Zavala Elementary School Site Summary

Address	310 Robert Martinez Jr Street Austin, TX 78702
Number of Permanent Campus Facilities	1
Original Year of Construction	1936
Total Campus Building Area (combined)	69,463 SF

Introduction

The Zavala Elementary School campus is located at 310 Robert Martinez Jr Street in Austin, Texas. Zavala Elementary School was established in 1936, and consists of a single primary building. This permanent campus building is the Main School Building (BLDG-145A). The original building has been renovated numerous times and includes a recent classroom addition constructed around 2000.

Main School Building – BLDG-145A

Building Purpose	Administrative, Classrooms, Classrooms, Cafeteria, and Gymnasium
Building Area	69,463 SF
Inspection Date	July 11, 2016
Inspection Conditions	95°F and sunny
Facility Condition Index	

System Deficiency Overview

The following table provides a summary of the systems and their respective conditions found by each discipline.

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Exterior	Exterior Walls	The exterior facade of the building is brick. The older portions of the building have metal-capped parapets and scuppers with downspouts. The newer classroom addition has a continuous gutter with downspouts at its perimeter. There is a limestone window sill and a decorative masonry course above windows on some of the building facades. The brick facade appeared to be in good condition. One exception was deteriorating mortar observed on the south wall of the auditorium, visible from the adjacent roof. Flashing appeared to be in good condition. Sealants around mechanical louvers on the east elevation have failed, but other sealants on the exterior of the building appeared to be newer and in good condition.	Good
	Exterior Windows	The exterior windows are metal with single-pane glazing. Most of the windows in the older portions of the building have been replaced. There are two remaining original steel casement windows at the female restroom near the auditorium (Room WFHRRAUD). Windows above the south building entrance are wood with fixed glazing. The replacement metal windows in the older building areas and windows in the newer addition appeared to be in good condition. The original steel casement windows at the female restroom had no paint and were corroded and observed to be in poor condition. The	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		wood windows above the south entrance are reported to be leaking, and the wood frames were observed to have water damage.	
	Exterior Doors	There are multiple public entryways to the building. These doors are metal with a metal frame and have transoms, side-lites, and vision panels. The remaining service doors around the facility are metal. There are no roll-up or overhead doors in the building The exterior doors were observed to be in average to good condition, depending on their age. Many of the exterior doors have been replaced and appeared to have been recently painted. The auditorium exit door to the north of the stage and the doors to the penthouse were observed to be rusted and marginally functional. The doors at the auditorium do not secure properly.	Good
Roofing	The roof on the original building is low slope modified bitumen with metal cap flashed parapets and scuppers with downspouts. The new classroom addition is similar but without parapets and has continuous gutters at the perimeter with downspouts. The Main School Building roof is not original to the building and the various roof areas appear to be of generally about the same age. There is a metal-covered walkway near the main entryway. There is an asphalt shingle roof on a small addition that is not indicated on the roof plan. The roof was observed to have blisters ranging from 1 to 10 inches in diameter. The granular surface has eroded over much of the building roof and has washed away or was observed to be ponding in low spots. The roof was observed to be in poor condition and appeared to be aged beyond its useful life. Leaking was reported in classroom 7, and ceiling tiles were observed to be stained throughout the building.		Poor
Interior Construction	Interior Walls	Interior walls in the original building are solid masonry with a plaster finish. Interior walls in the newer classroom addition are metal framed with gypsum board finish. Walls near the building entrance and in the auditorium are brick. Walls at the kitchen are glazed masonry units. There are interior windows that vary from metal to wood framed with single-pane glazing. Interior walls were observed to be in good condition.	Good
	Interior Doors	The original building has wood panel interior doors and frames. The newer addition has solid core wood doors in metal frames, and the corridors have metal doors. The interior doors and frames were observed to be in good condition showing typical signs of wear and use. The double doors between corridors C7 and C8 were missing the astragal leaving a 2-inch gap between doors.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Interior Specialties	System is not present.	N/A
