

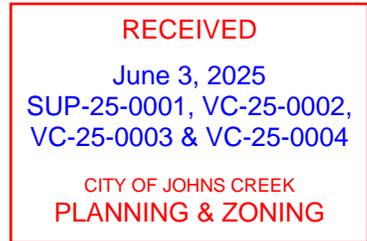
## TECHNICAL MEMORANDUM

To: Mr. John Wood, *Christ Fellowship Church of North Atlanta, Inc.*

From: Winnie Gobbel, P.E., PTOE, *Kimley-Horn and Associates, Inc.*  
John D. Walker, P.E., PTOE, *Kimley-Horn and Associates, Inc.*

Date: June 2, 2025

RE: ***Proposed Christ Fellowship Church of North Atlanta  
Trip Generation and Turn Lane Determination Memorandum  
City of Johns Creek, Fulton County, Georgia***



Kimley-Horn is pleased to provide this memorandum summarizing the project trip generation and turn-lane assessment for the proposed *Christ Fellowship Church of North Atlanta* development. This site is located on an approximate 4.87-acre site at 10505 Jones Bridge Road, northeast of Buice Road and southwest of Edgehill Drive, in the City of Johns Creek. For this evaluation, the anticipated project trip generation was utilized to determine if an exclusive right-turn lane is necessary along Jones Bridge Road into the proposed development. Additionally, the anticipated project trip generation was utilized to determine if a traffic impact study is necessary.

### PROJECT OVERVIEW

As currently envisioned, the development will consist of an approximately 22,500 SF church. A typical Sunday service will consist of up to 250 attendees and a typical weekday event will consist of up to 30 attendees. Access to the proposed development will be provided via two (2) site driveways, approximately 180' apart from centerline to centerline along Jones Bridge Road, northeast of Buice Road. Site Driveway A is proposed to operate with full movement access and Site Driveway B is proposed to operate as right-in/right-out (RIRO).

The purpose of this memorandum is to determine whether a traffic study is needed for the development, and whether right-turn lanes are needed at the proposed driveways along Jones Bridge Road by evaluating the project trip generation associated with the *Christ Fellowship Church of North Atlanta* development.

A project site location map is illustrated on **Figure 1**. A project site aerial is shown on **Figure 2**. Additionally, a conceptual site plan is provided in the attachments.

### EXISTING TRAFFIC

Historical count data from GDOT Traffic Analysis and Data Application (TADA) system was used to obtain the existing traffic data for this study. Daily traffic volumes were taken from GDOT count station 121-0867, located along Jones Bridge Road, southeast of Buice Road. The TADA count data indicated an Annual Average Daily Traffic (AADT) volume of approximately 15,700 vehicles per day along Jones Bridge Road in 2023. This section of Jones Bridge Road is a two-lane roadway, with one (1) lane in

each direction. A proposed two-way left-turn lane is to be constructed at Site Driveway A per the Jones Bridge Road Widening Project

**TRIP GENERATION**

Project traffic for the proposed *Christ Fellowship Church of North Atlanta* development was calculated using rates and equations contained in the Institute of Transportation Engineers’ (ITE) *Trip Generation Manual*, 11<sup>th</sup> Edition, 2021. The trip generation was calculated assuming 22,500 SF of Church (Land Use 560) space.

The proposed density and project trip generation is summarized in **Table 1**.

ITE Code	Land Use	Density	Daily Weekday Traffic			Sunday, Peak Hour of Generator			PM Peak Hour of Generator		
			Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit
560	Church	22,500 SF	172	86	86	270	130	140	27	16	11

\*ITE provides multiple peak hour traffic volumes other than what is shown in **Table 1**. The entire list of peak hour volumes is shown in the appendix.

The directional distribution and assignment of new project trips was based on a review of land uses and population densities in the area. **Table 2** shows the projected trip distribution into the proposed *Christ Fellowship Church of North Atlanta* development.

