



## MEMORANDUM

From: Rory Fancier-Splitt, AICP, PTP  
Brandon Forsythe, P.E.  
Marta Gappy, P.E.

Date: June 3, 2025

Subject: Traffic and Circulation Study  
Warehouse/Distribution Site Modifications  
Crest Hill, Illinois

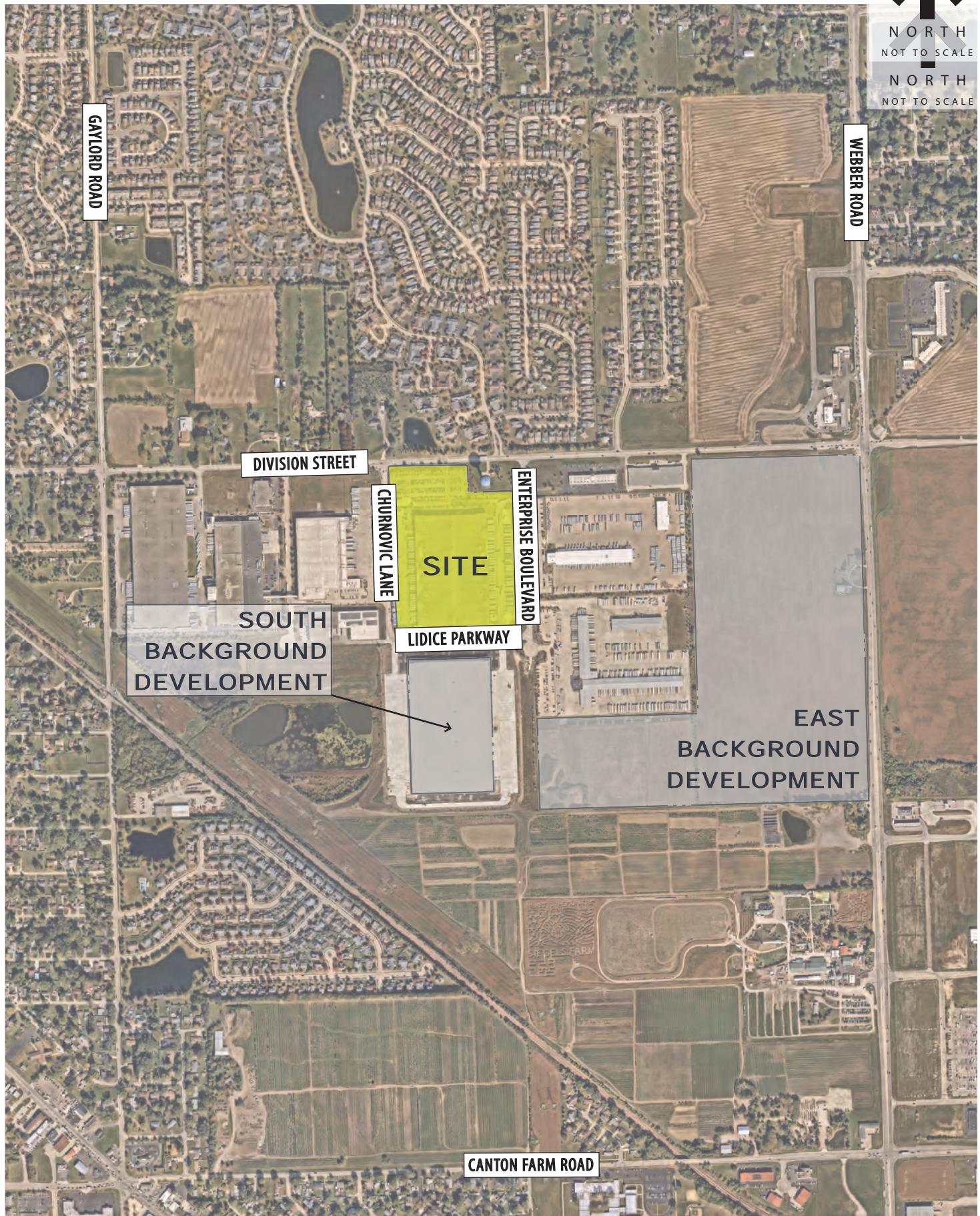
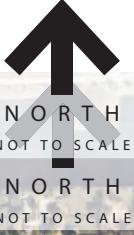
---

Kimley-Horn prepared a traffic and circulation study to evaluate site modifications proposed for the warehouse/distribution development located south of Division Street, between Churnovic Lane and Enterprise Boulevard at 16825 Churnovic Lane in Crest Hill, Illinois. The site is fully operational. The proposed site modifications, including driveway changes and connection of the truck loading areas on the east and west sides of the building, would improve access and circulation; changes to site operations/trip generation are not planned. This memorandum presents a summary of the proposed site modifications and an evaluation of key intersections. An aerial view of the study location and surrounding area roadway network is presented in **Exhibit 1**.

### Summary

Existing and future traffic conditions were analyzed for key intersections in the site vicinity. Based on a review of the area development pattern and site operational characteristics, traffic conditions were evaluated for the weekday morning, midday, and evening peak hours. A summary of the scenarios evaluated is provided below.

- Existing (2025)
  - No site modifications were included; reflects existing site access and circulation.
- Alternative 1 (2031)
  - The following site modifications were assumed: All inbound trucks were assumed at Access D; outbound trucks were assumed at Access B. The parking on the south side of the building would be repurposed as a circulating loop for trucks to navigate internal to the site from entry to exit.
  - Background traffic projections were developed using an annual growth rate derived from data obtained from the Chicago Metropolitan Agency for Planning (CMAP) and traffic projections for the future development located east of the site.
- Alternative 2 (2031)
  - Included the site modifications identified under Alternative 1.
  - Background traffic projections from Alternative 1 were assumed. In addition, the Crest Hill Business Park roadway connection planned by others, from Enterprise Boulevard to Weber Road, was assumed.



Based on the results of the analysis, the proposed site access changes are not expected to materially impact the study network. With the proposed access changes, site-generated truck traffic would circulate onsite, thereby minimizing truck traffic on Enterprise Boulevard. Offsite improvements were not identified for key intersections in the site vicinity.

With the roadway improvement planned by others as part of the Crest Hill Business Park, some site-generated traffic may use the future roadway. The planned roadway extension would provide an alternate route for site-generated traffic; however, it is not expected to substantially change site traffic circulation. To improve operational conditions at the intersection of Division Street/Churnovic Lane, the existing split phasing on the north-south approaches should be removed.

## Existing Conditions

In order to establish baseline traffic conditions, existing traffic counts were conducted for key intersections providing access to the site. An analysis of existing intersection operations, including delay and queues, was completed.

### Traffic Count Data

Weekday turning movement count data was collected in May 2025 during the weekday morning (6:00 to 9:00AM), midday (11:00AM to 2:00 PM) and evening (3:00 to 6:00PM) peak periods. These count periods were selected in order to capture the peak traffic conditions for the site and the surrounding roadway network. Count data was collected at the intersections listed below. For purposes of this analysis, site driveways were labeled Access A through Access D with a counterclockwise orientation starting at the employee parking lot access at the northwest corner of the site.

- Division Street / Churnovic Lane
- Churnovic Lane / Access A
- Churnovic Lane / Access B
- Lidice Parkway / Access C
- Lidice Parkway / Enterprise Boulevard
- Enterprise Boulevard / Access D
- Division Street / Enterprise Boulevard

The traffic count data indicates that peak traffic volumes occur from 7:30 to 8:30AM, 1:00 to 2:00PM and 4:00 to 5:00PM during a typical weekday. In this case, the peak hours of the generator overlap with the peak hours of the roadway network.

Based on the existing traffic counts, the site currently generates 340 morning peak hour trips, 225 midday peak hour trips, and 65 evening peak hour trips as summarized in **Table 1**. These trips reflect typical operational conditions; changes to site trip generation are not planned.

Table 1. Summary of Site-Generated Traffic

Vehicle Type	AM Peak Hour (7:30 to 8:30AM)			Midday Peak Hour (1:00 to 2:00PM)			PM Peak Hour (4:00 to 5:00PM)		
	In	Out	Total	In	Out	Total	In	Out	Total
Cars	165	125	290	40	135	175	10	15	25
Trucks	15	35	50	20	30	50	15	25	40
Total	180	160	340	60	165	225	25	40	65

For purposes of this analysis, the peak hour vehicle traffic volumes were rounded to the nearest multiple of five. Due to the presence of driveways along Churnovic Lane and Enterprise Boulevard, traffic volumes were not balanced between intersections. Existing peak hour traffic volumes are summarized in **Exhibit 2**. Count data is provided in **Attachment 3**.

### Capacity Analysis

Synchro capacity software was used to evaluate the operational conditions at the study intersections during the weekday peak hours. The capacity of an intersection quantifies its ability to accommodate traffic volumes and is expressed in terms of level of service (LOS), measured in average delay per vehicle. LOS grades range from A to F, with LOS A as the highest (best traffic flow and least delay), LOS E as saturated or at-capacity conditions, and LOS F as the lowest (oversaturated conditions). The lowest LOS grade typically accepted by jurisdictional transportation agencies in Northeastern Illinois is LOS D.

The LOS grades shown below, which are provided in the Transportation Research Board's Highway Capacity Manual (HCM), quantify and categorize the driver's discomfort, frustration, fuel consumption, and travel times experienced as a result of intersection control and the resulting traffic queuing. A detailed description of each LOS rating can be found in **Table 2**.

 Table 2. Level of Service Grading Descriptions<sup>1</sup>

Level of Service	Description
A	Minimal control delay; traffic operates at primarily free-flow conditions; unimpeded movement within traffic stream.
B	Minor control delay at signalized intersections; traffic operates at a fairly unimpeded level with slightly restricted movement within traffic stream.
C	Moderate control delay; movement within traffic stream more restricted than at LOS B; formation of queues contributes to lower average travel speeds.
D	Considerable control delay that may be substantially increased by small increases in flow; average travel speeds continue to decrease.
E	High control delay; average travel speed no more than 33 percent of free flow speed.
F	Extremely high control delay; extensive queuing and high volumes create exceedingly restricted traffic flow.

<sup>1</sup>Highway Capacity Manual, 7<sup>th</sup> Edition.

The range of control delay for each rating (as detailed in the HCM) is shown in **Table 3**. Because signalized intersections are expected to carry a larger volume of vehicles and stopping is required during red time, note that higher delays are tolerated for the corresponding LOS ratings.

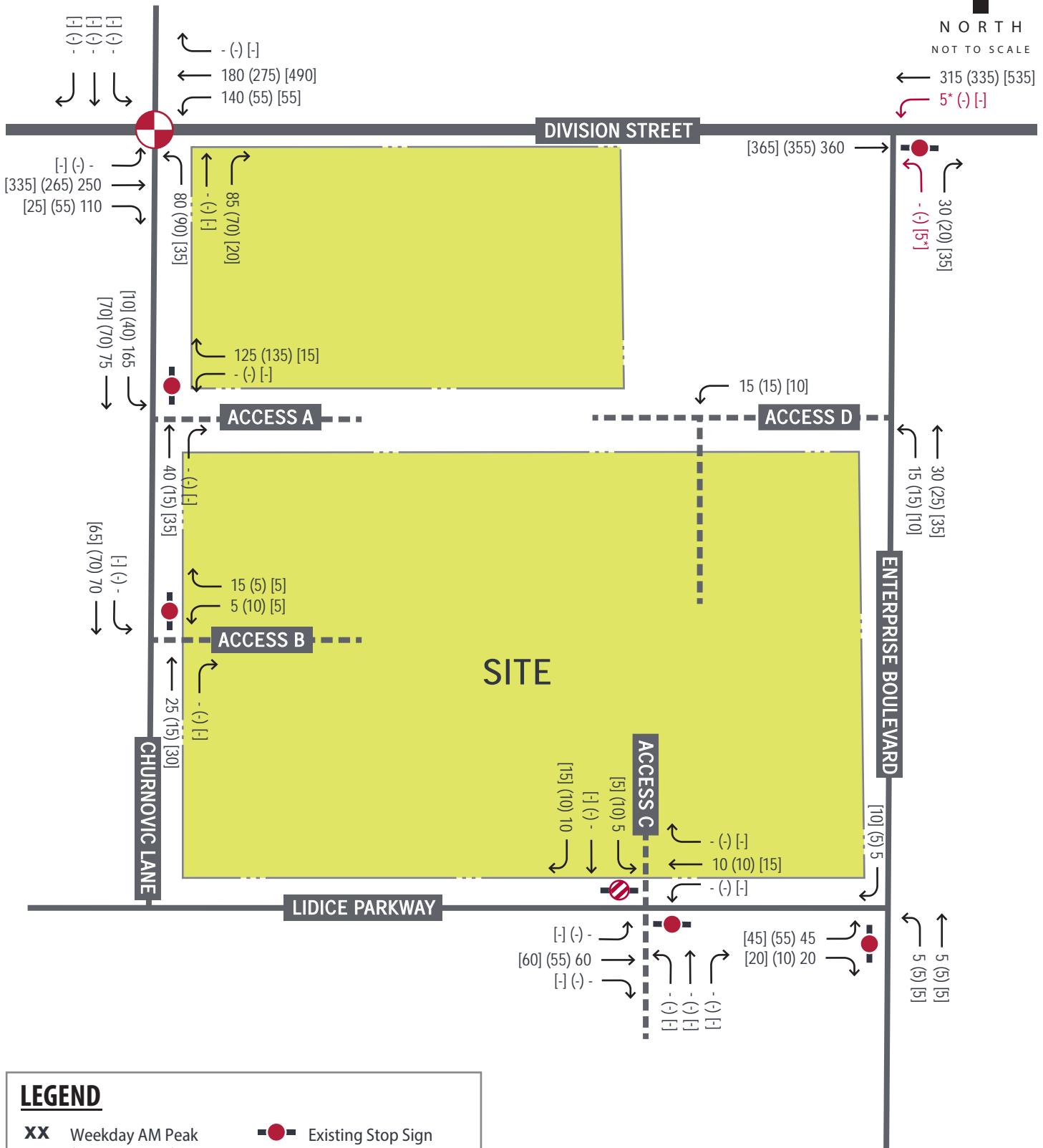
NORTH  
NOT TO SCALE

Table 3. Level of Service Grading Criteria<sup>1</sup>

Level of Service	Average Control Delay (s/veh) at:	
	Unsignalized Intersections	Signalized Intersections
A	0 – 10	0 – 10
B	> 10 – 15	> 10 – 20
C	> 15 – 25	> 20 – 35
D	> 25 – 35	> 35 – 55
E	> 35 – 50	> 55 – 80
F <sup>2</sup>	> 50	> 80

<sup>1</sup>Highway Capacity Manual, 7th Edition<sup>2</sup>All movements with a Volume to Capacity (v/C) ratio greater than 1 receive a rating of LOS F.

For purposes of the analysis, signal timings for the intersection of Division Street/Churnovic Lane were based on field observations. The signalized intersection operates with split-phasing for the northbound and southbound approaches, with the southbound approach called every cycle, despite low traffic volumes noted (less than two vehicles under all peak hours).

Right-turn-on-red (RTOR) movements were not included in the analysis despite being observed in the field. The posted speed limit along Division Street is 35 miles per hour (mph). The posted speed limit along Churnovic Lane and Lidice Parkway is 20 mph. There is no posted speed limit along Enterprise Boulevard. Based on Synchro minimum settings, Churnovic Lane, Lidice Parkway, Enterprise Boulevard, and all site driveways were assumed to have a speed limit of 25 mph.

Access D operates as a free-flow inbound left-turn movement due to one-way northbound traffic on Enterprise Boulevard; and therefore, delay was not reported for this movement.

Based on these standards, capacity results were identified for the study intersections under existing conditions as summarized in **Table 4**. In this table, operation on each approach is quantified according to the average delay per vehicle and the corresponding level of service. Overall intersection operations are reported for the signalized intersection of Division Street/Churnovic Lane. Overall intersection level of service is not reported for minor-leg stop-controlled intersections, since the majority of vehicles are able to move through the intersection with little to no delay. The results are based on Synchro's HCM 7<sup>th</sup> Edition reports, copies of which are included as **Attachment 4**.

Table 4. Existing (2025) Level of Service

Intersection	AM Peak Hour		Midday Peak Hour		PM Peak Hour	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Division Street / Churnovic Lane *						
Eastbound	17	B	16	B	13	B
Westbound	8	A	9	A	9	A
Northbound	23	C	19	B	21	C
Southbound	51	D	47	D	47	D
Intersection	15	B	14	B	11	B
Churnovic Lane / Access A △						
Westbound	9	A	9	A	9	A
Southbound (Left)	8	A	7	A	7	A
Churnovic Lane / Access B △						
Westbound	9	A	9	A	9	A
Southbound (Left)	7	A	7	A	7	A
Lidice Parkway / Access C △						
Eastbound (Left)	7	A	7	A	7	A
Westbound (Left)	7	A	7	A	7	A
Northbound	9	A	9	A	9	A
Southbound	9	A	9	A	9	A
Lidice Parkway / Enterprise Boulevard △						
Eastbound	9	A	9	A	9	A
Northbound (Left)	7	A	7	A	7	A
Division Street / Enterprise Boulevard △						
Northbound	12	B	11	B	12	B

\* - Signalized Intersection

△- Minor-Leg Stop-Controlled Intersection

Under existing conditions, all movements and approaches at unsignalized intersections operate at an acceptable LOS B or better during the weekday peak hours. The 95<sup>th</sup> percentile queues are less than one vehicle at all unsignalized intersections and site access driveways. At the signalized intersection of Division Street/Churnovic Lane all movements and approaches operate at LOS D or better during the weekday peak hours. The 95<sup>th</sup> percentile queues for this intersection are accommodated within the existing geometry.

## Site Modifications

The site is fully operational. The proposed site modifications, including driveway changes and connection of the truck loading areas on the east and west sides of the building, would improve access and circulation; changes to site trip generation (Table 1) are not planned. A summary of the existing and proposed site access and circulation plan is provided in **Table 5**. As previously noted, site driveways were labeled Access A through Access D with a counterclockwise orientation starting at the employee parking lot access at the northwest corner of the site. A copy of the site plan is included as **Attachment 1**.

Table 5. Site Access Summary – Existing and Proposed

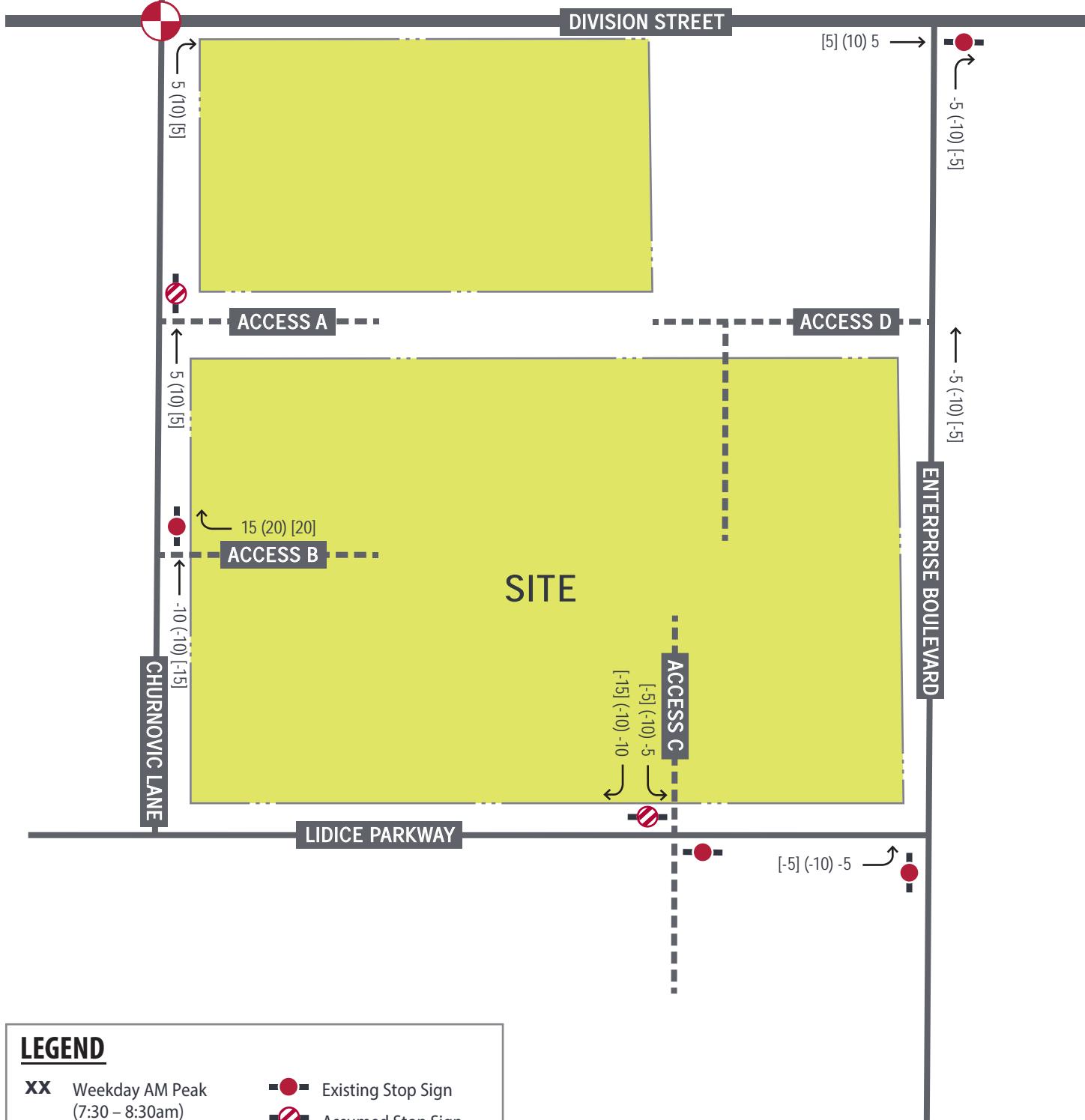
Site Driveway	Location	Existing Configuration	Proposed Configuration
Access A	East side of Churnovic Lane, 310 feet south of Division Street <sup>1</sup>	Full-movement employee access to north parking lot	None
Access B	East side of Churnovic Lane, 215 feet south of Access A <sup>1</sup>	Full-movement truck access	Primary outbound truck access Secondary inbound truck access
Access C	North side of Lidice Parkway, 200 feet west of Enterprise Boulevard <sup>1</sup>	Outbound-only truck access	Secondary outbound truck access (inbound lane to be removed)
Access D	West side of Enterprise Boulevard, 325 feet south of Division Street <sup>1</sup>	Northbound left-turn inbound-only truck access	Primary inbound truck access

<sup>1</sup>Measured centerline-to-centerline

In addition to the site access modifications, the following changes are proposed for the subject site to facilitate onsite truck circulation; truck staging would occur onsite. Truck queues on Churnovic Lane and Enterprise Boulevard are not anticipated.

- Remove driveway to Lidice Parkway approximately 100 feet east of Churnovic Lane (currently closed).
- Remove parking lot on south side of the building, including existing driveway to Churnovic Lane, to provide for onsite truck circulation between the loading areas on the east and west sides of the building.
- Provide additional employee parking on the north side of the building.

With these site modifications, redistribution of site-generated traffic is presented in **Exhibit 3**.



## Future Traffic Projections

For purposes of this analysis, the proposed site modifications were assumed to be complete in Year 2026. Traffic conditions were evaluated for Future 2031 (build-plus-five years), per Illinois Department of Transportation (IDOT) standards.

### Background Traffic Projections

Background traffic growth estimates were developed using Year 2050 data from the Chicago Metropolitan Agency for Planning (CMAP). As summarized in **Table 6**, the average annual growth rate for the area roadway network is approximately 0.63 percent. An annual compounded growth rate of 0.63 percent was applied for the period of six years to reflect traffic growth between Year 2025 (existing traffic counts) and Future 2031. A copy of the correspondence from CMAP is provided as **Attachment 5**.

Table 6. CMAP Projected Growth Rates

Roadway Segment	CMAP Projected Annual Growth Rate
Division Street, west of Gaylord Road	0.63%
Division Street, between Gaylor Road and Weber Road	0.63%
Division Street, east of Weber Road	0.63%
Gaylord Road, north of Division Street	0.64%
Gaylor Road, south of Division Street	0.64%
Weber Road, north of Division Street	0.63%
Weber Road, south of Division Street	0.63%
Average Annual Growth Rate	0.63%

### Background Development

Future development is anticipated in the site vicinity. The following planned developments were included in the analysis of Future 2031 background conditions.

- South Background Development: Located on the south side of Lidice Parkway, the site was developed but not operational at the time of traffic count data collection. For purposes of this analysis, a 580,000 square-foot warehouse facility was assumed.
- East Background Development: Future development of the Crest Hill Business Park is anticipated at the southwest quadrant of the intersection of Division Street/Weber Road. A final site plan was not available at the time of this analysis; therefore, land use and density assumptions were developed for this site. A floor-to-area ratio (FAR) of 0.5 was applied to the estimated 4,000,000 square feet of land area; and therefore, 2,000,000 square feet of industrial warehouse use was assumed for the purposes of analysis.

To estimate site-generated traffic for the future background development, data was referenced from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition. For the future development, ITE data for LUC 150 (Warehousing) was referenced. **Table 7** provides a summary of the ITE data. A copy of the ITE data is provided as **Attachment 6**.

Table 7. ITE Trip Generation Data – Background Development

ITE Land Use	ITE Trip Generation Data			
	Daily	AM Peak Hour	Midday Peak Hour <sup>1</sup>	PM Peak Hour
Warehousing (LUC 150)	T = 1.58X + 38.29 50% in/50% out	T = 0.12X +23.62 77% in/23% out	T = 0.12X +26.48 28% in/72% out	T = 0.12X +26.48 28% in/72% out

T = trips; X = 1000 square feet (SF)

<sup>1</sup>No ITE data for midday peak hour is provided, PM peak hour data was assumed for conservative analysis.

Based on existing patterns, it was assumed that 45 percent of traffic estimated for South Background Development would travel to/from the west along Division Street and 55 percent would travel to/from the east along Division Street. The anticipated South Background Development traffic assignment referenced for Alternative 1 is presented in **Attachment 7a**.

East Background Development was assumed to include access to Weber Road. Therefore, 20 percent of site-generated trips would travel to/from the west along Division Street and 10 percent would travel to/from the east along Division Street. The remaining 70 percent would access the site via Weber Road. The anticipated East Background Development traffic assignment assumed in Alternative 1 is presented in **Attachment 8a**.

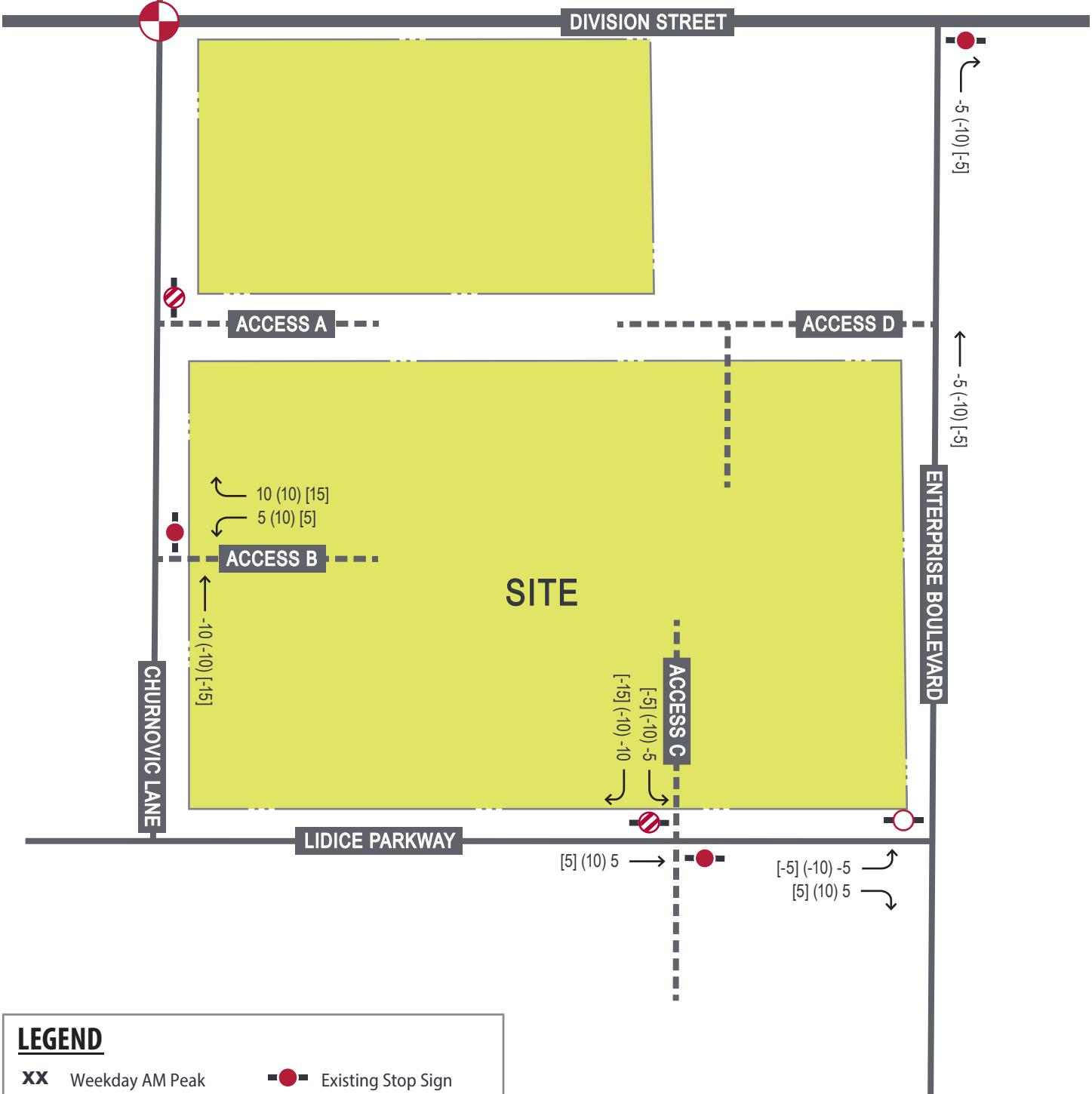
#### Future Geometry

With the addition traffic estimated for background development, an eastbound right-turn lane may be considered on Division Street at Churnovic Lane. Using guidelines in the IDOT *Bureau of Design and Environment (BDE) Manual*, a right-turn may be warranted at signalized intersections where more than 150 right-turn vehicles are present. With background development, the eastbound right-turn movement is projected to exceed the 150-vehicle threshold during the morning peak hour under Alternative 1 and Alternative 2. However, the eastbound approach is projected to operate at LOS B during all peak hours analyzed. There are no known plans identified for this improvement; therefore, it was not included in the analysis of future conditions.

#### Future Roadway Traffic Redistribution

Per direction from the City of Crest Hill, Alternative 2 considered changes to traffic distribution resulting from the Crest Hill Business Park roadway connection between Enterprise Boulevard and Weber Road, which was assumed to be constructed by others prior to Year 2031. A copy of the roadway concept plan is provided as **Attachment 2**.

This roadway connection would facilitate traffic for existing and future industrial development. With the future roadway improvements, the minor-leg stop control at the intersection of Lidice Parkway/Enterprise Boulevard would change from the west leg to the north leg. Based on a review of the area roadway network and site operations, significant redistribution of the current site traffic is not anticipated as a result of the new connection; however, some shift in traffic may occur. The redistribution of site-generated trips for Alternative 2 is presented in **Exhibit 4**.


**LEGEND**

- |             |  |                                       |
|-------------|--|---------------------------------------|
| <b>XX</b>   | Weekday AM Peak<br>(7:30 – 8:30am)     | ● Existing Stop Sign                  |
| <b>(xx)</b> | Weekend Midday Peak<br>(1:00 – 2:00pm) | ○ Proposed Stop Sign                  |
| <b>[xx]</b> | Weekday PM Peak<br>(4:00 – 5:00pm)     | ■ Assumed Stop Sign                   |
|             |  | ◆ Existing Signalized<br>Intersection |
|             |  | — Less than Five Vehicles             |

For purposes of the Alternative 2 analysis, it was assumed that 20 percent of existing westbound left-turn and northbound right-turn traffic at the intersection of Division Street/Churnovic Lane and 20 percent of northbound right-turn traffic at Division Street/Enterprise Boulevard would be redistributed to the future roadway. The same distribution assumptions were applied to South Background Development traffic. The anticipated South Background Development traffic assignment for Alternative 2 is presented in **Attachment 7b**.

For the East Background Development, 20 percent of traffic approaching from the west was assumed to utilize the intersection of Division Street/Churnovic Lane to access the proposed roadway. This would result in additional traffic on the northbound left-turn and eastbound right-turn movements at Division Street/Churnovic Lane. The anticipated East Background Development traffic assignment assumed in Alternative 2 is presented in **Attachment 8b**.

## Capacity Analysis

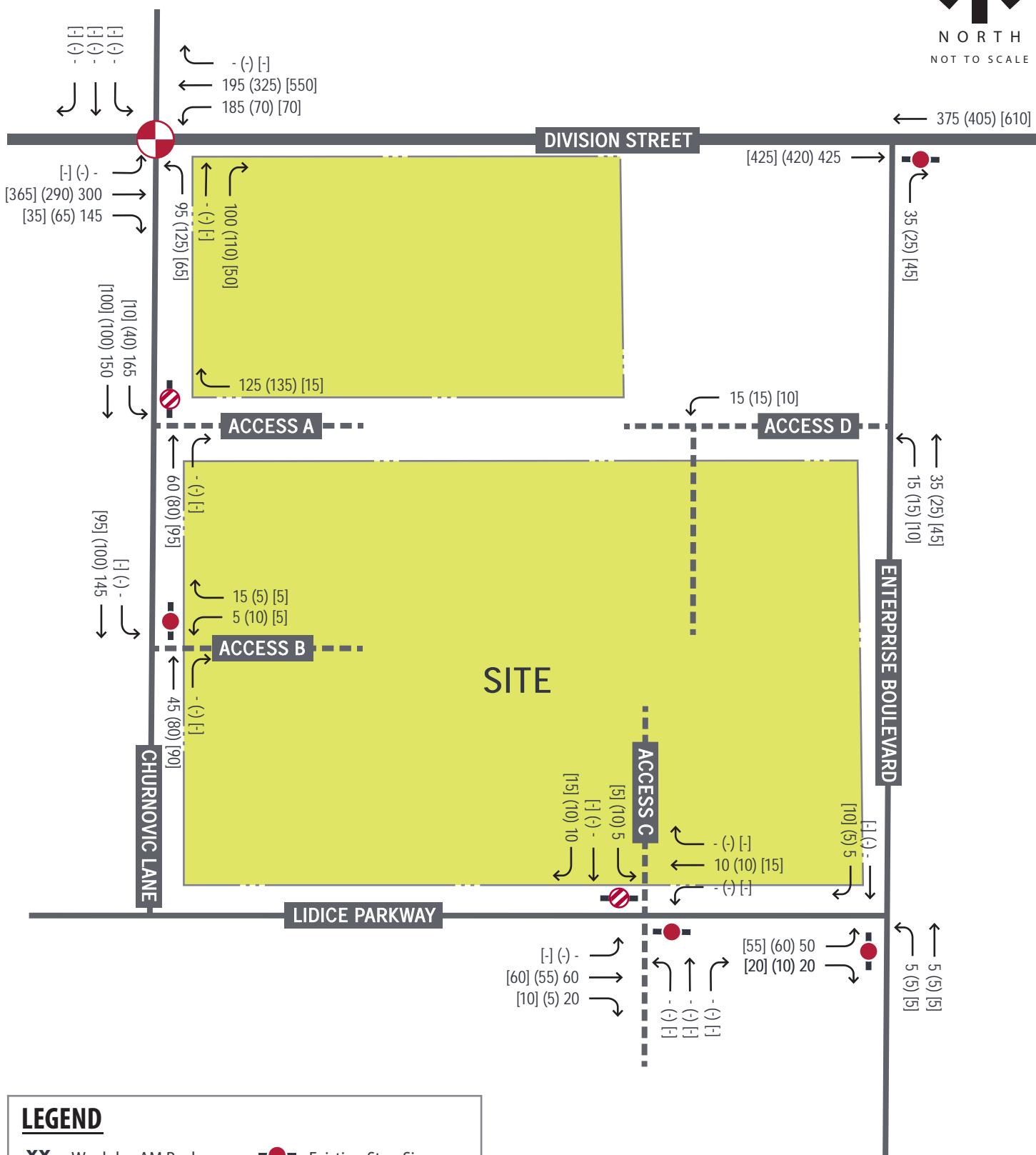
For the analysis of future conditions, two alternatives were considered based on input from the City of Crest Hill: site modifications only (Alternative 1); and site modifications and future roadway connection planned by others (Alternative 2). A summary of the capacity analysis prepared for each alternative is provided below.

### Alternative 1

Year 2031 background projections for Alternative 1 were analyzed including the addition of ambient background growth, South Background Development trip assignment, and East Background Development trip assignment. Future (2031) Background Traffic Projections for Alternative 1 are presented in **Exhibit 5**.

To develop build traffic projections for Year 2031 Alternative 1, site-traffic redistribution (Exhibit 3) was added to Year 2031 background projections (Exhibit 4). Traffic projections for Future (2031) Build Traffic Projections for Alternative 1 are presented in **Exhibit 6**.

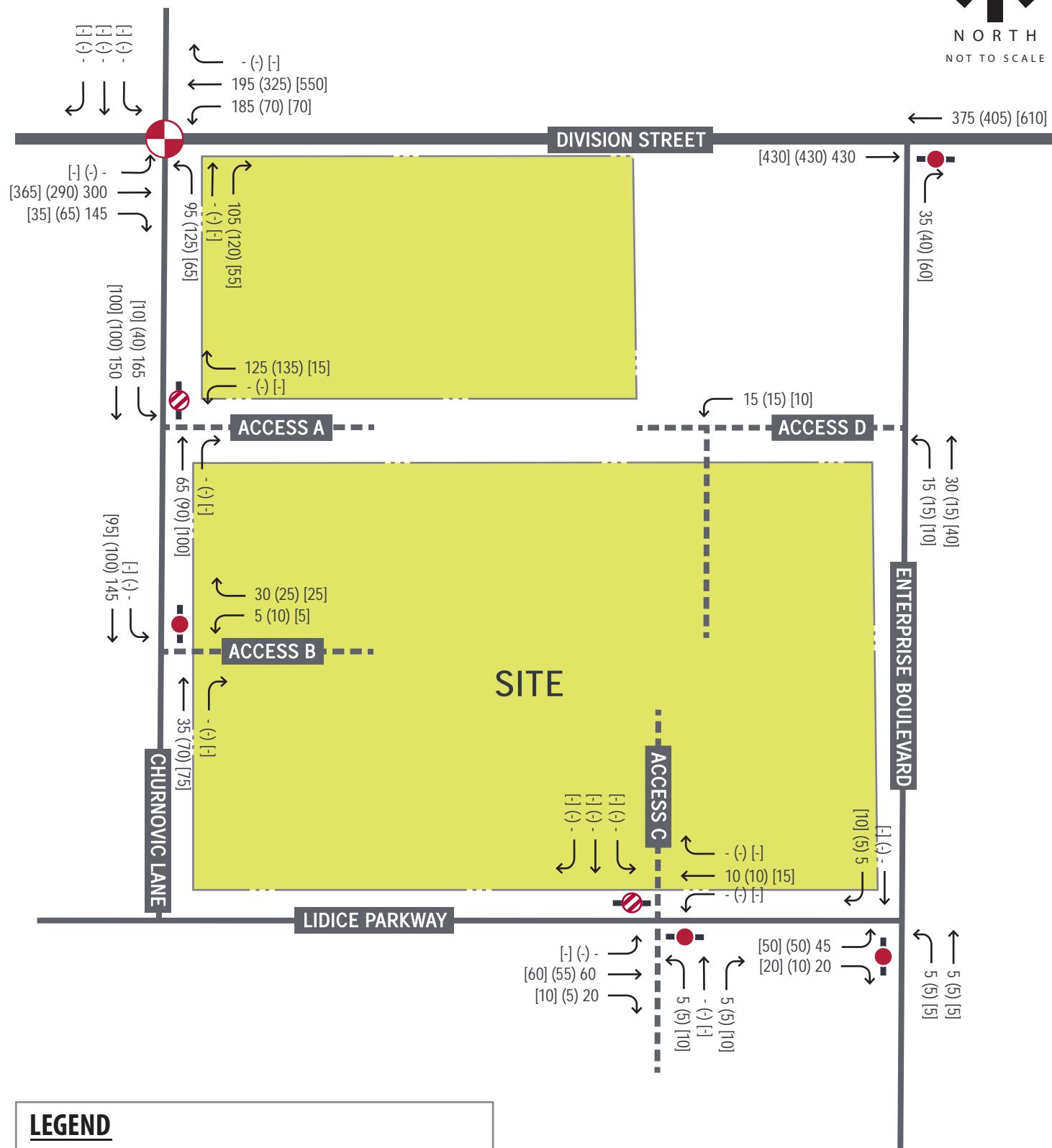
NORTH  
NOT TO SCALE



## LEGEND

- |   |                                    |
|---|------------------------------------|
| <b>XX</b> Weekday AM Peak (7:30 – 8:30am)       | ● Existing Stop Sign               |
| <b>(xx)</b> Weekend Midday Peak (1:00 – 2:00pm) | ● Assumed Stop Sign                |
| <b>[xx]</b> Weekday PM Peak (4:00 – 5:00pm)     | ● Existing Signalized Intersection |
|   | — Less than Five Vehicles          |

**NORTH**  
NOT TO SCALE



### LEGEND

- |             |  |                                      |
|-------------|--|--------------------------------------|
| <b>XX</b>   | Weekday AM Peak<br>(7:30 – 8:30am)     | ● — Existing Stop Sign               |
| <b>(xx)</b> | Weekend Midday Peak<br>(1:00 – 2:00pm) | ● — Assumed Stop Sign                |
| <b>[xx]</b> | Weekday PM Peak<br>(4:00 – 5:00pm)     | ● — Existing Signalized Intersection |
|             |  | — Less than Five Vehicles            |

Similar to existing conditions, capacity results were identified for the study intersections under Year 2031 Alternative 1 conditions as summarized in **Table 8**. Signal timings were maintained from existing conditions. Copies of the Synchro HCM 7<sup>th</sup> Edition reports are provided in **Attachment 9**.