Stairs	Exterior Stairs	The exterior stairs to the original building and older additions are concrete. There is a steel fire escape on the south side of the original building serving the second and first floors during emergency evacuation. The new classroom addition is built at grade. The exterior concrete stairs and metal railings are in average to good condition relative to their age. The fire escape stairs had corrosion showing on some of the steel members.	Average
	Interior Stairs	The interior stairs are concrete throughout the building, except for a single flight of steel stairs located between the gymnasium and corridor C1. Concrete stairs have a terrazzo finish with metal nosing. The steel stairs have rubber treads. The interior stairs appeared to be in good condition.	Good
Interior Finishes	Interior Wall Finishes	The interior wall finishes in the original building and older additions are painted plaster. The interior wall finishes in the more newly constructed library and classroom addition are painted gypsum board with 6-ft-high plastic laminate-covered panels along corridors. The renovated cafeteria also has plastic laminate panels on some walls and columns. There are both painted and unpainted brick interior walls near the main entrance and in the auditorium. The kitchen walls are glazed masonry units. The interior wall finishes throughout the building were observed to be in good condition relative to their age. There were missing moldings on the plastic laminate panels in the classroom addition.	Good
	Interior Floor Finishes	The floor finishes in the corridors, cafeteria, restrooms, and stairwells in the original building are terrazzo. Classrooms and administrative offices in the original building have wood flooring or have been subsequently covered with vinyl tile. The auditorium and newer classroom addition have vinyl tile with 4-inch base. The library floor is carpet. The kitchen floor and base are non-slip ceramic tile. The gymnasium has a wood athletic floor, and restrooms in the newer addition have ceramic tile floors and base. The floors throughout the building are in average to good condition relative to their age. A few floor tiles in corridor C7 were observed to be loose. The wood flooring on the ground floor in various areas was being	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		repaired at the time of the assessment.	
	Interior Ceiling Finishes	The ceilings throughout most of the building are suspended acoustic tile. The ceiling tiles in the kitchen are vinyl covered. Ceilings in restrooms are painted gypsum board or plaster. The gymnasium roof structure and deck is exposed, and the steel joists are painted. The interior ceiling finishes were observed to be in good condition. There were stained ceiling tiles in various areas of the building that are likely the result of roof or mechanical equipment leaks.	Good
Conveying	The building is equipped with a hydraulic passenger elevator to service two levels. The elevator was noted as having a maximum weight capacity of 2100 lbs. This elevator appears to be in good condition as a recent inspection certificate issued within the last year, as required, was visible and no operational issues were reported by the facility staff.		Good
Plumbing	Plumbing Fixtures	The building has public restrooms for men, women and students, and separate staff restrooms located 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 male restrooms with manual flushing mechanisms. There are service sinks found in the janitorial closets, and water coolers located throughout the facility, typically near the public restrooms. The restroom plumbing fixtures were observed to be in average condition as the fixtures were typically aged but still operational.	Average
	Domestic Water Distribution	The sinks located throughout the facility, with the exception of the kitchen, janitorial room, life skills area, and day care area, are not equipped with hot water. The sinks equipped with hot water are serviced from a gas water heater GWH-1 that was located in the kitchen mechanical room. The water heater was observed to be in poor condition and requires replacement. The interview notes indicated that the hot water provided at the janitorial room has a foul odor. The plumbing distribution equipment was observed to be in poor condition based upon the deficiencies of the water heater mentioned above and the age of the system.	Poor
	Other Plumbing	Portions of the roof are equipped with gutters, while other portions are equipped with roof drains. The gutter	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		system appeared to drain into the storm sewer and was observed to be in good condition. The roof drains are equipped with metal grate covers to prevent debris from entering the drainage system and appeared to be in average condition. The interior floor drains were observed to be aged and in average condition.	
