



GRANBY MEMORIAL MIDDLE SCHOOL FACILITIES CONDITIONS ASSESSMENT EXECUTIVE SUMMARY REPORT

MAY 2025



Granby Memorial Middle School

Facilities Conditions Assessment Executive Summary Report Prepared by: Christopher DeGray, Director of Facilities Date: 5.16.2025

Overview:

The week of 4.14.2025 – 4.17.2025 at the direction of the Granby Board of Education, Terracon Consultants, Inc. conducted an in-depth facilities conditions assessment at Granby Memorial Middle School located at 321 Salmon Brook Street, Granby, CT 06035. A vast majority of the 75,000 sq. ft. building finishes (flooring, walls, ceilings), building envelope, and mechanicals, electrical, plumbing, and HVAC are original to the building in 1992.

This work was performed in general accordance with the scope of services outlined in the Terracon Proposal Number PFR256003 dated February 19, 2025, as identified in the scope section of this Report. The sole purpose of this Report is to document the condition of the assessed building systems at the property per the American University System, Board of Regents, and ASTM E2018-15 standards. It is not the intent of this Report to assume any part of the design responsibility, but rather to report the findings to the Client.

General Physical Conditions:

Most of the building components and systems for Granby Memorial Middle School are in fair condition. Deficiencies were found in the building's interior finishes, TPO roof membrane and MEP systems. It is Terracon's opinion that the most critical deficiencies are the performance of the HVAC systems. It is Terracon's opinion that Granby Memorial Middle School is in generally fair condition.

Terracon estimates a total repair and replacement cost of \$3,109,930.98 over the next 10 years. Of that amount \$1,694,290.00 comprises immediate needs that are recommended to occur in years 1 and 2.

Facility Condition Index

The Facility Condition Index (FCI) scores are summarized below. The scores are based on the modeled replacement value for the building and the anticipated capital repairs during the evaluation period. General industry guidelines are: 0-5% is good; 5.01-10% is fair; and greater than 10% is poor:

Current Replacement Value of the Facility (CRV): \$19,657,500.00

Immediate Need + ADA + Year 1 costs: \$1,259,140.00

Facility Condition Index Score: 6%

Current Replacement Value and Valuation Notes

Based on current RSMeans square foot models, the estimated unit cost for replacement of the building is \$262.10 per square foot. Based on the unit cost, the estimated Current Replacement Value (CRV) of the building (75,000 square feet) is approximately \$19,657,500. Note: This figure represents an in-kind replacement of current conditions and equipment. Major upgrades such as the addition of a sprinkler fire suppression system for the entire building (currently only installed in select areas of the building) are not factored. It is the recommendation to engage a code specialist to determine the applicable requirements of the fire suppression sprinkler system. Additionally, Items/repairs under \$3k are not identified. Additionally, the findings of this report are based on visual inspection only, no individual MEP or other testing was conducted.

Purpose and Scope

The purpose of this Facility Condition Assessment was to observe and document readily visible material and building system conditions, which might significantly affect the value of the property; and determine if conditions exist, which may have a significant impact on the continued operation of the facility during the evaluation period. This work is being completed in anticipation of a planned asset management of the property. The Scope of Work was developed in general conformance with ASTM E2018-24, Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process and Terracon Proposal Number PFR256003 dated February 19, 2025. The scope included a site visit, limited interviews with property management personnel; and a review of readily available construction documents (drawings and specifications) provided by the client. The site assessment includes visual observations of the following system components: site development, building exterior and interior, building structure, mechanical, electrical and plumbing systems; conveyance systems, life safety/fire protection, and general ADA issues. Repair/replacement items of less than \$3,000 may not be identified, or be designated as routine maintenance in the narrative of the Report if mentioned. This Report does not confirm the presence or absence of items such as mold, asbestos, environmental conditions or hazardous substances on this property.

