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WILLIS INDEPENDENT SCHOOL DISTRICT

FACILITIES ASSESSMENT

OCTOBER 2025

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Willis Independent School District

Administration

Dr. Kimberly James	Superintendent
John Vaglienty	Chief Academic Officer
Garrett Matej	Chief Financial Officer
Bob Eaton	Chief Operations Officer
Dr. Sarah Blakelock	Chief Communications Officer

Board of Trustees

Kyle Hoegemeyer	Board President
Paulett Traylor	Vice President
Chad Jones	Secretary
Nikita Lagway	Member
Charles Perry, Sr.	Member
Scott Carson	Member
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Assessment Team

Architectural
Huckabee Architects

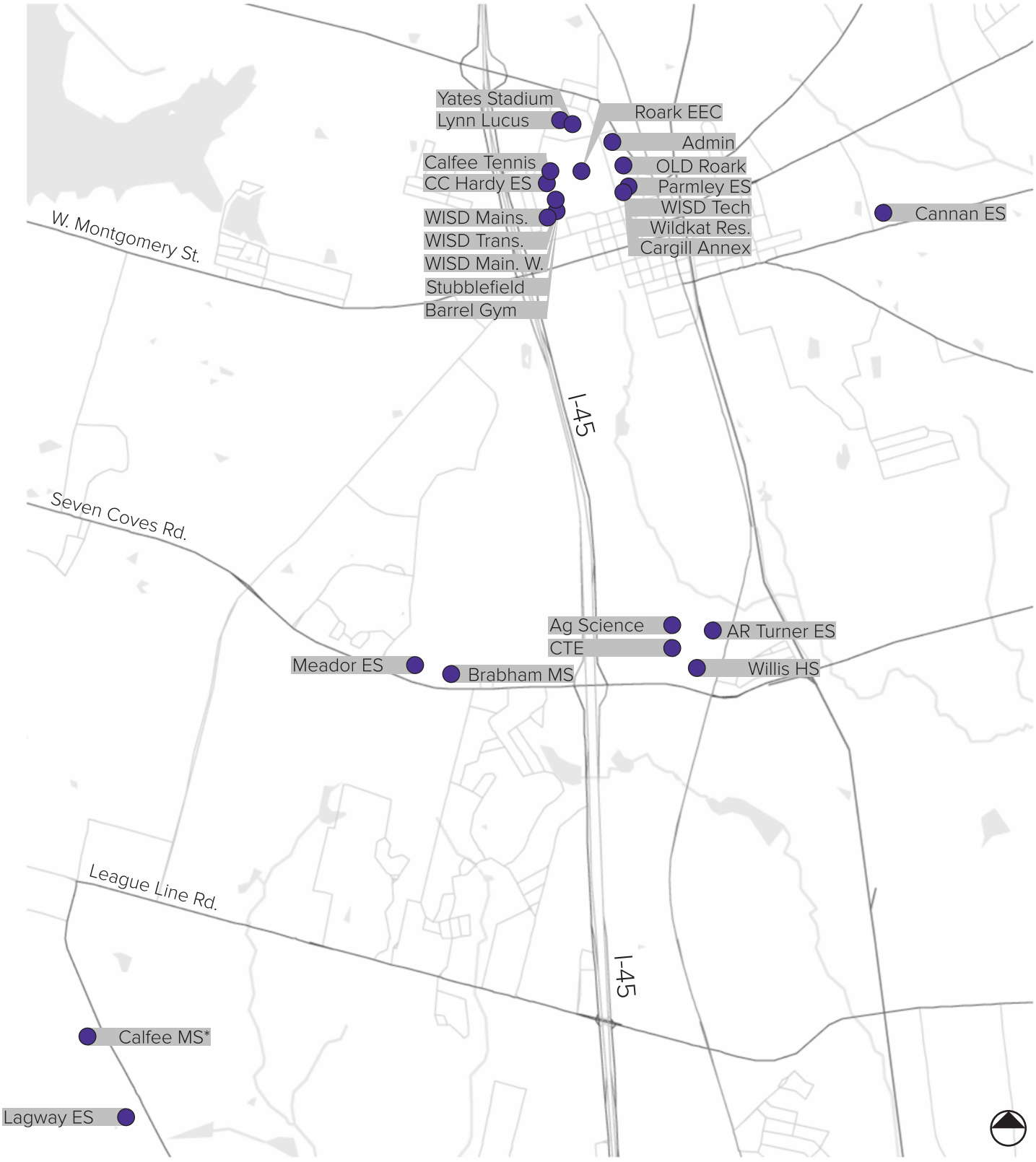
Food Service
Foodservice Design Professionals

Structural, Mechanical, Electrical, and Plumbing
Innovative Engineering Group

Technology, AV, Theatrical, PA, & Security
Wrightson, Johnson, Haddon & Williams, Inc.

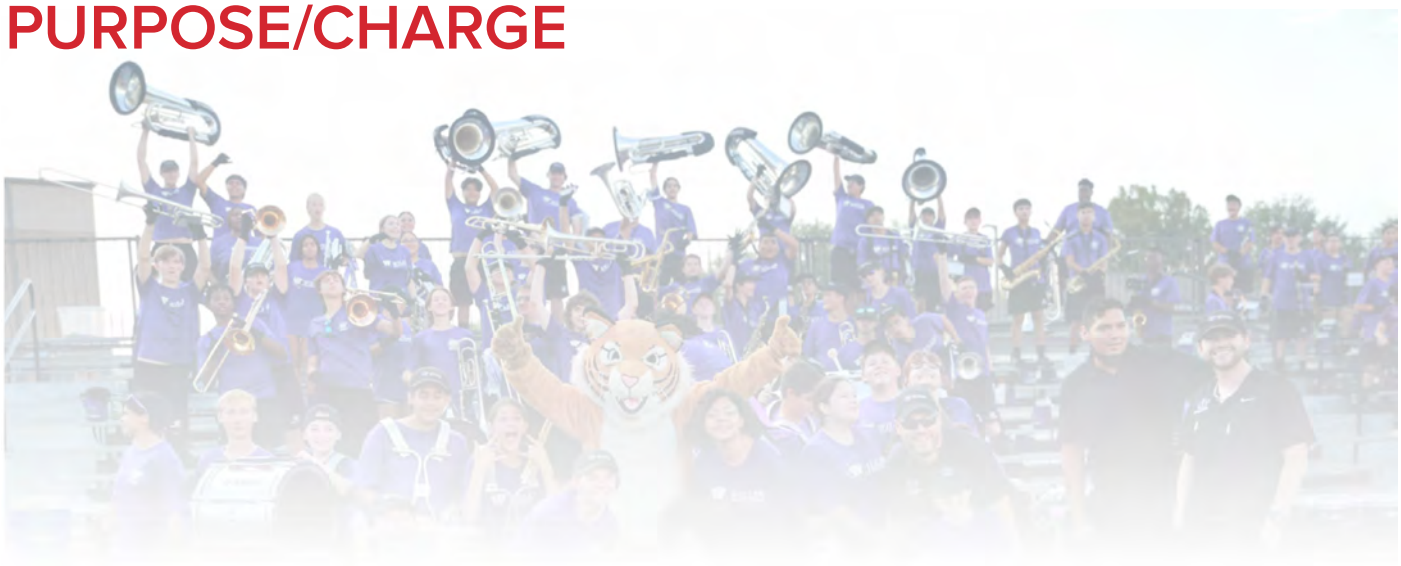
Envelope
SEAL Building Enclosures

DISTRICT FACILITIES ASSESSMENT MAP



Calfee Middle School opened at the beginning of the 2025-2026 school year, and while it appears on the overall map for the district, it was not reviewed as part of this facility assessment,

PURPOSE/CHARGE



As commissioned by Willis Independent School District, Huckabee has prepared the following Facility Assessment Report of the existing physical conditions of several of the district's older facilities. The assessment includes visual observations of over (24) existing facilities, including campus sites and WISD support and athletic facilities. The report outlines the current conditions of the facilities as ascertained from visual observations of each campus/ building.

This report is intended to outline the general condition of each facility by visual observation alone, and is not intended to be an exhaustive, detailed study of all existing conditions through any means of testing or accessing areas that were not readily avaiable to be reviewed. The observations and assessment address building code, accessibility non-compliance and applicable general building conditions including, but not limited to, mechanical, electrical, plumbing, technology, AV, PA, theatrical, security, food service, structural, roof, building envelope, exterior materials and interior finishes.

Contained in the body of the report are executive summaries of each campus/facility, with recommendations of action. The report, in conjunction with the interactive online portal, contains representative photographs and information noting different areas of concern. Complete assessment reports containing much more information and photos are to be provided to the district directly as part of the interactive web portal for further review as needed for each campus. No guarantees are implied by these Professional Opinions which are limited by the conditions observed at area selected for viewing by each Professional on the Assessment Team.

This Facility Assessment has been prepared from the professional perspective of licensed architects, engineers, and building system specialists. The observations, terminology, and recommendations within this report reflect industry-standard practices and the technical language necessary to accurately evaluate building conditions, life-cycle performance, educational adequacy, and code compliance.

Because this document will be shared with the general public, we have made every effort to present information in clear and accessible terms. However, due to the complexity of building systems and the specialized nature of certain deficiencies, there are instances where the required scope of work may extend beyond the common vocabulary or experience of a typical reader. In these cases, technical terminology is intentionally included to ensure accuracy and to support the District's Construction, Operations, and Maintenance teams as they plan and execute corrective actions.

Where appropriate, plain-language explanations and contextual summaries accompany these terms to help bridge the gap between professional practice and public understanding. Our intent is to provide a transparent, comprehensive, and useful assessment that can be understood by a wide audience while still maintaining the precision required for facility planning and capital decision-making.

It is important to note that existing buildings that do not undergo renovation or construction projects are not necessarily required to meet current adopted codes as it is expected they were code compliant at the time of permitting, construction and issuance of the certificate of occupancy. For those campuses determined to undergo renovation or addition; depending on the type of project and level of renovation, there are various levels of compliance required. The International Existing Building Code (IEBC) clearly identifies the requirements for compliance for various levels of renovation. Each level (1 through 3) includes greater scope and proportion of building being renovated and therefore has greater compliance requirements. If a building undergoes a major renovation or addition (level 3 per IEBC), the local jurisdiction can require that the entire building, not just the addition or renovation, be brought up to current codes.

Where ADA/TAS (handicap accessibility) non-compliance items were discovered and noted, the deficiency items will need to be repaired in order to bring the facility into compliance with the American Disabilities Act / Texas Accessibility Standards. Unlike the building code, ADA/TAS is federal and state law that has no grandfather clause for non-compliant items. We have noted these issue under “Accessibility/Code”.

There are often many ways to address any one issue or concern; some ways can cost more to address the concern and have a low risk or low maintenance cost, while other ways can cost less to address the concern but have a higher risk or higher maintenance cost. In some cases, action may be deferred.

The intent of this report is to assist Willis ISD in reviewing existing conditions, identifying and prioritizing needs, and preparing informed recommendations for potential future projects to the Board of Trustees.



CAPACITY ANALYSIS OVERVIEW

As part of this facility assessment, the team conducted a review of each campus relative to the current Texas Education Agency (TEA) requirements. This review was intended to evaluate how well the existing campuses align with state-mandated standards for school facility design, safety, accessibility, and functionality. The TEA establishes these standards to ensure that educational spaces provide safe, equitable, and supportive environments for students, staff, and visitors, and to define minimum criteria for space allocation, instructional support, and overall campus functionality.

In addition to TEA compliance, the assessment team evaluated academic areas against the Willis ISD Educational Specifications. These specifications define the district's expectations for instructional spaces, including classroom sizes, science labs, libraries, gymnasiums, and other learning environments, with a focus on supporting the educational program, promoting efficient operations, and providing flexibility for future enrollment changes. It should be noted that the majority of these facilities were originally constructed prior to the implementation of these modern requirements, meaning some areas may not fully meet current TEA or district standards.

Within the individual campus breakdowns provided in this report, you will find detailed notes and plans indicating where the team reviewed each facility against the latest TEA requirements. These summaries highlight areas of compliance as well as areas where improvements may be needed to meet state and district expectations.

To the right you will see the maximum building capacity and current enrollment figures are provided to offer insight into the current operational limitations and the degree to which each campus can accommodate the existing student population.

Note: This review was limited to TEA-regulated academic spaces. This includes instructional areas such as classrooms, science labs, libraries, and gymnasiums. Non-instructional or ancillary spaces—such as maintenance areas, storage, or administrative support areas not explicitly covered by TEA standards—were not assessed as part of this review.

CAPACITY ANALYSIS OVERVIEW

CAPACITY ANALYSIS

CAMPUS	MAX CAPACITY	CURRENT ENROLLMENT*	MAX VS. CURRENT
ROARK ECC	400	340	60
ELEMENTARY SCHOOLS			
A.R. TURNER	633	476	157
CANNAN	612	670	-58
C.C. HARDY	819	815	51
LAGWAY	875	809	41
MEADOR	715	761	39
PARMLEY	538	625	113
MIDDLE SCHOOLS			
BRABHAM	1,171	673	397
LYNN LUCUS	1,197	844	356
CALFEE***	1,100	733	367
HIGH SCHOOL			
WILLIS HIGH SCHOOL**	3,858	2,876	982

** Max Capacity and Current Enrollment numbers were provided by the district for the 2025-2026 year.*
***Includes the capacity of the Career & TEchnology Center and the Agricultural Center.*
****Calfee Middle School opened at the beginning of the 2025-2026 school year, and while it appears on the overall capacity analysis for the district, it was not reviewed as part of the overall facility assessment,*

EXECUTIVE FINDINGS SUMMARY

The following Executive Findings Summary provides a high-level overview of the major replacements, repairs, and capital improvements recommended across the District's facilities. These findings reflect the professional observations of the architectural and engineering assessment team and focus on the most significant items that impact building performance, safety, educational adequacy, and long-term facility stewardship.

This summary is not intended to represent every action item identified during the assessment. Instead, it highlights the primary facility needs that warrant district-level consideration and long-range capital planning. More detailed explanations—including photographs, specific deficiency notes, campus-level narratives, and the technical basis for each recommendation—are provided within the comprehensive Executive Findings Reports for each individual campus that you will find later in this report.

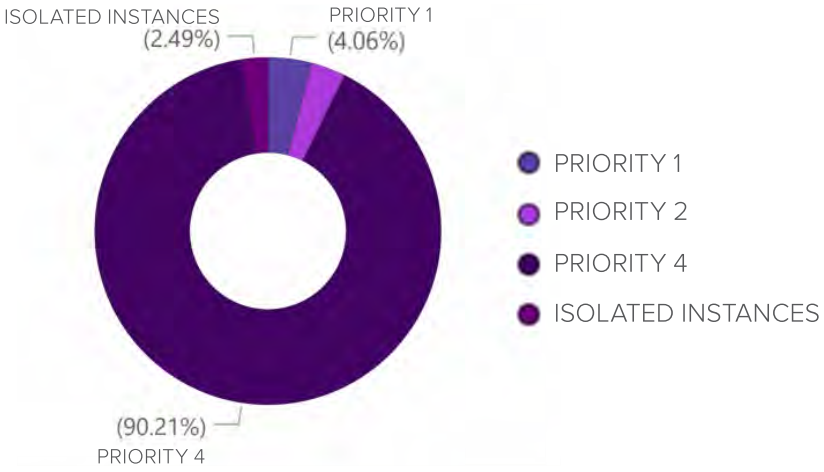
The full reports offer deeper insight into the observed conditions that informed the conclusions, priorities, and timelines reflected in this summary. Stakeholders seeking clarification or additional context for any item presented here are encouraged to refer to the corresponding campus-level Executive Findings documentation.

To help assist in understanding the assement the following legend of abbreviations has been provided:

- **SQ. FT or SF** – Square Feet
- **CMU** – Concrete Masonry Unit
- **VCT** – Vinyl Composite Tile
- **LVT** – Layer Vinyl Tile
- **PLAM** – Plastic Laminate
- **IGU** – Insulated Glazing Unit
- **TPO** - Thermoplastic Polyolefin, which is a type of single-ply roofing membrane used for flat or low-slope roofs
- **BUR** – Built-up Roofing, a multi-layered system for low-slope or flat roofs that uses alternating layers of bitumen (like asphalt or coal tar) and reinforcing fabrics, topped with a protective surfacing like gravel
- **SBS** – Styrene-Butadiene-Styrene, a synthetic rubber added to asphalt to create a highly flexible, durable material for roofing applications.
- **APP** - Atactic Polypropylene, a type of plastic polymer used to modify asphalt for roofing membranes
- **LWIC** – Lightweight Insulating Concrete, a construction material used primarily for commercial roofing to create a permanent, fire-resistant, and energy-efficient roof deck
- **AV** – Audio Visual
- **PA** – Public Address
- **ADA** - Americans with Disabilities Act, which requires that buildings be designed and constructed to be accessible to people with disabilities
- **TAS** - Texas Accessibility Standards, which are regulations that ensure buildings in Texas are accessible to people with disabilities
- **CTE** – Career and Technology Education
- **NDAA** - National Defense Authorization Act, it refers to security cameras that are compliant with Section 889 of the act. This law prohibits U.S. federal agencies and their contractors from using telecommunications and video surveillance equipment from specific, restricted manufacturers due to national security concerns. Therefore, "NDAA-compliant" means the camera contains no components from prohibited companies and is approved for use in government projects and critical infrastructure.
- **PEMB** – Pre-Engineered Metal Building
- **HVAC** – Heating, Ventilation, and Cooling
- **VAV** - Variable Air Volume, which is a type of HVAC system that controls the temperature in a space by adjusting the volume of conditioned air supplied

EXECUTIVE FINDINGS SUMMARY

ROARK EARLY CHILDHOOD CENTER



Roark Early Education Center, constructed in 2022, is in good overall condition with systems performing as intended. Most items fall within normal maintenance cycles. Immediate attention is recommended for select security, technology, and building envelope items to maintain performance, safety, and compliance. Key items for consideration are summarized below. Refer to the full campus specific executive summary for comprehensive campus recommendations and detailed on-site observations.

PRIORITY 1 – Immediate (0–5 Years)

- No major systems are identified for replacement in the 0-5 year period.
- Minor exterior sealant and parameter sealant replacement recommended.
- Add ventilation/air flow to the Community room equipment rack to control excess heat produced by the equipment.

PRIORITY 2 – 5 to 15 Years

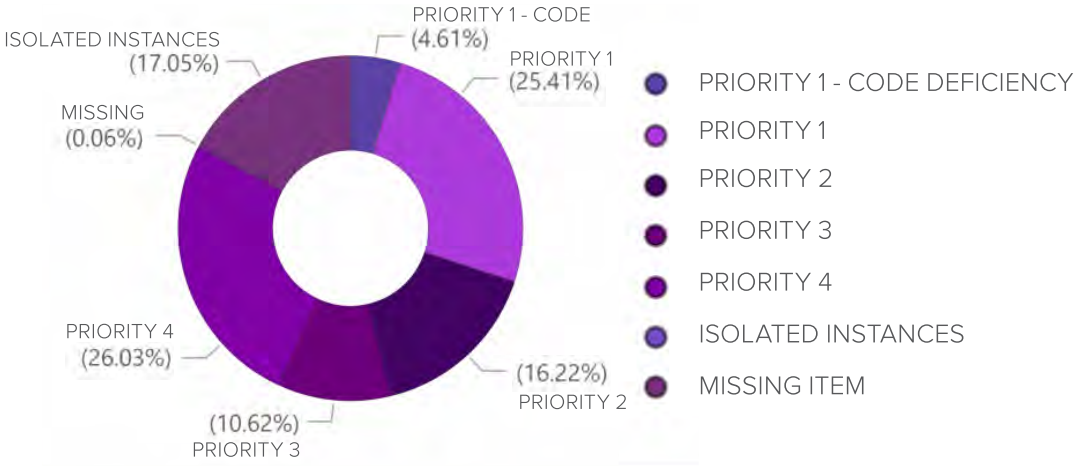
- No major systems are identified for replacement in the 5–15 year period.
- A roofing moisture survey is recommended around year 10, and if the system is dry, a roof membrane recoating with replacement of all flashings is recommended within this 15–20 year period.
- Window systems will require partial replacement of glazing gaskets or wet-sealing of assemblies within approximately 15–20 years.

PRIORITY 4 – 20+ Years

- Full roof replacement is recommended at the end of its life, beginning around 20 years.
- Ceiling systems will require full replacement at approximately 20–25 years.
- Kitchen/servery equipment and finishes will require full replacement at approximately 20–25 years.
- Mechanical systems, including chillers, boilers, and VAV systems, will require lifecycle replacement at approximately 20–25 years.
- Lighting systems will require full replacement at approximately 20–25 years.

EXECUTIVE FINDINGS SUMMARY

A.R. TURNER ELEMENTARY SCHOOL



Turner Elementary, originally built in 1993 with additions in 2003, 2008, and 2022, remains in generally fair condition with localized areas requiring repair or modernization. The most pressing needs involve security, technology, roof maintenance, and building envelope integrity. Architectural finishes, MEP systems, and kitchen areas are largely serviceable but should be monitored and scheduled for lifecycle replacement or renovation within appropriate time frames. Key items for consideration are summarized below. Refer to the full campus specific executive summary for comprehensive campus recommendations and detailed on-site observations.

PRIORITY 1 - Code Deficiency

- Cold storage assembly floor is rusting and must be corrected.
- Exhaust hood equipment does not meet the required 6-inch overhang.
- Add hot water to lavatories as recommended for code compliance during future renovations.
- Stage draperies do not comply with NFPA 701 flame-retardant requirements and require full replacement.

PRIORITY 1 – 0 to 5 Years

- Replace all fluorescent lighting with LED fixtures immediately to correct low lighting levels and reduce energy use.
- Remove and replace all masonry expansion and control joint sealants.
- Remove and replace unsealed wall penetrations.
- Repair deteriorated lintel support and damaged masonry units.
- Install prefinished sheet-metal transition flashing at window sills.
- Replace or trim deteriorated glazing gaskets and wet-seal window systems.
- Replace missing and deteriorated perimeter door sealants.
- Replace damaged clerestory asphalt shingle roofing.
- Replace missing dome strainers at roof drains.
- Replace theatrical rigging hardware within 2–3 years.
- Replace stage lighting system within 3–5 years.
- Replace cafeteria AV system within 3–5 years.
- Replace cafeteria sound system within 3–5 years.
- Replace all Hikvision and Advidia cameras with Hanwha models immediately.

EXECUTIVE FINDINGS SUMMARY

A.R. TURNER ELEMENTARY SCHOOL

- All exterior doors should be equipped immediately with door contacts to electronically monitor door status and provide forced-entry or propped-door alerts through the access control system.
- Reference the “PA” and “Security” sections of the full assessment for individual component replacements or additions.
- Kitchen equipment rated as Priority 1 (poor condition) requires replacement within this window.

PRIORITY 2 – 5 to 15 Years

- Replace carpet throughout the facility within 5–10 years.
- Replace interior ceilings within 5–10 years.
- Replace damaged casework and countertops within 10–15 years.
- Replace roof-to-roof expansion joint assemblies showing deterioration.
- A moisture survey is recommended around year 10; if the roofing system (BUR) is dry, a roof recoating with flashing replacement should be completed during the 10–20 year period. If the roofing perimeter is wet, partial perimeter replacement will be required.
- Kitchen equipment rated as Priority 2 (poor/fair condition) requires replacement within this window.

PRIORITY 3 – 15 to 20 Years

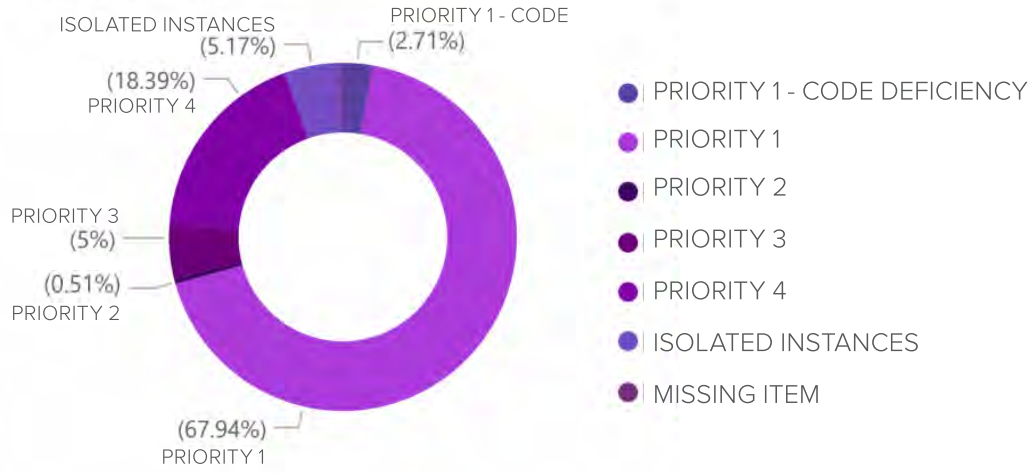
- Replace modified bitumen membrane flashings at rising walls, roof penetrations, and curb flashings.
- Replace the gym AV system when determined to be at end-of-life during future assessments.
- Kitchen equipment rated as Priority 3 (fair condition) requires replacement within this window.

PRIORITY 4 – 20+ Years

- Full replacement of the built-up roofing (BUR) system will be required at the end of its life cycle. If the roofing system is recoated or partially repaired sooner, re-roofing will still be needed at the 20+ year mark.
- Replace mechanical equipment installed in 2025 within 20–25 years.
- Replace all window and door assemblies as part of long-term building envelope renewal.
- Replace steep-slope asphalt shingle roofing again within 20 years of installation.
- Kitchen equipment rated as Priority 4 (good condition) requires replacement within this window.

EXECUTIVE FINDINGS SUMMARY

CANNAN ELEMENTARY SCHOOL



Cannan Elementary School, constructed in 1999, shows significant exterior masonry, glazing, and roof-edge deterioration that will require short-term and long-term replacements to restore proper performance. Windows and doors include missing fasteners, short gaskets, unsealed joints, and compromised sill conditions that must be corrected to prevent ongoing moisture infiltration. The roof system, while generally solid in the field, includes perimeter failures, flashing deficiencies, and drain-component issues that require planned replacement based on moisture findings. Interior casework is beyond its useful life, and several AV, sound, and stage systems require immediate or near-term full replacement. Mechanical equipment was replaced within the last five years, with long-term renewal expected in 15–20 years. Security systems require immediate district-standard upgrades. Key items for consideration are summarized below. Refer to the full campus executive summary for comprehensive recommendations and detailed on-site observations.

PRIORITY 1 - Code Deficiency

- Multiple restrooms do not meet ADA code and must not be listed as accessible.
- Relocate or adjust paper towel dispensers that exceed allowable protrusion limits.
- Provide proper ADA approach clearances at drinking fountains.
- Repair loose handrails in restrooms.
- Address protruding AV racks and projection screens that exceed 4-inch projection limits.
- Provide accessible routes to portable classrooms and playgrounds.
- Stage draperies do not comply with NFPA 701 flame-retardant requirements and require full replacement.

PRIORITY 1 – 0 to 5 Years

- Replace all fluorescent lighting with LED fixtures immediately to correct low lighting levels and reduce energy use.
- Remove and replace masonry expansion and control joint sealants.
- Install prefinished sheet-metal transition flashing at window sills.
- Replace or trim glazing gaskets and wet-seal existing window systems.
- Modify window sill masonry to add slope and correct moisture retention.
- Replace all casework within 1–5 years due to age and condition.
- Replace carpet within 5–7 years.
- Replace LVT flooring within 10–15 years.
- Replace stage rigging hardware immediately.

EXECUTIVE FINDINGS SUMMARY

CANNAN ELEMENTARY SCHOOL

- Replace stage lighting system within 1–2 years.
- Replace the cafeteria sound system within 1–2 years.
- Replace the library AV system within 3–5 years.
- Replace the cafeteria AV system within 3–5 years.
- Replace all Hikvision and Advidia cameras with Hanwha models immediately.
- All exterior doors should be equipped immediately with door contacts to electronically monitor door status and provide forced-entry or propped-door alerts through the access control system.
- Reference the “PA” and “Security” sections of the full assessment for individual component replacements or additions.
- Kitchen equipment rated as Priority 1 (poor condition) requires replacement within this window.
- Conduct roof moisture surveys to evaluate need for partial or full replacement. Perform perimeter roof renovation if moisture is isolated. If the built-up roofing (BUR) system is wet throughout, the existing BUR system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system

PRIORITY 2 – 5 to 15 Years

- Replace carpet within 5–7 years.
- Replace LVT flooring within 10–15 years.
- Replace Lay-in ceiling within 10-15 years.
- Kitchen equipment rated as Priority 2 (fair/poor condition) requires replacement within this window.

PRIORITY 3 – 15 to 20 Years

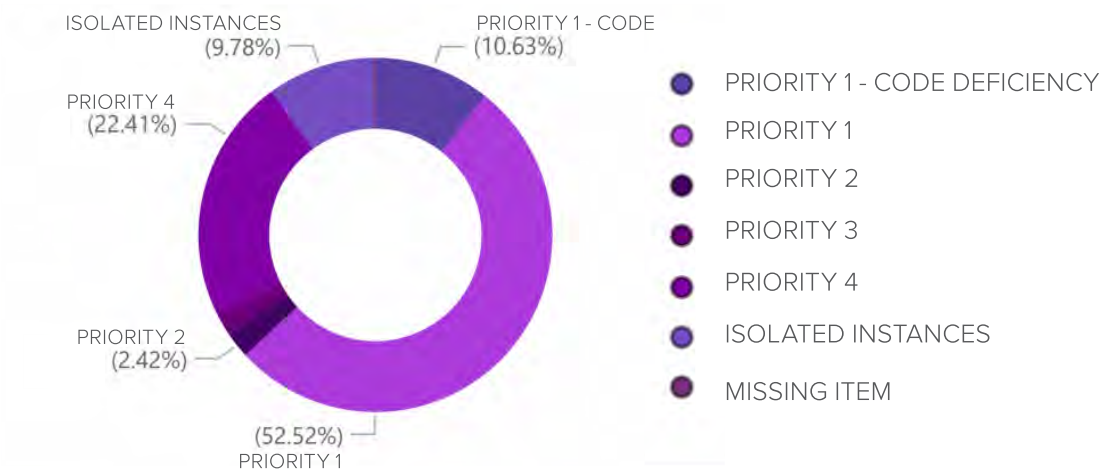
- Replace mechanical equipment installed within the last 5 years within 15–20 years.
- Kitchen equipment rated as Priority 3 (fair condition) requires replacement within this window.

PRIORITY 4 – 20+ Years

- Kitchen equipment rated as Priority 4 (good condition) requires replacement within this window.

EXECUTIVE FINDINGS SUMMARY

C.C. HARDY ELEMENTARY SCHOOL



C.C. Hardy Elementary School, originally constructed in 1982 with significant additions and renovations in 1999 and subsequent upgrades through 2023, remains in generally fair condition with several building systems now at or beyond their typical life-cycle thresholds. The most notable needs relate to building envelope performance—including metal panel assemblies, sealants, and aging window systems—along with targeted roof drainage corrections, technology modernization, theatrical rigging replacement, and comprehensive security upgrades. Architectural finishes, MEP systems, and kitchen areas remain serviceable due to multiple past renovations but will require scheduled lifecycle replacement within the next planning cycles. Key items for consideration are summarized below. Refer to the full campus executive summary for comprehensive recommendations and detailed on-site observations.

PRIORITY 1 - Code Deficiency

- Restrooms contain multiple ADA non-compliant conditions, including incorrect clearances, insufficient maneuvering space, and improperly mounted fixtures.
- Paper towel dispensers, AV equipment, and other mounted objects protrude beyond ADA limits and must be corrected.
- Drinking fountains require reconfiguration to provide compliant forward-approach clearances.
- Door hardware and room signage are not ADA/TAS compliant and require replacement and updating.
- Gymnasium bleachers lack ADA-required accessible wheelchair and companion seating positions.
- Playground areas lack compliant accessible routes to play components and require installation of ADA/TAS-compliant pathways.
- Stage draperies do not comply with NFPA 701 flame-retardant requirements and require full replacement.
- Theatrical rigging hardware requires replacement within 2–3 years due to non-verifiable attachment and safety risks.

PRIORITY 1 – 0 to 5 Years

- Replace all fluorescent lighting with LED fixtures immediately to correct low lighting levels and reduce energy use.
- Cafeteria A/V system and sound system requires full replacement within 3–5 years.
- Library A/V system requires full replacement within approximately 3–5 years.
- Replace failed and deteriorated metal panel sealants at joints, edges, and transitions.
- Replace deteriorated window and storefront perimeter sealants exhibiting loss of adhesion and air/water infiltration.
- Kitchen equipment rated as Priority 1 (poor condition) requires replacement within this window.

EXECUTIVE FINDINGS SUMMARY

C.C. HARDY ELEMENTARY SCHOOL

PRIORITY 2 – 5 to 15 Years

- Carpet and interior flooring require replacement within 5–10 years.
- Casework throughout the facility will require replacement within 10–15 years.
- Kitchen equipment rated as Priority 2 (fair/poor condition) requires replacement within this window.
- Interior ceiling systems will require full replacement in 5–10 years.

PRIORITY 3 – 15 to 20 Years

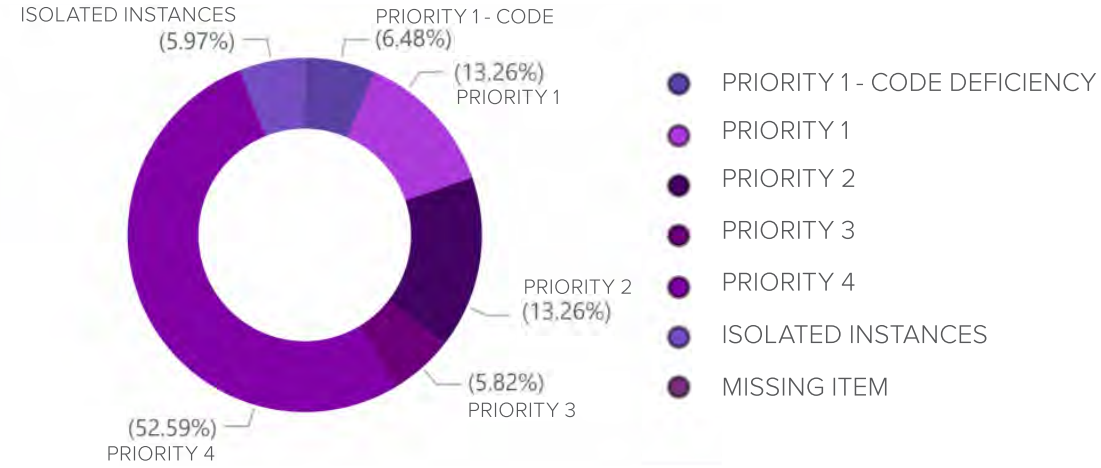
- Mechanical systems—including chilled water components, boilers, controls, and air distribution—will require full lifecycle replacement in approximately 15–20 years.
- Re-evaluate the roofing assemblies at 5 years intervals with visual and moisture surveys. If the roofing system maintains watertightness and integrity, a restoration roof coating could be considered within this time frame. Reference Priority 4 roofing recommendation if the roof system is found wet.
- Stucco recoating and major sealant/transition replacements as assemblies age beyond 15 years.
- Kitchen equipment rated as Priority 3 (fair condition) requires replacement within this window.

PRIORITY 4 – 20+ Years

- If the roofing system is wet throughout, the existing modified bitumen system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system.
- Kitchen equipment rated as Priority 4 (good condition) requires replacement within this window.

EXECUTIVE FINDINGS SUMMARY

LAGWAY ELEMENTARY SCHOOL



Eddie Ruth Lagway Elementary School, completed in 2021 and considered in “new” condition, remains in excellent overall shape with only isolated corrective items noted during the assessment. Most systems—including interior finishes, MEP systems, kitchen equipment, and building envelope assemblies—are performing as expected for a facility of this age. The most notable considerations include sealant and gasket replacement for early-life failures, corrective work at specific roof drainage elements, code compliance adjustments such as replacement of non-compliant window coverings, and scheduled lifecycle planning for future Lighting, MEP, and Ceiling replacement. Technology and sound systems in instructional and performance spaces will require phased modernization over the next 3–7 years. Key items for consideration are summarized below. Refer to the full campus executive summary for comprehensive recommendations and detailed on-site observations.

PRIORITY 1 - Code Deficiency

- The stacked washer/dryer configuration does not meet ADA reach-range and operability requirements and must be replaced with compliant accessible laundry equipment pending TDLR verification.
- Blinds with free-hanging cords are no longer permitted by current safety codes and must be replaced with cordless or otherwise compliant window coverings.

PRIORITY 1 – 0 to 5 Years

- Replace A/V system in the Music Room with a new projector, motorized screen, control system, HDMI input, and integrated sound (3–5 years).
- Replace Music Room sound system to meet performance requirements (3–5 years).

PRIORITY 2 – 5 to 15 Years

- Replace Cafetorium A/V system with a new laser-based projector, motorized screen, HDMI/wireless input, and modern control system (5–7 years).
- Replace Cafetorium sound system with a full SMP rack, DSP, distributed speakers, and mixer (5–7 years).
- Replace Gymnasium sound system with a distributed amplified configuration to correct echo and improve intelligibility (5–7 years).

EXECUTIVE FINDINGS SUMMARY

LAGWAY ELEMENTARY SCHOOL

PRIORITY 3 – 15 to 20 Years

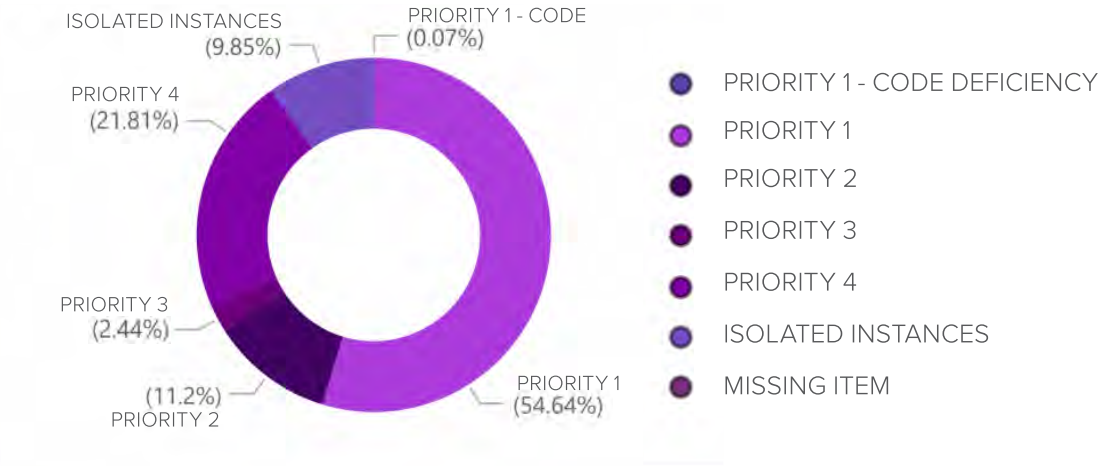
- Replace interior LVT and carpet flooring at their 15–20 year lifecycle.
- Begin planning for partial roof recoating and/or flashing replacement depending on moisture survey results around year 10–15.
- Kitchen equipment rated as Priority 3 (fair condition) requires replacement within this window.

PRIORITY 4 – 20+ Years

- Full mechanical system lifecycle replacement at approximately 20–25 years.
- Full lighting system replacement at approximately 20–25 years.
- Full ceiling system replacement at approximately 20–25 years.
- Full kitchen equipment renewal at 20–25 years (all items currently in good condition).

EXECUTIVE FINDINGS SUMMARY

MEADOR ELEMENTARY SCHOOL



Meador Elementary School, originally constructed in 2008 and expanded through a series of improvements including major security upgrades, lighting enhancements, and a gym addition in 2022, remains in generally fair condition with several systems now entering mid-life performance ranges. The most significant needs include replacement of aging masonry sealants, renovation of deteriorated window systems below the metal roof eaves, isolated glazing and insulated glass unit (IGU) failures, limited roof drainage and flashing corrections, and replacement of interior flooring and ceiling systems that have reached the end of their service life. AV and sound systems in instructional and performance spaces will require mid-life replacement, and MEP equipment will require staged renewal over the next decade as original 2008 components age out. Key items for consideration are summarized below. Refer to the full campus executive summary for comprehensive recommendations and detailed on-site observations.

PRIORITY 1 – Code Deficiencies

- Hand sinks must be located every 25 feet within line of sight.
- Wood shelving in the janitor's room must be replaced.
- Cold storage assembly must be increased to 320 square feet to meet student population needs.

PRIORITY 1 – 0 to 5 Years

- Replace or significantly renovate masonry and flashing beneath metal roof eaves within.
- Remove and replace all masonry expansion/control joint seals and unsealed penetrations.
- Install prefinished sheet metal transition flashing at window sills .
- Replace or renovate existing windows beneath roof eaves within.
- Replace or trim glazing gaskets and wet-seal existing window systems.
- Replace insulated glass units that are fogged or no longer sealed.
- Immediate full carpet and VCT replacement is recommended.
- Replace original indoor air handlers and VAV boxes within 5 years
- Kitchen equipment rated as Priority 1 (poor condition) requires replacement within this window.
- Reference the "PA" and "Security" sections of the full assessment for individual component replacements or additions.

EXECUTIVE FINDINGS SUMMARY

MEADOR ELEMENTARY SCHOOL

PRIORITY 2 – 5 to 15 Years

- Replace interior lay-in ceilings within 5–10 years.
- Kitchen equipment rated as Priority 2 (poor/fair condition) requires replacement within this window.
- Conduct periodic roof moisture surveys beginning around Year 10 to evaluate need for partial or full replacement. Perform perimeter roof renovation if moisture is isolated. Perform full roof replacement if moisture is widespread and system performance declines.

PRIORITY 3 – 15 to 20 Years

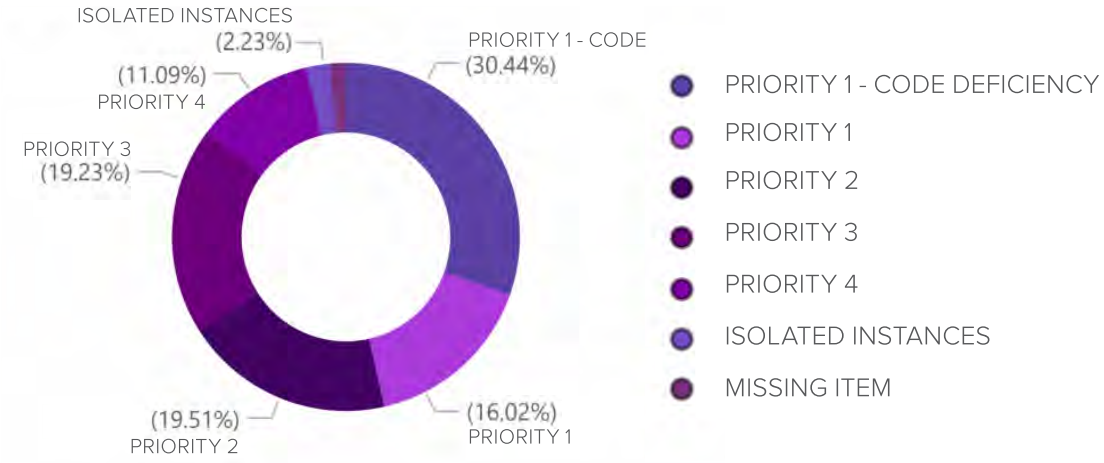
- Replace the music room AV system within 15–20 years.
- Replace the cafetorium AV system within 15–20 years.
- Replace the cafetorium sound system within 15–20 years..
- Kitchen equipment rated as Priority 3 (fair condition) requires replacement within this window.

PRIORITY 4 – 20+ Years

- Replace chillers installed in 2023 within 20–25 years.
- Replace the library AV system within 20+ years.
- Replace all window and door assemblies within 20+ years.
- Replace roof systems within 20+ years, based on moisture survey findings.
- Kitchen equipment rated as Priority 4 (good condition) requires replacement within this window.

EXECUTIVE FINDINGS SUMMARY

PARMLEY ELEMENTARY SCHOOL



Parmley Elementary School, originally constructed in 1987 with additions in 2003, 2008, and 2022, shows significant aging across building envelope components, window systems, interior finishes, and kitchen equipment. Several envelope issues—including failed sealants, deteriorating window systems, and moisture-related deterioration—require near-term corrective replacement. Technology and security systems require substantial modernization, including AV upgrades and replacements of non-compliant security devices. Interior casework, flooring, ceilings, and select kitchen equipment show fair-to-poor condition consistent with lifecycle replacement needs. Mechanical systems added in 2022 are performing well and will require only long-term renewal. Key items are summarized below. See the full campus Executive Findings for detailed observations and recommendations.

PRIORITY 1 - Code Deficiency

- Restrooms require modifications to correct non-compliant clearances, knee space restrictions, and fixture placement issues.
- Paper towel dispensers, Promethean boards, and other protruding objects must be corrected to meet ADA/TAS projection limits.
- Accessible routes are required to all playgrounds and outdoor instructional areas.
- An ADA-compliant restroom must be added to the cafeteria during future renovations.Room signage throughout the facility must be replaced to comply with ADA tactile and Braille standards.

PRIORITY 1 – 0 to 5 Years

- Replace concrete wall panel joint sealants and unsealed penetrations within 0–5 years.
- Replace deteriorated steel-framed punched window assemblies within 1–2 years.
- Install sheet-metal transition flashing at window sills within 1–2 years.
- Replace deteriorated glazing gaskets and wet-seal window systems within 1–2 years.
- Replace insulated glass units exhibiting fogging or failed seals within 1–2 years.
- Replace casework throughout the facility due to widespread poor condition within 0–5 years.
- Replace the cafeteria AV system and sound system within 1–2 years.
- All exterior doors should be equipped immediately with door contacts to electronically monitor door status and provide forced-entry or propped-door alerts through the access control system.
- Replace all Hikvision security cameras immediately with NDAA-compliant Hanwha cameras.

EXECUTIVE FINDINGS SUMMARY

PARMLEY ELEMENTARY SCHOOL

- Kitchen equipment rated as Priority 1 (poor condition) requires replacement within this window.
- Reference the “PA” and “Security” sections of the full assessment for individual component replacements or additions.

PRIORITY 2 – 5 to 15 Years

- Replace all window and door systems campus-wide within 5–10 years.
- Replace carpet within 10–15 years.
  Replace LVT flooring within 7–10 years.
- Replace interior door panels within 10 years.
- Conduct periodic roof moisture surveys beginning around Year 10 to evaluate need for partial or full replacement. Perform perimeter roof renovation if moisture is isolated. Perform full roof replacement if moisture is widespread and system performance declines.

PRIORITY 3 – 15 to 20 Years

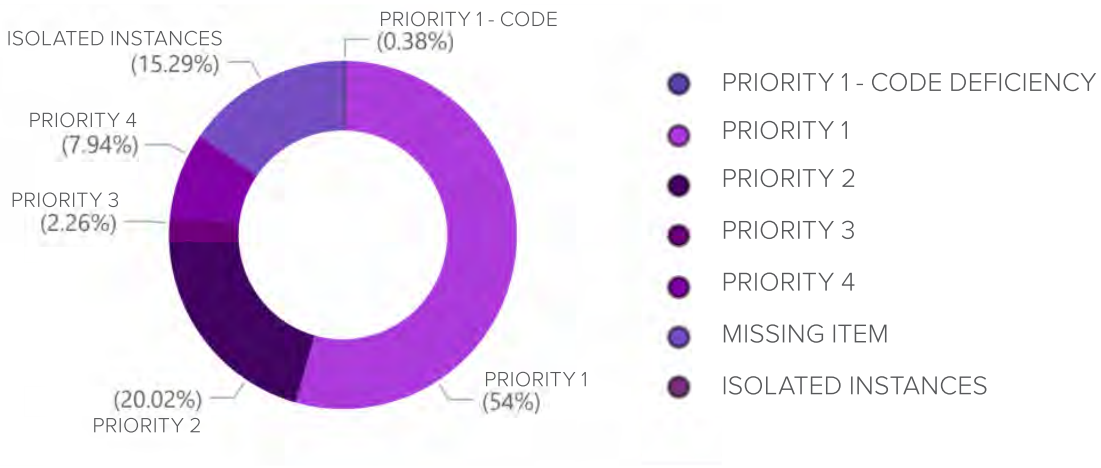
- Replace cafeteria A/V system and sound system again at approximately 15–20 years of service life after the 1-2 year replacement.
- Replace library A/V system at 15–20 years of service life after the 3–5 year replacement.
- Kitchen equipment rated as Priority 3 (fair condition) requires replacement within this window.

PRIORITY 4 – 20+ Years

- Replace mechanical systems installed in 2022 within 20–25 years.
- Replace all window and door assemblies again within 20–25 years if not previously replaced.
- Replace roof systems within 20–25 years based on performance and moisture survey results.
- Kitchen equipment rated as Priority 4 (good condition) requires replacement within this window.

EXECUTIVE FINDINGS SUMMARY

BRABHAM MIDDLE SCHOOL



Brabham Middle School, originally constructed in 2003 with additions and major improvements in 2008, 2014, and 2022, is an aging campus with widespread building envelope deterioration, window and glazing failures, and several areas where drainage and flashing conditions require corrective action. Interior finishes such as flooring, casework, and ceilings show notable wear, while kitchen equipment includes numerous fair-to-poor components requiring near-term replacement. AV and sound systems in the cafeteria and gymnasium require immediate upgrades, and the security system needs comprehensive modernization, including replacing non-compliant cameras and expanding access control coverage. Mechanical equipment added during the 2022 improvements is in good condition but will require long-term lifecycle replacement. Key items are summarized below. See the full campus Executive Findings for detailed observations and recommendations.

PRIORITY 1 - Code Deficiency

- Eyewash stations in science labs may qualify as protruding objects and require adjustment.
- Ceiling-mounted and wall-mounted televisions that extend below the 6’-8” clearance limit must be remounted or adjusted.
- Paper towel dispensers not placed above counters and those reducing sink clearance must be corrected.
- Single-user restrooms between group restrooms require review for ADA-compliant fixture clearances.
- Recirculating hoods in science labs require removal or replacement with code-compliant Ansul systems.

PRIORITY 1 – 0 to 5 Years

- Replace deteriorated punched window assemblies and failed perimeter sealants.
- Install sheet-metal transition flashing at window sills where flashing is missing.
- Replace glazing gaskets and wet-seal window systems showing failure.
- Replace insulated glass units that are fogged or have failed seals.
- Replace casework throughout classrooms and support areas, excluding the 2017 addition.
- Replace damaged or deteriorated flooring in locations identified as poor condition.
- Replace carpet in academic areas within 1–2 years, excluding at the 2017 addition.
- Replace the cafeteria AV system and sound system within 1–2 years, including projector, motorized screen, control system, HDMI input, and wireless presentation.
- Replace AV systems in Band, Band Hall, Choir, and Performance spaces within 1–2 years.

EXECUTIVE FINDINGS SUMMARY

BRABHAM MIDDLE SCHOOL

- Replace sound systems in both gyms, Band, Band Hall, and Choir within 1–2 years.
- All exterior doors should be equipped immediately with door contacts to electronically monitor door status and provide forced-entry or propped-door alerts through the access control system.
- Replace all Hikvision security cameras immediately with NDAA-compliant Hanwha cameras.
- Kitchen equipment rated as Priority 1 (poor condition) requires replacement within this window.
- Reference the “PA” and “Security” sections of the full assessment for individual component replacements or additions.

PRIORITY 2 – 5 to 15 Years

- Replace all window and door systems campus-wide within 5–10 years.
- Replace carpet in administration areas within 5–10 years.
- Replace LVT flooring in the 2017 addition within 5–10 years.
- Replace lay-in ceiling systems within 5–10 years.
- Kitchen equipment rated as Priority 2 (poor/fair condition) requires replacement within this window.
- Conduct periodic roof moisture surveys beginning around Year 10 to evaluate need for partial or full replacement. Perform perimeter roof renovation if moisture is isolated. Perform full roof replacement if moisture is widespread and system performance declines.

PRIORITY 3 – 15 to 20 Years

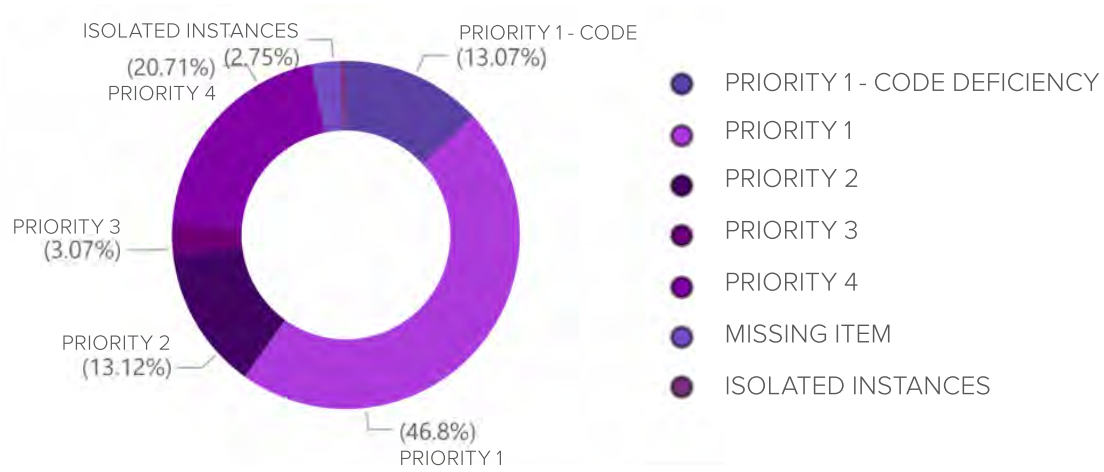
- Replace cafeteria AV and sound systems again within 15–20 years.
- Replace AV and sound systems in Band, Band Hall, Choir, and both gyms within 15–20 years.
- Replace any remaining flooring that reaches end-of-life within 15–20 years.
- Replace indoor AHUs and VAV boxes within 15–20 years.
- Kitchen equipment rated as Priority 3 (fair condition) requires replacement within this window.

PRIORITY 4 – 20+ Years

- Replace mechanical rooftop systems and chillers installed in 2021 within 20–25 years.
- Replace full window and door assemblies again within 20–25 years if not replaced earlier.
- Replace roof systems within 20–25 years based on moisture survey findings.
- Kitchen equipment rated as Priority 4 (good condition) requires replacement within this window.

EXECUTIVE FINDINGS SUMMARY

LYNN LUCUS MIDDLE SCHOOL



Lynn Lucas Middle School, constructed in 1984 with a major 1999 classroom wing addition and multiple renovations including HVAC replacements in 2010 and 2022, exhibits significant deficiencies in exterior masonry, glazing systems, casework, flooring, ceilings, roofing components, and aging mechanical systems. Window assemblies, flashing, and door hardware show deterioration that requires short-term replacement, while the roof system contains multiple failing perimeter and penetration flashings that will require moisture-driven renewal. Interior finishes, including ceilings, carpet, tile, and casework, have defined replacement windows, and several AV, sound, and stage systems are at end-of-life. Security systems require district-standard upgrades including camera replacement and additional coverage. Key items are summarized below. See the full campus Executive Findings for detailed observations and recommendations.

PRIORITY 1 - Code Deficiency

- Provide compliant accessible routes where existing routes are obstructed or noncompliant.
- Doors out of several spaces do not meet the minimum required 3’ clear width or lack proper push/pull clearances; widening or reconfiguration is required.
- Adjust or relocate protruding objects that exceed the 4-inch projection limit along accessible paths.
- Correct restroom fixtures, grab bars, and accessories that are mounted outside ADA-compliant height ranges.
- Remedy drinking fountains that do not meet approach or knee-clearance requirements.
- Knob-style door hardware remains in use across numerous classrooms and must be replaced with lever-style hardware to meet accessibility standards
- Stage draperies do not comply with NFPA 701 flame-retardant requirements and require full replacement.
- Provide required accessible bleacher seating locations. Full bleacher replacement may be required.
- Room tags and signage are mounted above the maximum allowable 48” to braille height and require repositioning.

PRIORITY 1 – 0 to 5 Years

- The existing auditorium north end roof is recommended to have an immediate full replacement with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system.
- Replace carpet in the older main building within 2–7 years, with the choir room requiring immediate replacement due to critically poor condition.
- Replace or trim glazing gaskets and wet-seal window systems.
- Replace deteriorated perimeter glazing and door sealants.

EXECUTIVE FINDINGS SUMMARY

LYNN LUCUS MIDDLE SCHOOL

- Install prefinished sheet metal transition flashing at window sills to correct unsealed or moisture-sensitive conditions.
- Replace stage rigging hardware within 3–5 years.
- Replace stage lighting system within 3–5 years.
- Replace the cafeteria AV system and sound system within 3–5 years.
- All exterior doors should be equipped immediately with door contacts to electronically monitor door status and provide forced-entry or propped-door alerts through the access control system.
- Replace all Hikvision security cameras immediately with NDAA-compliant Hanwha cameras.
- Kitchen equipment rated as Priority 1 (poor condition) requires replacement within this window.
- Reference the “PA” and “Security” sections of the full assessment for individual component replacements or additions.

PRIORITY 2 – 5 to 15 Years

- Replace VCT in the main building, excluding the 2022 addition, within 10 years.
- Replace carpet in the 2022 science addition within 7-12 years.
- Replace ceilings in the older main building, excluding the 2022 addition, within 5–10 years.
- Replace ceilings in the 2022 science addition within 12–17 years.
- Replace casework within 10–15 years.
- Replace deteriorated roof expansion joint assemblies.
- Kitchen equipment rated as Priority 2 (poor/fair condition) requires replacement within this window.
- Conduct periodic roof moisture surveys beginning around Year 10 to evaluate need for partial or full replacement, especially at roof areas A1, A2, A7, A8, and A9 (refer to the roof plan provided in the facility executive findings report). Perform perimeter roof renovation if moisture is isolated. Perform full roof replacement if moisture is widespread and system performance declines.

PRIORITY 3 – 15 to 20 Years

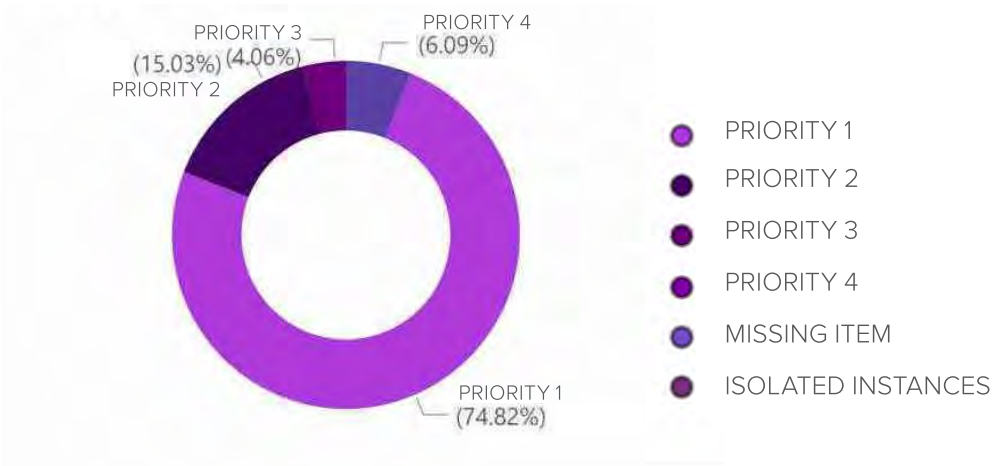
- Replace LVT flooring in the 2022 science addition within 15–20 years per lifecycle expectations.
- Kitchen equipment rated as Priority 3 (fair condition) requires replacement within this window.

PRIORITY 4 – 20+ Years

- Replace casework in the 2022 science addition at the end of its typical 20–25-year lifecycle.
- Full replacement of all exterior window and door assemblies is reommended.
- Kitchen equipment rated as Priority 4 (good condition) requires replacement within this window.

EXECUTIVE FINDINGS SUMMARY

WILLIS HIGH SCHOOL



Willis High School, constructed in 1996 with major additions including the CTE Center, Agricultural Science Center, Athletics additions (2018), and Performing Arts Center (2019), contains a mixture of older systems at end of service life and newer building components still within their functional lifespan. The exterior masonry, glazing, and roofing systems show areas requiring replacement or remediation; the interior flooring and ceilings need renewal within identified timeframes, and several AV, sound, technology, security, and kitchen components require upgrades or expansion. Core mechanical systems also have defined replacement windows based on installation year and reported performance. Key items are summarized below. See the full campus Executive Findings for detailed observations and recommendations.

PRIORITY 1 – 0 to 5 Years

- Modify all brick masonry sills to add slope and integrate sheet-metal sill flashing.
- Remove and replace all masonry expansion and control joint sealants.
- Remove and replace unsealed wall penetrations in the masonry veneer.
- Investigate masonry efflorescence at the Performing Arts Center and include up to 500 SF of brick and concealed air and thermal barrier replacement.
- Replace glazing gaskets and wet-seal existing window systems where required to maintain water resistance.
- Replace all steel-framed window and door units with new thermally improved aluminum-framed systems.
- Replace insulated glass units that exhibited fogging or staining.
- Replace deteriorated weatherstripping and threshold seals at door assemblies.
- Investigate and repair the large curb-mounted skylight assembly.
- Replace cafeteria AV system within 1–2 years.
- Replace cafeteria sound system within 3–5 years.
- Replace Black Box AV system and sound system within 3–5 years.
- Replace Drama Lab AV system and sound system within 3–5 years.
- All exterior doors should be equipped immediately with door contacts to electronically monitor door status and provide forced-entry or propped-door alerts through the access control system.
- Replace all Hikvision security cameras immediately with NDAA-compliant Hanwha cameras.
- Kitchen equipment rated as Priority 1 (poor condition) requires replacement within this window.
- Reference the “PA” and “Security” sections of the full assessment for individual component replacements or additions.

EXECUTIVE FINDINGS SUMMARY

WILLIS HIGH SCHOOL

PRIORITY 2 – 5 to 15 Years

- Replace VCT flooring throughout the building in 10–15 years.
- Replace carpet throughout the building in 5–10 years.
- Replace casework throughout the main building in approximately 5–10 years.
- Replace glazing and door assemblies not replaced immediately as they approach the Year-10 replacement window.
- Replace the TPO roofing system at approximately Year 10 based on typical service life expectations.
- Replace the modified bitumen roof coating between Years 10–15 following a moisture survey.
- Replace deteriorated roof expansion joint assemblies.
- Replace the primary chiller between 5–15 years from the time of this report.
- Replace fan-coil units within 5–10 years due to age and performance issues.
- Replace clerestory window assemblies exhibiting fogging and staining if not replaced earlier.
- Replace auditorium AV, theatrical sound, and related components in 8–10 years
- Kitchen equipment rated as Priority 2 (poor/fair condition) requires replacement within this window.

PRIORITY 3 – 15 to 20 Years

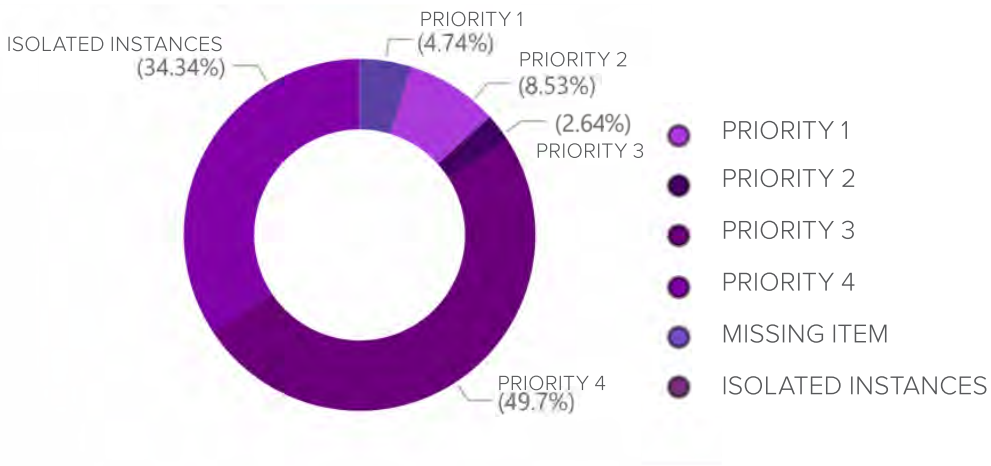
- Replace gym backboards in approximately 15–20 years.
- Kitchen equipment rated as Priority 3 (fair condition) requires replacement within this window.

PRIORITY 4 – 20+ Years

- Replace newly installed indoor air handler units (2023) in 20–25 years.
- Replace the pony chiller scheduled for replacement in 2025 again in 20–25 years.
- Replace remaining glazing and door units reaching end of service life beyond 20 years.
- Replace long-term theatrical rigging, lighting, and AV components beyond 20 years.
- Kitchen equipment rated as Priority 4 (good condition) requires replacement within this window.

EXECUTIVE FINDINGS SUMMARY

CAREER AND TECHNOLOGY CENTER



The Career & Technology Center, constructed in 2018 as part of a major expansion to Willis High School, remains in generally good condition with building systems, interior finishes, and exterior assemblies performing as expected for a facility of its age. Observed issues are largely related to sealants, metal panel closures, window and door gasket conditions, roofing transitions, and isolated substrate or flashing deficiencies. AV and sound systems in instructional specialty spaces require defined replacements, and security systems require immediate upgrades for compliance and coverage. The facility's flooring, ceiling systems, and MEP systems will reach replacement windows farther into the building's lifecycle. Key items are summarized below. See the full campus Executive Findings for detailed observations and recommendations.

PRIORITY 1 – 0 to 5 Years

- Replace glazing gaskets and wet-seal window systems where short or aged gaskets were observed, to maintain water resistance.
- Replace missing or omitted sealant at window metal-to-metal joints where no sealant was present.
- Repair the wiring-support sealant pocket flashing at Roof Area No. 3 where crazed and deteriorated sealant was observed.
- Repair failed sealant conditions at static vent stacks associated with the culinary exhaust area.
- Address roof areas with unadhered membrane, unsupported substrate conditions, and patch repairs requiring corrective work.
- Replace damaged toilet partition that was observed in restroom facilities.
- Replace the full AV system in the Culinary classroom within 3–5 years.
- Replace the full AV system and sound system in the Large Group Instruction space within 5–7 years.
- Replace the full sound system in the Control Room / Studio within 5–7 years.
- Replace all Hikvision security cameras immediately with NDAA-compliant Hanwha cameras.
- Reference the "PA" and "Security" sections of the full assessment for individual component replacements or additions.

EXECUTIVE FINDINGS SUMMARY

CAREER AND TECHNOLOGY CENTER

PRIORITY 2 – 5 to 15 Years

- Replace stucco sealants and elastomeric coatings at 10–15-year intervals as noted in the stucco recommendations.
- Replace sealants at CMU and brick masonry interfaces at 10–15-year intervals.
- Replace any omitted, missing, or loose metal panel closures within the 10–20-year window as recommended.
- Replace carpet flooring at the end of its service life in 10–12 years.
- Conduct periodic roof moisture surveys beginning around Year 10 to address any significant areas of concern. If the roofing system is dry, coating of membrane may be considered to restore continuity, including replacement of all roof flashings. If the roofing system is wet, the existing single-ply roofing system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system..

PRIORITY 3 – 15 to 20 Years

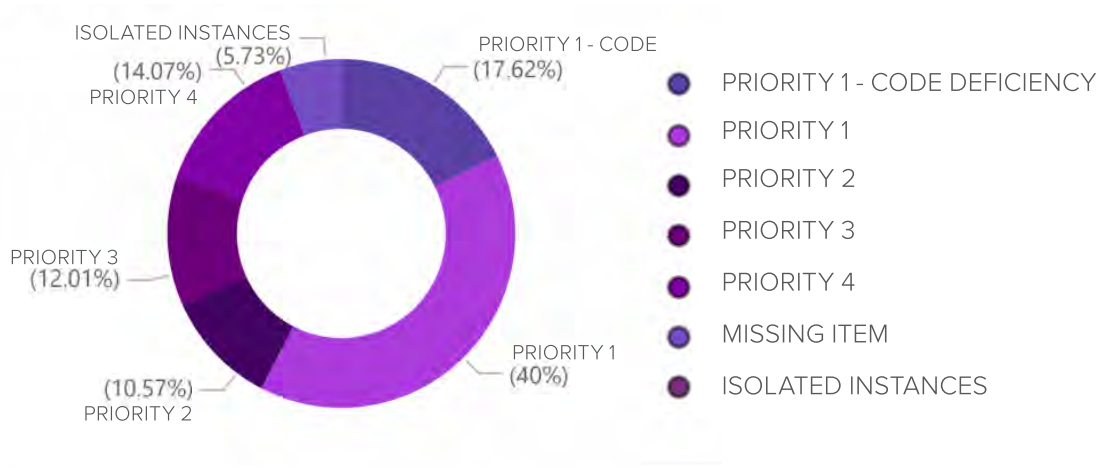
- Replace mechanical equipment within 15–20 years, as all MEP systems are original to 2018 and in good condition.
- Replace lighting systems within 15–20 years, consistent with building age and expected service life.

PRIORITY 4 – 20+ Years

- Replace LVT flooring at the end of its service life in 20–25 years.
- Replace lay-in ceiling systems at the end of their service life in 20–25 years.
- Kitchen equipment rated as Priority 4 (good condition) requires replacement within this window.

EXECUTIVE FINDINGS SUMMARY

AG SCIENCE CENTER



The Agricultural Science Center, constructed in 2018 as part of the High School expansion, is a pre-manufactured facility supporting livestock and agricultural education programs. Overall, the building's systems, finishes, and envelope components remain in good condition, with most recommendations focused on localized sealant deterioration, aging glazing system gaskets, minor roof-related deficiencies, and future lifecycle replacements. Security system upgrades requiring immediate implementation are also identified. Interior flooring, ceilings, lighting, casework, and MEP systems are performing as expected for a building of this age. Key items are summarized below. See the full campus Executive Findings for detailed observations and recommendations.

PRIORITY 1 - Code Deficiency

- One sink does not provide the required 3'-0" clear floor approach and requires correction.

PRIORITY 1 – 0 to 5 Years

- Investigate the wall area exhibiting efflorescence and perform corrective work as required to eliminate air leakage or discontinuities in the wall assembly.
- Add continuous sheet-metal closures at CMU wall interfaces where openings or gaps were observed.
- Remove and replace deteriorated masonry and metal panel sealants where cracking or failure was identified.
- Replace or trim glazing gaskets and wet-seal window systems where short or aging gaskets were observed.
- Repair the sealant pocket flashing at Roof Area No. 3 where crazed or deteriorated sealant was documented.
- Repair failed sealant at static vent stacks serving the exhaust system.
- Correct unsealed aluminum head flashing and inadequate weatherstripping at storefront door assemblies.
- Replace the outdoor sound system due to corroded speakers and brackets.
- Replace all Hikvision security cameras immediately with NDAA-compliant Hanwha cameras.
- Reference the "PA" and "Security" sections of the full assessment for individual component replacements or additions.

PRIORITY 2 – 5 to 15 Years

- Replace sealants at CMU and brick masonry interfaces at 10–15-year intervals as recommended in the report.
- Replace stucco sealants and elastomeric coatings at 10–15-year intervals as recommended.
- Replace omitted, missing, or loose metal panel closures within the 10–20-year window as documented.

EXECUTIVE FINDINGS SUMMARY

AG SCIENCE CENTER

- Conduct periodic roof moisture surveys beginning around Year 10 to address any significant areas of concern. If the roofing system is dry, coating of membrane may be considered to restore continuity, including replacement of all roof flashings. If the roofing system is wet, the existing single-ply roofing system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system..

PRIORITY 3 – 15 to 20 Years

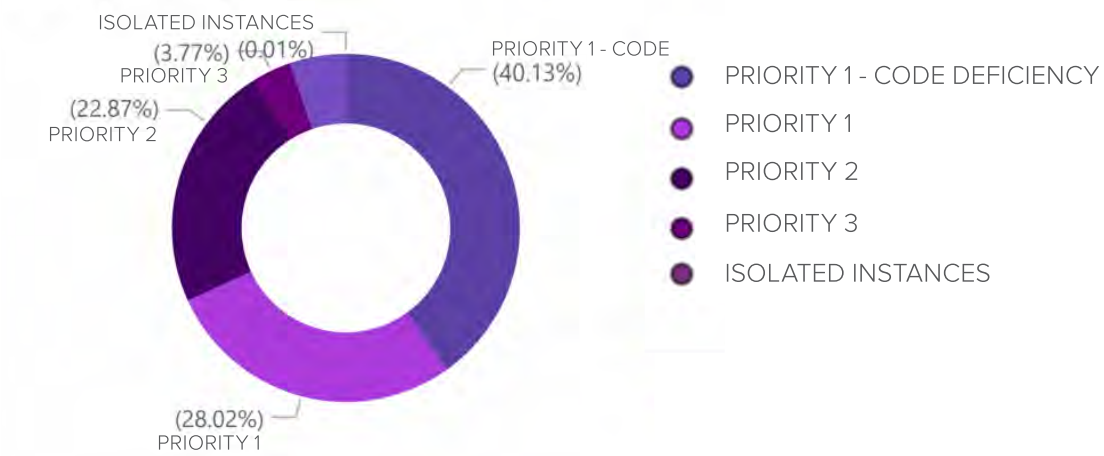
- Replace mechanical equipment within 15–20 years, as all systems are original to 2018 and currently in good condition.
- Replace lighting systems within 15–20 years based on expected system age.

PRIORITY 4 – 20+ Years

- Replace LVT flooring at the end of its service life in 20–25 years.
- Replace lay-in ceiling systems at the end of their service life in 20–25 years.

EXECUTIVE FINDINGS SUMMARY

STUBBLEFIELD ACADEMY AND HOPE ACADEMY



Stubblefield Academy, originally constructed in 1955 with additions in 1962 and 1975, has undergone multiple renovations over the years but now exhibits aging envelope components, deteriorated sealants, foundation-related masonry issues, fogged window units, and roof flashing conditions requiring near-term attention. Interior finishes, ceilings, and flooring show wear consistent with age and are approaching replacement windows. Mechanical equipment installed in 2003 has reached the end of its expected service life, and security, AV, and sound systems require immediate upgrades and replacements. Key items are summarized below. See the full campus Executive Findings for detailed observations and recommendations.

PRIORITY 1 - Code Deficiency

- Provide an accessible path of travel to all portable classrooms as required for ADA compliance.
- Replace all existing room signage to correct mounting height and provide compliant tactile lettering and Braille.
- Remove secondary light covers placed over fluorescent fixtures because they may pose a fire hazard; upgrade lighting to color-changing or dimmable LED fixtures or re-zone lighting to eliminate the need for covers.
- Lavatories currently do not provide hot water. While the addition of hot water is not presently required, it is recommended for code compliance. Any future renovations involving plumbing fixtures would necessitate that the building be brought up to current code standards.

PRIORITY 1 – 0 to 5 Years

- Repair cracked and displaced concrete and masonry units following structural evaluation. Coat all exterior faces of CMU with a silicone elastomeric coating after repairs.
- Replace all fluorescent lighting with LED fixtures immediately to correct low lighting levels and reduce energy use.
- Remove and replace masonry expansion and control joint sealants and unsealed wall penetrations.
- Install prefinished sheet-metal transition flashing at window sills.
- Replace or significantly renovate the existing windows beneath the metal roof eaves.
- Replace or trim glazing gaskets and wet-seal existing window systems to assist with water resistance.
- Replace insulated glass units where fogging or loss of seal was observed.
- Replace the Large Café AV system and sound system within 3–5 years.
- Replace the Conference Room AV system within 3–5 years.
- Install Promethean panels in all classrooms that currently lack them.

EXECUTIVE FINDINGS SUMMARY

STUBBLEFIELD ACADEMY AND HOPE ACADEMY

- All exterior doors should be equipped immediately with door contacts to electronically monitor door status and provide forced-entry or propped-door alerts through the access control system.
- Replace all Hikvision security cameras immediately with NDAA-compliant Hanwha cameras.
- Reference the “PA” and “Security” sections of the full assessment for individual component replacements or additions.

PRIORITY 2 – 5 to 15 Years

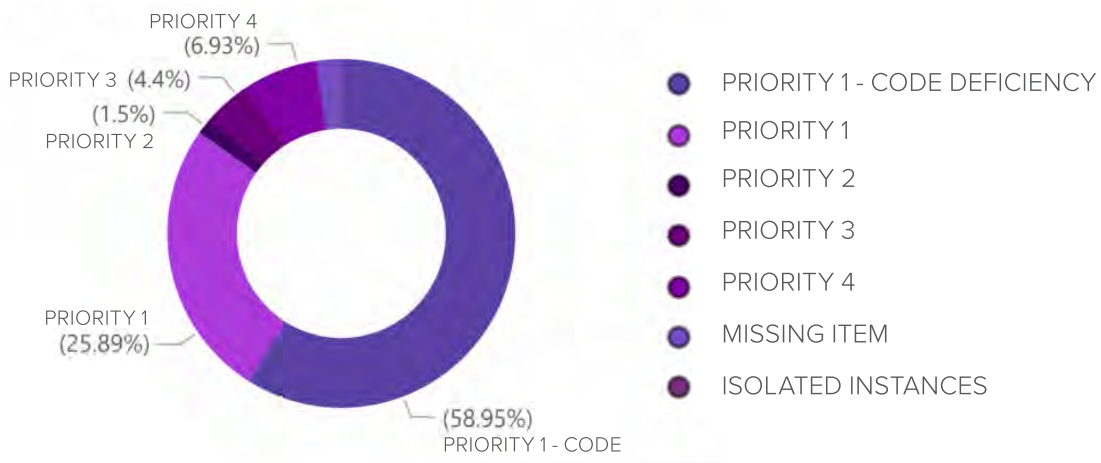
- Replace sealants and elastomeric coatings at masonry and CMU interfaces at 10–15-year intervals.
- Replace metal panel closures that are missing, loose, or omitted within the 10–20-year window.
- Replace carpet and VCT flooring in the next 10 years.
- Replace the lay-in ceiling system within 7–10 years.
- Conduct periodic roof moisture surveys beginning around Year 5 to address any significant areas of concern. If the roofing system is wet, the existing single-ply roofing system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system or alternatively replace the membrane roof with a standing-seam metal roofing system with new underlayment, insulation, and flashings. If roof replacement is required, include new vapor barrier, rigid and tapered insulation, gypsum coverboard, new metal flashings, gutters, and downspouts.

PRIORITY 3 – 15 to 20 Years

- Replace mechanical split-system HVAC units installed in 2003, as they have reached the end of their expected lifecycle.

EXECUTIVE FINDINGS SUMMARY

YATES STADIUM



Berton A. Yates Stadium, constructed in 1974 with improvements over time, exhibits age-related deterioration in masonry walls, metal panels, sealants, roofing interfaces, and interior finishes. The field house and pressbox show wear consistent with their age, including damaged VCT flooring, deteriorated counters, aging shingles, and rusted or corroded exterior assemblies. Sound systems and security infrastructure require immediate upgrades. Key items are summarized below. See the full campus Executive Findings for detailed observations and recommendations.

PRIORITY 1 - Code Deficiency

- Correct restroom and shower stalls that do not provide accessible layout or required clearances.
- Correct the AV rack that protrudes into the accessible path of travel.
- Correct sinks that do not meet ADA height or clearance requirements.
- Correct the recessed floor area at the ice machine that does not comply with ADA standards.
- Correct accessibility routes to bleachers where compliance was not achieved.

PRIORITY 1 – 0 to 5 Years

- Remove and replace deteriorated and damaged corrugated metal wall panels where corrosion and section loss were observed.
- Repair masonry areas with open or exposed cores, cracked projections, or unsealed penetrations.
- Immediate replacement of the VCT flooring in the pressbox is recommended due to poor condition.
- Replace the pressbox counter due to poor condition.
- Replace the field sound system immediately due to rusted speakers and deteriorated equipment.
- Replace the weight room sound system immediately due to broken or outdated components.
- Replace all Hikvision security cameras immediately with NDAA-compliant Hanwha cameras.
- Reference the “Security” sections of the full assessment for individual component replacements or additions.
- Kitchen equipment rated as Priority 1 (poor condition) requires replacement within this window.

PRIORITY 2 – 5 to 15 Years

- Replace metal panel closures that are missing, loose, or omitted within this window.
- Replace asphalt shingle roofing at concessions buildings between 10 and 20 years as stated in the report.
- Replace sealants and elastomeric coatings at masonry and CMU interfaces at 10–15-year intervals.
- Kitchen equipment rated as Priority 2 (poor/fair condition) requires replacement within this window.

EXECUTIVE FINDINGS SUMMARY

YATES STADIUM

PRIORITY 3 – 15 to 20 Years

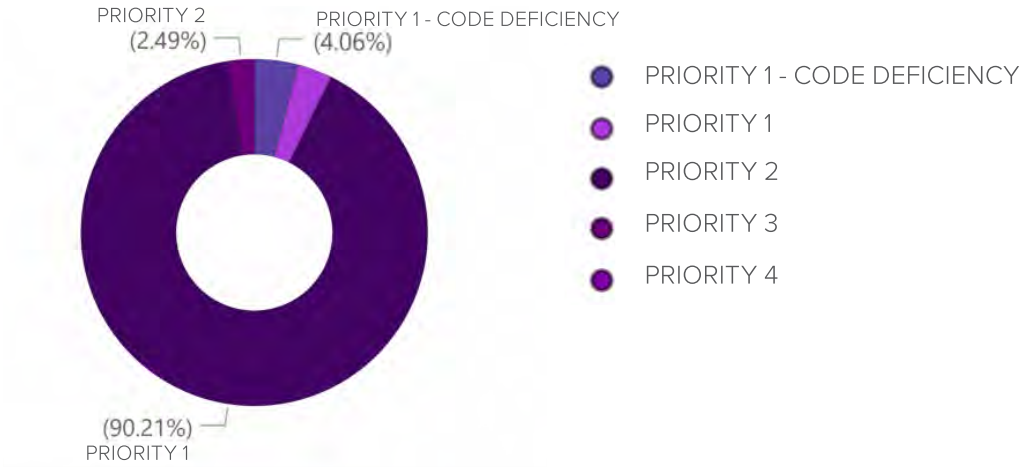
- Replace lay-in ceiling systems in the field house when they reach the end of their 15–20-year service life.
- Replace casework in the field house at the end of its 15–20-year service life.
- Kitchen equipment rated as Priority 3 (fair condition) requires replacement within this window.

PRIORITY 4 – 20+ Years

- Replace asphalt shingle roof systems at 20-year intervals.
- Replace the modified bitumen pressbox roof after its expected service life through approximately 2042.
- Kitchen equipment rated as Priority 4 (good condition) requires replacement within this window.

EXECUTIVE FINDINGS SUMMARY

BLYTHE CALFEE TENNIS CENTER



Berton A. Yates Stadium, constructed in 1974 with improvements over time, exhibits age-related deterioration in masonry walls, metal panels, sealants, roofing interfaces, and interior finishes. The field house and pressbox show wear consistent with their age, including damaged VCT flooring, deteriorated counters, aging shingles, and rusted or corroded exterior assemblies. Sound systems and security infrastructure require immediate upgrades. Key items are summarized below. See the full campus Executive Findings for detailed observations and recommendations.

PRIORITY 1 - Code Deficiency

- Correct restroom and shower stalls that do not provide accessible layout or required clearances.
- Correct the AV rack that protrudes into the accessible path of travel.
- Correct sinks that do not meet ADA height or clearance requirements.
- Correct the recessed floor area at the ice machine that does not comply with ADA standards.
- Correct accessibility routes to bleachers where compliance was not achieved.

PRIORITY 1 – 0 to 5 Years

- Remove and replace deteriorated and damaged corrugated metal wall panels where corrosion and section loss were observed.
- Repair masonry areas with open or exposed cores, cracked projections, or unsealed penetrations.
- Immediate replacement of the VCT flooring in the pressbox is recommended due to poor condition.
- Replace the pressbox counter due to poor condition.
- Replace the field sound system immediately due to rusted speakers and deteriorated equipment.
- Replace the weight room sound system immediately due to broken or outdated components.
- Replace all Hikvision security cameras immediately with NDAA-compliant Hanwha cameras.
- Reference the “Security” sections of the full assessment for individual component replacements or additions.
- Kitchen equipment rated as Priority 1 (poor condition) requires replacement within this window.

PRIORITY 2 – 5 to 15 Years

- Replace metal panel closures that are missing, loose, or omitted within this window.
- Replace asphalt shingle roofing at concessions buildings between 10 and 20 years as stated in the report.
- Replace sealants and elastomeric coatings at masonry and CMU interfaces at 10–15-year intervals.
- Kitchen equipment rated as Priority 2 (poor/fair condition) requires replacement within this window.

EXECUTIVE FINDINGS SUMMARY

BLYTHE CALFEE TENNIS CENTER

PRIORITY 3 – 15 to 20 Years

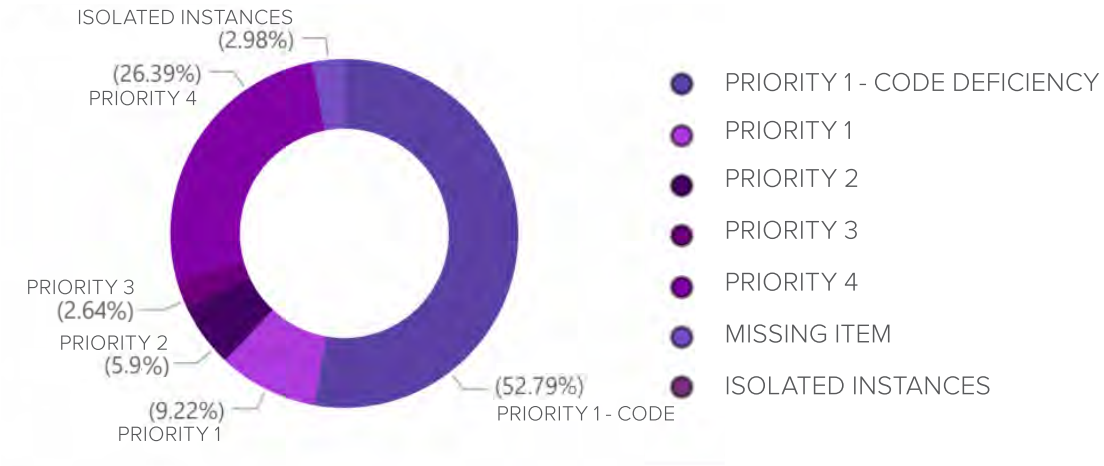
- Replace lay-in ceiling systems in the field house when they reach the end of their 15–20-year service life.
- Replace casework in the field house at the end of its 15–20-year service life.
- Kitchen equipment rated as Priority 3 (fair condition) requires replacement within this window.

PRIORITY 4 – 20+ Years

- Replace asphalt shingle roof systems at 20-year intervals.
- Replace the modified bitumen pressbox roof after its expected service life through approximately 2042.
- Kitchen equipment rated as Priority 4 (good condition) requires replacement within this window.

EXECUTIVE FINDINGS SUMMARY

CARGILL / WILDKAT RESOURCE CENTER



The Cargill / Wildkat Resource Center, originally constructed in 1939 and modified multiple times over the decades, exhibits age-related deterioration in its masonry walls, precast components, glazing systems, roofing assemblies, interior wood flooring, and mechanical systems. Exterior cracking, spalling, displaced brick, corrosion at lintels, unsealed penetrations, and aging sealants indicate the need for near-term repairs and long-term restoration. Window and door assemblies are at or beyond the end of their service life, while roofing systems—both the barrel roof and the lower built-up roofing system—require evaluation, repair, and eventual replacement. Carpeted areas and ceilings approach their recommended replacement windows, and the residential split mechanical systems have reached the end of their expected service life. Security upgrades are required to meet district standards. Key items are summarized below. See the full campus Executive Findings for detailed observations and recommendations.

PRIORITY 1 - Code Deficiency

- All restrooms are non-compliant and require full reconfiguration to provide proper grab bars, knee clearance, and fixture spacing.
- Sidewalk areas with heaving or sinking require remediation to correct accessibility concerns.

PRIORITY 1 – 0 to 5 Years

- Repair cracked, displaced, or spalled masonry and concrete from foundation displacement. Note: the observed cracking appears to be cosmetic in nature and does not compromise the structural integrity or load-bearing capacity of the building at this time, but should be monitored for any changes that could denote evolving changes.
- Replace or significantly renovate the windows located beneath the metal roof eaves.
- Install prefinished sheet-metal transition flashing at window sills to eliminate unsealed conditions.
- Replace or trim glazing gaskets and wet-seal existing storefront window systems.
- Repair surface-applied mastic areas, flashing deficiencies, and exposed asphalt at roof drainage interfaces at the barrel and built-up roofing systems as identified in the report.
- Replace all Hikvision security cameras immediately with NDAA-compliant Hanwha cameras.
- Reference the “Security” sections of the full assessment for individual component replacements or additions.
- Replace the intrusion detection system within 1–2 years due to unsupported legacy hardware.

EXECUTIVE FINDINGS SUMMARY

CARGILL / WILDKAT RESOURCE CENTER

PRIORITY 2 – 5 to 15 Years

- Replace carpeted areas within 5–7 years as recommended.
- Replace ceiling systems within 10–15 years based on observed condition.
- Replace underground sewer piping within 5–15 years if the district begins to experience recurring issues, as the original piping condition is unknown.
- Recoat CMU and masonry exterior surfaces as part of ongoing maintenance in this window, following restoration of the masonry assemblies.
- Conduct a full moisture survey of the barrel roof and the BUR roofing system around Year 10.
  If the roofing is found to be wet throughout, replace the systems with new fully adhered multi-ply modified bitumen assemblies including vapor barrier, rigid and tapered insulation, gypsum coverboard, new flashings, drainage assemblies, and stainless steel embedded flashings as specified in the report.

PRIORITY 3 – 15 to 20 Years

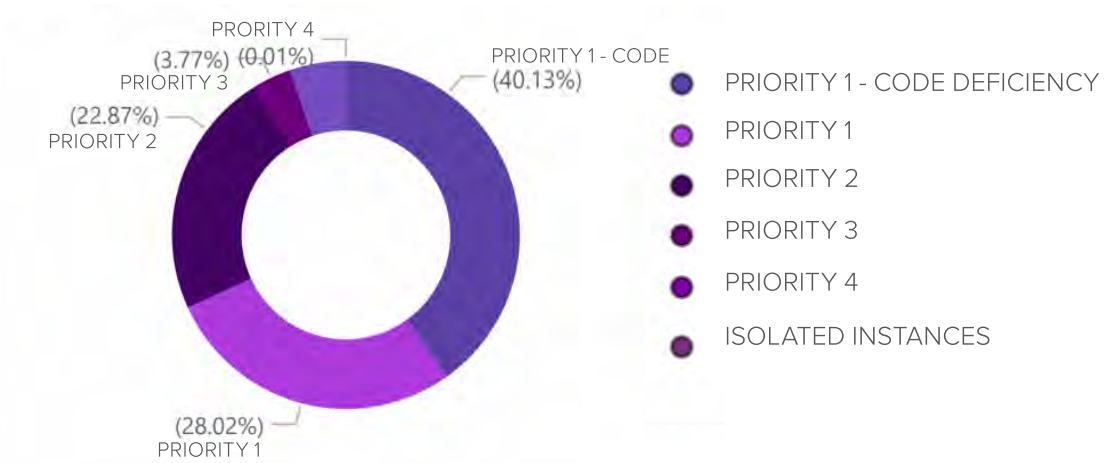
- Mechanical split-system HVAC units, which have reached the end of their expected life, should be scheduled for replacement in this timeframe if not replaced earlier.

PRIORITY 4 – 20+ Years

- Full replacement of all window and door assemblies is recommended beyond 20 years as part of long-term renewal where not already addressed earlier.

EXECUTIVE FINDINGS SUMMARY

CARGILL ANNEX



The Cargill Annex, originally constructed in 1922 with major interior renovations after a 1960s fire, now exhibits significant age-related deterioration in the foundation, masonry walls, window and door assemblies, roofing fasteners and flashings, interior finishes, ceilings, and mechanical systems. Exterior walls show cracking, spalling, staining, and deteriorated sealants that require structural evaluation and repair. The glazing and fenestration systems have reached the end of their service life, and the steep-slope metal roofing system requires fastener replacement, flashing upgrades, and long-term reroofing. Interior VCT flooring is widely failing, and the ceiling system requires replacement within the identified window. Existing residential HVAC units are at lifecycle replacement, and security system upgrades are necessary to align with district standards. Key items are summarized below. See the full campus Executive Findings for detailed observations and recommendations.

PRIORITY 1 - Code Deficiency

- The men's and women's group restrooms require full reconfiguration to correct non-compliant water closets, stalls, and lavatories.
- The break room requires installation of an accessible sink providing compliant knee clearance and reach ranges.
- Additional vinyl asbestos floor tile must be removed before major renovation work can occur.
- Sidewalk areas with heaving or sinking require remediation to restore accessible routes.

PRIORITY 1 – 0 to 5 Years

- Repair cracked, displaced, or spalled masonry and concrete from foundation displacement. Note: the observed cracking appears to be cosmetic in nature and does not compromise the structural integrity or load-bearing capacity of the building at this time, but should be monitored for any changes that could denote evolving changes.
- Investigate historic wall assemblies and materials to determine appropriate long-term preservation strategies.
- Remove and replace all fasteners at the metal wall panels with oversized fasteners and gaskets.
- Seal wall penetrations and metal-to-metal joints and replace all missing, loose, or deteriorated metal panel closures.
- Add or modify transition flashing at brick-to-masonry interfaces and apply an elastomeric coating after repairs.
- Replace all windows and non-aluminum door assemblies for a long-term solution due to end-of-life deterioration.
- Replace perimeter sealants, glazing gaskets, and weatherstripping at existing glazing systems as a short-term measure.
- Remove and reset or replace door thresholds to improve water resistance.

EXECUTIVE FINDINGS SUMMARY

CARGILL ANNEX

- Remove and replace all roofing fasteners with oversized fasteners and gaskets and replace penetration flashing sealants.
- Install new membrane and sheet-metal flashings at rake conditions.
- Replace widespread deteriorated VCT flooring throughout the facility.
- Remove and replace water-damaged ceiling tiles and identify and repair the source of moisture.
- Replace all Hikvision security cameras immediately with NDAA-compliant Hanwha cameras.
- Reference the “Security” sections of the full assessment for individual component replacements or additions.
- Replace the intrusion detection system within 1–2 years due to unsupported legacy hardware.

PRIORITY 2 – 5 to 15 Years

- Replace carpeted areas within 5–7 years as recommended.
- Replace ceiling systems within 10–15 years based on observed condition.
- Replace underground sewer piping within 5–15 years if the district begins to experience recurring issues, as the original piping condition is unknown.
- Recoat CMU and masonry exterior surfaces as part of ongoing maintenance in this window, following restoration of the masonry assemblies.
- Conduct a full moisture survey of the barrel roof and the BUR roofing system around Year 10.
  If the roofing is found to be wet throughout, replace the systems with new fully adhered multi-ply modified bitumen assemblies including vapor barrier, rigid and tapered insulation, gypsum coverboard, new flashings, drainage assemblies, and stainless steel embedded flashings as specified in the report.

PRIORITY 3 – 15 to 20 Years

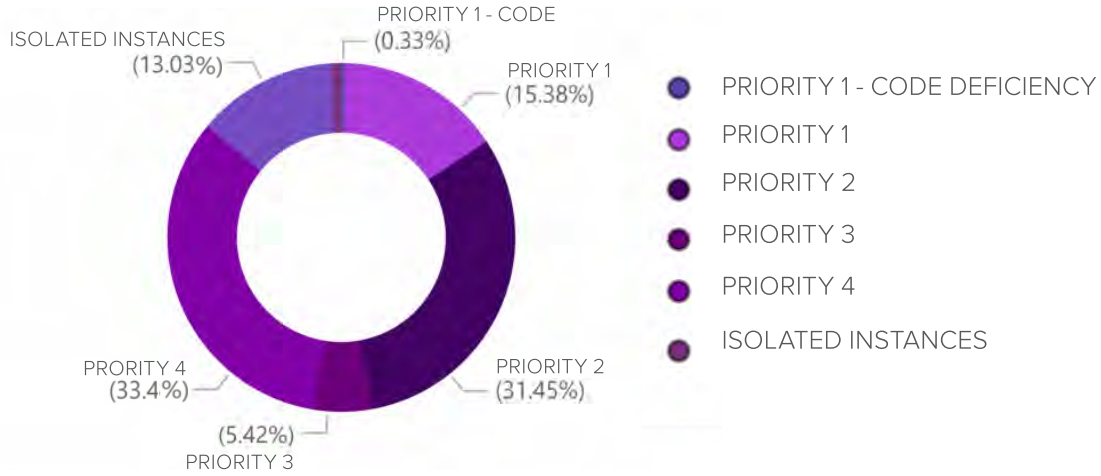
- Mechanical split-system HVAC units, which have reached the end of their expected life, should be scheduled for replacement in this timeframe if not replaced earlier.

PRIORITY 4 – 20+ Years

- Full replacement of all window and door assemblies is recommended beyond 20 years as part of long-term renewal where not already addressed earlier.

EXECUTIVE FINDINGS SUMMARY

WISD MAINTENANCE FACILITY



The WISD Maintenance Facility, constructed in 2002 with additions in 2014 and interior renovations in 2015, shows age-related deterioration in its metal wall panels, glazing systems, roofing components, flooring, ceilings, casework, and mechanical equipment. Exposed fastener corrosion, deteriorated gaskets, threshold separation, aging window seals, water-damaged ceilings, and widespread flooring wear indicate the need for near-term restoration and long-term lifecycle replacements. The mechanical system, consisting of residential split AC units with gas heat, has reached the end of its expected service life, and security system upgrades are required to meet district standards. Key items are summarized below. See the full campus Executive Findings for detailed observations and recommendations.

PRIORITY 1 - Code Deficiency

- A residential-style range is not equipped with an Ansul fire-suppression hood system, which is required by current fire code, and must be replaced with a compliant system.

PRIORITY 1 – 0 to 5 Years

- Replace or significantly renovate glazing systems where seals, gaskets, and components are noted to be at or beyond the end of their service life.
- Replace or trim glazing gaskets and wet-seal existing window systems to improve water resistance.
- Replace storefront window and door assemblies noted for end-of-life condition.
- Remove and reset or replace damaged or separated door thresholds to improve water and air resistance.
- Remove and replace workbench countertops that require immediate repair or replacement.
- Replace carpet in areas noted as fair to poor condition within 2–5 years.
- Replace the existing sound-dampening components and damaged ceiling tiles in locations where water damage, sagging, or missing tiles are present, following repair of underlying moisture sources..
- Replace all Hikvision security cameras immediately with NDAA-compliant Hanwha cameras.
- Reference the “Security” sections of the full assessment for individual component replacements or additions.
- Replace the intrusion detection system within 1–2 years due to unsupported legacy hardware.

