Wooldridge Elementary School Site Summary

Address	1412 Norseman Terrace Austin, TX 78745
Number of Permanent Campus Facilities	2
Original Year of Construction	1969 and 1998
Total Campus Building Area (combined)	70,474 SF

Introduction

The Woolridge Elementary School campus is located at 1412 Norseman Terrace in Austin, Texas. Woolridge Elementary School was built in 1969. It consists of the Main School Building (BLDG-152A), which houses administration offices, classrooms, cafeteria, library, and gymnasium, and the Stand-Alone Classroom Building (BLDG-152B), which is one story and was built in 1998. The buildings are connected by a covered walkway.

Main School Building – BLDG-152A

Building Purpose	Administration Offices, Classrooms, Cafeteria, Library and Gymnasium
Building Area	60,736 SF
Inspection Date	July 26, 2016
Inspection Conditions	92ºF - Hot and partly cloudy
Facility Condition Index	

System Deficiency Overview

The following table provides a summary of the systems and their respective conditions found by each discipline.

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Exterior	Exterior Walls	The exterior of the building consists of 80% brick and 20% split-faced CMU (concrete masonry unit). The building is a split-level design, has three levels, and was built in 1969. The exterior of the building appeared to be in good condition. The soffit at the right of the entry doors was sagging. Maintenance had secured this sag with floor jacks temporarily, but it should be repaired more permanently. There was also a rusted metal column support piece at the entry that needed repair.	Good
	Exterior Windows	The windows are aluminum metal-framed inset into the brick façade and appeared to be in good condition. The windows had missing and degraded caulk at the top where the window meets the lintel. Windows adjoining the exit doors to BLDG-152B were damaged/cracked.	Good
	Exterior Doors	There are many double exterior metal doors throughout the building. The exterior doors were observed to be in good condition.	Good
Roofing	The building has a single-ply roof that has been re-covered in recent years. The roof appeared to be in good condition.		Good
Interior Construction	Interior Walls	About 5% of the interior walls are brick in the corridors; 5% are concrete walls in the columns and corridors; 25% are painted gypsum board in office areas and	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		classrooms; 20% are wood paneling in classrooms and corridors; 20% are CMU in the gymnasium, exterior classroom walls and halls; 10% are tile in the restrooms and kitchen areas; and 15% are laminated paneling in the staircases. The walls were observed to be in average condition.	
	Interior Doors	Half of the interior doors are wood with a window in metal frames. The other half are solid wood doors without windows. Most of the classroom doors needed refinishing. Years of tape and scratches were evident, and some were chipped. The folding partitions between classrooms were original to the building and were dirty and discolored. There were also folding doorway partitions dividing the classrooms and the restroom corridor. They were very dirty, did not work, and some were missing. Staff has also recommended removal.	Average
	Interior Specialties	System not present.	N/A
Stairs	Exterior Stairs	System not present.	N/A
	Interior Stairs	The interior stairs are concrete with metal non-slip edges on the treads. The stairs were observed to be in good condition. The stair railings were worn.	Good
Interior Finishes	Interior Wall Finishes	About 5% of the interior walls are brick in the corridors; 5% are concrete walls and corridors; 25% are painted gypsum board in office areas and classrooms; 20% are wood paneling in classroom and corridors; 20% are CMU in the gymnasium, exterior classroom walls and halls; 10% are tile in the restrooms and kitchen areas; and 15% are laminated paneling in the staircases. The wall finishes were observed to be in average condition. The paint on many of the walls and columns was chipped or scraped The ceramic tile around the corridor sink outside the cafeteria appeared to be in poor condition with chips and holes.	Average
	Interior Floor Finishes	About 75% of the interior floor finishes are VCT (vinyl composition tile) in the administration offices, cafeteria, corridors, and classrooms; 5% are ceramic tile in the restrooms and kitchen; 15% are wood flooring in the gymnasium and on the stage; 10% are carpet in the library, room 100 and administration offices. The carpet in the administration offices and room 100 was in very poor condition; it was dirty, stained, worn,	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		and needed replacement. The vinyl tile in many areas was mismatched, and some tiles were cracked.	
	Interior Ceiling Finishes	About 20% of the interior ceilings are tectum acoustical panels in the gymnasium and a small amount in the east end corridor; 60% are acoustical tiles in metal grid in the administration areas, corridors, library, cafeteria and classrooms; 15% are gypsum board ceilings in the restrooms, administration areas, cafeteria and classrooms; 3% are 12x12 perforated glue on tiles in the cafeteria kitchen; 1% is particle board in the mechanical rooms; and 1% is open corrugated decking with bar joists on the stage ceiling. The perforated tiles were worn, yellowed and outdated. There was ripped gypsum board in the corridor over the administration door. Ceiling tiles were stained in room 107 and in the admin office area. The grid was rusty and tiles were sagging in much of the building. The tectum panels in the corridor did not meet the brick wall. A folding partition was removed in rooms 109 and 110, and the ceiling had not been repaired. It was open to the deck above.	Poor
Conveying	The building is outfitted with a 750-lb hydraulic two-story lift on the east end of corridor 2, provided by Garaventa Lift. The Genesis Vertical Lift, model HY-US-SW-72, was installed July 20, 2009. The lift was unable to be operated but appeared to be in working order. The conveying equipment appeared to be in good condition.		Good
