11-1-2022

Colbert County Schools
425 Hwy 72 West, PO Box 538
Tuscumbia, AL 35674

Attn: Chris Hand
Superintendent

Reference: Structural Assessment Report
Cherokee High School
Cherokee, Alabama
Structural Design Group Project Number: 22-216

Dear Mr. Hand,

On Tuesday, October 25, 2022, I met you at the above noted site and walked the inside and outside of the building to perform a visual structural assessment as you requested. The campus consisted of several adjoined buildings and additions with ages that ranged from early 1960's to late 1980's (assumed) with a disconnected adjacent Gym building. In General, the buildings were visually assessed to be in fair structural condition with some areas in poor condition as noted below:

1) The Brick veneer and concrete base on the outside of the building has both significant and hairline cracking. Most all the cracking is due to long fields of walls with no control joints installed for movement and crack relief. The wall has cracked in several locations with joints wide enough to allow water into the building. Even though the brick veneer did not appear to be structurally compromised, water intrusion into the building can allow further deterioration and a failure of the veneer. To allow proper movement of the brick wall I would recommend the installation of vertical control joints in the brick veneer and repair of the existing cracks in the bricks and mortar joints. Cracking in the concrete base will also need repair to prevent further damage to the wall. Cracks larger than hairline in width should be routed to ¼" depth and a sealant installed over the joint.
2) On the older Classroom wings several of the windows appear to have become dislodged from the window opening. These are large window openings and, if not properly anchored at the jambs, may constitute a structural hazard. Possible replacement of the windows should be considered and at a minimum the dislodged windows need to be repaired.
3) The Kitchen floor consists of steel open web bar joists and concrete fill over a low crawl space. The joist could only be observed thru an exterior opening. The joists closest to the opening was rusting. The observable joists did not exhibit rust to the extent of loss of section, but it is recommended this floor be thoroughly investigated for damage and existing rusted joists be cleaned, primed, and painted to prevent further damage.
4) The Storage area to the right (facing the Auditorium Entrance) at the side entrance to the building has two walls with severe cracking. It appears these walls are bearing on the concrete slab on grade and this slab has settled allowing the wall to settle and crack. These two walls will need to be removed, any voids below the slab on grade filled, and the wall rebuilt. The wall closest to the Auditorium could not be determined to be non-load bearing. Repair in this area should start with a full removal of the ceiling finishes to determine if

walls are non-load bearing prior to wall removal. Please note that these walls are dangerous and in need of immediate repair. Additionally, in this same area, at the exterior Corridor door, the masonry wall has a substantial crack that has been filled with sealant. Given the proximity to the Storage room, and the potential void below the slab extent not being known, it would be my recommendation that the Auditorium and this exit be closed until further investigation and repairs to this area can be made.

5) The mechanical and electrical basement area below the Auditorium Stage has water infiltration issues. Water appears to be coming thru the wall of the basement behind large electrical panels. The panels appear to be very old and have significant rusting of the electrical box on both the sides and the bottom. This water intrusion needs to be mitigated and the electrical panel observed for damage. The sump pump in this area was running and was fill of water. A crack in the floor slab had water seeping up onto the slab on grade. This would indicate the presence of a hydrostatic head of water either as ground water or water built up behind the walls. Even though there are no immediate signs of structural damage the walls are not recommended to retain water.
6) The electrical transformers outside of the Auditorium are elevated above the grade on wooden poles. These poles are leaning towards the building and appear to be in poor structural condition. The support for the transformer should be repaired.
7) Several cracks were noted inside the building, most of which have been repaired in the past. All the cracking, except for those noted in item 4 above, appear to be shrinkage cracks due to the lack of installed control joints. Permanent repair will require the installation of vertical control joints in the block.
8) Large vegetation has been allowed to grow close to the buildings. It is recommended that this heavy vegetation be removed as the roots can damage the existing building footings. Also, the roof drainage downspouts are allowed to drain onto grade. This can also damage footings by allowing saturated soils and erosion at the building walls. These downspouts should be collected and carried underground away from the building.
9) The Gym building appears to have a significant water infiltration issue. The grade on the outside of the building is very close to and in some locations above the finish floor. The building smells musty and may need to be investigated for mold.

