

MOUNTAIN VIEW COUNTY

SCHOTT'S LAKE CONFERENCE CENTRE & RV RESORT TRAFFIC IMPACT ASSESSMENT





SCHOTT'S LAKE CONFERENCE CENTRE & RV RESORT TRAFFIC IMPACT ASSESSMENT

MOUNTAIN VIEW COUNTY

REPORT (FINAL)

PROJECT NO.: 211-04399-00
DATE: OCT 28, 2021

WSP
237 4TH AVENUE SW, SUITE 3300
FIFTH AVENUE PLACE
CALGARY, ALBERTA, T2P 4K3
CANADA

T: +1 403-243-8380

WSP.COM

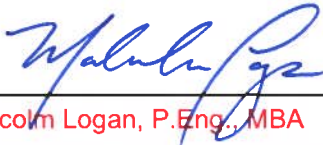
SIGNATURES

PREPARED BY

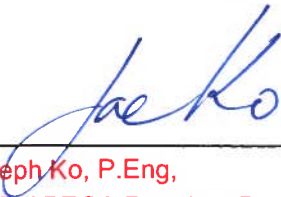
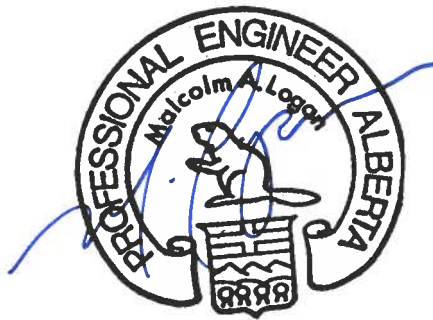


Quinton Velcic, E.I.T
Transportation Engineer EIT

REVIEWED BY



Malcolm Logan, P.Eng., MBA
Manager, Transportation Planning



Joseph Ko, P.Eng,
WSP APEGA Permit to Practice


PERMIT TO PRACTICE	
WSP CANADA INC.	
RM SIGNATURE:	
RM APEGA ID#:	42594
DATE:	2023.05.11
PERMIT NUMBER: P07461	
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)	

TABLE OF CONTENTS

1	INTRODUCTION	7
1.1	PROPOSED DEVELOPMENT	7
1.2	METHODOLOGY	9
1.2.1	BACKGROUND TRAFFIC GROWTH RATE	9
2	EXISTING CONDITIONS	10
2.1	EXISTING ROAD NETWORK	10
2.2	INITIAL SITE OBSERVATIONS	10
2.3	EXISTING TRAFFIC VOLUMES	11
3	TRAFFIC GENERATION	13
3.1	TRIP GENERATION	13
3.1.1	HOSPITALITY - ITE BASED	13
3.1.2	EVENT CENTRE	13
3.2	TRIP DISTRIBUTION	14
3.3	TRIP ASSIGNMENT	15
3.3.1	PEAK DEVELOPMENT TRIPS	15
4	INTERSECTION ANALYSIS	17
4.1	BACKGROUND + DEVELOPMENT – 2030	18
4.2	BACKGROUND + DEVELOPMENT – 2046	19
4.3	INTERSECTION ANALYSIS RESULTS	20
4.3.1	LEFT TURN WARRANT	20
4.3.2	RIGHT TURN WARRANT	22
4.3.3	TRAFFIC SIGNAL WARRANT	22
4.3.4	EVENT CENTRE PEAK PERIOD ANALYSIS	23
5	SUMMARY OF RECOMMENDATIONS	24

TABLES

TABLE 3.1-1 PROPOSED DEVELOPMENT TRIP GENERATION – ITE TRIP GEN RATES	13
TABLE 3.1-2 PROPOSED DEVELOPMENT TRIP GENERATION – EVENT CENTRE ...	14

TABLE 3.2-1 PROPOSED DEVELOPMENT TRIP DISTRIBUTION (SITE PEAK PERIODS)	14
TABLE 3.3-1 PROPOSED DEVELOPMENT TRIP DISTRIBUTION	15
TABLE 4.3-1 INTERSECTION SUMMARY – PM PEAK (PRE-EVENT).....	23
TABLE 4.3-2 INTERSECTION SUMMARY – PM EVENING (POST EVENT)	23

FIGURES

FIGURE 1.1-1 PROPOSED SITE PLAN (CONCEPTUAL).....	8
FIGURE 1.2-1 BACKGROUND TRAFFIC TRENDS.....	9
FIGURE 2.1-1 EXISTING ROAD MAP	10
FIGURE 2.3-1 SUMMARY OF PEAK PERIODS OVER THE LONG WEEKEND	11
FIGURE 2.3-2 AM PEAK HOUR EXISTING TRAFFIC VOLUMES	12
FIGURE 2.3-3 PM PEAK HOUR EXISTING TRAFFIC VOLUMES	12
FIGURE 3.3-1 AM PEAK NEW TRIP DISTRIBUTION	16
FIGURE 3.3-2 PM PEAK NEW TRIP DISTRIBUTION	16
FIGURE 4.1-1 TOTAL FORECAST VOLUMES – 2030 (AM)	18
FIGURE 4.1-2 TOTAL FORECAST VOLUMES – 2030 (PM)	18
FIGURE 4.2-1 TOTAL FORECAST VOLUMES – 2046 (AM)	19
FIGURE 4.2-2 TOTAL FORECAST VOLUMES – 2046 (PM)	19
FIGURE 4.3-1 HIGHWAY GEOMETRIC DESIGN GUIDE – FIGURE D.7.6-6A.....	21
FIGURE 4.3-2 TYPE IIA IMPROVEMENT	22

APPENDICES

A	BACKGROUND AND TOTAL FORECAST VOLUMES
B	INTERSECTION TREATMENT WARRANTS
C	SIGNAL WARRANT



D	BACKGROUND TRAFFIC
E	BACKGROUND TRAFFIC FORECAST

1 INTRODUCTION

WSP Canada Group Limited (WSP) was commissioned by Schott's Lake RV and Guest Ranch Inc. to complete a Traffic Impact Assessment (TIA) for the Schott's Lake Conference & RV Resort expansion land use application. The intent of the TIA is to identify traffic generated by the proposed development, assess the current and future traffic conditions, and identify potential mitigation measures, if required.

1.1 PROPOSED DEVELOPMENT

The proposed Schott's Lake Conference Centre & RV Resort is located west of Sundre, Alberta, along Highway 584, with all site access from Range Road 71. With a portion of the RV resort built-out, it is expected that the expansion will be complete by 2030 and continue to operate through to the 25-year horizon (year 2046), analyzed in this study.

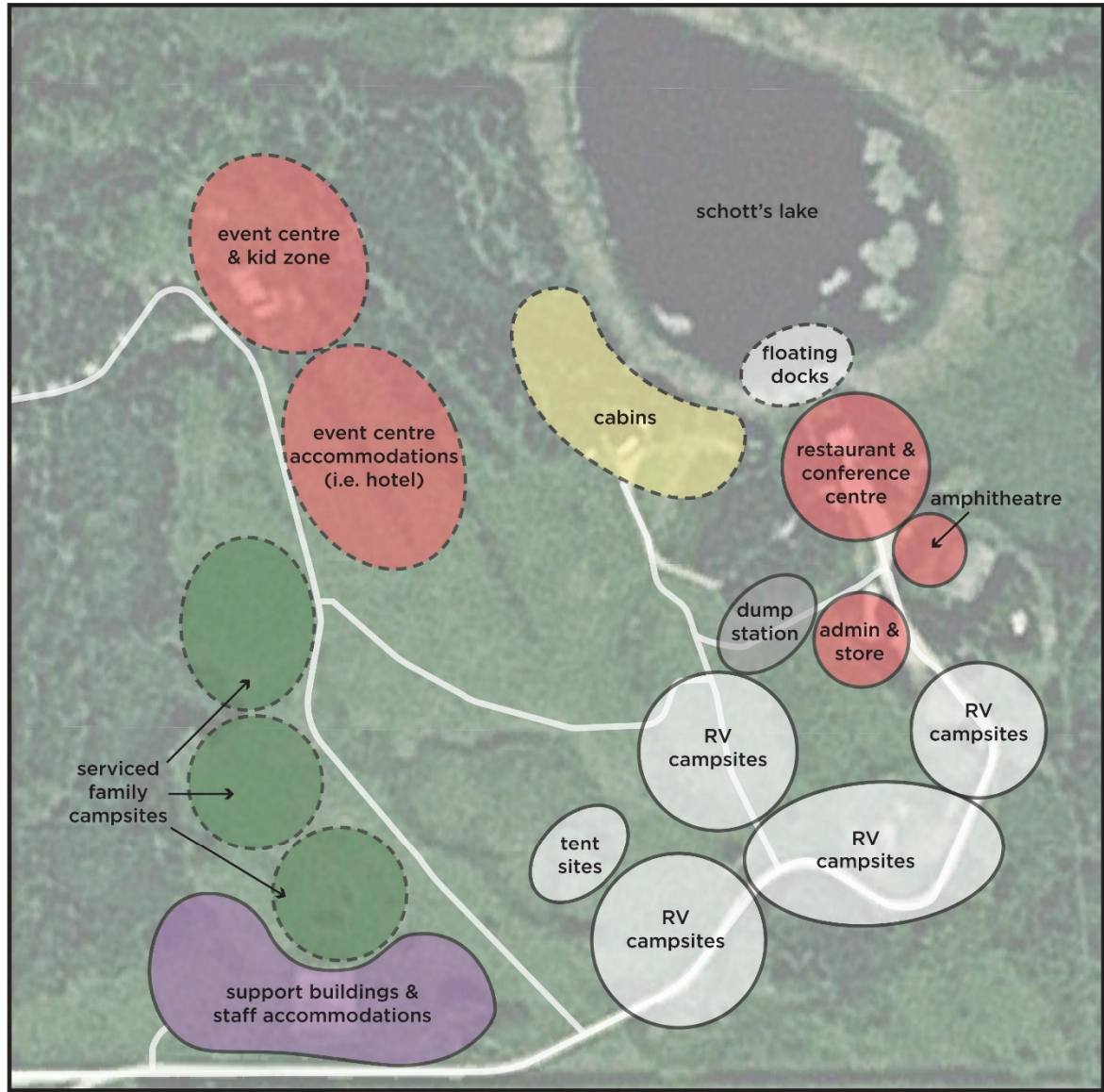
As illustrated in **Figure 1.1-1**, Schott's Lake Conference Centre & RV Resort will include the following amenities:

- 103 Recreation Vehicle Camp Sites
- 30 Camping Sites
- (1) Restaurant with existing Conference Centre below
- (1) Event Centre (capacity of up to 250 people)
- (1) Hotel (with 80 rooms)
- 15 Lakeside Cabins








Figure 1.1-1 | Proposed Site Plan (Conceptual)

Schott's Lake RV & Guest Ranch

concept plan



legend

-  future development
  standard campsites
  commercial activities
 existing development
  family campsites
  maintenance activities
 cabins

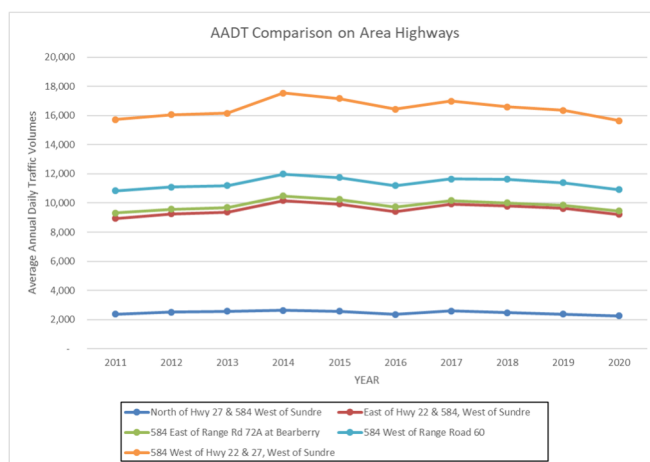
1.2 METHODOLOGY

WSP established the scope of this study, as summarized in the following:

- Study Intersection:
 - Highway 584 & Range Road 71
- Traffic Data Collection:
 - Traffic counts were collected by WSP and used as 2021 existing background traffic data. It is anticipated that the highest volumes experienced at this intersection will take place during summer long weekend holidays therefore WSP collected the date before, during and after the May 2021 long weekend.
- Trip generation rates were provided in the 10th edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. New trips generated by this development were determined by Land-use (i.e. Lodging, Recreational Campground and Quality Restaurant). Additional trip generation was developed based on first principles approach where no ITE trip data was a good representation of the planned use.
- Background future traffic growth:
 - A 1.0% annual growth rate was applied to Highway 584 for the 9-year horizon
 - A 1.0% annual growth rate was applied to Highway 584 for the 25-year horizon
 - No annual growth was applied to Range Road 71 as no new land uses are known to be pending.
- Analyze operational conditions during the morning and evening peak for the following horizons:
 - Future background + Full build-out of development 2030
 - Future background + Full build-out of development 2046AM and PM peak periods were derived from the traffic counts and used to reflect the most critical traffic operations scenarios.
- Assess intersection operational conditions and conduct warrant analyses for left- and right-turn lanes as well as a signalization warrant.

1.2.1 BACKGROUND TRAFFIC GROWTH RATE

The background traffic growth rate was established utilizing data available from Alberta Transportation. WSP looked at several highways in the area to assess the historical traffic growth. Available online data spans the years 2012 to 2020. In consideration of the impacts COVID-19 on work and recreational travel, the years 2011 through 2018 were used to assess background traffic growth.



Based on the data, area traffic growth from 2011 to 2018 ranged from a decrease of -6.2% to an increase of +1.7%. The general trend has seen very little growth in the traffic volumes on area highways.

WSP determined that it was important to assume some growth in traffic on Highway 584. We applied a 1.0% growth rate to the observed traffic. The rate of growth was applied to derive the near term (2030) and long term (2046) background traffic.

Appendix E contains details to support this assumption.