Table 8. Future (2031) Build Level of Service – Alternative 1

Intersection	AM Peak Hour		Midday Peak Hour		PM Peak Hour	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Division Street / Churnovic Lane <span style="float: right;">★</span>						
Eastbound	18	B	17	B	14	B
Westbound	7	A	10-	A	10+	B
Northbound	29	C	21	C	23	C
Southbound	55+	E	48	D	51	D
Intersection	16	B	15	B	13	B
Churnovic Lane / Access A <span style="float: right;">△</span>						
Westbound	9	A	9	A	9	A
Southbound (Left)	8	A	8	A	7	A
Churnovic Lane / Access B <span style="float: right;">△</span>						
Westbound	9	A	10-	A	10-	A
Southbound (Left)	7	A	7	A	7	A
Lidice Parkway / Access C <span style="float: right;">△</span>						
Westbound (Left)	A	8	7	A	7	A
Northbound	A	9	9	A	9	A
Lidice Parkway / Enterprise Boulevard <span style="float: right;">△</span>						
Eastbound	9	A	9	A	9	A
Northbound (Left)	7	A	7	A	7	A
Division Street / Enterprise Boulevard <span style="float: right;">△</span>						
Northbound	12	B	12	B	13	B

★ - Signalized Intersection

△- Minor-Leg Stop-Controlled Intersection

Under Alternative 1, all movements and approaches at the unsignalized intersections are expected to operate at an acceptable LOS B or better during the weekday peak hours. The 95<sup>th</sup> percentile queues are anticipated to be less than one vehicle (25 feet) at all unsignalized intersections and site access driveways.

At the signalized intersection of Division Street / Churnovic Lane all movements and approaches would operate at LOS D or better during the weekday peak hours with one exception. The southbound approach is anticipated to operate at LOS E during the morning peak hour. Similar to existing, the signalized intersection operates with split-phasing for the northbound and southbound approaches with the southbound approach called every cycle despite low traffic volumes. Due to the low volume, a majority of the green time is allocated to the major east-west movements. Based on the existing traffic counts (Exhibit 2), only two vehicles were observed on the southbound approach in the morning peak

hour. With the planned modifications, the site is not anticipated to contribute traffic to this movement. Further, the site modifications are not expected to materially impact operational conditions at the signalized intersection. At the signalized intersection, the 95<sup>th</sup> percentile queues are anticipated to be contained within existing geometry.

#### Alternative 2

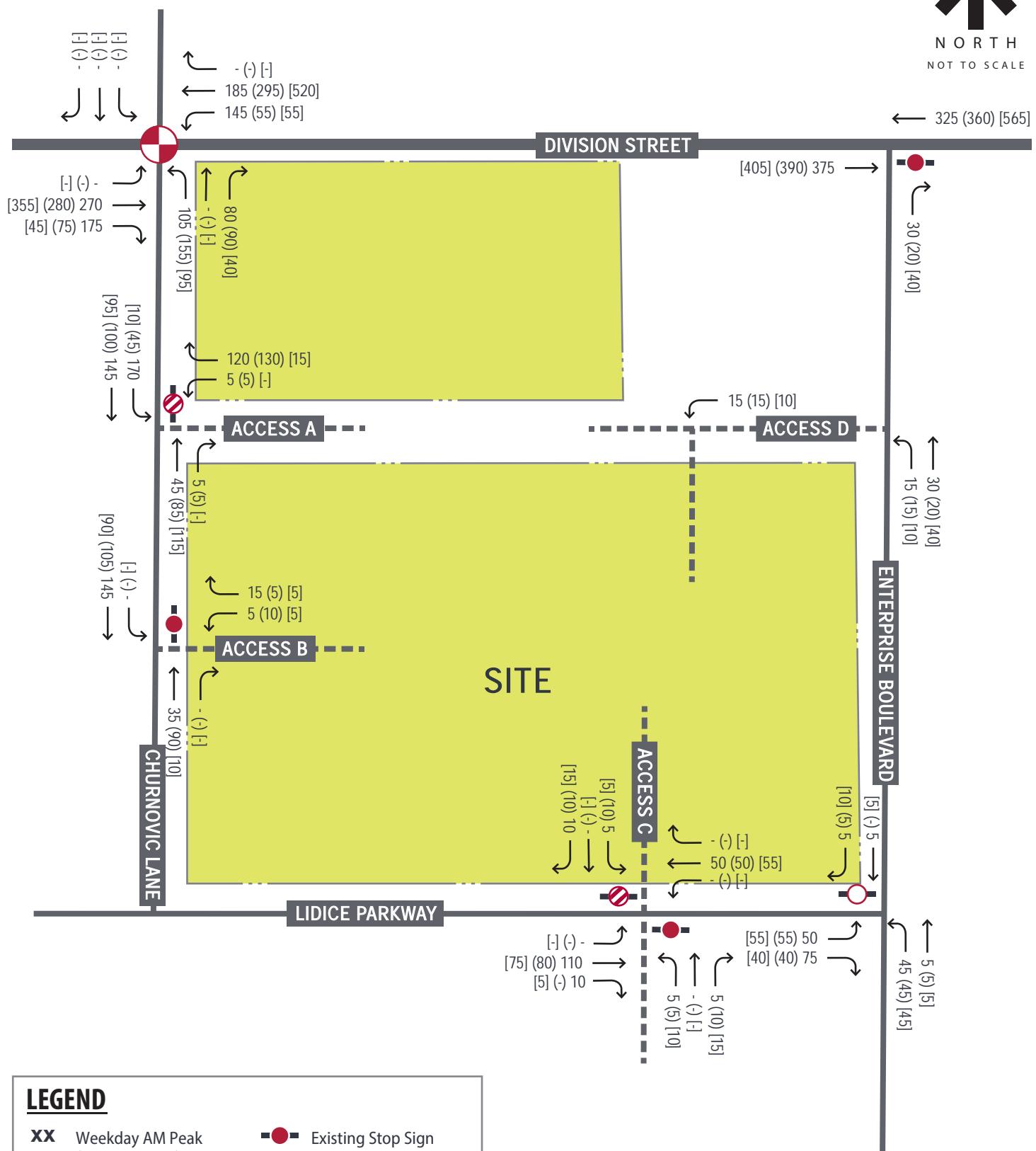
Year 2031 background projections for Alternative 2 were analyzed including the addition of ambient background growth, South Background Development trip assignment, and East Background Development trip assignment. Future (2031) Background Traffic Projections for Alternative 2 are presented in **Exhibit 7**.

To develop build traffic projections for Alternative 2, site-traffic redistribution (Exhibit 4) was added to Year 2031 background projections (Exhibit 7). Traffic projections for Future (2031) Build Traffic Projections for Alternative 2 are presented in **Exhibit 8**.

Capacity analysis results were identified for the study intersections under Year 2031 Alternative 2 conditions as summarized in **Table 9**. Signal timings were maintained from existing conditions. Copies of the Synchro HCM 7<sup>th</sup> Edition reports are provided in **Attachment 10**.



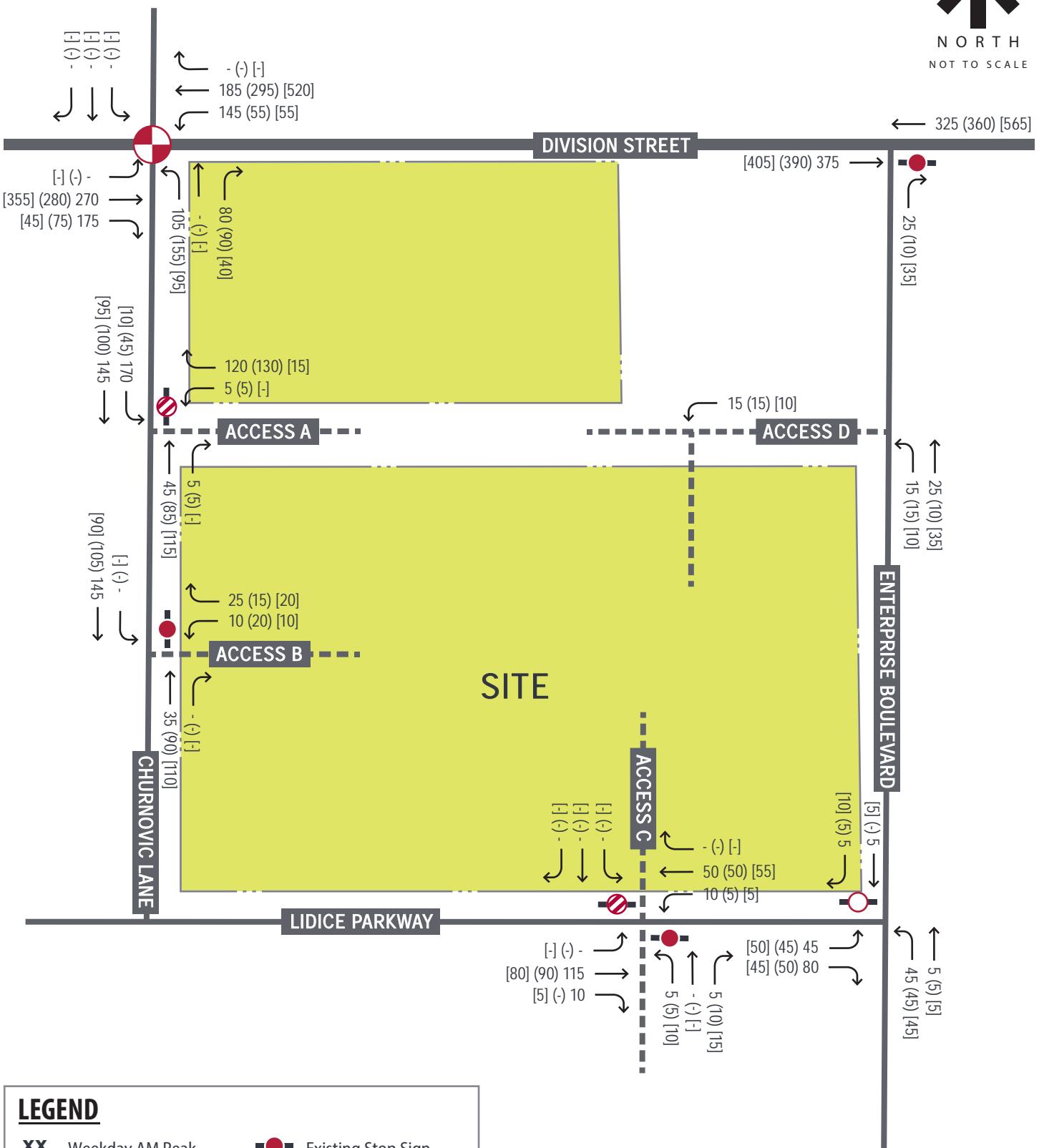
NORTH  
NOT TO SCALE



## LEGEND

- |   |                                    |
|---|------------------------------------|
| <b>XX</b> Weekday AM Peak (7:30 – 8:30am)       | ● Existing Stop Sign               |
| <b>(xx)</b> Weekend Midday Peak (1:00 – 2:00pm) | ○ Proposed Stop Sign               |
| <b>[xx]</b> Weekday PM Peak (4:00 – 5:00pm)     | ■ Assumed Stop Sign                |
|   | ◆ Existing Signalized Intersection |
|   | — Less than Five Vehicles          |

NORTH  
NOT TO SCALE



### LEGEND

- |  |                                       |
|--|---------------------------------------|
| <b>XX</b> Weekday AM Peak<br>(7:30 – 8:30am)       | ● Existing Stop Sign                  |
| <b>(xx)</b> Weekend Midday Peak<br>(1:00 – 2:00pm) | ○ Proposed Stop Sign                  |
| <b>[xx]</b> Weekday PM Peak<br>(4:00 – 5:00pm)     | ■ Assumed Stop Sign                   |
|  | ◆ Existing Signalized<br>Intersection |
|  | — Less than Five Vehicles             |

Table 9. Future (2031) Level of Service – Alternative 2

Intersection	AM Peak Hour		Midday Peak Hour		PM Peak Hour	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Division Street / Churnovic Lane *						
Eastbound	17	B	16	B	15	B
Westbound	7	A	10-	A	10+	B
Northbound	28	C	22	C	23	C
Southbound	54	D	48	D	50	D
Intersection	16	B	15	B	14	B
Churnovic Lane / Access A △						
Westbound	9	A	9	A	9	A
Southbound (Left)	8	A	8	A	8	A
Churnovic Lane / Access B △						
Westbound	10-	A	10-	A	10+	B
Southbound (Left)	7	A	7	A	7	A
Lidice Parkway / Access C △						
Westbound (Left)	8	A	7	A	7	A
Northbound	9	A	9	A	9	A
Lidice Parkway / Enterprise Boulevard △						
Eastbound (Left)	8	A	8	A	8	A
Southbound	10-	A	9	A	9	A
Division Street / Enterprise Boulevard △						
Northbound	12	B	11	B	12	B

\* - Signalized Intersection

△- Minor-Leg Stop-Controlled Intersection

The future roadway connection is not expected to materially impact operational conditions at the study intersections. Under Alternative 2, all movements and approaches at the unsignalized intersections are projected to operate at an acceptable LOS B or better during the weekday peak hours. The 95<sup>th</sup> percentile queues are expected to be less than one vehicle at the unsignalized intersections and site access driveways.

At the signalized intersection of Division Street/Churnovic Lane all movements and approaches are anticipated to operate at LOS D or better during the weekday peak hours. The southbound approach, is projected to operate at LOS D under Alternative 2 (compared to LOS E under Alternative 1). The decrease in delay (less than one second per vehicle) is attributable to the green time being reallocated to the southbound approach due to slightly lower east-west through volumes. At the signalized intersection the 95<sup>th</sup> percentile queues are expected to be contained by existing geometry.

## Conclusion

Based on the results of the analysis, the proposed site access changes are not anticipated to materially impact the study network. With the proposed access changes, site-generated truck traffic on Enterprise Boulevard would be reduced as compared to existing conditions.

As development plans for the South Background Development and East Background Development are further refined, an eastbound right-turn lane may be needed at the intersection of Division Street/Churnovic Lane. Additionally, to improve delay at the intersection of Division Street/Churnovic Lane, removal of the existing split phase operations of the northbound and southbound approaches should be considered.

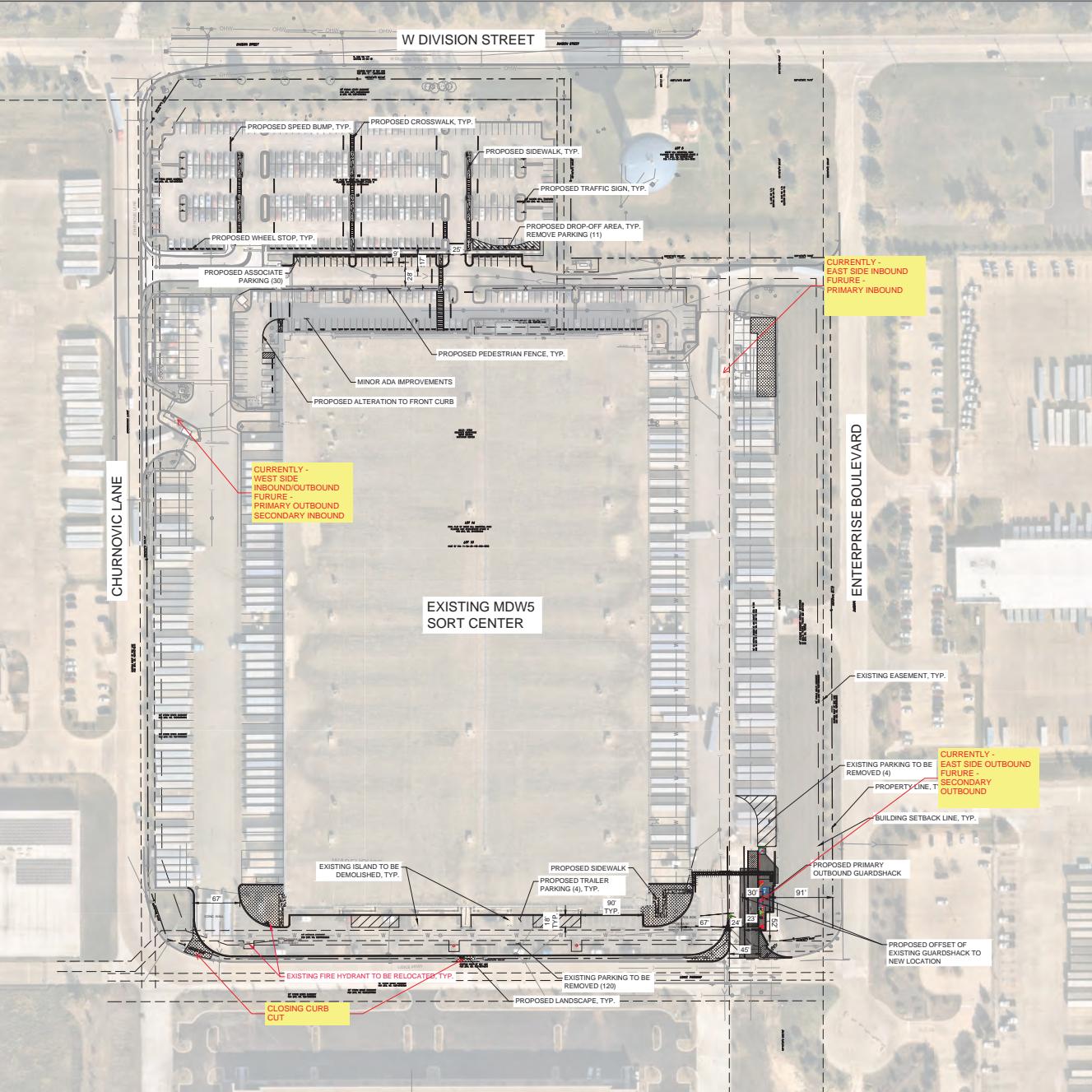
Regardless of the final configuration of site driveway geometrics, several additional items should be taken into consideration when preparing site improvement plans for the subject development. As the site design progresses, care should be taken with landscaping, signage, and monumentation at the site access locations to ensure that adequate horizontal sight distance is provided from the new stop bars. If alterations to the site plan or land use should occur, changes to the analysis provided within this traffic impact study may be needed.

## Attachments

1. Conceptual Site Plan
2. Future Roadway Concept Plan
3. Traffic Count Data
4. Existing (2025) Capacity Analysis Reports
5. CMAP Year 2050 Traffic Projections
6. Data from ITE *Trip Generation Manual*, 11<sup>th</sup> Edition
7. South Background Development
  - a. South Background Development Site Trip Assignment – Alternative 1
  - b. South Background Development Site Trip Assignment – Alternative 2
8. East Background Development
  - a. East Background Development Site Trip Assignment – Alternative 1
  - b. East Background Development Site Trip Assignment – Alternative 2
9. Future (2031) Capacity Analysis Reports – Alternative 1
10. Future (2031) Capacity Analysis Reports – Alternative 2



## **ATTACHMENT 1 – CONCEPTUAL SITE PLAN**



#### LEGEND:

	PROPERTY LINE
	EXISTING EASEMENT
	PROPOSED CURB
	PROPOSED PARKING STRIPING
	PROPOSED FENCE LINE
	PROPOSED CONCRETE
	PROPOSED STRIPING
	PROPOSED LANDSCAPE
	PROPOSED SIDEWALK

#### PARKING:

ASSOCIATE PARKING LOT	REQUIRED (AHL)	CURRENT	PROPOSED	DELTA +/-
(9X17)	438	527	438	-89

\*ACCESSIBLE STALL COUNTS INCLUDED IN OVERALL PARKING COUNT. CITY CODE DOES NOT DIFFERENTIATE.  
\*\*PER CITY OF CREST HILL ZONING ORDINANCE - WAREHOUSE = ONE STALL PER EMPLOYEE PLUS ONE STALL FOR EVERY VEHICLE USED IN THE CONDUCT OF ENTERPRISE PLUS 350 STALLS + OFFICE = 5 STALLS FOR FIRST 1,000 SF AND 1 SPACE FOR EVERY 300 SF THERE AFTER = 88 STALLS

TRUCK YARD	CURRENT	PROPOSED	DELTA +/-
TRAILER PARKING STALLS	118	118	0
DOCK DOORS	97	97	0

APPROX. EXISTING IMPERVIOUS	84.2%
APPROX. PROPOSED IMPERVIOUS	84.5%
MAX IMPERVIOUS COVER	85.0%
EXISTING BUILDING AREA	
WAREHOUSE/SUPPORT	411,860 SF
OFFICE/SUPPORT 'A' AREA	11,020 SF
OFFICE/SUPPORT 'B' AREA	14,680 SF
GUARD SHACKS	480 SF

\*INFORMATION PROVIDED FROM CONSTRUCTION DOCUMENTS BY ASM ENGINEERING CONSULTANTS DATED 2/14/2024.

**Kimley»Horn**

© Kimley-Horn & Associates, Inc.  
401 W. Wheeling Road, Suite 100, Glenview, IL 60025  
PHONE: (847) 545-0500  
WWW.KIMLEY-HORN.COM

CONCEPT SITE PLAN

MDW5 CHURNOVIC LANE  
CREST HILL, IL 60435  
IL  
WILL COUNTY

SHEET NUMBER  
SC-1

No.	REVISIONS	DATE	BY

#### NOTES:

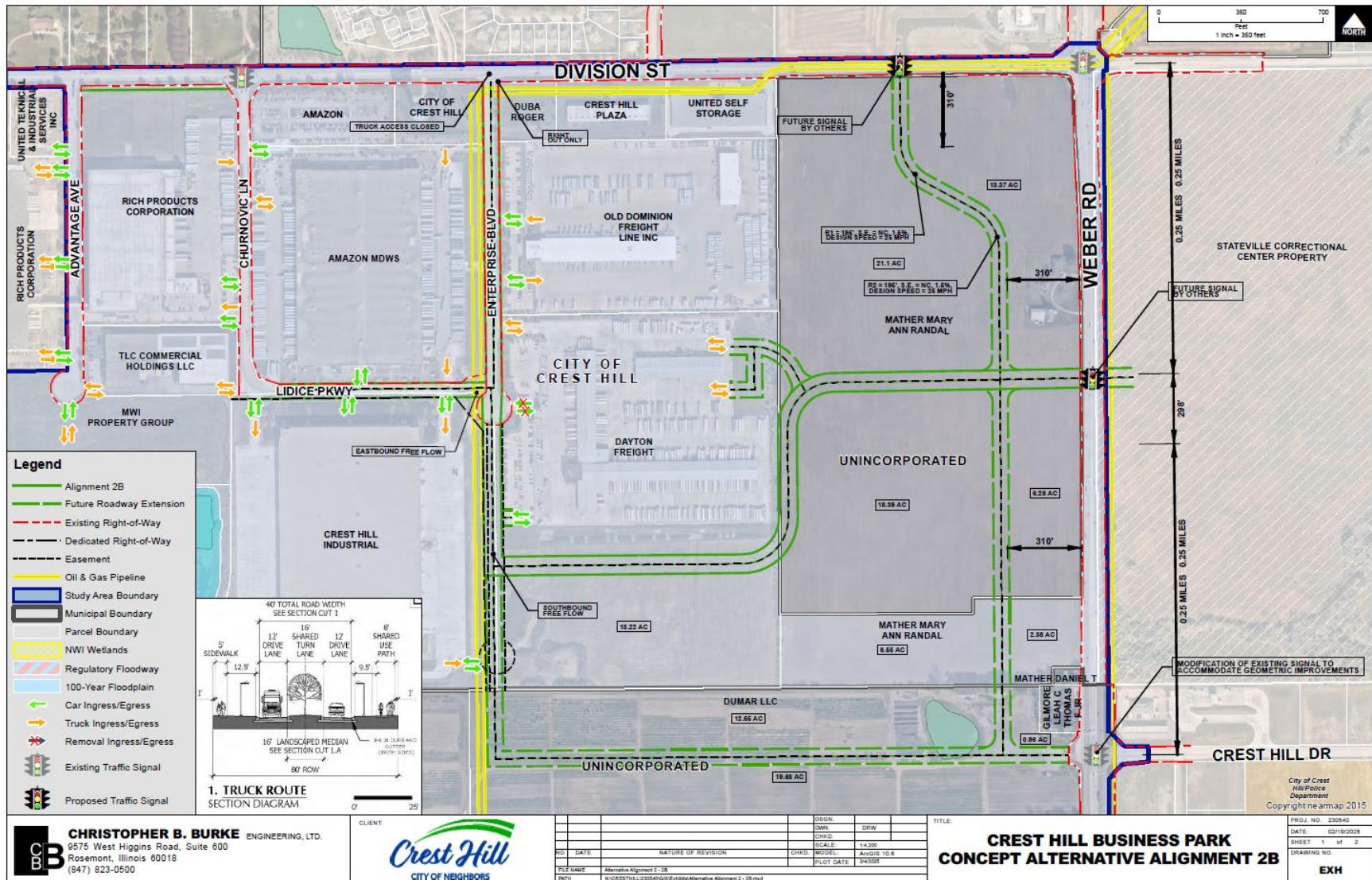
THIS SITE CONCEPT WAS PREPARED BASED ON AVAILABLE AUTOCAD OR POF DRAWINGS, AERIAL, AND GIS BOUNDARY INFORMATION. KIMLEY-HORN WILL RELY ON THE ACCURACY OF THESE DOCUMENTS. MUNICIPAL RESEARCH HAS NOT BEEN CONDUCTED AND IS NOT AVAILABLE AND MAY HELD FINDINGS IMPACTFUL TO THE SITE DESIGN. NEW ISSUES MAY ARISE DURING DEVELOPMENT BECAUSE OF CHANGES IN GOVERNMENT POLICY AND POLICY, CHANGED CIRCUMSTANCES, OR UNFORESEEN CONDITIONS. THIS CONCEPT PLAN SHOULD NOT BE USED AS THE SOLE BASIS FOR THE CLIENT'S DECISION MAKING. WE ENDEAVOR TO MAKE CONCEPT SITE DESIGN AS USEFUL AS POSSIBLE CONTRARY TO THE CURRENT PRACTICAL GIVEN THE SCOPE, BUDGET, AND SCHEDULE AGREED TO WITH THE CLIENT. GUARD SHACK AND YARD DESIGN IS BASED ON AMAZON PROVIDED DRAWINGS BY ASM DATED 2/14/2024.



GRAPHIC SCALE IN FEET  
0 35 70 140



## **ATTACHMENT 2 – FUTURE ROADWAY CONCEPT PLAN**





### **ATTACHMENT 3 – TRAFFIC COUNT DATA**

## Division Street at Churnovic Lane - TMC

Thu May 15, 2025

Full Length (6 AM-9 AM, 11 AM-2 PM, 3 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296364, Location: 41.580379, -88.135282



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Division St Eastbound					Division St Westbound					Churnovic Lane Northbound					Access Southbound									
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2025-05-15 6:00AM	0	44	5	0	49	0	8	25	0	0	33	0	8	0	7	0	15	0	0	0	0	0	0	97	
6:15AM	0	51	12	0	63	0	5	42	0	0	47	1	5	0	4	0	9	1	0	0	0	0	0	119	
6:30AM	0	44	7	0	51	0	9	36	0	0	45	0	9	0	12	0	21	0	0	0	0	0	0	117	
6:45AM	0	53	15	0	68	0	13	37	0	0	50	0	6	0	4	0	10	0	0	0	0	0	0	128	
Hourly Total	0	192	39	0	231	0	35	140	0	0	175	1	28	0	27	0	55	1	0	0	0	0	0	461	
7:00AM	0	47	13	0	60	0	13	34	0	0	47	0	5	0	7	0	12	0	0	0	0	0	0	119	
7:15AM	0	65	16	0	81	0	12	36	0	0	48	0	10	0	9	0	19	0	0	0	0	0	0	148	
7:30AM	0	48	14	0	62	0	17	39	0	0	56	0	44	0	52	0	96	0	0	0	0	0	0	214	
7:45AM	0	74	30	0	104	0	26	40	0	0	66	0	14	0	22	0	36	0	1	0	0	0	1	207	
Hourly Total	0	234	73	0	307	0	68	149	0	0	217	0	73	0	90	0	163	0	1	0	0	0	1	688	
8:00AM	0	64	23	0	87	0	35	48	0	0	83	0	10	0	6	0	16	0	1	0	0	0	1	187	
8:15AM	0	66	42	0	108	0	57	55	0	0	112	0	13	0	7	0	20	0	0	0	0	0	0	240	
8:30AM	0	53	29	0	82	0	35	48	1	1	85	0	5	0	5	0	10	0	0	0	0	0	0	177	
8:45AM	0	52	26	0	78	0	22	56	0	0	78	0	6	0	2	0	8	0	0	0	0	0	0	164	
Hourly Total	0	235	120	0	355	0	149	207	1	1	358	0	34	0	20	0	54	0	1	0	0	0	1	768	
11:00AM	0	47	4	0	51	0	5	82	0	0	87	0	9	0	13	0	22	0	0	0	0	0	0	160	
11:15AM	0	54	9	0	63	0	9	63	0	0	72	0	20	0	9	0	29	0	1	0	0	0	1	165	
11:30AM	0	43	8	0	51	0	7	68	0	0	75	0	8	0	4	0	12	0	0	0	0	0	0	138	
11:45AM	0	67	7	0	74	0	6	66	0	0	72	0	7	0	4	0	11	0	0	0	0	0	0	157	
Hourly Total	0	211	28	0	239	0	27	279	0	0	306	0	44	0	30	0	74	0	1	0	0	0	1	620	
12:00PM	0	62	10	0	72	0	10	66	0	0	76	0	5	0	3	1	9	0	0	0	0	0	0	157	
12:15PM	0	83	8	0	91	0	5	81	0	0	86	0	8	0	7	0	15	0	0	0	0	0	0	192	
12:30PM	0	67	11	0	78	0	6	64	0	0	70	0	8	0	5	0	13	0	0	0	0	0	0	161	
12:45PM	0	69	16	0	85	0	4	76	0	0	80	0	13	0	7	0	20	0	0	0	0	0	0	185	
Hourly Total	0	281	45	0	326	0	25	287	0	0	312	0	34	0	22	1	57	0	0	0	0	0	0	695	
1:00PM	0	76	11	0	87	0	7	70	0	0	77	0	7	0	5	0	12	0	0	0	0	0	0	176	
1:15PM	0	70	8	0	78	0	14	66	0	0	80	0	6	0	11	0	17	0	0	0	0	0	0	175	
1:30PM	0	45	15	0	60	0	16	66	0	0	82	0	59	0	47	0	106	0	0	0	0	0	0	248	
1:45PM	0	76	20	0	96	0	19	74	0	0	93	0	11	0	8	0	19	0	0	0	0	0	0	208	
Hourly Total	0	267	54	0	321	0	56	276	0	0	332	0	83	0	71	0	154	0	0	0	0	0	0	807	
3:00PM	0	73	10	0	83	0	9	116	0	0	125	0	8	0	8	0	16	1	0	0	0	0	0	224	
3:15PM	0	68	7	0	75	0	9	106	2	0	117	0	7	0	4	0	11	0	0	0	0	0	0	203	
3:30PM	0	93	10	0	103	0	7	96	0	0	103	0	11	0	1	0	12	0	0	0	0	0	0	218	
3:45PM	0	78	7	0	85	0	10	88	0	0	98	0	4	0	5	0	9	0	0	0	0	0	0	192	
Hourly Total	0	312	34	0	346	0	35	406	2	0	443	0	30	0	18	0	48	1	0	0	0	0	0	837	
4:00PM	0	100	8	0	108	0	21	120	0	0	141	0	8	0	5	0	13	0	0	0	0	0	0	262	
4:15PM	0	80	4	0	84	0	8	133	0	0	141	0	6	0	2	0	8	0	0	0	0	0	0	233	
4:30PM	0	87	7	0	94	0	12	120	0	0	132	0	13	0	9	0	22	0	0	0	0	0	0	248	
4:45PM	0	70	4	0	74	0	12	115	0	0	127	0	10	0	4	0	14	0	0	0	0	0	0	215	
Hourly Total	0	337	23	0	360	0	53	488	0	0	541	0	37	0	20	0	57	0	0	0	0	0	0	958	
5:00PM	0	86	5	0	91	0	13	103	0	0	116	0	7	0	6	0	13	0	1	0	0	0	1	221	
5:15PM	0	99	1	0	100	0	14	123	0	0	137	0	6	0	3	0	9	0	0	0	0	0	0	246	
5:30PM	0	72	3	0	75	0	18	94	2	0	114	0	11	0	7	0	18	0	0	0	0	0	0	207	
5:45PM	0	96	12	0	108	0	14	68	0	0	82	0	6	0	4	0	10	0	0	0	0	0	0	200	
Hourly Total	0	353	21	0	374	0	59	388	2	0	449	0	30	0	20	0	50	0	1	0	0	0	1	874	
Total	0	2422	437	0	2859	0	507	2620	5	1	3133	1	393	0	318	1	712	2	4	0	0	0	4	1	6708
% Approach	0%	84.7%	15.3%	0%	-	-	16.2%	83.6%	0.2%	0%	-	-	55.2%	0%	44.7%	0.1%	-	-	100%	0%	0%	0%	-	-	-
% Total	0%	36.1%	6.5%	0%	42.6%	-	7.6%	39.1%	0.1%	0%	46.7%	-	5.9%	0%	4.7%	0%	10.6%	-	0.1%	0%	0%	0.1%	-	-	-
Lights	0	2260	296	0	2556	-	306	2475	5	1	2787	-	297	0	244	0	541	-	4	0	0	0	4	-	5888
% Lights	0%	93.3%	67.7%	0%	89.4%	-	60.4%	94.5%	100%	100%	89.0%	-	75.6%	0%	76.7%	0%	76.0%	-	100%	0%	0%	0%	100%	-	87.8%
Articulated Trucks	0	103	97	0	200	-	155	79	0	0	234	-	73	0	47	1	121	-	0	0	0	0	0	-	555
% Articulated Trucks	0%	4.3%	22.2%	0%	7.0%	-	30.6%	3.0%	0%	0%	7.5%	-	18.6%	0%	14.8%	100%	17.0%	-	0%	0%	0%	0%	0%	-	8.3%
Buses and Single-Unit Trucks	0	59	44	0	103	-	46	66	0	0	112	-	23	0	27	0	50	-	0	0	0	0	0	-	265

Leg Direction	Division St Eastbound					Division St Westbound					Churnovic Lane Northbound					Access Southbound									
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
% Buses and Single-Unit Trucks	0%	2.4%	10.1%	0%	3.6%	-	9.1%	2.5%	0%	0%	3.6%	-	5.9%	0%	8.5%	0%	7.0%	-	0%	0%	0%	0%	0%	-	4.0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	1	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

## Division Street at Churnovic Lane - TMC

Thu May 15, 2025

AM Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296364, Location: 41.580379, -88.135282



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Division St Eastbound					Division St Westbound					Churnovic Lane Northbound					Access Southbound									
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2025-05-15 7:30AM	0	48	14	0	62	0	17	39	0	0	56	0	44	0	52	0	96	0	0	0	0	0	0	0	214
7:45AM	0	74	30	0	104	0	26	40	0	0	66	0	14	0	22	0	36	0	1	0	0	0	1	0	207
8:00AM	0	64	23	0	87	0	35	48	0	0	83	0	10	0	6	0	16	0	1	0	0	0	1	0	187
8:15AM	0	66	42	0	108	0	57	55	0	0	112	0	13	0	7	0	20	0	0	0	0	0	0	0	240
<b>Total</b>	<b>0</b>	<b>252</b>	<b>109</b>	<b>0</b>	<b>361</b>	<b>0</b>	<b>135</b>	<b>182</b>	<b>0</b>	<b>0</b>	<b>317</b>	<b>0</b>	<b>81</b>	<b>0</b>	<b>87</b>	<b>0</b>	<b>168</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>848</b>
<b>% Approach</b>	<b>0%</b>	<b>69.8%</b>	<b>30.2%</b>	<b>0%</b>	<b>-</b>	<b>-</b>	<b>42.6%</b>	<b>57.4%</b>	<b>0%</b>	<b>0%</b>	<b>-</b>	<b>-</b>	<b>48.2%</b>	<b>0%</b>	<b>51.8%</b>	<b>0%</b>	<b>-</b>	<b>-</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>% Total</b>	<b>0%</b>	<b>29.7%</b>	<b>12.9%</b>	<b>0%</b>	<b>42.6%</b>	<b>-</b>	<b>15.9%</b>	<b>21.5%</b>	<b>0%</b>	<b>0%</b>	<b>37.4%</b>	<b>-</b>	<b>9.6%</b>	<b>0%</b>	<b>10.3%</b>	<b>0%</b>	<b>19.8%</b>	<b>-</b>	<b>0.2%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0.2%</b>	<b>-</b>	<b>-</b>
<b>PHF</b>	<b>-</b>	<b>0.851</b>	<b>0.649</b>	<b>-</b>	<b>0.836</b>	<b>-</b>	<b>0.592</b>	<b>0.827</b>	<b>-</b>	<b>-</b>	<b>0.708</b>	<b>-</b>	<b>0.460</b>	<b>-</b>	<b>0.418</b>	<b>-</b>	<b>0.438</b>	<b>-</b>	<b>0.500</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.500</b>	<b>-</b>	<b>0.883</b>
<b>Lights</b>	<b>0</b>	<b>227</b>	<b>94</b>	<b>0</b>	<b>321</b>	<b>-</b>	<b>121</b>	<b>169</b>	<b>0</b>	<b>0</b>	<b>290</b>	<b>-</b>	<b>66</b>	<b>0</b>	<b>75</b>	<b>0</b>	<b>141</b>	<b>-</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>-</b>	<b>754</b>
<b>% Lights</b>	<b>0%</b>	<b>90.1%</b>	<b>86.2%</b>	<b>0%</b>	<b>88.9%</b>	<b>-</b>	<b>89.6%</b>	<b>92.9%</b>	<b>0%</b>	<b>0%</b>	<b>91.5%</b>	<b>-</b>	<b>81.5%</b>	<b>0%</b>	<b>86.2%</b>	<b>0%</b>	<b>83.9%</b>	<b>-</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>100%</b>	<b>-</b>	<b>88.9%</b>
<b>Articulated Trucks</b>	<b>0</b>	<b>16</b>	<b>12</b>	<b>0</b>	<b>28</b>	<b>-</b>	<b>11</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>-</b>	<b>12</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>21</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>67</b>
<b>% Articulated Trucks</b>	<b>0%</b>	<b>6.3%</b>	<b>11.0%</b>	<b>0%</b>	<b>7.8%</b>	<b>-</b>	<b>8.1%</b>	<b>3.8%</b>	<b>0%</b>	<b>0%</b>	<b>5.7%</b>	<b>-</b>	<b>14.8%</b>	<b>0%</b>	<b>10.3%</b>	<b>0%</b>	<b>12.5%</b>	<b>-</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>-</b>	<b>7.9%</b>
<b>Buses and Single-Unit Trucks</b>	<b>0</b>	<b>9</b>	<b>3</b>	<b>0</b>	<b>12</b>	<b>-</b>	<b>3</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>-</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>6</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>27</b>
<b>% Buses and Single-Unit Trucks</b>	<b>0%</b>	<b>3.6%</b>	<b>2.8%</b>	<b>0%</b>	<b>3.3%</b>	<b>-</b>	<b>2.2%</b>	<b>3.3%</b>	<b>0%</b>	<b>0%</b>	<b>2.8%</b>	<b>-</b>	<b>3.7%</b>	<b>0%</b>	<b>3.4%</b>	<b>0%</b>	<b>3.6%</b>	<b>-</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>-</b>	<b>3.2%</b>
<b>Pedestrians</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0</b>	<b>-</b>	
<b>% Pedestrians</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
<b>Bicycles on Crosswalk</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0</b>	<b>-</b>	
<b>% Bicycles on Crosswalk</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

