Burnet Middle School Site Summary

Address	8401 Hathaway Drive Austin, TX 78757
Number of Permanent Campus Facilities	2
Original Year of Construction	1961
Total Campus Building Area (combined)	138,156 SF

Introduction

The Burnet Middle School campus is located at 8401 Hathaway Drive in Austin, Texas. Burnet Middle School was established in 1961, and consists of the Main School Building (BLDG-046A) along with the Mechanical Building (BLDG-046B). The Mechanical Building was constructed in 1969. These buildings are connected to one another by exterior uncovered concrete sidewalks.

Meeting Log		Revision Log		
Date	**Meeting**	**Revision**	**Date**	**Summary of Content**
6/20/16	Interview	00	8/26/16	Draft Issue
6/28/16-6/29/16	Assessment	01	11/18/16	Added comments from PM Craig Estes as indicated on email dated 10/31/16. See pages 5, 8, and 9.
10/3/16	Cluster Meeting (Not Attended)			
10/20/16	Follow-Up			

Main School Building – BLDG-046A

Building Purpose	Administration, Classrooms
Building Area	137,131 SF
Inspection Date	June 28-29, 2016
Inspection Conditions	June 28 - 97°F - Sunny with afternoon thunderstorms June 29 - Partly 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 walls of the building are constructed with concrete masonry unit (CMU) cores faced in brick with gravel inlay accents. The building consists of many wings organized around greenspace or courtyards, and only one wing of classrooms is a two-story. The rest, and majority, of the building is one story. The walls were observed to be in generally good condition, free of water discoloration and well kept. A few deficiencies were noted during the assessment, most of which require only light maintenance. Pockets of sunken soil were observed at a few downspouts. Most of the painted portions of the foundation wall were observed to be chipped. More notably, a buckled portion of the gravel infill was observed beneath a classroom window. It was also observed that the exterior girders for the building were exposed and not insulated. This was typical of many roof beams and girders. This resulted in a thermal bridge from exterior to interior and affects the efficiency of the HVAC (heating, ventilating, and air conditioning) system. It is not a life safety issue, nor is an urgent fix, but the technique is simply not common practice today and may result in some HVAC inefficiencies.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Exterior Windows	The exterior windows are a mixture of original and updated horizontal bands, in metal and aluminum frames respectively. Both window systems have single pane glazing, with either textured or smooth glazing. The roof eave projects over the face of the windows is about 4'-0" in most areas of the building. The window system was observed to be generally in average condition, and the majority of corridor windows appeared excessively dirty. The sealant of the older metal frame windows was observed to be dry and failing, constituting about 25 percent of all windows and including the kitchen windows. About a dozen panes were observed to be either missing and replaced with another material, or broken and taped. Organic growth was observed on the lintel outside the copy room, and a black tarp was observed to be taped over a window in room 300.	Average
	Exterior Doors	The exterior doors of the building are painted metal in metal frames. Most doors are half glazed and are set in a storefront system. The doors leading from the cafeteria to the courtyard are unique from all other doors in the building. They are 8'-0" tall glazed sliding doors, set in a full height metal frame storefront system. The glazing in the door systems throughout the building is single pane. The exterior doors have modern hardware and seem to have been installed in the past five years. The doors appeared to be in good condition, only lightly used and overall weatherproof. A few spots were observed to need touch-up paint. The exterior door near the small gym was observed to have rust on the frame. The cafeteria sliding doors appeared more worn than the rest of the exterior doors, with scratches and excessive dirt on the frame.	Good
Roofing	The roof covering the building consists of either built-up asphalt with a granular topping, modified bitumen, or a single ply membrane, all constructed at different times. There are 30 skylights over the gyms. There is also an extensive covered walkway on the campus with a corrugated metal roof. The roof as a whole was observed to be in average condition as minor repairs may be required and the system appeared mostly watertight. Ponding was observed in many places throughout all roof types, especially near the gutters. The modified bitumen roof appeared to be in good condition though the membrane is showing its age. The seams appeared well welded, but hairline cracks from sun exposure were observed to pepper the surface. The eaves of the		Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	double height roof, finished with wood wool panels, also appeared to be in good condition. The single ply membrane above the roof appeared to be in nearly new condition. Ripples of dirt were observed to have gathered at the seams and especially near the gutters, but the layers of membrane appeared to be adhered together well. Over the large gym area, 23 skylights were observed to be covered in tarp due to reported leaks. Under the eave of the large gym, a line of water-damaged wood wool was observed. In the same location, the finish on the steel fascia was observed to be peeling significantly. The line of the membrane overlap at the gutter was observed to be located just above the damaged wood wool eave. Ponding was observed at the edge of the built-up roof above the 200-wing and spots of displaced gravel were observed. Underneath the ponding areas, the wood wool paneling of the roof eave was observed to be deteriorating as well.		
Interior Construction	Interior Walls	The interior partitions are predominately constructed of CMU, glazed masonry units, and brick. Wooden air grilles exist at the base of the classroom partitions adjacent to the main corridors. The interior partitions appeared to be in good condition as no cracking or chipping was observed. Some partitions lack sealant at piping penetrations. In the 100-wing, a partition in the janitorial closet by the female restroom is severely deteriorated with exposed piping beyond.	Good
	Interior Doors	The majority of classroom doors are wooden doors with half glazing of acrylic and knob hardware. It was observed that the wooden doors and finishes throughout the building were faded, and the bases of the doors were showing wear and tear. The acrylic on most classroom doors was observed to be surface scratched, with a few broken panes in total.	Average
	Interior Specialties	There are metal lockers in the male and female locker rooms only. The lockers appeared to be in excellent condition as there were few, if any, signs of normal wear or damage.	Excellent
Stairs	Exterior Stairs	There are numerous exterior stairs and ramps across the campus, most of which are cast-in-place concrete or retroactively installed metal. The exterior stairs appeared to be in good condition with little visible damage.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Interior Stairs	There is one main interior stair system in the building connecting the 100- and 200-wings. It is 90 inches wide with a metal and wood handrail. There is a stair and ramp system in the gym area corridor finished in rubber. There is also smaller wooden stairs in the gym and cafeteria, allowing access to the two stages in the building. Those stairs are 24 inches wide and appear original to the building. The main stair appeared to be in good condition while some of the stage stairs located in the cafeteria appeared to be in average condition. The wood of the stage stairs appeared worn and aged.	Good