Plumbing	Plumbing Fixtures	The facility contains multiple plumbing applications that service two floor levels, consisting of in-classroom student restrooms, staff restrooms, janitorial closets with service sinks, and one commercial kitchen. The restrooms that are located inside classrooms have vitreous china floor-mount toilets with manual flushing valves. The classroom restrooms are not equipped with sinks; however, the classrooms have laminated particle board vanities with stainless steel sink/bubbler combinations mounted inside the vanity. The remainder of the facility's restrooms have vitreous china sinks with manual or metering faucets, along with vitreous china floor/wall-mount toilets with manually operated flushing valves. There are also wall-mounted service sinks in the janitorial closets. Staff reported that there were not enough adult restrooms in this facility. There was only one staff restroom installed for 100 plus adults. It was also	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		reported that old plumbing fixtures needed to be replaced. The plumbing fixtures were observed to be in average condition. The plumbing fixtures observed throughout the building were either from the facility's original construction or had been recently installed. Though there were fixtures that were aged and required maintenance, all of the fixtures assessed were functional. A typical deficiency observed was that all of the fixtures flushed and drained slowly throughout the building. An estimated 90% of the classroom restroom fixtures appeared to be from the original construction. All of the classrooms contained old sink vanities, and room 109 had a broken toilet seat flange. A janitorial closet (CC100) was observed to have an aged and outdated mop wall-mounted sink.	
	Domestic Water Distribution	The majority of the plumbing fixtures observed in this facility are not serviced by any domestic water distribution equipment, such as large vertical water heaters (greater than 30-gallon capacity). The remainder of the plumbing fixtures that are serviced by domestic water distribution equipment are located in the commercial kitchen. The fixtures in the commercial kitchen appear to be serviced by one vertical gas water heater located in the main mechanical room. The water heater has the ability to produce 200 MBH and hold 99 gallons. Staff reported that domestic water distribution piping under the Kindergarten building at one point in time was fractured and caused the air conditioning system to shut down due back up flow. There were no domestic water distribution system deficiencies noted during the assessment. The domestic water distribution system appeared to be in good condition.	Good
	Other Plumbing	The facility is equipped with both external and internal roof-type drainage systems. Staff reported that the drainage at the front office was poor and was believed to be caused by an inefficient roof drain in that area. It was also reported that the grease trap servicing the kitchen emitted a foul odor. The rest of the plumbing appeared to be in good condition.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Mechanical/ HVAC	This building has multiple HVAC (heating, ventilation, and air conditioning) applications. The major mechanical equipment consists of large indoor multi-zone modular AHUs (air handling units), large roof top-mounted packaged/split air conditioning units, and roof-mounted EFs (exhaust fans). Many of the indoor modular AHUs are supported by one 200-TON centrifugal water chiller system that is serviced by a one-cell external cooling tower rated at 165-TON and one horizontal gas-fired boiler with a rated output capacity of 2,000 MBH. There were 18 HVAC systems assessed throughout the building. The estimated capacities of the roof-mounted EFs ranged from 200 to 1,300 CFM (cubic feet per minute), and the estimated capacities for the indoor AHUs were 2,600 to 15,000 CFM. The refrigeration capacities of the HVAC units ranged from 2.5- to 200-TON. The Staff reported that in 2015, nearly all of the HVAC system was replaced, including one centrifugal chiller, one cooling tower, several AHUs, hydronic pumps and associated ductwork and piping. It was also reported that many of the EFs in classroom restrooms did not work or did not exist. All of the major mechanical/HVAC equipment for this facility were replaced last year and were observed to be in good condition, however, there were many units that did not get replaced and were rated to be in average condition. Therefore this facilities mechanical/HVAC system is rated to be in average condition. Many of the deficiencies observed were in regards to the existing HVAC equipment that did not get replaced during the 2015 HVAC system upgrade. The deficiencies ranged from general aging of equipment and enclosure and piping/insulation damage due to excessive wear and tear. Another observed deficiency was the use of outdated R-22 refrigerant in some of the existing HVAC systems. The existing units were aged and out of date and had deficiencies such as excessive noise and vibration, damaged enclosure/associated ductwork, damaged compressor fins, and missing hardware for the enclosure. It was observed that AHU 3 located next to room 205 was aged and out of date and that the newly installed chiller seemed to be excessively loud.		Average
Fire Protection	Fire Alarm	The building has a fire alarm system that consists of alarm and signaling devices such as horns/ annunciators, strobes, horn/strobe combinations, pull stations, and detectors. The fire alarm system is controlled by a Silent Knight control panelboard. The remote annunciator indicated all systems were normal. The fire alarm system equipment was observed to be in good condition.	Good
	Fire Protection/ Suppression	The building is not equipped with a fire sprinkler/ suppression system. It is protected by portable fire extinguishers stationed throughout the building. All portable fire extinguishers observed were inspected within the last year, except the one in room 104; this fire extinguisher did not have an inspection date indicated on its inspection tag.	N/A