Mechanical/ HVAC	The major mechanical equipment consists of roof top AHUs (air handling units) and split system AHUs with the associated condensing units located primarily on the roof. These serve the HVAC (heating, ventilating, and air conditioning) system. Five RTUs (roof top units), with an approximate capacity range of 3,000 to 8,000 CFM (cubic feet per minute), are located on the roof. Two heat recovery AHUs on the roof appeared to provide outside airflow to the building. Thirteen other split system AHUs are located throughout the interior of the facility and range from an estimated 1,000 to 10,000 CFM in capacity. These AHUs serve different zone locations throughout the facility. The AHUs were observed to be in poor condition with the most typical deficiency being corrosion on the housing enclosure and/or the piping associated with the AHU. Additional deficiencies observed include general aging of the equipment, damaged insulation, excessive noise/vibration associated with select equipment, and a few leaks. Typically, the AHUs were not equipped with preventive maintenance logs. The heat recovery unit's ductwork support framework was observed to penetrate the ductwork, and the penetrations were observed to be poorly sealed. Multiple electrical disconnects associated with the roof-mounted equipment were observed to be rusted and require replacement. Building staff reported that the evaporator serving the MDF (main distribution frame) room was weak and disintegrating. The MDF room was inaccessible at the time of the assessment. Building staff also indicated that the fan coil units in room 8 and room 10 have been breaking down frequently. The units were not operational during the assessment. Building staff reported that the outside air handing unit serving room 7 was “inefficient.” Condensate drain piping insulation appeared aged, damaged, and missing in areas. Condensate drains were observed to terminate onto the ground, underground or on the roof, where ponding was observed. Condensate drains appeared to be non-functioning in areas, causing leakage to the exterior of the building. Supplemental mechanical equipment for the HVAC system also includes exhaust fans serving the kitchen and bathroom exhaust. Roof top exhaust fans appeared aged and in poor condition. The HVAC system was observed to be in poor condition with all of the prior mentioned deficiencies.		Poor
Fire Protection	Fire Alarm	The building has a fire alarm system that consists of alarm and signaling devices such as horns/annunciators, strobes, horn/strobe combos, pull stations, and detectors. The fire alarm system is controlled by the Silent Knight control panel. The fire	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		alarm system was observed to be in good condition, but there are areas where the fire alarm end devices are aged past their design life.	
	Fire Protection/ Suppression	The building is protected by portable fire extinguishers placed throughout the facility. All observed portable fire extinguishers had inspection tags dated within the last year. It did not appear that fire extinguishers were located at all required locations.	Average
Electrical	Electrical Distribution	The electrical service enters the building at the 277/480-volt 2000-amp main switchboards located in the electrical room at the rear of the building. The service feeds transformers and high-voltage panelboards that are located in various electrical rooms throughout the building. There are three distribution transformers rated at 480-volt primary that step-down to 120/208-volt secondary, which feeds power to 120/208-volt panelboards. The building does not have a lightning protection system. The electrical distribution equipment was observed to be in average condition. It was observed that there were several Federal Pacific panels (K21, K22, B, and B1) located on the first and second floor corridors that have been identified as a life safety hazard and are no longer manufactured, making replacement parts are difficult to find. The building staff reported that the original distribution has had issues related to the Federal Pacific panels.	Average
	Lighting	The building's exterior lighting consists of HID (high-intensity discharge) and fluorescent light fixtures that are located along the entire perimeter. The interior lighting primarily consists of T8 fluorescent light fixtures that are outdated. The lighting for the building was observed to be in poor condition. Many interior and exterior light fixtures appeared to be aged past their design life. Observed deficiencies included broken lenses, discolored lenses, and non-functional fixtures. There are exit signs present in the building; however, several appeared to be aged.	Poor
	Communications & Security	There is a Gemini security system including surveillance cameras in the building. According to building staff, there is a lack of volume to the exterior rear speakers facing the playground., There are no cameras located on the second floor, and additional cameras have been requested by the facility	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		in the cafeteria, along with additional cameras in the courtyard. There is a public address system in the building, and it was observed to be in good condition with no reported deficiencies. The building is equipped with tele/data systems.	

