REPORT

To:	Chris McKenzie, PE City of Plymouth
From:	Matt Pacyna, PE, Principal Transportation Collaborative & Consultants, LLC
Date:	November 7, 2023
Subject:	Plymouth Eagle Brook Church Traffic Study

INTRODUCTION

TC2 completed a traffic study for the proposed Eagle Brook Church development in Plymouth, MN. The subject site, shown in Figure 1, is in the northwest quadrant of the Chankahda Trail (formerly County Road 47) and Maple Grove Parkway/Peony Lane intersection. The proposed development is a 64,000 square foot church, with a seating capacity of up to 1,500 people. The project would include a driveway that connects with Maple Grove Parkway across from 61st Avenue. The main objectives of the study are to quantify existing traffic conditions, evaluate potential impacts to adjacent roadways during various peak timeframes associated with the proposed development, and recommend infrastructure changes, if necessary, to ensure safe and efficient operations for all users. The following study assumptions, methodology, and findings are offered for consideration.

Figure 1 Subject Site

BACKGROUND

The subject site is adjacent to Chankahda Trail (formerly known as County Road 47), which is being reconstructed to better serve the community and its users. Ahead of the roadway reconstruction project, the City, in partnership with Hennepin County, conducted the *County Road 47 Corridor Study*, which was finalized in May 2020. The corridor study quantified issues and needs within the area, evaluated various alternatives, and ultimately helped identify the future corridor vision to serve the community for the long-term. Subsequently, a phased construction plan was developed which began in 2022 and is expected to be completed by the end of 2024; the segment abutting the site was reconstructed in 2022.

Eagle Brook Church is a multi-site church with a video venue that delivers a consistent message live from their Lino Lakes Campus to all their satellite campuses on the weekend. The church currently hosts services at Wayzata High School on Sundays in what is considered to be a "mobile" site. The proposed West Metro Campus would become the church's permanent site and all operations that occur at Wayzata High School would be relocated to the new campus.

EXISTING CONDITIONS

Existing conditions were reviewed within the study area to establish current operations to help determine impacts associated with the proposed development. The evaluation of existing conditions included reviewing historical traffic data, collecting traffic volumes, observing roadway characteristics, and analyzing intersection capacity, which are described in the following sections.

Traffic Volumes

With the segment of Chankahda Trail located east of Maple Grove Parkway closed during the development of this study, a combination of resources was used to establish current (non-construction) traffic conditions within the study area. This approach included a review of traffic volumes collected as part of the *County Road 47 Corridor Study*, StreetLight user data/counts during non-construction conditions, and Average Daily Traffic (ADT) volumes provided by MnDOT. The data sets were compared and normalized / balanced to reflect typical non-construction conditions while also accounting for travel behavior changes following the pandemic. StreetLight was used to collect intersection turning movement counts at the locations noted. The data obtained focused on Wednesdays, Saturdays, and Sundays from 7 a.m. to 1 p.m. and 3 to 8 p.m., which encompass the expected peak periods of the proposed development. Note that with StreetLight data, a larger dataset was obtained than traditional intersection counts, which included data from January through April of both 2021 and 2022; City staff verified that there were no construction closures during these timeframes.

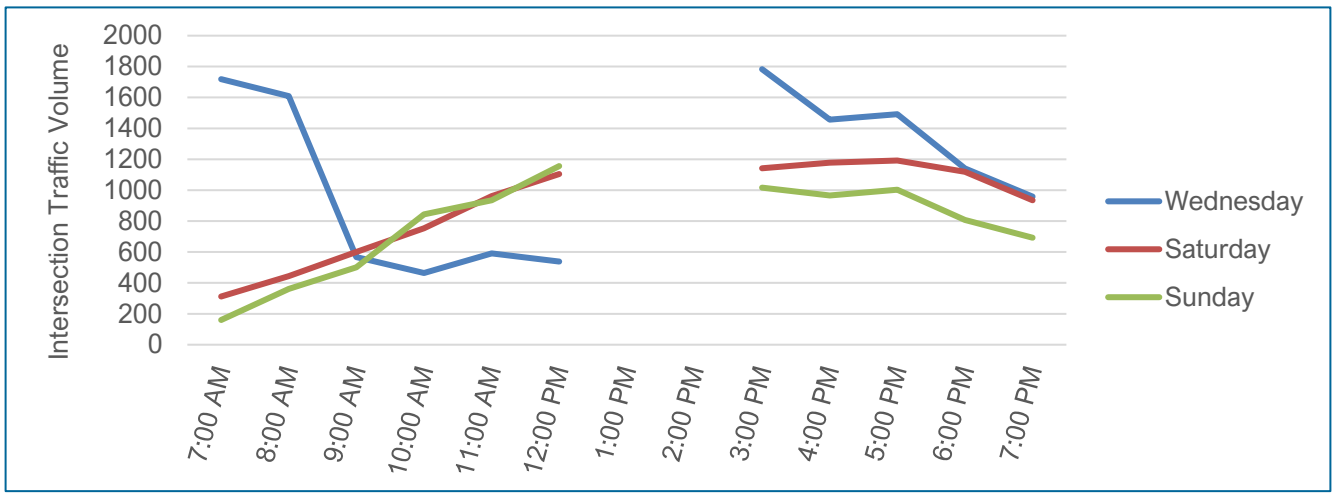
Chankahda Trail Intersections
- Walnut Grove Lane
- Troy Lane
- Meadow Ridge Elementary School
- Maple Grove Parkway / Peony Lane
- Inland Lane
- Dunkirk Lane

Maple Grove Parkway / Peony Lane Intersections
- 62nd Avenue N
- 61st Avenue N
- 57th Avenue N

Note that the City of Maple Grove asked to evaluate the Maple Grove Parkway and Fieldstone Boulevard intersection as part of a preliminary review of this report. Further discussion regarding this intersection is provided later in this report.