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Electrical	Electrical Distribution	The electrical service (utility transformer and exterior switchboard for the facility) appear to be located on the southwest side of the campus adjacent to the gymnasium. The main mechanical room houses a 480-volt 1800-amp MCC (motor control center) and a 480-volt 800-amp panelboard that distribute power to transformers and sub panelboards. Numerous electrical rooms and storage closets house transformers and sub panelboards to supply power to the building's end devices and mechanical equipment. The electrical distribution equipment appeared to be in average condition. Panelboard “MDP” located in the main mechanical room had a gap in the front enclosure cover and the enclosure door latch was faulty. An unmarked GE 400-amp panelboard located in an electrical room on the east end of corridor 6 was aged and missing six slots of breakers or breaker void covers. This is a life safety issue. A Square D 400-amp panelboard located in a mechanical room on the east end of corridor 1 was missing a breaker or breaker void cover. This is a life safety issue. Panelboard F located in an electrical room on the east end of corridor 1 was nearing the end of its life expectancy. The facility reported the need for additional load and receptacles throughout building.	Average
	Lighting	The exterior of the building is outfitted with what appears to be wall-mount HID (high-intensity discharge) fixtures located near the roofline of the building. Covered walkways are illuminated by surface-mounted ceiling fixtures and recessed screw-type fixtures. Pole lights are installed in the parking area with no damage observed. The exterior lighting appeared to be in average condition. The facility requested additional exterior lighting west of rooms 101-111 and around the portables for safety and security needs. The facility reported that the currently installed fixtures project light downward and not outward. Assess the area requiring light, and install additional flood, pole, or outward projecting fixtures. The interior lighting is mainly fluorescent troffer fixtures	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		in classrooms and corridors. The stage is equipped with specifically designed lighting to support stage productions. The gymnasium is equipped with hanging fluorescent-style fixtures, and there are screw-type fixtures in closets and electrical rooms. The interior lighting appeared to be in average condition. There are exit signs at every exit; however, various signs were not illuminated. Facility staff should verify operation.	
	Communications & Security	There is a Gemini security system currently installed with multiple keypads at various entrances. Motion detectors are installed in interior areas, and security cameras are installed throughout the interior of the building and strategically on exterior corners and walls. There is a call box is located at the front entrance. An IDF (independent distribution frame) communication closet exists in corridor 1 north of the office. This houses network switches, hubs and routers in a rack-style configuration. The facility appears to have wireless routers installed in classroom ceilings and strategically throughout the building. The communication and security equipment was observed to be in good condition. Networking cabling in various locations throughout the building were exposed and not supported adequately.	Good

