

Clintwood Elementary School Facilities Condition Assessment Report

Dickenson County Public Schools



**Prepared by OWPR, Architects and Engineers
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Blacksburg, Virginia**

Assessment Team

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Field investigation was performed on February 7, 2018

Methodology

The Assessment Team toured the school facility. Each member of the Team assessed the areas of their individual expertise. They looked at each component with regard to age, manufacturer, availability of parts, remaining useful life, etc. If a component is noted to be at the end of its useful life, we are simply saying it has lasted longer than what the industry expects. It is very possible that components that have been very well maintained will last many years beyond their useful life. The information contained within this assessment is intended to be written in a simple straightforward way that is easily understandable. This assessment is intended to be a tool to help facility owners plan for component replacement and/or complete renovation. The cost estimates are based on the observations of the Assessment Team and limited drawings that were provided by the client. The cost estimates provided are developed using data obtained from various sources, including but not limited to, RS Means, Cost Estimating Consultants and historical data. The cost estimates are based on current conditions and do not factor in cost escalation due to changing market conditions or material demand. The cost estimates provided are a planning tool to budget for component replacement and/or complete renovation.

Clintwood Elementary School Facilities Condition Assessment Report

Civil/Site Narrative

Traffic Circulation

Buses: There is no dedicated bus loop, but the east side of the school has a designated lane for buses to drop off and pick up students. This area contains high volumes of traffic as students and staff enter the school. Buses continue to the service area where they turn around and then exit the site.

Morning: Buses enter the bus lane and drop off students at the east entrance. There is a canopy and wide sidewalk at the entrance. There is enough stacking for approximately six buses to drop off simultaneously. Morning bus drop off was not observed.

Afternoon: Buses enter the bus lane and line up to pick up students. Afternoon pick up was not observed and it's unclear if there is enough space for busses to queue. Staff indicated no issues during bus departure.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Cars: Cars utilize the main parking area on the west side of the school for a drop off / pick up area. There is no dedicated drop off loop, but the flow of the existing parking lot prevents any blockages. There was no indication from staff of car traffic issues.

Morning: Cars enter the parking lot, drop students off at the west entrance and loop back through to exit. Drop off works with little to no backup. Morning parent drop off was not observed.

Afternoon: Same scenario as the morning drop off, but parents also wait in parking spaces if they arrive before dismissal. Afternoon parent pick up was not observed.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Parking: Approximately 164 striped parking spaces are provided with 8 designated ADA spaces. Day to day parking is adequate for faculty / staff / visitors. Service and janitorial staff park along the perimeter of the service area. No indication from staff that event parking is an issue. There is no parking requirement in the jurisdiction's zoning ordinance.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Service: The service area is at the south side of the school and is accessible through the bus lane. Service or delivery vehicles do not block any traffic while unloading. There is no concrete pad or dock for loading/unloading although there is adequate maneuvering area.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Fire Access: There is no paved fire lane around the building, but fire apparatus have adequate access to three of four sides of the building.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Separation: There is sufficient separation of parent/faculty/staff/service vehicles and buses; however, some faculty parking off the dedicated bus lane causes potential issues.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Adjacent Roadways: There are two entrances to the school from the same road, State Route 607. Both entrances are used efficiently and there are no traffic reroutes or problems. State Route 607 is well maintained and there is adequate sight distance at each entrance.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Pedestrian: Generally there are not many pedestrians who access the school. There are no sidewalks adjacent to the school.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

ADA Accessibility

Parking: There are 8 spaces designated as ADA parking, 3 at the west entrance to the school and 5 at the east entrance. None are designated as van accessible and there are no accessible aisles.

- Recommendation (5 year): Restripe all ADA parking spaces to be ADA compliant and provide at least one van accessible parking space for ADA parking spaces at the west entrance and the east entrance.
- Recommendation (10 year): No action

Signage: There is no signage for any ADA parking.

