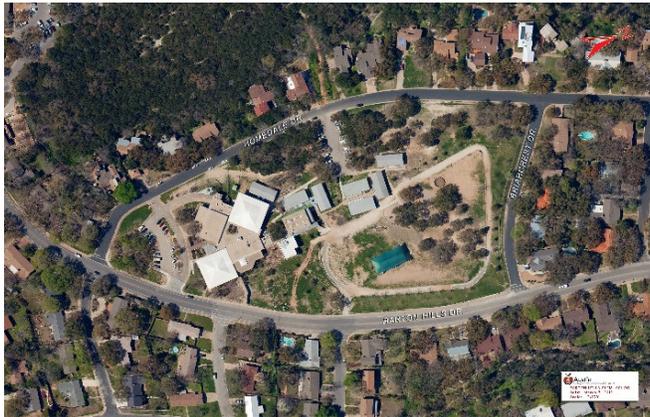


Barton Hills Elementary School Site Summary

| | |
|--|---------------------------------------|
| Address | 2108 Barton Hills Drive Austin, TX |
| Number of Permanent Campus Facilities | 3 |
| Original Year of Construction | 1964 and 2007 |
| Total Campus Building Area (combined) | 38,290 SF |



Introduction

The Barton Hills Elementary School campus is located at 2108 Barton Hills Drive in Austin, Texas. Barton Hills Elementary School was established in 1964, and consists of three permanent campus buildings. The Main School Building (BLDG-103A) includes administration offices, classrooms, and cafeteria. The other two permanent campus buildings are the Stand-Alone Gymnasium (BLDG-103B), and the Music Building (BLDG-103C) which are accessed from interior covered walkways to the main building.

Main School Building – BLDG-103A

| | |
|--------------------------|--|
| Building Purpose | Administrative, Classrooms, and Cafeteria |
| Building Area | 32,100 SF |
| Inspection Date | July 27 and 28, 2016 |
| Inspection Conditions | July 27 - 92°F - Rainy July 28 - 96°F - 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 walls are a brick facade and stucco between floors at exterior windows and covered entry soffits. The majority of the lower level as grade drops off is painted CMU (concrete masonry unit). The exterior walls appeared to be in good condition. | Good |
| | Exterior Windows | The exterior windows are single-pane aluminum-framed windows. The exterior windows appeared to be in good condition. | Good |
| | Exterior Doors | The exterior doors are painted metal and painted metal frames with transom and side lite single-pane glazing. The exterior doors appeared to be in good condition. | Good |
| Roofing | The roof is part modified bitumen and part built-up roof covering with roof gravel. A pre-finished metal walkway cover leads from the southwest exterior doors from corridor C4. Facility staff reported the roofing was replaced five years ago. The roof covering appeared to be in average condition with two areas that required attention. There were areas of ponding water on the built-up roof covering at A-02, A-04, A-05, and A19. The ponding water over A19 had overflowed previously, causing discoloration to the exterior brick where BLDG-103A joins BLDG-103C. The ponding water on A-05 overflowed onto the front walkway and deteriorated the pre-finished fascia and stucco below. | | Average |
| Interior Construction | Interior Walls | Walls are brick in corridor C5. There are some low brick walls defining corridor seating areas abutting the administration suite. Typical corridor walls are structural glazed tile up to 5'-4" above the floor and painted CMU above that. There are wood-framed windows at the | Good |

| System | Subsystem | Condition and Deficiency Overview | System Condition Rating |
|--------------------------|------------------------|---|-------------------------|
| | | <p>administration suite and at the cafeteria between it and both the corridor and kitchen. Hollow metal windows are installed between the corridor and library. Gypsum wallboard on conventional stud framing is installed in the administration suite, vice-principal suite, and library office. Classroom suites are CMU walls. Plaster cheek walls divide stair runs that lead to and from the lower-level classrooms. A wood frame wall with wood infill panels divides the cafeteria from the kitchen. Structural glazed tile walls are installed elsewhere.</p> <p>All interior walls appeared to be in good condition.</p> | |
| | Interior Doors | <p>The administration suite entry doors are stained, solid-core wood doors set in a stained wood frame. Most other doors are stained solid-core wood doors set in painted, hollow metal frames. Two painted steel, accordion gates are installed in the corridors.</p> <p>The door assemblies and hardware appeared to be in good condition except for the scuffed and worn door face finishes. Both gates appeared to be in average, operational condition, but staff said that they were never used.</p> | Average |
| | Interior Specialties | System not present. | N/A |
| Stairs | Exterior Stairs | <p>There are exterior concrete stairs with painted metal railings on the north ends of corridors C2 and C3, the south end of corridor C4, and the south side of room 104. There are also exterior concrete stairs with painted metal railings at the exterior of the kitchen and cafeteria.</p> <p>The exterior concrete stairs were observed to be in average condition due to age yet fully functional, except the painted railings were starting to peel off of corridor C3. The stairs at KITMOPRM did not have any railing.</p> | Average |
| | Interior Stairs | <p>A concrete ramp with galvanized pipe handrails is installed in corridor C5 instead of stairs as indicated in the currently recorded building plans. Elsewhere, four sets of corridor, sealed-concrete stairs with embedded abrasive nosing strips are installed with stained wood handrails. Additionally, two pairs of rear and front wood stairs access the cafeteria stage. These four stairs do not have handrails.</p> <p>All stairs and rails appeared to be in good condition.</p> | Good |
| Interior Finishes | Interior Wall Finishes | <p>Stained paneling is in the corridors surrounding the administration suite and inside of the administration reception area. Stained paneling is installed on the kitchen side of the wood panel wall between the</p> | Good |

| System | Subsystem | Condition and Deficiency Overview | System Condition Rating |
|--------|---------------------------|---|-------------------------|
| | | <p>cafeteria and kitchen. A paint finish is on the cafeteria side of the panel wall. There are also stained panels below the stairwell windows at the intermediate landings. The vice-principal's suite, parts of the administration suite and library office wall finishes are paint on gypsum wallboard. The finish is paint on CMU in the classroom suites, including the interior faces of the exterior walls. There is full-height ceramic tile finish in the nurse's toilet room, and ceramic tile is installed in some areas of walls in the classrooms. In the corridors and classroom toilets, structural glazed tile is the finish up to 5'-4" above the floor and painted CMU above this to the ceiling. The upper portions of the cafeteria walls are painted CMU. A mural is painted on CMU in the library.</p> <p>The stained panel finish in the kitchen and below the stair landing windows was old and required a new stain finish. All other finishes appeared to be in good condition.</p> | |
| | Interior Floor Finishes | <p>The floor finish in corridor C5 is unsealed concrete. Carpet tile is installed in all of the offices in the administration suite, except the nurse's office, and in the library. Broadloom carpet is installed in the vice-principal/counselor/conference suite. Porcelain tile is installed in all toilet rooms, except those at the cafeteria. Porcelain tile with a checker plate finish is installed in the kitchen. Oak plank flooring is installed on the cafeteria stage. Resilient tile is installed in all other rooms. Vinyl base is installed in the corridors where there is paneling, but otherwise, no base is installed at structural glazed tile or in the classrooms at the base of the CMU walls.</p> <p>Floors and base appeared to be in good condition, except in rooms 102, 103 and 104 where the resilient tile required refinishing. The resilient tile installed in the cafeteria and cafeteria toilets was old but appeared to be in good condition and also required a new finish. Staff reported that the cafeteria and the cafeteria restroom floors were original asbestos resilient tile.</p> | Good |
| | Interior Ceiling Finishes | <p>The interior ceiling finish is 2'x4' lay-in acoustical tiles set in a suspended grid system in the corridors, administration suite and classroom suites, except the lower-level classroom toilets where painted gypsum board ceilings are installed. A similar 2'x2' grid system is installed in the vice-principal suite, library, and cafeteria.</p> | Good |