PRIORITY 2 – 5 to 15 Years

- Replace VCT flooring within 5–7 years where noted as fair to poor condition.
- Replace the full lay-in ceiling system in office areas within 10–15 years.

EXECUTIVE FINDINGS SUMMARY

WISD MAINTENANCE FACILITY

- Replace underground sewer piping within 5–15 years if recurring issues occur.
- Replace sealants at window, door, and penetration interfaces at 10–15-year intervals.

PRIORITY 3 – 15 to 20 Years

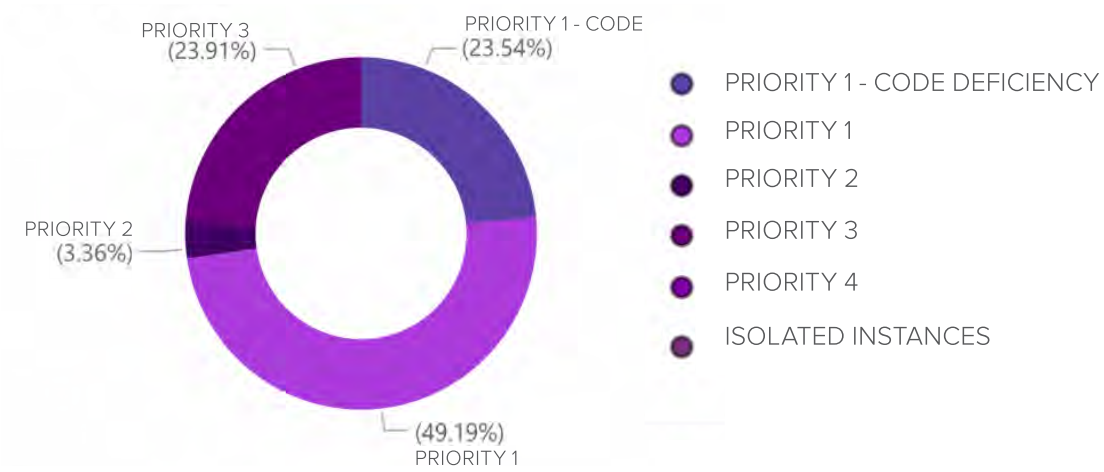
- Replace mechanical split-system HVAC units, which are at lifecycle replacement, within this window if not addressed earlier.

PRIORITY 4 – 20+ Years

- Replace all window and door assemblies beyond 20 years as part of long-term renewal if not completed previously.

EXECUTIVE FINDINGS SUMMARY

WISD MAINTENANCE WAREHOUSE



The WISD Maintenance Warehouse is a prefabricated metal building of unknown construction year, currently used for district storage and maintenance operations. Key items are summarized below. See the full campus Executive Findings for detailed observations and recommendations.

PRIORITY 1 - Code Deficiency

- The individual restroom does not meet ADA requirements due to insufficient maneuvering clearances and requires full renovation to achieve compliance.

PRIORITY 1 – 0 to 5 Years

- Replace the VCT flooring in accessory spaces such as restrooms, as it has reached the end of its lifespan.
- Install awnings or canopies above the exterior doors to reduce direct exposure to water.
- Remove and replace the existing ceiling system, which requires full replacement or removal.
- Replace all mechanical systems within the next 5 years as recommended in the MEP section.
- Reference the “Security” sections of the full assessment for individual component replacements or additions.
- Replace the intrusion detection system within 1–2 years due to unsupported legacy hardware.

PRIORITY 2 – 5 to 15 Years

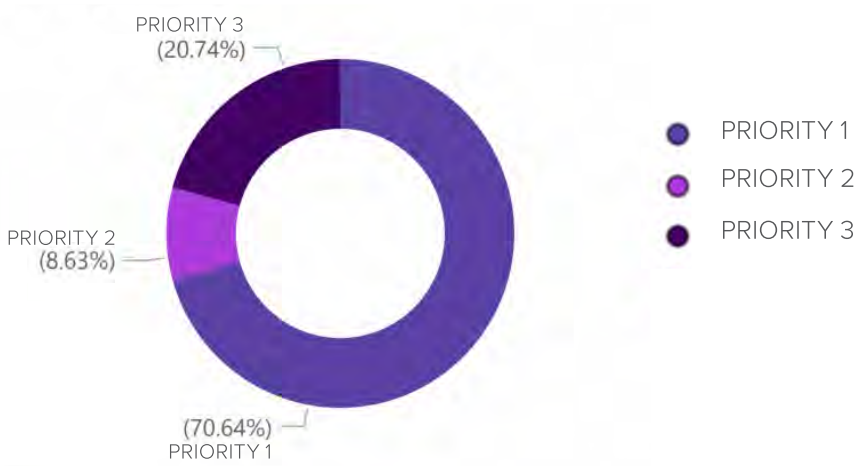
- Replace all lighting systems within the next 5–10 years to upgrade existing fixtures.
- Prepare CMU and masonry substrates and recoat wall surfaces at approximately 5-year intervals following repairs.
- Replace window, door, and penetration sealants at 10–15-year intervals.
- Supplement roof fastener replacement with an elastomeric silicone coating to extend roof service life, with recoating required at 10–15-year intervals.

PRIORITY 3 – 15 to 20 Years

- Replace the steep-slope metal roofing system with a new metal panel system, including sub-framing, insulation, and standing-seam metal panels as described in the long-term recommendations.

EXECUTIVE FINDINGS SUMMARY

WISD TRANSPORTATION FACILITY



The WISD Transportation Facility, constructed in 1986 with multiple renovations through 2016, is a prefinished metal building exhibiting aging in its metal wall panels, window and door systems, overhead door gaskets, roofing components, and interior finishes.Key items are summarized below. See the full campus Executive Findings for detailed observations and recommendations.

PRIORITY 1 – 0 to 5 Years

- Remove and replace all windows and non-aluminum-framed door assemblies.
- Remove and replace deteriorated perimeter joint sealants at glazing, louver, and door systems if the district chooses the short-term approach.
- Replace aged and deteriorated overhead door sill gaskets where air, water, and animal intrusion is occurring.
- Install a two-way speaker system at the transaction window to improve communication and safety.
- Apply an elastomeric silicone roof coating as a short-term roofing solution, with recoating required at 10–15-year intervals
- Replace penetration and vent flashings and sealants, and install new perimeter edge flashing.
- Replace missing rake caps at roof-to-gutter/eave flashing interfaces to prevent air and water intrusion.
- Replace VCT flooring in the breakroom when full replacement is required.
- Reference the “Security” sections of the full assessment for individual component replacements or additions.
- Replace the intrusion detection system within 1–2 years due to unsupported legacy hardware.

PRIORITY 2 – 5 to 15 Years

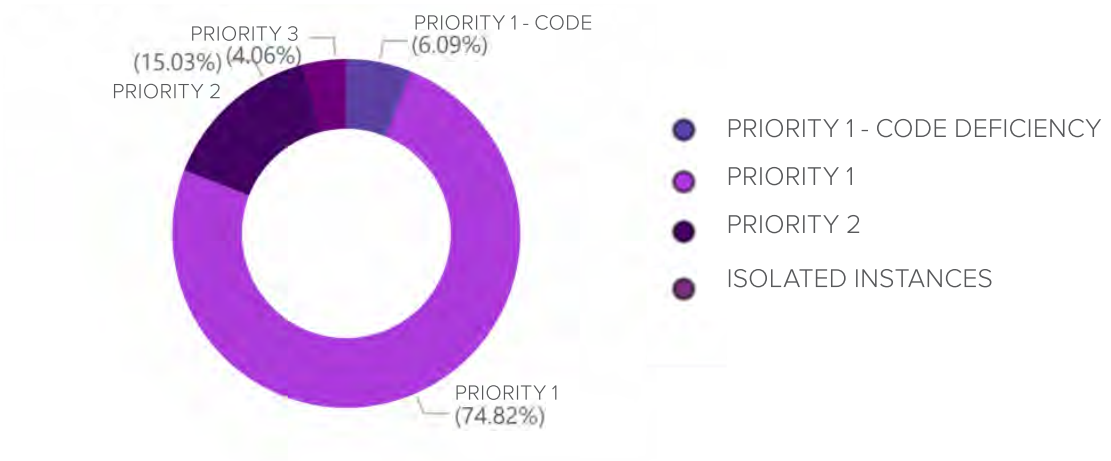
- Replace carpet and VCT flooring throughout the facility in 5–10 years as recommended.
- Prepare substrates and recoat the exterior wall panels and flashings at 10-year intervals following repairs.
- Replace window, door, and penetration sealants at 10–15-year intervals.
- Replace all door assemblies with higher-performance systems in the long-term window beyond the short-term replacements already noted.

PRIORITY 3 – 15 to 20 Years

- Replace the residential split-system HVAC units, which are at lifecycle replacement, within this window if not completed earlier.

EXECUTIVE FINDINGS SUMMARY

TECHNOLOGY DEVELOPMENT CENTER



The Technology Development Center, constructed in 1962 and renovated multiple times throughout its history, is currently in severe disrepair Key items are summarized below. See the full campus Executive Findings for detailed observations and recommendations.

PRIORITY 1 - Code Deficiency

- The existing kitchenette does not meet ADA requirements and requires full replacement to achieve compliance.
- The facility contains multiple life-safety concerns due to unfinished walls, ceilings, and fixtures that pose hazards if left unaddressed.

PRIORITY 1 – 0 to 5 Years

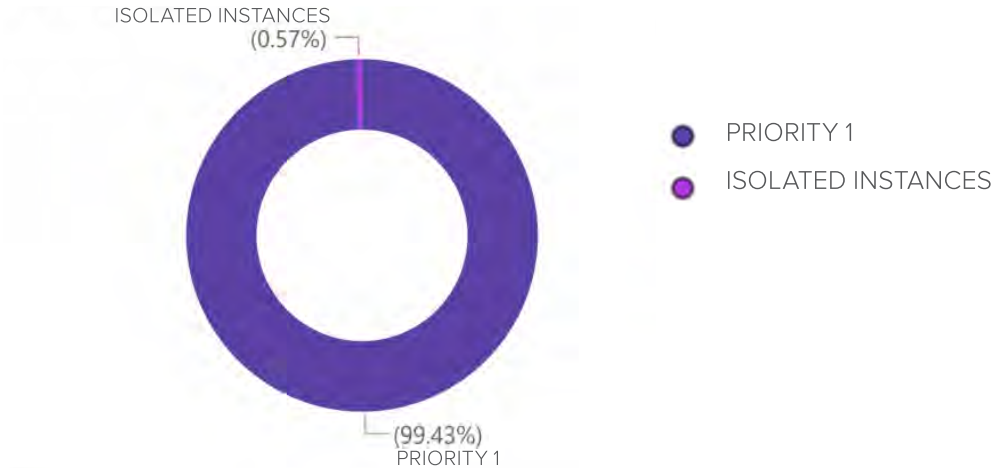
- Coat all exterior CMU surfaces with silicone elastomeric coating following structural and masonry repairs.
- Remove and replace all masonry expansion and control joint sealants and unsealed wall penetrations.
- Reconstruct or repair interior walls that are incomplete, failing, or collapsing.
- Replace all window and door assemblies in the long-term approach due to end-of-life condition.
- Replace or fully renovate the steep-slope asphalt shingle roofing on smaller roof areas where shingles are thin or missing and daylight is visible at flashing transitions.
- Replace soffit panels that are deteriorated, displaced, or missing where they pose safety hazards.
- Replace interior ceilings immediately due to failing conditions.
- Replace all failing flooring throughout the facility.
- Replace interior doors where present due to poor condition.
- Replace all casework due to severe deterioration.
- Replace all mechanical systems and lighting systems
- Perform a complete technology system overhaul to make the facility functional.
- Install a complete new PA system to provide needed communication infrastructure.
- Install a complete new security system.

PRIORITY 2 – 5 to 15 Years

- Replace sealants and exterior coatings at 10–15-year intervals.
- Re-paint, reseal, and replace door weatherstripping at 5–10-year intervals after initial replacements.

EXECUTIVE FINDINGS SUMMARY

WISD BARREL GYM



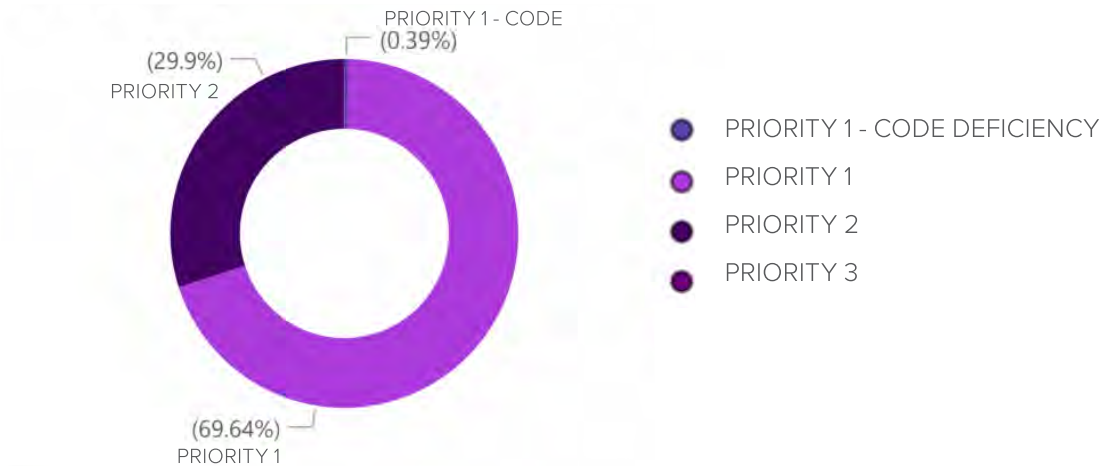
The Barrel Gym, built in 1962 and currently used for district storage, is in deteriorated condition with aging CMU wall assemblies, corroded metal panel systems, failing windows and doors, compromised roofing components, and interior finishes requiring full replacement. Key items are summarized below. See the full campus Executive Findings for detailed observations and recommendations.

PRIORITY 1 – 0 to 5 Years

- Repair cracked, displaced, or spalled masonry and concrete from foundation displacement. Note: the observed cracking appears to be cosmetic in nature and does not compromise the structural integrity or load-bearing capacity of the building at this time, but should be monitored for any changes that could denote evolving changes. Coat all exterior CMU surfaces with a silicone elastomeric coating following masonry repair.
- Remove and replace masonry expansion and control joint sealants and all unsealed wall penetrations.
- Remove and replace all windows and non-aluminum-framed door assemblies to provide a long-term solution.
- Replace or fully renovate steep-slope and low-slope corrugated metal roofing areas.
- Replace flooring throughout the building due to poor condition.
- Replace interior ceilings due to visible deterioration and potential organic growth.
- Replace casework due to deterioration and breakage.
- Replace all MEP systems within the next 5 years as recommended.
- Replace all interior lighting systems due to non-functional fixtures requiring complete replacement.
- Perform a complete technology overhaul and replacement to make the facility functional.
- Install a complete new PA system as required to restore functionality.
- Install a complete new security system, as existing systems were not reviewed and must be fully replaced.

EXECUTIVE FINDINGS SUMMARY

OLD ROARK EARLY EDUCATION CENTER



Old Roark, originally constructed in 1955 with additions in 1962 and 1975, exhibits extensive age-related deterioration across its masonry walls, stucco assemblies, window and door systems, roofing systems, interior partitions, ceilings, flooring, and mechanical and lighting systems. Numerous wall cracks, displaced masonry, failed sealants, gutter and flashing deficiencies, compromised glazing systems, widespread roofing failures, and deteriorated interior finishes indicate the need for large-scale replacement and restoration. Flooring, ceilings, doors, casework, and MEP systems are in poor condition and require renewal if the building is to be repurposed for use. Technology, PA, and security systems were not part of this assessment and would require full replacement should future renovation occur. Key items are summarized below. See the full campus Executive Findings for detailed observations and recommendations.

PRIORITY 1 - Code Deficiency

- Provide ADA-compliant ramps at exterior doors as required for accessibility.
- Replace toilet partitions and plumbing fixtures as needed to achieve ADA compliance throughout the facility.

PRIORITY 1 – 0 to 5 Years

- Modify all brick masonry sills and install sheet-metal sill flashing as part of required envelope remediation.
- Repair cracked or displaced CMU and masonry units, including tuckpointing and mortar joint repair.
- Remove and replace all masonry expansion-joint and control-joint sealants and unsealed wall penetrations with new high-performance silicone sealants.
- Remove and replace all brick masonry veneer at the above-roof wall areas to correct flashing, sheathing, and air-barrier failures, and reinstall new veneer as recommended.
- Replace the entire stucco wall assembly, including air barrier, insulation, sheet-metal flashings, and sealants.
- Replace all steel-framed windows and door units with new thermally broken or improved aluminum storefront systems.
- Replace glazing systems in the original building where sealants, gaskets, and frames have failed.
- Replace damaged and aged wooden doors and frames at building entrances.
- Replace any cracked or shattered glass lites in door and window systems.
- Replace the existing BUR roofing system with a fully adhered multi-ply modified-bitumen roof including vapor barrier, rigid and tapered insulation, gypsum cover board, reinforced liquid flashing at penetrations, and all new metal edge flashings, gutters, and downspouts. A

OLD ROARK EARLY EDUCATION CENTER

  - As an alternative on sloped roof areas, replace existing membrane roofing with a new standing-seam prefinished sheet-metal roof assembly. Conduct a full moisture survey to confirm concealed substrate conditions prior to roof replacement.
- Replace flooring throughout the facility due to widespread damage and deterioration.
- Replace doors and hardware campus-wide where damaged or inadequate, including providing accessible locksets
- Replace casework entirely to restore functionality for any future programmatic use.
- Replace soffit assemblies throughout the building due to widespread damage, displacement, and deterioration
- Replace interior ceilings campus-wide where ceilings are sagging, missing, damaged, or otherwise nonfunctional.
- Replace the mechanical system immediately, as it is beyond lifecycle.
- Replace all lighting fixtures throughout the facility due to outdated, damaged, or nonfunctional fixtures.
- If the district renovates this building for future use, a complete replacement of all AV, sound, PA, and security systems will be required, including cameras, door contacts, and head-end equipment.

PRIORITY 2 – 5 to 15 Years

- Replace stucco sealants and coatings at 10–15-year intervals following initial wall-system replacement.
- Route and seal existing stucco cracks where limited long-term crack repair is feasible.

PRIORITY 3 – 15 to 20 Years

- The light switches are mounted approximately 6 feet above the finished floor, which exceeds allowable reach ranges for general accessibility. If the district intends to use this facility for staff or students, the switch heights will need to be corrected to meet accessibility standards.

ROARK EARLY EDUCATION CENTER

01

HISTORIC DATA

Roark Early Education Center was completed in 2022 at an approximate cost of $20,371,134.00 for approximately 50,000 square feet. The school was named after Jennie C. Roark who was a long time Willis resident, school district employee and Principal of this campus. Jennie C. Roark served as a WISD Elementary Principal from 1946 - 1949. Mrs. Roark's daughters were also employed by Willis ISD for many years and were always active in the events at the Roark Campus.

This facility is considered in "new" condition and has not undergone any additions or renovations at the time of this assessment.

**All historical data and supporting information included in this report were furnished by the district. While the assessment team has made reasonable efforts to review and reference this material, the data has not been independently verified or validated in detail. The team assumes no responsibility for any inaccuracies or omissions contained within the district-provided information.*

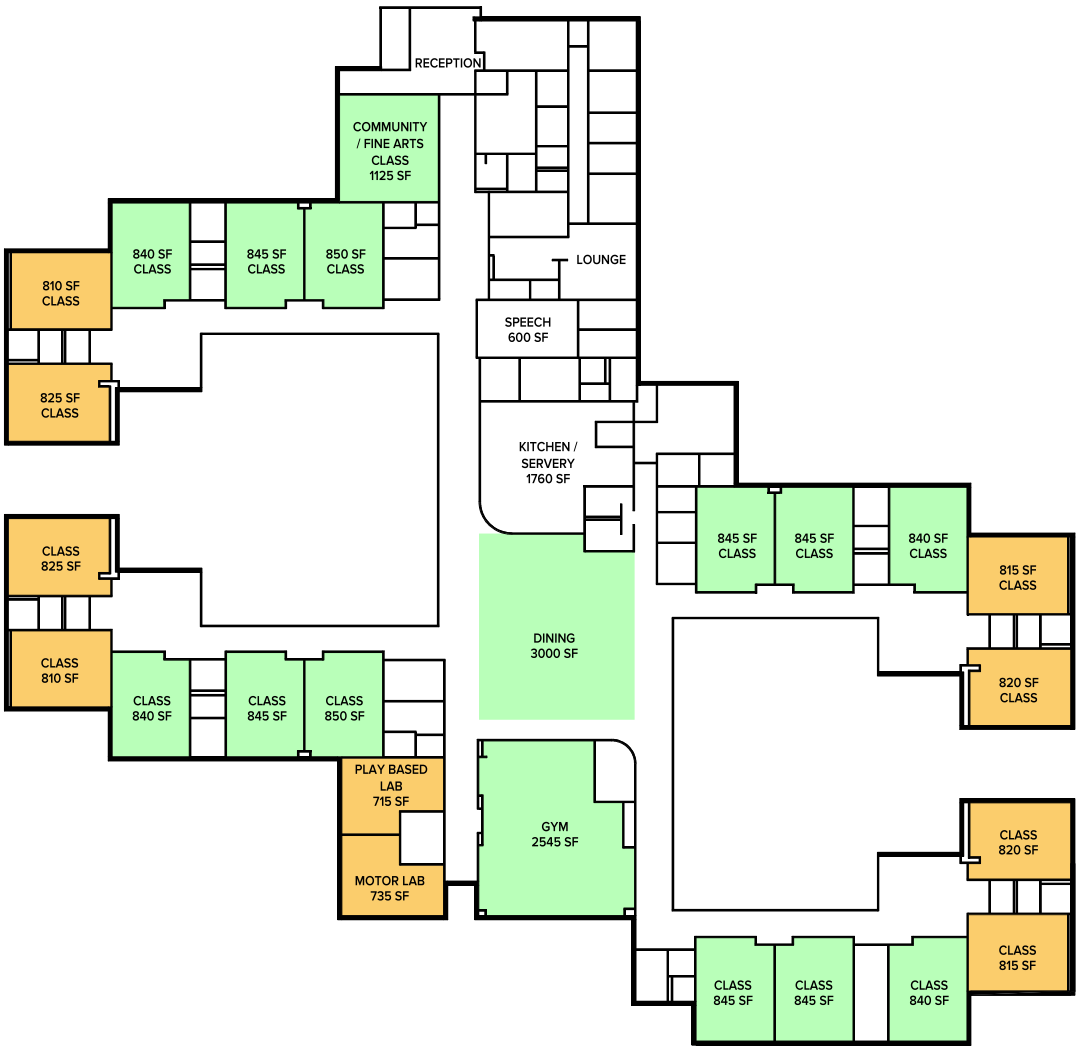
GENERAL INFORMATION



JENNIE C ROARK EARLY EDUCATION CENTER 103 Wildkat Dr. Willis, TX 77378	
Year(s) Built:	2022
Approx. Total Building Square Footage	50,000 SF
Approx. Total Site Area	74.321*

*Site is part of the Acer Willis ISD Educational Campus

UTILIZATION SUMMARY



LEGEND

- Does meet TEA and Ed Spec
- Does meet Ed Spec
  *no TEA requirement
- Does not meet Ed Spec
- Does not meet TEA and/or Ed Spec

UTILIZATION SUMMARY

Educational Specification Deficiencies:

- **Classrooms:** While most Pre-K classrooms are within approximately 10 square feet of the required 850 SF, several classrooms are undersized by up to 40 square feet. The Educational Specifications require 850 SF per classroom to accommodate 25 students at 36 SF per student.
- **Motor Lab:** The Motor Lab is approximately 250 SF undersized**.** The Ed Spec requires (1) at 1,000 SF.
- **Life Skills Classrooms:** The (1) Life Skills/Play Based Lab classroom is approximately 285 SF undersized. The Ed Spec requires (2) at 850 SF each to accomodate 12 students each.
- ***Missing Flex Room / Classroom:** The Ed Spec requires (1) at 850 SF.

**Note: The comparison to Educational Specifications was limited to TEA-regulated academic spaces, including classrooms, science labs, libraries, and gymnasiums. Non-instructional or support spaces identified within the Educational Specifications were not included in this review.*

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

Accessibility within Roark Early Education Center seems to be in general compliance with TAS. The building is equipped with a fire suppression system and appears to be in good condition.

SITE CONDITIONS

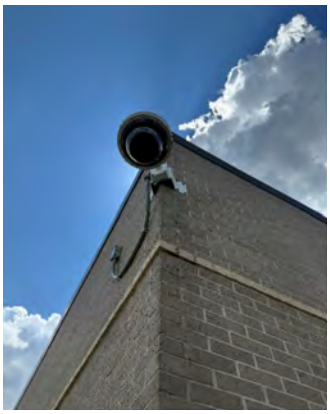
Upon review of the site conditions at Roark Early Eduction Center it appears that the site is in a relatively good condition. No apparent major areas of concern were identified.

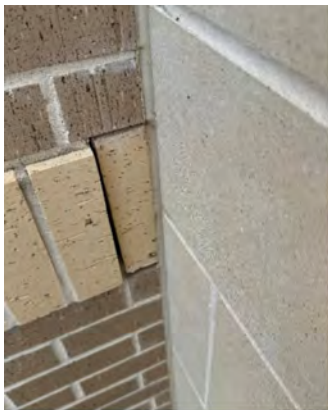
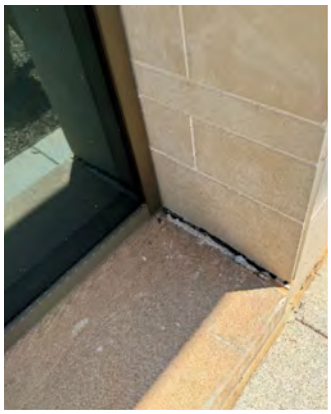
EXTERIOR WALLS

Existing Conditions:

Cast Stone Masonry Units (CMU) And Masonry Veneer Walls

- Throughout the various building elevations, SEAL observed various security and electrical penetrations through the brick masonry veneer wall cladding. At least one leak was reported on the interior of the building in close proximity to similar wall penetration conditions.
- At the curtain wall-to-CMU interface around the building entrances, SEAL observed failed mortar joints. Cracking at the mortar joints was typical throughout many of the building elevations. Additionally, SEAL observed pinholes/cracking in the brick masonry veneer mortar joints at the window sill conditions.
- At the foundation slab-to-CMU wall interface, SEAL observed exposed transition flashing membrane extending from within the wall assembly. The exposed membrane was susceptible to UV deterioration.
- Throughout the various building elevations, SEAL observed staining on brick masonry veneer beneath overflow drain outlets. Overflow provisions should only be active when primary drain flow is restricted or when the rain volume exceeds the primary drain capacity.
- Throughout the various elevations of the building, SEAL observed brick masonry veneer weep holes at 24” o.c. at the base of wall. At a number of locations, the weeps holes appeared damp and had organic growth emanating from the masonry opening. This organic growth may be preventing the weep holes from providing adequate wall drainage and retaining water within the wall assembly.
- At the CMU-to-brick masonry veneer interface in Courtyard No. 1, SEAL observed missing/deteriorated mortar joints and damaged brick. Additionally, SEAL observed the brick in at least one of these locations was not in plane with other similar masonry veneer.
- At the main entrance along the South building elevation, SEAL observed a steel-framed canopy system-to-brick masonry interface. The masonry and curtain wall at this location was observed to be stained. WISD maintenance reported water drainage down this wall, as well as several previous repair attempts.



EXECUTIVE SUMMARY / KEY FINDINGS

Metal Wall and Soffit Panel Assemblies

- At the various building entrances, SEAL observed prefinished sheet metal flush-mounted soffit panels along the canopies. The panels were not observed to be vented and were likely attached with concealed fasteners. The soffit assembly did not exhibit damage, staining, or displacement consistent with distress or water intrusion.

Recommendation:

CMU And Masonry Walls

Based on our observations of the existing masonry wall assemblies, it is our opinion the CMU and brick masonry veneer were relatively new and within the early portion of their service life. The following outlines our masonry-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Repairing of cracked/displaced CMU and brick masonry units, including tuckpointing/filling of mortar joints.
- MT: Removal and replacement of sealant at control joints where required with high performance DowSil silicone sealants appropriate for the substrates required and backer rod.

Intermediate and Long Term Recommendations (10 to> 20 Years):

- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals.

Metal Wall Panel Assemblies

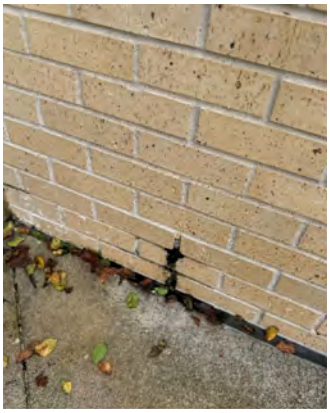
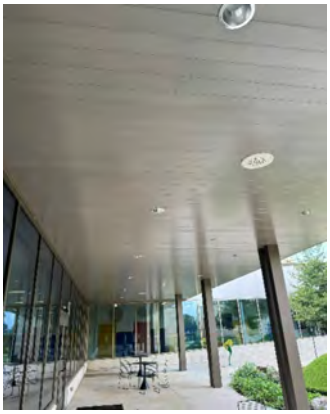
Based on our observations of the existing flush-mounted metal wall and soffit panel assemblies, it is our opinion the metal panels to be in a generally serviceable condition. Our observations did not dictate and short-term remedial actions. The following outlines our metal panel-related recommendations:

Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: Inspect and repair any panel damage or displacement.
- Sealing wall penetrations, unsealed metal-to-metal joints, and perimeter joints with high performance DowSil silicone sealants appropriate for the substrates required and backer rod.
- Replacement of omitted, missing, or loose metal panel closures.

INTERIOR WALLS

Typical wall conditions observed include minor superficial damage in some areas that the district's maintenance team can address. Damage is consistent with normal wear and tear for the age of the facility.


EXECUTIVE SUMMARY / KEY FINDINGS

WINDOWS

Existing Conditions:

Aluminum-Framed Glazing, Entrance and Door Systems

- At the various building elevations, SEAL observed aluminum-framed curtainwall entrance assemblies recessed or partially covered by the upper building components. Most of these systems were single-story; however was two-stories tall at the man North elevation entrance. These assemblies were comprised of curtainwall windows with two weeps per lite and double-leaf doors and based on markings, manufactured by Oldcastle Building Envelope. Additionally, SEAL observed punched window assemblies comprised of aluminum-framed storefront glazing with an integral sill receptor and two weeps per lite.
- At the Second level window assemblies at the rising walls, SEAL observed unsealed gaps above and below the units, and there was no evidence of sealant observed at metal-to-metal joinery. These conditions are susceptible to windborne rain.
- At the entrance in Courtyard No. 1, SEAL observed uncontrolled air leakage between the leafs of several exterior aluminum-framed doors. Additionally, the weatherstripping between the door leafs was not continuous for the entire length of the door opening in at least one location.
- At the punched window assemblies along the North building elevation, SEAL observed gaps and staining throughout the metal-to-metal joinery. Additionally, SEAL observed short exterior glazing gaskets at many locations throughout the building elevations (yellow arrow). This shortness may be attributed to inadequate initial installation or from shrinkage common to these materials associated with age and exposure. These conditions were susceptible to water infiltration through the glazing system. These locations are susceptible to water infiltration.

Recommendation:

Based on our observations of the existing glazing and fenestration systems, it is our opinion that the window and door systems, including seals and gaskets, are relatively new and are within their service life. The following outlines our glazing and fenestration-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion.
- MT: Remove and replace perimeter joint seals around all glazing and door systems with high performance DowSil silicone sealants appropriate for the substrates required.
- MT: Remove and reset or replace existing door thresholds and sealing door system to adjacent wall.
- MT: Remove and replace all existing door weatherstripping with new materials.






EXECUTIVE SUMMARY / KEY FINDINGS

Intermediate and Long Term Recommendations (10 to >20 years):

- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals.
- Level 2: Remove and replace glazing gaskets and/or wet seal existing window systems to maintain water resistance with high-performance DowSil silicone glazing sealant.

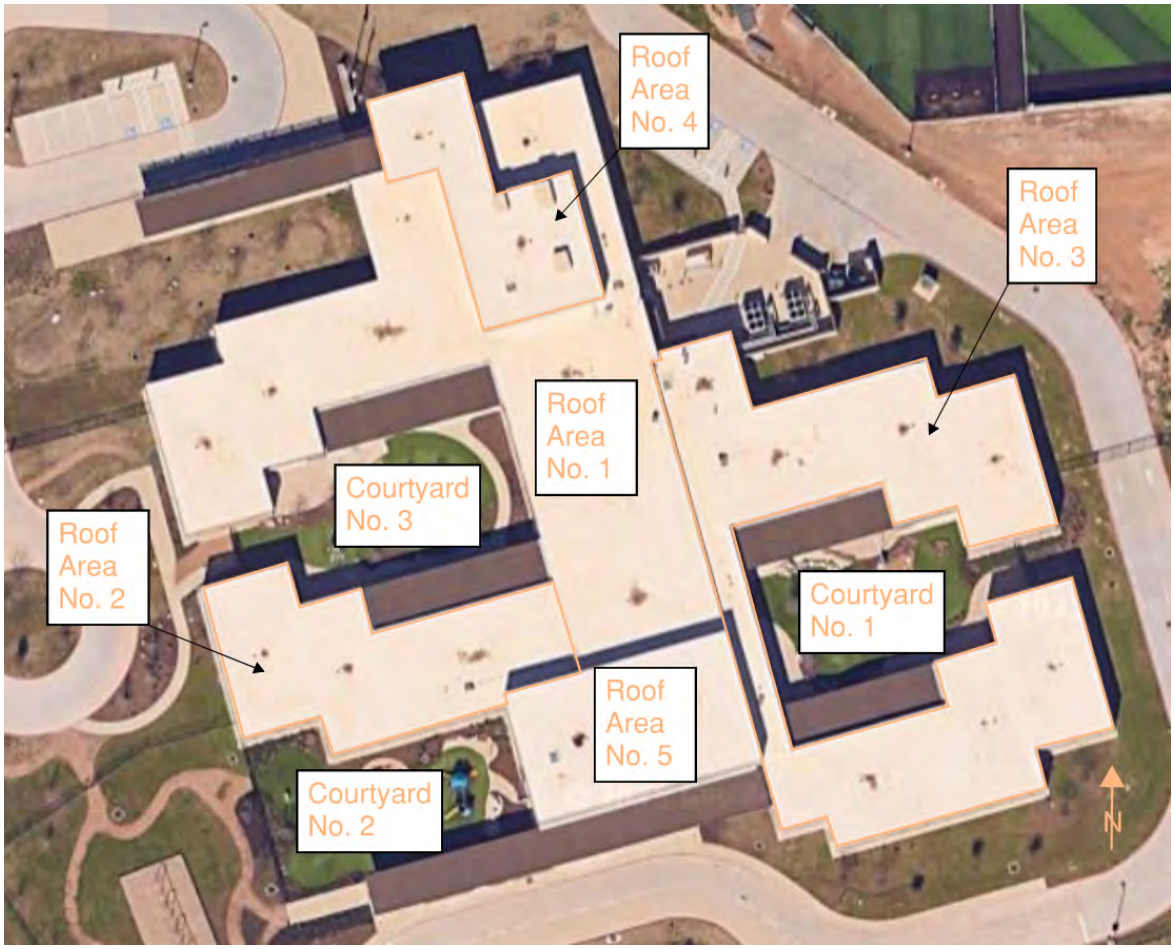
ROOF

Existing Conditions:

Low-Slope Roofing System

Throughout the entire roofing system, SEAL observed a low-slope thermoplastic polyolefin (TPO) roofing system. This system description was confirmed based on reports and documents provided to SEAL. The roofing systems were approximately 3 years old and original to the building.

- SEAL observed an expansion joint along Roof Area No. 1. SEAL did not observe the expansion joint to be continuous down the vertical wall. Noncontinuous expansion joints do not properly accommodate building movement and may cause damage to the structure and finishes.
- At Roof Area Nos. 1 - 5, SEAL observed internal cast iron roof drain assemblies with high-dome strainers (primary and secondary/overflow). At most of the primary and some secondary roof drain locations, SEAL observed the membrane retained water and exhibited sedimentation.



EXECUTIVE SUMMARY / KEY FINDINGS

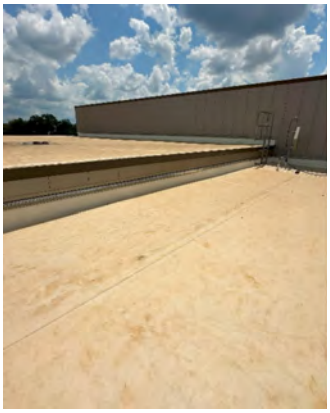
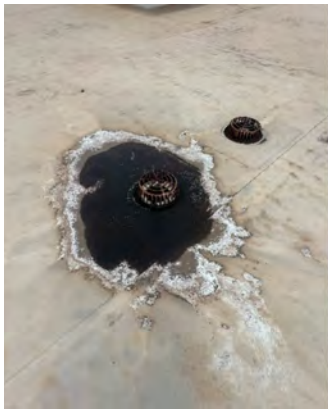
- At Roof Area No. 1, SEAL observed various curb penetrations with electrical connections to the equipment to penetrate the base flashing membrane. Additionally, SEAL observed wrinkling in the base flashing membrane. SEAL did not observe counterflashing at many of the roof penetrations. These conditions are susceptible to membrane damage and water infiltration.
- At a number of roof-to-wall interfaces between Roof Area Nos. 1 and 2, SEAL observed the flashing membrane to be unadhered at the base of wall. Additionally, SEAL observed the roof-to-roof membrane expansion joint to be located along this wall.
- Throughout Roof Area No. 2, SEAL observed many isolated small areas of damage to the roof membrane from roof debris. There were also numerous membrane patches to the roof membrane. At many patch locations, the color of the patch appeared to be cleaner and less stained than the original roofing membrane. Damage to the membrane may allow for water infiltration and can impact the roof warranty.
- Throughout Roof Area No. 4, SEAL observed concentrated membrane wrinkles in the field of the roof membrane. This condition was likely the result of roof membrane ribbon adhesive rather than a fully-adhered membrane. The membrane wrinkles are indicative of partially unadhered roof membrane which increases susceptibility to wind uplift overtime.
- At the roof-to-curtain wall interface above the Main building entrance, SEAL observed an unsealed gap between the CSMU and curtain wall. Similar unsealed or poorly sealed interfaces/transition assemblies were observed throughout the building exterior. SEAL observed generally poorly integrated transitions throughout the building between materials.

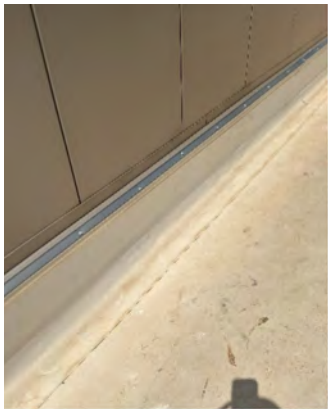
Recommendation:

Based on our observations to date, it is our opinion the existing low-slope roofing system was in a generally serviceable condition and was generally solid underfoot. One roofing industry study indicates the service life for a thermoplastic polyolefin roof membrane is 14 years. Considering the age of the roof and the likelihood that the roof system was still under warranty by Firestone (now Holcim Elevate), it is our opinion that the roofing membrane was performing adequately, and significant roof system repairs are not currently required. The isolated wrinkling did not appear to present a current concern, although inspections should be maintained to evaluate the ongoing condition. However, periodic proactive roof inspection and maintenance will be necessary to maintain the roofing warranty. The following outlines our roofing-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Identify roofing manufacturer, warranty term, and warranty requirements and provide to building maintenance/engineering staff for reference and repair assistance.



EXECUTIVE SUMMARY / KEY FINDINGS

- MT: To proactively identify roof damage and wear, as well as maintain assumed roof warranty requirements, inspect the low-slope roofing membrane bi-annually and following significant storm events with high volume rains and/or high winds. Properly repair all damage and wear as it is identified. A third party, credentialed roofing specialists should be considered for these building-specific evaluations.
- MT: Inspect and repair or replace all roof-related sealants at 10-year intervals.

Intermediate Recommendations (10 to 20 years):

- Level 3: SEAL recommends completing a moisture survey (infrared, capacitance, or nuclear with accompanying secondary verification (roof cores preferred at that time) around Year 10 to address any significant areas of concern. Coordinate coring, if any, with roofing manufacturer for proper repair.
- Level 3: If the roofing system is dry, coating of membrane may be considered to restore continuity, including replacement of all roof flashings.
- Level 3: If the roofing system is wet, the existing single-ply roofing system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system manufactured by Soprema or Siplast with no less than a 20-year No Dollar Limit warranty. The roof assembly should consist of a mechanically-attached gypsum substrate board (where applicable), torch-applied100-mil minimum vapor barrier, new rigid and tapered roofing insulation, and a gypsum fiber (non-faced) coverboard. A preformed tapered insulation sump should be placed at all primary roof drains. Reinforced liquid flashing system is recommended at all roof penetration and as a supplement to the roofing membrane in the insulation drain sump. New prefinished sheet metal copings and flashings should be provided.

Long Term Recommendations (>20 years):

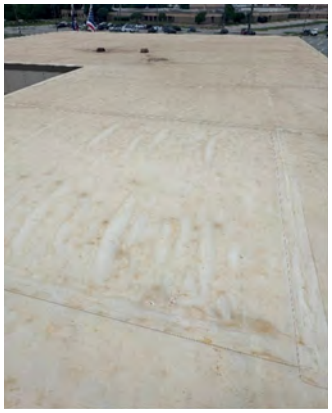
- Level 3: If not reroofed prior to 20 years due to damage or excessive wear, replace the existing single-ply thermoplastic roofing membrane with a multi-ply roofing assembly as described above.
- MT: If the roofing is replaced between Years 10 to 20, follow the inspection and maintenance protocol outlined above and prepare for roof coating approximately 7-10 years after initial roof installation.

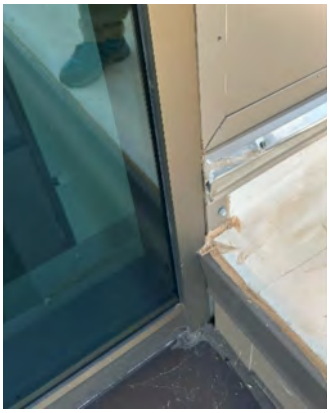
FLOORS

Minor, isolated areas of base damage were noted. As these conditions are aesthetic only, no corrective action is recommended at this time.

DOORS

No apparent issues were identified on interior conditions. Reference the “Windows” section for exterior window/door system recommendations.



EXECUTIVE SUMMARY / KEY FINDINGS

MILLWORK / CASEWORK

Millwork and casework is still considered in “new” condition and no apparent issues were identified.

CEILING

Ceilings throughout the facility were observed to be in good to new condition. Replacement is not anticipated until the end of the typical ceiling system life cycle, which is approximately 20–25 years for lay-in acoustic ceilings under normal use. Several areas were noted where ceiling tiles should be properly re-seated within the concealed grid to restore alignment and ensure they remain securely in place.

KITCHEN

Overall kitchen, including all equipment within the kitchen/servery location, including accessory office and restroom facilities, are in good condition. Replacement not needed till end of life cycle, 20-25 year life expectancy.

Rating Criteria:

- Priority 1: Poor – Immediate replacement (0-5 life expectancy)
- Priority 2: Poor/Fair – Should be replaced (5-15-year life expectancy)
- Priority 3: Fair – Replacement not needed currently (15-20-year life expectancy
- Priority 4: Good – Replacement not needed (20-25-year life expectancy)
- Priority 5: MT – Maintenance required
- Priority 6: MI – Missing or not present

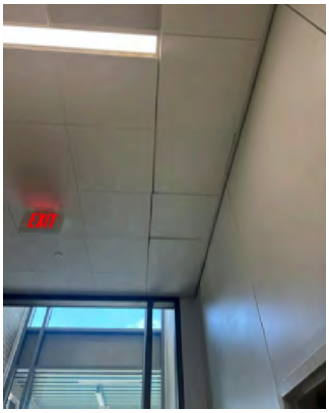
Architectural:

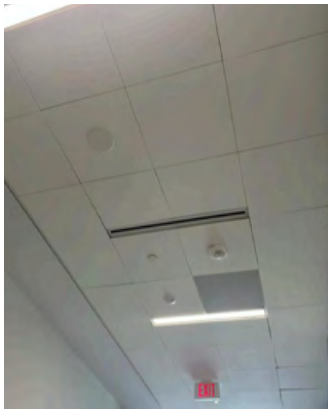
- Floor: Good
- Ceiling-Kitchen : Good
- Walls: Good
- Floor Sinks: Good
- Ceiling-Servery: Good

MEP

Existing Conditions:

- **Cooling/Heating System:** Chilled water system. Chillers are Carrier Inc. Rotary Chillers. Heating is gas-fired boiler. All air systems are delivered with VAV boxes
- **Energy Mgmt. System:** Automated Logic, System 2020. All digital controls. Temperature control, trending of systems, system start/stop from remote location, full graphic system, and humidity sensors





EXECUTIVE SUMMARY / KEY FINDINGS

Recommendation:
Roark Early Education Center was built in 2022, all MEP systems are in good working condition. Mechanical systems will need to be addressed for lifecycle replacements in 20-25 years.

LIGHTING

Roark Early Education Center was built in 2022, all lighting systems are in good working condition. Lighting systems will need to be addressed for lifecycle replacements in 20-25 years.

TECHNOLOGY

The technology systems throughout the facility align with current standards for a building constructed in 2022.

Audio Visual

- **Community Room:** Provide ventilation to equipment rack cabinet to prevent premature equipment failure. This should be addressed immediately.
- **Conference Room:** Add conferencing devices; conference spaces currently do not have full conferencing capabilities. This item can be addressed according to the district's preferred timeline.

PA

The PA system throughout the facility align with current standards for a building constructed in 2022. However, it appears call buttons are missing, and original installation appears incomplete. This should be addressed immediately through warranty.

The following items represent minor recommendations rather than immediate needs.

- **Office/Admin Spaces:** Add volume controls to all office spaces to allow discussions or meetings to be conducted without interruption from announcements.

SECURITY

- **Reception:** Add card reader to door between reception and Admin. This should be addressed immediately.
- **Nurse:** Add card readers to both doors to prevent path of travel from corridor to admin areas. This should be addressed immediately.
- **Nurse:** Add access control button to nurse desk to allow lockdown capability in the event of a medical emergency. This should be addressed immediately.
- **Admin:** Add card reader to Mail/Copy room to prevent path of travel from corridor to Admin areas. This should be addressed in 1-2 years.
- **Community Room:** Add card reader to Lobby to prevent path of travel from Lobby to main corridor. This should be addressed immediately.
- **Kitchen:** Add cameras in the kitchen prep area and over POS. This should be addressed in 1-2 years.
- **Gym:** Add cameras for general coverage. This should be addressed in 1-2 years.

A.R. TURNER ELEMENTARY SCHOOL

02

HISTORIC DATA

A.R. Turner was named after a prominent dedicated educator and long-time Willis resident, Arthur Randolph Turner. Mr. Turner was the Principal of the original A.R. Turner building. In 1956 the original seven-room wooden structure was renovated to a twelve-room brick building and included the gymnasium (Stubblefield Alternative School). Mr. Turner and his wife, Mary, came to Willis in the late 1930's. They taught and worked in the school until their retirement in 1952. Prior to the 1930's, A.R. Turner helped to form the Danville Schools. Mr. Turner's son, Arthur W. Turner, also served as a WISD principal at the A.R. Turner campus. In 1993, when this building was built, it was named in his honor and the building cost approximately $3,910,000 to construct.

Major Additions or Renovations: In the summer of 2000, the carpet in the halls of this building was removed and replaced with vinyl floor tile. During the 2003–04 school year, a chain link fence with motorized gates was installed around the Turner campus grounds and between Willis High School and A.R. Turner Elementary School. A covered play pavilion was added to the building in the 2003–04 school year. The carpet in classrooms was replaced in the summer of 2005 with 2/3 carpet and 1/3 tile. In August 2008, four classrooms, restrooms, hallways, and storage were added to this building and security improvements were made at the front entrance. In October 2009, a new outside compressor unit was installed to upgrade the HVAC system. In the summer of 2012, the entire exterior of this building was painted. In 2012, the Technology Department installed projectors and security cameras throughout the building. In 2013, all interior hallway walls were painted and a receptionist security window was installed. In the summer of 2014, security features and enhancements were completed along with restroom improvements. District-wide lighting upgrades occurred in April 2015. In July 2016, a generator was installed to ensure adequate electrical coverage during power failures. In the summer of 2016, a new driveway extension was added as part of Bond Issue 2015 to alleviate traffic congestion. An energy management upgrade at this campus in July 2017 included a new system database with programs, software, graphics, control modules, electrical installation, programming, and start-up/check-out. In August 2017, an upgrade to the fire alarm system at this campus included installation of a new fire alarm system panel and fire alarm system devices on a one-for-one basis, while reusing existing notification devices and existing fire alarm wiring. In 2021, all six portables were removed to make room for the Gym Addition. Completed Bond 2020 projects include the Gym Addition in 2022 and the Chiller Replacement in 2023.

**All historical data and supporting information included in this report were furnished by the district. While the assessment team has made reasonable efforts to review and reference this material, the data has not been independently verified or validated in detail. The team assumes no responsibility for any inaccuracies or omissions contained within the district-provided information.*

GENERAL INFORMATION



A.R. TURNER ELEMENTARY SCHOOL 10575 HWY 75 North Willis, TX 77378	
Year(s) Built:	1993
Approx. Total Building Square Footage	80,857 SF*
Approx. Total Site Area	16 acres

*Includes the 2003, 2008, and 2022 additions

UTILIZATION SUMMARY



LEGEND

- Does meet TEA and Ed Spec
- Does not meet Ed Spec
- Does not meet TEA or Ed Spec

Note: This facility was originally constructed prior to the adoption of current TEA code requirements and Educational Specification standards. Because these regulations were implemented after the buildings were constructed, certain conditions may not meet today's guidelines. The assessment reflects existing conditions as they relate to current TEA and Educational Specification expectations for academic spaces.

UTILIZATION SUMMARY

TEA Deficiencies:

- **Library:** The sum total square footage of all library-related areas shall meet the following minimum square feet (SF) requirements based on maximum instructional capacity and may be contiguous or dispersed: for 501-2,000 students, a minimum of 3,000 SF plus an additional 3 SF for each student in excess of 500 = 3,855 SF minimum; currently approximately 760 SF undersized for a max capacity 785 population.

- **Science:** A combination science classroom/laboratory for Kindergarten-Grade 5 must provide a minimum of 50 SF per student. The room may have an established maximum of 22 students but must not exceed 25. Within the total square footage of the room, 6 SF per student of horizontal laboratory counter top space (3 feet wide x 2 feet deep) must be provided at student laboratory benches, and an additional 3 linear feet (LF) per student of horizontal laboratory counter top support space must be provided for equipment and materials for investigations, activities, or student projects. Current spaces are ~100 SF undersized to accommodate an established maximum of 22 kids

- ***Missing Prep/storage rooms:** Prep/Storage rooms were observed to be missing from plan, if the district wants to fit (24) students in the associated science lab, One preparation/storage room at a minimum 10 SF per student shall be provided adjacent to each combination science classroom/laboratory. One preparation/storage room at a minimum of 10 SF per student shall be provided per science classroom and be located adjacent to its partner science laboratory. Preparation/storage rooms may be combined, but the combination of more than one preparation/storage room shall not reduce the minimum square feet or quantity of built-in fume hoods required if they were not combined.

Educational Specification Deficiencies:

- **Classrooms:** Pre-K classrooms are approximately 20-50 SF undersized, while all other classrooms are closer to 100 SF undersized. The Ed Spec requires 850 SF each to accommodate 25 students at 36 SF/student.

- **Science: c**urrently approximately 100 SF undersized to accommodate an established maximum of 22 kids. The Ed Spec requires (2) classrooms/labs at 1,100 SF each to accomodate 22 students.

**Note: The comparison to Educational Specifications was limited to TEA-regulated academic spaces, including classrooms, science labs, libraries, and gymnasiums. Non-instructional or support spaces identified within the Educational Specifications were not included in this review.*

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

Accessibility within Turner Elementary School seems to be in general compliance with TAS. The building is equipped with a fire suppression system and appears to be in good condition.

SITE CONDITIONS

No significant site issues were identified at this campus. Limited sidewalk remediation is recommended in locations where heaving or sinking has occurred as a result of natural aging and wear.

EXTERIOR WALLS

Existing Conditions:

Concrete Masonry Units (CMU) And Masonry Veneer Walls

- At most building elevations, SEAL observed red and buff brick masonry veneer. The exposed brick did not typically exhibit significant damage or deterioration, with the exception of the items indicated below. Additionally, SEAL observed inconsistent weep spacing for at least one location along the base of wall and a questionable weep hole height above grade in many locations.
- At a secondary entryway along the East building elevation (one location), SEAL observed the brick masonry to overhang the painted steel lintel by approximately one inch. This condition may not accommodate the two-thirds brick support as indicated in brick industry standards.
- At the brick masonry veneer-to-foundation interface along the West building elevation, SEAL observed the mortar joint above the first brick course to be cracked. Throughout all of the building elevations, SEAL observed the sealant at the brick masonry expansion joints to be poorly tooled and exhibiting adhesive and cohesive failures. SEAL was able to insert a spatula at least four inches between the sealant joint and the adjacent brick masonry veneer in at least one location.
- At the base-of-wall condition along the East building elevation. SEAL observed two damaged bricks adjacent to the masonry control joint, possibly from lawn maintenance.
- At the one hose bib location along the West building elevation, SEAL observed the masonry wall directly below exhibited staining. This condition was observed in at least two building locations.
- At the masonry lintel along the South building elevation, SEAL observed the horizontal overlap between the lintel and brick to be approximately 2 ¾ inches. BIA Tech Note 31B Structural Steel Lintels indicates that bearing dimension on the underlying brick should be no less than 3”.
- Along a West elevation wall area, SEAL observed at least one stair-step crack along the mortar joints around a punched window opening. These conditions were indicative of unaccommodated movement between the masonry and window openings. Additionally, SEAL observed cracks in many of the mortar joints below the windows, along with minimal slope throughout the brick sills and deteriorated mortar up to three courses below






EXECUTIVE SUMMARY / KEY FINDINGS

the windows. This condition was observed in many locations throughout the building exterior.

- At the clerestory window-to-brick masonry veneer interface along the West building elevation, SEAL observed exposed thermoplastic membrane flashing (commonly know as Nervastral) along the window head condition. The exposed membrane was susceptible to deterioration with UV exposure.
- At the South elevation of the gym addition, SEAL observed an unsealed gap in the brick masonry veneer behind the prefinished sheet metal gutter. It appears a brick unit was omitted at this location; however, due to access limitations SEAL was able to confirm exposed elements within the wall assembly. This location was observed to be adjacent to the building expansion joint between the original building and the new gym and gym lobby addition.
- At the base of wall condition along the North building elevation and in other locations around the building elevations, SEAL observed many of the brick masonry veneer weeps were located at or below grade. This condition was limiting or preventing drainage from the wall cavity and was also likely to allow ground water into the wall assembly.
- At the Northeast column of the main entrance canopy, SEAL observed the downspout to be damaged and was impeding drainage.
- Throughout the West building elevation, SEAL observed staining along the top of wall brick veneer. Staining was generally aligned with prefinished sheet metal gutter joints. This condition was likely indicative of improperly sealed or leaking gutter joints or potential deficiencies at the gutter to sheet metal edge flashing interface. This condition was likely to lead to accelerated deterioration of the masonry wall components and was present to some extent through similar locations at other building elevations.

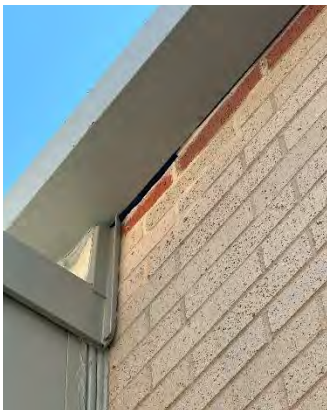
Recommendation:

Based on our observations of the existing masonry wall assemblies, it is our opinion the CMU and brick veneer were adequately serving their intended purpose. The exception to that general statement were the walls located beneath the metal roofing where the water flow impacted the underlying components, including the split-faced CMU. The following outlines our masonry-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- Level 1: Structural engineer to investigate lintel bearing and brick support, as well as stair-step cracking to verify whether settlement or other structural issue may be contributing to observed cracks.
- MT: Repairing of cracked/displaced CMU and masonry units, including tuckpointing/filling of mortar joints.
- Level 1: Remove and replace masonry expansion and control seals, as well as unsealed wall penetrations with high performance DowSil silicone sealants appropriate for the substrates required and backer rod.






EXECUTIVE SUMMARY / KEY FINDINGS

Intermediate and Long Term Recommendations (10 to> 20 Years):

- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually. Remove and replace masonry expansion joint sealants to maintain water resistance with high-performance DowSil silicone glazing sealant.
- MT: Add prefinished sheet metal flashings to the support angle ends to prevent exposure of the air/weather barrier membranes within the wall assembly.

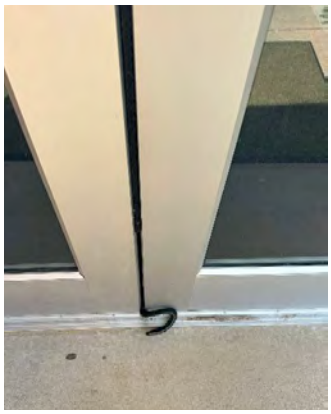
INTERIOR WALLS

Walls throughout the facility require repainting in various areas. In particular, the restroom walls need repainting where paper towel dispensers were removed, and additional touch-up or full repainting is needed in other locations as necessary.

WINDOWS

Steel and Aluminum-Framed Glazing System(s) And Doors

- Throughout the various building elevations, SEAL observed clerestory window assemblies along the upper levels. Assemblies were comprised of four lites with steel-framed insulated glass units (IGU's) (The painted steel window assemblies were generally in an aged condition with evidence of repainting and narrow inconsistent perimeter sealant. In many locations, the IGU's exhibited fogging and stains between the glass panes. Additionally, the perimeter sealant around many of the window frames exhibited initial signs of adhesion loss and deterioration.
- Throughout the steel-framed clerestory window assemblies, SEAL observed missing and exposed fasteners at the exterior glazing stops. Exposed fasteners were susceptible to corrosion and minimal sealing properties. Additionally, the steel frames did not exhibit visible thermal breaks and the overall thermal performance of the windows were not determined.
- At the brick masonry veneer sill condition along the clerestory window assembly at Roof Area No. 3, SEAL observed water retention throughout the area. Additionally, SEAL observed cracking and exposed brick cores holes in the brick units below the windows. These conditions were susceptible to water infiltration.
- At the West elevation of the gym addition, SEAL observed entrance systems comprised of aluminum-framed storefront assemblies. These assemblies were observed, based on markings, to be manufactured by Oldcastle Building Envelope. SEAL did not observe the weatherstripping between the doors to be continuous and allowed for uncontrolled air leakage from the assembly. Additionally, air leakage was observed at several of the entrance locations throughout the various building elevations.



EXECUTIVE SUMMARY / KEY FINDINGS

- At typical door jamb-to-threshold interface of the building entrance along the South elevation, SEAL observed the sealant to be missing/ omitted. SEAL was able to insert a spatula approximately two inches deep. These conditions allow for uncontrolled air and water infiltration. Additionally, SEAL observed the building sealant to be generally deteriorated throughout most of the building perimeter.

ROOF

Existing Conditions:

Low-Slope Roofing System

- The main drainage systems of the low-slope roof areas were as follows:
  - Roof Area No. 1 sloped towards all four elevations of the roof where it drained into prefinished sheet metal gutters with downspouts which discharged to adjacent roof areas.
  - Roof Area No. 2 sloped towards all four elevations of the roof where it drained into prefinished sheet metal gutters or through-wall scuppers with downspouts which discharged down to grade.
  - Roof Area No. 3 sloped towards all four elevations of the roof where it drained into prefinished sheet metal gutters with downspouts which discharged down to grade.
  - Roof Area No. 5 sloped towards internal cast iron roof drain assemblies (primary and secondary).



EXECUTIVE SUMMARY / KEY FINDINGS

- Throughout most roof areas, SEAL observed a built-up roof (BUR) system with aggregate surfacing. On the gym addition, SEAL observed a thermoplastic polyolefin (TPO) roof system. Reference Appendix B: Roof Area Key for these system locations which were confirmed based on reports and documents provided to SEAL. The documents indicated the BUR and TPO roofing systems were approximately 32 (BUR), 17 (BUR addition), and 3 (TPO) years old, respectively. During our site walk, SEAL did not detect wide-spread blisters or soft areas of the roofing substrate.
- Between Roof Area Nos. 2 and 3, SEAL observed a low-profile, bellows-type roof-to-roof expansion joint. The expansion joint was observed to be Expand-O-Flash manufactured by Johns Manville with metal flanges embedded within the roofing system. SEAL observed the expansion joint membrane exhibited deterioration and cracking across the bellows, common to an aged condition. These areas were susceptible to water infiltration.
- Along the building addition at the East side of Roof Area No. 2, SEAL observed roof membrane distress and displaced gravel at the ridge. SEAL did not observe a proper roof-to-roof expansion joint assembly in this area. Additionally, the roof drainage at this portion of the roof area was comprised of through-wall scuppers along the East elevation with no overflow drainage provisions.
- Along the East edge of the parapet wall at Roof Area No. 2, SEAL observed granule-surfaced modified bitumen base flashing. The base flashing was cracked with granule loss and was unadhered in several locations along East parapet.
- At the Southwest corner of Roof Area No. 1, SEAL observed displaced gravel and wind scouring along at least one roof corner . Displaced gravel can expose the asphalt below to ultraviolet (UV) rays and lead to ongoing membrane deterioration.
- At the West area of Roof Area No. 2, SEAL observed numerous mechanical roof penetrations. These penetrations were observed to be recently repaired/installed in at least five locations. SEAL observed at least one of the penetrations exhibited corrosion and staining onto the roof membrane. Additionally, at least seven of the duct goose neck roof curbs exhibited cracked membrane base flashings with mastic repairs at the corners.
- Along the Southeast edge of Roof Area No. 3, SEAL observed surface-applied mastic repairs in close proximity to the embedded roof edge flashing. Short and long length repairs were observed throughout many of the roof edges.
- At the clerestory window assembly along Roof Area No. 4, SEAL observed flashing laps along the rising wall to be unsealed and penetrable by at least three inches. These areas were susceptible to water infiltration around the window and roof assemblies.
- At a BUR roofing and modified bitumen base flashing termination at a prefinished sheet metal gutter interface at Roof Area No. 3, SEAL observed the edge metal flashing was improperly integrated with the roofing system and the membrane base flashing. SEAL was able to insert a spatula into the unsealed opening at least two inches deep indicating a path for water infiltration.






EXECUTIVE SUMMARY / KEY FINDINGS

- Along the West edge of Roof Area No. 1 as well as at most draining roof edges at gutter, SEAL observed the standing metal edge to be elevated above the gravel surfacing around the roof perimeter. Although it is common for BUR systems to have a “gravel stop” flashing at the roof edge, excessive height can retain water at a draining edge. Overtime, the retained water can result in membrane deterioration and subsequent leakage.
- SEAL observed granule-surfaced, modified bitumen membrane flashing along the North rising wall of Roof Area No. 1 and in other locations. The membrane and mastic covered laps were covered with an aluminum-roof coating. The membrane was observed to be partially adhered and exhibited staining at the lower three inches above the roof surface. Additionally, SEAL observed the mastic around a number of the membrane laps to be cracked, and we were able to insert a spatula at least one inch into several of the cracks.
- At many parapet locations, SEAL observed a prefinished sheet metal coping assembly. At the East edge of Roof Area No. 2, the lengths of coping were joined with splice plates. SEAL observed the sealant at this location to be deteriorated and was able to insert a spatula into the joints at least to a one inch depth.
- Roof Area No. 5 comprised of an adhered single-ply TPO membrane that was approximately three years old. The roof membrane surface was adequately adhered and the roof did not exhibit damage, deterioration, excessive wrinkles or other signs of distress. The joints of the roofing substrate (assumed to be coverboard or rigid insulation) were telegraphing through the membrane. Drainage for this roof area was comprised of internal cast iron roof drain assemblies. SEAL observed the roof drain dome strainers to be missing or omitted from the original construction. This condition was likely to allow debris to enter the roof drain leaders. Additionally, sedimentation was observed around the roof drains, likely indicating inadequate roof slope or low roof areas.
- Along the edge metal flashing at the South edge of Roof Area No. 5 as well as at other roof edge locations, SEAL observed sedimentation between the elevated sheet metal flashing edge and a longitudinal membrane undulation parallel with the roof edge. These elevated locations created a trough and retained water as evidenced by sedimentation.
- Throughout Roof Area No. 5, SEAL observed minor unadhered membrane at board edges and inclusions from within the membrane telegraphing through. These small inclusions appeared to be pointed and may lead to roof membrane puncture. This condition was likely from roof-related debris during construction.

Architectural Asphalt Shingle Roof System

- At Roof Area No. 4, SEAL observed at a gable-slope roof area over a clerestory construction assembly above Roof Area No. 3. The roofing system at this location consisted of architectural asphalt shingles over underlayment. In one location, SEAL observed at least three missing shingles repaired with membrane and seventeen partially displaced or damaged shingle tabs. Additionally, SEAL observed exposed fiberglass reinforcement from within the shingles at the shingle edges and several raised shingles.






EXECUTIVE SUMMARY / KEY FINDINGS

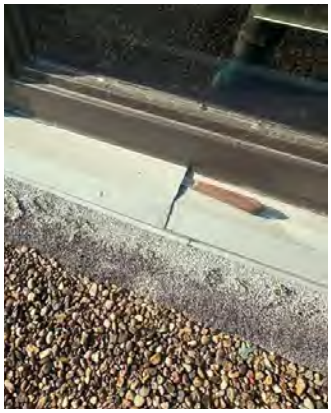
Recommendations:

Low-Slope Roofing System

Based on the documents provided by Garland, it is our understanding the low-slope BUR system was recommended for replacement in 2026. Based on the documents provided, including a WISD Summary, it is our understanding the roofing system approximately 17 years old. One roofing industry study indicates a mean 18-year service life of a BUR assemblies. In our experience, quality BUR systems can last up to 50 years with proper maintenance. The TPO roofing membrane was relatively new and did not exhibit conditions that would require significant repair or replacement at this time. Considering the existing field of the roof was solid underfoot and did not exhibit blisters of other significant visual cues of roofing distress or failure, it appears the recommendation to recover may have been slightly premature. Based on our observations to date, it is our opinion the existing low-slope roofing systems was likely to be in serviceable condition with the exception of the roof perimeter areas where leaks were reported and where isolated mastic-type repairs were observed. The following outlines our roofing-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Identify roofing manufacturer, warranty term, and warranty requirements and provide to building maintenance/engineering staff for reference and repair assistance.
- MT: Provide roofing specific training for WISD personnel to facilitate proactive identification of roofing anomalies, storm damage, and other conditions that can contribute to reduced service life.
- MT: Provide new dome strainers at the gym and gym lobby roof drains.
- MT: To proactively identify roof damage and wear, as well as maintain assumed roof warranty requirements, inspect the low-slope roofing membrane bi-annually and following significant storm events with high volume rains and/or high winds. Properly repair all damage and wear as it is identified. Third party, credentialed roofing specialists should be considered for these building-specific evaluations.
- Level 3: SEAL recommends completing a moisture survey (infrared, capacitance, or nuclear with accompanying secondary verification (roof cores preferred at that time) around Year 10 to address any significant areas of concern. If there is an active warranty, coordinate coring, if any, with roofing manufacturer for proper repair.
- Level 3: If the roofing system is wet throughout, the existing BUR system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system manufactured by Soprema or Siplast with no less than a 20-year No Dollar Limit warranty. The roof assembly should consist of a mechanically-attached gypsum substrate board (where applicable), torch-applied 100-mil minimum vapor barrier, new rigid and tapered roofing insulation, and a gypsum fiber (non-faced) coverboard. A preformed tapered insulation sump should be placed at all primary roof drains. Reinforced liquid flashing system is recommended at all roof penetration and as a supplement to the roofing membrane in the insulation drain sump. New prefinished sheet metal copings, gutters, and flashings should be provided with the new roofing system.



EXECUTIVE SUMMARY / KEY FINDINGS

- Level 3: If wet roofing is limited to the building perimeter, a perimeter renovation could be considered with removal of the existing gravel surfacing and BUR membrane. Renovation should include new roof edge flashing, new wood blocking as required for a proper nailing substrate, replace any damaged or wet insulation and coverboard with new, and apply a 18-24" wide reinforced liquid polymethyl methacrylate (PMMA) membrane properly integrated into the new prefinished sheet metal edge flashing and existing BUR.
- Level 3: Remove and replace the existing roof-to-roof bellow expansion joint with a curb-mounted stainless steel two-piece expansion joint assembly with concealed high temperature membrane underlayment, new modified bitumen membrane curb flashing, concealed fiberglass batt insulation and insulation retainer.
- Level 3: Install new reinforced liquid PMMA membrane to restore the existing modified bitumen membrane flashing at the roof penetrations and rising walls.
- Level 3: Remove all surface-applied sealants and replace with new prefinished sheet metal transition flashings at counterflashing to edge metal and gutter interfaces.

Intermediate and Long-term Recommendations (10 to >20 Years):

- MT: Re-evaluate the roofing assemblies at 5 years intervals with visual and moisture surveys.
- MT: Recoat locations with coating at 5-year intervals.
- MT: When roofing systems exhibit elevated moisture or signs of deterioration or damage, consideration for roof replacement should commence with the system recommended above.

Asphalt Shingle Roofing Systems

Based on our observations of the steep-slope asphalt architectural shingle roofing system at the clerestory roof area, it is our opinion the shingles are likely beyond their useful service life and the observed wind damage has likely compromised the integrity of the roofing system.

Short Term Recommendations (<10 years), including immediate:

- Level 4: Replace the existing roofing system with a new architectural roofing system over new roofing underlayment. While re-roofing, replacement of the existing sheet metal gutter, edge flashing and downspouts is also recommended.
- Level 4: For added durability, a double-lock standing seam prefinished sheet metal roofing system over high-temperature underlayment and continuous insulation should also be considered.
- Allow for up to 10% of the roof decking to be replaced where possible damage may have occurred.







EXECUTIVE SUMMARY / KEY FINDINGS

Intermediate and Long-term Recommendations (10 to >20 Years):

- MT: If immediate roofing system replacement is completed, future roofing activities would include proactively identifying roof damage and wear, as well as maintain assumed roof warranty requirements, inspect the steep-slope roofing components bi-annually and following significant storm events with high volume rains and/or high winds. Properly repair all damage and wear as it is identified. Third party, credentialed roofing specialists should be considered for these building-specific evaluations.
- MT: If the roofing is replaced immediately, follow the inspection and maintenance protocol outlined above and prepare for reroofing after Year 20 after initial roof installation.

FLOORS

Carpet throughout the facility shows signs of staining and damage, particularly within classrooms. Areas of water-stained, discolored, or otherwise damaged carpet should be replaced to restore appearance and maintain a clean, functional environment. It is recommended to replace the carpet throughout the facility within the next 5-10 years.

DOORS

Overall, the doors throughout the facility were observed to be in fair condition. Minor scuffs and chips were noted on some door surfaces; these are primarily cosmetic and do not require immediate remediation

MILLWORK / CASEWORK

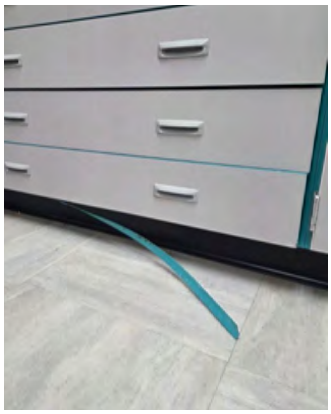
Casework throughout the facility, including classrooms, is in fair condition with visible damage to cabinets and countertops. Damaged casework and countertops should be repaired or replaced in 10-15 years as needed to ensure functionality, safety, and a clean appearance.

CEILING

Stucco-Clad Soffit Assemblies

- At the building entrance canopies, SEAL observed stucco soffit panel assemblies. The assemblies were observed to be vented along the soffit perimeter. SEAL observed many of the panel dimensions to exceed the recommended 2:1 length to width ratio which make them more susceptible to cracking. Additionally, SEAL observed the steel support angles to extend completely between the canopy columns. At the support angle ends, there was an open gap between the angle and the brick-clad column, SEAL observed exposed membrane air barrier at this location. The exposed flashings were susceptible to UV deterioration when exposed.
- At the stucco soffit canopy-to-brick masonry interface along the gym addition, SEAL observed the metal soffit accessories to be discontinuous from the stucco potentially as the result of damage or incomplete integration with adjacent systems.






EXECUTIVE SUMMARY / KEY FINDINGS

Interior Ceilings

Ceilings throughout the facility exhibit widespread issues, including damaged, sagging, and water-stained ceiling tiles as well as sections of ceiling grid requiring repair or replacement. Several classrooms and corridors show significant staining and sagging of 2x4 ceiling tiles, while areas such as the library have visible water damage. Damaged or missing ceiling grid components should be repaired, and all affected ceiling tiles should be replaced as needed. Full ceiling replacement is recommended in 5-10 years.

KITCHEN

Rating Criteria:

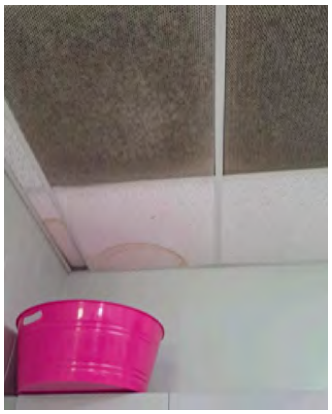
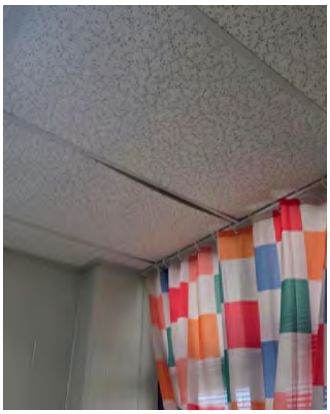
- Priority 1: Poor – Immediate replacement (0-5 life expectancy)
- Priority 2: Poor/Fair – Should be replaced (5-15-year life expectancy)
- Priority 3: Fair – Replacement not needed currently (15-20-year life expectancy
- Priority 4: Good – Replacement not needed (20-25-year life expectancy)
- Priority 5: MT – Maintenance required
- Priority 6: MI – Missing or not present

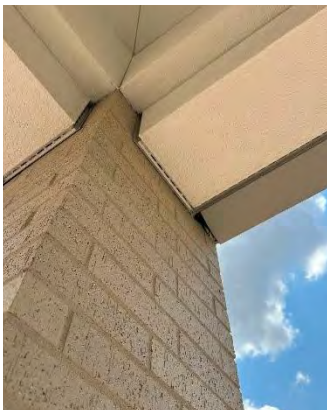
Architectural:

- Floor: Good
- Ceiling-Kitchen : Good
- Walls: Good
- Floor Sinks: Fair
- Electrical Panels: Good
- Ceiling-Servery: Good

Recommendations:

Overall kitchen is in fair condition, recommend replacing all priority 1 & 2 equipment and increase square footage expansion to accommodate future student population. Existing Kitchen space is grossly undersized. Renovate the facility to be 3200 square feet to allow proper workflow with cross relationship efficiencies. Cold storage assembly is undersized. Increase square footage to 324 SF to accommodate student population.



EXECUTIVE SUMMARY / KEY FINDINGS

Code Deficencies:
Cold storage assembly floor is rusting.
Exhaust hood-equipment below hood does not accommodate 6” overhang.

Janitors:
The following pieces of equipment are in poor condition:
- Wall Mounted Overshelf
- Wood Shelving

The following pieces of equipment are missing or not present:
- Chemical Shelf

Cold Storage Assembly:
The following pieces of equipment are in poor condition:
- Cold Storage Assembly

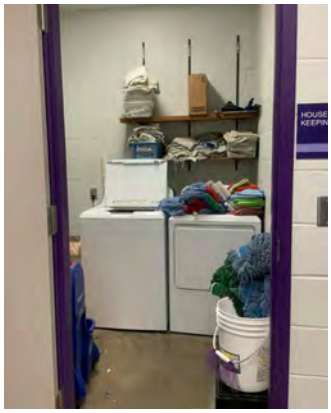
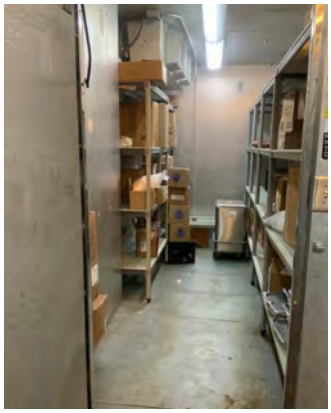
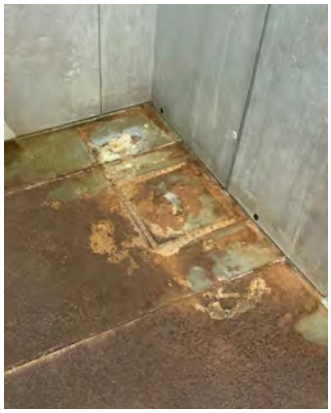
The following pieces of equipment are in fair / poor condition:
- Refrigeration System-Standard

Preperation:
The following pieces of equipment are in fair condition:
- Ice Maker With Bin - 500 Lb Capacity
- Two Compartment Sink W. Disposer

Bakery:
The following pieces of equipment are in fair / poor condition:
- Baker’s Table

Production:
The following pieces of equipment are in fair / poor condition:
- Exhaust Hood
- Exhaust Hood
- Mobile Worktable

The following pieces of equipment are in fair condition:
- Worktable No Overshelf
- Worktable W. Dbl.bar Ut.rack

EXECUTIVE SUMMARY / KEY FINDINGS

- Fire Protection System
- Hand Sink - Wall Mtd
- Six Burner Range - Gas

Warewash:
The following pieces of equipment are in fair condition:

- Booster Heater
- Mobile Drying Rack

**All equipment/areas not specifically listed should be assumed to be in good condition, meaning replacement not needed till end of life cycle, 20-25 year life expectancy.*

MEP

Existing Conditions:

- **Cooling/Heating System:** Chilled water system. Texas Multi-zone system. Compressors are Carrier. Heating is gas-fired boiler.

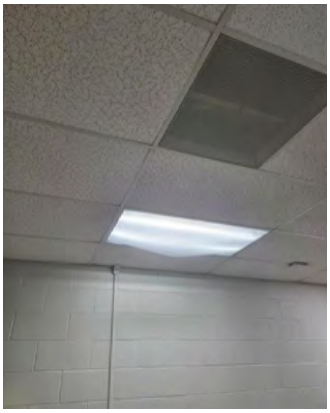
- Energy Mgmt. System: Automated Logic, System 2020 pneumatic controls with digital overlay. Heat and chill water control, temperature control, trending of systems, system start/stop from remote location.

Recommendation:
Turner Elementary School was built in 1993 with additions in 2003, 2008 and 2022. Mechanical equipment was replaced in 2025. Mechanical equipment will need to be addressed for lifecycle replacement in 20-25 years. The lavatories currently do not have hot water, adding hot water is not currently required, but it is recommended for code compliance. Any future renovation that involved plumbing fixtures would require the building be brought up to code.

LIGHTING

Lighting was reported, and observed to be considered “low levels” for an educational environment throughout academic areas. Lighting is currently fluorescent while LED upgrades are not required, upgrading to an all LED system immediately to address low lighting levels present is recommended. As part of a potential lighting scope, a new LED stage lighting system should also be considered at the stage, within the next 3-5 years. This system should include a touchscreen controller and be similar in configuration to the installation at Lagway Elementary School, ensuring consistency and parity across district facilities.



EXECUTIVE SUMMARY / KEY FINDINGS

TECHNOLOGY

Audio Visual

- The cafeteria requires a full A/V system replacement, including a new projector, screen, control system, and HDMI routing. This should be addressed in 3-5 years.
- In the gymnasium, the existing A/V system should be adjusted by a qualified integrator to properly balance microphone levels and eliminate audio feedback. This can be addressed by the district's maintenance staff.
- Classrooms are recommended to receive Promethean boards to align with the district's current technology standards, as most classrooms currently do not have this equipment. This item can be addressed according to the district's preferred timeline.
- The conference room should be equipped with conferencing devices to enable full virtual and hybrid meeting functionality. This item can be addressed according to the district's preferred timeline.

Sound

- In the gymnasium, the district's maintenance staff should adjust speaker coverage to avoid reflections off walls above standing head height, which will improve speech intelligibility and overall sound quality on the court.
- The cafeteria sound system should undergo a complete replacement, including new speakers, a portable mixer, SMP rack, DSP, and a recording solution to improve functionality and performance. This should be addressed in 3-5 years.

Theatrical

- Within the stage and platform area, a full drapery replacement is recommended using Inherently Flame Retardant (IFR) fabric. Existing draperies consist of a combination of chemically treated cotton velour and unmarked fabric, possibly duveteen, which lack required NFPA 701 labeling. The manufacturer's tag indicates fabrication in 2009; since cotton velour must be retreated every 5–7 years to maintain flame retardancy, replacement with synthetic IFR velour is strongly advised to ensure compliance and reduce maintenance. This should be addressed immediately.
- The theatrical rigging system should have its hardware replaced within the next 2-3 years, as the attachment of lift lines to the structure could not be verified. Annual inspection should continue to ensure all cable clips and fasteners remain secure.

PA

The PA headend equipment is very old and likely not serviceable, requiring full replacement. Volume controls should be added in office and admin spaces to allow for private discussions without interruptions from announcements. Wall-mounted speakers are recommended for exterior coverage, as vital areas such as meeting locations and playgrounds currently have no PA coverage.

SECURITY

- **All Areas**: Replace existing Hikvision cameras with Hanwha cameras, as the current Hikvision cameras are not NDAA compliant. This should be addressed immediately.
- **All Exterior Doors:** Add DPDT door contacts to electronically monitor the status of all exterior doors. These devices integrate with access control and intrusion systems, sending alerts if doors are forced or held. This should be addressed immediately.
- **Corridors:** Add additional 180-degree dual-head cameras to capture entries at exterior doors. The spacing between openings and the first multi-sensor at intersections is approximately 70–80 feet. This should be addressed immediately.

EXECUTIVE SUMMARY / KEY FINDINGS

- **Entry / Admin Area:** Install card readers to restrict access in the front office and limit path of travel. This should be addressed immediately.
- **Nurse Station:** Add an access control button at the nurse desk to allow lockdown capability in the event of an emergency. This should be addressed immediately.
- **Playground Doors (10, 11, 12):** Install CRS devices on these doors to enhance security. This should be addressed immediately.
- **Kitchen:** Add cameras to the kitchen prep area to provide general coverage. This should be addressed within 1–2 years.
- **Courtyard:** Add additional exterior camera coverage to improve surveillance. This should be addressed within 1–2 years.
- **Stride Area:** Install SB507 devices for future use. This should be addressed within 1–2 years.
- **Playground Area:** Add sufficient camera coverage, including cameras capable of zooming with high-quality imaging. This should be addressed within 1–2 years.
- **Exterior Cameras:** Provide sufficient coverage for exterior building areas, including bus lanes, parent drop-off, and exterior doors 6, 11, 12, 19, and 20. This should be addressed within 1–2 years.

CANNAN ELEMENTARY SCHOOL

03

HISTORIC DATA

This school was completed at an approximate cost of $5,885,494 in 1999. This elementary school was named after Mr. Edward B. Cannan who was a music educator in Willis ISD for a total of 12 years and was instrumental in the establishment of the music/band program in the District as we know it today. Mr. Cannan taught elementary music and band from 1962-65. He was the band director & choir director at Willis High School from 1969-78. Mr. Cannan has the distinction of being the author of the Willis School Song. Mr. Cannan would help students get horns when they didn't have any money. He was alive, well and accompanied by many friends, former students, fellow educators and proud members of his family at the dedication of this school, the district's third elementary school, in the fall of 1999.

Major Additions or Renovations: There have been no major renovations to this facility since it was built in 1999. In August 2008, 4 classrooms, restrooms, hallways & storage were added to this building and security improvements were made at the front entrance. In 2009, an emergency generator was added to this building to ensure adequate electrical coverage during power failures. In the summer of 2012 carpet was replaced in 21 classrooms and library and upgraded the Fire Alarms. In 2012 the Technology Department installed projectors and security cameras throughout the building. In June 2013 carpet was replaced in 37 classrooms and the administrative offices. In the summer of 2014, flooring was replaced in all the restrooms and security features and enhancements were completed. District wide lighting upgrade in April 2015. In the summer of 2016, a new driveway extension was added as part of Bond Issue 2015 to alleviate traffic congestion. In summer 2018 installed a new boiler and chillers along with a safety entry. In 2021 we removed a portable. Completed Bond 2020 Projects are Gym Addition 2022. Energy Management System Upgrade 2023.

**All historical data and supporting information included in this report were furnished by the district. While the assessment team has made reasonable efforts to review and reference this material, the data has not been independently verified or validated in detail. The team assumes no responsibility for any inaccuracies or omissions contained within the district-provided information.*

GENERAL INFORMATION



CANNAN ELEMENTARY SCHOOL 7639 County Line Road Willis, TX 77378	
Year(s) Built:	1999
Approx. Total Building Square Footage	78,339 SF*
Approx. Total Site Area	24 acres

*Includes the 2003, 2008, and 2022 additions

UTILIZATION SUMMARY



LEGEND

- Does meet TEA and Ed Spec
- Does meet Ed Spec
  *no TEA requirement
- Does not meet Ed Spec
- Does not meet TEA and/or Ed Spec

Note: This facility was originally constructed prior to the adoption of current TEA code requirements and Educational Specification standards. Because these regulations were implemented after the buildings were constructed, certain conditions may not meet today's guidelines. The assessment reflects existing conditions as they relate to current TEA and Educational Specification expectations for academic spaces.

UTILIZATION SUMMARY

TEA Deficiencies:

- **Science:** The separate science laboratory and classroom configuration is not permissible at the elementary level. A combination science classroom/laboratory for Kindergarten-Grade 5 must provide a minimum of 50 SF per student. The room may have an established maximum of 22 students but must not exceed 25. Within the total square footage of the room, 6 SF per student of horizontal laboratory counter top space (3 feet wide x 2 feet deep) must be provided at student laboratory benches, and an additional 3 linear feet (LF) per student of horizontal laboratory counter top support space must be provided for equipment and materials for investigations, activities, or student projects. Current spaces are ~100 SF undersized to accommodate an established maximum of 22 kids

- ***Missing Prep/storage rooms:** Prep/Storage rooms were observed to be missing from plan, if the district wants to fit (24) students in the associated science lab, One preparation/storage room at a minimum 10 SF per student shall be provided adjacent to each combination science classroom/laboratory. One preparation/storage room at a minimum of 10 SF per student shall be provided per science classroom and be located adjacent to its partner science laboratory. Preparation/storage rooms may be combined, but the combination of more than one preparation/storage room shall not reduce the minimum square feet or quantity of built-in fume hoods required if they were not combined.

Educational Specification Deficiencies:

- **Classrooms:** Most all classrooms within the facility are undersized from the Ed Spec requirement. The Ed Spec requires 850 SF each to accommodate 25 students at 36 SF/student.

- **Science: c**urrently only have (1) at approximately ~150 SF undersized to accommodate an established maximum of 22 kids. The Ed Spec requires (2) classrooms/labs at 1,100 SF each to accomodate 22 students each.

- **Library:** the library and it's included associated spaces approximately 680 SF undersized. The Ed Spec require 4,130 SF for the library, including the associated office and workroom.

- **Dining Area:** The dinging area is approximately 925 SF undersized from the Ed Spec requirement of (1) at 4,000 SF.

- **Music:** The music room is minorly undersized from the Ed Spec requirement of (1) at 1,200 SF.

- **Gym:** While the gym meets the 3,000 SF minimum required by TEA it is approximately 500 SF under the Ed Spec requirement of 4,000 SF.

- ***Missing Maker Space:** The Ed Spec requires (1) at 900SF

- ***Missing Art:** The Ed Spec requires (1) at 1,200 SF to accomodate 24 students.

- ***Missing Life Skills/Special Education Classrooms:** The Ed Spec requires (3) at 850 SF each to accomodate 12 students each.

- ***Missing Motor Lab:** The Ed Spec requires (1) at 1,000 SF.

**Note: The comparison to Educational Specifications was limited to TEA-regulated academic spaces, including classrooms, science labs, libraries, and gymnasiums. Non-instructional or support spaces identified within the Educational Specifications were not included in this review.*

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

Several potential ADA compliance issues were identified throughout the campus, primarily related to restrooms, classroom equipment, and site accessibility:

Restrooms:

- Multiple restrooms do not meet ADA code requirements and should not be listed as accessible due to insufficient space.
- Paper towel dispensers in some locations are mounted in the path of travel and exceed allowable protrusion limits; they should be relocated above casework or adjusted to comply.
- Water fountains in some areas do not meet ADA approach clearance requirements.
- Handrails in select restrooms are loose and require repair to ensure safety and compliance.

Classroom and AV Equipment:

- Projection screens protrude more than 4 inches from the wall, exceeding allowable protrusion and potentially creating hazards in accessible paths.
- AV racks protrude more than 4 inches and, due to desk placement, may obstruct accessible paths.

Site Accessibility:

- Multiple portable classrooms lack accessible paths.
- Accessible routes need to be provided to all playground areas to ensure compliance and safe access for all students.

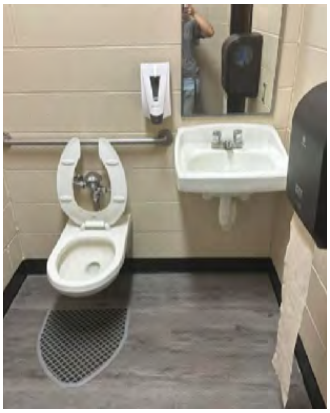
Stage/Platform – Draperies:

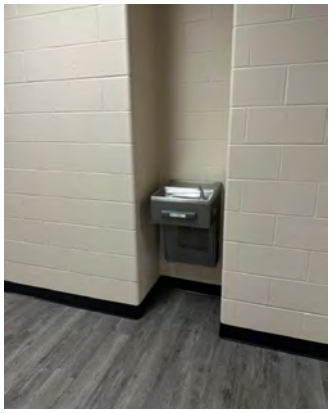
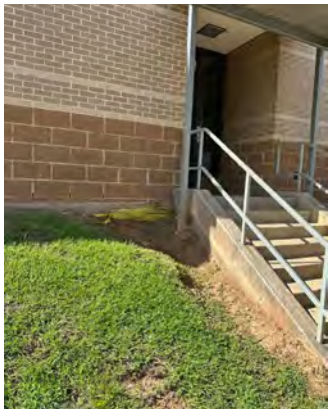
- Partial drapery replacement is recommended to include new IFR (Inherently Flame Retardant) fabric. The front curtain was replaced in March 2024; the age and material of rear and side curtains are uncertain, with some cotton velours predating 2014. Cotton velours should be chemically flame-retarded every 5–7 years to meet NFPA 701; synthetic velours are recommended as a longer-term solution.

SITE CONDITIONS

Benches throughout the campus show wear and require refinishing to restore durability and appearance.

An overflow drain at the gym is not properly directing water to the inlet, resulting in pooling and undercutting at the mow strip. In addition the north side of the site is experiencing run off issues due to steep site grading without proper drainage channels being provided.



EXECUTIVE SUMMARY / KEY FINDINGS

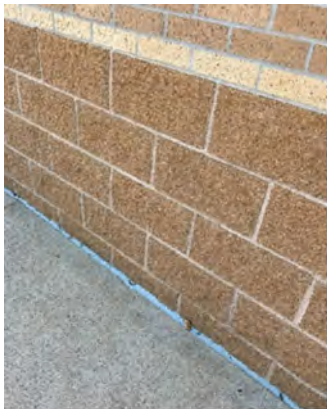
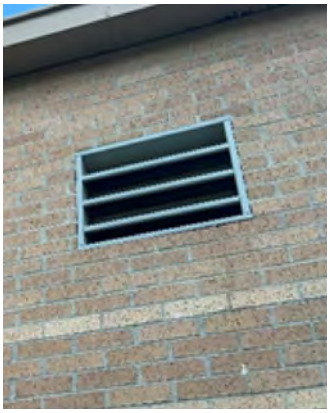
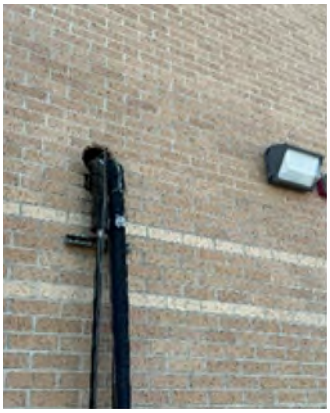
Corrective action will be provided during the upcoming 10 classroom addition the district is currently preparing to go into construction for.

EXTERIOR WALLS

Existing Conditions:

Concrete Masonry Units (CMU) And Masonry Veneer Walls

- Throughout the various building elevations, SEAL observed exterior wall comprised of brick masonry veneer cladding and split-face concrete masonry units (CMU). It was assumed the wall assembly was constructed as a cavity wall with interior air or weather-resistive barrier applied to the concealed back-up wall.
- At the split-face CMU along the base-of-wall at the West building elevation, SEAL observed cracks throughout most of the mortar joints. Additionally, SEAL observed a crack through the entire horizontal length at the CMU-to-brick masonry veneer joint indicating differential movement between the adjoining materials.
- At a representative the column along the main building entrance canopy, SEAL observed staining in the CMU mortar joints, poorly tooled mortar, and at least one pin hole in a mortar joint. Additionally, SEAL did not observe weeps in the canopy support columns which was likely reducing the wall cavity drainage capabilities.
- At the East elevation, SEAL observed most of the sealant at the masonry expansion joints were adequately tooled. A crack was observed in the brick course at the base of the wall where the expansion joint was not continuous.
- Along the West building elevation, SEAL observed a misaligned masonry control joint the building sealants along the sidewalks were observed to be deteriorated. Additionally, SEAL observed the mortar joint between the brick and CMU to be narrow and unlikely to accommodate the required movement.
- At the canopy to wall interface at the gym addition, SEAL observed an opening at the lintel above the entrance in at least two locations. Additionally, SEAL observed the mortar along the lintel ends to be displaced at some locations.
- At the rising wall along the South elevation of Roof Area No. 8, SEAL observed a wall assembly comprised of two-piece stainless steel through-wall flashing with full head weeps above. The mortar joint above the flashing was observed to be discolored potentially as part of a previous masonry renovation or previous water retention.
- Throughout the various building elevations, SEAL observed dark staining along the wall originating from behind the gutters. This condition was likely indicative of a concealed roof or flashing discontinuity behind the gutters may lead to continued staining or accelerated deterioration of the veneer and other masonry wall components.
- At the louver along the South elevation, SEAL observed missing or omitted sealant around an aluminum louver assembly perimeter. Additionally, SEAL observed at least one unsealed wall penetration and sleeve and wires extending to the exterior from within the building. These conditions are susceptible to uncontrolled air and water migration.

EXECUTIVE SUMMARY / KEY FINDINGS

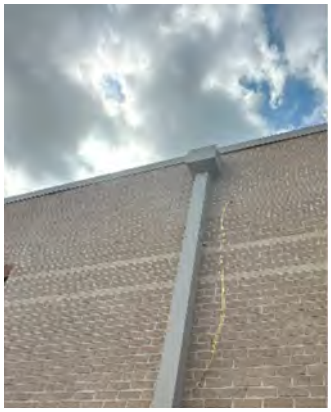
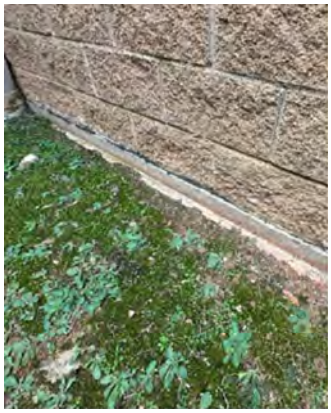
- Along the North elevation, SEAL observed exposed membrane through-wall flashing at the base-of-wall condition. Exposed flashings are susceptible to UV deterioration.
- Along the South wall elevation, SEAL observed the weep holes were concealed at the base-of-wall. Additionally, SEAL observed insect mounds to be evident throughout multiple building elevations with at least one occurring at a concealed weep location.
- At the West elevation of the gym addition, SEAL observed staining along the CMU and concrete pavement beneath the overflow drain outlet. This condition was indicative of an obstruction or water volume exceeding the capacity of the primary roof drain.
- SEAL observed a funnel shaped object attached to the brick masonry along the top-of-wall throughout at least two of the building elevations. SEAL was not aware of the function of the funnel-shaped component nor its ability to limit air and water infiltration.
- At most window locations around the building, SEAL observed the top course of the split-faced CMU blocking terminated just below the window sill. The CMU at this location did not exhibit slope, but rather exhibited a near horizontal ledge. The rising masonry walls above the roof exhibited brick cladding terminating at the window sills. This condition also resulted in a horizontal or near horizontal ledge condition, including several where the brick cores were open and unsealed. These conditions were likely allowing moisture and bulk water to be retained within the masonry resulting in the observed cracking, staining, and efflorescence observed in the masonry below.

Recommendation:

Based on our observations of the existing masonry wall assemblies, it is our opinion the CMU and brick veneer was adequate to prevent uncontrolled air and water infiltration. However, SEAL observations related to the masonry components below the glazed wall openings indicated there are ongoing issues that are likely to diminish the service life of those components. The following outlines our masonry-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- Level 4: Investigate masonry wall assemblies to comprehensively evaluate moisture staining, cracking, and efflorescence observed beneath the glazing system openings. For budgetary purposes, modification of the window sill masonry units to add slope and prefinished sheet metal sill flashings, as well as all perimeter sealants should be considered.
- Level 3: Investigate localized areas of masonry veneer distress and identify remediation protocols to restore the assemblies to their typical 50+ year service life. These locations generally include the roof-to-wall interface at hanging gutters, sloped flashing cut through brick units at rising walls, and localized spalling conditions.
- MT: Repairing of cracked/displaced CMU and masonry units, including tuckpointing/filling of mortar joints.


