



February 16, 2021

Mr. Drew Blake
Chatham County
12 East Street
P.O. Box 1809
Pittsboro, NC 27312

RE: Response to Plan Review Comments from Drew Blake
Chestnut Creek
Chatham County, NC
Sage Project #2019.25

Dear Mr. Blake,

Mr. Kirk Metty of the Tuscan Group provided your review comments of the site plan for the proposed Chestnut Creek subdivision. Sage Ecological Services, Inc. (Sage) was asked to review your comments as well as the site plan revised based on your comments and provide a response. Your review comments as provided by Mr. Metty are listed below and followed by the associated response.

1. *You will note that the lot lines of lots 3-6 have been revised resulting in an additional creek crossing for septic lines. Based on the previous soil map there were enough usable soil areas to support this layout. Why was the change needed?*

The crossing locations have been changed from the previously reviewed plan to concentrate the proposed sewer crossings as requested to one location rather than have multiple crossing locations which would result in impacting the stream in multiple locations. Although concentrating the wastewater lines into a single crossing may reduce the resulting impact to the riparian buffers, Sage believes that two crossing locations with lots 3 and 4 in their current location and lots 5, 6, and 7 along the lot line of lots 5 and 6; would result in less of an impact to streams and wetlands. This being said Mr. Metty has agreed to the single crossing location so long as the US Army Corps of Engineers (USACE) agrees and will issue a permit for the proposed crossing.

2. *Under the currently proposed layout there will be 4 consecutive stream crossings from lots 3-6. This does not meet the minimization requirements set by the No Practical Alternatives requirements within the Watershed Protection Ordinance. At a minimum these crossings should be reduced down to two as shown on the attached plat with my comments. With a strong preference of achieving one crossing in this area. If these crossings cannot be combined, I would recommend directionally boring them as this eliminates the need for a buffer authorization or 401/404 permitting, so long as the bore starts outside of the buffer and exits outside of the buffer on the other side of the stream.*

The proposed crossings have been combined into one location in an effort to minimize crossing locations. Directional boring was considered however the cost was prohibitive and the concern for the potential to have multiple maintenance crossings.

3. *Lot 7 is basically non-buildable as permission wouldn't be granted without mitigation for the septic installation through multiple stream and wetland buffers on that lot. It can be combined with the route that I propose for lots 5-6 to access the septic area. Mitigation for the buffer impacts would be required as the impact would be associated with a "utility, non-electric, other than perpendicular crossings" within Zone 1. Perpendicular crossings are those that intersect the surface water at an angle between 75 degrees and 105 degrees.*

The wastewater line from Lot 7 was rerouted as suggested and now parallels the lines of lots 5 and 6 as they cross the drainage. Although perpendicular crossings of wetlands and streams will be achieved it is understood that some resulting buffer impacts will not be perpendicular. Mitigation for non-perpendicular crossings will be provided as needed.

4. *Verification that the stormwater bmp within Open Space A can be designed outside of the riparian buffer with no clearing/grading activities occurring within the buffer would be needed.*

The proposed BMP has been positioned outside of the buffers between lots 6 and 7 with no grading proposed within the buffers.

5. *Lot 8-10 also have offsite septic locations that would result in buffer impacts. It is recommended that lots 8 & 9 utilize the existing impacts of the existing culvert on lot 8 as their combined crossing location. Lot 10 is recommended to go around the northern end of the riparian buffer to reduce impacts.*

Lots 8 and 9 have been combined into a single crossing location located along their shared lot line in an effort to minimize riparian buffer impacts as well as impacts to the stream. As recommended to further minimize impacts, the wastewater line for lot 10 was rerouted onto lot 11 and around the buffer to avoid impacts to the buffer and the stream.

6. *All septic crossings would be viewed as a permanent impact and each one would be viewed cumulatively for the entire project. In combination the crossings must meet the requirements in the "Septic Utility Crossings" file attached. They must meet the linear face width and maintenance corridor requirements as specified.*

The proposed crossings will meet the requirements in the "Septic Utility Crossings" file previously attached and will meet the specified maintenance corridor requirements.

7. *They would also be required to complete the 401/404 permitting process as a Nationwide 12 up front.*

A preconstruction notification (PCN) application will be completed and submitted to the USACE for written approval. Written approval for the associated 401-approval is not currently required but a notification will be provided to the NC Division of Water Resources (NCDWR).

8. *The yellow line in my comments is a 100-ft perennial stream buffer that is straight when compared to the surveyed stream bank in this location. This should be revised to more accurately follow the stream bank as depicted.*

The buffer has been reconfigured to follow the top-of-bank.

9. *Access to Open Space B is restricted by the 100-ft stream buffer and impacts to this buffer in this location would not be permitted as the impacts are not perpendicular and do not meet the minimization requirements as the location of the lot and BMP can be revised.*

The lot line between lot 14 and Open Space B has been revised so as to provide adequate access to the proposed BMP location. The existing Walnut Branch Road is present within this location of the riparian buffer and is considered an existing use. This location will be utilized to access Open Space B.

10. *Part of the requirements to have lots 12-14 is that the existing road must be upgraded to a county standard road (60-ft wide ROW and 18-ft gravel surface). This would result in parallel impacts to the stream buffer in the southern portion of the property. This would result in "road impacts other than crossings of streams and other surface waters" which would require mitigation.*

The 60' ROW has been reconfigured to lie outside the stream buffer. Mitigation can be provided for non-perpendicular impacts to the buffers within the footprint of the expanded road (18-foot gravel surface and slopes). Mitigation should not be required for the ROW if no impacts result.

The site plans have been altered to address comments and concerns with the previously reviewed plan. In subsequent conversations with Mr. Metty, it has been his understanding that the changes made adequately address your concerns. Please contact me via email at SClark@SageEcological.com or call me at (919) 559-1537 if you have any questions.

Respectfully submitted:



Sean Clark
Sage Ecological Services, Inc.