

## Blanton Elementary School Site Summary

<b>Address</b>	5408 Westminster Drive Austin, TX 78723
<b>Number of Permanent Campus Facilities</b>	4
<b>Original Year of Construction</b>	1964
<b>Total Campus Building Area (combined)</b>	71,817 SF



### Introduction

The Blanton Elementary School campus is located at 5408 Westminister Drive in Austin, Texas. Blanton Elementary School was established in 1964, and consists of the Main School Building (BLDG-106A), Stand-Alone Gymnasium (BLDG-106B), Stand-Alone Classroom (BLDG-106C), and a Greenhouse (BLDG-106D). The buildings are connected to each other by covered walkways except the Greenhouse (BLDG-106D).

## Main School Building – BLDG-106A

Building Purpose	Administration Offices, Classrooms, Cafeteria
Building Area	56,530 SF
Inspection Date	June 14-16, 2016
Inspection Conditions	95°F - 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	<p>The building exterior masonry walls are original multiwythe brick exposed on both interior and exterior surfaces. The north wall of the basement level (300-wing) is poured in place concrete with waterproofing below grade. The primary structure is exposed, painted, steel beams with cement fiber deck. The building has crawl space beneath suspended concrete slab.</p> <p>The exterior brick appeared in good condition. The exposed steel structure is currently undergoing painting and no significant rust is visible. Joint sealant is in average condition. A small hole was observed in the brick joint at the window sill in room 203. The roof deck along the south overhang of 200-wing was damaged and collapsing. No evidence of this was visible at the roof surface but could have been obscured by tree limbs. There was no evidence observed of failing waterproofing at below grade concrete wall in the 400-wing except a small area of peeling paint in the female restroom.</p>	Good
	Exterior Windows	<p>The windows are original aluminum awning type, single glazed, with insulated spandrel panels below.</p> <p>The windows appeared to be original and in good working condition. One pane was observed to be cracked in room 101. The sealant appeared to be in average condition and spandrel panels are currently being painted. Leaking around windows has been</p>	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		reported in the cafeteria along the east wall that may be due to deteriorating sealant.	
	Exterior Doors	<p>The exterior doors are steel with hollow metal frames with wire glass vision panels and side-lites.</p> <p>The exterior doors and frames generally appeared to have been replaced recently or are in good condition with a few exceptions. Doors to mechanical rooms appeared to be original although in good condition with some rust apparent on the inside surfaces.</p>	Good
<b>Roofing</b>	<p>The roof appears to have been recoated in 1999, according to warranty signage on the Stand-Alone Gymnasium. The roof is both low slope over the majority of roof area, and steep slope (saw-tooth) over the cafeteria/kitchen area. The flashing system and gutters at the perimeter appear to have been installed recently.</p> <p>The roofing showed significant bubbles forming under the membrane over large expanses of the roof area and was observed to be in poor condition. Each wing has limited areas where ponding is occurring and roofing has split. Evidence of roof leaking is minimal inside however; the roof has exceeded 80% of life and is showing signs of deterioration. Flashing and gutters are in good condition with a few exceptions where rusting was visible. Significant areas of the roof have overhanging tree limbs touching the roof surface causing abrasion and the potential for damage during a windstorm.</p>		Poor
<b>Interior Construction</b>	Interior Walls	<p>The interior walls consist of; double-wythe brick, stud with drywall, and some painted CMU (concrete masonry unit) walls at the 300- and 400-wings.</p> <p>The interior walls appeared to be in average condition relative to their age. Scuffing was visible. The CMU and gypsum board walls have been recently painted.</p>	Average
	Interior Doors	The interior doors are a mix of solid core wood doors in both wood frames and painted hollow metal frames. Doors and frames appeared original and in good condition relative to age.	Good
	Interior Specialties	System not present.	NA
<b>Stairs</b>	Exterior Stairs	<p>The exterior stairs are poured in place concrete with steel pipe railing located adjacent to the kitchen with access from the lower level and access to the loading dock.</p> <p>The exterior concrete stairs and steel railings are in good condition and appeared to be newer than the original construction.</p>	Good
	Interior Stairs	The interior stairs are located at the east and west entrance to the 400- and 500-wings. Stairs are concrete with steel nosing. Handrails are 2x6 hardwood mounted	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		to CMU walls. There are numerous sloped floors in hallways transitioning changes in finish floor elevation. The stairs and handrails appeared to be in good condition with no visible defects.	
<b>Interior Finishes</b>	Interior Wall Finishes	<p>The interior wall finishes consist of; 1) exposed brick, 2) painted drywall partially covered with stained wood paneling, 3) painted CMU or concrete, and 4) glazed brick in kitchen. Restrooms have ceramic tile walls or wainscot.</p> <p>The interior wall finishes were observed to be in average condition given their age. Walls appeared to have been recently painted. The wood panels appeared aged with some scuffing visible but in serviceable condition. The ceramic tile is original and appeared to be in average condition.</p>	Average
	Interior Floor Finishes	<p>The floor finishes consist of vinyl tile of various sizes in the corridors, classrooms, cafeteria, and library. The administrative office flooring is carpet, and the kitchen has non-slip quarry tile.</p> <p>The vinyl tile, although it continues to be functional, appeared to be near end of service life. Tile appeared to be original to the facility with substantial areas of patching visible. The carpet appeared to be recently installed and in good condition. The quarry tile in kitchen appeared to be relatively new and in good condition. The ceramic tile in the restrooms appeared to be original and in deteriorating condition. There are some instances of buckling of ceramic tile observed in the restrooms at perimeter walls.</p>	Average
	Interior Ceiling Finishes	<p>The ceilings in the original building are painted exposed cement fiber roof deck and exposed steel structural members. Ceilings in the 300-and 400-wings are lay-in suspended acoustical tiles.</p> <p>The ceilings were observed to be in average condition with some tiles stained or broken, a result of roof or mechanical/plumbing leaks.</p>	Average
<b>Conveying</b>	System not present.		N/A
<b>Plumbing</b>	Plumbing Fixtures	The building is composed primarily of single-user restrooms for students and staff located throughout the facility. These restrooms typically contained floor-mounted, porcelain toilets with manual flush valves. The 300-wing contains a multi-user restroom for students that contains floor-mounted porcelain toilets and wall-hung porcelain sinks. Typical classrooms contain single	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		<p>bowl stainless steel sinks with a drinking fountain attachment. The facility also has various wall-mounted and floor-mounted drinking water fountains located throughout the building. The kitchen has multiple stainless steel dish/preparation sinks and kitchen equipment.</p> <p>It was reported that the male restroom in the 300-wing had damaged wall-mounted toilets, but site assessment confirmed all toilets were floor-mounted and in average condition. The plumbing fixtures had minor signs of age and deterioration but appeared to be in good condition. Some of the floor-mounted toilets throughout the facility were misaligned and may have deteriorated wax rings. Overall, the plumbing fixtures were in good condition.</p>	
