CLEARSCAPES
ARCHITECTURE + ART

ADDENDUM 01

Date: May 06, 2024

Project: Historic Humber House Repairs
SCO #: 23-26910-01A

The following **(4)** items modify, add to, or delete from the contract documents, plans, and specifications for this project. Please acknowledge receipt of this addendum in your proposal. Failure to do so may result in the disqualification of your bid.

ITEM 1. Pre-bid Conference date and time changed to May 13th at 3PM at the Humber House.

ITEM 2. Bid Opening Date is postponed, TBD. Location of the bid opening to remain the same, in the main Auditorium of the State Archives Building, 109 E Jones St., Raleigh, NC.

ITEM 3. Trim the limbs that may obstruct the repairs to the fence. Assume 6 limbs to be trimmed in base bid.

ITEM 4. Please refer to the attached Structural Report and include the scope outlined in the Lysaght & Associate Recommendations.

END OF ADDENDUM 01

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LYSAGHT & ASSOCIATES, P.A. – STRUCTURAL OBSERVATION REPORT

Date: April 22, 2024
Recipient: Yujie Cui
Email: yujie@clearscapes.com
Subject: Structural Field Report
Project: Robert Lee Humber House Structural Observation
Site: 117 W 5th St, Greenville, NC 27858
Project #: 14520 (L&A)
Visit Date: April 10, 2024

Introduction

At the request of Yujie Cui (Clearscapes), David Hughes, PE performed a site visit to observe specific existing structural conditions at the address noted above. The scope of the observed existing structural conditions was limited to review of the reported low point in the existing back patio.

The house was constructed in 1895 per the Greenville County tax records and consists of the original residence and multiple additions that were added over time. The house is a two and a half story stick framed structure with a basement consisting of a partial perimeter brick masonry foundation wall system and partial perimeter concrete reinforced basement wall with interior masonry piers and steel pipe columns (*see picture 1-2*).

Building Code Compliance

Per the controlling 2018 North Carolina Existing Building Code (NCEBC) Section 101.4.2, "*the legal occupancy of any building existing on the date of adoption of this code shall be permitted to continue without change, except as specifically covered in this code, the International Fire Code, or as deemed necessary by the code official for the general safety or and welfare of the occupants and the public."* In short, the Existing Building Code protects existing structures from having to meet current building code requirements if the structure remains unaltered and used for the same occupancy. In layman's terms, this is referred to as "grandfathering".

If the existing structure is damaged, the 2018 NCEBC Section 606.2.1 states that, *"for damage less than substantial structural damage, the damaged elements shall be permitted to be restored to their pre-damaged condition."* If the damaged element is reinforced rather than replaced, the reinforcement methods shall meet the requirements in the 2018 North Carolina Building Code (NCBC).

Lysaght & Associates Observations

At the time of Lysaght & Associates site visit, the following conditions were noted. For the purpose of this report, we will consider the front of the structure as viewed from W 5th Street. Refer to the corresponding pictures under Site Pictures for each item.

1) While on site, it was reported that a water-intrusion issue has been present in the basement beneath the transition from the right side of the elevated exterior patio slab and the exterior wall of the building (*see pictures 2-3 for examples).*
   a. Further investigation beneath the patio slab revealed that the single 1¾" x 7¾" partially sistered rim band, beneath the left wall of the back-most portion of the building was deteriorated beyond salvageable limits (*see pictures 4-6 for examples).*

        i. In addition, the beam located at the front of the rim band was noted to be deteriorated beyond salvageable limits (*see picture 7 for example) (see schematic on page 3 for additional information)*.
    b. Measurement by laser level indicated that steel beam supports for the patio slab were not sagging beyond allowable limits at the time of our site visit.
    c. We are not able to determine the adequacy of the elevated slab due to reinforcing (if present) being encased in concrete. However, at the time of our site visit, we did not note any signs of distress (i.e. cracking) on the bottom side of the elevated patio.
    d. Measurement by laser level indicated that the patio slab was sloped to the left by approximately 3/32" per foot (on average), or approximately 1.2" over a distance of 13'.
    e. When measured at the 2' section located directly adjacent to the left wall of the back-most bump-out, it was noted that the patio surface was not adequately sloped for positive drainage away from the building structure.
        i. Signs of standing water were noted adjacent to the concrete entry ramp at the left wall of the back-most bumpout (*see picture 8 for example).*
2) At the time of our site visit, Reid Thomas (NC State Historic Preservation Office) offered to remove the bottom (2) boards of siding from the exterior wall of the structure at the right side of the back patio.
    a. Upon removal, it was revealed that flashing was not adequately sealed to the brick patio structure (*see pictures 9-10 for examples).*

Lysaght & Associates Analysis

1) The above-noted deteriorated rim band and reported water intrusion into the basement at the right side of the back patio is likely the result of a combination of inadequate slope at the right side of the patio slab and loose/inadequately sealed waterproofing (flashing).

