

From: Rob Gordon
To: jtunstall@ntengineers.com
Cc: [Amy \(anorris@ntengineers.com\)](mailto:amy@ntengineers.com); [Dawn Snotherly](#); [Derek Pielech](#)
Subject: Eng Review - Tiburon Apartments
Date: Wednesday, April 24, 2013 2:58:00 PM
Attachments: [image002.png](#)

Engineering has reviewed the plans for the Tiburon Parc Apartments and have the following comments:

1. Please replace the drainage plan approval stamps on each sheet in the plan set with stormwater management plan approval stamps.
2. There are two trees that, as currently graded would have little chance for survival. Please address.
 - A 16" pine in front of the leasing center. Adj sidewalk 2 ft higher than base of tree, proximity to waterline.
 - Two clustered pines near SE entrance of bldg 5. Adjacent grade 2+ ft higher than base.
3. Where does drainage area #26 drain? There does not appear to be an inlet or any way for this runoff to be collected.
4. Please add a note to sheet 2.1 indicating all runoff within each sub basin shall be directed to the corresponding inlet.
5. DA 19 appears to have 2 inlets within the DA. Please clarify.
6. There are HGL issues with some of the pipe runs. They are minor with the 10-yr storm and mostly confined to the interior parts of the site where water can surcharge and not discharge off-site or cause major problems. However, they are significant with the 100-yr event and, as modeled, would inundate the entire parking lot and potentially affect the FFE of some of the buildings. We cannot permit that kind of risk. All of that said, the system is modeled conservatively – at full build out (which is unlikely to ever occur). Also, it appears the HGL issues originate with the piped ditch extending from Tiburon Dr to the pond (which is not built yet). There are several feet of head lost in that piped system before it ever stems off to the outparcels – it appears this portion of the system may be undersized. Right now, that ditch is not contributing that much, if any head to the system – it is acting more like an extension of the pond. My suggestion would be to eliminate the lower parts of the system in the model (line #'s 1-4) and model lines 31 & 5 as outfalls into the "pond". This should significantly improve the HGL. We'll address the pipe size for that ditch if/when parcel A2 develops. Note – the tailwater used for both the 10 & 100-yr storm analysis seem appropriate. Let me know if you have an issue with this approach.
7. Also, please include pipe analysis for the 25-yr storm, we need this to verify the HGL does not discharge off-site.

Please resubmit one copy of plans, calcs & any revised forms for additional review. These comments will be uploaded to protrak

Robert Gordon, PE
Project Engineer

City of Wilmington, Engineering Division
212 Operations Center Drive
Wilmington, NC 28412
Office: (910) 341-5856 | Fax: (910) 341-5881
Email: rob.gordon@wilmingtonnc.gov
www.wilmingtonnc.gov



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