EXECUTIVE SUMMARY / KEY FINDINGS

- Level 1: Remove and replace masonry expansion and control seals, as well as unsealed wall penetrations with high performance DowSil silicone sealants appropriate for the substrates required and backer rod.

Intermediate and Long Term Recommendations (10 to> 20 Years):

- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually. Remove and replace masonry expansion joint sealants to maintain water resistance with high-performance DowSil silicone glazing sealant.
- MT: Add prefinished sheet metal flashings to the support angle ends to prevent exposure of the air/weather barrier membranes within the wall assembly.

INTERIOR WALLS

Minor and superficial wall damage was observed throughout the facility, including scuffs, dents, and other cosmetic issues, however most instances can be handled by the district's maintenance personnel. An individual instance of a toilet connection at the wall requires attention to ensure proper function, and a leak was noted at a gutter, which should be repaired to prevent water intrusion and potential damage to adjacent walls and finishes.

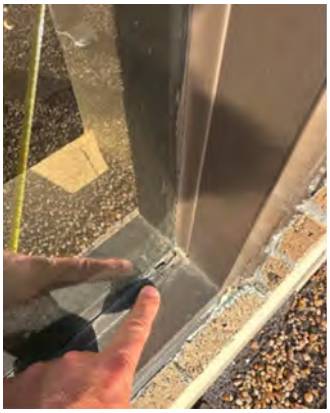
WINDOWS

Existing Conditions:

Aluminum-Framed Glazing, Entrance, and Door Systems

- Throughout the East and West building elevations, SEAL observed clerestory window assemblies at the rising walls between the high roof area and main roof areas. Assemblies were comprised of aluminum-framed storefront glazing systems without visible weep provisions weeps.
- SEAL observed at least one of the clerestory window assemblies with missing/ omitted or exposed fasteners. Exposed or missing fasteners were susceptible to corrosion and water infiltration. Additionally, missing fasteners may also allow for uncontrolled air transfer through the window assembly.
- At the various window assemblies throughout the building, SEAL observed short gaskets. Short gaskets may be the result of installation anomalies or age and exposure-related shrinkage.
- Along the brick masonry to clerestory window openings along the East building elevation, SEAL observed many unsealed gaps.
- Throughout the various building elevations, SEAL observed aluminum-framed storefront punched window assemblies with nine lites. At the West building elevation, SEAL observed efflorescence below at least one of the window assemblies. Additionally, SEAL observed staining along the CMU beneath at least one of the window assemblies at the East elevation.
- At the building main entrance assembly along the South elevation, SEAL observed aluminum-framed storefront



EXECUTIVE SUMMARY / KEY FINDINGS

window and door assemblies. Throughout the entrance assembly, SEAL observed short gaskets at many of the window locations. Additionally, SEAL observed pinholes and staining in the mortar joints along the CMU ledge.

- At the door jamb-to-sill condition at the main entrance, SEAL observed sealant to be missing/omitted. SEAL was able to insert a spatula approximately 3" deep. Additionally, SEAL observed uncontrolled air leakage between the doors in at least one entrance location.

Recommendation:

Based on our observations of the existing glazing and fenestration systems, it is our opinion that the window and door systems, including seals and gaskets, are adequately performing within their service life but require localized remediation efforts to maintain reasonable remaining performance. The following outlines our glazing and fenestration-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- Level 1: Modify brick masonry veneer at sill to exhibit slope. Install prefinished sheet metal transition flashing at window sill to provide continuity and eliminate moisture sensitive conditions between the window units and the brick masonry veneer below.
- MT: Remove and replace perimeter joint seals around all glazing and door systems with high performance DowSil silicone sealants appropriate for the substrates required.
- Level 1: Replace or trim glazing gaskets and wet seal existing window systems to assist with water resistance.
- MT: Remove and reset or replace existing door thresholds and sealing door system to adjacent wall.
- MT: Remove and replace all existing door weatherstripping with new materials.

ROOF

Existing Conditions:

Low-Slope Roofing System

- Throughout most of the roof areas, SEAL observed a built-up roof (BUR) system. On the gym addition, SEAL observed a thermoplastic polyolefin (TPO) roof system. On the front entrance canopy, SEAL observed a modified bitumen roof system. Reference Appendix B: Roof Area Key for these system descriptions, which were confirmed based on reports and documents provided to SEAL. The documents indicated the BUR and TPO roofing systems were approximately 26/17 and 3 years old, respectively. During our site walk of most roof areas, SEAL did not detect wide-spread blisters or soft areas of the roofing substrate, except where identified below.







EXECUTIVE SUMMARY / KEY FINDINGS

- The main drainage systems of the low-slope roof areas were as follows:
  - Roof Area No. 1 sloped towards the East and West perimeters which drained freely to grade.
  - Roof Area No. 2 sloped towards the East and West perimeters which drained into prefinished sheet metal gutters and downspouts which discharged to adjacent roof areas.
  - Roof Area No. 3 sloped towards the South perimeter which drained into prefinished sheet metal gutters and downspouts which discharged down to grade.
  - Roof Area No. 4 sloped towards the North, South and West perimeters which drained into prefinished sheet metal gutters and downspouts which discharged to adjacent roof areas and down to grade.
  - Roof Area No. 5 sloped towards the West elevation which drained into prefinished sheet metal gutters and downspouts which discharged down to grade.
  - Roof Area No. 6 sloped towards the North, South, East, and West perimeters which drained into prefinished sheet metal gutters and downspouts or through-wall scuppers which discharged to adjacent roof areas and to grade.
  - Roof Area No. 7 sloped towards the North, East, and West perimeters which drained into prefinished sheet metal gutters with downspouts and discharged down to grade.
  - Roof Area No. 8 sloped towards internal cast iron drain assemblies without dome strainers.



EXECUTIVE SUMMARY / KEY FINDINGS

- At the roof-to-wall interfaces throughout the various roof areas, SEAL observed poor transitions flashing assemblies. At the counterflashing above the roof line, the membrane through-wall flashing was visible, as well as deteriorated and cracked. Additionally, the components of the air barrier system were exposed, and the mortar joints were discolored as a result of the flashing membrane.
- At the barrel-shaped canopy roof area, SEAL observed a granule-surface modified bitumen roof membrane that appeared to have an aluminum roof coating. The roofing membrane was sealed at the vertical masonry veneer wall and the vertical membrane flashing height was not visible. Based the dimensions of the sheet metal step flashing, it appeared the lowest potential height was no more than two inches, while the maximum available flashing height was approximately four inches. The sealant along the step flashing at the canopy to wall interface was observed to be cracked. SEAL observed a crack through the brick masonry adjacent to the flashing. Additionally, SEAL observed the roof membrane and substrate was soft underfoot.
- At the horizontal ledge condition between Roof Area Nos. 1 and 6, SEAL observed prefinished sheet metal ledge flashing with minimal fasteners and overlap of the underlying membrane base flashing materials. In addition, the flashing assembly did not appear to exhibit concealed clips or cleats to engage the overlying flashing. This flashing profile was susceptible to displacement during high wind events.
- At various roof area corners, SEAL observed displaced gravel resulting from wind scour. Displaced gravel can expose the asphaltic roofing system components below to ultraviolet (UV) rays and lead to ongoing membrane deterioration.
- Along the many locations through the BUR roof areas of the facility, SEAL observed many short and long surface-applied mastic repairs. These repairs appeared to be consistent with previous repair attempts at the roof-to-wall interface which included embedded sheet metal edge flashing to transition from the membrane roof-to-sheet metal gutter assembly.
- At Roof Area No. 4 and at several other locations around the facility, SEAL observed curb-mounted exhaust fan penetrations with granule-surfaced modified bitumen membrane base flashing integrated into the BUR system. In at least one location, SEAL observed the exhaust fan had a surface-mounted grease trap supported using stacked bricks on the roof surface. Grease and animal fats are known to be problematic for asphalt-based roofing systems.
- At Roof Area No. 6, SEAL observed at least curb-mounted exhaust fan penetration without sheet metal counterflashing. Additionally, SEAL observed missing/ omitted fasteners at the exhaust fan curb to structural curb interface. The limited attachment of the fan to the curb increased its susceptibility to wind displacement during high wind events.
- At a small portion of the roof edge along the North eave of Roof Area No. 6, SEAL observed the gutter screen/ guard over the sky-facing gutter top which was under a large tree with numerous leaves. The screen to exhibited organic debris and gravel which limited drainage from the roof assembly in this location. Gutters in other areas of the building did not contain a gutter screen.







EXECUTIVE SUMMARY / KEY FINDINGS

- SEAL observed a prefinished sheet metal gutter along the West eave of Roof Area No. 2. The bottom of the gutter exhibited corrosion and holes. Additionally, SEAL observed asphaltic staining along the gutter-to-brick masonry interface emanating from behind the rear gutter leg. The origin of the staining was not defined.
- At the rising wall along the West elevation of Roof Area No. 6, SEAL observed at least one sheet metal downspout was detached from the wall. Detached downspouts are susceptible to movement during high wind events and may damage brick masonry or the roof membrane. Additionally, SEAL observed displaced gravel around downspout outlets where splashpans/blocks were not in place beneath the downspout. In the locations where gravel was displaced, SEAL observed exposed asphaltic roofing membrane.
- At Roof Area No. 8, SEAL observed a single-ply TPO membrane with drainage comprised of internal cast iron roof drain assemblies. SEAL observed the roof generally exhibited a solid substrate underfoot without evidence of roof damage, deterioration, or significant soft spots. In addition, SEAL observed dome strainers at this roof area were missing or omitted from the original construction. Additionally, SEAL observed sedimentation common to retained water along membrane laps and around drains.
- At the lower section of Roof Area No. 8, SEAL observed dome strainers at this location were missing or omitted from the original construction. This condition was likely to allow debris to enter the roof drain leaders. Additionally, SEAL observed movement of the roof substrate board edges telegraphed through the roof membrane indicating the roofing coverboard and/or insulation may not be adequately adhered.
- Along the lower TPO roof at the gym lobby, SEAL observed the roof membrane flashing to be installed under the existing sheet metal gutter. SEAL did not observe counterflashing along the interface which will likely complicate access to the roof system termination behind the gutter. The roof membrane along the base of wall was observed to be bellowed and appeared to exhibit a profile common to a simple, membrane-type roof expansion joint.
- At the North edge of Roof Area No. 8, SEAL observed the roof edge to be recessed throughout the perimeter at the horizontal flange of the sheet metal edge flashing. This area exhibited sedimentation common to areas which retain water.

Recommendation:

Based on the documents provided by Garland, it is our understanding the low-slope BUR system was recommended for replacement in 2026. Based on the documents provided, including a WISD Summary, it is our understanding the roofing system approximately 17 years old. One roofing industry study indicates a mean 18-year service life of a BUR assemblies. In our experience, quality BUR systems can last up to 50 years with proper maintenance. Considering the existing field of the roof was solid underfoot and did not exhibit blisters of other significant visual cues of roofing distress or failure, it appears the recommendation to recover may have been slightly premature.



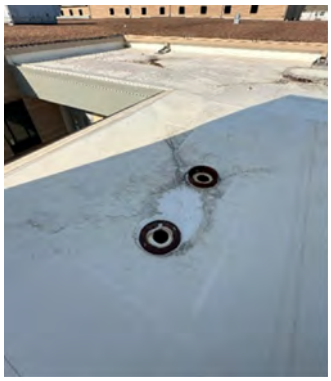
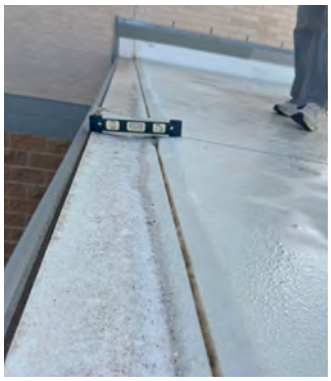



EXECUTIVE SUMMARY / KEY FINDINGS

Based on our observations to date, it is our opinion the existing low-slope roofing system was likely to be in serviceable condition with the exception of the roof perimeter areas where leaks were reported and where isolated mastic-type repairs were observed. In addition, as standard roofing warranties are commonly a 20-year term, it is possible the current roofing system is still under warranty. The following outlines our roofing-related recommendations:

- MT: Identify roofing manufacturer, warranty term, and warranty requirements and provide to building maintenance/engineering staff for reference and repair assistance.
- MT: Provide roofing specific training for WISD personnel to facilitate proactive identification of roofing anomalies, storm damage, and other conditions that can contribute to reduced service life.
- MT: To proactively identify roof damage and wear, as well as maintain assumed roof warranty requirements, inspect the low-slope roofing membrane bi-annually and following significant storm events with high volume rains and/or high winds. Properly repair all damage and wear as it is identified. Third party, credentialed roofing specialists should be considered for these building-specific evaluations.
- Level 3: SEAL recommends completing a moisture survey (infrared, capacitance, or nuclear with accompanying secondary verification (roof cores preferred at that time) to address any significant areas of concern at the BUR roof areas. If there is an active warranty, coordinate coring, if any, with roofing manufacturer for proper repair.
- Level 3: If the BUR system is wet throughout, the existing BUR system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system manufactured by Soprema or Siplast with no less than a 20-year No Dollar Limit warranty. The roof assembly should consist of a mechanically-attached gypsum substrate board (where applicable), torch-applied 100-mil minimum vapor barrier, new rigid and tapered roofing insulation, and a gypsum fiber (non-faced) coverboard. A preformed tapered insulation sump should be placed at all primary roof drains. Reinforced liquid flashing system is recommended at all roof penetration and as a supplement to the roofing membrane in the insulation drain sump. New prefinished sheet metal copings, gutters, and flashings should be provided with the new roofing system.
- Level 3: If wet BUR system is limited to the building perimeter, a perimeter renovation could be considered with removal of the existing gravel surfacing and BUR membrane. Renovation should include new roof edge flashing, new wood blocking as required for a proper nailing substrate, replace any damaged or wet insulation and coverboard with new, and apply a 18-24” wide reinforced liquid polymethyl methacrylate (PMMA) membrane properly integrated into the new sheet metal edge flashing and existing BUR.
- Level 3: Install new reinforced liquid PMMA membrane to restore the existing modified bitumen membrane flashing at the roof penetrations and rising walls.
- Level 4: Investigate perimeter roof edge flashings at draining edges where stains were observed below the existing prefinished sheet metal gutters. For budgetary purposes, it should be assumed that most, if not all, metal edge flashing profiles (metal and membrane flashings) and associated wood blocking will require full replacement along the entire length of the assemblies.



EXECUTIVE SUMMARY / KEY FINDINGS

Intermediate and Long-term Recommendations (10 to >20 Years):

- MT: Re-evaluate the roofing assemblies at 5 years intervals until the roof is replaced with visual and moisture surveys. Once the roof has been replaced, evaluations may be extended to 10 year intervals.
- MT: Recoat locations with coating at 5-year intervals.
- MT: Replace roof-related sealants at 10-year intervals.

FLOORS

Flooring throughout the facility appears to have been replaced within the last five years and is in overall good condition. Minor areas of damage and staining were observed and should be addressed through localized repair or maintenance as needed to maintain a safe and visually acceptable interior environment.

Carpet should be reviewed for replacement at its anticipated life cycle in approximately 5–7 years, while LVT flooring should be considered for replacement at the end of its expected life cycle in 10–15 years.

DOORS

Many door frames and hollow metal doors throughout the facility show signs of wear and would benefit from touch-up painting to maintain a clean and well-maintained appearance.

MILLWORK / CASEWORK

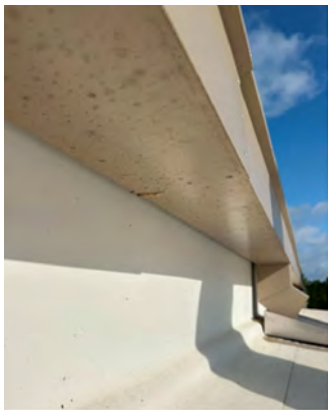
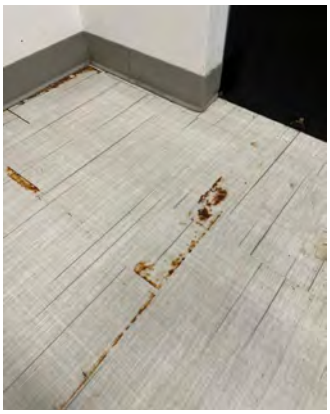
The casework throughout the facility is in poor condition and appears to be original to the building, at approximately 26 years old, exceeding the typical recommended life cycle of 20–25 years. Observed conditions include chipped and mismatched PLAM countertops, minor and more extensive casework damage, damaged or missing PLAM edging, and cabinet doors falling off tall cabinets. In classrooms, some casework is chipped or misaligned. Immediate repairs or are recommended to restore functionality until a full replacement can occur for all issues causing mechanical deficiencies.

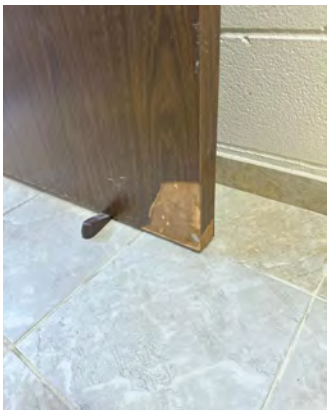
While the majority of the casework remains functional, deterioration is evident, and it is recommended that all casework be replaced within the next 1–5 years to ensure continued functionality, safety, and compliance with current standards.

CEILING

Soffit and Canopy Assemblies

Based on our observations of the existing stucco-clad ceilings at the recessed South elevation walls and recessed entrance ceiling areas, it is our opinion that the stucco wall assemblies are in generally serviceable condition with minimal, if any, cracks or stains. Considering its partially exposed condition, these assemblies are likely to avoid direct exposure from the more significant weather conditions.



EXECUTIVE SUMMARY / KEY FINDINGS

The following outlines our stucco and metal canopy-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Inspect stucco assemblies bi-annually to identify any damage or wear and repair as required to maintain continuity and service.
- MT: Clean debris from metal canopy assemblies to minimize any drainage limitations.

Intermediate Recommendations (10 to >20 years):

- MT: Route and seal any existing cracks in the stucco cladding (if suitable aesthetic can be obtained).
- MT: Re-coat the existing stucco wall and ceiling panels with a DowSil Allguard-type silicone elastomeric coating after repairs. Replace sealants and coatings as described above at 10 to 15-year intervals.
- MT: Installation of additional control joints to limit the stucco panels to 144 sq.ft. and limit the length-to-width ratio to no more than 2.5:1.

Interior Ceilings

Ceiling finishes throughout the facility exhibit various areas of damage and deterioration, including water-stained, discolored, cracked, damaged, and missing tiles. Several air devices also show signs of rust. While most issues are localized, replacement of affected ceiling tiles and maintenance of rusted air devices are recommended to preserve safety, appearance, and functionality. Overall, the lay-in ceiling system was observed to be in fair condition, with full replacement not anticipated until the end of its life cycle—approximately 10–15 years.

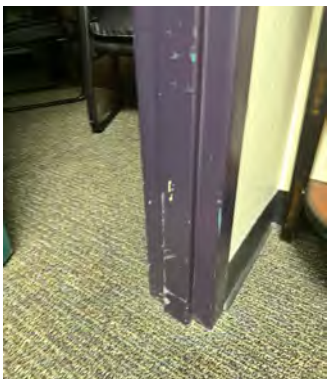
KITCHEN

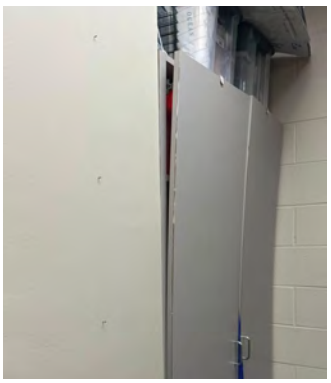
Rating Criteria:

- Priority 1: Poor – Immediate replacement (0-5 life expectancy)
- Priority 2: Poor/Fair – Should be replaced (5-15-year life expectancy)
- Priority 3: Fair – Replacement not needed currently (15-20-year life expectancy
- Priority 4: Good – Replacement not needed (20-25-year life expectancy)
- Priority 5: MT – Maintenance required
- Priority 6: MI – Missing or not present

Architectural:

- Floor: Good
- Ceiling-Kitchen : Good
- Walls: Good
- Floor Sinks: Fair/Poor
- Electrical Panels: Good



EXECUTIVE SUMMARY / KEY FINDINGS

Recommendations:
Cold storage assembly is undersized. Increase square footage to 256 SF to accommodate student population.

Code Deficiencies:
Exhaust hood-equipment below hood does not accommodate 6” overhang.

Janitors:
The following pieces of equipment are in fair condition:

- Janitor Room

Cold Storage Assembly:
The following pieces of equipment are in fair condition:

- Cold Storage Assembly
- Refrigeration System-Standard
- Cold Storage Shelving

Preperation:
The following pieces of equipment are in fair condition:

- Ice Maker With Bin - 500 Lb Capacity
- Worktable No Overshelf
- Two Compartment Sink W. In Sink Disposer

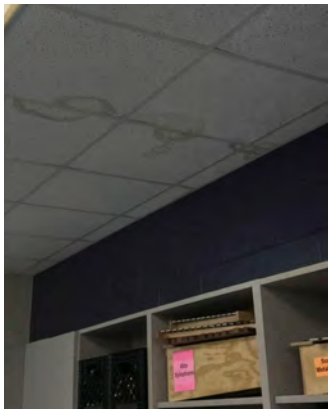
Bakery:
The following pieces of equipment are in fair condition:

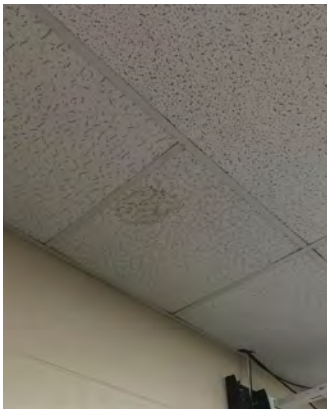
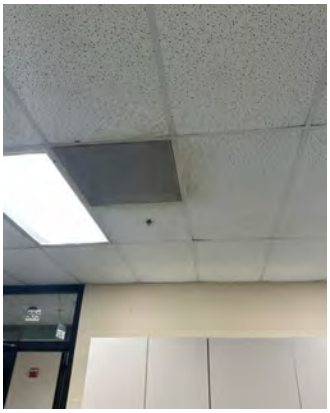
- Baker’s Table
- Insul. Mobile Proofer

Servery:
The following pieces of equipment are missing or not present:

- Hand Sink - Wall Mtd

Warewash:
The following pieces of equipment are missing or not present:



EXECUTIVE SUMMARY / KEY FINDINGS

- Mobile Drying Rack

**All equipment/areas not specifically listed should be assumed to be in good condition, meaning replacement not needed till end of life cycle, 20-25 year life expectancy.*

MEP

Existing Condition:

- **Cooling/Heating System:** Chilled water system. Chillers are Trane Inc. rotary chillers. Heating is gas-fired boiler. All air systems are delivered with VAV boxes.
- **Energy Mgmt. System:** Automated Logic, System 2020 with full digital controls and remote graphics.

Recommendation:

Cannan Elementary School was built in 1999. The HVAC system was replaced within the last 5 years. Mechanical equipment will need to be addressed for lifecycle replacement in 15-20 years.

Acoustically remediation is recommended to reduce mechanical noise at the stage/platform. Mechanical system noise is noticeable, and potential mitigation options include internal fiberglass duct liner, sound attenuators, quieter equipment selection, or relocating equipment. Ductwork configurations and mechanical sound power levels should be further evaluated before implementation.

LIGHTING

Lighting was reported, and observed to be considered “low levels” for an educational environment throughout academic areas. Lighting is currently fluorescent while LED upgrades are not required, upgrading to an all LED system immediately to address low lighting levels present is recommended.

TECHNOLOGY

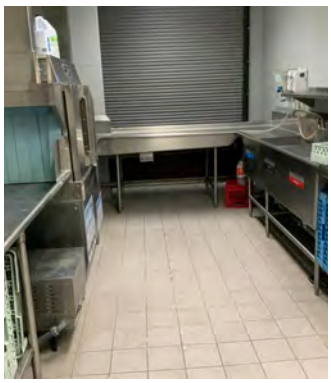
Audio Visual Systems

- **Library AV System:** The existing system should be fully replaced within 3–5 years, including a new projector, motorized tab-tensioned screen, HDMI inputs, wireless presentation system, and integrated sound. This will bring the library up to current instructional technology standards.
- **Cafeteria AV System:** The AV system should be fully replaced within 3–5 years, incorporating a new projector, motorized tab-tensioned screen, HDMI inputs, wireless presentation, and integrated sound to support instructional and event needs.
- **Classrooms and Conference Rooms**: Upgrades or installation of conferencing devices should follow the district standard (Promethean boards, HDMI inputs, wireless presentation) as future planning allows.









EXECUTIVE SUMMARY / KEY FINDINGS

Sound Systems

- **Gym Sound System:** Immediate adjustments by a qualified integrator are required to balance microphone levels, eliminate feedback, and optimize speaker coverage to avoid reflections above standing head height. These corrections will improve intelligibility during events and athletic activities.
- **Cafeteria Sound System:** The existing system should be fully replaced within 1–2 years, including a new speaker solution, portable mixer, SMP rack, DSP, and recording capabilities to ensure reliable audio coverage for events and instructional use.

Stage and Theatrical Systems

- **Stage Draperies**: Partial replacement of stage draperies is required immediately to include new IFR (Inherently Flame Retardant) front curtains. Rear and side curtains of unknown age should be replaced with synthetic IFR velours to reduce ongoing maintenance and ensure NFPA 701 compliance. Cotton velours must be chemically re-treated every 5–7 years if retained.
- **Stage Rigging:** The existing rigging hardware must be replaced immediately. Current twisted wire loop chains ("dog chain") do not meet ANSI standards for statically suspended loads, posing a significant safety risk.
- **Stage Lighting:** The existing incandescent lighting system should be fully replaced within 1–2 years with an LED system, touchscreen controller, and integrated circuit control, similar to district standards (e.g., Lagway ES).
- **Stage Acoustics**: Mechanical noise was observed at the stage/platform. Remediation is recommended within 3–5 years, potentially including duct liner installation, sound attenuators, equipment selection, or relocation to reduce noise and improve intelligibility during performances.

PA

No apparent issues were identified.

SECURITY

- The existing Hikvision and Advidia cameras should be replaced with Hanwha models immediately to ensure NDAA compliance and maintain consistency with current district security standards.
- Access control improvements should be implemented immediately throughout the reception, administration, and nurse areas to create proper security zoning and prevent unauthorized access. This includes:
  - Removing the existing cypher lock and installing a card reader between reception and administration immediately to control entry into secure office areas.
  - Adding a card reader between reception and the main corridor immediately to restrict public access beyond the secure vestibule sequence.







EXECUTIVE SUMMARY / KEY FINDINGS

    - Installing a card reader between the corridor and the administration area near the nurse's office immediately to prevent unmonitored access to administrative spaces.
    - Adding card readers to both nurse office doors immediately, providing lockdown capability and preventing uncontrolled corridor access.
- An access control button should be installed at the nurse's desk immediately to enable lockdown functionality in the event of a medical or security emergency.
- All exterior door contacts should be replaced immediately, upgrading legacy SPST devices with DPDT models that fully integrate into both the access control and intrusion systems to provide active monitoring of forced or held-open conditions.
- Additional interior camera coverage should be added immediately within corridors to ensure full visibility and eliminate surveillance blind spots.
- Within the next 1–2 years, exterior camera coverage should be expanded to include areas around the gym, mechanical yard, and exterior doors 14 and 15 to enhance perimeter monitoring and overall safety.
- Within the next 1–2 years, additional camera coverage should be added in the kitchen prep area to improve supervision of food service and delivery access points.
- A card reader should be added to the teacher lounge within 1–2 years to maintain consistency with district access control protocols.
- Additional cameras should be installed at gym entries (doors 10 and 13) within 1–2 years to provide full coverage of building entry and exit points.

C.C. HARDY ELEMENTARY SCHOOL

04

HISTORIC DATA

Clifton Claude Hardy was a long time Willis resident and educator who was employed for 40 years by the District in variety of jobs. He was a former Superintendent & Business Manager of the District. He was present at the dedication of this school named in his honor. He lived across the street from the present administration building for many years. He lived into his 90's and always remained interested in the affairs of the school district. Mr. Hardy was born in New Waverly, Texas on October 24, 1905 where his dad was a farmer, and where he graduated from high school in 1925. Mr. Hardy received college degrees for elementary, high school, vocational ag, principal & superintendent. He was 92 years old when he passed away on June 4, 1997. The cost of this building in 1982 was $3,731,400 for approximately 82,920 square feet. C.C. Hardy was originally built as a middle school that later became the intermediate school. In August of 2004 it became an elementary school.

Major Additions or Renovations: A burglar alarm system was installed in this building in the mid 80's. In 1996 the speed drive motors in all air handling units of the building were replaced. An energy management system was added to the building. Further renovations were completed on this building in 1999. They included additional air conditioning capacity, addition of classrooms, renovation of existing areas to include removing carpet from hallways and adding vinyl tile. All classrooms were re-carpeted. Interior doors and hallways were painted. The interior atrium was closed in and made into 6 classrooms. A new roof was installed on the building. The exterior of the building was cleaned and all exterior windows were replaced. The City of Willis and WISD worked together to create a playground facility at CCH in May 2000. This area includes a jogging trail and picnic areas used by the CCH Physical Education Department and open to the public. In 2003 renovations were made to the Hardy front parking lot and a canopy was installed at the front entrance. In 2003 classrooms received new cabinetwork and laminate countertops. In 2005 a 175-ton air cooled packaged chiller was installed to replace the existing chiller. Chalk boards have been replaced with dry erase boards during the 2005-06 school year. In 2008, renovations converted PE storage and locker rooms into 3 computer labs and a book room. The HVAC controls system at this building was upgraded in 2011. An emergency generator was added in 2011 that will operate all electrical systems in the Hardy building if needed for an emergency. In 2012 the Technology Department installed projectors and security cameras throughout the building. In 2012 improvements began and were completed in March 2013 to include stone pilaster accents at the front entry, exterior paint, shade canopies on all windows, new signage and new trees, shrubs and lawn. In summer of 2013, new light fixtures and new ceiling tile was installed throughout the entire building and renovations were completed in two Science Labs. In summer of 2014, some restrooms were updated and security features and enhancements were completed. New flooring was placed in the kitchen area of the walk-in cooler / freezer. Added a new serving line in Cafeteria. District wide lighting upgrade in April 2015. Renovations to HVAC System to include replacement of HVAC system, new ductwork, new air handling units, new chillers, new controls, replacement of ceilings, installation of new fire alarm system, carpet replacement and installation of new sprinkler system completed by August 2017. In 2018 painted gym. Completed Bond 2020 Projects Cooler and Freezer Upgrade 2022. ADA Restrooms and Plumbing Upgrade 2023. Chiller Replacement 2023.

**All historical data and supporting information included in this report were furnished by the district. While the assessment team has made reasonable efforts to review and reference this material, the data has not been independently verified or validated in detail. The team assumes no responsibility for any inaccuracies or omissions contained within the district-provided information.*

GENERAL INFORMATION



C.C. HARDY ELEMENTARY SCHOOL 701 Gerald St. Willis, TX 77378	
Year(s) Built:	1982
Approx. Total Building Square Footage	96,785 SF*
Approx. Total Site Area	15 acres

*Includes the 1999 additions

UTILIZATION SUMMARY



LEGEND

- Does meet TEA and Ed Spec
- Does meet Ed Spec
  *no TEA requirement
- Does not meet Ed Spec
- Does not meet TEA and/or Ed Spec

Note: This facility was originally constructed prior to the adoption of current TEA code requirements and Educational Specification standards. Because these regulations were implemented after the buildings were constructed, certain conditions may not meet today's guidelines. The assessment reflects existing conditions as they relate to current TEA and Educational Specification expectations for academic spaces.

UTILIZATION SUMMARY

TEA Deficiencies:

- **Science:** The separate science laboratory and classroom configuration is not permissible at the elementary level. A combination science classroom/laboratory for Kindergarten-Grade 5 must provide a minimum of 50 SF per student. The room may have an established maximum of 22 students but must not exceed 25. Within the total square footage of the room, 6 SF per student of horizontal laboratory counter top space (3 feet wide x 2 feet deep) must be provided at student laboratory benches, and an additional 3 linear feet (LF) per student of horizontal laboratory counter top support space must be provided for equipment and materials for investigations, activities, or student projects.

- **Prep/storage rooms:** Prep/Storage rooms are undersized by at least 70SF, if the district wants to fit (24) students in the associated science lab, One preparation/storage room at a minimum 10 SF per student shall be provided adjacent to each combination science classroom/laboratory. One preparation/storage room at a minimum of 10 SF per student shall be provided per science classroom and be located adjacent to its partner science laboratory. Preparation/ storage rooms may be combined, but the combination of more than one preparation/storage room shall not reduce the minimum square feet or quantity of built-in fume hoods required if they were not combined.

Educational Specification Deficiencies:

- **Classrooms:** Classrooms are on average approximately 150 SF undersized. The Ed Spec requires 850 SF each to accommodate 25 students at 36 SF/student.

- **Science:** The separate science laboratory and classroom configuration is not permissible at the elementary level. The Ed Spec requires (2) classrooms/labs at 1,100 SF each to accomodate 24 students.

- **Art:** The art room is approximately 355 SF undersized. The Ed Spec requires (1) at 1,200 SF to accomodate 24 students.

- **Life Skills/Special Education Classrooms:** Life Skills/SpEd classrooms are approximately 100 SF undersized each. The Ed Spec requires (3) at 850 SF each to accomodate 12 students each.

- **Motor Lab:** This space is approximately 200 SF undersized. The Ed Spec requires (1) at 1,000 SF.

- **Dining Area:** The dinging area is only minorly undersized from the Ed Spec requirement of (1) at 4,000 SF.

- ***Missing Maker Space:** (1) at 900SF

**Note: The comparison to Educational Specifications was limited to TEA-regulated academic spaces, including classrooms, science labs, libraries, and gymnasiums. Non-instructional or support spaces identified within the Educational Specifications were not included in this review.*

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

Several accessibility issues were identified throughout the campus that may impact compliance with current ADA standards:

- **Restrooms:** Multiple single-user, adult restrooms do not meet ADA code and should not be labeled as accessible. Compliance is acceptable as long as at least one accessible single-user restroom for adults is provided on campus. Certain paper towel dispensers at entryways reduce clearances below 3 feet, further limiting accessibility.
- **Protruding Objects:** Promethean boards, paper towel dispensers, and other mounted objects exceed allowable protrusion limits and may impede accessible paths. Placing trash cans below paper towel dispensers can mitigate some protrusions.
- **Door Hardware and Signage:** Ball knobs are no longer compliant, and room signage does not meet the latest ADA requirements.
- **Gymnasium Bleachers:** Existing bleachers in the gym do not provide ADA-accessible seating spaces.
- **Playground Areas:** Accessible paths are needed to all outdoor playgrounds to ensure safe and inclusive access for all students.
- **Stage/Platform – Draperies:** Existing draperies are combination of chemically treated cotton velour and woven cotton material. All curtains are missing required labeling indicating date of manufacture and compliance with NFPA 701 requirements. Cotton velours should be re-treated with chemical flame retardant every 5-7 years to meet NFPA 701. Recommendation is for synthetic velours that do not have to be retreated.

SITE CONDITIONS

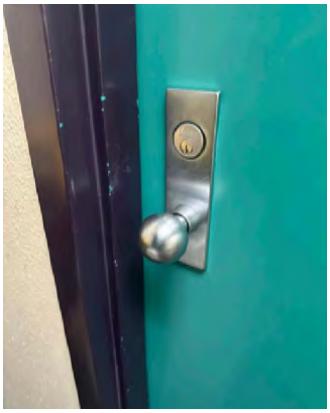
No significant site issues were identified at this campus. Limited sidewalk remediation is recommended in locations where heaving or sinking has occurred as a result of natural aging and wear.

EXTERIOR WALLS

Existing Conditions:

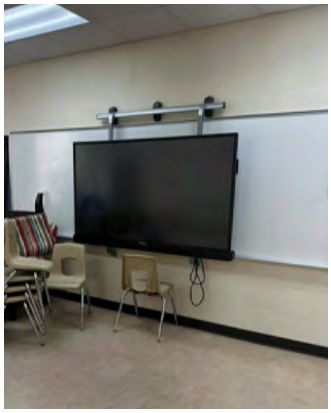
Brick Masonry Veneer Walls

- Throughout the various building elevations, SEAL observed exterior walls primarily comprised of brick masonry veneer cladding, prefinished sheet metal wall panels, punched window openings, and steel-framed storefront door and window assemblies around the main building entrances. SEAL's observations at the exterior walls included brick masonry wall assembly that extended approximately 2/3 of the vertical wall height and ended in alignment with the head of the typical glazing units. The brick masonry did not exhibit damage or significant levels of distress, with the exception of the following items.









EXECUTIVE SUMMARY / KEY FINDINGS

- At the Northeast building corner, SEAL observed multiple stair-step cracks throughout the brick masonry veneer mortar joints. Stair-step cracks are often indicative of unaccommodated building movement, including settlement. Additionally, SEAL observed stair-step cracks throughout the brick masonry veneer along the North elevation. The stair-step cracks were found in a few isolated locations but did not appear to have resulted in significant damage or brick displacement.
- At the North building elevation, SEAL observed at least two spalled/ damaged bricks at the base-of-wall. Additionally, SEAL observed inconsistently spaced full-head weep provisions. Some weeps were spaced at successive brick masonry heads joints, while others were spaced at two or three head joints apart. Relative to elevation, weeps were observed to be at or below grade, limiting drainage from the wall assembly and potentially allowing ground water to infiltrate the base-of-wall condition. Several courtyard locations around the building were reported to retain significant amounts of water that impinge upon the exterior walls during heavy volume rain events.
- SEAL observed vertical brick masonry expansion joints intermittently through the building perimeter. At most, if not all, locations the sealant joints exhibited crazing and isolated cohesive failures within the sealant or adhesive failures to the adjacent surfaces. Additionally, SEAL observed exposed transition flashing membrane extending through the wall assembly. The exposed membrane was susceptible to UV deterioration.
- SEAL observed the brick masonry veneer beneath hose bib assemblies to be stained. This condition was likely to lead to accelerated deterioration of the masonry wall components and the potential for water infiltration.
- At the South elevation, SEAL observed an active overflow roof drain outlet through the brick masonry veneer. This condition was likely indicative of a drain obstruction or water volume exceeding the capacity of the primary roof drain.
- Wall penetrations were observed at the North building elevation. SEAL observed the mortar around these penetrations to be cracked and minimally separated from the face of the surrounding brick units/ These conditions were susceptible to water infiltration into the wall assembly.

Metal Wall Panel Assemblies

- Sheet metal wall panels were observed throughout all building elevations and extended from the head of the typical window units up to the roof line. There were three types of metal panel profiles on the project. Two panel profiles exhibited interlocking corrugated panels with concealed fasteners and another at the gym area exhibited exposed fasteners. The panels were typically in a similar condition and did not exhibit visible corrosion or damage. Based on discussions with the building personnel, we understand there has been ongoing water leakage at number of locations along the exterior walls. The general locations aligned with the brick masonry to metal wall panel interface which aligned with the interior drop ceiling in most locations. At one location, SEAL observed surface-applied remedial sealant along at least one metal wall panel lap to storefront window interface.






EXECUTIVE SUMMARY / KEY FINDINGS

- SEAL observed a metal wall panel to stucco soffit interface along the West building elevation. SEAL did not observe the metal panels to extend completely to the bottom of the stucco face in all areas leaving several unsealed gaps into the wall assembly. These conditions were susceptible to water infiltration into the wall and soffit assemblies.
- At the South building elevation, SEAL observed a wall penetration through the sheet metal wall panels to be unsealed. This condition was observed in a number of locations around the building. The continuity of the air/ weather resistive barrier within the wall was not observed or evaluated.
- SEAL observed isolated locations of exposed building wrap at intermittent metal wall panel joints along the South, West and East building elevations. The cause of the exposed membrane was not clear. Exposed weather barrier membrane was susceptible to UV degradation over time.
- At the sheet metal wall panel assembly along the North building elevation, SEAL observed many isolated locations with missing paint. It was not clear if the paint was aged and flaking, has been removed by mechanical or adhesive means, or other unknown cause.
- Along the West building elevation, SEAL observed an aluminum-framed louver-to-sheet metal wall panel interface to be unsealed and without proper flashings. These conditions were susceptible to water infiltration into the wall assembly.

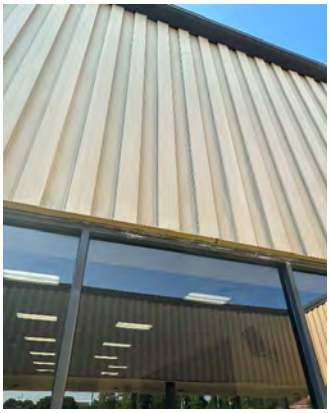
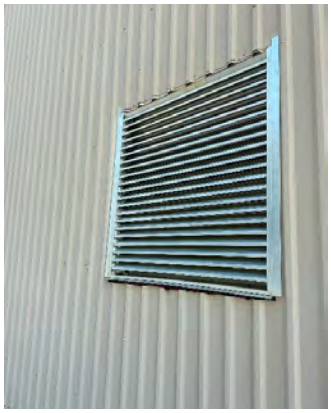
Recommendation:

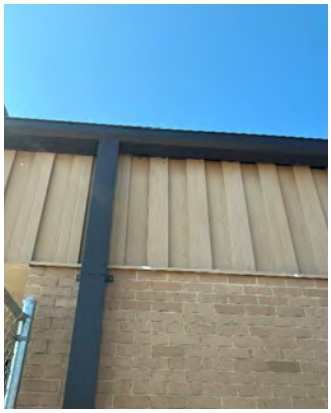
Brick Masonry Veneer Walls

Based on our observations of the existing masonry wall assemblies, it is our opinion the CMU and brick masonry veneer was adequate to prevent uncontrolled air and water infiltration in most locations. However, the localized deficient conditions may result in future issues if not adequately addressed. The following outlines our masonry-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- Level 3: Investigate localized areas of masonry veneer distress and identify remediation protocols to restore the assemblies to their typical 50+ year service life. These locations generally include localized stair-step cracks and spalling conditions.
- Level 3: Coordinate with civil engineering consultant to investigate localized areas of retained water at building courtyard areas.
- Level 3: Evaluation of foundation for settlement and other sources of displacement.
- MT: Remove and replace masonry expansion and control seals, as well as unsealed wall penetrations with high performance DowSil silicone sealants appropriate for the substrates required and backer rod.



EXECUTIVE SUMMARY / KEY FINDINGS

Intermediate and Long Term Recommendations (10 to> 20 Years):

- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals.

Metal Wall Panel Assemblies

Based on our observations of the existing metal wall panel assemblies, it is our opinion the metal panels and associated transition flashing to the brick masonry veneer were primary contributors to the water infiltration and staining reported and observed at the interior location adjacent to the exterior walls. It is likely repair or replacement of the metal wall panels and underlying air/weather-resistive barrier are required to extend the service life of the wall assembly and mitigate water intrusion. The following outlines our metal panel-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- Level 4: Investigate representative locations where water infiltration has manifested including selective demolition of metal wall panels (assuming ten 8'x8' wall areas). For budgetary purposes, consideration for removal and replacement of all exterior metal wall panels at all building areas, including the building addition with new fluid-applied high-build, vapor permeable air barrier system including membrane transition flashings, new engineered prefinished wall panel system with concealed subframing, clips, and fasteners, prefinished sheet metal window head and transition flashings, metal and foam gaskets and closures, as well as integration sealants and backer rods at the wall penetrations and adjoining wall systems.

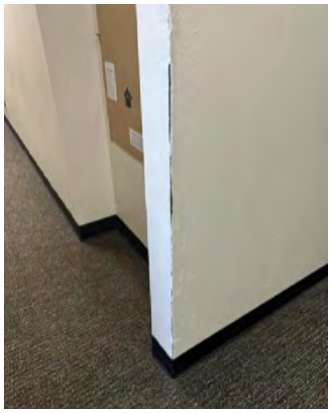
Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: With metal panel assembly restoration, minimal significant maintenance should be required. Maintenance requirements are likely to include replacement of exterior sealants and backer rod at approximately 10-year intervals.

INTERIOR WALLS

Interior walls throughout the facility exhibit various levels of damage, including missing or detached base, damaged CMU, and wall damage at cover plates. Most, if not all of these isolated issues can be addressed by the district's maintenance personnel.

Vertical cracking was observed in some masonry walls; installation of control joints at appropriate locations is recommended to accommodate future movement and reduce stress concentrations. Flexible sealant should be applied at control joints and other critical interfaces, with regular maintenance to ensure long-term performance.
Additional issues include damaged wall pads at column wraps and loose or falling base in multiple locations.






EXECUTIVE SUMMARY / KEY FINDINGS

Most deficiencies are isolated, but repairs are recommended to maintain safety, durability, and a well-maintained appearance.

WINDOWS

Existing Conditions:

Steel-Framed Glazing System(s) And Doors

- SEAL observed the main entrance assembly along the West building elevation to be comprised of painted steel-framed double-leaf doors with storefront glazing and a stucco soffit assembly. Additionally, SEAL observed the window sill-to-foundation interface to be unsealed. This condition was susceptible to water infiltration into the window assembly. Sealant was not observed throughout the storefront metal-to-metal joinery.
- At the main entrance assembly, SEAL observed the perimeter sealant at the brick masonry-to-window assembly interface was aged and deteriorated, including failing cohesively or adhesively to the adjoining substrates. This condition was typical throughout many of the entrance and window assemblies around the exterior walls.
- SEAL observed an entrance assembly along the West building elevation to be partially buried by the surrounding landscaping. This condition limited drainage from the storefront window assembly and increased susceptibility of the door threshold to water infiltration.
- Throughout the various building elevations, SEAL observed punched window openings comprised of steel-framed storefront glazing assemblies with six lites. In some window units, several of the lites were observable with hinged sashes.
- At the storefront window assemblies throughout the building, SEAL observed evidence of surface-applied liquid sealant remediation attempts. Additionally, SEAL observed short gaskets throughout many of the window assemblies. The short gaskets may be age-related shrinkage or the result of initial installation nuances. Note, these conditions were present throughout the building, but were most prominent at the areas between the original construction and the 1999 building addition.
- At the punched window openings along the South building elevation, SEAL observed at least one disengaged and exposed fastener. Exposed fasteners were susceptible to water intrusion, corrosion, and/ or accelerated degradation.

Recommendation

Based on our observations of the existing glazing and fenestration systems, it is our opinion that the aluminum and steel assemblies have different installation times frames and varying remaining services life expectations, including seals and gaskets. The following outlines our glazing and fenestration-related recommendations:






EXECUTIVE SUMMARY / KEY FINDINGS

Short Term Recommendations (<10 years), including immediate:

- Level 4: The primary recommendation for performance is to replace all steel framed window and door units with new thermally-broken or improved aluminum-framed storefront glazing and door systems.
- Alternatively, if budget limitations prevent replacement of the window assemblies, the following maintenance may be performed.
- MT: Replace insulated glass units (IGU's) that exhibited fogging or stains with new IGU window assemblies.
- MT: Replace of perimeter joint seals around all glazing and door systems.
- MT: Replace or trim glazing gaskets and wet seal existing window systems to assist with water resistance.
- MT: Remove and reset or replace existing door thresholds and sealing door system to adjacent wall
- MT: Replace all door weatherstripping.

Intermediate and Long Term Recommendations (10 to >20 Years):

- Level 4: If window units are not repaired in the short term, replace all windows and doors assemblies with new and higher-performance systems, including insulated glass units at around Year 10.
- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals.
- Level 2: Remove and replace glazing gaskets and/or wet seal existing window systems to maintain water resistance with high-performance DowSil silicone glazing sealant.

ROOF

Existing Conditions:

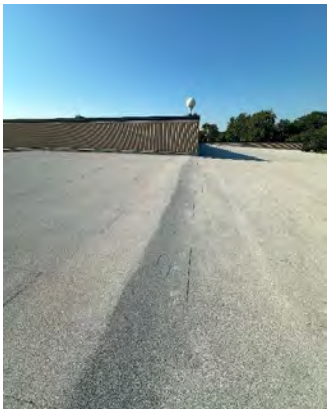
Low-Slope Roofing System

- Throughout the entire roofing system, SEAL observed a granule-surface, low-slope modified bitumen roofing system. Reference Appendix B: Roof Plan for these systems. This system description was confirmed based on reports and documents provided to SEAL. The documents indicated the modified bitumen roofing system was approximately 3 years old. Based on conversations with a roofing manufacturer, we understand the modified bitumen roofing system was manufactured by Performance Roof Systems (Derbigum). During our site walk, SEAL detected minimal soft areas of the roofing substrate.
- The main drainage systems of the low-slope roof areas were as follows:
    - Roof Area Nos. 1 - 4 sloped towards the North perimeters of the roofs which drained into prefinished sheet metal gutters and discharged down to grade.
    - Roof Area No. 5 sloped towards internal cast iron drain assemblies with dome strainers throughout the roof area.









EXECUTIVE SUMMARY / KEY FINDINGS

  - Roof Area No. 6 sloped towards internal cast iron roof drain assemblies with dome strainers along the North and East perimeters of the roof area and also had secondary/overflow open-top scuppers.
  - Roof Area No. 7 sloped towards the East and West perimeters of the roof which drained into prefinished sheet metal gutters and discharged down to grade.
  - Roof Area Nos. 8 and 9 sloped towards the various perimeters of the roof which drained into prefinished sheet metal gutters and discharged down to grade.
- The membrane roofing system was visibly adequately adhered, laps integrated, and minimal, if any, soft locations in the roofing substrate. Along the West side of Roof Area No. 9, SEAL observed at least three roof membrane repairs along the roof-to-roof interface including a supplemental sheet metal scupper. SEAL did not observe evidence of building or roof expansion joints between the original structure and the building addition in the repair areas. Additionally, the roof area was observed to be retaining water roof elevation and slope anomalies.
- At the interior ceiling tiles along the South edge of the hallway between Roof Area Nos. 8 and 9, SEAL observed stained tiles. This location correlated to the roofing repair locations noted in the previous item.
- At the area between Roof Area Nos. 6 and 7, SEAL observed the East side of Roof Area 7 to be exhibiting sedimentation, common to roof areas which retain water, against the West edge of Roof Area No. 6. This condition was likely due to limited drainage slope including an omitted or limited size roof insulation cricket around the edge of Roof Area No. 6.



EXECUTIVE SUMMARY / KEY FINDINGS

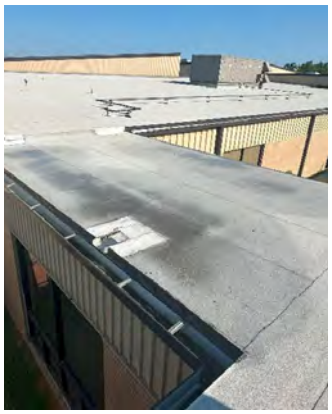
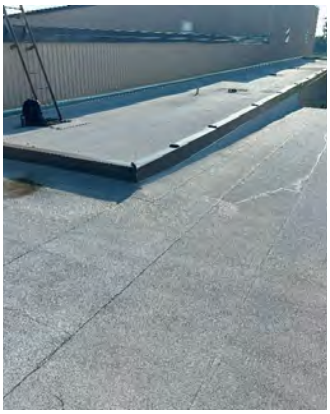
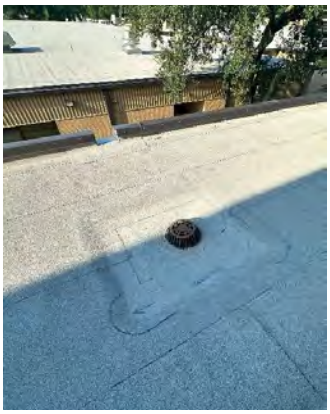
- At Roof Area No. 6, SEAL observed drainage assemblies to be comprised of interior cast iron roof drains with dome strainers (primary) and open-top scuppers (secondary/ overflow) along the South edge. This assemblies appeared to by functioning adequate and did not exhibit excessive debris within the drain sump. At the corners of several roof sumps in this roof area, SEAL observed unadhered membrane around primary roof drains.
- At the North edge of Roof Area No. 9, SEAL observed several roof edge locations were retaining water. This condition was likely due to a high roof edge and slope anomaly within the modified bitumen roofing system.
- At the roof-to-wall interface at the East edge of Roof Area No. 3, SEAL observed at least one water blister between the roofing cap sheet and base sheet along the base-of-wall. This condition was likely due to trapped water downslope from a membrane base flashing seam location. Additionally, along the same wall and in several other locations, SEAL observed unadhered membrane along the base-of-wall assembly. These conditions are susceptible to continued adhesion loss and may increase in size and significance.
- SEAL observed unadhered membrane and discoloration along the West side of a raised roof area throughout Roof Area No. 7. This condition was susceptible to penetration due to roof traffic, Additionally, SEAL observed at least two strips of lighter roofing membrane spanning the North to South length of Roof Area No. 7. The discoloration of the membrane may be indicative of retained moisture, concentrated wear, or an unknown concealed roof assembly component, but was not definitively determined.

Recommendation:

Based on our observations to date, it is our opinion the existing low-slope roofing system was recently installed, in a generally serviceable condition, and was generally solid underfoot. We understand the low-slope, modified bitumen roofing system was manufactured by Performance Roof Systems (Derbigum). Based on the documents provided, including a WISD Summary, it is our understanding the roofing system approximately three years old. One roofing industry study indicates a mean 18-year service life of a modified bitumen roof assembly. In our experience, quality modified bitumen systems can last up to 40 years with proper maintenance and proactive coating to protect the roof membrane and concealed components of the roofing substrate. It is our opinion that the roofing system is under warranty.

Short-term and Intermediate Recommendations (<10 years to 20 Years):

- MT: Identify roofing manufacturer, warranty term, and warranty requirements and provide to building maintenance/engineering staff for reference and repair assistance.
- MT: Provide roofing specific training for WISD personnel to facilitate proactive identification of roofing anomalies, storm damage, and other conditions that can contribute to reduced service life.


EXECUTIVE SUMMARY / KEY FINDINGS

- MT: To proactively identify roof damage and wear, as well as maintain assumed roof warranty requirements, inspect the low-slope roofing membrane bi-annually and following significant storm events with high volume rains and/or high winds. Properly repair all damage and wear as it is identified. Third party, credentialed roofing specialists should be considered for these building-specific evaluations.
- MT: Re-evaluate the roofing assemblies at 5 years intervals with visual and moisture surveys. If the roofing system maintains watertightness and integrity, a restoration roof coating could be considered within this time frame.

Long Term Recommendations (>20 Years):

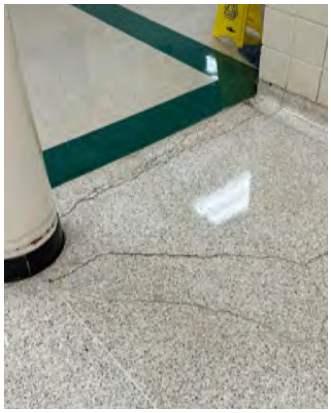
- MT: When roofing systems exhibit elevated moisture or signs of deterioration or damage, consideration for roof replacement should commence with the system recommended above.
- Level 3: If the roofing system is wet throughout, the existing modified bitumen system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system manufactured by Soprema or Siplast with no less than a 20-year No Dollar Limit warranty. The roof assembly should consist of a mechanically-attached gypsum substrate board (where applicable), torch-applied 100-mil minimum vapor barrier, new rigid and tapered roofing insulation, and a gypsum fiber (non-faced) coverboard. A preformed tapered insulation sump should be placed at all primary roof drains. Reinforced liquid flashing system is recommended at all roof penetration and as a supplement to the roofing membrane in the insulation drain sump. New prefinished sheet metal copings, gutters, and flashings should be provided with the new roofing system.

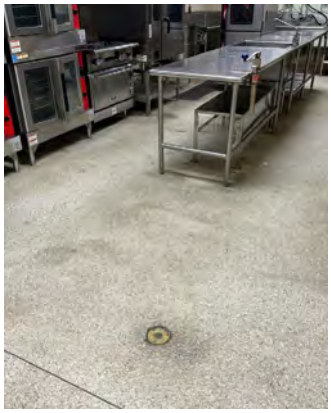
FLOORS

Flooring throughout the facility exhibits varying degrees of damage and wear, though much of it remains serviceable. Observed conditions include damaged, discolored, or water-stained VCT, which is recommended for individual repair/replacement by the district personnel until a full replacement can occur. Vinyl flooring was observed in fair condition, replacement is recommended in 10-15 years. Additional conditions include damaged rubber flooring within the gym that warrants immediate replacement. Carpet was observed to be in fair/good condition consistent with the noted replacement that occurred in 2017. Carpet replacement should be considered at the end of it's life cycle in 7-10 years.

An individual instance of worn steps were observed at the front of the stage that could benefit from refinishing, and minor carpet staining throughout was observed with potential water damage.

Cracking is present in terrazzo in multiple locations; remediation is recommended through injection of structural adhesive at cracks exposed to moisture to seal the slab and prevent further subgrade saturation and movement.



EXECUTIVE SUMMARY / KEY FINDINGS

Severely discolored terrazzo was observed in the servery. While this could mean a leak under the slab is present it looks to be discoloration of the upper level surfacing which leads our team to believe The top coating of the terrazzo is effected vs, the issue coming from below. It is recommended that further investigation be conducted to confirm the source and extent of the damage. Upon confirmation, appropriate repairs to the waterproofing and affected slab areas should be performed to prevent continued moisture intrusion and potential damage if leaking is present. If the issue is isolated to the top layer new resurfacing and finishing is recommended.

DOORS

Interior doors and frames were observed to be in poor condition. Replacement of door and transom panels should be considered within the next five years. Repainting of all door frames is recommended, with localized frame replacement included where damage or deterioration is present.

MILLWORK / CASEWORK

Casework was observed in poor condition in the original 1982 portion. Full replacement should be considered 1-5 years. Observed conditions include chipped or damaged casework, missing or falling edging, missing base components, and damaged or aged countertops. Sealant is recommended at backsplash-to-wall transitions to prevent water intrusion. Specific areas of concern include reception, teacher demo stations, classroom casework, and the art teacher's station, where upper cabinets or edging are missing.

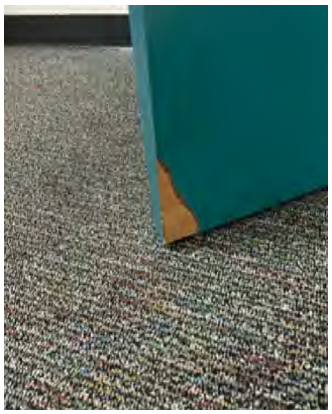
CEILING

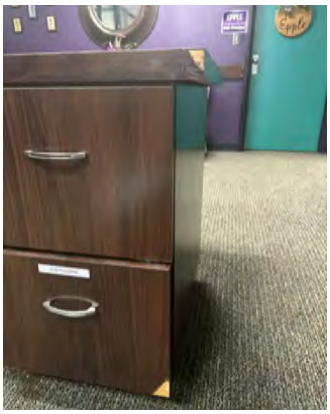
Exterior:

Existing Conditions:

Stucco Wall and Ceiling Assemblies

- Stucco ceilings were observed at most, if not all, soffit locations. At the stucco soffit assembly along the building entrance at the North elevation, SEAL observed organic growth along the soffit edge. This condition was possibly indicative of retained water throughout the soffit edge. Additionally, SEAL observed corrosion at the soffit edge and steel support angle joints. The integration of flashing at the metal panel-to-stucco interface was concealed and not readily observed.
- At the soffit-to-column interface along the North building elevation, SEAL observed the interface to be unsealed around the column.
- SEAL observed exposed air barrier membrane flashing along the South edge of the soffit around the entrance assembly along the North building elevation. Additionally, SEAL observed the area around the interface with an exterior glazing unit was stained and exhibited surface corrosion.






EXECUTIVE SUMMARY / KEY FINDINGS

Recommendations:

Stucco Ceiling Assemblies

Based on our observations of the existing stucco-clad ceilings at the recessed entrance ceiling areas, it is our opinion that the stucco wall assemblies are in generally serviceable condition with minimal, if any, cracks or stains. Considering its partially exposed condition, these assemblies are likely to avoid direct exposure from the more significant weather conditions. The following outlines our stucco-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Inspect stucco assemblies bi-annually to identify any damage or wear and repair as required to maintain continuity and service.

Intermediate Recommendations (10 to >20 years):

- MT: Route and seal any existing cracks in the stucco cladding (if suitable aesthetic can be obtained).
- MT: Re-coat the existing stucco wall and ceiling panels with a DowSil Allguard-type silicone elastomeric coating after repairs. Replace sealants and coatings as described above at 10 to 15-year intervals.
- MT: Installation of additional control joints to limit the stucco panels to 144 sq.ft. and limit the length-to-width ratio to no more than 2.5:1.

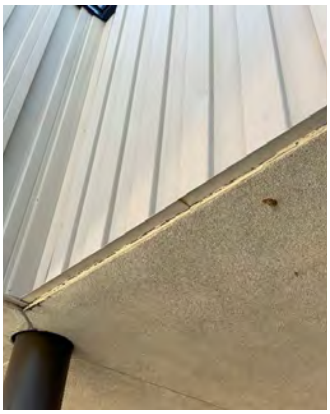
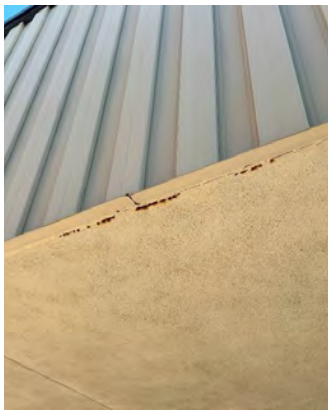
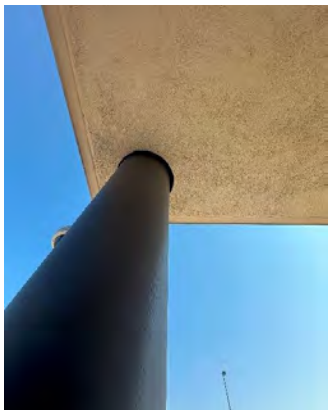
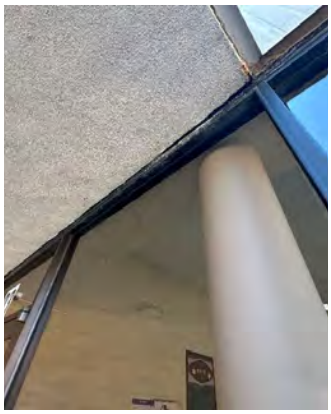
Interior:

Lay-in ceiling systems throughout the facility were replaced in 2017 and remain in good condition. Ceiling tiles were observed to be consistent with that installation timeframe, showing a uniform appearance with no significant signs of staining, sagging, or damage beyond individual instances that can be addressed by the district's maintenance staff. Continued routine maintenance is recommended to preserve condition and appearance. Replacement should be planned in approximately 7–10 years

KITCHEN

Rating Criteria:

- Priority 1: Poor – Immediate replacement (0-5 life expectancy)
- Priority 2: Poor/Fair – Should be replaced (5-15-year life expectancy)
- Priority 3: Fair – Replacement not needed currently (15-20-year life expectancy
- Priority 4: Good – Replacement not needed (20-25-year life expectancy)
- Priority 5: MT – Maintenance required
- Priority 6: MI – Missing or not present

EXECUTIVE SUMMARY / KEY FINDINGS

Architectural:

- Floor: Fair/Poor
- Ceiling-Kitchen : Fair
- Walls: Fair/Poor
- Floor Sinks: Fair/Poor
- Ceiling-Servery: Fair

Recommendations:

Owner has been proactive in replacing kitchen equipment, overall the kitchen is undersized and recommended to be increased to 3200 sq feet. Replace all priority 1/2 items, code items, and any equipment missing due to insufficient square footage.

Cold storage assembly is undersized. Increase square footage to 240 SF to accommodate student population.

Code Deficiencies:

- No fly fan at receiving door.
- Toilet does not meet ADA 60” turning radius.

Receiving:

The following pieces of equipment are in fair / poor condition:

- Receiving Corridor

The following pieces of equipment are in fair condition:

- Can Wash
- Loading Dock

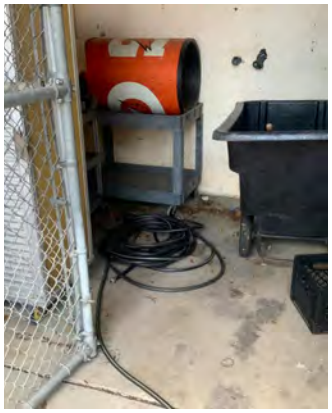
The following pieces of equipment are missing or not present:

- Air Screen

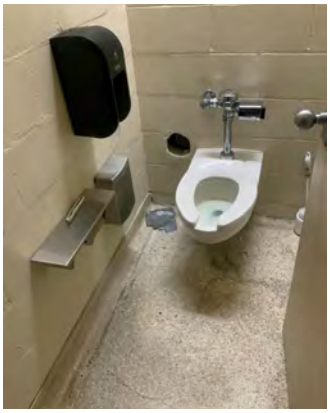
Office:

The following pieces of equipment are in fair condition:

- Office









EXECUTIVE SUMMARY / KEY FINDINGS

Janitors:

The following pieces of equipment are in fair / poor condition:

- Chemical Shelf

The following pieces of equipment are in fair condition:

- Janitor Room

Toilet/Locker room:

The following pieces of equipment are in fair / poor condition:

- Toilet
- Locker Room

Production::

The following pieces of equipment are in fair condition:

- Worktable No Overshelf
- Fire Protection System
- Exhaust Hood
- Worktable W. Sink

The following pieces of equipment are missing or not present:

- Hand Sink - Wall Mtd

Servery:

The following pieces of equipment are missing or not present:

- Hand Sink - Wall Mtd

Warewash:

The following pieces of equipment are missing or not present:

- Mobile Drying Rack

**All equipment/areas not specifically listed should be assumed to be in good condition, meaning replacement not needed till end of life cycle, 20-25 year life expectancy.*









EXECUTIVE SUMMARY / KEY FINDINGS

MEP

Existing Conditions:

- **Cooling/Heating System**: Chilled water system. Carrier Rotary chillers with Carrier reciprocating chillers. Heating is gas-fired boiler. Air supplied by VAV systems.
- **Energy Mgmt. System:** Automated Logic, System 2020. Some pneumatic controls with digital overlay. Heat and chill water control, temperature control, trending of systems, system start/stop from remote location.

Recommendation:

Hardy Elementary school was built in 1982 with additions in 1999. All HVAC equipment, including ductwork, units, controls, etc. were replaced in 2017. Mechanical equipment will need to be addressed for lifecycle replacement in 15-20 years.

LIGHTING

Lighting was reported, and observed to be considered “low levels” for an educational environment throughout academic areas. Lighting is currently fluorescent while LED upgrades are not required, upgrading to an all LED system immediately to address low lighting levels present is recommended.

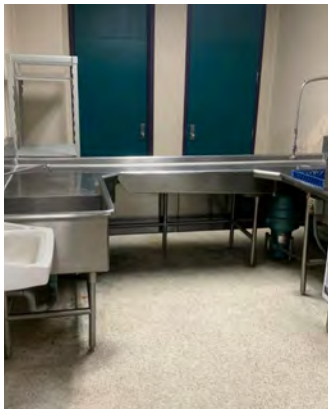
TECHNOLOGY

Audio Visual

- **The Gymnasium** requires a full AV system replacement including a new laser-based projector, motorized tab-tensioned screen, HDMI and wireless presentation capabilities, and an upgraded control system. This should be addressed within 3–5 years.
- **The Cafeteria** also requires a full AV system replacement with similar laser-based projection and control capabilities. This should be addressed within 3–5 years.
- **The Music Room** requires a full AV system replacement including a new projector, motorized tab-tensioned screen, control system, HDMI input, and integrated sound. This should be addressed within 1–2 years.
- **Classrooms** should be equipped with Promethean boards to align with current district technology standards. Several classrooms currently lack these boards. This should be addressed within 5–7 years.
- **The Conference Room** should be outfitted with conferencing devices to provide full meeting and virtual connectivity capabilities. This should be addressed within 5–7 years.

Sound Systems

- **The Gymnasium** requires a full sound system design including a complete speaker solution, input infrastructure (wired, wireless, and Bluetooth), and a portable mixer. This should be addressed within 1–2 years.









EXECUTIVE SUMMARY / KEY FINDINGS

- **The Cafeteria** requires a full sound system replacement with updated speakers, signal management processing (SMP rack, DSP), and input control at a portable mix position. This should be addressed within 1–2 years.
- **The Music Room** requires a full sound system design to support standard music playback and monitoring functions, which are currently lacking. This should be addressed within 1–2 years.

Theatrical Rigging

- The Cafeteria platform rigging system requires full replacement. Existing lift lines utilize twisted wire loop chain ("dog chain"), which does not comply with current ANSI standards for statically suspended loads. Additionally, side curtain tracks show signs of age and deterioration. This should be addressed immediately.

PA

- **Administrative areas** should have volume controls added to allow meetings and sensitive discussions to take place without interruption from announcements. This should be addressed within 5–7 years
- **Gymnasium and exterior area**s should receive additional PA speakers to improve coverage. Current conditions indicate that announcements are not clearly audible in these spaces. This should be addressed within 5–7 years.

SECURITY

- All existing Hikvision and Advidia cameras should be replaced with Hanwha models to ensure NDAA compliance. This should be addressed immediately.
- At the Reception, add a card reader on the door to the main corridor to enhance access control. This should be addressed immediately.
- At the Assistant Principal's office, add a request-to-exit push button and card reader on the existing maglock door. The current configuration is not compliant, as it lacks two independent methods of breaking power. The door hardware should be replaced with a fail-secure, free-egress solution. This should be addressed immediately.
- Add DPDT door contacts to all exterior doors to electronically monitor door status. These devices will integrate with access control and intrusion systems to provide alerts when doors are forced or held open. This should be addressed immediately.
- Remove all legacy card readers and door hardware that are no longer in use, as they could interfere with future permitting or inspection processes. This should be addressed within 1–2 years.
- Add additional exterior camera coverage at Doors 14, 16, and 17, the mechanical yard, and Doors 7 and 8 to improve perimeter surveillance. This should be addressed within 1–2 years.
- Add an access control button to the nurse's desk to allow for immediate lockdown in the event of a medical emergency. This should be addressed immediately.
- Add security cameras in the kitchen to provide general coverage and improve visibility in high-activity areas. This should be addressed within 1–2 years.
- Review and update exterior windows with either replacement units or door/window contacts to provide an alert when windows are opened. Several existing windows are older models that open from the inside. This should be addressed within 1–2 years.
- Add video surveillance coverage to the playground area, including cameras with sufficient zoom capability for quality imaging. This should be addressed immediately.
- Add general surveillance coverage to the library to improve visibility in this area. This should be addressed within 1–2 years.
- Add sufficient surveillance coverage to the gymnasium to ensure full monitoring of activity areas. This should be addressed within 1–2 years

LAGWAY ELEMENTARY SCHOOL

05

HISTORIC DATA

This 102,346 square foot school was completed at an approximate cost of $21,394,500.00 On March 10, 2021. The Board of Trustees voted to name elementary #6 in honor of long time Willis resident Eddie Ruth Lagway. A woman who was a longtime Willis resident. She was a Willis graduate, a Willis Board member for nine years, and a local business owner WISD Graduate, Board Member, Business owner, Community member.

This facility is considered in “new” condition and has not undergone any additions or renovations at the time of this assessment.

**All historical data and supporting information included in this report were furnished by the district. While the assessment team has made reasonable efforts to review and reference this material, the data has not been independently verified or validated in detail. The team assumes no responsibility for any inaccuracies or omissions contained within the district-provided information.*

GENERAL INFORMATION



LAGWAY ELEMENTARY SCHOOL 11505 Pine Valley Dr. Conroe, TX 77304	
Year(s) Built:	2021
Approx. Total Building Square Footage	102,346
Approx. Total Site Area	20 acres

UTILIZATION SUMMARY



LEVEL 1

LEGEND

- Does meet TEA and Ed Spec
- Does meet Ed Spec
  *no TEA requirement
- Does not meet Ed Spec
- Does not meet TEA and/or Ed Spec

UTILIZATION SUMMARY

TEA Deficiencies:

- No TEA deficiencies are observed in the level 1 Lagway ELementary plan.

Educational Specification Deficiencies:

- **Art:** The art room is approximately 25 SF undersized. The Ed Spec requires (1) at 1,200 SF to accomodate 24 students.
- **Music:** The music room is approximately 160 SF undersized. The Ed Spec requires (1) at 1,200 SF to accomodate 24 students
- **Life Skills Classrooms:** Life Skills/SpEd classrooms are approximately 60 SF undersized each. The Ed Spec requires (2) at 850 SF each to accomodate 12 students each.
- **Gym:** While the gym meets the 3,000 SF minimum required by TEA it is approximately 400 SF under the Ed SPec requirement of 4,000 SF.
- ***Missing Special Education Classroom:** The Ed Spec requires (1) at 850 SF.
- ***Missing Motor Lab:** The Ed Spec requires (1) at 1,000 SF.

**Note: The comparison to Educational Specifications was limited to TEA-regulated academic spaces, including classrooms, science labs, libraries, and gymnasiums. Non-instructional or support spaces identified within the Educational Specifications were not included in this review.*

UTILIZATION SUMMARY



LEVEL 2

LEGEND
Does meet TEA and Ed Spec
Does meet Ed Spec *no TEA requirement
Does not meet Ed Spec
Does not meet TEA and/or Ed Spec

UTILIZATION SUMMARY

TEA Deficiencies:

- **Science:** A combination science classroom/laboratory for Kindergarten-Grade 5 must provide a minimum of 50 SF per student. The room may have an established maximum of 22 students but must not exceed 25. Within the total square footage of the room, 6 SF per student of horizontal laboratory counter top space (3 feet wide x 2 feet deep) must be provided at student laboratory benches, and an additional 3 linear feet (LF) per student of horizontal laboratory counter top support space must be provided for equipment and materials for investigations, activities, or student projects. The current labs are approximately 135-155 SF undersized.

- **Prep/storage rooms:** Prep/Storage rooms are undersized by at least 70SF, if the district wants to fit (24) students in the associated science lab, One preparation/storage room at a minimum 10 SF per student shall be provided adjacent to each combination science classroom/laboratory. One preparation/storage room at a minimum of 10 SF per student shall be provided per science classroom and be located adjacent to its partner science laboratory. Preparation/ storage rooms may be combined, but the combination of more than one preparation/storage room shall not reduce the minimum square feet or quantity of built-in fume hoods required if they were not combined.

Educational Specification Deficiencies:

- **Science:** Current Science labs are approximately 135-155 SF undersized, The Ed Spec requires (2) classrooms/labs at 1,100 SF each to accomodate 24 students.

- **Science Stor/Prep:** Current Science storage rooms are approximately 200 SF undersized, The Ed Spec requires (1) storage room per lab at 240 SF each.

**Note: The comparison to Educational Specifications was limited to TEA-regulated academic spaces, including classrooms, science labs, libraries, and gymnasiums. Non-instructional or support spaces identified within the Educational Specifications were not included in this review.*

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

Accessibility within Lagway seems to be in general compliance with TAS. The building is equipped with a fire suppression system and appears to be in good condition.

The facility currently utilizes a stackable washer and dryer configuration. This arrangement does not comply with ADA requirements for reach ranges and operability, and its acceptability at the elementary school level should be confirmed with the District's TDLR reviewer. If determined to be noncompliant, modifications will be required to provide accessible laundry equipment.

In addition, existing window coverings include blinds with free-hanging cords. These present both a safety hazard, particularly in elementary school settings, and are no longer permitted by current code and safety standards. Replacement with cordless or otherwise compliant systems is recommended to improve safety and align with current regulations.

SITE CONDITIONS

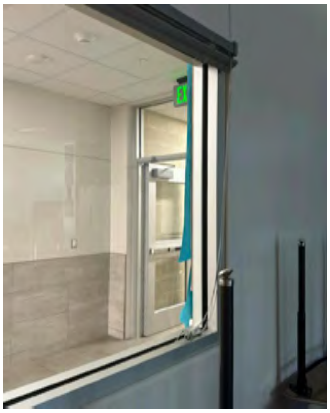
Upon review of the site conditions at Lagway it appears that the site is in a relatively good condition. No apparent major areas of concern were identified.

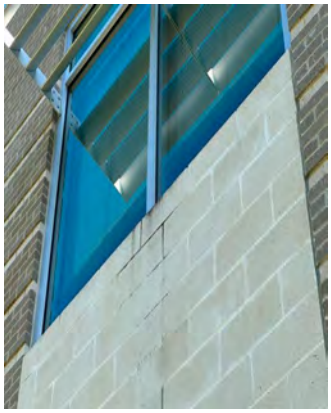
EXTERIOR WALLS

Existing Conditions:

Cast Stone Masonry Units (CMU) And Masonry Veneer Walls

- Throughout the various elevations of the building, SEAL observed at least two changes in material of the through-wall flashing. SEAL observed the change from galvanized to stainless steel around the Southeast entrance, and a change to galvanized from stainless steel along the West elevation. Additionally, SEAL observed the galvanized through-wall flashing to be corroded and damaged.
- Throughout the various elevations of the building, SEAL observed both adhesive and cohesive failures of the masonry veneer expansion joints, as well as crazing throughout the exposed sealant surface.
- Throughout the various elevations of the building, SEAL observed a mix of brick veneer and CMU masonry wall construction. Along the South elevation, SEAL observed wall staining on CMU's directly below the second story punched window openings. SEAL was unable to determine if the CMU's beneath the second story windows were sloped for drainage.
- At the South elevation, SEAL observed an unsealed junction box penetration. Unsealed penetrations can lead to water penetration and damage throughout the building.



EXECUTIVE SUMMARY / KEY FINDINGS

Recommendation:

Based on our observations of the existing masonry wall assemblies, it is our opinion the CMU and brick masonry veneer was performing adequately considering its age and the minimal observed cracking, spalling, or other damage. The base of wall condition was questionable considering the use of stainless steel and galvanized steel flashings. The stainless steel flashings will provide longer and higher performing service while the galvanized steel flashings are unlikely to provide a service life consistent with the masonry wall system due to corrosion and masonry alkalinity. The condition of the masonry veneer expansion/control joints indicated its effective service life was limited. The condition of the concealed air/weather-resistive barrier within the wall was not observed or determined. The following outlines our masonry-related recommendations:

Short Term Recommendations (<10 years), including immediate:

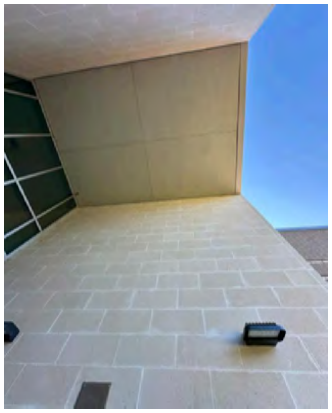
- Level 1: Review building design documents to verify specified base of wall through-wall flashings or drip edge. If the current installation does not comply with the design, notify general contractor and begin discussions related to removal and replacement of the masonry flashing and associated masonry. In our experience, this scope of work can be completed as generally described in Brick Industry Association (BIA) Tech Note 46 Maintenance of Brick Masonry.
- Level 2: Remove and replace glazing gaskets and/or wet seal existing window systems to maintain water resistance with high-performance DowSil silicone glazing sealant.

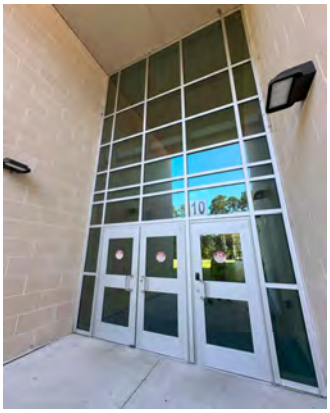
Intermediate Recommendations (10 to >20 Years):

- MT: Replace sealants and coatings as described above at 10 to 15-year intervals.

INTERIOR WALLS

The building is relatively new and in overall good condition; however, several wall-related issues were observed during the assessment. Vertical cracking was noted along both classroom and corridor walls, which is typically associated with differential movement in the masonry. To address this condition, installation of masonry control joints at strategic locations is advised to accommodate future movement and reduce stress concentrations. Flexible sealant should be applied at new control joints and other critical interfaces, with regular inspection and maintenance to maintain long-term performance and appearance.



EXECUTIVE SUMMARY / KEY FINDINGS

WINDOWS

Existing Conditions:

Aluminum-Framed Glazing System(s) And Doors

- Throughout the various elevations of the building. SEAL observed numerous aluminum-framed curtain wall systems. The glazing system components did not exhibit signs of deterioration or questionable installation. However, in many locations SEAL observed the curtain wall and window perimeter sealants, as well as the door and entrance sealant exhibited cracking and adhesion loss.
- Throughout the various elevations of the building SEAL observed numerous aluminum-framed punched window openings. Organic growth was observed at the metal-to-metal joinery of the punched windows.

Recommendation:

Based on our observations of the existing glazing and fenestration systems, it is our opinion that the window and door systems, including seals and gaskets, were functioning adequately and within the typically service life. The following outlines our glazing and fenestration-related recommendations: Considering the age of the glazing systems and the likelihood that the glazing system and sealants were still under warranty by Oldcastle Building Envelope, it is our opinion that significant glazing systems repairs are not currently required. However, periodic proactive roof inspection and maintenance will be necessary. The following outlines our glazing-related recommendations:

Short Term Recommendations (<10 years), including immediate:

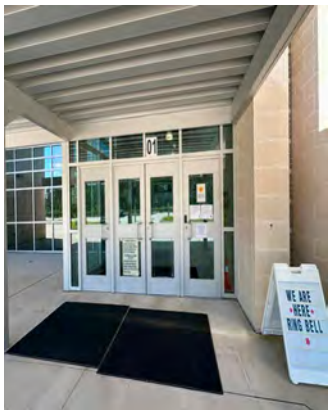
- · MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion.
- MT: Remove and replace perimeter joint seals around all glazing and door systems with high performance DowSil silicone sealants appropriate for the substrates required.
- MT: Remove and reset or replace existing door thresholds and sealing door system to adjacent wall.
- MT: Remove and replace all existing door weatherstripping with new materials.

Intermediate and Long Term Recommendations (10 to >20 years):

- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals.
- Level 2: Remove and replace glazing gaskets and/or wet seal existing window systems to maintain water resistance with high-performance DowSil silicone glazing sealant.









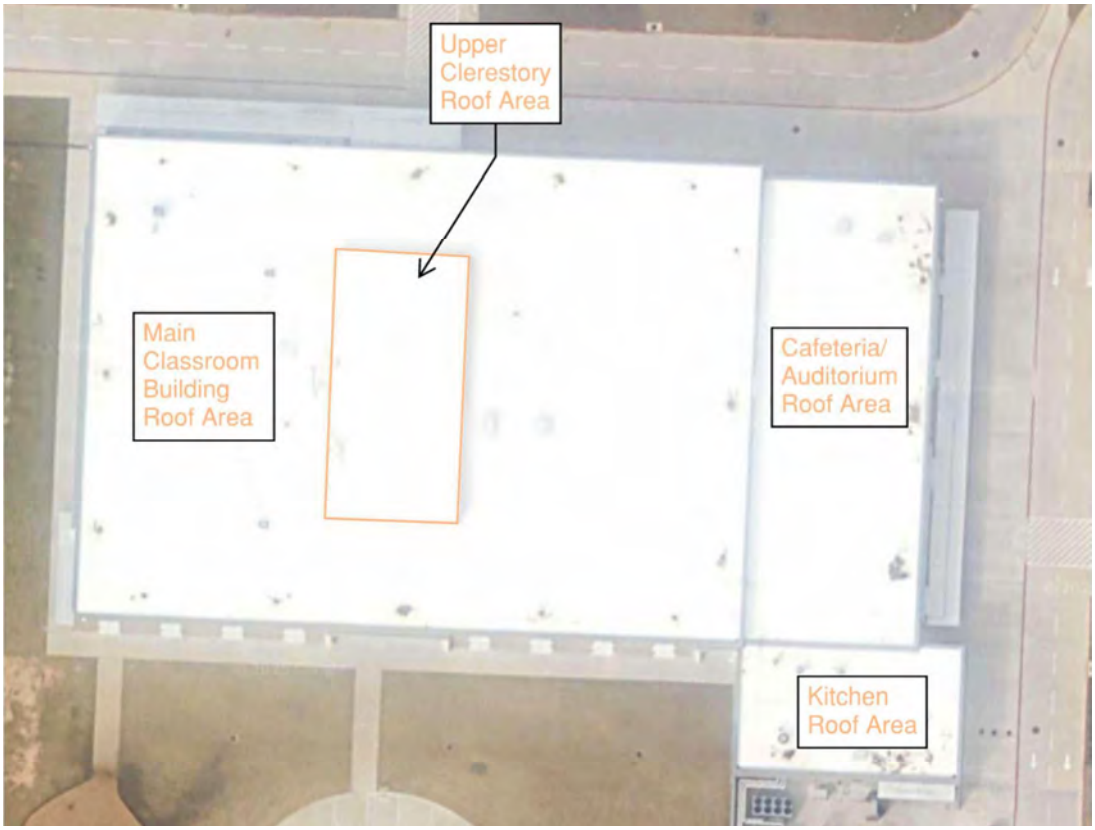
EXECUTIVE SUMMARY / KEY FINDINGS

ROOF

Existing Conditions:

Low-Slope Roofing System

- Throughout the entire roofing system, SEAL observed a low-slope thermoplastic polyolefin (TPO) roofing system, This system description was confirmed based on reports and documents provided to SEAL. Based on membrane flashing accessories and the manufacturer's mark, we understand the existing roofing system to be a TPO membrane manufactured by Firestone. The roofing systems were approximately 4 years old and original to the building. During our site walk, SEAL noted the existing roof system/substrate to be solid under foot with minimal, if any soft areas.
- The main drainage systems of the low-slope roof areas were as follows:
    - The Clerestory Upper Roof area sloped to the East and West edges which drained to prefinished sheet metal gutters with downspouts that discharged to adjacent low roofs.
    - The Main Classroom Building Roof area sloped towards internal cast iron roof drain assemblies with dome strainers along the perimeter of the roof area and also had secondary/overflow through-wall scuppers comprised of polymer-clad sheet metal.
    - The Cafeteria/ Auditorium Roof area sloped towards internal cast iron roof drain assemblies with dome strainers towards along the East walls, and also had secondary/overflow through-wall scuppers comprised of polymer-clad sheet metal.
    - The Kitchen Roof area sloped towards internal cast iron roof drain assemblies with dome strainers along the South edge of the building and also had secondary/overflow through-wall scuppers comprised of polymer-clad sheet metal.
- At the Clerestory Upper Roof Area, SEAL observed the perimeter roof edge to be slightly elevated. These locations exhibited sedimentation common to roof areas that retain water.



EXECUTIVE SUMMARY / KEY FINDINGS

- Throughout all roof areas, SEAL observed elevated primary roof drain elevations, resulting in retained water and sedimentation. Many scupper elevations were observed to be low (less than 2" above primary and some at the roof surface) leading to overuse of secondary drains. Additionally, in at least one location SEAL observed roof membrane to be cut smaller than the drain leader diameter and organic debris at many roof drains limiting drainage capacity.
- At the Main Classroom Building Roof, SEAL observed concentrated wrinkles of minor membrane delamination throughout the Southwest corner Additionally, similar wrinkles were observed throughout other portions of the Main Classroom Building Roof Area.
- At the Main Classroom Building Roof area and Cafeteria/ Auditorium Roof area, SEAL observed numerous locations where integration of the roof penetrations through the enclosure system were questionable. SEAL observed various locations where roof membrane at curb penetrations exhibited delamination and tenting from the field of the roof to the curb as well as no counterflashing. In addition, SEAL observed unsealed pinholes and deteriorated sealant at roof penetrations.
- SEAL observed at least one location where a counterflashing lap was disengaged and unsealed at laps and joints. Disengaged and unsealed joints are susceptible to displacement from elevated wind events.
- At the Kitchen Roof area rising wall at the Northwest corner of the roof, SEAL observed a complex transition flashing assembly where a number of systems interfaced. This location exhibited transition asphaltic membrane (likely a component of the normally-concealed air barrier system) in an exposed application where it was exposed UV light and degradation. In addition, the stainless steel flashing profiles had been field-modified for project specific conditions resulting in reduced headlap over the underlying flashings resulting in questionable flashing assemblies.

Recommendation:

Based on our observations to date, it is our opinion the existing low-slope roofing system was in a generally serviceable condition and was generally solid underfoot. One roofing industry study indicates the service life for a thermoplastic polyolefin roof membrane is 14 years. Considering the age of the roof and the likelihood that the roof system was still under warranty by Firestone (now Holcim Elevate), it is our opinion that the roofing membrane was performing adequately, and significant roof system repairs are not currently required. The isolated wrinkling did not appear to present a current concern, although inspections should be maintained to evaluate the ongoing condition. However, periodic proactive roof inspection and maintenance will be necessary to maintain the roofing warranty. The following outlines our roofing-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Identify roofing manufacturer, warranty term, and warranty requirements and provide to building maintenance/engineering staff for reference and repair assistance.






EXECUTIVE SUMMARY / KEY FINDINGS

- MT: To proactively identify roof damage and wear, as well as maintain assumed roof warranty requirements, inspect the low-slope roofing membrane bi-annually and following significant storm events with high volume rains and/or high winds. Properly repair all damage and wear as it is identified. A third party, credentialed roofing specialists should be considered for these building-specific evaluations.

Intermediate Recommendations (10 to 20 years):

- Level 3: SEAL recommends completing a moisture survey (infrared, capacitance, or nuclear with accompanying secondary verification (roof cores preferred at that time) around Year 10 to address any significant areas of concern. Coordinate coring, if any, with roofing manufacturer for proper repair.
- Level 3: If the roofing system is dry, coating of membrane may be considered to restore continuity, including replacement of all roof flashings.
- Level 3: If the roofing system is wet, the existing single-ply roofing system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system manufactured by Soprema or Siplast with no less than a 20-year No Dollar Limit warranty. The roof assembly should consist of a mechanically-attached gypsum substrate board (where applicable), torch-applied 100-mil minimum vapor barrier, new rigid and tapered roofing insulation, and a gypsum fiber (non-faced) coverboard. A preformed tapered insulation sump should be placed at all primary roof drains. Reinforced liquid flashing system is recommended at all roof penetration and as a supplement to the roofing membrane in the insulation drain sump. New prefinished sheet metal copings and flashings should be provided

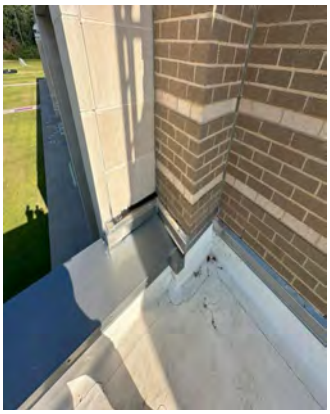
Long Term Recommendations (>20 years):

- Level 3: If not reroofed prior to 20 years due to damage or excessive wear, replace the existing single-ply thermoplastic roofing membrane with a multi-ply roofing assembly as described above.
- MT: If the roofing is replaced between Years 10 to 20, follow the inspection and maintenance protocol outlined above and prepare for roof coating approximately 7-10 years after initial roof installation.

FLOORS

Overall, the flooring throughout the facility is in fairly new condition, consistent with the building's age. Luxury vinyl tile (LVT) is largely intact, with only isolated areas of missing tiles. Minor carpet stains were observed in some locations. These localized issues can generally be addressed through routine maintenance. LVT and carpet replacement not needed till end of life cycle, 15-20 year life expectancy.



EXECUTIVE SUMMARY / KEY FINDINGS

DOORS

Overall, the doors throughout the facility is in fairly new condition, consistent with the building's age. Only a few doors throughout the facility exhibit minor chipping. At the South elevation entrance, threshold sealant was observed to be missing or deteriorated on at least one door assembly. Improperly sealed thresholds can allow water penetration around the door, potentially leading to further damage or interior moisture issues. Repairs to thresholds and door finishes are recommended to maintain durability and prevent water intrusion.

MILLWORK / CASEWORK

Overall, the millwork/casework throughout the facility is in fairly new condition, consistent with the building's age. No remediate or repairs were noted at the time of the assessment.

CEILING

Stucco-Clad Wall and Ceiling Assemblies

Based on our observations of the existing stucco-clad ceilings at the recessed South elevation walls and recessed entrance ceiling areas, it is our opinion that the stucco wall assemblies are in generally serviceable condition with minimal, if any, cracks or stains. Considering its partially exposed condition, these assemblies are likely to avoid direct exposure from the more significant weather conditions. The following outlines our stucco-related recommendations:

Short Term Recommendations (<10 years), including immediate:

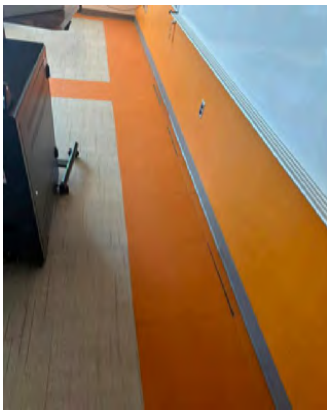
- MT: Inspect stucco assemblies bi-annually to identify any damage or wear and repair as required to maintain continuity and service.

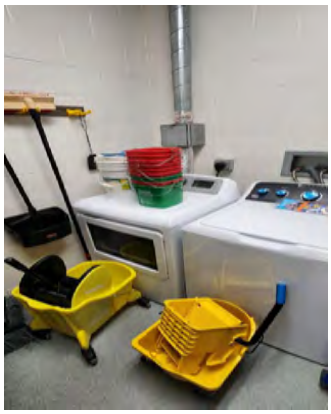
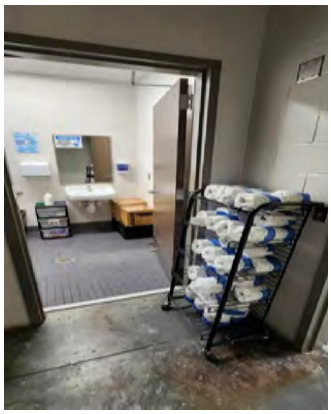
Intermediate Recommendations (10 to >20 years):

- MT: Route and seal any existing cracks in the stucco cladding (if suitable aesthetic can be obtained).
- MT: Re-coat the existing stucco wall and ceiling panels with a DowSil Allguard-type silicone elastomeric coating after repairs. Replace sealants and coatings as described above at 10 to 15-year intervals.

Interior

Overall, the ceiling throughout the facility is in fairly new condition, consistent with the building's age. Replacement not needed till end of life cycle, 20-25 year life expectancy.



EXECUTIVE SUMMARY / KEY FINDINGS

KITCHEN

Rating Criteria:

- Priority 1: Poor – Immediate replacement (0-5 life expectancy)
- Priority 2: Poor/Fair – Should be replaced (5-15-year life expectancy)
- Priority 3: Fair – Replacement not needed currently (15-20-year life expectancy
- Priority 4: Good – Replacement not needed (20-25-year life expectancy)
- Priority 5: MT – Maintenance required

Architectural:

- Floor: Good
- Ceiling-Kitchen : Good
- Walls: Good
- Floor Sinks: Good
- Electrical Panels: Good
- Ceiling-Servery: Good

Recommendations:

- All equipment in the facility's functional areas—including Receiving, Office, Janitors, Toilet/Locker Rooms, Dry Storage, Cold Storage Assembly, Preparation, Production, Holding, Servery, and Warewash—is in good condition. No immediate replacement or major repairs are required at this time.
- Cold storage assembly is undersized. Increase square footage to 302 SF to accommodate student population.

MEP

Existing Conditions:

- **Cooling/Heating System:** Chilled water system. Chillers are Carrier Inc. Rotary Chillers. Heating is gas-fired boiler. All air systems are delivered with VAV boxes

- **Energy Mgmt. System:** Automated Logic, System 2020. All digital controls. Temperature control, trending of systems, system start/stop from remote location, full graphic system, and humidity sensors

Recommendation:

Lagway Elementary school was built in 2021, all MEP systems are in good working condition. Mechanical equipment will need to be addressed for lifecycle replacements in 20-25 years.









EXECUTIVE SUMMARY / KEY FINDINGS

LIGHTING

Lagway Elementary school was built in 2021, all Lighting systems are in good working condition. Lighting will need to be addressed for lifecycle replacements in 20-25 years.

TECHNOLOGY

Audio Visual

- **Cafetorium:** Replace the existing AV system with a new laser-based projector, motorized tab-tensioned screen, HDMI and wireless presentation capabilities, and a modern control system recommended within 5–7 years.
- **Music Room:** Replace the full AV system with a new projector, motorized tab-tensioned screen, control system, HDMI input, and integrated sound. This should be addressed within 3–5 years.

Sound Systems

- **Cafetorium:** Replace the existing sound system with a complete SMP rack, DSP, distributed speaker solution, portable mixing desk, and additional input/output connections for microphones and monitoring. This should be addressed within 5–7 years.
- **Gymnasium:** Replace the current sound system with a distributed, amplified configuration to improve clarity, as the existing system's excess speaker coverage causes echo and reduced intelligibility. This should be addressed within 5–7 years.
- **Music Room**: Install a new playback and monitoring sound system to meet standard music room performance requirements. This should be addressed within 3–5 years.
- **Gymnasium (Acoustics):** Additional acoustic treatment is recommended to reduce noise buildup and improve speech intelligibility. This item can be addressed at any timeline the district deems appropriate, as it will not interfere with daily operations.

PA

Overall, the PA throughout the facility is in fairly new condition, consistent with the building's age. No recommendations of action at this time.

SECURITY

- **Reception Area:** Add camera coverage within the reception area to improve visibility and monitoring. This should be addressed within 1–2 years.
- **Admin Area:** Add card readers to doors 102 and 106 to prevent unmonitored access from the main corridor to administrative spaces. This should be addressed within 1–2 years.
- **Nurse Area:** Add card readers to door 105 and the connecting door to the administrative area to restrict corridor access. This should be addressed within 1–2 years.
- **Admin Offices:** Install access control buttons at the nurse, SRO, and principal offices to enable immediate lockdown during emergencies. This should be addressed immediately.
- **Library:** Add camera coverage to ensure full visibility within the library. Existing multi-sensor cameras in adjacent corridors may not fully capture this area. This should be addressed immediately.
- **Cafeteria:** Add additional camera coverage to improve monitoring and safety in high-traffic areas. This should be addressed immediately.
- **Kitchen**: Install cameras in the kitchen for general coverage. This should be addressed within 1–2 years.
- **Interior Corridors (First Floor):** Add camera coverage near the cafeteria and gym. Current cameras located on the second floor do not adequately capture these areas. This should be addressed immediately.