Lysaght & Associates Recommendations

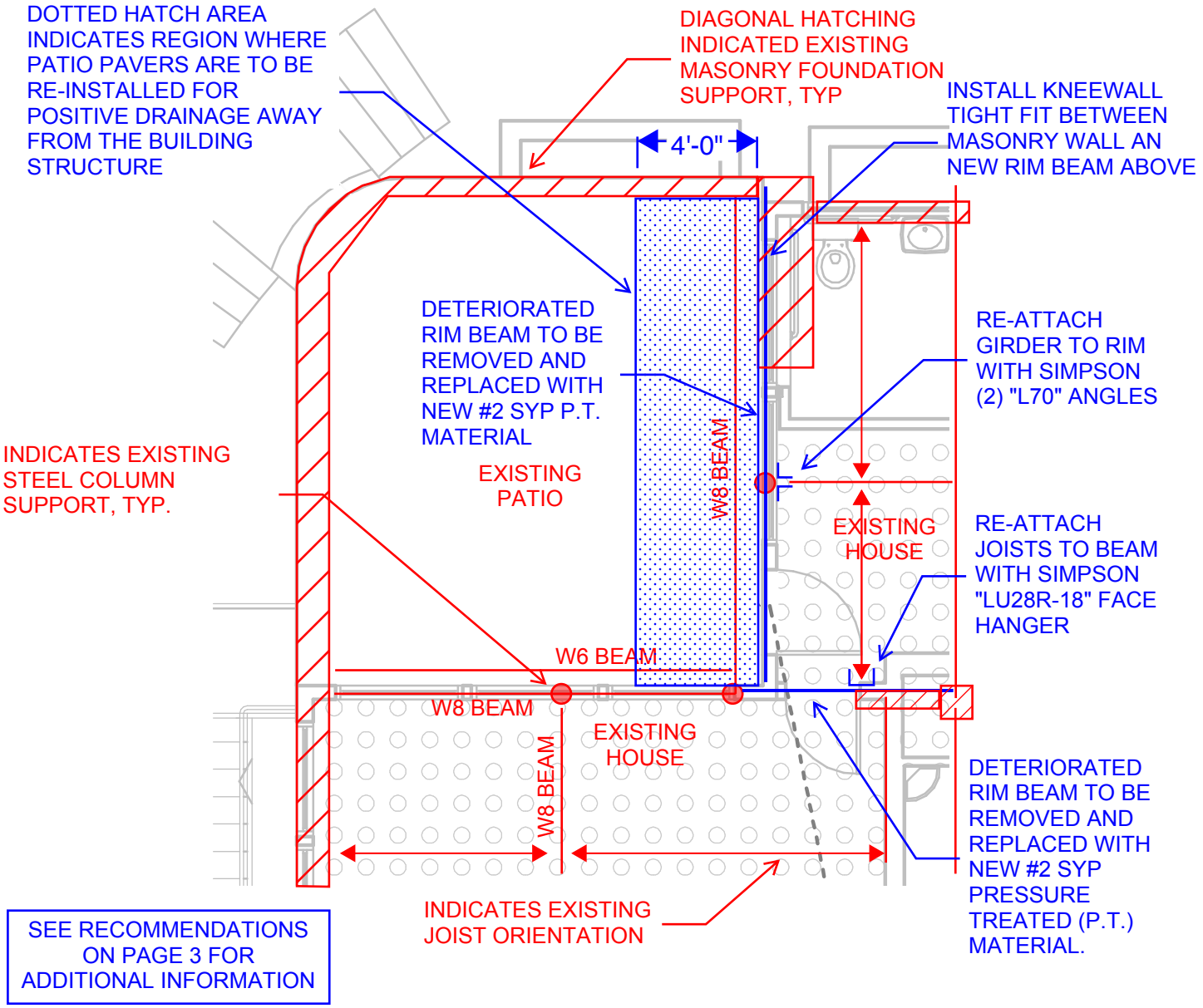
1) The deteriorated rim band shall be removed and replaced with new (2)2x10 rim band, ripped down to a depth of approximately 8", such that the top of beam is flush with bottom of floor sheathing and bottom of beam is flush with the cap plate of the existing steel column.
    a. The new rim band shall have full bearing at the back foundation wall, and shall be attached to beam at front with Simpson face hanger.
        i. Attach steel column cap plate to new rim beam with (2) ¼" x 4½" Simpson SDS screws. Drill 5/16" diameter holes in existing steel cap plate for attachment.
    b. Once the existing rim band has been removed, the contractor shall inspect the condition of the floor sheathing above. If the sheathing is deteriorated, it shall be removed and replaced with sheathing of matching thickness. Sheathing shall span across (2) joists bays minimum and shall be fastened to floor joists with 8D common nails at 6" o.c. at panel edges and 12" o.c. in the panel field.
2) The existing left-to-right single ply beam/rim that supports the front-to-back deteriorated rim noted above shall be removed and replaced with a (2)2x10 beam, ripped down to a depth of approximately 8", such that the beam is flush with the underside of sheathing and with the top of end bearing supports (see schematic on page 3 for additional information).
    a. Joists shall be attached to new beam with Simpson "LU28R-18" face hangers.
3) We recommend that the 4' wide section at the right side of the back patio be sloped 1/8" per foot minimum, and that the 1' section directly adjacent to the structure at the right side of the patio shall be sloped away from the structure 3/16" (minimum) over one foot.
    a. If brick pavers are to be removed to provide the required slope, care should be taken to not damage the top surface of the slab below.
    b. Once the patio surface has been sloped per the requirements above, new flashing/waterproofing shall be installed between the exterior wall of the building structure and the existing patio slab.
        i. Design of waterproofing/flashing is considered to be the responsibility of the G.C.