General Description

Terracon completed this Facility Condition Assessment of the Granby Memorial Middle School FCA located at 321 Salmon Brook Street in Granby, CT. The property consists of one, 2-story building containing approximately 75,000 square-feet of building area. The building was constructed in 1958/1992 on a 27.95-acre parcel of land with approximately 88 parking spaces. The buildings are occupied by and predominantly used for campus administration or student services.

Parking is provided on an asphaltic concrete surface parking lot. The remainder of the site is improved with landscaped areas. The site has been graded to promote drainage to curb inlets and localized catch basins in the paved and landscaped areas. Stormwater flows into the municipal system. A detention/retention basin is not utilized to regulate the outflow from the site.

The building is a conventional steel-framed and masonry structure supported by concrete footings. The floors are gradesupported concrete slabs. The exterior of the building consists of brick veneer with metal stud back-up. The steel structure supports open-web steel joists and the metal roof deck. The window and door systems are conventional storefront units with double-glazing set-in mill-finished aluminum frames. The low-slope roofs consist of a EPDM and TPO single-ply roofing membrane system. The field of the steep-sloped roofs consist of standing-seam metal. Cooling is provided to select areas by a variable air volume-air handling units (VAV-AHUs) with direct expansion (DX)split system roof-mounted, condensing systems. Heating is provided by VAV-AHUs with heating hot-water (HHW) coils. Conditioned air is delivered through VAV terminal units and distributed by insulated rigid, sheet metal, and flexible ductwork. Returns are collected via ceiling plenum.

Electrical service is provided by a pad-mounted, utility-owned, electrical transformer that provides 480/277-volt, threephase, four-wire service to the building. The main switchboard is rated for 1,600-amp service. Exterior lighting is provided by façade-mounted, pole-mounted, and recessed lighting fixtures with fluorescent or LED bulbs controlled by photocell. Interior lighting is primarily T-8 fluorescent light fixtures controlled by manual light switches and/or occupancy sensors.

Domestic water piping within the building is copper. Domestic hot water is provided by three, electric, tank-type and two, gas-fired, tankless domestic water heaters. A backflow prevention device was observed in the exterior mechanical room. The observable sanitary and vent piping materials are PVC.

The building is partially-covered by a wet-pipe, automatic, fire sprinkler system, and monitored by an off-site fire alarm system. A diesel-engine driven generator supplies the entire building with emergency power. An automatic transfer switch (ATS) is provided in the main electrical room on the first floor. The generator is provided with a belly tank.

Utilities, including potable water, sanitary sewer, gas and electricity, are provided to the site by local municipalities or private companies.

Replacement Reserves / Observations / Upgrade Recommendations

GOOD FAIR FAIR/POOR POOR END OF LIFE CYCLE

Building Envelope & Exteriors

- 1. Parking Lots
 - <u>OBSERVATION</u>: The asphalt paving is in generally fair condition, with faded striping, linear cracking, alligator cracking, and potholes. Crack sealing, sealcoating and restriping of the paving, with limited full-depth patching of deteriorated areas of the asphalt paving is anticipated during the evaluation period and a cost is included in the Replacement Reserves.
 - <u>OBSERVATION</u>: The concrete paving is in generally fair condition, with limited cracking and deteriorated areas in the truck court. Based on the observed condition of the concrete paving, localized full-depth replacement and sealing of linear cracks is anticipated during the evaluation period and a cost is included in the Replacement Reserves.
 - <u>OBSERVATION</u>: Brick pavers are installed at the front entrance and a patio area at the rear of the building and are in generally fair condition. The pavers are cracked and deteriorated. Terracon anticipates partial replacement of the pavers during the evaluation period and a cost is included in the Replacement Reserves.
 - <u>OBSERVATION</u>: Asphalt walkways at the rear of the building are in generally fair condition with areas of linear cracking and general deterioration. Repair of the asphalt sidewalks is anticipated during the evaluation period and a cost is included in the Replacement Reserves
 - <u>RECOMMENDATION</u>: Limited full-depth repair of asphalt paving.
 - <u>RECOMMENDATION</u>: Crackseal, sealcoat, and restripe asphalt paving.
 - <u>RECOMMENDATION</u>: Limited concrete paving replacement.
 - <u>RECOMMENDATION:</u> Partial replacement of brick pavers.