Interior Finishes	Interior Wall Finishes	Many of the interior walls of the building are finished with brick, glazed masonry, wood paneling, or paint. The portion of the building serving as the music hall has furred-out partitions of painted gypsum board. The kitchen walls are unfinished beyond the glazed masonry units with which they are constructed. Generally, the wall finishes appeared to be in average condition due to the visible aging of the materials. Most of the wood paneling appeared to be faded from time, and the edges of the wood were observed to be worn or damaged. The age of the materials gave the impression of dinginess in the classrooms. A few spots of discoloration on a gypsum board partition were also observed. A small portion was observed to be roughly patched. A portion of the 400-wing was observed to be missing a fascia.	Average
	Interior Floor Finishes	The majority of the building floor is finished in vinyl composition tile (VCT) with rubber base. The gym floors are finished with athletic wood flooring and the administration wing with carpet. The kitchen floor and base is finished in quarry tile. The linoleum and carpet floors were generally in good condition, though a few deficiencies were observed. The carpet in computer room 403 smelled of mildew, and the room was humid. The wood flooring in the small gym was observed to be worn and chipped in places. The wall base of the same room was observed to be discolored and damaged. The concrete floors of the corridors flanking the small gym appeared damaged, missing chunks of concrete. In room 16, a major deficiency was observed. On June 29, 2016, the day after a heavy rain event, the floor of	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		room 16 was observed to be flooded with a half-inch deep layer of water. The walls and ceiling finishes were found to be dry, and the source of the water could not be determined. It was reported in the interview that the problem had previously been fixed.	
	Interior Ceiling Finishes	The interior ceiling of the building is comprised of lay-in acoustical ceiling tile (ACT) and wood wool panels, including the student restrooms. The kitchen ceiling is comprised of lay-in gypsum board panels. Though the ceilings were generally observed to be well maintained, some missing or damaged tiles were observed throughout the building. Where the ceiling was penetrated by piping or conduit, poor sealing was observed to be common. Water damage was specifically observed to affect a few ceiling tiles in the administration wing, cafeteria corridor and janitorial closets. Some ceiling tiles throughout the building were observed to be bowing or sitting in warped tees, amounting to about 5 percent of the total ceiling system. The ceiling in room 105 was observed to have been cut around a pee trap for the sanitary line, leaving the sanitary line exposed in the classroom. This condition was also observed in the adjacent corridor. In the kitchen, black spots on the ceiling above the dishwashing station were observed, possibly evidence of biological matter. One area near the fire suppression hood was observed to be poorly sealed around penetrations. The ceiling between the gym and music wing is aged more than any other area.	Good
Conveying	There is a one passenger elevator located in 100-wing. The elevator is a hydraulic ThyssenKrupp TAC-20 and was installed in 2012. The elevator cab could not be assessed as it was not accessible, however the inspection certificate was found to be dated recently and indicates that the elevator equipment is in excellent condition.		Excellent
Plumbing	Plumbing Fixtures	The building has public restrooms for men, women, and students, along with separate staff restrooms throughout the facility. These restrooms have vitreous china hand sinks in counters with manual faucets, along with vitreous china, floor-mount/wall toilets with manual flushing mechanisms, and vitreous china, wall-hung urinals in the men's restrooms with manual flushing mechanisms. There are service sinks in the janitorial closets, and water coolers located throughout the facility, typically near the public restrooms. The	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		restroom plumbing fixtures are typically aged but still operational and in good condition. It was reported by facility staff that ten service sinks located in the janitorial closets (i.e., mop sinks) should be upgraded, but no deficiencies were identified. In addition, it was reported by facility staff that the 400-wing male restroom was backing up and flooding, however such conditions were not observed. The building also includes other specialty locations with plumbing fixtures, including a kitchen for the school cafeteria, culinary classrooms with a full-scale kitchen, and home economics classrooms. These plumbing fixtures were observed to be in good condition. Staff interviews indicated there are no shut-off valves to the individual wings of the building, which was confirmed. The eyewash/safety shower stations in rooms 205 and 207 appeared to not be fully functional, as they were missing actuator handles or leaked. Staff interviews indicated problems with piping and floor drains in the kitchen; no drainage issues were observed, however the kitchen was not in use.	
Plumbing (Continued)	Domestic Water Distribution	Plumbing fixtures in the cafeteria kitchen are serviced by a 75-gallon, 227 MBH gas water heater (GWH), which was found to be in good condition with an estimated ten years of remaining service life. No other plumbing fixtures in the building are believed to be serviced with hot water. Domestic water service piping, where observed (i.e., outdoor ground–to exterior entries) was in fair condition. A corroded pipe entry was observed entering mechanical room AHU-13 (air handling unit-13), and there was a bent, unprotected entry near the loading dock. The plumbing distribution equipment was observed to be in average condition based upon the deficiencies mentioned above.	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Other Plumbing	Most roof drains appear to be in place and free of debris. Gutters and downspouts generally appear to be in good condition, but there is a dented roof leader and wall vent on the north exterior of room MU4, and, adjacent west of the 100-wing, a buried 6-inch PVC (polyvinyl chloride) roof leader discharge main was exposed, with its outlet cracked and filled with dirt. Natural gas piping and appurtenances at the building exterior appeared in good functional condition.	Average
Mechanical/ HVAC	The major mechanical equipment consists of packaged modular AHUs located primarily on the roof, with several located in indoor mechanical spaces and mezzanine areas. Package units were found located on the roof top or around the exterior perimeter of the facility. These serve the HVAC system. It should be noted that several HVAC units located in mezzanine areas between floors (i.e., above drop ceilings) were not verified or assessed. In addition, equipment located inside MDF (main distribution frame) rooms is not accessible due to security constraints. Twenty AHUs, ranging in capacity from an estimated 4,000 CFM (cubic feet per minute) to 10,000 CFM, are located on the roof. Seven other verified AHUs are located throughout the interior of the facility and range from an estimated 4,000 CFM to 12,000 CFM in capacity. Aside from three older, average-condition outside air/heat recovery units on the roof, AHUs at the building were observed to be in good to excellent condition, with most exhibiting smooth sounding operation, a lack of leaks or corrosion, and a manufacture date of 2015.	Good
