

Facility Assessment Update of Munson Elementary School

Located at: 12687 Bass Lake Rd. Chardon, Ohio 44024

May 2024





Preface:

ThenDesign Architecture (TDA) conducted a field investigation of conditions at Chardon Local School District's Munson Elementary School in May of 2024. The goal of the assessment was to identify the facility condition and renovation/improvement needs of the building and to understand the immediate, short-term, and long-term needs of the facility. The benchmark standard for the evaluation is based on current codes (including ADA), general conditions, and anticipated life expectancies of building materials, components, and systems. Costs are based on a variety of resources, regional cost data sources, current market conditions, and recent project bid experiences. The structure of the report is outlined in a twenty-three-point checklist which includes:

- A) Heating
- B) Roofing
- C) Ventilation/Air Conditioning
- D) Electrical Systems
- E) Plumbing & Fixtures
- F) Windows
- G) Foundations
- H) Walls & Chimneys
- I) Floors & Roofs
- J) General Finishes
- K) Interior Lighting
- L) Security System
- M) Emergency/Egress Lighting
- N) Fire Alarm System
- O) Handicapped Access
- P) Site Condition
- Q) Sewage System
- R) Water Supply
- S) Exterior Doors
- T) Asbestos
- U) Life Safety Code
- V) Loose Equipment
- W) Technology

Each of the above categories includes a description, recommendation, and cost associated with the identified improvement. Upon subtotal of the cost of work, soft costs including contingencies, A/E Fees, CMR Fees, etc. have been included and tabulated. Additionally, the scope of required work has been broken down in the following manner:

Priority 1 – Needs that should occur as soon as possible – within 1-2 year timeframe Priority 2 – Items that are approaching the end of useful life – within 3-5 year timeframe



Priority 3 – Replacement of components that are recommended to enhance performance and functionality, but is not necessarily urgent – 6+ year timeframe

General Description:



Munson Elementary School is a brick school building originally constructed in 1955 (single story) with subsequent additions constructed in 1959 (single story) and 1974 (two story). The 1955 portion of the building is located on the north end of the building footprint and houses four classrooms, the kitchen, and half of the student dining/gym space, and is comprised of 11,051 SF. In 1959, a classroom addition was built comprised of 10,523 SF. Lastly, another addition was constructed in 1974, and this 2-story addition features additional classrooms and has a total of 10,036 SF. Collectively, the school is 31,710 SF. Munson Elementary School serves the entire Chardon School District's first through third-grade population.



The school district-owned site is approximately 13 acres within 2 parcels owned by the Chardon City District. The site slopes downhill as you navigate towards the east side of the school district's property and then bleeds into the Munson Township Board of Trustee site which houses some of the athletic fields/amenities. To the north, south, and west are residential properties. The site is provided with adequate asphalt parking, as well as moderate floral, bush, and treetype landscaping. The site is pleasant and suitable for outdoor learning.

The roof system of the overall building is a newer EPDM roof system installed in 2021. The roof replacement was a complete tear-off and replacement, with all underlayment layers removed before the new EPDM was installed. There are no reported active leaks on the roof, however, some water penetration occurs during driving rains, though it is not certain if this is coming through the roof or other penetrations.

Though well maintained, the building's major systems are in worn condition. Both the HVAC and electrical systems are outdated and do not meet the Ohio School Facilities Commission's (OFCC) Design Manual requirements. There is no central air conditioning system, and the HVAC system does not provide the Ohio Code requirements for fresh air requirements. The building's fire alarm and security system require upgrades to meet today's requirements. However, many improvements have been made in recent years, including but not limited to partial window replacement in the original building, replacement of the boilers, and replacement of fluorescent lights and ballasts with LED type.

The classrooms range in terms of size and are larger in the Original Building compared to the 1959 and 1974 additions. The facility contains a warming kitchen and a combined gymnasium and student dining area, compared to a separate dining and gym space in today's educational facilities. Additionally, one must travel through the kitchen or gym/dining space to gain access to the four classrooms in the original building, which is not ideal.

Item A: Heating and Ventilation

Description:

The existing system for the overall facility consists of two Burnham steam boilers replaced in May of 2021 (cost around \$282,500). The boilers are in good condition. They are, however, just one part/piece of an overall system which is outdated and does not provide the required outside air delivery to meet the Ohio Building Code mechanical code requirements. The boiler's steam is converted to hot water for some heat units via a heat exchanger. The system utilizes unit ventilators



for most of the classrooms with some radiators still present in the hallways. The system



temperature controls are pneumatic-type thermostats with DDC controls in fair condition. The building does not contain a central air conditioning system and is a two-pipe system that does not provide simultaneous heating and cooling. Thus, the system is not compliant with the requirements of the Ohio School Design Manual which requires air conditioning as well as simultaneous heating and cooling. While there is no central air conditioning, there are some spaces provided with AC units such as the library and administrative spaces.



Unit ventilator



Fan in administration window



New boilers





Recommendations:

Provide a new overall heating, ventilating, and air conditioning system to achieve compliance with OBC and OSDM standards. The two Burnham boilers can remain and be incorporated into the new system. The new ducted system will likely require architectural soffits to accommodate the installation of the ductwork. This work is outlined as Priority 3.

Priority 1 Recommendation: None at this time.