To illustrate how existing travel patterns within the area vary by time of day and day of the week (i.e., Wednesday versus Saturday versus Sunday), existing traffic volumes at the Chankahda Trail and Maple Grove Parkway/Peony Lane intersection were reviewed. As shown in Figure 2, the Wednesday morning (7 to 9 a.m.) and evening (3 to 6 p.m.) periods represent the highest existing traffic volume timeframes within the study area. On Saturday evenings (4 to 6 p.m.), existing traffic volumes are about 20 percent lower as compared to the same timeframe on Wednesdays, while on Sunday mornings (10 a.m. to 12 p.m.), existing traffic volumes are about 50 percent lower as compared to the Wednesday morning (7 to 9 a.m.) peak period.

Figure 2 Existing Chankahda Trl and Maple Grove Pkwy/Peony Ln Intersection Traffic Volumes



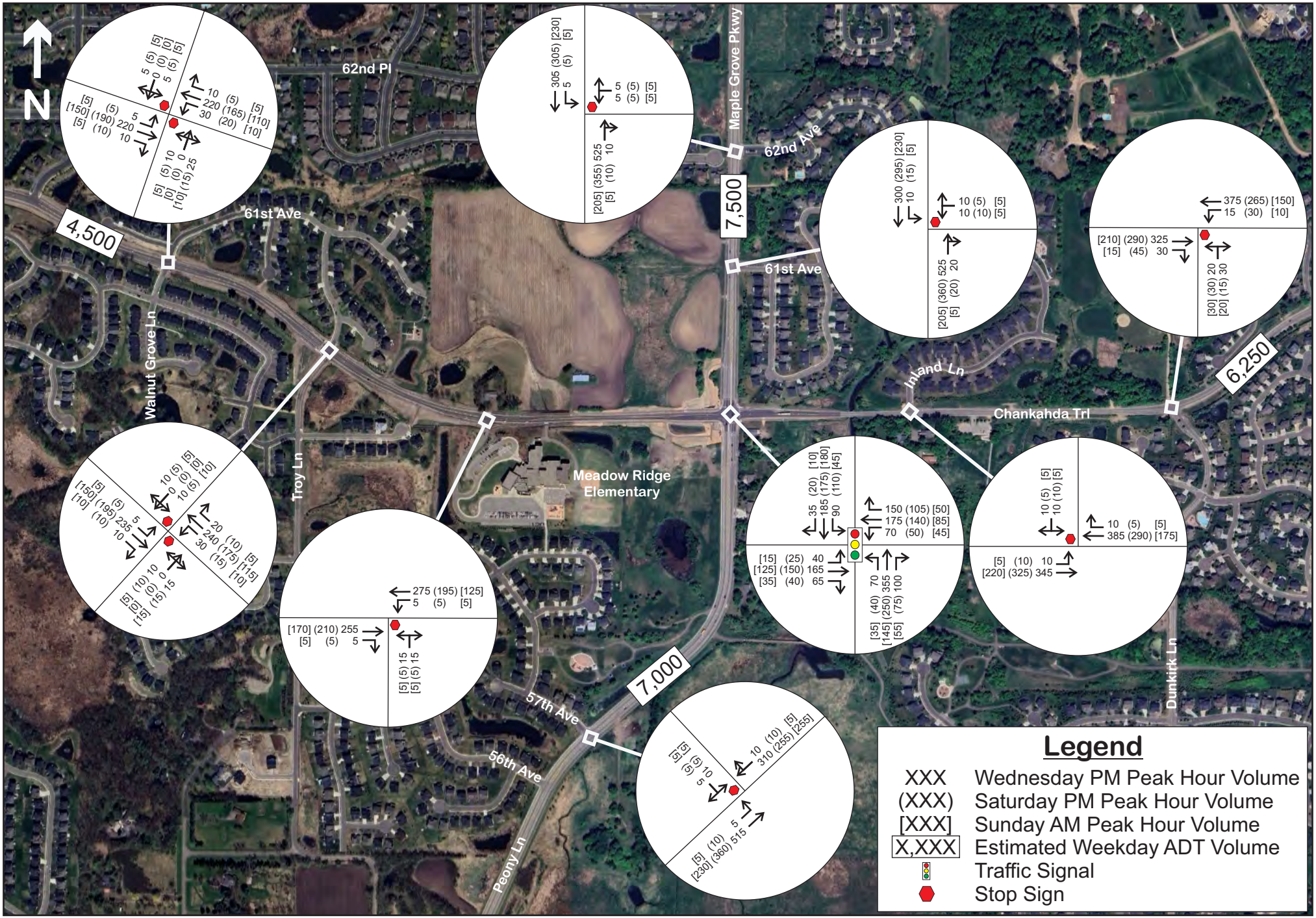
Wayzata High School Hours: 8:15 a.m. to 3:10 p.m.; Meadow Ridge Elementary School Hours: 7:45 a.m. to 2:25 p.m.