	Typically, indoor AHUs were equipped with preventative maintenance logs attached to the housing enclosure or directly nearby for reference. Heating and cooling imbalance issues have been identified by staff in the 200- and 300-wing classrooms. One AHU, which was not identified on the furnished roof plan, located in the southwestern quadrant of roof section A-63, appeared very old and rusty, and was not in operation. Another AHU, located in the “GYMSTO1” mezzanine, appeared original to the building, exhibited excessive wear, and was also not in operation. Two active chiller water supply/return piping leaks onto drop ceiling were observed: one on the second floor, corridor “COR1,” adjacent-west of the book storage room, and another on the first floor in the 300-wing, corridor “COR12,” near HVAC unit RAF-3. A number of packaged and terminal HVAC units were located on the roof, indoor corridors, and ceilings of certain rooms such as the kitchen and male/female locker rooms. Twenty-one RTUs (roof top units) ranged from small 1.5/2 ton air source heat pumps or split systems to larger 10 to 25-TON units, and were in generally good condition with smooth sounding operation. Common minor deficiencies noted were corrosion, wear and tear of the radiator fins, and slight rattles during operation. Staff interviews indicated a desire to replace seven packaged units (RTUs -1, -2, -B1, and main office; along with AHUs GYM1, GYM3, and GYM5),	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		although no major deficiencies were observed with these units other than the units being near or past an estimated 20-year service life. Cooling issues have also been reported by staff with RTU-KIT, although no deficiencies were observed, and the unit had a manufacture date of 2015. Package units located indoors consisted of small water source, rectangular floor-mounted (console), rectangular ceiling-mounted, or circular ceiling mounted heat pumps, with 39 located throughout corridors and locker rooms. It is unclear whether all of these units are still in use, as their integral water lines are smaller and uninsulated compared to AHUs known to be in service. None were operating, and each appeared to be original to the building structure. Staff have reported cooling issues with the units located in classrooms 15 and 13 (FCUs (fan cooled units) -15B, -15A, -1, -2, and -3). Seven gas/hot water (or steam) boiler units used for air heating purposes are located on the first floor of the building or the mechanical room basement below the gym, ranging from 500 MBH to 2100 MBH in capacity. Boiler-1 (SC002507) was noted by staff to be leaking natural gas; visual assessment did not indicate deficiencies, and five years of estimated service life remained. Boiler-5 (SC002549, whose nameplate had “Boiler-2” handwritten over Boiler-5) was noted by staff as needing replacement; it was found in average condition, with slight corrosion and likely nearing the end of its estimated 30-year service life. Boiler-4, located in the kitchen mechanical room appeared to be in poor condition, due to observed issues with corrosion, wiring, and was past due expected service life. Staff interviews indicated it should be replaced for these reasons.	
		The three boiler units located in the 300-wing electrical room (boilers-2A/2B/2C) appeared to be recent 2014 additions (2014 manufacturing date) and were in excellent condition. Two relatively small direct expansion cooling units were not identified on furnished plans but were located on roof section A-22; one, tagged “FREEZER COMPRESSOR” is assumed to be a 5-TON packaged refrigerant system for the kitchen cold storage room, and appeared in good condition with smooth sounding operation. Another unit, an air-cooled, belt-driven condenser or evaporative cooler, did not have a tag, and was switched off; its status is uncertain. Roof top EFs (exhaust fans) generally were from 2006 or 2015 and were observed to be in good condition. On a system level, EFs were found to be in generally good condition, with few exceptions. EFs (EF-4-08 and CS-3) in roof sections A-33 and A-23, respectively, were observed with a loud, erratic noise during operation. Several EFs exhibited dented caps, likely from hail damage. One EF (CS-7) in roof section A-62 was observed with an internal tarp cover, indicating possible leakage problems.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Fire Protection	Fire Alarm	The building has an addressable fire alarm system that consists of alarm and signaling devices such as horns/annunciators, strobes, horn/strobe combos, pull stations, and detectors. The fire alarm system manufacturer is Silent Knight (Honeywell) and was installed in 2005. It is in good condition.	Good
	Fire Protection/ Suppression	The building is protected by portable fire extinguishers in rooms marked as such, and most were present and readily accessible. Observed portable fire extinguishers had inspection tags dated within the last year as required.	Good
Electrical	Electrical Distribution	There appears to be two electrical services at this facility, one from the original building construction and one that was added later on. It appears that the first service enters the building at 120/240-volt 3-phase 4-wire delta via an exterior pad mounted transformer. There was no observable nameplate for this transformer, but from its physical size, it appears to be 500kVA. This transformer then serves a 1600A 120/240-volt main switchboard 'M'. The second service is believed to enter the building at the 277/480-volt 3-phase 4-wire via a 1500kVA utility company pad mounted transformer that serves a 2500-amp main switchboard located outside the facility. There is also a 250kVAR power factor correction capacitor bank installed at the facility and it is in excellent condition. The electrical services feed transformers and distribution panel boards, which are located in various electrical rooms throughout the building. There are four distribution transformers rated at 480-volt primary that step-down the voltage to 120/208-volt secondary, which feed power to 120/208-volt panel boards. The building does not have a lightning protection system. The electrical distribution equipment was observed to be in poor condition. A majority of the assets were observed with corrosion. Two panel boards were observed with missing breaker covers and the bussing was exposed behind the breaker board. This condition could be considered a life safety hazard and breaker covers should be installed immediately. The existing electrical service entrances require shutdown of the utility company transformer for any equipment maintenance work to be performed on them, so this causes an inconvenience to the school and is a life safety concern.	Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		The facility staff reported that many classrooms are on shared circuits and are under capacity. The distribution transformers in the building were observed to be all hot to touch and generating a lot of humming noise and vibration, which indicated they are either at capacity or possibly overloaded. Facility staff also reported that the kitchen steam table causes frequent breaker trips.	
	Lighting	The building's exterior lighting consists mostly of building mounted HID (high-intensity discharge) floodlights and some LED (light-emitting diode) luminaires that are located under the canopies. The interior lighting consists of primarily T8 fluorescent luminaires. The cafeteria stage lights are by Strand Lighting and appeared to be in good condition. The gym has HID low bay fixtures, which appears to be in good condition. The lighting for the building was observed to be in average-condition. Many interior and exterior luminaires appeared to be aged past their design life. Observed deficiencies include broken lenses, inconsistent color temperatures, and non-functional fixtures. An exposed light switch was observed in the female restroom, which is a safety hazard. There are exit signs present in the building; however during our visit, the power went out and none of the exit lights and emergency egress lights worked. During the power outage, it was observed that there is inadequate emergency egress lighting throughout the school, especially in the corridor areas and in the administration front office area. There are some 2x4 fixtures with integral batteries in the corridors, but these appeared to not provide adequate egress illumination. It was observed there does not appear to be any occupancy sensor/automatic off lighting controls at the facility.	Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Communications & Security	There is a Gemini security system including surveillance cameras in the building. The system appears to be in good condition. There is a Telcor MCC-300 public address system in the building and it was observed to be in excellent condition with no reported deficiencies. The building is equipped with telecommunications systems, but the main backbone equipment is located in an inaccessible MDF room and could not be assessed. There are Wi-Fi access points throughout the school and they appeared to be in excellent condition.	Good