EXECUTIVE SUMMARY / KEY FINDINGS

- **Gymnasium:** Remove the existing 360° fisheye camera and replace it with sufficient camera coverage for clear visibility. This should be addressed within 1–2 years.
- **Workroom:** Add a card reader at the workroom door to control access. This should be addressed within 1–2 years.

MEADOR ELEMENTARY SCHOOL

06

HISTORIC DATA

William Lloyd Elementary School was completed in 2008 at an approximate cost of $13,816,376. The original building encompasses approximately 80,000 square feet. The school was named in honor of William Lloyd, a lifelong resident of Willis, Texas, who devoted many years of service to the community. Mr. Lloyd served on the WISD Board of Trustees for 15 years, played a key role in organizing the local Sports Committee and the first Little League Baseball Association in Willis, and positively impacted countless students and residents throughout his life.

The school dedication took place on October 17, 2008, attended by Mr. Lloyd's family, friends, former students, WISD educators, and community members who celebrated his contributions to the district and town.

Major Additions or Renovations: An emergency generator was included in the original construction of this building. In 2012 the Technology Department installed projectors and security cameras throughout the building. In 2013, security features and enhancements were completed. District wide lighting upgrades in April 2015. In the summer of 2016, a new driveway extension was added as part of Bond Issue 2015 to alleviate traffic congestion. Concrete and drainage repair 2019. Completed Bond 2020 Projects – Chiller Replacement 2022. Gym Addition 2022.

**All historical data and supporting information included in this report were furnished by the district. While the assessment team has made reasonable efforts to review and reference this material, the data has not been independently verified or validated in detail. The team assumes no responsibility for any inaccuracies or omissions contained within the district-provided information.*

GENERAL INFORMATION



MEADOR ELEMENTARY SCHOOL 10020 FM 830 Willis, TX 77378	
Year(s) Built:	2008
Approx. Total Building Square Footage	84,476*
Approx. Total Site Area	15 acres

*Includes the 2022 addition.

UTILIZATION SUMMARY



LEGEND

- Does meet TEA and Ed Spec
- Does meet Ed Spec
  *no TEA requirement
- Does not meet Ed Spec
- Does not meet TEA and/or Ed Spec

Note: This facility was originally constructed prior to the adoption of current TEA code requirements and Educational Specification standards. Because these regulations were implemented after the buildings were constructed, certain conditions may not meet today's guidelines. The assessment reflects existing conditions as they relate to current TEA and Educational Specification expectations for academic spaces.

UTILIZATION SUMMARY

TEA Deficiencies:

- **Science:** The separate science laboratory and classroom configuration is not permissible at the elementary level. A combination science classroom/laboratory for Kindergarten-Grade 5 must provide a minimum of 50 SF per student. The room may have an established maximum of 22 students but must not exceed 25. Within the total square footage of the room, 6 SF per student of horizontal laboratory counter top space (3 feet wide x 2 feet deep) must be provided at student laboratory benches, and an additional 3 linear feet (LF) per student of horizontal laboratory counter top support space must be provided for equipment and materials for investigations, activities, or student projects.

- ***Missing Prep/storage rooms:** Prep/Storage rooms were observed to be missing from plan, if the district wants to fit (24) students in the associated science lab, One preparation/storage room at a minimum 10 SF per student shall be provided adjacent to each combination science classroom/laboratory. One preparation/storage room at a minimum of 10 SF per student shall be provided per science classroom and be located adjacent to its partner science laboratory. Preparation/storage rooms may be combined, but the combination of more than one preparation/storage room shall not reduce the minimum square feet or quantity of built-in fume hoods required if they were not combined.

Educational Specification Deficiencies:

- **Classrooms:** approximately half of the classrooms within the facility are undersized from the Ed Spec requirement. The Ed Spec requires 850 SF each to accommodate 25 students at 36 SF/student.

- **Science: c**urrently only have (1) at approximately ~100 SF undersized to accommodate an established maximum of 22 kids. The Ed Spec requires (2) classrooms/labs at 1,100 SF each to accomodate 22 students each.

- **Music:** The music room is approximately 115 SF undersized. The Ed Spec requires (1) at 1,200 SF to accomodate 24 students

- **Gym:** While the gym meets the 3,000 SF minimum required by TEA it is approximately 450 SF under the Ed SPec requirement of 4,000 SF.

- ***Missing Motor Lab:** The Ed Spec requires (1) at 1,000 SF.

- ***Potentially Missing Art:** No art room was observed, however, the district could be providing art within one of the standard designated classrooms. Corrective action would include ensuring that one art room is provided, per the Ed Spec at 1,200 SF to accomodate 24 students.

**Note: The comparison to Educational Specifications was limited to TEA-regulated academic spaces, including classrooms, science labs, libraries, and gymnasiums. Non-instructional or support spaces identified within the Educational Specifications were not included in this review.*

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

Accessibility within Meador seems to be in general compliance with TAS.

SITE CONDITIONS

No significant site issues were identified at this campus. Limited sidewalk remediation is recommended in locations where heaving or sinking has occurred as a result of natural aging and wear.

EXTERIOR WALLS

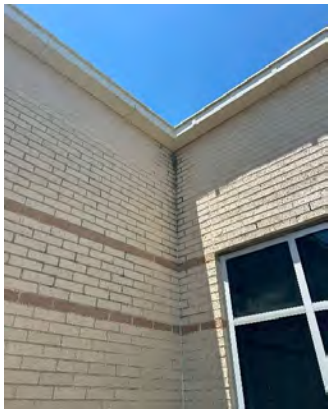
Existing Conditions:

CMU And Masonry Veneer Walls

- Throughout all building elevations, SEAL observed a combination of brick masonry veneer (top of wall) and split-face CMU (bottom of wall) wall construction. The masonry systems did not exhibit unusual signs of distress, cracking, or spalling. At the transition to the roofing system, the masonry system had a partially concealed flashing (receiver or through-wall flashing) with intermittent partially exposed black plastic sheet membrane (likely a Nervastral-type material) and asphaltic mastic. In the brick course above the metal flashing, SEAL observed full-head weep provisions spaced at approximately 24” o.c.
- At most, if not all, masonry control joints, SEAL observed cohesive and adhesive failures of the liquid-applied joint sealant. Additionally, the preformed silicone expansion joint between the original structure and the gym addition was observed to be discontinuous with unsealed joints at the joints and interface with the building openings. Openings in the building control and expansion joints are likely to allow air and water infiltration. Unsealed penetrations through the building were observed in a number of isolated locations.
- SEAL observed staining of the brick and CMU veneer throughout all building elevations. Staining at the brick veneer was generally aligned with leaking sheet metal gutter joints, likely indicating improperly sealed or leaking joints throughout the system. This condition may lead to accelerated deterioration of the veneer. Additionally, the CMU at the Main Entrance area exhibited significant staining.
- SEAL observed a few unsealed wall penetrations or wall penetration sleeves within the building service areas.

Recommendation:

Based on our observations of the existing masonry wall assemblies, it is our opinion the CMU and brick veneer were adequately serving their intended purpose. The exception to that general statement were the walls located beneath the metal roofing where the water flow impacted the underlying components, including the split-faced CMU. The following outlines our masonry-related recommendations:



EXECUTIVE SUMMARY / KEY FINDINGS

Short Term Recommendations (<10 years), including immediate:

- Level 1: Replace or significantly renovate the existing masonry and all masonry flashings beneath the metal roof eaves, including concealed air barrier/membrane behind the existing masonry. Replacement of the masonry with metal wall panels may be considered to simplify the construction and potentially reduce the renovation trades. At least, remove the split-faced CMU at this area should be considered to facilitate tighter flashing fit and installation.
- MT: Repairing of cracked/displaced CMU and masonry units, including tuckpointing/filling of mortar joints.
- Level 1: Remove and replace masonry expansion and control seals, as well as unsealed wall penetrations with high performance DowSil silicone sealants appropriate for the substrates required and backer rod.

Intermediate and Long Term Recommendations (10 to> 20 Years):

- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals.

INTERIOR WALLS

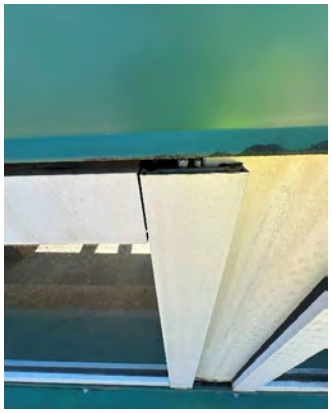
Typical interior wall conditions include damaged or cracked walls, minor base damage, and areas requiring touch-up or full repainting, such as secondary hallways, restrooms, classrooms, and the library that should be addressed by the district's maintenance personnel. Specific repairs include replacement of damaged acoustical wall panels, providing control joints in damaged walls at the back vestibule, and addressing cracking under windows.

WINDOWS

Existing Conditions:

Aluminum-Framed Glazing, Entrance, and Door Systems

- Based on the manufacturer's labels on the entrance doors, the systems used on this project were manufactured by United States Aluminum.
- At Roof area 5, SEAL observed a storefront clerestory window assembly with insulated glass units (IGU's) and an integral sill receptor with weep holes. These windows were observed to be aged and typically exhibited exterior glazing gasket shrinkage. Throughout the window assemblies, evidence of attempted wet-seal remediation was observed. Additionally, unsealed gaps were observed above and below the units with cracked and deteriorated perimeter sealants throughout, and there was no evidence of sealant observed at metal-to-metal joinery or around the units.
- The windows around the First floor of the building were comprised of aluminum-framed, storefront glazing systems with an integral sill receptor. The sill receptor exhibited two slotted weeps below and adjacent to the jamb mullions. The perimeter seals and glazing gaskets/seals were deteriorated and failed in many locations.






EXECUTIVE SUMMARY / KEY FINDINGS

- Throughout the various elevations of the building, SEAL observed the door jamb-to-sill conditions and door thresholds to have missing/deteriorated sealant. In at least one location, SEAL was able to insert a flat spatula into these joints up to 2" deep. Openings in these systems were likely to allow for uncontrolled air leakage.
- At several locations, SEAL observed insulated glass units that were fogged indicating they were no longer sealed.
- At several building service areas, SEAL observed steel-framed hollow metal doors. These doors exhibited minor paint wear. SEAL did not observe awnings, canopies, or other water diversion methods at these doors.

Recommendation:

Based on our observations of the existing glazing and door systems, it is our opinion the systems are within their service life with the exception of some maintenance items related to gaskets and sealants. The following outlines our glazing and fenestration-related recommendations:

Short Term and Intermediate Recommendations (<10 years to 20 years):

- Level 1: Install prefinished sheet metal transition flashing at window sill to provide continuity and eliminate unsealed conditions between the window unit and the sheet metal ledge flashing below.
- Level 1: Replace or significantly renovate the existing windows beneath the metal roof eaves.
- MT: To proactively identify sealant wear and deterioration, inspect perimeter and glazing sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals with high performance DowSil silicone sealants appropriate for the substrates required.
- MT: Remove and replace perimeter joint seals around all glazing and door systems with high performance DowSil silicone sealants appropriate for the substrates required.
- Level 1: Replace or trim glazing gaskets and wet seal existing window systems to assist with water resistance.
- Level 1: Replace insulated glass units where fogged or otherwise indicated loss of seal.
- MT: Remove and reset or replace existing door thresholds and sealing door system to adjacent wall.
- MT: Remove and replace all existing door weatherstripping with new materials.

Long Term Recommendations (>20 Years):

- Level 3: Full replacement of all window and door assemblies with new, thermally broken (or at least thermally improved) high-performance glazing systems, including insulated glass units.






EXECUTIVE SUMMARY / KEY FINDINGS

ROOF

Existing Conditions:

Low-Slope Roofing System

Throughout most of the roof areas, SEAL observed a built-up roof (BUR) system. On the gym addition, SEAL observed a Thermoplastic polyolefin (TPO) roof system. Reference Appendix B: Roof Area Key for these system descriptions were confirmed based on reports and documents provided to SEAL. The documents indicated the BUR and TPO roofing systems were approximately 17 and 3 years old, respectively. During our site walk, SEAL did not detect wide-spread blisters or soft areas of the roofing substrate.

The main drainage systems of the low-slope roof areas were as follows:

- Roof area 1 sloped towards the North and East elevations of the roof where it drained into prefinished sheet metal gutters with downspouts that discharged down to grade.
- Roof area 2 sloped towards the East, West, and South elevations of the roof area where it drained into prefinished sheet metal gutters with downspouts that discharged to the adjacent roof areas.
- Roof area 3 sloped towards the East and South elevations of the roof area where it drained into prefinished sheet metal gutters with downspouts that discharged down to grade.
- Roof area 4 sloped towards the East elevation of the roof area where it drained into prefinished sheet metal gutters with downspouts that discharged to the adjacent roof areas.
- Roof area 5 sloped towards the North and South elevations of the roof area where it drained to prefinished sheet metal gutters with downspouts that discharged down to grade.
- Roof area 6 sloped to all 4 elevations of the roof area where it drained to prefinished sheet metal gutters with downspouts that discharged to the adjacent roof areas.
- Roof area 7 sloped to all elevations of the roof area and drained into prefinished sheet metal gutters with downspouts that discharged down to grade.
- Roof area 8 sloped to internal drains (primary and secondary) throughout the roof area.



EXECUTIVE SUMMARY / KEY FINDINGS

- At various roof areas, SEAL observed many surface-applied mastic roof edge repairs at short and long locations. Additionally, SEAL observed wind scour at many of the North corners of the roof areas. Displaced gravel can expose the asphalt below to ultraviolet (UV) rays and lead to ongoing membrane deterioration.
- At Roof area 1, SEAL observed many curb penetrations with modified bitumen membrane base flashing. The flashing membrane at these penetrations exhibited granule loss and deteriorated mastic at the corners.
- SEAL observed failed/deteriorated sealant at many roof penetrations, coping joints, gutter joints, and gutter interfaces. Failed sealant was likely to allow water infiltration into the building enclosure.
- At Roof area 8, SEAL observed sedimentation around the roof drain assemblies. This condition typically indicates limited drainage around the assemblies or low roof areas. Additionally, dome strainers were not observed and likely to allow debris into the drain leaders. This condition may contribute to roof drainage obstructions.
- At the more recently installed TPO roofing systems at the gym and gym lobby, SEAL observed the roof drain dome strainers were missing or omitted from the original construction. This condition was likely to allow debris to enter the roof drain leaders.

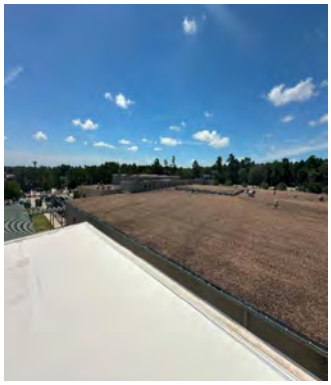
Metal Roofing System

- At Roof area 5, SEAL observed a 1" standing seam prefinished sheet metal roof curved into an arched barrel shape. The panels at the roof eave were stained and the finish deteriorated with corrosion on the panel surface. The roofing system did not contain gutters, but rather freely drained at the roof eave onto prefinished sheet metal fascia cover, aluminum-framed windows, prefinished sheet metal receiver, ledge flashing, and counterflashing, as well as a narrow masonry wall area and the low-slope roof below. At the stucco soffit condition beneath this area, staining and cracking was observed, likely indicating water infiltration into this system.

Recommendation:

Low-Slope Roofing System

Based on the documents provided by Garland, it is our understanding the low-slope BUR system was recommended for replacement in 2026. Based on the documents provided, including a WISD Summary, it is our understanding the roofing system approximately 17 years old. One roofing industry study indicates a mean 18-year service life of a BUR assemblies and 25-year service life for prefinished metal roofing systems. In our experience, quality BUR systems can last up to 50 years with proper maintenance and metal roofing can last much longer than the typical 20-year panel finish. Considering the existing field of the roof was solid underfoot and did not exhibit blisters of other significant visual cues of roofing distress or failure, it appears the recommendation to recover may have been slightly premature. Based on our observations to date, it is our opinion the existing low-slope roofing system was likely to be in serviceable condition with the exception of the roof perimeter areas where leaks were reported and where isolated mastic-type repairs were observed. In addition, as standard roofing warranties are commonly a 20-year term, it is possible the current roofing system is still under warranty. The following outlines our roofing-related recommendations:



EXECUTIVE SUMMARY / KEY FINDINGS

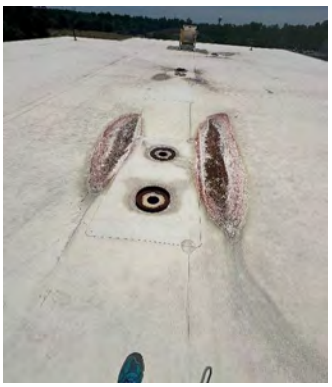
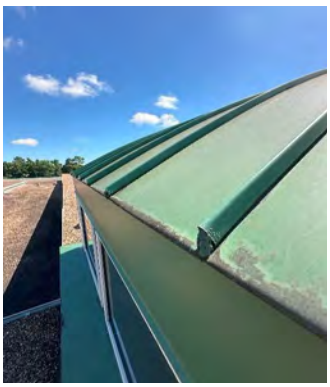
Short Term Recommendations (<10 years), including immediate:

- MT: Identify roofing manufacturer, warranty term, and warranty requirements and provide to building maintenance/engineering staff for reference and repair assistance.
- MT: Provide roofing specific training for WISD personnel to facilitate proactive identification of roofing anomalies, storm damage, and other conditions that can contribute to reduced service life.
- MT: To proactively identify roof damage and wear, as well as maintain assumed roof warranty requirements, inspect the low-slope roofing membrane bi-annually and following significant storm events with high volume rains and/or high winds. Properly repair all damage and wear as it is identified. Third party, credentialed roofing specialists should be considered for these building-specific evaluations.
- Level 3: SEAL recommends completing a moisture survey (infrared, capacitance, or nuclear with accompanying secondary verification (roof cores preferred at that time) around Year 10 to address any significant areas of concern. If there is an active warranty, coordinate coring, if any, with roofing manufacturer for proper repair.
- Level 3: If the roofing system is wet throughout, the existing BUR system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system manufactured by Soprema or Siplast with no less than a 20-year No Dollar Limit warranty. The roof assembly should consist of a mechanically-attached gypsum substrate board (where applicable), torch-applied 100-mil minimum vapor barrier, new rigid and tapered roofing insulation, and a gypsum fiber (non-faced) coverboard. A preformed tapered insulation sump should be placed at all primary roof drains. Reinforced liquid flashing system is recommended at all roof penetration and as a supplement to the roofing membrane in the insulation drain sump. New prefinished sheet metal copings, gutters, and flashings should be provided with the new roofing system.
- Level 3: If wet roofing is limited to the building perimeter, a perimeter renovation could be considered with removal of the existing gravel surfacing and BUR membrane. Renovation should include new roof edge flashing, new wood blocking as required for a proper nailing substrate, replace any damaged or wet insulation and coverboard with new, and apply a 18-24” wide reinforced liquid polymethyl methacrylate (PMMA) membrane properly integrated into the new sheet metal edge flashing and existing BUR.
- Level 3: Install new reinforced liquid PMMA membrane to replace the existing modified bitumen membrane.
- Level 3: Remove all surface-applied sealants and replace with new prefinished sheet metal transition flashings at counterflashing to edge metal and gutter interfaces.

Intermediate and Long-term Recommendations (10 to >20 Years):

- MT: Re-evaluate the roofing assemblies at 5 years intervals with visual and moisture surveys.
- MT: Recoat locations with coating at 5-year intervals.
- MT: When roofing systems exhibit elevated moisture or signs of deterioration or damage, consideration for roof replacement should commence with the system recommended above.



EXECUTIVE SUMMARY / KEY FINDINGS

Metal Roofing System

Based on our observations of the existing metal roofing system, it is our opinion the systems are within their reasonable service life.

Short Term Recommendations (<10 years), including immediate:

- MT: Based on our observations of the existing metal roofing systems, it is our opinion the system is function as intended with corrosion beginning to affect the metal panel eaves. The corrosion should be treated and repainted to protect the underlying base metal.
- Level 1: Based on the deterioration and staining of windows, glazing, and roofing below the metal roof eaves, as well as the damage of the stucco canopy ceiling below, prefinished sheer metal gutters are needed to control and direct water away from the underlying moisture-sensitive assemblies. This work should be coordinated with renovation of the underlying systems.

Intermediate and Long-term Recommendations (10 to >20 Years):

- Level 3: Based on likely widespread metal panel finish deterioration within this time frame, the existing metal roof should be replaced with a double lock-standing seam prefinished sheet metal roofing system.

FLOORS

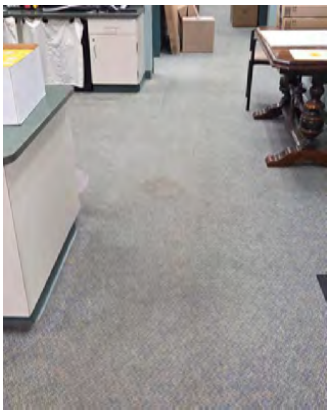
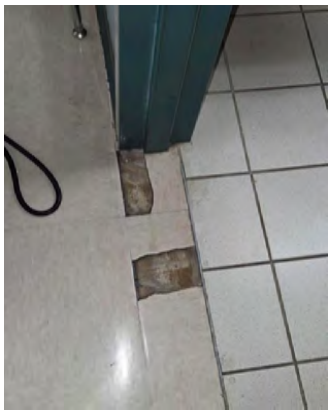
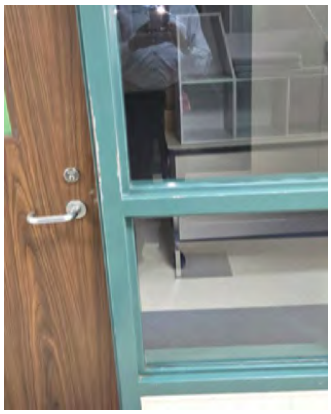
Several areas throughout the facility exhibit flooring damage and wear, stained or damaged tiles at cleanouts and doors, and worn or damaged carpet and VCT in classrooms, offices, and lab spaces.

The existing carpet and VCT were observed to be in poor condition, and replacement should be considered an immediate priority. Typical conditions include carpet and VCT replacement throughout academic and office areas, tile replacement in the clinic, and localized repair of damaged tiles at doorways.

A potential water leak observed under existing cementitious terrazzo slab. It is recommended that further investigation be conducted to confirm the source and extent of the leak. Upon confirmation, appropriate repairs to the waterproofing and affected slab areas should be performed to prevent continued moisture intrusion and potential damage.

DOORS

Hollow metal doors and frames throughout the facility exhibit minor paint wear and require touch-up painting as needed. At the East elevation, the exterior door jamb-to-sill sealant is missing or omitted, allowing for air and water infiltration. This condition was observed to have gaps approximately 2 inches deep, which could contribute to uncontrolled moisture entry and potential damage over time.


EXECUTIVE SUMMARY / KEY FINDINGS

Addressing both the sealant deficiencies and the minor paint wear will help maintain the integrity and longevity of the door assemblies.

MILLWORK / CASEWORK

No significant casework issues were identified at this campus. Limited casework chipping and edge delaminating has occurred as a result of natural aging and wear.

CEILING

Existing Condition:

Stucco Wall and Ceiling Assemblies

- Above the Main Entrance to the building at the South elevation as well as at several building entrance areas, SEAL observed stucco ceiling coverings. In at least one location at the main entrance canopy, SEAL observed evidence of water intrusion at the stucco soffit. The stucco was observed to be stained and cracked, and the framing for the clerestory windows was observed to be corroded. Additionally, the corners of the soffit above the Main Entrance were observed to have some small areas where the surface coating was delaminated. SEAL also observed a few isolated cracks at various stucco locations.

Recommendation:

Stucco Wall and Ceiling Assemblies

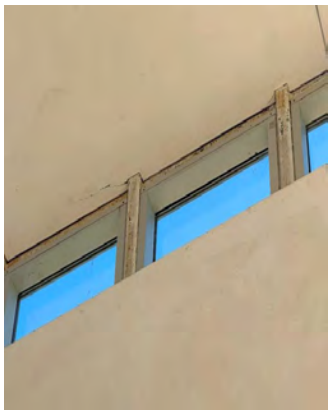
Based on our observations of the existing stucco-clad ceilings at the recessed South elevation walls and recessed entrance ceiling areas, it is our opinion that the stucco wall assemblies are in generally serviceable condition with minimal, if any, cracks or stains. Considering its partially exposed condition, these assemblies are likely to avoid direct exposure from the more significant weather conditions. The following outlines our stucco-related recommendations:

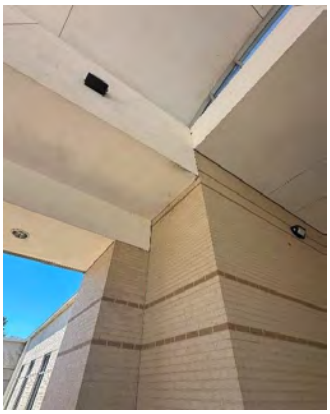
Short Term Recommendations (<10 years), including immediate:

- MT: Inspect stucco assemblies bi-annually to identify any damage or wear and repair as required to maintain continuity and service.

Intermediate Recommendations (10 to >20 years):

- MT: Route and seal any existing cracks in the stucco cladding (if suitable aesthetic can be obtained).
- MT: Re-coat the existing stucco wall and ceiling panels with a DowSil Allguard-type silicone elastomeric coating after repairs. Replace sealants and coatings as described above at 10 to 15-year intervals.



EXECUTIVE SUMMARY / KEY FINDINGS

Interior Lay-in Ceiling Assemblies:
Based on our observations the interior lay-in ceiling assemblies are in poor/fair condition. We recommend full lay-in ceiling replacement in 5-10 years.

KITCHEN

Rating Criteria:

- Priority 1: Poor – Immediate replacement (0-5 life expectancy)
- Priority 2: Poor/Fair – Should be replaced (5-15-year life expectancy)
- Priority 3: Fair – Replacement not needed currently (15-20-year life expectancy
- Priority 4: Good – Replacement not needed (20-25-year life expectancy)
- Priority 5: MT – Maintenance required
- Priority 6: MI – Missing or not present

Architectural:

- Floor: Good
- Ceiling-Kitchen : Good
- Walls: Good
- Floor Sinks: Good
- Ceiling-Servery: Good

Code Deficiencies:

- Hand sinks to be located every 25' within the line of sight.
- Wood shelving in Janitor's room.
- Cold storage assembly is undersized. Increase square footage to 320 SF to accommodate student population.

Receiving:
The following pieces of equipment are in fair condition:

- Air Screen

Janitors:
The following pieces of equipment are in poor condition:

- Wall Mounted Overshelf

Cold Storage Assembly:
The following pieces of equipment are in fair / poor condition:






EXECUTIVE SUMMARY / KEY FINDINGS

- Cold Storage Shelving

Servery:
The following pieces of equipment are missing or not present:

- Hand Sink - Wall Mtd

**All equipment/areas not specifically listed should be assumed to be in good condition, meaning replacement not needed till end of life cycle, 20-25 year life expectancy.*

MEP

Existing Condition:

- · **Cooling/Heating System:** Chilled water system. Chillers are Carrier Inc. rotary chillers. Heating is gas-fired boiler. All air systems are delivered with VAV boxes.
- · **Energy Mgmt. System:** Automated Logic, System 2020 with full digital controls and remote graphics.

Recommendation:
Meador Elementary School was built in 2008. The Chillers were replaced in 2023. Chillers will need to be addressed for lifecycle replacement in 20-25 years. All indoor Air Handlers and VAV boxes are original from 2008. Indoor equipment will need to be addressed for lifecycle replacement in 5 years.

LIGHTING

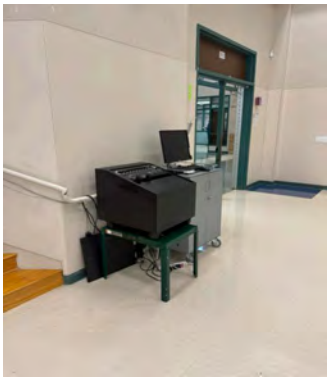
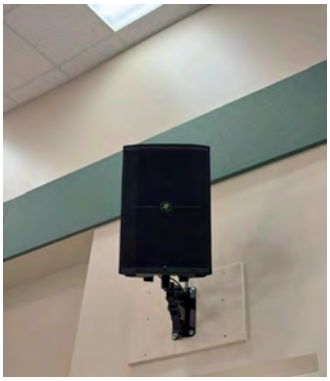
Lighting was reported, and observed to be considered “low levels” for an educational environment throughout academic areas. Lighting is currently fluorescent while LED upgrades are not required, upgrading to an all LED system immediately to address low lighting levels present is recommended.

TECHNOLOGY

Audio Visual and Sound Systems
The audio-visual and sound systems throughout the campus are in generally serviceable condition, with several components approaching mid- to late-stage life cycle.

Audio Visual

- **Music Room:** Full system replacement is recommended within the 15–20-year timeframe. Scope includes a new projector, motorized tab-tensioned screen, control system, HDMI input, and integrated sound.


EXECUTIVE SUMMARY / KEY FINDINGS

- **Cafetorium**: Full system replacement recommended within 15–20 years, including a new projector with long-throw lens, motorized tab-tensioned screen, control system, HDMI input, wireless presentation capability, and sound system.
- **Library:** Full system replacement recommended as part of long-term planning, 20+ years. Recommended scope includes a new projector, motorized tab-tensioned screen, control system, HDMI input, wireless presentation, and sound.
- **Gym:** Maintenance item. The integrator should properly adjust microphone volume levels, as current settings are unbalanced and causing feedback.

Sound

- **Cafetorium:** Full system replacement recommended within the 15–20-year timeframe. Scope includes a new portable control position rack, speaker solution, SMP rack, input panels, and wireless functionality. Some infrastructure updates will also be required.
- **Gym:** Maintenance item. Adjust speaker coverage to avoid projecting sound toward wall surfaces above standing head height. This will improve speech intelligibility and overall acoustic performance on the court.

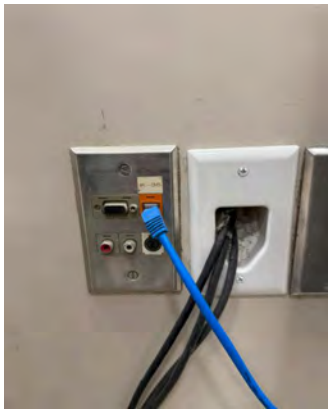
PA

The public address (PA) system was observed to be in fair condition, consistent with the facility's age and expected equipment lifecycle. No specific corrective actions are recommended at this time; however, continued adherence to routine maintenance and operational best practices is advised to ensure long-term system reliability.

SECURITY

No apparent issues were identified at the time of this assessment.



PARMLEY ELEMENTARY SCHOOL

07

HISTORIC DATA

The building was originally completed in 1987 as Willis Elementary at an approximate cost of $1,300,000. Around 1992, it was renamed in honor of long-time Willis ISD Board member Mel Parmley, a retired engineer who contributed his expertise to both the City of Willis and the school district. Mr. Parmley served on the Board of Trustees for eight years and played an active role in overseeing the construction of this facility, serving as the board's "watchdog" to ensure quality and adherence to plans.

Major Additions or Renovations: A burglar alarm system was installed in this building in the mid 80's. In 1998 the Firestone rubber roof was replaced with a Modified Bitumen Roofing System. This building had the carpeting removed from all hallways in the summer of 1999 and replaced with vinyl tile. In the summer of 2000 carpeting was removed from classrooms and replaced with new carpet and floor tile. The classrooms are now 2/3 carpet and 1/3 vinyl tile. A covered pavilion, along with a covered walkway to the Parmley Annex, was added to the building in the 2003-04 school year. In 2003-04 a PA system linking Parmley and 17 classrooms in Roark was installed. Renovations to the Library were completed in the summer of 2005. Roof top units were replaced in June 2005 with 26 new units to satisfy current codes improving comfort and air quality in the building. In June 2006 carpet/flooring was replaced with Collins & Aikman carpet. In August 2008, 6 classrooms, restrooms, hallways & storage were added to this building and security improvements were made at the front entrance. In the summer of 2012 the entire exterior of the building was painted. In 2012 the Technology Department installed projectors and security cameras throughout the building. In 2013, security features and enhancements were completed. In the summer of 2014, all student restrooms and four adult restrooms were renovated. New flooring was placed in the kitchen area of the walk-in cooler / freezer. District wide lighting upgrade in April 2015. In July 2016, a generator was installed to ensure adequate electrical coverage during power failures. In August 2016, added in a food service storage building. In 2018, Energy Management and Controls System renovation was completed. In 2018 installed new domestic water heater. In summer 2019, carpet replacement and restroom renovations were renovated. Fall 2019 took down a wall in the kitchen area to provide more room for employees. In 2021 we relocated the portables to the north side of the building to make room for the future gym we plan on building. Sold one portable to make room for the Chilled water conversion plant site. Completed 2020 Bond Projects are Gym Addition 2022. Upgraded Chiller Plant 2022. Upgraded Boiler 2022. Fire Alarm System Upgrade 2023.

**All historical data and supporting information included in this report were furnished by the district. While the assessment team has made reasonable efforts to review and reference this material, the data has not been independently verified or validated in detail. The team assumes no responsibility for any inaccuracies or omissions contained within the district-provided information.*

GENERAL INFORMATION



MEL PARMLEY ELEMENTARY SCHOOL 600 N. Campbell St. Willis, TX 77378	
Year(s) Built:	1987
Approx. Total Building Square Footage	69,598*
Approx. Total Site Area	8 acres

*Includes the 2003, 2008, and 2022 additions.

UTILIZATION SUMMARY



LEGEND

- Does meet TEA and Ed Spec
- Does meet Ed Spec *no TEA requirement
- Does not meet Ed Spec
- Does not meet TEA and/or Ed Spec

Note: This facility was originally constructed prior to the adoption of current TEA code requirements and Educational Specification standards. Because these regulations were implemented after the buildings were constructed, certain conditions may not meet today's guidelines. The assessment reflects existing conditions as they relate to current TEA and Educational Specification expectations for academic spaces.

UTILIZATION SUMMARY

TEA Deficiencies:

- ***Missing Science:** Science labs were observed to be missing from plan. A combination science classroom/laboratory for Kindergarten-Grade 5 must provide a minimum of 50 SF per student. The room may have an established maximum of 22 students but must not exceed 25. Within the total square footage of the room, 6 SF per student of horizontal laboratory counter top space (3 feet wide x 2 feet deep) must be provided at student laboratory benches, and an additional 3 linear feet (LF) per student of horizontal laboratory counter top support space must be provided for equipment and materials for investigations, activities, or student projects.

- ***Missing Prep/storage rooms:** Prep/Storage rooms were observed to be missing from plan, if the district wants to fit (24) students in the associated science lab, One preparation/storage room at a minimum 10 SF per student shall be provided adjacent to each combination science classroom/laboratory. One preparation/storage room at a minimum of 10 SF per student shall be provided per science classroom and be located adjacent to its partner science laboratory. Preparation/storage rooms may be combined, but the combination of more than one preparation/storage room shall not reduce the minimum square feet or quantity of built-in fume hoods required if they were not combined.

- **Library:** The sum total square footage of all library-related areas shall meet the following minimum square feet (SF) requirements based on maximum instructional capacity and may be contiguous or dispersed: for 501-2,000 students, a minimum of 3,000 SF plus an additional 3 SF for each student in excess of 500 = 3,114 SF minimum; currently approximately 590 SF undersized for a 538 max capacity population.

Educational Specification Deficiencies:

- **Classrooms:** Classrooms are on average approximately 150 SF undersized. The Ed Spec requires 850 SF each to accommodate 25 students at 36 SF/student.

- **Library:** the library and it's included associated spaces approximately 1,600 SF undersized. The Ed Spec require 4,130 SF for the library, including the associated office and workroom.

- **Life Skills/Special Education Classrooms:** Only (1) Life Skills/SpEd classroom has been provided, and is approximately 300 SF undersized. The Ed Spec requires (3) at 850 SF each to accomodate 12 students each.

- **Gym:** While the gym meets the 3,000 SF minimum required by TEA it is approximately 500 SF under the Ed Spec requirement of 4,000 SF.

- ***Missing Science:** The Ed Spec requires (2) classrooms/labs at 1,100 SF each to accomodate 24 students.

- ***Potentially Missing Art:** No art room was observed, however, the district could be providing art within one of the standard designated classrooms. Corrective action would include ensuring that one art room is provided, per the Ed Spec at 1,200 SF to accomodate 24 students.

- ***Missing Maker Space:** (1) at 900SF

- ***Missing Motor Lab:** The Ed Spec requires (1) at 1,000 SF.

**Note: The comparison to Educational Specifications was limited to TEA-regulated academic spaces, including classrooms, science labs, libraries, and gymnasiums. Non-instructional or support spaces identified within the Educational Specifications were not included in this review.*

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

Several areas throughout the facility were observed to be non-compliant with current ADA accessibility standards. Multiple restrooms do not meet required clearances for wheelchair maneuvering, lack grab bars, and provide no knee spaces at sinks. These spaces should not be designated as accessible in their current configuration. The district should coordinate with their TDLR reviewer to confirm which single-user restrooms must be designated as accessible and to develop a plan for compliance during future renovations.

Restroom fixtures and accessories require corrective action. Many sinks are mounted above the ADA-required 31" maximum height and lack appropriate knee clearance, requiring casework modification and sink reinstallation. Paper towel dispensers in several locations were identified as protruding objects or as encroaching on required clear floor space. These should be relocated or supplemented with trash receptacles placed directly below to maintain compliance.

Room signage across the facility does not meet ADA requirements, with many rooms missing signage altogether. A comprehensive signage replacement program is recommended immediately to ensure tactile lettering, Braille, and compliant mounting heights throughout.

Additionally, Promethean boards were observed to extend more than 4 inches from the wall, classifying them as protruding objects. The district should review these installations with their TDLR reviewer to determine acceptable mitigation measures—such as placing furniture beneath the boards to eliminate the protrusion hazard without requiring permanent construction changes.

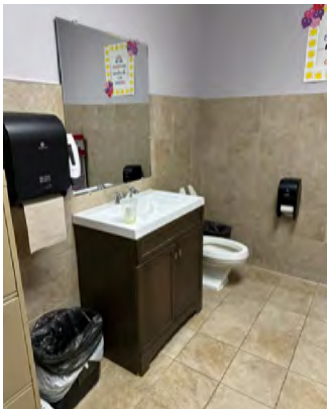
An accessible restroom is not currently provided at the cafeteria, and several restrooms throughout the campus require full renovation to achieve compliance, including appropriate room sizing, clearances, grab bars, and fixture placement.

Finally, accessible paths to playground areas are not provided. Modifications are required to establish compliant routes from the building to outdoor play areas in accordance with ADA and TAS requirements.

SITE CONDITIONS

Improper drainage was observed at overflow drains throughout the facility. These conditions may allow water to accumulate or pool, potentially leading to moisture intrusion, damage to finishes, or safety hazards. Corrective action is recommended to ensure proper drainage and prevent future issues.

No significant site issues were identified at this campus. Limited sidewalk remediation is recommended in locations where heaving or sinking has occurred as a result of natural aging and wear.









EXECUTIVE SUMMARY / KEY FINDINGS

EXTERIOR WALLS

Existing Conditions:

Tilt-up Concrete Wall Panels

- Throughout the various elevations of the building. SEAL observed exterior walls primarily comprised of precast concrete wall panels with exposed aggregate surfacing, steel-framed storefront doors and punched window openings. The wall panels were observed to transition to textured Portland cement plaster (stucco) cladding with concrete aggregate surface finishing in at least two locations along the building; at the 2008 classroom addition interface with the existing building. SEAL did not observe significant cracking, spalling, or damage indicating distress in the concrete wall panels. The smooth perimeter of the panels exhibited a textured coating while the aggregate surfacing appeared to be a standard natural finish.
- SEAL observed many vertical concrete wall panel joints at entrance canopy columns and wall panels. The sealant at these joints exhibited crazing, as well as significant isolated cohesive and adhesive failures. These conditions were susceptible to water infiltration into the wall assemblies.
- At the base-of-wall condition throughout many of the building elevations, SEAL observed primary roof drain outlets near the base of the concrete wall panels. Beneath the outlets, SEAL observed stained areas of the wall from the water discharge and associated splashing. At the primary drain outlets along the North building elevation, SEAL observed large portions of displaced soil in the adjacent lawn from the roof drain outlets. This displaced soil was observed to be against the building foundation and extended several feet from the wall and in some locations was in excess of 12” deep.
- At the through-wall scuppers along the West building elevation, SEAL observed concrete wall panel stains beneath the outlets; indication of active secondary drainage and likely inadequate performance of the primary roof drain. This condition was likely to lead to accelerated deterioration of the precast concrete wall panel components.
- Along the base-of-wall at the East building elevation, SEAL observed organic growth along the building-to-sidewalk interface. This condition was indicative of water retainage, likely due to the low area at the interface.
- At the wall panels along the North building elevation, SEAL observed at least one isolated penetration to be unsealed.

Portland Cement Plaster (Stucco) Wall Assemblies

- At the 2008 classroom addition, SEAL observed stucco-clad wall assemblies. Visually the wall appeared similar to the concrete wall panel assembly; however, unlike the barrier wall function at the concrete wall panels, the stucco wall assembly was likely a drainable wall assembly with a concealed air/weather resistive barrier. The concealed components were not visible, and their presence and condition could not be confirmed.






EXECUTIVE SUMMARY / KEY FINDINGS

- SEAL observed extensive stucco cracking at most building addition elevations which was evident at the textured wall areas; cracking at the aggregate infill panels was not readily visible. At one wall panel-to-door interface along the South building elevation, SEAL observed horizontal cracks extending from the door frame to the aggregate surfacing. Cracks throughout the stucco wall panels are likely attributable to the initial installation, panel length to width ratio, or building settlement. Additionally, SEAL observed many vertical cracks throughout the base of the wall panels.
- Throughout most of the stucco wall panels along the South building elevation, SEAL observed stains along the base-of-wall. Stains may be attributable to water runoff from the aggregate surfacing or water retention within the stucco panels. SEAL observed stains to be more prominent along the stucco panels and were not typically observed at the precast concrete wall panels.
- At the stucco-to-concrete panel transition along the West building elevation, SEAL observed a large gap between the stucco cladding and aggregate surfacing where the stucco metal lath was exposed behind a stucco transition panel. SEAL observed the transition panel along the base-of-wall was cracked and partially displaced outward from the plane of the wall. Wall panel material transition was observed to be generally in line with the 2008 classroom addition interface with the existing building.

Brick Masonry Veneer Walls

- Throughout the various gym and gym lobby addition elevations, SEAL observed exterior walls comprised of brick masonry veneer. SEAL did not observe cracks or spalling in the brick masonry throughout the building. Additionally, masonry expansion joints were observed to be adequately tooled and adhered to adjacent substrates. The sealant did not exhibit crazing, cracking, or other signs of deterioration.
- At the canopy-to-brick masonry interface along the South elevation of the gym addition, SEAL observed staining along the corner of the masonry below the canopy edge. This condition was likely due to excessive water runoff from the canopy and was likely to lead to accelerated deterioration of the underlying masonry wall components.

Metal Wall Panel Assemblies

- At the main entrance along the West building elevation, SEAL observed a soffit assembly comprised of flush-mounted prefinished sheet metal panels. The panels at this location were not vented and were likely attached with concealed fasteners.
- At the soffit assembly to concrete wall interface along the main building entrance, SEAL observed a small gap. This condition is susceptible to air and windborne water infiltration.






EXECUTIVE SUMMARY / KEY FINDINGS

Recommendation:

Tilt-Up Concrete Wall Panels

Short-term Recommendations (<10 Years):

- Level 1: Remove and replace concrete wall panel seals, as well as unsealed wall penetrations with high performance DowSil silicone sealants appropriate for the substrates required and backer rod.

Intermediate and Long Term Recommendations (10 Years to >20 Years):

- MT: To proactively identify sealant and coating wear and deterioration, inspect sealants and coatings bi-annually. Remove and replace concrete wall panel joint sealants to maintain water resistance with high-performance DowSil silicone glazing sealant and elastomeric wall coating.

Portland Cement Plaster (Stucco) Wall Assemblies

Short Term Recommendations (<10 years), including immediate:

- MT: Route and seal any existing cracks in the stucco cladding (if suitable aesthetic can be obtained).
- MT: Re-coat the existing stucco wall and ceiling panels with a DowSil Allguard-type silicone elastomeric coating after repairs. Replace sealants and coatings as described above at 10 to 15-year intervals.
- MT: Installation of additional control joints to limit the stucco panels to 144 sq.ft. and limit the length-to-width ratio to no more than 2.5:1.

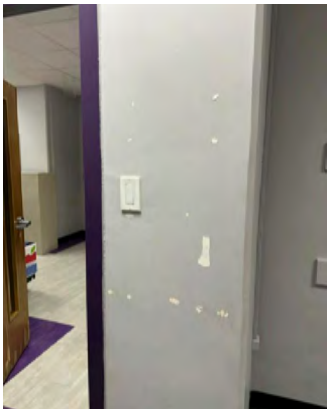
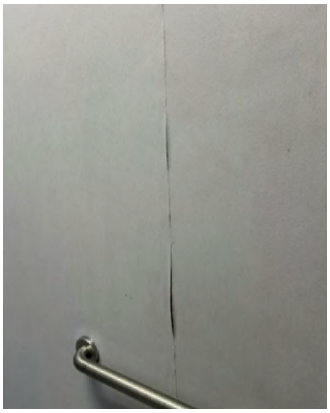
Intermediate and Long-Term Recommendations (10 Years to >20 Years):

- MT: Re-coat the existing stucco wall and ceiling panels with a DowSil Allguard-type silicone elastomeric coating after repairs. Replace sealants and coatings as described above at 10 to 15-year intervals.

INTERIOR WALLS

Several areas of vinyl wall covering were observed to be delaminating, indicating more than superficial wall damage in those locations. Where this condition occurs along exterior walls, it may be the result of moisture intrusion through the building envelope, such as from failed sealants, inadequate flashing, or vapor drive through the wall assembly. Prolonged moisture exposure can cause adhesive failure behind the wall covering, leading to bubbling, peeling, or discoloration. For this reason, it is not recommended to install vinyl wall covering on exterior walls. Further investigation is recommended to determine the source of moisture and address any underlying envelope or waterproofing deficiencies before making cosmetic repairs. Superficial wall damage was observed, however these conditions can be addressed by district maintenance personnel as part of routine upkeep.



EXECUTIVE SUMMARY / KEY FINDINGS

WINDOWS

Existing Conditions:

Steel-Framed and Aluminum-Framed Glazing System(s) And Doors

- The windows and doors of this project were observed to be steel-framed assemblies. The systems did not exhibit visible corrosion or damage.
- At the West elevation, SEAL observed a steel-framed main entrance assembly comprised of side lite windows, double-leaf doors, a flush-mounted metal panel soffit, and tile veneer. The glazing assembly appeared to be operable without damage or deterioration.
- At one door assembly along the North building elevation, SEAL observed a small unsealed hole between the door handle mechanism and the door unit. The gap was susceptible to uncontrolled air and water migration.
- Throughout the various building elevations, SEAL observed punched window assemblies comprised of steel frame assemblies with an additional multi-piece painted sheet metal shroud that projected from the plane of the wall. The fabricated metal shroud exhibited exposed fasteners and appeared to be post-painted after fabrication. Below the shroud, SEAL observed staining of the underlying wall areas and along the outer edges of the window shrouds. Additionally, retained water was observed at the top of several of the window shrouds likely due to limited drainage at the horizontal shroud projections.
- At the punched window openings along the North building elevation, SEAL observed glazing gaskets and perimeter sealant to be deteriorated which was consistent with an aged condition.
- At the various gym and gym lobby addition elevations, SEAL observed aluminum-framed storefront glazing and entrance assemblies. The system appeared to be free of damage or glass breakage and contained an integral sill receptor with two weeps per lite. SEAL did not observe sealant throughout the glazing system metal-to-metal joinery. The perimeter glazing sealants and glazing gaskets did not exhibit significant deterioration or signs of aging.

Recommendation:

Steel and Aluminum-Framed Glazing System(s) And Doors

Based on our observations of the existing glazing and fenestration systems, it is our opinion that the aluminum and steel assemblies have different installation times frames and varying remaining services life expectations, including seals and gaskets. The following outlines our glazing and fenestration-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- Level 4: The primary recommendation for performance is to replace all steel framed window and door units with new thermally-broken or improved aluminum-framed storefront glazing and door systems.






EXECUTIVE SUMMARY / KEY FINDINGS

- Alternatively, if budget limitations prevent replacement of the window assemblies, the following maintenance may be performed.
- MT: Replace insulated glass units (IGU's) that exhibited fogging or stains with new IGU window assemblies.
- MT: Replace of perimeter joint seals around all glazing and door systems.
- MT: Replace or trim glazing gaskets and wet seal existing window systems to assist with water resistance.
- MT: Remove and reset or replace existing door thresholds and sealing door system to adjacent wall
- MT: Replace all door weatherstripping.

Intermediate and Long Term Recommendations (10 to >20 Years):

- Level 4: If window units are not repaired in the short term, replace all windows and doors assemblies with new and higher-performance systems, including insulated glass units at around Year 10.
- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals.
- Level 2: Remove and replace glazing gaskets and/or wet seal existing window systems to maintain water resistance with high-performance DowSil silicone glazing sealant.

ROOF

Existing Conditions:

Low-Slope Roofing Systems

- At Roof Area Nos. 1-7, SEAL observed a granule-surface, low-slope modified bitumen roofing system. On the gym addition, SEAL observed a thermoplastic polyolefin (TPO) roof system. These system descriptions were confirmed based on reports and documents provided to SEAL. The documents indicated that both roofing system types were approximately three years old. Based on conversations with a roofing manufacturer, we understand the modified bitumen roofing system was manufactured by Performance Roof Systems (Derbigum). During our site walk, SEAL detected minimal, isolated soft areas of the roofing substrate.
- The main drainage systems of the low-slope roof areas were as follows:
    - Roof Area No. 1 sloped towards internal cast iron roof drain assemblies with dome strainers along the North perimeter of the roof area and also exhibited secondary/overflow through-wall scuppers.
    - Roof Area No. 2 sloped towards internal cast iron roof drain assemblies with dome strainers along the North and East perimeters of the roof area and also exhibited secondary/overflow through-wall scuppers.
    - Roof Area No. 3 and 5 sloped towards internal cast iron roof drain assemblies with dome strainers along the North and South perimeters of the roof area and also exhibited secondary/overflow through-wall scuppers.






EXECUTIVE SUMMARY / KEY FINDINGS

  - Roof Area No. 4 sloped towards internal cast iron roof drain assemblies with dome strainers along the North and South perimeters of the roof.
  - Roof Area No. 6 and 7 sloped towards internal cast iron roof drain assemblies with dome strainers along the East and West perimeters of the roof area and also exhibited secondary/overflow through-wall scuppers.
  - Roof Area Nos. 8 and 9 sloped towards internal cast iron roof drain assemblies (primary and secondary/ overflow) throughout the roof area.
- Throughout most of the modified bitumen membrane roof areas, SEAL observed drain assemblies comprised of internal cast iron roof drains with dome strainers (primary) and through-wall scuppers. SEAL observed sedimentation around many of the scuppers. These conditions were indicative of retained water and were likely due to low roof areas around drainage assemblies. Additionally, SEAL observed excessive organic debris around primary drain assemblies reducing drainage efficiency and in some locations, completely covering the roof drain dome strainers.
- Throughout the various roof areas, SEAL observed large curb-mounted mechanical units and other curbed penetration conditions. These larger curbs prevented water from following an efficient drainage path. This reduced efficiency resulted in retained water and sedimentation where the water was confined upslope from the unit and roof drain. These conditions were likely indicative of omitted crickets or limited drainage slope.



EXECUTIVE SUMMARY / KEY FINDINGS

Additionally, SEAL observed sedimentation in several locations on the roof surface, including around the parapet wall extension at the Southwest corner of Roof Area No. 5.

- At the West perimeter of Roof Area No. 2, SEAL observed multiple modified bitumen roof patches. At least one of the roof membrane patches was observed to be unadhered and displaced, while another appeared to have an unsealed edge.
- SEAL observed several parapet wall-to-roof expansion joint assemblies throughout the various roof areas. Remedial sealant was observed around at least one of the roof expansion joint locations and intentional termination sealant was applied typically at other terminations.
- Roof Area Nos. 8 and 9, and the low roof areas were comprised of an adhered single-ply TPO membrane that was approximately three years old. The roof membrane surfaces were adequately adhered, and the roof did not exhibit damage, deterioration, excessive wrinkles or other signs of distress.
- At Roof Area No. 9 (a TPO roof), SEAL observed several roof vent curb penetrations without counterflashing. While this condition can be warrantable, it does not profile optimal headlap over the roofing termination Additionally, SEAL observed dome strainers at the roof drains were missing/omitted from the original construction of the primary and overflow drains.
- Along the South edge of Roof Area No. 9, SEAL observed the edge membrane flashing to be discolored, likely due to water retention. Considering the edge flashing was prefinished sheet metal, the membrane integration to the metal likely included an adhered interface. The retained water in this location is likely to cause underperformance of the adhered roofing stripping ply.
- At the low roof areas, SEAL observed surface-applied sealant/water block along the roof-to-parapet membrane laps. Sedimentation was observed along the East roof edge, likely due to a high roof edge or low areas. Additionally, SEAL observed a questionable roof-to-wall transition at the Southwest corner. The sheet metal through-wall flashing was not observed to be continuous to the transition edge.

Sheet Metal Canopy Assemblies

- At the entrance assemblies on two sides of the gym and gym lobby addition, SEAL observed open-air, self-supported sheet metal canopies. SEAL did not observe drainage outlets throughout the canopies as noted at similar construction on other campuses. Additionally, building personnel noted interior leaks around the canopy building tie-in location over an operable door assembly. We understand water intrusion occurred frequently during rain events.









EXECUTIVE SUMMARY / KEY FINDINGS

Recommendation:

Low-Slope Roofing Systems

Based on our observations to date, it is our opinion the existing low-slope roofing system was recently installed, in a generally serviceable condition, and was generally solid underfoot. We understand the low slope, modified bitumen roofing system was manufactured by Performance Roof Systems (Derbigum).

Based on the documents provided, including a WISD Summary, it is our understanding the roofing system approximately three years old. One roofing industry study indicates a mean 18-year service life of a modified bitumen roof assembly. In our experience, quality modified bitumen systems can last up to 40 years with proper maintenance and proactive coating to protect the roof membrane and concealed components of the roofing substrate. The TPO roofing membrane was relatively new and did not exhibit conditions that would require significant repair or replacement at this time. It is our opinion that both roofing systems are likely under warranty.

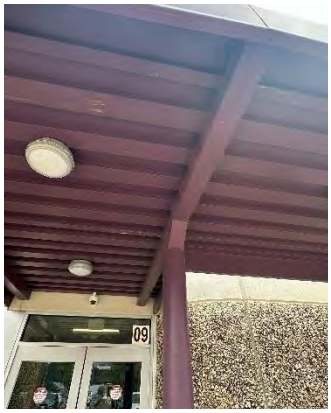
Short-term and Intermediate Recommendations (<10 years to 20 Years):

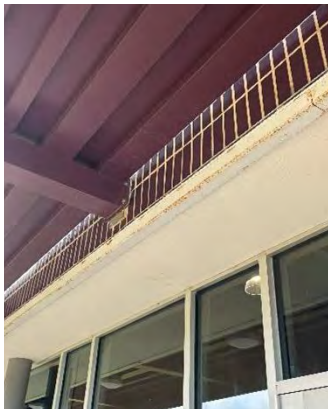
- MT: Identify roofing manufacturer, warranty term, and warranty requirements and provide to building maintenance/engineering staff for reference and repair assistance.
- MT: Provide roofing specific training for WISD personnel to facilitate proactive identification of roofing anomalies, storm damage, and other conditions that can contribute to reduced service life.
- MT: Provide new dome strainers at the gym and gym lobby roof drains.
- MT: To proactively identify roof damage and wear, as well as maintain assumed roof warranty requirements, inspect the low-slope roofing membrane bi-annually and following significant storm events with high volume rains and/or high winds. Properly repair all damage and wear as it is identified. Third party, credentialed roofing specialists should be considered for these building-specific evaluations.
- MT: Re-evaluate the roofing assemblies at 5 years intervals with visual and moisture surveys.

Long Term Recommendations (>20 Years):

- MT: When roofing systems exhibit elevated moisture or signs of deterioration or damage, consideration for roof replacement should commence with the system recommended above.
- Level 3: If the roofing system is wet throughout, the existing modified bitumen system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system manufactured by Soprema or Siplast with no less than a 20-year No Dollar Limit warranty. The roof assembly should consist of a mechanically-attached gypsum substrate board (where applicable), torch-applied 100-mil minimum vapor barrier, new rigid and tapered roofing insulation, and a gypsum fiber (non-faced) coverboard. A preformed tapered insulation sump should be placed at all primary roof drains.







EXECUTIVE SUMMARY / KEY FINDINGS

Reinforced liquid flashing system is recommended at all roof penetration and as a supplement to the roofing membrane in the insulation drain sump. New prefinished sheet metal copings, gutters, and flashings should be provided with the new roofing system.

Sheet Metal Canopy Assemblies

Short Term Recommendations (<10 years), including immediate:

- Level 1: Install roof drainage provisions within the metal canopy decking to facilitate drainage at the outer perimeter away from the building.
- Level 1: Prime and paint existing steel support angle with industrial coating system.

Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: Inspect and clean roof drain openings bi-annually.
- MT: Prime and paint exposed steel components at 5 to 10 years intervals.

FLOORS

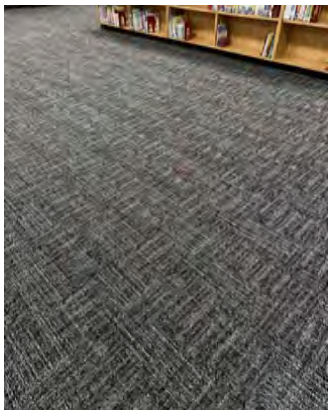
Carpet, which was replaced in 2019, was observed to be in fair to good condition, consistent with its age, and exhibited only minor signs of staining. Full carpet replacement should be considered at the end of its life cycle, approximately 10–15 years. Although not specifically documented, vinyl tile was observed to be in good condition and appeared to have been replaced recently. LVT replacement is not anticipated until the end of its life cycle, in roughly 7–10 years.

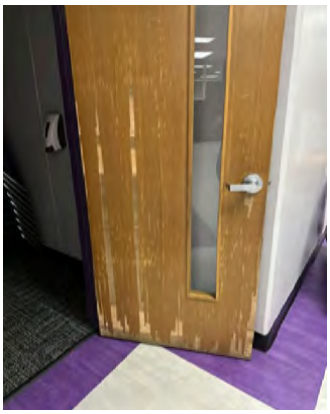
DOORS

Hollow metal doors and frames throughout the facility exhibit minor paint wear and chipping. Touch-up painting or full repainting is recommended to maintain appearance and protect the metal surfaces from corrosion. Chipped door panels were observed in several locations; however, these conditions generally do not affect door functionality at this time and may be accepted as-is or addressed through localized maintenance. Full door panel replacement should be considered within the next 10 years as part of ongoing lifecycle renewal efforts.

MILLWORK / CASEWORK

Casework throughout the school was observed to be in poor to fair condition. Considering the school's age of 38 years, the condition of the casework is better than might be expected. Full replacement of the casework should be considered within the next 5–10 years to ensure continued functionality and maintain aesthetic quality. New caulking should be provided between countertop and backsplash immediately.






EXECUTIVE SUMMARY / KEY FINDINGS

When replacement is considered, it is recommended to use a countertop material that is more resistant to water than plastic laminate (PLAM), such as epoxy or solid surface at sink locations.

CEILING

Exterior Existing Conditions:

At the gym addition entrances, SEAL observed stucco soffit assemblies. SEAL did not observe damage or cracking to the stucco assembly. At the vertical-to-horizontal soffit interface, SEAL observed a painted steel support angle that exhibited corrosion along the edge and at joints.

Exterior Recommendation:

Stucco Soffit Assemblies

Based on our observations of the existing stucco-clad ceilings at the recessed entrance ceiling areas, it is our opinion that the stucco wall assemblies are in generally serviceable condition with minimal, if any, cracks or stains. Considering its partially exposed condition, these assemblies are likely to avoid direct exposure from the more significant weather conditions. The following outlines our stucco-related recommendations:

Short Term Recommendations (<10 years), including immediate:

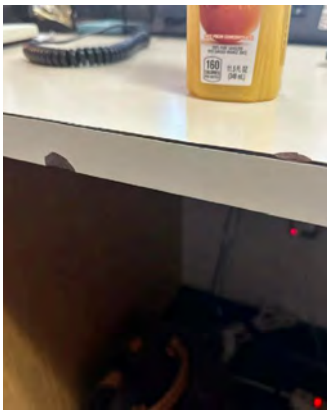
- MT: Inspect stucco assemblies bi-annually to identify any damage or wear and repair as required to maintain continuity and service.

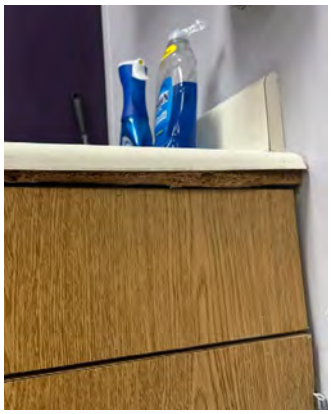
Intermediate Recommendations (10 to >20 years):

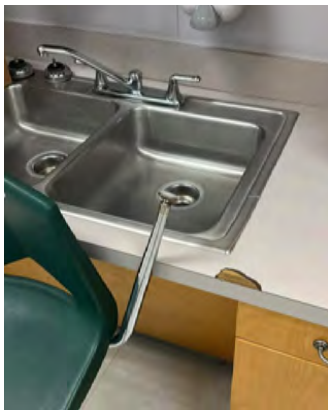
- MT: Route and seal any existing cracks in the stucco cladding (if suitable aesthetic can be obtained).
- MT: Re-coat the existing stucco wall and ceiling panels with a DowSil Allguard-type silicone elastomeric coating after repairs. Replace sealants and coatings as described above at 10 to 15-year intervals.
- MT: Installation of additional control joints to limit the stucco panels to 144 sq.ft. and limit the length-to-width ratio to no more than 2.5:1.

Interior Recommendation:

Interior ceiling systems throughout the facility were observed to have been replaced recently and are in good condition, with no apparent deficiencies noted at the time of assessment. The ceiling tiles appear clean, well-aligned, and consistent with current installation standards. No staining, damage, or signs of moisture intrusion were observed.









EXECUTIVE SUMMARY / KEY FINDINGS

KITCHEN

Rating Criteria:

- Priority 1: Poor – Immediate replacement (0-5 life expectancy)
- Priority 2: Poor/Fair – Should be replaced (5-15-year life expectancy)
- Priority 3: Fair – Replacement not needed currently (15-20-year life expectancy
- Priority 4: Good – Replacement not needed (20-25-year life expectancy)
- Priority 5: MT – Maintenance required
- Priority 6: MI – Missing or not present

Architectural:

- Floor: Fair
- Ceiling-Kitchen : Fair
- Walls: Fair
- Floor Sinks: Poor
- Ceiling-Servery: Fair

Code Deficiencies:

- No fly fan at receiving door.
- Toilet does not meet ADA 60” turning radius.
- Fabrication has painted and/or galvanized legs and rusting.

Recommendations:

Existing Kitchen space is grossly undersized. Renovate the facility to be 3200 square feet to allow proper workflow with cross relationship efficiencies.

Receiving:

The following pieces of equipment are in fair / poor condition:

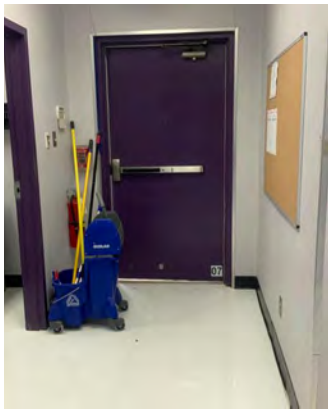
- Can Wash

The following pieces of equipment are in fair condition:

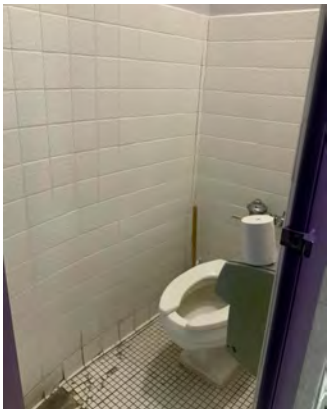
- Loading Dock
- Receiving Corridor

The following pieces of equipment are missing or not present:

- Air Screen









EXECUTIVE SUMMARY / KEY FINDINGS

Office:

The following pieces of equipment are in fair condition:

- Office

Janitors:

The following pieces of equipment are in poor condition:

- Janitor Room
- Chemical Shelf

Toilet/Locker room:

The following pieces of equipment are in poor condition:

- Toilet
- Locker Room

Dry Storage:

The following pieces of equipment are in fair condition:

- Dry Storage Shelving
- Dry Storage Room

Cold Storage Assembly:

The following pieces of equipment are in fair / poor condition:

- Cold Storage Assembly - Exterior
- Cold Storage Shelving
- Walk-In Cooler

The following pieces of equipment are in fair condition:

- Refrigeration System-Standard

Preperations:

The following pieces of equipment are in fair / poor condition:

- Worktable No Overshelf

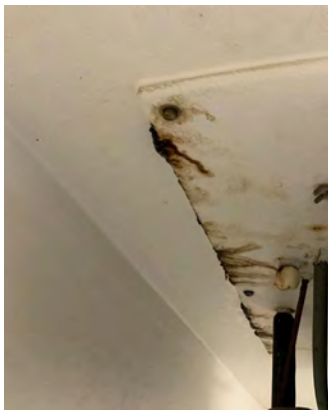
Bakery:

All equipment in this functional area is in good condition.









EXECUTIVE SUMMARY / KEY FINDINGS

Production:

The following pieces of equipment are in fair / poor condition:

- Fire Protection System
- Exhaust Hood
- Exhaust Hood
- Four Burner Range - Gas

The following pieces of equipment are in fair condition:

- Convection Oven- Gas Dbl

The following pieces of equipment are missing or not present:

- Combi Oven- Gas Sgl

Holding:

The following pieces of equipment are in fair condition:

- Reach-In Heated Cabinet- 1dr

Servery:

All equipment in this functional area is in good condition.

Warewash:

The following pieces of equipment are in fair / poor condition:

- Disposer-Cone Mount
- Booster Heater

The following pieces of equipment are in fair condition:

- Three Compartment Sink With Disposer
- Soiled & Clean Dishtable
- 30” Tray Drop Landing

MEP

Existing Conditions:

- **Cooling/Heating System:** DX roof mounted AC units with gas heat.






EXECUTIVE SUMMARY / KEY FINDINGS

- **Energy Mgmt. System:** Automated Logic, System 2020 with graphic monitoring capabilities. Remote control of temperature, fan controls, start/stop time, run time, carbon dioxide sensors, trends and many other features.

Recommendation:
The Mechanical equipment was replaced in 2022 and is in good working order. Mechanical equipment will need to be addressed for lifecycle replacement in 20-25 years.

The lavatories currently do not have hot water, adding hot water is not currently required, but it is recommended for code compliance. Any future renovation that involved plumbing fixtures would require the building be brought up to code.

LIGHTING

Lighting was reported, and observed to be considered “low levels” for an educational environment throughout academic areas. Lighting is currently fluorescent while LED upgrades are not required, an immediate upgrade to an all LED system to address low lighting levels is recommended.

TECHNOLOGY

Audio Visual

- **The Library** is recommended for a full AV system replacement within the next 3–5 years, including a new projector, motorized tab-tensioned screen, control system, HDMI input, wireless presentation, and sound.
- **The Cafeteria** should receive a full AV system replacement within the next 1–2 years, providing a new projector, motorized tab-tensioned screen, control system, HDMI input, and wireless presentation capabilities.
- **The Gym** requires a maintenance adjustment to properly balance microphone volumes and eliminate feedback. Current levels are unbalanced and negatively affect sound quality.
- **Classrooms** should be upgraded with Promethean boards, aligning with the district’s current technology standard.
- **The Conference Room** should be equipped with conferencing devices to support modern meeting and virtual learning functionality.

Sound Systems

- **The Cafetorium** requires a full sound system replacement within 1–2 years, including a new portable control rack, speaker solution, signal management processing rack, input infrastructure, and wireless functionality.
- **The Gym** requires maintenance adjustments to improve speaker coverage and reduce wall reflections above standing head height, improving intelligibility across the court.

Theatrical Rigging and Stage Equipment

- At the stage/platform, the front curtain operating line is excessively loose in the floor pulley, making operation difficult and potentially unsafe. Maintenance is recommended to properly adjust or replace the line to ensure smooth and secure operation. Current drapery includes one valance and one front curtain.

PA

- **Admin areas** should receive volume controls to allow meetings or private discussions without interruption from building-wide announcements.
- **The Building Exterior** should have wall-mounted speakers installed to provide coverage for gathering areas and playground zones that currently lack audibility during announcements or emergencies.
- **Administrative and common spaces** within the building should receive additional speakers where coverage is currently missing.

EXECUTIVE SUMMARY / KEY FINDINGS

SECURITY

- All Hikvision cameras across the facility should be replaced immediately with Hanwha cameras, as Hikvision models are not NDAA compliant.
- **All exterior doors** should be equipped immediately with DPDT door contacts to electronically monitor door status and provide forced-entry or propped-door alerts through the access control system.
- **Playground areas** require immediate upgrades, including the addition of card reader systems (CRS) at Doors 4 and 5, and installation of a high-resolution camera to ensure adequate coverage.
- **Corridors** should be equipped with multi-sensor cameras at intersections to enhance visibility and eliminate blind spots.
- Within 1–2 years, SB507 devices should be added to Rooms 408, 410, and 310 in the Stride area to improve classroom emergency communication capabilities.
- **Library and Kitchen** spaces should receive additional video surveillance coverage within the next 1–2 years for general monitoring and safety.
- Additional exterior camera coverage should be installed immediately at Doors 6/7, 10, 12, 13/14, and 15 to eliminate coverage gaps around building perimeters.

BRABHAM MIDDLE SCHOOL

08

HISTORIC DATA

This facility was completed in 2003 at a cost of $13,881,940. It did not open its doors to students until 2004-05 school year due to enrollment numbers. The school was dedicated on October 3, 2004 and named the Robert P. Brabham Middle School in honor of a man who was a respected church and civic leader of more than five decades in Willis. Mr. Brabham owned and operated Brabham-Parker Lumber Company for over four decades and actively supported innumerable school, church and community activities. He served on the WISD Board of Trustees for 14 years and distinguished himself as a problem-solver and peacemaker.

Major Additions or Renovations: An emergency generator was installed during original construction. In 2008, lights were added to the BMS Football / Soccer Field. In 2009, new HVAC digital controls were installed. In 2009 improvements at the Brabham football / soccer field were completed to include fencing, gates, a score-board, a ticket booth, and a sidewalk. In 2012 the Technology Department installed projectors and security cameras throughout the building. In the summer of 2014, the flooring in the cafeteria was replaced. Restroom improvements were made and security features and enhancements were completed. District wide lighting upgrades in April 2015. Replaced flooring in the Brabham Performance Gym in April 2015. Replaced flooring in the Brabham Auxiliary Gym in April 2016. Repairs on Brabham Fire Alarm System were completed in September 2016 – replaced existing fire alarm panel, smoke detectors, duct detectors, heat detectors, pull stations and modules for sprinkle system. 2015 Bond Issue projects completed in October 2016 addition of track around Brabham football field. The 2015 Bond Issue projects completed in 2017 four tennis courts, classroom additions and driveway extension. Addition of a grandstand at the Brabham Football completed on May 2018. Carpet replacement in administrative office area was completed June 2018. In summer 2019 installed new boiler. August of 2021 Completed Chiller Replacement with Bond Issue 2020 funds.

**All historical data and supporting information included in this report were furnished by the district. While the assessment team has made reasonable efforts to review and reference this material, the data has not been independently verified or validated in detail. The team assumes no responsibility for any inaccuracies or omissions contained within the district-provided information.*

GENERAL INFORMATION



BRABHAM MIDDLE SCHOOL 10000 FM 830 Willis, TX 77378	
Year(s) Built:	2003
Approx. Total Building Square Footage	181,000
Approx. Total Site Area	30 acres

UTILIZATION SUMMARY



LEGEND

- Does meet TEA and Ed Spec
- Does meet Ed Spec
  *no TEA requirement
- Does not meet Ed Spec
- Does not meet TEA and/or Ed Spec

Note: This facility was originally constructed prior to the adoption of current TEA code requirements and Educational Specification standards. Because these regulations were implemented after the buildings were constructed, certain conditions may not meet today's guidelines. The assessment reflects existing conditions as they relate to current TEA and Educational Specification expectations for academic spaces.

UTILIZATION SUMMARY

TEA Deficiencies:

- **Science:** A combination science classroom/laboratory for Grades 6-8 must provide a minimum of 58 SF per student. The room may have an established maximum of 24 students but must not exceed 28. Within the total square footage of the room, 6 SF per student of horizontal laboratory countertop space (3 feet wide x 2 feet deep) must be provided at student laboratory benches, and an additional 3 LF per student of horizontal laboratory countertop support space must be provided for equipment and materials for investigations, activities, or student projects.

- ***Missing Prep/storage rooms:** Prep/Storage rooms were observed to be missing from plan, if the district wants to fit (24) students in the associated science lab, One preparation/storage room at a minimum 10 SF per student shall be provided adjacent to each combination science classroom/laboratory. One preparation/storage room at a minimum of 10 SF per student shall be provided per science classroom and be located adjacent to its partner science laboratory. Preparation/storage rooms may be combined, but the combination of more than one preparation/storage room shall not reduce the minimum square feet or quantity of built-in fume hoods required if they were not combined.

Educational Specification Deficiencies:

- **Classrooms:** Most all classrooms within the facility are undersized from the Ed Spec requirement. The Ed Spec requires 850 SF each to accommodate 26 students at 32 SF/student.

- **Science: c**urrently approximately 650 SF undersized to accommodate an established maximum of 28 kids. The Ed Spec requires (6) classrooms/labs at 1,625 SF each to accomodate 28 students.

- **Art:** While the art labs are **c**urrently approximately 200 SF undersized to accommodate an established maximum of 24 kids, the quantity provided is more then the Ed Spec requirement of (1) classrooms/labs at 1,200 SF.

- **Band: c**urrently approximately 285 SF undersized. The Ed Spec requires (1) band hall at 2,500 SF.

- ***Missing Life Skills/Special Education Classrooms:** The Ed Spec requires (3), additional from what has been provided, at 850 SF each to accomodate 12 students each.

- ***Missing Motor Lab:** The Ed Spec requires (1) at 1,000 SF.

**Note: The comparison to Educational Specifications was limited to TEA-regulated academic spaces, including classrooms, science labs, libraries, and gymnasiums. Non-instructional or support spaces identified within the Educational Specifications were not included in this review.*

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

Several potential ADA compliance issues were noted throughout the facility:

- The eye wash station in many science labs may be considered a protruding object due to its location within the center of the room, acceptability should be reviewed with the district's TDLR reviewer.
- Many ceiling, or wall-hung televisions are mounted too low. All protruding objects should be mounted a minimum of 6'-8" above the finished floor to meet ADA head-height clearance requirements.
- Paper towel dispensers not placed above counters exceed 4" in depth and may be considered protruding objects. In corridor locations, trash receptacles should be placed below dispensers to prevent obstruction.
- Single-user restrooms located between group restrooms do not fully meet ADA clearances around fixtures. These areas are close to compliance and should be reviewed with the district's TDLR reviewer prior to determining if modifications are required.
- Recirculating hoods are no longer permitted in educational facilities; these units require either installation of an ansul system or removal of the range.
- Certain paper towel dispensers impede the required sink clearance and should be adjusted to maintain proper accessibility.

SITE CONDITIONS

No significant site issues were identified at this campus. Limited sidewalk remediation is recommended in locations where heaving or sinking has occurred as a result of natural aging and wear.

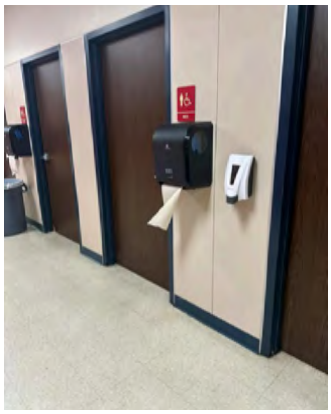
EXTERIOR WALLS

Existing Conditions:

Concrete Masonry Units (CMU) and Brick Masonry Veneer Walls

- Throughout all building elevations, SEAL observed the CMU at the base of wall to be in generally poor condition. SEAL observed many stair-step and vertical cracks through the face of the CMU and in the mortar joints. Stair step cracks are often indicative of unaccommodated building movement, including settlement.
- At all building elevations, SEAL observed deteriorated gutter-to-wall interfaces. The walls were observed to be stained in many locations. SEAL observed the stains to be generally correlated with the gutter joints, although there was staining in intermediate locations along the top of wall at many locations as well. The direct cause of water staining was not determined.
- At the rising wall along the South elevation of Roof Area D, SEAL observed staining throughout the mortar along the base of wall and inconsistent spacing of weeps. Additionally, in at least one location, SEAL observed air leakage through brick masonry weep holes. These conditions were consistent throughout most building elevations.






EXECUTIVE SUMMARY / KEY FINDINGS

- Throughout all building elevations, SEAL observed brick masonry expansion joints were generally narrow and poorly tooled with adhesive and cohesive failures common to deteriorated/aged joints. Additionally, SEAL observed brick masonry veneer at many sealant joints had stained the adjacent brick.
- At the Southwest corner of the building, SEAL observed one location where spalled brick masonry was evident. The location aligned with the head-to-jamb interface of a window and manifested as displacement of the face of at least four brick units.
- At the various rising walls throughout the roof areas, SEAL observed staining along the brick course adjacent to the through-wall flashing. Additionally, SEAL observed the brick courses at stained areas were to be short, the weeps to be clogged/sealed, and irregularly placed.
- At the rising walls throughout the various roof areas, SEAL observed the through-wall flashing to be straight cut parallel with the roof slope and through the brick masonry units. It is common for through-wall flashing and masonry coursing to be stepped with the flashing straight in a single masonry mortar joint and then step up or down to accommodate the required roof flashing height. Brick Industry Association (BIA) Tech Note 7 has several references to the stepped flashing condition.

Stucco Wall and Ceiling Assemblies

- At the rising wall along the South side of Roof Area C, SEAL observed stucco wall cladding. SEAL observed at least 22 isolated meandering vertical cracks approximately 0.009” wide. Additionally, SEAL observed staining throughout the base of wall above the roof-to-wall termination. Note, drawings indicated the presence of an expansion joint along the East-West direction of this wall; continuous expansion joint profiles were not observed by SEAL. Without profiles to accommodate movement, roofing and cladding systems are forced to absorb these forces in rigid, and often brittle, materials.
- At the East elevation, SEAL observed uncontrolled air leakage in at least one location along stucco panel joints. At the building entrances, SEAL observed stucco ceiling assemblies. The stucco ceiling assemblies did not exhibit cracks or stains consistent with distress or water intrusion.

Recommendations:

CMU And Masonry Walls

Based on our observations of the existing masonry wall assemblies, it is our opinion the CMU and brick masonry veneer was adequate to prevent uncontrolled air and water infiltration in most locations. However, the localized deficient conditions may result in future issues if not adequately addressed. The following outlines our masonry-related recommendations:









EXECUTIVE SUMMARY / KEY FINDINGS

Short Term Recommendations (<10 years), including immediate:

- Level 3: Investigate localized areas of masonry veneer distress and identify remediation protocols to restore the assemblies to there typical 50+ year service life. These locations generally include the roof-to-wall interface at hanging gutters, sloped flashing cut through brick units at rising walls, and localized spalling conditions.
- MT: Repairing of cracked/displaced CMU and masonry units, including tuckpointing/filling of mortar joints.
- MT: Remove and replace masonry expansion and control seals, as well as unsealed wall penetrations with high performance DowSil silicone sealants appropriate for the substrates required and backer rod.

Intermediate and Long Term Recommendations (10 to> 20 Years):

- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals.

Stucco Wall and Ceiling Assemblies

Based on our observations of the existing stucco wall areas, it is our opinion that the stucco ceiling assemblies are in generally serviceable condition despite significant localized cracks. However, the panels at the South side of Roof Area C exhibited significant cracking that may be associated with the questionable expansion joint assemblies noted above. The following outlines our stucco-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- Level 3: Investigate stucco wall panels at the South side of Roof Area C in conjunction with the expansion joint investigation. For budgetary purposes, it should be assumed that all stucco panels will be removed and replaced, and coated with elastomeric wall coating.
- MT: Inspect stucco assemblies bi-annually to identify any damage or wear and repair as required to maintain continuity and service.

Intermediate Recommendations (10 to >20 years):

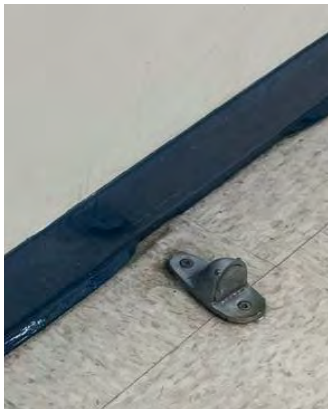
- MT: Route and seal any existing cracks in the stucco cladding (if suitable aesthetic can be obtained).
- MT: Re-coat the existing stucco wall and ceiling panels with a DowSil Allguard-type silicone elastomeric coating after repairs. Replace sealants and coatings as described above at 10 to 15-year intervals.

INTERIOR WALLS

Interior walls throughout the facility exhibit a range of conditions, from minor cosmetic issues to more significant concerns.

- Minor damage includes peeling or missing baseboards. While current issues can be addressed by district maintenance personnel it is recommend to fully replace all base in 5-10 years when the flooring gets replaced.









EXECUTIVE SUMMARY / KEY FINDINGS

- Minor tile damage, isolated loose or missing urinal partitions and that corner guards be installed at exterior gypsum corners to prevent future damage..
- Localized moderate damage was observed at Acrovyn wall panels, column wraps, acoustic panels, cover plates, and in areas affected by water intrusion from above the ceiling.
- More significant concerns include vertical wall cracking, which may indicate structural issues. Vertical cracks should be monitored and evaluated for potential structural impact. Installation of masonry control joints at appropriate locations to accommodate future movement and reduce stress concentrations. Application of flexible sealant at control joints and other critical interfaces is recommended, with regular maintenance to ensure long-term performance and appearance. In addition, rusting studs were observed behind damaged or missing tile bases in select restroom locations. It is recommended that damaged base, tile, panels, and partitions be repaired or replaced as appropriate.

WINDOWS

Existing Conditions:

Aluminum-Framed Glazing, Entrance, and Door System

- Based on the manufacturer's labels on the entrance doors, the systems used on this project were manufactured by Vistawall. The door assemblies were comprised of double leaf doors within a center side lite.
- Throughout the various building elevations, SEAL observed aluminum-framed storefront window assemblies without sheet metal sill flashing. SEAL observed the split-face CMU sill to have a nearly flat surface allowing for retained moisture, exposed masonry cores, and staining.
- Throughout the rising walls along the East and West elevations of Roof Area G, SEAL observed aluminum-framed storefront clerestory window assemblies. SEAL observed evidence of attempted surface-applied remedial sealant at most, if not all clerestory windows.. SEAL did not observe sill flashings or receptors at many of the storefront assemblies. Most of the window assemblies on the project were aged and typically exhibited short exterior glazing gaskets. The gasket length may be attributable to initial installation deficiencies or shrinkage resulting from age and exposure. Additionally, SEAL observed sealant around windows and doors to be deteriorated/failing. During investigation, SEAL was able to insert a spatula at least 2" into several sealant joint interfaces.

Recommendation:

Aluminum-Framed Glazing System(s) And Doors

Based on our observations of the existing glazing and fenestration systems, it is our opinion that the window and door systems, including seals and gaskets, are poorly performing within their service life and require remediation efforts to restore reasonable remaining performance.






EXECUTIVE SUMMARY / KEY FINDINGS

The following outlines our glazing and fenestration-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- Level 1: Modify brick masonry veneer at sill to exhibit slope. Install prefinished sheet metal transition flashing at window sill to provide continuity and eliminate moisture sensitive conditions between the window units and the brick masonry veneer below.
- MT: Remove and replace perimeter joint seals around all glazing and door systems with high performance DowSil silicone sealants appropriate for the substrates required.
- Level 1: Replace or trim glazing gaskets and wet seal existing window systems to assist with water resistance.
- MT: Remove and reset or replace existing door thresholds and sealing door system to adjacent wall.
- MT: Remove and replace all existing door weatherstripping with new materials.

Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: Inspect perimeter and glazing sealants bi-annually to identify any damage or wear and repair as required to maintain continuity and service.
- MT: Replace sealants and coatings as described above at 10 to 15-year intervals.
- Installing base-wall flashing to promote drainage out of the stucco wall system.
- Installation of additional control joints to limit the stucco panels to 144 sq.ft. and limit the length-to-width ratio to no more than 2.5:1.

Interior Conditions:

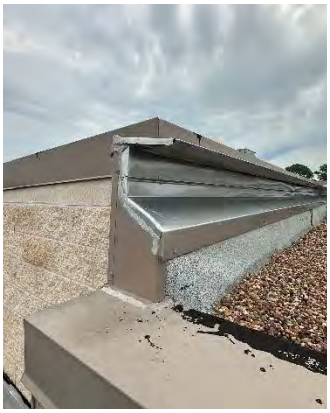
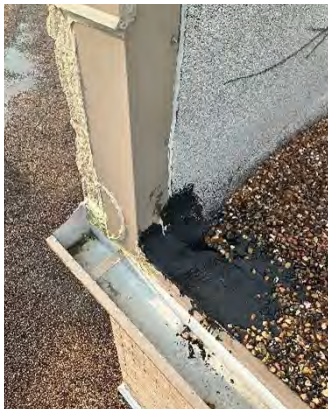
Windows throughout the administrative area should receive new caulking at the sill and jambs on the interior face to maintain proper sealing and prevent potential air or water infiltration.

ROOF

Existing Conditions

Low-Slope Roofing System

- Throughout most of the roof system, SEAL observed low-slope built-up roof (BUR) system. This system description was confirmed based on reports and documents provided to SEAL. The documents indicated the roofing systems were approximately 22 and 8 years old. During our site walk, SEAL did not detect wide-spread blisters or soft areas of the roofing substrate.
- The main drainage systems of the low-slope roof areas were as follows:
  - Roof Areas A and B sloped towards the North elevation of the roof and drained into prefinished sheet metal gutters with downspouts that discharged down to grade.
  - Roof Area C sloped towards the West elevation of the roof and drained into prefinished sheet metal



EXECUTIVE SUMMARY / KEY FINDINGS

gutters with downspouts that discharged to adjacent roof areas and down to grade.

- Roof Area D sloped towards the North elevation of the roof and drained into prefinished sheet metal gutters with downspouts that discharged to adjacent roof areas.
- Roof Area E sloped towards internal cast iron roof drain assemblies with dome strainers (primary and secondary/overflow) along the North elevation of the roof.
- Roof Area F sloped towards the North, West and South elevations of the roof and drained into prefinished sheet metal gutters with downspouts that discharged down to grade.
- Roof Area G sloped towards the North, West and South elevations of the roof and drained into prefinished sheet metal gutters with downspouts which discharged to adjacent roof areas.
- Roof Area H sloped towards the East elevation of the roof and drained into prefinished sheet metal gutters with downspouts that discharged to adjacent roof areas.
- Roof Area J sloped towards the South elevation of the roof and drained into prefinished sheet metal gutters with downspouts that discharged down to grade.
- Roof Area K sloped towards internal cast iron roof drain assemblies with dome strainers (primary and secondary/overflow) throughout the roof area.



EXECUTIVE SUMMARY / KEY FINDINGS

- Roof Area L sloped towards the East and South elevations of the roof and drained into prefinished sheet metal gutters with downspouts which discharged to adjacent roof areas and down to grade.
- Roof Area M sloped towards the North elevation of the roof and drained into prefinished sheet metal gutters with downspouts that discharged down to grade.
- Roof Area N sloped towards the East elevation of the roof and drained into prefinished sheet metal gutters with downspouts which discharged down to grade.
- At Roof Area G, SEAL observed repairs along the North roof edge (Ref. Photo No. 3). Along a linear route across the building, drawings indicated a building expansion joint. However, along this route SEAL observed the typical assemblies did not contain profiles or materials capable of properly accommodating building movement. SEAL was not able to identify if all expansion joints were present throughout the building as indicated within the drawing set.

- Along the parapet and rising walls throughout various roof areas, SEAL observed granule-surfaced, modified bitumen membrane base flashings. In many locations, this membrane flashing was observed to partially or substantially unadhered. The unadhered membrane flashing was susceptible to continued adhesion loss and displacement. Additionally, flashing exhibited significant granule loss and cracking consistent with aged conditions that were susceptible to membrane UV exposure.
- At various roof transition areas, SEAL observed intermittent mastic roof repairs at edge flashing cover plates along the roof edges, as well as various other sheet metal transition flashings. These areas were susceptible to roof leaks. Additionally, SEAL observed displaced gravel and wind scouring at many roof corners. Displaced gravel can expose the asphalt below to ultraviolet (UV) rays and lead to ongoing membrane deterioration.
- Between Roof Areas E and M, SEAL observed the base flashing to be unadhered along the expansion joint (Ref. Photo No. 6). Additionally, SEAL observed the installation of the sheet metal along the expansion joint to be questionable with missing/deteriorated sealant at terminations and flashing joints.
- Throughout all roof areas with roof-to-rising wall interfaces, SEAL observed missing/deteriorated sealant at laps in the flashing ledge and receiver. In many locations, the joint fasteners were exposed and susceptible to water infiltration. Additionally, along the South elevation below Roof Area D, SEAL observed the ledge flashing to be inadequately attached to the receiver flashing. Rather than the flashing being inserted into the receiver and secured with fasteners through the receiver pocket, the flashing was minimally lapped into the receiver and was fastened at a low height of the vertical flashing leg into a concealed leg of the receiver. This condition did not represent typical sheet metal practice.
- At Roof Area E, SEAL observed the roof to be retaining water around the roof drain assembly. In the same area, SEAL did not observe roof flashing from a sheet metal spiral pipe to the roof membrane interface. Without flashings, vibration from wind and other causes can directly affect the pipe seal at the roofing membrane. This condition was susceptible to water infiltration.






EXECUTIVE SUMMARY / KEY FINDINGS

- At Roof Area G, SEAL observed minimal slope in the coping along the parapet wall. Coping was observed to be retaining water and this condition is likely to result in staining and potential deterioration of the cladding systems below

Metal Roofing System

- At the West and South elevations, SEAL observed 1" standing seam prefinished sheet metal roofs curved into arched barrel shapes. The batten caps along the roof at the South elevation were partially disengaged from the underlying vertical panel legs. Additionally, SEAL observed the panel finish at the metal roof on the West elevation to be chalking and fading.

Modified Bitumen Roofing System

- At the South elevation, SEAL observed two small side canopies exhibited granule-surface, modified bitumen roofing systems. SEAL observed the membrane exhibited sedimentation common to water retention and granule loss.

Recommendation:

Low-Slope Roofing System

Based on the documents provided by Garland, it is our understanding the low-slope BUR system was recommended for replacement in 2026. Based on the documents provided, including a WISD Summary, it is our understanding the roofing system approximately 22 years old. One roofing industry study indicates a mean 18-year service life of a BUR assemblies. In our experience, quality BUR systems can last up to 50 years with proper maintenance. Considering the existing field of the roof was solid underfoot and did not exhibit blisters of other significant visual cues of roofing distress or failure, it appears the recommendation to recover may have been slightly premature. Based on our observations to date, it is our opinion the existing low-slope roofing systems was likely to be in serviceable condition with the exception of the roof perimeter areas where leaks were reported and where isolated mastic-type repairs were observed. The following outlines our roofing-related recommendations:

<u>Short Term Recommendations (<10 years), including immediate:</u>

- MT: Identify roofing manufacturer, warranty term, and warranty requirements and provide to building maintenance/engineering staff for reference and repair assistance.
- MT: Provide roofing specific training for WISD personnel to facilitate proactive identification of roofing anomalies, storm damage, and other conditions that can contribute to reduced service life.






EXECUTIVE SUMMARY / KEY FINDINGS

- MT: To proactively identify roof damage and wear, as well as maintain assumed roof warranty requirements, inspect the low-slope roofing membrane bi-annually and following significant storm events with high volume rains and/or high winds. Properly repair all damage and wear as it is identified. Third party, credentialed roofing specialists should be considered for these building-specific evaluations.
- Level 3: SEAL recommends completing a moisture survey (infrared, capacitance, or nuclear with accompanying secondary verification (roof cores preferred at that time) around Year 10 to address any significant areas of concern. If there is an active warranty, coordinate coring, if any, with roofing manufacturer for proper repair.
- Level 3: If the roofing system is wet throughout, the existing BUR system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system manufactured by Soprema or Siplast with no less than a 20-year No Dollar Limit warranty. The roof assembly should consist of a mechanically-attached gypsum substrate board (where applicable), torch-applied 100-mil minimum vapor barrier, new rigid and tapered roofing insulation, and a gypsum fiber (non-faced) coverboard. A preformed tapered insulation sump should be placed at all primary roof drains. Reinforced liquid flashing system is recommended at all roof penetration and as a supplement to the roofing membrane in the insulation drain sump. New prefinished sheet metal copings, gutters, and flashings should be provided with the new roofing system.
- Level 3: If wet roofing is limited to the building perimeter, a perimeter renovation could be considered with removal of the existing gravel surfacing and BUR membrane. Renovation should include new roof edge flashing, new wood blocking as required for a proper nailing substrate, replace any damaged or wet insulation and coverboard with new, and apply a 18-24” wide reinforced liquid polymethyl methacrylate (PMMA) membrane properly integrated into the new prefinished sheet metal edge flashing and existing BUR.
- Level 4: Investigate building expansion joint locations at roof-to-roof, roof-to-wall, and vertical transition conditions to understand concealed expansion provisions behind sheet metal flashings. Coordinate for structural engineer participation. For budgetary purposes, it should be assumed that most, if not all, expansion joint profiles (metal and membrane flashings), thermal insulation, and associated wood blocking will require full replacement along the entire length of the assemblies.
- Level 4: Investigate perimeter roof edge flashings at draining edges where stains were observed below the existing prefinished sheet metal gutters. For budgetary purposes, it should be assumed that most, if not all, metal edge flashing profiles (metal and membrane flashings) and associated wood blocking will require full replacement along the entire length of the assemblies.
- Level 3: Remove and replace all existing modified bitumen base flashings with new granule-surfaced modified bitumen base flashing membranes including remove and reinstallation of existing sheet metal coping to facilitate membrane extending to the top of wood blocking. Parapet slope can be added during this work to enhanced coping performance.
- Level 4: Remove and replace the existing roofing system at Roof Area E where it is currently holding water after adjacent building addition. The new roofing system should be the same as noted above. Alternatively, to limit rework at the adjacent roof areas, application of a reinforced liquid-applied PMMA roofing membrane could be considered. While the material cost of this alternative system will be high, the labor savings associated with integrating adjoining systems/components may result in cost effective approach.
- MT: Remove existing gutter sealants, clean gutters, and replace all gutter joint sealants.

<u>Intermediate and Long-term Recommendations (10 to >20 Years):</u>

- MT: Re-evaluate the roofing assemblies at 5 years intervals until the roof is replaced with visual and moisture surveys. Once the roof has been replaced, evaluations may be extended to 10 year intervals.
- MT: Recoat locations with coating at 5-year intervals.
- MT: Replace roof-related sealants at 10-year intervals.

EXECUTIVE SUMMARY / KEY FINDINGS

• Metal Roofing System

SEAL's review of the metal roofing system was limited to the adjacent roof areas and from grade. As such, up close observations of specific transition conditions were not available. Based on our observations of the existing metal roofing system, it is our opinion the systems are within their reasonable service life, however periodic typical maintenance will be required to achieve an improved service life. Our recommendations relating to the metal roofing systems are as follows

Short Term Recommendations (<10 years), including immediate:

- MT: Based on our observations of the existing metal roofing systems, it is our opinion the system is functioning as intended with intermittent disengagement of the snap-on standing seam accessories. These locations (approximately 30% of the standing seams) should be reattached to prevent further displacement. To utilize the aerial platforms required for this work, use lifts to also closely investigate the roofing system and transition flashings.
- MT: Replace roof-related sealants at 10-year intervals.

Intermediate and Long-term Recommendations (10 to >20 Years):

- Pending the results of the up close review, it is our opinion the metal roofing system will last approximately 20 more years.
- MT: For budgetary purposes, SEAL recommends reattaching and repairing approximately 15% of the snap-on standing seam accessories at 5 year intervals.

FLOORS

Flooring throughout the facility shows varying degrees of wear, discoloration, and water-related damage. Vinyl composition tile (VCT) exhibits widespread discoloration, minor damage, and areas of possible water intrusion, including at expansion joints, grout lines, and door thresholds. While specific areas noted need more immediate corrective action, full VCT replacement is recommended in 2-5 years.

Carpeted areas in academic spaces was observed in poor condition and displayed stains and water damage in multiple locations, with some occurrences linked to reported flooding in the library. At the time of this report the district was attending to reported flooding areas through typical maintenance practices, not replacement. Carpet in the academic areas should be considered for immediate replacement.

Carpet in the administration areas was observed to be in fair condition, consistent with a 2018 replacement. Replacement for carpet should be considered in 5-10 years for these areas.






EXECUTIVE SUMMARY / KEY FINDINGS

LVT in the 16,000SF, 2017 addition was observed in fair condition, consistent with its life cycle. Replacement should be considered in 5-10 years.

Additional issues include damaged or missing floor transitions and exposed floor box covers. Special attention should be given to the group restrooms, where visible tile and wall damage were observed, including exposed studs showing signs of rust. While much of the flooring damage is localized, water infiltration appears to be a recurring concern and should be addressed to prevent further deterioration.

DOORS

Several doors throughout the facility show chipping. Currently, the issue is primarily cosmetic; however, if left unaddressed, it could eventually impact door functionality in certain areas. This condition may either be accepted as-is or corrected through routine maintenance by the district's maintenance team at this time.

