallon propane tanks

Areas of Concern Since the Previous 2018 Study

- In 2022 the BoE commissioned a feasibility study to provide air conditioning to the classrooms. The study recommended the installation of a Variable Refrigerant Flow (VRF) system that would interface with the controls of the recently installed new unit ventilators. This proposed project is currently under consideration for a grant from the State of Connecticut to improve HVAC infrastructure in Connecticut schools.
- The window blinds have long-surpassed their life expectancy. Feedback from the staff is that the blinds continue to malfunction and we recommend they be replaced.

Replacement Reserves

Replacement Reserves are for recurring probable expenditures, which are not classified as operation or maintenance expenses. Normally, replacement reserves would be budgeted for in advance, and on an annual basis. However, the Town of Westbrook prefers to utilize the CIP as a 5-year spending plan and prioritizes the items identified within the plan to be remediated on an annual basis.

Replacement Reserves exclude systems or components that are estimated to expire after the reserve term and are not considered material to the structural and mechanical integrity of the subject property. Furthermore, systems and components that are not deemed to have a material effect on the use of the Property are also excluded. Costs that are caused by acts of God, accidents, or other occurrences that are typically covered by insurance, rather than reserved for, are also excluded. Replacement costs are solicited from ownership/property management, PMR's discussions with service companies, manufacturers' representatives, and previous experience in preparing such schedules for other similar facilities. Costs for work performed by the ownership's or property management's maintenance staff are also considered. PMR's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the assessment period. The assessment period is defined as the effective age plus the reserve term. Additional information concerning systems or component's respective replacement costs (in today's dollars), typical expected useful lives, and remaining useful lives were estimated so that a funding schedule

could be prepared. The Replacement Reserves Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined in the Immediate Repair and Short-Term Cost Estimate.

Purpose

PMR was retained by the client to render an opinion as to the Property's current general physical condition on the day of the site visit. Based on the observations, interviews and document review outlined below, this report identifies significant deferred maintenance issues, existing deficiencies, and material code violations of record at municipal offices, that affect the Property's use. Opinions are rendered as to its structural integrity, building system condition and the Property's overall condition. The report also notes building systems or components that have realized or exceeded their typical expected useful lives. The physical condition of building components is typically defined as being in one of three categories: Good, Fair, and Poor. For the purposes of this report, the following definitions are used:

- Good = Satisfactory as-is. Requires only routine maintenance during the assessment period. Repair or replacement may be required due to a system's estimated useful life.
- Fair = Satisfactory as-is. Repair or replacement is required due to current physical condition and/or estimated remaining useful life.
- Poor = Immediate repair, replacement, or significant maintenance is required.

Scope

The standard scope of the Facility Condition Assessment includes the following:

- Visit the Property to evaluate the general condition of the building and site improvements, review available construction documents in order to familiarize ourselves with, and be able to comment on, the in-place construction systems, life safety, mechanical, electrical, and plumbing systems, and the general built environment.
- Identify those components that are exhibiting deferred maintenance issues and provide cost estimates for Immediate, Short Term, and Replacement Reserves based on observed conditions, maintenance history and industry standard useful life estimates. This will include the review of documented capital improvements completed within the last five-year period and work currently contracted for, if applicable.
- Provide a full description of the Property with descriptions of in-place systems and commentary on observed conditions.
- Perform a limited assessment of accessible areas of the building(s) for the presence of mold, conditions conducive to mold growth, and/or evidence of moisture. PMR will also interview Project personnel regarding the presence of any known or suspected mold, elevated relative humidity, water intrusion, or mildew-like odors. Potentially affected areas will be photographed. Sampling will not be considered in routine assessments.
- List the current utility service providers.
- Review maintenance records and procedures with the in-place maintenance personnel.

- Observe a representative sample of the interior occupied spaces, in order to gain a clear understanding of the property's overall condition. Other areas to be observed include the exterior of the property, the roofs, interior common areas, and mechanical, electrical.
- Appropriate inquiries of municipal officials regarding the existence of pending unresolved building, zoning or fire code violations on file, and a determination of the current zoning category, flood plain zone, and seismic zone for the Property.
- Provide recommendations for additional studies, if required, with related budgetary information.
- Maintenance staff's responsibility for maintenance, repair or replacement of finishes, fixtures, or equipment is not addressed by this scope of services.
- Provide an Executive Summary at the beginning of this report with a Project-At-A-Glance cost estimate as a quick, user-friendly summary of the Property's condition and the assigned costs by category. These costs are tied to the report sections where references to the issues are clearly defined and expanded

Code Information Flood Zone and Seismic Zone

According to building official Mr. David Maiden, of the Westbrook Building Department, there are no outstanding building code violations on file. The Building Department does not have an annual inspection program. They only inspect new construction, work that requires a building permit, and citizen complaints. A copy of the original Certificate of Occupancy was requested, but was not available.

According to the Westbrook Planning Department, the property is located within an MDR, Medium-density Residential zoning district and is a conforming use.

We spoke with the City of Westbrook Fire Marshal regarding code compliance. His office conducts annual inspections of the schools and is currently in the process of this year's inspections. At this time, he is unaware of any significant violations and will forward us information if anything significant is found.

The Westbrook Health Department Chief Sanitarian is reviewing records regarding the private onsite septic system. According to Mike Thomas, facilities manager, all three systems are pumped out annually.

According to the Flood Insurance Rate Map, published by the Federal Emergency Management Agency (FEMA) and dated August 28, 2008, the property is located in Zone X, defined as areas outside the 500-year flood plain with less than 0.2% annual probability of flooding. Annual Probability of Flooding of Less than one percent. According to the 1997 Uniform Building Code Seismic Zone Map of the United States, the property is located in Seismic Zone 2B, defined as an area of moderate probability of damaging ground motion.

ADA Accessibility

Generally, Title III of the Americans with Disabilities Act (ADA) prohibits discrimination by entities to access and use of “areas of public accommodations” and “commercial facilities” on the basis of disability. Regardless of its age, these areas and facilities must be maintained and operated to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG). Buildings completed and occupied after January 26, 1992 are required to comply fully with the ADAAG. Existing facilities constructed prior to this date are held to the lesser standard of compliance to the extent allowed by structural feasibility and the financial resources available. As an alternative, a reasonable accommodation pertaining to the deficiency must be made.

Generally, the property appears to have been constructed within industry standards in force at the time of construction. The property appears to have been well maintained in recent years and is in good to fair overall condition. According to property management personnel, the property has had a limited capital improvement expenditure program over the past three years, primarily consisting of new carpeting, exterior painting, new plumbing valves, a new computer room, and some HVAC replacements. Supporting documentation was not provided in support of these claims, but some of the work is evident.

Special Issues and Follow Up Recommendations

As part of the facility report, a limited assessment of accessible areas of the building(s) was performed to determine the presence of mold, conditions conducive to mold growth, and/or evidence of moisture. Property personnel were interviewed concerning any known or suspected mold, elevated relative humidity, water intrusion, or mildew-like odors. Sampling is not a part of this assessment. There are no visual indications of the presence of mold growth, conditions conducive to mold growth, or evidence of moisture in representative readily accessible areas of the property. Maintenance staff confirmed that periodic testing occurs if there are any complaints regarding odors. Some testing was conducted a few months prior to the issuance of this report and the results were negative for any mold. In addition, the maintenance staff reported that there are no roof leaks evident anywhere in the building.

For general record keeping practices the following issues should be considered:

- Verify that any alterations, installations, or other improvements since the project was first constructed and occupied have been properly permitted and approved by municipal agencies.
- Verify that no defective materials or equipment are used at the property. Copies of the documents listed below should be obtained:
 - All roof, equipment and system warranties/guarantees and transfers.
 - All available site and building construction drawings and specifications.
 - All government documents such as Certificates of Occupancy, permits, zoning variances, easements, tax receipts, and other pertinent records.

Opinion of Probable Cost

Cost estimates are attached in a spreadsheet on page 4 of this report. These estimates are based on Invoice or Bid Document/s provided either by the Owner/facility and construction costs developed by construction resources such as R.S. Means and Marshall & Swift, PMR's experience with past costs for similar properties, city cost indexes, and assumptions regarding future economic conditions.

Opinions of probable costs should only be construed as preliminary, order of magnitude budgets. Actual costs most probably will vary from the consultant's opinions of probable costs depending on such matters as type and design of suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, whether a physical deficiency is repaired or replaced in whole, phasing of the work (if applicable), quality of contractor, quality of project management exercised, market conditions, and whether competitive pricing is solicited, etc. ASTM E2018-08 recognizes that certain opinions of probable costs cannot be developed within the scope of this guide without further study. Opinions of probable cost for further study should be included in any future studies.

Methodology

Based upon site observations, research, and judgment, along with referencing Expected Useful Life (EUL) tables from various industry sources, PMR recommends as to when a system or component will most probably need replacement. Accurate historical replacement records, if provided, are typically the best source of information. Exposure to the elements, initial quality and installation, extent of use, the quality and amount of preventive maintenance exercised, etc., are all factors that impact the effective age of a system or component. As a result, a system or component may have an effective age that is greater or less than its actual chronological age. The Remaining Useful Life (RUL) of a component or system equals the EUL less its effective age. Projections of Remaining Useful Life (RUL) are based on continued use of the Property similar to the reported past use. Significant changes in tenants and/or usage may affect the service life of some systems or components. Where quantities could not be derived from an actual take-off, lump sum costs or allowances are used. Estimated costs are based on professional judgment and the probable or actual extent of the observed defect, inclusive of the cost to design, procure, construct and manage the corrections.

Immediate Repairs and Short-Term Costs

Immediate repairs are opinions of probable costs that require immediate action as a result of:

- Current existing condition or potential unsafe conditions,
- Building or fire code violations, or
- Conditions that, if not addressed, have the potential to result in, or contribute to, critical element or system failure within one year or will most probably result in a significant escalation of its remedial cost.

During the Facility Condition Assessment (FCA), a limited visual observation for ADA accessibility compliance was conducted. The scope of the visual observation was limited to those areas set forth in PMR's Abbreviated Accessibility Checklist provided in Appendix D of this report. It is understood by the Client that the limited observations described herein does not comprise a full ADA Compliance Survey, and that such a survey is beyond the scope of PMR's undertaking. Only a representative sample of areas was observed and, other than as shown on the Abbreviated Accessibility Checklist, actual measurements were not taken to verify compliance. The scope of the visual observation did not include any areas within tenant spaces. The facility does not appear to be accessible with Title III of the Americans with Disabilities Act. Elements as defined by the ADAAG that are not accessible as stated within the priorities of Title III, are as follows:

Parking:

Curb ramps are required from the parking area to the sidewalks providing access to the building. There are two curb ramps, one at each accessible parking area that are not in compliance with the ADA code. These may require replacement.

| | | | | | |
|-----------------|---|---|---------------|---|------------|
| Estimated Cost: | 2 | x | \$950.00 each | = | \$1,900.00 |
|-----------------|---|---|---------------|---|------------|

Utilities

The following table identifies the utility suppliers and the condition and adequacy of the services.

| Utility | Utility Supplier | Condition | Adequacy |
|-------------------|-------------------------|------------------|-----------------|
| Sanitary sewer | On-site septic system | Good | Adequate |
| Domestic water | Town of Westbrook | Good | Adequate |
| Electrical supply | Eversource | Good | Adequate |
| Natural Gas | SCG | Good | Adequate |

Observations/Comments:

The utilities appear to be adequate for the property.

The property has a septic system.

The system is reportedly pumped out on an annual basis.

See page 17 for descriptions and comments regarding the emergency electrical generator.

Parking, Paving and Sidewalks

The entrance drive is located along Goodspeed Drive on the south side of the property. The parking areas, drive aisles, and service drives are paved with asphaltic concrete. Additionally, play areas are paved with asphalt as well. Based on a physical count, parking is provided for 112 cars. The parking ratio is 1.49 spaces per thousand square feet of floor area. All of the parking stalls are located in open lots. There are five handicapped accessible parking stalls, none of which are reserved for vans. The sidewalks at the front and side of the building are constructed of cast-in-place concrete and others in the interior courtyard areas are paved with asphaltic concrete.

Storm water from the roofs, landscaped areas, and paved areas flows into on site inlets and catch basins with underground piping connected to the municipal storm water management system.

Observations/Comments:

- There is no evidence of storm water runoff from adjacent properties.
- The storm water system appears to provide adequate runoff capacity.
- There is no evidence of major ponding or erosion.

Topography and Landscaping

The property is generally flat and slopes gently down to the north and west side of the property. The landscaping consists of trees, shrubs, and grasses. There are two baseball fields to the north side, which are reportedly owned and maintained by the city. The baseball fields are irrigated by an in-ground sprinkler system, which consists of underground piping, shut-off valves, pop-up sprinkler heads, and automatic timers. Surrounding properties include woods to the north and west, residential properties to the east, and a library to the south.

Observations/Comments:

- The topography and adjacent uses do not appear to present conditions detrimental to the property.
- The landscape materials are in good condition and will require routine maintenance during the assessment period.
- The underground irrigation system is owned and maintained by the City of Westbrook.

Property Identification

Property identification is provided by a monument sign adjacent to the main entrance as well as signage mounted on the face of the front wall. At the time of this writing the monument sign located at the street entry had been destroyed by a careless driver. Maintenance staff indicated that it is currently in the process of being replaced. Street address numbers are displayed on the exterior elevation next to the front door. Site lighting is provided by metal street light standards. The light standards are spaced along the drive aisles throughout the parking areas. Metal pole-mounted light fixtures are located along walkways and drive aisles throughout the property. Currently these poles are in fair to poor condition. One of the poles fell over due to the deterioration of the base support. Replacement of the remaining pole light fixtures should be considered soon. Exterior building illumination is provided by light fixtures surface-mounted on the exterior walls. Recessed light fixtures are located in the exterior soffits.

A perimeter fence is located along the perimeter of the property. The fence is constructed of chain link with metal posts. A chain-link fence surrounds a play area for the youngest children on the west side of the building. A wood board fence surround is provided at the emergency generator on the north side of the building and a smaller wooden fence surrounds the condensing unit, also on the north side of the building. Dumpsters are located adjacent to the northern parking area and are placed on the asphalt paving. There are playground areas on the south, west, and north side of the property with various climbing equipment and swings, etc.

Observations/Comments:

The property and tenant identification signs are in good condition. Routine maintenance will be required during the assessment period.

The exterior site and building light fixtures are in fair to poor overall condition.

The site fencing is in good condition and will require routine maintenance during the assessment period.

The dumpsters are owned and maintained by the refuse contractor. The dumpsters are in fair condition and will require routine maintenance during the assessment period.

The playgrounds are in good overall condition requiring routine maintenance during the assessment period.

Building Architectural and Structural Systems

Foundations

Based on structures of similar size, configuration, and geographic location, it is assumed that the foundations consist of reinforced concrete slabs-on-grade with integral perimeter footings, interior footings, and column pad footings bearing directly on the soil.

Observations/Comments:

The foundations and footings could not be directly observed during the site visit.

There is no evidence of movement that would indicate excessive settlement.

Superstructure

The building has concrete masonry unit (CMU)/ Brick exterior bearing walls and interior steel columns, which support the roof diaphragms. The roofs are constructed of metal decks, which are supported by steel beams and steel joists.

Observations/Comments:

The superstructure is exposed in some locations, which allows for limited observation. Walls and floors appear to be plumb, level, and stable. There are no significant signs of deflection or movement.

The primary roofs are classified as gabled roofs. The roofs are finished with a rubber roofing membrane. The roofs drain over the eaves to sheet metal gutters and downspouts, which discharge to paved and landscaped areas. There are no attics.