Figure 1.2-1 | Background Traffic Trends

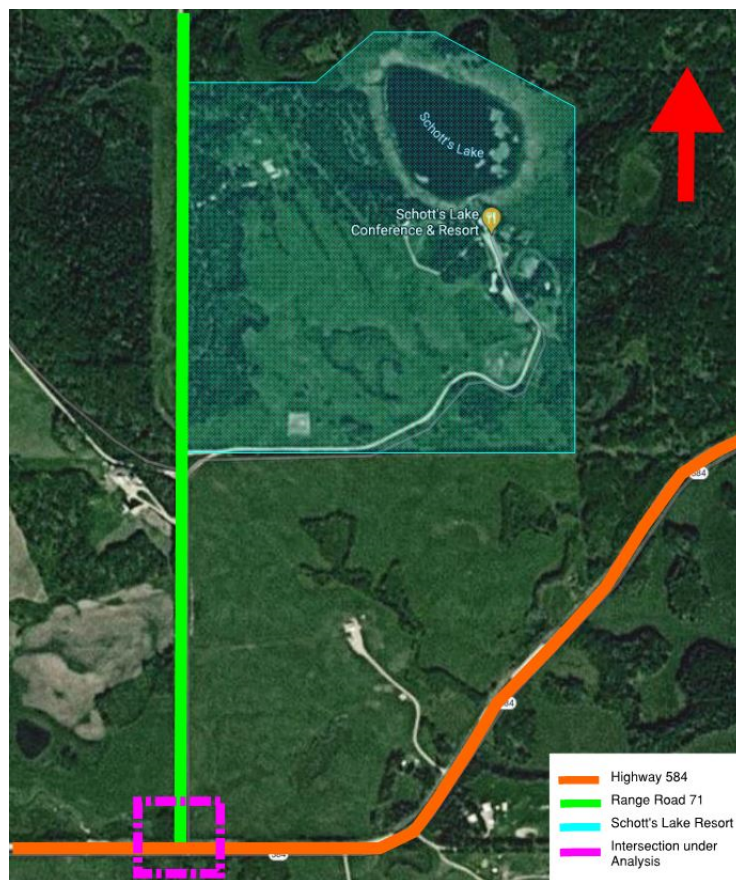
2 EXISTING CONDITIONS

2.1 EXISTING ROAD NETWORK

Alberta Highway 584 is a two-lane undivided rural standard highway with a posted speed of 90 km/h.

Based on the existing configuration, the Highway 584 and Range Road 71 is considered an Alberta Transportation Type 1a intersection using the AT's Standard At-Grade Intersection Layout (Figure D-7.5). Range Road 71 is a two-way, stop-controlled T-intersection with Highway 584, which is operating free-flow. There are currently no turning lane treatments provided at this intersection.

Figure 2.1-1 | Existing Road Map



2.2 INITIAL SITE OBSERVATIONS

Site visits were conducted by Mac Logan and Quinton Velcic. Observations from the site include:

- Clear sightlines along Highway 584 east and west of the Range Road 71 for drivers on the highway;
- Motorists accessing Highway 584 from Range Road 71 have unobstructed sightlines to the east and west from the point where they would stop before entering the highway;
- Range Road 71 is a gravel road, and;
- Range Road 71 provides access to a private residence and Well Site.

2.3 EXISTING TRAFFIC VOLUMES

Existing traffic information was collected using the Mio-Vision camera between May 21, 2021 & May 25, 2021. To capture the events of a long weekend, the camera was stationed from Thursday to Tuesday evening, with scheduled recording times from 7:00 a.m. – 9:00 p.m., beginning on Friday, May 21, 2021.

During the May 2021 long weekend, Schott's Lake Resort was closed to the public due to COVID. Trips observed on Range Road 71 would be from the residents of staff and residents of Schott's Lake Resort, residents of the adjacent farm and visits to the gas well at the north end of the road. It is therefore necessary to project all generated trips for the subject site development (see Section 3).

Each days' peak period was calculated and is illustrated in **Figure 2.3-1**, with notable peaks during Monday morning and Sunday afternoon. As such, the AM and PM peak were taken as the maximum demand scenario for the long weekend and used in the analysis. The AM peak period was determined to be Monday, May 24, 2021 from 10:15 a.m. – 11:15 a.m., while the PM peak period was determined to be Sunday, May 23, 2021 from 2:15 p.m. – 3:15 p.m. Review of automated traffic recorders on adjacent highways from the Alberta Transportation Traffic Volume Data Map, confirmed summer peaks.

Figure 2.3-2 and **2.3-3** illustrate the existing morning and afternoon peak hour traffic volumes for the intersection.

Figure 2.3-1 | Summary of Peak Periods over the Long Weekend

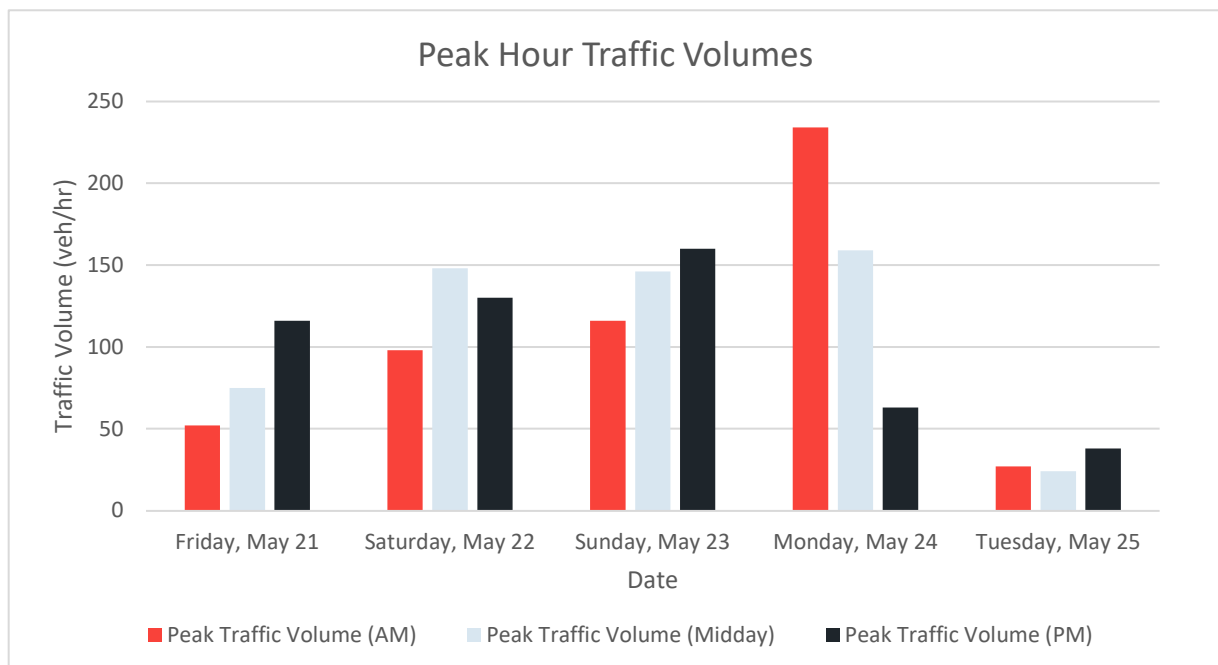


Figure 2.3-2 | AM Peak Hour Existing Traffic Volumes

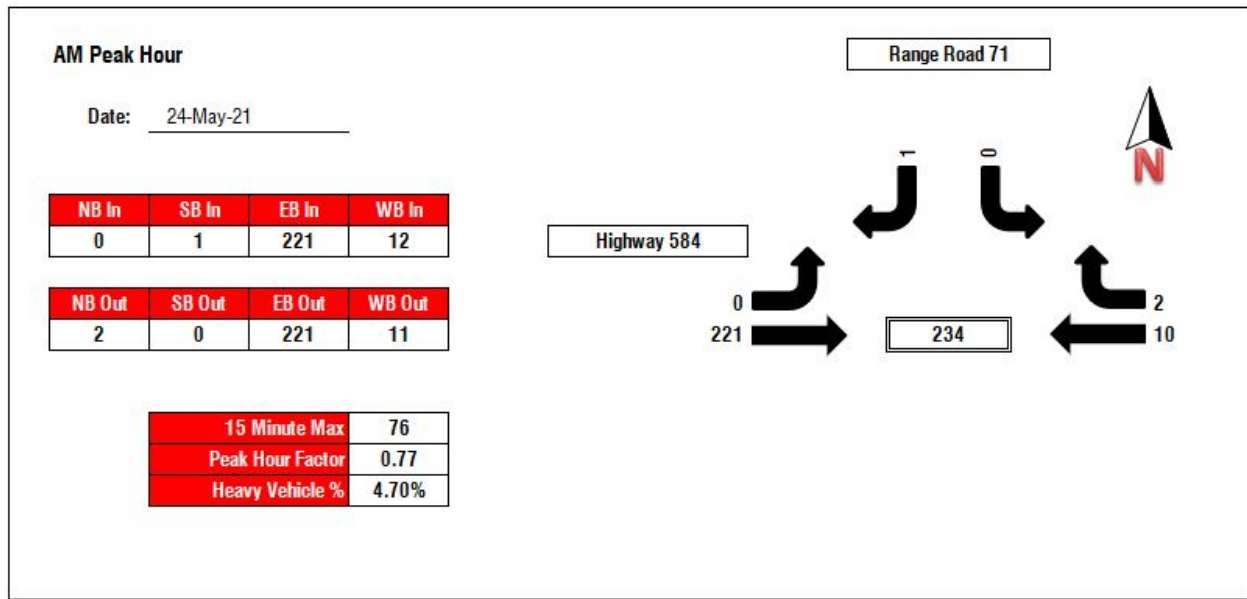
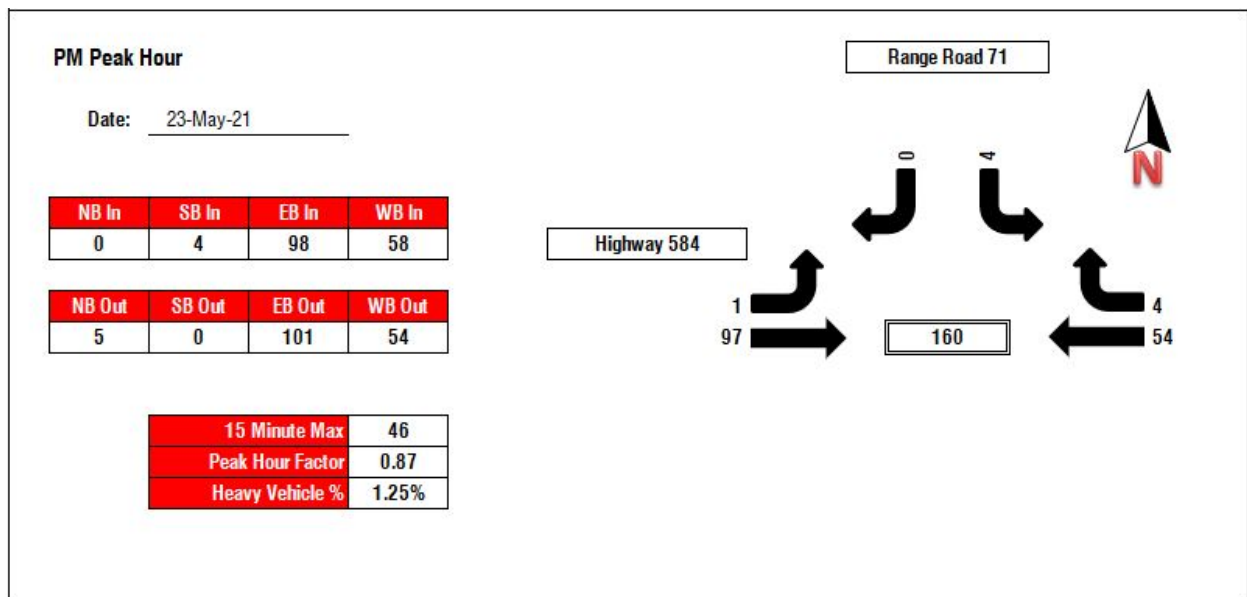


Figure 2.3-3 | PM Peak Hour Existing Traffic Volumes



3 TRAFFIC GENERATION

The proposed development was broken down into several different land-uses to aid in trip generation, namely, Recreational, Quality Dining, and Lodging as defined by the ITE Trip Generation Manual. As such, new trips generated by this development were determined by further categorizing each use by sub-categories (i.e. hotel and motel for the proposed hotel and cabins, respectively, quality dining for the existing restaurant and campgrounds for the existing and proposed RV and tent sites). To note, the Event Centre was not categorized by a specific land-use as defined by the ITE Generation Manual, rather, the trips generated were based on a first principles approach.

Trip generation was estimated for 2 horizons: Background + Development (2030) and Background + Development (2046). To note, an annual background traffic growth rate of 1.0% was applied to both the 9-year horizon, and the 25-year horizon as discussed in section 1.2 of this report.

3.1 TRIP GENERATION

3.1.1 HOSPITALITY - ITE BASED

Vehicle trip generation estimates were derived individually for each of the Schott's Lake developments existing and proposed land uses. For the majority of the existing and proposed uses, WSP applied rates from the ITE Trip Generation Manual (10th Edition). The Event Centre trips have been generated based on first principles approach as no direct comparable ITE trip rate was available.

See **Table 3.1-1** with respect to how Schott's Lake re-development was broken down into different land uses.

Table 3.1-1 | Proposed Development Trip Generation – ITE Trip Gen Rates

Use	Gen Rate Parameters		ITE Land Use	ITE Trip Gen Rates					
	Occupancy	# of Seats		AM Rate	AM % IN	AM % OUT	PM Rate	PM % IN	PM % OUT
Hotel	80 Rooms	-	310 – Lodging (Hotel)	0.65	55%	45%	0.73	57%	43%
Cabins	15 Rooms	-	320 – Lodging (Motel)	$T=0.49(X)+4.47$	39%	62%	$T=0.47(X)+3.93$	54%	46%
Campground Sites	133 Sites	-	416 – Recreational (Campground)	0.25	36%	64%	0.41	62%	38%
Restaurant	-	100	931 – Services (Quality Restaurant)	0.15	69%	31%	$T=0.35(X)-16.83$	59%	41%

3.1.2 EVENT CENTRE

For the proposed Event Centre, a first principles approach was taken to determine vehicle trips generated to and from the development. It is assumed with a capacity of approximately 250 people, there will be 70% of occupants travelling from within the resort. This results in approximately 75 travellers who will commute for the event, day of. Assuming there are 2 occupants per vehicle, it is concluded that the event centre generates approximately 38 cars to and from this development.

Assuming the event centre is used for a single day event (i.e. wedding), trip assignment is assumed to be 100% from the direction of nearby Sundre, Alberta. This is based off the idea that attendees of a single day event will either commute from major cities or stay in Sundre the evening before and commute the day of. The hours of 1:30 p.m. –

2:30 p.m. & 7:00 p.m. – 8:00 p.m. were used as peak arrival and departure times for this event on the assumption that approximately 80% (30 trips) of attendees arrive one hour before the estimated 2:30 p.m. event and 50% (19 trips) of attendees leave one hour after the 7:00 p.m. end of the event.

The peak traffic periods for the events centre occur at different times than the peaks of the overall Schott's Lake site. In addition, the overall site has arrival and departure traffic on Friday/Sunday peaks includes a significant proportion of the event centre guests, therefore these trips are counted in other land uses components previously detailed.

