Cook Elementary School Site Summary

Address	1511 Cripple Creek Drive Austin, TX 78758
Number of Permanent Campus Facilities	2
Original Year of Construction	1974
Total Campus Building Area (combined)	67,355 SF

Introduction

The Cook Elementary School campus is located at 1511 Cripple Creek Drive in Austin, Texas. Cook Elementary School was established in 1974, and consists of the primary school along with one additional campus building. These permanent campus buildings include the Main School Building (BLDG-161A) and the Stand-Alone Classroom Building (BLDG-161B). The buildings are connected to one another by a covered concrete sidewalk.

Meeting Log		Revision Log		
Date	**Meeting**	**Revision**	**Date**	**Summary of Content**
8/4/16	Interview	00	9/16/16	Draft Issue
8/10/16	Assessment	01	11/15/16	Added comments from PM Laura Gass as indicated on email dated 10/28/16. See Mechanical/HVAC section on page 7.
10/25/16	Cluster Meeting			

Main School Building – BLDG-161A

Building Purpose	Administration Offices, Classrooms, Cafeteria, and Gymnasium
Building Area	58,255 SF
Inspection Date	August 10, 2016
Inspection Conditions	90°F - Sunny and hot
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 walls are brick veneer and plaster fascia over CMU (concrete masonry unit) backup. The cafeteria/gymnasium walls above the roof have a synthetic plaster finish over EFIS (exterior insulated finish system). The main building exterior walls were observed to be in average condition. The exterior walls of the newer classroom addition on the south and east elevations were observed to be in poor condition. Multiple large cracks were visible in the brick veneer and were likely related to reported foundation problems. There were broken corners visible at the foundation corners. Sealants on the main building appeared to be in average condition, but sealants on the south classroom addition were visibly deteriorated or missing. Organic growth was visible on the south classroom addition brick facade where roof drains discharged or gutters appeared to be leaking. The brick screen wall at the loading dock area was out of alignment with adjacent surfaces.	Average
	Exterior Windows	The exterior windows are metal-framed with single-pane glazing and are original to the building's and classroom additions' dates of construction. Most windows have an operable sash, and in the main building, have lower spandrel panels. Some of the windows in the south classroom addition have large horizontal sliding sashes.	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		The exterior windows were observed to be in average condition. The larger horizontal sliding windows were reported to be difficult to operate due to their size and age. The spandrel panels had visibly deteriorated painted surfaces. Sealants around the exterior windows were dry and visibly deteriorated.	
	Exterior Doors	The exterior doors are steel with metal frames. Building entry doors have side-lites and transoms. Doors to electrical and mechanical rooms have metal louvers. The majority of the exterior doors frames and hardware were observed to be in average condition. Door frames near the kitchen and gymnasium had visible corrosion at the bottom. Some of the utility doors had corrosion and deteriorated paint surfaces. The exterior entry doors were reported to have problems latching. Some exterior entry doors and side-lites had acrylic glazing.	Average
Roofing	The main building's roof is a modified bitumen membrane. There is a small amount of standing seam metal roof at the clerestory above the south classroom addition. There are nine small hipped metal roofs with internal gutters that form the main building entry canopy. The original portion of the main building has continuous gutters and downspouts. The main building roofing had been replaced in sections at various times within the last 25 years. Warranty signage mounted on the roof indicated about 36% of the roof membrane would expire in 2026; this area was observed to be in good condition. The remaining modified bitumen roofing was visually aged out of service (estimated 1990) and observed to be in poor condition. Roof scuppers and internal drains were original, but gutters and downspouts appeared to be installed recently. The building roof membrane was in good to poor condition relative to its age. Some ponding was evident, regardless of roof age. Deteriorated surface membrane and cracking were visible at older roof areas. Older roof areas also had large blisters. Separation of end laps was observed at more recently installed areas. The perimeter gutter system appeared to be in good condition. Two internal roof drains were missing their strainers. The metal entry canopies had severe corrosion and 30% of their surface coating was gone. The metal canopy internal gutters were severely corroded and were filled with leaves.		Average
Interior Construction	Interior Walls	The interior walls consist of CMU, metal-framed partitions with gypsum board surfaces, a demountable gypsum board system, and exposed brick. There are various types of interior windows framed with metal and wood with single-pane glazing. There is a folding wall separating the cafeteria and gymnasium. Accordion partitions separate pairs of classrooms in the 300-wing south classroom addition. The main building's interior walls and windows were in	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		good condition. The folding wall in the cafeteria/ gymnasium was operational and in good condition.	