- Recommendation (5 year): Provide ADA compliant signage.
- Recommendation (10 year): No action

Ramps: There are no curb ramps, but flush sidewalks to parking areas are appropriately located and in good condition.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Access to all areas: There is ADA access to only one playground on site. However, due to existing topographical site conditions and multiple site features located at different elevations, access to all areas is not feasible.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Parking Areas, Driveways, and Sidewalks

Asphalt Pavement: The asphalt pavement is in relatively fair condition; however, there are some poor sections in both parking lot areas and the service area. These areas contain alligator cracking which is indicative of a deteriorated subgrade.

- Recommendation (5 year): Monitor alligator cracking in both parking lots and service areas and make repairs if required.
- Recommendation (10 year): Mill and overlay asphalt pavement when necessary. Alligator cracked areas should be removed full depth and subgrade repaired.

Asphalt Walks: The asphalt walk to the track is in good condition.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Concrete Pavement: There are no concrete pads at the service area for loading/unloading and there is no concrete pad for the dumpsters.

- Recommendation (5 year): Monitor asphalt pavement at the service area for signs of failure and make repairs as required.
- Recommendation (10 year): Provide concrete pad for dumpsters.

Concrete Walks: The concrete walks on site are in fair to good condition with some cracking, spalling and deterioration. There are no substantial cracks or tripping hazards.

- Recommendation (5 year): Monitor concrete walks and remove and replace as necessary.
- Recommendation (10 year): Maintenance

Stairs, Ramps, and Railings: Concrete stairs at the east entrance to the school are in good condition. The adjacent concrete ramp shows some signs of deterioration, but is in fair condition. The ramp railings show signs of rust and a section is broken

- Recommendation (5 year): Repair broken railing on ramp, remove rust and repaint.
- Recommendation (10 year): Maintenance

Concrete Curb and Gutter: The concrete curbs and gutters are old but still in fair condition with some cracking and deterioration.

- Recommendation (5 year): Replace sections as necessary when cracking and deterioration become hazardous.
- Recommendation (10 year): Maintenance

Guardrail, Parking Bumpers, and Miscellaneous: There is no safety barrier for faculty/staff parking at the east side of the school adjacent to the bus lane. Beyond the parking lot, grade falls upwards of 20 feet to the road below.

- Recommendation (5 year): Install guardrail or parking bumpers along parking area to increase safety.
- Recommendation (10 year): No action

Fire Lane: A dedicated fire lane is marked at the east and west entrance to the school. Yellow paint on curbs and asphalt is faded and there are no fire lane signs.

- Recommendation (5 year): Repaint curbs and asphalt at fire lanes. Provide fire lane signs to meet code. Ensure that fire lane signs are turned toward oncoming traffic.
- Recommendation (10 year): No action

Utilities

Fire Lines and Hydrants: There are three fire hydrants on site and coverage is sufficient. No paved fire lane around building, but fire truck access present. No fire department connection, post indicator valve or fire department valve observed.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Domestic Water System: The water system is aged, but still in fair condition. Radio read water meter located along south side of school. No indication of discolored water or pressure issues from staff. With aging pipe, leaks and pipe breaks can become more frequent and water quality can be degraded by older piping.

- Recommendation (5 year): The water inside the building should be tested to see if the quality is acceptable.
- Recommendation (10 year): No action

Sewer System: The sanitary sewer system consists of older manholes and pipe, but are in fair condition and functional. No indication of backups or problems from staff. Older manholes and pipes could cause infiltration issues.

- Recommendation (5 year): The sanitary sewer lines should be flushed clean and videoed to check for necessary repairs.
- Recommendation (10 year): No action

Natural Gas System: There is no natural gas service to the building.

Electric: Electrical service is provided to the site via overhead electric lines and routed underground from a power pole near the service area to an adjacent transformer and into the building. The transformer is old and rusted, but functional and is not protected from traffic. The generator is in good condition, but is not protected from traffic.

