
Comprehensive Facility Assessment Report

Seminole County Schools

2020



Prepared by:

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a+b

a r c h i t e c t s

ACKNOWLEDGMENTS

The Altman + Barrett Architects Team would like to thank the Seminole County School System for entrusting our team to conduct this comprehensive assessment. The entire school system including school principals, custodial staff teachers, and maintenance departments provided us with input, feedback, and guidance throughout the process.

SUPERINTENDENT

Mark Earnest

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SCS ADMINISTRATION AND FACILITIES

Jay Winkler Elementary School Principal

Shane Purdy, Middle/High School Principal

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INTRODUCTION

Facility Assessment Report - July 2020

PURPOSE OF THE SCS ASSESSMENT

This report outlines the assessment data gathered by Altman + Barrett Architects during the period of May 2020 - July 2020. This report includes analysis of existing construction documents, on-site physical inspections, and interviews with Seminole County facility administration and maintenance personnel. Our goals are outlined below:

- Perform assessment services to develop current facility condition data that can be used by the Seminole County School System to support timely funding decisions.
- Identify facility deficiency correction cost budgets that can be prioritized and categorized to maximize repair and replacement efficiencies.
- Establish Facility Condition Index (FCI) and other standard benchmarks as Prioritization tools to quantify each building's current condition and future fundings requirements.
- Develop facility system renewal cost forecasts for site infrastructure and building systems through facility's component life-cycle analysis and predictions for a forecast period of five years beyond the Current Period 2020-2022.

The Altman + Barrett team and sub-consultants conducted the physical condition assessment of the building and grounds and prepared the overall findings in this report. Altman + Barrett Architects incorporated local knowledge and expertise of K-12 building design, GDOE requirements, and Life Safety / International Building Code.

This report includes the assessment results of all Seminole County School buildings located at their Elementary School and Middle | High School Campuses. This assessment utilized nationally recognized facility condition assessment approaches, methods, and techniques, and the best standards used to evaluate physical condition of education and support facilities. It includes estimate needs for two time periods, the Current Period and the Forecast Period. **The Current Period is the present year plus 2 years forward (2020-2022). The Forecast Period includes the five years following (2022-2027).**



ASSESSMENT OBJECTIVES

The objectives of this assessment were to determine and report on the general status of each assessed building's current and deferred maintenance conditions based on the components' useful life and to provide recommended funding budgets for Seminole County's capital renewal expenditures over the Current Period of 2020-2022 (2 years) and a Forecast Period of 2022-2027 (5 years).

- Collated relevant existing building data, including prior assessments, reports or other facility information at Seminole County Facilities and their supporting infrastructure.
- Updated the facility inventory and assessment of facility conditions
- Analyze the Life Safety concerns and violations at each campus while providing solutions to problems.
- Provide building upgrade solution options with funding evaluations
- Provide Seminole County School System Altman + Barrett's professional recommendation to mitigate and fund their facility deficits.



REPORT FINDING SUMMARY

TOTAL BUILDING
REPAIR COST



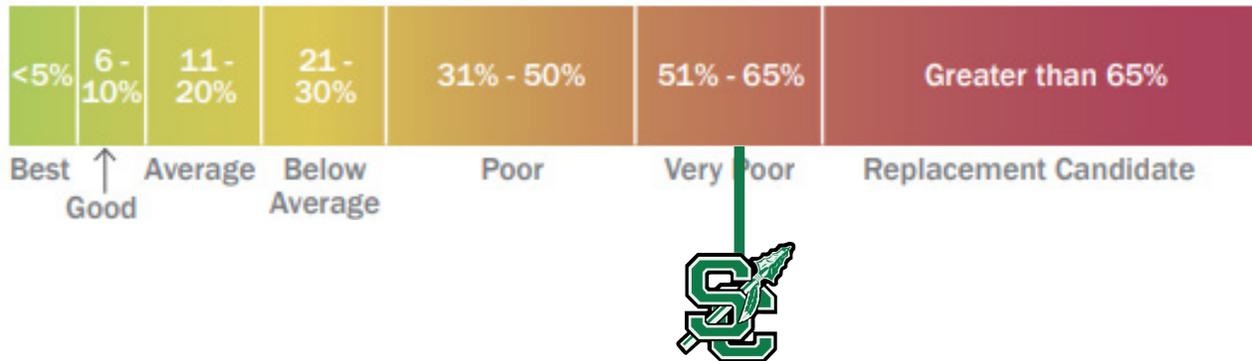
TOTAL
REPLACEMENT
COST



FACILITY
CONDITION
INDEX (FCI)

Facility Condition Index

The Facility Condition Index (FCI) is a widely used indicator that provides a relative scale of the overall condition of a given facility or group of facilities within a portfolio. The index is derived by dividing the total repair cost by the total replacement cost. An economic analysis generally suggests that FCI's between 51% - 64% represent the point where facilities should be considered for replacement. **This value typically indicates the point where further expenditures on a building offer little return when compared to the potential cost of replacing that facility.**



Campus	Gross Area S.F.	Current Building Repair Cost 2020	Current Replacement Value	2020 FCI	5 - Year Life Cycle 2022-2027	Life Cycle FCI
Elementary School	111,853.00	\$12,950,243.88	\$20,676,800.00	63%	\$14,892,780.46	72%
Middle High School	164,816.00	\$17,910,464.00	\$32,963,200.00	54%	\$20,585,114.00	62%
School System Results	276,669.00	\$30,860,707.88	\$53,640,000.00	58%	\$35,489,814.06	66%

Table 1: Seminole County Facility Condition Index. To see full results per campus building see the Campus Condition Survey in Section 2. Comprehensive Facility Assessment Report.

Immediate Replacement > 65%	Replacement Planning Begin 51% - 64%	Maintenance Focused 50% - 21%	Functioning >20
-----------------------------	--------------------------------------	-------------------------------	-----------------

¹ Current Needs represent the results of the 2020 assessment and do not include any future capital renewal needs - see Current Period.

² FCI is an industry - standard measurement of a facility's condition that is the ratio of the cost to correct a facility's deficiencies to the Current Replacement Value (CRV) of the facilities. CRV represents the hypothetical total cost of rebuilding or replacing an existing facility in current dollars to its optimal condition under current codes and construction methods. FCI is typically expressed as a percent.

Seminole County Condition Index

A campus-level FCI encompasses the site and the combination of all structures belonging to that Campus. Table 1 show the range of FCI at the campus level. The Seminole County School System currently has an average Facility Condition Index (FCI) of 55%. If only the elementary school were addressed this would tie up all funding options not allowing any major repairs or renovations for the existing high school.

RECCOMENDATION K-12 School Construction Costs (GDOE)		
Category	Estimated Cost (Lump Sum)	Notes
School Costs	\$29,911,010.77 *	See Calculation pg
Additional Construction Costs		
Renovation of Existing Gym	\$125,000.00	
PreK Addition (Cafeteria)	\$360,000.00	
Demolition/ Asbestos - Mid High School	\$768,988.00	
Demolition/ Asbestos - Elementary School	\$615,191.50	
Total Construction Costs	\$31,780,190.27	K-12 & Additional
Soft Costs		
Third Party Special Inspections	\$158,900.95	
FFE	\$1,200,000.00	Loose furniture i.e. Desks etc. Optional
Land Survey	\$60,000.00	
Geo-technical Testing	\$15,000.00	
Risk Hazard / Environmental Testing	\$30,000.00	
Purchase of Property (Qpublic)	\$216,368.00	
Construction Manager Fees (10%)	\$3,178,019.03	
Design Fees (5.5%)	\$1,747,910.46	
Total Soft Cost	\$6,606,198.44	
Estimated Total Project Cost		
Total Budget Amount	\$43,606,253.11	
Local Money Contribution	\$13,695,242.34	

In the decision to build Seminole County School System a new K-12, the school system will have a new campus for the lowest burden on the system themselves. The Georgia Department of Education will see the entire school at the funding size of a high school. This will allow the school to obtain more funding then if it were separated out elementary and middle| high school. This design will also allow the school system to have lower overhead as there will be only one office, one kitchen, one janitorial need etc.. The new facility would allow the school system to start fresh and not have to allocate money each year to the high price repairs and failures that are occurring in their current building. This will allow the chance to lower power bills substantially. Also if the school system chooses to build south of the existing high school site all of the athletics and extracurricular activities would all be on one master campus. The existing gymnasiums could be kept for the community and after-school programs. This solution also keeps the students functioning in their day to day lives during the duration of construction. **For these reasons, lowest financial burden, a new and efficient building, and student wellbeing, Altman + Barrett recommends the building of a new K-12 school on the existing High School Campus.**

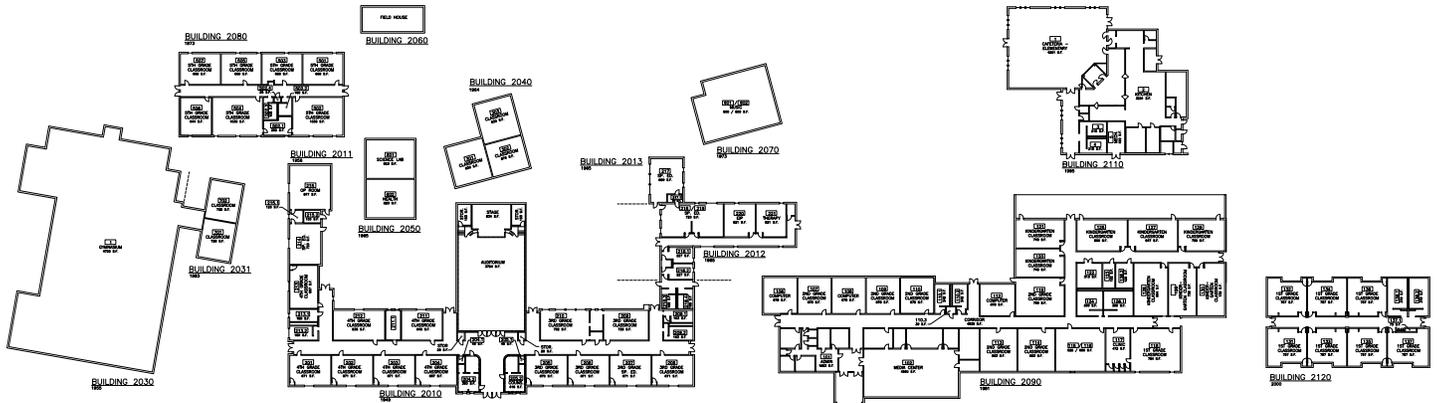


2.

COMPREHENSIVE FACILITY ASSESSMENT REPORT

This section contains the entirety of the feasibility report results in detail. All of these elements were used to produce the executive summary in Section B and Altman + Barrett's official recommendation for Seminole County.

EXISTING CONDITIONS: ELEMENTARY SCHOOL



SEMINOLE COUNTY ELEMENTARY SCHOOL FLOOR PLANS

NO SCALE

The following chart provides an in depth existing condition survey of each building on all campuses. This is done by showing construction year, total building square footage, facility condition cost, total replacement cost, condition index, and 5-year life cycle cost forecast. The 5 year forecast category includes all items that are not due for replacement in 2020-2022 but will be up for replacement in the next 5 years.

Bldg #	Construction Year	Total Area (S.F.)	Facility Repair Cost	Total Replacement Cost	2020 FCI	5 - Year Life Cycle	2025 - 2030 FCI
Elementary							
2010	1950	22,995.00	\$3,455,814.32	\$4,599,000.00	75%	\$3,974,186.47	86%
2011	1957	2,150.00	\$143,586.50	\$430,000.00	33%	\$165,124.48	38%
2012	1966	3,940.00	\$393,590.00	\$788,000.00	50%	\$452,628.50	57%
2013	1966	895.00	\$96,445.00	\$179,000.00	54%	\$110,911.75	62%
2030	1956	12,000.00	\$1,630,518.75	\$2,400,000.00	68%	\$1,875,096.56	78%
2031	1984	1,485.00	\$152,425.00	\$297,000.00	51%	\$175,288.75	59%
2040	1965	2,799.00	\$342,220.50	\$447,200.00	77%	\$393,553.58	88%
2050	1966	2,110.00	\$293,380.00	\$422,000.00	70%	\$337,387.00	80%
2070	1974	1,598.00	\$251,156.56	\$319,600.00	79%	\$288,830.04	90%
2080	1974	6,312.00	\$454,967.90	\$1,262,400.00	36%	\$523,213.09	41%
2090	1982	33,227.00	\$2,738,913.05	\$6,645,400.00	41%	\$3,149,750.01	47%
2110	1996	8,342.00	\$950,461.57	\$1,668,400.00	57%	\$1,093,030.81	66%
2120	2001	7,244.00	\$722,501.80	\$1,448,800.00	50%	\$830,877.07	57%
600		7,319	\$146,968.03	\$1,463,800.00	10%	\$169,013.23	12%
Total	1972 (avg.)	111,853.00	\$11,772,948.98	\$20,676,800.00		\$13,538,891.33	
All In GC's/ Fees			\$12,950,243.88		63%	\$14,892,780.46	72%

ITEMS INCLUDED:

- New natural gas emergency generator to serve entire campus
- Install web-based digital control HVAC system
- Relocate Auditorium HVAC units to meet code required clearances
- Replace HVAC units using R410 refrigerant or other compliant alternatives
- Install GFCI receptacles where required in kitchen
- Replace existing hood with package including separate makeup air perimeter plenum, code compliant controls and fire suppression system
- Install additional circuits at serving line
- Correct faulty lighting over kitchen point of sale area
- Provide a new domestic water heater in the teacher lounge area
- Replace bldg 2030 HVAC units with two package systems providing fresh air and active dehumidification
- Replace sections of waste piping as required and reconfigure cleanouts
- Replace failed water heater and reconfigure water piping
- Relocate control devices (thermostats)
- Install new auditorium HVAC systems with controllable fresh air intake and active dehumidification
- Install Dedicated Outdoor Air System (DOAS) in Special Ed suite
- Provide a replacement domestic water heater reconfigure piping
- Rework all overhead power services underground
- Install occupancy sensors
- Replace entire intercom system - speakers, call buttons, cabling
- Replace and upgrade power panel. Replace panels with newer vintage panels. Provide new copper conductors
- Installation of intrusion alarm system with motion sensors, key pads and control panel
- Install access control systems at select entrance doors. Provide system with LAN based head end and proximity readers at secured doors
- Install new IP based CCTV surveillance camera system
- Install surface mounted raceway to conceal A/V cabling
- Replace all data/voice cabling with new Cat 6e data cabling. Establish dedicated data rooms with new data racks and dedicated HVAC units.
- Install new backbone fiber cabling
- Install power and electric hand dryers in gang toilets
- Install new fire alarm system with control panel, signaling devices and pull stations
- Fill existing cracks with sealant
- Extend downspouts
- Energy conservation, to include devices, caulking, and retrofit measures
- Add splashblocks
- New floor covering
- New ceiling
- New Base
- Replace or refinish wall surfaces, to include painting
- Door replacement
- New windows
- Re-roof building
- Construct 1 hr firewall
- Remove and replace brick connecting breezeway due to wall failure
- Renovate Auditorium
- Extend corridor walls to underside of roof deck
- Block infill of louver locations for efficiency
- Correct Termite Damage
- Repoint / Reseal Brick
- Remove all carpet wall covering and accessories applied to block wall
- Restroom modernization (Including those for handicapped)
- Gymnasium Equipment
- Remove and Replace Bleachers
- New gymnasium floor covering
- Landscaping and erosion control (Whole Campus)
- Remove and Replace canopies (Whole Campus)
- Replace all exterior light fixtures
- Remove and Replace ADA compliant ramp
- Remove and Replace non compliant exterior stairs
- Remove brick off, replace it with a spray applied barrier, replace brick
- Exterior Paint
- General Selective Demolition (Assumed Asbestos)

EXISTING CONDITIONS: MIDDLE | HIGH SCHOOL



The following chart provides an in depth existing condition survey of each building on all campuses. This is done by showing construction year, total building square footage, facility condition cost, total replacement cost, condition index, and 5-year life cycle cost forecast. The 5 year forecast category includes all items that are not due for replacement in 2020-2022 but will be up for replacement in the next 5 years.

Bldg #	Construction Year	Total Area (S.F.)	Facility Repair Cost	Total Replacement Cost	2020 FCI	5 - Year Life Cycle	2025 - 2030 FCI
Middle High							
5010	1994	160,000.00	\$16,210,000.00	\$32,000,000.00	51%	\$13,840,250.00	58%
5011	2006	4,816.00	\$72,240.00	\$963,200.00	8%	\$83,076.00	9%
Total		164,816.00	\$16,282,240.00	\$32,963,200.00		\$18,713,740.00	
All In GC's/ Fees			\$17,910,464.00		54%	\$20,585,114.00	57%

ITEMS INCLUDED:

- Failing wall immediate mitigation
- Systemic structural investigation and mitigation (demo/construction)
- Remove masonry and cover gap with a metal sheet closure at kitchen loading dock canopy
- Replace the nine air handling units
- Replace the enthalpy wheels in four pad-mounted energy recovery units
- Replace domestic water piping
- Replace, reconstruct, or repair storm drainage piping
- Add full coverage sprinkler system
- Replace fire alarm system with new control panel, signaling devices and pull stations
- Replace light fixtures with energy efficient LED fixtures
- Provide new natural gas fired emergency generator
- Replace intercom system - speakers, call buttons and cabling
- Replace main switch gear with main circuit breaker and new ground fault sensor
- Install surge protection devices
- Install intrusion alarm system
- Install access control system at select entrance doors and provide system with LAN based head end and proximity readers at secured doors
- Install new IP based CCTV surveillance camera system
- Provide surface raceways to conceal A/V cabling
- Replace all data/voice cabling with new Cat6e data cabling
- New floor covering
- New ceiling
- Restroom modernization (Including those for handicapping)
- Replace or refinish wall surfaces, to include painting
- New Windows
- Replace roof system
- New / Additional Down spouts and gutters
- Replace clock and bell system
- Remove and replace metal ridge caps
- Install new underground drainage/Site Improvements
- Install gas lines to desks
- Cooler/freezer replacement
- Dishwasher replacement
- Hood replacement
- Serving line replacement

EXISTING CONDITIONS

ELEMENTARY



TOTAL SQ. FT.: 111,853.00 I.U.: COUNT: 62

MIDDLE / HIGH



TOTAL SQ. FT.: 164,816.00 I.U.: COUNT: 57

CAMPUS CONDITION SURVEY

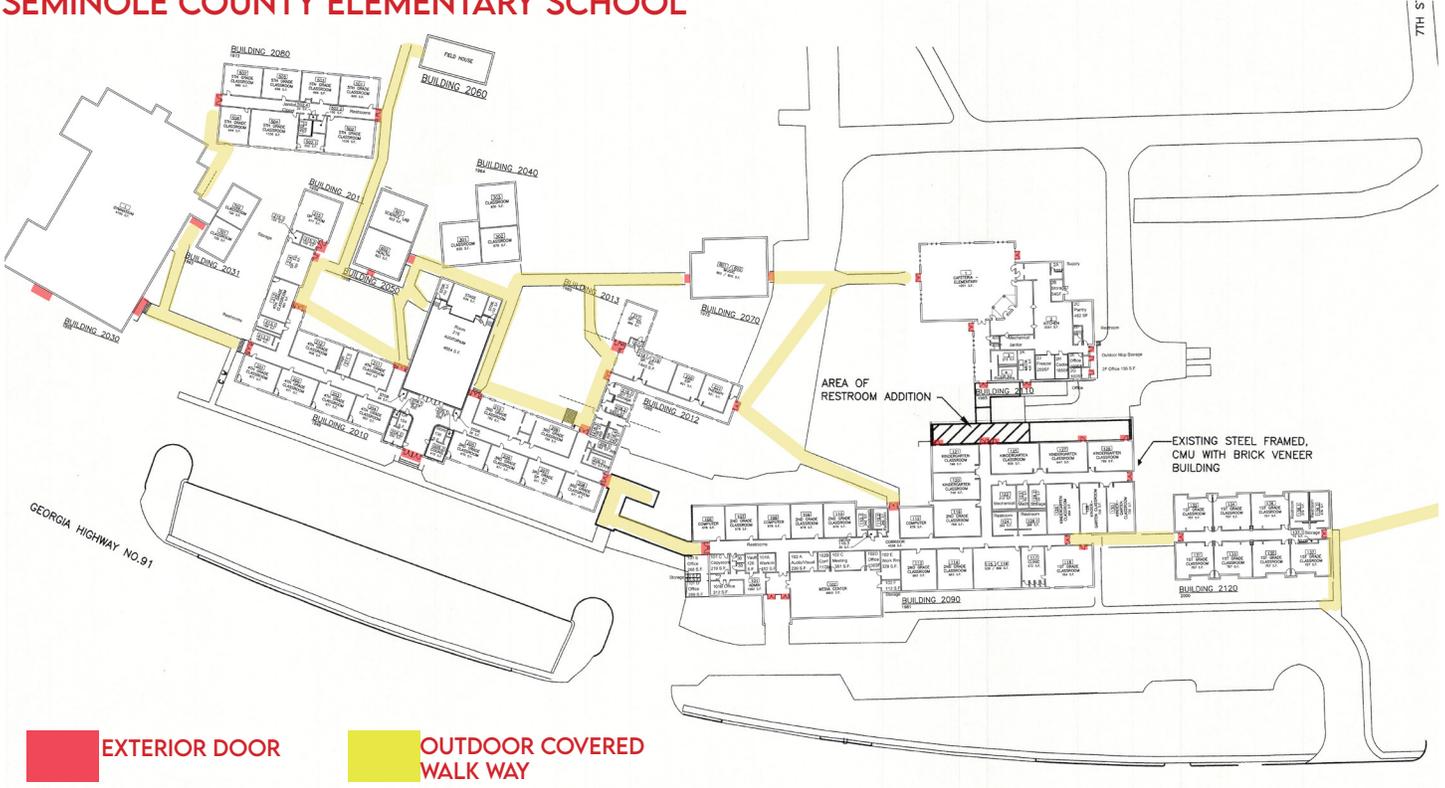
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For example, in 2020, if Building 2010 does not have its brick corrected it will lead to deterioration that will leads to an additional 5 year life Cycle cost to consider for the FCI factor.