| System | Subsystem | Condition and Deficiency Overview | System Condition Rating |
|------------------|-------------------|--|-------------------------|
| | | <p>A 2'x2' vinyl-clad, lay-in ceiling is installed in the kitchen. There is a raised area of painted gypsum board ceiling in the library. An acrylic lens accent lite panel is installed outside of the administration reception area.</p> <p>All of these systems appeared to be in good condition, except in the cafeteria toilet rooms where tiles should be replaced.</p> | |
| Conveying | | <p>The building is equipped with a 495-lb wheelchair lift for stage accessibility. The conveying system appeared to be in good condition.</p> | Good |
| Plumbing | Plumbing Fixtures | <p>The building contains predominantly single-use restrooms throughout the facility. Typical restrooms have floor-mounted vitreous china water closets with manual flush valves. Each pair of classrooms contains two shared water closets between the rooms. Typical classrooms contain a single-basin stainless steel sink with a drinking fountain attached. Vitreous china drinking fountains can be found in the corridor outside of the cafeteria.</p> <p>A commercial kitchen is located in the school's cafeteria. The kitchen contains stainless steel kitchen equipment, including a triple-basin prep sink. It also has various wall-mounted vitreous china and stainless steel sinks for personal use. A porcelain enamel metal trough hand washing sink with two faucets is located outside of the kitchen. The building has service sinks located in various janitorial closets. Various other rooms, such as the library, have stainless steel basin sinks for personal use.</p> <p>The majority of plumbing fixtures were observed to be in average working condition but were aged and showed minor signs of deterioration. The drinking fountain in room 103 had low flow going to it. The drinking fountain in room 201 was observed to stick in the on position. One of the two drinking fountains outside of the cafeteria was not functioning. There was a drinking fountain/water station in the cafeteria that appeared to be working but was taped off. A cement exterior drinking fountain sprayed unevenly and sporadically, and one nozzle was capped off.</p> <p>No hot water was observed to the personal sinks in the kitchen and the kitchen restroom. The triple-basin prep sink had a leak at one of the faucet handles. No hot water was observed to the triple-basin prep sink. There was a basin hand washing sink outside of the kitchen</p> | Average |

| System | Subsystem | Condition and Deficiency Overview | System Condition Rating |
|-----------------------------|-----------------------------|---|-------------------------|
| | | that had corroded faucet handles and the hot water knobs did not turn. The sink was worn and had cracks. Some fixtures had corrosion and rust at the base and on the connections. | |
| | Domestic Water Distribution | <p>Domestic hot water to the kitchen is provided by a 30-gallon GWH (gas water heater) found in AHUCAFE and a 100-gallon GWH stored in the mechanical room (KITMECH). Various smaller electric hot water heaters are located throughout the building to provide heated domestic water to specific locations in the school (i.e., nurse and administration). Domestic hot water is not supplied to the classroom plumbing fixtures.</p> <p>The GWHs feeding the cafeteria were aged and observed to be in average condition. The unit in AHUCAFE had signs of corrosion and rust. This unit also showed signs of leakage. The unit in KITMECH was aged and out of date and was turned off at the time of assessment. The majority of the smaller units installed for hot water use to a specific location were newer and appeared to be in good condition.</p> <p>The plumbing distribution equipment appeared to be in average condition with damaged insulation and corrosion and rust observed on piping throughout the building. The cabinet underneath the sink in room 104 showed evidence of leaks.</p> | Average |
| | Other Plumbing | Associated other plumbing appeared to be in average condition. The kitchen drain pipes had corrosion and rust. The male restrooms in room 103 and handicap cafeteria were emitting a foul odor. Some floor drains were damaged and aged and had signs of corrosion. Some roof drains had rocks around the grates, which could cause plugging. Some roof drains had rust on the grates. Additionally, one was observed to have the grate not properly sitting over the drain. Storm drain covers were rusted. | Average |
| Mechanical/ HVAC | | <p>The building's HVAC (heating, ventilating, and air conditioning) system is primarily composed of a chiller and boiler system supported by chilled water pumps, heated water pumps, and AHUs (air handling units). Additionally, RTUs (roof top units) feed the library and kitchen. Various-sized EFs (exhaust fans) feed the building.</p> <p>Chilled water pumps found in the MAINMECH room showed signs of corrosion and leakage. The chiller unit outside of the MAINMECH room was newer and appeared to be in good condition. MAINMECH also contained two gas water boilers (B-1 and HWB 2-06). B-1 was aged and out of date. The unit also had signs of corrosion and rust. HWB 2-06 was newer and appeared to be in good</p> | Average |

| System | Subsystem | Condition and Deficiency Overview | System Condition Rating |
|------------------------|-----------------------------|---|-------------------------|
| | | <p>condition. The MAINMECH room also contained a blower coil unit that had signs of leakage and excessive wear and tear on the insulation.</p> <p>AHUs were newer but showed signs of wear and tear. AHU 1-06 and AHU 2-06 showed signs of wear on the connection and insulation. Additionally, multiple AHUs were making whirring or vibrating noises and had signs of leakage around the floor drain.</p> <p>RTUs showed signs of weather wear and were observed to be in average condition. RTU 1-06 had insulation missing from the connection lines on the back of the unit. RTU 2-06 was making a buzzing noise when operating. RTU 3-06 was significantly older than other RTUs and showed signs of corrosion and rust. The janitorial closets CC11 and CC21 had aged and worn ductwork. The counselors' area and administrative conference rooms were very warm, indicating the corresponding HVAC unit (BCU 5-06) was potentially not functioning properly.</p> <p>The HVAC system appeared to be in average condition with wear associated with the age of the units. Roof top vents and EFs showed signs of age and deterioration. Multiple HVAC units were using R-22 refrigerant, which is outdated and being phased out of use.</p> | |
| Fire Protection | Fire Alarm | <p>The building has a fire alarm system that consists of alarm and signaling devices such as strobes, horn/strobe combinations, pull stations, and detectors.</p> <p>The fire alarm system appeared to be in good condition. Many of the interior end devices appeared dated and were approaching the end of their service life. One exterior-mounted end device at the stage egress was extremely worn and dated past service life expectancy.</p> | Good |
| | Fire Protection/Suppression | <p>A fire suppression system is present for the range hood in the kitchen with a tank mounted to the wall at the ceiling. The remaining fire suppression system consists of fire extinguishers throughout the building.</p> <p>Visual inspection showed these were observed to be in average condition. The majority of the extinguishers were observed to be up to date with their inspections. The fire extinguisher in room KITMECH was out of date on its annual inspection.</p> | Average |
| Electrical | Electrical Distribution | <p>The electrical service enters the building at the 120/208Y-volt, 1600-amp main switchboard located in room MAINMECH on the north end of the building. The building does not have a lightning protection system.</p> <p>The electrical distribution equipment appeared to be in average condition. Several electrical panelboards throughout the building were original to construction and past their service life expectancy. Panel K in the kitchen was found with a missing breaker cover, which should be considered a life safety issue. Panel 1PJZ SEC 2 in</p> | Average |

