

# **Ervinton Elementary School Facilities Condition Assessment Report**

Dickenson County Public Schools



**Prepared by  
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## **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.

# **Ervinton Elementary School Facilities Condition Assessment Report**

## **Civil/Site Narrative**

### **Traffic Circulation**

Buses: There is no dedicated bus loop or bus lane to drop off and pick up students. Buses use the same entrance and one-way access lane as cars. The one-way lane contains very high volumes of traffic as students and staff enter the school. Stopped buses create major traffic jams because there's not enough space for cars to pass. Buses continue through the one lane road to exit the site.

Morning: Buses enter the one-way access and drop off students at the front of the school. There is a canopy and wide sidewalk at the bottom level entrance to the school. There is enough stacking for approximately two buses to drop off simultaneously. Staff indicated the majority of students arrive very early due to buses serving more than one school in the district. 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 buses to queue. Queued buses block access to rear parking area. Staff indicates minor traffic issues during bus departure.

- Recommendation (5 year): The site is very difficult to improve due to the terrain. Maintain and repair as needed.
- Recommendation (10 year): Maintain and repair as needed.

Cars: Cars utilize the same one-way access lane as buses and use the same drop off / pick up area at the bottom entrance to the school. Cars continue through the one-way lane to exit the site. Staff indicates minor traffic issues due to buses and cars using same traffic flow path, although majority of students ride the bus.

Morning: Cars enter the one-way lane and drop off students at the front of the school and continue through to exit. Drop off works with occasional backups due to traffic flow. Morning parent drop off was not observed.

Afternoon: Same scenario as the morning drop off, but parents also wait wherever they can find space if they arrive before dismissal. Afternoon parent pick up was not observed.

- Recommendation (5 year): The site is very difficult to improve due to the terrain. Maintain and repair as needed.
- Recommendation (10 year): Maintain and repair as needed.

Parking: Approximately 24 striped parking spaces are provided with 3 designated ADA spaces. Day to day parking is not adequate for faculty / staff / visitors. There are no designated parking lots and faculty / staff / visitors park wherever they find space. Service and janitorial staff park along the north side of the school along the perimeter of the service area. Staff indicates parking is a major issue. During school events, the paved play area becomes overflow parking. There is no parking requirement in the jurisdiction's zoning ordinance.

- Recommendation (5 year): Maximizing on-site parking by expanding existing parking lots and creating new parking areas. Consider replacing the dilapidated janitorial house with additional parking.
- Recommendation (10 year): Maintenance

Service: The service area is at the north side of the school and is accessible from State Route 63. 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. Access to the service area is very narrow and difficult to navigate. The dumpsters are not located in the service area due to insufficient space.

- Recommendation (5 year): The site is very difficult to improve due to the terrain. Maintain and repair as needed.
- Recommendation (10 year): Maintain and repair as needed.

Fire Access: There is no paved fire lane around the building; however, fire apparatus have adequate access to most of the building.

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

Separation: There is not sufficient separation for any on site traffic, except service vehicles. There is too much congestion at the front of the school with the one-way lane.

- Recommendation (5 year): The site is very difficult to due to the terrain. Maintain and improve as needed.
- Recommendation (10 year): Maintain and improve as needed.

Adjacent Roadways: The adjacent roadway, State Route 63, contains a high volume of traffic, especially distribution trucks, traveling at a high rate of speed. To utilize the recreational facilities across the street provides a safety hazard. Buses park in the shoulder along State Route 63 causing sight issues around the curve.

- Recommendation (5 year): Consider additional lit signage and pavement markings to State Route 63 to indicate a school zone and traveling at slower speed.
- 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 3 spaces designated as ADA parking at the front of the school. None are designated as van accessible and there are no accessible aisles. ADA parking spaces on site are not compliant.

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

Signage: There is signage for ADA parking, but signage is not code compliant.

- 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 no ADA access to any playground or paved play areas on site. However, due to existing topographical site conditions and multiple site features located at different elevations, access to all areas is not feasible.

### **Parking Areas, Driveways, and Sidewalks**

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

- Recommendation (5 year): Maintain and repair as needed.
- Recommendation (10 year): Replace asphalt.

