STRUCTURAL ASSESSMENT REPORT

May 14, 2025

Property Owner:
Constance McCorkle

Property Address:
3700 S. 3rd Street
Milwaukee, WI 53207

Prepared By:
VM Engineering LTD
Vincent Matarrese, PE
Vince@vmproeng.com



Vincent M. Matarrese, PE
Signed digitally 5/14/25

Introduction

This report assesses the structural stability of the basement foundation, water seepage issues, and alterations to the exterior deck and second floor of a single-family residence located at 3700 S. 3rd Street, Milwaukee, Wisconsin. Constructed in the 1920s, the property was inspected on April 17, 2025, to evaluate concerns raised by the current owner, Ms. McCorkle. The scope of the investigation included a site visit, an interview with Ms. McCorkle, visual inspections, photography, and wall measurements using a Bosch self-leveling laser.

Methodology

The foundation assessment adhered to the Best Management Standards for Foundation Repair, as outlined by the Wisconsin Association of Foundation Repair Professionals, and Chapter VI of the Wisconsin Uniform Building Code (Foundation Repair & Dampproofing). A Bosch self-leveling laser measured lateral wall displacements. The exterior deck and building structures were evaluated per Wisconsin Uniform Dwelling Code SPS 320-325 Construction Standards.

Property History

The following information was reported to me by Ms. McCorkle or provided in documentation:

- Ms. McCorkle purchased the property in August 2024. According to listing information, the house was previously sold in April of 2024.
- During the seller's ownership it was reported that the basement was painted, plywood was installed over a wall opening to cellar room, the exterior deck was partially rebuilt and the second floor was remodeled.
- The seller did not disclose any defects on the Real Estate Condition Report (RECR).
- After taking ownership Ms. McCorkle has experienced water seepage in the basement along the east wall during rainfall events and snow melt. While exploring the source of water seepage, Ms. McCorkle discovered a plywood doorway that was finished to look like masonry block concealing a cellar room.
- Ms. McCorkle has checked city building department records and reported no open permits for interior alterations or the exterior deck construction.e

Findings and Observations

Basement Foundation

- The east foundation wall exhibited a maximum lateral deviation from plumb of ½ inch, with differential movement of approximately ¼ inch. Painted-over cracks were observed.
- Other basement walls showed less than ½ inch deviation from plumb, with elevations varying between ¼ and ½ inch.

Cellar Room

- A cellar room along the east foundation wall, accessible via a half-height wall opening, was concealed with a plywood panel plastered to resemble masonry block. The plywood's light color suggests recent installation.
- Water stains and signs of dampness were evident inside the cellar room, with seepage reported from this area, leaving visible staining on the basement floor.
- An old refrigerator was present in the cellar room.
- The exterior concrete cover over the cellar is exposed to the elements, with attempted patches. Due to its age and condition, water likely infiltrates through the cover.

Exterior Deck

- The south section of the deck was recently rebuilt, replacing a former handicap ramp, as reported by Ms. McCorkle. No permits or city inspections were recorded.
- Observations of the south deck section, evaluated per Wisconsin Uniform Dwelling Code SPS 320-325 Appendix B, include:
    - Column footings are irregular in size with unknown depths (required depth: 48 inches below grade).
    - Columns are positioned off-center on concrete footings, with missing attachment brackets in some areas.
    - Deck support beams are undersized and improperly attached to columns.
    - Deck joists lack blocking and, in some areas, use improper joist hangers.

- The original deck construction shows no signs of distress or deterioration.

Second Floor

- The second floor appears to have been finished living space for many years, possibly since original construction, with recent remodeling by the seller.
- The west room meets Wisconsin Uniform Building Code and Uniform Dwelling Code requirements for a bedroom (private entrance, closet, electrical outlets, and egress).
- The east room, located at the top of the stairs, lacks a private entrance or doorway to a corridor or living area, classifying it as a living area.

Conclusions

The cellar room construction style (exposed concrete cover) typically has water dampness or seepage issues due to the porous nature of concrete and joints along concrete and masonry block. The cellar along the east wall appears to be original construction and in my professional opinion likely has had a long history of water seepage. The basement has been painted recently and wall opening to the cellar concealed with plywood and plaster in an attempt to visually appear like masonry block. In my professional opinion, the cellar room construction style with exterior cover exposure is the source of water seepage in the basement which is a defect to the basement that requires corrective action.

The south section of the deck which has been rebuilt recently was reported to be completed without a permit, city inspections and does not meet the WI SPS 320-325 Appendix B construction standards. The structural components of the deck (footings, columns, beam and joists) are critical to the life of the deck. In my professional opinion, the south section of the deck is beyond reinforcing in place and should be replaced with proper city permits and inspections.

The finished second floor was found to have one bedroom and one living room area. It appears that the second floor was remodeled and potentially interior walls were removed or altered by the seller.