Roadway Characteristics

Observations were conducted within the study area to identify various roadway characteristics. A summary of current roadway characteristics is outlined as follows:

- ***Chankahda Trail*** – a 2-lane arterial roadway with dedicated left- and right-turn lanes; the posted speed limit is 40 miles per hour. A multi-use trail is provided along both sides of the roadway and a pedestrian underpass/crossing is located immediately west of Maple Grove Parkway/Peony Lane.
- ***Maple Grove Parkway/Peony Lane*** – a 3-lane arterial roadway with a center two-way left-turn lane (TWLTL); right-turn lanes are only provided at the Chankahda Trail intersection. The posted speed limit is 45 miles per hour and there are multimodal facilities (i.e., multi-use trail or sidewalk) along both sides of the roadway.

Note that arterial roadways generally provide longer trips, have more mobility, provide limited access, and connect larger centers. All other study roadways are local 2-lane facilities, with limited to no turn lanes, and primarily provide access to arterial roadways for area residents. From a traffic control perspective, the Chankahda Trail and Maple Grove Parkway/Peony Lane intersection is signalized, while all other study intersections are side-street stop controlled. A summary of the existing geometrics, traffic controls, and volumes is provided in Figure 3.



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Existing Conditions

Plymouth Eagle Brook Church Traffic Study

Figure 3

Intersection Capacity

Intersection capacity was evaluated using Synchro/SimTraffic Software (*version 11*), which incorporates methods outlined in the *Highway Capacity Manual, 6th Edition*. The software is used to develop calibrated models that simulate observed traffic operations and identify key metrics such as intersection Level of Service (LOS) and queues. These models incorporate collected traffic, pedestrian, and bicyclist volumes, traffic control and signal timing parameters provided by the corresponding jurisdictions, and driver behavior factors.

Level of Service (LOS) quantifies how an intersection is operating. Intersections are graded from LOS A through LOS F, which corresponds to the average delay per vehicle values shown in Table 1. An overall intersection LOS A through LOS D is considered acceptable in the Twin Cities. LOS A indicates the best traffic operation; LOS F indicates an intersection where demand exceeds capacity.

Table 1 Level of Service Thresholds

Level of Service	Average Delay / Vehicles	
	Stop, Yield, and Roundabout Intersections	Signalized Intersections
A	< 10 seconds	< 10 seconds
B	10 to 15 seconds	10 to 20 seconds
C	15 to 25 seconds	20 to 35 seconds
D	25 to 35 seconds	35 to 55 seconds
E	35 to 50 seconds	55 to 80 seconds
F	> 50 seconds	> 80 seconds

For side-street stop-controlled intersections, special emphasis is given to providing an estimate for the level of service of the side-street approach. Traffic operations at an unsignalized intersection with side-street stop control can be described in two ways. First, consideration is given to the overall intersection level of service, which considers the total number of vehicles entering the intersection and the capability of the intersection to support the volumes. Second, it is important to consider the delay on the minor approach. Since the mainline does not have to stop, most delay is attributed to the side-street approaches. It is typical of intersections with higher mainline traffic volumes to experience high-levels of delay (i.e., poor levels of service) on the side-street approaches, but an acceptable overall intersection level of service during peak hour conditions.

Results of the existing intersection capacity analysis, shown in Table 2, indicate that all study intersections, approaches, and movements currently operate at LOS C or better during the Wednesday p.m., Saturday p.m., and Sunday a.m. peak hours. In addition, all queues are maintained within the existing turn lanes. At cross-streets, the 95th percentile queues are generally 50 feet (i.e., one to two vehicles) or less. Note that for side-street stop-controlled intersections, the delay shown in the table represents the average side-street delay to access the arterial roadway (i.e., the mainline), which balances the delays for all movements. In general, average delays to make a left-turn from the side-street stop-controlled approach range from 10 to 20 seconds. Thus, there are no existing intersection capacity issues that warrant mitigation.

