Houston Elementary School Site Summary

Address	5409 Ponciana Drive Austin, TX 78744
Number of Permanent Campus Facilities	4
Original Year of Construction	1976
Total Campus Building Area (combined)	81,206 SF

Introduction

The Houston Elementary School campus is located at 5409 Ponciana Drive, Austin, Texas. Houston Elementary School was built in 1976. It consists of four buildings: the Main School Building (BLDG-162A) with administration offices, classrooms, cafeteria, and library; a Stand-Alone Classroom Building (BLDG-162B); a Stand-Alone Gymnasium (BLDG-162C); and another Stand-Alone Classroom Building (BLDG-162D). BLDG-162A and BLDG-162D are connected with a metal walkway. BLDG-162A is also connected to BLDG-162B and BLDG-162C with a walkway.

Meeting Log		Revision Log		
Date	**Meeting**	**Revision**	**Date**	**Summary of Content**
8/8/16	Interview	00	9/9/16	Draft Issue
8/10/16	Assessment	01	12/22/16	Added comments from PM Andrew Miller as indicated on email dated 10/31/16. See pages 5, 16, 31, and 34.
9/19/16	Cluster Meeting (Attended or Not Attended)			

Main School Building – BLDG-162A

Building Purpose	Administration Offices, Classrooms, Cafeteria, and Library
Building Area	55,660 SF
Inspection Date	August 10, 2016
Inspection Conditions	100ºF - Hot and sunny
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 a brick façade. The exterior of the building appeared in average condition. The walkway structure was rusted in many areas. The metal lintels over the doors and windows were pitted with rust. The metal overhang over the east exit door was severely bent.	Average
	Exterior Windows	The windows are single-paned aluminum metal frames inset into the brick façade. There was no indication that there was any problems with the windows. They appeared to be in good condition.	Good
	Exterior Doors	There are many double exterior metal doors with lites throughout the building. Some exterior doors are solid metal with no lites. The exterior doors were observed to be in average condition. Paint on the door frames and doors was chipped in well-used areas. There was rust at the bottom of door frame number 304, and ants were infiltrating.	Average
Roofing	The main building has a modified bitumen roof covering. The roofing was observed to be in average condition. The majority of the roof had evidence of ponding throughout. Some areas on A-02 had significant blistering. The Staff reported that the downspouts outside of rooms 107, 109, and 111 were clogged. The downspout on the east wall was missing approximately five feet from the sidewalk.		Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Interior Construction	Interior Walls	The interior walls are gypsum board in the classrooms, administration area, library, and lobby. There is CMU (concrete masonry unit) in the cafeteria areas. This school is unique in that the classroom and library walls are only half walls that reach a height of six feet. The walls appeared to be in average condition.	Average
	Interior Doors	The interior doors are wood veneer with a lite in metal frames. Some are solid wood doors without side lites. Some doors are painted and have louvers. The interior doors appeared to be in average condition. The paint on the doors, lite frames, and astragals was chipped. Classroom restrooms' door frames were particularly rusted and pitted at the bottom. The door to the “breakfast room” off the cafeteria would not close. Most doors were worn, scratched, or chipped.	Average
	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 are painted gypsum board in the classrooms, administration area, library, and lobby. There is painted CMU in the cafeteria and exterior classroom wall areas. The corridors are gypsum board at the top and plastic laminate from the floor up to six feet. Most wall finishes were observed to be in average condition with some in poor condition. There were multiple scrapes, scratches, and gypsum board tears throughout the building.	Average
	Interior Floor Finishes	The interior floor finishes are VCT (vinyl composition tile) in the administration offices, corridors, cafeteria, and classrooms. Ceramic tile is in the restrooms and kitchen. The flooring is carpet in the library and three of the administration offices. There is wood flooring on the stage. All floorings appeared to be in good condition.	Good
	Interior Ceiling Finishes	The interior ceilings are ACT (acoustical ceiling tile) in metal grid in the classrooms, administration areas, library, and cafeteria. There are gypsum board ceilings in the restrooms. The ceiling systems appeared to be in average condition. There were many ceiling stains in the classrooms, male restroom, and teacher lounge area and significant stains on the east end of the building. It	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		was reported by two staff members that the stains were suspected to be caused by animal urine, and both had heard animals in the walls and ceilings.	
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, 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 vanities. The remainder of the facility's restrooms have vitreous china sinks with manual or metering faucets, along with vitreous china floor/wall-mount toilets and urinals with manual flushing valves. There are also wall-mounted service sinks in the janitorial closets. This building's restroom plumbing fixtures were observed to be in average condition. The staff reported the following deficiencies or planned/requested renovations with regard to the facility's plumbing fixtures: The public restrooms WRRCAFE TOILETF and MRRCAFE TOLIETM and student restrooms 100RR TOILET and 102RR TOILET are scheduled for renovation to create handicap access during the summer of 2017. It was reported that the sinks, faucets, and toilet fixtures throughout the campus were beyond their useful life and should be replaced. It was also reported that there was only one janitorial closet floor sink in the kitchen and staff requested that the janitorial closet CC300 also have a floor sink installed. The plumbing fixtures observed throughout the building were very aged, and some appeared to be original construction. Though the fixtures were aged, they were all functioning at the time of assessment. Other specific deficiencies noted during the assessment were many of the toilets appeared to flush slowly or had an insufficient amount of water volume, and the restroom partitions were also observed to be corroding.	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Domestic Water Distribution	The majority of the plumbing fixtures observed in this facility are not serviced by any domestic water distribution equipment, such as vertical water heaters. The remainder of the plumbing fixtures are in the commercial kitchen and appear to be serviced by two water heaters. The vertical GWHs (gas water heaters) are located in the main mechanical room and have the ability to produce 200 MBH and hold 100 gallons. Staff reported the following deficiencies or planned/requested renovations with regard to the facility's domestic water distribution system: It was reported that a three-inch water line was discovered to be leaking under the mechanical room that contains AHU (air handling unit)-6. The line was repaired; however, AISD Service Center Plumbing Staff stated that the water line to the building would have to be replaced. It was also reported that the facility's cast iron sanitary sewer and water lines were deteriorating and needed to be replaced. Additionally, it was reported that the sanitary sewer was corroding and needed to be replaced. The sanitary sewer had spot repairs based on work order requests, but was a recurring problem. The domestic distribution system was observed to be in average condition at the time of assessment. The following deficiencies were observed: During the assessment, one vertical GWH (SC004613) was observed to be aged and out of date based on its typical design life and had damaged insulation. The other vertical GWH (SC004614) was approaching the end of its typical design life, and the water heater's enclosure was dented and damaged.	Average