Exterior System Deficiency Examples

Exterior Walls




Exterior Windows





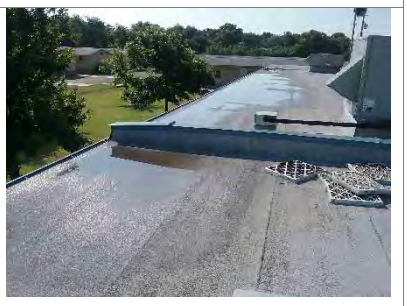
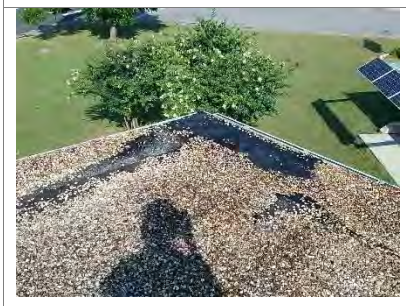
Exterior Doors



Roofing Deficiency Examples






Interior Construction Deficiency Examples

Interior Walls


Interior Doors



Stairs Deficiency Examples

Interior Stairs

Interior Finishes Deficiency Examples

Interior Wall Finishes

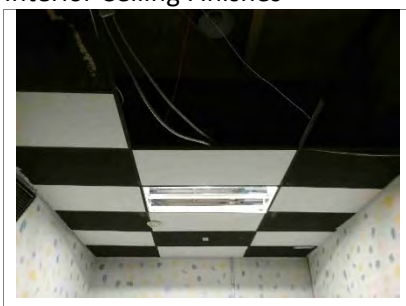




Interior Floor Finishes




Interior Ceiling Finishes

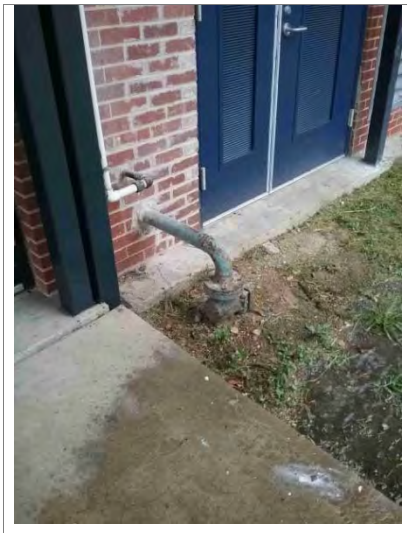




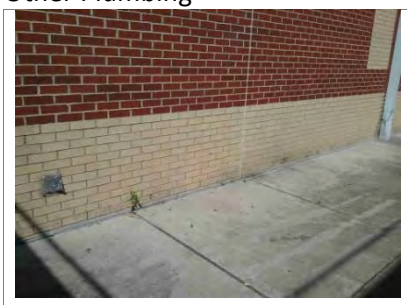
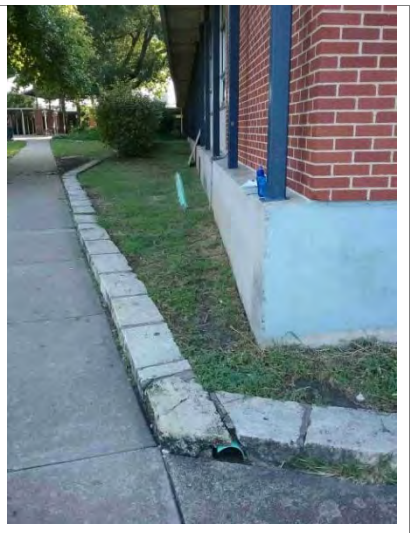

Plumbing System Deficiency Examples

Plumbing Fixtures

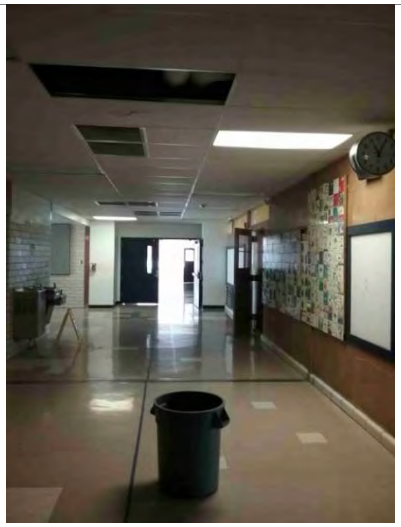
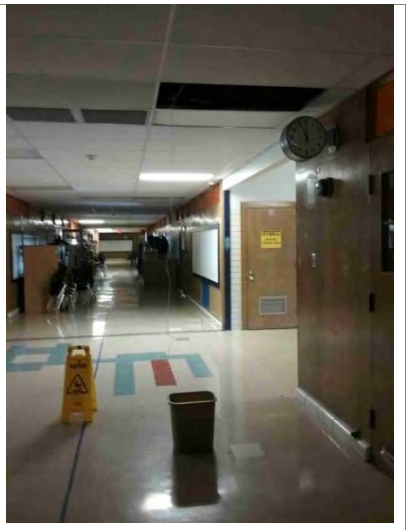
Domestic Water Distribution



Other Plumbing

Mechanical/HVAC System Deficiency Examples




Electrical System Deficiency Examples

Electrical Distribution

Lighting


Mechanical Building – BLDG-046B

Building Purpose	Mechanical
Building Area	1,024 SF
Inspection Date	June 28-29, 2016
Inspection Conditions	June 28 - 97°F - Sunny with afternoon thunderstorms June 29 - Partly 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 walls are constructed with CMU block with a brick wythe on the exterior. The wall is solid on the first level and transitions to slit brick at the top level to allow air flow to the cooling towers. The exterior face of the wall appeared to be in good condition, even though the building was built in 1970.	Good
	Exterior Windows	System not present.	N/A
	Exterior Doors	There is one pair of metal double doors leading into the ground level of the building. They are 4-foot-wide leafs of painted metal. There is also one manual metal overhead rolling door measuring 9 x 10 feet. A few signs of rust and scuffs were observed on the double doors, but the interior of the door was observed to be rusted, faded, and scratched. The hinges were also observed to be slightly rusted. The overhead rolling door appeared to be in excellent condition.	Average
Roofing	The roofing is composed of asphalt sheeting with no aggregate covering. The roofing appeared to be in average condition. The asphalt was observed to be cracking and messily adhered together.		Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Interior Construction	Interior Walls	There is one interior partition in the building, constructed retroactively. It is constructed of wood studs with unfinished plywood sheathing. The partition appeared to be in good condition.	Good
	Interior Doors	Subsystem not present.	N/A
	Interior Specialties	Subsystem not present.	N/A
Stairs	Exterior Stairs	Subsystem not present.	N/A
	Interior Stairs	Subsystem not present.	N/A
Interior Finishes	Interior Wall Finishes	Subsystem not present.	N/A
	Interior Floor Finishes	The floor is unfinished concrete slab on grade with concrete curbs for the equipment. A few spots of corrosion from water and bleeding rust stains were observed on the floor surface. The integrity of the floor appeared to be unhindered by the damage, though cosmetically it was poor.	Average
	Interior Ceiling Finishes	Subsystem not present.	N/A
Conveying	System not present at building.		N/A
Plumbing	Plumbing Fixtures	System not present.	N/A
	Domestic Water Distribution	System not present.	N/A
	Other Plumbing	System not present.	N/A
Mechanical/ HVAC	As the campus chiller plant, the building contains two galvanized steel cooling towers (CT-1 and CT-2) with an estimated 131-ton capacity (each) supplied by rotary screw, water-cooled chiller units (CH-1 and CH-2) with an estimated nominal capacity range of 175 to 200 tons. This plant provides supply/return hot/cold chiller water for most HVAC units at the main school building, with the exception of a few smaller packaged split systems, which were mostly located above the gym areas and nurse's office. The cooling towers exhibited no exterior corrosion or damage, and were smooth sounding in operation. Minor leaks and corrosion of the chiller units and associated tanks, pumps, piping, and appurtenances was observed.		Average
Fire Protection	Fire Alarm	System not present.	N/A
	Fire Protection/ Suppression	System not present.	N/A
Electrical	Electrical Distribution	There is an 800A MLO 277/480-volt distribution panel fed from the main 480-volt switchboard that feeds everything at the mechanical building. There is an 800A disconnect switch ahead of the distribution panel for local disconnecting means. Both the disconnect switch and the panel appear to be in good condition.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Lighting	In the interior of the building, there are single-lamp compact fluorescent surface mounted bowl fixtures. There are mismatched lamps and some lamps were burned out. The fixtures appear to be from the original construction. There are some HID wall packs on the building exterior, which appeared to be in good condition.	Poor
	Communications & Security	System not present.	N/A