Bldg #	Construction Year	Total Area (S.F.)	Facility Repair Cost	Total Replacement Cost	2020 FCI	5 - Year Life Cycle	2025 - 2030 FCI
Elementary							
2010	1950	22,995.00	\$3,455,814.32	\$4,599,000.00	75%	\$3,974,186.47	86%
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2110	1996	8,342.00	\$950,461.57	\$1,668,400.00	57%	\$1,093,030.81	66%
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Middle High							
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5011	2006	4,816.00	\$72,240.00	\$963,200.00	8%	\$83,076.00	9%
Total		164,816.00	\$16,282,240.00	\$32,963,200.00		\$18,713,740.00	
All In GC's/ Fees			\$17,910,464.00		54%	\$20,585,114.00	57%
Bldg #	Facility Repair Cost	Total Replacement Cost	2020 FCI	5 Year - Life Cycle	2025-2030 FCI		
Campus							
Total	\$29,413,987.84	\$53,640,000.00	55%	\$33,826,086.02	63%		

LIFE SAFETY VIOLATIONS / CONCERNS

SEMINOLE COUNTY ELEMENTARY SCHOOL



■ EXTERIOR DOOR ■ OUTDOOR COVERED WALK WAY

AREAS OF POOR BUILDING EFFICIENCY
EXTERIOR DOOR COUNT : 60+
A new school this size would have 25 or less exterior doors

SAMPLE BILL - SEPTEMBER 2019 - SEMINOLE ELEMENTARY

CONTROL #	PO #	INVOICE #	DESCRIPTION	DATE	AMOUNT	
000084-9037	000000	SB 29648-23034		09/30/19	21,083.48	
Retain this portion for your records					TOTAL AMOUNT	21,083.48

THIS CHECK HAS A COLORED BACKGROUND AND CONTAINS MULTIPLE SECURITY FEATURES - SEE BACK FOR DETAILS

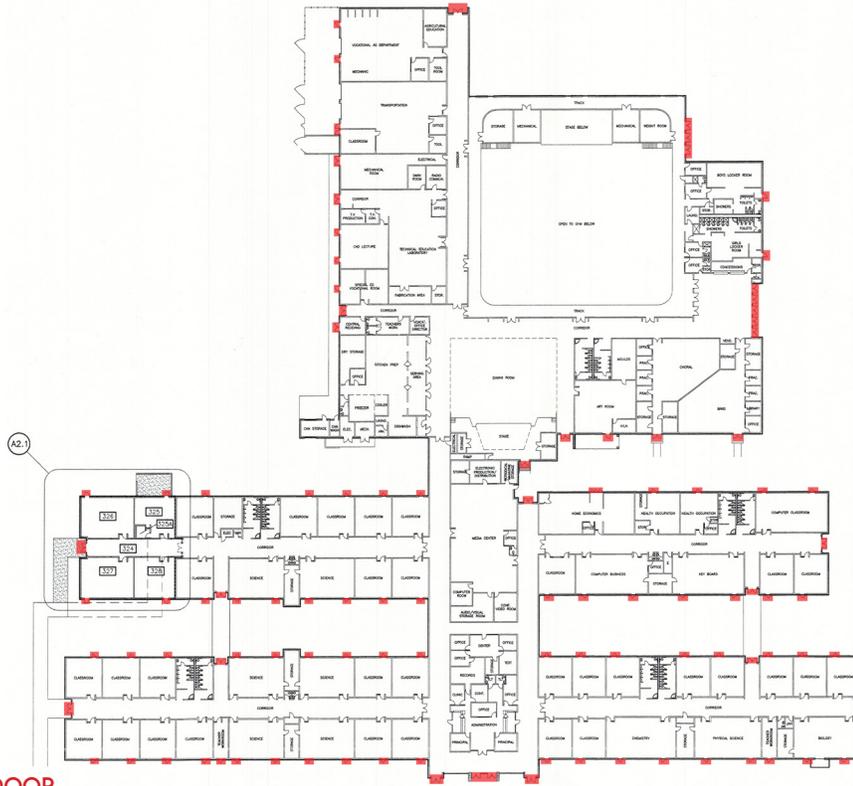
Seminole County Board of Education
 203 East 6th Street
 Donalsonville, Georgia 39845

64-1147
612

No. **070889**

Date
10/04/19

SEMINOLE COUNTY MIDDLE | HIGH SCHOOL



EXTERIOR DOOR

**FIG. 1 AREAS OF POOR BUILDING EFFICIENCY
EXTERIOR DOOR COUNT : 103**

A new school this size would have 25 or less exterior doors

SAMPLE BILL - SEPTEMBER 2019 - SEMINOLE MIDDLE | HIGH

CONTROL #	PO #	INVOICE #	DESCRIPTION	DATE	AMOUNT
001306-9684	000000	485356001-6005		09/30/19	31,863.58
TOTAL AMOUNT					31,863.58

Retain this portion for your records

THIS CHECK HAS A COLORED BACKGROUND AND CONTAINS MULTIPLE SECURITY FEATURES - SEE BACK FOR DETAILS

Seminole County Board of Education
203 East 6th Street
Donalsonville, Georgia 39845

64-1147
612

No. **070920**

Date

10/04/19

REVIEW OF BUILDING EFFICEINCY AND SAFETY

Both the elementary school and the middle|high school are very inefficient buildings. One of most obvious causes for this is the egregious amount of exterior doors in the facilites. Doors are frequently problematic components of a building’s thermal envelope. Typical issues include heat loss from air movement during operation, heat loss from air movement through the perimeter detail, and radiant heat loss through the door materials themselves. Door frames that do not incorporate adequate thermal isolation form thermal bridges that tend to lead to wintertime condensation. Overall door thermal performance is a function of the type of operation, the glazing (if applicable), the frame and perimeter details, the sash and sash weatherstripping, and the door materials. Heat loss from air leakage is the most significant challenge to thermal performance for heavily used entrance and exit doors. This is what can cause monthly utility bills to be higher then buildings of the same size with better building envelopes. The only way to solve this issue would be to remove all exterior classroom doors and block/brick in the voids. This would be a very expensive mediation that Seminole County can not afford.

Another major issue that comes with so many exterior doors is water leakage. Water leakage through or around doors can contribute to indoor air quality (IAQ) problems by supplying moisture for mold growth. This leakage can often remain concealed within the wall system or flooring and not become evident until concealed wall components experience significant deterioration and mold growth.

This is a sample of a power bill at both the Elementary School and the Middle|High School.

School Building	Sq. Ft.	Monthly Power Bill Sample
Seminole County Elementary School	111,853.00	\$21,083.48
Seminole County Middle High School	164,816.00	\$31,863.59
Total Monthly Power Bill		\$52,947.07

This is a sample of a previous Altman + Barrett Architects successful monthly power bill improvement.

School Building	Sq. Ft.	Monthly Power Bill Sample
Original Colquitt County High School	175,000	\$44,000.00
New Colquitt County High School Altman + Barrett Design	356,000	\$17,000.00
Percent of savings per month		38.6% savings per month



a r c h i t e c t s





a r c h i t e c t s



MEPS ENGINEERING ANALYSIS REPORT

ELEMENTARY SCHOOL

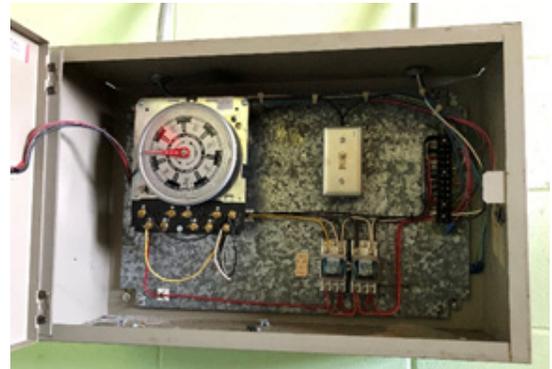
MEP ENGINEERING ANALYSIS REPORT

ELEMENTARY SCHOOL

MECHANICAL EQUIPMENT

OVERALL EXISTING CONDITION:

There is no centralized system for controlling the HVAC systems in the 10 campus buildings. Time-of-day control is currently accomplished by local programmable thermostats only.



Non Functional HVAC Time Clock
Controller in Building 2030

SUGGESTED REMEDIATION:

Install web-based digital control system to allow active control, scheduling, and monitoring of all HVAC systems on the campus.

BLDG 2010,2011,2012,2013 EXISTING CONDITION:

- Wall-mounted HVAC unit thermostats are located on the exterior walls in general. This provides an inaccurate or unstable reading and will result in poor control.
- Outdoor HVAC units serving the Auditorium are enclosed in a fence/wall enclosure that does not provide required service clearance and does not allow for adequate airflow through the condenser coils. This reduces the effective capacity of the units and leads to operational issues.
- HVAC systems serving the auditorium have an uncontrolled outdoor air intake and no active dehumidification capabilities. Systems use the equipment room as a return air plenum in violation of code. Systems are located on the stage area resulting in significant acoustical interference.
- Special Education Classrooms are conditioned using through-wall Package Terminal Air Conditioning (PTAC) units. These units lack the capability of delivering code-required fresh air to classrooms and are not capable of providing active dehumidification. The service life of PTAC units is approximately 5 years in this type of application.



HVAC units in undersized enclosure, too close to building wall

SUGGESTED REMEDIATION:

- During the execution of the control system installation referenced above, relocate control devices to the corridor wall.
- Remove or reconfigure enclosure and relocate the units to meet manufacturer and code-required clearances.
- Replace systems with new systems that have controllable fresh air intakes and active dehumidification. Locate systems remotely for acoustical separation.
- Install a Dedicated Outdoor Air System (DOAS) to provide preconditioned fresh air to all building spaces. This will address the fresh air issue and the humidity control issue.

BLDG 2030 EXISTING CONDITION:

- The gymnasium paying floor area is conditioned by four ducted split system HVAC units with fabric duct air distribution. There is no fresh air intake on any of the systems, and no active dehumidification in place. Staff reports many operational issues.
- The remainder of Building 2030 is unconditioned (minimally heated and ventilated only) with the exception of two ductless split systems.



HVAC Systems serving Gym area. No fresh air intake or dehumidification functions.



Sagging ceiling tiles indicative of significant high humidity issues.

SUGGESTED REMEDIATION:

- Replace the existing equipment with two package HVAC systems equipped to handle fresh air and providing active dehumidification. The package units can be pad-mounted or possibly roof-mounted.
- Provide ductless split system HVAC units to condition locker rooms and similar spaces. Replace non-functional exhaust fans where applicable.

BLDG 2040 EXISTING CONDITION:

- Building is conditioned by pad-mounted HVAC units. Based on nameplate data the units, installed in 2009, are not equipped to handle adequate fresh air and provide active dehumidification.

SUGGESTED REMEDIATION:

- Replace units with new units having the fresh air and dehumidification capabilities.

BLDG 2070 EXISTING CONDITION:

- The building is served by a single roof-mounted HVAC unit. The existing unit lacks fresh air handling capability and active dehumidification capability

SUGGESTED REMEDIATION:

- Replace the HVAC unit with an appropriate system having fresh air and active dehumidification capabilities.

MECHANICAL EQUIPMENT CONT.

BLDG 2080 EXISTING CONDITION:

- The building primary HVAC system consists of through-wall Package Terminal Air Conditioning (PTAC) units. These units lack the capability of delivering code-required fresh air to classrooms and are not capable of providing active dehumidification. The service life of PTAC units is approximately 5 years in this type of application.



Damaged exterior louvers of PTAC units

SUGGESTED REMEDIATION:

- Install a Dedicated Outdoor Air System (DOAS) to provide preconditioned fresh air to all building spaces. This will address the fresh air issue and the humidity control issue.

BLDG 2090 EXISTING CONDITION:

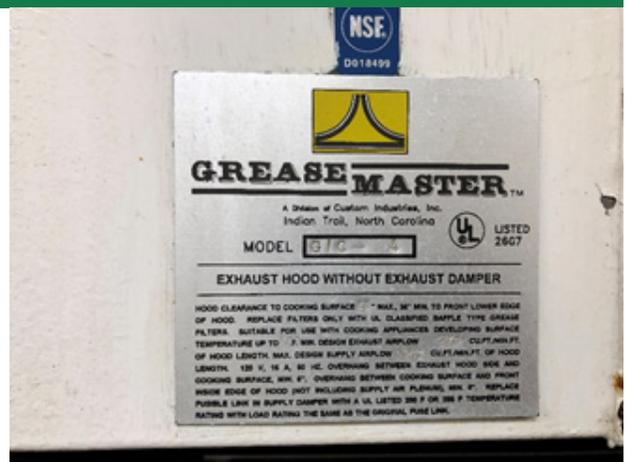
- The building is conditioned by a mixture of PTACs and single-zone rooftop HVAC units. All of the systems lack the capability to deliver adequate fresh air and lack active dehumidification capability.

SUGGESTED REMEDIATION:

- Install new Dedicated Outdoor Air Systems (DOAS) to provide preconditioned fresh air to all building spaces. This will address the fresh air issue and the humidity control issue.

BLDG 2110 EXISTING CONDITION:

- The kitchen rangehood is a “short-circuit” model, which introduces the makeup air under the perimeter edge of the hood itself. Short circuit hoods do not provide adequate grease/smoke removal and are generally not used any more. The hood installation also does not appear to meet current fire safety requirements outlined in the applicable Codes.



Label from aging kitchen rangehood.

SUGGESTED REMEDIATION:

- Replace the existing hood with a code complaint hood package having a separate makeup air perimeter plenum, code compliant controls, and fire suppression system.

BLDG 2120 EXISTING CONDITION:

- Building HVAC systems are predominantly wall-hung HVAC units with fresh air and dehumidification capabilities. The units operate on R-22 refrigerant which is no longer produced (limited quantities are available from recycled HVAC systems).

SUGGESTED REMEDIATION:

- Replace HVAC units under scheduled capital replacement with new systems using R410a refrigerant or other compliant alternatives.

PLUMBING

2010 EXISTING CONDITION:

- A domestic water heater serving the building, located in the basement, is out of service.

SUGGESTED REMEDIATION:

- Provide a replacement domestic water heater in a more serviceable location and reconfigure distribution piping as required.

BLDG 2030 EXISTING CONDITION:

- The existing waste piping system is largely bell and spigot cast iron piping dating back to the original 1955 construction. Staff reports there are chronic blockages and the configuration of the system is not conducive to proper clearing of the blockages.
- Domestic Hot water system is out of service (assumed failed) for the building.
- Plumbing fixtures throughout the building are in poor condition. Fixture mountings are failing.

SUGGESTED REMEDIATION:

- Retain a qualified plumbing contractor to survey the underground waste piping system with a camera and document issues. Replace sections of piping as required and reconfigure cleanouts for proper maintenance.
- Replace failed water heater and provide new domestic hot water piping as required to serve fixtures.
- Replace plumbing fixtures and trim and provide new distribution piping as required.

BLDG 2080 EXISTING CONDITION:

- In a recent renovation, plumbing fixtures were added in a new teacher's lounge/restroom area. Hot water service to that area is poor.

SUGGESTED REMEDIATION:

- Provide a recirculation loop in accordance with code between the water heater and the teacher lounge area or provide a new domestic water heater in the teacher lounge area, nearer the fixtures.

BLDG 2090 EXISTING CONDITION:

- The existing domestic water piping is a mixture of copper and CPVC piping, indicating there have been issues with the copper piping failing due to pinhole leaks.

SUGGESTED REMEDIATION:

- Replace existing domestic water piping throughout the building (where it has not already been replaced) with new piping material.

BLDG 2110 EXISTING CONDITION:

- Based on the observable layout and information provided by staff, it appears that some of the domestic sewer piping (bathroom waste) is currently routed through the grease trap. This is inconsistent with Code and creates an unsanitary condition.
- Staff reports indicate there are frequent sewer system blockages in the building sometimes causing sewerage to back up into the floor area of the kitchen



Grease trap access manholes behind kitchen.

SUGGESTED REMEDIATION:

- Re-route non-compliant waste piping around the grease trap and directly into the sanitary sewer system.
- Retain a qualified plumbing contractor to survey the underground waste piping system with a camera and document issues. Replace sections of piping as required and reconfigure cleanouts for proper maintenance.

BLDG 2120 EXISTING CONDITION:

- Wash fountains at battery toilet rooms are in poor condition, and only marginally functional.

SUGGESTED REMEDIATION:

- Replace wash fountains with modern operational fixtures.

FIRE PROTECTION

BLDG 2010 EXISTING CONDITION:

- The auditorium is protected by a dry-pipe fire protection sprinkler system. It is questionable as to whether adequate fire separations are in place between protected and unprotected portions of the building. It is also unclear how adequate egress paths for the auditorium are protected.

SUGGESTED REMEDIATION:

- Undertake a full life safety code analysis of this portion of the building and provide additional life safety provisions as identified by the study.

FIRE ALARM SYSTEM

EXISTING CONDITION:

- The existing fire alarm control panel has been replaced from the original install. The existing fire alarm panel is a Simplex 4100ES Series. Throughout the buildings there are several areas that do not have the required or Code compliant fire alarm signaling devices. In addition, select areas need new pull stations installed. Buildings: All

SUGGESTED REMEDIATION:

- EDC would recommend replacing the fire alarm system in its entirety in order to meet current code. A new control panel would be installed which would be voice evacuation type signaling devices throughout to meet current Code. New signaling devices would be added throughout as required by current Codes as well as pull stations installed as necessary.

SITE LIGHTING:

EXISTING CONDITION:

•The Utility Company Power Provider to the site is Georgia Power Company. Being that there are numerous buildings, some buildings are served underground off a pad mount transformer. However, numerous ones are served with overhead services. The Owner advised that several years ago the overhead transformers had failed (fire) at the rear of Building 2010. Based on such a new pad mount transformer was installed.



SUGGESTED REMEDIATION:

- All overhead services be reworked such that all service on site is underground. This is from an aesthetic stand point as well as underground services without pole mounted transformer are typically a safer installation on a school site. This work would be in conjunction with new power panel upgrades and replacements as well. Buildings: 2010, 2030, 2040, 2050, 2070, Head Start (Building 600).

LIGHTING:

EXISTING CONDITION:

- There is a mixture of differing ages of fixtures within the buildings. However, there are some areas in which existing fixtures remain which are older vintage fluorescent fixtures. There are some existing exterior fixtures which have not been replaced.
- Emergency lighting fixtures consist of wall mounted, dual head battery pack fixtures. There are no exterior emergency egress fixtures installed.