	Interior Doors	There are many types of interior door and frame configurations throughout the main building. There are both steel and solid core wood doors. Hollow-metal and wood frames are present. Light metal frames are part of the demountable partition system. Some interior doors have side-lites and wood or glazed transoms. The majority of the interior doors were observed to be in good condition.	Good
	Interior Specialties	System not present.	N/A
Stairs	Exterior Stairs	Concrete stairs and ramps with metal railings are found at many doors and entrances around the building. There are concrete steps at the kitchen loading dock. The exterior concrete stairs and ramps were observed to be in average condition, except at the loading dock where railing was severely rusted and broken at its base.	Average
	Interior Stairs	There are carpet-covered wood steps at the stage and a relatively new concrete ramp for stage access. The interior steps and ramp were in good condition.	Good
Interior Finishes	Interior Wall Finishes	The building's interior wall finishes consist of painted CMU and gypsum board surfaces, natural finish brick, and wood paneling. The interior walls were observed to be in good condition.	Good
	Interior Floor Finishes	The predominant floor finish throughout the building is vinyl tile with a 4-inch base, in corridors, classrooms, cafeteria, administration, and support spaces. Carpet is in the library and the music classroom. The kitchen flooring is quarry tile, and all common restrooms have ceramic tile floors. The flooring in the classroom restrooms in the 300-wing addition are vinyl tile. The interior flooring appeared to be in average condition. Humidity problems under the 300-wing addition were reported and might be the cause of discoloration of the vinyl tile in the corridor and classrooms. The carpet in the library was relatively new. The kitchen quarry tile appeared to be in good condition. The ceramic tile in common restrooms in the main building had been recently renovated and was in good condition.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Interior Ceiling Finishes	Suspended ACT (acoustical ceiling tile) is throughout most of the main building. The building's roof structure and deck are exposed and painted in the gymnasium. Restroom ceilings have gypsum board surfaces. The kitchen's suspended tile ceiling has a non-porous finish. The building's ceilings were in good condition. The restroom and break area ceilings in the kitchen were absorptive and might not be health-department compliant.	Good
Conveying	System not present.		N/A
Plumbing	Plumbing Fixtures	The building has public male and female restrooms for students located throughout the facility and separate staff restrooms located in the administration area. These restrooms have vitreous china hand sinks with manual faucets, along with vitreous china floor-mount toilets with manual flushing mechanisms, and vitreous china wall-hung urinals in the male restrooms with manual flushing mechanisms. There are service sinks in the janitorial closets, and water coolers are located throughout the facility, typically near public restrooms. Classrooms are equipped with sinks with faucets and bubblers. It appeared that select restrooms within the facility were recently renovated. These restroom fixtures were observed to be new and in good condition. Fixtures throughout the facility appeared aged, with the exception of the renovated restrooms indicated above. Several restroom fixtures were loose and/or were leaking. Rust and corrosion were noticed on select fixtures and associated piping. Low flow at the faucet and bubbler and foamy water discharging from the faucet were observed in several classrooms. Purple staining was observed on several bubblers. Several water coolers were not cooling properly. The trough-style sink located in the kitchen was equipped with a corroded faucet and knob. One knob was missing. The water cooler adjacent to the gymnasium appeared to be damaged with duct tape covering potions of the cooler housing. The plumbing fixtures were observed to be in poor condition, primarily due to the age of the fixtures and the deficiencies mentioned above.	Poor
	Domestic Water Distribution	The sinks located throughout the facility are not equipped with hot water with the exception of the	Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		lounge, kitchen, and administration restroom. The primary hot water service for the building, including the kitchen, is provided by two gas water heaters located in the kitchen mechanical room. The hot water in the lounge sink is provided by EWH-1 (electric water heater-1), located under the lounge sink. The hot water in the administration restroom is provided by EWH-1. The mechanical drawings indicated that EWH-1 was located in the vault. The vault was inaccessible at the time of testing. The mechanical drawings also indicated EWH-1 serving the gymnasium office which was located in the main electrical room. The water heater was not observed at the time of assessment. The gymnasium office was being utilized for storage, and hot water service to the office could not be determined. The water heaters serving the building were aged, past their service life, and appeared to be in poor condition. The hot water piping had corrosion in several areas. The hot water piping insulation associated with the water heaters was either missing or damaged. GWH-1 (gas water heater-1) which was located in the kitchen mechanical room appeared to be in poor condition. The plumbing distribution equipment serving the facility was observed to be in poor condition, primarily due to the deficiencies mentioned above.	