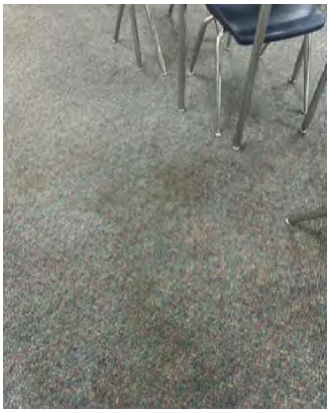
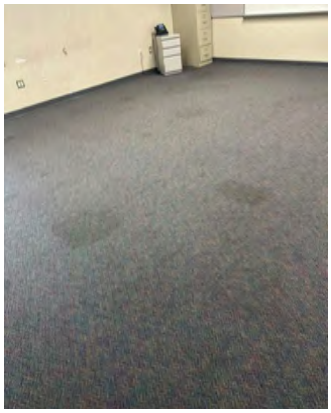
MILLWORK / CASEWORK

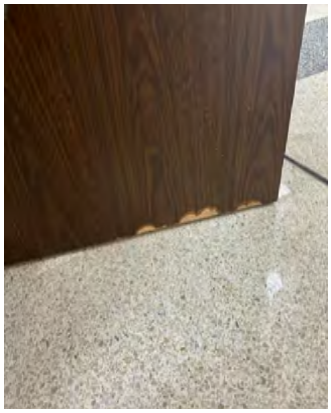
Casework throughout the facility was observed in poor/fair condition, and shows signs of wear and damage consistent with the age of the facility. Observed damages include chipped surfaces, missing edging, stained or damaged countertops, delamination, and misaligned or poorly hung doors. Maintenance driven repairs or component replacements are recommended immediately to restore functionality of existing casework assemblies.

While damaged or non-functioning casework does not impede instructional delivery, our team recommends that the district consider full casework replacement in 5-15 years.

CEILING

Ceilings throughout the facility exhibit widespread damage and deterioration and all lay-in ceiling assemblies should be considered for replacement in 5-10 years. Observed conditions include missing, discolored, and water-damaged ceiling tiles, as well as minor discoloration and damaged air devices.
In several areas, water damage appears to be associated with window head conditions or flashing, while some locations show potential signs of organic growth. Although no ongoing leaks were confirmed in most areas, the affected ceiling tiles should be investigated to determine the source of moisture. Replacement of damaged or water-stained ceiling tiles is recommended. Areas with visible organic growth should be evaluated by a certified abatement or remediation team, immediately to determine the appropriate course of action, ensuring occupant safety and compliance with environmental and health regulations.



EXECUTIVE SUMMARY / KEY FINDINGS

KITCHEN

Rating Criteria:

- Priority 1: Poor – Immediate replacement (0-5 life expectancy)
- Priority 2: Poor/Fair – Should be replaced (5-15-year life expectancy)
- Priority 3: Fair – Replacement not needed currently (15-20-year life expectancy
- Priority 4: Good – Replacement not needed (20-25-year life expectancy)
- Priority 5: MT – Maintenance required
- Priority 6: MI – Missing or not present

Architectural:

- Floor: Fair
- Ceiling-Kitchen : Good
- Walls: Good
- Floor Sinks: Good
- Ceiling-Servery: Good

Recommendations:

- Owner has been proactive in replacing kitchen equipment, overall the kitchen is undersized and recommended to be increased to 5500 sq feet. Replace all priority 1/2 items, code items, and any equipment missing due to insufficient square footage.
- Cold storage assembly is undersized. Increase square footage to 359 SF to accommodate student population.
- Dry storage is undersized. Increase square footage to 243 SF to accommodate student population.

Receiving:

The following pieces of equipment are in fair condition:

- Air Screen
- Can Wash

Janitors:

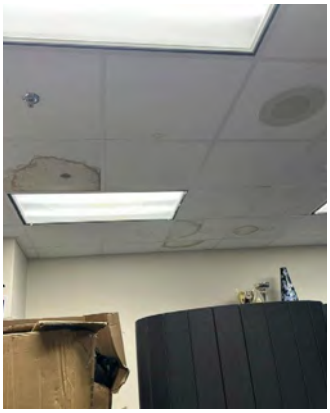
The following pieces of equipment are in fair / poor condition:

- Chemical Shelf

The following pieces of equipment are in fair condition:

- Janitor Room






EXECUTIVE SUMMARY / KEY FINDINGS

Toilet/Locker Room:
The following pieces of equipment are in fair condition:

- Toilet

Cold Storage Assembly:
The following pieces of equipment are in fair condition:

- Cold Storage Assembly

Refrigeration System-Standard

- Cold Storage Shelving

Bakery:
The following pieces of equipment are in fair / poor condition:

- Baker's Table

The following pieces of equipment are in fair condition:

- Hand Sink - Wall Mtd
- Fill Faucet

Servery:
The following pieces of equipment are missing or not present:

- Hand Sink - Wall Mtd

Warewash:
The following pieces of equipment are missing or not present:

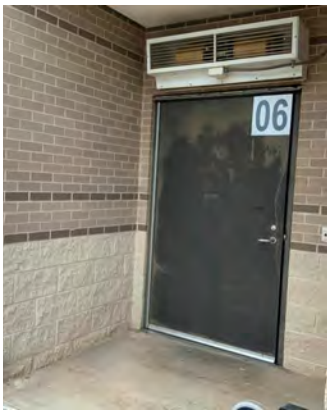
- Mobile Drying Rack

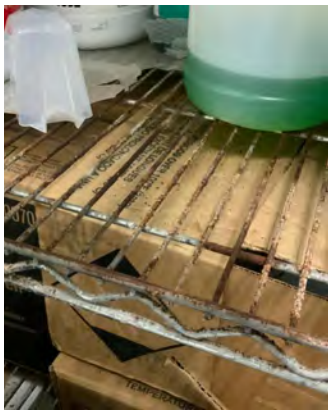
**All equipment/areas not specifically listed should be assumed to be in good condition, meaning replacement not needed till end of life cycle, 20-25 year life expectancy.*

MEP

Existing Conditions:

- **Cooling/Heating System:** Chilled water system. Chillers are Carrier Inc. rotary chillers. Heating is gas-fired boiler. All air systems are delivered with VAV boxes.







EXECUTIVE SUMMARY / KEY FINDINGS

- **Energy Mgmt. System**: Automated Logic, System 2020 Temperature control, trending of systems, system start/stop from remote location.

Recommendation:

Brabham Middle School was built in 2003. The indoor Air handlers and VAV boxes are original and are at lifecycle replacement. Rooftop equipment and outdoor chillers were replaced within the last 5 years. Mechanical equipment will need to be addressed for lifecycle replacements in 15-20 years.

LIGHTING

Lighting throughout the campus is currently fluorescent. While LED upgrades are not required, they are highly recommended for energy savings and to support code compliance. Multiple areas were observed, and some reported, to have low or uneven lighting levels, including in academic spaces. An immediate full lighting upgrade to LED would provide consistent illumination and ensure that lighting levels meet current code requirements.

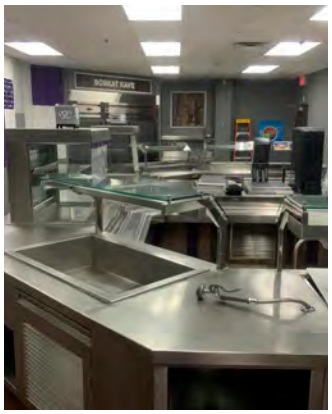
TECHNOLOGY

Audio Visual:

- Library is recommended for a full AV system replacement, including a new projector, motorized tab-tensioned screen, control system, HDMI input, wireless presentation, and sound. This should be addressed within 3–5 years.
- Cafeteria, Band, Band Hall, and Choir spaces should receive full AV system replacements, including projectors, motorized tab-tensioned screens, control systems, HDMI input, and wireless presentation. These should be addressed within 1-2 years.
- Classrooms should be upgraded with Promethean boards, as most currently do not have them. This should be addressed within 1-2 years.
- Conference rooms should be equipped with conferencing devices to ensure full meeting capabilities. This should be addressed within 1-2 years.

Sound / Audio:

- Cafeteria requires a full sound system replacement, including additional inputs, updated control, wireless microphones, and upgraded speakers. This should be addressed within 1-2 years.
- Band and Band Hall require upgraded sound systems with additional inputs, control, updated speakers, and recording capabilities. This should be addressed within 1-2 years.
- Choir sound system replacement is recommended with updated inputs, control, and speakers. This should be addressed within 1-2 years.






EXECUTIVE SUMMARY / KEY FINDINGS

- Gymnasium (both) requires full sound system replacement to improve seating and court coverage, integrate DSP, allow touch panel control, and enable multiple modes of operation. This should be addressed within 1-2 years.

PA

- Interior spaces, such as locker rooms and gyms, should have additional PA speakers installed where coverage is insufficient. This should be addressed within 1-2 years.
- Admin spaces should have volume controls added to allow confidential discussions without interruption from announcements. This should be addressed within 1-2 years.
- Building exterior should have wall-mounted speakers installed to improve exterior PA coverage. This should be addressed within 1-2 years.

SECURITY

- Entry: Remove the maglock on the front door and replace it with fail-secure hardware to ensure the door unlocks during a power loss. This should be addressed immediately.
- All security cameras: Replace existing Hikvision cameras with Hanwha cameras, as Hikvision cameras are not NDAA compliant. This should be addressed immediately.
- All exterior doors: Add DPDT door contacts to electronically monitor door status; ties into access control and intrusion systems, sending alerts if doors are forced or held. This should be addressed immediately.
- Admin areas: Add card readers to separate admin spaces from main corridors. This should be addressed immediately.
- Nurse station: Add a panic button to the desk for lockdown capability, and add card readers to both doors to allow locking in medical emergencies. This should be addressed immediately.
- Entry corridor: Add additional video surveillance coverage by entry and past the library. This should be addressed within 1–2 years.
- Library: Add general video surveillance coverage. This should be addressed within 1–2 years.
- Gymnasium / Small gym: Replace cameras to provide sufficient coverage; current cameras mounted at approximately 25’. This should be addressed within 1–2 years.
- Kitchen: Add cameras for general coverage. This should be addressed within 1–2 years.
- Weight Room: Add video surveillance coverage. This should be addressed within 1–2 years.
- Exterior cameras: Provide sufficient coverage at Doors 2, 3, 4/5/6/7, and 13. This should be addressed immediately.
- Interior cameras: Add multi-sensor cameras at corridor intersections. This should be addressed immediately.

LYNN LUCUS MIDDLE SCHOOL

09

HISTORIC DATA

Lynn Lucas Middle School is named in honor of Lynn Lucas, a long-time Willis resident and educator who dedicated many years to the District in a variety of roles, including yearbook sponsor, bus driver, football team camera operator, and typing and bookkeeping teacher. He also served as a principal and later as the Tax Assessor Collector upon retirement. Mr. Lucas was present at the dedication of the school that bears his name. His wife, Cora Lucas, also a long-time Willis educator, continues to reside in the community.

The original approximate 98,000 square foot building, constructed in 1974 at a cost of $8,364,230, initially served as a high school. In January 1996, the facility was officially renamed Lynn Lucas Middle School. Later, in October 2002, the vocational building was named the Noland Hammond, Jr. Vocational Building, honoring Mr. Hammond, who served for many years as the auto mechanics teacher on this campus.

Major Additions and Renovations: Lynn Lucas Middle School has undergone numerous additions and renovations since its original construction in 1974. In 1982, classroom additions and an auditorium were added. A burglar alarm system was installed in the mid-1980s. In 1989, additional classrooms and field house expansions were completed. Office areas were renovated in 1991, and in 1992 the entire roof—except for the auditorium and 1989 addition—was replaced. Visitor side stadium stands and a concession stand were added in 1993, with bus lanes paved the same year.

In 1994, the track was repaved and the football field re-crowned and re-turfed. Rooftop DX air conditioning units were replaced in 1996, and an energy management system was added. From approximately 1995–1998, the original 1974 and 1982 classrooms were re-carpeted. Baseball field lighting was installed in 1997, and the auditorium was re-roofed in 1999. In 2000, home-side concessions, athletic areas, and physical education spaces were added or renovated, and exterior plaster was painted. The football stands were steam cleaned.

Further improvements included the 2003 track expansion to eight lanes, new field event runways, irrigation installation, office carpet replacement, and resurfacing of the front parking lot and driveway. An additional gym was added in 2003. The 1982 and 1989 additions were re-roofed in 2004. In 2005, a 100-ton air-cooled chiller and two 120 gpm chilled water pumps were replaced in the auditorium, and a camera system was installed.

The 2006 Bond projects, completed in 2009, included field house renovations, additional parking, new restrooms and concession stands at the baseball field, modernization of administrative and office areas, interior repainting, re-carpeting, emergency generator

Installation, and improvements to the Blythe Calfee Tennis Court Center. Lighting, sound, and stage curtain upgrades were completed in the Lucas Auditorium.

Between 2012 and 2013, technology upgrades included projectors and security cameras, a new stadium scoreboard, tennis court resurfacing, fencing improvements, shade canopies, new signage, landscaping, and ornamental fencing at Yates Stadium. Three ticket booths were installed in 2013. In 2014, a canopy over the central plant boilers was constructed, security enhancements completed, and kitchen flooring in the walk-in cooler/freezer replaced. The Hammond Vocational Building was re-roofed in 2014, and drainage improvements at the tennis center were completed.

District-wide lighting upgrades were performed in 2015, along with performance gym flooring replacement and restroom improvements. Roof repairs were conducted in 2016 after storm damage, and areas of the school were tied into the existing generator. Bond 2015 projects at Yates Stadium included installation of AstroTurf and stadium track re-topping. Gym floors were refinished and repaired in 2017. Baseball field fencing and batting cages were updated in 2018.

HISTORICAL DATA / GENERAL INFORMATION

In 2021, approximately 15% of the roof was replaced. In August 2021, the Hammond Building was demolished to make way for a new Science and Classroom addition, completed in 2022. The campus land was replatted as part of the Willis ISD Educational Campus. Recent projects include the 2022 science classroom addition (approximately 40,000 SF), partial roof replacement (now full roof replaced), cooler and freezer upgrades, and a 2023 energy management system upgrade.

**All historical data and supporting information included in this report were furnished by the district. While the assessment team has made reasonable efforts to review and reference this material, the data has not been independently verified or validated in detail. The team assumes no responsibility for any inaccuracies or omissions contained within the district-provided information.*



LYNN LUCUS MIDDLE SCHOOL 1304 N Campbell St. Willis, TX 77378	
Year(s) Built:	1974
Approx. Total Building Square Footage	210,629
Approx. Total Site Area	20 acres

UTILIZATION SUMMARY



LEGEND

- Does meet TEA and Ed Spec
- Does meet Ed Spec
  *no TEA requirement
- Does not meet Ed Spec
- Does not meet TEA and/or Ed Spec

Note: This facility was originally constructed prior to the adoption of current TEA code requirements and Educational Specification standards. Because these regulations were implemented after the buildings were constructed, certain conditions may not meet today's guidelines. The assessment reflects existing conditions as they relate to current TEA and Educational Specification expectations for academic spaces.

UTILIZATION SUMMARY

TEA Deficiencies:

- **Science:** A combination science classroom/laboratory for Grades 6-8 must provide a minimum of 58 SF per student. The room may have an established maximum of 24 students but must not exceed 28. Within the total square footage of the room, 6 SF per student of horizontal laboratory countertop space (3 feet wide x 2 feet deep) must be provided at student laboratory benches, and an additional 3 LF per student of horizontal laboratory countertop support space must be provided for equipment and materials for investigations, activities, or student projects.

- ***Missing Prep/storage rooms:** Prep/Storage rooms were observed to be missing from plan, if the district wants to fit (24) students in the associated science lab, One preparation/storage room at a minimum 10 SF per student shall be provided adjacent to each combination science classroom/laboratory. One preparation/storage room at a minimum of 10 SF per student shall be provided per science classroom and be located adjacent to its partner science laboratory. Preparation/storage rooms may be combined, but the combination of more than one preparation/storage room shall not reduce the minimum square feet or quantity of built-in fume hoods required if they were not combined.

Educational Specification Deficiencies:

- **Classrooms:** Most all classrooms within the facility are undersized from the Ed Spec requirement. The Ed Spec requires 850 SF each to accommodate 26 students at 32 SF/student.

- **Science:** While the current separate science lab with class configuration is allowed by, and meets the latest TEA requirement for 28 students, the current Ed Spec requires (6) combination classrooms/labs at 1,625 SF each to accomodate 28 students.

- ***Missing Life Skills/Special Education Classrooms:** The Ed Spec requires (4) at 850 SF each to accomodate 12 students each.

- ***Missing Motor Lab:** The Ed Spec requires (1) at 1,000 SF.

**Note: The comparison to Educational Specifications was limited to TEA-regulated academic spaces, including classrooms, science labs, libraries, and gymnasiums. Non-instructional or support spaces identified within the Educational Specifications were not included in this review.*

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

Several potential ADA compliance issues were identified throughout the campus, primarily related to restrooms, classroom equipment, and site accessibility:

Restrooms:

- Multiple single-user restrooms do not meet ADA maneuvering clearances due to limited room size and will require complete reconfiguration to achieve compliance. These rooms should not be labeled as accessible. A walk with the district's chosen TDLR Reviewer is recommeneded to confirm how many restrooms would need to renovated to meet compliance.
- Several sinks do not meet ADA height requirements (maximum 31" to rim) and must be corrected; accessible signage should be added once compliant.
- Paper towel dispensers in multiple locations encroach into the required clear floor space or exceed protrusion limits; trash cans should be placed directly below, or dispensers relocated.
- Some restrooms lack required grab bars and do not meet turning-radius or approach-clearance requirements. These rooms should not be labeled as accessible.

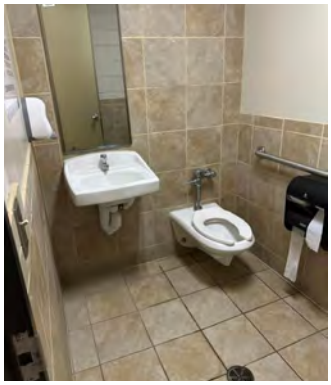
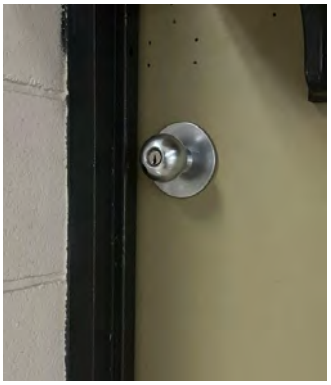
Classroom, Technology, and AV Equipment:

- Projection screens and mounted TVs protrude more than 4 inches into the circulation path, creating ADA hazards below 6'-8" head height.
- AV racks exceed protrusion limits and may obstruct accessible circulation depending on room configuration; repositioning or casework modifications are recommended.
- Knob-style door hardware remains in use across numerous classrooms and must be replaced with lever-style hardware to meet accessibility standards
- Doors out of several spaces do not meet the minimum required 3' clear width or lack proper push/pull clearances; widening or reconfiguration is required.

Site and Building Accessibility:

- Accessible routes have not been provided to key program areas, including the orchestra pit and sound & light booth; these spaces require compliant paths of travel.
- Storage rooms, workrooms, and select door openings throughout the facility do not meet the 3' minimum clearance.
- Room tags and signage are mounted above the maximum allowable 48" to braille height and require repositioning.
- Two ADA drinking fountains lack the required 3' clear approach.
- The accessible route to playgrounds is missing and must be provided per code.



EXECUTIVE SUMMARY / KEY FINDINGS

Miscellaneous Code-Related Items:

- Countertops at transaction points exceed the maximum ADA height requirement of 2’-10”; removal or reconstruction is recommended.
- AV racks, wall-mounted screens, and similar components may create protruding-object hazards when mounted without compliant lower protection or cabinetry.
- Ranges must be verified to have functioning Ansul hoods to meet life-safety requirements.
- Ensure choir risers maintain a minimum 6’-8” clear head height at the back row to prevent impact hazards.

SITE CONDITIONS

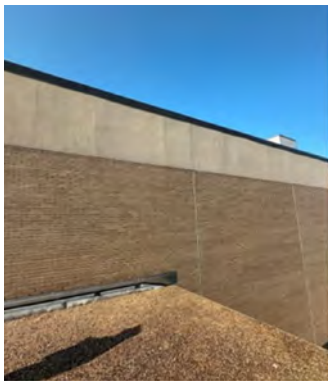
No significant site issues were identified at this campus. Limited sidewalk remediation is recommended in locations where heaving or sinking has occurred as a result of natural aging and wear.

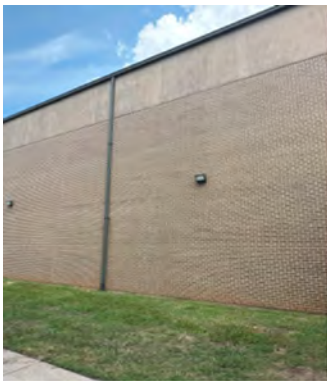
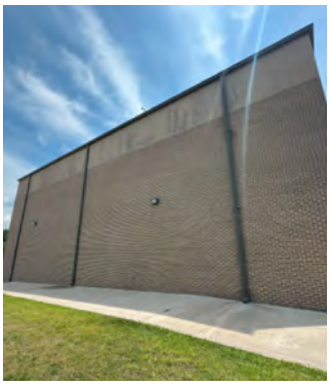
EXTERIOR WALLS

Existing Conditions

Brick Masonry Veneer Walls

- Throughout the building, SEAL observed brick masonry veneer wall claddings at the lower portion of most exterior walls. SEAL did not observe evidence of exterior wall coatings or significant repairs. Additionally, SEAL did not observe significant construction with no apparent water-resistant coating or sealing.
- At the built-up roof-to-wall interface at several roof areas, SEAL observed a stainless steel through-wall flashing with counterflashing or a wall-to-roof expansion joint cover. At the wall-to-through wall flashing interface at the face of the brick, SEAL observed asphalt material had flowed from the wall cavity onto the face of the sheet metal flashing. In our experience, this material was likely from a modified bitumen membrane transition flashing within the wall.
- Throughout the exterior walls, SEAL observed vertical joints in the brick masonry veneer. At most locations, the vertical joints were intended to accommodate brick masonry expansion, while in a few isolated locations, the vertical joint was intended to function as a building expansion joint. The brick masonry expansion joints consisted of liquid-applied joint sealant over backer rod. This condition varied according to the likely age of the exposed sealants. At the older, existing buildings, the exposed sealant surface was crazed and had failed adhesively and/or cohesively in many locations. The building expansion joints typically consisted of an extruded, preformed, silicone-covered foam. The eight-foot lengths of the extrusion were joined with liquid-applied sealant; at several locations, the joint sealant was unsealed and not continuous. These conditions increased susceptibility for uncontrolled air and water migration into the building enclosure.
- SEAL observed a brick veneer masonry wall with a stucco panel adjoining the roof edge above. This wall assembly construction was evident at the South, East, and West elevation of the South end of the building.



EXECUTIVE SUMMARY / KEY FINDINGS

At one location on the East elevation, SEAL observed organic growth on the full vertical height of the wall where a tree shades the wall area.

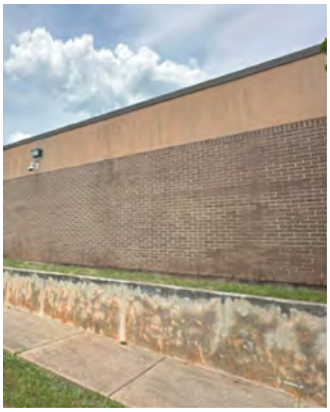
- Additionally, SEAL observed brick masonry weeps throughout most base-of-wall conditions. However, SEAL also observed many isolated locations where weep provisions were not present. At various locations throughout the exterior walls, SEAL observed mortar repairs and unsealed wall penetrations. SEAL observed an unsealed void between the base of the wall and the sidewalk.

Stucco-Clad Wall Assemblies

- At the upper portion of most exterior walls, SEAL observed Portland cement plaster (stucco) wall panels at the upper portion of the wall. The panels extended from the brick masonry veneer cladding and beneath the roof edge flashing.
- At recessed portions of the building, SEAL observed stucco ceiling assemblies. A number of the soffits assemblies exhibited reinforcing mesh in some ceiling areas. Reinforcing mesh is not common with stucco systems, but more common to exterior insulation and finish systems (EIFS). The soffits exhibited ventilation provisions, typically at the perimeter) and minor stains in isolated areas. This condition did not appear to negatively impact the building enclosure.
- A prominent and consistent condition was related to the stucco panel perimeters. At the original building areas and areas of early additions over roof areas, SEAL observed the perimeter of the stucco panels, including the sill conditions exhibited a liquid-applied sealant joint. At wall areas that were not over roofing areas, SEAL observed the interface between the stucco panels and the brick masonry below did not have visible sheet metal flashing or any material lapping over the face of the brick. The sill of the stucco panels also did not exhibit any visible weep provisions.
- At many stucco wall panels, SEAL observed meandering cracks (mostly vertical, and to a lesser extent horizontal) to various amounts. Many panels exhibited significant cracking, while other exhibited a few isolated cracks. At the auditorium walls, SEAL observed evidence of cracks and apparent “route and seal” crack repair. Additionally, SEAL noted the size of the stucco panels exceeded accepted industry recommendations with a lack of horizontal control joints throughout the building

Metal Wall Panel Assemblies

- At the newly constructed science addition, SEAL observed horizontal formed sheet metal wall panels. The wall panels did not exhibit damage or distress and appeared to be functioning adequately and within service life.






EXECUTIVE SUMMARY / KEY FINDINGS

Structural Glazing Block Units

- SEAL observed an extended height wall area with a structural glazing block façade extending from a concrete curb at grade to a recessed stucco soffit above. At this location, three separate openings were observed include one corner location where the glass block façade was curved. The assembly consisted of structural glass block and mortar/grout. SEAL observed two deficient conditions related to the system including isolated cracked mortar joints and at least one cracked glazing blocks.

Recommendation:

Brick Masonry Veneer Walls

Based on our observations of the existing masonry wall assemblies, it is our opinion the brick masonry veneer wall cladding was adequately serving their intended purpose. The following outlines our masonry-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Repairing of cracked/displaced brick masonry units, including tuckpointing/filling of mortar joints.
- Level 1: Remove and replace masonry expansion and control seals, as well as unsealed wall penetrations with new high performance DowSil silicone sealants appropriate for the substrates required and backer rod.
- MT: For larger joints and building expansion joint locations, provide new preformed, pre-formed silicone joint (EMSEAL or similar) to accommodate building movement.
- Level 1: Investigate asphaltic materials flowing from the brick wall above the through-wall flashing, including selective demolition to determine underlying cause. For budgetary purposes, include pricing for up to 900 LF of brick removal and replacement, as well as replacement of the concealed air and thermal barrier components.

Intermediate and Long Term Recommendations (10 to> 20 Years):

- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually. Remove and replace sealants at masonry expansion joints, wall penetrations, and glazing system perimeters at 10-year intervals to maintain water resistance with high-performance DowSil silicone sealant.

Stucco-Clad Wall Assemblies

Based on our observations of the existing stucco-clad wall areas, it is our opinion that the stucco wall assemblies were in generally serviceable condition despite significant localized cracks. However, the lack of control joints, excessive panel oversizing, flashing integration, and general age of the system may be contributing to cracking and water intrusion. The following outlines our stucco-related recommendations:






EXECUTIVE SUMMARY / KEY FINDINGS

Short Term Recommendations (<10 years), including immediate:

- Level 1: Investigate existing stucco wall panel assemblies at a number of representative locations throughout the building (min. 1 per building area) to evaluate conditions leading to observed cracking. Considering cracking and absence of visible flashing, panel renovation including removal and replacement of the bottom 18" of panel to add sheet metal transition flashing at 50% of the wall areas should be anticipated. In addition, complete removal and replacement of 50% of stucco panels, air barrier, perimeter flashings and sealant should be anticipated. If concealed wall issues are minimal and where the panel ratio meets industry standards (size limited to 144 sq.ft. and length-to-width ratio limited to no more than 2.5:1), consideration may be given to a "route and seal" repair at all stucco panel cracks and coat with a DowSil Allguard-type silicone elastomeric coating after repairs(if suitable aesthetic can be obtained).
- Level 1: Installation of additional control joints to limit the stucco panels to 144 SF and limit the length-to-width ratio to no more than 2.5:1.
- MT: At the exposed stucco ceilings at recessed entrance and canopy areas, route and seal any existing cracks in the stucco cladding (if suitable aesthetic can be obtained).

Intermediate Recommendations and Long Term (10 to >20 Years):

- MT: Route and seal any existing cracks in the stucco cladding (if suitable aesthetic can be obtained).
- MT: Re-coat the existing stucco wall and ceiling panels with a DowSil Allguard-type silicone elastomeric coating after repairs. Replace sealants and coatings as described above at 10 to 15-year intervals.

Glass Block Wall Assembly

Short Term Recommendations (<10 years), including immediate:

- Complete close-up inspection of each glass block location to identify quantity of mortar cracking and broken units at 2 – 5 year intervals.
- Repair cracked mortar with specialty water-resistant, glass block mortar mix(assume less than 25%).
- Replace broken glass blocks with new glass blocks to match existing (assume less than 10%).

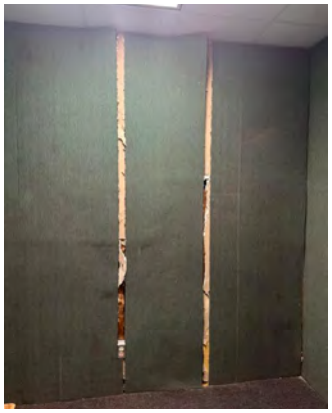
Intermediate Recommendations and Long Term (10 to >20 Years):

- Complete close-up inspection of each glass block location to identify quantity of mortar cracking and broken units at two-year intervals.

INTERIOR WALLS

A variety of wall-related deficiencies were noted throughout the facility, ranging from minor wear to significant damage requiring immediate repair.



EXECUTIVE SUMMARY / KEY FINDINGS

Multiple areas exhibit superficial drywall damage, minor wall and base deterioration, and stained or missing wall carpet, while several locations show major wall damage, including holes and damage concentrated at exterior corners. Portions of wall base are missing entirely in some rooms. Most superficial damage could be addressed directly by the district's maintenance personnel.

Specific fire extinguisher cabinets (FECs) are aged, damaged, or dented, and replacement is recommended. In multiple locations, vertical cracking was observed; installation of masonry control joints is recommended to reduce stress concentrations, along with application of flexible sealant at joints and critical interfaces.

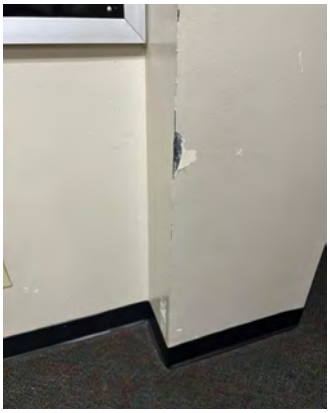
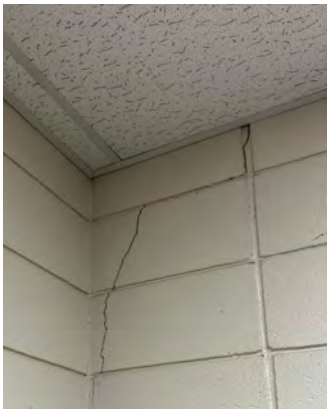
The black box area requires repainting, and several areas show damage beyond superficial conditions, particularly at corners and high-impact zones. Collectively, these conditions indicate the need for wall repairs, base replacement, crack remediation, and selective refinishing to restore the interior to an acceptable standard.

WINDOWS

Existing Conditions:

Aluminum and Steel-Framed Glazing System(s) And Doors

- Throughout the building exterior, SEAL observed primarily glass and aluminum-framed storefront window, entrance, and door assemblies and stee-frame hollow metal door assemblies. In a number of isolated locations, SEAL also observed steel-framed window assemblies with mechanically-attached exterior glazing stops, as well as steel-framed coiling doors at the concession area near the athletic field. The condition of the glazing systems was relatively consistent throughout the systems. Generally as expected, the systems at the new building additions exhibited less age and exposure than the original and early building additions. Most systems were recessed, at least a few inches, within the wall assembly.
- At multiple locations, SEAL observed steel-framed, coiled service metal doors of varying sizes primarily at the athletics concession area. The doors exhibited signs of aging but did not indicate.
- Throughout the building, SEAL observed multiple steel-framed hollow metal single leaf and double leaf doors. Several door assemblies contained glazed vision lites, side lites, or other unique conditions. The doors exhibited faded paint and minor corrosion at the door hardware or hinges. SEAL also observed the weatherstripping at many of the door-to-frame interfaces and door-to-door interfaces that exhibited age and deterioration which resulted in a questionable seal. The base threshold was also observed to be at the same level as exterior grade with questionable sealing. This condition was susceptible to water infiltration relative to water accumulation along the door sill. Isolated to a singular instance, SEAL observed missing bricks and exposed black membrane at the sill of two hollow metal doors; apparently the result of ongoing renovation work.


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- At the primary entrance, SEAL observed an aluminum-framed storefront door and window assembly with two door openings, transom glass lites and a side lite between the door assemblies. At the operable door units, the weatherstripping at the door-to-frame interface and door-to-door interface exhibited wear and deterioration which resulted in a questionable seal. In addition, the door threshold was observed to be at the same level as the exterior grade and was questionably sealed. This condition was susceptible to water infiltration relative to water accumulation along the door sill. Additionally, SEAL observed an steel-framed storefront door (auditorium) that was representative of other similar door conditions throughout the building elevations. The assembly was functioning adequately; however, the glazing and perimeter sealants exhibited cracking, shrinkage, and irregular tooling resulting in pinholes and other sealant discontinuities.
- At a number of building elevations, SEAL observed multiple aluminum-framed storefront window assemblies at punched wall openings. These assemblies exhibited conditions that indicate wear and excessive exposure including deteriorated glazing sealants, short exterior glazing gaskets and discontinuity, as well as perimeter sealant crazing and cracking. Additionally, at isolated locations, SEAL observed organic growth on the sealant at the sill of the window where moisture had been retained. At isolated interior locations, SEAL observed evidence of water intrusion at numerous window stools and evidence of staining and corrosion on the floors and localized wall framing.

Recommendation:

Based on our observations of the existing glazing and door systems, it is our opinion the systems are within their service life with the exception of some maintenance items related to gaskets and sealants. The following outlines our glazing and fenestration-related recommendations:

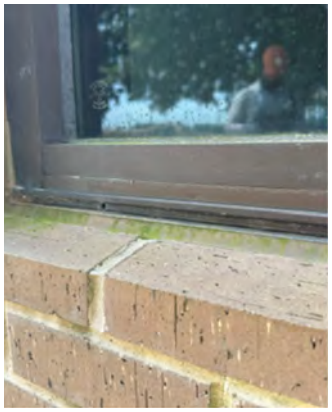
Short Term and Intermediate Recommendations (<10 years to 20 years), including immediate:

- MT: To proactively identify sealant wear and deterioration, inspect perimeter and glazing sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals with high performance DowSil silicone sealants appropriate for the substrates required.
- MT: Remove and replace perimeter joint seals around all glazing and door systems with high performance DowSil silicone sealants appropriate for the substrates required.
- Level 1: Replace or trim glazing gaskets and wet seal existing window systems to assist with water resistance.
- MT: Remove and reset or replace existing door thresholds and sealing door system to adjacent wall.
- MT: Remove and replace all existing door weatherstripping with new materials.









EXECUTIVE SUMMARY / KEY FINDINGS

Long Term Recommendations (>20 Years):

- Level 1: Full replacement of all window and door assemblies with new, thermally broken (or at least thermally improved) high-performance glazing systems, including insulated glass units.
- Level 2: Remove and replace glazing gaskets and/or wet seal existing window systems to maintain water resistance with high-performance DowSil silicone glazing sealant.

ROOF

Existing Conditions:

Low-Slope Roofing System

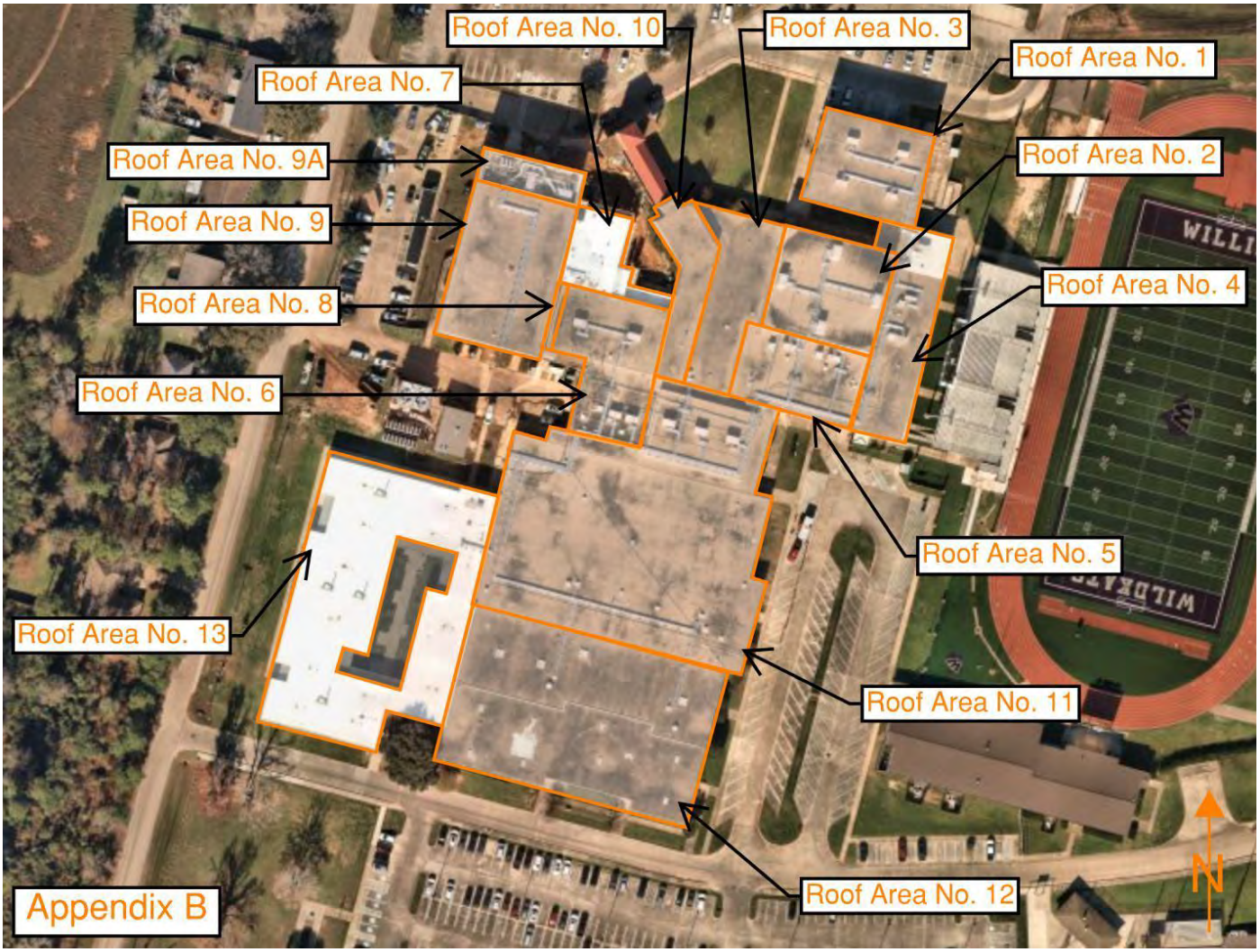
- Throughout the Roof Area Nos. 1 – 6 and 8 – 12, SEAL observed a low-slope aggregate-surface built-up roofing (BUR) system. The exception to the general roof description was Roof Area No. 9A, which had a multi-ply, granule-surface modified bitumen membrane roof covering. At the North end of the auditorium (Roof Area 9A), SEAL observed a lower roof area with curb-mounted mechanical units and galvanized sheet metal duct work with minimal roof clearance.
- Throughout the aggregate-surface BUR assemblies, Roof Area Nos. 1 – 6 and 8 – 12, SEAL observed multiple types of roof penetrations, including ventilation, plumbing, HVAC and electrical services lines on varying types of support stands and curb-mounted mechanical equipment. The penetrations generally exhibited significant signs of aging, including corrosion, but appeared to be operating adequately. The stands varied in type and appearance, including high-density polyethylene and formed metal or Unistrut stands or wood blocking and were set on the roof surface. Sealants at roof penetrations throughout the roof areas exhibited deterioration and discontinuity. The roof substrate at most, if not all, aggregate-surface BUR locations appeared to be solid underfoot. Visual indications where the roof deck was visible from the interior indicated the roofing system likely contained lightweight insulating concrete in some locations. Observations related to specific aggregate-surfaced BUR areas are as follows:
    - Roof Area Nos. 1, 2, and 6: SEAL observed retained water on the roof surface.
    - Roof Area No. 4 exhibited recently installed modified bitumen membrane roofing at North end of the roof area.
    - Roof Area No. 5 did not contain overflow drainage provisions and had a relatively high quantity of curb-mounted mechanical units that limited drainage efficiency.
    - Roof Area No. 9 exhibited deep and steep roof insulation sumps which facilitated aggregate accumulation near the dome strainers and partially obstructed roof drainage. SEAL also observed roof membrane undulations at the roof edge and near the roof drains resulting in exposed membrane in a number of isolated locations.
    - Roof Area No. 12 exhibited numerous repairs and displaced aggregate-surfacing.






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- At Roof Area Nos. 1 and 2, SEAL observed a few small areas of displaced aggregate surfacing and exposed membrane, likely caused by wind. Additionally, in a few isolated locations, SEAL observed displaced aggregate surfacing below prefinished sheet metal downspouts at isolated locations where splash blocks, splash pans, or other protective means were not provided.
- Throughout the aggregate-surface BUR systems, SEAL observed varying types of roof drainage assemblies, including prefinished sheet metal hanging gutters and downspouts, primary and secondary/overflow internal roof drains with dome strainers, as well as primary and secondary/overflow scuppers with prefinished sheet metal conductor heads and downspouts (at specific areas scuppers were used as overflow provisions where internal primary roof drains were present). Gutters were attached to the building with a combination of sheet metal hangers and spacers. The gutters appeared to be in adequate condition and exhibited general functional operation. At Roof Area No. 2, SEAL observed roof scuppers and prefinished sheet metal conductor heads with downspouts. Downspouts generally discharged at grade, unto an adjacent roof surface, or were routed to a below-grade plumbing leader boot at grade. Additionally, SEAL observed standing water at numerous locations throughout multiple roof areas.
- At Roof Area No. 8, SEAL observed multiple excess roofing-related trash, debris, and material containers on the roof surface, including a 15-gallon roof adhesive container.



EXECUTIVE SUMMARY / KEY FINDINGS

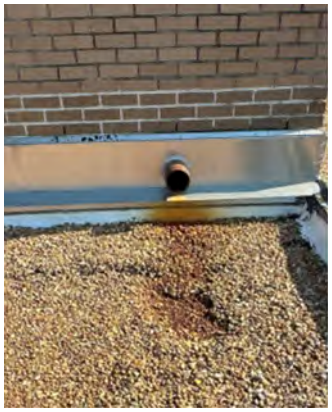
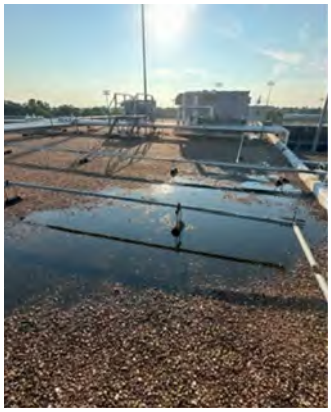
- Roof Area Nos. 7 and 13, SEAL observed low-slope single-ply thermoplastic polyolefin (TPO) roof systems. These roof assemblies appeared to be in adequate condition and did not exhibit signs of deterioration; however, SEAL observed a minor membrane undulations along several membrane seams. Additionally, at the TPO roof areas SEAL observed multiple roof penetrations, including plumbing pipes with pre-formed membrane flashing boots, sheet metal sealant pocket flashings, sheet metal curb-mounted hood flashings with sealed face plates, and curb-mounted mechanical equipment. Sealants at roof penetrations throughout the roof areas exhibited minor deterioration and discontinuity related to questionable initial installation.

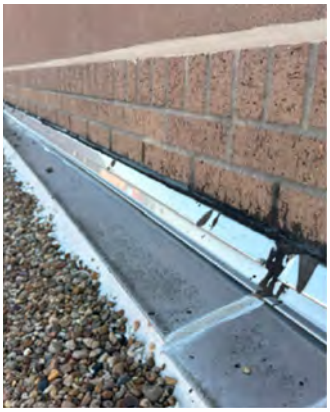
Recommendation:

Based on the documents provided by Garland, it is our understanding the low-slope BUR system at Roof Area Nos. 3, 4, 10, and 12 were recommended for replacement in 2026. Based on the documents provided, including a WISD Summary, it is our understanding the BUR and TPO roofing systems, as well as the modified bitumen roofing membranes and repairs are different ages, due to varying installation/replacement time frames. One roofing industry study indicates a mean 18-year service life of a BUR and multi-ply modified bitumen roofing assemblies and 14-year service life for thermoplastic polyolefin roofing systems. In our experience, quality BUR systems can last up to 50 years with proper maintenance, while the reported TPO service life corresponds to our experience. Considering the existing roofing substrates were generally solid underfoot and did not exhibit blisters of other significant visual cues of roofing distress or failure, it appears the recommendation to recover may have been slightly premature at several roof areas. Based on our observations to date, it is our opinion the existing low-slope roofing system was likely to be in serviceable condition. In addition, as standard roofing warranties commonly have a 20-year term and considering many if the roofs are less than 25 years old, it is likely that a number of the current roofs are under warranty. The following outlines our roofing-related recommendations:

<u>Short Term Recommendations (<10 years), including immediate:</u>

- MT: Identify roofing manufacturer, warranty term, and warranty requirements and provide to building maintenance/engineering staff for reference and repair assistance.
- MT: Provide roofing specific training for WISD personnel to facilitate proactive identification of roofing anomalies, storm damage, and other conditions that can contribute to reduced service life.
- MT: To proactively identify roof damage and wear, as well as maintain assumed roof warranty requirements, inspect the low-slope roofing membrane bi-annually and following significant storm events with high volume rains and/or high winds. Properly repair all damage and wear as it is identified. Third party, credentialed roofing specialists should be considered for these building-specific evaluations.



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- Level 4: The roofing system at the auditorium North end roof area is no longer performing and exhibited significant signs of wear and deterioration. Therefore, SEAL recommends immediate removal and replacement with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system manufactured by Soprema or Siplast with no less than a 20-year No Dollar Limit warranty. The roof assembly should consist of a mechanically-attached gypsum substrate board (where applicable), torch-applied 100-mil minimum vapor barrier, new rigid and tapered roofing insulation, and a gypsum fiber (non-faced) coverboard. A preformed tapered insulation sump should be placed at all primary roof drains. Reinforced liquid flashing system is recommended at all roof penetrations and as a supplement to the roofing membrane in the insulation drain sump. New prefinished sheet metal copings, gutters, and flashings should be provided with the new roofing system. In order to complete this work properly, the existing mechanical equipment should be removed and reinstalled following as part of the roofing renovation to ensure the curbs and penetrations are elevated and properly integrated as required to ensure the roofing system and all flashings are accessible during the life of the roof.
- Level 3: At Roof Areas A1 (SEAL Roof Area No. 12), A2 (SEAL Roof Area No. 12), A7(SEAL Roof Area No. 10), A8 (SEAL Roof Area No. 3), and A9 (SEAL Roof Area No. 4). SEAL recommends completing a moisture survey (infrared, capacitance, or nuclear with accompanying secondary verification (roof cores preferred at that time) immediately to address any significant areas of concern. If there is an active warranty, coordinate coring, if any, with roofing manufacturer for proper repair.
- Level 3: If the roofing system at the identified roof areas are wet throughout, the existing BUR system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system manufactured by Soprema or Siplast with no less than a 20-year No Dollar Limit warranty. The roof assembly should consist of a mechanically-attached gypsum substrate board (where applicable), torch-applied 100-mil minimum vapor barrier, new rigid and tapered roofing insulation, and a gypsum fiber (non-faced) coverboard. A preformed tapered insulation sump should be placed at all primary roof drains. Reinforced liquid flashing system is recommended at all roof penetrations and as a supplement to the roofing membrane in the insulation drain sump. New prefinished sheet metal copings, gutters, and flashings should be provided with the new roofing system.
- MT: For the remaining roof areas, re-evaluate the roofing assemblies at 5 years intervals with visual and moisture surveys.
- MT: Replace all wood blocks or unstable service lines supports with new proper pipe supports.
- MT: Repair all roofing components at the existing downspout discharge locations onto existing roofs. Install new concrete splashblocks over sacrificial roofing membrane at the downspouts that drain onto the roof assemblies.
- MT: Require former contractors to remove all roof-top debris left from previous construction projects or repairs.
- MT: Inspect, remove, and replace all roof-related sealants at 5 to 10 year intervals, including all sheet metal flashing joints.






EXECUTIVE SUMMARY / KEY FINDINGS

Intermediate and Long-term Recommendations (10 to >20 Years):

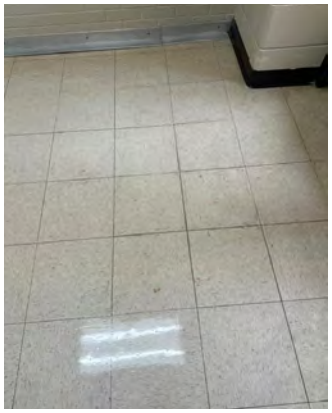
- MT: Re-evaluate the roofing assemblies at 5 years intervals with visual and moisture surveys, including all roof drain assemblies and sheet metal flashings. Third party, credentialed roofing specialists should be considered for these building-specific evaluations.
- MT: To proactively identify roof damage and wear, as well as maintain assumed roof warranty requirements, inspect the low-slope roofing membrane bi-annually and following significant storm events with high volume rains and/or high winds. Properly repair all damage and wear as it is identified.
- MT: When roofing systems exhibit elevated moisture or signs of deterioration or damage, consideration for roof replacement should commence with the system recommended above.
- MT: Inspect, remove, and replace all roof-related sealants at 5 to 10 year intervals.

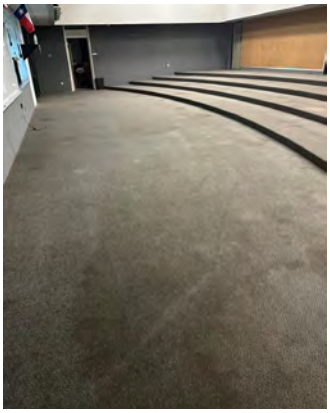
FLOORS

VCT flooring throughout the facility exhibits widespread discoloration, damage, and missing tiles, particularly at door thresholds, exterior wall conditions, and other high-traffic areas. Several sections show large seams, surface wear, and cracking, indicating advanced age and ongoing deterioration. Given the extent of observed issues, VCT within the main older portion of the building is in fair to poor condition overall, and replacement should be planned within the next 10 years. The LVT within the 2022 science addition was observed to be in good condititon consistent with it's age. Life cycle replacement is recommended at 15-20 years. The rubber flooring at the gym, beneath retractable bleachers was observed notably worn and damaged due to equipment movement, partial repairs should be considered.

Carpeted areas exhibit staining, discoloration, and localized damage, particularly within older classrooms, lab spaces, and administrative offices. These issues appear to be the result of long-term wear rather than failure of individual components, though isolated areas of heavier staining were noted. Carpet was considered to be observed in poor to fair condition, which is consistent with the age of the carpet. Replacement should be considered within all areas, excluding the 2022 science addition, in 2-7 years, with special consideration and priority for the choir room which was observed to be in critically poor condition and warrents immediate replacement. Capret within the 2022 science addition was observed to be in good condition and should be considered at the end of it's life cycle within 7-12 years.

Terrazzo flooring exhibits cracking at multiple locations, including areas adjacent to expansion joints. Remediation is recommended through injection of structural adhesive at cracks exposed to moisture to seal the slab and prevent subgrade saturation and movement. Additional surface discoloration was noted in several areas, and a potential water leak was observed beneath the existing cementitious terrazzo slab. Further investigation is recommended to confirm the source and extent of the leak, followed by appropriate repairs to the waterproofing system and any affected slab areas to prevent continued moisture intrusion and long-term deterioration.






EXECUTIVE SUMMARY / KEY FINDINGS

DOORS

Doors throughout the facility exhibit a range of minor to moderate damage. Several doors were observed with chips, surface wear, and general cosmetic damage, while others showed more notable issues, such as missing locks, missing or damaged PLam edging, and loose or detached hardware, including handle escutcheons beginning to fall off. Overall the district maintenance staff, or isolated repair is recommended.

MILLWORK / CASEWORK

Casework throughout the facility varies widely in condition due to multiple additions over the years, resulting in mismatched built-ins and differing levels of wear. Common issues include chipped or scuffed PLam surfaces, delaminating countertops and backsplashes, missing or damaged edging, misaligned doors, missing hardware, and bases missing at shelving or lower counters. Several locations exhibit more significant damage that will require immediate replacement, and toilet partitions are damaged in multiple areas.

Because of the varying ages of the building additions, phased casework replacement is recommended. The main, older facility should be considered for full replacement within 5–10 years, while the 2022 science addition remains in good condition and should not require replacement until its typical 20–25 year lifecycle.

CEILING

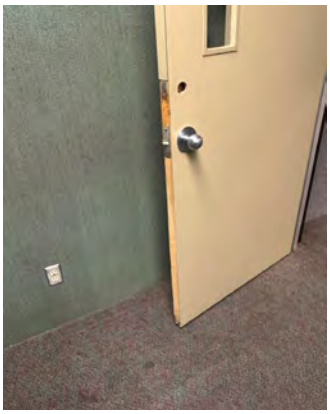
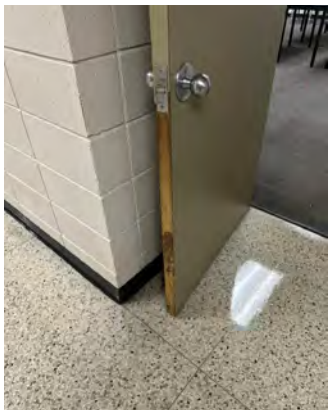
Ceiling conditions across the facility include recurring water-stained, discolored, sagging, and missing lay-in tiles, with isolated areas of damaged or rusting grid. These issues indicate ongoing maintenance needs and potential past or current moisture intrusion.

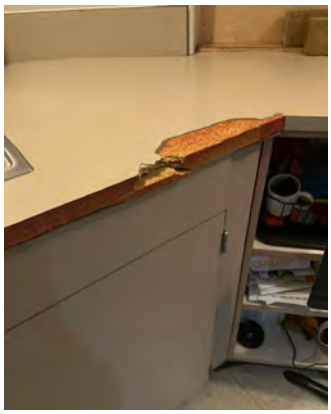
A phased ceiling replacement is recommended: the main/original building should undergo a full replacement in 5–10 years, while the 2022 science addition remains in good condition and should be considered for full replacement in 12–17 years, aligned with its lifecycle.

KITCHEN

Rating Criteria:

- Priority 1: Poor – Immediate replacement (0-5 life expectancy)
- Priority 2: Poor/Fair – Should be replaced (5-15-year life expectancy)
- Priority 3: Fair – Replacement not needed currently (15-20-year life expectancy
- Priority 4: Good – Replacement not needed (20-25-year life expectancy)
- Priority 5: MT – Maintenance required
- Priority 6: MI – Missing or not present



EXECUTIVE SUMMARY / KEY FINDINGS

Architectural:

- Floor: Fair/Poor
- Ceiling-Kitchen : Fair/Poor
- Walls: Fair/Poor
- Floor Sinks: Fair/Poor
- Electrical Panels: Fair/Poor
- Ceiling-Servery: Fair/Poor

Recommendations:

- Owner has been proactive in replacing kitchen equipment, overall the kitchen is undersized and recommended to be increased to 5500 sq feet. Replace all priority 1/2 items, code items, and any equipment missing due to insufficient square footage.

Code Deficiencies:

- No fly fan at receiving door.
- Exhaust hood-equipment below hood does not accommodate 6” overhang.
- Fire Suppression has rust located at ansul drops.
- Toilet does not meet ADA 60” turning radius.
- Fabrication has painted and/or galvanized legs and rusting.
- Hand sinks to be located every 25’ within the line of sight.

Receiving:

The following pieces of equipment are in fair / poor condition:

- Loading Dock
- Receiving Corridor

The following pieces of equipment are missing or not present:

- Air Screen

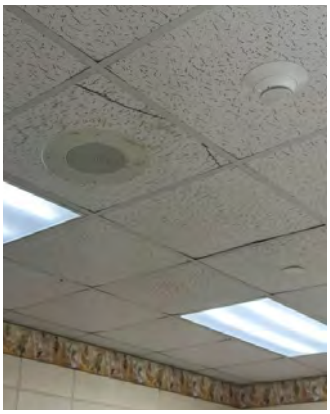
Office:

The following pieces of equipment are in fair condition:

- Office







EXECUTIVE SUMMARY / KEY FINDINGS

Janitors:

The following pieces of equipment are in fair / poor condition:

- Janitor Room
- Clothes Washer

The following pieces of equipment are in fair condition:

- Wall Mounted Overshelf
- Clothes Dryer

The following pieces of equipment are missing or not present:

- Chemical Shelf

Toilet/Locker Room

The following pieces of equipment are in poor condition:

- Toilet
- Locker Room

Preperation:

The following pieces of equipment are in poor condition:

- Worktable W. Sink

The following pieces of equipment are in fair / poor condition:

- Worktable No Overshelf

The following pieces of equipment are in fair condition:

- Hand Sink - Wall Mtd

The following pieces of equipment are missing or not present:

- Ice Maker With Bin - 500 Lb Capacity

Bakery:

The following pieces of equipment are in poor condition:

- Exhaust Hood

The following pieces of equipment are in fair condition:

- 20 Qt. Mixer W. Stand
- Four Burner Range - Gas

The following pieces of equipment are missing or not present:

- Hand Sink - Wall Mtd






EXECUTIVE SUMMARY / KEY FINDINGS

Production:

The following pieces of equipment are in poor condition:

- Exhaust Hood

The following pieces of equipment are in fair / poor condition:

- Fire Protection System

The following pieces of equipment are in fair condition:

- Hand Sink - Wall Mtd
- Convection Oven- Gas Dbl

Servery:

The following pieces of equipment are in poor condition:

- Hand Sink - Wall Mtd

The following pieces of equipment are in fair condition:

- Back Counter - Open Base

Warewash:

The following pieces of equipment are in fair / poor condition:

- Soiled & Clean Dishtable
- Mobile Drying Rack

The following pieces of equipment are in fair condition:

- Disposer-Cone Mount
- Powerwash Sink

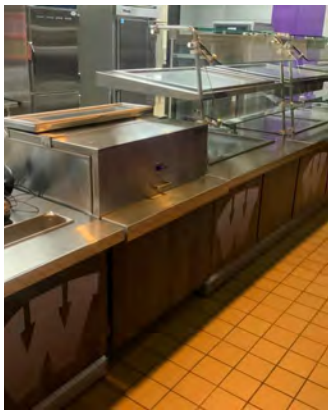
The following pieces of equipment are missing or not present:

- Hand Sink - Wall Mtd

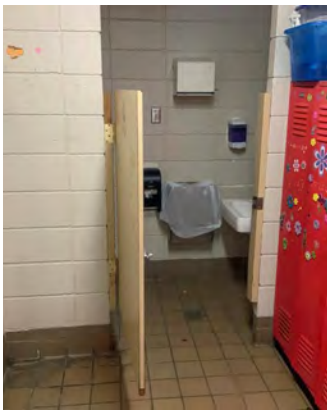
**All equipment/areas not specifically listed should be assumed to be in good condition, meaning replacement not needed till end of life cycle, 20-25 year life expectancy.*

MEP

Lucas Middle school was built in 1974 with multiple renovations and additions up until 2022. All Roof mounted HVAC equipment and indoor air handlers and VAV boxes are approximately 17 years old. Mechanical equipment will need to be addressed for lifecycle replacement in 5 years. Chillers, boilers and the Auditorium HVAC was replaced in the last 5 years. These systems will need to be addressed for lifecycle replacement in 15-20 years.









EXECUTIVE SUMMARY / KEY FINDINGS

LIGHTING

Lighting throughout the campus is currently fluorescent. While LED upgrades are not required, they are highly recommended for energy savings and to support code compliance.

TECHNOLOGY

Audio Visual

- **Auditorium –** Install a new system including a new projector, motorized tab-tensioned screen, control system, HDMI inputs in multiple locations, video distribution, and wireless presentation, recommended in 1–2 years.
- **Cafeteria –** Replace the full AV system with a new projector, motorized screen, control, HDMI input, and wireless presentation, recommended in 1–2 years.
- **Library –** Replace the full AV system with a new projector, motorized screen, control, HDMI, wireless presentation, and sound, recommended in 3–5 years.
- **Black Box** – Replace the full AV system including projector, motorized screen, control, HDMI, and wireless presentation, recommended in 3–5 years.
- **Classrooms** – Add Promethean boards to classrooms to align with district instructional standards, timing as part of future campus technology upgrades.
- **Conference Rooms** – Add conferencing devices to support full conferencing capabilities, timing as part of future campus technology upgrades.

Sound Systems

- **Auditorium** – Replace the full sound system with a modern digital system including antennas, dedicated equipment racks, updated speakers/amps, and a control-room patchbay, recommended in 1–2 years.
- **Cafeteria** – Replace the full sound system with a distributed audio system, wireless/wired mic capabilities, a touch panel, and inputs such as video feed, Bluetooth, and life-safety, recommended in 1–2 years.
- **Large Gym** – Replace the outdated point-source sound system with a modern distributed system to improve coverage and STI performance, recommended in 1–2 years.
- **Small Gym** – Install a new sound system with distributed speakers, portable mixer, wireless/wired inputs, Bluetooth, and DSP, recommended in 3–5 years.
- **Black Box** – Add a system upgrade including grid-mounted speakers, portable mix rack, and supporting performance infrastructure, recommended in 3–5 years.

Theatrical

- **Auditorium** – Review and upgrade theatrical rigging components, including curtains, legs, borders, cyc, utility pipes, battens, lift lines, guide arbor systems, cable management, and dead-hung elements, recommended as a future upgrade based on condition and safety review.

Acoustics

- **Auditorium** – Investigate and mitigate mechanical humming on stage impacting performance acoustics, recommended as part of future mechanical and acoustic improvements.

PA

- **Admin Spaces** – Add volume controls to support confidential meetings without page interruptions, recommended as part of ongoing improvements.
- **Interior Building Areas** – Add PA speakers to improve coverage in gyms, fine arts, and other under-served zones, recommended as part of ongoing improvements.

EXECUTIVE SUMMARY / KEY FINDINGS

- **Exterior Areas** – Add exterior PA speakers to improve outdoor communication coverage, recommended as part of ongoing improvements.

SECURITY

- **Campuswide** – Replace all Hikvision cameras with NDAA-compliant Hanwha units, immediate action recommended.
- **Exterior Doors** – Add DPDT door contacts to all exterior doors to support access control and intrusion monitoring, immediate action recommended.
- **Admin Area** – Add card readers to three locations to separate admin from the main corridor, immediate action recommended.
- **Nurse's Office (Doors)** – Add card readers to both doors to allow controlled separation and emergency lockdown, immediate action recommended.
- **Nurse's Office (Desk)** – Add a panic button at the nurse's desk to enable emergency lockdown, immediate action recommended.Exterior Doors 14, 9, 20 – Add card readers for controlled access, immediate action recommended.
- **Interior Corridors** – Add multi-sensor cameras at corridor intersections to improve coverage, immediate action recommended.
- **Exterior Cameras** – Add sufficient exterior camera coverage at Doors 3/4/5/6, 16/17/18, 19, 22, 24/25, 26/27/28, and 34/35/36/37, immediate action recommended.
- **Kitchen** – Add cameras for general coverage, recommended in 1–2 years.
- **Large Gym** – Add additional video surveillance coverage, recommended in 1–2 years.
- **Small Gym** – Add additional video surveillance coverage, recommended in 1–2 years.

WILLIS HIGH SCHOOL

10

HISTORIC DATA

This school was opened in December of 1995. A mid-term move was made and classes started in January of 1996. The Cargill Annex building built in 1922 was the original high school until 1939. The present school central administration building built in 1939 was the high school until 1974. The Lynn Lucas Middle School was the high school from 1974 until 1995. The present high school has been the home of Willis High School since that time. In 2018 three new additions were added to the High School, the Career & Technology Center, the Agricultural Science Center and the new athletic additions. In 2019 the Preforming Arts Center was added on to the High School.

Major Additions or Renovations: An emergency generator is in place to access during power outages and emergency situations. In 2000 classroom additions were completed. Renovations converted the non-air conditioned shop area into an air-conditioned computer vocational shop. A softball field concession stand was added and includes athletic equipment storage and grounds maintenance storage. During the 2003-04 school year a chain link fence with motorized gates was installed around the WHS campus grounds and between Willis High School and A.R. Turner Elementary School. During the 2003-04 school year an addition / renovation project was completed to include new dressing rooms, a new gym, classrooms for choral / orchestra departments, and a new stage in the cafeteria area and 4,840 square feet was added to the cafeteria. Cafeteria enhancements included new round tables, cafeteria booths, wall designs, and new paint. In 2008 carpet is planned for replacement in halls, office & classrooms. In March 2009, 56.64 acres, adjacent to the current WHS site, were purchased as a future site for the Willis 9th Grade Center. In 2011 an outdoor dining area was wall designs, and new paint. In 2008 carpet is planned for replacement in halls, office & classrooms. In March 2009, 56.64 acres, adjacent to the current WHS site, were purchased as a future site for the Willis 9th Grade Center. In 2011 an outdoor dining area was added to include additional kitchen space and equipment to accommodate the growing population. In 2011 all original light fixtures in classrooms and hallways were converted to more energy efficient fixtures. In 2012 the Technology Department installed projectors and security cameras throughout the building. In 2013, renovations were made to create a conference room in the front administrative area. The HVAC controls were renovated. In 2014 the security features and enhancements were completed. Restroom Improvements were made. District wide lighting upgrades in April 2015. Upgraded the HVAC cooling system and installed a cooled chiller plant in April 2015. PA system repair work completed in December 2016 - installation, testing, programming, new controller equipment and hardware. 2015 Bond Issue Projects are in planning stages for Career & Technology Center, Auditorium, Athletic Addition, Renovations of old CTE area and Agricultural Science Center. In 2017, installation of ALC controls. In summer 2017, refinished Auxiliary Gym floor and refinished and repainted Performance Gym Floor. In 2018, construction of Career & Technology Education Center, Agricultural Science Center, and Athletic addition had been completed. Testing, Adjusting & Balancing (TAB) of the HVAC system at classroom renovations, Auditorium Support Areas and the Auditorium. Batting cages were installed at the softball field. In February 2019 the construction of the Performance Arts Center was completed. The 1st and 3rd floor classrooms, hallways, and door casings were painted July 2019. With the remaining of the 2015 Bond Issued funds in summer of 2021 re-painted, re-carpeted, re-floored the whole building with the exception of what was done in 2019. Summer 2022 we repainted the outside of the main building to match CTE and AG building. We also repainted the parking lot. Completed Bond 2020 Projects- 2020 Bond Issued boilers 2021. Upgraded Demand Control Ventilation/ Air Handler 2023.

Major Additions (Preforming Arts Center): Construction of the Preforming Arts Center began in August 2016 completion date is February 2019.

**All historical data and supporting information included in this report were furnished by the district. While the assessment team has made reasonable efforts to review and reference this material, the data has not been independently verified or validated in detail. The team assumes no responsibility for any inaccuracies or omissions contained within the district-provided information.*

GENERAL INFORMATION

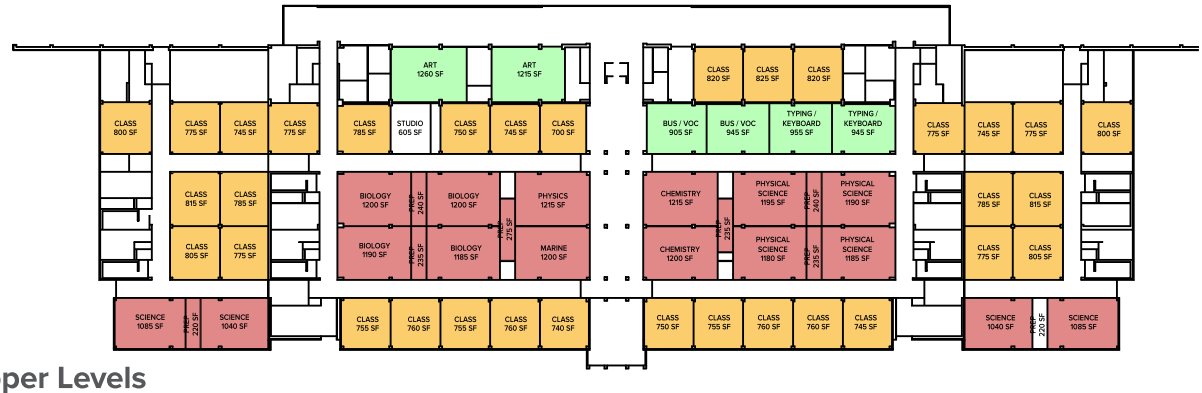


WILLIS HIGH SCHOOL 10005 HWY 75 N. Willis, TX 77378	
Year(s) Built:	1996
Approx. Total Building Square Footage	365,224
Approx. Total Site Area	37 acres

UTILIZATION SUMMARY

LEGEND

- Does meet TEA and Ed Spec
- Does meet Ed Spec *no TEA requirement
- Does not meet Ed Spec
- Does not meet TEA and/or Ed Spec



Upper Levels



Lower Levels

Note: This facility was originally constructed prior to the adoption of current TEA code requirements and Educational Specification standards. Because these regulations were implemented after the buildings were constructed, certain conditions may not meet today's guidelines. The assessment reflects existing conditions as they relate to current TEA and Educational Specification expectations for academic spaces.

UTILIZATION SUMMARY

TEA Deficiencies:

- **Science:** 1,508 SF required for (26) students. A combination science classroom/laboratory for Grades 9-12 must provide a minimum of 58 SF per student. The room may consider a maximum of 24 students but must not exceed 28. Within the total square footage of the room, 6 SF per student of horizontal laboratory countertop space (3 feet wide x 2 feet deep) must be provided at student laboratory benches, and an additional 3 LF per student of horizontal laboratory countertop support space must be provided for equipment and materials for investigations, activities, or student projects.

- **Preparation/storage rooms.** 520 SF required for each shared prep room serving (2) science labs with (26) students each. One preparation/storage room at a minimum 10 SF per student shall be provided adjacent to each combination science classroom/laboratory. One preparation/storage room at a minimum of 10 SF per student shall be provided per science classroom and be located adjacent to its partner science laboratory. Preparation/storage rooms may be combined, but the combination of more than one preparation/storage room shall not reduce the minimum square feet or quantity of built-in fume hoods required if they were not combined.

- **Library:** The sum total square footage of all library-related areas shall meet the following minimum square feet (SF) requirements based on maximum instructional capacity and may be contiguous or dispersed: for 501-2,000 students, a minimum of 3,000 SF plus an additional 3 SF for each student in excess of 500 which would require 11,216 SF for a max capacity of 3,858.

Educational Specification Deficiencies:

- **Classrooms:** Most all classrooms within the facility are undersized from the Ed Spec requirement. The Ed Spec requires 850 SF each to accommodate 26 students at 32 SF/student.

- **Science: c**urrently approximately 400 SF undersized to accommodate an established maximum of 28 kids. The Ed Spec requires (10) classrooms/labs at 1,625 SF each to accomodate 28 students.

- **Media Center:** The Ed Spec requires 8,500 SF minimum.

- **Life Skills Classroom:** The (1) Life Skills/SpEd classroom is approximately 100 SF undersized. The Ed Spec requires (3) at 850 SF each to accomodate 12 students each.

- **CTE**: Per the Ed Spec the Automotive Repair/ Small Engine Repair requires 2,500 SF, the Automotive Classroom requires, 700 SF, the Building Trades/Welding Shop requires 2,800 SF, and the Culinary Lab / Classroom requires 2,000 SF.

- ***Missing Life Skills/Special Education Classrooms:** The Ed Spec requires (3), additional from what has been provided, at 850 SF each to accomodate 12 students each.

- ***Missing Motor Lab:** The Ed Spec requires (1) at 1,000 SF.

- ***Missing Dance Classroom:** The Ed Spec requires (1) at 1,500 SF.

- ***Missing Art Classroom:** The Ed Spec requires (1) at 1,200 SF.

**Note: The comparison to Educational Specifications was limited to TEA-regulated academic spaces, including classrooms, science labs, libraries, and gymnasiums. Non-instructional or support spaces identified within the Educational Specifications were not included in this review.*

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

Accessibility within Willis High School seems to be in general compliance with TAS. The building is equipped with a fire suppression system and appears to be in good condition.

SITE CONDITIONS

No significant site issues were identified at this campus. Limited sidewalk remediation is recommended in locations where heaving or sinking has occurred as a result of natural aging and wear.

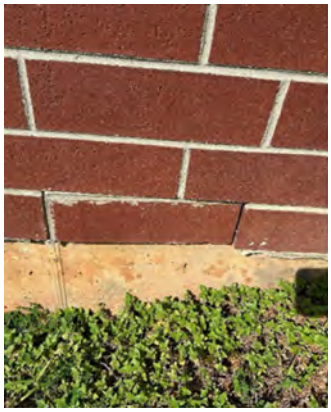
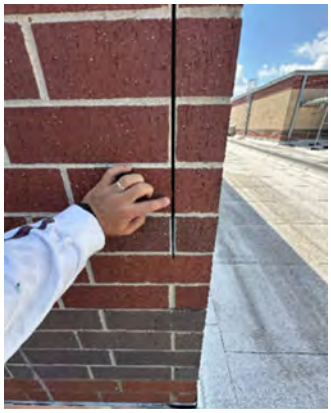
EXTERIOR WALLS

Existing Conditions:

Brick Masonry Veneer Walls

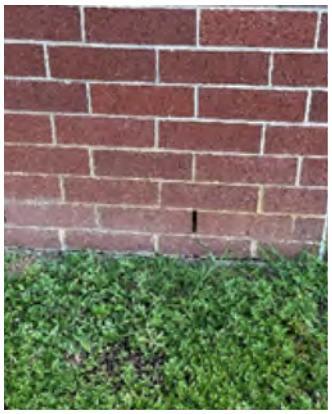
- Throughout the various building elevations of the older building areas, SEAL observed exterior walls comprised of brick masonry veneer cladding with buff, red, and gray colored brick.
- The brick masonry wall claddings exhibited intermittent vertical brick masonry expansion joints with liquid-applied sealant. At these joint locations, SEAL observed sealant cohesive and adhesive failure resulting in unsealed areas that were susceptible to water infiltration. Several of these joints occurred at building expansion joints. At a wall-to-wall expansion joint along the rising wall at Roof Area No. 12, SEAL observed the expansion joint to be failing adhesively along the brick masonry. Additionally, SEAL observed pinholes, adhesive, and cohesive failures at the brick masonry expansion joints throughout the various building elevations. These conditions are susceptible to water infiltration into the wall and roof assembly. At one brick masonry expansion joint location along the South elevation, SEAL observed a brick masonry veneer spall adjacent to the expansion joint.
- SEAL observed numerous punched window openings throughout the exterior walls. The brick sill condition was comprised of rowlock brick, were horizontal or nearly horizontal in orientation, and projected approximately 2” outward from the window frame allowing it to accumulate moisture. The brick and mortar at the masonry ledges beneath the punched window openings were discolored and appeared to have retained moisture in the upper courses of brick. Many of the mortar joints were also observed to be cracked.
- At an East elevation brick masonry veneer wall, SEAL observed many displaced/ spalled bricks along the bottom course adjacent to the concrete foundation. This condition was consistent at this elevation was not prominently observed at other wall areas.
- At one isolated North elevation location, SEAL observed the brick masonry veneer an apparent vertical saw cut in the brick and mortar joints spanning at least five courses. The reasoning for the cut was not clear; however, the condition was likely to allow uncontrolled air and water migration into the wall assembly.



EXECUTIVE SUMMARY / KEY FINDINGS

- Throughout the various building elevations, SEAL observed several isolated penetrations through the brick masonry veneer that were unsealed.
- At the roof-to-brick masonry wall interface along the North building elevation, SEAL observed exposed transition membrane flashing over two-piece stainless steel through-wall flashing. Exposed membrane was susceptible to UV deterioration. SEAL observed more exposed transition membrane throughout the rising walls around Roof Area No. 10.
- SEAL observed a significant masonry discoloration at many of the roof-to-rising wall interfaces, including at Roof Area No. 10. At these locations, the bottom two brick courses at the rising walls exhibited a lighter appearance than the rest of the wall assembly. Based on our experience, this condition was likely indicative of a previous wall flashing renovation/remediation. The more recently installed sheet metal through-wall flashing assemblies were comprised of stainless steel with galvanized sheet metal counterflashing.
- At the rising wall along Roof Area No. 3 as well as at other roof areas, SEAL observed questionable roof and parapet-to-wall flashing assemblies. At one location, SEAL observed exposed roof termination bar below counterflashing, irregular mortar tooling (orange outline), and omitted brick masonry expansion joint sealant, and sheet metal transition flashings. Additionally, the coping-to-counterflashing interface appeared to be questionably integrated. These conditions may be indicative of areas that require further investigation.
- At typical base-of-wall brick masonry veneer condition at grade along the South elevation. SEAL observed inconsistent weep sizing (yellow outlines) and spacing throughout many of the building elevations. Staining throughout the mortar joints and efflorescence throughout the wall was observed at the base-of-wall and indicated potential wall drainage limitations. Additionally, SEAL observed weeps to be covered by landscaping in many areas around the building.
- Along the top of the typical punched window assemblies, SEAL observed the head weeps to be blocked/ filled in with mortar and/ or sealant at many isolated locations. These conditions limit drainage from the wall assembly.
- Throughout the various building elevations, SEAL observed active secondary/ overflow drainage outlets through the brick masonry veneer. SEAL observed staining along the masonry, indicative of obstruction or water volume exceeding the capacity of the primary roof drain. Additionally, SEAL observed staining along the base-of-wall at the primary drain outlets at the North elevation of the auditorium. SEAL also observed the adjacent sidewalk to be stained and eroded from the concentrated downspout discharge. These conditions are susceptible to accelerated degradation of the concrete, brick, and mortar.
- SEAL observed overflow drain outlets throughout the West elevation. SEAL observed the lawn at the Southwest corner of the building was inadequately sloped for drainage. Additionally, SEAL observed the sidewalks throughout these areas were elevated above elevated above grade and limited drainage. Water drained to this area exhibited limited ability to drain and was likely to lead to water infiltration at the bottom of the exterior walls.






EXECUTIVE SUMMARY / KEY FINDINGS

- At the front entrance wall projection along the South building elevation, SEAL observed vertical staining along the brick masonry at several prominent locations. This condition was likely to lead to accelerated deterioration of the masonry wall components.
- Along the South building elevation, SEAL observed the brick masonry below a hose bib box to exhibit staining. Note, water was actively running from this location while SEAL was performing the building assessment.
- At the brick masonry veneer cladding along the East elevation of the performing arts center, SEAL observed efflorescence in a number of locations throughout the masonry veneer at the building area. This condition was indicative of moisture movement within the wall assembly and retention which may be associated with air barrier or thermal insulation discontinuity.

Glass Block Wall Assembly

- SEAL observed glass block wall assemblies along the South building elevation. Mortar joints between the glass blocks were observed to be stained and cracked. Additionally, SEAL did not observe any visible cracks throughout the glass block units.

Recommendation:

Brick Masonry Veneer Walls

Based on our observations of the existing masonry wall assemblies, it is our opinion the brick masonry veneer wall cladding was adequately serving their intended purpose. The exception to that general statement were the walls located beneath the metal roofing where the water flow impacted the underlying components, including the split-faced CMU. The following outlines our masonry-related recommendations:

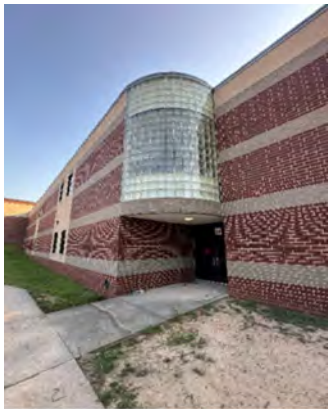
Short Term Recommendations (<10 years), including immediate:

- Level 1: Modify all brick masonry sills to facilitate slope and sheet metal sill flashing integration. Coordinate with window opening perimeter seal replacement.
- MT: Repairing of cracked/displaced CMU and masonry units, including tuckpointing/filling of mortar joints.
- Level 1: Remove and replace masonry expansion and control seals, as well as unsealed wall penetrations with high performance DowSil silicone sealants appropriate for the substrates required and backer rod.
- MT: For larger joints and building expansion joint locations, provide preformed, precompressed silicone joint (EMSEAL or similar) to accommodate building movement.
- Level 1: Investigate brick masonry efflorescence at the performing arts center, including selective demolition to determine underlying cause. For budgetary purposes, include pricing for up to 500 SF of brick removal and replacement, as well as replacement of the concealed air and thermal barrier components.









EXECUTIVE SUMMARY / KEY FINDINGS

Intermediate and Long Term Recommendations (10 to> 20 Years):

- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually. Remove and replace masonry expansion joint sealants to maintain water resistance with high-performance DowSil silicone glazing sealant.

Glass Block Wall Assembly

Short Term, Intermediate, and Long Term Recommendations (<10 years to >20 Years):

- For budgetary purposes, allocate funds to replace all specialty glass block mortar and perimeter joint sealants at 10 year intervals.

INTERIOR WALLS

Wall finishes throughout the facility exhibit typical wear, including areas requiring touch-up paint in classrooms, offices, corridors, restrooms, and hallways. Several locations show damaged gypsum board, scuffed surfaces, and deteriorated bulkheads near lockers that require repair or replacement. Additionally, select acoustical wall panels need replacement due to damage. Overall, the building would benefit from a comprehensive wall repair and repainting effort, with localized repairs addressed as needed to restore a consistent and well-maintained interior condition.

WINDOWS

Aluminum-Framed Glazing, Entrance and Door Systems

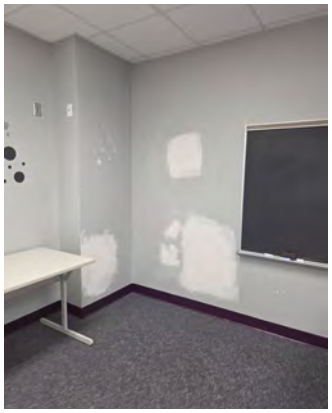
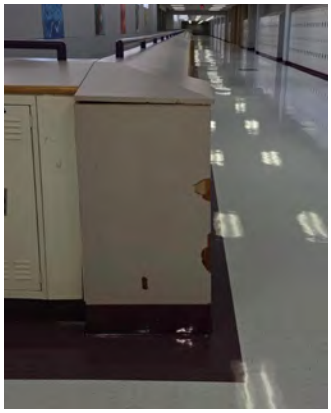
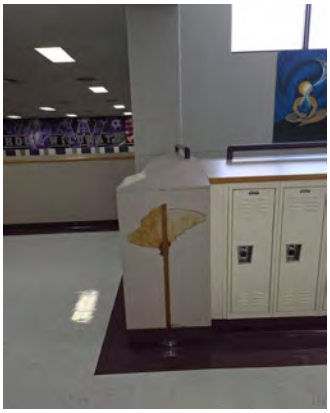
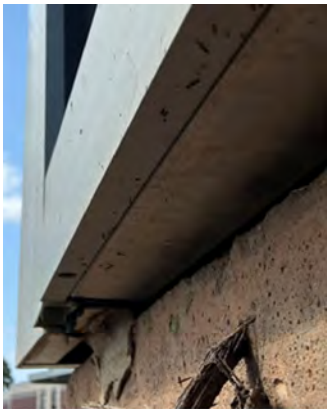
Based on our observations of the existing glazing and fenestration systems, it is our opinion that the curtain wall/ storefront, window and door systems, including seals and gaskets, were installed recently and are within their reasonable service life. The following outlines our glazing and fenestration-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: To proactively identify sealant wear and deterioration, inspect sealants and gaskets bi-annually and properly repair as required to maintain continuity and adhesion.
- MT: Remove and replace perimeter joint seals around all glazing and door systems with high performance DowSil silicone sealants appropriate for the substrates required.
- MT: Remove and reset or replace existing door thresholds and sealing door system to adjacent wall.
- MT: Remove and replace all existing door weatherstripping with new materials.

Intermediate and Long Term Recommendations (10 to >20 years):

- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals.

EXECUTIVE SUMMARY / KEY FINDINGS

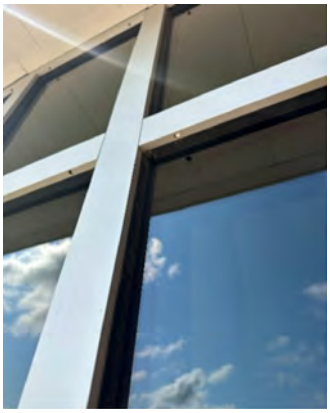
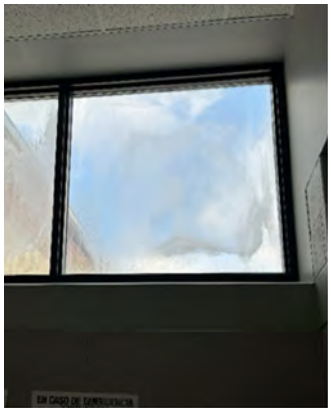
- Level 2: Remove and replace glazing gaskets and/or wet seal existing window systems to maintain water resistance with high-performance DowSil silicone glazing sealant.

ROOF

Existing Conditions:

Low-Slope Roofing System

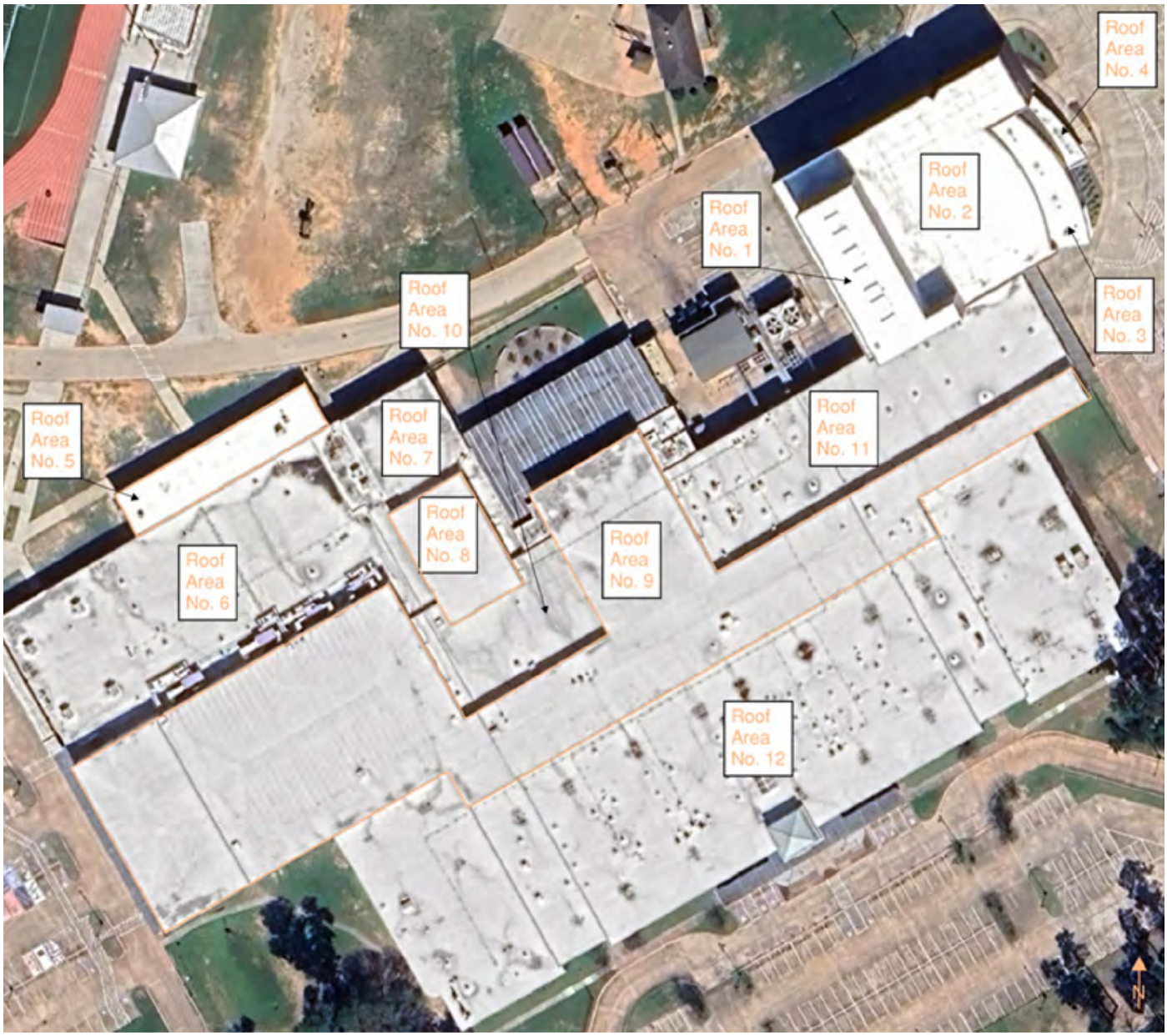
- Throughout most of the original building area roofing systems (Roof Area Nos. 6 - 12), SEAL observed a low-slope modified bitumen roofing system. Throughout Roof Area Nos. 1 – 5 (the later building additions), SEAL observed a thermoplastic polyolefin (TPO) roof system. These system descriptions were confirmed based on reports and documents provided to SEAL. The documents indicated the roofing systems were approximately 2 and 5 years old, respectively. During our site walk, SEAL detected minimal soft areas to the roofing substrates.
- The main drainage systems of the low-slope roof areas were as follows:
  - Roof Area No. 1 sloped towards the West roof edge which drained into prefinished sheet metal gutters with downspouts which discharged down to adjacent roof areas.
  - Roof Area No. 2 sloped towards internal cast iron roof drains along the South edge of the roof and through-wall scuppers with conductor heads along the North edge of the roof which discharged at grade.
  - Roof Area Nos. 3 – 5, and 12 sloped towards internal cast iron roof drain assemblies with dome strainers throughout the roof area (primary and secondary/ overflow).
  - Roof Area Nos. 6 and 7 sloped towards internal cast iron roof drain assemblies with dome strainers throughout the East perimeter of the roof area (primary and secondary/ overflow).
  - Roof Area No. 8 sloped towards the East and West perimeters of the roof which drained into prefinished sheet metal gutters and downspouts which discharged to adjacent roof areas.
  - Roof Area No. 9 sloped towards the perimeters of the roof which drained into prefinished sheet metal gutters and downspouts which discharged to adjacent roof areas and at grade.
  - Roof Area No. 10 sloped towards the North roof edge which drained into prefinished sheet metal gutters with downspouts which discharged down to adjacent roof areas.
  - Roof Area No. 11 sloped towards internal cast iron roof drain assemblies with dome strainers throughout the North perimeter of the roof area (primary and secondary/ overflow).
- At the TPO roof-to- prefinished sheet metal wall assembly along the rising wall at Roof Area No. 2, SEAL observed at least ten feet of the roof membrane to be unadhered from the wall and disengaged from the underlying membrane flashing. It appeared the exposed membrane was an overlay to an underlying membrane. This condition was susceptible to water infiltration into the roof and wall assemblies. Additionally, SEAL observed the flashing membrane to be unadhered along the base-of-wall throughout other portions of the rising wall around the high performing arts center tower.



EXECUTIVE SUMMARY / KEY FINDINGS

- Along the West edge of Roof Area No. 1, SEAL observed exposed fasteners at the horizontal flange of the sheet metal edge flashings at this TPO roof area where membrane flashing was omitted did not observe roof edge membrane flashing/stripping ply. SEAL observed the fasteners along the edge metal to be exposed and corroded. Additionally, SEAL observed unsealed fastener holes in the roofing membrane adjacent to the edge flashing. An additional anomaly related to this location was the elevation of the nailed flange relative to the roofing surface. This condition resulted in retained water along the roof flange. These conditions increased susceptibility of water infiltration.
- Throughout the various TPO roof areas, SEAL observed a number of membrane abrasions and surface irregularities. In at least one isolated location, SEAL observed small puncture through the roof membrane.
- Throughout Roof Area No. 3, SEAL observed unadhered membrane at the sheet laps throughout the roof area. This roof area was not closely accessible due to access limitations. The unadhered membrane was susceptible to punctures and continued adhesion loss which may lead to membrane damage or displacement.



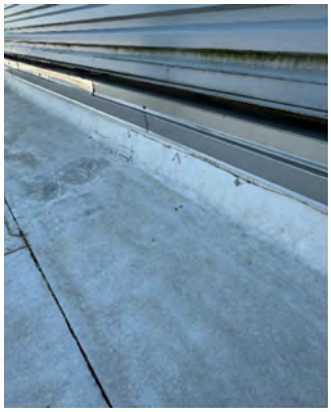
EXECUTIVE SUMMARY / KEY FINDINGS

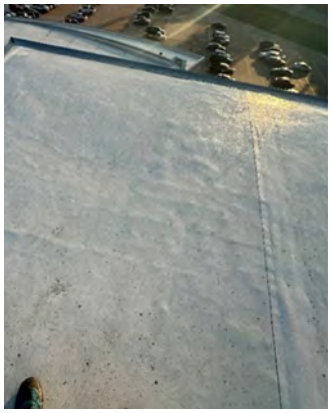
- At the Southeast corner of Roof Area No. 1, SEAL observed concentrated membrane wrinkles throughout the roof area. The wrinkles were indicative of partially unadhered roof membrane which increases susceptibility to future wind uplift.
- At the coping along the North parapet wall of Roof Area No. 2, SEAL observed exposed fasteners and deteriorated sealant residue throughout the coping corner joints of this roof area. and unsealed coping laps in other locations. Additionally, SEAL did not observe sealants or other sealed metal joinery throughout the TPO roof areas.
- Throughout Roof Area No. 12, SEAL observed roof drainage assemblies comprised of interior cast iron roof drains with dome strainers. SEAL observed sedimentation and granule loss around roof drain assemblies common to areas which experience water retention. Additionally, SEAL observed organic debris around drains that impeded drainage in a number of locations (yellow arrow).
- SEAL observed a path of water emanating from a HVAC condensate piping from the South side of the roof and water retention at the Northeast corner of Roof Area No. 6. Additionally, SEAL observed an approximately 10” tall plant growing on the roof in one of the wet areas indicating long term moisture presence on the roof surface and delayed roof top maintenance.
- At Roof Area No. 9, SEAL observed a few isolated roof membrane locations that exhibited small areas of granule loss and exposure of the underlying asphaltic membrane mat. Exposed asphalt is susceptible to accelerated roof degradation.
- At the Eastern middle portion of Roof Area No. 12, SEAL observed a sloped, translucent fiberglass curb-mounted skylight assembly in a panelized assembly. The surface of the panels exhibited organic growth obstructing the surface condition and interfaces. Perimeter prefinished sheet metal flashing was observed at the skylight perimeter-to-roof curb interface and was lapped over the vertical roof base flashing and concealing the roof membrane base flashing termination.

Recommendation:

Low-Slope Roofing System

Based on our observations to date, it is our opinion the existing low-slope roofing system was recently installed, in a generally serviceable condition, and was generally solid underfoot. We understand the low-slope, modified bitumen roofing system was manufactured by Performance Roof Systems (Derbigum). Based on the documents provided, including a WISD Summary, it is our understanding the roofing system approximately three years old. One roofing industry study indicates a mean 18-year service life of a modified bitumen roof assembly. In our experience, quality modified bitumen systems can last up to 40 years with proper maintenance and proactive coating to protect the roof membrane and concealed components of the roofing substrate.



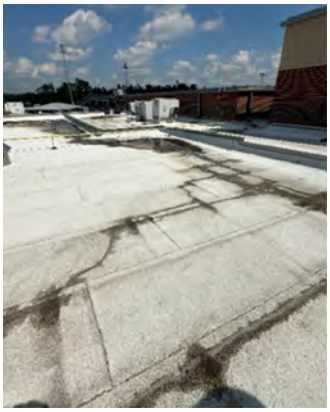
EXECUTIVE SUMMARY / KEY FINDINGS

The TPO roofing membrane was also relatively new and did not exhibit conditions that would require significant repair or replacement at this time. It is our opinion that both roofing systems are likely under warranty.

Short-term Recommendations (<10 Years):

- MT: Identify roofing manufacturers, warranty terms, and warranty requirements and provide to building maintenance/engineering staff for reference and repair assistance.
- MT: Provide roofing specific training for WISD personnel to facilitate proactive identification of roofing anomalies, storm damage, and other conditions that can reduce service life.
- MT: To proactively identify roof damage and wear, as well as maintain assumed roof warranty requirements, inspect the low-slope roofing membrane bi-annually and following significant storm events with high volume rains and/or high winds. Properly repair all damage and wear as it is identified. Third party, credentialed roofing specialists should be considered for these building-specific evaluations.
- MT: To address the sedimentation and retained water/moisture in the roof drain sumps and other isolated locations at the modified bitumen roof areas, provide reinforced liquid flashing system (Soprema Alsan RS system) within the entire insulation sump and other locations to provide monolithic cover to project the existing roof membrane and extend its overall service life. For budgetary purposes, sump size should be considered as approximately 16'x16'.
- MT: Investigate condensate line leakage with mechanical engineering consultant. Repair or replace to eliminate consistent, concentrated water flow at Roof Area No. 6.
- Level 3: Coordination with TPO roofing manufacturer to inspect and replace deficient conditions at roof base flashing and roof edge metal flashing to restore like new conditions considering the work was not properly installed during its initial installation. Complete a moisture survey (infrared, capacitance, or nuclear with accompanying secondary verification (roof cores preferred at that time) around to ensure that moisture or bulk water has not entered the roofing system.
- MT: Remove and replace roofing-related sealants, including those at sheet metal flashing assemblies and roofing penetrations.
- MT: Restore granules or apply compatible liquid applied flashing system to areas where granules are displaced (approximately 20 SF).
- MT: Complete electronic leak detection at TPO roofing systems to identify any breeches within the existing TPO roofing membrane.
- Level 1: Investigate skylight assembly and repair as required.