Exterior System Deficiency Examples

Exterior Walls

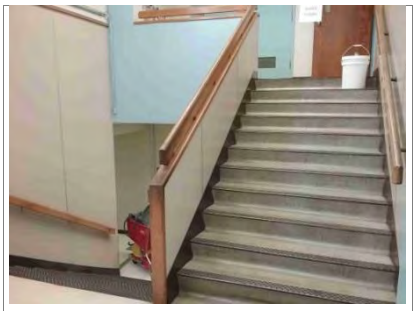
Exterior Windows


Interior Construction Deficiency Examples

Interior Doors

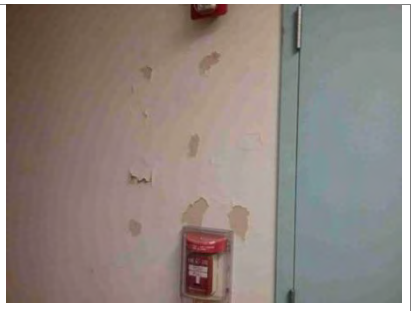

Stairs Deficiency Examples

Interior Stairs



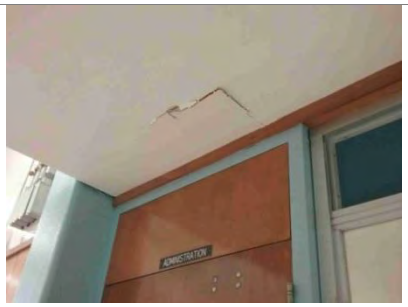
Interior Finishes Deficiency Examples

Interior Wall Finishes

Interior Floor Finishes


Interior Ceiling Finishes


Plumbing System Deficiency Examples

Plumbing Fixtures



Mechanical/HVAC System Deficiency Examples





Electrical System Deficiency Examples

Electrical Distribution



Communications & Security

Stand-Alone Classroom Building – BLDG-152B

Building Purpose	Classrooms
Building Area	9,738 SF
Inspection Date	July 26, 2016
Inspection Conditions	92ºF - Hot and partly cloudy
Facility Condition Index	

System Deficiency Overview

The following table provides a summary of the conditions and deficiencies found by each discipline.

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Exterior	Exterior Walls	The exterior of the building consists of 85% brick and 20% split-faced concrete block façade. The building is one story built in 1998. The building's exterior appeared to be in good condition. The bottom six feet of the metal downspouts were rusty. The gravel gutter drain system surrounding the lower portion of the building was exposed on top in areas and needed covering with gravel similar to the rest of the system.	Good
	Exterior Windows	The windows are aluminum metal-framed inset into the brick façade and appear to be in good condition. Some of the screens were ripped and needed replacement.	Good
	Exterior Doors	There are double exterior metal doors throughout the building. The doors were observed to be in good condition.	Good
Roofing	The building has a single-ply roof that is in average condition. No obvious deficiencies were noted.		Average
Interior Construction	Interior Walls	About 90% of the interior walls are gypsum board in the corridors and restrooms, and 10% are ceramic tile in the restrooms. The walls were functionally in good condition.	Good
	Interior Doors	About 70% of the interior doors are wood with windows in metal frames, and 30% are solid wood doors. The door handle was loose in room 301.	Good
	Interior Specialties	System not present.	N/A