	Other Plumbing	The roof was equipped with roof drains. The roof drains are equipped with metal grate covers to prevent debris from entering the drainage system. The roof drains were corroded. A roof drain cover was missing as well. Roof drains discharged water from the top of the wall, causing water ponding on the ground below and staining on the wall. Floor drains in the main mechanical room were missing covers. The plumbing system was equipped with a backflow preventer. The plumbing equipment serving the facility was observed to be in poor condition, primarily due to the age of the equipment and the deficiencies mentioned above.	Poor
Mechanical/ HVAC	The major mechanical equipment consists of plenum-mounted water-source FCUs (fan coil units), chilled water central station AHUs (air handling units), scroll chillers, an associated cooling tower, and RTUs (roof top units). An abandoned fan motor was observed on the exterior of the building near the south exterior mechanical room. These serve the HVAC (heating, ventilating, and air conditioning) system along with roof-mounted EFs (exhaust fans).		Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	The HVAC system appeared to be in poor condition. Most of the AHUs appeared to be aged and needed replacement, while two appeared to have been recently replaced. Several interior AHUs were indicated on the mechanical drawings but were not installed at the time of assessment. During the Summer 2015 Bond Project #140020-COOK, AHU-10 was replaced and associated roof-mounted return duct over the lobby (A-3), but not over the kitchen. Also, over roof A-2, AHU-4 and -5 were replaced as was the roof-mounted cooling tower over the mechanical room. The RTUs appeared to be new and in good condition with one exception. The chillers were observed to be aged and needed replacement. The associated distribution pumps, piping, and insulation appeared aged and needed replacement. A condensing unit that appeared to be associated with the split system AHU serving the MDF (main distribution frame) room was aged with coil fin damage, presumably due to hail. The condenser refrigerant piping insulation was missing and damaged in areas. The gas piping associated with RTU-2 was corroded. A light switch cover on RTU-1 was missing. The FCUs were located in the ceiling plenum and were inaccessible for assessment. The building staff reported that the FCUs were original to the building and needed replacement. The supply diffusers in the building lobby were rusted and corroded, indicating humidity issues within the lobby. The return grilles in the kitchen were excessively dirty. Building staff reported that the ductwork was not replaced during the last renovation of the mechanical systems. It was reported that condensation leaks have damaged ceiling tiles in several areas. Building staff reported that the condenser unit between the gymnasium and the walk-in freezer, RU-F1, needed fencing around it due to students hiding behind it and damaging the piping. Supplemental mechanical equipment for the HVAC system included EFs serving the kitchen and restroom exhaust. Roof top EFs typically appeared aged and in poor condition with housing damage observed on several units. Building staff reported that the kitchen hood exhaust airflow was insufficient.		
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 panel. The fire alarm system appeared to be in average condition. All of the exterior fire alarm devices showed age due to the outdoor elements.	Average
	Fire Protection/ Suppression	A fire suppression system associated with the kitchen exhaust hoods was present. The remainder of the building is protected by portable fire extinguishers placed throughout the facility. All observed portable fire extinguishers had inspection tags dated within the last year with the exception of the exterior mechanical room containing AHU-1 and AHOA-1 and the bookroom.	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		The building's fire protection systems were observed to be in average condition.	
Electrical	Electrical Distribution	The electrical service enters the building at the 120/208-volt 3000-amp main exterior switchboard, located in the main electrical equipment room. The service feeds panelboards, which are located in various electrical rooms throughout the building. The electrical distribution equipment appeared to be in average condition. A majority of the assets were observed with out-of-date panels, and corrosion was on the enclosure of MSB-2. Facility staff reported that the panel in the kitchen and teacher's lounge needed to be replaced, and in the admin area, circuit breakers tripped frequently. The building does not have a lightning protection system.	Average
	Lighting	The building's exterior lighting consists of HID (high-intensity discharge) and LED (light-emitting diode) fixtures located along the entire perimeter and canopies. The interior lighting consists primarily of T8 fluorescent light fixtures. Lighting for the exterior of the building appeared to be in average condition. Approximately 10% of the HID light fixtures had discolored lenses and missing bulbs. About 80% of the interior lights appeared to have aged past their design life. Observed deficiencies included inconsistent lamp color temperatures and non-functional fixtures. The exit light signs present in the building appeared to be aged and in average condition.	Average
	Communications & Security	There is a Gemini security system including surveillance cameras in the building's interior and exterior. There is a public address system in the building along with VOIP system. Facility reported that the badge access on exterior doors next to 27 and 15, frequently do not work. The gemini security system appeared to be in good condition. The public address system appeared to be in good condition.	Good