| System | Subsystem | Condition and Deficiency Overview | System Condition Rating |
|--------|---------------------------|---|-------------------------|
| | | <p>the MAINMECH room was observed with an open front cover due to missing screws, allowing access to the live electrical components, and should be considered a life safety issue. The building had a number of dated or damaged shutoff switches for mechanical and HVAC equipment. One roof top safety switch was hanging by the connected conduit without a mount.</p> <p>School faculty have expressed concern over the age of the original panelboards and requested replacements. Faculty reported that many panelboards were at full capacity and caused frequent circuit trips.</p> | |
| | Lighting | <p>The building's exterior lighting consists of wall-mount, canopy, and strip light luminaires. Exterior luminaires are predominantly high-pressure sodium/metal-halide and fluorescent types, although some of the canopy lights have incandescent lamps. Exterior lighting is located around the building's exterior walls, covered walkways, and building egresses. The interior lighting consists primarily of recessed troffer fluorescent luminaires, although some storage/janitorial rooms have various downlight luminaires. Emergency lighting luminaires are installed throughout the building.</p> <p>The lighting for the building appeared to be in average condition. Many exterior luminaires were discolored, aged past their design life, or damaged. Many exterior canopy luminaires were missing lens covers. Interior lighting deficiencies were limited to non-functional or burned-out lamps. Roof top conduit was found loose or damaged in several areas. One roof top electrical receptacle was found with a missing cover. Faculty reported that the exterior lighting was inadequate and requested LED replacements. Faculty also reported that the classroom lighting was upgraded recently, but other areas of the building had dated luminaires. The assorted lamps and luminaire types have created maintenance challenges.</p> | Average |
| | Communications & Security | <p>The building is equipped with telecommunications/cabling systems, with the main backbone equipment located in rooms MDF (inaccessible), TELECOM, MAINMECH, and AHU3. Networking Wi-Fi access points are installed throughout the building.</p> <p>The building security consists of surveillance cameras, motion detectors, and a proximity card access system.</p> | Good |

| System | Subsystem | Condition and Deficiency Overview | System Condition Rating |
|--------|-----------|--|-------------------------|
| | | <p>Exterior surveillance cameras overlook the parking lot/drop off area, the main entrance, and the building entrance on the north-end (gymnasium area). Interior surveillance cameras are located within corridors overlooking entrances, the administrative area, and within the kitchen. Motion detectors are located throughout the building.</p> <p>The communications and security system appeared to be in good condition. Telecommunications/cabling systems were damaged and improperly mounted on the exterior of the building. Some storage rooms had poorly routed or damaged telecommunications/cabling systems.</p> <p>Faculty reported that the building had inadequate surveillance coverage and requested cameras for the cafeteria and the north-end parking lot. Faculty reported that the main entrance exterior surveillance camera had very poor visibility.</p> | |