Table 3.1-2 | Proposed Development Trip Generation – Event Centre

Gen Rate Parameters			ITE Trip Gen Rates					
Use	Occupancy	# of Seats	AM Rate	AM % IN	AM % OUT	PM Rate	PM % IN	PM % OUT
Event Centre	250 Guests	250						
Peak Periods of overall Schott's Lake Site			0.01	50%	50%	0.02	50%	50%
Peak Period of Event Centre (Saturday)			0.12	100%	0%	0.075	5%	95%

3.2 TRIP DISTRIBUTION

The anticipated site generated traffic volumes were applied to the road network based on an assessment of how users entered/exit the development as captured during traffic counts. Distribution refers to the origin and destination of the site-generated trips while the assignment assesses the actual route that the vehicle will take between their origin and destination. To note, because there is only one access to the development, traffic assignment was assumed to be 90% of traffic volumes travel to and from the east, while 10% of traffic volumes travel to and from the west. There are no other alternative routes to access the site. See **Figure 2-1.1** for reference.

By applying the ITE trip generation rates to rate parameters, trips for the proposed development were established and are summarized in **Table 3.2-1**.

Table 3.2-1 | Proposed Development Trip Distribution (Site Peak Periods)

Use	New Trips					
	AM			PM		
	Trips	In	Out	Trips	In	Out
Hotel	52	29	23	58	33	25
Cabins	12	7	7	11	6	5
Campground Sites	33	12	21	55	34	21
Restaurant	3	2	1	3	2	1
Event Centre	3	2	1	5	2	3
TOTAL	103	50	53	132	77	56

3.3 TRIP ASSIGNMENT

As there is little existing data to reference, combined with the closure of the resort on the long weekend, it is assumed that most of the traffic travels to and from the east. This assumption is also based off the fact that there is a single access for traffic to and from the resort. The new trips were distributed in and out, as presented in **Table 3.3-1**.

Table 3.3-1 | Proposed Development Trip Distribution

Roadways	Dir	%Distribution - Morning		%Distribution - Evening	
		Enter	Exit	Enter	Exit
Range Road 71	East	90%	90%	90%	90%
	West	10%	10%	10%	10%

3.3.1 PEAK DEVELOPMENT TRIPS

Figures 3.3-1 and **3.3-2** illustrate the new trips distributed during the AM and PM peak periods. The new traffic has been added to the projected background traffic. The future background traffic on Highway 584 has been forecasted based on applying growth rates as detailed in Section 1.2.

By-pass trips were considered as zero for all land-uses on the site as trips are travelling directly to and from Schott's Lake Resort as a destination.

Figure 3.3-1 | AM Peak New Trip Distribution

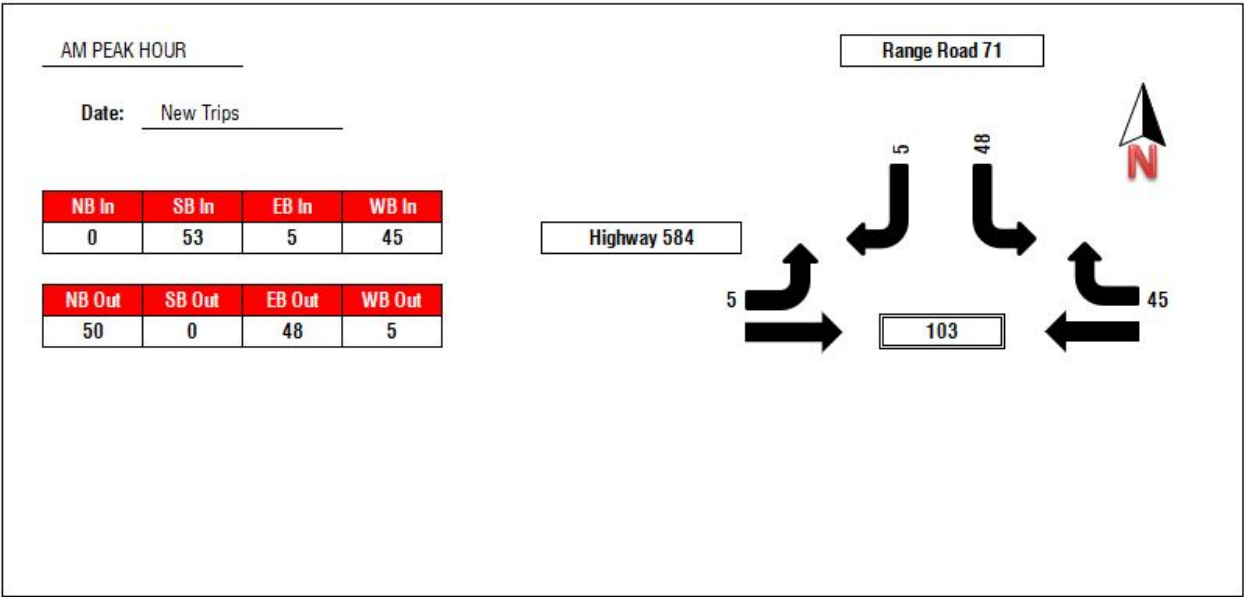
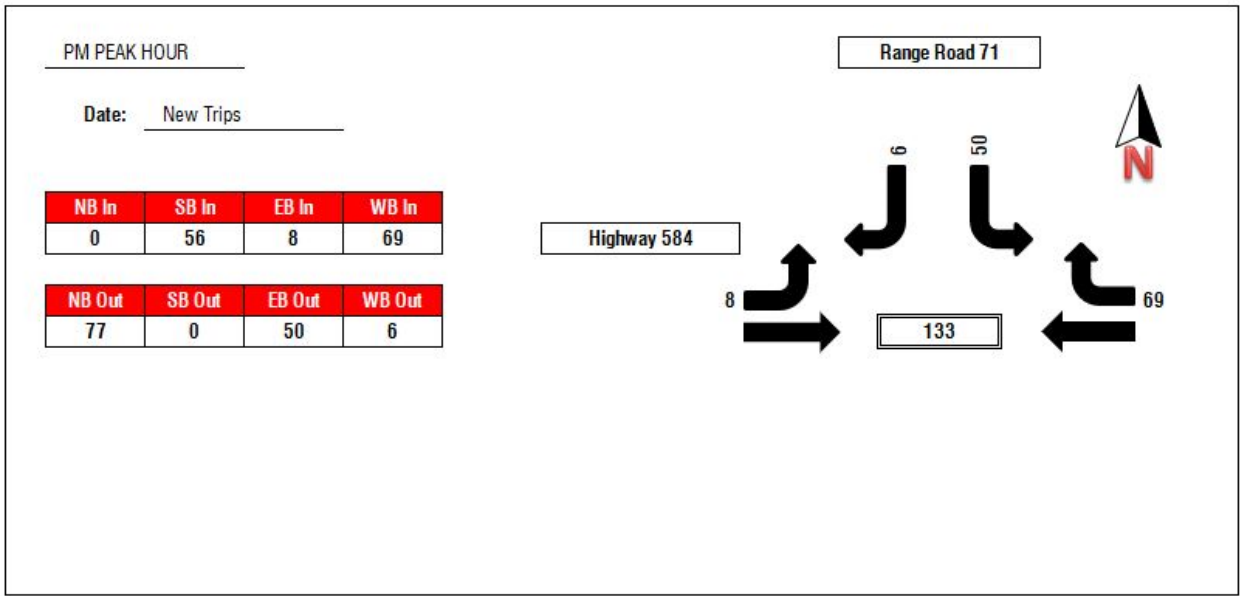


Figure 3.3-2 | PM Peak New Trip Distribution



4 INTERSECTION ANALYSIS

Future traffic operations at the subject intersection was analysed for future forecast background volumes and total future forecast volumes.

Background forecast volumes are a projection of existing traffic experienced at the intersection, with no influence from the proposed development. For the two forecasted horizons, a 1.0% annual growth rate was used for both the 9-year horizon and 25-year horizon. Both growth rates were only applied to through movements along Highway 584.

Total forecast volumes are a combination of the background volumes and generated trips from the proposed development. The total forecast volumes were then analyzed for unsignalized intersection operation performance.

4.1 BACKGROUND + DEVELOPMENT – 2030

For this horizon, the background volumes were combined with the generated trips from the development. **Figure 4.1-1** and **4.1-2** illustrate the turning movements during this horizon.

Figure 4.1-1 | Total Forecast Volumes – 2030 (AM)

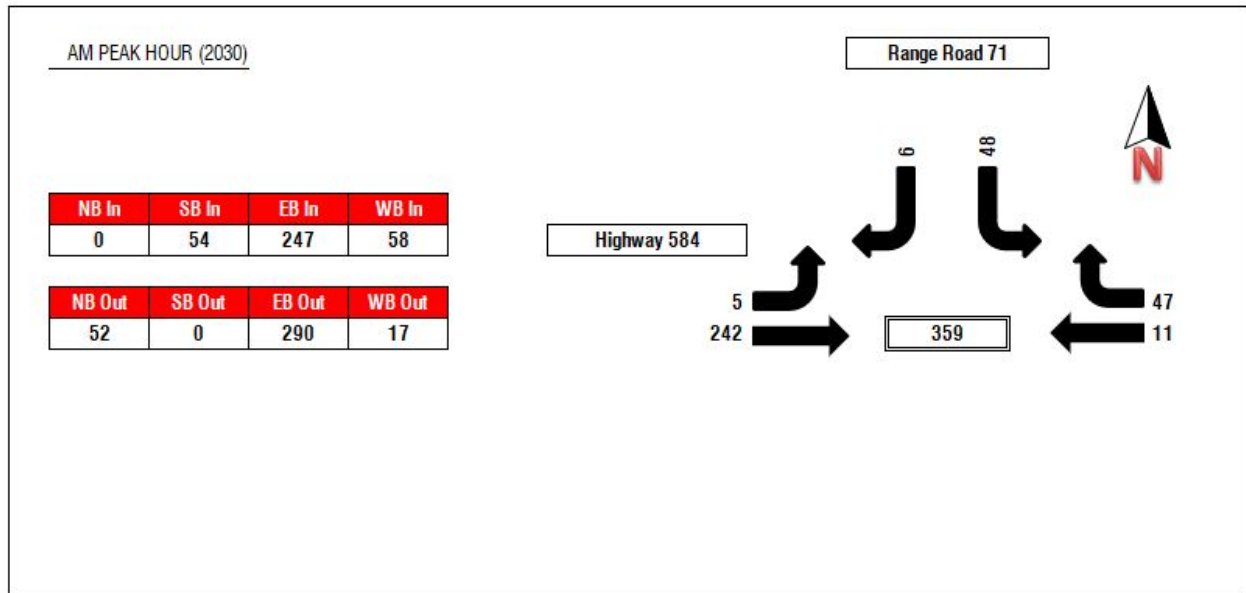
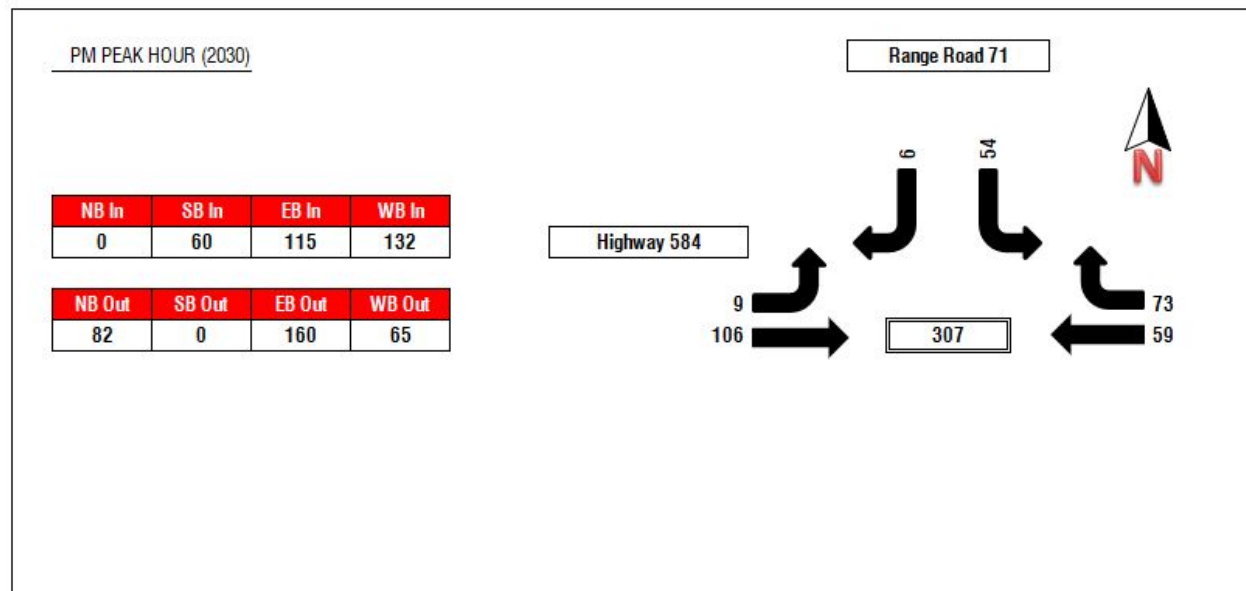


Figure 4.1-2 | Total Forecast Volumes – 2030 (PM)



4.2 BACKGROUND + DEVELOPMENT – 2046

For this horizon, the background volumes with an applied annual growth rate of 1.0% over 25 years were combined with the generated trips from the development. **Figure 4.2-1** and **4.2-2** illustrate the turning movements during this horizon.