Exterior System Deficiency Examples

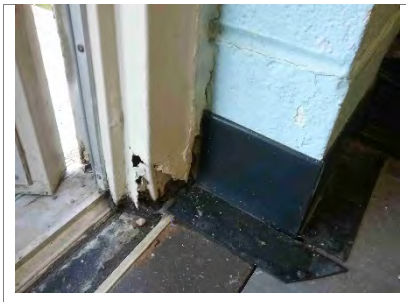
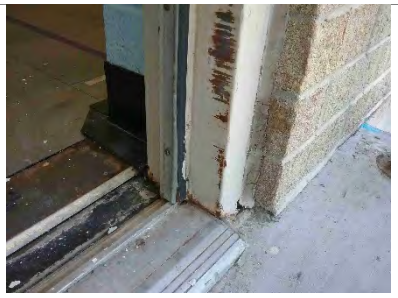
Exterior Walls



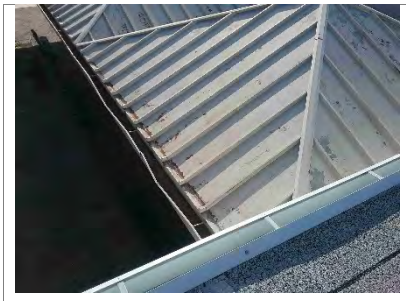


Exterior Windows


Exterior Doors


Roofing Deficiency Examples



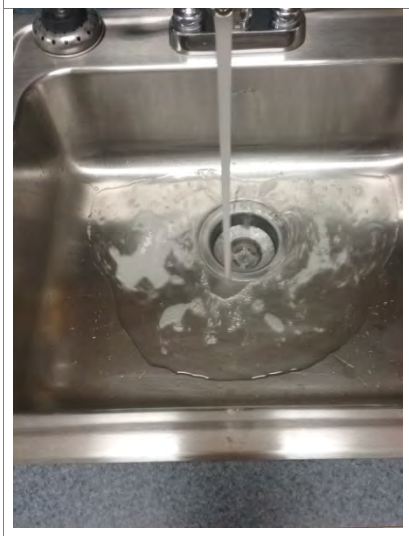

Stairs Deficiency Examples

Exterior Stairs

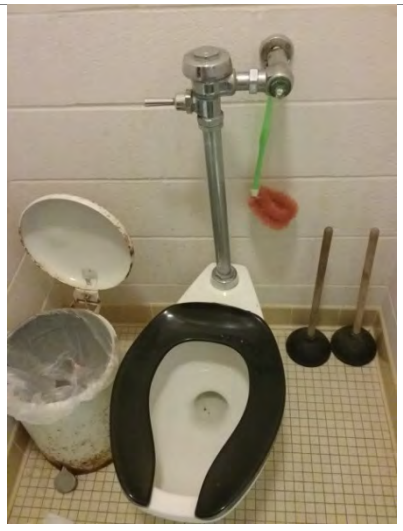
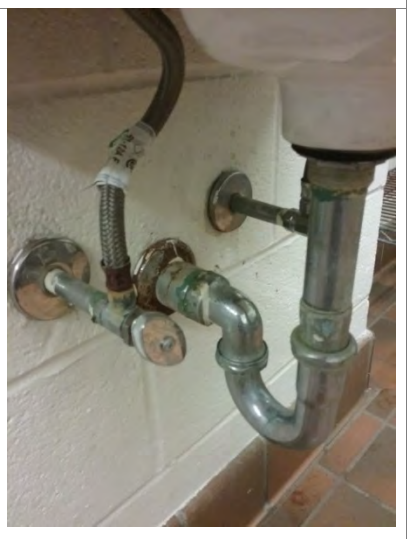
Plumbing System Deficiency Examples

