Exhibit 3.02

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Memorandum

To: **Sukhijinder S. Deo**
The Sikh Center of Oregon

From: **Daniel Stumpf, PE**

Date: **March 7, 2024**

Subject: **Sikh Temple**
Trip Generation & Access Safety Analysis

RENEWS: 6/30/2024

Received
Planning Division
4/11/2024

Introduction

This memorandum reports the findings of a trip generation analysis and access safety analysis conducted for a proposed Sikh Temple, located at 15660 SW Division Street in Beaverton, Oregon. The proposal will include the conversion of two existing on-site structures as a community kitchen (approximately 1,884 square feet) and temple (approximately 1,940 square feet) while retaining one existing single-family house. Access to the site will be provided via two driveways along SW Division Street, located near the east and west sides of the project site. The west driveway will serve one-way site egress traffic while the east driveway will serve one-way site ingress traffic.

Based on an Incompleteness Letter issued by the City of Beaverton, the following analysis items were conducted/reviewed:

- Describe operations of the temple following redevelopment of the site.
- Conduct a trip generation analysis for the proposed temple, which will include a review of peak hour and average daily trip generation for a typical weekday and Sunday.
- Review intersection sight distances at the proposed access driveways.
- Conduct a turning movement analysis at the site access intersections and review potential left-turn conflicts with other existing driveways along SW Division Street.
- Review access spacing standards.

Detailed information on trip generation calculations as well as other supporting materials are included as an attachment to this memorandum.

Project Site Description

The project site is located south of SW Division Street, east of SW 157th Place, and west of SW 153rd Avenue in Beaverton, Oregon. Located in a predominately residential area of the City, the site is surrounded by single-family housing in all directions, with the exception of forested land directly to the southeast. The site includes a single property (tax lot 1S117CA-02900) which encompasses an approximate total of two acres. The site is currently developed with one single-family detached house and several ancillary structures, with two access driveways along SW Division Street.

Vicinity Roadways

The project site is located adjacent to SW Division Street, where Table 1 provides a description of the roadway.

Table 1: Vicinity Roadway Descriptions

Street Name	Jurisdiction	Functional Classification	Speed (MPH)	On-Street Parking	Curbs & Sidewalks	Bicycle Lanes
SW Division Street	Washington County	Collector	25	Permitted	Partial Both Sides	None

Table Notes: Functional Classification based on Washington County Functional Classification of Roads map.

Note the partially available curbs and sidewalks along the segment of SW Division Street between SW 160th Avenue and SW 149th Avenue are located as follows:

- Along the north side of the roadway just east of the Westside Regional Trail.
- On the north side of the roadway from approximately SW 155th Terrace and SW 150th Court
- On the south side of the roadway near SW 150th Court.

Figure 1 presents an aerial image of the nearby vicinity with the project site outlined in yellow.

Figure 1: Aerial Photo of Site Vicinity (Image from Google Earth)

Trip Generation

Temple Operation and Description

The proposed Sikh Temple will include three structures consisting of a community kitchen, assembly hall, and a single-family house for the priest to use as a residence. The assembly hall will be used for Sunday services, where the typical congregation size in attendance is approximately 100 to 150 people per week. The community kitchen, which also includes a dining space, is intended to prepare, and serve food to the congregation and will not be utilized by third parties unaffiliated with the typical operation of the temple.

The temple will predominantly operate on Sundays with the following schedule:

- 9:30 AM: Six to eight volunteers will arrive at the community kitchen to prepare meals for the congregation.
- 10:30 AM – 11:30 AM: Tea and snacks are served to those present at the temple.
- 11:00 AM – 12:00 PM: Sunday school for children is held and most congregants begin arriving at the temple during this period. A majority of these congregants typically arrive in personal vehicles in parties of approximately 2-4 people per vehicle.
- 12:00 PM – 1:30 PM: The main service at the assembly hall is held.
- 1:30 PM: Hot meals are served to the congregation in the community kitchen building. During this period, congregants may partake in this meal and/or will begin to leave the temple.