- Recommendation (5 year): Provide bollards to protect the transformer and generator from traffic.
- Recommendation (10 year): No action

Site Lighting: There are parking lot lights for all parking areas and site lights for access roads around the building. There are building mounted lights to illuminate all sidewalks around the building and all entrances. Site lighting is sufficient for safety and security.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Grading and Drainage

Storm Water System: Roof gutters drain to downspouts and underground laterals which outlet to adjacent drainage ditches. Majority of site runoff sheet flows to ditches and into collection areas with drop inlets and carried offsite. The asphalt and concrete in multiple collection areas have been eroded by concentrated runoff.

- Recommendation (5 year): Repair eroded areas around drop inlets in collection areas. Provide small grate inlets as necessary to prevent ponding water.
- Recommendation (10 year): No action

Slopes, Ponding, and other Drainage Issues: Sheet flow runoff from the west parking lot ponds before it's conveyed to a collection area. There is significant ponding at the playground on the southwest side of the school adjacent to the service area. Recent site renovations show drainage issues along the north side of the school have been repaired.

Recommendation: See recommendation for "Storm Water System" above.

Site Features

Vegetative Landscaping: There are many mature trees and shrubs around the site. Landscaping is well maintained and in good condition.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Lawns: In general, the lawn areas are in relatively good condition with only a few eroded and rutted areas, especially at the playground along the southwest side of the building. There are minor areas in need of repair due to high foot traffic leading to play areas.

- Recommendation (5 year): Repair the rutted or eroded areas and re-seed. Over-seed all grassed areas with high foot traffic as a maintenance item.
- Recommendation (10 year): No action

Fencing and Gates: There is chain link fencing along the south and southwest property line and perimeter chain link fencing around the playground to the northwest next to the school. The fencing is old and rusting, but still in fair condition.

- Recommendation (5 year): Replace with new chain link fencing.
- Recommendation (10 year): No action

Signage: Overall site signage is minimal and in poor condition. There is a school identification signs at only one entrance and there is no additional directional signage. There is no ADA signage. Overall, sign legibility is generally faded and many poles are rusting, leaning, and lack foundations.

- Recommendation (5 year): Repair or replace damaged or leaning signs. Provide directional and ADA compliant signage.
- Recommendation (10 year): No action

Flagpoles: Flagpole and the foundation are in good condition. Flagpole is plumb.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Site Furnishings: There are minimal furnishings on site. A few picnic tables at various locations at the east entrance and at the playgrounds in good condition.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Accessory Structures: There is a storage building adjacent to the service area in good condition. The pedestrian bridge to the west of the school which gives access to the playground across the entrance road is old, but in fair condition and does not create a safety hazard. The gazebo in the center of the playground to the northwest next to the school is in good condition.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Play Areas and Physical Education

Play / PE Areas (General):

Playgrounds / Stationary Play Equipment: Majority of year PreK-1 equipment is in good condition, but a few playground features are dated and made of metal with sharp edges which could create a safety hazard. Fencing around the perimeter of the playground provides student safety. Play area requires fresh mulch in lieu of gravel. Year 2-5 equipment is in good condition, but shows signs of vinyl coating wearing down. Play areas require fresh mulch in lieu of gravel.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Maintenance

Paved Play Areas: Asphalt paving at the basketball court and at the track is in good condition. Fence along perimeter of the basketball court is adjacent to the entrance road and is not enclosed posing possible safety hazard.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Provide chain link fencing around perimeter of paved play area

Play / PE Fields: Multipurpose games field provided across entrance road is in good condition. Turf condition is fair, but contains a lot of moss. There are a few locations which are muddy as a result of poor drainage.