Plumbing Fixtures

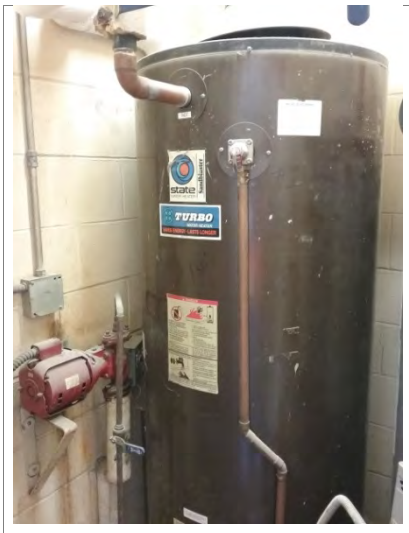


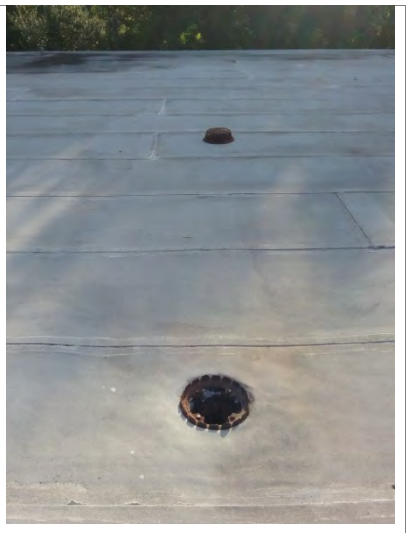





Domestic Water Distribution

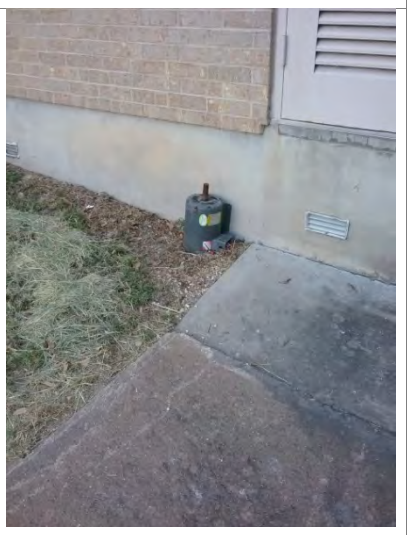




Other Plumbing

Mechanical/HVAC System Deficiency Examples


EF-RH



Fire Protection System Deficiency Examples

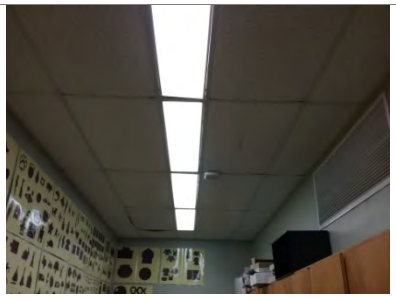
Fire Alarm

Fire Protection/Suppression

Electrical System Deficiency Examples

Electrical Distribution

Lighting



Stand-Alone Classroom Building – BLDG-161B

Building Purpose	Classrooms
Building Area	9,100 SF
Inspection Date	August 10, 2016
Inspection Conditions	90°F - Sunny and hot
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 building facade is brick with a decorative CMU band and a CMU panel below the exterior windows. The brick and CMU facade appeared to be in average condition. Organic growth was visible on masonry surfaces around the building, especially on the CMU panels below windows, suggesting water may be entering at the sealant joint around windows. Other areas of organic growth were observed near downspouts and at the base of walls.	Average
	Exterior Windows	The exterior windows are metal-framed single-pane glazed with an operable sash. There are also horizontally oriented, fixed sash, metal-framed windows positioned high on classroom walls. The exterior windows were observed to be in average condition. The sealant around the windows was dry, hard, and cracked. Water infiltration was evident from the organic growth on the CMU surfaces below windows.	Average
	Exterior Doors	There are two pairs of steel entry doors with vision panels and transoms with hollow-metal frames. There is one pair of steel utility doors with hollow-metal frames at the mechanical room. The exterior doors, frames, and hardware were in good to average condition. Corrosion was visible on the west side building entry doors.	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Roofing	The building has a modified bitumen membrane roof that is most likely original to the building's construction in 1998. The roof was viewed from the top of BLDG-161A. The building's roofing appeared to be in good condition; however, the roof membrane was nearing the end of its expected service life. Some evidence of ponding was visible near the roof edges. The continuous gutter system's hangers had visible corrosion, although the gutters and downspouts appeared to be in good condition.		Average
Interior Construction	Interior Walls	The interior walls are framed with gypsum board surfaces. The interior walls were in good condition.	Good
	Interior Doors	The interior doors are solid core wood with metal frames. The classroom doors have vision panels. The interior doors and hardware were in good condition.	Good
	Interior Specialties	System not present.	N/A
Stairs	Exterior Stairs	System not present.	N/A
	Interior Stairs	System not present.	N/A
Interior Finishes	Interior Wall Finishes	The interior walls predominantly have painted gypsum surfaces. There is a ceramic tile wainscot in the restrooms. The interior wall finishes were in good condition.	Good
	Interior Floor Finishes	Vinyl tile flooring with a 4-inch base is in all classrooms. Corridor C7 has carpet, and restrooms have ceramic tile flooring. The building's vinyl and ceramic tile floorings were observed to be in good condition. The carpet in corridor C7 had splits at the seams, was visibly worn, and appeared to be in poor condition.	Average
	Interior Ceiling Finishes	The interior ceiling is suspended lay-in acoustical tile in the classrooms and in corridor C7. The restroom ceiling surfaces are painted gypsum board. The interior ceilings were observed to be in good condition.	Good
Conveying	System not present.		N/A
Plumbing	Plumbing Fixtures	The building has public male and female restrooms for students located between classrooms and a separate staff restroom located in the corridor. These restrooms have vitreous china hand sinks with manual faucets, along with vitreous china floor-mount toilets with manual flushing mechanisms. There are service sinks in the janitorial closets, and water coolers are located in the corridor. Classrooms are equipped with sinks with faucets and bubblers.	Average