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Intermediate Term Recommendations (10 years to 20 years)

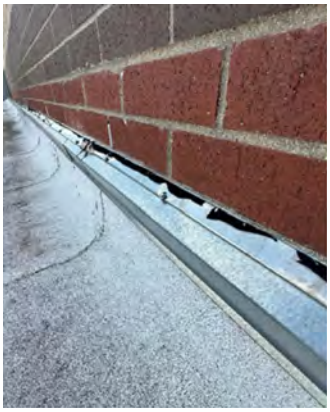
- Level 3: Complete a visual and moisture survey (infrared, capacitance, or nuclear with accompanying secondary verification (roof cores preferred at that time) around Year 10 to address any significant areas of concern. Coordinate coring, if any, with roofing manufacturer for proper repair.
- MT: Re-evaluate the roofing assemblies at 5 years intervals with visual and moisture surveys. Address/repair any deficiencies noted in conjunction with the
- Level 3: Based on typical TPO system life expectancy, budgeting for the TPO roof replacement should be included. For added longevity, the existing TPO roofing system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system manufactured by Soprema or Siplast with no less than a 20-year No Dollar Limit warranty. The roof assembly should consist of a mechanically-attached gypsum substrate board (where applicable), torch-applied 100-mil minimum vapor barrier, new rigid and tapered roofing insulation, and a gypsum fiber (non-faced) coverboard. A preformed tapered insulation sump should be placed at all primary roof drains. Reinforced liquid flashing system is recommended at all roof penetration and as a supplement to the roofing membrane in the insulation drain sump. New prefinished sheet metal copings, gutters, and flashings should be provided with the new roofing system.
- Level 3: Based on typical modified bitumen roofing systems longevity, a protective, high quality roof coating should be provided between Year 10 and 15 following a roof moisture survey to ensure that coating substrate is dry prior to coating application.
- MT: Replace roofing-related sealants and coatings at 10-year intervals.
- Level 1: Remove and replace large curb-mounted skylight assembly with skylight manufactured by Skyline Sky-Lites, LLC.

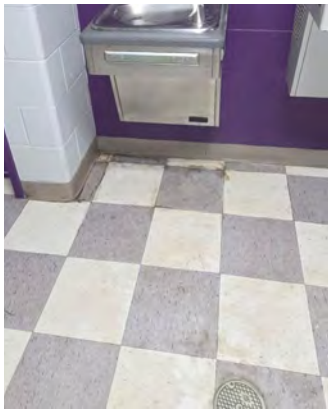
Long Term Recommendations (>20 Years):

- MT: With roofing systems at or below 10 years in service, proactive and proper roofing maintenance and coating programs should enable the Owner to enhance long-term performance and sustain the installed roofing systems.
- MT: Replace roofing-related sealants and coatings at 10-year intervals.

FLOORS

Multiple isolated flooring deficiencies were observed throughout the facility, including damaged, missing, or heavily worn VCT at individual areas that can be addressed by the district's maintenance staff. Several locations also require resealing, repair of floor box covers, and expansion joint repairs prior to replacing adjacent VCT. Although flooring was reportedly replaced in summer 2021, certain areas display higher levels of wear and tear than would be expected, however are isolated and can be addressed by district maintenance personnel. . Full VCT replacement should be considered in 10–15 years, while carpet replacement should be planned for in the next 5–10 years.



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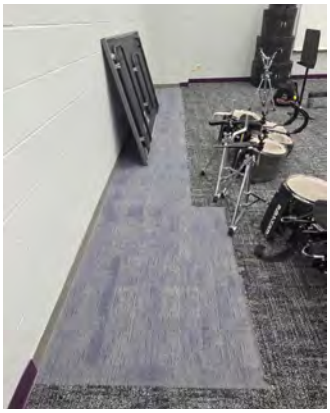
DOORS

Existing Conditions:

Steel and Aluminum-Framed Glazing System(s) And Doors

- At the South building elevation, SEAL observed a main entrance assembly comprised of three painted double-leaf steel-framed doors with integral side lites and transom glazing, as well as a stucco soffit. SEAL observed the weatherstripping between the doors was deteriorated and exhibited a number of unsealed openings, common to an aged condition. This condition may allow for uncontrolled air leakage from the assembly. Additionally, SEAL observed the main entrance canopy from the interior of the building. Daylight was observed through unsealed gaps between many of the door stiles and thresholds. These conditions were susceptible to water infiltration into the building.
- At several steel-framed hollow metal door-to-brick masonry veneer interfaces along the North building elevation, SEAL observed the sealant joint around the door frame was missing/ omitted from the original building construction. These conditions do not maintain a sealed interface between the building materials and the door frame and are susceptible to water and air infiltration.
- At the East performing arts center elevation, SEAL observed a main entrance assembly comprised of two double-leaf aluminum-framed doors and curtainwall glazing. Based on markings on the door units, it appeared the glazing system was manufactured by Kawneer.
- At the roof access door at Roof Area No. 2, SEAL observed missing/ deteriorated sealant around the door frame (orange outline) where interior (normally concealed) components of the wall assembly were visible. Note, SEAL observed stains on interior finishes corresponding to this location beneath the door sill and interior stair landing .
- At the curtainwall-to-concrete foundation along the East elevation of the performing arts center, SEAL observed multiple areas along the interface to be unsealed. Additionally, SEAL observed the curtainwall mullion to building foundation interface to be minimally sealed.
- SEAL observed many of the curtain wall system weep holes along the East elevation of the performing arts center to be partially or fully blocked by a material. Additionally, SEAL observed several short gaskets with sealant at gasket corners. It was unclear whether the short gaskets were the result of inadequate initial installation or had shrunk due to age and exposure.
- Throughout the various building elevations, SEAL observed clerestory windows along the upper level of the North and South building elevations. Clerestory windows were comprised of painted steel-framed windows with insulated glass units (IGU's).Windows were observed to be in a generally aged condition with wet seal remediation and exposed fasteners at the exterior glazing stops. Additionally, SEAL observed many of the window frames to exhibit worn and faded paint.
- SEAL observed a typical clerestory window assembly from the interior of the building. The window assemblies were in a generally aged condition, and the glass exhibited fogging and staining in most of the units.






EXECUTIVE SUMMARY / KEY FINDINGS

Recommendation:

Steel-Framed Glazing System(s) And Doors

Based on our observations of the existing glazing and fenestration systems, it is our opinion that the aluminum and steel assemblies have different installation times frames and varying remaining services life expectations, including seals and gaskets. The following outlines our glazing and fenestration-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- Level 4: The primary recommendation for performance is to replace all steel framed window and door units with new thermally-broken or improved aluminum-framed storefront glazing and door systems.
- Alternatively, if budget limitations prevent replacement of the window assemblies, the following maintenance may be performed.
- MT: Replace insulated glass units (IGU's) that exhibited fogging or stains with new insulated glazing unit window assemblies.
- MT: Replace of perimeter joint seals around all glazing and door systems.
- MT: Replace or trim glazing gaskets and wet seal existing window systems to assist with water resistance.
- MT: Remove and reset or replace existing door thresholds and sealing door system to adjacent wall
- MT: Replace all door weatherstripping.

Intermediate and Long Term Recommendations (10 to >20 Years):

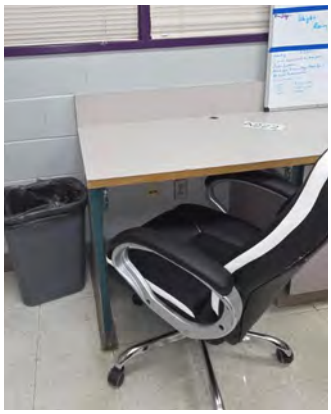
- Level 4: If window units are not repaired in the short term, replace all windows and doors assemblies with new and higher-performance systems, including insulated glass units at or around Year 10.
- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals.
- Level 2: Remove and replace glazing gaskets and/or wet seal existing window systems to maintain water resistance with high-performance DowSil silicone glazing sealant.
- MT: To proactively identify sealant wear and deterioration, inspect sealants and gaskets bi-annually and properly repair as required to maintain continuity and adhesion.
- MT: Remove and replace perimeter joint seals around all glazing and door systems with high performance DowSil silicone sealants appropriate for the substrates required.

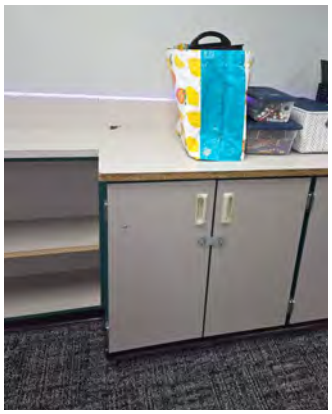
Interior

The facility has multiple door deficiencies, including damaged PLam and hollow metal doors, missing doors, and worn or chipped finishes. Several doors also have loose or failing hardware, and some door and window trim requires repair. A targeted repair and replacement effort, that can be handled through district staff, is recommended to address these issues and restore consistency throughout the building.









EXECUTIVE SUMMARY / KEY FINDINGS

MILLWORK / CASEWORK

Casework throughout the facility shows varying levels of wear consistent with multiple additions over time. While many instances only require localized repair—such as replacing damaged components, missing doors, or addressing isolated deterioration—the majority of casework in the main high school building is in overall fair condition. A phased, full replacement should be considered in approximately 5–10 years, with interim repairs performed as needed to maintain functionality.

CEILING

Stucco-Clad Wall and Ceiling Assemblies

Based on our observations of the existing stucco-clad ceilings at the recessed South elevation walls and recessed entrance ceiling areas, it is our opinion that the stucco wall assemblies are in generally serviceable condition with minimal, if any, cracks or stains. Considering its partially exposed condition, these assemblies are likely to avoid direct exposure from the more significant weather conditions. The following outlines our stucco-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Inspect stucco assemblies bi-annually to identify any damage or wear and repair as required to maintain continuity and service.

Intermediate Recommendations (10 to >20 years):

- MT: Route and seal any existing cracks in the stucco cladding (if suitable aesthetic can be obtained).
- MT: Re-coat the existing stucco wall and ceiling panels with a DowSil Allguard-type silicone elastomeric coating after repairs. Replace sealants and coatings as described above at 10 to 15-year intervals.
- MT: Installation of additional control joints to limit the stucco panels to 144 sq.ft. and limit the length-to-width ratio to no more than 2.5:1.

Interior

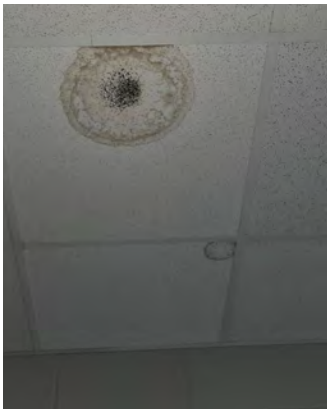
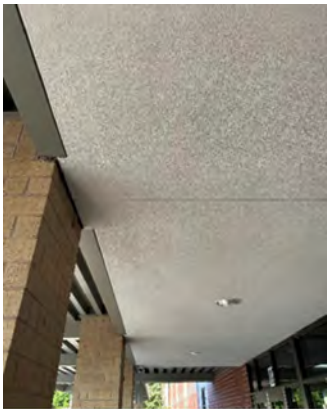
Ceilings across the facility show isolated instances of damage, including water-stained, sagging, or missing tiles, and occasional damaged supply grilles or open light-fixture covers. These localized issues should be repaired as needed to maintain finish quality and prevent further deterioration. Overall, ceilings were observed to be in fair condition, and a full ceiling replacement should be considered within the next 5–10 years as part of a long-term capital improvement plan.

KITCHEN

Rating Criteria:

- Priority 1: Poor – Immediate replacement (0-5 life expectancy)



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- Priority 2: Poor/Fair – Should be replaced (5-15-year life expectancy)
- Priority 3: Fair – Replacement not needed currently (15-20-year life expectancy
- Priority 4: Good – Replacement not needed (20-25-year life expectancy)
- Priority 5: MT – Maintenance required
- Priority 6: MI – Missing or not present

Architectural:

- Floor: Fair/Poor
- Ceiling-Kitchen : Fair/Poor
- Walls: Fair/Poor
- Floor Sinks: Poor
- Electrical Panels: Fair/Poor
- Ceiling-Servery: Fair/Poor
- Cafeteria Square Footage: Fair/Poor

Recommendations:

- Owner has been proactive in replacing kitchen equipment, overall the kitchen is undersized and recommended to be increased to 8000 sq feet. Replace all priority 1/2 items, code items, and any equipment missing due to insufficient square footage.
- Cold storage assembly is undersized. Increase square footage to 853 SF to accommodate student population.
- Dry storage is undersized. Increase square footage to 576 SF to accommodate student population.

Receiving:

The following pieces of equipment are in poor condition:

- Air Screen

The following pieces of equipment are in fair condition:

- Receiving Corridor

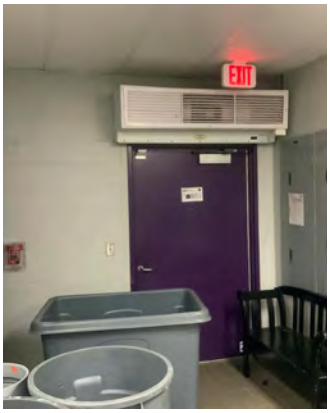
Cold Storage Assembly:

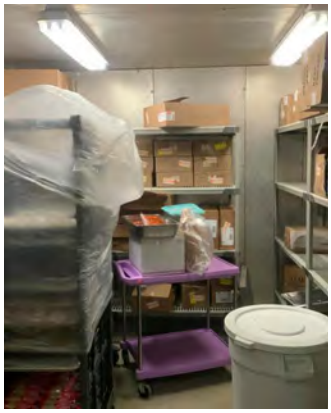
The following pieces of equipment are in fair / poor condition:

- Cold Storage Assembly

The following pieces of equipment are in fair condition:

- Cold Storage Assembly - Exterior









EXECUTIVE SUMMARY / KEY FINDINGS

Preparation:

The following pieces of equipment are in fair condition:

- Ice Maker With Bin - 500 Lb Capacity
- Two Compartment Sink W. Disposer
- Worktable No Overshelf

The following pieces of equipment are missing or not present:

- Hand Sink - Wall Mounted

Bakery:

The following pieces of equipment are in poor condition:

- Baker's Table

The following pieces of equipment are in fair condition:

- Pan Rack
- Hand Sink - Wall Mounted
- Exhaust Hood

Production:

The following pieces of equipment are in fair condition:

- 40 Gallon Kettle-Electric
- Insulated. Mobile Proofer

The following pieces of equipment are missing or not present:

- Hand Sink - Wall Mounted

Holding:

The following pieces of equipment are in fair condition:

- Pass-Thru Heated Cabinet- 2dr
- Pass-Thru Refrigerator - 2dr

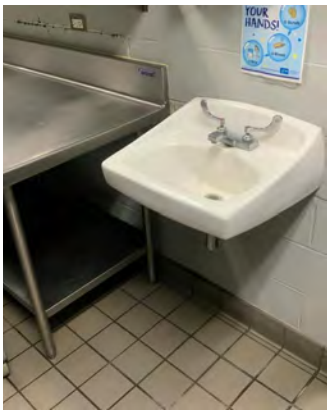
Servery:

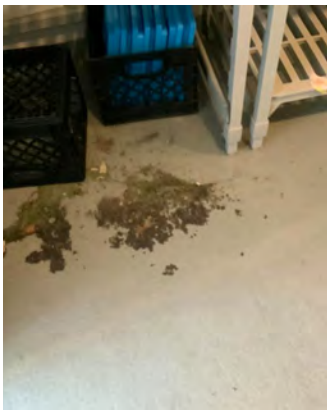
The following pieces of equipment are in fair condition:

- Serving Area 1









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Warewash:

The following pieces of equipment are in poor condition:

- Three Compartment Sink With Disposer

The following pieces of equipment are in fair condition:

- Disposer-Cone Mount
- Conveyor Dishmachine W. External Booster
- Booster Heater
- Soiled & Clean Dishtable
- Hand Sink - Wall Mounted
- Disposer-Sink Mount

The following pieces of equipment are missing or not present:

- Mobile Drying Rack

**All equipment/areas not specifically listed should be assumed to be in good condition, meaning replacement not needed till end of life cycle, 20-25 year life expectancy.*

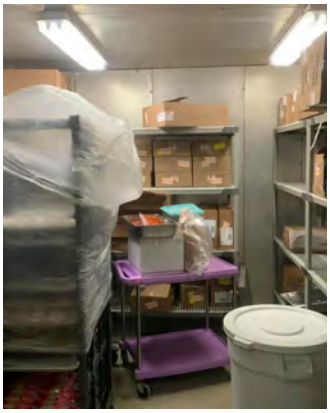
MEP

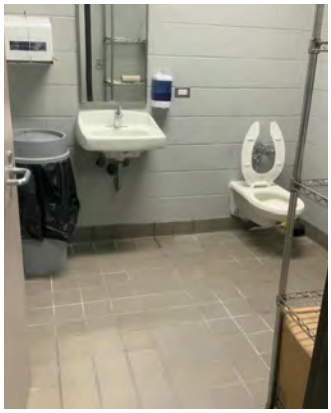
Existing Conditions:

- **Cooling/Heating System:** Chilled water system. VAV boxes. Heating is gas-fired.
- **Energy Mgmt. System:** Automated Logic, System 2020. All digital controls. Temperature control, trending of systems, system start/stop from remote location, full graphic system, and humidity sensors.

Recommendation:

Willis High School was Built in 1996 with additions and renovations up until 2019. HVAC is a chilled water system with indoor air handlers and VAV boxes. The pony chiller is scheduled to be replaced in 2025, but has not happened at the time of this report. Once it is replaced, it will need to be addressed for lifecycle replacement in 20-25 years. Primary chiller was replaced in 2015 and will need to be addressed for lifecycle replacement in 5-15 years. Indoor air handler units were replaced in 2023 and will need to be addressed for lifecycle replacement in 20-25 years. VAV units located in the original portion of the building are at lifecycle replacement. Fan Coil Units are 14+ years old, but the owner expressed multiple issues with them. Lifecycle replacement would be 5-10 years, but recommend replacing them sooner based on ongoing issues. The lavatories currently do not have hot water, adding hot water is not currently required, but it is recommended for code compliance. Any future renovation that involved plumbing fixtures would require the building be brought up to code.



EXECUTIVE SUMMARY / KEY FINDINGS

LIGHTING

Lighting throughout the campus is currently fluorescent. While LED upgrades are not required, they are highly recommended for energy savings and to support code compliance.

TECHNOLOGY

Audio Visual:

- **Auditorium** – Install a new system including a new projector, motorized tab-tensioned screen, control system, HDMI inputs in multiple locations, video distribution, and wireless presentation, recommended in 8–10 years
- **Black Box** – Replace the full AV system including new projector, motorized screen, control system, HDMI input, and wireless presentation, recommended in 3–5 years.
- **Drama Lab** – Replace the full AV system with a new projector, motorized screen, control system, HDMI input, and integrated sound, recommended in 3–5 years
- **Cafeteria** – Replace the full AV system including a new projector, motorized screen, control, HDMI input, and wireless presentation, recommended in 1–2 years.
- **Classrooms** – Add Promethean boards to classrooms to align with district standards; most rooms currently do not have these, recommended as part of future instructional technology upgrades.
- **Conference Rooms** – Add conferencing devices to support full conferencing capability, recommended as part of future technology improvements.

Sound Systems:

- **Auditorium** – Complete a partial system upgrade including replacement of speakers, mixing console, amplifiers, SMP, wireless infrastructure, and integration of the production intercom system into the black box, recommended in 8–10 years.
- **Black Box** – Replace the full sound system and upgrade infrastructure to allow speakers to be placed anywhere on the grid, using mobile mixer and rack for all I/O, recommended in 3–5 years.
- **Drama Lab** – Replace the full sound system with equipment including media players, recorder, Bluetooth connectivity, and amplifier for typical music/large group instruction use, recommended in 3–5 years.
- **Cafeteria** – Replace the sound system with a distributed wired/wireless system providing basic connectivity, recommended in 3–5 years.

Acoustics:

- **Auditorium** – Address audible wind noise that is impacting acoustic performance on stage, recommended as part of future acoustic and mechanical improvements.
- **Black Box** – Add acoustic treatments to walls and underside of deck to improve sound isolation, recommended as part of future facility enhancements.

Theatrical:

- **Auditorium** – Correct theatrical lighting issues including replacing surface-mounted upstage wall box faceplates with proper surface-mount style, recommended as part of future lighting improvements.
- **Auditorium (Rigging System)** – Address deficiencies in the 21-lineset counterweight system including rebalancing, retrimming hand lines, adjusting shell ceilings and towers, and correcting out-of-balance valence, recommended as part of future safety and functionality upgrades.
- **Auditorium (Fire Curtain)** – Repair fire curtain manual pull and magnetic release, correct slow deployment time, restore motorized control, and address hoist functionality, recommended as a safety-driven improvement.

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- **Auditorium (Drapery Defects)** – Correct rattling in Traveler #3 and #2, address sandbag dragging and paint issues, repair end stops and master carriers on rear curtain track, and resolve periodic knocking/rattling in electrics and legs, recommended as future theatrical system maintenance.
- **Black Box (Rigging Track)** – Correct curtain track support by replacing dog-chain suspension with proper pipe support and ensure all track hardware meets performance standards, recommended as part of future theatrical improvements.
- **Black Box (Draperies)** – Replace or treat draperies to restore fire retardance; existing cotton velour curtains lack NFPA tags, recommended as part of safety improvements.

PA

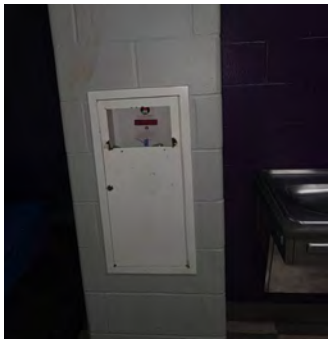
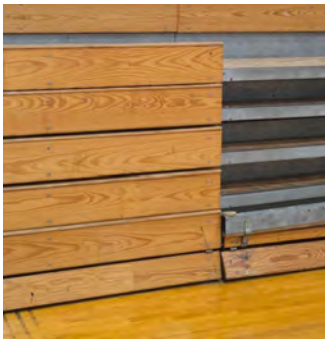
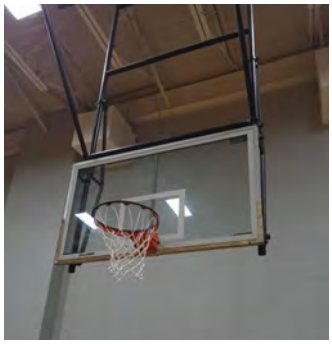
- **Admin Areas** – Add volume controls to support confidential meetings without interruption from announcements, recommended as part of ongoing improvements.
- **Interior & Exterior Areas** – Add PA speakers to improve insufficient interior and exterior coverage, recommended as part of ongoing improvements.

SECURITY

- **Campus wide** – Replace all Hikvision and Advidia cameras with NDAA-compliant Hanwha units, with efficiency gained by converting to multi-sensor devices, immediate action recommended.
- **All Exterior Doors** – Add DPDT door contacts to monitor door status, tied into access control and intrusion systems to alert when forced or propped, immediate action recommended.
- **Reception** – Add a camera in the vestibule for improved entry monitoring, recommended as soon as feasible.
- **Cafeteria** – Add additional camera coverage, recommended as soon as feasible.
- **Gyms** – Add sufficient coverage in all three gyms; each currently has only one camera mounted ~20', recommended as soon as feasible.
- **Weight Room** – Add cameras for improved visibility in the weight room, recommended as soon as feasible.
- **Nurse (Doors)** – Add card readers to both doors for controlled access and emergency lockdown capability, immediate action recommended.
- **Nurse (Desk)** – Add panic button for emergency lockdown, immediate action recommended.
- **Library** – Add cameras for general coverage, recommended as soon as feasible.
- **Tech Storage** – Add card reader and camera for controlled access and coverage, recommended as soon as feasible.
- **Kitchen** – Add cameras for general coverage, recommended as soon as feasible.

MISC

Wooden bleacher replacement is recommended immediately. In addition, the backboards within the gym were observed to be in poor condition aesthetically. At this time the backboards remain functional for their purpose, however, the district should consider replacement in 15-20 years.

CAREER AND TECHNOLOGY CENTER

11

HISTORIC DATA

In 2018 three new additions were added to the High School, the Career & Technology Center, the Agricultural Science Center and the new athletic additions.

Construction of approximately 120,000 square foot Career & Technology Education Center began in February 2017, with a completion date of August 2018. Balancing of the HVAC system in Career & Technology Center and the Agricultural Science Center had to be done in May 2018. This is a two level building designed specifically for our Career based programs we have to offer; Agriculture, Ag Science, Audio Visual, Auto Mechanics, Business Management, Construction Technologies, Cosmetology, Criminal Justice, Culinary Arts, Digital Media, Family Consumer Science, Health Science, Internet & Computer Programming, and Media Technology.

**All historical data and supporting information included in this report were furnished by the district. While the assessment team has made reasonable efforts to review and reference this material, the data has not been independently verified or validated in detail. The team assumes no responsibility for any inaccuracies or omissions contained within the district-provided information.*

GENERAL INFORMATION



CAREER & TECHNOLOGY CENTER 40 FM 830 Willis, TX 77378	
Year(s) Built:	2018
Approx. Total Building Square Footage	120,000
Approx. Total Site Area	37 acres*

*Site is part of the Willis High School Campus.

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

Accessibility within the CTE Center seems to be in general compliance with TAS. The building is equipped with a fire suppression system and appears to be in good condition.

SITE CONDITIONS

Upon review of the site conditions at the CTE Center it appears that the site is in a relatively good condition. No apparent major areas of concern were identified.

FOUNDATION

At specific base of wall glazing system conditions, SEAL observed the concrete floor slab/foundation extended beyond the face of the recessed glazing. SEAL observed cracks in the foundation that were perpendicular to the glazing system and the foundation edge In several locations, cracks were observed to extend beneath the glazing system and the perimeter seal. These conditions were susceptible to water infiltration.

EXTERIOR WALLS

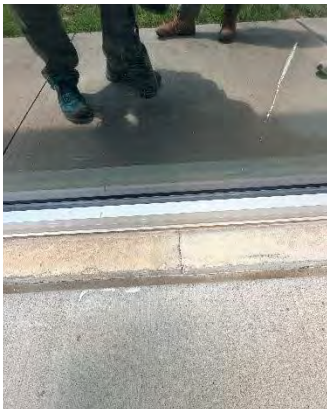
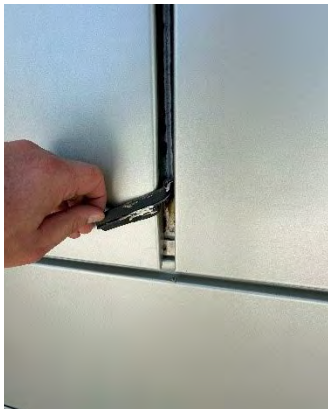
Existing Conditions:

Metal Wall and Soffit Panel Assemblies

- Aluminum composite material (ACM) panels were observed throughout the various building wall elevations and soffit locations. At the main entrance along the South elevation, SEAL observed the building expansion joint through the metal panel soffit assembly to be in an unconventional location (as noted above). The route and continuity of the expansion joint was not prominent or readily discernable in the soffit and exterior wall assemblies.
- Throughout the various building elevations, SEAL observed the ACM wall panel gaskets were displaced or missing. Displaced gaskets were likely to allow water and air penetration into the cladding system and potentially within the building.

· Cast Stone Masonry Units (CMU) And Brick Masonry Veneer Walls

- Throughout the building elevations, SEAL observed a mix of brick masonry veneer cladding with CMU accent bands.. The multi-story punched window openings contained perimeter accent bands including sloped/ chamfered sill profiles. At the window sills, SEAL observed the horizontal and sloped units exhibited cracks, staining, and remedial sealants at window interfaces. Additionally, SEAL observed cracked mortar, including bond line cracking, at many of the CMU joints. The CMU assemblies also exhibited cracked mortar joints between the CMU and brick veneer. These conditions were typical throughout the window assemblies of the building.



EXECUTIVE SUMMARY / KEY FINDINGS

- Throughout the various building elevations, SEAL observed vertical brick masonry expansion joints to separate brick wall areas and horizontal soft joints to accommodate movement at building floor lines. At these locations, SEAL observed the sealant joints exhibited adhesive and cohesive failure indicating evidence of age and excess exposure relative to the sealant type. This condition was susceptible to water infiltration into the wall assembly.
- SEAL observed brick masonry veneer full head weep joints at approximately 16" o.c. at most areas of the building. At the Northeast corner of the building, SEAL observed a few small areas where weep holes were omitted from the masonry wall cladding.

Recommendation:

Metal Wall Panel Assemblies

Based on our observations of the existing flush-mounted metal wall and ACM wall panel assemblies, it is our opinion the metal panels to be in a generally serviceable condition. Our observations did not dictate short-term remedial actions. The following outlines our metal panel-related recommendations:

Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: Inspect and repair any panel damage or displacement.
- Sealing wall penetrations, unsealed metal-to-metal joints, and perimeter joints with high performance DowSil silicone sealants appropriate for the substrates required and backer rod.
- Replacement of omitted, missing, or loose metal panel closures.

CMU And Brick Masonry Veneer Walls

Based on our observations of the existing masonry wall assemblies, it is our opinion the CMU and brick masonry veneer were recently installed and within the early portion of their service life. The following outlines our masonry-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Repairing of cracked/displaced CMU and brick masonry units, including tuckpointing/filling of mortar joints.
- Level 1: Remove existing mortar at the CMU window perimeter-to-brick masonry veneer interface and apply new high performance DowSil silicone sealants appropriate for the substrates required and backer rod to accommodate differential movement between the varying masonry substrates.
- MT: Removal and replacement of sealants at control joints where required with high performance DowSil silicone sealants appropriate for the substrates required and backer rod.

EXECUTIVE SUMMARY / KEY FINDINGS

Intermediate and Long Term Recommendations (10 to> 20 Years):

- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals.

INTERIOR WALLS

Interior walls show light surface damage, including chair marks, furniture scuffs, and other minor blemishes that require patching and touch-up painting.

WINDOWS

Existing Conditions:

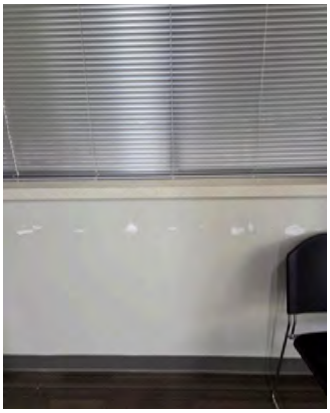
Aluminum-Framed Glazing, Entrance, and Door Systems

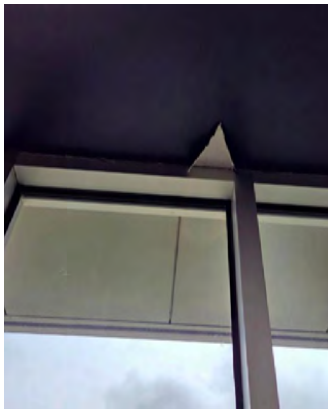
- Throughout the various building elevations, SEAL observed aluminum-framed storefront punched window openings, entrances and door systems. Based on the markings at the main entrance, these glazing systems were manufactured by Kawneer. Additionally, SEAL observed door systems to exhibit uncontrolled air leakage for at least one location.
- At the window perimeters (window-to-masonry interface), SEAL observed the sealant did not exhibit excessive visible wear or deterioration and was generally adequately adhered to the joint substrates.. At the window units, SEAL observed the exterior glazing gaskets to be short and aged. It was unclear whether the short gaskets were the result of inadequate initial installation or had shrunk due to age and exposure.
- SEAL observed many locations without sealant at the window metal-to-metal joinery throughout the various glazing and entrance systems.
- At the North and South elevations of the building (primary building entrances), SEAL observed floor-to-floor storefront glazing systems. These aluminum-framed system consisted of 2” wide framing and at the First level extended from the floor slab to metal cladding at the floor line. The glazing on the Second level extended from the metal panel assembly up to the metal soffit panels above. These systems did not exhibit visible deficiencies or evidence of damage or deterioration.

Recommendation:

Aluminum-Framed Glazing, Entrance and Door Systems

Based on our observations of the existing glazing and fenestration systems, it is our opinion that the curtain wall/ storefront, window and door systems, including seals and gaskets, were installed recently and are within their reasonable service life. The following outlines our glazing and fenestration-related recommendations:






EXECUTIVE SUMMARY / KEY FINDINGS

Short Term Recommendations (<10 years), including immediate:

- MT: To proactively identify sealant wear and deterioration, inspect sealants and gaskets bi-annually and properly repair as required to maintain continuity and adhesion.
- MT: Remove and replace perimeter joint seals around all glazing and door systems with high performance DowSil silicone sealants appropriate for the substrates required.
- MT: Remove and reset or replace existing door thresholds and sealing door system to adjacent wall.
- MT: Remove and replace all existing door weatherstripping with new materials.

Intermediate and Long Term Recommendations (10 to >20 years):

- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals.
- Level 2: Remove and replace glazing gaskets and/or wet seal existing window systems to maintain water resistance with high-performance DowSil silicone glazing sealant.

ROOF

Existing Conditions:

· Low-Slope Roofing System

- Throughout the entire roofing system, SEAL observed a low-slope thermoplastic polyolefin (TPO) roofing membrane. This system description was confirmed based on reports and documents provided to SEAL. The roofing systems were approximately seven years old and original to the building. During our site walk, SEAL noted the existing roof system/substrate to be solid underfoot in most locations.
- The main drainage systems of the low-slope roof areas were as follows:
    - Roof Area Nos. 1 and 2 sloped towards internal cast iron roof drain assemblies with dome strainers along the West and South perimeters, respectively.
    - Roof Area No. 3 sloped to the West edge which drained to prefinished sheet metal gutters with downspouts that discharged down to grade.
- Along the West perimeter of Roof Area No. 1, SEAL observed wrinkles in the membrane along the roof-to-roof membrane expansion joint. Wrinkling of this type is common to areas that experience unaccommodated movement. The location of the expansion joint was not conventional considering its close proximity and parallel to the roof edge. It appeared the layout was to accommodate the wide soffit assembly below, but the continuity of the expansion joint was difficult to confirm. Additionally, the adjoining smaller roof area exhibited retained water against the roof expansion joint.






EXECUTIVE SUMMARY / KEY FINDINGS

- At Roof Area No. 1, SEAL observed at least one location with substrate undulations between roof drains where small portions of the roofing membrane were not adhered. Substrate undulations were observed in isolated areas throughout multiple roof areas. Additionally, SEAL observed a patch repair adjacent to a roof area with a soft substrate. It is not clear if there is an underlying condition or past condition that had contributed to the substrate softness.
- At Roof Area No. 1, SEAL observed curb penetrations did not include counterflashing. Roof penetrations without counterflashing exhibit less head lap over the roof membrane termination resulting in susceptibility to potential windborne rain infiltration. Additionally, in at least one roof curb location, SEAL observed a stainless steel curb cap that was questionably constructed without fasteners to the curb and with a separate top sheet metal plate that was minimally attached to the underlying edge flashing and without visible solder or sealant.
- At the guy wire supports for a vertical ventilation pipe on Roof Area No. 3, SEAL observed sealant pocket flashing at the guy wire-to-roof interface. Sealant pockets exhibited crazed sealant surfacing and initial adhesion loss of the sealant to the outer metal pocket. Additionally, roofing transition conditions were observed to be poorly constructed with surface applied sealant.



EXECUTIVE SUMMARY / KEY FINDINGS

- Throughout Roof Area No. 3, SEAL observed sheet metal base flashings with sheet metal umbrella flashings at round pipe penetrations through the thermoplastic roof membrane. The umbrella flashing-to-pipe interface exhibited aged and discontinuous sealant. These areas were susceptible to water infiltration into the roofing system.
- At Roof Area No. 1, SEAL observed unadhered roof membrane and small areas of unsupported membrane at several insulation cricket valleys. These conditions were susceptible to continued adhesion loss and puncture.

Standing Seam Metal Roofing Systems

- From our vantage point of the building elevations from grade, SEAL observed several building alcoves and entry areas with floor-to-floor aluminum-framed glazing systems with accent soffit and cladding bands comprised of metal panel wall coverings. The sky-facing horizontal surfaces were covered with standing seam, prefinished sheet metal roofing systems. These roof areas were not readily accessible and therefore we were unable to complete an up-close review of the metal roofing systems.
- At the roof-to-roof membrane expansion joint between Roof Area Nos. 1 and 2, SEAL did not observe the joint to be continuous through the metal panel wall cladding at the East elevation. Additionally, SEAL observed the cladding trim around this area to be deformed, indicating unaccommodated movement within the wall cladding assembly.
- At Roof Area No. 2, SEAL observed the curb-mounted, powered exhaust fans above the culinary classroom area. These vent assemblies included grease traps to collect grease and oils within external grease traps. TPO membranes are likely to experience accelerated degradation when exposed to animal fats and oils. Additionally, SEAL observed failed sealants around static vent stacks potentially leading to water infiltration in these areas.

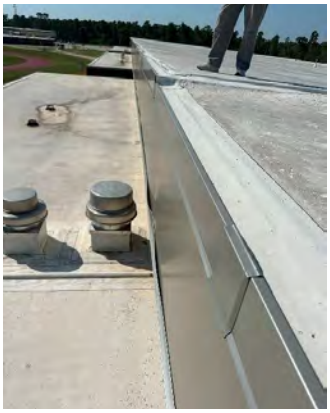
Recommendation:

Low-Slope Roofing System

Based on our observations to date, it is our opinion the existing low-slope roofing system was in a generally serviceable condition and was generally solid underfoot. One roofing industry study indicates the service life for a thermoplastic polyolefin roof membrane is 14 years. Considering the age of the roof and the likelihood that the roof system was still under warranty, it is our opinion that the roofing membrane was performing adequately, and significant roof system repairs are not currently required. The isolated wrinkling and small unadhered membrane locations did not appear to present a current concern, although inspections should be maintained to evaluate the ongoing condition. However, periodic proactive roof inspection and maintenance will be necessary to maintain the roofing warranty. The following outlines our roofing-related recommendations:









EXECUTIVE SUMMARY / KEY FINDINGS

Short Term Recommendations (<10 years), including immediate:

- MT: Identify roofing manufacturer, warranty term, and warranty requirements and provide to building maintenance/engineering staff for reference and repair assistance.
- MT: To proactively identify roof damage and wear, as well as maintain assumed roof warranty requirements, inspect the low-slope roofing membrane bi-annually and following significant storm events with high volume rains and/or high winds. Properly repair all damage and wear as it is identified. A third party, credentialed roofing specialists should be considered for these building-specific evaluations.

Intermediate Recommendations (10 to 20 years):

- Level 3: SEAL recommends completing a moisture survey (infrared, capacitance, or nuclear with accompanying secondary verification (roof cores preferred at that time) around Year 10 to address any significant areas of concern. Coordinate coring, if any, with roofing manufacturer for proper repair.
- Level 3: If the roofing system is dry, coating of membrane may be considered to restore continuity, including replacement of all roof flashings.
- Level 3: If the roofing system is wet, the existing single-ply roofing system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system manufactured by Soprema or Siplast with no less than a 20-year No Dollar Limit warranty. The roof assembly should consist of a mechanically-attached gypsum substrate board (where applicable), torch-applied 100-mil minimum vapor barrier, new rigid and tapered roofing insulation, and a gypsum fiber (non-faced) coverboard. A preformed tapered insulation sump should be placed at all primary roof drains. Reinforced liquid flashing system is recommended at all roof penetration and as a supplement to the roofing membrane in the insulation drain sump. New prefinished sheet metal copings and flashings should be provided

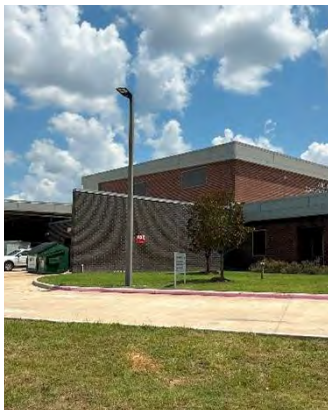
Long Term Recommendations (>20 years):

- Level 3: If not reroofed prior to 20 years due to damage or excessive wear, replace the existing single-ply thermoplastic roofing membrane with a multi-ply roofing assembly as described above.
- MT: If the roofing is replaced between Years 10 to 20, follow the inspection and maintenance protocol outlined above and prepare for roof coating approximately 7-10 years after initial roof installation.

FLOORS

Upon review of the flooring conditions at the CTE Center it appears in a relatively good condition consistent with the buildings age. No apparent major areas of concern were identified. Flooring should be considered for replacement at the end of it's life cycle: 10-12 years for carpet and 20-25 years for LVT.



EXECUTIVE SUMMARY / KEY FINDINGS

DOORS

Reference Aluminum-framed Glazing System(s) and Doors recommendation under “Windows” for door recommendations within storefront assemblies.

Upon review of the door conditions at the CTE Center it appears in a relatively good condition consistent with the buildings age. No apparent major areas of concern were identified.

MILLWORK / CASEWORK

Overall casework is in fairly new condition, consistent with the age of the facility. An isolated cabinet located at the sink along the in the back wall is damaged and should be repaired to restore functionality and maintain a clean, finished appearance.

CEILING

Existing Conditions:

Metal Soffit Panel Assemblies

Aluminum composite material (ACM) panels were observed throughout the various building soffit locations. At the main entrance along the South elevation, SEAL observed the building expansion joint through the metal panel soffit assembly to be in an unconventional location. The route and continuity of the expansion joint was not prominent or readily discernible in the soffit and exterior wall assemblies.

Stucco-Clad Wall Soffit Assemblies

At the building entrance along the North elevation, SEAL observed a stucco-clad soffit assembly. The stucco assembly did not exhibit cracks or stains consistent with distress or water intrusion.

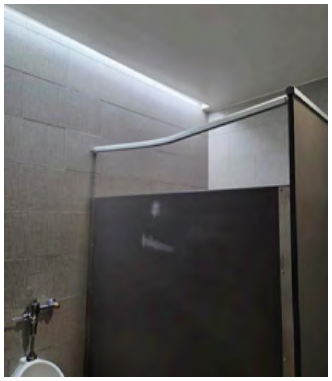
Recommendation:

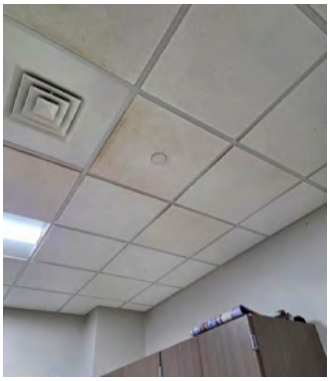
Soffit Panel Assemblies

Based on our observations of the existing ACM soffit panel assemblies, it is our opinion the metal panels to be in a generally serviceable condition. Our observations did not dictate short-term remedial actions. The following outlines our metal panel-related recommendations:

Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: Inspect and repair any panel damage or displacement.
- Sealing wall penetrations, unsealed metal-to-metal joints, and perimeter joints with high performance DowSil silicone sealants appropriate for the substrates required and backer rod.
- Replacement of omitted, missing, or loose metal panel closures.



EXECUTIVE SUMMARY / KEY FINDINGS

Stucco-Clad Wall and Ceiling Assemblies

Based on our observations of the existing stucco-clad ceilings at the recessed South elevation walls and recessed entrance ceiling areas, it is our opinion that the stucco wall assemblies are in generally serviceable condition with minimal, if any, cracks or stains. Considering its partially exposed condition, these assemblies are likely to avoid direct exposure from the more significant weather conditions. The following outlines our stucco-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Inspect stucco assemblies bi-annually to identify any damage or wear and repair as required to maintain continuity and service.

Intermediate Recommendations (10 to >20 years):

- MT: Route and seal any existing cracks in the stucco cladding (if suitable aesthetic can be obtained).
- MT: Re-coat the existing stucco wall and ceiling panels with a DowSil Allguard-type silicone elastomeric coating after repairs. Replace sealants and coatings as described above at 10 to 15-year intervals.

Overall ceilings are in fairly new condition, consistent with the age of the facility. Individual stained ceiling tiles and minor superficial wear and tear at soffit conditions should be addressed by the district maintenance staff. Overall lay-in ceiling replacement should be considered at the end of life cycle: 20-25 years.

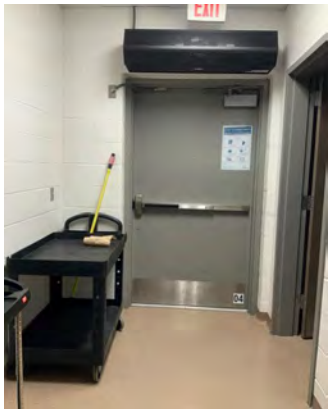
KITCHEN

Rating Criteria:

- Priority 1: Poor – Immediate replacement (0-5 life expectancy)
- Priority 2: Poor/Fair – Should be replaced (5-15-year life expectancy)
- Priority 3: Fair – Replacement not needed currently (15-20-year life expectancy
- Priority 4: Good – Replacement not needed (20-25-year life expectancy)
- Priority 5: MT – Maintenance required
- Priority 6: MI – Missing or not present

Architetural:

- Floor: Good
- Ceiling-Kitchen : Good
- Walls: Good
- Floor Sinks: Good
- Ceiling-Servery: Good



EXECUTIVE SUMMARY / KEY FINDINGS

Recommendations:
Overall in good condition. Receiving, Office, Janitors, Toilet/Locker Room, Cold Storage Assembly, Preparation, Production, Holding, Servery, Warewash, C Office, C Janitor, C Locker, C Dry Storage, C Cold Storage Assembly, C Prep, C Bake, C Prod, C WW, and C Bistro: All equipment in these functional areas is in good condition and operating as intended, with no deficiencies noted.

Dry Storage:
The following pieces of equipment are missing or not present:

- Can Rack

*All equipment/areas not specifically listed should be assumed to be in good condition, meaning replacement not needed till end of life cycle, 20-25 year life expectancy.

MEP

Existing Conditions:

- **Cooling/Heating System:** Chilled water system. VAV boxes. Heating is gas-fired.
- **Energy Mgmt. System:** Automated Logic, System 2020. All digital controls. Temperature control, trending of systems, system start/stop from remote location, full graphic system, and humidity sensors.

Recommendation:
The CTE building was built in 2018, all MEP systems are in good working condition. Mechanical equipment will need to be addressed for lifecycle replacements in 15-20 years.

LIGHTING

The CTE building was built in 2018, all lighting systems are in good working condition. Lighting equipment will need to be addressed for lifecycle replacements in 15-20 years.

TECHNOLOGY

Audio Visual

- **Culinary:** Replace the full AV system with a new projector, fixed-frame 16:9 screen, control system, HDMI input, and camera integration. This should be addressed within 3–5 years.
- **Large Group Instruction:** Replace the existing AV system with a new projector, motorized tab-tensioned screen, control system, HDMI input, wireless presentation, and sound components. This should be addressed within 5–7 years.






EXECUTIVE SUMMARY / KEY FINDINGS

- **Classrooms and Labs:** Add network switches at head-end locations and replace outdated projectors. Some spaces currently lack projectors or have unusable connection points; providing additional data ports to enable wireless projector connections is recommended. This item may be addressed at the district's discretion as scheduling allows.
- **Conference Room:** Add conferencing devices to provide full meeting and remote presentation capabilities. This may also be addressed at the district's discretion.

Sound Systems

- **Large Group Instruction:** Replace the full sound system, including new wireless microphones, distributed speakers, amplifiers, and DSP. This should be addressed within 5–7 years.
- **Control Room / Studio:** Replace the sound system with new wireless microphones, intercom systems, monitoring equipment, recording capabilities, and a new mixer. This should be addressed within 5–7 years.

PA

- **Building Interior and Exterior:** Add speakers throughout the building's interior and exterior to improve coverage. Exterior speaker coverage is inconsistent, and interior coverage is poor in several areas. This work should be addressed at the district's discretion, to avoid interruption of daily operations.
- **Administrative Areas:** Add volume controls within administrative spaces to allow meetings or confidential discussions to occur without interruption from general announcements. This may also be addressed as scheduling allows.

SECURITY

- **District-Wide:** Replace all existing Hikvision cameras with Hanwha models to ensure NDAA compliance and improve video quality. This should be addressed immediately.
- **Administrative Area:** Add a card reader to control access between reception and administration offices. This should be addressed immediately.
- **Nurse Area**: Add card readers to both doors to prevent open access from corridors to administrative zones and to allow secure lockdown in medical emergencies. This should be addressed immediately.
- **Nurse Desk**: Install a panic button at the nurse's desk to allow for emergency lockdown activation. This should be addressed immediately.
- **Culinary, Pharmacy Lab, Manufacturing, Welding, Automotive, Construction Science, and Back Patio:** Add general video surveillance coverage to improve safety and monitoring. These should be addressed within 1–2 years.
- **Corridors:** Add additional camera coverage under staircases, near restrooms, and along second-floor corridors to ensure full visibility in circulation areas. This should be addressed immediately.

MISC

An isolated damaged toilet partition was observed and should be replaced to restore proper function, maintain appearance, and ensure durability of the restroom facilities.

AGRICULTURAL SCIENCE CENTER

12

HISTORIC DATA

In 2018 three new additions were added to the High School, the Career & Technology Center, the Agricultural Science Center and the new athletic additions.

The Agricultural Science Center was constructed in conjunction with the Career & Technology Education (CTE) Center that serves Willis High School. Construction on the CTE facility began in February 2017 and was completed in August 2018. HVAC system balancing for both the CTE Center and the Agricultural Science Center was completed in May 2018 to ensure proper performance and efficiency.

This approximately 33,000-square-foot, single-level, pre-manufactured building is specifically designed to support Agricultural Science programs, including an arena space for livestock shows and related activities.

**All historical data and supporting information included in this report were furnished by the district. While the assessment team has made reasonable efforts to review and reference this material, the data has not been independently verified or validated in detail. The team assumes no responsibility for any inaccuracies or omissions contained within the district-provided information.*

GENERAL INFORMATION



AGRICULTURAL SCIENCE CENTER 44 FM 830 Willis, TX 77378	
Year(s) Built:	2018
Approx. Total Building Square Footage	32,824
Approx. Total Site Area	37 acres*

*Site is part of the Willis High School Campus.

UTILIZATION SUMMARY



LEGEND

- Does meet Ed Spec
- Does not meet Ed Spec
- Does not meet TEA or Ed Spec

UTILIZATION SUMMARY

TEA Deficiencies:

- No TEA requirements apply to this facility as it is a specialized instructional facility.

Educational Specification Deficiencies:

- **Classrooms:** Classrooms are approximately 70 SF undersized. The Ed Spec requires 850 SF each to accommodate 25 students at 36 SF/student
- **Animal Science Lab (Vet Lab)**: The Vet Lab is approximately 160 SF undersized. The Ed Spec requires (1) at 1,200 SF
- **Floral Lab: The Floral Lab** is approximately 350 SF undersized. (1) at 1,400 SF
- ***Agricultural Mechanics Lab:** Clarification needed. The orresponding room name was not found, if the Ag Tech is used as the Ag Mech lab it is approximately 1,200 SF undersized. (1) at 2,000 SF
  - **Assocaited Storage**: In addition the associated storage would be approximately 35 SF under the Ed Spec 150 SF requirement.

**Note: The comparison to Educational Specifications was limited to TEA-regulated academic spaces, including classrooms, science labs, libraries, and gymnasiums. Non-instructional or support spaces identified within the Educational Specifications were not included in this review.*

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

Accessibility within the Ag Science Center seems to be in general compliance with TAS, however there was one isolated observation of a lavatory that does not allow for the required 3'-0" clear floor approach required by TAS. The building is equipped with a fire suppression system and appears to be in good condition.

SITE CONDITIONS

Upon review of the site conditions at the Ag Science Center it appears that the site is in a relatively good condition. No apparent major areas of concern were identified.

EXTERIOR WALLS

Existing Conditions:

Concrete Masonry Units (CMU) And Masonry Veneer Walls

- Throughout the North and East elevation, and the North end of West elevation, SEAL observed a smooth finished, single-wythe CMU wall system with no apparent water-resistant coating or sealing on the exterior of the wall. In isolated locations, SEAL observed minor signs corrosion emanating from within the unit. At the entrance on the West elevation, SEAL observed a linear, unsealed void at the CMU wall-to-corrugated metal panel soffit interface.
- At the South elevation and the South end of the West elevation, SEAL observed oversized brick masonry veneer. At the South elevation, SEAL observed isolated efflorescence on the exterior wall of the plumbing riser room, as well as one location of spalled brick at the lower outside corner of the plumbing room.
- SEAL observed aged and deteriorated sealant throughout the masonry expansion joints, as well as adhesive failure at silicone-to-polyurethane interface. At the West elevation, SEAL observed missing or displaced sealant at the hose bib assembly.

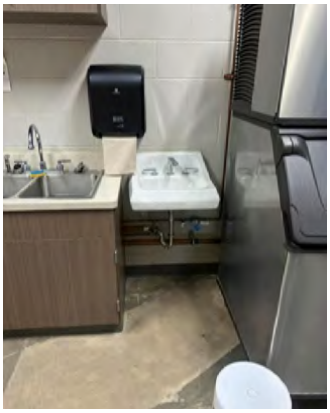
Metal Wall Panel Assemblies

- Throughout the North and East elevation, and the East end of the South elevation, SEAL observed vertical flush-mounted metal wall panels installed above the masonry walls and the steel I-beam. The panels appeared to be adequately attached without observed damage or displacement.

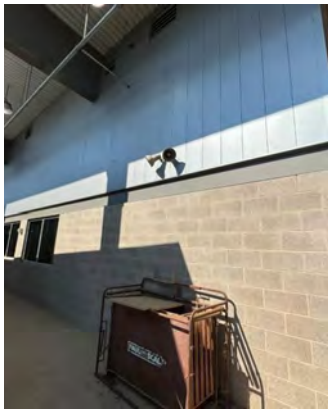
Recommendation:

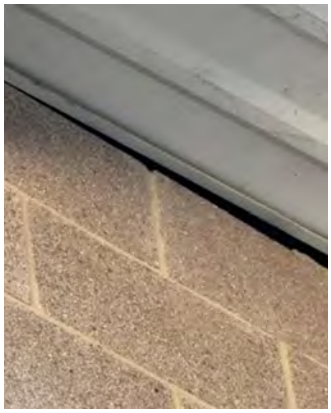
CMU And Masonry Walls

Based on our observations of the existing masonry wall assemblies, it is our opinion the CMU and brick masonry veneer cladding were adequately serving their intended purpose. The following outlines our masonry-related recommendations:









EXECUTIVE SUMMARY / KEY FINDINGS

Short Term Recommendations (<10 years), including immediate:

- Level 1: Investigate wall area exhibiting efflorescence and repair/modify as required to eliminate air leakage or other potential wall cavity discontinuity.
- Level 1: Provide continuous sheet metal closures to reduce unsealed openings.
- Level 1: Remove and replace masonry expansion and control seals, as well as unsealed wall penetrations with high performance DowSil silicone sealants appropriate for the substrates required and backer rod.

Intermediate and Long Term Recommendations (10 to> 20 Years):

- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals.

Metal Wall Panel Assemblies

Based on our observations of the existing flush-mounted metal wall panel assemblies, it is our opinion the metal panels are in a generally serviceable condition. The following outlines our metal panel-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Sealing wall penetrations, closures, unsealed metal-to-metal joints, and perimeter joints with sealant.
- MT: Replacement of omitted, missing, or loose metal panel closures.

Intermediate Recommendations (10 to 20 Years):

- MT: Repeat the items list above at 10 years intervals.

Long Term Recommendations (>20 Years):

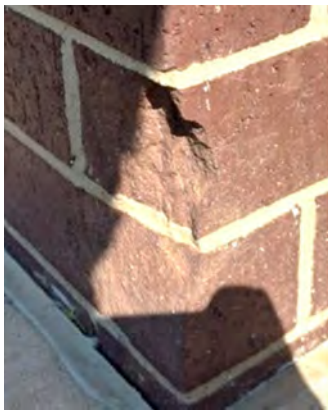
- Removing metal panels and installing air/water barrier (if not present or currently not performing), including consideration for continuous insulation for enhanced thermal performance, and reinstallation of existing or replace with new metal wall panels.

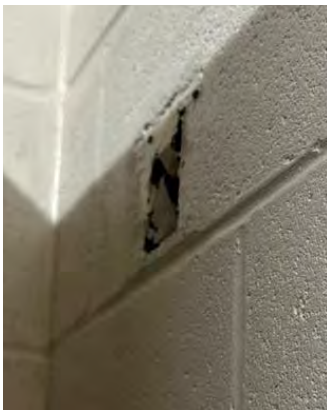
INTERIOR WALLS

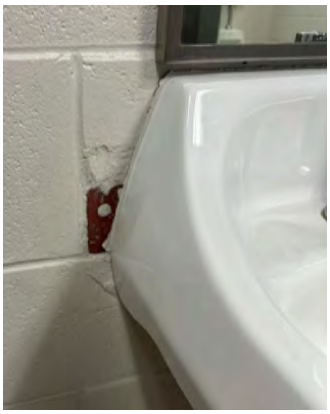
Only minor interior wall deficiencies were observed, such as missing cover plates and localized CMU damage. These issues were isolated and can typically be addressed through routine maintenance.

MISC

Signage throughout the facility is beginning to show minor wear and tear. Signage at exterior conditions should be considered for replacement, in <10 years, before reaching standard life cycle.









EXECUTIVE SUMMARY / KEY FINDINGS

WINDOWS

Existing Conditions:

Aluminum-Framed Glazing System(s) And Doors

- Throughout the various elevations of the building, SEAL observed numerous aluminum-framed storefront windows with sill receptors and weep holes, as well as double-leaf storefront doors assemblies. The perimeter line of sealant around the assemblies exhibited surface crazing and discoloration. At the storefront window assembly near the South entrance, SEAL observed an isolated deformed gasket, as well as peeling and delamination of a surface-applied exterior film at the glass unit. At the double leaf door assemblies, SEAL observed minimal to gaskets/weatherstripping at the door-to-door interface and unsealed aluminum head flashing.
- At the conditioned outdoor storage areas, SEAL observed both single-leaf and double-leaf steel-framed hollow metal door assemblies. The doors appeared to be in adequate condition but lack gaskets/weatherstripping at the sill and the door-to-door interface to reduce air and water migration.

Recommendation:

Based on our observations of the existing glazing and doors systems, it is our opinion that the systems, including seals and gaskets, are at or beyond the end of their service life. The following outlines our glazing and fenestration-related recommendations:

Short Term and Intermediate Recommendations (<10 years to 20 years), including immediate:

- MT: To proactively identify sealant wear and deterioration, inspect perimeter and glazing sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals with high performance DowSil silicone sealants appropriate for the substrates required.
- MT: Remove and replace perimeter joint seals around all glazing and door systems with high performance DowSil silicone sealants appropriate for the substrates required.
- Replace or trim glazing gaskets and wet seal existing window systems to assist with water resistance.
- MT: Remove and reset or replace existing door thresholds and sealing door system to adjacent wall.
- MT: Remove and replace all existing door weatherstripping with new materials.

Long Term Recommendations (>20 Years):

- Level 3: Full replacement of all window and door assemblies with new, thermally broken (or at least thermally improved) high-performance glazing systems, including insulated glass units.







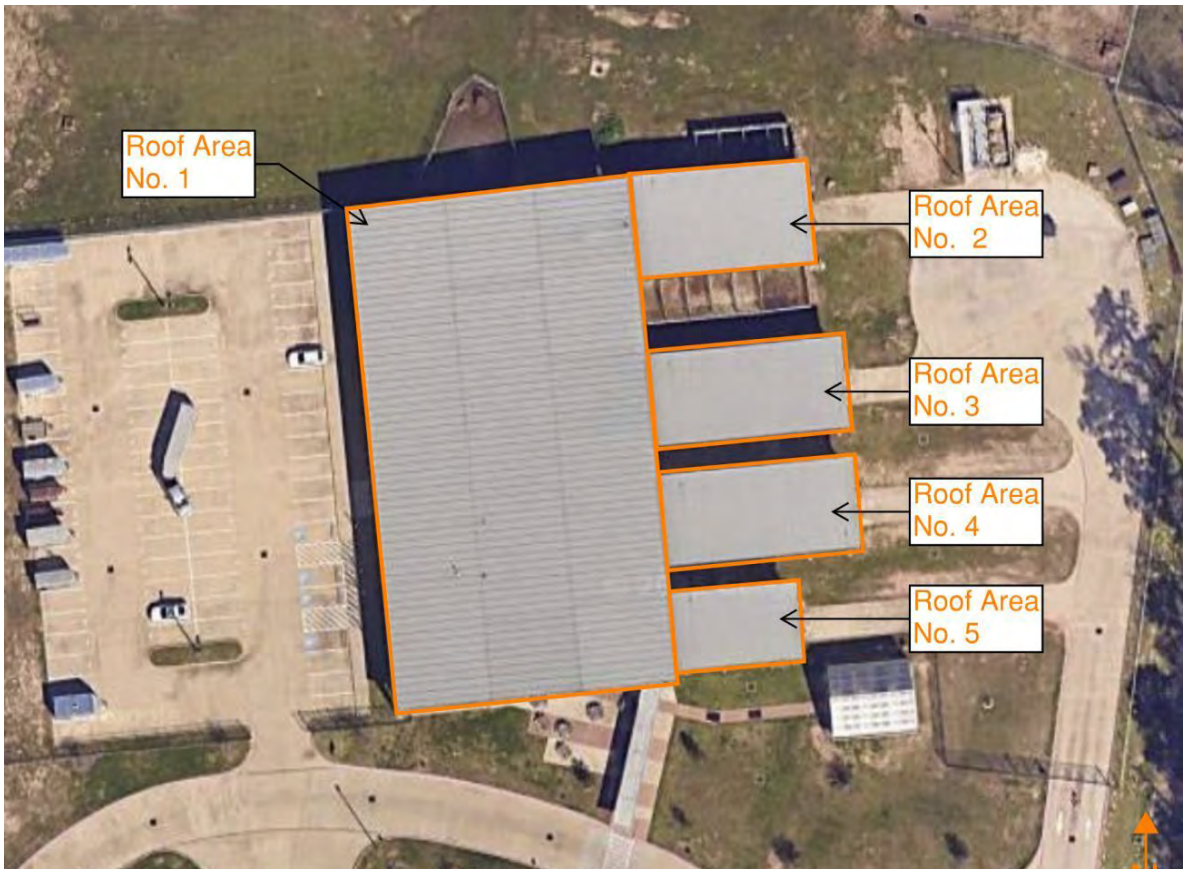
EXECUTIVE SUMMARY / KEY FINDINGS

ROOF

Existing Conditions:

Low-Slope Roofing System

- Throughout the building, SEAL observed a sloped, standing-seam, insulated metal panel roof assembly with concealed fasteners/clips at Roof Area No. 1. At the Roof Area Nos. 2 – 5, SEAL observed sloped, mechanically fastened, corrugated metal roof panels with exposed fasteners. These system descriptions were confirmed based on documents provided to SEAL. According to the documents, the roofing systems were approximately 7 years old and original to the building. SEAL did not observe damage, finish compromise, loose seams or components or other visual indications of roof deficiencies or failure. Standing seams throughout the roof assembly appeared to be adequately engaged.
- The main drainage systems of the low-slope roof areas were as follows:
    - Roof Area No. 1 sloped to the West eave where it drained to a prefinished sheet metal gutter and downspouts that drained to below grade plumbing systems. Downspouts were attached to the steel column faces.
    - Roof Area Nos. 2 through 5 sloped towards the South elevation of the roof where they drained to prefinished sheet metal gutter and downspouts that drained to below grade plumbing systems.
- During the drone observation at the main roof area, SEAL observed excessive moisture on the metal panel surface adjacent to the metal panel transverse seams, corroded and exposed gaskets and high dome fasteners, as well as deteriorated sealant extruding from the concealed transverse seam interface. With the use of a drone deployed infrared camera, SEAL was able to verify surface temperature differences between the transverse seam and the typical roof panels.



EXECUTIVE SUMMARY / KEY FINDINGS

- Throughout the roof areas, SEAL observed multiple roof penetrations with deteriorated and discontinuous termination sealants, as well as exposed sealants (butyl-based) that are commonly concealed from UV within metal joints.
- At West elevation of Roof Area No. 1 and the South elevations of Roof Area Nos. 2 through 5, SEAL observed prefinished sheet metal gutter system mechanically fastened to the sloped, insulated metal panel roof assembly at the standing seam. The gutter assembly was fastened with Z-profile spacers/hangers; no cradle hangers were observed. The spacer/hangers were attached to the standing seam with two high-dome screws and to the front gutter bead with one high-domed screw. At the Roof Area No. 1 gutter system, SEAL observed organic growth and dripping water at most, if not all, gutter joints.

Recommendation:

Metal Panel Roofing Systems

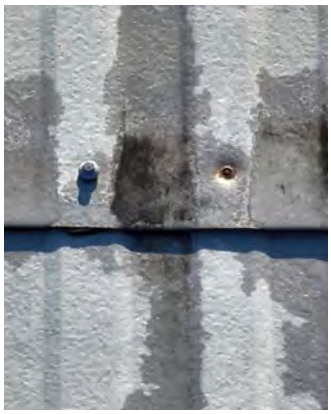
Based on our observations to date and considering its age (approximately 7 years), it is our opinion the existing insulated and corrugated metal panel roofing systems appeared to be in generally serviceable condition. However, minor maintenance items would likely be required at Roof Area Nos. 1, 2, and 3 in the future to maintain an adequate level of roof performance and limit opportunities for additional water infiltration. The following outlines our roofing-related recommendations:

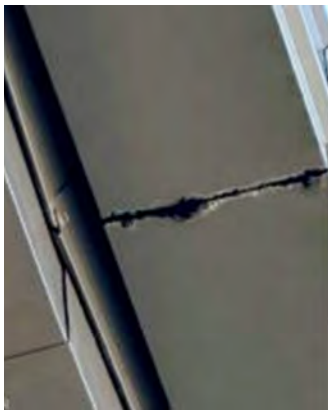
Short Term Recommendations (<10 years), including immediate:

- MT: Identify roofing manufacturer, warranty term, and warranty requirements and provide to building maintenance/engineering staff for reference and repair assistance.
- MT: To proactively identify roof damage and wear, as well as maintain assumed roof warranty requirements, inspect the metal roofing systems bi-annually and following significant storm events with high volume rains and/or high winds. Properly repair all damage and wear as it is identified. A third party, credentialed roofing specialists should be considered for these building-specific evaluations.
- MT: Replace all exposed roofing sealants with proper DowSil silicone sealant for the specific project substrates.
- MT: For enhanced thermal performance and water resistance at the insulated panels transverse seams, consider thermal and seal enhancement to eliminate air leakage and thermal bridging.

Intermediate Recommendations (10 to 20 Years):

- MT: For a short term or temporary solution for the corrugated metal roofing system at Roof Area Nos. 2 – 5, remove and replace all fasteners at the existing roofing panels with new oversized fasteners and gaskets.



EXECUTIVE SUMMARY / KEY FINDINGS

- Level 1: Remove and replace all existing roof flashings, including those with proper flashing assemblies as recommended within the Sheet Metal and Air Conditioning Contractors Association (SMACNA) Architectural Sheet Metal Manual (ASMM) or the National Roofing Contractors National Association (NRCA) Architectural Metal Flashing and Condensation and Air Leakage Control Manual.

Long Term Recommendations (>20 Years):

- Level 3: To extend the service life additionally, supplement the fastener replacement with an elastomeric silicone roof coating. Recoating would be required at 10 to 15-year intervals.
- Level 3: If the existing building is intended to remain in service beyond 20 years, another option for extending roof durability is to overlay the existing metal roof panels with a “Roof Hugger”-type system. This system involves the mechanical attachment of custom galvanized steel sub-framing, insulation, and a new metal roofing panel over the existing framing and metal panel system. For enhanced durability and performance, this new system could incorporate rigid insulation and a double-lock standing seam that may allow the building to be used for an enhanced purpose. The solution would require evaluation of the existing structure by a structural engineer.
- MT: Assuming the roof has been renovated and coated or replaced within 10 years, subsequent activities will consist of annual inspections of sealants (and coatings).

FLOORS

Overall, the flooring is in good condition. A localized area of stained carpet, likely due to water exposure, was observed. This issue appears minor and can generally be addressed through routine maintenance. Flooring should be considered for replacement at the end of it’s life cycle: 15-20 years left for LVT.

DOORS

Reference Aluminum-framed Glazing System(s) and Doors recommendation under “Windows” for door recommendations within storefront assemblies.

Several doors show beginning signs of rust, and a mullion in one location also exhibits corrosion, however, are in fair condition. It is typical with this type of facility to see faster wear and tear on exterior envelope and doors due to organic materials abutting the built conditions. It is recommended to install higher kick plates in specific areas that lead to the animal holding pens to the exterior prevent further damage and extend the life of the affected doors.

MILLWORK / CASEWORK

Upon review of the casework at the Ag Science Center it appears that the site is in a relatively good condition. No apparent major areas of concern were identified.






EXECUTIVE SUMMARY / KEY FINDINGS

CEILING

Overall ceilings are in fairly new condition, consistent with the age of the facility. Individual stained ceiling tiles should be addressed by the district maintenance staff. Overall lay-in ceiling replacement should be considered at the end of life cycle: 20-25 years.

KITCHEN

All equipment in this functional area is in good condition and does not require replacement at this time. The equipment is performing well and is expected to reach its full life expectancy of 20–25 years, if maintained properly.

MEP

Existing Conditions:

- **Cooling/Heating System:** Chilled water system. VAV boxes. Heating is gas-fired.
- **Energy Mgmt. System:** Automated Logic, System 2020. All digital controls. Temperature control, trending of systems, system start/stop from remote location, full graphic system, and humidity sensors.

Recommendation:

The Agricultural Science Center was built in 2018, all MEP systems are in good working condition. Mechanical equipment will need to be addressed for lifecycle replacements in 15-20 years.

LIGHTING

The Agricultural Science Center was built in 2018, all lighting systems are in good working condition.

TECHNOLOGY

A full replacement of the outdoor sound system is recommended immediately, as the existing speakers and their mounting brackets show signs of corrosion, which may compromise performance and long-term reliability.

PA

All equipment is in good condition and does not require replacement at this time.

SECURITY

- **District-Wide:** Replace all existing Hikvision cameras with Hanwha models to ensure NDAA compliance and improve reliability. This should be addressed immediately.
- **Exterior Doors:** Add DPDT door contacts to all exterior doors to allow for electronic monitoring of door status. This integration will support access control and intrusion systems by sending alerts if doors are forced or held open. This should be addressed immediately.
- **Main Entry:** Add both interior and exterior video surveillance coverage to enhance visibility and improve monitoring at main points of entry. This should be addressed immediately.
- **Lamb/Goat Pens:** Add or update the card reader at door 8 to improve controlled access to this area. This should be addressed within 1–2 years.
- **Pig Pens:** Add card readers at doors 6 and 7 to enhance access control. This should be addressed within 1–2 years.
- **Cattle Pens:** Add a card reader at door 5 for secure entry. This should be addressed within 1–2 years
- **Concessions Area:** Add general camera coverage to improve visibility and monitoring. This should be addressed within 1–2 years.

STUBBLEFIELD ACADEMY AND HOPE ACADEMY

13

HISTORIC DATA

This twelve room brick building was completed in 1955 at a cost of $784,680 and replaced the seven room wooden structure. The school was named in honor of Mr. A.R. Turner when it was opened. It was a black only school in the days of segregation. Mr. A.R. Turner was a long time Willis school district employee. He was the Principal of this school. The district was integrated in 1973. The campus has been a multi-use campus since that time. It has been a Jr. High, an Intermediate School, a 5th grade campus and an Alternative School Campus. In 1993 it was renamed for Janie Stubblefield who was also a long time Willis resident and Willis School District educator. Mrs. Stubblefield dedicated 37 years of her life to the students in Willis serving as a teacher and librarian. She and her husband also owned a little country store off of Rogers Road.

Major Additions or Renovations: A burglar alarm system was installed in this building in the mid 80's. This building was re-roofed in 1987. Air Conditioning units were replaced and a split AC system was installed. The gymnasium, contracted, designed and built by Isaac Philpot, was added in 1962. It was re-roofed in 1990. The cafeteria was built in 1975. It was originally a band hall and was converted to a cafeteria in later years. The gym and cafeteria are presently used for district storage. In 2003, the building was renovated to include new cabinets and counters in classrooms, new carpet, new paint, new A/C system, relocating of administrative offices and converting the middle area of the building into two multi-purpose rooms and one conference rooms. The front entrance was landscaped and the parking area was renovated to complete 21 parking spaces. It was also re-roofed. Camera system was installed in 2005. The energy management system in this building was updated in 2011. In 2012 the Technology Department installed projectors and security cameras throughout the building. In 2012 the AC Controls were upgraded. In 2014, security features and enhancements were completed. District wide lighting upgrade in April 2015. Tile Floor Replacement is completed 2018. We have placed the Hope Academy in half of the building as of August 2022.

**All historical data and supporting information included in this report were furnished by the district. While the assessment team has made reasonable efforts to review and reference this material, the data has not been independently verified or validated in detail. The team assumes no responsibility for any inaccuracies or omissions contained within the district-provided information.*

GENERAL INFORMATION



JANIE STUBBLEFIELD ACADEMY 207 Philpot Willis, TX 77378	
Year(s) Built:	1955
Approx. Total Building Square Footage	14,776
Approx. Total Site Area	8 acres

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

The facility currently has several code-related issues that should be addressed. An accessible path of travel is required to be provided to all portable classrooms to ensure compliance with ADA accessibility standards.

It is also recommended that existing lighting be upgraded to color-changing or dimmable LED fixtures, or alternatively zoned appropriately, to eliminate the need for secondary light covers placed directly over the fixtures. Additional coverings on light lenses are typically considered a fire hazard and may not be acceptable to the fire marshal.

In addition, room signage was observed to be mounted too high in several areas. A complete signage replacement is recommended to ensure proper mounting height, tactile lettering, and Braille in accordance with the latest ADA code requirements.

SITE CONDITIONS

Undercutting was observed at the flatwork beneath the air conditioning units, likely caused by improper drainage or soil erosion. This condition should be addressed to ensure adequate drainage and to prevent further water accumulation or subsurface erosion beneath the units, which could compromise structural stability over time. In addition, localized sidewalk remediation is recommended in areas where heaving or settlement has occurred as a result of natural aging and wear, to restore safe and even walking surfaces.

The existing flagpole appears to be aged and weathered; replacement is recommended to ensure continued safety, proper functionality, and to maintain a presentable exterior appearance consistent with the overall condition of the site.

FOUNDATION

One area of observed grade beam damage appears to be non-structural in nature and is most likely the result of impact from a non-building component, such as maintenance or lawn equipment. The location and characteristics of the damage do not suggest structural distress or foundation-related movement.

EXTERIOR WALLS

Existing Conditions:

Brick Masonry Veneer Walls

- At the window to foundation interface along the North building elevation, SEAL observed the foundation to be stained. This condition was likely caused by retained water throughout the assembly. The foundation was observed to be spalled at several locations. Additionally, SEAL observed at least one small crack in the foundation, possibly allowing for water infiltration through the interface.






EXECUTIVE SUMMARY / KEY FINDINGS

- SEAL observed brick masonry crack in a number of locations on the building facades. Along the North elevation, SEAL observed at least one stair-step crack near the Northwest corner. This condition was potentially due to the spalled foundation below, as the foundation may not be able to provide adequate support for the masonry veneer. SEAL observed stair-stepped cracks in the brick masonry veneer around at least one of the punched window assemblies as well. Additionally, SEAL observed stair-stepped cracks at the mortar joints around the steel beam-to-brick masonry veneer interface near the main building entrance. These conditions were likely associated with unaccommodated movement between the building materials or settlement.
- Additional masonry cracking was observed at the base-of-wall condition along the South building elevation where SEAL observed a horizontal bond-line crack between courses of brick masonry. This condition was likely due to unaccommodated building movement, including settlement. In addition, SEAL observed minimal-to-no weeps along the base of the building elevations. It is unclear how the exterior wall was managing water infiltration.
- SEAL observed steel lintels spanning the window width at punched window openings along the North and South elevations of the building, as well as at the main entrance on the East elevation. The lintels typically exhibited surface corrosion and discoloration. This condition was susceptible to ongoing corrosion and future section loss.
- SEAL observed at least one isolated unsealed wall penetration along the West elevation. These conditions were susceptible to water and air infiltration, and even animal infiltration into the wall assembly.

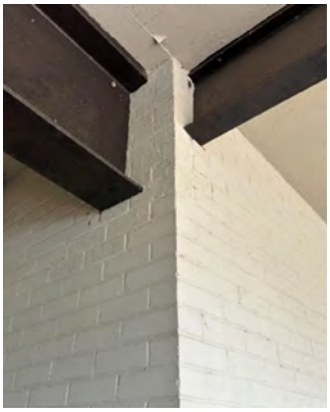
Recommendation:

Based on our observations of the existing masonry wall assemblies, it is our opinion the CMU and brick veneer was adequate to prevent uncontrolled air and water infiltration. With minor repairs and an elastomeric coating, the brick masonry veneer can be expected to provide additional service for at least several decades. The following outlines our masonry-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- Level 1: Investigate foundation spalls and stair step cracking under the direction of a structural engineer. Evaluation of foundation for settlement and other sources of displacement.
- Level 1: If structural questions are resolved, repair of cracked/displaced concrete and masonry units, including crack repair and tuckpointing would follow following the recommendations indicated in the Brick Industry Association (BIA) Tech Notes.
- MT: Repairing of cracked/displaced brick masonry units, including tuckpointing/filling of mortar joints.
- Level 1: Coat all exterior faces of CMU with DowSil Allguard-type silicone elastomeric coating after repairs.
- Level 1: Remove and replace masonry expansion and control seals, as well as unsealed wall penetrations with high performance DowSil silicone sealants appropriate for the substrates required and backer rod.



EXECUTIVE SUMMARY / KEY FINDINGS

Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion.
- MT: Replace sealants and coatings as described above at 10 to 15-year intervals

INTERIOR WALLS

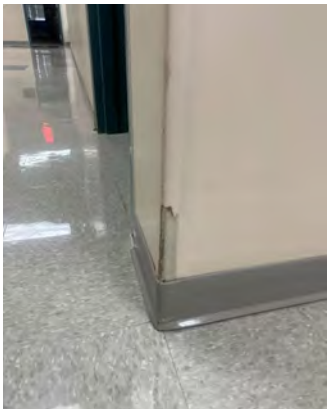
Interior wall finishes throughout the facility exhibit typical wear and localized damage that should be addressed. Drywall and PLAM wall coverings show minor damage, including chipped surfaces, peeling paint, corner damage, and separation from the floor, all of which should be repaired. Column wraps and outlet areas also require minor repairs to restore finishes and maintain durability.

WINDOWS

Existing Conditions:

Aluminum-Framed Glazing System(s) And Doors

- SEAL observed aluminum-framed storefront glazing throughout the various window assemblies at the main entrance along the East building elevation was observed to be missing/ deteriorated throughout the assembly. Additionally, SEAL observed exposed, plated steel fasteners along the stainless steel windowsill flashing. The glazing at these locations exhibited staining and surface corrosion and also exhibited some glass fogging along the edges.
- At the storefront window assembly along the North building elevation, SEAL observed a small gap between the window assembly and an insulated mechanical pipe route. This condition was susceptible to retained water and debris accumulation along the interface. Additionally, SEAL observed remedial sealant throughout various areas of the glazing assembly, including many corner metal-to-metal joints, indicating previous window system remediation attempts. SEAL observed typical punched window openings throughout the various building elevations. The assemblies were comprised of aluminum-framed glazing with eight lites divided by horizontal and vertical mullions. SEAL observed short glazing gaskets along the corners of the punched window assemblies. Additionally, SEAL observed failed and deteriorated perimeter sealant throughout the various building entrance and window assemblies.
- Throughout the various building elevations, SEAL observed typical door assemblies comprised of painted aluminum-framed double-leaf doors. Based on markings on the operable doors, the glazing system appeared to have been manufactured by Kawneer. Door assemblies were observed to be operational without evidence of damage or non-functioning units.






EXECUTIVE SUMMARY / KEY FINDINGS

Recommendation:

Aluminum-Framed Glazing System(s) And Doors

Based on our observations of the existing glazing and door systems, it is our opinion the systems are within their service life with the exception of some maintenance items related to gaskets and sealants. The following outlines our glazing and fenestration-related recommendations:

Short Term and Intermediate Recommendations (<10 years to 20 years), including immediate:

- Level 1: Install prefinished sheet metal transition flashing at window sill to provide continuity and eliminate unsealed conditions between the window unit and the sheet metal ledge flashing below.
- Level 1: Replace or significantly renovate the existing windows beneath the metal roof eaves.
- MT: To proactively identify sealant wear and deterioration, inspect perimeter and glazing sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals with high performance DowSil silicone sealants appropriate for the substrates required.
- MT: Remove and replace perimeter joint seals around all glazing and door systems with high performance DowSil silicone sealants appropriate for the substrates required.
- Level 1: Replace or trim glazing gaskets and wet seal existing window systems to assist with water resistance.
- Level 1: Replace insulated glass units where fogged or otherwise indicated loss of seal.
- Level 3: Full replacement of all window and door assemblies with new, thermally broken (or at least thermally improved) high-performance glazing systems, including insulated glass units.
- MT: Remove and reset or replace existing door thresholds and sealing door system to adjacent wall.
- MT: Remove and replace all existing door weatherstripping with new materials.

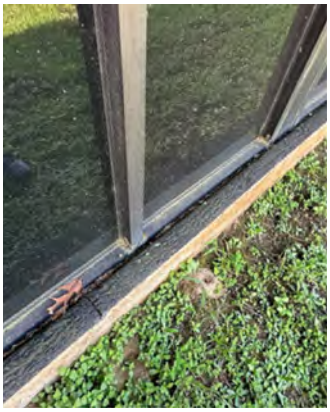
Long Term Recommendations (>20 Years):

- MT: To proactively identify sealant wear and deterioration, inspect perimeter and glazing sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals with high performance DowSil silicone sealants appropriate for the substrates required.
- MT: Remove and replace perimeter joint seals around all glazing and door systems with high performance DowSil silicone sealants appropriate for the substrates required.
- Level 1: Replace or trim glazing gaskets and wet seal existing window systems to assist with water resistance.

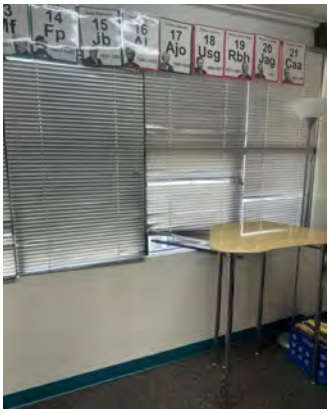
Interior:

Interior window treatments and seals require attention. Damaged blinds should be replaced to ensure proper function and appearance. Sealant at windows behind AC units should be repaired to maintain a proper air and moisture barrier.









EXECUTIVE SUMMARY / KEY FINDINGS

ROOF

Existing Conditions:

Sloped Roofing System

- The roofing system for the entire building consisted of a built-up roof (BUR) system with aggregate surfacing. The roof slope for this building measured approximately 1:12 slope. This system description was confirmed based on reports and documents provided to SEAL. The roofing systems were approximately 22 years old. During our roof walk, SEAL did not observe or detect blistering, damage, or deterioration and the roofing system was solid under foot. The edge flashing/gravel stop was adequately retaining the aggregate on the roof and SEAL did not observed an excessive amount of asphalt run off at the roof eaves.
- The main drainage systems of the low-slope roof areas were as follows:
    - Roof Area No. 1 sloped towards the South elevation which drained freely to grade.
    - Roof Area No. 2 sloped towards the North elevation which drained freely to grade.
- Throughout the various roof areas, SEAL observed typical minor amounts of displaced gravel along the perimeters and wind scouring at the corners. Displaced gravel at these locations can be a frequent occurrence, but can expose the asphaltic membrane below to ultraviolet (UV) rays and lead to ongoing membrane deterioration.
- The roofing surface exhibited a minimal quantity of roofing penetrations. At Roof Area No. 2, SEAL observed at least one mechanical penetration (static vent stack) was not perpendicular to the roof surface. It appears that a steep-slope galvanized sheet metal roof flashing (“star vent”) was utilized on a roof slope less than intended for this flashing.



EXECUTIVE SUMMARY / KEY FINDINGS

Vents of this type are directly secured to the roof deck and directly flashed to the roofing system; therefore, any vibrations or loads associated with wind directly impact the flashing-to-roof integrity. This condition was susceptible to wind movement/displacement and wind blow rain near the roof surface being blown into the low openings in the flashing.

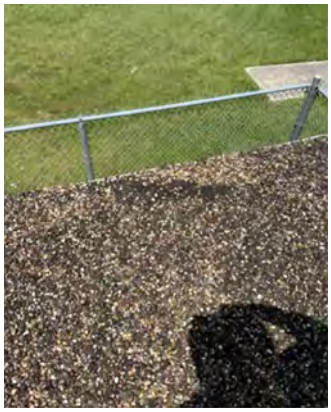
- Along the roof eaves and rakes around the building, SEAL observed prefinished sheet metal edge flashing and fascia cover. At a Southeast corner location, SEAL observed faded and discolored metal finish, as well as minor roof-based residue on the flashings' faces. Additionally, surface corrosion was observed on each side of flashing laps. These conditions were indicative of flashing age and exposure.

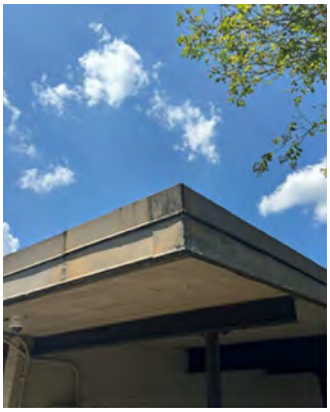
Recommendation:

Based on the documents provided, including a WISD Summary, it is our understanding the roofing system was installed in or around 2003 making the existing roofing system approximately 22 years old. One roofing industry study indicates a mean 18-year service life of a BUR assemblies. In our experience, quality BUR systems can last up to 50 years with proper maintenance. Considering the existing field of the roof was solid underfoot and did not exhibit blisters of other significant visual cues of roofing distress or failure, it appears the roof is functioning adequate and due to the slope has not retained water. Based on our observations to date, it is our opinion the existing low-slope roofing system was likely to be in serviceable condition. However, minor repairs can be considered to enhance its performance level and limit opportunities for roof degradation or water infiltration. The following outlines our roofing-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Identify roofing manufacturer, warranty term, and warranty requirements and provide to building maintenance/engineering staff for reference and repair assistance.
- MT: Provide roofing specific training for WISD personnel to facilitate proactive identification of roofing anomalies, storm damage, and other conditions that can contribute to reduced service life.
- MT: To proactively identify roof damage and wear, as well as maintain assumed roof warranty requirements, inspect the low-slope roofing membrane bi-annually and following significant storm events with high volume rains and/or high winds. Properly repair all damage and wear as it is identified. Third party, credentialed roofing specialists should be considered for these building-specific evaluations.
- Level 3: SEAL recommends completing a moisture survey (infrared, capacitance, or nuclear with accompanying secondary verification (roof cores preferred at that time) around Year 5 to address any significant areas of concern. If there is an active warranty, coordinate coring, if any, with roofing manufacturer for proper repair.
- Level 3: If the roofing system is wet throughout, the existing BUR system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system manufactured by Soprema or Siplast with no less than a 20-year No Dollar Limit warranty.



EXECUTIVE SUMMARY / KEY FINDINGS

The roof assembly should consist of a mechanically-attached gypsum substrate board (where applicable), torch-applied 100-mil minimum vapor barrier, new rigid and tapered roofing insulation, and a gypsum fiber (non-faced) coverboard. A preformed tapered insulation sump should be placed at all primary roof drains. Reinforced liquid flashing system is recommended at all roof penetration and as a supplement to the roofing membrane in the insulation drain sump. New prefinished sheet metal edge flashings, gutters, and flashings should be provided with the new roofing system.

- Level 3: For an alternative approach at the sloped roof areas with a more aesthetic and equally durable roofing system, replace existing membrane roofing with a new standing seam prefinished sheet metal (24 ga. Minimum) roofing system with concealed clips. The assembly would consist of inspected and acceptable or replaced roof deck, continuous high temperature, self-adhered membrane underlayment, continuous thermal insulation (above deck preferred), perimeter and roof penetration flashings, as well as continuous prefinished sheet metal gutters and downspouts.
- Level 3: Remove all surface-applied sealants and replace with new prefinished sheet metal transition flashings at counterflashing to edge metal and gutter interfaces.
- MT: Apply new aggregate in several areas where the asphalt roofing membrane is currently exposed.

<u>Intermediate and Long-term Recommendations (10 to >20 Years):</u>

- MT: Consider roofing system will be replaced in the next 10 years, provide visual and moisture related surveys of the roofing assemblies at 5 years intervals with visual and moisture surveys.

FLOORS

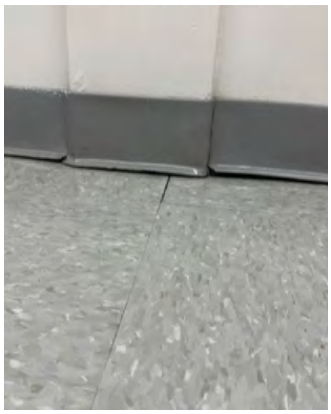
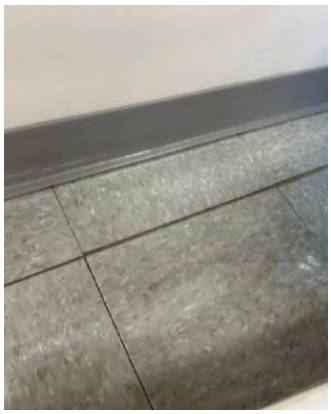
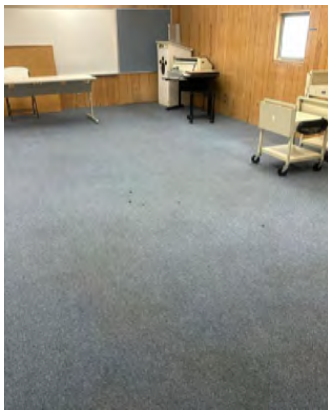
Flooring throughout the facility shows signs of wear and damage. Damaged or cracked VCT should be repaired or replaced, including areas under water fountains and along exterior walls where base conditions are also affected. Discolored or stained carpet should be repaired or replaced as needed to maintain a uniform and functional flooring system. Flooring throughout the facility is in fair condition. Full replacement should be considered in the next 10 years for both carpet and VCT.

DOORS

Window seals in doors should be replaced as needed, and door frames should be repainted to restore appearance and maintain protection against wear.

MILLWORK / CASEWORK

Throughout the facility, casework exhibits typical wear, including chipped PLAM surfaces, missing or damaged edging, misaligned or unbalanced doors, and occasional damaged locks.

EXECUTIVE SUMMARY / KEY FINDINGS

Repairs and adjustments are recommended to restore consistent functionality and appearance across all spaces.

CEILING

Existing Conditions:

Plywood Panel Ceiling Assemblies

- Around the building perimeter, SEAL observed plywood panel soffit assemblies providing an approximately 24” to 60” overhang over the exterior walls. The plywood was painted and did not exhibit significant damage or displacement. The soffit was observed to be vented along the roof perimeter. SEAL observed at least one unsealed penetration through the assembly.

Recommendation:

Plywood Soffit Assemblies

Based on our observations of the existing plywood soffit areas, it is our opinion that they are in generally serviceable condition. The following outlines our soffit-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Inspect plywood soffit panels and refasten as required to maintain placement and attachment.
- MT: Remove and replace any damaged or displaced panels as deficiencies are observed.
- MT: Seal all panel joints, prime and paint all panels with commercial paint system.

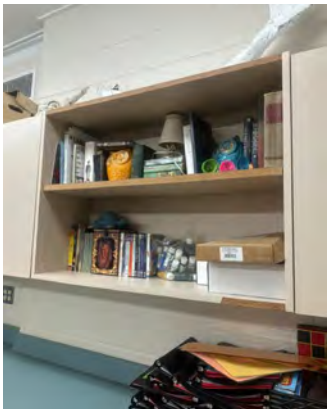
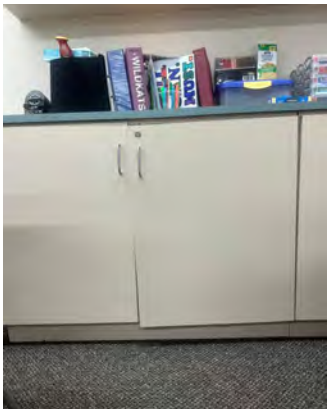
Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: Replace sealants and coatings as described above at 10 to 15-year intervals.

Interior

Lay-in ceiling systems were observed to be in fair condition overall. Numerous areas exhibited damaged or missing tiles, and an overall ceiling replacement should be considered within the next 7–10 years as part of lifecycle renewal efforts.

Potential organic growth was observed in several areas throughout the campus, including multiple instances on hard ceilings. It is recommended that a qualified abatement specialist conduct further investigation to confirm the source, extent, and nature of the potential hazard. Upon confirmation, appropriate repairs to the building envelope should be completed to prevent continued moisture intrusion and mitigate future damage. Additionally, the exterior soffit vents were observed to be in poor condition, exhibiting significant damage and deterioration. These conditions may be contributing to interior moisture and growth issues. Immediate remediation or replacement of the damaged soffit vents is recommended to restore proper ventilation and protect interior finishes.


EXECUTIVE SUMMARY / KEY FINDINGS

KITCHEN

No formal kitchen is present in this facility.

MEP

Existing Conditions:

- **Cooling/Heating System:** Split systems with heat pumps and back up auxiliary electrical strip heat.
- **Energy Mgmt. System:** None.

Recommendation:

Stubblefield Academy was built in 1956, with additions completed in 1962 and 1975. The facility utilizes split system HVAC units installed in 2003; this mechanical equipment has reached its expected lifecycle and should be considered for replacement.

During the assessment, black particulate matter was observed being discharged from the current mechanical system in at least one classroom. Immediate investigation by a qualified abatement specialist is recommended to determine the source and composition of the material and to mitigate any potential health or air quality concerns.

Additionally, the lavatories currently do not provide hot water. While the addition of hot water is not presently required, it is recommended for code compliance. Any future renovations involving plumbing fixtures would necessitate that the building be brought up to current code standards.

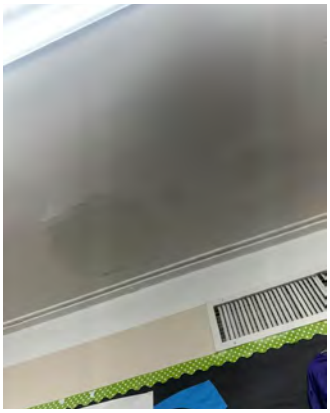
LIGHTING

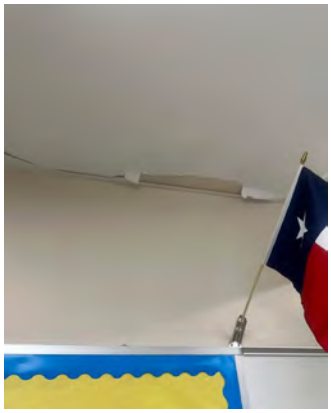
Lighting was reported, and observed to be considered “low levels” for an educational environment throughout academic areas. Lighting is currently fluorescent while LED upgrades are not required, upgrading to an all LED system immediately to address low lighting levels present is recommended.

TECHNOLOGY

Audio Visual

- **The Large Café and Conference Room** are recommended for full AV system replacements within the next 3–5 years, including new projectors, motorized tab-tensioned screens, control systems, HDMI inputs, wireless presentation capability, and integrated sound.






EXECUTIVE SUMMARY / KEY FINDINGS

- **Classrooms** should be equipped with Promethean panels, aligning with the district's technology standard. Most classrooms currently lack this equipment, and installation is recommended as part of future technology upgrades.
- **The Conference Room** should also be outfitted with conferencing devices to provide full meeting and remote collaboration functionality.

Sound Systems

- **The Large Café** sound system should be fully replaced within the next 3–5 years, including new speakers, inputs, a control panel, and updated infrastructure to improve clarity, coverage, and reliability.

PA

- **Administrative areas** should receive volume controls to allow meetings and discussions to take place without interruption from building-wide announcements.
- **Exterior areas** should be equipped with wall-mounted PA speakers, as there is currently no exterior speaker coverage to support emergency communication or outdoor gatherings.

SECURITY

- All existing Hikvision cameras, including those located in classrooms, should be replaced immediately with Hanwha cameras, as Hikvision equipment is not NDAA compliant.
- Corridor camera coverage should be expanded immediately to ensure full interior visibility and eliminate blind spots.

- All exterior doors should be fitted with DPDT door contacts to electronically monitor door status and send alerts when doors are forced or propped open.
- Interior coverage should be added at Door 2 near the main entry to improve surveillance and monitoring capabilities at this critical access point.

GENERAL CONDITION

Reported bees / wasps keep getting into the building through potential openings from the exterior. Address all envelope opening with recommendation included in report.

BERTON A. YATES STADIUM

14

HISTORIC DATA

Berton A. Yates Stadium has been the home of the Willis Wildkats since its opening in 1974. Named in honor of Berton Arnold Yates (1918–1979), a longtime Willis community member and U.S. Navy veteran of World War II, the stadium has served as a central gathering place for generations of students, families, and local residents. Over the decades, it has hosted countless football games, track meets, and community events, standing as a symbol of school spirit and local pride. Although now over fifty years old, Yates Stadium remains a landmark within Willis ISD, reflecting both the district's growth and its enduring commitment to honoring community legacy and tradition.

Major Additions and Renovations: In 1989, field house expansions were completed. Visitor side stadium stands and a concession stand were added in 1993.

In 1994, the track was repaved and the football field re-crowned and re-turfed. In 2000, home-side concessions, athletic areas, and physical education spaces were added or renovated, and exterior plaster was painted. The football stands were steam cleaned.