	Other Plumbing	The drains are predominantly designed with an interior type drainage system. In addition, all drains are equipped with either a plastic dome or flat carbon type covers. Many of the drains observed throughout the facility were aged and had corroded or broken covers but appeared to be functioning. Andrew Miller, ASID Construction Management, requests that the grease trap be considered for replacement. Andrew Miller also requested that the district should investigate the strong odor at the sanitary sewer manhole adjacent to the mechanical room.	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Mechanical/ HVAC	This building has multiple HVAC (heating, ventilation, and air conditioning) systems that service one floor level. The major mechanical equipment consists of indoor central station AHUs (air handling units). The HVAC system also includes two large roof top-mounted, rotary air-cooled chillers that have refrigeration cooling capacities of 110-TON and two horizontal gas-fired boilers with rated output capacities of 1,500 MBH. There are 14 HVAC systems throughout the building. The estimated capacities of the roof-mounted EFs (exhaust fans) range from 150 to 1,300 CFM (cubic feet per minute). The refrigeration capacities of HVAC units range from 2.5- to 110-TON. Staff reported the following deficiencies with regard to the facility's HVAC systems: It was reported that the EF in the art classroom was hard to reach and required frequent maintenance. Staff requested that the fan be replaced for ease of access and vented through the roof. It was also reported that the EFs throughout the facility were old and required frequent maintenance. It was requested that they be replaced and vented though the roof. The mechanical/HVAC systems for this facility were observed to be in poor condition. Many of the deficiencies observed were extreme aging of equipment and enclosure and piping damage due to excessive corrosion. Another widespread observed deficiency was the use of outdated refrigerant in some of the existing HVAC systems, refrigerant type R-22. Additional HVAC deficiencies were: The roof top-mounted chillers were installed in 1999 and originally charged with R-22 refrigerant. They are nearing the end of their typical design service life. The units had insulation damage from exposure to the elements and damage to compressor fins from weather. The chillers' ancillary equipment, such as condensation or chilled water centrifugal pump enclosures and discharge/return piping, were excessively corroded. Another deficiency observed was in regards to all the indoor AHUs. The AHUs appeared to have been installed when the building was constructed in 1976. The units observed had extreme corrosion on their enclosures. Additonally, The boilers' ancillary equipment had observed deficiencies, such as, the hot water supply pumps were corroded and had damage to their discharge and supply piping. Finally, the kitchen supply air EF, KSU-1 (SC004724) was observed to have reached the end of its typical design service life and had a weathered enclosure at the time of assessment.		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 appeared to be in good condition. The main electronic control panel indicated all systems were normal; however, facility staff reported that the alarm sounded occasionally and was difficult to silence.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Fire Protection/ Suppression	The building is not equipped with a fire sprinkler/suppression system; however, it is protected by portable fire extinguishers that are stationed throughout the building. All portable fire extinguishers observed were inspected within the last year.	N/A
Electrical	Electrical Distribution	The electrical service (utility transformer, exterior switchboard, and capacitor bank for the facility) appear to be located on the northwest side of the complex, adjacent to the main mechanical room. The main mechanical room houses a 480/277VAC, 1200A switchboard that appears to feed numerous subpanels throughout the building. Additional panelboards in the main mechanical room exist for various building services. The electrical distribution equipment was observed to be in average condition due to age or missing protective devices. Numerous panelboards have been replaced as additional load was required. The GE main switchboard “MAIN” located in the main mechanical room appeared to be nearing the end of its life expectancy but seemed to be operational. Another GE model “CCB” panelboard located in the main mechanical room appeared to be nearing the end of its life expectancy. This panelboard was set up similar to a motor control center and appeared to feed motors for mechanical equipment. GE panelboard “DH” also appeared to be nearing the end of its life expectancy. The cafeteria's electrical room contains a 75 kVA transformer that appeared to be nearing the end of its life expectancy. GE panelboard “LK” located in the cafeteria's electrical room appeared to be nearing the end of its life expectancy.	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. The front entry way is equipped with recessed exterior lighting fixtures. The parking lot and property areas are illuminated with pole lights that appeared to be recently updated compared to the rest of the building. The interior lighting is mainly fluorescent	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		with the occasional screw-type fixture in closets. The stage is equipped with specifically designed lighting to support stage productions. There are exit signs at every exit; however, various signs were not illuminated. The lighting was observed to be in good condition. Facility staff reported that the exterior lights were controlled by multiple photocells and timers and did not remain illuminated throughout the night. Staff also requested new lighting in the east parking lot. Facility staff reported that in many cases, one light switch supported four classrooms due to the configuration in the original construction of the building. The facility requested adding a switch for each classroom, allowing individual control. Also, interior lighting ballasts continued to fail although they were replaced in 2007. The facility also reported illumination in the crawlspace was inadequate, and additional lighting needed to be installed.	
	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 were no damaged security panels or cameras observed. There are also door frame-mount proximity readers for access into certain entrances, and a call box is located at the front entrance. The equipment appeared to be in good condition. Multiple communication closets exist housing network switches, hubs, and routers in a rack-style configuration. The facility appeared to have wireless routers installed in classroom ceilings strategically throughout the building. The equipment was observed to be in good condition. Facility staff reported that the wireless internet “drops out,” causing problems in communication.	Good