Table 2 Existing Intersection Capacity

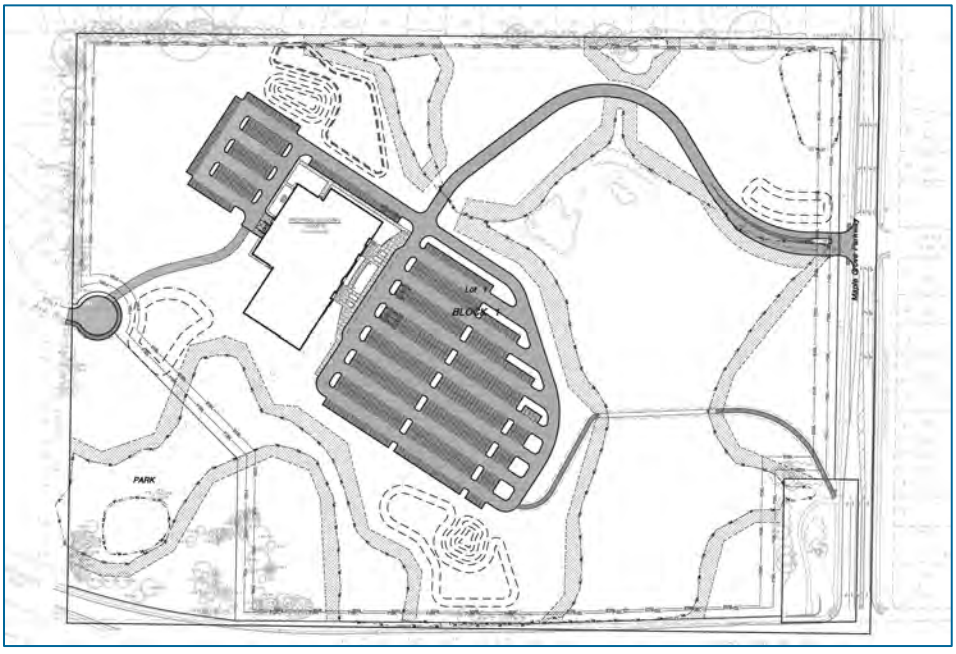
Intersection	Traffic Control	LOS (Delay)		
		Wednesday PM Peak Hour	Saturday PM Peak Hour	Sunday AM Peak Hour
Maple Grove Pkwy / 62nd Ave	SSS	A / A (7 sec)	A / A (6 sec)	A / A (5 sec)
Maple Grove Pkwy / 61st Ave	SSS	A / A (9 sec)	A / A (6 sec)	A / A (4 sec)
Maple Grove Pkwy / Chankahda Trl	Signal	B (17 sec)	B (15 sec)	B (12 sec)
Peony Ln / 57th Ave	SSS	A / A (7 sec)	A / A (4 sec)	A / A (4 sec)
Chankahda Trl / Walnut Grove Ln	SSS	A / A (5 sec)	A / A (4 sec)	A / A (4 sec)
Chankahda Trl / Troy Ln	SSS	A / A (6 sec)	A / A (4 sec)	A / A (4 sec)
Chankahda Trl / Meadow Ridge School	SSS	A / A (5 sec)	A / A (4 sec)	A / A (3 sec)
Chankahda Trl / Inland Ln	SSS	A / A (6 sec)	A / A (7 sec)	A / A (3 sec)
Chankahda Trl / Dunkirk Ln	SSS	A / A (6 sec)	A / A (6 sec)	A / A (5 sec)

SSS – Side-Street-Stop
Wednesday PM (4:30 to 5:30 PM) ; Saturday PM (5 to 6 PM) ; Sunday AM (10 to 11 AM)

PROPOSED DEVELOPMENT

The proposed development, shown in Figure 4, is in the northwest quadrant of the Chankahda Trail and Maple Grove Parkway/Peony Lane intersection. The site, which is currently agricultural land, is proposed to be developed as a 64,000 square foot church, with a seating capacity of up to 1,500 people. The project would include a driveway that connects with Maple Grove Parkway across from 61st Avenue; emergency-only vehicle access would be provided to the west of the site via the existing 61st Avenue stub street. Approximately 685 parking spaces are proposed. Construction was assumed to be complete by 2025.

Figure 4 Proposed Site Plan



Church Operations

As noted earlier, Eagle Brook Church currently hosts services at Wayzata High School on Sundays in what is considered to be a "mobile" site. The proposed West Metro Campus would become the church's permanent site and all operations that occur at Wayzata High School would be relocated to the new campus. Key operational details, include:

- Seating Capacity: 1,500 people
- Employees: 12 to 15 people
- Tuesday/Thursday Activities: Support Groups (5:30 to 8:30 p.m.)
- Wednesday Activities: Middle School / High School Ministries (6:15 to 9:15 p.m.)
- Saturday Services (2): 4 and 6 p.m.
- Sunday Services (2): 9 and 11 a.m.

Communication with project representatives indicate that a total of approximately 1,060 people currently attend one of the three Sunday services at Wayzata High School. With the proposed development, the church expects to change to a four (4) service model, to be in line with other Eagle Brook churches in White Bear Lake, Blaine, and Lino Lakes. With a dedicated church space, overall total attendance is expected to increase to approximately 2,250 people over an entire weekend. Given the project's similarities to the Eagle Brook Church in Blaine, the following attendance levels for each service were used as the basis for this study.

- Saturday 4 p.m.: 300 people
- Saturday 6 p.m.: 250 people
- Sunday 9 a.m.: 900 people
- Sunday 11 a.m.: 800 people
- Total Weekend Attendance: 2,250 people

Communication with project representatives indicate that a total of approximately 40 to 50 students currently attend one of the Wednesday evening school aged ministries. Attendance at these student ministries is expected to increase up to a total of approximately 150 people upon opening of a permanent facility. The church does expect to host various support groups, which generally occur on Tuesdays or Thursdays and have a total of up to 100 people in attendance per evening.

TRAFFIC FORECASTS

Traffic forecasts were developed for year 2026 conditions, which represents one (1) year after opening conditions. The forecasts include general background growth and trips generated from the proposed development. The following study assumptions, along with the church operations, were used to develop future year 2026 traffic forecasts within the study area.