Other non-Sunday events that could occur at the temple include the following:

- There are six important Sikh calendar events per year that are always observed on the weekend following the calendar day. Some members of the congregation may visit the temple in observance on a Friday, Saturday and/or Sunday. The celebrations end with the regular Sunday service.
- Specific family events related to the congregation, such as the birth of a child, a wedding/marriage, or passing of a family member, may be held at the temple. These events are infrequent and typically occur two to three times per year. General attendance at these events may range from 10 to 40 people.

Trip Generation Analysis

To estimate the number of additional site trips that will be generated by the proposed Sikh Temple, trip rates from the *Trip Generation Manual*[1] were used. Data from land use codes 210, *Single-Family Detached Housing*, based on the number of dwelling units, and 560, *Church*, based on the square footage of the gross building floor area, were used to estimate the trip generation of the site under existing and proposed conditions. Although the Sikh Temple is not a church, according to the ITE land use code description for code 560:

> *A church is a building in which public worship services are held. A church houses an assembly hall or sanctuary. It may also house meeting rooms, classrooms, and, occasionally, dining, catering, or event facilities. Synagogue (Land Use 561) and mosque (Land Use 562) are related uses.*
>
> *Worship services are typically held on Sundays. Some of the surveyed churches offered day care or extended care programs during the week.*

The two other religious institutional land use codes mentioned, a mosque and synagogue, were initially considered for use; however, both land use codes are not considered good representations of the proposed Sikh Temple for the following reasons:

- The ITE description and trip generation data suggest mosques generally hold worship services on Fridays, whereby no trip generation data is available on Sunday.
- Trip generation data for ITE code 561, *Synagogue*, is limited and based on a single study/data point. Comparatively, weekday and Sunday trip generation rates for land use code 560 are based on four to 16 studies.

Based on the ITE description for a church and considering the description and/or limited availability of data for land use codes 561 and 562, utilizing data from ITE code 560 is expected to be more reflective of the trip generation associated with the proposed Sikh Temple.

Given the combined square footage of the community kitchen and assembly hall will be 3,824 square feet and the existing single-family house will be retained as a private residence, the trip generation calculations show that the proposed temple project is estimated to generate the following additional net new site trips:

- Weekday: 1 AM peak hour trip, 2 PM peak hour trips, and 30 daily trips.
- Sunday: 40 peak hour trips and 120 daily trips.

The ITE trip generation estimates are summarized in a Table 2. Detailed trip generation calculations are included as an attachment to this memorandum.

[1] Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 11th Edition, 2021.

Table 2: Trip Generation Summary

Land Use	ITE Code	Variable	Weekday							Sunday			
			AM Peak Hour			PM Peak Hour			Daily Total	Peak Hour			Daily Total
			In	Out	Total	In	Out	Total		In	Out	Total	
Existing Conditions													
Single-Family Detached Housing	210	1 unit	0	1	1	1	0	1	10	1	0	1	8
Proposed Conditions													
Single-Family Detached Housing	210	1 unit	0	1	1	1	0	1	10	1	0	1	8
Church	560	3,824 SF	1	0	1	1	1	2	30	19	21	40	120
Total			1	1	2	2	1	3	40	20	21	41	128
Net Change in Site Trip Generation													
Net New Site Trips			**1**	**0**	**1**	**1**	**1**	**2**	**30**	**19**	**21**	**40**	**120**

Per the City of Beaverton's Development Code Section 60.55.20.2 Analysis Threshold, "*A Traffic Impact Analysis is required when the proposed land use change or development will generate 300 vehicles or more per day (vpd) in average weekday trips as determined by the City Engineer.*" Since the proposed project is projected to generate less than 300 average weekday trips over the existing site conditions, the threshold for requiring a TIA is not met.