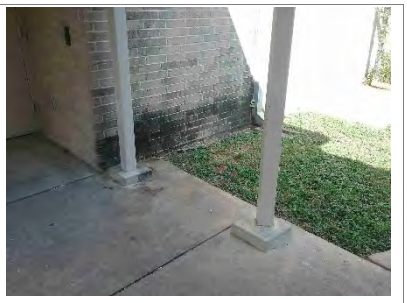
System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		The plumbing fixtures were observed to be in average condition, primarily due to age with some wear observed.	
	Domestic Water Distribution	The sinks located throughout the facility are not equipped with hot water with the exception of the staff restroom. The hot water in the staff restroom is provided by EWH-1. The water heater was observed to be aged, past its service life, and in poor condition. The plumbing distribution equipment serving the facility appeared to be in poor condition, primarily due to its age.	Poor
	Other Plumbing	Floor drains in the mechanical closets were reported by building staff to be too high and did not drain correctly, resulting in flooding of the classrooms. The plumbing equipment serving the facility was observed to be in poor condition, primarily due to the age of the equipment.	Poor
Mechanical/ HVAC	The major mechanical equipment consists of floor-mounted WSHPs (water source heat pumps), associated distribution pumps, and a roof-mounted heat recovery unit. These serve the HVAC system along with plenum-mounted restroom EFs. The HVAC system was in poor condition. The WSHPs were aged and near the end of their design service life. Several units were corroded at the piping connections. Condensate drain piping insulation associated with several units was missing or damaged. Building staff reported that WHP-1 had to be filled with water constantly and frequently experienced flooding issues in the mechanical room and adjacent classrooms. It was also reported that all heat pumps were off line because the well was dry. The units appeared to be operating at the time of assessment. The distribution pumps appeared to be aged and needed replacement in the near future. The associated distribution pump piping was rusted and corroded. The heat recovery unit was located on the roof and was inaccessible at the time of assessment. From inspection from the main building's roof, the unit appeared to be aged and near the end of its useful life. Supplemental mechanical equipment for the HVAC system included ceiling-mounted restroom EFs. The fans appeared aged and in poor condition.		Poor
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 panel. The fire alarm system was observed to be in good condition.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Fire Protection/ Suppression	The building does not have a fire suppression system. The building is protected by portable fire extinguishers placed throughout the facility. All observed portable fire extinguishers had inspection tags dated within the last year.	N/A
Electrical	Electrical Distribution	The electrical service enters the building at the 120/208-volt 400-amp main switchboard located in the electrical equipment room. The service feeds power to 120/208-volt panelboards located in the main electrical equipment room. The electrical distribution equipment was in good condition. The building does not have a lightning protection system.	Good
	Lighting	The building's exterior lighting consists of HID light fixtures located along the entire perimeter. The lighting for the exterior of the building appeared to be in average to good condition. Approximately 20% of the HID light fixtures had weathered housing due to exposure to the outdoor elements. The interior lighting consists primarily of T8 fluorescent light fixtures. The interior lighting for the building appeared to be in good condition. There are exit signs present in the building that appeared to be functioning at the time of the assessment.	Good
	Communications & Security	There is a Gemini security system including surveillance cameras in the building. There is a public address system in the building There is telecommunications and VOIP system within the building.. The Gemini security system including surveillance cameras in the building appeared to be in good condition. The public address system and telecommunication system in the building appeared to be in good condition with no reported deficiencies.	Good