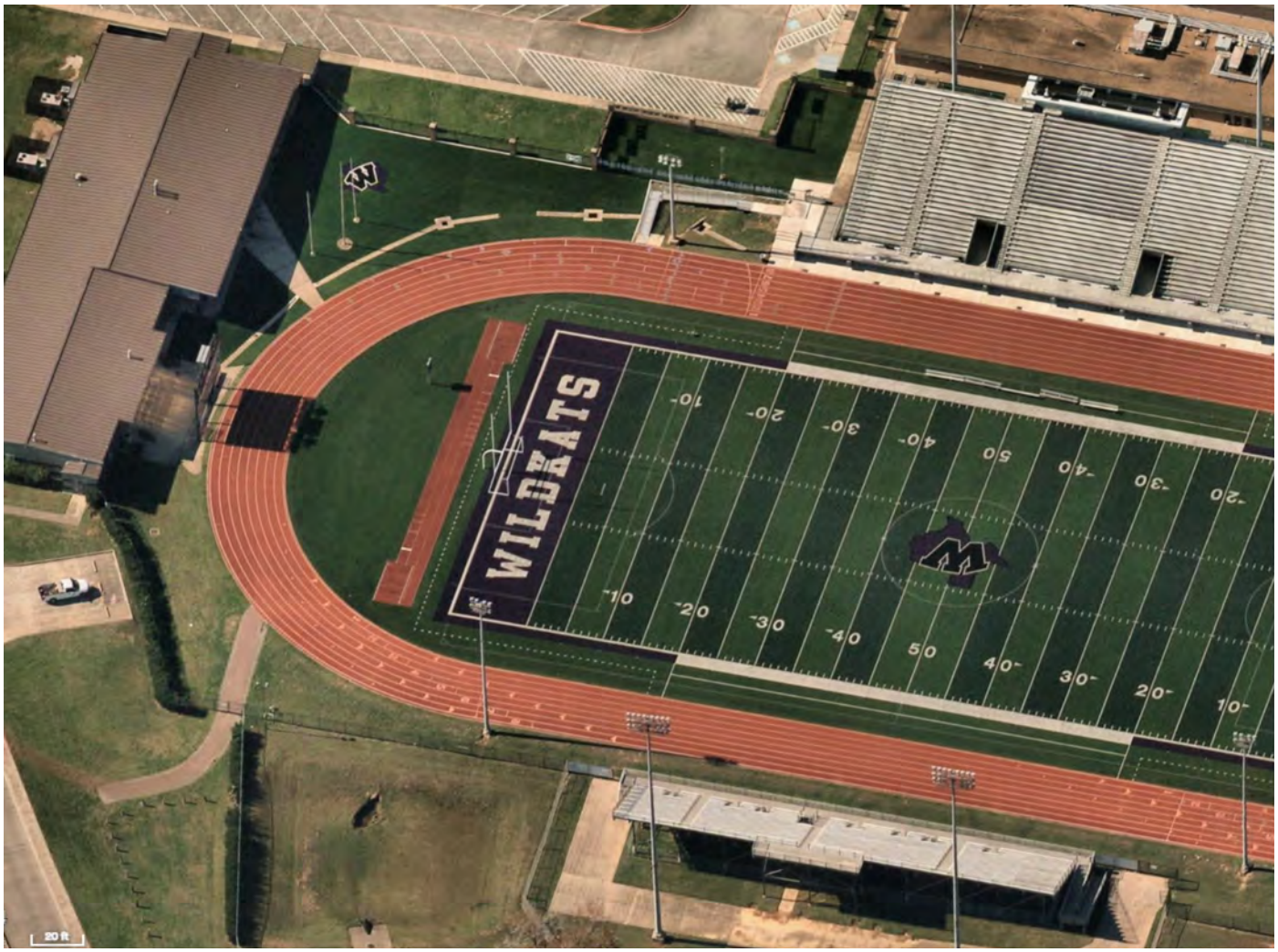
Further improvements included the 2003 track expansion to eight lanes, new field event runways, irrigation installation, office carpet replacement, and resurfacing of the front parking lot and driveway. The 2006 Bond projects, completed in 2009, included field house renovations, additional parking, new restrooms and concession stands at the baseball field.

Between 2012 and 2013, technology upgrades included projectors and security cameras, a new stadium scoreboard, tennis court resurfacing, fencing improvements, shade canopies, new signage, landscaping, and ornamental fencing at Yates Stadium. Three ticket booths were installed in 2013.

Bond 2015 projects at Yates Stadium included installation of AstroTurf and stadium track re-topping. Gym floors were refinished and repaired in 2017.

**All historical data and supporting information included in this report were furnished by the district. While the assessment team has made reasonable efforts to review and reference this material, the data has not been independently verified or validated in detail. The team assumes no responsibility for any inaccuracies or omissions contained within the district-provided information.*

GENERAL INFORMATION



BERTON A. YATES STADIUM 11304 N Campbell St. Willis, TX 77378	
Year(s) Built:	1974
Approx. Total Building Square Footage	Vaires
Approx. Total Site Area	20 acres*

*Site is part of the Willis ISD Educational Campus

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

Several accessibility deficiencies were identified throughout the facility. No accessible stall—toilet or shower—is provided, which does not meet ADA requirements. The AV rack projects more than 4 inches into the path of travel and is therefore considered a protruding object. The sink does not meet ADA height and clearance requirements, and the recessed floor at the ice machine is not permissible under ADA code. In addition, accessibility to the existing bleachers should be reviewed, as current conditions may not provide compliant access or seating. Corrections will be required to bring these elements into full compliance.

SITE CONDITIONS

No significant site issues were identified at this campus. Limited sidewalk remediation is recommended in locations where heaving or sinking has occurred as a result of natural aging and wear.

EXTERIOR WALLS

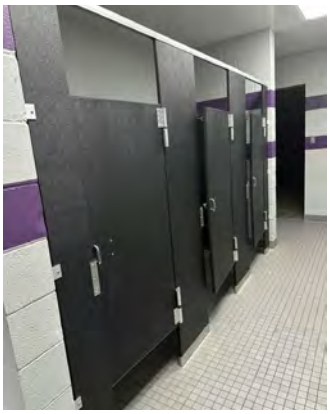
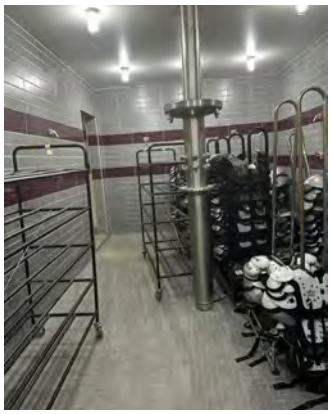
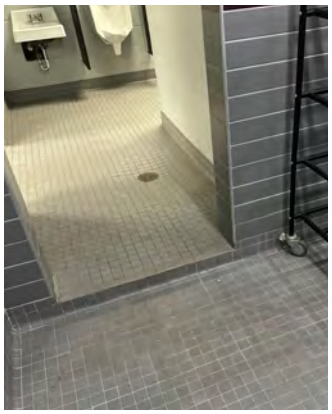
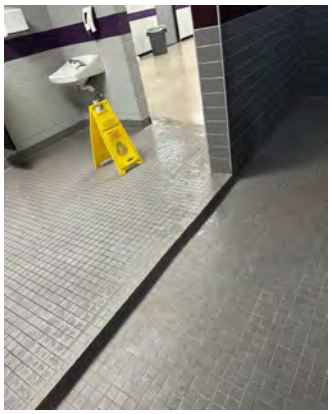
Existing Conditions (Football Field House):

Brick Masonry Veneer Walls

- Along the North and North end of the West elevations of the building, SEAL observed painted brick masonry veneer wall construction. At the East end of the North elevation, SEAL observed exposed brick cores at the top of a brick column. Throughout the masonry walls, SEAL observed weep holes at the base of the wall. In the areas observed, the weep holes were short and did not encompass the entire masonry head joint. Otherwise, the brick masonry veneer did not exhibit visible signs of distress or displacement.

Metal Wall Panel Assemblies

- Corrugated sheet metal wall panels were observed at the South, East, and South end of the West elevations of the building. Attachment to the building structure consisted of gasketed fasteners. With the exception of the lower wall areas outlined below, the metal wall panels did not exhibit visible signs of distress or displacement.
- Along the South elevation, SEAL observed surface corrosion and corrosion resulting in metal panel section loss at the base of the metal wall panel assemblies in multiple locations. Additionally, the base of wall condition exhibited a horizontal concrete ledge that was exposed, unsealed, and cracked. Often, horizontal projections are covered by sheet metal flashing to direct water away from the building and wall plane. Near the center of the elevation, SEAL observed one location with bent and damaged metal wall panels near the base of the wall.
- At multiple locations, throughout the building, SEAL observed unsealed wall penetrations.

EXECUTIVE SUMMARY / KEY FINDINGS

Recommendation:

Brick Veneer Masonry Walls

Based on our observations of the existing masonry wall assemblies, it is our opinion the brick masonry veneer cladding was adequately serving its intended purpose. The following outlines our masonry-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Remove and replace masonry expansion and control seals, as well as unsealed wall penetrations with high performance DowSil silicone sealants appropriate for the substrates required and backer rod.

Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: To proactively identify sealant and coating wear and deterioration, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants and elastomeric coatings at 10 to 15-year intervals.

Metal Wall Panel Assemblies

Based on our observations of the existing flush-mounted metal wall panel assemblies, it is our opinion that the metal panels are in a generally serviceable condition. The following outlines our metal panel-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Sealing wall penetrations, closures, unsealed metal-to-metal joints, and perimeter joints with sealant.
- MT: Replacement of omitted, missing, or loose metal panel closures.
- Level 3: Remove and replace deteriorated and damaged wall panels with a similar panel type.

Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: Repeat the items list above at 10 years intervals.
- Level 3: For enhanced thermal performance and water resistance, remove existing metal wall panels and installing insulated metal wall panels or replace with a more traditional wall assembly with cold-formed metal framing, sheathing, and air/water barrier, including consideration for continuous insulation for enhanced thermal performance.

Existing Conditions (Field Concessions Buildings):

Opaque Exterior Wall System

- SEAL observed a concrete masonry unit (CMU) system, which appeared to be covered with coating or paint at the exterior surface.









EXECUTIVE SUMMARY / KEY FINDINGS

- SEAL observed one steel-frame hollow metal door at both the North and South elevations, which appeared to be in adequate condition.
- SEAL observed multiple metal overhead doors in several locations throughout the building, which appeared to be in adequate condition.

Recommendation:

Based on our observations of the existing masonry wall assemblies, it is our opinion the CMU wall system is in adequate condition. The following outlines our masonry-related recommendations:

Short Term Recommendations (<10 to >20 years), including immediate:

- MT: To proactively identify wall damage and wear, inspect the CMU and its coating regularly and properly seal masonry control joints, windows, doors, and penetration perimeters, and other areas that are unsealed or where sealant has deteriorated.
- MT: At 5 years intervals, prepare the CMU substrate and coat all exterior faces of CMU with paint. For enhanced performance, an elastomeric coating can be used in lieu of paint to achieve greater crack bridging and durability relative to water infiltration.

Existing Conditions (Football Pressbox):

Metal Wall Panel Assemblies

- Corrugated galvanized sheet metal wall panels were observed at the throughout the elevations of the building with exposed fasteners and gaskets. The metal wall panels did not exhibit visible signs of distress or displacement.

Recommendation:

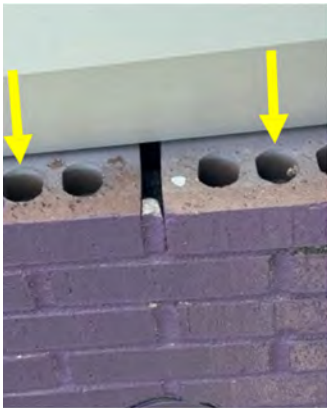
Based on our observations of the existing flush-mounted metal wall panel assemblies, it is our opinion that the metal panels are in a generally serviceable condition. The following outlines our metal panel-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Sealing wall penetrations, closures, unsealed metal-to-metal joints, and perimeter joints with sealant.
- MT: Replacement of omitted, missing, or loose metal panel closures.

Intermediate Recommendations (10 to 20 Years):

- MT: Repeat the items list above at 10 years intervals.









EXECUTIVE SUMMARY / KEY FINDINGS

Long Term Recommendations (>20 Years):

- Level 2: Removing metal panels and installing air/water barrier (if not present or currently not performing), including consideration for continuous insulation for enhanced thermal performance, and reinstallation of existing or replace with new metal wall panels.

INTERIOR WALLS

The walls throughout the facility exhibit standard wear and tear consistent with the age of the buildings, including minor scuffs, surface abrasions, and isolated areas needing touch-up. These conditions are typical for an actively used educational environment and can generally be addressed through routine maintenance and periodic repainting.

WINDOWS

Existing Conditions (Football Field House):

Aluminum-Frame Glazing System(s) and Steel-frame Doors

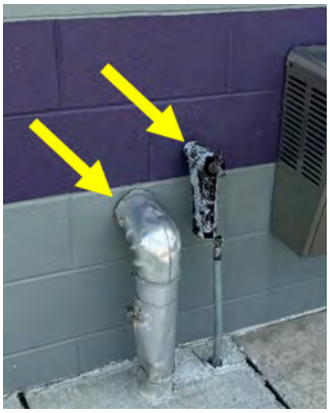
- SEAL observed numerous aluminum-framed, vertical storefront and single-hung operable windows throughout multiple elevations. The windows did not exhibit signs of damage or deterioration, but the integrity of the glazing and perimeter sealants was questionable. Additionally, the window assemblies did not have exhibit insulated glass units or visible thermal breaks. Without these characteristics, these windows have reduced thermal efficiency.
- Throughout the building SEAL observed multiple single and double leaf steel-frame hollow metal doors. At one door location, SEAL observed the door appeared to be in adequate condition without visible signs of damage or deterioration, but was missing weatherstripping at the door stile interface and a threshold at the base of the door.

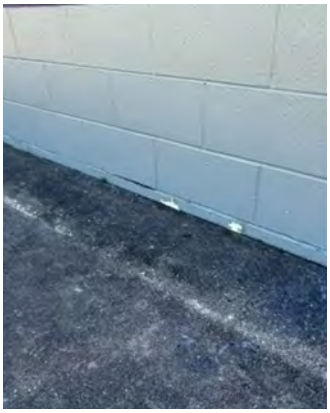
Recommendation:

Based on our observations of the existing glazing and doors systems, it is our opinion that the systems, including seals and gaskets, are performing adequately but will require maintenance to maintain adequate performance level. In addition, window units could be replaced to increase performance and thermal efficiency. The following outlines our glazing and fenestration-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: To proactively identify sealant wear and deterioration, inspect perimeter and glazing sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals with high performance DowSil silicone sealants appropriate for the substrates required.
- MT: Remove and replace perimeter joint seals around all glazing and door systems with high performance DowSil silicone sealants appropriate for the substrates required.
- MT: Replace or trim glazing gaskets and wet seal existing window systems to assist with water resistance.



EXECUTIVE SUMMARY / KEY FINDINGS

- MT: Remove and reset or replace existing door thresholds and sealing door system to adjacent wall.
- MT: Remove and replace all existing door weatherstripping with new materials.

Existing Conditions (Football Pressbox):

Aluminum-Framed Glazing System(s) And Doors

- SEAL observed numerous aluminum-framed, vertical storefront window assemblies throughout the building. The windows appeared to be in adequate condition and the glazing and perimeter sealants did not exhibit visible signs or wear or deterioration.
- Throughout the building SEAL observed multiple steel-frame single leaf, hollow metal doors. The hollow-metal doors appeared to be in adequate condition, however the weatherstripping at the door-to-frame interface and threshold at the base of the door exhibited a questionable seal.

Recommendation:

Based on our observations of the existing glazing and doors systems, it is our opinion that the systems, including seals and gaskets, are at or beyond the end of their service life. The following outlines our glazing and fenestration-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: To proactively identify sealant wear and deterioration, inspect perimeter and glazing sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals with high performance DowSil silicone sealants appropriate for the substrates required.
- MT: Remove and replace perimeter joint seals around all glazing and door systems with high performance DowSil silicone sealants appropriate for the substrates required.
- MT: Replace or trim glazing gaskets and wet seal existing window systems to assist with water resistance.
- MT: Remove and reset or replace existing door thresholds and sealing door system to adjacent wall.
- MT: Remove and replace all existing door weatherstripping with new materials.

Intermediate and Long Term Recommendations (10 to >20 Years):

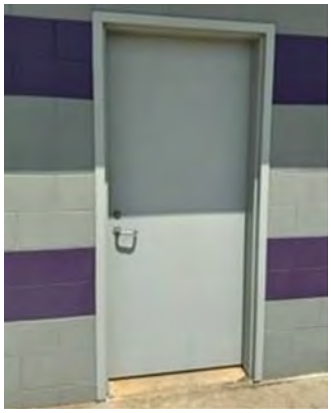
- MT: Full replacement of all window and door assemblies with new, thermally broken (or at least thermally improved) high-performance glazing systems, including insulated glass units.

ROOF

Existing Conditions (Football Field House):

Low-Slope Roofing System






EXECUTIVE SUMMARY / KEY FINDINGS

- Throughout the entire roofing system, SEAL observed low-slope trapezoidal standing seam prefinished sheet metal panel roofing systems at the three roof areas (1A, 1B, and 1C). The roof panels moved significantly underfoot while walking across the panels. It appeared the standing seams were elevated at the concealed panel clips and not setting on the underlying roof structure. SEAL did not observe signs of distress or displacement within the metal panel assemblies and the standing seams appeared to be engaged throughout. At one small isolated location, SEAL observed surface corrosion on a metal roof panel corrosion at Roof Area No. 2.
- The standing seam sheet metal roof areas drained to the North and South eaves and consisted of prefabricated sheet metal gutter assemblies and downspouts or downspout elbows. At the North elevation, gutter drained to an elbow which discharged water significantly above grade near the bottom of the gutter. At multiple locations, SEAL observed partially disengaged gutter spacers, as well as deteriorated sealant at gutter joints with organic growth at the metal-to-metal interface. Gutter joints typically exhibited signs of leakage.



EXECUTIVE SUMMARY / KEY FINDINGS

- Sealants at roof penetrations and the metal-to-metal joints, throughout the roof, were crazed and discontinuous.
- SEAL observed missing and corroded fasteners at a curb-mounted exhaust fan at Roof Area No. 2.
- The roofing systems features varying ventilation strategies including shingle over ridge vents, gable end vents, as well as continuous linear and intermittent stamped soffit vents.

Recommendation:

Based on our observations to date, it is our opinion the existing low-slope roofing system was in a generally serviceable condition with slight movement underfoot. Although the roof is currently functioning adequately, there are a few maintenance and investigative items recommended. The following outlines our roofing-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- Level 3: Investigate and verify metal panel standing seam attachment and concealed clip type and spacing.
- MT: Properly repair locations identified by others and those with inadequate surface applied repair attempts. Depending on costs, a full recoating could be considered within the initial repair scope.
- MT: Remove and replace all penetration flashing sealants and provide new sheet
- metal transition flashings to provide continuity at the rake flashing conditions.

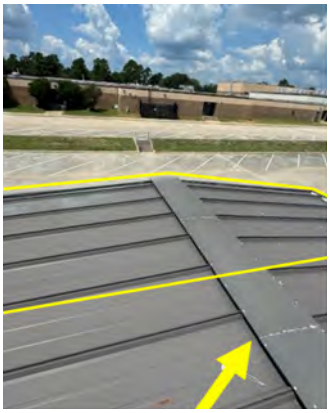
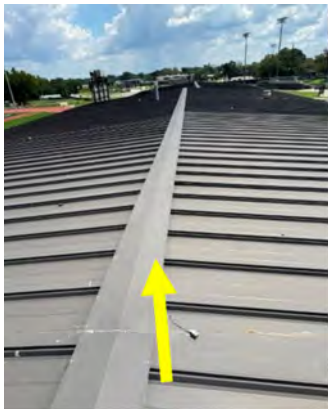
Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: Following investigation and follow-up requirements, inspect roofing system bi-annuallyand schedule sealant replacement at 15 year intervals with high performance DowSil silicone sealants appropriate for the substrates required and backer rod.

Existing Conditions (Field Concessions Buildings):

Steep-Slope Roofing System (Roof Area Nos. 2 – 4)

- Throughout the roofing system, SEAL observed a steep-slope architectural asphalt shingle roofing system. The hip and gable roofing systems appeared to be original to the building and were sloped at approximately 4:12. The shingles exhibited approximately 5 ½" exposure and a shingle-over plastic ridge vent profile. SEAL observed a few isolated locations where shingle tabs were displaced.
- The drainage system of the steep-slope roof areas consisted of 5" prefinished sheet metal gutters with 1 ¼" galvanized sheet metal spacers at approximately 30" o.c. The gutter system had self-adhered membrane over the joints and appeared to be free-flowing and clear of debris.
- The roof had multiple penetrations, including curb-mounted exhaust fans, formed lead plumbing vent flashings, and flexible "Decktite"-type roof flashings. These elements appeared to be functioning adequately, but the associated sealants and paints appeared to be aged and deteriorated.



EXECUTIVE SUMMARY / KEY FINDINGS

Recommendation:

Based on our observations to date, it is our opinion the existing steep-slope asphalt shingle roofing system was in a generally serviceable condition. However, several repairs would be required to replace wind damaged shingles. The following outlines our roofing-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: To proactively identify roof damage and wear, inspect the steep-slope roof covering bi-annually and after significant storm events. Properly repair missing and damaged architectural asphalt shingles at the Southeast hip.
- MT: Repaint exposed steel items and replace roofing related sealants.

Intermediate Recommendations (10 to 20 Years):

- MT: To proactively identify roof damage and wear, inspect the steep-slope roof covering bi-annually and after significant storm events.
- MT: Remove and replace the existing asphalt shingle roofing system down to the
- roof deck. Install new roofing underlayment, new sheet metal edge flashings, new
- penetration and curb flashings, and architectural asphalt shingle roofing.

Long Term Recommendations (>20 Years):

- MT: To proactively identify roof damage and wear, inspect the steep-slope roof covering bi-annually and after significant storm events.
- MT: At 20 year intervals, remove and replace the existing asphalt shingle roofing system down to the roof deck. Install new roofing underlayment, new sheet metal edge flashings, new penetration and curb flashings, and architectural asphalt shingle roofing.

Existing Conditions (Football Pressbox):

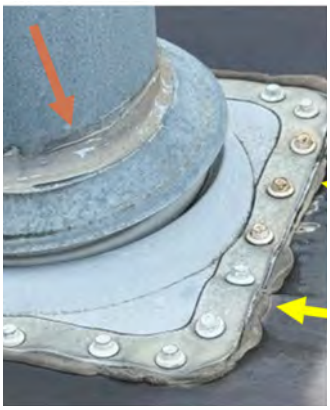
Low-Slope Roofing System

- At Roof Area No. 5, SEAL observed a two-ply modified bitumen roofing system. We understand this system was manufactured by Soprema and was installed in 2022. According to the roofing plaque in the building, the roofing system is under warranty through 2042. The roofing system was covered with black walk pads and limiting membrane exposure to UV with the exception of a perimeter band around the roof. The handrails and walk pads observed were indicative that the roof is intermittently occupied during stadium events









EXECUTIVE SUMMARY / KEY FINDINGS

Recommendation:

Based on our observations to date and considering the roofing system is on three years into its service life, it is our opinion the existing low-slope roofing system was in good condition and was generally solid underfoot. However, several repairs would be required to re-establish an enhanced level of roof performance and limit opportunities for additional water infiltration. The following outlines our roofing-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Properly repair locations identified by others and those with inadequate surface applied repair attempts. Depending on costs, a full recoating could be considered within the initial repair scope.
- MT: Remove and replace all penetration flashing sealants and provide new membrane and sheet metal flashing to provide continuity at the rake flashing conditions.

Intermediate and Long Term Recommendations (10 to >20 Years):

- Roof replacement will likely not be required until approximately 2042 or later.

FLOORS

VCT within the pressbox was observed to be in poor condition, showing wear beyond typical expectations. Targeted VCT replacement is recommended in the near term (0–5 years) to restore functionality, improve appearance, and prevent further deterioration.

Most of the flooring within the field house and concessions building consists of tile and sealed concrete, both of which were observed to be in good condition with no current repairs required at this time.

DOORS

No apparent issues were identified on interior conditions. Reference the “Windows” section for exterior window/door system recommendations.

MILLWORK / CASEWORK

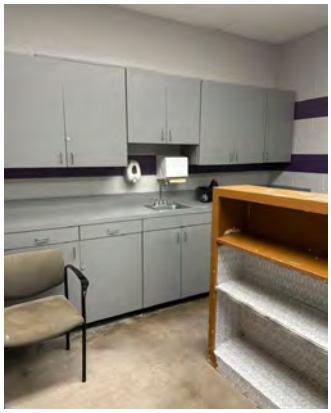
Casework within the field house was observed to be in fair to good condition, with typical wear consistent with the facility’s age and use. Full casework replacement should be considered at the end of its expected life cycle, approximately 15–20 years from installation, unless localized damage requires earlier attention.

The counter within the pressbox, however, was observed to be in poor condition and is approaching the end of its useful life. Replacement is recommended in the near term (0–5 years) to restore proper function and appearance..









EXECUTIVE SUMMARY / KEY FINDINGS

CEILING

Overall, the lay-in ceiling within the field house was observed to be in fair to good condition, with only isolated instances of staining, damage, or tile misalignment that should be addressed through routine maintenance. Full ceiling replacement should be considered at the end of its life cycle, typically 15–20 years, or sooner if ongoing moisture-related issues are identified.

KITCHEN

Rating Criteria:

- Priority 1: Poor – Immediate replacement (0-5 life expectancy)
- Priority 2: Poor/Fair – Should be replaced (5-15-year life expectancy)
- Priority 3: Fair – Replacement not needed currently (15-20-year life expectancy
- Priority 4: Good – Replacement not needed (20-25-year life expectancy)
- Priority 5: MT – Maintenance required
- Priority 6: MI – Missing or not present

Architectural:

- Priority 1: Poor – Immediate replacement (0-5 life expectancy)
- Priority 2: Poor/Fair – Should be replaced (5-15-year life expectancy)
- Priority 3: Fair – Replacement not needed currently (15-20-year life expectancy
- Priority 4: Good – Replacement not needed (20-25-year life expectancy)
- Priority 5: MT – Maintenance required
- Priority 6: MI – Missing or not present

Recommendations:

Overall concession is in good condition, recommend replacing all Priority 1 equipment.

Concessions:

The following pieces of equipment are in poor condition:

- Dry Storage Shelving

The following pieces of equipment are in fair / poor condition:

- Front Concession Counter

The following pieces of equipment are in fair condition:

- Reach-In Refrigerator - 2dr
- Hot Dog & Bun Warmer









EXECUTIVE SUMMARY / KEY FINDINGS

- Popcorn Machine - Ctr Top - 52 Oz.
- Reach-In Refrigerator 1dr
- Heated Merchandiser - 34”
- Mobile Ice Cream Dispenser

MEP

HVAC is packaged window units of mixed ages and styles. Units can be replaced as they fail. The recommendation would be to do a feasibility study to do a more conventional commercial grade HVAC system.

LIGHTING

Lighting is currently mixed LED retrofit and fluorescent; LED upgrades are not required, but are recommended for energy savings and code compliance.

TECHNOLOGY

Sound

- **Field** – Replace the full sound system due to dangling devices, rusting speakers, and outdated equipment, immediate action recommended.
- **Weight Room** – Replace the full sound system due to outdated equipment, insufficient speaker coverage, and broken components, immediate action recommended.

SECURITY

Field

- Add exterior camera coverage in front of concessions, near restrooms, and under seating areas to improve visibility, immediate action recommended.
- Replace the existing Hikvision camera with a Hanwha PTZ for improved monitoring capability, immediate action recommended.

Field House

- Install a new intrusion detection system including exterior door contacts and keypad, recommended in 1–2 years.
- Update exterior video coverage to improve monitoring of building approaches, immediate action recommended
- Add a high-resolution camera to view Wildkat Drive (per district request), immediate action recommended.
- Add general corridor coverage (excluding locker rooms) to improve visibility in interior pathways, recommended in 1–2 years

MISC

Numbered locker tops throughout the facility were observed to be damaged. These deficiencies appear to be the result of age, routine wear, and general use. Repairs or replacement of the affected locker tops is recommended to restore functionality and appearance, with full locker system replacement to be considered at the end of its typical life cycle.

BLYTHE CALFEE TENNIS CENTER

15

HISTORIC DATA

The Blythe Calfee Tennis Center (BCTC) is a single-story sports recreational support facility located in Willis, TX. Constructed in 2009, the center includes eight (8) tennis courts, associated spectator seating, and a stand-alone concessions building.

The concessions building exterior is clad with an exposed single-wythe CMU system, and the low-slope roofing system consists of architectural asphalt shingles.

At the time of this assessment, it was noted that the district was already in the process of replacing the screening at the tennis fencing boundaries. As such, this specific deficiency is being addressed and will not be included in this report.

**All historical data and supporting information included in this report were furnished by the district. While the assessment team has made reasonable efforts to review and reference this material, the data has not been independently verified or validated in detail. The team assumes no responsibility for any inaccuracies or omissions contained within the district-provided information.*

GENERAL INFORMATION



LYNN LUCUS MIDDLE SCHOOL 1304 N Campbell St. Willis, TX 77378	
Year(s) Built:	2009
Approx. Total Building Square Footage	1,350
Approx. Total Site Area	20 acres

*Site is part of the Willis ISD Educational Campus

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

Accessibility within the Calfee Tennis Center seems to be in general compliance with TAS.

SITE CONDITIONS

Upon review of the site conditions at the Tennis Center it appears that the site is in a relatively good condition. No apparent major areas of concern were identified.

EXTERIOR WALLS

Existing Conditions:

Opaque Exterior Wall System

- SEAL observed a concrete masonry unit (CMU) system, which appeared to be coated with coating or paint at the exterior surface.
- Due to limited access, SEAL observed one hollow metal man door at both the North and South elevations, which appeared to be in adequate condition.
- SEAL observed one metal overhead door with metal tracking at the East elevation, which appeared to be in adequate condition. Due to limited access, SEAL observed two metal overhead doors at the North elevation, which were likely to be in a similar condition.

Recommendation:

Based on our observations of the existing masonry wall assemblies, it is our opinion the CMU wall system is in adequate condition. The following outlines our masonry-related recommendations:

Short Term Recommendations (<10 to >20 years), including immediate:

- To proactively identify wall damage and wear, inspect the CMU and its coating regularly and properly seal masonry control joints, windows, doors, and penetration perimeters, and other areas that are unsealed or where sealant has deteriorated.
- At 5 years intervals, prepare the CMU substrate and coat all exterior faces of CMU with paint. For enhanced performance, an elastomeric coating can be used in lieu of paint to achieve greater crack bridging and durability relative to water infiltration.

WINDOWS

This facility does not contain any window openings.







EXECUTIVE SUMMARY / KEY FINDINGS

ROOF

Existing Conditions:

· Steep-Slope Roofing System

- Throughout the roofing system, SEAL observed a steep-slope architectural asphalt shingle roofing system. The hip roofing system appeared to be original to the building and was sloped at approximately 4:12. The shingles exhibited approximately 5 ½" exposure and a shingle-over plastic ridge vent profile.
- At the Southeast roof hip, SEAL observed missing asphalt shingles, as well as exposed asphalt roof felt underlayment and exposed and corroded roofing nails. Adjacent nearby shingles also exhibited edge damage and exposed fiberglass reinforcement.
- The drainage system of the steep-slope roof area consisted of 5" prefinished sheet metal gutter system with 1 ¼" galvanized sheet metal spacers at approximately 30" o.c. The gutter system had self-adhered membrane over the joints and appeared to be free-flowing and clear of debris.
- The roof had multiple penetrations, including mechanically-fastened ventilation equipment framing, as well as galvanized sheet metal curbs and flexible "Decktite"-type roof flashings.

Recommendations:

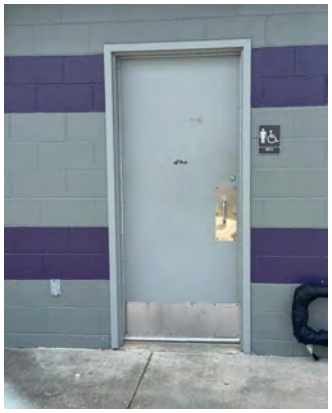
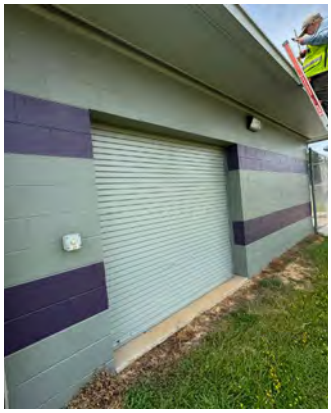
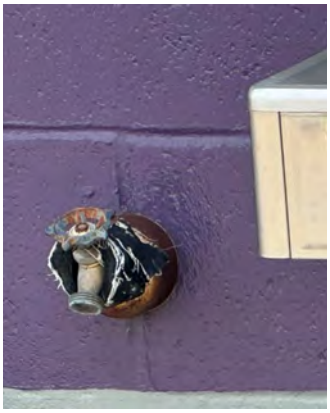
Based on our observations to date, it is our opinion the existing steep-slope asphalt shingle roofing system was in a generally serviceable condition. However, several repairs would be required to replace wind damaged shingles. The following outlines our roofing-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- To proactively identify roof damage and wear, inspect the steep-slope roof covering bi-annually and after significant storm events. Properly repair missing and damaged architectural asphalt shingles at the Southeast hip.
- Provide integrated mechanical equipment attachment in lieu of the surface-mounted painted steel frame at the North roof slope to facilitate proper flashing through the shingle roofing system.
- Paint galvanized steel roof curbs to delay corrosion.

Intermediate Recommendations (10 to 20 Years):

- To proactively identify roof damage and wear, inspect the steep-slope roof covering bi-annually and after significant storm events.
- Remove and replace the existing asphalt shingle roofing system down to the roof deck. Install new roofing underlayment, new sheet metal edge flashings, new penetration and curb flashings, and architectural asphalt shingle roofing.


EXECUTIVE SUMMARY / KEY FINDINGS

Long Term Recommendations (>20 Years):

- To proactively identify roof damage and wear, inspect the steep-slope roof covering bi-annually and after significant storm events.
- At 20 year intervals, remove and replace the existing asphalt shingle roofing system down to the roof deck. Install new roofing underlayment, new sheet metal edge flashings, new penetration and curb flashings, and architectural asphalt shingle roofing.

FLOORS

Flooring in the concessions and restroom building is sealed concrete. It was observed in good condition and there are no recommendations at this time.

Tennis court surfacing was not reviewed as part of this assessment.

DOORS

Doors were observed in a relatively good condition, consistent with the age of the facility. No apparent major areas of concern were identified.

MILLWORK / CASEWORK

This facility does not contain any casework.

CEILING

This facility does not contain any ceilings.

KITCHEN

Overall concessions is in fair condition, replacement not needed currently (15-20 year life expectancy).

The following pieces of equipment are in fair / poor condition:

- Overall
- Ice Maker With Bin - 500 Lb Capacity

The following pieces of equipment are in fair condition:

- Reach-In Refrigerator - 2dr
- Front Concession Counter
- Three Compartment Sink Without Disposer







EXECUTIVE SUMMARY / KEY FINDINGS

MEP

The Blythe Calfee Tennis Center was built in 2009, all MEP systems are in working condition. Mechanical equipment will need to be addressed for lifecycle replacements in 5-15 years.

LIGHTING

Lighting is currently fluorescent; LED upgrades are not required, but are recommended for energy savings and code compliance.

TECHNOLOGY

The existing sound system at the Tennis Center shows significant deterioration, including dangling devices suspended by cables, rusting speakers, and outdated components. A full system replacement is recommended to restore functionality and ensure safe, reliable operation.

PA

No PA system present in this facility.

SECURITY

- **Video Surveillance:** The facility currently has limited to no video surveillance coverage. A new video surveillance system is recommended, including cameras at each court, the building exterior, and the concessions area, to provide comprehensive monitoring and enhance safety.
- **Intrusion Detection:** A new intrusion detection system is recommended within the next 1–2 years to monitor door status and improve overall security coverage of the facility.

SHARON HILL JENNETTE ADMINISTRATION BUILDING

16

HISTORIC DATA

This administration building was completed at an approximate cost of $21,623,420.00 in 2020 at approximately 50,000 square feet. The Willis ISD Administration Building is named after Sharon Oglesby Hill Jennette was born November 29, 1950 and graduated from Willis High School. She was the district's longest-ever employee, serving as Administrative Assistant to the Superintendent for an astounding 49 years. She served 29 superintendents through the years and spent almost the entire span of her career in the same position, building and office. On May 28, 2019, with Sharon present, the Board of Trustees voted to name the future administration building, this building, after her. She passed away just days later on June 1, 2019. Her memory is treasured by all who know her.

This facility is considered in good condition and has not undergone any additions or renovations at the time of this assessment.

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GENERAL INFORMATION



SHARON HILL JENNETTE ADMIN BUILDING 612 N. Campbell St. Willis, TX 77378	
Year(s) Built:	2020
Approx. Total Building Square Footage	50,000

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

Accessibility within the Administration Building seems to be in general compliance with TAS. The building is equipped with a fire suppression system and appears to be in good condition.

SITE CONDITIONS

Upon review of the site conditions at the Administration Building it appears that the site is in a relatively good condition. No apparent major areas of concern were identified.

EXTERIOR WALLS

Existing Conditions:

Cast Stone Masonry Units (CMU) And Brick Masonry Veneer Walls

- Throughout the various elevations of the building, SEAL observed the use of mortar joints in lieu of sealant joints between CMU and brick masonry around punched window openings. Most joints exhibited mortar cracking in the mortar likely due to unaccommodated movement. Additionally at the window opening ledge, the CMU exhibited cracking along the surface likely indicative of unaccommodated movement and/or water retention.
- Throughout the various roof areas, SEAL observed roof-to-wall interfaces with poor transitions around the clerestory windows. SEAL was able to insert our probe at least 3 inches into the transition assembly. Additionally, SEAL observed poor interfaces at other roof to wall interfaces. The transition flashing was observed to be reliant on surface-applied sealant for membrane termination.
- At the rising wall along the North edge of Roof area 3, SEAL observed a building louver to brick interface. SEAL observed exposed transition flashing membrane, which was susceptible to UV deterioration. Additionally, SEAL observed surface crazing at the lover perimeter sealant.
- At the various punched window openings, SEAL observed cracks in the mortar joints along the rowlock brick masonry ledge. Cracks may be indicative of water retention or unaccommodated movement along the ledge.
- At the North elevation upper level along Roof area 3, SEAL observed an interruption by a fastener in the sealant joint around the curtainwall assembly allowing for water infiltration into the assembly. This condition was not typical.
- At the roof to brick masonry veneer interface, SEAL observed weeps spaced approximately 24 inches apart on center. Base of wall brick courses were not observed to be an entire brick course height, limiting weep sizes and drainage.
- SEAL observed many masonry sealant control joints throughout the various building elevations. Joints were observed to be in generally good condition. Additionally, at the foundation to brick masonry sealant joint interface along the South elevation, SEAL observed the presence of insects along the base of wall condition.
- Throughout the various building elevations, SEAL observed weeps to be located between 1 and 3 brick courses







above grade. Additionally, SEAL observed staining along the masonry and mortar joints at the base of wall, indicative of the wall retaining water.

Metal Wall and Soffit Panel Assemblies

- SEAL observed soffit areas above the clerestory window assemblies along the various roof areas to be comprised of ACM panel cladding. These soffit areas were observed to be vented. SEAL did not observe sealant or gaskets at the ACM panel reveal joinery. SEAL was able to insert our probe into these joints at least 2 inches. These conditions were susceptible to windborne rain infiltration but the interior continuity of the air barrier was not confirmed.
- At the ACM panel to clerestory window interface, SEAL did not observe perimeter glazing sealant around the window assemblies. Additionally, SEAL was able to insert our probe into these joints at least two inches.

Recommendation:

CMU And Masonry Walls

Based on our observations of the existing masonry wall assemblies, it is our opinion the CMU and brick masonry veneer were relatively new and within the early portion of their service life. The following outlines our masonry-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Repairing of cracked/displaced CMU and brick masonry units, including tuckpointing/filling of mortar joints.
- MT: Removal and replacement of sealant at control joints where required with high performance DowSil silicone sealants appropriate for the substrates required and backer rod.

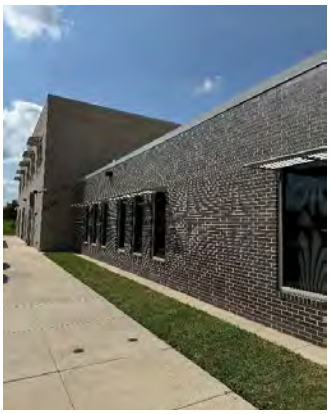
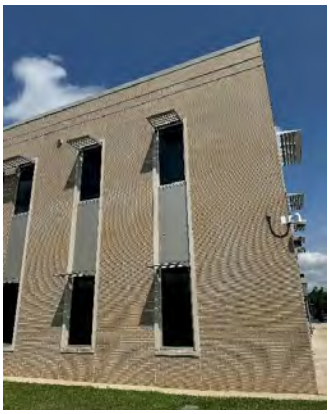
Intermediate and Long Term Recommendations (10 to> 20 Years):

- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals.

INTERIOR WALLS

Typical wall conditions observed include minor superficial damage in some areas that the district's maintenance team can address. Damage is consistent with normal wear and tear for the age of the facility.



EXECUTIVE SUMMARY / KEY FINDINGS

WINDOWS

Existing Conditions:

Aluminum-Framed Glazing, Entrance, and Door Systems

- Throughout the various building elevations, SEAL observed aluminum-framed curtain wall entry systems. Entrance assemblies were comprised of doors and glazing with two weeps per lite and based on markings, manufactured by YKK AP. Additionally, SEAL observed punched window assemblies with sunshades throughout the East building elevation.
- At many glazing assemblies, SEAL observed many windows to be in an aged condition with short gasket. Additionally, SEAL did not observe sealant at the metal-to-metal joinery. These conditions are susceptible to organic growth and water infiltration into the window assembly.
- At the various building entrances, SEAL observed aluminum-framed double leaf door assemblies with ACM panel soffits. SEAL observed uncontrolled air leakage around the soffit assembly, although we were not able to identify the exact location. Additionally, SEAL observed uncontrolled air leakage between the doors for at least one location along the building East elevation.

Recommendation:

Based on our observations of the existing glazing and fenestration systems, it is our opinion that the curtain wall/ storefront, window and door systems, including seals and gaskets, are relatively new and are within their service life. The following outlines our glazing and fenestration-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: To proactively identify sealant wear and deterioration, inspect sealants and gaskets bi-annually and properly repair as required to maintain continuity and adhesion.
- MT: Remove and replace perimeter joint seals around all glazing and door systems with high performance DowSil silicone sealants appropriate for the substrates required.
- MT: Remove and reset or replace existing door thresholds and sealing door system to adjacent wall.
- MT: Remove and replace all existing door weatherstripping with new materials.

Intermediate and Long Term Recommendations (10 to >20 years):

- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals.
- Level 2: Remove and replace glazing gaskets and/or wet seal existing window systems to maintain water resistance with high-performance DowSil silicone glazing sealant.






EXECUTIVE SUMMARY / KEY FINDINGS

ROOF

Existing Conditions:

Low-Slope Roofing System

Throughout the entire roofing system, SEAL observed a low-slope thermoplastic polyolefin (TPO) roofing system. This system description was confirmed based on reports and documents provided to SEAL. Based on membrane flashing accessories and the manufacturer's mark, we understand the existing roofing system to be a TPO membrane manufactured by Firestone. The roofing systems were approximately 5 years old and original to the building. During our site walk, SEAL noted the existing roof system/substrate to be solid under foot with minimal, if any soft areas.

The main drainage systems of the low-slope roof areas were as follows:

- Roof area 1 sloped towards internal cast iron roof drain assemblies with dome strainers throughout the roof area (primary and secondary/overflow).
- Roof area 2 sloped towards internal cast iron roof drain assemblies with dome strainers throughout the roof area (primary and secondary/overflow).
- Roof area 3 sloped towards internal cast iron roof drain assemblies with dome strainers throughout the roof area (primary).
- Roof area 4 sloped towards internal cast iron roof drain assemblies with dome strainers along the East roof perimeter (primary).
- Roof area 5 sloped towards internal cast iron roof drain assemblies with dome strainers along the East roof perimeter (primary).

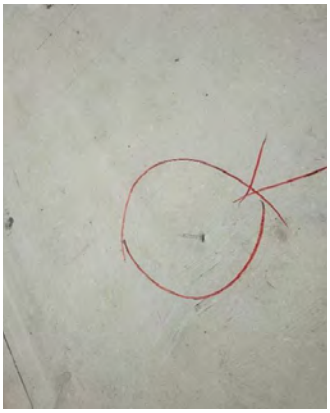
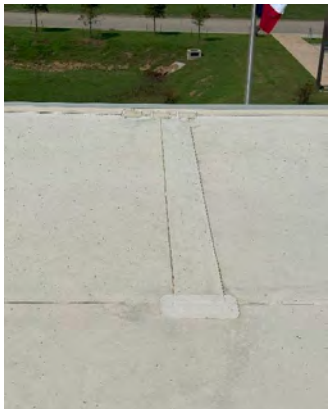
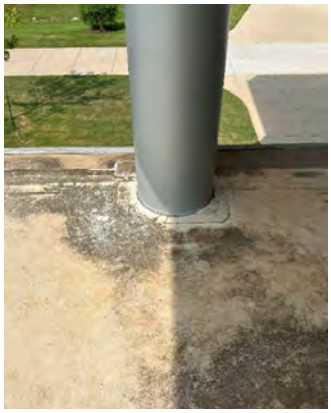
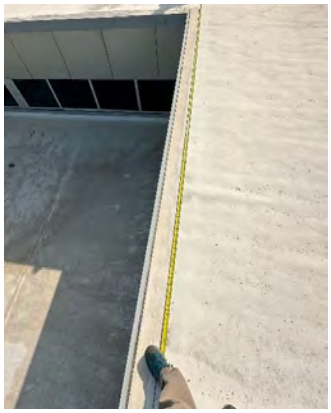


EXECUTIVE SUMMARY / KEY FINDINGS

- At Roof area 2, SEAL observed loose TPO flashing membrane at the roof to wall interface for at least one location. Loose flashing membrane was observed at multiple locations and was susceptible to further displacement/adhesion loss and punctures.
- At Roof area 2, SEAL observed poorly integrated metal transition flashing at the roof to window interface. SEAL observed poor transitions at multiple locations and is susceptible to displacement and water infiltration.
- Throughout Roof area 1, SEAL observed equipment curb penetrations. SEAL did not observe the unit to be fastened to the curb below. Additionally, SEAL did not observe counterflashing at curb penetrations. These conditions were susceptible to displacement and water infiltration relative to high wind events.
- At Roof area 1, SEAL observed concentrated membrane wrinkles of minor membrane delamination in at least one area. The wrinkles were indicative of partially unadhered roof membrane which increases susceptibility to wind uplift over time.
- SEAL observed at least one location where a counterflashing lap was unsealed at the laps. Disengaged and unsealed joints were susceptible to displacement from elevated wind events.
- Throughout the various roof areas, SEAL observed sedimentation around the drain assemblies common to roof areas which retain water. Additionally, SEAL observed the roofing membrane hole to be cut to a smaller diameter than the drainage pipe. This condition was likely to reduce drainage capacity from the larger roof drain leader.
- Throughout Roof area 3, SEAL observed at least one location of flashing around a curb penetration to be corroded and staining the roof membrane.
- At Roof area 1, SEAL observed at least one location of sealant to be failing/deteriorated at roof penetrations. Additionally, SEAL observed an apparent small penetration in the roofing membrane at Roof area 4. These conditions are susceptible to water infiltration.
- Throughout the various roof areas, SEAL observed remedial TPO membrane patches in isolated areas.
- SEAL observed aligned roofing fasteners along the North edge of Roof area 1. The fasteners were observed to be spaced approximately 6 inches on center.
- Along the West edge of Roof area 4, SEAL observed a column cover to be low in relation to the roof membrane. This condition may cause complications during reroofing.

Recommendation:

Based on our observations to date, it is our opinion the existing low-slope roofing system was in a generally serviceable condition and was generally solid underfoot. One roofing industry study indicates the service life for a thermoplastic polyolefin roof membrane is 14 years. Considering the age of the roof and the likelihood that the roof system was still under warranty by Firestone (now Holcim Elevate), it is our opinion that the roofing membrane was performing adequately, and significant roof system repairs are not currently required. The isolated wrinkling did not appear to present a current concern, although inspections should be maintained to evaluate the ongoing condition.

EXECUTIVE SUMMARY / KEY FINDINGS

However, periodic proactive roof inspection and maintenance will be necessary to maintain the roofing warranty. The following outlines our roofing-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Identify roofing manufacturer, warranty term, and warranty requirements and provide to building maintenance/engineering staff for reference and repair assistance.
- MT: To proactively identify roof damage and wear, as well as maintain assumed roof warranty requirements, inspect the low-slope roofing membrane bi-annually and following significant storm events with high volume rains and/or high winds. Properly repair all damage and wear as it is identified. A third party, credentialed roofing specialists should be considered for these building-specific evaluations.

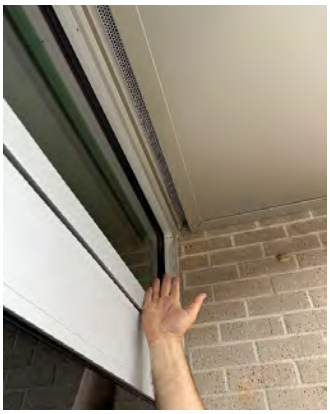
Intermediate Recommendations (10 to 20 years):

- Level 3: SEAL recommends completing a moisture survey (infrared, capacitance, or nuclear with accompanying secondary verification (roof cores preferred at that time) around Year 10 to address any significant areas of concern. Coordinate coring, if any, with roofing manufacturer for proper repair.
- Level 3: If the roofing system is dry, coating of membrane may be considered to restore continuity, including replacement of all roof flashings.
- Level 3: If the roofing system is wet, the existing single-ply roofing system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system manufactured by Soprema or Siplast with no less than a 20-year No Dollar Limit warranty. The roof assembly should consist of a mechanically-attached gypsum substrate board (where applicable), torch-applied 100-mil minimum vapor barrier, new rigid and tapered roofing insulation, and a gypsum fiber (non-faced) coverboard. A preformed tapered insulation sump should be placed at all primary roof drains. Reinforced liquid flashing system is recommended at all roof penetration and as a supplement to the roofing membrane in the insulation drain sump. New prefinished sheet metal copings and flashings should be provided

Long Term Recommendations (>20 years):

- Level 3: If not reroofed prior to 20 years due to damage or excessive wear, replace the existing single-ply thermoplastic roofing membrane with a multi-ply roofing assembly as described above.
- MT: If the roofing is replaced between Years 10 to 20, follow the inspection and maintenance protocol outlined above and prepare for roof coating approximately 7-10 years after initial roof installation.






EXECUTIVE SUMMARY / KEY FINDINGS

FLOORS

Minor, isolated areas of base damage were noted. As these conditions are aesthetic only, no corrective action is recommended at this time.Life cycle replacement should be considered for carpet in 10-12 years for LVT and carpet.

DOORS

No apparent issues were identified on interior conditions. Reference the “Windows” section for exterior window/door system recommendations.

MILLWORK / CASEWORK

Millwork and casework is still considered in “new” condition and no apparent issues were identified.

CEILING

Ceilings throughout the facility were observed to be in good to new condition. Replacement is not anticipated until the end of the typical ceiling system life cycle, which is approximately 20–25 years for lay-in acoustic ceilings under normal use.

KITCHEN

No formal kitchen is present in this facility.

MEP

The Administration building was built in 2020, all MEP systems are in good working condition. Mechanical equipment will need to be addressed for lifecycle replacements in 20-25 years.

LIGHTING

The Administration building was built in 2020, all lighting systems are in good working condition. Mechanical equipment will need to be addressed for lifecycle replacements in 20-25 years.

TECHNOLOGY

Audio Visual:

- **Divisible Classrooms A/B** – Replace the full audio-visual system to address aging equipment and restore functionality, recommended as a maintenance item.
- **Conference Rooms** – Add conferencing devices to provide full conferencing capabilities where currently lacking, recommended as part of future technology improvements.
- **Office Spaces** – Add the necessary infrastructure to allow flat screens to be fully utilized within office spaces, recommended as part of future technology upgrades.

Sound Systems:

- **Boardroom** – Replace the full sound system to address outdated equipment and restore reliable performance, recommended as a maintenance item.

SECURITY

- **Employee Services** – Add card readers to doors B111 and B107 to improve access control, immediate action recommended.
- **Business Suite (Doors)** – Add card readers to doors B112A and B112 to control access into the suite, immediate action recommended.

EXECUTIVE SUMMARY / KEY FINDINGS

- **Business Suite (Entry Points)** – Add camera coverage at suite entry points to improve monitoring, immediate action recommended.
- **Admin Suite (Doors) –** Add card readers to doors A108 and A108C to improve access control, immediate action recommended.
- **Admin Suite (Entry Points)** – Add camera coverage at suite entry points to improve monitoring, immediate action recommended.
- **Receiving** – Replace the existing Hikvision camera and add additional camera coverage to improve visibility and ensure NDAA compliance, immediate action recommended.

CARGILL / WILDKAT RESOURCE CENTER

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HISTORIC DATA

The building was built for $228,360 in 1939 as a WPA project during the Roosevelt administration. It was completed and used as the Willis High School. There was a wooden gymnasium next to it that was built in 1935 in preparation for the construction of the 1939 high school. In August 1995 this building was named the Cargill Educational Support Center in honor of the Cargill family who served Willis ISD for a grand total of 115 years. Dorothy Cargill worked in WISD for 47 years as a secretary; Velma Cargill taught in the District at two different times for a total of 34 years; Sue Ann (Cargill) Powell work as a counselor for 8 years in Willis; and Jeanette (Cargill) Wilson served the District for 26 years as a secretary.

Major Additions or Renovations: There has been much undocumented work done on the building. We have the original blue prints to the building and can see that it has had very few changes to it except for the addition of residential air conditioning systems from the 1970's. It has had carpeting added to the wood floors and many classrooms have had walls added to divide it into offices. A burglar alarm system was installed in this building in the mid 80's. In 1997 it was re-roofed, windows were all replaced and the exterior was coated with industrial coatings to prevent water infiltration. In 2002 a concrete handicap accessible ramp was constructed at the main entrance of building. The hardwood floors in some of the offices were repaired and refinished in 2002 and 2004. Renovations, replacement of damaged & rotten beams, sills, floor joists and flooring was done to the Business Office area in 2004. This renovation included installation of new sub-flooring, carpet and paint in the entire area. Carpet was replaced in the Cargill Boardroom and the Superintendent's Office in March 2004. In March 2004, a new PA system with remote controls was installed in the Cargill Boardroom; along with sheetrock work, ductwork and electrical work. New ceiling tile was installed in the Cargill Boardroom in March 2004. New chairs and table skirting was purchased for the board table in March 2004. In 2005 added dropped ceiling, new lighting and an additional AC unit in the Cargill Boardroom. In the summer of 2006, the hall wood floors were refinished, interior was painted, and minor repairs were completed. In 2012 the Technology Department installed projectors and security cameras throughout the building. The Superintendent's front offices & the office of the Executive Director Human Resources were painted in March 2013. Also in 2013 signs stating the WISD Vision & the Board of Trustees Core of Beliefs and new logos were mounted in the Boardroom. In September 2014, a receptionist security window was installed. District wide lighting upgrades in April 2015. In summer of 2015, hallways were painted and new signage was installed.

**All historical data and supporting information included in this report were furnished by the district. While the assessment team has made reasonable efforts to review and reference this material, the data has not been independently verified or validated in detail. The team assumes no responsibility for any inaccuracies or omissions contained within the district-provided information.*

GENERAL INFORMATION



CARGILL / WILDKAT RESOURCE CENTER 204 West Rogers Willis, TX 77378	
Year(s) Built:	1939
Approx. Total Building Square Footage	15,224
Approx. Total Site Area	2 acres

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

All restrooms within the facility are non-compliant with current code requirements. Deficiencies include missing grab bars, lack of required knee clearance, and improper fixture spacing. A complete reconfiguration of the restrooms will be necessary to bring them into compliance.

SITE CONDITIONS

No significant site issues were identified at this facility. Limited sidewalk remediation is recommended in locations where heaving or sinking has occurred as a result of natural aging and wear.

FOUNDATION

SEAL observed cracking and spalling at multiple locations throughout the building, as well as organic growth at the brick-to-foundation interface.

EXTERIOR WALLS

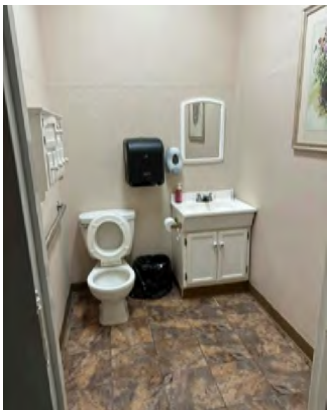
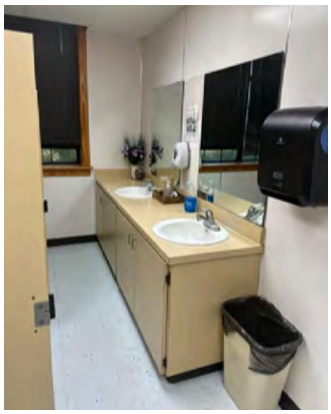
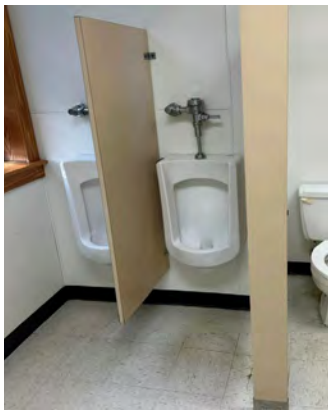
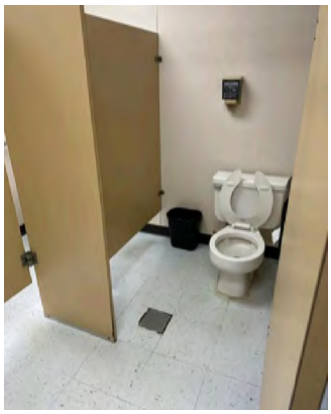
Existing Conditions:

Brick Masonry Veneer Walls

- Throughout the building exterior elevations, SEAL observed painted/coated brick masonry veneer. According to the documents provided, the brick was coated to prevent water intrusion although the surface was stained in many locations. Within the underlying masonry wall, SEAL observed significant cracking throughout the brick masonry walls and stair-step cracking was observed at a number of localized areas throughout the brick masonry units and mortar at each elevation. SEAL also observed displaced brick units and mortar at isolated locations.
- SEAL observed vents at North, East, and West elevations, approximately 9” below the coping face of the roof. Due to access limitations, the vents were not directly accessible but appeared to be approximately 16” wide by 8” tall with metal grates.
- At the typical building punched openings, SEAL observed painted/coated steel lintels. At most, if not all locations, the paint/coating exhibited delamination and corrosion above the storefront windows.
- At several exterior wall locations, SEAL observed unsealed holes through the brick masonry walls for HVAC service lines and electrical conduit.

· Precast Masonry Assemblies

- At the entry area, SEAL observed horizontal and vertical cracking in the joints of the precast masonry, as well as discoloration indicating potential water retention.
- The precast masonry sills, located beneath the windows, exhibited widespread cracking and spalling.

EXECUTIVE SUMMARY / KEY FINDINGS

Corrugated Sheet Metal Wall Panels

- Due to limited access, SEAL observed, via drone imagery, corrugated, prefinished sheet metal wall panels at the perimeter of the barrel roof. The corrugated wall panels did not exhibit signs of damage, displacement, or deterioration.

Recommendation:

Brick Veneer Masonry Walls

Based on our observations of the existing masonry wall assemblies and the time frame of initial construction, it is our opinion the brick masonry wall assembly was “mass wall” construction. Therefore, the system has no specific components intended as air and thermal barriers, and the water resistance of the assembly was dependent on the mass of the masonry system. The masonry components exhibited localized areas of distress indicating deficiencies in one or more of the building enclosure-related systems. Unless significant upgrades to the exterior wall following a detailed analysis of the wall assembly, this condition is unlikely to be renovated with superficial solutions. The following outlines our masonry-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- The observed cracking appears to be cosmetic in nature and does not appear to compromise the structural integrity or load-bearing capacity of the building. Recommended remedial actions include: Monitoring the crack over time to document any changes in width, length, or pattern that may indicate evolving conditions. Repairing the cracks using injection of structural adhesive or sealant. The selected material should be either color-matched to the existing concrete or painted after application to maintain visual consistency.
- Evaluation of site drainage to verify if there is any contribution to the masonry cracks.
- Investigate historic wall assemblies and materials to determine suitable preservation effort commensurate with the significance and continued use of the building.

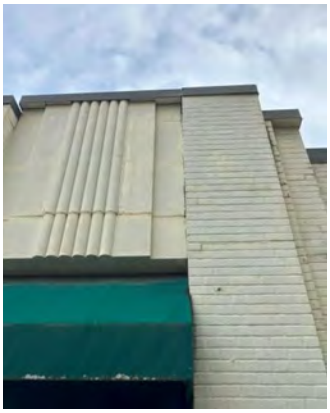
Intermediate and Long Term Recommendations (10 to >20 Years):

- Assuming the exterior masonry wall has been adequately restored after detailed analysis and proper restoration, subsequent maintenance should entail interfaces with roofing, windows, doors, and metal wall panels.

Metal Wall Panel Assemblies

Based on our observations of the existing metal wall panel assemblies, it is our opinion the metal panels to be in a generally serviceable condition. However, repairs and maintenance will be required to extend the service life of the system and mitigate water intrusion. The following outlines our metal wall panel-related recommendations:






EXECUTIVE SUMMARY / KEY FINDINGS

Short Term Recommendations (<10 years), including immediate:

- Replacement of all system fasteners with new oversized fasteners and gaskets.
- Sealing wall penetrations, unsealed metal-to-metal joints, and perimeter joints with high quality silicone sealant, such as appropriate DowSil product based on the substrate.
- Replacement of omitted, missing, loose/unsealed, or deteriorated metal panel closures.
- Modify and add transition flashing at brick-to-masonry interfaces to provide continuity and proper headlap for water resistance.
- Once the other repairs and maintenance have been completed, prepare substrate and apply an elastomeric coating/repaint the metal panel and flashing surfaces.

Intermediate and Long Term Recommendations (10 to >20 Years):

- Assuming the exterior metal wall panel system has been properly restored in the first 10 years, subsequent maintenance should entail interfaces with roofing, windows, doors, and masonry wall systems.

INTERIOR WALLS

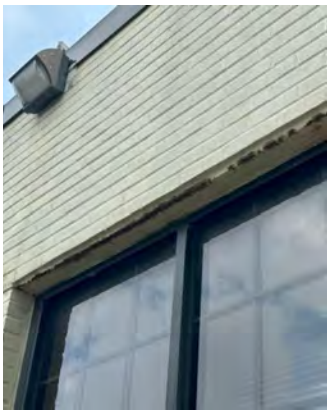
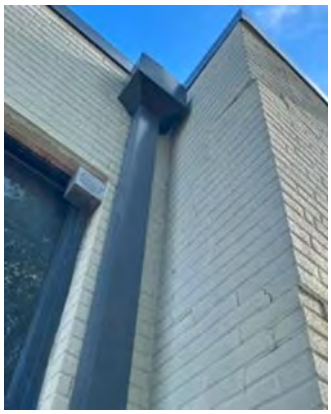
Superficial wall damage was observed. These conditions can be addressed by district maintenance personnel as part of routine upkeep.

WINDOWS

Existing Conditions

Glazing Assemblies

- Storefront Windows
    - SEAL observed storefront window units throughout the building. The storefront windows varied between two sizes. SEAL observed the windows were primarily sealed with glazing gaskets and liquid-applied perimeter sealant. These items exhibited aged, including gasket shrinkage and sealant cracking, hardening, and adhesion loss.
- Storefront Doors
    - At the South and West elevations, SEAL observed Vistawall door assemblies which consisted of aluminum-frame, double leaf storefront doors with a transom storefront window. SEAL also observed a similar condition at the East elevation with door assemblies manufactured by Kawneer. At both locations, the door assemblies were recessed or covered with an awning which limited direct access to bulk water.



· EXECUTIVE SUMMARY / KEY FINDINGS

Recommendation

Based on our observations of the existing glazing and fenestration systems, it is our opinion that the window and door systems, including seals and gaskets, are at or beyond the end of their service life. The following outlines our glazing and fenestration-related recommendations:

Short Term and Intermediate Recommendations (<10 years to 20 years), including immediate:

- Level 1: Install prefinished sheet metal transition flashing at window sill to provide continuity and eliminate unsealed conditions between the window unit and the sheet metal ledge flashing below.
- Level 1: Replace or significantly renovate the existing windows beneath the metal roof eaves.
- MT: To proactively identify sealant wear and deterioration, inspect perimeter and glazing sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals with high performance DowSil silicone sealants appropriate for the substrates required..
- MT: Remove and replace perimeter joint seals around all glazing and door systems with high performance DowSil silicone sealants appropriate for the substrates required.
- Replace or trim glazing gaskets and wet seal existing window systems to assist with water resistance.
- MT: Remove and reset or replace existing door thresholds and sealing door system to adjacent wall.
- MT: Remove and replace all existing door weatherstripping with new materials.

Long Term Recommendations (>20 Years):

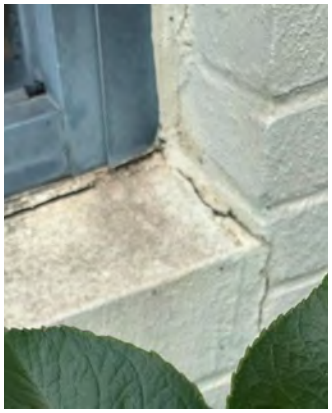
- Level 3: Full replacement of all window and door assemblies with new, thermally broken (or at least thermally improved) high-performance glazing systems, including insulated glass units.

ROOF

Existing Conditions:

· Upper Roofing System (Barrel)

- At the upper roofing system, SEAL observed a barrel roof structure with a raised perimeter parapet. While the membrane was relatively flat at the barrel ridge, the ends of the barrel exhibited significant slope. The barrel roof covering was comprised of granule-surfaced, hot-applied modified bitumen membrane with sheets oriented perpendicular to the roof slope (shingle-lapped) with a membrane butt-lap cover along the barrel ridge. Base flashings were also comprised of modified bitumen membrane and were apparently coated with aluminum roof coating.
- Throughout the roof area with drone imagery, SEAL observed advanced granule loss, significant membrane wrinkling, and exposed asphaltic membrane. SEAL observed two locations where membrane repairs were made.






EXECUTIVE SUMMARY / KEY FINDINGS

- SEAL observed primary roof drainage for the low roof was accommodated by sheet metal through-wall scuppers that drained wall-mounted, prefinished sheet metal conductor heads and sheet metal downspouts that discharged onto the lower roof area. Drainage assemblies were identified with three at the East elevation and three at the West elevation. The downspouts were drained directly to the modified-bitumen roof below with no splash blocks or collection pans which resulted in displaced aggregate at the lower roof surface. Secondary (overflow) drains were not observed on this roof area.

Lower Roofing System

- Throughout the lower roof area, SEAL observed a low-slope gravel surface built-up roof system with a raised perimeter parapet. According to the documents provided, the building was reroofed in 1997, making the roof approximately 18 years old at the time of our visit. Through the drone imagery, SEAL did not observe large areas of displacement, wear, or other significant visual signs of roofing failure.
- At the Northeast and Northwest corners, SEAL observed surface-applied mastic repairs at horizontal-to-vertical interfaces in the membrane base flashing. These areas were revealed at locations where the aggregate surfacing was displaced or moved.
- SEAL observed primary roof drainage for the low roof was accommodated by sheet metal through-wall scuppers that drained wall-mounted, prefinished sheet metal conductor heads and sheet metal downspouts that discharged into concrete splash blocks at grade. SEAL observed two conductor head and downspout assemblies on the North elevation, two on the South elevation, four on the East elevation, and four on the West elevation. At the interior side of the parapet, several scupper locations were noted to have had surface-applied remedial mastic repairs. Secondary (overflow) drains were not observed on this roof area.



EXECUTIVE SUMMARY / KEY FINDINGS

- SEAL observed sedimentation along the valley lines and crickets at multiple roof areas, as well as gravel displacement and exposed asphalt at each downspout from barrel roof water runoff..
- Throughout the BUR system, SEAL observed multiple roof penetrations, including but not limited to electrical penetrations and galvanized sheet metal “star” vents with embedded flashings for ventilation The flashings for several penetrations were prefinished sheet metal caps over a granule-surface modified bitumen flashing membrane covering a roof curb; flashing corners were covered with asphaltic mastic.
- At typical parapet assemblies, SEAL observed prefinished sheet metal coping providing the transition from the roofing to exterior wall system. The coping joinery consisted of prefinished sheet metal cover plates. In at least one location, the cover plate exhibited surface-applied remedial sealant at each side.

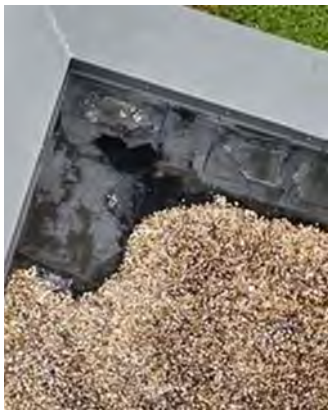
Recommendation:

Low-Slope Roofing System

Based on the documents provided, including a WISD Summary, it is our understanding the roofing system approximately 18 years old. One roofing industry study indicates a mean 18-year service life of a BUR and modified bitumen roofing assemblies. In our experience, quality BUR systems can last up to 50 years with proper maintenance and between 30-35 years for modified bitumen systems. Based on our observations to date, it is our opinion that the existing low-slope BUR system appeared to be in a generally serviceable condition. In our opinion, the modified bitumen roof assembly has exceeded its service life. However, as standard roofing warranties are commonly a 20-year term, it is possible the current roofing system is still under warranty. The following outlines our roofing-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Identify roofing manufacturer, warranty term, and warranty requirements and provide to building maintenance/engineering staff for reference and repair assistance.
- MT: Provide roofing specific training for WISD personnel to facilitate proactive identification of roofing anomalies, storm damage, and other conditions that can contribute to reduced service life.
- MT: To proactively identify roof damage and wear, as well as maintain assumed roof warranty requirements, inspect the low-slope roofing membrane bi-annually and following significant storm events with high volume rains and/or high winds. Properly repair all damage and wear as it is identified. Third party, credentialed roofing specialists should be considered for these building-specific evaluations.
- Level 3: SEAL recommends completing a moisture survey (infrared, capacitance, or nuclear with accompanying secondary verification (roof cores preferred at that time) around Year 10 to address any significant areas of concern. If there is an active warranty, coordinate coring, if any, with roofing manufacturer for proper repair.






EXECUTIVE SUMMARY / KEY FINDINGS

- §Level 3: If the roofing system is wet throughout, the existing BUR system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system manufactured by Soprema or Siplast with no less than a 20-year No Dollar Limit warranty. The roof assembly should consist of a mechanically-attached gypsum substrate board (where applicable), torch-applied 100-mil minimum vapor barrier, new rigid and tapered roofing insulation, and a gypsum fiber (non-faced) coverboard. A preformed tapered insulation sump should be placed at all primary roof drains. Reinforced liquid flashing system is recommended at all roof penetration and as a supplement to the roofing membrane in the insulation drain sump.
- Level 3: Remove and replace all penetration flashings, perimeter flashings, drainage assemblies and sealants. Embedded flashings, including scuppers and roof penetration flashings should be comprised of 24 gauge stainless steel. With the new roofing systems, installation of a splash block/pan to dissipate erosion of the low roof membrane.

Intermediate and Long-term Recommendations (10 to >20 Years):

- MT: Re-evaluate the roofing assemblies at 5 years intervals with visual and moisture surveys.
- MT: Recoat locations with coating at 5-year intervals.
- MT: When roofing systems exhibit elevated moisture or signs of deterioration or damage, consideration for roof replacement should commence with the system recommended above.

Upper Barrel Roofing System

Based on our observations to date, it is our opinion that the existing barrel roofing system appeared to be in a generally serviceable condition. However, several repairs would be required to re-establish an enhanced level of roof performance and limit opportunities for additional water infiltration. The following outlines our roofing-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Identify roofing manufacturer, warranty term, and warranty requirements and provide to building maintenance/engineering staff for reference and repair assistance.
- MT: Provide roofing specific training for WISD personnel to facilitate proactive identification of roofing anomalies, storm damage, and other conditions that can contribute to reduced service life.
- MT: To proactively identify roof damage and wear, as well as maintain assumed roof warranty requirements, inspect the low-slope roofing membrane bi-annually and following significant storm events with high volume rains and/or high winds. Properly repair all damage and wear as it is identified. Third party, credentialed roofing specialists should be considered for these building-specific evaluations.






EXECUTIVE SUMMARY / KEY FINDINGS

- Level 3: SEAL recommends completing a moisture survey (infrared, capacitance, or nuclear with accompanying secondary verification (roof cores preferred at that time) around Year 10 to address any significant areas of concern. If there is an active warranty, coordinate coring, if any, with roofing manufacturer for proper repair.
- Level 3: If the roofing system is wet throughout, the existing BUR system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system manufactured by Soprema or Siplast with no less than a 20-year No Dollar Limit warranty. The roof assembly should consist of a mechanically-attached gypsum substrate board (where applicable), torch-applied 100-mil minimum vapor barrier, new rigid and tapered roofing insulation, and a gypsum fiber (non-faced) coverboard. A preformed tapered insulation sump should be placed at all primary roof drains. Reinforced liquid flashing system is recommended at all roof penetration and as a supplement to the roofing membrane in the insulation drain sump.
- Level 3: Remove and replace all penetration flashings, perimeter flashings, drainage assemblies and sealants. Embedded flashings, including scuppers and roof penetration flashings should be comprised of 24 gauge stainless steel. With the new roofing systems, installation of a splash block/pan to dissipate erosion of the low roof membrane.

Intermediate and Long-term Recommendations (10 to >20 Years):

- MT: Re-evaluate the roofing assemblies at 5 years intervals with visual and moisture surveys.
- MT: Recoat locations with coating at 5-year intervals.
- MT: When roofing systems exhibit elevated moisture or signs of deterioration or damage, consideration for roof replacement should commence with the system recommended above.

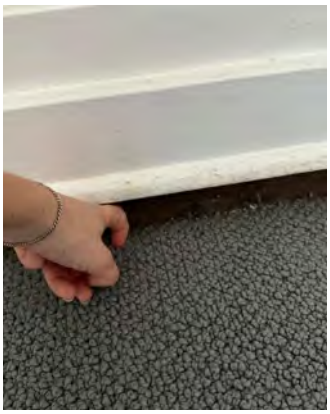
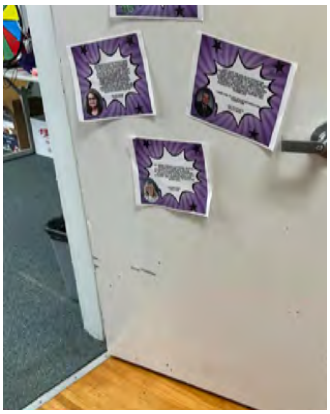
FLOORS

Superficial damage was observed on the wood flooring. In addition, there was an individual instance where gaps were noted between the floor and the exterior wall.

Overall flooring systems were in fair/good conditions. Minor spot refinishing can be utilized to address minor damage within wood flooring areas. Carpeted areas remain serviceable but are approaching the midpoint of their expected life cycle, recommend replacement in 5-7 years.

DOORS

At exterior storefront systems, reference recommendations under the “Windows” deficiency tab for recommendations for doors in storefront assemblies.


EXECUTIVE SUMMARY / KEY FINDINGS

At interior conditions minor chipping was observed on doors and door frames throughout the facility. Spot repairs or refinishing are recommended to restore appearance and prevent further deterioration. With routine maintenance—such as repainting, sanding, or repairing damaged areas as needed—these doors and frames can remain in good condition for 10–15 years.

MILLWORK / CASEWORK

This facility mostly contained furniture, not built-in casework. No apparent issues were identified.

CEILING

Ceilings were observed in fair condition. Replacement not recommended for 10-15 years.

KITCHEN

No formal kitchen is present in this facility.

MEP

Existing Condition

- **Cooling/Heating System:** Residential split AC systems with electric heat.
- **Energy Mgmt. System:** None.

Recommendation

The Cargill/WildKat building, constructed in 1939, utilizes residential-type split systems for mechanical service. The mechanical equipment has reached the end of its expected life cycle and should be scheduled for replacement.

There is no indication that the underground plumbing piping has ever been replaced. Due to limited visibility, the facility assessment team was unable to verify the current condition of the piping. If the district begins to experience recurring issues, immediate replacement of the sewer piping is recommended. In the absence of active problems, replacement should be planned within the next 5–15 years as part of long-term infrastructure renewal.

LIGHTING

Lighting is currently fluorescent; LED upgrades are not required, but are recommended for energy savings and code compliance.

TECHNOLOGY

No apparent issues were identified.

PA

No apparent issues were identified.

SECURITY

- **Video Surveillance:** The existing Hikvision cameras should be replaced with Hanwha models to maintain NDAA compliance and align with district-wide security standards. In addition, new exterior camera coverage is recommended to improve visibility and monitoring of perimeter conditions. Interior corridor camera coverage should also be enhanced to ensure complete visual oversight throughout the facility.
- **Access Control:** It is recommended to add card readers at the front and side doors of the annex building to

improve building access management and integrate with the district's existing access control infrastructure.

- **Panic and Door Release Systems:** A door release button should be added at the reception desk and Pracilla's office to allow secure control of visitor entry. Additionally, a panic button should be installed at the reception desk within the next 1–2 years to support emergency lockdown procedures and improve staff safety.
- **Intrusion Detection:** The existing intrusion detection system should be replaced within the next 1–2 years. Although functional, the system relies on legacy hardware that is no longer supported, which may impact long-term reliability and integration with newer technologies.

CARGILL ANNEX

18

HISTORIC DATA

The building was built in 1922 for $71,720 as one of the original school buildings when the district was organized. It served as the 1st through 12th grade for many years. When built it was a two-story building with 1st through 8th grade downstairs and 9th through 12th grade upstairs. It became the 1st through 8th grade building in 1939 when the present-day Administration building was built and became the new High School. At some point in time during the 1960's the top story was damaged by fire. The building was saved but the top part was so severely damaged that it was demolished and the building became a one-story building. It has served many purposes over the years. It has been utilized as a Junior High building, a community education building, a Kindergarten building and now as an administration building.

Major Additions or Renovations: There has been much undocumented work done on the building. We do know that fire damage in the l960's caused the upper story to be demolished. At that time the lower story of the building was renovated. The plaster walls were covered with tongue and groove boards, the wooden floor was covered with vinyl asbestos floor tile, a suspended ceiling was installed under the decorative hammered tin ceilings and residential type air conditioning and heating was installed. The building has had very little work done since that time except for regular maintenance. A burglar alarm system was installed in this building in the mid 80's. In August 2002 this building was re-roofed. In December 2002 a new front entry door was installed. New walls were constructed to renovate two offices in 2011. Renovated two offices in 2012. In 2012 the Technology Department installed security cameras throughout the building. In 2013 renovated two more offices. Two panels of power were updated in February 2014. In summer of 2014, renovations were made to create new administrative offices and a new roof was installed. District wide lighting upgrades in April 2015.

**All historical data and supporting information included in this report were furnished by the district. While the assessment team has made reasonable efforts to review and reference this material, the data has not been independently verified or validated in detail. The team assumes no responsibility for any inaccuracies or omissions contained within the district-provided information.*

GENERAL INFORMATION



CARGILL ANNEX 202 West Rogers Willis, TX 77378	
Year(s) Built:	1922
Approx. Total Building Square Footage	7,172
Approx. Total Site Area	2 acres

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

Both the men's and women's group restrooms currently do not comply with the latest Americans with Disabilities Act (ADA) standards. Deficiencies include non-compliant water closets, stalls, and lavatories, all of which require major modifications to meet current accessibility requirements.

Additionally, the break room lacks an accessible sink configuration. At least one sink must provide compliant knee clearance and be mounted within the appropriate reach range to accommodate individuals with disabilities. Upgrades in these areas are necessary to ensure the facility meets federal accessibility standards and provides equitable access for all users.

It was noted in information given from the district, that previously some asbestos has been removed from specific areas but before any major renovation work can be done, this building needs to have more vinyl asbestos tile removed.

SITE CONDITIONS

No significant site issues were identified at this facility. Limited sidewalk remediation is recommended in locations where heaving or sinking has occurred as a result of natural aging and wear.

FOUNDATION

Throughout the building, SEAL observed a concrete foundation wall extending above grade. The wall exhibited a one-inch horizontal project, as well as excessive cracking, spalling, and staining at the foundation. These conditions were indicative of moisture retention and distress.

EXTERIOR WALLS

Existing Conditions:

Brick Masonry Walls

- Throughout the entirety of the building, SEAL observed vertically ribbed, clay brick masonry wall construction. Although there were incomplete head joint filling at a number of base of wall conditions, the exterior wall did not contain regular weep provisions at the foundation-to-brick masonry interface and therefore the wall appeared to be mass wall construction. At the West elevation, SEAL observed several isolated locations with vertical cracks at mortar and brick. These conditions appeared to be indicative of stresses within the wall or the underlying concrete foundation. At the multiple locations, SEAL observed masonry staining below the windows that was indicative of moisture retention.





EXECUTIVE SUMMARY / KEY FINDINGS

Metal Wall Panel Assemblies

- Corrugated prefinished sheet metal wall panels were observed at the North and South elevations of the building. Although the paint was faded, the were no visible signs of damage or corrosion. Throughout the metal panel cladding locations, SEAL observed a number of unsealed fasteners, deteriorated fastener gaskets, and unsealed penetrations and perimeter conditions.

Recommendation:

Brick Veneer Masonry Walls

Based on our observations of the existing masonry wall assemblies and the time frame of initial construction, it is our opinion the brick masonry wall assembly was “mass wall” construction. Therefore, the system has no specific components intended as air and thermal barriers, and the water resistance of the assembly was dependent on the mass of the masonry system. The masonry components exhibited localized areas of distress indicating deficiencies in one or more of the building enclosure-related systems. Unless significant upgrades to the exterior wall following a detailed analysis of the wall assembly, this condition is unlikely to be renovated with superficial solutions. The following outlines our masonry-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- The observed cracking appears to be cosmetic in nature and does not appear to compromise the structural integrity or load-bearing capacity of the building. Recommended remedial actions include: Monitoring the crack over time to document any changes in width, length, or pattern that may indicate evolving conditions. Repairing the cracks using injection of structural adhesive or sealant. The selected material should be either color-matched to the existing concrete or painted after application to maintain visual consistency.
- Evaluation of site drainage to verify if there is any contribution to the masonry cracks.
- Investigate historic wall assemblies and materials to determine suitable preservation effort commensurate with the significance and continued use of the building.

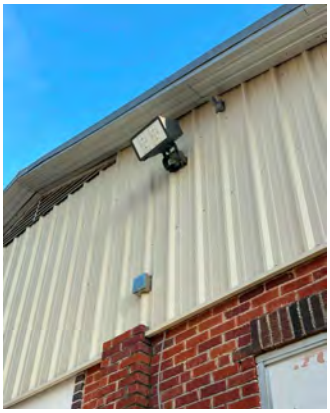
Intermediate and Long Term Recommendations (10 to >20 Years):

- Assuming the exterior masonry wall has been adequately restored after detailed analysis and proper restoration, subsequent maintenance should entail interfaces with roofing, windows, doors, and metal wall panels.

Metal Wall Panel Assemblies

Based on our observations of the existing metal wall panel assemblies, it is our opinion the metal panels to be in a generally serviceable condition. However, repairs and maintenance will be required to extend the service life of the system and mitigate water intrusion. The following outlines our metal wall panel-related recommendations:



EXECUTIVE SUMMARY / KEY FINDINGS

Short Term Recommendations (<10 years), including immediate:

- Replacement of all system fasteners with new oversized fasteners and gaskets.
- Sealing wall penetrations, unsealed metal-to-metal joints, and perimeter joints with high quality silicone sealant, such as appropriate DowSil product based on the substrate.
- Replacement of omitted, missing, loose/unsealed, or deteriorated metal panel closures.
- Modify and add transition flashing at brick-to-masonry interfaces to provide continuity and proper headlap for water resistance.
- Once the other repairs and maintenance have been completed, prepare substrate and apply an elastomeric coating/repaint the metal panel and flashing surfaces.

Intermediate and Long Term Recommendations (10 to >20 Years):

- Assuming the exterior metal wall panel system has been properly restored in the first 10 years, subsequent maintenance should entail interfaces with roofing, windows, doors, and masonry wall systems.

WINDOWS

Existing Conditions:

- Throughout the elevations of the building, SEAL observed aluminum-framed window assemblies. Based on the age and location of the units, the conditions varied. However, failed/deteriorated perimeter sealants was typical. The glazing assemblies throughout the building elevations generally exhibited single pane glass with deteriorated glazing sealants/putties. The coast stone window sills exhibited considerable vertical cracks and at least one large spall.
- At the bump outs of the West elevation, SEAL observed wood framed windows which were typically glazed with single pane glass or polycarbonate sheet. The wood framing and the perimeter sealants appeared to be deteriorated throughout, which was likely indicative of potential water penetration.
- At the East elevation of the building, SEAL observed a single-leaf, hollow-frame metal door assembly glazed into a surrounding aluminum-framed storefront system. SEAL observed staining at the base of the side lites and deterioration resulting in a questionable seal.
- Along the North elevation of the building, SEAL observed a double-leaf, glazed entrance door assembly. SEAL also observed the weatherstripping at the door-to-frame interface exhibited age and deterioration resulting in a questionable seal. This condition was susceptible to water infiltration at the door sill.
- At the South elevation, SEAL observed a single-leaf, glazed entrance door assembly with a storefront side lite. The assembly was beneath a gabled canopy with corrugated metal panel roofing. The condition of the assembly no visible damaged or deteriorated components or sealant shrinkage at the frame-to-glazing interfaces.






EXECUTIVE SUMMARY / KEY FINDINGS

Recommendation:

Based on our observations of the existing glazing and fenestration system failures and deterioration, it is our opinion that the window and door systems, including seals and gaskets, are at or beyond the end of their service life. The following outlines our glazing and fenestration-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- For a long-term solution, removal and replacement of windows is recommended. Replacement should consist of a thermally-broken (or at least thermally improved) aluminum-framed storefront glazing system with insulated glass units (IGU's). Additionally, all non-aluminum framed door assembly should be replaced as well.
- For a short term or temporary solution, consideration may be given to removing and replacing the perimeter joint sealants around all glazing, louver, and door systems.
- For a short term or temporary solution, remove and replace or trim glazing gaskets and wet seal existing window systems to assist with water resistance.
- Remove and reset or replace existing door thresholds and sealing aluminum-frame door systems to the adjacent walls.
- Replace all door weatherstripping.

Intermediate and Long Term Recommendations (10 to >20 Years):

- Assuming the windows and non-aluminum frame doors have been properly replaced in the first 10 years, subsequent maintenance should entail interfaces with metal wall panels and masonry wall systems.

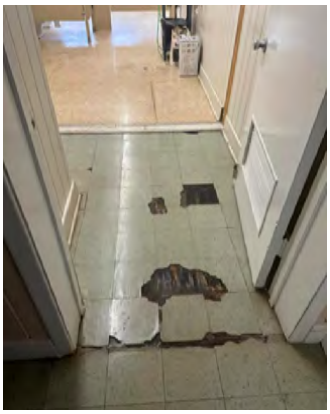
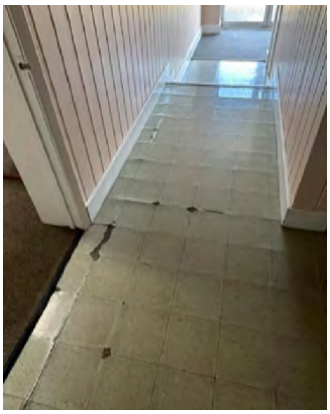
ROOF

Existing Conditions:

Steep-Slope Roofing System

- Throughout the entire roofing system, SEAL observed a steep-slope (3-to-4:12) galvanized, sheet metal panels with exposed gasketed fasteners. The roof panel profile was commonly known as an R-panel and contained high and low/stiffener ribs; the panel laps occurred at the high ribs and there was no apparent sealant in the metal panel laps. SEAL did not observe metal or foam closures at the eave of the panels resulting in unsealed openings. SEAL observed portions to the East elevation rake flashing termination were not sealed. This roof type was typical of a structural metal panel system without underlayment. The roof surface did not exhibit damage or corrosion or evidence of fastener withdrawal. The fastener gaskets exhibited deterioration.
- The metal roof system had multiple penetrations, including B-vents and plumbing pipes, that were flashed with preformed membrane flashing boots. The sealant termination at the penetration flashings appeared to be in adequate condition.



EXECUTIVE SUMMARY / KEY FINDINGS

Recommendation:

Steep-Slope Roofing System

Based on our observations to date, it is our opinion the existing steep-slope metal roofing system was in a generally serviceable condition. However, a number of repairs would be required to provide an enhanced service life or less risk related to future water infiltration. In our opinion, structural metal panel roofing systems with exposed fasteners are unlikely to perform for a conditioned office space for an extended period of time as the roofing around the fasteners becomes slotted with standard thermal cycling and the gaskets become stiff and deteriorate with weather and UV exposure. The following outlines our roofing-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- For a short term or temporary solution, remove and replace all fasteners at the existing roofing panels with new oversized fasteners and gaskets.
- To extend the service life additionally, supplement the fastener replacement with an elastomeric silicone roof coating. Recoating would be required at 10 to 15-year intervals.
- Remove and replace all penetration flashing sealants and provide new membrane and sheet metal flashing to provide continuity at the rake flashing conditions (four locations).
- For a long-term solution for an enhanced roofing system with enhanced performance expectations to provide better protection of the building interior, remove the existing metal roofing system, inspect the roofing substrate/deck and repair as required, install a new high temperature underlayment, and install a new prefinished steel double-lock standing seam roofing system with proper transition and penetration flashings. If done properly and under the direction of a roofing design and installation specialist, this solution should provide 30-50 year durability.



EXECUTIVE SUMMARY / KEY FINDINGS

Intermediate and Long Term Recommendations (10 to >20 Years):

- Assuming the roof has been renovated and coated or replaced within 1o years, subsequent activities will consist of annual inspections of sealants (and coatings).

FLOORS

Widespread damage to vinyl composition tile (VCT) was observed throughout the facility. The extent of the deterioration warrants a full replacement to restore both the functionality and appearance of the flooring.

In addition, minor staining and visible smears were noted on the carpeted areas. While not as severe, these areas would benefit from professional cleaning, with localized replacement considered where staining cannot be adequately removed. Carpet overall was observed in fair condition. Replacement recommended in 5-7 years.

DOORS

Doors were observed in a relatively fair condition, consistent with the age of the facility. No apparent major areas of concern were identified.

MILLWORK / CASEWORK

This facility mostly has furniture, not built-in casework.

CEILING

Water damage was observed on multiple ceiling tiles throughout the facility. In some areas, there appears to be possible organic growth, which may indicate prolonged moisture exposure. These conditions raise concerns related to both building integrity and indoor air quality. It is recommended that the affected tiles be removed and replaced, and that the source of moisture be identified and repaired. Further evaluation by a qualified professional may be necessary to assess and remediate any potential mold or related issues. Full ceiling replacement is recommended in 5-10 years.

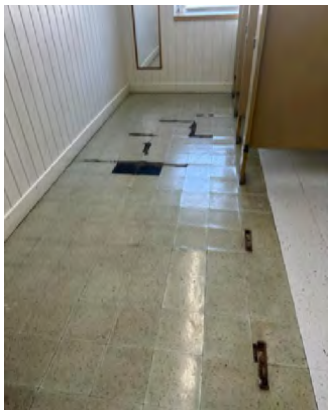
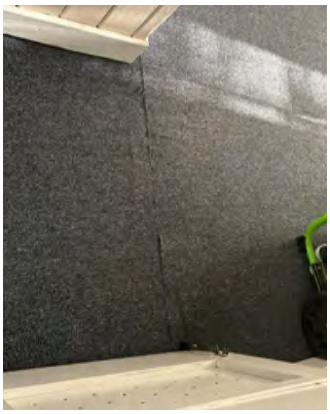
KITCHEN

No commercial food service space present in this facility.

MEP

Existing Condition:

- **Cooling/Heating System**: Residential split AC systems with electric heat.
- **Energy Mgmt. System:** None.



EXECUTIVE SUMMARY / KEY FINDINGS

Recommendation:
The Cargill Annex Building was built in 1922. HVAC is standard residential split systems. The mechanical system is at lifecycle replacement.

There is no indication that the underground plumbing piping has ever been replaced. Due to limited visibility, the facility assessment team was unable to verify the current condition of the piping. If the district begins to experience recurring issues, immediate replacement of the sewer piping is recommended. In the absence of active problems, replacement should be planned within the next 5–15 years as part of long-term infrastructure renewal.

LIGHTING

Lighting is currently fluorescent; LED upgrades are not required, but are recommended for energy savings and code compliance.

TECHNOLOGY

No apparent issues were identified.

PA

No apparent issues were identified.

SECURITY

- **Video Surveillance:** The existing Hikvision cameras should be replaced with Hanwha models to ensure NDAA compliance and maintain consistency with district-wide security standards. In addition, new exterior camera coverage is recommended to improve monitoring and safety around the building perimeter immediately.
- **Intercom System:** Installation of a new intercom with a door release button at the front door is recommended within the next 1–2 years to enhance visitor management and controlled entry.
- **Intrusion Detection:** The existing intrusion detection system should be replaced within the next 1–2 years to ensure reliable monitoring and integration with other security systems.

WISD MAINTENANCE FACILITY

19

HISTORIC DATA

The maintenance facility was constructed in 2002 as a pre-manufactured, single-story building with an original area of approximately 7,500 square feet. The construction cost was $451,000. The facility currently houses the Building and Grounds Maintenance Departments as well as the Energy Specialist Department, providing space for administrative and operational support for district maintenance functions.

Major Additions or Renovations: In 2012, the Technology Department installed security cameras throughout the building. In September 2014, three bays were added to expand operational capacity. In January 2015, administrative offices were renovated. In April 2015, district-wide lighting upgrades were completed.

**All historical data and supporting information included in this report were furnished by the district. While the assessment team has made reasonable efforts to review and reference this material, the data has not been independently verified or validated in detail. The team assumes no responsibility for any inaccuracies or omissions contained within the district-provided information.*

GENERAL INFORMATION



WISD MAINTENANCE FACILITY 707 Gerald St. Willis, TX 77378	
Year(s) Built:	2002
Approx. Total Building Square Footage	10,750
Approx. Total Site Area	3 acres

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

Accessibility within the Maintenance Facility seems to be in general compliance with TAS. However, per the latest fire code requirements, all ranges are required to be equipped with an Ansul kitchen hood system. One residential-style range was observed without an Ansul hood. Recirculating hoods are no longer permitted by code and should be replaced with a compliant fire-suppression hood system.

SITE CONDITIONS

Water damage is occurring at the downspout and condensate discharge areas. Installation of a splash block or drain pan is recommended to direct water away from the building and prevent further damage. Limited sidewalk remediation is recommended in locations where heaving or sinking has occurred as a result of natural aging and wear.

EXTERIOR WALLS

Existing Conditions:

Metal Wall Panel Assemblies

- Corrugated prefinished sheet metal wall panels were observed at each elevation of the building. At these locations, SEAL observed multiple disengaged and unsealed fasteners, deteriorated fastener gaskets, and unsealed penetrations. These conditions were consistent at multiple locations around the building.
- At the base of the wall assembly, SEAL did not observe sheet metal base flashing between the corrugated metal panel and foundation; this condition was prominent throughout the building perimeter and represented a discontinuity that as susceptible to water infiltration. At the South elevation, SEAL observed several small portions of corroded corrugated metal wall panels near the man door on the West end of the wall.

Recommendation:

Based on our observations of the existing metal wall panel assemblies, it is our opinion the metal panels to be in a generally serviceable condition. However, repairs are required to extend the service life of the system and mitigate water intrusion. The following outlines our metal panel-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Replacement of disengaged fasteners and those with deteriorated gaskets.
- MT: Replacement of omitted, missing, or loose metal panel closures.
- MT: Sealing wall penetrations, closures, unsealed metal-to-metal joints, and perimeter joints with sealant.
- MT: Remove metal wall panels. Install new sheet metal Z-flashing at the base of the wall set in a full bed of continuous non-curing, gun-grade butyl sealant.
- MT: Repaint the entire building and flashings to protect further deterioration of the underlying base metal.






EXECUTIVE SUMMARY / KEY FINDINGS

Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: Repeat the items list above at 10 years intervals.

INTERIOR WALLS

Typical interior wall and base conditions include peeling base and localized damage, such as holes in ceramic tile walls near sinks and window sill deterioration. Some base areas show wall movement, suggesting possible underlying stud damage, and light rusting was observed at the base of the pre-engineered metal building (PEMB) walls. These issues should be addressed through targeted repairs and maintenance to prevent further deterioration.

WINDOWS

Existing Conditions:

Aluminum-framed Windows and Door Openings

- SEAL observed multiple corrugated metal overhead doors; however, due to limited access SEAL was only able to access the door at the North elevation. The door appeared to be in adequate condition; however, the disengaged concrete slab foundation-to-gasket interface may likely lead to air, water, and animal intrusion.
- SEAL observed multiple aluminum-framed windows throughout the building. The windows exhibited isolated shrinking gaskets and typical crazing at the jamb locations. These conditions showed signs of aging and deterioration, indicative of moisture retention and potential water intrusion.

Recommendation:

Based on our observations of the existing glazing and doors systems, it is our opinion that the systems, including seals and gaskets, are at or beyond the end of their service life. The following outlines our glazing and fenestration-related recommendations:

Short Term and Intermediate Recommendations (<10 years to 20 years), including immediate:

- MT: To proactively identify sealant wear and deterioration, inspect perimeter and glazing sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals with high performance DowSil silicone sealants appropriate for the substrates required.
- MT: Remove and replace perimeter joint seals around all glazing and door systems with high performance DowSil silicone sealants appropriate for the substrates required.
- Replace or trim glazing gaskets and wet seal existing window systems to assist with water resistance.
- MT: Remove and reset or replace existing door thresholds and sealing door system to adjacent wall.
- MT: Remove and replace all existing door weatherstripping with new materials.






EXECUTIVE SUMMARY / KEY FINDINGS

Long Term Recommendations (>20 Years):

- Level 3: Full replacement of all window and door assemblies with new, thermally broken (or at least thermally improved) high-performance glazing systems, including insulated glass units.
-

ROOF

Existing Conditions:

Corrugated Metal Panel Roofing System

- Throughout the entire roofing system, SEAL observed a low-slope corrugated metal panel roofing system. The corrugated metal panels varied in surface appearance based on roof area. The metal roof panels at Roof Area 1, 2, and 3 were similar materials, likely galvanized steel or galvalume, and were similarly aged. The metal roof panels at Roof Area 4 exhibited a brighter finish, galvanized or galvalume, and appeared to be more recently installed. The metal roof panels Roof Area 5 were prefinished steel metal. The exposed fasteners were corroding, and the silicone gaskets were exhibiting signs of deterioration. The roofing system had pre-formed metal boot penetrations; however, the preformed boots were exhibiting signs of crazing and deterioration. These conditions were typical signs of aging and indicative of potential water intrusion.

