



Facility Assessment of Chardon Schools Board of Education Facility

Located at: 428 North Street Chardon, Ohio 44024

May 2024



Preface:

ThenDesign Architecture (TDA) conducted a field investigation of conditions at Chardon Local Schools Board of Education Facility in May of 2024. The goal of the assessment was to identify the facility condition and renovation/improvement needs of the building, in order 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 condition, and anticipated life expectancies of building materials, components, and systems. Costs are based on various 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 to identified improvement. Upon subtotal of 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 which are approaching 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:

The Chardon Board of Education Facility is a single-story brick building originally built in 1985. The building is comprised of offices and meeting spaces. Overall, the building provides 3,547 SF of space. The building and site are located on the same as the Middle School and are adjacent to residential properties. An asphalt parking lot is provided on the north and northwest sides of the building. This parking lot is utilized by visitors and staff of the Board of Education Facility and the Middle School.

The building features a conventionally partitioned design concept. The structure of the building is a masonry load-bearing structure with brick-faced exterior walls. The floor system is concrete slab on grade and the roof structure is wood truss roof framing. The roof is comprised of asphalt shingles. The roof age is unknown and appears in fair/good condition with no active leaks or issues with drains or downspouts. The ventilation system is adequate but should be replaced due to their systems nearing the end of useful life.

The electrical system for the building is adequate. The facility is equipped with a security system. The building is not equipped with a fire suppression system nor is one required. The building has some assumed contaminated materials, but due to the age of the building, confirmation of asbestos is not likely. The overall building is mostly ADA-accessible.

The building is located on a 78.5-acre site shared with Chardon Middle School and Chardon High School and is adjacent to residential properties. Access to the site is unrestricted. Site circulation is good. Parking for staff and visitors is adequate.



Front Elevation



Rear Elevation

Recent improvements in the building include but are not limited to replacing all interior lighting with LED lighting, new door hardware, new exit sign in the boardroom and touchless faucets on sinks.

Item A: Heating and Ventilation

Description:

The Board of Education Facility was built in 1985. The existing furnace system for the Board of Education Facility consists of two gas-fired, forced-air furnace systems. Each furnace system is 80,000 BTUS. The heating occurs from Rudd Achiever Plus Premium Efficiency units. The exact date of installation is unknown but assumed to be between 13 and 20 years old. All the temperature controls are electronic. The forced air heating system is in good condition and has no active performance issues reported.



Recommendations:

Although the existing furnaces are in good working condition, the typical life span of a furnace unit of this type is 20 years, therefore the recommendation is to anticipate a furnace replacement in the next 3 to 5 years.

Priority 1 Recommendation:

None at this time.

Priority 2 Recommendation:

Due to the age of the furnace systems, it is recommended to replace the units due to the life cycle.

Priority 2 Costs:

Replace Furnace Systems: 2 Units x \$17,000.00

\$34,000.00

Priority 3 Recommendation:
None at this time.

Total Item A:

\$ 34,000.00

Item B: Roofing

Description:

The roof over the overall facility is an asphalt shingle system, installation date is unknown but appears to be in good condition. There are no District reports of leaking. No signs of leaking were visually observed during the physical assessment. Access to the roof was unavailable.

Roof storm drainage is addressed through a system of gutters and downspouts, which are properly located and in good condition. No problems requiring attention were encountered with any roof penetrations. There are not any covered walkways attached to this structure.



Roof View from Front Elevation



Gutter and Downspouts

Recommendations:

Since the age of the roof is unknown, the recommendation would be to anticipate a roof replacement within 3 to 5 years. The average life of an asphalt shingle roof is 15 to 30 years.

Priority 1 Recommendation:
None at this time.

Priority 2 Recommendation:

Due to the age of the roof, it is recommended to anticipate replacement due to the life cycle.

New Built-up asphalt roof: 4,372.19 SF x \$10.62/SF =

\$46,432.66

Priority 3 Recommendation:
None at this time.