Observations/Comments:

The property does not have a dedicated roof repair and maintenance contractor. On site personnel maintain the roofs or a contractor is retained when required.

The roof membrane is approximately fifteen years old and is covered by a twenty-year warranty beginning in September of 2008. A copy of the warranty is attached in Appendix C.

The roof membranes are in good condition. Based on their estimated Remaining Useful Life (RUL), the roof membranes will require replacement during the assessment period. The cost of this work is included in the Replacement Reserves Cost Estimate (Table 1, page 4).

There is no evidence of active roof leaks.

There is no evidence of roof deck or insulation deterioration. The roof substrate and insulation should be inspected and thermally tested prior to any future roof repair or replacement work.

There is no evidence of fire-retardant treated plywood (FRT).

The roof flashings are in good condition and will require routine maintenance during the assessment period.

Roof drainage appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance program.

The roof vents are in good condition and will require routine maintenance during the assessment period.

The exterior walls are finished with brick masonry veneer. Small portions of the upper walls are finished with painted wood board siding. The soffit at the front of the building is finished with wood boards. Building sealants (caulking) are located between dissimilar materials, at joints, and around window and door openings.

Observations/Comments:

The exterior finishes are in good condition. Routine maintenance will be required during the assessment period.

The sealant is flexible, smooth, and in good condition and will require routine maintenance during the assessment period.

Exterior and Interior Stairs

Not applicable. There are no exterior or interior stairs.

Exterior Windows and Doors

The windows are metal-framed, double-glazed units with tinted glazing. The units are primarily fixed glass, although there are some sliding units in the cafeteria. All of the windows were part of a window replacement project that took place in 2014. The main entrance doors are metal doors with glazed panels set in metal frames. The doors have cylindrical locksets with lever handle hardware on the exterior and panic hardware on the interior. The service and exterior classroom doors are painted metal doors set in metal frames. The doors have cylindrical locksets with lever handle hardware and closers. The classroom doors typically all have transom windows.

Observations/Comments:

There is no evidence of window leaks or window condensation. The windows were replaced in 2014 are in very good overall condition. Based on the estimated Remaining Useful Life (RUL), the windows will not require replacement over the assessment period.

The exterior doors, original to the building, along with the door hardware are in fair to poor condition with some serious rusting and deterioration at the jamb bases and lower portion of the doors. Based on the estimated Remaining Useful Life (RUL), the doors will require replacement over the assessment period and capital reserves have been scheduled for their

replacement. The cost of this work is included in the Capital Replacement Reserves Cost Estimate Spreadsheet on page 4. The exterior doors are scheduled to be replaced during the summer of 2025 as part of Westbrook's ongoing capital replacement plan implementation.

Patio, Terrace and Balcony

Not applicable. There are no patios, terraces, or balconies.

Common Areas, Entrances and Corridor's

The school has a small lobby inside the main entrance vestibule. The administration offices, cafeteria, and corridors are accessed from the lobby. Classrooms, restrooms, and other functional spaces are accessed from corridors beyond the lobby. The following table identifies the interior common areas and generally describes the finishes in each common area.

Observations/Comments:

The common area finishes vary in age. It was reported that most of the carpet has been replaced in the last few years and the painted wall finishes appeared to be in good condition.

The carpet throughout appeared to be in good overall condition. It was reported that the carpet was replaced in 2016. Based on the estimated Remaining Useful Life (RUL), carpet will require replacement during the assessment period.

The ceiling tiles appeared to be in good overall condition. Based on the estimated Remaining Useful Life (RUL), ceiling tiles will not require replacement during the assessment period.

The metal ceilings appeared to be in good condition requiring routine maintenance during the evaluation period.

The interior painted concrete block wall finishes are in good overall condition. It was reported that painting is done on an as-needed basis during the summer months. This work is to be considered routine maintenance.

The gym floor appeared to be in good condition and reportedly is refinished annually. This work is considered to be routine maintenance.

Building Mechanical and Plumbing Systems

Building Heating Ventilation and Air Conditioning

The building does not have a central air-conditioning system and the majority of the school has no cooling at all. At the time of this writing there is a grant proposal to install air conditioning throughout the classrooms. The system proposed is a Variable Refrigerant Flow (VRF) system and the controls will be interfaced to work with the recently installed classroom unit ventilators to provide controlled, tempered fresh air. Currently, the administration offices, the computer

room, and the music room are the only spaces with air-conditioning. These spaces are supplied with air-conditioning through a split system condensing unit and interior fan coil unit.

Hot water for the central heating system is supplied by three oil-fired, hot water boilers that were installed in 2014. The two boilers have a rated input capacity of 2049 MBH. They are all located in the mechanical room on the east side of the building. Circulating pumps provide hot water to the air handlers that supply heat to the larger spaces and to the unit ventilators located in each classroom. Air distribution from the air handlers is provided to supply air registers by ducts concealed above the ceilings or exposed, as in the gymnasium. Return air grilles are located adjacent to the air handlers. The heating and cooling systems are controlled by local thermostats and are part of an automated building controls system currently maintained by a local vendor ABS. The bathrooms and other areas are ventilated by mechanical exhaust fans. Large capacity ventilation fans are mounted on the roof and are connected by concealed ducts to each ventilated space.

Several of the large air handling units have been replaced in the last couple of years, however a few large systems remain in place that are original to the building. While these systems continue to be operational and have been well-maintained there is the potential for a more severe breakdown mostly due to their 46-year age. Worth noting is that Westbrook has experienced difficulties in replacing parts for these units due to obsolescence. Components such as water coils and bearing shafts have already proved to be difficult to obtain. In addition, the size and location of the units makes their replacement nearly impossible because of narrow access. It will be necessary to either remove access ladders, cut and re-weld steel structure and/or cut through the roof to remove and install new replacement units. Factoring in these additional infrastructure issues will add significant cost to their replacement, and have been factored into the overall cost to replace them. Our recommendation is to consider replacing these units prior to 2028 when the roof is eligible for replacement thus avoiding the necessity of cutting through a new roof to remove old units.

Observations/Comments:

On site personnel maintain the HVAC equipment and handle minor repairs. Major repairs are currently handled by DeBow Mechanical LLC, who was contacted regarding the condition of the existing equipment.

Records of the installation, maintenance, upgrades, and replacement of the HVAC equipment have been maintained since the property was first occupied.

A portion of the HVAC equipment is original. HVAC equipment is reportedly replaced on an as needed basis. (See spreadsheet on page 4 for items recommended for replacement and associated cost.)

The boilers appear to be in very good condition and were installed in 2014. Based on the estimated Remaining Useful Life (RUL), they will not require replacement during the assessment period.

The classroom air handling units or unit ventilators were replaced in 2021 & 2022 appear to be in excellent condition. Based on the estimated Remaining Useful Life (RUL), the air handlers will not require replacement during the assessment period

The roof-top mechanical ventilation system and equipment were replaced in 2020-21 and are in good condition and may require routine maintenance during the assessment period. Equipment or component replacements can be performed as part of the property management's routine maintenance program.

Building Plumbing and Domestic Hot Water

The plumbing systems include the incoming water service, the cold-water piping system, and the sanitary sewer and vent system. The risers and the horizontal distribution piping are copper. The soil and vent systems are PVC inside and cast iron outside. The water meter is located in the mechanical equipment room. Domestic hot water is supplied by the HVAC system's boilers and supplemented with a roof-top installed solar hot water system. The central hot water system consists of a heat exchanger, circulating pumps and a 1,000-gallon insulated storage tank.

There are eight restrooms accessed from the corridors in the building, two of which are single use accessible restrooms. The restrooms closest to the gymnasium are multiple stall units containing an accessible shower for use by shelter victims during emergency evacuation periods. Additionally, a small portion of the classrooms have water closets in them.

Observations/Comments:

The plumbing systems appear to be well maintained and in good condition. The water pressure appears to be adequate. The plumbing systems will require routine maintenance during the assessment period.

There is no evidence that the property uses polybutylene piping for the domestic water distribution system.

The pressure and quantity of hot water appear to be adequate.

The accessories and fixtures in the restrooms are in good overall condition, requiring routine maintenance during the evaluation period. The water storage tank is original however, it was reported that the bladder was replaced three years ago. Based on the estimated Remaining Useful Life (RUL), the water storage tank will not require replacement during the assessment period.

It is recommended that a plumber inspect the grease traps and sewer lines to ensure that they have been properly maintained. This work can be performed as part of routine maintenance

Building Electrical and Gas Distribution

Building Electrical

The electrical supply lines run underground to a pad-mounted transformer, which feeds the interior mounted electrical meter. The main electrical service size is 1,200 amps, 120/208 volt three-phase four-wire single-phase. The electrical wiring is copper, installed in metallic conduit. Circuit breaker panels are located throughout the building.

Building Gas

Natural gas was introduced to the building around 2018 and services the two main boilers.

A Liquefied Petroleum (LP) Gas powered 200 KVA emergency electrical generator is located outside of the electrical room on the north side of the building. The generator provides back-up power for elements of the fire and life safety systems, emergency lighting, and the boilers, which are used for heat and water when the building is used as a shelter during natural disasters. The two fuel tanks are underground and provide 2,000-gallons, and are located across the driveway from the generator.

Observations/Comments:

The onsite electrical systems up to the meters are owned and maintained by Eversource, the utility company.

The electrical service and capacity appear to be adequate for the property's demands. However, if the proposed air conditioning project were to be installed, a budget of \$75,000 has been included in the CIP to cover the potential need for an electrical upgrade. An additional study will be needed to make the final determination.

The switchgear, circuit breaker panels, and electrical meters appear to be in good condition and will require routine maintenance during the assessment period.

The generator was replaced in 2019, in excellent condition and is reportedly tested on a weekly basis.

Based on the estimated Remaining Useful Life (RUL), the water storage tank will not require replacement during the assessment period.

Fire Protection and Security Systems

The fire protection system consists of portable fire extinguishers, smoke detectors, pull stations, and alarm horns. Smoke detectors are located throughout the common areas. The nearest fire hydrants are located along the property's drive aisles and are approximately twenty feet from the building. Common areas and corridors are equipped with illuminated exit signs, pull stations, alarm horns, and strobe light alarms. A central fire alarm panel is located in the vestibule and administration area and monitors the pull stations and smoke detectors. The

alarm panel also sounds the alarm and automatically notifies the monitoring service or the fire department in the event of trouble. The kitchen is equipped with a dry chemical fire extinguishing system. Fire suppression heads are located in the kitchen exhaust hood above the cooking area, and the chemical tanks are mounted adjacent to the hood.

Observations/Comments:

The fire extinguishers are serviced annually and appear to be in good condition. The fire extinguishers were serviced and inspected within the last year.

The pull stations and alarm horns appear to be in good condition and will require routine maintenance during the assessment period.

Smoke detector replacement is considered to be routine maintenance.

Exit sign and emergency light replacement is considered to be routine maintenance.

The central alarm panel appears to be in good condition and is serviced regularly by a qualified fire equipment contractor. Equipment testing is not within the scope of a Facility Condition Assessment. The dry chemical extinguishing systems appear to be in good condition and are serviced regularly by a qualified fire equipment contractor.

Interior Finishes

The interior doors are stained solid-core wood doors set in metal frames, typically with vision panels. The interior doors have cylindrical locksets with lever handle hardware.

Observations/Comments:

The interior doors and door hardware are in good condition and will require routine maintenance during the assessment period.

The furnishings appeared to be in good to fair condition. It was reported that the laminate countertops are replaced on an as-needed basis by in-house maintenance staff.

Carpet is replaced on an as needed basis annually.

Wall painting is conducted on an annualized schedule.

Commercial Kitchen Equipment

Equipment includes the following:

- Refrigerators (Up-right)
- Freezers (Walk-in/Up-right)
- Ranges (Electric)
- Ovens, Griddles/Grills (Electric)
- Hood Exhaust (Electric, ducted to the exterior)
- Dishwasher (Owned)

- Microwave
- Ice Machines
- Steam tables
- Work tables (Stainless steel)
- Shelving (Stainless steel)

Observations/Comments:

The kitchen equipment appears to be in good to fair condition. Based on their estimated Remaining Useful Life (RUL), some of the kitchen appliances will require replacement during the assessment period, specifically the electric stove and the dish washer. The cost of this work is included in the Replacement Reserves Cost Estimate

It is recommended that the commercial kitchen exhaust vents are cleaned regularly to avoid grease fires. This work can be performed as part of routine maintenance.

Appendix A – Photographs



Two new underground propane tanks



20,000 gallon tank removal



New refrigerator as of 2016



Replaced Carpeting in Corridors 2016



Thermostat plate sensor in each Classroom



Front sidewalk new as of 2014



Water Circulating Pumps



Kitchen Hood



Parking Area South, Handicap signage and van accessible



Parking area North with signage



New Boilers 2014



Membrane Roof



Stove to be replaced



Roof with hot water solar panels



Light Pole with rusted base, recommend replacement



Dishwasher recommend replacement

Appendix B – Spreadsheets

Daisy Ingraham Elementary School

Condition Assessment

Grades 1-4

Square Feet 68,867

Year Built 1977

| | Good | Fair | Poor |
|----------------------------------------------|------|------|------|
| CODE COMPLIANCE & ACCESSIBILITY | | | |
| Fire Code Compliance | X | | |
| Accessibility | X | | |
| SITE IMPROVEMENTS | | | |
| Utilities | X | | |
| Exterior Illumination | | X | X |
| Parking-paving-sidewalks | | X | |
| General Site Improvements | X | | |
| BUILDING STRUCTURAL ELEMENTS | | | |
| Foundation | X | | |
| Roof | X | | |
| Roof Exhaust Fans | X | | |
| Solar Panels | X | | |
| Exterior Walls | X | | |
| Exterior Doors | | X | X |
| Windows | X | | |
| Common Areas-Entrances | X | | |
| BUILDING MECHANICAL SYSTEMS | | | |
| Heating Ventilation | X | | |
| Air Conditioning | N/A | | |
| Plumbing | X | | |
| Electrical | X | | |
| Fire Protection | X | | |
| INTERIOR FUNCTIONS/ELEMENTS | | | |
| Wall Finishes (Routine Maintenance Schedule) | X | | |
| Floor Finishes | X | | |
| Kitchen Appliances | X | | |
| • Refrigerator | X | | |
| • Stove | | | X |
| • Dish washer | | | X |
| • Exhaust Hood | | X | |
| HVAC | X | | |
| Boilers | X | | |
| Air Conditioning | N/A | | |
| Classroom Air handlers | X | | |
| Electrical | X | | |

Daisy Ingraham Elementary School**Mechanical Equipment**

| Component or System | Comments | Condition | Remaining Life | Cost of Replacement |
|-------------------------|---------------------------------------------|-----------|----------------|---------------------|
| AHU #1 | Magic Air Mod. # 36HBAX3 – Music Room | Good | | N/A |
| AHU #2 | Trane Mod. # L-12 - Gymnasium | Poor | | \$135,000 |
| AHU #3 | Trane Mod. # L-17 - Library | Good | | N/A |
| AHU #4 | Airtherm Mod. # L030095-HHV-Art Room | Poor | | \$103,000 |
| AHU #5 | Task Mod. # T033 | Good | | N/A |
| AHU #6 | Airtherm Mod. #061222F-2 Administration | Poor | | \$15,000 |
| AHU #7 | Airtherm Mod. #0309F-2 -Talented & Gifted | Good | | N/A |
| AH #2 | Trane Mod. L-12 - Cafeteria | Poor | | \$104,000 |
| AH #3 | Airtherm Mod. # 03098F – Media Center | Poor | | \$135,000 |
| Cond -1 Allegience -10 | Mod. 3 2ATC0060A300AA - Administration | Good | 4 years | N/A |
| Cond -2 Carrier | Mod. # 38CKC036550 - Music | Good | 4 years | N/A |
| Unit Ventilators 1 - 28 | Classroom Unit Ventilators (all classrooms) | Good | | N/A |
| Boilers | 2 HB Smith Cast Iron Boilers | Good | 21 years | N/A |
| Total | | | | \$492,000 |

