

September 15, 2026

To:

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From: Nicholas Rohr, P.E., S.E.
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Structural Assessment Letter – Existing Building

Project: 4113 Guadalupe Renovation (ARE Project No. 26-060-ALA)

Site Address: 4113 Guadalupe St, Austin, TX 78751

Site Visit Date: September 10, 2026

ARE Attendee: Nicholas Rohr, P.E., S.E.

Reference: ALIGN Austin Architects Preliminary Demolition Exhibit dated August 14, 2026

Introduction

On September 10, 2026, Nicholas Rohr, P.E., S.E. of Anderson Rohr Engineers, LLC (ARE) visited 4113 Guadalupe St to perform a visual structural assessment of the existing building in support of the proposed renovation. The General Contractor had removed finishes at the locations shown on the ALIGN Austin Architects Preliminary Demolition Exhibit dated August 14, 2026, and the exposed structure at those locations was observed and measured.

The findings below are based on the conditions that were accessible on the date of the visit. Conditions that remained concealed by finishes, flooring, or the roof deck were not observable and are not included in this assessment except where noted as anticipated. Only visual observations were made; no material testing, destructive investigation, or geotechnical investigation was performed.

Building Description

The existing building is a single-story wood-framed commercial retail building with a brick front facade at Guadalupe Street. The building is approximately 50 feet deep by 25 feet wide, with adjacent buildings on each side. The existing structure appears to be on an independent foundation, separate from the adjacent buildings. The gap between the exterior north wall and the adjacent building to the north is approximately 21 inches. A masonry wall of the adjacent building is located along the south side.

The primary structure consists of the following, as observed:

- Foundation: Timber piles embedded in the ground supporting a 4x6 pressure-treated timber beam at the perimeter. No concrete support was found at the timber piles. The spacing of the piles could not be verified.
- Floor: 2x6 floor joists at 24 inches on center bearing on the 4x6 timber beam, with wood decking over. Joist spans could not be verified.
- Walls: Load-bearing walls of 2x4 studs at 24 inches on center running the length of the building. The exterior finish on the side walls is wood paneling. The front wall behind the brick facade is non-load-bearing.
- Roof: 2x4 ceiling joists and rafters at 24 inches on center, with flat 1x members perpendicular to the roof framing and wood decking over the flat members. The roof is approximately 11 feet above the finished floor; this dimension varies because of the sinking of the floor.
- Lateral system: No shear wall components were found in the building.



Figure 1. Existing front facade at Guadalupe Street – brick facade with storefront; the facade appears to bear on a concrete foundation.



Figure 2. Rear of the existing structure – wood-framed building with paneled siding, set between adjacent buildings on each side.



Figure 3. Gap between the existing 2x4 north bearing wall and the adjacent building to the north – approximately 21 inches. Water drains through this gap and toward the building.



Figure 4. Exterior wall of the adjacent building to the south, viewed from the gap between the buildings.

Observed Conditions

Foundation and Floor Framing

The floor joists bear on the 4x6 pressure-treated timber beam, which spans between timber piles embedded directly in the ground. No concrete footings or piers were found. The floor has a depression of approximately 2 to 4 inches, with the low point near the middle of the floor. The floor level varies across the building.

Signs of water damage and water infiltration were observed underneath the building, including water marks on the exposed pile shown in Figure 6. Much of the deterioration of the wood is likely due to water damage.

Severe deterioration of the floor joists was observed near the perimeter where the floor was exposed. Many of the joists observed were deteriorated. Further deterioration that is not visible is likely beneath the existing wood decking.

Splitting of the wood was also observed, which may result from non-preservative-treated wood being exposed to the elements. The 4x6 perimeter beam appears to be pressure treated and appears to be in better condition.

The floor depression and the differential movement behind the front wall are likely the result of water infiltration at the timber pile foundations. Water currently drains into the gaps between the existing building and the adjacent buildings on the north and south sides, and likely under the building. This allows the soils at the timber piles to soften and the main bearing walls to sink.



Figure 5. Existing 4x6 pressure-treated timber beam supporting the floor joists.



Figure 6. Timber pile foundation supporting the 4x6 timber beam – no concrete support was found.



Figure 7. Deteriorated 2x6 floor joists at 24 inches on center bearing on the timber beam and pile foundation.



Figure 8. Approximate variation in floor height at the sinking floor – the markup shows the distance from the floor to the horizontal wall member, approximately 8 inches near the middle of the building and approximately 5 inches toward the end of the wall. The difference is the approximate floor depression of 2 to 4 inches.

Load-Bearing Walls and Siding

The bottom sill plates and the bases of the 2x4 studs are deteriorated along the exposed portions of the north and south bearing walls. Splits were observed at the base of the wall studs. The wood paneling siding on the side walls has large gaps that allow moisture to infiltrate the wall, which has led to the deterioration of the wood. Splitting of the wall studs was also observed at locations that are not shown in the photographs.



Figure 9. Bottom of the existing 2x4 bearing wall with floor joists bearing, adjacent to the neighboring building wall. The sill and stud bases are deteriorated.



Figure 10. South wall – deteriorated wood wall construction. Splits and section loss at the base of the 2x4 studs.



Figure 11. South wall base deterioration at the adjacent building – moisture infiltration through the gaps in the siding.



Figure 12. North wall – interior deterioration and water damage at the sill and stud bases.

