Jeffrey J. Moss, P.E.
Senior Structural Engineer

1104 Chimney Hill Drive
Apex, NC 27502
PH. (919) 740-0188
Email: jeffmosspe@gmail.com

September 11, 2026

Donna McNeely
9320 Lennox Laurel Circle
Raleigh, NC 27617

Re: Structural Investigation
Project #26363

Dear Prospective Buyer:

I conducted a site inspection of the property located at the above-referenced address. The property is a single-family townhouse residence supported by a slab-on-grade foundation system. For purposes of this report, all directional references (left, right, rear, etc.) are taken from the viewpoint of an observer standing in front of the house and facing the residence.

FIELD OBSERVATIONS:

- The flooring was removed in the living room exposing a 3/8" wide crack in the slab (photos 1 to 3).
- There was a piece of plastic in the joint which appeared to be a concrete form stop (photo 3).
- The flooring was removed in the left rear bedroom exposing a crack in the slab (photos 4 to 6).
- There was a crack in the tile in the bathroom which ran the width of the bathroom (photos 7 to 12).

CONCLUSIONS:

Residential houses are typically constructed with one of three foundation systems: basement, crawl space, or slab-on-grade. This building consisting of four townhouses was built with a slab-on-grade foundation which is typically poured in one large single concrete slab (see below for example).



In residential construction, slab-on-grade foundations typically consist of an approximately 4-inch-thick concrete slab with thickened sections or footings located along the exterior perimeter and beneath interior load-bearing walls. The size and depth of these footings vary depending on the building design, soil conditions, and applicable building code requirements.

When concrete is initially placed, it contains a significant amount of water. As the concrete cures and excess moisture is lost, the concrete undergoes shrinkage. Because this shrinkage is rarely completely uniform, shrinkage cracks may develop at random locations throughout the slab, but typically within the center third of the overall slab.

Cracking or movement within the concrete slab can also affect flooring materials installed directly over the slab. Rigid or adhered flooring materials, such as ceramic tile, can be particularly susceptible to cracking or separation where movement occurs in the underlying concrete slab. In some cases, distress in the finished flooring may not become visible until some time after the original construction.

To help control the location of shrinkage cracking, contractors commonly install control joints in concrete slabs, garages, driveways, and sidewalks. These joints create predetermined weakened locations within the concrete so that shrinkage cracks are more likely to occur along relatively straight and controlled lines rather than randomly throughout the slab.





Based upon my observations, it appears that a control joint was installed within the slab of this townhouse, extending at least through the living room area.

At the time of my inspection, cracks measuring approximately 1/16 inch to 3/8 inch in width were observed at the interior of the townhouse. Based upon the conditions visible at the time of my inspection, the observed cracking does not constitute a serious structural issue at this time. I did not observe evidence indicating that the cracking represents a hidden or latent structural deficiency or an immediate safety hazard.

I recommend removing the flooring materials in the affected areas as necessary to expose the concrete slab. The cracks should then be cleaned and repaired using an appropriate concrete crack repair product (see below).



Although additional movement is considered unlikely, some additional horizontal or vertical movement could occur along the existing cracks. I therefore recommend monitoring the cracks and the surrounding flooring for evidence of future movement.

Respectfully Submitted:

NORTH CAROLINA PROFESSIONAL SEAL 024346 ENGINEER JEFFREY J. MOSS

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