Figure 4.2-1 | Total Forecast Volumes – 2046 (AM)

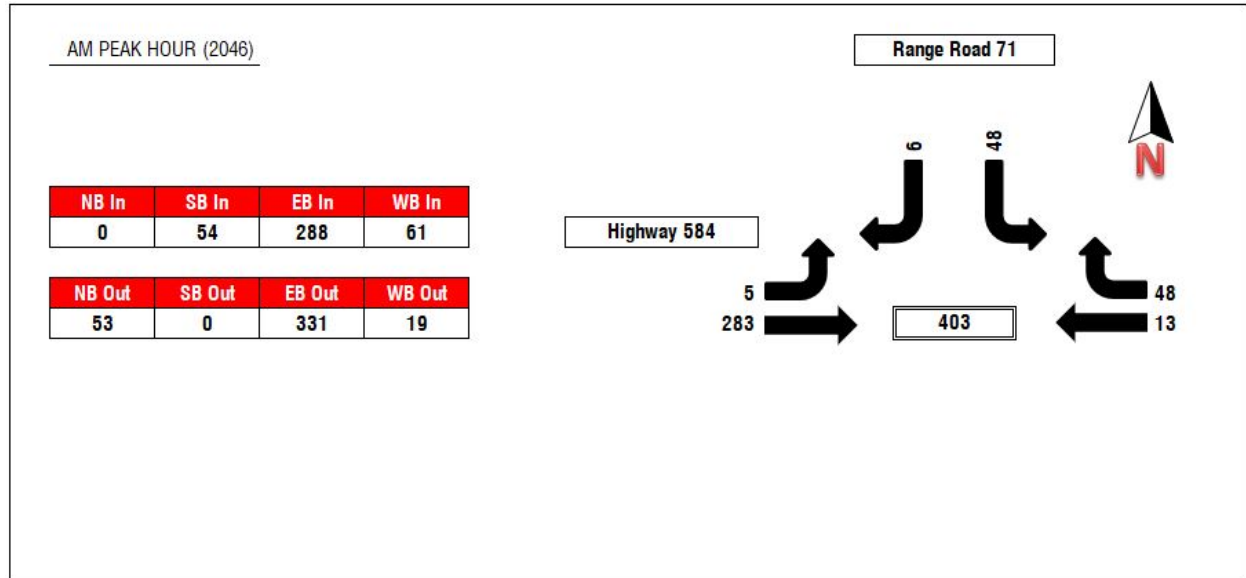
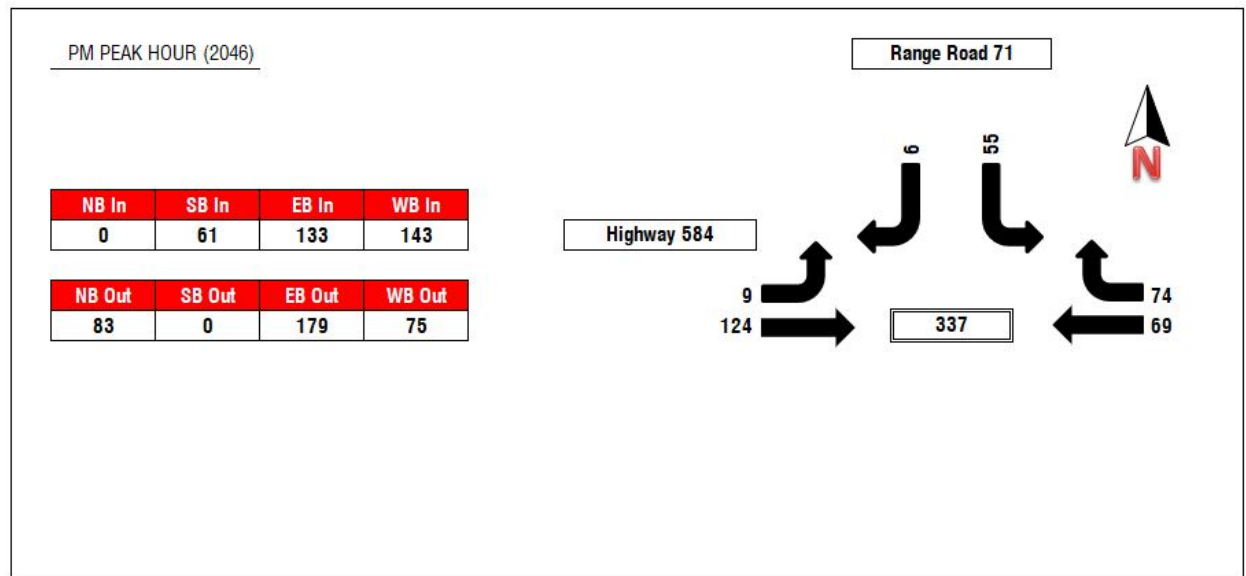


Figure 4.2-2 | Total Forecast Volumes – 2046 (PM)



4.3 INTERSECTION ANALYSIS RESULTS

Background (existing) trips and total forecast scenarios have been assessed using Synchro Suite 10.0 (industry-standard traffic analysis software). The study intersection was assessed using two study horizons for AM and PM (20230 and 2046), under the assumption that no modifications to the intersection would be made.

Level of service (LOS) analysis assesses the effectiveness of a transportation system alphabetically from A to F, with LOS A equating to the best operating conditions and LOS F representing the failure of a movement or intersection due to traffic demand exceeding the available capacity of the intersection during one hour of operation.

EXISTING CONDITION – 2021

- **AM Peak:** The intersection currently operates at a Level of Service (LOS) A, with an average delay of 0.0 seconds and intersection capacity utilization (ICU) of 21.6%.
- **PM Peak:** The intersection currently operates at a Level of Service (LOS) A, with an average delay of 0.3 seconds and intersection capacity utilization (ICU) of 15.9%.

BACKGROUND + DEVELOPMENT – 2030

- **AM Peak:** The intersection currently operates at a Level of Service (LOS) A, with an average delay of 1.6 seconds and intersection capacity utilization (ICU) of 26.7%.
To note, the lane and approach LOS of Range Road 71 heading SB is B, with a delay of 10.9 seconds.
- **PM Peak:** The intersection currently operates at a Level of Service (LOS) A, with an average delay of 2.2 seconds and intersection capacity utilization (ICU) of 23.0%.
To note, the lane and approach LOS of Range Road 71 heading SB is B, with a delay of 10.2 seconds.

BACKGROUND + DEVELOPMENT – 2046

- **AM Peak:** The intersection currently operates at a Level of Service (LOS) A, with an average delay of 1.4 seconds and intersection capacity utilization (ICU) of 28.9%.
To note, the lane and approach LOS of Range Road 71 heading SB is B, with a delay of 11.4 seconds.
- **PM Peak:** The intersection currently operates at a Level of Service (LOS) A, with an average delay of 2.0 seconds and intersection capacity utilization (ICU) of 23.9%.
To note, the lane and approach LOS of Range Road 71 heading SB is B, with a delay of 10.5 seconds.

4.3.1 LEFT TURN WARRANT

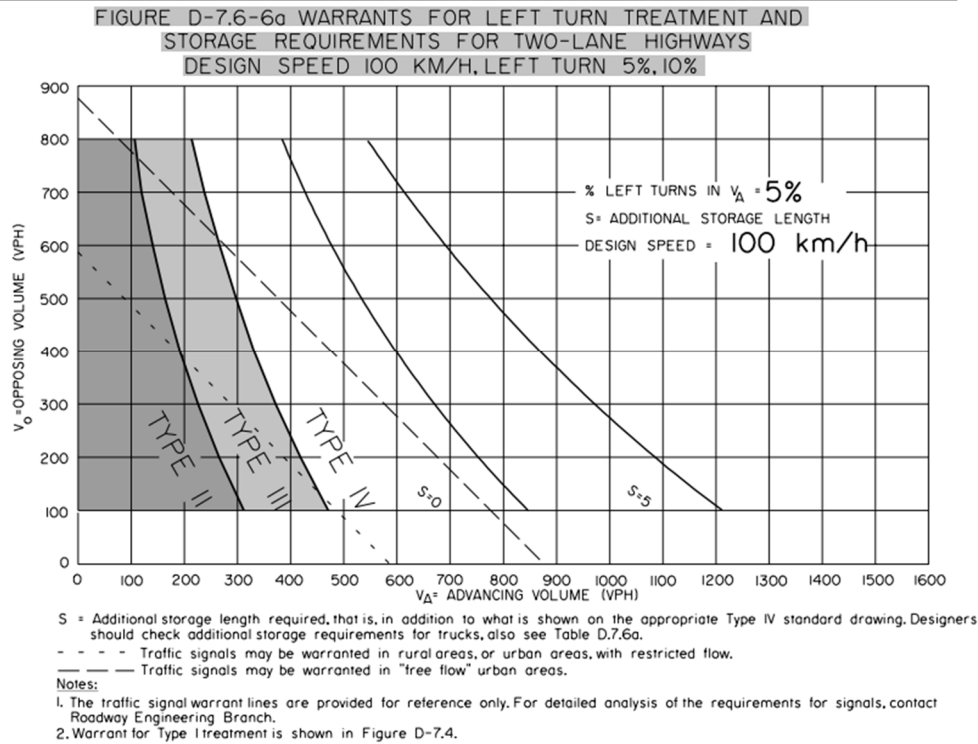
A Left-Turn warrant was conducted for both the total forecasted horizons of 2030 and 2046. With reference to the Highway Geometric Design Guide, figure D-7.6-6a was used, with input parameters including a design speed of 100 km/h and a percentage of left turns ~2.0 – 5.0%.

As defined in the Highway Geometric Design Guide, a left-turn warrant is based on, “*The interference caused by standing left turning vehicles in the through advancing traffic can reduce capacity and create a safety hazard. The amount of interference is dependent on opposing volumes, advancing volumes and the number of left turning vehicles.*” Therefore, the advancing volumes (V_a) and opposing volumes (V_o) are important parameters with which to measure. **Figure 4.3-1** illustrates the design guide figure D-7.6-6a used for warrant analysis.

Figure 4.3-1 | Highway Geometric Design Guide – Figure D.7.6-6a

AUGUST 1999

HIGHWAY GEOMETRIC DESIGN GUIDE



BACKGROUND + DEVELOPMENT – 2030

AM Peak: A left-turn is not warranted based on the following:

- $V_O = 58$
- $V_A = 247$

PM Peak: A left-turn warrant of Type IIa is warranted based on the following:

- $V_O = 132$
- $V_A = 115$

BACKGROUND + DEVELOPMENT – 2046

AM Peak: A left-turn is not warranted based on the following:

- $V_O = 61$
- $V_A = 288$

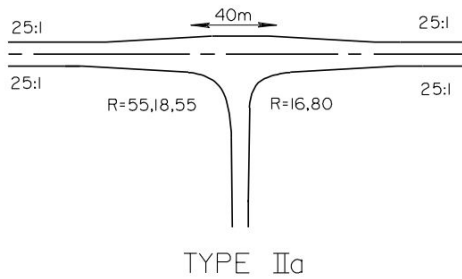
PM Peak: A left-turn warrant of Type IIa is warranted based on the following:

- $V_O = 143$
- $V_A = 133$

Based on the above conclusion for 2030 and subsequently 2046, the intersection treatment warranted for left-turn movements is illustrated below in **Figure 4.3-2**.

Figure 4.3-2 | Type IIa Improvement

TYPE II's



4.3.2 RIGHT TURN WARRANT

Using the Highway Geometric Design Guide, a right-turn warrant was reviewed and is defined by the following:

“To warrant an exclusive right turn lane at a two-lane highway intersection in Alberta, the following three conditions must all be met:

- 1. Main (or through) road AADT ≥ 1800*
- 2. Intersecting road AADT ≥ 900 , and*
- 3. Right turn daily traffic volume ≥ 360 for the movement in question.”*

As such, a right-turn is not warranted at the study intersection because all three criteria are not met.

4.3.3 TRAFFIC SIGNAL WARRANT

A traffic signal warrant was conducted to ensure any and all improvements to the intersection were factored. Based on the Alberta Transportation – Traffic Signal Warrant Analysis, a signal is not warranted. Refer to Appendix C. The ‘Warrant’ score, defined as a combination of the traffic demand and collision history data, was calculated to be 8 points, well below the minimum threshold of 75 points. 2030 AM and PM peak background plus development volumes were utilized for this analysis.

4.3.4 EVENT CENTRE PEAK PERIOD ANALYSIS

Synchro was used to determine the impact of the Event Centre's peak period trips on the intersection during the land uses dissimilar peak periods. This analysis uses Saturday traffic as the background traffic period. The summary reports of this analysis can be found in Appendix A, with brief intersection summary's illustrated in **Tables 4.3-1** and **4.3-2**.

This specific analysis demonstrates that the Event Centre peak period occurs at a point where Highway 584 traffic volumes will be lower, Schott's Lake other uses will be less active, and as a result, the overall intersection operations are well within available capacity. The total traffic at these Event Centre peak times is also lower than the total traffic in the AM and PM peaks for the combined Schott's Lake resort.

Table 4.3-1 | Intersection Summary – PM Peak (Pre-Event)

1:30 p.m. – 2:30 p.m.	Average Delay (s)	Intersection Capacity Utilization (ICU)	LOS Level of Service
Without Event Centre	2.5	21.3%	A
With Event Centre	2.2	21.3%	A

Table 4.3-2 | Intersection Summary – PM Evening (Post Event)

7:00 p.m. – 8:00 p.m.	Average Delay (s)	Intersection Capacity Utilization (ICU)	LOS Level of Service
Without Event Centre	2.2	16.7%	A
With Event Centre	3.1	16.7%	A

5 SUMMARY OF RECOMMENDATIONS

WSP Canada Group Limited (WSP) was commissioned by Schott's Lake RV and Guest Ranch Inc. to complete a Traffic Impact Assessment (TIA) for the Schott's Lake Conference & RV Resort re-development. The following findings and recommendations have resulted from the completion of the TIA:

- The study intersection is currently operating at LOS 'A' for both AM and PM peak periods used for this analysis.
- The study intersection is forecasted to operate at LOS 'A' for both AM and PM peak periods used for this analysis (2030 & 2046) without the proposed development.
- The lane and approach LOS of Range Road 71 to Highway 584 is forecasted to operate at LOS 'B' for both AM and PM peaks in 2030 and both LOS "B" during the AM and PM peaks in 2046.
- Upon completion of a Left-Turn warrant for both 2030 and 2046, it was found that a left turn improvement is warranted during the PM peak periods. It is recommended that the intersection be improved to model a Type IIa intersection illustrated in **Figure 4.3-2** above. This would allow for an approximately 40m widening of the intersection to act as a by-pass area for eastbound vehicles.
- It was found that a right turn from Highway 584 onto Range Road 71 is not warranted.
- It was found that the study intersection does not warrant a traffic signal.