Front Facade

The following was observed at the front of the building:

- The front facade appears to bear on a concrete foundation and appears relatively stable. The brick did not show large cracks that would indicate significant movement.
- The front facade appears to show minor movement, resulting in the minor stair-stepping of the brick mortar joints at the facade return shown in Figure 14.
- Gaps were observed in the brick at the base of the facade where the brick meets the concrete foundation (Figure 15), and the sidewalk has separated from the front foundation (Figure 16).
- There is a crack in the front wall foundation at the doorway (Figure 16), indicating that the front concrete foundation is not completely stable. The magnitude of movement appears to be much less severe than in the timber-pile-supported portions of the building (the north and south walls).
- The front wall is non-load-bearing. The north and south walls, which run perpendicular to the front wall behind it, are load-bearing. These walls are supported on timber piles and appear to be showing the most movement.
- The most severe movement is near the middle of the building. As the north and south walls approach the front wall, the movement appears to be more minor, indicating that the middle of the building is sinking the most. There may be a low point in grade near the middle of the building where water cannot escape.



Figure 13. Existing front facade – storefront and brick parapet. The historic facade is to remain.



Figure 14. Stair-stepped separation at the brick mortar joints at the facade return – minor; possible indication of soil movement. No large cracks were observed in the facade.



Figure 15. Gaps in the brick at the base of the facade where the brick meets the concrete foundation.



Figure 16. Crack in the front wall foundation at the doorway, and separation between the sidewalk and the front foundation.

Roof Framing

The roof structure did not appear deteriorated where visible. The 2x4 ceiling joists and rafters, flat 1x members, and wood decking were observed at the location where the dropped ceiling was removed.

Findings

The existing wood structure at the floor level (timber piles, 4x6 timber beam, 2x6 floor joists, sill plates, and the bases of the 2x4 studs) is deteriorated and will need to be replaced or supplemented with new structure to bring the building into code compliance. The following is noted:

- The maximum span for a 2x6 floor joist at 24 inches on center under the current IBC floor loads (100 psf mercantile live load) is approximately 5 feet 0 inches. The existing joist spans could not be verified, but the floor is sinking and many of the observed joists are deteriorated.
- The existing 2x4 wall studs have sufficient capacity for the roof loads; however, the deteriorated stud bases and sill plates must be repaired to restore the original support.
- No shear wall components were found. The building has no defined lateral system.
- Signs of water infiltration and water damage were observed beneath the building. Much of the deterioration of the wood is likely due to water damage.
- The timber pile foundations are embedded directly in soil that is subject to water infiltration and are experiencing differential settlement.
- The existing siding does not keep water out of the walls.
- The roof framing did not appear deteriorated where visible.

Recommendations

1. Redirect Site Drainage Away from the Building

The new construction should redirect all water runoff away from the building and prevent water from draining into the gaps between the existing building and the adjacent buildings on the north and south sides. Without correcting the drainage, any foundation repair remains at risk of continued movement.

2. Replace the Timber Pile Foundations

ARE recommends replacing the timber pile foundations with concrete foundations during construction to provide better bearing and reduce differential settlement. A geotechnical engineer should be retained to evaluate the on-site soils and determine the potential movement of the soils for shallow foundations. Alternatively, driven piles or helical piles may be installed to extend the foundations below the active zone of soil movement.

For pricing, the General Contractor should price the following options for the perimeter foundation:

- Option 1 – New continuous concrete grade beam, 12 inches wide by 24 inches deep, along the perimeter bearing walls.
- Option 2 – Keep the existing 4x6 perimeter timber beam and install new piles at 5 feet 6 inches on center along the beam line, approximately 50 feet long total.
- Option 3 – Remove the existing 4x6 perimeter beam and install new piles spaced further apart with a new rim beam designed to span between them.

3. Replace the Floor Framing

ARE recommends replacing the existing 2x6 floor joists with 2x10 floor joists at 16 inches on center spanning 8 feet 6 inches maximum, in three bays across the width of the building. The existing 2x6 floor joists may be removed once replaced.

Install new interior girders of (4) 2x12 at the third points of the floor, with foundation supports (spread footings or piles) at 9 feet 0 inches on center. With the girders bearing at each end of the building, this is five interior supports plus one at each end – seven supports per girder line over the approximate 50-foot building length.

As an alternative to a framed floor, the geotechnical engineer may provide recommendations for soil remediation and compaction to replace the existing floor with a 4-inch slab on grade.

4. Repair the Bearing Walls and Add Wall Sheathing

The existing 2x4 wall studs should be replaced or lapped at the base, with new sill plates, to restore the original support. ARE recommends replacing the siding with plywood sheathing along the full length of the walls to provide lateral rigidity and a shear wall system, and reinstalling the exterior siding to waterproof the building.

5. Construction Approach – Two Options to be Priced

Because of the historical nature of the building, the front facade may not be replaced. The front wall behind the facade is non-load-bearing. Two approaches are available:

- Option A – Shore the front facade and replace the structure behind it. The General Contractor shores the front facade during construction, and the three walls behind the facade are removed and replaced with a new structure on new foundations.
- Option B – Shore the entire building and reinforce in place. The building is shored during construction and the foundations, floor framing, wall bases, and sheathing are repaired in place as described above.

Option A may be more cost effective than shoring the entire building and reinforcing in place. ARE recommends the General Contractor price both options.

Limitations

This letter is based solely on visual observations made by ARE during the September 10, 2026 site visit at the locations exposed by the General Contractor. No destructive investigation, material testing, or geotechnical investigation was performed. Concealed framing, pile spacing, joist spans, and soil conditions were not verified. Further deterioration beyond what was observed should be anticipated once the remaining finishes and flooring are removed. Final design of the foundations, floor framing, wall repairs, and shoring will be provided under a separate agreement once the construction approach is selected, and foundation design will be coordinated with the geotechnical engineer.

Please contact our office with any questions regarding this letter.

Sincerely,



Nicholas Rohr, P.E., S.E.

Managing Principal

Anderson Rohr Engineers, LLC



9/15/2026