Note that the trip generation rates from ITE code 560 of the *Trip Generation Manual* are based on an amalgamation of individual studies conducted at multiple churches. Per the operational description of the temple, the Sunday peak hour of trip generation for the temple is expected to occur between approximately 11:00 AM – 12:00 PM, where approximately 90% of congregants are estimated to arrive to the site (6-8 volunteers will arrive at approximately 9:30 AM and some congregants will arrive prior to 11:00 AM). Based on correspondence with City of Beaverton staff, the peak hour trip generation characteristics of the temple on a typical Sunday may be more reflective of approximately 54 vehicles arriving to the temple with no departing trips. This trip generation was calculated as follows:

- Assuming a reasonable maximum attendance of 150 congregants, approximately 135 people (90%) may arrive during the Sunday peak hour.
- Utilizing an average vehicular occupancy of 2.5 people per car, approximately 54 vehicles may arrive to the project site during the peak hour.

For the purposes of this analysis, this site-specific trip generation rate was used in the *Turning Movement Conflict Analysis* section of this study to calculate potential queuing at the site ingress driveway.

Sight Distance Analysis

Intersection sight distance was measured for the western "egress only" site access intersection along SW Division Street. Since SW Division Street operates under the jurisdiction of Washington County, sight distances were measured and evaluated in accordance with the standards established by Washington County and as described in *A Policy on Geometric Design of Highways and Streets*[2]. Per County standards, the minor-street approaching driver's eye location is assumed to be 15 feet behind the edge of the major-street pavement and at a height of 3.5 feet above the minor-street approach pavement. The vehicle driver's eye-height along the major-street approach is assumed to be 4.25 feet above the cross-street pavement.

Based on a posted speed of 25 mph along SW Division Street, the minimum recommended intersection sight distance to allow for safe and efficient operation of the proposed west access intersection is 250 feet to the east and west.

To the east of the site egress driveway, intersection sight distance was measured to be 185 feet, currently limited by on-site foliage (see Figure 2). Upon buildout of the proposed Sikh Temple and subsequent removal/proper maintenance of this obstructing foliage, intersection sight distance of up to 250 feet can be obtained.

To the west of the site egress driveway, intersection sight distance was measured to be 70 feet, limited by two tress: one small and one large off-site trees within the SW Division Street public right-of-way (see Figure 3). The applicant has negotiated with the adjacent property owner to remove these trees whereby sight distances of up to 250 feet can be obtained.

Based on the analysis and provided any obstructing foliage is properly maintained/removed, adequate intersection sight distances can be made available at the proposed western "egress only" site access driveway to allow for safe and efficient operation along SW Division Street. No other mitigation is necessary or recommended at the access intersection with respect to intersection sight distance.

An exhibit depicting intersection sight distance triangles at the egress access location is included as an attachment to this memorandum. A Preliminary Sight Distance Certification letter for the access intersection was prepared and submitted under a separate document.

[2] American Association of State Highway and Transportation Officials (AASHTO), *A Policy on Geometric Design of Highways and Streets*, 6th Edition, 2011.

Figure 2: Sight Distance to East of Access Driveway: On-site Bush to be Removed

Figure 3: Sight Distance to West of Access Driveway: Small/Large Trees in Public ROW to be Removed

Turning Movement Conflict Analysis

An evaluation of turning movement conflicts with other existing driveways along SW Division Street was conducted, of specific note the potential for simultaneous "left-turn" binding along SW Division Street. Left-turn binding can occur along a major-street when a major-street left-turning vehicle waits to conduct a turning movement, a queue forms behind the vehicle, the formed queue precludes left-turns from the opposing travel direction, and then an opposing queue forms and precludes turning movements for the original travel direction. Figure 4 presents a visual depiction of this binding scenario.