- Recommendation (5 year): Maintenance

- Recommendation (10 year): Maintenance

Architectural Narrative

Overview

Clintwood Elementary School was constructed around 1976 as an open concept school. The unique architecture of the building has the classroom areas on half levels (half level up and half level down). In addition, there is a lower floor level that houses a large gymnasium area with locker rooms. The building is a brick and masonry wall structure with steel joist floor and roof framing. It has a low slope EPDM single-ply membrane roof. The building has been well maintained and is in very good condition considering its age. The building loosely complies with the accessibility requirements of the time in which the building was constructed; however, some spaces do not comply with current standards. The building is not equipped with an automatic fire suppression system.

Exterior Envelope

Exterior: The exterior wall material is predominantly brick. Brick was observed to be in good condition. At the top of the exterior walls, a pebble aggregate faced panel transitions the brick to the roof edge. These panels are in poor condition and are delaminating.

- Recommendation (5 Year): Replace pebble aggregate faced panels with new pre-finished aluminum panels on furring channels.
- Recommendation (10 year): No action

The existing roof is a ballasted built up roof system with tar and felt. This roof is beyond its useful life.

- Recommendation (5 year): Remove the existing roof down to the existing deck and install new insulation and a 60 mil fully adhered EPDM membrane roof.
- Recommendation (10 year): No action

The windows appear to be in good condition. It is not known if these are original the building or were replaced at some point in the past.

- Recommendation (5 year): Provide windows and storefront in conjunction with other building envelope renovation improvements. This will improve overall energy efficiency.
- Recommendation (10 year): Maintenance

Exterior doors are painted hollow metal and are in fair-to-good condition.

- Recommendation (5 year): Provide new exterior doors and hardware in conjunction with other building envelope improvements.
- Recommendation (10 year): Maintenance

Interior Finishes

Floors (Corridors): The corridor floors are Terrazzo and are in good condition.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Maintenance

Floors (Classrooms and Library): The classroom area floors are VCT and are in good condition. The library area floors are VCT and are in good condition.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Maintenance

Floors (Cafeteria and Kitchen): The Cafeteria and Kitchen floors are terrazzo and are in good condition. There has been some floor settlement and cracking in the corridor outside the kitchen. This happened not long after the building was constructed and appears to have stopped.

- Recommendation (5 year): Remove the damaged area of terrazzo floor, repair the sub-grade and replace with terrazzo tile.
- Recommendation (10 year): Maintenance

Floors (Restrooms): The boy's and girl's restroom floors are mosaic ceramic tile and are in good condition, however, these areas will likely require significant renovation to make them handicap accessible.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace all ceramic tile in restrooms as part of a restroom renovation.

Floors (Gym): The Gym floor is a poured urethane floor and appears to be in good condition. These types of floors typically need to be re-surfaced every 10 years. It is not known what the remaining useful life of this floor is.

- Recommendation (5 year): Re-surface the gym floor.
- Recommendation (10 year): Maintenance

Floors (Locker Rooms): The boy's and girl's locker room floors are sealed concrete. The showers and restroom areas are mosaic ceramic tile and are in good condition. These areas do not appear to be utilized very often.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Maintenance

Walls: The walls throughout the building are painted cmu and appear to be in good condition. The open plan classroom areas have been divided using moveable 2" steel partitions. These are considered temporary walls. If the building is fully renovated, consideration should be given to installing more permanent classroom partitions of metal studs, sound insulation and gypsum wall board (See Cost Estimate for Add for Permanent Partitions)

- Recommendation (5 year): No Action
- .
- Recommendation (10 year): No action

Most areas with finished ceiling are 2'x4' suspended acoustical tile (lay in). These are in fair-to-good condition.

- Recommendation (5 year): maintenance
- Recommendation (10 year): No action

Most interior doors are pre-finished wood veneer doors and are in good condition. Most door hardware is in good condition but does not meet handicap accessibility requirements. Existing door frames are generally hollow metal and are in good condition. Some door frames would be replaced to achieve handicap accessibility.

- Recommendation (5 Year): Maintenance
- Recommendation (10 year): Replace doors and frames that are required to be wider for handicap accessibility. Replace all interior door hardware to be handicap accessible.