Please note that this was a general structural assessment performed on areas easily available to view. Additionally, repair recommendations noted above are not intended to be complete and additional consideration and detailing may need to be performed to provide an adequate repair. Please let me know if you need any additional information concerning this report and SDG will be glad to assist you. Thank you for allowing us to help you with this project.

Sincerely,

H. Craig Winn, P.E.

H. Craig Winn P.E.
Principal

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Cracking in the brick veneer and concrete base

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Windows separated at head and jambs

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Rusting of bar joist floor supports at the Kitchen

Cracking of the walls in the Storage Room adjacent to the Auditorium

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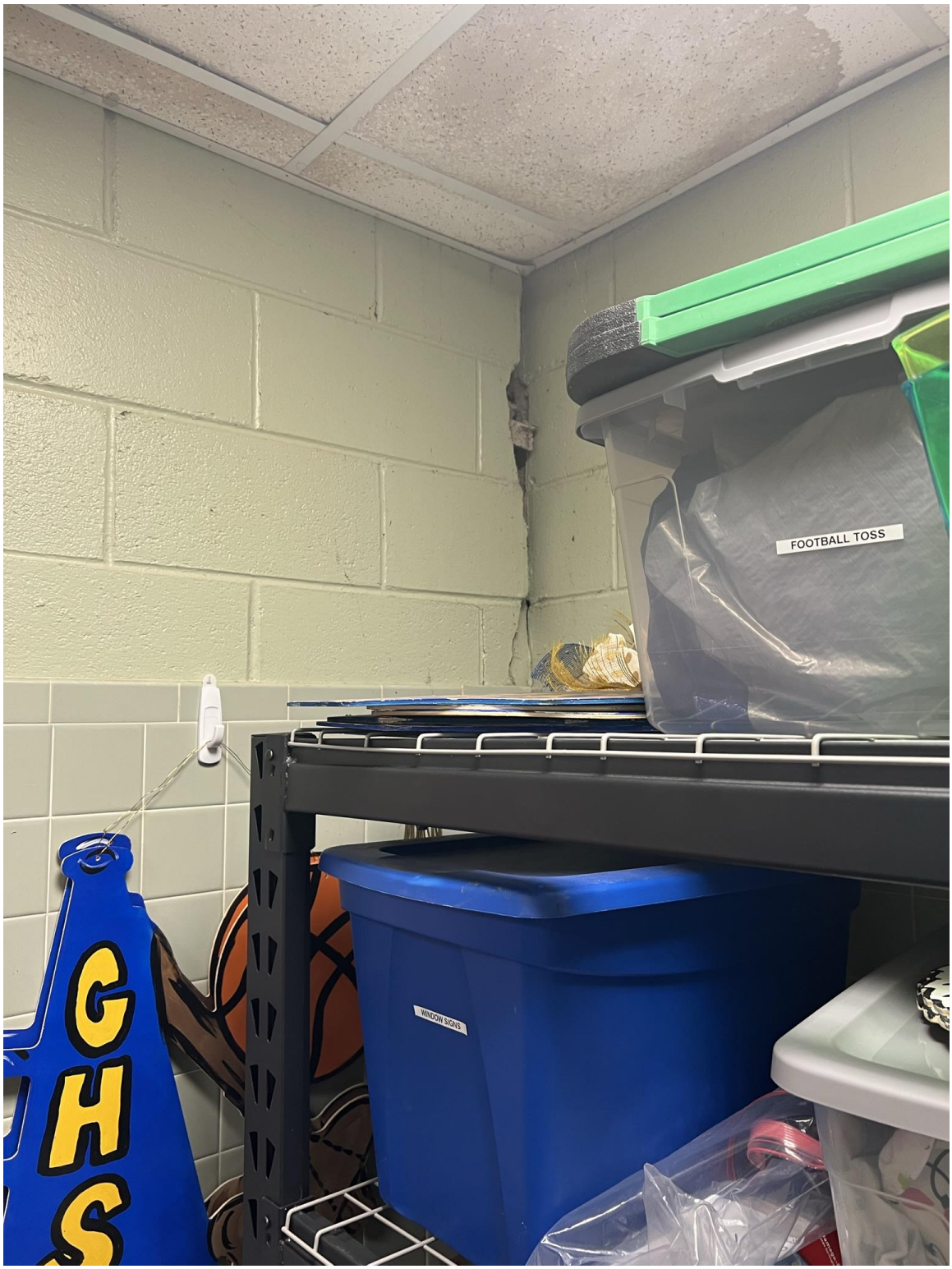