Land Use	ITE Code	Jones Bridge Road	
		From North	From South
Church	560	40%	60%

**ASSESSMENT FOR A TURN LANE**

Jones Bridge Road is a two-lane, undivided, minor arterial maintained by the City of Johns Creek, with a posted speed limit of 45 MPH. A proposed two-way left-turn lane is to be constructed at Site Driveway A per the Jones Bridge Road Widening Project. Based on the historical traffic counts from GDOT TADA system, Jones Bridge Road had an AADT of 15,700 vehicles per day in 2023. The City of Johns Creek provides guidance on the minimum volumes requiring the installation of right-turn lanes, and the thresholds are provided for guidance and informational purposes. Per Section 113-124 of the City of Johns Creek municipal code, a right-turn lane must be constructed if the right-turn volumes entering meet or exceed the values shown in **Table 3**.

	2 Lanes on Main Road		More Than 2 Lanes on Main Road	
	35-40 MPH	> 40 MPH	35-40 MPH	> 40 MPH
Main Roadway ADT	8,000 VPD		12,000 VPD	10,000 VPD
Daily Right Turning Volume	150 RTV/day		150 RTV/day	75 RTV/day
Peak Hour Right Turning Volume	15 RTV/hr		15 RTV/hr	7 RTV/hr

For Jones Bridge Road, which is a two-lane road with a speed limit greater than 40 MPH, a northbound right-turn lane is needed if the Main Roadway ADT is greater than 4,000 vehicles per day, 75 right-turning vehicles per day, or 7 right-turning vehicles during the Peak Hour.

Jones Bridge Road had an AADT of 15,700 in 2023. Based on the projected peak hour volumes, the overall northbound right-turn movement along Jones Bridge Road into the proposed driveways is projected to be 52 vehicles per weekday, 78 vehicles during the Sunday Mid-Day peak hour, and 10 vehicles during the PM peak hour.

The right-turn distribution between the two driveways is anticipated to be 75% for Site Driveway A and 25% for Site Driveway B. Based on the distribution, the northbound right-turn movement into Site Driveway A is projected to be 39 vehicles per weekday, 59 vehicles during the Sunday Mid-Day peak hour, and 8 vehicles during the PM peak hour. The northbound right-turn movement into Site Driveway B is projected to be 13 vehicles per weekday, 19 vehicles during the Sunday Mid-Day peak hour, and 2 vehicles during the PM peak hour. Therefore, a separate right-turn lane is **warranted** for Site Driveway A during the weekday PM peak hour and Sunday Mid-Day peak hour. For Site Driveway B, a separate right-turn lane is warranted during the Sunday Mid-Day peak hour, but not during the weekday PM peak hour. Therefore at this point, it is unclear if an exclusive right-turn lane will be required along Jones Bridge Road at proposed Site Driveway B. However, based on the projected peak hour volumes, an exclusive right-turn lane is recommended along Jones Bridge Road at proposed Site Driveway A. A summary of this information is shown in **Table 4**.

Driveway	Requirement	Projected Weekday	Sunday
Site Driveway A	75 RTV/day	39 RTV/day	
	7 RTV/hr		
Site Driveway B	75 RTV/day	13 RTV/day	52 RTV/day
	7 RTV/hr	2 RTV/hr	

## TRAFFIC STUDY REQUIREMENT

Per Section 28.4.4 of the City of Johns Creek municipal code, a Traffic Impact Study is required when a development generates approximately 100 trips during the peak hour. The *Christ Fellowship Church of North Atlanta* development is projected to generate approximately 270 trips during the peak hour of the generator for Sunday. However, it is projected to generate only 27 peak hour trips during the weekday PM peak hour. A traffic study for the proposed development is warranted based on the Sunday Mid-Day peak hour, but not during the weekday PM peak hour. At the discretion of the City Traffic Engineer, a traffic study may be waived since a proposed left-turn lane is to be constructed at Site Driveway A per the Jones Bridge Road Widening Project.

## CONCLUSION AND RECOMMENDATIONS

The proposed *Christ Fellowship Church of North Atlanta* is located at 10505 Jones Bridge Road, northeast of Buice Road and southwest of Edgehill Drive, in the City of Johns Creek. The development will consist of an approximately 22,500 SF church. Access to the proposed development will be provided via two (2) site driveways, approximately 180' apart from centerline to centerline along Jones Bridge Road, northeast of Buice Road. It is anticipated to generate approximately 172 vehicles per day (86 entering and 86 exiting).