Appendix D – Consumer Price Index

CONSUMER PRICE INDEX 2014-2023

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| 2014 | 1.6 | 1.1 | 1.5 | 2 | 2.1 | 2.1 | 2 | 1.7 | 1.7 | 1.7 | 1.3 | 0.8 | 1.63 |
| 2015 | 0.1 | 0 | -0.1 | 0.2 | 0 | 0.1 | 0.2 | 0.2 | 0 | 0.2 | 0.5 | 0.7 | 0.14 |
| 2016 | 1.4 | 1 | 0.9 | 1.1 | 1 | 1 | 0.8 | 1.1 | 1.5 | 1.6 | 1.7 | 2.1 | 1.27 |
| 2017 | 2.5 | 2.7 | 2.4 | 2.2 | 1.9 | 1.6 | 1.7 | 1.9 | 2.2 | 2 | 2.2 | 2.1 | 2.12 |
| 2018 | 2.1 | 2.2 | 2.4 | 2.5 | 2.8 | 2.9 | 2.9 | 2.7 | 2.3 | 2.5 | 2.2 | 1.9 | 2.45 |
| 2019 | 1.6 | 1.5 | 1.9 | 2 | 1.8 | 1.6 | 1.8 | 1.7 | 1.7 | 1.8 | 2.1 | 2.3 | 1.82 |
| 2020 | 2.5 | 2.3 | 1.5 | 0.3 | 0.1 | 0.6 | 1 | 1.3 | 1.4 | 1.2 | 1.2 | 1.4 | 1.23 |
| 2021 | 1.4 | 1.7 | 2.6 | 4.2 | 5 | 5.4 | 5.4 | 5.3 | 5.4 | 6.2 | 6.8 | 7 | 4.7 |
| 2022 | 7.5 | 7.9 | 8.5 | 8.3 | 8.6 | 9.1 | 8.5 | 8.3 | 8.2 | 7.7 | 7.1 | 6.5 | 8.02 |
| 2023 | 6.4 | 6 | 5 | 4.9 | 4 | 3 | 3.2 | 3.7 | 3.7 | | | | 4.43 |



Facility Assessment Study *Westbrook Middle School*

156 McVeagh Road
Westbrook, CT 06498

Date of Report:

December 12, 2023

Prepared By:

PM Resources, LLC
58 Bunker Hill Road
Canton, CT 06019
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Table of Contents

| | |
|-----------------------------------------------|----|
| Introduction | 3 |
| Capital Replacement Plan | 3 |
| Capital Expenditures and Life Cycle Costing | 4 |
| Capital Reserve Analysis | 4 |
| Summary of Total Reserve Requirements Table 1 | 4 |
| Facility Condition Report | 4 |
| Improvements Since Previous 2018 Report | 4 |
| Areas of Concern Since Previous 2018 Report | 4 |
| Opinion of Probable Cost | 8 |
| Utilities | 9 |
| Parking, Paving and Sidewalks | 10 |
| Topography and Landscaping | 10 |
| Building Architectural and Structural Systems | 11 |
| Exterior Windows and Doors | 13 |
| Common Areas and Corridors | 14 |
| Building Mechanical and Plumbing Systems | 15 |
| Building and Gas Distribution | 17 |
| Fire Protection and Security Systems | 18 |
| Interior Finishes | 19 |
| Commercial Kitchen Equipment | 19 |
| Appendix A – Photographs – Existing Condition | 20 |
| Appendix B – Spreadsheets | 26 |
| Appendix C – Consumer Price Index | 27 |

Introduction

In April 2023, the Westbrook Board of Education requested PM Resources to provide a proposal for a Capital Improvement Plan for Westbrook's three school facilities. Beginning in May of 2023, PM Resources met with various staff of the three schools and conducted a series of extensive inspections to begin gathering information about the facilities. The three main components of this facility audit include a Capital Replacement Plan, a Facility's Condition Report and Recommendations for Improvement. Previous reports and data were utilized along with numerous site visits and a thorough inspection of all building systems. The combination of research, data and inspections provides much of the basis for this plan.

Capital Replacement Plan

A Capital Replacement Plan is a budgeting tool as well as a planning tool and if properly maintained, allows for the replacement of large, expensive assets while minimizing their financial impact to a current budget. A strategic capital plan was developed using the data collected from several site inspections, current records and information provided from various staff members.

The three components to the plan are as follows:

- Capital Expenditures and Life Cycle Costing
- Capital Reserve Analysis
- Summary of Total Reserve Requirements

Capital Expenditures and Life Cycle Costing

The formulation of the cost estimates and the Life Cycle Costing for physical plant and building improvements were obtained from several sources. The assessment team consisted of professional facility personnel and a consultant familiar with school construction, building systems design and operations. R.S. Means "Construction Cost Data" was also utilized and information pertaining to useful life as provided in this report is referenced from the ASHRAE life Expectancy Table.

An inventory of the facility's major assets and components was developed, these are detailed on the two spreadsheets in Appendix B. This asset inventory identifies capital replacement expenditures that will be required within the next 15 years. The analysis is comprised of four components, they are as follows:

- Identification of the asset (make, model, age).
- Evaluation of its condition (good, fair or poor).
- Determination of its remaining life expectancy.
- A replacement value of the asset.

After completing these tasks, we reviewed the remaining life expectancy of the items and determined that few exceeded fifteen years of additional life expectancy. Consequently, the plan extends fifteen years out. The implication here is that by the year 2038, the majority of

items currently listed, will have reached their full life expectancy and have been replaced or will be in need of replacement.

Capital Reserve Analysis

The financial component of this plan begins with an estimate of current replacement cost per item inclusive of labor and factors in an annual escalator of 2.78 percent. This percentage is derived by averaging the consumer price index over the past ten years and applying this historical data to predict future costs due to inflation, (to review this data, see Appendix D).

Table 1: Summary of Total Reserve Requirements

| Capital Item | Description | Cost |
|------------------|---------------------------------------------------------------------------|-------------|
| Air Conditioning | Expansion of the VRF system previously installed on 2 nd floor | \$370,000 |
| Roof Top Units | Eleven Heating/Ventilation units approaching 20 years | 150,000 |
| Roof Replacement | 46,000 s.f. of new roofing and insulation | \$2,275,000 |

Facility Condition Report

Over all, Westbrook Public Schools has taken a proactive approach to securing reserves for all anticipated future expenses and capital upgrades. The spreadsheets show the condition of all existing major assets and areas of expenditures.

Improvements since previous 2018 Study:

- A new VRF air conditioning system was installed on the second-floor classroom area in 2018
- A new RTU-7 with AC was installed in 2020 servicing the cafeteria

Areas of Concern Since the Previous 2018 Study

- RTU's that provide heating, previously identified for replacement, have been put on hold as the Board of Education seeks support for the inclusion of air conditioning and improved ventilation. Delaying their replacement increases the possibility of a more significant failure.
- RTU-1 HVAC unit servicing the library is in poor condition and should be considered for priority replacement.
- The roof warranty expires in 2025, although the roof is in good to fair condition, it should be considered for a full replacement in the near future.

Short term costs are opinions of probable costs to remedy physical deficiencies, such as deferred maintenance, that may not warrant immediate attention, but that require repairs or replacements, which should be undertaken on a priority basis in addition to routine preventive maintenance. Opinions of probable costs may include costs for testing, exploratory probing, and further analysis should this be deemed warranted by the consultant. The performance of such additional services is beyond the FCA scope of work. Generally, the time frame for such repairs is within one to two years.

Replacement Reserves

Replacement Reserves are for recurring probable expenditures, which are not classified as operation or maintenance expenses. Best practice for anticipating capital replacement costs would require that reserves should be budgeted for in advance and on an annual basis. However, the Town of Westbrook prefers to utilize the CIP as a 5-year spending plan and prioritizes the items identified within the plan to be remediated on an annual basis.

Replacement Reserves exclude systems or components that are estimated to expire after the reserve term and are not considered material to the structural and mechanical integrity of the subject property. Furthermore, systems and components that are not deemed to have a material effect on the use of the Property are also excluded. Costs that are caused by acts of God, accidents, or other occurrences that are typically covered by insurance, rather than reserved for, are also excluded. Replacement costs are solicited from ownership/property management, PMR's discussions with service companies, manufacturers' representatives, and previous experience in preparing such schedules for other similar facilities. Costs for work performed by the ownership's or property management's maintenance staff are also considered. PMR's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the assessment period. The assessment period is defined as the effective age plus the reserve term. Additional information concerning systems or component's respective replacement costs (in today's dollars), typical expected useful lives, and remaining useful lives were estimated so that a funding schedule could be prepared. The Replacement Reserves Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined in the Immediate Repair and Short-Term Cost Estimate.

Purpose

PMR was retained by the client to render an opinion as to the Property's current general physical condition on the day of the site visit. Based on the observations, interviews and document review outlined below, this report identifies significant deferred maintenance issues, existing deficiencies, and material code violations of record at municipal offices, that affect the Property's use. Opinions are rendered as to its structural integrity, building system condition and the Property's overall condition. The report also notes building systems or components that have realized or exceeded their typical expected useful lives. The physical condition of building components is typically defined as being in one of three categories: Good, Fair, and Poor. For the purposes of this report, the following definitions are used:

- Good = Satisfactory as-is. Requires only routine maintenance during the assessment period. Repair or replacement may be required due to a system's estimated useful life.
- Fair = Satisfactory as-is. Repair or replacement is required due to current physical condition and/or estimated remaining useful life.
- Poor = Immediate repair, replacement, or significant maintenance is required.

Scope

The standard scope of the Facility Condition Assessment includes the following:

- Visit the Property to evaluate the general condition of the building and site improvements, review available construction documents in order to familiarize ourselves with, and be able to comment on, the in-place construction systems, life safety, mechanical, electrical, and plumbing systems, and the general built environment.
- Identify those components that are exhibiting deferred maintenance issues and provide cost estimates for Immediate, Short Term, and Replacement Reserves based on observed conditions, maintenance history and industry standard useful life estimates. This will include the review of documented capital improvements completed within the last five-year period and work currently contracted for, if applicable.
- Provide a full description of the Property with descriptions of in-place systems and commentary on observed conditions.
- Provide a general statement of the subject Property's compliance to Title III of the Americans with Disabilities Act. This will not constitute a full ADA survey, but will help identify exposure to issues and the need for further review.
- Perform a limited assessment of accessible areas of the building(s) for the presence of mold, conditions conducive to mold growth, and/or evidence of moisture. PMR will also interview Project personnel regarding the presence of any known or suspected mold, elevated relative humidity, water intrusion, or mildew-like odors. Potentially affected areas will be photographed. Sampling will not be considered in routine assessments.
- List the current utility service providers.
- Review maintenance records and procedures with the in-place maintenance personnel.
- Observe a representative sample of the interior tenant spaces/units, including vacant spaces/units, in order to gain a clear understanding of the property's overall condition. Other areas to be observed include the exterior of the property, the roofs, interior common areas, and mechanical, electrical and elevator equipment rooms.
- Appropriate inquiries of municipal officials regarding the existence of pending unresolved building, zoning or fire code violations on file, and a determination of the current zoning category, flood plain zone, and seismic zone for the Property.
- Provide recommendations for additional studies, if required, with related budgetary information.
- Tenant responsibility for maintenance, repair or replacement of finishes, fixtures, or equipment is not addressed by this scope of services.
- Provide an Executive Summary at the beginning of this report with a Project-At-A-Glance cost estimate as a quick, user-friendly summary of the Property's condition and the assigned costs by category. These costs are tied to the report sections where references to the issues are clearly defined and expanded

Code Information Flood Zone and Seismic Zone

According to Mr. David Maiden of the Westbrook Building Department, the high school and middle school are considered one building. The Building Department does not have an annual inspection program. They only inspect new construction, work that requires a building permit,

and citizen complaints. A copy of the original Certificates of Occupancy was requested, but was not available.

Based on a review of the zoning classification information at the Westbrook Planning Department, the property is located within an MDR, Commercial zoning district and appears to be a conforming use. According to the Fire Marshal, there are no outstanding fire code violations on file. The most recent inspection was conducted by the Fire Department in the Fall of 2023. The Fire Department inspects the property on an annual basis.

According to the Flood Insurance Rate Map, published by the Federal Emergency Management Agency (FEMA) and dated August 2008, the property is located in two zones. The building and majority of the site is located in Zone X, defined as areas outside the 500-year flood plain with less than 0.2% annual probability of flooding. Annual Probability of Flooding of Less than one percent. There is a small portion of the property near the lake located in Zone A, defined as areas which are subject to 100-year flood. Base flood elevation undetermined.

According to the 1997 Uniform Building Code Seismic Zone Map of the United States, the property is located in Seismic Zone 2A, defined as an area of low to moderate probability of damaging ground motion.

The Westbrook Health Department Chief Sanitarian is reviewing records regarding the private onsite septic system. According to Mike Thomas, facilities manager, all three systems are pumped out annually.

ADA Accessibility

Generally, Title III of the Americans with Disabilities Act (ADA) prohibits discrimination by entities to access and use of “areas of public accommodations” and “commercial facilities” on the basis of disability. Regardless of its age, these areas and facilities must be maintained and operated to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG). Buildings completed and occupied after January 26, 1992 are required to comply fully with the ADAAG. Existing facilities constructed prior to this date are held to the lesser standard of compliance to the extent allowed by structural feasibility and the financial resources available. As an alternative, a reasonable accommodation pertaining to the deficiency must be made. During the Facility Condition Assessment (FCA), a limited visual observation for ADA accessibility compliance was conducted. It is understood by the Client that the limited observations described herein does not comprise a full ADA Compliance Survey, and that such a survey is beyond the scope of PMR's undertaking. Only a representative sample of areas was observed and, other than as shown on the Abbreviated Accessibility Checklist, actual measurements were not taken to verify compliance. The facility does not appear to be in complete compliance with Title III of the Americans with Disabilities Act:

Generally, the property appears to have been constructed within industry standards in force at the time of construction. The property appears to have been well maintained in recent years and is in good to fair overall condition. According to property management personnel, the property has had a limited capital improvement expenditure program primarily consisting of

new carpeting, exterior painting, new plumbing valves, and some HVAC repairs. Supporting documentation was not provided in support of these claims, but some of the work is evident.

Special Issues and Follow Up Recommendations

As part of the facility report, a limited assessment of accessible areas of the building(s) was performed to determine the presence of mold, conditions conducive to mold growth, and/or evidence of moisture. Property personnel were interviewed concerning any known or suspected mold, elevated relative humidity, water intrusion, or mildew-like odors. Sampling is not a part of this assessment. There are no visual indications of the presence of mold growth, conditions conducive to mold growth, or evidence of moisture in representative readily accessible areas of the property. Maintenance staff confirmed that periodic testing occurs if there are any complaints regarding odors.

For general record keeping practices the following issues should be considered:

- Verify that any alterations, installations, or other improvements since the project was first constructed and occupied have been properly permitted and approved by municipal agencies.
- All roof, equipment and system warranties/guarantees and transfers.
- All available site and building construction drawings and specifications.
- All government documents such as Certificates of Occupancy, permits, zoning variances, easements, tax receipts, and other pertinent records.