Concrete Walks: The concrete walks on site are in poor to fair condition with cracking, spalling and deterioration. There are a few substantial cracks or tripping hazards.

- Recommendation (5 year): Maintain and repair as needed.
- Recommendation (10 year): Replace all concrete walks.

Stairs, Ramps, and Railings: Concrete stairs at the front entrance to the school are in poor-to-fair condition. The railings are in fair condition. Concrete stairs to the playground and paved play area at the front of the school are in poor condition and deteriorating. The handrails are too low and unstable.

- Recommendation (5 years): Maintain and repair concrete stairs as needed. Replace handrails.
- Recommendation (10 years): No action

Guardrail, Parking Bumpers, and Miscellaneous: There are no guardrails. The parking bumpers along the west perimeter of the one-way access lane are old and deteriorating.

- Recommendation (5 year): Maintain and replace bumpers as needed.
- Recommendation (10year): Provide new guardrails and parking bumpers.

Fire Lane: There is no dedicated fire lane marked in front of the school.

Recommendation: Paint asphalt at front of school for fire lane. Provide fire lane signage to meet code. Ensure that fire lane signs are turned towards oncoming traffic.

## **Utilities**

Fire Lines and Hydrants: Poor fire hydrant coverage with no fire hydrant on site, but access to fire hydrant across the street in bus parking area. No paved fire lane around building, but fire truck access is present. No fire department connection, post indicator valve or fire department valve observed.

- Recommendation (5 year): The site is very difficult to improve due to the terrain. No Action unless required by the local building official.
- Recommendation (10 year): No action

Domestic Water System: The water system is aged and in fair condition, but functional. A water meter is located along front of school adjacent to State Route 63. Staff indicates discolored water after building is not used for extended periods of time. With aging pipe, leaks and pipe breaks can become more frequent and water quality can be degraded by older pipe.

- Recommendation (5 year): See Mechanical and Plumbing Narrative.
- Recommendation (10 year): No action

Sewer System: The sanitary sewer system consists of an on-site sewage plant. Outlet of sewage plant is unknown. Extensive investigation on the sewage plant was not performed, but observations indicate a strong odor. Sewage plant appears old, and there is staff concern it's not functioning properly.

- Recommendation (5 year): The sanitary sewer lines should be flushed clean and videoed to check for necessary repairs. The sewage plant should be inspected by a wastewater engineer to ensure system is functioning properly.
- Recommendation (10 year): Replace sewage plant.

Propane Gas System: There are four propane tanks on the north end of the site which feed the school to a regulator outside the building near existing ADA parking. The propane tanks appear to be in fair condition.

- Recommendation (5 year): Coordinate replacement with Supplier.
- Recommendation (10 year): No action

Electric: Electrical service is provided to the site at the rear of the school via overhead electric lines to pole mounted transformers with overhead service into the building. The pole mounted transformers are in good condition. There is a generator in the service area that is not protected from traffic.

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

### **Grading and Drainage**

Storm Water System: Roof gutters drain to downspouts and splash blocks. All site runoff sheet flows to the roadside ditch along State Route 63 and under the road to the adjacent stream. An existing ditch behind the school is routed through a culvert under the school towards the creek. A French drain along the back of the building helps to collect runoff from the steep terrain behind the building. Drainage laterals at the rear of the building are exposed.

- Recommendation (5 year): Collect all downspouts at the rear of the building and pipe underground towards the service area and down to the road. Provide small nylonplast grate inlets as necessary to prevent ponding water.
- Recommendation (10 year): None

Slopes, Ponding, and other Drainage Issues: Upstream runoff at the back of the school causes drainage issues. There are multiple locations at the rear of the building with significant ponding. Staff indicates moisture and drainage issues in school basement. There is major ponding at the playground areas.

- Recommendation (5 year): See recommendation above under "Storm Water System".

### **Site Features**

Vegetative Landscaping: There are many mature trees and shrubs at the rear of the site. General maintenance of pruning, raking leaves and mulching required.

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

Lawns: In general, the lawn areas are in relatively fair condition with only a few eroded and rutted areas. There are areas at the rear of the school in need of repair due to high shade and excess moss.