2. Envelope

- <u>OBSERVATION</u>: The concrete floor is in generally good condition. Based on the limited observed conditions, repairs are not anticipated during the evaluation period.
- <u>OBSERVATION</u>: The brick veneer is in generally fair condition. The brick veneer throughout has efflorescence. Cleaning the brick veneer and repointing the mortar joints is anticipated during the evaluation period and a cost is included in the Replacement Reserves.
- <u>OBSERVATION</u>: The elastomeric sealants are in generally fair condition with cohesive and adhesive failure in localized areas throughout. Replacement of the sealant is anticipated during the evaluation period and a cost is included in the Replacement Reserves
- <u>OBSERVATION</u>: The coiling overhead doors are in generally fair condition. Based on the expected useful life and the observed condition of the overhead doors, replacement of the overhead doors is anticipated during the evaluation period and a cost is included in the Replacement Reserves.
- <u>RECOMMENDATION</u>: Apply a penetrating masonry sealer. Remove and replace deteriorated sealants at the perimeter of the window and door assemblies and penetrations.
- <u>RECOMMENDATION</u>: Replace loading dock manual, steel, overhead doors.
- <u>RECOMMENDATION:</u> Repoint exterior masonry.
- 3. Roof (Note: Did NOT include moisture surveys or thermal moisture scanning)
 - <u>OBSERVATION</u>: The fully-adhered, single-ply EPDM membrane is in generally good condition. The roof membrane was installed in 2019. Replacement of the roof is not anticipated during the evaluation period.
 - <u>OBSERVATION</u>: The fully-adhered, single-ply TPO membrane is in generally fair to poor condition. Terracon observed tenting and ponding. Replacement of the TPO roof is anticipated during the evaluation period and a cost is included in the Replacement Reserves.
 - <u>OBSERVATION:</u> Terracon observed ponding throughout the TPO roof. The Site Contact did not report ongoing roof leaks; however, ponding water increases the likelihood of future roof leaks. Adjusting the slope of the roof covering in the area of ponding is anticipated prior to roof replacement and a separate costs are not included in the Cost Tables.
 - <u>OBSERVATION</u>: The standing seam metal roof is in generally good condition. Terracon anticipates replacing the fasteners during the evaluation period as a part of routine maintenance.
 - <u>RECOMMENDATION</u>: Replace single-ply TPO roof membrane assembly

4. Interior Components

- <u>OBSERVATION</u>: The interior finishes in common areas, offices, classrooms and cafeteria are in generally poor condition. Based on the expected useful life of floor coverings, wall and ceiling finishes, replacement is anticipated during the evaluation period and a cost is included in the Replacement Reserves.
- <u>OBSERVATION</u>: The interior finishes in restrooms and locker rooms are in generally fair condition. Based on the expected useful life of floor coverings, wall and ceiling finishes, replacement is anticipated during the evaluation period and a cost is included in the Replacement Reserves.
- <u>RECOMMENDATION</u>: General renovation of interior finishes in common areas, offices, classrooms and cafeteria.
- <u>RECOMMENDATION</u>: Phased renovation of locker rooms and restrooms interior finishes and fixtures.

