



TOWN OF ACTON
472 Main Street
Acton, Massachusetts, 01720
Telephone (978) 264-9628
Fax (978) 264-9630

Engineering Department

INTERDEPARTMENTAL COMMUNICATION

To: Board of Appeals

Date: September 17, 2010

From: Engineering Department

Subject: Comprehensive Permit #10-08

15-26 Sachem Way
Map C-4 Parcel 19-3

The engineering department has reviewed the plans for the above comprehensive permit dated June 25, 2010 and revised September 15, 2010 and has the following comments for the applicants response in a memo dated September 15, 2010:

1. *Engineering comment (7/23/10): The snow storage provided by the applicant appears to runoff the site without treatment.*

Applicant response (7/20/10): Snow melt will sheet flow to the closed drainage system which in turn, discharges to an underground infiltration system. The underground infiltration system incorporates an isolator row which is designed to “treat” the stormwater prior to infiltrating back into the aquifer. As noted in the Massachusetts Department of Environmental Protections (MassDEP) Stormwater Regulations, underground infiltration system provide 80% TSS removal.

Engineering response (9/13/10): The engineer should show spot grades on the snow storage area between Buildings C and D showing that the snow storage area is pitched towards the paved area.

Applicant Response (9/15/10): Spot Grades on the snow storage area between Buildings C & D have been included in the revised plan set dated September 15, 2010 and are shown on Sheet C-3, Grading and Drainage Plan.

Engineering response (9/17/10): No further comment necessary.

2. *Engineering comment (7/23/10): The applicant states that rooftop runoff will be directed towards the five dry wells; however, it is not clear how the rooftop runoff from buildings D, E and F will reach the dry wells.*

Applicant response (7/20/10): Buildings D, E and F will not be routed to drywell structures due to the subsurface soil conditions. These buildings are in an area of major cuts and it is anticipated that the underlying soils will be restrictive to infiltration. The underground infiltration system has been oversized to compensate for these buildings not being able to mitigate for their stormwater runoff individually.

Engineering response (9/13/10): Engineering department accepts this response.

- 3. Engineering comment (7/23/10): The applicant should provide the town with a pre and post-development watershed plan.*

Applicant response (7/20/10): McCarthy Village II, Site Development Drainage Report dated June 1, 2010 included pre and post development watershed plans. Additional plans area attached to this response.

Engineering response (9/13/10): No further comment necessary. The applicant has provided the requested plans.

- 4. Engineering comment (7/23/10): While it appears that an SU-30 truck movement works with our turning templates we defer comments to the Fire Department regarding the movement of a fire truck on this site.*

Applicant response (7/20/10): During development meetings with various Town departments, the Fire Department has indicated that it is comfortable with the site layout in regard to truck movement.

Engineering response (9/13/10): No further comment necessary.

- 5. Engineering comment (7/23/10): The roadway pavement detail shows a 6" gravel base. Acton requires a 12" base.*

Applicant response (7/20/10): The pavement detail has been revised to reflect a 12" base course per Acton standards.

Engineering response (9/13/10): No details shown with the site plans provided by the applicant dated 6/25/10 with a revision date of 8/13/10.

Applicant Response (9/15/10): The pavement detail has been revised to reflect a 12" base course per Acton standards. See Detail Sheet C-1] dated through 09/15/2010.

Engineering response (9/17/10): No further comment necessary. Detail sheets provided with requested changes.

- 6. Engineering comment (7/23/10): The sidewalk detail shows a 2½" pavement thickness and a 6" gravel base. Acton requires a 3" pavement thickness and a 6" gravel base. The gravel base is to be applied in two 3"-in courses.*

Applicant response (7/20/10): The sidewalk detail has been revised to reflect two, 3-inch gravel base course lifts with a 3" pavement thickness per Acton standards.

Engineering response (9/13/10): No details shown with the site plans provided by the applicant dated 6/25/10 with a revision date of 8/13/10.

Applicant Response (9/15/10): The sidewalk detail has been revised to reflect iwo, 3-inch gravel base course lifts with a 3" pavement thickness per Acton standards. See Detail Sheet C-9 dated through 09/15/2010.

Engineering response (9/17/10): No further comment necessary. Detail sheets provided with requested changes.

7. *Engineering comment (7/23/10): Acton requires shaped inverts on drain manholes. The drain manhole detail does not call this out.*

Applicant response (7/20/10): The drain manhole detail has been revised to call out shaped inverts on all drain manhole structures.

Engineering response (9/13/10): No details shown with the site plans provided by the applicant dated 6/25/10 with a revision date of 8/13/10.

Applicant Response (9/15/10): The drain manhole detail has been revised to call out shaped inverts on all drain manhole structures. Sec Detail Sheet C-9 dated through 09/15/2010.

Engineering response (9/17/10): No further comment necessary. Detail sheets provided with requested changes.

8. *Engineering comment (7/23/10): The site is adjacent to town owned land with park trails. The applicant could show a trail connection connecting this development with the existing trails.*

Applicant response (7/20/10): The Acton Housing Authority will work with the Town on incorporating walking trails from the subject parcel to Town owned land as requested, provided funds are available.

Engineering response (9/13/10): No further comment necessary.

9. *Engineering comment (7/23/10): The "Possible Future Play Area" could be constructed along with the rest of the site as an amenity for the children.*

Applicant response (7/20/10): The Acton Housing Authority will work with the Town on incorporating the "Possible Future Play Area" as suggested, provided funds are available.

Engineering response (9/13/10): No further comment necessary.

10. *Engineering comment (7/23/10): The plan shows a curb on the handicap ramp where there should be none.*

Applicant response (7/20/10): The plans have been revised to show a flush curb with adjacent curbing transitioning to a flush condition.

Engineering response (9/13/10): No further comment necessary.

11. *Engineering comment (7/23/10): The applicant should relocate the hydrant at the end of the road. It is located in the snow storage area and would be obstructed during the winter.*

Applicant response (7/20/10): The fire hydrant at the end of the site driveway has been relocated outside of the snow storage area and will be accessible during the winter months.

Engineering response (9/13/10): No further comment necessary.

12. Engineering comment (7/23/10): An as-built plan will be required prior to obtaining a building permit.

Applicant response (7/20/10): An as-built plan will be provided prior to the issuance of a Certificate of Occupancy.

Engineering response (9/13/10): No further comment necessary.

13. Engineering comment (7/23/10): The applicant should be sure the drain outlet pitches toward the wetland. The applicant should avoid flooding of the abutters.

Applicant response (7/20/10): There are no wetland resources on site however the proposed stormwater management system does provide positive drainage to the lowest point on the site where stormwater currently discharges off the property. As noted in the Drainage Report the proposed stormwater management system mitigates runoff over the existing conditions baseline so no anticipated flooding of the abutters is anticipated.

Engineering response (9/13/10): The engineering department accepts this response.

14. Engineering comment (7/23/10): The applicant should show a No Parking sign at the end of the truck turnaround.

Applicant response (7/20/10): A “No Parking” sign at the end of the truck turn-around has been incorporated into the design plans as requested.

Engineering response (9/13/10): No further comment necessary.