Priority 2 Recommendation: None at this time.

<u>Priority 3 Recommendation</u>: Provide a new OSDM-compliant HVAC system including new ductwork.

Priority 3 Costs:

HVAC System Replacement: 31,710 SF x \$54.42/SF = Convert to ducted system: 31,710 SF x \$10.37/SF = Subtotal =

\$1,725,658.20 <u>\$328,832.70</u> \$2,054,490.90

Total Item A:

\$2,054,490.90

<u>Item B: Roofing</u>

Description:

The roof over the overall facility is a new EPDM system installed in 2021. The roof has a 20-year warranty and is in good condition. All previous roof layers were torn off during this roof replacement project. New tapered insulation was installed for the proper flow of water to the internal drains. Additionally, it was reported that internal drain repairs were also conducted as needed. All flashings were redone with the roof replacement project. There are no reports of current leaking, but it was reported that sometimes water has penetrated into the building during driving rains (source not determined).

There were no observations of significant areas of standing water on the roof during the physical assessment. There are no overflow drains or scuppers on the roof. Roof access was gained via a roof hatch that is in fair condition and operating properly. Fall safety protection



cages are not provided nor required. No problems requiring attention were encountered with any roof penetrations.





Roof hatch



Roof system is in good condition



Tapered insulation directs water to drains



Recommendations:

No work is required at this time.

Total Item B:

Item C: Air Conditioning

Description:

There is no central ducted air conditioning system for this building. Two 2000 Samsung mini-split units provide AC for the fourthgrade classrooms, the office has its 1995 Rudd system. The library has two window units. The overall system is not compliant with OFCC requirements. The general building pressure relief exhaust system located in the restrooms and hallway is functional and in poor condition. There is a separate ventilated exhaust for the kiln in this facility and is in good

condition. There is no art program paint hood or science room chemical hood in the elementary school building.

Recommendations:

Provide complete replacement of HVAC system. See Item A for recommendations and pricing.

Total Item C:

Item D: Electrical

Description:

The electrical system in the overall facility is a 240/120 volt, single phase, 3 wire, 600 amp electric service with a 240 volt, 3 phase, 3 wire, 225 amp installed in 1955 and in 1998 an additional 240 volt, single phase, 3 wire 600 amp service was added maintaining the old 1955 service. The total capacity is 1600 amp. The existing system is not capable of supporting the proposed new HVAC system. The overall electrical system does not meet OSFC requirements in supporting the needs of the school. There is no lightning protection. There is no generator in the building.







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\$0.00

Recommendations:

The entire electrical system requires replacement to meet OSDM guidelines for overall capacity due to age. Upgrade service to meet current and future power needs including central air conditioning. Work outlined as a Priority 3 is to be coordinated with associated work outlined in Item A and Item U.

Priority 1 Recommendation: None at this time.

Priority 2 Recommendation: None at this time.

Priority 3 Recommendation: Provide for complete electrical system replacement.

Priority 3 Costs:

Electrical System: 31,710 SF x \$37.26/SF =

\$ 1,181,514.60

\$ 1,181,514.60

Total Item D:

Item E: Plumbing & Fixtures

Description:

Water is provided via an onsite well that connects to a 2" line and is in good condition. The well was replaced in 2019, as well as the pressure tank and pump. The school contains 2 large group restrooms for girls and 2 large group restrooms for boys. 3 individual staff restrooms are provided: one near the kitchen, another in the administration office, and the last one in the faculty room. Additionally, a restroom is provided in the clinic, and there are four individual student restrooms in the four classrooms in the original 1955 building. Thus, a total of 19 toilets are present, 18 sinks, and 8 urinals (6 of which are old floormounted units). The restrooms meet the requirements for the total number of fixtures. The majority of the water closets are floor-mounted. In the last few years, the district has replaced all



the flush valves on the toilets and urinals, as well as replaced all the sink faucets with touchless units. The plumbing fixtures are in fair-good condition except for the floor-mounted



urinals, which are becoming difficult to find replacement parts for. The 3 drinking fountains in the school have been recently replaced with bottle filler type and are ADA-compliant. There are an adequate number of hose bibbs on the perimeter of the building in good condition.

According to the director of facilities, all cold-water copper lines were replaced with PVC and nearly all hot-water lines have been replaced as well. The classroom sinks have had the piping disconnected and capped off.

There are two hot water heaters in the building. The first is an AO Smith gas-fired water heater that was installed sometime after 2017 and is in good condition. Capacity was not noted but is assumed to be 76 gallons. The second water heater was installed around 2017 and is a Lochinvar 40-gallon electric water heater also in good working order. No considerations are needed for science room emergency eyewash/shower in this elementary school. The kitchen is a warming kitchen and has all the required fixtures.





Sinks with new touchless faucets

Recommendations:

Given the anticipated useful life of water heaters being 10 years, provide for replacement of the 2 hot water heaters as Priority 2 (3-5 years). Replace all urinals in the building due to age and difficulty finding parts (for floor-mounted units), as well as to meet OFCC requirements for low flow/LEED. Replace toilets to meet OFCC requirements for low flow/LEED. Although supply piping has been replaced, it is still recommended to have a water softening system.