SUGGESTED REMEDIATION:

- EDC would recommend that existing fixtures throughout be replaced with energy efficient LED fixtures. In addition, occupancy sensors would be recommended throughout for energy savings. Buildings: All 0).
- Remove all battery packs and provide a new emergency generator. EDC would recommend that a new natural gas fired, emergency generator be provided. This generator would power select emergency egress fixtures throughout the building as well as exterior emergency egress fixtures. In addition, this generator could be utilized to backup data/voice racks, kitchen cooler and freezer, select power throughout the building, as well as phone system, fire alarm, and intercom system. Buildings: All

INTERCOM SYSTEM

EXISTING CONDITION:

•The existing intercom system is a Bogen System located in the Admin Area. There are currently ceiling mounted speakers and call buttons located in the Classrooms. Some speakers are wall mounted



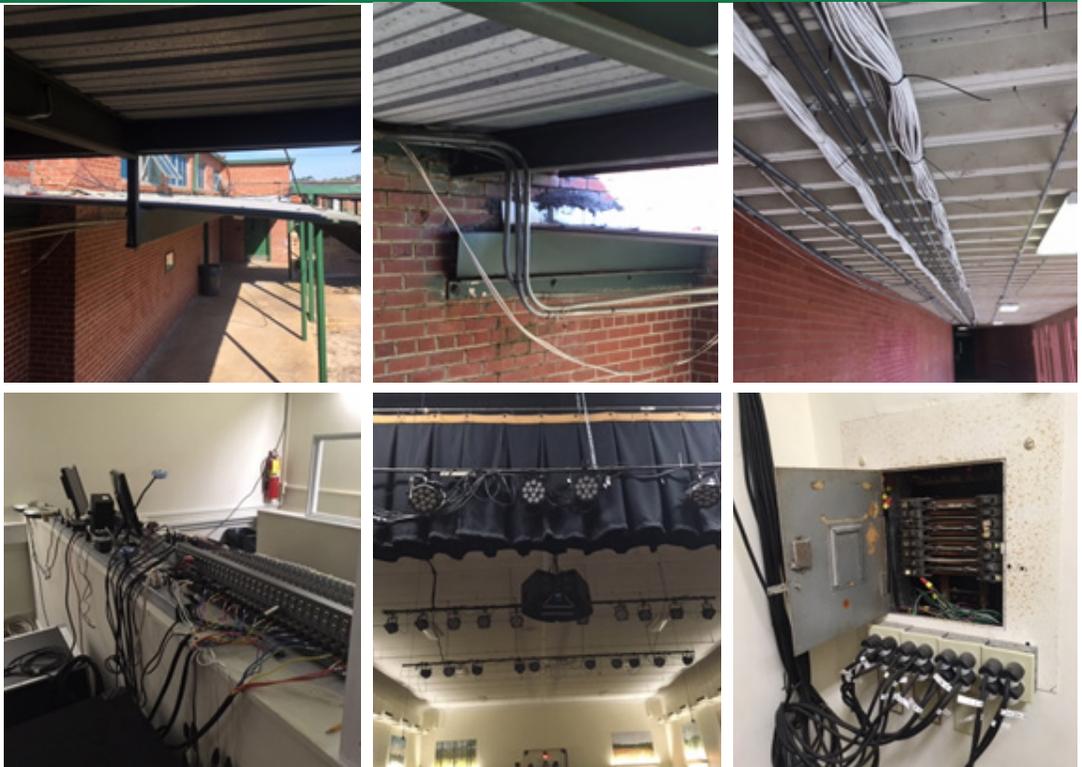
SUGGESTED REMEDIATION:

•We would recommend the intercom be replaced in its entirety. New ceiling mount speakers, call buttons as well as new cabling. Cross connect the new intercom to the Owner's voice over IP phone system. Class changes (Bell System) can be run over the intercom. Buildings: All

LOW VOLTAGE SYSTEMS BLDG 2010 & 2110

EXISTING CONDITION:

•At the rear of Building 2010, (and various other buildings) there are a large number of conduits and low voltage cabling routed over canopies. These canopies extend to multiple other buildings and contain power and low voltage systems. The recommendation would to be route these systems underground for aesthetic reasons as well as protecting pathways for lightning protection.



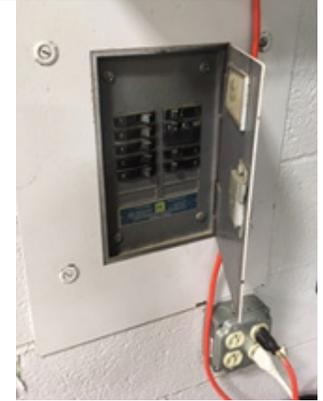
SUGGESTED REMEDIATION:

- Building 2010 contains the Auditorium which is used for productions and plays. There have been some LED lighting upgrades and retrofits. There is also a sound platform in the rear of this building with lighting control and sound control. Based on the age of this building, it is recommended that all new electrical infrastructure be installed along with all associated low voltage systems consisting of lighting, dimming, and sound system
- Install GFCI receptacles where required in Kitchen.
- Install additional circuits at Serving Line.
- Correct faulty lighting over Kitchen Point of Sale Area.

POWER

EXISTING CONDITION:

• There are varying ages of panels installed throughout the Campus. Based on the vintage of panels installed the ones that currently up to date are in Building 2110, and 2020. Other panels scattered throughout the buildings consist of some surface mount panels, some of older vintage and some that are no longer manufactured. Some panels exhibit problems with proper covers and safety issues in regards to exposed bussing.



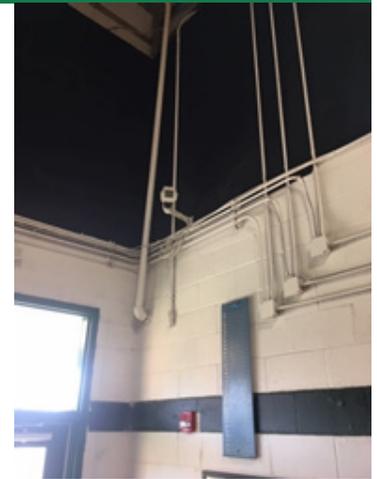
SUGGESTED REMEDIATION:

- It is recommended that existing panels be replaced in their entirety with newer vintage panels. Proposed main service to each building would be underground as noted under Site Electrical noted earlier in this report. Proper ground will be established at each building along with new copper conductors serving the main panels and sub-panels. Buildings: 2010, 2030, 2040, 2050, 2070, Head Start (Building 600).

SECURITY SYSTEM

EXISTING CONDITION:

- There is no intrusion alarm system installed within the school.
- There is no access control system installed in the school.
- There is a CCTV surveillance camera system installed in the school. Existing system consist of a combination of IP based cameras with older type, coax based analog cameras. Majority of cameras are the older vintage analog CCTV cameras.



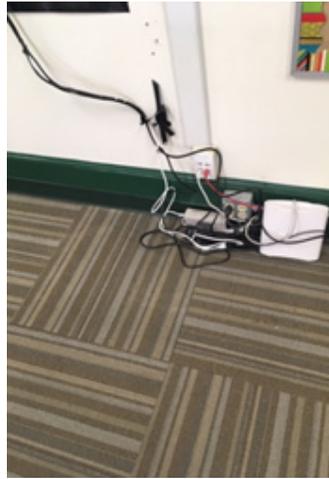
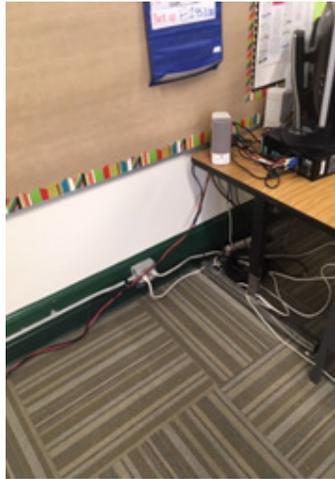
SUGGESTED REMEDIATION:

- It is recommended that an intrusion alarm system be installed consisting of addressable motion sensors, key pads, and control panel.
- It is recommended that an access control system be installed at select Entrance Doors. System would be provided with a LAN based head end and proximity readers at Secured Doors.
- It is recommended that a new IP based CCTV surveillance camera system be installed its entirety. This would consist of new IP based cameras an IP based LAN head end system. Quantity of cameras would be increased to provide adequate coverage throughout commensurate for this size school. Buildings: All

DATA/VOICE NETWORKING SYSTEM & CLASSROOM TECHNOLOGY

EXISTING CONDITION:

- Existing data infrastructure consist of older Cat. 5 cabling. Data racks are located in Work Rooms, Corridors and other spaces as original design did not incorporate a dedicated Data Rooms.
- In a typical Classroom A/V system consist of short throw projectors with A/V cabling surface mounted on the wall to the Teacher's Desk.



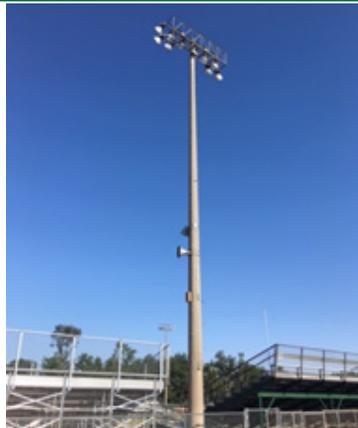
SUGGESTED REMEDIATION:

- In regards to Classroom Technology, the existing could be reused. Install surface mounted raceway to conceal A/V cabling. Consideration should be made to utilizing wall mount interactive touch panels or similar type smartboard technology.
- Replace all data/voice cabling with new Cat. 6e data cabling. Establish dedicated Data Rooms with new data racks and dedicated HVAC units. Install new backbone fiber cabling. Buildings: All

FOOTBALL STADIUM LIGHTING

EXISTING CONDITION:

- The High School Football Stadium is located on the Elementary School Site. Owner advised that was some damage to lights, light pole, bleachers and press box during the previous hurricane. Existing lighting consist of metal halide fixtures.



SUGGESTED REMEDIATION:

- Recommendation would be to replace the existing metal halide fixtures with new LED sports lighting fixtures. In addition, consideration will be made for Stadium upgrade commensurate with a newer Stadium. This would require an emergency egress lighting in the stands as the occupant load is greater than 300. This would require a small natural gas generator to provide emergency lighting for emergency egress as well as power to the PA system.

ELEMENTARY SCHOOL

EXISTING CONDITION:

The initial site visit identified several areas of cracks in walls in both the Seminole County Middle/High School and at the Seminole County Elementary School. A follow up visit was made by the structural engineer on Tuesday, May 26, 2020.

At the elementary school two areas were identified as issues. To the south of the main entrance there is a breezeway. The exterior wall of the breezeway is a double-wythe brick wall built with a pattern of decorative openings [Photo ES-1]. The openings are narrow and of varying heights. The brick above the openings is supported by steel plate lintels [Photo ES-2]. These plates appear to have been prime painted originally, but now they exhibit varying degrees of corrosion. As the plates rust, they expand as the iron oxide is much less dense than the iron it replaces [Photo ES-3]. It was also reported that windblown rain penetrates the wall through the openings. There is no accommodation for the removal of this water, so it collects at the base of the decorative wall. There is an open joint between the base of the wall and the sidewalk. This may have also contributed to the movement and cracking of the wall.

This wall will continue to deteriorate until it reaches the point that sections of the wall will fail. The wall supports the roof, so depending on the extent of the wall failure, a portion of the roof may also fail. The wall may be repaired by the removal and replacement of the entire wall or by replacing the plate lintels one by one with a galvanized steel or stainless-steel plate. If the latter course is chosen, the water issue should be monitored and possibly remediated separately.

Along the front of the building, downspouts from the roof discharge adjacent to the exterior wall. [Photo ES-7] The water has created holes of varying size, which in turn confine the water and directs it into the soil. This condition can, over time, cause settlement. At the far north corner of the building this has happened. [Photos ES-4 through ES-10]

SUGGESTED REMEDIATION :

Again, this settlement is likely to continue until it creates a structural issue. To remediate the issue, the existing cracks should be filled with sealant to prevent the intrusion of water. The downspouts should be extended, and splash blocks added to prevent the water from pooling against the building. These steps should stabilize the wall and prevent further damage. The damage should be periodically monitored to confirm that the damage is not continuing.

EXISTING STRUCTURAL ISSUE:

ES-1



ES-2



STEEL PLATE LINTEL

STEEL PLATE LINTEL

EXISTING STRUCTURAL ISSUE:

ES-3



STEEL PLATE
LINTEL

COLLAR PROBABLY
FROM PREVIOUS REPAIR
ATTEMPT

ES-4



EXISTING STRUCTURAL ISSUE:

ES-5



ES-6



EXISTING STRUCTURAL ISSUE:

ES-7



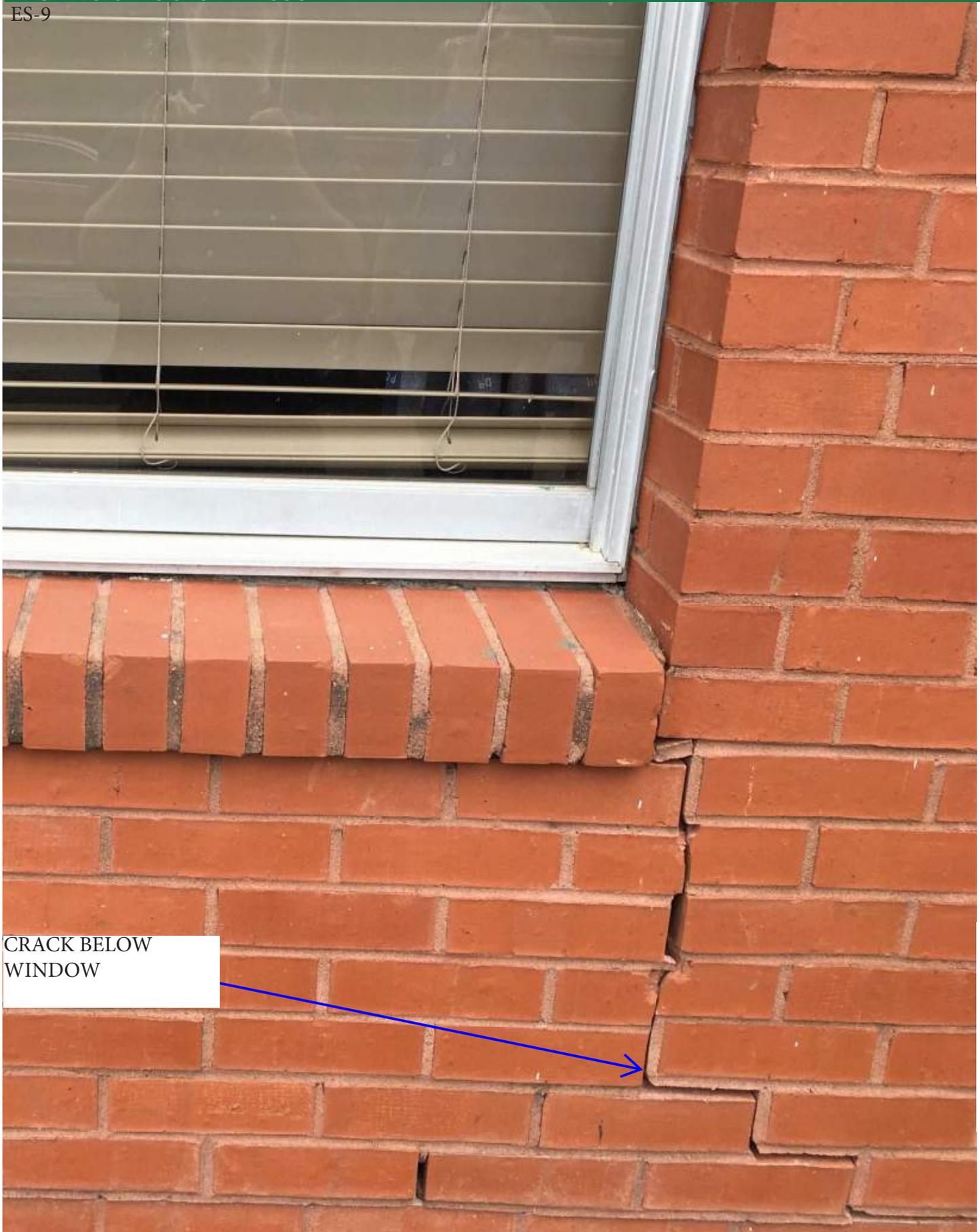
DOWNSPOUTS
EMPTY ADJACENT TO
FOUNDATION

ES-8



EXISTING STRUCTURAL ISSUE:

ES-9



CRACK BELOW WINDOW

ES-10



FIXED WINDOW
PANE HAS CRACKED



a r c h i t e c t s



MEPS ENGINEERING ANALYSIS REPORT

MIDDLE I HIGH SCHOOL

MEP ENGINEERING ANALYSIS REPORT

MIDDLE I HIGH SCHOOL

MECHANICAL EQUIPMENT

EXISTING CONDITION:

- The air-cooled chiller commissioned in 1995 is failing.
- The nine (9) air handling units totaling approximately 68,000 cfm in capacity, commissioned in 1995, are at the end of their typical economic life span. The normal life for similar units is 20 years.
- Energy recovery type fresh air preconditioning units were installed during a 2007 renovation project. The typical effective life span of the energy recovery enthalpy wheels in similar units is approximately 10 years. Aging wheels greatly reduce the efficiency and capacity of the unit.



SUGGESTED REMEDIATION :

- Replacement of the chiller was in process at the time of the survey.
- Replace the nine units with new units of similar configuration and capacity.
- Replace the enthalpy wheels in the four pad-mounted energy recovery units.

PLUMBING

EXISTING CONDITION:

- Staff reports frequent issues with domestic water piping leakage. This appears to be attributable to pinhole leaks, a common defect in some imported copper piping of this vintage.
- Staff reports that, during rainstorms, the downspout pipe adjacent to the Home Economics classroom leaks profusely causing water to enter the building. This appears to be caused by inadequate storm drainage distribution downstream of the downspout.



SUGGESTED REMEDIATION :

- Replace domestic water piping throughout the building, with specific focus on areas of frequent failure.
- Replace, reconstruct, or repair inadequate storm drainage piping system in the area of the issue.

MIDDLE I HIGH SCHOOL

FIRE PROTECTION**EXISTING CONDITION:**

- Currently only the large assembly spaces in the school building are protected by a fire protection sprinkler system. This was acceptable under the Code in force at the time of construction.

SUGGESTED REMEDIATION:

- No action is required due to the “grandfathering” of the building. However, the addition of a full coverage sprinkler system would provide better protection for the occupants and property.

FIRE ALARM SYSTEMS:**EXISTING CONDITION:**

- The existing fire alarm control panel has been replaced from the original install. The existing fire alarm panel is a Simplex 4100ES Series. Throughout the building there are several areas that do not have the required or Code compliant fire alarm signaling devices. In addition, select areas need new pull stations installed

**SUGGESTED REMEDIATION:**

- EDC would recommend replacing the fire alarm system in its entirety in order to meet current code. A new control panel would be installed which would be voice evacuation type signaling devices throughout to meet current Code. New signaling devices would be added throughout as required by current Codes as well as pull stations installed as necessary.

LIGHTING:**EXISTING CONDITION:**

- There is a mixture of differing ages of fixtures within the building. A significant portion of lights were retrofitted with 32 watt, T-8, energy efficient lamps.
- Emergency lighting fixtures consist of wall mounted, dual head battery pack fixtures. There are no exterior emergency egress fixtures installed.

**SUGGESTED REMEDIATION:**

- EDC would recommend that existing fixtures throughout be replaced with energy efficient LED fixtures. In addition, occupancy sensors would be recommended throughout for energy savings.
- Remove all battery packs and provide a new emergency generator. EDC would recommend that a new natural gas fired, emergency generator be provided. This generator would power select emergency egress fixtures throughout the building as well as exterior emergency egress fixtures. In addition, this generator could be utilized to backup data/voice racks, kitchen cooler and freezer, select power throughout the building, as well as phone system, fire alarm, and intercom system.

INTERCOM SYSTEMS:

EXISTING CONDITION:

- The existing intercom system is a Simplex System located in the Admin Area. There are currently ceiling mounted speakers and call buttons located in the Classrooms. System is the original install from 1995.



SUGGESTED REMEDIATION:

- We would recommend the intercom be replaced in its entirety. New ceiling mount speakers, call buttons as well as new cabling. Cross connect the new intercom to the Owner's Voice Over IP phone system.

MISCELLANEOUS ELECTRICAL & LOW VOLTAGE OBSERVATIONS

EXISTING CONDITION:

- It was noted that the Main Electrical Room needs to have exterior doors that swing out with panic hardware added.
- Kitchen does not have Code required GFCI receptacles. Recommendation is to upgrade to GFCI receptacles where required by Code. \
- Existing Sports Facility consist of metal halide fixtures on concrete poles. Recommendation is to replace the sports lighting with a LED type sports lighting system.
- Owner prefers electric hand dryers in all Gang Toilets. Install power and electric hand dryer throughout.



