



# MEMORANDUM

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TO: John Hanson, Town Planner, Seekonk  
Bernadette DeBlander, Conservation Agent

FROM: David Nyman, P.E.

SUBJECT: Caleb Estates Updated Subdivision Plan Review

JOB NUMBER: 261-5

DATE: October 28, 2011

As requested by the Seekonk Planning Board and Conservation Commission, CEI has conducted an updated review of the following revised plans and associated documentation for the Caleb Estates Subdivision:

1. Drawings entitled “Definitive Subdivision Plan of ‘Caleb Estates’ in Seekonk, Massachusetts,” dated March 18, 2011, revised 10/24/2011, prepared by InSite Engineering Services, LLC. The drawings include 10 sheets.
2. Drainage calculations for the project entitled “Drainage Analysis and Stormwater Management Narrative,” dated October 25, 2011, prepared by InSite Engineering Services, LLC.
3. Letter from InSite Engineering Services to CEI dated October, 2011 responding to review comments presented in CEI’s memorandum of October 17, 2011.

Based on our review of this information, CEI offers the following updated comments regarding the subdivision design.

1. We recommend a condition of approval requiring that prior to construction on each lot the lot owner should provide the Town with site specific soils data and a roof drainage system design meeting the design requirements shown on the drawings, including the required separation from seasonal high groundwater.
2. The plan/profile drawing (Sheet 6) does not show the geometric information required by §5.3.17.1. The necessary geometric information requested in our previous comments is shown within the plan set, but not on this drawing.

We understand that the cited section of the Subdivision Regulations requires the right of way layout, pavement geometric data, utility layout, and related information to be depicted on the Plan/Profile drawing, so that the Town will have a single plan/profile drawing depicting the pertinent information for the roadway that it will eventually own.

We recommend that in addition to the other information required, the invert of the bio-swale should also show on the road profile drawing.

3. Elevation data is not provided on the Town of Seekonk datum (§5.3.17.7). The applicant is requesting a waiver of this requirement.



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4. Section 7.4.1 requires easements to be submitted with and be part of the Definitive Plan and recorded as a separate document with the Registry of Deeds. However, the engineer indicates the easement language will be provided subsequent to subdivision approval. The Planning Board may want to consider a condition of approval requiring such language to be subject to review and approval by the Town.
5. Sheet 5 of the drawings depicts 300-foot sight distances in each direction at Olney Street. The sight line to the south passes over the ANR lot. The Planning Board may want to consider requiring an easement of sufficient width to allow the Town to maintain a clear sight line across the front of the ANR lot.
6. We believe that several waivers are required for the construction of the road cross section as shown, to provide for country drainage, a uniform cross slope toward the bio-swale, the hammerhead turnaround, and the 4-foot instead of 5-foot sidewalk with the use of the Cape Cod Berm immediately adjacent to the sidewalk.
7. The current design requires an easement on one lot to provide for an infiltration basin, and easements on several lots to provide for general drainage (7-foot easement along the new road to accommodate the bio-swale, and a potential additional easement discussed below). The Planning Board may wish to consider waivers of Section 7.4.1 as needed to provide for this design.
8. There is no proposed easement shown to provide for the conveyance of common drainage along the south property line. Drainage from the rear of the ANR lot and Lots 1-3 must flow across downgradient lots to reach the designated outlet. In previous comments, we have recommended an easement should be provided at the southern boundary of Lots 1-4 to accommodate this drainage, and prevent any of the lots from inhibiting flow along this pathway. This comment still applies. Provision for such an easement could be accommodated by the waiver discussed in Comment 11.
9. §7.4.4 requires an easement at least 20 feet wide from the end of a dead end street to the depth of the lots for future main tie-ins. We understand this was discussed with the Planning Board. Is a waiver required?
10. Based on the calculations provided, we recommend the swale along the southerly boundary of Lot 4 be installed with approximately 1.5- foot depth (instead of 1-foot depth as shown), to provide some freeboard for the 10-year storm, increased capacity to convey the 100-year storm, as well as some tolerance for natural variations in grade along the alignment of this channel.



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We also recommend that Drainage Manholes DMH 1 and DMH 2 and the connecting pipe should be moved slightly northward, so that the pipe and structures are parallel to the swale and not within it.

11. Extreme care must be exercised in stabilizing disturbed areas adjacent to the constructed channels and outlets, and the establishment of the “dense grass” linings assumed in the calculations of velocities at these locations. We recommend the Town monitor the performance of the channels and outlets for at least two years following placement into service, with corrective action by the developer if erosion or sedimentation results from operation of this system. .
12. To meet Massachusetts DEP Stormwater Management Standard 10 (Illicit Discharges), a signed compliance statement should be submitted to the Conservation Commission prior to placing the stormwater management system into service.
13. The Planning Board and Conservation Commission may wish to consider a condition to require a copy of the USEPA NPDES Construction General Permit Notice of Intent and associated Stormwater Pollution Prevention Plan be furnished to the Town, prior to initiation of construction.
14. The Planning Board and Conservation Commission may want to consider conditions requiring all lots to individually adhere to the requirements of the Erosion and Sediment Control notes during development of each lot.
15. We suggest a condition of approval that requires all stockpiles be located at least 100 feet from regulated wetland resource areas.
16. On Sheet 7, under the heading “Construction Inspection” the word “recommended” appears at the end of the third note, and in the second line of the fourth note. At these locations, this word should be replaced with the word “required.”
17. Assuming that the roadway and supporting drainage system will eventually be considered for acceptance as a Town road, we recommend that the Director of Public Works confirm that the O&M plan is consistent with Town standard operating practices.