- Recommendation (5 year): Repair the rutted or eroded areas and re-seed. Over-seed all grassed areas in rear of school as a maintenance item.
- Recommendation (10 year): Maintenance

Fencing and Gates: There is chain link fencing around the perimeter of the paved play area and the playgrounds along the road. The fencing is old and rusting, but still in fair condition.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace fencing.

Signage: Overall site signage is minimal and in poor condition. There is a school identification sign at the school entrance, but there is no additional directional signage. The ADA signage is non-compliant. Overall, sign legibility is generally faded and many poles are rusting, leaning, and lack foundations.

- Recommendation (5 year): Replace signage to meet ADA compliance.
- Recommendation (10 year): Maintenance

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

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

Accessory Structures: There is a storage building behind the school and a storage building adjacent to the gym in fair condition. The pedestrian bridge to the west of the school which gives access to the playground across the stream is old, rusted and appears to be in poor condition. The old janitorial house is deteriorated and poses a safety issue to anyone who trespasses into the abandoned building.

- Recommendation (5 year): Repair the pedestrian bridge.
- Recommendation (10 year): Maintenance



## **Play Areas and Physical Education**

Playgrounds / Stationary Play Equipment: There is no separation between year PreK-1 equipment and Year 2-5 equipment. Majority of equipment is in good condition. Fencing around the perimeter of the playground provides student safety. Equipment shows signs of vinyl coating wearing down. Wood equipment has aged, but still in fair condition. Play areas require fresh mulch in lieu of gravel. Exercise equipment across the street is in good condition, but rarely used.

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

Play / PE Fields: Multipurpose games field provided across State Route 63 and the pedestrian bridge over the creek. Staff indicates that play fields across the street are rarely used due to the risk of crossing the road. Turf condition is fair.

- Recommendation (5 year): Discontinue using playfields across State Route 63.
- Recommendation (10 year): N/A

## **Architectural Narrative**

### **Overview**

Ervinton Elementary School was originally built in the 1930's. A Classroom Addition was built in 1967. Subsequent 1986 additions include a Cafeteria Addition and Gym Addition. When these two additions were added, the existing gymnasium was renovated to become 2 story classroom spaces with a Library. The total facility square footage is 49,500 SF. The building has been well maintained and is in very good condition considering its age. Each portion of the building loosely complies with the accessibility requirements of the time in which the work was performed; 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 with some areas needing repointing of joints. There are pre-cast accents on the building that appear to have been painted. These appear to be in good condition.

- Recommendation (5 year): No action
- Recommendation (10 year): Re-point brick as needed

Roof: The roof on the Original Building and Classroom Addition appears to be a built-up tar and felt roof system. The Cafeteria Addition appears to be an EPDM single-ply membrane that appears to have been installed recently as the original roof was a ballasted single-ply membrane. This roof appears to be in good condition. The Gym Building roof is a ballasted single-ply membrane. This roof appears to have reached the end of its useful life.

- Recommendation (5 year): Replace roof on Original Building, Classroom Addition, Cafeteria Addition and Gym Addition with a new 60 mil, fully adhered EPDM single-ply membrane over new insulation.
- Recommendation (10 year): Maintenance

Windows: Windows have been replaced with insulated with an anodized aluminum storefront system with operable window vents. These windows were most likely replaced in the 1982 renovation. These windows are generally in good condition and do not need immediate replacement.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace windows with new energy efficient windows.

Exterior doors are painted hollow metal and are generally in good condition. The main entrance doors and frames are pre-finished aluminum and are in good condition.

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

### **Interior Finishes**

Floors (Original Building): The Interior corridor floors are Terrazzo and in good overall condition. The Administration area has a relatively new laminate floor system and is in good condition. Several classrooms have carpet installed over the existing floor (it is not known what type of floor is under the carpet). The carpet appears to be in good condition.

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

Floors (Rear Classrooms and 1967 Classroom Addition): The 1967 Classroom Addition has Terrazzo floors in the corridors and are in good condition. The classroom floors are VCT with rubber base and are in good condition. The boys and girl's restroom floors are Terrazzo and are in fair condition. Some floor patching has occurred as modifications to these spaces have occurred to make them somewhat handicap accessible. The Faculty restroom floors are ceramic mosaic tile and in fair-good condition.