POWER:

EXISTING CONDITION:

- The existing electrical system currently installed is original to the building. It consists of General Electric gear located in the Main Electrical Room with Sub-Electrical Rooms consisting of the same vintage gear with dry type transformers. The electrical gear and panels are of common manufacturer (G.E.) and are in good shape. It is not recommended that these panels be replaced. However, it was noted that there does appear to be a grounding issue at the main switchgear. Notes were on the panel regarding a new ground being installed and potential problems with ground fault sensor (GFCI). Owner did confirm specific instances of nuisance tripping.



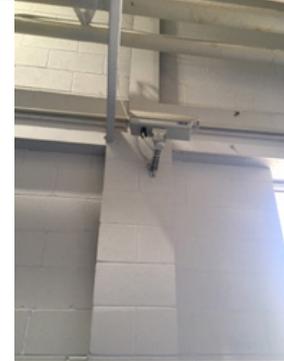
SUGGESTED REMEDIATION:

- It is recommended that the main switch gear section be replaced with a main circuit breaker and new ground fault sensor. In addition, grounding study should be made and confirm that proper grounding is installed to building steel, sprinkler pipe, water pipe, and ground rod.
- It is recommended that surge protective devices (SPD/TVSS) be installed at the main switchgear as well as all sub-panels to provide a level of transient voltage surge suppression and power quality filtering.

SECURITY SYSTEMS:

EXISTING CONDITION:

- There is no intrusion alarm system installed within the school.
- There is no access control system installed in the school.
- There is a CCTV surveillance camera system installed in the school. Existing system consist of a combination of IP based cameras with a majority of older type, coax based analog cameras.



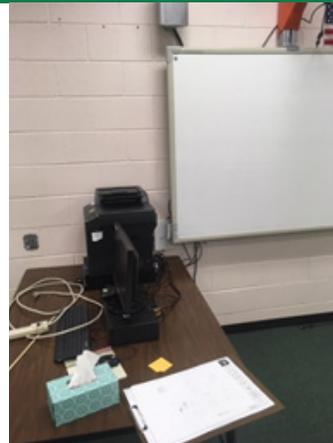
SUGGESTED REMEDIATION:

- It is recommended that an intrusion alarm system be installed consisting of addressable motion sensors, key pads, and control panel.
- It is recommended that an access control system be installed at select Entrance Doors. System would be provided with a LAN based head end and proximity readers at Secured Doors.
- It is recommended that a new IP based CCTV surveillance camera system be installed its entirety. This would consist of new IP based cameras on IP based LAN head end system. Quantity of cameras would be increased to provide adequate coverage throughout commensurate for this size school.

TELECOMMUNICATIONS SYSTEMS AND CLASSROOM TECHNOLOGY

EXISTING CONDITION:

- Existing data infrastructure consist of older Cat. 5 cabling. Data racks are located in Work Rooms and other spaces as original design did not incorporate dedicated Data Rooms.
- Typical Classroom A/V system consist of short throw projectors with A/V cabling surface mounted on the wall to the Teacher's Desk.



SUGGESTED REMEDIATION:

- In regards to Classroom Technology, the existing could be reused. Provide surface raceways to conceal A/V cabling. Consideration should be made to utilizing wall mount interactive touch panels or similar type smartboard technology.
- Replace all data/voice cabling with new Cat. 6e data cabling. Establish dedicated Data Rooms with new data racks and dedicated HVAC units. Install new backbone fiber cabling.

MIDDLE I HIGH SCHOOL

EXISTING CONDITION:

The wall between the cafeteria and the serving line/kitchen exhibits severe cracking in a horizontal line at the head of the windows and doors. The cracks have opened to approximately ½-inch in several locations [See Photos M/HS-1, 2, and 3].

The view above the ceiling reveals the wall stops just above the ceiling and is restrained laterally only by the lay in ceiling grid and panels. The walls are built tight to the building columns. The primary building construction is “metal building”. This type of building, particularly of the time period of this construction, were often designed allowing a greater drift, the horizontal deflection of the overall structure, than would be compatible with the concrete masonry walls [CMU] used.

The steel framing, when impacted by high winds, tries to move laterally. The masonry walls are built tight to the structure and try to resist the movement. Where the walls are more or less solid, they are generally able to resist this movement even though they were not specifically designed to do so. The wall in question, exhibiting the worse cracking, contained several door and window openings which weaken the wall and rendered it unable to resist the movement.

These walls appear to have a horizontal bond beam at the top of the wall [Photos M/HS-4, 5, 6, and 7] and horizontal joint reinforcing in the bed joints. There does not appear to be any vertical reinforcing. Because there is no vertical reinforcing, once a wall has cracked as these have, there is no reserve and no ductility. There is nothing holding these walls up other than the weight of the block stacked on top of each other. The ceiling is not positively connected to the walls and cannot be relied upon for restraint.

Although the original cracking probably occurred during an extreme wind event, this constitutes a dangerous condition as the top section of these walls could fall during even a moderate windstorm. It is unlikely the strength of the main structure would be seriously compromised, but the falling masonry could injure or kill anyone nearby. Further, the danger extends to other walls as these walls tend to act as a “fuse”. The most critical wall carried the load until its strength was exceeded. It can no longer carry any load and therefore the load that it previously carried will be distributed to other walls, possibly overloading them, and causing their failure. These walls, without reinforcing in both directions are subject to a sudden brittle failure, meaning there may be little or no warning prior to collapse.

SUGGESTED REMEDIATION:

To mitigate this problem, the block could be stabilized in place, removed, and replaced, or the entire wall could be removed and replaced by a drywall partition. Stabilization in place is probably an undesirable solution given the current extent of cracking. A better solution would be to remove the block at some level below the existing cracks and rebuild the walls from that point adding vertical reinforcing to provide the necessary ductility. Ideally, a “soft” joint should be provided between the steel metal building column and the new wall to prevent the movement of the frame from impinging on the wall. Again, this runs the risk of transferring additional load to other walls in line with the wall in question. The alternatives would be close monitoring of these walls to catch any future cracking early or proactively instigating a complete analysis of the building to identify and correct any walls likely to be problematic.

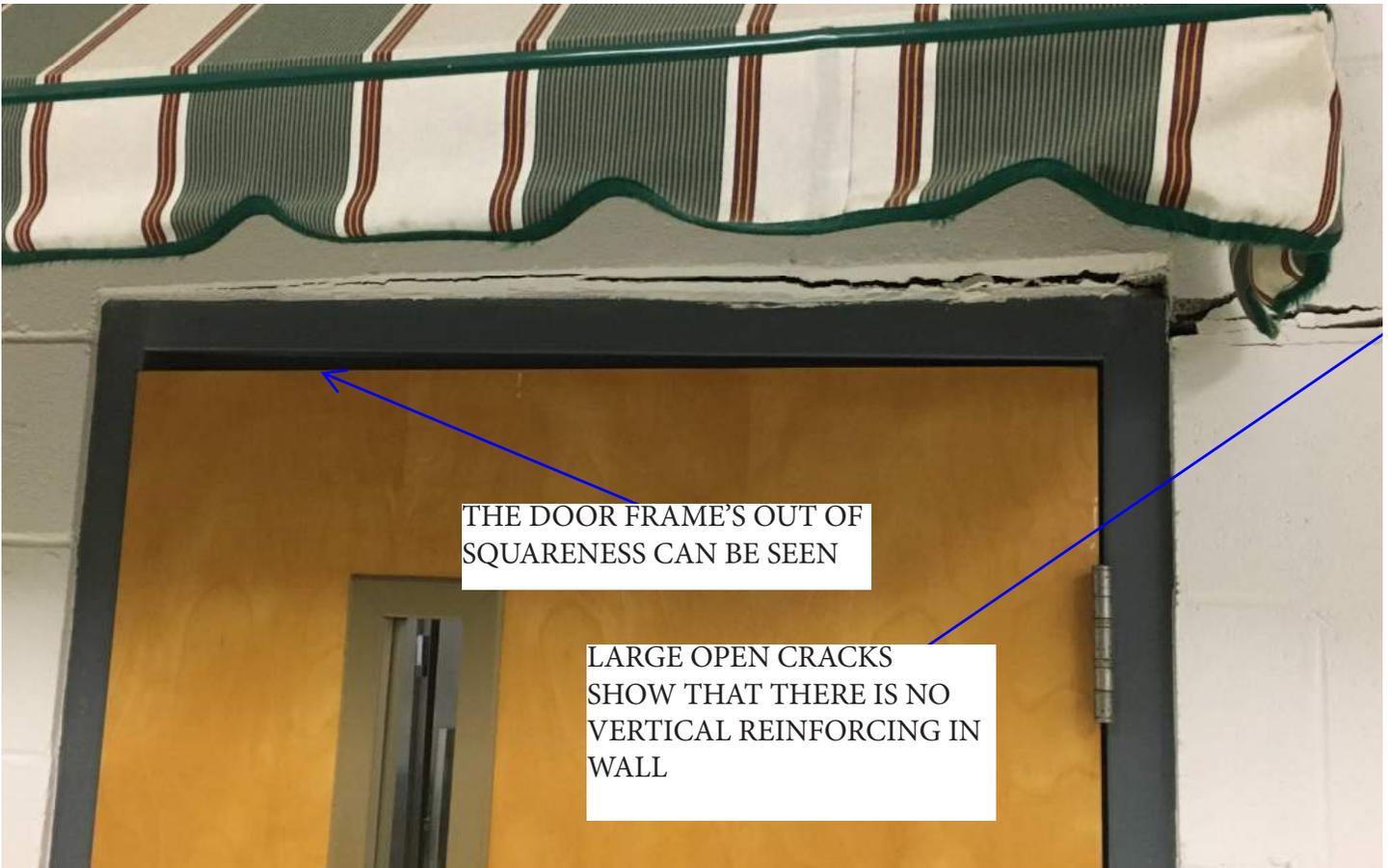
The second area of interest is located at the kitchen loading dock canopy [See Photos M/HS-9, 10, 11, 12]. The cause of this issue is like the first, as the movement of the metal building has caused the unreinforced infill block to become dislodged. As before, there is a danger to students, faculty, and staff from falling masonry. Since the amount of masonry in question is so much smaller, removing the masonry and covering the gap with a sheet metal closure would probably be the most effective repair.

The third area is a conference or work room near the cafeteria. These cracks [Photos M/HS- 13 and 14] while unsightly are not structurally consequential. The most probable cause is restraint created by a lack of properly placed masonry control joints.

MIDDLE | HIGH EXISTING STRUCTURAL ISSUE:

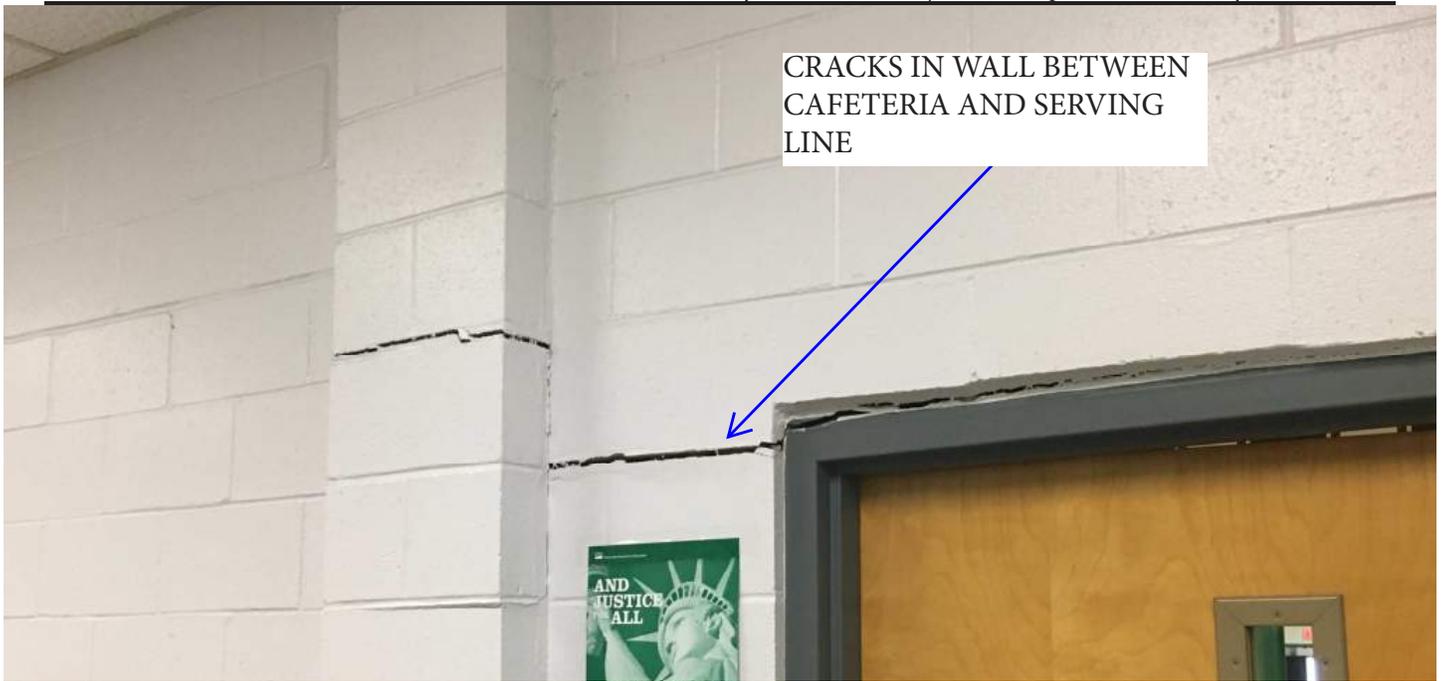


LARGE OPEN CRACKS SHOW THAT THERE IS NO VERTICAL REINFORCING IN WALL



THE DOOR FRAME'S OUT OF SQUARENESS CAN BE SEEN

LARGE OPEN CRACKS SHOW THAT THERE IS NO VERTICAL REINFORCING IN WALL



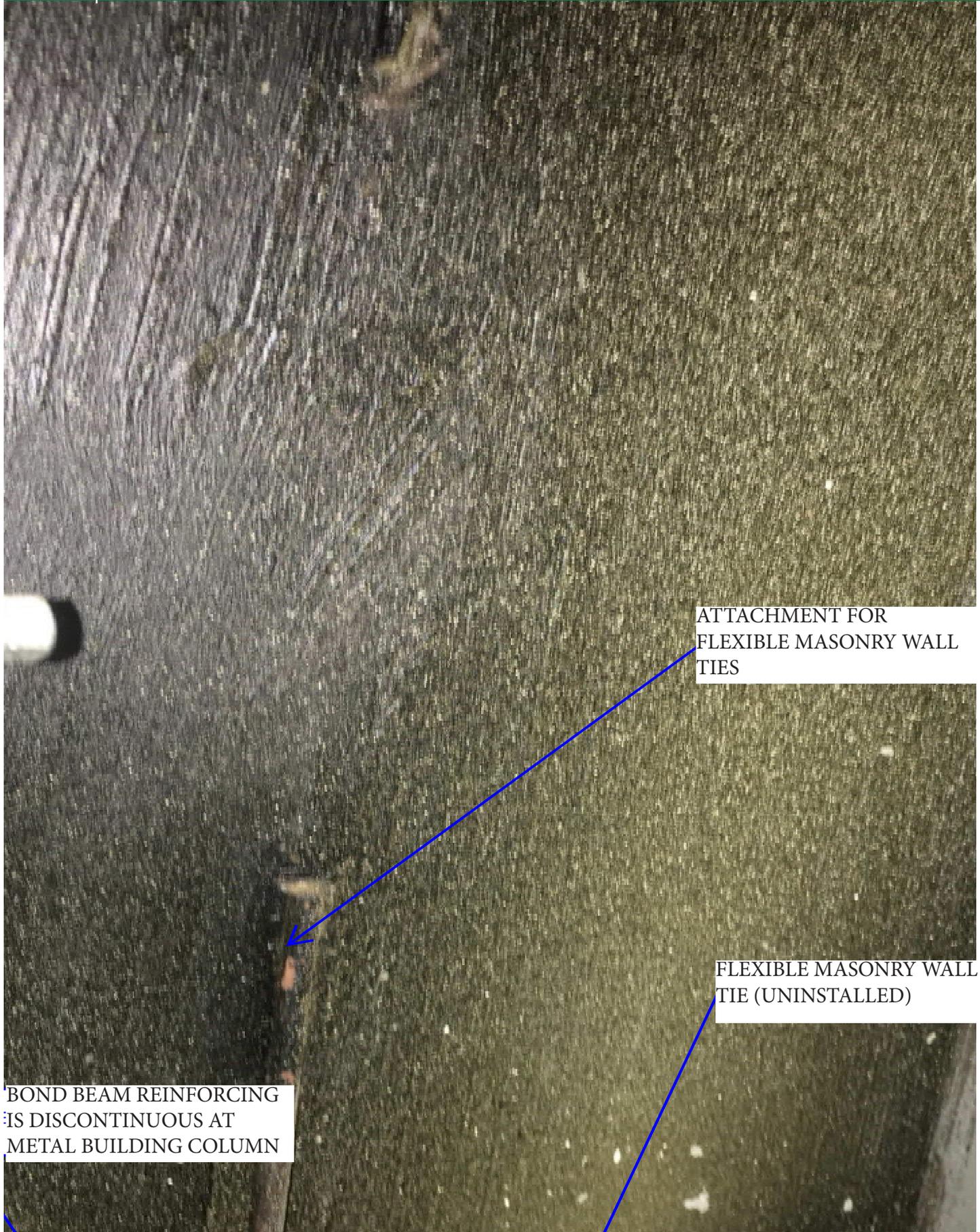
CRACKS IN WALL BETWEEN
CAFETERIA AND SERVING
LINE



ATTACHMENT FOR
FLEXIBLE MASONRY WALL
TIES

BOND BEAM
REINFORCING

MIDDLE | HIGH EXISTING STRUCTURAL ISSUE:



ATTACHMENT FOR FLEXIBLE MASONRY WALL TIES

FLEXIBLE MASONRY WALL TIE (UNINSTALLED)

BOND BEAM REINFORCING IS DISCONTINUOUS AT METAL BUILDING COLUMN



ATTACHMENT FOR FLEXIBLE
MASONRY WALL TIES

BOND BEAM REINFORCING
IS DISCONTINUOUS AT
METAL BUILDING COLUMN

The image shows a close-up of a metal building column. The column is a dark, textured metal. Attached to the column are several masonry wall ties, which are cylindrical metal rods with a threaded end. The wall ties are attached to a light-colored, textured masonry surface. The image also shows a section of a concrete beam with reinforcing bars (rebar) embedded in it. The rebar is discontinuous at the metal building column. A blue arrow points from the text box to the rebar at the column.