Total Item B:

\$46,432.66

Item C: Air Conditioning

Description:

The Board of Education facility is cooled by (2) Rudd Achiever Plus condensing units. Each unit is 3 Phase 208/230 volts, 60 hertz. The exact date of installation is unknown; however, it is estimated that the units are 10 years old.



Rudd Condensing Units



Rudd Condensing Units

Recommendations:

Anticipate replacing both air conditioning condensing units in the next 3 to 5 years.

Priority 1 Recommendation:

None at this time.

Priority 2 Recommendation:

Due to the age of the air conditioning units, it is recommended to anticipate replacing both units within the next 3-5 years.

Priority 2 Costs:

Air Conditioning Condensing Units: 2 units x \$10,000/unit= \$20,000.00

Priority 3 Recommendation:

None at this time.

Total Item C:

\$20,000.00

Item D: Electrical

Description:

The electrical system provided to the overall facility is a 208 Volt, 200 Amp, 3 phase, 4 wire system with the main distribution panel in good condition.

A utility-owned, pad-mounted transformer on the Middle School site provides power to the Board of Education Facility.

The offices are equipped with adequate electrical outlets. The typical office contains 4 general purpose outlets and one telephone outlet. There are dedicated outlets in the office for computer use. There are not any spaces that have no electrical outlets

The corridors are equipped with adequate electrical outlets for servicing. Adequate GFI-protected exterior outlets are provided around the perimeter of the building. The facility is not equipped with an emergency generator. Adequate lightning protection safeguards are not provided.

The overall electrical system is in good condition and meets the current needs of the facility and will be adequate to meet the facility's future needs.



Electrical Panel



Data Outlet



Weatherproof Outlets



Breaker Panel

Recommendations:

None at this time.

Priority 1 Recommendation:

None at this time.

Priority 2 Recommendation:

None at this time

Priority 3 Recommendation:

None at this time

Total Item D:

\$0.00

Item E: Plumbing & Fixtures

Description:

The incoming water service is supplied from the Middle School Site.

The Board of Education facility is equipped with one Rheem natural gas 40-gallon water heater. The water heater was installed in 2022

The facility contains one individual men's restroom and one individual women's restroom. The individual men's restroom contains an ADA floor mounted tank toilet with a single flush, one ADA wall-mounted flush valve urinal with wall-mounted urinal screens as well as an ADA wall-mounted lav. The one individual women's restroom contains an ADA floor mounted tank toilet with a single flush and an ADA wall-mounted lav. Neither wall-mounted lavs are properly insulated.

There is a small kitchenette with one non-ADA compliant sink and a water supply line for a refrigerator.

There is an older electric water cooler present in the hallway.



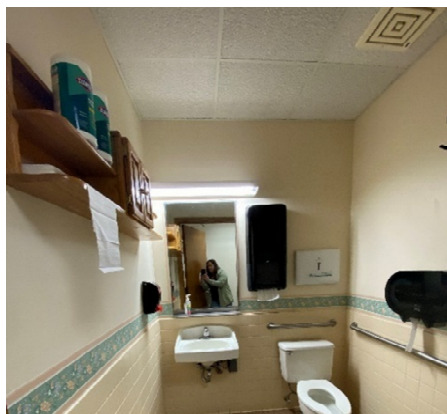
Existing Water Cooler



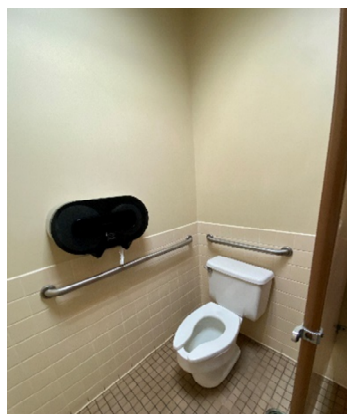
Water Heater



Kitchenette



Women's Restroom



Men's Restroom



Men's Restroom

Recommendations:

As a Priority 2, replace the flush valves on the existing floor-mounted toilets and upgrade the electric water cooler with an electronic bottle filler. As a Priority 3, replace the hot water tank in 5-10 years due to the life cycle of a domestic water heater.