Exterior System Deficiency Examples

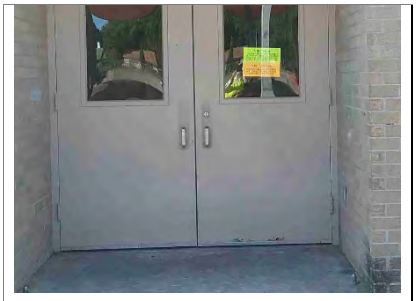
Exterior Walls



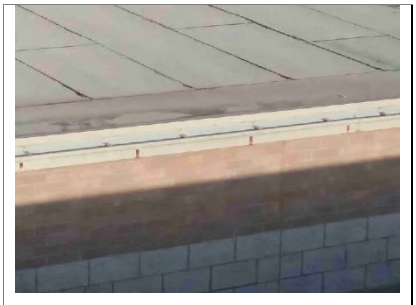


Exterior Windows

Exterior Doors



Roofing Deficiency Examples

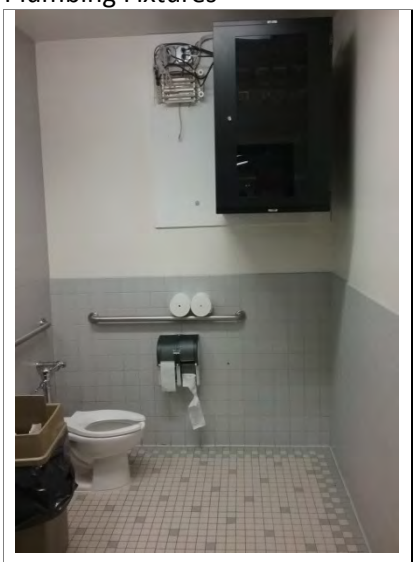


Interior Finish Deficiency Examples

Interior Floor Finishes

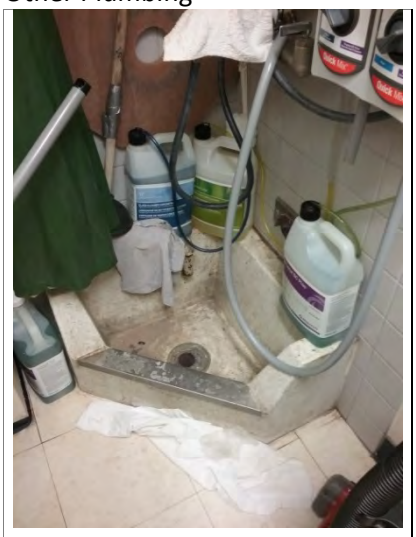
Plumbing System Deficiency Examples

Plumbing Fixtures



Domestic Water Distribution

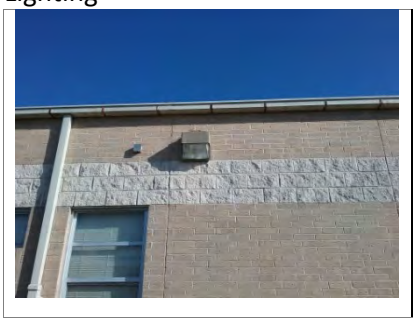
Other Plumbing



Mechanical/HVAC System Deficiency Examples

Electrical System Deficiency Examples

Lighting



Cook 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

Plumbing

1. Continue preventive maintenance on aged plumbing fixtures and plan for replacement in the future as fixtures continue to age in all facilities.
2. Track the installed years of water heaters and plan for replacement as the typical design service life for a water heater is 10 to 15 years.
3. Repair or replace any damaged or missing piping insulation as needed.
4. Repair or replace any damaged condensate drain piping as needed.

Mechanical/HVAC

1. Address any rust or corrosion observed on the equipment, its associated piping, or any other sub-asset by cleaning, repainting, or repairing to prevent further deterioration.
2. Ensure routine preventive maintenance is conducted for cleaning ductwork to promote efficient and clean air flows to all of the facilities' spaces.