Casework (cabinets) are original to the building and are in fair-to-good condition. Most casework is not handicap accessible.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace casework

Accessibility

The main entrance is handicap accessible. There is an elevator between the main floor and lower level. There are 2 handicap ramps that connect to one end of the upper and lower split-level classroom wings. This provides handicap access to each level of classrooms but will not meet accessibility requirements once more permanent classroom partitions are installed. The auditorium stage/platform is not handicap accessible but there does not appear to be a viable solution to address this due to the inherent design of the building.

- Recommendation (5 year): maintenance

- Recommendation (10 year): Within the building, many components are not handicap accessible simply because of the age the building was designed. Restrooms are not handicap accessible and will require substantial renovations to achieve full handicap accessibility. These do not meet ICC A117.1-2009 accessibility standards. New ADA compliant signage should be added throughout the building. It is recommended that 4 vertical chair lifts be installed to serve each of the classroom clusters.

Structural Narrative

There are some structural issues in the building. On the exterior of the building, there are several areas where the brick façade has cracked, and the brick have moved out of alignment. This is likely a combined result of no control joints in the brick and a possible roof/parapet leak that has allowed water to get behind the brick and freeze. There are also some cmu cracks within the building. The floor settlement adjacent to the Kitchen was discussed earlier in the report, along with a recommendation.

- Recommendation (5 year): Repair the brick on the façade and add a control joint in this general location. The roof replacement should address any water getting behind the brick. Monitor the cmu cracks on the inside of the building and if they appear to get larger, a structural engineer should further investigate.
- Recommendation (10 year): Monitor building façade and interior cmu for further cracks.

Mechanical and Plumbing Narrative

Mechanical Overview

Clintwood Elementary Schools HVAC is primarily made up of rooftop units with DX cooling and electric heat. There are some electric wall heaters and suspended electric unit heaters that provide supplemental heat to some spaces of the building. The gym is heated by two large Trane blower unit heaters. They were installed in 1977. The gym does not have air conditioning.

Mechanical

Rooftop Units: Rooftop units are 10 years old and manufactured by Trane. They still have 8 years remaining in their useful life expectancy. It is assumed that the temporary walls in the classroom will be replaced with more permanent walls with doors within 5 years. If this happens, the roof top units should go ahead and be replaced.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Roof top units will be at the end of their useful life, however, with proper maintenance they should last a few years longer.

Terminal Heating Units: The existing electric wall heaters and unit heaters are beyond their useful life (many are original to the building).

- Recommendation (5 year): Remove all existing electric heaters that are no longer in use. Replace unit heaters (mech room & kitchen) and wall heaters/convectors (vestibules/corridors).
- Recommendation (10 year): Maintenance

Exhaust Systems: Exhaust fans are rooftop mounted. Many of them are original to the building. Some fans have had parts changed out. A couple of fans have been replaced due to certain parts no longer being manufactured.

- Recommendation (5 year): Replace all rooftop exhaust systems that are original to building
- Recommendation (10 year): Maintenance.

Outdoor Air Ventilation: Outdoor air is induced into the school thru the rooftop units and the kitchen make-up air unit tied into the kitchen hood. The make-up air unit for the kitchen hood is original and has passed its useful life.

- Recommendation (5 year): Replace make-up air unit for kitchen hood.
- Recommendation (10 year): Maintenance

Kitchen Exhaust: Existing kitchen hood is original to the building along with the associated exhaust fan. All kitchen equipment is electric.

- Recommendation (5 year): Replace kitchen hood and the associated exhaust fan on roof
- Recommendation (10 year): Maintenance

Controls: The existing controls are Direct Digital Controls (DDC).

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Plumbing Overview

Clintwood Elementary School has basic water closets, lavatories, urinals, water coolers, janitor sinks, etc. that are aged. Some fixtures have been replaced in recent years on a need to basis. The kitchen sinks, dishwasher, floor drains, plumbing (both supply and

waste) beyond their useful life. They have a mixture of floor mounted and wall hung water closets while the lavatories are wall mounted.