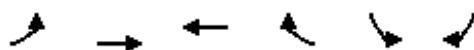
APPENDIX

A BACKGROUND AND TOTAL FORECAST VOLUMES

HCM Unsignalized Intersection Capacity Analysis (Background AM 2021)

1: Highway 584 & Range Rd 71

08-10-2021

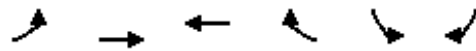


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	↔
Traffic Volume (veh/h)	0	221	10	2	0	1
Future Volume (Veh/h)	0	221	10	2	0	1
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.77	0.77	0.92	0.92	0.92
Hourly flow rate (vph)	0	287	13	2	0	1
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	15				301	14
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	15				301	14
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1603				691	1066
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	287	15	1			
Volume Left	0	0	0			
Volume Right	0	2	1			
cSH	1603	1700	1066			
Volume to Capacity	0.00	0.01	0.00			
Queue Length 95th (m)	0.0	0.0	0.0			
Control Delay (s)	0.0	0.0	8.4			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	8.4			
Approach LOS			A			
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			21.6%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis (Background PM 2021)

4: Highway 584 & Range Rd 71

08-10-2021

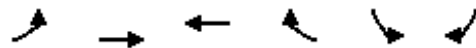


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Volume (veh/h)	1	97	54	4	4	0
Future Volume (Veh/h)	1	97	54	4	4	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.87	0.87	0.92	0.92	0.92
Hourly flow rate (vph)	1	111	62	4	4	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	66				177	64
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	66				177	64
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1536				812	1000
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	112	66	4			
Volume Left	1	0	4			
Volume Right	0	4	0			
cSH	1536	1700	812			
Volume to Capacity	0.00	0.04	0.00			
Queue Length 95th (m)	0.0	0.0	0.1			
Control Delay (s)	0.1	0.0	9.5			
Lane LOS	A		A			
Approach Delay (s)	0.1	0.0	9.5			
Approach LOS			A			
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			15.9%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis (Background + Development AM 2030)

4:

10-25-2021

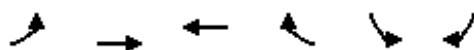





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Volume (veh/h)	5	242	11	47	48	6
Future Volume (Veh/h)	5	242	11	47	48	6
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.77	0.77	0.92	0.92	0.92
Hourly flow rate (vph)	5	314	14	51	52	7
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	65				364	40
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	65				364	40
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				92	99
cM capacity (veh/h)	1537				634	1032
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	319	65	59			
Volume Left	5	0	52			
Volume Right	0	51	7			
cSH	1537	1700	664			
Volume to Capacity	0.00	0.04	0.09			
Queue Length 95th (m)	0.1	0.0	2.3			
Control Delay (s)	0.1	0.0	10.9			
Lane LOS	A		B			
Approach Delay (s)	0.1	0.0	10.9			
Approach LOS			B			
Intersection Summary						
Average Delay			1.6			
Intersection Capacity Utilization			26.7%		ICU Level of Service	
					A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis (Background + Development PM 2030)

4:

10-25-2021

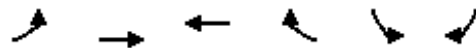


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	9	106	59	73	54	6
Future Volume (Veh/h)	9	106	59	73	54	6
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.87	0.87	0.92	0.92	0.92
Hourly flow rate (vph)	10	122	68	79	59	7
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	147				250	108
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	147				250	108
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				92	99
cM capacity (veh/h)	1435				738	946
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	132	147	66			
Volume Left	10	0	59			
Volume Right	0	79	7			
cSH	1435	1700	756			
Volume to Capacity	0.01	0.09	0.09			
Queue Length 95th (m)	0.2	0.0	2.3			
Control Delay (s)	0.6	0.0	10.2			
Lane LOS	A		B			
Approach Delay (s)	0.6	0.0	10.2			
Approach LOS			B			
Intersection Summary						
Average Delay			2.2			
Intersection Capacity Utilization			23.0%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis (Background + Development AM 2046)

4:

10-25-2021

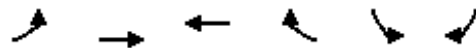





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Volume (veh/h)	5	283	13	48	48	6
Future Volume (Veh/h)	5	283	13	48	48	6
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.77	0.77	0.92	0.92	0.92
Hourly flow rate (vph)	5	368	17	52	52	7
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	69				421	43
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	69				421	43
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				91	99
cM capacity (veh/h)	1532				587	1027
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	373	69	59			
Volume Left	5	0	52			
Volume Right	0	52	7			
cSH	1532	1700	619			
Volume to Capacity	0.00	0.04	0.10			
Queue Length 95th (m)	0.1	0.0	2.5			
Control Delay (s)	0.1	0.0	11.4			
Lane LOS	A		B			
Approach Delay (s)	0.1	0.0	11.4			
Approach LOS			B			
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utilization		28.9%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis (Background + Development PM 2046)

3:

10-25-2021












Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	9	124	69	74	55	5
Future Volume (Veh/h)	9	124	69	74	55	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.87	0.87	0.92	0.92	0.92
Hourly flow rate (vph)	10	143	79	80	60	5
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	159				282	119
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	159				282	119
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				91	99
cM capacity (veh/h)	1420				703	933
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	153	159	65			
Volume Left	10	0	60			
Volume Right	0	80	5			
cSH	1420	1700	717			
Volume to Capacity	0.01	0.09	0.09			
Queue Length 95th (m)	0.2	0.0	2.4			
Control Delay (s)	0.5	0.0	10.5			
Lane LOS	A		B			
Approach Delay (s)	0.5	0.0	10.5			
Approach LOS			B			
Intersection Summary						
Average Delay			2.0			
Intersection Capacity Utilization			23.9%		ICU Level of Service	
Analysis Period (min)			15		A	

HCM Unsignalized Intersection Capacity Analysis (Event Centre, Midday 2030)

4:

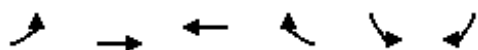
08-10-2021




						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	77	49	70	40	10
Future Volume (Veh/h)	10	77	49	70	40	10
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.93	0.93	0.92	0.92	0.92
Hourly flow rate (vph)	11	83	53	76	43	11
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	129				196	91
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	129				196	91
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				95	99
cM capacity (veh/h)	1469				791	972
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	94	129	54			
Volume Left	11	0	43			
Volume Right	0	76	11			
cSH	1469	1700	822			
Volume to Capacity	0.01	0.08	0.07			
Queue Length 95th (m)	0.2	0.0	1.7			
Control Delay (s)	0.9	0.0	9.7			
Lane LOS	A		A			
Approach Delay (s)	0.9	0.0	9.7			
Approach LOS			A			
Intersection Summary						
Average Delay		2.2				
Intersection Capacity Utilization		21.3%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis (Without Event Centre, Midday 2030)

4:

08-10-2021

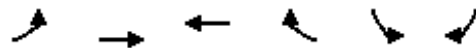


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	77	49	40	40	10
Future Volume (Veh/h)	10	77	49	40	40	10
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.93	0.93	0.92	0.92	0.92
Hourly flow rate (vph)	11	83	53	43	43	11
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	96				180	74
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	96				180	74
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				95	99
cM capacity (veh/h)	1510				809	993
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	94	96	54			
Volume Left	11	0	43			
Volume Right	0	43	11			
cSH	1510	1700	840			
Volume to Capacity	0.01	0.06	0.06			
Queue Length 95th (m)	0.2	0.0	1.6			
Control Delay (s)	0.9	0.0	9.6			
Lane LOS	A		A			
Approach Delay (s)	0.9	0.0	9.6			
Approach LOS			A			
Intersection Summary						
Average Delay			2.5			
Intersection Capacity Utilization		21.3%		ICU Level of Service	A	
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis (Event Centre, Evening 2030)

4:

08-10-2021

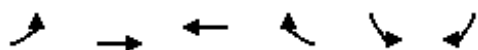


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Volume (veh/h)	5	49	9	46	46	3
Future Volume (Veh/h)	5	49	9	46	46	3
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.93	0.93	0.92	0.92	0.92
Hourly flow rate (vph)	5	53	10	50	50	3
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	60				98	35
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	60				98	35
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				94	100
cM capacity (veh/h)	1556				903	1044
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	58	60	53			
Volume Left	5	0	50			
Volume Right	0	50	3			
cSH	1556	1700	910			
Volume to Capacity	0.00	0.04	0.06			
Queue Length 95th (m)	0.1	0.0	1.5			
Control Delay (s)	0.7	0.0	9.2			
Lane LOS	A		A			
Approach Delay (s)	0.7	0.0	9.2			
Approach LOS			A			
Intersection Summary						
Average Delay			3.1			
Intersection Capacity Utilization			16.7%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis (Without Event Centre, Evening 2030)

4:

08-10-2021



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Volume (veh/h)	5	49	9	46	27	3
Future Volume (Veh/h)	5	49	9	46	27	3
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.93	0.93	0.92	0.92	0.92
Hourly flow rate (vph)	5	53	10	50	29	3
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	60				98	35
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	60				98	35
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				97	100
cM capacity (veh/h)	1556				903	1044
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	58	60	32			
Volume Left	5	0	29			
Volume Right	0	50	3			
cSH	1556	1700	915			
Volume to Capacity	0.00	0.04	0.03			
Queue Length 95th (m)	0.1	0.0	0.9			
Control Delay (s)	0.7	0.0	9.1			
Lane LOS	A		A			
Approach Delay (s)	0.7	0.0	9.1			
Approach LOS			A			
Intersection Summary						
Average Delay		2.2				
Intersection Capacity Utilization		16.7%		ICU Level of Service		A
Analysis Period (min)		15				

APPENDIX

B INTERSECTION TREATMENT WARRANTS

Schott's Lake TIA
Project Number: 211-04399-00

0
Project Number:

0.01
9
9.37%

V_A* ADVANCING VOLUME (VPH)

5 = Additional storage length required, that is, in addition to what is shown on the appropriate Type IV standard drawing. Designers should check additional storage requirements for trucks, also see Table D7-6a.

- - - Traffic signals may be warranted in rural areas, or urban areas, with restricted flow.

- - - Traffic signals may be warranted in "free flow" urban areas.

Notes:

1. Traffic signal warrant lines are provided for reference only. For detailed analysis of the requirements for signals, contact Roadway Engineering Branch.

2. Warrant for Type I treatment is shown in Figure D-7A.

V_A* ADVANCING VOLUME (VPH)

V_O* OPPOSING VOLUME (VPH)

% LEFT TURNS IN V_A = 10%

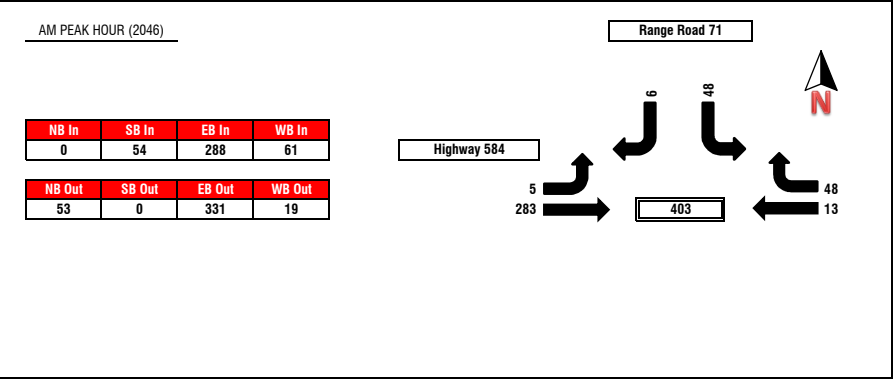
S = ADDITIONAL STORAGE LENGTH

DESIGN SPEED = 100 km/h

V_A* ADVANCING VOLUME (VPH)

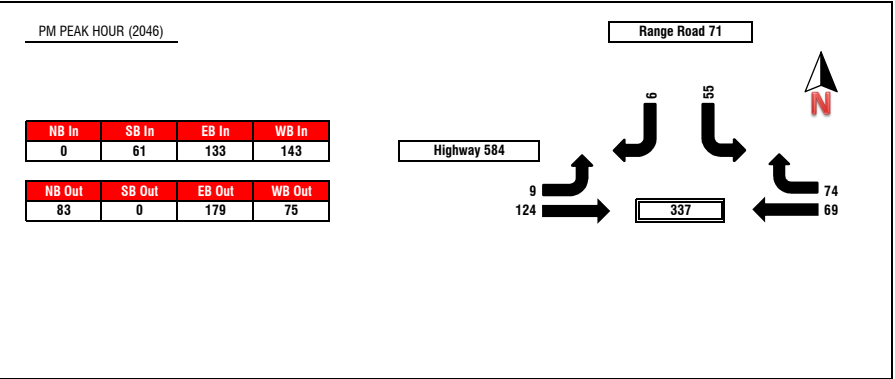
Turning Movement Count Summary - Background + Development (2046)
Range Road 71 & Highway 584 - Schott's Lake Conference & Resort

Schott's Lake TIA
Project Number: 211-04399-00



Turning Movement Count Summary - Background + Development (2046)
Range Road 71 & Highway 584 - Schott's Lake Conference & Resort

0
Project Number:

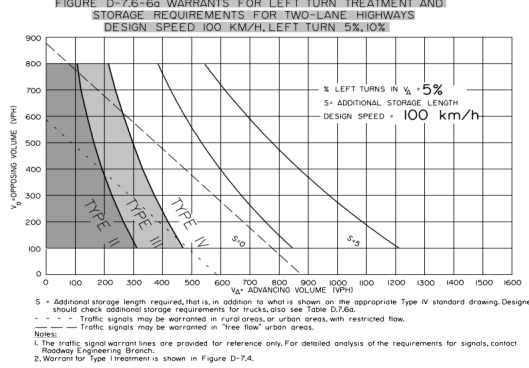


Growth Factor (per Year) 0.01
Year 2046 25
Assumed Growth Factor 28.24%

design speed 100
% of Left turn 1.74%
Vo 61
Va 288

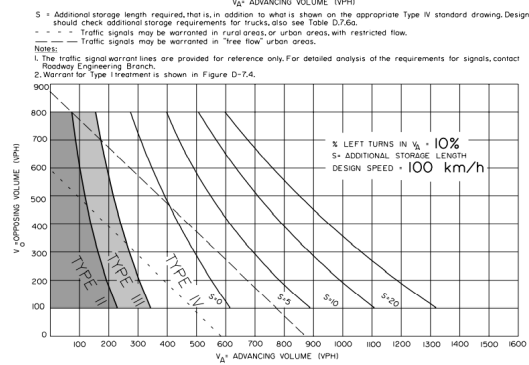
not warranted

AUGUST 1999 HIGHWAY GEOMETRIC DESIGN GUIDE



Design Speed 100
% Left Turn 6.56%
Vo 143
Va 133

Type II warranted



APPENDIX

C SIGNAL WARRANT





Alberta Transportation - Traffic Signal Warrant Analysis

Main Street (name) Highway 584
Side Street (name) Range Road 71
Quadrant / Int #
CHECK SHEET

for Warrant Calculation
Results, please hit 'Page
Down'

Direction (EW or NS) EW
Direction (EW or NS) NS
Comments Analysis based on Background
plus Development for 2030

Road Authority: Alberta Transportation
City: Sundre, AB
Analysis Date: 2021 May 21, Fri
Count Date: 2021 May 21, Fri
Date Entry Format: (yyyy-mm-dd)

Lane Configuration		Excl LT	Th & LT	Through	Th+RT+LT	Th & RT	Excl RT	UpStream Signal (m)	# of Thru Lanes
Highway 584	WB					1		1,000	1
Highway 584	EB		1					1,000	1
Range Road 71	NB								
Range Road 71	SB				1				