Background Growth

To account for general background growth in the area, an annual growth rate of two (2) percent was applied to the existing traffic volumes. This growth rate was developed using a combination of historical average daily traffic (ADT) volumes from surrounding roadways as published by MnDOT, intersection growth rates from the *County Road 47 Corridor Study*, and traffic forecasts from the *2040 City of Plymouth Transportation Plan*.

Proposed Development

The proposed development trip generation estimate was established using a combination of resources, including the *ITE Trip Generation Manual, 11th Edition,* typical vehicle occupancy rates (i.e., 2.5 attendee to vehicle ratio), and vehicle/attendance data provided for other Eagle Brook church facilities. Multiple sources were used to ensure reasonable trip generation estimates for typical Wednesday p.m., Saturday p.m., and Sunday a.m. peak hour conditions were developed. Note that the trip generation provided represents a typical condition and does not account for the few times a year with higher attendance, such as Easter and Christmas.

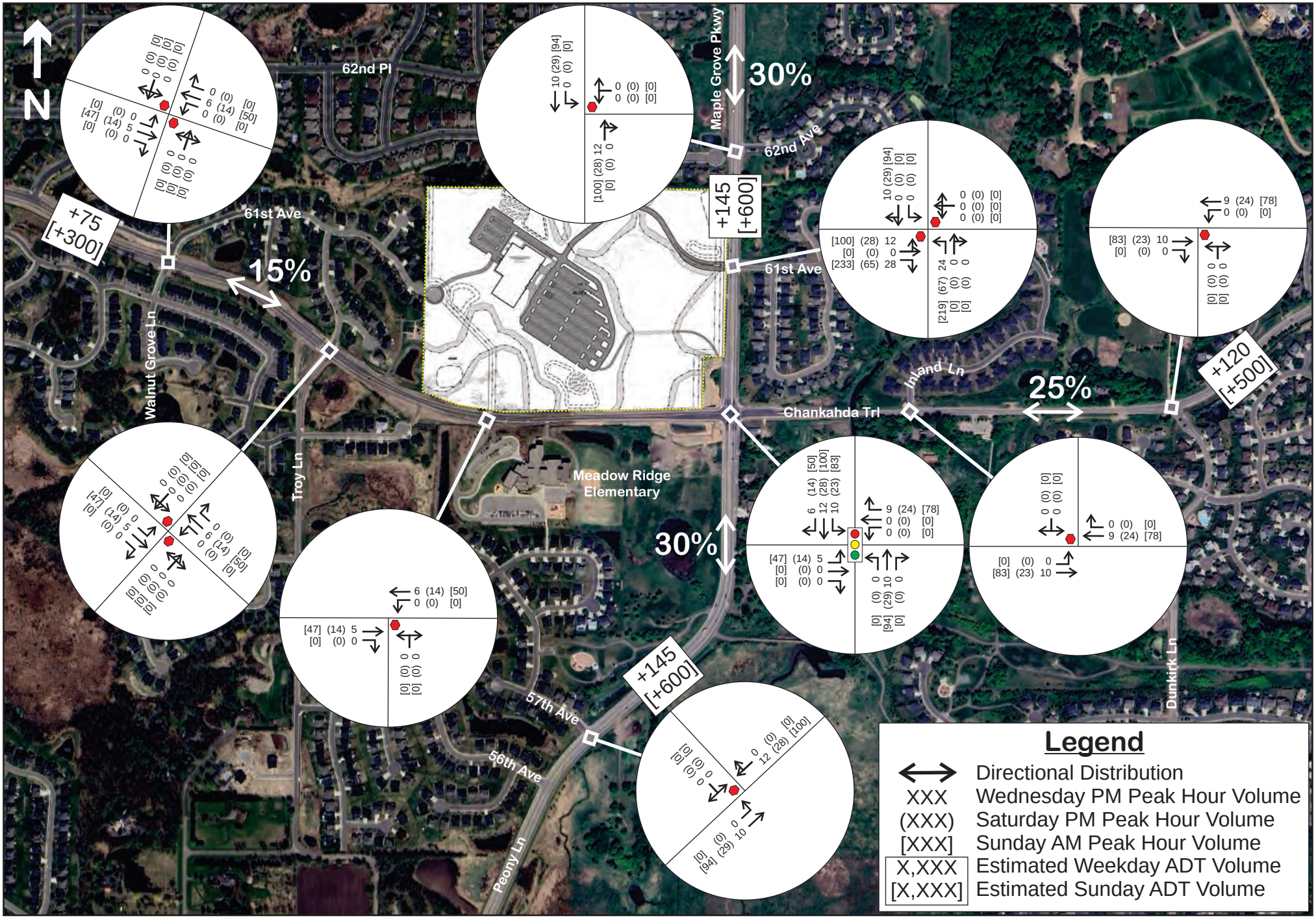
The proposed development, shown in Table 3, is expected to generate 74 Wednesday p.m. peak hour, 189 Saturday p.m. peak hour, and 646 Sunday a.m. peak hour trips. These peak hours represent the p.m. peak hour of the adjacent roadway on a typical Wednesday (4:30 to 5:30 p.m.), and the overlap periods between the first and second services on Saturday evening and Sunday morning (i.e., 5 to 6 p.m., and 10 to 11 a.m.), respectively. All other periods are expected to operate similarly or better than these scenarios. The site generated trips were distributed throughout the study area based on the directional distribution in Figure 5, which is based on a combination of existing area travel patterns and engineering judgment. The resultant year 2026 traffic forecasts are illustrated in Figure 6.

