Engineering has reviewed the plans for the Auto Wash & Oil Change Facility project submitted April 10, 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. The 'No Permit Required' stamp needs to be replaced with the Stormwater Management Plan Approval Stamp.
3. 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. This redevelopment project is not proposing an amount of impervious surface area greater than the amount of existing impervious surface area. Therefore, the project only has to provide stormwater controls that are equal or better than existing stormwater controls.
4. Cover sheet: Minor revision – the total under the existing and proposed building line items appears to be incorrect.
5. Verify that proposed site improvements will not be in conflict with existing utilities. It appears that the existing pole in the Dawson Street radius will be in conflict with the new sidewalk.
6. Coordinate with Transportation, City Traffic Engineering and NCDOT for number, type (ramp-type or street style) and locations of driveway(s).
7. Variances required:
    a. Dawson Street two-way driveway exceeds maximum width of 30-feet at the property line. The northern Wooster Street driveway does not meet the minimum width of 23 feet at the property line for two-way traffic. The City Engineer may approve driveway widths up to 50 feet where it is deemed necessary for safe movements of a large number of vehicles. A pavement marking plan shall be required for all driveways greater than 30 feet in width.
    b. The maximum width of the driveway at the gutter flow line measured between the points where the curb returns or driveway apron meets the curb line or edge of roadway is sixty-two (62) feet.
    c. The number of driveways along the major thoroughfare shall be allocated at a rate of one driveway for the first 600 continuous linear feet of frontage.
    d. The location and spacing of driveways shall be as follows:
        i. All driveways for corner lots shall have at the intersecting street property lines, a minimum corner clearance of 230 feet along the major thoroughfares and/or 60 feet along all intersecting side streets not classified herein as a major thoroughfare.
        ii. All driveways along the major thoroughfares shall have a property line offset of 75 feet, measured at the curb line, however, driveways shall comply with (i) above and be at least 230 feet from the intersecting street when the lot has sufficient frontage to meet the requirement.

iii. In cases where more than one driveway is allowed in accordance with subsection 3b above, driveways must be separated by 250 feet, as measured along the curb line.

e. Two one-way driveways may be considered as a single driveway provided that:
   i. The minimum spacing between the two driveway curb returns is 150 feet at the curb line;
   ii. The driveways are clearly signaled and marked as one-way driveways, using pavement arrows and standard traffic signs;
   iii. The maximum combined pavement width of both driveways at the street property line is 40 feet and the minimum width of a single driveway is 13 feet; and
   iv. All other requirements of this provision are met.

8. Soften those two hard corners in the landscape islands.
9. Provide more detail to illustrate the desired traffic patterns.
10. Eliminate or minimize the amount of water leaving the site thru the driveways…the angled slotted drain is of particular concern.
11. The site should utilize the commercial driveway where required in lieu of the residential driveway.
12. Provide spot grades along both edges of the sidewalk to demonstrate constructability and ADA compliance.
13. Provide spot grades in the driveways for constructability. Need more spots throughout the site to illustrate grading and drainage patterns.
14. 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.
15. Provide type and size of existing storm drain pipes.
16. Provide sizes, lengths, inverts and slopes for all proposed pipes.
17. Provide all appropriate details to support stormwater management systems.
18. Provide an inlet drainage area map (labelled, delineated and listed).

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