Priority 1 Recommendation: None at this time.



| Priority 2 Recommendation: Replace hot water heater due to end-of-life expectancy in the next 5 years. | |
|---|--|
| Priority 2 Costs: Hot water heater: 2 units x \$12,852/unit = | \$25,704.00 |
| Priority 3 Recommendation: Provide for replacement of urinals and toilets to meet low flow requirements for OFCC/LEED. Install a water softener system. | |
| Priority 3 Costs: Toilets: 19 units x\$4,923.27/unit = Urinals: 8 units x\$4,923.27 / unit = Water softener system: 1 unit x\$19,434.75/unit = Subtotal = | \$93,542.13 \$39,386.16 <u>\$19,434.75</u> \$152,363.04 |
| Total Item E: | \$ 178,067.04 |

Item F: Windows

Description:

The overall facility is equipped with a variety of window systems for different ages. The classrooms in the 1955 building contain new thermally broken, aluminum frame, awning type windows with double insulated glazing and they are in good condition. Both the lower and clearstory windows in the 4 classrooms were replaced. The windows are equipped with surface-mounted blinds in good condition. There are still some original windows in the 1955 building, however, in the breezeway adjacent to the kitchen and the boiler room. These windows are single pane, aluminum, and steel frame windows and are in poor condition and a source of energy loss to the building.

Some windows have been recently replaced in the central 1955 addition as well. This includes the east and west façade of the restroom and the building's staff dining/clinic portion. These windows are also aluminum frame, double-glazed windows in good condition. The rest of the windows in the 1959 Addition and the 1974 addition are aluminum frame, double pane windows with operable vents and panes. The installation date of these windows is unknown, but they appear to be in fair condition, with no issues reported by the district. The school does not contain any skylights. There is not a greenhouse associated with this school.





Old single pane windows in Orig. Bldg.



New windows in Original Bldg.



Old single pane windows in Mech Rm.

Recommendations:

Provide for replacement of all old, single pane window systems in the Original Building due to age and condition. All work is recommended as a Priority 1 to ensure the building being warm, safe, and dry as a priority.



<u>Priority 1 Recommendation:</u> Provide for replacement of the remaining old single pane window system.

Priority 1 Costs:

Window replacement: 310 SF x \$131.57/SF=

Priority 2 Recommendation: None at this time.

Priority 3 Recommendation: None at this time.

Total Item F:

<u>Item G: Structure – Foundation</u>

Description:

The majority of the building is poured concrete slab on grade. Most foundations are not visible. However, seismic activity in 1986 is reported to have damaged other portions of the building's structure. A thorough analysis of the foundation should be performed. The 1974 wing has a basement retaining wall which displays signs of moisture penetration, as well as the former coal bin which is now used for storage.

Recommendations:

Provide foundation drain tile and a waterproofing membrane around the basement of the 1974 wing and the storage room (former coal bin) as a Priority 1 to maintain warm, safe, dry methodology.

Priority 1 Recommendation:

Provide for waterproofing and drain tile system.

Priority 1 Costs:

Waterproofing: 4,224 SF x \$12.31/SF= Drain Tile: 352 LF x \$23.33/LF = Subtotal =

Priority 2 Recommendation: None at this time.

Priority 3 Recommendation: None at this time.





\$40,786.70

\$40,786.70

\$51,997.44 <u>\$8,212.16</u> \$60,209.60

Item H: Structure (Walls & Chimneys)

Description:

The overall facility has brick veneer on loadbearing wall system which displayed locations of spalling and deterioration, particularly on the west façade of the building near the main entrance and on the south side of the 2-story addition. Cracking was observed in both exterior and interior masonry which has been reported in the past due to the 1986 earthquake.

Brick veneer masonry walls are assumed not to be cavity walls given the construction dates. The exterior masonry shows evidence of some mortar deterioration and needs repair, cleaning, and sealing. Efflorescence was observed in several locations; however, no mold was observed. There are no major elements of exterior accent materials on the exterior. Installation of the new HVAC systems recommended in Item A will result in the removal of existing unit ventilators, necessitating the exterior masonry infill of associated exterior wall voids. The chimney stack is present just outside the mechanical room and needs brick replacement and tuckpointing. Lintels are in fair condition.



Spalling brick & previous repairs



Interior walls are concrete masonry and glazed block units in fair condition. The window sills are mainly an element of the aluminum window system though some brick sills were observed, and they are in fair condition. Exterior soffits/overhangs are in fair condition. The school is not equipped with a loading dock.







Chimney in need of brick repairs

Recommendations:

As a Priority 2, provide for replacement of brick as needed, tuckpointing, masonry cleaning, and sealing of the entire masonry façade (including chimney as applicable). This work will protect the integrity of the exterior façade. As a Priority 3, install control joints as needed, and infill brick at unit vent openings in coordination with HVAC replacement outlined in Item A.

Priority 1 Recommendation:

None at this time.

Priority 2 Recommendation:

Provide masonry tuckpointing, chimney & masonry repairs, cleaning, and sealing of the entire masonry façade.