Exterior System Deficiency Examples

Exterior Walls


Exterior Windows



Exterior Doors


Roofing Deficiency Examples



Interior Construction Deficiency Examples

Interior Doors

Stairs Deficiency Examples

Exterior Stairs

Interior Finishes Deficiency Examples

Interior Wall Finishes

Interior Floor Finishes

Interior Ceiling Finishes

Plumbing System Deficiency Examples

Other Plumbing

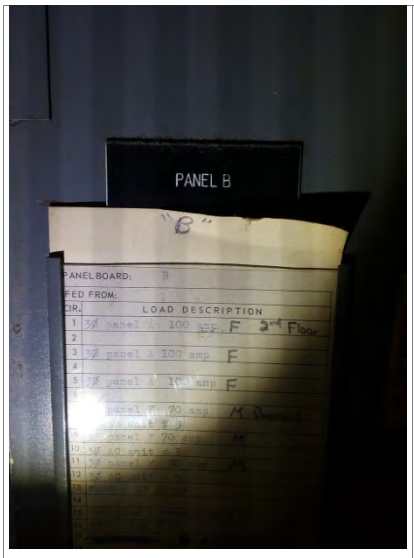
Mechanical/HVAC System Deficiency Examples






Electrical System Deficiency Examples

Electrical Distribution

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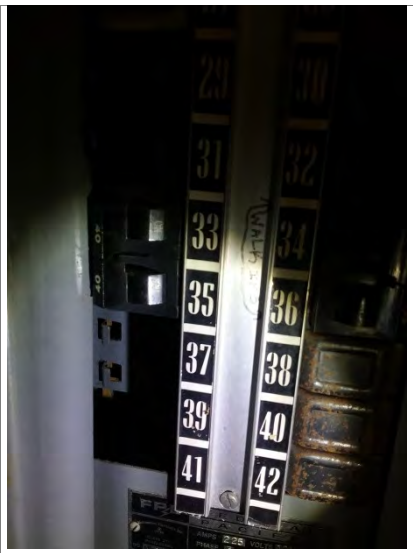
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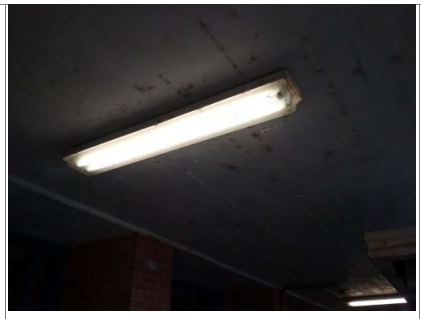
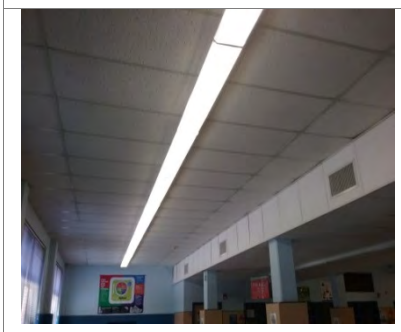
Lighting





Zavala Elementary School Campus Summary of Recommendations

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

Campus Building Recommendations

Exterior

1. Repair and/or repoin mortar joints and brick facade where needed.
2. Replace steel windows where deteriorated.
3. Repair or replace leaking fixed wood windows over south entrance.
4. Replace deteriorated exterior doors and hardware at auditorium exit and penthouse.
5. Replace deteriorated joint sealant around mechanical louvers on exterior façade.

Roofing

1. Further investigate all roof areas observed with bubbles and deteriorated surfaces, and consider appropriate repares or replacement.

Interior Construction

1. Install new center astragal at corridor C7 metal doors.

Stairs

1. Remove rust and corrosion on the exterior fire escape. Paint steel with a rust-inhibiting paint to protect steel.

Interior Finishes

1. Replace missing corner molding and trim pieces on plastic laminate panels in corridors of classroom addition.
2. Replace loose and damaged vinyl floor tiles with new matching floor tiles.
3. Replace stained ceiling tiles from roof leaks throughout the building.

Plumbing

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

Mechanical/HVAC

1. Plan for replacement of the RTUs as these appear to be past or near the end of their design service life.
2. Plan for replacement of the split system AHUs as these appear to be past their design service life.
3. Replace rusted disconnects on all roof-mounted mechanical equipment.
4. Remove support bracing from heat recovery unit ductwork and seal duct penetrations.
5. Address any rust or corrosion observed on the equipment, its associated piping, or any other sub-asset by cleaning, repainting, or repairing to prevent further deterioration.
6. Repair or replace any damaged or missing piping insulation as needed.
7. Repair any observed leaks to prevent water damage to the asset, its piping, support beams, or any other sub-assets. Once leaks are addressed, repair or replace any water-damaged components as needed.
8. Reroute condensate piping to drain into approved sanitary sewer line.
9. Reroute condensate piping from discharging onto the roof to alleviate ponding issue.

