

March 22, 2018

Mr. Frank Kingsley
MCDOT/Division of Transportation Engineering
Planning and Design Section
10 Edison Park Drive, 4th Floor
Gaithersburg, MD 20878

RE: Wheaton Hills Subsidence Investigation
Contract No. 1038748, Task 15
County Purchase Order No.: 1042188
WM No.: 214013.0015

Dear Mr. Kingsley:

As requested by MCDOT, Wallace Montgomery (WM) and our subconsultant Specialized Engineering (SE) have conducted a preliminary investigation into potential sinkholes reported by residents at 3002 Blueridge Avenue, Silver Spring, Maryland. The following is a description of the investigation and recommendations for further investigation to identify subsidence problems and potential remediation measures.

WM and SE conducted a site visit on November 14, 2017 along Blueridge Avenue between Parker Avenue and Ivydale Street. We did not observe any signs of current subsidence features and surface openings at 3002 Blueridge Avenue or along Blueridge Avenue. On the adjacent 3000 Blueridge Avenue property, we did observe the occurrence of several small-diameter holes in a landscaped area close to Ivydale Street, however these appeared to be animal burrows rather than subsidence.

We observed that slate pavers from a former sidewalk leading from Blueridge Avenue to the dwelling at 3002 Blueridge Avenue had been removed and were being stored along the north side of the dwelling. The homeowner told us that the sidewalk pavers had been removed because of ground subsidence and undermining issues along a portion of sidewalk. The homeowner indicated the approximate locations where the subsidence and undermining had occurred, and explained that these areas had been backfilled.

We also observed water meters and valves, and sanitary manholes and cleanouts along Blueridge Avenue and at several of the properties. There was no evidence of water or sewer line breaks or leakage.

Based on general knowledge of geology common to the area of the site, SE is not aware of geologic conditions being karst in character and subject to formation of natural sinkholes from dissolution of parent bedrock and movement of soils into naturally formed cavities. The formation of "sinkholes" and depressions in the local Piedmont geology would be more likely related to loss of soils (raveling) into subsurface voids associated with damaged underground utilities or former streams or waterways that have been filled over.

Based on the investigation noted above, WM recommends performing some additional studies to identify evidence and potential causes of subsidence or sinkholes at and in the vicinity of 3002 Blueridge Avenue. The studies would include obtaining and reviewing existing utility, topographical, and geologic information and records, to determine if the subsidence could be related to storm drain, water, and/or sewer leakages, geography, topography, geology, and/or past site development activities. WM also recommends that MCDOT advise the residents of 3002 Blueridge Avenue to request that WSSC investigate whether there are any potential breaks in the water and sewer facilities.

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We look forward to assisting MCDOT with these investigations. If you have any questions or need additional information, please contact me at 410.828.3816 or mbodmann@wallacemontgomery.com.

Very truly yours,
WALLACE, MONTGOMERY & ASSOCIATES, LLP



Mark Bodmann, P.E.
Associate

MJB/ald
Wheaton Hills Subsidence Inv.docx
Cc: Scott Rose, P.E., WM
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