## Division Street at Churnovic Lane - TMC

Thu May 15, 2025

Midday Peak (1 PM - 2 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,  
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296364, Location: 41.580379, -88.135282



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Division St Eastbound					Division St Westbound					Churnovic Lane Northbound					Access Southbound									
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2025-05-15 1:00PM	0	76	11	0	87	0	7	70	0	0	77	0	7	0	5	0	12	0	0	0	0	0	0	0	176
1:15PM	0	70	8	0	78	0	14	66	0	0	80	0	6	0	11	0	17	0	0	0	0	0	0	0	175
1:30PM	0	45	15	0	60	0	16	66	0	0	82	0	59	0	47	0	106	0	0	0	0	0	0	0	248
1:45PM	0	76	20	0	96	0	19	74	0	0	93	0	11	0	8	0	19	0	0	0	0	0	0	0	208
<b>Total</b>	0	267	54	0	<b>321</b>	0	56	276	0	0	<b>332</b>	0	83	0	71	0	<b>154</b>	0	0	0	0	0	0	0	<b>807</b>
<b>% Approach</b>	0%	83.2%	16.8%	0%	-	-	16.9%	83.1%	0%	0%	-	-	53.9%	0%	46.1%	0%	-	-	0%	0%	0%	0%	-	-	-
<b>% Total</b>	0%	33.1%	6.7%	0%	<b>39.8%</b>	-	6.9%	34.2%	0%	0%	<b>41.1%</b>	-	10.3%	0%	8.8%	0%	<b>19.1%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	-
<b>PHF</b>	-	0.878	0.675	-	<b>0.836</b>	-	0.737	0.932	-	-	<b>0.892</b>	-	0.352	-	0.378	-	<b>0.363</b>	-	-	-	-	-	-	-	0.814
<b>Lights</b>	0	247	37	0	<b>284</b>	-	38	254	0	0	<b>292</b>	-	74	0	63	0	<b>137</b>	-	0	0	0	0	<b>0</b>	-	713
<b>% Lights</b>	0%	92.5%	68.5%	0%	<b>88.5%</b>	-	67.9%	92.0%	0%	0%	<b>88.0%</b>	-	89.2%	0%	88.7%	0%	<b>89.0%</b>	-	0%	0%	0%	0%	-	-	88.4%
<b>Articulated Trucks</b>	0	16	10	0	<b>26</b>	-	12	10	0	0	<b>22</b>	-	7	0	5	0	<b>12</b>	-	0	0	0	0	<b>0</b>	-	60
<b>% Articulated Trucks</b>	0%	6.0%	18.5%	0%	<b>8.1%</b>	-	21.4%	3.6%	0%	0%	<b>6.6%</b>	-	8.4%	0%	7.0%	0%	<b>7.8%</b>	-	0%	0%	0%	0%	-	-	7.4%
<b>Buses and Single-Unit Trucks</b>	0	4	7	0	<b>11</b>	-	6	12	0	0	<b>18</b>	-	2	0	3	0	<b>5</b>	-	0	0	0	0	<b>0</b>	-	34
<b>% Buses and Single-Unit Trucks</b>	0%	1.5%	13.0%	0%	<b>3.4%</b>	-	10.7%	4.3%	0%	0%	<b>5.4%</b>	-	2.4%	0%	4.2%	0%	<b>3.2%</b>	-	0%	0%	0%	0%	-	-	4.2%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

## Division Street at Churnovic Lane - TMC

Thu May 15, 2025

PM Peak (4 PM - 5 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296364, Location: 41.580379, -88.135282



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Division St Eastbound					Division St Westbound					Churnovic Lane Northbound					Access Southbound									
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2025-05-15 4:00PM	0	100	8	0	108	0	21	120	0	0	141	0	8	0	5	0	13	0	0	0	0	0	0	0	262
4:15PM	0	80	4	0	84	0	8	133	0	0	141	0	6	0	2	0	8	0	0	0	0	0	0	0	233
4:30PM	0	87	7	0	94	0	12	120	0	0	132	0	13	0	9	0	22	0	0	0	0	0	0	0	248
4:45PM	0	70	4	0	74	0	12	115	0	0	127	0	10	0	4	0	14	0	0	0	0	0	0	0	215
<b>Total</b>	0	337	23	0	360	0	53	488	0	0	541	0	37	0	20	0	57	0	0	0	0	0	0	0	958
<b>% Approach</b>	0%	93.6%	6.4%	0%	-	-	9.8%	90.2%	0%	0%	-	-	64.9%	0%	35.1%	0%	-	-	0%	0%	0%	0%	-	-	-
<b>% Total</b>	0%	35.2%	2.4%	0%	37.6%	-	5.5%	50.9%	0%	0%	56.5%	-	3.9%	0%	2.1%	0%	5.9%	-	0%	0%	0%	0%	0%	-	-
<b>PHF</b>	-	0.843	0.719	-	0.833	-	0.631	0.917	-	-	0.959	-	0.712	-	0.556	-	0.648	-	-	-	-	-	-	-	0.914
<b>Lights</b>	0	323	11	0	334	-	20	473	0	0	493	-	27	0	12	0	39	-	0	0	0	0	0	-	866
<b>% Lights</b>	0%	95.8%	47.8%	0%	92.8%	-	37.7%	96.9%	0%	0%	91.1%	-	73.0%	0%	60.0%	0%	68.4%	-	0%	0%	0%	0%	-	-	90.4%
<b>Articulated Trucks</b>	0	7	8	0	15	-	25	12	0	0	37	-	5	0	7	0	12	-	0	0	0	0	0	-	64
<b>% Articulated Trucks</b>	0%	2.1%	34.8%	0%	4.2%	-	47.2%	2.5%	0%	0%	6.8%	-	13.5%	0%	35.0%	0%	21.1%	-	0%	0%	0%	0%	-	-	6.7%
<b>Buses and Single-Unit Trucks</b>	0	7	4	0	11	-	8	3	0	0	11	-	5	0	1	0	6	-	0	0	0	0	0	-	28
<b>% Buses and Single-Unit Trucks</b>	0%	2.1%	17.4%	0%	3.1%	-	15.1%	0.6%	0%	0%	2.0%	-	13.5%	0%	5.0%	0%	10.5%	-	0%	0%	0%	0%	-	-	2.9%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Division Street at Enterprise Boulevard - TMC

Thu May 15, 2025

Full Length (6 AM-9 AM, 11 AM-2 PM, 3 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296365, Location: 41.580523, -88.131473



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Division St Eastbound					Division St Westbound					Enterprise Blvd Northbound					
Time	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	Int
2025-05-15 6:00AM	54	0	0	54	0	2	33	0	35	0	0	2	0	2	0	91
6:15AM	54	0	0	54	0	0	45	0	45	0	0	5	0	5	0	104
6:30AM	57	0	0	57	0	0	47	0	47	0	0	3	0	3	0	107
6:45AM	58	1	0	59	0	1	48	0	49	0	0	6	0	6	0	114
Hourly Total	223	1	0	224	0	3	173	0	176	0	0	16	0	16	0	416
7:00AM	58	0	0	58	0	1	46	0	47	0	1	3	0	4	0	109
7:15AM	83	0	0	83	0	1	51	0	52	0	0	5	0	5	0	140
7:30AM	107	0	0	107	0	0	58	0	58	0	0	4	0	4	0	169
7:45AM	101	0	0	101	0	4	62	0	66	0	0	7	0	7	0	174
Hourly Total	349	0	0	349	0	6	217	0	223	0	1	19	0	20	0	592
8:00AM	79	0	0	79	0	0	79	0	79	0	1	10	0	11	0	169
8:15AM	71	0	0	71	0	0	116	0	116	0	0	8	0	8	0	195
8:30AM	67	0	0	67	0	0	77	0	77	0	1	9	0	10	0	154
8:45AM	64	0	0	64	0	0	71	0	71	0	3	12	0	15	0	150
Hourly Total	281	0	0	281	0	0	343	0	343	0	5	39	0	44	0	668
11:00AM	63	0	0	63	0	0	81	0	81	0	1	2	0	3	0	147
11:15AM	75	0	0	75	0	1	70	0	71	0	1	4	0	5	0	151
11:30AM	51	0	0	51	0	0	75	0	75	0	1	7	0	8	0	134
11:45AM	76	0	0	76	0	0	87	0	87	0	0	8	0	8	0	171
Hourly Total	265	0	0	265	0	1	313	0	314	0	3	21	0	24	0	603
12:00PM	62	0	0	62	0	0	75	0	75	0	0	3	0	3	0	140
12:15PM	90	0	0	90	0	0	82	0	82	0	1	5	0	6	0	178
12:30PM	73	0	0	73	0	0	72	0	72	0	2	9	0	11	0	156
12:45PM	73	0	0	73	0	1	75	0	76	0	1	4	0	5	0	154
Hourly Total	298	0	0	298	0	1	304	0	305	0	4	21	0	25	0	628
1:00PM	90	0	0	90	0	0	81	0	81	0	1	9	0	10	1	181
1:15PM	73	0	0	73	0	0	78	1	79	0	1	5	0	6	0	158
1:30PM	98	0	0	98	0	1	88	0	89	0	2	4	0	6	0	193
1:45PM	93	0	0	93	0	0	86	0	86	0	0	4	0	4	0	183
Hourly Total	354	0	0	354	0	1	333	1	335	0	4	22	0	26	1	715
3:00PM	91	0	0	91	0	0	114	0	114	0	0	6	0	6	0	211
3:15PM	75	0	0	75	0	0	121	0	121	0	0	9	0	9	0	205
3:30PM	89	0	0	89	0	0	114	0	114	0	0	6	0	6	0	209
3:45PM	91	1	0	92	0	1	97	0	98	0	1	5	0	6	0	196
Hourly Total	346	1	0	347	0	1	446	0	447	0	1	26	0	27	0	821
4:00PM	104	0	0	104	0	0	136	0	136	0	0	6	0	6	0	246
4:15PM	81	0	0	81	0	0	143	0	143	0	0	9	0	9	0	233
4:30PM	102	0	0	102	0	0	137	0	137	0	0	10	0	10	0	249
4:45PM	76	1	0	77	0	0	121	0	121	0	0	10	0	10	0	208
Hourly Total	363	1	0	364	0	0	537	0	537	0	0	35	0	35	0	936
5:00PM	96	0	0	96	0	0	116	0	116	0	0	10	0	10	0	222
5:15PM	111	0	0	111	0	0	138	0	138	0	0	8	0	8	0	257
5:30PM	77	0	0	77	0	0	116	0	116	0	0	12	0	12	0	205
5:45PM	103	0	0	103	0	0	88	0	88	0	0	6	0	6	0	197
Hourly Total	387	0	0	387	0	0	458	0	458	0	0	36	0	36	0	881
Total	2866	3	0	2869	0	13	3124	1	3138	0	18	235	0	253	1	6260
% Approach	99.9%	0.1%	0%	-	-	0.4%	99.6%	0%	-	-	7.1%	92.9%	0%	-	-	-
% Total	45.8%	0%	0%	45.8%	-	0.2%	49.9%	0%	50.1%	-	0.3%	3.8%	0%	4.0%	-	-
Lights	2629	3	0	2632	-	10	2775	1	2786	-	11	98	0	109	-	5527
% Lights	91.7%	100%	0%	91.7%	-	76.9%	88.8%	100%	88.8%	-	61.1%	41.7%	0%	43.1%	-	88.3%
Articulated Trucks	152	0	0	152	-	0	234	0	234	-	5	109	0	114	-	500
% Articulated Trucks	5.3%	0%	0%	5.3%	-	0%	7.5%	0%	7.5%	-	27.8%	46.4%	0%	45.1%	-	8.0%
Buses and Single-Unit Trucks	85	0	0	85	-	3	115	0	118	-	2	28	0	30	-	233

Leg Direction	Division St Eastbound					Division St Westbound					Enterprise Blvd Northbound					
Time	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	Int
% Buses and Single-Unit Trucks	3.0%	0%	0%	<b>3.0%</b>	-	23.1%	3.7%	0%	<b>3.8%</b>	-	11.1%	11.9%	0%	<b>11.9%</b>	-	3.7%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Division Street at Enterprise Boulevard - TMC

Thu May 15, 2025

AM Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296365, Location: 41.580523, -88.131473



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Division St Eastbound					Division St Westbound					Enterprise Blvd Northbound					
Time	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	Int
2025-05-15 7:30AM	107	0	0	107	0	0	58	0	58	0	0	4	0	4	0	169
7:45AM	101	0	0	101	0	4	62	0	66	0	0	7	0	7	0	174
8:00AM	79	0	0	79	0	0	79	0	79	0	1	10	0	11	0	169
8:15AM	71	0	0	71	0	0	116	0	116	0	0	8	0	8	0	195
<b>Total</b>	358	0	0	358	0	4	315	0	319	0	1	29	0	30	0	707
<b>% Approach</b>	100%	0%	0%	-	-	1.3%	98.7%	0%	-	-	3.3%	96.7%	0%	-	-	-
<b>% Total</b>	50.6%	0%	0%	50.6%	-	0.6%	44.6%	0%	45.1%	-	0.1%	4.1%	0%	4.2%	-	-
<b>PHF</b>	0.836	-	-	0.836	-	0.250	0.679	-	0.688	-	0.250	0.725	-	0.682	-	0.906
<b>Lights</b>	321	0	0	321	-	3	286	0	289	-	1	12	0	13	-	623
<b>% Lights</b>	89.7%	0%	0%	89.7%	-	75.0%	90.8%	0%	90.6%	-	100%	41.4%	0%	43.3%	-	88.1%
<b>Articulated Trucks</b>	27	0	0	27	-	0	20	0	20	-	0	15	0	15	-	62
<b>% Articulated Trucks</b>	7.5%	0%	0%	7.5%	-	0%	6.3%	0%	6.3%	-	0%	51.7%	0%	50.0%	-	8.8%
<b>Buses and Single-Unit Trucks</b>	10	0	0	10	-	1	9	0	10	-	0	2	0	2	-	22
<b>% Buses and Single-Unit Trucks</b>	2.8%	0%	0%	2.8%	-	25.0%	2.9%	0%	3.1%	-	0%	6.9%	0%	6.7%	-	3.1%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Division Street at Enterprise Boulevard - TMC

Thu May 15, 2025

Midday Peak (1 PM - 2 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296365, Location: 41.580523, -88.131473



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Division St Eastbound					Division St Westbound					Enterprise Blvd Northbound					
Time	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	Int
2025-05-15 1:00PM	90	0	0	<b>90</b>	0	0	81	0	<b>81</b>	0	1	9	0	<b>10</b>	1	<b>181</b>
1:15PM	73	0	0	<b>73</b>	0	0	78	1	<b>79</b>	0	1	5	0	<b>6</b>	0	<b>158</b>
1:30PM	98	0	0	<b>98</b>	0	1	88	0	<b>89</b>	0	2	4	0	<b>6</b>	0	<b>193</b>
1:45PM	93	0	0	<b>93</b>	0	0	86	0	<b>86</b>	0	0	4	0	<b>4</b>	0	<b>183</b>
<b>Total</b>	354	0	0	<b>354</b>	0	1	333	1	<b>335</b>	0	4	22	0	<b>26</b>	1	<b>715</b>
<b>% Approach</b>	100%	0%	0%	-	-	0.3%	99.4%	0.3%	-	-	15.4%	84.6%	0%	-	-	-
<b>% Total</b>	49.5%	0%	0%	<b>49.5%</b>	-	0.1%	46.6%	0.1%	<b>46.9%</b>	-	0.6%	3.1%	0%	<b>3.6%</b>	-	-
<b>PHF</b>	0.903	-	-	<b>0.903</b>	-	0.250	0.946	0.250	<b>0.941</b>	-	0.500	0.611	-	<b>0.650</b>	-	0.926
<b>Lights</b>	328	0	0	<b>328</b>	-	1	293	1	<b>295</b>	-	1	12	0	<b>13</b>	-	<b>636</b>
<b>% Lights</b>	92.7%	0%	0%	<b>92.7%</b>	-	100%	88.0%	100%	<b>88.1%</b>	-	25.0%	54.5%	0%	<b>50.0%</b>	-	89.0%
<b>Articulated Trucks</b>	19	0	0	<b>19</b>	-	0	22	0	<b>22</b>	-	2	7	0	<b>9</b>	-	50
<b>% Articulated Trucks</b>	5.4%	0%	0%	<b>5.4%</b>	-	0%	6.6%	0%	<b>6.6%</b>	-	50.0%	31.8%	0%	<b>34.6%</b>	-	7.0%
<b>Buses and Single-Unit Trucks</b>	7	0	0	<b>7</b>	-	0	18	0	<b>18</b>	-	1	3	0	<b>4</b>	-	29
<b>% Buses and Single-Unit Trucks</b>	2.0%	0%	0%	<b>2.0%</b>	-	0%	5.4%	0%	<b>5.4%</b>	-	25.0%	13.6%	0%	<b>15.4%</b>	-	4.1%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Division Street at Enterprise Boulevard - TMC

Thu May 15, 2025

PM Peak (4 PM - 5 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296365, Location: 41.580523, -88.131473



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Division St Eastbound					Division St Westbound					Enterprise Blvd Northbound					
Time	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	Int
2025-05-15 4:00PM	104	0	0	104	0	0	136	0	136	0	0	6	0	6	0	246
4:15PM	81	0	0	81	0	0	143	0	143	0	0	9	0	9	0	233
4:30PM	102	0	0	102	0	0	137	0	137	0	0	10	0	10	0	249
4:45PM	76	1	0	77	0	0	121	0	121	0	0	10	0	10	0	208
<b>Total</b>	363	1	0	364	0	0	537	0	537	0	0	35	0	35	0	936
<b>% Approach</b>	99.7%	0.3%	0%	-	-	0%	100%	0%	-	-	0%	100%	0%	-	-	-
<b>% Total</b>	38.8%	0.1%	0%	38.9%	-	0%	57.4%	0%	57.4%	-	0%	3.7%	0%	3.7%	-	-
<b>PHF</b>	0.873	0.250	-	0.875	-	-	0.939	-	0.939	-	-	0.875	-	0.875	-	0.940
<b>Lights</b>	340	1	0	341	-	0	490	0	490	-	0	15	0	15	-	846
<b>% Lights</b>	93.7%	100%	0%	93.7%	-	0%	91.2%	0%	91.2%	-	0%	42.9%	0%	42.9%	-	90.4%
<b>Articulated Trucks</b>	15	0	0	15	-	0	38	0	38	-	0	16	0	16	-	69
<b>% Articulated Trucks</b>	4.1%	0%	0%	4.1%	-	0%	7.1%	0%	7.1%	-	0%	45.7%	0%	45.7%	-	7.4%
<b>Buses and Single-Unit Trucks</b>	8	0	0	8	-	0	9	0	9	-	0	4	0	4	-	21
<b>% Buses and Single-Unit Trucks</b>	2.2%	0%	0%	2.2%	-	0%	1.7%	0%	1.7%	-	0%	11.4%	0%	11.4%	-	2.2%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Enterprise Boulevard at Lidice Parkway - TMC

Thu May 15, 2025

Full Length (6 AM-9 AM, 11 AM-2 PM, 3 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296366, Location: 41.576855, -88.13127



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Lidice Parkway Eastbound					Enterprise Dr Northbound					Enterprise Dr Southbound					
Time	L	R	U	App	Ped*	L	T	U	App	Ped*	T	R	U	App	Ped*	Int
2025-05-15 6:00AM	10	1	0	11	0	0	0	0	0	0	2	1	0	3	0	14
6:15AM	10	3	0	13	0	1	1	0	2	0	0	1	0	1	0	16
6:30AM	11	4	0	15	0	0	0	0	0	0	0	1	0	1	0	16
6:45AM	14	7	0	21	0	0	1	0	1	0	0	1	0	1	0	23
Hourly Total	45	15	0	60	0	1	2	0	3	0	2	4	0	6	0	69
7:00AM	15	4	0	19	0	0	0	0	0	0	2	1	0	3	0	22
7:15AM	14	3	1	18	0	1	2	0	3	0	0	3	0	3	0	24
7:30AM	10	2	0	12	0	1	0	0	1	0	0	2	0	2	0	15
7:45AM	9	8	0	17	0	3	1	0	4	0	0	0	0	0	0	21
Hourly Total	48	17	1	66	0	5	3	0	8	0	2	6	0	8	0	82
8:00AM	12	5	0	17	0	1	2	0	3	0	0	3	0	3	0	23
8:15AM	12	4	0	16	0	0	2	0	2	0	0	2	0	2	0	20
8:30AM	9	4	0	13	0	0	1	0	1	0	0	1	0	1	0	15
8:45AM	11	8	0	19	0	0	2	0	2	0	0	3	0	3	0	24
Hourly Total	44	21	0	65	0	1	7	0	8	0	0	9	0	9	0	82
11:00AM	4	2	0	6	0	0	0	0	0	0	0	1	0	1	0	7
11:15AM	15	1	0	16	0	1	1	0	2	0	0	0	0	0	0	18
11:30AM	11	3	0	14	0	1	1	0	2	0	1	2	0	3	0	19
11:45AM	10	3	0	13	0	0	1	0	1	0	0	3	0	3	0	17
Hourly Total	40	9	0	49	0	2	3	0	5	0	1	6	0	7	0	61
12:00PM	10	4	0	14	0	1	0	0	1	0	0	2	0	2	0	17
12:15PM	10	1	0	11	0	0	1	0	1	0	0	1	0	1	0	13
12:30PM	7	1	0	8	0	0	1	0	1	0	0	3	0	3	0	12
12:45PM	10	4	0	14	0	0	0	0	0	0	0	1	0	1	0	15
Hourly Total	37	10	0	47	0	1	2	0	3	0	0	7	0	7	0	57
1:00PM	14	1	0	15	0	0	2	0	2	0	0	0	0	0	0	17
1:15PM	13	0	0	13	0	0	1	0	1	0	1	1	0	2	0	16
1:30PM	13	1	0	14	0	0	1	0	1	0	0	0	0	0	0	15
1:45PM	14	3	0	17	0	2	0	0	2	0	0	1	0	1	0	20
Hourly Total	54	5	0	59	0	2	4	0	6	0	1	2	0	3	0	68
3:00PM	14	1	0	15	0	2	0	0	2	0	0	1	0	1	0	18
3:15PM	9	0	0	9	0	1	2	0	3	0	0	2	0	2	0	14
3:30PM	9	1	0	10	0	4	1	0	5	0	0	2	0	2	0	17
3:45PM	13	2	0	15	0	0	0	0	0	0	0	3	0	3	0	18
Hourly Total	45	4	0	49	0	7	3	0	10	0	0	8	0	8	0	67
4:00PM	20	5	0	25	0	1	0	0	1	0	0	5	0	5	0	31
4:15PM	8	2	0	10	0	0	2	0	2	0	0	1	0	1	0	13
4:30PM	9	3	0	12	0	2	2	0	4	0	0	3	0	3	0	19
4:45PM	9	5	0	14	0	1	2	0	3	0	0	2	0	2	0	19
Hourly Total	46	15	0	61	0	4	6	0	10	0	0	11	0	11	0	82
5:00PM	11	2	0	13	0	0	3	0	3	0	0	3	0	3	0	19
5:15PM	18	1	0	19	0	1	4	0	5	0	0	1	0	1	0	25
5:30PM	7	3	0	10	0	0	3	0	3	0	0	2	0	2	0	15
5:45PM	24	1	0	25	0	0	2	0	2	0	0	0	0	0	0	27
Hourly Total	60	7	0	67	0	1	12	0	13	0	0	6	0	6	0	86
Total	419	103	1	523	0	24	42	0	66	0	6	59	0	65	0	654
% Approach	80.1%	19.7%	0.2%	-	-	36.4%	63.6%	0%	-	-	9.2%	90.8%	0%	-	-	-
% Total	64.1%	15.7%	0.2%	80.0%	-	3.7%	6.4%	0%	10.1%	-	0.9%	9.0%	0%	9.9%	-	-
Lights	89	103	1	193	-	24	42	0	66	-	6	28	0	34	-	293
% Lights	21.2%	100%	100%	36.9%	-	100%	100%	0%	100%	-	100%	47.5%	0%	52.3%	-	44.8%
Articulated Trucks	218	0	0	218	-	0	0	0	0	-	0	24	0	24	-	242
% Articulated Trucks	52.0%	0%	0%	41.7%	-	0%	0%	0%	0%	-	0%	40.7%	0%	36.9%	-	37.0%
Buses and Single-Unit Trucks	112	0	0	112	-	0	0	0	0	-	0	7	0	7	-	119

Leg Direction	Lidice Parkway Eastbound					Enterprise Dr Northbound					Enterprise Dr Southbound					
Time	L	R	U	App	Ped*	L	T	U	App	Ped*	T	R	U	App	Ped*	Int
% Buses and Single-Unit Trucks	26.7%	0%	0%	<b>21.4%</b>	-	0%	0%	0%	<b>0%</b>	-	0%	11.9%	0%	<b>10.8%</b>	-	18.2%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Enterprise Boulevard at Lidice Parkway - TMC

Thu May 15, 2025

Forced Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296366, Location: 41.576855, -88.13127



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Lidice Parkway Eastbound					Enterprise Dr Northbound					Enterprise Dr Southbound					
Time	L	R	U	App	Ped*	L	T	U	App	Ped*	T	R	U	App	Ped*	Int
2025-05-15 7:30AM	10	2	0	12	0	1	0	0	1	0	0	2	0	2	0	15
7:45AM	9	8	0	17	0	3	1	0	4	0	0	0	0	0	0	21
8:00AM	12	5	0	17	0	1	2	0	3	0	0	3	0	3	0	23
8:15AM	12	4	0	16	0	0	2	0	2	0	0	2	0	2	0	20
<b>Total</b>	<b>43</b>	<b>19</b>	<b>0</b>	<b>62</b>	<b>0</b>	<b>5</b>	<b>5</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>79</b>
<b>% Approach</b>	69.4%	30.6%	0%	-	-	50.0%	50.0%	0%	-	-	0%	100%	0%	-	-	-
<b>% Total</b>	54.4%	24.1%	0%	<b>78.5%</b>	-	6.3%	6.3%	0%	<b>12.7%</b>	-	0%	8.9%	0%	<b>8.9%</b>	-	-
PHF	0.896	0.594	-	<b>0.912</b>	-	0.417	0.625	-	<b>0.625</b>	-	-	0.583	-	<b>0.583</b>	-	0.859
<b>Lights</b>	<b>19</b>	<b>19</b>	<b>0</b>	<b>38</b>	-	<b>5</b>	<b>5</b>	<b>0</b>	<b>10</b>	-	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	-	<b>50</b>
<b>% Lights</b>	44.2%	100%	0%	<b>61.3%</b>	-	100%	100%	0%	<b>100%</b>	-	0%	28.6%	0%	<b>28.6%</b>	-	63.3%
<b>Articulated Trucks</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>15</b>	-	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	-	<b>0</b>	<b>5</b>	<b>0</b>	<b>5</b>	-	<b>20</b>
<b>% Articulated Trucks</b>	34.9%	0%	0%	<b>24.2%</b>	-	0%	0%	0%	<b>0%</b>	-	0%	71.4%	0%	<b>71.4%</b>	-	25.3%
<b>Buses and Single-Unit Trucks</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>9</b>	-	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	-	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	-	<b>9</b>
<b>% Buses and Single-Unit Trucks</b>	20.9%	0%	0%	<b>14.5%</b>	-	0%	0%	0%	<b>0%</b>	-	0%	0%	0%	<b>0%</b>	-	11.4%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Enterprise Boulevard at Lidice Parkway - TMC

Thu May 15, 2025

Forced Peak (1 PM - 2 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296366, Location: 41.576855, -88.13127



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Lidice Parkway Eastbound					Enterprise Dr Northbound					Enterprise Dr Southbound					
Time	L	R	U	App	Ped*	L	T	U	App	Ped*	T	R	U	App	Ped*	Int
2025-05-15 1:00PM	14	1	0	15	0	0	2	0	2	0	0	0	0	0	0	17
1:15PM	13	0	0	13	0	0	1	0	1	0	1	1	0	2	0	16
1:30PM	13	1	0	14	0	0	1	0	1	0	0	0	0	0	0	15
1:45PM	14	3	0	17	0	2	0	0	2	0	0	1	0	1	0	20
<b>Total</b>	54	5	0	59	0	2	4	0	6	0	1	2	0	3	0	68
<b>% Approach</b>	91.5%	8.5%	0%	-	-	33.3%	66.7%	0%	-	-	33.3%	66.7%	0%	-	-	-
<b>% Total</b>	79.4%	7.4%	0%	<b>86.8%</b>	-	2.9%	5.9%	0%	<b>8.8%</b>	-	1.5%	2.9%	0%	<b>4.4%</b>	-	-
<b>PHF</b>	0.964	0.417	-	<b>0.868</b>	-	0.250	0.500	-	<b>0.750</b>	-	0.250	0.500	-	<b>0.375</b>	-	0.850
<b>Lights</b>	15	5	0	<b>20</b>	-	2	4	0	<b>6</b>	-	1	1	0	<b>2</b>	-	28
<b>% Lights</b>	27.8%	100%	0%	<b>33.9%</b>	-	100%	100%	0%	<b>100%</b>	-	100%	50.0%	0%	<b>66.7%</b>	-	41.2%
<b>Articulated Trucks</b>	21	0	0	<b>21</b>	-	0	0	0	<b>0</b>	-	0	1	0	<b>1</b>	-	22
<b>% Articulated Trucks</b>	38.9%	0%	0%	<b>35.6%</b>	-	0%	0%	0%	<b>0%</b>	-	0%	50.0%	0%	<b>33.3%</b>	-	32.4%
<b>Buses and Single-Unit Trucks</b>	18	0	0	<b>18</b>	-	0	0	0	<b>0</b>	-	0	0	0	<b>0</b>	-	18
<b>% Buses and Single-Unit Trucks</b>	33.3%	0%	0%	<b>30.5%</b>	-	0%	0%	0%	<b>0%</b>	-	0%	0%	0%	<b>0%</b>	-	26.5%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Enterprise Boulevard at Lidice Parkway - TMC

Thu May 15, 2025

Forced Peak (4 PM - 5 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,  
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296366, Location: 41.576855, -88.13127



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Lidice Parkway Eastbound					Enterprise Dr Northbound					Enterprise Dr Southbound					
Time	L	R	U	App	Ped*	L	T	U	App	Ped*	T	R	U	App	Ped*	Int
2025-05-15 4:00PM	20	5	0	25	0	1	0	0	1	0	0	5	0	5	0	31
4:15PM	8	2	0	10	0	0	2	0	2	0	0	1	0	1	0	13
4:30PM	9	3	0	12	0	2	2	0	4	0	0	3	0	3	0	19
4:45PM	9	5	0	14	0	1	2	0	3	0	0	2	0	2	0	19
<b>Total</b>	46	15	0	61	0	4	6	0	10	0	0	11	0	11	0	82
<b>% Approach</b>	75.4%	24.6%	0%	-	-	40.0%	60.0%	0%	-	-	0%	100%	0%	-	-	-
<b>% Total</b>	56.1%	18.3%	0%	<b>74.4%</b>	-	4.9%	7.3%	0%	<b>12.2%</b>	-	0%	13.4%	0%	<b>13.4%</b>	-	-
PHF	0.575	0.750	-	<b>0.610</b>	-	0.500	0.750	-	<b>0.625</b>	-	-	0.550	-	<b>0.550</b>	-	0.661
<b>Lights</b>	4	15	0	<b>19</b>	-	4	6	0	<b>10</b>	-	0	7	0	7	-	36
<b>% Lights</b>	8.7%	100%	0%	<b>31.1%</b>	-	100%	100%	0%	<b>100%</b>	-	0%	63.6%	0%	<b>63.6%</b>	-	43.9%
<b>Articulated Trucks</b>	32	0	0	<b>32</b>	-	0	0	0	<b>0</b>	-	0	3	0	<b>3</b>	-	35
<b>% Articulated Trucks</b>	69.6%	0%	0%	<b>52.5%</b>	-	0%	0%	0%	<b>0%</b>	-	0%	27.3%	0%	<b>27.3%</b>	-	42.7%
<b>Buses and Single-Unit Trucks</b>	10	0	0	<b>10</b>	-	0	0	0	<b>0</b>	-	0	1	0	<b>1</b>	-	11
<b>% Buses and Single-Unit Trucks</b>	21.7%	0%	0%	<b>16.4%</b>	-	0%	0%	0%	<b>0%</b>	-	0%	9.1%	0%	<b>9.1%</b>	-	13.4%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
<b>% Pedestrians</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Access Road at West Access - TMC

Thu May 15, 2025

Full Length (6 AM-9 AM, 11 AM-2 PM, 3 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296367, Location: 41.579541, -88.134598



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Parking Lot Eastbound						Parking Lot Westbound						From/To Churnovic Lane Northbound						Parking Lot Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2025-05-15 6:00AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	3	0	3	0	0	9	1	0	10	0	14
6:15AM	0	0	1	0	1	1	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0	3	0	4
6:30AM	0	0	4	0	4	4	0	0	0	0	0	6	0	0	2	0	2	4	0	12	0	0	12	0	18
6:45AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	3	0	0	3	0	5
Hourly Total	0	0	6	0	6	5	0	0	0	0	0	8	0	0	7	0	7	4	0	27	1	0	28	0	41
7:00AM	0	0	0	0	0	2	0	0	0	0	0	2	0	0	5	0	5	2	0	8	2	0	10	2	15
7:15AM	0	0	0	0	0	1	0	0	0	0	0	8	0	0	9	0	9	5	0	14	1	0	15	2	24
7:30AM	0	0	8	0	8	0	0	0	0	0	0	28	0	0	17	0	17	9	0	74	0	0	74	3	99
7:45AM	0	0	3	0	3	1	0	0	0	0	0	6	0	0	27	0	27	6	0	20	1	0	21	0	51
Hourly Total	0	0	11	0	11	4	0	0	0	0	0	44	0	0	58	0	58	22	0	116	4	0	120	7	189
8:00AM	0	0	1	0	1	1	0	0	0	0	0	12	0	0	42	0	42	6	0	8	2	0	10	1	53
8:15AM	0	0	0	0	0	0	0	0	0	0	0	31	0	0	81	0	81	14	0	10	3	0	13	0	94
8:30AM	0	0	2	0	2	0	0	0	0	0	0	16	0	0	51	0	51	3	0	5	1	0	6	1	59
8:45AM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	22	0	22	2	0	3	0	0	3	3	25
Hourly Total	0	0	3	0	3	1	0	0	0	0	0	65	0	0	196	0	196	25	0	26	6	0	32	5	231
11:00AM	0	0	0	0	0	4	0	0	0	0	0	25	0	0	2	0	2	9	0	15	0	0	15	8	17
11:15AM	0	0	1	0	1	0	0	0	0	0	0	9	0	0	2	0	2	0	0	20	0	0	20	2	23
11:30AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	4	0	0	4	0	7
11:45AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	6	0	0	6	0	8
Hourly Total	0	0	1	0	1	4	0	0	0	0	0	34	0	0	9	0	9	9	0	45	0	0	45	10	55
12:00PM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	3	0	0	3	0	4
12:15PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	1	0	0	1	0	3
12:30PM	0	0	1	0	1	0	0	0	0	0	0	2	0	0	2	0	2	1	0	4	0	0	4	0	7
12:45PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	1	0	6	0	0	6	0	11
Hourly Total	0	0	2	0	2	0	0	0	0	0	0	3	0	0	9	0	9	3	0	13	1	0	14	0	25
1:00PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	4	1	0	5	0	0	5	1	9
1:15PM	0	0	1	0	1	0	0	0	0	0	0	16	0	0	4	0	4	0	0	18	0	0	18	8	23
1:30PM	0	0	8	0	8	0	0	0	0	0	0	34	0	0	11	0	11	9	0	90	1	0	91	9	110
1:45PM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	21	0	21	3	0	12	0	0	12	2	33
Hourly Total	0	0	9	0	9	0	0	0	0	0	0	59	0	0	40	0	40	13	0	125	1	0	126	20	175
3:00PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	5	0	5	3	0	7	0	0	7	0	12
3:15PM	0	0	1	0	1	0	0	0	0	0	0	3	0	0	6	0	6	0	0	5	0	0	5	0	12
3:30PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	3	0	3	0	0	4	0	0	4	1	7
3:45PM	0	0	0	0	0	4	0	0	0	0	0	1	0	0	3	0	3	2	0	0	1	0	1	0	4
Hourly Total	0	0	1	0	1	7	0	0	0	0	0	6	0	0	17	0	17	5	0	16	1	0	17	1	35
4:00PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	1	3	0	4	0	0	4	1	5
4:15PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	2	0	2	0	0	0	0	0	0	3	2
4:30PM	0	0	1	0	1	0	0	0	0	0	0	4	0	0	3	0	3	3	0	8	0	0	8	4	12
4:45PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	0	2	1	0	2	0	0	2	0	5
Hourly Total	0	0	2	0	2	0	0	0	0	0	0	9	0	0	8	0	8	7	0	14	0	0	14	8	24
5:00PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	1	0	0	4	0	0	4	0	5
5:15PM	0	0	0	1	1	7	0	0	0	0	0	6	0	0	0	0	0	11	0	2	0	0	2	1	3
5:30PM	0	0	2	0	2	2	0	0	0	0	0	4	0	0	5	0	5	4	0	10	1	0	11	1	18
5:45PM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	3	0	3	0	0	1	0	0	1	0	5
Hourly Total	0	0	3	1	4	9	0	0	0	0	0	14	0	0	9	0	9	15	0	17	1	0	18	2	31
Total	0	0	38	1	39	30	0	0	0	0	0	242	0	0	353	0	353	103	0	399	15	0	414	53	806
% Approach	0%	0%	97.4%	2.6%	-	-	0%	0%	0%	0%	0%	-	-	0%	0%	100%	0%	-	-	0%	96.4%	3.6%	0%	-	-
% Total	0%	0%	4.7%	0.1%	4.8%	-	0%	0%	0%	0%	0%	-	-	0%	0%	43.8%	0%	43.8%	-	0%	49.5%	1.9%	0%	51.4%	-
Lights	0	0	38	1	39	-	0	0	0	0	0	-	0	0	351	0	351	-	0	397	15	0	412	-	802
% Lights	0%	0%	100%	100%	100%	-	0%	0%	0%	0%	0%	-	-	0%	0%	99.4%	0%	99.4%	-	0%	99.5%	100%	0%	99.5%	-
Articulated Trucks	0	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	0
% Articulated Trucks	0%	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%
Buses and Single-Unit Trucks	0	0	0	0	0	0	-	0	0	0	0	0	-	0	0	2	0	2	-	0	2	0	0	2	1

Leg Direction	Parking Lot Eastbound					Parking Lot Westbound					From/To Churnovic Lane					Parking Lot Southbound									
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
<b>% Buses and Single-Unit Trucks</b>	0%	0%	0%	0%	<b>0%</b>	-	0%	0%	0%	0%	-	-	0%	0%	0.6%	0%	<b>0.6%</b>	-	0%	0.5%	0%	0%	<b>0.5%</b>	-	0.5%
Pedestrians	-	-	-	-	-	30	-	-	-	-	-	241	-	-	-	-	-	102	-	-	-	-	-	53	-
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	99.6%	-	-	-	-	-	99.0%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0.4%	-	-	-	-	-	1.0%	-	-	-	-	-	0%	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