10. Ensure routine preventive maintenance is conducted for cleaning ductwork to promote efficient and clean air flows to all of the facilities' spaces.

Fire Protection

1. Continue annual inspections of the fire alarm system, and replace any aged fire alarm devices throughout the Main School Building.
2. Continue annual inspections of the fire protection system (at the Main School Building) and the portable fire extinguishers.

Electrical

1. Remove any floor receptacles as they are being phased out of use district-wide.
2. Replace all outdated luminaires with LED (light-emitting diode) light fixtures and dimming capabilities.
3. Replace all existing exit signs with LED fixtures and add more exit signs where required for all buildings.
1. Provide egress lighting where required for all areas.
2. Immediately replace noted Federal Pacific panels, as these instances should be considered life safety hazards.
3. Verify the condition of tele/data system/equipment in the main school, as it was inaccessible. Add additional data drops in classrooms as requested by facility staff.
4. Replace all exterior light fixtures that are cracked or have discolored lenses with LED type.
5. Replace all interior lighting with new LED light fixtures with the capability of utilizing occupancy sensors.

CRAWL SPACE – Zavala ES – Main School Building (BLDG-145A)

Building Purpose	Administrative, Classrooms, Cafeteria, and Gymnasium
Inspection Date	August 8, 2016
Inspection Conditions	95° - Sunny & Dry

Crawl Space System Deficiency Overview

NOTES CONCERNING CRAWL SPACE OBSERVATIONS: Two different sets of plans for the same two-story addition on the southwest wing (rooms 24 & 25 on the first floor) contained conflicting information regarding foundation type. The set of plans dated earlier indicates slab on-grade construction while the more recent set indicates a suspended first floor with crawl space. The suspended floor plans indicate a floor hatch is located in the electrical room but none was found during the site visit, and no vents or access hatches were observed during a walk of the perimeter. We believe this addition was built directly on grade. Also, a small wall hatch in the boys' restroom existed but we were unable to safely access the crawl space at this location.

The following table provides a summary of the systems and their respective conditions found by each discipline.

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Soil, Drainage, Ventilation & Access	Soil Below Building, Site Drainage in Crawl Space	Soil was dry in the crawl space. No drainage system or sloped grading was noticeable in crawl space. Soil deficiencies: • None	Excellent
	Soil Retainers	N/A – No soil retainers were present in the crawl space areas observed. Exterior soil is retained via a cast-in-place perimeter wall.	N/A
	Areaways/Ventilation	No areaways were present. Ventilation is obtained via small wall vents. Wall vents were in good condition but may not meet current code requirements. Areaway/ventilation deficiencies: • Limits wall openings may not provide adequate ventilation	Average
	Access Hatches	We accessed the crawl space in two locations: from a wall hatch in the girls' restroom and the basement. Access to south side of crawl space was via the basement. The basement hatch was in good condition; see basement wall section for condition of walls in this area. Access to the north end of the crawl space was obtained via the girls' restroom plumbing chase where the slab opening was large enough to allow access to the crawl space. Access hatch deficiencies:	Good

		• Access to crawl spaces is insufficient. There are only two access points to the crawl space for the entire school and thus most of the crawl space is inaccessible.	
Exposed Structure	Exposed Columns & Tops of Foundations	Foundations appear to consist of square columns on a shallow footing. All observed columns & footings appeared in good condition. Column/foundation deficiencies: • None	Excellent
	Exposed Faces of Perimeter Walls / Grade Beams	Original building has concrete walls around entire perimeter. Basement walls also divide the crawl space into separate areas. Basement wall deficiencies: • At the basement entrance to crawl space there was exposed rebar from a prior demolition. The same location had cracks in the basement wall that had been repaired with epoxy. • Under women's restroom, basement walls had minor honeycombing.	Good
	Exposed Portions of Suspended Floor Beams Above	Suspended cast-in-place floor beams were prevalent within the interior of the crawl space. Suspended beam deficiencies: • Minor spalling at the corners of beams	Excellent
	Underside of Suspended Floor Slabs Above	Floor slabs were composed of cast-in-place two-way slabs throughout the building. Formwork nails and rods had been left in place and had minor rusting. Slab deficiencies: • None	Excellent
Pipes, Ducts, Equipment & Fireproofing	Suspended Pipes & Hangers	Pipe deficiencies: • Many abandoned pipes at basement access to crawl space. • Multiple pipes bearing on soil and running through soil in all locations observed with empty pipe hanger above.	Good
	Exposed Ductwork	Internally insulated ducts were observed. Ductwork deficiencies: • No deficiencies observed in ductwork	Excellent
	MEP Equipment	N/A – No MEP equipment was present in the crawl space areas observed.	N/A
	Spray Fireproofing/ Insulation	N/A – No fireproofing or insulation was present in the crawl space areas observed.	N/A

