

From: [Rob Gordon](#)
To: [Genna Porter](#)
Subject: FW: Eng Review - St Mary Tileston Campus Accessibility Project
Date: Tuesday, April 29, 2014 11:55:21 AM
Attachments: [image002.png](#)

Please upload these comments to protrak. Thanks.

Robert Gordon, PE
Project Engineer
City of Wilmington/Engineering
(910) 341-5856

From: Rob Gordon
Sent: Tuesday, April 29, 2014 11:54 AM
To: shane lippard (raepcsl@bellsouth.net)
Cc: Kathryn Thurston; Derek Pielech
Subject: Eng Review - St Mary Tileston Campus Accessibility Project

Engineering has reviewed the plans for the St Mary Parish Tileston Campus Accessibility project and offer the following comments:

1. The option of extending 6" roof drain leaders through the curb into 5th St is not going to work. The amount of clearance beneath the sidewalk is questionable, which will lead to cracking and the size of the roof drain is larger than the curb reveal. Consider one or more of the following:
 - Installing a French drain system in the grass swale area (or anywhere that loading would allow) to further reduce the amount of runoff that has to be conveyed to the r/w. The swale is a great addition and the proposed rain barrels will help some, but the combination of all three might allow eliminating some of the pipe.
 - Manifold the roof drains together to limit the cuts
 - Utilize a trench drain across the sidewalk. This is common downtown. I'm not sure we would want this to extend across the plaza strip; possibly it could transition back to smaller diameter pipes that would extend through the curb. Smaller diameter pipes are more prone to clog, but the trench drain (lid) would provide an effective clean out.
 - On the 4th St side of the (same) block there is a small metal box that was installed in the curb, apparently to convey drainage through the curb (you can see it on streetview in front of a grey Durango...). Something similar might be an option as well. It is a cleaner look, will carry more flow and should be less prone to clog, but would likely have to be fabricated.
2. The scope of the project is not clear. Is the parking lot going to be completely removed to the stone and reconstructed or will it just receive an overlay? Also, the side appears almost completely paved now. The grass strip on the East side of the parking lot is being added – how is there a net increase in impervious as is noted on the application. Please clarify.
3. I would prefer all existing impervious within the parcel be noted on p3 of the application

along with the amount removed and then newly constructed. If that is not possible, others have totaled the amount within the limits of disturbance or even defined a stormwater project area. Please clarify.

4. If the driveway is being reconstructed, please note that amount of newly constructed impervious area at the top of p4 of the application. This amount does not count toward the 10k sf, but does need to be documented. Also, you do not need to complete section IV (14), there is no BMP proposed for the project.
5. Please add the following notes to your plans:
 - Any broken or missing sidewalk panels, driveway panels and curbing within the project area will be replaced.
 - Any leftover or un-used granite curbing shall be turned over to the City of Wilmington. Care shall be taken by the contractor during demolition to avoid breaking sections of granite curb.
 - Per the stormwater permit, the site will require a final inspection by City of Wilmington Engineering staff prior to issuance of a certificate of occupancy.
6. Please clarify the driveway detail. The detail shows a 5' flare and the plan shows a 13' flare. Also, the granite typically stops at the curb return and the return is formed from concrete – but the best way to make this transition is often worked out between the inspector and contractor in the field. It might be worth noting that on your detail somehow so the contractor is prepared for some field adjustment.
7. Please place the attached drainage plan approval stamp on each sheet in the plan set. Please remove the no permit required stamp.

Please submit one copy of revised plans, calcs and forms to engineering for additional review. Call or email if you have any questions. Thank you.

Robert Gordon, PE
Project Engineer

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