The purpose of this memorandum is to determine whether a traffic study is needed for the development, and whether right-turn lanes are needed at the proposed driveways along Jones Bridge Road by evaluating the project trip generation associated with the *Christ Fellowship Church of North Atlanta* development.

The trip distribution for the proposed *Christ Fellowship Church of North Atlanta* development is anticipated to be 40% to/from the north and 60% to/from the south. The right-turn distribution between the two driveways is anticipated to be 75% for Site Driveway A and 25% for Site Driveway B. Based on the projected peak hour volumes and anticipated trip distribution, the overall northbound right-turn movement along Jones Bridge Road into the proposed driveways is projected to be 52 vehicles per weekday, 78 vehicles during the Sunday Mid-Day peak hour, and 10 vehicles during the PM peak hour.

Based on the distribution between the two driveways, the northbound right-turn movement into Site Driveway A is projected to be 39 vehicles per weekday, 59 vehicles during the Sunday Mid-Day peak hour, and 8 vehicles during the PM peak hour. The northbound right-turn movement into Site Driveway B is projected to be 13 vehicles per weekday, 19 vehicles during the Sunday Mid-Day peak hour, and 2 vehicles during the PM peak hour. Jones Bridge Road had an AADT of 15,700 in 2023. Therefore, a separate right-turn lane is **warranted** for Site Driveway A during the weekday PM peak hour and Sunday Mid-Day peak hour. For Site Driveway B, a separate right-turn lane is warranted during the Sunday Mid-Day peak hour, but not during the weekday PM peak hour. Therefore at this point, it is unclear if an exclusive right-turn lane will be required along Jones Bridge Road at proposed Site Driveway B.

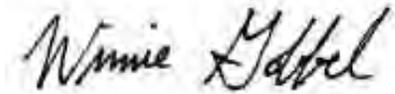
Therefore, at this point, we recommend a right-turn lane at Site Driveway A but not at Site Driveway B (until additional detail can be provided).

According to Section 28.4.4 of the City of Johns Creek municipal code, a Traffic Impact Study is required when the development generates approximately 100 trips during the peak hour. The proposed *Christ Fellowship Church of North Atlanta* development is projected to generate approximately 270 trips during the peak hour of the generator for Sunday, but only 27 peak hour trips during the weekday PM peak hour. A traffic study for the proposed development is warranted based on the Sunday Mid-Day peak hour, but not during the weekday PM peak hour. At the discretion of the City Traffic Engineer, a traffic study may be waived since a proposed left-turn lane is to be constructed at Site Driveway A per the Jones Bridge Road Widening Project.

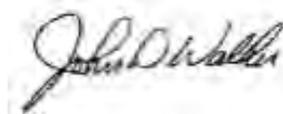
Please contact me if you have any questions.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.