	Domestic Water Distribution	<p>Domestic hot water is provided to the kitchen by one 100-gallon, GWH (gas water heater) located in the "KITMECH" room. Smaller 10-gallon EWHs (electric water heaters) are located throughout the facility to provide hot water to specific locations. Domestic hot water was primarily supplied to janitor closets but did not appear to be supplied to classroom fixtures.</p> <p>The domestic water system is in average condition and had typical wear and tear for the systems age. The 100-gallon GWH that supplied the kitchen, assumed to be installed in 2000, was in average condition with minor corrosion. The boiler located in the "MAINMECH" room appeared to be original to the building, and was in poor condition. The operational status of this boiler should be confirmed, and should be considered for removal if abandoned. It was reported that sanitary lines in the 100-, 200- and 400-wings are near the end of their service life.</p>	Average
	Other Plumbing	<p>The facility has floor drains located throughout.</p> <p>The drains were observed to be in good condition.</p>	Good
<b>Mechanical/ HVAC</b>	<p>The building's HVAC (heating, ventilating, and air conditioning) system is composed of heat pumps, package RTUs (roof top units), and split systems. All of the classrooms in the 100- and 200-wings are served by individual heat pumps. The heat pumps in these classrooms are assumed to be 3 ton units. The 300- and 400-wings are primarily served by a 60 ton air cooled condensing unit located on the roof top. The cafeteria, library, kitchen, and administrative offices are served by a combination of split systems and package units that are located on the roof top. These split systems and package units range in size from 5 ton to 25 ton. Multiple exhaust fans ranging in size from 120 CFM (cubic feet per minute) to 800</p>		Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		<p>CFM, serve the building.</p> <p>The HVAC system for the building is in average condition. It appeared the majority of the HVAC system has an install date ranging from 1992 to 2006. The individual heat pumps located in the 100- and 200-wings, assumed to be installed in 1992, are beyond their expected service life. The entire HVAC system, apart from the RTU serving the cafeteria, uses R-22 refrigerant, which is an outdated refrigerant that is being phased out of use. These systems are in average to good condition. The split system air cooled condensing unit serving the 300- and 400-wings was installed in 2006 and was reported having temperature regulation problems. Building staff was interviewed during the field inspection and reported that a possible poor design of the ACCU's (air cooled condensing unit's) ductwork and distribution is the leading cause of the uneven cooling. The exhaust fans on the roof were installed in 2006 and were in average to good condition. Apart from slight degradation due to normal wear and tear, only a few exhaust fans were observed to have excessive vibration. The 120 CFM exhaust fan, located near HP-30, was inoperable and did not have a motor.</p>	
Fire Protection	Fire Alarm	<p>The fire alarm system consists of pull stations and notification devices located throughout the entire facility.</p> <p>The fire alarm control equipment and end devices were observed to be functioning and in good condition.</p>	Good
	Fire Protection/Suppression	<p>The building does not have a fire suppression system.</p> <p>The facility has dry chemical portable fire extinguishers located throughout the building.</p> <p>The observed portable fire extinguishers were in good condition and had up-to-date inspection tags that were last inspected in May 2016.</p>	N/A
Electrical	Electrical Distribution	<p>The electrical system is supplied by a 2000 amp 480V 3 phase 4 wire service as its primary source. This service has various sized transformers located proportionally throughout electric rooms at this facility that supply 480V 277V as a primary and 208V 120V secondary power. This supply is distributed through facility with an 800 amp switchboard panel that feed two 400 amp sub panels.</p> <p>All major service conduits entered through room OSSTO feeding to room KITMECH adjacent to the former cooling tower area. This equipment was clean and observed to be functioning as intended. This equipment in KITMECH was estimated to be original construction from 1964. This equipment is beyond service life, but appeared to be functioning. Evident upgrades to this system occurred at approximately 1999, with service upgrades located in the CUSTSTO room just inside the basement. A 600 amp distribution</p>	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		<p>panelboard feeds two sub panelboards labeled TP1A 225-amp and TPGA 100-amp. This CUSTSTO room had substantial stored materials in it that are a fire safety risk.</p> <p>Other panelboards were located in the MECH100 and STO100 rooms immediately adjacent to the library and 100-wing classrooms, the CC200 room adjacent to the ramp to the 200-wing, and MAINMECHMECH room outside the 300-wing. Panelboards located in kitchen, and stage area were a combination of original and updated equipment. Some old electrical equipment appears to be abandoned in place, and two switchboards at the main cut-off switches are missing their protective covers. Electrical service was observed in average condition.</p>	
	Lighting	<p>Lighting at this facility consists primarily of 4x4 T-8 florescent luminaries set in troffers in classrooms, administrative offices, and hallways. Classroom bathrooms, small storage areas contained small recessed single lamp lighting fixtures. Adult restrooms have smaller florescent luminaries. Exterior lighting consisted of wall mounted wall pack HID luminaries around the entire perimeter of this facility with evidence of some HID wall mounted wall packs having been replaced with LED wall mounted wall packs.</p> <p>It was reported that there was no emergency egress lighting present in this facility. It was reported that the playground has no lighting. The staff also reported that exterior lighting was inadequate for the kitchen staff and voiced concern over inadequate lighting in the parking lots. The lighting system is in average condition.</p>	Average
	Communications & Security	<p>The facility contains telephone, WiFi, and a PA (public address) system. Access control and security includes access card readers at some exterior doors, exterior and interior cameras and a security alarm with motion and door sensors.</p> <p>It was reported that WiFi was in adequate in the 400-wing. It was reported that the cameras to this facility currently have blind spots and need adjustments. It was reported that the school has been replacing older camera equipment on their own. The communications and security systems were observed to be functioning well, except for a reported beeping alarm in the kitchen.</p> <p>Overall, the system was observed to be in average</p>	Average