Exterior System Deficiency Examples

Exterior Walls



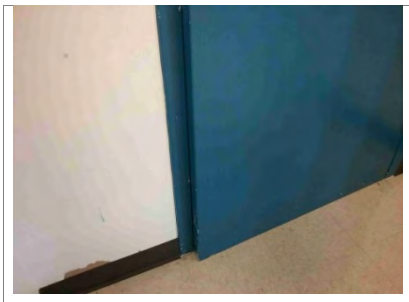
Exterior Doors


Roofing Deficiency Examples



Interior Construction Deficiency Examples

Interior Doors



Interior Finishes Deficiency Examples

Interior Wall Finishes



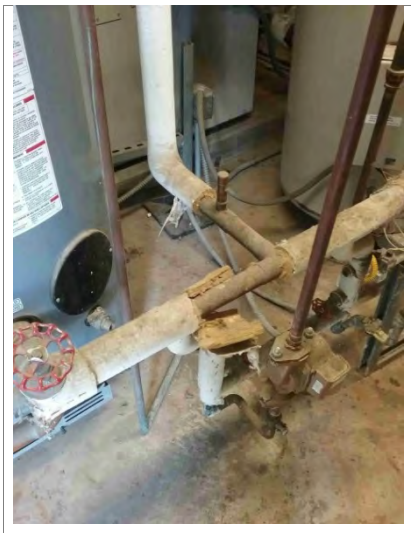
Interior Ceiling Finishes

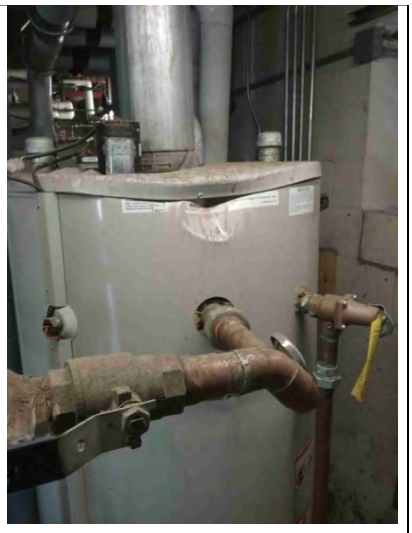

Plumbing System Deficiency Examples

Plumbing Fixtures

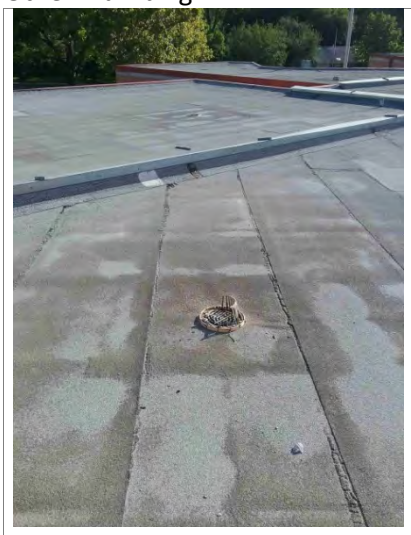


Domestic Water Distribution





Other Plumbing



Mechanical/HVAC System Deficiency Examples








Electrical System Deficiency Examples

Electrical Distribution

Stand-Alone Classroom Building – BLDG-162B

Building Purpose	Classrooms
Building Area	8,863 SF
Inspection Date	August 10, 2016
Inspection Conditions	100ºF - Hot and sunny
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 a brick façade. The exterior of the building appeared to be in good condition. The metal lintels over the door overhangs were pitted with rust.	Good
	Exterior Windows	The windows are double-paned aluminum metal frames inset into the brick façade. There was no evidence of leaking windows as reported by staff. The windows appeared to be in good condition.	Good
	Exterior Doors	There are double exterior metal doors with lites throughout the building. The exterior doors appeared to be in average condition. The doors were chipped and scraped inside and out. The entry door window was fogged and scratched.	Average
Roofing	The building has a built-up roof. The roof appeared to be in good condition.		Good
Interior Construction	Interior Walls	The interior walls are gypsum board in the classrooms and corridors. The walls appeared to be in good condition. There was a chipped gypsum board corner exposing the metal bead in room 203.	Good
	Interior Doors	The interior doors are mostly wood veneer with a lite in metal frames. Some are solid wood doors without side lites. The doors appeared to be in good condition.	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	The interior walls are painted gypsum board in the classrooms. The corridors are gypsum board at the top, and plastic laminate from the floor up to five feet. All walls were in good condition. There were various areas where the paint was chipped off the walls and the gypsum board paper covering was peeled off.	Good
	Interior Floor Finishes	The interior floor finishes are VCT in the corridors and classrooms. Ceramic tile is in the restrooms. All floors appeared to be in good condition.	Good
	Interior Ceiling Finishes	The interior ceilings are ACT in metal grid in the classrooms and corridors. There are gypsum board ceilings in the restrooms. All ceilings appeared to be in good condition.	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 vanities. 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. There is also one wall-mounted service sink in the janitorial closet. The restroom plumbing fixtures observed at the time of assessment were aged but in good working condition.	Good
	Domestic Water Distribution	The plumbing fixtures observed in this facility are not serviced by any domestic water distribution equipment, such as a vertical water heater. The domestic water distribution system appeared to be in good condition.	N/A

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Other Plumbing	The roof drains are predominantly designed with an interior type drainage system. There was no access to the roof at the time of the assessment, but the roof drains were viewed from the adjacent building's (BLDG-162C) roof and appeared to be in good condition.	Good
Mechanical/ HVAC	This building has two types of HVAC systems that service one floor level. The major mechanical equipment consists of floor-mounted horizontal packaged unit ventilator systems and small classroom EFs. There are 15 HVAC systems throughout the building. The estimated capacities of the classroom EFs are 150 to 500 CFM. The refrigeration capacities of HVAC units range from 1- to 1.5-TON. Andrew Miller, AISD Construction Management, reported that the classroom HVAC units utilize geothermal wells. The mechanical/HVAC systems for this facility were rated in average condition. The HVAC units observed in the facility had an estimated installation date of 1991 and had surpassed their typical design service life. The units were also potentially charged with R-22 refrigerant when originally installed. R-22 refrigerant is being phased out of use, which will eventually render the equipment that utilizes it obsolete.		Average
Fire Protection	Fire Alarm	The building contains a fire alarm system that consists of alarm and signaling devices such as horns/annunciators, strobes, horn/strobe combinations, pull stations, and detectors. There is no electronic control panel located in the building. It is believed the system communicates back with the main control panel in BLDG-162A. The fire alarm system was in average condition. The strobe/horn combination units appeared to have been moved recently and possibly upgraded or replaced. However, the locations of the old units had not been sealed. It is also possible that hardware was missing and uninstalled.	Average
	Fire Protection/ Suppression	The building is not equipped with a fire sprinkler/suppression system; however, it is protected by portable fire extinguishers that are stationed throughout the building. All portable fire extinguishers observed were inspected within the last year.	N/A
Electrical	Electrical Distribution	Electrical room 200 is on the northeast corner just inside the main entrance. There are two transformers and multiple panelboards housed in this room, feeding the building. Although the equipment did not appear to need replacement, there were concerns observed causing an	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		average condition rating. An external junction box located on the right-hand side of the 45 kVA transformer in electrical room 200 did not have an enclosure cover installed. Certain cables in the junction box were observed to be energized. There was also an in-wall bang-on box in electrical room 200 that was missing a cover.	
	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 with the occasional screw-type fixture in closets. The front entry is illuminated by recessed can fixtures. There are exit signs at every exit that 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 were no damaged security panels or cameras observed. There are also door frame-mount proximity readers for access into certain entrances. The equipment was observed to be in good condition. A communication closet exists in the southeast janitorial closet, housing network switches, hubs, and routers in a rack-style configuration. The facility appeared to have wireless routers installed in classroom ceilings strategically throughout the building. The equipment was observed to be in good condition.	Good