Priority 2 Costs:

| \$1,944.00 |
|------------|
| 15,000.00 |
| 26,676.00 |
| 517,784.00 |
| 61,404.00 |
| 2 |



Priority 3 Recommendation: Provide infill of brick @ unit vent voids when the HVAC system is replaced. Install control joints. Priority 3 Costs:

| <u>iority 3 Costs</u> : | |
|--|-------------------|
| Control joints: 424 LF x \$77.73/LF = | \$32,957.52 |
| Infill brick @ unit vent voids: 56 SF x \$73.90/SF = | <u>\$4,138.40</u> |
| Subtotal = | \$37,095.92 |
| | |

Total Item H:

\$98,499.92

Item I: Structure (Floors & Roofs)

Description:

The floor construction of the base floor is concrete construction and is generally in fair condition. The floor construction of the intermediate floor is a concrete deck on a metal deck spanning between open web steel joists. Movement cracks were observed in the floor during the original OFCC assessment. That report outlines that it is possible the condition is not stable as replacement floor finishes in the area were damaged from floor slab movement. The roof structure of the 1955 original building is hollow core concrete planks, while the other areas of the building have metal joists with metal deck roof structures.





Metal joist and deck roof structure

Recommendations:

As a Priority 1, provide control joints in the poured concrete slab as necessary to relieve pressure from movement in the slab. Floor finish replacement due to this work is provided under Item J. in the complete replacement of finishes recommendation. Provide for repairs to the ceiling of the former coal room.



Priority 1 Recommendation:

Install control joints in the poured concrete slab of the 2-story addition. Provide concrete repairs to the ceiling of the former coal room now used for school storage.

Priority 1 Costs:

Saw cut control joints: 200 LF x \$60.00/LF = Concrete repairs in former coal room: Lump Sum = Subtotal = \$12,000.00 <u>\$20,000.00</u> \$32,000.00

Priority 2 Recommendation: None at this time.

<u>Priority 3 Recommendation:</u> None at this time.

Total Item I:

\$32,000.00

Item J: General Finishes

Description:

The school features conventionally partitioned classrooms generally with painted block and brick walls. The walls range in condition from fair to good condition. The floor finishes are primarily VCT flooring and range in condition from damaged to good. Recently, the 8 classrooms in the central 1959 addition had the VAT flooring removed and replaced with new vinyl flooring that is in good condition. Some carpeted floors were observed in learning areas and appeared in fair to dated conditions. The ceilings are a combination of concrete plank, 2' x 4' lay-in acoustical ceiling tiles, and glued-on 12" x 12" acoustical ceiling tiles. The ceiling condition ranges as well from poor to good throughout the building. Many ceiling tiles were observed to be bowing at the corners most likely due to humidity levels during warmer months. The classrooms feature original built-in wood and plastic laminate cabinets which range in condition from fair but dated, to poor condition. Many wood pieces were observed peeling, chipped, and/or broken. Some classrooms are



Dated/worn classroom casework



provided with student storage cubbies, while others are not.

The corridors feature terrazzo flooring, painted block walls, and both 2' x 4 lay-in ceiling tiles and glued-on l' x l' ceiling tiles. Coat hooks with a shelf above are provided in the 1974 corridors for storage of students' outdoor clothing materials and bookbags/lunchboxes. The classroom doors are the original wood doors, are not recessed, feature louvers, and have been retrofitted with ADA-compliant door hardware. The doors are in worn/dated condition.





Bowing ceiling tiles



Typical restroom finishes



Old wood classroom doors w/new ADA hardware



The restrooms feature terrazzo and quarry tile flooring, glazed block, painted block, and painted brick walls, and 2' x 4' lay-in acoustical ceiling tiles and 1' x 1' glued-on ceiling tiles that range in condition and age. The toilet partitions are metal, and many were observed in rusted/worn condition.

The school has a combined gymnasium/student dining space that is equipped with VCT flooring, painted block walls, and plaster ceilings in fair–good condition. There is no stage provided. This space is provided with acoustic treatment that appears in good condition. There are 2 dated basketball backboards/hoops that should be replaced. A folding partition door is provided and appears to be reaching its end of useful life, though still operates.



The kitchen features VCT flooring, glazed block walls, and an exposed concrete plank ceiling structure. The finishes are in fair condition. In the last few years, the district has replaced many of the kitchen equipment pieces, including the stove, a 2 door, a reach-in refrigerator, and a warming table. They also have scheduled for replacement of the freezer as well as a new dishwasher in the upcoming months.

Recommendations:

Provide for complete replacement of finishes and casework throughout due to age, condition, lack of compliance with OSDM requirements, and in conjunction with mechanical, electrical, plumbing, and life safety upgrades. Provide new toilet partitions and accessories due to age and condition. Provide for about ½ of the kitchen equipment replacement due to some pieces still being dated and beyond their anticipated useful life span. In the cafeteria/gym space, provide for the replacement of the basketball backboards and the operable partition wall. New interior door replacement is outlined in Item O. The building is not provided with the wall insulation necessary to meet the LEED requirements by OFCC. Additional wall insulation is required to meet this requirement.



<u>Priority 1 Recommendation</u>: None at this time.

Priority 2 Recommendation: None at this time.

