Alcott Elementary School

Building Information

This section contains the executive summary, which provides an overview of the building and summarizes the survey results. Graphs are included to represent current conditions of the building's components and conformity with IBC, NFPA and ADA requirements. Photographs of various elevations of the building are provided for reference. This section also provides a summary of the opinion of probable costs, presenting a graphic comparison of the work required to address the deficiencies uncovered during the survey versus the cost of replacing the structure. At the end of Section 2, a chart provides an overview of the required work addressed by the building survey and potential replacement costs.

Alcott Elementary School

Stories	Two
Area	94,706 sf
Address	1490 Woodtick Road, Wolcott, CT
Original Construction	1947
Addition(s)	1967
Grades	Pre-K - Fifth Grade
Description	School

Architectural Survey

The exterior skin of Alcott Elementary School is brick, which is in poor to fair condition. The roof consists of Built-Up and EPDM, which are in poor and good condition respectively.

Typical windows consist of aluminum sill and frame; exterior doors are aluminum. The windows are in fair condition and the exterior doors are in fair to good condition. The exterior sealants of the doors and windows are in fair condition.

The building interior is in good condition.

The work recommended to address architectural conditions includes:

- Repair and refinish all existing soffits at entrance, exit and window locations.
- Replace and/or repair all cracked brick masonry veneer.
- Waterproof all areas of badly spalled areas of brick veneer.
- Seal all joints which are not properly sealed, particularly the louvers at the building's north wall.
- Properly enclose all modified openings in the existing masonry veneer and precast concrete panels.
- Paint all materials which are not properly painted.
- Remove roofing tar from the brick veneer in a few areas.
- Clean the existing masonry veneer particularly the north side of the building.
- Clean, repair and install new window and waterproofing at south side (add/renovation) window installation.
- Greenhouse repair and renovation.
- Install new vinyl soffit/fascia at roof edge, 1967 Addition
- Install new vinyl tile and carpeted flooring
- Upgrade all finishes in toilet rooms and bathrooms
- Install a new elevator or substantially modernize the existing elevator

The work recommended to address roof conditions includes:

- Complete tear off of the existing built-up tar and gravel roof system down to the structural roof decking.
- Install new tapered roof insulation and cover board.
- Install new roof drains.
- Install new metal flashings at all roof penetrations as required.
- Install new 20-year EPDM single-ply roofing system.
- Repair and resurface existing reinforced concrete canopy roof.
- Include small low roof area over the entrance from the east side maintenance staff parking area

Structural Survey

The building is typically constructed of steel columns, beams and joists that are in good condition. The walls are CMU which are in good condition. The foundation consists of reinforced concrete ground floor slab.

The work recommended to address structural conditions includes:

- Structural concrete patch, repair and resurface underside of existing reinforced concrete canopy.
- Repair concrete foundation cracking at lower level south full height concrete foundation wall.

Mechanical Survey

The mechanical system is comprised of two oil-fire hot boilers and multiple window air conditioners.

The work recommended to address mechanical systems conditions includes:

- Install exhaust for all Custodial closets as required per 2012 IMC, section 510.
- Main system pumps circa 1967 are deteriorating at flanges, replace prior to failure.
- Valves at main pumps corroding, replace prior to failure.
- Valves at heat circulators showing signs of wear and corrosion, replace.
- Numerous items stored in front of fin tube radiation. Clear for proper heat distribution.
- Provide ventilation for building as required per 2012 IMC, section 401.
- Provide make-up air for Kitchen hood as required per 2012 IMC, section 508.
- Provide exhaust in Girls & Boys Room per required per 2012 IMC, section 403.
- Provide cooling at IDF Room.
- Provide exhaust at Can Rinsing Room.
- HVAC equipment is circa 1967 and replacement should be considered.
- Numerous pipes, conduits etc. required proper fire stopping.
- HV units are circa 1967 and should be replaced with High Energy units.

Electrical Survey

The electrical service is fed from a transformer vault located adjacent to the electrical room.

The work recommended to address electrical system conditions includes:

- Consider service upgrade if additional power requirements are needed.
- Receptacles are at there maximum usage, numerous power strips being utilized. Consider installation of additional receptacles.
- Replace damaged interior and exterior receptacles.
- Re-mediate general electrical issues (i.e.. open j-boxes, etc.)

Plumbing Survey

The plumbing system of water supply from a well located on the property. There are multiple sanitary lines that run from the building. The plumbing fixtures are American Standard which are in fair to good condition.

