Traffic Impact Analysis Review - Lancaster County - Asbury Lane Residential Technical Memorandum

1. Overview of Traffic Impact Analysis (TIA) Report

BGE submitted a traffic impact analysis report for single family home development that will access Old Bailes Road, Possum Hollow Road, and Olin Yarborough Road. Megan Siercks is the Engineer on Record (EOR) for producing the detailed traffic report. Seven intersections were analyzed for impacts – Possum Hollow Road at Old Bailes Road, Possum Hollow Road at SC 160, Possum Hollow Road at US 521, Old Bailes Road at SC 160, Old Bailes Road at Olin Yarborough Road, SC 160 at Barberville Road, and SC 160 at US 521. The three access points were only checked for capacity – 2 on Old Bailes Road and 1 on Possum Hollow Road. Another access point will be an extension into the development via dead-end road Olin Yarbrough Road. The overall report contained a good breakdown of volume and distribution among the 7 intersections. The analysis just showed a Build year of 2025 with 2025 No Build conditions. Did show Build plus 1 year of 2026 Build conditions but no comparison to 2026 No Build. There were some unacceptable levels of service but did not show mitigation .

2. Items of Interest in the TIA Report

The TIA document was redlined with marks highlighting interest items below:

- Title Page No PE Stamp.
- Page 1- Section 1.2 No Covid factor applied to existing counts (SCDOT might have waived this requirement if volumes have been shown to be back to normal).
- Page 8 Should have performed a 2026 No-Build to compare to 2026 Build in accordance with the UDO 6.8 (Build plus 1 year); did compare 2025 No-Build to 2025 Build and did a 2026 Build.
- Page 9 Trip generation was checked, and distribution is agreeable.
- Page 13 Did not show a 2026 No Build for comparison to 2026 Build.
- Page 14 statement highlighted makes it look like all intersections existing are operating at an acceptable level of service, but the individual movements in which trips are added do not bullets below the highlighted do point out the unacceptable LOS locations. First bullet is a confusing statement.
- Page 15 Major discrepancies highlighted in the No Build to Build comparison particularly the increase of seconds of Delay.
- Page 16 statement highlighted makes it look like all intersections existing are operating at an acceptable level of service in which the individual movements are not particularly the ones adding trips to the movement bullets below the highlighted do point out the unacceptable LOS locations. First bullet is a confusing statement.
- Page 17 Major discrepancies highlighted in the No Build to Build comparison particularly the increase of seconds of Delay.
- Page 17 Also need to compare the individual movements adding trips for comparison in the Delay in seconds

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- Page 21 & 22 the report did not check the need for left turn lanes noted a location at Possum Hollow Road at Old Bailes Road – possible need due to high percentage of left turn movements compared to advancing volume. Might consider left turn lane due to safety.
- Page 23 Errors in the statements. Make vague comments on resolving some unacceptable LOS but no resolution determined.
- Page 25 & 26 showed unacceptable LOS movements for 4 intersections.
- Page 27-29 very confusing charts looks to compare 2025 Build with improvements which are not directly stated in the report to 2026 Build with no improvements? Not comparing apples to apples not a good chart; P 27 shows 2026 Build a better LOS than 2025 Build with improvements (error?).
- Page 32 Recommends no mitigation even though 4 intersections does not meet UDO 6.8 requirements for mitigation.

3. Checklist Comments

Attached is a TIA checklist that reviews all submitted information for proper TIA submittal. There was no PE stamp on the report. The analysis period did not show a 2026 No-Build comparison to 2026 Build (Build plus 1 year). The TIA did not cover SCDOT's ARM compliance relating to driveway sight distance and spacing. No real identification of mitigation was issued for intersections with unacceptable LOS. UDO 6.8 was not exactly followed with not showing 2026 No-Build to 2026 Build conditions (Build plus 1 year).

4. Recommendations

- 1. Verify sight distance for both access points on Old Bailes Road and access on Possum Hollow Road.
- 2. To make a good report comparison have a 2026 No-Build to 2026 Build chart
- 3. Show mitigation for unacceptable LOS movement at intersections. Then explain reasons for not being able to accomplish if not feasible in the scope of work by the developer.
- 4. Note intersection of Old Bailes Road at Possum Hollow Road appears to have sight sight distance issue. Since a large amount of development traffic would be using this intersection, could come up with a solution since this location is adjacent to the development.