

# HIGHLAND SOILS, LLC

May 19, 2021

Ben Wheeler  
Design Professionals Inc.  
21 Jeffrey Drive  
South Windsor, CT 06074

**RE: WETLAND DELINEATION  
M.G. LIMITED PARTNERSHIP**

**UNITEX 150 SOUTH SATELLITE ROAD  
SOUTH WINDSOR, CT**

Dear Ben:

As requested, I have reviewed the above-referenced plans and have conducted an additional site visit. The most recent site visit was conducted on May 12, 2021. During the field visit, I reviewed the previous wetland delineation and also conducted additional soil explorations to verify my previous work.

As a result of my site review I have found the wetlands were field delineated in accordance with the standards of the National Cooperative Soil Survey and the definition of wetlands as found in the Connecticut General Statutes, Chapter 440, Section 22A-38. I have reviewed the plans prepared by your office and have found the representation of the field delineated wetlands to be substantially correct.

It should be noted that this site was part of previous application and to the best of my knowledge a Wetland Boundary Redesignation was granted for the property. A Wetland Boundary Redesignation requires a Public Hearing and all of my original testimony should be on file and should be entered into the file for this application.

The subject property contains a man-made ditch along the proposed western boundary that was classified as a regulated wetland area based on the definition of an intermittent watercourse. The original spoils from the construction were clearly visible and the bottom of the man-made feature is close to the maximum high ground water level.

The site is currently wooded with a mix of Red and Black Oak. The understory is relatively open and contains saplings of the aforementioned oaks as well as White birch and Red maple.

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I am aware, and have been aware, that my high intensity wetland delineations typically differ from the information published in the U.S.D.A. Soil Surveys. For reference, the Hartford County Soil Survey was conducted in the late 1950's and that information was released soon after. The purpose of the soil survey was to provide soils information in each county and vast amounts of information were collected for the surveys. The soil mapping was based on aerial photographs and limited field surveys. Existing agricultural land was the primary focus of the soil surveys and large wooded areas were mapped to a different standard. It should be noted that the soil surveys were never intended for site specific information and there are limits to the accuracy of the published. The scale of the maps in the original soil survey was very small and the maps were published at a scale where 3 inches on the map covers 5000 feet in the field (1:20,000). These maps were then redrawn for individual Towns at a scale of 1 inch equals 1,000 feet. The transfer of information from a smaller to larger scale only increases discrepancies. When that information is then transferred to maps of a scale of 1 inch equals 100 feet, the discrepancies become even more magnified.

However, the largest discrepancies between the published soil surveys and the field delineated wetland surveys are a result of the amount of time and effort required for individual field delineation. During a high intensity wetland delineation, soil profiles are examined at approximately every forty feet and multiple soil samples are examined and compared to a Munsell Color Chart. Thousands of soil samples are examined on a site of just 100 acres. A field delineation on 100 acres of land could require up to 30 hours of field work. In comparison, the original U.S.D.A. Soil Surveys had requirements of each soil scientist mapping 300 or more acres per day. A high intensity soil survey on 300 acres would require approximately 10 days of field work versus the one day for the original survey. There is simply no comparison in the amount of effort required for a high intensity wetland survey.

This site, and the wetland delineation was reviewed in the field by myself and Jeff Folger and the soils outside of the wetland delineation were clearly shown to be moderately well drained as based on the cambic (light colored) subsoil horizon. The topsoil layer is dark and relatively deep but the presence of chroma 4 or brighter soils and the lack of low chroma colors indicate moderately well drained soils.

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If you have any questions, or require additional information, please call me at (860) 742-5868.

Very truly yours,

*John P. Ianni*

John P. Ianni M.S.

Professional Soil Scientist