WILTON PUBLIC WORKS DEPARTMENT

(203) 563-0152



TOWN HALL ANNEX 238 Danbury Road Wilton, Connecticut 06897

MEMORANDUM

TO: Mike Conklin, Director, Environmental Affairs

FROM: Stephen Santacroce, PE, Senior Civil Engineer 5. F. S.

CC: Frank Smeriglio, PE, Director of Public Works/Town Engineer

Aleksandra Moch, Soil & Wetlands Scientist

Wayne D'Avanzo, PE, Fairfield County Engineering

DATE: March 13, 2024

RE: Old Driftway, LLC – 0 Mountain Road – Proposed Single Family Residence

- WET#2905(S)

The Department of Public Works reviewed revised drawings and materials dated March 9, 2024, received by the Department of Public Works on March 12, 2024. The revised materials were submitted in response to our review letter dated February 28, 2024. Below are the original comments from the September 12, 2023 review letter, updated comments *italicized from the previous* review letters, and our **latest review (March 13, 2024) in bold**. Based on the review at this time, the following items shall be addressed in order for the DPW to continue the review:

General Items

- 1. It is our opinion that the proposed construction of the driveway (including, but not limited to, the concrete box culverts, concrete infiltration galleries, grading, and walls, ect.) is not feasible without obtaining temporary construction easements, as well as permanent grading easements from neighboring properties.
 - Feb. 28: Although there is no proposed construction on neighboring properties, there are several areas shown on the plans where the proposed driveway, walls, or grading is directly on the property line, and will undoubtedy impact those properties. Examples include, but are not limited to the following:
 - a) The driveway in vicinity of TH-1 as shown on the plans, where the grading does not appear to work without encroaching on the adjacent properties.
 March 12: Engineer responded that no grading is proposed off the accessway, and has provided revised plans with new proposed contours

shown for the accessway driveway. However, there are remaining issues with the proposed grading:

- At CB 5&6 and at TH-1, the revised cross slopes for the driveway are too steep.
- The proposed slopes adjacent to the driveway at CB's 1&2, 5&6, and at TH-6 are greater than 2:1.

Fire marshall shall review the plans once they are revised.

- b) The proposed wall near the driveway entrance is directly on the property line and will impact a large 30" diameter tree on the neighboring property.
 March 12: The plans have been revised to reduce the length of the proposed wall, which is now shown further from the property line and 30" tree. It appears that the retaining wall may need to be slightly further extended up the driveway than currently shown.
- c) Storm water drainage structures (catch basins, gallery systems) are in close proximity to the property line, excavation for these items will impact neighboring properties.

 March 12: Above issue is still cutetending. Engineer has respended that
 - March 12: Above issue is still outstanding. Engineer has responded that the proposed stormwater gallery systems are centered in the accessway as much as possible. There are catchbasins adjacent to the property lines that will require excavation as noted in the above comment.
- 2. Provide details for the proposed concrete box culverts for our review and comment. Feb. 28: Engineer to evaluate soil condition under culverts to ensure they can support large truck loading.
 - March 12: Engineer has provided alternatives to the proposed concrete box culverts, and has detailed the construction methods and other requirements associated with installing a bridge or concrete box culverts. Any of these alternatives including the originally proposed concrete box culverts may require piles to be driven to bedrock, depending on soil bearing capacity tests, as stated in the above comment from February 28th. Design engineer has not performed soil testing for this purpose. The amount of permanent wetland impacts will be determined in part by the size and depth of the footing required. This is currently unknown.
- 3. All trees within the Town Right-of-Way shall be located on the site plans. Depict which trees are proposed for removal, and obtain preliminary approval by the Town of Wilton Tree Warden.
 - Feb. 7: A tree inventory has been provided by the applicant. The applicant responded in a January 31, 2024 email that the Tree Warden has been contacted regarding this issue.
 - Feb. 28: Once the applicant receives preliminary approval we will comment on this. March 12: Engineer responded that the Tree Warden has stated that they have no jurisdiction other than trees in the Town right of way. It is our understanding that the town attorney indicated recently that the accessway is not owned by the town. Based on the professional opinion provided by the applicant, the owner must monitor the trees in question that are located on or near the property lines during construction.