Priority 3 Recommendation:

Provide complete replacement of finishes and casework, new toilet partitions and accessories, basketball backboard replacement, operable wall replacement, additional wall insulation, and replacement of select kitchen equipment. See Item O for ADA requirements of ADA toilet partitions and interior door replacement.

| <u>Priority 3 Costs:</u> | |
|---|--------------------|
| Complete replacement of finishes & c.w.: 31,710 SF x \$35.95/SF = | \$1,139,974.50 |
| Toilet partitions: 8 units x \$ 1,606.50/SF = | \$ 12,852.00 |
| Toilet partition accessories: 31,710 SF x \$.26/SF = | \$ 8,244.60 |
| Basketball backboards: 2 units x \$4,146.08/unit = | \$8,292.16 |
| Additional wall insulation: 13,680 SF x \$7.78/SF = | \$106,430.40 |
| Gym operable wall: Lump Sum = | \$30,000.00 |
| Partial kitchen equipment replacement: 321 SF x \$145.76/SF = | <u>\$46,788.96</u> |
| Subtotal = | \$1,377,459.10 |
| | |

Total Item J:

\$1,352,582.62

Item K: Interior Lighting

Description:

When the facility was assessed in 2016, it contained primarily recessed, fluorescent-type lighting. The lighting in classrooms was T-12 and T-8 fluorescent 1x4 and 2x4 fixtures with electronic ballast. The lighting levels were as follows: classrooms 65 FC, library 80 FC, cafeteria 60 FC, kitchen 60 FC, gym 30 FC, offices 77 FC, restrooms 50 FC, art & music 35 FC, and corridors at 75 FC. The art/music and gym lighting levels were slightly below OSFC standards. In 2017 – 2018, the district cut out all of the ballasts and put in LED lamps. The lighting levels are much improved in all of the spaces.

Recommendations:

Although all new LED lighting is provided, complete replacement of lighting system in areas with dropped ceilings will be required due to the installation of mechanical systems and fire suppression systems outlined in Items A & U.







Corridor LED lighting

Priority 1 Recommendation: None

Priority 2 Recommendation: None at this time.

Priority 3 Recommendation:

Replace lighting system in all areas which have lights in the lay in ceilings and are recommended for HVAC system and sprinkler system installation.

Priority 3 Costs: Interior lighting replacement: 28,710 SF x \$8.42/SF =

\$ 241,738.20

Total Item K:

\$241,738.20

Item L: Security System

Description:

The security system is a 1992 Fire Burglary system maintained by Vector Security. It includes cameras located inside (22) and outside of buildings (12). All school district cameras are connected to the high school recording equipment with 2 weeks of storage. There is a card reader located at the main entrance of the classroom building with 2-way communication and a door release for visitors. Exterior doors do not have position switches.

Recently, the district installed a secure vestibule at the main entrance for security. Though the vestibule does not directly feed into the office for proper clearance (the office is located across the hall of the vestibule), the district is installing a kiosk device inside of the vestibule which will provide the proper clearance and approval of visitors entering the building.



The exterior lighting is comprised of building-mounted security lighting and pole-mounted lighting in the parking lot. The quantity of fixtures is not adequate, however, the district has made some improvements to the existing lighting in recent years, such as putting some new LED packs on various building-mounted fixtures.



Recommendations:

Provide a new security system to meet OFCC design manual standards as a Priority 1 which is focused on warm, safe, and dry.

| Priority | / 1 Red | comme | endat | tion: |
|----------|---------|-------|-------|-------|
| | | | | |

Provide a new security system to meet OFCC guidelines, including a new secure vestibule.

Priority 1 Costs:

Security system replacement: 31,710 SF x \$3.69/SF = Exterior Lighting: 31,710 SF x \$1.30/SF = Subtotal: \$ 117,009.90 <u>\$41,223.00</u> \$158,232.90

Priority 2 Recommendation:

None at this time.

Priority 3 Recommendation:

None at this time.



\$158,232.90

Total Item L:

Item M: Emergency / Egress Lighting

Description:

The overall facility is equipped with an emergency egress lighting system consisting of compact fluorescent and LED exit signs, and emergency lighting with battery packs. The system is not adequately provided throughout and is not compliant with OFCC design manual guidelines. There is no emergency generator.

Recommendations:

Provide a complete replacement of emergency egress lighting due to lack of compliance with OSDM and due to installation of systems outlined in this report. A new generator is included as part of Item D.

> Priority 1 Recommendation: None

> Priority 2 Recommendation: None.

Priority 3 Recommendation:

Provide a new egress lighting system.

Priority 3 Costs: Emergency/Egress Lighting: 31,710 SF x \$1.30/SF =

\$ 41,223.00

Total Item M:

\$41,223.00

<u>Item N: Fire Alarm</u>

Description:

The fire alarm system is a 1992 Silent Night zoned type system (non-addressable) and is annually tested and remotely monitored by Vector Security. There is not an adequate number of horn/strobe units. The existing system does not have enough capacity to add additional





Exit sign

horn strobes or duct fire suppression system detectors for the shutdown of air handling equipment to meet NFPA and OFCC standards. It is not likely that the current system would accommodate the addition of a fire suppression system.





Recommendations:

Replacement of the system will be required due to lack of compliance with NFPA and OFCC standards and when the work in A and C- upgrading the ventilation and air conditioning is completed. At that time, the devices would be replaced and added to with addressable devices.

Priority 1 Recommendation: None at this time.

<u>Priority 2 Recommendation</u>: None at this time.

Priority 3 Recommendation:

Provide for replacement of fire alarm system.