Opinion of Probable Cost

Cost estimates are attached in a spreadsheet on page 4 of this report. These estimates are based on Invoice or Bid Document/s provided either by the Owner/facility and construction costs developed by construction resources such as R.S. Means and Marshall & Swift, PMR's experience with past costs for similar properties, city cost indexes, and assumptions regarding future economic conditions.

Opinions of probable costs should only be construed as preliminary, order of magnitude budgets. Actual costs most probably will vary from the consultant's opinions of probable costs depending on such matters as type and design of suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, whether a physical deficiency is repaired or replaced in whole, phasing of the work (if applicable), quality of contractor, quality of project management exercised, market conditions, and whether competitive pricing is solicited, etc. ASTM E2018-08 recognizes that certain opinions of probable costs cannot be developed within the scope of this guide without further study. Opinions of probable cost for further study should be included in any future studies.

Methodology

Based upon site observations, research, and judgment, along with referencing Expected Useful Life (EUL) tables from various industry sources, PMR recommends as to when a system or component will most probably need replacement. Accurate historical replacement records, if

provided, are typically the best source of information. Exposure to the elements, initial quality and installation, extent of use, the quality and amount of preventive maintenance exercised, etc., are all factors that impact the effective age of a system or component. As a result, a system or component may have an effective age that is greater or less than its actual chronological age. The Remaining Useful Life (RUL) of a component or system equals the EUL less its effective age. Projections of Remaining Useful Life (RUL) are based on continued use of the Property similar to the reported past use. Significant changes in tenants and/or usage may affect the service life of some systems or components. Where quantities could not be derived from an actual take-off, lump sum costs or allowances are used. Estimated costs are based on professional judgment and the probable or actual extent of the observed defect, inclusive of the cost to design, procure, construct and manage the corrections.

Property Information

| | |
|-----------------------------|----------------------------------------------------------------------------------------------------------|
| Address | 154 McVeagh Road, Westbrook, Middlesex County, CT 06498 |
| Year Constructed | Middle School 2005, connected and adjacent to the High School |
| Management Point of Contact | Kristina Martineau, Superintendent of Schools |
| Property Type | Education |
| Site Area | Combined with High School 110.10 Acres |
| Gross Floor Area | 62,250 Square Feet - According to 2005 Construction Plans |
| Number of Stories | Two |
| Parking | 2 Open Lots, 100 Spaces |
| Building Construction | Concrete Slab On-Grade, Masonry Bearing Walls, Steel Joists |
| Roof Construction | Flat Roof with single ply membrane |
| Exterior Finishes | Brick Veneer and Curtain Wall Window System |
| Heating | Central Heating System with Boilers, Condensers & Wall Heaters |
| Fire & Life Safety | Fire Sprinklers, hydrants, Smoke Detectors, Alarms, Strobes, Extinguishers, and Carbon Dioxide Detection |

Utilities

The following table identifies the utility suppliers and the condition and adequacy of the services

| Utility | Utility Supplier | Condition | Adequacy |
|-------------------|-----------------------|-----------|----------|
| Sanitary sewer | On-site septic system | Good | Adequate |
| Domestic water | Town of Westbrook | Good | Adequate |
| Electrical supply | Eversource | Good | Adequate |
| Natural Gas | SCG | Good | Adequate |
| Solar thermal | DBS Energy | Good | Adequate |

Observations/Comments:

- The utilities appear to be adequate for the property.
- The property has a septic system.
- The system is reportedly pumped out on an annual basis.
- See page 16 for descriptions and comments regarding the emergency electrical generator.

Parking, Paving and Sidewalks

The main entrance drive is located along McVeagh Road on the south side of the property. Additional entrance drives are located along the other adjacent public streets. The parking areas and drive aisles are Based on the construction documents, parking is provided for 100 cars. The parking ratio is 1.6 spaces per thousand square feet of floor area and additional parking is available beyond the BOE near the athletic fields. All of the parking stalls are located in open lots. There are five handicapped-accessible parking stalls, one of which is reserved for vans. The sidewalks throughout the property are constructed of cast-in-place concrete and asphalt. The curbs are constructed of extruded asphalt placed at the edge of the pavement. Surface runoff is directed to swales along the drive aisles.

Observations/Comments: The property does not have a dedicated paving repair and maintenance contractor. Town workers maintain the paving and flatwork or a contractor is retained when required. The asphalt pavement is in good condition. There are no significant signs of cracking or surface deterioration. In order to maximize the pavement life, pothole patching, crack sealing, seal coating, and re-striping of the asphalt paving will be required over the assessment period. The concrete curb gutters and sidewalks throughout the property are in good condition. Routine cleaning and maintenance will be required during the assessment period.

Observations/Comments:

- The sidewalks are in good overall condition with the exception of a few minor issues. They are maintained by the Town.
- There is no evidence of storm water runoff from adjacent properties.
- The storm water system appears to provide adequate runoff capacity.
- There is no evidence of major ponding or erosion.

Topography and Landscaping

The property slopes gently down from the East to the West side property line. The landscaping consists of trees, shrubs, and grasses. There are 4 athletic fields and one-track field to the North side, which are maintained by the town. The immediate grounds and the varsity baseball field and the track field are irrigated by an in-ground sprinkler system, which consists of underground piping, shut-off valves, pop-up sprinkler heads and automatic timers. The

surrounding properties include woods to the North and West, with a few residential properties to the Northwest corner along with 8 tennis courts to the West. Woods on the east side with a body of water past the Northern baseball fields. A perimeter fence is located along the West and North perimeter of the property. The fence is constructed of chain link with metal posts. A guardrail is present at the parking lot around the field.

Observations/Comments:

- The topography and adjacent uses do not appear to present conditions detrimental to the property.
- The landscape materials are in good condition and will require routine maintenance during the assessment period.
- The underground irrigation system is owned and maintained by the City of Westbrook.
- The fencing appears to be in good condition

Property Identification and Signage

Property identification is provided by a monument sign adjacent to the main entrance drive. Street address numbers are displayed on the exterior elevations. Site lighting is provided by metal street light standards. The light standards are spaced along the drive aisles throughout the parking areas. Metal pole-mounted light fixtures are located along walkways and drive aisles throughout the property. Exterior building illumination is provided by light fixtures surface-mounted on the exterior walls. Recessed light fixtures are located in the exterior soffits.

Observations/Comments:

- The property and facility identification signs are in good condition. Routine maintenance will be required during the assessment period.
- The dumpsters are owned and maintained by the refuse contractor.

Building Architectural and Structural Systems

Foundations

Based on structures of similar size, configuration, and geographic location, it is assumed that the foundations consist of reinforced concrete slabs-on-grade with integral perimeter footings, interior footings, and column pad footings bearing directly on the soil.

Observations/Comments:

- The foundations and footings could not be directly observed during the site visit.
- There is no evidence of movement that would indicate excessive settlement.

Superstructure

The building has concrete masonry unit (CMU) exterior bearing walls and interior steel columns, which support the roof diaphragms. The roofs are constructed of metal decks, which are supported by steel columns and steel joists.

Observations/Comments:

The superstructure is exposed in some locations, which allows for limited observation. Walls and floors appear to be plumb, level, and stable. There are no significant signs of deflection or movement.

The building has concrete masonry unit (CMU) exterior bearing walls and interior steel columns, which support the upper floor and roof diaphragms. The upper floors are constructed with concrete beams and are topped with light weight concrete.

The roofs are constructed of metal decks, which are supported by steel beams and open web steel joists. The roof decks are topped with concrete.

Observations/Comments: The superstructure is exposed in some locations, which allows for limited observation. Walls and floors appear to be plumb, level, and stable. There are no significant signs of deflection or movement

Roofing

The primary roofs are classified as flat roofs. The roofs are finished with a PVC built-up membrane. The roofs are insulated with rigid insulation boards. The exterior perimeter walls extend above the surface of the roofs, creating parapet walls. The roof membrane turns up the sides of the parapet walls and terminates at sheet metal copings. The roofs have sheet metal flashing elements.

Storm water is drained from the roofs by internal drains. The drains discharge to paved and landscaped area which discharges to the underground storm drainage system.

Eight curb-mounted skylights provide natural illumination in the library and on the second-floor corridor of classrooms.

Observations/Comments:

The property does not have a dedicated roof repair and maintenance contractor. On site personnel maintain the roofs or a contractor is retained when required.

The primary roof finishes appear to be eighteen years old. The roofs are covered by a 20-year material warranty. A copy of the warranty is attached in Appendix C.

The roofs membranes are in good condition. Based on their estimated Remaining Useful Life (RUL), current condition, and contractor's report, the roof membranes will require replacement during the assessment period. The cost of this work is included in the Replacement Reserves Cost Estimate. There is no evidence of fire-retardant treated plywood (FRT).

The roof flashings are in good condition and will require routine maintenance during the assessment period.

The parapet walls and copings are in good condition and will require routine maintenance during the assessment period.

Roof drainage appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance program. The roof vents are in good condition and will require routine maintenance during the assessment period.

The skylights are in good condition and will require routine maintenance during the assessment period, they will be eligible for replacement and reimbursement if the town elects to manage their roof replacement project through the State grant process. The roof will be eligible for replacement in 2025

Exterior Finishes

The exterior walls are finished with brick masonry veneer. Portions of the exterior wall are a clad with a metal-framed curtain wall system. The curtain wall system is anchored to the superstructure. The curtain wall has horizontal bands of tinted, glazed vision panels. The curtain walls are finished with horizontal bands of opaque glazing factory-finished metal panels.

Building sealants (caulking) are located between dissimilar materials, at joints, and around window and door openings.

Observations/Comments:

The exterior finishes are in good condition.

Painting and patching will be required during the assessment period. The areas requiring painting are minimal and can be performed as part of routine maintenance.

The brick masonry veneer is in good condition. There is no evidence of cracking or efflorescence. Routine maintenance will be required over the evaluation period.

The curtain wall system is in good condition. Routine maintenance will be required over the evaluation period.

Exterior and Interior Stairs

The interior stairs are constructed of steel and have open risers and concrete-filled steel pan treads with vinyl covering. The handrails and balusters are constructed of metal. They are located at the end of each corridor and center by the elevator. '

Observations/Comments:

The interior stairs, balusters, and handrails are in good condition and will require routine maintenance during the assessment period.

Exterior Doors and Windows

The windows are part of an aluminum-framed storefront system, which incorporates the entry doors. The windows are glazed with insulated panes set in metal frames. The doors are fully-glazed aluminum-framed doors set in the metal framing system.

The doors are flush metal doors set in metal frames. The doors have commercial-grade hardware

Observations/Comments:

There is no evidence of window leaks or window condensation. The windows are in good condition and will require routine maintenance during the assessment period.

The exterior doors and door hardware are in good condition and will require routine maintenance during the assessment period.

Patio, Terrace and Balcony

Not applicable. There are no patios, terraces, or balconies.

Common Areas, Entrances and Corridor's

The school entrance is comprised of two sets of double doors to pass through before entering the main office of the building. There are several corridors throughout the school. The corridors are finished with a combination of enhanced vinyl or carpet flooring, a suspended T-bar with acoustic tiles ceiling, and concrete masonry unit walls. Several corridors also contain student lockers. There are nine common area restrooms located throughout the building that are accessible from the main corridor. Two of which are accessible bathrooms and one is designated as a faculty bathroom.

Observations/Comments:

The common area finishes vary in age. It was reported that most of the carpet is replaced on an as-needed-basis.

The carpet throughout appeared to be in good overall condition. It was reported that some carpet was replaced last year. Based on the estimated Remaining Useful Life (RUL), portions of carpet will require replacement during the assessment period.

There is a significant portion of enhanced sheet vinyl throughout the corridors. It is in good condition with the exception of a few areas that show previous damage due to water infiltration.

The ceiling tiles appeared to be in good overall condition. Based on the estimated Remaining Useful Life (RUL), various ceiling tiles will require replacement during the assessment period.

The interior painted concrete block wall finishes are in good overall condition. It was reported that painting is done on an as-needed basis during the summer months. This work is to be considered routine maintenance.

The gym wood floor appeared to be in good condition and reportedly is refinished annually. This work is considered to be routine maintenance.

Building Mechanical, Electrical and Plumbing Systems

Building Heating Ventilation and Air Conditioning

Heating is provided by individual direct expansion, constant volume electric packaged rooftop units. There are a total of eight packaged units, with a capacity of 15 tons each. Air distribution is provided to supply air registers by ducts concealed above the ceilings. Return air grilles are located in each space. The heating and cooling system are controlled by local thermostats. Hot water for the central heating system is supplied by two gas-fired, hot water boilers. Each boiler has a rated input capacity of 1,923 MBH and is located mechanical room by the maintenance office. Each boiler has been upgraded from oil-fired to natural gas-fired burners with a rating capacity of 12 GPH. Circulating pumps provide hot water to each temperature-controlled space by a two-pipe distribution system. The hot water supplies the fan coil units.

General air conditioning is limited to the second-floor classrooms through a Variable Refrigerant Flow system (VRF). This system was installed in 2018 due to excessive heat build-up in that area. Currently under consideration is the expansion of the air conditioning similar to what was installed on the second-floor classroom area in 2018 throughout areas on the first floor.

Natural ventilation is provided by some operable windows. Mechanical ventilation is provided in the bathrooms by ceiling exhaust fans. Large capacity ventilation fans are mounted on the roof and are connected by concealed ducts to each ventilated space.

Observations/Comments:

On site personnel maintain the HVAC equipment and handle minor repairs. Major repairs are handled by DeBow Mechanical LLC, who was contacted regarding the condition of the existing equipment.

Records of the installation, maintenance, upgrades, and replacement of the HVAC equipment have been maintained since the property was first occupied.

Based on the Remaining Useful Life, (RUL), most RTU's will need to be replaced during this assessment period.

With the exception of RTU-7 (cafeteria) and the Carrier units for second floor AC all of the HVAC equipment is original.

The majority of the rooftop HVAC equipment appears to be in good condition. Based on its estimated Remaining Useful Life (RUL), all rooftop units will require replacement during the assessment period. See Appendix B for condition assessment of each unit.

The exhaust fans appear to be in good condition. Based on its estimated Remaining Useful Life (RUL), all exhaust fans will require replacement during the assessment period.

The boilers were replaced in 2012 and appear to be in good condition. They will require routine maintenance during the assessment period.

The gas-fired burners attached to the boilers were also installed in 2012. They appear to be in good condition and will require routine maintenance during the assessment period.

The oil tank monitoring system and pump stations are no longer in use. The 8,000-gallon above ground tank remains 1/3 full of oil, there is no future use or need to retain it. Removing the remaining oil should be considered to eliminate the liability of a leak.

Building Plumbing and Domestic Hot Water

The plumbing systems include the incoming water service, the cold-water piping system, and the sanitary sewer and vent system. The risers and the horizontal distribution piping are copper. The soil and vent systems are PVC and cast iron. The water meters are located in vaults adjacent to the public streets. Domestic hot water is supplied by the HVAC system's boilers. The central hot water system consists of two heat exchangers, two circulating pumps and a 100-gallon insulated storage tank. The common area restrooms have commercial-grade fixtures and accessories including water closets and lavatories.

Observations/Comments:

The plumbing systems appear to be well maintained and in good condition. The water pressure appears to be adequate. The plumbing systems will require routine maintenance during the assessment period.

There is no evidence that the property uses polybutylene piping for the domestic water distribution system.

The pressure and quantity of hot water appear to be adequate.