Exterior System Deficiency Examples

Exterior Doors

Roofing Deficiency Examples

Interior Finish Deficiency Examples

Interior Floor Finishes

Mechanical/HVAC System Deficiency Examples

Electrical System Deficiency Examples

Lighting

Burnet Middle School Campus Summary of Recommendations

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

Campus Recommendations

Plumbing

1. Continue preventative maintenance on aged plumbing fixtures and/or plan for replacement in the future, as fixtures continue to age at all associated campus facilities.
2. Repair or replace any damaged or missing piping insulation as needed at all facilities.
3. Clean and flush out all of the roof and interior floor drainage piping at all facilities, particularly in the kitchen areas, where issues with possibly deteriorating pipes or other drainage issues were noted by staff.

Mechanical/HVAC

1. Adjust HVAC controls or other equipment, such as dehumidifiers, installed to assist the HVAC equipment in mitigating the humidity observed in all facilities. If any of the HVAC equipment is planned to be replaced, such as any of the AHUs or package units, it should be replaced with an updated asset that includes an integral dehumidification wheel that will assist with humidity issues.
2. Address any rust or corrosion observed to the equipment, its associated piping, or any other sub-asset in all facilities by cleaning, re-painting, and/or repairing by any other means to prevent further deterioration.
3. Repair or replace any damaged or missing piping insulation as needed at all facilities.
4. Address any equipment at all of the campus facilities that were noted with excessive noise/vibration by repairing the motor, changing the belt, or any other means to promote efficiency.
5. Repair any observed leaks (such as the active chiller water leaks observed in COR1 and COR12) to prevent water damage to the asset, its piping, support beams, or any other sub-assets. Once leaks are addressed in all facilities, repair or replace any water-damaged components as needed.
6. Repair or replace any fin assemblies of HVAC equipment that shows extensive wear and tear. Consider adding a protective fence around any of the units on the exterior ground level that could be vandalized or damaged by students/civilians, particularly at the weight room/shop facility.
7. Plan and track for equipment that uses R-22 refrigerant in all facilities. The refrigerant is being phased out of manufacturing and construction use in the near future, and thus will make all equipment obsolete.
8. Ensure routine preventative maintenance is conducted for cleaning ductwork to promote efficient and clean air flows to all of the facilities' spaces.
9. Install air curtains at the entry doors/vestibules as needed.
10. Immediately isolate all known natural gas leaks and perform leak testing to pinpoint sources; repair failed components, subcomponents, and/or piping/fittings/appurtenances when defined.

Electrical

1. Immediately provide missing breaker cover plates for all electrical equipment that were noted, as these instances should be considered life safety hazards.
2. Repair or replace all electrical equipment affected by corrosion or rust. If the corrosion/rust is beyond the enclosure then replacement of the equipment is suggested.
3. Remove any floor receptacles as they are being phased out of use district-wide.
4. Replace all outdated luminaires with LED luminaires with dimming capabilities.
5. Replace all existing exit signs with new LED battery-powered fixtures and add more exit signs where required for all buildings.
6. Provide new LED battery-powered emergency egress lighting fixtures where required for all buildings.

7. Add additional surveillance cameras where required for all buildings, particularly at exterior areas and at building entry access points. Additionally, recommend installing card access points at building entries.
8. Provide lightning protection system for all buildings as required.
9. Provide occupancy sensor/automatic off lighting controls for all buildings as required.

Main School Building Recommendations

Exterior

1. Fill eroded soil and provide splash blocks at the exit of the downspouts to avoid further erosion.
2. Repaint foundation wall.
3. Investigate buckled gravel wall for cause of deficiency and remedy.
4. Insulate exposed structure at exterior envelope.
5. Reseal windows with dry, cracked sealant, which is an estimated 25 percent of all windows.
6. Clean debris from windows, inside and out.
7. Replace broken, missing, or mismatched panes with vision glazing matching the surrounding panes.
8. Investigate organic growth on the lintel outside the copy room to determine course of action.
9. Touch up small areas of scratched doors with paint to match existing paint.
10. Replace rusted door and frame leading to the small gym area.
11. Replace sliding cafeteria door/window system with aluminum frame system with laminated glass.
12. Insulate roof girders exposed to external weather elements

Roofing

1. Further investigate reported skylight leaks over the gym. Replacement or reinstallation may be required.
2. Investigate all roof areas observed with standing water in order to re-slope to proper drainage points.
3. Replace gravel where disturbed.
4. Repair or replace all damaged eave panels. Monitor and repair roof leaks as needed to prevent further damage.

Interior Construction

1. Repair damaged walls and properly seal around penetrations.
2. Further investigate cause of flooding in room 16. Roof repair or wall repair may be required.
3. Repair chipped concrete in gym corridors.
4. Recondition the surface of faded and worn doors. Consider replacing if reconditioning not possible or not cost effective.

Interior Finishes

1. Repair chipped portions of small gym floor.
2. Replace damaged rubber base.
3. Investigate source of mildew smell in computer lab. Consider replacing carpet with flooring to match the rest of the school.
4. Replace damaged ceiling tiles and replace discolored tees.
5. Replace acrylic door lites with laminated glass.
6. Repair damaged wood doors, stairs, and panels.
7. Investigate discolored wall in music wing for organic growth or water damage.

Plumbing

1. At the 400-wing male restroom where backups were noted by staff, subsequent to basic flush valve operation and cleaning via drain auger or similar device, investigate the sanitary plumbing with a small “push” camera system for potential blockages or breaks.
2. Repair leaks and missing actuator handles for the eye wash stations in rooms 205 and 207.
3. Consider protecting (i.e., through use of bollards) exposed domestic water pipe entries located at the building exterior, and re-coating corroded pipes.
4. Repair damaged roof leader piping, and provide proper overburden at the exterior of room MU4 and the 100-wing.