Recommendations

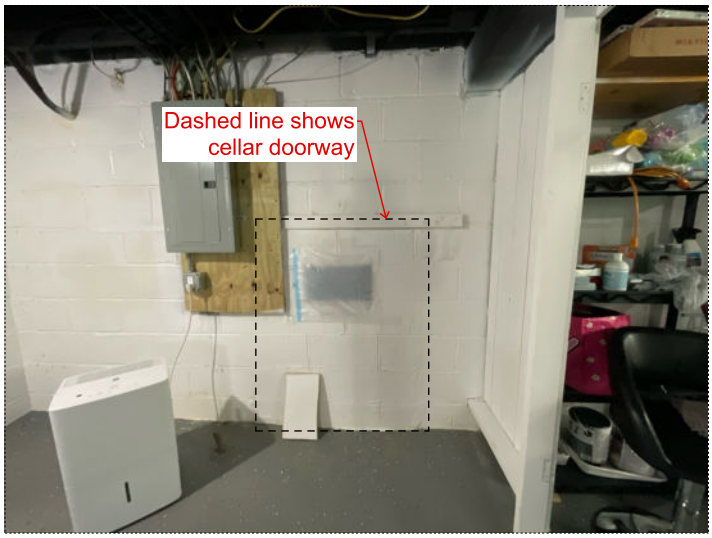
To address the identified structural concerns, the following actions are recommended, to be completed in accordance with the Wisconsin Uniform Dwelling Code SPS 320-325 and Wisconsin Uniform Building Code:

- **Cellar Room**:
  - Remove the concrete slab cover and top course of masonry block.
  - Clear debris from the room.
  - Seal the east wall doorway with new masonry block, bleeder, and waterproofing.
  - Fill the room with stone or gravel, cover with a waterproof membrane, and pour a new slab or cover with clay soils pitched away from the foundation.
- **Exterior Deck**:
  - Demolish and replace the south section, ensuring compliance with SPS 320-325 Appendix B standards, including proper permits and inspections.

Declaration Statement

This report reflects my professional opinions, based on my training and experience as an engineer, to a reasonable degree of certainty. The findings are a true and accurate representation of my assessment from the April 17, 2025, inspection and analysis. I reserve the right to amend my opinions should new information emerge.

For questions or further discussion, please contact VM Engineering LTD.



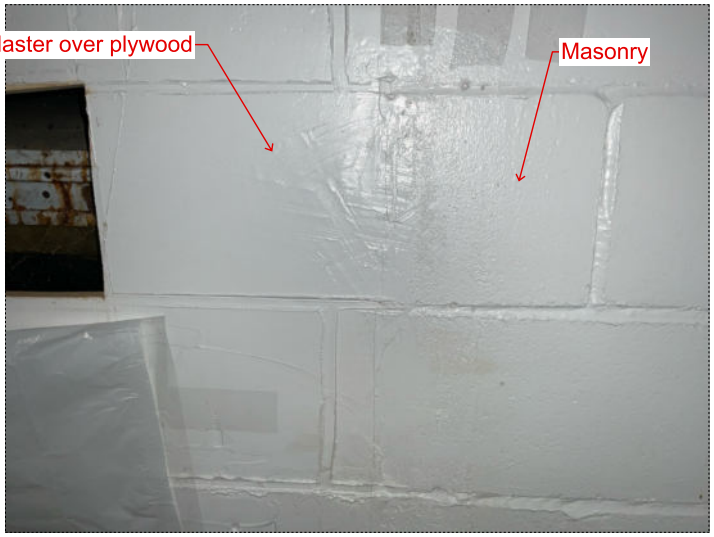
View of cellar doorway



View of cellar doorway



View of wall opening



View of matched grout line



View of inside cellar room



View of exterior cellar top

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DRAWING No.