Plumbing

Water Heater: The electric water heater is in good condition and is manufactured by Durawatt Electric. It was installed in 2002. It has a storage capacity of 750 gallons. The water heater has technically reached the end of its expected useful life, however, it appeared to be in good working condition.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace with a new water heater.

Water Closets, Urinals and Lavatories: The existing plumbing fixtures are made by American Standard and are original to the building. The faucets and flush valves are in good condition with expected wear and tear.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace all plumbing fixtures with new fixtures along with ADA compliant fixtures where required.

Water coolers: Water coolers are manufactured by Elkay and Harvey Taylor. Most have passed their useful life.

- Recommendation (5 year): Replace all water coolers.
- Recommendation (10 year): Maintenance

Plumbing Piping: Sanitary & waste piping are most likely original to the building. Piping is likely copper (domestic water) and cast iron (sanitary waste). Domestic water enters the building in 3-inch line. There is a RPZ backflow preventer. The service line was installed 10 years ago.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Maintenance

Electrical Narrative

Main service: The main electrical service is a 480/ 277V , 3 phase, 4 wire, 2500 Amp service. The switchboard is all Federal Pacific, which is a manufacture that no longer exists creating difficulty finding replacement parts. This service is using a switchboard style service gear which puts the gear right at the end of expected useful life.

- Recommendation (5 year): Replace existing switchboard.

- Recommendation (10 year): No action

Distribution and Branch Circuit Panelboards: Most of the panels are Federal Pacific. All Federal Pacific gear is becoming hard to find replacement parts for. Each of the Federal Pacific panels have exceeded their expected useful life.

- Recommendation (5 year): Replace the existing panelboards. Expand as necessary to accommodate new or modified spaces and locate any new panels in areas to minimize student access and to meet National Electrical Code working clearances.
- Recommendation (10 year): No action

Transformer: The transformer is a 300 kVA federal Pacific transformer and is located in the main electrical room. A branch circuit, 208Y/120 volt distribution panelboard is used to supply 208Y/120 volt loads around the building. The transformer has reached its end of useful life.

- Recommendation (5 year): Replace the existing transformer with a new transformer to back feed existing loads.
- Recommendation (10 year): No action

Cabling: Most of the building wiring appears to have been updated as the various systems were updated. Certain areas have been updated more recently, but overall the cabling still has some useful life remaining. No exposed wiring was witnessed during the facility assessment.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Conduit/Raceway: The conduit and raceway as seen is still in good condition. Surface raceway and conduit has been used throughout the building for new receptacles, data outlets, and switches. Offices and rooms appear to have an appropriate amount of receptacles and data outlets for their intended usages.

- Recommendation (5 year): All surface raceway should be evaluated regularly and securely reattached to the wall if it becomes loose.
- Recommendation (10 year): All surface raceway should be evaluated regularly and securely reattached to the wall if it becomes loose.

Light Fixtures: The light fixtures consist of primarily 2x4 flat lens fixtures with 4' fluorescent T8 lamps. The majority of the lamps were replaced in approximately 2009. The fixtures appear to have been added when the building was built around 1977. The lamps are current technology.

- Recommendation (5 year): Maintenance

- Recommendation (10 year): Maintenance

Lighting Controls: Lighting controls throughout the building consist of toggle switches controlling fixtures within an area. Controls have been updated at the same intervals as the lighting fixtures.

- Recommendation (5 year): No Action.
- Recommendation (10 year): No action

Emergency Lighting: Emergency lighting is provided by the generator. There was no method of testing coverage during our visit. However, the system appears to be operating properly and is well maintained.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): As part of building renovation, provide a life safety ATS to provide egress lighting to the building. Reconnect egress lighting to a standby power source.

Security System: The Security system installed throughout the building is newer and consists of electronic locks with keypads, motion sensors, and ceiling mounted security cameras and key fobs. The current system meets the needs of the building and utilizes current technology.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Upgrade, expand, and reconfigure zones of the system as necessary during building renovation.