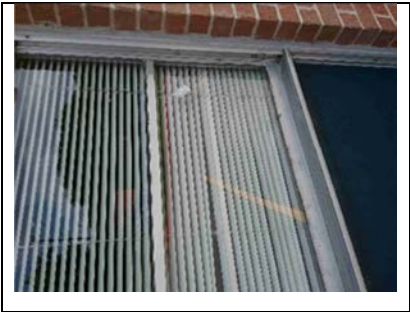
System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		condition.	

**Exterior System Deficiency Examples**

Exterior Walls



Exterior Windows



Exterior Doors





### Roofing Deficiency Examples



### Interior Construction Deficiency Examples

#### Interior Walls



### Interior Finishes Deficiency Examples

#### Interior Floor Finishes



#### Interior Ceiling Finishes



### Plumbing System Deficiency Examples

#### Plumbing Fixtures



#### Domestic Water Distribution

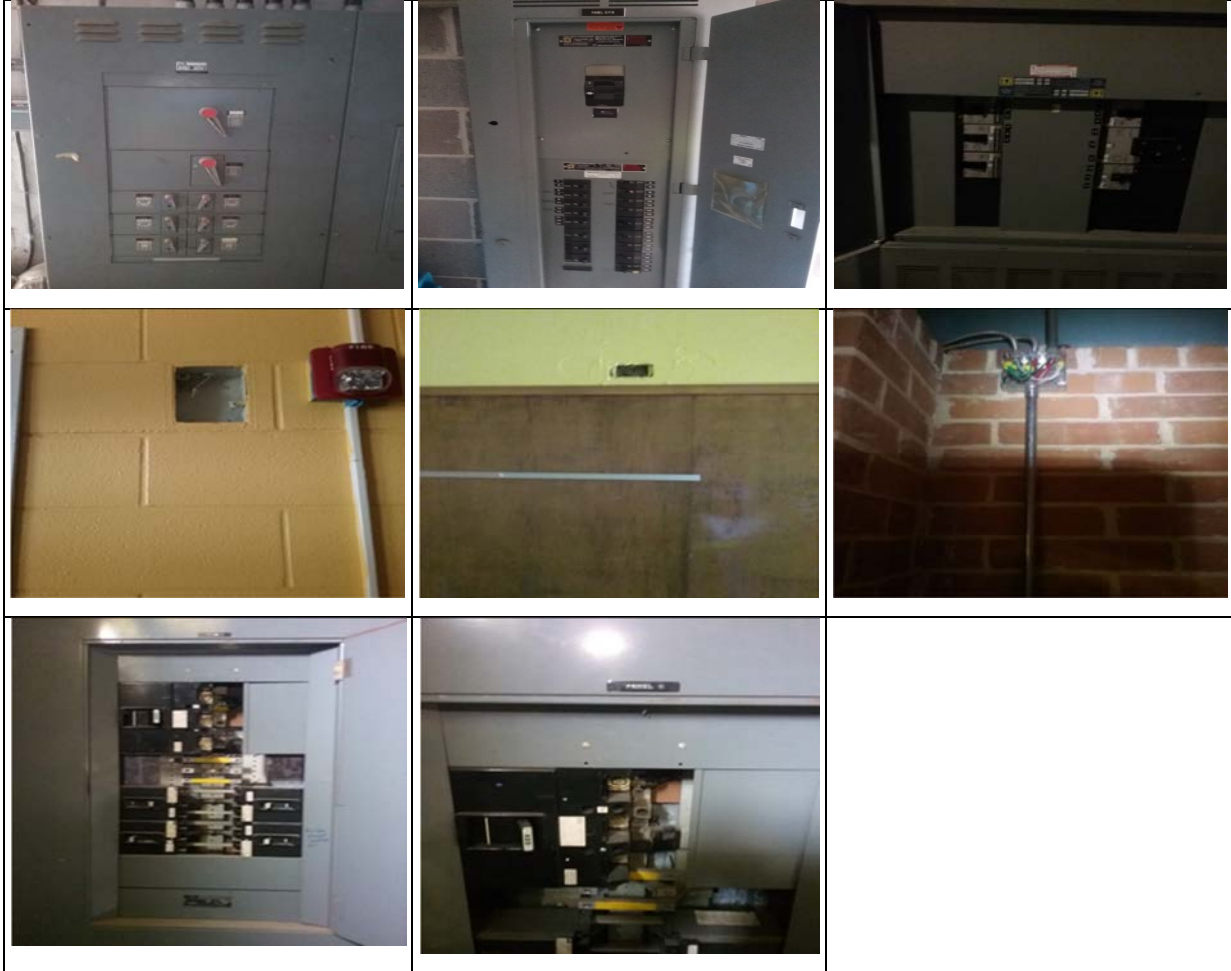


### Mechanical/HVAC System Deficiency Examples



## Electrical System Deficiency Examples

### Electrical Distribution



### Electrical Distribution Abandoned



### Lighting Equipment





## Stand-Alone Gymnasium – BLDG-106B

Building Purpose	Gymnasium
Building Area	3,546 SF
Inspection Date	June 14-16, 2016
Inspection Conditions	95°F - 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
<b>Exterior</b>	Exterior Walls	<p>The building exterior masonry walls are original multi-wythe brick exposed on both interior and exterior faces. Large operable louvers previously used for building ventilation have been abandoned in place with painted aluminum panels covering the exterior.</p> <p>The building exterior walls were observed to be in average condition. The louver on the north wall is missing flashing and the wood rough frame has deteriorated allowing rainwater to enter wall cavity. Organic matter is accumulating on the face of the brick below the louver. A similar larger area of adjacent wall surface showed organic growth that may be result of roof or flashing leaking into wall cavity.</p>	Average
	Exterior Windows	<p>The exterior windows are aluminum single hung and are located only at the restrooms. Windows are used for ventilation since restrooms are not air conditioned.</p> <p>The windows are functioning and in average condition; however, screens are in disrepair.</p>	Average
	Exterior Doors	<p>Exterior doors are steel with hollow metal frames with wire glass vision panels. Doors appear to be original and in average condition and are currently being painted.</p>	Average
<b>Roofing</b>	<p>The roof appears to have been recoated in 1999, according to warranty signage on building facade. Roof is both low slope and steep slope (saw-tooth) over the building. The flashing system and gutters at the perimeter appear to have been recently installed.</p> <p>The building's roof was observed to be in poor condition. The roofing showed</p>		Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		significant bubbles forming under the membrane. Ponding has occurred near the mechanical equipment and the roofing seams have begun to split. Evidence of roof leaking is minimal inside; however, roof has exceeded 80% of life and is showing signs of deterioration. The flashing and gutters are in generally good condition with a few exceptions where rusting was visible. Organic growth on the north wall is indicative of some water infiltration through the roof or at the perimeter flashing. The aluminum walkway canopy showed damage to the roof panels.	
<b>Interior Construction</b>	Interior Walls	The interior walls are double wythe brick, exposed on both sides.  The interior walls are original and in good condition.	Good
	Interior Doors	Interior doors are painted steel with hollow metal frames.  Doors and frames appeared to be original and in good condition relative to age.	Good
	Interior Specialties	System not present.	N/A
<b>Stairs</b>	Exterior Stairs	System not present.	N/A
	Interior Stairs	System not present.	N/A
<b>Interior Finishes</b>	Interior Wall Finishes	The interior wall surfaces are exposed brick and ceramic tile.  Both the brick and ceramic tile wall finishes appeared to be original and in average condition. The ceramic tile surfaces were visibly worn and scuffed.	Average
	Interior Floor Finishes	The interior floors are painted concrete, ceramic tile and special gymnasium play flooring.  The ceramic tile located in the restrooms was observed to be original and in average condition. The special play flooring in the gymnasium appeared to have been installed recently.	Average