P1



View of east wall measurements

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View of exterior deck



View of exterior deck



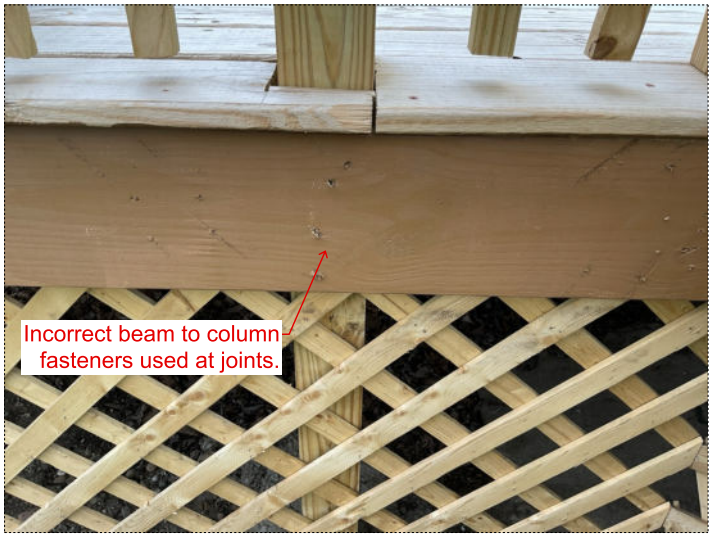
View of new column and framing



View of original column and framing



View of new column and concrete



View of new column and concrete

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View of column and concrete



View of beam-column



View of new framing



View of railing



View of railing

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View of 2nd floor rooms



View of 2nd floor rooms



View of 2nd floor rooms

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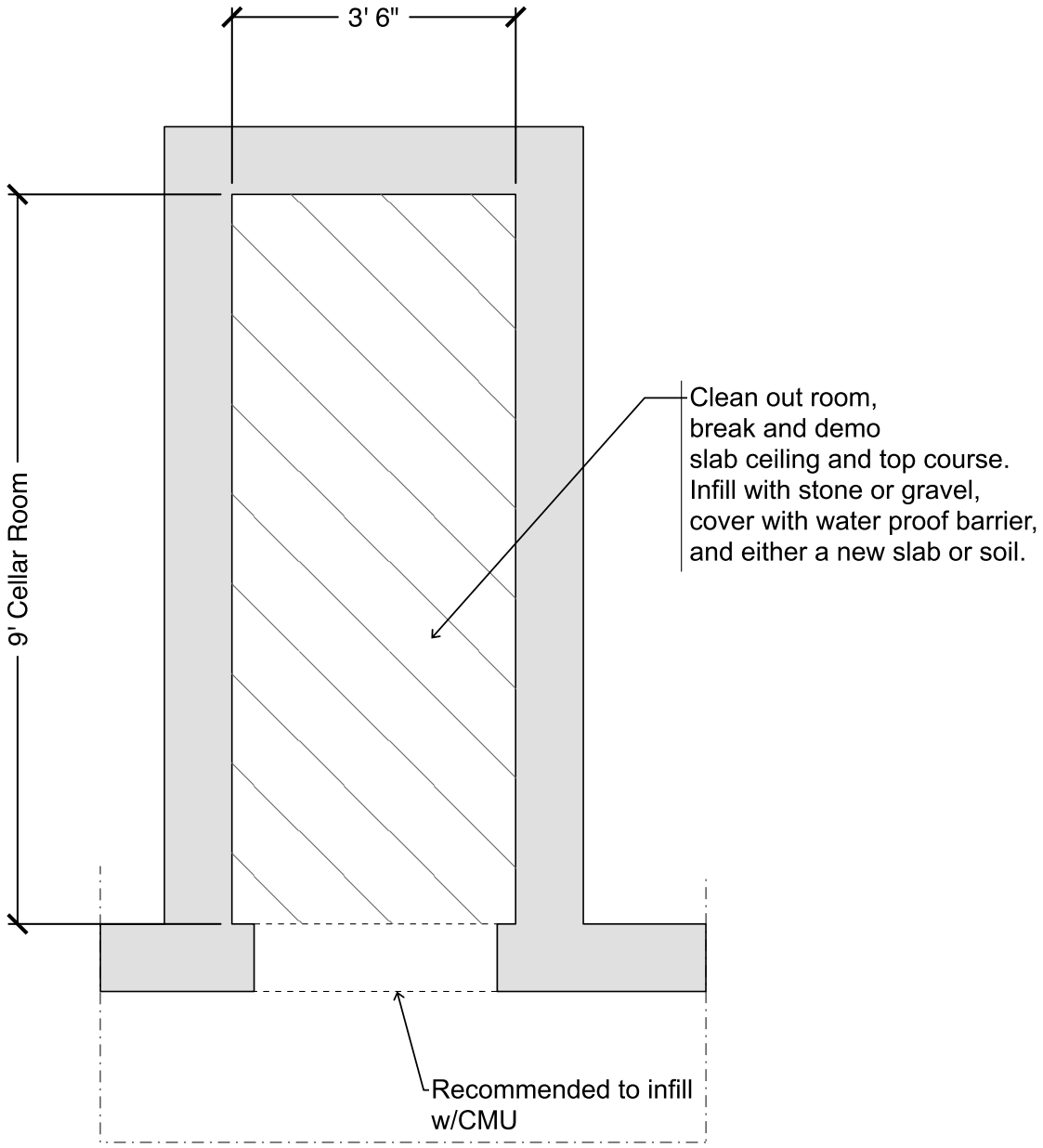
P5



Cellar Room Plan

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Address: 3700 S 3rd Street, Milwaukee, WI

Date:	Scale:	Creator:
4/18/25	N.T.S.	VMM

Cellar Room

DRAWING No.
S1.0