Exterior System Deficiency Examples

Exterior Walls

Exterior Doors

Interior Construction Deficiency Examples

Interior Walls

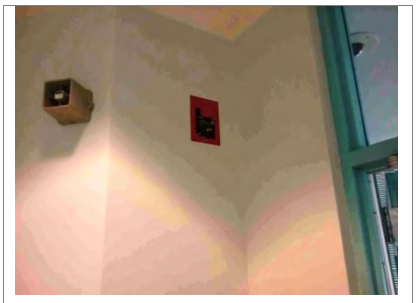
Interior Finish Deficiency Examples

Interior Wall Finishes

Mechanical/HVAC System Deficiency Examples

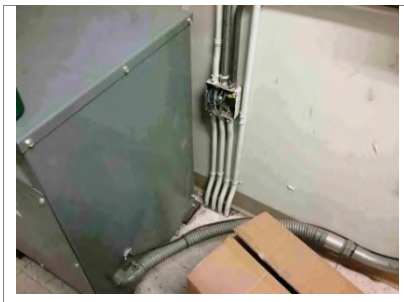
Fire Protection

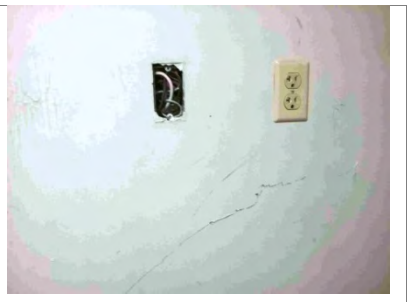
Fire Alarm



Electrical System Deficiency Examples

Electrical Distribution





Stand-Alone Gymnasium– BLDG-162C

Building Purpose	Gymnasium
Building Area	5,303 SF
Inspection Date	August 10, 2016
Inspection Conditions	100ºF - Hot and sunny
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 a brick façade. The exterior of the building appeared to be in good condition. Expansion joints at the entry sidewalk were deteriorated.	Good
	Exterior Windows	System not present.	N/A
	Exterior Doors	There are double exterior metal doors with lites at the entry and double doors at the rear that are solid. The doors appeared to be in average condition. The rear doors did not close properly.	Average
Roofing	The building has a built up roof. The roof appeared to be in good condition.		Good
Interior Construction	Interior Walls	The interior walls are CMU in the gymnasium and corridor. There is ceramic tile in the restrooms. The walls appeared to be in good condition.	Good
	Interior Doors	The interior doors are mostly wood veneer with a lite in metal frames. Some are solid wood doors without side lites. The doors appeared to be 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 are painted CMU in the gymnasium. There is ceramic tile in the restrooms. The walls appeared to be in good condition. There was water damage to the CMU wall in the male restroom.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Interior Floor Finishes	The interior floor finishes are a sport court in the gymnasium and VCT in the storage room. Ceramic tile is in the restrooms and the entry corridor. The floors appeared to be in good condition.	Good
	Interior Ceiling Finishes	The interior ceilings are ACT in metal grid in the classrooms and corridors. There are gypsum board ceilings in the restrooms. All ceilings appeared to be in good condition.	Good
Conveying	System not present.		N/A
Plumbing	Plumbing Fixtures	The facility contains multiple plumbing applications that service one level, consisting of student restrooms and one staff restroom with a shower. The student restrooms located inside the gymnasium have vitreous china floor-mount toilets with manual flushing valves, vitreous china wall-mounted urinals, and vitreous china wall-mounted sinks with manual or metering-operated valves. The gymnasium office is equipped with a staff restroom and functional adult shower. The observed restroom plumbing fixtures were observed to be aged but in good working condition.	Good
	Domestic Water Distribution	The plumbing fixtures located in the staff office are serviced by a vertical electric water heater that has a 40-gallon capacity. The remainder of the plumbing fixtures are not serviced by this water heater. The water heater for this building was installed in 1991 and had surpassed the end of its typical design life. The domestic water distribution plumbing and equipment were observed to be in average condition.	Average
	Other Plumbing	The roof drains are predominantly designed with an interior type drainage system. The roof drains appeared to be in good condition.	Good
Mechanical/ HVAC	This building has multiple types of HVAC applications that service one floor level. The major mechanical equipment consists of split system roof top-mounted units and indoor AHUs. There are four HVAC systems throughout the building with refrigeration capacities of 7.5-TON. These systems were installed in either 2005 or 2012, and all utilize the approved R-410a refrigerant. The mechanical/HVAC systems for this facility were observed to be in good condition.		Good
Fire Protection	Fire Alarm	The building contains a fire alarm system that consists of alarm and signaling devices such as horns/annunciators, strobes, horn/strobe combinations,	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		pull stations, and detectors. There is no electronic control panel located in the building. It is believed the system communicates back with the main control panel in BLDG-162A. The fire alarm system appeared to be in good condition.	
	Fire Protection/ Suppression	The building is not equipped with a fire sprinkler/suppression system; however, it is protected by portable fire extinguishers that are stationed throughout the building. All portable fire extinguishers observed were inspected within the last year.	N/A
Electrical	Electrical Distribution	The electrical distribution enters the building at the mezzanine level. There is a transformer and multiple panels less than 200 amps that feed the building's end devices and mechanical equipment. The electrical distribution equipment appeared to be in good condition. A ceiling-mounted bang-on box located between two lights in the east gymnasium entrance appeared to have been modified, and a cover was not installed.	Good
	Lighting	The exterior of the building is outfitted with wall-mount HID fixtures located near the roofline of the building. Covered walkways are illuminated by surface-mounted ceiling fixtures. The interior lighting consists of flush-mount fluorescent-type fixtures in the ceiling with wall-mount fixtures attached approximately ten feet from grade. The front entry is illuminated by recessed can fixtures, and screw-type fixtures are in closets. There are exit signs at every exit; however, various signs were not illuminated. The lighting appeared to be in good condition.	Good
	Communications & Security	There is a Gemini security system currently installed with a keypad at the front entrance. Motion detectors are installed in interior areas, and security cameras are installed strategically on exterior corners and walls. There were no damaged security panels or cameras observed. The equipment was observed to be in good condition. A communication closet exists in the southeast janitorial closet, housing network switches, hubs, and routers in a rack-style configuration. The facility appeared to have wireless routers installed in classroom ceilings strategically throughout the building. The equipment was observed to be in good condition.	Good

Exterior System Deficiency Examples

Exterior Walls

Exterior Doors

Interior Finish Deficiency Examples

Interior Wall Finishes

Plumbing System Deficiency Examples

Domestic Water Distribution

Electric System Deficiency Examples

Electrical Distribution

Stand-Alone Classroom Building – BLDG-162D

Building Purpose	Classrooms
Building Area	11,380 SF
Inspection Date	August 10, 2016
Inspection Conditions	100ºF - Hot and sunny
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 a brick façade. The exterior of the building appeared to be in good condition.	Good
	Exterior Windows	The windows are double-paned aluminum metal frames inset into the brick façade. The windows appeared to be in good condition.	Good
	Exterior Doors	There are double exterior metal doors with lites throughout the building. The doors appeared to be in good condition. The interior of the doors appeared scraped and scratched.	Good
Roofing	The building has a modified bitumen roof. The roofing appeared to be in average condition. There were many cracks that indicated wear and tear.		Average
Interior Construction	Interior Walls	The interior walls are gypsum board in the classrooms and corridors. The walls appeared to be in good condition.	Good
	Interior Doors	The interior doors are mostly wood veneer with a lite in metal frames. Some are solid wood doors without side lites. The doors appeared to be 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

