O.E. GRAY PROFESSIONAL LEARNING CENTER

Architectural

Oliver E. Gray Professional Learning Center was originally built in 1953. A small addition was added to the north end of the building in 1960 and later remodeled in 1997. Remodeling was also done in 1997 and in 2000.

The school is located at 110 W. Adams Street. It has approximately 29,356 square feet and sets on 2.9 acres of land. There is an outdoor play area just west of the main entry to the Media Center, see photos 1 and 4.

The building structure appears to be a combination of load bearing masonry walls and steel columns and beams with roof joists and decking.

The school is currently not occupied with students in the Platteville School District, however portions of the building are being leased to private tenants. Southwestern Wisconsin Technology College (SWTC) is occupying rooms 7 and 8 and an early start program is occupying room 15.

The existing bus drop off area is located along the far north end of the building, off of West Lewis Street. There is an existing hard surface playground to the west of the building inside a fenced in area off of West Adams Street. Parent drop off appears to be along N. Court St, to the east of the building. See photos 2 and 3.

The exterior of the building is a combination of face brick and vertical metal wall panels. Other than some minor cleaning and caulking, the exterior of the building appears to be in good condition. See photos 5, 6, 7 & 8.
Photo 5 - Several areas of the face brick need to be cleaned.

Photo 6 - Soil & staining on the face brick should be cleaned off.

Photo 7 - Some minor cleaning & tuckpointing should be done to the face brick and metal siding.

Photo 8 - Metal wall panels appear to be in good condition. The building has aluminum clad single hung and aluminum fixed units which appear to be in good condition. See photos 4 and 9.

Photo 9, typical interior window in a classroom.

The entry vestibules have ceramic tile floors that have been damaged over the years and should be repaired or replaced as a priority 3 renovation. See photo 10.

Photo 10 - Damaged floor tiles in the vestibules should be repaired or replaced.
The existing student toilet rooms do not appear to meet the current ANSI 117.1 requirements for accessibility. This should be corrected as a priority 1 renovation. See photos 11 and 12.

The main corridors have wooden cubbies that are showing signs of damage and abuse. These could be replaced and repaired as priority 3 repairs. See photos 15 and 16.

The existing student toilet rooms do not appear to meet the current ANSI 117.1 requirements for accessibility. See photos 11 and 12.

The main school office is located half-way down a corridor and has no direct visible connection to the entry doors. For security reasons, the main office should be relocated to a point that allows a good clear sight line to the main entry. This work should be done as a priority 2 renovation. See photos 13 and 14.
The casework in the classrooms, kitchen and teacher’s lounge is outdated and shows signs of damage and general wear. They should be considered for replacement as a priority 3 renovation. See photos 17, 18 and 19.

The entry doors leading to the fenced in play area are wooden doors and have been damaged over the past several years. These should be considered for replacement as a priority 3 renovation. See photo 20.

The door hardware to the classrooms does not meet current ADA and accessibility guidelines and should be replaced as a priority 1 renovation. See photo 21.
The classroom doors open into the main north-south corridor. When they are opened to a full 90 degrees, they block off a portion of the egress corridor. Depending on the building’s occupant load, these doors may need to be recessed as to maintain a clear egress pathway. This work should be considered as a priority 1 renovation. See photos 22 and 23.

Photo 22-Corridor egress width is partially blocked by classroom doors.

Photo 23-Corridor egress width is partially blocked by classroom doors.

The school kitchen appears to have been abandoned and most of the equipment has been removed. If the kitchen is to be used in the future, several renovations and upgrades should be made to make is compliant and useful. See photo 24.

Photo 24-Kitchen

**Heating, Ventilating and Air Conditioning Systems**

**Heating:** The facility’s unit ventilators, terminal equipment and reheat are served by a primary-secondary pumping system and two DeDietrich hot water boilers installed in 1998.

Expected Useful Life (based on ASHRAE published data):

- Boilers: 25-30 years
- Terminal Equipment: 20-25 years
- Unit ventilators: 15-20 years
- Pumps: 15-20 years

The pumps, terminal equipment and associated piping and accessories are at or nearing the end of their useful life and should be considered for replacement. The DeDietrich boilers appear to be in good working condition and have approximately 10 years remaining in their useful life.
Cooling is provided by a rooftop air cooled chiller and primary pump installed in 1998. The chiller produces chilled water with glycol and is distributed to cooling coils in the seven air handling units located in the attic.