Priority 1 Recommendation:

None at this time.

Priority 2 Recommendation:

Upgrade the electric water cooler to an electric bottle filler.

Priority 2 Costs:

Upgrade EWC to Bottle Filler: 1 units x \$4,000/unit =	\$4,000.00
Subtotal =	\$4,000.00

Priority 3 Recommendation:

Replace hot water tank.

Priority 3 Costs:

Replace Domestic Water Heater: 1 unit x \$8,000	\$8,000.00
Subtotal =	\$8,000.00

Total Item E:

\$ 12,000.00

Item F: Windows

Description:

The majority of the windows are double insulated pane casement windows that are original to the building. The window system features both operable and inoperable windows and is not equipped with opening limiters but is equipped with insect screens in good condition. Window system seals are in good condition, and although no active leaks or condensation were present or reported, there was evidence that the window jambs were beginning to rot. Most of the window systems feature surface-mounted blinds which are in good condition. This facility is not equipped with a curtain wall system. This facility does not feature any glass block windows.



Bay Window

The main exterior door in the facility is equipped with aluminum frame sidelights. The exterior doors do have vision panels. The facility does not contain skylights.

The facility does not contain clerestory windows.



Bay Window



Exterior Door



Window Screen

Recommendations:

Provide for replacement of all original windows.

Priority 1 Recommendation:

Provide for replacement of insulated glass panels.

Priority 1 Costs:

Window replacement: 331SF x \$133.57/SF=

\$44,211.67

Subtotal =

\$44,211.67

Priority 2 Recommendation:

None at this time.

Priority 3 Recommendation:

None at this time.

Total Item F:

\$44,211.67

Item G: Structure – Foundation

Description:

The overall facility is equipped with 4" concrete slab on grade with concrete footings which display no locations of significant differential settlement, cracking, or leaking and are in good condition. No significant issues related to foundation cracking or spalling were encountered. The District reported that there have been some previous foundation drain clogs, however all clogs have been remedied. No grading or site drainage deficiencies were noted around the

perimeter of the structure that are contributing or could contribute to foundation, or wall structural deterioration.

Recommendations:

None at this time.

Priority 1 Recommendation:

None at this time.

Priority 2 Recommendation:

None at this time

Priority 3 Recommendation:

None at this time

Total Item G:

\$0.00

Item H: Structure (Walls & Chimneys)

Description:

The Board of Education facility has a brick veneer on masonry block walls on the exterior and stud framed walls on the interior. The exterior displayed minimal deterioration and is in good condition. The exterior masonry does not appear to have been cleaned or sealed in recent years and should be done to protect the integrity of the façade. There is evidence of mortar deterioration near grade in some locations. No mold or efflorescence was noted.

The interior walls are wood-framed partitions with gypsum board and are in good condition. The window sills are a combination of stone and aluminum window systems and are in good condition. The exterior lintels are steel and are in good condition. There are no chimneys. There is a portico over the main entrance which is of a brick veneer and wood construction and is in good condition. The exterior soffits are of vented aluminum construction and are in good condition. The facility does not have a loading dock.



Mortar Deterioration and Spalling



East Elevation



Brick Sill and Lintels

Recommendations:

As a Priority 1, provide exterior masonry cleaning and sealing to retain the integrity of brick veneer. As a Priority 2, provide tuckpointing as needed to retain the integrity of the brick veneer.

Priority 1 Recommendation:

Provide exterior masonry cleaning and sealing of the entire masonry façade.

Priority 1 Costs:

Masonry Cleaning: 1,206 SF x \$1.95/SF=	\$2,351.70
Masonry Sealing: 1,206 SF x \$1.30/SF=	<u>\$1,567.80</u>
Subtotal Priority 1:	\$3,919.50

Priority 2 Recommendation:

Provide for tuckpointing.

Priority 2 Costs:

Masonry tuckpointing: approx. 200 SF x \$9.72/SF =	<u>\$1,944.00</u>
Subtotal Priority 2 =	\$1,944.00

Priority 3 Recommendation:

None at this time.