Priority 3 Costs:

Fire alarm system replacement: 31,710 SF x \$3.89/SF =

\$ 123,351.90



Item O: Handicap Access

Description:

At the site, there is an accessible route provided from the public right-of-way, accessible parking areas, and from the passenger unloading zone to the main entrance of the school. There is an accessible route connecting most areas of the site via sidewalks and asphalt parking areas. Adequate handicapped parking is provided. There is not an ADA power door assist provided.

On the interior of the building, space allowances and reach ranges are not fully compliant. There is a wheelchair lift on the 2- 2-story building stairwell, however, no elevator is provided. There is no stage for ADA considerations. The library has tiered flooring but is accessible from a rear door. However, the ramp in the hallway that gives this access is not ADA-compliant. Interior doors are generally the original door leafs and most have been retrofitted with ADA hardware in recent years. Interior doors are primarily wood, feature louvers, and are not recessed.

All drinking fountains were recently replaced, have bottle fillers, and are in good condition. The large group restrooms are generally not compliant with ADA requirements for fixtures though some ADA toilet partitions were observed. Two restrooms in the 1955 original building are not handicapped accessible opening needs to be reworked to provide a setback. ADA-compliant signage is generally not provided throughout the school, though a few random pieces were observed.



Limited ADA signage









ADA electric water cooler

Recommendations:

Provide ADA-compliant large group restrooms on each floor of the building. Provide a 2-stop elevator for ADA accessibility, as well as a power door assist on a main entrance point. Provide a lift in the library for direct access to the tiered bookshelf area. Although the building has doors that are retrofitted with ADA hardware, the doors themselves are very dated and should be replaced. Additionally, 2 doors in the original building require wider openings. Provide ADA signage in the building.

Priority 1 Recommendation: None at this time.

Priority 2 Recommendation: None at this time.

Priority 3 Recommendation:

Provide for ADA compliant large group restrooms on each floor of the two buildings. Provide a 2-stop elevator for ADA accessibility, as well as a power door assist on a main entrance point. Although the academic building has doors that are retrofitted with ADA hardware, the doors themselves are very dated and should be replaced. Provide ADA signage in the building. Provide a lift for the library.



| ADA a a a a a a a a a a a a a a a a a a | ¢0.044.60 |
|---|-------------------|
| ADA SIGNUGE. 31,710 SFX \$0.20/ SF - , | \$0,244.00 |
| Replace doors: 73 leafs x \$1,684.34/leaf = | \$ 122,956.82 |
| Replace/widen doorway: 2 leafs x \$6,478.25/leaf = | \$12,956.50 |
| Elevators: (2 stops): 2 stops x \$66,078.15= | \$ 132,156.30 |
| ADA power door assist: 1 entrance x \$9,717.38/unit = | \$ 9,717.38 |
| Lift for library: 1 unit x \$19,434.75/unit = | \$19,434.75 |
| ADA Toilets/sinks/urinals: 12 fixtures x \$4,923.47/fixture = | \$ 59,081.64 |
| ADA toilet partitions: 2 units x \$1,750/unit = | \$3,500.00 |
| Toilet Accessories: 4 restrooms x \$1,295.65/restroom = | <u>\$5,182.60</u> |
| Subtotal: | \$373,230.59 |

Total Item O:

Item P: Site Condition

Description:

According to the Geauga County Auditor's website, the school sits on two, district-owned parcels. The main parcel of 10.55 acres houses the school building, drives, and larger playgrounds. The second parcel is on the north end, is 2.11 acres and provides grass and playgrounds. Collectively, the district-owned site is 12.66 acres. The Township of Munson owns the large greenspace/fields to the east of the school. The site is further away from the City of Chardon compared to the other school buildings in operation. The site is very attractive and suitable for outdoor learning. Ample parking is provided on both the east side and west side of the building. The asphalt located on the east side was resurfaced 2 years ago (2022) and is in good condition, but the asphalt on the west side is riddled with cracks and needs resurfacing. The district has this work slated in the upcoming months. Additionally, there is a bus loop on the southwest side of the school, which was also resurfaced in 2022 and is in good condition. No issues with parking lot ponding were observed nor reported. There were no significant locations with erosion observed during the physical assessment.

The sidewalks are a mix of ages and conditions from good to poor. The north sidewalk is in very poor condition, with large cracking and unevenness which is a tripping hazard.



\$373,230.59

Bus loop in good condition





The school district has slated that walk for replacement in the upcoming months. The trash

dumpster is not provided with concrete pads or enclosures.

Two main playgrounds are provided, one on the east side of the site and another on the north end of the site. The playgrounds are not fenced for security. A mix of equipment is present including heavy-duty plastic and metal pieces. The metal swings recently received new chains and seats, and the east playground has been provided with new mulch. There are older metal pieces present that require replacement, primarily in the north playground. Additionally, the north playground needs additional mulch, as what is present is not of sufficient depth to meet fall safety guidelines. The district has also added drainage to the junior varsity baseball field on the east side of the school. There are two hard-



North sidewalk in poor condition

surface playgrounds on site as well, and the east one needs resurfacing.



