

From: Jonathan R. Earle
Sent: Friday, December 21, 2018 1:15 PM
To: 'Jeff Amos, P.E. '; Amanda L. Lessard
Cc: Larry Bastian
Subject: RE: 18-31 Cook Road Retirement Community - Preliminary Plan Review Comments

Jeff, Amanda, & Larry,

I've reviewed the revisions and additional information provided by Terradyn Consultants and have the following questions/comments:

1. High Intensity Soils Waiver – The waiver request is reasonable from a stormwater standpoint based on the assumption of Class 'C' and 'D' soils in the wetland and non-wetland areas. In recent projects, we have asked the site evaluator to make a determination (based on the test pits) that the soils are generally consistent with the Medium Intensity Survey. This additional information would provide a stronger justification for the waiver. **No further comment.**
2. Traffic:
 - a. Provide the sight distances at the site intersections on Cook and Gray Roads. **Addressed and no further comment.**
 - b. The AM & PM peak hour trip generation (3 AM and 5 PM) seems low. I'm coming up with 12 PM peak, 9 AM peak, and 158 daily trip using ITE land use code 252 for 46 units of senior adult housing. Our ordinance requires a traffic impact study for subdivisions which generate more than 140 daily trips. **The request to waive the traffic impact study is reasonable based in the justification provided in Larry's email. A study would not add any apparent value and offsite improvements are not necessary for this level of development.**
3. Provide the ability to serve determination from PWD prior to final approval when it becomes available. **Not yet addressed.**
4. Will a plan be provided showing the nitrate plumes at each disposal field location. A statement from Steve Marcotte was provided which indicates that the nitrate discharge will be less than 10 mg/L at the property line, but a nitrate plume plan would be helpful in support of this criteria. **A plan showing the nitrate plumes leaving each of the disposal fields was submitted and do not exceed 10 mg/L at the property line as shown. No further comment.**
5. Stormwater
 - a. Basic Standards – An erosion and sedimentation control plan has been provided that meet these standards. **No further comment**
 - b. General Standard – The narrative indicates that 99 % of impervious and 84 % of the developed areas are being treated by BMP which exceeds the standard. Table is shown to confirm these calculations on Sheet C 6.1. **The stormwater quality calculations should be updated to reflect the minor change in road cross section and impervious area for the development.**
 - c. Flooding Standard – The narrative indicates the postdevelopment flows at the two study points are at or below predevelopment levels. The HydroCAD calculation for the predevelopment conditions do not include the study point reaches for each storm event. Please provide these to verify the table in the stormwater report narrative. **HydroCAD outputs for the two study points have been provided and concur with the peak flows listed in the stormwater management report. However, the road cross**

section has been changed slightly and the overall HydroCAD output and stormwater management report should be revised to reflect this.

- d. Phosphorus Standard – N/A
- e. Was LIDAR survey data used as the basis for the existing conditions topography? If so, we would ask that prior to final plan submission that the constructed stormwater BMPs be field surveyed to verify that the topography and grading for the BMPs can be constructed as shown.

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From: Jonathan R. Earle
Sent: Friday, November 30, 2018 3:10 PM
To: 'Jeff Amos, P.E. '; Amanda L. Lessard
Subject: 18-31 Cook Road Retirement Community - Preliminary Plan Review Comments

Jeff & Amanda,

Below are my review comments for the project:

1. High Intensity Soils Waiver – The waiver request is reasonable from a stormwater standpoint based on the assumption of Class 'C' and 'D' soils in the wetland and non-wetland areas. In recent projects, we have asked the site evaluator to make a determination (based on the test pits) that the soils are generally consistent with the Medium Intensity Survey. This additional information would provide a stronger justification for the waiver.
2. Traffic:
 - a. Provide the sight distances at the site intersections on Cook and Gray Roads.
 - b. The AM & PM peak hour trip generation (3 AM and 5 PM) seems low. I'm coming up with 12 PM peak, 9 AM peak, and 158 daily trip using ITE land use code 252 for 46 units of senior adult housing. Our ordinance requires a traffic impact study for subdivisions which generate more than 140 daily trips.
3. Provide the ability to serve determination from PWD prior to final approval when it becomes available.
4. Will a plan be provided showing the nitrate plumes at each disposal field location. A statement from Steve Marcotte was provided which indicates that the nitrate discharge will be less than 10 mg/L at the property line, but a nitrate plume plan would be helpful in support of this criteria.
5. Stormwater
 - a. Basic Standards – An erosion and sedimentation control plan has been provided that meet these standards.

- b. General Standard – The narrative indicates that 99 % of impervious and 84 % of the developed areas are being treated by BMP which exceeds the standard. Table is shown to confirm these calculations on Sheet C 6.1
- c. Flooding Standard – The narrative indicates the postdevelopment flows at the two study points are at or below predevelopment levels. The HydroCAD calculation for the predevelopment conditions do not include the study point reaches for each storm event. Please provide these to verify the table in the stormwater report narrative.
- d. Phosphorus Standard – N/A

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