



SOIL & STRUCTURE
CONSULTING, INC.
STRUCTURAL · GEOTECHNICAL · CIVIL

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May 23, 2018

Mrs. Elina Xanttopoulos
610 Kearney Court SW
Vienna, VA 22180

**Re: Drainage Inspection
610 Kearney Street SW
Vienna, VA**

Dear Mrs. Xanttopoulos:

Soil & Structure Consulting, Inc. (SSC) has completed its inspection and assessment of the drainage at the rear of the property located at 610 Kearney St SW. This inspection and report was conducted at the request of Mrs. Elina Xanttopoulos.

1.0 PROJECT INFORMATION

We understand that the purpose of the inspection was to assess the grading and determine the existence of any drainage issues. The site fronts on Kearney St SW and is bound by adjoining properties. The lot is developed with a single-family home. The adjoining lots are developed with single family homes.

2.0 METHOD OF INSPECTION

In performing our inspection, our inspector walked the property and adjoining properties in order to assess the existing grades and determine the direction of surface water flow, note any problems with the current water runoff, and any provide possible solutions, including a potential re-grading of the subject property. The inspection was conducted on May 2, 2018.

3.0 OBSERVED CONDITIONS

On May 2nd our inspector identified a storm water structure in the back yard of the property. The rear property line is a low-lying area and drainage from the neighboring properties is directed to this location. The subject property includes a sewage easement located in the rear of the property which showed evidence of severe water pooling that has created consistent saturation issues. The neighboring property grading is such that water ponds in the area around the easement and funnels from approximately 4 adjoining properties.

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There are grade issues at neighboring properties where it is apparent that water ponds and that the area around the rear property line suffer periodic saturation. The saturated conditions that occur in this location lends itself to potential of the introduction of pests such as mosquitos.

The subject property is unique to the neighborhood as it is the only property with a sewage drain and is different from other properties throughout the township due to the grading and location of the sewage drain, which is structured in such a way which creates significant pooling of water runoff from several other neighbors.

In order to try and address the problems with the pooling of water, it is our understanding that the owners installed a French drain to the lower area of the property. However, due to the grading of the surrounding properties, this has been unsuccessful in resolving the issue and the property owners have complained about the mosquito issues due to the saturation of excess water. Significant areas of the back yard continue to hold water, mostly due to the runoff of the adjacent neighboring properties.

The owners of the subject property have requested our opinion and inspection as to whether a regarding their property would remedy the problem.

4.0 ENGINEERING EVALUATION AND RECOMMENDATIONS

Our drainage assessment concludes that despite the owner's current efforts of installing a French drain, a catch basin at the neighboring property and other water movement mitigating landscaping efforts (drainage swells, regrading existing mulch beds) there are persistent drainage issues at the rear property line at the sewage easement. A total re-grading of the subject property would not mitigate the problem as the grade issues go beyond the property that was inspected. To properly address the observed issues, re-grading of the neighboring properties, including those properties of 2 rear neighbors and 2 properties on both sides of the property, would be necessary to attempt to remedy the problem.

5.0 LIMITATIONS

The recommendations contained in this report are based on data obtained from the relatively limited visual inspection of the site and the basement of the house. This report does not reflect any variations that may occur outside the inspected area.

The opinions and conclusions expressed in this report are those of Soil & Structure Consulting and represent interpretation of the observed conditions based on inspection and the results of analysis and studies that have been conducted for assessment.

This report has been prepared in accordance with generally accepted principles of geotechnical engineering practice and no other warranties are included, either expressed or implied, as to the professional services provided under the terms of our agreement.

Mrs. Elina Xantopoulos
610 Kearney Street SW
May 23, 2018



6.0 ACKNOWLEDGEMENT

Thank you for allowing SSC to serve as your geotechnical engineering consultant. If you have any questions concerning this report or we may of further service, please contact us.

Sincerely,
Soil & Structure Consulting, Inc.

Patrick Barbe
Sr. Soil Scientist

A handwritten signature in blue ink, appearing to read "Kenneth G. Fraine".

Kenneth G. Fraine, P.E.
Principal – Geotechnical Department