Are the Range Road 71 SB right turns significantly impeded by through movements? (y/n)

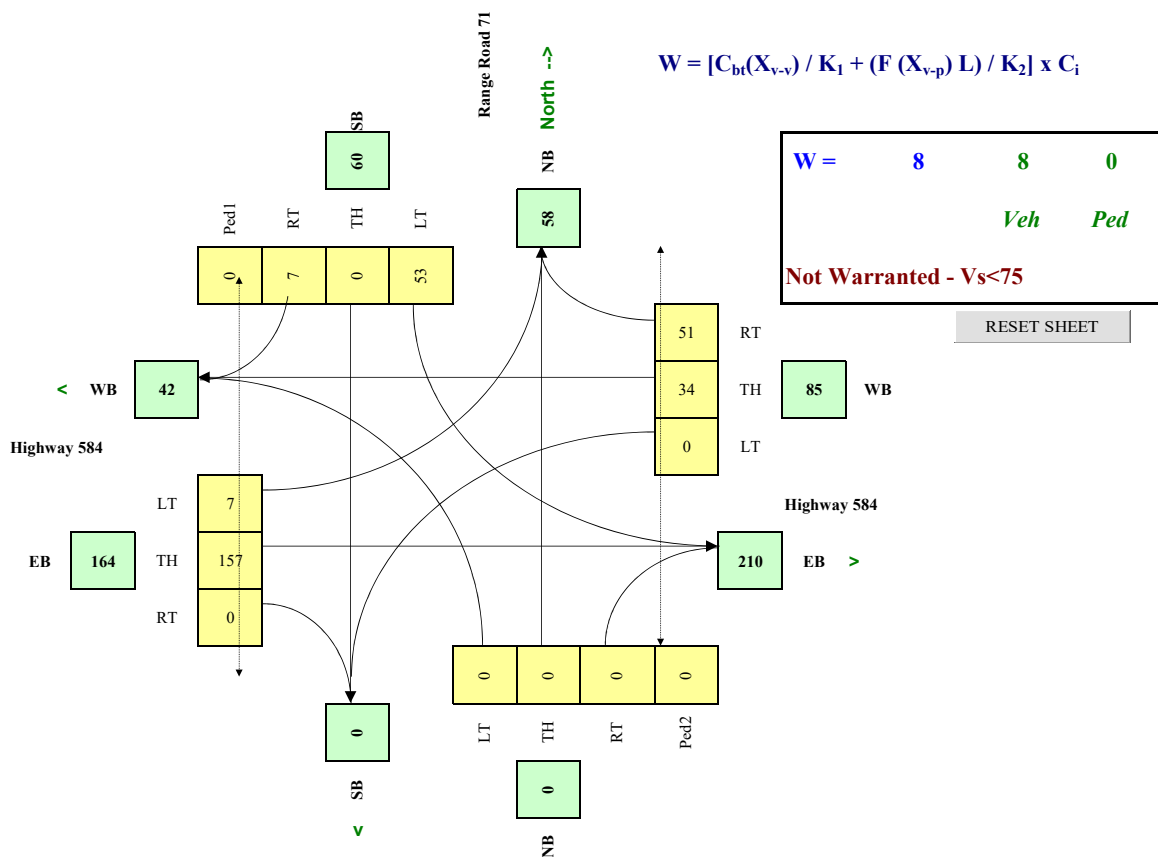
Other input		Speed (Km/h)	Truck %	Bus Rt (y/n)	Median (m)
Highway 584	EW	90	5.0%	n	
Range Road 71	NS	80	0.0%	n	

Demographics		
Elem. School/Mobility Challenged	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	13,379
Central Business District	(y/n)	n

Set Peak Hours														Ped1	Ped2	Ped3	Ped4
Traffic Input														NS	NS	EW	EW
	NB			SB			WB			EB				W Side	E Side	N Side	S Side
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT		W Side	E Side	N Side	S Side
7:00 - 8:00	0	0	0	90	0	11	0	11	71	8	241	0	0	0	0	0	0
8:00 - 9:00	0	0	0	81	0	10	0	10	64	7	217	0	0	0	0	0	0
11:30 - 12:30	0	0	0	63	0	8	0	8	50	6	169	0	0	0	0	0	0
12:30 - 13:30	0	0	0	22	0	4	0	48	32	6	85	0	0	0	0	0	0
4:00 - 5:00	0	0	0	32	0	5	0	68	46	8	121	0	0	0	0	0	0
5:00 - 6:00	0	0	0	29	0	5	0	61	41	7	109	0	0	0	0	0	0
Total (6-hour peak)	0	0	0	317	0	43	0	206	304	42	942	0	0	0	0	0	0
Average (6-hour peak)	0	0	0	53	0	7	0	34	51	7	157	0	0	0	0	0	0

Average 6-hour
Peak Turning
Movements

$$W = [C_{bt}(X_{v-v}) / K_1 + (F(X_{v-p}) L) / K_2] \times C_i$$



APPENDIX

D BACKGROUND TRAFFIC

Turning Movement Count Summary - Total Traffic
Range Road 71 & Highway 584 - Schott's Lake Conference & Resort

Schott's Lake TIA
Project Number: 211-04399-00

Morning Peak Period

Date: 21-May-21

1-Hour Total	Rank
18	15
20	14
26	10
25	11
28	8
28	8
24	12
24	12
29	7
33	6
41	5
49	3
52	1
49	3
52	1

10:00 AM
11:00 AM

>

Start Time	Range Road 71				Range Road 71				Highway 584				Highway 584				Overall
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	
07:00	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0	2	3
07:15	0	0	0	0	0	0	0	0	0	1	0	1	0	0	3	3	4
07:30	0	0	0	0	0	0	0	0	0	3	0	3	0	0	2	2	5
07:45	0	0	0	0	0	0	0	0	0	4	0	4	0	1	1	2	6
08:00	0	0	0	0	0	0	0	0	0	3	0	3	0	2	0	2	5
08:15	0	0	0	0	0	0	0	0	0	3	0	3	0	6	1	7	10
08:30	0	0	0	0	0	0	0	0	0	3	0	3	0	1	0	1	4
08:45	0	0	0	0	0	0	0	0	0	6	0	6	0	3	0	3	9
09:00	0	0	0	0	0	0	0	0	0	3	0	3	0	1	1	2	5
09:15	0	0	0	0	0	0	0	0	0	1	0	1	0	5	0	5	6
09:30	0	0	0	0	0	0	0	0	0	1	0	1	0	3	0	3	4
09:45	0	0	0	0	0	0	0	0	0	6	0	6	0	8	0	8	14
10:00	0	0	0	0	0	0	0	0	0	5	0	5	0	4	0	4	9
10:15	0	0	0	0	1	0	0	1	0	5	0	5	0	8	0	8	14
10:30	0	0	0	0	0	0	0	0	0	5	0	5	0	7	0	7	12
10:45	0	0	0	0	0	0	0	0	0	8	0	8	0	9	0	9	17
11:00	0	0	0	0	0	0	0	0	0	1	0	1	0	5	0	5	6
11:15	0	0	0	0	1	0	0	1	0	4	0	4	0	12	0	12	17
	0	0	0	0	3	0	0	3	0	62	0	62	0	77	8	85	150

Morning Peak Hour

10:00 AM - 11:00 AM	0	0	0	0	1	0	0	1	0	23	0	23	0	28	0	28	52
15 Minute Max	0	0	0	0	1	0	0	1	0	23	0	8	0	28	0	9	17
Peak Hour Factor					0.25			0.25		0.25		0.72		0.25		0.78	0.76

Midday Peak Period

Date: 21-May-21

1-Hour Total	Rank
61	3
60	4
59	5
67	2
75	1

12:30 PM
1:30 PM

>

Start Time	Range Road 71				Range Road 71				Highway 584				Highway 584				Overall
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	
11:30	0	0	0	0	1	0	0	1	0	6	0	6	0	8	0	8	15
11:45	0	0	0	0	1	0	0	1	1	1	0	2	0	16	0	16	19
12:00	0	0	0	0	0	0	0	0	0	6	0	6	0	7	0	7	13
12:15	0	0	0	0	0	0	0	0	0	5	0	5	0	9	0	9	14
12:30	0	0	0	0	0	0	0	0	0	4	0	4	0	10	0	10	14
12:45	0	0	0	0	1	0	0	1	0	7	0	7	0	9	1	10	18
13:00	0	0	0	0	1	0	0	1	0	7	0	7	0	13	0	13	21
13:15	0	0	0	0	2	0	0	2	0	4	0	4	0	14	2	16	22
	0	0	0	0	6	0	0	6	1	40	0	41	0	86	3	89	136

Midday Peak Hour

12:30 PM - 1:30 PM	0	0	0	0	4	0	0	4	0	22	0	22	0	46	3	49	75
15 Minute Max	0	0	0	0	2	0	0	2	0	7	0	7	0	14	2	16	22
Peak Hour Factor					0.50			0.50		0.79		0.79		0.82	0.38	0.77	0.85

Afternoon Peak Period

Date: 21-May-21

1-Hour Total	Rank
85	20
81	21
76	24
90	16
93	13
94	12
90	16
79	23
74	26
76	24
87	19
92	15
99	10
108	5
108	5
112	2
110	3
101	9
116	1
106	8
107	7
110	3
93	13
95	11
88	18
81	21
70	27

6:00 PM
7:00 PM

>

Start Time	Range Road 71				Range Road 71				Highway 584				Highway 584				Overall
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	
13:30	0	0	0	0	0	0	0	0	0	3	0	3	0	16	2	18	21
13:45	0	0	0	0	0	0	1	1	0	2	0	2	0	20	2	22	25
14:00	0	0	0	0	1	0	0	1	0	1	0	1	0	18	0	18	20
14:15	0	0	0	0	0	0	0	0	0	6	0	6	0	13	0	13	19
14:30	0	0	0	0	0	0	0	0	0	5	0	5	0	11	1	12	17
14:45	0	0	0	0	0	0	0	0	0	4	0	4	0	16	0	16	20
15:00	0	0	0	0	1	0	0	1	0	12	0	12	0	20	1	21	34
15:15	0	0	0	0	1	0	0	1	0	4	0	4	0	17	0	17	22
15:30	0	0	0	0	4	0	0	4	0	5	0	5	0	9	0	9	18
15:45	0	0	0	0	2	0	0	2	0	3	0	3	0	11	0	11	16
16:00	0	0	0	0	2	0	0	2	0	4	0	4	0	16	1	17	23
16:15	0	0	0	0	1	0	0	1	0	3	0	3	0	13	0	13	17
16:30	0	0	0	0	0	0	0	0	0	5	0	5	0	14	1	15	20
16:45	0	0	0	0	1	0	0	1	0	1	0	1	0	25	0	25	27
17:00	0	0	0	0	0	0	1	1	0	4	0	4	0	22	1	23	28
17:15	0	0	0	0	0	0	0	0	0	3	0	3	0	21	0	21	24
17:30	0	0	0	0	0	0	0	0	0	8	0	8	0	20	1	21	29
17:45	0	0	0	0	0	0	0	0	0	1	0	1	0	26	0	26	27
18:00	0	0	0	0	0	0	1	1	0	2	0	2	0	29	0	29	32
18:15	0	0	0	0	0	0	0	0	0	1	0	1	0	21	0	21	22
18:30	0	0	0	0	0	0	0	0	0	1	0	1	0	19	0	19	20
18:45	0	0	0	0	0	0	0	0	0	7	0	7	0	34	1	35	42
19:00	0	0	0	0	0	0	0	0	0	3	0	3	0	19	0	19	22
19:15	0	0	0	0	0	0	0	0	0	2	0	2	0	21	0	21	23
19:30	0	0	0	0	0	0	0	0	0	3	0	3	0	20	0	20	23
19:45	0	0	0	0	0	0	0	0	0	3	0	3	0	22	0	22	25
20:00	0	0	0	0	0	0	0	0	0	4	0	4	0	19	1	20	24
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	16	16
20:30	0	0	0	0	0	0	0	0	0	4	0	4	0	12	0	12	16
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	14	14
	0	0	0	0	13	0	3	16	0	104	0	104	0	554	12	566	686

Afternoon Peak Hour

6:00 PM - 7:00 PM	0	0	0	0	0	0	1	1	0	11	0	11	0	103	1	104	116
15 Minute Max	0	0	0	0	0	0	1	1	0	7	0	7	0	34	1	35	42
Peak Hour Factor							0.25	0.25		0.39		0.39		0.76	0.25	0.74	0.69

PHF
0.75
0.83
0.65
0.63
0.70
0.70
0.67
0.67
0.52
0.59
0.73
0.88
0.76
0.72
0.76
0.32
0.29
0.28

PHF
0.80
0.79
0.82
0.80
0.85
0.36
0.33
0.29

PHF
0.85
0.81

Turning Movement Count Summary - Total Traffic
Range Road 71 & Highway 584 - Schott's Lake Conference & Resort

Schott's Lake TIA
Project Number: 211-04399-00

Morning Peak Period

Date: 22-May-21

1-Hour Total	Rank
12	15
22	14
27	13
36	12
41	10
39	11
43	9
52	8
67	7
74	6
90	4
93	2
89	5
98	1
91	3

10:15 AM
11:15 AM

>

Start Time	Range Road 71				Range Road 71				Highway 584				Highway 584				Overall
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	
07:00	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
07:15	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
07:30	0	0	0	0	0	0	0	0	0	2	0	2	0	0	1	1	3
07:45	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	2	3
08:00	0	0	0	0	0	0	0	0	0	4	0	4	0	9	0	9	13
08:15	0	0	0	0	0	0	0	0	0	3	0	3	0	5	0	5	8
08:30	0	0	0	0	0	0	0	0	0	2	0	2	0	10	0	10	12
08:45	0	0	0	0	1	0	0	1	0	5	0	5	0	2	0	2	8
09:00	0	0	0	0	0	0	0	0	0	2	0	2	0	9	0	9	11
09:15	0	0	0	0	0	0	0	0	0	3	0	3	0	9	0	9	12
09:30	0	0	0	0	1	0	0	1	0	7	0	7	0	12	1	13	21
09:45	0	0	0	0	0	0	0	0	0	10	0	10	0	13	0	13	23
10:00	0	0	0	0	0	0	0	0	0	8	0	8	0	10	0	10	18
10:15	0	0	0	0	0	0	0	0	0	12	0	12	0	16	0	16	28
10:30	0	0	0	0	0	0	0	0	0	6	0	6	0	18	0	18	24
10:45	0	0	0	0	0	0	0	0	0	4	0	4	0	15	0	15	19
11:00	0	0	0	0	0	0	0	0	0	7	0	7	0	20	0	20	27
11:15	0	0	0	0	0	0	0	0	0	9	0	9	0	12	0	12	21
	0	0	0	0	2	0	0	2	0	87	0	87	0	164	4	168	257