BOND BEAM REINFORCING
IS DISCONTINUOUS AT
METAL BUILDING COLUMN

MIDDLE | HIGH EXISTING STRUCTURAL ISSUE:



ATTACHMENT FOR
FLEXIBLE MASONRY WALL
TIES

BOND BEAM REINFORCING
IS DISCONTINUOUS AT
METAL BUILDING COLUMN



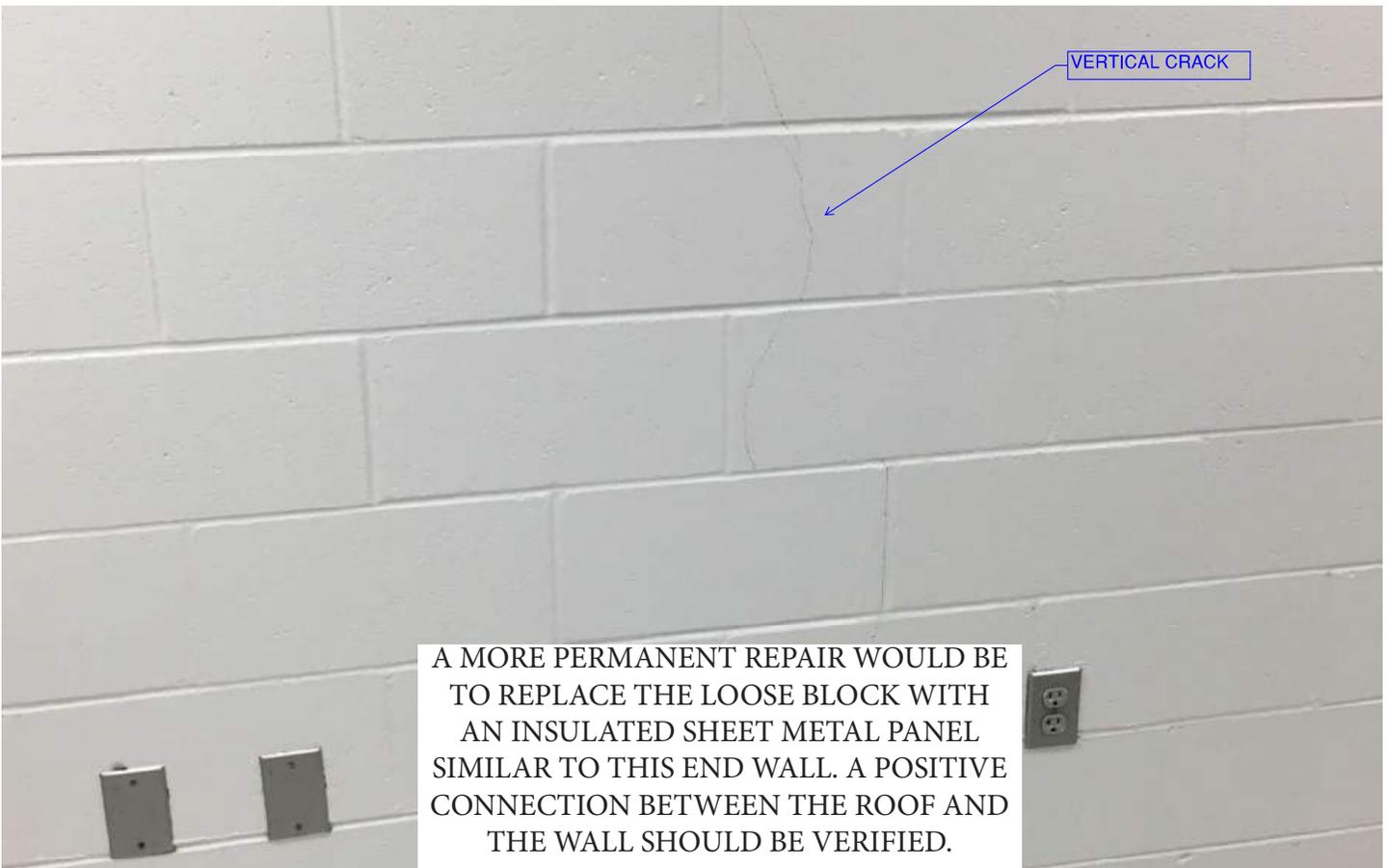
MISPLACED WOOD SHIM

MIDDLE | HIGH EXISTING STRUCTURAL ISSUE:





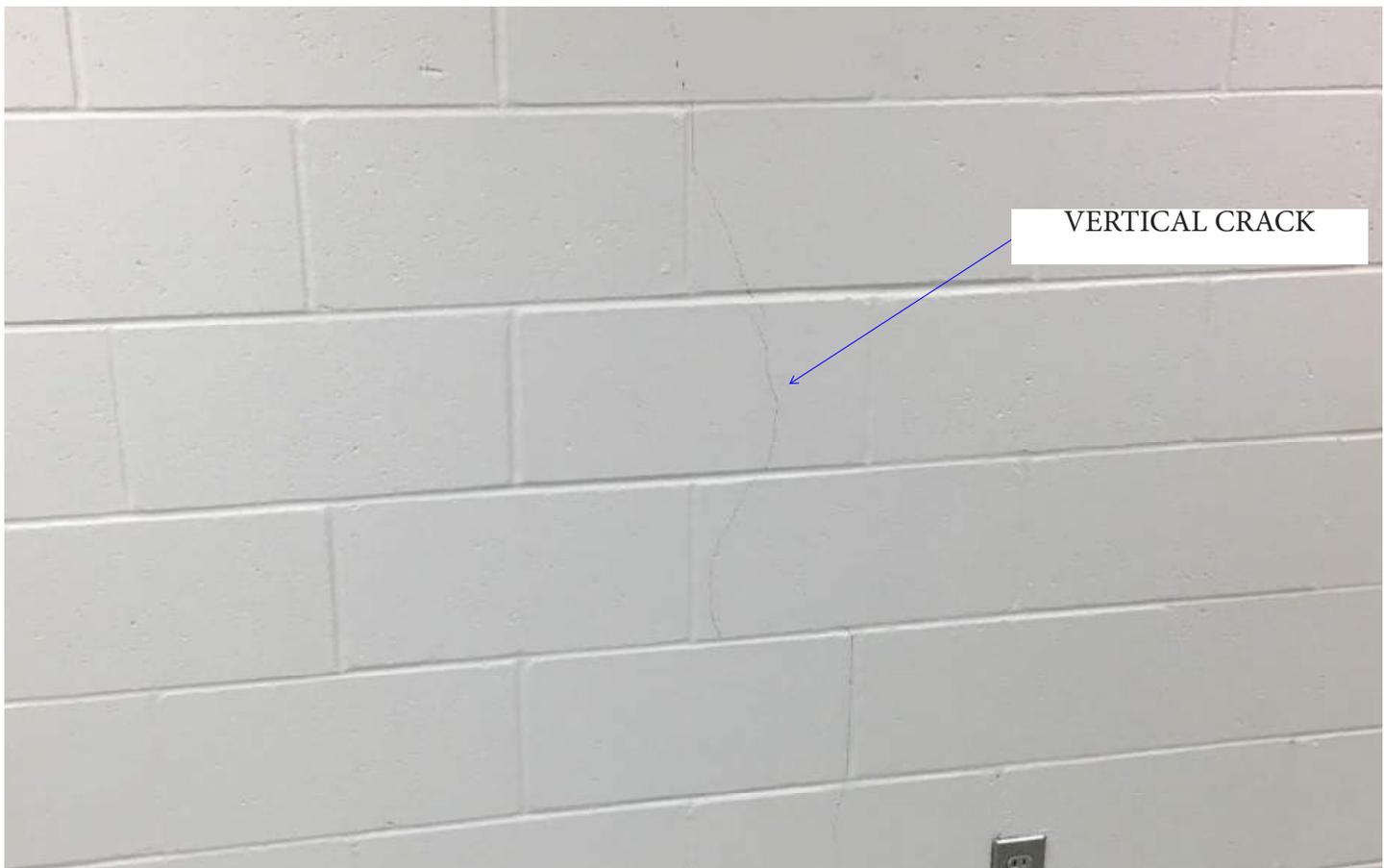
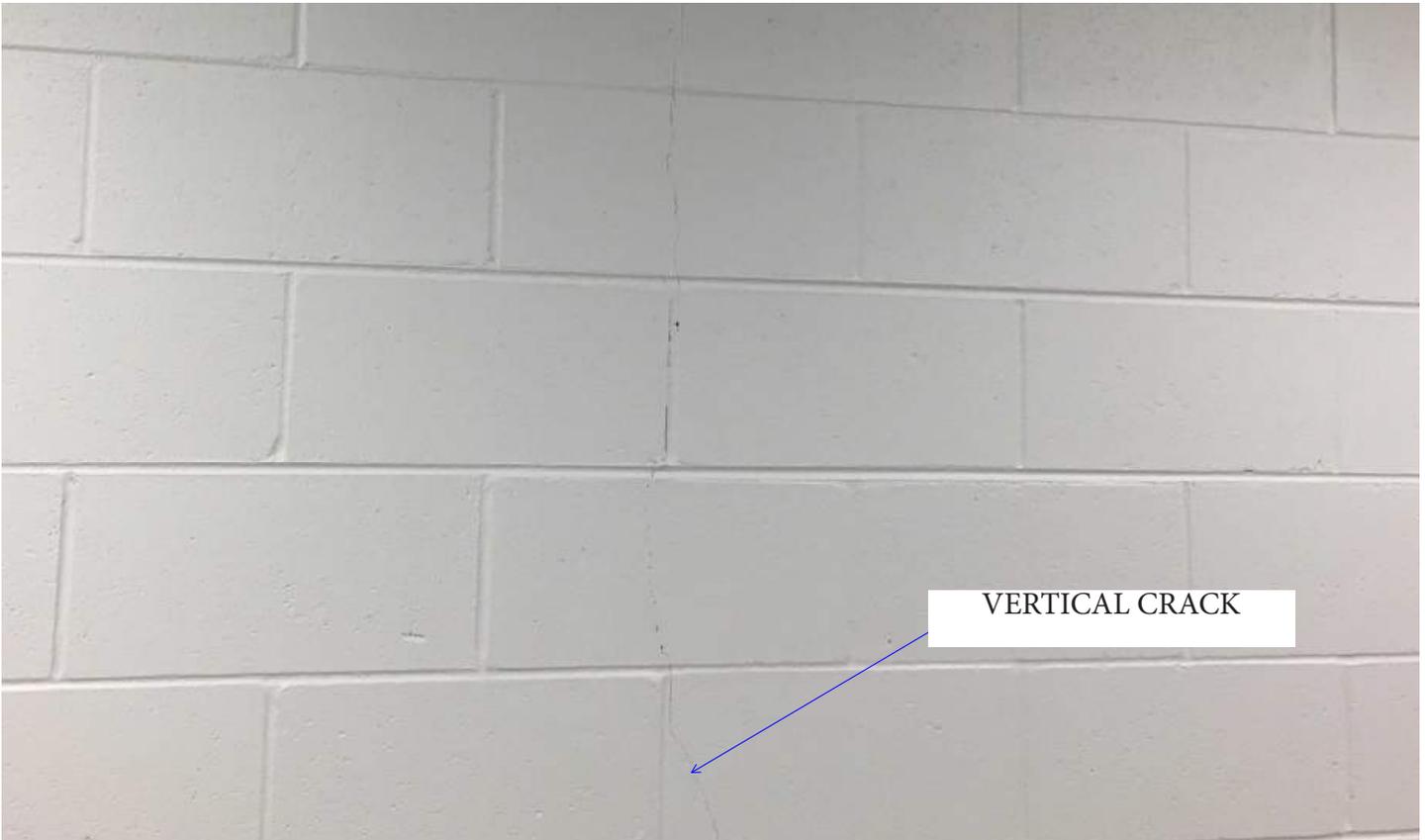
INFILL CMU AT LOADING DOCK CANOPY OUTSIDE THE KITCHEN



VERTICAL CRACK

A MORE PERMANENT REPAIR WOULD BE TO REPLACE THE LOOSE BLOCK WITH AN INSULATED SHEET METAL PANEL SIMILAR TO THIS END WALL. A POSITIVE CONNECTION BETWEEN THE ROOF AND THE WALL SHOULD BE VERIFIED.

MIDDLE | HIGH EXISTING STRUCTURAL ISSUE:





3.

EXISTING CONDITION PHOTOGRAPHS

This section contains photographic evidence of the existing conditions. These photos are from May 15, 2020.

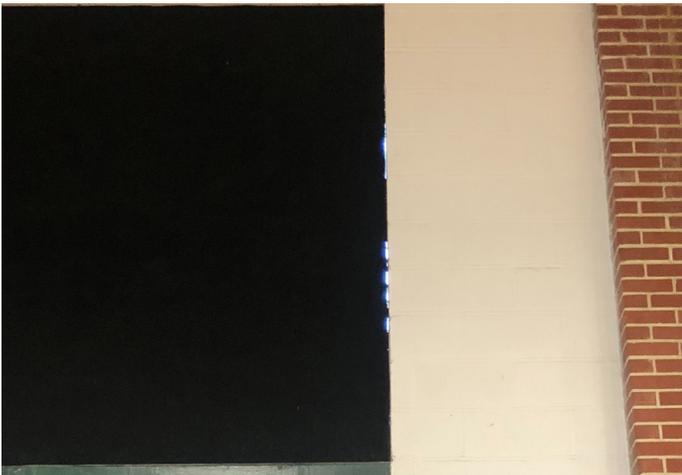
SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



Main entrance not ADA compliant



Existing gymnasium exterior window damage



Wall louvers were removed and replaced with board infill. No building envelope



Existing gym bleachers, no longer operable

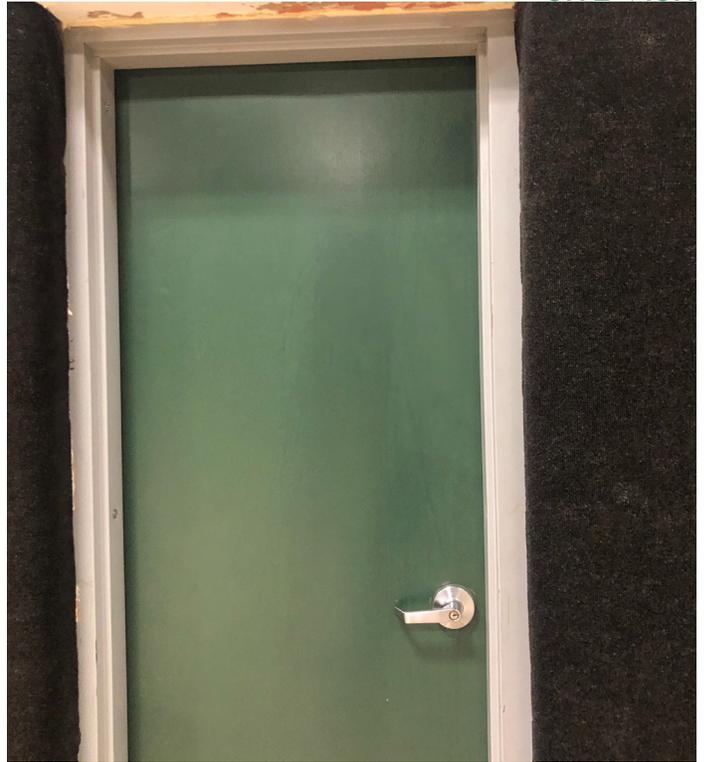


Large gap between court flooring and concrete

**SEMINOLE COUNTY ELEMENTARY SCHOOL
SITE VISIT**



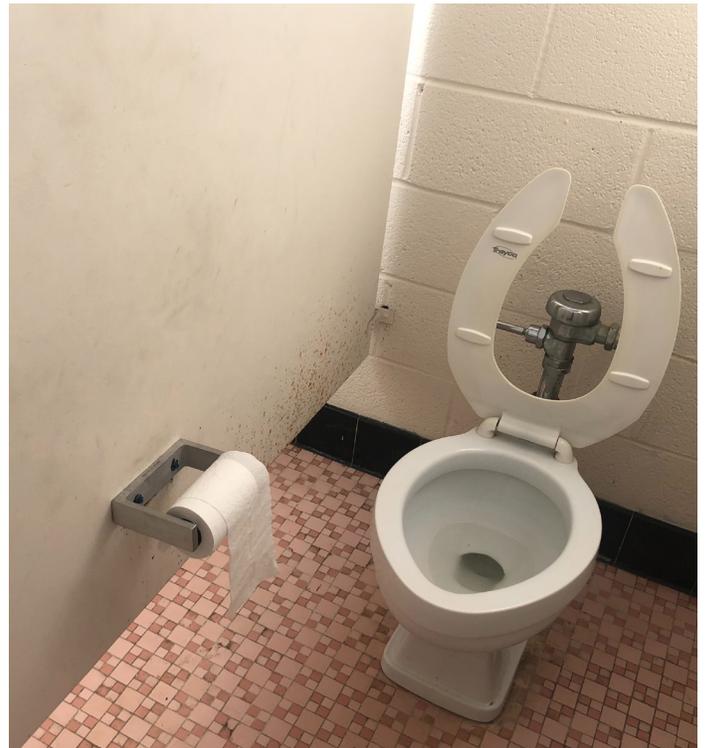
Door soffit damage



Door width not ADA compliant



Toilet removed due to backup issues / Rust and damage of toilet and shower partitions



**SEMINOLE COUNTY ELEMENTARY SCHOOL
SITE VISIT**



Door width not ADA compliant



Damage to door / door hardware not ADA compliant



Building settling crack - area for water infiltration

SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



None compliant ADA ramp added after the fact.



Wall louvers were removed and replaced with board infill. No building envelope



Building damage - area for water infiltration

SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



Water damage on floor



Accessibility concern due to lifted floor in doorway



Rust and damage of toilet partitions separators



Broken tile



Evidence of structural damage through broken wall bond

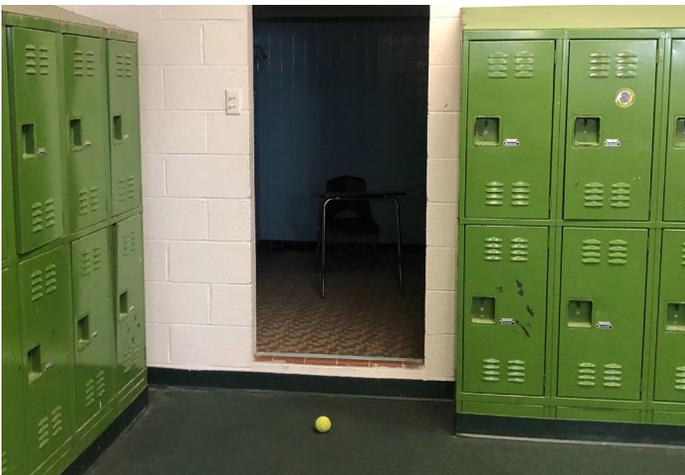
SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



Corrosion on metal sink fixtures



Damage to lockers



Accessibility concerns due to step



Water damage visible on floor / potential mold area

SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



Broken window



VCT floor tile damage



Missing and damaged ceiling tile



VCT floor tile damage



Light fixture holding water.

SEMINOLE COUNTY ELEMENTARY SCHOOL
SITE VISIT



Operable wall partition is not a sound barrier between rooms



Warper ceiling tile from moisture issues



Non ADA compliant height light switched



Separation in carpet



Evidence of water damage on carpet

SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



Paint chipping off wall



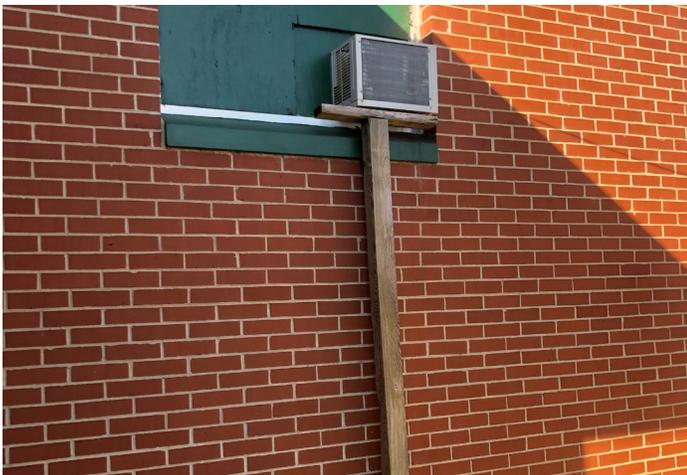
Broken receptacle exposing wire



Non ADA compliant door handle



Buckling of VCT tile



AC unit being held up by wood pole



Broken glass and chipping paint on door

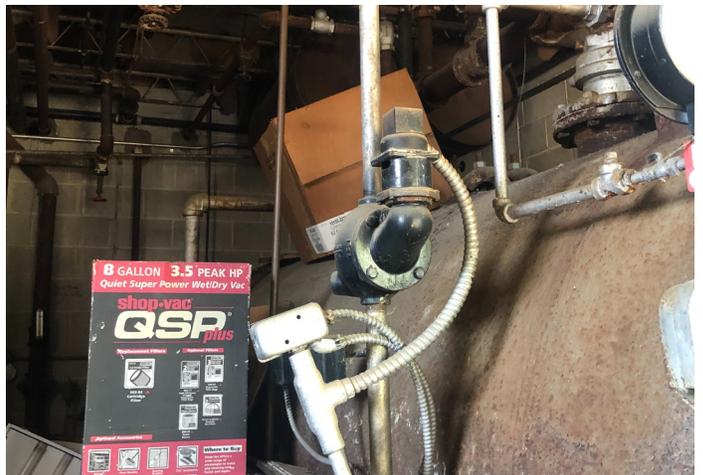
SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



No proper storage causing pile up of equipment



Panel to be upgraded



SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



Site water issues with ill placed drain system



Damage to covered walkway canopy



Damage to covered walkway canopy



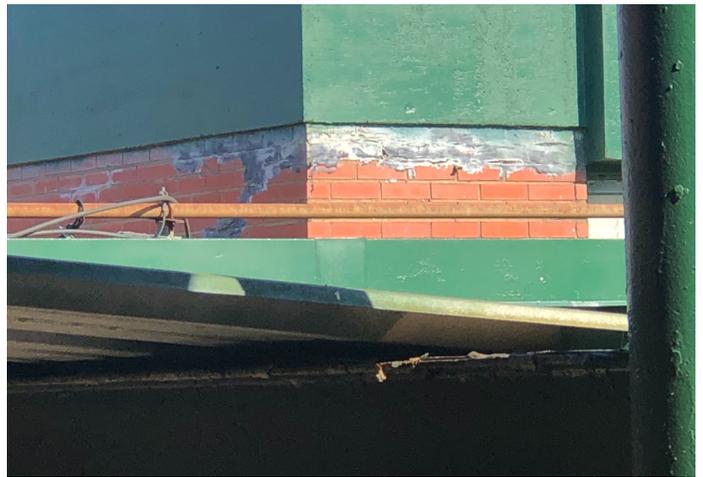
Evidence of water pooling around building footprint, same location wall water damage is occurring



SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



Wall damage from water infiltration. Area of brick removal, spray barrier, brick replacement needed.