Table 3 Trip Generation Summary

Land Use Type ***(ITE Code)***	**Size**	**Wednesday**		**Saturday**		**Sunday**	
		PM Peak Hr In / Out	**Daily**	**PM Peak Hr In / Out**	**Daily**	**AM Peak Hr In / Out**	**Daily**
Church *(560)*	64,000 SF	34 / 40	486	96 / 93	550	313 / 333	2,014
Comparable Land Uses							
SF Housing *(210)*	104 units	62 / 36	981	52 / 44	986	46 / 40	882
Townhomes *(220)*	208 units	67 / 39	1,402	42 / 43	946	37 / 38	804

Note that trip generation estimates were established for other comparable residential development types (i.e., single-family and condo/townhome) to understand the overall trip generation potential of the site relative to the current development proposal. The comparable land use sizes were developed using the allowable development density based on the LA-2 land use guidance for the site, which has 34.67 net acres (i.e., the site area after wetlands and wetland buffers are deducted). Note that a previous residential development proposal for the site was within this density guidance.

Based on these comparable land uses, a residential development would generate approximately 35 to 40% more weekday peak hour trips and two to three times more weekday daily trips as compared to the proposed church. On Saturdays, a residential development would generate approximately 50% less p.m. peak hour trips, but nearly two times more daily trips. On Sundays, a residential development would generate significantly less a.m. peak hour trips and approximately 55 to 60% less Sunday daily trips. This information illustrates that a residential development would have more traffic volume impact throughout the day and the week, while the proposed church would primarily have more traffic volume impact for shorter periods associated around various activities and services, particularly Sunday mornings.



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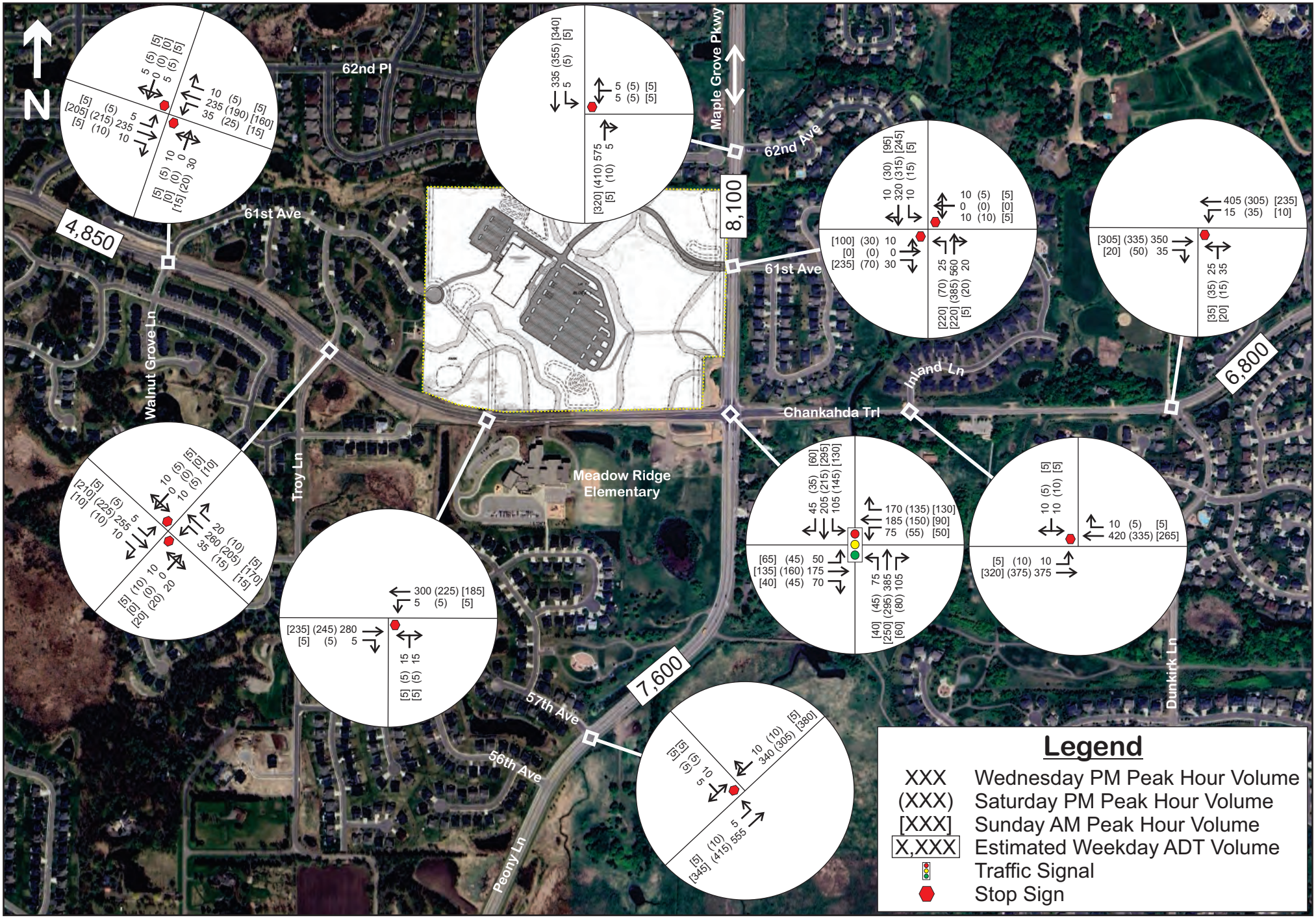
Year 2026 Site Generated Trips