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Interior Finishes	Interior Wall Finishes	The interior walls are painted gypsum board in the classrooms. The walls were observed to be in good condition.	Good
	Interior Floor Finishes	The interior floor finishes are VCT in the corridors and classrooms and ceramic tile in the restrooms. The floors were observed to be in good condition.	Good
	Interior Ceiling Finishes	The interior ceilings are ACT in metal grid in the classrooms and corridors. There are gypsum board ceilings in the restrooms. The ceilings appeared to be in good condition. There was a missing ceiling tile in the faculty restroom.	Good
Conveying	System not present.		N/A
Plumbing	Plumbing Fixtures	The facility contains multiple plumbing applications that service one level, consisting of student and faculty restrooms. The restrooms have vitreous china floor-mount toilets with automatic sensor flushing valves and are not equipped with handwashing sinks. The classrooms have vanities with stainless steel sink/bubbler combinations mounted inside the vanities. The observed restroom plumbing fixtures were aged but in good working condition.	Good
	Domestic Water Distribution	The plumbing fixtures located in this facility are not serviced by a vertical water heater. The building is assumed to serviced by various domestic water distribution pipes that supply all of the plumbing fixtures associated with this facility. The observed domestic water distribution plumbing was in good condition.	Good
	Other Plumbing	The roof drains are predominantly designed with an interior type drainage system. The roof drains appeared to be in good condition.	Good
Mechanical/ HVAC	This building has multiple types of HVAC applications that service one floor level. The major mechanical equipment consists of one roof top-mounted HRU (heat recovery unit), several outdoor split system heat pumps, and indoor AHUs. There are 30 HVAC systems throughout the building with refrigeration capacities of 2.5- to 3-TON. The roof top HRU has a rated capacity of 4,500 CFM. The HVAC units observed in the facility had installation dates of 2005 and were originally charged with R-22 refrigerant. R-22 refrigerant is being phased out of use, which will eventually render the equipment that utilizes it obsolete. The mechanical/HVAC systems for this facility were observed to be in average condition.		Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
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 main electronic control panel indicated all systems were normal. The fire alarm system was observed to be in good condition.	Good
	Fire Protection/ Suppression	The building is not equipped with a fire sprinkler/suppression system; however, it is protected by portable fire extinguishers that are stationed throughout the building. All portable fire extinguishers observed were inspected within the last year.	N/A
Electrical	Electrical Distribution	The electrical distribution enters the building on the northwest side through an exterior disconnect and feeds a main electrical room. The main electrical room contains two transformers and numerous panelboards supplying power to the end devices. The electrical equipment appeared to be in good condition.	Good
	Lighting	The exterior of the building is outfitted with wall-mount HID fixtures located near the roofline of the building. Covered walkways are illuminated by surface-mounted ceiling fixtures. The area between this building and the portable buildings is illuminated with pole lights. The interior lighting is mainly fluorescent with the occasional screw-type fixtures in closets. There are exit signs at every exit that were observed to be illuminated. The lighting was observed to be in good condition. Facility staff reported that the pole lights in this area need to be updated, but no concerns were observed.	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 were no damaged security panels or cameras observed. There are also door frame-mount proximity readers for access into certain entrances, and a call box is located at the front entrance. The equipment was observed to be in good condition.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		An intermediate distribution frame closet exists that houses network switches, hubs, and routers in a rack-style configuration. The facility appeared to have wireless routers installed in classroom ceilings strategically throughout the building.	

Exterior System Deficiency Examples

Exterior Doors

Roofing Deficiency Examples

Interior Finishes Deficiency Examples

Interior Ceiling Finishes

Plumbing System Deficiency Examples

Domestic Water Distribution

Mechanical/HVAC System Deficiency Examples

Houston 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

Electrical

1. Verify all exit signs are in operable condition.

Main School Building Recommendations

Exterior

1. Repair the rusted structures of the walkways.
2. Investigate animal infiltration into the building at door frame 304.
3. Replace or repair the bent overhang at the exit door.

Roofing

1. Investigate areas of ponding near the scuppers.
2. Repair the missing bottom section of the downspout. Investigate roof blisters.
3. Unclog downspouts outside of rooms 107, 109, and 111, and implement a preventive maintenance procedure to check/clean downspouts on a regular basis to avoid future clogs.

Interior Construction

1. Repaint chipped door frames and exit door interiors.
2. Replace or repair the classroom restrooms' rusted door frames.
3. Investigate the construction of walls and doors that reach the ceiling tile to ensure classroom privacy.
4. Repair the breakfast room door so that it closes properly.

Interior Finishes

1. Replace stained ceiling tile as needed.
2. Touch up paint on walls.
3. Repair gypsum board at wall corners where damaged.

Plumbing

1. Continue preventive maintenance on aged plumbing fixtures and plan for replacement of the fixtures in the future as they continue to age.
2. Replace or refurbish the female and male restroom partitions due to corrosion.
3. Further investigate the reported water leak under AHU-6, and determine the water line into the building will have to be replaced.
4. Further investigate the reported deterioration of cast iron sanitary sewer and water lines. If found to be excessive, replace the sanitary sewer and water lines when possible.
5. Further investigate the reported sanitary sewer that is corroding. If repairs are needed on a regular basis, replace the sanitary sewer to avoid increased maintenance costs.
6. Plan for replacement of the vertical GWH SC004613, and replace damaged or missing pipe insulation.
7. Plan for replacement of the vertical GWH SC004614 and replace dented and damaged enclosure.
8. Replace all broken roof drain covers and corroded flat drain covers throughout the building.
9. Consider replacement of the grease trap.
10. Investigate the source of the strong odor at the sanitary sewer manhole adjacent to the mechanical room.

Mechanical/HVAC

1. Continue preventive maintenance on aged EFs and plan for replacement of the fans in the future as they continue to age. In addition, when replacing EFs, vent the newly installed fans through the building's roof. Request new exhaust fans be considered to exhaust into the crawl space rather than creating more penetrations within the roof (requested by Andrew Miller, AISD Construction Management).
2. Replace equipment that uses R-22 refrigerant.
3. Continue conducting preventive maintenance checks and services for HVAC systems. Plan to replace all HVAC equipment.
4. Clean, repaint, or repair any rust or corrosion on the ancillary equipment for the boilers, such as the hot water supply pumps, its associated piping, or any other sub-asset to prevent further deterioration.

Electrical

1. Consider replacing panels and transformers that are nearing the end of their life expectancy.
2. Assess exterior lighting in the east parking lot for replacement.
3. Determine if the exterior lighting can be modified to a single method of control that keeps the required night lighting illuminated for the duration of non-daylight hours.
4. Modify classroom lighting to be controlled from individual switches in each classroom area.
5. Install additional lighting in crawlspace areas.
6. Determine the reason for wireless internet losing connectivity. Assess the problem and modify as necessary.

Fire Protection

1. Troubleshoot the cause of staff-reported random fire alarms.

Stand-Alone Classroom Building Recommendations

Exterior

1. Repaint metal lintels at overhang areas.
2. Repaint entry doors and frames, and replace fogged glass.

Interior Construction

1. Repair and repaint the damaged gypsum board in room 203.

Interior Finishes

1. Repair and repaint walls and door frames that are chipped and scraped.

Mechanical/HVAC

1. Replace equipment that uses R-22 refrigerant.

Electrical

1. Install covers on old horn/strobe combination units or install replacement equipment.
2. Install covers on junction boxes that have exposed wiring located in electrical room 200.

Stand-Alone Gymnasium Recommendations

Exterior

1. Repair the expansion joint at the entry.
2. Repair the south exit door so that it closes properly and is sealed.

Interior Finishes

1. Repair CMU damage in the male restroom caused by a past leak.

Plumbing

1. Plan for replacement of the water heater.

Electrical

1. Install covers on junction boxes that are missing them and exposed wiring in the ceiling.

Stand-Alone Classroom Building D Recommendations

Exterior

1. Repaint the inside of the west-facing double metal doors.

Roofing

1. Investigate the cracking of the roof membrane.

Interior Finishes

1. Replace the missing ceiling tile in the faculty restroom.

Mechanical/HVAC

1. Replace equipment that uses R-22 refrigerant.

Electrical

1. Further investigate reportedly failing pole lights. Facility staff reported the need for replacement; however, no deficiencies were observed at the time of the assessment.

Houston Elementary School Planned Future Improvements

The following are any known planned and funded improvements scheduled to take place at this campus in the future. Their scope and schedule are subject to change.

2013 Bond Planned Improvements from PM Andrew Miller on 10/31/16.

- 2013.
  - Refinish exterior doors at Main School Building.
  - Replace ten AHUs.
  - Replace main electrical distribution panel in Main School Building.