	Interior Ceiling Finishes	The interior ceilings are painted exposed cement fiber roof deck and exposed steel structural members.  The interior ceilings were observed to be in average condition. Some water staining on exposed deck from apparent roof leaks was visible.	Average
<b>Conveying</b>	System not present.		N/A
<b>Plumbing</b>	Plumbing Fixtures	The building has both single-user and multi-user restrooms for students and staff. The restrooms have wall-hung porcelain sinks with manual faucets along with floor-mounted porcelain toilets with manual flush valves. There are also wall-hung porcelain urinals with manual flush valves located in the male restroom. A multi-station wall-mounted stainless steel drinking water	Average

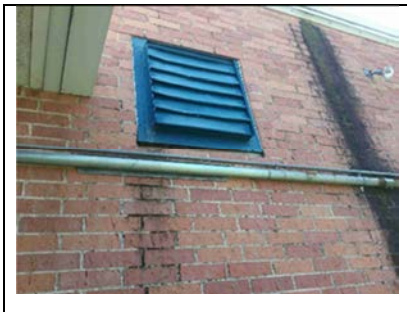
System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		fountain is located outside of the male restroom. The plumbing fixtures in the building showed typical signs of wear and tear associated with the system's age and are in average condition. Most of the floor-mounted toilets in the multi-user restrooms appeared to be misaligned.	
	Domestic Water Distribution	Domestic hot water is provided to a sink and shower located in the single-user restroom by a 10-gallon EWH. Domestic hot water is not supplied to the multi-user restrooms in the facility. The EWH located in room "GYMSTO" was in average condition but appeared to be outdated.	Average
	Other Plumbing	The facility has floor drains located throughout. The drains were observed to be in good condition.	Good
<b>Mechanical/ HVAC</b>	The building's HVAC system is composed of an air source heat pump package unit that is located on the roof. The unit was estimated to be installed in 1999 and has a capacity of 12 ton. The building also has rooftop exhaust fans ranging in size from 120 CFM to 250 CFM.  The HVAC system for the building is in average condition. Excessive wear and tear was noted for the air source heat pump and is in overall poor condition. The unit also uses R-22 refrigerant which is being phased out of use. Exhaust fans on the rooftop were installed in 2006, had typical wear and tear, and were rated in average condition.		Average
<b>Fire Protection</b>	Fire Alarm	The fire alarm system consists of pull stations and notification devices located throughout the entire facility. The fire alarm control equipment and end devices were observed to be functioning and in good condition.	Good
	Fire Protection/ Suppression	The building does not have a fire suppression system. The facility has dry chemical portable fire extinguishers located throughout the building.  The observed portable fire extinguishers were in good condition and had up-to-date inspection tags that were last inspected in May 2016.	NA
<b>Electrical</b>	Electrical Distribution	This facility contains a 225 amp panelboard and appears to be a newer, recently upgraded piece of equipment. This equipment is located in the MECHGYM room and supplies the facility power. Smaller sub panels existed in this facility, and are older outdated equipment that appears to be functioning. Equipment overall was observed in good condition.	Good
	Lighting	The lighting in this facility primarily consisted of 2x4 T-8 fluorescent bulbs in troffers. Bathrooms and small storage areas contained smaller florescent luminaries.	Average



System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		<p>Exterior lighting consisted of wall mounted wall pack HID luminaries around the entire perimeter of this facility with evidence of some HID wall mounted wall packs having been replaced with LED wall mounted wall packs.</p> <p>It was reported that there was no emergency egress lighting present in this facility. The exit signs in gym were observed but were not illuminated. Lighting was observed to be in average condition at this facility.</p>	
	Communications & Security	<p>This facility has a PA (public address) service. Access control and security includes access card readers at some exterior doors, exterior and interior cameras and a security alarm with motion and door sensors.</p> <p>It was reported that the school has been replacing older camera equipment on their own. One interior camera in this facility had the supporting cover hanging from the fixture. The communications and security systems were observed to be functioning well. Overall, the system was observed to be in average condition.</p>	Average