4. With adjacent owners permission, locate trees adjacent to right of way and have a tree professional review proposed activity and its potential effects on the trees.

Feb 7: Many of the trees identified are in close proximity to adjacent properties or on the property line. Permission from adjacent property owners is required for removal of the trees. Roots of trees located on adjacent properties may also be affected due to proposed grading for the access driveway.

Feb. 28: Applicant has responded that the "roots to any tree can be surgically removed, and that no trees are proposed to be cut down that are not in the accessway." However, There are trees located on the plan that will be affected by the proposed driveway and retaining wall that have not been noted for removal, some of which are on or over the property line. Additionally, it is not clear how removing some of the roots will affect the tree. The Tree Warden should be consulted about this matter. This issue is still not resolved.

March 12: Engineer responded that the Tree Warden has stated that they have no jurisdiction other than trees in the Town right of way. It is our understanding that the town attorney indicated recently that the accessway is not owned by the town. Based on the professional opinion provided by the applicant, the owner must monitor the trees in question that are located on or near the property lines during construction.

5. The proposed access driveway will cause significant disturbance to the wetlands vernal pool habitat. As it states in the Environmental Assessment prepared by Aleksandra Moch, a 100 foot vernal pool envelope should be preserved, and a 750 foot wide area around the vernal pool is considered "critical terrestrial habitat", within which development should be limited. Town of Wilton Environmental Affairs department to review.

Feb. 7: Applicant is currently coordinating this issue with the conservation commission. Feb. 28: Refer to Feb. 7 comment. Issue is still open.

March 12: Applicant is working with Environmental Affairs.

6. The plans must be reviewed by the Town of Wilton Fire Marshall for emergency vehicle access and egress to / from the proposed house. It appears that there are sections of the proposed driveway that are 8 feet wide.

Feb. 7: Addressed.

March 12: Once grading is revised, refer plans to Fire Marshall for final review.

7. For record tracking purposes, please provide the following:

Existing pervious surface Area (sqft)

Existing impervious surface area directly connected to the water course (sqft) Existing impervious surface area not connected to the water coarse (sqft)

Proposed pervious surface area (sqft)

Proposed impervious surface area disconnected from the water course (sqft) Proposed impervious surface area directly connected to the water course (sqft) (Definition of "directly connect" verses "disconnect" is as defined in the State MS4 program.)

Feb. 7: Addressed.

8. Provide a schedule and notes regarding the maintenance of the proposed pervious pavement. Provide detail of process material beneath pervious asphalt. Feb. 7: Addressed, a maintenance schedule has been provided.

- Sight lines exiting the driveway shall be depicted on the plans. Sight lines distance shall
 exceed the intersection sight distance for the posted 25 mph speed limit. Please note,
 starting point for sight line shall be 10 feet back from edge of road. Any trees proposed
 to be removed shall be reviewed with the Tree Warden.
 Feb. 7: Addressed.
- 10. Notes regarding the method of rock removal and related specifications should be added to the plans.
 - Feb. 7: Addressed. A note has been added stating that rock removal will be by means of chipping, within limited working hours only.
- 11. The stormwater runoff from the lower portion of the proposed driveway must be captured and attenuated. There shall be no increase in runoff to Mountain Road and / or other neighboring properties for the proposed condition.

Feb. 7: See comments 13 & 14 below regarding the proposed use of concrete galleries to control the stormwater runoff.

Feb. 28: Still open per below comments.

March 12: Addressed; engineer has revised the locations of the proposed stormwater galleries.

12. Existing and proposed peak stormwater runoff quantities must be shown for the 2-year through 25-year storm events.

Feb. 7: Addressed.

Feb. 28: Flows were provided. Refer to items 13, 14 below.

March 12: Addressed.

- 13. The proposed 24" concrete gallery closest to Mountain Road is in conflict with the proposed retaining walls. In general, the stormwater galleries are in close proximity to the neighboring property. This creates concerns for construction feasibility as well as with stormwater bleed out from the galleries into neighboring properties.