Plymouth Eagle Brook Church Traffic Study

Figure 5



Year 2026 Conditions

Plymouth Eagle Brook Church Traffic Study

Figure 6

YEAR 2026 CONDITIONS

To understand impacts associated with the proposed development, year 2026 intersection capacity was again evaluated using Synchro/SimTraffic Software (*version 11*). To accurately depict the peaking characteristics during the Saturday p.m. and Sunday a.m. peak hours, the analysis was evaluated in 15-minute increments as opposed to modifying the peak hour factor. For purposes of the intersection capacity analysis, the peak hour level of service is shown in Table 4, as well as key level of service and queuing information associated with the proposed development access.

Results of the year 2026 intersection capacity analysis indicates that all study intersections, approaches, and movements are expected to operate at LOS D or better during the overall Wednesday p.m., Saturday p.m., and Sunday a.m. peak hours. In addition, all queues are expected to be maintained within the existing turn lanes, except the northbound left-turn lane along Maple Grove Parkway serving the proposed development access. In this location, there is adequate pavement width to accommodate these queues, thus, the existing striping should be modified to formalize this northbound left-turn lane. Note that eastbound queues leaving the proposed development are expected to extend up to approximately 205 feet during the Sunday a.m. peak period. Therefore, the proposed development driveway should be designed with two exit lanes, one of which should be at least 225 feet.

Table 4 Year 2026 Intersection Capacity

Intersection	**Traffic Control**	**LOS (Delay)**		
		Wednesday PM Peak Hour	**Saturday PM Peak Hour**	**Sunday AM Peak Hour**
Maple Grove Pkwy / 62nd Ave	SSS	A / A (8 sec)	A / A (6 sec)	A / A (5 sec)
Maple Grove Pkwy / Church / 61st Ave	SSS	A / B (10 sec)	A / A (9 sec)	A / C (15 sec)
Maple Grove Pkwy / Chankahda Trl	Signal	B (18 sec)	B (17 sec)	B (16 sec)
Peony Ln / 57th Ave	SSS	A / A (7 sec)	A / A (5 sec)	A / A (7 sec)
Chankahda Trl / Walnut Grove Ln	SSS	A / A (5 sec)	A / A (4 sec)	A / A (4 sec)
Chankahda Trl / Troy Ln	SSS	A / A (6 sec)	A / A (5 sec)	A / A (5 sec)
Chankahda Trl / Meadow Ridge School	SSS	A / A (5 sec)	A / A (4 sec)	A / A (4 sec)
Chankahda Trl / Inland Ln	SSS	A / A (7 sec)	A / A (8 sec)	A / A (5 sec)
Chankahda Trl / Dunkirk Ln	SSS	A / A (7 sec)	A / A (7 sec)	A / A (6 sec)
Maple Grove Pkwy / Church / 61st Ave				
Peak 15-Min Level of Service		A / B (11 sec)	A / B (13 sec)	B / C (17 sec)
Peak 15-Min Eastbound Queue		60 feet	70 feet	205 feet
Peak 15-Min Northbound Left-Turn Queue		40 feet	60 feet	170 feet
Maple Grove Pkwy / Church / 61st Ave *(+25% Sensitivity)*				
Overall Peak Hour Level of Service				C / **E (37 sec)**
Peak 15-Min Level of Service				D / **E (44 sec)**
Peak 15-Min Eastbound Queue				800 feet
Peak 15-Min Northbound Left-Turn Queue				180 feet

SSS – Side-Street-Stop
Wednesday PM (4:30 to 5:30 PM) ; Saturday PM (5 to 6 PM) ; Sunday AM (10 to 11 AM)

Given the assumptions associated with this study, a sensitivity test was conducted to understand how an additional 25% of peak hour site trip generation would impact area options. This sensitivity analysis focused on the Sunday a.m. peak hour, which represents the most active period for the proposed development. Results of the sensitivity analysis indicate that the Maple Grove Parkway and Church Access / 61st Avenue intersection is expected to operate at LOS C during the overall peak hour and a LOS D during the peak 15-minute period. The eastbound approach is expected to operate at LOS E throughout the peak hour and eastbound queues from motorists exiting the site are expected to extend up to 800 feet; these queues would dissipate within 15 to 30 minutes following the end of service. The northbound left-turn lane queue increases slightly as compared to the base assumption scenario.

This sensitivity test indicates that depending on attendance fluctuations, having a traffic control officer present would assist motorists at the Maple Grove Parkway and Church Access/61st Avenue intersection during the Sunday a.m. peak period, as well as reduce delays and queues for motorists at this intersection. No other locations are expected to need any additional infrastructure or traffic control officer assistance. Thus, further discussion with stakeholders should occur to finalize the appropriate infrastructure modifications, as well as the overall traffic control management strategy.