Data System: The Data system consists of a new server rack, data closet with appropriate air conditioning, new cabling, and new data outlets throughout the building. The building is equipped with wireless internet throughout with Cisco access points in vital locations.

- Recommendation (5 year): No action
- Recommendation (10 year): No action

Fire alarm System: The fire alarm system is a Silent Knight system that was upgraded in 2002. The existing system appears to be relatively close to current code with horns and strobes throughout the building and smoke detectors in mechanical rooms. The fire alarm system has useful life and can likely be upgraded to meet any additional modifications stemming from a renovation.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): As part of building renovation, reuse fire alarm control panel and replace devices. Lower mounting heights of manual pull stations to meet modern code. Expand existing fire alarm system with audible

and visual notification devices throughout the building. Reconfigure the existing system as necessary for renovations.

Generator: The existing diesel generator is a Cat, Olympian D40P3 generator that was recently moved to this building. The generator has been serviced regularly and appears to be in good operating condition. Generators tend to last longer than their useful life, and can be readily maintained with local service providers.

- Recommendation (5 Year): Maintenance
- Recommendation (10 year): As part of building renovation, a new generator could be considered, sized to provide power for life safety features, including emergency lighting, and other equipment that the building would like to operate.

Site Lighting: The site lighting consists of a few wall packs around the building, canopy lighting at the front door. Lamps are likely changed as lamps burn out. Lights appear to have been updated possibly in 2009 with the interior lighting upgrade.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): As part of building renovation, replace existing lighting fixtures around exit doors and areas of egress with LED fixtures. Connect these lights to an emergency circuit. Provide new general site lighting to maximize energy efficiency and minimize light contamination on neighboring properties and to the sky.

Phone system: The phone system is an older Comdial phone system, however, it appears to serve the need and use of the school. The system is operational, has useful life remaining, and meets the current needs of the building.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): As part of building renovation it is recommended to replace the existing headend of the system and upgrade any phones as necessary for desired communication system needs of the building.

Public-Address: The Public-Address System consists of a head end located in the main office with speakers and push to talk buttons located in the classrooms. The system was recently upgraded to a Telecor system. Existing speakers were reused, and it is likely the existing wiring was reused.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): As part of renovation, provide new speakers and wiring.

Cost Estimate (5 year)

Civil/Site:

Minor Miscellaneous Repairs and Improvements	\$ 52,000.00
<u>Asphalt Repair</u>	<u>\$ 25,000.00</u>
Sub-total Civil	\$ 77,000.00

Architectural:

Roof Replacement	\$ 590,000.00
Aluminum Siding	\$ 96,000.00
Window/Storefront Replacement	\$ 60,000.00
Exterior Doors	\$ 64,000.00
Settlement Repairs	\$ 50,000.00
<u>Gym Floor Re-surfacing</u>	<u>\$ 40,000.00</u>
Sub-total Architectural	\$ 900,000.00

Mechanical and Plumbing:

Make-up Air Unit	\$ 60,000.00
Building Exhaust Fans	\$ 69,000.00
Replace Domestic HW Circulation Pumps	\$ 7,000.00
Replace Water Heater	\$ 12,000.00
Replace Water Coolers	\$ 40,000.00
Sub-total Mechanical and Plumbing	\$ 188,000.00

Electrical:

Panel Replacement and Distribution System	\$ 315,000.00
<u>Main Gear</u>	<u>\$ 55,000.00</u>
Sub-total Electrical	\$ 370,000.00

Sub-Total Construction: \$1,535,000.00

Fees, Contingency, etc. (18%) \$ 276,000.00

Project Total: \$1,811,000.00

Cost Estimate (10 year)

Civil/Site:

Asphalt Repair and Re-surfacing	\$ 50,000.00
<u>Concrete Pad for Dumpster</u>	<u>\$ 20,000.00</u>
Sub-total Civil	\$ 70,000.00