Roofing Deficiency Examples



Interior Construction Deficiency Examples

Interior Doors



Stairs Deficiency Examples

Exterior stairs

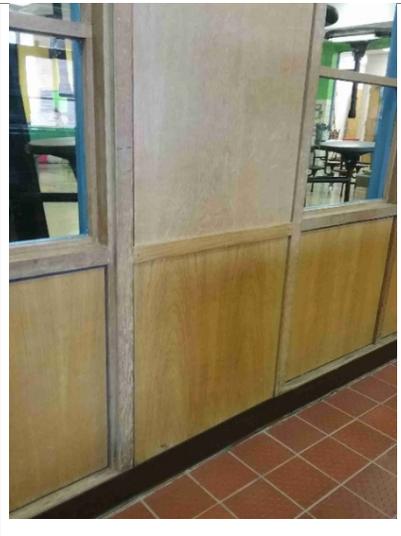


Interior Stairs



Interior Finishes Deficiency Examples

Interior Wall Finishes



Interior Floor Finishes

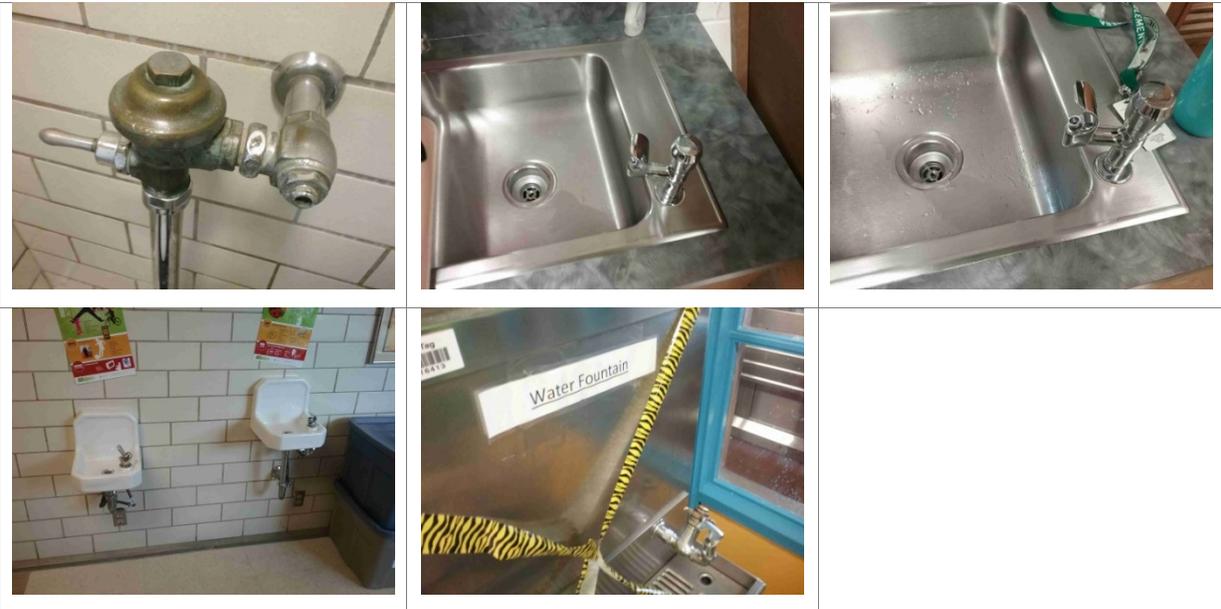


Interior Ceiling Finishes



Plumbing System Deficiency Examples

Plumbing Fixtures

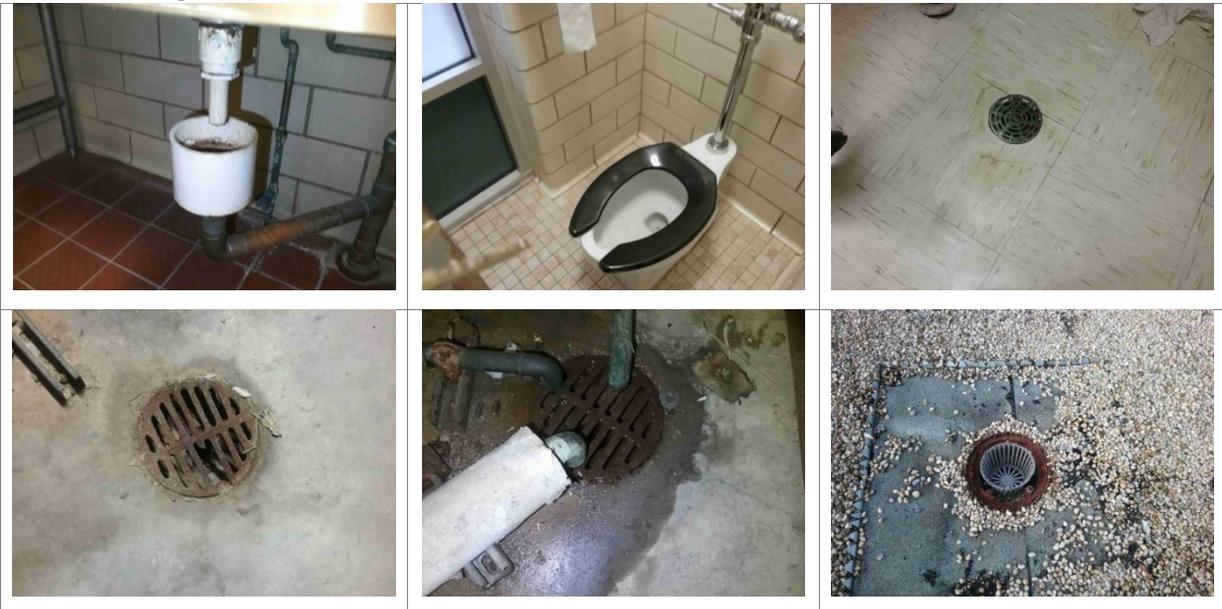




Domestic Water Distribution

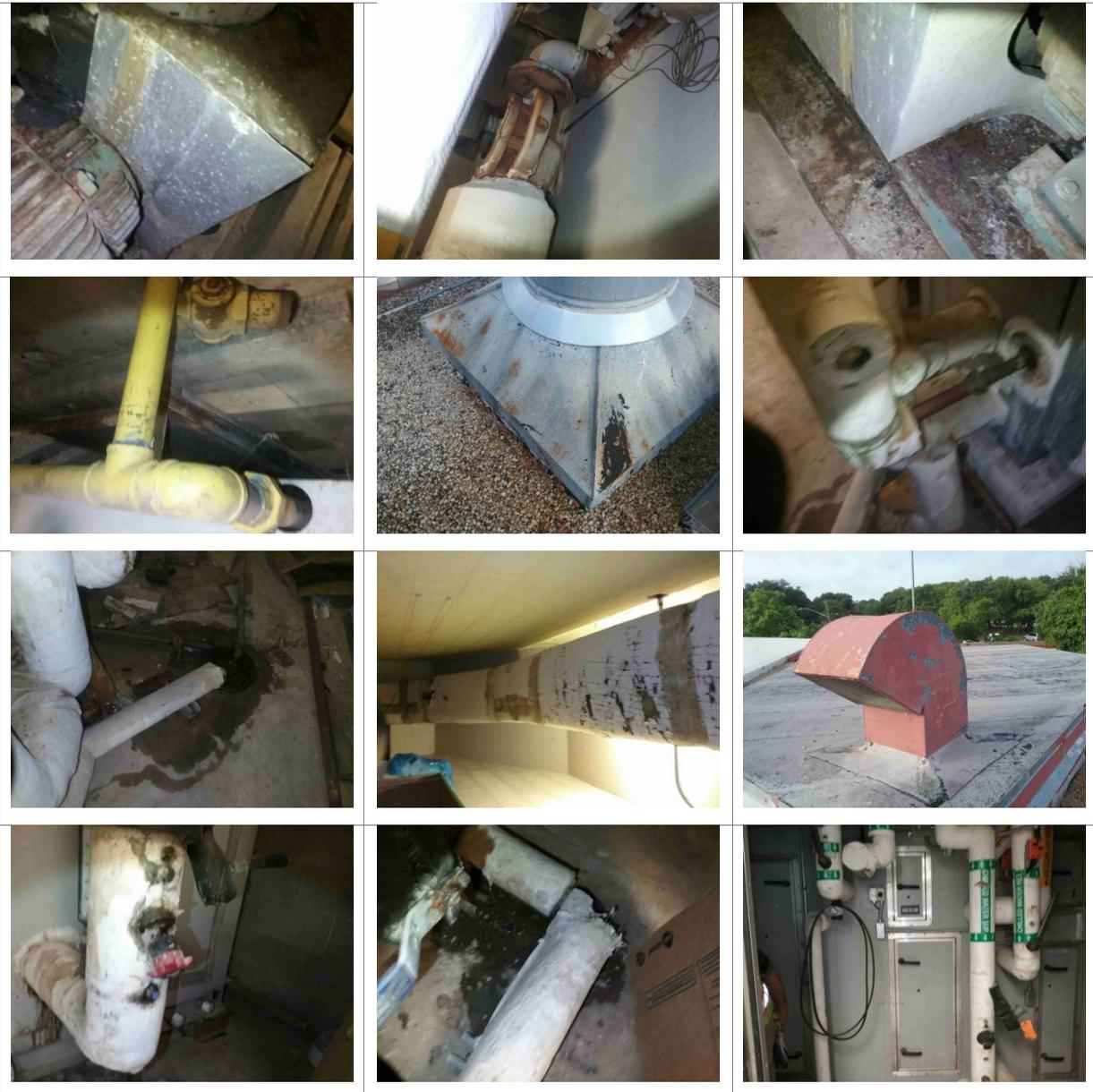


Other Plumbing





Mechanical/HVAC System Deficiency Examples





Fire Protection System Deficiency Examples

Fire Alarm

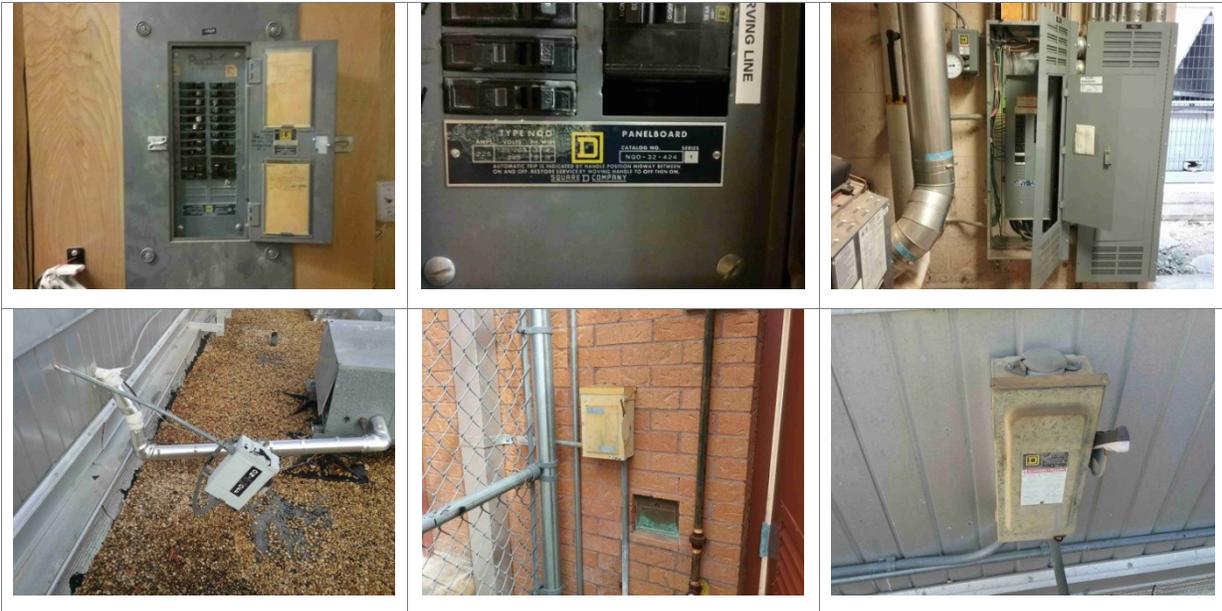


Fire Protection/Suppression



Electrical System Deficiency Examples

Electrical Distribution



Lighting





Communications & Security



Stand-Alone Gymnasium Building – BLDG-103B

| | |
|--------------------------|--|
| Building Purpose | Gymnasium |
| Building Area | 2,985 SF |
| Inspection Date | July 27 and 28, 2016 |
| Inspection Conditions | July 27 - 92°F - Rainy July 28 - 96°F - 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 walls are a brick facade and painted stucco above full-height painted louvers on the west side. There is an exterior covered walkway along the east side of the building. The exterior brick and stucco appeared to be in good condition. There was a pest issue in the louvers on the west side. | Good |
| | Exterior Windows | The exterior windows on the gymnasium are single-pane aluminum-framed windows. The exterior windows appeared to be in good condition. | Good |
| | Exterior Doors | The exterior doors are painted metal with painted metal frames. The doors have half vision lites. The exterior doors on the gymnasium appeared to be in average condition. The doors and frames were serviceable but required a new paint finish. | Average |
| Roofing | The roof covering is a built-up roof membrane with roof gravel. There are six skylights on the gymnasium roof. There is a covered walkway on the east side of the gymnasium that has modified bitumen roofing. The gymnasium restrooms, storage rooms, and office roofs are lower than the gymnasium itself and have modified bitumen roof covering. Facility staff reported the roof coverings on campus were replaced five years ago. The roof covering appeared to be in good condition with some discolored areas on the south portion of the built-up roof, likely due to previous standing water. There was a bubble in the modified bitumen roof covering near the north end of the exterior covered walkway. | | Good |

| System | Subsystem | Condition and Deficiency Overview | System Condition Rating |
|------------------------------|-----------------------------|---|-------------------------|
| Interior Construction | Interior Walls | The interior walls are structural glazed tile from the floor to approximately 5'-4" above the floor. CMU is installed from this point extending to the ceiling. The walls appeared to be in good condition. | Good |
| | Interior Doors | The interior doors are stained solid-core wood set in painted hollow metal frames. These assemblies appeared to be in good serviceable condition, but an average rating was given due to the marring and scratches that were present. | Average |
| | Interior Specialties | System not present. | N/A |
| Stairs | Exterior Stairs | There are concrete exterior stairs on the north end of the gymnasium. The concrete stairs were observed to be in good condition with normal wear. The handrail paint was peeling. | Good |
| | Interior Stairs | System not present. | N/A |
| Interior Finishes | Interior Wall Finishes | The interior wall finishes include paint on the CMU walls and plastic laminate-clad panels in some areas. The wall finishes appeared to be in good condition. | Good |
| | Interior Floor Finishes | Athletic floor tile is installed on the floor. The tile floor appeared to be in good condition though cleaning was required. | Good |
| | Interior Ceiling Finishes | The ceiling finish is the exposed underside of the tectum roof panels. These panels appeared to be discolored with age but not damaged. The inside finish of the six skylight curbs appeared to be in good condition. | Good |
| Conveying | System not present. | | N/A |
| Plumbing | Plumbing Fixtures | The building contains a single-use personal restroom with a shower. The restroom contains a floor-mounted vitreous china water closet and wall-mounted vitreous china hand washing sink. The gymnasium restroom also contains a single-use shower. The majority of plumbing fixtures were observed to be in average working condition. The shower located inside of the gymnasium office had items stored in it and was unable to be assessed for operation. Visual inspection showed it to be in average condition. The water closet in the gymnasium office had signs of build-up on the inside. | Average |
| | Domestic Water Distribution | No water heaters were observed in the building. The plumbing distribution appeared to be in average | Average |

| System | Subsystem | Condition and Deficiency Overview | System Condition Rating |