Mechanical/HVAC

1. Further investigate HVAC balancing. Facility staff reported that the 200- and 300-wings, and kitchen were excessively cold or hot in a non-uniform manner. Note that if air curtains are to be installed, this study should be conducted after the installation.
2. Remove or properly abandon-in-place all out-of-service HVAC units, such as the unidentified AHU located on roof section A-63, or the circular ceiling mounted heat pumps located in the male and female locker rooms.
3. Perform a comprehensive examination of heating/cooling issues thought to be originating with roof top package air conditioning systems (i.e., 400-wing, band hall, administration, and kitchen RTUs), including ducting assessment, and evaluation of operating parameters such as discharge air temperature, fan speed, chilled water supply/return temperature differentials, refrigerant pressure (if applicable), and controls for all related equipment, including AHUs.
4. Consider replacing outdated water source heat pump console units in classrooms 15 and 13 or expanding air distribution from the nurse’s office roof top air conditioning system.
5. Consider replacing outdated boiler-4 (kitchen mechanical room), which exhibited corrosion and wiring issues.
6. Evaluate boiler-2/5 for operational parameters (e.g., supply/return temperature differentials), as staff noted a desire to replace the boiler. Also, consider sealing/berming the entrance to its room (“MECHGYM”), which was below-grade and presented a silt and moisture intrusion issue.
7. Consider periodic assessment of exhaust fans for noise/vibration, rainwater leakage, and general condition. Dented exhaust caps was a common observation. Two units (EF-4-08 and CS-3 in roof sections A-33 and A-23, respectively) exhibited erratic noises during operation.

Electrical

1. Replace all panelboards and switchboards from the original construction as they are severely aged past typical design life. Remove existing panelboards that are located in corridors and provide new panelboards. Intercept and extend existing loads to new panelboards.
2. Increase size of existing distribution step-down transformers to accommodate classroom 120V electrical loads.
3. Provide additional electrical receptacles where needed, particularly in classrooms at the main school.
4. Verify the condition of telecommunications system/equipment in the main school, as it was inaccessible. Add additional data drops in classroom as requested by the facility staff.
5. Provide main circuit breaker at each electrical service to enable safe working conditions for staff/contractors for doing preventative maintenance/adding loads for the equipment.

Mechanical Building Recommendations

Exterior

1. Clean and recoat metal double doors to prevent rusting and corrosion on them.

Interior Construction

1. Clean and repair stained and damaged areas of the concrete floor.

Mechanical/HVAC

1. Investigate sources of leaks and corrosion among pumps, tanks, and integral piping/appurtenances and repair as necessary.

Fire Protection

1. Consider installing fire alarm devices/system.

Burnet Middle School Site Summary

Site/Civil Assessment

Address	8401 Hathaway Drive, Austin, TX, 78757
Number of Permanent Campus Facilities	2
Original Year of Construction	1961
Total Campus Area	24 acres
Data Collection Method	Desktop, Site Visit
Site Visit/Assessor	1/11/2017 / J. Kunz

Introduction

The Burnet MS campus is located at 8401 Hathaway Drive in Austin, Texas. Burnet MS was established in 1961, and consists of the main campus building and the mechanical building. The campus has a track and field, tennis courts, basketball courts and several areas of open grass used for soccer and other activities.

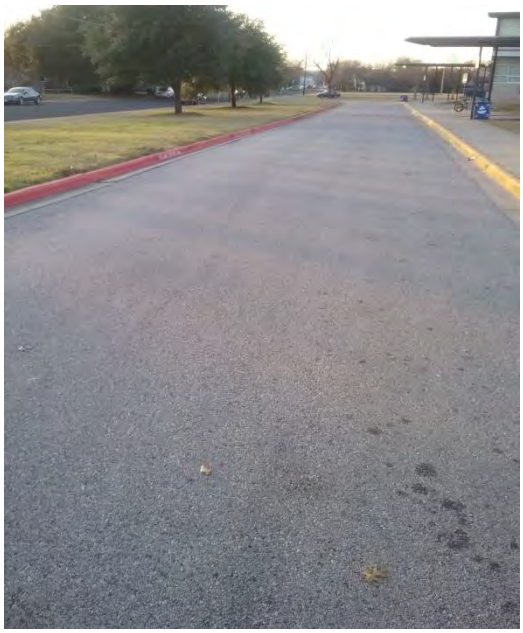
Development Information

Watershed	Shoal Creek
Total Impervious Cover	25%
Allowable Impervious Cover	100%
Barton Spring Recharge Zone	No

Data from "AISD District Wide Impervious Cover Simplified 12-1-16" spreadsheet, Prepared by Fayez Kazi/Civilitude, on December 1, 2016.

Parking and Drives

Parking and Drives	Configuration	Size (SF)
R1, Southwest, Bus Pick-up/Drop-off	0 CB 0 HC	10,000
R2, Southeast	0 CB 0 HC	13,300
P1, Northwest Visitor Parking	50 CB 0 HC	20,100
P2, South, Staff Parking	30 CB 0 HC	13,000
P3, West, Overflow Parking	0 CB 0 HC	53,800
Student Parking	0	0
Parent Drop-Off *Hathaway Drive	Yes	6,000
Bus Drop-Off Area	See R1 above	
Loading Dock	Yes	4,400



HC – Accessible Parking, CB – Combined Parking

System Deficiency Overview

The following table provides a summary of the systems and their respective conditions found by each discipline. Refer to the AISD_FCA_Burnet_MS_Site_Civil_Exhibit for additional information.

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Site Improvements	Roadways	There are two main roadways for the facility. The first roadway, R1, is located on the south west side of the campus and is used for bus drop-off and pick-up. Parent drop-off and pick-up takes place on Hathaway Drive and is not AISD property. The second roadway, R2, is located on the south east side of campus and is used for overflow parking and to service the back of the building and portables. R1 is asphalt with concrete curb and gutters. This roadway is in good condition with a few minor cracks. R2 connects to the visitor parking lot, P1, and ends on the east side of campus. This roadway is in poor condition. A deep drainage swale runs across the roadway, causing severe drainage damage and potential damage to cars. The	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		road also has severe rutting and cracking. Roadways Deficiencies: · Evidence of cracking and rutting. · Evidence of pavement failure in drainage swale	
	Parking Lots	The staff parking lot, P2, is located on the north west side of the building. This parking lot is asphalt pavement with concrete gutters. This asphalt parking surface is in good condition. The concrete curbs are cracking, and the paint is wearing. There are no handicap spots. The visitor parking lot, P1, is on the south side of the building. P2 is in good condition with first signs of minor cracking. This parking lot is asphalt. The school does not have enough parking, so many people park on the grass around this lot and on R2 connected to this lot. The concrete driveways are cracking, and several signs are missing or damaged. There is overflow parking, P3, across Hathaway Drive. This lot has damaged grass and loose gravel. Parking Lots Deficiencies: · Cracking concrete curbs and driveways · Lack of handicap spots · Underdeveloped lot across the street being used as a parking lot · Missing or damaged signs · Overflow Parking has damaged grass and loose gravel	Average
	Pedestrian Paving	The concrete sidewalks are located throughout the campus and are in average condition. Many areas of the sidewalks have outdated wood bridges for drainage purposes. The sidewalk in the front of the school has minor cracking. One of the sidewalks in front of the school, leading north, is gravel and needs to be maintained with more gravel. The sidewalk on the south side of the building, near portables, has a large drop-off, needing backfill and repair. Pedestrian Paving Deficiencies: · Outdated wood bridges · Minor cracking · Drop-off needing backfill · Gravel sidewalk in poor condition	Average
	Site Development	The site development system is in poor condition. The chain link fencing is along the north area of campus, separating the community from the play fields. The fence has several areas that are broken or damaged. One teacher complained that the fence is too short, allowing kids and community members to easily jump over. The landscaping area on the east side of campus has bricks acting as a	Poor