Recommendations:

Given the need for asphalt resurfacing of front drive and north sidewalk replacement is already being implemented, that scope is not included below. As a Priority 1, add additional mulch to sufficient depth for compliance with fall safety regulations. As a Priority 2, resurface the east asphalt hard surface playground and walkways where applicable. As a Priority 3, provide a concrete pad & enclosure for the dumpster, and replace older pieces of playground equipment. Note: OFCC automatically puts in a lump sum for unforeseen circumstances. This allowance remains in this assessment report and is under Priority 3.





| Priority 1 Recommendations: Provide for adequate depth of wood mulch in the north playaround | |
|---|-------------|
| | |
| Phoney i Costs: | |
| Soft Playground Surface: 522 SY x \$37.87/SY = | \$19,768.14 |
| | |
| Priority 2 Recommendations: | |
| Provide asphalt resurfacing of east hard surface playaround. | |
| , , , , , , , , , , , , , , , , , , , | |
| Priority 2 Costs: | |
| $\frac{110110}{200313}$ | ¢1470001 |
| Asphalt Resurfacing: 601 SY x \$24.61/SY = | \$14,790.61 |
| | |
| 101 | |
| Priority 3 Recommendations: | |
| Provide dumpster pad and enclosure. Remove old pieces of plavaroun | d equipment |
| and replace with new OECC allowances for unforeseen site circumsta | Inces |
| and replace with new. of co anowances for unioreseen site circumste | 11005. |

Priority 3 Costs:

| Dumpster pad and enclosure: Lump Sum = | \$10,000.00 |
|--|--------------------|
| Remove old playground equipment: Lump Sum = | \$2,591.30 |
| New playground equipment: 22,000 SF x \$1.95/SF = | \$42,900.00 |
| Base Sitework allowance: Lump Sum = | \$50,000.00 |
| Additional sitework allowance: 31,710 SF x \$1.50/SF = | <u>\$47,565.00</u> |
| Subtotal = | \$187,615.05 |

Total Item P:

tda thendesign architecture

1

\$222,173.80

Item Q: Sewer System

Description:

The existing system is an onsite sewage treatment plant. According to maintenance staff, the system is operating properly, but one wall is pushing in and needs repairs before the integrity of the system is compromised. The age of the system is unknown.

Recommendations:

Provide for repairs to the bowing wall as a priority 1.

Priority 1 Recommendations:

Provide sewage treatment plant repairs where the wall is bowing.

Priority 1 Costs:

Sewer Plant Repairs: Lump Sum =

\$20,000.00

\$20,000.00

Priority 2 Recommendations:

None at this time.

Priority 3 Recommendations: None at this time.

Total Item Q:

Item R: Water Supply

Description:

There is a 2-inch water supply for domestic water connected to the well. Since the original assessment in 2016, the district has replaced the well, along with the pressure tank and pump. The system, however, will not be adequate to serve the new sprinkler system, thus a dedicated well, storage tank, and pump will be required as part of the recommendations in Item U. Life Safety. The city water tap is not available at this time.

Recommendations:

Provide a new fire line system to accommodate the future system – cost in Item U.

Total Item R:





\$0.00

Item S: Exterior Doors

Description:

The exterior doors throughout the building are a mix of materials, age, and condition. They include both hollow metal doors which are generally in dated/poor condition, and some newer FRP doors in fair to good condition. Some of the metal doors were observed to be rusting and in very poor condition. The doors feature panic exit hardware, and many are equipped with single pane and/or wired glass.





Recommendations:

Provide for replacement of all old exterior doors. Due to many being in a rusted, poor state, all are being recommended as a priority 1.





Priority 1 Recommendations:

Replace dated deteriorating exterior doors.

Priority 1 Costs:

Exterior Door Replacement: 13 leafs x \$3,239.12/leaf =

\$42,108.56

Priority 2 Recommendations: None at this time.

Priority 3 Recommendations:

None at this time.

Total Item S:

\$42,108.56



Item T: Hazardous Materials

Description:

In 2019, the OFCC sent an environmental engineer to confirm the presence of hazardous materials (including asbestos) in the facility. They conducted testing as part of this assessment. They listed boiler insulation, pipe insulation, cement board, fire door, ceiling/wall, window components, resilient flooring, mastic, carpet over RFC, and sink undercoatings as confirmed asbestos-containing materials.

Note: Since 2019, the district has replaced all of the fluorescent lighting in the building district-wide, thus the recommendation for incineration of fluorescent lamps is removed from this recommendation. Additionally, the district just removed the VAT from 8 classrooms in the 1959 addition, thus, VAT replacement has been reduced herein.



VAT flooring in clinic

Recommendations:

Remove asbestos and hazardous material-containing materials.

Priority 1 Recommendations:

None at this time.

Priority 2 Recommendations:

None at this time.

Priority 3 Recommendations:

Remove hazardous material identified in the Enhanced Environmental Assessment prepared by OFCC in 2019.