The work recommended to address plumbing systems conditions includes:

- Provide emergency eyewash station at all custodial closets with mop sinks per IPC 2012.
- Provide ADA compliant toilet rooms per ANSI A117.1 2009.
- Install air gaps at floor drains at prep sinks as required per IPC 2012.
- Provide ADA compliant drinking fountains per ANSI 117.1 2009.
- Toilet Room lavatories are separating from the mounting wall. Address issue prior to any additional damage occurs.
- Upgrade plumbing fixtures as necessary to water conservation type.
- Replace damaged roof drain covers/clear debris from roof drains.
- Classroom sinks non ADA compliant, replacement required.

Fire Protection Survey

A fire protection system does not exist within this building.

The work recommended to address the fire protection system conditions includes:

- Installation of a fire protection system throughout the building should be considered.

Lighting Survey

The lighting service is comprised of fluorescent interior light fixtures and wall pack mounted exterior lighting which are in good condition.

The work recommended to address lighting system conditions includes:

- Replace lighting fixtures with energy efficient LED type as necessary.
- Replace existing emergency lighting fixtures.
- Replace exterior building lighting with LED type fixtures.

Fire Alarm Survey

The fire alarm service is a Fire-Lite System and is in good condition.

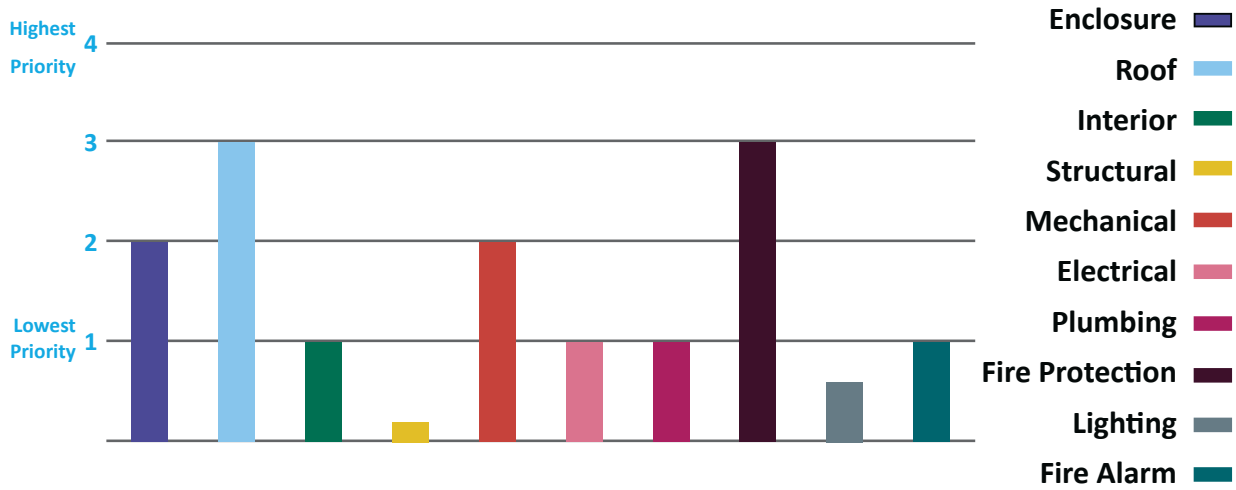
The work recommended to address fire alarm system conditions includes:

- Upgrade system to meet NFPA 101, IBC 2012, IFC 2012 & ANSI 117.1 2009.
- Install additional devices to meet NFPA 101, IBC 2012 & IFC 2012.
- Exercise voice evacuation system.

Survey Results

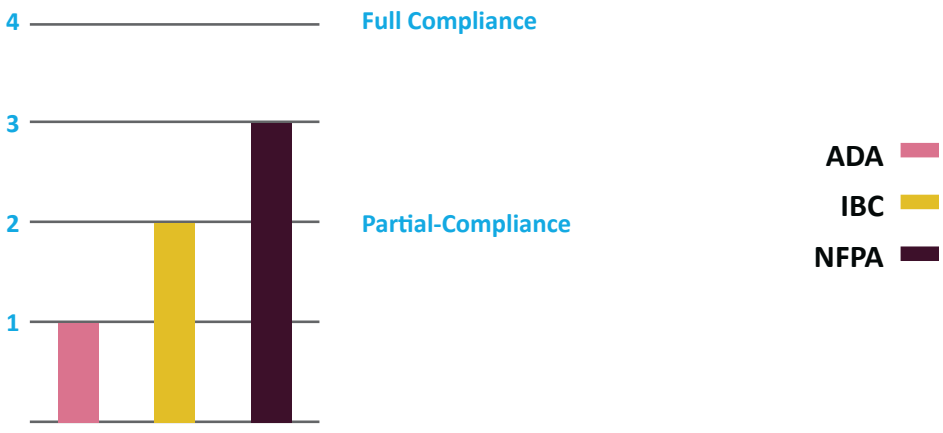
Each of the elements that were reviewed under this assessment was ranked on a scale of 1-4, with a 4 rating equating to the highest priority. Components that received a ranking of 3 should be considered to be moderate priorities, while rankings of 2 and 1 are considered to be low priorities. The following chart graphically presents the survey results (reference Section 4 for a detailed description for each category).