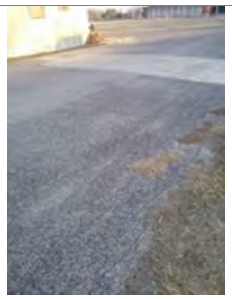
System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		retaining wall. These bricks are falling over and not supporting the landscaping area. The dumpsters in P1 and P2 need a full depth concrete pad. The dumpster in P1 appears to have had a pad at one point but it has since been moved. The dumpster in P2 is currently sitting on the parking lot asphalt, which is cracking around it. The benches in the front entrance courtyard, CY3, have chipped corners or missing wood and are in need of repair. There is an aged water fountain on the east side of campus that needs to be removed. There are several areas around the buildings with pest holes needing repair. Site Development Deficiencies: · Fence damages · Failing retaining wall · Dumpsters in need of concrete pads · Damaged benches · Remove aged water fountain · Pest holes · Remove debris left over from portables	
	Site Drainage	The drainage of the campus is in poor condition. The front entrance has sandbags surrounding downspouts in an attempt to keep water from flowing into the building. There are also sandbags found on the north west side of campus near the entrance in an attempt to limit flooding. In the front, there is a downspout releasing water from the top of the roof. There are few downspouts in front that release directly underground. Several downspouts are damaged and clogged throughout the facilities. There is a swale going across R2, causing flooding over the roadway and around the portables. The buildings across from the track and field have experienced flooding and erosion due to the ground sloping toward the building. Teachers complain of flooding in the gymnasium. There are also several areas throughout the facilities where splash pads are damaged or sloped toward the building, creating water pile up and erosion around the downspouts. Site Drainage Deficiencies: · Temporary inefficient sandbag fixes · Ground sloping toward building · Erosion · Damaged or clogged downspouts · Splash pad placement	Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		· Flooding in R2	
	Courtyards	There are four courtyards on campus. Courtyard one, CY1, and courtyard two, CY2, are located on the south west side of campus. Courtyard three, CY3, is located at the front entrance of the building. Courtyard four, CY4, is located in the interior of the north side of the building. CY1 and CY2 are both in need of regrading. CY1 shows signs of drainage issues, and several splash pads are damaged. Within CY1, there is a broken PVC (polyvinyl chloride) pipe under the walking path. The drain in CY1 also has a broken grate and apron. Within CY3, the sprinkler system is not working. Some of the downspouts connect to the underdrain, but many of them do not. One of the downspouts releases into the air from on top of the roof. There are several damaged inlets and splash pads, causing severe erosion. The flag pole in this courtyard has a damaged and cracking concrete base. We did not have time to assess CY4 as it was an interior courtyard, and the school closed before we had a chance to go inside. Courtyard Deficiencies: · Erosion · Damaged inlets and drains · Downspout releasing at roof level · Splash pad placement · Broken PVC pipe · Broken gate and apron · Sprinkler system · Downspouts not connected to the underdrain · Cracking concrete base	Poor
	Landscaping	There are several trees throughout the campus. Most tree limbs are overgrown, and those close to the buildings are touching the buildings and roofs. The front lawn has miscellaneous dips and holes throughout. The open grass lawn area on the south east side of campus is in good condition but show signs of drainage damage. Landscaping Deficiencies: · Overgrown trees · Holes in lawn, allowing erosion	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Site Utilities	Water Supply	The water supply system is in average condition. On the east side of campus, the irrigation caps are missing for several of the trees. This will cause a pressure issue, and the landscaping will not get the irrigation it needs to survive. On the north east side of campus, toward the front entrance, there is an exposed pipe along the building wall. Water Supply Deficiencies: · Missing irrigation caps · Exposed pipe.	Average
	Sanitary Sewer	The portion of the sanitary sewer system that was observed is in average condition. No fiberglass sanitary sewer inspection box was found. There is a manhole on the east side of campus that needs a cover. Sanitary Sewer Deficiencies: · No fiberglass sanitary sewer inspection box was found. · There is a manhole on the east side of campus that needs a cover.	Average
	Storm Sewer	There is an underground drainage system that collects storm water via area inlets or curb inlets. The underground drainage system is in average condition.	Average
	Detention Pond	The detention pond is located on the south side of campus and releases into Doris Drive. The pond is very shallow and, based on staff comments not large enough for the capacity of water entering it. The pond discharge has been limited to three small pipes. The campus has serious drainage damage and issues and further study is warranted to solve the problem. Detention Pond Deficiencies: · Flooding upstream from the pond.	Poor
	Other Site Mechanical Utilities	Exterior lighting is provided for the track and football field. There is no lighting for the parking lots or areas around the portables. The electrical pole toward the back side of the open grass area, on the east side of the campus, has a missing U-strap, causing the electrical box to sway in the wind. Another box pole in the same area is missing the cover, exposing the wires. Other Site Mechanical Utilities · The electrical connections require maintenance.	Average

Site Improvement Deficiency Examples

Roadways

		
Swale running across roadway	Severe hole and cracking	Utility patching and rutting

Parking Lots

		
Large transverse crack	Cracking and damaged grass from parking	Damaged sign

Pedestrian Paving

		
Outdated wood connection	Sidewalk unsettling	Longitudinal cracking

Site Development

		
Dumpster needs concrete pad	Pest hole	Remove debris

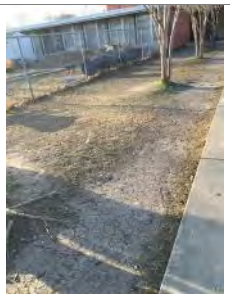
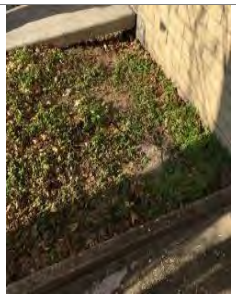
Site Drainage


Splash pad sloping toward building

Courtyards

		
Erosion needs resurfacing	Damaged/clogged pipe under pavement	Collapsed drain gate

Landscaping

		
Overgrown bushes	Erosion needing resurfacing	Erosion and needed backfill

Water Supply

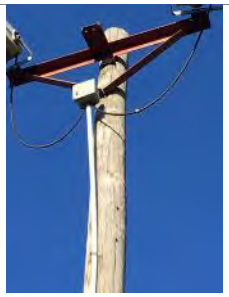
Irrigation tube missing cap

Detention Pond

Undersized piping for detention pond

Damaged detention pond wall

Other Site Mechanical Utilities



Damaged U-strab for electrical box

Exposed electrical box

Play Fields

Areas presented in table are approximate.

