(603) 413-6650

## KV Partners LLC

P.O. Box 432, New Boston, NH 03070

May 11, 2023

Michele Decoteau, Town Planner Town of Brookline P.O. Box 360 Brookline, NH 03033

## Re: Federal Hill Properties Subdivision, Route 13 (Map D, Lot 7) Plan Review

Dear Ms. Decoteau:

We reviewed the 12-sheet plan set dated April 24, 2023 and the Stormwater Management Report dated April 18, 2023 both prepared by Meridian Land Services, Inc. in accordance with our agreement with the Town. Based on that review, we offer the following comments:

- 1. Work is proposed within the 50' wetland buffer area (stormwater basins and grading). Coordination with the Conservation Commission is required.
- 2. The grade of the turnout for the drafting basin is 10%. Fire department should verify that is acceptable for parking fire vehicles.
- 3. The roadside swales appear to be proposed as vegetated swales. Considering the grade of the roadway and slope into the stormwater basins, stone swales are required. Also, the roadway typical section must include a section with a roadside swale.
- 4. Erosion controls must be installed (check dams, matting) in areas where vegetated swales are proposed. Include the required details in the plans.
- 5. Headwall #1 is located just off the gravel shoulder. Relocate the headwall further from the gravel shoulder to create a proper roadside grade or propose a different type of structure.
- 6. A pond detail is required that reflects the proposed ponds. The details included are not consistent with plans. Also, clarify if sediment forebays are proposed/required in the stormwater basins.
- 7. The bottoms of the ponds are as much as 20' below the surface. It appears that a 1' water quality volume is proposed below the outlet, which is beneficial, provided the ponds will not be continually wet. Please clarify.

- 8. The outlet structure depicted on the plans does not match the outlet structures in the calculations. Revisions are required. Furthermore, two types of outlet structures are shown (concrete and plastic). Concrete outlet structures are required for long term durability.
- 9. The calculations show both the 48" vertical orifice and outlet pipes as primary on the outlet structures. It appears that the orifice is a second device (Device 2) to the outlet pipe. Please clarify.
- 10. An emergency spillway detail is included on the detail sheet but none are shown on the plans.
- 11. The invert for Headwall #2 is not shown on the plans.
- 12. Underdrains may be required in the deep roadway cut section. Add details and a note that underdrains will be added as required by the Town during construction.
- 13. An Operation and Maintenance Plan is required for the stormwater system.
- 14. Depict proposed slope and drainage easements on the plans.
- 15. A Wetlands Permit is required for Headwall #2.
- 16. A NHDOT Driveway Permit is required for access to the State Highway.

If you have any questions or need any additional information, please feel free to contact me at 603-413-6650 or on my cell phone at 603-731-1562 or by email at <u>MVignale@kvpllc.com</u>.

Sincerely,

**KV** Partners LLC

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Michael S. Vignale, P.E. Principal Engineer