Cracking of the walls in the Storage Room adjacent to the Auditorium

Water intrusion into Mechanical Basement

Water seeping up thru crack in basement floor

Sump pump is full and running continuously

Water infiltration thru wall behind electrical panel

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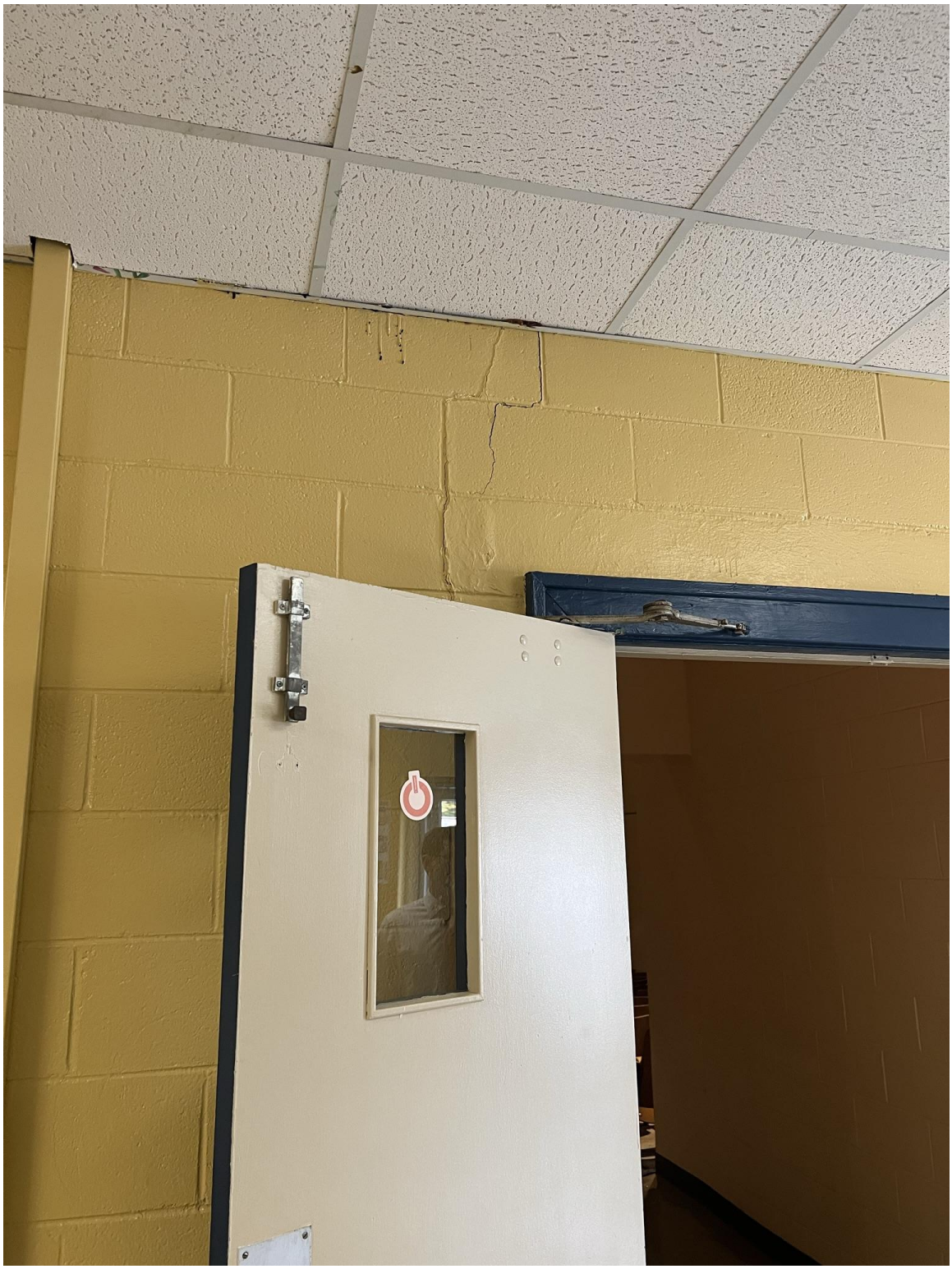
Leaning supports of Electrical transformers



Cracking in interior masonry walls

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Vegetation close to building and downspouts draining onto grade