Wall damage from water infiltration. Area of brick removal, spray barrier, brick replacement needed.



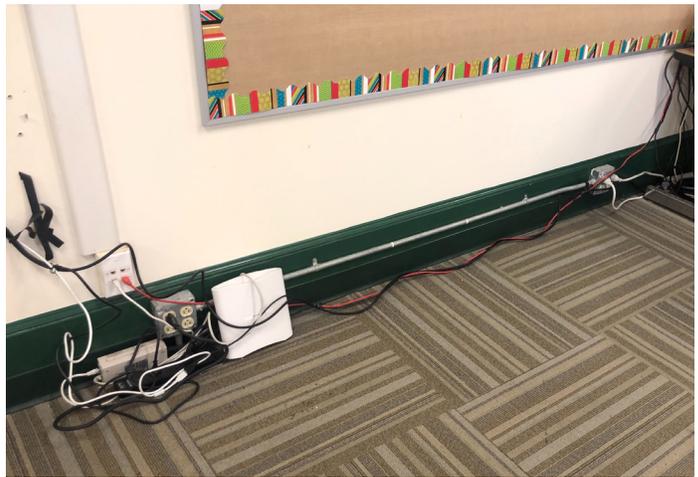
Window damage from water infiltration. New windows needed.



SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



Evidence of water damage on carpet



Lack of proper outlet amounts



Panel to be upgraded

SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



Ramp not ADA compliant



Damage to lintel / door soffit



Windows were removed and replaced with board infill. No building envelope. Area for water infiltration. Evidence is shown on interior of building in these locations



**SEMINOLE COUNTY ELEMENTARY SCHOOL
SITE VISIT**



Water damage in plaster wall system in auditorium



Water damage in plaster wall system in auditorium



Water damage in plaster wall system in auditorium



Water damage in plaster wall system in auditorium



Water damage in plaster wall system in auditorium



Water damage in plaster wall system in auditorium

**SEMINOLE COUNTY ELEMENTARY SCHOOL
SITE VISIT**



Water damage in plaster wall system in auditorium



Termite damage at baseboards



Water damage in plaster wall system in auditorium



Sheetrock damage and door damage



SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



PVC insulation breaking off



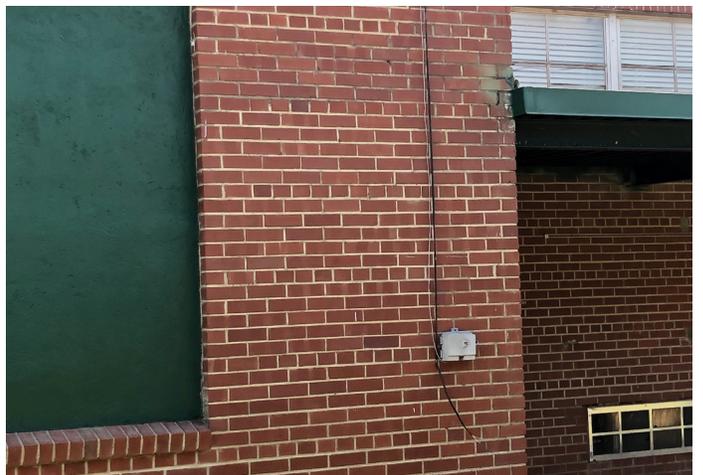
Damage to covered walkway canopy



Excessive ramps required for proper egress from building



Wall damage from water infiltration. Area of brick removal, spray barrier, brick replacement needed.



Wall damage from water infiltration. Area of brick removal, spray barrier, brick replacement needed.

SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



Transition not compliant



Wall damage from water infiltration. Area of brick removal, spray barrier, brick replacement needed.



Wall damage from water infiltration. Area of brick removal, spray barrier, brick replacement needed.



Wall damage from water infiltration. Area of brick removal, spray barrier, brick replacement needed.



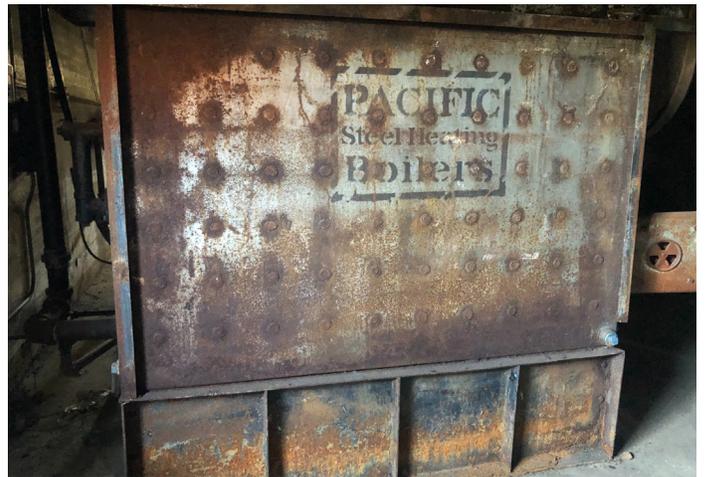
SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



Broken windows.



Overhead power to be relocated. Dangerous to students and staff



Wall damage from water infiltration. Area of brick removal, spray barrier, brick replacement needed.

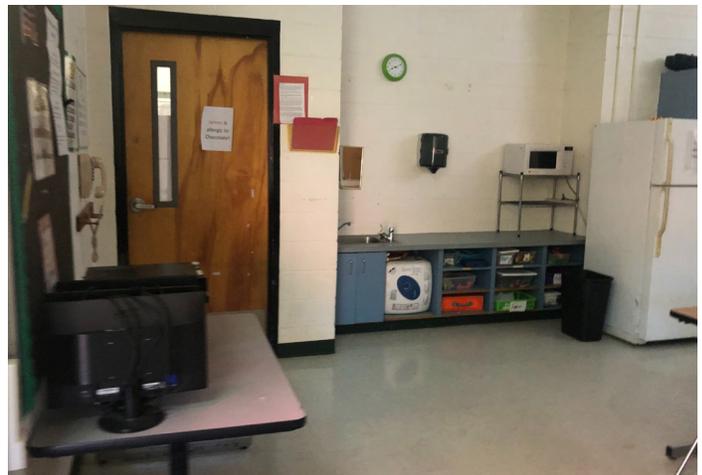
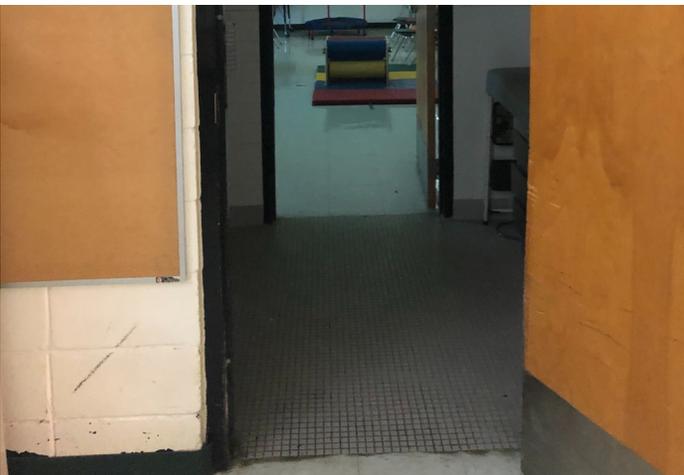
SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



Rubber baseboard missing



Rubber baseboard missing / CMU brick



SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



Handrails on both sides of ramp are required



Structural issues evidence in wall separate



Damage to wall, base, and door.



Electrical lines hanging low

SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



Door hardware not ADA compliant



Door width not ADA compliant

SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



Steps not compliant due to non uniform rise height from stair to stair



Wall damage from water infiltration. Area of brick removal, spray barrier, brick replacement needed.

**SEMINOLE COUNTY ELEMENTARY SCHOOL
SITE VISIT**



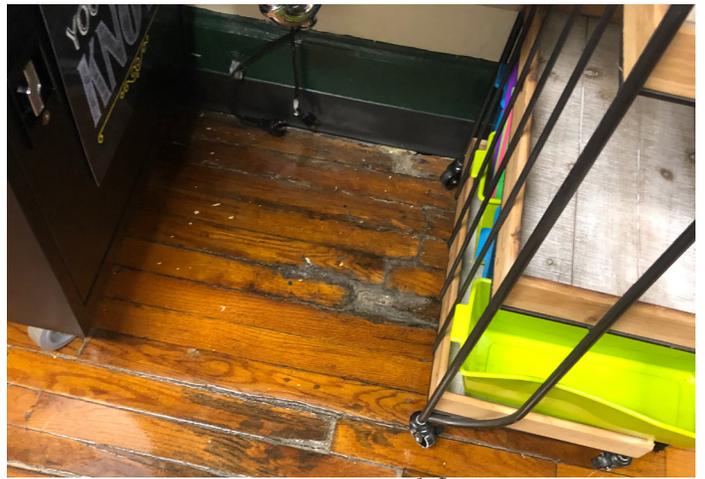
Wall showing severed water damage. Thermostat not properly fitted into wall



Vent not properly fitted into wall



Window showing age / damage. No longer energy efficient.



Damage om wood floors

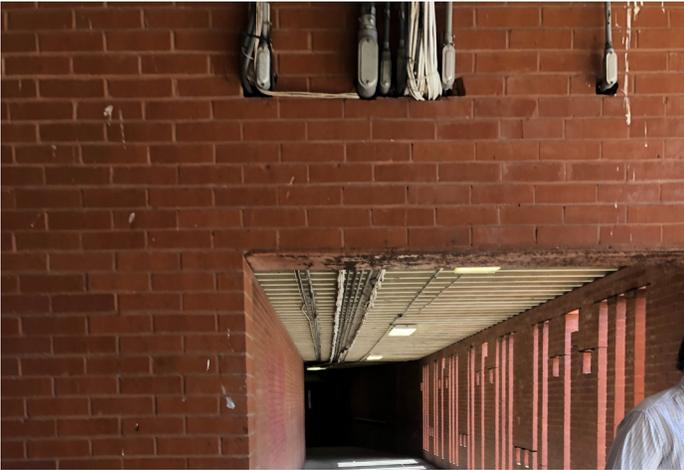


Excessive ramps required for daily egress and ingress



Damage to covered walkway canopy

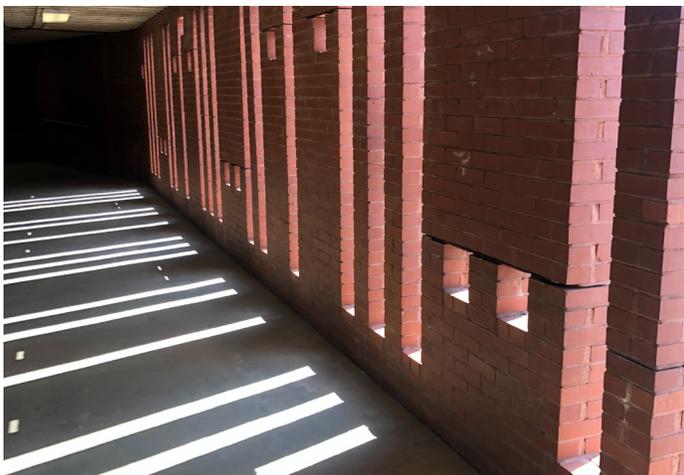
SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



Wall failure. Whole wall to be removed and replace before injury occurs.



Wall failure. Whole wall to be removed and replace before injury occurs.



Wall failure. Whole wall to be removed and replace before injury occurs.



Wall failure. Whole wall to be removed and replace before injury occurs.

SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



Wall failure. Whole wall to be removed and replace before injury occurs.



Ceiling tiles showing humidity is too high in building, sagging.



SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



Areas of backup within sewer lines



Areas of backup within sewer lines



Areas of backup within sewer lines



**SEMINOLE COUNTY ELEMENTARY SCHOOL
SITE VISIT**



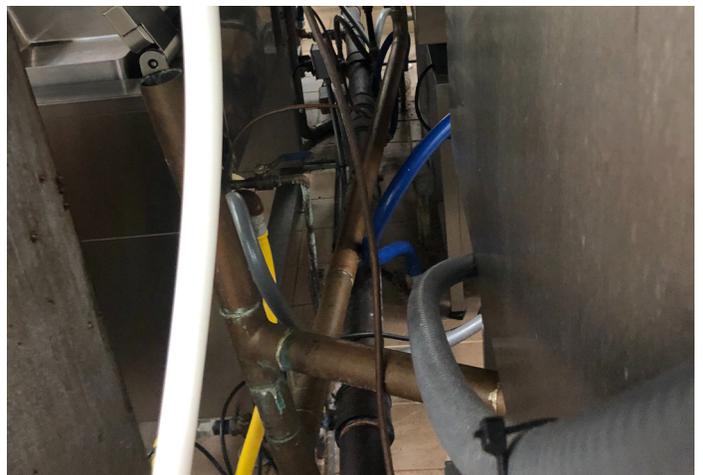
VCT tile damage



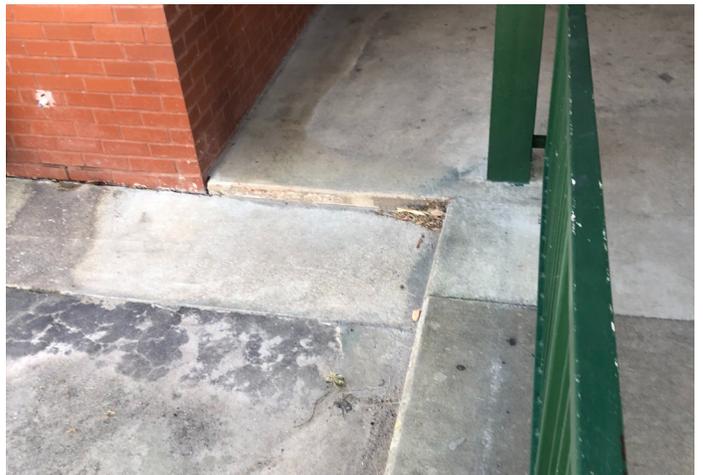
VCT tile damage



VCT tile damage

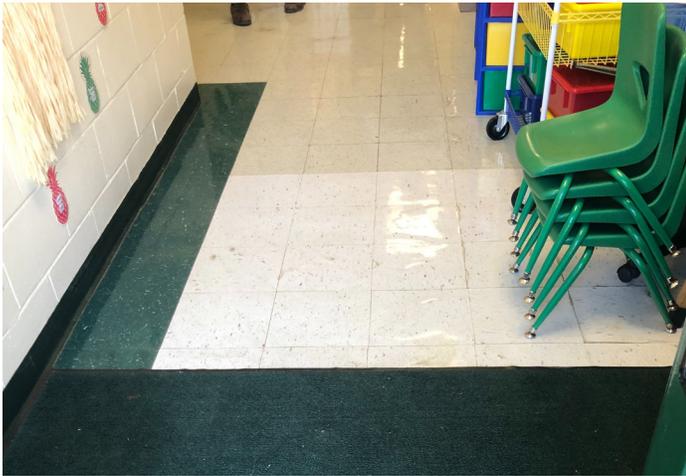


SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



VCT tile damage

SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



Damage and wear to door



Consistent ceiling tile water damage throughout building

SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



Consistent ceiling tile water damage throughout building



Consistent ceiling tile water damage throughout building



Consistent ceiling tile water damage throughout building



Consistent ceiling tile water damage throughout building



Consistent ceiling tile water damage throughout building





EXISTING CONDITION PHOTOGRAPHS

MIDDLE I HIGH SCHOOL

SEMINOLE COUNTY HIGH SCHOOL SITE VISIT



Length of downspouts and lack of boots / splash blocks allowing water infiltration into building



Water damage on floor.



Door damage.



Whole area is showing mildew building due to the lack of storm-water drainage system and proper grading



Whole area is showing mildew building due to the lack of storm-water drainage system and proper grading



No proper downspout and boots causing extreme sheet flow to courtyard area

**SEMINOLE COUNTY HIGH SCHOOL
SITE VISIT**



Whole area is showing mildew building due to the lack of storm-water drainage system and proper grading



Interior water damage from courtyard walls.



Interior water damage from courtyard wall



Interior water damage from courtyard wall



Interior water damage from courtyard wall



**SEMINOLE COUNTY HIGH SCHOOL
SITE VISIT**



Evidence of water damage on floor



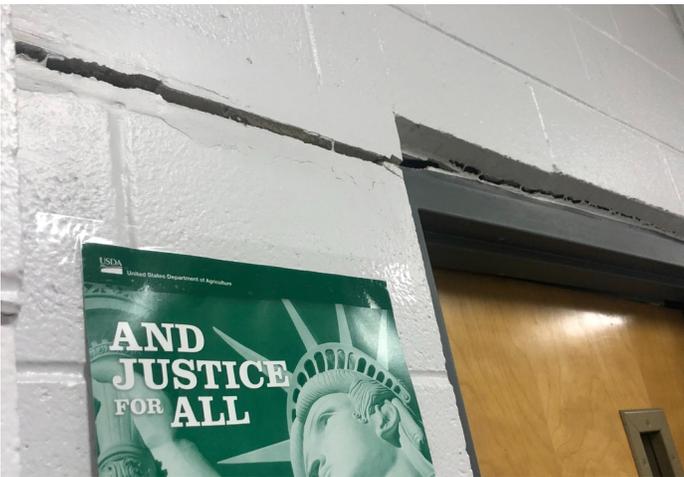
**SEMINOLE COUNTY HIGH SCHOOL
SITE VISIT**



Cracks in wall between cafeteria and serving line.
Structural issue / Wall has failed.



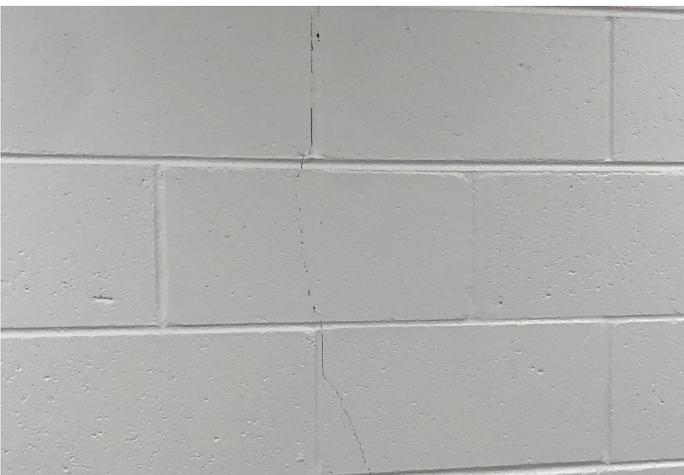
Structural issue / Wall has failed.



Structural issue / Wall has failed.



Structural issue / Wall has failed.

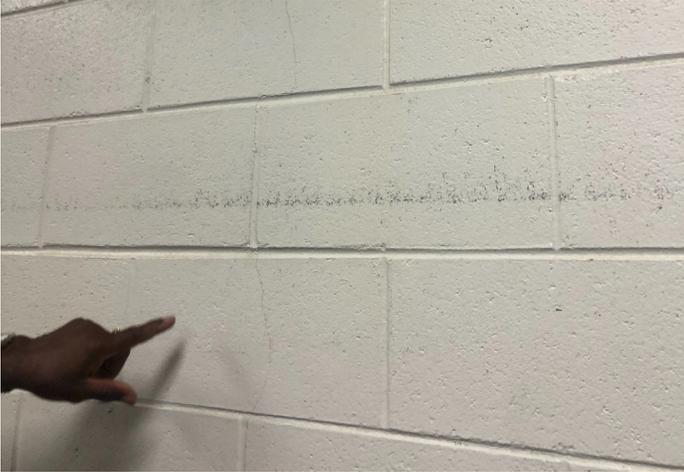


Structural issue / Wall has failed.



Structural issue / Wall has failed.