5. Mechanical and HVAC

(Note: The condensing units for the AHUs and DX split-system were observed in generally poor condition and at the end of their expected useful life (EUL). The majority of the condensing units utilize R-22 refrigerant. The Energy Policy Act of August 2005 and Energy Independence Act of 2007 identifies R-22 as a potential ozone depleting agent and has been phased out of production. Reference Section 4.4 for additional information. It is recommended to procure enough R-22 to refill the system in the event of a coil failure for continued operation of the units)

- <u>OBSERVATION</u>: The DX mini-split system was observed in generally fair condition and at the expected midstage of its EUL. The unit was observed with damage to the fins, deteriorated insulation, and localized surface corrosion on the enclosure. Typical EUL of DX mini-split systems is 15-years. Based on the age and condition of the unit, replacement is anticipated during the evaluation system. A cost is included in the Cost Tables.
- <u>OBSERVATION:</u> The interior AHUs were observed in generally poor condition and at the end of the expected EUL. The AHUs were observed with deteriorated HHW piping and insulation, corroded vibration isolators, and uninsulated refrigerant piping. No replacements or refurbishments of the units were reported by the designated site contact (DSC). Refurbishment and/or replacement of a portion of the AHUs is recommended early in the evaluation period. A cost is included in the Costs Tables.
- <u>OBSERVATION</u>: The exterior AHUs were observed in generally fair to poor condition and at the end of the expected EUL. The AHUs were observed with surface corrosion on the enclosures and disconnect switches, non-sealing access doors when in the latched position, broken exterior service lights, and deteriorated refrigerant piping. No replacements or refurbishments of the units were reported by the DSC. Refurbishment and/or replacement of a portion of the AHUs is recommended early in the evaluation period. A cost is included in the Costs Tables.
- <u>OBSERVATION</u>: The exterior ductwork of RTU-7 was observed in poor condition. The insulation was observed with portions of the sealant detached and insulation exposed. Additionally, the DSC reported previous occurrences of leaks associated with the ductwork. Replacement of the exterior ductwork is recommended as part of routine maintenance. No cost is included in the Costs Tables.
- <u>OBSERVATION</u>: The VAV terminal units were observed in fair condition and at the end of their expected EUL. The EUL for VAVs is 20 years. Refurbishment of a portion the VAVs is recommended during the evaluation period. A cost is included in the Costs Tables.
- <u>OBSERVATION</u>: The HHW unit heaters were observed generally in fair condition and at the end of their expected EUL. The units appear to be original to the building. The EUL for unit heaters with HHW coils is 15-20 years. Replacement of the unit heaters HHW coils is recommended during the evaluation period. A cost is included in the Costs Tables.
- <u>OBSERVATION:</u> The baseboard radiators were observed generally in fair condition and at the end of their expected EUL. The radiators appear to be original to the building. The EUL for finned tube baseboard radiators is 25 years. Replacement of the baseboard radiators is recommended during the evaluation period. A cost is included in the Costs Tables.
- <u>OBSERVATION</u>: The electric unit heaters in the locker rooms were observed generally in fair condition and at the end of their expected EUL. The units appear to be original to the building. The EUL for electric unit heaters is 15 years. Replacement of the electric unit heaters is recommended during the evaluation period. A cost is included in the Costs Tables.

- <u>OBSERVATION:</u> The DOAS was observed in generally fair condition and at the end of the expected EUL. The DOAS was observed with surface corrosion on the enclosures and disconnect switches and non-sealing access doors when closed. Replacement of the OAHU is recommended early in the evaluation period. A cost is included in the Costs Tables.
- <u>OBSERVATION</u>: The second refrigeration condensing unit was observed in poor condition. The unit enclosure was observed with significant surface corrosion. Typical EUL of refrigeration condensing units is 10-15 years. Based on the estimated age and observed condition, replacement of the unit is recommended as routine maintenance. No cost is included in the Costs Tables.
- <u>OBSERVATION</u>: The HHW piping was observed generally in fair to poor condition. Select areas of the piping was observed with torn/missing insulation and surface corrosion. The piping appears to be original to the main building. Typical steel piping has an EUL of about 50-years. Replacement of localized areas of HHW piping and fittings is recommended during the evaluation period.
- <u>RECOMMENDATION:</u> Replacement of 1.5-tons of DX-split systems.
- <u>RECOMMENDATION:</u> Replacement of 16.5-tons of condensing units.
- <u>RECOMMENDATION</u>: Refurbishment of a portion of the interior and exterior AHUs.
- <u>RECOMMENDATION</u>: Replacement of a portion of the interior and exterior AHUs.
- <u>RECOMMENDATION</u>: Replacement of the exterior ductwork.
- <u>RECOMMENDATION:</u> Refurbishment of the VAV-terminal units.
- <u>RECOMMENDATION</u>: Replacement of the unit heaters with HHW coils.
- <u>RECOMMENDATION</u>: Replacement of the finned tube baseboard radiators.
- <u>RECOMMENDATION:</u> Replacement of the electric unit heaters.
- <u>RECOMMENDATION</u>: Anticipated replacement of the DX-cooling only mini-split system.
- <u>RECOMMENDATION:</u> Replacement of the DOAS
- (Reminder: this was a visual only inspection. Structural integrity of systems within enclosed floors, walls, ceilings was not a part of this assessment).

