JMM WETLAND CONSULTING SERVICES, LLC

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April 20, 2022

Town of Weston Conservation Commission 56 Norfield Road Weston, CT 06883

RE: Site Investigation

The Moore Property, Proposed Town Dog Park Weston, Connecticut

JMM Job # 22-3060-WES-2

Dear Commissioners:

Per the request of Mr. Stephen Nevas, Esq. of the Nevas Law Group, LLC, and on behalf of the neighborhood intervenors, JMM Wetland Consulting Services, LLC (JMM) conducted a site visit at the above-referenced site on April 18th, 2022, for the purpose of reviewing the site for any regulated resources (i.e., wetlands and watercourses), and to evaluate for the potential of direct and/or indirect impacts to any on-site or off-site resources from the proposal.

After a careful review of the submitted documents and site plan JMM has the following comments and concerns:

• The submitted site plan entitled *Overall Site Plan*, "Weston Dog Park, Davis Hill Road & Lord's Highway East, Weston, CT", prepared for the Town of Weston, and by McChord Engineering Associates, Inc., dated May 26th, 2021, and revised through March 23rd, 2022, showed only one partially delineated wetland area to the east of the proposed dog park area. The two wetland areas observed by JMM are located along the eastern and southeastern portions of the site and adjacent Davis Hill Road (see photos 1-2, attached). The partial wetland boundary shown on the plan does not reflect the full extent of wetlands observed in the field, which will place the proposed activities in a much closer proximity to regulated wetlands than put forth by the applicant (see Figure 3, attached). Additionally, a seasonally saturated to seasonally flooded wooded swamp located in the southeastern part is not shown at all on the submitted plan. It is worth

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noting that this area contains potential vernal pool habitat, as defined in the Inland Wetlands and Watercourses Regulations for the Town of Weston (effective date: March 6, 2011). It is JMM's recommendation that this area be examined for amphibian breeding to determine if the area is an active vernal pool able to sustain obligate vernal pool species (e.g., wood frog, spotted salamander, fairy shrimp, etc.).

- The wetland resource immediately downgradient of the proposed dog park does not contain any plant indicators of a nutrient rich environment, such as skunk cabbage and jewelweed. The wetland's nutrient status is likely mesotrophic¹, which is reasonable to deduce by the emerging plant community, its limited watershed, and seasonal shallow groundwater seepage, observed along its western edge. Thus, this wetland is particularly sensitive to any influx of additional nutrients (i.e., nitrogen and phosphorus) from within its watershed, which would unboundedly be the case under the proposed conditions. Excess nutrients, associated both with urine and dog feces, as well as eroded fine soil particles, will promote algal growth within the seasonally flooded areas, choking out beneficial aquatic organisms, and promote rank vegetation growth, which will outcompete typical plants of mesotrophic wetland environments, which are far less common in the State. This will result in a cascade scenario which cannot be reversed once nutrient loving plants are established. The excess nutrients will change the physical characteristics of the wetland, both its baseline chemistry, and its vegetative habitat characteristics. This will result in an adverse physical impact to the regulated resource. It is JMM's recommendation that the Commission extend its upland review area (URA) beyond the 100-feet due to steep slopes at and below the proposed dog park and above the regulated wetlands, which are sensitive to an influx of additional nutrients.
- During the April 18th site visit, we noted that the slopes within the eastern half of the proposed fenced area the slopes range from 12% to 15% with evidence of sheet flow and erosion noted near the stonewall, which would only be exacerbated by the proposed activities² (see Figures 1, 2 & 3, attached). Below the proposed limits of the fenced area, the slopes to the wetland boundary are even steeper, and it is very likely that flows will be concentrated not only leading to erosion and sedimentation of the wetland

¹ Mesotrophic wetlands are considered to be in the middle of the spectrum between oligotrophic (low nutrient), and eutrophic (high nutrient) wetland systems with respect to their nutrient status. Examples of oligotrophic wetlands are bogs and some fens. Examples of eutrophic wetlands are those associated with the floodplains of major rivers.

² We note that the plans do not show topography within the proposed fenced area. This is a critical ommission. Without this topographical data the impact to the downgradient regulated resources cannot be fully evaluated.



below, but also concentrating "nutrient rich" runoff with deleterious effects on the regulated wetland.

• During the April 18th site visit JMM dug two shallow test pits (approximately 30-inches deep) in the vicinity of the proposed below-ground infiltrator/detention system, proposed to handle runoff from the driveway, cul-de-sac and parking areas. Moderately well drained soils were observed, with common, medium, distinct redoximorphic features (i.e., mottles) observed between 16 to 23-inches (see photos 3-4). It should be noted that the depth of the redox features conflicts with that reported by the Town, which was at 39-inches. Based on our soil test pit depths at the proposed infiltration system area, the depth of 39-inches to redox features appears to be incorrect, and should be re-examined. As proposed the below ground infiltrator will not function as designed and potentially have a downgradient impact to regulated wetlands and watercourses. It is JMM's opinion that this method of stormwater control must be re-evaluated.

In conclusion, it is our professional opinion that the proposed plans are incomplete, not only because the regulated resources have not been fully delineated and evaluated, but also because there is no assessment or analysis of potential short-term and long-term, direct and/or indirect impacts to regulated areas, in the submitted record.

Please call us if you have any questions on the above or need further assistance.