# Access Road at West Access - TMC

Thu May 15, 2025

AM Peak (7:30 AM - 8:30 AM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296367, Location: 41.579541, -88.134598



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Parking Lot Eastbound					Parking Lot Westbound					From/To Churnovic Lane Northbound					Parking Lot Southbound								
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int					
2025-05-15 7:30AM	0	0	8	0	8	0	0	0	0	0	0	28	0	0	17	0	17	9	0	74	0	0		
7:45AM	0	0	3	0	3	1	0	0	0	0	0	6	0	0	27	0	27	6	0	20	1	0		
8:00AM	0	0	1	0	1	1	0	0	0	0	0	12	0	0	42	0	42	6	0	8	2	0		
8:15AM	0	0	0	0	0	0	0	0	0	0	0	31	0	0	81	0	81	14	0	10	3	0		
<b>Total</b>	0	0	12	0	12	2	0	0	0	0	0	77	0	0	167	0	167	35	0	112	6	0		
<b>% Approach</b>	0%	0%	100%	0%	-	-	0%	0%	0%	0%	-	-	0%	0%	100%	0%	-	-	0%	94.9%	5.1%	0%		
<b>% Total</b>	0%	0%	4.0%	0%	<b>4.0%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	0%	0%	56.2%	0%	<b>56.2%</b>	-	0%	37.7%	2.0%	0%		
<b>PHF</b>	-	-	0.375	-	<b>0.375</b>	-	-	-	-	-	-	-	-	0.515	-	<b>0.515</b>	-	0.378	0.500	-	<b>0.399</b>	-		
<b>Lights</b>	0	0	12	0	<b>12</b>	-	0	0	0	0	0	-	0	0	166	0	<b>166</b>	-	0	111	6	0		
<b>% Lights</b>	0%	0%	100%	0%	<b>100%</b>	-	0%	0%	0%	0%	-	-	0%	0%	99.4%	0%	<b>99.4%</b>	-	0%	99.1%	100%	0%		
<b>Articulated Trucks</b>	0	0	0	0	<b>0</b>	-	0	0	0	0	<b>0</b>	-	0	0	0	0	<b>0</b>	-	0	0	0	<b>0</b>	-	
<b>% Articulated Trucks</b>	0%	0%	0%	0%	<b>0%</b>	-	0%	0%	0%	0%	-	-	0%	0%	0%	0%	<b>0%</b>	-	0%	0%	0%	<b>0%</b>	-	
<b>Buses and Single-Unit Trucks</b>	0	0	0	0	<b>0</b>	-	0	0	0	0	<b>0</b>	-	0	0	1	0	<b>1</b>	-	0	1	0	0	<b>1</b>	-
<b>% Buses and Single-Unit Trucks</b>	0%	0%	0%	0%	<b>0%</b>	-	0%	0%	0%	0%	-	-	0%	0%	0.6%	0%	<b>0.6%</b>	-	0%	0.9%	0%	0%	<b>0.8%</b>	-
Pedestrians	-	-	-	-	-	2	-	-	-	-	77	-	-	-	-	-	35	-	-	-	-	-	4	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Access Road at West Access - TMC

Thu May 15, 2025

Midday Peak, PM Peak (1 PM - 2 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296367, Location: 41.579541, -88.134598



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Parking Lot Eastbound					Parking Lot Westbound					From/To Churnovic Lane Northbound					Parking Lot Southbound									
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2025-05-15 1:00PM	0	0	0	0	<b>0</b>	0	0	0	0	0	<b>0</b>	4	0	0	4	0	<b>4</b>	1	0	5	0	0	<b>5</b>	1	<b>9</b>
1:15PM	0	0	1	0	<b>1</b>	0	0	0	0	0	<b>0</b>	16	0	0	4	0	<b>4</b>	0	0	18	0	0	<b>18</b>	8	<b>23</b>
1:30PM	0	0	8	0	<b>8</b>	0	0	0	0	0	<b>0</b>	34	0	0	11	0	<b>11</b>	9	0	90	1	0	<b>91</b>	9	<b>110</b>
1:45PM	0	0	0	0	<b>0</b>	0	0	0	0	0	<b>0</b>	5	0	0	21	0	<b>21</b>	3	0	12	0	0	<b>12</b>	2	<b>33</b>
<b>Total</b>	0	0	9	0	<b>9</b>	0	0	0	0	0	<b>0</b>	59	0	0	40	0	<b>40</b>	13	0	125	1	0	<b>126</b>	20	<b>175</b>
<b>% Approach</b>	0%	0%	100%	0%	-	-	0%	0%	0%	0%	-	-	0%	0%	100%	0%	-	-	0%	99.2%	0.8%	0%	-	-	-
<b>% Total</b>	0%	0%	5.1%	0%	<b>5.1%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	0%	0%	22.9%	0%	<b>22.9%</b>	-	0%	71.4%	0.6%	0%	<b>72.0%</b>	-	-
<b>PHF</b>	-	-	0.281	-	<b>0.281</b>	-	-	-	-	-	-	-	-	-	0.476	-	<b>0.476</b>	-	-	0.347	0.250	-	<b>0.346</b>	-	0.398
<b>Lights</b>	0	0	9	0	<b>9</b>	-	0	0	0	0	<b>0</b>	-	0	0	40	0	<b>40</b>	-	0	125	1	0	<b>126</b>	-	175
<b>% Lights</b>	0%	0%	100%	0%	<b>100%</b>	-	0%	0%	0%	0%	-	-	0%	0%	100%	0%	<b>100%</b>	-	0%	100%	100%	0%	<b>100%</b>	-	100%
<b>Articulated Trucks</b>	0	0	0	0	<b>0</b>	-	0	0	0	0	<b>0</b>	-	0	0	0	0	<b>0</b>	-	0	0	0	0	<b>0</b>	-	0
<b>% Articulated Trucks</b>	0%	0%	0%	0%	<b>0%</b>	-	0%	0%	0%	0%	-	-	0%	0%	0%	0%	<b>0%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	0%
<b>Buses and Single-Unit Trucks</b>	0	0	0	0	<b>0</b>	-	0	0	0	0	<b>0</b>	-	0	0	0	0	<b>0</b>	-	0	0	0	0	<b>0</b>	-	0
<b>% Buses and Single-Unit Trucks</b>	0%	0%	0%	0%	<b>0%</b>	-	0%	0%	0%	0%	-	-	0%	0%	0%	0%	<b>0%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	58	-	-	-	-	-	12	-	-	-	-	-	20	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	98.3%	-	-	-	-	-	92.3%	-	-	-	-	-	100%	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	1.7%	-	-	-	-	-	7.7%	-	-	-	-	-	0%	

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Access Road at West Access - TMC

Thu May 15, 2025

Forced Peak (4 PM - 5 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296367, Location: 41.579541, -88.134598



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Parking Lot Eastbound						Parking Lot Westbound						From/To Churnovic Lane Northbound						Parking Lot Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2025-05-15 4:00PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	1	3	0	4	0	0	4	1	5
4:15PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	2	0	2	0	0	0	0	0	0	3	2
4:30PM	0	0	1	0	1	0	0	0	0	0	0	4	0	0	3	0	3	3	0	8	0	0	8	4	12
4:45PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	0	2	1	0	2	0	0	2	0	5
<b>Total</b>	0	0	2	0	2	0	0	0	0	0	0	9	0	0	8	0	8	7	0	14	0	0	14	8	24
<b>% Approach</b>	0%	0%	100%	0%	-	-	0%	0%	0%	0%	-	-	0%	0%	100%	0%	-	-	0%	100%	0%	0%	-	-	-
<b>% Total</b>	0%	0%	8.3%	0%	8.3%	-	0%	0%	0%	0%	0%	-	0%	0%	33.3%	0%	33.3%	-	0%	58.3%	0%	0%	58.3%	-	-
<b>PHF</b>	-	-	0.500	-	0.500	-	-	-	-	-	-	-	-	-	0.667	-	0.667	-	-	0.438	-	-	0.438	-	0.500
<b>Lights</b>	0	0	2	0	2	-	0	0	0	0	0	-	0	0	8	0	8	-	0	14	0	0	14	-	24
<b>% Lights</b>	0%	0%	100%	0%	100%	-	0%	0%	0%	0%	-	-	0%	0%	100%	0%	100%	-	0%	100%	0%	0%	100%	-	100%
<b>Articulated Trucks</b>	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
<b>% Articulated Trucks</b>	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
<b>Buses and Single-Unit Trucks</b>	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
<b>% Buses and Single-Unit Trucks</b>	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	9	-	-	-	-	-	7	-	-	-	-	-	8	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Access Road at Middle Access - TMC

Thu May 15, 2025

Full Length (6 AM-9 AM, 11 AM-2 PM, 3 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296368, Location: 41.579601, -88.133525



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Parking Lot Eastbound	From/To Enterprise Bl Westbound	Parking Lot Northbound	Parking Lot Southbound	
Time	L T R U App Ped*	L T R U App Ped*	L T R U App Ped*	L T R U App Ped*	Int
2025-05-15 6:00AM	0 0 0 0 0 0	0 0 0 0 0 0	0 5 0 0 5 0	0 1 0 0 1 0	6
6:15AM	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0
6:30AM	0 0 0 0 0 0	0 0 0 0 0 0	0 3 0 0 3 0	0 0 0 0 0 0	3
6:45AM	0 0 0 0 0 0	0 0 0 0 0 0	0 1 0 0 1 0	0 1 0 0 1 0	2
Hourly Total	0 0 0 0 0 0	0 0 0 0 0 0	0 9 0 0 9 0	0 2 0 0 2 0	11
7:00AM	0 0 0 0 0 1	0 0 0 0 0 0	0 4 0 0 4 0	0 1 0 0 1 0	5
7:15AM	0 0 0 0 0 1	0 0 0 0 0 0	0 4 0 0 4 0	0 5 0 0 5 0	9
7:30AM	0 0 0 0 0 2	0 0 0 0 0 2	0 25 0 0 25 0	0 6 0 0 6 3	31
7:45AM	0 0 0 0 0 0	0 0 0 0 0 0	0 6 0 0 6 0	0 9 0 0 9 1	15
Hourly Total	0 0 0 0 0 4	0 0 0 0 0 2	0 39 0 0 39 0	0 21 0 0 21 4	60
8:00AM	0 0 0 0 0 0	0 0 0 0 0 2	0 4 0 0 4 0	0 11 0 0 11 0	15
8:15AM	0 0 0 0 0 6	0 0 0 0 0 3	0 5 0 0 5 1	0 16 1 0 17 2	22
8:30AM	0 0 0 0 0 5	0 0 0 0 0 0	0 1 0 0 1 0	0 17 0 0 17 0	18
8:45AM	0 0 0 0 0 3	0 0 0 0 0 1	0 0 0 0 0 1	0 3 0 0 3 2	3
Hourly Total	0 0 0 0 0 14	0 0 0 0 0 6	0 10 0 0 10 2	0 47 1 0 48 4	58
11:00AM	0 0 0 0 0 1	0 0 0 0 0 0	0 4 0 0 4 0	0 2 0 0 2 3	6
11:15AM	0 0 0 0 0 1	0 0 0 0 0 0	0 3 0 0 3 0	0 1 0 0 1 1	4
11:30AM	0 0 0 0 0 0	0 0 0 0 0 0	0 2 0 0 2 0	0 1 0 0 1 0	3
11:45AM	0 0 0 0 0 0	0 0 0 0 0 0	0 1 0 0 1 0	0 1 1 0 2 0	3
Hourly Total	0 0 0 0 0 2	0 0 0 0 0 0	0 10 0 0 10 0	0 5 1 0 6 4	16
12:00PM	0 0 0 0 0 0	0 0 0 0 0 0	0 1 0 0 1 0	0 2 0 0 2 0	3
12:15PM	0 0 0 0 0 0	0 0 0 0 0 0	0 1 0 0 1 0	0 2 0 0 2 0	3
12:30PM	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 1 0 0 1 0	1
12:45PM	0 0 0 0 0 1	0 0 0 0 0 0	0 2 0 0 2 0	0 2 0 0 2 0	4
Hourly Total	0 0 0 0 0 1	0 0 0 0 0 0	0 4 0 0 4 0	0 7 0 0 7 0	11
1:00PM	0 0 0 0 0 0	0 0 0 0 0 0	0 2 0 0 2 0	0 2 0 0 2 0	4
1:15PM	1 0 0 0 0 1	0 0 0 0 0 0	0 7 0 0 7 0	1 0 0 0 1 0	9
1:30PM	1 0 0 0 0 1	0 0 0 0 0 0	1 23 0 0 24 0	0 6 0 0 6 1	31
1:45PM	1 0 0 0 0 1	0 0 0 0 0 2	0 3 0 0 3 0	0 6 1 0 7 0	11
Hourly Total	3 0 0 0 3 1	0 0 0 0 0 2	1 35 0 0 36 0	0 15 1 0 16 1	55
3:00PM	0 0 0 0 0 1	0 0 0 0 0 0	0 3 0 0 3 0	0 1 0 0 1 1	4
3:15PM	0 0 0 0 0 1	0 0 0 0 0 0	0 1 0 0 1 0	0 1 0 0 1 1	2
3:30PM	0 0 0 0 0 1	0 0 0 0 0 0	0 1 0 0 1 0	0 1 0 0 1 1	2
3:45PM	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 1 0 0 1 0	1
Hourly Total	0 0 0 0 0 3	0 0 0 0 0 0	0 5 0 0 5 0	0 4 0 0 4 3	9
4:00PM	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0
4:15PM	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0
4:30PM	0 0 0 0 0 0	0 0 0 0 0 0	0 2 0 0 2 0	0 2 0 0 2 0	4
4:45PM	0 0 0 0 0 0	0 0 0 0 0 0	0 1 0 0 1 0	0 1 0 0 1 0	2
Hourly Total	0 0 0 0 0 0	0 0 0 0 0 0	0 3 0 0 3 0	0 3 0 0 3 0	6
5:00PM	0 0 0 0 0 1	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0
5:15PM	0 0 0 0 0 5	0 0 0 0 0 1	0 0 0 0 0 0	0 0 0 0 0 3	0
5:30PM	0 0 0 0 0 3	0 0 0 0 0 0	0 4 0 0 4 0	0 2 0 0 2 3	6
5:45PM	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 1 0 0 1 0	1
Hourly Total	0 0 0 0 0 9	0 0 0 0 0 1	0 4 0 0 4 0	0 3 0 0 3 6	7
Total	3 0 0 0 3 34	0 0 0 0 0 11	1 119 0 0 120 2	0 107 3 0 110 22	233
% Approach	100% 0% 0% 0%	- 0% 0% 0% 0%	- 0.8% 99.2% 0% 0%	- 0% 97.3% 2.7% 0%	- - -
% Total	1.3% 0% 0% 0%	1.3% - 0% 0% 0% 0%	1.3% 0.4% 51.1% 0% 0% 51.5%	1.3% 0% 45.9% 1.3% 0% 47.2%	1.3% - - -
Lights	3 0 0 0 3	- 0 0 0 0 0	- 1 118 0 0 119	- 0 106 3 0 109	- 231
% Lights	100% 0% 0% 0%	100% - 0% 0% 0% 0%	100% 99.2% 0% 0% 99.2%	100% 99.1% 100% 0% 99.1%	100% 99.1%
Articulated Trucks	0 0 0 0 0	- 0 0 0 0 0	- 0 0 0 0 0	- 0 0 0 0 0	- 0
% Articulated Trucks	0% 0% 0% 0%	0% - 0% 0% 0% 0%	0% 0% 0% 0% 0%	0% 0% 0% 0% 0%	0% - 0%
Buses and Single-Unit Trucks	0 0 0 0 0	- 0 0 0 0 0	- 0 1 0 0 1	- 0 1 0 0 1	- 2

Leg Direction	Parking Lot Eastbound	From/To Enterprise Bl Westbound	Parking Lot Northbound	Parking Lot Southbound	
Time	L T R U App Ped*	L T R U App Ped*	L T R U App Ped*	L T R U App Ped*	Int

<b>% Buses and Single-Unit Trucks</b>	0% 0% 0% 0% <b>0%</b>	- 0% 0% 0% 0% -	0% 0.8% 0% 0% <b>0.8%</b>	- 0% 0.9% 0% 0% <b>0.9%</b>	- 0.9%
Pedestrians	- - - - - 34	- - - - - 11	- - - - - 2	- - - - - 22	
% Pedestrians	- - - - - 100%	- - - - - 100%	- - - - - 100%	- - - - - 100%	- - - - - 100%
Bicycles on Crosswalk	- - - - - 0	- - - - - 0	- - - - - 0	- - - - - 0	
% Bicycles on Crosswalk	- - - - - 0%	- - - - - 0%	- - - - - 0%	- - - - - 0%	- - - - - 0%

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

# Access Road at Middle Access - TMC

Thu May 15, 2025

AM Peak (7:30 AM - 8:30 AM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296368, Location: 41.579601, -88.133525



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Parking Lot Eastbound						From/To Enterprise Bl Westbound						Parking Lot Northbound						Parking Lot Southbound							
	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int	
Time																										
2025-05-15 7:30AM	0	0	0	0	0	2	0	0	0	0	0	2	0	25	0	0	25	0	0	6	0	0	6	3	31	
7:45AM	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	0	9	0	0	9	1	15	
8:00AM	0	0	0	0	0	0	0	0	0	0	0	2	0	4	0	0	4	0	0	11	0	0	11	0	15	
8:15AM	0	0	0	0	0	6	0	0	0	0	0	3	0	5	0	0	5	1	0	16	1	0	17	2	22	
<b>Total</b>	0	0	0	0	0	8	0	0	0	0	0	7	0	40	0	0	40	1	0	42	1	0	43	6	83	
<b>% Approach</b>	0%	0%	0%	0%	-	-	0%	0%	0%	0%	-	-	0%	100%	0%	0%	-	-	0%	97.7%	2.3%	0%	-	-	-	
<b>% Total</b>	0%	0%	0%	0%	<b>0%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	0%	48.2%	0%	0%	<b>48.2%</b>	-	0%	50.6%	1.2%	0%	<b>51.8%</b>	-	-	
<b>PHF</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	0.400	-	-	<b>0.400</b>	-	-	0.656	0.250	-	<b>0.632</b>	-	0.669	
<b>Lights</b>	0	0	0	0	0	0	-	0	0	0	0	0	-	0	40	0	0	<b>40</b>	-	0	42	1	0	<b>43</b>	-	83
<b>% Lights</b>	0%	0%	0%	0%	-	-	0%	0%	0%	0%	-	-	0%	100%	0%	0%	<b>100%</b>	-	0%	100%	100%	0%	<b>100%</b>	-	100%	
<b>Articulated Trucks</b>	0	0	0	0	<b>0</b>	-	0	0	0	0	<b>0</b>	-	0	0	0	0	<b>0</b>	-	0	0	0	0	<b>0</b>	-	0	
<b>% Articulated Trucks</b>	0%	0%	0%	0%	-	-	0%	0%	0%	0%	-	-	0%	0%	0%	0%	<b>0%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	0%	
<b>Buses and Single-Unit Trucks</b>	0	0	0	0	<b>0</b>	-	0	0	0	0	<b>0</b>	-	0	0	0	0	<b>0</b>	-	0	0	0	0	<b>0</b>	-	0	
<b>% Buses and Single-Unit Trucks</b>	0%	0%	0%	0%	-	-	0%	0%	0%	0%	-	-	0%	0%	0%	0%	<b>0%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	0%	
Pedestrians	-	-	-	-	-	8	-	-	-	-	-	7	-	-	-	-	-	1	-	-	-	-	-	6		
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%		
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0		
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%		

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

# Access Road at Middle Access - TMC

Thu May 15, 2025

Midday Peak, PM Peak (1 PM - 2 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296368, Location: 41.579601, -88.133525



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Parking Lot Eastbound					From/To Enterprise Bl Westbound					Parking Lot Northbound					Parking Lot Southbound									
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2025-05-15 1:00PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	2	0	0	2	0	4
1:15PM	1	0	0	0	1	0	0	0	0	0	0	0	0	7	0	0	7	0	0	1	0	0	1	0	9
1:30PM	1	0	0	0	1	1	0	0	0	0	0	0	1	23	0	0	24	0	0	6	0	0	6	1	31
1:45PM	1	0	0	0	1	0	0	0	0	0	0	2	0	3	0	0	3	0	0	6	1	0	7	0	11
<b>Total</b>	3	0	0	0	3	1	0	0	0	0	0	2	1	35	0	0	36	0	0	15	1	0	16	1	55
<b>% Approach</b>	100%	0%	0%	0%	-	-	0%	0%	0%	0%	-	-	2.8%	97.2%	0%	0%	-	-	0%	93.8%	6.3%	0%	-	-	-
<b>% Total</b>	5.5%	0%	0%	0%	5.5%	-	0%	0%	0%	0%	0%	-	1.8%	63.6%	0%	0%	65.5%	-	0%	27.3%	1.8%	0%	29.1%	-	-
<b>PHF</b>	0.750	-	-	-	0.750	-	-	-	-	-	-	-	0.250	0.380	-	-	0.375	-	-	0.625	0.250	-	0.571	-	0.444
<b>Lights</b>	3	0	0	0	3	-	0	0	0	0	0	-	1	35	0	0	36	-	0	15	1	0	16	-	55
<b>% Lights</b>	100%	0%	0%	0%	100%	-	0%	0%	0%	0%	-	-	100%	100%	0%	0%	100%	-	0%	100%	100%	0%	100%	-	100%
<b>Articulated Trucks</b>	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
<b>% Articulated Trucks</b>	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
<b>Buses and Single-Unit Trucks</b>	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
<b>% Buses and Single-Unit Trucks</b>	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	-	1	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	-	1	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	100%	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-	0%	

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Access Road at East Access - TMC

Thu May 15, 2025

Full Length (6 AM-9 AM, 11 AM-2 PM, 3 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296369, Location: 41.579578, -88.132122



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Access Eastbound					From/To Enterprise Bl Westbound					Access Northbound					
	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	Int
Time																
2025-05-15 6:00AM	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4
6:15AM	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	6
6:30AM	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	6
6:45AM	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4
Hourly Total	0	0	0	0	0	20	0	0	20	0	0	0	0	0	0	20
7:00AM	0	0	0	0	0	6	0	1	7	0	0	0	0	0	0	7
7:15AM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3
7:30AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45AM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3
Hourly Total	0	0	0	0	0	12	0	1	13	0	0	0	0	0	0	13
8:00AM	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	6
8:15AM	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	5
8:30AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45AM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3
Hourly Total	0	0	0	0	0	13	1	0	14	0	0	0	0	0	0	14
11:00AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15AM	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4
11:30AM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3
11:45AM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3
Hourly Total	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	10
12:00PM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2
12:15PM	1	1	0	2	0	5	0	0	5	0	0	0	0	0	0	7
12:30PM	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	3
12:45PM	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	5
Hourly Total	2	1	0	3	0	14	0	0	14	0	0	0	0	0	0	17
1:00PM	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	5
1:15PM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3
1:30PM	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	6
1:45PM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2
Hourly Total	0	0	0	0	0	16	0	0	16	0	0	0	0	0	0	16
3:00PM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3
3:15PM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
3:30PM	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4
3:45PM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3
Hourly Total	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	11
4:00PM	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4
4:15PM	1	0	0	1	0	3	0	0	3	0	0	0	0	0	0	4
4:30PM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3
4:45PM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2
Hourly Total	1	0	0	1	0	12	0	0	12	0	0	0	0	0	0	13
5:00PM	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4
5:15PM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3
5:30PM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
5:45PM	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Hourly Total	2	0	0	2	0	8	0	0	8	0	0	0	0	0	0	10
Total	5	1	0	6	0	116	1	1	118	0	0	0	0	0	0	124
% Approach	83.3%	16.7%	0%	-	-	98.3%	0.8%	0.8%	-	-	0%	0%	0%	-	-	-
% Total	4.0%	0.8%	0%	4.8%	-	93.5%	0.8%	0.8%	95.2%	-	0%	0%	0%	0%	-	-
Lights	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Lights	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	-	-	0%
Articulated Trucks	5	1	0	6	-	49	0	0	49	-	0	0	0	0	-	55
% Articulated Trucks	100%	100%	0%	100%	-	42.2%	0%	0%	41.5%	-	0%	0%	0%	-	-	44.4%
Buses and Single-Unit Trucks	0	0	0	0	-	67	1	1	69	-	0	0	0	0	-	69

Leg Direction	Access Eastbound					From/To Enterprise Bl Westbound					Access Northbound					
	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	Int
% Buses and Single-Unit Trucks	0%	0%	0%	<b>0%</b>	-	57.8%	100%	100%	<b>58.5%</b>	-	0%	0%	0%	-	-	55.6%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Access Road at East Access - TMC

Thu May 15, 2025

PM Peak (1 PM - 2 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,  
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296369, Location: 41.579578, -88.132122



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Access Eastbound					From/To Enterprise Bl Westbound					Access Northbound					
	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	Int
Time																
2025-05-15 1:00PM	0	0	0	<b>0</b>	0	5	0	0	5	0	0	0	0	<b>0</b>	0	5
1:15PM	0	0	0	<b>0</b>	0	3	0	0	3	0	0	0	0	<b>0</b>	0	3
1:30PM	0	0	0	<b>0</b>	0	6	0	0	6	0	0	0	0	<b>0</b>	0	6
1:45PM	0	0	0	<b>0</b>	0	2	0	0	2	0	0	0	0	<b>0</b>	0	2
<b>Total</b>	0	0	0	<b>0</b>	0	16	0	0	<b>16</b>	0	0	0	0	<b>0</b>	0	<b>16</b>
<b>% Approach</b>	0%	0%	0%	-	-	100%	0%	0%	-	-	0%	0%	0%	-	-	-
<b>% Total</b>	0%	0%	0%	<b>0%</b>	-	100%	0%	0%	<b>100%</b>	-	0%	0%	0%	<b>0%</b>	-	-
PHF	-	-	-	-	-	0.667	-	-	<b>0.667</b>	-	-	-	-	-	-	0.667
Lights	0	0	0	<b>0</b>	-	0	0	0	<b>0</b>	-	0	0	0	<b>0</b>	-	0
% Lights	0%	0%	0%	-	-	0%	0%	0%	<b>0%</b>	-	0%	0%	0%	-	-	0%
Articulated Trucks	0	0	0	<b>0</b>	-	6	0	0	<b>6</b>	-	0	0	0	<b>0</b>	-	6
% Articulated Trucks	0%	0%	0%	-	-	37.5%	0%	0%	<b>37.5%</b>	-	0%	0%	0%	-	-	37.5%
Buses and Single-Unit Trucks	0	0	0	<b>0</b>	-	10	0	0	<b>10</b>	-	0	0	0	<b>0</b>	-	10
% Buses and Single-Unit Trucks	0%	0%	0%	-	-	62.5%	0%	0%	<b>62.5%</b>	-	0%	0%	0%	-	-	62.5%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

**Access Road at East Access - TMC**

Thu May 15, 2025

Forced Peak (4 PM - 5 PM)

 All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,  
 Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296369, Location: 41.579578, -88.132122



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Access Eastbound					From/To Enterprise Bl Westbound					Access Northbound					
Time	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	Int
2025-05-15 4:00PM	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4
4:15PM	1	0	0	1	0	3	0	0	3	0	0	0	0	0	0	4
4:30PM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3
4:45PM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2
<b>Total</b>	1	0	0	1	0	12	0	0	12	0	0	0	0	0	0	13
<b>% Approach</b>	100%	0%	0%	-	-	100%	0%	0%	-	-	0%	0%	0%	-	-	-
<b>% Total</b>	7.7%	0%	0%	7.7%	-	92.3%	0%	0%	92.3%	-	0%	0%	0%	0%	-	-
<b>PHF</b>	0.250	-	-	0.250	-	0.750	-	-	0.750	-	-	-	-	-	-	0.813
<b>Lights</b>	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
<b>% Lights</b>	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	-	-	0%
<b>Articulated Trucks</b>	1	0	0	1	-	6	0	0	6	-	0	0	0	0	-	7
<b>% Articulated Trucks</b>	100%	0%	0%	100%	-	50.0%	0%	0%	50.0%	-	0%	0%	0%	-	-	53.8%
<b>Buses and Single-Unit Trucks</b>	0	0	0	0	-	6	0	0	6	-	0	0	0	0	-	6
<b>% Buses and Single-Unit Trucks</b>	0%	0%	0%	0%	-	50.0%	0%	0%	50.0%	-	0%	0%	0%	-	-	46.2%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Churnovic Lane at Truck Access - TMC

Thu May 15, 2025

Full Length (6 AM-9 AM, 11 AM-2 PM, 3 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296370, Location: 41.578965, -88.13522



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Access Westbound					Churnovic Lane Northbound					Churnovic Lane Southbound					
Time	L	R	U	App	Ped*	T	R	U	App	Ped*	L	T	U	App	Ped*	Int
2025-05-15 6:00AM	1	0	0	1	1	5	0	0	5	0	0	11	0	11	0	17
6:15AM	2	2	0	4	1	3	0	0	3	0	0	18	0	18	0	25
6:30AM	5	1	0	6	0	4	0	0	4	0	0	13	0	13	0	23
6:45AM	0	2	0	2	2	3	1	0	4	0	0	27	0	27	0	33
Hourly Total	8	5	0	13	4	15	1	0	16	0	0	69	0	69	0	98
7:00AM	1	2	0	3	0	3	0	0	3	0	0	20	0	20	0	26
7:15AM	1	2	0	3	0	5	0	0	5	0	0	21	0	21	0	29
7:30AM	1	5	0	6	0	7	0	0	7	0	0	14	0	14	0	27
7:45AM	1	5	0	6	0	5	0	0	5	0	0	26	0	26	0	37
Hourly Total	4	14	0	18	0	20	0	0	20	0	0	81	0	81	0	119
8:00AM	1	3	0	4	0	5	0	0	5	0	0	13	0	13	0	22
8:15AM	1	2	0	3	0	6	0	0	6	0	0	19	0	19	0	28
8:30AM	2	1	0	3	0	3	0	0	3	0	0	15	0	15	0	21
8:45AM	1	1	0	2	0	4	0	0	4	0	0	26	0	26	0	32
Hourly Total	5	7	0	12	0	18	0	0	18	0	0	73	0	73	0	103
11:00AM	0	3	0	3	0	6	0	0	6	0	0	6	0	6	0	15
11:15AM	2	2	0	4	0	3	0	0	3	0	0	17	0	17	0	24
11:30AM	3	2	0	5	0	5	0	0	5	0	0	13	0	13	0	23
11:45AM	1	1	0	2	0	3	0	0	3	0	1	10	0	11	0	16
Hourly Total	6	8	0	14	0	17	0	0	17	0	1	46	0	47	0	78
12:00PM	0	1	0	1	0	7	0	0	7	0	1	0	0	1	0	9
12:15PM	1	1	0	2	0	8	0	0	8	0	0	5	0	5	0	15
12:30PM	0	2	0	2	0	5	0	0	5	0	0	16	0	16	0	23
12:45PM	1	3	0	4	0	7	0	0	7	0	1	16	0	17	0	28
Hourly Total	2	7	0	9	0	27	0	0	27	0	2	37	0	39	0	75
1:00PM	2	0	0	2	0	4	1	0	5	0	0	14	0	14	0	21
1:15PM	1	1	0	2	0	2	0	0	2	0	0	17	0	17	0	21
1:30PM	4	1	0	5	0	2	0	0	2	0	0	20	0	20	0	27
1:45PM	1	1	0	2	0	5	0	0	5	0	0	17	0	17	0	24
Hourly Total	8	3	0	11	0	13	1	0	14	0	0	68	0	68	0	93
3:00PM	3	1	0	4	0	8	0	0	8	0	0	14	0	14	0	26
3:15PM	0	0	0	0	0	4	0	0	4	0	0	9	0	9	0	13
3:30PM	2	0	0	2	0	9	0	0	9	0	0	12	0	12	0	23
3:45PM	1	1	0	2	0	6	0	0	6	0	0	15	0	15	0	23
Hourly Total	6	2	0	8	0	27	0	0	27	0	0	50	0	50	0	85
4:00PM	2	0	0	2	0	8	0	0	8	0	0	27	0	27	0	37
4:15PM	0	0	0	0	0	6	0	0	6	0	0	9	0	9	0	15
4:30PM	1	2	0	3	0	10	0	0	10	0	0	16	0	16	0	29
4:45PM	0	1	0	1	0	8	0	0	8	0	0	13	0	13	0	22
Hourly Total	3	3	0	6	0	32	0	0	32	0	0	65	0	65	0	103
5:00PM	1	2	0	3	0	7	0	0	7	0	0	17	0	17	0	27
5:15PM	1	2	0	3	0	6	0	0	6	0	0	16	0	16	0	25
5:30PM	0	1	0	1	0	5	0	0	5	0	0	14	0	14	0	20
5:45PM	2	2	0	4	0	4	0	0	4	0	0	23	0	23	0	31
Hourly Total	4	7	0	11	0	22	0	0	22	0	0	70	0	70	0	103
Total	46	56	0	102	4	191	2	0	193	0	3	559	0	562	0	857
% Approach	45.1%	54.9%	0%	-	-	99.0%	1.0%	0%	-	-	0.5%	99.5%	0%	-	-	-
% Total	5.4%	6.5%	0%	11.9%	-	22.3%	0.2%	0%	22.5%	-	0.4%	65.2%	0%	65.6%	-	-
Lights	0	3	0	3	-	101	1	0	102	-	2	229	0	231	-	336
% Lights	0%	5.4%	0%	2.9%	-	52.9%	50.0%	0%	52.8%	-	66.7%	41.0%	0%	41.1%	-	39.2%
Articulated Trucks	2	41	0	43	-	59	0	0	59	-	1	238	0	239	-	341
% Articulated Trucks	4.3%	73.2%	0%	42.2%	-	30.9%	0%	0%	30.6%	-	33.3%	42.6%	0%	42.5%	-	39.8%
Buses and Single-Unit Trucks	44	12	0	56	-	31	1	0	32	-	0	92	0	92	-	180

Leg Direction	Access Westbound					Churnovic Lane Northbound					Churnovic Lane Southbound						
	Time	L	R	U	App	Ped*	T	R	U	App	Ped*	L	T	U	App	Ped*	
% Buses and Single-Unit Trucks	95.7%	21.4%	0%	<b>54.9%</b>	-		16.2%	50.0%	0%	<b>16.6%</b>	-	0%	16.5%	0%	<b>16.4%</b>	-	21.0%
Pedestrians	-	-	-	-	4		-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	100%		-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0		-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	0%		-	-	-	-	-	-	-	-	-	-	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Churnovic Lane at Truck Access - TMC

Thu May 15, 2025

Forced Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,  
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296370, Location: 41.578965, -88.13522



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Access Westbound					Churnovic Lane Northbound					Churnovic Lane Southbound					
Time	L	R	U	App	Ped*	T	R	U	App	Ped*	L	T	U	App	Ped*	Int
2025-05-15 7:30AM	1	5	0	6	0	7	0	0	7	0	0	14	0	14	0	27
7:45AM	1	5	0	6	0	5	0	0	5	0	0	26	0	26	0	37
8:00AM	1	3	0	4	0	5	0	0	5	0	0	13	0	13	0	22
8:15AM	1	2	0	3	0	6	0	0	6	0	0	19	0	19	0	28
<b>Total</b>	4	15	0	<b>19</b>	0	23	0	0	<b>23</b>	0	0	72	0	<b>72</b>	0	<b>114</b>
<b>% Approach</b>	21.1%	78.9%	0%	-	-	100%	0%	0%	-	-	0%	100%	0%	-	-	-
<b>% Total</b>	3.5%	13.2%	0%	<b>16.7%</b>	-	20.2%	0%	0%	<b>20.2%</b>	-	0%	63.2%	0%	<b>63.2%</b>	-	-
<b>PHF</b>	1.000	0.750	-	<b>0.792</b>	-	0.821	-	-	<b>0.821</b>	-	-	0.692	-	<b>0.692</b>	-	0.770
<b>Lights</b>	0	1	0	<b>1</b>	-	11	0	0	<b>11</b>	-	0	43	0	<b>43</b>	-	55
<b>% Lights</b>	0%	6.7%	0%	<b>5.3%</b>	-	47.8%	0%	0%	<b>47.8%</b>	-	0%	59.7%	0%	<b>59.7%</b>	-	48.2%
<b>Articulated Trucks</b>	0	11	0	<b>11</b>	-	9	0	0	<b>9</b>	-	0	23	0	<b>23</b>	-	43
<b>% Articulated Trucks</b>	0%	73.3%	0%	<b>57.9%</b>	-	39.1%	0%	0%	<b>39.1%</b>	-	0%	31.9%	0%	<b>31.9%</b>	-	37.7%
<b>Buses and Single-Unit Trucks</b>	4	3	0	<b>7</b>	-	3	0	0	<b>3</b>	-	0	6	0	<b>6</b>	-	16
<b>% Buses and Single-Unit Trucks</b>	100%	20.0%	0%	<b>36.8%</b>	-	13.0%	0%	0%	<b>13.0%</b>	-	0%	8.3%	0%	<b>8.3%</b>	-	14.0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Churnovic Lane at Truck Access - TMC

Thu May 15, 2025

Forced Peak (1 PM - 2 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,  
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296370, Location: 41.578965, -88.13522



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Access Westbound					Churnovic Lane Northbound					Churnovic Lane Southbound					
	L	R	U	App	Ped*	T	R	U	App	Ped*	L	T	U	App	Ped*	Int
Time																
2025-05-15 1:00PM	2	0	0	2	0	4	1	0	5	0	0	14	0	14	0	21
1:15PM	1	1	0	2	0	2	0	0	2	0	0	17	0	17	0	21
1:30PM	4	1	0	5	0	2	0	0	2	0	0	20	0	20	0	27
1:45PM	1	1	0	2	0	5	0	0	5	0	0	17	0	17	0	24
<b>Total</b>	<b>8</b>	<b>3</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>13</b>	<b>1</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>68</b>	<b>0</b>	<b>68</b>	<b>0</b>	<b>93</b>
<b>% Approach</b>	<b>72.7%</b>	<b>27.3%</b>	<b>0%</b>	<b>-</b>	<b>-</b>	<b>92.9%</b>	<b>7.1%</b>	<b>0%</b>	<b>-</b>	<b>-</b>	<b>0%</b>	<b>100%</b>	<b>0%</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>% Total</b>	<b>8.6%</b>	<b>3.2%</b>	<b>0%</b>	<b>11.8%</b>	<b>-</b>	<b>14.0%</b>	<b>1.1%</b>	<b>0%</b>	<b>15.1%</b>	<b>-</b>	<b>0%</b>	<b>73.1%</b>	<b>0%</b>	<b>73.1%</b>	<b>-</b>	<b>-</b>
PHF	0.500	0.750	-	0.550	-	0.650	0.250	-	0.700	-	-	0.850	-	0.850	-	0.861
Lights	0	0	0	0	-	5	0	0	5	-	0	34	0	34	-	39
% Lights	0%	0%	0%	0%	-	38.5%	0%	0%	35.7%	-	0%	50.0%	0%	50.0%	-	41.9%
Articulated Trucks	0	3	0	3	-	5	0	0	5	-	0	21	0	21	-	29
% Articulated Trucks	0%	100%	0%	27.3%	-	38.5%	0%	0%	35.7%	-	0%	30.9%	0%	30.9%	-	31.2%
Buses and Single-Unit Trucks	8	0	0	8	-	3	1	0	4	-	0	13	0	13	-	25
% Buses and Single-Unit Trucks	100%	0%	0%	72.7%	-	23.1%	100%	0%	28.6%	-	0%	19.1%	0%	19.1%	-	26.9%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Churnovic Lane at Truck Access - TMC

Thu May 15, 2025

Forced Peak (4 PM - 5 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,  
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296370, Location: 41.578965, -88.13522



