

From: Rob Gordon

Sent: Tuesday, October 06, 2015 2:58 PM

To: Weston Boles <wboles@wkdickson.com>; Daniel Dawson (dedawson@wkdickson.com) <dedawson@wkdickson.com>

Cc: Genna Porter <Genna.Porter@wilmingtonnc.gov>; Jeff Walton <Jeff.Walton@wilmingtonnc.gov>

Subject: Eng review - Vertex (NCSPA portion)

Engineering has reviewed the revised submittal for the NCSPA portion of the Vertex project and have the following comments.

1. The way our code is written and the way this project and drainage area is delineated, I will not be able to give any credit for the 3919 sf of impervious being removed. However, because the infiltration basin is treating 8059 sf of existing impervious area, that amount may be able to be utilized as a future allocation (see comment below). I would still encourage the project to remove any unnecessary impervious area, but it is not required.
 - a. Please remove the 3919 from p3 of the application. No other numbers should have to be modified.
 - b. You may wish to modify the reference to this on the narrative.
2. Each storm is still showing outflow, but the stage does not indicate a discharge. The pond data sheet seems to be set up right. Please make sure exfiltration is being extracted from the hydrograph. The outflow should be 0 unless there is discharge out the spillway.
3. Because this portion of the project does not qualify for redevelopment, it is responsible for pre/post. The predeveloped CN should be no higher than 39 per 18-761 (a). The 8059 sf of existing BUA can be factored in as developed, but the rest of the DA/project area must be 39. However, if you want to use 8059 as a future allocation, you must model that too as CN 39 in the predeveloped condition. Since the model does not appear to indicate any post-development discharge, this should not affect compliance of the system – but the CN's should still be clarified in both the calcs and on the exhibit.
4. The system does not appear to have an adequate spillway.
 - a. The model appears to assume the berm is the spillway. City technical standards require appropriately designed stabilization material from the spillway down to natural grade.
 - b. City technical standards require the overflow system be modeled for the 10-yr event, assuming the system does not infiltrate (Section V, p59). Please include this analysis in the calculations.
5. Note Only – the on-site portion of the stormwater management system on the plans still appears to show the old design. I assume this was simply not updated prior to the NCSPA submittal.

Please submit one full set of sealed calcs and plans along with any revised forms to Engineering for final review. A digital copy is sufficient (please cc Genna), a hard copy is not necessary. Please call or email if there are any questions. Thank you. Review of the on-site portion will be next.

Robert Gordon, PE
Plan Review Engineer

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