KLEINFELDER
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May 29, 2007

Mr. Paul Lusitani
Clough Harbour & Associates, LLP.
2139 Silas Deane Highway
Suite 212
Rocky Hill, CT 06067-2336

RE: Wetland & Watercourse Delineation Report
39 Maennerchor Avenue
Taftville, Connecticut

Dear Mr. Lusitani:

Kleinfelder East, Inc. (Kleinfelder) completed an on-site investigation to determine the presence or absence of wetlands and/or watercourses on the above referenced property (Taftville, CT), as requested and authorized. This investigation involved a wetland/watercourse delineation that was completed by a qualified staff soil scientist and conducted in accordance with the principles and practices noted in the United States Department of Agriculture (USDA) Soil Survey Manual (1993). The soil classification system of the National Cooperative Soil Survey was used in this investigation to identify the soil map units present on the project site.

INVESTIGATION

The project site was investigated on April 26, 2007, with a temperature in the high-50s under clear conditions. Soil types are identified by observing soil morphology (soil texture, color, structure, etc.). To observe the morphology of the soils, numerous test pits and/or hand borings (generally to a depth of at least two feet) are completed. There were no wetland or watercourse boundaries identified during the investigation.

REGULATORY INFORMATION

Wetlands and watercourses are regulated by both state and federal law each with different definitions and regulatory requirements. Accordingly, the State may regulate waters that fall outside of federal jurisdiction; however, where federal jurisdiction exists concurrent State jurisdiction is almost always present.

State Regulation

Wetland determinations are based on the presence of poorly drained, very poorly drained, alluvial, or floodplain soils and submerged land. *Watercourses* are defined as "rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within, flow through or border upon the state or any portion thereof." *Intermittent watercourse* determinations are made based on the presence of a defined permanent channel and bank, and two of the following characteristics: (1) evidence of scour or deposits of recent alluvium or detritus, (2) the presence of standing or flowing water for a duration longer than a particular storm incident, and (3) the presence of hydrophytic vegetation. (See Inland Wetlands and Watercourses Act §22a-38 CGS.)

Federal Regulation

The United States Army Corps of Engineers (ACOE) regulate "Waters of the Untied States" under Section 404 of the Clean Water Act, which includes adjacent/tributary wetlands and watercourses. The New England Region of the ACOE has issued guidance documents discussing how wetlands and/or watercourses can be as much as 500 or more feet from regulated Waters of the U.S. and still be regulated if the Corps finds scientific indicators (e.g. ecological/biological/hydrological) that provide connections to the jurisdictions wetland. This guidance distance has been developed by the Corps New England Region based on research suggesting home range and migratory distances of 54 palustrine/riparian (wetland and watercourse) reptiles, amphibians and mammals. Discontinuities between jurisdictional Waters of the U.S. and neighboring wetlands can cause isolation of those wetlands or watercourse, which in turn can eliminate federal jurisdiction. The Corps use a three (3) parameter approach to wetland delineation that includes soils, hydrology and vegetation. It is necessary to successfully observe all three in order for the area to be considered a federal wetland in addition to it being "adjacent" to Waters of the U.S. Disturbed and atypical conditions allow for some modification of this requirement and invoke professional judgment.

Generally, in accordance with the Connecticut Programmatic General Permit (PGP), the Corps requires a permit application for activities of one (1) acre or greater affecting federal jurisdictional wetland areas or if special wetlands occur (these are defined in the PGP document).

WETLAND AND WATERCOURSE SITE DESCRIPTION

The subject project site is located in a wooded area along Maennerchor Avenue between Maennerchor Avenue and Prentice Street. The upland ecological community consisted of a mixed mature second-growth hardwood forest. No wetland systems or watercourses were identified at the Site. Presented below in Table 1 represents the dominant vegetative species observed.