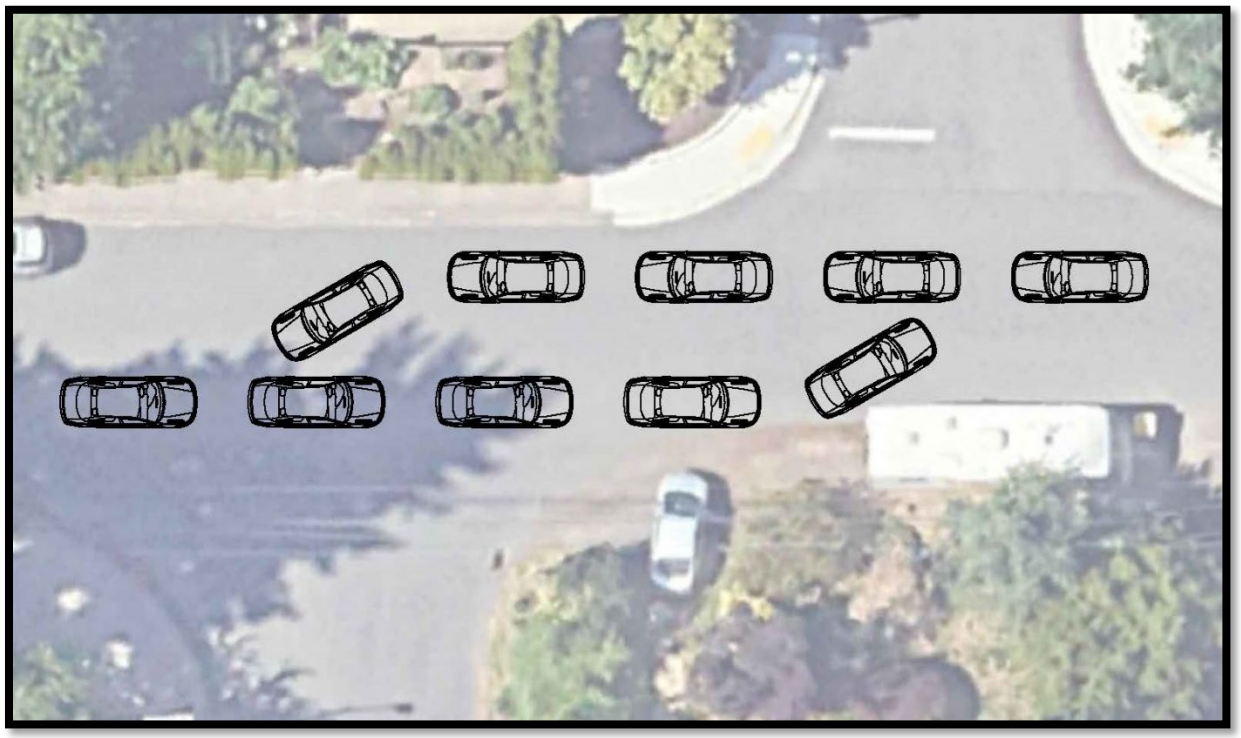

Figure 4: Example Left-Turn Lane Binding

The proposed temple will include the development of two accesses: one ingress access and one egress access along SW Division Street. Since left-turn binding occurs due to simultaneous left-turns from the major-street, specific to the project site this phenomenon could only occur at the site ingress driveway between other intersecting driveways and public roads to the east along the north side of SW Division Street. To evaluate whether left-turn binding could occur, a simulation analysis was performed to measure queuing between the site ingress access, the nearest regularly in use single-family house driveway to the north and east of the ingress driveway (approximately 65 feet away), and SW 155th Terrace (approximately 285 feet away).

To estimate traffic volumes along SW Division Street and those turning to/from these driveways and SW 155th Terrace, the following were considered:

- To estimate traffic volumes along SW Division Street, average daily traffic (ADT) volumes collected on a Tuesday, Wednesday, and/or Thursday were referenced from the Washington County's 2022 Traffic Count Tables[3]. Note data for SW Division Street is not provided by the County; therefore, volumes from SW 160th Avenue, between SW Farmington Road (OR-10) and SW Division Street, were used. Since SW 160th Avenue serves as a main roadway connection between SW Division Street and OR-10, volumes along this segment of roadway are expected to be greater than those typically traveling along SW Division Street and will subsequently provide a more conservative evaluation for determining potential left-turn binding. The following assumptions were made to develop the major-street volumes:
    - The peak hour volumes along SW Division Street were assumed to be 10% of the ADT, or 322 peak hour trips.
    - For determining directional volumes, the total peak hour volumes were split 50/50 per travel direction, or 161 vehicles per direction.
- To estimate a reasonable scenario of turning movement volumes at the site ingress access, approximately 60% of Sunday peak hour trips (32 trips) were assumed to enter site from the east along SW Division Street while the remaining 40% (22 trips) were assumed to arrive from the west. This assumed distribution was estimated based on the locations of likely trip origins/destinations and locations of major transportation facilities in the area.
- To estimate a reasonable worst-case scenario of turning movement volumes at the single-family house driveway and the 3 single-family house/13 duplexes houses that utilize SW 155th Terrace for access to SW Division Street, all trips generated by these residences (1 trip for the single-family residence driveway and 12 trips for the residences with access via SW 155th Terrace) were assumed to enter each respective side street from the west. These trips were estimated utilizing the following data from the *Trip Generation Manual*:
    - 210, *Single-Family Detached Housing*, based on the number of dwelling units. At a trip generation rate of 0.83 trips per dwelling unit during the Sunday peak hour, approximately 53% of trips generated are estimated to travel to these residences.
    - 215, *Single-Family Attached Housing*, based on the number of dwellings units. At a trip generation rate of 0.79 trips per dwelling unit during the Sunday peak hour, approximately 53% of trips generated are estimated to travel to these residences. Note no entering/exiting trip split data is available for ITE code 215, therefore, the 53% entering trips were referenced from code 210.

[3] Traffic Counts | Washington County, OR (washingtoncountyor.gov)

The simulation model was prepared to allow the possibility for vehicles to enter and block turning vehicles at the intersections. Ten simulation runs were conducted where the following queue lengths were recorded at each driveway/side-street intersection:

- Site Ingress Access: A 95th percentile queue of 29 feet for the westbound approach lane (maximum queue of 52 feet).
- Single-Family Residence Driveway: A 95th percentile queue of 3 feet for the eastbound approach lane (maximum queue of 3 feet).
- SW 155th Terrace Intersection: A 95th percentile queue of 16 feet for the eastbound approach lane (maximum queue of 32 feet).

During the simulation runs, no left-turn binding was observed to have occurred. Based on these analysis findings, queues are not expected to extend back to the adjacent driveways/public intersections whereby left-turn binding will not occur.

Access Spacing

SW Division Street is classified by Washington County as a Collector; however, when considering its existing design the roadway operates more similarly to a Local Street (e.g., a two-lane roadway without centerline striping, posted speed of 25 mph, intermittent speed bumps, etc). According to Section 501-8.5.B of Washington County's Community Development Code, Local Streets and Collectors are typically designed to consider the following with respect to access spacing:

> **Local Streets**
> *Access will not be permitted within 10 feet of Point "B," if no radius exists, access will not be permitted within 25 feet of Point "A."*
>
> **Collectors**
> *Uses with less than one hundred fifty (150) feet of frontage shall not be permitted direct access to Collectors… No use will be permitted direct access to a Collector within 100 feet of any present Point "A"; or future "P.I." as designated in the Transportation System Plan (TSP).*
>
> *Minimum spacing between driveways (Point "C" to Point "C") shall be 100 feet.*

The project site has approximately 150 feet of frontage on SW Division Street. The proposed site accesses will be located approximately 5 feet from the western and eastern edges of the site. The nearest off-site driveways to the east ingress site access on either side of the SW Division Street are located approximately 10 to 50 feet away (measured near-side to near-side), while the nearest off-site driveways relative to the west egress access are located approximately 20 to 100 feet away. There are currently no access locations along SW Division Street that will meet Washington County's access spacing standards for Collectors. However, assuming the properties to the north of the site redevelop as higher density uses in the future, the existing single-family house driveways with direct access to SW Division Street are expected to be removed and future shared driveways or public access roads can be constructed at locations opposite of the proposed site accesses. Therefore, the proposed Sikh Temple development plan will not preclude access for future redevelopment of the properties to the north of the project site. No access related mitigation is necessary or recommended as part of the proposed development application.