Expected Useful Life (based on ASHRAE published data):

- Air cooled chillers: 15-20 years

The air cooled chiller, pump and glycol system are nearing the end of their useful life and should be considered for replacement.

Ventilation to the building is provided by seven air handling units located in the attic space. The units were installed in 1998 and are nearing the end of their useful life.

Expected Useful Life (based on ASHRAE published data):

- Indoor air handling units: 20-25 years

The air-handling units installed in 1998 are approaching the end of their useful life and should be considered for replacement.

Plumbing System

There are two gas fired water heaters located in the mechanical room. One serves the kitchen and the other serves the remainder of the building. All water to the building is softened. The water heaters and water softener are at the end of their useful life. Plumbing fixtures throughout the building are original.

Expected Useful Life (based on ASHRAE published data):

- Water Heater: 10-15 years
- Water Softener: 10-15 years

The plumbing fixtures, water softener and water heaters appear to be at the end of their useful life and should be considered for replacement.
Newer lighting: 10+ years
Older lighting: 5+ years
Exterior lighting: 10+ years

Replace fixtures that are near the end of their useful life. Provide additional lighting in both toilet rooms. Add automatic lighting control via occupancy sensors to spaces required by energy code.

**Power Distribution:** The building is fed with a 208V, 3 phase, 1200A electrical service from an outdoor utility owned transformer. The service is fed into an existing Square D I-line distribution panel labeled MD. MD has spare capacity and is in good working condition. Most electrical equipment is neatly labeled and appears to be in good working condition with some spare breaker capacity for future panels. However, utility demand values should be studied prior to any upgrades or additions to the system. The majority of the electrical branch panels are original to the building and still in good working condition. However, the equipment should be reviewed for replacement during the next renovation. Even if the panels are still in working order, it will be increasingly difficult to get service parts to maintain the panels from the original 1953 construction. Electrical receptacles and connections appear to be in moderate condition. Surface raceway is common in some areas of previous renovations for routing power and is generally in moderate condition. The kitchen is lacking GFCI receptacles and a hood suppression system, which will in turn require shunt trip breakers on the devices under the hood. Many of the receptacles in areas where sinks are located are not GFCI protected, which is a code violation.

**Expected Useful Life Remaining:**

Main/majority of system: 20+ years
1953 era panels: Past useful life.

Keep existing electrical equipment in place until a complete renovation occurs. If a complete remodel is not in the near future, then an upgrade to the older building-original panels is recommended to replace outdated, difficult-to-service equipment. Replace receptacles near sinks with GFCI receptacles.

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**Fire Protection System**

None existing.

If renovations are pursued, the addition of fire protection should be considered.

**Electrical Systems**

General lighting in the building consists of fluorescent 2x4 acrylic troffers and surface direct fixtures in corridors, office spaces and classrooms, fluorescent in utility spaces, and miscellaneous specialty/decorative lighting in some spaces. Light fixtures are a mixture of old and new. All fixtures are in working condition, but a few older fixtures are nearing the end of their useful life. Light levels throughout the building appear to meet IES recommendations for this type of building. One area of concern for minimum light levels is the boys and girls toilet rooms next to the media center. The back corner of each bathroom is very dark and could be considered a safety concern. Lighting control consists mainly of wall switches, with only the Media Center space now used for assembly meetings having occupancy sensors for automatic shut-off. Current energy code has requirements for turning lights off automatically that do not appear to be met for all spaces. Outdoor lighting consists of building mounted and pole mounted light fixtures.

**Expected Useful Life Remaining:**

Main/majority of system: 20+ years
1953 era panels: Past useful life.

Keep existing electrical equipment in place until a complete renovation occurs. If a complete remodel is not in the near future, then an upgrade to the older building-original panels is recommended to replace outdated, difficult-to-service equipment. Replace receptacles near sinks with GFCI receptacles.
The building does not have emergency power. Emergency lighting is accomplished from emergency battery packs throughout the building. Some exits appear to have emergency egress lighting, but there does not appear to be code required emergency egress lighting at every required exit.