Total Item H: \$5,863.50

Item I: Structure (Floors & Roofs)

Description:

The floor construction of the base floor is concrete slab construction and is in good condition. There are no intermediate floors in this single-story structure. The roof construction of the Board of Education facility is a wood truss type of construction and is in good condition.

Recommendations:

No recommendations at this time.

Priority 1 Recommendation:

None at this time.

Priority 2 Recommendation:

None at this time

Priority 3 Recommendation:

None at this time

Total Item I:

\$0.00

Item J: General Finishes

Description:

The Board of Education facility features conventionally partitioned offices and meeting spaces with much of the flooring being broadloom carpet, 2x4 and 2x2 acoustic ceiling tile ceilings as well as painted gypsum walls and they are in fair/good condition. The Board of Education facility has restrooms with 2x2 mosaic ceramic tile flooring. The restroom walls are ceramic tile wainscoting with painted drywall and 2x4 and 2x2 acoustic ceiling tile ceilings that are in good condition. Toilet partitions and urinal screens in the men's restroom are metal and are in good condition. The tile in the vestibule is in good condition. The VCT in the kitchenette, mechanical and electrical room are in fair condition.

The casework in the overall facility is a wood type of construction with plastic laminate tops and is adequately provided and in good condition. The facility contains approximately 37' lineal feet of casework. The conference room contains adequate markerboards which are in good condition.

The facility is equipped with wood non-louvered interior doors that are flush mounted with proper ADA hardware. The interior doors are in good condition.



Acoustic Ceiling Tiles



Conf. Casework/Carpet



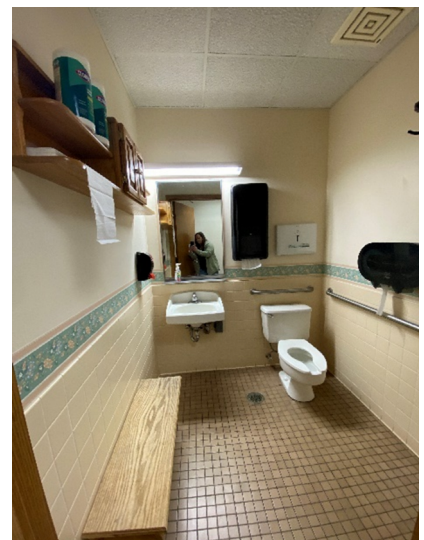
Casework not Original to Building



Casework not Original to Building



Interior Door and Hardware



Restroom Finishes

Recommendations:

Provide complete replacement of carpet and wall base due to the age and condition of the broadloom carpet. Provide a complete replacement of the VCT due to the age and condition.

Note: average useful life of VCT and carpet is 20 years.

Priority 1 Recommendation:

None at this time.

Priority 2 Recommendation:

As outlined in the recommendations above:

Priority 2 Costs:

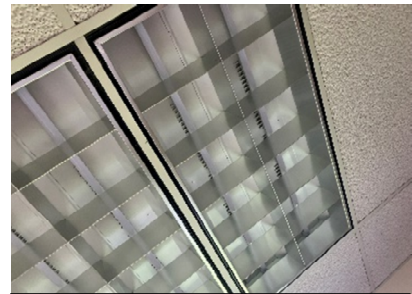
Carpet Replacement = 3126 SF x \$9.07/SF	\$28,352.82
VCT Replacement = 421 SF x \$9.07/SF	\$3,818.47
CPT Base Replacement = 954 LF x \$5.50/LF	<u>\$5,247.00</u>
Subtotal =	\$37,418.29

Priority 3 Recommendation:

None at this time.

Total Item J:**\$37,418.29****Item K: Interior Lighting****Description:**

The Board of Education facility is equipped with all-new 2x4 LED lights with multi-level switching. The overall lighting systems of the facility are adequate and in good condition.



New LED Fixture

Recommendations:

No recommendations at this time.

Priority 1 Recommendation:

None at this time.