Morning Peak Hour

10:15 AM - 11:15 AM	0	0	0	0	0	0	0	0	0	29	0	29	0	69	0	69	98
15 Minute Max	0	0	0	0	0	0	0	0	0	29	0	12	0	69	0	20	28
Peak Hour Factor										0.25		0.60		0.25		0.86	0.88

Midday Peak Period

Date: 22-May-21

1-Hour Total	Rank
140	4
134	5
147	2
146	3
148	1

12:30 PM
1:30 PM

>

Start Time	Range Road 71				Range Road 71				Highway 584				Highway 584				Overall
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	
11:30	0	0	0	0	2	0	0	2	0	16	0	16	0	21	0	21	39
11:45	0	0	0	0	0	0	0	0	0	17	0	17	0	15	0	15	32
12:00	0	0	0	0	0	0	0	0	0	10	0	10	0	23	0	23	33
12:15	0	0	0	0	1	0	0	1	1	11	0	12	0	22	1	23	36
12:30	0	0	0	0	0	0	0	0	0	10	0	10	0	23	0	23	33
12:45	0	0	0	0	1	0	0	1	1	12	0	13	0	30	1	31	45
13:00	0	0	0	0	1	0	0	1	0	10	0	10	0	21	0	21	32
13:15	0	0	0	0	0	0	0	0	0	8	0	8	0	30	0	30	38
	0	0	0	0	5	0	0	5	2	94	0	96	0	185	2	187	288

Midday Peak Hour

12:30 PM - 1:30 PM	0	0	0	0	2	0	0	2	1	40	0	41	0	104	1	105	148
15 Minute Max	0	0	0	0	1	0	0	1	1	12	0	13	0	30	1	31	45
Peak Hour Factor					0.50			0.50	0.25	0.83		0.79		0.87	0.25	0.85	0.82

Afternoon Peak Period

Date: 22-May-21

1-Hour Total	Rank
130	1
116	4
121	2
111	7
98	10
108	9
112	6
115	5
118	3
109	8
92	11
74	12
68	15
65	19
61	23
66	16
69	14
73	13
62	21
62	21
65	19
56	25
66	16
66	16
60	24
54	26
44	27

1:30 PM
2:30 PM

>

Start Time	Range Road 71				Range Road 71				Highway 584				Highway 584				Overall
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	
13:30	0	0	0	0	0	0	0	0	0	12	0	12	0	21	0	21	33
13:45	0	0	0	0	1	0	0	1	1	9	0	10	0	17	1	18	29
14:00	0	0	0	0	0	0	0	0	0	8	0	8	0	27	0	27	35
14:15	0	0	0	0	0	0	0	0	0	11	0	11	0	22	0	22	33
14:30	0	0	0	0	0	0	0	0	1	4	0	5	0	14	0	14	19
14:45	0	0	0	0	0	0	0	0	0	12	0	12	0	22	0	22	34
15:00	0	0	0	0	0	0	0	0	0	13	0	13	0	12	0	12	25
15:15	0	0	0	0	0	0	0	0	0	11	0	11	0	9	0	9	20
15:30	0	0	0	0	0	0	0	0	0	16	0	16	0	12	1	13	29
15:45	0	0	0	0	0	0	1	1	0	16	0	16	0	21	0	21	38
16:00	0	0	0	0	2	0	0	2	0	12	0	12	0	13	1	14	28
16:15	0	0	0	0	2	0	0	2	0	14	0	14	0	7	0	7	23
16:30	0	0	0	0	0	0	1	1	0	7	0	7	0	11	1	12	20
16:45	0	0	0	0	0	0	0	0	0	11	0	11	0	10	0	10	21
17:00	0	0	0	0	0	0	0	0	0	6	0	6	0	4	0	4	10
17:15	0	0	0	0	1	0	0	1	0	11	0	11	0	5	0	5	17
17:30	0	0	0	0	0	0	1	1	0	7	0	7	0	9	0	9	17
17:45	0	0	0	0	0	0	0	0	0	8	0	8	0	9	0	9	17
18:00	0	0	0	0	0	0	0	0	0	9	0	9	0	6	0	6	15
18:15	0	0	0	0	0	0	0	0	0	10	0	10	0	10	0	10	20
18:30	0	0	0	0	0	0	0	0	0	9	0	9	0	12	0	12	21
18:45	0	0	0	0	0	0	0	0	0	1	0	1	0	5	0	5	6
19:00	0	0	0	0	0	0	0	0	1	9	0	10	0	5	0	5	15
19:15	0	0	0	0	0	0	0	0	0	13	0	13	0	10	0	10	23
19:30	0	0	0	0	0	0	0	0	0	7	0	7	0	5	0	5	12
19:45	0	0	0	0	0	0	0	0	0	8	0	8	0	8	0	8	16
20:00	0	0	0	0	0	0	0	0	0	9	0	9	0	6	0	6	15
20:15	0	0	0	0	0	0	0	0	0	10	0	10	0	7	0	7	17
20:30	0	0	0	0	0	0	0	0	0	3	0	3	0	2	1	3	6
20:45	0	0	0	0	0	0	0	0	0	4	0	4	0	2	0	2	6
	0	0	0	0	6	0	3	9	3	280	0	283	0	323	5	328	620

Afternoon Peak Hour

1:30 PM - 2:30 PM	0	0	0	0	1	0	0	1	1	40	0	41	0	87	1	88	130
15 Minute Max	0	0	0	0	1	0	0	1	1	12	0	12	0	27	1	27	35
Peak Hour Factor					0.25			0.25	0.25	0.83		0.85		0.81	0.25	0.81	0.93

PHF
1.00
0.42
0.52
0.69
0.79
0.81
0.90
0.62
0.73
0.80
0.80
0.83
0.79
0.88
0.84
0.32
0.30
0.27

PHF
0.90
0.93
0.82
0.81
0.82
0.35
0.31
0.28

PHF
0.93
0.83
0.86
0.82
0.72
0.79
0.74
0.76
0.78
0.72
0.82
0.80
0.81
0.77
0.90
0.97
0.86
0.87
0.74
0.74
0.71
0.61
0.72
0.88
0.79
0.

Morning Peak Period

Date: 23-May-21

1-Hour Total	Rank
13	15
15	13
15	13
19	12
21	11
26	10
27	9
28	8
42	7
54	6
70	5
86	4
91	3
98	2
116	1

10:30 AM
11:30 AM

Start Time	Range Road 71				Range Road 71				Highway 584				Highway 584				Overall
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	
07:00	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:15	0	0	0	0	1	0	0	1	0	1	0	1	0	2	0	2	4
07:30	0	0	0	0	0	0	0	0	0	2	0	2	0	1	1	2	4
07:45	0	0	0	0	0	0	0	0	0	1	0	1	0	1	2	3	4
08:00	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3
08:15	0	0	0	0	0	0	0	0	0	3	0	3	0	1	0	1	4
08:30	0	0	0	0	0	0	0	0	0	8	0	8	0	0	0	0	8
08:45	0	0	0	0	0	0	0	0	0	6	0	6	0	0	0	0	6
09:00	0	0	0	0	0	0	0	0	0	6	0	6	0	2	0	2	8
09:15	0	0	0	0	0	0	0	0	0	4	0	4	0	1	0	1	5
09:30	0	0	0	0	0	0	0	0	0	5	0	5	0	4	0	4	9
09:45	0	0	0	0	0	0	0	0	0	13	0	13	0	7	0	7	20
10:00	0	0	0	0	1	0	0	1	1	9	0	10	0	9	0	9	20
10:15	0	0	0	0	0	0	0	0	0	14	0	14	0	7	0	7	21
10:30	0	0	0	0	0	0	1	1	0	15	0	15	0	8	1	9	25
10:45	0	0	0	0	0	0	0	0	0	11	0	11	0	14	0	14	25
11:00	0	0	0	0	0	0	0	0	0	18	0	18	0	8	1	9	27
11:15	0	0	0	0	3	0	0	3	0	18	0	18	0	17	1	18	39
	0	0	0	0	5	0	1	6	1	137	0	138	0	83	6	89	233

Morning Peak Hour

10:30 AM - 11:30 AM	0	0	0	0	3	0	1	4	0	62	0	62	0	47	3	50	116
15 Minute Max	0	0	0	0	3	0	1	3	0	62	0	18	0	47	3	18	39
Peak Hour Factor					0.25	0.25	0.33		0.25	0.86			0.25	0.25	0.69	0.74	

Midday Peak Period

Date: 23-May-21

1-Hour Total	Rank
119	5
127	4
146	1
135	2
130	3

12:00 PM
1:00 PM

Start Time	Range Road 71				Range Road 71				Highway 584				Highway 584				Overall
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	
11:30	0	0	0	0	0	0	0	0	0	17	0	17	0	8	0	8	25
11:45	0	0	0	0	0	0	0	0	0	23	0	23	0	7	0	7	30
12:00	0	0	0	0	0	0	0	0	0	17	0	17	0	13	1	14	31
12:15	0	0	0	0	1	0	0	1	1	21	0	22	0	10	0	10	33
12:30	0	0	0	0	0	0	1	1	1	20	0	21	0	10	1	11	33
12:45	0	0	0	0	1	0	1	2	1	23	0	24	0	21	2	23	49
13:00	0	0	0	0	1	0	1	2	1	10	0	11	0	7	0	7	20
13:15	0	0	0	0	2	0	0	2	1	16	0	17	0	9	0	9	28
	0	0	0	0	5	0	3	8	5	147	0	152	0	85	4	89	249

Midday Peak Hour

12:00 PM - 1:00 PM	0	0	0	0	2	0	2	4	3	81	0	84	0	54	4	58	146
15 Minute Max	0	0	0	0	1	0	1	2	1	23	0	24	0	21	2	23	49
Peak Hour Factor					0.50	0.50	0.50	0.75	0.88	0.88			0.64	0.50	0.63	0.74	

Afternoon Peak Period

Date: 23-May-21

1-Hour Total	Rank
116	8
135	6
143	3
160	1
149	2
142	4
137	5
126	7
109	9
95	10
82	11
70	12
70	12
60	14
57	15
56	16
45	20
45	20
38	24
33	26
38	24
44	22
54	18
56	16
49	19
44	22
28	27

2:15 PM
3:15 PM

Start Time	Range Road 71				Range Road 71				Highway 584				Highway 584				Overall
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	
13:30	0	0	0	0	0	0	0	0	0	14	0	14	0	7	0	7	21
13:45	0	0	0	0	0	0	0	0	0	23	0	23	0	6	0	6	29
14:00	0	0	0	0	0	0	0	0	0	12	0	12	0	8	0	8	20
14:15	0	0	0	0	0	0	0	0	0	22	0	22	0	24	0	24	46
14:30	0	0	0	0	0	0	0	0	1	31	0	32	0	8	0	8	40
14:45	0	0	0	0	0	0	0	0	0	27	0	27	0	8	2	10	37
15:00	0	0	0	0	4	0	0	4	0	17	0	17	0	14	2	16	37
15:15	0	0	0	0	0	0	2	2	0	18	0	18	0	14	1	15	35
15:30	0	0	0	0	0	0	0	0	0	23	0	23	0	10	0	10	33
15:45	0	0	0	0	0	0	0	0	0	22	0	22	0	10	0	10	32
16:00	0	0	0	0	3	0	0	3	1	13	0	14	0	9	0	9	26
16:15	0	0	0	0	1	0	0	1	0	12	0	12	0	5	0	5	18
16:30	0	0	0	0	0	0	0	0	0	16	0	16	0	3	0	3	19
16:45	0	0	0	0	0	0	1	1	0	14	0	14	0	4	0	4	19
17:00	0	0	0	0	0	0	0	0	0	12	0	12	0	2	0	2	14
17:15	0	0	0	0	0	0	0	0	0	16	0	16	0	2	0	2	18
17:30	0	0	0	0	0	0	0	0	0	7	0	7	0	2	0	2	9
17:45	0	0	0	0	0	0	0	0	0	13	0	13	0	3	0	3	16
18:00	0	0	0	0	1	0	0	1	0	11	0	11	0	1	0	1	13
18:15	0	0	0	0	0	0	0	0	0	3	0	3	0	4	0	4	7
18:30	0	0	0	0	0	0	0	0	0	5	0	5	0	3	1	4	9
18:45	0	0	0	0	0	0	0	0	0	6	0	6	0	3	0	3	9
19:00	0	0	0	0	0	0	0	0	0	4	0	4	0	4	0	4	8
19:15	0	0	0	0	0	0	0	0	0	9	0	9	0	2	1	3	12
19:30	0	0	0	0	0	0	0	0	0	13	0	13	0	2	0	2	15
19:45	0	0	0	0	0	0	0	0	0	19	0	19	0	0	0	0	19
20:00	0	0	0	0	0	0	0	0	0	7	0	7	0	3	0	3	10
20:15	0	0	0	0	0	0	0	0	0	3	0	3	0	2	0	2	5
20:30	0	0	0	0	0	0	0	0	0	8	0	8	0	2	0	2	10
20:45	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
	0	0	0	0	9	0	3	12	2	403	0	405	0	165	7	172	589

Afternoon Peak Hour

2:15 PM - 3:15 PM	0	0	0	0	4	0	0	4	1	97	0	98	0	54	4	58	160
15 Minute Max	0	0	0	0	4	0	0	4	1	31	0	32	0	24	2	24	46
Peak Hour Factor					0.25		0.25	0.25	0.78	0.77			0.56	0.50	0.60	0.87	

PHF
0.81
0.94
0.94
0.59
0.66
0.81
0.84
0.78
0.53
0.68
0.83
0.86
0.91
0.91
0.74
0.35
0.32
0.29

PHF
0.90
0.96
0.74
0.69
0.66
0.35
0.30
0.28

PHF
0.63
0.73
0.78
0.87
0.93
0.96
0.93
0.90
0.83
0.74
0.79
0.92
0.92
0.79
0.78
0.7

Turning Movement Count Summary - Total Traffic
Range Road 71 & Highway 584 - Schott's Lake Conference & Resort

Schott's Lake TIA
Project Number: 211-04399-00

Morning Peak Period

Date: 24-May-21

1-Hour Total	Rank
11	14
11	14
17	12
15	13
20	11
25	10
35	9
58	8
87	7
101	6
160	5
189	4
215	2
234	1
193	3