### **Exterior System Deficiency Examples**

#### Exterior Walls



#### Exterior Windows



### **Roofing Deficiency Examples**



### **Interior Finish Deficiency Examples**

#### **Interior Ceiling Finishes**



### **Plumbing System Deficiency Examples**

#### **Plumbing Fixtures**



### Domestic Water Distribution

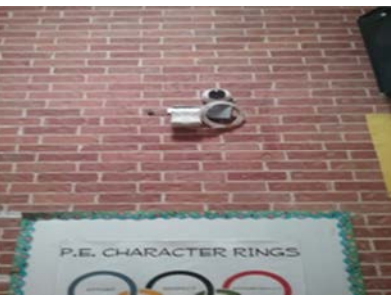


### Mechanical/HVAC System Deficiency Examples



### Electrical System Deficiency Examples

### Communications & Security



## Stand-Alone Classroom– BLDG-106C

Building Purpose	Classrooms
Building Area	11,423 SF
Inspection Date	June 14-16, 2016
Inspection Conditions	95°F - 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	<p>The exterior walls are brick veneer over concrete masonry unit (CMU) backup. The foundation appears to be slab on grade. There is no overhang on this building and the north and south walls have a continuous gutter with downspouts.</p> <p>The exterior wall system appeared to be in good condition with one exception. There is a leak within the wall adjacent to the mechanical room evidenced by water leaking along the brick ledge.</p>	Good
	Exterior Windows	<p>The exterior windows are fixed aluminum with operable awning sashes at the bottom half and the windows are single glazed.</p> <p>The windows appeared to be in good condition. Leaking around the windows has been reported in rooms 504, 507, and 508 that may be due to deteriorating sealant.</p>	Good
	Exterior Doors	<p>The exterior doors are steel with hollow metal frames with wire glass vision panels and glazed side-lites.</p> <p>The doors and frames appeared to be in good condition and have been recently painted.</p>	Good
Roofing	<p>The roof appears to be original to the building constructed in 2000. Roof is low slope with continuous gutter system along the north and south walls.</p> <p>The roof was observed to be in poor condition. The roofing showed significant bubbles forming under the membrane over large expanses of the roof area. Evidence of roof leaking is minimal inside; however, the roof has exceeded 80% of life and showed signs of deterioration. Flashing and gutters are in generally good condition.</p>		Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
<b>Interior Construction</b>	Interior Walls	The interior walls consist of painted gypsum board over metal framing or furring.  The interior walls were observed to be in good condition.	Good
	Interior Doors	The interior doors are hardwood veneer solid core with hollow metal frames.  The doors, frames, and hardware appeared to be in good condition.	Good
	Interior Specialties	System not present.	N/A
<b>Stairs</b>	Exterior Stairs	System not present.	N/A
	Interior Stairs	System not present.	N/A
<b>Interior Finishes</b>	Interior Wall Finishes	The interior wall surfaces are painted. Painted surfaces are in good condition. The main corridor was being painted during assessment. There were a few areas where gypsum board was damaged.	Good
	Interior Floor Finishes	The interior floor is vinyl tile with 6" base throughout.  The vinyl tile and base appeared to be in good condition.	Good
	Interior Ceiling Finishes	The ceilings are lay-in suspended acoustical tiles.  Although there were a few ceiling tiles observed to be stained or broken the ceiling was in good condition.	Good
<b>Conveying</b>	System not present.		N/A
<b>Plumbing</b>	Plumbing Fixtures	The building has single-user restrooms for students and staff located throughout the facility. Typical restrooms in the facility have wall-mounted, porcelain sinks with manual faucets as well as floor-mounted, porcelain toilets with manual flush valves. All of the classrooms in the building have a single bowl stainless steel sink.  Wall-mounted drinking water fountains were located in the main corridor of the building.  The plumbing fixtures throughout the building appeared to be original from an estimated install date of 2000 and are in good condition.	Good
	Domestic Water Distribution	Domestic hot water was provided to a sink in the janitor closet by one 10-gallon EWH. Domestic hot water did not appear to be supplied to any of the classrooms or single-user restrooms throughout the facility.  The EWH and domestic water system as a whole appeared to be in good condition. The EWH had typical wear and tear and may be nearing the end of its service life.	Good
	Other Plumbing	The facility has floor drains located throughout.	Good

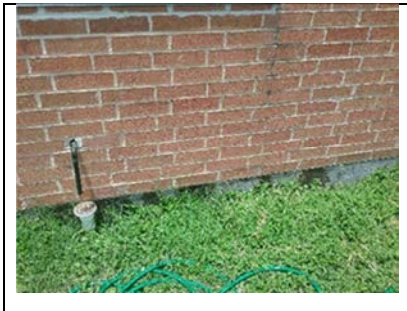
System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		The drains were observed to be in good condition.	
<b>Mechanical/ HVAC</b>	<p>The building's HVAC system is composed of heat pump consoles, a roof top condenser unit, and an energy recovery ventilator. Heat pump consoles are located in all of the classrooms in the facility and have an estimated capacity of 3 ton. The condenser unit on the roof top has a capacity of 9 ton. Multiple 120 CFM roof top exhaust fans also serve the building.</p> <p>The HVAC system for the building appeared to be in good condition. The majority of the HVAC appeared to have been original to the building from about 1999. The roof top condenser unit had significant corrosion, excessive wear and tear, and was charged with R-22 refrigerant, which is being phased out of use. The electrical disconnect supplying power to the unit was not mounted to the roof and was found lying over on the roof top. The "SUN" heat pumps located in all of the classrooms appeared to be in good condition, but use R-22 refrigerant. It was reported that it was difficult to find replacement parts.</p>		Good
<b>Fire Protection</b>	Fire Alarm	<p>The fire alarm system consists of pull stations and notification devices located throughout the entire facility. The fire alarm control equipment and end devices were observed to be functioning and in good condition.</p> <p>It was reported that re-wiring of fire electrical system in the 500-wing is to occur this summer, but was not complete at the time of this assessment.</p>	Good
	Fire Protection/ Suppression	<p>The building does not have a fire suppression system. The facility has dry chemical portable fire extinguishers located throughout the building.</p> <p>The observed portable fire extinguishers were in good condition, but only one had an up-to-date inspection tag dated May 2016. The inspection tags for the other extinguishers in the main corridor were left blank.</p>	NA
<b>Electrical</b>	Electrical Distribution	<p>The electrical distribution is located in room ELEC500. The main service panel has a 600 amp capacity and is distributed by sub-panels throughout this facility. A small transformer is located in this electric room and serviced by a 480V 277V as a primary and steps down to 208V 120V secondary power.</p> <p>The system appears to be newer, and was observed to be in good condition.</p>	Good
	Lighting	<p>The building contains 3-tube 4x4 fluorescents in troffers throughout the classrooms and corridors. Classroom bathrooms, small storage areas contained smaller florescent luminaries. Exterior lighting consisted of wall mounted wall pack HID luminaries around the entire perimeter of this facility with some evidence of HID wall mounted wall packs having been replaced with LED wall</p>	Good



