

**Town of Hopkinton
Conservation Commission
18 Main Street
Hopkinton, MA 01748**

**Tel.: 508 497-9757
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Memorandum

Date: 15 December 2003

To: Conservation Commission

From: Ellen M. Chagnon, Conservation Scientist

Re: Amended Notice of Intent
Stagecoach Heights Condominiums, Wood Street
DEP File No. 188-1148

Copies: Scott Miccile, Benchmark Engineering
Janice Hannert, Stagecoach Heights, LLC
David Haines, Haines Hydrogeologic Consulting

I have reviewed supplemental information for the Stagecoach Heights Condominiums filing that was submitted in response to my review memorandum dated 15 November 2003. The following are my comments and requests for additional information relative to that submission, along with several new items. I have identified requests for additional information as required under the Act or the Bylaw. Additional concerns and requests will likely be raised during the course of the hearing process.

The following documents were reviewed:

- Site plans entitled “Stagecoach Heights, Site Development Plan for Comprehensive Permit in Hopkinton, MA” Sheets 1 – 12 of 12 at a scale of 1” = 40’, prepared by Benchmark Engineering Corp. and dated 19 March 2001, revised 3 December 2003.
- “Stagecoach Heights Erosion and Sedimentation Control Plan prepared by Benchmark Engineering Corp., dated 3 December 2003
- “Stagecoach Heights Construction Sequencing” prepared by Benchmark Engineering Corp., dated 3 December 2003
- “Stormwater System Operation and Maintenance Plan” prepared by Benchmark Engineering Corp., revised 3 December 2003
- “Drainage Calculations and Stormwater Management Report for Stagecoach Heights Condominiums in Hopkinton, MA” prepared by Benchmark Engineering Corp. and dated 19 March 2001, revised 17 October 2003
- “declaration of Trust, The Village at Stagecoach heights Condominium Trust, draft dated 12 February 2003 with a latest revision of 12 June 2003.

Additional Information Required

The following information requested in my 15 November 2003 memorandum has not been submitted to date:

- Figures on 100-foot buffer zone impacts including 0 to 50-foot and 50 to 100-foot portions along with site plans showing applicable wetland setbacks, figures on 100-foot vernal pool impact (Bylaw)
- Plans showing wetland replication area and vernal pool setback (Bylaw)
- Wildlife impact assessment report (Bylaw)
- A rationale for the proposed wetland buffer zone disturbance providing a written rebuttal to the presumption that work within the 100-foot wetland buffer zone will impact adjacent wetland resource areas (Bylaw)

Also, the items described below must be addressed and a copy of the Board of Appeals review of the project by Fay Spofford and Thorndike must be submitted.

Erosion Control

- A copy of NPDES Stormwater Pollution Prevention Plan should be submitted for the Commission's review.
- The erosion control notes and narrative should be revised to require that Wood St. in front of site be swept as needed to keep it free of soil materials.
- Both the erosion control notes and narrative should be amended to require inspection of erosion control devices before and after storms greater than 0.5 inches.
- Due to the presence of a natural swale at the outfall of Basin B, there is potential for outflow from Basin B to channelize. Will this result in erosive forces within the swale?

Stormwater Management

- Based upon the drainage maps included in the Stormwater Management Report, it appears that the tributary drainage areas to the vernal pools have changed significantly. I don't see this reflected in the geohydrologic report. These changes must be analyzed by sub-watershed, versus to two main watersheds on the site.
- I am concerned with grading and utility lines intersecting the water table on this site, particularly in the vicinity of Sta 1+50 to 3+00 on Patriots Boulevard where the 14-foot cut is likely to intercept groundwater due to the fact that the seasonal high water table is at 52 inches in the area. This problem must be studied and addressed relative to site geohydrology and erosion control. In addition, what impacts to site geohydrology will the proposed 6-inch subdrain along Patriots Drive have?
- I question whether groundwater recharge will occur from infiltration in the detention basins. The accumulation of fine sediments will, over time, preclude infiltration. Therefore, it is my opinion that no credit for this infiltration should be taken.

- The impact of septic groundwater recharge on site geohydrology must be addressed. No groundwater mounding study was provided as part of the geohydrology report. It is likely that sewage disposal will result in a significant increase in groundwater recharge on the site. What impact will this have on the adjacent vernal pools? Will this prevent the drying of the pools that could result in a change in invertebrate and amphibian species inhabiting the pool? Will it result in more flow through the vernal pool, washing away amphibian eggs?
- Biannual roadway sweeping should be added to the stormwater operation and maintenance plan.

Water Quality

- What is the basis for saying that increases in nitrogen and phosphorus levels will not cause eutrophication of the vernal pools or that increased sodium levels will not impact wetland flora or fauna?

Homeowner's Declaration of Trust

- The Declaration of Trust does not include the language in the stormwater operation and maintenance plan relative to cleaning frequencies for the stormwater management system. It also does not include the restrictions on landscape chemicals that were suggested in the Surface Water Quality and Quantity Assessment.

Plans

- Can Detention Basin 1 be moved uphill further or made more linear to move it further away from the wetland and vernal pools? Can the basin be given multiple outlets with level spreaders to spread the outflow over a larger area?
- Details for the temporary siltation basins and the diversion swale should be provided.
- The erosion control notes and narrative should include an item requiring that the permanent detention basins be cleaned out before they are placed on line as permanent basins.
- The erosion control notes and narrative should require that all slopes steeper than three to one be stabilized with erosion control matting or temporary hydroseeding if they are to stay open longer than 30 days.
- Is the temporary siltation basin compatible with future use of the same area as a leach field?
- A soil and excess material stockpile location has not been identified on the site plan; this should be shown.
- The site plan must show the 100-foot vernal pool setback.

Recommendations

It is my recommendation that the Commission hire a geohydrologist to review the project.