Maple Grove Parkway and Fieldstone Boulevard

As noted earlier, the City of Maple Grove asked to evaluate the Maple Grove Parkway and Fieldstone Boulevard intersection as part of a preliminary review of this report. The City expressed concerns about existing perceived safety and operational issues at this location and the potential impact of the proposed development. Thus, a cursory review of traffic impacts was completed following the study analysis. As shown in Table 5, the proposed development is expected to add approximately 25 Wednesday p.m. peak hour, 60 Saturday p.m. peak hour, and 200 Sunday a.m. peak hour vehicular trips to the Maple Grove Parkway and Fieldstone Boulevard intersection.

Table 5 Maple Grove Pkwy at Fieldstone Blvd Traffic Volume Summary

Time Period	Wednesday PM Peak Hour	Saturday PM Peak Hour	Sunday AM Peak Hour
Existing Maple Grove Parkway Volume (at Fieldstone)	850	670	445
Proposed Development Traffic Volume (at Fieldstone)	+25	+60	+200
Future Traffic Volume	**875**	**730**	**645**

The change in volume during the Wednesday p.m. peak hour is within typical daily variations, while the future traffic volumes during the Saturday and Sunday peak hours are well below the Wednesday p.m. peak hour and expected to result in minimal change in overall intersection operations. During the peak 15-minute period on a Sunday morning, there would be approximately 60 additional vehicles traveling through the intersection, which equates to an additional four (4) vehicles per minute or one vehicle every 15-seconds; AASHTO notes that the typical time for a vehicle to make a left-turn from a stop condition is 7.5 seconds. Therefore, the change in operations at the Maple Grove Parkway and Fieldstone Boulevard intersection is expected to be minimal with the addition of the proposed development.

SITE PLAN / ACCESS REVIEW

A preliminary review of the proposed site plan does not indicate any major issues. However, special care should be taken to locate signage and landscaping to avoid creating any sight distance issues. In addition, heavy commercial vehicle (i.e., garbage trucks, moving vans) maneuverability should be reviewed to minimize any disruptions and/or impacts associated with these vehicles and their operation. This could include coordinating deliveries, dedicating garbage pick-up days/times, and/or incorporating wayfinding signage. No changes to the proposed access and/or internal circulation are needed based on preliminary review, however a southbound right-turn lane along Maple Grove Parkway at 61st Avenue should be considered to reduce potential conflicts with vehicles entering the site. Multimodal connectivity (i.e., sidewalks or trails) should be provided to all adjacent facilities within the area.

SUMMARY

The following study conclusions and ***recommendations*** are offered for consideration.

1) All study intersections, approaches, and movements currently operate at LOS C or better during the Wednesday p.m. (4:30 to 5:30 p.m.), Saturday p.m. (5 to 6 p.m.), and Sunday a.m. (10 to 11 a.m.) peak hours.
2) Traffic forecasts were developed for year 2026 conditions, which represents one (1) year after opening conditions.
   a. An annual growth rate of two (2) percent was applied to the existing traffic volumes to develop year 2026 background forecasts.
   b. The proposed development is expected to generate 74 Wednesday p.m. peak hour, 189 Saturday p.m. peak hour, and 646 Sunday a.m. peak hour trips.
   c. A residential development would have more traffic volume impact throughout the day and the week, while the proposed church would primarily have more traffic volume impact for shorter periods associated around various activities and services, particularly Sunday mornings.
3) Under year 2026 conditions, all study intersections, approaches, and movements are expected to operate at acceptable levels of service (i.e., LOS D or better) during the overall Wednesday p.m., Saturday p.m., and Sunday a.m. peak hours. All queues are expected to be maintained within the existing turn lanes, except the northbound left-turn lane along Maple Grove Parkway serving the proposed development access. The following infrastructure modifications are offered to help maintain safe and efficient operations associated with impacts of the proposed development.
   a. There is adequate pavement width to accommodate the northbound left-turn queues along Maple Grove Parkway at 61st Avenue; ***thus, the existing striping should be modified to formalize this northbound left-turn lane.***
   b. Although not needed from a capacity perspective, ***a southbound right-turn lane along Maple Grove Parkway at 61st Avenue should be installed to reduce potential conflicts with entering vehicles.***
   c. Eastbound queues leaving the proposed development are expected to extend up to approximately 205 feet during the peak periods; ***the proposed development driveway should be designed with two exit lanes, one of which should be at least 225 feet. Note that the sensitivity test indicates that extending the two exit lanes further into the site would be beneficial to operations and should be discussed further with the project team.***
   d. ***A traffic control officer could be provided at least during the Sunday a.m. peak period to assist motorists at the Maple Grove Parkway and Church / 61st Avenue intersection.***
   e. ***Further discussion with stakeholders should occur to finalize the appropriate infrastructure modifications, as well as the overall traffic control management strategy.***
4) ***Special care should be taken to locate signage and landscaping to avoid creating any sight distance issues and heavy commercial vehicle (i.e., garbage trucks, moving vans) maneuverability should be reviewed to minimize any disruptions and/or impacts associated with these vehicles and their operation. Multimodal connectivity (i.e., sidewalks or trails) should be provided to all adjacent facilities within the area.***