10:15 AM
11:15 AM

Start Time	Range Road 71				Range Road 71				Highway 584				Highway 584				Overall
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	
07:00	0	0	0	0	1	0	0	1	0	1	0	1	0	1	0	1	3
07:15	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:30	0	0	0	0	0	0	0	0	0	3	0	3	0	1	0	1	4
07:45	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
08:00	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
08:15	0	0	0	0	0	0	0	0	0	7	0	7	0	0	0	0	7
08:30	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
08:45	0	0	0	0	0	0	0	0	0	6	0	6	0	2	0	2	8
09:00	0	0	0	0	0	0	0	0	0	8	0	8	0	0	0	0	8
09:15	0	0	0	0	0	0	0	0	0	14	0	14	0	3	0	3	17
09:30	0	0	0	0	0	0	0	0	0	23	0	23	0	2	0	2	25
09:45	0	0	0	0	0	0	0	0	0	34	0	34	0	3	0	3	37
10:00	0	0	0	0	0	0	0	0	0	22	0	22	0	0	0	0	22
10:15	0	0	0	0	0	0	1	1	0	71	0	71	0	3	1	4	76
10:30	0	0	0	0	0	0	0	0	0	53	0	53	0	1	0	1	54
10:45	0	0	0	0	0	0	0	0	0	62	0	62	0	1	0	1	63
11:00	0	0	0	0	0	0	0	0	0	35	0	35	0	5	1	6	41
11:15	0	0	0	0	0	0	0	0	0	32	0	32	0	1	2	3	35
	0	0	0	0	1	0	1	2	0	380	0	380	0	23	4	27	409

PHF
0.69
0.69
0.61
0.54
0.63
0.78
0.51
0.58
0.59
0.68
0.53
0.62
0.71
0.77
0.77
0.33
0.30
0.27

Morning Peak Hour

10:15 AM - 11:15 AM	0	0	0	0	0	0	1	1	0	221	0	221	0	10	2	12	234
15 Minute Max	0	0	0	0	0	0	1	1	0	221	0	71	0	10	2	6	76
Peak Hour Factor							0.25	0.25		0.25		0.78		0.25	0.25	0.50	0.77

Midday Peak Period

Date: 24-May-21

1-Hour Total	Rank
159	1
145	2
133	3
125	5
130	4

11:30 AM
12:30 PM

Start Time	Range Road 71				Range Road 71				Highway 584				Highway 584				Overall
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	
11:30	0	0	0	0	1	0	0	1	0	45	0	45	0	2	0	2	48
11:45	0	0	0	0	1	0	0	1	0	37	0	37	0	5	1	6	44
12:00	0	0	0	0	3	0	0	3	1	32	0	33	0	3	1	4	40
12:15	0	0	0	0	1	0	0	1	0	22	0	22	0	3	1	4	27
12:30	0	0	0	0	0	0	0	0	0	33	0	33	0	0	1	1	34
12:45	0	0	0	0	1	0	0	1	0	28	0	28	0	2	1	3	32
13:00	0	0	0	0	2	0	0	2	0	24	0	24	0	5	1	6	32
13:15	0	0	0	0	0	0	0	0	0	26	0	26	0	6	0	6	32
	0	0	0	0	9	0	0	9	1	247	0	248	0	26	6	32	289

PHF
0.83
0.82
0.83
0.92
0.96
0.33
0.31
0.28

Midday Peak Hour

11:30 AM - 12:30 PM	0	0	0	0	6	0	0	6	1	136	0	137	0	13	3	16	159
15 Minute Max	0	0	0	0	3	0	0	3	1	45	0	45	0	5	1	6	48
Peak Hour Factor					0.50			0.50	0.25	0.76		0.76		0.65	0.75	0.67	0.83

Afternoon Peak Period

Date: 24-May-21

1-Hour Total	Rank
62	2
63	1
57	3
44	4
43	5
34	6
30	8
32	7
30	8
28	10
25	13
28	10
26	12
23	14
21	15
14	16
10	21
8	24
10	21
11	19
11	19
14	16
12	18
9	23
8	24
6	26
6	26

1:45 PM
2:45 PM

Start Time	Range Road 71				Range Road 71				Highway 584				Highway 584				Overall
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	
13:30	0	0	0	0	0	0	0	0	0	12	0	12	0	3	0	3	15
13:45	0	0	0	0	0	0	0	0	0	15	0	15	0	2	0	2	17
14:00	0	0	0	0	1	0	0	1	0	14	0	14	0	3	1	4	19
14:15	0	0	0	0	2	0	0	2	0	5	0	5	0	4	0	4	11
14:30	0	0	0	0	0	0	0	0	0	10	0	10	0	6	0	6	16
14:45	0	0	0	0	0	0	0	0	0	10	0	10	0	1	0	1	11
15:00	0	0	0	0	0	0	0	0	0	6	0	6	0	0	0	0	6
15:15	0	0	0	0	0	0	0	0	0	5	0	5	0	2	3	5	10
15:30	0	0	0	0	0	0	0	0	0	4	0	4	0	2	1	3	7
15:45	0	0	0	0	1	0	0	1	0	4	0	4	0	2	0	2	7
16:00	0	0	0	0	0	0	0	0	0	5	0	5	0	3	0	3	8
16:15	0	0	0	0	0	0	1	1	0	6	0	6	0	0	1	1	8
16:30	0	0	0	0	0	0	0	0	0	3	0	3	0	2	0	2	5
16:45	0	0	0	0	0	0	0	0	0	2	0	2	0	1	1	2	4
17:00	0	0	0	0	0	0	0	0	0	9	0	9	0	2	0	2	11
17:15	0	0	0	0	0	0	0	0	0	5	0	5	0	1	0	1	6
17:30	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
18:00	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	4
18:15	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	1	0	0	1	0	3	0	3	0	0	0	0	4
19:00	0	0	0	0	0	0	0	0	0	4	0	4	0	1	0	1	5
19:15	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
19:30	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
19:45	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
20:00	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
20:15	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
20:30	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
20:45	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
	0	0	0	0	5	0	1	6	0	138	0	138	0	42	7	49	193

PHF
0.82
0.83
0.75
0.69
0.67
0.77
0.75
0.80
0.94
0.88
0.78
0.64
0.59
0.52
0.48
0.58
0.63
0.50
0.63
0.55
0.55
0.70
0.60
0.75
0.67
0.75
0.75
0.26
0.25
0.25

Afternoon Peak Hour

1:45 PM - 2:45 PM	0	0	0	0	3	0	0	3	0	44	0	44	0	15	1	16	63
15 Minute Max	0	0	0	0	2	0	0	2	0	15	0	15	0	6	1	6	19
Peak Hour Factor					0.38			0.38		0.73		0.73		0.63	0.25	0.67	0.83

Turning Movement Count Summary - Total Traffic
Range Road 71 & Highway 584 - Schott's Lake Conference & Resort

Schott's Lake TIA
Project Number: 211-04399-00

Morning Peak Period

Date: 25-May-21

1-Hour Total	Rank
20	7
24	2
27	1
23	4
24	2
19	10
20	7
19	10
21	6
20	7
18	12
18	12
13	15
16	14
22	5

7:30 AM
8:30 AM

Start Time	Range Road 71				Range Road 71				Highway 584				Highway 584				Overall
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	
07:00	0	0	0	0	1	0	0	1	0	1	0	1	0	2	0	2	4
07:15	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
07:30	0	0	0	0	0	0	0	0	0	2	0	2	0	1	7	8	10
07:45	0	0	0	0	0	0	0	0	0	3	0	3	0	1	0	1	4
08:00	0	0	0	0	0	0	0	0	0	5	0	5	0	2	1	3	8
08:15	0	0	0	0	0	0	0	0	0	5	0	5	0	0	0	0	5
08:30	0	0	0	0	1	0	0	1	0	2	0	2	0	2	1	3	6
08:45	0	0	0	0	0	0	0	0	0	1	0	1	0	3	1	4	5
09:00	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1	2	3
09:15	0	0	0	0	0	0	1	1	0	3	0	3	0	2	0	2	6
09:30	0	0	0	0	0	0	0	0	0	2	0	2	0	3	0	3	5
09:45	0	0	0	0	1	0	0	1	0	4	0	4	0	2	0	2	7
10:00	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
10:15	0	0	0	0	0	0	0	0	0	3	0	3	0	1	0	1	4
10:30	0	0	0	0	0	0	0	0	0	3	0	3	0	2	0	2	5
10:45	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
11:00	0	0	0	0	1	0	0	1	0	0	0	0	0	3	1	4	5
11:15	0	0	0	0	1	0	0	1	0	3	0	3	0	5	1	6	10
	0	0	0	0	5	0	1	6	0	42	0	42	0	31	14	45	93

Morning Peak Hour

7:30 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	15	0	15	0	4	8	12	27
15 Minute Max	0	0	0	0	0	0	0	0	0	15	0	5	0	4	8	8	10
Peak Hour Factor										0.25		0.75		0.25	0.25	0.38	0.68

Midday Peak Period

Date: 25-May-21

1-Hour Total	Rank
24	1
24	1
22	3
15	4
15	4

11:30 AM
12:30 PM

Start Time	Range Road 71				Range Road 71				Highway 584				Highway 584				Overall
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	
11:30	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0	2	3
11:45	0	0	0	0	0	0	0	0	0	6	0	6	0	2	1	3	9
12:00	0	0	0	0	1	0	0	1	1	4	0	5	0	2	1	3	9
12:15	0	0	0	0	0	0	1	1	0	2	0	2	0	0	0	0	3
12:30	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3
12:45	0	0	0	0	1	0	0	1	0	2	0	2	0	4	0	4	7
13:00	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
	0	0	0	0	3	0	1	4	1	18	0	19	0	14	2	16	39

Midday Peak Hour

11:30 AM - 12:30 PM	0	0	0	0	2	0	1	3	1	12	0	13	0	6	2	8	24
15 Minute Max	0	0	0	0	1	0	1	1	1	6	0	6	0	2	1	3	9
Peak Hour Factor					0.50		0.25	0.75	0.25	0.50		0.54		0.75	0.50	0.67	0.67

Afternoon Peak Period

Date: 25-May-21

1-Hour Total	Rank
29	9
32	6
32	6
30	8
33	5
35	3
34	4
37	2
38	1
28	10
23	16
21	17
12	23
17	20
24	14
24	14
26	12
28	10
25	13
20	18
20	18
12	23
13	21
13	21
11	26
12	23
7	27

3:30 PM
4:30 PM

Start Time	Range Road 71				Range Road 71				Highway 584				Highway 584				Overall
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	LT	TH	RT	Total	
13:30	0	0	0	0	3	0	0	3	0	3	0	3	0	1	0	1	7
13:45	0	0	0	0	3	0	1	4	0	1	0	1	0	3	0	3	8
14:00	0	0	0	0	0	0	0	0	0	3	0	3	0	5	0	5	8
14:15	0	0	0	0	0	0	0	0	0	3	0	3	0	3	0	3	6
14:30	0	0	0	0	0	0	1	1	0	3	0	3	0	4	2	6	10
14:45	0	0	0	0	2	0	1	3	0	2	0	2	0	2	1	3	8
15:00	0	0	0	0	0	0	0	0	0	4	0	4	0	2	0	2	6
15:15	0	0	0	0	0	0	0	0	0	2	0	2	0	6	1	7	9
15:30	0	0	0	0	0	0	0	0	1	4	0	5	0	5	2	7	12
15:45	0	0	0	0	0	0	0	0	0	2	0	2	0	4	1	5	7
16:00	0	0	0	0	2	0	0	2	0	3	0	3	0	4	0	4	9
16:15	0	0	0	0	3	0	0	3	0	3	0	3	0	4	0	4	10
16:30	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
17:00	0	0	0	0	0	0	0	0	0	4	0	4	0	1	2	3	7
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
17:30	0	0	0	0	0	0	0	0	0	2	0	2	0	5	0	5	7
17:45	0	0	0	0	0	0	1	1	0	3	0	3	0	3	2	5	9
18:00	0	0	0	0	0	0	1	1	1	2	0	3	0	3	0	3	7
18:15	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3
18:30	0	0	0	0	0	0	0	0	0	4	0	4	0	5	0	5	9
18:45	0	0	0	0	0	0	0	0	0	1	0	1	0	3	2	5	6
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
19:15	0	0	0	0	1	0	0	1	0	1	0	1	0	1	0	1	3
19:30	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
19:45	0	0	0	0	0	0	0	0	0	1	0	1	0	6	0	6	7
20:00	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
20:15	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
20:30	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	2
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
	0	0	0	0	15	0	6	21	2	57	0	59	0	79	14	93	173

Afternoon Peak Hour

3:30 PM - 4:30 PM	0	0	0	0	5	0	0	5	1	12	0	13	0	17	3	20	38
15 Minute Max	0	0	0	0	3	0	0	3	1	4	0	5	0	5	2	7	12
Peak Hour Factor					0.42			0.42	0.25	0.75		0.65		0.85	0.38	0.71	0.79

PHF
0.50
0.60
0.68
0.72
0.75
0.79
0.83
0.79
0.75
0.71
0.64
0.64
0.65
0.80
0.55
0.30
0.29
0.28

PHF
0.67
0.67
0.61
0.54
0.54
0.33
0.28
0.27

PHF
0.91
0.80
0.80
0.75
0.83
0.73
0.71
0.77
0.79
0.70
0.58
0.53
0.43
0.61
0.67
0.67
0.72
0.78
0.69
0.56
0.56
0.50
0.46
0.46
0.39
0.43
0.88
0.26
0.26
0.25

APPENDIX

E BACKGROUND TRAFFIC FORECAST

BACKGROUND TRAFFIC FORECAST

Average Annual Daily Traffic data reported by Alberta Transportation for several highways in the near vicinity of Schott's Lake RV Resort. In consideration of the potential anomalies of COVID -19 on travel behavior, the growth forecast focused in the data from the years 2011 to 2018.

ALBERTA TRANSPORTATION TRAFFIC VOLUME HISTORY 2011 - 2020											
Produced: 18-Feb-2021 By CornerStone Solutions Inc.											
		AADT	AADT	AADT	AADT	AADT	AADT	AADT	AADT	AADT	AADT
Hwy	Location Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
22	North of Hwy 27 & 584 West of Sundre	2,380	2,520	2,570	2,630	2,570	2,360	2,590	2,470	2,370	2,250
27	East of Hwy 22 & 584, West of Sundre	6,550	6,730	6,800	7,530	7,350	7,060	7,340	7,320	7,260	6,960
584	584 East of Range Rd 72A at Bearberry	390	320	320	320	320	320	240	220	220	240
584	584 West of Range Road 60	1,520	1,520	1,500	1,500	1,500	1,460	1,480	1,610	1,550	1,470
584	584 West of Hwy 22 & 27, West of Sundre	4,890	4,970	4,970	5,560	5,420	5,240	5,340	4,970	4,950	4,730

2011-2018 Growth	Avg Annual Growth
1.0378	0.5%
1.1176	1.7%
0.5641	-6.2%
1.0592	0.8%
1.0164	0.2%