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

Floors (Cafeteria Addition): The Cafeteria Addition dining room floor has VCT with rubber based and is in good condition. The Kitchen floor is a painted/epoxy floor over concrete and is in good condition.

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

Floors (Gym): The Gym Building has a poured urethane floor in the main gym area and is 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): No action

Walls (Original Building and Rear Classrooms): Interior walls in the Original Building are plaster. For their age, these appear to be in fair-to-good condition. It is not known if there are any occurrences where the plaster has become detached from the lath. It would seem reasonable to expect that plaster at the exterior walls has had some moisture penetration and damage (visible or not) that would need to be addressed in an overall building renovation strategy. In the corridors, glazed brick/bloc wainscot has been painted over in some areas and covered over with gypsum wall board in other areas. Interior walls in the Rear Classrooms appear to be gypsum wall board installed when the original gym was converted to classrooms. These walls appear to be in good condition.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Repair plaster/paint all walls

Walls (1967 Classroom Addition, Cafeteria and Gym Additions): Interior walls are painted cmu and generally in good condition. There are some areas where cracks in the mortar joints are visible, but these are likely caused by the lack of control joints in the masonry walls. These cracks should be caulked and painted and monitored for additional movement or crack re-occurrence.

- Recommendation (5 year): Repair cracks and paint all walls
- Recommendation (10 year): Maintenance

Ceilings (Original Building): Ceilings were originally plaster on lath but during renovations most of the spaces had 2'x4' suspended acoustical tile (lay-in). These ceilings are in fair-to-good condition.

- Recommendation (5 year): Maintenance
- Recommendation (10year): Replace all ceilings with HVAC replacement

Ceilings (Classroom Addition and Cafeteria Addition): Ceilings are 2'x4' suspended acoustical tile (lay-in). These ceilings are in fair-to-good condition.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace all ceiling with HVAC replacement

Interior Doors and Frames: Most interior doors throughout 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 painted hollow metal frames, and are mostly original to the buildings. These are in good condition.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): All door hardware should be replaced to meet handicap accessibility requirements: Some door and door frames will need to be replaced to achieve handicap accessibility into restrooms and other inaccessible areas.

Casework (cabinets): These are in generally poor-to-fair condition. Most casework is not handicap accessible.

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

### **Accessibility (General Overview)**

At several exterior doors, there are steps up into the building, which are not handicap accessible. The main entrance to the building is not handicap accessible and would be very difficult to make accessible due to the large monumental stair leading to the main entrance. Handicap accessibility into the building is achieved through a lower level entrance from the front parking lot. From this entrance, there is an elevator which provides handicap access to all three floors.

The Gymnasium Building is accessed from a covered canopy at the same lower level of the Original Building. The Stage is not handicap accessible.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Within the building, few components are handicap accessible to meet today's code requirements simply because of their age. All 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. Add a chairlift for the Stage in the Gym Building Addition. Upgrade/replace aging elevator components

## **Mechanical and Plumbing Narrative**

### **Mechanical Overview**

Ervinton Elementary School HVAC system is primarily served by a 2,460 MBH input gas boiler and two 15HP hot water pumps. The pumps distribute hot water to the heating coils in the building. The coils are located in unit ventilators. The unit ventilators have electric cooling. The Cast Iron Gas-Fired Boiler was installed in 2003 and is manufactured by Peerless. The gym is heated by two large hot water unit heaters.

### **Mechanical**

Boilers: The existing gas fired boiler was installed in 2003. The boiler has 15 years remaining of its typical life expectancy of 30 years.

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

Terminal Units: The existing unit ventilators are manufactured by McQuay. The McQuay units were installed in 1988. They have passed their useful life. There are a few hot water cabinet unit heaters that are disconnected but remain in place.

Suspended unit heaters located in the mechanical room and in the kitchen have passed their useful life.

- Recommendation (5 year): Remove existing cabinet unit heaters that are disconnected. Replace unit ventilators and unit heaters.
- 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. The gym has a sidewall exhaust fan that is beyond its useful life.