TABLE 1: Predominate Vegetation within upland community – no wetlands present on-site (Common (*Scientific)* names)

TREES & SAPLINGS
Black cherry (*Prunus serotina)*
Sugar maple *(Acer saccharum*)
Red oak *(Quercus rubra)*
White oak *(Quercus alba)*
SHRUBS
None present
HERBS/VINES
None present
*Denotes State non-native invasive species

SOIL MAP TYPES

A brief description of each soil map unit identified on the project site is presented below including information from the Untied States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil descriptions. Further information on these and other soils, please refer to the internet site at http://soils.usda.gov/technical/classification/osd/index.html).

Upland Soils

Hollis-Chatfield-Rock Outcrop complex, 15 to 45 percent slopes

The Hollis series consists of shallow, well drained and somewhat excessively drained soils formed in a thin mantle of till derived mainly from gneiss, schist, and granite. They are nearly level to very steep upland soils on bedrock-controlled hills and ridges. Slope ranges from 0 to 60 percent. Permeability is moderate or moderately rapid. Depth to hard bedrock ranges from 10 to 20 inches. Diagnostic horizons and features recognized in this pedon include an ochric epipedon in the zone from 0 to 7 inches (O and A horizons). A cambic horizon in the zone from 7 to 16 inches (Bw1 and Bw2 horizons). There is also a lithic contact with hard bedrock at 16 inches (2R horizon) and a loamy (coarse-loamy) particle-size class within the control section from 10 to 16 inches. This particle size class averages less than 35 percent clay in fine-earth fraction and the soil is in a lithic subgroup.

The Chatfield series consists of moderately deep, well drained, and somewhat excessively drained soils formed in till. They are nearly level to very steep soils on glaciated plains, hills, and ridges. Slope ranges from 0 to 70 percent. Crystalline bedrock is at depths of 20 to 40 inches. Saturated hydraulic conductivity is moderately high to high in the mineral soil. Diagnostic horizons and features recognized in this pedon are an ochric epipedon in the zone from 1 to 8 inches (A and AB horizons). A cambic horizon in the zone from 8 to 25 inches (Bw horizon) and a lithic contact with bedrock at 25 inches (R horizon).

Wetland Soils

No wetland soils were identified during the Site investigation or listed on the Connecticut Soil Survey as occurring on the subject property.

REFERENCES

1. Brinson, M.M. 1993. *A Hydrogeomorphic Classification for Wetlands*. Tech. Rpt.WRP-DE-4, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

2. Cowardin, L.M., V. Carter, F.C. Golet, E.T. LaRoe. 1979. Classification of Wetland and Deepwater Habitats of the Untied States. US Government Printing Office. Washington D.C. GPO 024-010-00524-6.103 pp.