Priority 2 Recommendation:

None at this time

Priority 3 Recommendation:

None at this time

Total Item K:**\$0.00**

Item L: Security System

Description:

The overall facility contains a Honeywell security system, monitored by Vector Security, in good condition. All exterior doors are equipped with a Keri Access Control reader.

The exterior site lighting system is equipped with surface mounted HID entry lights in good condition. Pedestrian walkways are illuminated with light bollards. Parking areas are illuminated by pole-mounted HID fixtures in good condition. The exterior site lighting system provides adequate illumination.



Vestibule Security Camera



Security System



Door Security



Keri Door Readers



Exterior Camera



Pedestrian and Parking Lighting

Recommendations:

None at this time.

Priority 1 Recommendation:

None at this time.

Priority 2 Recommendation:

None at this time

Priority 3 Recommendation:

None at this time

Total Item L:

\$0.00

Item M: Emergency / Egress Lighting

Description:

The overall facility is equipped with an emergency egress lighting system consisting of red-lettered illuminated signs which are in good condition. The facility is equipped with emergency floodlighting and the system is in good condition. A battery backup system is present. 2 new Emergency Exit signs are located in the conference room. The remainder of the emergency exit signs are original to the building.



Original Exit Sign



Emergency Flood Lights

Recommendations:

None at this time.

Priority 1 Recommendation:

None at this time.

Priority 2 Recommendation:

None at this time

Priority 3 Recommendation:

None at this time

Total Item M:

\$0.00

Item N: Fire Alarm**Description:**

No fire alarm system is present but is not required.

Recommendations:

None at this time.

Priority 1 Recommendation:

None at this time.

Priority 2 Recommendation:

None at this time

Priority 3 Recommendation:

None at this time

Total Item N:

\$0.00

Item O: Handicap Access**Description:**

At the site, shared with the Middle School, there is an accessible route provided from the accessible parking areas to the main entrance of the facility. There is an accessible route connecting all or most areas of the site. The exterior entrance is ADA-accessible. Access from the parking lot to the building entries is not compromised by steps or steep ramps. Adequate handicapped parking is provided. Exterior doors are not equipped with ADA hardware. Building entrances should be equipped with at least one power assist door and none are provided.

On the interior of the building, space allowances and reach ranges are mostly compliant. The individual restrooms are not of adequate size to accommodate for wheelchair radius. Ground and floor surfaces are compliant.

There are no elevation changes within the building. The interior doors are not recessed and provide adequate clearances. New ADA- compliant hardware has been installed.

Two ADA-compliant toilets are provided with ADA-compliant mounting heights in restrooms. ADA signage is not provided on either the interior or exterior of the building.

Recommendations:

Provide a power assist on the main exterior door into the vestibule. Include ADA signage.

Priority 1 Recommendations:

Provide lifts, a new elevator and stair tower/shaft for the academic wing and ADA signage throughout.

Priority 1 Costs:

ADA Assist Door: 1 units x \$9,717.38 =	\$9,717.38
ADA signage: 3,547 SF x \$0.26/SF =	<u>\$922.22</u>
Subtotal =	\$10,639.60

Priority 2 Recommendations:

None at this time.

Priority 3 Recommendations:

None at this time.

Total Item O:	\$10,639.60
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Item P: Site Condition

Description:

The Chardon Board of Education facility is located on a combination of flat and sloped topography and is shared with the Middle School. The site is located in a small residential setting with moderate landscaping. There are no outbuildings. There are no apparent problems with erosion or ponding.

The site is bordered by moderately traveled city streets. The site can be entered off of North Street from two separate entrances/exits. Staff and visitor parking is facilitated by an asphalt parking lot in decent condition, containing 136 parking places which provides adequate parking for staff members, visitors, and the disabled.

Storm water evacuation addressed through storm sewers. No issues regrading parking lot ponding were reported.

Concrete curbs are appropriately placed. Concrete sidewalks are properly sloped and are located to provide a logical flow of pedestrian traffic and are in good condition. Brick walkway adjacent to main entry is showing signs of uneven settling.

