Genna Porter

From: Rob Gordon
Sent: Monday, January 25, 2016 1:19 AM
To: Jeff Petroff (jpetroff@cldeng.com)
Cc: Frank Braxton (FBraxton@cldeng.com); Genna Porter; Brian Chambers
Subject: Eng Review - Port City Church Overflow Parking

Engineering has reviewed the submittal for the Port City Community Church Overflow Parking and have the following comments. Please note it is assumed that the project is being submitted to roll the existing State Stormwater Permit into a single City permit (and subsequently rescind the State permit). This does not appear to be explicitly stated in the narrative, but all required forms were submitted to roll into a city permit. If this is not the case, let me know.

1. Please inform NCDEQ of the intent to roll the existing State permit into a City permit and provide them any required documentation.
2. The legend on sheet 1 indicates (by the type of hatch) that all parking in the expansion is pervious parking. The legend on SW-5 does not specify the surface material. There is no pervious parking detail. Please clarify the surface material of the parking areas.
3. As discussed on previous projects, the use of grassed parking is permitted in overflow areas on a case by case basis. Please provide an estimate of the anticipated frequency of use for these spaces based upon current programs and services offered by this church.
4. Please update the City sidewalk and driveway details.
5. I do not have access right now to what was approved in 2005 (our archive system is not functioning properly). However, pond 1 does not appear to be compliant with the City technical standards. The emergency spillway is only supposed to be activated by storms in excess of the 25-yr event. According to your model, the spillway would be flowing over a foot deep in the 25-yr event. Also, what is the surface material of the spillway? City technical standards require armoring through the spillway down to natural grade and I do not see any kind of rip-rap on the aerial (reinforced turf?). Finally, the pond does not provide the required freeboard on the 50-yr storm. If these conditions were approved in 2005, that will receive some consideration, but we may ask these issues be rectified with this project as they are potential safety issues.
6. Note Only – there is a similar issue with the infiltration basin and the 25-yr event. I am inclined to permit that condition because the 25-yr flow out the spillway is much less substantial than the pond. Also because the actual infiltration rate is halved in the analysis and because there is much more opportunity for passive infiltration in that drainage area. However, there is substantial freeboard on that basin, the system would be more compliant with the standards if you were to raise the spillway a bit.
7. Please clarify the surface material of the spillway.
8. Please label the Basin and inlet drainage areas on the plan sheets. Also, if you have the inlet drainage area delineations from before, we would appreciate having them for our file (not required).
9. Note Only – An as-built of the stormwater system will be required prior to use of the proposed facility if one was not submitted previously.
10. Note Only – It might be a good idea to add a small amount of future allocation to basin 1. It seems likely that they would want to add at least some BUA to this drainage area in the future. Doing so would eliminate the need to resubmit calcs in the future, should additional BUA be desired.
11. Note Only –once this modification is completed, it is expected that Vision Drive will be offered for Official Acceptance. There may require additional easements (drainage and/or pedestrian access). Doing so will also require an as-built survey of the public improvements and video of the (public) stormdrain . This is not required prior to construction release, we are just making you aware of the future requirement. You may want to video the stormdrain prior to construction so that if there are any repairs needed, they can be resolved during construction of the parking expansion rather than having to possibly mobilize a contractor after construction has been completed.

Please submit one full set of revised plans and calcs along with any revised forms to Engineering for additional review. Please call or email if there are any questions. Thank you.

Robert Gordon, PE
Plan Review Engineer

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