|-----------------------------|---------------------------------|--|-------------------------|
| | | condition with evidence of corrosion visible. It was reported that the shower in the gymnasium office did not have hot water flowing to it, making it unusable. The domestic water system appeared to be in average condition with typical wear and tear associated with the system's age and general daily use. | |
| | Other Plumbing | Floor drains in the restrooms were observed to be in good condition. | Good |
| Mechanical/ HVAC | | The HVAC system is composed of two blower cooling units that are ceiling-mounted in the gymnasium. The blower cooling units were not accessible, but visual inspection determined they were observed to be in average condition due to age. | Average |
| Fire Protection | Fire Alarm | The building has a fire alarm system that consists of alarm and signaling devices such as strobes, horn/strobe combinations, pull stations, and detectors. The fire alarm system appeared to be in good condition. | Good |
| | Fire Protection/ Suppression | The building does not contain a fire suppression system. There is one fire extinguisher. The fire extinguisher in room GYMOFC was observed to be out of date on its annual inspection. | N/A |
| Electrical | Electrical Distribution | The main electrical distribution for the building is a single 100-amp panelboard. The electrical distribution system appeared to be in average condition. The single panelboard appeared to be original to the building's construction and was past its service life expectancy. Faculty reported that the panelboard was at full capacity and caused frequent circuit trips. | Average |
| | Lighting | The building's exterior lighting consists predominantly of canopy-style metal-halide luminaires on the exterior covered walkway. Interior lighting is predominantly suspended strip light and downlight fluorescent luminaires. Emergency lighting luminaires were present within the gymnasium and the exterior connected corridor. The lighting for the building appeared to be in average condition. One restroom had a missing lamp and luminaire cover. Exterior metal-halide canopy luminaires were worn and discolored. The exit sign luminaires did not function. | Average |
| | Communications & Security | The building is equipped with telecommunications and cabling systems. A networking Wi-Fi access point is installed within the gymnasium. The building has a | Average |

| System | Subsystem | Condition and Deficiency Overview | System Condition Rating |
|--------|-----------|---|-------------------------|
| | | <p>single exterior surveillance camera overlooking the portable building area. No interior surveillance cameras were observed. Motion detection sensors are present within the gymnasium.</p> <p>The building communications and security systems were observed to be in average condition. Telecommunications and cabling systems were damaged in several areas of the building.</p> | |

Exterior System Deficiency Examples

Exterior Walls



Exterior Doors



Roofing Deficiency Examples



Interior Construction Deficiency Examples

Interior Doors



Interior Finish Deficiency Examples

Interior Floor Finishes



Plumbing System Deficiency Examples

Plumbing Fixtures



Domestic Water Distribution



Fire Protection

Fire Protection/Suppression



Electrical System Deficiency Examples

Electrical Distribution



Lighting



Communications & Security



Music Building – BLDG-103C

| | |
|--------------------------|--|
| Building Purpose | Music Room |
| Building Area | 3,205 SF |
| Inspection Date | July 27 and 28, 2016 |
| Inspection Conditions | July 27 - 92°F - Rainy July 28 - 96°F - 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 walls are brick façade constructed in 2007. There is a metal screen independent of the building protecting the east facing windows. The exterior walls appeared to be in good condition. | Good |
| | Exterior Windows | The exterior windows are single-pane aluminum-framed windows. The exterior windows appeared to be in good condition. | Good |
| | Exterior Doors | The exterior doors are painted metal with painted metal frames. The majority of doors have half vision glass. There are aluminum transom windows at the exterior entrances. The exterior doors appeared to be in good condition. | Good |
| Roofing | The roof covering is modified bitumen with a prefinished metal parapet cap, gutters, and downspouts. The building was constructed in 2007. The roof covering appeared to be in good condition. | | Good |
| Interior Construction | Interior Walls | The corridor wall is brick. All other walls are gypsum wallboard on conventional stud framing. The walls appeared to be in good condition. | Good |
| | Interior Doors | Stained, solid core wood doors are installed in painted hollow metal frames. The door assembly between the main music room and the music lab includes fixed window panels. Door assemblies appeared to be in good condition. | Good |
| | Interior Specialties | System not present. | N/A |
| Stairs | Exterior Stairs | System not present. | N/A |