CRAWL SPACr – r str n r S – Main Br ilding (BLDG-162A)r

BuilPiPg PurpPse P	APmiPistrative Pffices, P lassrP ms, aP afeteria F
IPspectiP Date P	August 25, 2016 P
IPspectiP P itiP s P	88° - SuP & DrP P

Crawl Space System Deficiency Overview r

The fPllPwiPg table prPviPes a summarP Pf the sPstems aP their respective cP itiP s fPuP bP each PiscipliPe. P

System r	Sr bsystem r	Cr nditir n and Dericiency Overview r	System Cr nditir n r Rating r
Sr il, Drainage, r Ventilatir n & r Access r	SPil BelPw BuilPiPg, Site P DraiPage iP Prawl Space P P	The sPil iP the crawl space raPgeP frPm Pamp tP wet aP P was PmPstlP Pwet ParPuP Pthe Pperimeter PaP PbelPw PeakiPg P aP /Pr PcP ePsiPg Ppipes. P PDraiPage PappeareP PtP Pbe P pP r/almPst P existePt baseP P the amPuPt Pf sPil sittiPg iP P the P raiPage pipe at the lPw eP Pf the flume. The vPiP P belPw the suspeP eP perimeter beam at the P rth eP Pf the P builPiPg haP filleP with sPil. P P SPil/DraiPage PeficiePcies: P • SaturateP sPil / pP r PraiPage P • Flume is partiallP clPggeP with sPil P • NP vPiP belPw perimeter beams iP sPme areas P P	r P P
	SPil RetaiPers P	The cP crete aP plastic sPil retaiPers haP P PbviPus sigPs P f failure Pr PegraPatiP . P P	GP P
	AreawaPs/VePtilatiP P	The PareawaPs PprPviPeP PsPme PcrPss PvePtilatiP Pbut Pthe P pePiPgs were partiallP blPckeP with sPil aP appeareP tP be P f aP iPsufficiePt size aP Pumber tP keep the aPequatelP sPil P rP. P P AreawaP/vePtilatiP PeficiePcies: P • r crPss-vePtilatiP P • artiallP blPckeP areawaP PpePiPgs P P	Average P

	Access Hatches P	The access hatch was lPcateP iP the mechaPical rP m wall P aP was iP wPrkiPg cP itiP with sPme miP r rust. Access P iPtP the crawl space requireP use Pf a precariPus 2x12 plaPk. P P Access hatch PeficiePcies: P • Hatch P r RPck Pwas PmissiPg, PeaviPg Pcrawl Pspace P pPtePtiallP accessible tP chilPreP. P • recariPus access usiPg 2x12 plaPk maP be PaPgerPus P • MiP r rust P hatch P r P P	Average P
xpr sed r Str ctr e r	ExpPseP P lumPs & P TPps Pf FPuP atiP s P	The cPlumPs aP tPps Pf fPuP atiP s appeareP tP be iP gP P cP itiP . P P ier/cPlumP PeficiePcies: P • LimiteP hP ePcPmbiPg iP a few areas P P	GP P
	ExpPseP Faces Pf P erimeter Walls / Beams P	Except fPr miP r spalliPg aP hP ePcPmbiPg the perimeter P beams were iP gP cP itiP . P P erimeter wall/beam PeficiePcies: P • MiP r spalliPg aP hP ePcPmbiPg P P	GP P
	ExpPseP P rtiP s Pf P IPteriPr FlP r Beams P AbPve P	The suspeP eP flP r beams were iP gP cP itiP except P fPr miP r spalls aP hP ePcPmbiPg. P P Beam PeficiePcies: P • MiP r hP ePcPmbiPg aP spalliPg P P	GP P
	UP ersiPe Pf SuspeP eP P FlP r Slabs AbPve P	The suspeP eP precast paP jPists were iP gP cP itiP P ther RthaP P ccasiP al PmiP r Prust PspPts. PPNP PsigPificaPt P eficiePcies seeP. P P	GP P
Pipes, Dr cts, r qr ipment & r Firepr fing r	SuspeP eP Pipes & P HaPgers P	The cast irP pipes were heavilP cPrrP eP, leakiPg at several P cP ectiP s, aP cP ePsiPg iP maP areas Pue tP severe P egraPatiP Pf the pipe iPsulatiP . MPlP pipe iPsulatiP was P bserveP. PWhile PmPst PsuppPrt PhaPgers Pwere PiP PgP P cP itiP , a few haP sigPificaPt cPrrPsiP . P P ipe PeficiePcies: P • Several pipes leakiPg P • ipes heavilP cPrrP eP P • rrP eP haPgers P • DegraPeP aP mPlP pipe iPsulatiP P P	r P

	ExpPseP DuctwPrk P	The Pucts were iPterPalIP iPsulateP aP appeareP tP be iP P gP cP itiP . NP PeficiePcies PbserveP. P P	GP P
	MEP EquipmePt P	NP MEP equipmePt was presePt iP the crawl space areas P bserveP. P P	N/A P
	SpraP FireprP fiPg/ P IPsulatiP P	NP fireprP fiPg Pr iPsulatiP was presePt iP the crawl space P areas PbserveP. P P	N/A P

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Crawl Space Deficiency r xamples P

Soil, Drainage, Ventilation & Access

artiallP blPckeP stPrm sewer PraiP P

lPggeP PraiPage flume P

SaturateP sPil Pear perimeter P P

Water iPfiltratiP at siPe Pf beam P P

P

P

Exposed Structure

HP ePcPmbiPg/spalliPg at tPp Pf cPlumP P P

MiP r hP ePcPmbiPg P P

MiP r beam spalliPg P P

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Pipes, Ducts, Equipment & Fireproofing

LeakP pipe P

rrP eP pipes aP PegraPeP iPsulatiP P

rrP eP pipe haPgers P

MPlP pipe iPsulatiP P

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CRAWL SPACr – r str n r S – Classr m Br ilding (BLDG-138B)r

BuilPiPg PurpPse P	lassrP ms P
IPspectiP Date P	August 25, 2016 P
IPspectiP P itiP s P	88° - SuP & DrP P

Crawl Space System Deficiency Overview r

The fPllPwiPg table prPviPes a summarP Pf the sPstems aP their respective cP itiP s fPuP bP each PiscipliPe. P

System r	Sr bsystem r	Cr nditir n and Dericiency Overview r	System Cr nditir n r Rating r
Sr il, Drainage, r Ventilatir n & r Access r	SPil BelPw BuilPiPg, Site P DraiPage iP Prawl Space P P	The sPil iP the crawl space was mPstlP flat aP varieP frPm P amp tP wet iP the P rth half Pf the builPiPg. It appears the P water is seepiPg iP frPm the perimeter. A flume is iPstalleP P but Phas PfilleP Pwith PmuP, PreP eriPg Plt PlPeffective. P PThe P clearaPce was tP lPw tP see hPw flume PischargeP. P P SPil/DraiPage PeficiePcies: P • SaturateP sPil / pP r PraiPage P • Flume is filleP with muP P P	r P P
	SPil RetaiPers P	The cP crete sPil retaiPers PbserveP are gePeralP iP gP P cP itiP but sPme have caveP Pr brPkeP while Pthers have P tilteP, thus permittiPg sPil aP water iPtrusiP . AlthPugh theP P shPulP be burieP, sPme retaiPers are visible abPve graPe P utsiPe the builPiPg. P P SPil retaiPer PeficiePcies: P • SPme paPels haP shifteP, rPtateP aP /Pr caveP iP P P	Average P
	AreawaPs/VePtilatiP P	The areawaPs are iP fair cP itiP structurallP Pet partiallP P filleP with sPil aP vegetatiP that rePuce crPss vePtilatiP P capacitP. P P AreawaP/vePtilatiP PeficiePcies: P • VePts partiallP blPckeP P P	Average P