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Access Westbound					Churnovic Lane Northbound					Churnovic Lane Southbound					
Time	L	R	U	App	Ped*	T	R	U	App	Ped*	L	T	U	App	Ped*	Int
2025-05-15 4:00PM	2	0	0	2	0	8	0	0	8	0	0	27	0	27	0	37
4:15PM	0	0	0	0	0	6	0	0	6	0	0	9	0	9	0	15
4:30PM	1	2	0	3	0	10	0	0	10	0	0	16	0	16	0	29
4:45PM	0	1	0	1	0	8	0	0	8	0	0	13	0	13	0	22
<b>Total</b>	3	3	0	6	0	32	0	0	32	0	0	65	0	65	0	103
<b>% Approach</b>	50.0%	50.0%	0%	-	-	100%	0%	0%	-	-	0%	100%	0%	-	-	-
<b>% Total</b>	2.9%	2.9%	0%	<b>5.8%</b>	-	31.1%	0%	0%	<b>31.1%</b>	-	0%	63.1%	0%	<b>63.1%</b>	-	-
<b>PHF</b>	0.375	0.375	-	<b>0.500</b>	-	0.800	-	-	<b>0.800</b>	-	-	0.602	-	<b>0.602</b>	-	0.696
<b>Lights</b>	0	0	0	0	-	21	0	0	21	-	0	20	0	<b>20</b>	-	41
<b>% Lights</b>	0%	0%	0%	<b>0%</b>	-	65.6%	0%	0%	<b>65.6%</b>	-	0%	30.8%	0%	<b>30.8%</b>	-	39.8%
<b>Articulated Trucks</b>	1	3	0	4	-	6	0	0	6	-	0	34	0	<b>34</b>	-	44
<b>% Articulated Trucks</b>	33.3%	100%	0%	<b>66.7%</b>	-	18.8%	0%	0%	<b>18.8%</b>	-	0%	52.3%	0%	<b>52.3%</b>	-	42.7%
<b>Buses and Single-Unit Trucks</b>	2	0	0	2	-	5	0	0	5	-	0	11	0	<b>11</b>	-	18
<b>% Buses and Single-Unit Trucks</b>	66.7%	0%	0%	<b>33.3%</b>	-	15.6%	0%	0%	<b>15.6%</b>	-	0%	16.9%	0%	<b>16.9%</b>	-	17.5%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Lidice Parkway at Truck Access - TMC

Thu May 15, 2025

Full Length (6 AM-9 AM, 11 AM-2 PM, 3 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,  
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296371, Location: 41.576842, -88.132013



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Lidice Parkway Eastbound					Lidice Parkway Westbound					Access Northbound					Access Southbound										
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int	
2025-05-15 6:00AM	0	12	0	0	12	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	0	2	0	15		
6:15AM	0	14	0	0	14	0	0	2	0	0	2	0	0	0	0	0	0	0	0	3	0	3	0	19		
6:30AM	0	13	0	0	13	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	3	0	4	0	18	
6:45AM	0	21	0	0	21	0	0	1	0	0	1	0	0	0	0	0	0	0	2	0	5	0	7	0	29	
Hourly Total	0	60	0	0	60	0	0	5	0	0	5	0	0	0	0	0	0	0	3	0	13	0	16	0	81	
7:00AM	0	19	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0	23	
7:15AM	0	16	1	0	17	0	0	5	0	0	5	0	0	0	0	0	0	0	2	0	4	0	6	0	28	
7:30AM	0	11	1	0	12	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	2	0	2	0	17	
7:45AM	0	20	0	0	20	0	0	3	0	0	3	0	1	0	0	0	1	0	0	0	3	0	3	0	27	
Hourly Total	0	66	2	0	68	0	0	11	0	0	11	0	1	0	0	0	1	0	2	0	13	0	15	0	95	
8:00AM	0	13	0	0	13	0	0	3	1	0	4	0	0	0	0	0	0	0	2	0	2	0	4	0	21	
8:15AM	0	17	0	0	17	0	0	2	0	0	2	0	0	0	0	0	0	0	1	0	4	0	5	0	24	
8:30AM	0	12	0	0	12	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	2	0	15	
8:45AM	0	19	0	0	19	0	0	3	0	0	3	0	0	0	0	0	0	0	1	0	2	0	3	0	25	
Hourly Total	0	61	0	0	61	0	0	9	1	0	10	0	0	0	0	0	0	0	5	0	9	0	14	0	85	
11:00AM	0	3	0	0	3	0	0	1	0	0	1	0	0	0	0	0	0	0	2	0	4	0	6	0	10	
11:15AM	0	16	0	0	16	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	2	0	19	
11:30AM	1	9	0	0	10	0	0	4	0	0	4	0	0	0	0	0	0	0	3	0	3	0	6	0	20	
11:45AM	0	13	0	0	13	0	0	4	0	0	4	0	0	0	0	0	0	0	1	0	1	0	2	0	19	
Hourly Total	1	41	0	0	42	0	0	10	0	0	10	0	0	0	0	0	0	0	7	0	9	0	16	0	68	
12:00PM	0	14	1	0	15	0	0	3	0	0	3	0	0	0	0	0	0	0	1	0	1	0	2	0	20	
12:15PM	0	10	0	0	10	0	0	2	0	0	2	0	1	0	0	0	1	0	0	5	0	5	0	18		
12:30PM	0	9	0	1	10	0	0	3	0	0	3	0	0	0	0	0	0	0	1	0	3	0	4	0	17	
12:45PM	0	13	0	0	13	0	0	2	0	0	2	0	0	0	0	0	0	0	2	0	3	0	5	0	20	
Hourly Total	0	46	1	1	48	0	0	10	0	0	10	0	1	0	0	0	1	0	4	0	12	0	16	0	75	
1:00PM	0	15	0	0	15	0	0	2	0	0	2	0	0	0	0	0	0	0	1	0	3	0	4	0	21	
1:15PM	0	10	0	0	10	0	0	3	0	0	3	0	0	0	0	0	0	0	3	0	3	0	6	0	19	
1:30PM	0	14	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	16	
1:45PM	1	14	0	0	15	0	0	3	0	0	3	0	0	0	0	0	0	0	3	0	4	0	7	0	25	
Hourly Total	1	53	0	0	54	0	0	8	0	0	8	0	0	0	0	0	0	0	8	0	11	0	19	0	81	
3:00PM	0	15	0	0	15	0	0	3	0	0	3	0	0	0	0	0	0	0	2	0	4	0	6	0	24	
3:15PM	0	8	0	0	8	0	0	4	0	0	4	0	0	0	0	0	0	0	2	0	0	0	2	0	14	
3:30PM	1	10	0	0	11	0	0	6	0	0	6	0	0	0	0	0	0	0	0	2	0	2	0	2	0	19
3:45PM	0	15	0	0	15	0	0	3	0	0	3	0	0	0	0	0	0	0	1	0	2	0	3	0	21	
Hourly Total	1	48	0	0	49	0	0	16	0	0	16	0	0	0	0	0	0	0	5	0	8	0	13	0	78	
4:00PM	0	25	0	0	25	0	0	7	0	0	7	0	0	0	0	0	0	0	3	0	6	0	9	0	41	
4:15PM	0	9	0	0	9	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	4	0	5	0	15	
4:30PM	0	14	0	0	14	0	0	5	0	0	5	0	0	0	0	0	0	0	0	3	0	3	0	22		
4:45PM	0	13	0	0	13	0	0	4	0	0	4	0	0	0	0	0	0	0	2	0	1	0	3	0	20	
Hourly Total	0	61	0	0	61	0	0	17	0	0	17	0	0	0	0	0	0	0	6	0	14	0	20	0	98	
5:00PM	0	14	0	0	14	0	0	4	0	0	4	0	0	0	0	0	0	0	0	2	0	2	0	2	0	20
5:15PM	0	20	1	0	21	0	0	2	0	0	2	0	0	2	0	0	2	0	2	0	3	0	5	0	30	
5:30PM	0	10	0	0	10	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	1	0	1	0	14	
5:45PM	0	24	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	4	0	28	
Hourly Total	0	68	1	0	69	0	0	9	0	0	9	0	0	2	0	2	0	0	3	0	9	0	12	0	92	
Total	3	504	4	1	512	0	0	95	1	0	96	0	2	0	2	0	4	0	43	0	98	0	141	0	753	
% Approach	0.6%	98.4%	0.8%	0.2%	-	-	0%	99.0%	1.0%	0%	-	-	50.0%	0%	50.0%	0%	-	-	30.5%	0%	69.5%	0%	-	-	-	
% Total	0.4%	66.9%	0.5%	0.1%	68.0%	-	0%	12.6%	0.1%	0%	12.7%	-	0.3%	0%	0.3%	0%	0.5%	-	5.7%	0%	13.0%	0%	18.7%	-	-	
Lights	0	186	3	0	189	-	0	56	1	0	57	-	2	0	1	0	3	-	1	0	1	0	2	-	251	
% Lights	0%	36.9%	75.0%	0%	36.9%	-	0%	58.9%	100%	0%	59.4%	-	100%	0%	50.0%	0%	75.0%	-	2.3%	0%	1.0%	0%	1.4%	-	33.3%	
Articulated Trucks	1	208	0	0	209	-	0	27	0	0	27	-	0	0	0	0	0	-	17	0	48	0	65	-	301	
% Articulated Trucks	33.3%	41.3%	0%	0%	40.8%	-	0%	28.4%	0%	0%	28.1%	-	0%	0%	0%	0%	0%	-	39.5%	0%	49.0%	0%	46.1%	-	40.0%	
Buses and Single-Unit Trucks	2	110	1	1	114	-	0	12	0	0	12	-	0	0	1	0	1	-	25	0	49	0	74	-	201	

Leg Direction	Lidice Parkway Eastbound						Lidice Parkway Westbound						Access Northbound						Access Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
% Buses and Single-Unit Trucks	66.7%	21.8%	25.0%	100%	22.3%	-	0%	12.6%	0%	0%	12.5%	-	0%	0%	50.0%	0%	25.0%	-	58.1%	0%	50.0%	0%	52.5%	-	26.7%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Lidice Parkway at Truck Access - TMC

Thu May 15, 2025

Forced Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296371, Location: 41.576842, -88.132013



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Lidice Parkway Eastbound					Lidice Parkway Westbound					Access Northbound					Access Southbound									
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2025-05-15 7:30AM	0	11	1	0	12	0	0	3	0	0	3	0	0	0	0	0	0	0	0	2	0	2	0	17	
7:45AM	0	20	0	0	20	0	0	3	0	0	3	0	1	0	0	0	1	0	0	0	3	0	3	0	27
8:00AM	0	13	0	0	13	0	0	3	1	0	4	0	0	0	0	0	0	0	2	0	2	0	4	0	21
8:15AM	0	17	0	0	17	0	0	2	0	0	2	0	0	0	0	0	0	0	1	0	4	0	5	0	24
<b>Total</b>	0	61	1	0	62	0	0	11	1	0	12	0	1	0	0	0	1	0	3	0	11	0	14	0	89
<b>% Approach</b>	0%	98.4%	1.6%	0%	-	-	0%	91.7%	8.3%	0%	-	-	100%	0%	0%	0%	-	-	21.4%	0%	78.6%	0%	-	-	-
<b>% Total</b>	0%	68.5%	1.1%	0%	<b>69.7%</b>	-	0%	12.4%	1.1%	0%	<b>13.5%</b>	-	1.1%	0%	0%	0%	<b>1.1%</b>	-	3.4%	0%	12.4%	0%	<b>15.7%</b>	-	-
<b>PHF</b>	-	0.763	0.250	-	<b>0.775</b>	-	-	0.917	0.250	-	<b>0.750</b>	-	0.250	-	-	-	<b>0.250</b>	-	0.375	-	0.688	-	<b>0.700</b>	-	0.824
<b>Lights</b>	0	35	1	0	<b>36</b>	-	0	6	1	0	7	-	1	0	0	0	<b>1</b>	-	0	0	0	0	<b>0</b>	-	44
<b>% Lights</b>	0%	57.4%	100%	0%	<b>58.1%</b>	-	0%	54.5%	100%	0%	<b>58.3%</b>	-	100%	0%	0%	0%	<b>100%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	49.4%
<b>Articulated Trucks</b>	0	16	0	0	<b>16</b>	-	0	5	0	0	5	-	0	0	0	0	<b>0</b>	-	0	0	6	0	<b>6</b>	-	27
<b>% Articulated Trucks</b>	0%	26.2%	0%	0%	<b>25.8%</b>	-	0%	45.5%	0%	0%	<b>41.7%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	0%	0%	54.5%	0%	<b>42.9%</b>	-	30.3%
<b>Buses and Single-Unit Trucks</b>	0	10	0	0	<b>10</b>	-	0	0	0	0	<b>0</b>	-	0	0	0	0	<b>0</b>	-	3	0	5	0	<b>8</b>	-	18
<b>% Buses and Single-Unit Trucks</b>	0%	16.4%	0%	0%	<b>16.1%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	100%	0%	45.5%	0%	<b>57.1%</b>	-	20.2%
<b>Pedestrians</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
<b>% Pedestrians</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Lidice Parkway at Truck Access - TMC

Thu May 15, 2025

Midday Peak (1 PM - 2 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,  
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296371, Location: 41.576842, -88.132013



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Lidice Parkway Eastbound						Lidice Parkway Westbound						Access Northbound						Access Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2025-05-15 1:00PM	0	15	0	0	15	0	0	2	0	0	2	0	0	0	0	0	0	0	1	0	3	0	4	0	21
1:15PM	0	10	0	0	10	0	0	3	0	0	3	0	0	0	0	0	0	0	3	0	3	0	6	0	19
1:30PM	0	14	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	16
1:45PM	1	14	0	0	15	0	0	3	0	0	3	0	0	0	0	0	0	0	3	0	4	0	7	0	25
<b>Total</b>	<b>1</b>	<b>53</b>	<b>0</b>	<b>0</b>	<b>54</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>19</b>	<b>0</b>	<b>81</b>
<b>% Approach</b>	<b>1.9%</b>	<b>98.1%</b>	<b>0%</b>	<b>0%</b>	<b>-</b>	<b>-</b>	<b>0%</b>	<b>100%</b>	<b>0%</b>	<b>0%</b>	<b>-</b>	<b>-</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>-</b>	<b>-</b>	<b>42.1%</b>	<b>0%</b>	<b>57.9%</b>	<b>0%</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>% Total</b>	<b>1.2%</b>	<b>65.4%</b>	<b>0%</b>	<b>0%</b>	<b>66.7%</b>	<b>-</b>	<b>0%</b>	<b>9.9%</b>	<b>0%</b>	<b>0%</b>	<b>9.9%</b>	<b>-</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>-</b>	<b>9.9%</b>	<b>0%</b>	<b>13.6%</b>	<b>0%</b>	<b>23.5%</b>	<b>-</b>	<b>-</b>
<b>PHF</b>	<b>0.250</b>	<b>0.883</b>	<b>-</b>	<b>-</b>	<b>0.900</b>	<b>-</b>	<b>-</b>	<b>0.667</b>	<b>-</b>	<b>-</b>	<b>0.667</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.667</b>	<b>-</b>	<b>0.688</b>	<b>-</b>	<b>0.679</b>	<b>-</b>	<b>0.810</b>
<b>Lights</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>-</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>22</b>
<b>% Lights</b>	<b>0%</b>	<b>34.0%</b>	<b>0%</b>	<b>0%</b>	<b>33.3%</b>	<b>-</b>	<b>0%</b>	<b>50.0%</b>	<b>0%</b>	<b>0%</b>	<b>50.0%</b>	<b>-</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>-</b>	<b>-</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>-</b>	<b>27.2%</b>
<b>Articulated Trucks</b>	<b>0</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>-</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>4</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>10</b>	<b>-</b>	<b>30</b>
<b>% Articulated Trucks</b>	<b>0%</b>	<b>35.8%</b>	<b>0%</b>	<b>0%</b>	<b>35.2%</b>	<b>-</b>	<b>0%</b>	<b>12.5%</b>	<b>0%</b>	<b>0%</b>	<b>12.5%</b>	<b>-</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>-</b>	<b>-</b>	<b>50.0%</b>	<b>0%</b>	<b>54.5%</b>	<b>0%</b>	<b>52.6%</b>	<b>-</b>	<b>37.0%</b>
<b>Buses and Single-Unit Trucks</b>	<b>1</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>-</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>4</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>9</b>	<b>-</b>	<b>29</b>
<b>% Buses and Single-Unit Trucks</b>	<b>100%</b>	<b>30.2%</b>	<b>0%</b>	<b>0%</b>	<b>31.5%</b>	<b>-</b>	<b>0%</b>	<b>37.5%</b>	<b>0%</b>	<b>0%</b>	<b>37.5%</b>	<b>-</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>-</b>	<b>-</b>	<b>50.0%</b>	<b>0%</b>	<b>45.5%</b>	<b>0%</b>	<b>47.4%</b>	<b>-</b>	<b>35.8%</b>
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Lidice Parkway at Truck Access - TMC

Thu May 15, 2025

Forced Peak (4 PM - 5 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,  
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1296371, Location: 41.576842, -88.132013



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Lidice Parkway Eastbound						Lidice Parkway Westbound						Access Northbound						Access Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2025-05-15 4:00PM	0	25	0	0	25	0	0	7	0	0	7	0	0	0	0	0	0	0	3	0	6	0	9	0	41
4:15PM	0	9	0	0	9	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	4	0	5	0	15
4:30PM	0	14	0	0	14	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	3	0	3	0	22
4:45PM	0	13	0	0	13	0	0	4	0	0	4	0	0	0	0	0	0	0	2	0	1	0	3	0	20
<b>Total</b>	0	61	0	0	61	0	0	17	0	0	17	0	0	0	0	0	0	0	6	0	14	0	20	0	98
<b>% Approach</b>	0%	100%	0%	0%	-	-	0%	100%	0%	0%	-	-	0%	0%	0%	0%	-	-	30.0%	0%	70.0%	0%	-	-	-
<b>% Total</b>	0%	62.2%	0%	0%	<b>62.2%</b>	-	0%	17.3%	0%	0%	<b>17.3%</b>	-	0%	0%	0%	0%	-	-	6.1%	0%	14.3%	0%	<b>20.4%</b>	-	-
<b>PHF</b>	-	0.610	-	-	<b>0.610</b>	-	-	0.607	-	-	<b>0.607</b>	-	-	-	-	-	-	0.500	-	0.583	-	<b>0.556</b>	-	0.598	
<b>Lights</b>	0	18	0	0	<b>18</b>	-	0	13	0	0	<b>13</b>	-	0	0	0	0	0	-	0	0	0	0	0	-	31
<b>% Lights</b>	0%	29.5%	0%	0%	<b>29.5%</b>	-	0%	76.5%	0%	0%	<b>76.5%</b>	-	0%	0%	0%	0%	-	-	0%	0%	0%	0%	<b>0%</b>	-	31.6%
<b>Articulated Trucks</b>	0	28	0	0	<b>28</b>	-	0	4	0	0	<b>4</b>	-	0	0	0	0	0	-	3	0	6	0	<b>9</b>	-	41
<b>% Articulated Trucks</b>	0%	45.9%	0%	0%	<b>45.9%</b>	-	0%	23.5%	0%	0%	<b>23.5%</b>	-	0%	0%	0%	0%	-	-	50.0%	0%	42.9%	0%	<b>45.0%</b>	-	41.8%
<b>Buses and Single-Unit Trucks</b>	0	15	0	0	<b>15</b>	-	0	0	0	0	<b>0</b>	-	0	0	0	0	0	-	3	0	8	0	<b>11</b>	-	26
<b>% Buses and Single-Unit Trucks</b>	0%	24.6%	0%	0%	<b>24.6%</b>	-	0%	0%	0%	0%	<b>0%</b>	-	0%	0%	0%	0%	-	-	50.0%	0%	57.1%	0%	<b>55.0%</b>	-	26.5%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn



## **ATTACHMENT 4 – EXISTING (2025) CAPACITY ANALYSIS REPORTS**

HCM 7th Signalized Intersection Summary  
100: Churnovic Lane/Private Drive & Division Street

Existing (2025) Traffic Volumes  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	250	110	140	180	1	80	1	85	1	1	1
Future Volume (veh/h)	1	250	110	140	180	1	80	1	85	1	1	1
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No											
Adj Sat Flow, veh/h/ln	1870	1796	1737	1781	1938	1870	1678	1870	1752	1870	1870	1870
Adj Flow Rate, veh/h	1	263	116	147	189	1	84	1	89	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	7	11	8	4	2	15	2	10	2	2	2
Cap, veh/h	68	441	194	574	997	5	221	2	218	4	4	4
Arrive On Green	0.37	0.37	0.37	0.08	0.52	0.52	0.14	0.14	0.14	0.01	0.01	0.01
Sat Flow, veh/h	1	1182	520	1697	1926	10	1598	18	1570	579	579	579
Grp Volume(v), veh/h	380	0	0	147	0	190	84	0	90	3	0	0
Grp Sat Flow(s), veh/h/ln	1702	0	0	1697	0	1936	1598	0	1588	1737	0	0
Q Serve(g_s), s	0.0	0.0	0.0	2.6	0.0	2.8	2.6	0.0	2.8	0.1	0.0	0.0
Cycle Q Clear(g_c), s	9.6	0.0	0.0	2.6	0.0	2.8	2.6	0.0	2.8	0.1	0.0	0.0
Prop In Lane	0.00		0.31	1.00		0.01	1.00		0.99	0.33		0.33
Lane Grp Cap(c), veh/h	702	0	0	574	0	1002	221	0	220	11	0	0
V/C Ratio(X)	0.54	0.00	0.00	0.26	0.00	0.19	0.38	0.00	0.41	0.26	0.00	0.00
Avail Cap(c_a), veh/h	1629	0	0	805	0	2321	419	0	416	456	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.5	0.0	0.0	7.6	0.0	6.9	20.9	0.0	21.0	26.4	0.0	0.0
Incr Delay (d2), s/veh	3.0	0.0	0.0	0.2	0.0	0.4	2.3	0.0	2.6	24.6	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.5	0.0	0.0	1.4	0.0	1.7	1.9	0.0	2.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.5	0.0	0.0	7.8	0.0	7.3	23.2	0.0	23.6	51.0	0.0	0.0
LnGrp LOS	B			A		A	C		C	D		
Approach Vol, veh/h	380			337			174			3		
Approach Delay, s/veh	16.5			7.5			23.4			51.0		
Approach LOS	B			A			C			D		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	7.7	25.9		13.4		33.6		6.3				
Change Period (Y+Rc), s	3.5	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	11.5	49.0		14.0		64.0		14.0				
Max Q Clear Time (g_c+l1), s	4.6	11.6		4.8		4.8		2.1				
Green Ext Time (p_c), s	0.2	8.3		0.9		4.0		0.0				
<b>Intersection Summary</b>												
HCM 7th Control Delay, s/veh				14.6								
HCM 7th LOS				B								

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Existing (2025) Traffic Volumes  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	250	110	140	180	1	80	1	85	1	1	1
Future Volume (veh/h)	1	250	110	140	180	1	80	1	85	1	1	1
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1796	1737	1781	1938	1870	1678	1870	1752	1870	1870	1870
Adj Flow Rate, veh/h	1	263	116	147	189	1	84	1	89	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	7	11	8	4	2	15	2	10	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	68	441	194	574	997	5	221	2	218	4	4	4
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.37	0.37	0.37	0.08	0.52	0.52	0.14	0.14	0.14	0.01	0.01	0.01
Unsig. Movement Delay												
Ln Grp Delay, s/veh	16.5	0.0	0.0	7.8	0.0	7.3	23.2	0.0	23.6	51.0	0.0	0.0
Ln Grp LOS	B			A		A	C		C	D		
Approach Vol, veh/h		380			337			174			3	
Approach Delay, s/veh		16.5			7.5			23.4			51.0	
Approach LOS		B			A			C			D	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	8	4		6						
Case No	1.2	8.3	12.0	10.0		4.0						
Phs Duration (G+Y+Rc), s	7.7	25.9	6.3	13.4		33.6						
Change Period (Y+Rc), s	3.5	6.0	6.0	6.0		6.0						
Max Green (Gmax), s	11.5	49.0	14.0	14.0		64.0						
Max Allow Headway (MAH), s	3.8	9.2	7.5	6.8		9.1						
Max Q Clear (g_c+l1), s	4.6	11.6	2.1	4.8		4.8						
Green Ext Time (g_e), s	0.2	8.3	0.0	0.9		4.0						
Prob of Phs Call (p_c)	0.89	1.00	0.04	0.92		1.00						
Prob of Max Out (p_x)	0.06	0.05	0.00	0.42		0.00						
Left-Turn Movement Data												
Assigned Mvmt	1	5	3	7								
Mvmt Sat Flow, veh/h	1697	1	579	1598								
Through Movement Data												
Assigned Mvmt		2	8	4		6						
Mvmt Sat Flow, veh/h		1182	579	18		1926						
Right-Turn Movement Data												
Assigned Mvmt		12	18	14		16						
Mvmt Sat Flow, veh/h		520	579	1570		10						
Left Lane Group Data												
Assigned Mvmt	1	5	3	7	0	0	0	0				

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Existing (2025) Traffic Volumes  
AM Peak Hour

Lane Assignment	L (Pr/Pm)	L+T+R	L+T+R	L				
Lanes in Grp	1	1	1	1	0	0	0	0
Grp Vol (v), veh/h	147	380	3	84	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1697	1702	1737	1598	0	0	0	0
Q Serve Time (g_s), s	2.6	0.0	0.1	2.6	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	2.6	9.6	0.1	2.6	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	956	1212	0	1598	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	554	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	21.9	19.9	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	10.3	19.9	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.33	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	574	702	11	221	0	0	0	0
V/C Ratio (X)	0.26	0.54	0.26	0.38	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	805	1629	456	419	0	0	0	0
Upstream Filter (l)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	7.6	13.5	26.4	20.9	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	3.0	24.6	2.3	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.8	16.5	51.0	23.2	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.7	3.0	0.0	0.9	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.1	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.80	1.80	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	1.4	6.5	0.2	1.9	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.18	0.07	0.03	0.27	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (l)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Existing (2025) Traffic Volumes  
AM Peak Hour

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Right Lane Group Data</b>							
Assigned Mvmt	0	12	18	14	0	16	0
Lane Assignment					T+R	T+R	
Lanes in Grp	0	0	0	1	0	1	0
Grp Vol (v), veh/h	0	0	0	90	0	190	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1588	0	1936	0
Q Serve Time (g_s), s	0.0	0.0	0.0	2.8	0.0	2.8	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	2.8	0.0	2.8	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.31	0.33	0.99	0.00	0.01	0.00
Lane Grp Cap (c), veh/h	0	0	0	220	0	1002	0
V/C Ratio (X)	0.00	0.00	0.00	0.41	0.00	0.19	0.00
Avail Cap (c_a), veh/h	0	0	0	416	0	2321	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	21.0	0.0	6.9	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.6	0.0	0.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	23.6	0.0	7.3	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.0	0.0	0.8	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.80	0.00	1.80	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	2.0	0.0	1.7	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.18	0.00	0.05	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Intersection Summary</b>							
HCM 7th Control Delay, s/veh				14.6			
HCM 7th LOS				B			

HCM 7th TWSC  
200: Churnovic Lane & Access A

Existing (2025) Traffic Volumes  
AM Peak Hour

Intersection

Int Delay, s/veh 5.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	A			
Traffic Vol, veh/h	1	125	40	1	165	75
Future Vol, veh/h	1	125	40	1	165	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	39	2	2	32
Mvmt Flow	1	132	42	1	174	79

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	469	43	0	0	43
Stage 1	43	-	-	-	-
Stage 2	426	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	553	1028	-	-	1565
Stage 1	980	-	-	-	-
Stage 2	659	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	489	1028	-	-	1565
Mov Cap-2 Maneuver	518	-	-	-	-
Stage 1	980	-	-	-	-
Stage 2	582	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.06	0	5.22
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1020	1238	-
HCM Lane V/C Ratio	-	-	0.13	0.111	-
HCM Control Delay (s/veh)	-	-	9.1	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.4	-

HCM 7th TWSC  
300: Churnovic Lane & Access B

Existing (2025) Traffic Volumes  
AM Peak Hour

Intersection

Int Delay, s/veh 1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y	B	T	↑	↑	↑
Traffic Vol, veh/h	5	15	25	0	1	70
Future Vol, veh/h	5	15	25	0	1	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	73	39	2	2	32
Mvmt Flow	5	16	26	0	1	74

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	102	26	0	0	26
Stage 1	26	-	-	-	-
Stage 2	76	-	-	-	-
Critical Hdwy	6.42	6.93	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.957	-	-	2.218
Pot Cap-1 Maneuver	896	877	-	-	1588
Stage 1	996	-	-	-	-
Stage 2	947	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	896	877	-	-	1588
Mov Cap-2 Maneuver	848	-	-	-	-
Stage 1	996	-	-	-	-
Stage 2	947	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.24	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	870	1588	-
HCM Lane V/C Ratio	-	-	0.024	0.001	-
HCM Control Delay (s/veh)	-	-	9.2	7.3	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

## Intersection

Int Delay, s/veh

2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	60	1	1	10	1	1	1	1	5	1	10
Future Vol, veh/h	1	60	1	1	10	1	1	1	1	5	1	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	26	2	2	46	2	2	2	2	2	2	55
Mvmt Flow	1	63	1	1	11	1	1	1	1	5	1	11

Major/Minor	Major1	Major2			Minor1			Minor2				
Conflicting Flow All	12	0	0	64	0	0	79	79	64	79	79	11
Stage 1	-	-	-	-	-	-	66	66	-	13	13	-
Stage 2	-	-	-	-	-	-	13	14	-	66	66	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.75
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.795
Pot Cap-1 Maneuver	1607	-	-	1538	-	-	910	811	1001	910	811	935
Stage 1	-	-	-	-	-	-	945	840	-	1007	885	-
Stage 2	-	-	-	-	-	-	1007	884	-	945	840	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1607	-	-	1538	-	-	897	810	1001	906	810	935
Mov Cap-2 Maneuver	-	-	-	-	-	-	897	810	-	906	810	-
Stage 1	-	-	-	-	-	-	944	840	-	1006	884	-
Stage 2	-	-	-	-	-	-	994	883	-	942	839	-

Approach	EB	WB			NB			SB			
HCM Control Delay, s/v	0.12	0.61			9.03			9			
HCM LOS					A			A			
<hr/>											
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBTn1	SBRn1	SBRn2
Capacity (veh/h)	896	29	-	-	147	-	-	917	-	-	-
HCM Lane V/C Ratio	0.004	0.001	-	-	0.001	-	-	0.018	-	-	-
HCM Control Delay (s/veh)	9	7.2	0	-	7.3	0	-	9	-	-	-
HCM Lane LOS	A	A	A	-	A	A	-	A	-	-	-
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1	-	-	-

**Intersection**

Int Delay, s/veh 7.7

**Movement** EBL EBR NBL NBT SBT SBR**Lane Configurations**

Traffic Vol, veh/h 45 20 5 5 1 5

Future Vol, veh/h 45 20 5 5 1 5

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 95 95 95 95 95 95

Heavy Vehicles, % 35 2 2 2 2 71

Mvmt Flow 47 21 5 5 1 5

**Major/Minor** Minor2 Major1 Major2

Conflicting Flow All 19 4 6 0 - 0

Stage 1 4 - - - - -

Stage 2 16 - - - - -

Critical Hdwy 6.75 6.22 4.12 - - -

Critical Hdwy Stg 1 5.75 - - - - -

Critical Hdwy Stg 2 5.75 - - - - -

Follow-up Hdwy 3.815 3.318 2.218 - - -

Pot Cap-1 Maneuver 919 1080 1615 - - -

Stage 1 940 - - - - -

Stage 2 928 - - - - -

Platoon blocked, % - - - - - -

Mov Cap-1 Maneuver 916 1080 1615 - - -

Mov Cap-2 Maneuver 916 - - - - -

Stage 1 937 - - - - -

Stage 2 928 - - - - -

**Approach** EB NB SB

HCM Control Delay, s/v 9.03 3.62 0

HCM LOS A

**Minor Lane/Major Mvmt** NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 900 - 961 - -

HCM Lane V/C Ratio 0.003 - 0.071 - -

HCM Control Delay (s/veh) 7.2 0 9 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0 - 0.2 - -

**Intersection**

Int Delay, s/veh 0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↑
Traffic Vol, veh/h	360	0	0	315	0	30
Future Vol, veh/h	360	0	0	315	0	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	8	2	2	6	2	52
Mvmt Flow	379	0	0	332	0	32

Major/Minor	Major1	Major2	Minor1	
Conflicting Flow All	0	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.72
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.768
Pot Cap-1 Maneuver	-	0	0	0
Stage 1	-	0	0	0
Stage 2	-	0	0	0
Platoon blocked, %	-			-
Mov Cap-1 Maneuver	-	-	-	571
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

**Approach**

EB WB NB

HCM Control Delay, s/v 0 0 11.68

HCM LOS B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	571	-	-
HCM Lane V/C Ratio	0.055	-	-
HCM Control Delay (s/veh)	11.7	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-

HCM 7th Signalized Intersection Summary  
100: Churnovic Lane/Private Drive & Division Street

Existing (2025) Traffic Volumes  
Mid-Day Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	265	55	55	275	1	90	1	70	1	1	1
Future Volume (veh/h)	1	265	55	55	275	1	90	1	70	1	1	1
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1811	1618	1589	1938	1870	1781	1870	1796	1870	1870	1870
Adj Flow Rate, veh/h	1	279	58	58	289	1	95	1	74	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	6	19	21	4	2	8	2	7	2	2	2
Cap, veh/h	80	479	99	489	854	3	264	3	243	4	4	4
Arrive On Green	0.33	0.33	0.33	0.04	0.44	0.44	0.16	0.16	0.16	0.01	0.01	0.01
Sat Flow, veh/h	1	1454	301	1513	1930	7	1697	21	1567	579	579	579
Grp Volume(v), veh/h	338	0	0	58	0	290	95	0	75	3	0	0
Grp Sat Flow(s), veh/h/ln	1756	0	0	1513	0	1936	1697	0	1588	1737	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.1	0.0	4.5	2.3	0.0	1.9	0.1	0.0	0.0
Cycle Q Clear(g_c), s	7.3	0.0	0.0	1.1	0.0	4.5	2.3	0.0	1.9	0.1	0.0	0.0
Prop In Lane	0.00		0.17	1.00		0.00	1.00		0.99	0.33		0.33
Lane Grp Cap(c), veh/h	658	0	0	489	0	857	264	0	247	11	0	0
V/C Ratio(X)	0.51	0.00	0.00	0.12	0.00	0.34	0.36	0.00	0.30	0.26	0.00	0.00
Avail Cap(c_a), veh/h	1198	0	0	818	0	1873	336	0	314	344	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.7	0.0	0.0	8.2	0.0	8.3	17.2	0.0	17.0	22.5	0.0	0.0
Incr Delay (d2), s/veh	2.8	0.0	0.0	0.1	0.0	1.1	1.8	0.0	1.5	24.5	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.0	0.0	0.0	0.5	0.0	2.9	1.7	0.0	1.3	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.5	0.0	0.0	8.4	0.0	9.4	19.0	0.0	18.5	47.0	0.0	0.0
LnGrp LOS	B			A		A	B		B	D		
Approach Vol, veh/h	338			348			170			3		
Approach Delay, s/veh	15.5			9.2			18.8			47.0		
Approach LOS	B			A			B			D		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	5.1	21.0		13.1		26.1		6.3				
Change Period (Y+Rc), s	3.5	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	11.5	29.0		9.0		44.0		9.0				
Max Q Clear Time (g_c+l1), s	3.1	9.3		4.3		6.5		2.1				
Green Ext Time (p_c), s	0.1	5.3		0.5		5.9		0.0				
<b>Intersection Summary</b>												
HCM 7th Control Delay, s/veh				13.7								
HCM 7th LOS				B								

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Existing (2025) Traffic Volumes  
Mid-Day Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	265	55	55	275	1	90	1	70	1	1	1
Future Volume (veh/h)	1	265	55	55	275	1	90	1	70	1	1	1
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/in	1870	1811	1618	1589	1938	1870	1781	1870	1796	1870	1870	1870
Adj Flow Rate, veh/h	1	279	58	58	289	1	95	1	74	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	6	19	21	4	2	8	2	7	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	80	479	99	489	854	3	264	3	243	4	4	4
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.33	0.33	0.33	0.04	0.44	0.44	0.16	0.16	0.16	0.01	0.01	0.01
Unsig. Movement Delay												
Ln Grp Delay, s/veh	15.5	0.0	0.0	8.4	0.0	9.4	19.0	0.0	18.5	47.0	0.0	0.0
Ln Grp LOS	B			A		A	B		B	D		
Approach Vol, veh/h		338			348			170			3	
Approach Delay, s/veh		15.5			9.2			18.8			47.0	
Approach LOS		B			A			B			D	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	8	4			6					
Case No	1.2	8.3	12.0	10.0			4.0					
Phs Duration (G+Y+Rc), s	5.1	21.0	6.3	13.1			26.1					
Change Period (Y+Rc), s	3.5	6.0	6.0	6.0			6.0					
Max Green (Gmax), s	11.5	29.0	9.0	9.0			44.0					
Max Allow Headway (MAH), s	3.8	9.2	7.5	6.7			9.1					
Max Q Clear (g_c+l1), s	3.1	9.3	2.1	4.3			6.5					
Green Ext Time (g_e), s	0.1	5.3	0.0	0.5			5.9					
Prob of Phs Call (p_c)	0.52	1.00	0.04	0.88			1.00					
Prob of Max Out (p_x)	0.00	0.26	1.00	1.00			0.01					
Left-Turn Movement Data												
Assigned Mvmt	1	5	3	7								
Mvmt Sat Flow, veh/h	1513	1	579	1697								
Through Movement Data												
Assigned Mvmt		2	8	4			6					
Mvmt Sat Flow, veh/h		1454	579	21			1930					
Right-Turn Movement Data												
Assigned Mvmt		12	18	14			16					
Mvmt Sat Flow, veh/h		301	579	1567			7					
Left Lane Group Data												
Assigned Mvmt	1	5	3	7	0	0	0	0				

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Existing (2025) Traffic Volumes  
Mid-Day Peak Hour

Lane Assignment	L (Pr/Pm)	L+T+R	L+T+R	L				
Lanes in Grp	1	1	1	1	0	0	0	0
Grp Vol (v), veh/h	58	338	3	95	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1513	1756	1737	1697	0	0	0	0
Q Serve Time (g_s), s	1.1	0.0	0.1	2.3	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	1.1	7.3	0.1	2.3	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	886	1106	0	1697	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	619	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	17.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	7.7	15.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	12.2	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.33	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	489	658	11	264	0	0	0	0
V/C Ratio (X)	0.12	0.51	0.26	0.36	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	818	1198	344	336	0	0	0	0
Upstream Filter (l)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	8.2	12.7	22.5	17.2	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	2.8	24.5	1.8	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	8.4	15.5	47.0	19.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.3	2.2	0.0	0.8	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.1	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.80	1.80	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.5	5.0	0.2	1.7	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.07	0.05	0.03	0.24	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (l)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Existing (2025) Traffic Volumes  
Mid-Day Peak Hour

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Right Lane Group Data</b>							
Assigned Mvmt	0	12	18	14	0	16	0
Lane Assignment					T+R	T+R	
Lanes in Grp	0	0	0	1	0	1	0
Grp Vol (v), veh/h	0	0	0	75	0	290	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1588	0	1936	0
Q Serve Time (g_s), s	0.0	0.0	0.0	1.9	0.0	4.5	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	1.9	0.0	4.5	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.17	0.33	0.99	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	247	0	857	0
V/C Ratio (X)	0.00	0.00	0.00	0.30	0.00	0.34	0.00
Avail Cap (c_a), veh/h	0	0	0	314	0	1873	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	17.0	0.0	8.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.5	0.0	1.1	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	18.5	0.0	9.4	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.6	0.0	1.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.3	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.80	0.00	1.80	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	1.3	0.0	2.9	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.11	0.00	0.08	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Intersection Summary</b>							
HCM 7th Control Delay, s/veh				13.7			
HCM 7th LOS				B			

HCM 7th TWSC  
200: Churnovic Lane & Access A

Existing (2025) Traffic Volumes  
Mid-Day Peak Hour

Intersection

Int Delay, s/veh 5.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	A			
Traffic Vol, veh/h	1	135	15	1	40	70
Future Vol, veh/h	1	135	15	1	40	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	39	2	2	31
Mvmt Flow	1	142	16	1	42	74

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	174	16	0	0	17
Stage 1	16	-	-	-	-
Stage 2	158	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	816	1063	-	-	1600
Stage 1	1006	-	-	-	-
Stage 2	871	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	793	1063	-	-	1600
Mov Cap-2 Maneuver	763	-	-	-	-
Stage 1	1006	-	-	-	-
Stage 2	847	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.93	0	2.66
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1060	655	-
HCM Lane V/C Ratio	-	-	0.135	0.026	-
HCM Control Delay (s/veh)	-	-	8.9	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