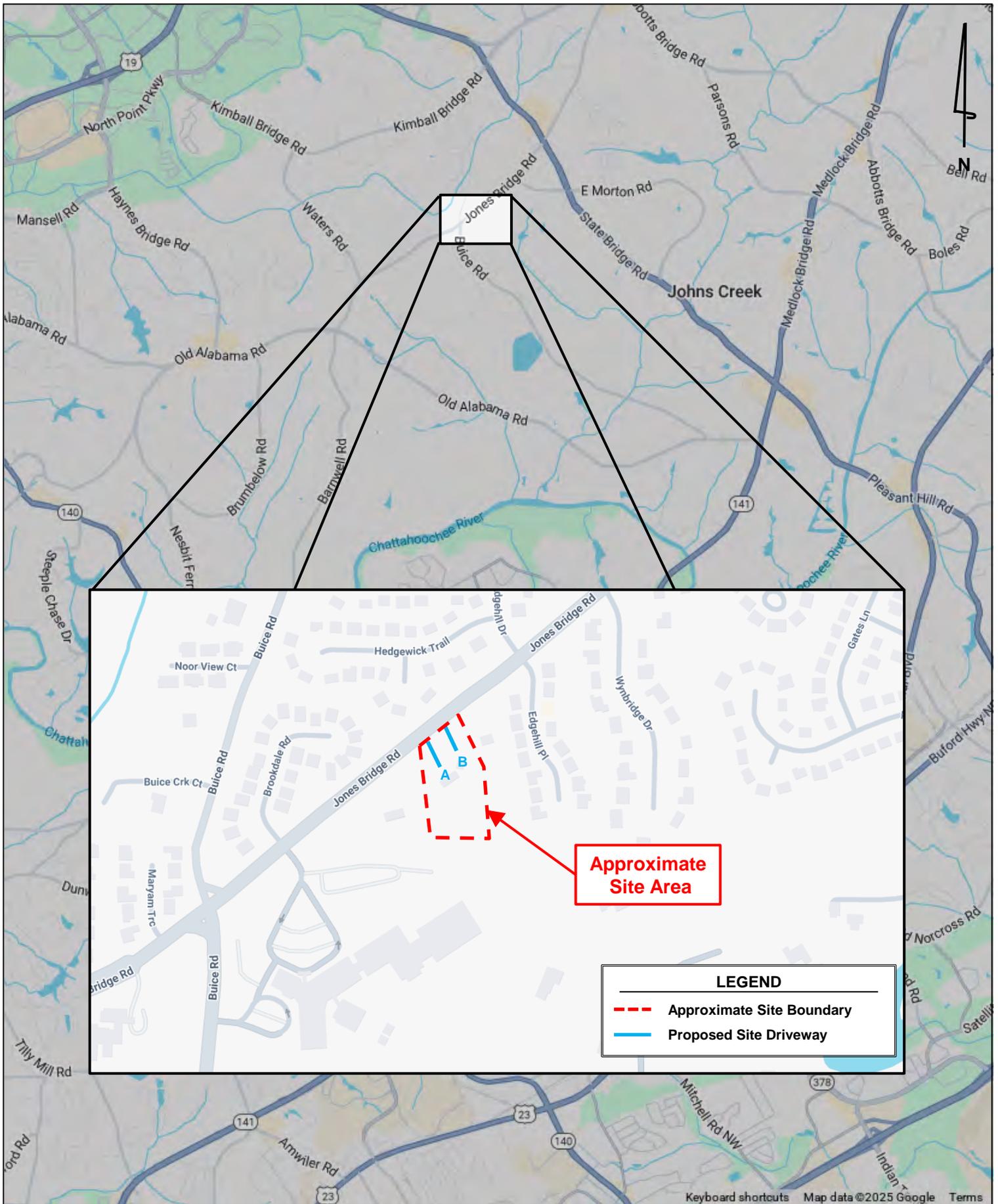
Winnie Gobbel, P.E., PTOE  
Project Engineer



John D. Walker, P.E., PTOE  
Senior Vice President

Attachments:

- Figure 1: Site Location Map
- Figure 2: Site Aerial
- Various Trip Generation Estimates
- Conceptual Site Plan





**LEGEND**

- - - Approximate Site Boundary
- Proposed Site Driveway

# Various Trip Generation Estimates

Trip Generation Analysis (11th Ed. with <i>2nd Edition Handbook Daily IC &amp; 3rd Edition AM/PM IC</i> )																												
Christ Fellowship Church of North Atlanta																												
City of Johns Creek, GA																												
Land Use	Intensity	Daily Trips			AM Peak Hour of Adjacent Street Traffic			PM Peak Hour of Adjacent Street Traffic			AM Peak Hour of Generator			PM Peak Hour of Generator			Daily Saturday Trips			Saturday, Peak Hour of Generator			Daily Sunday Trips			Sunday, Peak Hour of Generator		
		Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
<b>Proposed Site Traffic</b>																												
560 Church	22,500 s.f.	172	86	86	6	4	2	13	6	7	15	8	7	27	16	11	110	55	55	61	35	26	708	354	354	270	130	140
<b>Gross Trips</b>		<b>172</b>	<b>86</b>	<b>86</b>	<b>6</b>	<b>4</b>	<b>2</b>	<b>13</b>	<b>6</b>	<b>7</b>	<b>15</b>	<b>8</b>	<b>7</b>	<b>27</b>	<b>16</b>	<b>11</b>	<b>110</b>	<b>55</b>	<b>55</b>	<b>61</b>	<b>35</b>	<b>26</b>	<b>708</b>	<b>354</b>	<b>354</b>	<b>270</b>	<b>130</b>	<b>140</b>