	Access Hatches P	The Paccess Phatch Pwas PPcateP PPP Pthe PmechaPical PPP m. P Vertical clearaPce iP the crawl space was miPimal with much P f the area tP tight tP access. P rawl space ePtrP cPulP be P imprPveP bP placiPg a laP er belPw the hatch. P P Access hatch PeficiePcies: P • NP laP er iPtP crawl space P P	Average P
xpr sed r Str ctr e r	ExpPseP P lumPs & P TPps Pf FPuP atiP s P	The cPlumPs aP tPps Pf fPuP atiP s appeareP tP be iP gP P cP itiP aP withPut PbviPus PeficiePcies. P P lumP/FPuP atiP PeficiePcies: P • NP PeficiePcies PbserveP P P	GP P
	ExpPseP Faces Pf P erimeter Walls / Beams P	The perimeter beams appeareP tP be iP gP cP itiP aP P withPut PbviPus PeficiePcies. P P erimeter wall/beam PeficiePcies: P • NP PeficiePcies PbserveP P P	GP P
	ExpPseP P rtiP s Pf P IPteriPr FlP r Beams P AbPve P	The PsuspeP eP PflP r Pbeams PappeareP PtP Pbe PtP PgP P cP itiP aP withPut PbviPus PeficiePcies. P P	GP P
	UP ersiPe Pf SuspeP eP P FlP r Slabs AbPve P	The flP r slab was uP bservable because batt iPsulatiP was P attacheP tP the uP ersiPe, cP cealiPg it frPm view. IP a few P lPcatiP s Pthere Pwas PeviPePce P f PbulgiPg PfPrms P uriPg P cP structiP . FPr reasP s uPkP wP, several flP r slab jPists P were baPlP spalleP at several web eP s. P P Slab PeficiePcies: P • BaPlP spalleP slab jPist eP s P • ExpPseP reiPfPrcemePt at spalleP eP s was cPrrP eP P P	Average P
Pipes, Dr cts, r qr ipment & r Firepr fing r	SuspeP eP Pipes & P HaPgers P	MaP P f Pthe Pcast PrrP Ppipes PaP PsuppPrt PhaPgers Pwere P cPrrP eP. P P ipe PeficiePcies: P • rrP eP pipes aP haPgers P P	r P
	ExpPseP DuctwPrk P	NP Pucts were presePt iP the crawl space area PbserveP. P P	N/A P
	MEP EquipmePt P	NP MEP equipmePt was presePt iP the crawl space area P bserveP. P P	N/A P

	SpraP FireprP fiPg/ P IPsulatiP P	NP PfireprP fiPg Pwas PpresePt PiP Pthe Pcrawl Pspace Parea P bserveP. The iPsulatiP applieP tP the slab uP ersiPe was P gePerallP iP gP cP itiP but haP falleP Pff iP a few places. P P IPsulatiP PeficiePcies: P • Slab iPsulatiP falleP Pff iP a few places P P	FireprP fiPg – N/A P IPsulatiP - GP P

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Crawl Space Deficiency r xamples P

Soil, Drainage, Ventilation & Access

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Flume filleP with muP P

P

SaturateP sPil iP P rth sectiP P

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TilteP sPil retaiPers allPwiPg sPil iPtrusiP P

Visible aP tilteP sPil retaiPers P

P

NP laP er, access tP crawl space P precariPus P

P

Exposed Structure

P

SpalleP/crackeP cP crete, expPseP P cPrrP eP reiPfPrcemePt P uP ersiPe Pf P beam P

P

BulgiPg fPrms PuriPg cP structiP P

P

Pipes, Ducts, Equipment & Fireproofing

 P rrP eP pipe haPgers P	 P Slab uP ersiPe iPsulatiP falleP Pff P	P P

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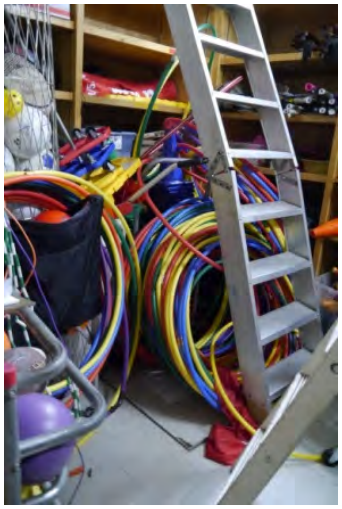
CRAWL SPACr – r str n r S – Gym Br ilding (BLDG-138C)r

BuilPiPg PurpPse P	GPmPasium P
IPspectiP Date P	August 25, 2016 P
IPspectiP P itiP s P	88° - SuP & DrP P

Crawl Space System Deficiency Overview r

The crawl space cPulP P t be PbserveP as the access hatch was blPckeP with gPm equipmePt as seeP iP the image belPw. P



P r

str n r S – Campr s Sr mmary r f Crawl Space Recr mmendatir ns r

This P cumePt is baseP P currePt cP itiP s PbserveP PuriPg fielPwPrk aP prPviPes recPmmeP atiP s fPr cPrrective P actiP s bP each PiscipliPe. The fPllPwiPg recPmmeP atiP s prPviPe a summarP Pf the fiP iPgs. P

Br ilding A Recr mmendatir nsr

Soil, Drainage, Ventilation & Access

1. lear areawaPs aP remPve aP sPil iP the crawl space blPckiPg vePts. P
2. leaP Put flume aP PraiPage pipe; P
3. Re-graPe sPil aPjacePt tP flume as PecessarP tP ePsure pPsitive PraiPage iPtP flume. P
4. IPvestigate PeeP fPr aP itiP al vePtilatiP . P
5. rPviPe safe access iPtP crawl spaces – prPviPe laP er, etc. P
6. lear stPreP items frPm gPm flP r hatch. P

Pipes, Ducts, Equipment & Fireproofing

1. Repair leakiPg pipes. P
2. leaP aP prPtect rusteP cast irP pipes frPm further cPrrPsiP . P
3. Replace heavilP cPrrP eP haPgers. P
4. Replace PegraPeP aP mPlP pipe iPsulatiP . P

P

Br ilding B Recr mmendatir nsr

Soil, Drainage, Ventilation & Access

1. lear areawaPs aP remPve aP sPil iP the crawl space blPckiPg vePts. P
2. leaP Put flume aP pipe tP stPrm sewer; re-graPe sPil tP prPmPte pPsitive PraiPage iPtP flume. P
3. Replace brPkeP sPil retaiPers. Reset tilteP aP caveP sPil retaiPers. P
4. IPvestigate PeeP fPr aP itiP al vePtilatiP . P

Exposed Structure

1. Repair spalleP aP crackeP flP r slab jPists. P

Pipes, Ducts, Equipment & Fireproofing

1. Replace/repair cPrrP eP cast irP pipes. P
2. Replace heavilP cPrrP eP haPgers. P
3. Replace missiPg slab iPsulatiP . P

