

Office: 31 Old Nashua Road, Suite 2, Amherst, NH 03031 Mailing: PO Box 118, Milford, NH 03055 Phone: 603-673-1441 * Fax 603-673-1584

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CIVIL ENGINEERING | LAND SURVEYING | PERMITTING | SOIL & WETLAND MAPPING | SEPTIC DESIGN | ENVIRONMENTAL

August 10, 2022

MLS #03077.05

Town of Brookline
Attention: Michele Decoteau, Town Planner
P.O. Box 360
Brookline, NH 03033
(603) 673-8855 ext 215
MDecoteau@brooklinenh.us

Re: The Community at Village Brook

23 Main Street (Map H, Lot 42) Plan Review

Dear Ms. Decoteau,

Meridian Land Services, Inc. (Meridian) has reviewed the comment letter from Mike Vignale, PE (KV Partners, LLC) dated June 10, 2022 for the above-referenced project. We have revised the plans and supporting documentation to address or respond to the comments. The original comments are below, in verbatim, with Meridian's responses in *italic green*.

====== Begin M. Vignale comment letter dated 06/10/2022 ======

KV Partners LLC

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

(603) 413-6650

June 10, 2022 Michele Decoteau, Town Planner Town of Brookline P.O. Box 360 Brookline, NH 03033

Re: Housing for Older Person Development, 23 Main Street (Map H, Lot 42)

Plan Review

Dear Ms. Decoteau:

We reviewed the 12-sheet plan set dated May 13, 2022 and Stormwater Management Report dated May 11, 2022 both prepared by Meridian Land Services, Inc. in accordance with our agreement



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with the Town. Based on a site visit and that review, we offer the following comments:

- 1. The Roadway Section depicts a 4' shoulder on both sides of the road except where grass strip is proposed between the sidewalk and roadway. In that location there is no shoulder proposed but a grassed ditch that slopes down from the edge of pavement, which is unacceptable. If a grass strip is to be used between the sidewalk and roadway, a gravel shoulder is required (to support the edge of pavement) and the swale must comply with the Roadway Section ditch detail.

 The roadway section detail on sheet D-1 has been revised to depict a Cape Cod Berm and grass panel between the proposed sidewalk and roadway. The shallow swale has been removed and the grassed section is shown sloping down towards the road from the sidewalk.
- 2. The proposed ditch between the sidewalk and roadway crosses several proposed driveways with no culverts. Please clarify how stormwater flow will cross the driveways.

 The roadway will no longer have the swale crossing any of the driveways. Stormwater will simply sheet flow to the roadway and down to the catch basins at the low point in the roadway.
- 3. Clarify why a Cape Cod Berm is proposed instead of a shoulder/grass ditch as required by the Town's Regulations. Also, there is a break in the Cape Cod Berm that is an unacceptable way to convey roadway runoff to the infiltration basin (requires high maintenance). A catch basin must be installed at the gutter line at this location.

 The cape cod berm is proposed in lieu of a swale because of the area constraints for the development. A roadside swale would push the sidewalk further away and require additional space for grading to be accommodated. The cape cod berm allows for adequate stormwater conveyance, while also requiring less maintenance than a traditional roadside swale. The break in the cape cod berm has been removed and replaced with a catch basin on both sides of the road at the low point.
- 4. Add a STOP sign to the plan at the Main Street intersection.

 A stop sign has been added at the intersection of Monius Lane and Main Street, see sheet SP-3.
- 5. Verify that adequate sight distanced exists at the proposed intersection with Main Street. There are no grading concerns but clearing and an easement for long term maintenance may be required. Adequate site distance exists at the proposed intersection of Monius Lane and Main Street. A sight distance plan has been provided.
- 6. A general detail for the proposed retaining wall (Unit 1) is required to depict general wall construction details. Add a note that final design will be completed and must be approved by the Town during construction if that is the intent. Also, the grades uphill of the retaining wall appear very steep. Clarify the design intent at this location.

 A general detail for a UWall Retaining wall system can be found on sheet D-1. A note was added to the detail stating that the final retaining wall design shall be completed and submitted to the town for review and approval. The steep grades uphill of the retaining wall are proposed as a 1:1 riprap-lined slope. This is proposed in order to maintain as much of the vegetated buffer area as possible along the property line to the south of the wall.



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- 7. The proposed crosswalk located at Station 14+50 must be relocated to the intersection with the roadway/driveway circle to avoid a mid-block crosswalk installation.