6. Electrical Systems

- <u>OBSERVATION</u>: The electrical system was observed in generally fair condition. Given the age of the system, infrared (IR) thermal scans of all electrical panelboards and the main switchboard is recommended. A cost is included in the Cost Tables. Subsequent annual scans are recommended as part of routine maintenance. No costs is included in the Cost Tables.
- <u>RECOMMENDATION</u>: IR thermal scans of all electrical panelboards and the main switchboard. (Reminder: this was a visual only inspection. Structural integrity of systems within enclosed floors, walls, ceilings was not a part of this assessment).

7. Plumbing Systems

- <u>OBSERVATION</u>: The water heaters appeared to be in generally good condition. Water heaters have an expected useful life of 12 to 15 years. Based on the EUL, replacement is anticipated during the evaluation period as a part of routine maintenance
- <u>RECOMMENDATION</u>: None identified (Reminder: this was a visual only inspection. Structural integrity of systems within enclosed floors, walls, ceilings was not a part of this assessment).

8. Utilities

- <u>OBSERVATION</u>: The utilities appear to be in a condition consistent with the age and use with no significant issues except as noted below.
- <u>RECOMMENDATION</u>: The roof-mounted natural gas piping was observed in fair to locally poor condition. The piping was observed with localized areas surface corrosion. It is recommended the piping be sanded and repainted during the evaluation period. An allowance for the sanding and repainting of a portion of the natural gas piping is included in the Costs Tables.

9. Elevators

- <u>OBSERVATION</u>: The elevator appeared to be in a condition consistent with the age and use with no significant issues except as noted below.
- <u>RECOMMENDATION</u>: The typical estimated useful life (EUL) for hydraulic elevator controls and finishes is 20years. Based on the estimated age of the elevator, modernization of the elevator controls and finishes are recommended early in in the evaluation period. A cost is included in the Cost Tables.

10. Fire Protection / Life Safety

- <u>OBSERVATION</u>: No testing was performed by Terracon for this assessment; however, the fire protection systems appear to be functional and are routinely inspected. Terracon observed spare sprinkler heads in the fire protection equipment rooms to identify if there were heads that have been recalled due to high failure rates. Spare sprinkler heads observed included Rasco model R1715 and R1725. Recalled Central, Gem, Omega or Star glass bulb fire sprinkler heads were not identified among the spare heads stored on-site or were reported.
- <u>OBSERVATION</u>: The fire suppression and life safety equipment and systems appear to be in a condition consistent with the age and use with no significant issues except as noted below.
- <u>OBSERVATION</u>: Typically, a building of this type and size is fully covered with a wet-pipe, automatic firesuppression sprinkler system. Determination of the prevailing fire code requirements are outside of the project scope, but is recommended to be performed by a licensed professional. An allowance for the services of a code specialist to determine the applicable requirements is included in the Costs Tables.
- <u>OBSERVATION:</u> The FACP was observed in generally good condition and in the mid-stage of its EUL.
- <u>RECOMMENDATION</u>: Typical EUL for FACPs is 20-years. Based on the age of the panel, replacement of the FACP and a portion of the supporting devices and wiring is anticipated during the evaluation. A cost is included in the Costs Tables.
- <u>RECOMMENDATION</u>: Allowance for the services of a code specialist to determine the applicable requirements of the fire suppression sprinkler system.
- <u>RECOMMENDATION</u>: Anticipated replacement of the FACP and a portion of the associated devices.