Expected Useful Life:

- Battery wall pack lighting has a typical life-span of 5 to 7 years for a battery.
- The lighting heads will last longer as long as the batteries are replaced.

Keep up maintenance of battery back-up lighting, add some battery ballasts to provide additional egress lighting as necessary to meet code requirements. It’s not code required and a building of this size may not be cost-effective to have a generator. If desired, an emergency generator, transfer switch, and branch panel to feed emergency lighting and the fire alarm panel, along with access control and camera security could be added.

The fire alarm system is served by a Simplex 4020 horn-strobe addressable system. The fire alarm system generally consists of some smoke detection, pull stations at exits, and notification throughout the building. Some of the fire alarm has been installed using surface mounted conduit due to remodeling. There is not an annunciator at the main entrance to the building. Approximately 10% of notification coverage is lacking to meet code requirements.

Expected Useful Life Remaining:

- 20+ years

Continue to maintain the fire alarm system regularly. When renovations occur, verify smoke detection and notification coverage meets current code standards and upgrade only as necessary. Add an LCD annunciator at the main fire department entrance point.

Existing paging system is a Dukane multi-zone two-way paging and communication system with speakers located throughout corridors and public areas, speakers and call stations in classrooms, and a control panel and microphone at the reception desk.

System seems to be in fair general condition and functioning as intended.

Existing clocks are a blend of wired Simplex synchronized clock system clocks and stand-alone clocks. Not all Simplex system clocks function as intended. Many of the stand-alone clocks are not equipped with any provision for automatic synchronization, either with each other or with an external master time signal (such as GPS).

Update all clocks to a district-wide synchronized clock system.
**Priority 1 Recommendations**

Recommended upgrades/replacements in the near future due to life safety, code compliance, or security.

1. Upgrade toilet rooms to meet the ANSI 117.1 requirements for ADA accessibility.
2. Upgrade door hardware to meet current ADA and accessibility guidelines.
3. Recess classroom doors to maintain a clear egress pathway in corridors.
4. Provide emergency gas shutoffs in boiler room.
5. Add shunt-trip breakers for kitchen equipment under the hood.
6. Provide hood suppression system with emergency stops linked to shunt-trip breakers.
7. Provide GFCI receptacles throughout kitchen space and within 6’ of sinks.
8. Add automatic shut-off via occupancy sensors.
9. Add emergency egress lighting outdoors at building exits.
10. Provide fire alarm annunciator at the main entrance.
11. Record video from video door entry stations via existing video surveillance system.
12. Review code required fire alarm notification locations and provide additional as needed.

**Priority 2 Recommendations**

Recommended upgrades/replacements due to maintenance, energy, or end-of-life.

13. Relocate main office for clear sight line of the main entry for security reasons.
14. Replace 1998 or older DX rooftop units, boilers, pumps, and corresponding piping and accessories.
15. Eliminate use of corridor as a return plenum by providing code compliant return and transfer ductwork.
16. Revise classroom lighting to multi-level switching to improve efficiency.
17. Replace lighting in gymnasium to high bay fluorescent for energy savings.
18. Replace original building electrical panels.
Priority 3 Recommendations

Recommended infrastructure upgrades/replacements.

19. Repair or replace damaged ceramic tile floors in entry vestibules.

20. Repair or replace damaged wooden cubbies.

21. Replace outdated casework in the classrooms, kitchen and teacher’s lounge.

22. Replace damaged wooden doors that lead directly to the fenced in play area.

23. Replace unit ventilators with overhead air systems with perimeter radiation.

24. Upgrade any remaining old halogen, incandescent and fluorescent lighting indoors and outdoors to high performance fluorescent and LED.

25. Create dedicated Technology rooms to house structured cabling terminations, telephone and computer network active electronics and equipment; video surveillance and access control cabling terminations and active electronics and equipment; and clock and overhead paging system cabling terminations and active electronics and equipment.

26. Update structured cabling to include Category 6 UTP cabling for VoIP telephone and computer network connectivity and quad-shielded RG-6 coaxial cabling for CATV distribution (quad-shielded RG-11 coaxial cabling for runs over 180 ft.). Install rack-mounted RJ-45 patch panels for UTP cabling terminations.

27. Update all clocks to a district-wide synchronized clock system.