System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		<p>mounted wall packs.</p> <p>It was reported that there was no emergency egress lighting present in this facility. All lighting was observed to be in good condition.</p>	
	Communications & Security	<p>This facility has a PA (public address) service. Access control and security includes access card readers at some exterior doors, exterior and interior cameras and a security alarm with motion and door sensors.</p> <p>It was reported that the school has been replacing older camera equipment on their own. The communications and security systems were observed to be functioning well. Overall, the system was observed to be in good condition.</p>	Good

### **Exterior System Deficiency Examples**

#### Exterior Walls



### **Roofing Deficiency Examples**





### **Plumbing System Deficiency Examples**

#### Domestic Water Distribution



### **Mechanical/HVAC System Deficiency Examples**



### **Fire Protection**

#### Fire Alarm



#### Fire Protection/Suppression



## Greenhouse – BLDG-106D

Building Purpose	Greenhouse
Building Area	317 SF
Inspection Date	June 14-16, 2016
Inspection Conditions	95°F - 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
<b>Exterior</b>	Exterior Walls	The Greenhouse is a pre-manufactured type aluminum frame with both flat and corrugated fiberglass panels.  The structural frame appeared to be in good condition; however, fiberglass panels are aged and showing significant deterioration from ultra violet exposure. Panels are brittle and some seams do not seal properly.	Poor
	Exterior Windows	System not present.	N/A
	Exterior Doors	There is one exterior aluminum door.  The door is a residential type storm door and appeared to be functioning except the screen is damaged allowing intrusion of pests.	Poor
<b>Roofing</b>	The roof of greenhouse is corrugated fiberglass panel similar to the exterior walls. The fiberglass roof panels were visibly aged and showing significant deterioration from ultra violet exposure. The roof panels are brittle and some seams do not seal properly. The greenhouse roof was observed to be in poor condition.		Poor
<b>Interior Construction</b>	Interior Walls	System not present.	N/A
	Interior Doors	System not present.	N/A
	Interior Specialties	System not present.	N/A
<b>Stairs</b>	Exterior Stairs	System not present.	N/A
	Interior Stairs	System not present.	N/A
<b>Interior Finishes</b>	Interior Wall Finishes	System not present.	N/A
	Interior Floor Finishes	There is a perimeter grade beam that contains a gravel floor. The gravel appears to be a functional solution for a greenhouse. No deficiencies observed.	Average
	Interior Ceiling	System not present.	N/A

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Finishes		
<b>Conveying</b>	System not present.		N/A
<b>Plumbing</b>	Plumbing Fixtures	System not present.	N/A
	Domestic Water Distribution	The only observed domestic water distribution for the building was an interior and exterior hose bib which is in good condition.	Good
	Other Plumbing	System not present.	N/A
<b>Mechanical/ HVAC</b>	The building's HVAC system is composed of a 5000 CFM evaporative cooler that was manufactured in 2004. Excessive wear and tear as well as corrosion is on the evaporative cooler, which is in poor condition. The wall-mounted exhaust fans serving the building are in average condition.		Average
<b>Fire Protection</b>	Fire Alarm	System not present.	N/A
	Fire Protection/ Suppression	System not present.	N/A
<b>Electrical</b>	Electrical Distribution	There is a small breaker panel with three breakers within breaker box. The panel is in good condition.	Good
	Lighting	System not present.	N/A
	Communications & Security	System not present.	N/A

### Exterior System Deficiency Examples

#### Exterior Walls



#### Exterior Doors



### Roofing Deficiency Examples



### Mechanical/HVAC System Deficiency Examples



## **Blanton Elementary School Campus Summary of Recommendations**

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

### **Campus Recommendations**

#### **Exterior**

1. Exterior brick will need periodic cleaning where organic growth is encountered and the underlying roof or flashing failure resulting in water infiltration should be corrected.

#### **Roofing**

1. Roofing on all buildings is in various stages of failure and is nearing end of life expectancy. Patching may temporarily extend roof; however, replacement should be expected within the next five years. The roof deck on the 200-wing should be repaired during roof replacement or sooner.
2. Overhanging limbs from trees in courtyard should be trimmed sufficiently to eliminate potential damage to roof and building structure.
3. Gutters should be thoroughly inspected for rusting and repaired as needed.

#### **Plumbing**

1. Re-mount all unsealed and misaligned toilets throughout the facility.
2. Consider replacement of aged EWHs.
3. All plumbing fixtures and the domestic water system should be maintained as needed.
4. Inspect the sanitary lines throughout the school to determine if replacement or rehabilitation is necessary.

#### **Mechanical/HVAC**

1. Plan for replacement of all equipment that uses R-22 refrigerant. The refrigerant is being phased out of manufacturing in the near future, and will make the equipment obsolete.
2. Service the roof top exhaust fans that have excessive noise and vibration.
3. Remove or repair any abandoned or inoperable equipment throughout the school campus.