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Stairs	Exterior Stairs	System not present.	N/A
	Interior Stairs	System not present.	N/A
Interior Finishes	Interior Wall Finishes	About 90% of the interior wall finishes are gypsum board in the corridors and classrooms, and 10% are ceramic tile in the restrooms areas. The wall finishes were observed to be in average condition. There seemed to be a lot of wear at about 2 to 3 feet from the floor. Paint was peeling and needed repair.	Average
	Interior Floor Finishes	About 80% of the interior floor finishes are VCT in the classrooms and corridors, and 10% are ceramic tile in the restrooms. Floor finishes were observed to be in good condition.	Good
	Interior Ceiling Finishes	About 90% of the interior ceilings are acoustical tile in metal grid, and 10% are gypsum board in restrooms. There were stained tiles that needed to be replaced.	Good
Conveying	System not present.		N/A
Plumbing	Plumbing Fixtures	The facility contains multiple plumbing applications that service one level, consisting of in-classroom student restrooms, one staff restroom, and one janitorial closet with a service sink. The restrooms located inside classrooms have vitreous china floor-mount toilets with manual flushing valves. The classroom restrooms are not equipped with sinks; however, the classrooms have laminated particle board vanities with stainless steel sink/bubbler combinations mounted inside the vanity. The remainder of the facility's restrooms have vitreous china sinks with manual or metering faucets, along with vitreous china floor/wall-mount toilets with manual flushing valves. This building's plumbing fixtures were observed to be in average condition. An estimated 90% of the classroom restroom fixtures were observed to be from when the building was originally construction and are aged and out of date. Typically, the fixtures were slow to flush and drain when operated.	Average
	Domestic Water Distribution	The plumbing fixtures in this facility are not serviced by any domestic water distribution equipment. System is not present.	N/A
	Other Plumbing	The roof drains for this facility were predominantly designed with an external-type drainage system	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		equipped with gutters and downspouts. There were no staff-reported deficiencies or planned/requested renovations for this facility's other plumbing. The other plumbing appeared to be in good condition.	
Mechanical/ HVAC	This building has two types of HVAC applications that service one floor level. The major mechanical equipment consists of floor-mounted water source heat pump systems and one large roof-mounted outdoor air unit/HRU (heat recovery unit). There were nine HVAC systems assessed throughout the building. The estimated capacity of the large roof-mounted outdoor air unit/HRU was 3,000 to 5,000 CFM. The refrigeration capacities of the individual classroom water source heat pumps ranged from 3- to 4-TON. There were no staff-reported deficiencies or planned/ requested renovations for this facility's mechanical/HVAC systems. The classroom HVAC units observed in the facility had installation dates of 1998 and had surpassed their projected service life. The units were also charged with R-22 refrigerant. R-22 refrigerant is being phased out of use and eventually will render the equipment that utilizes it obsolete. The roof top outdoor air unit was installed in 1998 and had surpassed it projected service life. This unit also utilized R-22 refrigerant. The mechanical/HVAC system for this facility appeared to be in average condition.		Average
Fire Protection	Fire Alarm	The building has a fire alarm system that consists of alarm and signaling devices such as horns/ annunciators, strobes, horn/strobe combinations, pull stations, and detectors. The fire alarm system equipment was observed to be in good condition.	Good
	Fire Protection/ Suppression	The building is not equipped with a fire sprinkler/ suppression system. It is protected by portable fire extinguishers stationed throughout the building. All portable fire extinguishers observed were inspected within the last year as indicated by their tags or city staff knowledge.	N/A
Electrical	Electrical Distribution	An electrical room is located on the northwest side of the building and houses transformers and panelboards that supply power to the building's end devices and mechanical equipment. The electrical distribution equipment was observed to be in good condition. A junction box was located in one of the mechanical rooms that did not have its enclosure cover secured, leaving cabling exposed. This is a life safety issue.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Lighting	The exterior of the building is outfitted with what appears to be wall-mount HID fixtures located near the roofline of the building. Covered walkways are illuminated by surface-mounted ceiling fixtures. The interior lighting is mainly fluorescent troffer fixtures in classrooms and corridors with the occasional screw-type fixture in closets and mechanical rooms. Exits signs exist at each exit and were illuminated. The lighting was observed to be in good condition.	Good
	Communications & Security	There is a Gemini security system currently installed with multiple keypads at various entrances. Motion detectors are installed in interior areas, and security cameras are installed throughout the interior of the building and strategically on exterior corners and walls. There are also door frame-mount proximity readers for access into certain entrances. The facility appears to have wireless routers installed in classroom ceilings and strategically throughout the building. The communication and security equipment was observed to be in good condition.	Good