| System | Subsystem | Condition and Deficiency Overview | System Condition Rating |
|--------------------------|---|---|-------------------------|
| | Interior Stairs | System not present. | N/A |
| Interior Finishes | Interior Wall Finishes | Gypsum board walls are painted in the music suite. Natural finished brick is in the corridor. Wall finishes appeared to be in good condition. | Good |
| | Interior Floor Finishes | Broadloom carpet and vinyl wall base are installed in the main music classroom and lab. Resilient tile and vinyl wall base are installed in the music storage area. Sealed concrete is installed in the adjacent corridor with a stainless steel strip applied for base at the bottom of the brick wall. All finishes appeared to be in good condition and well maintained. | Good |
| | Interior Ceiling Finishes | The interior ceiling finish is 2'x4' acoustic tiles installed in a suspended grid system. This assembly appeared to be in good condition. | Good |
| Conveying | System not present. | | N/A |
| Plumbing | Plumbing Fixtures | The building contains multi-use restrooms outside of the music room. The restrooms contain floor-mounted vitreous china water closets and wall-mounted vitreous china sinks. Wall-mounted vitreous china urinals are found in the dedicated multi-use male restroom. A stainless steel drinking fountain and water bottle fill station are in the corridor outside of the music room. The music room contains a stainless steel sink and drinking fountain combination. A kiln room houses a stainless basin washing sink. The plumbing fixtures were observed to be in good working condition. | Good |
| | Domestic Water Distribution | No water heaters were observed in building. The plumbing distribution equipment appeared to be in good condition. | Good |
| | Other Plumbing | Floor drains in the restrooms were observed to be in good condition. | Good |
| Mechanical/ HVAC | The HVAC system is composed of a roof top AHU and various sized EFs for the restrooms and kiln room. The roof top AHU had signs of weathering, corrosion, and rust. The building's HVAC system 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 strobes, horn/ strobe combos, and detectors. The fire alarm system appeared 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. There is one fire extinguisher. Visual inspection of the fire extinguisher determined that it was out of date for its annual inspection. | N/A |
| Electrical | Electrical Distribution | The building appears to source its electrical feed from BLDG-103A. Electrical distribution equipment is limited to a HVAC controller. The electrical distribution system appeared to be in good condition. | Good |
| | Lighting | The building's exterior lighting consists of one wall-mounted metal halide luminaire on the south side of the building. Interior lighting is predominantly recessed troffer and ceiling-mounted strip fluorescent luminaires. The lighting for the building appeared to be in good condition. | Good |
| | Communications & Security | The building is equipped with telecommunications systems. Networking Wi-Fi access points are installed throughout the building. The building security consists of surveillance cameras and motion detectors. There is one exterior surveillance camera that overlooks the east portion of the facility. There is one interior surveillance camera within the connected corridor overlooking the corridor egress. Motion detectors are present within the building. The building's communications and security systems were observed to be in good condition. | Good |

Mechanical/HVAC System Deficiency Examples



Fire Protection System Deficiency Examples

Fire Protection/Suppression



Barton Hills 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

Fire Protection

1. Inspect fire extinguishers that are out of date on annual inspections, and replace if necessary.

Electrical

1. Replace the exterior luminaires that are damaged or have exceeded their service life expectancy with LED luminaires.
2. Replace original (1964) panelboards throughout the facility.
3. Replace burned-out lamps and missing lens covers for luminaires throughout the facility.
4. Install surveillance cameras to overlook the north-end parking lot.

Main School Building Recommendations.

Roofing

1. Consult a roofing contractor to remedy areas of ponding water. Options may include repitching the roof, installing crickets to redirect water, additional drains, or other procedures.

Interior Construction

1. Survey doors to determine those requiring new finishes.

Stairs

1. Repaint the exterior stair railings off of corridor C3.
2. Add handrail/guardrails to exterior stair at KITMOPRM.
3. Install handrails to interior stairs each side of cafeteria stage.

Interior Finishes

1. Refinish the stained wood frames and panels on the kitchen side of the cafeteria wall and under windows in corridor stairwells.
2. Investigate if resilient floor tile and floor glue in the cafeteria and cafeteria toilet rooms contain asbestos. Once determined, proceed as required to refinish or install new tile in these areas.
3. Refinish resilient floor tile in rooms 102, 103, and 104.
4. Replace ceiling tiles in the cafeteria toilet rooms.

Plumbing

1. Repair or replace drinking fountains that observed to be broken or not functioning properly.
2. Repair faucets observed to be leaking.
3. Repair or replace the hand washing sink outside of the cafeteria that is cracked and has corroded handles.
4. 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.
5. Verify the functionality of the GWH in AHUCAFE, and repair or replace as necessary.
6. Repair the sink in room 104 that has evidence of leaks underneath it.
7. Inspect, clean and repair plumbing in multiple restrooms that are emitting an unpleasant odor.
8. Replace plumbing fixtures that are beyond their expected design life need before failure occurs.

9. Clean and flush out all floor drains to ensure adequate drainage. It was reported these are not draining properly.
10. Remove debris from around roof drains that could cause clogging.

Mechanical/HVAC

1. Repair HVAC equipment noted to have evidence of leaks.
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. Replace HVAC equipment that is beyond its expected design life before failure occurs.
3. Repair or replace insulation that was noted to be damaged or missing.
4. Repair any equipment that was noted with excessive noise/vibration.
5. Replace HVAC units that use R-22 refrigerant, which is outdated and being phased out of use. These systems may need to be replaced before they meet their design life due to refrigeration restrictions.
6. Repair or replace the HVAC unit for the administration and conference room area that was not cooling adequately.

Fire Protection

1. Investigate the operation of existing interior fire alarm end devices and replace as needed.
2. Replace the worn fire alarm exterior end device at the stage egress.

Electrical

1. Repair the loose access cover on Panel 1PJZ SEC2 located in MAINMECH.
2. Install a breaker slot cover in Panel K located in the kitchen. This should be considered a life safety issue.
3. Replace damaged or worn shutoff switches for mechanical and HVAC equipment.
4. Install proper support for the hanging safety switch on the roof top.
5. Upgrade existing panelboards that are at full capacity.
6. Replace/repair damaged or loose conduit located on the roof.
7. Replace and secure damaged telecommunications and cabling systems throughout the building.
8. Install an interior surveillance camera for the cafeteria.
9. Upgrade the main entrance's exterior surveillance camera with a higher resolution model, as requested by faculty.
10. Replace damaged or missing electrical outlet covers on the roof top.

Stand-Alone Gymnasium Recommendations

Exterior

1. Provide pest removal and pest control at exterior louvers on the gymnasium.
2. Paint exterior doors and frame assemblies.

Roofing

1. Consult a roofing contractor to remedy areas of ponding water. Options may include repitching the roof, installing crickets to redirect water, additional drains, or other procedures.
2. Inspect the modified bitumen roof for bubbling or cracking of the membrane and patch as required.

Interior Finishes

1. Clean, and if required, refinish the gymnasium athletic floor tile.

Plumbing

1. Verify the functionality of the shower in the gymnasium office, and repair if necessary.
2. Clean out the water closet in the gymnasium office observed to have build-up inside of it.
3. 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.