Conclusions

The proposed Sikh Temple project is estimated to generate the following additional net new site trips per the ITE *Trip Generation Manual*:

- Weekday: 1 AM peak hour trip, 2 PM peak hour trips, and 30 daily trips.
- Sunday: 40 peak hour trips and 120 daily trips.

Since the proposed project is projected to generate less than 300 average weekday trips over the existing site conditions, preparation of a full Traffic Impact Analysis (TIA) is not necessary or required.

Provided any obstructing foliage is properly maintained/removed, adequate intersection sight distances can be made available at the proposed western "egress only" site access driveway to allow for safe and efficient operation along SW Division Street. No other mitigation is necessary or recommended at the access intersection with respect to intersection sight distance.

Based on simulation/queuing analyses conducted at the east site ingress driveway, the nearest single-family residence driveway to the east, and SW 155th Terrace, queues are not expected to extend back to the adjacent driveways/public intersections whereby left-turn binding will not occur.

The proposed Sikh Temple development plan will not preclude access for future redevelopment of the properties to the north of the project site. No access related mitigation is necessary or recommended as part of the proposed development application.

If you have any questions regarding the preparation of this memorandum, please don't hesitate to contact us.

545.34' N01° 37' 36"E

545.09' S01° 33' 05"W

12.0'

28.0'

21.5'

5.0'
S/W

33.0'

35.0'

57.0'

24.4'

24.0'

24.0'

40.0'

9.0'

40.1'

28.6'

5.0'
S/W

12.0'

24.0'

30' 0 15' 30' 60'

SCALE: 1" = 30'

TRIP GENERATION CALCULATIONS
Source: Trip Generation Manual, 11th Edition

Land Use:	Single-Family Detached Housing
Land Use Code:	210
Land Use Subcategory:	All Sites
Setting/Location	General Urban/Suburban
Variable:	Dwelling Units
Trip Type:	Vehicle
Formula Type:	Rate
Variable Quantity:	1

WARNING: Variable Quantity is less than Minimum Survey Size for Peak Hours

AM PEAK HOUR

Trip Rate: 0.7

	Enter	Exit	Total
Directional Split	25%	75%	
Trip Ends	0	1	1

PM PEAK HOUR

Trip Rate: 0.94

	Enter	Exit	Total
Directional Split	63%	37%	
Trip Ends	1	0	1

WEEKDAY

Trip Rate: 9.43

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	5	5	10

SUNDAY PEAK HOUR

Trip Rate: 0.83

	Enter	Exit	Total
Directional Split	53%	47%	
Trip Ends	1	0	1

SUNDAY

Trip Rate: 8.48

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	4	4	8

Source: Trip Generation Manual, 11th Edition

TRIP GENERATION CALCULATIONS
Source: Trip Generation Manual, 11th Edition

Land Use:	Church
Land Use Code:	560
Land Use Subcategory:	All Sites
Setting/Location	General Urban/Suburban
Variable:	1000 SF GFA
Trip Type:	Vehicle
Formula Type:	Rate
Variable Quantity:	3.824

WARNING: Variable Quantity is less than Minimum Survey Size for Peak Hours

AM PEAK HOUR

Trip Rate: 0.32

	Enter	Exit	Total
Directional Split	62%	38%	
Trip Ends	1	0	1

PM PEAK HOUR

Trip Rate: 0.49

	Enter	Exit	Total
Directional Split	44%	56%	
Trip Ends	1	1	2

WEEKDAY

Trip Rate: 7.6

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	15	15	30

SUNDAY PEAK HOUR

Trip Rate: 10.36

	Enter	Exit	Total
Directional Split	48%	52%	
Trip Ends	19	21	40

SUNDAY

Trip Rate: 31.46

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	60	60	120

LEGEND

- *Intersection Sight Distance (ISD)*

Notes

- *Driver Eye Setback = 15 ft*
- *Driver Eye Height = 3.5 ft*
- *Vehicle/Object Height = 4.25 ft*
- *Posted Speed: 25 mph*
- *Minimum ISD (Right-Turn)= 250 ft*
- *Minimum ISD (Left-Turn) = 250 ft*

Figure A

SIGHT DISTANCE EXHIBIT

15660 SW Division Street in Beaverton, Oregon

Sight Distance Triangles at West Egress Site Access along SW Division Street

lancaster mobley

How to Read the Traffic Volume Table:
The traffic count taken at station # 629 was performed on March 1, 2022. It was taken on 1st Avenue about 0.10 miles north of Lincoln Street. There were 10,615 vehicles that day traveling in both directions. 5,297 vehicles were traveling northbound and 5,318 vehicles were traveling southbound.