CLOSING

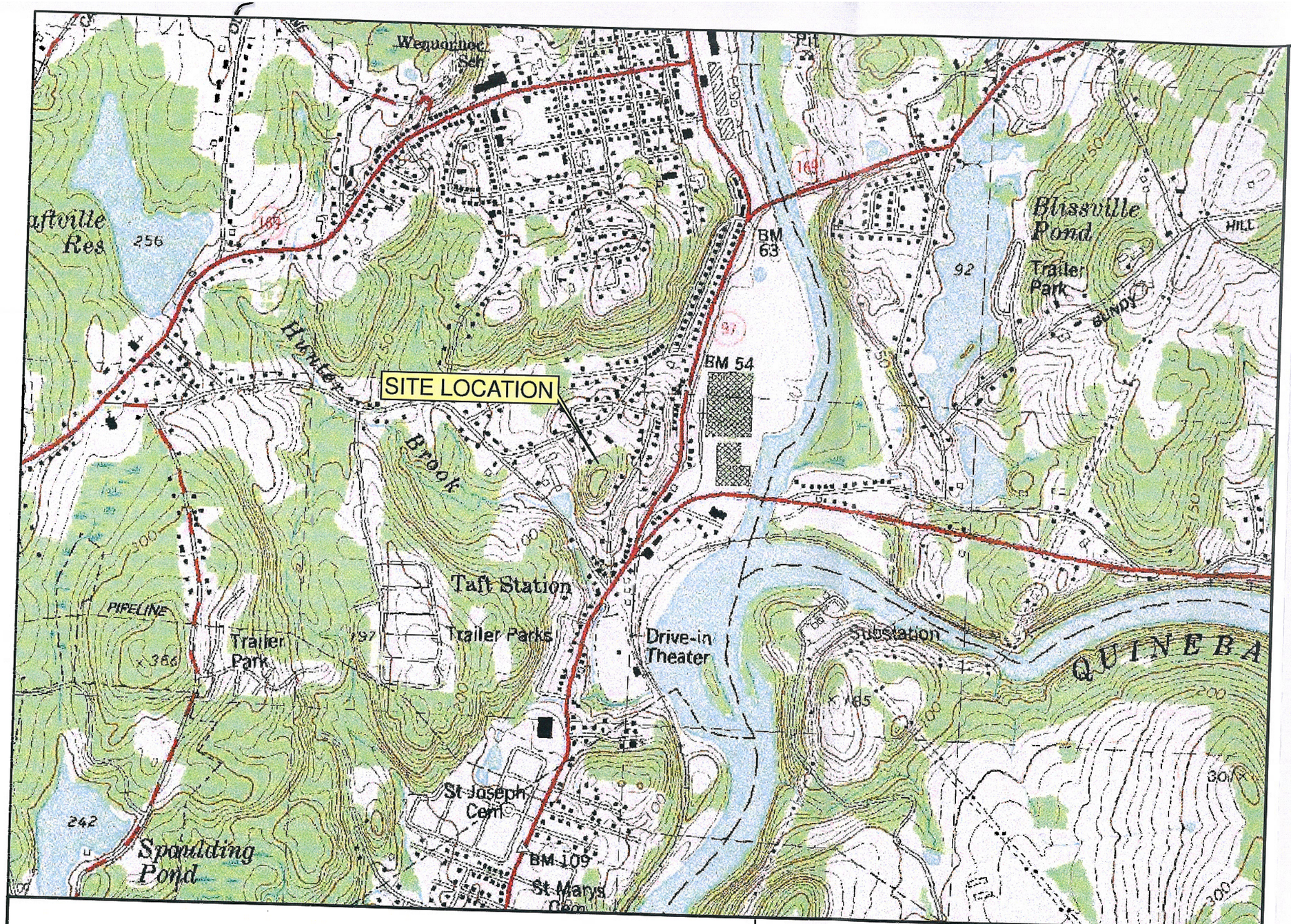
Thank for the opportunity to work with you on this project. Please contact me at (860) 683-4200 if you have any questions or require additional assistance.

Very truly yours,
Kleinfelder East, Inc.

Paul Wheeler
Project Environmental Scientist

Date: 2007.05.29 12:47:14 -04'00'

Jeffrey R. Shamas, CE, SS, PWS
Natural Resources Program Manager



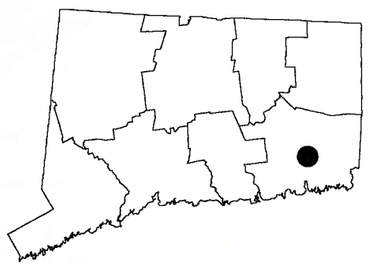
310 155 0 310

SCALE IN METERS

1,000 500 0 1,000

SCALE IN FEET

N



SITE LOCATION

DRAWN BY:	PW
REVISED BY:	PW
CHECKED BY:	JS
DATE: 5/29/07	APPROVED BY: JS

KLEINFELDER
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SOURCE: CT DEP GIS DATA DEPOT

SITE LOCATION MAP

CLOUGH HARBOUR & ASSOCIATES, LLP.
39 MAENNERCHOR AVENUE
NEW LONDON COUNTY
TAFTVILLE, CONNECTICUT

FIGURE 1

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