Playfields	Count	Size (SF)
Basketball Courts	2	9,800
Tennis Courts	2	11,800
Soccer/Multi-Purpose Field	2	88,200
Baseball/Softball Field	-	-
Bleacher Seating	-	-
Track	1	400 m
Green Space	1	108,600
Football Field	-	-
Playscapes	-	-

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Playfields	Basketball Courts	The basketball courts are in poor condition. There are severe cracks throughout the surface and need resurfacing. The nets for the goals are either nonexistent or in poor condition. The coach reported this is because the community often steals the basketball nets. Basketball Court Deficiencies: · Entire court needs resurfacing	Poor
	Tennis Courts	The tennis courts were resurfaced two years ago and are in good condition.	Good
	Soccer/Multi-Purpose Field	The soccer/multi-purpose field is a grass field. The grass appears to be well kept. There are low spots and dips in the center of the field from over compaction due to use. Irrigation tubes are reported to stick out around the field. There is an exposed irrigation box that needs a cover around the perimeter of the field. The soccer/multi-purpose field is in average condition. Soccer Field/Multi-Purpose Field Deficiencies: · Dips in the field · Irrigation box needs cover · Irrigation tubes are reported to stick out around the field.	Average
	Baseball/Softball Field	System not present.	N/A
	Bleacher Seating	System not present.	N/A
	Track	The track is in poor condition. The track is a rubber material.	Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		The edges of the track are falling off and have major cracks around the entire perimeter. The interior portions of the track have minor cracking and repair patching throughout. Track Deficiencies: · Perimeter of track severely damaged · Interior of track shows minor cracking and repair patching	
	Green Space	The green spaces are in average condition. Some areas need revegetation to minimize erosion. Green Space Deficiencies: · Drainage damage	Average
	Football Field	Part of soccer/multi-purpose field.	N/A
	Playscapes	System not present.	N/A

Playfield Deficiency Examples

Basketball Courts

Basketball longitudinal and transverse cracking

Track

Track damages

Track surface cracks

Green Space

Erosion damage

Summary of Recommendations

This document is based on information provided by staff during interview, site visit and additional desktop measurements using Google Earth. This document provides recommendations for corrective actions. The following recommendations provide a summary of the findings.

Site/Civil Recommendations

Roadways

1. R1 needs sealcoat or thin non-structural overlay (less than 2").
2. R2 needs structural overlay (2" or more) to repair areas of drainage and rutting damage.
3. Remove swale and design drainage pipes to not interfere with roadway.

Parking Lots

1. Repair cracked curbs and maintain paint.
2. Add handicap parking spots to both lots.
3. Maintain P2 with routine crack filling.
4. Add more parking throughout campus. Resurface P3 to be an asphalt parking lot and remove loose gravel.
5. Replace missing signs and repair damaged signs.

Pedestrian Paving

1. Replace wooden bridges and connections that are deteriorated.
2. Replace pedestrian paving that is heaving and has cracks.
3. Backfill areas of sidewalk that have erosion and drop-offs.
4. One of the sidewalks in front of the school, leading north, needs to be maintained with more gravel.

Site Development

1. Fix and maintain broken areas of fence.
2. Maintain brick retaining walls around landscaping and trees.
3. Construct a concrete approach pavement at dumpsters.
4. Fill in pest holes.
5. Remove aged water fountain on east side of building.
6. Remove debris left after the removal of portables.
7. Repair/Replace the benches in the front entrance courtyard.

Site Drainage

1. Regrade ground on east side of building away from the building.
2. Fix all damaged and clogged downspouts and connect to underdrain.
3. Unclog inlets throughout facility.

Courtyards

1. Regrade CY1 and CY2.
2. Replace damaged splash pads with new splash pads, and adjust splash pads to slope away from building.
3. Update sprinkler system in CY3 to be a working system.
4. Unclog inlets.

Landscaping

1. Trim overgrown shrubs and trees in contact with the building.
2. Regrade areas in front lawn to remove dips and holes.

Water Supply

1. Cap all irrigation tubes missing caps on east side of campus.
2. Cover pipe exposed in the front of the building.

Sanitary Sewer

1. Cover manhole with missing cover.

Detention Pond

1. Design and implement solution for drainage issues. May include resizing the pond to hold the appropriate amount of water and resizing pipes for proper release of water. Redirect release of water to not flow directly onto Doris Drive.

Other Site Mechanical Utilities

1. Fix electrical poles with exposed and loose wiring.

Basketball

1. Resurface basketball court.

Soccer/Multi-Purpose Field

1. Fill holes and even the grading.
2. Patch areas where irrigation is a hazard and cover irrigation box.

Track

1. Repair perimeter of track.
2. Repair/Resurface track.

DRAFT

0 25 50 100 150
Feet

Legend

- (1) Recommended Improvements
- Drainage Improvement
- Pavement Improvement
- Sidewalk Improvement

NOTES:

1. PEST HOLE NEEDS TO BE FILLED.
2. WOOD CONNECTION/BRIDGE ON SIDEWALK.
3. RESOD AND/OR BACKFILL NEEDED.
4. REMOVE AGED WATER FOUNTAIN.
5. DUMPSTER NEEDS CONCRETE PAD.
6. CONCRETE CRACKING
7. ALLIGATOR CRACKING
8. LARGE HOLE
9. DRAINAGE/UTILITY PATCHES
10. RUTTING
11. UNCOVERED MANHOLE
12. CLOGGED OR DAMAGED INLET/INLET GRATE OR SKIRT OR BROKEN SPLASH PAD
13. NEED LOCK FOR FENCE
14. MISCELLANEOUS HOLES OR EROSION. NEED REGRADING
15. NEED CAP FOR OPEN AND EXPOSED PIPE
16. BROKEN FENCE
17. MISSING INLET COVER
18. IRRIGATION BOXES MISSING COVERS
19. EDGES OF TRACK FAILING
20. DAMAGED AND WORN RUNNING PATHS
21. REGRADE SURFACE BECAUSE SWALE COLLECTING DIRT
22. DAMAGED ELECTRICAL BOX MISSING U BOLT AND SWAYS IN WIND
23. FOUR EXPOSED CONCRETE BASES TO OLD POLES
24. CRACKS AND FAILURES ON BASKETBALL COURT
25. EROSION AROUND POSTS
26. VENT GATE OPEN AND NO LOCK
27. CRACKED FOUNDATION
28. CRACKED CURBS
29. MAINTAIN AND ADD GRAVEL TO SIDEWALK
30. EXPOSED DRAIN PIPE
31. NEED GUTTER SYSTEM
32. OVERGROWN VEGETATION
33. LOW WEATHER STATION WIRE
34. BROKEN PVC
35. PORTABLES HAVE BEEN REMOVED AND CONSTRUCTION DEBRIS NEEDS TO BE REMOVED
36. IRRIGATION CAPS NEEDED
37. CONDENSATE LOCATION
38. DRAINING BACK TOWARD BUILDING
39. SPLASH BLOCK BROKEN, FACING INCORRECT DIRECTIONS, AND SLOPING TOWARD THE BUILDING
40. EROSION, COLLAPSED DRAIN GATE AND DAMAGED DOWNSPOUTS

Map Date: 3/2/2017

AUSTIN Independent School District | AECOM

Burnet MS
8401 Hathaway Dr