#### **Fire Protection**

1. Continue inspections of the portable fire extinguishers and ensure inspection tags are completed.
2. It was reported that no emergency lighting was present in all applicable facilities. Recommend that battery pack emergency lighting be installed next to all strobe light locations in three of the four facilities mentioned to illuminate floor paths during a black out. Greenhouse is a non-applicable structure.

#### **Electrical**

1. Remove all abandoned conduit and or electrical components located within the campus facilities.
2. Recommend all electrical distribution and service equipment past its service life be considered for replacement to ensure reliable function and future compatibility with upgrades.

### **Main School Building Recommendations**

#### **Interior Construction**

1. Investigate cause of ceramic tile floor buckling at perimeter walls.

#### Mechanical/HVAC

1. Investigate HVAC distribution between the 300- and 400-wings of the building, where temperature regulating problems were reported.

#### Electrical

1. Summarizing the electrical service and equipment of the facilities major structure allocated for classroom and administrative use. Abandoned panelboards conduit and junction boxes throughout this facility be removed completely in the near future.

### **Stand-Alone Gymnasium Recommendations**

#### Exterior

1. Remove fans and louvers, replace deteriorated wood blocking, and reinstall with proper flashing and sealant to eliminate water infiltrating into brick cavity.

#### Mechanical/HVAC

1. The heat pump is nearing the end of its recommended service life and should be considered for replacement within the next few years.
2. The exhaust fans should be proactively inspected and maintained as needed.

#### Electrical

1. Exit lights in this facility seem original in current state did not illuminate during physical walkthrough. Needs replacement.
2. Breaker panel supporting a 100 amp service in this facility contains the original Federal Pacific Electric Panel. Recommend upgrade due to equipment surpassing its service life expectancy .

### **Stand-Alone Classroom Recommendations**

#### Exterior

1. Identify source of water leaking at brick ledge and repair.
2. Window sealant is nearing end of life expectancy and may need to be replaced within the next five years.

#### Roofing

1. Roofing is nearing end of life expectancy. Patching may temporarily extend roof; however, replacement should be expected within the next five years.

#### Interior Finishes

1. Replace broken or stained ceiling tiles. Identify source of staining (roof leaks or mechanical system).

#### Mechanical/HVAC

1. The roof top condenser unit and the heat pumps are nearing the end of their recommended service life and should be considered for replacement within the next few years.

### **Greenhouse Recommendations**

#### Exterior

1. Exterior translucent fiberglass panels are becoming brittle and will be more prone to breakage. Replacement of wall and roof panels will likely be needed within the next ten years.

#### Mechanical/HVAC

1. Evaporative cooler should be further inspected to determine source of excessive wear. Preventative maintenance should be performed as needed. Replacement of the unit should be considered in approximately 5 years.



## CRAWL SPACE – Blanton ES – Main School Building (BLDG-106A)

Building Purpose	Administrative, Classrooms, Library, and Cafeteria
Inspection Date	August 11, 2016 (Morning)
Inspection Conditions	85° - Sunny and Dry

### Crawl Space System Deficiency Overview

NOTES CONCERNING CRAWL SPACE OBSERVATIONS: The original building was constructed with the two west wings, and the east wing was constructed later as an addition. Due to large amount of stored equipment over the floor hatch, we were unable to access the west wing crawl space. All observations below apply to the original building construction only.

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
<b>Soil &amp; Drainage</b>	Soil Below Building, Site Drainage in Crawl Space	Soil in crawl space was generally dry but was moist around perimeter walls and near the access door. Trail lines in the soil indicate the occurrence of flowing water during wetter times. The primary source of water appears to be small wall openings used for ventilation, although several small pipes were leaking into the space as well. No crawl space drainage system is shown in the building construction drawings nor was one observed while at the site.  Soil/Drainage deficiencies: <ul style="list-style-type: none"> <li>• Soil was moist due to water infiltration and poor ventilation</li> </ul>	Average
	Soil Retainers & Carton Forms	N/A – Soil retainers and carton forms were below ground and could not be observed.	N/A
	Areaways/Ventilation	Ventilation is provided through small openings regularly spaced along the perimeter walls. There are no signs of blockage; however, moist soil and condensation under the beams indicate that the cross-ventilation is not adequate.  Areaway deficiencies: <ul style="list-style-type: none"> <li>• Poor cross-ventilation</li> </ul>	Average

	Access Hatches	<p>Access door to the crawl space below the main building is located in the basement storage room and is very accessible. The west wing addition, however, has a separate crawl space that is access via a floor hatch in the Mechanical Room; due to the large amount of materials (chairs, sheet rock, etc.) being stored on top of the hatch we were unable to access and therefore the west wing crawl space was not observed.</p> <p>Access deficiencies:</p> <ul style="list-style-type: none"> <li>West wing crawl space was inaccessible due to storage materials blocking floor hatch</li> </ul>	Good
Exposed Structure	Exposed Columns & Tops of Foundations	<p>Cast-in place concrete columns are located in the building interior and could be observed. Tops of pier foundations, however were below ground and could not be observed. In general the columns appeared in good condition with minor chips, spalls and/or honeycombing observed in limited locations.</p> <p>Column/Foundation deficiencies:</p> <ul style="list-style-type: none"> <li>Minor spalling/honeycombing</li> </ul>	Good
	Exposed Faces of Perimeter Walls / Grade Beams	<p>Perimeter of crawl space is enclosed with deep suspended concrete beams. Perimeter beams appeared in good condition, with very limited minor spalling at a few locations and some exposed reinforcement that was corroded.</p> <p>Perimeter wall/beam deficiencies:</p> <ul style="list-style-type: none"> <li>Minor spalling in limited locations</li> <li>Corroded reinforcement in limited locations</li> </ul>	Excellent
	Exposed Faces of Suspended Floor Beams Above	<p>Concrete beams span between columns and/or perimeter beams and support the pan joist slab. Beams were generally in good condition, with only a few areas with localized spalling, honeycombing or exposed/corroded reinforcement.</p> <p>Beam deficiencies:</p> <ul style="list-style-type: none"> <li>Minor spalling/honeycombing</li> <li>Few areas with exposed, corroded reinforcement</li> </ul>	Good

