

Traffic Estimate for B-5130 - WBS: 42289.1.1

Produced by Wendy Epps (NCDOT TPD) on 7/10/2026.

Introduction

This traffic estimate includes 2026 / 2055 AADT estimates and class percentages. The B-5130 project assumes the replacement of Wake County bridge #318 on SR 1321 (Avent Ferry Rd) over Lake Johnson. This traffic estimate does not assume that this project will have a substantial effect on future travel demand. Current traffic is estimated with 2025 traffic count data. The traffic growth estimated is based upon a review of OSBM population projections, and a review of the Triangle Regional Travel Demand Model G2 V2 (TRMG2V 2).

The estimate is an update of the previous 2009/2035 forecast for B-5130 delivered in 2009 by NC DOT Transportation Planning Division.

Traffic Data Available

Historical AADT Estimates:

Traffic Survey Group (TSG) AADT Estimates on Avent Ferry Rd.

Traffic Estimate	Loc_ID	2024 AADT Est	2023 AADT Est	2021 AADT Est	2019 AADT Est
SR 1321 (Avent Ferry Rd) west of Athens Dr	0920001042	7,700	7,500	7,000	8,500
SR 1321 (Avent Ferry Rd) north of SR 1152 (Tryon Rd)	0920000973	7,900	7,600	6,900	8,400

2025 Traffic Count

Location: SR 1321 (Avent Ferry Rd) and Lake Johnson Entrance – November 14, 2025	Raw 24-Hour Count	ATR Group	Seasonal Factor	2025 AADT Est
SR 1321 (Avent Ferry Rd) North of Lake Johnson Entrance	7,403	4	0.856	6,400
SR 1321 (Avent Ferry Rd) South of Lake Johnson Entrance	7,542	4	0.856	6,500
Lake Johnson Entrance East of SR 1321 (Avent Ferry Rd)	983	4	0.856	800

2025 Class Data

Location	2025 Class Count (Duals, TTSTs)	NCDOT TSG Class Data	Estimate (Duals, TTSTs)
SR 1321 (Avent Ferry Rd) North of Lake Johnson Entrance	1, 0	1,0	1, 0
SR 1321 (Avent Ferry Rd) South of Lake Johnson Entrance	1,0	1,0	1,0
Lake Johnson Entrance East of SR 1321 (Avent Ferry Rd)	1,0	n/a	1,0

There are mainly residential and recreational land-uses near the project area, producing mainly car trips.

2025 K-Factor (Peak-hour Percentage)

	AM	PM
SR 1321 (Avent Ferry Rd) north of Lake Johnson Entrance	10%	12%
SR 1321 (Avent Ferry Rd) South of Lake Johnson Entrance	10%	12%
Lake Johnson Entrance east of SR 1321 (Avent Ferry Rd)	10%	13%

2025 Directional Percentage

	AM	Direction	PM	Direction
SR 1321 (Avent Ferry Rd) north of Lake Johnson Entrance	55%	NB	65%	SB
SR 1321 (Avent Ferry Rd) South of Lake Johnson Entrance	55%	NB	65%	SB
Lake Johnson Entrance east of SR 1321 (Avent Ferry Rd)	55%	EB	55%	WB

Current Land Use

Recreational and residential

Growth Estimates Available

OSMB Population Projection

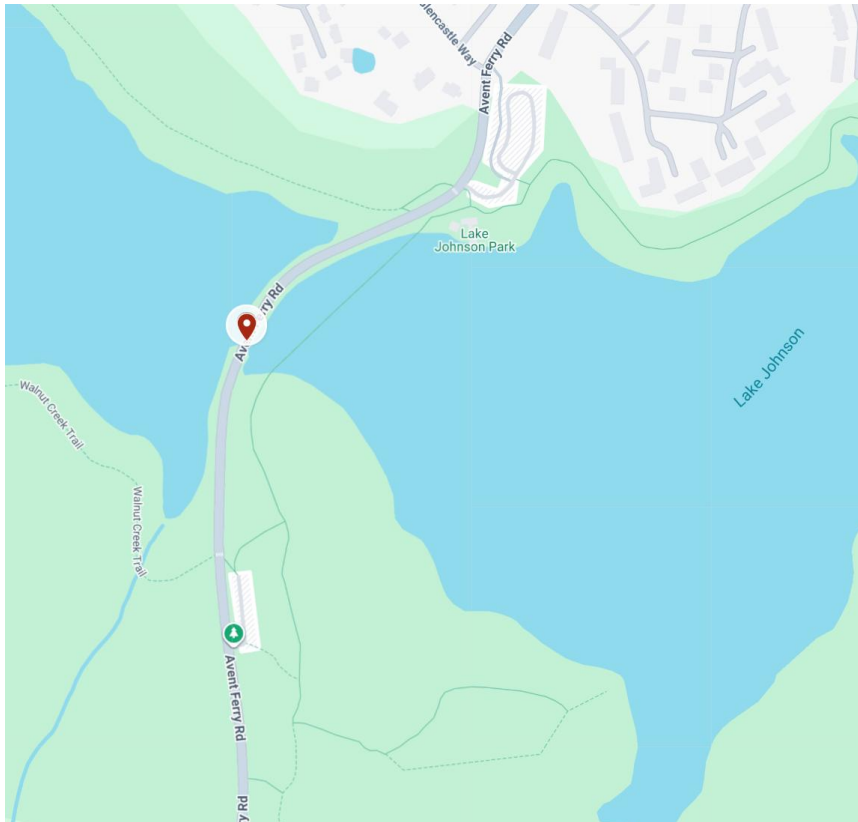
NC County	2020	2055	CAGR
Wake	1,132,064	1,866,647	1.4.%

Triangle Regional Travel Demand Model G2 V2 Population Projection

NC County	2020	2055	CAGR
Wake	1,108,687	1,943,830	1.6.%

Triangle Regional Travel Demand Model G2 V2 Growth Projection

TRTMG2V 2	2020	2055	CAGR
SR 1321 (Avent Ferry Rd) South of Lake Johnson Entrance	3644	7960	2.3%



Conclusion

B-5130 Traffic Estimate	2026 AADT Est	2026 - 2055 AM Traffic Factors	2026 – 2055 PM Traffic Factors	Growth Rate	2055 AADT Est
SR 1321 (Avent Ferry Rd) north of Lake Johnson Entrance	6,400	10 $\longrightarrow$ 55 (1, 0)	65 $\longleftarrow$ 12 (1, 0)	2.3%	12,500*
SR 1321 (Avent Ferry Rd) South of Lake Johnson Entrance	6,500	10 $\longrightarrow$ 55 (1, 0)	65 $\longleftarrow$ 12 (1, 0)	2.3%	12,700*
Lake Johnson Entrance east of SR 1321 (Avent Ferry Rd)	900	10 $\longrightarrow$ 55 (1, 0)	55 $\longleftarrow$ 13 (1, 0)	0.5%	1,000

*Volume selected for balancing through TFU.

If there are major changes in the development plans along Avent Ferry Rd over bridge #318, then a new traffic estimate will be needed. Please contact Wendy Epps with the Transportation Planning Division at 919-707-0943; or wepps@ncdot.gov, if you have any questions or concerns.

Wendy Epps

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