Mechanical/HVAC

1. Verify the functionality of the ceiling-mounted blower coiling units. Replace if they are using R-22 refrigerant, which is outdated and being phased out of use. These systems may need to be replaced before they meet their design life due to refrigeration restrictions.

Electrical

1. Repair damaged telecommunications and cabling systems throughout the building.
2. Upgrade the single panelboard that is at full capacity.
3. Replace lamps within exit sign luminaires.

Music Room Building Recommendations

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.

CRAWL SPACE – Barton Hills ES – Main Building (BLDG-103A)

| | |
|-----------------------|--|
| Building Purpose | Administrative offices, Classrooms, Cafeteria, and Library |
| Inspection Date | August 31, 2016 |
| Inspection Conditions | 87° - Sunny & Dry |

Crawl Space System Deficiency Overview

NOTES CONCERNING CRAWL SPACE OBSERVATIONS: Plans for the original main building were extremely difficult to read and most of the details could not be deciphered.

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 |
|---|---|--|-------------------------|
| Soil, Drainage, Ventilation & Access | Soil Below Building, Site Drainage in Crawl Space | The soil in the crawl space ranged from dry to slightly damp in the main building and was mostly dry in the library addition. A drainage system was not detected (nor was one detailed on the existing plans). No significant deficiencies were observed. | Good |
| | Soil Retainers | No soil retainers were visible nor were they detailed in the existing plans. | N/A |
| | Areaways/Ventilation | While the ventilation in the library addition seemed adequate, the air was humid and stagnant in the original building crawl space and likely requires improvement. Areaway/ventilation deficiencies: <ul style="list-style-type: none"> Poor ventilation in main building crawl space | Average |
| | Access Hatches | The crawl spaces were accessed through an opening in the basement wall and side hatches which all appeared in good condition. The basement access points detailed in the original plans for the crawl spaces near Rooms 101-104 and the Gymnasium were not found. All hatches located were found to be operational and without significant deficiencies. We did not attempt to locate the kitchen hatch mentioned in the interview notes as the crawl space in the vicinity was accessed through a wall opening inside the basement below the kitchen. | Good |
| Exposed | Exposed Columns & Tops of Foundations | Other than minor honeycombing observed in the original building, the columns and tops of foundations appeared to be | Good |

| | | | |
|---|--|---|---------|
| Structure | | <p>in good condition.</p> <p>Pier/column deficiencies:</p> <ul style="list-style-type: none"> Limited, minor honeycombing in a few areas | |
| | Exposed Faces of Perimeter Walls / Beams | <p>The perimeter walls in the original building had rusted form ties still in place. Regardless, the walls appeared in good condition in both buildings. No significant deficiencies were observed.</p> | Good |
| | Exposed Portions of Interior Floor Beams Above | <p>The cast-in-place concrete floor beams in the original building are supported by interior columns and perimeter concrete walls and are in good condition except for mild to moderate honeycombing. The steel floor beams in the addition are supported by CMU columns and perimeter walls and appeared in good condition.</p> <p>Perimeter wall/beam deficiencies:</p> <ul style="list-style-type: none"> Moderate honeycombing | Average |
| | Underside of Suspended Floor Slabs Above | <p>The original building floor system had moderate to advanced spalling and longitudinal cracking in pan joist webs with exposed, corroded reinforcement that ranged from moderate to advanced in severity. Longitudinal cracking and spalling is likely due to insufficient clear cover for the web longitudinal reinforcement. Exposed slab reinforcement was also seen periodically in bottom of slab and around pipe penetrations. The steel deck at the additions was mostly concealed behind batt insulation but appeared in good condition where visible.</p> <p>Slab deficiencies:</p> <ul style="list-style-type: none"> Moderate to advanced spalling in pan joist webs Longitudinal cracking in pan joist webs Exposed and significantly corroded bottom longitudinal bars in pan joist webs Exposed slab reinforcement in bottom of slab and around pipe penetrations | Poor |
| Pipes, Ducts, Equipment & Fireproofing | Suspended Pipes & Hangers | <p>The pipes in the original building were generally in decent condition except for 2 pipes with heavy leaks. Occasional moldy or degraded pipe insulation, and corrosion on pipes and pipe hangers were also observed. In the library addition, while minor corrosion was observed on pipe supports, the pipes appeared in good overall condition.</p> <p>Pipe deficiencies:</p> <ul style="list-style-type: none"> Leaking pipes Moldy and/or degraded pipe insulation | Average |

| | | | |
|--|-----------------------------------|---|---------|
| | | <ul style="list-style-type: none"> Corroded pipe hangers | |
| | Exposed Ductwork | Ducts were seen in the library addition only. The rigid ducts were internally insulated while the flexible ducts were externally insulated. No deficiencies were observed. | Good |
| | MEP Equipment | MEP equipment was seen in the library addition only. No deficiencies were observed. | Good |
| | Spray Fireproofing/ Insulation | <p>No fireproofing was present in the crawl space areas observed. The underside of the library addition slab was covered with batt insulation. The insulation had fallen off in a few places but was otherwise in good condition.</p> <p>Insulation deficiencies:</p> <ul style="list-style-type: none"> Areas with detached slab insulation | Average |

Crawl Space Deficiency Examples

Exposed Structure

| | | |
|---|---|--|
|  <p>Minor honeycombing at column</p> |  <p>Moderate honeycombing at interior beam</p> |  <p>Significant spalling at pan joist web with significantly corroded longitudinal reinforcement</p> |
|  <p>Cracking/spalling in pan joist web</p> |  <p>Exposed reinforcement in underside of slab and at pipe penetration</p> | |

Pipes, Ducts, Equipment & Fireproofing

| | | |
|--|--|--|
|  <p>Leaking pipe & pipe corrosion</p> |  <p>Moldy pipe insulation</p> |  <p>Corroded pipe support</p> |
|  <p>Detached slab insulation</p> | | |

CRAWL SPACE – Barton Hills ES – Stand Alone Gym (BLDG-103B)

| | |
|-----------------------|-------------------|
| Building Purpose | Stand-Alone Gym |
| Inspection Date | August 31, 2016 |
| Inspection Conditions | 87° - Sunny & Dry |

Crawl Space System Deficiency Overview

NOTES CONCERNING CRAWL SPACE OBSERVATIONS: Only the 1998 addition portion of Building B had an accessible crawl space. The original side hatch on the north wall of the original building was covered by the wall of the storage addition.

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 |
|---|---|---|-------------------------|
| Soil, Drainage, Ventilation & Access | Soil Below Building, Site Drainage in Crawl Space | The soil in the crawl space area observed was dry. No deficiencies were observed. A drainage system was not detected (nor was one detailed on the existing plans). | Good |
| | Soil Retainers | No soil retainers were visible nor were they detailed in the existing plans. | N/A |
| | Areaways/Ventilation | Ventilation appeared adequate, although the means of ventilation not clear – no areaways or wall vents were observed. No deficiencies were observed. | Good |
| | Access Hatches | The access hatch was located on the perimeter wall. No deficiencies were observed and no other hatches were seen. | Good |
| Exposed Structure | Exposed Columns & Tops of Foundations | No interior columns or foundations were present in the limited crawl space area observed. | N/A |
| | Exposed Faces of Perimeter Walls / Beams | The perimeter walls are composed of reinforced CMU masonry on continuous strip footings and appeared in good condition. No deficiencies were observed. | Good |
| | Exposed Portions of Interior Floor Beams Above | Steel floor beams are supported by perimeter CMU walls and support metal deck and concrete topping. In the limited area observed, the beams appeared in good condition without any deficiencies observed. | Good |

| | | | |
|---|--|--|------|
| | Underside of Suspended Floor Slabs Above | The floor slab consisted of metal deck supporting concrete topping. The concrete topping was not exposed for observation but the exposed underside of metal deck appeared in good condition without deficiencies | Good |
| Pipes, Ducts, Equipment & Fireproofing | Suspended Pipes & Hangers | No pipes were present in the crawl space area observed. | N/A |
| | Exposed Ductwork | No ducts were present in the crawl space area observed. | N/A |
| | MEP Equipment | No MEP equipment was present in the crawl space area observed. | N/A |
| | Spray Fireproofing/ Insulation | No fireproofing or insulation was present in the crawl space area observed. | N/A |

CRAWL SPACE – Barton Hills ES – Music Building (BLDG-103C)

| | |
|-----------------------|----------------|
| Building Purpose | Music Building |
| Inspection Date | |
| Inspection Conditions | |

Crawl Space System Deficiency Overview

The music building is constructed with grade-bearing beams and slab-on-grade and does not have a crawl space.