	Underside of Suspended Floor Slabs Above	<p>Floor system was formed with precast pan joists. Several pan joists were observed with significant spalling and corroded reinforcement.</p> <p>Floor system deficiencies:</p> <ul style="list-style-type: none"> <li>• Minor to significant spalling</li> <li>• Minor to significant rebar corrosion</li> </ul>	Average
<b>Pipes, Ducts, Equipment &amp; Fireproofing</b>	Suspended Pipes	<p>A lot of piping was suspended in the crawl space. Two pipes were visibly leaking where they framed into perimeter beams. Several pipes and support hangers were rusted; while most of the pipe corrosion observed was minor, the corrosion at a few pipes was advanced.</p> <p>Pipe deficiencies:</p> <ul style="list-style-type: none"> <li>• Two pipes leaking down the perimeter wall.</li> <li>• Severe rusting on a few pipes</li> <li>• Minor rusting on hangers/rods</li> <li>• One failed hanger</li> </ul>	Average
	Exposed Ductwork	<p>Only one (1) duct was observed on the northeast side of the building.</p> <p>Ductwork deficiencies:</p> <ul style="list-style-type: none"> <li>• Torn with degraded insulation</li> </ul>	Poor
	MEP Equipment	N/A – No MEP equipment was present in the crawl space.	N/A
	Spray Fireproofing/ Insulation	N/A – No spray fireproofing or rigid insulation was present in the crawl space.	N/A

### Crawl Space Deficiency Examples

#### Soil & Drainage



Damp soil adjacent to perimeter beams



Water trails in soil indicate running surface water in crawl space



Inadequate ventilation in perimeter beams



Condensation on underside of floor structure



West wing crawl space inaccessible due to equipment covering floor hatch

## Exposed Structure



Honeycombing at column



Minor beam spalling & corroded reinforcement



Exposed and corroded pan joist web reinforcement



Pan joist web spalling at beam support



Exposed pan joist flange reinforcement

Pipes, Ducts, Equipment & Fireproofing



Corroded pipes



Corroded pipes



Corroded hangers



Leaking pipe



Duct is torn & losing insulation

**CRAWL SPACE – Blanton ES – Stand-Alone Classroom Building (BLDG-106C)**

Building Purpose	Classrooms
Inspection Date	August 11, 2016 (Morning)
Inspection Conditions	90° - Sunny and Dry

**Crawl Space System Deficiency Overview**

NOTES CONCERNING CRAWL SPACE OBSERVATIONS: This building does not have an operable crawl space. The ground level floor framing is suspended above ground but void space clearance did not allow access beyond the immediate vicinity of the hatch. Bottoms of perimeter and interior suspended beams extend below top of ground (cast on recessed carton forms with soil retainers on each side of beam to protect void) so even with minimal clearance below the slab, the hatch only provides access to a limited area (between Grids 3 and 4 on existing plans).

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
<b>Soil &amp; Drainage</b>	Soil Below Building, Site Drainage in Crawl Space	Soil immediately surrounding floor hatch was dry with no signs of running water.	Excellent
	Soil Retainers & Carton Forms	N/A – Soil retainers and carton forms were not exposed above ground and could not be observed.	N/A
	Areaways/Ventilation	Building does not contain areaways or other means of cross ventilation. However, soil and concrete framing around floor hatch appeared dry, with no signs of condensation or moldy odor. Areaway/ventilation deficiencies: <ul style="list-style-type: none"><li>• None</li></ul>	Excellent
	Access Hatches	Access hatch is located in the music room closet. The hatch was sealed with duct tape.  Access hatch deficiencies: <ul style="list-style-type: none"><li>• None</li></ul>	Excellent
<b>Exposed Structure</b>	Exposed Tops of Foundations (Piers or Footing)	N/A – Foundations were not visible above ground and could not be observed.	N/A



	Exposed Faces of Perimeter Walls / Grade Beams	Perimeter beam in the area near the floor hatch appeared in good condition. No cracks, spalls or honeycombing were observed. No cracks, spalls, honeycombing or other deficiencies were observed.	Excellent
	Exposed Faces of Suspended Floor Beams Above	Interior suspended floor beam near the floor hatch appeared in good condition. No cracks, spalls, honeycombing or other deficiencies were observed.	Excellent
	Underside of Suspended Floor Slabs Above	No deficiencies were observed in hollow core panels adjacent to the floor hatch.	Excellent
<b>Pipes, Ducts, Equipment &amp; Fireproofing</b>	Suspended Pipes	Pipe deficiencies: <ul style="list-style-type: none"> <li>Minor corrosion was observed on pipes near floor hatch.</li> </ul>	Good
	Exposed Ductwork	N/A – No exposed ductwork found in crawl space near floor hatch.	N/A
	MEP Equipment	N/A – No exposed MEP equipment found in crawl space near floor hatch.	N/A
	Spray Fireproofing/ Insulation	N/A – No spray fireproofing or rigid insulation was observed near floor hatch.	N/A

### Crawl Space Deficiency Examples

#### Pipes, Ducts, Equipment & Fireproofing



Minor corrosion on observed pipes



## Blanton ES – Campus Summary of Crawl Space Recommendations

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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.

### **Main School Building Recommendations**

#### Crawl Space, Soil & Drainage

1. Investigate need to provide additional ventilation in main crawl space.
2. Remove stored equipment covering west wing access hatch.

#### Crawl Space, Exposed Structure

1. Where reinforcement is exposed, remove rust from reinforcement and repair spalled concrete.
2. Where reinforcement is exposed due to inadequate clear cover, remove rust from reinforcement and coat with a rust-inhibitive coating.

#### Crawl Space Pipes, Ducts, Equipment & Fireproofing

1. Replace highly corroded pipes and hangers
2. Replace failed hanger rods

### **Stand-Alone Classroom Building Recommendations**

*No crawl space recommendations.*