NOTE:

THE EXISTING STRUCTURE SHALL BE TEMPORARILY SHORED DURING CONSTRUCTION. TEMPORARY SHORING OF THE EXISTING STRUCTURE IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

RED INDICATES EXISTING FRAMING/FOUNDATION ELEMENTS

BLUE INDICATES EXISTING FRAMING/FOUNDATION ELEMENTS



SEE RECOMMENDATIONS ON PAGE 3 FOR ADDITIONAL INFORMATION

PARTIAL 1ST FLOOR FRAMING SCHEMATIC

SCALE: 3/16" = 1'-0"

Site Pictures

Picture 1 – 117 W 5th Street
Greenville, NC (front)

Picture 2 – 117 W 5th St,
Greenville, NC (Back)

Picture 3 – Example of area of reported water-intrusion

Picture 4 – Example of area of reported water intrusion

Picture 5 – Example of partially sistered, deteriorated rim band

Picture 6 – Example of partially sistered, deteriorated rim band

Site Pictures

Picture 7 – Example of deteriorated beam at front side of deteriorated rim (pic 6)

Picture 8 – Example of debris pile as evidence of previously standing water

Picture 9 – Example of existing flashing at right side of patio

Picture 10 – Example of existing flashing at right side of patio

Picture 11 – Example of laser level set up for measurement of existing beams and underside of patio slab

Picture 12 – Example of laser level set up for measurement of existing patio slab surface

Conclusion

Lysaght & Associates conducted a site visit to observe the the existing low spot reported at the right side of the back patio at the site address noted above. Upon observing the existing conditions, structural recommendations were provided to resolve the noted item. If the owner decides to perform the recommendations noted above and would like Lysaght & Associates to review and confirm the mitigated issues, we can perform a follow up visit as an additional service.

Terms and Conditions

Standard of Care
In performing professional services, the structural engineer has the duty to have that degree of learning and skill ordinarily possessed by reputable structural engineers, practicing in the same or similar locality and under similar circumstances. It is the structural engineer's further duty to use the care and skill ordinarily used in like cases by reputable members of the structural engineering profession practicing in the same or similar locality under similar circumstances, and to use reasonable diligence and the structural engineer's best judgment in the exercise of professional skill and in the application of learning, in an effort to accomplish the purpose for which the structural engineer was employed.

Limitation of Liability
This report does not express or imply any warranty of the structure but only addresses the condition of the portion which was readily accessible and observable at the time of observation. The report is based upon visual observations only (no physical testing was performed) and there is no claim, either stated or implied, that all conditions were observed.

Ownership of Documents
All documents produced by Lysaght & Associates, P.A. under this Agreement shall remain the property of the Lysaght & Associates, P.A. and may not be used by Clearscapes for any other endeavor without the written consent of Lysaght & Associates, P.A.

Authentication

Sealed By: _____ Date: 4-22-2024
Michael Stone, PE - Principal Engineer
Lysaght & Associates, P.A.