From: Rob Gordon
To: jeffmalpass@bizec.rr.com; Justin Bishop (justinbishop@bizec.rr.com)
Cc: "Dawn Snotherly"; "Derek Pielech"
Subject: Eng Review - Bonham Apartments
Date: Friday, February 01, 2013 4:51:00 PM
Attachments: image001.png

Engineering has reviewed the latest submittal for the Bonham Avenue Apartments and has the following comments:

1. The project is proposing in excess of 10,000 sf of newly constructed impervious area. A stormwater management permit will be required. Please submit a completed application, $1,000 review fee and all required forms to Engineering for review.
2. The system will have to attenuate the peak flow to predeveloped conditions (woods in good condition) for the 2,10 & 25-yr storm events.
3. Please provide a drainage area map & calculations for the offsite drainage diversion system and roadside ditch. Ditch & pipe will have to be sized for stable conveyance of the 10-yr event.
4. It is assumed that the buildings will all drain to the pervious concrete (PC), which will serve as the treatment system for the buildings. If so, please show the roofdrain layout and a detail of the connection to the PC (either via the surface or gravel layer).
5. Please make sure the PC meets all the requirements outlined in the State BMP manual.
6. Please provide the soils test for the project that shows the depth to SHWT & the infiltration rate.
7. The impervious pavement areas are not clear. There is 3618 sf of impervious pavement/concrete listed in the site data table, yet only the dumpster pad is called out as concrete. Does the curb make up the remaining area? Please clarify.
8. The natural grade on the West/rear portion of the property drops off fairly significantly. Please make sure the subsurface grades are <0.5% or baffles will be required. If fill material is being used, a specification on the gradation of the material must be provided to prevent the contractor from bringing in material with an infiltration rate below surrounding natural soils.
9. If the PC will overflow to the infiltration basin – both systems should be modeled as an interconnected system. Please make sure the difference in void ratio is accounted for in the stage-storage calculation.
10. Please provide and/or show the outlet for the infiltration system. If an outlet is not provided a variance will be required. In past instances, we have granted a variance if the infiltration system is capable of infiltrating the 100-yr event using the full measured infiltration rate.
11. There appear to be trees being removed in the basin. While the contours are not entirely clear, it appears that natural grade is close enough to the bottom of the basin that they should be able to be saved. Please try to grade the basin around the trees if they are in any condition worth saving.
12. Just an FYI – the utility layout works very well with the PC. Even though extensive use of PC is proposed, there appears to be very little over utilities. Also, there is no evidence of pipe (other than driveway). The City appreciates the LID measures being proposed.

Please call or email if there are any questions. These comments will be uploaded to protrak.

Robert Gordon, PE
Project Engineer

City of Wilmington, Engineering Division
212 Operations Center Drive
Wilmington, NC 28412
Office: (910) 341-5856 | Fax: (910) 341-5881
Email: rob.gordon@wilmingtonnc.gov
www.wilmingtonnc.gov

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