11. ADA Compliance

- <u>OBSERVATION</u>: At this Education property (considered a "Public Accommodation"), the areas the Owner is responsible for ADA compliance are considered to be: An accessible route connecting adjacent public transportation stops from adjacent public sidewalks and streets to the accessible building entrances, parking available to the public, Exterior route from accessible parking to accessible building entrances.
- <u>RECOMMENDATION</u>: Create new van-accessible parking space

Definitions of Cost Type

Immediate Repair Work:

The Immediate Repair Cost Analysis Table is an analysis of the estimated cost for immediate repair work defined as 'one time' costs estimated for repairs or replacements; the repairs or replacements needed immediately to bring the property to a sound, safe, and fully habitable condition. The list includes i) any items which pose potential danger to the health, safety, or well-being of building occupants, visitors, or passersby such as structural deterioration and failures, inoperable fire alarm systems, significant tripping hazards, building code violations; ii) items affecting tenancy or marketability such as lack of running water, out of service units, extensive damage caused by storm, fire or earthquake; iii) significant deferred maintenance items or non-working building systems such as HVAC systems, parking area repairs, broken windows and/or doors, leaking roofs, pest or rodent infestations; iv) building systems or system components that have far exceeded their expected useful life and require replacement or upgrade.

Replacement Reserves (Years 1 Through Assessed Term):

The Replacement Reserve is an analysis of the estimated cost for normally anticipated replacement for the major components of the improvements during the evaluation period. Reserve costs are typically defined as predictable and in some instances to be recurring within a specified future period. Items anticipated to be less than the threshold amount to repair or replace are generally considered to be part of routine maintenance and are generally omitted from the Replacement Reserve. Unless specifically required, these costs are not intended to represent enhancements or upgrades to the existing property. The analysis is based on the physical assessment of the property, a review of maintenance logs and historical capital expenditures as well as any scheduled or in-progress capital improvement programs. The remaining life values are based on published historical performance data for comparable items with consideration for the present condition and reported service history. The cost estimates are provided in present day values. The annual costs are summed up in both present-day values and the inflated amount. The actual inflation rate may vary over the length of the term.

General Opinion of Costs:

The opinions of costs presented are for the repair/replacement of readily visible materials and building system defects identified that might significantly affect the value of the property during the evaluation period. These opinions are based on approximate quantities and values. They do not constitute a warranty that all items, which may require repair or replacement, are included. Estimated cost opinions presented in this Report are from a combination of sources. The primary sources are from Means Repair and Remodeling Cost Data and Means Facilities Maintenance and Repair Cost Data; past invoices or bid documents provided by site management; as well as Terracon's experience with costs for similar projects and city cost indexes. Actual costs may vary significantly depending on such matters as type and design of remedy; quality of materials and installation; manufacturer of the equipment or system selected; field conditions; whether a physical deficiency is repaired or replaced in whole; phasing of the work; quality of the contractor(s); project management exercised; and the availability of time to thoroughly solicit competitive pricing. In view of these limitations, the costs presented herein should be considered "order of magnitude" and used for budgeting purposes only. Detailed design and contractor bidding is recommended to determine actual cost.

Definitions of Cost Type (con't)

These opinions should not be interpreted as a bid or offer to perform the work. All costs are stated in present value. The recommendations and opinions of cost provided herein are based on the understanding that the facility will continue operating in its present occupancy classification and general quality level unless otherwise stated. Information furnished by site personnel or the property management, if presented, is assumed by Terracon to be reliable. A detailed inventory of quantities for cost estimating is not a part of the scope of this Report.

General Opinion of Costs:

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