The water heater pumps and tank appear to be in good condition and are 18 years old. The cost to replace these components is relatively insignificant, and the work can be performed as part of the property management's routine maintenance program.

The boilers appear to be in good condition and will require routine maintenance during the assessment period.

The accessories and fixtures in the common area restrooms are in good condition and will require routine maintenance during the assessment period.

Building Electrical

The electrical supply lines run underground to pad-mounted transformers, which feed exterior-mounted electrical meters. The main electrical service size is 2,400 amps, 277/480 volt three-phase four-wire alternating current (AC). The Step-down transformers are located throughout

the building. The electrical wiring is observed to be copper, installed in non-metallic sheathed cable. Circuit breaker panels are located throughout the building. A diesel-powered 100 KVA emergency electrical generator is located outside of the cafeteria. The generator provides back-up power for elements of the fire and life safety systems. The fuel tank is an above-ground 275-gallon tank located adjacent to the generator.

Observations/Comments:

The on-site electrical systems up to the meters are owned and maintained by the respective utility company.

The electrical service and capacity appear to be adequate for the property's demands.

The switchgear, circuit breaker panels, and electrical meters appear to be in good condition and will require routine maintenance during the assessment period.

The generator is in good condition and is reportedly tested on a weekly basis. The generator will require routine maintenance over the assessment period.

Building and Gas Distribution

Gas service is supplied from the gas main on the adjacent public street. The gas meters and regulators are located along the exterior walls of the buildings. The gas distribution piping within the building is malleable steel (black iron).

Observations/Comments:

The pressure and quantity of gas appear to be adequate.

The gas meters and regulators appear to be in good condition and will require routine maintenance during the assessment period.

Only limited observation of the gas distribution piping can be made due to hidden conditions. The gas piping appears to be in good condition.

Building Elevators

There is one hydraulic passenger elevator. The elevator was manufactured by ThyssenKrupp. The elevator has a rated capacity of 2,500 pounds. The elevator machinery is located in a room adjacent to the shaft. The elevator cab has vinyl-tiled floors, plastic laminated wood wall panels, and recessed ceiling light fixtures. The doors are fitted with mechanical safety stops. Emergency communication equipment is provided within the cab.

Observations/Comments:

The elevators are serviced by ThyssenKrupp on a routine basis. The elevator machinery and controls are the originally installed system.

- The elevator appears to provide adequate service. The elevator will require routine maintenance during the assessment period. The elevators are inspected on an annual basis by the municipality, and a certificate of inspection is displayed in the elevator cabs.
- The emergency communication equipment in the elevators appears to be functional and will require routine maintenance during the assessment period.
- The finishes in the elevator cabs appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), some of the cab finishes will require replacement during the assessment period.

Fire Protection and Security Systems

The fire protection system consists of a wet-pipe sprinkler system, portable fire extinguishers, smoke detectors, pull stations, and alarm horns. Siamese connections are located on the exterior of the buildings. Hard-wired smoke detectors are located throughout the common areas. The nearest fire hydrants are located along the property's drive aisles and are approximately thirty feet from the building. The system protects both the high school and middle school. Common areas and corridors of the high school and middle school are equipped with battery back-up exit lights, illuminated exit signs, pull stations, alarm horns, and strobe light alarms. The system is equipped with a back flow preventer. Fire sprinkler risers are located in a fire protection equipment room. The system is equipped with a fire pump rated at 500 GPM. The system is also equipped with back flow preventer. A 275-gallon roof-mounted storage tank supplies the fire prevention system. A central fire alarm panel is located high school main office and monitors the pull stations, smoke detectors, carbon dioxide and flow switches. The alarm panel also sounds the alarm and automatically notifies the monitoring service or the fire department in the event of trouble. The commercial kitchen is equipped with a dry chemical fire extinguishing system. Fire suppression heads are located in the commercial kitchen exhaust hoods above the cooking areas, and the chemical tanks are mounted adjacent to the hood.

Observations/Comments:

- The fire sprinklers appear to be in good condition and are inspected by a qualified contractor on a routine basis. The fire sprinklers will require routine maintenance during the assessment period.
- The fire extinguishers are serviced annually and appear to be in good condition. The fire extinguishers were serviced and inspected within the last year.
- The pull stations and alarm horns appear to be in good condition and will require routine maintenance during the assessment period.
- Smoke detector replacement is considered to be routine maintenance.
- Exit sign and emergency light replacement is considered to be routine maintenance.
- The central alarm panel appears to be in good condition and is serviced regularly by a qualified fire equipment contractor.

Equipment testing is not within the scope of a Facility Condition Assessment. Based on inspection documents displayed by the panel, the central alarm panel has been inspected within the last year.

The dry chemical extinguishing systems appear to be in good condition and are serviced regularly by a qualified fire equipment contractor.

Observations/Comments:

Interior Finishes

The interior doors are stained solid-core wood doors set in metal frames, typically with vision panels. The interior doors have cylindrical locksets with lever handle hardware.

Observations/Comments:

The interior doors and door hardware are in good condition and will require routine maintenance during the assessment period.

The furnishings appeared to be in good to fair condition. It was reported that the laminate countertops are replaced on an as-needed basis by in-house maintenance staff.

Commercial Kitchen Equipment

Equipment includes the following:

- Refrigerators (Up-right)
- Freezers (Walk-in/Up-right)
- Ranges (Electric)
- Ovens, Griddles/Grills (Electric)
- Hood Exhaust (Electric, ducted to the exterior)
- Dishwasher
- Microwave
- Ice Machines
- Steam tables
- Work tables (Stainless steel)
- Shelving (Stainless steel)

Observations/Comments:

The kitchen equipment appears to be in good to fair condition

Based on their estimated Remaining Useful Life (RUL), some of the kitchen appliances will require replacement during the assessment period.

It is recommended that the commercial kitchen exhaust vents are cleaned regularly to avoid grease fires. This work can be performed as part of routine maintenance.

Appendix A – Photographs



Signage adjacent to highway



View of second floor areas



View of Maintenance receiving area



Gas service



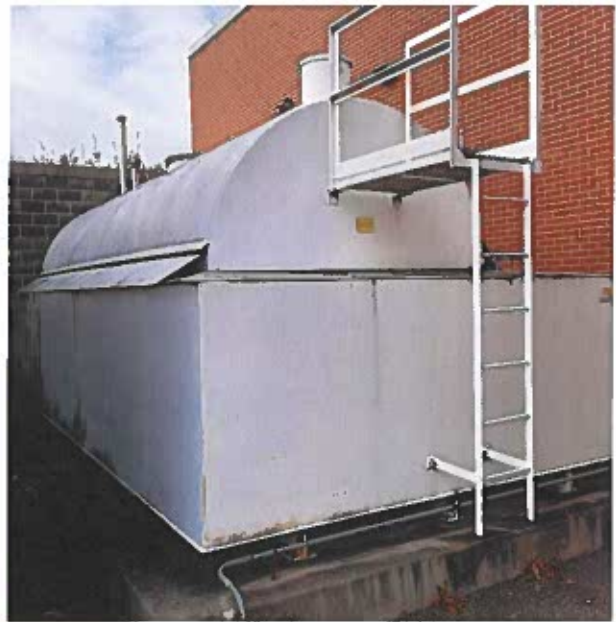
Parking near athletic fields



Parking in front of Middle School



100 kW Generator with diesel tank



Obsolete 8,000-gallon Oil storage tank



Single Ply membrane roof



Roof drain and ponding



RTU -1 Library, poor condition



2 of 4 Carrier units for 2nd floor AC



Middle School Athletic Field



Middle School Main Entry vestibule



Elevator



Elevator Machine Room with maintenance log



Main corridor and stairs to second floor



Code compliant water stations



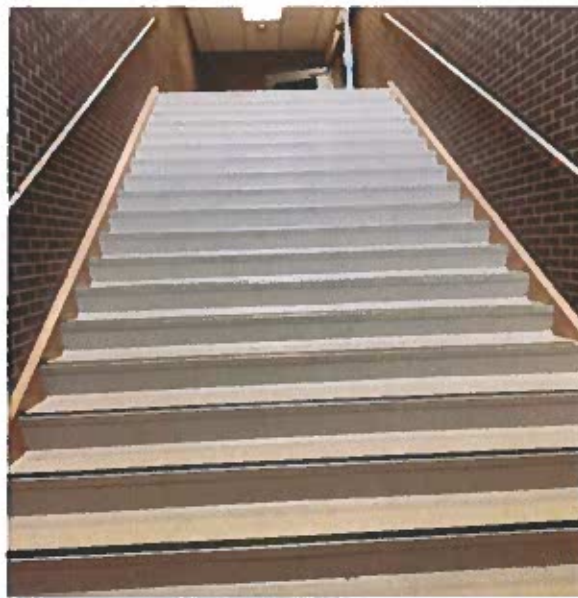
Boys' bathroom- typical



Custodial storage typical



Typical corridor with vinyl enhanced flooring



Main flight of stairs to 2nd floor, new treads



Cafeteria



Library

Appendix B – Spreadsheets

Westbrook Middle School

Grades 6-8 Square Feet 62,250 Year Built 2005

| | Good | Fair | Poor |
|--------------------------------------------|------|------|------|
| CODE COMPLIANCE & ACCESSIBILITY | | | |
| Fire Code Compliance | X | | |
| Accessibility | X | | |
| SITE IMPROVEMENTS | | | |
| Utilities | X | | |
| Exterior Illumination | X | | |
| Parking-paving-sidewalks | X | | |
| General Site Improvements | X | | |
| BUILDING STRUCTURAL ELEMENTS | | | |
| Foundation | X | | |
| Roof | | X | |
| Roof Exhaust Fans | X | | |
| Exterior Walls | X | | |
| Doors | X | | |
| Windows | X | | |
| Common Areas-Entrances | X | | |
| BUILDING MECHANICAL SYSTEMS | | | |
| HVAC | | X | X |
| Plumbing | X | | |
| Electrical | X | | |
| Solar Thermal Panels for Hot Water | X | | |
| Fire Protection | X | | |
| INTERIOR FUNCTIONS/ELEMENTS | | | |
| Wall Finishes | X | | |
| Floor Finishes | X | | |
| Kitchen Fixtures | X | | |
| | | | |

Appendix B – Spreadsheets

Westbrook Middle School HVAC Schedule

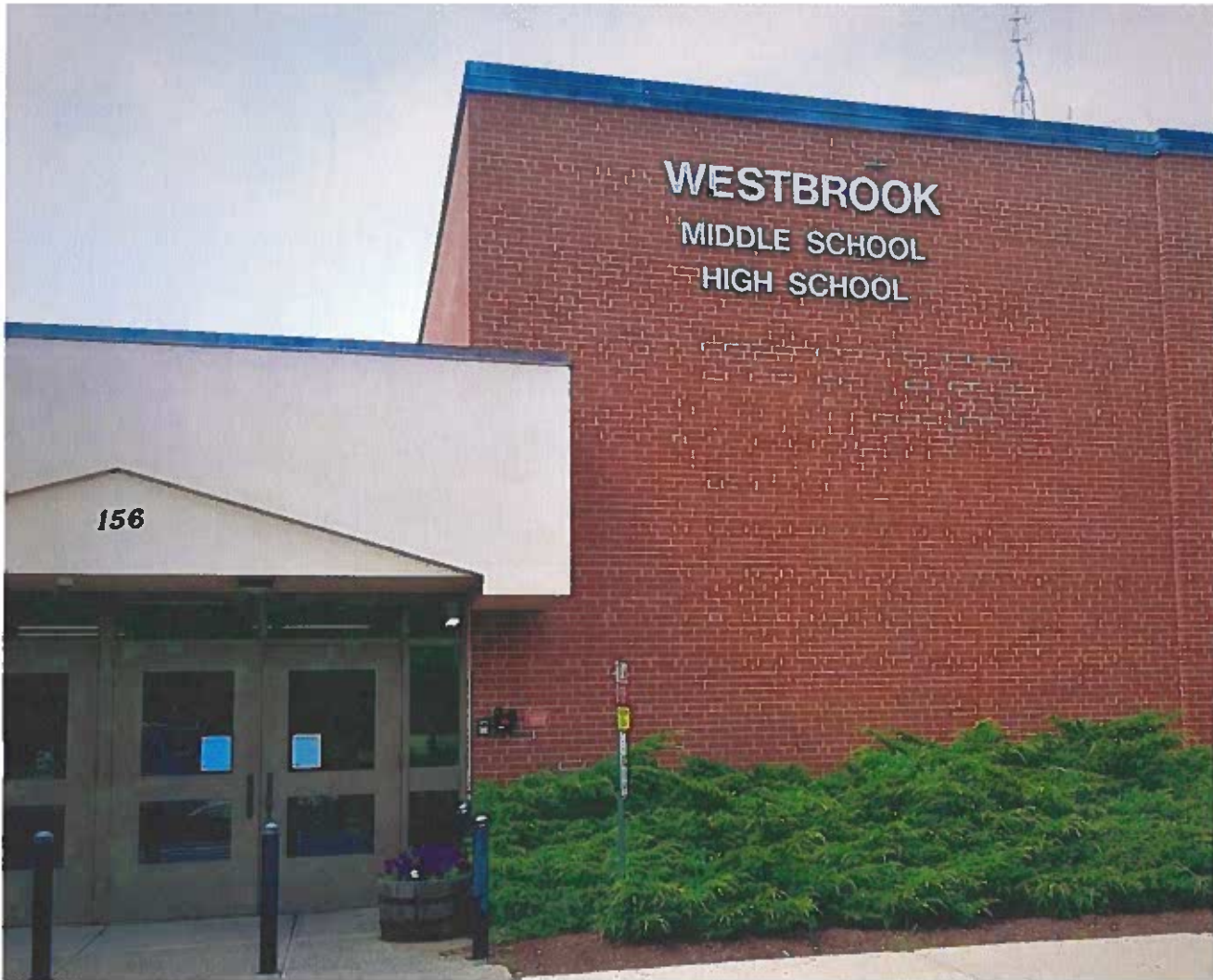
| Component or System | Condition | Asset Life Span | Years in Service | Remaining Life | Current Estimated Replacement Cost |
|--------------------------------|-----------|-----------------|------------------|----------------|------------------------------------|
| RTU – 1 Library HVAC | Poor | 20 | 18 | 2 | \$40,000 |
| RTU – 2 Main Office HVAC | Good | 20 | 18 | 2 | \$20,000 |
| RTU – 3 Guidance HVAC | Good | 20 | 18 | 2 | \$20,000 |
| RTU – 4 Classroom HVAC | Good | 20 | 18 | 2 | \$20,000 |
| RTU – 5 Music/Band/Chorus HVAC | Good | 20 | 18 | 2 | \$20,000 |
| RTU – 6 Music/Band/Chorus HVAC | Good | 20 | 18 | 2 | \$20,000 |
| RTU – 7 Cafeteria HVAC | Good | 20 | 4 | 16 | \$20,000 |
| RTU – 8 Nurse area MS/HS | Good | 20 | 10 | 10 | \$15,000 |
| Carrier Units - 2 sets of 2 | Good | 20 | 5 | 15 | \$40,000 |
| Controls - Alerton | Fair | 20 | 20 | 0 | Upgrade \$20,000 |
| | | | | | |