Please note:
These volumes represent data collected on the date shown. Counts are taken on Tuesday, Wednesday, or Thursday typically between March and June. Daily Traffic does no represent Average Annual Daily Traffic (AADT) traffic count. Traffic volumes can vary due to seasonal variations, construction, crashes, or other factors.

COUNT LOCATION DESCRIPTION					DAILY TRAFFIC DATA			
COUNT STATION REFERENCE #	ROAD NAME	DISTANCE (MILES) FROM CROSS ROAD	DIRECTION FROM CROSS ROAD	CROSS ROAD NAME	COUNT DATE	2022 Northbound or Eastbound Direction	2022 Southbound or Westbound Direction	2022 TOTAL (Combined Directions)
629	001st Ave (Hillsboro)	0.10	N	Lincoln St	3/1/2022	5297	5318	**10,615**
287	010th Ave	0.10	S	Main St / Cornell Rd	4/12/2022	10163	9496	**19,659**
413	065th Ave	0.10	S	Nyberg Rd	3/10/2022	8102	8416	**16,518**
414	065th Ave	0.02	N	Norwood Rd	4/5/2022	2420	2989	**5,409**
416	065th Ave	0.10	N	Elligsen Rd	3/10/2022	1761	2504	**4,265**
442	065th Ave	0.18	S	Sagert Rd	3/10/2022	3610	2717	**6,327**
451	072nd Ave	0.07	N	Bridgeport Rd	4/5/2022	7461	6275	**13,736**
305	080th Ave	0.10	S	Oleson Rd	3/8/2022	2688	2610	**5,298**
307	080th Ave	0.10	S	Taylors Ferry Rd	3/9/2022	2645	2434	**5,079**
241	091st Ave	0.10	N	BH Highway	3/8/2022	2383	3222	**5,605**
313	092nd Ave	0.10	N	Garden Home Rd	3/8/2022	5484	4898	**10,382**
106	113th Ave	0.10	N	Cornell Rd	3/10/2022	3676	3459	**7,135**
108	119th Ave	0.14	N	Cornell Rd	3/10/2022	2452	2646	**5,098**
465	124th Ave	0.15	S	Tualatin-Sherwood Rd	4/5/2022	4491	4916	**9,407**
112	143rd Ave	0.10	N	Cornell Rd	3/17/2022	7356	6715	**14,071**
439	150th Ave	0.10	N	Beef Bend Rd	4/7/2022	863	923	**1,786**
229	158th Ave	0.10	S	Walker Rd	3/31/2022	9826	10405	**20,231**
231	158th Ave	0.10	S	Jenkins Rd	3/17/2022	4530	4693	**9,223**
273	158th Ave	0.03	S	Cornell Rd	4/7/2022	11273	11765	**23,038**
274	158th Ave	0.20	S	Blueridge Dr	5/28/2013	11344	11722	**23,066**
320	160th Ave	0.10	N	Farmington Rd	3/15/2022	2671	2882	**5,553**
321	160th Ave	0.10	S	Farmington Rd	3/15/2022	1537	1678	**3,215**
349	160th Ave	0.10	S	TV Highway	3/15/2022	4038	4117	**8,155**
221	170th Ave	0.60	N	TV Highway	3/17/2022	8208	7850	**16,058**
222	170th Ave	0.10	S	Baseline Rd	3/17/2022	5363	5149	**10,512**
322	170th Ave	0.10	N	Farmington Rd	3/31/2022	7367	8458	**15,825**
323	170th Ave	0.15	N	Oak St	3/3/2022	7913	8450	**16,363**
324	170th Ave	0.10	S	Oak St	3/3/2022	7349	7801	**15,150**
223	173rd Ave	0.10	N	Baseline Rd	3/15/2022	873	938	**1,811**
144	174th Ave	0.05	N	Bronson Rd	3/15/2022	3247	3037	**6,284**
327	175th Ave	0.10	N	Kemmer Rd	3/31/2022	4849	4979	**9,828**
328	175th Ave	0.50	N	Scholls Ferry Rd	3/29/2022	5585	5745	**11,330**
395	179th Ave	0.10	N	Oak St	3/3/2022	868	955	**1,823**
121	185th Ave	0.50	N	Rock Creek Rd	4/5/2022	10274	10041	**20,315**
124	185th Ave	0.10	S	Springville Rd	4/5/2022	9026	8489	**17,515**
131	185th Ave	0.10	S	Rock Creek Rd	4/5/2022	12910	12358	**25,268**
140	185th Ave	0.30	N	Springville Rd	3/17/2022	2194	1800	**3,994**
215	185th Ave	0.10	N	Walker Rd	4/19/2022	13727	14918	**28,645**