- Recommendation (5 year): Replace all rooftop exhaust systems that are original to building. Provide new exhaust fan for the gym.
- Recommendation (10 year): Maintenance

Outdoor Air Ventilation: There are two AAON rooftop units that provide fresh air to the building. They were installed in 2002/03. The rooftop units have 5 years remaining in

their useful life. Fresh air is provided to the kitchen thru make-up air unit tied into the kitchen hood. The kitchen hood make-up air system is original to the building and has passed its useful life expectancy. The gym has intake wall louvers that induce fresh air into the space.

- Recommendation (5 year): Replace the kitchen make-up air unit. Replace intake wall louvers for the gym.
- Recommendation (10 year): Replace the two rooftop units.

Kitchen Exhaust: The kitchen hood and dishwasher hood appear to have been replaced recently. All of the kitchen equipment is electric. The exhaust fans associated with the kitchen hood and dishwasher hood appear to be beyond their useful life.

- Recommendation (5 year): Replace exhaust fans associated with kitchen & dishwasher hoods.
- Recommendation (10 year): Maintenance

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

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Provide new controls with new HVAC equipment

### **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, floor drains, plumbing (both supply and waste) are beyond their useful life.

### **Plumbing**

Water Heaters: The two electric water heaters are in good condition and are both manufactured by Rheem/Ruud. The water heater located in the mechanical room was installed in 2001 and has passed its useful life of 15 years. The second water heater located in a janitor's closet near the kitchen was installed in 2013 and still has 10 years remaining of its useful life expectancy. Both water heaters have storage capacity of 120 gallons.

- Recommendation (5 year): Replace water heater in the mechanical room and associated domestic hot water piping.
- Recommendation (10 year): Replace water heater in the janitors closet and associated domestic hot water piping.

Water Closets, Urinals and Lavatories: The existing plumbing fixtures are made by American Standard and are aged. The water closets are the floor mounted, flush valve type. The urinals are wall mounted, flush valve type. Lavatories are wall hung with gooseneck type faucet. Faucets and flush valves are in fair-to-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 as part of the overall restroom renovations.

Water coolers: Water coolers are manufactured by Elkay. The water coolers are the wall hung type. Most of them are aged beyond their expected useful life.

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

Plumbing Piping: The existing plumbing system (domestic cold/hot water, sanitary waste, etc.) are original, aged and pitted. Piping is most likely copper (domestic water) and cast iron (sanitary waste). Domestic water enters the building in a 3 inch line. There is a RPZ backflow preventer.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace entire plumbing system with new domestic water service, new hot water and cold-water lines to all plumbing and kitchen fixtures.

Sprinkler system: The building has limited area sprinkler system.

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

## **ELECTRICAL Narrative**

Main Service: The main electrical service consists of 2 High leg delta feeds using service entrance rated panelboards. The first service is a Square D 700 amp service that was installed in 1970's. The second service is a 1200 amp Siemens panel installed in 1988. Both of these services are exceeding their expected useful life and use the high leg delta feed.

- Recommendation (5 year): Replace existing switchboard and expand as necessary. The high leg delta service is an older service that isn't used much in

new construction. It is recommended switching to a 480 volt, 3 phase service or a 208 volt, 3 phase service depending on the final electrical load of the building.

- Recommendation (10 year): Maintenance

Distribution and Branch Circuit Panelboards: Most of the panels are either Square D or Siemens. Each panelboard was installed approximately the same time as the electrical service. Each of the panels have exceeded their expected useful life. Some newer Cutler Hammer panels were installed in 2002. These panels are in good condition and have spaces available; however, because of the nature of a high leg delta system, single phase loads are limited. There is an existing panelboard located in the boiler room. This panel is completely rusted over and should be replaced immediately.

- 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): Maintenance

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): Replace existing wiring where possible during future renovation or additions. All new devices could be installed using surface raceway or utilizing existing conduits.

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 inspected regularly and securely reattached to the wall if it becomes loose.
- Recommendation (10 year): All surface raceway should be inspected 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 with a renovation in either the 1970s or 1988. The lamps are current technology, and the light cans will last.

- Recommendation (5 year): Maintenance
- Recommendation (10 year): Replace with LED fixtures during the HVAC replacement.



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): Maintenance
- Recommendation (10 year): Add automatic lighting controls to each room to comply with building energy codes as part of HVAC replacement.