Appendix C – Consumer Price Index

CONSUMER PRICE INDEX 2013-2023

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual % |
|------|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| 2013 | 1.6 | 2 | 1.5 | 1.1 | 1.4 | 1.8 | 2 | 1.5 | 1.2 | 1 | 1.2 | 1.5 | 1.48 |
| 2014 | 1.6 | 1.1 | 1.5 | 2 | 2.1 | 2.1 | 2 | 1.7 | 1.7 | 1.7 | 1.3 | 0.8 | 1.63 |
| 2015 | 0.1 | 0 | -0.1 | -0.2 | 0 | 0.1 | 0.2 | 0.2 | 0 | 0.2 | 0.5 | 0.7 | 0.14 |
| 2016 | 1.4 | 1 | 0.9 | 1.1 | 1 | 1 | 0.8 | 1.1 | 1.5 | 1.6 | 1.7 | 2.1 | 1.27 |
| 2017 | 2.5 | 2.7 | 2.4 | 2.2 | 1.9 | 1.6 | 1.7 | 1.9 | 2.2 | 2 | 2.2 | 2.1 | 2.12 |
| 2018 | 2.1 | 2.2 | 2.4 | 2.5 | 2.8 | 2.9 | 2.9 | 2.7 | 2.3 | 2.5 | 2.2 | 1.9 | 2.45 |
| 2019 | 1.6 | 1.5 | 1.9 | 2 | 1.8 | 1.6 | 1.8 | 1.7 | 1.7 | 1.8 | 2.1 | 2.3 | 1.82 |
| 2020 | 2.5 | 2.3 | 1.5 | 0.3 | 0.1 | 0.6 | 1 | 1.3 | 1.4 | 1.2 | 1.2 | 1.4 | 1.23 |
| 2021 | 1.4 | 1.7 | 2.6 | 4.2 | 5 | 5.4 | 5.4 | 5.3 | 5.4 | 6.2 | 6.8 | 7 | 4.7 |
| 2022 | 7.5 | 7.9 | 8.5 | 8.3 | 8.6 | 9.1 | 8.5 | 8.3 | 8.2 | 7.7 | 7.1 | 6.5 | 8.02 |
| 2023 | 6.4 | 6 | 5 | 4.9 | 4 | 3 | 3.2 | 3.7 | 3.7 | 3.2 | | | |

: ENCLOSURE 3



2023 CAPITAL IMPROVEMENT PLAN

Facility Assessment Study *Westbrook High School*

156 McVeagh Road
Westbrook, CT 06498

Date of Report:
November 20, 2023

Prepared By:
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Table of Contents

| | |
|-----------------------------------------------|----|
| Introduction | 3 |
| Capital Replacement Plan | 3 |
| Capital Expenditures and Life Cycle Costing | 4 |
| Capital Reserve Analysis | 4 |
| Summary of Total Reserve Requirements Table 1 | 4 |
| Facility Condition Report | 4 |
| Improvements Since Previous 2018 Report | 4 |
| Areas of Concern Since Previous 2018 Report | 4 |
| Opinion of Probable Cost | 7 |
| Utilities | 8 |
| Parking, Paving and Sidewalks | 9 |
| Topography and Landscaping | 9 |
| Building Architectural and Structural Systems | 10 |
| Exterior Windows and Doors | 11 |
| Common Areas and Corridors | 12 |
| Building Mechanical and Plumbing Systems | 12 |
| Building and Gas Distribution | 13 |
| Fire Protection and Security Systems | 14 |
| Interior Finishes | 14 |
| Commercial Kitchen Equipment | 15 |
| Appendix A – Photographs – Existing Condition | 16 |
| Appendix B – Spreadsheets | 21 |
| Appendix C – Consumer Price Index | 23 |
| Appendix D –Roof Warranty (currently expired) | 24 |

Introduction

In April 2023, the Westbrook Board of Education requested PM Resources to provide a proposal for a Capital Improvement Plan for Westbrook's three school facilities. Beginning in May of 2023, PM Resources met with various staff of the three schools and conducted a series of extensive inspections to begin gathering information about the facilities. The three main components of this facility audit include a Capital Replacement Plan, a Facility's Condition Report and Recommendations for Improvement. Previous reports and data were utilized along with numerous site visits and a thorough inspection of all building systems. The combination of research, data and inspections provides much of the basis for this plan.

Capital Replacement Plan

A Capital Replacement Plan is a budgeting tool as well as a planning tool and if properly maintained, allows for the replacement of large, expensive assets while minimizing their financial impact to a current budget. A strategic capital plan was developed using the data collected from several site inspections, current records and information provided from various staff members.

The three components to the plan are as follows:

- Capital Expenditures and Life Cycle Costing
- Capital Reserve Analysis
- Summary of Total Reserve Requirements

Capital Expenditures and Life Cycle Costing

The formulation of the cost estimates and the Life Cycle Costing for physical plant and building improvements were obtained from several sources. The assessment team consisted of professional facility personnel and a consultant familiar with school construction, building systems design and operations. R.S. Means "Construction Cost Data" was also utilized and information pertaining to useful life as provided in this report is referenced from the ASHRAE life Expectancy Table.

An inventory of the facility's major assets and components was developed, these are detailed on the two spreadsheets in Appendix B. This asset inventory identifies capital replacement expenditures that will be required within the next 15 years. The analysis is comprised of four components, they are as follows:

- Identification of the asset (make, model, age).
- Evaluation of its condition (good, fair or poor).
- Determination of its remaining life expectancy.
- A replacement value of the asset.

After completing these tasks, we reviewed the remaining life expectancy of the items and determined that few exceeded fifteen years of additional life expectancy. Consequently, the plan extends fifteen years out. The implication here is that by the year 2038, the majority of items currently listed, will have reached their full life expectancy and have been replaced or will be in need of replacement.

Capital Reserve Analysis

The financial component of this plan begins with an estimate of current replacement cost per item inclusive of labor and factors in an annual escalator of 2.78 percent. This percentage is derived by averaging the consumer price index over the past ten years and applying this historical data to predict future costs due to inflation, (to review this data, see Appendix D).

Table 1: Summary of Total Reserve Requirements

| Capital Item | Description | Cost |
|----------------------|---------------------------------------------------------|--------------------|
| * HV Equipment Only | Replaces existing equipment with like equipment | \$188,000 |
| ** HVAC upgrade | Replaces existing equipment with heat and AC | \$690,000 |
| Electrical Equipment | Upgrade of electrical service to accommodate AC project | \$175,000 |
| Kitchen Equipment | Hood needs replacement with insulated model | \$ 15,000 |
| Roofing | 92,000 s.f. of modified bitumen | \$4,500,000 |
| *TOTAL | | \$4,878,000 |
| **TOTAL | | \$5,380,000 |

Facility Condition Report

Over all, Westbrook Public Schools has taken a proactive approach to securing reserves for all anticipated future expenses and capital upgrades. The spreadsheets show the condition of all existing major assets and areas of expenditures.

Improvements since previous 2018 Study:

- The 10,000-gallon underground fuel tank was removed in 2018.
- A new 100 kW emergency generator was installed
- A new 7.5-ton HVAC RTU was installed on the roof to serve the expanded metal shop.
- All of the lobby and corridor ceiling mounted heating units were replaced 2021
- Exterior doors, approximately twenty, were replaced in 2019

Areas of Concern Since the Previous 2018 Study

- RTU's that provide heating, previously identified for replacement, have been put on hold as the Board of Education seeks support for the inclusion of air conditioning and improved ventilation. Delaying their replacement increases the possibility of a more significant failure.
- The roof warranty expired on 9/23/23, although the roof is in good to fair condition, it should be considered for a full replacement in the near future.

Short term costs are opinions of probable costs to remedy physical deficiencies, such as deferred maintenance, that may not warrant immediate attention, but that require repairs or replacements, which should be undertaken on a priority basis in addition to routine preventive maintenance. Opinions of probable costs may include costs for testing, exploratory probing, and further analysis should this be deemed warranted by the consultant. The performance of such additional services is beyond the FCA scope of work. Generally, the time frame for such repairs is within one to two years.

Replacement Reserves

Replacement Reserves are for recurring probable expenditures, which are not classified as operation or maintenance expenses. Best practice for anticipating capital replacement costs would require that reserves should be budgeted for in advance and on an annual basis. However, the Town of Westbrook prefers to

utilize the CIP as a 5-year spending plan and prioritizes the items identified within the plan to be remediated on an annual basis.

Replacement Reserves exclude systems or components that are estimated to expire after the reserve term and are not considered material to the structural and mechanical integrity of the subject property. Furthermore, systems and components that are not deemed to have a material effect on the use of the Property are also excluded. Costs that are caused by acts of God, accidents, or other occurrences that are typically covered by insurance, rather than reserved for, are also excluded. Replacement costs are solicited from ownership/property management, PMR's discussions with service companies, manufacturers' representatives, and previous experience in preparing such schedules for other similar facilities. Costs for work performed by the ownership's or property management's maintenance staff are also considered. PMR's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the assessment period. The assessment period is defined as the effective age plus the reserve term. Additional information concerning systems or component's respective replacement costs (in today's dollars), typical expected useful lives, and remaining useful lives were estimated so that a funding schedule could be prepared. The Replacement Reserves Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined in the Immediate Repair and Short-Term Cost Estimate.

Purpose

PMR was retained by the client to render an opinion as to the Property's current general physical condition on the day of the site visit. Based on the observations, interviews and document review outlined below, this report identifies significant deferred maintenance issues, existing deficiencies, and material code violations of record at municipal offices, that affect the Property's use. Opinions are rendered as to its structural integrity, building system condition and the Property's overall condition. The report also notes building systems or components that have realized or exceeded their typical expected useful lives. The physical condition of building components is typically defined as being in one of three categories: Good, Fair, and Poor. For the purposes of this report, the following definitions are used:

- Good = Satisfactory as-is. Requires only routine maintenance during the assessment period. Repair or replacement may be required due to a system's estimated useful life.
- Fair = Satisfactory as-is. Repair or replacement is required due to current physical condition and/or estimated remaining useful life.
- Poor = Immediate repair, replacement, or significant maintenance is required.

Scope

The standard scope of the Facility Condition Assessment includes the following:

- Visit the Property to evaluate the general condition of the building and site improvements, review available construction documents in order to familiarize ourselves with, and be able to comment on, the in-place construction systems, life safety, mechanical, electrical, and plumbing systems, and the general built environment.
- Identify those components that are exhibiting deferred maintenance issues and provide cost estimates for Immediate, Short Term, and Replacement Reserves based on observed conditions, maintenance history and industry standard useful life estimates. This will include the review of documented capital improvements completed within the last five-year period and work currently contracted for, if applicable.
- Provide a full description of the Property with descriptions of in-place systems and commentary on observed conditions.

- Provide a general statement of the subject Property's compliance to Title III of the Americans with Disabilities Act. This will not constitute a full ADA survey, but will help identify exposure to issues and the need for further review.
- Perform a limited assessment of accessible areas of the building(s) for the presence of mold, conditions conducive to mold growth, and/or evidence of moisture. PMR will also interview Project personnel regarding the presence of any known or suspected mold, elevated relative humidity, water intrusion, or mildew-like odors. Potentially affected areas will be photographed. Sampling will not be considered in routine assessments.
- List the current utility service providers.
- Review maintenance records and procedures with the in-place maintenance personnel.
- Observe a representative sample of the interior tenant spaces/units, including vacant spaces/units, in order to gain a clear understanding of the property's overall condition. Other areas to be observed include the exterior of the property, the roofs, interior common areas, and mechanical, electrical and elevator equipment rooms.
- Appropriate inquiries of municipal officials regarding the existence of pending unresolved building, zoning or fire code violations on file, and a determination of the current zoning category, flood plain zone, and seismic zone for the Property.
- Provide recommendations for additional studies, if required, with related budgetary information.
- Tenant responsibility for maintenance, repair or replacement of finishes, fixtures, or equipment is not addressed by this scope of services.
- Provide an Executive Summary at the beginning of this report with a Project-At-A-Glance cost estimate as a quick, user-friendly summary of the Property's condition and the assigned costs by category. These costs are tied to the report sections where references to the issues are clearly defined and expanded

Code Information Flood Zone and Seismic Zone

According to building official Mr. David Maiden, of the Westbrook Building Department, there are no outstanding building code violations on file. The Building Department does not have an annual inspection program. They only inspect new construction, work that requires a building permit, and citizen complaints. A copy of the original Certificate of Occupancy was requested, but was not available.

The property is located within an MDR/Commercial zoning district and is a conforming use. According to the Flood Insurance Rate Map, published by the Federal Emergency Management Agency (FEMA) and dated August 28, 2008, the property is located in two zones. Zone X, defined as areas outside the 500-year flood plain with less than 0.2% annual probability of flooding. Annual probability of flooding of less than one percent. There is a small portion near the lake in a Zone A, defined as areas located within a 100-year flood plain. According to the 1997 Uniform Building Code Seismic Zone Map of the United States, the property is located in Seismic Zone 2A, defined as an area of moderate probability of damaging ground motion.

We spoke with the City of Westbrook Fire Marshal regarding code compliance. His office conducts annual inspections of the schools and is currently in the process of this year's inspections. At this time, he is unaware of any significant violations and will forward us information if anything significant is found.

The Westbrook Health Department Chief Sanitarian is reviewing records regarding the private onsite septic system. According to Mike Thomas, facilities manager, all three systems are pumped out annually.

ADA Accessibility

Generally, Title III of the Americans with Disabilities Act (ADA) prohibits discrimination by entities to access and use of "areas of public accommodations" and "commercial facilities" on the basis of disability. Regardless of its

age, these areas and facilities must be maintained and operated to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG). Buildings completed and occupied after January 26, 1992 are required to comply fully with the ADAAG. Existing facilities constructed prior to this date are held to the lesser standard of compliance to the extent allowed by structural feasibility and the financial resources available. As an alternative, a reasonable accommodation pertaining to the deficiency must be made. During the Facility Condition Assessment (FCA), a limited visual observation for ADA accessibility compliance was conducted. It is understood by the Client that the limited observations described herein does not comprise a full ADA Compliance Survey, and that such a survey is beyond the scope of PMR's undertaking. Only a representative sample of areas was observed and, other than as shown on the Abbreviated Accessibility Checklist, actual measurements were not taken to verify compliance. The facility does not appear to be in complete compliance with Title III of the Americans with Disabilities Act:

Generally, the property appears to have been constructed within industry standards in force at the time of construction. The property appears to have been well maintained in recent years and is in good to fair overall condition. According to property management personnel, the property has had a limited capital improvement expenditure program over the past three years, primarily consisting of new carpeting, exterior painting, new plumbing valves, a new computer room, and some HVAC replacements. Supporting documentation was not provided in support of these claims, but some of the work is evident.

Special Issues and Follow Up Recommendations

As part of the facility report, a limited assessment of accessible areas of the building(s) was performed to determine the presence of mold, conditions conducive to mold growth, and/or evidence of moisture. Property personnel were interviewed concerning any known or suspected mold, elevated relative humidity, water intrusion, or mildew-like odors. Sampling is not a part of this assessment. There are no visual indications of the presence of mold growth, conditions conducive to mold growth, or evidence of moisture in representative readily accessible areas of the property. Maintenance staff confirmed that periodic testing occurs if there are any complaints regarding odors.

For general record keeping practices the following issues should be considered:

- Verify that any alterations, installations, or other improvements since the project was first constructed and occupied have been properly permitted and approved by municipal agencies.
- All roof, equipment and system warranties/guarantees and transfers.
- All available site and building construction drawings and specifications.
- All government documents such as Certificates of Occupancy, permits, zoning variances, easements, tax receipts, and other pertinent records.

Opinion of Probable Cost

Cost estimates are attached in a spreadsheet on page 4 of this report. These estimates are based on Invoice or Bid Document/s provided either by the Owner/facility and construction costs developed by construction resources such as R.S. Means and Marshall & Swift, PMR's experience with past costs for similar properties, city cost indexes, and assumptions regarding future economic conditions.