TRIP GENERATION CALCULATIONS
Source: Trip Generation Manual, 11th Edition
SW 155th Terrace Houses

Land Use:	Single-Family Detached Housing
Land Use Code:	210
Land Use Subcategory:	All Sites
Setting/Location	General Urban/Suburban
Variable:	Dwelling Units
Trip Type:	Vehicle
Formula Type:	Rate
Variable Quantity:	3

WARNING: Variable Quantity is less than Minimum Survey Size for Peak Hours

AM PEAK HOUR

Trip Rate: 0.7

	Enter	Exit	Total
Directional Split	25%	75%	
Trip Ends	1	1	2

PM PEAK HOUR

Trip Rate: 0.94

	Enter	Exit	Total
Directional Split	63%	37%	
Trip Ends	2	1	3

WEEKDAY

Trip Rate: 9.43

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	14	14	28

SUNDAY PEAK HOUR

Trip Rate: 0.83

	Enter	Exit	Total
Directional Split	53%	47%	
Trip Ends	1	1	2

SUNDAY

Trip Rate: 8.48

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	13	13	26

Source: Trip Generation Manual, 11th Edition

TRIP GENERATION CALCULATIONS
Source: Trip Generation Manual, 11th Edition
SW 155th Terrace Houses

Land Use:	Single-Family Attached Housing
Land Use Code:	215
Land Use Subcategory:	All Sites
Setting/Location	General Urban/Suburban
Variable:	Dwelling Units
Trip Type:	Vehicle
Formula Type:	Rate
Variable Quantity:	26

AM PEAK HOUR

Trip Rate: 0.48

	Enter	Exit	Total
Directional Split	25%	75%	
Trip Ends	3	9	12

PM PEAK HOUR

Trip Rate: 0.57

	Enter	Exit	Total
Directional Split	59%	41%	
Trip Ends	9	6	15

WEEKDAY

Trip Rate: 7.2

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	94	94	188

SUNDAY PEAK HOUR

Trip Rate: 0.79

	Enter	Exit	Total
Directional Split	53%	47%	
Trip Ends	11	10	21

SUNDAY

Trip Rate: 7.17

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	93	93	186

Source: Trip Generation Manual, 11th Edition

Intersection: 1: Site Ingress Driveway & SW Division Street

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	2	52
Average Queue (ft)	0	6
95th Queue (ft)	2	29
Link Distance (ft)	297	52
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: SW Division Street & SFR Driveway

Movement	EB
Directions Served	LT
Maximum Queue (ft)	3
Average Queue (ft)	0
95th Queue (ft)	3
Link Distance (ft)	52
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: SW Division Street & SW 155th Terrace

Movement	EB
Directions Served	LT
Maximum Queue (ft)	32
Average Queue (ft)	2
95th Queue (ft)	16
Link Distance (ft)	174
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0