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 (10year): Provide a life safety ATS to provide egress lighting to the building as part of the HVAC replacement. 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): Maintenance

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): Maintenance
- Recommendation (5 year): Maintenance

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): Lower mounting heights of manual pull stations to meet current code.
- Recommendation (10 year): Maintenance

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): Provide a new generator sized to provide power for life safety features, including emergency lighting, and other equipment that the building needs to operate during a power outage.

Site Lighting: The site lighting consists of a few metal halide 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): Replace existing lighting fixtures around exit doors and areas of egress with new LED fixtures as part of the HVAC replacement. 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 type; 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): Replace with new system

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 (10year): Provide new wiring and speakers in all areas.

## Cost Estimate (5 year)

### Civil/Site:

Demolish Janitors House	\$ 25,000.00
Additional Paved Parking at Janitors House location	\$ 30,000.00
Asphalt Repair	\$ 28,000.00
ADA striping and new Lit Signage	\$ 35,000.00
Storm Water Improvements	\$ 15,000.00
Replace Parking Bumpers	\$ 2,000.00
Concrete Stairs repairs at Entrance, New Handrails	\$ 18,000.00
<u>Repair Pedestrian Bridge</u>	<u>\$ 20,000.00</u>
Sub-total Civil/Site	\$ 173,000.00

### Architectural:

Roof Replacement	\$ 360,000.00
<u>Gym Floor Re-surfacing</u>	<u>\$ 25,000.00</u>
Sub-total Architectural	\$ 385,000.00

### Mechanical and Plumbing:

Mechanical items	\$ 100,000.00
<u>Plumbing items</u>	<u>\$ 20,000.00</u>
Sub-total Mechanical and Plumbing	\$ 120,000.00

### Electrical:

<u>Replace Panelboards and Distribution System</u>	<u>\$ 178,000.00</u>
Sub-total Electrical	\$ 178,000.00

Sub-total Construction: \$ 856,000.00

Fees, Contingency, etc. (18%) \$ 154,000.00

**Project Total: \$1,010,000.00**

## Cost Estimate (10 year)

### Civil/Site:

Replace Fencing	\$ 30,000.00
<u>Replace Sewer Plant</u>	<u>\$ 250,000.00</u>
Sub-total Civil/Site	\$ 280,000.00

### Architectural:

Re-point Brick	\$ 55,000.00
Replace Windows	\$ 115,000.00
Casework Replacement	\$ 85,000.00
ADA Upgrades (signage and hardware)	\$ 65,000.00
ADA and Restroom Renovations	\$ 150,000.00
Suspended Acoustical Tile Ceiling replacement	\$ 120,000.00
Interior Painting	\$ 110,000.00
<u>Re-furbish Elevator</u>	<u>\$ 50,000.00</u>
Sub-total Architectural	\$ 750,000.00

### Mechanical and Plumbing:

HVAC System Replacement	\$2,025,000.00
<u>Plumbing System Replacement</u>	<u>\$ 575,000.00</u>
Sub-total Mechanical and Plumbing	\$2,600,000.00

### Electrical:

Main Gear Replacement	\$ 54,000.00
Generator Replacement	\$ 42,000.00
Electrical for HVAC Replacement	\$ 49,500.00
<u>Interior and Exterior Lighting Replacement</u>	<u>\$ 495,000.00</u>
Sub-total Electrical	\$ 640,500.00

Sub-total Construction \$4,270,000.00

Fees, Contingency, etc. (18%) \$ 769,000.00

**Total Construction \$5,039,000.00**

**Site Pictures**



Janitors house and gravel drive



Pedestrian bridge



View of school from across road



Playground

## Site Pictures



Main entry stairs and rails



Stairs to playground



Rear of building/downspouts



Wastewater treatment plant

## Exterior Pictures



Front of original building and 1967 addition



Front of building



Front of 1967 addition and gym addition

## Roof Pictures



Gym building roof



1967 addition roof



Cafeteria roof



## Interior Pictures



Upper floor classroom corridor



Cafeteria



Gym and stage

## Interior Pictures



Main floor corridor



HVAC units in classroom



Typical classroom casework