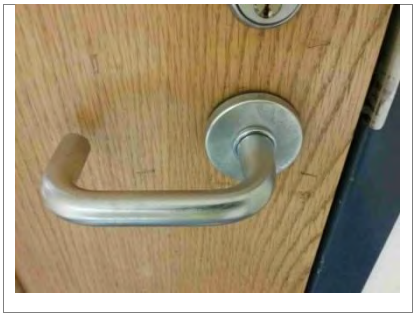
Exterior System Deficiency Examples

Exterior Walls

Exterior Windows

Interior Construction Deficiency Examples

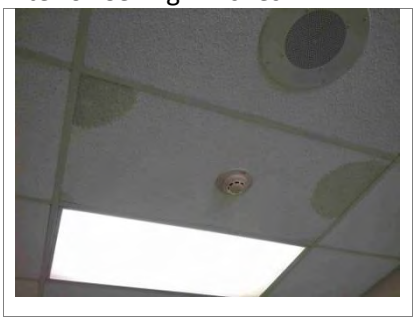
Interior Doors



Interior Finish Deficiency Examples

Interior Wall Finishes

Interior Ceiling Finishes



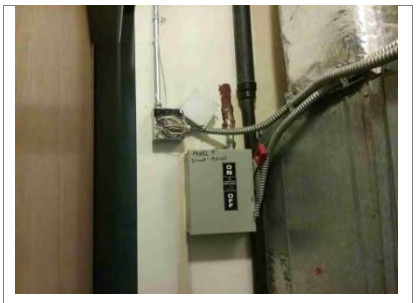
Plumbing System Deficiency Examples

Plumbing Fixtures

Mechanical/HVAC System Deficiency Examples

Electrical System Deficiency Examples

Electrical Distribution



Wooldridge Elementary School Campus Summary of Recommendations

This document is based on current conditions observed during fieldwork and provides recommendations for corrective actions by each discipline. The following recommendations provide a summary of the findings.

Campus Recommendations

Mechanical

1. Plan for and track equipment that uses R-22 refrigerant. The refrigerant is being phased out of manufacturing and construction use in the near future and will make all equipment that utilizes R-22 refrigerant obsolete.
2. Continue conducting preventive maintenance checks and services for HVAC systems. Plan to repair or replace aged and out-of-date HVAC equipment.

Electrical

1. Verify all exit signs are in operable condition.

Main School Building Recommendations

Exterior

1. Repair the soffit in the front entryway where it is currently shored up.
2. Exterior windows need caulk on the top where they meet the brick.
3. Re-glaze exterior windows adjacent to exit doors that are scratched and cracked.
4. Exterior windows need caulk on the top where they meet the brick.

Interior Construction

1. Replace or eliminate old folding partitions in classrooms and between classrooms and restroom corridors.
2. Repair holes in walls and ceilings where gypsum board is scarred and ripped.
3. Restrooms in classrooms are outdated. Walls and floor tile are dirty.
4. Refinish doors to classrooms.

Interior Finishes

1. Replace stained, yellowed perforated ceiling tile in the cafeteria as needed.
2. Replace rusted ceiling grid.
3. Repaint walls and columns.
4. Refinish wood railings at staircases.
5. Replace the ceramic tile surrounding the sink at the cafeteria entrance.
6. Repair tectum panels where they meet the brick wall above ramps at the east end of the building.
7. Replace all carpet in administration offices and room 100.

Plumbing

1. Continue preventive maintenance on aged plumbing fixtures and plan for replacement of the fixtures in the future as they continue to reach the end of their useful life.
2. Replace the broken toilet seat flange in room 109's restroom.
3. Clean and service the grease trap.
4. Investigate the poor roof drainage at the front office and remedy.

Mechanical/HVAC

1. Plan for replacement of and track equipment that uses R-22 refrigerant. The refrigerant is being phased out of manufacturing and construction use in the near future and will make all equipment that utilizes R-22 refrigerant obsolete.
2. Continue conducting preventive maintenance checks and services for HVAC systems. Plan to repair or replace aged and out-of-date HVAC equipment.
3. Repair or replace the non-functional exhaust fan in one of the classrooms.
4. Replace or repair damaged piping insulation.
5. Investigate excessive noise and vibration of units.
6. Repair or replace enclosures and ductwork.
7. Repair or replace damaged compressor fins.
8. Plan for replacement of AHU 3 which is beyond its typical useful life.

Electrical

1. Install breaker void covers or install spare breakers in panels to keep bus bars from being exposed.
2. Consider replacing equipment nearing or past the end of its life expectancy.
3. Repair all enclosure latches, holes, and other access points not designed in electrical enclosures, especially those with medium or greater voltage.
4. Assess the facility's needs for additional receptacles and power. Install the required equipment based on findings.
5. Install additional lighting in low-light areas. Determine the space to be illuminated prior to choosing the fixtures.
6. Add support to unsupported network cabling and enclose where exposed.

Stand-Alone Classroom Building Recommendations

Exterior

1. Clean and repaint gutters on downspouts that are rusty.
2. Rescreen exterior windows screens that are ripped.
3. Add more gravel to cover the gutter system surrounding the building that receives drainage from the roof.

Interior Finishes

1. Repaint walls in corridors.

Electrical

1. Install enclosure covers on junction boxes where missing.