



**TOWN OF ACTON**  
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Engineering Department

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**INTERDEPARTMENTAL COMMUNICATION**

**To:** Planning Department

**Date:** November 21, 2014

**From:** Engineering Department

**Subject:** *Review of 456 Massachusetts Ave - Preliminary Subdivision Plan*

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We have reviewed the plans for the above mentioned project titled "Preliminary Subdivision, Plan of Land, 456 Massachusetts Ave" dated November 3, 2014 and have the following comments:

1. The engineer should add a note that no permanent monuments shall be installed until all construction is completed and the centerline of the street should be monumented at all points of curvature and tangency using magnetized masonry nails in the final course of pavement.
2. The Fire Department should comment on the accessibility of a fire truck. Based on our templates the common driveway does not appear adequate for an SU-30 truck. We have attached a template of an Acton Fire truck for the engineer to analyze for the Definitive Subdivision. The Acton Fire Truck template is slightly larger than an SU-30 template.
3. The applicant should propose a roadway name and street addresses for the homes which will have to be reviewed by the Police and Fire Departments. It's our experience that for subdivisions of this size, it's best to avoid using the number 4. We recommend the following street addresses and parcel IDs:

<u>Lot #</u>	<u>Address</u>	<u>Map/Parcel</u>
1	2 Roadway Name	F2 / 117
2	6 Roadway Name	F2 / 117-1
3	8 Roadway Name	F2 / 117-2

4. Any street signs should be MUTCD compliant and explicitly state that the road is a private way if the roadway is to remain private.

5. The applicant will be responsible for providing an as-built plan certified by a PLS and a statement by a PE stating that the subdivision has been constructed as designed and if not, any differences shall be noted in the statement.
6. The applicant has proposed to use Common Driveway standards for the design of the roadway. This is generally allowed for a Residential Compound design. The current roadway design does not meet the standards for a roadway according to Section 8 of the Subdivision Rules & Regulations.
  - a. The gravel base of the roadway should extend 3-feet under the shoulder of the road.
  - b. The minimum roadway width required is 20-feet. The applicant proposes 12-feet.
  - c. No profile of the roadway has been provided with the Preliminary Plans. The definitive plans should meet the horizontal design, vertical design and stopping site distance standards in Tables 1-3 of Section 8.
  - d. No curbs have been provided
7. The Definitive Plans should note that no paving shall take place after November 15<sup>th</sup> and the final course of pavement will be placed after the binder has been exposed to one winter season.
8. We will reserve more in-depth comments on the drainage design for the definitive subdivision plan when drainage calculations and maps will be provided. The site is located in Groundwater Protection Zone 4 and the Definitive Plans should meet the requirements for that Zone located in the Acton Zoning Bylaw.

The drainage design appears to use a detention pond for treatment before being outlet to the wetlands but it's unclear how runoff is directed towards the detention pond. The roadway is pitched towards Lot 1 and runoff appears to sheet offsite and not towards the pond. There also appears to be runoff entering untreated to a driveway trench on Lot 1 and is sent towards the wetland via a 6-inch PVC pipe.

All drainage components should be located within easements. There should be an agreement informing the owners that they are responsible for the maintenance of the system. They should be provided with a log to track repairs, inspections and maintenance of the system. The applicant should provide an operation and maintenance agreement for the private way with the Definitive Plans.
9. The engineer should add a note stating that any fill material used shall be free of hazardous material and free of construction debris.
10. The applicant has not addressed the sidewalk requirement for the subdivision
11. Prior to building permits being issued, we request a copy of the MassDOT access permit for Mass Ave for our records.

12. The Definitive Plans should show the test pit locations.
13. All elevation shall refer to a bench mark (or bench marks) using the NGVD of 1929 for base data. The plan should have at least two bench mark locations.
14. The engineer should provide more in-depth Erosion and Sediment Control plan following Town of Acton Subdivision Rules and Regulations Section 8.3.
15. The engineering should provide Earth Removal calculations when filing for the Definitive Plans.