Barton Hills ES – Campus Summary of Crawl Space 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.

Building A Recommendations

Soil, Drainage, Ventilation & Access

1. Investigate need for improved ventilation.

Exposed Structure

1. Repair significantly damaged concrete floor joists by cleaning exposed reinforcement and patching spalled concrete.
2. Clean and protect exposed reinforcement in underside of slab and protect from further corrosion.

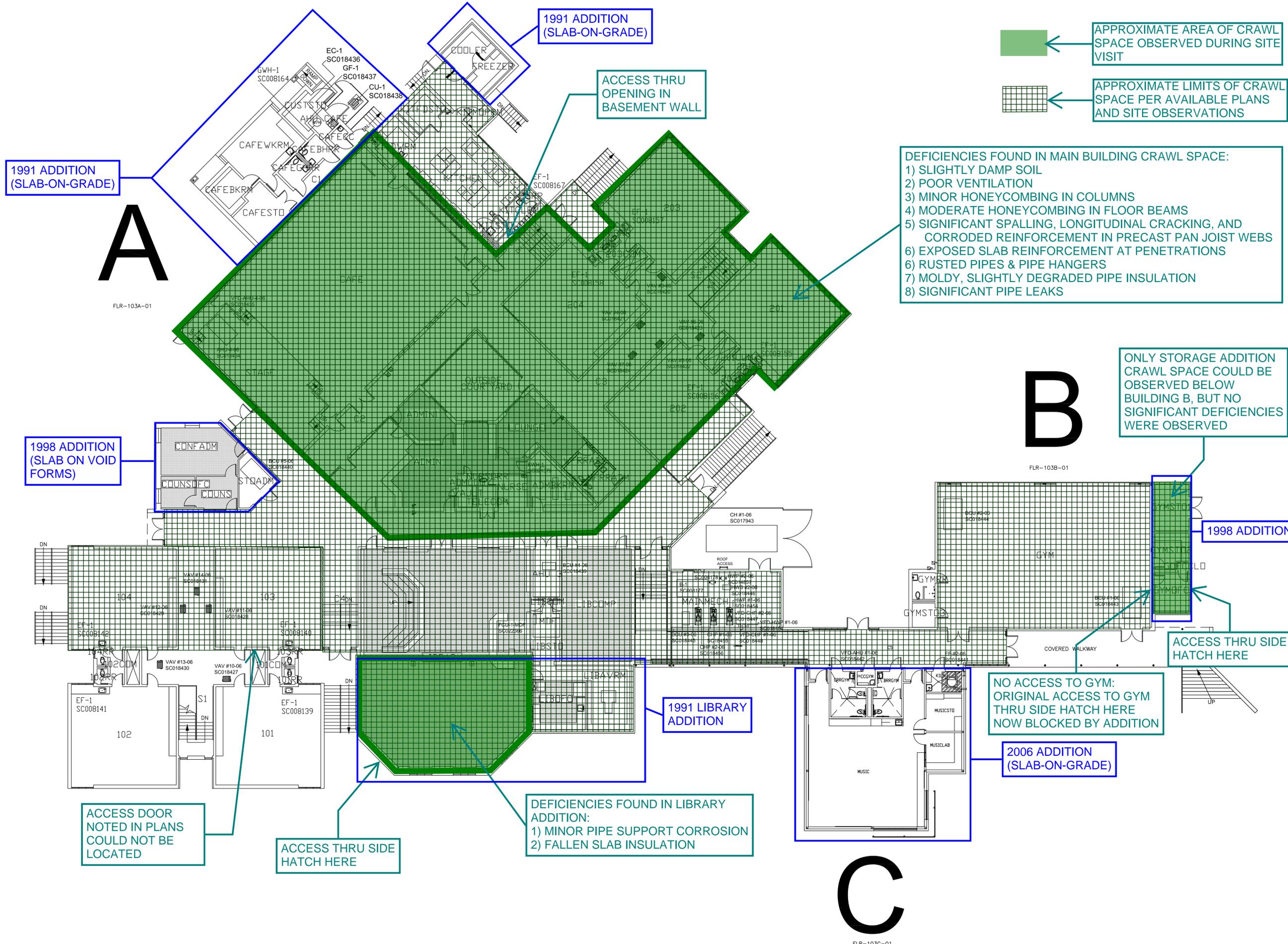
Pipes, Ducts, Equipment & Fireproofing

1. Repair leaking pipes immediately.
2. Replace heavily corroded pipes and hangers.
3. Replace degraded and moldy pipe insulation.
4. Replace or reattach fallen slab insulation.

Building B Recommendations

Soil, Drainage, Ventilation & Access

1. Investigate need for improved ventilation.



- DEFICIENCIES FOUND IN MAIN BUILDING CRAWL SPACE:
- 1) SLIGHTLY DAMP SOIL
 - 2) POOR VENTILATION
 - 3) MINOR HONEYCOMBING IN COLUMNS
 - 4) MODERATE HONEYCOMBING IN FLOOR BEAMS
 - 5) SIGNIFICANT SPALLING, LONGITUDINAL CRACKING, AND CORRODED REINFORCEMENT IN PRECAST PAN JOIST WEBS
 - 6) EXPOSED SLAB REINFORCEMENT AT PENETRATIONS
 - 7) RUSTED PIPES & PIPE HANGERS
 - 8) MOLDY, SLIGHTLY DEGRADED PIPE INSULATION

ONLY STORAGE ADDITION CRAWL SPACE COULD BE OBSERVED BELOW BUILDING B, BUT NO SIGNIFICANT DEFICIENCIES WERE OBSERVED

NO ACCESS TO GYM: ORIGINAL ACCESS TO GYM THRU SIDE HATCH HERE NOW BLOCKED BY ADDITION

DEFICIENCIES FOUND IN LIBRARY ADDITION:
 1) MINOR PIPE SUPPORT CORROSION
 2) FALLEN SLAB INSULATION

NORTH

AUSTIN I.S.D.
 DEPARTMENT OF CONSTRUCTION MANAGEMENT

BARTON HILLS ELEMENTARY SCHOOL
 2108 Barton Hills Dr.
 Austin, Texas

FLOOR PLAN
 1ST FLOOR

| APPROVALS | | |
|-----------------|---------|----------|
| DRAWN | CHECKED | APPROVED |
| J.R. | | |
| 12/06/12 | | |
| DWG: 103-FLR-01 | | SHEET |
| DRAWING SCALE | | |
| 1/16" = 1'-0" | | 1 OF 1 |