

August 8, 2025

Ben Hughes, PE
District Engineer
NCDOT Division 3, District 3
E: bthughes@ncdot.gov

Reference: [REDACTED] – Brunswick County, NC
Subject: Traffic Impact Assessment

Dear Mr. Hughes:

This letter provides an assessment of the potential traffic impact associated with the proposed [REDACTED] residential development that is proposed to be located on the south side of Northwest Road, east of Blue Banks Loop Road, in Brunswick County, North Carolina. Refer to the attached site location map. The site is expected to consist of up to 95 single-family homes and 38 duplexes (76 units). Site access is proposed via one (1) new full movement driveway along Northwest Road. A preliminary site plan is attached.

Study Area Roadway Summary:

Existing speed limits, typical cross sections, and annual average daily traffic (AADT) volumes for roadways adjacent to the site are summarized in Table 1.

Table 1: Existing Roadway Inventory

Road Name	Route Number	Typical Cross Section	Speed Limit	2022 AADT (vpd)
Northwest Road	SR 1419	2-lane undivided	45 mph	2,300

Based on the most up to date AADT information that the North Carolina Department of Transportation (NCDOT) has available, Northwest Road carries approximately 2,300 total vehicles per day (based on 2022 data) along the frontage of the proposed development.

Trip Generation:

Average weekday daily, AM peak hour, and PM peak hour trips for the proposed development was estimated using methodology contained within the ITE Trip Generation Manual, 11.1 Edition. Refer to Table 2 for the proposed site trip generation for the proposed development.

Table 2: Trip Generation Summary

Land Use (ITE Code)	Intensity	Daily Traffic (vpd)	Weekday AM Peak Hour Trips (vph)		Weekday PM Peak Hour Trips (vph)	
			Enter	Exit	Enter	Exit
Single-Family Detached (210)	95 DU	964	18	53	60	35
Single-Family Attached (215)	76 DU	529	8	26	25	17
TOTAL TRIPS		1,439	26	79	85	52

It is estimated that the proposed development will generate approximately 1,439 total site trips on the roadway network during a typical 24-hour weekday period. Of the daily traffic volume, it is anticipated that 105 trips (26 entering, 79 exiting) will occur during the weekday AM peak hour and 137 trips (85 entering, 52 exiting) during the weekday PM peak hour.

The anticipated trips for the proposed development are expected to be less than the typical threshold NCDOT supports for requiring a Traffic Impact Analysis (TIA) (3,000 trips per day).

Turn Lane Warrants:

When comparing the future volumes expected along Northwest Road to the typical NCDOT thresholds for when turn lanes should be considered, the current AADT (2,200 vehicles per day) and the anticipated trip generation potential of the proposed [REDACTED] development (less than 1,400

vehicles per day) is expected to result in a future AADT of approximately 3,650 vehicles per day. The typical NCDOT threshold for considering turn lanes is 4,000 vehicles per day. Because the threshold is not expected to be exceeded when adding the potential development traffic to the existing AADT, no turn lanes are recommended along Northwest Road at the proposed development access.

Findings and Summary:

Due to the relatively low trip generation potential of the proposed development, a full Traffic Impact Analysis (TIA) was not required. It is anticipated that the 1,439 total daily trips generated by the proposed development will not have a significant impact on the adjacent roadway network. When comparing the potential future traffic volume on Northwest Road (including the proposed development traffic), the daily traffic thresholds in which turn lanes are typically required by NCDOT are not met.

In conclusion, the findings of this letter suggest the proposed [REDACTED] residential development will not significantly impact the surrounding network, and no improvements are recommended by the developer.

If you should have any questions, please feel free to contact me at (336) 714-0112.

Sincerely,

Chase Smith, PE

Attachments

- Site Location Map
- Site Plan