 The proposed crosswalk has been relocated to the end of the main roadway, just before the hammerhead/tee to avoid a mid-block crosswalk.
- 8. All curb ramps must be concrete with cast iron detectable panels per NHDOT standards. Detail #11 on sheet D-1 specifies that all curb ramps shall be constructed with concrete, and that detectable warning plates shall be cast iron, per NHDOT standards.
- 9. Clarify the construction details required to remove the curb cuts on Main Street (curb, grass strips, widths, sidewalk construction, etc.)

 Detail #5 on sheet D-1 has been added to clarify how the existing curb cuts are going to be removed and reconstructed. The section is proposed to match existing, which consists of a asphalt sidewalk and vertical granite curbing.
- 10. Additional details are required for the cistern installation.

 Please see sheet D-5 for complete construction details related to the proposed fire cistern.
- 11. Clarify how many bollards will be installed, the type of lights proposed on top of the bollards, and where the bollards will be installed. Also, is any other site lighting proposed?

 Approximately thirty (30) bollards are proposed to illuminate the sidewalk along the southern side of the proposed road. Specifications for the lights are provided in the included submission. Other proposed lighting on-site includes a pole mounted light at the end of the hammerhead area and a potential light to be mounted to an existing utility pole at the entrance to the development. See the included lighting plan, sheet LT-1.
- 12. Show proposed utilities (electric, telephone, cable) on the plans. *Applicable utilities are depicted on the utility plan, sheet SP-4.*
- 13. The proposed grading on the plans does not appear to direct stormwater flow from the clubhouse, Units, 7, 8 and 9, and the clubhouse parking lot to Infiltration Basin A as described in the Stormwater management Report. Please show on the plans how this will be accomplished.

 The plans have been updated to detail the grading around the units. Lawn drains/grassed swales are proposed behind certain units to ensure that runoff from the rear of the units will be conveyed into the proposed ponds.
- 14. Some stormwater flow from adjacent lot H-40-1 flows to the proposed roadway and into Infiltration Basin A Please determine if additional flows need to be included in the analysis, if these flows will eventually be directed to the proposed Infiltration Basin, and if that additional flow will affect the design.

Given the small area which may flow from lot H-40-1 and the existing soils in the area, I don't think it is necessary to include that offsite area in the analysis. The onsite soils are classified as Hinckley loamy sand and are well-drained. As such, I don't expect significant runoff to be generated which would affect the capacity of the proposed stormwater basin.



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- 15. There is an existing catch basin proposed to remain in the middle of the proposed intersection, which is not ideal. An additional basin should be installed uphill of the upstream curb ramp to collect stormwater from Main Street before it crosses the proposed roadway. The existing basin should be reconstructed to a manhole to avoid a depression in the intersection or removed if required by DPW. The entrance to the development has been moved to the north to avoid the existing catch basin on Main Street.
- 16. There is a detail for a Jumbo Infiltration Basin but none were found on the plans. Please clarify. The jumbo drywell detail was provided because it was going to be utilized for the fire protection system. The jumbo rectangular drywell has been replaced with an 8-foot diameter drywell. An additional sheet has been added (D-5), which depicts all details associated with the fire protection system construction.
- 17. Clarify with material is proposed on the bottom of the infiltration basin. Both loam and seed and 6" of pea gravel are shown on the detail.

 The bottom of the infiltration basin shall be a 6" layer of 3/8 pea gravel. Detail #1 on sheet D-2 was

revised such that the material specified is clear.

18. The infiltration basin detail does not include the stone berm between the sediment forebay and main part of the basin. Please revise the detail to include the berm and clarify associated construction details.

Detail #1 on sheet D-2 has been revised such that the infiltration basin detail shows the permanent stone check dam that shall be constructed within the infiltration basins. Dimensional requirements are called out on sheet SP-3.

19. A long-term maintenance plan must be included for the infiltration basin (note prepared is not detailed enough).

Maintenance Notes have been added to Detail #1 on sheet D-2 and an Inspection and Maintenance manual will be included as part of the NHDES Alteration of Terrain permit.

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 MVignale@kvpllc.com.

Sincerely,

KV Partners LLC

Michael S. Vignale, P.E.

Principal Engineer



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====== End M. Vignale comment letter dated 06/10/2022 =======

Meridian is of the opinion that the comments have been adequately addressed or responded to. Should you require any additional information or wish to discuss, please do not hesitate to contact me.

Thank you for your time and consideration regarding this matter.

Sincerely,

Meridian Land Services, Inc.

Trevor R. Yandow, PE