HCM 7th TWSC  
300: Churnovic Lane & Access B

Existing (2025) Traffic Volumes  
Mid-Day Peak Hour

Intersection

Int Delay, s/veh 1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
----------	-----	-----	-----	-----	-----	-----

Lane Configurations 

Traffic Vol, veh/h 10 5 15 0 1 70

Future Vol, veh/h 10 5 15 0 1 70

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - 150 -

Veh in Median Storage, # 0 - 0 - - 0

Grade, % 0 - 0 - - 0

Peak Hour Factor 95 95 95 95 95 95

Heavy Vehicles, % 2 100 39 2 2 31

Mvmt Flow 11 5 16 0 1 74

Major/Minor	Minor1	Major1	Major2
-------------	--------	--------	--------

Conflicting Flow All 92 16 0 0 16 0

Stage 1 16 - - - - -

Stage 2 76 - - - - -

Critical Hdwy 6.42 7.2 - - 4.12 -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 4.2 - - 2.218 -

Pot Cap-1 Maneuver 909 838 - - 1602 -

Stage 1 1007 - - - - -

Stage 2 947 - - - - -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver 908 838 - - 1602 -

Mov Cap-2 Maneuver 854 - - - - -

Stage 1 1007 - - - - -

Stage 2 947 - - - - -

Approach	WB	NB	SB
----------	----	----	----

HCM Control Delay, s/v 9.32 0 0.1

HCM LOS A

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
-----------------------	-----	-----	-------	-----	-----

Capacity (veh/h) - - 849 1602 -

HCM Lane V/C Ratio - - 0.019 0.001 -

HCM Control Delay (s/veh) - - 9.3 7.2 -

HCM Lane LOS - - A A -

HCM 95th %tile Q(veh) - - 0.1 0 -

## Intersection

Int Delay, s/veh 2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	55	1	1	10	1	1	1	1	10	1	10
Future Vol, veh/h	1	55	1	1	10	1	1	1	1	10	1	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	36	2	2	13	2	2	2	2	2	2	55
Mvmt Flow	1	58	1	1	11	1	1	1	1	11	1	11

Major/Minor	Major1	Major2			Minor1			Minor2				
Conflicting Flow All	12	0	0	59	0	0	74	74	58	74	74	11
Stage 1	-	-	-	-	-	-	61	61	-	13	13	-
Stage 2	-	-	-	-	-	-	13	14	-	61	61	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.75
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.795
Pot Cap-1 Maneuver	1607	-	-	1545	-	-	917	816	1007	917	816	935
Stage 1	-	-	-	-	-	-	951	844	-	1007	885	-
Stage 2	-	-	-	-	-	-	1007	884	-	951	844	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1607	-	-	1545	-	-	904	815	1007	913	815	935
Mov Cap-2 Maneuver	-	-	-	-	-	-	904	815	-	913	815	-
Stage 1	-	-	-	-	-	-	950	844	-	1006	884	-
Stage 2	-	-	-	-	-	-	994	883	-	948	843	-

Approach	EB	WB			NB		SB		
HCM Control Delay, s/v	0.13	0.61			9		9.02		
HCM LOS					A		A		
<hr/>									
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	
Capacity (veh/h)	902	31	-	-	147	-	-	918	
HCM Lane V/C Ratio	0.004	0.001	-	-	0.001	-	-	0.024	
HCM Control Delay (s/veh)	9	7.2	0	-	7.3	0	-	9	
HCM Lane LOS	A	A	A	-	A	A	-	A	
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1	

**Intersection**

Int Delay, s/veh 7.8

**Movement** EBL EBR NBL NBT SBT SBR

Lane Configurations



Traffic Vol, veh/h 55 10 5 5 1 5

Future Vol, veh/h 55 10 5 5 1 5

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 95 95 95 95 95 95

Heavy Vehicles, % 39 2 2 2 2 50

Mvmt Flow 58 11 5 5 1 5

**Major/Minor** Minor2 Major1 Major2

Conflicting Flow All 19 4 6 0 - 0

Stage 1 4 - - - - -

Stage 2 16 - - - - -

Critical Hdwy 6.79 6.22 4.12 - - -

Critical Hdwy Stg 1 5.79 - - - - -

Critical Hdwy Stg 2 5.79 - - - - -

Follow-up Hdwy 3.851 3.318 2.218 - - -

Pot Cap-1 Maneuver 911 1080 1615 - - -

Stage 1 931 - - - - -

Stage 2 919 - - - - -

Platoon blocked, % - - - - - -

Mov Cap-1 Maneuver 908 1080 1615 - - -

Mov Cap-2 Maneuver 908 - - - - -

Stage 1 928 - - - - -

Stage 2 919 - - - - -

**Approach** EB NB SB

HCM Control Delay, s/v 9.18 3.62 0

HCM LOS A

**Minor Lane/Major Mvmt** NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 900 - 930 - -

HCM Lane V/C Ratio 0.003 - 0.074 - -

HCM Control Delay (s/veh) 7.2 0 9.2 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0 - 0.2 - -

Intersection

Int Delay, s/veh 0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↑
Traffic Vol, veh/h	355	0	0	335	0	20
Future Vol, veh/h	355	0	0	335	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	6	2	32
Mvmt Flow	374	0	0	353	0	21

Major/Minor	Major1	Major2	Minor1	
Conflicting Flow All	0	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.52
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.588
Pot Cap-1 Maneuver	-	0	0	0
Stage 1	-	0	0	0
Stage 2	-	0	0	0
Platoon blocked, %	-			-
Mov Cap-1 Maneuver	-	-	-	611
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach EB WB NB

HCM Control Delay, s/v	0	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	611	-	-
HCM Lane V/C Ratio	0.034	-	-
HCM Control Delay (s/veh)	11.1	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

HCM 7th Signalized Intersection Summary  
100: Churnovic Lane/Private Drive & Division Street

Existing (2025) Traffic Volumes  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	335	25	55	490	1	35	1	20	1	1	1
Future Volume (veh/h)	1	335	25	55	490	1	35	1	20	1	1	1
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No											
Adj Sat Flow, veh/h/ln	1870	1870	1381	1203	1953	1870	1693	1870	1381	1870	1870	1870
Adj Flow Rate, veh/h	1	353	26	58	516	1	37	1	21	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	35	47	3	2	14	2	35	2	2	2
Cap, veh/h	79	674	50	448	988	2	149	7	141	4	4	4
Arrive On Green	0.39	0.39	0.39	0.04	0.51	0.51	0.09	0.09	0.09	0.01	0.01	0.01
Sat Flow, veh/h	1	1720	126	1146	1949	4	1612	73	1524	579	579	579
Grp Volume(v), veh/h	380	0	0	58	0	517	37	0	22	3	0	0
Grp Sat Flow(s), veh/h/ln	1847	0	0	1146	0	1953	1612	0	1596	1737	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.3	0.0	8.1	1.0	0.0	0.6	0.1	0.0	0.0
Cycle Q Clear(g_c), s	7.2	0.0	0.0	1.3	0.0	8.1	1.0	0.0	0.6	0.1	0.0	0.0
Prop In Lane	0.00		0.07	1.00		0.00	1.00		0.95	0.33		0.33
Lane Grp Cap(c), veh/h	803	0	0	448	0	990	149	0	147	11	0	0
V/C Ratio(X)	0.47	0.00	0.00	0.13	0.00	0.52	0.25	0.00	0.15	0.26	0.00	0.00
Avail Cap(c_a), veh/h	1655	0	0	818	0	2523	671	0	664	723	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.6	0.0	0.0	6.7	0.0	7.6	19.2	0.0	19.1	22.6	0.0	0.0
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.1	0.0	2.0	1.8	0.0	1.0	24.5	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.8	0.0	0.0	0.4	0.0	5.0	0.7	0.0	0.4	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.6	0.0	0.0	6.8	0.0	9.5	21.1	0.0	20.1	47.0	0.0	0.0
LnGrp LOS	B			A		A	C		C	D		
Approach Vol, veh/h	380			575			59			3		
Approach Delay, s/veh	12.6			9.2			20.7			47.0		
Approach LOS	B			A			C			D		
Timer - Assigned Phs	1	2	4	6		8						
Phs Duration (G+Y+Rc), s	5.3	23.9		10.2		29.1		6.3				
Change Period (Y+Rc), s	3.5	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	16.5	39.0		19.0		59.0		19.0				
Max Q Clear Time (g_c+l1), s	3.3	9.2		3.0		10.1		2.1				
Green Ext Time (p_c), s	0.1	7.4		0.3		13.0		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			11.3									
HCM 7th LOS			B									

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Existing (2025) Traffic Volumes  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	335	25	55	490	1	35	1	20	1	1	1
Future Volume (veh/h)	1	335	25	55	490	1	35	1	20	1	1	1
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/in	1870	1870	1381	1203	1953	1870	1693	1870	1381	1870	1870	1870
Adj Flow Rate, veh/h	1	353	26	58	516	1	37	1	21	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	35	47	3	2	14	2	35	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	79	674	50	448	988	2	149	7	141	4	4	4
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.39	0.39	0.39	0.04	0.51	0.51	0.09	0.09	0.09	0.01	0.01	0.01
Unsig. Movement Delay												
Ln Grp Delay, s/veh	12.6	0.0	0.0	6.8	0.0	9.5	21.1	0.0	20.1	47.0	0.0	0.0
Ln Grp LOS	B			A		A	C		C	D		
Approach Vol, veh/h		380			575			59			3	
Approach Delay, s/veh		12.6			9.2			20.7			47.0	
Approach LOS		B			A			C			D	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	8	4		6						
Case No	1.2	8.3	12.0	10.0		4.0						
Phs Duration (G+Y+Rc), s	5.3	23.9	6.3	10.2		29.1						
Change Period (Y+Rc), s	3.5	6.0	6.0	6.0		6.0						
Max Green (Gmax), s	16.5	39.0	19.0	19.0		59.0						
Max Allow Headway (MAH), s	3.9	9.1	7.5	6.6		9.1						
Max Q Clear (g_c+l1), s	3.3	9.2	2.1	3.0		10.1						
Green Ext Time (g_e), s	0.1	7.4	0.0	0.3		13.0						
Prob of Phs Call (p_c)	0.52	1.00	0.04	0.53		1.00						
Prob of Max Out (p_x)	0.00	0.10	0.00	0.00		0.05						
Left-Turn Movement Data												
Assigned Mvmt	1	5	3	7								
Mvmt Sat Flow, veh/h	1146	1	579	1612								
Through Movement Data												
Assigned Mvmt		2	8	4		6						
Mvmt Sat Flow, veh/h		1720	579	73		1949						
Right-Turn Movement Data												
Assigned Mvmt		12	18	14		16						
Mvmt Sat Flow, veh/h		126	579	1524		4						
Left Lane Group Data												
Assigned Mvmt	1	5	3	7	0	0	0	0				

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Existing (2025) Traffic Volumes  
PM Peak Hour

Lane Assignment	L (Pr/Pm)	L+T+R	L+T+R	L				
Lanes in Grp	1	1	1	1	0	0	0	0
Grp Vol (v), veh/h	58	380	3	37	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1146	1847	1737	1612	0	0	0	0
Q Serve Time (g_s), s	1.3	0.0	0.1	1.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	1.3	7.2	0.1	1.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	646	898	0	1612	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	472	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	19.9	17.9	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	10.7	15.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	14.9	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.33	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	448	803	11	149	0	0	0	0
V/C Ratio (X)	0.13	0.47	0.26	0.25	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	818	1655	723	671	0	0	0	0
Upstream Filter (l)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	6.7	10.6	22.6	19.2	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	2.0	24.5	1.8	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	6.8	12.6	47.0	21.1	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.2	2.2	0.0	0.3	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.1	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.80	1.80	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.4	4.8	0.2	0.7	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.07	0.05	0.03	0.11	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (l)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Existing (2025) Traffic Volumes  
PM Peak Hour

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Right Lane Group Data</b>							
Assigned Mvmt	0	12	18	14	0	16	0
Lane Assignment					T+R	T+R	
Lanes in Grp	0	0	0	1	0	1	0
Grp Vol (v), veh/h	0	0	0	22	0	517	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1596	0	1953	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.6	0.0	8.1	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.6	0.0	8.1	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.07	0.33	0.95	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	147	0	990	0
V/C Ratio (X)	0.00	0.00	0.00	0.15	0.00	0.52	0.00
Avail Cap (c_a), veh/h	0	0	0	664	0	2523	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	19.1	0.0	7.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.0	0.0	2.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	20.1	0.0	9.5	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.2	0.0	2.2	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.5	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.80	0.00	1.80	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.4	0.0	5.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.04	0.00	0.13	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Intersection Summary</b>							
HCM 7th Control Delay, s/veh				11.3			
HCM 7th LOS				B			

HCM 7th TWSC  
200: Churnovic Lane & Access A

Existing (2025) Traffic Volumes  
PM Peak Hour

Intersection

Int Delay, s/veh 1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	B			
Traffic Vol, veh/h	1	15	35	1	10	70
Future Vol, veh/h	1	15	35	1	10	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	19	2	2	52
Mvmt Flow	1	16	37	1	11	74

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	132	37	0	0	38
Stage 1	37	-	-	-	-
Stage 2	95	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	862	1035	-	-	1572
Stage 1	985	-	-	-	-
Stage 2	929	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	856	1035	-	-	1572
Mov Cap-2 Maneuver	821	-	-	-	-
Stage 1	985	-	-	-	-
Stage 2	923	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.59	0	0.91
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1018	225	-
HCM Lane V/C Ratio	-	-	0.017	0.007	-
HCM Control Delay (s/veh)	-	-	8.6	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

HCM 7th TWSC  
300: Churnovic Lane & Access B

Existing (2025) Traffic Volumes  
PM Peak Hour

Intersection

Int Delay, s/veh 0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
----------	-----	-----	-----	-----	-----	-----

Lane Configurations 

Traffic Vol, veh/h 5 5 30 1 1 65

Future Vol, veh/h 5 5 30 1 1 65

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - 150 -

Veh in Median Storage, # 0 - 0 - - 0

Grade, % 0 - 0 - - 0

Peak Hour Factor 95 95 95 95 95 95

Heavy Vehicles, % 0 100 19 2 2 52

Mvmt Flow 5 5 32 1 1 68

Major/Minor	Minor1	Major1	Major2
-------------	--------	--------	--------

Conflicting Flow All 103 32 0 0 33 0

    Stage 1 32 - - - - -

    Stage 2 71 - - - - -

Critical Hdwy 6.4 7.2 - - 4.12 -

Critical Hdwy Stg 1 5.4 - - - - -

Critical Hdwy Stg 2 5.4 - - - - -

Follow-up Hdwy 3.5 4.2 - - 2.218 -

Pot Cap-1 Maneuver 900 819 - - 1579 -

    Stage 1 996 - - - - -

    Stage 2 957 - - - - -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver 900 819 - - 1579 -

Mov Cap-2 Maneuver 854 - - - - -

    Stage 1 996 - - - - -

    Stage 2 957 - - - - -

Approach	WB	NB	SB
----------	----	----	----

HCM Control Delay, s/v 9.36 0 0.11

HCM LOS A

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
-----------------------	-----	-----	-------	-----	-----

Capacity (veh/h) - - 836 1579 -

HCM Lane V/C Ratio - - 0.013 0.001 -

HCM Control Delay (s/veh) - - 9.4 7.3 -

HCM Lane LOS - - A A -

HCM 95th %tile Q(veh) - - 0 0 -

## Intersection

Int Delay, s/veh 2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	1	60	1	1	15	1	1	1	1	5	1	15
Future Vol, veh/h	1	60	1	1	15	1	1	1	1	5	1	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	46	2	2	24	2	2	2	2	2	2	43
Mvmt Flow	1	63	1	1	16	1	1	1	1	5	1	16

Major/Minor	Major1	Major2			Minor1			Minor2				
Conflicting Flow All	17	0	0	64	0	0	84	85	64	84	85	16
Stage 1	-	-	-	-	-	-	66	66	-	18	18	-
Stage 2	-	-	-	-	-	-	18	19	-	66	66	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.63
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.687
Pot Cap-1 Maneuver	1600	-	-	1538	-	-	902	805	1001	902	805	955
Stage 1	-	-	-	-	-	-	945	840	-	1001	880	-
Stage 2	-	-	-	-	-	-	1001	880	-	945	840	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1600	-	-	1538	-	-	885	804	1001	899	804	955
Mov Cap-2 Maneuver	-	-	-	-	-	-	885	804	-	899	804	-
Stage 1	-	-	-	-	-	-	944	840	-	1000	879	-
Stage 2	-	-	-	-	-	-	982	879	-	942	839	-

Approach	EB	WB			NB			SB				
HCM Control Delay, s/v	0.12	0.43			9.06			8.95				
HCM LOS					A			A				
<hr/>												
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBT	SBLn1	SBT	SBR
Capacity (veh/h)	890	29	-	-	105	-	-	933	-	-	-	-
HCM Lane V/C Ratio	0.004	0.001	-	-	0.001	-	-	0.024	-	-	-	-
HCM Control Delay (s/veh)	9.1	7.3	0	-	7.3	0	-	9	-	-	-	-
HCM Lane LOS	A	A	A	-	A	A	-	A	-	-	-	-
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1	-	-	-	-

**Intersection**

Int Delay, s/veh 7.5

**Movement** EBL EBR NBL NBT SBT SBR**Lane Configurations**

Traffic Vol, veh/h 45 20 5 5 1 10

Future Vol, veh/h 45 20 5 5 1 10

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 95 95 95 95 95 95

Heavy Vehicles, % 70 2 2 2 2 27

Mvmt Flow 47 21 5 5 1 11

**Major/Minor** Minor2 Major1 Major2

Conflicting Flow All 22 6 12 0 - 0

Stage 1 6 - - - - -

Stage 2 16 - - - - -

Critical Hdwy 7.1 6.22 4.12 - - -

Critical Hdwy Stg 1 6.1 - - - - -

Critical Hdwy Stg 2 6.1 - - - - -

Follow-up Hdwy 4.13 3.318 2.218 - - -

Pot Cap-1 Maneuver 845 1076 1607 - - -

Stage 1 866 - - - - -

Stage 2 856 - - - - -

Platoon blocked, % - - - - - -

Mov Cap-1 Maneuver 842 1076 1607 - - -

Mov Cap-2 Maneuver 842 - - - - -

Stage 1 863 - - - - -

Stage 2 856 - - - - -

**Approach** EB NB SB

HCM Control Delay, s/v 9.31 3.62 0

HCM LOS A

**Minor Lane/Major Mvmt** NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 900 - 903 - -

HCM Lane V/C Ratio 0.003 - 0.076 - -

HCM Control Delay (s/veh) 7.2 0 9.3 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0 - 0.2 - -

**Intersection**

Int Delay, s/veh 0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
----------	-----	-----	-----	-----	-----	-----

Lane Configurations						
Traffic Vol, veh/h	365	0	0	535	0	35
Future Vol, veh/h	365	0	0	535	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	2	2	7	2	46
Mvmt Flow	384	0	0	563	0	37

Major/Minor	Major1	Major2	Minor1
-------------	--------	--------	--------

Conflicting Flow All	0	-	-	-	-	384
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.66
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.714
Pot Cap-1 Maneuver	-	0	0	-	0	577
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-					-
Mov Cap-1 Maneuver	-	-	-	-	-	577
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
----------	----	----	----

HCM Control Delay, s/v	0	0	11.67
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
-----------------------	-------	-----	-----

Capacity (veh/h)	577	-	-
HCM Lane V/C Ratio	0.064	-	-
HCM Control Delay (s/veh)	11.7	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-



**ATTACHMENT 5 – CMAP YEAR 2050 TRAFFIC  
PROJECTIONS**



April 17, 2025

Alainie Sawtelle  
Kimley-Horn  
4210 Winfield Road  
Suite 600  
Warrenville, IL 60555

**Subject: Division Street - Gaylord Road - Weber Road**  
IDOT

Dear Ms. Sawtelle:

In response to a request made on your behalf and dated April 16, 2025, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current ADT (2023)	Year 2050 ADT
Division St west of Gaylord Rd	9,950	11,800
Division St from Gaylord Rd to Weber Rd	9,950	11,800
Division St east of Weber Rd	6,500	7,700
Gaylord Rd north of Division St	5,850	6,950
Gaylord Rd south of Division St	4,750	5,650
Weber Rd north of Division St	24,500	29,000
Weber Rd south of Division St	24,500	29,000

Traffic projections are developed using existing ADT data provided in the request letter and the results from the December 2024 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2050 socioeconomic projections and assumes the implementation of the ON TO 2050 Comprehensive Regional Plan for the Northeastern Illinois area. The provision of this data in support of your request does not constitute a CMAP endorsement of the proposed development or any subsequent developments.

If you have any questions, please call me at (312) 386-8806 or email me at [jrodriguez@cmap.illinois.gov](mailto:jrodriguez@cmap.illinois.gov)

A handwritten signature in black ink, appearing to read "J. Rodriguez".

Jose Rodriguez, PTP, AICP  
Senior Planner, Research & Analysis

## **TRAFFIC FORECAST RECORD**

**Record Number:** wi-19-25

**Type of Report:** Projection

**Year Sought:** 2050

**Analyst:** JAR

**Organization Requestion Forecast:** Kimley-Horn

**Contact:** Alainie Sawtelle

**Email or Phone:** alainie.sawtelle@kimley-horn.com

**Sponsor:** IDOT

**Date request was received:** 4/16/2025

**Date that response was emailed:** 4/17/2025

**Facility Location:** Division Street - Gaylord Road - Weber Road

**Municipality:** Crest Hill



**ATTACHMENT 6 – DATA FROM ITE *TRIP GENERATION  
MANUAL*, 11<sup>TH</sup> EDITION**

# Land Use: 150 Warehousing

---

## Description

A warehouse is primarily devoted to the storage of materials, but it may also include office and maintenance areas. High-cube transload and short-term storage warehouse (Land Use 154), high-cube fulfillment center warehouse (Land Use 155), high-cube parcel hub warehouse (Land Use 156), and high-cube cold storage warehouse (Land Use 157) are related uses.

## Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in California, Connecticut, Minnesota, New Jersey, New York, Ohio, Oregon, Pennsylvania, and Texas.

## Source Numbers

184, 331, 406, 411, 443, 579, 583, 596, 598, 611, 619, 642, 752, 869, 875, 876, 914, 940, 1050

# Warehousing (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA  
On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 31

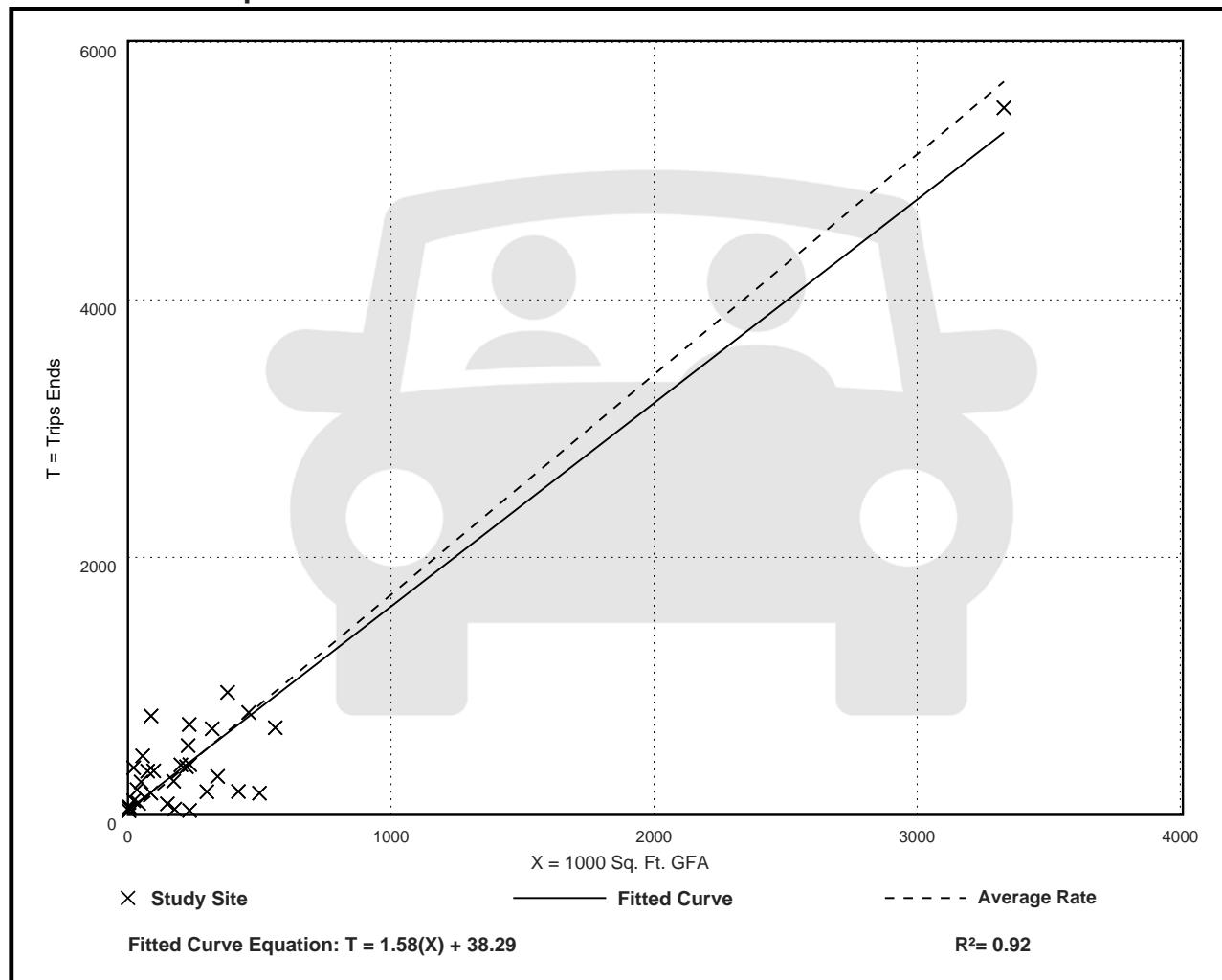
Avg. 1000 Sq. Ft. GFA: 292

Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.71	0.15 - 16.93	1.48

## Data Plot and Equation



# Warehousing (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 36

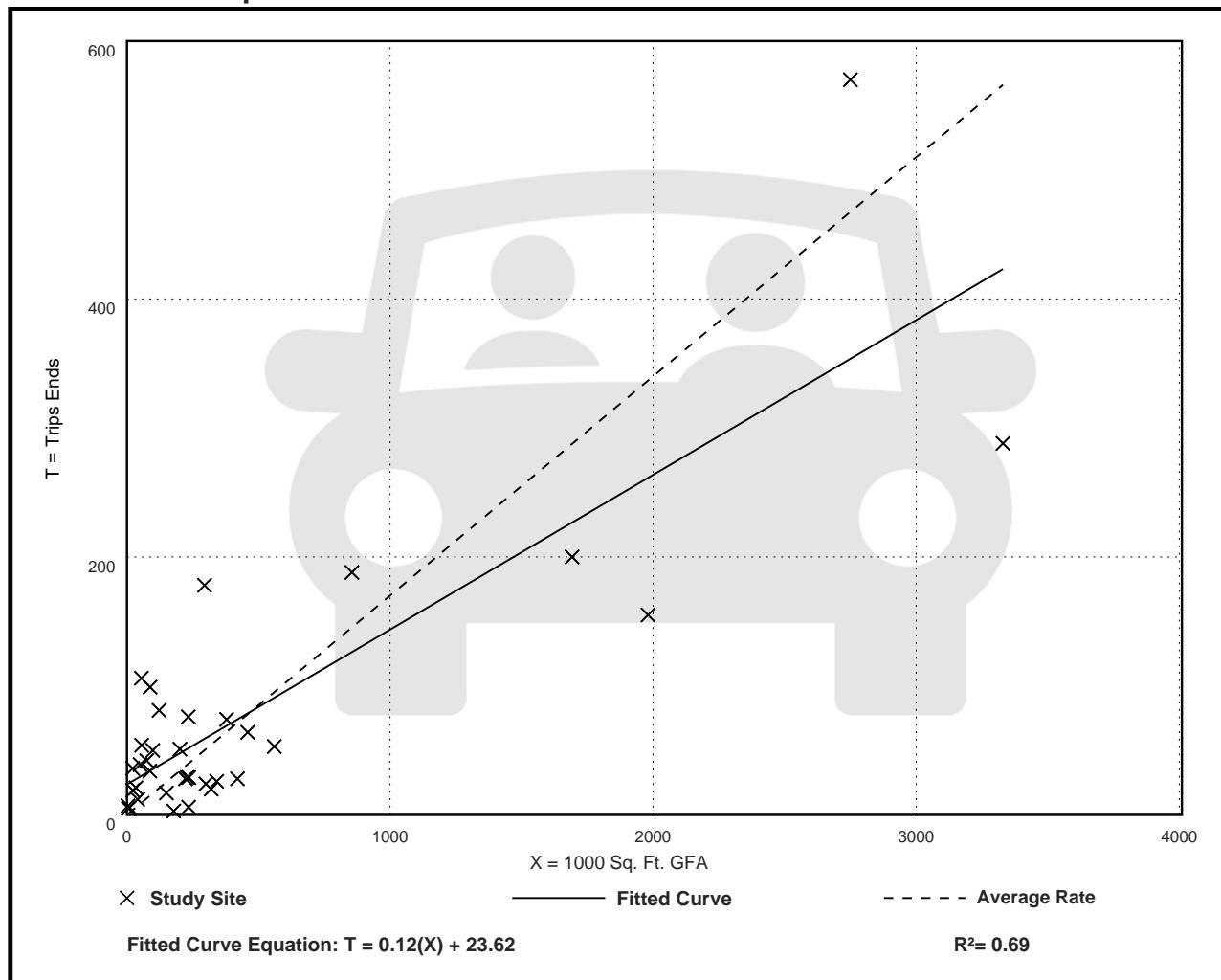
Avg. 1000 Sq. Ft. GFA: 448

Directional Distribution: 77% entering, 23% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.17	0.02 - 1.93	0.19

## Data Plot and Equation



# Warehousing (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 49

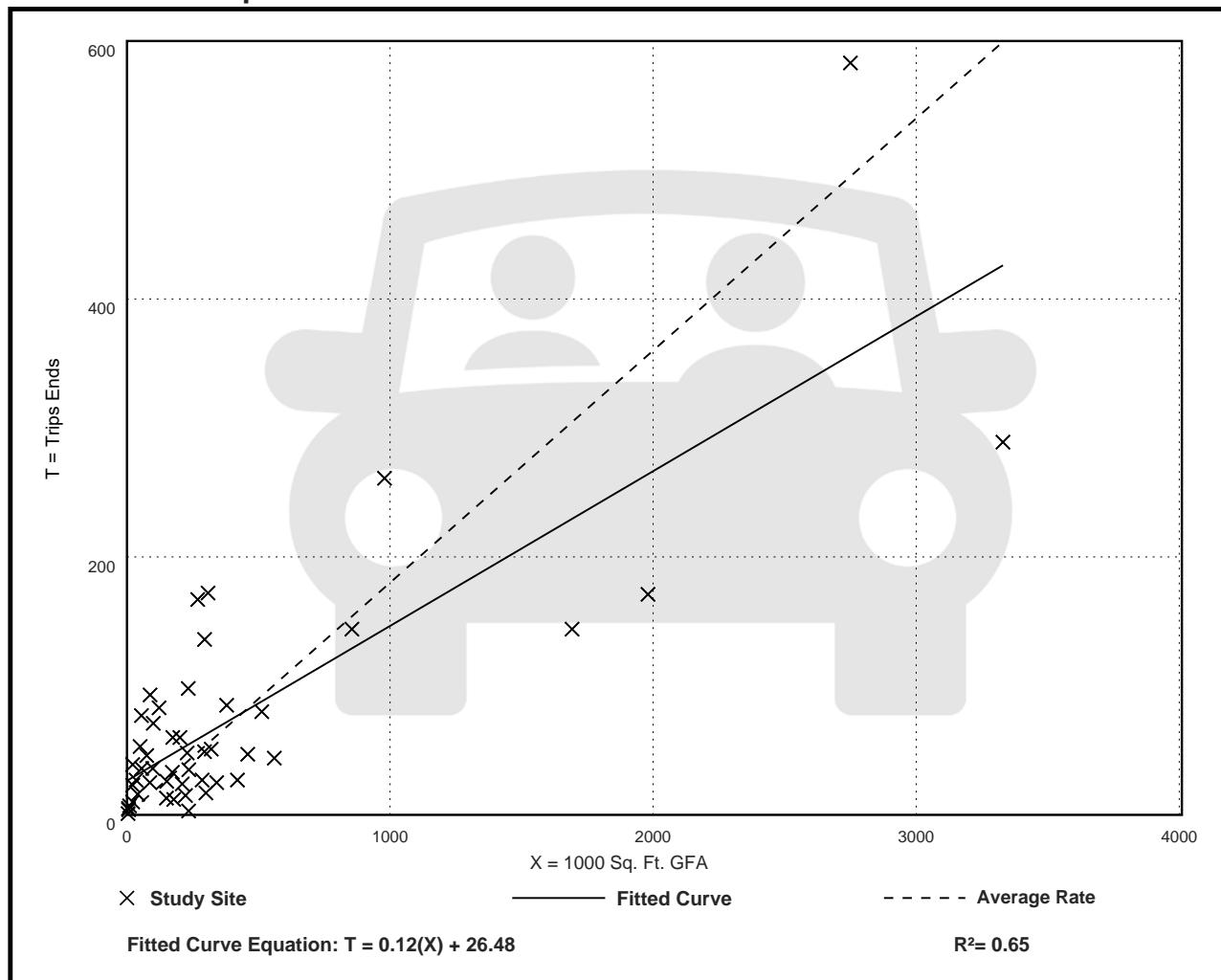
Avg. 1000 Sq. Ft. GFA: 400

Directional Distribution: 28% entering, 72% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.18	0.01 - 1.80	0.18

## Data Plot and Equation



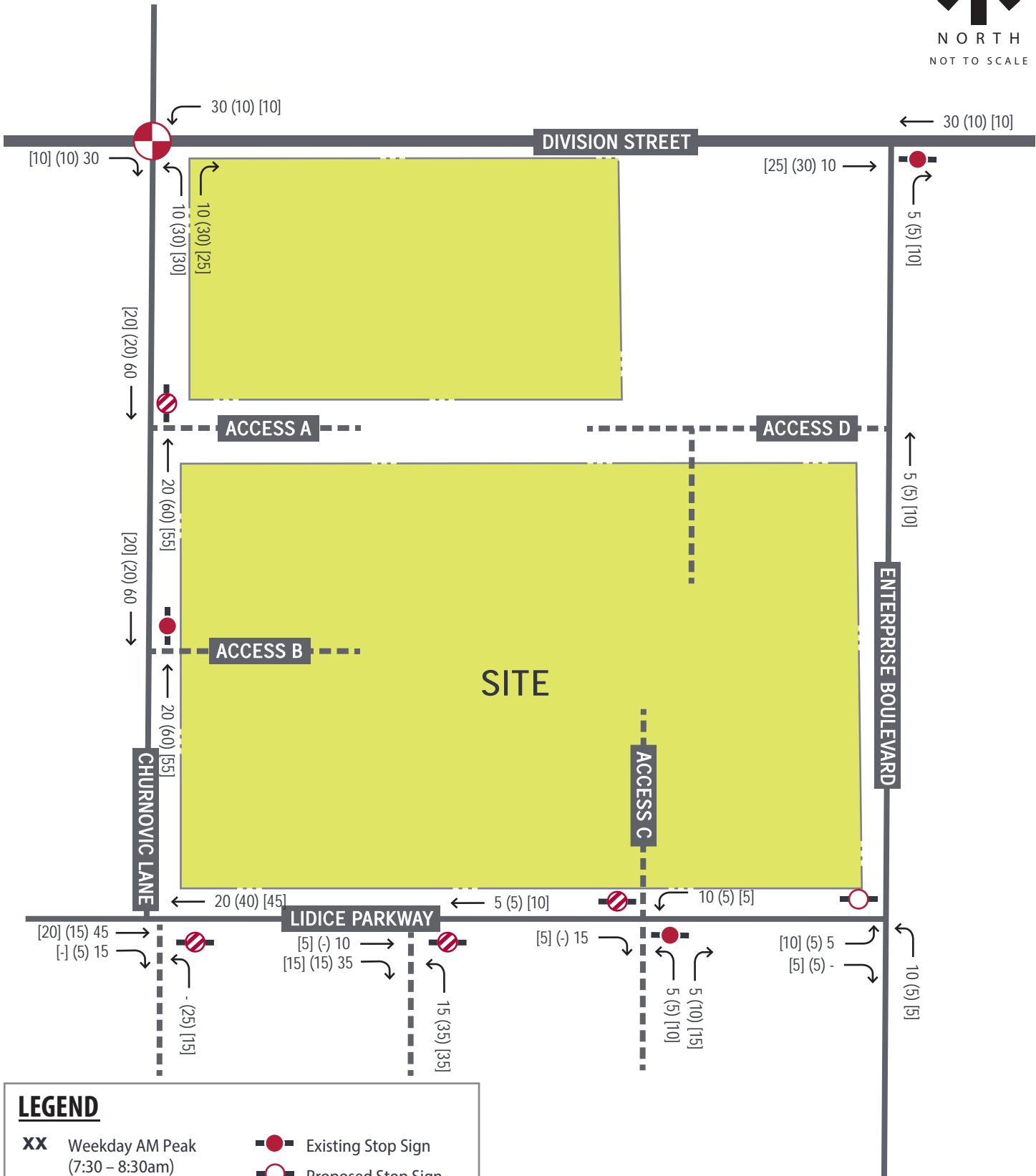


## **ATTACHMENT 7 – SOUTH BACKGROUND DEVELOPMENT**



### LEGEND

- |   |   |
|---|---|
| <b>XX</b> Weekday AM Peak (7:30 – 8:30am)       | <b>● - - -</b> Existing Stop Sign                           |
| <b>(xx)</b> Weekend Midday Peak (1:00 – 2:00pm) | <b>● - - - (25) [15]</b> Assumed Stop Sign                  |
| <b>[xx]</b> Weekday PM Peak (4:00 – 5:00pm)     | <b>● - - - (10) (5) 20</b> Existing Signalized Intersection |
|   | <b>—</b> Less than Five Vehicles                            |

