

Engineering has reviewed the plans for the Oleander Commons project submitted May 29, 2019 for TRC review and have the following comments:

1. This project is proposing the construction of on-site newly constructed impervious surface area greater than 10,000sf, therefore the project is subject to full stormwater review. Please submit the Stormwater Management Permit Application Form, a \$1,000 permit application processing fee, one full set of design plans, calculations and any other supporting documentation to Engineering for review. Please also submit a digital copy of the entire submittal package. Additional comments will be made once the full engineering submittal is reviewed. Please note our review times are approximately 30-45 days right now. Please factor this into your submittal schedule.
2. Session Law 2018-145:
 - When an existing development is redeveloped, either in whole or in part, increased stormwater controls (water quality and water quantity) shall only be required for the amount of impervious surface being created that exceeds the amount of impervious surface that existed before the redevelopment.
 - 18-761(a) – The pre-development discharge rate may be calculated to reflect the existing conditions on site. They will not be required to be calculated as woods in good condition.
 - 18-790(a) – Because the predevelopment discharge rate is permitted to reflect existing impervious, the project will only be responsible for pre/post attenuation of any net increase in impervious.
 - The project should avoid drainage diversion – the redirection of runoff from one drainage area or discharge point in the predeveloped condition to another area or discharge point in the post-developed condition. Pre/post attenuation must be evaluated at each offsite discharge point as well as overall for the site.
 - Please be prepared to discuss your approach for stormwater compliance at TRC.
3. Coordinate with City Transportation and Traffic Engineering and NCDOT for number, type (ramp-type or street style) and locations of driveway(s).
 - No driveway shall be permitted to conflict with any municipal facility such as traffic signals, catch basins, etc. (Table 5; Note 5 of the TSSM).
 - The site, based on property frontage, qualifies for no more than two driveways.
 - See driveway spacing requirements along major thoroughfares in the TSSM (Ch. VII.C.2.c.2).
4. Public sidewalk will be required along the Oleander Drive property frontage. Be sure to provide spot grades along both edges to demonstrate acceptable cross and longitudinal slopes and ADA compliance.
5. Provide vertical separation if the sidewalk is to be installed adjacent to the existing edge of pavement. Otherwise, the sidewalk will need to be placed outside the necessary clear zone per NCDOT's Division Sidewalk Guidelines.
6. Existing driveways that will not be used are required to be closed. Removal of existing impervious will be required as well as removal of driveway pipes. The ditch section will need to be restored and graded to ensure positive drainage. A ditch cleanout may be necessary along the entire ditch section to ensure positive drainage to the ultimate outfall.
7. The eastern driveway will require a driveway pipe.

8. Piped collection systems shall be designed for the 10-year frequency storm event and analyzed for the 50-year frequency storm event to check the system for flooding. Assign an appropriate tailwater to the analysis.
9. Provide sizes, lengths, inverts and slopes for all proposed pipes.
10. Provide all appropriate details to support stormwater management systems.
11. Provide entire Pre and Post-development watershed maps.
12. Provide a drainage area map for each SCM (labelled, delineated and listed).
13. Provide an inlet drainage area map (labelled, delineated and listed).
14. Show how roof runoff will be directed to the SCMs (sheet flow, roof drains tied into SD pipes).
15. Site grading should not negatively impact adjacent properties. Existing drainage patterns should not be altered in such a way that negatively affects adjoining properties.
16. Provide all appropriate city standard details. City details shall be the most recent pdf version downloaded from the city website. City details must have the City titleblock.

Please call or email if there are any questions. Thank you.