Recommendation:

None at this time.

Priority 1 Recommendations:

None at this time.

Priority 2 Recommendations:

None at this time

Priority 3 Recommendations:

Replace brick walkway.

Priority 1 Costs:

Brick walkway: 100 SF x \$9.72 =	<u>\$972.00</u>
Subtotal =	\$972.00

Total Item P: **\$972.00**

Item Q: Sewer System

Description:

The existing sewer system is tied into the middle school site and is in good condition. No significant system deficiencies were reported by the school district noted during the physical assessment.

Recommendations:

Existing conditions require no renovations or replacement at this time.

Priority 1 Recommendation:

None at this time.

Priority 2 Recommendation:

None at this time

Priority 3 Recommendation:

None at this time

Total Item Q:

\$0.00

Item R: Water Supply**Description:**

The existing water supply system is tied into the Middle School via a 1 ¼" pipe. There is no water flow data, however, no issues were reported regarding the water service meeting the facility's needs. The building is not fully equipped with an automated fire suppression system except for the mechanical room that has two sprinkler heads.

Recommendations:

None at this time.

Priority 1 Recommendation:

None at this time.

Priority 2 Recommendation:

None at this time

Priority 3 Recommendation:

None at this time

Total Item R:

\$0.00

Item S: Exterior Doors**Description:**

The exterior doors are mainly comprised of aluminum units with vision lights and hollow metal doors. The exterior doors except for the main entry door are original to the building. The exterior doors are equipped with proper door hardware and the exterior doors at the main entry have panic bars on the inside.



Exterior Door



Exterior Door

Recommendations:

Provide replacements for two exterior doors including the addition of panic hardware on the inside due to being at the end of useful life.

Priority 1 Recommendations:

None at this time.

Priority 2 Recommendations:

Replace dated exterior doors due to age and condition.

Priority 2 Costs:

Exterior Door Replacement: 2 leafs x \$ 3239.12 /leaf =	\$6,478.24
Subtotal =	\$6,478.24

Priority 3 Recommendations:

None at this time.

Total Item S.:

\$6,478.24

Item T: Hazardous Materials

Description:

The district provided the AHERA 6-month periodic running inspection reports, prepared by EA Group and dated March 25, 2024 documenting assumed locations of asbestos and other hazardous materials. The AHERA report identified various materials as being assumed asbestos containing material (ACM), such as drywall, the base molding, floor tile, etc.

However, the material has not been tested. Due to the construction date, there is no potential for lead based paint. No fluorescent lighting needs to be replaced, so there are no related abatement issues to consider.

Recommendation:

No recommendations at this time until testing applies applicable data.

Priority 1 Recommendation:

None at this time.

Priority 2 Recommendation:

None at this time

Priority 3 Recommendation:

None at this time

Total Item T:

\$0.00

Item U: Life Safety

Description:

The overall facility is equipped with a limited sprinkler system in mechanical room only.

Fire extinguishers are provided in sufficient quantity and are adequately placed.

Recommendations:

None at this time.

Priority 1 Recommendation:

None at this time.

Priority 2 Recommendation:

None at this time

Priority 3 Recommendation:

None at this time

Total Item U:

\$0.00

Item V: Loose Furnishings

Description:

The typical furniture is not consistent in design and varies in condition from dated to good condition, consisting of office desks & chairs, shelving, tables and chairs, and file cabinets, Most of the furniture was purchased within the last 10 years.

Recommendations:

None at this time.

Priority 1 Recommendation:

None at this time.

Priority 2 Recommendation:

None at this time

Priority 3 Recommendation:

None at this time

Total Item V:

\$0.00

Item W: Technology

Description:

The typical office is equipped with one data port for staff use. The facility contains a voice over IP telephone system for communications. The facility utilizes wireless access points. The conference room is equipped with a Samsung interactive panel.

Recommendations:

None at this time.

Priority 1 Recommendation:

None at this time.

Priority 2 Recommendation:

None at this time

Priority 3 Recommendation:

None at this time

Total Item W:

\$0.00