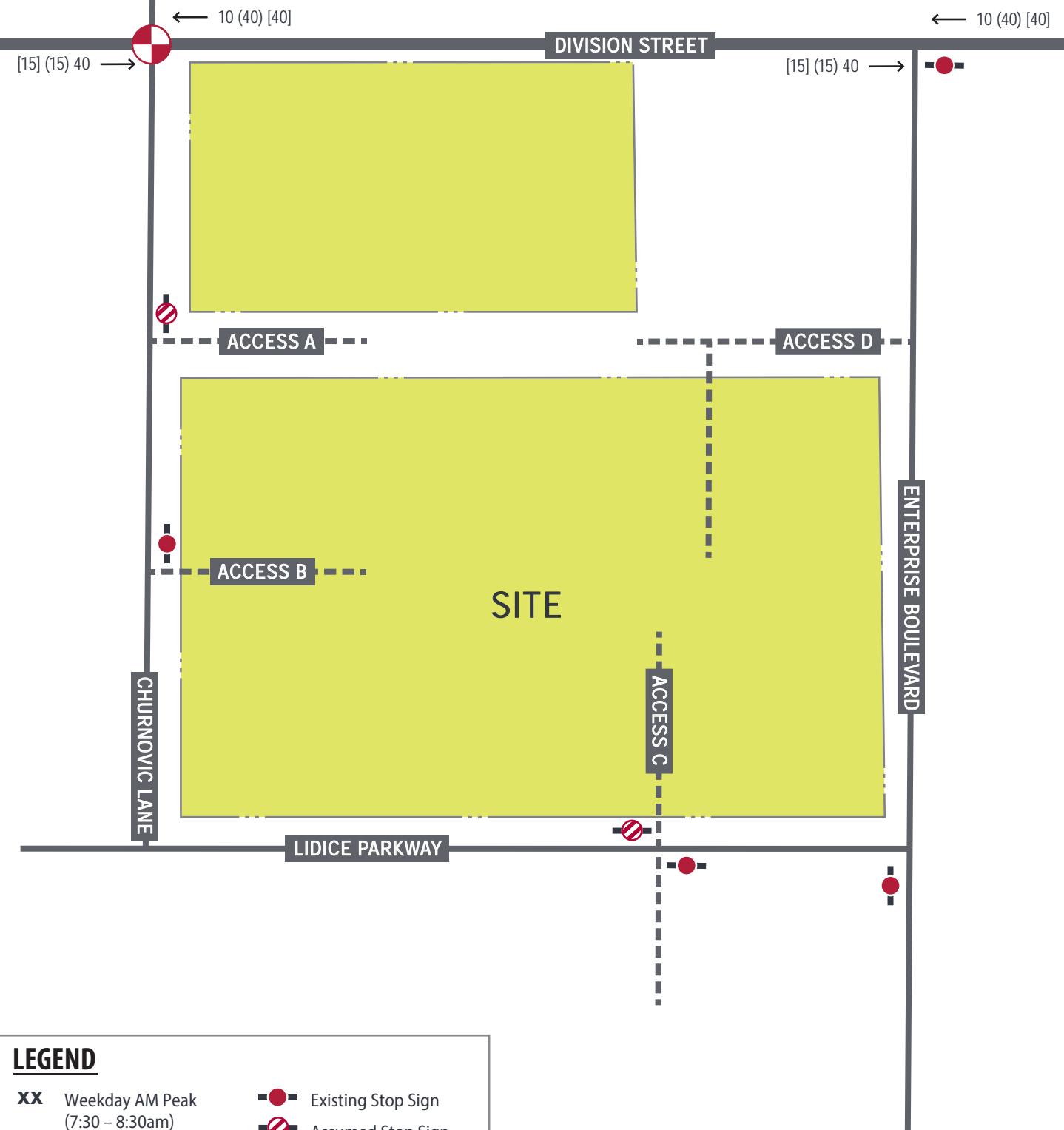


#### LEGEND

- |             |  |                                    |
|-------------|--|------------------------------------|
| <b>XX</b>   | Weekday AM Peak<br>(7:30 – 8:30am)     | ● Existing Stop Sign               |
| <b>(xx)</b> | Weekend Midday Peak<br>(1:00 – 2:00pm) | ○ Proposed Stop Sign               |
| <b>[xx]</b> | Weekday PM Peak<br>(4:00 – 5:00pm)     | ■ Assumed Stop Sign                |
|             |  | ◆ Existing Signalized Intersection |
|             |  | — Less than Five Vehicles          |

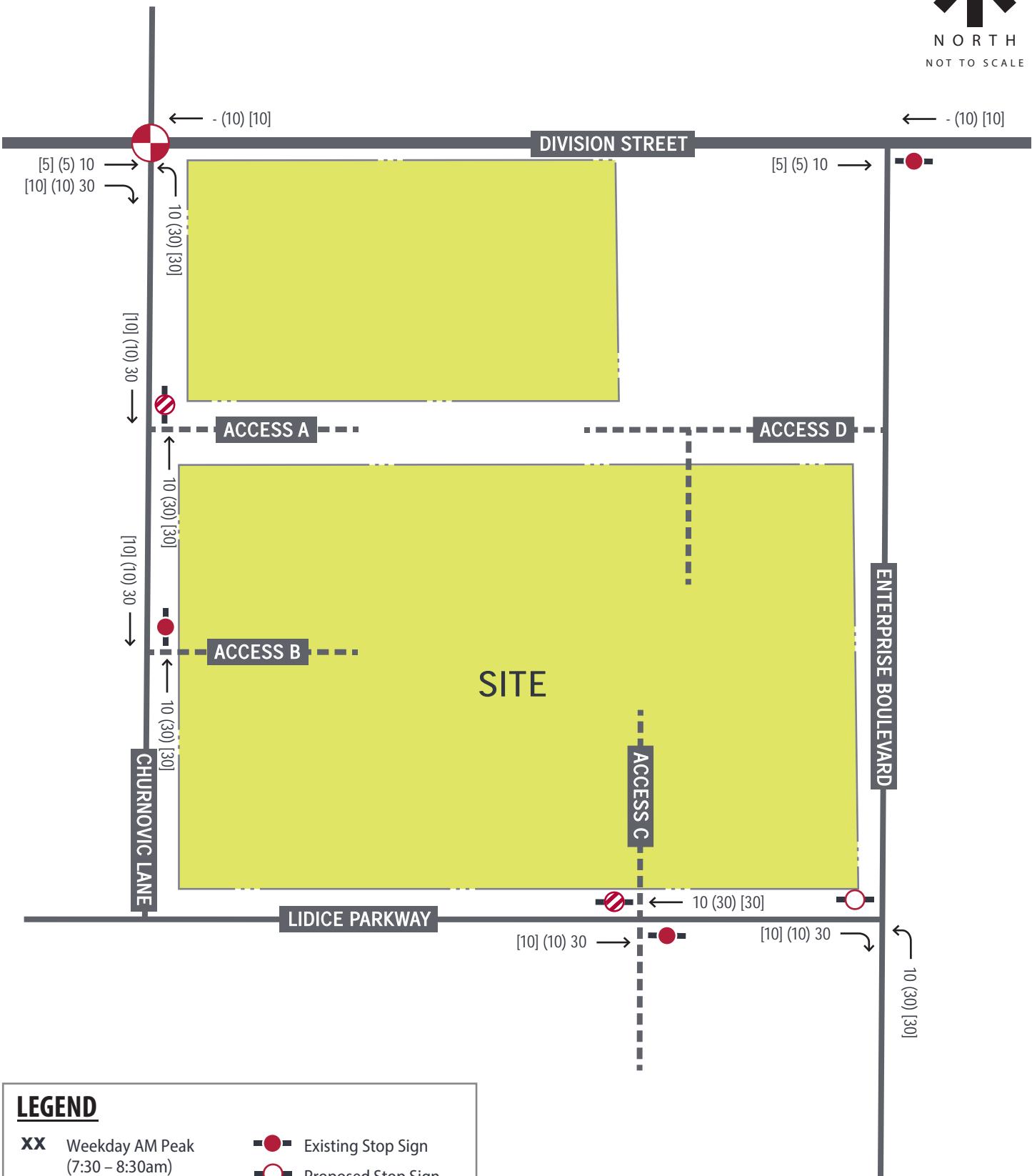


## **ATTACHMENT 8 – EAST BACKGROUND DEVELOPMENT**



#### LEGEND

- |             |  |                                      |
|-------------|--|--------------------------------------|
| <b>XX</b>   | Weekday AM Peak<br>(7:30 – 8:30am)     | ● — Existing Stop Sign               |
| <b>(xx)</b> | Weekend Midday Peak<br>(1:00 – 2:00pm) | ● / Existing Yield Sign              |
| <b>[xx]</b> | Weekday PM Peak<br>(4:00 – 5:00pm)     | ● X Existing Signalized Intersection |
|             |  | — Less than Five Vehicles            |



### LEGEND

- |             |  |                                     |
|-------------|--|-------------------------------------|
| <b>XX</b>   | Weekday AM Peak<br>(7:30 – 8:30am)     | Existing Stop Sign                  |
| <b>(xx)</b> | Weekend Midday Peak<br>(1:00 – 2:00pm) | Proposed Stop Sign                  |
| <b>[xx]</b> | Weekday PM Peak<br>(4:00 – 5:00pm)     | Assumed Stop Sign                   |
|             |  | Existing Signalized<br>Intersection |
|             |  | — Less than Five Vehicles           |



**ATTACHMENT 9 – FUTURE (2031) CAPACITY ANALYSIS  
REPORTS – ALTERNATIVE 1**

HCM 7th Signalized Intersection Summary  
100: Churnovic Lane/Private Drive & Division Street

Alternative 1 (2031) Traffic Volumes  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	300	145	185	195	1	95	1	105	1	1	1
Future Volume (veh/h)	1	300	145	185	195	1	95	1	105	1	1	1
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No											
Adj Sat Flow, veh/h/ln	1870	1796	1737	1781	1938	1870	1678	1870	1752	1870	1870	1870
Adj Flow Rate, veh/h	1	316	153	195	205	1	100	1	111	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	7	11	8	4	2	15	2	10	2	2	2
Cap, veh/h	59	483	233	556	1102	5	203	2	200	4	4	4
Arrive On Green	0.42	0.42	0.42	0.09	0.57	0.57	0.13	0.13	0.13	0.01	0.01	0.01
Sat Flow, veh/h	1	1144	552	1697	1927	9	1598	14	1573	579	579	579
Grp Volume(v), veh/h	470	0	0	195	0	206	100	0	112	3	0	0
Grp Sat Flow(s), veh/h/ln	1697	0	0	1697	0	1936	1598	0	1587	1737	0	0
Q Serve(g_s), s	0.0	0.0	0.0	3.6	0.0	3.1	3.6	0.0	4.1	0.1	0.0	0.0
Cycle Q Clear(g_c), s	13.5	0.0	0.0	3.6	0.0	3.1	3.6	0.0	4.1	0.1	0.0	0.0
Prop In Lane	0.00		0.33	1.00		0.00	1.00		0.99	0.33		0.33
Lane Grp Cap(c), veh/h	776	0	0	556	0	1107	203	0	202	11	0	0
V/C Ratio(X)	0.61	0.00	0.00	0.35	0.00	0.19	0.49	0.00	0.55	0.27	0.00	0.00
Avail Cap(c_a), veh/h	1418	0	0	719	0	2026	366	0	363	398	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.1	0.0	0.0	7.1	0.0	6.3	24.8	0.0	25.1	30.2	0.0	0.0
Incr Delay (d2), s/veh	3.5	0.0	0.0	0.4	0.0	0.4	3.9	0.0	5.0	24.8	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.8	0.0	0.0	1.9	0.0	1.9	2.7	0.0	3.1	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.6	0.0	0.0	7.5	0.0	6.6	28.7	0.0	30.1	55.0	0.0	0.0
LnGrp LOS	B			A		A	C		C	E		
Approach Vol, veh/h	470			401			212			3		
Approach Delay, s/veh	17.6			7.0			29.4			55.0		
Approach LOS	B			A			C			E		
Timer - Assigned Phs	1	2	4		6		8					
Phs Duration (G+Y+R <sub>c</sub> ), s	9.1	31.8	13.8		41.0		6.4					
Change Period (Y+R <sub>c</sub> ), s	3.5	6.0	6.0		6.0		6.0					
Max Green Setting (Gmax), s	11.5	49.0	14.0		64.0		14.0					
Max Q Clear Time (g_c+l1), s	5.6	15.5	6.1		5.1		2.1					
Green Ext Time (p_c), s	0.3	10.3	1.0		4.3		0.0					
Intersection Summary												
HCM 7th Control Delay, s/veh			16.1									
HCM 7th LOS			B									

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Alternative 1 (2031) Traffic Volumes  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	300	145	185	195	1	95	1	105	1	1	1
Future Volume (veh/h)	1	300	145	185	195	1	95	1	105	1	1	1
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No		No		No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1796	1737	1781	1938	1870	1678	1870	1752	1870	1870	1870
Adj Flow Rate, veh/h	1	316	153	195	205	1	100	1	111	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	7	11	8	4	2	15	2	10	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	59	483	233	556	1102	5	203	2	200	4	4	4
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.42	0.42	0.42	0.09	0.57	0.57	0.13	0.13	0.13	0.01	0.01	0.01
Unsig. Movement Delay												
Ln Grp Delay, s/veh	17.6	0.0	0.0	7.5	0.0	6.6	28.7	0.0	30.1	55.0	0.0	0.0
Ln Grp LOS	B			A		A	C		C	E		
Approach Vol, veh/h	470			401			212			3		
Approach Delay, s/veh	17.6			7.0			29.4			55.0		
Approach LOS	B			A			C			E		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	8	4		6						
Case No	1.2	8.3	12.0	10.0		4.0						
Phs Duration (G+Y+Rc), s	9.1	31.8	6.4	13.8		41.0						
Change Period (Y+Rc), s	3.5	6.0	6.0	6.0		6.0						
Max Green (Gmax), s	11.5	49.0	14.0	14.0		64.0						
Max Allow Headway (MAH), s	3.8	9.2	7.5	6.9		9.1						
Max Q Clear (g_c+l1), s	5.6	15.5	2.1	6.1		5.1						
Green Ext Time (g_e), s	0.3	10.3	0.0	1.0		4.3						
Prob of Phs Call (p_c)	0.96	1.00	0.05	0.97		1.00						
Prob of Max Out (p_x)	0.19	0.14	0.00	0.71		0.00						
Left-Turn Movement Data												
Assigned Mvmt	1	5	3	7								
Mvmt Sat Flow, veh/h	1697	1	579	1598								
Through Movement Data												
Assigned Mvmt		2	8	4		6						
Mvmt Sat Flow, veh/h	1144		579	14		1927						
Right-Turn Movement Data												
Assigned Mvmt		12	18	14		16						
Mvmt Sat Flow, veh/h	552		579	1573		9						
Left Lane Group Data												
Assigned Mvmt	1	5	3	7	0	0	0	0				

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Alternative 1 (2031) Traffic Volumes  
AM Peak Hour

Lane Assignment	L (Pr/Pm)	L+T+R	L+T+R	L				
Lanes in Grp	1	1	1	1	0	0	0	0
Grp Vol (v), veh/h	195	470	3	100	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1697	1697	1737	1598	0	0	0	0
Q Serve Time (g_s), s	3.6	0.0	0.1	3.6	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.6	13.5	0.1	3.6	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	880	1195	0	1598	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	414	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	27.8	25.8	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	12.3	25.8	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	22.2	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	13.5	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.33	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	556	776	11	203	0	0	0	0
V/C Ratio (X)	0.35	0.61	0.27	0.49	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	719	1418	398	366	0	0	0	0
Upstream Filter (l)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	7.1	14.1	30.2	24.8	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	3.5	24.8	3.9	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.5	17.6	55.0	28.7	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	1.0	4.4	0.0	1.3	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.8	0.1	0.2	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.73	1.80	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	1.9	8.8	0.2	2.7	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.25	0.10	0.03	0.40	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (l)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Alternative 1 (2031) Traffic Volumes  
AM Peak Hour

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Right Lane Group Data</b>							
Assigned Mvmt	0	12	18	14	0	16	0
Lane Assignment					T+R	T+R	
Lanes in Grp	0	0	0	1	0	1	0
Grp Vol (v), veh/h	0	0	0	112	0	206	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1587	0	1936	0
Q Serve Time (g_s), s	0.0	0.0	0.0	4.1	0.0	3.1	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	4.1	0.0	3.1	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.33	0.33	0.99	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	202	0	1107	0
V/C Ratio (X)	0.00	0.00	0.00	0.55	0.00	0.19	0.00
Avail Cap (c_a), veh/h	0	0	0	363	0	2026	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	25.1	0.0	6.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	5.0	0.0	0.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	30.1	0.0	6.6	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.5	0.0	1.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.3	0.0	0.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.80	0.00	1.80	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	3.1	0.0	1.9	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.27	0.00	0.05	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Intersection Summary</b>							
HCM 7th Control Delay, s/veh				16.1			
HCM 7th LOS				B			

Intersection						
Int Delay, s/veh	4.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	B			
Traffic Vol, veh/h	1	125	65	1	165	150
Future Vol, veh/h	1	125	65	1	165	150
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	39	2	2	32
Mvmt Flow	1	132	68	1	174	158
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	574	69	0	0	69	0
Stage 1	69	-	-	-	-	-
Stage 2	505	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	480	994	-	-	1531	-
Stage 1	954	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	421	994	-	-	1531	-
Mov Cap-2 Maneuver	467	-	-	-	-	-
Stage 1	954	-	-	-	-	-
Stage 2	531	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v	9.22	0		4.01		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	985	943	-	
HCM Lane V/C Ratio	-	-	0.135	0.113	-	
HCM Control Delay (s/veh)	-	-	9.2	7.7	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.5	0.4	-	

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	T	T	W	B
Traffic Vol, veh/h	5	30	35	1	1	145
Future Vol, veh/h	5	30	35	1	1	145
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	73	39	2	2	32
Mvmt Flow	5	32	37	1	1	153
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	192	37	0	0	38	0
Stage 1	37	-	-	-	-	-
Stage 2	155	-	-	-	-	-
Critical Hdwy	6.42	6.93	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.957	-	-	2.218	-
Pot Cap-1 Maneuver	797	864	-	-	1572	-
Stage 1	985	-	-	-	-	-
Stage 2	873	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	796	864	-	-	1572	-
Mov Cap-2 Maneuver	777	-	-	-	-	-
Stage 1	985	-	-	-	-	-
Stage 2	873	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s/v	9.42	0	0.05			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	850	1572	-	
HCM Lane V/C Ratio	-	-	0.043	0.001	-	
HCM Control Delay (s/veh)	-	-	9.4	7.3	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

## Intersection

Int Delay, s/veh

1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	60	20	1	10	0	5	0	5	0	0	0
Future Vol, veh/h	0	60	20	1	10	0	5	0	5	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	26	2	33	46	2	2	2	2	2	2	55
Mvmt Flow	0	63	21	1	11	0	5	0	5	0	0	0

Major/Minor	Major1	Major2		Minor1		Minor2						
Conflicting Flow All	-	0	0	84	0	0	86	86	74	76	97	11
Stage 1	-	-	-	-	-	-	74	74	-	13	13	-
Stage 2	-	-	-	-	-	-	13	13	-	63	84	-
Critical Hdwy	-	-	-	4.43	-	-	7.12	6.52	6.22	7.12	6.52	6.75
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	-	-	-	2.497	-	-	3.518	4.018	3.318	3.518	4.018	3.795
Pot Cap-1 Maneuver	0	-	-	1338	-	0	900	804	988	914	793	935
Stage 1	0	-	-	-	-	0	936	834	-	1008	885	-
Stage 2	0	-	-	-	-	0	1008	885	-	948	825	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1338	-	-	899	803	988	908	793	935
Mov Cap-2 Maneuver	-	-	-	-	-	-	899	803	-	908	793	-
Stage 1	-	-	-	-	-	-	936	834	-	1007	884	-
Stage 2	-	-	-	-	-	-	1007	884	-	943	825	-

Approach	EB	WB		NB		SB
HCM Control Delay, s/v	0	0.7		8.87		0
HCM LOS				A		A
<hr/>						
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	941	-	-	164	-	-
HCM Lane V/C Ratio	0.011	-	-	0.001	-	-
HCM Control Delay (s/veh)	8.9	-	-	7.7	0	0
HCM Lane LOS	A	-	-	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-

**Intersection**

Int Delay, s/veh 7.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			U	R	
Traffic Vol, veh/h	45	20	5	5	1	5
Future Vol, veh/h	45	20	5	5	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	35	2	2	2	2	71
Mvmt Flow	47	21	5	5	1	5

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	19	4	6	0	-
Stage 1	4	-	-	-	-
Stage 2	16	-	-	-	-
Critical Hdwy	6.75	6.22	4.12	-	-
Critical Hdwy Stg 1	5.75	-	-	-	-
Critical Hdwy Stg 2	5.75	-	-	-	-
Follow-up Hdwy	3.815	3.318	2.218	-	-
Pot Cap-1 Maneuver	919	1080	1615	-	-
Stage 1	940	-	-	-	-
Stage 2	928	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	916	1080	1615	-	-
Mov Cap-2 Maneuver	916	-	-	-	-
Stage 1	937	-	-	-	-
Stage 2	928	-	-	-	-

Approach	EB	NB	SB	
HCM Control Delay, s/v	9.03	3.62	0	
HCM LOS	A			

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	900	-	961	-	-
HCM Lane V/C Ratio	0.003	-	0.071	-	-
HCM Control Delay (s/veh)	7.2	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

**Intersection**

Int Delay, s/veh 0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↗
Traffic Vol, veh/h	430	0	0	375	0	30
Future Vol, veh/h	430	0	0	375	0	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	8	2	2	6	2	52
Mvmt Flow	453	0	0	395	0	32

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	-	0	0
Stage 1	-	0	0
Stage 2	-	0	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach EB WB NB

HCM Control Delay, s/v 0 0 12.44

HCM LOS B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	515	-	-
HCM Lane V/C Ratio	0.061	-	-
HCM Control Delay (s/veh)	12.4	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-

HCM 7th Signalized Intersection Summary  
100: Churnovic Lane/Private Drive & Division Street

Alternative 1 (2031) Traffic Volumes  
Mid-Day Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	290	65	70	325	1	125	1	120	1	1	1
Future Volume (veh/h)	1	290	65	70	325	1	125	1	120	1	1	1
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No											
Adj Sat Flow, veh/h/ln	1870	1811	1618	1589	1938	1870	1781	1870	1796	1870	1870	1870
Adj Flow Rate, veh/h	1	305	68	74	342	1	132	1	126	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	6	19	21	4	2	8	2	7	2	2	2
Cap, veh/h	75	487	108	476	885	3	273	2	254	4	4	4
Arrive On Green	0.34	0.34	0.34	0.05	0.46	0.46	0.16	0.16	0.16	0.01	0.01	0.01
Sat Flow, veh/h	1	1433	319	1513	1931	6	1697	12	1574	579	579	579
Grp Volume(v), veh/h	374	0	0	74	0	343	132	0	127	3	0	0
Grp Sat Flow(s), veh/h/ln	1753	0	0	1513	0	1937	1697	0	1587	1737	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.4	0.0	5.6	3.4	0.0	3.5	0.1	0.0	0.0
Cycle Q Clear(g_c), s	8.6	0.0	0.0	1.4	0.0	5.6	3.4	0.0	3.5	0.1	0.0	0.0
Prop In Lane	0.00		0.18	1.00		0.00	1.00		0.99	0.33		0.33
Lane Grp Cap(c), veh/h	671	0	0	476	0	887	273	0	256	11	0	0
V/C Ratio(X)	0.56	0.00	0.00	0.16	0.00	0.39	0.48	0.00	0.50	0.26	0.00	0.00
Avail Cap(c_a), veh/h	1131	0	0	769	0	1771	317	0	297	325	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.3	0.0	0.0	8.3	0.0	8.6	18.4	0.0	18.4	23.8	0.0	0.0
Incr Delay (d2), s/veh	3.3	0.0	0.0	0.2	0.0	1.3	2.8	0.0	3.2	24.5	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.0	0.0	0.0	0.7	0.0	3.7	2.6	0.0	2.5	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.7	0.0	0.0	8.5	0.0	9.9	21.2	0.0	21.6	48.3	0.0	0.0
LnGrp LOS	B			A		A	C		C	D		
Approach Vol, veh/h	374			417			259			3		
Approach Delay, s/veh	16.7			9.6			21.4			48.3		
Approach LOS	B			A			C			D		
Timer - Assigned Phs	1	2	4		6		8					
Phs Duration (G+Y+R <sub>c</sub> ), s	5.7	22.3		13.7		28.0		6.3				
Change Period (Y+R <sub>c</sub> ), s	3.5	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	11.5	29.0		9.0		44.0		9.0				
Max Q Clear Time (g_c+l1), s	3.4	10.6		5.5		7.6		2.1				
Green Ext Time (p_c), s	0.1	5.7		0.7		7.1		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh				15.1								
HCM 7th LOS				B								

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Alternative 1 (2031) Traffic Volumes  
Mid-Day Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	290	65	70	325	1	125	1	120	1	1	1
Future Volume (veh/h)	1	290	65	70	325	1	125	1	120	1	1	1
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No		No		No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1811	1618	1589	1938	1870	1781	1870	1796	1870	1870	1870
Adj Flow Rate, veh/h	1	305	68	74	342	1	132	1	126	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	6	19	21	4	2	8	2	7	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	75	487	108	476	885	3	273	2	254	4	4	4
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.34	0.34	0.34	0.05	0.46	0.46	0.16	0.16	0.16	0.01	0.01	0.01
Unsig. Movement Delay												
Ln Grp Delay, s/veh	16.7	0.0	0.0	8.5	0.0	9.9	21.2	0.0	21.6	48.3	0.0	0.0
Ln Grp LOS	B			A		A	C		C	D		
Approach Vol, veh/h	374			417			259			3		
Approach Delay, s/veh	16.7			9.6			21.4			48.3		
Approach LOS	B			A			C			D		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	8	4		6						
Case No	1.2	8.3	12.0	10.0		4.0						
Phs Duration (G+Y+Rc), s	5.7	22.3	6.3	13.7		28.0						
Change Period (Y+Rc), s	3.5	6.0	6.0	6.0		6.0						
Max Green (Gmax), s	11.5	29.0	9.0	9.0		44.0						
Max Allow Headway (MAH), s	3.8	9.2	7.5	6.8		9.1						
Max Q Clear (g_c+l1), s	3.4	10.6	2.1	5.5		7.6						
Green Ext Time (g_e), s	0.1	5.7	0.0	0.7		7.1						
Prob of Phs Call (p_c)	0.63	1.00	0.04	0.97		1.00						
Prob of Max Out (p_x)	0.01	0.36	1.00	1.00		0.03						
Left-Turn Movement Data												
Assigned Mvmt	1	5	3	7								
Mvmt Sat Flow, veh/h	1513	1	579	1697								
Through Movement Data												
Assigned Mvmt	2	8	4		6							
Mvmt Sat Flow, veh/h	1433	579	12		1931							
Right-Turn Movement Data												
Assigned Mvmt	12	18	14		16							
Mvmt Sat Flow, veh/h	319	579	1574		6							
Left Lane Group Data												
Assigned Mvmt	1	5	3	7	0	0	0	0				

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Alternative 1 (2031) Traffic Volumes  
Mid-Day Peak Hour

Lane Assignment	L (Pr/Pm)	L+T+R	L+T+R	L				
Lanes in Grp	1	1	1	1	0	0	0	0
Grp Vol (v), veh/h	74	374	3	132	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1513	1753	1737	1697	0	0	0	0
Q Serve Time (g_s), s	1.4	0.0	0.1	3.4	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	1.4	8.6	0.1	3.4	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	857	1054	0	1697	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	541	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	18.3	16.3	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	7.7	16.3	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	13.4	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	8.6	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.33	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	476	671	11	273	0	0	0	0
V/C Ratio (X)	0.16	0.56	0.26	0.48	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	769	1131	325	317	0	0	0	0
Upstream Filter (l)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	8.3	13.3	23.8	18.4	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	3.3	24.5	2.8	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	8.5	16.7	48.3	21.2	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.4	2.7	0.0	1.2	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.1	0.2	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.80	1.80	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.7	6.0	0.2	2.6	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.10	0.06	0.03	0.36	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (l)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Alternative 1 (2031) Traffic Volumes  
Mid-Day Peak Hour

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Right Lane Group Data</b>							
Assigned Mvmt	0	12	18	14	0	16	0
Lane Assignment					T+R	T+R	
Lanes in Grp	0	0	0	1	0	1	0
Grp Vol (v), veh/h	0	0	0	127	0	343	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1587	0	1937	0
Q Serve Time (g_s), s	0.0	0.0	0.0	3.5	0.0	5.6	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	3.5	0.0	5.6	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.18	0.33	0.99	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	256	0	887	0
V/C Ratio (X)	0.00	0.00	0.00	0.50	0.00	0.39	0.00
Avail Cap (c_a), veh/h	0	0	0	297	0	1771	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	18.4	0.0	8.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	3.2	0.0	1.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	21.6	0.0	9.9	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.2	0.0	1.7	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.3	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.80	0.00	1.80	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	2.5	0.0	3.7	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.22	0.00	0.10	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Intersection Summary</b>							
HCM 7th Control Delay, s/veh				15.1			
HCM 7th LOS				B			

Intersection						
Int Delay, s/veh	4.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	B			
Traffic Vol, veh/h	1	135	90	1	40	100
Future Vol, veh/h	1	135	90	1	40	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	39	2	2	31
Mvmt Flow	1	142	95	1	42	105
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	285	95	0	0	96	0
Stage 1	95	-	-	-	-	-
Stage 2	189	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	706	961	-	-	1498	-
Stage 1	928	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	684	961	-	-	1498	-
Mov Cap-2 Maneuver	703	-	-	-	-	-
Stage 1	928	-	-	-	-	-
Stage 2	818	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v	9.41	0		2.14		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	959	514	-	
HCM Lane V/C Ratio	-	-	0.149	0.028	-	
HCM Control Delay (s/veh)	-	-	9.4	7.5	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-	

Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	T	T	B	T
Traffic Vol, veh/h	10	25	70	1	1	100
Future Vol, veh/h	10	25	70	1	1	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	100	39	2	2	31
Mvmt Flow	11	26	74	1	1	105
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	182	74	0	0	75	0
Stage 1	74	-	-	-	-	-
Stage 2	107	-	-	-	-	-
Critical Hdwy	6.42	7.2	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	4.2	-	-	2.218	-
Pot Cap-1 Maneuver	808	771	-	-	1525	-
Stage 1	949	-	-	-	-	-
Stage 2	917	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	807	771	-	-	1525	-
Mov Cap-2 Maneuver	793	-	-	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	916	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v	9.86	0		0.07		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	777	1525	-	
HCM Lane V/C Ratio	-	-	0.047	0.001	-	
HCM Control Delay (s/veh)	-	-	9.9	7.4	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

## Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	0	55	5	1	10	0	5	0	5	0	0	0
Future Vol, veh/h	0	55	5	1	10	0	5	0	5	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	36	2	2	13	2	2	2	2	2	2	55
Mvmt Flow	0	58	5	1	11	0	5	0	5	0	0	0

Major/Minor	Major1	Major2		Minor1		Minor2						
Conflicting Flow All	-	0	0	63	0	0	73	73	61	71	76	11
Stage 1	-	-	-	-	-	-	61	61	-	13	13	-
Stage 2	-	-	-	-	-	-	13	13	-	58	63	-
Critical Hdwy	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.75
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.795
Pot Cap-1 Maneuver	0	-	-	1539	-	0	917	817	1005	921	815	935
Stage 1	0	-	-	-	-	0	951	844	-	1008	885	-
Stage 2	0	-	-	-	-	0	1008	885	-	954	842	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1539	-	-	917	817	1005	916	814	935
Mov Cap-2 Maneuver	-	-	-	-	-	-	917	817	-	916	814	-
Stage 1	-	-	-	-	-	-	951	844	-	1007	884	-
Stage 2	-	-	-	-	-	-	1007	884	-	949	842	-

Approach	EB	WB		NB		SB
HCM Control Delay, s/v	0	0.67		8.8		0
HCM LOS				A		A
<hr/>						
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	959	-	-	164	-	-
HCM Lane V/C Ratio	0.011	-	-	0.001	-	-
HCM Control Delay (s/veh)	8.8	-	-	7.3	0	0
HCM Lane LOS	A	-	-	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-

**Intersection**

Int Delay, s/veh 7.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
----------	-----	-----	-----	-----	-----	-----

Lane Configurations						
Traffic Vol, veh/h	50	10	5	5	1	5
Future Vol, veh/h	50	10	5	5	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	39	2	2	2	2	50
Mvmt Flow	53	11	5	5	1	5

Major/Minor	Minor2	Major1	Major2
-------------	--------	--------	--------

Conflicting Flow All	19	4	6	0	-	0
Stage 1	4	-	-	-	-	-
Stage 2	16	-	-	-	-	-
Critical Hdwy	6.79	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.79	-	-	-	-	-
Critical Hdwy Stg 2	5.79	-	-	-	-	-
Follow-up Hdwy	3.851	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	911	1080	1615	-	-	-
Stage 1	931	-	-	-	-	-
Stage 2	919	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	908	1080	1615	-	-	-
Mov Cap-2 Maneuver	908	-	-	-	-	-
Stage 1	928	-	-	-	-	-
Stage 2	919	-	-	-	-	-

Approach	EB	NB	SB
----------	----	----	----

HCM Control Delay, s/v	9.14	3.62	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	900	-	932	-	-
HCM Lane V/C Ratio	0.003	-	0.068	-	-
HCM Control Delay (s/veh)	7.2	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↗
Traffic Vol, veh/h	430	0	0	405	0	15
Future Vol, veh/h	430	0	0	405	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	6	2	32
Mvmt Flow	453	0	0	426	0	16
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	-	-	-	-	453
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.52
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.588
Pot Cap-1 Maneuver	-	0	0	-	0	549
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-					-
Mov Cap-1 Maneuver	-	-	-	-	-	549
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB	NB			
HCM Control Delay, s/v	0	0	11.75			
HCM LOS			B			
Minor Lane/Major Mvmt	NBLn1	EBT	WBT			
Capacity (veh/h)	549	-	-			
HCM Lane V/C Ratio	0.029	-	-			
HCM Control Delay (s/veh)	11.7	-	-			
HCM Lane LOS	B	-	-			
HCM 95th %tile Q(veh)	0.1	-	-			

HCM 7th Signalized Intersection Summary  
100: Churnovic Lane/Private Drive & Division Street

Alternative 1 (2031) Traffic Volumes  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	365	35	70	550	1	65	1	55	1	1	1
Future Volume (veh/h)	1	365	35	70	550	1	65	1	55	1	1	1
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1381	1203	1953	1870	1693	1870	1381	1870	1870	1870
Adj Flow Rate, veh/h	1	384	37	74	579	1	68	1	58	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	35	47	3	2	14	2	35	2	2	2
Cap, veh/h	69	685	66	420	1021	2	207	3	200	4	4	4
Arrive On Green	0.41	0.41	0.41	0.05	0.52	0.52	0.13	0.13	0.13	0.01	0.01	0.01
Sat Flow, veh/h	1	1678	161	1146	1949	3	1612	27	1562	579	579	579
Grp Volume(v), veh/h	422	0	0	74	0	580	68	0	59	3	0	0
Grp Sat Flow(s), veh/h/ln	1840	0	0	1146	0	1953	1612	0	1589	1737	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	10.6	2.0	0.0	1.8	0.1	0.0	0.0
Cycle Q Clear(g_c), s	9.3	0.0	0.0	1.8	0.0	10.6	2.0	0.0	1.8	0.1	0.0	0.0
Prop In Lane	0.00		0.09	1.00		0.00	1.00		0.98	0.33		0.33
Lane Grp Cap(c), veh/h	819	0	0	420	0	1023	207	0	204	11	0	0
V/C Ratio(X)	0.52	0.00	0.00	0.18	0.00	0.57	0.33	0.00	0.29	0.26	0.00	0.00
Avail Cap(c_a), veh/h	1428	0	0	722	0	2185	581	0	573	626	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.0	0.0	0.0	7.2	0.0	8.5	20.9	0.0	20.8	26.1	0.0	0.0
Incr Delay (d2), s/veh	2.3	0.0	0.0	0.2	0.0	2.3	2.0	0.0	1.7	24.6	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.4	0.0	0.0	0.6	0.0	6.9	1.5	0.0	1.3	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.3	0.0	0.0	7.4	0.0	10.8	22.9	0.0	22.5	50.7	0.0	0.0
LnGrp LOS	B			A		B	C		C	D		
Approach Vol, veh/h	422			654			127			3		
Approach Delay, s/veh	14.3			10.4			22.7			50.7		
Approach LOS	B			B			C			D		
Timer - Assigned Phs	1	2	4		6		8					
Phs Duration (G+Y+Rc), s	6.1	27.5		12.8		33.6		6.3				
Change Period (Y+Rc), s	3.5	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	16.5	39.0		19.0		59.0		19.0				
Max Q Clear Time (g_c+l1), s	3.8	11.3		4.0		12.6		2.1				
Green Ext Time (p_c), s	0.1	8.2		0.8		15.0		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh				13.2								
HCM 7th LOS				B								

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Alternative 1 (2031) Traffic Volumes  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	365	35	70	550	1	65	1	55	1	1	1
Future Volume (veh/h)	1	365	35	70	550	1	65	1	55	1	1	1
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No		No		No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1381	1203	1953	1870	1693	1870	1381	1870	1870	1870
Adj Flow Rate, veh/h	1	384	37	74	579	1	68	1	58	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	35	47	3	2	14	2	35	2	2	2
Opposing Right Turn Influence	Yes		Yes			Yes			Yes		Yes	
Cap, veh/h	69	685	66	420	1021	2	207	3	200	4	4	4
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.41	0.41	0.41	0.05	0.52	0.52	0.13	0.13	0.13	0.01	0.01	0.01
Unsig. Movement Delay												
Ln Grp Delay, s/veh	14.3	0.0	0.0	7.4	0.0	10.8	22.9	0.0	22.5	50.7	0.0	0.0
Ln Grp LOS	B			A		B	C		C	D		
Approach Vol, veh/h	422			654			127			3		
Approach Delay, s/veh	14.3			10.4			22.7			50.7		
Approach LOS	B			B			C			D		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	8	4		6						
Case No	1.2	8.3	12.0	10.0		4.0						
Phs Duration (G+Y+Rc), s	6.1	27.5	6.3	12.8		33.6						
Change Period (Y+Rc), s	3.5	6.0	6.0	6.0		6.0						
Max Green (Gmax), s	16.5	39.0	19.0	19.0		59.0						
Max Allow Headway (MAH), s	3.9	9.1	7.5	6.7		9.1						
Max Q Clear (g_c+l1), s	3.8	11.3	2.1	4.0		12.6						
Green Ext Time (g_e), s	0.1	8.2	0.0	0.8		15.0						
Prob of Phs Call (p_c)	0.66	1.00	0.04	0.84		1.00						
Prob of Max Out (p_x)	0.00	0.16	0.00	0.03		0.10						
Left-Turn Movement Data												
Assigned Mvmt	1	5	3	7								
Mvmt Sat Flow, veh/h	1146	1	579	1612								
Through Movement Data												
Assigned Mvmt		2	8	4		6						
Mvmt Sat Flow, veh/h	1678		579	27		1949						
Right-Turn Movement Data												
Assigned Mvmt		12	18	14		16						
Mvmt Sat Flow, veh/h	161		579	1562		3						
Left Lane Group Data												
Assigned Mvmt	1	5	3	7	0	0	0	0				

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Alternative 1 (2031) Traffic Volumes  
PM Peak Hour

Lane Assignment	L (Pr/Pm)	L+T+R	L+T+R	L				
Lanes in Grp	1	1	1	1	0	0	0	0
Grp Vol (v), veh/h	74	422	3	68	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1146	1840	1737	1612	0	0	0	0
Q Serve Time (g_s), s	1.8	0.0	0.1	2.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	1.8	9.3	0.1	2.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	621	847	0	1612	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	385	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	23.5	21.5	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	12.2	17.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	18.2	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.33	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	420	819	11	207	0	0	0	0
V/C Ratio (X)	0.18	0.52	0.26	0.33	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	722	1428	626	581	0	0	0	0
Upstream Filter (l)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	7.2	12.0	26.1	20.9	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	2.3	24.6	2.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.4	14.3	50.7	22.9	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.3	3.0	0.0	0.7	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.1	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.80	1.80	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.6	6.4	0.2	1.5	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.11	0.07	0.03	0.22	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (l)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Alternative 1 (2031) Traffic Volumes  
PM Peak Hour

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Right Lane Group Data</b>							
Assigned Mvmt	0	12	18	14	0	16	0
Lane Assignment					T+R	T+R	
Lanes in Grp	0	0	0	1	0	1	0
Grp Vol (v), veh/h	0	0	0	59	0	580	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1589	0	1953	0
Q Serve Time (g_s), s	0.0	0.0	0.0	1.8	0.0	10.6	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	1.8	0.0	10.6	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.09	0.33	0.98	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	204	0	1023	0
V/C Ratio (X)	0.00	0.00	0.00	0.29	0.00	0.57	0.00
Avail Cap (c_a), veh/h	0	0	0	573	0	2185	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	20.8	0.0	8.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.7	0.0	2.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	22.5	0.0	10.8	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.6	0.0	3.2	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.6	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.80	0.00	1.80	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	1.3	0.0	6.9	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.11	0.00	0.18	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Intersection Summary</b>							
HCM 7th Control Delay, s/veh				13.2			
HCM 7th LOS				B			

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	B			
Traffic Vol, veh/h	1	15	100	1	10	100
Future Vol, veh/h	1	15	100	1	10	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	19	2	2	52
Mvmt Flow	1	16	105	1	11	105
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	232	106	0	0	106	0
Stage 1	106	-	-	-	-	-
Stage 2	126	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	756	949	-	-	1485	-
Stage 1	919	-	-	-	-	-
Stage 2	899	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	750	949	-	-	1485	-
Mov Cap-2 Maneuver	755	-	-	-	-	-
Stage 1	919	-	-	-	-	-
Stage 2	893	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s/v	8.93	0	0.68			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	934	164	-	
HCM Lane V/C Ratio	-	-	0.018	0.007	-	
HCM Control Delay (s/veh)	-	-	8.9	7.4	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Intersection						
Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	B	B	B	B
Traffic Vol, veh/h	5	25	75	1	1	95
Future Vol, veh/h	5	25	75	1	1	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	100	19	2	2	52
Mvmt Flow	5	26	79	1	1	100
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	182	79	0	0	80	0
Stage 1	79	-	-	-	-	-
Stage 2	102	-	-	-	-	-
Critical Hdwy	6.4	7.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	4.2	-	-	2.218	-
Pot Cap-1 Maneuver	812	766	-	-	1518	-
Stage 1	949	-	-	-	-	-
Stage 2	927	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	812	766	-	-	1518	-
Mov Cap-2 Maneuver	798	-	-	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	926	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s/v	9.87	0	0.08			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	771	1518	-	
HCM Lane V/C Ratio	-	-	0.041	0.001	-	
HCM Control Delay (s/veh)	-	-	9.9	7.4	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

## Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	0	60	10	1	15	0	10	0	10	0	0	0
Future Vol, veh/h	0	60	10	1	15	0	10	0	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	46	2	2	24	2	2	2	2	2	2	43
Mvmt Flow	0	63	11	1	16	0	11	0	11	0	0	0

Major/Minor	Major1	Major2		Minor1		Minor2						
Conflicting Flow All	-	0	0	74	0	0	86	86	68	81	92	16
Stage 1	-	-	-	-	-	-	68	68	-	18	18	-
Stage 2	-	-	-	-	-	-	18	18	-	63	74	-
Critical Hdwy	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.63
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.687
Pot Cap-1 Maneuver	0	-	-	1526	-	0	900	804	995	907	798	956
Stage 1	0	-	-	-	-	0	942	838	-	1001	880	-
Stage 2	0	-	-	-	-	0	1001	880	-	948	834	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1526	-	-	899	803	995	897	798	956
Mov Cap-2 Maneuver	-	-	-	-	-	-	899	803	-	897	798	-
Stage 1	-	-	-	-	-	-	942	838	-	1001	880	-
Stage 2	-	-	-	-	-	-	1001	880	-	938	834	-

Approach	EB	WB		NB		SB
HCM Control Delay, s/v	0	0.46		8.9		0
HCM LOS				A		A
<hr/>						
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	944	-	-	112	-	-
HCM Lane V/C Ratio	0.022	-	-	0.001	-	-
HCM Control Delay (s/veh)	8.9	-	-	7.4	0	0
HCM Lane LOS	A	-	-	A	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-	-

**Intersection**

Int Delay, s/veh 7.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	50	20	5	5	1	10
Future Vol, veh/h	50	20	5	5	1	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	70	2	2	2	2	27
Mvmt Flow	53	21	5	5	1	11

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	22	6	12	0	-
Stage 1	6	-	-	-	-
Stage 2	16	-	-	-	-
Critical Hdwy	7.1	6.22	4.12	-	-
Critical Hdwy Stg 1	6.1	-	-	-	-
Critical Hdwy Stg 2	6.1	-	-	-	-
Follow-up Hdwy	4.13	3.318	2.218	-	-
Pot Cap-1 Maneuver	845	1076	1607	-	-
Stage 1	866	-	-	-	-
Stage 2	856	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	842	1076	1607	-	-
Mov Cap-2 Maneuver	842	-	-	-	-
Stage 1	863	-	-	-	-
Stage 2	856	-	-	-	-

Approach	EB	NB	SB	
HCM Control Delay, s/v	9.37	3.62	0	
HCM LOS	A			

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	900	-	898	-	-
HCM Lane V/C Ratio	0.003	-	0.082	-	-
HCM Control Delay (s/veh)	7.2	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

**Intersection**

Int Delay, s/veh 0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↗
Traffic Vol, veh/h	430	0	0	610	0	40
Future Vol, veh/h	430	0	0	610	0	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	2	2	7	2	46
Mvmt Flow	453	0	0	642	0	42

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	-	0	0
Stage 1	-	0	0
Stage 2	-	0	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach EB WB NB

HCM Control Delay, s/v 0 0 12.45

HCM LOS B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	525	-	-
HCM Lane V/C Ratio	0.08	-	-
HCM Control Delay (s/veh)	12.5	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-



**ATTACHMENT 10 – FUTURE (2031) CAPACITY ANALYSIS  
REPORTS – ALTERNATIVE 2**

HCM 7th Signalized Intersection Summary  
100: Churnovic Lane/Private Drive & Division Street

Alternative 2 (2031) Traffic Volumes  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	270	175	145	185	1	105	1	80	1	1	1
Future Volume (veh/h)	1	270	175	145	185	1	105	1	80	1	1	1
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No											
Adj Sat Flow, veh/h/ln	1870	1796	1737	1781	1938	1870	1678	1870	1752	1870	1870	1870
Adj Flow Rate, veh/h	1	284	184	153	195	1	111	1	84	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	7	11	8	4	2	15	2	10	2	2	2
Cap, veh/h	61	437	282	540	1085	6	206	2	202	4	4	4
Arrive On Green	0.43	0.43	0.43	0.08	0.56	0.56	0.13	0.13	0.13	0.01	0.01	0.01
Sat Flow, veh/h	1	1019	658	1697	1926	10	1598	19	1569	579	579	579
Grp Volume(v), veh/h	469	0	0	153	0	196	111	0	85	3	0	0
Grp Sat Flow(s), veh/h/ln	1678	0	0	1697	0	1936	1598	0	1588	1737	0	0
Q Serve(g_s), s	0.0	0.0	0.0	2.7	0.0	2.9	3.9	0.0	2.9	0.1	0.0	0.0
Cycle Q Clear(g_c), s	13.2	0.0	0.0	2.7	0.0	2.9	3.9	0.0	2.9	0.1	0.0	0.0
Prop In Lane	0.00		0.39	1.00		0.01	1.00		0.99	0.33		0.33
Lane Grp Cap(c), veh/h	779	0	0	540	0	1090	206	0	204	11	0	0
V/C Ratio(X)	0.60	0.00	0.00	0.28	0.00	0.18	0.54	0.00	0.42	0.27	0.00	0.00
Avail Cap(c_a), veh/h	1436	0	0	737	0	2075	375	0	372	407	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.5	0.0	0.0	7.0	0.0	6.3	24.4	0.0	23.9	29.5	0.0	0.0
Incr Delay (d2), s/veh	3.4	0.0	0.0	0.3	0.0	0.4	4.6	0.0	2.9	24.8	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.5	0.0	0.0	1.4	0.0	1.8	3.0	0.0	2.2	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.0	0.0	0.0	7.3	0.0	6.7	29.0	0.0	26.8	54.3	0.0	0.0
LnGrp LOS	B			A		A	C		C	D		
Approach Vol, veh/h	469			349			196			3		
Approach Delay, s/veh	17.0			7.0			28.0			54.3		
Approach LOS	B			A			C			D		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+R <sub>c</sub> ), s	8.0	31.6		13.7		39.6		6.4				
Change Period (Y+R <sub>c</sub> ), s	3.5	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	11.5	49.0		14.0		64.0		14.0				
Max Q Clear Time (g_c+l1), s	4.7	15.2		5.9		4.9		2.1				
Green Ext Time (p_c), s	0.2	10.4		0.9		4.1		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh				15.8								
HCM 7th LOS				B								

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Alternative 2 (2031) Traffic Volumes  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	270	175	145	185	1	105	1	80	1	1	1
Future Volume (veh/h)	1	270	175	145	185	1	105	1	80	1	1	1
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No		No		No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1796	1737	1781	1938	1870	1678	1870	1752	1870	1870	1870
Adj Flow Rate, veh/h	1	284	184	153	195	1	111	1	84	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	7	11	8	4	2	15	2	10	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	61	437	282	540	1085	6	206	2	202	4	4	4
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.43	0.43	0.43	0.08	0.56	0.56	0.13	0.13	0.13	0.01	0.01	0.01
Unsig. Movement Delay												
Ln Grp Delay, s/veh	17.0	0.0	0.0	7.3	0.0	6.7	29.0	0.0	26.8	54.3	0.0	0.0
Ln Grp LOS	B			A		A	C		C	D		
Approach Vol, veh/h	469			349			196			3		
Approach Delay, s/veh	17.0			7.0			28.0			54.3		
Approach LOS	B			A			C			D		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	8	4		6						
Case No	1.2	8.3	12.0	10.0		4.0						
Phs Duration (G+Y+Rc), s	8.0	31.6	6.4	13.7		39.6						
Change Period (Y+Rc), s	3.5	6.0	6.0	6.0		6.0						
Max Green (Gmax), s	11.5	49.0	14.0	14.0		64.0						
Max Allow Headway (MAH), s	3.8	9.3	7.5	6.7		9.1						
Max Q Clear (g_c+l1), s	4.7	15.2	2.1	5.9		4.9						
Green Ext Time (g_e), s	0.2	10.4	0.0	0.9		4.1						
Prob of Phs Call (p_c)	0.92	1.00	0.05	0.96		1.00						
Prob of Max Out (p_x)	0.07	0.13	0.00	0.61		0.00						
Left-Turn Movement Data												
Assigned Mvmt	1	5	3	7								
Mvmt Sat Flow, veh/h	1697	1	579	1598								
Through Movement Data												
Assigned Mvmt	2	8	4		6							
Mvmt Sat Flow, veh/h	1019	579	19		1926							
Right-Turn Movement Data												
Assigned Mvmt	12	18	14		16							
Mvmt Sat Flow, veh/h	658	579	1569		10							
Left Lane Group Data												
Assigned Mvmt	1	5	3	7	0	0	0	0				

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Alternative 2 (2031) Traffic Volumes  
AM Peak Hour

Lane Assignment	L (Pr/Pm)	L+T+R	L+T+R	L				
Lanes in Grp	1	1	1	1	0	0	0	0
Grp Vol (v), veh/h	153	469	3	111	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1697	1678	1737	1598	0	0	0	0
Q Serve Time (g_s), s	2.7	0.0	0.1	3.9	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	2.7	13.2	0.1	3.9	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	881	1206	0	1598	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	422	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	27.6	25.6	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	12.4	25.6	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	13.2	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.33	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	540	779	11	206	0	0	0	0
V/C Ratio (X)	0.28	0.60	0.27	0.54	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	737	1436	407	375	0	0	0	0
Upstream Filter (l)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	7.0	13.5	29.5	24.4	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.3	3.4	24.8	4.6	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.3	17.0	54.3	29.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.8	4.2	0.0	1.4	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.1	0.3	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.74	1.80	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	1.4	8.5	0.2	3.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.19	0.09	0.03	0.44	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (l)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Alternative 2 (2031) Traffic Volumes  
AM Peak Hour

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Right Lane Group Data</b>							
Assigned Mvmt	0	12	18	14	0	16	0
Lane Assignment					T+R	T+R	
Lanes in Grp	0	0	0	1	0	1	0
Grp Vol (v), veh/h	0	0	0	85	0	196	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1588	0	1936	0
Q Serve Time (g_s), s	0.0	0.0	0.0	2.9	0.0	2.9	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	2.9	0.0	2.9	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.39	0.33	0.99	0.00	0.01	0.00
Lane Grp Cap (c), veh/h	0	0	0	204	0	1090	0
V/C Ratio (X)	0.00	0.00	0.00	0.42	0.00	0.18	0.00
Avail Cap (c_a), veh/h	0	0	0	372	0	2075	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	23.9	0.0	6.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.9	0.0	0.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	26.8	0.0	6.7	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.1	0.0	0.9	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.80	0.00	1.80	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	2.2	0.0	1.8	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.19	0.00	0.05	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Intersection Summary</b>							
HCM 7th Control Delay, s/veh				15.8			
HCM 7th LOS				B			

Intersection						
Int Delay, s/veh	5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	N	B	S	T
Traffic Vol, veh/h	5	120	45	5	170	145
Future Vol, veh/h	5	120	45	5	170	145
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	39	2	2	32
Mvmt Flow	5	126	47	5	179	153
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	561	50	0	0	53	0
Stage 1	50	-	-	-	-	-
Stage 2	511	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	489	1018	-	-	1553	-
Stage 1	972	-	-	-	-	-
Stage 2	603	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	428	1018	-	-	1553	-
Mov Cap-2 Maneuver	467	-	-	-	-	-
Stage 1	972	-	-	-	-	-
Stage 2	527	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s/v	9.28	0	4.11			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	972	971	-	
HCM Lane V/C Ratio	-	-	0.135	0.115	-	
HCM Control Delay (s/veh)	-	-	9.3	7.6	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.5	0.4	-	

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	T	T	W	B
Traffic Vol, veh/h	10	25	35	1	1	145
Future Vol, veh/h	10	25	35	1	1	145
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	73	39	2	2	32
Mvmt Flow	11	26	37	1	1	153
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	192	37	0	0	38	0
Stage 1	37	-	-	-	-	-
Stage 2	155	-	-	-	-	-
Critical Hdwy	6.42	6.93	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.957	-	-	2.218	-
Pot Cap-1 Maneuver	797	864	-	-	1572	-
Stage 1	985	-	-	-	-	-
Stage 2	873	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	796	864	-	-	1572	-
Mov Cap-2 Maneuver	777	-	-	-	-	-
Stage 1	985	-	-	-	-	-
Stage 2	873	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s/v	9.5	0	0.05			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	837	1572	-	
HCM Lane V/C Ratio	-	-	0.044	0.001	-	
HCM Control Delay (s/veh)	-	-	9.5	7.3	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

## Intersection

Int Delay, s/veh 0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	0	115	10	10	50	0	5	0	5	0	0	0
Future Vol, veh/h	0	115	10	10	50	0	5	0	5	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	26	2	33	46	2	2	2	2	2	2	55
Mvmt Flow	0	121	11	11	53	0	5	0	5	0	0	0

Major/Minor	Major1	Major2		Minor1		Minor2						
Conflicting Flow All	-	0	0	132	0	0	200	200	126	195	205	53
Stage 1	-	-	-	-	-	-	126	126	-	74	74	-
Stage 2	-	-	-	-	-	-	74	74	-	121	132	-
Critical Hdwy	-	-	-	4.43	-	-	7.12	6.52	6.22	7.12	6.52	6.75
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	-	-	-	2.497	-	-	3.518	4.018	3.318	3.518	4.018	3.795
Pot Cap-1 Maneuver	0	-	-	1283	-	0	759	696	924	765	691	884
Stage 1	0	-	-	-	-	0	878	791	-	936	834	-
Stage 2	0	-	-	-	-	0	936	834	-	883	787	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1283	-	-	752	690	924	754	685	884
Mov Cap-2 Maneuver	-	-	-	-	-	-	752	690	-	754	685	-
Stage 1	-	-	-	-	-	-	878	791	-	928	827	-
Stage 2	-	-	-	-	-	-	928	827	-	878	787	-

Approach	EB	WB		NB		SB
HCM Control Delay, s/v	0	1.3		9.4		0
HCM LOS				A		A
<hr/>						
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	829	-	-	300	-	-
HCM Lane V/C Ratio	0.013	-	-	0.008	-	-
HCM Control Delay (s/veh)	9.4	-	-	7.8	0	0
HCM Lane LOS	A	-	-	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-

**Intersection**

Int Delay, s/veh 2.4

**Movement** EBL EBT WBT WBR SBL SBR

Lane Configurations						
Traffic Vol, veh/h	43	78	45	5	5	5
Future Vol, veh/h	43	78	45	5	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	35	2	2	2	2	71
Mvmt Flow	45	82	47	5	5	5

Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	53	0	-	0	223	50
Stage 1	-	-	-	-	50	-
Stage 2	-	-	-	-	173	-
Critical Hdwy	4.45	-	-	-	6.42	6.91
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.515	-	-	-	3.518	3.939
Pot Cap-1 Maneuver	1366	-	-	-	766	853
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	858	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1366	-	-	-	739	853
Mov Cap-2 Maneuver	-	-	-	-	739	-
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	858	-

**Approach** EB WB SB

HCM Control Delay, s/v 2.75 0 9.61

HCM LOS A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	640	-	-	-	792
HCM Lane V/C Ratio	0.033	-	-	-	0.013
HCM Control Delay (s/veh)	7.7	0	-	-	9.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0

**Intersection**

Int Delay, s/veh 0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↗
Traffic Vol, veh/h	375	0	0	325	0	25
Future Vol, veh/h	375	0	0	325	0	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	8	2	2	6	2	52
Mvmt Flow	395	0	0	342	0	26

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	-	0	0
Stage 1	-	0	0
Stage 2	-	0	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach EB WB NB

HCM Control Delay, s/v 0 0 11.77

HCM LOS B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	558	-	-
HCM Lane V/C Ratio	0.047	-	-
HCM Control Delay (s/veh)	11.8	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

HCM 7th Signalized Intersection Summary  
100: Churnovic Lane/Private Drive & Division Street

Alternative 2 (2031) Traffic Volumes  
Mid-Day Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	280	75	55	295	1	155	1	90	1	1	1
Future Volume (veh/h)	1	280	75	55	295	1	155	1	90	1	1	1
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No		No		No	
Adj Sat Flow, veh/h/ln	1870	1811	1618	1589	1938	1870	1781	1870	1796	1870	1870	1870
Adj Flow Rate, veh/h	1	295	79	58	311	1	163	1	95	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	6	19	21	4	2	8	2	7	2	2	2
Cap, veh/h	76	472	126	466	873	3	276	3	256	4	4	4
Arrive On Green	0.34	0.34	0.34	0.04	0.45	0.45	0.16	0.16	0.16	0.01	0.01	0.01
Sat Flow, veh/h	1	1376	367	1513	1930	6	1697	17	1571	579	579	579
Grp Volume(v), veh/h	375	0	0	58	0	312	163	0	96	3	0	0
Grp Sat Flow(s), veh/h/ln	1744	0	0	1513	0	1936	1697	0	1588	1737	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.1	0.0	5.0	4.2	0.0	2.6	0.1	0.0	0.0
Cycle Q Clear(g_c), s	8.6	0.0	0.0	1.1	0.0	5.0	4.2	0.0	2.6	0.1	0.0	0.0
Prop In Lane	0.00		0.21	1.00		0.00	1.00		0.99	0.33		0.33
Lane Grp Cap(c), veh/h	674	0	0	466	0	876	276	0	258	11	0	0
V/C Ratio(X)	0.56	0.00	0.00	0.12	0.00	0.36	0.59	0.00	0.37	0.26	0.00	0.00
Avail Cap(c_a), veh/h	1139	0	0	778	0	1792	321	0	300	329	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.1	0.0	0.0	8.3	0.0	8.5	18.4	0.0	17.7	23.5	0.0	0.0
Incr Delay (d2), s/veh	3.3	0.0	0.0	0.1	0.0	1.1	4.3	0.0	1.9	24.5	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.9	0.0	0.0	0.5	0.0	3.3	3.3	0.0	1.8	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.4	0.0	0.0	8.4	0.0	9.6	22.8	0.0	19.6	48.0	0.0	0.0
LnGrp LOS	B			A		A	C		B	D		
Approach Vol, veh/h	375			370			259			3		
Approach Delay, s/veh	16.4			9.4			21.6			48.0		
Approach LOS	B			A			C			D		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+R <sub>c</sub> ), s	5.2	22.3		13.7		27.5		6.3				
Change Period (Y+R <sub>c</sub> ), s	3.5	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	11.5	29.0		9.0		44.0		9.0				
Max Q Clear Time (g_c+l1), s	3.1	10.6		6.2		7.0		2.1				
Green Ext Time (p_c), s	0.1	5.8		0.5		6.4		0.0				
<b>Intersection Summary</b>												
HCM 7th Control Delay, s/veh				15.3								
HCM 7th LOS				B								

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Alternative 2 (2031) Traffic Volumes  
Mid-Day Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	280	75	55	295	1	155	1	90	1	1	1
Future Volume (veh/h)	1	280	75	55	295	1	155	1	90	1	1	1
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No		No		No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1811	1618	1589	1938	1870	1781	1870	1796	1870	1870	1870
Adj Flow Rate, veh/h	1	295	79	58	311	1	163	1	95	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	6	19	21	4	2	8	2	7	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	76	472	126	466	873	3	276	3	256	4	4	4
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.34	0.34	0.34	0.04	0.45	0.45	0.16	0.16	0.16	0.01	0.01	0.01
Unsig. Movement Delay												
Ln Grp Delay, s/veh	16.4	0.0	0.0	8.4	0.0	9.6	22.8	0.0	19.6	48.0	0.0	0.0
Ln Grp LOS	B			A		A	C		B	D		
Approach Vol, veh/h	375			370			259			3		
Approach Delay, s/veh	16.4			9.4			21.6			48.0		
Approach LOS	B			A			C			D		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	8	4		6						
Case No	1.2	8.3	12.0	10.0		4.0						
Phs Duration (G+Y+Rc), s	5.2	22.3	6.3	13.7		27.5						
Change Period (Y+Rc), s	3.5	6.0	6.0	6.0		6.0						
Max Green (Gmax), s	11.5	29.0	9.0	9.0		44.0						
Max Allow Headway (MAH), s	3.8	9.2	7.5	6.6		9.1						
Max Q Clear (g_c+l1), s	3.1	10.6	2.1	6.2		7.0						
Green Ext Time (g_e), s	0.1	5.8	0.0	0.5		6.4						
Prob of Phs Call (p_c)	0.54	1.00	0.04	0.97		1.00						
Prob of Max Out (p_x)	0.00	0.36	1.00	1.00		0.02						
Left-Turn Movement Data												
Assigned Mvmt	1	5	3	7								
Mvmt Sat Flow, veh/h	1513	1	579	1697								
Through Movement Data												
Assigned Mvmt	2	8	4		6							
Mvmt Sat Flow, veh/h	1376	579	17	1930								
Right-Turn Movement Data												
Assigned Mvmt	12	18	14		16							
Mvmt Sat Flow, veh/h	367	579	1571	6								
Left Lane Group Data												
Assigned Mvmt	1	5	3	7	0	0	0	0				

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Alternative 2 (2031) Traffic Volumes  
Mid-Day Peak Hour

Lane Assignment	L (Pr/Pm)	L+T+R	L+T+R	L				
Lanes in Grp	1	1	1	1	0	0	0	0
Grp Vol (v), veh/h	58	375	3	163	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1513	1744	1737	1697	0	0	0	0
Q Serve Time (g_s), s	1.1	0.0	0.1	4.2	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	1.1	8.6	0.1	4.2	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	857	1084	0	1697	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	543	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	18.3	16.3	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	7.8	16.3	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	13.4	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	8.6	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.33	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	466	674	11	276	0	0	0	0
V/C Ratio (X)	0.12	0.56	0.26	0.59	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	778	1139	329	321	0	0	0	0
Upstream Filter (l)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	8.3	13.1	23.5	18.4	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	3.3	24.5	4.3	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	8.4	16.4	48.0	22.8	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.3	2.7	0.0	1.5	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.1	0.3	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.80	1.80	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.5	5.9	0.2	3.3	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.08	0.06	0.03	0.47	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (l)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Alternative 2 (2031) Traffic Volumes  
Mid-Day Peak Hour

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Right Lane Group Data</b>							
Assigned Mvmt	0	12	18	14	0	16	0
Lane Assignment					T+R	T+R	
Lanes in Grp	0	0	0	1	0	1	0
Grp Vol (v), veh/h	0	0	0	96	0	312	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1588	0	1936	0
Q Serve Time (g_s), s	0.0	0.0	0.0	2.6	0.0	5.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	2.6	0.0	5.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.21	0.33	0.99	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	258	0	876	0
V/C Ratio (X)	0.00	0.00	0.00	0.37	0.00	0.36	0.00
Avail Cap (c_a), veh/h	0	0	0	300	0	1792	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	17.7	0.0	8.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.9	0.0	1.1	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	19.6	0.0	9.6	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.9	0.0	1.5	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.3	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.80	0.00	1.80	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	1.8	0.0	3.3	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.16	0.00	0.09	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Intersection Summary</b>							
HCM 7th Control Delay, s/veh				15.3			
HCM 7th LOS				B			

Intersection						
Int Delay, s/veh	4.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	B			
Traffic Vol, veh/h	5	130	85	5	45	100
Future Vol, veh/h	5	130	85	5	45	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	39	2	2	31
Mvmt Flow	5	137	89	5	47	105
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	292	92	0	0	95	0
Stage 1	92	-	-	-	-	-
Stage 2	200	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	699	965	-	-	1499	-
Stage 1	931	-	-	-	-	-
Stage 2	834	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	675	965	-	-	1499	-
Mov Cap-2 Maneuver	695	-	-	-	-	-
Stage 1	931	-	-	-	-	-
Stage 2	806	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v	9.45	0		2.32		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	952	559	-	
HCM Lane V/C Ratio	-	-	0.149	0.032	-	
HCM Control Delay (s/veh)	-	-	9.4	7.5	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-	

Intersection						
Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	T	T	B	T
Traffic Vol, veh/h	20	15	90	1	1	105
Future Vol, veh/h	20	15	90	1	1	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	100	39	2	2	31
Mvmt Flow	21	16	95	1	1	111
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	208	95	0	0	96	0
Stage 1	95	-	-	-	-	-
Stage 2	113	-	-	-	-	-
Critical Hdwy	6.42	7.2	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	4.2	-	-	2.218	-
Pot Cap-1 Maneuver	780	749	-	-	1498	-
Stage 1	928	-	-	-	-	-
Stage 2	912	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	780	749	-	-	1498	-
Mov Cap-2 Maneuver	776	-	-	-	-	-
Stage 1	928	-	-	-	-	-
Stage 2	911	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v	9.95	0		0.07		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	764	1498	-	
HCM Lane V/C Ratio	-	-	0.048	0.001	-	
HCM Control Delay (s/veh)	-	-	10	7.4	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	0.2	0	-	

## Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	0	90	1	5	50	0	5	0	10	0	0	0
Future Vol, veh/h	0	90	1	5	50	0	5	0	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	36	2	2	13	2	2	2	2	2	2	55
Mvmt Flow	0	95	1	5	53	0	5	0	11	0	0	0

Major/Minor	Major1	Major2		Minor1		Minor2						
Conflicting Flow All	-	0	0	96	0	0	158	158	95	158	159	53
Stage 1	-	-	-	-	-	-	95	95	-	63	63	-
Stage 2	-	-	-	-	-	-	63	63	-	95	96	-
Critical Hdwy	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.75
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.795
Pot Cap-1 Maneuver	0	-	-	1498	-	0	807	734	961	808	733	884
Stage 1	0	-	-	-	-	0	911	816	-	948	842	-
Stage 2	0	-	-	-	-	0	948	842	-	912	816	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1498	-	-	805	731	961	796	731	884
Mov Cap-2 Maneuver	-	-	-	-	-	-	805	731	-	796	731	-
Stage 1	-	-	-	-	-	-	911	816	-	944	839	-
Stage 2	-	-	-	-	-	-	944	839	-	902	816	-

Approach	EB	WB		NB		SB
HCM Control Delay, s/v	0	0.67		9.06		0
HCM LOS				A		A
<hr/>						
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	903	-	-	164	-	-
HCM Lane V/C Ratio	0.017	-	-	0.004	-	-
HCM Control Delay (s/veh)	9.1	-	-	7.4	0	0
HCM Lane LOS	A	-	-	A	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-	-

**Intersection**

Int Delay, s/veh 2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	45	50	45	5	1	5
Future Vol, veh/h	45	50	45	5	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	39	2	2	2	2	50
Mvmt Flow	47	53	47	5	1	5

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	53	0	-
Stage 1	-	-	50
Stage 2	-	-	147
Critical Hdwy	4.49	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.551	-	3.518
Pot Cap-1 Maneuver	1346	-	791
Stage 1	-	-	972
Stage 2	-	-	880
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1346	-	763
Mov Cap-2 Maneuver	-	-	763
Stage 1	-	-	937
Stage 2	-	-	880

Approach	EB	WB	SB
HCM Control Delay, s/v	3.68	0	9.16
HCM LOS		A	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	853	-	-	-	872
HCM Lane V/C Ratio	0.035	-	-	-	0.007
HCM Control Delay (s/veh)	7.8	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0

**Intersection**

Int Delay, s/veh 0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↗
Traffic Vol, veh/h	390	0	0	360	0	10
Future Vol, veh/h	390	0	0	360	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	6	2	32
Mvmt Flow	411	0	0	379	0	11

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	6.52
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3.588
Pot Cap-1 Maneuver	-	0	0
Stage 1	-	0	0
Stage 2	-	0	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	581
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach EB WB NB

HCM Control Delay, s/v 0 0 11.31

HCM LOS B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	581	-	-
HCM Lane V/C Ratio	0.018	-	-
HCM Control Delay (s/veh)	11.3	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

HCM 7th Signalized Intersection Summary  
100: Churnovic Lane/Private Drive & Division Street

Alternative 2 (2031) Traffic Volumes  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	355	45	55	520	1	95	1	40	1	1	1
Future Volume (veh/h)	1	355	45	55	520	1	95	1	40	1	1	1
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No											
Adj Sat Flow, veh/h/ln	1870	1870	1381	1203	1953	1870	1693	1870	1381	1870	1870	1870
Adj Flow Rate, veh/h	1	374	47	58	547	1	100	1	42	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	35	47	3	2	14	2	35	2	2	2
Cap, veh/h	71	648	81	406	985	2	219	5	211	4	4	4
Arrive On Green	0.40	0.40	0.40	0.04	0.51	0.51	0.14	0.14	0.14	0.01	0.01	0.01
Sat Flow, veh/h	1	1628	204	1146	1949	4	1612	37	1554	579	579	579
Grp Volume(v), veh/h	422	0	0	58	0	548	100	0	43	3	0	0
Grp Sat Flow(s), veh/h/ln	1833	0	0	1146	0	1953	1612	0	1591	1737	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.4	0.0	9.9	2.9	0.0	1.2	0.1	0.0	0.0
Cycle Q Clear(g_c), s	9.2	0.0	0.0	1.4	0.0	9.9	2.9	0.0	1.2	0.1	0.0	0.0
Prop In Lane	0.00		0.11	1.00		0.00	1.00		0.98	0.33		0.33
Lane Grp Cap(c), veh/h	800	0	0	406	0	987	219	0	216	11	0	0
V/C Ratio(X)	0.53	0.00	0.00	0.14	0.00	0.56	0.46	0.00	0.20	0.26	0.00	0.00
Avail Cap(c_a), veh/h	1468	0	0	732	0	2254	599	0	591	646	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.0	0.0	0.0	7.4	0.0	8.7	20.3	0.0	19.6	25.3	0.0	0.0
Incr Delay (d2), s/veh	2.5	0.0	0.0	0.2	0.0	2.3	3.1	0.0	1.0	24.6	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.4	0.0	0.0	0.5	0.0	6.5	2.2	0.0	0.9	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.5	0.0	0.0	7.6	0.0	10.9	23.5	0.0	20.6	49.9	0.0	0.0
LnGrp LOS	B			A		B	C		C	D		
Approach Vol, veh/h	422			606			143			3		
Approach Delay, s/veh	14.5			10.6			22.6			49.9		
Approach LOS	B			B			C			D		
Timer - Assigned Phs	1	2	4		6		8					
Phs Duration (G+Y+R <sub>c</sub> ), s	5.5	26.4		12.9		31.8		6.3				
Change Period (Y+R <sub>c</sub> ), s	3.5	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	16.5	39.0		19.0		59.0		19.0				
Max Q Clear Time (g_c+l1), s	3.4	11.2		4.9		11.9		2.1				
Green Ext Time (p_c), s	0.1	8.2		0.8		14.0		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh				13.6								
HCM 7th LOS				B								

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Alternative 2 (2031) Traffic Volumes  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	355	45	55	520	1	95	1	40	1	1	1
Future Volume (veh/h)	1	355	45	55	520	1	95	1	40	1	1	1
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1381	1203	1953	1870	1693	1870	1381	1870	1870	1870
Adj Flow Rate, veh/h	1	374	47	58	547	1	100	1	42	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	35	47	3	2	14	2	35	2	2	2
Opposing Right Turn Influence	Yes		Yes			Yes			Yes			
Cap, veh/h	71	648	81	406	985	2	219	5	211	4	4	4
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.04	0.51	0.51	0.14	0.14	0.14	0.01	0.01	0.01
Unsig. Movement Delay												
Ln Grp Delay, s/veh	14.5	0.0	0.0	7.6	0.0	10.9	23.5	0.0	20.6	49.9	0.0	0.0
Ln Grp LOS	B			A		B	C		C	D		
Approach Vol, veh/h	422			606			143			3		
Approach Delay, s/veh	14.5			10.6			22.6			49.9		
Approach LOS	B			B			C			D		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	8	4		6						
Case No	1.2	8.3	12.0	10.0		4.0						
Phs Duration (G+Y+Rc), s	5.5	26.4	6.3	12.9		31.8						
Change Period (Y+Rc), s	3.5	6.0	6.0	6.0		6.0						
Max Green (Gmax), s	16.5	39.0	19.0	19.0		59.0						
Max Allow Headway (MAH), s	3.9	9.2	7.5	6.4		9.1						
Max Q Clear (g_c+l1), s	3.4	11.2	2.1	4.9		11.9						
Green Ext Time (g_e), s	0.1	8.2	0.0	0.8		14.0						
Prob of Phs Call (p_c)	0.56	1.00	0.04	0.87		1.00						
Prob of Max Out (p_x)	0.00	0.16	0.00	0.03		0.08						
Left-Turn Movement Data												
Assigned Mvmt	1	5	3	7								
Mvmt Sat Flow, veh/h	1146	1	579	1612								
Through Movement Data												
Assigned Mvmt		2	8	4		6						
Mvmt Sat Flow, veh/h	1628		579	37		1949						
Right-Turn Movement Data												
Assigned Mvmt		12	18	14		16						
Mvmt Sat Flow, veh/h	204		579	1554		4						
Left Lane Group Data												
Assigned Mvmt	1	5	3	7	0	0	0	0				

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Alternative 2 (2031) Traffic Volumes  
PM Peak Hour

Lane Assignment	L (Pr/Pm)	L+T+R	L+T+R	L				
Lanes in Grp	1	1	1	1	0	0	0	0
Grp Vol (v), veh/h	58	422	3	100	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1146	1833	1737	1612	0	0	0	0
Q Serve Time (g_s), s	1.4	0.0	0.1	2.9	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	1.4	9.2	0.1	2.9	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	621	873	0	1612	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	388	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	22.4	20.4	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	11.2	16.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	17.2	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.33	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	406	800	11	219	0	0	0	0
V/C Ratio (X)	0.14	0.53	0.26	0.46	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	732	1468	646	599	0	0	0	0
Upstream Filter (l)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	7.4	12.0	25.3	20.3	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	2.5	24.6	3.1	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.6	14.5	49.9	23.5	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.3	3.0	0.0	1.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.1	0.2	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.80	1.80	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.5	6.4	0.2	2.2	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.09	0.07	0.03	0.32	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	8	4	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (l)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis  
100: Churnovic Lane/Private Drive & Division Street

Alternative 2 (2031) Traffic Volumes  
PM Peak Hour

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	1.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Right Lane Group Data</b>							
Assigned Mvmt	0	12	18	14	0	16	0
Lane Assignment					T+R	T+R	
Lanes in Grp	0	0	0	1	0	1	0
Grp Vol (v), veh/h	0	0	0	43	0	548	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1591	0	1953	0
Q Serve Time (g_s), s	0.0	0.0	0.0	1.2	0.0	9.9	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	1.2	0.0	9.9	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.11	0.33	0.98	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	216	0	987	0
V/C Ratio (X)	0.00	0.00	0.00	0.20	0.00	0.56	0.00
Avail Cap (c_a), veh/h	0	0	0	591	0	2254	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	19.6	0.0	8.7	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.0	0.0	2.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	20.6	0.0	10.9	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.4	0.0	3.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.6	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.80	0.00	1.80	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.9	0.0	6.5	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.08	0.00	0.17	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Intersection Summary</b>							
HCM 7th Control Delay, s/veh				13.6			
HCM 7th LOS				B			

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	B			
Traffic Vol, veh/h	1	15	115	1	10	95
Future Vol, veh/h	1	15	115	1	10	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	19	2	2	52
Mvmt Flow	1	16	121	1	11	100
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	243	122	0	0	122	0
Stage 1	122	-	-	-	-	-
Stage 2	121	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	746	930	-	-	1465	-
Stage 1	904	-	-	-	-	-
Stage 2	904	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	740	930	-	-	1465	-
Mov Cap-2 Maneuver	749	-	-	-	-	-
Stage 1	904	-	-	-	-	-
Stage 2	897	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s/v	9	0	0.71			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	916	171	-	
HCM Lane V/C Ratio	-	-	0.018	0.007	-	
HCM Control Delay (s/veh)	-	-	9	7.5	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	T	T	B	T
Traffic Vol, veh/h	10	20	110	1	1	90
Future Vol, veh/h	10	20	110	1	1	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	100	19	2	2	52
Mvmt Flow	11	21	116	1	1	95
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	213	116	0	0	117	0
Stage 1	116	-	-	-	-	-
Stage 2	97	-	-	-	-	-
Critical Hdwy	6.4	7.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	4.2	-	-	2.218	-
Pot Cap-1 Maneuver	780	726	-	-	1472	-
Stage 1	914	-	-	-	-	-
Stage 2	932	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	779	726	-	-	1472	-
Mov Cap-2 Maneuver	776	-	-	-	-	-
Stage 1	914	-	-	-	-	-
Stage 2	931	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v10.07		0		0.08		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	742	1472	-	
HCM Lane V/C Ratio	-	-	0.043	0.001	-	
HCM Control Delay (s/veh)	-	-	10.1	7.4	-	
HCM Lane LOS	-	-	B	A	-	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

## Intersection

Int Delay, s/veh 1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	0	80	5	5	55	0	10	0	15	0	0	0
Future Vol, veh/h	0	80	5	5	55	0	10	0	15	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	46	2	2	24	2	2	2	2	2	2	43
Mvmt Flow	0	84	5	5	58	0	11	0	16	0	0	0

Major/Minor	Major1	Major2		Minor1		Minor2						
Conflicting Flow All	-	0	0	89	0	0	155	155	87	153	158	58
Stage 1	-	-	-	-	-	-	87	87	-	68	68	-
Stage 2	-	-	-	-	-	-	68	68	-	84	89	-
Critical Hdwy	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.63
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.687
Pot Cap-1 Maneuver	0	-	-	1506	-	0	811	737	972	815	734	904
Stage 1	0	-	-	-	-	0	921	823	-	942	838	-
Stage 2	0	-	-	-	-	0	942	838	-	924	821	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1506	-	-	808	734	972	798	732	904
Mov Cap-2 Maneuver	-	-	-	-	-	-	808	734	-	798	732	-
Stage 1	-	-	-	-	-	-	921	823	-	938	835	-
Stage 2	-	-	-	-	-	-	938	835	-	909	821	-

Approach	EB	WB		NB		SB
HCM Control Delay, s/v	0	0.62		9.13		0
HCM LOS				A		A
<hr/>						
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	899	-	-	150	-	-
HCM Lane V/C Ratio	0.029	-	-	0.003	-	-
HCM Control Delay (s/veh)	9.1	-	-	7.4	0	0
HCM Lane LOS	A	-	-	A	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-	-

**Intersection**

Int Delay, s/veh 3.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
<b>Lane Configurations</b>						
Traffic Vol, veh/h	48	43	45	5	5	10
Future Vol, veh/h	48	43	45	5	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	70	2	2	2	2	27
Mvmt Flow	51	45	47	5	5	11

Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	53	0	-	0	196	50
Stage 1	-	-	-	-	50	-
Stage 2	-	-	-	-	146	-
Critical Hdwy	4.8	-	-	-	6.42	6.47
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.83	-	-	-	3.518	3.543
Pot Cap-1 Maneuver	1211	-	-	-	792	952
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	881	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1211	-	-	-	758	952
Mov Cap-2 Maneuver	-	-	-	-	758	-
Stage 1	-	-	-	-	931	-
Stage 2	-	-	-	-	881	-

Approach	EB	WB	SB
HCM Control Delay, s/v	4.27	0	9.18
HCM LOS		A	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	949	-	-	-	877
HCM Lane V/C Ratio	0.042	-	-	-	0.018
HCM Control Delay (s/veh)	8.1	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

**Intersection**

Int Delay, s/veh 0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↗
Traffic Vol, veh/h	405	0	0	565	0	35
Future Vol, veh/h	405	0	0	565	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	2	2	7	2	46
Mvmt Flow	426	0	0	595	0	37

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	6.66
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3.714
Pot Cap-1 Maneuver	-	0	0
Stage 1	-	0	0
Stage 2	-	0	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	544
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	12.09
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	544	-	-
HCM Lane V/C Ratio	0.068	-	-
HCM Control Delay (s/veh)	12.1	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-