



MEMORANDUM

TO: David Fields, Planner

FROM: David Pavlik, Senior Civil
Michael Sprague, Senior Civil

DATE: January 9, 2018

SUBJECT: Fairland Estates Preliminary Subdivision Plan

CC: John Livsey, Town Engineer
Aaron Henry, Senior Planner

The engineering division has reviewed the Preliminary Subdivision Plans titled "Fairland Estates" dated December 12, 2017. We submit the following;

Comment to Planning:

Please be advised that the engineering division is aware of the submission process involved with the proposed subdivision approval. And with that we expect that our comments will be addressed as this process moves forward toward the definitive subdivision design. The nature of some of our comments will be best addressed as the design progresses further along.

Existing and Proposed Roadway:

- A calculation or note should be provided to address fire equipment turning radius in the cul-de-sac.
- Is this planned to become a Town accepted road or is it to remain private?
- The roadway base detail should show 8 inches of gravel below 4 inches of dense grade crushed stone.
- It is unclear on the plans where the granite curb is located and where the asphalt berm is located. Granite curb is specified on the detail sheet.

Utilities:

- This particular neighborhood has been identified as an area of marginally low water pressure. The identification was made in a water system asset plan done for the Town in 2017. This issue should be considered prior to submission of a definitive plan.
- We recommend that a profile view of the utilities located within the two proposed easements be added to the design.

- The water main shows only one gate and tee at the intersection. There should be three gates at a tee for isolation purposes. The other water connection in the easement should be a tap and sleeve with only one gate. We ask that this connection be shown in detail since it is difficult to read on the plans as is.
- Hydrants shall be American-Darling 5 ¼ inch B-84-B-5. Hydrant color; barrel – OSHA black, bonnet – OSHA white, nozzle caps – OSHA black. We require this information be clearly noted on the plans.
- All hydrants, valves and valve boxes shall be American made only. Valves shall open **right (clockwise), hydrants shall open right (clockwise)**. We require this information be clearly noted on the plans.
- All proposed vertical and horizontal bends for the proposed water main shall be on plans with adequate restraining glands, rods and thrust restraints.
- Please identify locations of any bends in the water main, bends will require thrust blocks in accordance with town standards.
- The minimum depth of sewer service connections is 4' below grade. Please provide invert and grading information to show that requirements will be met for each proposed service. And show stubs onto property on definitive plan.
- Maintain separation of utilities in particular the drain and sewer mains.
- All manhole frame and covers should be consistent with Town of Lexington Standards.
- Silt sacks should have emergency overflow and should be shown on plans.

Drainage for roadway, sidewalk, driveway aprons, and site grading:

- The Town should not be listed as the responsible party for the stormwater operations and maintenance plan.
- Test pit data should be shown on the plans to verify infiltration rates and to show two-foot separation from ESHGWT and infiltration systems.
- Please show Tc's on plan.
- Please show drawdown calculations for BMP's.
- In the HydroCAD report the time span should be increased to allow for complete volume and runoff calculations.
- The street should match the detail, with a crown or superelevation, especially concerning drainage.
- The drain line between lots #5 and #6 is a concern with the bend as well as the location on the property line. We will be looking closely at this segment in future submittals.
- Any connections to the Town's drainage system will require Conservation approval.
- Any trees that may be cut should be reviewed with the Tree Warden, Chris Filadoro at the DPW.

Additional reviews and comments will be done after response to these comments.