 Feb. 28:Applicant has responded that the galleries are centered within the right of way as much as posssible. However, there are proposed galleries within 1 foot of the property line. This creates concerns for construction feasibility relating to Item 1.

 Applicant responded that most of the galleries are within cut areas which would mitigate the potential for stormwater bleed out from the galleries. However, as stated by the applicant, there are galleries within a fill area as well.
 - March 12: The plans have been revised to re-locate galleries within the fill area in the lower portion of the driveway. In our opinion, construction feasibility remains a concern. Bleed out can still occur from the galleries proposed between TH-3 and TH-2. Engineer to address.
- 14. Ledge is known to be present throughout the accessway, and may be an issue for installation and proper function of the proposed stormwater infiltration galleries. According to Test Hole-2, ledge was encountered at 24", putting it at an elevation of approximately 580.0 Concrete galleries are proposed adjacent to TH-2, with a bottom elevation of 580.5 as noted on the plans. Generally a 24" vertical separation is required from bottom of galleries to ledge. Additionally, since groundwater will not infiltrate in areas with ledge rock, stormwater bleed out into the downstream neighboring property is a concern.

Feb. 7: Applicant has not provided a response to this comment.

Feb. 28: Applicant responded that ledge was not encountered in test holes at the locations of each proposed gallery system. Engineer to confirm that ledge is not present at the galleries proposed at TH-2, the test results shown on the plans appear to show the presence of ledge at this location.

March 12: Addressed; the plans have been revised to re-locate galleries away from TH-2. Test holes at the proposed gallery locations show adequate depth to ledge.

- 15. Provide a detail of the proposed retaining walls. The proposed walls are in close proximity to the property line; the detail should demonstrate how the walls will be constructed without encroaching on the neighboring property.
 - Feb. 28: A detail has been provided for the retaining walls. The detail shows 12" of drainage aggregate behind wall as required for drainage. Applicant has responded that there is no stone required behind the proposed walls, contradictory to the detail. This must be addressed.
 - March 12: Various walls are proposed without crushed stone behind it. This may cause hydrostatic pressure behind the wall. Engineer to certify that the wall can withstand hydrostatic pressure as part of certificate of occupancy.
- 16. As proposed on the plans, stormwater will back up through the coarse particle separators that outlet into the concrete galleries. Currently it appears that the stormwater will overflow from each gallery through the catch basins upstream of the coarse particle separators.
 - Feb. 7: Addressed. The plans now callout "junction boxes" in lieu of "coarse particle separators" upstream of the concrete galleries. Deep sump catch basins are now being proposed as part of the best management practices water quality measurements.
- 17. Provide manufacturer's detail of the coarse particle separators as well as size calculations by the manufacturer.
 - Feb. 7: Coarse particle separators are no longer proposed for the project. Deep sump catch basins are now being proposed.
- 18. The existing condition time of concentration should be calculated using a wooded condition.

Feb. 7: Addressed.

- 19. Depict footing drain discharge location. Discharge pipe shall not drain to the surface and potentially flow into the roadway or onto neighboring properties. Engineer to evaluate this additional discharge flow and design infiltration units accordingly. *Feb. 7: Addressed.*
- 20. The existing contours shown on the latest revised plans dated January 9, 2024 are conflicting with each other and / or previously used existing contours. The plans should be revised accordingly and the proposed grading should be adjusted. Feb. 7: Addressed.
- 21. March 12: Prior to construction, mark out property line every 30 feet to ensure no work occurs on neighboring properties.

- 22. March 12: For trees along the property line, contractor/owner shall hire arborist to inspect and ensure methods proposed to protect the trees are conducted regarding the roots.
- 23. All CB's and infiltrators at the edge of Mountain Road shall be the responsibility of the property owner and not the Town.
- 24. Prior to the issuance of a Certificate of Occupancy, a certified as-built drawing and certified letter signed by a Professional Engineer indicating that all work was completed in accordance with the design plans shall be submitted to the Town of Wilton.

If you have any questions, please do not hesitate to call.

q:\site plan reviews\reviews after 1-30-19\mountain road - 0\mountain road - 0 - wet#2896-old driftway Ilc-3-11-24.doc