Prioritization of Required Work

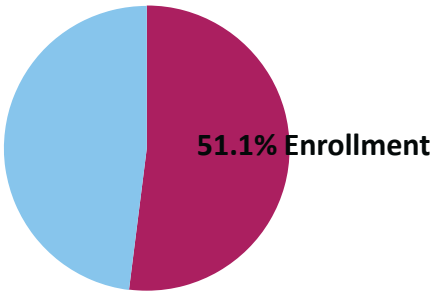


The graph below represents the building's overall conformity with IBC, NFPA and ADA requirements. Compliance was rated on a scale of 1-4, with a 4 rating equating to full compliance. A rating of 2 or under indicates that the building requires moderate to substantial code compliance updates in order to protect the safety of the building's occupants.

Code Compliance Evaluation



State Space Standards Capacity

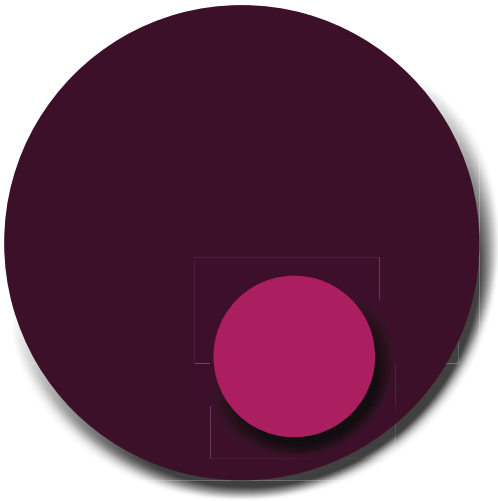


Summary of Recommendations

Program and Conceptual Plan Master Plan Only?	Based upon the space utilization information gathered, a program accommodating the various functions of the building indicates the following minimum needs: • Modernization of the existing elevator • Bringing all fire separation walls up to Code • Replacement of the roof and M/E/P systems past their useful life • Consideration of an electrical service upgrade These program recommendations have been used to generate a conceptual plan (Section 10) which illustrates the program assessment and recommended improvements. The proposed plan is based on meeting the needs of the users and upgrades required to comply with current applicable code, while also meeting the overall goals and projected enrollment of Wolcott Board of Education.
Opinion of Probable Costs	The estimate of probable costs included in Section 8 of this report is designed as a planning tool for Wolcott Board of Education. Estimates do not account for a possible change of use.
Required Work	The estimates reflect bringing the building, in its present configuration, into compliance with current applicable codes and addressing the needs of the various building components (architectural, structural, mechanical / electrical / plumbing / fire protection and site). The projected renovations for these components would upgrade the building to a good condition. Based on analysis, over the next 10 years, the required work at this building will cost approximately $12,498,600 At 94,706 square feet, renovations at this building equate to approximately $132 per square foot. This cost-per-square-foot figure falls within industry standards for renovations / upgrades of this nature.
Replacement Cost	A similarly constructed building would cost $400 per square foot. Using this figure, the replacement cost for this building is approximately $45,900,000, which follows state standards for structures of this type. The $400 per square foot replacement cost was obtained from R.S. Means Construction Cost Data and current local market conditions for buildings of this type. The estimate includes hard construction costs, demolition costs, construction contingencies, design costs, and other “soft costs”.
State Reimbursement	The municipality’s current reimbursement from the State of Connecticut Department of Education for eligible items is 62.5%, and the building is at 51% capacity. These factors would effectively adjust the community’s portion of the costs from 37.5% to 68%.

Executive Summary Chart

The chart below indicates the estimated value of the required work addressed by the building survey alongside the potential replacement cost. The replacement cost is provided as a guideline for comparative purposes and is based on replacing the building as is, i.e. size and use. Information considered includes the type of structure, year built and existing area for the building.



Survey Estimate	**$12,498,593**
Renovate Like New Project	**$36,676,555**

The required Alteration work addressed in this survey equates to approximately 34% of the construction cost of a Renovate like New project.
Comparative Replacement costs for a new building would be $45,900,000. Site acquisition costs were not factored into this comparison.