SEMINOLE COUNTY HIGH SCHOOL SITE VISIT



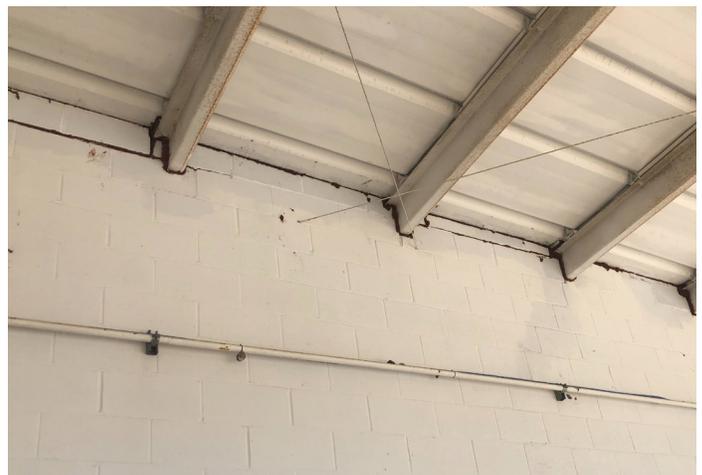
Structural issue / Wall has failed. Translating issue to adjoining walls and floor system.



Structural issue / Wall has failed. Translating issue to adjoining walls and floor system.



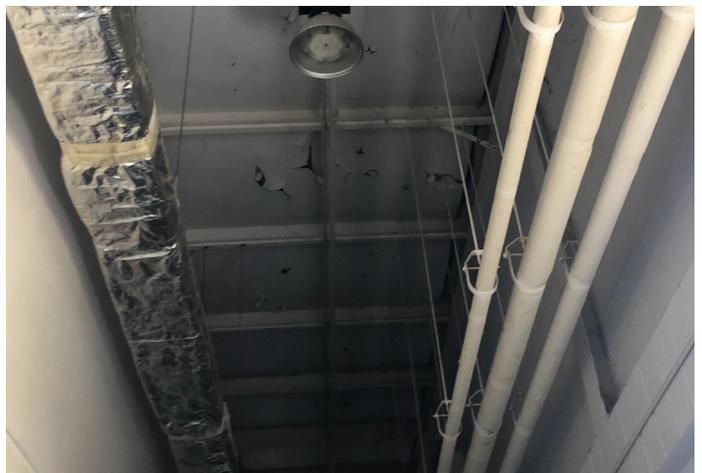
Structural issue / Wall has failed. Translating issue to adjoining walls and floor system.



Structural issue / Wall has failed. Translating issue to adjoining walls and floor system.



Pin-holing in water line is causing consistent water damage throughout school. Systemic issue.



Pin-holing in water line is causing consistent water damage throughout school. Systemic issue.

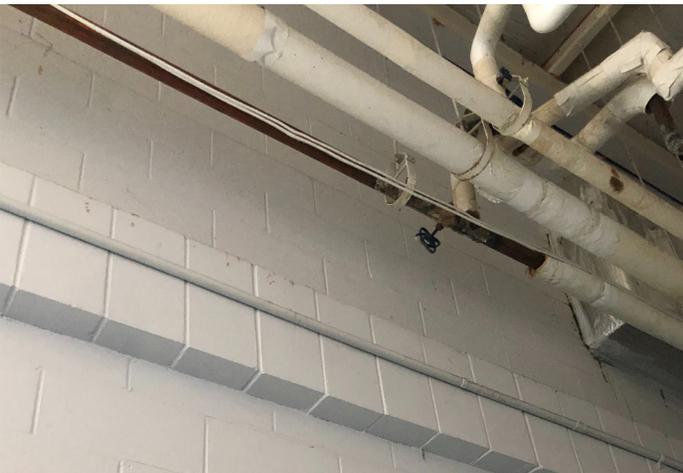
**SEMINOLE COUNTY HIGH SCHOOL
SITE VISIT**



Pin-holing in water line is causing consistent water damage throughout school. Systemic issue.



Pin-holing in water line is causing consistent water damage throughout school. Systemic issue.



Pin-holing in water line is causing consistent water damage throughout school. Systemic issue.



Pin-holing in water line is causing consistent water damage throughout school. Systemic issue.



Evidence of water damage on floor



SEMINOLE COUNTY HIGH SCHOOL SITE VISIT



Sagging ceiling tiles due to high humidity



**SEMINOLE COUNTY HIGH SCHOOL
SITE VISIT**



Consistent ceiling tile water damage throughout building



Consistent ceiling tile water damage throughout building



Consistent ceiling tile water damage throughout building



Consistent ceiling tile water damage throughout building



Consistent ceiling tile water damage throughout building

SEMINOLE COUNTY ELEMENTARY SCHOOL SITE VISIT



Consistent ceiling tile water damage throughout building



Water leak in ceiling



4.

FUNDING SCENARIOS

This section of the report breaks down all the scenarios and their associated financial requirements for facility improvements. This section provides the SCS with the knowledge of their financial commitment versus the financial commitment of the State.

K-12 FUNDING OPTIONS AND AVAILABILITY

The GDOE provides state funding to school systems based off of system need, FTE projections, and standardized formulas. To calculate funding options, the Altman + Barrett Architects team utilized State Formulas to compare the funding options that Seminole County could receive. The GDOE provides funding for projects based on the project type. If the Seminole County School district was not classified as LWPS the funding rate would be:

- K-5 New Construction - \$80
- K-12 New Construction - \$84

Based on the past 5 years, the FTE increased/decreased at the rate of -48 students per year. $(1374 - 1566) / 4 = -48$ *** $(1486-1279)/4 = -51.75$ * Impacts IU Count**

Past 5 Years Reported FTE			Next 5 Years Projected FTE		
	1566	1374			
	School Year	Reported FTE		School Year	Projected FTE
K-12	2014 - 2015	1,566	K-12	2019 - 2020	1,326
K-12	2015 - 2016	1,486	K-12	2020 - 2021	1,278
K-12	2016 - 2017	1,463	K-12	2021 - 2022	1,230
K-12	2017 - 2018	1,422	K-12	2022 - 2023	1,182
K-12	2018 - 2019	1,374	K-12	2023 - 2024	1,134
K-12	2019-2020	1,279			

Will drop off

Reported by SCS on June 11, 2020

2021 - 2030 CAPITAL FUNDING SCENARIOS

The full analysis of the Seminole County School System Facilities provides information to develop funding scenarios. While SCS is currently (2020) within a SPLOST period, planning for long term and short term solutions can be taken into account. In the analyses shown below, the facility condition data developed during the SCS Comprehensive Facility Assessment were used to produce the following four funding scenarios:

Scenario 1: New Construction of K-12 on the existing Elementary School Site

Scenario 2: New Construction of a K-12 on the existing Elementary School Site with Stadium Renovation

Scenario 3: New Construction of K-12 on the existing Middle | High School Site

Scenario 4: New Construction of K-12 on the existing Middle | High School Site with New Stadium

LOW WEALTH PROJECT SPECIFIC FUNDING

Low Wealth Project Specific Criteria

To qualify for a low wealth application, a school system must:

Rank in the **bottom 25% in earnings for special purpose local option sales tax (SPLOST) revenue. Seminole County ranks 139th.** Systems meeting the SPLOST criteria may request consideration for a project specific low wealth application. In addition, both of the above methods of qualifying for low wealth require the school system to:

- Currently be levying at least 12 mills (or its equivalent) for maintenance and operations;
- Agree to use prototypical specifications for the project;
- Currently have a SPLOST or be levying millage for debt service on capital projects.

Seminole County Required Local Percentage

5 x \$1,043,972.88 Seminole sales tax collection in CY 19 = \$5,219,864.40. Seminole County ranks 54th in property wealth per FTE; 83rd in sales tax per FTE. This is the required minimum local participation in funding.

If the local portion of a project will exceed five years of the projected SPLOST revenues, additional state funds will be added to the project to reduce the local portion of the project to five years of projected SPLOST collections.

For new construction projects, the State eligible cost for the project will be calculated by multiplying the latest appropriate RS Means cost per square foot times the space construction budget identified in the Local Facilities Plan (LFP). **Seminole County's current RS means factor from year 2019 for Albany is \$178.33.**

Total eligible State funds for the project will be calculated by subtracting from the State eligible cost an amount equal to five years of the projected SPLOST receipts and any required athletic reduction or necessary charge-back. 6% for architectural fees and 5% for contingencies will be added to the project. **Seminole County's current athletic reduction is \$279,720.00.**

Any time a school system requests funds through a GDOE application and decides to shorten the building life of the applied project there is a charge-back to that funding. **There is an additional charge back for the Seminole County Boiler Reduction as approx. \$60,000.00. The Elementary School Renovation in 2018 has a deduction of approx. 70,663.00**

Low Wealth Project Specific Construction Requirements

1. School system personnel and their design professional must meet with Facilities Services Unit staff to review applicable Georgia Department of Education (GDOE) guidelines to ensure a project scope that meets the definition of prototypical specifications. Consideration for space requirements shall be made taking into account student population trends, community demographics, and the manner in which the project will meet the needs of the local community. In growing systems, the core areas may be designed to accommodate future additions. The design should include the locations of possible future additions.
2. The total square footage to be constructed should not be more than ten percent over the total square footage listed on the space construction budget or additions page. This will exclude core areas designed for future expansion. When the project design is proposed to exceed this ten percent variance, a written justification for such a variance shall be provided by the school system.
3. The overall design of the project shall not contain design elements that would greatly affect the construction cost such as excessive portico, canopies, high ceilings, and the specification of high cost construction materials.
4. Energy efficiency shall be a part of the overall building design.
5. The facility or addition shall be designed to reduce upkeep and ongoing maintenance costs.
6. Additive or deductive alternatives or change orders that would cause the design of the project to be out of compliance with the above specifications shall not be permitted.
7. School systems are encouraged to incorporate more efficient and multiple uses of spaces. Examples are multiuser CTAE labs, computer labs incorporated as part of the media center, two science rooms sharing a common science lab space, and common areas designed for multi-use.
8. Fees for external certifications are not eligible for reimbursement.

GDOE COST CALCULATIONS **New Construction of K-12 School Site**

The following formula is provided by the Georgia Department of Education to calculate the funding Seminole County would receive if a K-12 School is constructed.

$$\begin{aligned}
 &\textbf{Formula for State Funding} \\
 &(\text{Earned IU's X Square Footage Budget X 1.11 Fees / Contingencies X RS Means Value}) = \\
 &\quad - (5 \text{ *Sales Tax Collection}) \\
 &\quad - \$279,720 \text{ Athletic Reduction} \\
 &\quad - \text{Previous applications payback}
 \end{aligned}$$

State Funding

New Educational Facility Formula:

Elementary School Facilities

Square Footage Budget

1,800 x I.U. = Construction Budget*

Middle School Facilities

2,250 x I.U. = Construction Budget*

High School Facilities

2,850 x I.U. = Construction Budget*

*If Music, Art, and/or Physical Education are not included in the program, S.F. and funding calculations will be reduced accordingly.

This leads to Seminole County receiving the following funding for a K-12

$$\begin{aligned}
 &\textbf{K - 12} \\
 &(63 \text{ Earned IU's X } 2850 \text{ Sf X } 1.11 \text{ Fees / Contingencies X } \$178.33) = \\
 &\quad - (5 \text{ X } \$1,043,972.88 \text{ Seminole Sales Tax Collection In CY 19}) \\
 &\quad - \$279,720 \text{ Athletic Reduction} \\
 &\quad -\$70,663 \text{ Elementary Renovation Reduction} \\
 &\quad - \$60,000 \text{ Boiler Reduction}
 \end{aligned}$$

\$29,911,010.77 State Funding

Compared to only building only a New Elementary School

$$\begin{aligned}
 &\textbf{K - 5} \\
 &(34 \text{ Earned IU's X } 1800\text{Sf X } 1.11 \text{ Fees / Contingencies X } \$178.33) = \\
 &\quad - (5 \text{ X } \$1,043,972.88 \text{ Seminole Sales Tax Collection In CY 19}) \\
 &\quad -\$70,663 \text{ Elementary Renovation Reduction}
 \end{aligned}$$

\$6,823,786.16 State Funding

SOFT COST DEFINITIONS AND CLARIFICATIONS:

REQUIRED DEFINITIONS AND CLARIFICATIONS	
Term	Definition and Clarifications
Demolition/ Asbestos Abatement-	Asbestos abatement is the repair, enclosure, removal, encapsulation or any other activity for the evaluation or control of any material which contains more than one percent asbestos by weight or area. This is assumed in all above ground demolition. This book is using the estimated demolition / asbestos abatement cost is \$5.50/ s.f.
Third Party Special Inspections	A special inspection can be required for materials, installation, fabrication, erection or placement of components and connections where special expertise is needed. This is to ensure that all materials and products installed within the project meets the specifications and requirements of the Design Professional
FFE	Furnishings, Fixtures, Equipment. This accounts for any loose items throughout the school like desks, cafeteria seating, benches, playground equipment etc. Anything that is not connected to the actual building is considered FFE.
Land Survey	This is a requirement for site applications for the GDOE. A land survey includes boundary, topographic, and as built survey requirements.
Geo-technical Testing	This is a requirement for construction to confirm that the design information enumerated. If in the opinion of the Geotechnical Engineer the number and depths of borings shown are insufficient to allow the determination of the design information, or if the assumed foundation is inappropriate, or if other foundation systems should be considered.
Risk Hazard / Environmental Testing	This is a requirement for site applications for the GDOE. Identify proposed school sites that have no or minimum potential hazards from outside sources. Overall, this guideline was developed for the review of only reasonable hazards, to provide for evaluations based on established procedures or industrial standards, with consideration of existing environmental assessment programs and the use of standard search/review distances based on regulatory or industry standards
Purchase of Property (QPublic)	Any property that is recommended to be purchased within this book, has a price is listed to match the QPublic public listing. This does not guarantee that the property in question can be purchased for that amount.
Construction Manager Fees (10%)	Construction Management Fee means a fee for acting as general contractor and/or construction manager to construct improvements, supervise and coordinate projects or to provide major repairs or rehabilitation on a Property. This book assumes / estimates a fee of 10%. This fee will be negotiated with proposed Construction Manager and could be lower or higher at time of construction.
Design Fees (5.5%)	Design fees pay for all of the scope of the architects services which include but are not limited to: Programming, Community Forums, Schematic Design, Design Development, Construction document development, specifications, submittal reviews, construction administration etc.

SCENARIO 1: New Construction of K-12 on the existing Elementary School Site

K-12 School Construction Costs (GDOE)		
Category	Estimated Cost (Lump Sum)	Notes
School Costs	\$29,911,010.77 *	See Calculation pg
Additional Construction Costs		
Renovation of Existing Gym	\$1,630,518.75	
PreK Addition (Cafeteria)	\$360,000.00	
Demolition/ Asbestos - Elementary School	\$615,191.50	
Demolition/ Asbestos High School	\$768,988.00	
Total Construction Costs	\$33,285,709.02	K-12 & Additional
Soft Costs		
Third Party Special Inspections	\$162,583.61	
FFE	\$1,200,000.00	
Land Survey	\$60,000.00	
Geo-technical Testing	\$15,000.00	
Risk Hazard / Environmental Testing	\$30,000.00	
Purchase of Property (Qpublic)	\$31,000.00	
Construction Manager Fees (10%)	\$3,251,672.10	
Design Fees (5.5%)	\$1,788,419.66	
Total Soft Cost	\$6,538,675.36	
Estimated Total Project Cost		
Total Budget Amount	\$45,167,286.86	
Local Money Contribution	\$15,256,276.09	Soft Cost + 5 Year SPLOST

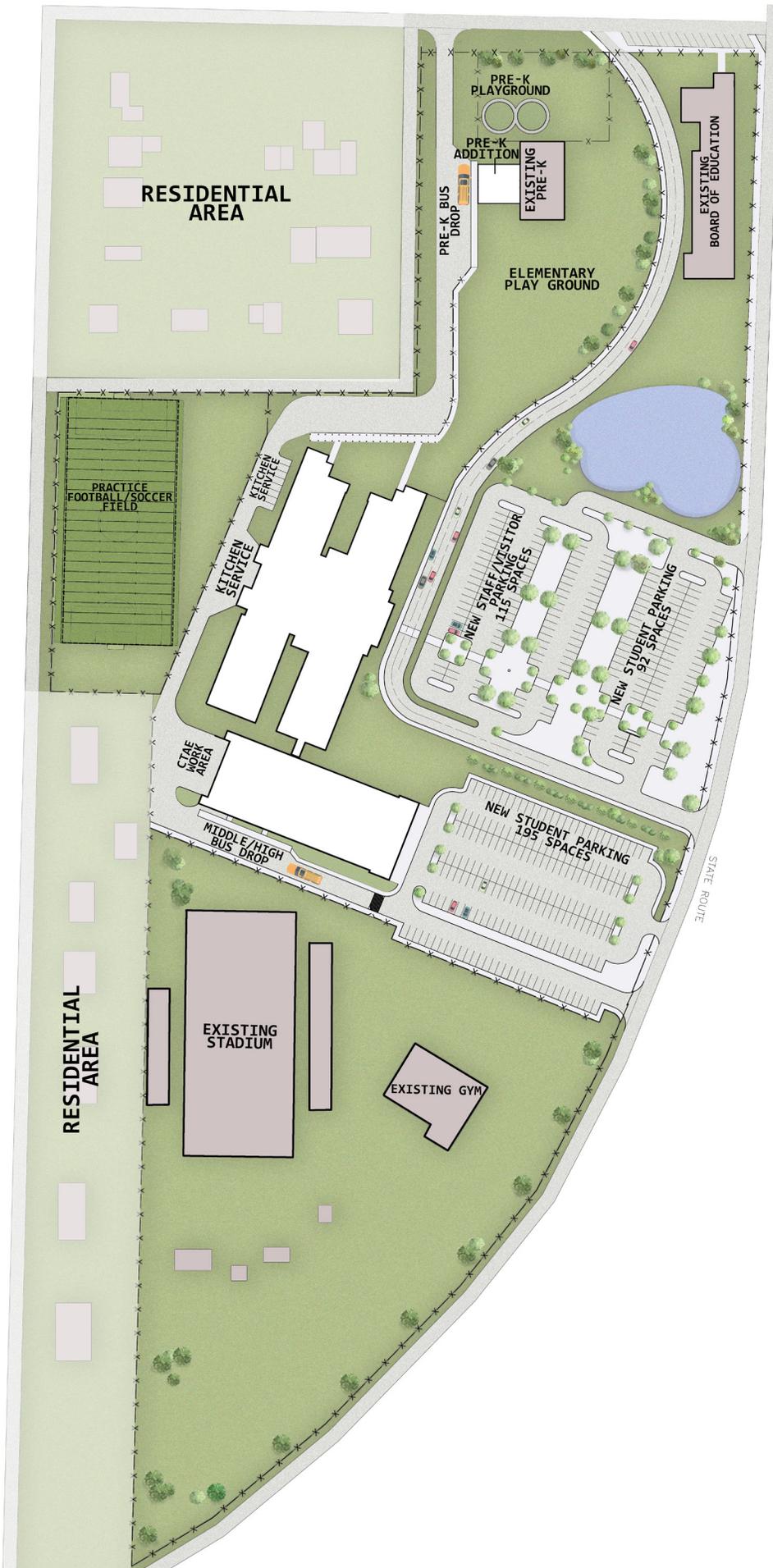
PROS / CONS OF SCENARIO 1:

PROS:

- PreK facility stays in current building and has close proximity to school for meal delivery / program interaction.
- SCS Own Majority of Property

CONS:

- Site is not large enough to move athletics. This means that students will have to drive to any extracurricular activities after school
- Need to purchase home bisecting site
- Congestion of traffic from main road in town



SCENARIO 2 New Construction of K-12 on the existing Elementary School Site with Stadium

K-12 School Construction Costs (GDOE)		
Category	Estimated Cost (Lump Sum)	Notes
School Costs	\$29,911,010.77 *	See Calculation pg
Additional Construction Costs		
Renovation of Existing Gym	\$1,630,518.75	
PreK Addition (Cafeteria)	\$360,000.00	
Demolition/ Asbestos - Elementary School	\$615,191.50	
Demolition/ Asbestos High School	\$768,988.00	
New Stadium with Track	\$7,000,000.00	
New Tennis Courts	\$270,000.00	
Total Construction Costs	\$40,790,517.52	K-12 & Additional
Soft Costs		
Third Party Special Inspections	\$200,107.65	
FFE	\$1,200,000.00	
Land Survey	\$60,000.00	
Geo-technical Testing	\$15,000.00	
Risk Hazard / Environmental Testing	\$30,000.00	
Purchase of Property (Qpublic)	\$31,000.00	
Construction Manager Fees (10%)	\$4,002,152.95	
Design Fees (5.5%)	\$2,201,184.12	
Total Soft Cost	\$7,739,444.72	
Estimated Total Project Cost		
Total Budget Amount	\$53,872,864.72	
Local Money Contribution	\$23,961,853.95	Soft Cost + 5 Year SPLOST