Fire Protection

1. Continue annual inspections of the portable fire extinguishers.
2. Continue annual assessments of the fire alarm systems at all buildings.

Electrical

1. Replace all electrical equipment affected by age.
2. Remove any floor receptacles as they are being phased out of use district-wide.
3. Replace all outdated light fixtures with LED fixtures with dimming capabilities.
4. Replace all existing exit signs with LED fixtures.

Main School Building Recommendations

Exterior

1. Further study the cause of cracks in the brick facade at the south addition and repair.
2. Repair spalled concrete corners and surfaces at the foundation on the south addition
3. Replace sealants at exterior walls where needed.
4. Replace or repair horizontal sliding exterior windows where operation is desired.
5. Ensure all glazing at building entrances is laminated glass, not acrylic.
6. Replace exterior doors and frames that have corrosion present.
7. Replace hardware at doors identified to have problems latching.
8. Repaint spandrel panels at exterior windows on the original part of the building.
9. Repair or replace the steel handrail at the loading dock.
10. Further study the cause of misalignment of the masonry screen wall at the loading dock and repair.

Roofing

1. Replace the modified bitumen roof membrane over about 64% of the building where aged and in poor condition within the next five years.

2. Replace the standing seam metal hipped roof panels and gutter system on the entrance canopies within the next five years.
3. Consider alternatives to the roof drain discharge points high on masonry exterior walls to eliminate rainwater from saturating the masonry and contributing to organic growth on the exterior walls.

Interior Finishes

1. Conduct further investigation into the settling observed in the covered breezeway. Structural monitoring may be required.
2. Identify and resolve the source of moisture in the crawlspace that is contributing to the vinyl tile's discoloration in the 300-wing classroom addition.
3. Consider replacement of vinyl floor tile in classroom restrooms with ceramic tile in the 300-wing classroom addition.
4. Replace ceiling tiles in the kitchen break area and restroom and with vinyl tiles.

Plumbing

1. Replace fixtures where corrosion or rust exists.
2. Repair or replace loose faucets.
3. Replace water coolers that are not cooling properly.
4. Repair or replace drain covers that are damaged or missing.
5. Reroute roof drains that discharge water from the top of the exterior wall.

Mechanical/HVAC

1. Plan for replacement of the aged RTU as it appeared to be past or near the end of its design service life.
2. Plan for replacement of the chillers as they appeared to be past or near the end of their design service life.
3. Plan for replacement of the distribution pumps, piping, and insulation as they appeared to be past or near the end of their design service life.
4. Plan for replacement of the EFs as they appeared to be past or near the end of their design service life.
5. Remove rust and corrosion from gas piping, and paint/protect to prevent corrosion in the future.
6. Replace supply and return grilles that are corroded or excessively dirty.
7. Address condensation leaks caused by aged ductwork.
8. Remove abandoned mechanical equipment located outside of the exterior mechanical room.
9. Plan for replacement of AHUs as they appeared to be past or near the end of their design service life.
10. Repair or replace any fin assemblies of HVAC equipment that showed extensive wear and tear.
11. Install fencing around condenser unit RU-F1 and repair piping damage.

Fire Protection

1. Replace fire extinguishers that are out of date.

Electrical

1. Replace main switchgear MSB-2 that was observed to be aged and had corrosion on its cover.
2. Replace the exterior building lights and sidewalk canopy pole lights with LED fixtures.

Stand-Alone Classroom Building Recommendations

Exterior

1. Replace sealant at masonry joints and around exterior windows and doors.
2. Clean masonry surfaces of organic growth. Identify the source of moisture intrusion that facilitates growth and repair.
3. Repair or replace the steel entry door on the building's west side.

Roofing

1. Replace aged modified bitumen roof membrane within the next five years.
2. Replace corroded gutter hangers.

Interior Finishes

1. Replace aged and worn carpet in corridor C7.

Plumbing

1. Investigate draining issues in mechanical closets.

Mechanical/HVAC

1. Plan for replacement of the WSHPs as they appeared to be past or near the end of their design service life.
2. Plan for replacement of the distribution pumps as they appeared to be past or near the end of their design service life.
3. Plan for replacement of the EFs as they appeared to be past or near the end of their design service life.
4. Plan for replacement of the energy recovery unit as it appeared to be past or near the end of its design service life.

Electrical

1. Replace exterior building lights with LED fixtures.