

Engineering has reviewed the plans for the National Gypsum Company Sidetrack Expansion project submitted November 19, 2019 and have the following comments:

Stormwater Management Permit Application Form

1. II. Permit information; 2:
 - a. There is an existing Drainage Plan permit for this site. Enter 'DP2018041' next to City of Wilmington.
 - b. NPDES permit does not need to be entered here.
2. IV. Project Information:
 - a. #1: A Dry Pond is a secondary SCM and cannot serve as a stand-alone treatment device per the NCDEQ Stormwater Design Manual. See Section A-8 (Guidance on SCM Selection). Please revise the design to incorporate the use of a primary SCM per the Design Manual.
 - b. #5: The Property Area in #5 should match the entry in #2 since there aren't any coastal wetlands or surface water areas being subtracted from it.
 - c. #6: Does the Existing Impervious Surface Area exclude the 3,150 sf cooler addition that was constructed recently? If not, it should be excluded. Please verify.
 - d. #12: The small amount of impervious that is being constructed to widen the entrance that is in the public right-of-way is considered offsite and should be accounted for in #12.
 - e. #13: Update this line item, if needed.

Dry Extended Detention Basin Supplement

3. Submit a new Supplement for the Primary SCM selected to provide treatment. Use the Supplement EZ form found at:
<https://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permit-guidance/stormwater-bmp-manual>

Operation and Maintenance Agreement

4. Please submit the appropriate O&M Agreement for the primary SCM selected for treatment. The link above also takes you to the O&M EZ form.

Stormwater Narrative

5. Please provide calculations that show what that required storage volume is (Simple Method is preferred) and stage-storage calculations that show the storage volume provided by the SCM.
6. For simplicity purposes, the post-development drainage area of the SCM can be used for pre/post analysis since it is the only drainage area that appears to be affected by the proposed improvements. I will leave that up to you as an option since you have already done a complete pre/post analysis using the entire parcel.
7. Please provide the pond report for the SCM in the routing analysis.
8. Use a Type III Distribution instead of Type II.
9. I cannot tell by the pipe calculation titles which is the 10-year HGL analysis and which is the 50-year HGL analysis.

Plans

10. The Engineering Approval Stamp must be added to every sheet in the plan set. The approval stamp can be found at:
<https://www.wilmingtonnc.gov/departments/engineering/plan-review/stormwater-permits>
11. The Demolition Plan only has 7,686 sf of existing impervious hatched for demolition. The SW application lists 10,533sf to be removed. Please clarify.
12. C-401: The existing driveway already exceeds the allowable width of 62 feet measured along the eop. Adding the additional pavement to widen it even further will require a variance

request. See Section 18-348 of the LDC. Submittal must be in writing (form letter or email) and addressed to me. The variance must justify the need for the added asphalt at the entrance.

13. C-412: Add the pipe size of the existing pipe.

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.