Priority 3 Costs:

| Boiler/FurnaceInsulationRemoval: 800 SF x \$16.07/SF = | \$12,856.00 |
|---|-------------|
| Est. Cost for Lead Mock-ups: 5,000 units x \$1.30/unit= | \$6,500.00 |
| Special Engineering for LBP Mock-ups: 5,000 units x \$1.30/unit= | \$6,500.00 |
| Pipe insulation Removal: 600 LF x \$32.13/LF = | \$19,278.00 |
| Dismantling of Boiler/Furnace/Incinerator: 2 each x \$2,591.30/each = | \$5,182.60 |
| Cement Board Removal: 435 SF x \$6.48/SF = | \$2,818.80 |
| Fire Door Removal: 2 each x \$129.57/each = | \$259.14 |
| Non-ACM Ceiling/Wall Removal (for access): 2,506 SF x \$2.59/SF = | \$6,490.54 |
| Window Component 1: 8 each x \$388.70/each = | \$3,109.60 |
| Window Component 2: 8 each x \$388.70/each = | \$3,109.60 |



| Resilient flooring removal, including mastic: 5,615 SF x \$4.28/SF = | \$24,032.20 |
|--|-------------------|
| Sink undercoating removal: 16 each x \$129.57/each = | \$2,073.12 |
| XRF Screening for LBP: 3,000 units x \$1.00/unit = | <u>\$3,000.00</u> |
| Subtotal = | \$95,209.60 |
| | |

Total Item T:

\$ 95,209.60

Item U: Life Safety

Description:

The overall facility is not equipped with an automatic fire suppressant system. Exit corridors are situated such that dead-end corridors are not present. The building contains 1 main interior stair tower which contains handrails/guardrails that are not compliant with current code requirements. There are no exterior stair towers.

The kitchen has one hood protected by an up-to-date Ansul suppression system. Fire extinguishers are provided throughout the building, though many are not at ADA-compliant height or provided with through-the-wall cabinets. The facility is not equipped with an emergency generator. The existing water supply system well water, thus an additional well, fire pump, and a storage tank will be required to support a future fire protection system. Rooms with a capacity greater than 50 occupants are equipped with adequate egress.



Stair lacks handrail

Fire extinguisher without cabinet and too high

Handrail not current code compliant



Recommendations:

Provide a complete sprinkler system that includes a new dedicated well, pump and storage tank. Provide new handrails/guardrails. Provide fire extinguisher cabinets throughout the buildings.

Note 1: This work is recommended as a Priority 3 to coordinate the timing of HVAC & electric replacement.

Priority 1 Recommendations:

None at this time.

Priority 2 Recommendations:

None at this time

Priority 3 Recommendations:

Install new hand/guardrails that meet current code requirements. Provide an automatic fire suppression system throughout the facility and a dedicated water line connection. An emergency generator is provided in Item D: electrical system as part of the complete system replacement costs. Provide new fire extinguishers through the wall cabinets at ADA height.

Priority 3 Costs:

| • | |
|--|--------------------|
| Stair Handrails: 3 levels x \$6,478.25/level = | \$19,434.75 |
| Fire extinguisher & cabinets: 9 each x \$757.96/unit = | \$6,821.64 |
| Sprinkler System: 31,710 SF x \$4.86/SF = | \$154,110.60 |
| Well pump: 1 unit x \$25,913.01/unit = | \$25,913.01 |
| Storage Tank: 1 unit x \$64,782.51 = | \$64,782.51 |
| Backflow preventer: 1 unit x \$6,478.25 = | \$6,478.25 |
| Well: 1 unit x \$58,304.25/unit = | <u>\$58,304.25</u> |
| Subtotal = | \$335,845.01 |
| | |

Total Item U:

\$335,845.01

<u> Item V: Loose Furnishings</u>

Description:

The typical furniture is somewhat consistent in design and varies in condition from dated/poor to good condition, consisting of office desks & chairs, shelving, tables and chairs, lounge furnishings, file cabinets, and computer workstations. The district has done some select classroom furniture replacement in recent years which are in good condition, though some older furnishings are still present in the building.



The facility's furniture and loose equipment were evaluated in the original assessment and on a scale of 1-10 the overall facility received a rating 3 out of 10 due to age, condition, and due to the fact that it lacks some of the design manual required elements.

Recommendations:

Replace outdated, worn furniture.



Clinic – dated furnishings



Newer furnishings



Older pieces

Priority 1 Recommendations:

None at this time.

Priority 2 Recommendations: None at this time.

Priority 3 Recommendations:

Provide for replacement of outdated furnishings.

Priority 3 Costs:

New furniture: 31,710 SF x \$10.71/SF =

\$339,614.10

Total Item V:



\$339,614.10

Item W: Technology

Description:

The typical classroom is equipped with data ports in each classroom as well as wireless access through the building. There is a voiceover IP phone system, but it is just provided in the offices. The teachers use Motorola walkie-talkies currently for communication. The district intends to expand the phone system into the classrooms next year or so. There is a dated PA system in the building with call buttons in the classrooms.



The facility is not equipped with a centralized

clock system. Specialized electrical/sound systems requirements of the gymnasium, stage, student dining, and music spaces are inadequately provided and what is present is outdated. The district is transitioning from ceiling-mounted projectors to 86" Promethean touchscreen interactive panels in the classrooms.

Recommendations:

Provide for complete replacement of technology systems to meet Ohio School Design Manual requirements and due to technological advances in 3-5 years.

Priority 1 Recommendations:

None at this time.

Priority 2 Recommendations:

To meet OSDM requirements and to remain current with technological advancements it is recommended that an allowance for updates/replacement of the technology systems is required.

Priority 2 Costs:

Technology replacement: 31,710 sf x \$16.85/sf =

\$534,313.50

Priority 3 Recommendations:

None at this time.

Total Item W:

\$ 534,313.50