Architectural:

Casework Replacement	\$ 150,000.00
ADA Upgrades (signage, hardware, etc.)	\$ 90,000.00
ADA Restroom Renovations	\$ 300,000.00
<u>ADA Chairlifts</u>	<u>\$ 120,000.00</u>
Sub-total Architectural	\$ 660,000.00

Mechanical and Plumbing:

<u>Replace Plumbing Fixtures</u>	<u>\$ 120,000.00</u>
Sub-Total Mechanical and Plumbing	\$ 120,000.00

Electrical:

<u>Replace Generator</u>	<u>\$ 42,000.00</u>
Sub-total Electrical	\$ 42,000.00

Sub-total Construction \$892,000.00

Fees, Contingency, etc. (18%) \$161,000.00

Project Total: \$1,053,000.00

Cost Estimate (Permanent Classroom Walls)

Demolition	\$ 100,000.00
Walls/Doors Classroom Areas	\$ 230,000.00
Suspended Acoustical Tile Ceiling Replacement	\$ 198,000.00*
Interior Painting	\$ 220,000.00
Replace/Upgrade HVAC System	\$3,700,000.00*
<u>Lighting Upgrade</u>	<u>\$1,100,000.00*</u>
Sub-total for Permanent Classroom Walls	\$5,548,000.00
 Sub-total Construction:	 \$5,548,000.00
 Fees, Contingency, etc. (18%)	 \$ 998,000.00
 Project Total:	 \$6,546,000.00

*Note: If permanent walls in classrooms are considered, it makes sense to do a full HVAC and Lighting Replacement at this time due to large amount of construction work that will be required in these areas. These costs are for the **entire building**, not just the **classroom areas**.

Site Pictures



Bus Loading Area



Generator



Playground



Storm Water Basin

Exterior Pictures



Damaged façade panels at front of school



Exposed cmu at damaged façade panels



Damaged brick at roof

Exterior Pictures



Crack in brick at lintel



Worn façade panels at entrance

Interior Pictures



Administration area



Library



Typical classroom casework

Interior Pictures



Typical front of classroom



Typical casework in classroom



Wood paneled wall at open classroom "corridor"

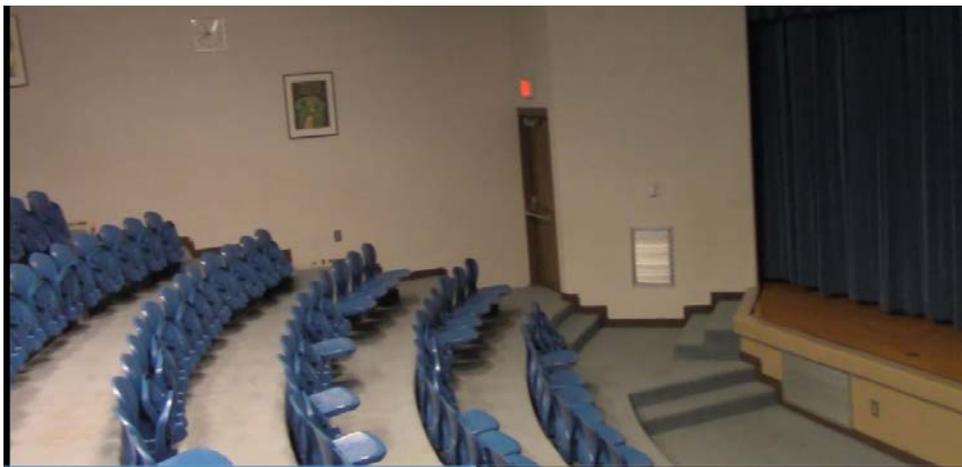


Boys restroom in classroom area

Interior Pictures



Stairs at classroom area entrances



Multi-tiered auditorium not ADA accessible at stage



Restroom adapted for handicap use does not meet current standards