Opinions of probable costs should only be construed as preliminary, order of magnitude budgets. Actual costs most probably will vary from the consultant's opinions of probable costs depending on such matters as type and design of suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, whether a physical deficiency is repaired or replaced in whole,

phasing of the work (if applicable), quality of contractor, quality of project management exercised, market conditions, and whether competitive pricing is solicited, etc. ASTM E2018-08 recognizes that certain opinions of probable costs cannot be developed within the scope of this guide without further study. Opinions of probable cost for further study should be included in any future studies.

Methodology

Based upon site observations, research, and judgment, along with referencing Expected Useful Life (EUL) tables from various industry sources, PMR recommends as to when a system or component will most probably need replacement. Accurate historical replacement records, if provided, are typically the best source of information. Exposure to the elements, initial quality and installation, extent of use, the quality and amount of preventive maintenance exercised, etc., are all factors that impact the effective age of a system or component. As a result, a system or component may have an effective age that is greater or less than its actual chronological age. The Remaining Useful Life (RUL) of a component or system equals the EUL less its effective age. Projections of Remaining Useful Life (RUL) are based on continued use of the Property similar to the reported past use. Significant changes in tenants and/or usage may affect the service life of some systems or components. Where quantities could not be derived from an actual take-off, lump sum costs or allowances are used. Estimated costs are based on professional judgment and the probable or actual extent of the observed defect, inclusive of the cost to design, procure, construct and manage the corrections.

Immediate Repairs and Short-Term Costs

Immediate repairs are opinions of probable costs that require immediate action as a result of:

- material existing or potential unsafe conditions,
- material building or fire code violations, or
- conditions that, if not addressed, have the potential to result in, or contribute to, critical element or system failure within one year or will most probably result in a significant escalation of its remedial cost.

Utilities

The following table identifies the utility suppliers and the condition and adequacy of the services. Site Utilities
 Utility Supplier Condition & Adequacy Sanitary sewer Septic system Good & adequate Storm sewer City of Westbrook Good & adequate Domestic water City of Westbrook Good & adequate Electric service Connecticut Light and Power Good & adequate Natural gas service NA Good & adequate

| Utility | Utility Supplier | Condition | Adequacy |
|-------------------|-----------------------|-----------|----------|
| Sanitary sewer | On-site septic system | Good | Adequate |
| Domestic water | Town of Westbrook | Good | Adequate |
| Electrical supply | Eversource | Good | Adequate |
| Natural Gas | SCG | Good | Adequate |
| Solar Electricity | DBS Energy | Good | N/A |

Observations/Comments:

- The utilities appear to be adequate for the property.
- The property has a septic system.
- The system is reportedly pumped out on an annual basis.
- See page 16 for descriptions and comments regarding the emergency electrical generator.

Parking, Paving and Sidewalks

The entrance is located along McVeagh Rd. on the south side of the property. The parking areas, drive aisles and service drives are paved with asphalt. Based on a physical count, front parking is provided for 88 cars, (includes 5 handicapped accessible). The BOE supplies 54 parking spots, (11 of which are handicapped accessible). Additional parking is available beyond the BOE near the athletic fields. All of the parking spaces are located in open lots. The sidewalks in the front and side of the building are constructed of cast-in-place concrete. The curbs are constructed of bituminous in parking areas and cast-in-place concrete where sidewalks are present.

Storm water from the roofs, landscaped areas, and paved areas flows into on site inlets and catch basins with underground piping connected to the municipal storm water management system.

Observations/Comments:

- The sidewalks are in good overall condition with the exception of a few minor issues. They are maintained by the Town.
- There is no evidence of storm water runoff from adjacent properties.
- The storm water system appears to provide adequate runoff capacity.
- There is no evidence of major ponding or erosion.

Topography and Landscaping

The property slopes gently down from the East to the West side property line. The landscaping consists of trees, shrubs, and grasses. There are 4 athletic fields and one-track field to the North side, which are maintained by the town. The immediate grounds and the varsity baseball field and the track field are irrigated by an in-ground sprinkler system, which consists of underground piping, shut-off valves, pop-up sprinkler heads and automatic timers. The surrounding properties include woods to the North and West, with a few residential properties to the Northwest corner along with 8 tennis courts to the West. Woods on the east side with a body of water past the Northern baseball fields. A perimeter fence is located along the West and North perimeter of the property. The fence is constructed of chain link with metal posts. A guardrail is present at the parking lot around the field.

Observations/Comments:

- The topography and adjacent uses do not appear to present conditions detrimental to the property.
- The landscape materials are in good condition and will require routine maintenance during the assessment period.
- The underground irrigation system is owned and maintained by the City of Westbrook.
- The fencing appears to be in good condition

Property Identification and Signage

Property identification is provided by a monument sign adjacent to the main entrance as well as signage mounted on the face of the front wall. Street address numbers are displayed on the exterior elevation adjacent to the front door. Site lighting is provided by metal street light standards. The light standards are spaced along the drive aisles throughout the parking areas. Metal pole-mounted light fixtures are located along walkways and drive aisles throughout the property. Exterior building illumination is provided by light fixtures surface-mounted on the exterior walls.

Observations/Comments:

The property and facility identification signs are in good condition. Routine maintenance will be required during the assessment period.

The exterior site and building light fixtures are in fair overall condition with several of the exterior lamp posts needing some repair work.

The site fencing surrounding the athletic fields is in good condition and will require routine maintenance during the assessment period.

The dumpsters are owned and maintained by the refuse contractor.

The athletic fields are in good overall condition requiring routine maintenance during the assessment period.

Building Architectural and Structural Systems

Foundations

Based on structures of similar size, configuration, and geographic location, it is assumed that the foundations consist of reinforced concrete slabs-on-grade with integral perimeter footings, interior footings, and column pad footings bearing directly on the soil.

Observations/Comments:

The foundations and footings could not be directly observed during the site visit.

There is no evidence of movement that would indicate excessive settlement.

Superstructure

The building has concrete masonry unit (CMU) exterior bearing walls and interior steel columns, which support the roof diaphragms. The roofs are constructed of metal decks, which are supported by steel columns and steel joists.

Observations/Comments:

The superstructure is exposed in some locations, which allows for limited observation. Walls and floors appear to be plumb, level, and stable. There are no significant signs of deflection or movement.

The primary roofs are classified as flat roofs. The roofs are finished with a modified bitumen asphalt layer. It was restored in 2014 and is at the end of a 10-year warranty period. It will need to be replaced during this assessment period. The roof drain system is internal and ultimately discharges to paved and landscaped areas. There are no attics in the High School however there is an attic over the Board of Education offices. The Board of Education offices are pitched gable roofs with asphalt/fiberglass shingles.

Observations/Comments:

The property does not have a dedicated roof repair and maintenance contractor. On site personnel maintain the roofs or a contractor is retained when required. A copy of the warranty (recently expired) is attached in Appendix D.

There are several leaks which maintenance is monitoring with the manufacturer's representative. The most persistent issue is the deteriorating concrete masonry units (CMU's) that make up the exterior walls of the gym. These walls have been subject to water intrusion and are more than likely the source of the leaks. Remediation of these walls should be addressed when the roof is scheduled for replacement. There are several options available depending on the condition of the CMU's.

There is no evidence of roof deck or insulation deterioration. The roof substrate should be inspected prior to any future roof repair or replacement work. Future roof project will require the replacement of existing insulation and the installation of new code-compliant insulation.

There is no evidence of fire-retardant treated plywood (FRT).

The roof flashings are in fair condition and will require replacement during the assessment period.

Roof drainage appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance program. Future roof project will require the installation of a secondary roof drain system.

The exterior walls are finished with brick masonry veneer. Building sealants (caulking) are located between dissimilar materials, at joints, and around window and door openings.

The Board of Education portion has an EIFS (exterior insulation finishing system). It is in good condition.

Observations/Comments:

The exterior finishes, with the exception of the upper gym walls, are in good condition. Routine maintenance will be required during the assessment period.

The sealant is flexible, smooth, and in good condition and will require routine maintenance during the assessment period.

Exterior and Interior Stairs

Not applicable. There are no exterior or interior stairs.

Exterior Windows and Doors

The windows are metal-framed, double-glazed units with tinted glazing. The units are operable. The main entrance doors are metal doors with glazed panels set in metal frames. The exterior doors have cylindrical locksets with pull handle hardware on the exterior and panic hardware on the interior. The exterior doors are painted metal, set in metal frames.

Observations/Comments:

The windows were replaced in 2014 and are in keeping with the original look and style

The exterior doors were replaced in 2018 and in keeping with the same style.

Patio, Terrace and Balcony

Not applicable. There are no patios, terraces, or balconies.

Common Areas, Entrances and Corridor's

The school has a small lobby inside the main entrance vestibule. The administration offices, cafeteria, and corridors are accessed from the lobby. Classrooms, restrooms, and other functional spaces are accessed from corridors beyond the lobby.

Observations/Comments:

The common area finishes vary in age. It was reported that most of the carpet is replaced on an as-needed-basis.

The carpet throughout appeared to be in good overall condition. It was reported that some carpet was replaced last year. Based on the estimated Remaining Useful Life (RUL), portions of carpet will require replacement during the assessment period.

The ceiling tiles appeared to be in good overall condition. Based on the estimated Remaining Useful Life (RUL), carpet will require replacement during the assessment period.

The interior painted concrete block wall finishes are in good overall condition. It was reported that painting is done on an as-needed basis during the summer months. This work is to be considered routine maintenance.

The gym floor appeared to be in good condition and reportedly is refinished annually. This work is considered to be routine maintenance.

Building Mechanical and Plumbing Systems

Building Heating Ventilation and Air Conditioning

Hot water for the central heating system is supplied by two oil-fired, hot water boilers that were installed in 2014. They are all located in the mechanical room on the east side of the building. Circulating pumps provide hot water to the air handlers that supply heat to the larger spaces and to the Roof Top Heating ventilators located over respective sections of the building. Air distribution from the air handlers is provided to supply air registers by ducts concealed above the ceilings or exposed, as in the Tech Ed areas. Return air grilles are located adjacent to the air handlers. The heating and cooling systems are controlled by local thermostats and are part of an automated building controls system currently maintained by a local vendor ABS. The bathrooms and other areas are ventilated by mechanical exhaust fans. Large capacity ventilation fans are mounted on the roof and are connected by concealed ducts to each ventilated space.

Natural ventilation is provided by operable windows. Mechanical ventilation is provided in the bathrooms by ceiling exhaust fans. Large capacity ventilation fans are mounted on the roof and are connected by concealed ducts to each ventilated space.

Observations/Comments:

On site personnel maintain the HVAC equipment and handle minor repairs. Major repairs are handled by DeBow Mechanical LLC, who was contacted regarding the condition of the existing equipment.

Records of the installation, maintenance, upgrades, and replacement of the HVAC equipment have been maintained since the property was first occupied.

Thirty-three power ventilators, (Penn Barry) were replaced by DeBow Mechanical 9 years ago

The boilers were replaced in 2014. Their useful life if properly maintained is 25 years.

In 2014 four new RTU's were installed, (media center, front office, teacher's lounge and computer lab). DeBow Mechanical also replaced motors of aged roof top units and two coils of the spectator gym RTU. The stage condenser unit is out of commission

Approximately 70 percent of the roof top units are 29 years old.

HVAC is reportedly replaced on an "as needed" basis and select components have been replaced to extend their longevity.

Based on the Remaining Useful Life, (RUL), most RTU's will need to be replaced during this assessment period.

The maintenance staff has added and upgraded many plumbing shut-off valves and circulation pumps in the mechanical room.

Building Plumbing and Domestic Hot Water

The plumbing systems include the incoming water service, the cold-water piping system, and the sanitary sewer and vent system. The risers and the horizontal distribution piping are copper. The soil and vent systems are PVC and cast iron. The water meters are located in vaults adjacent to the public streets. The common area restrooms have commercial-grade fixtures and accessories including water closets and lavatories. Domestic hot water is provided through a 100-gallon insulated storage tank, which are supplied by both the HVAC system's boilers and a dedicated thermal-solar array located on the roof. There are eight restrooms accessed from the corridors in the building, two of which are single use accessible restrooms. The restrooms closest to the gymnasium are multiple stall units containing an accessible shower for use by shelter victims during emergency evacuation periods

Observations/Comments:

The plumbing systems appear to be well maintained and in good condition. The water pressure appears to be adequate. The plumbing systems will require routine maintenance during the assessment period.

There is no evidence that the property uses polybutylene piping for the domestic water distribution system.

The pressure and quantity of hot water appear to be adequate.

The accessories and fixtures in the restrooms are in good overall condition, requiring routine maintenance during the evaluation period. The water storage tank is original however, it was reported that the bladder was replaced three years ago. Based on the estimated Remaining Useful Life (RUL), the water storage tank will not require replacement during the assessment period

It is recommended that a plumber inspect the grease traps and sewer lines to ensure that they have been properly maintained. This work can be performed as part of routine maintenance

Building and Gas Distribution

The electrical supply lines run underground to a pad-mounted transformer, which feed the exterior mounted electrical meters. The main electrical service size is 6,000 amps, 120/208 volt three-phase four-wire alternating current (AC). The electrical wiring is copper, installed in nonmetallic conduit. Circuit breaker panels are located throughout the building. A new Cummings diesel-powered 100 KW emergency electrical generator is located outside of the electrical room on the Northeast side of the building. The generator provides back-up power for elements of the fire and life safety systems, emergency lighting and the boilers. An array of solar panels was installed on the front upper south wall to support the IT department in the event of a power outage. The school also had a photovoltaic system installed in 2013 by DBS Energy Inc., located above the cafeteria roof.

Observations/Comments:

The onsite electrical systems up to the meters are owned and maintained by Eversource or CNG.

The electrical service and capacity were considered adequate for the facility until recently. Plans to incorporate a robust, high quality welding program within an expanded metal shop area resulted in the depletion of excess electrical reserve capacity. Given the consideration of introducing air conditioning to the facility, it now appears that an electrical upgrade of the existing system will be required. S & R Engineering is currently conducting a study to determine the exact requirements for such an upgrade.

The switchgear, circuit breaker panels, and electrical meters appear to be in good condition and will require routine maintenance during the assessment period.

A new diesel-powered, 100 kW Cummins emergency generator was installed in 2018-19 and is reportedly tested on a weekly basis.

Fire Protection and Security Systems

The fire protection system consists of a wet-pipe sprinkler system, portable fire extinguishers, smoke detectors, pull stations, and alarm horns. Siamese connections are located on the exterior of the buildings. Hard-wired smoke detectors are located throughout the common areas. The nearest fire hydrants are located along the property's drive aisles and are approximately thirty feet from the building. The system protects both the high school and middle school. Common areas and corridors of the high school and middle school are equipped with battery back-up exit lights, illuminated exit signs, pull stations, alarm horns, and strobe light alarms. Fire sprinkler risers are located in a fire protection equipment room by the high school wood shop class. The system is equipped with a back flow preventer. Fire sprinkler risers are located in a fire protection equipment room. The system is equipped with a fire pump rated at 500 GPM. The system is also equipped with back flow preventer. A 275-gallon roof-mounted storage tank supplies the fire prevention system. A central fire alarm panel is located high school main office and monitors the pull stations, smoke detectors, carbon dioxide and flow switches. The alarm panel also sounds the alarm and automatically notifies the monitoring service or the fire department in the event of trouble.

The kitchen is equipped with a dry chemical fire extinguishing system. Fire suppression heads are located in the kitchen exhaust hood above the cooking area, and the chemical tanks are mounted adjacent to the hood.