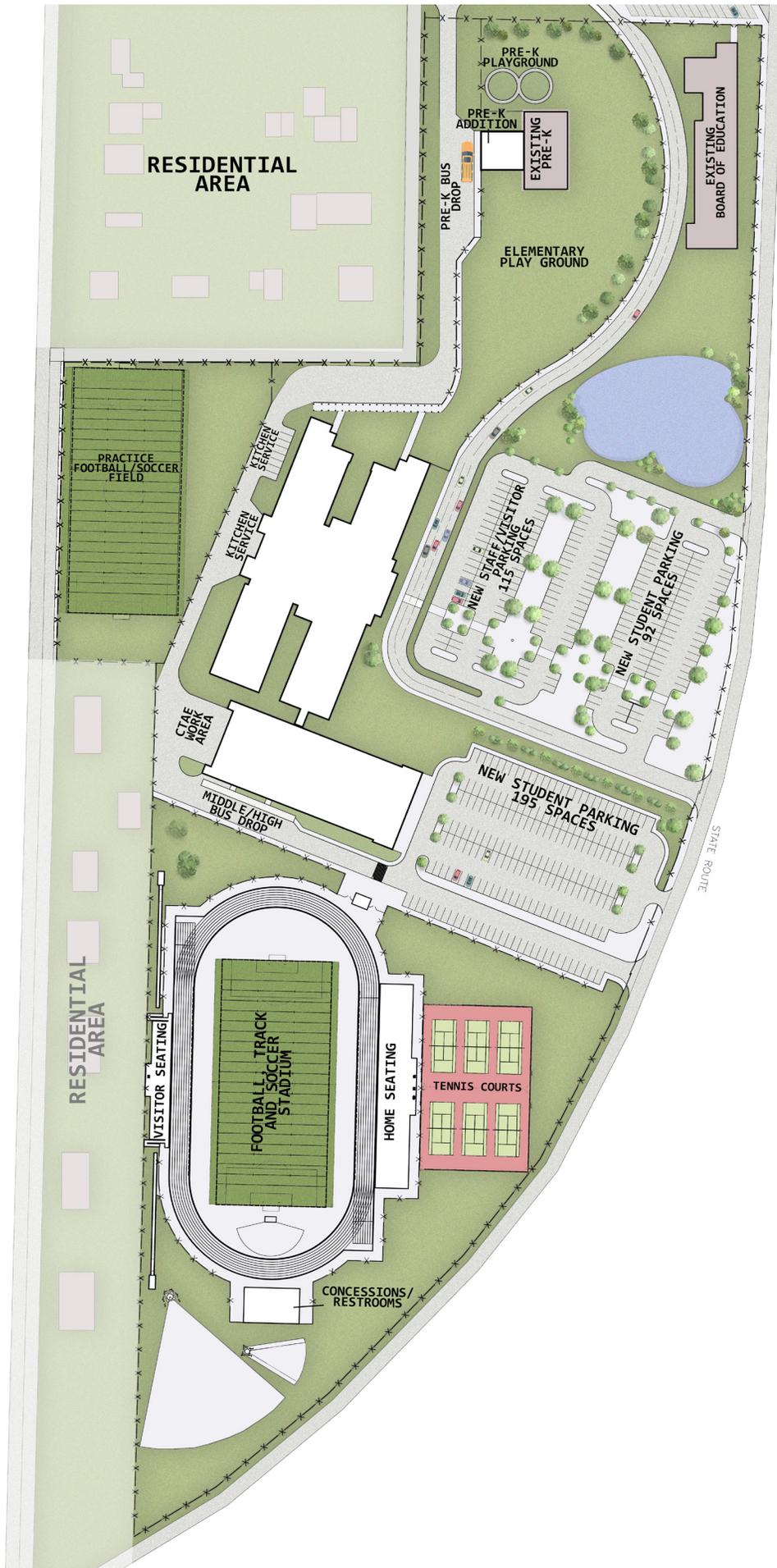
PROS / CONS OF SCENARIO 2:

PROS:

- By removing the existing gymnasium the site opens up to allow a new stadium with competition track
- PreK facility stays in current building and has close proximity to school for meal delivery / program interaction.
- SCS Own Majority of Property

CONS:

- Site is not large enough to move athletics. This means that students will have to drive to any extracurricular activities after school
- Need to purchase home bisecting site
- Congestion of traffic from main road in town
- Most expensive option



SCENARIO 3 New Construction of K-12 on the existing Middle | High School Site

K-12 School Construction Costs (GDOE)		
Category	Estimated Cost (Lump Sum)	Notes
School Costs	\$29,911,010.77 *	See Calculation pg
Additional Construction Costs		
Renovation of Existing Gym	\$125,000.00	
PreK Renovation (Cafeteria)	\$360,000.00	
Demolition/ Asbestos - Mid High School	\$768,988.00	
Demolition/ Asbestos - Elementary School	\$615,191.50	
Total Construction Costs	\$31,780,190.27	K-12 & Additional
Soft Costs		
Third Party Special Inspections	\$158,900.95	
FFE	\$1,200,000.00	
Land Survey	\$60,000.00	
Geo-technical Testing	\$15,000.00	
Risk Hazard / Environmental Testing	\$30,000.00	
Purchase of Property (Qpublic)	\$216,368.00	
Construction Manager Fees (10%)	\$3,178,019.03	
Design Fees (5.5%)	\$1,747,910.46	
Total Soft Cost	\$6,606,198.44	
Estimated Total Project Cost		
Total Budget Amount	\$43,606,253.11	
Local Money Contribution	\$13,695,242.34	Soft Cost + 5 Year SPLOST

PROS / CONS OF SCENARIO 3:

PROS:

- Least expensive option
- All athletics are on campus
- Room for Stadium for complete campus master-plan
- Reuse existing high school gym
- Reuse existing high school cafeteria for PreK
- Reuse existing parking lots
- Strong presence on the main road way
- No Site congestion / Room for growth

CONS:

- Must purchase land
- Stadium still left on old site, prohibits possibility of selling old elementary school site
- Still requires some level of operations and maintenance to old elementary school site.



SCENARIO 4 New Construction of K-12 on the existing Middle | High School Site with New Stadium

K-12 School Construction Costs (GDOE)		
Category	Estimated Cost (Lump Sum)	Notes
School Costs	\$29,911,010.77 *	See Calculation pg
Additional Construction Costs		
Renovation of Existing Gym	\$125,000.00	
PreK Renovation (Cafeteria)	\$360,000.00	
Demolition/ Asbestos - Mid High School	\$768,988.00	
Demolition/ Asbestos - Elementary School	\$615,191.50	
New Stadium with Track	\$7,000,000.00	
Total Construction Costs	\$38,780,190.27	K-12 & Additional
Soft Costs		
Third Party Special Inspections	\$193,900.95	
FFE	\$1,200,000.00	
Land Survey	\$60,000.00	
Geo-technical Testing	\$15,000.00	
Risk Hazard / Environmental Testing	\$30,000.00	
Purchase of Property (Qpublic)	\$216,368.00	
Construction Manager Fees (10%)	\$3,878,019.03	
Design Fees (5.5%)	\$2,132,910.46	
Total Soft Cost	\$7,726,198.44	
Estimated Total Project Cost		
Total Budget Amount	\$51,726,253.11	
Local Money Contribution	\$21,815,242.34	Soft Cost + 5 Year SPLOST

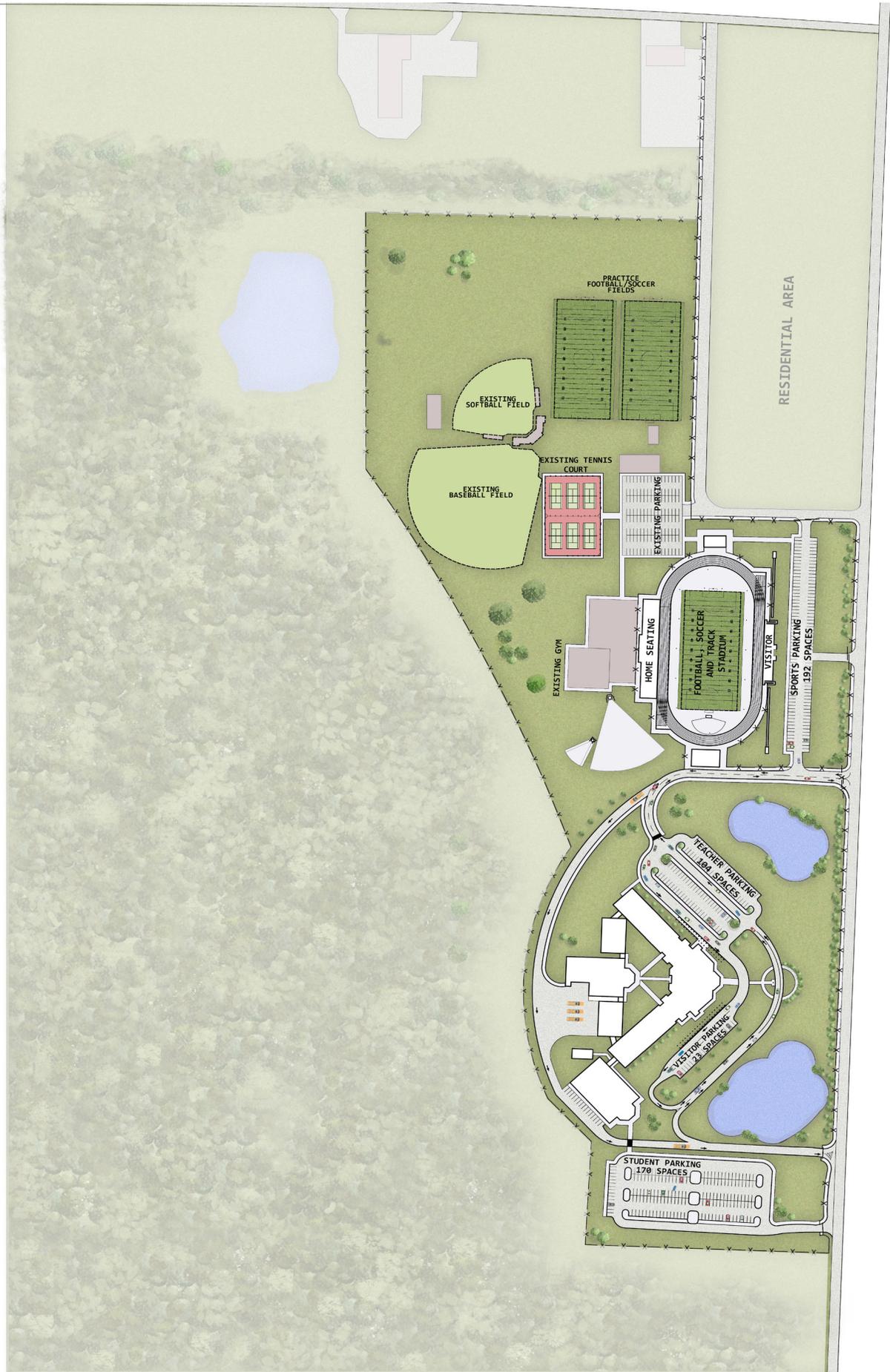
PROS / CONS OF SCENARIO 4:

PROS:

- Complete campus, all projects for Seminole complete
- Ability to sell previous elementary school site
- All athletics are on campus
- Reuse existing high school gym
- Reuse existing high school cafeteria for PreK
- Reuse existing parking lots
- Strong presence on the main road way
- No Site congestion / Room for growth

CONS:

- Must purchase land



SEMINOLE COUNTY NEW K-12 SAMPLE SCHEDULE

Task Name	Start	Finish
Seminole County K-12		
Phase 1 Risk Hazard and Environmental Survey Out to Bid	09/01/20	12/03/20
Phase 1 Risk Hazard Out to Bid	09/01/20	10/01/20
Phase 1 Risk Hazard Testing Period	10/01/20	12/02/20
Phase 1 Risk Hazard Testing Report Due	12/03/20	12/03/20
Site Survey	12/10/20	03/18/21
Site Survey Out to Bid	12/10/20	01/08/21
Surveying Period	01/12/21	03/16/21
Surveying Results	03/18/21	03/18/21
Flow Test	02/02/21	02/16/21
Contact Local Fire Department	02/02/21	02/02/21
Flow testing Period	02/02/21	02/16/21
Flood Plain Test	02/02/21	02/16/21
Contact EPD	02/02/21	02/02/21
EPD Review Period	02/02/21	02/16/21
Programming (Round 1)	02/01/21	02/05/21
Faculty and Staff Programming- Elementary School	02/01/21	02/03/21
Faculty and Staff Programming- High School	02/03/21	02/05/21
Faculty and Staff Programming - Athletics	02/05/21	02/05/21
ESPLOST Vote Renewal	03/09/21	03/09/21
GDOE Amend Facilities Plan	03/29/21	04/02/21
GDOE Site Application Submittal	06/01/21	06/01/21
Schematic Design	02/01/21	08/02/21
Schematic Floor Plan / Elevation Preparation	02/01/21	06/01/21
Schematic Design Presentation to Superintendent	06/01/21	06/01/21
Programming Round 2	06/28/21	07/02/21
Schematic Design Presentation to Board	08/02/21	08/02/21
GDOE Site Application Approval	08/02/21	08/02/21
CM at Risk Process	08/02/21	10/15/21
CM at Risk RFP	08/02/21	08/30/21
CM at risk book Review Period	08/30/21	09/10/21
CM shortlist Announcement	09/10/21	09/10/21
CM Interview Period	09/10/21	09/17/21
CM Selection and Negotiations	09/17/21	10/15/21
Construction Documents	08/02/21	06/15/22
Preliminary Submittals	08/02/21	01/28/22
Preliminary Plan Design Period	08/02/21	11/01/21
Preliminary Submittal to CM	11/01/21	11/01/21
GDOE Preliminary Submittals	11/01/21	11/01/21
GDOE Review Period	11/01/21	11/29/21

Task Name	Start	Finish
Seminole County K-12		
Soil Sampling	11/01/21	01/28/22
Geotechnical Testing RFP Out to Bid	11/01/21	11/30/21
Geotechnical Testing Bid Day	11/30/21	11/30/21
Geotechnical Testing Study	11/30/21	01/28/22
Geotechnical Report Due	01/28/22	01/28/22
Asbestos Survey	11/01/21	01/28/22
Asbestos Abatement Survey out to Bid	11/01/21	11/30/21
Asbestos Survey Bid Day	11/30/21	11/30/21
Asbestos Survey Study	11/30/21	01/28/22
Final Asbestos Survey Report Due	01/28/22	01/28/22
Check Set Submittal	11/01/21	05/04/22
Check Set Design Period	11/01/21	02/10/22
Engineer Submittal to Architect for Coordination Review	02/10/22	02/24/22
Engineer Review Page Turn Meeting	02/24/22	02/24/22
Engineer Coordination Correction Period	02/24/22	03/13/22
Engineers Checkset Submittal to Architect Due	03/13/22	03/13/22
Check Set Submittal to CM	03/16/22	04/13/22
Final Submittal to Fire Marshal (2)	03/16/22	03/16/22
GDOE Check Set Submittal	03/16/22	03/16/22
Owner Review Meeting with entire design team	03/16/22	03/16/22
GDOE Review Period	03/16/22	04/13/22
Design Changes Based on Check Set PreCon	04/13/22	05/04/22
Final Submittals	05/04/22	06/01/22
Final Submittal to CM	05/04/22	05/04/22
GDOE Final Submittal	05/04/22	05/04/22
GDOE Review Period	05/04/22	06/01/22
GMP	05/18/22	06/15/22
GMP Bid Period	05/18/22	06/15/22
Total GMP Established	06/15/22	06/15/22
Governor Releases Money	08/01/22	08/01/22
Construction Administration	06/15/22	11/01/24
Construction of New K-12	06/15/22	03/01/24
Staff Move Into New Building	03/01/24	05/30/24
Demo of Old 6-12 School	05/01/24	08/01/24
All Students Start School In New Building	08/01/24	08/01/24
Complete Final Site Work	08/01/24	10/01/24
Demo of Old Elementary School	08/01/24	11/01/24

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GLOSSARY OF TERMS

Advanced Funding	Interest free loan to be repaid with future entitlement for school systems that meet the minimum requirements specific in 160-5-.04-.05
Building Capacity	The number of students the facility can physically accommodate based on a generic formula driven program. Developed by categorization actual room uses.
Campus	A campus is a site where one or more schools / building is / are location. For example, a middle school comprised of 10 separate buildings creates a middle school campus.
Capacity Analysis	An analysis of how many students the school's physical facility can effectively serve within its classrooms
Capital Improvement	The addition o restoration of a permanent structure or some aspect of a property that will either enhance the property's overall value or increase its useful like.
Capital Outlay Funds	A fund given to meet expenditures from improvements made to facilities or grounds.
Combined 5 -Year Need	The total investment needs anticipated of the next five years. Obtained by adding all facility deficiency costs with the 5-year life cycle renewal forecast.
Core Spaces	Large areas within a building that are being utilized by most students throughout the school sat (e.g./ cafeteria, gymnasium, library.)
CTAE	Career, Technical, and Agricultural Education
Design Capacity	The number of students a school is designed to hold, not factoring special programs.
Efficiency Factor	While calculating functional capacity, the efficiency factor is applied against the number of students stations to account for breaks in instructional schedule. The efficiency factor allows for small variances in class size due to the number of students in each grade (i.e. either over or under standard class size)
SPLOST	Special Purpose Local Option sales Tax
Facility Condition Assessments	An evaluation of a school facility that identifies current building and building system deficiencies an life cycle projections.
Facility Condition Index	A widely used indicator that provides a relative scale of the overall condition of a facility or group of facilities within a portfolio. A high FCI indicates worse condition. Obtained by dividing the repair costs by the replacement cost of the same building.
Facility Deficiency Cost	Any cost associated with bringing current systems and components back to a functional state as installed. Facility deficiency costs do not include corrections related to adapting facilities to new construction standards or for capacity needs.
Facility Portfolio	An inventory of all the building the Wheeler County Schools Manages

FTE	(Full-Time Equivalent) refers to the state funding mechanism based on the student enrollment and the educational services local school systems provide for the student
Functional Capacity	A set of tests, practices and observations that are combined to determine the ability to function in a variety of circumstances.
Georgia Department of Education	The Georgia Department of Education oversees public education throughout the state, ensuring that laws and regulations pertaining to education are followed and that state and federal money appropriated for education is properly allocated to local school systems.
Gross Square Footage	The sum of all areas on all floors of a building included within the outside faces of its exterior walls, including all vertical penetration areas, for circulation and shaft areas that connect one floor to another.
Instructional Unit	A classroom or media center as listed in the Guideline for Square Footage Requirements for Educational Facilities
Over-utilized	To utilize too much, To use (something) excessively or too frequently
Life - Cycle Renewal Forecast	To predict the cost of an item over its life span. This report uses the years 2025-2030 when referencing Life - Cycle Renewal Forecast.
Low Wealth Pro (LWPS)	School systems that have limited ability to generate funds for construction projects and meet the criteria contained within this guideline
Risk Hazard Analysis	An analysis done prior to site approval by the GDOE for a site to be utilized for a new school. This process is done by a third party testing agency that evaluates all potential hazards to the area.
Renovation	The process of repairing and improving a building so that it is in good condition again. The FCI results of a renovation should be 10% or less once complete.
Replacement Cost	Refers to the amount that an entity would have to pay to replace an asset at the present time, according to its current worth
Site	An area of ground on which the building and all of its relative items i.e. parking lot, athletics, lighting etc are all located.
Suitability	The quality of being right or appropriate for a particular purpose or situation
Soft Costs	An expense item that is not considered direct construction cost. Soft costs include architectural, engineering, financing, and legal fees, and other pre-and post-construction expenses.
Underutilized	A building that is not used, empty.
Vacant	The year in which a building is constructed.

REFERENCE ORGANIZATIONS

Acronym	Organization
ASTM	American Society for Testing and Materials
BOMO	Building Owners and Managers Association
Rs Means	Reed Business Information that provides cost information to the construction industry so contractors in the industry can provide accurate estimates and projections for their project costs
CSI	Construction Specifications Institute
NIST	National Institute of Standards and Technology
NCES	National Center for Education Statistics
NFPA	National Fire Protection Association
GDOE	Georgia Department of Education
SCSS	Seminole County School System



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