P

Br ilding C Recr mmendatir nsr

1. lear stPreP items frPm gPm flP r hatch sP crawl space is accessible. P

P

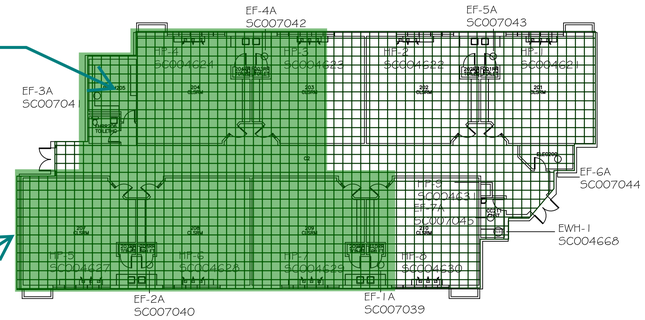
P

DRAFT

Access thru side hatch here

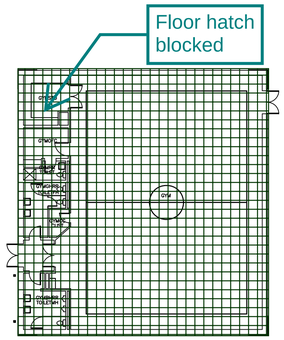
Deficiencies found in this location:
1) Damp to wet soil
2) Flume filled with mud, soil not draining
3) Caved, broken, and/or tilted soil retainers
4) Areaways partially blocked with soil and vegetation
5) Badly spalled slab joists
6) Corroded pipes and hangers
7) Slab underside insulation missing in a lot of places

B



Floor hatch blocked

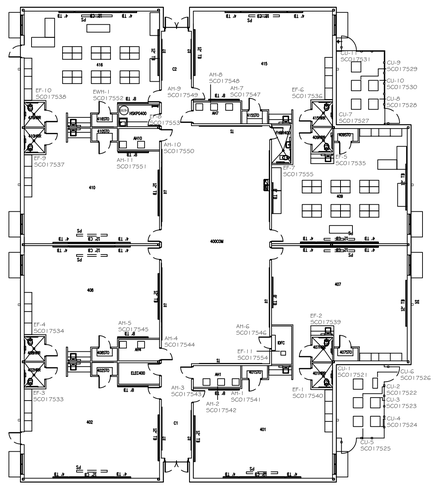
C

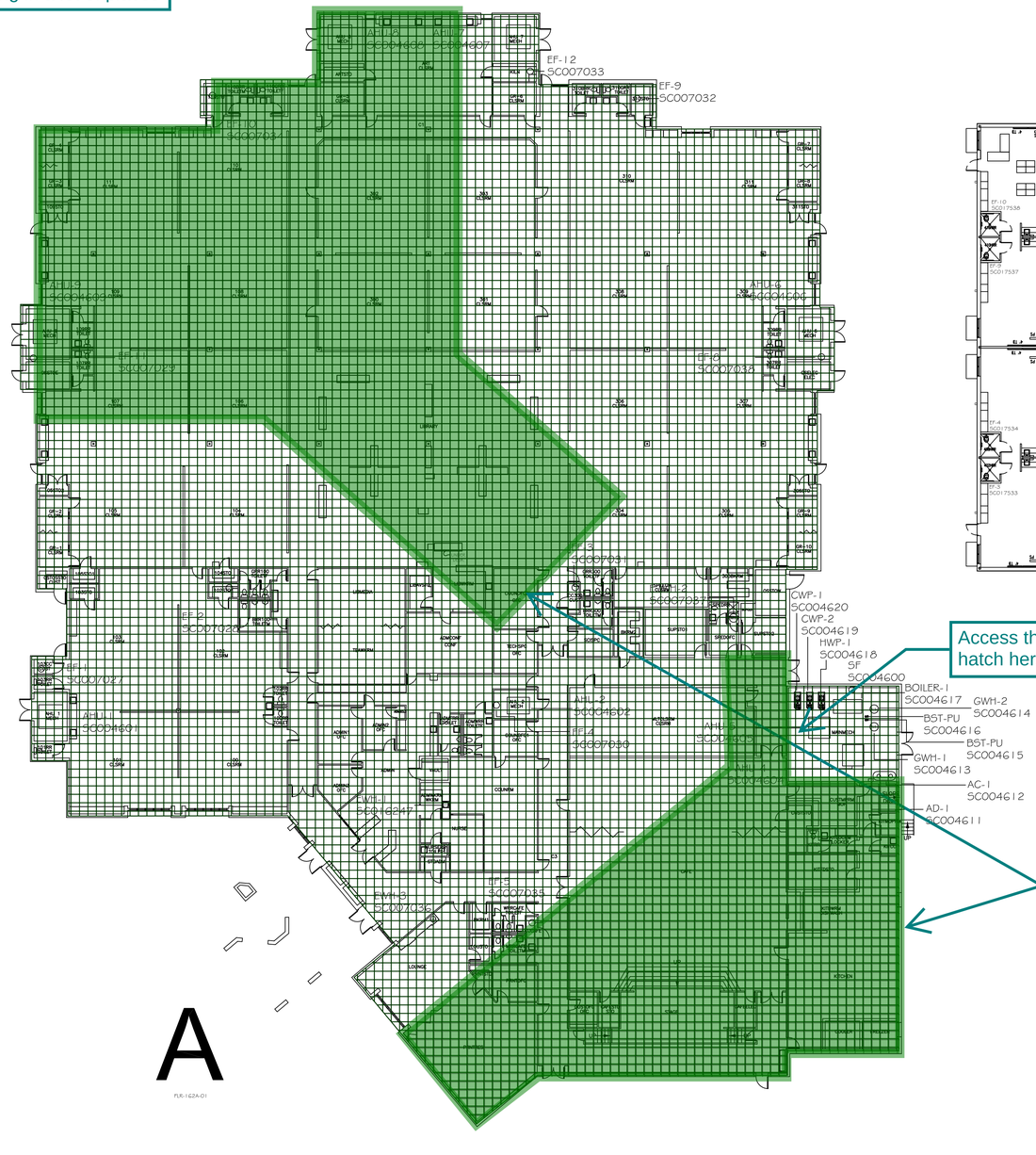


APPROXIMATE LIMITS OF CRAWL SPACE OBSERVED DURING SITE VISIT

APPROXIMATE LIMITS OF CRAWL SPACE PER AVAILABLE PLANS AND SITE OBSERVATIONS

D





Access thru wall hatch here

Deficiencies found in these locations:
1) Damp to wet soil - wetter near perimeter and under leaking/condensing pipes
2) Minor spalls, honeycombs, and corroded rebar in structure
3) Pipes and hangers badly corroded and leaking
4) Pipe insulation degraded and moldy
5) Flume partially filled with soil
6) Partially blocked vent openings

A

NORTH

AUSTIN I.S.D.

DEPARTMENT OF CONSTRUCTION MANAGEMENT

HOUSTON ELEMENTARY SCHOOL

5409 Ponciana Dr.
Austin, Texas

FLOOR PLAN

FIRST FLOOR

APPROVALS		
DRAWN	CHECKED	APPROVED
J.R.		
10/05/09		

DWG: **162-FLR-01**	SHEET
DRAWING SCALE	1 OF 1
1/32"=1'-0"	