Observations/Comments:

The fire extinguishers are serviced annually and appear to be in good condition. The fire extinguishers were serviced and inspected within the last year.

The pull stations and alarm horns appear to be in good condition and will require routine maintenance during the assessment period.

Smoke detector replacement is considered to be routine maintenance.

Exit sign and emergency light replacement is considered to be routine maintenance.

The central alarm panel appears to be in good condition and is serviced regularly by a qualified fire equipment contractor. Equipment testing is not within the scope of a Facility Condition Assessment. The dry chemical extinguishing systems appear to be in good condition and are serviced regularly by a qualified fire equipment contractor.

Interior Finishes

The interior doors are stained solid-core wood doors set in metal frames, typically with vision panels. The interior doors have cylindrical locksets with lever handle hardware.

Observations/Comments:

The interior doors and door hardware are in good condition and will require routine maintenance during the assessment period.

The furnishings appeared to be in good to fair condition. It was reported that the laminate countertops are replaced on an as-needed basis by in-house maintenance staff.

Commercial Kitchen Equipment

Equipment includes the following:

- Refrigerators (Up-right)
- Freezers (Walk-in/Up-right)
- Ranges (Electric)
- Ovens, Griddles/Grills (Electric)
- Hood Exhaust (Electric, ducted to the exterior)
- Dishwasher (Owned)
- Microwave
- Ice Machines
- Steam tables
- Work tables (Stainless steel)
- Shelving (Stainless steel)

Observations/Comments:

The kitchen equipment appears to be in good to fair condition. However, the hood serving the stoves is original to the building and has been operating with excessive noise for the past few years. It should be considered for replacement with a newer more efficient and quieter motor.

Based on their estimated Remaining Useful Life (RUL), some of the kitchen appliances will require replacement during the assessment period. The cost of this work is included in the Replacement Cost Estimate

It is recommended that the commercial kitchen exhaust vents are cleaned regularly to avoid grease fires. This work can be performed as part of routine maintenance.

Appendix A: Photographs of existing conditions



Signage at Road
Good Condition



Solar Panels dedicated for IT
Good Condition



Electrical Power Solar Array
Good Condition



Thermal hot water panels
Good Condition



Newer Windows with doors at Cafeteria
(2014)



Upper Gym wall-CMU block, leaking needs
significant repair



Exterior CMU wall
(Maintenance required)



Flashing of the 3-auditorium smoke
hatches, needs to be addressed



Practice Gym RTU
Typical condition of most units
(29 years old)



Stage Roof Top Unit, out of commission,
should be removed



Typical corridor with carpeting
and LED lighting



Boys' bathroom panels, C wing
(Poor Condition)



Lockers
(good, fair and poor condition)



Fire alarm panels
(good condition)



Original exhaust hood
(Poor Condition)



Ansul Suppression System
(good condition)



Newer Boiler (1 of 2) with Power Flame burner (good condition)



Newer Boiler with specifications plate (good condition)



Two of three electrical panels with room for future circuits



Solar tank with newer High Efficiency domestic Hot Water tank 100 gal. capacity, (good condition)

Appendix B Spreadsheets

Westbrook High School HVAC schedule

| Component or System | Condition | Asset Life Span | Years in Service | Remaining Life | Current Estimated Replacement Cost |
|---------------------------------------|----------------|-----------------|------------------|----------------|------------------------------------|
| AHU #1 - Trane (Chorus Room) | Fair | 20 | 18 | 2 | \$15,000 |
| AHU #2 - Trane (Central Office) | Fair | 20 | 18 | 2 | \$10,000 |
| AHU #3 - Trane (Teacher's Lounge) | Good | 20 | 10 | 10 | \$9,000 |
| AHU #4 - AirTherm (Auditorium) | Good | 20 | 10 | 10 | \$18,000 |
| AHU #5 - York (Stage) | Out of Service | 20 | Out of Service | Out of Service | Out of Service |
| RTU #6 - York (Administration) | Good | 20 | 10 | 10 | \$10,000 |
| RTU #7 - York (Media Center.) | Good | 20 | 10 | 10 | \$10,000 |
| RTU #8 - York (Math/Computer Rm.) | Good | 20 | 10 | 10 | \$10,000 |
| RTU #9 - Trane C-Wing Comp. Lab) | Fair | 20 | 20 | 0 | \$9,000 |
| RTU #10 - Trane (C-Wing Physics) | Fair | 20 | 20 | 0 | \$9,000 |
| RTU #11- Trane (C-Wing Welding Shop) | Excellent | 20 | 0 | 20 | N/A |
| HV - 1 - Central Aire (D-Wing) | Poor | 20 | 29 | -9 | \$10,000 |
| HV - 2 - Central Aire (D-Wing) | Poor | 20 | 29 | -9 | \$10,000 |
| HV - 4 - York (C-Wing) | Poor | 20 | 29 | -9 | \$12,000 |
| HV - 6 - York (C-Wing Production Lab) | Poor | 20 | 29 | -9 | \$12,000 |
| HV - 8 - York (B-Wing Cafeteria) | Poor | 20 | 29 | -9 | \$12,000 |
| HV - 11 - York (Music Room) | Poor | 20 | 29 | -9 | \$9,000 |
| HV - 12 - York (B- Wing) | Poor | 20 | 29 | -9 | \$10,000 |
| HV - 13 - York (A-Wing Classroom) | Poor | 20 | 29 | -9 | \$10,000 |
| HV - 14 - York (A-Wing) | Poor | 20 | 29 | -9 | \$10,000 |
| HV - 15 - York (Boy's Locker Room) | Poor | 20 | 29 | -9 | \$10,000 |
| HV -16 - York (Girl's Locker Room) | Poor | 20 | 29 | -9 | \$10,000 |
| HV -17 - York (Practice Gym) | Poor | 20 | 29 | -9 | \$10,000 |
| HV -18 - York (Spectator Gym) | Poor | 20 | 29 | -9 | \$18,000 |
| Controls - Alerton | Fair | 20 | 20 | 0 | Upgrade \$20,000 |

Westbrook High School Component Condition

Grades 9 -12 **Square Feet** 107,141 (includes Central Office) **Year Built** 1956, Additions in 1965 and 1976

| | Good | Fair | Poor |
|------------------------------------------------------------|------|------|------|
| CODE COMPLIANCE & ACCESSIBILITY | | | |
| Fire Code Compliance | X | | |
| Accessibility | X | | |
| SITE IMPROVEMENTS | | | |
| Utilities | X | | |
| Exterior Illumination | X | | |
| Parking-paving-sidewalks | X | X | |
| General Site Improvements | X | X | |
| BUILDING STRUCTURAL ELEMENTS | | | |
| Foundation | X | | |
| Roof | | X | X |
| Roof Exhaust Fans | X | | |
| Solar Panels | X | | |
| Exterior Walls | X | X | X |
| Doors | X | | |
| Windows | X | | |
| Common Areas-Entrances | X | | |
| BUILDING MECHANICAL SYSTEMS | | | |
| HVAC | | X | X |
| Plumbing | X | X | |
| Electrical | X | X | |
| Fire Protection | X | | |
| INTERIOR FUNCTIONS/ELEMENTS | | | |
| Wall Finishes | X | X | |
| Floor Finishes | X | | |
| Kitchen Fixtures | | X | |
| Refrigerator | X | | |
| Stove | | X | |
| Exhaust Hood | | | X |
| *Components with multiple X's indicate variable conditions | | | |

Appendix C – Consumer Price Index

CONSUMER PRICE INDEX 2013-2023

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual % |
|------|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| 2013 | 1.6 | 2 | 1.5 | 1.1 | 1.4 | 1.8 | 2 | 1.5 | 1.2 | 1 | 1.2 | 1.5 | 1.48 |
| 2014 | 1.6 | 1.1 | 1.5 | 2 | 2.1 | 2.1 | 2 | 1.7 | 1.7 | 1.7 | 1.3 | 0.8 | 1.63 |
| 2015 | 0.1 | 0 | -0.1 | -0.2 | 0 | 0.1 | 0.2 | 0.2 | 0 | 0.2 | 0.5 | 0.7 | 0.14 |
| 2016 | 1.4 | 1 | 0.9 | 1.1 | 1 | 1 | 0.8 | 1.1 | 1.5 | 1.6 | 1.7 | 2.1 | 1.27 |
| 2017 | 2.5 | 2.7 | 2.4 | 2.2 | 1.9 | 1.6 | 1.7 | 1.9 | 2.2 | 2 | 2.2 | 2.1 | 2.12 |
| 2018 | 2.1 | 2.2 | 2.4 | 2.5 | 2.8 | 2.9 | 2.9 | 2.7 | 2.3 | 2.5 | 2.2 | 1.9 | 2.45 |
| 2019 | 1.6 | 1.5 | 1.9 | 2 | 1.8 | 1.6 | 1.8 | 1.7 | 1.7 | 1.8 | 2.1 | 2.3 | 1.82 |
| 2020 | 2.5 | 2.3 | 1.5 | 0.3 | 0.1 | 0.6 | 1 | 1.3 | 1.4 | 1.2 | 1.2 | 1.4 | 1.23 |
| 2021 | 1.4 | 1.7 | 2.6 | 4.2 | 5 | 5.4 | 5.4 | 5.3 | 5.4 | 6.2 | 6.8 | 7 | 4.7 |
| 2022 | 7.5 | 7.9 | 8.5 | 8.3 | 8.6 | 9.1 | 8.5 | 8.3 | 8.2 | 7.7 | 7.1 | 6.5 | 8.02 |
| 2023 | 6.4 | 6 | 5 | 4.9 | 4 | 3 | 3.2 | | | | | | |

Appendix D- Roof Warranty Westbrook High School

Warranty No: 1300819

Effective Date: 09/23/2013

The Garland Company, Inc.[®]

Ten (10) Year High-Performance Roof System Restoration Limited Warranty

| | |
|---------------------------------------------------|------------------------------------------------------|
| Owner Name: <u>Westbrook Public Schools</u> | Contractor Name: <u>Quality Roofing Services Inc</u> |
| Address: <u>Westbrook High School</u> | Address: <u>599 Island Lane</u> |
| City: <u>Westbrook</u> State/Zip: <u>CT 06458</u> | City: <u>West Haven</u> State/Zip: <u>CT 06516</u> |
| Building Name: <u>Westbrook High School</u> | Product: <u>Black Knight Cold Membrane</u> |
| Roof ID: <u>Low Slope - High School</u> | Square Footage: <u>82,000</u> |

MANUFACTURER RESPONSIBILITIES

The Garland Company, Inc. (hereinafter referred to as "Garland"), a Corporation of the State of Ohio, warrants to the above named Owner that the Garland roof system will not leak due to manufacturing defects. Subject to receipt of proper notice as set forth below and the terms of this Warranty, Garland will pay all authorized costs of repairs to the roofing system necessary to stop any leaks caused by defective materials that occur within ten (10) years from the final completion date. In the event repairs to correct leaks caused by defective materials require removal and replacement of the roof system in recover applications, Owner will be responsible for costs associated with the removal and replacement of the original roof system. Garland's obligation for repair remedies under this Warranty shall in no event exceed the cost of the original materials of this project.

APPLICABILITY OF WARRANTY

In order for this Warranty to remain in effect, all repairs, changes, alterations, modifications and/or additions to the roofing system must be authorized in advance in writing by Garland. This Warranty is transferable, subject to Garland's approval of the payment of the transfer fee and applicable maintenance agreement. This Warranty shall not be applicable if, in the sole judgment of Garland, any of the following shall occur:

- The roofing system is damaged by natural disasters including, but not limited to, fire, floods, lightning, hail, earthquakes, wind damage.
- The roofing system is damaged by structural movement or failure or movement of any material underlying the roofing system or base flashing.
- The roofing system is damaged by acts of negligence, misuse or accidents including, but not limited to, use of roof for other than waterproofing the building, vandalism, civil disobedience or acts of war.
- Damage to the roofing system resulting from:
 - Infiltration or condensation of moisture in, through, or around walls, ceilings, building structure or underlying or surrounding areas.
 - Ponding water, defined as standing water 48 hours after rainfall.
 - Chemical contaminants attacks on the roofing system which have not been approved or accepted by Garland.
 - Defects in engineering or building design or construction.
 - Traffic or storage of materials on roof.
 - Defects in, failure or improper application of the underlying structural material used as a base upon which the roof is applied.
- Failure of Owner to properly notify Garland in writing and receive written approval of:
 - Changes in the usage of the building.
 - Modifications or additions to the roofing system.
- Failure of Owner to properly maintain the roof according to the High Performance Roof Care & Maintenance Guide.
- Failure of Owner to provide Garland with timely written notice of a claim pursuant to the terms of this Warranty.

LIMITATIONS/EXCLUSIONS

Garland shall not be responsible for damages that occur to roof or personal property as a result of leaks, including damage to the structure itself or contents therein. Instead, Garland's sole responsibility pursuant to this Warranty is for costs associated with repairs of leaks caused by defective materials set forth above. Garland shall not be liable for any consequential, economic deterioration or change in the visual appearance of the roofing system or Garland's top coating, or the removal or replacement of any roof top equipment or systems in perform any repairs. Furthermore, Garland shall not be responsible for any incidental or consequential damages caused by leaks in the original roof system, including, but not limited to, loss of use or profits.

EXCEPT AS SET FORTH HEREIN, GARLAND MAKES NO OTHER WARRANTIES EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

OWNER RESPONSIBILITIES

In the event of a leak, Owner shall provide written notice to Garland within seven (7) days of discovery of the leak and before any repairs are undertaken. The written notice shall be sent to 3800 East 91st Street, Cleveland, OH 44105. Owner, or its agent or representatives shall then provide Garland with adequate access to allow Garland to inspect the leak and roofing system. If it is determined that the roof leak is the direct result of defective materials, Garland will perform the repairs required to correct the roof leak at no cost to Owner. If Garland fails to have the repairs performed within 72 hours after its inspection, emergency temporary repairs performed by others will not void this Warranty, as long as those repairs are approved by Garland.

To the fullest extent allowed by law, this Warranty shall be construed under and in accordance with the laws of the State of Ohio and any actions or suits to enforce this Warranty shall be brought in the State of Ohio. This Warranty constitutes the sole and exclusive Warranty of the parties hereto and supersedes any prior understandings or written or oral agreements or warranties between the parties respecting the subject matter within. In the event that any one or more of the provisions contained in this Warranty shall, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision thereof, and this Warranty shall be construed as if the invalid, illegal or unenforceable provision had never been contained therein.

WARRANTY CONTINUATION

In the fifth (5) year of the Warranty period, Owner must request an inspection of the roof system any time between the sixth and tenth month of the year to determine the appropriate maintenance and surface treatment required for continuation of the Warranty. Upon receipt of such request, Garland will perform an inspection of the roofing system to determine whether any repairs or surface treatments are required to make the roof system eligible for continuation of the Warranty. After such inspection, Garland will submit a detailed inspection report to Owner that identifies the nature and extent of any such repairs and/or surface coatings over the field of the roof required to maintain this Warranty. After the Owner has received the report and/or any required repairs to be made (at its sole expense and by a contractor approved by Garland) and notifies Garland of the same in writing, this Warranty will remain effective for the remaining 5 years.

WARRANTY ACCEPTANCE. Owner hereby accepts and agrees to the terms and conditions set forth in this Warranty.

By: The Garland Company, Inc.
 Signed By: [Signature] Joe Orlando
 Date: August 08, 2013

Owner
 Signed By: _____
 Date: _____

The Garland Company, Inc. | 3800 East 91st Street | Cleveland, Ohio 44105