Crawl space Deficiency Examples

Crawl Space, Exposed Structure

Exposed rebar from previous demolition and repaired crack in wall

Minor spalling and honeycombing in wall

Minor spalling at corners of beams

Crawl Space Pipes, Ducts, Equipment & Fireproofing

Abandoned and cut pipes

Pipes running through subgrade

Pipes bearing on soil

Zavala ES – Campus Summary of Crawl Space Recommendations

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

Main School Building Recommendations

Crawl Space, Soil & Drainage

1. Investigate need to improve ventilation.
2. Provide safe access to crawl space from the wall hatch in the boys' restroom (install landing & ladder)

Crawl Space, Exposed Structure

1. Cut, clean and seal exposed rebar from previous demolition to prevent corrosion of steel damaging basement wall.

Crawl Space Pipes, Ducts, Equipment & Fireproofing

1. Suspend pipes bearing on grade.

DRAFT

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FLR-145A-01

See next page for crawl space deficiencies observed - TYPICAL

Access thru WALL HATCH HERE (in basement)

Access thru Girls Restroom PLUMBING CHASE WALL HATCH HERE

PLUMBING CHASE WALL HATCH in Boys Restroom NOT ACCESSIBLE

APPROXIMATE LIMITS OF CRAWLSPACE OBSERVED ON 8/8/2016 SITE VISIT

APPROXIMATE LIMITS OF CRAWLSPACE PER AVAILABLE PLANS AND SITE OBSERVATIONS

NORTH

AUSTIN I.S.D.

DEPARTMENT OF CONSTRUCTION MANAGEMENT

ZAVALA ELEMENTARY SCHOOL

310 Robert Martinez, Jr.
Austin, Texas

FLOOR PLAN
1ST FLOOR

APPROVALS		
DRAWN	CHECKED	APPROVED
J.R.		
10/02/13		
DWG: 145-FLR-01		SHEET
DRAWING SCALE		
1/32" = 1'-0"		1 OF 2

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APPROXIMATE LIMITS OF CRAWL SPACE OBSERVED

APPROXIMATE LIMITS OF CRAWL SPACE PER AVAILABLE PLANS AND SITE OBSERVATIONS

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FLR-145A-G1

FOUNDATION SYSTEM AT SW 2-STORY ADDITION IS UNKNOWN. COULD NOT FIND ANY ACCESS POINTS LEADING TO A CRAWL SPACE.