Recommendation:

Based on our observations to date, it is our opinion the existing low-slope roofing system appeared to be in generally serviceable condition. However, several repairs would likely be required at Roof Areas 1, 2, and 3 to maintain an adequate level of roof performance and limit opportunities for additional water infiltration. The following outlines our roofing-related recommendations:



EXECUTIVE SUMMARY / KEY FINDINGS

Short Term Recommendations (<10 years), including immediate:

- MT: For a short term or temporary solution, remove and replace all fasteners at the existing roofing panels with new oversized fasteners and gaskets.
- Level 1: Remove and replace all existing roof flashings, including those with remedial mastics and sealants with proper flashing assemblies as recommended within the Sheet Metal and Air Conditioning Contractors Association (SMACNA) Architectural Sheet Metal Manual (ASMM) or the National Roofing Contractors National Association (NRCA) Architectural Metal Flashing and Condensation and Air Leakage Control Manual.
- Level 3: To extend the service life additionally, supplement the fastener replacement with an elastomeric silicone roof coating. Recoating would be required at 10 to 15-year intervals.
- Level 3: If the existing building is intended to remain in service beyond 10 – 15 years, another option for extending roof durability is to overlay the existing metal roof panels with a "Roof Hugger"-type system. This system involves the mechanical attachment of custom galvanized steel sub-framing, insulation, and a new metal roofing panel over the existing framing and metal panel system. For enhanced durability and performance, this new system could incorporate rigid insulation and a double-lock standing seam that may allow the building to be used for an enhanced purpose. The solution would require evaluation of the existing structure by a structural engineer.

Intermediate and Long Term Recommendations (10 to >20 Years):

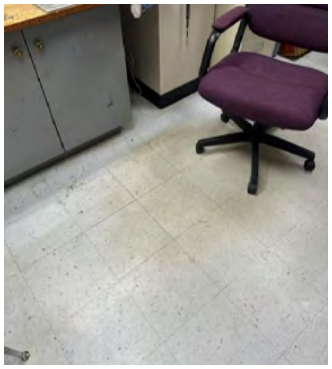
- MT: Assuming the roof has been renovated and coated or replaced within 10 years, subsequent activities will consist of annual inspections of sealants (and coatings).

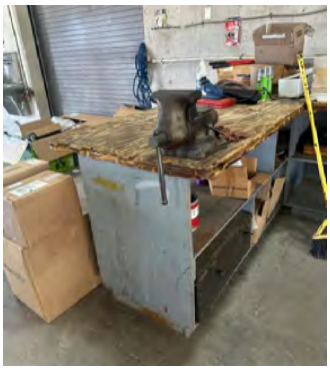
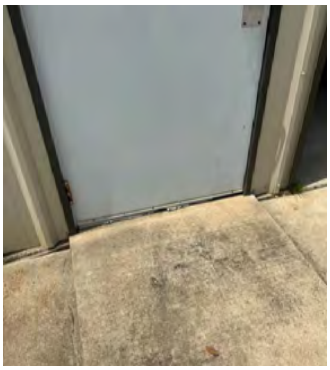
FLOORS

Flooring throughout the facility shows general wear and tear, including weathering at the main front door, water stains on carpet, and areas of floor damage under equipment such as refrigerators. Specific issues include damaged or missing tile, rubber base needing replacement along the north wall, and localized damage extending to the concrete substrate. Carpeted areas were observed to be in fair to poor condition and are recommended for replacement within 2–5 years. Vinyl composition tile (VCT) was in fair to poor condition and is recommended for replacement within 5–7 years. Additional improvements, such as adding floor sinks to electric drinking fountains, are also recommended to enhance functionality and reduce ongoing maintenance needs.

DOORS

Doors throughout the facility exhibit minor issues, including worn door handle finishes, missing hardware, and threshold damage. Individual instances of overhead doors require reconnection of the power source. At the North elevation, an isolated condition was observed where a ½" gap exists between the concrete slab and the metal overhead door sill gasket, leaving the area susceptible to air, water, and animal intrusion.



EXECUTIVE SUMMARY / KEY FINDINGS

MILLWORK / CASEWORK

Casework throughout the facility shows multiple deficiencies, including missing base and toe closures, missing handles, and general wear that can be addressed for the most part by district maintenance. Replacement or repair of workbench countertops is recommended immediately to ensure proper workspace for maintenance staff.

CEILING

Ceiling and mechanical devices throughout the facility show signs of wear and water damage. Observed issues include old or water-stained ceiling tiles, sagging or missing tiles, rusted supply grilles and air devices, and missing or damaged light fixture lenses. Investigation and corrective action are recommended to address underlying water intrusion, restore ceiling integrity, and ensure proper function of mechanical and lighting components. Full lay-in ceiling replacement is recommended in the office areas in 10-15 years.

KITCHEN

This facility does not have a commercial kitchen or concessions set up.

MEP

Existing Conditions:

- **Cooling/Heating System:** Residential split AC systems with gas heat.
- **Energy Mgmt.** System: None.

Recommendations:

The Maintenance Building was built in 2002. HVAC is standard residential split systems. The mechanical system is at lifecycle replacement.

LIGHTING

Lighting is currently fluorescent; LED upgrades are not required, but are recommended for energy savings and code compliance.

TECHNOLOGY

No apparent issues were identified.

PA

No apparent issues were identified.

SECURITY

- **Maintenance Area:** Replace all existing video surveillance cameras to improve image quality and ensure reliable monitoring coverage. This should be addressed immediately.
- **Maintenance Employee Parking:** Add a camera to provide coverage of the employee parking area for improved safety and security. This should be addressed immediately.
- **Maintenance Warehouse:** Add camera coverage within the warehouse area to enhance visibility and monitoring. This should be addressed immediately.
- **Maintenance Area:** Replace the existing intrusion detection system to ensure proper integration with modern security infrastructure and improve reliability. This should be addressed within 1–2 years.

WISD MAINTENANCE WAREHOUSE

20

HISTORIC DATA

The maintenance warehouse facility is a single-story, pre-manufactured building currently utilized for storage and maintenance operations. No historic information or previous renovation records were provided. The building primarily functions as a warehouse space for equipment, materials, and district maintenance supplies.

GENERAL INFORMATION



WISD MAINTENANCE WAREHOUSE 213 Philpot St. Willis, TX 77378	
Year(s) Built:	Unknown
Approx. Total Building Square Footage	3,250
Approx. Total Site Area	8 acres*

*Site is part of the Stubblefield campus.

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

The individual restroom does not meet ADA requirements due to insufficient space for proper maneuvering clearances. It should not be designated as accessible, and any future renovations should consider expanding and a complete renovation to the space to meet accessibility standards.

SITE CONDITIONS

No significant site issues were identified at this facility. Limited sidewalk remediation is recommended in locations where heaving or sinking has occurred as a result of natural aging and wear.

EXTERIOR WALLS

Existing Conditions:

Corrugated Metal Panel Wall System

- Corrugated prefinished sheet metal wall panels were observed at each elevation of the building. At these locations, SEAL observed multiple disengaged and unsealed fasteners, deteriorated fastener gaskets, and unsealed penetrations. These conditions were consistent at multiple locations around the building.
- At the base of the wall assembly, SEAL did not observe sheet metal base flashing between the corrugated metal panel and foundation; this condition was prominent throughout the building perimeter and represented a discontinuity that as susceptible to water infiltration. At the South elevation, SEAL observed several small portions of corroded corrugated metal wall panels near the man door on the West end of the wall.
- At several isolated locations along the East and West elevations, SEAL observed missing or displaced foam closures between the sheet metal rake flashing and the corrugated metal wall panels. These conditions were susceptible to air, water, and/or animal intrusion.

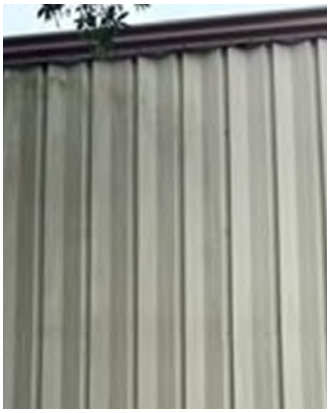
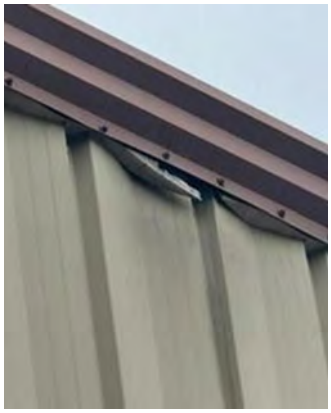
Recommendation:

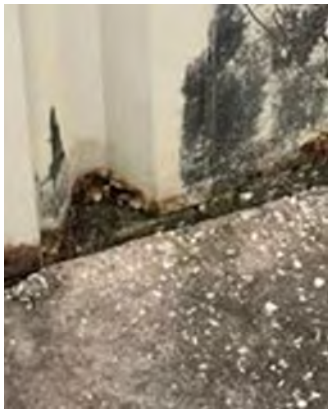
Based on our observations of the existing metal wall panel assemblies, it is our opinion the metal panels to be in a generally serviceable condition. However, repairs are required to extend the service life of the system and mitigate water intrusion. The following outlines our metal panel-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: Replacement of disengaged fasteners and those with deteriorated gaskets.
- MT: Replace all locations with corroded metal panels where section loss was observed.

- MT: Replacement of omitted, missing, or loose metal panel closures.
- MT: Sealing wall penetrations, closures, unsealed metal-to-metal joints, and perimeter joints with sealant.



EXECUTIVE SUMMARY / KEY FINDINGS

- MT: Remove metal wall panels. Install new sheet metal Z-flashing at the base of the wall set in a full bed of continuous non-curing, gun-grade butyl sealant.
- MT: Repaint the entire building and flashings to protect further deterioration of the underlying base metal.

Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: Repeat the items list above at 10 years intervals.

INTERIOR WALLS

Superficial wall damage is present throughout the facility These conditions can be addressed by district maintenance personnel as part of routine upkeep.. These are minor, cosmetic issues that do not impact structural integrity.

WINDOWS

Windows are not present on this facility.

ROOF

Existing Conditions:

Corrugated Metal Panel Roofing System

- Throughout the entire roofing system, SEAL observed a low-slope prefinished corrugated sheet metal panel roofing system. In the limited areas observed the corrugated metal panels did not exhibit significant damage, displacement, or other significant area of concern. The panels were attached with exposed fasteners engaged to the underlying, concealed purlins. The exposed fasteners were corroded and the neoprene gaskets were exhibiting signs of deterioration. The roofing system had a few preformed membrane boot penetrations. The condition of the preformed boots was crazed, concave, and deteriorated.

Recommendation:

Low-Slope Metal Roofing System

Based on our observations to date, it is our opinion the existing low-slope roofing system appeared to be in generally serviceable condition. However, several repairs would be likely required to maintain an adequate level of roof performance and limit opportunities for additional water infiltration. The following outlines our roofing-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: For a short term or temporary solution, remove and replace all fasteners at the existing roofing panels with new oversized fasteners and gaskets.






EXECUTIVE SUMMARY / KEY FINDINGS

- Level 3: To extend the service life additionally, supplement the fastener replacement with an elastomeric silicone roof coating. Recoating would be required at 10 to 15-year intervals.
- Level 3: If the existing building is intended to remain in service beyond 10 – 15 years, another option for extending roof durability is to overlay the existing metal roof panels with a "Roof Hugger"-type system. This system involves the mechanical attachment of custom galvanized steel sub-framing, insulation, and a new metal roofing panel over the existing framing and metal panel system. This new system would provide enhanced thermal performance and may allow the building to be used for an enhanced function. The solution would require evaluation of the existing structure by a structural engineer.
- MT: Remove and replace all penetration flashing sealants and provide new membrane and sheet metal flashing to provide continuity at the rake flashing conditions (four locations).

Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: Assuming the roof has been renovated and coated or replaced within 10 years, subsequent activities will consist of annual inspections of sealants (and coatings).

FLOORS

Although no specific deficiencies were formally documented, the VCT in accessory spaces, such as restrooms, has reached the end of its lifespan and should be replaced promptly.

DOORS

Existing Conditions:

Steel-Framed Hollow Metal Doors

- At the South elevation of the building, SEAL observed two steel-framed, hollow metal doors each beneath a metal canopy. The doors exhibited worn paint, minor surface corrosion, and a deteriorated door sill gasket.
- At the North elevation, SEAL observed a corrugated overhead metal door assembly. The door did not exhibit significant damage or deterioration; however, there was a 1 ½" gap at the base of the closed door which would allow air, water, and/or animals to enter the building.

Recommendation:

Steel-frame Hollow Metal Doors

Based on our observations of the existing door systems, it is our opinion that they are at or nearing the end of their service life. The following outlines our door system-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- Level 3: Install awnings/canopies over the existing doors to reduce direct exposure to water.
- MT: Properly prepare and coating all doors and door frames with high-quality, multi-coat commercial paint.
- MT: Remove and reset or replace existing door thresholds and seal door system to adjacent wall
- MT: Replace all door weatherstripping.

Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: Re-paint, reseal, and replace door weatherstripping at 5 -10 years intervals.

Long Term Recommendations (10 or more Years):

- MT: Full replacement of all door assemblies with new and higher-performance systems.
- MT: Provide enhanced seals and transition flashing assemblies with adjacent systems.

EXECUTIVE SUMMARY / KEY FINDINGS

MILLWORK / CASEWORK

This facility does not have any true millwork or casework.

CEILING

The ceiling requires full replacement or complete removal.

MEP

It is unclear when the Maintenance Warehouse was built, but it is currently being used for storage for maintenance and operations. All MEP systems should be addressed for replacement within the next 5 years.

LIGHTING

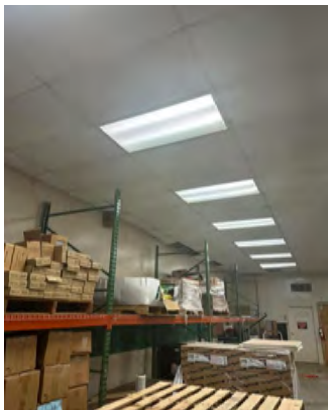
It is unclear when the Maintenance Warehouse was built, but it is currently being used for storage for maintenance and operations. All lighting systems should be addressed for replacement within the next 5-10 years.

PA

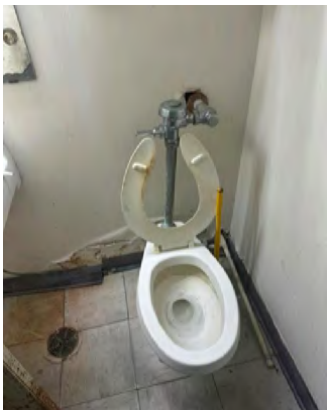
A PA system is not present in this facility.

SECURITY

- Install a new video surveillance system to provide comprehensive coverage and improve security monitoring throughout the space. This should be addressed immediately.
- Install a new intrusion detection system to enhance building security and integrate with existing access control infrastructure. This should be addressed within 1–2 years.









WISD TRANSPORTATION FACILITY

21

HISTORIC DATA

The building was built in 1986 to serve as the transportation and maintenance areas. The original construction cost was $450,000 for approximately 10,350 square feet.

Major Additions or Renovations: Renovations of interior office spaces and the addition of an overhead door were completed in 2001. The underground storage tanks were converted to above ground tanks. New furniture was purchased for this building in April 2002 when it was being renovated. In 2003 the Transportation Facility Detention Pond was renovated, a new canopy was installed at front entrance, a new parking lot was created and paving and parking striping was done to existing parking / road areas. This building at that time became Transportation Department only and the maintenance staff was moved to another area. A diesel fill station was installed in 2007 and another in 2009. In 2012 the Technology Department installed security cameras throughout the building. District wide lighting upgrades in April 2015. Replaced roof on the Transportation building in July 2016.

**All historical data and supporting information included in this report were furnished by the district. While the assessment team has made reasonable efforts to review and reference this material, the data has not been independently verified or validated in detail. The team assumes no responsibility for any inaccuracies or omissions contained within the district-provided information.*

GENERAL INFORMATION



WISD TRANSPORTATION FACILITY 215 Philpot St. Willis, TX 77378	
Year(s) Built:	1986
Approx. Total Building Square Footage	10,353
Approx. Total Site Area	3 acres

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

Accessibility within the WISD Transportation facility seems to be in general compliance with TAS

SITE CONDITIONS

No significant site issues were identified at this campus. Limited sidewalk remediation is recommended in locations where heaving or sinking has occurred as a result of natural aging and wear.

EXTERIOR WALLS

Existing Conditions:

Corrugated Metal Wall Panel Assemblies

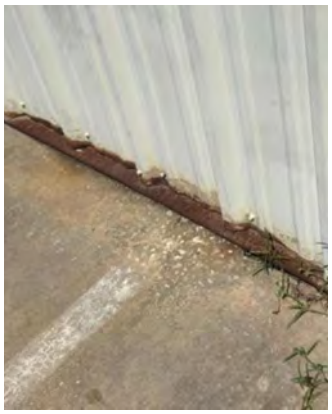
- At the exterior walls of the building, SEAL observed corrugated prefinished sheet metal wall panels. Throughout the metal panel locations on the West elevation, SEAL observed numerous disengaged fasteners, unsealed abandoned fastener holes, and deteriorated fastener gaskets. Additionally, SEAL observed metal panel corrosion, including section loss, at a number of base on wall conditions.
- At the Northwest corner of the building, SEAL observed the unsealed corner flashing base of wall condition. This condition did not exhibit a metal or foam closure and was open to air, water, and/or animal intrusion.
- In a number of isolated locations, SEAL observed sheet metal patches on the metal wall panels with crazed and deteriorated surface-applied edge sealant, as well as unsealed metal-to-metal joints. SEAL also observed portions of the metal wall panels exhibited post-applied coating or paint on the prefinished panel surface; in several locations the field-applied material had delaminated from the metal substrate. SEAL observed most wall penetrations were unsealed or poorly sealed, and were not able to prevent uncontrolled air or water infiltration.
- At the base of the metal panel wall assembly, SEAL observed prefinished sheet metal base flashing that was loose and exhibited unsealed joints, exhibited corrosion, as well as a few isolated locations where the sheet metal base flashing was omitted. At these locations, SEAL observed localized concrete at grade adjacent to the exterior wall appeared to be higher than typically throughout the building. At one location, a small soil mound was observed emanating from beneath the metal wall panel that was consistent with animal presence.

Recommendation:

Metal Wall Panel Assemblies

Based on our observations of the existing metal wall panel assemblies, it is our opinion the metal panels to be in a generally serviceable condition. However, repairs are required to extend the service life of the system and mitigate water intrusion. The following outlines our metal panel-related recommendations:






EXECUTIVE SUMMARY / KEY FINDINGS

Short Term Recommendations (<10 years), including immediate:

- MT: Replacement of disengaged fasteners and those with deteriorated gaskets.
- MT: Replace all locations with corroded metal panels where section loss was observed.
- MT: Replacement of omitted, missing, or loose metal panel closures.
- MT: Seal wall penetrations, closures, unsealed metal-to-metal joints, and perimeter joints with sealant.
- MT: Where corroded or omitted, remove metal wall panels. Install new sheet metal Z-flashing at the base of the wall set in a full bed of continuous non-curing, gun-grade butyl sealant.
- MT: Recoat/paint the entire building and flashings to protect further deterioration of the underlying base metal.

Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: Repeat the items list above at 10 years intervals.

INTERIOR WALLS

Superficial wall damage was observed. These conditions can be addressed by district maintenance personnel as part of routine upkeep.

WINDOWS

A speaker is needed at the transportation transaction window to improve communication and security. Installing a two-way speaker system will allow staff and visitors to clearly exchange information without requiring the window to be opened, enhancing both convenience and safety for employees and the public.

Existing Conditions:

Aluminum-Framed Glazing System(s) And Doors

- At the South elevation of the building, SEAL observed numerous aluminum-framed, vertical storefront windows, as well as a storefront entry. These window units were typically glazed with exterior glazing gaskets. The glazing gaskets were not continuous at the corner locations and sealant application at the corner areas was deteriorated. SEAL observed crazed and failed sealant, as well as shrinking gaskets throughout the assemblies which were indicative of age and excessive exposure.
- At the West end of the North elevation and the East end of the South elevation, SEAL observed multiple metal overhead door assemblies. At these overhead door locations, SEAL observed aged and deteriorated door sill gaskets. The deteriorated conditions were likely indicative of wear, age, and excessive exposure and were susceptible to air, water, and/or animal intrusion.
- Along the North and South elevations of the building, SEAL observed numerous steel-frame hollow metal door assemblies. The exterior surface of the doors and frames exhibited dents and surface corrosion.
- SEAL also observed the weatherstripping at the door-to-frame interface exhibited age and deterioration resulting in a questionable seal. The base threshold was also observed to be at the same level as exterior grade with questionable or omitted sealing.

Recommendation:

Based on our observations of the existing glazing and fenestration system failures and deterioration, it is our opinion that the window and door systems, including seals and gaskets, are at or beyond the end of their service life. The following outlines our glazing and fenestration-related recommendations:

EXECUTIVE SUMMARY / KEY FINDINGS

Short Term Recommendations (<10 years), including immediate:

- For a long-term solution, removal and replacement of windows is recommended. Replacement should consist of a thermally-broken (or at least thermally improved) aluminum-framed storefront glazing system with insulated glass units (IGU's). Additionally, all non-aluminum framed door assembly should be replaced as well.
- For a short term or temporary solution, consideration may be given to removing and replacing the perimeter joint sealants around all glazing, louver, and door systems.

Intermediate and Long Term Recommendations (10 to >20 Years):

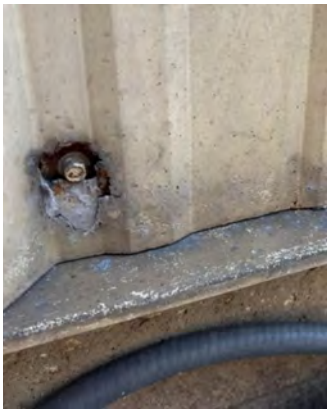
- Assuming the windows and non-aluminum frame doors have been properly replaced in the first 10 years, subsequent maintenance should entail interfaces with metal wall panels and masonry wall systems.

ROOF

Existing Conditions:

Thermoplastic Roofing System

- Throughout the entire roofing area, SEAL observed a thermoplastic single-ply roofing membrane. The surface of the roofing membrane was very discolored/stained and exhibited a speckled appearance. In addition to the general speckled appearance, SEAL also observed frequent irregular oval-shaped discoloration. SEAL was unable to closely review this condition due to access limitations. The membrane seams appeared to be shingle lapped and hot-air welded and were aligned perpendicular to the roof slope. The roof eave had prefinished sheet metal flashing with membrane adhered to a concealed horizontal flange and terminated with a line of surface-applied sealant. SEAL did not observe specific fastener or fastener plates, and therefore, the attachment of the roof system to the underlying substrate and the roof membrane to the concealed roofing components were not determined.
- Throughout the thermoplastic roof membrane, SEAL observed multiple roof vent assemblies. The small vent assemblies consisted of spun-aluminum, "one-way" vents located a mid-span between the ridge and eaves. The other project roof vents consisted of ridge vents that were concentrated near the building shop area at the East half of the building.
- At the typical sheet metal rake flashing-to-gutter/eave flashing interface, SEAL observed missing rake caps at three of four locations. These conditions were susceptible to air, water, and animal intrusion.
- The main roof drainage systems for this project consisted of the prefinished sheet metal gutter and downspouts along the North and South eaves. The gutter systems were attached to the underlying metal building components with mechanically-fastened, stamped sheet metal spacers. The spacers and their associated fasteners exhibited surface corrosion. At one South elevation location, SEAL observed a disengaged gutter joint that was open and would allow water to drain through the opening.






EXECUTIVE SUMMARY / KEY FINDINGS

- At the South elevation, SEAL also observed an opening at the gutter to downspout interface at a vertically displaced rectangular downspout. At this location, SEAL did not observe a typical gutter outlet tube, but rather the downspout attachment appeared to be to X-cut sheet metal tabs from the gutter bottom. This condition indicated inadequate attachment resulting in openings likely to allow water leakage.

Recommendation:

Low-Slope Roofing System

Based on our observations to date, it is our opinion the existing low-slope roofing system was a thermoplastic membrane overlay of an existing metal building roof. This approach is a common remedy to leaking metal building-type roofs where the lower ribs of the existing metal panels are infilled with custom, chamfered roof insulation and covered with roofing cover board and membrane. The insulation is typically mechanically attached and the cover board and membrane may also be mechanically attached or adhered to the underlying layers. However, several repairs would be required to re-establish an enhanced level of roof performance and limit opportunities for additional water infiltration. The following outlines our roofing-related recommendations:

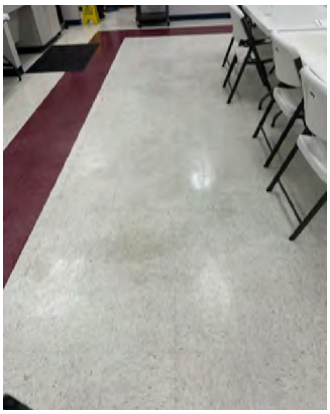
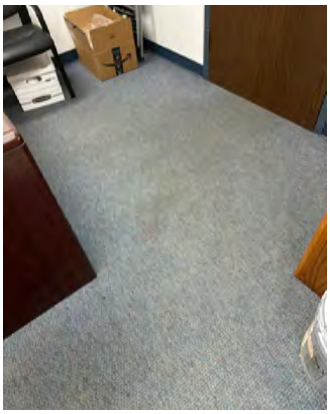
Short Term Recommendations (<10 years), including immediate:

- Level 3: For a short term or temporary solution, application of an elastomeric silicone roof coating could be considered. Recoating would be required at 10 to 15-year intervals.
- Level 3: If the existing building is intended to remain in service beyond 10 – 15 years, another option for extending roof durability is to remove the existing membrane roof overall and provide a new overlay of the existing metal roof panels with a “Roof Hugger”-type system. This system involves the mechanical attachment of custom galvanized steel sub-framing, insulation, and a new metal roofing panel over the existing framing and metal panel system.
  This new system would provide enhanced thermal performance and may allow the building to be used for an enhanced function. The solution would require evaluation of the existing structure by a structural engineer.
- MT: Remove and replace all penetration and vent flashings and sealants, and provide new sheet metal perimeter edge flashing with appropriate closure flashings.

Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: Assuming the roof has been renovated and coated or replaced within 10 years, subsequent activities will consist of annual inspections of sealants.



EXECUTIVE SUMMARY / KEY FINDINGS

FLOORS

Several minor interior finish issues were observed, including noticeable carpet stains in some offices and worn vinyl composition tile (VCT) in the breakroom. The carpet stains can be addressed through cleaning by the district's maintenance staff, while the breakroom VCT shows wear that may require replacement to restore a durable and professional appearance but can be handled by district maintenance staff until a full replacement is required.

Overall carpet and VCT were observed to be in condition. Recommend replacement in 5-10 years.

DOORS

Steel-frame Hollow Metal Doors

Based on our observations of the existing door systems, it is our opinion that they are at or nearing the end of their service life. The following outlines our door system-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- Level 3: Install awnings/canopies over the existing doors to reduce direct exposure to water.
- MT: Properly prepare and coating all doors and door frames with high-quality, multi-coat commercial paint.
- MT: Remove and reset or replace existing door thresholds and seal door system to adjacent wall
- MT: Replace all door weatherstripping.

Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: Re-paint, reseal, and replace door weatherstripping at 5 -10 years intervals.

Long Term Recommendations (10 or more Years):

- MT: Full replacement of all door assemblies with new and higher-performance systems.
- MT: Provide enhanced seals and transition flashing assemblies with adjacent systems.

MILLWORK / CASEWORK

Casework was observed in fair condition. No apparent issues were identified.

CEILING

Ceilings were observed in fair condition. Replacement not needed till end of life cycle, 10-15 year life expectancy.

KITCHEN

No formal kitchen is present in this facility.

MEP

Existing Conditions:

- **Cooling/Heating System:** Residential split AC systems with gas heat.
- **Energy Mgmt. System:** None.

Recommendation:

The Transportation building was built in 1986. The mechanical system is residential type split systems. Mechanical equipment is at lifecycle replacement.

EXECUTIVE SUMMARY / KEY FINDINGS

LIGHTING

Lighting is currently fluorescent; LED upgrades are not required, but are recommended for energy savings and code compliance.

TECHNOLOGY

No apparent issues were identified.

PA

No apparent issues were identified.

SECURITY

The existing Advidia cameras should be replaced with Hanwha units, as some of the current cameras are not NDAA compliant. Additional high-resolution cameras are proposed to provide clearer coverage of the employee parking area and the bus parking located in the back field, enhancing monitoring of both staff vehicles and district buses. In addition, the existing intrusion detection system should be replaced with a modern, more reliable system to strengthen overall facility security.







TECHNOLOGY DEVELOPMENT CENTER

22

HISTORIC DATA

The Technology facility was built in 1962 at $73,470 for approximately 2,500 square feet. This building was initially built for high school activities such as the horticulture department and classroom studies. It was renovated for administrative office use in 1974 and has been utilized by various departments such as the Special Ed. Department, Technology Department and now it is currently being used as Support Services furniture storage facility.

Major Additions or Renovations: A burglar alarm system was installed in this building in the mid 80's. In 1998 a 5 ton condenser and a 4 ton Split A/C System was installed. The building was re-roofed in summer of 1999. A portable building built in 2003-04 by the WHS Construction Trades Class has placed on the side of this building and is utilized for storage of technology equipment. This facility is recognized as part of the Cargill Education Support Center complex. A generator and back-up emergency system was installed at this building in 2010. In 2012 the Technology Department installed security cameras throughout the building. District wide lighting upgrades in April 2015.

Note: At the time of this assessment the assessment team was only able to review the interior of the main, masonry Technology building. The two smaller facilities were reviewed in terms of envelope alone.

**All historical data and supporting information included in this report were furnished by the district. While the assessment team has made reasonable efforts to review and reference this material, the data has not been independently verified or validated in detail. The team assumes no responsibility for any inaccuracies or omissions contained within the district-provided information.*

GENERAL INFORMATION



TECHNOLOGY DEVELOPMENT CENTER 206 West Rogers St. Willis, TX 77378	
Year(s) Built:	1962
Approx. Total Building Square Footage	2,449
Approx. Total Site Area	2

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

The facility in its current state poses significant accessibility and life safety concerns. The building has fallen into disrepair, with unfinished walls, ceilings, and flooring observed throughout. Debris and materials within the space indicate prior construction or renovation efforts that were never completed. Ceiling-mounted devices and fixtures were observed hanging or unsecured in several locations, presenting potential safety hazards if left unattended. Cracking was also observed throughout both the interior and exterior of the facility. Additionally, the existing kitchenette does not meet current ADA requirements, as it lacks adequate knee clearance, and full replacement would be necessary to bring it up to code. Based on these conditions, it is our professional recommendation that the facility, in its current state, is not suitable for student or staff occupancy. A full building gut and renovation would be required to achieve compliance with current health, safety, and welfare standards and to render the facility appropriate for use.

SITE CONDITIONS

Although no specific deficiencies were formally documented, the site pavement shows clear signs of deterioration and breakage. Repairs or full replacement will be needed to maintain safe and reliable access throughout the campus.

EXTERIOR WALLS

Existing Conditions:

Concrete Masonry Units (CMU) And Masonry Veneer Walls

- Throughout the building and primarily at the building corners, SEAL observed single-wythe painted or coated CMU masonry wall construction. SEAL observed stair-step cracking, as well as minor CMU spalling near the head of an aluminum-framed window at the East elevation. In addition, SEAL observed peeling paint or coating throughout the building, as well as staining at the East elevation. At the West elevation, SEAL observed a vertical separation of CMU blocking at a building interface. Based on the location, it appears the separation was a building expansion joint

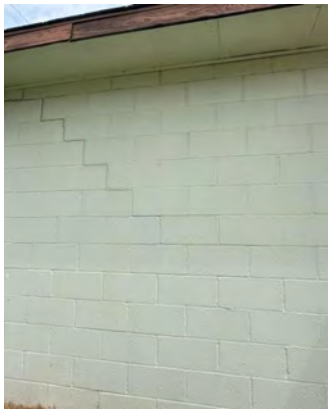
Recommendation:

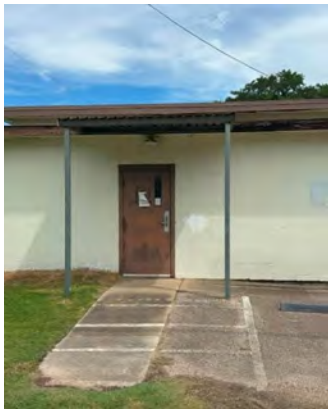
CMU And Masonry Walls

Based on our observations of the existing masonry wall assemblies, it is our opinion the CMU was inadequate to prevent uncontrolled air and water infiltration and requires significant repairs or renovation. This condition is likely to progressively worsen considering the amount of significant cracking. Repairs should consider any structural concerns that were identified as part of the larger FCA project. The following outlines our masonry-related recommendations:









EXECUTIVE SUMMARY / KEY FINDINGS

Short Term Recommendations (<10 years), including immediate:

- Level 1: Evaluation of foundation for settlement and other sources of displacement.
- Level 1: Repairing of cracked/displaced CMU, including tuckpointing/filling of mortar joints.
- Level 1: Coating all exterior faces of CMU with DowSil Allguard-type silicone elastomeric coating after repairs.
- Level 1: Remove and replace masonry expansion and control seals, as well as unsealed wall penetrations with high performance DowSil silicone sealants appropriate for the substrates required and backer rod.

Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion.
- Replace sealants and coatings as described above at 10 to 15-year intervals.

INTERIOR WALLS

The interior walls of this facility are in poor condition and require immediate attention to restore functionality and safety. Many walls are incomplete in their construction, exhibit significant damage, and have areas that are actively failing or collapsing. Comprehensive repairs or potential reconstruction will be necessary to stabilize and properly finish these walls to meet acceptable standards.

WINDOWS

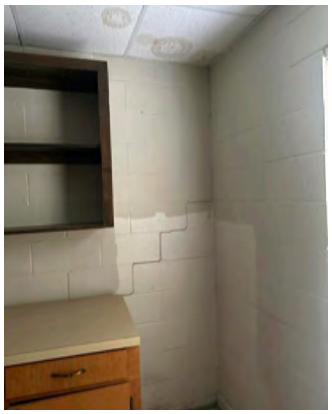
Existing Conditions:

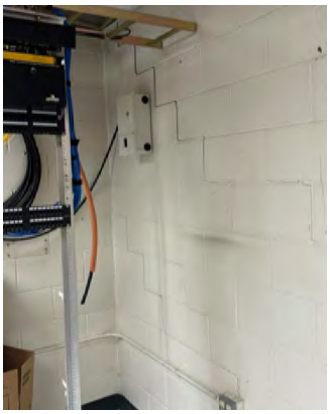
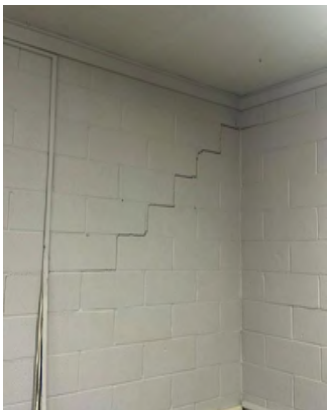
Aluminum-Framed Glazing System(s)

- SEAL observed two single-hung aluminum-framed window assemblies at the East and West elevations. These windows exhibited failed perimeter sealant. These windows were aged and appeared to be glazed with a single glass pane or polycarbonate sheet. Throughout the window assemblies, SEAL observed evidence of water intrusion, and at one East elevation window, evidence of corrosion and deterioration localized at a horizontal anti-theft steel bar-to-CMU wall interface

Recommendation:

Based on our observations of the existing glazing and fenestration systems, it is our opinion that the window and door systems, including seals and gaskets, are at or beyond the end of their service life. For the Short Term with a consistent building function, repairs may be adequate; however, for a longer term service life, replacement of window and glazing units will be required. The following outlines our glazing and fenestration-related recommendations:



EXECUTIVE SUMMARY / KEY FINDINGS

Short Term Recommendations (<10 years), including immediate:

- MT: Replace of perimeter joint seals around all glazing and door systems.
- MT: Replace glazing gaskets and wet seal existing window systems to assist with water resistance.
- MT: Remove and reset or replace existing door thresholds and sealing door system to adjacent wall
- MT: Replace all door weatherstripping.

Long Term Recommendations (10 up to >20 Years):

- Full replacement of all window and door assemblies with new and higher-performance thermally-broken or thermally-improved systems, including insulated glass units.
- Provide enhanced seals and transition flashing assemblies with adjacent systems.

ROOF

Existing Conditions:

Low-Slope Roofing System

- SEAL observed a low-slope, gravel-surface built-up roof (BUR) system at the large upper roof. According to supplied documents, the roof of the building replaced in the summer of 1999 and was approximately 26 years old at the time of our visit. SEAL observed the roof exhibited discoloration, which was likely caused by retaining water and sedimentation on the roof. SEAL did not observe blisters or other visible signs of deterioration, but detected soft locations underfoot while walking the roof surface. There were four roof plumbing penetrations with lead flashings on the building.
- At the small lower South elevation roof, SEAL observed a steep-slope three-tab asphalt shingle roofing system. Throughout the small roof area, SEAL observed shingles that were thin, as well as missing shingles isolated at the East side of the structure. At the West elevation, SEAL observed daylight through the roof-to-wall flashing interface when viewed from the ground. These conditions are indicative of an aged roof assembly that is no longer watertight.
- At the South elevation, SEAL observed a corrugated metal canopy assembly. The metal roof did not exhibit damage or other significant areas of concern.
- SEAL observed several outbuilding East of the main building. The buildings contained steep-sloped three-tab asphalt shingles. Our observations of the roofing systems at the outbuildings was similar to the small lower roof area.

Recommendation:

Low-Slope Roofing System

- Based on our observations to date, the existing low-slope roofing system was exhibited soft locations underfoot, but did not exhibit visible blisters or other questionable conditions with the exception of the displaced and stained soffit panels beneath. In our opinion, the roofing system should be considered for replacement with considerable repairs to the underlying systems. The following outlines our roofing-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- Level 2: SEAL recommends completing a moisture survey (infrared, capacitance, or nuclear with accompanying secondary verification (roof cores preferred at that time) around Year 10 to address any significant areas of concern. If there is an active warranty, coordinate coring, if any, with roofing manufacturer for proper repair.
- Level 2: Confirm the roof deck condition with the roofing cores. Based on observations to date, at least 50% new roof deck should be considered for replacement. Additional roof deck/roof structure replacement should be coordinated with the structural engineers assessment report.

EXECUTIVE SUMMARY / KEY FINDINGS

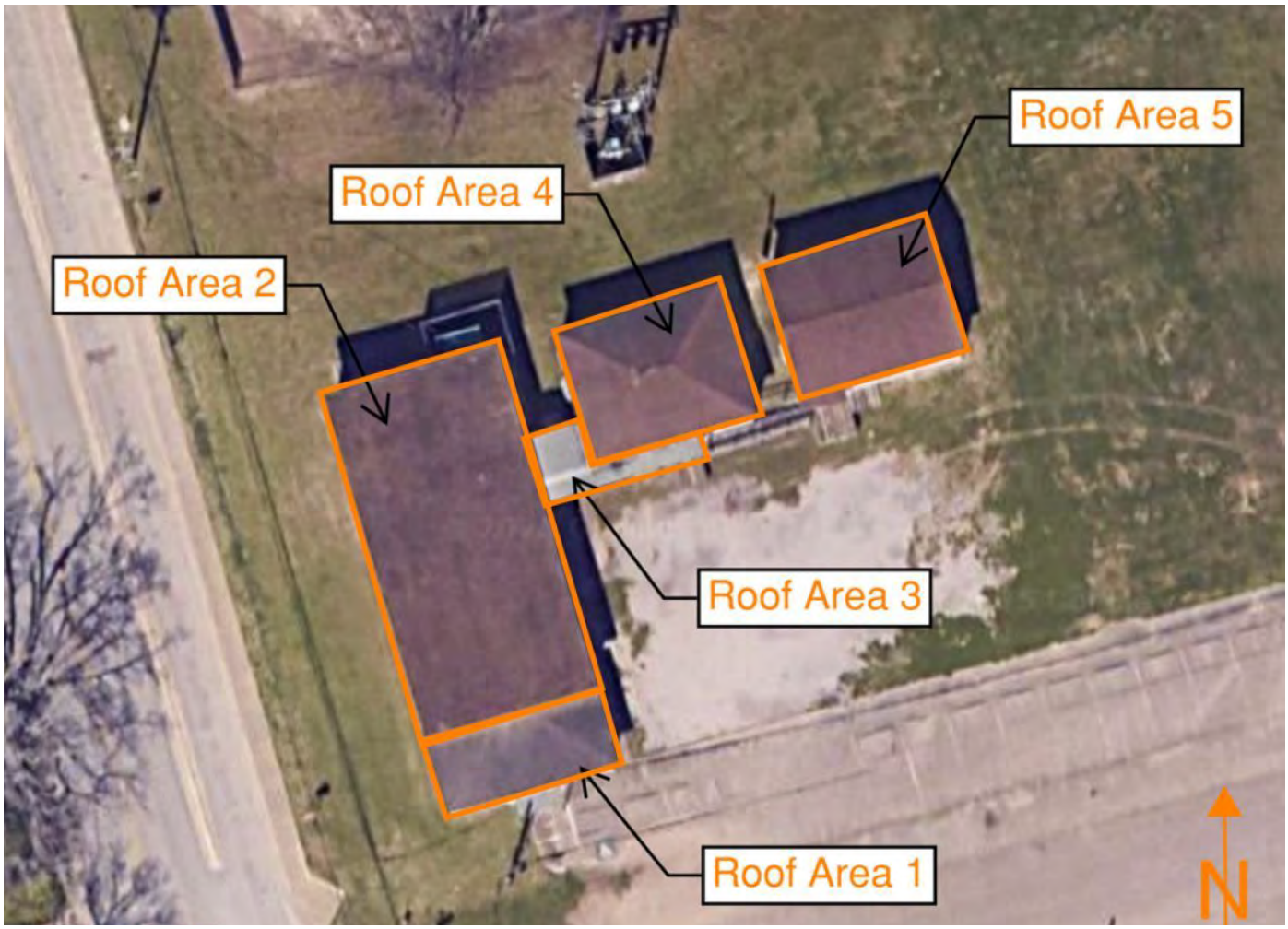
- Level 2: If the roofing system is wet throughout and there are long term plans to keep the building in service, the existing BUR system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system manufactured by Soprema or Siplast with no less than a 20-year No Dollar Limit warranty. The roof assembly should consist of a mechanically-attached gypsum substrate board (where applicable), torch-applied 100-mil minimum vapor barrier, new rigid and tapered roofing insulation, and a gypsum fiber (non-faced) coverboard. A preformed tapered insulation sump should be placed at all primary roof drains. Reinforced liquid flashing system is recommended at all roof penetration and as a supplement to the roofing membrane in the insulation drain sump. New prefinished sheet metal copings, gutters, and flashings should be provided with the new roofing system.

Intermediate Recommendations (10 to 20 Years):

- MT: Re-evaluate the roofing assemblies at 5 years intervals with visual and moisture surveys.

Long Term Recommendations (>20 Years):

- MT: Re-evaluate the roofing assemblies at 5 years intervals with visual and moisture surveys.



EXECUTIVE SUMMARY / KEY FINDINGS

FLOORS

Flooring throughout the facility is in poor condition and needs immediate replacement.

DOORS

Exterior:

Existing Conditions:

Steel-Framed Hollow Metal Doors

- At the South, East, and North elevations, SEAL observed three steel-framed hollow metal doors. The doors appeared to be in adequate condition, but exhibited discoloration, faded paint, deteriorated gasket sweeps and perimeter sealants, as well as excessive spacing between the door and metal framing, which was indicative of signs of aging, ineffective air and water barrier, and the effects of environmental exposure.

Recommendation:

Short Term Recommendations (<10 years), including immediate:

- Install awnings/canopies over the existing doors to reduce direct exposure to water.
- Properly prepare and coating all doors and door frames with high-quality, multi-coat commercial paint.
- Remove and reset or replace existing door thresholds and seal door system to adjacent wall
- Replace all door weatherstripping.

Intermediate and Long Term Recommendations (10 to >20 Years):

- Re-paint, reseal, and replace door weatherstripping at 5-10 years intervals.

Interior:

Where interior doors were present they were in poor condition and should be considered for replacement immediately.

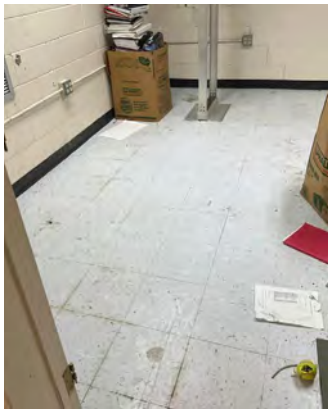
MILLWORK / CASEWORK

Minor casework is present throughout the facility, but it is in poor condition and requires full replacement or complete removal. The existing casework shows significant wear and deterioration, making it unsuitable for continued use without substantial remediation.

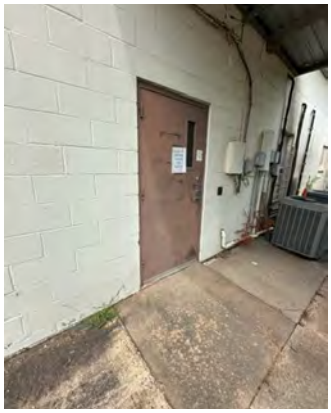
KITCHEN

No formal kitchen is present in this facility.









EXECUTIVE SUMMARY / KEY FINDINGS

CEILING

Exterior:

Existing Conditions:

Plywood Soffits

- Around the building perimeter, SEAL observed plywood soffit panels extending from the CMU wall surface to the perimeter wood fascia at the edge of the BUR. Along the length of the soffit, SEAL observed intermittent square ventilation grates. In many locations, SEAL observed the plywood panels were no longer in the original condition, but rather, many of the joint and panels had unattached corners and ends that were hanging down and/or exhibiting deterioration. The most prominent concentration of soffit panel damage was the North elevation, Northeast corner, and East elevation where several panels were displaced and no longer evident on the property. This condition resulted in falling hazards that could endanger bystanders or pedestrians.

Recommendation:

Intermediate Recommendations (10 to 20 Years):

- Remove and replace all existing plywood panels with cement board or other moisture resistant cladding material.
- Seal all joints and provide high-quality, multi-coat commercial paint.
- Replace all soffit vents with corrosion-resistant aluminum frame units.

Intermediate and Long Term Recommendations (10 to >20 Years):

- Re-paint and reseal soffit panels at 5-10 years intervals.

Interior:

Ceiling was observed in poor/failing condition. immediate replacement recommended.

MEP

The mechanical system is at lifecycle replacement.

LIGHTING

Lighting in the facility was not properly installed at the time of walk and was part of ceiling system that are falling apart. It is recommended to upgrade the lighting when ceilings are replaced in their entirety.

TECHNOLOGY

Technology within this facility was not reviewed at the owner's request; however, to make the space fully functional, a complete technology overhaul and replacement will be required.

PA

PA within this facility was not reviewed at the owner's request; however, to make the space fully functional, a complete PA overhaul and replacement/install will be required.

SECURITY

Security within this facility was not reviewed at the owner's request; however, to make the space fully functional, a complete security overhaul and replacement will be required.

OLD ROARK EARLY EDUCATION CENTER

23

HISTORIC DATA

The original Roark was built in 1955 and cost approximately $1,465,460 for approximately 19,000 square feet. The school was named after Jennie C. Roark who was a long time Willis resident, school district employee and Principal of this campus. Jennie C. Roark served as a WISD Elementary Principal from 1946 - 1949. Mrs. Roark's daughters were also employed by Willis ISD for many years and were always active in the events at the Roark Campus. This building was completed in 1955 at about the same time that Stubblefield Alternative School (originally A.R. Turner High School) was built. Both buildings are built on the same floor plan although Roark is somewhat larger. Roark has been utilized in a variety of ways over the years. The facility has served as a campus for 1st - 6th graders, PreKindergarten-3rd grade, only 5th graders, Pre-Kindergarten & Kindergarten, Headstart & Early Childhood Programs and a district-wide Parent Center.

Major Additions or Renovations: This building had classroom additions in 1962 that matched the original construction. It had another addition adding 12 classrooms, kitchen and cafeteria in 1975. Air conditioning was added to the original classroom area in the early 1970's. A burglar alarm system was installed in this building in the mid 80's. In 1987 it was re-roofed and the air conditioning in the original building and the 1962 add-on was replaced. In 1992 the 1975 addition was re-roofed. In 1996 the air conditioning system in

the 1975 addition was replaced. In 1996 renovations were done on the inside of the building. The front office was remodeled, the library had walls added, lighting was improved, painting was done throughout the building, and carpeting and floor tile was replaced throughout the building. A covered walkway leading to the main Parmley campus was added to this building in 2003-04. In 2003-04 a PA system linking Parmley and 17 classrooms in Roark was installed. The classrooms in the east side of the building became an annex to Parmley Elementary at the beginning of the 2004-2005 school year. The students of the Roark / Parmley Annex have access to the covered pavilion between them and the main campus. In 2012 the Technology Department installed projectors and security cameras throughout the building. In 2013, classrooms in the lower level west side were painted, renovated and transformed into administrative offices for the Special Programs Department. In August 2014, the kitchen area and part of the cafeteria was renovated & transformed into the Willis ISD Employee Wellness Center. District wide lighting upgrades in April 2015. Replaced tile flooring in upper level classrooms and painted hallways in December 2015. In 2018 installed new serving line in the cafeteria. In summer 2018 installed new carpet in eight classrooms. Summer of 2021 updated the back parking lot. As of June 2022 this building is no longer being used as a Pre-K Center.

**All historical data and supporting information included in this report were furnished by the district. While the assessment team has made reasonable efforts to review and reference this material, the data has not been independently verified or validated in detail. The team assumes no responsibility for any inaccuracies or omissions contained within the district-provided information.*

GENERAL INFORMATION



OLD ROARK EARLY EDUCATION CENTER 606 N. Campbell St. Willis, TX 77378	
Year(s) Built:	1955
Approx. Total Building Square Footage	45,938
Approx. Total Site Area	10 acres

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

- Provide ADA-compliant ramps at exterior doors. (Typical across campus)
- Replace toilet partitions and plumbing fixtures as needed to achieve ADA compliance. (Typical across campus.)

SITE CONDITIONS

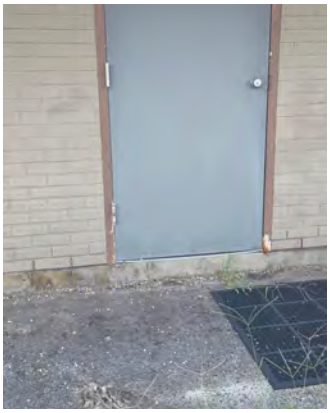
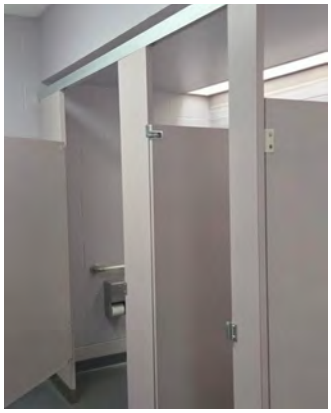
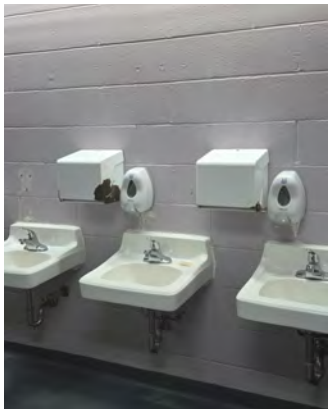
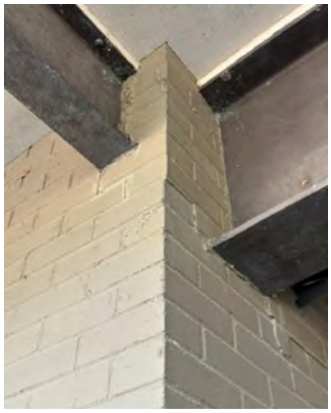
No significant site issues were identified at this facility. However, sidewalk remediation is recommended in locations where heaving or sinking has occurred as a result of natural aging and wear.

EXTERIOR WALLS

Existing Conditions:

Masonry Veneer Walls

- Along the roof-to-wall interface at Roof Area No. 1, SEAL observed surface-applied mastic and sealant repairs along most of the through-wall flashing, specifically at the flashing-to-masonry interface. Additionally, SEAL observed surface-applied mastic repairs along the flashing laps. SEAL was able to insert our spatula/probe into various areas along the wall interface and flashing laps. These conditions were susceptible to water infiltration to the roof and wall assemblies.
- At the roof-to-wall interface at the Southeast corner of Roof Area No. 1 where the roof meets the rising wall to Roof Area No. 3 above, SEAL observed poorly integrated transition flashing assemblies and sealants. At these locations, SEAL also observed omitted/ deteriorated sealant along the wall to roof and gutter interfaces. The conditions are indicative of previous water infiltration issues in these critical transition locations.
- SEAL observed stair-stepped and horizontal cracks, as well as weep provision anomalies in the brick masonry veneer system. Along the North elevation rising wall between Roof Area Nos. 2 and 3, SEAL observed inconsistent weep provision spacing and sizing, as well as a number of blocked weeps at the rising walls throughout the various wall areas. Additionally, SEAL observed stair step cracks in a number of brick masonry veneer and mortar joints. Along the West elevation rising wall between Roof Area Nos. 3 and 4, SEAL observed surface-applied remedial sealant throughout the brick masonry veneer mortar joints and the masonry expansion joint. These conditions may be related to unaccommodated building movement or settlement.
- At the steel beam-to-brick masonry veneer interface near the main entrance along the West elevation, SEAL observed vertical and stair-stepped cracks, as well as slightly brick unit displacement at this location. Additionally, SEAL observed the sealant around the steel beam to be deteriorated. This condition was susceptible to uncontrolled air infiltration into the wall assembly.
- SEAL observed a number of vertical brick masonry expansion joints at the original building and building additions. At the brick masonry expansion joint along the upper level of the West elevation, SEAL observed adhesive failures between the sealant and brick veneer. These conditions were susceptible to water infiltration

EXECUTIVE SUMMARY / KEY FINDINGS

into the wall assembly. Additionally, SEAL observed vertical brick masonry joints throughout the various building elevations where rigid mortar or grout was installed within the joint. Mortar joints exhibited holes and organic growth. The location and composition was uncommon as typical brick masonry expansion joints are comprised of liquid-applied sealant or other material capable of accommodating the anticipated brick expansion.

- At one steel lintel location above a recessed door entryway along the East elevation, SEAL observed the brick masonry veneer at this location exhibited a 1 ¾" overhang beyond the out turned horizontal leg of the lintel. Depending on the actual brick width, this condition may exceed the standard brick support requirement. Consideration should be given to further review by a structural engineer.
- Along the brick masonry veneer beneath the roof gutter-to-wall interface (West end of Roof Area No. 1), SEAL observed staining of the brick masonry face. This condition may lead to accelerated deterioration of the masonry wall and plywood components and the potential for water infiltration. Additionally, SEAL observed stair step cracks throughout the masonry and mortar in this area.
- SEAL observed full head weep joints at the based on the masonry walls on this building. Weeps were observed to be minimal with inconsistent spacing through-out. At the base-of-wall condition along the North building elevation, SEAL observed insects entering at least one of the brick masonry weep holes. Additionally, SEAL observed unsealed holes through the masonry, likely from previous wall penetrations.

Stucco-Clad Wall Assemblies

- At the main entrance assembly along the West elevation, SEAL observed trapezoid-shaped stucco wall panels. The stucco panels exhibited stains and cracks consistent with unaccommodated movement.

Recommendation:

Brick Masonry Veneer Walls

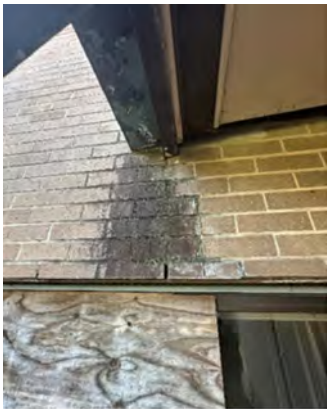
Based on our observations of the existing masonry wall assemblies, it is our opinion the brick masonry veneer exhibited limited and isolated locations of distress. In addition, remedial repairs appeared to indicate performance issues related to those locations as well. In our opinion, these conditions suggest that further investigation of the exterior walls and support systems by a structural engineer would be prudent. The following outlines our masonry-related recommendations:

<u>Short Term Recommendations (<10 years), including immediate:</u>

- Level 4: Modify all brick masonry sills to facilitate slope and sheet metal sill flashing integration. Coordinate with window opening perimeter seal replacement.
- Level 4: Repairing of cracked/displaced CMU and masonry units, including tuckpointing/filling of mortar joints

.







EXECUTIVE SUMMARY / KEY FINDINGS

- Level 4: Remove and replace masonry expansion and control seals, as well as unsealed wall penetrations with high performance DowSil silicone sealants appropriate for the substrates required and backer rod.
- Level 4: Remove and replace all brick masonry veneer to access the above roof wall areas. Repair any sheathing issues, install new fluid-applied air barrier system with integrated stainless steel through-wall flashing assemblies. Install new brick masonry veneer of other wall cladding to renovation the wall assembly.

Intermediate and Long Term Recommendations (10 to> 20 Years):

- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually. Remove and replace masonry expansion joint sealants to maintain water resistance with high-performance DowSil silicone glazing sealant.

Stucco-Clad Wall Assemblies

Based on our observations of the existing stucco-clad wall areas, it is our opinion that the stucco wall assemblies are in generally serviceable condition despite significant localized cracks. Considering the large scale of recommended building enclosure system replacements above, consideration for replacement of limited stucco wall areas would be prudent. The following outlines our stucco-related recommendations:

Short Term Recommendations (<10 years), including immediate:

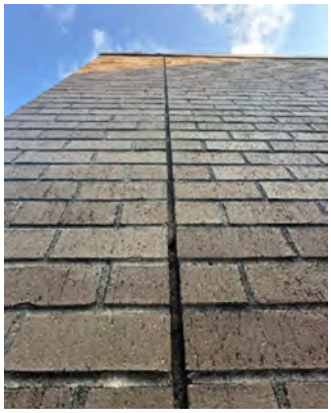
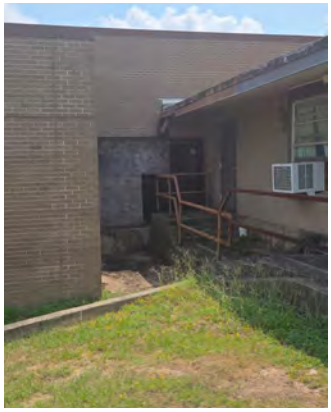
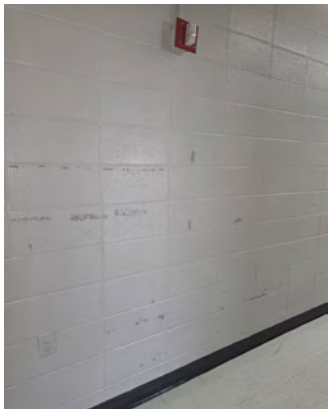
- Replace the entire stucco wall assembly including air barrier, thermal insulation, sheet metal flashings, and sealants in accordance with Texas Lath and Plaster recommendations. For enhanced performance, the addition of DowSil Allguard-type silicone elastomeric coating is also recommended.

Intermediate and Long Term Recommendations (10 to >20 Years):

- Routing and sealing any existing cracks in the stucco cladding (if suitable aesthetic can be obtained).
- Replace sealants and coatings as described above at 10 to 15-year intervals.

INTERIOR WALLS

The facility requires extensive wall repair and repainting throughout classrooms, corridors, restrooms, and common areas. Numerous locations exhibit damaged gypsum board, worn finishes, and surfaces needing repaint, including areas where existing chalkboards were removed and where bulkheads have deteriorated. Several exterior wall systems and sliding glass walls at elevated offices require replacement due to age, damage, or incompatibility with current building needs. Interior transom walls and select partitions will need to be demolished or modified to improve accessibility and circulation.

EXECUTIVE SUMMARY / KEY FINDINGS

WINDOWS

Existing Conditions:

Steel and Aluminum-Framed Glazing System(s) And Doors

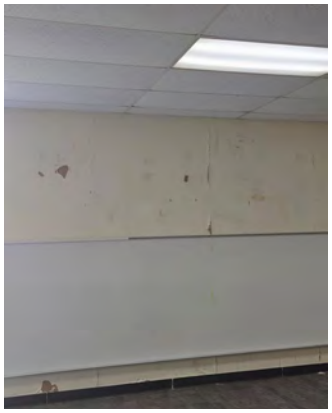
- At the main building entrance, SEAL observed glazing assemblies comprised of double-leaf doors, steel-framed windows, and a vented plywood panel soffit. SEAL observed the glass in at least one of the door location to be cracked. Additionally, SEAL observed entrance assemblies throughout the various building elevations comprised of steel-framed windows and wooden doors. Many of the windows throughout the elevations exhibited fogging and organic growth was observed throughout the bottom of the window assemblies. Additionally, SEAL observed the wooden door and frame to be in an aged condition with significant paint loss and chips in the wood.
- SEAL observed uncontrolled air leakage at the door stiles throughout various building entrances along the East building elevation, as well in other locations around the building exterior. Additionally, SEAL observed significant paint faded and flaking paint many of the exterior doors.
- SEAL observed several types of punched window assemblies throughout the building elevations. All window assemblies were aged with crazed and displaced sealants and gaskets, as well as at least one glass lite that was partially shattered. Additionally, SEAL observed glazing gaskets to be warped and cracked (Ref. Photo No. 27) with the insulated glass units exhibiting fogging around the gaskets indicating a seal failure.
- At the window jamb-to-masonry wall interface along the East building elevation, SEAL observed perimeter sealant to be poorly tooled. Poorly tooled sealant may lead to a reduced service life.
- SEAL observed one rough opening (formally a window location) where the openings was covered by plywood panels.

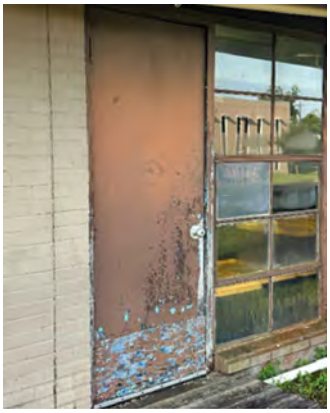
Recommendation:

Based on our observations of the existing glazing and fenestration systems, it is our opinion that the aluminum and steel assemblies have different installation times frames and varying remaining services life expectations, including seals and gaskets. The following outlines our glazing and fenestration-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- Level 4: The primary recommendation for performance is to replace all steel framed window and door units with new thermally-broken or improved aluminum-framed storefront glazing and door systems.
- Alternatively, if budget limitations prevent replacement of all the window assemblies, the windows at the building additions may be retained with the following maintenance performed while replacing all of the original building glazing systems as indicated above.
- MT: Replace insulated glass units (IGU's) that exhibited fogging or stains with new IGU window assemblies.






EXECUTIVE SUMMARY / KEY FINDINGS

- MT: Replace of perimeter joint seals around all glazing and door systems.
- MT: Replace or trim glazing gaskets and wet seal existing window systems to assist with water resistance.
- MT: Remove and reset or replace existing door thresholds and sealing door system to adjacent wall
- MT: Replace all door weatherstripping.

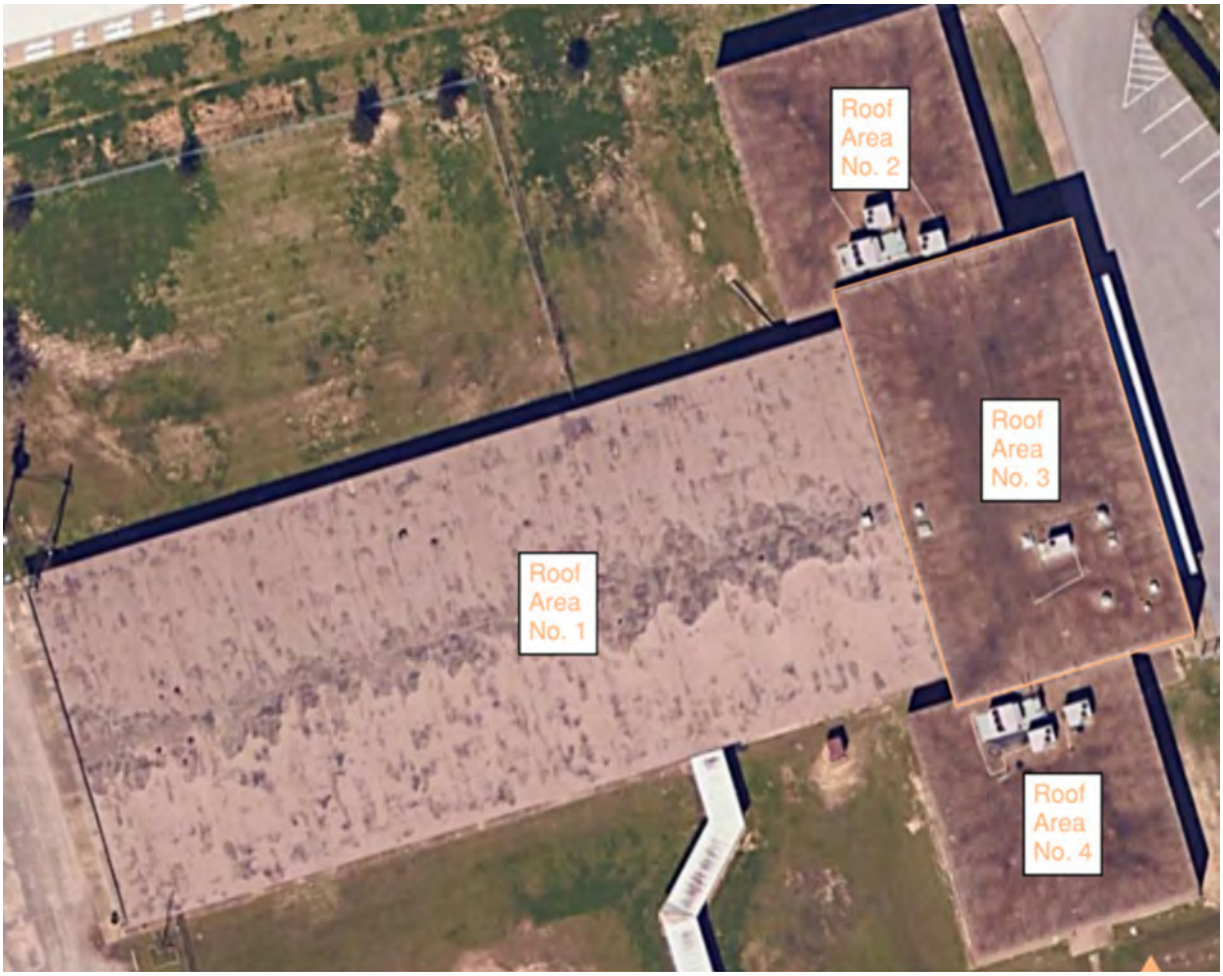
Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: Assuming all glazing systems are replaced, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion. Replace sealants at 10 to 15-year intervals to proactively identify sealant wear and deterioration.
- MT: Remove and replace glazing gaskets and/or wet seal existing window systems to maintain water resistance with high-performance DowSil silicone glazing sealant.
- MT: To proactively identify sealant wear and deterioration, inspect sealants and gaskets bi-annually and properly repair as required to maintain continuity and adhesion.
- MT: Remove and replace perimeter joint seals around all glazing and door systems with high performance DowSil silicone sealants appropriate for the substrates required.

ROOF

Existing Conditions:

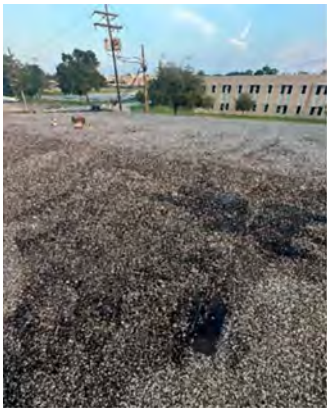
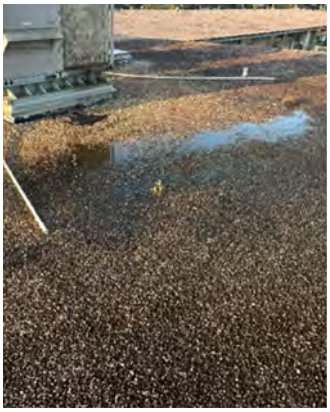
Low-Slope and Sloped Roofing Systems



EXECUTIVE SUMMARY / KEY FINDINGS

- Throughout the entire roofing system, SEAL observed a low-slope and sloped multi-ply built-up roof (BUR) system with aggregate surfacing. This system description was confirmed based on reports and documents provided to SEAL. Although a similar aggregate-surfaced BUR was used at both building areas, Roof Area No.1 (the original building) exhibited a roof slope of approximately 1" per foot (1:12), while Roof Area Nos. 2 – 4 (building additions) were typical low-slope roofs with a slope of approximately 1/4"-inch per foot. Based on the aluminum one way roof vents at Roof Area Nos. 2-4, it is assumed that the roof assemblies at these areas include a lightweight insulated concrete (LWIC) roof substrate. SEAL was unable to confirm the concealed roofing system components down to the deck within our scope of services.
- The main drainage systems of the low-slope roof areas were as follows:
  - Roof Area No. 1 sloped towards the North and South roof edges which drained freely to grade with the exception of the West end where small lengths of sheet metal hanging gutter were added at the interface with the building under Roof Area No. 3.
  - Roof Area No. 2 sloped towards internal cast iron roof drain assemblies with dome strainers throughout the roof area.
  - Roof Area No. 3 sloped towards internal cast iron roof drain assemblies with dome strainers throughout the roof area.
  - Roof Area No. 4 sloped towards internal cast iron roof drain assemblies with dome strainers throughout the roof area.
- Throughout Roof Area No. 1, SEAL observed approximately 190 locations of exposed asphalt and felt. Exposed asphaltic roofing components are susceptible to UV deterioration. Additionally, SEAL observed the roof to be soft underfoot around exposed asphalt locations and appeared to be indicative of a questionable concealed roofing substrate.
- At Roof Area Nos. 2 – 4, SEAL observed roof drain assemblies comprised of interior cast iron roof drains with dome strainers. SEAL observed retained water between the roof drains likely condensate emanating from an adjacent mechanical unit.
- SEAL observed large curb-mounted mechanical units at each of the low-slope roof areas. SEAL observed a large location along the South side of one of the units at Roof Area No. 4 which exhibited surface-applied, asphaltic-based roof repairs (Ref. Photo No. 6). This condition was likely associated with roof system age and challenges related to the integration of curb-mounted roofing equipment with low (less than 8") flashing height. Additionally, at one of the roof penetrations along Roof Area No. 2, SEAL observed a unit access door was displaced and resting loosely between the unit and adjacent wall. This access door was susceptible to further displacement and the potential for damage to the roof membrane during wind events.



EXECUTIVE SUMMARY / KEY FINDINGS

- SEAL observed sheet metal pitch pocket flashings at the Northwest corner of Roof Area No. 1 and in other locations on the roof areas of this building. The pitch pockets were observed to be consistent with their aged, including corrosion and section loss of the sheet metal pocket, crazing of exposed asphaltic filler, and adhesion loss at the sealant-to-metal pocket interface. Additionally, the asphaltic filler no longer filled the pan and allowed water accumulation. Also, SEAL observed most, if not all, metal flashings for the roof system were corroded including areas where the metal had large, unsealed holes.
- At the roof-to-gutter interface at the West end of the North and South roof edges at Roof Area No. 1, SEAL observed the gutters to extend approximately 3 feet and 20 feet, respectively. The gutter length appeared to be consistent with the length necessary to minimize the effects of water draining onto the brick masonry veneer walls below. These conditions may allow concentrated water runoff throughout various points along the roof edge and may lead to washout of the surface below.
- At the prefinished edge metal flashing along the edges of all roof areas, SEAL observed intermittent surface-applied remedial mastic repairs at the sheet metal flashing-to-roof interface where the horizontal metal flange was integration with the BUR membrane, including consistent applications at most edge metal cover plate. This condition is typical among aged BUR roofing assemblies with embedded flashing components.
- SEAL observed ladder access points to Roof Area Nos. 2 and 4. Multiple ladder rungs were observed to be missing/ broken. This condition contained loose components that could be displaced in a wind event and also limited access to lower roof areas.

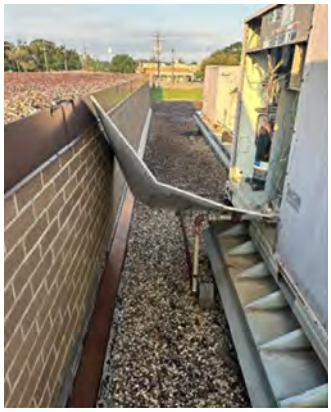
Recommendation:

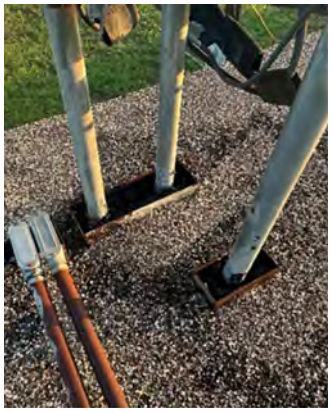
Based on the documents provided, including a WISD Summary, it is our understanding the existing roofing system were installed in or around 1987 and 1992 for the original building and building additions, respectively. The dates indicate the existing roofing systems are between 33 and 38 years old. One roofing industry study indicates a mean 18-year service life of a BUR assemblies. In our experience, quality BUR systems can last up to 50 years with proper maintenance; however, it appears these systems are beyond reasonable repair. Considering the existing field of the roof exhibited surfacing loss and significant quantity of exposed roofing membrane, failed roof flashings, retained water and other significant visual cues of roofing distress or failure, it appears the roof is no longer adequately. Based on our observations to date, it is our opinion that the existing low-slope and sloped roofing systems should be replaced consistent with the Owner's summary. The following outlines our roofing-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- Level 1: SEAL recommends completing a moisture survey (infrared, capacitance, or nuclear with accompanying secondary verification (roof cores preferred at that time to review roofing substrates, including lightweight insulating concrete) to address any significant areas of concern.







EXECUTIVE SUMMARY / KEY FINDINGS

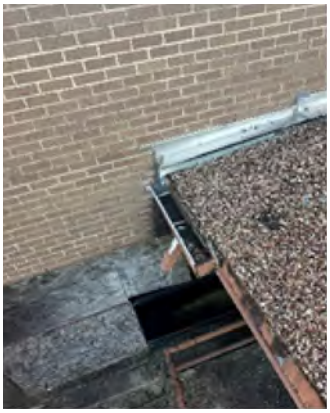
- Level 1: The existing BUR system should be replaced with a fully-adhered, multi-ply, torch-applied SBS or APP modified bitumen roofing system manufactured by Soprema or Siplast with no less than a 20-year No Dollar Limit warranty. The roof assembly should consist of a mechanically-attached gypsum substrate board (where applicable), torch-applied 100-mil minimum vapor barrier, new rigid and tapered roofing insulation, and a gypsum fiber (non-faced) coverboard. A preformed tapered insulation sump should be placed at all primary roof drains. Reinforced liquid flashing system is recommended at all roof penetration and as a supplement to the roofing membrane in the insulation drain sump. New prefinished sheet metal edge flashings, gutters, and flashings should be provided with the new roofing system.
- Level 1: For an alternative approach at the sloped roof areas with a more aesthetic and equally durable roofing system, replace existing membrane roofing with a new standing seam prefinished sheet metal (24 ga. Minimum) roofing system with concealed clips. The assembly would consist of inspected and acceptable or replaced roof deck, continuous high temperature, self-adhered membrane underlayment, continuous thermal insulation (above deck preferred), perimeter and roof penetration flashings, as well as continuous prefinished sheet metal gutters and downspouts.
- Level 1: Based on the condition and composition of the roofing substrates, review by a structural engineer is recommended to ensure the existing components are adequate. Subject to confirmation by the structural engineering consultant, consideration for an allowance/contingency to replace or significantly repair 30-50% of the existing LWIC at Roof Area Nos. 2 - 4 and wood panel/metal roof deck at Roof Area No. 1.

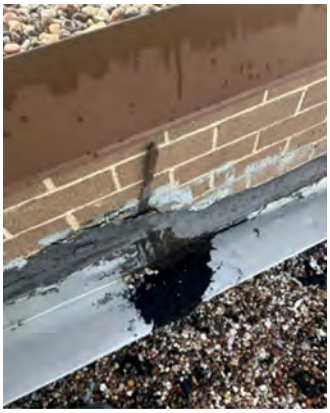
Intermediate and Long-term Recommendations (10 to >20 Years):

- MT: Assuming that all existing roofing systems and flashings will be replaced within the first 5 years, typical roofing maintenance should be all that is required for the next 20 years, unless there is an unexpecting storm or other conditions imposed on the roofing systems. Provide visual and moisture related surveys of the roofing assemblies at 5 years intervals with visual and moisture surveys.
- MT: Provide roofing specific training for WISD personnel to facilitate proactive identification of roofing anomalies, storm damage, and other conditions that can contribute to reduced service life.
- MT: To proactively identify roof damage and wear, as well as maintain assumed roof warranty requirements, inspect the low-slope roofing membrane bi-annually and following significant storm events with high volume rains and/or high winds. Properly repair all damage and wear as it is identified. Third party, credentialed roofing specialists should be considered for these building-specific evaluations.

FLOORS

Flooring throughout the facility was observed to be in poor condition, with widespread damage, staining, and wear well beyond typical expectations. Full flooring replacement is recommended immediately.



EXECUTIVE SUMMARY / KEY FINDINGS

DOORS

Door and hardware upgrades are needed campus-wide. Many classroom and restroom doors require replacement or repair, including new accessible locksets to meet ADA standards. In several locations, adjacent casework or partitions must be removed to achieve compliant door clearances. Louver doors and exterior doors also require replacement where damaged or outdated. Overall, a systematic replacement of doors, hardware, and associated framing is recommended, particularly in older portions of the facility where conditions are consistent and widespread.

MILLWORK / CASEWORK

The facility is currently being used for storage, and as a result the existing casework has not been maintained. If the district intends to repurpose this building for any use beyond storage, a full casework replacement will be required to restore functionality, meet current standards, and support any future programmatic needs.

CEILING

Existing Conditions:

Wood Panel Ceiling Assemblies

- SEAL observed soffit assemblies comprised of wood panels vented along the building perimeter. Holes of various sizes throughout the building were observed. Additionally, SEAL observed large pieces of the wood paneling to be damaged and/ or displaced. Many penetrations were observed through the soffit assembly at this location and some pipes fastened to the panels.

Recommendation:

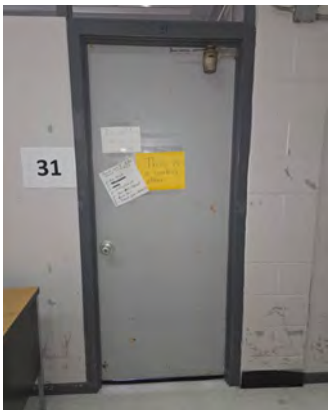
Wood Panel Ceiling Assemblies

Short Term Recommendations (<10 years), including immediate:

- Full soffit replacement to maintain a water tight envelope.

Interior:

Ceiling finishes throughout the facility exhibit widespread deterioration, including damaged, sagging, and missing ceiling tiles in classrooms, corridors, and common areas. Several areas also require repair and repainting of the ceiling substrate before new tiles can be installed. The auditorium contains damaged ceiling tiles that require replacement as well. Overall, the extent of damage indicates the need for an immediate systematic ceiling repair and replacement to restore a functional and aesthetically consistent ceiling system across the building.









EXECUTIVE SUMMARY / KEY FINDINGS

KITCHEN

At the direction of the owner, the kitchen was not included in this assessment. Because the facility is currently being used for storage, the kitchen area was excluded from the scope of review.

MEP

The Mechanical system currently past lifecycle and should be replaced immediately.

LIGHTING

Lighting is currently fluorescent; LED upgrades are not required, however lighting fixtures throughout the facility were observed to be in poor and outdated condition, with numerous classrooms, corridors, and common areas requiring full fixture replacement. In several locations, light fixtures are paired with damaged or missing ceiling tiles, indicating the need for both lighting and ceiling remediation. Auditorium fixtures also require replacement to restore proper illumination. Where ceilings show damage or require repainting, lighting replacement should occur concurrently to ensure a consistent, fully updated system across the building.

TECHNOLOGY

At the direction of the owner, the audio visual, sound, and other technology scope was not included in this assessment. If the district decides to renovate this facility in the future full AV, sound, and theatrical systems will need to be provided.

PA

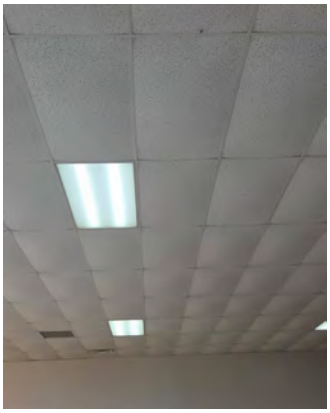
At the direction of the owner, the PA scope was not included in this assessment. If the district decides to renovate this facility in the future full PA system replacement will need to be provided.

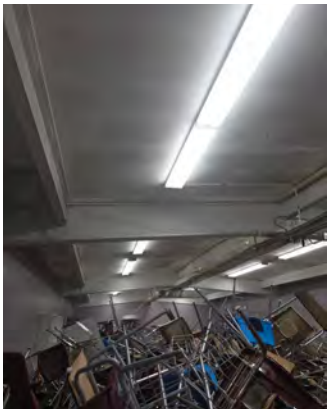
SECURITY

At the direction of the owner, the security scope was not included in this assessment. If the district decides to renovate this facility in the future security items will need to be reviewed, however most likely full camera, door contact, and head end equipment will be required.









BARREL GYM

24

HISTORIC DATA

The Willis Barrel Gym Storage Facility is a former high school gymnasium built in 1962, located directly South-west of 207 Philpot St, Willis, TX 77378. Currently the facility being used for storage. No historic information or previous renovation records were provided.

GENERAL INFORMATION



BARREL GYM 207 Philpot St. Willis, TX 77378	
Year(s) Built:	1962
Approx. Total Building Square Footage	7,550
Approx. Total Site Area	8 acres

*Site is part of the Stubblefield campus.

EXECUTIVE SUMMARY / KEY FINDINGS

ACCESSIBILITY/CODE

The existing facility is in deteriorating condition and is no longer suitable for student occupancy. The exterior walls exhibit visible cracking, and the building's major systems require replacement or significant upgrades to meet current performance standards.

Accessible entries are lacking, restrooms do not meet ADA compliance, and comprehensive improvements will be necessary to create a safe, functional, and code-compliant environment.

While the current facility is being utilized for district storage full building gut and renovation would be required to achieve compliance with current health, safety, and welfare standards and to render the facility appropriate for use.

SITE CONDITIONS

Although no specific deficiencies were formally documented, the site pavement shows clear signs of deterioration and breakage. Repairs or full replacement will be needed to maintain safe and reliable access throughout the campus.

EXTERIOR WALLS

Existing Conditions:

Concrete Masonry Unit (CMU) Wall Assemblies

- SEAL observed a concrete masonry unit (CMU) wall with a coated or painted finish at each building elevation. SEAL observed the coating exhibited delamination in a number of locations. The CMU blocks and mortar exhibited stair-step cracking throughout the building, as well as unsealed vertical gaps there were likely building expansion joints.

Corrugated Metal Wall Panel System

- Due to limited access, SEAL observed corrugated metal panels at the rake ends of the upper and lower building areas along the East and West elevations, above the CMU blocking. The condition of the panels exhibited coating/paint delamination and corrosion. SEAL observed unsealed lapped panels, louver assemblies, and multiple wall penetrations throughout the building; these conditions were susceptible to water infiltration.

Recommendation:

CMU Masonry Wall Assemblies

Based on our observations of the existing masonry wall assemblies and the time frame of initial construction, it is our opinion the brick masonry wall assembly was "mass wall" construction. Therefore, the system has no specific components intended as air and thermal barriers, and the water resistance of the assembly was dependent on the mass of the masonry system. The masonry components exhibited localized areas of distress indicating deficiencies in one or more of the building enclosure-related systems. Unless significant upgrades to the exterior wall following a detailed analysis of the wall assembly, this condition is unlikely to be renovated with superficial solutions. The following outlines our masonry-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- Level 1: Evaluation of foundation for settlement and other sources of displacement.
- Level 1: If structural questions are resolved, repair of cracked/displaced concrete and masonry units, including crack repair and tuckpointing would follow following the recommendations indicated in the National Concrete Masonry and Hardscapes Association (NMHA) TEK publications.

EXECUTIVE SUMMARY / KEY FINDINGS

- Level 1: The IEG structural engineering team recommends, at a minimum, repointing the affected masonry to restore visual continuity and surface integrity. In addition, the installation of new CMU control joints at appropriate intervals is advised to accommodate future movement. These joints should be sealed with a flexible sealant and maintained on a regular schedule to ensure long-term performance and durability.
- Level 1: Coat all exterior faces of CMU with DowSil Allguard-type silicone elastomeric coating after repairs.
- Level 1: Remove and replace masonry expansion and control seals, as well as unsealed wall penetrations with high performance DowSil silicone sealants appropriate for the substrates required and backer rod.

Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: To proactively identify sealant wear and deterioration, inspect sealants bi-annually and properly repair as required to maintain continuity and adhesion.
- MT: Replace sealants and coatings as described above at 10 to 15-year intervals.

Metal Wall Panel Assemblies

Based on our observations of the existing metal wall panel assemblies, it is our opinion the metal panels to be in a generally serviceable condition. However, repairs and maintenance will be required to extend the service life of the system and mitigate water intrusion. The following outlines our metal wall panel-related recommendations:

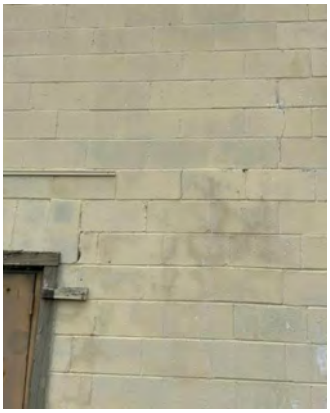
Short Term Recommendations (<10 years), including immediate:

- Replacement of all system fasteners with new oversized fasteners and gaskets.
- Sealing wall penetrations, unsealed metal-to-metal joints, and perimeter joints with high quality silicone sealant, such as appropriate DowSil product based on the substrate.
- Replacement of omitted, missing, loose/unsealed, or deteriorated metal panel closures.
- Modify and ad transition flashing at brick-to-masonry interfaces to provide continuity and proper headlap for water resistance.
- Once the other repairs and maintenance have been completed, prepare substrate and apply an elastomeric coating/repaint the metal panel and flashing surfaces.

Intermediate and Long Term Recommendations (10 to >20 Years):

- Assuming the exterior metal wall panel system has been properly restored in the first 10 years, subsequent maintenance should entail interfaces with roofing, windows, doors, and masonry wall systems.



EXECUTIVE SUMMARY / KEY FINDINGS

INTERIOR WALLS

While no specific deficiencies were identified, the interior walls are generally in fair condition. They exhibit typical wear and tear consistent with the overall age and deterioration of the facility.

WINDOWS

Based on our observations of the existing glazing and fenestration system failures and deterioration, it is our opinion that the window and door systems, including seals and gaskets, are at or beyond the end of their service life. The following outlines our glazing and fenestration-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- Level 1: For a long-term solution, removal and replacement of windows is recommended. Replacement should consist of a thermally-broken (or at least thermally improved) aluminum-framed storefront glazing system with insulated glass units (IGU's). Additionally, all non-aluminum framed door assembly should be replaced as well.
- MT: For a short term or temporary solution, consideration may be given to removing and replacing the perimeter joint sealants around all glazing, louver, and door systems.
- MT: For a short term or temporary solution, remove and replace or trim glazing gaskets and wet seal existing window systems to assist with water resistance.
- MT: Remove and replace existing doors and door thresholds and sealing aluminum-frame door systems to the adjacent walls.
- MT: Replace all door weatherstripping.

Intermediate and Long Term Recommendations (10 to >20 Years):

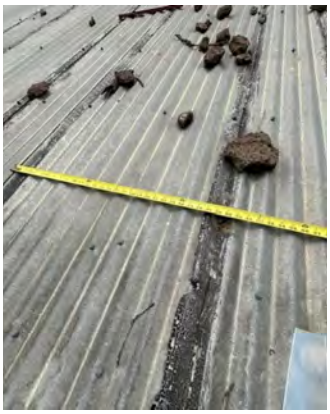
- Assuming the windows and non-aluminum frame doors have been properly replaced in the first 10 years, subsequent maintenance should entail interfaces with metal wall panels and masonry wall systems.

ROOF

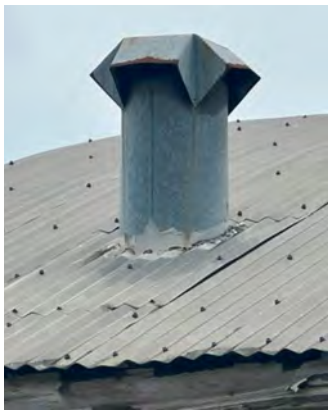
Existing Conditions:

Corrugated Metal Roofing Panel System

- Using drone imaging, SEAL observed three roof areas with corrugated metal roof panels with exposed, gasketed fasteners. Roof Area No. 1 was a barrel-shaped roof with a near flat ridge area and sloped roof areas near the eave. Roof Area Nos. 2 and 3 were comprised of similar metal panels with an approximately 1 3/8"/ft slope. SEAL observed the panels to be of varying sizes depending on location and most panel seams exhibited a coating of surface-applied remedial asphalt mastic. SEAL did not observe evidence of concealed or partially-concealed sealant within the panel seams.



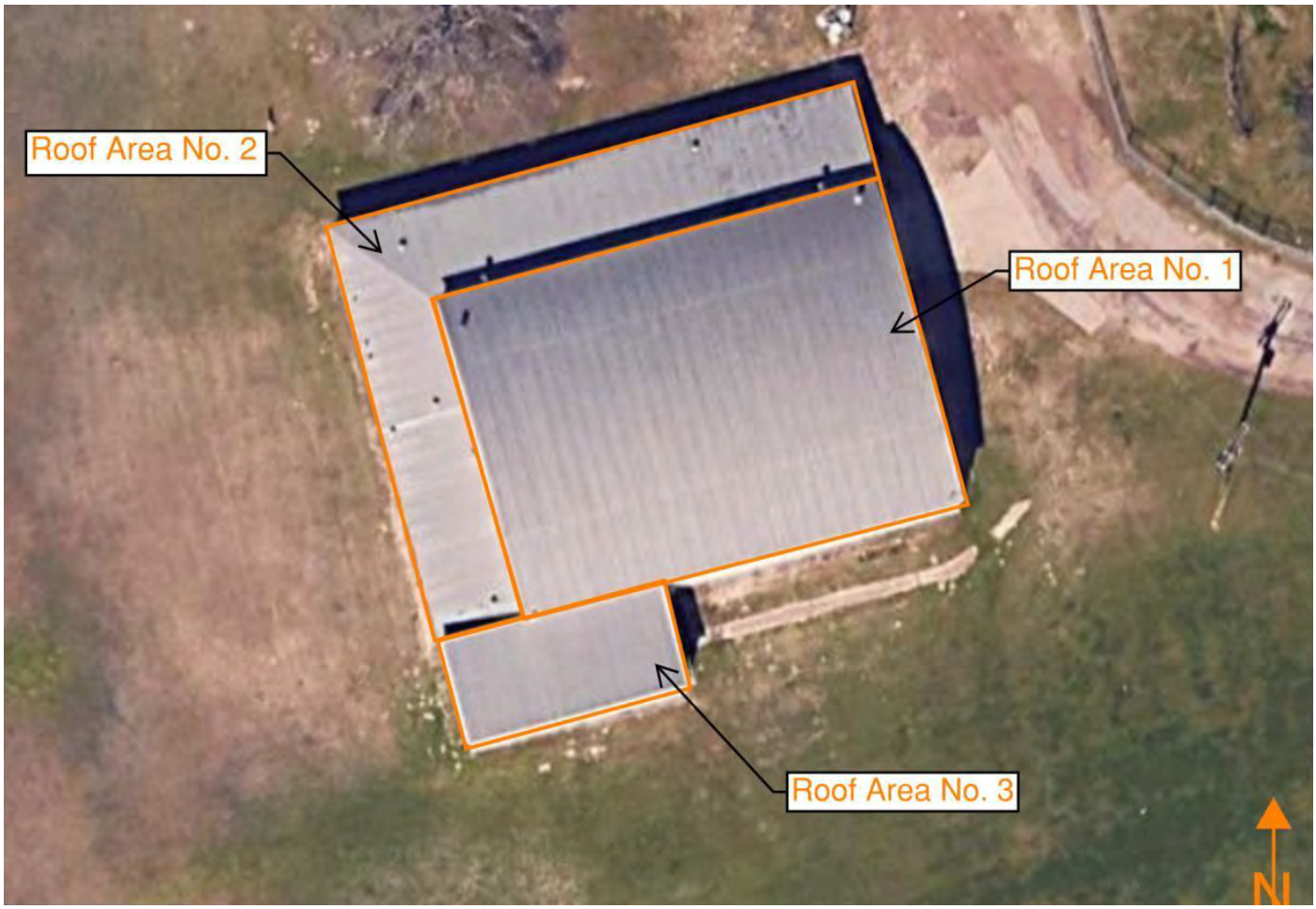






EXECUTIVE SUMMARY / KEY FINDINGS

- The fastener gaskets were likely neoprene and exhibited age and deterioration that were susceptible to water infiltration. SEAL observed multiple roof penetrations at the lower roof areas. The sheet metal vents exhibited corrosion and sealant at the penetrations exhibited signs of age.
- At the barrel roof, SEAL observed multiple roof penetrations, one at each corner. The sheet metal vents exhibited corrosion and sealant at the penetrations exhibited crazing, cracking, discontinuity, and deterioration.
- SEAL observed an additional corrugated metal roof at the lower roof at the South elevation. The perimeter roof flashing consisted of galvanized sheet metal with a field painted finish around the North, West, and East elevations.
- SEAL observed a low-slope corrugated metal roof system at the low roof area which wraps around the primary building at the North and West elevations. The roof system exhibited similar signs of aging as the barrel roof, but also exhibited cementitious and rock debris, as well as broken glass shards on the roof of the North elevation. The West roof area had one metal panel at the West elevation the exhibited corrosion extending down slope toward the West eave.
- At the eave of the West elevation, SEAL observed a missing bird block wood member at the space between two rafters. This isolated missing board location was susceptible to air, animal, and water intrusion.



EXECUTIVE SUMMARY / KEY FINDINGS

Recommendation:

Corrugated Metal Roofing Panel System

Based on our observations to date, it is our opinion the existing corrugated metal roofing system was in a generally serviceable condition. However, a number of repairs would be required to provide an enhanced service life or less risk related to future water infiltration. In our opinion, structural metal panel roofing systems with exposed fasteners are unlikely to perform for a conditioned office space for an extended period of time as the roofing around the fasteners becomes slotted with standard thermal cycling and the gaskets become stiff and deteriorate with weather and UV exposure. The following outlines our roofing-related recommendations:

Short Term Recommendations (<10 years), including immediate:

- MT: For a short term or temporary solution, remove and replace all fasteners at the existing roofing panels with new oversized fasteners and gaskets.
- Level 1: To extend the service life additionally, supplement the fastener replacement with an elastomeric silicone roof coating. Recoating would be required at 10 to 15-year intervals. Prior to recoating, replacement of all penetration flashings, as well as all transition and perimeter flashings should be provided in accordance with recommendations within The National Roofing Contractors Association (NRCA) Roofing Architectural Metal Flashing, Condensation Control and Reroofing and the Sheet Metal and Air Conditioning National Contractors Association (SMANCA) Architectural Sheet Metal Manual (ASMM).
- Level 1: Remove and replace all penetration flashing sealants and provide new membrane and sheet metal flashing to provide continuity at the rake flashing conditions (four locations).
- Level 1: For a long-term solution for an enhanced roofing system with enhanced performance expectations to provide better protection of the building interior, remove the existing metal roofing system, inspect the roofing substrate/deck and repair as required, install a new high temperature underlayment, and install a new prefinished steel double-lock standing seam roofing system with proper transition and penetration flashings. If done properly and under the direction of a roofing design and installation specialist, this solution should provide 30-50 year durability.

Intermediate and Long Term Recommendations (10 to >20 Years):

- MT: Assuming the roof has been renovated and coated or replaced within 10 years, subsequent activities will consist of annual inspections of sealants (and coatings).

FLOORS

The flooring throughout the building is in poor condition and requires full replacement to provide a safe, durable, and code-compliant finish.






EXECUTIVE SUMMARY / KEY FINDINGS

DOORS

A close-up review of typical overhead door jamb conditions revealed unsealed gaps between the CMU, wood framing, and wood trim. This condition, observed only at the overhead doors, presents potential pathways for air and water infiltration and should be properly sealed to improve performance and protect adjacent materials.

Please reference the “Window” section of deficiencies for guidance on full window / door assembly recommendations.

MILLWORK / CASEWORK

Although no specific deficiencies were formally documented, the casework shows clear signs of deterioration and breakage. Full replacement will be needed to maintain safe and reliable access throughout the campus.

CEILING

While no formal deficiencies were documented, the ceiling exhibits visible signs of deterioration, including areas that may indicate organic growth. To ensure safe and reliable access throughout the campus, full replacement of the ceiling is recommended.

KITCHEN

No formal kitchen is present in this facility.

MEP

The Barrel Gym was built in 1962 and is currently being used for storage. All MEP systems should be addressed for replacement within the next 5 years.

LIGHTING

The interior lighting in this area is non-functional. A complete lighting replacement is recommended to restore adequate illumination and ensure safe, reliable use of the space.

TECHNOLOGY

Technology within this facility was not reviewed at the owner’s request; however, to make the space fully functional, a complete technology overhaul and replacement will be required.

PA

PA within this facility was not reviewed at the owner’s request; however, to make the space fully functional, a complete PA overhaul and replacement/install will be required.

SECURITY

Security within this facility was not reviewed at the owner’s request; however, to make the space fully functional, a complete security overhaul and replacement will be required.

MORE THAN ARCHITECTS