Respectfully submitted,

John M. Mil

JMM WETLAND CONSULTING SERVICES, LLC

James M. McManus, MS, CPSS

Certified Professional Soil Scientist (No. 15226)

Attachments: Figures 1-3, Photos 1-4

Town of Weston, CT

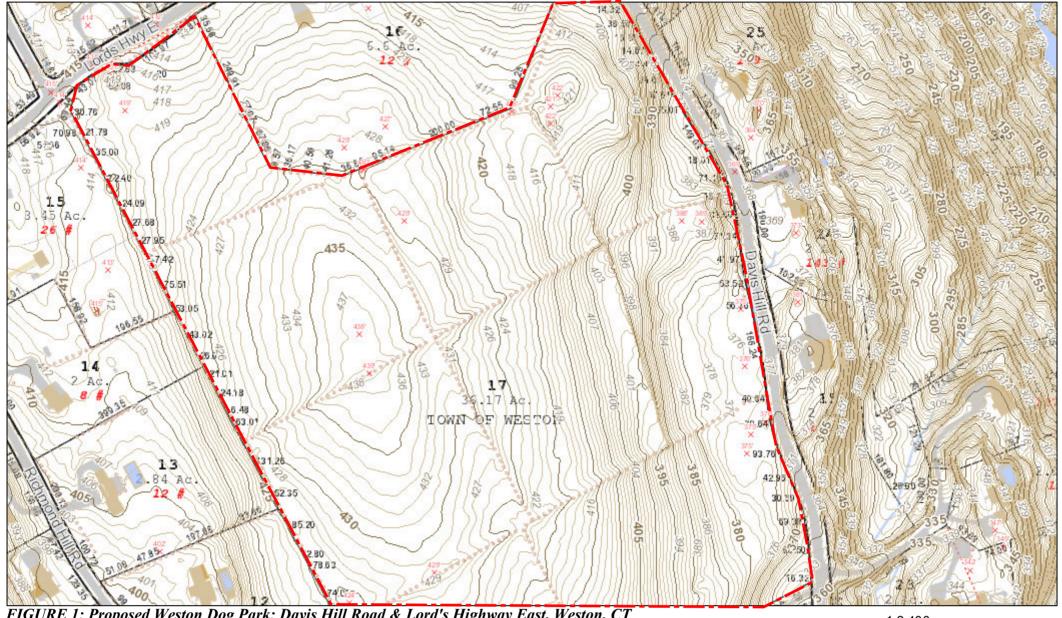
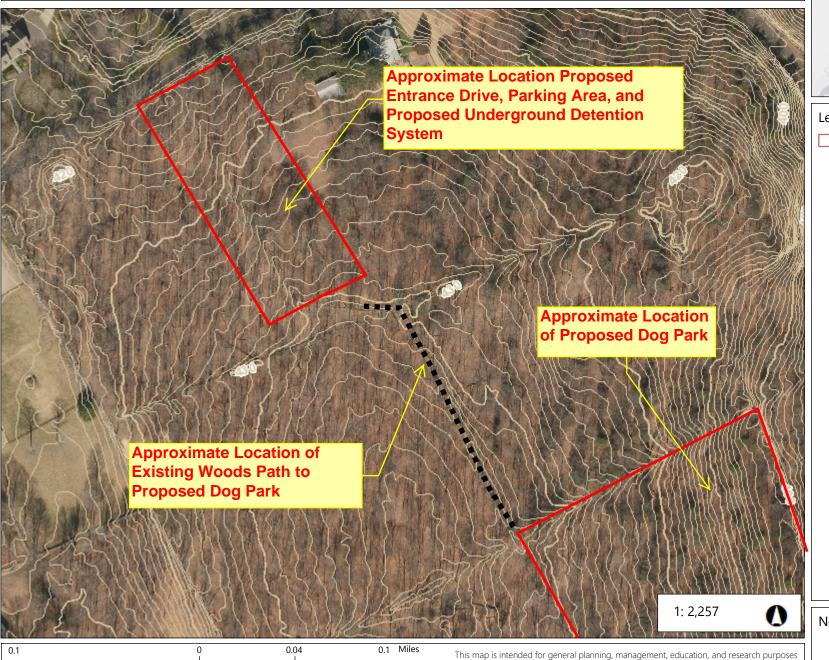


FIGURE 1: Proposed Weston Dog Park: Davis Hill Road & Lord's Highway East, Weston, CT Town GIS Map Showing the Site Topography and the Majority of the Property Boundary of the Town Owned Parcel



© Connecticut Environmental Conditions Online

FIGURE 2: Proposed Weston Dog Park: Davis Hill Road & Lord's Highway East, Weston, CT Aerial Showing the Topography to the Entrance to Proposed Dog Park



THIS MAP IS NOT TO BE USED FOR NAVIGATION



Legend

Parcels for Protected Open Sp Light Gray Canvas Base

Notes

only. Data shown on this map may not be complete or current. The data shown may have been compiled at different times and at different map scales, which may not match the

scale at which the data is shown on this map.



CT Environmental Conditions Online

FIGURE 3: Proposed Weston Dog Park: Davis Hill Road & Lord's Highway East, Weston, CT

Aerial Showing the Topography of the Proposed Dog Park and Adjacent Regulated Wetlands Aerial Showing the Topography of the Proposed Dog Park and Adjacent Regulated Wetlands





Photo 1: View of regulated wetland in the southern part of site adjacent to Davis Hill Road (JMM photo taken 4/18/2022); facing southwesterly



Photo 2: View of regulated wetland in southern part adjacent to Davis Hill Road not delineated (JMM photo taken 4/18/2022); facing southwesterly



Photo 3: View of soil profile in vicinity of underground detention system (Note redoximorphic features at 16-inches) (JMM photo taken 4/18/2022)



Photo 4: View of redoximorphic features at 23-inches (JMM photo taken 4/18/2022)