

Engineering has reviewed the plans for the Wilmington Surgcare Expansion project submitted November 5, 2019 for review and have the following comments:

A full Engineering submittal must include a digital copy of the submittal. It appears that a digital copy was not submitted. Please provide the digital copy.

Stormwater Management Permit Application Form

1. II. Permit Information; #2: Note only: The State Permit No. SW8 961212 was rescinded by NCDEQ because the City took control of the permit. The only existing permit for this parcel is City Permit No. 2010014.
2. IV. Project Information; #4 & #5: Total project area shall be calculated to exclude the normal pool of impounded structures (except BMP's). The surface water area on this site is a permitted BMP.
3. IV. Project Information; #9: Is the demolition within the 17th Street r/w accounted for here? Only what is being removed within the parcel boundary should be accounted for. Also, the amount of impervious hatched for demo on CD100 appears to be more than what is listed in the application.
4. IV. Project Information:
 - a. #11: Update the Project percent of impervious area.
 - b. #12: Are the proposed driveways and sidewalks in the 17th Street r/w accounted for? Update #13 if numbers change.
 - c. #14: The Percent Impervious Area for BMP #1 appears to be incorrect.
5. Please submit Supplements and O&M agreements for both the pond and the infiltration basin.

Wilmington Surgcare Expansion Narrative, Documents and Calculations

6. Design Narrative: On July 21, 2010, the City of Wilmington issued SWMP No. 2010014 and became the designated coastal stormwater permitting and enforcement authority for the Wilmington Surgcare stormwater management system. The State Stormwater Permit No. SW8 961212 should have been rescinded by the State, nullifying it. Please verify with NCDEQ that the state permit has indeed been rescinded. All components of the State permit were incorporated into the City permit. However, the wet pond design criteria listed in the Design Narrative still references the State SW permit. Also, please remove all references to the State SW permit as the City permit is the only valid SW permit.
7. CoW Retention Requirements: Note only: It is unclear how the 1" and 1.5" runoff volumes were calculated based on the calculations provided. I get different, higher values for each. However, in either scenario, the treatment volume provided by the pond is still higher and adequate.
8. There appears to be a retaining wall added to the existing wet pond. Do the calculations reflect the change in stage-storage contours and surface areas with the addition of the retaining wall?
9. The Pre-development curve number must remain woods in condition for the entire drainage area. Please revise.
10. The drainage areas for Post Retention Pond and Post Infiltration Basin when added together do not equal the drainage area for Pre DA #1. Drainage areas should be consistent throughout the submittal document and plans.
11. The submitted Hydraflow routing is incomplete. Only the pre-development was submitted. Please submit entire pre/post routing analysis.

12. The adjacent property is now in for City review. Coordinate with the adjacent property (17th Street Mixed Use/Dan Fisk (Paramounte Engineering)) to see how its stormwater management design will affect the pond routing.
13. Provide 10 and 50-yr HGL calculations for the stormdrain system added near the building expansion. Provide an inlet drainage area map.
14. City records do not have the latest calculations, etc. associated with the City SW Permit SWP2010014. As a request, not a requirement, could you please submit anything you have on file?

Plans

15. CS100:
 - a. The driveway for the CFCC parcel has a 75' property line offset, measured at the curb line, requirement with 17th Street being a major thoroughfare. A variance request will need to be submitted for approval.
 - b. Driveways must be separated by 250 feet, as measured by the curb line. This requirement is not being met between the western and middle driveways. Either revise the driveways location to meet the standard or submit a variance request for review. Variances must provide reason(s) why the technical standard(s) cannot be met.
 - c. Provide a Landscape Plan for review. Landscape islands are typically required at each end of parking stalls. A barrier must be provided around the perimeter of the landscape island for protection from vehicles.
 - d. Show the sidewalk continuing through the driveway aprons per the city standard detail.
16. CG100:
 - a. Flared end sections or headwalls are required at ends of each pipe.
 - b. Adequately sized energy dissipaters are required at the downstream end of culverts/pipes.
 - c. Provide more spot grades around the two new aprons and drive aisles to illustrate drainage patterns. Newly constructed impervious must be collected and drain to the pond.
 - d. How will the roof runoff from the building expansion get to the pond? Show on the plans, if possible.

Please submit one complete set of plans, stormwater narrative, application, calculations and any other supporting documentation to Engineering for additional review. Please call or email if there are any questions. Thank you.