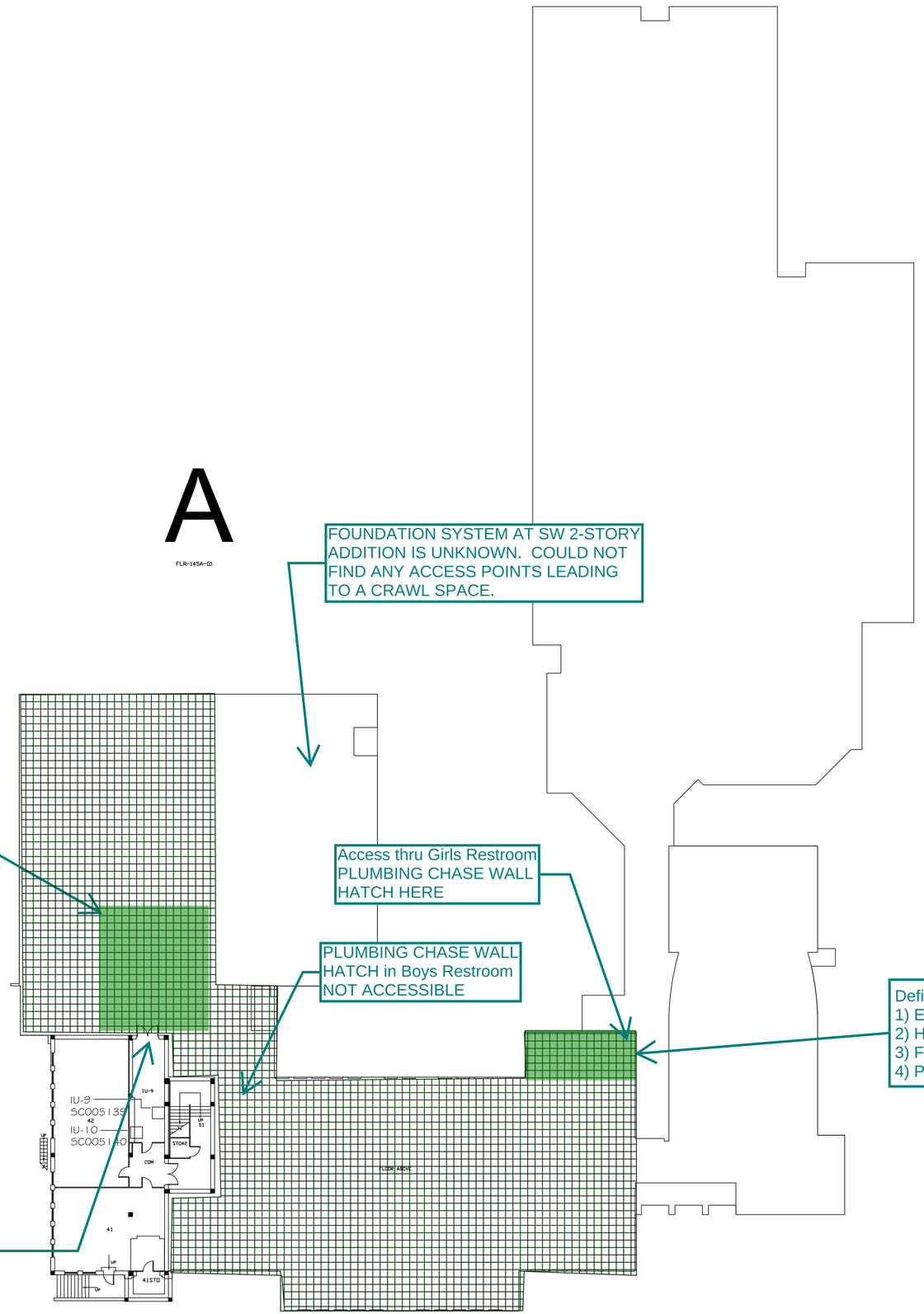
Deficiencies found in this location:
1) Exposed rebar in basement wall from a prior demo for an addition.
2) Previously repaired crack in basement wall, repaired with epoxy.
3) Suspended beams in relatively good condition, some small spalls at the beam corners.
4) Formwork nails still in place in suspended floor above.
5) Many abandoned pipes
6) Many pipes bearing on soil

Access thru Girls Restroom PLUMBING CHASE WALL HATCH HERE

PLUMBING CHASE WALL HATCH in Boys Restroom NOT ACCESSIBLE

Deficiencies found in this location:
1) Exposed rebar in basement walls
2) Honeycombing in basement walls
3) Formwork nails still in place for 2-way slab
4) Pipes bearing on soil

Access thru WALL HATCH HERE



NORTH

AUSTIN I.S.D.

DEPARTMENT OF CONSTRUCTION MANAGEMENT

ZAVALA ELEMENTARY SCHOOL

310 Robert Martinez, Jr.
Austin, Texas

FLOOR PLAN
GROUND FLOOR

APPROVALS		
DRAWN	CHECKED	APPROVED
J.R.		
10/02/13		
DWG 145-FLR-G1		SHEET
DRAWING SCALE		
1" = 20'		1 OF 1